

Appendices



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Appendix C list of acronyms



List of Acronyms

AAQC	Ambient Air Quality Criteria
ANSI	Area of Natural and Scientific Interest
AQI	Air Quality Index
CAC	Clean Air Council
CCA	Corporate Clean Air
CCAF	Climate Change Action Fund
CEPA	Canadian Environmental Protection Agency
CFC	Chlorofluorocarbon
CFIA	Canadian Food Inspection Agency
CIP	Canadian Institute of Planners
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CSIF	Canada Strategic Infrastructure Fund
CWQG	Canadian Water Quality Guideline
EA	Environmental Assessment
EAC	Environmental Advisory Committee
EEMS	Energy and Environmental Management System
ELF	Extremely Low Frequency
EMF	Electromagnetic Field
EMS	Environmental Management System
EPA	Environmental Protection Area
ESA	Environmentally Significant Area
FCM	Federation of Canadian Municipalities
GHG	Greenhouse Gas
GIPPER	Governments Incorporating Procurement Policies to Eliminate Refuse
GIS	Geographic Information System
GPS	Global Positioning System
GTA	Greater Toronto Area
IBI	Index of Biotic Integrity
ICLEI	International Council for Local Environmental Initiatives
ICP	Infrastructure Canada Program
IPCC	Intergovernmental Panel on Climate Change
LED	Light Emitting Diode
LEED	Leadership in Energy and Environmental Design
LSEMS	Lake Simcoe Environmental Management Strategy
LSRCA	Lake Simcoe Region Conservation Authority
LSWQIP	Lake Simcoe Water Quality Improvement Program
MISA	Municipal-Industrial Strategy for Abatement
MNR	Ministry of Natural Resources
MOE	Ministry of the Environment



Appendix C

list of acronyms

continued

MOHLTC	Ministry of Health and Long-Term Care
MOU	Memorandum of Understanding
MRF	Material Recovery Facility
MRIP	Municipal Rural Infrastructure Program
NCC	Nature Conservancy of Canada
NHIC	Natural Heritage Information Centre
NO₂	Nitrogen Dioxide
NO_x	Nitrogen Oxides
NPRI	National Pollutant Release Inventory
O₃	Ozone
ODWS	Ontario Drinking Water Standard
OMA	Ontario Medical Association
OPA	Official Plan Amendment
OPPI	Ontario Professional Planners Institute
ORM	Oak Ridges Moraine
ORMCP	Oak Ridges Moraine Conservation Plan
ORMF	Oak Ridges Moraine Foundation
ORMLT	Oak Ridges Moraine Land Trust
PCB	Polychlorinated Biphenyls
PCP	Partners for Climate Protection
PM₁₀	Particulate Matter 10 microns and less in diameter
PM_{2.5}	Particulate Matter 2.5 microns and less in diameter
POP	Persistent Organic Pollutant
PPS	Provincial Policy Statement
PWQG	Provincial Water Quality Guideline
PWQO	Provincial Water Quality Objective
ROP	Regional Official Plan
ROPA	Regional Official Plan Amendment
SAGS	Sub-Area Growth Strategy
SMP	Salt Management Plan
SO₂	Sulphur Dioxide
STP	Sewage Treatment Plant
TDM	Travel Demand Management
TMA	Transportation Management Association
TRCA	Toronto and Region Conservation Authority
UV	Ultraviolet
VOC	Volatile Organic Compound
WHO	World Health Organization
WNV	West Nile virus
WPCP	Water Pollution Control Plant
YDSS	York Durham Sewage System
YPD^T Study	York Peel Durham Toronto Groundwater Management Strategy Study
YRT	York Region Transit





Appendix D glossary of terms



Glossary of Terms

Aggregates: A term used for materials consisting of gravel, sand, clay, earth, shale, stone, limestone, dolostone, sandstone, marble, granite, rock other than metallic ores, or other prescribed materials.

Air Pollution Index: Basis of Ontario's alert and control system to warn of deteriorating air quality; derived from 24-hour running averages of sulphur dioxide and suspended particles.

