

8.0 POLICIES FOR THE ADMINISTRATION OF TRCA'S DEVELOPMENT, INTERFERENCE WITH WETLANDS AND ALTERATIONS TO SHORELINES AND WATERCOURSES REGULATION

8.1 INTRODUCTION

The following policies are used to administer TRCA's "Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation" pursuant to Section 28 of the *Conservation Authorities Act*. These policies must be considered in their entirety, since activities under the Regulation may influence valley and stream corridors, *wetlands*, shorelines, *watercourses* and *hazardous lands*, either singularly or in combination.

The policies in this Section incorporate the valuable foundation of principles and policy intent established by TRCA's Valley and Stream Corridor Management Program (VSCMP, 1994). Additionally, the principles and management approach to flooding and erosion hazards in TRCA's Lake Ontario waterfront programs have also been included.

Applicants are encouraged to refer to TRCA's Planning and Development Procedural Manual which describes the Regulation permitting process in more detail. The Manual is intended to offer guidance on the permit review and approval process and includes technical guidelines and checklists to assist applicants with their submissions. **Applicants are required to consult with TRCA staff to confirm complete application requirements prior to submission.**

Relationship to Section 7 (Environmental Planning)

In addition to TRCA's regulatory responsibilities under the *Conservation Authorities Act*, TRCA has a significant advisory role under the *Planning Act* to member municipalities as described in Sections 3 and 7, including the delegated responsibility to represent the "Provincial Interest" on natural hazards. In participating in the review of applications under the *Planning Act*, TRCA will ensure the applicant and municipal planning authority are aware of the Section 28 Regulation and requirements under the *Conservation Authorities Act*, where applicable, and assist in the coordination of these applications to avoid ambiguity, conflict and unnecessary delay or duplication in the process. Although permission under Section 28 may not be issued for many years after a planning application, in order to support the planning application, TRCA needs to ensure that the requirements under the Regulation process can likely be fulfilled at the time a permit application is received. Similarly, this applies to applications reviewed under other legislation such as the *Niagara Escarpment Planning and Development Act* and the *Environmental Assessment Act*. Where comments or conditions provided by TRCA on these applications have not been duly addressed or applied by the approval authority, such planning decisions do not bind TRCA's permitting process.

Alternatively, it is also recognized that there may be historic planning approval decisions that were made in the absence of current technical information related to natural hazards or natural features such as wetlands, which would now preclude development. The *Conservation Authorities Act* is the jurisdictional authority in the permitting process and does not provide for the "grandfathering" of historical planning decisions. Where it is technically feasible and

appropriate, innovative design approaches may be considered to address site constraints and accommodate the development while still meeting current regulatory requirements.

Connection to Section 6 (Sustainable Communities)

Where appropriate, TRCA will complement its mandated regulatory role with the policies of Chapter 6. In this regard, such comments will reflect TRCA's advocacy role that promotes and encourages the planning and development of complete and sustainable communities.

8.2 DEVELOPMENT, INTERFERENCE WITH WETLANDS AND ALTERATIONS TO SHORELINES AND WATERCOURSES REGULATION

TRCA administers a "Development, Interference with Wetlands and Alteration to Shorelines and Watercourses Regulation", (hereinafter referred to as the Regulation), approved by the Minister of Natural Resources and known as Ontario Regulation 166/06, as amended. Under this Regulation, TRCA regulates:

- *development in river or stream valleys, wetlands, shorelines, 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 the 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.

For Purposes of Implementing TRCA's Regulation:

- Apparent river or stream valleys are considered Valley Corridors.
- Not Apparent river or stream valleys are considered Stream Corridors.

8.2.1 Regulated Areas

The Regulation applies to:

- *valley and stream corridors;*
- the Lake Ontario shoreline;
- *hazardous lands;*
- *watercourses;*
- *wetlands;* and
- *other areas* where *development* could interfere with the *hydrologic function* of a *wetland*.

Hazardous Lands: means lands that could be unsafe for development because of naturally occurring processes associated with flooding, erosion, dynamic beaches, or unstable soil or bedrock. *Conservation Authorities Act*, Section 28 (25).

The *regulated area* represents the greatest physical extent of the combined hazards plus a prescribed *allowance* as set out in the Regulation. Although the policies in Section 7 direct how TRCA determines the limits of the *Natural System*, natural features and areas, *hazardous lands*

and *hazardous sites*, the boundaries of *regulated areas* are determined in accordance with the Regulation. This process is further described in Appendix A: Defining the Limits of Regulated Areas.

Allowance: setback distance prescribed in TRCA's Regulation to delineate the *Regulated Area*.

Regulation Limit: greatest extent of all *regulated areas* to define an area of interest; does not represent a *development limit*.

It is not necessary to map a feature before it can be regulated. The legal basis for delineating regulated areas is defined in the text of the Regulation. While the Regulation makes reference to the maps prepared by TRCA to provide a visual representation of the approximate *regulation limits*, and may be updated from time to time to reflect new technical information, the text of the Regulation prevails over the illustrative mapping. The mapping serves as a screening tool for the administration of the Regulation. Site investigations and detailed studies requested at the time of an application may further refine or delineate the *regulated areas*.

Most municipalities within TRCA's jurisdiction implement a Fill or Site Alteration By-law under the provisions of the *Municipal Act*. As per Section 142(8) of the *Municipal Act*, a municipal fill or site alteration by-law cannot overlap with an area regulated by a conservation authority under Section 28 of the *Conservation Authorities Act*. Coordination between the municipality and TRCA is recommended for those applications that involve both municipal and CA regulated areas.

8.2.2 Regulated Activities

The Regulation allows TRCA to prohibit or regulate *development* in *regulated areas* within its jurisdiction where the control of flooding, *erosion*, dynamic beaches, *pollution* or the *conservation of land* could be impacted by *development* and in other areas where *development* could interfere with the *hydrologic function* of a *wetland*. As per Section 28 (25) of the *Conservation Authorities Act*, *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.

The definition of *development* under the *Provincial Policy Statement* is distinctly different from the definition of *development* under the *Conservation Authorities Act*. Please refer to the Glossary.

The Regulation also allows TRCA to prohibit or regulate activities that would result in the straightening, changing, diverting or *interfering in any way* with the existing channel of a river, creek, stream, *watercourse* or the changing or *interfering in any way* with a *wetland*.

Section 8 of the *Ontario Building Code Act* requires compliance with all applicable law prior to the issuance of a building or demolition permit. Regulations made under the *Conservation Authorities Act* are defined as applicable law. Within TRCA's *regulated areas*, municipal building officials must receive a copy of a TRCA permit for those regulated activities under the realm of the *Ontario Building Code Act* prior to the issuance of a municipal building permit.

Existing "normal farm practices" such as plowing/tillage, fencing, manure/fertilizer spreading and animal pasturing are not subject to the Regulation. Activities that meet the definition of development or constitute an alteration or interference as described in Section 8.2.2, within *regulated areas* described in 8.2.1, are subject to the Regulation,

8.2.3 Regulation Tests

Permission for *development* may be granted if it can be demonstrated to the satisfaction of TRCA that the **control of flooding, erosion, dynamic beaches, pollution or the conservation of land (i.e. five tests of the Regulation)** will not be affected by the *development*. The tests of flooding and erosion apply to *development* within and adjacent to *valley and stream corridors*, the Lake Ontario shoreline, and *hazardous lands*, while the dynamic beaches test is applicable only to the Lake Ontario shoreline. *Pollution* as defined in Section 28 (25) of the *Conservation Authorities Act*, means any deleterious physical substance or other contaminant that has the potential to be generated by development in an area to which the regulation applies.

While not defined in the *Conservation Authorities Act*, TRCA's application of the "*conservation of land*" test in The Living City Policies is built upon the foundation of principles and objectives established by TRCA's Valley and Stream Corridor Management Program (VSCMP), 1994. The holistic ecosystem approach in the VSCMP was premised on the need to recognize the relationship between landforms, features and functions in order to protect, manage and restore natural resources within the watershed. Since 1994, these principles have been furthered in other TRCA projects including watershed plans, the Terrestrial Natural Heritage System Strategy and the *Natural System* policies in Section 7. The Mining and Lands Commissioner (MLC) has accepted a "broad **interpretation** of the meaning of 'conservation of land' to include all aspects of the physical environment, be it terrestrial, aquatic, biological, botanic or air and the relationship between them." (Russell vs. Toronto and Region Conservation Authority, 2009, p. 18) Conservation Ontario has considered this and other MLC decisions to provide its own interpretation: the protection, management or restoration of lands within the watershed ecosystem for the purpose of maintaining or enhancing the natural features and ecological functions and hydrological functions within the watershed (Conservation Ontario, 2008). These interpretations reflect the importance of assessing impacts to the *conservation of land* for both form and function of natural features, at both the local and regional scales of the watershed.

In addition to the conservation of land, it is important to note that the Natural System also provides ecological and hydrologic functions related to the control of flooding, erosion, dynamic beaches and pollution. Within TRCA's watersheds, development impacts on the *five tests* shall be considered both incrementally and cumulatively in order to manage the risks to life and property, and to maintain, restore and enhance the *ecological and hydrological functions* of the systems contributing to the *conservation of land*.

Permission to straighten, change, divert or *interfere in any way* with the existing channel of a river, creek, stream, *watercourse* or *wetland* may be permitted if it is acceptable to TRCA. The

acceptability of such permissions will be based on the policies of Section 8 and meeting the *five tests* described above.

The Mining and Lands Commissioner has been assigned the authority, duties and powers of the Minister of Natural Resources under the *Ministry of Natural Resources Act* to hear appeals from the decisions of conservation authorities made under the *Conservation Authorities Act*.

8.3 POLICY FRAMEWORK

8.3.1 Policy Objectives

The administration of TRCA's Regulation is based on, but not limited to, the following objectives:

- to prevent loss of life, to minimize property damage and social disruption, and to avoid public and private expenditure for emergency operations, evacuation and *restoration* due to natural hazards and associated processes;
- to prevent *development, interference* or *alterations* that negatively impacts on natural landform features, functions, and systems
- to manage *watersheds* on a comprehensive basis and prohibit *development, interference* and *alteration* which singularly or cumulatively creates new hazards or aggravates existing hazards;
- to manage the Lake Ontario shoreline on a comprehensive reach/sector basis to prevent, eliminate or reduce the hazard risk, (flooding, erosion, and dynamic beach), to life and property;
- to protect, manage, or restore lands within the *watershed* and Lake Ontario ecosystems for the purpose of maintaining or enhancing the natural features, *Natural System* and *hydrologic* and *ecological functions* within *valley and stream corridors, wetlands, watercourses*, shorelines and hazardous lands and the relationship between them;
- to prevent *interference* with the *hydrologic functions* of *wetlands*; to prevent the *pollution* of surface and groundwater associated with *development* in *valley and stream corridors, wetlands*, shorelines, and *hazardous lands*; and
- to prevent *development, interference* and *alterations* that impact the control of flooding, *pollution, erosion*, dynamic beaches or *conservation of land* within *valley and stream corridors, wetlands, watercourses, hazardous lands*, and along the Lake Ontario shoreline.

