Lower Trent Region

Conservation Authority

Ontario Regulation 163/06

Policy Document

Approved by

Lower Trent Region Conservation Authority

Board of Directors

February 10, 2022

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Revision Summary:

Original - Approved May 12, 2016 – RES: G67/16

Revision 1 – Approved April 13, 2017 – RES: G44/17

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1 INTRODUCTION

This is the Policy Document for Ontario Regulation 163/06: Lower Trent Region Conservation Authority: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses. Within this document the Lower Trent Region Conservation Authority is referred to as Lower Trent Conservation or LTC. O.Reg. 163/06 is a Regulation that was enacted in 2006 by the Minister of Natural Resources under the Conservation Authorities Act, R.S.O. 1990, c. C.27.

1.1 Organization of This Document

The first section of this document is the introduction which includes the objective, discussion about relevant legislation, some legislative definitions and references to technical studies identifying hazards in the Lower Trent Conservation watershed. The next 5 sections of this document are organized according to the areas/features regulated under Section 28 of the *Conservation Authorities Act*:

Section 2.0 – General Policies

Section 3.0 - Great Lakes and Large Inland Lakes Shorelines

Section 4.0 - River or Stream Valleys

Section 5.0 - Hazardous Lands (Flood, Erosion, Dynamic Beach, Unstable Soil and Unstable Bedrock)

Section 6.0 – Wetlands

Section 7.0 - Watercourses

Each of these sections is intended to be self-contained while minimizing repetition in the guidelines and all should be read in conjunction with **Section 1.0 Introduction**. 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. In preparing this document, technical publications have been summarized and as such, staff are encouraged to consult the original documents.

It should be noted that although there are Hazardous Lands (flood, erosion and dynamic beach hazards) associated with Great Lakes and Inland Lakes Shorelines, we have included all shoreline hazardous lands in Section 3.0.

In general, each section provides:

- the relevant excerpts from the LTC Regulation shown in a grey box; and
- policy standards for implementing the LTC Regulation.

These suggested policy guidelines follow a format similar to the *Conservation Authorities Act*, Ontario Regulation 97/04 (the generic regulation) and the LTC individual CA Regulations, Ontario Regulation 163/06. That is, the policies address both the “Development Prohibited” and the “Permission to Develop” requirements of the legislation. The language used in the policies is “shall not be permitted” to reflect the prohibition language while the “may permit” caveat is provided because, consistent with the legislation, there is an expectation that LTC may grant “Permission to Develop”, if “in its opinion”, the five tests, where applicable, are satisfied (i.e., “the control of flooding, erosion, dynamic beaches, pollution, or the conservation of land will not be affected”).

Additionally, the "development" policies are complementary to the Natural Heritage (Section 2.1) and Natural Hazard (Section 3.1) policies within the Provincial Policy Statement (PPS 2020). For example, the natural heritage policies 2.1.4 and 2.1.5, which encompass certain wetlands and valley lands, indicate that "Development and site alteration shall not be permitted…unless it has been demonstrated that ….". Additionally, the natural hazard policies (Section 3.1) state that "Development or site alteration shall generally be directed to areas outside of …." or that it "shall not be permitted" (i.e. in a land use planning context) while in other policies recognizing that "further to …… development and site alteration may be permitted…".

Section 8.0 – Procedure for Applications under O.Reg. 163/06

Section 9.0 - Glossary (It provides definitions for the purpose of interpreting and implementing the development policy.)

General Technical Guidelines that provide background information on defining the area of regulation are included in **Appendix A**. Lower Trent Conservation's jurisdiction to apply the regulation is defined by our Orders in Council, which can be found in **Appendix H.** In 2018, Lower Trent Conservation and the Municipality of Trent Hills worked together on the expansion of LTC's jurisdiction in the north section of Trent Hills. This resolution was acknowledged by the province in early 2019. Documentation of this expansion is also included in **Appendix H.**

1.2 Objective

The objective of this document is to provide policy guidelines to assist the Lower Trent Region Conservation Authority (LTC) in interpreting and implementing the *Conservation Authorities Act*, Section 28 (1) Regulations (i.e. Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulations).

The overall approach of this document is to provide for a consistent policy interpretation and implementation across the watershed by staff.

1.3 Notes Regarding Ontario Ministry Names

Provincial Ministries have gone through a number of name modifications due to changes in political ideology or focus. In the following document references to the current version of the Ministry label have been made but in referencing certain publications by these ministries under previous names, the previous name or acronym associated with the publication at that time is used.

Ministry of Environment, Conservation and Parks (MECP) (2018 to present) was previously known as Ministry of the Environment (MOE), (1972 – 1993, 1998 -2014), Ministry of Environment and Energy (MOEE) (1993 – 1997) and the Ministry of Environment and Climate Change (MOECC) (2014 – 2018).

The Ministry of Northern Development, Mines, Natural Resources and Forestry (NDMNRF) (2021–present) was previously known as the Ministry of Natural Resources and Forestry (MNRF) (2014-2021) and Ministry of Natural Resources (MNR) (1997 – 2014).

The Ministry of Agriculture, Food and Rural Affairs (OMAFRA) has held this name since 1994. Prior to that it was known as the Ministry of Agriculture and Food (1972-1994).

The Ministry of Municipal Affairs and Housing (MMAH) has existed since 1981 but Housing and Municipal Affairs were separate ministries for short periods in this time frame (1985-1989 and 1991-1995).

1.4 Overview of Legislative Framework

1.4.1 Conservation Authorities Act

The *Conservation Authorities Act* (CAA) 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 *Conservation Authorities Act* first empowered a Conservation Authority (CA) 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 *Conservation Authorities Act* further extended the Regulations to prohibit or control construction and alteration to waterways, in addition to filling.

In 1998, the *Conservation Authorities 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 current "Development, Interference with Wetlands and Alterations to Shorelines and Watercourses" Regulation in 2006. While some CAs have been regulating wetlands, shorelines and inter-connecting channels for years, the amendments required all CAs to regulate Great Lakes shorelines, inter-connecting channels[1], large inland lakes and wetlands in addition to the areas and features each CA historically regulated.

Section 28 of the *Conservation Authorities Act*, as provided in **Appendix B**, includes the following section:

28. (1) Subject to the approval of the Minister, an authority may make regulations applicable in the area under its jurisdiction

(a) restricting and regulating the use of water in or from rivers, streams, inland lakes, ponds, wetlands and natural or artificially constructed depressions in rivers or streams;

(b) prohibiting, regulating or requiring the permission of the authority for straightening, changing, diverting or interfering in any way with the existing channel of a river, creek, stream or watercourse, or for changing or interfering in any way with a wetland;

[1] With the exception of the Niagara River which is governed federally for hydro production at Niagara Falls.

(c) prohibiting, regulating or requiring the permission of the authority for development if, in the opinion of the authority, the control of flooding, erosion, dynamic beaches or pollution or the conservation of land may be affected by the development;

(d) providing for the appointment of officers to enforce any regulation made under this section or section 29;

(e) providing for the appointment of persons to act as officers with all of the powers and duties of officers to enforce any regulation made under this section.

Section 28 (1)(a) was not enacted under Ontario Regulation 97/04 because of the overlap and potential confusion with the Ministry of Environment, Conservation and Parks *Ontario Water Resources Act* and related regulations (i.e. Permits to Take Water).

There is a proposed new Section 28 in the CAA that has not yet been proclaimed. The new wording has been included in the CAA Act in **Appendix B** for reference as greyed text boxes. At the time that these changes are enacted, this Regulation Policy document will be required to be updated to reflect the changes.

In 2018 the provincial government moved the oversight of the Conservation Authorities Act from the NDMNRF to the MECP (and thus the name change for this ministry). However, the Section 28 regulations remain under the authority of the NDMNRF as the Ministry overseeing natural hazards. Updated Section 28 regulations are pending and when the updated regulations are released and approved by the Crown then these policies will require updating.

1.4.2 Ministers Zoning Order – Permission for Development

In 2020 changes were made to the CAA and other legislation that require Conservation Authorities to issue permits when a zoning order has been made by the Minister of Municipal Affairs and Housing under section 47 of the *Planning Act.* This authorizes the development project under the Planning Act even if the proposal does not comply with other requirements of the CAA. Ministerial Zoning Orders fall under Section 28.0.1 of the CAA. Conservation Authorities cannot refuse to issue these permits under a Minister's Zoning Order but can require conditions to be placed on the permission.

Section 28.0.1 of the *Conservation Authorities Act* includes the following sections:

(1) This section applies to any application submitted to an authority under a regulation made under subsection 28 (1) for permission to carry out all or part of a development project in the authority's area of jurisdiction if,

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

(2) In this section, "development project" means a development project that includes any development as defined in subsection 28 (25) or any other act or activity that would be prohibited under this Act and the regulations unless permission to carry out the activity is granted by the affected authority.

(3) Subject to the regulations made under subsection (35), an authority that receives an application for permission to carry out all or part of a development project in the authority's area of jurisdiction shall grant the permission if all of the requirements in clauses (1) (a), (b) and (c) are satisfied.

(4) For greater certainty, an authority shall not refuse to grant permission for a development project under subsection (3) despite,

(a) anything in section 28 or in a regulation made under section 28; and
(b) anything in subsection 3 (5) of the Planning Act.

Note that Hearings made be held to address Conditions that the Conservation Authority includes with the Required Permission granted under this section of the Act if the applicant does not agree with the Conditions. The Hearings Guidelines (**Appendix G**) have been updated to include these types of procedures as well.

1.4.3 Exceptions under the *Conservation Authorities Act*

Section 28 of the *Conservation Authorities Act* includes the following sections dealing with exceptions:

(10) No regulation made under subsection (1),

(a) shall limit the use of water for domestic or livestock purposes;

(b) shall interfere with any rights or powers conferred upon a municipality in respect of the use of water for municipal purposes;

(c) shall interfere with any rights or powers of any board or commission that is performing its functions for or on behalf of the Government of Ontario; or

(d) shall interfere with any rights or powers under the Electricity Act, 1998 or the Public Utilities Act, 1998.

(11) A requirement for permission of an authority in a regulation made under clause (1) (b) or (c) does not apply to an activity approved under the *Aggregate Resources Act* after the *Red Tape Reduction Act*, 1998 received Royal Assent.

While Section 28 (11) provides an exemption to the requirement for a CA's permission, Section 28 (10) does not. As such, a proponent is still required to obtain permission from a CA for any development within a regulated area or interference to a wetland or watercourse associated with the items listed in Section 28 (10). However, a CA must ensure their Regulation and policies do not limit the uses or interfere with the rights or powers listed in Section 28 (10). This allows a CA to ensure that there is no interference with a wetland or watercourse or the interference is minimized to the extent possible and that the control of flooding, erosion, dynamic beaches or

pollution or the conservation of land are either not affected by the development or the impacts are minimized to the extent possible.

Additionally, it is noted that the *Conservation Authorities 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 permission under the *Conservation Authorities Act*. The same is true for proponents proposing to undertake activities entirely on Crown Land. Voluntary compliance with the review process requirement is always a possibility for the Crowns and their Agencies. Through their policies, the CAs may invite them to voluntarily submit proposals for works through the permit review process. Although best practice would suggest that they comply to ensure a sufficient technical review of their activity, they are within their legal rights to refuse to participate in the voluntary review process. Typically projects by the Crown on Crown land do not require permission from LTC. However, projects by private entities on Crown Land do require permission through LTC.

In 2021 the Memorandum of Understanding (MOU) between Conservation Ontario and Hydro One Networks Inc. was updated (from original 2011 MOU) to address the reduced public ownership of the company. Their status as a Crown Corporation was no longer valid and exemptions provided under the CAA are no longer applicable. Therefore, activities by Hydro One require permits from LTC. Please reference the "*2021 Memorandum of Understanding between Conservation Ontario and Hydro One Networks Inc.*" endorsed by Conservation Ontario Council on June 21, 2021 and by Hydro One Networks on July 19, 2021. Specific forms have been developed for these permits and are available at the LTC Office.

1.4.4 Ontario Regulation 97/04

Ontario Regulation 97/04 "*Content of Conservation Authority Regulations under Subsection 28 (1) of the Act: Development, Interference with Wetlands and Alterations to Shorelines and Watercourses*" (i.e. Generic Regulation) was approved in May 2004 following a prescribed public consultation process. A copy of Ontario Regulation 97/04 is provided in **Appendix C**. This Regulation established the content requirements to be met in a Regulation made by a CA under Subsection 28 (1) of the *Conservation Authorities Act*.

1.4.5 LTC Section 28 Regulation, Ontario Regulation 163/06

In 2006, the Minister of Natural Resources approved the Development, Interference and Alteration Regulations (individual CA Regulations) for all CAs consistent with Ontario Regulation 97/04 of the *Conservation Authorities Act*. LTC's Regulation is identified as Ontario Regulation 163/06 and is provided in **Appendix D**. LTC regulates all components noted in Section 28(1) (b) and (c) of the Act, within the area of its jurisdiction.

LTC 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.

It is not necessary to map a feature before it can be regulated. The legal basis for defining regulated areas remains with the written text. While the LTC Regulation refers to maps which approximate regulation limits (and may be subject to revision), the text of the Regulation prevails. The *Guidelines for Developing Schedules of Regulated Areas* (MNR and CO, 2005) identify the requirements for the preparation of maps and/or revisions to existing maps. Detailed studies requested at the time of an application may further refine or delineate the regulated features (e.g., hazardous lands).

Board-approved policies provide a decision-making framework for the review of applications under the Regulation. In general, policies ensure a consistent, timely and fair approach to the review of applications, staff recommendations, and Board decisions. They also facilitate the effective and efficient use and allocation of available resources.

The hierarchy of legislation and policies described in this section is depicted in Figure 1 below.

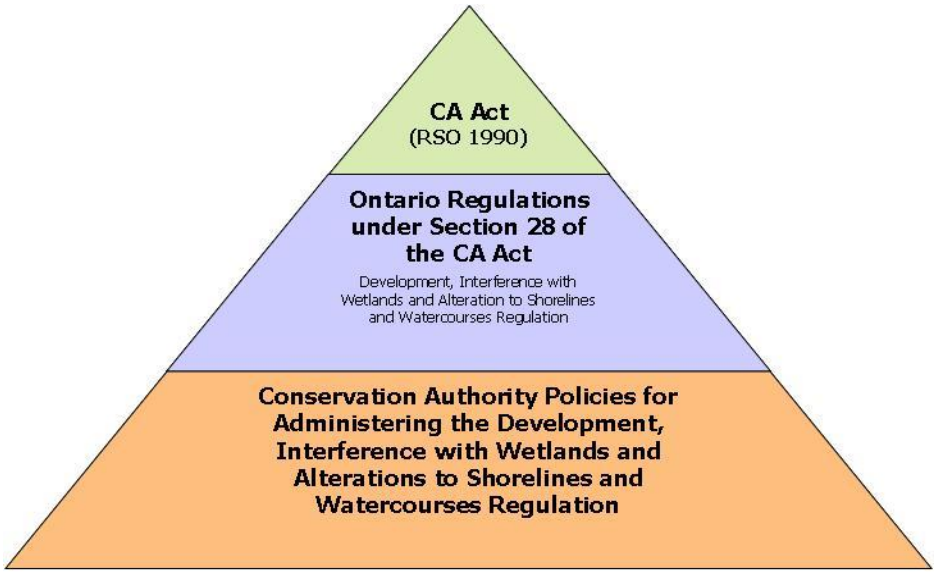

Figure 1: Hierarchy of Legislation and Policies

Permit Approval Process

To receive permission for proposed works in regulated areas the proponent must submit a permit application to LTC for approval prior to any works. A summary of the permit approval process is outlined below and is discussed in further detail in Section 8 of this document.

- To receive permission for development, it must be demonstrated in an application to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected. The control of dynamic beaches is applicable to the Lake Ontario shoreline.

- To receive permission to interfere with a watercourse or wetland, it must be demonstrated in an application to the satisfaction of LTC, that the interference on the watercourse or wetland is acceptable in terms of the natural features and hydrologic and ecological functions of the watercourse or wetland.
- To receive permission for development within "other areas" associated with wetlands, it must be demonstrated in an application that interference on the hydrologic functions of the wetland is deemed acceptable.

Permission from LTC will be given in the form of a formal permit and a letter of permission. For any type of application, submission of technical studies may 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 and recognized methodologies to the satisfaction of LTC. These established procedures should be in keeping with NDMNRF's Technical Guides for Natural Hazards (MNR, 2002a; MNR, 2002b; MNR, 1996a; MNR, 1996b; and MNR 1996c), other Provincial guidelines and/or guidelines approved by the LTC Board. LTC may request that technical studies be carried out at the expense of the applicant.

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

1.4.6 Mandatory Services and Programs O.Reg. 686/21

In October 2021, the provincial government defined the Mandatory Programs and Services to be offered by Conservation Authorities in a new regulation under the CAA. O.Reg. 686/21 came into effect on January 1, 2022. Implications of this new regulation for THIS policy document reflect changes to definitions to be used under the CAA and other associated regulations. Specifically, the definitions in the Provincial Policy Statement (PPS 2020) are to be used with respect to regulated area delineation. These new definitions are discussed in the PPS Section below (Section 1.5.2.) and are included in Section 9.0 Glossary of this document. Definitions in the CAA have been updated in this document (Section 1.6.1.) have been updated with these changes as well. The Regulation has been included as **Appendix J**.

It should be noted that with the updated definitions Hazardous Sites have been separated from Hazardous Lands. Although LTC's Regulation O.Reg. 163/06 only refers to Hazardous Lands, O.Reg. 686/21 does note that an authority shall provide the programs and services for a list of natural hazards that includes Hazardous Sites and Section 28 Regulations are included in the list of programs and services. Therefore, Hazardous Sites are included as regulated features in this policy document.

1.5 Other Related Legislation

It is important to note that the LTC Section 28 permission, if granted, does not exempt the applicant from complying with any or all other approvals, laws, statutes, ordinances, directives and regulations that may affect the property or the use of same. Alternatively, complying with or obtaining all other approvals, laws, statutes, ordinances, directives and regulations, does not exempt the applicant from obtaining permission under Section 28 of the *Conservation Authorities Act*.

1.5.1 Planning Act

LTC is also involved in the review of planning applications under the *Planning Act* primarily in four ways: as an agency with delegated responsibilities for the review of natural hazards; as a regulatory agency with respect to O.Reg. 163/06; as a technical advisor; and as a commenting agency.

Ontario Regulation 163/06 is intended to be used in a manner that will complement the Natural Hazard (Section 3.1), Natural Heritage (Section 2.1 – Wetlands and Valley Lands) and Water (Section 2.2) policies of the 2020 Provincial Policy Statement (PPS) under the *Planning Act.* However, delegated responsibility for providing input with respect to provincial interests under the PPS is limited to Section 3.1 – Natural Hazards. This delegation of responsibility requires LTC to review and provide comments on policy documents (Official Plans and Comprehensive Zoning By-laws) and applications submitted pursuant to the *Planning Act* as part of the Provincial One Window Planning Service.

As noted in the *Memorandum of Understanding on Procedures to Address CA Delegated Responsibility* (**Appendix E**), LTC may also provide a technical advisory service to our member municipalities for planning applications. In this capacity, LTC staff provide technical input regarding potential environmental impacts and advice about how negative impacts can be avoided or minimized. Comments could apply to a range of matters including, but not limited to natural hazards, natural heritage, and water quality and quantity as well as other Provincial Plans such as the Oak Ridges Moraine Protection Plan and the Greater Golden Horseshoe Growth Plan.

In addition, regulations under the *Planning Act* (O.Reg. 545/06, 543/06 and 200/96) require municipalities to give notice to CAs regarding planning applications and changes to policy documents. In its capacity as a commenting agency, LTC may provide additional advisory comments that relate to its goals and objectives for watershed management.

One of the main differences between the PPS and the Development, Interference and Alteration Regulations is that the *Planning Act* establishes the principle of development and the LTC regulations, like a building permit, identify specific site requirements prior to activities taking place. Prior to the review of a Regulation application, LTC will often see the proposal through their Plan Review process including applications under the *Planning Act* (e.g., severances, site plan, subdivision applications), and the *Environmental Assessment Act*. Although permission may not be issued for many years after the planning application, LTC endeavours to ensure, through its comments on the planning application, that the requirements under the Regulation process can be fulfilled at the time an application under the Regulation is received.

If an application under the *Planning Act* does not meet the Board approved policies (for its regulations), staff should work with the municipality and the proponent to modify the application. As previously noted, the principle of development is established through the *Planning Act* process. It is not acceptable to recommend approval of a planning application and then recommend refusal of a regulatory permission, unless the applicant refuses to meet the specific requirements under the Regulation. If an issue remains unresolved, LTC should not recommend approval of the *Planning Act* application and assess the option of making an appeal

to the Ontario Land Tribunal (OLT). Note that Conservation Authorities ability to appeal to the OLT regarding municipal decisions of planning act applications was limited to appeals regarding Natural Hazards only with the approval of Bill 229 - An Act to implement Budget measures and to enact, amend and repeal various statutes, in December 2020.

