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## 12.0 GLOSSARY OF TERMS

<b><i>Berm:</i></b>	An earth barrier used as a mitigative measure against visual and noise impacts or to contain liquids.
<b><i>Buffer:</i></b>	In a land use context, a buffer can be: <ol style="list-style-type: none"><li>1. a space; or</li><li>2. a feature; or</li><li>3. a land use; or</li><li>4. any combination of the above, interposed between two conflicting land uses for the purpose of reducing or eliminating the adverse effects of one land use upon the other. A buffer may be open space, where distance alone is relied upon to produce the desired results, or it may be a berm, wall, fence, or other structure or plantings, or other land use different from the two conflicting ones, but compatible with both.</li></ol>
<b><i>Buffer Zone:</i></b>	In a landfill context, the area between the edge of the waste and property boundary, or limit of the working area established to provide space for remedial measures, for the reduction or elimination of adverse environmental impact, and for monitoring.
<b><i>Certificate of Approval (C of A):</i></b>	A Provincial Certificate of Approval is required under Part V, Section 27 of the Environmental Protection Act to establish a waste management system or a waste disposal site. This is the licence granted by the regulating agency which permits the operation of the landfill by the applicant or its agent. In Ontario, Certificates of Approval are granted by the Ontario Ministry of the Environment and Energy (MOEE). The Certificates often specify numerous conditions which must be obeyed in order to retain approval to operate the landfill or waste processing facilities. A Certificate of Approval is required before a waste disposal management system or a waste disposal site can be used, operated, established, altered, enlarged or extended.
<b><i>Concentration:</i></b>	The relative fraction of one substance in another, normally expressed in weight percent, mass percent, volume percent, weight per volume, or as mass per volume.
<b><i>Contaminant:</i></b>	A compound, element or physical parameter usually resulting from human activity or found naturally at elevated concentrations, that have or may have a harmful effect on public health or the environment.

<b>Contaminant Attenuation Zone (CAZ):</b>	The MOEE's Reasonable Use Policy deals with situations where a proponent cannot practically prevent impairment of a neighbour's ground water quality. Through negotiation between the proponent and the neighbour, a Contaminant Attenuation Zone (CAZ) may be designated on the neighbouring property. As such, the neighbour formally recognizes that the ground water beneath his or her property may not be suitable for certain purposes (e.g., drinking). The agreement is often registered on the title to the neighbour's property.
<b>Contingency Measures:</b>	These are the planned measures employed in case unforeseen problems with the operation of the landfill occur.
<b>Design Capacity:</b>	The maximum amount of waste that is planned to be disposed of at a landfill site.
<b>Disposal:</b>	The MOEE definition of disposal is the discharge, deposit, injection, dumping, filling or placing of solid waste into or on any land or water.
<b>Dust:</b>	Fine grain particles light enough to be suspended in air.
<b>Environment:</b>	The definition of "environment" in the Environmental Assessment (EA) Act which includes technical, natural, social, economic, and cultural factors, and their interrelationships, is as follows:  "Environment", means:  i) air, land, or water; ii) plant and animal life, including man; iii) the social, economic and cultural conditions that influence the life of man or a community; iv) any building, structure, machine or other device or thing made by man; v) any solid, liquid, gas, odour, heat, sound, vibration or radiation resulting directly or indirectly from the activities of man; or vi) any part or combination of the foregoing and the interrelationship between any two or more of them.
<b>Facility:</b>	In this context, a solid waste disposal facility such as a landfill site.
<b>Final Cover:</b>	A cap constructed over the completed surface of a landfill, usually composed of soil, but sometimes also incorporating synthetic membranes. The cover serves several purposes including: a physical barrier to prevent contact with buried wastes, reducing the infiltration of rain into the waste (to limit the production of leachate) and controlling the escape of any gases into the atmosphere. Another aspect in designing the final cover is to make it compatible within the ultimate end-use of the site.

