

## **GLOSSARY OF TERMS**

### **Adjacent Lands:**

Lands within 120 metres of a Provincially Significant Wetland and/or within 50 metres of a significant woodland or all land connecting individual wetland areas within a Wetland Complex as determined by the Ministry of Natural Resources. Adjacent lands provide a temporary zone of protection until further studies are completed (i.e. Environmental Impact Statements).

### **Attenuation Storage:**

The active storage component of an end-of-pipe stormwater management facility designed to reduce inflows to a given rate.

### **Aquifer:**

A saturated permeable geologic unit that can transmit significant quantities of water under ordinary hydraulic gradients.

### **Avifauna:**

Birds.

### **Baseflow:**

Normal day-to-day flows in a watercourse as a result of groundwater or spring contributions.

### **Biodiversity:**

The variety of life found in an area. It includes variety in genetic strains in populations, the richness of different species, the distribution and abundance of plant and animal communities, and the processes through which all living things interact with one another and with the environment.

### **Calcareous:**

Resembling, containing, or composed of calcium carbonate.

### **Catchment:**

See drainage basin.

### **Channelization:**

An arrangement that directs the flow of water into streams, limiting or preventing movements from one stream to another. Channelization usually results in artificial straightening of the stream channel and modification of the natural stream bank.

**Class 1 Wetland:**

See Provincially Significant Wetland.

**Clay:**

A type of soil possessing cohesion and plasticity which normally consists of rock or mineral fragments having a diameter less than 0.0030 mm.

**Design Storm:**

A rainfall of specified amount, intensity, duration, pattern over time, and frequency used to design both major and minor drainage works.

**Depression:**

An area that is a topographic low without an overland hydrologic connection to the surrounding environment.

**Development<sub>(1)</sub>:**

A new lot and/or an increase in the number of permitted units on a lot.

**Development<sub>(2)</sub>:**

The construction, erection, or placing of a building or structure; activities such as site grading, excavation, removal of top soil or peat, and the placing and dumping of fill; drainage works, except for the maintenance of existing municipal and agricultural drains.

**Development<sub>(3)</sub>:**

The construction, erection, or placing of a building or structure of any kind; or the making of an addition or alteration to a building or structure that has the effect of increasing the size or usability thereof; and includes such related activities as site grading and the placing or dumping of fill.

**Development<sub>(4)</sub>:**

The creation of new dwelling units other than through intensification<sub>(2)</sub>;

The following are not considered as development for the purpose of any of these definitions:

- Activities that create or maintain infrastructure authorized under an environmental assessment process;
- Remedial work;
- Those works subject to the *Drainage Act*; and
- Good forestry practices in support of the implementation of the *Trees Act*, and associated buildings and structures.

**Dissolved Oxygen (DO):**

The level of oxygen present in water. Dissolved oxygen is the most fundamental requirement for aquatic life. Factors which influence the amount of oxygen present in the water are production by aquatic flora, consumption by fauna, atmospheric input, and distribution of oxygen through the water column.

**Drainage Basin:**

An area occupied by a closed drainage system, especially a region that collects surface runoff and contributes it to a stream channel, lake, or other body of water. Also referred to as a catchment, subcatchment, watershed and/or subwatershed.

**Ecosystem:**

A biological community and its pattern of interaction within the environment. Ecosystems exist at many scales, from microscopic to the entire biosphere.

**Emergents:**

Herbaceous plants which are rooted under water but which grow above the water.

**Erosion:**

The process by which soils are worn away by the action of wind and water; also the process by which the bed and banks of a stream are worn away by the action of water.

**Estate Residential:**

Proposed low density subdivisions with large lot patterns and minimally higher imperviousness than existing low density rural residential areas (as used in hydrologic modelling).

**Evapotranspiration:**

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

**Extended Detention Storage:**

The active storage component of an end-of-pipe stormwater management facility designed to detain inflows for a given detention period. Flows are discharge over an extended period to enhance water quality and provide erosion control.

**Flora:**

Plant species and communities.

**Flood Plain:**

For this document, the area of ground along a stream course that is inundated by water during regional rainfall events.

**Geology:**

The science of the earth. Existing soil conditions either close to the ground surface or deep in the earth. Generally determines the type of soil material present at a given location.

