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ACRONYMS and GLOSSARY

APPROVED ASSESSMENT REPORT for the Northern Bruce Peninsula Source Protection Area

October 15, 2015

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APPROVED ASSESSMENT REPORT
for the
Northern Bruce Peninsula Source Protection Area

ACRONYMS

Acronym	Meaning
Alka	Alkalinity
amsl	above mean sea level; unit of measure
ANSI	Area of Natural and Scientific Interest
AO	Aesthetic Objective
ASM	Agricultural Source Material
AVI	Aquifer Vulnerability Index
BioMAP	Bioassessment of Water Quality
CA's	Conservation Authorities
CaCO ₃	Calcium Carbonate (Hardness)
CEQG	Canadian Environmental Quality Guidelines
CES	Conveyance Estimation System
Cl	Chloride
CLI	Canadian Land Inventory
CNR	Candidate Nature Reserve
CRA	Conestoga-Rovers & Associates
Cu	Copper
CWQI	Canadian Water Quality Index
DEM	Digital Elevation Model
DFO	Department of Fisheries and Oceans
DOC	Dissolved Organic Carbon
DWIS	Drinking Water Information System
DWQG	Drinking Water Quality Guidelines

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Acronym	Meaning
DWS	Drinking Water System
DWSP	Drinking Water Source Protection
EBA	Events-Based Area
EC	Environment Canada
ERIS	Environment Risk Information Service
FN	First Nations
FTU	Formazine Turbidity Unit
GIS	Geographic Information System
GLIS	Great Lakes Index Stations Monitoring
GRCA	Grand River Conservation Authority
GSC	Grey Sauble Conservation (also known as Grey Sauble Conservation Authority or GSCA)
GTA	Greater Toronto Area
GUDI	Groundwater Under Direct Influence
HadCM3	Hadley Centre Coupled Model, version 3
HVA	Highly Vulnerable Aquifer
IMAC	Interim Maximum Acceptable Concentration
IPZ	Intake Protection Zone
ISI	Intrinsic Susceptibility Index
LIO	Land Information Ontario
MAC	Maximum Acceptable Concentration
MI	Macroinvertebrates
MMAH	Ministry of Municipal Affairs and Housing
MNBP	Municipality of Northern Bruce Peninsula
MNDMF	Ministry of Northern Development, Mines and Forestry
MNR	Ministry of Natural Resources
MOECC	Ministry of the Environment and Climate Change
MPAC	Municipal Property Assessment Corporation

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Acronym	Meaning
MUSLE	Modified Universal Soil Loss Equation
MVCA	Maitland Valley Conservation Authority
MYLOW	My Land, Our Water
NAICS	North American Industrial Classification System
NASM	Non-Agricultural Source Material
NCC	Nature Conservancy of Canada
NGO	Non-Governmental Organization
NO ₃	Nitrate
NO ₃ -N	Nitrate-Nitrogen
NPRI	National Pollutant Release Inventory
NRVIS	Natural Resources Values Information System
NTU	Nephelometric Turbidity Units
NVCA	Nottawasaga Valley Conservation Authority
OBBN	Ontario Benthos Biomonitoring Network
ODWQS	Ontario Drinking-Water Quality Standard
ODWS	Ontario Drinking Water Standards
OG	Operational Guideline
OGDE	Ontario Geospatial Data Exchange
OGS	Ontario Geological Survey
OMAF	Ontario Ministry of Agriculture and Food
OMAFRA	Ministry of Agriculture, Food and Rural Affairs
PCM	Parallel Climate Model
PGMN	Provincial Groundwater Monitoring Network
POI	Point of Interaction
PTTW	Permit to Take Water
PWQMN	Provincial Water Quality Monitoring Network
PWQO	Ontario Provincial Water Quality Objectives
RANS	Reynolds-Averaged Navier-Stokes

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Acronym	Meaning
SC	Saugeen Conservation (also known as Saugeen Valley Conservation Authority or SVCA)
SGRA	Significant Groundwater Recharge Area
SIL	Southern Ontario Interim Landcover
SOLRIS	Southern Ontario Land Resource Information System
SP	Source Protection
SPA	Source Protection Area
SPC	Source Protection Committee
SPR	Source Protection Region
SSI	Shallow Susceptibility Index
SWAT	Surface to Well Advection Time
SWI	Surface Water Intakes
SWOOP	South Western Ontario Orthophotography Project
SWP	Source Water Protection
TOT	Time of Travel
TP	Total Suspended Solids
TSS	Total Suspended Solids
Turb	Turbidity
TWCA	Total Water Contributing Area
USLE	Universal Soil Loss Equation
WHCZ	Wellhead Capture Zones
WHPA	Wellhead Protection Areas
WS	Water System
WTP	Water Treatment Plant
WWIS	Water Well Information System
Zn	Zinc

Glossary

Below are some terms, both scientific and non-scientific, related to drinking water source protection.