Alternatively, it is also recognized that there may be historic planning approval decisions that were made in the absence of current technical information or prior to the establishment of the current regulations and policies, which would now preclude development. In these situations, innovative efforts may be necessary to address the site constraints and accommodate the development. However, in some cases approval should not be granted.

1.5.2 Other Legislation

There are many other pieces of legislation that address various water and related resource management activities. Some of the key pieces of legislation include:

- *Fisheries Act* (Fisheries and Oceans Canada): managing threats to the sustainability and ongoing productivity of Canada's commercial, recreational and Aboriginal fisheries;
- *Lakes and Rivers Improvement Act* (NDMNRF): provides the Minister of Northern Development, Mines, Natural Resources and Forestry with the legislative authority to govern the design, construction, operation, maintenance and safety of dams in Ontario;
- *Public Lands Act* (NDMNRF): the "rules" governing the administration of Crown land are laid out in a provincial law known as the Public Lands Act;
- *Environmental Assessment Act* (MECP): requires an environmental assessment of any major public sector undertaking that has the potential for significant environmental effects. This includes public roads, transit, wastewater and stormwater installations;
- *Water Resources Act* (MECP): designed to conserve, protect and manage Ontario's water resources for efficient and sustainable use. The *Act* focuses on both groundwater and surface water throughout the province; and
- *Drainage Act* (OMAFRA): provides a democratic procedure for the construction, improvement and maintenance of drainage works.

1.6 Definitions and Interpretations

The following sections outline the key definitions and interpretations recommended for implementing the Regulations. The Regulation allows LTC to prohibit or restrict development (as defined in the *Conservation Authorities Act*) in areas where the control of flooding, erosion, dynamic beaches, pollution or the conservation of land may be affected by development. The Regulation also allows for the regulation of interference of watercourses and wetlands. The *Conservation Authorities Act* and the Regulations do not provide definitions for many of these terms. Therefore, other relevant documents were reviewed by the Conservation Ontario Peer Review Committee in 2006 to 2008 in an effort to establish interpretations for those terms not defined in the *Conservation Authorities Act*. It is important to note that where definitions are provided in the *Conservation Authorities Act*, these definitions (e.g. "development") prevail for the implementation of the Regulation, even if other definitions exist in other relevant documents.

The following definitions provided are essential for interpreting this document and as such are defined in the next sections. Additional definitions of common terms and those used for implementation of this document can be found in Section 9.0 (Glossary). Words found in the Glossary are italicized in the text.

1.6.1 Conservation Authorities Act

Section 28 (25) of the Conservation Authorities Act provides the following definitions, some of which have been updated pursuant to O.Reg. 686/21 to include definitions from the PPS 2020:

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, increasing the size of the building or structure or increasing the number of dwelling units in the building or structure,

(c) site grading, or

(d) the temporary or permanent placing, dumping or removal of any material, originating on the site or elsewhere

Hazardous Land (updated definition) means:

Property or lands that could be unsafe for development due to naturally occurring processes. Along the shorelines of the Great Lakes - St. Lawrence River System, this means the land, including that covered by water, between the international boundary, where applicable, and the furthest landward limit of the flooding hazard, erosion hazard or dynamic beach hazard limits. Along the shorelines of large inland lakes, this means the land, including that covered by water, between a defined offshore distance or depth and the furthest landward limit of the flooding hazard, erosion hazard or dynamic beach hazard limits. Along river, stream and small inland lake systems, this means the land, including that covered by water, to the furthest landward limit of the flooding hazard or erosion hazard limits.

Pollution means:

"…any deleterious physical substance or other contaminant that has the potential to be generated by development in an area to which a regulation made under clause (1) (c) applies"

Watercourse means:

"… an identifiable depression in the ground in which a flow of water regularly or continuously occurs"

Wetland (updated definition) means:

Lands that are seasonally or permanently covered by shallow water, as well as lands where the water table is close to or at the surface. In either case the presence of abundant water has caused the formation of hydric soils and has favoured the dominance of either hydrophytic plants or water tolerant plants. The four major types of wetlands are swamps, marshes, bogs and fens. Periodically soaked or wet lands being used for agricultural purposes which no longer exhibit wetland characteristics are not considered to be wetlands for the purposes of this definition.

1.6.2 Provincial Policy Statement

The Provincial Policy Statement (PPS 2020) provides the following definitions, which are now to be used in conjunction with the regulations under the Conservation Authorities Act;

Erosion Hazard means:

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

Flooding Hazard means:

… the inundation, under the conditions specified below, of areas adjacent to a shoreline or a river or stream system and not ordinarily covered by water:

a) Along the shorelines of the Great Lakes - St. Lawrence River System and large inland lakes, the flooding hazard limit is based on the one-hundred-year flood level plus an allowance for wave uprush and other water-related hazards;

b) Along river, stream and small inland lake systems, the flooding hazard limit is the greater of:

    1. the flood resulting from the rainfall actually experienced during a major storm such as the Hurricane Hazel storm (1954) or the Timmins storm (1961), transposed over a specific watershed and combined with the local conditions, where evidence suggests that the storm event could have potentially occurred over watersheds in the general area;

    2. the one-hundred-year flood; and

    3. a flood which is greater than 1. or 2. which was actually experienced in a particular watershed or portion thereof as a result of ice jams and which has been approved as the standard for that specific area by the Minister of Natural Resources and Forestry;

except where the use of the one-hundred-year flood or the actually experienced event has been approved by the Minister of Natural Resources and Forestry as the standard for a specific watershed (where the past history of flooding supports the lowering of the standard).

Dynamic Beach Hazard means:

… areas of inherently unstable accumulations of shoreline sediments along the Great Lakes – St. Lawrence River System and large inland lakes, as identified by provincial standards, as amended from time to time. The dynamic beach hazard limit consists of the flooding hazard limit plus a dynamic beach allowance.

Hazardous Sites (updated definition) means:

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

1.6.3 Additional Interpretations

"Conservation of Land" is not defined in the *Act* or Regulation or any other planning document prepared by the Province. Based on the review of all of the decisions in their entirety, the **interpretation** below was developed by the Conservation Ontario Section 28 Peer Review and Implementation Committee with representatives from the Ontario Ministry of Natural Resources and Forestry.

Conservation of Land is interpreted as:

… the protection, management, or restoration of lands within the watershed ecosystem for the purpose of maintaining or enhancing the natural features and hydrologic and ecological functions within the watershed (February 2008).

The common uses of words in this interpretation can be found in the Oxford Dictionary as follows:

> **Protection** means to defend or keep safe from or against danger or injury. (It is assumed that this would apply to animate (people) as well as inanimate objects (land or property).
>
> **Management** means organize or regulate (while management can also mean managing or being managed as well as being in charge of administration of business concerns or public undertakings).
>
> **Restoration** means to bring back to original state or bring back to former place or condition; restoration is the act of restoring. (Restoration can also apply to rebuilding or repairing).
>
> **Maintaining** means to cause to continue; retain in being; take action to preserve in good order (such as in a machine or house etc.)
>
> **Enhancing** means to heighten or intensify (quality).

For further background information, all Ontario Land Tribunal (formerly Mining and Lands Commissioner) decisions regarding Section 28 of the *Conservation Authorities Act* may be found at: https://olt.gov.on.ca/tribunals/mlt/decisions/

In addition, the *Conservation Authorities Act* and Ontario Regulation 97/04 do not define "Interference" nor was any definition found in any other planning document; hence, the **interpretation** below was developed by the Conservation Ontario Section 28 Peer Review and Implementation Committee with representatives from the Ontario Ministry of Natural Resources and Forestry. Under the Regulation, "interference" only applies to projects within watercourses and wetlands.

Interference in any way is interpreted as:

"any anthropogenic act or instance which hinders, disrupts, degrades or impedes in any way the natural features or hydrologic and ecologic functions of a wetland or watercourse" (March 2008).

The common uses of words in this interpretation can be found in the Oxford Dictionary as follows:

Hinder means to delay or impede

Disrupt means to interrupt or disturb (an activity or process)

Degrade means lower the character or quality of

Impede means to delay or block the progress or action of

1.7 Activities Typically Regulated

The following list identifies examples of development activities that LTC typically regulates. In many cases, the proposed development and proposed ancillary uses of the development could detrimentally affect the control of flooding, erosion, pollution, dynamic beaches, or the conservation of land. These development activities may include, but are not limited to:

- Construction of all buildings and additions including modification or reconstruction of foundations which support existing buildings;
- Breakwalls, revetments, rubble groynes, jetties, etc;
- Other similar marine works on or near shorelines or lakeshores;
- Dock Abutments;
- 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;
- Park model trailers and mobile homes;
- Bridges, crossings, roads and pipelines; and
- Municipal drains.

In some cases (e.g., docks), permits may not be required from LTC if permission is granted by Parks Canada or NDMNRF. In other cases (e.g., shoreline protection) permits may be required from more than one agency.

Repairs and renovations to an existing building within the existing roofline and exterior walls and above the existing foundation within a hazard area would not require the permission of LTC, unless the proposal is associated with a change in use or increases the number of dwelling units. This type of activity could increase the risk to life, social disruption, or result in damages from the hazard.

It is the direction of LTC to limit the size and number of proposed works. This will assist in assessing cumulative impacts of multiple structures or other development on a subject property, over a period of time.

1.8 Provincial Perspective on Natural Hazards

1.8.1 Introduction

The Ministry of Northern Development, Mines, Natural Resources and Forestry 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.

Details related to natural hazard management applications are contained in the Natural Hazards Technical Guides (MNR, 2002a; MNR, 2002b; MNR, 1996a; MNR, 1996b; and MNR 1996c).

1.8.2 Principles

The guiding principles behind natural hazard management are:

- Proper natural hazard management requires that natural hazards (flooding, erosion, leda clay, organic soils, karst bedrock, dynamic beaches) 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, Conservation Authorities, the Ministry of Northern Development, Mines, Natural Resources and Forestry, and the Ministry of Municipal Affairs and Housing.

1.8.3 Consideration of Ingress/Egress

The ability for the public and emergency operations personnel (police, firefighters, ambulance, etc.) to safely access a regulated feature during an emergency, such as a flooding event, is an important factor when considering any application for development. Proposals must be reviewed to ensure access to the proposed development is safe and appropriate for the proposed use. The provision of means by which people, vehicles, and equipment can gain access to and from the regulated feature for maintenance and/or construction of remedial works must also be considered.

In the context of new development, the risks should be controlled by prohibiting development in dangerous or inaccessible portions of the regulated feature.

For existing development, safety risks are a function of the occupancy of structures, the susceptibility of the structure and the access routes to the structure. For existing development, the following factors should be considered:

- The degree of risk with the use of the existing access;
- The ability to modify the existing access or construct a new safe access;
- The ability to find and use the access during an emergency; and
- The ability and willingness of the municipality (emergency vehicles) to use the access.

The risk can also be controlled by limiting the size (and therefore limiting the occupancy) of additions or reconstruction projects. If the risk is determined to be too great, no modifications/alterations/reconstructions of existing structures should be considered.

1.8.4 Floodproofing

The “Floodproofing Standard” as defined in the PPS means:

> the combination of measures incorporated into the basic design and/or construction of buildings, structures, or properties to reduce or eliminate flooding hazards, wave uprush and other water related hazards along the shorelines of the Great Lakes-St. Lawrence River System and large inland lakes and flooding hazards along river, stream and small inland lake systems.

Floodproofing includes alteration to the design of specific buildings, raising of ingress and egress roadways and driveways, the construction of dykes, flood control channels, etc. The variety of floodproofing options and requirements are too detailed and extensive to include in a policy and procedures guideline. LTC has established criteria which are outlined in **Appendix F**. Additional information is also available for referencing in the “Technical Guide – River and Stream Systems: Flooding Hazard limit” (MNR, 2002a).

1.9 Flood, Erosion and Dynamic Beach Hazard Applications in the Lower Trent Conservation Watershed

The regulatory standard for the Lower Trent watershed is:

- Lake Ontario: 1:100-year event
- Trent River: 1:100-year event
- All other watercourses: Timmins event

In the LTC watershed, the following flood, erosion and dynamic beach hazards are applied and the reference documents are listed here for each delineated floodplain.

1.9.1 Lake Ontario

The flood hazard for Lake Ontario 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. These hazards along with dynamic beach hazards for Lake Ontario were first identified in the following report:

- Lake Ontario Shoreline Management Plan (LOSMP), 1990, by Sandwell, Swan & Wooster.

Final flood hazard elevations were provided in an update, dated December 1992. Subsequent shoreline studies for the Township of Alnwick/Haldimand and Township of Cramahe were undertaken to build on the information provided in the "Sandwell Report". The updated studies were:

- *Cramahe Shorelands Project*, 1997
- *Alnwick/Haldimand Township Lake Ontario Shorelands Project*, 2002.

In 2018 to 2020, LTC undertook an update to the Shoreline Management Reports in partnership with the Ganaraska Region Conservation Authority (GRCA) and Central Lake Ontario Conservation Authority (CLOCA). The resulting report provided much needed updates to flood, erosion and dynamic beach hazards along the Lower Trent Conservation portion of the Lake Ontario Shoreline. This study extended from Wellers Bay in the City of Quinte West in the east to the western boundary of the Township of Alnwick/Haldimand. The current Lake Ontario hazard report is:

- *Lake Ontario Shoreline Management Plan, November 5, 2020 (Zuzek)*

The resulting 100-year combined (still water and wind setup) flood level for the LTC Lake Ontario shoreline is 75.97 metres CGVD28 (Canadian Geodetic Vertical Datum 1928) with varying wave uprush considerations that determine the entire Flood Hazard delineation.

There were no detailed technical studies for the Bay of Quinte portion of Lake Ontario but a Memorandum by the MNR (February 21, 1991–see **Appendix I**) identified the 100-year water level for the Lower Trent Conservation portion of the Bay of Quinte as 75.8 metres CGVD28.

During the 2019-2020 Lake Ontario Shoreline Update, LTC contracted SJL Engineering to provide an update on the Combined 100-year Flood Level for the Bay of Quinte based on statistical

analyses completed with the Lake Ontario Study. The resulting memorandum provides an update for the flood level for the Bay of Quinte and is found in **Appendix I**. The resulting flood level for the Bay of Quinte is 76.05 metres CGVD28:

- *Bay of Quinte 100-Year Combined Flood Level, February 29, 2020 (SJL Engineering)*

There are communications in the historic memos about wave uprush to be used on the Bay of Quinte in the communications between MNR and the Bay of Quinte Conservation Authorities and three acceptable methods to calculate wave uprush were documented. Lower Trent Conservation applies a 0.2 metre uprush to the 100-year flood limit on the Bay of Quinte, resulting in a Flood Hazard elevation of 76.25 metres CGVD28.

There are no dynamic beach hazards identified on the Bay of Quinte and the standard erosion hazard of 15 metres from the 100-year flood elevation has been applied as per NDMNRF Technical Guidelines for Large Inland Lakes, 1996.

1.9.2 Other Lakes

Both Little Lake in the Township of Cramahe and Oak Lake in the City of Quinte West originally had mapped flood lines that had not been delineated through engineered studies. These lines were identified as a horizontally measured 15 metre zone around the average lake water level to delineate a potential high-water level. A 15-metre regulation limit was applied to these floodlines for a regulated area of 30 metres beyond the typical water's edge.

In 2021 LTC staff conducted a preliminary hydrology assessment of Little Lake and used LiDAR mapping provided through OMAFRA to better identify the actual flood hazard for Little Lake. This mapping has now been incorporated into the LTC mapping. Flood Hazard elevations for Little Lake are 171.93 metres CGVD2013 or **172.28 metres CGVD1928**. Calculations for this assessment are provided in **Appendix K**.

The preliminary hydrology to calculate flood depths for Oak Lake has been undertaken but there is not accurate topographic information to determine the flood hazard mapping for Oak Lake at this time. Therefore, the 15-metre setback is still in effect without confirmed flood hazard elevation.

Oak Lake is identified as Area Specific Policy 3 in the City of Quinte West Official Plan and the LTC regulated area is still defined as stated above. Planning studies may be required before Lower Trent Conservation can issue permits. These policies should be reviewed in consultation with City of Quinte West planning staff, prior to approval of any LTC permits.

Policies specific to flood hazards on Little Lake and Oak Lake are found in Section 5.2.1.1. regarding One-Zone Floodplain mapping.

1.9.3 Trent River and Rice Lake

The regulatory event for the Trent River is the 100-year event. The floodplain delineations were completed in two studies and both are treated as one-zone areas. The first study defined the floodplain from the Bay of Quinte to Highway 401 and the second study defined the floodplain from Highway 401 to Rice Lake.

- Trent River Floodplain Mapping Report, 1975. M.M. Dillon Limited.
  (Associated Mapping TR-T-1 to TR-T-4).
- Floodplain Mapping Study of the Trent River, 1983. Cumming-Cockburn & Associates.
  1:5000 mapping TR-1 to TR-45
  1:2000 mapping of Flood Damage Areas:
  Hastings: (TR-H-1 to TR-H-5)
  Campbellford: (TR-C-1 to TR-C-5)
  Percy Boom: TR-PB-1 to TR-PB-3)
  Frankford: (TR-F-1 to TR-F-4)

Note that Rice Lake is listed as the smallest of the Large Inland Lakes in the MNR Technical Guide with an area of 100 km2. There are no technical studies assessing erosion or dynamic beach hazards on Rice Lake and therefore the flood elevation for Rice Lake identified in the Trent River mapping is the only hazard delineated for Rice Lake at this time (187.9 metres CGVD28). This is covered in Trent River maps (TR-46 to TR-62). Also note that there are some steep shorelines along Rice Lake that would require erosion hazard assessment for steep slopes, similar to a riverine system.

1.9.4 One-Zone Riverine Areas

Not all streams have delineated floodplains in the Lower Trent Conservation watershed. However, the following reports have floodplain delineations associated with them. The creek name and associated reports are listed below. All of these floodplains have been delineated with the Timmins Storm Regulatory event.

- **Shelter Valley & Barnum House Creeks:** Shelter Valley and Barnum House Creeks Floodplain Study, 1978. Crysler & Lathem Ltd.
- **Colborne Creek (Colborne):** Floodplain Mapping Colborne Creek, Village of Colborne, 1982. Kilborn Limited (Note: 2-Zone study undertaken but results did not support creation of a 2-Zone policy).
- **Dead & York Creeks (Murray Ward):** Dead & York Creek Subwatershed Plan, 1998. Totten Sims Hubicki Associates.
- **DND Creek (Trenton):** DND Creek Floodline Mapping Study, 2002. PSR Group Ltd.
- **Glen Miller Creek (Trenton & Sidney Ward):** Floodplain Mapping and Preliminary Engineering Study, Glen Miller Creek, 1983. Cumming-Cockburn & Associates Limited (CCA); and the Spill Analysis of the Glen Miller Creek by CCA dated April 1984.
- **Killoran Creek (Hastings):** Killoran Creek Flood Reduction Study, 1985. Totten Sims Hubicki Associates.
- **Mill/Burnley Creek (Warkworth):** Mill Creek Preliminary Engineering Study, 1983. Cumming-Cockburn & Associates Limited.
- **Rawdon Creek (Stirling other than SPA):** Flood Damage Reduction Study, Rawdon Creek, Village of Stirling, 1985. Kilborn Limited.
- **Meyers, Massey and other South Sidney Creeks (Sidney Ward):** South Sidney Watershed Plan, 1985. Totten Sims Hubicki Associates.

1.9.5 Two-Zone Areas

Two zone concepts recognize that floodplains can be divided into two zones: the floodway, where the majority of the flood is conveyed, and flood fringes, which exist on both sides of the floodway. They can be established by a Municipality in conjunction with the Conservation Authority and MNRF, following recommendations of a detailed engineering study.

There are four two-zone policy areas located within the Lower Trent Watershed: Butler Creek in Brighton, Cold Creek in Frankford; Mayhew Creek in Trenton and Trout Creek in Campbellford. The studies and maps associated with these areas are as follows:

- **Butler Creek 2-Zone (Brighton):** Butler Creek Flood Reduction Study, 1988. Totten Sims Hubicki Associates.
- **Cold Creek 2-Zone (Frankford)**: Floodplain Assessment & Policy Formulation for a Two Zone Concept Application in the Village of Frankford, July 1983. Totten Sims Hubicki Associates.
- **Mayhew Creek 2-Zone (Trenton):** Mayhew Creek Two-Zone Concept, City of Trenton and Township of Murray, 1983. Totten Sims Hubicki Associates. – Note that the 2-Zone was only implemented in Trenton and not Murray Township.
- **Trout Creek 2-Zone (Campbellford)**: Final Report Trout Creek Floodplain Management Study, 1982. MacLaren Plansearch Inc.

Note that a two-zone study was completed for Colborne Creek in the Township of Cramahe (Ecos Garatech Associates - November 1991) but the report concluded that Colborne Creek was NOT a suitable candidate for implementation of a Two-Zone Concept. Floodplain mapping was updated during this study in several areas so this mapping should be used for regulatory purposes.