**Gravel:**

A sediment of stones greater than 2 mm in size formed by the action of moving water, usually mixed with finer particles.

**Groundwater:**

Subsurface water that occurs beneath the water table in soils and geologic formations that are fully saturated.

**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 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 Table:**

The surface on which the fluid pressure in the pores of a porous medium is exactly atmospheric. It generally rises and falls with the season, the rate of withdrawal, the rate of recharge, and other conditions.

**Headwater:**

The source area and upper tributaries of a stream.

**n Year Storm:**

A design storm that has a given 1/n probability of being equalled or exceeded in any given year. Based on statistical evaluation of gauged rainfall in a specific location.

**Hummock:**

A conical or rounded, usually equidimensional mound, hillock, or other small elevation.

**Hydraulic Conductivity:**

A measure of the ability of soil, rock, and other geological materials to transmit water through pore space.

**Hydraulics:**

The movement of water through a stream, creek or river is defined by hydraulics. The study of hydraulics looks at the speed of the water depth and forces that it exerts on the watercourse.

**Hydrogeology:**

The physical process of groundwater including factors that influence the amount of water available, the flow of water into and through the ground, and the flow of water to the surface through springs or to watercourses.

**Hydrograph:**

A continuous graph showing the properties of streamflow with respect to time derived from direct measurement or prediction of runoff.

**Hydrologic Conditions:**

Related to the flow conditions in a watercourse including the response to rainfall and snowmelt.

**Hydrologic Regime:**

Pertains to flow conditions in the stream.

**Hydrology:**

The science of water, its properties and laws, and its distribution over the earth's surface.

**Impervious:**

Not permitting penetration or passage of water.

**Infiltration:**

The entry into the soil of water made available at the ground surface, together with the associated flow away from the ground surface within the unsaturated zone.

**Interflow:**

Movement of infiltration laterally through the soil horizons.

**Intensification<sub>(2)</sub>:**

The creation of new dwelling units in existing buildings or on previously developed, serviced land and includes redevelopment and small-scale intensification.

**Intermittent Streams:**

Streams, creeks, or drainage courses which flow only part of the year, or at intervals through the year.

**Inundation:**

The act of covering with water, especially flood water.

**Isolated Wetlands:**

Wetlands with no surface outflow.

**Key Function:**

A function which is measurable; or contributes significantly to the integrity of the wetland ecosystem; or has been identified as an important feature in the wetland evaluation system data record; or the loss of which would have a significant impact on the wetland score.

**Lacustrine Wetlands:**

Wetlands influenced by lake water.

**Locally Significant:**

Significant within the municipality or county. In the case of wetlands, Class 4 to 7 wetland under the *Ontario Wetlands Evaluation System*.

**Marsh:**

Wet areas periodically or permanently inundated with standing or slowly moving water, dominated by robust emergents (eg. cattails), narrow-leaved emergents (eg. sedges and grasses), floating plants, and submerged plants.

**Mesic:**

Of or relating to organisms or communities that have a moderate amount of moisture.

**Mineral Soil:**

Soil composed of mineral matter with less than 20% organic matter, normally having a surface organic layer less than 60cm thick.

**Muck:**

A classification of organic soil used in the soil surveys of Ontario. Muck soils are formed in wetlands, shallow lakes, or pond bottoms, and are composed almost entirely of organic matter (the remains of plant tissues). The organic matter may be partially or very well decomposed. Muck is essentially the same as "peat". The soil map "muck" classifications generally do not differentiate between various depths of organic matter, the degree of decomposition, the parent plant material, or the depth of the layers.

**Natural Area Linkages:**

A corridor which allows for the uninhibited movement of wildlife. Deer trails between feeding areas in adjacent woodlots an example.

**One-Zone Policy Area:**

The approach whereby the entire flood plain, as defined by the Regulatory Floodline, is treated as one unit, and approval of all development applications are prohibited or restricted.

**Open Water:**

Lake water that is free of emergent vegetation or artificial obstructions.

**Organic Soil:**

Soil consisting mainly of organic matter, such as peat or muck.

**Palustrine Wetlands:**

Wetlands with no or intermittent inflow and either permanent or intermittent outflow.