Air Quality Index station: Continuous monitoring station used to inform the public of air quality levels on a real-time basis; station reports on criteria pollutants.

Air Quality Index: Real-time information system that provides the public with an indication of air quality in rural and urban areas across Ontario.

Ambient Air: Outdoor or open air.

Ammonia: A compound of nitrogen and hydrogen. At standard temperature and pressure ammonia is a gas. It is toxic and corrosive to some materials. A main use of ammonia is in the production of fertilizer.

Areas of Natural and Scientific Interest (ANSIs): Areas containing natural landscapes or features that have been identified as having life science or earth science values related to protection, scientific study, education and natural heritage appreciation.

Biotic: Living or having lived.

Carbon Monoxide (CO): A colourless, odourless and tasteless gas released primarily by incomplete combustion of fossil fuels (especially by automobiles).

Chlorofluorocarbons (CFCs): Non-toxic, non-flammable chemicals containing atoms of carbon, chlorine, and fluorine. They are used in the manufacture of aerosol sprays, blowing agents for foams and packing materials, as solvents, and as refrigerants. CFCs deplete the ozone layer when they slowly rise into the stratosphere and release chlorine atoms, which destroy ozone molecules.

Climate change: Changes in climate patterns (for example, patterns of precipitation, temperature, radiation, and wind) that mark a significant and enduring departure from previous average conditions.

Coldwater fish: Fish with specific habitat requirements that include cold and relatively well-oxygenated water.

Coliform: A family of bacteria common in soils, plants and animals.

Contaminant: A substance not naturally present in the environment or present in amounts that can negatively affect the environment.

Dissolved Oxygen: Molecular oxygen dissolved in water.

E. coli (Escherichia coli): A type of coliform bacteria whose presence indicates that the water may be contaminated with human or animal wastes.

Effluent: The wastewater discharged to a receiving water body.



Appendix D glossary of terms

continued

Endangered Species: Any native species that, on the basis of the best available scientific evidence, is at risk of extinction or extirpation throughout all or a significant portion of its range if the limiting factors are not reversed.

Environmentally Significant Areas (ESAs): Areas of land and water containing natural landscapes which contain or support natural forms, features or attributes deemed to be significant or essential in the context of a watershed or municipal jurisdiction as defined by a municipality or conservation authority.

Eutrophication: The gradual enrichment of an aquatic ecosystem by nutrients such as nitrogen and phosphorus that promote excessive plant growth. In aquatic environments, enhanced growth of vegetation (i.e., algal blooms) disrupts normal functioning of the ecosystem, as the blooms die, decompose and deplete the water of oxygen.

Fine Particulate Matter (PM_{2.5}): Particles smaller than 2.5 microns in diameter, which arise mainly from condensation of hot vapours and chemically-driven gas to particle conversion processes. These are fine enough to penetrate deeply into the lungs and have the greatest effects on health.

Fossil Fuel: Natural gas, petroleum, coal and any form of solid, liquid or gaseous fuel derived from such carbon based-materials for the purpose of generating heat.

Geologic time: A time scale relating to thousands of years.

Global Positioning System (GPS): A satellite navigation system enabling the receiver to compute position, velocity and time.

Global warming: Long-term rise in the average temperature of the earth; principally due to an increase in the build-up of carbon dioxide and other gases in the earth's atmosphere.

Greater Toronto Area (GTA): The largest metropolitan area in Canada made up of the City of Toronto and the Regional Municipalities of York, Halton, Peel and Durham.

Greenhouse Gas (GHG): A gas that readily absorbs and re-radiates long-wave energy in the atmosphere.

Greenlands: An interconnected system of natural areas. Greenlands may include forested areas, wetlands, streams, rivers and lakes, and the lands in close proximity.

Ground-level ozone: Colourless gas formed from chemical reactions between nitrogen oxides and volatile organic compounds in the presence of sunlight near the earth's surface.

Groundwater: The fresh or saline waters found beneath the earth's surface that often supply wells and springs. Contrast to 'surface water'.

