Policy Manual to Implement the Conservation Authorities Act and Ontario Regulation 41/24

Prohibited Activities, Exemptions and Permits

Made pursuant to S.12 of Ontario Regulation 41/24

Quinte Conservation May 2025

Quinte CONSERVATION

Document Revisions

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This document was created with the best intentions of remaining consistent with the Policies and Procedures from the previous Quinte Conservation Policies and Procedures Manual (2023) as well as other Conservation Authorities. To that end the following were sourced for this document:

- Cataraqui Region Conservation Authority "Guidelines for Implementing Ontario Regulation 148/06: Development, Interference with Wetlands, and Alteration to Shorelines and Watercourses" (2017)
- Central Lake Conservation Authority "Policy and Procedural Document for Land use Planning and Regulation – Made Pursuant to the requirements of Section 12 of Ontario Regulation 41/24" (2024)
- Conservation Ontario "Interim Guidelines to Support Conservation Authority Administration of "Ontario Regulation 41/24" (2024)
- Conservation Ontario and Ministry of Natural Resources "Draft Guidelines to Support Conservation Authority Administration of the "Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation" (2008)
- Crowe Valley Conservation Authority "Watershed Planning and Regulations Manual" (2014)
- Ganaraska Region Conservation Authority "Policies and Guidelines for the Administration & Implementation of the Conservation Authorities Act and Ontario Regulation 41/24 – Made Pursuant to Section 12 of Ontario Regulation 41/24" (2025)
- Kawartha Conservation "Watershed Planning and Regulations Policy Manual" (2012)
- Ministry of Natural Resources "Policy and Procedures for Conservation Authority Plan Review and Permitting Activities" (2010)
- Nottawasaga Valley Conservation Authority "Planning and Regulation Guidelines" (2009)
- Lower Trent Conservation "Policies and Procedures Manual" (2005)
- Otonabee Conservation "Watershed Planning and Regulations Policy Manual" (2012)
- Toronto and Region Conservation Authority "The Living Cities Policy" (2013)

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PART A: PREAMBLE

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I. PURPOSE

On April 1, 2024, Ontario Regulation 41/24 (Prohibited Activities, Exemptions and Permits) and Part VI of the *Conservation Authorities Act* came into effect. This regulation replaces Ontario Regulation 319/09 Quinte Conservation's (QC) previous "Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses".

The proclamation of the new legislative and regulatory framework necessitates updates to existing QC policies and procedures, including QC's Watershed Regulation O. Reg. 41/24 Policy Manual (April 2024).

This document (the "Policy Manual") is intended to provide Quinte Conservation (QC) staff with policies for implementing Ontario Regulation 41/24 and associated sections of Part VI of the *Conservation Authorities Act* (CA Act). This document was developed using the framework provided by Conservation Ontario "Interim Guidelines to Support Conservation Authority Administration of Ontario Regulation 41/24" (March 2024). This document, approved by the QC Board of Directors, presents objectives and policies related to the review of applications for development activities in order for QC staff to make timely and consistent decisions to approve or refuse those applications. The overall approach of this document is to provide for transparency and consistent policy interpretation and implementation by staff across the watershed in determining whether the control of flooding, erosion, dynamic beaches, unstable soils or bedrock will be affected, or whether an alteration to a watercourse or interference with a wetland is acceptable. Further, QC staff will consider whether or not the activity is 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.

Where discrepancies exist between the text of the legislation or regulation and the information provided within the Policy Manual, the text of the legislation and regulation will prevail.

II. ORGANIZATION OF THIS DOCUMENT

The policy manual is separated into 5 main parts:

Part A: Preamble – provides information on the purpose and organization of the document

Part B: Roles and Responsibilities – provides background information including the history of conservation authorities, their role and mandate, and their legislative authority

Part C: General Policies - provides policies for development across the QC watershed and information on technical studies and permit validity

Part D: Policies – provides policies on development within the regulated area in a format similar to the CA Act and O. Reg. 41/24 for the following specific regulated features:

- River or Stream Valleys
- Great Lakes-St. Lawrence River System and Inland Lakes
- Hazardous Lands
- Watercourses
- Wetlands

Part E: Procedures – provides information on the permit process, timelines, appeals and enforcement

Part F: Appendices – provides additional information including definitions, legislation and discussions on regulated features

Each of the policies in Part D are intended to be self-contained while minimizing repetition in the guidelines and should be read in conjunction with Part C: General Policies It should be noted that more than one type of regulated feature may exist for a given property and application, and as such, reference must be made to all relevant sections and the policies must be applied concurrently.

Discussion material related to the relevant policy sections including information on technical analysis, establishing regulated areas, defining a feature and more can be found in APPENDIX B – Legislative Authority and Technical Discussion of Regulated Features.

The development activity policies included in this manual are complementary to the Natural Hazard (Section 5.1) policies within the Provincial Planning Statement 2024 (PPS) issued under the *Planning Act*.

In general, each policy section provides:

- the relevant excerpts from the Regulation shown in a blue box; and
- policy standards for implementing the Regulation shown in **blue** text. In some cases policies are preceded by the phrase "It is the policy of QC".

It should be noted that this document does not address the approval requirements for other potentially affected agencies at any government level.

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PART B: ROLES AND RESPONSIBILITIES

1.0 BACKGROUND

1.1 HISTORY OF QUINTE CONSERVATION

Quinte Conservation is located in eastern Ontario and covers a watershed area of over 6,000 square kilometers with a population of over 117,000 people. The Moira River Conservation Authority (MRCA) and the Napanee Region Conservation Authority (NRCA) were formed in 1947 and the Prince Edward Region Conservation Authority (PERCA) was formed in 1965. In 2006, the three separate Conservation Authorities merged to form a corporate body and in 2009, Quinte Conservation was legally deemed an Authority.

The watershed area includes the drainage basins of the Moira, Napanee and Salmon Rivers and all of Prince Edward County and includes 18 municipalities. Quinte Conservation owns over 12,140 hectares of land ranging from small parcels at some of our 39 water control structures, to large tracts of over 400 hectares, many with significant natural features.

1.2 ROLE OF CONSERVATION AUTHORITIES

The Province of Ontario enacted the *Conservation Authorities Act* in 1946, enabling two or more municipalities in a watershed or group of watersheds to form a Conservation Authority for the purpose of carrying out programs to conserve the natural resources of the area over which a particular Authority has jurisdiction. The Act was passed in response to flooding and erosion events which had occurred throughout the Province. Since the Act was passed, Conservation Authorities have assumed a key role in watershed planning and water resource management.

As watershed-based resource management agencies, each Conservation Authority is governed by the CA Act and by a Board of Directors whose members are appointed by municipalities located within the CA's jurisdiction. Ontario's 36 Conservation Authorities have a number of important responsibilities:

Conservation Authorities have a legislated responsibility under S.28 of the CA Act to regulate development activity in areas of natural hazards including flooding, erosion, dynamic beaches and unstable soil and bedrock, as well as areas associated with river or stream

valleys. Additionally, Conservation Authorities are responsible for regulating the interference or alteration of a watercourse or wetland.

Conservation Authorities also have delegated responsibilities from the Minister of Natural Resources and Forestry (MNRF) to represent provincial interests regarding natural hazards identified in Chapter 5 of the Provincial Planning Statement, 2024. This delegation is detailed in a Memorandum of Understanding (MOU) between Conservation Ontario (CO), MNRF and the Ministry of Municipal Affairs and Housing (MMAH). These delegated responsibilities require CAs to review and provide comments on:

- policy documents (Official Plans and Comprehensive Zoning By-laws); and,
- applications submitted under the *Planning Act* as part of the Provincial One-Window Plan Review Service.

Conservation Authorities as 'public bodies' pursuant to the *Planning Act*, are circulated of policy documents and planning and development activity applications as prescribed under the Act. CAs may comment as per their mandate to the municipality/planning approval authority on these documents and applications.

Conservation Authorities may perform a technical advisory role to municipalities, as determined under the terms of a service agreement with participating municipalities which may include, but is not limited to, matters related to the assessment or analysis of environmental impacts, watershed science and technical expertise associated with activities near or in the vicinity of: sensitive features such as wetlands, river and stream valleys, fish habitat or significant woodlands; hydrogeology and storm water studies; and, in some cases, septic system reviews.

Individual Conservation Authorities may also enter into agreements with provincial and federal ministries and with municipalities to undertake specific regulatory/approval responsibilities (e.g. Fisheries Act Section 35; septic tank approvals under the Ontario Building Code).

Conservation Authorities are landowners and as such, may become involved in the planning and development process, either as an adjacent landowner or as a proponent/applicant.

2.0 OVERVIEW OF LEGISLATIVE FRAMEWORK

A brief overview of the legislative framework is provided below. A more thorough discussion can be found in Appendix B.

2.1 *CONSERVATION AUTHORITIES ACT*

CA's have a long and distinguished history in Ontario. The CA Act was created in 1946 in response to erosion and drought concerns, recognizing that these and other natural resource initiatives are best managed on a watershed basis.

In 1956, in response to the severe economic and human losses associated with Hurricane Hazel (1954), amendments to the CA Act first empowered CAs to make Regulations to prohibit filling in floodplains. These Regulations were broadened in 1960 to prohibit or regulate the placing or dumping of fill in defined areas where, in the opinion of the CA, the control of flooding, pollution or the conservation of land may be affected. In 1968, amendments to the CA Act further extended the Regulations to prohibit or control construction and alteration to waterways, in addition to filling.

In 1998, the CA Act was amended as part of the Red Tape Reduction Act (Bill 25), to ensure that Regulations under the Act were consistent across the province and complementary to provincial policies. Significant revisions were made to Section 28, which led to the replacement of the "Fill, Construction and Alteration to Waterways" Regulation with the "Development, Interference with Wetlands and Alterations to Shorelines and Watercourses" Regulation (97/04). While some CAs had been regulating wetlands, shorelines and inter-connecting channels for years, the amendments required all CAs to regulate Great Lakes shorelines, inter-connecting channels, large inland lakes and wetlands in addition to the areas and features each CA historically regulated.

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

In 2024, a new Regulation was developed, Ontario Regulation 41/24: Prohibited Activities, Exemptions and Permits. This regulation replaces the individual QC Regulation (O. Reg. 319/09) approved in 2006.

Section 28 of the CA Act, as provided in Appendix C, includes the following section:

> ***28*** *(1) Subject to subsections (2), (3) and (4) and section 28.1, no person shall carry on the following activities, or permit another person to carry on the following activities, in the area of jurisdiction of an authority:*
> *1. Activities to straighten, change, divert or interfere in any way with the existing channel of a river, creek, stream or watercourse or to change or interfere in any way with a wetland.*
> *2. Development activities in areas that are within the authority's area of jurisdiction and are,*
> *i. hazardous lands,*
> *ii. wetlands,*
> *iii. river or stream valleys the limits of which shall be determined in accordance with the regulations,*
> *iv. areas that are adjacent or close to the shoreline of the Great Lakes-St. Lawrence River System or to an inland lake and that may be affected by flooding, erosion or dynamic beach hazards, such areas to be further determined or specified in accordance with the regulations; or,*
> *v. other areas in which development should be prohibited or regulated, as may be determined by the regulations. 2017, c. 23, Sched. 4, s. 25.*

The Province established a legislative framework that includes most of the requirements for the implementation of section 28 of the CA Act. This ensures CAs and their legal counsel can rely on the CA Act for any matters that may be challenged. The Regulations established under the CA Act provide further requirements such as: identification of some natural hazard areas and definitions, requirements for Conservation Authority policies, and other actions related to process permit applications etc. Therefore, Conservation Authorities must ensure that they are using both the CA Act and Ontario Regulation 41/24 to prepare or update their Conservation Authority policies.

2.1.1 EXCEPTIONS UNDER THE CONSERVATION AUTHORITIES ACT

Section 28 (2) of the CA Act includes the following section specific to exceptions:

> ***Exception, aggregates***
> *(2) The prohibitions in subsection (1) do not apply to an activity approved under the Aggregate Resources Act after December 18, 1998, the date the Red Tape Reduction Act, 1998 received Royal Assent. 2017, c. 23, Sched. 4, s. 25.*
>
> ***Same, prescribed activities***
> *(3) The prohibitions in subsection (1) do not apply to an activity or a type of activity that is prescribed by regulation and is carried out in accordance with the regulations. 2017, c. 23, Sched. 4, s. 25.*
>
> ***Same, prescribed areas***
> *(4) The prohibitions in subsection (1) do not apply to any activity described in that subsection if it is carried out,*
> *(a) in an area that is within an authority's area of jurisdiction and specified in the regulations; and*
> *(b) in accordance with any conditions specified in the regulations. 2017, c. 23, Sched. 4, s. 25.*

It is noted that the CA Act does not contain a subsection that specifically "binds the Crown". Therefore, activities of Provincial Ministries, Federal Departments and Crown Agencies or "Crown Corporations" are not bound by the Act and these entities are not legally required to obtain a permit under the CA Act.

Determining whether a particular body is an agent of the Crown depends on the specific functions of the body and the degree of control exercised over that body by the Crown. In some circumstances, changes to a corporation's ownership may result in the corporation's status changing from a crown corporation to a private entity. For example, Hydro One and its affiliates no longer hold status as crown corporations. CO and Hydro One developed an updated MOU (2021), acknowledging the new requirement for Hydro One and its affiliates (Hydro One Telecom Inc. and Hydro One Sault Ste. Marie LP) to obtain a CA permit under Section 28 of the CA Act for their work. This MOU outlines protocols and best practices that streamline the review process. (See CO website members section for the 2021

Memorandum of Understanding between Conservation Ontario and Hydro One Networks Inc.)

While the CA Act does not bind Crown proponents for activities taking place on Crown land, a third-party proponent, not acting on behalf of the Crown would be subject to the Act and Section 28 regulations.

Voluntary compliance with the review process requirement is always a possibility for the Crown and its Agencies. Through their policies, the CAs may invite the Crown and/or its Agencies to voluntarily submit proposals for works through the permit review process. Although best practice suggests they comply to ensure sufficient technical review of their activity, they are within their legal rights to refuse to participate in the voluntary review process.

2.1.2 REGULATIONS UNDER THE CA ACT

There are several regulations under the CA Act which govern and dictate the jurisdiction, mandatory programs and permit validity of a conservation authority. This section will focus on O. Reg. 41/24: Prohibited Activities, Exemptions, and Permits. Information on the following additional regulations can be found in Appendix B:

- Ontario Regulation 97/04
- Ontario Regulation 319/09
- Mandatory Programs and Services - Ontario Regulation 686/21
- Prescribed Acts – Ontario Regulation 596/22

2.1.2.1 ONTARIO REGULATION 41/24: PROHIBITED ACTIVITIES, EXEMPTIONS, AND PERMITS

Ontario Regulation 41/24 was approved on April 1, 2024.

QC regulates all components noted in s. 28 of the CA Act within its jurisdiction and the Regulation includes some components of the regulated areas. QC will use the CA Act as well as Ontario Regulation 41/24 in the administration of the permit process. Quinte Conservation regulates:

- Development in river or stream valleys, wetlands, shorelines and hazardous lands and associated allowances;

- The straightening, changing, diverting or interfering in any way with the existing channel of a river, creek, stream, watercourse or for changing or interfering in any way with a wetland; and
- Other areas where, in the opinion of the Minister, development should be prohibited or regulated or should require the permission of the Authority.

2.2 PROVINCIAL PERSPECTIVE ON NATURAL HAZARDS AND PROGRAM COMPONENTS

The MNRF is responsible for natural hazard management in Ontario. Where CAs have been established, the responsibility for natural hazard management has been delegated to them. The Province, however, continues to provide the overall direction, guidance and technical standards with respect to natural hazard management. The following is an executive summary of the Province's approach to natural hazard management in Ontario.

Natural, physical environmental processes that occur near or at the surface of the earth can produce unexpected events of unusual magnitude or severity. Such occurrences are generally regarded as natural hazards. The outcome can be catastrophic, frequently resulting in damage to property, injury to humans and other organisms, and tragically even loss of life. In these cases, natural hazards are considered natural disasters.
(Excerpt from MNR (2001) – p. 4)

The management of natural hazards involves a combination of four main program components:

1. **Prevention** – of new development locating within areas subject to loss of life and property damage from natural hazards;
2. **Protection** – of existing development from natural hazards through the application of structural and non-structural measures/acquisition;
3. **Emergency Response** – to evacuate and mitigate existing residents through flood forecasting and warning including disaster relief; and
4. **Co-ordination** – between natural hazard management and planning and development.

The guiding principles behind natural hazard management are:

- Proper natural hazard management requires that natural hazards (flooding, erosion, dynamic beaches, leda clay, organic soils, karst bedrock) be simultaneously recognized and addressed in a manner that is integrated with land use planning and maintains environmental and ecosystem integrity;

- Effective floodplain management can only occur on a watershed and littoral reach basis with due consideration given to development effects and associated environmental and ecosystem impacts;

- Local conditions vary along floodplains and shorelines including depth, velocity, littoral drift, seiche, fetch, accretion, deposition, valleyland characteristics, etc., and accordingly must be taken into account in the planning and management of natural hazards;

- New development which is susceptible to natural hazards or which will cause or aggravate the hazards to existing and approved land uses or which will cause adverse environmental impacts must not be permitted to occur unless the natural hazard and environmental impacts have been addressed; and

- Natural hazard management and land use planning are distinct yet related activities that require overall co-ordination on the part of Municipalities, CAs, the Ministry of Natural Resources and Forestry, and the Ministry of Municipal Affairs and Housing.

The following objectives will be applied when implementing the CA Act and Ontario Regulation 41/24.

- To prevent loss of life and/or property damage resulting from flooding and/or erosion on lands subject to the Regulation by minimizing hazardous and unnecessary development of lands within the Regulatory Floodplain;
- To require mitigating measures to be undertaken for works within regulated areas, which singly or cumulatively may cause an increase in flooding or erosion;
- To reduce the necessity for public and private expenditures for emergency operations, evacuation and restoration of properties subject to flooding;

- To regulate uses of floodplains and any development within them which in future years may require emergency operations and expensive protective measures;
- To direct development away from potentially dangerous slopes associated with valleylands and shorelines;
- To manage soil erosion from valley slopes and shorelines;
- To regulate the draining or filling of wetlands which may have a hydrologic impact to the feature.

PART C: GENERAL POLICIES

3.0 INTRODUCTION

The Regulation gives QC the mandate to prohibit development throughout its watershed in those areas described in Section 4.0 below. Under O. Reg. 41/24, development means:

(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,
(c) any change to a building or structure that would increase its size or structure or increase the number of dwelling units in the building or structure, site grading, or
(d) the temporary or permanent placing, dumping or removal of any material, originating on the site or elsewhere.

The CA Act gives QC authority to regulate activities which would result in:

- impacts to the control of flooding, erosion, dynamic beaches and/or unstable soil and bedrock;
- the straightening, changing, diverting or interfering in any way with the existing channel of a river, creek, stream, or watercourse;
- changing or interfering in any way with a wetland; and/or
- 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.

To receive permission for proposed works in regulated areas the proponent must submit a permit application to QC for approval prior to any works occurring. A summary of the permit process is discussed in Part D-Procedures of this document.

QC will hold all applications to the following standards and will be guided by the following general administrative guidance with respect to the implementation of its regulatory responsibilities:

1. Development, interference and/or alteration activities shall not be undertaken in a regulated area without written permission from QC.

2. Where a regulated area covers more than one water related hazard (e.g., lands susceptible to flooding that are part of a wetland), all of the policies that pertain will be applied and where applicable, the more restrictive policies will apply.
3. Technical studies and/or assessments, site plans and/or other plans submitted as part of an application must be completed by a qualified professional to the satisfaction of QC, the cost of which is borne by the applicant. Compliance with current standards is required.

In general, and, in addition to the policies in this document, the Authority will not grant approval where:

- The application for development is in a natural hazard: flooding, erosion, dynamic beach, or unstable bedrock;
- The application for development is in a watercourse or wetland;
- Approval of the application would have the likely effect of creating or increasing flood and erosion damages for the subject property or other properties;
- Approval of the application would adversely affect the health and safety of the public.

3.1 ACTIVITIES TYPICALLY REGULATED

The following identifies examples of development activities that CAs typically regulate. In many cases, the proposed development and proposed ancillary uses of the development could detrimentally affect the control of flooding, erosion, dynamic beaches or unstable soil and bedrock. Further, it must be demonstrated that 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.

These development activities may include, but are not limited to:

- Construction of all buildings and additions over 15m^2 including modification or reconstruction of foundations which support existing buildings;
- Breakwalls, revetments, rubble groynes, jetties, etc.;
- Other works on or near shorelines or lakeshores;
- Dock repairs and new abutments;
- New boardwalks and boardwalk repairs;
- Stairs, decks, gazebos;

- Boat ramps, boat storage structures;
- Dredging;
- In-ground and above-ground pools;
- Temporary or permanent placement of fill, grading, removal of fill, or site alteration;
- Retaining walls;
- Trailers, shipping containers and mobile homes; and
- Bridges, crossings, roads and pipelines.

3.1.1 ACTIVITIES THAT DO NOT REQUIRE A PERMIT

Specific types of development are listed as exceptions in S. 5 of O. Reg. 41/24. The following activities may be undertaken without written permission although it is recommended that appropriate best management practices are implemented to control sediment and erosion, and provided there are no adverse impacts associated with the activity.

Exceptions

5. *Paragraph 2 of subsection 28 (1) of the Act does not apply to,*

(a) the construction, reconstruction, erection or placement of,

(i) a seasonal or floating dock that,

(A) is 10 square metres or less,

(B) does not require permanent support structures, and

(C) can be removed in the event of flooding,

(ii) 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,

(iii) 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,

(iv) a non-habitable accessory building or structure that,

(A) is incidental or subordinate to the principal building or structure,

(B) is 15 square metres or less, and

(C) is not within a wetland or watercourse, or

(v) 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;

(b) 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;

(c) 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;

(d) 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;

(e) 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; and

(f) the reconstruction of a non-habitable garage with no basement, if the reconstruction does not exceed the existing footprint of the garage and does not allow for a change in the potential use of the garage to create a habitable space.

Additional development projects that do not require a permit include:

- Repairs and renovations to an existing structure within the existing roofline and exterior walls and above the existing foundation (window repair, siding, etc.);
- Non-structural activities associated with existing agricultural use (cropping, pasturing, tilling, fence row clearing, stone pile removal, etc.);
- Landscaping that does not result in alterations to existing grade (e.g. gardens, nurseries, timber harvesting without stump removal, etc.);
- Drilled well installation;

Provided these activities do not result in the straightening, changing, diversion or interference in any way with a watercourse, or interference in any way with a wetland, they are not subject to Ontario Regulation 41/24 and do not require written permission from QC.

3.2 THE REGULATION LIMIT (REGULATED AREA)

The approximate extent of regulated areas associated with hazardous lands, wetlands, areas of interference with wetlands, watercourses, and river or stream valleys is identified by a Regulation Limit which is also referred to as “the regulated area”. The regulated area represents the greatest physical extent of the combined hazards plus a prescribed allowance as set out in the Regulation.

3.2.1 AREAS SUBJECT TO THE REGULATION

Ontario Regulation 41/24 sets out areas where development is prohibited as well as setbacks from various environmental features. All areas within the jurisdiction of the Authority that are described in this section are delineated on the online GIS Viewer as the "Conceptual Regulated Area”. The features that are encompassed by the regulation are as follows:

3.2.1.1 RIVER OR STREAM VALLEYS

This component of the Regulation applies to development within river and stream valleys that have depressional features associated with a river or stream, whether or not they contain a watercourse. See Section 4.0 of this document for policy guidance on River or Stream Valleys. Ontario Regulation 41/24 includes the legal description of the river or stream valley. The regulation states:

> ***2***. *(1) For the purposes of subparagraph 2 iii of subsection 28 (1) of the Act, river or stream valleys include river or stream valleys that have depressional features associated with a river or stream, whether or not they contain a watercourse, the limits of which are determined as follows:*
>
> > ***1.*** *Where the river or stream valley is apparent and has stable slopes, the valley extends from the stable top of bank, plus 15 metres, to a similar point on the opposite side,*
> >
> > ***2.*** *Where the river or stream valley is apparent and has unstable slopes, the valley extends from the predicted long term stable slope projected from the existing stable slope or, if the toe of the slope is unstable, from the predicted location of the toe of the slope as a result of stream erosion over a projected 100-year period, plus 15 metres, to a similar point on the opposite side,*
> >
> > ***3.*** *Where the river or stream valley is not apparent, the valley extends,*
> >
> > *(i) to the furthest of the following distances:*

A. the distance from a point outside the edge of the maximum extent of the flood plain under the applicable flood event standard to a similar point on the opposite side; and

B. the distance from the predicted meander belt of a watercourse, expanded as required to convey the flood flows under the applicable flood event standard to a similar point on the opposite side; and

(ii) an allowance of 15 metres on each side, except in areas under the jurisdiction of the Niagara Peninsula Conservation Authority.

3.2.1.2 GREAT LAKES-ST. LAWRENCE RIVER SHORELINES AND INLAND LAKES

This component of the Regulation applies to development adjacent or close to the shoreline of the Great Lakes - St. Lawrence River System or to inland lakes that may be affected by flooding, erosion, dynamic beaches or unstable soil and bedrock. See Section 5.0 of this document for policy guidance on the Great Lakes-St. Lawrence River Shorelines and Inland Lake. Ontario Regulation 41/24 includes the legal description for these natural hazards. The regulation states:

2. *(2) For the purposes of subparagraph 2 iv of subsection 28 (1) of the Act, areas adjacent or close to the shoreline of the Great Lakes-St. Lawrence River System or to inland lakes that may be affected by flooding, erosion or dynamic beaches include,*

(a) the area starting from the furthest offshore extent of the Authority's boundary to the furthest of the following distances:

(i) the 100-year flood level, plus the appropriate allowance for wave uprush, and, if necessary, for other water-related hazards, including ship generated waves, ice piling and ice jamming;

(ii) the predicted long term stable slope projected from the existing stable toe of the slope or from the predicted location of the toe of the slope as that location may have shifted as a result of shoreline erosion over a 100-year period; and

(iii) where a dynamic beach is associated with the waterfront lands, an allowance of 30 metres inland to accommodate dynamic beach movement; and

(b) the area that is an additional 15 metres allowance inland from the area described in clause (a).

3.2.1.3 HAZARDOUS LANDS

This component of the legislation applies to development within hazardous lands which is defined under Section 28 of the *CA Act* as land that could be unsafe for development due to naturally occurring processes associated with flooding, erosion, dynamic beaches, or unstable soil or bedrock. Unstable soil and bedrock include, but is not limited to sensitive marine clays, organic soils, and karst topography. Sensitive marine clays are not identified within the QC watershed. Organic soils are normally formed by the decomposition of vegetative and other organic materials. Peat soils are the most common type of organic soil in Ontario. Karst topography may be present in limestone or dolomite bedrock and are extremely variable in nature. See Section 6.0 of this document for policy guidance on hazardous lands.

3.2.1.4 LAKES, RIVERS, CREEKS, STREAMS AND WATERCOURSES

This component of the legislation applies to the straightening, changing, diversion, or interference in any way with the existing channel of a watercourse, including lakes and their shorelines that are within the QC watershed. See Section 7.0 of this document for policy guidance on watercourses.

This component of the Regulation does not apply to dug-out or isolated ponds located outside of any wetland or area of interference with a wetland, river or stream valley, hazardous land associated with unstable soil or bedrock, and/or the applicable regulated allowance. For small islands it is assumed that the entire island is regulated.

3.2.1.5 WETLANDS AND AREAS WITHIN 30 METRES OF A WETLAND

This component of the Regulation applies to development within a wetland or interference in any way with a wetland.

See Section 8.0 of this document for policy guidance on wetlands and adjacent lands. Ontario Regulation 41/24 includes the definition of a wetland and the legal description for the regulated 'other area' within 30m of a wetland. The regulation states:

2.(*3) For the purposes of subparagraph 28(1) 2.v. of the Act, no person shall carry out development activities in areas that are within an authority's area of jurisdiction and are within 30 metres of a wetland.*

Sections 4.0 - 8.0 in this document outline policy guidance for the regulated areas noted above.

