

Glossary

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Definitions of terms used in the document

A

Accessory building or structure - Accessory building or structure - A non-habitable building or structure that is subordinate and exclusively devoted to a main use, building, or structure, and is located on the same lot as the main use, building or structure to which it is subordinate.

Adaptation - Any action taken to minimise the adverse effects of climate change, or to take advantage of any beneficial effects of climate change. If *mitigation* measures are able to reduce the scale of change or extend the length of time over which it occurs, adaptation becomes much easier.

Adaptive management – An iterative approach to policy, planning, design, construction and monitoring that facilitates adaptation to changing environmental conditions over time.

Additions - means any works occurring on an existing building or structure that serve to increase the total area of that building or structure.

Adjacent lands - those lands contiguous to a specific natural heritage feature or area where it is likely that

development or *site alteration* would have a negative impact on the feature or areas. The extent of the adjacent lands may be recommended by the Province or based on municipal approaches which achieve the same objectives. (Provincial Policy Statement, 2005)

Allowance – the distance from a hazard/feature prescribed in TRCA's Regulation to delineate the *regulated area*.

Alteration – straightening, changing, diverting an existing channel of a river, creek, stream or watercourse or changes to the Lake Ontario shoreline.

Approval Authority - In the land use and development context, this includes any public body (e.g., municipality, conservation authority, provincial ministry) that has the authority to regulate and approve development projects that fall under its mandate and jurisdiction (e.g., *Planning Act*, *Environmental Assessment Act*, *Aggregate Resources Act*, *Conservation Authorities Act*).

Aquitards – a geologic formation that is permeable enough to transmit water in quantities that are significant in the study of regional groundwater flow, but not permeable enough to allow the completion of production wells within them. In southern Ontario,

they are typically formed as the result of depositional processes from ancient shallow seas and lakes, and comprise silt, clay, and lower permeability limestone and shale.

Aquifer - a saturated permeable geologic unit that can transmit significant quantities of water under ordinary hydraulic gradients. They can be classified as confined or unconfined. In southern Ontario, aquifers are typically comprised of sand and/or gravel, or fractured limestone.

Archaeological Assessment - For a defined project area or property, a survey undertaken by a licensed archaeologist within those areas determined to have archaeological potential in order to identify archaeological sites, followed by evaluation of their cultural heritage value or interest, and determination of their characteristics. Based on this information, recommendations are made regarding the need for mitigation of impacts (including long-term protection planning) and the appropriate means for mitigating those impacts.

Archaeological Resources - The remains of any building, structure, event, activity, place or cultural feature or object which because of the passage of time is on or below the surface of the land or the water and which is associated with Aboriginal history (pre AD 1608) or the post-contact (historic) period (post AD 1608) in Ontario.

Archaeological Site - Defined in Ontario Regulation 170/04 as “any property that contains an artifact or any other physical evidence of past human use or activity that is of cultural heritage value or interest.”

Area of Interference – see *Other Areas/Areas of Interference*

Areas of Natural and Scientific Interest (ANSIs) – Areas of land and water containing natural landscapes or features that have been identified (by the Province) as having science or earth science values related to protection, scientific study or education. (Provincial Policy Statement, 2005)

B

Bankfull Discharge – The formative flow of water that characterizes the morphology (shape) of a fluvial channel. In a single channel stream, bankfull is the discharge which just fills the channel without flowing onto the *flood plain*.

Baseflow - That portion of stream flow derived from groundwater storage to surface streams.

Biodiversity - the variability among organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species and ecosystems.

Buffer – a strip of permanent vegetation that helps alleviate the negative impacts of *development* on natural features and functions and can include a non-vegetated *erosion access allowance* (also see definition for *erosion access allowance*) required to manage a natural hazard (based on definition from MNR website). For the prescribed width of a buffer, see applicable policies in Section 7.0 of The Living City Policies.

Built Heritage Resources - involving one or more significant buildings, structures, monuments, installations or remains associated with architectural, cultural, social, political, economic or military history and identified as being important to the community.

Built Green Elements – in the context of green infrastructure, they are human-created systems and technologies that are designed to mimic ecological functions to reduce environmental impacts from human activities, such as stormwater management ponds, green roofs, green walls, permeable pavement, and rainwater harvesting.

C

Class Environmental Assessment - is an environmental assessment done for a group, or “class” of projects that are carried out routinely and have predictable and mitigable environmental effects.

Compensation – in the context of conservation and land use planning, *compensation* is defined as the replacement of lost/altered *ecosystem services* or *ecological function*. (TRCA's Draft Compensation Protocol)

Comprehensive Environmental Study – a study or plan 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.

Conservation Easement – legally binding instruments whereby the landowner transfers/relinquishes specific rights, such as the ability to create building lots or cut trees, to an easement holder (usually a nature conservation organization or agency). Depending on the terms of the conservation easement agreement, the easement holder has the right and responsibility to inspect the property and ensure the terms of the conservation easement are being respected.

Conservation of Land – 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) Conservation of land includes 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, 2008, p. 18).

Conservation Project – activities, buildings or structures for conservation and hazard management purposes on publicly-owned lands such as, but not limited to: flood and erosion control works, habitat creation and enhancement, tree and shrub planting, environmental education, trails and low intensity recreation activities, cultural heritage and archaeological preservation and interpretation and conservation parks.