These objectives are the foundation of TRCA's Regulatory program. Their application in policy reflects the diversity of landscapes, land uses and urbanizing nature of TRCA's *watersheds* and Lake Ontario shoreline.

"The TRCA is faced with the problem of addressing very specialized and very real environmental concerns affecting the most highly urbanized area of the province. The natural environment, especially in the geographic area of the City of Toronto, has been and continues to be subject to clear, present and ongoing threats of degradation. As a result, the tribunal accepts that the policies followed by the TRCA need to reflect the reality of the existing situation and to provide the guidelines for protecting the Authority's core values and strategies." (MLC Decision, Russell versus the Toronto and Region Conservation Authority (CA 003-05), May 27, 2009)

8.3.2 Policy Structure

The Regulation policies in this Section must be considered in their entirety since *development, interference* and *alteration* activities prescribed under the Regulation may influence *valley and stream corridors, wetlands*, shorelines, *watercourses* and *hazardous lands*, either singularly or in combination. These policies will be followed by TRCA in making decisions regarding the outcome of all applications made under the Regulation.

The policies in Section 8.4 – General Regulation Policies apply to all *regulated areas* and regulated activities, as defined by the Regulation. These policies address development setbacks and the technical requirements for information, studies, and where applicable requirements for floodproofing, and safe access (ingress/egress) and parking requirements. . Prohibited *development, interference* and *alterations* are also identified.

Following the General Regulation Policies, are the policies for *development, interference* and *alterations* within hazardous lands including: within flood and erosion hazards of valley and stream corridors (Section 8.5); within the flood, erosion and dynamic beach hazards of the Lake Ontario Shoreline (Section 8.6); within *wetlands* and areas of interference (Section 8.7); and interference with *watercourses* (Section 8.8).

Special activity-based policies within all *regulated areas* follow the hazardous lands policies. *Development, interference* and *alterations* associated with *infrastructure* (Section 8.9); recreational use (Section 8.10); and fill placement, excavation, grade modifications (Section 8.11).

The chapter concludes with Implementation and Compliance (Section 8.12).

8.4 GENERAL REGULATION POLICIES

These general policies apply to all activities (regulated activities) and all areas defined by the Regulation (*regulated areas*).

It is the policy of TRCA:

- 8.4.1 That *development, interference* or *alteration* will not be permitted within a *regulated area*, except in accordance with the policies in Sections 8.4 through to 8.13. In the event of a conflict between the policies applicable to the *development, interference* or alteration, the most restrictive policy shall apply.
- 8.4.2 That *development, interference* or *alteration* within a *regulated area* may be permitted where it can be demonstrated to the satisfaction of TRCA, through appropriate *technical reports, assessments, site plans* and/or other documents as required by TRCA, that:
 - a) the risk to public safety is not increased;
 - b) susceptibility to natural hazards is not increased and no new hazards are created;
 - c) there are no adverse hydraulic or fluvial impacts on rivers, creeks, streams, or *watercourses*;

- d) there are no adverse impacts on the natural coastal processes of the Lake Ontario shoreline;
- e) negative or adverse hydrological or ecological impacts on natural features and functions, including *wetlands*, are avoided or mitigated;
- f) intrusions on natural features, areas and systems contributing to the *conservation of land*, including areas providing *ecological functions and hydrologic functions*, are avoided or mitigated;
- g) *groundwater discharge* which supports natural features and areas or *hydrologic or ecological functions* on-site and other sites hydrologically connected to the site are maintained;
- h) *groundwater recharge* which supports natural features and areas or *hydrologic or ecological functions* on-site and other sites hydrologically connected to the site will be maintained ;
- i) access for emergency works and maintenance of flood or *erosion* control works is available;
- j) TRCA's stormwater management criteria (water quantity, water quality, erosion control and *water balance* for groundwater and natural features) have been met, where applicable, based on the scale and scope of the project;
- k) *pollution*, sedimentation and *erosion* during construction and post-construction is minimized using best management practices including site, landscape, infrastructure and/or facility design (whichever is applicable based on the scale and scope of the project), construction controls, and appropriate remedial measures;
- l) appropriate compensatory restoration works of sufficient scale and scope in accordance with *TRCA standards* will be implemented;
- m) works are constructed, repaired and/or maintained according to accepted engineering principles and approved engineering standards or to the satisfaction of TRCA, whichever is applicable based on the scale and scope of the project in accordance with TRCA standards: *and*
- n) the control of flooding, *erosion*, dynamic beaches, *pollution* or the *conservation of land* will not be affected during and post *development, interference or alteration*.

Prohibited Development, Interference and Alterations

8.4.3 That notwithstanding Sections 8.4.1 and 8.4.2, *development* will not be permitted within the *flood or erosion hazard of valley and stream corridors*, the Lake Ontario *flood, erosion or dynamic beach hazard*, a *wetland*, or *hazardous lands*, where the use is:

- a) an institutional use including hospitals, long-term care homes, retirement homes, , pre-schools, school nurseries, day cares and schools;
- b) an essential emergency service such as that provided by fire, police, and ambulance stations, and electrical substations; or
- c) associated with the disposal, manufacture, treatment, or storage of hazardous substances.

8.4.4 That notwithstanding Sections 8.4.1 and 8.4.2, TRCA will not permit *development, interference, and alteration* within a *regulated area* that proposes to modify *watercourses, wetlands, hazardous lands*, including such lands within *valley and stream corridors* and along the Lake Ontario shoreline, and natural features, areas and systems contributing to the *conservation of land* to create additional area to accommodate or facilitate new development or *intensification*.

8.4.5 Notwithstanding Section 8.4.4, in circumstances where TRCA agrees that modifications will result in permanent *remediation* and reduction of risk to existing development, serve to improve public safety or significantly improve existing hydrological or ecological conditions, such modifications may be considered where it can be demonstrated to the satisfaction of TRCA that:

- a) the modifications have been evaluated on a *valley or stream corridor* or shoreline reach basis;
- b) acceptable justification has been provided through a *subwatershed* plan, an environmental assessment or *comprehensive environmental study*;
- c) all applicable policies in Section 8 have been satisfied; and
- d) that the *interference* is acceptable and the control of flooding, *erosion*, dynamic beaches, *pollution* or *conservation of land* will not be affected.

Comprehensive Environmental Studies: means studies or plans undertaken by or under the direction of a public agency at a landscape scale including watershed plans, subwatershed studies, environmental implementation reports, environmental management plans, or similar documents, that have been prepared to address and document various alternatives and are part of a joint and harmonized planning process, or community plans that include comprehensive environmental impact studies.

8.4.6 That notwithstanding Sections 8.4.1 and 8.4.2, where there is an *existing vacant lot of record*, (including an *infill lot*), no new development will be permitted where the lot has no *safe access*, or is entirely within one or more of the following:

- a) the *flood hazard* (One Zone Policy Area) or *erosion hazard of valley and stream corridors*;
- b) the flood, erosion or dynamic beach hazards of the Lake Ontario shoreline;
- c) a *provincially significant wetland*, or a *wetland* on the Oak Ridges Moraine, or other *wetlands* greater than 0.5 ha; or
- d) any natural features, areas and systems contributing to the *conservation of land*, including areas providing *hydrologic functions* or *ecological functions*.

Development Setbacks

8.4.7 That notwithstanding supplementary policies or stand-alone policies as specified in Sections 8.5 through to 8.12, development within a *regulated area* shall be set back from **the greater of the following**:

- a) **Valley and Stream Corridors**: 10 metres from the long term *stable top of slope, stable toe of slope, Regulatory flood plain, meander belt* and any contiguous natural features and areas that contribute to the *conservation of land*;
- b) **Wetlands**: 30 metres from *provincially significant wetlands* and *wetlands* on the Oak Ridges Moraine and 10 metres for all *other wetlands*;
- c) **Lake Ontario Shoreline**: 10 metres from the greater of the *flood hazard, erosion hazard* and/or *dynamic beach hazard* limit and any contiguous natural features and areas that contribute to the *conservation of land*; and
- d) development limits established and agreed to by TRCA during a *Planning Act* or *environmental assessment* process, including any distances prescribed by federal, provincial, or municipal requirements.

8.4.8 That notwithstanding Section 8.4.7, in recognition of the *redevelopment* and *intensification* trends within existing urbanized areas of TRCA's *watersheds* and Lake Ontario shoreline, *development* may be set back distances other than those listed in Section 8.4.7 where TRCA determines it to be appropriate, and where the following have been demonstrated to the satisfaction of TRCA:

- a) the *development* has regard for the existing development setbacks on the subject property and within the context of existing development patterns and characteristics within the *valley and stream corridor reach, the Lake Ontario shoreline reach* or adjacent to a *wetland*;
- b) there is no increase in risk to life or property; and
- c) there is no impact to the control of flooding, *erosion*, dynamic beaches, *pollution* or the *conservation of land*, which may need to be demonstrated through a *comprehensive environmental study* or *technical report* to the satisfaction of TRCA.

Technical Reports

The following policies identify in general, the technical requirements and reports that may be required to accompany an application for permission to undertake *development, interference or alteration* in a *regulated area*. The legal basis for delineating *regulated areas* is defined in the text of the Regulation. This process is further described in Appendix C: Defining the Limits of Regulated Areas. Pre-consultation with TRCA staff prior to submission of an application is required to determine the scope and nature of the applicable technical requirements in Section 8.

8.4.9 That where technical information to delineate the hazard or features is not available or where existing information does not meet current *Provincial or TRCA standards*, TRCA may require the limits of the *flood and erosion hazards of valley and stream corridors, the Lake Ontario Shoreline flood, erosion and dynamic beach hazards, wetlands and watercourses* be determined through site-specific field investigations and *technical reports* by a qualified professional, at the expense of the proponent in accordance with *Provincial and TRCA standards*, to the satisfaction of TRCA. The limit of *hazardous lands* will be based on the natural state of the area without the use of *mitigation* or

remediation works unless the works are consistent with an environmental assessment or *comprehensive environmental study* for the area, supported by TRCA.