3.3 FLOOD EVENT STANDARDS

The Regulation defines the flood standards that shall be used by CAs in Ontario. The flood standards are specific to each CA and include rivers and streams as well as lakes e.g., Hurricane Hazel, 100-year flood event standard, Timmins flood event, 100 year flood level plus wave uprush etc. The regulation states:

> ***3.****The applicable flood event standards with respect to an authority, for the purposes of paragraph 3 of subsection 2 (1) and to determine the maximum susceptibility to flooding of lands or areas in the area of jurisdiction of an authority are the standards specified in Schedule 1*

The regulatory standard for the Quinte Conservation watershed is the 1:100 year event. All watercourses, rivers and lakes, including Lake Ontario and the Bay of Quinte are assessed and regulated using this standard unless otherwise noted in Appendix B.

3.4 REGULATION ALLOWANCES AND ACCESS SETBACK

All regulated features are subject to an allowance or setback that is required adjacent to flooding, erosion and dynamic beach hazards as well as wetlands and watercourses in a manner that provides protection against unforeseen or predicted external conditions that could have an adverse effect on the natural conditions or processes of the feature.

Allowances give QC the opportunity to protect access to and along a valley and/or hazardous areas. This access may be required for emergency purposes, regular maintenance to existing structures or to repair failed structures.

Development within the allowance is regulated to ensure that existing hazards are not aggravated and that new hazards are not created. The allowance also can serve to maintain and enhance the natural features and ecological functions of the feature.

Regulation of development in the allowance also recognizes issues related to accuracy of the modeling and analysis tools utilized to establish the limits of the erosion and flooding hazards.

To provide access and protection against unforeseen conditions, provincial guidelines recommend that development should generally be set back a minimum of 6 metres adjacent to erosion and flooding hazards (Sections 3.0 and 3.4, Erosion Access Allowance, Technical Guide – River and Stream Systems: Erosion hazard Limit (MNR, 2002b)). MNRF recommends that this setback not only be applied to the erosion hazards discussed in the sections above, but also adjacent to the flooding hazard because of the potential for erosion throughout the flooding hazard as a result of the flow of water during significant runoff events. For those situations where additional study is warranted to determine the development setback required to provide the required public safety and access, a study should be undertaken using accepted scientific, geotechnical, and engineering principles.

Protection of public safety and access, however, may not be sufficient to provide for all of the above noted requirements or purposes for the allowances. Additional technical studies by qualified professionals may be required to establish the appropriate extent and location of development within the allowance

3.5 CONFLICT AND TECHNICAL REQUIREMENTS

3.5.1 CONFLICT

If there is a conflict between the description of areas described in subsection 3.2.1 and the areas as shown on the series of maps referred to in the same section, the written description of the areas in subsection 3.2.1 and Section 2(1) of O. Reg. 41/24 prevails.

3.5.2 TECHNICAL STUDIES REQUIREMENTS

Applications for permission to undertake development, interference or alteration in Regulated Areas must be accompanied by appropriate technical studies and/or assessments, site plans and/or other plans as required by QC. These studies/plans must demonstrate to the satisfaction of QC, how the applicable policies in Parts B, C and D have been met.

3.5.1 QUALIFIED PROFESSIONAL REQUIREMENTS

Technical studies and/or assessments, site plans and/or other plans submitted as part of an application for permit to undertake development, interference or alteration in Regulated Areas must be completed by a qualified professional to the satisfaction of QC in conformance with the most current technical guidelines approved by QC.

3.6 GENERAL POLICIES

Within areas defined by the regulation (i.e., regulated areas), including Lake Ontario shoreline hazard lands, inland lake shorelines, river or stream valleys including an allowance; wetlands or other areas where development could interfere with the hydrophytic vegetation and or hydrologic functions of a wetland, watercourses, or hazardous lands, the following general policies will apply:

It is the policy of QC

3.6.1 That development activity, interference or alteration will not be permitted within a regulated area, except in accordance with the policies contained within this document. In the event of a conflict between the policies applicable to the development activity, interference or alteration, the most restrictive policy shall apply.

Prohibited Development Activity, Interference and Alterations

3.6.2 That development activity will not be permitted within the flood or erosion hazard of valley and stream corridors, the Lake Ontario/Bay of Quinte flood, erosion or dynamic beach hazards, a wetland or hazardous lands, where the use is:

a) an institutional use including but not limited to those associated with a hospital, pre-school, school nurseries, day care and schools, where there is a threat to the safe evacuation of the sick, the elderly, persons with disabilities or the young;
b) an essential emergency service such as that provided by fire, police, and ambulance stations, and electrical substations; or
c) associated with the disposal, manufacture, treatment, or storage of hazardous substances.

3.6.3 That where there is an existing vacant lot of record, (including an infill lot), no new development activity will be permitted where the lot has no safe access, or is entirely within one or more of the following;

a) the flood hazard or erosion hazard of valley and stream corridors, other hazardous lands;
b) the flood, erosion or dynamic beach hazards of the Lake Ontario/Bay of Quinte shoreline;
c) wetland;
d) any natural features, areas and systems, including areas providing hydrologic functions; or
e) the required setbacks from any feature listed in in a)-d). The required setbacks are described in Section 3.6.9.

3.6.4 Permission will not be granted for development activity where the purpose is to create additional area or space which will accommodate or facilitate new development activity or intensification, or will modify, interfere or alter in any way with:

a) watercourses;
b) wetlands
c) hazardous lands, including such lands within valley and stream corridors and along the Lake Ontario/Bay of Quinte shoreline, and natural features, areas and systems including areas providing hydrologic functions.

Emergency Works

3.6.5 Permission will be granted to municipalities and other agencies for emergency works to repair existing infrastructure within a regulated area that is at immediate risk of failure or other public safety concerns provided that QC is notified prior to or as soon as possible to conducting remediation works, and where appropriate or possible given the opportunity to review, provide technical guidance related to the control of flooding, pollution and/or the, and supervise. Municipalities shall provide a description of the emergency works or 'as built' information upon the completion of emergency works.

Permission for Development Activity, Interference and Alterations

3.6.6 Notwithstanding Policy 3.6.1, the QC's Board of Directors may grant permission for development activity, interference and/or alteration through a hearing where the application provided evidence acceptable to the Board of Directors that documents the development and/or activity will have no adverse effect on the control of flooding, erosion, dynamic beaches, or unstable soil and bedrock with respect to Lake Ontario/Bay of Quinte, river or stream valleys, hazardous land, wetland and areas of interference, or result in unacceptable interference with a watercourse or wetland. Further, it must be demonstrated that 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.

3.6.7 In addition to specific conditions outlined through this document, development activity, interference and/or alteration within a regulated area may be permitted only where it can be demonstrated to the satisfaction of QC, through appropriate technical reports, assessments, site plans and/or other documents as required by QC, that:

a) there is no feasible alternative location for development activity outside the hazard;
b) the control of flooding, erosion, dynamic beaches, or unstable soil and bedrock will not be affected;
c) 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;
d) the risk to public safety is not increased;
e) susceptibility to natural hazards is not increased and no new hazards are created (e.g. there will be no impacts on adjacent properties with respect to natural hazards);
f) safe ingress/egress is available for proposed development activity that increases habitation outside of hazard lands;
g) pollution, sedimentation and erosion during construction and post construction is minimized using best management practices including site, landscape, infrastructure and/or facility design, construction controls, and appropriate remedial measures;
h) access for emergency works and maintenance of flood or erosion control works is available;
i) proposed development activity is constructed, repaired and/or maintained in accordance with accepted engineering principles and approved engineering

standards or to the satisfaction of QC, whichever is applicable based on the structural scale and scope, and purpose of the project;

j) there are no adverse impacts on the natural coastal processes of the Lake Ontario/Bay of Quinte shoreline;
k) there are no adverse hydraulic or fluvial effects on rivers, creeks, streams, or watercourses;
l) there are no adverse effects on the hydrologic function of wetlands
m) intrusions on natural features, areas and systems contributing to the hydrologic functions of wetlands, are avoided or mitigated as demonstrated by qualified professional;
n) groundwater discharge and recharge which supports natural features and areas or hydrologic function on-site and other sites hydrologically connected to the site will be maintained;
o) QC's stormwater management criteria (water quality, water quantity, erosion control and water balance for groundwater and natural features) have been met, where applicable, based on the scale and scope of the project; and
p) appropriate restoration works of sufficient scale and scope in accordance with QC standards will be implemented;

Development Activity Setbacks

3.6.8 Notwithstanding supplementary policies or stand-alone policies as specified in Sections 4.0 through to and including 8.0, new development activity within a regulated area shall be set back from the greater of the following:

a) for the Lake Ontario shoreline (including the Bay of Quinte, West and East Lake, Weller's Bay, Huyck's Bay, Pleasant Bay and North Bay) development activity must be setback from the aggregate of 15 metres from the 1:100 year flood plain and 6m from the erosion hazard and the dynamic beach hazard lines as established in the Quinte Conservation Shoreline Management Plan (2022);
b) where new development activity is proposed along other watercourses and waterbodies and the elevation of the 1:100 year flood plain is known, all development activity must be located a minimum of 15 metres beyond the extent of the 1: 100 year flood plain. Based on specific site characteristics (e.g. high granite bank) staff may reduce the setback to a minimum of 6m;
c) where the elevation of the 1:100 year flood plain is unknown, a minimum setback of 30 metres from the high water mark will be applied for new development activity. However, if a site assessment reveals that the extent of the flood plain can be

established (e.g. high granite bank), a 15 metre setback is applied from that point. Staff have discretion to reduce this setback to a minimum of 6m in certain specific conditions. In cases where there is a dispute over the extent of the flood plain it is the responsibility of the proponent to bring forward documentation such as an engineering analysis or professional survey of the flood plain in support of their position;

d) for slopes, bluffs, and embankments that do not have an established erosion hazard, a minimum 30 metre setback shall be applied horizontally from the stable top of bank for new development activity. For development activity located between the water and the toe of the slope or embankment, a minimum 30 metre setback from the stable toe of slope will be applied. A geo-technical review will be requested to support any reduction in this setback;
e) for unstable bedrock (karst), a study to delineate the extent of the karst feature will be required. New development will not be permitted in the karst feature and any recommended setback as established through the study.
f) For all wetlands, regardless of size or significance, a minimum 30 metre setback is applied from the wetland boundary;
g) For other wetlands and wetlands less than 2 hectares, a minimum 15 metre setback is applied from the wetland boundary.

Floodproofing Standards

3.6.9 All re-development activity proposed within the flood hazard limit must meet the minimum floodproofing requirements as outlined in Appendix C, plus a freeboard as determined by QC. Recognizing the required floodproofing measures are the minimum standard, where feasible QC will continue to encourage the most effective flood damage reduction measures in an effort to reach maximum protection standards possible based on the following alternatives consistent with QC standards, listed in order of priority:

a) flood control remedial works;
b) dry passive floodproofing measures;
c) wet floodproofing measures; and
d) dry active floodproofing measures, which may be implemented to further minimize flood risk in combination with any of the above.

Safe Access (Ingress/Egress) and Parking

3.6.10 All development activity, including new parking facilities (above ground and underground structures and at-grade parking lots), must meet the minimum requirements for safe access for the nature of the development activity as outlined in the policies in Appendix C in accordance with Provincial and QC Standards, and demonstrate to the satisfaction of QC that:

a) risks due to both flooding and erosion have been addressed;
b) within the flood hazard, flood depth and velocity criteria for pedestrian access, vehicular access and emergency services have been met;
c) within the flood hazard, filling or regrading to achieve compliance with flood depth and velocity criteria shall not be permitted unless such works are associated with an environmental assessment process, comprehensive environmental study or technical report supported by QC;
d) where applicable, confirmation from the affected municipal emergency services that flood emergency response procedures have been developed and can be implemented to the satisfaction of the municipality;
e) intrusions on natural features, areas, and systems contributing to the, including areas providing ecological functions and hydrologic functions, are avoided or mitigated;
f) negative or adverse hydrological or ecological impacts on natural features and functions are avoided and mitigated; and
g) the level of ingress/egress available is appropriate to effectively manage the risks associated with the use.

Balanced Cut and Fill Proposals

3.6.11 Every effort shall be made to avoid the placement of fill within the regulated floodplain of watercourses and/or and waterbodies; within the flood hazard of an apparent river or stream valley; or within the meander belt of a non- apparent valley regulated under Ontario Regulation 41/24. In specific situations where this is not possible a balanced cut and fill operation (as defined in Appendix A) may be proposed to adjust the regulatory floodplain boundary for development. These proposals must be completed by a qualified professional and in addition to meeting the requirements in Appendix E (Technical Guidelines for Balanced Cut and Fill Projects) the following criteria for an application must be met:

a) balanced cut and fill is only permissible on lands with sufficient area above the regulatory floodplain. Lots entirely within the floodplain are ineligible;
b) the purpose of the project is to modify the floodplain on an existing developable lot to facilitate proposed new development. Lots that do not currently have any development potential are not eligible;
c) an application for a balanced cut and fill must be submitted in conjunction with an application for development;
d) cut and fill areas must be within the same watercourse or waterbody floodplain must be on the same parcel and as close as possible
e) for watercourses, the cut and fill areas can only have a maximum elevation difference of 5cm at the nearest floodplain cross-sections;
f) the area cut within the floodplain to maintain a hydraulic connection must be limited to less than 50% of the total cut area;
g) the minimum proposed ground elevation in the proposed cut area shall not be lower than the minimum existing ground elevation in the proposed fill area.
h) balanced cut and fill activities are not permissible below the highwater mark or bankfull elevations, nor within areas restricted by other policies in this manual (e.g. watercourses and wetlands);
i) only the volume of removed material below the regulatory flood elevation, above the HWM, and outside areas restricted by this manual can be included in the compensatory cut volume calculation.
j) floodplain storage volumes must be maintained for all storm events up to the regulatory flood.
k) proposals must demonstrate, through hydraulic analyses, no adverse impacts on watercourses, wetlands, valleylands, or hydrologic functions and demonstrate no increase in upstream water surface elevations, flow velocities, or flood risks within the affected watershed;
l) cut areas must maintain overland flow connections to the floodplain;
m) cut and fill volumes must balance in 0.2 m elevation increments.
n) the development activity setbacks outlined in Policy 3.6.9 are met;
o) additional requirements specified through individual policies in sections 4-8 must be followed in addition to this section.

This policy applies to all cut and fill activities within areas regulated under Section 28 of the *Conservation Authorities Act*, including:

- Floodplains
- Valleylands

- Watercourses
- Wetlands and adjacent lands
- Shoreline areas

Please note that there may be other restrictions and requirements related to natural heritage, hydrogeology, regulations, or other policies specific to the application that may need to be considered.

PART D: POLICIES

4.0 RIVER OR STREAM VALLEYS

A brief overview of river or stream valleys is provided below. A more thorough discussion can be found in Appendix B.

4.1 DISCUSSION OF RIVER OR STREAM VALLEYS

To define the regulation limits for river and stream valleys, it is important to understand the landforms through which they flow. While there are many different types of systems, the application of the regulation limit for rivers and stream systems is based on two simplified landforms, as explained in the technical guides for river and stream systems (MNR, 2002a; and MNR, 2002).

> **Apparent[1] (confined) river and stream valleys**: are ones in which the physical presence of a valley corridor containing a river or stream channel, which may or may not contain flowing water, is visibly discernible (i.e. valley walls are clearly definable) from the surrounding landscape by either field investigations, aerial photography and/or map interpretation. The location of the river or stream channel may be located at the base of the valley slope, in close proximity to the toe of the valley slope (i.e. within 15 metres), or removed from the toe of the valley slope (i.e. greater than 15 metres).
>
> The limit of the regulated area associated within an apparent/confined valley is based on whether or not the valley slopes are stable, unstable, and/or subject to toe erosion.
>
> Valley slopes are considered stable when the valley is not subject to toe erosion, the valley walls are no more than 3 metres in height, and the existing slope angle is no steeper than 3:1 (horizontal: vertical units). The regulated area includes the river or stream and the valley walls extending landward to the stable top of bank plus an allowance of 15 metres.

[1] The individual CA Regulations describe river or stream valleys as "apparent" and "not apparent". Provincial Technical Guides utilize the terminology "confined" and "unconfined", respectively.

Valley slopes are considered unstable when the valley slope may be impacted by toe erosion and/or slope instabilities (i.e. existing slope angle steeper than 3:1 (horizontal: vertical units) and/or greater than 3 metres in height). The regulated area includes the river or stream and the valley walls extending landward to the predicted long term stable top of slope projected at a 3:1 (horizontal: vertical) (or 5:1 (horizontal: vertical) for sandy soils) slope ratio from the predicted stable toe of slope (taking into consideration a toe erosion allowance of 15 metres, unless otherwise determined through a technical analysis) plus an allowance of 15 metres.

Not Apparent (unconfined) river and stream valleys: are ones in which a river or stream is present but there is no discernible valley slope or bank that can be detected from the surrounding landscape. For the most part, unconfined systems are found in fairly flat or gently rolling landscapes and may be located within the headwater areas of drainage basins. The river or stream channels contain either perennial (i.e. year round) or ephemeral (i.e. seasonal or intermittent) flow and range in channel configuration from seepage and natural channels to detectable channels.

In these valley systems, the regulated area consists of the maximum extent of whatever is greater: the floodplain or the predicted meander belt width (erosion hazard) of the river or stream plus an allowance of 15 metres.

River or stream valleys are shaped and re-shaped by the natural processes of erosion, slope stability and flooding. Erosion and slope stability are two natural processes that are quite different in nature yet often linked together. Erosion is essentially the continual loss of earth material (i.e. soil or sediment) over time as a result of the influence of water or wind. Slope stability, usually described in terms of the potential for slope failure, refers to a mass movement of earth material, or soil, sliding down a bank or slope face as a result of a single event in time.

The degree and frequency with which the physical change will occur in these systems depends on the interaction of a number of interrelated factors including hydraulic flow, channel configuration, sediment load in the system, storage and recharge functions, and the stability of banks, bed and adjacent slopes. The constant shaping and re-shaping of the river and stream systems by the physical processes results in hazardous conditions which pose a risk to life and cause property damages.

The erosion hazard limit is determined using the 100 year erosion rate (the average annual rate of recession extended over a hundred year time span), and includes allowances for toe erosion, meander belt, and slope stability. The erosion hazard component of river and stream systems is intended to address both erosion potential of the actual river and stream bank, as well as erosion or potential slope stability issues related to valley walls.

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

In Ontario, either storm centred events, observed events, or a flood frequency based event may be used to determine the extent of the Regulatory floodplain, as prescribed by Conservation Authority Regulation. River or stream systems may contain lands that are not subject to flooding or erosion. Examples of these non-hazardous lands include isolated flat plateau areas or areas of gentle slopes. In these situations, QC shall determine the applicability of the Regulation. For the purpose of administering the The Regulation inland lakes that do not meet the definition of "large inland lake" (i.e., waterbody that has a surface area equal to or greater than 100 square kilometers where there is no measurable or predictable response to a single runoff event) should be treated in a manner similar to a river or stream valley. QC does not have any large inland lakes in the watershed.

4.2 DEFINING THE EROSION HAZARD AND ASSOCIATED REGULATED AREA

The erosion hazard is that area of a watercourse bank and lands adjacent to a watercourse (i.e. a watercourse valley) where erosion is actively occurring and/or where development could create slope stability issues. The erosion hazard addresses both the erosion potential of the actual watercourse bank and the potential slope instability related to valley walls.

Where the physical presence of a valley corridor containing a river or stream channel, which may or may not contain flowing water, is visibly discernible (i.e. valley walls are clearly definable) from the surrounding landscape, the regulated area (or Regulation limit) for apparent/confined valley systems takes into account the following three considerations:

- toe erosion;
- a stable slope limit; and
- a 15 metre allowance.

Development adjacent to valley slopes can cause increased loading forces on the top of slope, compromise slope stability or increase erosion of the slope face, and result in the loss of stabilizing vegetation. Where there is no apparent valley the regulated area associated with an erosion hazard is comprised of the meander belt (i.e. the meander belt width). Where the valley is apparent the regulated area associated with an erosion hazard is comprised of the stream bank and slope erosion (i.e. the toe erosion allowance and the stable slope allowance).

Where a watercourse is not contained within a clearly visible valley section (that is, a river or stream is present but there is no discernible valley slope or bank that can be detected from the surrounding landscape), the flow of water is free to shift across the shallower land. Although toe erosion and slope stability are not deemed potential hazards, consideration of the meandering (erosion potential) tendencies of the system must be taken into account. In these valley systems, the regulated area consists of the maximum extent of whatever is greater: the floodplain or the predicted meander belt width (erosion hazard) of the river or stream plus an allowance of 15 metres.

Additional guidance on determining the Erosion Hazard of both a confined and unconfined valley system can be found in Appendix B.

4.3 DEFINING THE FLOOD HAZARD AND ASSOCIATED REGULATED AREA

In Ontario, either storm-centred events, flood frequency based events, or an observed event may be used to determine the extent of the Regulatory floodplain[2]. These events are:

> A **storm-centred event**, either Hurricane Hazel storm (1954) or Timmins storm (1961). A storm-centred event refers to a major storm of record which is used for land use planning purposes. The rainfall actually experienced during a major storm event

[2] High points of land not subject to flooding but surrounded by floodplain or "flooded land" are considered to be within the flood hazard and part of the regulated floodplain.

can be transposed over another watershed and when combined with the local conditions, Regulatory floodplains can be determined. This centering concept is considered acceptable where the evidence suggests that the storm event could have potentially occurred over other watershed in the general area;

100 year flood event is a frequency based flood event that is determined through analysis of precipitation, snow melt, or a combination thereof, having a return period (or a probability of occurrence) of once every 100 years on average (or having a 1% chance of occurring or being exceeded in any given year). The 100 year flood event is the minimum acceptable standard for defining the Regulatory floodplain; and

An **observed event**, which is a flood that is greater that the storm-centred events or greater that the 100 year flood and which was actually experienced in a particular watershed, or portion thereof, for example as a result of ice jams[3], and which has been approved as the standard for that specific area by the Minister of Natural Resources.

QC may also request a hydrology / hydraulic study to be prepared by a qualified professional using accepted scientific and engineering principles. These studies must be completed to the satisfaction of QC staff.

All technical studies in support of development proposals are to be completed at the applicant's expense.

Additional guidance on determining the Flood Hazard of both a confined and unconfined valley system can be found in Appendix B.

4.4 REGULATION ALLOWANCES

River or stream valley allowances allows QC to regulate development adjacent to erosion and flooding hazards in a manner that provides protection against unforeseen or predicted external conditions that could have an adverse effect on the natural conditions or processes of the river or stream valley. Allowances give QC the opportunity to protect access to and

[3] However, localized chronic conditions (e.g. ice or debris jams) related to flood prone areas may be used to extend the regulated area beyond the Regulatory Flood limit without the approval of the Minister of Natural Resources. It will be necessary to inform the property owner(s) as well as ensuring that the revised limits are reflected in the appropriate municipal documents at the first opportunity.

along a valley and/or floodplain. This access may be required for emergency purposes, regular maintenance to existing structures or to repair failed structures.

Development within the allowance must be regulated to ensure that existing erosion and flooding hazards are not aggravated, that new hazards are not created, and to ensure that pollution and the will not be affected. The allowance provides QC with the opportunity to maintain and enhance the natural features and ecological functions of the river or stream valley. Regulation of development in the allowance is also required to deal with issues related to accuracy of the modeling and analysis tools utilized to establish the limits of the erosion and flooding hazards.

To provide access and protection against unforeseen conditions, provincial guidelines recommend that development should generally be set back a minimum of 6 metres adjacent to erosion and flooding hazards (Sections 3.0 and 3.4, Erosion Access Allowance, Technical Guide – River and Stream Systems: Erosion Hazard Limit (MNRF, 2002b)). MNRF recommends that this setback not only be applied to the erosion hazards but also adjacent to the flooding hazard because of the potential for erosion throughout the flooding hazard as a result of the flow of water during significant runoff events. For those situations where additional study is warranted to determine the development setback required to provide the required public safety and access, a study should be undertaken using accepted scientific, geotechnical, and engineering principles.

Protection of public safety and access, however, may not be sufficient to provide for all of the above noted requirements or purposes for the allowances. Additional technical studies by qualified professionals may be required to establish the appropriate extent and location of development within the allowance. QC may also determine that a reduced development setback is appropriate where the existing development already encroaches within the recommended 6 metre setback, and where further development will not aggravate the erosion or flooding hazard.

In order to ensure that valley systems can preserve the functionality of their physical processes it is important to maintain their natural state in order to prevent property damage and/or loss of life resulting from hazards associated with erosion, slope instability and flooding. For this reason, QC encourages development to take place outside of the regulated area associated with any river or stream valley.

4.5 LEGISLATIVE AUTHORITY

The current legislative structure embeds requirements for administration of s. 28 in both the CA Act and Ontario Regulation 41/24. CA staff and legal counsel must refer to both pieces of legislation to make decisions and develop policies and guidelines related to s. 28.1 permit applications.

Conservation Authorities Act
The CA Act contains the following sections dealing with river or stream valleys:

Activities prohibited (Prohibited activities re watercourses, wetlands, etc.)
28 *(1) No person shall carry on the following activities, or permit another person to carry on the following activities, in the area of jurisdiction of an authority: ...*
2. Development activities in areas that are within the authority's area of jurisdiction and are, ...
iii. river or stream valleys the limits of which shall be determined in accordance with the regulations, ...

Permits
28.1 *(1) An Authority may issue a permit to a person to engage in an activity specified in the permit that would otherwise be prohibited by s. 28, if, in the opinion of the authority,*
a) the activity is not likely to affect the control of flooding, erosion, dynamic beaches or unstable soil or bedrock; and
b) 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; ...

Ontario Regulation 41/24
The Regulation contains sections dealing with river or stream valleys. Inland lakes that do not meet the definition of "large inland lake" (i.e., waterbody that has a surface area equal to or greater than 100 square kilometres where there is no measurable or predictable response to a single runoff event) should be treated in a manner similar to a river or stream valley. The CA Regulation contains the following sections dealing with river or stream valleys.

Prohibited activities, subparagraph 2 of ss. 28 (1) of the Act

2*. (1) For the purposes of subparagraph 2 iii of subsection 28 (1) of the Act, river or stream valleys include river or stream valleys that have depressional features associated with a river or stream, whether or not they contain a watercourse, the limits are determined as follows:*

1. where the river or stream valley is apparent and has stable slopes, the valley extends from the stable top of bank, plus 15 metres, to a similar point on the opposite side,

2. where the river or stream valley is apparent and has unstable slopes, the valley extends from the predicted long term stable slope projected from the existing stable slope or, if the toe of the slope is unstable, from the predicted location of the toe of the slope as a result of stream erosion over a projected 100-year period, plus 15 metres, to a similar point on the opposite side,

3. Where the river or stream valley is not apparent, the valley extends,

(i) to the furthest of the following distances:

A. the distance from a point outside the edge of the maximum extent of the flood plain under the applicable flood event standard to a similar point on the opposite side; and

B. the distance from the predicted meander belt of a watercourse, expanded as required to convey the flood flows under the applicable flood event standard to a similar point on the opposite side; and

(ii) an allowance of 15 metres on each side, except in areas under the jurisdiction of the Niagara Peninsula Conservation Authority.

4.6 POLICIES FOR RIVER OR STREAM VALLEYS

The policies in this section are to be applied in conjunction with the General Policies in Section 3.6. As stated in Policy 3.6.1, development will not be permitted within the regulated area associated with an apparent river or stream valley, or the meander belt of a non-apparent valley, except in accordance with the policies contained in this section. The policies contained in this section will apply to all lakes and rivers in the QC watershed with the exception of Lake Ontario and the Bay of Quinte.