Conservation-Related Accessory Uses – a use of land, buildings or structures and associated activities that is incidental or subordinate to the principal conservation project use, building, structure or activity located on the same lot, and may include activities such as, but not limited to: farmers markets, demonstration or pilot projects and facility rentals for environmentally-themed meetings, conferences and social events.

Cultural Heritage Landscapes - Any discrete aggregation of features made by people where the arrangement of the features that exist in conjunction with one another is representative of distinct cultural processes in the present and historical development and use of the land within a *watershed*. They include any scenic/heritage or contemporary area perceived as an ensemble of culturally derived landscape features, such as a neighbourhood, a townscape, landscape or waterscape that illustrates noteworthy relationships between people and their surrounding environment.

Cultural Heritage Value or Interest - For the purposes of the *Ontario Heritage Act* and its regulations, archaeological resources that possess cultural heritage value or interest are protected as archaeological sites under Section 48 of the act. Where analysis of documented artifacts and physical features at a given location meets the criteria stated in the Standards and Guidelines, that location is protected as an archaeological site and further archaeological assessment may be required.

Cumulative Impacts - impacts caused by a combination of actions.

D

Designated Greenfield Area – the area within a settlement area that is not built up area. Where a settlement area does not have a built boundary, the entire settlement area is considered designated greenfield area. (Growth Plan for the Greater Golden Horseshoe, 2006)

Development (in Section 8.0 – permitting) – as defined in the *Conservation Authorities Act* - (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.

Development (in Section 7.0 – planning) - as defined in the Provincial Policy Statement, 2005 - The creation of a new lot, a change in land use, or the construction of buildings and structures, requiring approval under the *Planning Act*, but does not include: a) activities that create or maintain *infrastructure* authorized under an *environmental assessment* process; b) works subject to the *Drainage Act*; or c) for the purposes of policy 2.1.3(b), underground or surface mining of minerals or advanced exploration on mining lands in significant areas of mineral potential in Ecoregion 5E, where advanced exploration has the same meaning as under the *Mining Act*. Instead, those matters shall be subject to policy 2.1.4(a). (also see the definitions of *site alteration* and *infrastructure*)

Development Limit – the point to which *development* can extend, defined by the greater extent of natural hazards and natural features plus any applicable *potential natural cover, buffer, freeboard, or erosion access allowance*.

Dewatering and Dewatering Discharge – extraction of water from the ground, for the purposes of controlling groundwater, and expelling that water after it is extracted.

Dripline – the downward vertical projection of the outer-most extent of tree branches within a *woodland*, and collectively, the edge of the *woodland*.

Dynamic Beach Hazard - areas of inherently unstable accumulations of shoreline sediments along Lake Ontario, as identified by *provincial standards*. The dynamic beach hazard limit consists of the *flood hazard limit* plus a dynamic beach allowance. (Provincial Policy Statement, 2005)

E

Ecological Function – the natural processes, products or services that living and non-living environments provide or perform within or between species, ecosystems, and landscapes. These may include biological, physical, and socio-economic interactions (Provincial Policy Statement, 2005)

Ecological Integrity – in the context of the Oak Ridges Moraine Conservation Plan, including hydrological integrity, the condition of ecosystems in which, (a) the structure, composition and function of the ecosystems are unimpaired by stresses from human activity, (b) natural ecological processes are intact and self-sustaining, and (c) the ecosystems evolve naturally.

Ecological Land Classification - the Canadian classification of lands from an ecological perspective; an approach that attempts to identify ecologically similar areas.

Ecosystem Services - the goods and services provided by ecosystems that are critical to the environment's life support systems and that contribute significantly to human welfare both directly and indirectly and therefore represent a significant social and economic value.
Encumbrance - a right to, interest in, or legal liability on real property that does not prohibit passing title to the property but that diminishes its value.

Endangered Species - means a species that is listed or categorized as an "Endangered Species" on the Ontario Ministry of Natural Resources official species at risk list, as updated and amended from time to time. (Provincial Policy Statement, 2005)

Environmental Assessment - a study that is completed by the proponent to assess the potential environmental effects (positive or negative) of an individual project, pursuant to the *Environmental Assessment Act*. Key components of an environmental assessment include: consultation with government agencies and the public; consideration and evaluation of alternatives; the management of potential environmental effects. Proponents can include the provincial government,

municipal governments, and public organizations such as conservation authorities. The environmental assessment program generally does not apply to the private sector. However, sometimes private firms are required by a regulation or may voluntarily go through an environmental assessment process.

Environmental Flow Threshold – the minimum in-stream flow necessary to maintain the *ecological function of a watercourse*.

Environmentally Significant Area (ESA) Study – a TRCA program that identified areas of environmental significance based on specific criteria and suggested direction for an ESA's management.

Erosion (as a natural process) - the process of gradual washing away of soil by water movement or seepage (at the ground surface), commonly occurring in one of the following manners:

- a) rainfall or snowmelt and surface runoff (sheet, rill, or gully erosion);
- b) internal seepage and piping;
- c) water flow (banks or base of river, creek, channel); and
- d) wave action (shorelines of ponds, lakes, bays)

The erosion process affects the soil at the particle level by dislodging and removing (transporting) the soil particles from the parent mass (with water movement as the agent). Other processes such as wind and frost may assist in the weathering or dislodging and transport of soil particles.