- 8.4.10 That applications for permission to undertake *development*, *interference* or *alteration* in *regulated areas* must be accompanied by appropriate technical studies and/or assessments, site plans and/or other plans as required by TRCA. These studies/plans must be completed by a qualified professional, at the expense of the proponent, in accordance with *Provincial* and *TRCA standards* and demonstrate to the satisfaction of TRCA, how the applicable policies in Sections 8.4 through to 8.12 will be met.

TRCA's **Planning and Development Procedural Manual** (INSERT WEBLINK: <http://trca.on.ca/planning-services-permits/developers-and-consultants-information/planning-and-development-procedural-manual.dot>) includes checklists and technical guidelines intended to assist applicants with their submissions in accordance with *TRCA standards*.

TRCA Standards are the most recently approved technical guidelines and checklists in TRCA's Planning and Development Procedural Manual, as amended from time to time. **Provincial Standards** are the most recently approved policies, manuals and technical guidelines administered or prepared by the Province, as amended from time to time.

Floodproofing Standards

- 8.4.11 All *development* proposed within the *flood hazard* limit must meet the minimum *floodproofing* requirements as outlined in Section 8, plus a *freeboard* as determined by TRCA. Recognizing the required *floodproofing* measures are the minimum standard, where feasible TRCA will continue to encourage the most effective flood damage reduction measures in an effort to reach the maximum protection standards possible based on the following alternatives consistent with *TRCA standards*, listed in order of priority:

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

Floodproofing: the combination of measures incorporated into the basic design and/or construction of buildings and structures or properties to reduce or eliminate flood hazards, wave uprush and other water-related hazards along the shoreline of Lake Ontario, and flood hazards along the *watercourses*.

Safe Access (Ingress/Egress) and Parking

- 8.4.12 All *development*, including new parking facilities (above ground and underground structures and at-grade parking lots), must meet the minimum requirements for *safe access* for the nature of the *development* as outlined in the policies in Section 8 in accordance with *Provincial* and *TRCA Standards*, and demonstrate to the satisfaction of TRCA that:

- a) risks due to both flooding and *erosion* have been addressed;

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

8.5 VALLEY AND STREAM CORRIDORS

As described in the Policies for Environmental Planning, Section 7.4.3.2 Valley and Stream Flood Hazard policies of this document, TRCA implements three approaches to managing valley and stream *flood hazards*, in accordance with Provincial policies and standards: *One Zone Concept, Two Zone Concept* and *Special Policy Areas*. *Valley and stream corridors* within TRCA's jurisdiction are subject to the *One Zone Concept* wherein the entire *flood hazard limit* (i.e. the *Regulatory* flood plain) is considered the *floodway*. Exceptions to the *One Zone Concept* exist where the *Two Zone Concept* or *Special Policy Area* have been applied in accordance with *Provincial Standards* and approved by the relevant agencies and planning authorities.

Erosion hazards within *valley and stream corridors* include both the *erosion* potential of the actual river or stream bank, as well as the potential for *erosion* or slope stability issues associated with the river *valley walls*. The extent of the *erosion hazard* is based on whether or not a valley is *apparent (valley corridor)* or *not apparent (stream corridor)*.

8.5.1 Development within the Flood Hazard and Erosion Hazard of Valley and Stream Corridors

It is the policy of TRCA:

8.5.1.1 That *development* will not be permitted within the *flood hazard (One Zone Concept)* or *erosion hazard of valley and stream corridors* except in accordance with the policies in Section 8 and in particular Section 8.4 (General Regulation Policies) and Section 8.5.1.

Additions to Existing Buildings or Structures

8.5.1.2 That *additions* to existing buildings or structures within the *erosion hazard* will not be permitted.

8.5.1.3 That *additions* to existing buildings and structures may be permitted within the *flood hazard*, provided that the *addition*, its construction and any new associated private servicing requirements comply with the following and demonstrate to the satisfaction of TRCA that:

- a) in the event that there is no feasible alternative site, the *addition* is located in an area of least (and acceptable) risk;
- b) the *addition* is not located within the *hydraulic floodway*;
- c) no new hazards are created, flooding on adjacent or other properties is not aggravated and there are no negative upstream and downstream hydraulic impacts;
- d) the *addition* is *floodproofed* to the *Regulatory flood* elevation, plus a *freeboard* determined by TRCA. If *Regulatory flood* protection is not technically feasible, TRCA may permit a lower level of flood protection but not less than the 350-year flood level (a 25% risk of flooding over an assumed life of 100 years). All effort must be made to achieve the highest level of flood protection;
- e) the *addition* is structurally designed to withstand the depths and velocities of the *Regulatory flood*;
- f) the *addition* does not increase the number of dwelling units in the existing building or structure;
- g) the proposed *development* will not prevent access for emergency works, maintenance, and evacuation;
- h) the potential for surficial *erosion* has been addressed through the submission of proper drainage, stormwater management, *erosion* and sediment control and site stabilization/*restoration* plans;
- i) natural features, areas and systems contributing to the *conservation of land*, including areas providing *hydrologic functions* and *ecological functions* are avoided or mitigated, *pollution* is prevented and *erosion hazards* have been adequately addressed;
- j) **For existing residential buildings or structures:**
 - i) the residential building or structure must have existed as of May 4, 2006;
 - ii) an inventory of all modifications or additions permitted by TRCA under its Regulation to the original structure since 1987 has been documented and

- deducted from the maximum permissions for ground floor additions and one additional storey permitted under Policy 8.5.1.3 ; and
- iii) Subsequent requests for *additions* that will result in the cumulative exceedance of the maximum permissions for ground floor additions and one additional storey under Policy 8.5.1.3 will not be permitted.

Ground floor additions:

- iv) in order to limit the risk to public safety and property damage, the ground floor *addition* is not more than 50 percent of the *original habitable ground floor area*, or in the case of multiple *additions*, all *additions* combined are equal to or less than 50 percent of the *original habitable ground floor area*);
- v) the *addition* meets dry, passive *floodproofing* measures; and
- vi) access is safe pursuant to *Provincial and TRCA Standards* or achieves the maximum level of flood protection determined by TRCA to be feasible and practical based on existing *infrastructure* (e.g. road platform).

In the administration of TRCA's Section 28 Regulation under the Valley and Stream Corridor Management Program, 1994, the date of January 1, 1987 was used as the basis from which to calculate the footprint/area of an existing building or structure. TRCA's Section 28 Regulation was updated in 2006 through the approval of Ontario Regulation 166/06 by the Minister of Natural Resources on May 4, 2006. For consistency, and to manage the risk to public safety and property within TRCA's jurisdiction, additions permitted by TRCA under its Regulation and the Valley and Stream Corridor Management Program will be taken into account in The Living City Policies .

An additional storey:

- vii) to limit the risk to public safety and property damage, the additional storey does not exceed the *original habitable ground floor area*, (or the original habitable ground floor area plus ground floor addition as per 8.5.1.3 (i) (iv) where applicable:
 - viii) the existing building meets wet *floodproofing* standards; and
 - ix) access is safe pursuant to *Provincial and TRCA Standards* or achieves the maximum level of flood protection determined by TRCA to be feasible and practical based on existing infrastructure (e.g. road platform)
- k) **For existing commercial, industrial and agricultural buildings or structures:**
- i) the building or structure must have existed as of May 4, 2006;
 - ii) an inventory of all modifications or additions permitted by TRCA under its Regulation since 1987 has been documented and deducted from the maximum permissions for ground floor additions and one additional storey under Policy 8.5.1.3; and
 - iii) Subsequent requests for *additions* that will result in the cumulative exceedance of the maximum permissions for ground floor additions and one additional storey under Policy 8.5.1.3 will not be permitted

Ground floor additions:

- iv) in order to limit the risk to property damage, the ground floor *addition* is 50 percent or less than that of the *original ground floor area*, or in the case of multiple *additions*, all *additions* combined are equal to or less than 50 percent of the *original ground floor area*.);
- v) the use is not intensified;
- vi) the *addition* meets dry, passive *floodproofing* measures. Where technical reports have demonstrated it is not possible to meet this criterion, the *addition* must meet wet *floodproofing* standards. Where wet *floodproofing* cannot be achieved, dry active *floodproofing* may also be implemented to further minimize flood risk in combination with either of the above.
- vii) *access* is *safe* pursuant to *Provincial* and *TRCA Standards* and/or achieves the maximum level of flood protection deemed by TRCA to be feasible and practical based on existing *infrastructure*;

An additional storey:

- viii) the additional storey does not exceed the *original ground floor area* or the *original ground floor area* plus ground floor addition as per 8.5.1.3 (j)(iv) where applicable;
- ix) the existing building meets wet *floodproofing* requirements; and
- x) *access* is *safe* pursuant to *Provincial* and *TRCA standards* and/or achieves the maximum level of flood protection deemed by TRCA to be feasible and practical based on existing *infrastructure*.