The policies are separated by the type of hazard: erosion or flooding and include both apparent river or stream valley features AND the meander belt of a non-apparent valley feature. In instances where a policy does not apply to both features it will be clearly noted.

In instances where there are two or more natural hazards associated with a development activity proposal, the greater setback allowance will be applied.

4.7 GENERAL POLICIES FOR THE EROSION HAZARD OF A RIVER OR STREAM VALLEY

It is the policy of QC that:

4.7.1 Development activity within the erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley shall not be permitted;

4.7.2 In general, stabilization works within the erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley to allow for future/proposed development activity or an increase in development activity envelope or area shall not be permitted;

4.7.3 Development activity associated with new and/or the expansion of existing trailer parks/campgrounds within the erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley shall not be permitted;

4.7.4 Stormwater management facilities within the erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley shall not be permitted;

4.7.5 New basements within the erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley shall not be permitted.

4.7.6 In general, underground and above-ground parking structure within the erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley shall not be permitted.

4.7.7 Redevelopment of derelict and abandoned buildings within the erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley shall not be permitted; An abandoned building is one that has been unused for its intended purpose for 5 or more years.

4.7.8 Development activity shall be prohibited within the erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley where the use is:

a) an institutional use associated with hospitals, nursing homes, preschool, school nurseries, day care and schools, where there is a threat to the safe evacuation of the sick, the elderly, persons with disabilities or the young during an emergency as a result of erosion and/or failure of protection works/measures;
b) an essential emergency service such as that provided by fire, police and ambulance stations and electrical substations which would be impaired during an emergency as result of erosion, or any other hazard associated with erosion and/or as a result of failure of protection works/measures; or
c) uses associated with the disposal, manufacture, treatment or storage of hazardous substances.

4.7.9 Development activity associated with uses that by their nature are located within the erosion hazard such as the construction or reconstruction of an erosion control works (including stream, bank, slope and valley stabilization to protect existing development), conservation or restoration projects, stairs, and shore wells may be permitted within the erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley subject to the activity being approved through a satisfactory Environmental Assessment process and/or if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, or unstable soil and bedrock, or the will not be affected. In order to be considered, the submitted plans must demonstrate that:

a) development activity will not prevent access in order to undertake preventative actions/maintenance or during an emergency;
b) the potential for surficial erosion has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/ restoration plans; and
c) QC may request a technical study to ensure that the development is not subject to risk.

4.7.10 Notwithstanding policy 4.7.1, where technical assessment or studies demonstrate that lands within the erosion hazard of an apparent river or stream valley are not subject to an erosion or flooding hazard, development activity may be permitted. This section is NOT applicable to the meander belt of a non-apparent valley. The submitted plans should demonstrate that:

a) no access through the erosion susceptible area is required;

b) development activity will not prevent access into and through the valley in order to undertake preventative actions/maintenance or during an emergency;
c) the potential for surficial erosion has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/restoration plans;
d) there is no impact on existing and future slope stability;
e) bank stabilization or erosion protection works are not required; and
f) flooding hazards have been adequately addressed.

4.8 SPECIFIC POLICIES FOR EROSION HAZARDS OF A RIVER OR STREAM VALLEY

The policies in this section are to be applied in conjunction with the General Policies in Section 3.6 and 4.7. As per Policies 3.6.1 and 4.7.1, development will not be permitted within the regulated area associated with an erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley, except in accordance with the policies contained in this section.

Structural Development

4.8.1 New structural development will not be permitted within the erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley, regardless of any approvals previously obtained under the *Planning Act* or other regulatory process (e.g., *Building Code Act*). This includes structures on wheels unless they are located on a licensed and registered trailer with the Ministry of Transportation.

4.8.2 Structural repairs, replacement or relocation of an existing building or structure recently (within 5 years) damaged or destroyed either by accident of by an Act of God (other than flooding) may be permitted within erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley provided that provided that the applicant is advised of the risk to the building or structure and if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, dynamic beaches or unstable soil and bedrock will not be affected. Further, it must be demonstrated that 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 that:

a) there is no feasible alternative site outside of the hazard;
b) the structure is not derelict, demolished or abandoned;
c) the building or structure does not exceed the original footprint, is of the same use, same square footage and same number of storeys;
d) the proposed works do not create new hazards or aggravate erosion on adjacent or other properties and there are no negative upstream and downstream hydraulic impacts;
e) bank stabilization or flood protection works are not required;
f) structural development would not be susceptible to stream erosion and will have no impact on natural stream meandering or fluvial processes;
g) the potential for surficial erosion has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/restoration plans;
h) development activity will not prevent access into and through the valley in order to undertake preventative actions/maintenance or during an emergency; and
i) the plan has been carried out by a qualified professional with recognized expertise in the appropriate discipline and must be prepared using established procedures and recognized methodologies to the satisfaction of QC.

Infrastructure

4.8.3 Public infrastructure (e.g. roads, sewers, flood and erosion control works) and various utilities (e.g. pipelines) may be permitted within the erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley where it has been demonstrated that:

a) all feasible alternatives sites and alignments have been explored through a satisfactory Environmental Assessment process, comprehensive environmental study or equivalent technical report;
b) the control of flooding, erosion, dynamic beaches or unstable soil and bedrock, will not be affected. Further, it must be demonstrated that 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.
c) there is no increase in risk associated with erosion hazards to upstream or downstream properties within valley and stream corridors; and

d) a more detailed site-specific study (i.e. a geotechnical study) is conducted to determine a more precise erosion hazard limit(s) in accordance with the Ministry of Natural Resources "Technical Guide – River & Stream Systems: Erosion Hazard Limit" (2002) and demonstrates how impacts to the erosion hazard will be mitigated to ensure that there is no impact on existing and future slope stability and that the infrastructure or utility will not prevent access into and through the valley in order to undertake preventative actions or maintenance or during an emergency.

N.B. Where infrastructure is permitted within hazardous lands or hazardous sites, an environmental monitoring and contingency plan may be required to address potential emergencies during construction and operation.

Fill Placement, Excavation and/or Grade Modifications

4.8.4 Fill placement, excavation, and/or grade modifications: associated with existing access roads and driveways; required for the purpose of erosion protection; and/or, to facilitate the installation of geothermal, sewage systems and wells within the erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley may be permitted provided it can be demonstrated through appropriate technical reports (e.g. topographic survey, geotechnical study) that the control of flooding, erosion, dynamic beaches or unstable soil and bedrock will not be affected. Further, it must be demonstrated that 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

a) there is no feasible alternative site outside of the apparent river or stream valley or the meander belt of a non-apparent valley or, in the event that there is no feasible alternative site, that the proposed development activity is located in an area of least (and acceptable) risk;
b) there is no impact on existing and future slope stability;
c) bank stabilization or erosion protection works are not required to support the proposed development;
d) the provisions of safe access are met;
e) fill placement will have no negative impacts on natural stream meandering/fluvial processes;

f) the potential for surficial erosion has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/restoration plans;
g) natural features and/or ecological functions contributing to the are protected, pollution is prevented and flooding hazards have been adequately addressed;
h) fill placement will not prevent access into and through the valley in order to undertake preventative actions/maintenance or during an emergency;
i) the plan has been carried out by a qualified professional with recognized expertise in the appropriate discipline and must be prepared using established procedures and recognized methodologies to the satisfaction of QC;
j) inert fill material will be used. The proponent may be required to provide proof of the origin and quality of the fill material to ensure the control of pollution and the is not impacted; and
k) the erosion susceptibility of existing structures or adjacent properties will not be impacted.

4.8.5 Fill placement in the erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley associated with a new septic system will not be permitted.

4.8.6 Fill placement associated with the replacement of a septic system may be permitted provided the conditions in Section 5.9.3.1 are met and that:
a) the system be located outside of the hazard where possible, and only permitted within the hazard subject to being located in the area of lowest risk;
b) QC may request a technical study to ensure that the system will not have an impact on the control of erosion; and
c) the system is servicing an existing dwelling.

4.8.7 In general, excavated well installation within the erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley shall not be permitted. Drilled wells do not require a permit.

4.8.8 Repairs associated with a well located in the flood/erosion and/or dynamic beach hazard will be permitted provided the conditions in Section 5.9.3.1 are met and that:
a) the system be located outside of the hazard where possible, and only permitted within the hazard subject to being located in the area of lowest risk; and
b) the well is servicing an existing dwelling.

4.8.9 Development activity associated with the construction of a driveway or access way through the erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley in order to provide access to lands outside of the apparent river or stream valley, or to provide access to water may be permitted within the erosion hazard if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, dynamic beaches or unstable soil and bedrock will not be affected. Further, it must be demonstrated that 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. The submitted plans must demonstrate that:

a) there is no viable alternative outside of the erosion hazard;
b) the provision of safe access as identified in Section 3.2 have been met; and
c) there is no impact on existing and future slope stability.

N.B. Permitted fill placement, excavation and/or grade modifications may be seasonally restricted and subject to a specified time frame to enable stabilization/re-vegetation of the disturbed area.

Shoreline Erosion Protection

4.8.10 Stream bank, slope and valley stabilization to protect existing development and conservation or restoration projects may be permitted within the erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley subject to the activity being approved through a satisfactory Environmental Assessment process and/or if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, pollution, or the will not be affected. This type of work is also subject to Policy 7.5.4.7 on erosion protection in watercourses. The application must demonstrate that there is active erosion present and that the work is not for aesthetics only. Submitted plans must also demonstrate that:

a) alignment or realignment of the shoreline must not result in significant negative effects on river hydraulics or shoreline processes;
b) transitions from proposed protection to adjacent shorelines must be designed so that local erosion, debris accumulation or undesirable changes in local currents will not occur;

c) where shoreline proposals are in the vicinity of marginally stable or unstable slopes, professional geo-technical engineering input may be required, at the Authority's discretion;
d) professional coastal engineering input may be required, at the Authority's discretion;
e) Quinte Conservation will promote the use of soft, environmentally friendly natural shoreline protection measures. Therefore, new proposals for hard structural shoreline protection measures such as wooden, steel, or concrete walls may not permitted in the flood plain. The repair or replacement of an existing hard wall structure will be considered if alternative soft measures are not considered to be practical. (Motion QC 36/06);
f) shoreline projects must not result in a net reduction in flood storage capacity; and
g) the erosion protection cannot result in an increase in developable space, or a reduced setback from any flood or erosion hazard.

Docks/Boat Lifts/Boathouses

4.8.11 New permanent docks and structures are not permitted in the erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley.

4.8.12 Floating docks, cantilever docks and removable docks do not require a permit unless there is a shoreline alteration proposed to anchor the dock to land. The anchor/abutment will require a permit and may be allowed within the floodplain, provided it is placed above the high water mark.

4.8.13 Boat lifts and marine railways may require a permit.

4.8.14 Repairs within the existing footprint to existing permanent docks and boathouses may be permitted within the erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, pollution or the will not be affected, and the boathouse is constructed as a single storey with no habitable space.

4.8.15 Additions and/or expansions of existing permanent docks and boathouses will not be permitted.

Passive Low-Intensity Recreational Uses and Conservation Activities

4.8.16 Development activity associated with public parks (e.g. passive or low intensity outdoor recreation and education, trail systems), outdoor recreation and education, trail systems, watercourse access points or conservation activities may be permitted within the erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution, or the will not be affected and that:

a) there is no feasible alternative to locate the development activity outside of the erosion hazard and that the development activity will be located in an area of least (and acceptable) risk as determined through appropriate technical reports (e.g., topographic survey, geotechnical study);
b) there is no negative impact on existing and future slope stability;
c) the use will not prevent access into and through the valley in order to undertake preventative actions or maintenance or during an emergency; and
d) the potential for erosion has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/restoration plans.

4.9 DEVELOPMENT ACTIVITY WITHIN THE ALLOWANCE (SETBACK) OF THE EROSION HAZARD OF A RIVER OR STREAM VALLEY

As mentioned in Section 4.4 the guidelines for development activity within the setback to an erosion hazard include a 6 metre access allowance. QC requires that all development activity be setback a minimum of 30 metres from the top of bank of an apparent valley with an unstable slope or an unapparent valley with no known erosion hazard. A setback of 15 metres is applied from the top of bank to an apparent valley with a stable slope or an unapparent valley with a known erosion hazard. Notwithstanding staff discretion to reduce the setback to a minimum of 6m, any reduction in these setbacks must be supported by an appropriate geotechnical study completed to the satisfaction of QC staff.

It is the policy of QC that:

4.9.1 Development activity may be permitted within the setback adjacent to the erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley provided it has been demonstrated to the satisfaction of QC that the control

of flooding, erosion, or unstable soil and bedrock will not be affected; and that 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. The submitted plans should demonstrate that:

a) development does not create or aggravate an erosion hazard;
b) development does not impede access to and along the top of the slope, or to and along the meander belt for emergency works, maintenance and evacuation;
c) development is set back a sufficient distance from the stable top of bank to avoid increases in loading forces on the top of the slope;
d) for reconstruction of buildings or structures located within the setback, the new building or structure is constructed in the same location as the original building or structure provided that there are no reasonable alternatives to locate the new building or structure outside of the required setback, and the new building or structure cannot encroach further into the setback from the erosion hazard than the original building or structure;
e) the original use of the building or structure does not change (i.e. non habitable space cannot be converted into habitable space as a result of the reconstruction);
f) for additions to existing buildings or structures located within the setback allowance, the addition cannot encroach further into the setback from the erosion hazard than the original building or structure;
g) development does not change drainage or vegetation patterns that would compromise slope stability or exacerbate erosion of the slope face;
h) the potential for surficial erosion has been addressed through proper drainage, erosion and sediment control and site stabilization/restoration plans;
i) natural features and/or hydrologic functions are not impacted; and
j) the plan is carried out by a qualified professional with recognized expertise in the appropriate discipline and must be prepared using established procedures and recognized methodologies to the satisfaction of the CA.

N.B. Where development activity is proposed and the extent of the erosion hazard is unknown, QC will require a technical study, completed by a qualified professional, to determine the extent of the hazard. These studies are completed at the applicant's expense and must be completed to the satisfaction of QC.

4.9.2 For slopes and embankments that exist above a proposed site for development activity, and all or a portion of the upper slope lies within the regulated area, a 15 metre setback from the stable toe of slope will be applied. QC may consider a

reduction of this allowance if it can be demonstrated that the hazard will not be aggravated and the development activity will not be negatively affected by the hazard. Generally, a technical study conducted by a qualified professional will be required for a reduction to be considered.

4.9.3 Swimming pools, in-ground or above-ground, and inclusive of all fencing and landscaping, must meet a 15m setback from the top of the slope of an apparent stable slope or an unapparent valley with a known erosion hazard, and a 30m setback from an apparent unstable slope or an apparent valley with no known erosion hazard.

4.9.4 The following may be permitted to encroach farther into the setback from the top of bank of an apparent stable slope or an unapparent valley with a known erosion hazard than established development if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, dynamic beaches or unstable soil and bedrock will not be affected. Further, it must be demonstrated that 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. At a minimum the 6 metre access allowance setback is met:

- decks, provided that they are not enclosed or covered;
- dug wells, drilled wells;
- importation of fill for the repair/replacement of a sewage system, providing that the sewage system meets Ontario Building Code standards; and
- stormwater management facilities

4.9.5 Infilling within the within the setback adjacent to the setback from the top of bank of an apparent stable slope or an unapparent valley with a known erosion hazard of an apparent river or stream valley or the meander belt of a non-apparent valley on a small vacant lot of record may be permitted within the established building line in situations where the setback seems unreasonable and due to a lack of space; or where site lines are restricted provided: safe access exists to the property; the dwelling does not encroach closer to the hazard than what exists within the established building line (i.e. neighbour's dwelling); and a minimum 6 metre setback from the hazard is maintained.

4.9.6 The following may be permitted to encroach farther into the setback from the top of bank of an apparent stable slope or an unapparent valley with a known erosion hazard than established development if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, dynamic beaches or unstable soil will not be affected. Further, it must be demonstrated that 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. The 6m access allowance setback is not required for this development activity however development cannot be located in any hazard:

- concrete abutments or anchors for docks; and
- boat houses that conform to the definition of a boat house as described in Appendix A.

4.10 GENERAL POLICIES FOR FLOOD HAZARDS OF A RIVER OR STREAM VALLEY

It is the policy of QC that:

4.10.1 Development activity within the regulatory floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley shall not be permitted.

4.10.2 In general, flood protection and bank stabilization works to allow for future/proposed development or an increase in development envelope or area within the regulatory flood plain of an apparent river or stream valley or the meander belt of a non-apparent valley shall not be permitted.

4.10.3 Floating dwellings/structures within the regulatory floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley shall not be permitted. Open, unenclosed floating docks will be permitted.

4.10.4 Development activity associated with new and/or the expansion of existing trailer parks/campgrounds within the regulatory floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley shall not be permitted.

4.10.5 Stormwater management facilities within the regulatory floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley shall not be permitted.

4.10.6 New basements within the regulatory floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley shall not be permitted.

4.10.7 In general, underground and above-ground parking structures within the regulatory floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley shall not be permitted.

4.10.8 Redevelopment of derelict and abandoned buildings within the floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley shall not be permitted. An abandoned building is one that has been unused for its intended purpose for 5 or more years.

4.10.9 Development activity shall be prohibited within the floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley where the use is:

a) an institutional use associated with hospitals, nursing homes, preschool, school nurseries, day care and schools, where there is a threat to the safe evacuation of the sick, the elderly, persons with disabilities or the young during an emergency as a result of erosion and/or failure of protection works/measures;
b) an essential emergency service such as that provided by fire, police and ambulance stations and electrical substations which would be impaired during an emergency as result of erosion, or any other hazard associated with erosion and/or as a result of failure of protection works/measures; or
c) uses associated with the disposal, manufacture, treatment or storage of hazardous substance.

4.10.10 Development activity associated with uses that by their nature are located within the floodplain such as the construction or reconstruction of a marine facility, erosion control measures (including stream, bank, slope and valley stabilization to protect existing development), conservation or restoration projects may be permitted within the floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley subject to the activity being approved through a satisfactory Environmental Assessment process and/or if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion,

pollution, or the will not be affected. In order to be considered, the submitted plans must demonstrate that:

a) development activity will not prevent access in order to undertake preventative actions/maintenance or during an emergency;
b) the potential for surficial erosion has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/ restoration plans.

QC may request a technical study to ensure that the development activity is not subject to risk.

4.11 SPECIFIC POLICIES FOR FLOOD HAZARDS OF A RIVER OR STREAM VALLEY

The policies in this section are to be applied in conjunction with the General Policies in Section 3.6 and 4.10. As per Policies 3.6.1 and 4.10.1, development will not be permitted within the regulated area associated with a flood hazard of an apparent river or stream valley or the meander belt of a non-apparent valley, except in accordance with the policies contained in this section.

Structural Development

4.11.1 New structural development will not be permitted within the floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley regardless of any approvals previously obtained under the *Planning Act* or other regulatory process (e.g., Building Code Act). This includes structures on wheels unless they are located on a licensed and registered trailer with the Ministry of Transportation.

4.11.2 Structural repairs, replacement or relocation of an existing building or structure recently (within 5 years) damaged or destroyed by accident or by an Act of God (other than flooding) may be permitted within the floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley provided the applicant is advised of the risk to the building or structure and if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, dynamic beaches or unstable soil and bedrock will not be affected. Further, it must be demonstrated

that 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 that:

a) there is no feasible alternative site outside of the hazard;
b) the structure is not derelict, demolished or abandoned;
c) the building or structure does not exceed the original footprint, is of the same use, same square footage and same number of storeys;
d) the proposed works do not create new hazards or aggravate flooding on adjacent or other properties and there are no negative upstream and downstream hydraulic impacts;
e) floodproofing measures are incorporated to the maximum extent and level possible based on site-specific conditions. Dry passive floodproofing measures as outlined in Appendix C are required*.
f) bank stabilization or flood protection works are not required;
g) structural development would not be susceptible to stream erosion;
h) the potential for surficial erosion has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/restoration plans;
i) erosion and flooding hazards have been adequately addressed;
j) development will not prevent access into and through the valley in order to undertake preventative actions/maintenance or during an emergency; and
k) the plan has been carried out by a qualified professional with recognized expertise in the appropriate discipline and must be prepared using established procedures and recognized methodologies to the satisfaction of QC.

*** In instances where a structure was renovated to comply with Appendix C, the construction of a landing of a maximum size of 1.7m by 1.7m (5.5' by 5.5') is permitted at an exterior door to allow for a stair or ramp at the location of minimum flood depth. (Motion QC97/07)**

Infrastructure

4.11.3 Public infrastructure (e.g. roads, sewers, flood and erosion control works) and various utilities (e.g. pipelines) may be permitted within the floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley where it has been demonstrated that:

a) all feasible alternatives sites and alignments have been explored through a satisfactory Environmental Assessment process, comprehensive environmental study or equivalent technical report;
b) the control of flooding, erosion, or unstable soil and bedrock, or the will not be affected;
c) there is no increase in risk associated with flood hazards to upstream or downstream properties within valley and stream corridors; and
d) a more detailed site-specific study (i.e. a geotechnical study) is conducted to determine a more precise flood hazard limit(s) in accordance with the Ministry of Natural Resources "Technical Guide – River & Stream Systems: Erosion Hazard Limit" (2002) and demonstrates how impacts to the flood hazard will be mitigated to ensure that there is no impact on existing and future slope stability and that the infrastructure or utility will not prevent access into and through the valley in order to undertake preventative actions or maintenance or during an emergency.

N.B. Where infrastructure is permitted within hazardous lands or hazardous sites, an environmental monitoring and contingency plan may be required to address potential emergencies during construction and operation.

Fill Placement, Excavation and/or Grade Modifications

4.11.4 Fill placement, excavation, and/or grade modifications: associated with existing access roads and driveways; required for the purpose of flood protection; and/or, to facilitate the installation of geothermal, water and/or sewage systems and wells within the floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley may be permitted provided it can be demonstrated through appropriate technical reports (e.g. topographic survey, geotechnical study) that the control of flooding, erosion, dynamic beaches will not be affected. Further, it must be demonstrated that 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:

a) there is no feasible alternative site outside of the apparent river or stream valley or the meander belt of a non-apparent valley or, in the event that there is no feasible alternative site, that the proposed development is located in an area of least (and acceptable) risk;
b) there is no impact on existing and future slope stability;
c) bank stabilization, flood protection or erosion protection works are not required;

d) fill placement will have no negative impacts on natural stream meandering/fluvial processes;
e) the potential for surficial erosion has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/restoration plans;
f) natural features and/or hydrologic functions will not be impacted and flooding hazards have been adequately addressed;
g) fill placement will not prevent access into and through the valley in order to undertake preventative actions/maintenance or during an emergency;
h) the plan has been carried out by a qualified professional with recognized expertise in the appropriate discipline and must be prepared using established procedures and recognized methodologies to the satisfaction of QC;
i) inert fill material will be used. The proponent may be required to provide proof of the origin and quality of the fill material to ensure the control of pollution and the is not impacted; and
j) the flood susceptibility of existing structures or adjacent properties will not be impacted.

4.11.5 Fill placement in the floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley associated with a new septic system will not be permitted.

4.11.6 Fill placement associated with the replacement of a septic system may be permitted in the floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley provided the conditions in Section 5.12.3.1 are met and that:
a) the system be located outside of the regulatory floodplain where possible, and only permitted within the regulatory floodplain subject to being located in the area of lowest risk;
b) the sewage system must meet QC's flood proofing standards found in Appendix C, and QC may request a technical study to ensure that the system will not have an impact on the control of flooding; and
c) the system is servicing an existing dwelling.

4.11.7 In general, excavated well installation within the in the floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley shall not be permitted. Drilled wells do not require a permit.

4.11.8 Repairs associated with a well located in the in the floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley will be permitted provided the conditions in Section 5.12.3.1 are met and that:

a) the system be located outside of the hazard where possible, and only permitted within the hazard subject to being located in the area of lowest risk;
b) the well must meet QC's flood proofing standards found in Appendix C, and QC may request a technical study to ensure that the system will not have an impact on the control of flooding; and
c) the well is servicing an existing dwelling.

4.11.9 Development activity associated with the construction of a driveway or access way through the floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley in order to provide access to lands outside of the apparent river or stream valley, or to provide access to water may be permitted within the flood hazard if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, dynamic beaches or unstable soil and bedrock will not be affected. Further, it must be demonstrated that 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. The submitted plans must demonstrate that:

a) there is no viable alternative outside of the flood hazard;
b) the provision of safe access as identified in Section 3.2 have been met;
c) there is no impact of flooding on neighbouring properties; and
d) if required, the conditions in Policies 3.6.12 and 4.11.11 for a balanced cut and fill are met.

4.11.10 New dug-out or isolated ponds* may be permitted within the floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley. The plans must demonstrate that:

a) the pond is not connected to a watercourse;
b) that proper construction techniques are used; and
c) that the proposed location for the pond does not have an adverse effect on any wetland or fish habitat.

***Ponds for the purpose of watering livestock are not subject to Policy 4.11.10 as they are not subject to Ontario Regulation 41/24 in accordance with Section 28(10) of the *CA Act*.**

4.11.11 In specific situations a balanced cut and fill operation (as defined in Appendix A) may be proposed to adjust the regulatory floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley boundary for development. These proposals must be completed by a qualified professional and in addition to meeting the requirements in Appendix E (Guidelines for Balanced Cut and Fill Projects) the following criteria for an application must be met:

a) Policy 3.6.11 must be met
b) the available volume at each type of floodplain storage (active and passive) be maintained at flood frequencies for all storm events up to and including the Regulatory flood;
c) the operation must demonstrate no adverse upstream or downstream hydraulic or fluvial impacts;
d) the operation must not extend into the meander belt;
e) the operation must satisfy the criteria for a stable slope, preferably 3:1 or flatter;
f) the operation must be designed to result in no increase in upstream water surface elevations and no increase in flow velocities in the affected river cross-sections under a full range of potential flood discharge conditions (1:2 year to 1:100 year return periods); and
g) adequate overland flow routes in local drainage networks must be maintained;
h) the proposed fill is not susceptible to erosion by ice and/or water; and
i) compliance with these requirement shall be demonstrated by means of hydraulic computations completed to the satisfaction of QC.

N.B. Permitted fill placement, excavation and/or grade modifications may be seasonally restricted and subject to a specified time frame to enable stabilization/re-vegetation of the disturbed area. Where placement of fill, excavation and/or grade modifications, could impact slope stability, a Geo-technical Analysis/Hydrogeological Assessment may be required to be completed to the satisfaction of QC staff. The analysis must demonstrate that the proposal is hydrologically sound and will not impact natural hazards, watercourses and wetlands.

Shoreline Erosion Protection

4.11.12 Stream bank, slope and valley stabilization to protect existing development and conservation or restoration projects may be permitted within the floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley subject

to the activity being approved through a satisfactory Environmental Assessment process and/or if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, or unstable soil and bedrock, or the will not be affected. This type of work is also subject to Policy 7.5.7 on erosion protection in watercourses. The application must demonstrate that there is active erosion present and that the work is not for aesthetics only. Submitted plans must also demonstrate that:

a) alignment or realignment of the shoreline must not result in significant negative effects on river hydraulics or shoreline processes;
b) transitions from proposed protection to adjacent shorelines must be designed so that local erosion, debris accumulation or undesirable changes in local currents will not occur;
c) where shoreline proposals are in the vicinity of marginally stable or unstable slopes, professional geo-technical engineering input may be required, at the Authority's discretion;
d) professional coastal engineering input may be required, at the Authority's discretion;
e) Quinte Conservation will promote the use of soft, environmentally friendly natural shoreline protection measures. Therefore, new proposals for hard structural shoreline protection measures such as wooden, steel, or concrete walls are generally not permitted in the flood plain. The repair or replacement of an existing hard wall structure will be considered if alternative soft measures are not considered to be practical. (Motion QC 36/06);
f) shoreline projects must not result in a net reduction in flood storage capacity; and
g) the erosion protection cannot result in an increase in developable space, or a reduced setback from any flood or erosion hazard.