1.9.6 Special Policy Area

A Special Policy Area is an area within a community that has historically existed in the floodplain where site specific policies apply. Only the MNRF and MMAH have the authority to establish Special Policy Areas; this authority cannot be delegated to municipalities and other planning bodies.

Rawdon Creek - Downtown Stirling: One Special Policy Area with respect to floodplains exists in the Lower Trent Conservation watershed within the downtown core of the Village of Stirling in the Township of Stirling-Rawdon. This area is bounded by Front Street and Mill Street in the south, Victoria Street in the north, North Street in the west and Edward Street in the east. The property of the Stirling Creamery located on the south side of Front Street is also considered in this zone although not included in the descriptions. This is because the Special Policy Area is intended to ensure the long-term economic viability of the area and the creamery is an integral component of the economy of Stirling. In this area, the 1:100-year flood elevations are to be used for floodproofing requirements rather than the Timmins event. Lands above the 1:100-year elevation may be developed without the need for floodproofing measures. Lands south of Rawdon Creek within this zone that are below the 1:100-year elevation may be developed with floodproofing and causing no impediment to flow to Rawdon Creek. The associated report for

the flood elevations identified for this Special Policy Area is Flood Damage Reduction Study, Rawdon Creek, Village of Stirling, 1985, by Kilborn Limited.

2 GENERAL POLICIES

Background:

Lower Trent Region Conservation Authority (LTC) will be guided by the following general administrative guidance with respect to the implementation of its regulatory responsibilities:

- Development, interference and/or alteration activities shall not be undertaken in a regulated area without written permission from LTC.
- Where a regulated area pertains to more than one water-related hazard (e.g., lands susceptible to flooding that are part of a wetland), policies will be applied jointly, and where applicable, the more restrictive policies will apply.
- Technical studies and/or assessments, site plans and/or other plans submitted as part of an application for permission to undertake development, interference and/or alteration in a regulated area must be completed by a qualified professional to the satisfaction of LTC in conformity with the most current provincial technical guidelines or guidelines accepted by LTC through a Board Resolution.

Note: Information regarding technical standards and guidelines is contained within the Appendices.

Similar to the MNR recommended 6-metre erosion access allowance (Section 3.4, Technical Guide for River and Stream Systems: Erosion Hazard Limit, MNR), LTC recommends that a 6-metre access allowance is applied to all hazard lands. Note that emergency access is required along the hazard as well as between the buildings and the lot line to allow for heavy equipment access to the hazard area.

The guidelines for development within the 15 metre adjacent lands to a hazard include an access setback. Three main principles support the inclusion of an access setback:

- providing for emergency access to hazard areas;
- providing for construction access for regular maintenance and access to the site in the event of a natural hazard or failure of a structure; and
- providing protection against unforeseen or predicted external conditions which could have an adverse effect on the natural conditions or processes acting on or within a hazard prone area.

Activities in regulated areas that are carried out by other provincial ministries or the federal government do not require a permit. Activities conducted on provincial crown land by third-party proponents in a regulated area may require a permit, unless acting as an agent of the Crown.

Works for which permission is required under the Regulation may also be subject to other legislation, policies and standards that are administered by other agencies and municipalities, such as the Planning Act, Public Lands Act, Nutrient Management Act, Drainage Act, Environmental Assessment Act (EA Act) or the federal Fisheries Act, etc. It is the responsibility of the applicant (or applicant's agent) to ensure that all necessary approvals are obtained prior to undertaking any works for which a permit under this Regulation has been obtained.

LTC Policies – General Policies:

Within areas defined by the regulation (i.e., regulated areas), including Lake Ontario shoreline hazard lands and an allowance, river or stream valleys and an allowance, wetlands or other areas where

development could interfere with the hydrologic function of a wetland (areas of interference), watercourses, or hazardous lands, the following general policies will apply:

1) Development, interference and/or alteration will not be permitted within a regulated area, except in accordance with the policies contained in this document.
2) Notwithstanding Policy 2. (1), the LTC Board of Directors, sitting as the Hearing Board, may grant permission for development, interference and/or alteration where the applicant provides evidence acceptable to the Board that documents that the development and/or activity will have no adverse effect on the control of flooding, erosion, dynamic beaches, pollution or the conservation of land with respect to Lake Ontario shoreline, river or stream valleys, hazardous land, wetlands, and areas of interference or will not result in an unacceptable interference with a watercourse or wetland.
3) In addition to specific conditions outlined through this document, development, interference and/or alteration within a regulated area may be permitted only where:
    a) risk to public safety is not increased;
    b) there is no increase in habitation in the hazard area with the exception of allowable flood fringes or wave uprush hazard areas;
    c) susceptibility to natural hazards is not increased nor new hazards created (e.g., there will be no impacts on adjacent properties with respect to natural hazards);
    d) safe ingress/egress is available for proposed development that increases habitation outside of hazard lands;
    e) 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;
    f) access for emergency works and maintenance of flood or erosion control works is available;
    g) proposed development is constructed, repaired and/or maintained in accordance with accepted engineering principles and approved engineering standards or to the satisfaction of LTC, whichever is applicable based on the structural scale and scope, and purpose of the project;
    h) there are no adverse hydraulic or fluvial effects on rivers, creeks, streams, or watercourses;
    i) there are no adverse sedimentation or littoral effects on the Lake Ontario shoreline;
    j) there are no adverse effects on the hydrologic function of wetlands; and,
    k) the control of flooding, erosion, dynamic beaches, pollution and/or the conservation of land is not adversely affected during and post development.

Prohibited Uses:

4) Notwithstanding the General Policies referenced above, in accordance with Section 3.1 of the Provincial Policy Statement, development will not be permitted within hazardous lands as defined in the Conservation Authorities Act, where the use is:
    - an institutional use associated with hospitals, nursing homes, 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 during an emergency as a result of flooding, failure of floodproofing and/or protection works, and/or erosion;
    - 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 flooding, failure of flood-proofing measures and/or protection works, and/or erosion; or,
    - uses associated with the disposal, manufacture, treatment or storage of hazardous substances.

3 GREAT LAKES AND LARGE INLAND LAKES SHORELINES

3.1 Ontario Regulation 163/06

The Lower Trent Conservation Regulation contains the following sections dealing with the shoreline of Lake Ontario. Although Rice Lake is listed as the smallest of the Large Inland Lakes (100 km2), it has been regulated as a smaller lake.

The LTC Regulation contains the following sections dealing with Great Lakes and Inland Lakes Shorelines:

Development prohibited

2.(1) Subject to section 3, no person shall undertake development or permit another person to undertake development in or on areas within the jurisdiction of the Authority that are:

(a) 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, including the area from the furthest offshore extent of the Authority's boundary to the furthest landward extent of the aggregate of the following distances:

i) the 100 year flood level, plus the appropriate allowance for wave uprush shown in the most recent document entitled "*Lake Ontario Shoreline Management Plan*", or as identified in the most recent document entitled "*Cramahe Shorelands Project*" for the Township of Cramahe or in the most recent document entitled "*Alnwick/Haldimand Lake Ontario Shorelands Project*" for the Township of Alnwick/Haldimand, available at the head office of the Authority,

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 shown in the most recent document entitled "*Lake Ontario Shoreline Management Plan*", or as identified in the most recent document entitled "*Cramahe Shorelands Project*" for the Township of Cramahe or in the most recent document entitled "*Alnwick/Haldimand Lake Ontario Shorelands Project*" for the Township of Alnwick/Haldimand, available at the head office of the Authority,

iii) where a dynamic beach is associated with the waterfront lands, the appropriate allowance inland to accommodate dynamic beach movement shown in the most recent document entitled "*Lake Ontario Shoreline Management Plan*", or as identified in the most recent document entitled "*Cramahe Shorelands Project*" for the Township of Cramahe or in the most recent document entitled "*Alnwick/Haldimand Lake Ontario Shorelands Project*" for the Township of Alnwick/Haldimand, available at the head office of the Authority, and

iv) an allowance of 15 metres inland;

Permission to develop

3.(1) The Authority may grant permission for development in or on the areas described in subsection 2(1) if, in its opinion, the control of flooding, erosion, dynamic beaches, pollution or the conservation of land will not be affected by the development.

(2) The permission of the Authority shall be given in writing, with or without conditions."

Note: There is no reference to "alterations to shorelines" within the LTC Regulation. However, the additions of "shorelines" to Section 28(17)(b) and 28(18) of the *Conservation Authorities Act* is a Conservation Ontario Council approved proposed amendment (February, 2008). This amendment must be initiated through the Ministry of Natural Resources and Forestry.

3.2 Policy Standards

The following sections outline the policy standards for implementing the LTC Regulation with respect to the Lake Ontario shoreline and the associated allowances. LTC, in their role through the planning process, should review planning applications to ensure that, all development can be set back an appropriate distance from all shoreline hazards.

LTC 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 LTC.

3.2.1 Development within the Shoreline Flood Hazard

Background

For the purposes of the following policies, the shoreline flood hazard is 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 (sometimes called the Combined Flood Elevation) consists of the 100-year stillwater level plus the wind setup (otherwise known as the storm surge).

LTC Policies

1) Development within the shoreline flood hazard shall not be permitted.
2) Placement of fill, flood hazard protection and bank stabilization works to allow for future/proposed development or an increase in development envelope within the shoreline flood hazard shall not be permitted.
3) Development associated with new and/or the expansion of existing trailer parks / campgrounds in the shoreline flood hazard shall not be permitted.
4) *Major development* within the shoreline flood hazard shall not be permitted.
5) Redevelopment of derelict and abandoned buildings within the shoreline flood hazard shall not be permitted.
6) Stormwater management facilities within the shoreline flood hazard shall not be permitted.
7) Basements within the shoreline flood hazard shall not be permitted.
8) Underground parking within the shoreline flood hazard shall not be permitted.
9) Notwithstanding Section 3.2.1 4), *major development* within the shoreline flood hazard may be permitted where it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected. The submitted plans must demonstrate that:
    a) The proposed development is not located at or below the 100-year flood level (75.97 m CGVD28 for Lake Ontario or 76.05 m CGVD28 for Bay of Quinte);
    b) there is no feasible alternative site outside of the Regulatory flood hazard for the proposed development and the proposed development is located in an area of least (and acceptable) risk;
    c) 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;
    d) the development is protected from the flood hazard in accordance with established floodproofing and protection techniques;
    e) the flood depths on access roads and the lot do not exceed 0.3 metres;
    f) the proposed development will not prevent access for emergency works, maintenance, and evacuation;
    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) natural features and/or ecological functions associated with conservation of land are protected, pollution is prevented and erosion and dynamic beach hazards have been adequately addressed; and,
    i) for *major development* where the depth of flooding exceeds 0.8 metres (2.5 ft) an engineering design, carried out by a qualified professional with recognized

expertise in the appropriate discipline, must be prepared using established procedures and recognized methodologies to the satisfaction of the LTC.

10) Notwithstanding Section 3.2.1 1), public infrastructure (e.g. roads, sewers, flood and erosion control works) and various utilities (e.g. pipelines) may be permitted within the shoreline flood hazard subject to the activity being approved through a satisfactory Environmental Assessment process and/or if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected.

11) Notwithstanding Section 3.2.1 1), development associated with public parks (e.g. passive or low intensity outdoor recreation, education, or trail systems) may be permitted within the shoreline flood hazard if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected.

12) Notwithstanding Section 3.2.1 1), shoreline, bank, and slope stabilization to protect existing development and conservation or restoration projects may be permitted within the shoreline flood hazard for *major stabilization works*

13) Notwithstanding Section 3.2.1 1), *moderate development* and structural repairs may be permitted within the shoreline flood hazard if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected. The submitted plans must demonstrate that:

    a) there is no feasible alternative site outside of the shoreline flood hazard for the proposed development and that the proposed development is located in an area of least (and acceptable) risk;

    b) the proposed works do not create new or aggravate flooding on the subject, adjacent or other properties;

    c) the development is protected from the shoreline flood hazard in accordance with established floodproofing and protection techniques. Habitable development must be dry floodproofed to 0.3 metres above the Regulatory flood elevation and non-habitable development must be floodproofed to the Regulatory flood elevation;

    d) the proposed development will not prevent access for emergency works, maintenance, and evacuation;

    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 associated with conservation of land are protected, pollution is prevented and flood, erosion and dynamic beach hazards have been adequately addressed; and

    g) for *moderate development* (except decks) where the depth of flooding exceeds 0.8 metres (2.5 ft) an engineering design carried out by a qualified professional

with recognized expertise in the appropriate discipline must be prepared using established procedures and recognized methodologies to the satisfaction of LTC.

14) Notwithstanding Section 3.2.1. 1), development associated with existing uses located within the shoreline flood hazard such as marine facilities, in-ground (at existing grade) pools, *minor development*, landscaping retaining walls, grading, etc., may be permitted if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected.

15) Notwithstanding 3.2.1 1), development may be permitted for the reconstruction or relocation of a building within the shoreline flood hazard, provided that it has not been damaged or destroyed by flooding or other water related hazards and if it has been demonstrated to the satisfaction of the CA that the control of flooding, erosion, pollution, dynamic beaches or conservation of land will not be affected. The submitted plans must demonstrate that:

    a) the building or structure meets the criteria described in Policy 9) above with the exception of Condition a);

    b) the building or structure must not be located closer to the hazard than the original building; and,

    c) the building or structure does not exceed the original floor space plus the allowable floor space for *moderate development*. If the building or structure is enlarged, future *moderate development* to the building or structure will not be considered.

16) Notwithstanding Section 3.2.1 1), development associated with the construction of a driveway or access way through the shoreline flood hazard in order to provide access to lands outside of the shoreline flood hazard may be permitted subject to the provision of safe access as identified in Section 1.6.3 and if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected.

17) Notwithstanding Section 3.2.1 1), removal or placement of *minor fill* and associated site grading or *moderate stabilization works* may be permitted within the shoreline flood hazard if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected.

18) Notwithstanding Section 3.2.1 1), the replacement of sewage disposal systems may be permitted within the shoreline flood hazard if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected. The replacement system should be located outside of the shoreline flood hazard where possible and only permitted within the shoreline flood hazard in the area of lowest risk.

19) Notwithstanding Section 3.2.1 1), parking areas may be permitted within the shoreline flood hazard if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected and that safe pedestrian and vehicular access is achieved.

20) Notwithstanding Section 3.2.1 1), *boathouses* may be permitted within the Shoreline Flood Hazard if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, dynamic beach hazards, pollution or the conservation of land will not be affected, and an engineered design may be required for wet flood proofing.

3.2.2 Development within the Allowance Adjacent to the Shoreline Flood Hazard

LTC Policies

1) Development may be permitted within the allowance adjacent to the shoreline flood hazard if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected. The submitted plans must demonstrate that:

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

    b) development does not impede access for emergency works, maintenance and evacuation;

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

    d) the natural features and/or ecological functions associated with conservation of land are protected, pollution is prevented and erosion and dynamic beach hazards have been adequately addressed.

3.2.3 Development within the Shoreline Erosion Hazard

Background

For the purpose of the following policy, the shoreline erosion hazard is the limit of the landward extent of the stable slope measured from the existing protected or unprotected toe of slope, plus the limit of the 100-year erosion limit.

LTC Policies

1) Development shall not be permitted within the shoreline erosion hazard.
2) Stabilization works within the shoreline erosion hazard to allow for future/proposed development or an increase in development envelope or area shall not be permitted;
3) Development associated with new and/or the expansion of existing trailer parks/campgrounds in the shoreline erosion hazard shall not be permitted.
4) *Major development* within the shoreline erosion hazard shall not be permitted.
5) Redevelopment of derelict and abandoned buildings within the shoreline erosion hazard shall not be permitted.
6) Stormwater management facilities within the shoreline erosion hazard shall not be permitted.
7) Basements within the shoreline erosion hazard shall not be permitted.
8) Underground parking within the shoreline erosion hazard shall not be permitted.

9) Notwithstanding Section 3.2.3 4), *major development* within the mapped erosion hazard may be permitted where it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected. The development may be permitted outside of the revised site-specific erosion hazard. The submitted plans must demonstrate that:

    a) Pre-existing engineered shoreline protection works are present and structural integrity has been confirmed. The shoreline protection works will be given a maximum credit of 35 years erosion protection unless otherwise specified by a qualified professional with recognized expertise in the appropriate discipline. This assessment will define a revised site-specific erosion hazard.;

    b) there is no feasible alternative site outside of the erosion hazard for the proposed development 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;

    c) the proposed works do not create new hazards or aggravate erosion on adjacent or other properties;

    d) the development will not prevent access into and through the shoreline erosion hazard in order to undertake preventative actions/maintenance or during an emergency;

    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 associated with conservation of land are protected, pollution is prevented and erosion hazards have been adequately addressed; and

    g) 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 the LTC.

10) Notwithstanding Section 3.2.3 1), public infrastructure (e.g. roads, sewers, flood and erosion control works) and various utilities (e.g. pipelines) may be permitted within the shoreline erosion hazard subject to the activity being approved through a satisfactory Environmental Assessment process and/or if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected.

11) Notwithstanding Section 3.2.3 1), development associated with public parks (e.g. passive or low intensity outdoor recreation, education, or trail systems) may be permitted within the shoreline erosion hazard if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected.

12) Notwithstanding Section 3.2.3 1), *major stabilization works* to protect existing development and conservation or restoration projects may be permitted within the shoreline erosion hazard subject to the activity being approved through a satisfactory

Environmental Assessment process and/or if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected through detailed engineering design.

13) Notwithstanding Section 3.2.3 1), removal or placement of *minor fill* for shoreline stabilization or *moderate stabilization works* may be permitted within the shoreline erosion hazard if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected.

14) Notwithstanding Section 3.2.3 1), *moderate development, in-ground (at grade) pools and* structural repairs may be permitted within the shoreline erosion hazard if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected. The submitted plans must demonstrate that:

    a) there is no feasible alternative site outside of the shoreline erosion hazard and that the proposed development is located in an area of least (and acceptable) risk;

    b) no development is located within the stable slope allowance;

    c) there is no impact on existing and future slope stability and bank stabilization;

    d) development will not prevent access into and along the shoreline erosion hazard in order to undertake preventative actions/maintenance or during an emergency;

    e) development will have no negative impacts on natural shoreline 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 conservation of land are protected, pollution is prevented, and flooding, and dynamic beach hazards have been adequately addressed; 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 the LTC.

15) Notwithstanding Section 3.2.3 1), *minor development* associated with existing uses located within the shoreline erosion hazard including landscaping retaining walls, grading, and *minor fill*, may be permitted if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected. The submitted plans must demonstrate that:

    a) there is no feasible alternative site outside of the shoreline erosion hazard and that the proposed development is located in an area of least (and acceptable) risk;

b) development will not prevent access into and through the shoreline erosion hazard in order to undertake preventative actions/maintenance or during an emergency;

c) there is no impact on existing and future slope stability and bank stabilization;

d) development will have no negative impacts on natural shoreline 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; and

f) natural features and/or ecological functions contributing to the conservation of land are protected, pollution is prevented, flooding hazards, and dynamic beach hazards have been adequately addressed.

16) Notwithstanding 3.2.3 1), development may be permitted for the reconstruction or relocation of a building within the shoreline erosion hazard, provided that it has not been damaged or destroyed by erosion and if it has been demonstrated to the satisfaction of the CA that the control of flooding, erosion, pollution or dynamic beaches or conservation of land will not be affected. The submitted plans must demonstrate that:

a) the building or structure meets the criteria described in Policy 13) above;

b) the building or structure is no closer to the hazard than existing development; and

c) the building or structure does not exceed the original floor space plus the allowable floor space for *moderate development*. If the building or structure is enlarged, future *moderate development* to the building or structure will not be considered.

17) Notwithstanding Section 3.2.3 1), development associated with the placement of *fill* for the replacement of a sewage disposal system may be permitted within the shoreline erosion hazard if it has been demonstrated to the satisfaction of the LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected. The replacement system should be located outside of the shoreline erosion hazard where possible, and only permitted within the shoreline erosion hazard subject to being located in the area of least and acceptable risk. The LTC may request a technical study to ensure that the development is not subject to risk, and/or to establish the area of least and acceptable risk.

18) Notwithstanding Section 3.2.3 1), parking areas may be permitted within the shoreline erosion hazard if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected and that safe pedestrian and vehicular access is achieved.

19) Notwithstanding Section 3.2.3 1), development associated with uses that by their nature are located within the hazard such as the construction or reconstruction of a marine facility, erosion control works, stairs, and shore wells may be permitted within the shoreline erosion hazard if it has been demonstrated to the satisfaction of the LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will

not be affected. LTC will require that the design be 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 LTC.