Replacement or Reconstruction of Existing Buildings or Structures

8.5.1.4 *Replacement* or *reconstruction* of existing buildings or structures, other than those destroyed by flooding or *erosion*, and any new associated private servicing requirements may be permitted in the *flood hazard* or *erosion hazard* where it can be demonstrated to the satisfaction of TRCA that:

- a) in the event that there is no feasible alternative site outside of the *Regulatory* flood plain or *erosion hazard*, the location of the *replacement* building or structure is in an area where the risk of flooding, *erosion* and property damage is reduced to the greatest extent possible and does not exceed the flood or *erosion* risk associated with the previous/existing building or structure;
- b) the building or structures to be replaced existed within two years of TRCA receiving the appropriate application for the *development*;
- c) the number of dwelling units is the same or less;
- d) the use within the *replacement* structure and/or property as a whole is not intensified nor increases the risk to property damage or public safety;
- e) the *replacement* building or structure is the same size and footprint if within the *erosion hazard*;
- f) Any increase in the size and footprint within the *flood hazard* complies with the requirements for *additions* in Section 8.5.1.3;
- g) the replacement building or structure is *floodproofed* to the *Regulatory flood*, plus a *freeboard* determined by TRCA. If *Regulatory flood* protection is not technically feasible, TRCA may permit a lower level of flood protection but not less than the 350-year flood level (a 25% risk of flooding over an assumed life of 100 years). All effort must be made to achieve the highest level of flood protection;

- h) the *replacement* building or structure meets dry, passive *floodproofing* measures. Where technical reports have demonstrated it is not possible to meet this criterion, the *addition* must meet *wet floodproofing* standards. Where *wet floodproofing* cannot be achieved, dry active *floodproofing* may also be implemented to further minimize flood risk in combination with the above;
- i) the location of the *replacement* structure is not within the active *erosion* zone adjacent to the top of the valley slope or toe of valley slope if alternative options exist; or, as a minimum, the risk from slope instability and *erosion* can be eliminated through remedial works consistent with TRCA policies and *standards*;
- j) the *replacement* structure is not located on the valley slope;
- k) the *replacement* structure does not aggravate *erosion* or slope instability on adjacent properties;
- l) the *replacement* building or structure is designed to be safe from erosion for the assumed life of 100 years;
- m) access is safe pursuant to *Provincial standards* and/or achieve the maximum level of flood protection deemed by TRCA to be feasible and practical based on existing *infrastructure*;
- n) the potential for surficial *erosion* has been addressed through the submission of proper drainage, stormwater management, *erosion* and sediment control and site stabilization/*restoration* plans; and
- o) natural features and areas contributing to the *conservation of land*, including areas providing *ecological functions* and *hydrologic functions* are avoided or mitigated, *pollution* is prevented and *erosion hazards* have been adequately addressed.

Relocation of Existing Buildings or Structures

8.5.1.5 Relocation of existing buildings or structures and any new associated private servicing requirements within the *flood hazard* or *erosion hazard* may be permitted in accordance with the provisions of Section 8.5.1.4, provided that the risk of flooding, *erosion* and property damage is reduced to the greatest extent possible, through relocation.

Internal Renovations

8.5.1.6 Internal renovations to existing buildings or structures within the *flood* or *erosion hazard* which change the use or potential use or structure but provide no new or additional dwelling units may be permitted provided that:

- a) the risks associated with flooding and *erosion* are not increased;
- b) the internal renovation does not result in a new use prohibited by Section 8.4.3 – General Policies – Prohibited Development;
- c) electrical, mechanical and heating services are located above the level of the *Regulatory flood*, wherever possible; and
- d) there is no risk of structural failure due to potential hydrostatic/dynamic pressures; and
- e) there is no risk of structural failure due to increased loading forces on the top of the slope.

Property Improvements and Non-habitable Accessory Structures

8.5.1.7 Property improvements and non-habitable *accessory structures* associated with existing residential use such as decks, garages, minor alterations to grade/landscaping and swimming pools may be permitted within the *flood hazard of valley and stream corridors* where it can be demonstrated to the satisfaction of TRCA that:

- a) there is no feasible alternative site outside the *flood hazard*;
- b) the proposed works are not within the *hydraulic floodway*;
- c) the placing and removing of fill for landscaping purposes is minimized so as to maintain the valley landform and does not interfere with the drainage pattern of adjoining properties;
- d) the works will not result in unacceptable impacts to flood storage and conveyance, as determined by TRCA;
- e) the works will not create or aggravate flooding or *erosion* on adjacent, upstream or downstream properties;
- f) natural features, areas and systems contributing to the *conservation of land*, including areas providing *ecological functions* and *hydrologic functions*, are avoided or mitigated, *pollution* is prevented and *erosion hazards* have been adequately addressed; and
- g) *floodproofing* to the *Regulatory Flood*, or to the extent technically feasible as determined by TRCA.

8.5.1.8 Property improvements and non-habitable *accessory structures* associated with existing residential use such as decks, minor alterations to grade/landscaping, and swimming pools will not be permitted within the *erosion hazard of valley and stream corridors* but may be considered adjacent to the *erosion hazard*, where it can be demonstrated to the satisfaction of TRCA that:

- a) the location of the structure does not obstruct the access to and along *valley and stream corridors* for maintenance of protection works;
- b) the placing and removing of fill for landscaping purposes is minimized so as to maintain the valley landform and does not interfere with the drainage pattern of adjoining properties and does not cause shear stress on the valley slope;
- c) the works will not create or aggravate flooding or *erosion* on adjacent, upstream or downstream properties;
- d) natural features and areas contributing to the conservation of land, including areas providing *ecological functions* and *hydrologic functions* are avoided or mitigated, *pollution* is prevented and *erosion hazards* have been adequately addressed; and
- e) the structure is setback a minimum of 6 metres from the *stable top of slope*, *stable toe of slope* or *meander belt*.

8.5.1.9 Retaining walls will not be permitted within the *flood hazard* or *erosion hazard* of valley and stream corridors unless such works have been approved through TRCA's flood and *erosion* control remedial works program and/or designed to protect existing development determined by TRCA to be at risk from flooding and *erosion*.

Flood Plain Spill Areas

- 8.5.1.10 That where TRCA determines *flood plain spill areas* are applicable, *development, alteration* and *interference* may be permitted where it can be demonstrated on a reach basis to the satisfaction of TRCA that:
- a) measures to remediate the *flood plain spill area* to the *Regulatory Flood*, either through a revised *stream corridor* or through remedial measures that are permanent as determined by TRCA, can be implemented with no upstream or downstream impacts or impacts to natural features, areas and systems contributing to the *conservation of land*, including areas providing *ecological functions* and *hydrological functions*;
 - b) all policies and procedures for *watercourse* alterations as set out in this document are met;
 - c) alternatives to 8.5.1.10 a) (e.g. *floodproofing* of site specific developments) may only be permitted where complete remediation is not feasible. Specific criteria shall be determined on a site by site basis but shall provide *Regulatory Flood* protection; and
 - d) *access* is safe pursuant to *Provincial standards*.

Flood Plain Spill Area: exists where flood waters are not physically contained within the *valley and stream corridor* and exit to surrounding lands. As a consequence, the limit and depth of flooding are difficult to determine. Flood spill areas occur naturally or can occur as a result of downstream barriers to the passage of flood flows such as undersized bridges or culverts. TRCA will determine where flood plain spill zone policies are applicable.

8.5.2 Development within Two Zone Policy Areas (Flood Hazard)

It is the policy of TRCA:

- 8.5.2.1 In accordance with the policies of Section 7.4.3.2.3 – Two Zone Policy Areas, the *Two Zone Concept* to flood plain management within TRCA's jurisdiction will be applied to existing floodprone communities, or portions thereof, where approved and designated by the relevant agencies and affected planning authorities pursuant to *Provincial* procedures, *standards* and requirements.
- 8.5.2.2 That *development* will not be permitted in the *floodway*, except as may be permitted under approved site-specific Two Zone policies (Appendix A).
- 8.5.2.3 That *development* may be permitted within the *flood fringe* in accordance with the approved site specific policies for the Two Zone policy area (Appendix A) addressing but not limited to *floodproofing* to the *Regulatory Flood*, safe vehicular and pedestrian access, land use permissions, and flood emergency management plans.
- 8.5.2.4 That notwithstanding the above, the preparation and implementation of a flood remediation, an *erosion* control and/or slope stabilization strategy may be required to support large scale urban renewal and development projects within approved Two Zone policy areas prior to the Authority's technical clearance of the proposed development project.

8.5.3 Development within Special Policy Areas (Flood Hazard)

It is the policy of TRCA:

- 8.5.3.1 In accordance with the policies of Section 7.4.3.2.4 – *Special Policy Areas*, the *Special Policy Area* approach to flood plain management within TRCA’s jurisdiction will be applied to existing floodprone communities, or portions thereof, where approved by the Ministers of Municipal Affairs and Housing and Natural Resources.
- 8.5.3.2 That *development* may be permitted within the flood plain in accordance with the provincially approved site-specific *Special Policy Area* policies (Appendix A) addressing but not limited to *floodproofing*, vehicular and pedestrian access, land use permissions, and flood emergency management plans.
- 8.5.3.3 That notwithstanding the above, the preparation and implementation of a flood remediation, an *erosion* control and/or slope stabilization strategy may be required to support large scale urban renewal and development projects within approved *Special Policy Areas* prior to the Authority’s technical clearance approval of the proposed development project.
- 8.5.3.4 That new or intensified *development* that exceeds the provincially approved policies and land use permissions of the *Special Policy Area*, must be approved by the Ministers of Municipal Affairs and Housing and Natural Resources prior to TRCA considering such works for approval under the Regulation.

Provincially Designated Special Policy Areas in TRCA’s Jurisdiction:

- Notion Road/Pickering Village, Town of Ajax
- Central Core, City of Brampton
- Avondale, City of Brampton
- Brampton East, City of Brampton
- Bolton Core Area, Town of Caledon
- Unionville, City of Markham
- Dixie/Applewood, City of Mississauga
- Etobicoke Creek, City of Mississauga
- Pickering (Village East), City of Pickering
- Lake Wilcox, Town of Richmond Hill
- Lower Don, City of Toronto
- Rockcliffe, City of Toronto
- Hoggs Hollow, City of Toronto
- Black Creek (Jane-Wilson), City of Toronto
- Woodbridge, City of Vaughan

The maps in Appendix A: Municipal Policies for Approved Special Policy Areas and Two-Zone Area illustrate the location of *Special Policy Areas* within TRCA’s jurisdiction.

8.6 DEVELOPMENT WITHIN THE FLOOD, EROSION, AND DYNAMIC BEACH HAZARDS OF THE LAKE ONTARIO SHORELINE

It is the policy of TRCA:

- 8.6.1 That *development* will not be permitted within the *flood hazard*, *erosion hazard* or *dynamic beach hazard* associated with the Lake Ontario Shoreline, as defined in the text of the Regulation, except in accordance with the policies in Section 8 and in particular Section 8.4 (General Regulation Policies) and Section 8.6.
- 8.6.2 That *development* will not be permitted in the *stable slope allowance* or the *dynamic beach hazard*.