Erosion Access Allowance – the setback needed to ensure there is a large enough safety zone for people and vehicles to enter and exit an area during an emergency, such as a slope failure or flooding.

Erosion Allowance - where there is no reliable recession information, the province suggests a setback distance (30 metres) to allow for *erosion* along the Great Lakes-St. Lawrence River system (including the Lake Ontario Shoreline) and along the shoreline of large inland lakes (15 metres); note that there are no large inland lakes in TRCA's jurisdiction.

Erosion Hazard – the loss of land, due to human or natural processes, that poses a threat to life and property. The *erosion hazard* limit is determined using considerations that include the 100 year erosion rate (the average annual rate of recession extended over an one hundred year time span), an allowance for slope stability, and an erosion/erosion access allowance. (Provincial Policy Statement, 2005)

Evapotranspiration – The combined loss of water to the atmosphere from land and water surfaces by evaporation and from plants by transpiration .

Existing natural cover – that portion of natural cover of the target terrestrial natural heritage system that is existing.

Existing Vacant Lot of Record – A parcel or tract of land described in a deed or other legal document that is capable of being legally conveyed, containing no pre-existing buildings or structures.

Fee Simple (ownership) – ownership of a property that entails the full bundle of rights associated with owning a property.

Fish – includes (a) parts of fish, (b) shellfish, crustaceans, marine animals and any parts of shellfish, crustaceans or marine animals and (c) the eggs, sperm, spawn, larvae, spat and juvenile stages of fish, shellfish, crustaceans and marine animals (*Fisheries Act*, section 2).

Fish Habitat - spawning grounds and nursery, rearing, food supply and migration areas on which *fish* depend directly or indirectly in order to carry out their life processes (*Fisheries Act*, section 34(1)).

Fisheries Timing Window – as established by the Ministry of Natural Resources and applied by TRCA staff, that window of time when construction around or in-water is permitted, given that critical life stages of fish take place outside of this window; there are both cold water and warm water fisheries timing windows.

F

Five Tests (of a permit application under TRCA's section 28 Regulation) – the application should be assessed for its potential to impact: the control of flooding, *erosion*, dynamic beaches, *pollution*, and *conservation of land*.

Flood Fringe – for river, stream and small inland lake systems, means the outer portion of the flood plain between the *floodway* and the *flooding hazard limit*. Depths and velocities of flooding are generally less severe in the *flood fringe* than those experienced in the *floodway*. (Provincial Policy Statement, 2005)

Flood Hazard - means the inundation, under the conditions specified below, of areas adjacent to a shoreline or a *watercourse* and not ordinarily covered by water (note: high points of land not subject to flooding but surrounded by floodplain or flooded land are considered to be within the *flood hazard*): Lake Ontario Flood Hazard Limit - the one hundred year flood, plus an allowance for wave uprush and other water-related hazards.

Riverine Flood Hazard Limit – the flood produced by the Hurricane Hazel storm event or the one hundred year flood, whichever is greater.

Flood Plain – The area, usually low lands adjoining a *watercourse*, which has been or may be subject to *flood hazards*. (Provincial Policy Statement, 2005)

Flood Plain Spill Area – where flood waters are not physically contained within the valley or 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.

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 *watercourses*. (Provincial Policy Statement, 2005) There are three different types of *floodproofing*:

- Dry Passive *floodproofing* – includes the use of fill, columns, or design modifications to elevate openings in the building or structure at, or above, the level of the *flood hazard*. These measures do not require flood warning or any other action to put the flood protection into effect.
- Dry Active *floodproofing* – includes techniques such as installing water tight doors, seals or floodwalls to prevent water from entering openings below the level of the *flood hazard*. Advance warning is almost always required to make the flood protection operational (i.e. closing of water tight doors, installation of waterproof protective coverings or windows etc.).
- Wet *floodproofing* – involves designing a building or structure using materials, methods and design measures that maintain structural integrity by avoiding external unbalanced forces from acting on buildings or structures during and after a flood, to reduce flood damage to contents, and to reduce the cost of post flood clean up. Buildings and structures are designed so as to intentionally allow flood waters to enter and exit, ensuring the interior space below the level of the *flood hazard* remains unfinished, non-habitable, and free of service units and panels.

Flood Vulnerable Area – sub-area within the *Regulatory Storm Flood Plain* containing multiple existing structures and/or roads for which a single, comprehensive *flood remediation* approach may be viable.

Floodway – for river, stream and small inland lake systems, the portion of the flood plain where *development* and *site alteration* would cause a danger to public health and safety or property damage. Where the *One-Zone concept* is applied, the *floodway* is the entire contiguous flood plain. Where the *Two-Zone concept* is applied, the *floodway* is the contiguous inner portion of the flood plain, representing that area required for the safe passage of flood flow and/or that area where flood depths and/or velocities are considered to be such that they pose a potential threat to life and/or property damage. Where the *two zone* concept applies, the outer portion of the flood plain is called the *flood fringe*. (Provincial Policy Statement, 2005)

Freeboard – a safeguard of separation in either length (linear - a specified distance) or height (vertical - a specified elevation) from the *Regulatory Flood Plain* or other specified flood level.