N.B. "as built" drawings/surveys may be required to be submitted following completion of the project.

Docks/Boat Lifts/Boathouses

4.11.13 New permanent docks and structures are not permitted in the floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley.

4.11.14 Floating docks, cantilever docks and removable docks do not require a permit unless there is a shoreline alteration proposed to anchor the dock to land. The abutment will require a permit and may be allowed within the floodplain, provided it is placed above the high water mark.

4.11.15 Boat lifts and marine railways may require a permit.

4.11.16 Repairs within the existing footprint to existing permanent docks and boathouses may be permitted within the floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, or unstable soil and bedrock or the will not be affected, and the boathouse is constructed as a single storey with no habitable space.

4.11.17 Additions and/or expansions of existing permanent docks and boathouses located in the floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley will not be permitted.

Passive Low-Intensity Recreational Uses and Conservation Activities

4.11.18 Development activity associated with public parks (e.g. passive or low intensity outdoor recreation and education, trail systems), outdoor recreation and education, trail systems, watercourse access points or conservation activities may be permitted within the flood hazard of an apparent river or stream valley or the meander belt of a non-apparent valley if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, or unstable soil and bedrock, or the will not be affected and that:

a) there is no feasible alternative to locate the development activity outside of the flood hazard and that the development activity will be located in an area of least (and acceptable) risk as determined through appropriate technical reports (e.g., topographic survey, geotechnical study);
b) the use will not prevent access into and through the valley in order to undertake preventative actions or maintenance or during an emergency; and
c) the potential for flooding has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/restoration plans.

4.12 DEVELOPMENT ACTIVITY WITHIN THE ALLOWANCE (SETBACK) OF THE FLOOD HAZARD OF A RIVER OR STREAM VALLEY

As mentioned in Section 4.4 the guidelines for development activity within the setback to a flood hazard include a 6 metre access allowance. Where development activity is proposed and the elevation of the regulatory floodplain is known, all buildings or structures must be located a minimum horizontal distance of 15 metres beyond the furthest landward extent of the regulatory floodplain. Where development activity is proposed and the elevation of the regulatory floodplain is unknown, a setback of 30 meters from the average high-water mark or top of bank will be applied provided that there is a sufficient difference in elevation (to be determined on a case by case basis). However, if a site assessment reveals that the extent of the floodplain can be established (e.g. high granite bank) a minimum 15 metre setback is applied from that point. Notwithstanding staff discretion to reduce the setback to a minimum of 6m, in cases where there is a dispute over the extent of the floodplain it is the responsibility of the proponent to bring forward documentation such as an engineering analysis or professional survey of the floodplain in support of their position. However, if the extent of the regulatory floodplain can be estimated using accepted scientific and engineering principles, a reduction of the 30 metre setback may be considered.

It is the policy of QC that:

4.12.1 Development activity may be permitted within the setback adjacent to the floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley provided it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, or unstable soil and bedrock will not be affected; and that 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. The submitted plans should demonstrate that:

a) development activity does not create or aggravate a flood hazard;
b) development activity is set back a sufficient distance from the potential wave uprush limit;
c) development activity does not impede access to the shoreline for emergency works, maintenance and evacuation;
d) for reconstruction of buildings or structures located within the setback, the new building or structure is constructed in the same location as the original building or structure provided that there are no reasonable alternatives to locate the new

building or structure outside of the required setback, and the new building or structure cannot encroach further into the setback from the flood hazard than the original building or structure;

e) the original use of the building or structure does not change (i.e. non habitable space cannot be converted into habitable space as a result of the reconstruction);
f) for additions to existing buildings or structures located within the setback allowance, the addition cannot encroach further into the setback from the flood hazard than the original building or structure and the addition must meet the minimum floodproofing measures in Appendix C;
g) development activity does not change drainage or vegetation patterns that would compromise the control of flooding;
h) the potential for surficial erosion has been addressed through proper drainage, erosion and sediment control and site stabilization/restoration plans;
i) natural features and/or hydrological functions are not impacted; and
j) the plan is carried out by a qualified professional with recognized expertise in the appropriate discipline and must be prepared using established procedures and recognized methodologies to the satisfaction of the CA.

N.B. Where development activity is proposed and the extent of the flood hazard is unknown, QC may require a technical study, completed by a qualified professional, to determine the extent of the hazard. These studies are completed at the applicant's expense and must be completed to the satisfaction of QC.

4.12.2 Infilling within the within the setback adjacent to the floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley on a small vacant lot of record may be permitted within the established building line in situations where the setback seems unreasonable and due to a lack of space; or where site lines are restricted provided: safe access exists to the property; the dwelling does not encroach closer to the hazard than what exists within the established building line (i.e. neighbour's dwelling); and a minimum 6 metre setback from the hazard is maintained.

4.12.3 The following may be permitted to encroach farther into the setback to the floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley than established development if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, dynamic beaches or unstable soil and bedrock, will not be affected. Further, it must be demonstrated

that 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. Additionally a minimum the 6 metre access allowance setback is met:

- decks, provided that they are not enclosed or covered;
- swimming pools, in-ground or above ground, inclusive of all fencing and landscaping;
- dug wells, drilled wells;
- importation of fill for the repair/replacement of a sewage system, providing that the sewage system meets Ontario Building Code standards; and
- stormwater management facilities.

4.12.4 The following may be permitted to encroach farther into the setback adjacent to the floodplain of an apparent river or stream valley or the meander belt of a non-apparent valley than established development if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, dynamic beaches or unstable soil and bedrock will not be affected. Further, it must be demonstrated that 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. The 6m access allowance setback is not required for this development activity however development activity cannot be located in any hazard:

- concrete abutments or anchors for docks; and
- boat houses that conform to the definition of a boat house as described in Appendix A.

5.0 GREAT LAKES – ST. LAWRENCE RIVER SYSTEMS AND INLAND LAKES

A brief overview of the Great Lakes – St. Lawrence River systems and inland lakes is provided below. A more thorough discussion can be found in Appendix B.

5.1 INTRODUCTION TO SHORELINE HAZARDS

Shorelines are comprised of three components which affect the processes and functions along a shoreline:

- Flooding Hazards;
- Erosion Hazards; and
- Dynamic Beach Hazards.

The flood hazard for Lake Ontario and the Bay of Quinte is based on the 100-year flood limit that is comprised of the 100-year flood level plus wave uprush. The erosion hazard is based on the potential for erosion in a 100-year time frame and a stable slope allowance. These hazards along with the dynamic beach hazards for Lake Ontario and the Bay of Quinte were identified in 2021 through the Quinte Conservation Shoreline Management Plan (SMP) (June 21, 2021, Zuzek). The study, completed in partnership with Cataraqui Conservation, encompassed the entire shoreline of the Bay of Quinte within the QC watershed, the shoreline of Prince Edward County, including inland bays, West Lake and East Lake, and the portion of the Napanee River that flows from the downstream side of the Springside Dam to the Bay of Quinte. The full report can be found on the QC website: www.quinteconservation.ca.

In recognition of the broad geography and varying shoreline conditions throughout the study area, the QC shoreline was sub-divided into 16 reaches with updated shoreline hazard mapping and shoreline management recommendations developed for each. The resulting 100 year combined (still water and wind setup) flood level for each reach is detailed in Fig. 4 below. A standard setback of 15m to account for varying wave uprush considerations determines the entire Flood Hazard delineation.

Figure 1: Reach Locations for Quinte SMP

The Erosion Hazard has been calculated using a 100-year erosion allowance plus a stable slope allowance measured horizontally from the toe of the slope. A standard stable slope allowance of 1.75(H):1.0(V) was used for slopes equal to or greater than 2m in height. For slopes less than 2m in height or with a slope flatter than 1.75(H):1.0(V) a 10m setback was used from the top of the existing shoreline as the 100-year recession rate. For slopes and shorelines that are comprised of soil a 3.0(H):1.0(V) was used for the stable slope allowance. In specific conditions where less weathered or "stronger" solid bedrock exists, the stable slope allowance may be reduced to 1.4(H): 1(V).

There are 13 individual dynamic beach areas identified on the Lake Ontario shoreline and the standard setback of 30m from the 100-year flood level plus the wave uprush is applied to establish the Dynamic Beach Hazard. The standards for establishing the natural hazard areas have been applied as per MNRF Technical Guidelines for Large Inland Lakes, 1996.

5.1.1 SHORELINE FLOOD HAZARD

The shoreline refers to the furthest landward limit bordering a large body of water. Factors to be addressed in the areas susceptible to flooding along the shoreline include: the 1:100 year flood level; and flood allowance for wave uprush and/or other water related hazards.

- The 1:100 year flood level is the water level due to the combined occurrences of mean monthly lake levels and wind set up having a 1% chance of occurring during any year.
- The 1:100 year wave uprush level is based on mean monthly lake levels, wind setup and wind generated waves.

In areas susceptible to wave action, shoreline flood hazards extend landward beyond the 100 year flood level to the limit of wave action. All shorelines should be considered susceptible to wave action unless site specific studies using accepted engineering principles demonstrate that wave action is not significant.

5.1.2 SHORELINE EROSION HAZARD

The risk of erosion is managed by planning for the 100 year erosion rate (the average annual rate of recession extended over a one hundred year time span). The extent of the shoreline erosion hazard limit depends on the shoreline type: bluff or beach.

Factors to be addressed in the areas susceptible to erosion along the shoreline include: the stable toe of slope (as may be shifted as a result of erosion over a 100 year period); the predicted long term stable slope projected from the stable toe of slope; and an allowance inland of 15 metres on large inland lakes or 30 metres on the Great Lakes.

5.1.2.1 SHORELINE EROSION PROTECTION

To slow the erosion of shorelines, structures such as breakwaters, seawalls and revetments have been used. However, even with the installation of remedial measures (i.e. assumed to address the erosion hazard), the natural forces of erosion, storm action/attack and other naturally occurring water and erosion related forces may prove to be such that the remedial measures may only offer a limited measure of protection and may only reduce or address the erosion hazard over a temporary period of time.

Even if the shoreline is successfully armoured, the near shore lake bottom continues to erode or down cut eventually on all shorelines. This process is more active typically on cohesive shorelines. Eventually the lakebed down cutting will undermine the shoreline armouring causing the structure present to ultimately fail (Figure 2).

The failure and ultimate property loss may extend back to the point at which the natural shoreline occurs. The natural shoreline position is typically not the present waterline or break wall interface, but actually some point inland from the armoured shoreline position.

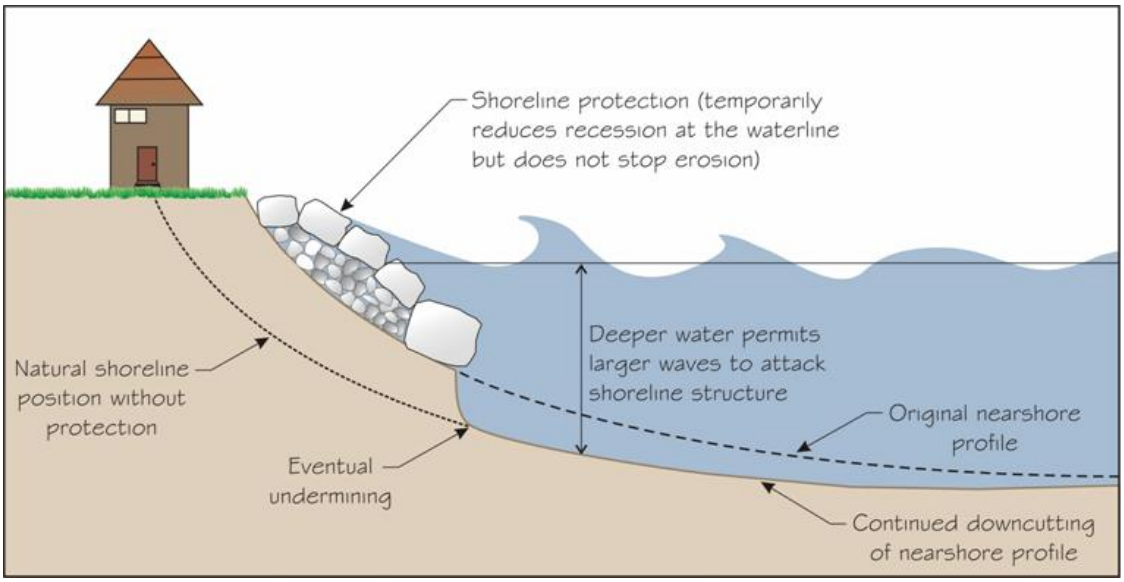

Figure 2: Lake Erosion Down Cutting

These problems usually occur on updrift and/or downdrift properties, aggravating existing off-site hazards, and/or posing unacceptable detrimental impacts on a wide array of environmental components of the shoreline ecosystem (e.g. fisheries, wetlands, water quality). The natural movement of the shoreline due to erosion can be aggravated by human activities and attempts to harden the shoreline and the impact of the activity can be transferred some distance from the impact site.

Therefore, it is recommended as a general principle, that measures which harden the shoreline be avoided. This recommendation is supported by analysis and results in the Shoreline Management Plan (2022) mentioned previously in S. 5.1. Policies specific to shoreline protection along the Great Lakes – Bay of Quinte Shoreline are in S. 5.5.1.2.

5.1.3 DYNAMIC BEACH HAZARD

A dynamic beach is considered an unstable accumulation of shoreline sediments generally along the Great Lakes – St. Lawrence River System and large inland lakes. In dynamic beach areas, topographic elevations can change quite rapidly due to the accumulation or loss of beach materials through the effects of wind and wave action. These changes can occur seasonally or yearly and, at times, quite rapidly and dramatically. The balance of various coastal processes, which allows for the state of dynamic equilibrium for these beach areas, only exists in the natural environment. Human intrusion within these areas can significantly and negatively impact on the form and function of the dynamic beach. Development should

only be considered in limited defined areas outside of the dynamic beach hazard, following the appropriate level of scientific investigation and assessment

The dynamic beach hazard is applied to all shorelines of the Great Lakes – St. Lawrence River System where there is an accumulation of surficial sediment landward of the stillwater line (defined at the time of mapping under non-storm conditions), such that action by waves and other water and wind-related processes can lead to erosion of the sediments and a resultant landward translation of the shore profile.

Factors to be addressed in the dynamic beach area include:

- 1:100 year flood level;
- An allowance for wave uprush, and if necessary, an allowance for other water related hazards, including ship generated waves, ice piling and ice jamming; and
- An allowance inland of 30 metres to accommodate for dynamic beach movement on the Great Lakes and, in the case of large inland lakes, this allowance is 15 metres.

5.2 REGULATION ALLOWANCES (SETBACKS) FOR LAKE ONTARIO SHORELINES INCLUDING THE BAY OF QUINTE

The allowances adjacent to shoreline flood, erosion and/or dynamic beach hazards allow QC to regulate development in these areas in a manner that:

- Provides protection against unforeseen or predicted external conditions that could have an adverse effect on public safety, property damage and the natural conditions or processes of the shoreline;
- Protects access to and along the shoreline hazard areas. Access may be required for emergency purposes, regular maintenance to existing structures or to repair failed structures;
- Ensures that existing erosion, flooding and dynamic beach hazards are not aggravated and that new hazards are not created;
- Ensures that the control of pollution and the will not be affected;
- Maintains and enhances the natural features and ecological functions of shorelines; and
- Addresses issues related to accuracy of the modeling and analysis tools utilized to establish the limits of the flooding, erosion and dynamic beach hazards.

A 6m access allowance is added to all shoreline hazards along Lake Ontario and the Bay of Quinte.

5.3 LEGISLATIVE AUTHORITY

The current legislative structure embeds requirements for administration of s. 28 in both the CA Act and Ontario Regulation 41/24. CA staff and legal counsel must refer to both pieces of legislation to make decisions and develop policies and guidelines related to s. 28.1 permit *applications*.

Conservation Authorities Act

The CA Act contains the following sections dealing with watercourses:

Activities prohibited (Prohibited activities re watercourses, wetlands, etc.)

28 (1) *No person shall carry on the following activities, or permit another person to carry on the following activities, in the area of jurisdiction of an authority: ...*
2. Development activities in areas that are within the authority's area of jurisdiction and are, ...
iv. areas that are adjacent or close to the shoreline of the Great Lakes-St. Lawrence River System or to an inland lake and that may be affected by flooding, erosion or dynamic beach hazards, such areas to be further determined or specified in accordance with the regulations, or,...

Permits

28.1 *(1) An Authority may issue a permit to a person to engage in an activity specified in the permit that would otherwise be prohibited by section 28, if, in the opinion of the authority,*
a) the activity is not likely to affect the control of flooding, erosion, dynamic beaches or unstable soil or bedrock; and
b) 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; ...

The permit shall be given in writing, with or without conditions.

Ontario Regulation 41/24

The following section indicates how the extent of Great Lakes and large inland lakes shorelines are determined for the purpose of administering the Regulation. The Regulation contains the following sections dealing with Great Lakes and large inland lakes shorelines.

Prohibited activities, subparagraph 2 of ss. 28 (1) of the Act (development activity prohibited)
2. *(2) For the purposes of subparagraph 2 iv of subsection 28 (1) of the Act, areas adjacent or close to the shoreline of the Great Lakes-St. Lawrence River System or to inland lakes that may be affected by flooding, erosion or dynamic beaches include,*
(a) the area starting from the furthest offshore extent of the Authority's boundary to the furthest of the following distances:
(i) the 100-year flood level, plus the appropriate allowance for wave uprush, and, if necessary, for other water-related hazards, including ship generated waves, ice piling and ice jamming;
(ii) the predicted long term stable slope projected from the existing stable toe of the slope or from the predicted location of the toe of the slope as that location may have shifted as a result of shoreline erosion over a 100-year period; and
(iii) where a dynamic beach is associated with the waterfront lands, an allowance of 30 metres inland to accommodate dynamic beach movement; and
(b) the area that is an additional 15 metres allowance inland from the area described in clause (a).

Permits
The Authority may grant a permit for development activity adjacent or close to the shoreline of the Great Lakes-St. Lawrence River System or to inland lakes subject to the tests or criteria in the CA Act.

5.4 GENERAL POLICIES FOR SHORELINE FLOOD, EROSION AND/OR DYNAMIC BEACH HAZARDS

The following sections outline the policies for implementing the Regulation with respect to the Great Lakes-St. Lawrence System and large inland lakes and the associated allowances. Inlands lakes that do not meet the definition of "large inland lake" (i.e. waterbody that has a surface area equal to or greater than 100km^2 where there is no measurable or predictable response to a single runoff event) should be treated in a manner similar to a river or stream

valley and should be referred to in Section 5 for policies that apply to these areas. The Quinte watershed does not have any lakes that meet the definition of inland lakes.

QC may require technical studies be undertaken to demonstrate the suitability of development proposals. Technical studies must be carried out by a qualified professional, with recognized expertise in the appropriate discipline, and prepared using established procedures and recognized methodologies to the satisfaction of QC.

For the purposes of the following policies, the shoreline hazards have been defined through the Shoreline Management Plan (2022) and are as follows:

- shoreline flood hazard: the limit of the landward extent of flooding accounting for the 100-year flood elevation, plus an allowance for wave uprush and other water related hazards. The 100-year flood elevation consist of the 100-year static level plus the storm surge. The allowance for wave uprush and other water related hazards is 15m.
- shoreline erosion hazard: the limit of the landward extent of the stable slope measured from the existing or unprotected toe of slope, plus the limit of the 100-year erosion rate.
- dynamic beach hazard: the limit of the landward extent of the 100-year flood elevation limit, plus an allowance for wave uprush and other water related hazards, plus the dynamic beach allowance. The allowance for wave uprush and other water related hazards is 15m and the dynamic beach allowance is 30m.

For applications that propose to challenge the erosion and/or dynamic beach hazard lines established through the Shoreline Management Plan (2022), the application will be recommended for denial by staff and the applicant can apply for a hearing. Appropriate supporting technical reports submitted by the applicant may be subject to a peer review for QC. The cost of this peer review will be the responsibility of the applicant.

The policies in this and following sections are to be applied in conjunction with the General Policies in Section 3.6. As per Policy 3.6.1, development activity will not be permitted within the regulated area associated with a shoreline flood, erosion and/or dynamic beach hazard, except in accordance with the policies contained in this section.

It is the policy of QC that:

5.4.1 Development activity within the shoreline flood, erosion and/or dynamic beach hazard shall not be permitted;

5.4.2 In general, flood protection and/or shoreline bank stabilization works/erosion protection to allow for future/proposed development or an increase in development envelope or area within the shoreline flood, erosion and/or dynamic beach hazard shall not be permitted. Further, a reduction in the setback required from a shoreline natural hazard will not be reduced as a result of existing or proposed flood protection and/or shoreline bank stabilization/erosion protection;

5.4.3 Floating dwellings/structures within the shoreline flood, erosion and/or dynamic beach hazard shall not be permitted. Open, unenclosed floating docks will be permitted;

5.4.4 Development activity associated with new and/or the expansion of existing trailer parks/campgrounds within the shoreline flood, erosion and/or dynamic beach hazard shall not be permitted;

5.4.5 Stormwater management facilities within the shoreline flood, erosion and/or dynamic beach hazard shall not be permitted;

5.4.6 New basements within the shoreline flood, erosion and/or dynamic beach hazard shall not be permitted.

5.4.7 In general, underground and above-ground parking structures within the shoreline flood, erosion and/or dynamic beach hazard shall not be permitted;

5.4.8 Redevelopment of derelict and abandoned buildings within the shoreline flood, erosion and/or dynamic beach hazard shall not be permitted; An abandoned building is one that has been unused for its intended purpose for 5 or more years.

5.4.9 Development activity shall be prohibited within the shoreline flood, erosion and/or dynamic beach hazard where the use is:

a) an institutional use associated with hospitals, nursing homes, preschool, school nurseries, day care and schools, where there is a threat to the safe evacuation of the

sick, the elderly, persons with disabilities or the young during an emergency as a result of erosion and/or failure of protection works/measures;

b) an essential emergency service such as that provided by fire, police and ambulance stations and electrical substations which would be impaired during an emergency as result of erosion, or any other hazard associated with erosion and/or as a result of failure of protection works/measures; or

c) uses associated with the disposal, manufacture, treatment or storage of hazardous substances.

5.4.10 Development activity associated with uses that by their nature are located within the shoreline flood, erosion and/or dynamic beach hazard such as the construction or reconstruction of a marine facility, maintenance dredging, erosion control measures (including stream, bank, slope and valley stabilization to protect existing development), or conservation or restoration projects, may be permitted within the shoreline flood, erosion and/or dynamic beach hazard subject to the activity being approved through a satisfactory Assessment process and/or if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, or unstable soil and bedrock, or the will not be affected. In order to be considered, the submitted plans must demonstrate that:

a) development activity will not prevent access in order to undertake preventative actions/maintenance or during an emergency;

b) the potential for surficial erosion has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/ restoration plans;

c) QC may request a technical study to ensure that the development activity is not subject to risk; and

d) any relevant policies in S. 4-8 are met.

5.5 SPECIFIC POLICIES FOR THE SHORELINE FLOOD, EROSION AND/OR DYNAMIC BEACH HAZARDS

Structural Development

5.5.1 New structural development will not be permitted within the shoreline flood, erosion and/or dynamic beach hazard regardless of any approvals previously obtained under the *Planning Act* or other regulatory process (e.g. *Building Code Act*).

5.5.2 Structural repairs, replacement, reconstruction or relocation of an existing building or structure for the purposes of modernizing the building or structure, or for an existing building or structure recently (within 5 years) damaged or destroyed either by accident of by an Act of God (other than flooding) may be permitted within shoreline flood, erosion and/or dynamic beach hazard provided that the applicant is advised of the risk to the building or structure and if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, dynamic beaches or unstable soil and bedrock will not be affected. Further, it must be demonstrated that 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 that:

a) there is no feasible alternative site outside of the hazard;
b) the structure is not derelict, demolished or abandoned;
c) the building or structure does not exceed the original footprint, is of the same use, same square footage and same number of storeys;
d) safe access is existing to the structure and the flood depths on access roads do not exceed 0.3m;
e) the proposed works do not create new hazards or aggravate flooding and/or erosion on adjacent or other properties and there are no negative hydraulic impacts;
f) floodproofing measures are incorporated to the maximum extent and level possible based on site-specific conditions*. Dry passive floodproofing measures as outlined in Appendix E are required;
g) bank stabilization or flood protection works are not required;
h) structural development would not be susceptible to erosion;
i) the potential for surficial erosion has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/restoration plans;

j) flooding, erosion and dynamic beach hazards have been adequately addressed;
k) development will not prevent access in order to undertake preventative actions/ maintenance or during an emergency; and
l) the plan has been carried out by a qualified professional with recognized expertise in the appropriate discipline and must be prepared using established procedures and recognized methodologies to the satisfaction of QC.

*In instances where a structure was renovated to comply with Appendix E, the construction of a landing of a maximum size of 1.7m by 1.7m (5.5' by 5.5') is permitted at an exterior door to allow for a stair or ramp at the location of minimum flood depth. (Motion QC97/07)

Infrastructure

5.5.3 New public infrastructure (e.g. roads, sewers, flood and erosion control works) and various utilities (e.g. pipelines) will not be permitted in a dynamic beach hazard.

5.5.4 New and/or repairs to existing public infrastructure (e.g. roads, sewers, flood and erosion control works) and various utilities (e.g. pipelines) may be permitted within the shoreline flood and erosion hazards where it has been demonstrated that:

a) all feasible alternatives sites and alignments have been explored through a satisfactory Environmental Assessment process, comprehensive environmental study or equivalent technical report;
b) the control of flooding, erosion, dynamic beaches or unstable soil and bedrock will not be affected;
c) it must be demonstrated that 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;
d) a more detailed site-specific study (i.e., a geotechnical study) is conducted to determine a more precise flood hazard limit(s) in accordance with the Ministry of Natural Resources "Technical Guide – River & Stream Systems: Erosion Hazard Limit" (2002) and demonstrates how impacts to the flood hazard will be mitigated to ensure that there is no impact on existing and future slope stability and that the infrastructure or utility will not prevent access into and through the valley in order to undertake preventative actions or maintenance or during an emergency; and
e) the application is for public utilities, municipal services or provincial services in which, in the opinion of the Authority, the public benefit is seen to outweigh the consideration of the general policies in Section 3.6.

N.B.: Where infrastructure is permitted within hazardous lands or hazardous sites, an environmental monitoring and contingency plan may be required to address potential emergencies during construction and operation.

Fill Placement, Excavation and/or Grade Modifications

5.5.5 New fill placement, excavation and/or grade modifications will not be permitted in a dynamic beach hazard.

5.5.6 Fill placement for the purposes of shoreline erosion protection cannot result in an increase in developable space, or a reduced setback from any flood, erosion or dynamic beach hazard. Further, additional policies in S. 5.5.13-5.5.14 must be met for the purposes of shoreline erosion protection.

5.5.5 Fill placement, excavation, and/or grade modifications associated with: existing access roads and driveways; required for the purpose of flood protection; and/or, to facilitate the installation of geothermal, sewage systems and wells within the shoreline flood, erosion and/or dynamic beach hazard may be permitted provided it can be demonstrated through appropriate technical reports (e.g., topographic survey, geotechnical study) that the control of flooding, erosion, dynamic beaches or unstable soil and bedrock, will not be affected. Further, it must be demonstrated that 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:

a) there is no feasible alternative site outside of the hazard or, in the event that there is no feasible alternative site, that the proposed development activity is located in an area of least (and acceptable) risk;
b) there is no impact on existing and future slope stability;
c) the provisions of safe access are met;
d) flood protection, bank stabilization or erosion protection works are not required;
e) fill placement will have no negative impacts on natural processes;
f) the potential for surficial erosion has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/restoration plans;
g) natural features and/or hydrological functions contributing to the functions of wetlands and flooding hazards have been adequately addressed. Where placement of fill could affect the hydrology of valley land, escarpment or other sensitive areas,

vegetation, or slope stability, an Environmental Impact Study/Geo-technical Analysis/Hydrological Assessment may be required at the discretion of the Authority;

h) fill placement will not prevent access in order to undertake preventative actions/maintenance or during an emergency;
i) excavation of a slope/bluff/or bank in the erosion hazard
j) the plan has been carried out by a qualified professional with recognized expertise in the appropriate discipline and must be prepared using established procedures and recognized methodologies to the satisfaction of QC;
k) inert fill material will be used. The proponent may be required to provide proof of the origin and quality of the fill material to ensure the control of pollution and the is not impacted; and
l) the flood and erosion susceptibility of existing structures or adjacent properties will not be impacted.