3.2.4 Development within the Allowance Adjacent to the Shoreline Erosion Hazard

LTC Policies

1) Development may be permitted within the allowance adjacent to the shoreline erosion hazard if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected. The submitted plans must demonstrate that:

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

   b) development does not impede access for emergency works, maintenance and evacuation;

   c) where new development is proposed adjacent to the erosion hazard, all buildings or structures must be located a minimum horizontal distance of 6 metres beyond the furthest landward extent of the erosion hazard;

   d) for additions to existing buildings or structures located within the 6-metre setback allowance, the addition cannot encroach further into the setback from the erosion hazard limit than the original building or structure;

   e) for reconstruction of buildings or structures located within the 6-metre 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 erosion hazard limit than the original building or structure;

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

   g) the natural features and/or ecological functions associated with conservation of land are protected, pollution is prevented and erosion and dynamic beach hazards have been adequately addressed.

3.2.5 Development within the Dynamic Beach Hazard

Background

For the purpose of the following policies the Dynamic Beach Hazard is the limit of the landward extent of the 100 year flood elevation limit, plus the allowance for wave uprush and other water-related hazards, plus the dynamic beach allowance. The dynamic beach allowance is 30 metres on Lake Ontario unless otherwise documented in an approved technical study.

LTC Policies

1) Development shall not be permitted within the dynamic beach hazard.

2) Stabilization works within the dynamic beach hazard to allow for future/proposed development or an increase in development envelope or area shall not be permitted.

3) Notwithstanding Section 3.2.5 2), major stabilization works (such as a beach curb) may be permitted at the transition area between the dynamic beach and existing development if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected through a satisfactory engineering design by a qualified professional.

4) Development associated with new and/or the expansion of existing trailer parks/campgrounds in the dynamic beach hazard shall not be permitted.

5) *Major development* within the dynamic beach hazard shall not be permitted.

6) Redevelopment of derelict and abandoned buildings within the dynamic beach hazard shall not be permitted.

7) Stormwater management facilities within the dynamic beach hazard shall not be permitted.

8) Basements within the dynamic beach hazard shall not be permitted.

9) Underground parking within the dynamic beach hazard shall not be permitted.

10) Notwithstanding Section 3.2.5 1), underground public infrastructure (i.e. sewers) and various utilities (e.g. pipelines) may be permitted within the dynamic beach hazard subject to the activity being approved through a satisfactory Environmental Assessment process and/or if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected.

11) Notwithstanding Section 3.2.5 1), development associated with public parks (e.g. passive or low intensity outdoor recreation, education, or trail systems) may be permitted within the dynamic beach hazard if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected.

12) Notwithstanding Section 3.2.5 1), conservation or restoration projects may be permitted within the dynamic beach hazard subject to the activity being approved through a satisfactory Environmental Assessment process and/or if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected.

13) Notwithstanding Section 3.2.5 1), development may be permitted for the reconstruction or relocation of a building within the dynamic beach hazard if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected. The submitted plans must demonstrate that:

    a) there is no feasible alternative site outside of the dynamic beach hazard and that the proposed development is located in an area of least (and acceptable) risk;

    b) the building or structure is no closer to the hazard than existing development;

    c) the building or structure does not exceed the original floor space;

    d) there is no impact on existing and future dynamic beach movement;

e) development will not prevent access into and along the dynamic beach hazard in order to undertake preventative actions/maintenance or during an emergency;

f) development will have no negative impacts on natural shoreline 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) natural features and/or ecological functions contributing to the conservation of land are protected, pollution is prevented, and flooding, erosion and dynamic beach hazards have been adequately addressed.; 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 LTC.

14) Notwithstanding Section 3.2.5 1), removal or placement of *minor fill* and site grading may be permitted within the dynamic beach hazard if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected.

15) Notwithstanding Section 3.2.5 1), development associated with the placement of *fill* for the replacement of a sewage disposal system may be permitted within the dynamic beach hazard if it has been demonstrated to the satisfaction of the LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected. The replacement system should be located outside of the dynamic beach hazard where possible, and only permitted within the dynamic beach hazard subject to being located in the area of least and acceptable risk. The LTC may request a technical study to ensure that the development is not subject to risk, and/or to establish the area of least and acceptable risk.

3.2.6 Development within the Allowance Adjacent to the Dynamic Beach Hazard

LTC Policies

1) Development may be permitted within the allowance adjacent to the dynamic beach hazard if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beach or the conservation of land will not be affected. The submitted plans must demonstrate that:

a) development does not create or aggravate the dynamic beach hazard;

b) development does not prevent access to and along the dynamic beach;

c) where new development is proposed adjacent to the dynamic beach hazard, all buildings or structures must be located a minimum horizontal distance of 6 metres beyond the furthest landward extent of the dynamic beach hazard;

d) for additions to existing buildings or structures located within the 6-metre setback allowance, the addition cannot encroach further into the setback from the dynamic beach hazard than the original building or structure;

e) for reconstruction of buildings or structures located within the 6-metre 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 dynamic beach hazard than the original building or structure;

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

g) the natural features and/or ecological functions contributing to the conservation of land are protected, pollution is prevented and flooding and erosion hazards have been adequately addressed.

4 RIVER OR STREAM VALLEYS

4.1 Ontario Regulation 163/06

The following section identifies how the extent of river or stream valleys are determined for the purpose of administering the LTC 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.

The LTC Regulation contains the following sections dealing with river or stream valleys:

Development prohibited

2.(1) Subject to section 3, no person shall undertake development or permit another person to undertake development in or on areas within the jurisdiction of the Authority that are:

(b) 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 in accordance with the following rules:

(i) 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,

(ii) 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 toe of the slope or, if the toe of the slope is unstable, from the predicted location of the toe of slope as a result of stream erosion over a projected 100 year period, plus 15 metres , to a similar point on the opposite side,

(iii) where the river or stream valley is not apparent, the valley extends the greater of,

A. the distance from a point outside the edge of the maximum extent of the floodplain under the applicable Regulatory floodplain event standard, plus 15 metres, 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, plus 15 metres, to a similar point on the opposite side.

Permission to develop

3.(1) The Authority may grant permission for development in or on the areas described in subsection 2(1) if, in its opinion, the control of flooding, erosion, dynamic beaches, pollution or the conservation of land will not be affected by the development.

(2) The permission of the Authority shall be given in writing, with or without conditions.

4.2 Policy Standards

The following sections outline the policy standards for implementing the LTC Regulation with respect to river and stream valleys and the associated allowance lands adjacent to natural hazards. LTC, in their role through the planning process, should review planning applications to ensure that, in general, all development can occur an appropriate distance from the river and stream valley hazards.

Development will not be permitted within the regulated area associated with a valley, except in accordance with the policies contained in this section. Note that the hazard lands associated with the River and Stream Valleys and associated policies with these hazard lands are discussed in Section 4 of this report.

4.2.1 Development within the Allowance Adjacent to the Erosion Hazard of a River or Stream Valley

Background

The guidelines for development within the 15 metre adjacent lands to an erosion hazard include an erosion access setback. Note that access is required along the hazard as well as between buildings to allow for heavy equipment access to the hazard area. Three main principles support the inclusion of an erosion access setback:

- providing for emergency access to erosion prone areas;
- providing for construction access for regular maintenance and access to the site in the event of an erosion event or failure of a structure; and
- providing protection against unforeseen or predicted external conditions which could have an adverse effect on the natural conditions or processes acting on or within an erosion prone area.

The erosion access setback for river and stream systems shall be 6 metres (Section 3.4, Technical Guide for River and Stream Systems: Erosion Hazard Limit, MNR).

LTC Policies

1) Development may be permitted within the allowance adjacent to the erosion hazard of a river or stream valley if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution or the conservation of land will not be affected. The submitted plans must demonstrate that:

    a) development does not create or aggravate an erosion hazard;

    b) 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;

    c) development is not permitted in the access setback of 6 metres from the erosion hazard;

    d) for additions to existing buildings or structures located within the 6-metre setback allowance the addition cannot encroach further into the setback from the erosion hazard than the original building or structure;

    e) for reconstruction of buildings or structures located within the 6-metre 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 erosion hazard than the original building or structure;

f) development does not change drainage or vegetation patterns that would compromise slope stability or exacerbate erosion of the slope face;

g) development will not prevent access to and along the erosion hazard in order to undertake preventative actions/maintenance or during an emergency;

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

i) natural features and/or ecological functions contributing to the conservation of land are protected, pollution is prevented and erosion and flooding hazards have been adequately addressed.

2) For slopes and embankments that exist above a proposed site for development, 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. LTC may consider a reduction of this allowance if it can be demonstrated that the hazard will not be aggravated and the development 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.

4.2.2 Development within the Allowance of the Regulatory Floodplain of River or Stream Valleys

Background

Similar to the MNR recommended 6-metre erosion access allowance (Section 3.4, Technical Guide for River and Stream Systems: Erosion Hazard Limit, MNR), LTC recommends that a 6-metre flood access allowance is applied to the Regulatory floodplain as well. Note that emergency access is required along the hazard as well as between the buildings to allow for heavy equipment access to the hazard area.

The guidelines for development within the 15 metre adjacent lands to a flooding hazard include a flood access setback. Three main principles support the inclusion of a flood access setback:

- providing for emergency access to flood prone areas;
- providing for construction access for regular maintenance and access to the site in the event of a flooding event or failure of a structure; and
- providing protection against unforeseen or predicted external conditions which could have an adverse effect on the natural conditions or processes acting on or within a flood prone area.

LTC Policies

1) Development may be permitted within the allowance of a Regulatory floodplain if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution or the conservation of land will not be affected. The submitted plans must demonstrate that:

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

b) development does not impede access for emergency works, maintenance and evacuation;

c) where development is proposed, buildings or structures must be located a minimum horizontal distance of 6 metres beyond the furthest landward extent of the Regulatory floodplain;

d) for additions to existing buildings or structures located within the 6-metre setback allowance, the addition cannot encroach further into the setback from the Regulatory floodplain than the original building or structure;

e) for reconstruction of buildings or structures located within the 6-metre 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 Regulatory floodplain than the original building or structure;

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

g) the natural features and/or ecological functions associated with conservation of land are protected, pollution is prevented and erosion and flooding hazards have been adequately addressed.

2) Where development is proposed and the elevation of the Regulatory floodplain is unknown, LTC may request a technical study, completed by a qualified professional, to determine the extent of the Regulatory floodplain.

3) If a technical study is completed to establish the extent of the Regulatory floodplain, the 6-metre setback may be applied for development. These studies are to be done at the applicant's expense and must be completed to the satisfaction of LTC.

4) Where development is proposed for an addition within the regulatory allowance but the main structure is located within the flood hazard, the development may be permitted if the following can be demonstrated:

a) the development is protected from the flood hazard in accordance with established floodproofing and protection techniques. Habitable development must be dry floodproofed to 0.3 metres above the Regulatory flood elevation and non-habitable development must be floodproofed to the Regulatory flood elevation;

b) the number of dwelling units is the same or less

c) habitation is not increased;

d) the proposed development will not prevent access for emergency works, maintenance, and evacuation;

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

f) natural features and/or ecological functions associated with conservation of land are protected, pollution is prevented and erosion and flooding hazards have been adequately addressed.

5 HAZARDOUS LANDS

5.1 Ontario Regulation 163/06

The updated definition of hazardous lands referenced in Section 25 of the Conservation Authorities Act is as follows: *"hazardous land"* means property or lands that could be unsafe for development due to naturally occurring processes. Along the shorelines of the Great Lakes - St. Lawrence River System, this means the land, including that covered by water, between the international boundary, where applicable, and the furthest landward limit of the flooding hazard, erosion hazard or dynamic beach hazard limits. Along the shorelines of large inland lakes, this means the land, including that covered by water, between a defined offshore distance or depth and the furthest landward limit of the flooding hazard, erosion hazard or dynamic beach hazard limits. Along river, stream and small inland lake systems, this means the land, including that covered by water, to the furthest landward limit of the flooding hazard or erosion hazard limits.

Lower Trent Conservation's Regulation contains the following sections dealing with hazardous lands.

The LTC Regulation contains the following sections dealing with hazardous lands:

Development prohibited

2.(1) Subject to section 3, no person shall undertake development or permit another person to undertake development in or on areas within the jurisdiction of the Authority that are:

(C) hazardous lands;

Permission to develop

3. (1) The Authority may grant permission for development in or on the areas described in subsection 2(1) if, in its opinion, the control of flooding, erosion, dynamic beaches, pollution or the conservation of land will not be affected by the development.

(2) The permission of the Authority shall be given in writing, with or without conditions.

Therefore, the following policies have been developed to deal with flooding and erosion. The dynamic beach hazards were identified in the Great Lakes section along with the flooding and erosion hazards for Great Lakes and Large Inland Lakes.

Also note that with the updated definitions declared in O.Reg. 686/21, *Hazardous Sites* have been separated from *Hazardous Lands*. Although LTC's Regulation O.Reg. 163/06 only refers to *Hazardous Lands*, O.Reg. 686/21 does note that an authority shall provide the programs and services for a list of natural hazards that includes *Hazardous Sites* and Section 28 Regulations are included in the list of programs and services. Therefore, *Hazardous Sites* are included as regulated features in this policy document. *Hazardous Sites* means property or lands that could be unsafe for development and site alteration due to naturally occurring hazards. These may include unstable soils (sensitive marine clays [leda], organic soils) or unstable bedrock (karst topography).

5.2 Policy Standards

The following sections outline the policy standards for implementing the LTC Regulation with respect to hazardous lands including flood hazard lands, erosion hazard lands and hazardous sites with unstable soil and/or unstable bedrock. LTC, in their role through the planning process, should review planning applications to ensure that, in general, all development occurs outside the unstable soil and bedrock boundaries.

LTC may require technical studies be undertaken to demonstrate the suitability of development proposals. 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 LTC.

5.2.1 Development within Flood Hazard Lands

5.2.1.1 Development within One-Zone Regulatory Floodplain of River or Stream Valleys (including inland lakes)

Background

The following policies are focused on development within the One-Zone Regulatory floodplain. These policies do not apply to development within the allowance adjacent to the One-Zone Regulatory floodplain and the reader should refer to Section 4.2.2 for policies that apply to these areas.

LTC Policies

1) Development within the Regulatory floodplain shall not be permitted.
2) Placement of fill, flood hazard protection and/or bank stabilization works to allow for future/proposed development or an increase in development envelope within the Regulatory floodplain shall not be permitted.
3) Development associated with new and/or the expansion of existing trailer parks / campgrounds in the Regulatory floodplain shall not be permitted.
4) *Major development* within the Regulatory floodplain shall not be permitted.
5) Redevelopment of derelict and abandoned buildings within the Regulatory floodplain shall not be permitted.
6) Stormwater management facilities within the 100-year floodplain shall not be permitted.
7) Basements within the Regulatory floodplain shall not be permitted.
8) Underground parking within the Regulatory floodplain shall not be permitted.
9) Cut and fill operations will not be permitted within the One-Zone Regulatory floodplain.
10) Notwithstanding Section 5.2.1.1 1), public infrastructure (e.g. roads, sewers, flood and erosion control works) and various utilities (e.g. pipelines) may be permitted within the Regulatory floodplain subject to the activity being approved through a satisfactory Environmental Assessment process and/or if it has been demonstrated to the satisfaction of

LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected.

11) Notwithstanding Section 5.2.1.1 1), development associated with public parks (e.g. passive or low intensity outdoor recreation, education, or trail systems) may be permitted within the Regulatory floodplain if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected.

12) Notwithstanding Section 5.2.1.1 1), stream bank slope and valley stabilization to protect existing development and conservation or restoration projects may be permitted within the Regulatory floodplain subject to the activity being approved through a satisfactory Environmental Assessment process and/or if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected.

13) Notwithstanding Section 5.2.1.1 1), *moderate development and* structural repairs may be permitted within the Regulatory floodplain if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected. The submitted plans must demonstrate that:

    a) there is no feasible alternative site outside of the Regulatory floodplain for the proposed development 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) 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;

    c) the development is protected from the flood hazard in accordance with established floodproofing and protection techniques. Habitable development must be dry floodproofed to 0.3 metres above the Regulatory flood elevation and non-habitable development must be floodproofed to the Regulatory flood elevation;

    d) the proposed development will not prevent access for emergency works, maintenance, and evacuation;

    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 associated with conservation of land are protected, pollution is prevented and erosion and flooding hazards have been adequately addressed; and,

    g) for any building where the depth of flooding exceeds 0.8 metres (2.5 ft) an engineering assessment and design carried out by a qualified professional with recognized expertise in the appropriate discipline must be prepared using established procedures and recognized methodologies to the satisfaction of LTC.

14) Notwithstanding Section 5.2.1.1 4), detached non-habitable accessory structures greater than 46 m2 (500 ft2) may be permitted within the Regulatory floodplain if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected. The submitted plans must demonstrate that:

    a) there is no feasible alternative site outside of the Regulatory floodplain for the proposed development 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) 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;

    c) the development is protected from the flood hazard in accordance with established floodproofing and protection techniques;

    d) the proposed development will not prevent access for emergency works, maintenance, and evacuation;

    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 associated with conservation of land are protected, pollution is prevented and erosion and flooding hazards have been adequately addressed; and,

    g) an engineering assessment and design carried out by a qualified professional with recognized expertise in the appropriate discipline must be prepared using established procedures and recognized methodologies to the satisfaction of LTC.

15) Notwithstanding Section 5.2.1.1 4), construction of a second storey addition to a habitable building greater than 46 m2 (500 ft2) may be permitted within the Regulatory floodplain if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected. The submitted plans must demonstrate that:

    a) The original footprint of the building is not increased;

    b) Habitation is not increased for the entire building;

    c) the entire building is protected from the flood hazard in accordance with established floodproofing and protection techniques with dry floodproofing to 0.3 metres above the Regulatory flood elevation;

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

    e) for any building where the depth of flooding exceeds 0.8 metres (2.5 ft) an engineering assessment and design carried out by a qualified professional with recognized expertise in the appropriate discipline must be prepared using established procedures and recognized methodologies to the satisfaction of LTC.

16) Notwithstanding Section 5.2.1.1 1), development associated with existing uses located within the Regulatory floodplain such as marine facilities, in-ground (at existing grade) pools, *minor development*, landscaping retaining walls, grading, etc., may be permitted if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected.

17) Notwithstanding Section 5.2.1.1 1), development may be permitted for the reconstruction or relocation of a building within the Regulatory floodplain, provided that it has not been damaged or destroyed by flooding and if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or conservation of land will not be affected. The submitted plans must demonstrate that:

    a) the building or structure meets the criteria described in Policy 13) above;

    b) the building or structure must not be located closer to the hazard than the original building; and,

    c) the building or structure does not exceed the original floor space plus the allowable floor space for a *minor addition*. If the building or structure is enlarged, a future *minor addition* to the building or structure will not be considered.

18) Notwithstanding Section 5.2.1.1 1), development associated with the construction of a driveway or access way through the Regulatory floodplain in order to provide access to lands outside of the Regulatory floodplain may be permitted subject to the provision of safe access as identified in Section 1.7.3 and if it has been demonstrated to the satisfaction of LTC that there is no viable alternative outside of the regulated area and that the control of flooding, erosion, pollution, or the conservation of land will not be affected.

19) Notwithstanding Section 5.2.1.1 1), removal or placement of *minor fill* and associated site grading may be permitted within the Regulatory floodplain if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution or the conservation of land will not be affected.

20) Notwithstanding Section 5.2.1.1 1), the replacement of sewage disposal systems may be permitted within the Regulatory floodplain if it does not require greater than 1 metre depth of *fill* and has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution or the conservation of land will not be affected. The replacement system should be located outside of the floodplain where possible, and only permitted within the floodplain subject to being located in the area of lowest risk.

21) Notwithstanding Section 5.2.1.1 1), parking areas may be permitted within the Regulatory floodplain if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution or the conservation of land will not be affected, and that safe pedestrian and vehicular access is achieved.

22) Notwithstanding Section 5.2.1.1 1), boathouses may be permitted within the Regulatory floodplain if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution or the conservation of land will not be affected, and an engineered design may be required for wet flood proofing.

5.2.1.2 Development within Two-Zone Regulatory Floodplain of River or Stream Valleys

Background

The following policies are focused on development within the Two-Zone Regulatory floodplain. See Section 5.2.1.1 for policies associated with the One-Zone Regulatory floodplain. The policies in this section do not apply to development within the allowance adjacent to the Two-Zone Regulatory floodplain and the reader should refer to Section 4.2.2 for policies that apply to those areas.

The Two-Zone floodplain concept consists of two zones in the Regulatory floodplain and these have been defined by technical studies and accepted by the Province. The Floodway is identified as the area of highest risk delineated by the extent of the 100-year flood event. The Flood Fringe is identified as the area of lesser risk located between the 100-year flood elevation and the Regulatory event flood elevation.

Areas subject to the two-zone Regulatory floodplain are:

1) Butler Creek (Former Town of Brighton)
2) Cold Creek (Former Village of Frankford)
3) Mayhew Creek (Former City of Trenton)
4) Trout Creek (Former Town of Campbellford)

Policies for each Two-Zone are shown below separately.