G

Green Infrastructure – natural vegetation, vegetative systems, soil in volumes and qualities adequate to sustain vegetation and absorb water, and supportive green technologies that replicate ecosystem functions. (Also see *natural green elements* and *built green elements*)

Greenfield Development – *development* taking place on formerly vacant/agricultural land usually situated within the outer reaches of an urban envelope, usually on a block-wide scale.

Groundwater Discharge – The removal of water from the saturated zone across the water-table surface, together with the associated flow toward the water table within the saturated zone.

Groundwater Features - water related features in the earth's subsurface, including recharge/discharge areas, water tables, aquifers and unsaturated zones that can be defined by surface and subsurface hydrogeological investigations. (Provincial Policy Statement, 2005)

Groundwater Recharge – The entry into the saturated zone of water made available at the water-table surface, together with the associated flow away from the water table within the saturated zone.

Groundwater Reservoir - An *aquifer* or aquifer system in which groundwater is stored. The water may be placed in the *aquifer* by artificial or natural means.

H

Habitable - that portion of a building or structure containing rooms or spaces required and intended for overnight occupancy and associated living space, and

includes those portions which contain facilities for storage, heating, air-conditioning, electrical, hot water supplies, etc., which are necessary to maintain the habitable condition.

HADD – harmful alteration, disruption, or destruction (to *fish* or a *fish habitat*) under the federal *Fisheries Act*, section 35.

Hazardous Land (in Section 8 – permitting) - land 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, 1990)

Hazardous Land (in Section 7 – planning) - property or lands that could be unsafe for *development* due to naturally occurring processes. Along the shorelines of the Great Lakes - St. Lawrence River System, this means the land, including that covered by water, between the international boundary, where applicable, and the furthest landward limit of the flooding hazard, erosion hazard or dynamic beach hazard limits. Along the shorelines of large inland lakes, this means the land, including that covered by water, between a defined offshore distance or depth and the furthest landward limit of the flooding hazard, erosion hazard or dynamic beach hazard limits. Along river, stream and small inland lake systems, this means the land, including that covered by water, to the furthest landward limit of the flooding hazard or erosion hazard limits. (Provincial Policy Statement, 2005)

Hazardous Sites - property or lands that could be unsafe for *development* and *site alteration* due to naturally occurring hazards. These may include unstable soils (sensitive marine clays [leda], organic soils) or unstable bedrock (karst topography). (Provincial Policy Statement, 2005)

Headwaters (Headwater Area) - the area that forms the source of a river; where a stream begins either from springs or from overland drainage.

Headwater Drainage Feature (HDFs) – ill-defined, non-permanently flowing drainage features that may not have defined bed or banks; they are zero-order

intermittent and ephemeral channels, swales and rivulets, but do not include rills or furrows (also see *watercourse*).

Highly Vulnerable Aquifer - an *aquifer* on which external sources have or are likely to have a significant adverse effect, and includes the land above the *aquifer*. (*Clean Water Act, 2006* – O. Reg. 28/07)

Hydraulic Floodway - In Section 8.0 of The Living City Policies, the inner portion of the flood plain where flood depths and velocities are generally higher and faster flowing than those experienced in the outer or fringe portion of the overall flood plain. The *floodway* represents that area required for the safe passage of flood flow and/or that area where flood depths and/or velocities are considered to be such that they pose a significant threat to life and/or property damages.

Hydraulics – is the study of how surface water moves through various pathways in terms of water depth, velocity, and pressures acting on hydraulic structures and systems.

Hydrogeology – a science that describes the movement of groundwater (water beneath the ground surface), and its interaction with water that moves on the ground surface in rivers, lakes, streams, and over land. Groundwater seeps into the ground to varying depths and collects in aquifers. Groundwater can remain stored underground for periods ranging from a few days to thousands of years.

Hydroperiod - the seasonal pattern of surface and groundwater level fluctuations within a natural feature.

Hydrologic Cycle – see *water balance* and *water budget*.

Hydrologic Function - the functions of the *hydrological cycle* that include the occurrence, circulation, distribution, and chemical and physical properties of water on the surface of the land, in the soil and underlying rocks, and in the atmosphere, and water's interaction with the environment including its relation to living things. (Provincial Policy Statement, 2005)

Hydrology - is the engineering science that analyzes the different components of the *hydrologic cycle*, and takes into account that the natural cycle can be altered by human and natural activities.

I

Infill Lot – an *existing vacant lot of record* and situated between existing urbanized/developed lots fronting onto a public road.

Infiltration – The downward entry of water through the soil surface into the soil. (MNR Water Resources Glossary)

Infrastructure – means physical structures (facilities and corridors) that form the foundation for development. Infrastructure includes: sewage and water systems, septage treatment systems, waste management systems, electric power generation and transmission communications/telecommunications, transit and transportation corridors and facilities, oil and gas pipelines and associated facilities. (PPS, 2005)

Intensification - the *development* of a property, site, or area at a higher density than currently exists through: a) *redevelopment*, including the use of brownfield sites; b) the *development* of vacant and/or underutilized lots within previously developed areas; c) infill development; or, d) the expansion or conversion of existing buildings. (PPS, 2005)

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

K

Kettle Lakes – depressions created by partially-buried glacial ice blocks as they melted. The depressions that filled with water became kettle lakes. Kettle lakes are not connected to a *watercourse*. An example of a Kettle Lake in TRCA's jurisdiction is Preston Lake in Whitchurch-Stouffville.