Abandoned Well	A well that is deserted because it is dry, contains non-potable water, was discontinued before completion, is not being properly maintained, was constructed poorly, or for which it has been determined that natural gas may pose a hazard.
Above Grade	Above the average level of proposed or finished ground adjoining a building at all exterior walls (see the Building Code);
Activity	An action that has the potential to contaminate or deplete a source of drinking water. Activities are prescribed in the <i>Table of Drinking Water Threats: Clean Water Act, 2006</i> dated December 12, 2008 and in the <i>Technical Rules: Assessment Report</i>
Agricultural source material (ASM)	Has the same meaning as in section 1 of O. Reg. 276/03 (General) made under the <i>Nutrient Management Act, 2002</i> . Agricultural source material is treated or untreated material that is capable of being applied to land as a nutrient, but does not include compost that meets the Compost Guidelines, or a commercial fertilizer. Some examples of ASM are manure produced by farm animals, runoff from farm-animal yards and manure storages, and milking center wash water.
Agriculture	Means agricultural operation within the meaning of the <i>Nutrient Management Act, 2002</i> and within the meaning of each local municipal Zoning By-Law
Animal Yard, Confinement Yard	An animal confinement area is defined as an enclosure for livestock or game animals that has all of the following characteristics: <ul style="list-style-type: none"> • An unroofed area (with the exception of small wind or shade shelters that are under 20 m²/200 ft²); • A grazing or foraging area that accounts for less than 50 per cent of the animals' dry matter intake; or • Fences, pens, corrals or similar structures to confine the animals that are either permanent or temporary allowed access to a barn.
Anthropogenic	Influenced by human activity or human origin.
Aquatic	Growing or living in water.
Aquiclude	A saturated geologic unit that is incapable of transmitting significant quantities of water under ordinary conditions.
Aquifer	An underground area of porous, permeable soil or rock that contains a sufficient amount of water to support a domestic well. Shallow aquifers exist in the overburden, the sedimentary rock and soil above bedrock, whereas bedrock aquifers are found in the bedrock itself, beneath whatever overburden is present. The water in an aquifer is called groundwater.
Aquitard	The layer of geological material that prevents or inhibits the transmission of water in a confined aquifer.
Assessment Report	An Assessment Report is a science-based report generated locally for each Source Protection Area to comply with the <i>Clean Water Act, 2006</i> . The Assessment Report will identify the watersheds and the vulnerable areas within the Source Protection Area. Threats to the vulnerable areas will be assessed and determined whether they pose a significant threat to municipal residential drinking water supplies. They are the basis for developing Source Protection Plans and making local policy decisions for protecting drinking water. Each Assessment Report is approved by the Director of the Ontario Ministry of the Environment and Climate Change.
Baseflow	The water that flows into a stream through the subsurface.
Bedrock	Solid or fractured rock usually underlying unconsolidated geologic materials; bedrock may be exposed at the land surface.