Background - For the Butler Creek 2-Zone area:

From the "Butler Creek Flood Reduction Study – Town of Brighton" by Totten Sims Hubicki (1988), the following policies were recommended:

- *No development is allowed within the floodway.*
- *No development within the Butler Creek regional floodplain is recommended from 320 metres north of Harbour Street to the outlet of the creek in the marsh in Presqu'ile Bay.*
- *From 320 metres north of Harbour Street to the Study Limit (north of town), the two-zone concept can be implemented. In the area east of Ontario Street and north of Butler Street, detailed hydraulic design of drainage system will be required to ensure that spill is returned to creek without additional flood damages.*
- *Encroachment in the flood fringe is to be kept away from road and railway crossings to prevent reduction to the relief flow capacity at the crossings.*

LTC Policies - For Butler Creek 2-Zone area:

1) Development within the floodway of the two-zone Regulatory floodplain shall not be permitted.

2) Development within the flood fringe of the two-zone Regulatory floodplain may be permitted if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected. The submitted plans must demonstrate that:

a) there is no feasible alternative site outside of the flood fringe of the two-zone Regulatory floodplain for the proposed development and that the proposed development is located in an area of least (and acceptable) risk;

b) 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;

c) the development is protected from the flood hazard in accordance with established floodproofing and protection techniques. Habitable development must be dry floodproofed to 0.3 metres above the Regulatory flood elevation and *non-habitable* development must be floodproofed to the Regulatory flood elevation;

d) any building where the depth of flooding exceeds 0.8 metres (2.5 ft) an engineering assessment and design carried out by a qualified professional with recognized expertise in the appropriate discipline must be prepared using established procedures and recognized methodologies to the satisfaction of LTC.

e) the proposed development will not prevent access for emergency works, maintenance, and evacuation;

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

g) natural features and/or ecological functions associated with conservation of land are protected, pollution is prevented and erosion hazards have been adequately addressed.

3) Notwithstanding Policy 5.2.1.2 2) development within the flood fringe of the two-zone Regulatory floodplain from the outlet of Butler Creek to 320 metres north of Harbour Street shall not be permitted.

4) Notwithstanding Policy 5.2.1.2 2) development within the flood fringe east of Ontario Street and north of Butler Street shall not be permitted unless detailed hydraulic design of drainage system is provided to ensure that spill is returned to creek without additional flood damages. An engineering assessment and design carried out by a qualified professional with recognized expertise in the appropriate discipline must be prepared using established procedures and recognized methodologies to the satisfaction of LTC.

5) Notwithstanding Policy 5.2.1.2 2) development within the flood fringe near road or railway crossings of Butler Creek shall not be permitted unless detailed hydraulic design confirms that the relief flow capacity at these crossings is not reduced. An engineering assessment and design carried out by a qualified professional with recognized expertise in the appropriate discipline must be prepared using established procedures and recognized methodologies to the satisfaction of LTC.

Background - For the Cold Creek 2-Zone area:

From the "Floodplain Assessment & Policy Formulation for a Two Zone Concept Application in the Village of Frankford" by Totten Sims Hubicki (1983), the following policies were recommended:

- *No development is permitted in the floodway where the risk of flooding is greatest.*
- *Development, redevelopment or alteration to existing buildings can be undertaken in most parts of the flood fringe under certain conditions which are intended to protect the structure from potential flood damage.*
- *The two-zone policy can apply to the entire Flood Fringe in the village of Frankford, except for:*
    - *The lands fronting on Trent Street from Cold Creek to approximately 39 metres southerly; and*
    - *The lands fronting on March Street west of the C.N.R.*
- *The first floor of all structures constructed in the Flood Fringe should be above the Regulatory Flood Levels. Where it is impractical to construct the first floor above the Regulatory Flood level, such as extension of an existing low building, the applicant must provide means of protecting the first floor from flooding by such means as berming, and a rezoning of the land swill be required. Special consideration may be given to existing or proposed commercial development between the recent berm addition and the Trent River, where the applicant can show that the floodproofing requirement cannot be met in a particular instance.*
- *Basements and foundations must be designed to withstand the hydrostatic pressures by either purposely flooding he basement to equalize the water level inside and outside of the structure, or by keeping the structure dry by providing no openings below the Regulatory Flood Level and relieving the hydrostatic pressure outside the structure by installing porous back-fill, a drainage system and pumps.*
- *A covered sump pit with an automatic submersible pump must be provided in all basements that are not designed to be flooded. The outflow pipe must discharge above the Regulatory Flood Level or include a check valve.*
- *The electrical panel and electrical connection shall be installed above the Regulatory Flood level. Basement designed to be flooded may not have mechanical and/or electrical equipment below the Regulatory Flood Level.*
- *Fill may be placed on lands in the flood Fringe to raise the grade above the Regulatory Flood Level, providing the fill does not divert the natural drainage to lands under a different ownership.*
- *Additions to structure or placement of fill is not permissible on the lands fronting on Trent Street from Cold Creek to 39 metres southerly.*

Mapping for the Cold Creek 2-Zone policy area illustrating the No Fill Area is located in **Appendix L**.

LTC Policies - For Cold Creek 2-Zone area:

6) Development within the floodway of the two-zone Regulatory floodplain shall not be permitted.

7) Development within the flood fringe of the two-zone Regulatory floodplain may be permitted if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected. The submitted plans must demonstrate that:

    a) there is no feasible alternative site outside of the flood fringe of the two-zone Regulatory floodplain for the proposed development and that the proposed development is located in an area of least (and acceptable) risk;

    b) 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;

    c) the development is protected from the flood hazard in accordance with established floodproofing and protection techniques. Habitable development must be dry floodproofed to 0.3 metres above the Regulatory flood elevation and *non-habitable* development must be floodproofed to the Regulatory flood elevation;

    d) any building where the depth of flooding exceeds 0.8 metres (2.5 ft) an engineering assessment and design carried out by a qualified professional with recognized expertise in the appropriate discipline must be prepared using established procedures and recognized methodologies to the satisfaction of LTC.

    e) the proposed development will not prevent access for emergency works, maintenance, and evacuation;

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

    g) natural features and/or ecological functions associated with conservation of land are protected, pollution is prevented and erosion hazards have been adequately addressed.

8) Notwithstanding Policy 5.2.1.2 7) development within the flood fringe of the two-zone Regulatory floodplain in the defined NO FILL zone along South Trent Street from Cold Creek to 39 metres south shall not be permitted.

9) Notwithstanding Policy 5.2.1.2 7) development within the floodway of the Regulatory Floodplain in the defined NO FILL zone along March Street west of the rail trail (former CNR train track) shall not be permitted.

Background - For the Mayhew Creek 2-Zone area:

From the "Mayhew Creek Two Zone Concept Study, City of Trenton and Township of Murray" by Totten Sims Hubicki (1983), the following policies were recommended:

- *No development is permitted in the floodway where the risk of flooding is greatest.*
- *The two-zone policy can apply to the entire Flood Fringe except for lands between the north and south branches of the Creek east of Front Street and the lands upstream of the CN Rail main line.*

- *The first floor of all structures constructed in the Flood Fringe should be above the Regulatory Flood Levels. Where it is impractical to construct the first floor above the Regulatory Flood level, such as extension of an existing low building, the applicant must provide means of protecting the first floor from flooding by such means as berming, and a rezoning of the land swill be required.*
- *Basements and foundations must be designed to withstand the hydrostatic pressures by either purposely flooding he basement to equalize the water level inside and outside of the structure, or by keeping the structure dry by providing no openings below the Regulatory Flood Level and relieving the hydrostatic pressure outside the structure by installing porous back-fill, a drainage system and pumps.*
- *A covered sump pit with an automatic submersible pump must be provided in all basements that are not designed to be flooded. The outflow pipe must discharge above the Regulatory Flood Level or include a check valve.*
- *The electrical panel and electrical connection shall be installed above the Regulatory Flood level.*
- *Fill may be placed on lands in the flood Fringe to raise the grade above the Regulatory Flood Level, providing the fill does not divert the natural drainage to lands under a different ownership.*
- *Additions to structure or placement of fill is not permissible on the lands between the north and south branches east of Front Street, and in the lands between the CN Rail main line, Wooler Road, the proposed berms and the creek's channel.*

Note that the 2-Zone Study results were not adopted by the former Murray Township (only the former Town of Trenton adopted the 2-Zone study) so upstream of the former boundary between the old municipalities, the Mayhew Creek Floodplain is a One-Zone and the One-Zone policy applies there.

Mapping for the Mayhew Creek 2-Zone policy area illustrating the No Fill Areas is located in **Appendix L**.

LTC Policies - For Mayhew Creek 2-Zone area:

10) Development within the floodway of the two-zone Regulatory floodplain shall not be permitted.

11) Development within the flood fringe of the two-zone Regulatory floodplain may be permitted if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected. The submitted plans must demonstrate that:

    a) there is no feasible alternative site outside of the flood fringe of the two-zone Regulatory floodplain for the proposed development and that the proposed development is located in an area of least (and acceptable) risk;

    b) 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;

c) the development is protected from the flood hazard in accordance with established floodproofing and protection techniques. Habitable development must be dry floodproofed to 0.3 metres above the Regulatory flood elevation and non-habitable development must be floodproofed to the Regulatory flood elevation;

d) any building where the depth of flooding exceeds 0.8 metres (2.5 ft) an engineering assessment and design carried out by a qualified professional with recognized expertise in the appropriate discipline must be prepared using established procedures and recognized methodologies to the satisfaction of LTC.

e) the proposed development will not prevent access for emergency works, maintenance, and evacuation;

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

g) natural features and/or ecological functions associated with conservation of land are protected, pollution is prevented and erosion hazards have been adequately addressed; and

12) Notwithstanding Policy 5.2.1.2 11) development within the flood fringe of the two-zone Regulatory floodplain in the defined NO FILL zone between the north and south branches of Mayhew Creek east of Front Street shall not be permitted with the exception of:

a) construction for flood proofing purposes; or

b) reconstruction with no footprint increase and no increase in habitation with appropriate floodproofing.

Background - For the Trout Creek 2-Zone area:

From the "Final Report – Trout Creek Floodplain Management Study" by MacLaren Plansearch Lavalin (1982), the following policies were recommended:

- The floodway was subject to the same policies as a one-zone floodplain:
  - *No future federal or provincial government buildings or structures that are vulnerable to flood damage will be placed in the flood risk area.*
  - *Funds from government sources, such as the Canada Mortgage and Housing Corporation will no longer be available for new buildings or structures placed in the flood risk area and subject to flood damage.*
  - *Any buildings or structures vulnerable to flood damage placed in the flood risk area after designation will not be eligible for flood disaster assistance.*
  - *The two governments will encourage local municipalities to adopt Official Plan Policies and zoning restriction on development ion the flood risk area.*
- In the flood fringe area development would be allowed provided that it is adequately protected from flood damage and the area has been given due engineering consideration to show no significant impact on existing regulatory flood levels.

- Furthermore, any additions or enlargements made to existing buildings in the flood fringe after designation would also require flood roofing to be eligible for future disaster assistance.

Under the Trent Hills Official Plan (1999), development policies with respect to the Trout Creek two-zone were developed. These policies are quoted below:

- *The Trout Creek floodplain in the Urban Centre of Campbellford is subject to two-zone floodway fringe regulations.*
- *The two-zone floodway fringe concept allows for some development to occur between the 100 year and regional floodlines, but prohibits development within the 100-year floodline.*
- *The 100 year and regional flood lines are identified on the Flood and Fill Line Mapping for Trout Creek, prepared by Lower Trent Conservation and are identified in the Comprehensive Zoning By-law. The following will apply to these lands:*
  - *(i) The placing or removal of fill of any kind, whether originating on the site or elsewhere, or the alteration of any watercourse shall not be permitted without the prior written approval of the Conservation Authority and the municipality;*
  - *(ii) Prior to the issuance of a building permit, the Conservation Authority will be consulted to assess any proposed or necessary flood damage reduction measures which may include such matters as:*
    - *the design of the structure to withstand hydrostatic forces;*
    - *the strength of structural materials and components to ensure that the materials used will not be subject to deterioration from flooding;*
    - *the elevation of living space and building openings relative to the Regulatory Flood level;*
    - *the location and elevation of electrical and heating equipment relative to the Regulatory Flood level;*
    - *the location, elevation and design of municipal services and public utilities;*
    - *the design of the structure to ensure that the interior ground floor level is above such Regulatory Flood level as is determined;*
    - *applicable fill and construction regulations, and,*
    - *such other additional flood damage reduction measures as may be warranted in the context of the location and nature of the proposed building or structure.*
  - *(iii) All new buildings and structures, or additions and renovations to existing buildings or structures, will be protected from flooding to the level of the Regulation Flood level plus 0.3 metre freeboard where applicable.*

LTC Policies - For the Trout Creek 2-Zone area:

13) Development within the floodway of the two-zone Regulatory floodplain shall not be permitted.

14) Development within the flood fringe of the two-zone Regulatory floodplain may be permitted if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected. The submitted plans must demonstrate that:

a) there is no feasible alternative site outside of the flood fringe of the two-zone Regulatory floodplain for the proposed development and that the proposed development is located in an area of least (and acceptable) risk;

b) 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;

c) the development is protected from the flood hazard in accordance with established floodproofing and protection techniques. Habitable development must be dry floodproofed to 0.3 metres above the Regulatory flood elevation and *non-habitable* development must be floodproofed to the Regulatory flood elevation;

d) any building where the depth of flooding exceeds 0.8 metres (2.5 ft) an engineering assessment and design carried out by a qualified professional with recognized expertise in the appropriate discipline must be prepared using established procedures and recognized methodologies to the satisfaction of LTC.

e) the proposed development will not prevent access for emergency works, maintenance, and evacuation;

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

g) natural features and/or ecological functions associated with conservation of land are protected, pollution is prevented and erosion hazards have been adequately addressed.

LTC Policies - For All 2-Zone Areas:

15) Placement of fill, flood hazard protection and bank stabilization works to allow for future/proposed development or an increase in development envelope or area within the floodway of the two-zone Regulatory floodplain shall not be permitted.

16) Development associated with new and/or the expansion of existing trailer parks/campgrounds in the floodway of the two-zone Regulatory floodplain shall not be permitted.

17) Stormwater management facilities within the floodway of the two-zone Regulatory floodplain shall not be permitted.

18) Basements within the floodway or the flood fringe of the two-zone Regulatory floodplain shall not be permitted.

19) Underground parking within the floodway or the flood fringe of the two-zone Regulatory floodplain shall not be permitted.

20) Notwithstanding Sections 5.2.1.2 1), 6), 10) & 13), public infrastructure (e.g. roads, sewers, flood and erosion control works) and various utilities (e.g. pipelines) may be permitted within the floodway of the two-zone Regulatory floodplain subject to the activity being approved through a satisfactory Environmental Assessment process and/or if it has been

demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected.

21) Notwithstanding Sections 5.2.1.2 1), 6), 10) & 13), development associated with public parks (e.g. passive recreation and education, trail systems) may be permitted within the floodway of the two-zone Regulatory floodplain if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected.

22) Notwithstanding Sections 5.2.1.2 1), 6), 10) & 13), stream, bank, slope, and valley stabilization to protect existing development and conservation or restoration projects may be permitted within the floodway of the two-zone Regulatory floodplain subject to the activity being approved through a satisfactory Environmental Assessment process and/or if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected through detailed engineered design.

23) Notwithstanding Sections 5.2.1.2 1), 6), 10) & 13), the replacement of sewage disposal systems may be permitted within the floodway of the two-zone Regulatory floodplain if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution or the conservation of land will not be affected. The replacement system should be located outside of the floodplain where possible, and only permitted within the floodplain subject to being located in the area of lowest risk.

24) Notwithstanding Sections 5.2.1.2 1), 6), 10) & 13), parking areas may be permitted within the floodway of the two-zone Regulatory floodplain if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution or the conservation of land will not be affected, and that safe pedestrian and vehicular access is achieved. Note that fill placement to achieve safe access in floodway would not be permitted.

25) Development permitted within the flood fringe does not require a setback from the 100-year floodway but must include all development (i.e. filling around structures for frost proofing). Plans provided must demonstrate all development located outside of the floodway.

5.2.1.3 Development within Special Policy Area (SPA)

Background

Note that there is only one Special Policy Area in the Lower Trent Conservation watershed and it is a defined area within the urban core of Stirling in the delineated Rawdon Creek floodplain. The policies regarding the remainder of the Rawdon Creek floodplain follow the One-Zone Regulatory floodplain policies in Section 5.2.1.1 and the polices for the Allowance of the Regulatory floodplain in Section 4.2.3.

Special Policy Area in the Village of Stirling is bounded by Front and Mill Streets in the south, Victoria Street in the north, North Street in the west and Edward Street in the east. The creamery property located on the south side of Front Street is also considered in this zone.

From the "Flood Damage Reduction Study Rawdon Creek – Village of Stirling" report by Kilborn (1985), the following policies were recommended:

- *In the case of the Rawdon Creek, the horizontal displacement of the flood fringe area is relatively small and the flood fringe area is generally great than one metre at low velocities. Therefore, the possibility of the adoption of the Two-Zone Floodway-Flood Fringe concept for the Rawdon Creek is not applicable.*
- *In the case of the Village of Stirling, the majority of the existing development is not within the Regulatory flood plain. However, the business / commercial core of the community is within the Regulatory flood plain and as such, strict application of the Provincial Policy pertaining to a single zone approach whereby no development within the Regulatory Flood Plain would be permitted, would certainly be a threat to continued community viability.*
- *Therefore, the Authority should consider the application of Provincial Policy involving the designation for a Special Policy status for the business / commercial core of the Village of Stirling, bounded by Henry Street on the downstream side to James Street on the upstream side. Beyond this region, i.e. downstream of Henry Street and upstream of James Street, the strict application of Provincial Policy pertaining to a single zone approach should be considered.*
- A Special Policy Area must be formally approved through the Planning Act in order for the below policies to apply.

The Hastings County Official Plan (2017) addresses this Special Policy Area:

The 1 in 100-year mapping was completed in August, 1985 by the Lower Trent Region Conservation Authority (LRTCA) and the Secondary Plan was modified to allow the 1 in 100-year data to be used as the standard for development control in the area bounded by Front Street and Mill Street in the south, Victoria Street in the north, North Street in the west and Edward Street in the east, as follows:

a) *lands above the 1 in 100-year floodline may be developed without the need for the use of flood proofing measures;*
b) *Development of those lands to the north of Rawdon Creek which are situated below the defined 1 in 100-year floodline shall be permitted where such development is floodproofed to 0.3 metres above the defined 1 in 100-year floodline;*
c) *Development of those lands to the south of Rawdon Creek situated below the 1 in 100-year floodline shall be permitted provided such development is floodproofed and providing the design of such development will not affect the anticipated flow of water across the lands in the event of a major storm event. This more restrictive floodproofing requirement was considered appropriate for this area in that the lands will provide the drainage course for waters overspilling the Rawdon Creek during a storm event that exceeds the 1 in 100-year event; and*
d) *The accompanying map serves to ensure that the general public is aware that even though development is to be permitted within the "special policy area", the lands are still at risk from flooding in the event of the occurrence of a "Timmins Storm" event.*

LTC Policies

1) Development within the floodway must comply with floodproofing standards to the 100-year flood elevation.

2) Development within the flood fringe in the defined Special Policy Area is not required to provide floodproofing measures, but floodproofing to the Regulatory Flood elevation will be encouraged.

3) Development within the area south of Rawdon Creek between James Street and Front Street will require engineering assessment to ensure the design of such development will not affect the anticipated flow of water across the lands in the event of a major storm event.

5.2.2 Development within Erosion Hazard Lands

5.2.2.1 Development within the Erosion Hazard of an Apparent (Confined) River or Stream Valley

Background

The following policies are focused on the erosion hazards associated with apparent river or stream valleys including the shoreline of Rice Lake in some areas. These policies do not apply to development within the allowance adjacent to apparent (confined) river or stream valleys and the reader should refer to Section 4.2.1 for policies that apply to these areas.

LTC Policies

1) Development shall not be permitted within the erosion hazard of an apparent river or stream valley.

2) Stabilization works within the erosion hazard of an apparent river or stream valley to allow for future/proposed development or an increase in development envelope or area shall not be permitted.

3) Development associated with new and/or the expansion of existing trailer parks/campgrounds within the erosion hazard of an apparent river or stream valley shall not be permitted.

4) *Major development* within the erosion hazard of an apparent river or stream valley shall not be permitted.

5) Redevelopment of derelict and abandoned buildings within the erosion hazard of an apparent river or stream valley shall not be permitted.

6) Stormwater management facilities within the erosion hazard of an apparent river or stream valley shall not be permitted.

7) Notwithstanding Section 5.2.2.1 1), 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 subject to the activity being approved through a satisfactory Environmental Assessment process and if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected.

8) Notwithstanding Section 5.2.2.1 1), development associated with public parks (e.g., passive or low intensity outdoor recreation, education, or trail systems) may be permitted within the erosion hazard of an apparent river or stream valley if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected.

9) Notwithstanding Section 5.2.2.1 1), 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 subject to the activity being approved through a satisfactory Environmental Assessment process and/or if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected.