Key Natural Heritage Features – on the Oak Ridges Moraine, as designated under the Oak Ridges Moraine Conservation Plan.

L

Lake Iroquois Shoreline – a post-glacial landform that represents a major rise in elevation extending from west to east across TRCA's jurisdiction, inland from Lake Ontario.

Lake Ontario Shoreline Sector – there are four sectors of Lake Ontario shoreline in TRCA's jurisdiction: Etobicoke, Central, Scarborough, Pickering/Ajax.

Lake Ontario Shoreline Reach – segments of shoreline usually having relatively uniform physical characteristics. The extent/length of shoreline reach to be considered in the application of The Living City Policies to be determined by TRCA.

Low Impact Development – a storm water management strategy that seeks to mitigate the impacts of increased runoff and stormwater pollution by managing runoff as close to its source as possible. It comprises a set of site design approaches and small scale stormwater management practices that promote the use of *natural systems* for *infiltration*, *evapotranspiration*, and reuse of rainwater.

M

Major Recreational Use – 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, including but not limited to: golf courses, serviced playing fields, serviced campgrounds and ski hills.

Matrix Influence - the surrounding land-use of a habitat patch is known as "matrix"; In TRCA's Terrestrial Natural Heritage System Strategy (2007), the influence the surrounding land-use has on a habitat patch is scored based on whether the area (2 km from a patch's edge) is urban, agricultural or natural, and the score is known as the matrix influence.

Meander Belt Allowance – the area of land in which a *watercourse* channel moves or is likely to move over a period of time. The extent of the *meander belt* allowance is

determined by a technical report using accepted scientific and engineering principles and includes considerations for meander amplitudes, erosion setbacks and factors of safety.

Minimum Vegetation Protection Zone – in the context of the Oak Ridges Moraine, as defined for each item in the Table of the Oak Ridges Moraine Conservation Plan.

Minor Expansions - generally require very little modification of terrain or vegetation and few if any, buildings, structures and limited parking. 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.

Minor Recreational Use – recreational facilities that have minimal impact on the *Natural System*, including its *ecological functions* and *hydrologic functions*, and require very little terrain or vegetation modification and few, if any, buildings or structures, or impervious surfaces, including but not limited to: non-motorized trails, boardwalks, picnic facilities, unserviced playing fields, natural heritage appreciation, unserviced camping on public and institutional land and accessory uses.

Mitigate - the prevention, modification or alleviation of impacts on the environment. It also includes any action with the intent to enhance beneficial effects.

Mitigation - the use of measures that seek to avoid, reduce or delay detrimental effects to the environment. In the context of climate change, it is actions to reduce greenhouse gas emissions.

N

Natural Cover - land occupied by naturally and culturally occurring native or non-native vegetation that is not characterized as agricultural or urban land uses.

Natural Green Elements – in the context of *green infrastructure*, they are traditional natural features such as trees, wetlands, riparian areas, and buffers that should be protected and restored in a natural heritage system,

as well as open space agricultural lands and soils that provide water retention benefits.

Natural System - comprised of water resources, natural features and areas, *natural hazards*, and *restoration* areas of *potential natural cover* and *buffers*.

Navigable Water - includes a canal and any other body of water created or altered as a result of the construction of any work. (*Navigable Waters Protection Act*)

O

One Hundred Year Erosion Rate – the average annual rate of recession over a hundred year time span.

One Hundred Year Flood – that flood, based on an analysis of precipitation, snow melt, or a combination thereof, having a return period of 100 years on average, or having a 1% chance of occurring or being exceeded in any given year. (Provincial Policy Statement, 2005)

One Hundred Year Flood (Lake Ontario) – the peak instantaneous still water level, plus an allowance for wave uprush and other water-related hazards for Lake Ontario in the Great Lakes-St. Lawrence River System that has a probability of occurrence of one per cent during any given year. (TRCA's Regulation)

One-Zone Concept – see *Floodway*

Original Ground Floor Area – the total area of the main floor of a building, (excluding decks, patios, garages and other *accessory structures*), as existed on January 1, 1987.

Original Habitable Ground Floor Area – the total area of the main floor of a building containing rooms or spaces required and intended for overnight occupancy and associated living space, and includes those portions which contain facilities for storage, heating, air-conditioning, electrical, hot water supplies, etc., which are necessary to maintain the habitable condition, as existed on January 1, 1987.

Other Areas/Area of Interference - areas where development could interfere with the hydrologic function of a wetland including areas within 120 metres of all provincially significant wetlands or wetlands on the Oak Ridges Moraine and areas within 30 metres of all other wetlands.

Other Inland Lakes – lakes that are not *kettle lakes* and are not connected a *watercourse*.

Other Wetlands – in the context of TRCA's Regulation, any wetland that is not a provincially significant wetland and not on the Oak Ridges Moraine.