Hazardous waste: Any substance that is a by-product of society and is classified under law as potentially harmful to human health or the environment. Hazardous wastes are subject to special handling, shipping, storage, and disposal requirements under the laws of the country and province or state.

Hydrogeology: The science dealing with the physical, chemical and biological properties of groundwater.

Hydrological cycle: The circulation of water from the atmosphere to the earth and back through precipitation, runoff, infiltration, groundwater flow and evapotranspiration, including 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.





Appendix D glossary of terms

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Inhalable particles: Represent up to 60 per cent of the total suspended particulate matter; composed of both coarse (2.6 to 10.0 microns in diameter) and fine (2.5 microns and less in diameter) particles; also referred to as PM₁₀ and PM_{2.5} respectively. (See Fine Particulate Matter).

Kettle Lake: Kettles are depressions created by partially-buried glacial ice blocks during the last ice age. The depressions that filled with water after the glaciers retreated became kettle lakes.

Kjeldahl method: A means of determining the nitrogen content of organic and inorganic substances, introduced by Johan Kjeldahl in 1883. (See Total Kjeldahl nitrogen).

Kyoto Protocol: In December 1997, Canada and more than 160 other countries met in Kyoto, Japan, and agreed to targets to reduce GHG emissions. The agreement that set out those targets, and the options available to countries to achieve them, is known as the Kyoto Protocol. Canada's target is to reduce its GHG emissions to 6 percent below 1990 levels by the period between 2008 and 2012.

Loading: The amount of a material entering a system over a given time interval.

Micron: A millionth of a metre.

Natural Resource: A commodity valued by humans and produced or derived from natural processes (e.g. mineral, forest, fresh water).

Nitrate: The most oxidized chemical form of nitrogen found in natural systems. Primary sources of organic nitrates include human sewage and livestock manure. The primary inorganic nitrates which may contaminate drinking water are potassium nitrate and ammonium nitrate both of which are widely used as fertilizers.

Nitrite: Once taken into the body, nitrates are converted into nitrites.

Nitrogen Dioxide (NO₂): A toxic red-brown gas or yellow liquid; becomes colorless solid at -11.2°C, which exists in varying equilibrium with other oxides of nitrogen as the temperature is varied. A component of automotive exhaust fumes.

No-till and low-till: Tillage systems that disturb the soil less than conventional tillage practices and which reduce soil erosion and moisture loss. These methods use seed drills to open soil only where seeds are placed, while the remaining crop stubble protects the soil from wind and water erosion and from losing moisture by evaporation.

Oak Ridges Moraine: An environmentally sensitive, geological landform in south central Ontario, covering 190,000 hectares. It crosses 32 municipalities in three regions (Peel, York and Durham) and four counties (Dufferin, Simcoe, Peterborough, and Northumberland) and the City of Kawartha Lakes. The Moraine is the source of the headwaters for many rivers that flow into Lake Ontario, Lake Simcoe and Lake Scugog. Its varied landforms and large forested areas support a wide range of plant and animal species including some that are threatened or endangered in the Greater Toronto Area.

Oak Ridges Moraine Conservation Plan (ORMCP): An ecologically based plan established by the Ontario government to provide land use and resource management direction for the 190,000 hectares of land and water within the Moraine.

Official Plan: A document adopted by a municipal or regional council and approved by the Minister of Municipal Affairs in accordance with the Planning Act, that provides objectives and policies established primarily to provide guidance for the physical development of a municipality or part thereof, while having regard to the relevant social, economic and environmental matters.



Appendix D

glossary of terms

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Ozone (O₃): A gas made from three atoms of oxygen.

Particulate Matter: Refers to all airborne finely divided solid or liquid material with an aerodynamic diameter smaller than 100 microns. (See Fine Particulate Matter and Inhalable Particles).

Persistent Organic Pollutant (POP): Chemical substances found in trace quantities in all areas of the environment. They are toxic and accumulate in humans and plants. POPs do not readily break down in the environment with half-lives in soils in the order of years, although they may be transformed both physically and chemically over long periods.