Shoreline Protection Works

- 8.6.3 That the limit of the *Lake Ontario Shoreline erosion hazard* be determined based on the natural state of a site without the use of *shoreline protection works*, unless the protection works were undertaken by TRCA as part of the Lake Ontario waterfront program or where it can be demonstrated by a qualified professional, at the expense of the proponent, to the satisfaction of TRCA that the protection works are consistent with the criteria in Section 8.6.5.
- 8.6.4 That *shoreline protection works* be designed to protect existing development in a manner consistent with TRCA's Lake Ontario Waterfront program and Section 8.6.5. *Shoreline protection works* to create additional area to accommodate or facilitate new development or intensification will not be permitted. In circumstances where such works may be considered, justification shall be provided through an *environmental assessment* or *comprehensive environmental study* and demonstrate to the satisfaction of TRCA that the *interference* is acceptable and the control of flooding, *erosion*, dynamic beaches, *pollution* or *conservation of land* will not be affected.
- 8.6.5 That shoreline protection works may be permitted to protect existing development and other uses deemed appropriate by TRCA to protect against shoreline *flood hazards* and *erosion hazards* where it can be demonstrated to the satisfaction of TRCA that:
- a) all feasible alignments have been considered through an environmental assessment, a *comprehensive environmental study* or a site specific technical study, whichever is applicable based on the scale and scope of the project;
 - b) the proposed works do not create new hazards or aggravate existing hazards on the subject properties or adjacent/flanking properties within the *shoreline reach/sector*;
 - c) the works do not result in a measurable and unacceptable impact or *cumulative impacts* on the control of flooding, *erosion*, dynamic beaches, *pollution* or the *conservation of land*;
 - d) the shoreline works have been designed to *TRCA Standards* with respect to *floodproofing*, protection works, and access, and that they appropriately consider natural coastal processes and are effective against long term *erosion*;
 - e) the works have been designed by a professional engineer with experience and qualifications in coastal engineering;
 - f) slope stability has been assessed by a professional engineer with experience and qualifications in geotechnical engineering;

- g) the ownership of land where the protection works are proposed has been clearly established by the applicant;
- h) the design and installation of protection works allows for an access of at least 5 metres to and along the protection works for appropriate equipment and machinery for regular maintenance purposes and repair should failure occur;
- i) the works protect or regenerate natural features, *ecological functions* and *hydrologic functions* contributing to the *conservation of land*;
- j) protection works are designed to protect, create and/or restore aquatic habitats to the extent possible; and
- k) the protection works follow accepted sustainable management practices.

8.6.6 Where shoreline protection works already exist, the integrity of the protection works may be required to be assessed by a professional engineer with experience and qualifications in coastal engineering, at the expense of the proponent. Any recommendations for improvements incorporated into the *development* to improve the effectiveness and integrity of the existing shoreline protection works shall be consistent with Section 8.6.5.

8.6.7 That further to Sections 8.6.5 and 8.6.6, and regardless if the proposed shoreline protection works have been designed to a greater life span, the maximum life span for shoreline protection works that may be accepted on private property shall be:

- a) 35-year life span for protection works with a 5-metre maintenance access to, and along, the protection works; or
- b) 20-year life span for protection works without a maintenance access.

Additions to Existing Buildings or Structures

8.6.8 That *additions* to existing building and structures within the *Lake Ontario Shoreline erosion hazard* will not be permitted.

8.6.9 That ground floor *additions* to existing buildings and structures may be permitted within the *Lake Ontario Shoreline flood hazard* provided that the *addition*, its construction and any new associated private servicing requirements comply with the following and demonstrate to the satisfaction of TRCA that:

- a) in the event that there is no feasible alternative site outside of the *Lake Ontario Shoreline flood*, the *addition* is located in an area of least (and acceptable) risk, utilizing maximum lot depth and width to maximize the landward site of the *development*;
- b) no new hazards are created, flooding and erosion on adjacent and flanking properties is not aggravated and there are no negative impacts to the *Lake Ontario shoreline reach*;
- c) the *addition* is *floodproofed* to *TRCA standards*;
- d) the *addition* does not increase the number of dwelling units in the existing building or structure;
- 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, stormwater management, *erosion* and sediment control and site-stabilization/*restoration* plans;
- g) natural features, areas and systems contributing to the *conservation of land*, including areas providing *ecological functions* and *hydrologic functions* are avoided or mitigated and *pollution* is prevented;
- h) **For existing residential buildings or structures:**
 - i) the residential building or structure must have existed as of May 4, 2006;
 - ii) an inventory of all modifications or additions permitted by TRCA under its Regulation to the original structure since 1987 has been documented and deducted from the maximum permissions for ground floor additions and one additional storey permitted under Policy 8.6.9; and
 - iii) Subsequent requests for *additions* that will result in the cumulative exceedance of permissions for ground floor additions and one additional storey under Policy 8.6.9 will not be permitted.

Ground floor additions:

- iv) in order to limit the risk to public safety and property damage, the ground floor *addition* is not more than 50 percent of the *original habitable ground floor area*, or in the case of multiple *additions*, all *additions* combined are equal to or less than 50 percent of the *original habitable ground floor area*);
- v) the *addition* meets dry, passive *floodproofing* measures; and
- vi) *access* is *safe* pursuant to *Provincial* and *TRCA Standards*;

An additional storey:

- vii) in order to limit the risk to public safety and property damage, the additional storey does not exceed the *original habitable ground floor area*, or the original ground floor area plus ground floor addition as per 8.6.9 (h)(iii) where applicable;
- viii) the existing building meets wet *floodproofing* standards; and
- ix) *access* is *safe* pursuant to *Provincial* and *TRCA Standards*.

i) **For existing commercial and industrial and agricultural buildings or structures:**

- i) the building or structure must have existed as of May 4, 2006;
- ii) an inventory of all modifications or *additions* permitted by TRCA under its Regulation to the original structure since 1987 has been documented and deducted from the maximum permissions for ground floor additions and one additional storey permitted under Policy 8.6.9; and
- iii) Subsequent requests for *additions* that will result in the cumulative exceedance of permissions for ground floor additions and one additional storey under Policy 8.6.9 will not be permitted.

Ground floor additions:

- iv) in order to limit the risk for property damage, the ground floor *addition* is 50 percent or less than that of the *original ground floor area*, or in the case of multiple *additions*, all *additions* combined are equal to or less than 50 percent of the *original habitable ground floor area*, (based on existing conditions as of January 1, 1987);

- v) the *addition* meets dry, passive *floodproofing* measures. Where technical reports have demonstrated it is not possible to meet this criterion, the *addition* must meet wet *floodproofing* standards. Where wet *floodproofing* cannot be achieved, dry active *floodproofing* may also be implemented to further minimize flood risk in combination with either of the above.
- vi) access is safe pursuant to *Provincial standards* and/or achieves the maximum level of flood protection deemed to be feasible and practical based on existing *infrastructure*;

An additional storey:

- vii) the additional storey does not exceed the *original ground floor area* (based on existing conditions as of January 1, 1987) or the original ground floor area plus ground floor addition as per 8.6.9 (i)(iii) where applicable;;
- viii) the existing building meets wet *floodproofing* requirements; and
- ix) access is safe pursuant to *Provincial* and *TRCA Standards* and/or achieves the maximum level of flood protection deemed by TRCA to be feasible and practical based on existing *infrastructure*.

Replacement or Reconstruction of Existing Buildings or Structures

8.6.10 *Replacement or reconstruction* of existing buildings or structures destroyed by causes other than flooding or *erosion*, and any new associated private servicing requirements may be permitted in the *Lake Ontario Shoreline flood hazard* or *erosion hazard* where it can be demonstrated to the satisfaction of TRCA that:

- a) in the event that there is no feasible alternative site outside of the *Lake Ontario Shoreline flood or erosion hazard*, the building or structure is located, utilizing maximum lot depth and width, in an area where the risk of flooding, *erosion* and property damage is reduced to the greatest extent possible and no closer to the shoreline than existing conditions;
- b) the building or structures to be replaced existed within two years of TRCA receiving the appropriate application for the *development*;
- c) the number of dwelling units is the same or less;
- d) the use within the *replacement* structure and/or property as a whole is not intensified nor increases the risk to property damage or public safety;
- e) the *replacement* building or structure is the same size and footprint or if added to, complies with the requirements for additions in Section 8.6.9.
- f) the *replacement* building or structure is *floodproofed* to the TRCA standards;
- g) *access* is *safe* pursuant to *Provincial* and *TRCA Standards* and/or achieve the maximum level of flood protection deemed by TRCA to be feasible and practical based on existing *infrastructure*;
- h) the potential for surficial *erosion* has been addressed through the submission of proper drainage, stormwater management, *erosion* and sediment control and site stabilization/*restoration* plans; and
- i) natural features and areas contributing to the *conservation of land*, including areas providing *ecological functions* and *hydrologic functions* are protected, *pollution* is prevented and *erosion hazards* have been adequately addressed.

Relocation of Existing Buildings or Structures

8.6.11 Relocation of existing buildings or structures and any new associated private servicing requirements within the *Lake Ontario Shoreline flood or erosion hazard* may be permitted in accordance with the provisions of Section 8.6.10 provided that the risk of flooding, *erosion* and property damage is reduced to the greatest extent possible through relocation.

Internal Renovations

8.6.12 Internal renovations to existing buildings or structures which change the use or potential use or structure but provide no additional dwelling units may be permitted provided that:

- a) the risks associated with flooding and *erosion* are low;
- b) the internal renovation does not result in a new use prohibited by Section 8.4.3 – General Policies – Prohibited Development;
- c) electrical, mechanical and heating services are located above the level of the *Regulatory flood*, wherever possible; and
- d) there is no risk of structural failure.

Property Improvements and Accessory Structures

8.6.13 Property improvements and *accessory structures* associated with existing residential use such as decks, minor alterations to grade/landscaping and swimming pools may be permitted where it can be demonstrated to the satisfaction of TRCA that:

- a) the works will not create or aggravate flooding or *erosion* on adjacent properties within the *shoreline reach/sector*;
- b) natural features, areas and systems contributing to the *conservation of land*, including areas providing *ecological functions* and *hydrologic functions* are avoided or mitigated, *pollution* is prevented and *erosion hazards* have been adequately addressed;
- c) safety concerns related to flooding and *erosion* have been addressed;
- d) Swimming Pools:
 - i. will not be permitted within the *Lake Ontario Shoreline flood hazard, stable slope allowance* or *dynamic beach hazard*;
 - ii. will not be at risk to *erosion hazards* based on a planning horizon of not less than 30 years for in-ground pools and 10 years for above-ground pools; and
 - iii. the location of the pool does not obstruct the maintenance and access to and along existing shoreline protection works.
- e) Non-habitable *accessory buildings* or structures (sheds, gazebos, etc.):
 - i. will not be permitted within the *stable slope allowance* or *dynamic beach hazard*;
 - ii. the location of the structure does not obstruct the maintenance and access to and along existing shoreline protection works; and
 - iii. a minimum of 6 metres from the *stable slope allowance*.