P

Pollution - any deleterious physical substance or other contaminant that has the potential to be generated by development in an area to which a regulation made under clause (1) (c) applies (*Conservation Authorities Act, section 28(25)*)

Potential Natural Cover – land within the *target terrestrial natural heritage system* that is not existing *natural cover*, but that is needed to achieve TRCA's targets for sustainable terrestrial biodiversity.

Provincial Standards – the most recently approved policies, manuals and technical guidelines administered or prepared by the Province, as amended from time to time.

R

Reconstruction - the restoration, repair, or replacement of a building or structure within its original footprint, not to exceed its *original ground floor area*, gross floor area or height, and without any change to its original use.

Redevelopment – the creation of new units, uses or lots on previously developed land in existing communities, including brownfield sites. (Provincial Policy Statement, 2005)

Redevelopment (Minor) – *development or site alteration* that does not increase the number of dwelling units, such as a minor *addition* to a single family home and accessory *buildings or structures* such as garages, decks, gazebos, cabanas, swimming pools, tennis courts, and driveways.

Regional Flood Control – stormwater management control of flood flows from the *regional storm* event (Hurricane Hazel) to mitigate increases in flood risk associated with development (urbanization).

Regional Flood Control Facility – a flood control facility designed to control the *Regional Storm*.

Regional Storm – the rainfall event and soil conditions existing during Hurricane Hazel that occurred within the Humber River watershed in Toronto in 1954, transposed over a specific watershed and combined with local conditions.

Regional Storm Flood Line – measured in metres above sea level, the level to which the *Regional Storm Flood Plain* rises.

Regulated Area – the land described in, and subject to, TRCA's Section 28 Regulation under the *Conservation Authorities Act*.

Regulation Limit – the greatest extent of all regulated areas that defines an area of interest; the regulation limit does not represent a *development limit*.

Regulatory Flood – the more severe of the *Regional Storm* and the *100-Year Storm*.

Regulatory Flood Plain – the area adjacent to a watercourse that would be inundated by a flood resulting from the most severe of the Hurricane Hazel Flood Event Standard (*Regional Storm*) or the 100 Year Flood Event Standard, whichever is greater.

Rehabilitation - to restore the ecosystem to a higher functioning condition.

Remediation – the construction or modification of *infrastructure* for the purpose of reducing or eliminating risk due to *natural hazards*.

Renewable Energy - Energy obtained from sources that are essentially inexhaustible (unlike, for example, fossil fuels, of which there is a finite supply). Renewable sources of energy include conventional hydroelectric power, wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.

Restoration - to repair or re-establish functioning ecosystems; the process of altering a site to establish a defined, native, historic ecosystem; the goal is to emulate the structure, function, diversity and dynamics of a specified ecosystem.

River or Stream Valley (Apparent or Confined)/Valley Corridor - depressional features associated with a river or stream, whether or not they contain a watercourse, with defined slopes extending from the long term stable slope projected from the predicted *stable toe of slope*, plus (in the context of defining the *Regulated Area*), a 15-metre *allowance*.

River or Stream Valley (Not Apparent or Unconfined)/Stream Corridor - depressional features associated with a river or stream, whether or not they contain a *watercourse*, with ill-defined slopes extending from the maximum extent of the predicted *meander belt allowance* of the river or stream; plus, (in the context of defining the *Regulated Area*), a 15-metre allowance.

S

Safe Access (Safe Ingress/Egress) – vehicular and pedestrian access to and from a site is safe from the risks due to flooding or erosion hazards consistent with *TRCA standards*.

Sediment - soils or other surface materials transported by wind or water as a result of *erosion*.

Sedimentation (water) - sedimentation is an increase in the amount of solid particles suspended in water, caused primarily by soil erosion. The main human causes of sedimentation are forestry, farming, and construction. When sediment settles, it can smother the feeding and spawning grounds of fish and kill aquatic organisms.

Sensitive – as it pertains to surface water features and groundwater features, areas that are particularly susceptible to impacts from activities or events including, but not limited to, water withdrawals, and additions of pollutants. (Provincial Policy Statement, 2005)

Shoreline Protection Works – engineered methods for shorelines located within hazards that reduce hazard losses by modifying the hazards at the shoreline. Protection approaches can be classified as either structural or non-structural.

Significant - a) in regard to *wetlands*, coastal *wetlands* and areas of natural and scientific interest, an area identified as provincially significant by the Ontario Ministry of Natural Resources using evaluation procedures established by the Province, as amended from time to time;

- b) in regard to the habitat of endangered species and threatened species the habitat, as approved by the Ontario Ministry of Natural Resources, that is necessary for the maintenance, survival, and/or the recovery of naturally occurring or reintroduced populations of endangered species or threatened species, and where those areas of occurrence are occupied or habitually occupied by the species during all or any part(s) of its life cycle;
- c) in regard to woodlands; an area which is ecologically important in terms of features such as species composition to the broader landscape because of its location, size or due to the amount of forest cover in the planning area; or economically important due to site quality, species composition, or past management history; and
- d) in regard to wildlife habitat and valleylands, ecologically important in terms of features, functions, representation or amount, and contributing to the quality and diversity of an identifiable geographic area or natural heritage system. (Provincial Policy Statement, 2005)

Significant Groundwater Recharge Area – in the context of source water protection pursuant to the *Clean Water Act*, it is an area within which it is desirable

to regulate or monitor drinking water threats that may affect the recharge of an *aquifer*. (*Clean Water Act*, 2006 – O. Reg. 28/07)