10) Notwithstanding Section 5.2.2.1 1), removal and placement of *minor fill* and site alteration within the erosion hazard of an apparent river or stream valley may be permitted if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected.

11) Notwithstanding Section 5.2.2.1 1), development associated with the construction of a driveway or access way through the erosion hazard of an apparent river or stream valley in order to provide access to lands outside of the apparent river or stream valley, may be permitted if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected. The submitted plans must demonstrate that:

    a) there is no feasible alternative site outside of the apparent river or stream 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 or erosion protection works are not required;

    d) development will have no negative impacts on natural stream meandering/fluvial processes;

    e) structural development would not be susceptible to stream erosion;

    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 conservation of land are protected, pollution is prevented and flooding hazards have been adequately addressed; 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 the Conservation Authority.

12) Notwithstanding Section 5.2.2.1 1), *moderate development*, in-ground (at-grade) pools and structural repairs associated with existing uses located within the erosion hazard of an

apparent river or stream valley may be permitted if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected. The submitted plans must demonstrate that:

a) there is no feasible alternative site outside of the apparent river or stream 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 or erosion protection works are not required;

d) development will have no negative impacts on natural stream meandering/fluvial processes;

e) structural development would not exacerbate stream erosion;

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 conservation of land are protected, pollution is prevented and flooding hazards have been adequately addressed;

h) development will not prevent access into and through the valley in order to undertake preventative actions/maintenance or during an emergency;

i) no development is located on an unstable slope[2] except for those works that by their nature must be located on an unstable slope such as slope stabilization works (Policy 5.2.2.1 10); 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 LTC.

13) Notwithstanding 5.2.2 1 1), development may be permitted for the reconstruction or relocation of a building within the erosion hazard of an apparent river or stream valley provided that it has not been damaged or destroyed by erosion and if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution or conservation of land will not be affected. The submitted plans must demonstrate that:

a) the building meets the guidelines described in Policy 12) above; and

b) the building does not exceed the original floor space plus the allowable floor space for a *minor addition*. If the building is enlarged, a future *minor addition* to the building or structure will not be considered.

[2] For this document, the four main classes of slope movement are: translational or surficial sliding, rotational failures, retrogressive failures, and flow slides or earth flows. Refer to Section 2.4.5.1 of MNR's Technical Guide - River and Stream Systems: Erosion Hazard Limit (2002) for additional information.

14) Notwithstanding Section 5.2.2.1 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, policies within Sections 4.2.1. and 4.2.2., for development within the hazard allowance, are applicable.

15) Notwithstanding Section 5.2.2.1 1), the replacement of sewage disposal systems may be permitted within the erosion hazard of an apparent river or stream valley if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution or the conservation of land will not be affected. The replacement system should be located outside of the erosion hazard where possible, and only permitted within the erosion hazard subject to being located in the area of least and acceptable risk. LTC may request a technical study to ensure that the development is not subject to risk, and/ or to establish the area of least and acceptable risk.

16) Notwithstanding Section 5.2.2.1 1), development associated with uses that by their nature are located within the hazard such as the construction or reconstruction of an erosion control works, stairs, and shore wells may be permitted within the erosion hazard of an apparent river or stream valley if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected. In order to be considered, the submitted plans must demonstrate that:

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

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

5.2.2.2 Development within the Erosion Hazard of a Not Apparent (Unconfined) River or Stream Valley (Meander Belt)

Background

The following policies are focused on the erosion hazard associated with not apparent river or stream valleys. These policies do not apply to development within the allowance adjacent to river or stream valleys and the reader should refer to Section 4.2.1 for policies that apply to these areas.

LTC Policies

1) Development shall not be permitted within the erosion hazard (meander belt) of a not apparent river or stream valley.

2) Stabilization works within the erosion hazard (meander belt) of a not apparent river or stream valley to allow for future/proposed development or an increase in development envelope or area shall not be permitted.

3) Development associated with new and/or the expansion of existing trailer parks/campgrounds in the erosion hazard (meander belt) of a not apparent river or stream valley shall not be permitted.

4) Major development within the erosion hazard (meander belt) of a not apparent river or stream valley shall not be permitted.

5) Redevelopment of derelict and abandoned buildings within the erosion hazard (meander belt) of a not apparent river or steam valley shall not be permitted.

6) Stormwater management facilities within the erosion hazard (meander belt) of a not apparent river or stream valley shall not be permitted.

7) Notwithstanding Section 5.2.2.2. 1), public infrastructure (e.g. roads, sewers, flood and erosion control works) and various utilities (e.g. pipelines) may be permitted within the erosion hazard (meander belt) of a not apparent river or stream valley subject to the activity being approved through a satisfactory Environmental Assessment process and if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected.

8) Notwithstanding Section 5.2.2.2. 1), development associated with public parks (e.g. passive recreation and education, trail systems) may be permitted within the erosion hazard (meander belt) of a not apparent river or stream valley if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected.

9) Notwithstanding Section 5.2.2.2. 1), stream bank, slope and valley stabilization to protect existing development and conservation or restoration projects may be permitted within the erosion hazard (meander belt) of a not apparent river or stream valley subject to the activity being approved through a satisfactory Environmental Assessment process and/or if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected.

10) Notwithstanding Section 5.2.2.2. 1) and 5.2.2.2. 3), removal and placement of *minor fill* and site alteration within the erosion hazard (meander belt) of a not apparent river or stream valley may be permitted if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected.

11) Notwithstanding Section 5.2.2.2. 1), development associated with the construction of a driveway or access way through the erosion hazard (meander belt) of a not apparent river or stream valley in order to provide access to lands outside of the not apparent river or stream valley, may be permitted if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected. The submitted plans shall demonstrate that:

    a) there is no feasible alternative site outside of the meander belt of a not apparent river or stream 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) bank stabilization or erosion protection works are not required;

    c) development will have no negative impacts on natural stream meandering/fluvial processes;

d) structural development would not be susceptible to stream erosion;

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 conservation of land are protected, pollution is prevented and flooding hazards have been adequately addressed; and,

g) 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 LTC.

12) Notwithstanding Section 5.2.2.2. 1), moderate development, in-ground (at-grade) pools and structural repairs associated with existing uses located within the erosion hazard (meander belt) of a not apparent river or stream valley may be permitted if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, or the conservation of land will not be affected. The submitted plans must demonstrate that:

a) there is no feasible alternative site outside of the meander belt of a not apparent river or stream 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) bank stabilization or erosion protection works are not required;

c) development will have no negative impacts on natural stream meandering/fluvial processes;

d) structural development would not be susceptible to stream erosion;

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 conservation of land are protected, pollution is prevented and flooding hazards have been adequately addressed;

g) development will not prevent access into and through the meander belt in order to undertake preventative actions/maintenance or during an emergency;

h) no development is located on an unstable slope3 except for those works that by their nature must be located on an unstable slope such as slope stabilization works (Policy 5.2.2.2. 10)); and

[3] For this document, the four main classes of slope movement are: translational or surficial sliding, rotational failures, retrogressive failures, and flow slides or earth flows. Refer to Section 2.4.5.1 of MNR's Technical Guide - River and Stream Systems: Erosion Hazard Limit (2002) for additional information.

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 LTC.

13) Notwithstanding 5.2.2.2. 1), development may be permitted for the reconstruction or relocation of a building within the erosion hazard (meander belt) of a not apparent river or stream valley provided that it has not been damaged or destroyed by erosion and if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution or conservation of land will not be affected. The submitted plans must demonstrate that:

a) the building meets the guidelines described in Policy 12) above; and

b) the building does not exceed the original floor space plus the allowable floor space for a *minor addition*. If the building is enlarged, a future *minor addition* to the building or structure will not be considered.

14) Notwithstanding Section 5.2.2.2. 1), where technical assessment or studies demonstrate that lands within the erosion hazard (meander belt) of a not apparent river or stream valley are not subject to an erosion or flooding hazard, policies within Sections 4.2.1 and 4.2.2., for development within the hazard allowance, are applicable.

15) Notwithstanding Section 5.2.2.2.1), the replacement of sewage disposal systems may be permitted within the erosion hazard (meander belt) of a not apparent river or stream valley if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution or the conservation of land will not be affected. The replacement system should be located outside of the erosion hazard where possible, and only permitted within the erosion hazard subject to being located in the area of least and acceptable risk. LTC may request a technical study to ensure that the development is not subject to risk, and/ or to establish the area of least and acceptable risk.

16) Notwithstanding Section 5.2.2.2. 1), development associated with uses that by their nature are located within the hazard such as the construction or reconstruction of an erosion control works, stairs, and shore wells may be permitted within the erosion hazard (meander belt) of a not apparent river or stream valley if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected. In order to be considered, the submitted plans must demonstrate that:

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

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

5.2.3 Development within Hazardous Sites

Background

Hazardous sites consist of sites with unstable soils, such as Leda Clays and Organic Soils, and unstable bedrock, such as Karst formations.

LTC Policies

1) Development shall not be permitted within hazardous lands associated with unstable soils or unstable bedrock.

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

3) Notwithstanding Section 5.2.3. 1), 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 soil or bedrock 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 conservation of land will not be affected.

4) Notwithstanding 5.2.3. 1), development may be permitted for the reconstruction or relocation of a building within hazardous lands associated with unstable soils or bedrock provided it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution or conservation of land will not be affected. The submitted plans must demonstrate that:

    a) There is no feasible alternative site outside of the hazardous lands;

    b) The control of flooding, erosion, pollution or the conservation of land will not be affected; and,

    c) All hazards/risks associated with unstable soils or unstable bedrock have been adequately addressed.

    d) 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 LTC.

6 WETLANDS AND OTHER AREAS

6.1 Ontario Regulation 163/06

The Lower Trent Conservation Regulation contains the following sections dealing with wetlands of all types.

The LTC Regulation contains the following sections dealing with wetlands.

Development prohibited

2.(1) Subject to section 3, no person shall undertake development or permit another person to undertake development in or on areas within the jurisdiction of the Authority that are: …wetlands or… other areas where development could interfere with the hydrologic function of a wetland, including areas within 120 metres of a Provincially Significant Wetland and areas within 30 metres of all others.

Permission to develop

3.(1) The Authority may grant permission for development in or on the areas described in subsection 2(1) if, in its opinion, the control of flooding, erosion, dynamic beaches, pollution or the conservation of land will not be affected by the development.

Alterations prohibited

5. Subject to section 6, no person shall … change or interfere in any way with a wetland.

Permission to alter

6.(1) The Authority may grant a person permission …to change or interfere with a wetland.

6.(2) The permission of the Authority shall be given in writing, with or without conditions.

It should be noted that the *Conservation Authorities Act* and the LTC Regulation all use 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" and those that do not necessarily meet the definition of "development" are regulated as described in Sections 5 and 6 of the Regulation. An example of an activity that does not strictly meet the definition of "development" and could represent interference is vegetation removal such as clear-cutting or clearing and grubbing large areas.

There are a variety of sources for identifying wetlands. Many wetlands have been identified thorough the provincial wetland evaluation program. LTC may also identify wetlands as part of other watershed programs such as environmentally significant area and ecological land classification (ELC) mapping. Soils mapping (i.e. OMAFRA) may also be useful in identifying organic soils that would indicate the potential of wetlands.

The province uses the Ontario Wetland Evaluation System (OWES), originally developed in 1983, to identify and evaluate wetlands primarily to support land use planning processes under the *Planning Act*. The OWES currently used within the LTC jurisdiction is the Southern Ontario Wetland Evaluation System (MNR, 1993a). Wetlands identified and evaluated using the OWES can be a valuable resource for implementing Section 28 of the *Conservation Authorities Act*, however, it is important to note that a wetland must meet the definition of 'wetland' within the *Conservation Authorities Act*.

6.2 Policy Standards

The following sections outline the policy standards for implementing the LTC Regulation with respect to wetlands and "other areas". LTC, in their role through the planning process, should review planning applications to ensure that, in general, all development can occur outside and be set back an appropriate distance from the wetland boundaries.

LTC may require technical studies be undertaken to demonstrate the suitability of development proposals. 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 LTC.

6.2.1 Development and Interference within Wetlands

Background

Wetland means:

Lands that are seasonally or permanently covered by shallow water, as well as lands where the water table is close to or at the surface. In either case the presence of abundant water has caused the formation of hydric soils and has favoured the dominance of either hydrophytic plants or water tolerant plants. The four major types of wetlands are swamps, marshes, bogs and fens. Periodically soaked or wet lands being used for agricultural purposes which no longer exhibit wetland characteristics are not considered to be wetlands for the purposes of this definition.

The following policies are focused on all wetlands, no matter the significance.

LTC Policies

1) Development and interference shall not be permitted within wetlands.
2) Redevelopment of derelict and abandoned buildings within wetlands shall not be permitted.
3) Ponds and drains shall not be permitted within wetlands.
4) Stormwater management facilities shall not be permitted within wetlands.
5) Notwithstanding Section 6.2.1 1), public infrastructure (e.g. roads, sewers, flood and erosion control works) and various utilities (e.g. pipelines) may be permitted within a wetland subject to the activity being approved through a satisfactory Environmental Assessment process and/ or if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution or the conservation of land will not be affected and the interference on the natural features and hydrologic and ecological functions of the wetland has been deemed to be acceptable by LTC.

6) Notwithstanding Section 6.2.1 1), conservation or restoration projects may be permitted within a wetland if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution or the conservation of land will not be affected and the interference on the natural features and hydrologic and ecological functions of the wetland has been deemed to be acceptable by LTC.

7) Notwithstanding Section 6.2.1 1), development associated with public parks (e.g. passive or low intensity outdoor recreation, education, or trail systems) may be permitted within a wetland if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution or the conservation of land will not be affected and the interference on the natural features and hydrologic and ecological functions of the wetland has been deemed to be acceptable by LTC.

8) Notwithstanding Section 6.2.1 1), development 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 LTC that the control of flooding, erosion, pollution or the conservation of land will not be affected and the interference on the natural features and hydrologic and ecological functions of the wetland has been deemed to be acceptable by LTC through an Environmental Impact Study (EIS). A boardwalk may be permitted with the following considerations:

    a) the footprint of the development in the wetland is minimized;

    b) boardwalk must be raised over flood level;

    c) maximum width of 1.5 metres;

    d) constructed with materials that will not affect the natural environment.

9) Notwithstanding Section 6.2.1 1), development may be permitted within small (< 0.5 ha), isolated wetlands, as determined by staff or in accordance with other LTC policies, if available, where it has been demonstrated through an Environmental Impact Study (EIS) that the loss of the wetland will not impact the hydrologic and ecological integrity of the landscape.

10) Further to Section 6.2.1 9), development may be permitted within a small (< 0.5 ha) isolated wetland if it has been demonstrated through a technical study that hazards associated with unstable soils have been addressed.

11) Offsetting may be required to support any of the above at the discretion of LTC. Offsetting 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 LTC.

6.2.2 Development within Other Areas (Areas of Interference/Adjacent Lands within which Development may Interfere with the Hydrologic Function of the Wetland)

6.2.2.1 Area within 30 Metres of the Wetland

Background

The following policies are focused on lands adjacent to all wetlands, no matter the significance.

LTC Policies

1) Development shall not be permitted within 30 metres of the boundary of the wetland.

2) Notwithstanding Section 6.2.2.1 1), development within the area within 30 metres of a wetland may be permitted where it has been demonstrated through a technical study, prepared by a qualified professional with recognized expertise in the appropriate discipline using established procedures and recognized methodologies to the satisfaction of the LTC, that:

    a) there is no feasible alternative site outside of the 30 metre adjacent lands for the proposed development and the proposed development is located in an area of least (and acceptable) impact;

    b) the hydrologic function of the wetland will not be impacted;

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

    d) natural features and/or ecological functions associated with conservation of land are protected, pollution is prevented and hazards have been adequately addressed.

3) Notwithstanding Section 6.2.2.1 1), development within the area within 30 metres of a wetland may be permitted where proposed development impacts will not increase impacts beyond that of historic development activities (i.e. existing road, driveway, filled yard, foundation, etc.) provided it has been demonstrated to the satisfaction of the LTC, that:

    a) there is no feasible alternative site outside of the 30 metre adjacent lands for the proposed development and the proposed development is located in an area of least (and acceptable) impact;

    b) the hydrologic function of the wetland will not be further impacted;

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

    d) natural features and/or ecological functions associated with conservation of land are protected, pollution is prevented and hazards have been adequately addressed.

4) Notwithstanding Section 6.2.2.1 1), public infrastructure (e.g. roads, sewers, flood and erosion control works) and various utilities (e.g. pipelines) may be permitted within 30 metres of a wetland if the interference on the hydrologic functions of the wetland has been deemed to be acceptable by LTC.

5) Notwithstanding Section 6.2.2.1 1), conservation or restoration projects may be permitted within 30 metres of a wetland if the interference on the hydrologic functions of the wetland has been deemed to be acceptable by LTC.

6) Notwithstanding Section 6.2.2.1 1), development associated with public parks (e.g. passive or low intensity outdoor recreation and education, trail system) may be permitted within 30

meters of a wetland if the interference on the hydrologic functions of the wetland has been deemed to be acceptable by LTC.

7) Notwithstanding Section 6.2.2.1 1), the replacement of sewage disposal systems may be permitted within the 30-metre allowance of a wetland if it has been demonstrated to the satisfaction of LTC that there is no feasible location outside of the 30-metre allowance. The replacement system should be located outside of the wetland and only permitted within the allowance subject to being located in the area of least impact to the ecological and hydrologic function of the wetland.

6.2.2.2 Area Between 30 Metres to 120 Metres of the Wetland

Background

The following policies are focused on lands between 30 metres and 120 metres from a provincially significant wetland.

LTC Policies

1) Development may be permitted in the area between 30 metres to 120 metres of a wetland if the interference on the hydrologic functions of the wetland has been deemed to be acceptable by LTC.

2) Further to Section 6.2.2.2 1), public infrastructure (e.g. roads, sewers, flood and erosion control works) and various utilities (e.g. pipelines) may be permitted in the area between 30 metres to 120 metres of a wetland subject to the activity being approved through a satisfactory Environmental Assessment process and/or if the interference on the hydrologic functions of the wetland has been deemed to be acceptable by LTC.

3) Further to Section 6.2.2.2 1), conservation or restoration projects may be permitted in the area between 30 metres to 120 metres of a wetland if the interference on the hydrologic functions of the wetland has been deemed to be acceptable by LTC.

4) Further to Section 6.2.2.2 1), development associated with public parks (e.g. passive or low intensity outdoor recreation and education, trail system) may be permitted in the area between 30 metres to 120 metres of a wetland if the interference on the hydrologic functions of the wetland has been deemed to be acceptable by LTC.

5) Further to Section 6.2.2.2 1), development may be permitted in the area between 30 metres to 120 metres of a wetland if the interference on the hydrologic functions of the wetland has been deemed to be acceptable by LTC. An Environmental Impact Study (EIS) to assess the hydrologic impact shall be required if the submitted plans do not demonstrate the following:

    a) Disturbances to natural vegetation communities contributing to the hydrologic function of the wetland are avoided;

    b) The overall existing drainage patterns for the lot will be maintained;

    c) Disturbed area and soil compaction are minimized;

    d) Development is located above the high-water table;

e) All septic systems are located at a minimum 0.9 m above the water table;

f) Impervious areas are minimized;

g) Best Management Practices are used to:

i. maintain water balance
ii. control erosion and sediment
iii. buffer wetlands

6) Further to Section 6.2.2.2 1), larger scale development associated with large commercial uses, industrial uses, multiple residential uses (condominiums, apartments, townhouses, etc.) and/or development into the water table may be permitted in the area between 30 metres to 120 metres of a wetland if the interference on hydrologic functions of the wetland has been deemed to be acceptable by LTC. An Environmental Impact Study (EIS) to assess the hydrologic impact shall be required.

7 WATERCOURSES

7.1 Ontario Regulation 163/06

The LTC Regulation contains the following sections dealing with watercourses.

The LTC Regulation contains the following sections dealing with watercourses:

Alterations prohibited

5. Subject to section 6, no person shall straighten, change, divert or interfere in any way with the existing channel of a river, creek, stream or watercourse…

Permission to alter

6.(1) The Authority may grant a person permission to straighten, change, divert or interfere with the existing channel of a river, creek, stream or watercourse

6. (2) The permission of the Authority shall be given in writing, with or without conditions.

7.2 Policy Standards

The following sections outline the policy standards for implementing the LTC Regulation with respect to watercourses. The term "interference" below includes all alterations mentioned within the Regulation (straighten, change, divert or interfere in any way). LTC, in their role through the planning process, should review planning applications to ensure watercourse alterations associated with development are appropriate.

LTC may require technical studies be undertaken to demonstrate the suitability of development proposals. 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 LTC.

7.2.1 Interference with a Watercourse

Background

The following policies apply to watercourses as defined in the Conservation Authorities Act: "An identifiable depression in the ground in which a flow of water regularly or continuously occurs."

LTC Policies

1) Interference with a watercourse shall not be permitted.

2) Proposals for channelization and/or re-alignment will not be considered where the purpose of the proposal is to increase the development potential on the lands.