- f) Grading/landscaping:
 - i. placing and removing of fill for landscaping purposes is minimized and does not interfere with the drainage pattern of adjoining properties.

8.7 DEVELOPMENT AND INTERFERENCE WITHIN WETLANDS AND DEVELOPMENT WITHIN OTHER AREAS (AREA OF INTERFERENCE)

It is the policy of TRCA:

- 8.7.1 That *development* and *interference* will not be permitted within the *Regulated Area* associated with *wetlands* except in accordance with the policies in Section 8 and in particular the policies in Section 8.4 (General Policies) and Section 8.7.

Development and Interference within Wetlands

- 8.7.2 That *development* and *interference* will not be permitted within *provincially significant wetlands*, a *wetland* on the Oak Ridges Moraine, a *wetland* within the Niagara Escarpment Plan Area, or *other wetlands* greater than 0.5 ha in size.

- 8.7.3 That *development* and *interference* may be permitted within *other wetlands* less than 0.5 ha in size where it can be demonstrated to the satisfaction of TRCA that:

- a) the *wetland* is not part of a provincially *significant wetland*, a *wetland* on the Oak Ridges Moraine or a *wetland* within the Niagara Escarpment Plan Area;
- b) the *interference* on the natural features, *ecological functions* and *hydrological functions* of the *wetland* are acceptable and the *ecological functions* and *hydrological functions* of the *wetland* can be maintained or enhanced within the *subwatershed* or planning area through compensatory restoration works of sufficient scale and scope in accordance with TRCA standards;
- c) the *wetland* is not part of an ecologically functional corridor or linkage between larger *wetlands* or other habitats;
- d) the *wetland* is not part of a Provincially or municipally designated and protected *natural feature or system*, a *significant woodland* or *hazardous land*;
- e) the *wetland* is not *significant wildlife habitat*, or habitat for Provincially or regionally significant species; and
- f) the *wetland* is not part of a significant *groundwater recharge or discharge area*.

- 8.7.4 Notwithstanding Section 8.7.2, where it can be demonstrated to the satisfaction of TRCA, in accordance with all relevant policies in Section 8, that the interference is acceptable and the control of flooding, *erosion*, dynamic beaches, pollution or the conservation of land will not be affected, *development* and *interference* associated with the following activities may be permitted within *wetlands*,:

- a) infrastructure, where acceptable justification has been provided through an environmental assessment process or *comprehensive environmental study*;
- b) conservation or restoration projects or management activities;
- c) *hazardous land* remediation or mitigation works to protect existing development; and
- d) low intensity and non-intrusive *minor recreational uses* (e.g. *outdoor education*).

- 8.7.5 That existing buildings and structures within a *wetland* that are damaged or destroyed by causes beyond the owner's control may be replaced or reconstructed if there is no feasible alternative site outside the *wetland*. The replacement or reconstructed building shall not exceed the size or footprint of the existing building or structure, nor intensify the existing use.

Development within Other Areas – Area of Interference

New Development

- 8.7.6 That no new *development* is permitted within the greater of:
- 30 metres of a provincially *significant wetland* or *wetland* on the Oak Ridges Moraine, or *wetland* within the Niagara Escarpment Plan Area;
 - 10 metres of *other wetlands*; or
 - the setback based upon the results of a *comprehensive environmental study* or *technical report* completed to the satisfaction of the TRCA; or
 - development limits established and agreed to by TRCA during a *Planning Act* or *environmental assessment* process, including any distances prescribed by federal, provincial, or municipal requirements.
- 8.7.7 That new *development* within an *area of interference* between 30 metres and 120 metres of a provincially *significant wetland* or *wetland* on the Oak Ridges Moraine and new *development* within an *area of interference* between 10 metres and 30 metres of *other wetlands*, which in the opinion of TRCA may result in the *interference* on the *hydrologic function* of the *wetland*, may be permitted where it can be demonstrated to the satisfaction of TRCA, through appropriate *technical reports* as required, that the policies in Section 8.4 General Policies, can be met.

Existing Development

- 8.7.8 That where buildings or structures exist within 30 metres of a provincially *significant wetland* or *wetland* on the Oak Ridges Moraine, *reconstruction*, alterations or *additions* may be permitted in accordance with the policies in Section 8.4 General Policies and where it can be demonstrated to the satisfaction of TRCA, through a *technical report* if required, that:
- there are no negative or adverse impacts to the *hydrologic function* of the *wetland*;
 - the overall existing drainage patterns will be maintained;
 - disturbances to natural vegetation communities contributing to the *ecological function* and *hydrologic function* of the *wetland* are avoided;
 - disturbed area, soil compaction and impervious areas are minimized;
 - development* is located above the high water table;
 - best management practices* are used to maintain *water balance* and control *erosion* and sediment; and
 - the *development* is setback 10 metres from the *wetland* or maintains as much setback from the *wetland* as possible but is no closer than the existing development.
- 8.7.9 That where buildings or structures already exist within 10 metres of *other wetlands*, *reconstruction*, alterations or *additions* may be permitted in accordance with the policies in Section 8.4 General Policies and where it can be demonstrated to the satisfaction of TRCA, through a *technical report* if required, that:

- a) the criteria in Section 8.7.8 (a) to (f) have been met; and
- b) the *development* maintains as much setback from the *wetland* as possible but is no closer than the existing development.

8.7.10 Property improvements and *accessory structures* associated with existing residential use within 30 metres of a *wetland*, such as decks, minor alterations to grade/landscaping and swimming pools may be permitted where it can be demonstrated to the satisfaction of TRCA that the criteria in Sections 8.7.8 and 8.7.9 have been met.

8.8 INTERFERENCE WITH A WATERCOURSE

It is the policy of TRCA:

- 8.8.1 That straightening, changing, diverting or interfering with a *watercourse* will not be permitted except in accordance with the policies in Section 8 and in particular Section 8.4 (General Regulation Policies) and Section 8.8.
- 8.8.2 That *watercourses* may need to be confirmed by TRCA through field investigation. *Headwater drainage features* (HDFs) within TRCA's watersheds shall be identified and managed in accordance with TRCA's "Evaluation, Classification and Management of Headwater Drainage Features Guideline", as may be updated.
- 8.8.3 Alterations to *watercourses* through such activities as realignment, channelization, filling and enclosure shall not be permitted to create additional area to accommodate or facilitate new *development* and *intensification*, other than in the following circumstances:
 - a) where such works would result in permanent *remediation* and reduction of risk and serve to improve public safety and alternative protection measures are not viable; or
 - b) where such works would significantly improve existing hydrological or ecological conditions; or
 - c) where acceptable justification has been provided through a *subwatershed* plan, a corridor plan, an *environmental assessment* or *comprehensive environmental study* which has been undertaken by, or under the direction of, a public agency and harmonized as part of the planning process.
- 8.8.4 *Watercourse* alterations, pursuant to Section 8.8.3 (a) above, may be permitted where it has been demonstrated to the satisfaction of TRCA that:
 - a) all feasible options and methods have been explored to address the hazard;
 - b) the risk to public safety is reduced;
 - c) there will be no impacts on flooding, *erosion* or slope instability to upstream, downstream or adjacent properties;
 - d) there are no negative or adverse hydrologic impacts on *wetlands*;
 - e) there is no impact on the downstream thermal regime;
 - f) there are no adverse impacts on groundwater recharge/discharge;
 - g) best management practices including site design, construction and remedial measures will adequately restore and enhance natural features *ecological functions* and *hydrologic functions* of the *watercourse*;
 - h) *pollution*, sedimentation and *erosion*, both in-stream and off-stream, will be controlled during and after construction; and

- i) works will be constructed, repaired and/or maintained according to accepted engineering standards or the satisfaction of TRCA, whichever is applicable based on the scale and scope of the project.

8.8.5 *Watercourse* alterations, pursuant to 8.8.3 (b) and (c) above, may be permitted where it has been demonstrated to the satisfaction of TRCA that:

- a) the appropriate studies address incremental and *cumulative impacts*;
- b) channel design techniques appropriate for site conditions and flow regime are implemented in accordance with *TRCA standards*;
- c) natural features, areas and systems contributing to the *conservation of land* are avoided;
- d) there is no reduction/fragmentation of wildlife habitat, reduction of wildlife diversity or restriction of wildlife movement;
- e) the ecological integrity and *hydrologic function* of the *valley or stream corridor* is maintained, restored or enhanced; and
- f) the criteria in Section 8.8.4 (c) to (h) have been met.

8.8.6 Conservation projects such as stream rehabilitation works, realignments which restore or enhance *watercourse* morphology or aquatic health and habitat may be permitted provided that:

- a) the hydrologic and ecological benefits of the project are demonstrated to the satisfaction of TRCA;
- b) stream bank stability is enhanced;
- c) natural features, *ecological functions* and *hydrologic functions* are restored and enhanced using best management practices;
- d) channel design techniques appropriate for site conditions and flow regime are implemented in accordance with *TRCA standards*; and
- e) any maintenance requirements are minimized.

8.8.7 On-line ponds in a river, creek, stream or *watercourse* are not permitted. Where such ponds currently exist, TRCA will encourage their removal.