Site Alteration - means activities such as grading, excavation, and the placement of fill that would change the landform and natural vegetative characteristics of a site. (Provincial Policy Statement, 2005)

Special Policy Area - means an area within a community that has historically existed in the *flood plain* and where site-specific policies, approved by both the Ministers of Natural Resources and Municipal Affairs and Housing, are intended to provide for the continued viability of existing uses (which are generally on a small scale) and address the significant social and economic hardships to the community that would result from strict adherence to provincial policies concerning *development*. The criteria and procedures for approval are established by the Province. A *Special Policy Area* is not intended to allow for new or intensified development and site alteration, if a community has feasible opportunities for development outside the *flood plain*. (Provincial Policy Statement, 2005)

Species of (Conservation) Concern – according to the TRCA methodology, any species with a local rank of L1 to L3, and those L4 species found within the Built-up Area. Generally species that are disappearing in the regional landscape, primarily as a result of land use changes. Species of Concern can also be used as indicators – a surrogate measure - of ecosystem function. Improvements in their distribution may indicate an improving trend in ecosystem or regional health.

Stable Slope Allowance - Defined Valleylands - the setback that ensures safety if the slumping or slope failure occur. It refers to a horizontal allowance measured landward from the toe erosion allowance equivalent to three times the height of the slope or through valid study; and - Lake Ontario Shoreline - a horizontal allowance measured landward from the toe of the shoreline cliff, bluff or bank that is three times the height of the cliff, bluff or bank or as determined through a valid study. The height is the difference in elevation between the toe of the shoreline cliff, bluff or

bank, which may be above the surface of the water, or below it, and the top or first lakeward break in slope.

Stable Toe of Slope – as determined through a geotechnical study:

- a) the physical toe of slope where the existing toe is stable and not impacted by erosion; or
- b) the landward limit of the toe erosion allowance where the existing slope is unstable and/or impacted by erosion.

Stable Top of Slope/Bank (long term stable slope line)

– as determined through a geotechnical study:

a) the physical top of slope where the existing slope is stable and not impacted by toe erosion; or b) the landward limit of the toe erosion allowance plus the stable slope allowance where the existing slope is unstable and/or impacted by erosion.

Stormwater – Precipitation that accumulates in natural and/or constructed storage and stormwater systems during and immediately following a storm.

Stormwater Management - Functions associated with planning, designing, constructing, maintaining, financing and regulating the facilities (both constructed and natural) that collect, store, control and/or convey stormwater.

Stream Corridor – see River or Stream Valley (Not Apparent or Unconfined)

Subwatershed - A subdivision of a watershed based on hydrology, generally corresponding to the area drained by a small tributary, as opposed to a major river.

Subwatershed Drainage Diversion – diverting *stormwater* from one *subwatershed* to another.

Surface water features - water-related features on the earth's surface, including *headwaters*, rivers, stream channels, inland lakes, seepage areas, recharge/discharge areas, springs, *wetlands*, and associated riparian lands that can be defined by their soil moisture, soil type, vegetation or topographic characteristics. (Provincial Policy Statement, 2005)

Surface water intake protection zone – in the context of source water protection pursuant to the *Clean Water Act*, it is an area that is related to a surface water intake and within which it is desirable to regulate or monitor drinking water threats. (*Clean Water Act*, 2006 – O.Reg. 28/07)

Sustainable Energy – includes but is not limited to renewable energy sources such as hydroelectricity, solar energy (photovoltaic and heat), wind energy, wave power, geexchange, bio-fuels and improvements in energy efficiency, distributed generation and district energy systems.

Sustainable Near-Urban Agriculture - The practice of growing food and production of livestock in a way that preserves and enhances the environment, provides economic opportunity and good health for individuals and communities, and connects people to the land around them. It generally avoids long-distance travel, striving instead to create fresh, healthy produce for local consumption. It focuses on both processes and produce. It is as much about the systems that create our food (i.e., who grows it, where, and how much) as it is about the food itself.

Target Terrestrial Natural Heritage System – the existing terrestrial natural heritage system and *potential natural cover*, as identified in TRCA's Terrestrial Natural Heritage System Strategy, 2007.

Technical Reports - means reports, studies or plans, typically prepared to support and implement the recommendations of a *comprehensive environmental study*, that provide detailed information regarding one or more aspects of the natural or physical sciences. For the purposes of this document, technical reports may include, but are not limited to, hydraulic analyses, stormwater management reports, functional servicing reports, hydrogeology reports, geomorphology studies, geotechnical reports and environmental impact studies, or similar documents. Technical reports must be prepared by a qualified professional in the relevant field.

T

Threatened Species - means a species that is listed or categorized as a “Threatened Species” on the Ontario Ministry of Natural Resources’ official species at risk list, as updated and amended from time to time. (Provincial Policy Statement, 2005)

Three-Hundred and Fifty (350-Year) Storm Flood Plain – the area adjacent to a *watercourse* that would be inundated by a flood resulting from a 350-Year Storm.

Toe erosion allowance - the setback that ensures safety if the toe of the slope adjacent to the river or stream erodes and weakens the bank, increasing the risk of slumping.