3) Notwithstanding Section 7.2.1 1), public infrastructure (e.g. roads, sewers, flood and erosion control works) and various utilities (e.g. pipelines) may be permitted within a watercourse subject to the activity being approved through a satisfactory Environmental Assessment process or through other studies deemed necessary by the Conservation Authority and/ or if

the interference on the natural features and hydrologic and ecological functions of the watercourse has been deemed to be acceptable by the Conservation Authority.

4) Notwithstanding Section 7.2.1 1), stream, bank, and channel stabilization to protect existing development or conservation or restoration projects may be permitted within a watercourse if the interference on the natural features and hydrologic and ecological functions of the watercourse has been deemed to be acceptable by the Conservation Authority.

5) Notwithstanding Section 7.2.1 1), any works that are to be located below the bed of the river within a watercourse shall be located below the long-term scour depth to the satisfaction of the Conservation Authority.

6) Notwithstanding Section 7.2.1 1), minor interference and/or alteration may be permitted within a watercourse if it has been demonstrated to the satisfaction of the Conservation Authority that the interference is acceptable on the natural features and hydrologic and ecological functions of the watercourse.

7) Notwithstanding Section 7.2.1 1), major interference (e.g. realignment, dam, enclosure) with a watercourse may be permitted where supported by the recommendations of a sub-watershed study, Environmental Assessment; or other technical approved study. A Complete Application Checklist for Creek Realignments can be found in **Appendix M.** The checklist will be filled out as part of the pre-consultation process for this type of application.

8) Notwithstanding Section 7.2.1 1), watercourse crossings may be permitted if it has been demonstrated to the satisfaction of the Conservation Authority that the interference on the natural features and hydrologic and ecological functions of the watercourse has been deemed to be acceptable by the Conservation Authority. At a minimum, the submitted plans must demonstrate the following based on morphological characteristics of the watercourse system[4];

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

    b) 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;

    c) the crossing is sized and located such that there is no increase in upstream or downstream erosion or flooding;

    d) the design should consider fish and wildlife passage;

    e) have regard for upstream and downstream effects when installing/replacing a culvert.

    f) the design should incorporate site stabilization and erosion control measures;

[4] Refer to Adaptive Management of Stream Corridors in Ontario (Stream Corridors Project Management Team, 2001) for more information.

g) the submitted plans should incorporate detailed information related to installation and sequencing; and,

h) is consistent with Ontario Ministry of Transportation (MTO) Highway Drainage Design Standard WC-1 (January 2008) and follows the MTO Drainage Management Manual Guidelines.

8 PROCEDURE FOR APPLICATION UNDER ONTARIO REGULATION 163/06

8.1 Ontario Regulation 163/06

The LTC Regulation contains the following sections dealing with the application procedure.

The LTC Regulation contains the following sections dealing with the application procedure:

Application for permission

4. A signed application for permission to undertake development shall be filed with the Authority and shall contain the following information:

1. Four copies of a plan of the area showing the type and location of the proposed development.
2. The proposed use of the buildings and structures following completion of the development.
3. The start and completion dates of the development.
4. The elevations of existing buildings, if any, and grades and the proposed elevations of buildings and grades after the development.
5. Drainage details before and after the development.
6. A complete description of the type of fill proposed to be placed or dumped.
7. Such other technical studies or plans as the Authority may request. O. Reg. 163/06, s. 4; O. Reg. 67/13, s. 3.

7. A signed application for permission to straighten, change, divert or interfere with the existing channel of a river, creek, stream or watercourse or change or interfere with a wetland shall be filed with the Authority and shall contain the following information:

1. Four copies of a plan of the area showing plan view and cross-section details of the proposed alteration.
2. A description of the methods to be used in carrying out the alteration.
3. The start and completion dates of the alteration.
4. A statement of the purpose of the alteration.
5. Such other technical studies or plans as the Authority may request. O. Reg. 163/06, s. 7; O. Reg. 67/13, s. 5.

Cancellation of permission

8. (1) The Authority may cancel a permission granted under section 3 or 6 if it is of the opinion that the conditions of the permission have not been met. O. Reg. 163/06, s. 8 (1); O. Reg. 67/13, s. 6 (1).

(2) Before cancelling a permission, the Authority shall give a notice of intent to cancel to the holder of the permission indicating that the permission will be cancelled unless the holder shows cause at a hearing why the permission should not be cancelled. O. Reg. 163/06, s. 8 (2).

(3) Following the giving of the notice under subsection (2), the Authority shall give the holder at least five days notice of the date of the hearing. O. Reg. 163/06, s. 8 (3); O. Reg. 67/13, s. 6 (2).

Period of validity of permissions and extensions

9. (1) The maximum period, including an extension, for which a permission granted under section 3 or 6 may be valid is,

a) 24 months, in the case of a permission granted for projects other than projects described in clause (b); and
b) 60 months, in the case of a permission granted for,
   (i) projects that, in the opinion of the Authority or its executive committee, cannot reasonably be completed within 24 months from the day the permission is granted, or
   (ii) projects that require permits or approvals from other regulatory bodies that, in the opinion of the Authority or its executive committee, cannot reasonably be obtained within 24 months from the day permission is granted. O. Reg. 67/13, s. 7.

(2) The Authority or its executive committee may grant a permission for an initial period that is less than the applicable maximum period specified in subsection (1) if, in the opinion of the Authority or its executive committee, the project can be completed in a period that is less than the maximum period. O. Reg. 67/13, s. 7.

(3) If the Authority or its executive committee grants a permission under subsection (2) for an initial period that is less than the applicable maximum period of validity specified in subsection (1), the Authority or its executive committee may grant an extension of the permission if,

a) the holder of the permission submits a written application for an extension to the Authority at least 60 days before the expiry of the permission;
b) no extension of the permission has previously been granted; and
c) the application sets out the reasons for which an extension is required and, in the opinion of the Authority or its executive committee, demonstrates that circumstances beyond the control of the holder of the permission will prevent completion of the project before the expiry of the permission. O. Reg. 67/13, s. 7.

(4) When granting an extension of a permission under subsection (3), the Authority or its executive committee may grant the extension for the period of time requested by the holder in the application or for such period of time as the Authority or its executive committee deems appropriate, as long as the total period of validity of the permission does not exceed the applicable maximum period specified in subsection (1). O. Reg. 67/13, s. 7.

(5) For the purposes of this section, the granting of an extension for a different period of time than the period of time requested does not constitute a refusal of an extension. O. Reg. 67/13, s. 7.

(6) The Authority or its executive committee may refuse an extension of a permission if it is of the opinion that the requirements of subsection (3) have not been met. O. Reg. 67/13, s. 7.

(7) Before refusing an extension of a permission, the Authority or its executive committee shall give notice of intent to refuse to the holder of the permission, indicating that the extension will be refused unless,

a) the holder requires a hearing, which may be before the Authority or its executive committee, as the Authority directs; and
b) at the hearing, the holder satisfies the Authority, or the Authority's executive committee, as the case may be,
   (i) that the requirements of clauses (3) (a) and (b) have been met, and
   (ii) that circumstances beyond the control of the holder will prevent completion of the project before the expiry of the permission. O. Reg. 67/13, s. 7.

(8) If the holder of the permission requires a hearing under subsection (7), the Authority or its executive committee shall give the holder at least five days notice of the date of the hearing. O. Reg. 67/13, s. 7.
(9) After holding a hearing under subsection (7), the Authority or its executive committee shall,
a) refuse the extension; or
b) grant an extension for such period of time as it deems appropriate, as long as the total period of validity of the permission does not exceed the applicable maximum period specified in subsection (1). O. Reg. 67/13, s. 7.
(10) Subject to subsection (11), one or more employees of the Authority that have been designated by the Authority for the purposes of this section may exercise the powers and duties of the Authority under subsections (2), (3) and (4), but not those under subsections (6), (7), (8) and (9). O. Reg. 67/13, s. 7.
(11) A designate under subsection (10) shall not grant an extension of a permission for any period that would result in the permission having a period of validity greater than 24 months. O. Reg. 67/13, s. 7.

8.2 Procedural Standards

The following outlines the procedural standards for implementing the LTC Regulation with respect to all regulated areas within the watershed.

Permits under Ontario Regulation 163/06 are required for agencies, municipalities and landowners except for the exceptions listed within Section 28 (11) of the Conservation Authorities Act, R.S.O. 1990 as amended. Section 28 (11) states: “A requirement for permission of an authority in regulation made under clause (1) (b) or (c) does not apply to an activity approved under the *Aggregate Resources Act* after the *Red Tape Reduction Act*, 1998 received Royal Assent.” Additionally, it is noted that the *Conservation Authorities Act* does not specifically “bind the Crown”. Therefore, activities of Provincial Ministries, Federal Departments and Crown Agencies or “Crown Corporations” are not legally required to obtain permission under the *Conservation Authorities Act*. Note that if third parties are undertaking activities on Provincial Crown Land, with the permission of the province, permits from LTC are still required.

Permits for proposed works will be issued if it has been demonstrated to the satisfaction of the LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected, and the project is technically sound.

A fee schedule has been developed to partially recover the costs associated with administering and delivering the regulations program. LTC staff will assist the applicant in the analysis of their site and the acceptability of the proposed use. However, it shall be the responsibility of the applicant to provide the necessary technical design and environmental data at their own cost and at a quality acceptable to LTC. The LTC assumes no liability for any technical recommendations that staff may provide the applicant in completing the application form. LTC staff will review all applications on a “first-come, first served” basis in a timely, professional manner. Each proposed project that requires the approval of LTC under the regulation, and for which an application has been filed, will be processed according to the procedures set out in this document.

8.2.1 Deposit Fees

For applications requiring professional confirmation of conditions of the permit a deposit fee will be required to cover costs of professional services if the proponent refuses to undertake these additional services. These fees will be used to pay for an Ontario Land Surveyor (OLS) to confirm floodproofing elevation requirements or to pay for the design engineer of shore protection works to visit the property to confirm the works were completed in accordance with the approved design.

The deposit fees will be released back to the proponent within 10 business days of receiving an acceptable OLS or engineering notification confirming compliance of the conditions of the permit.

8.2.2 Types of Applications

Reporting approved by Conservation Ontario Council (CO) and presented to the province identifies three categories of permits based on general scope and response timelines. These timelines have been set by CO and the province and are discussed in Section 8.2.7 below. These three categories are **Major**, **Minor** and ***Routine*** and are discussed in Section 8.2.2.6 below.

LTC has identified permit types following a similar process but has included further types based on how the fee structure is to be applied. What is noted as a Routine permit category will be considered a Minor Permit application by LTC. Note that there are separate permit types for Standard, Complex, Compliance and Restoration Agreements and associated fees with these types. In some cases, the compliance or restoration required is of a minor nature and fees are reflective of the scale. Major permit category for reporting will include Standard and Complex permit applications as described below as well as the majority of Compliance Permit applications and Restoration Agreements.

The application process is similar for all types of applications and the same application form is used for all types of applications. Other information may be required for different types/levels of permits as described below. Fees are based on the type of permit application.

8.2.2.1 Minor Permits

Permits for minor works involve *minor fill* (<25 m3 placement or removal of fill); *minor development* (<10 m2 development); and *minor site alteration* (<20 m2 altered area size) permit applications. Fees for these permits are less than standard permits. Note that most *Routine* category applications will come under this category.

8.2.2.2 Standard Permits

Standard Permits are considered the “regular” permit for any development, alteration or interference proposed projects that do not qualify as minor works as defined above and does include *moderate stabilization* works for banks or shorelines.

8.2.2.3 Complex Permits

These permits require significant staff involvement due to review of technical studies and the complexity of the proposed project. Multiple staff reviews may be required for different types of technical studies. Higher fees are associated with these applications.

8.2.2.4 Compliance Permits

Compliance permits are required when works have been undertaken or in process of being undertaken without prior approval from LTC. Typically, these works would have been approved

by LTC staff (possibly with minor modifications or conditions). Fees double the regular applicable fee will be charged for these permit applications.

8.2.2.5 Restoration Agreements

Restoration agreements will be required by LTC staff when works have been undertaken that would not have complied with the policies in this document and restoration and/or remediation measures are required. A separate Restoration Agreement document may be required to be signed by the proponent in addition or in lieu of the permit application.

Due to the nature of these agreements, the works will not typically follow the policies outlined in this document but the work will be required to restore the regulated feature. As such, LTC staff are authorized to approve these plans if in their opinion the impacts to flooding, erosion, dynamic beaches, conservation of land, and pollution have been addressed in the proposed plans. Similar to compliance permits, double the regular applicable fee will be required with these applications.

8.2.2.6 Permit Categories for Reporting

The ***Routine*** permit category is for activities that are documented through another approval process or are determined to have limited impacts on the control of flooding, erosion, dynamic beaches, pollution or the conservation of land. LTC has determined that Routine permit applications would be those involving, Standard Compliance Requirements under the Drainage Act and Conservation Authorities Act Protocol (DART) and non-habitable buildings and structures that are less than 10 m2 in size. Note that there is only one Municipal Drain in the LTC watershed and DART applications are very rare. Routine category applications are included in the LTC definitions under Minor Permits (8.2.2.2.) for fee structure but will be recorded separately for reporting purposes and timeline expectations.

Minor permit category applies to projects that would be minor in nature due to the project size, level of risk, location, and/or other factors. These have minor impacts on the control of flooding, erosion, dynamic beaches, pollution or the conservation of land. Based on the proximity of the project to the hazard, the minor permit applications are reviewed by CA staff and generally require standard recommendations or conditions. Minor permits are those involving minor fill; minor development; and minor site alteration where there is a high degree of certainty that issues associated with natural hazards are minimal.

Major permit category refers to applications that require significant staff involvement. They could be highly complex projects requiring technical review supported by comprehensive analysis, or smaller scale site specific applications that require complex technical reviews. The proposals may involve developments with significant natural hazards, environmental impacts, or multiple approval process requirements. Major applications could also include those where works have been undertaken, or are in process of being undertaken, without prior approval from the CA; and those where works have been undertaken that do not comply with the CAA Section 28 policies and restoration/remediation measures are required.

8.2.3 Application Requirements

An application for a permit under the regulation shall be submitted to LTC by the applicant or their agent. If the owner of the property, whether a private citizen, a company, or public body, does not sign

the application form, then a signed landowner authorization form for the agent to act on the owner's behalf shall be provided. This form is included in the permit application package. In the case of a corporation, then the written authorization of a designated signing officer shall be required.

If it is necessary to cross or work on another property not owned by the applicant as part of the work (e.g., for equipment access), then a signed landowner authorization form must accompany the permit application.

The following criteria will be used to define the components of a complete permit application. A general list of requirements for a complete application contains the following components (Note: Applicants should pre-consult with LTC staff, since not all components may be required):

1) A completed Permit Application Package including a completed Landowner Authorization form (required if owner is assigning another party as an agent for the project – part of the application package).
2) One copy of a plan of the area showing plan view and cross-section details of the proposed alteration (11" x 17" maximum size in hard copy or digital drawings are required).
3) The proposed use of the buildings and structures following completion of the development or a description of the methods to be used in carrying out the alteration.
4) The start and completion dates of the proposed work (as anticipated).
5) The elevations of existing buildings (as applicable and if required), and existing grades and the proposed elevation of buildings and grades after development.
6) Drainage details before and after the development and any mitigation measures (e.g. silt fence, rock check dam) as required.
7) A complete description of the type and quantity of *fill* proposed to be placed or removed.
8) Such other technical studies or plans and site-specific details as the LTC may request.
9) The application fee as required by the most recently approved fee schedule, available on LTC website: www.ltc.on.ca.
10) Deposit fee, if required.

Note: A permit application may not be considered to be complete if an approval under the *Planning Act* is required/pending or if not in compliance with municipally approved Site Plan Control agreement.

8.2.4 Application Process

The following process will be adhered to when processing permits subject to the LTC regulation.

1) An application for a permission in accordance with the LTC Regulation shall be filed on the prescribed form and include all information as required. A unique file number shall be assigned to each application that is submitted. This number shall be related to the order in which it was received and the current year. The new file will be entered into the Planning & Regulations database on the LTC server (on location at the LTC Office).

2) LTC staff will review applications made pursuant to this regulation. Prior to the issuance of a permit, a designated LTC employee will often conduct an inspection of the site. At this time, photos to represent the pre-development condition may be taken and notes regarding the nature of slopes, water features, and any other items should be recorded and put on 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 is to be advised that the review of the application will be suspended until a proper inspection can be conducted.

3) The Board of Directors may appoint LTC staff, which are authorized to:

   a) approve applications in which the permitted uses conform to this Policy Document;

   b) require from an applicant, any engineering or environmental studies including floodplain, environmental impact, geo-technical, or other studies as per the Authority's policies, considered necessary to make a decision.

   c) defer any application to the Hearing Board of the Conservation Authority in which the restricted uses are those as listed in this Policy Document or do not conform to the other Policies stated herein;

4) LTC staff will ensure the date of receipt is noted on all copies of the application.

5) LTC staff will ensure the appropriate fee has been collected as per the most current approved fee schedule.

6) Upon review and assessment that the application meets the policies outlined in this document, the application will be stamped "Permit Granted" and assigned a Permit Number. One copy will be returned to the applicant (if requested), one copy provided to the municipality (if required), and one copy retained by LTC. Electronic distribution of the permits is encouraged and hard copies will only be provided upon request.

7) All applications approved by LTC staff shall be presented to the Board of Directors of the Conservation Authority for information.

8.2.5 Client Service Facilitator

LTC has designated the Manager, Development Services and Water Resources as the *Client Service Facilitator* for issues regarding permit applications. If the applicant is not satisfied with the permit application process or that the timelines listed below (8.2.7) are not being met or there is a question about completeness as identified in Section 8.2.6 below, the *Client Services Facilitator* is the first contact regarding applications issue management.

8.2.6 Consideration of a Complete Application

1) Pre-consultation is strongly encouraged to provide clarity and direction, to facilitate receipt of complete applications and to streamline the permit review and decision-making process. To meet these objectives, depending on the scale and scope of the project, pre-consultation may include staff from the following parties: Conservation Authority, the municipality, the applicant, consultants, the developer and owner, and may be supplemented by staff from provincial ministries, Parks Canada and any other appropriate government agencies; and may occur concurrently with *Planning Act* pre-consultation.
2) LTC will identify and confirm in writing the complete application requirements for specific projects. However, substantial changes to a proposal or a site visit after pre-consultation may warrant further pre-consultation and/or necessitate changes to the complete application requirements.
3) Upon receipt of a permit application LTC will review the submission for completeness and will confirm in writing as to whether the application has been deemed complete or not. If a permit application is deemed incomplete, LTC will provide the applicant with a written list of missing and

required information when notifying the applicant that the application has been deemed incomplete.

4) During the review of a "complete application", LTC may request additional information if LTC deems the permit application does not contain sufficient technical analysis. Delays in timelines for decision making may occur due to these requests for additional information to address errors or gaps in information submitted for review. Thus, an application can be put "on hold" or returned to the applicant pending the receipt of further information. If necessary, this could be confirmed between both parties as an "Agreement to Defer Decision".
5) If the applicant is not satisfied with the decision on whether an application is deemed complete they should contact the Client Services Facilitator.
6) If the issue regarding completeness is not resolved to the satisfaction of the applicant, the applicant can request an administrative review by LTC's Chief Administrative Officer/Secretary-Treasurer (CAO/ST). This review will be limited to a complete application policy review and will not include review of the technical merits of the application.
7) If the applicant is not satisfied with the response from the CAO/ST, an administrative review by the LTC Board of Directors can be requested. This review will be limited to a complete application policy review and will not include review of the technical merits of the application. This review will be accomplished through Staff Report circulation to the Board and Board decision is by a majority vote as per LTC's Administrative By-Law.

8.2.7 Timelines for Application Review

In 2010 the MNRF, in consultation with Conservation Authorities Liaison Committee (CALC), developed *the Policies and Procedures for Conservation Authority Plan Review and Permitting Activities* (P&P CAPRPA - May 2010) which identified timelines for responding to various applications. In 2019 Conservation Ontario (CO) with input from members of the CO Timely Review and Approvals Taskforce developed the *Annual Reporting on Timelines Template For permissions under Section 28 of the Conservation Authorities Act* (CO ARTT), which received endorsement by the CO Council in December 2019. This document builds upon the *Conservation Authority (CA) - Municipality MOU Template for Planning and Development Reviews*; *Guideline for Client Service Standards for Conservation Authority Plan and Permit Review*; and the *Guideline for CA Fee Administration Policies for Plan Review and Permitting*.

All timelines presented below exclude statutory holidays and the time required for the applicant to respond to LTC comments on an application. These best practice timelines are premised on the required planning approvals under the Planning Act being in place prior to the submission of an application to LTC.

Following this updated document, LTC will strive to meet the following standards for rendering decisions and other notifications to applicants during the permitting process.

1. For **Pre-Consultation:** Applicants will be notified of complete application requirements:
    a) Major permit applications: Within 14 days of the pre-consultation meeting.
    b) Minor permit applications: Within 7 days of the pre-consultation meeting.

c) Confirmation of whether the application is considered major or minor, if the applicant has provided adequate information (including the scope and scale of the work) for LTC to make that determination will be included with this notification.