8.9 INFRASTRUCTURE POLICIES

It is recognized that certain *development, interference* and alterations associated with *infrastructure* by their nature may need to be located within or cross *valley and stream corridors, wetlands, watercourses, hazardous lands*, lands adjacent to the Lake Ontario shoreline, and natural features, areas and systems contributing to the *conservation of land*. *Infrastructure* servicing, including new, replacement or expanded infrastructure, should be carefully sited and designed to:

- avoid, mitigate and remediate risks associated with flooding, *erosion* or slope instability;
- protect, rehabilitate and restore existing landforms, features, and functions; and
- provide for aquatic, terrestrial and human access

It is the policy of TRCA:

- 8.9.1 That *development, interference* and alterations associated with *infrastructure* will not be permitted within a *Regulated Area* except in accordance with the policies in Section 8 and in particular Section 8.4 (General Regulation Policies) and Section 8.9.
- 8.9.2 That *development, interference* and *alterations* associated with new, replacement or expanded *infrastructure* may be permitted where it has been demonstrated that all feasible alternative sites and alignments have been explored through an *environmental assessment* process, *comprehensive environmental study* or equivalent *technical report*, whichever is applicable based on the scale and scope of the project, and where it can be demonstrated to the satisfaction of TRCA that:
- a) there is no increase in risk associated with *flood hazards* and *erosion hazards* to upstream or downstream properties within valley and stream corridors;
 - b) there is no impediment to the safe passage of flood flows;
 - c) along Lake Ontario, infrastructure is designed in a manner that considers coastal processes such that there is no increase in risk associated with flood hazards, erosion hazards or dynamic beach hazards to adjacent properties within the *shoreline reach*;
 - d) all alternatives to avoid *wetland* loss or *interference* have been considered and where unavoidable, the proposed alignment minimizes *wetland* loss or *interference* to the greatest extent feasible;
 - e) where unavoidable, intrusions into natural features, areas and systems contributing to the *conservation of land* and areas providing *ecological functions* and *hydrologic functions* contributing to the *conservation of land* are minimized and appropriate remedial works of sufficient scale and scope to restore and enhance features and functions will be implemented in accordance with *TRCA Standards*;
 - f) *infrastructure* has been designed in a manner that:
 - i. does not decrease the base flow characteristics of watercourses;
 - ii. minimizes the number of crossings and areas to be disturbed by *infrastructure* within valley and stream corridors or *Lake Ontario shoreline reach* and potential cumulative impacts;
 - iii. considers options for *remediation* of existing natural hazards;
 - iv. minimizes the area of construction disturbance and vegetation removal ;
 - v. maintains the predevelopment configuration of the flood plain, valley or stream corridors and the topography along the Lake Ontario shoreline;
 - vi. does not impair surface water and groundwater quality through the introduction of pollutants such as sediments or contaminants;
 - vii. does not prevent access for maintenance, evacuation, or during an emergency;
 - viii. when applicable, is in accordance with the requirements of *TRCA Standards* for working on TRCA –owned lands dealing with archaeology, permission to enter and registered property interests; and
 - ix. is consistent with current *TRCA Standards* for mitigation measures, sediment and erosion control, , construction access routes, *restoration* plans and maintenance management plans for *infrastructure* projects;
 - g) where pervious surface is being converted to impervious, that TRCA's stormwater management criteria, (water quantity, water quality, erosion control and water

- balance for groundwater and natural features), are met in accordance with TRCA's Stormwater Management Criteria Document; and
- h) that the *interference* is acceptable and/or it has been demonstrated that, in the opinion of TRCA, the control of flooding, *erosion*, dynamic beach, *pollution* or the *conservation of land* will not be affected.

8.9.3 That archaeological assessments are required for any *infrastructure* proposed for TRCA-owned lands, in accordance with the procedures for archaeological assessment in the TRCA Planning and Development Procedural Manual.

8.9.4 That where *infrastructure* is permitted within *hazardous lands or hazardous sites*, an environmental monitoring and contingency plan, in accordance with *TRCA Standards*, may be required to address potential emergencies during construction and operation.

Underground Infrastructure

Infrastructure installed underground includes, but is not limited to: sanitary sewers, septic systems, watermains, gas and oil pipelines, geothermal energy systems, cable, electricity, and telecommunication lines. For tunnels for roads or public transit rights-of-way (e.g. subways), the policies for transportation (Section 8.9.4) also apply.

8.9.5 That *development, interference* and *alterations* associated with new, replacement or expanded underground *infrastructure* may be permitted where it has been demonstrated that all feasible alternative sites and alignments have been considered through an *environmental assessment, comprehensive environmental study* or equivalent *technical report*, whichever is applicable based on the scale and scope of the project, and where it can be demonstrated to the satisfaction of TRCA that:

- a) there are no negative impacts to the quality and quantity of groundwater and surface water, including stream baseflow;
- b) impacts on groundwater flow and discharge are minimized and mitigated;
- c) *erosion hazards of valley and stream corridors* and the Lake Ontario shoreline are avoided;
- d) all options for horizontal and vertical alignments to avoid, minimize and/or mitigate impacts on *aquifers* and surface water receptors have been considered; and
- e) dewatering and/or dewatering discharge during and post construction will be managed; and
- f) design and construction technologies are used to reduce the risk of hydrological and ecological impacts and minimize grade alterations to existing topography.

Transportation Infrastructure

Transportation *infrastructure* includes, but is not limited to: new road crossings, railway lines, subways, and other transit rights-of-way, their associated facilities, or alterations to existing transportation *infrastructure* such as extension, widening, repair to, upgrades of, or replacements. For the tunneling of roads or public transit right-of-way (e.g. subways), the policies for underground *infrastructure* (Section 8.9.3) also apply.

- 8.9.6 That *development, interference* and alterations associated with new, replacement or expanded transportation *infrastructure* crossing *valley and stream corridors* may be permitted where it can be demonstrated to the satisfaction of TRCA that:
- a) there are no upstream or downstream impacts to flooding and erosion;
 - b) the *ecological* and *hydrological functions* of the valley and stream corridor are maintained by considering the following in accordance with *TRCA Standards*:
 - i. the physical characteristics and geomorphic processes of the *watercourse*;
 - ii. aquatic and terrestrial habitat;
 - iii. valley or stream corridor form;
 - iv. aquatic and terrestrial wildlife passage; and
 - v. pedestrian passage (e.g. trails).
 - c) And further that the *mitigation* employed in a crossing project used to address 8.9.4b) reflect the quality of the *ecological function* of the valley or stream corridor, as identified in *TRCA Standards*; and
 - d) for road widenings, the surface area of both the existing road and the new section of road be treated to meet TRCA stormwater management criteria, in accordance with the policies in Section 8.9 for stormwater management.

TRCA is currently updating its technical guidelines for watercourse crossings. The guidelines will provide direction as to how the quality of ecological functions is to be assessed.

Stormwater Management (SWM) Facilities Infrastructure

SWM facility *infrastructure* projects includes new facilities and alterations to existing facilities designed to manage stormwater and the infrastructure necessary to support the function of the facility. Examples of SWM facilities include but are not limited to: SWM ponds, infiltration trenches, bioretention facilities, enhanced swales, and oil and grit separators. Examples of supporting infrastructure include but are not limited to outfall structures, plunge pools, outfall channels and maintenance access roads.

- 8.9.7 That *development, interference* and *alterations* associated with stormwater management (SWM) facilities shall not be permitted:
- a) within *watercourses* (on-line), *wetlands* or natural features, areas or systems contributing to the conservation of land;
 - b) within the meander belt, the *100-year erosion limit* or the *100-year flood plain* of a *watercourse*, whichever is greater;
 - c) on a *valley wall* subject to *erosion*; or

- d) within the *stable slope allowance* or *dynamic beach hazard* along the Lake Ontario shoreline.
- 8.9.8 That *development, interference* and *alterations* associated with infrastructure that supports stormwater management (SWM) facilities (e.g. outfall structures, etc.) shall generally be:
- a) located outside of the meander belt wherever possible;
 - b) placed as close to the base of slope as possible, and at a grade above the 25-year floodline where feasible;
 - c) avoid disturbance to natural features, areas and systems contributing to the conservation of land to the extent possible; and
 - d) designed to reduce erosive velocities and mitigate thermal impacts (in the case of outfalls and outfall channels).
- 8.9.9 That *subwatershed drainage diversion* be avoided in order to maintain existing *watershed* boundaries and drainage patterns.
- 8.9.10 That *development, interference* and *alterations* associated with SWM facility infrastructure may be permitted where it has been demonstrated to the satisfaction of TRCA that:
- a) the location and function of SWM facilities and supporting infrastructure are consistent with a *subwatershed* study, a Master Environmental Servicing Plan (MESP), an *environmental assessment* process or equivalent supported by TRCA;
 - b) the specific location, sizing and design of the SWM facility infrastructure has been addressed in a Stormwater Management Report, or equivalent, in accordance with TRCA's Stormwater Management Criteria Document;
 - c) where unavoidable, intrusions into natural features, areas and systems contributing to the *conservation of land* and areas providing *ecological functions* and *hydrologic functions* contributing to the *conservation of land* are minimized and appropriate remedial works of sufficient scale and scope to restore and enhance features and functions will be implemented in accordance with *TRCA Standards*;
 - d) the SWM facilities and supporting *infrastructure* will be naturalized using native species except where combined with recreation or other facilities;
 - e) an operation and maintenance plan has been developed and will be implemented to ensure long term performance of the facility; and
 - f) the SWM facilities are sited and designed to ensure public safety and, where appropriate, integrated into the developing or redeveloping community, as attractive amenities for safe, passive use and enjoyment.
- 8.9.11 That where a *subwatershed* study, an MESP, an environmental assessment process or *comprehensive environmental study*, determines that SWM facilities designed to control to the *regional storm* are required, the facility be designed to ensure public safety and to reduce risk associated with failure. Furthermore, notwithstanding Section 8.9.7, and where it has been demonstrated to the satisfaction of the Ministry of Natural Resources, TRCA and the municipality, a *Regional Flood Control Facility* may be permitted within a *valley or stream corridor*.

Renewable Energy Projects

- 8.9.12 *Infrastructure* related to Renewable Energy Projects under the *Green Energy Act* shall be subject to the policies of Section 8 and in particular Section 8.4 (General Regulation

Policies) and Section 8.9 (Infrastructure) , and must demonstrate to the satisfaction of TRCA that there will be no impacts to the control of flooding, *erosion*, *pollution*, or dynamic beaches. The test of *conservation of land* is not applicable under the *Green Energy Act*.

8.10 RECREATIONAL USE POLICIES

It is recognized that certain *development, interference and alterations* associated with recreational uses by their nature may need to be located within or cross over *valley or stream corridors, wetlands, watercourses, hazardous lands*, lands adjacent to the Lake Ontario shoreline and natural features, areas and systems contributing to the *conservation of land*.

Major Recreational Uses are recreational facilities that require large scale modification of terrain, vegetation or both, and usually also require large scale buildings or structures and extensive parking areas. Examples include but are not limited to: golf courses, serviced sports/playing fields, serviced campgrounds and ski hills. Extensive planning, environmental studies, mitigation measures, restoration efforts and ongoing best management practices will be required to minimize impacts to the ecological and hydrological integrity and functions of the *Natural System*.

Minor Recreational Uses are recreational facilities that require very little modification of terrain or vegetation and few if any, buildings, structures and limited parking. They are generally of low intensity and a non-intrusive nature. Examples include but are not limited to: non-motorized trails for walking or cycling, boardwalks, small scale picnic facilities, natural heritage appreciation. Proper site planning, scoped environmental studies and the incorporation of best management practices for site construction and future maintenance can generally minimize impacts to negligible levels.