Pesticide: Any substance or mixture of substances intended to control, destroy, suppress, repel, attract or mitigate living organisms considered harmful. Pesticides include insecticides, herbicides, rodenticides, fungicides and biological pest-destroying organisms, such as various bacteria and viruses.

Phosphorus: A non-metal of the nitrogen group, it is commonly found in inorganic phosphate rocks and in all living cells. The most important commercial use of phosphorus is in the production of fertilizers. It is also widely used in pesticides and detergents.

Pollutant: A contaminant that harms the environment.

Pollution: A concentration of any substance that harms human health or natural systems.

Polychlorinated Biphenyls (PCBs): PCBs are mixtures of synthetic organic chemicals ranging from oily liquids to waxy solids. Due to their non-flammability, chemical stability, high boiling point and electrical insulating properties, PCBs were once widely used in industrial and commercial applications, including electrical, heat transfer, and hydraulic equipment, and in paints, plastics and rubber products. Concern over the toxicity and persistence in the environment of PCBs led to prohibitions on their manufacture, processing, and distribution.

Protection: The management of natural resources in a way that ensures that certain valued natural forms, processes and attributes are retained. Change can occur provided it does not diminish these valuable natural aspects.

Radiation: The emission or transmission of energy in the form of electromagnetic waves or particles.

Runoff: Water that flows over the land surface into a waterbody.

Smog Advisory: Public is advised when elevated pollution levels are forecast due to ground-level ozone.

Smog: A contraction of smoke and fog; colloquial term used for photochemical fog, which includes ozone and other contaminants; tends to be a brownish haze.

Species: Groups of actually or potentially interbreeding natural populations that are reproductively isolated from other such groups.

Species of Special Concern: A species with characteristics that make it particularly sensitive to human activities or natural events, but does not include an endangered or threatened species.

Stratosphere: The layer of the atmosphere 10 to 40 kilometres above the earth's surface.

Stratospheric ozone: Ozone formed in the stratosphere from the conversion of oxygen molecules by solar radiation; ozone found there absorbs much ultraviolet radiation and prevents it from reaching the earth.





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continued

Sulphur Dioxide (SO₂): SO₂ is a colourless gas. It smells like burnt matches. SO₂ is a precursor to sulphates, which are one of the main components of respirable particles in the atmosphere.

Surface water: Includes water bodies (lakes, wetlands, ponds, etc.), watercourses (rivers and streams), infiltration trenches and temporary ponds.

Sustainable (sustainability): A term used to characterize human activity conducted in a way that does not adversely affect environmental conditions, and that allows the activity to continue indefinitely.

Threatened Species: Any native species that, on the basis of the best available scientific evidence, is at risk of becoming endangered throughout all or a significant portion of its Ontario range if the limiting factors are not reversed.

Total Kjeldahl nitrogen: A measure of the concentration of reduced forms of nitrogen in surface water, principally, ammonium and amino forms of organic nitrogen.

Total Reduced Sulphur (TRS): Industrial sources of TRS include the steel industry, pulp and paper mills, refineries and sewage treatment facilities. Natural sources include swamps, bogs and marshes. TRS compounds are not normally considered a health hazard. They are, however, a primary cause of odours.

Turbidity: A condition of cloudiness in a liquid.

Ultraviolet (UV) Radiation: Electromagnetic radiation in the wavelength range of 200 to 400 nanometres. Also known as ultraviolet light.

Virus: A microscopic package of genetic material that behaves like an organism, or like a parasite that exploits living cells.

Volatile Organic Compounds (VOCs): Organic gases and vapours that come from a wide variety of sources, including paints, solvents, aerosol sprays, dry cleaning and the burning of fuels.

Watershed: The area of land drained by a river and its tributaries.

Wellhead protection area: The area surrounding a well through which contaminants are reasonably likely to move toward and eventually reach the aquifer from which the water well draws.

Wetland: Land that is seasonally or permanently covered by shallow water, as well as lands where the water table is close to or at the surface. The five major types of wetlands are marshes, swamps, bogs, fens and shallow open waters.