Top of (valley) Bank (staked or physical) – the physical top of the valley bank is that point where there is a break in slope or grade which distinguishes the valley corridor landform from its surrounding landscape.

Treatment Train Approach –providing stormwater treatment at the lot level and in conveyance followed by end-of-pipe. A treatment train is required to meet the multiple objectives of water balance, water quality, erosion control and flood control in an overall stormwater management strategy.

TRCA Standards - the most recently approved technical guidelines and checklists in TRCA’s Planning and Development Procedural Manual, as amended from time to time.

Two-Zone Concept – see *Floodway*

U

Urban Forest - All trees, shrubs and understory plants, as well as the soils that sustain them, on public and private property within an urban setting.

Urban heat island effect - a “dome” of elevated temperatures over an urban area caused by structural and pavement heat fluxes, and pollutant emissions.

V

Valley Corridor – see *River or Stream Valley (Apparent or Confined)*

Valleyland – land that has depressional features associated with a river or stream whether or not it contains a *watercourse* (*Conservation Authorities Act*, 1990) or a natural area that occurs in a valley or other landform depression that has water flowing through or standing for some period of the year (Provincial Policy Statement, 2005) (also see Valley Corridor)

Valley Wall – the valley slope, from the *stable toe of slope* to its *stable top of bank*.

Vulnerable Areas - in the context of source water protection pursuant to the *Clean Water Act*, they are areas containing a *significant groundwater recharge area*, a *highly vulnerable aquifer*, a *surface water intake protection zone*, or a *wellhead protection area*. (*Clean Water Act*, 2006 - O. Reg 28/07)

W

Water Balance – the *hydrologic cycle* of precipitation, groundwater *infiltration*, *evapotranspiration* (into the atmosphere and by plant interception), and surface runoff.

Water Budget – the mathematical expression of the *water balance*.

Watercourse – an identifiable depression in the ground in which a flow of water regularly or continuously occurs (*Conservation Authorities Act*) - also see *headwater drainage feature*.

Watershed – the entire area of land whose runoff water, sediments and dissolved materials (nutrients and contaminants) drains into a lake, river, creek, or estuary. Its boundary can be located on the ground by connecting all the highest points of the area around the river, stream or creek, where water starts to flow when there is rain. It is not man-made and it does not respect political boundaries.

Water Taking – extracting water, either from the ground, or from the surface of a water body.

Wellhead Protection Area - an area that is related to a wellhead and within which it is desirable to regulate or monitor drinking water threats. (*Clean Water Act, 2006* – O. Reg. 28/07)

Wetlands - as it pertains to the *Planning Act* and the Provincial Policy Statement, wetland means lands that are seasonally or permanently covered by shallow water, as well as lands where the water table is close to or at the surface. In either case the presence of abundant water has caused the formation of hydric soils and has favoured the dominance of either hydrophytic plants or water tolerant plants (Provincial Policy Statement, 2005)

- as it pertains to the *Conservation Authorities Act*, wetland means land that,
 - (a) is seasonally or permanently covered by shallow water or has a water table close to or at its surface,
 - (b) directly contributes to the hydrological function of a watershed through connection with a surface watercourse,
 - (c) has hydric soils, the formation of which has been caused by the presence of abundant water, and
 - (d) has vegetation dominated by hydrophytic plants or water tolerant plants, the dominance of which has been favoured by the presence of abundant water, but does not include periodically soaked or wet land that is used for agricultural purposes and no longer exhibits a wetland characteristic referred to in clause (c) or (d) (source: *Conservation Authorities Act*)
- an area of land that is saturated with water long enough to promote hydric soils or aquatic processes as indicated by poorly drained soils, hydrophytic vegetation and various kinds of biological activity that are adapted to wet environments. This includes shallow waters generally < 2 metres deep (source: ELC for Southern Ontario – First Approximation and Its Application, Sept. 1998)
- wetland hydrological functions may include

flood attenuation, groundwater recharge, and *baseflow* maintenance during dry periods (by storing precipitation and/or floodwater and releasing it slowly over time). Water purification and erosion control are other broader examples of wetland functions.

Wildlife habitat - where plants, animals and other organisms live, and find adequate amounts of food, water, shelter and space needed to sustain their populations. Specific wildlife habitats of concern may include areas where species concentrate at a vulnerable point in their annual or life cycle; and areas which are important to migratory or non- migratory species. (Provincial Policy Statement, 20005)

Woodlands – treed areas that provide environmental and economic benefits to both the private landowner and the general public, such as *erosion* prevention, hydrological and nutrient cycling, provision of clean air and the long-term storage of carbon, provision of wildlife habitat, outdoor recreational opportunities, and the sustainable harvest of a wide range of woodland products. Woodlands include treed areas, woodlots or forested areas and vary in their level of significance at the local, regional, and provincial levels. (Provincial Policy Statement, 2005)

Z

Zone of Influence (ZOI) - the geographic area affected by a particular groundwater withdrawal; where groundwater is being withdrawn, the water level in the aquifer being pumped decreases, with the greatest effect closest to the well. In three dimensions, this area of effect is shaped like an inverted cone, with the well in the centre. The shape of this cone is dependent on the nature of the aquifer being pumped, and the rate at which groundwater is being withdrawn.