It is the policy of TRCA:

8.10.1 That *development, interference* and alterations associated with recreational uses will not be permitted within a *Regulated Area* except in accordance with the policies in Section 8 and in particular Section 8.4 (General Regulation Policies) and Section 8.10 (Recreational Use).

8.10.2 That *development, interference* and alterations associated with new *major recreational uses* will not be permitted within *hazardous lands, watercourses, wetlands* or natural features, areas and systems contributing to the *conservation of land*.

8.10.3 That *development, interference* and alterations associated with minor modifications, environmentally compatible changes of use or configuration, and *minor expansions* to existing *major recreational uses* may be permitted within a *regulated area* where it has been demonstrated through a *comprehensive environmental study* or equivalent *technical reports* to the satisfaction of TRCA that:

- a) *wetlands, watercourses* and *dynamic beach hazards* are avoided;
- b) the existing topography is maintained to the extent feasible to protect landform and function;
- c) there is no increase in risk associated with *flood hazards* and *erosion hazards* to adjacent, upstream or downstream properties;

- d) the proposed works are designed in a manner that considers coastal processes such that no new hazards are created and existing hazards are not aggravated on adjacent properties within the *Lake Ontario shoreline reach*;
- e) the area of construction disturbance is minimized to the extent feasible;
- f) all primary buildings or structures are located outside the *flood hazard* and *erosion hazard* associated with the Lake Ontario shoreline and *valley and stream corridors*;
- g) the number of *watercourse* crossings is minimized and designed in accordance with *TRCA standards* and the policies in Section 8.9.4;
- h) where unavoidable, intrusions into natural features, areas and systems contributing to the *conservation of land*, including areas providing *ecological functions* and *hydrologic functions* are minimized to the extent feasible and best management practices including site design and appropriate remedial measures will adequately restore and enhance features and functions;
- i) where pervious surface is being converted to impervious, that TRCA's stormwater management criteria, (water quantity, water quality, erosion control and water balance for groundwater and natural features), are met in accordance with TRCA's Stormwater Management Criteria Document;
- j) *the development, interference* and alteration is consistent with current *TRCA standards*, checklists and guidelines for design, construction methods, construction access routes, *restoration* plans, trail design, and maintenance management plans for recreational use projects; and
the *interference* is acceptable and/or it has been demonstrated that, in the opinion of TRCA, the control of flooding, *erosion*, dynamic beach, *pollution*, or the *conservation of land* will not be affected.

8.10.4 That *development, interference* and alterations associated with *minor recreational uses* may be permitted within a *regulated area* where it has been demonstrated through appropriate *technical reports* to the satisfaction of TRCA that the criteria in Section 8.10.3 (a) to (j) have been addressed.

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

- a) the relevant criteria in Section 8.10.3 (a) to (j) have been addressed;
- b) generally, the trails be made of pervious surface material, unless otherwise required by Provincial accessibility standards;
- c) the riparian zone of *watercourses* is avoided;
- d) the risk to public safety from natural hazards is not increased by avoiding active *erosion* zones, such as outside meander bends and *valley walls* where banks are eroding;
- e) *watercourse* crossings have their approaches at grade and allow for conveyance of high flows; and
- f) the risk to public safety is not increased.

8.10.6 That at-grade parking facilities for existing or approved recreational uses may be permitted subject to meeting the criteria in Section 8.10.5.

8.10.7 That archaeological assessments are required for any *minor* or *major recreational uses* proposed for TRCA-owned lands, in accordance with the procedures for *archaeological assessment* in the TRCA Planning and Development Procedural Manual.

8.11 DEWATERING, DEWATERING DISCHARGE AND WATER TAKING

Taking water from the ground, also referred to as *dewatering*, is often necessary for the installation of many underground components of development, *site alteration*, or *infrastructure* projects (e.g., bridge and building footings, sewer and water mains, etc.). Similarly, *water taking* from surface water resources may be required for the operation of *major recreational use* projects such as golf courses. In response to the Ministry of the Environment's (MOE) notification of a Permit to Take Water (PTTW) (where water taking exceeds 50,000 litres per day for 1 year or more), TRCA comments to MOE on these applications, either on its own or in conjunction with an already existing TRCA file. TRCA reviews dewatering and/or water taking in the context of its Regulation and with regard to whether the proposal can meet the *five tests* of TRCA's Regulation.

It is the policy of TRCA:

- 8.11.1 That any *dewatering*, *dewatering discharge* or *water taking* associated with *development*, *interference*, and *alteration*, be accompanied by *technical reports* and maps to TRCA's satisfaction, detailing the predicted *zone of influence* based on sensitivity of the environment, and the duration, volume, and timing of the *dewatering* or *water taking*, and detailing of the environmental receptors within the *zone of influence* of the *dewatering* and downstream discharge.
- 8.11.2 That should the studies required in Section 8.11.1 indicate to TRCA staff that a proposal has the potential to cause impacts to environmental receptors or where impacts are uncertain, but environmental receptors are present within the *zone of influence* or downstream of any discharge, then an Environmental Management Plan in accordance with *TRCA Standards* may be required to monitor and manage impacts to environmental receptors.
- 8.11.3 That any *dewatering*, *dewatering discharge*, or *water taking* associated with *development*, *interference*, and *alteration*, that will affect the control of flooding, *erosion*, *pollution*, dynamic beaches, or the *conservation of land*, will not be permitted.

8.12 FILL PLACEMENT, EXCAVATION AND/OR GRADE MODIFICATION POLICIES

It is the policy of TRCA:

- 8.12.1 That fill placement, excavation and/or grade modifications shall not be permitted within *hazardous lands*, *watercourses*, *wetlands* and *other areas* where *development* could interfere with the *hydrologic function* of a *wetland*.
- 8.12.2 Notwithstanding Section 8.12.1, fill placement, excavation and/or grade modifications associated with *development*, *interference* and *alterations* permitted in accordance with the policies in Section 8 (e.g. *infrastructure*, *floodproofing* structures, etc.) shall also demonstrate to the satisfaction of TRCA through appropriate *technical reports*, assessments, site plans and/or other plans as required by TRCA, that

- a) within the *flood hazard of valley and stream corridors*, stage-storage discharge relationships of the flood plain will be maintained through a cut and fill balance to prevent increases in flood depths;
- b) the available volume at each type of floodplain storage (active and passive) be maintained at flood frequencies for all storm events up to and including the Regulatory flood;
- c) for cut and fill operations:
 - i. demonstrate no adverse upstream or downstream hydraulic or fluvial impacts;
 - ii. avoid natural features, areas and systems contributing to the conservation of land;
 - iii. not extend into the meander belt; and
 - iv. satisfy the criteria for a stable slope, preferably 3:1 or flatter.
- d) within *hazardous lands* associated with the Lake Ontario shoreline, coastal processes are not aggravated on the site or adjacent/flanking properties within the *shoreline reach/sector*; and
- e) the quality of the fill material shall not impact the control of *pollution* and the *conservation of land*.

8.12.1 That for large-scale fill placement proposals, applicants are required to pre-consult with TRCA staff to confirm the scope of required studies and supporting documentation for a complete application prior to submission. Pre-consultation shall include coordination and consultation with the municipality, and any other applicable agencies that may have an interest in the application.

8.13 IMPLEMENTATION AND COMPLIANCE

The implementation of TRCA's regulatory program pursuant to Section 28 of the *Conservation Authorities Act* shall be subject to the following:

Review and Approval Process:

It is the policy of TRCA:

- 8.13.1 To require pre-consultation with applicants to provide clarity and direction in order to facilitate receipt of complete applications and to streamline the permit application review and decision-making process.
- 8.13.2 That complete applications for permission for *development, interference, or alteration* under TRCA's Section 28 Regulation shall be processed in accordance with review procedures outlined in TRCA's Planning and Development Procedural Manual and in accordance with the policies in Section 8 of this document.
- 8.13.3 That TRCA may permit *development, interference, or alteration* within a *Regulated Area*, if in the opinion of TRCA, the control of flooding, erosion, dynamic beaches, *pollution* or the *conservation of land* is not affected.

- 8.13.4 That permissions pursuant to Section 8.13.3 may be issued with or without conditions.
- 8.13.5 That further to Sections 8.13.3 to 8.13.4, permissions may be issued, with or without conditions, for *development*, *interference* or *alteration* under TRCA's Section 28 Regulation, in accordance with Streamlining Protocols delegated by TRCA's Authority to designated TRCA staff (e.g. Minor Works, Routine Infrastructure Works, etc.) outlined in TRCA's Planning and Development Procedural Manual.
- 8.13.6 To be consistent with MNR's "Policies and Procedures for Conservation Authority Plan Review and Permitting Activities".
- 8.13.7 That TRCA will adhere to the *MNR/CO Hearing Guidelines (2005)*. Where TRCA staff can not recommend approval of an application or where an applicant does not agree to the conditions of a permission, the applicant will be afforded the opportunity to appear before TRCA's Hearing Board, in accordance with the Guidelines.
- 8.13.8 That in undertaking its regulatory responsibilities under Section 28 of the *Conservation Authorities Act*, TRCA will coordinate with other applicable agreements, relevant federal and provincial legislation, to the extent possible.
- 8.13.9 That through the review of applications under the *Planning Act*, *Environmental Assessment Act* and any other related legislation, TRCA will ensure the applicant and municipal planning authority are aware of the requirements of TRCA's Regulation under Section 28 of the *Conservation Authorities Act*, where applicable, and to assist in the coordination of the planning and regulation approvals process to avoid ambiguity, conflict and unnecessary delay or duplication to the extent possible.

Compliance:

- 8.13.10 To ensure compliance with TRCA's Section 28 Regulation and policies, TRCA will undertake the following approach to compliance:

Preventative Approach:

- Provide information to stakeholders
- Liaise with proponents, contractors, municipal partners on approved permits sites
- Regularly inspect construction sites for compliance with approved permits and conditions

Responsive Approach:

- Resolve minor infractions through landowner cooperation
- Resolve violations by notice through discussions and negotiations for removal, and restoration where possible
- Pursue legal proceedings when necessary to ensure compliance

- 8.13.11 Where TRCA staff recommend that an approved permission be canceled, the applicant will be afforded the opportunity to appear before TRCA's Hearing Board.