<b>Gas Collection System:</b>	An engineered system to contain and collect landfill gas for safe dissipation, and/or energy recovery. It is commonly constructed of a combination of coarse gravel layers, wells, pipes and/or pumps.
<b>Gas Monitor:</b>	An instrument used to detect the presence and/or concentration of gas. Gas monitors at landfill sites typically consist of a perforated pipe installed into a borehole above the water table. Ground water monitors can, in some cases, be used as gas monitors.
<b>Gas Vents:</b>	Engineered works designed to promote the free venting of subsurface gases to the atmosphere. Gas vents at landfill sites often consist of trenches excavated down to the water table and backfilled with coarse gravel.
<b>Generator:</b>	Any person, or corporation, who, by virtue of ownership, management, operation or control causes or allows to be caused, the creation or storage of wastes.
<b>Ground Water:</b>	Includes all subsurface water, both above and below the water table.
<b>Ground Water Collection System:</b>	An engineered system to control and/or collect ground water in and around a landfill. It is usually designed to collect water by gravity flow, and is usually constructed using a combination of wells, coarse drainage layers, pipes and/or pumps. It is commonly used to control ground water during landfill construction or as an adjunct to gas/leachate collection systems. Such a system may also be retrofitted to a site to collect leachate-affected ground water.
<b>Ground Water Monitor:</b>	An instrument used to measure the elevation of and sample ground water. These often consist of a perforated pipe installed within a drilled borehole. Clean coarse sand is packed within the borehole in the zone where the pipe is perforated, to minimize the entry of soil particles into the pipe. The borehole above the perforated zone is typically sealed with low-permeability material to prevent surface water flowing into the borehole.
<b>Hazardous Waste:</b>	Is defined by the Ministry of the Environment and Energy in Environmental Protection Act Regulation 347. The definition of hazardous wastes includes waste such as corrosive waste, reactive waste, a wide range of listed hazardous chemical and pathological waste, all of which are hazardous regardless of concentration. Other wastes are defined in Regulation 347 as hazardous at certain concentrations. The second category includes waste containing specified limits of chemicals such as arsenic, fluoride, DDT and lead. Many contaminants are found in low levels of concentration and become hazardous at higher levels of concentration. The North Renfrew Landfill will not accept these hazardous wastes.

<b>Hydraulic Conductivity:</b>	The hydraulic conductivity is a constant which describes the rate of movement of ground water through soil or rock. For example, the lower the hydraulic conductivity, the lower the amount of water will be conducted. The more general term "permeability" is often used instead.
<b>Impermeable:</b>	A characteristic of a substance such as clay or plastic, which means it severely limits the passage or movement of fluids, such as water, through it.
<b>Infiltration:</b>	The flow of water downward from the land surface into and through the upper soil layers.
<b>Land Use:</b>	Any existing or proposed activity, structure, service, facility or natural feature, either at, above or below grade.
<b>Landfilling:</b>	The disposal of waste by deposit, under controlled conditions, on land, including compaction of the waste into a cell and covering the waste with cover materials at regular intervals.
<b>Leachate:</b>	The liquid that has infiltrated through solid waste, and has dissolved soluble components from the waste.
<b>Leachate Collection System:</b>	An engineered system to control and collect leachate within a landfill. It is usually constructed of a combination of wells, coarse drainage layers, pipes and/or pumps.
<b>Leachate Monitoring System:</b>	A system of strategically placed wells or other measuring devices for scrutinizing and assessing qualitatively the movement of leachate off-site and its effect on adjacent ground and surface water resources.
<b>Leachate Recirculation:</b>	A leachate management practice sometimes used at landfill sites to temporarily store the leachate within the wastes. It involves collecting leachate that flows out of wastes and conveying it back into the waste mass. Leachate recirculation generally cannot be carried on for long periods of time since the quantity of leachate being handled continually increases due to conversion of infiltration to leachate.
<b>Leachate Treatment System:</b>	An engineered system to improve the quality of leachate or leachate - impacted waters by physical and chemical processes. Pre-treatment refers to partial improvement in quality prior to some other form of treatment or disposal.
<b>Methane Gas:</b>	An odourless, colourless, combustible and potentially explosive gas that is lighter than air, produced as a by-product of the process of decomposition of organic wastes.