5.5.6 Fill placement in the shoreline flood, erosion and/or dynamic beach hazard associated with a new septic system will not be permitted.

5.5.7 Fill placement associated with the replacement of an existing septic system in the shoreline flood, erosion and/or dynamic beach hazard may be permitted provided the conditions in Section 5.5.5 are met and that:

a) the system be located outside of the hazard where possible, and only permitted within the hazard subject to being located in the area of lowest risk;
b) the sewage system must meet QC's flood proofing standards found in Appendix E, and QC may request a technical study to ensure that the system will not have an impact on the control of flooding; and
c) the system is servicing an existing dwelling.

5.5.8 In general, excavated well installation within the shoreline flood, erosion and/or dynamic beach hazard shall not be permitted. Drilled wells do not require a permit.

5.5.9 Repairs associated with a well located in the shoreline flood, erosion and/or dynamic beach hazard will be permitted provided the conditions in Section 5.5.5 are met and that:

a) the well be located outside of the hazard where possible, and only permitted within the hazard subject to being located in the area of lowest risk;

b) the well must meet QC's flood proofing standards found in Appendix C, and QC may request a technical study to ensure that the system will not have an impact on the control of flooding; and
c) the well is servicing an existing dwelling.

5.5.10 Development activity, including excavation and/or placement or removal of fill, associated with the construction of a driveway or access way through the shoreline flood, erosion and/or dynamic beach hazard in order to provide access to lands outside of the hazard or to provide access to water shall not be permitted.

5.5.11 Flood plain storage compensation (balanced cut and fill as per the definition in Appendix A) is not permitted in the shoreline erosion or dynamic beach hazard.

5.5.12 In specific situations a balanced cut and fill operation (as defined in Appendix A) may be proposed to adjust the regulatory floodplain within the shoreline flood hazard for development. These proposals must be completed by a qualified professional and in addition to meeting the requirements in Appendix E (Guidelines for Balanced Cut and Fill Projects) the following criteria for an application must be met:

a) Policy 3.6.11 must be met;
b) the available volume at each type of floodplain storage (active and passive) be maintained at flood frequencies for all storm events up to and including the Regulatory flood;
c) the operation must satisfy the criteria for a stable slope, preferably 3:1 or flatter;
d) adequate overland flow routes in local drainage networks must be maintained;
e) the proposed fill is not susceptible to erosion by ice and/or water; and
f) compliance with these requirements shall be demonstrated by means of hydraulic computations completed to the satisfaction of QC.

N.B. Permitted fill placement, excavation and/or grade modifications may be seasonally restricted and subject to a specified time frame to enable stabilization/re-vegetation of the disturbed area. Where placement of fill, excavation and/or grade modifications, could impact slope stability, a Geo-technical Analysis/Hydrogeological Assessment may be required to be completed to the satisfaction of QC staff. The analysis must demonstrate that the proposal is hydrologically sound and will not impact natural hazards, watercourses and wetlands.

Shoreline Erosion Protection

5.5.13 Shoreline, bank, slope and valley stabilization is not permitted in a shoreline dynamic beach hazard.

5.5.14 Shoreline, bank, slope and valley stabilization to protect existing development and conservation or restoration projects may be permitted within the shoreline flood and/or erosion hazard subject to the activity being approved through a satisfactory coastal engineering review and/or design and/or if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, or unstable soil and bedrock, or the will not be affected. This type of work is also subject to Policy 7.4.21 on erosion protection in watercourses. The application must demonstrate that there is active erosion present and that the work is not for aesthetics only. Submitted plans must also demonstrate that:

a) alignment or realignment of the shoreline must not result in significant negative effects on lake/river hydraulics or shoreline processes;
b) the erosion protection shall not result in an increase in developable space, or a reduced setback from any flood, erosion or dynamic beach hazard;
c) transitions from proposed protection to adjacent shorelines must be designed so that local erosion, debris accumulation or undesirable changes in local currents will not occur;
d) where shoreline proposals are in the vicinity of marginally stable or unstable slopes, professional geo-technical engineering input may be required, at the Authority's discretion;
e) where shoreline proposals are adjacent to Lake Ontario, professional coastal engineering input may be required, at the Authority's discretion;
f) Quinte Conservation will promote the use of soft, environmentally friendly natural shoreline protection measures. Therefore, new proposals for hard structural shoreline protection measures such as wooden, steel, or concrete walls are generally not permitted. The repair or replacement of an existing hard wall structure will be considered if alternative soft measures are not considered to be practical (Motion QC 36/06). Where it has been demonstrated that bioengineering solutions have been considered and are deemed not appropriate or insufficient, hardened surfaces (e.g. sloped rock) may be considered however, the shoreline/bank stabilization technique employed cannot result in an exclusively vertical structure; and
g) shoreline projects cannot result in a net reduction in flood storage capacity.

N.B. “as built” drawings/surveys may be required to be submitted following completion of the project.

The Authority's review of shoreline protection/improvement applications shall be conducted in cooperation with any other applicable agencies.

Docks/Boat Lifts/Boathouses

5.5.15 New permanent docks and structures are not permitted in the shoreline flood or dynamic beach hazard.

5.5.16 Floating docks, cantilever docks and removable docks do not require a permit unless there is a shoreline alteration proposed to anchor the dock to land. The anchor/abutment will require a permit and may be allowed within the floodplain, provided it is placed above the high water mark.

5.5.17 Boat lifts and marine railways may require a permit.

5.5.18 Repairs within the existing footprint to existing permanent docks and boathouses, that meet the definition outlined in Appendix A, may be permitted within the shoreline flood hazard if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, or unstable soil and bedrock or the will not be affected, and the boathouse is constructed as a single storey with no habitable space.

5.5.19 Additions and/or expansions of existing permanent docks and boathouses, that meet the definition outlined in Appendix A, located in the shoreline flood hazard will not be permitted.

Passive Low-Intensity Recreational Uses and Conservation Activities

5.5.20 Development activity associated with new public parks (e.g. passive or low intensity outdoor recreation and education, trail systems), outdoor recreation and education, trail systems, watercourse access points or conservation activities are not permitted in the shoreline flood, erosion and/or dynamic beach hazard.

5.5.21 Development activity associated with existing public parks (e.g. passive or low intensity outdoor recreation and education, trail systems), outdoor recreation and

education, trail systems, watercourse access points or conservation activities may be permitted within the shoreline flood hazard if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, or unstable soil and bedrock will not be affected and that:

a) there is no feasible alternative to locate the development activity outside of the hazard and that the development activity will be located in an area of least (and acceptable) risk as determined through appropriate technical reports (e.g., topographic survey, geotechnical study);
b) the use will not prevent access in order to undertake preventative actions or maintenance or during an emergency; and,
c) the potential for flooding has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/restoration plans.

5.6 DEVELOPMENT ACTIVITY WITHIN THE ALLOWANCE OF THE FLOOD HAZARD

As mentioned in S. 5.1.1 the flood hazard is comprised of the 100-year static elevation and a 15m allowance to account for wave uprush and other water related hazards. While new development is generally not approved within the flood hazard some types of development are permitted within the allowance.

It is the policy of QC that:

5.6.1 New habitable development is not permitted in the allowance of the shoreline flood hazard.

5.6.2 New development activity associated with existing habitable structures may be permitted within the allowance of the shoreline flood hazard if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, dynamic beaches or unstable soil and bedrock will not be affected. Further, it must be demonstrated that 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. The submitted plans must also demonstrated that:

a) development activity does not aggravate the flood, erosion or dynamic beach hazard or create a new one;

b) development activity does not impede access for emergency works, maintenance, and evacuation;
c) safe access is present;
d) floodproofing will be undertaken in accordance with floodproofing standards identified in Appendix C – Floodproofing Guidelines;
e) for reconstruction of habitable buildings or structures, including enclosing existing open decks, located within the allowance, the new building or structure is constructed in the same location as the original building or structure provided that there are no reasonable alternatives to locate the new building or structure outside of the required setback, and the new building or structure cannot encroach further into the allowance than the original building or structure. Enclosing an open deck will only be permitted provided it does not result in habitable space encroaching further into the allowance;
f) for additions to existing habitable buildings located within the allowance the addition cannot encroach further into the allowance than the original building or structure;
g) there is no change in use to the structure as a result of reconstruction or an addition
h) the potential for surficial erosion has been addressed through proper drainage, erosion and sediment control and site stabilization/ restoration plans;
i) the hydrologic functions associated with adjacent wetlands are protected; and
j) the plan has been carried out by a qualified professional with recognized expertise in the appropriate discipline and must be prepared using established procedures and recognized methodologies to the satisfaction of QC.

5.6.3 Non-habitable development activity may be permitted within the allowance of the shoreline flood hazard if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, dynamic beaches unstable soil and bedrock will not be affected. Further, it must be demonstrated that 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. The submitted plans must also demonstrated that:

a) development activity does not aggravate the flood hazard or create a new one;
b) development activity does not impede access for emergency works, maintenance, and evacuation;
c) floodproofing will be undertaken in accordance with floodproofing standards identified in Appendix C – Floodproofing Guidelines;
d) for reconstruction of non-habitable structures, including enclosing existing open decks, located within the allowance, the new structure is constructed in the same

location as the original structure provided that there are no reasonable alternatives to locate the structure outside of the required setback, and the new building or structure cannot encroach further into the allowance than the original structure. Enclosing an open deck will only be permitted provided it does not result in development activity encroaching into the allowance;

e) for additions to existing non-habitable structures located within the allowance the addition cannot encroach further into the allowance than the original structure;
f) there is no change in use to the structure as a result of reconstruction or an addition. The conversion of non-habitable space to habitable space will not be permitted
g) the potential for surficial erosion has been addressed through proper drainage, erosion and sediment control and site stabilization/ restoration plans; and
h) the plan has been carried out by a qualified professional with recognized expertise in the appropriate discipline and must be prepared using established procedures and recognized methodologies to the satisfaction of QC.

5.6.4 Infilling within the allowance along the shoreline of the flood hazard on a small vacant lot of record may be permitted within the established building line in situations where the setback seems unreasonable and due to a lack of space; and where site lines are restricted; safe access exists to the property; the dwelling does not encroach closer to the hazard than what exists within the established building line (i.e. neighbour's dwelling); and a minimum 6 metre setback from the flood, erosion and/or dynamic beach hazard is maintained.

5.6.5 The following may be permitted to encroach further into the allowance of the shoreline flood hazard than established development if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, dynamic beaches or unstable soil and bedrock will not be affected. Further, it must be demonstrated that 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. Additionally at a minimum the 6 metre access allowance setback from the 100 year flood elevation is met:

a) open decks;
b) swimming pools, in-ground or above-ground, inclusive of all fencing and landscaping;
c) dug well, drilled wells;
d) importation of fill for the repair/replacement of sewage systems provided the sewage system meets Ontario Building Code standards; and
e) stormwater management facilities.

5.6.6 The following may be permitted to encroach farther into the allowance of the shoreline flood hazard than established development if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, dynamic beaches or unstable soil and bedrock will not be affected. Further, it must be demonstrated that 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. The 6m access allowance setback is not required for this development activity however development activity cannot be located within the 100 year flood elevation:

a) concrete abutments or anchors for docks;
b) boat houses that conform to the definition of a boat house as described in Appendix A; and
c) repairs to existing water access points or structures (i.e. stairs) provided the footprint is maintained and there is no expansion or change in use.

5.7 DEVELOPMENT ACTIVITY WITHIN THE ALLOWANCE OF THE SHORELINE EROSION HAZARD

As mentioned in S. 5.1.2, the erosion hazard is comprised of the limit of the landward extent of the stable slope measured from the existing or unprotected toe of slope, plus the limit of the 100-year erosion rate. A 6m access allowance is measured from the limit of the erosion hazard and new development is generally not approved in the access allowance. Development associated with existing structures, or development which by it's nature must be located in the erosion hazard (i.e. shoreline protection) may, however, be permitted.

It is the policy of QC that:

5.7.1 New habitable development is not permitted in the allowance to the shoreline erosion hazard. This includes additions to an existing structure or an increase in size as a result of re-construction of an existing structure.

5.7.2 New development activity associated with existing habitable structures may be permitted within the allowance of the shoreline erosion hazard if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, dynamic beaches or unstable soil and bedrock will not be affected. Further, it must be demonstrated that 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. The submitted plans must also demonstrated that:

a) development activity does not aggravate the flood, erosion or dynamic beach hazard or create a new one;
b) development activity does not impede access for emergency works, maintenance, and evacuation
c) safe access is present;
d) floodproofing will be undertaken in accordance with floodproofing standards identified in Appendix C – Floodproofing Guidelines;
e) for reconstruction of habitable buildings or structures, including enclosing existing open decks, located within the allowance, the new building or structure is constructed in the same location as the original building or structure provided that there are no reasonable alternatives to locate the new building or structure outside of the required setback, and the new building or structure cannot encroach further into the allowance than the original building or structure. Enclosing an open deck will only be permitted provided it does not result in habitable space encroaching further into the allowance
f) for additions to existing habitable buildings located within the allowance the addition cannot encroach further into the allowance than the original building or structure;
g) there is no change in use to the structure as a result of reconstruction or an addition
h) the potential for surficial erosion has been addressed through proper drainage, erosion and sediment control and site stabilization/ restoration plans
i) the natural features and/or ecological functions associated with are protected, pollution is prevented, and erosion hazards have been adequately addressed; an
j) the plan has been carried out by a qualified professional with recognized expertise in the appropriate discipline and must be prepared using established procedures and recognized methodologies to the satisfaction of QC.

5.7.3 Non-habitable development activity may be permitted within the allowance of the shoreline erosion hazard if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, dynamic beaches unstable soil and bedrock will not be affected. Further, it must be demonstrated that 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. The submitted plans must also demonstrated that:

a) development activity does not aggravate the flood hazard or create a new one;

b) development activity does not impede access for emergency works, maintenance, and evacuation;
c) floodproofing will be undertaken in accordance with floodproofing standards identified in Appendix E – Floodproofing Guidelines;
d) for reconstruction of non-habitable structures, including enclosing existing open decks, located within the allowance, the new structure is constructed in the same location as the original structure provided that there are no reasonable alternatives to locate the structure outside of the required setback, and the new building or structure cannot encroach further into the allowance than the original structure. Enclosing an open deck will only be permitted provided it does not result in development activity encroaching into the allowance
e) for additions to existing non-habitable structures located within the allowance the addition cannot encroach further into the allowance than the original structure;
f) there is no change in use to the structure as a result of reconstruction or an addition. The conversion of non-habitable space to habitable space will not be permitted
g) the potential for surficial erosion has been addressed through proper drainage, erosion and sediment control and site stabilization/ restoration plans
h) the hydrologic functions associated with adjacent wetlands are protected; and
i) the plan has been carried out by a qualified professional with recognized expertise in the appropriate discipline and must be prepared using established procedures and recognized methodologies to the satisfaction of QC.

5.7.4 The following may be permitted to encroach farther into the setback to the shoreline erosion hazard than established development if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, dynamic beaches or unstable soil and bedrock will not be affected. Further, it must be demonstrated that 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. The 6m access allowance setback is not required for this development:

a) concrete abutments or anchors for docks
b) boat houses that conform to the definition of a boat house as described in Appendix A; and
c) repairs to existing water access points or structures (i.e. stairs) provided the footprint is maintained and there is no expansion or change in use.

5.8 DEVELOPMENT ACTIVITY WITHIN THE ALLOWANCE OF THE DYNAMIC BEACH HAZARD

As mentioned in S. 5.1.3, the dynamic beach hazard is comprised of the limit of the landward extent f the 100-year flood elevation limit, plus an allowance for wave uprush and other water related hazards, plus the dynamic beach allowance. The allowance for wave uprush and other water related hazards is 15m and the dynamic beach allowance is 30m. A 6m access allowance is measured from the limit of the dynamic beach hazard. New development is generally not permitted in the access allowance. Development associated with existing structures may be permitted subject to the following policies.

It is the policy of QC that:

5.8.1 New habitable development is not permitted in the allowance of a shoreline dynamic beach hazard.

5.8.2 New development activity associated with existing habitable structures may be permitted within the allowance of the shoreline dynamic beach hazard if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, dynamic beaches or unstable soil and bedrock will not be affected. Further, it must be demonstrated that 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. The submitted plans must also demonstrated that:

a) development activity does not aggravate the flood, erosion or dynamic beach hazard or create a new one;
b) development activity does not impede access for emergency works, maintenance, and evacuation;
c) safe access is present;
d) floodproofing will be undertaken in accordance with floodproofing standards identified in Appendix C – Floodproofing Guidelines;
e) for reconstruction of habitable buildings or structures, including enclosing existing open decks, located within the allowance, the new building or structure is constructed in the same location as the original building or structure provided that there are no reasonable alternatives to locate the new building or structure outside of the required setback, and the new building or structure cannot encroach further into

the allowance than the original building or structure. Enclosing an open deck will only be permitted provided it does not result in habitable space encroaching further into the allowance;

f) for additions to existing habitable buildings located within the allowance the addition cannot encroach further into the allowance than the original building or structure;
g) there is no change in use to the structure as a result of reconstruction or an addition
h) the potential for surficial erosion has been addressed through proper drainage, erosion and sediment control and site stabilization/ restoration plans;
i) the natural features and/or ecological functions associated with are protected, pollution is prevented, and erosion hazards have been adequately addressed; and
j) the plan has been carried out by a qualified professional with recognized expertise in the appropriate discipline and must be prepared using established procedures and recognized methodologies to the satisfaction of QC.

5.8.3 Non-habitable development activity may be permitted within the allowance of the shoreline dynamic beach hazard if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, dynamic beaches unstable soil and bedrock will not be affected. Further, it must be demonstrated that 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. The submitted plans must also demonstrated that:

a) development activity does not aggravate the flood hazard or create a new one;
b) development activity does not impede access for emergency works, maintenance, and evacuation;
c) floodproofing will be undertaken in accordance with floodproofing standards identified in Appendix E – Floodproofing Guidelines;
d) for reconstruction of non-habitable structures, including enclosing existing open decks, located within the allowance, the new structure is constructed in the same location as the original structure provided that there are no reasonable alternatives to locate the structure outside of the required setback, and the new building or structure cannot encroach further into the allowance than the original structure. Enclosing an open deck will only be permitted provided it does not result in development activity encroaching into the allowance;
e) for additions to existing non-habitable structures located within the allowance the addition cannot encroach further into the allowance than the original structure;
f) there is no change in use to the structure as a result of reconstruction or an addition. The conversion of non-habitable space to habitable space will not be permitted;

g) the potential for surficial erosion has been addressed through proper drainage, erosion and sediment control and site stabilization/ restoration plans;
h) the hydrologic functions associated with adjacent wetlands are protected; and
i) the plan has been carried out by a qualified professional with recognized expertise in the appropriate discipline and must be prepared using established procedures and recognized methodologies to the satisfaction of QC.

5.8.4 The 6m access allowance setback is not required for this development activity:

a) concrete abutments or anchors for docks.

6.0 HAZARDOUS LANDS

A brief overview of hazardous lands is provided below. A more thorough discussion can be found in Appendix B.

6.1 DEFINING HAZARDOUS LANDS AND THE ASSOCIATED REGULATED AREA

Hazardous Lands are defined in the *CA Act* as land that could be unsafe for development because of naturally occurring processes associated with flooding, erosion, dynamic beaches and/or unstable soil or bedrock. If the activity is located within unstable soil and/or unstable bedrock hazardous lands, then this chapter applies, otherwise refer to Section 4 - Lake Ontario-St. Lawrence River Shoreline and Inland Lakes and Section 5 - River and Stream Valleys for policies on other hazards including flooding, erosion and dynamic beaches.

Any development activity within hazardous lands requires permission from QC.

6.2 IDENTIFICATION OF THE HAZARD LIMIT – UNSTABLE SOIL OR BEDROCK

In cases where development is proposed within or adjacent to hazardous lands associated with unstable soil or unstable bedrock, QC will require that the applicant (or agent) provide appropriate technical reports identifying a precise boundary associated with the limit of the unstable soil or bedrock to the satisfaction of QC. The QC Karst (Unstable Bedrock) Investigation Guidelines (2023) should be consulted to ensure Karst verification and boundary delineation is completed appropriately.

6.3 DEFINING THE REGULATED AREA ASSOCIATED WITH UNSTABLE SOILS OR BEDROCK

Due to the specific nature of areas of unstable soil or unstable bedrock, it is difficult to identify these hazards. The potential for catastrophic failures in some areas of unstable soil and unstable bedrock warrant site specific studies to determine the extent of these

hazardous lands, and therefore the appropriate limits of the hazard and Regulation Limits. The regulated area is based on the conclusions and recommendations of such studies.

Development within areas deemed as hazardous is considered through the "development" provision of the Regulation. Activities proposed within unstable soil and unstable bedrock hazardous lands must therefore meet the definition of "development" in the *CA Act* to be regulated.

6.3.1 UNSTABLE SOIL

Unstable soil includes but is not necessarily limited to areas identified as containing sensitive marine clays (e.g. leda clays) or organic soils (MNRF & CO, 2005).

6.3.1.1 SENSITIVE MARINE CLAYS (LEDA CLAY)

Sensitive marine clays, also known as leda clays, are clays that were deposited as sediment during the last glacial period in the Champlain Sea. Undisturbed, the clays can appear as solid and stable. But when disturbed by excessive vibration, shock or when they become saturated with water, the clays can turn to liquid (MNRF, 2001). The resulting failures or earthflows can be sudden and catastrophic.

Sensitive marine clays are restricted to specific locations in the province, however, are not restricted to just along rivers and streams. In addition to the mapping that individual CAs may have developed or obtained, information is also available from Geological Survey of Canada and the MNRF.

To determine Regulation Limits, it is recommended that site specific studies be undertaken to determine the full extent of the sensitive marine clays and their full potential for retrogressive failures. While useful standards for defining the limits of the hazardous lands are provided within the "Understanding Natural Hazards" (MNRF, 2001) document and Hazardous Sites Technical Guide (MNRF, 1996a), it is crucial to recognize that these standards only address a first occurrence of slope failure. As such, the Guidelines for Developing Schedules of Regulated Areas recommend the use of a site/area specific study in defining the appropriate hazard (and therefore the Regulation Limit) to account for the potential of subsequent failures.

Section 3.0 of the Hazardous Sites Technical Guide (MNRF, 1996a) provides important guidance with respect to assessing marine sensitive clays and the potential for development within this type of hazardous lands.

6.3.1.2 ORGANIC SOILS

Organic soils are normally formed by the decomposition of vegetative and organic materials into humus, a process known as humification. A soil is organic when the percentage weight loss of the soil, when heated, is five to eighty per cent (MNRF, 2001).

As a result, organic soils can cover a wide variety of soil types. Peat soils, however, are the most common type of organic soil in Ontario. Therefore, a CA's wetland inventory may provide guidance in the location of organic soils. In addition, maps by the Geological Survey of Canada, MNRF, Ministry of Northern Development & Mines, and the Ministry of Agriculture, Food and Rural Affairs may provide additional information on the location of organic soils.

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. As such, assessment of development potential in areas of organic soils is site specific. Section 4.0 of the Hazardous Sites Technical Guide (MNRF, 1996a) provides important guidance in this regard.

6.3.2 UNSTABLE BEDROCK

Unstable bedrock includes but is not necessarily limited to areas identified as karst formations. Karst formations may be present in limestone or dolomite bedrock, and are extremely variable in nature. Local, site-specific studies are required for identifying karst formations. Air photo interpretation of surface features such as sink holes may provide an indication of karst formations (MNRF and CO, 2005).

As with unstable soils, the potential for development to be undertaken safely in an area of unstable bedrock is site specific. Section 5.0 of the Hazardous Sites Technical Guide (MNRF, 1996a) provides important guidance in this regard. Should Karst be identified on site, proponents should refer to the Karst (Unstable Bedrock) Investigative Guidelines (2024) in Appendix G for further information on study requirements.

The regulated area associated with unstable soil or bedrock includes the maximum extent of the unstable soil or bedrock. Any development on unstable soil or unstable bedrock requires permission from QC.

6.4 LEGISLATIVE AUTHORITY

The current legislative structure embeds requirements for the administration of s. 28 in both the CA Act and O. Reg 41/24 CA staff and their legal counsel must refer to both pieces of legislation to make decisions and develop policies and guidelines related to s. 28 permit applications.

Conservation Authorities Act
The CA Act contains the following sections dealing with watercourses:

Activities prohibited (Prohibited activities re watercourses, wetlands, etc.)
28 (1) *No person shall carry on the following activities, or permit another person to carry on the following activities, in the area of jurisdiction of an authority: ...*
3. Development activities in areas that are within the authority's area of jurisdiction and are, ...
i. hazardous lands, ..., or

Permits
28.1 *(1) An Authority may issue a permit to a person to engage in an activity specified In the permit that would otherwise be prohibited by section 28, if, in the opinion of the authority,*
a) the activity is not likely to affect the control of flooding, erosion, dynamic beaches or unstable soil or bedrock; and
b) 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; ...

The permit shall be given in writing, with or without conditions.

Ontario Regulation 41/24
The Authority may grant a permit for development activity in or on Hazardous Lands subject to the tests or criteria in the CA Act. The Regulation contains the following definition for hazardous lands.

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

Sections 4.0 – 8.0 also provide policy guidance on some of the natural hazards included in the definition of hazardous lands.

6.5 GENERAL POLICIES FOR UNSTABLE SOILS OR BEDROCK HAZARDS

The policies in this section are to be applied in conjunction with the General Policies in Section 3.6. As per Policy 3.6.1, development will not be permitted within the regulated area associated with a unstable soils or bedrock of an apparent river or stream valley or the meander belt of a non-apparent valley, except in accordance with the policies contained in this section.

It is the policy of QC that:

6.5.1 Development activity within hazardous lands associated with unstable soils or unstable bedrock shall not be permitted;

6.5.2 In general, stabilization works to allow for future/proposed development or an increase in development envelope or area within hazardous lands associated with unstable soils or unstable bedrock shall not be permitted;

6.5.3 Development activity associated with new and/or the expansion of existing trailer parks/campgrounds within hazardous lands associated with unstable soils or unstable bedrock shall not be permitted;

6.5.4 Stormwater management facilities within hazardous lands associated with unstable soils or unstable bedrock shall not be permitted;

6.5.5 New basements within the hazardous lands associated with unstable soils or unstable bedrock shall not be permitted;

6.5.6 In general, underground and above-ground parking structures within hazardous lands associated with unstable soils or unstable bedrock shall not be permitted;

6.5.7 Redevelopment of derelict and abandoned buildings within hazardous lands associated with unstable soils or unstable bedrock shall not be permitted. An

abandoned building is one that has been unused for its intended purpose for 5 or more years.

6.5.8 Development activity shall be prohibited within hazardous lands associated with unstable soils or unstable bedrock where the use is:

a) an institutional use associated with hospitals, nursing homes, preschool, school nurseries, day care and schools, where there is a threat to the safe evacuation of the sick, the elderly, persons with disabilities or the young during an emergency as a result of erosion and/or failure of protection works/measures;
b) an essential emergency service such as that provided by fire, police and ambulance stations and electrical substations which would be impaired during an emergency as result of erosion, or any other hazard associated with erosion and/or as a result of failure of protection works/measures; or
c) uses associated with the disposal, manufacture, treatment or storage of hazardous substances.