2. Upon receipt of the application, Applicants will be notified on **Completeness of the application**:

   a) Major permit applications: Within 21 days of the application being received.

   b) Minor permit applications: within 14 days of the application being received.

   c) Routine permit applications: within 10 days of the applications being received.

   d) Note that LTC may choose to issue a permit prior to the end of the notification period. In that case, no notification of complete application would be received.

3. Note that if the application is incomplete, the decision timeline does not begin (see below). Decision to Applicant (recommendation to approve or deny application) will be provided:

   a) Major Permit Application: Within 28 days after a complete application is received and within 30 additional days upon receipt of each resubmission.

   b) Minor Permit Application: Within 21 days after a complete application is received and within 15 additional days upon receipt of each re-submission.

   c) Routine Permit Application: Within 14 days after a complete application is received and within 7 additional days upon receipt of each re-submission.

8.2.8 Staff Approval of Applications

The LTC Board of Directors has delegated authority to grant permissions under Ontario Regulation163/06 to the Chief Administrative Officer and Manager, Development Services & Water Resources for permit applications which: are not a significant departure from the approved LTC Regulation Policy Procedures; are for a time period of 2 years or less; and where the applicant agrees to the conditions of the permit (RES: G41/14).

LTC staff will review applications to ensure conformity with this Policy document. An application is approved when it is technically sound and complies with the Authority policy. Where an application is complete and conforms to this Policy document, staff, delegated with authority to do so, will issue an approval. Staff will issue the permit with only the General Conditions included in the permit application form or they may include additional conditions. Subsequently, LTC staff will provide a report to the Board.

8.2.9 Staff Refusal of Application

A recommendation for refusal of an application for a permit will be made by staff if it is determined that the proposed works do not meet the approved policies of LTC or if the proponent does not agree with the proposed conditions of the permit.

Staff will negotiate with the applicant in an attempt to resolve the points of concern. However, in such cases where the differences cannot be resolved, the applicant will be informed in writing of the staff decision to recommend denial of the permit and the reasons for the recommendation. The letter will also inform them of their right to request a Hearing before the LTC's Hearing Board. The applicant may then choose to either withdraw the application, modify the application so it can be supported or request a Hearing.

As per Resolution G111/15, permit applications that do not conform with the approved policies will be denied and LTC Staff would recommend submission to the Hearing Board as per resolution:

RES: G111/15

THAT applications for permits coming forward that do not comply with LTC policies be taken to the Hearings Committee, regardless of whether or not they are recommended for approval by staff

8.2.10 Hearing

For an application to be refused or where the applicant objects to the conditions of approval, the *Conservation Authorities Act* requires that the applicant be given the opportunity for a Hearing by the LTC Board (sitting as the Hearing Board). The Section 28 (3) *Conservation Authorities Act* Hearing Guidelines (CO and MNR, 2005) provides a step-by-step process for conducting Hearings required under Section 28 (12), (13), (14) of the *Conservation Authorities Act* (**Appendix B**). LTC will conduct a Hearing under the Regulation in a manner consistent with these guidelines. The Hearing Board is empowered by law to make a decision, governed by the *Statutory Powers Procedures Act*. It is the purpose of the Hearing Board to evaluate the information presented at the hearing by both the LTC staff and the applicant and to decide whether the application will be approved with or without conditions or refused.

A Hearing will be set in motion upon the request of the applicant. The Hearing Board is comprised of the LTC Board of Directors. A Hearing can be called if:

- the applicant is granted approval with conditions by LTC staff and the applicant does not agree with the conditions imposed on the permit, or
- an application is reviewed and found to not fully conform to the Policy document and LTC staff recommend denial of the permit.

Once a Hearing is set in motion, the power to grant or deny permission rests with the LTC Hearing Board.

An application for approval under Ontario Regulation 163/06, Development, Interference with Wetlands & Alterations to Shorelines & Watercourses Regulation cannot be refused without the opportunity of a Hearing before the Authority. This is a requirement under Section 28(12) of the *Conservation Authorities Act* which states:

> "Permission required under a regulation made under clause 1(b), or (c) shall not be refused or granted subject to conditions unless the person requesting the permission has been given the opportunity to require a Hearing before the Authority or, if the Authority directs, before the Authority's Executive Committee"

Appendix G (Hearing Guidelines) sets out the procedures for Hearings.

8.2.11 Appeal to Minister

There are three opportunities for applicants to appeal directly to the Minister regarding decisions made by LTC during the permit review and approval process. These appeals to the Minister must be made within 15 days of receiving the decision from the Conservation Authority. These circumstances are listed below:

- LTC Staff approved the permit application because it follows the policies outlined in this document and included Conditions of the permit. The applicant does not agree with the imposed Conditions.
- LTC Staff refused the permit application because it did not follow the policies outlined in this document and notified the applicant of the opportunity for a Hearing. The applicant can appeal directly to the Minister within 15 days of receiving the notice of refusal.
- LTC Staff refused the permit application because it did not follow the policies outlined in this document and notified the applicant of the opportunity for a Hearing. The applicant opted for a Hearing and the Hearing Board decision was a denial. The applicant can appeal the Hearing Board decision directly to the Minister within 15 days of receiving the notice of decision from the Hearing Board.

For the Minister's Review, if a decision from the Minister is not received within 30 days, the applicant can request whether a review will be completed. If there is No Intent to Review then this appeal can be forwarded to the Ontario Land Tribunal for review. The applicant can also request the OLT for review if no response is provided from the Minister within 30 days. If the Minister responded that a Review will take place, this review will be placed on the Environmental Registry of Ontario (ERO) for decision. If there is no decision from the Minister within 90 days the appeal can be reviewed by the OLT.

8.2.12 Appeal to Ontario Land Tribunal

An applicant can appeal to the Ontario Land Tribunal (OLT) in different circumstances during the permit application and review process. These circumstances are listed below:

- If a permit application has been submitted and there has been no decision from the Conservation Authority within 120 days, the applicant can appeal to the OLT for a decision;
- If the applicant had requested a Hearing and the Hearing Board decision was denial of the application then they may appeal to the OLT within 90 days of the decision;
- If the applicant has received approval of the application through a Hearing Process but objects to the conditions imposed on a permission as a result of the Hearing they may appeal to the OLT within 90 days of receiving the written notice of the Hearing Decision;

The OLT has the ability to order the Conservation Authority to issue the permit (with or without conditions) or to refuse the permit application. The OLT's decision is final and binding. There are no further appeal procedures with the exception of a "judicial review" based on a decision where there is a perceived "error in law."

8.2.13 Permit

Once approved, authorized Authority staff will issue a permit on the prescribed forms. Where this permit is required by the municipality before a Building Permit is issued, a copy of the permit along with all approved plans and specifications will be forwarded to the Municipality with authorization from the applicant.

8.2.14 Period of validity of permissions and extensions

As per the Regulation, the maximum period, including an extension, for which a permission granted may be valid is 24 months or 60 months. The 60-month period only applies in the case of a permission granted for projects that cannot reasonably be completed within 24 months from the day the

permission is granted or for projects that require permits or approvals from other regulatory bodies that cannot reasonably be obtained within 24 months from the day permission is granted by LTC. Note that applications requesting periods beyond 24 months must be approved by the Board of Directors.

Please see **Appendix D**, Ontario Regulation 163/06, Section 9, for complete details concerning specifics for permit extensions.

8.3 Compliance Inspections

LTC staff may conduct an inspection during the work to ensure permit requirements are being met. If the work is found to be contrary to the permit, the applicant will be contacted, and completion or correction of the work will be requested. Only the approved works are authorized under the permit that was issued, so if the plans have been changed, the applicant needs to apply for a new permit or a permit amendment that accurately describes the new plans. This application (amendment) shall be processed in the normal manner.

If, in the opinion of LTC staff, the change has caused or is likely to cause an impact on the control of flooding, erosion, pollution, or the conservation of land, a cancellation of permission and enforcement action will be considered. LTC staff may request all work cease until the concerns are addressed. Once the works under the permit have been completed (via notification from the applicant), or one month before the permit expires, a final compliance inspection may be performed by LTC staff. During this site inspection, the drawings/plans will be referenced to determine if the works were completed as approved. Post-development photos may be taken and included in the file. If the work is completed and found to be in conformity with the permit, then a letter will be sent to the applicant informing the permit holder accordingly. If a permit has expired and there is still additional work to be done to complete the project, the applicant is required to apply for a new permit.

8.4 Cancellation of Permission

LTC may cancel a permission granted if the conditions of the permission have not been met. Before cancelling permission, LTC shall give written notice of intent to cancel to the holder of the permit. The holder of the permit may request a Hearing to explain why the permit should not be cancelled. LTC will give the holder of the permit in question a minimum of 5-days notice of the date of the Hearing. Refer to Hearing Guidelines for further details.

8.5 File Closure

Once all requirements of a permit have been met, the file may be closed. Staff will ensure that the information contained within the regulations database is accurate and up to date, and the file folder can be moved to storage. Permit applications that have been suspended for six months or more from the date of receipt of the application may be deemed inactive. For inactive files, a letter will be forwarded to the applicant requesting a status update within a specified time period (normally one month). If no contact is made with the LTC within the specified time period, the file can be closed.

9 GLOSSARY

100 Year Flood Event Standard: That flood, based on an analysis of precipitation, snow melt, or a combination thereof, having a return period of 100 years on average, or having a 1% chance of occurring or being exceeded in any given year.

Alteration to a Waterway: the act whereby the channel of a watercourse is altered in some manner. Examples of an alteration include, but are not limited to, the following: channelization, full or partial diversions, retaining walls, revetments, bridges, culverts, pipeline crossings erosion protection measures, construction of storm sewer outlets and agricultural tile drain outlets.

Apparent (confined) river and stream valley: 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)."

Area of interference: Those lands where development could interfere with the hydrologic function of a wetland.

Armour: Artificial surfacing of bed, banks, shores, or embankments to resist scour or erosion.

Authority: The Lower Trent Region Conservation Authority, a corporate body established under the *Conservation Authorities Act* (RSO 1990).

Basement: One or more storeys of a building located below the first storey (Building Code).

Breakwall/Breakwater: An object (especially a groyne or pier) resisting force of waves.

Boathouse: Structure meant for storage of water craft and associated boating equipment located on or within 6 metres of a navigable waterway. The boathouse must be anchored and is to be constructed as a single storey with no habitable space. The boathouse is considered a detached accessory structure and it must be wet floodproofed with openings on two sides to allow the flow of water through and no electrical services to be located less than 0.3 metres above the flood elevation.

Channel: The area of a watercourse carrying normal flows within the banks.

Conservation of Land (CO Interpretation)**:** The protection, management, or restoration of lands within the watershed ecosystem for the purpose of maintaining or enhancing the natural features and hydrologic and ecological functions within the watershed.

Crawl Space: A Crawl space must be:

(a) less than 1500 mm high between the lowest part of the floor assembly and the ground or other surface below, and

(b) not used for any occupancy.

Development: a) the construction, reconstruction, erection or placing of a building or structure of any kind, b) any change to a building or structure that would have the effect of altering the use or potential

use of the building or structure, increasing the size of the building or structure or increasing the number of dwelling units in the building or structure, c) site grading, or d) the temporary or permanent placing, dumping or removal of any material, originating on the site or elsewhere.

Diversion: The process whereby streamflow is directed from the original channel of the watercourse and returned to the original channel at another point on the watercourse. Diversions may be full or partial re-direction of the streamflow. A diversion may also be the redirecting of flow from the channel of one watercourse to the channel of another watercourse.

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

Dyke (dike): An embankment or wall, usually along a watercourse or floodplain, to prevent overflow on to adjacent land.

Dynamic Beach: That portion of the shoreline where accumulated unconsolidated sediment continuously moves as a result of naturally occurring processes associated with wind and water and changes in the rate of sediment supply.

Dynamic Beach Hazard: Areas of inherently unstable accumulations of shoreline sediments along the Great Lakes – St. Lawrence River System and large inland lakes, as identified by provincial standards, as amended from time to time. The dynamic beach hazard limit consists of the flooding hazard limit plus a dynamic beach allowance.

Erosion: Continual loss of earth material (i.e., soil or sediment) over time as a result of the influence of water or wind.

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

Fill: Earth, sand, gravel, topsoil, building materials, rubble, rubbish, garbage, or any other material whether similar to or different from any of the aforementioned materials, whether originating on the site or elsewhere, used or capable of being used to raise, lower or in any way affect or alter the contours of the ground.

Flooding Hazard: The inundation, under the conditions specified below, of areas adjacent to a shoreline or a river or stream system and not ordinarily covered by water:

a) along the shorelines of the Great Lakes - St. Lawrence River System and large inland lakes, the flooding hazard limit is based on the one-hundred-year flood level plus an allowance for wave uprush and other water related hazards;
b) along river, stream and small inland lake systems, the flooding hazard limit is the greater of:
    a. the flood resulting from the rainfall actually experienced during a major storm such as the Hurricane Hazel storm (1954) or the Timmins storm (1961), transposed over a specific watershed and combined with the local conditions, where evidence suggests

that the storm event could have potentially occurred over watersheds in the general area;

b. the one-hundred-year flood; and

c. a flood which is greater than 1. or 2. which was actually experienced in a particular watershed or portion thereof as a result of ice jams and which has been approved as the standard for that specific area by the Minister of Natural Resources and Forestry;

except where the use of the one-hundred-year flood or the actually experienced event has been approved by the Minister of Natural Resources and Forestry as the standard for a specific watershed (where the past history of flooding supports the lowering of the standard).

Flood Line: An engineered line delineating the potential extent of flooding.

Floodplain: The area, usually low lands, adjoining a watercourse which has been or may be covered by water.

Floodproofing: A combination of structural changes and/or adjustments incorporated into the basic design and/or construction or alteration of individual buildings, structures, or properties subject to flooding so as to reduce or eliminate flood damages.

Floodway: The channel of a watercourse and the inner portion of the floodplain where flood depths and velocities are generally higher than those experienced in the flood fringe. The floodway represents that area required for the safe passage of flood flow and/or that area where flood depths and/or velocities are considered to be such that they pose a potential threat to life and/or property damage.

Groyne: A structure extending from the shore to prevent erosion and arrest sand movement along a shoreline.

Habitable: Suitable to live in or on; that can be inhabited. Inhabit means to dwell in, occupy.

Habitation: is measured by the number of bedrooms within a dwelling unit**.**

Hazardous Land: Property or lands that could be unsafe for development due to naturally occurring processes. Along the shorelines of the Great Lakes - St. Lawrence River System, this means the land, including that covered by water, between the international boundary, where applicable, and the furthest landward limit of the flooding hazard, erosion hazard or dynamic beach hazard limits. Along the shorelines of large inland lakes, this means the land, including that covered by water, between a defined offshore distance or depth and the furthest landward limit of the flooding hazard, erosion hazard or dynamic beach hazard limits. Along river, stream and small inland lake systems, this means the land, including that covered by water, to the furthest landward limit of the flooding hazard or erosion hazard limits.

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

Hydric Soil: Soil that, in its undrained condition, is saturated, flooded, or ponded long enough during the growing season to develop an anaerobic condition that supports the growth and regeneration of hydrophytic vegetation.

Hydrologic Function: 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.

Inert Fill: Earth or rock fill, or material of a similar nature that contains no putrescible materials or soluble or decomposable chemical substances.

Ingress/egress: The ability to access a property or residence by land.

Interference in any way (CO Interpretation)**:** Any anthropogenic act or instance which hinders, disrupts, degrades, or impedes in any way the natural features or hydrologic and ecologic functions of a wetland or watercourse.

Jetty: A structure that projects from the land out into water.

Large Inland Lakes: 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.

Major Development: New structures, additions, or restorations greater than 46 square metres (500 square feet).

Major Stabilization Work: stabilization works that have been approved through a satisfactory Environmental Assessment process and/or if it has been demonstrated to the satisfaction of LTC through a detailed engineering design that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected.

Minor Addition: An addition to an existing structure that does not exceed 46 square metres (500 square feet) and shall not result in an increase in the number of dwelling units. Attached covered structures including decks and garages will be considered habitable space. All new floor space shall be considered when determining the additional floor space including all storeys.

Minor Alteration: Alteration of a watercourse not exceeding 20 square metres (215 square feet).

Minor Development: A small addition to an existing building, a detached accessory building or above-ground pool that does not exceed 10 square metres (108 square feet) and does not increase number of dwelling units in a hazard land. Uncovered decks less than 23 square metres (250 square feet) are also considered minor development.

Minor Fill: A volumetric amount of fill not exceeding 20 cubic metres (26 cubic yards).

Moderate Development: *Minor additions*, detached accessory buildings and above ground pools that do not exceed 46 square metres (500 square feet). Uncovered decks larger than 23 square metres (250 square feet) are also considered moderate development. All moderate development (excluding uncovered decks) will be considered cumulative and will not exceed the 46 square metres (500 square feet). If cumulative moderate development exceeds 46 square metres (500 square feet) *major development* definitions apply.

Moderate Stabilization Work: stabilization works for banks/bluffs two metres or less in height and placement of appropriately sized stone a volumetric amount equivalent of up to one cubic metre per

one linear metre of shoreline or stream bank if it has been demonstrated to the satisfaction of LTC that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected.

Non-Habitable: Detached structure not intended for dwelling in (i.e. garage, uncovered deck, picnic shelter, sun shelter, gazebo, pergola, boathouse)

Not Apparent (unconfined) river and stream valleys: Valleys 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.

Offsetting: Measures that are undertaken to counterbalance unavoidable impacts to the ecosystem. Offsetting should be identified through an Environmental Impact Study and considered only when all other options have been deemed not feasible.

One Zone Concept: An approach whereby the entire floodplain, as defined by the regulatory flood, is treated a one unit, and all development is prohibited or restricted.

Pollution: Any deleterious physical substance or other contaminant that has the potential to be generated by development in an area.

Regulated Lands: The area within which development, interference and alteration activities are regulated by the Conservation Authority.

Regulatory floodplain: See definition of flooding hazard

Retaining Wall: A vertical structure designed to resist the lateral pressure of soil and water behind it.

Revetment: A vertical or inclined facing of rip-rap or other material protecting a soil surface from erosion.

Rip-rap: A layer of stone to prevent the erosion of soil.

Routine permit applications: are activities that are documented through another approval process (DART Protocol) or are determined to have limited impacts on the control of flooding, erosion, dynamic beaches, pollution or the conservation of land (i.e. non-habitable buildings and structures that are less than 10 m2 in size).

Rubble: Waste fragments of stone, brick etc. from old houses; pieces of undressed stone used especially as backfill for walls; loose angular stones; water worn stones.

Scour: Local lowering of a streambed by the erosive action of flowing water.

Sedimentation: The deposition of detached soil particles.

Sewage Disposal System: A system which contains the entire sewage envelope, including both primary and secondary beds, mantle, septic tanks, and reserve areas, as per the requirements of the Ontario *Building Code Act* or the Ministry of the Environment and Climate Change.

Significant Wetland: An area identified as provincially significant by the Ministry of Northern Development, Mines, Natural Resources and Forestry using evaluation procedures established by the Province, as amended from time to time.

Static water level: The 100 year peak or flood level with a one chance in one hundred of occurring in any given year, without the influences of wave uprush, seche, ship-generated waves, ice-piling, or other water-related hazards

Storey: The portion of a building;

a) that is situated between the top of any floor and the top of the floor next above it, or

a) that is situated between the top of the floor and the ceiling above the floor, if there is no floor above it.

Surficial erosion: The physical removal, detachment, and movement of soil at the ground surface due to water or wind.

Structure: Any material, object or work erected either as a unit or constructed or assembled of connected or dependant parts or elements, whether located under, on, and/or above the surface of the ground.

Top-of-bank: The point at which the slope of a valley or shoreline meets the horizontal plain of the adjacent table-land.

Two Zone Floodway-Flood Fringe Concept: An approach whereby certain areas of the floodplain are considered to be less hazardous than others such that development potentially could occur. The flood fringe defines that portion of the floodplain where development may be permitted, subject to appropriate floodproofing. The floodway defines that portion of the floodplain wherein development is limited. This concept is only implemented after a comprehensive study to evaluate implications has been completed.

Watercourse: An identifiable depression in the ground in which a flow of water regularly or continuously occurs.

Watershed: An area that is drained by a river and its tributaries.

Wetland: Lands that are seasonally or permanently covered by shallow water, as well as lands where the water table is close to or at the surface. In either case the presence of abundant water has caused the formation of hydric soils and has favoured the dominance of either hydrophytic plants or water tolerant plants. The four major types of wetlands are swamps, marshes, bogs and fens. Periodically soaked or wet lands being used for agricultural purposes which no longer exhibit wetland characteristics are not considered to be wetlands for the purposes of this definition.

Note: Additional definitions may be found in the MNRF Technical Guidelines, Natural Heritage Guidelines and the Provincial Policy Statement under the Planning Act.