<b>MOEE:</b>	The Ontario Ministry of Environment and Energy.
<b>Monitoring:</b>	Regular or spontaneous procedures used to methodically inspect and collect data on the performance of a landfill site relating to environmental quality (i.e., air, leachate, gas, ground or surface water, etc.).
<b>Non-Methane Organic Compounds (NMOCs):</b>	A general term applied to a group of volatile chemical compounds often present in low concentrations in landfill gas. Typical NMOCs contained within landfill gas include hydrocarbon gases such as benzene. The presence or absence of these compounds in landfill gas is heavily dependent upon the composition of the wastes in the landfill.
<b>Off-Site:</b>	In a landfill context, off-site means beyond the property boundaries.
<b>On-Site:</b>	In a landfill context, on-site means within the property boundaries.
<b>Ontario Drinking Water Objectives (ODWOs):</b>	A set of criteria designed for the protection of public health, and represent a minimum level of water quality that the Ministry strives to maintain in ground water in Ontario. These criteria are described and defined in MOEE document entitled <u>Water Management - Goals, Policies, Objectives and Implementation Procedures of the Ministry of the Environment, November 1978 (revised May 1984).</u>
<b>Organic / Organic Material:</b>	Chemical substances comprised mainly of carbon. May have its origin in animal or plant life, coal, petroleum, or laboratory synthesis.
<b>Permeable Material:</b>	A porous substance which allows the passage, or movement of fluids through it. Generally used to refer to soils or rock within a relatively high hydraulic conductivity (i.e., sandy soils).
<b>Provincial Water Quality Objectives (PWQOs):</b>	A set of criteria designed for the protection of aquatic life and recreation in and on the water. They represent a desirable level of water quality that the Ministry strives to maintain in surface waters of the Province. These criteria are described and defined in MOEE document entitled <u>Water Management - Goals, Policies, Objectives and Implementation Procedures of the Ministry of the Environment, November 1978 (revised May 1984).</u>
<b>Reasonable Use Policy (RUP):</b>	The Reasonable Use Policy is aimed at ensuring that a proponent's undertaking does not impair the 'reasonable use' of ground water on neighbouring properties. It sets limits to the level of ground water impact that can occur at the proponent's site property boundaries. The policy is described in detail in a document entitled <u>The Incorporation of the Reasonable Use Concept into the Ground Water Management Activities of the Ministry of the Environment, Ontario Ministry of the Environment, Water Resources Branch, September 1986.</u>

<b><i>Refuse:</i></b>	All solid materials which are discarded as useless.
<b><i>Remedial Action:</i></b>	Corrective action taken to clean up or remedy a spill, an uncontrolled discharge of a contaminant, or a breach in a facility or its operations, in order to minimize the consequent threat to public health and the environment.
<b><i>Residual Waste:</i></b>	The waste that is left after practical waste reduction, reuse and recycling measures have been completed.
<b><i>Runoff:</i></b>	The water leaving a drainage area; the water running across the land surface.
<b><i>Siltation:</i></b>	The gradual clogging of a landfill drainage layer due to fine particles being carried in from the waste with the movement of leachate.
<b><i>Surface Water:</i></b>	Water that is derived from rainfall runoff, snow melt and ground water discharge which occurs at the earth's surface (e.g., ponds, streams, rivers, lakes).
<b><i>Waste Disposal Site:</i></b>	Includes the fill area and the buffer area. Also referred to as a landfilling site. Means any land, building or structure in which, waste is deposited or processed including any machinery or equipment or operation required for treatment or disposal of waste (Environmental Protection Act).