**Permanent Streams:**

A stream whose bed lies below the water table, so that the stream flows continuously throughout the year. See intermittent stream.

**Permeability:**

A measurement of the ability of water to diffuse.

**Prairie:**

A dry habitat dominated by tall grasses and herbaceous perennial plants.

**Provincial Significance:**

Important on a provincial scale. May refer to a species, a habitat, or an entire wetland. A provincially significant wetland is protected by the Wetlands Policy.

**Provincially Significant Wetland:**

- a) Class 1, 2, and 3 wetlands in that part of the Great Lakes - St. Lawrence Region below the line approximating the south edge of the Canadian Shield, defined in An Evaluation System for Wetlands of Ontario South of the Precambrian Shield. Second Edition, 1984, as amended from time to time; and
- b) Those wetlands identified as Provincially Significant Wetlands by the Ministry of Natural Resources through an evaluation system(s) developed specifically for other areas of Ontario.

**Regeneration:**

Growth dominated by shrubs and/or tree saplings.

**Remnant:**

Areas of natural cover which remain after clearing of adjacent areas for agriculture, development, etc.

**Riverine Wetlands:**

Wetlands influenced by the waters of a river or permanent stream.

**Runoff:**

That component of precipitation that is discharged overland to the surface drainage system.

**Rural Residential:**

An area of low density residential (as used to define land uses in the Surface Water Modelling).

**Sand:**

A soil mineral particle coarser than silt and finer than gravel, having quartz as its most common component.

**Sediment:**

Soils or other surface materials transported by wind or water as a result of erosion.

**Silt:**

A very small rock or mineral particle smaller than a very fine grain of sand and larger than coarse clay. Usually defined as having a diameter from 0.002 mm to 0.06 mm.

**Swamp:**

Wooded wetlands with 25% or more cover of trees, tall shrubs, or (occasionally) low shrubs.

**Till:**

Glacial drift composed of an unconsolidated, heterogeneous mixture of clay, sand, gravel, and boulders.

**Transpiration:**

Emission of water vapour from the surface of a plant.

**Turbidity:**

A cloudy or hazy appearance in water caused by the suspension of finer solids or colloids.

**Total Kjeldhal Nitrogen (TKN):**

Measures all nitrogen present in an aquatic system. This includes, depending on the sample taken, nitrogen dissolved in the water, absorbed to sediments and distributed in plants and animals. Kjeldhal refers to the distillation technique which dissolves all forms of nitrogen.

**Total Phosphorus (TP):**

Measures all forms of phosphorus dissolved and suspended in the water column including organic and inorganic fractions. Phosphorus is an essential nutrient which often limits the extent of algae and other plant production in aquatic systems.

**Total Organic Carbon (TOC):**

Measures all forms of carbon in the water including dissolved carbon and that attached to suspended particles. Elevated organic carbon levels generally increase the levels of many contaminants in the water such as metals which bind to the organic carbon. Organic carbon levels may also be indicative of the presence of organic contaminants.

**Vegetation Community:**

An association of plants in a given area in which various species are more or less interdependent upon one another.

**Warm Water Fishery:**

A fresh water, mixed fish population with no salmonids.

**Watershed:**

The region drained by or contributing water to a stream, lake, or other body of water.

**Wetland:**

Lands that are seasonally or permanently covered by shallow water as well as lands where the water table is close to or at the surfaces. In either case, the presence of abundant water has caused the formation of hydric soils and has favoured the dominance of water tolerant plants. Wetlands are classified by the Ministry of Natural Resources in seven classes. Class 1, 2 and 3 wetlands are provincially significant while Classes 4 through 7 are regionally and locally significant.

**Wetland Area:**

A single contiguous wetland which may be composed of one or more wetland types.

**Wetland Complexes:**

Two or more individual wetland areas along with their adjacent lands that are related in a functional manner, and are grouped within a common wetland boundary. The whole complex is evaluated and classified as a single unit.

**Wetland Functions:**

The biological, hydrological, physical, and social/economic interactions that occur in wetlands.

**Wet Meadow:**

A type of marsh dominated by grasses, sedges, and broad-leaved perennial plants where there is insufficient standing water to provide fisheries habitat except under flood or high water conditions.