6.6 SPECIFIC POLICIES FOR UNSTABLE SOILS OR BEDROCK HAZARDS

The policies in this section are to be applied in conjunction with the General Policies in Section 3.6. As per Policy 3.6.1, development activity will not be permitted within the regulated area associated with hazardous lands associated with unstable soils or unstable bedrock, except in accordance with the policies contained in this section.

Structural Development

6.6.1 New structural development will not be permitted within hazardous lands associated with unstable soils or unstable bedrock regardless of any approvals previously obtained under the *Planning Act* or other regulatory process (e.g., *Building Code Act*).

6.6.2 Structural repairs, replacement or relocation of an existing building or structure recently (within 5 years) damaged or destroyed either by an accident or an Act of God (other than destruction caused by unstable bedrock) may be permitted within hazardous lands associated with unstable soils or unstable bedrock provided the applicant is advised of the risk to the building or structure and if it has been

demonstrated to the satisfaction of QC that the control of flooding, erosion, dynamic beaches or unstable soil or bedrock will not be affected. Further, it must be demonstrated that 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 that:

a) there is no feasible alternative site outside of the hazard;
b) the structure is not derelict, demolished or abandoned;
c) the building or structure does not exceed the original floor space, is of the same use, same square footage and same number of stories;
d) all hazards/risks associated with unstable soils or unstable bedrock have been adequately addressed;
e) the proposed works do not create new hazards or aggravate existing hazards;
f) the potential for surficial erosion has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/restoration plans;
g) development activity will not prevent access in order to undertake preventative actions/maintenance or during an emergency; and
h) the plan has been carried out by a qualified professional with recognized expertise in the appropriate discipline and must be prepared using established procedures and recognized methodologies to the satisfaction of QC.

Infrastructure

6.6.3 Public infrastructure (e.g. roads, sewers, flood and erosion control works) and various utilities (e.g. pipelines) may be permitted within hazardous lands associated with unstable soils or unstable bedrock where it has been demonstrated that:

a) all feasible alternatives sites and alignments have been explored through a satisfactory Environmental Assessment process, comprehensive environmental study or equivalent technical report;
b) the control of flooding, erosion or unstable soil and bedrock will not be affected;
c) a more detailed site-specific study (i.e., a geotechnical study) is conducted to determine a more precise unstable soils or bedrock limit(s) and demonstrates how the risks to public safety and the impacts to the hazard will be mitigated, if not included in the above plan(s); and
d) the infrastructure or utility will not prevent access in order to undertake preventative actions or maintenance or during an emergency.

Fill Placement, Excavation and/or Grade Modifications

6.6.4 Fill placement for new access routes will not be permitted within hazardous lands associated with unstable soil or unstable bedrock.

6.6.5 Fill placement, excavation, and/or grade modifications: associated with existing access roads and driveways; required for the purpose of flood protection; and/or, to facilitate the installation of geothermal, water and/or sewage systems and wells within hazardous lands associated with unstable soils or unstable bedrock may be permitted provided it can be demonstrated through appropriate technical reports (e.g. topographic survey, geotechnical study) that the control of flooding, erosion, or unstable soil and bedrock, dynamic beaches or the will not be affected. Further, it must be demonstrated that 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:

a) there is no feasible alternative site outside of the hazardous lands associated with unstable soils or unstable bedrock, in the event that there is no feasible alternative site, that the proposed development activity is located in an area of least (and acceptable) risk;
b) there is no impact on existing and future slope stability;
c) stabilization works are not required;
d) the stability of existing structures and/or adjacent properties will not be impacted;
e) the potential for surficial erosion has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/restoration plans;
f) natural features and/or ecological functions contributing to the are protected, pollution is prevented and flooding hazards have been adequately addressed;
g) fill placement will not prevent access in order to undertake preventative actions/maintenance or during an emergency;
h) the plan has been carried out by a qualified professional with recognized expertise in the appropriate discipline and must be prepared using established procedures and recognized methodologies to the satisfaction of QC; and
i) inert fill material will be used. The proponent may be required to provide proof of the origin and quality of the fill material to ensure the control of pollution and the is not impacted.

6.6.6 Fill placement associated with a new septic system will not be permitted.

6.6.7 Fill placement associated with the replacement of a septic system may be permitted provided the conditions in Section 6.6.5 are met and that:

a) the system be located outside of the hazardous lands associated with unstable soils or unstable bedrock regulatory flood plain where possible, and only permitted within the hazardous lands subject to being located in the area of lowest risk; and
b) the system is servicing an existing dwelling.

6.6.8 In general, excavated well installation within hazardous lands associated with unstable soils or unstable bedrock shall not be permitted. Drilled wells do not require a permit.

6.6.9 Repairs associated with a well located in hazardous lands associated with unstable soils or unstable bedrock will be permitted provided the conditions in Section 6.6.5 are met and that:

a) the system be located outside of the hazard where possible, and only permitted within the hazard subject to being located in the area of lowest risk;
b) the well must meet QC's flood proofing standards found in Appendix C, and QC may request a technical study to ensure that the system will not have an impact on the control of flooding; and
c) the well is servicing an existing dwelling.

6.6.10 New dug-out or isolated ponds* may be permitted within hazardous lands associated with unstable soils or unstable bedrock. The plans must demonstrate that:

a) the pond is not connected to a watercourse;
b) that proper construction techniques are used; and
c) that the proposed location for the pond does not have an adverse effect on any wetland or fish habitat.
d)

***Ponds for the purpose of watering livestock are not subject to Policy 6.6.3.7 as they are not subject to Ontario Regulation 167/06 in accordance with Section 28(10) of the *CA Act*.**

N.B.: Permitted fill placement, excavation and/or grade modifications may be seasonally restricted and subject to a specified time frame to enable stabilization/re-vegetation of the disturbed area.

Passive Low-Intensity Recreational Uses and Conservation Activities

6.6.11 Development activity associated with public parks (e.g. passive or low intensity outdoor recreation and education, trail systems), outdoor recreation and education, trail systems, watercourse access points or conservation activities may be permitted within hazardous lands associated with unstable soils or unstable bedrock if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion or unstable soil or bedrock will not be affected and that:

a) there is no feasible alternative to locate the development activity outside of the unstable soils or bedrock and that the development activity will be located in an area of least (and acceptable) risk as determined through appropriate technical reports (e.g. topographic survey, geotechnical study);
b) the use will not prevent access in order to undertake preventative actions or maintenance or during an emergency; and
c) the potential for bedrock failure has been addressed through the submission of technical documents completed by a qualified professional.

6.7 DEVELOPMENT ACTIVITY WITHIN THE ALLOWANCE (SETBACK) OF UNSTABLE SOILS OR UNSTABLE BEDROCK

As mentioned in Section 3.4 the guidelines for development within the setback to a hazard include a 6 metre access allowance. QC recommends that all development be setback a minimum of 6 metres from the hazardous lands associated with unstable soils or unstable bedrock provided the limit of the hazard has been accurately delineated by a qualified professional. Alternatively, an appropriate setback, greater than 6 metres, as identified by a qualified professional will be imposed.
It is the policy of QC that:

6.7.1 New development activity will not be permitted within the setback adjacent to hazardous lands associated with unstable soils or bedrock.

6.7.2 Development activity associated with existing structures/access roads may be permitted within the setback adjacent to hazardous lands associated with unstable soils or unstable bedrock provided it has been demonstrated to the satisfaction of

QC that the control of flooding, erosion or will not be affected. The submitted plans should demonstrate that:

a) development activity does not create or aggravate the existing hazard;
b) development activity is set back a sufficient distance from the hazard to avoid increases in loading forces on the top of the hazard;
c) for reconstruction of buildings or structures located within the setback allowance, the new building or structure is constructed in the same location as the original building or structure provided that there are no reasonable alternatives to locate the new building or structure outside of the required setback, and the new building or structure cannot encroach further into the setback from the unstable soils or bedrock than the original building or structure and must maintain the same footprint and square footage;
d) development activity does not change drainage or vegetation patterns that would compromise slope stability or exacerbate erosion of the slope face;
e) development activity will not prevent access to and along the hazard in order to undertake preventative actions/maintenance or during an emergency;
f) the potential for surficial erosion has been addressed through proper drainage, erosion and sediment control and site stabilization/restoration plans;
g) the hydrologic functions associated with adjacent wetlands are protected; and
h) the plan is carried out by a qualified professional with recognized expertise in the appropriate discipline and must be prepared using established procedures and recognized methodologies to the satisfaction of the CA.

N.B. Where development activity is proposed and the extent of the hazardous lands associated with unstable soils or unstable bedrock is unknown, QC will require a technical study, completed by a qualified professional, to determine the extent of the hazard. These studies are completed at the applicant's expense and must be completed to the satisfaction of QC.

7.0 WATERCOURSES

A brief overview of watercourses is provided below. A more thorough discussion can be found in Appendix B.

7.1 DISCUSSION OF WATERCOURSES

As identified earlier in this document, watercourse means "a defined channel, having a bed and banks or sides, in which a flow of water regularly or continuously occurs". These policies must be read in conjunction with the River or Stream Valleys section.

To provide guidance in the Regulation of watercourses, it is necessary to highlight the functions of watercourses.

Watercourses are dynamic, living systems with complex processes that are constantly undergoing change. The structure and function of watercourses are influenced by channel morphology, sediment characteristics (soil type, bedrock, and substrate characteristics) and the nature of the riparian vegetation both on the overbank and rooted in the bed of the watercourse. Any changes to one of these influences can have significant impacts upon other parts of the system. One of the key influences on the structure and function of a watercourse is related to the hydrology of the stream and its normal hydrograph. Changes in the volume, peaks and timing of flows can significantly impact the stream morphology, sediment transport and even riparian vegetation.

Changes to channel morphology reduce the ability of the watercourse to process sediment causing erosion and changing the amount or size of bed load being moved. Loss of riparian vegetation results in more pollutants and run-off being transferred from the land to the water, impacting water quality and flooding downstream reaches. These changes, in turn, degrade near shore and aquatic habitat and impair the watercourse for human use.

Naturalized shorelines with an abundance of vegetation provide erosion protection by assisting with the mitigation of surface runoff. Plant and tree root systems also play a role in binding the soil in place preventing further erosion of earthen material that is often lost due to natural processes such as wave action or changes in water level.

Applicants and their agents should be advised that where any in water or near water works are being proposed, there may be restrictions relating to the timing of activities (e.g. Seasonal restrictions) that may be required by MNRF and/or Fisheries and Oceans Canada.

Permits and/or authorization may also be required from the MNRF and DFO.

7.2 LEGISLATIVE AUTHORITY

The current legislative structure embeds requirements for the administration of s. 28 in both the CA Act and O. Reg. 41/24. CA staff and their legal counsel must refer to both pieces of legislation to make decisions and develop policies and guidelines related to s. 28 permit applications.

Conservation Authorities Act
The CA Act contains the following sections dealing with watercourses.

Activities prohibited (Prohibited activities re watercourses, wetlands, etc.)
28 *(1) No person shall carry on the following activities, or permit another person to carry on the following activities, in the area of jurisdiction of an authority:*
1. Activities to straighten, change, divert or interfere in any way with the existing channel of a river, reek, 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, ...
iii. river or stream valleys the limits of which shall be determined in accordance with the regulations, ..., or

Permits *(for activities to straighten, change, divert or interfere in any way with the existing channel of a river, creek, stream or watercourse)*
28.1 *(1) An Authority may issue a permit to a person to engage in an activity specified in the permit that would otherwise be prohibited by section 28, if, in the opinion of the authority,*
a) the activity is not likely to affect the control of flooding, erosion, dynamic beaches or unstable soil or bedrock; and

b) 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; ..."

The permit shall be given in writing, with or without conditions.

Ontario Regulation 41/24
Ontario Regulation 41/24 includes the following definition of a watercourse:

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

7.3 GENERAL POLICIES FOR WATERCOURSES

The term "interference" below includes all alterations mentioned within the individual CA Regulations (straighten, change, divert or interfere in any way).

It is the policy of QC that:

7.3.1 In general, interference and alteration with a watercourse shall not be permitted.

7.3.2 In general, proposals for channelization and/or realignment will not be considered where the purpose of the proposal is to increase the development potential of the lands.

7.4 SPECIFIC POLICIES FOR WATERCOURSES

The policies in this section are to be applied in conjunction with the General Policies in Section 3.6.

In each policy noted below, the activity may be permitted subject to the applicant providing complete studies and plans that demonstrate to the satisfaction of QC that the activity will not affect the control of flooding, erosion, dynamic beaches or unstable soil or bedrock; and 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. Technical studies should be carried out by a qualified professional, with recognized expertise in the appropriate discipline, and should be prepared using established procedures and recognized methodologies to the satisfaction of QC.

It is the policy of QC that:

Crossings

7.4.1 Crossings include but are not limited to: bridges, culverts, and causeways, and may be permitted to be constructed, replaced or upgraded if it has been demonstrated to the satisfaction of QC that the interference on the natural features and the hydrologic functions of the watercourse has been deemed acceptable and subject to the following:

a) in the case of public infrastructure, all feasible alternative sites and alignments have been considered through an approved Environmental Assessment, or other comprehensive plan, where applicable, or in the case of replacements and/or upgrades, the crossing design is engineered through site-specific studies;

b) in the case of private infrastructure, all feasible alternative sites and alignments have been considered and, crossing design engineered through site-specific studies with the possible exception of temporary crossings based on the structural scale and scope, and the purpose of the temporary crossing;

and, in either instance a) or b), where it can be demonstrated that:

i. culverts have an open bottom where it is feasible, or where it is not feasible, the culverts should be appropriately embedded into the watercourse;

ii. crossing location, width, and alignment should be compatible with stream morphology, which typically requires location of the crossing on a straight and shallow/riffle reach of the watercourse with the crossing situated at right angles to the watercourse;

iii. crossings are located to take advantage of existing impacted or open areas on the channel bank or valley slope, wherever possible;

iv. crossing structures avoid the erosion hazard in order to accommodate natural watercourse movement;

v. the risk of flood damage to upstream or downstream properties is reduced through site and crossing design;

vi. the design encourages fish passage where possible;

vii. interference with hydraulic and hydrologic function (e.g., water quality and quantity control) is minimized and it can be demonstrated that best management practices including site and crossing design and appropriate remedial measures will mitigate disturbance to features and functions;

viii. the submitted plans should incorporate detailed information related to installation and sequencing;

ix. physical realignments or alterations to the river, creek, stream or watercourse channel associated with a new crossing are avoided or are in accordance with QC channelization policies that follow; and,
x. maintenance requirements are minimized.

7.4.2 Bed-level crossings will be permitted to be constructed, replaced or upgraded where it can be demonstrated that:

a) stable, non-erodible, rounded inorganic material is used;
b) crossings avoid any bends in the watercourse to the extent practical;
c) crossings are located to take advantage of existing impacted or open areas on the channel bank or valley slope, wherever possible;
d) the risk of flood damage to upstream or downstream properties is reduced through site and structure design;
e) design encourages fish passage where possible;
f) physical realignments or alterations to the river, creek, stream or watercourse channel associated with a new crossing are avoided or are in accordance with QC channelization policies that follow; and,
g) maintenance requirements are minimized.

Alterations and/or Maintenance of Existing Water Control Structures

7.4.3 Alterations and/or maintenance of existing water control structures will be permitted where it can be demonstrated that:

a) impacts on hydrologic functions (e.g. water quality and quantity control) are avoided or that site and structure design and appropriate remedial measures will mitigate and/or compensate for disturbance to features and functions;
b) there will be no adverse hydraulic or fluvial impacts;
c) there are no adverse impacts on the capacity of the structure to pass flows; and
d) the integrity of the original structure is maintained or improved.

7.4.4 Notwithstanding the above, where the alteration/maintenance will not affect the footprint or height of the existing water control structure and in the opinion of QC, would not affect the control of flooding, erosion or unstable soil and bedrock and would not result in changes to the capacity to pass river flows or impact on the integrity of the structure or in-water works, a permit will not be required.

7.4.5 Decommissioning of dams which are structurally unsound or no longer serve their intended purpose, located within a river, stream, creek or watercourse will be permitted provided a decommissioning plan demonstrates, at a minimum, that:

a) impacts on hydrologic functions (e.g. water quality and quantity control) within or adjacent to the river, creek, stream or watercourse will be avoided or that site and structure design and appropriate remedial measures will mitigate and/or compensate for disturbance to features and functions;
b) there will be no adverse hydraulic or fluvial impacts; and
c) the risk of pollution and sedimentation during and after retirement or removal is addressed through a draw down plan.

The MNRF is responsible for the approval of water control structures under the *Lakes & Rivers Improvement Act* (LRIA). Furthermore, dams are subject to various other pieces of legislation and regulations.

New In-Water Boathouses, Floating Dwellings/Structures and Permanent Docks

7.4.6 New in-water boathouses (for upland boathouses see Policy 4.5.5, 5.9.5, and 5.12.5), floating dwellings/structures and permanent docks that are within the channel of a watercourse will not be permitted.

Existing In-Water Boathouses, Structures and Permanent Docks

7.4.7 Repairs to existing in-water boathouses, structures and permanent docks may be permitted provided that the repairs:

a) do not impede the flow of water;
b) do not provide an opportunity for conversion into habitable space in the future (to ensure no habitable component, the boathouse/structure shall contain no services other than electricity);
c) maintain the existing footprint and do not result in a change in size;
d) do not result in a change in use;
e) rooftop patios must be within the footprint of the boathouse;
f) do not alter the natural contour of the shoreline; and
g) do not create a navigational hazard.

7.4.8 Repairs to the foundation of an existing boathouse or structure will be required to be designed by an appropriate and qualified professional (ie: an engineer).

Cantilever Docks

7.4.9 Cantilever docks that are anchored to the shoreline will be permitted provided that:

a) they do not impede the flow of water;
b) they are placed in a location that minimizes vegetation removal and disturbance; and
c) the hinge is located above the flood elevation.

Docks proposed in a wetland must adhere to the additional policies in Section 8.

Floating Docks

7.4.10 Floating docks do not require a permit from QC, however a work permit may be required from other agencies.

Public Infrastructure

7.4.11 Public infrastructure (e.g. sewers, flood and/or erosion control works) and various utilities (e.g. pipelines) may be permitted within a watercourse provided that all feasible alignments have been considered through an approved Environmental Assessment, other comprehensive plan or site specific technical studies supported by QC, whichever is applicable based on the scale and scope of the project. The plan must demonstrate that the infrastructure has been designed in a manner that:

a) does not decrease the base flow characteristics of watercourses;
b) minimizes the interference with natural features and hydrological functions;
c) does not increase the risk associated with flood hazards and erosion hazards to upstream or downstream properties within valley and stream corridors;
d) does not create an impediment to the safe passage of flood flows;
e) minimizes the number of crossings and areas to be disturbed by infrastructure within valley and stream corridors or Lake Ontario shoreline reach and potential cumulative impacts;
f) considers options for remediation of existing natural hazards;
g) minimizes the area of construction disturbance and vegetation removal;
h) maintains the predevelopment configuration of the flood plain, valley or stream corridors and the topography along the Lake Ontario shoreline;
i) does not impair surface water and groundwater quality through the introduction of pollutants such as sediments or contaminants;

j) does not prevent access for maintenance, evacuation, or during an emergency;
k) the control of flooding, erosion, dynamic beach, or unstable soil and bedrock will not be affected; and
l) demonstrates that clean fill material will be used. The proponent may be required to provide proof of the origin and quality of the fill material.

Conservation Activities

7.4.12 Conservation activities (e.g., stream/wetland rehabilitation) will be permitted within a watercourse provided that the natural features and hydrologic function of the watercourse (e.g., water quality and quantity control) will be maintained, restored, or enhanced. In addition to the conditions listed in Policy 7.5.1.10 the submitted plans will be required to demonstrate that:

a) based on documentation of existing watercourse characteristics (e.g., thermal regime, substrate type, fish communities), there will be direct conservation benefits of the project (e.g., enhancement in watercourse feature and/or function);
b) there will be no negative impact on watercourse functionality;
c) best management practices including site and project design and appropriate remedial measures will be employed to minimize disturbance;
d) natural channel design practices will be followed; and
e) maintenance requirements will be minimized.

If the above noted requirements cannot be met an Environmental Impact Study will be required that demonstrates no negative impact on the hydrologic function of the watercourse.

Ponds

Ponds exist for many reasons, such as recreation, irrigation, watering, landscaping and aquaculture. This section applies to these types of ponds but not to stormwater management ponds, reservoirs constructed for the purpose of generating hydroelectricity or ponds associated with conservation activities. If a pond is proposed in a wetland refer to Section 8.

7.4.13 QC will not support the construction of new ponds that are directly connected to a watercourse (e.g. online ponds, in-stream ponds, bypass ponds, etc.). There must be 6 metre minimum setback between a watercourse and a new pond.

7.4.14 Bank alterations and/or dredging of existing online ponds will be considered provided that:

a) impacts on natural features and hydrologic function (e.g. water quality and quantity control) of the pond are avoided or it can be demonstrated that best management practices including project design and appropriate remedial measures will mitigate and/or compensate for disturbance to features and functions;
b) there is no negative impact on the hydrologic function (e.g. water quality and quantity control) of the receiving river, creek, stream or watercourse;
c) there is no negative impact on the downstream thermal regime;
d) any excavated material is removed from the hazard area; and
e) the works are designed to limit the need for future maintenance.

Realignment, Channelization or Straightening

7.4.15 Realignment, channelization or straightening of a river, creek, stream or watercourse is generally discouraged, but may be permitted to improve hydraulic characteristics and fluvial processes, facilitate public infrastructure projects (e.g. highway construction or reconstruction), facilitate works approved pursuant to the *Drainage Act* and/or on-going operations associated with existing agricultural use, or to improve aquatic habitat or water quality where a site plan and/or other site-specific study demonstrates that:

a) all feasible alternative alignments have been considered through an approved Environmental Assessment, other comprehensive plan or though site-specific studies supported by QC, whichever is applicable based on the scale and scope of the project;
b) impacts on natural features and hydrologic functions (e.g., water quality and quantity control) are minimized and it can be demonstrated that best management practices including project design and appropriate remedial measures will mitigate and/or compensate for disturbance to features and functions; and
c) natural channel design practices are followed to the maximum extent possible.

Enclosures

7.4.16 Enclosures of rivers, creeks, streams or watercourses are discouraged, but may be permitted where there is a risk to public safety and/or potential property damage and where a site specific study demonstrates that:

a) all feasible options and methods have been explored to address the hazard(s);
b) impacts on natural features and hydrologic functions (e.g., water quality and quantity control) are minimized and it can be demonstrated that best management practices including project design and appropriate remedial measures will mitigate and/or compensate for disturbance to features and functions;
c) there is no negative impact on the downstream thermal regime; and
d) design encourages fish passage to the extent possible.

Dredging

7.4.17 New dredge projects will not be permitted in the channel of a river, creek, stream or watercourse.

7.4.18 Maintenance dredging (within past 10 years) of an existing channel of a river, creek, stream or watercourse may be permitted to maintain existing boating or shipping channels (e.g. harbours, marinas, canals), enhance water flow in the case of drains, improve hydraulic characteristics and fluvial processes or to improve aquatic habitat or water quality where a dredging plan demonstrates that:

a) stream bank stability is not impacted or is improved;
b) the size and depth of the area proposed for dredging while meeting the need is minimized;
c) impacts on natural features and hydrologic functions (e.g. water quality and quantity control) are minimized and it can be demonstrated that best management practices including project design and appropriate remedial measures will mitigate and/or compensate for disturbance to features and functions;
d) all dredged material is removed from flooding and erosion hazards and safely disposed of in accordance with the policies in provincial guidelines; and
e) are designed to limit future maintenance requirements.

Shoreline Excavation

7.4.19 Excavating the shoreline for any purpose will not be permitted, with the exception of excavation works required for erosion protection and/or shoreline/bank stabilization. Stream, bank and channel stabilization to protect existing development or for conservation or restoration projects may be permitted within a watercourse if the interference on the natural features and hydrologic functions of

the watercourse has been deemed acceptable by QC and in accordance with the Policy 7.4.21.

7.4.20 Boat slips/launches and inland marinas may be permitted provided a plan has been submitted by a qualified professional which demonstrates that:

a) the slip/marina has been appropriately designed by a qualified professional (i.e.: coastal engineer) if required;
b) it has been demonstrated by qualified professional (i.e.: coastal engineer) that ongoing maintenance dredging will not be required;
c) the slip/marina is not in a sensitive shoreline area;
d) all excavated material is removed from the flood hazard;
e) the bottom of the slip/marina is natural material, not concrete; and
f) other agencies (MNRF, DFO) are contacted for additional permit requirements.

Erosion Protection, Shoreline/Bank Stabilization and Sediment Control

7.4.21 New and/or replacement of erosion protection and shoreline/bank stabilization measures may be permitted where there is a demonstrated erosion or bank instability problem resulting in property loss and/or potential damage to existing habitable structures and/or risk to public safety subject to the following:

a) impacts on natural features and hydrologic functions (e.g., water quality and quantity control) are minimized;
b) the works will not result in a shoreline that is higher or further out into the water than what is existing;
c) the works will result in a stable slope;
d) the natural contours of the shoreline will be maintained;
e) the works will not result in a reduced setback from the flood or erosion hazard for any future development;
f) erosion risk on adjacent, upstream and/or downstream properties is reduced or erosion and sedimentation processes are controlled to reduce existing or potential impacts from adjacent land uses, whichever is appropriate; and
g) shoreline/bank stabilization will employ best management practices that utilize natural materials that integrate with the existing natural features and processes (e.g. bio-engineering) rather than hardening;

OR

h) where it has been demonstrated that bioengineering solutions have been considered and are deemed inappropriate or insufficient, hardened surfaces (e.g. sloped rock)

may be considered however, the shoreline/bank stabilization technique employed cannot result in an exclusively vertical structure;

i) replacement of failed erosion protection must be designed by a qualified professional (i.e., coastal engineer); and

j) the erosion protection cannot result in an increase in developable space, or a reduced setback from any flood, erosion or dynamic beach hazard.

Armourstone or a similar type rock with a vertical face is generally not encouraged unless it is to replace existing armourstone or another vertical structure, or where it has been demonstrated that the creation of a stable slope using bioengineering techniques or an appropriate sized stone (rip rap) is not appropriate. It must be demonstrated that there will be no impacts to neighbouring properties. Any armourstone wall higher than 2 metres must be designed by a qualified engineer.

Quinte Conservation does not conduct an engineering review of shoreline projects unless the project has been designed by an engineer at the request of QC staff.

Repair and Maintenance of Existing Erosion Protection

7.4.22 Repair/maintenance* of existing erosion protection and shoreline/bank stabilization structures may be permitted where the repair/maintenance will not result in an increase in footprint or height of the existing structure. When considering repair/maintenance, proponents are encouraged to replace existing hardened shoreline surfaces with bio-engineered solutions. The submitted plans must demonstrate:

a) the existing erosion protection is evident on site and still provides some protection. Plans for repairs/replacement for erosion protection structures that no longer exist in a complete capacity will be considered new protection and subject to policy 7.4.21;

b) erosion risk on adjacent, upstream and/or downstream properties is reduced or erosion and sedimentation processes are controlled to reduce existing or potential impacts from adjacent land uses, whichever is appropriate;

c) intrusions on natural features and hydrologic functions (e.g. water quality and quantity control) are minimized, and it can be demonstrated that best management practices including site and structure; and

d) design and appropriate remedial measures mitigate and/or compensate for disturbance features and functions.

*Repair/maintenance involves using the existing material on site with a minimal amount of imported fill. Replacing existing protection with new or upgraded material along any part of the shoreline will be subject to Policy 7.5.4.7.

7.5 DEVELOPMENT ACTIVITY WITHIN THE ALLOWANCE (SETBACK) OF A WATERCOURSE

The setback around a watercourse is 30 metres unless QC staff determine that a reduced setback is appropriate.

Any development activity adjacent to a watercourse will be subject to the policies in Section 4.9, 4.12, 5.6, 5.7 and/or 5.8. In the case of multiple applicable policies the most restrictive will apply.

8.0 WETLANDS

A brief overview of wetlands is provided below. A more thorough discussion can be found in Appendix B.

8.1 DISCUSSION OF WETLANDS

Wetlands provide functions that have both ecosystem and human values. From an ecosystem perspective these include primary production, sustaining biodiversity, wildlife habitat, habitat for species at risk, maintenance of natural cycles (carbon, water) and food chains. From a human perspective, wetlands provide social and economic values such as flood attenuation, recreation opportunities, production of valuable products, improvement of water quality and educational benefits.

Wetlands retain and modify nutrients, chemicals and silt in surface and groundwater thereby improving water quality. This occurs temporarily in the plants of the wetland but long term in the organic soils.

In addition, wetlands provide a variety of hydrologic functions. Hydrologic Function in the Provincial Planning Statement means:

> the 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.

Over 60 potential hydrological functions have been identified for wetlands when developing the Southern Ontario Wetland Evaluation System (OWES). The Southern Ontario Wetland Evaluation System (pg. 85 MNRF, 2022) states "it must be recognized that many of the non-hydrological functions of a wetland depend, in part, on the wetland's hydrological setting and that changes in the basin beyond the boundaries of the wetland could have an effect on the ecological value of the wetland."

It should be noted that the *CA Act* and the CA Regulation uses the wording "in any way" when describing change or interference with a wetland. Activities proposed within the wetland boundary that could interfere in any way with the wetland, including both those activities that meet the definition of "development activity" and those that do not necessarily meet the

definition of “development activity”. An example of an activity that does not strictly meet the definition of “development activity” and could represent “change or interference” is the removal of hydrophytic or water tolerant plants in the wetland.

Applications to undertake a development activity must be assessed with respect to the “tests” outlined in the CA Act.

There are three ways through which the *CA Act* and the CA Regulation addresses wetlands and other areas within which development and other activities may interfere with a wetland:

1. Development activities within the wetland boundary (Section 28 (1) 2. ii. of the CA Act)
2. Development activity within the ‘other areas’ 30 metres from the wetland (Section 28 (1) 2. v. of the CA Act)
3. Activities to change or interfere in any way with a wetland (Section 28 (1) 1. of the CA Act)

8.2 LEGISLATIVE AUTHORITY

The current legislative structure embeds requirements for the administration of s. 28 in both the CA Act and O. Reg. 41/24. CA staff and their legal counsel must refer to both pieces of legislation to make decisions and develop policies and guidelines related to s. 28 permit applications.

Conservation Authorities Act
The CA Act contains the following sections dealing with wetlands.

Activities prohibited (Prohibited activities re watercourses, wetlands, etc.)
“28 *(1) No person shall carry on the following activities, or permit another person to carry on the following activities, in the area of jurisdiction of an authority:*
1. Activities to straighten, change, divert or interfere in any way with the existing channel of a river, creek, stream or watercourse or to change or interfere in any way with a wetland.

2. Development activities in areas that are within the authority’s area of jurisdiction and are,
...
a. wetlands, ..., or

v. other areas in which development should be prohibited or regulated, as may be determined by the regulations. 2017, c. 23, Sched. 4, s. 25."

Permits for development activity or change or interfere in any way

28.1 *(1) An Authority may issue a permit to a person to engage in an activity specified in the permit that would otherwise be prohibited by section 28, if, in the opinion of the authority,*
a) the activity is not likely to affect the control of flooding, erosion, dynamic beaches or unstable soil or bedrock; and
b) 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; ...

The tests in the clauses outlined above apply to change or interfere with a wetland and development activities in the wetland and 'other area' (s. 28 (1) 1 and 2)). The tests will be used by CA staff in the review of a permit for both of these regulated areas and types of activities. The permit shall be given in writing, with or without conditions.

Ontario Regulation 41/24

The Authority may grant a permit to change or interfere in any way with a wetland; or for a development activity, in or near the wetland i.e., in the 'other area' 30 metres from the wetland. O. Reg 41/24 defines wetlands for the purpose of administering the Regulations.
Prohibited activities, subparagraph 2 of ss. 28 (1) of the Act (development activity prohibited) O. Reg. 41/24 defines 'other areas' as:
2. *(3) For the purposes of subparagraph 28(1) 2.v. of the Act, no person shall carry out development activities in areas that are within an authority's area of jurisdiction and are within 30 metres of a wetland.*

The Authority's policy is generalized by a 'No Loss of Wetlands" statement

Offsetting/compensation may be required to support any approved development in or around wetlands at the discretion of QC. Offsetting/compensation must be designed and undertaken by a qualified professional with recognized expertise in the appropriate discipline and must be prepared using established procedures and recognized methodologies to the satisfaction of QC. A Hearing will be required for any offsetting/compensation proposal.

8.3 GENERAL POLICIES FOR WETLANDS

It is the policy of QC that:

8.3.1 In general, development activity and interference shall not be permitted within wetlands.

8.3.2 In general, ponds* shall not be permitted within wetlands unless it is specifically for habitat enhancement/diversification purposes and not for aesthetics only. Plans must demonstrate that all excavated material must be removed from the wetland. Approval is subject to staff discretion.

8.3.3 In general, stormwater management facilities shall not be permitted within wetlands.

8.3.4 In general, redevelopment of derelict and abandoned buildings within wetlands shall not be permitted.

*Ponds for the purpose of watering livestock are not subject to Policy 8.3.2 as they are not subject to Ontario Regulation 41/24 in accordance with Section 28(10) of the *CA Act*.

Development Activity Setbacks

8.3.5 In general, there shall be no development activity within 30 metres of the wetland boundary.

8.4 SPECIFIC POLICIES FOR WETLANDS

The policies in this section are to be applied in conjunction with the General Policies - Section 3.6. As per Policy 3.6.1, development or interference will not be permitted within the regulated area associated with a wetland, except in accordance with the policies contained in this section.

New Development

8.4.1 New development activity will not be permitted within a wetland, including on existing lots of record, regardless of previous approvals provided under the *Planning Act* or other regulatory process (e.g., *Building Code Act*), except as outlined below.)

Conservation Activities

8.4.2 Conservation activities or restoration projects will be permitted within a wetland where it can be demonstrated that the hydrophytic vegetation and hydrologic functions of the wetland will be maintained, restored, or enhanced. Submitted plans will be required to demonstrate the following:

a) the wetland is not a bog or fen, or part of a Provincially Significant Wetland;
b) a technical site-specific study demonstrates to the satisfaction of QC that all hazards/risks associated with flooding and/or unstable soils have been addressed;
c) based on documentation of existing wetland characteristics (e.g. wetland type, connectivity, size and dominant vegetation communities), there will be direct conservation benefits of the project (e.g. enhancement in wetland feature and/or function);
d) there will be no impact on the functionality of any watercourse;
e) best management practices including site and project design and appropriate remedial measures will be employed to mitigate disturbance; and
f) maintenance requirements will be minimized.

If the above noted requirements cannot be met, an Environmental Impact Study may be required that demonstrates no negative impact on the hydrologic function of the wetland.

Passive Low-Intensity Recreational Uses

8.4.3 Passive low-intensity recreational uses associated with public parks, outdoor recreation and education, trail systems or watercourse access points may be permitted within a wetland where it can be demonstrated that there will be no negative impact on the hydrophytic vegetation and hydrologic functions of the wetland. It must also be demonstrated that:

a) the wetland is not a bog or fen, or part of a Provincially Significant Wetland; and
b) a technical site-specific study demonstrates to the satisfaction of QC that all hazards/risks associated with flooding and/or unstable soils have been addressed.

8.4.4 Development activity associated with boardwalks (e.g. narrow, raised wooden planked trails) may be permitted within a wetland if it has been demonstrated to the satisfaction of QC that:

a) the control of flooding, erosion will not be affected;
b) the interference on the hydrophytic vegetation and hydrologic functions of the wetland has been deemed to be acceptable by QC through an EIS; and
c) the following are adhered to:
   i. the footprint of the development activity in the wetland is minimized and supported by an EIS (if requested);
   ii. the boardwalk must be raised above flood levels;
   iii. the boardwalk has a maximum width of 2 metres; and
   iv. the boardwalk is constructed with materials that will not affect the natural environment.

Infrastructure

8.4.5 Public infrastructure (e.g. roads, sewers, flood and/or erosion control works, water supply,) and various utilities (e.g. pipelines) will only be considered to be constructed, realigned and/or upgraded within a wetland subject to the following:

a) there are no other feasible alternatives to the project;
b) the wetlands shall not be used to provide storm water management (neither water quality nor water quantity control);
c) an approved Environmental Assessment, or other comprehensive plan (if requested) that is supported by QC, demonstrates that all feasible alternatives to avoid intrusions on wetland features have been considered and that changes or interference to natural features, including hydrophytic vegetation and hydrologic functions, are minimized to prevent wetland loss to the greatest extent possible; and
d) a more detailed site-specific study (i.e., a scoped Environmental Impact Study) consistent with the Environmental Assessment or comprehensive plan is prepared (if requested). This study shall determine a more precise area wetland boundary in accordance with the current Provincial Ontario Wetland Evaluation System (OWES), and demonstrate that appropriate remedial measures will mitigate and/or offset for wetland loss or interference with hydrologic and ecological functions;

and where:

   i. the wetland is not a bog or fen, or part of a Provincially Significant Wetland;

ii. a technical site-specific study demonstrates to the satisfaction of QC that all hazards/risks associated with flooding and/or unstable soils have been addressed; and
iii. clean fill material will be used. The proponent may be required to provide proof of origin and quality of the fill material to ensure the control of pollution and the are not adversely affected.

Compensation for the interference with the wetland though enhancement of other wetland features within the watershed may be required.

8.4.6 New vehicular access routes (e.g. driveways, private access roads, and entrance ways) will not be permitted in a wetland.

8.4.7 Existing access routes (e.g. driveways, private access roads, and entrance ways) associated with an existing residential, agricultural, commercial, industrial or institutional use may be permitted to be maintained within a wetland where it can be demonstrated that:

a) there is no feasible alternative to locate the access route outside of the wetland;
b) the control of flooding, erosion will not be impacted;
c) the interference with the hydrophytic vegetation and hydrologic functions of the wetland have been deemed acceptable by QC; and
d) an Environmental Impact Study provides for remedial measures that will mitigate and/or compensate for wetland loss or interference with the hydrophytic vegetation and hydrologic functions;

and where:

i. the wetland is not a bog or fen, or part of a Provincially Significant Wetland; a
ii. technical site-specific study demonstrates to the satisfaction of QC that all hazards/risks associated with flooding and/or unstable soils have been addressed; and
iii. clean fill material will be used. The proponent may be required to provide proof of the origin and quality of the fill material to ensure the control of pollution and the are not adversely affected.

Compensation for the interference with the wetland though enhancement of other wetland features within the watershed may be required.

Organic Soil (Peat) Extraction

8.4.8 In general no new organic soil (peat and/or muck) extraction operations or expansion of existing organic soil (peat) extraction operations will be permitted within wetlands.

8.5 DEVELOPMENT ACTIVITY WITHIN AREAS ADJACENT TO A WETLAND

The following policies are focused on the adjacent lands (area of interference) of all wetlands, no matter the significance. Adjacent lands extend from the wetland boundary out to a distance of 30 metres for all wetlands.

The hydrologic function of the wetland cannot be impacted due to development in these areas. A minimum 15 metre vegetative buffer from the edge of the wetland boundary will be encouraged to protect the wetland from nutrient loading and surface runoff which could impact wetland area and/or function. Proposed development activity within 30 metres of any wetland may require a Hydrological Assessment.

It is the policy of QC that:

8.5.1 Development activity, greater than 15m^2, shall not be permitted within 30m of a wetland on vacant land.

8.5.2 Development activity, greater than 15m^2, associated with existing residential, agricultural, commercial, industrial or institutional use may be permitted within the adjacent land of a wetland where it has been demonstrated through a technical study* (EIS or similar), prepared by a qualified professional with recognized expertise in the appropriate discipline using established procedures and recognized methodologies to the satisfaction of QC, that:

a) there is no feasible alternative site outside of the setback for the proposed development activity and the proposed development activity is located in an area of least (and acceptable) impact;
b) the hydrologic function of the wetland will not be impacted;
c) the control of flooding, erosion, dynamic beaches, and unstable soil and bedrock will not be affected and further that 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;

d) the potential for surficial erosion and sedimentation processes has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/restoration plans;
e) impervious areas are minimized;
f) the overall drainage patterns for the lot will be maintained;
g) disturbed area and soil compaction is minimized;
h) disturbances to hydrophytic vegetation is minimized;
i) all excavation will be located above the high water table, with the exception of excavation required to install a geothermal system; and
j) best management practices will be used to:
    i. maintain water balance
    ii. control sediment and erosion
    iii. maintain or enhance as much of a wetland buffer as is feasibly possible.

8.5.3 The replacement of existing structures and/or sewage disposal systems within the same footprint may be permitted within the adjacent land of a wetland if it has been demonstrated to the satisfaction of QC that the control of flooding, erosion, dynamic beaches, and unstable soil and bedrock will not be affected and further that 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. Further it must be demonstrated that there is no feasible location outside of the adjacent land. The replacement structure/system should be located outside of the wetland and only permitted within the adjacent land subject to being located in the area of least impact to the ecological and hydrologic function of the wetland. All septic systems must be located a minimum of 0.9m above the water table.

8.5.4 Swimming pools, in-ground or above-ground, inclusive of all fencing and landscaping, and accessory structures including decks, sheds, gazebos and garages, greater than 15m^2 and associated with new or existing development must meet a 15m setback from the wetland boundary.

8.5.5 Creation of a laneway on vacant land to provide access to a building envelope, located beyond the adjacent land, may be permitted provided a minimum 6m setback can be maintained and it can be demonstrated to the satisfaction of QC that the control of flooding, erosion, dynamic beaches, and unstable soil and bedrock

will not be affected and further that 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. Further it must be demonstrated that there is no feasible location outside the setback. QC may additionally request that points a) through e) in Section 8.5.2 can be met.

8.5.6 Boathouses may be permitted along the boundary of a wetland provided alteration to the wetland to provide water access is not required (i.e.: dredging). The application must demonstrate the control of flooding, erosion, dynamic beaches, and unstable soil and bedrock will not be affected and further that 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. A Hydrologic Assessment may be required to support the development of a boathouse.

8.5.7 Infilling within the adjacent land to a wetland on a small vacant lot of record may be permitted within the established building line in situations where the setback seems unreasonable and due to a lack of space; and where site lines are restricted provided: safe access exists to the property; the dwelling does not encroach closer to the wetland than what exists within the established building line (i.e. neighbour's dwelling); and a minimum 6 metre setback from the wetland is maintained. The application must demonstrate that the control of flooding, erosion, dynamic beaches, and unstable soil or bedrock will not be affected and further that 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. A Hydrologic Assessment may be requested to support a reduction in the setback.

*Requests for technical documents are at the discretion of QC staff.

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PART D: PROCEDURE

9.0 REGULATION PROCEDURES

9.1 PART VI OF THE CONSERVATION AUTHORITIES ACT

Part VI of the *Conservation Authorities Act* (CA Act) sets out how various development activities are regulated to protect people, property, and the environment in relation to watercourses, wetlands, river and stream valleys, shoreline hazards and unstable bedrock.

To receive permission for proposed works in regulated areas the proponent must submit a permit application to QC for approval prior to any works. Permission from QC will be given in the form of a formal permit. For any type of application, submission of technical studies may be necessary.

In accordance with these requirements, this chapter sets out procedural information for an application, permit review, and appeals.

9.2 PROHIBITED ACTIVITIES AND PERMIT TESTS FOR APPROVAL

Section 28 of the CA Act sets out as series of prohibitions, as follows:

> *"No person shall carry on the following activities, or permit another person to carry on the following activities…*
> 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…*
>
> *I. Hazardous lands,*
> *II. Wetlands,*
> *III. river or stream valleys…*
> *IV. areas that are adjacent or close to the shoreline of [Lake Ontario] and that may be affected by flooding, erosion or dynamic beach hazards…"*

"Development Activity" is defined as:

> *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,*
d) *The temporary or permanent placing, dumping or removal of any material, originating on the site or elsewhere.*

Section 28.1 of the CA Act establishes the legal tests for approval of permit applications. A conservation authority may issue a permit: "if in the opinion of the authority,

a) the activity is not likely to affect the control of flooding, erosion, dynamic beaches or unstable soil or bedrock;
b) 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…"

Section 3 of O. Reg. 41/24 states the applicable flood event standards with respect to an authority, for the purposes of paragraph 3 of subsection 2 (1) and to determine the maximum susceptibility to flooding of lands or areas in the area of jurisdiction of an authority are the standards specified in Schedule 1 as those standards are described in Schedule 2.

9.3 EXCEPTIONS

Section 5 of O. Reg. 41/24 prescribes exceptions to the regulation of development activities for a list of specific types of development activities under certain conditions. These activities include certain types of docks, fencing, agricultural erosion control structures, non-habitable accessory structures, decks or patios. The specific list may be viewed here: https://www.ontario.ca/laws/regulation/240041#BK4 and is listed in S. 3.1.1.

By contacting QC staff and/or during the Inquiry/Pre-Consultation process described below, the applicability of certain exceptions to the regulation of certain development activities may be verified.

9.3.1 RENEWABLE ENERGY PROJECTS

Renewable energy projects (28.1 (6)) limit the 'tests' that may be applied to a CA consideration of a permit application and the conditions that can be attached to these permits. A CA shall not refuse an application 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 the CA shall not attach conditions to the permit unless the conditions relate to controlling flooding, erosion, dynamic beaches or unstable soil or bedrock. In other words, the test broadly related to health or safety and found in 28.1 (1) (b) does not apply to these permits. As with similar applications, the applicant has a right to a hearing where an application may be refused, or conditions are being contested. After a hearing the CA shall provide an applicant with written reasons for the decision.

9.4 MAPPING OF REGULATED AREAS

Section 4 of O. Reg. 41/24 prescribes requirements for mapping of areas where development activities are prohibited. This includes requirements for annual review and updating, public access and notification.

Mapping of the approximate regulated area has been undertaken by QC in support of O. Reg. 41/24 and will be updated annually pursuant to the regulation. The approximate, or conceptual extent, of the regulated area is delineated by mapping and identifies the area where the regulation is expected to apply. The regulated area 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 the Lake Ontario shoreline, hazard lands, along with wetlands and areas of interference around the wetlands. The regulated area does not mean that development cannot occur and is not to be perceived as a restrictive area for development. It does mean that a development activity may require the authorization from QC consistent with QC policies.

General mapping of the regulated areas is provided on the QC website.

Policy Guidelines for the Administration & Implementation of the CA Act & O. Reg. 41/24. It is important to note the approximate regulated area mapping is not definitive in terms of identifying areas subject to O. Reg. 41/24. There are often features described in O. Reg. 41/24 that are not mapped but are still subject to the Regulation or which may be identified differently following site-specific investigation from what is mapped. Furthermore, in a case of a conflict regarding the boundaries of the areas where development activities are prohibited under paragraph 2 of subsection 28 (1) of the Act, the description of those areas in that paragraph and in section 2 of this Regulation prevail over the depiction of the areas in the maps referred to in subsection (1) of O. Reg. 41/24.

9.5 PERMIT PHASES

Before work/development activity (filling, grading/site alteration, or construction) may proceed in an area regulated by QC, a permit must be issued after a pre-consultation, review, application, approval/refusal and hearing processes are followed.
There are five (5) primary phases in the permit application process:

1. Pre-QC Planning Approvals
2. Inquiry/Pre-consultation
3. Determination of a "Complete Application"
4. Technical Review, Commenting and Application Refinement
5. Decision: Recommendation for Approval (and Permit Issuance) or Refusal (and Hearing(s))

The phases listed above take place sequentially and are discussed in detail below.

9.5.1 PRE-QC PLANNING APPROVALS

QC supports a "planning first" approach to its regulatory mandate, which means that development proposals should be evaluated through up-to-date provincially and municipally approved planning policy and zoning before any implementing regulatory requirements under the CA Act are applied. This ensures that the 'principle of development' has been determined through the appropriate planning approval and ensures that requirements under the CA Act are streamlined and focused on natural hazard concerns.

As part of the "Pre-QC Planning Approvals Phase," applicants are requested to ensure that *Planning Act* approvals or other agency approvals that establish the 'principle of development' or other first principles associated with a development proposal, are obtained prior to commencing the permit application process with QC

9.5.2 INQUIRY/PRE-CONSULTATION

Prior to the submission of an application for a permit, all applicants should consult with QC staff to assess the proposal and determine application requirements. Section 6 of O. Reg. 41/24 sets out the concept of pre-submission consultation and directs Policy Guidelines for the Administration & Implementation of the CA Act & O. Reg. 41/24 that if an applicant requests a pre-submission consultation, QC is required to engage in the pre-submission consultation. The pre-consultation process is intended to:

- determine if an application is required and if the required *Planning Act* approvals are in place prior to the permit application;
- determine the information required to be submitted with the application (e.g. studies, drawings, etc.) to ensure that comprehensive submissions are made that can efficiently lead to complete submissions;
- undertake site visit(s) to verify the presence or absence of features such as valleylands, wetlands and watercourses, as may be required;
- clarify the general process that is required to obtain a permission; and
- identify any concerns that QC may have with the proposed undertaking and to provide a preliminary determination of compliance with QC policies.

The type, scale and location of the proposal will determine the extent and formality of the pre-consultation process. For complex or major applications, applicants should contact QC staff to arrange a formal meeting which could involve a number of internal staff as well as external municipal, agency, provincial and federal representatives who may have an interest in the review of the proposed activity.

Where proposals also require approval under the *Planning Act*, joint pre-consultation meetings with the relevant municipality should be pursued. *Planning Act* approvals should be obtained prior to the submission of permit applications and integrated with QC technical input to ensure that most, if not all, matters are addressed proactively prior to the implementing permit process under the CA Act.

Pre-submission consultation is a critical value-added service that assists applicants with the application process. After the pre-submission consultation meeting, QC will provide the applicant with a written response indicating complete applications and required studies. Pre-consultation meetings should also include input on the terms of references for technical requirements (e.g. Environmental Impact Studies or Slope Stability Studies) to ensure that the matters of interest are sufficiently addressed. A successful pre-submission consultation should result in a quality submission where QC's complete application requirements are met thus reducing the potential for an administrative review request.

9.5.3 DETERMINATION OF A COMPLETE APPLICATION

QC is committed to streamlining the review of CA Act permits. The submission of a complete application is a critical component for QC to review and application and provided timely feedback and approvals (where appropriate). Should a permit be required, applicants are

required to complete and submit a Permit Application Form. The permit fee must be submitted with the permit application. An application for a permit must be made by an owner of the lands or an authorized agent, with the landowner having provided the required landowner authorization.

When proposed development activities are also subject to the *Planning Act*. *Planning Act* approvals should be obtained prior to submission of permit applications and integrated with QC technical input to ensure that most, if not all, matters are addressed proactively prior to implementing the permit process, under the CA Act. Information and study requirements will be co-ordinated with the applicable agency/municipality/ministry, if possible. If QC staff are of the opinion that other approvals could result in revisions to description of proposed works/submitted plans/drawings, the application may be deemed incomplete and/or the applicant may be asked to withdraw the application pending the outcome of external or pre-requisite approvals.

QC requests that the following are in place/provided at the time of making a permit application:

- *Planning Act* approvals in place;
- Pre-submission consultation has occurred through QC's inquiry/pre-consultation process;
- Required application fee is received;
- QC application signed by the landowner (or written landowner authorization); and
- Final drawings

QC will stamp a complete application as "received" and assigned a file number to the application which can be referred to for processing. Applications will not be stamped received and a file will not be opened if *Planning Act* approvals are not in place and/or if the required application fee does not accompany the application. Applications will also not be received if there are outstanding violations of O. Reg. 168/06 or O. Reg. 41/24 on the subject lands that affect the proposed work/development.

Following the submission of a permit application, QC is responsible for determining and communicating to the applicant whether an application is deemed complete. In accordance with this section and the provisions of Section 7 of O. Reg. 41/24, the applicant is to be notified in writing within 21 days, whether or not the application complies with the

requirements of subsection 7 (1) of the regulation. To ensure the application may be appropriately assessed, including the technical aspects of a proposal against the tests set out in subsection 28.1 (1) of the CA Act, the submission must include the compulsory information listed below. It is common that the process for reviewing an application and applicable studies and plans is an iterative process between the applicant and the CA. This process includes the need to clarify technical information, address any information that may be missing in the submission, correction of errors etc. QC staff may consider conducting a site visit as part of the pre-submission requirements to ensure that all natural hazards are identified on the site. It should be noted, however, that substantial changes to a proposal or a site visit by QC staff may affect the information required.

If an application is deemed incomplete, QC will require additional information so that a complete analysis can be conducted. Until such time as this additional information is provided, applications may be put 'on hold' or returned to the applicant. Any files that are placed on hold and/or remain inactive for a period of six months, without communication with the applicant, will be declared void and the application fee will be retained. A letter providing notification of the six month hold period must be sent to the proponent (Motion QC 34/06 and Motion QC35/06).

For any type of application, submission of technical studies may be necessary and may be requested at the discretion of QC. The scale, location, and complexity of a proposal and type of feature and or hazard existing typically determines which information items will apply to an application. The level of detail required for studies and reports can vary widely depending on the property and the proposal. In some situations, a single-page letter from a qualified expert will be sufficient, while in other cases a major study will be necessary. These technical studies must be carried out by a qualified professional with recognized expertise in the appropriate discipline and must be prepared using established procedures[4] and recognized methodologies to the satisfaction of QC. These technical studies are carried out at the expense of the applicant.

Where technical expertise within QC is not available to review a requested study, it may be requested that the study be peer-reviewed by a qualified professional at the expense of the applicant.

[4] These established procedures should be in keeping with MNRF's Technical Guides for Natural Hazards (MNRF, 2002a; MNRF, 2002b; MNRF, 1996a; MNRF, 1996b; and MNRF 1996c), other Provincial guidelines and/or guidelines approved by the QC Board.

Application Requirements, including prescribed requirements pursuant to subsection 7(1) of O. Reg. 41/24:

- In-force *Planning Act* approval(s) – recommended
- No outstanding violations of O. Reg. 168/06 or O. Reg. 41/24 – if there are outstanding violations of O. Reg. 319/06 or O. Reg. 41/24 on the subject lands that affect the proposed work/development activity.
- Completed application form
- Applicable staff-determined application fee in accordance with the Fee Schedule in force and effect
- A description of the works proposed
- 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
- *the proposed use of any buildings and 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*
- *the start and completion dates of the development activity or other activity*
- *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*
- *the elevations of existing buildings, if any, and grades and the proposed elevations of any buildings and grades after the development activity or other activity*
- *drainage details before and after the development activity or other activity*
- *a complete description of any type of fill proposed to be placed or dumped*
- *a 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*
- *any other technical information, studies or plans that QC staff requests including information requested during pre-submission consultations between the authority and the applicant*

Potential Technical Requirements (i.e. Other Technical Information, studies or plans per above and clause 7(1)(i) of O. Reg. 41/24):

- Legal survey
- Existing and proposed topographic and/or metric geodetic elevations
- Flood line delineation study/hydraulics
- Structural elevations and construction details
- Architectural plans
- Channel crossings assessment
- Erosion and sediment control plans
- Grading plans
- Functional servicing plan
- Geotechnical/slope stability study
- Headwater drainage feature evaluation
- Hydrogeological assessment
- Landscaping/site rehabilitation plan/ecological compensation plans
- Environmental impact study/natural heritage evaluation
- Watercourse erosion analysis stream corridor protection study
- Stormwater management study/design drawings
- Water balance analysis
- Cut and fill analysis
- Construction access and staging plans
- Coastal engineering study
- Soil quality report
- Other reports/studies identified through staff consultation

Works that involve substantial site development should be prepared using the services of professionals. In all cases, it is necessary that the information provided with the application is clear as to the work proposed and is sufficient to allow QC staff to complete a technical review and to make recommendations of approval or refusal.

Permit application forms are available at the QC Office and on our website (www.quinteconservation.ca).

9.5.3.1 REQUESTS FOR REVIEW

Pursuant to subsection 8 (1) of O. Reg. 41/24, requests for an administrative review apply to applications made under section 28.1 of the CA Act. An applicant may request a review by QC staff if:

a) *the applicant has not received written confirmation from the Authority within 21 days upon submission of the application and fee in accordance with the Authority's Complete Application Process;*
b) *The applicant disagrees with the Authority's determination that the application for a permit is incomplete; and/or,*
c) *the applicant is of the view that a request by the authority for other information, studies or plans is not reasonable.*

Requests must identify what element is to be reviewed (a, b or c above) and submit the request in writing to regulations@quinteconservation.ca. Requesters should use "Section 8 Review request" in the subject line. QC delegates the above administrative review powers to the Planning and Regulations Manager.

Pursuant to subsection 8(2) of O. Reg. 41/24, a review request shall be completed by QC no later than 30 days after it is requested, and QC shall:

a) *confirm that the application meets the application requirements of subsection 7(1) of the regulation and is complete or provide reasons why the application is incomplete; or*
b) *provide reasons why a request for other 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.*

The administrative review process is not available where the development activity has commenced without the required QC permit(s) in place.

Administrative reviews do not determine whether a permit will be issued, or the scope of conditions proposed to be attached to a permit; these factors will be assessed throughout the permit process, after the administrative review is complete. An applicant will be provided with an opportunity to be heard by the Authority in a hearing should staff recommend refusal

of their application or should staff propose permit conditions to which the applicant disagrees.

Additionally, administrative reviews are not intended to be a procedure to settle permit fee disputes. Disputes related to the charging of the Authority's permit fees will be addressed in accordance with the Authority's fee policy at www.quinteconservation.ca.

Notice and Communication: The Authority shall provide the following correspondence in writing to the applicant:

a) Within 1-2 business days, upon receipt of a "Request for Review" form, confirm the receipt of the request, set out the start and end dates of the administrative review period (requests for administrative review shall be completed within 30 days upon receipt of the request, unless and extension is approved by the applicant); and,
b) Forthwith, upon completion of the review provide notice of decision, with reasons.

QC shall evaluate the request for administrative review in accordance with the following standards:

1. That the request for review meets the eligibility criteria for an administrative review;
2. That the application and/or the requests for information, studies and plans by QC are consistent with the requirements of the CA Act and O. Reg. 41/24.
3. That the applicant has submitted all information detailed herein which includes all applicable fees.
4. To determine if QC's request for other information, plans and studies is reasonable, the request must be made in accordance with QC's Policy Manual for the proposed project, and the request is consistent with similar application requirements within the watershed.

Decision: The decision for an administrative review is limited to determining a complete application and/or whether the request for all or some of the information, studies or plans is reasonable; it is not a decision as to whether or not to issue a permit, nor a process to settle permit fee disputes. The administrative review decision of the Authority is final. Upon completing the administrative review, the QC staff will notify the applicant with the decision in writing, which must:

- Confirm that the application meets the Authority's complete application requirements;
- Withdraw the request for all or some of the information, studies or plans (if appliable)

- Provide reasons why the application is incomplete; and/or
- Provide reasons why request for other information, studies or plans are reasonable.

9.5.3.2 APPLICATION FEES, FEE RECONSIDERATION AND FEE APPEALS

In accordance with subsection 21.2(4) of the CA Act, QC is responsible for setting and collecting fees. Fees are set out in annual fee schedules approved by QC Board of Directors, pursuant to subsection 21.2(6) of the CA Act, for the administration and review of applications and must be paid in full at the time of submitting an application or as part of pre-submission consultation. Permit application fees vary depending on the nature of the application and pursuant to subsection 21.2(7) of the CA Act, QC's full Fee Policy has been adopted by the Board of Directors. Fees are posted online at www.quinteconservation.ca and QC staff can advise of the permit fee(s) that apply prior to submitting a permit application.

The fee for a technical review is triggered when a technical report(s) is required in order to review the application and deem it complete. The technical review fee is based on the number of technical reports submitted by discipline (e.g. an Environmental Impact Study, Stormwater Management Report, and geotechnical assessment equals three reports). The technical review fee must be paid at the time of submission of technical reports. Examples of technical reports include, but are not limited to, the following:

- environmental impact study
- stormwater management study
- functional servicing report
- flood line delineation study/hydraulics
- geotechnical/slope stability study
- hydrogeological assessment
- watercourse erosion analysis
- channel crossings assessment
- stream corridor protection study
- coastal engineering study

QC may undertake an update of the fee schedule annually to ensure that the cost recovery is appropriate and that fee rates are in-line with the prevailing inflation rate.

The following provisions for fee reconsideration and appeals relate only to permit-related application fees and not to fees for planning services:

- Pursuant to subsection 21.2 (13) of the CA Act applicants may request to reconsider a permit-related fee to planning@QC.on.ca. Requesters should use "Section 21.2 Review Request" in the subject line. QC shall make its decision within 30 days after receiving the request.
- Pursuant to subsection 21.2 (14) of the CA Act, if QC does not reconsider a fee within 30 days of receiving a request for reconsideration, the person who made the request may appeal the amount of the fee directly to the Ontario Land Tribunal.
- Pursuant to subsection 21.2 (15) of the CA Act, if, after reconsideration of a fee charged for an application for a permit, QC orders a person to pay the fee, the person shall pay the fee in accordance with the order.
- Pursuant to subsection 21.2 (16) of the CA Act, a person who pays a fee under subsection (15) may: (a) when paying the fee, indicate to QC in writing that the fee is being paid under protest; and (b) within 30 days after payment of the fee, appeal the amount charged by QC upon reconsideration to the Ontario Land Tribunal.

9.5.4 PROCESSING OF COMPLETE APPLICATIONS (TECHNICAL REVIEW, COMMENTING AND APLICATION REFINEMENT)

Following the submission of a permit application, QC is responsible for determining and communicating to the applicant whether an application is deemed complete. This determination must be communicated within 21 days of receiving an application and this initiates the timelines and appeal process as outlined in the CA Act.

When both a CA Act Section 28.1 permit application and a *Planning Act* application is required, QC staff will coordinate the review to ensure that permit technical matters are addressed through the planning process to the fullest extent 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 CA Act. To ensure that permissions are given that reflect final design and plans, prior to issuing a permit for development that includes infrastructure works, the applicant should provide proof of all required *Planning Act* approvals before a QC permit application will be received.

The Authority will not accept permit applications "after the fact" (development undertaken without a permit). If a permit has not been obtained from the Authority, the landowner/contractor is in violation and the necessary proceedings will apply. The QC

"Compliance and Enforcement Administrative Guidelines" in Appendix J provides additional details on the violation process.

It is common that the process for reviewing an application and applicable studies and plans is an iterative process between the applicant and the CA. This process includes the need to clarify technical information, address any information that may be missing in the submission, correction of errors etc. Prior to the issuance of a permit, a designated QC staff member will often conduct a site inspection. At this time, photos to represent the pre-development conditions may be taken and notes regarding the nature of slopes, water features and any other items will be recorded and added to the file. If a site inspection is deemed necessary by staff, but due to snow cover or other conditions it cannot be sufficiently inspected, then the applicant will be advised that the review of the application will be suspended until a proper inspection can be conducted. It should be noted, however, that substantial changes to a proposal or a site visit by QC staff may affect the information required.

For any type of application, submission of technical studies may be necessary and may be requested at the discretion of QC. These technical studies must be carried out by a qualified professional with recognized expertise in the appropriate discipline and must be prepared using established procedures[5] and recognized methodologies to the satisfaction of QC. These technical studies are carried out at the expense of the applicant.

Where technical expertise within QC is not available to review a requested study, it may be requested that the study be peer-reviewed by a qualified professional at the expense of the applicant.

Any timeline associated with QC's review of a permit application does not begin until a complete application has been submitted.
An application will be deemed incomplete until the fee has been received.

If an application is deemed incomplete, QC will require additional information so that a complete analysis can be conducted. Until such time as this additional information is provided, applications may be put 'on hold' or returned to the applicant. Any files that are placed on hold and/or remain inactive for a period of six months, without communication with the applicant, will be declared void and the application fee will be retained. A letter

[5] These established procedures should be in keeping with MNRF's Technical Guides for Natural Hazards (MNRF, 2002a; MNRF, 2002b; MNRF, 1996a; MNRF, 1996b; and MNRF 1996c), other Provincial guidelines and/or guidelines approved by the QC Board.

providing notification of the six month hold period must be sent to the proponent (Motion QC 34/06 and Motion QC35/06).

In keeping with the standard permit process, QC is required to make a decision (i.e., recommendation to approve, deny or refer to a Hearing) on a complete application within 90 days. Permission from QC will be given in the form of a formal permit letter. This letter will be provided to the applicant, their agent (if listed) and the appropriate municipality. Section 8 Ontario's *Building Code Act* requires compliance with all applicable law prior to the issuance of a municipal building or demolition permit. Regulations made under the CA Act are defined as applicable law. Within QCs regulated areas, municipal building officials must receive a copy of a QC permit for those regulated activities under the realm of the *Building Code Act* prior to the issuance of a municipal building permit.

All permits issued by QC are subject to the *Municipal Freedom of Information Protection and Privacy Act*, RSO 1990, c.M.56.

Applicants should be aware that QC will assess any new applications against the policies that apply at the time the application is submitted. It is important to note that the applicant may be required to obtain approvals from other agencies at the federal, provincial and municipal level. Obtaining an approval from QC does not ensure that

9.5.5 DECISION: RECOMMENDATION FOR APPROVAL (AND PERMIT ISSUANCE) OR REFUSAL (AND HEARING(S))

Upon finishing a review of an application deemed complete, QC staff will either:

- Issue a permit, with or without conditions; or
- Recommend approval, with or without conditions to the Authority Board Chair for a decision; or
- Advise the applicant that the application cannot be supported and refer the application to a QC Hearing Board with a recommendation for refusal.

This permission will be given in writing and permits must be signed by a delegated QC staff member to be valid. Permits will only be granted to the landowner and are not transferrable. In the case of development proposed on common lands, a permit will not be processed until acknowledgment and approval is granted from all joint owners of the land in question.

Approval granted by QC under O. Reg. 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.

Figure 3 below, illustrates how QC staff process permit applications under O. Reg. 41/24.

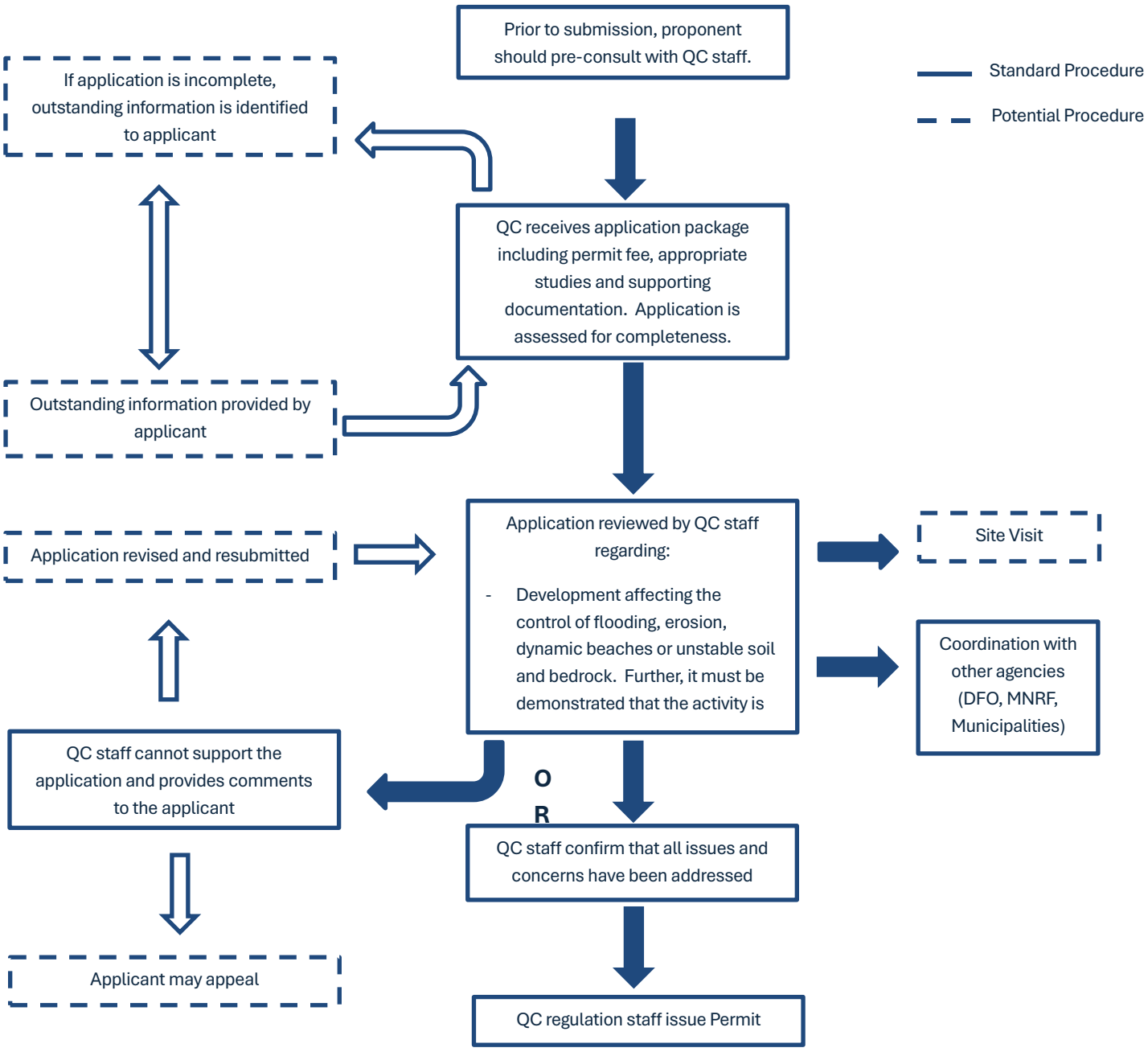

Diagram sourced from ORCA/KRCA Policy and Procedures Manual.

9.5.5.1 DECISION TIMELINES AND ANNUAL REPORTING

Decision timelines are legislated pursuant to subsection 28.1(22) of the CA Act, which directs that if QC has not provided notice of a decision within 90 of a complete application, an applicant may file an appeal with the Ontario Land Tribunal.

In addition to the legislated timelines, guidance related to service standards for Section 28.1 permit applications are specified in a document from the former Ministry of Natural Resources (MNR) titled *Policies and Procedures for Conservation Authority Plan Review and Permitting Activities* (2010). This guidance addresses administrative matters including determining "complete applications," and decision timelines for "minor" and "major" applications. Following receipt of a complete set of information or "complete application," this policy indicates that conservation authorities should aim to render a decision (i.e., complete the review of a complete application) within 30 days for a minor application or 90 days for a major application.

Further to the 2010 provincial guidance, Conservation Ontario created a second document titled Client Service Standards for Conservation Authority Plan and Permit Review. This guidance established a second set of service standards that conservation authorities would strive to meet as a best practice beyond provincial guidance. Under this framework, for applications with complete information, conservation authorities would complete their review and make a decision within 28 days for "major" applications, 21 days for "minor" applications and within 14 days for "routine" applications. QC classifies permit application as "major", "standard" and "minor".

Pursuant to subsection 8.1(1) of O. Reg. 686/21, QC 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. This report is published each March at www.quinteconservation.ca.

9.5.5.2 REFUSAL DECISIONS

If, in the opinion of QC staff, an application cannot be supported, the applicant will be advised of options that may be pursued to either bring the application into conformity, withdraw the application or of steps that can be taken to proceed to a formal Hearing before the Authority Board.

The hearing process is discussed below in S. 9.8 and further in Appendix H.

9.6 PERIOD OF VALIDITY AND EXTENSIONS

If the permit is granted (either with or without conditions), it is issued for a period of up to 24 months. S. 11(1) of O.Reg. 41/24 stipulates that the maximum period of validity of a permit, including any extensions is 60 days and as per S. 11(2) a permit holder can apply for an extension to their permit if the work has not been completed within 24 months of the date of issuance and if the existing permit is still valid. A permit renewal is not guaranteed as applications will be assessed based on the current policies and regulations. In general extensions may be granted provided:

- there are no material changes to the permit activities or plans in the opinion of the CA,
- ongoing activities are in compliance with the original approval or will be brought into compliance within the requested extension period, and
- the proposed activities are still consistent with the CA Board approved policies etc.

Pursuant to subsection 11(4) of O. Reg. 41/24, if QC refuses a request for a permit extension, QC shall give "notice of intent to refuse" to the holder of the permit indicating that the extension will be refused unless the holder requests a hearing.

Pursuant to subsections 11(5) to (7) of O. Reg. 41/24, within 15 days of receiving a "notice of intent to refuse" a request for an extension, the holder of the permit may submit a written request for a hearing to QC. QC will then hold a hearing within a reasonable time and after holding a hearing, QC may (a) confirm the refusal of the extension or (b) grant an extension for such period of time that it deems appropriate, as long as the total period of validity of the permit does not exceed 60 months (5 years).

9.7 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 the required 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 QC. If approved, the permit shall be amended to reflect the revised permission.

For example, if changes are made to drawing to reflect requirements of a municipal building department that change drawings approved by QC under the CA Act, then QC permit will

need to be amended/revised. However, new development will require a new permit application. For example, if a detached garage is being proposed whereas the previous drawing indicated only a house, a new permit must be made for the detached garage.

Typically, such amendments will be addressed by staff without the need for a specific referral to the Authority Board. However, if it is deemed to be a significant revision that results in a new or changed activity that is considered a significant departure from QC policy, the amending application may be referred to the Authority Board with a staff report or the applicant will be required to file a new permit application.

9.8 HEARING

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

- staff is recommending refusal of an application or QC Board of Directors cannot support a permit application (subsection 28.1(5) of the CA Act);
- the applicant objects to the conditions of approval (subsection 28.1(5) of the CA Act);
- QC cannot support a request for an extension of a permit (subsection 11(5) of O. Reg. 41/24); or,
- QC intends to cancel a permit (subsection 28.3(2) of the CA Act)

QC staff shall, by personal service, by registered mail or as deemed reasonable, give appropriate written notice of the time and place of the hearing of the application, together with a brief explanation of the nature of the application to: the applicant or their designated agent and will advise the QC Executive Committee of an upcoming hearing event.

Each QC Board Member must be aware of any potential conflict of interest and declare a conflict immediately if necessary. No member of the Authority taking part in the hearing should be involved, either through participation in committee or intervention on behalf of the applicant or other interested parties with the matter, prior to the hearing. Otherwise, there is a danger of an apprehension of bias which could jeopardize the hearing.

At these hearings the Board acts in the capacity of a tribunal. The tribunal exercises its statutory powers deciding or prescribing the legal rights, powers, privileges, immunities, duties or liabilities of a person or party. In exercising this statutory power in a hearing, as required by The *CA Act*, the minimum rules for proceedings as set out in *The Statutory Powers and Procedures Act* must be followed.

The *Statutory Powers and Procedures Act* is designed to ensure a fair and open hearing. The minimum roles for the proceedings to ensure this are set out in Section 4 through 25 of the Act. This Act sets out minimum rules for giving notice of the applicant of the upcoming hearing, procedure at a hearing, the manner in which evidence is given and the notice of decision. After holding a hearing, the QC Board can:

- grant the permission without conditions;
- grant the permission with conditions; or,
- refuse the permission.

Upon refusal of the application or if permission is granted subject to conditions, the QC Executive Committee shall give written response to the applicant, including reasons, for its decision pursuant to subsection 28.1 (7) of the CA Act.

Detailed Hearing Procedures are included in Appendix H.

9.9 APPEALS

An applicant who has been refused permit at a Hearing or is not in agreement with conditions of an approval issued from a Hearing may, as per S. 28.1(8) of the CA Act, within thirty (30) days of the receipt of the reasons for the decision, submit a request to the Minister of Natural Resources.

Alternatively, pursuant to S. 28.1(20) of the CA Act, within 90 days after receiving the reasons of decision to refuse a permit from the QC Executive Board the applicant may appeal the decision to the Ontario Land Tribunal except in instances where a request for Minister's review has been made (see subsection 28.1(21) of the CA Act).

Finally, pursuant to subsection 28.1(22) of the CA Act, an applicant may appeal an application directly to the Ontario Land Tribunal if no decision has been made 120 days (4 months) after a complete application is made. The Minister may refuse the permit or may order QC to issue the permit, with or without conditions.

Figure 4 below is a diagram illustrating the various appeal processes following a permit application submission.

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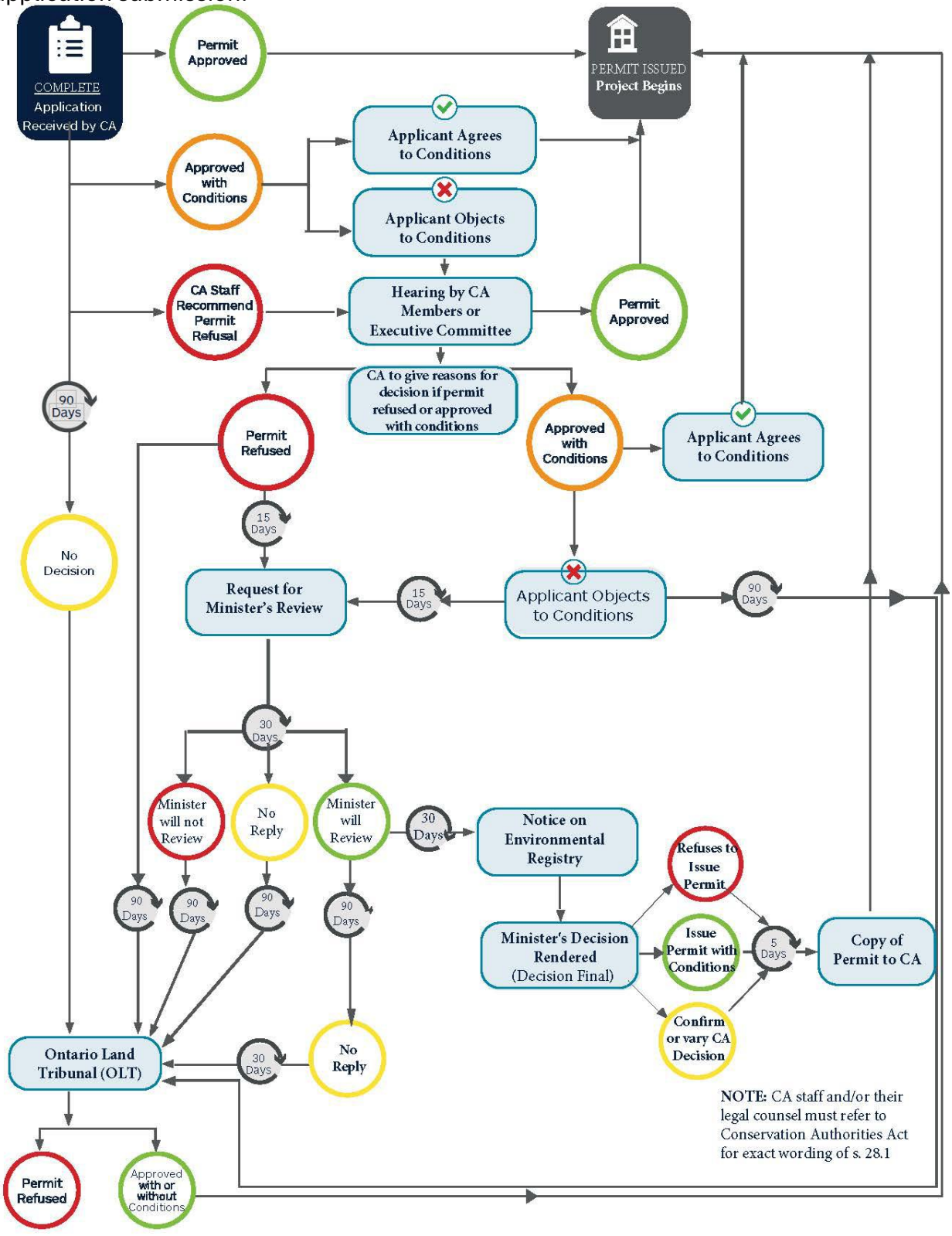

9.10 CANCELLATION OF PERMITS AND CANCELLATION APEALS

Section 28.3(1) of the CA Act enables the CA with the option to cancel a permit issued if it is the CA's opinion that the conditions of the permit have not been met. Pursuant to Subsections 28.3(2) to (6), before cancelling a permit, QC 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 QC within 15 days of receiving a "notice of intent to cancel a permit." QC will then set a date and hold a Hearing by the QC Executive Committee. After a Hearing, a decision may be made to confirm, rescind or vary the decision to cancel a permit. If the permit holder objects to the decision/order of QC Hearing Board or Officer, as the case may be, an appeal of the decision can be made to the Ontario Land Tribunal.

9.11 ENFORCEMENT

Enforcement is a component of QC's mandate to ensure the integrity of the legislation and the protection of people and property in relation to flooding and erosion of natural hazards. Pursuant to section 30.1 of the CA Act, QC has appointed Officers for the purpose of ensuring compliance with the Act and the regulations. These officers have the responsibility of liaising with applicants and inspecting properties.

Responsibilities also include investigating and monitoring violation situations as well as undertaking all other enforcement work under the Act and O. Reg. 41/24. Whenever necessary, each permit issued by QC may also be inspected by QC staff prior to commencement of the activity, during the development activity and following completion of the development activity.

Activities related to compliance and enforcement roles is outlined in the QC Compliance and Enforcement Administrative Guidelines (2024) in Appendix J.

9.12 VIOLATIONS

A violation of O. Reg. 41/24 generally occurs in two ways:

a) when development or interference activities have taken place in an area regulated by QC pursuant to O. Reg. 41/24 without written approval;

b) when development or interference activities have been undertaken contrary to the conditions stipulated in a permit issued by QC.

QC enforcement staff, in coordination with municipal building and/or by-law enforcement staff, may carry out an initial investigation where the activity is clearly visible from a public road or property where access to private property is not required or permitted. Photographs and field notes of the activity taking place are taken and landowner contact is initiated. If the activity is not clearly visible from a public location, QC staff will attempt to contact the landowner to arrange a site visit to discuss the matter. Subsequent to this, a determination regarding whether or not an offence has occurred is made and the appropriate action is taken.

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

The provisions of the *CA Act* and the *Provincial Offences Act* direct QC staff when investigating a violation. It is normal that in addition to any penalty levied by the court upon conviction, QC will seek an order for rehabilitation of the site and/or removal of any buildings, structures, fill material and/or any other development activity ruled in contravention of O. Reg. 41/24.

9.13 COURT/LEGAL ACTION

Penalties available to a Court under the *CA Act* are identified under subsection 30.5(2), which states that a person who commits an offence under the *CA 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."

9.14 TRANSITION PROVISIONS

It is recognized that there may be historic planning approvals that were made in the absence of current technical information or approvals that pre-date the approval of QC's policies which could now be considered to be contrary to the requirements of the *CA Act* and O. Reg. 41/24. Under such circumstances, QC shall ensure that prior to the issuance of a permission all tests are satisfied. Where possible, if an issue remains unresolved, QC will work with the proponent and the municipality to pursue a resolution.

9.15 REVISIONS AND UPDATES TO POLICY AND PROCEDURES

QC's policies will be reviewed and revised to keep in conformity with provincial natural hazard management policy and/or regulatory directions and not to exceed a period 5 years after being updated. A draft document will be posted for public review and comment prior to adoption. Staff will be available to discuss the draft revisions upon request.