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Bedrock geology	The study of the solid rock underlying unconsolidated surface material. Also refers to description of bedrock types.
Below Grade	below the average level of proposed or finished ground adjoining a building at all exterior walls (see the Building Code)
Chemical	A substance of distinct molecular composition. For source protection purposes, a list of chemicals has been deemed to be of concern to drinking water due to its toxicity, environmental fate, quantity in a specific circumstance, method of release into the environment and type of vulnerable area into which it might be released (see the Ministry of the Environment and Climate Change publication <i>Table of Drinking Water Threats: Clean Water Act, 2006</i>)
Clean Water Act	The <i>Clean Water Act, 2006</i> was passed as Bill 43 to protect drinking water at the source. The Act requires the development of a watershed based Source Protection Plan.
Climate	The average weather conditions of a place or region throughout the seasons.
Commercial Fertilizer	Has the same meaning as in Ontario Regulation 267/03 (General) made under the “ <i>Nutrient Management Act, 2002</i> ”. Commercial Fertilizer is a synthetic substance containing nitrogen, phosphorus, potassium or other plant food intended for use as a plant nutrient. For the purposes of source protection, commercial fertilizer does not include agricultural source material or non-agricultural source material.
Conceptual Water Budget	A written description of the overall flow system dynamics for each watershed in the Source Protection Area taking into consideration surface water and groundwater features, land cover (e.g. proportion of urban vs. rural uses), human-made structures (e.g. dams, channel diversions, water crossings), and water takings.
Condition	The presence of a substance in a vulnerable area that results from a past activity and that also constitutes a drinking water threat.
Confined aquifers	An aquifer that is bounded above and perhaps below by layers of geological material that do not transmit water readily.
Conservation Authorities	Local watershed management agencies that deliver services and programs that protect and manage water and other natural resources in partnership with government, landowners and other organizations.
Contaminant (pollutant)	An undesirable substance that makes water unfit for a given use when found in sufficient concentration.
Contamination	The mixing of harmful elements, compounds or microorganisms with surface or groundwater. Contamination can occur naturally (e.g. an aquifer flowing through mineral deposits that contain heavy metals) or through human activity (e.g. sewer water flowing into a river). Nutrients, such as nitrogen and phosphorus, can also cause water contamination when they are present in excessive amounts.
Data Gaps	The lack of raw information for a specific geological area and/or specific type of information.
Decommissioned wells	Capped, plugged and sealed in compliance with regulatory requirements by the Ministry of the Environment and Climate Change.
Dense Non-Aqueous Phase Liquid (DNAPL)	An organic chemical that is more dense than water and only slightly soluble in water. Such a chemical will sink in groundwater and accumulate in aquifer depressions.
Designated System	A drinking water system that is included in a terms of reference, pursuant to resolution passed by a municipal council under subsection 8(3) of the <i>Clean Water Act, 2006</i> .
Discharge Area	An area where water leaves the saturated zone across the water table surface.
Drilled Well	A well usually 10 inches or less in diameter, drilled with a drilling rig and cased with steel or plastic pipe. Drilled wells can be of varying depth.

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Drinking Water	(a) water intended for human consumption, or (b) water that is required by an Act, regulation, order, municipal by-law or other document issued under the authority of an Act, (i) to be potable, or (ii) to meet or exceed the requirements of the prescribed drinking water quality standards.
Drinking water concern	A purported drinking water issue that has not been substantiated by monitoring, or other verification methods; will be identified through consultations with the public, stakeholder groups, and technical experts (e.g. water treatment plant operators).
Drinking water issue	A substantiated condition relating to the quality of quantity of water that interferes or is anticipated to soon interfere with the use of a drinking water source by a municipal residential system or designated system.
Drinking Water Source Protection	Protecting surface water sources such as lakes, rivers and streams, and groundwater sources from contamination or overuse, particularly through the planning process under the <i>Clean Water Act, 2006</i> . It is the first step in the multi-barrier approach to protecting drinking water.
Drinking Water System	A system of works, excluding plumbing, that is established for the purpose of providing users of the system with drinking water and that includes, (a) any thing used for the collection, production, treatment, storage, supply or distribution of water, (b) any thing related to the management of residue from the treatment process or the management of the discharge of a substance into the natural environment from the treatment system, and (c) a well or intake that serves as the source or entry point of raw water supply for the system.
Drinking Water Threat	An activity or condition that adversely affects or has the potential to adversely affect the quality or quantity of any water that is or may be used as a source of drinking water, and includes an activity or condition that is prescribed by the regulations as a drinking water threat. Regulation 287/07 sets out in Section 1.1 a prescribed list of drinking water threats.
Emergency Response Plans	Assign response coordination for various types of events to appropriate municipal officials, and provide for senior-level municipal officials to take charge of locally declared emergencies
Erosion	The wearing away of the land by the action of water, wind or glacial ice.
<i>Escherichia coli</i> ” (commonly abbreviated <i>E. coli</i>)	A Gram-negative rod-shaped bacterium commonly found in the lower intestine of warm-blooded organisms. This organism is used in drinking water testing as an indicator of bacterial contamination since the presence of <i>Escherichia coli</i> may indicate fecal contamination from a human or animal source
Evaporation	The process by which water or other liquids change from liquid to vapour; evaporation can return infiltrated water to the atmosphere from upper soil layers before it reaches groundwater or surface water, and occur from leaf surfaces (interception), water bodies (lakes, streams, wetlands, oceans), and small puddled depressions in the landscape.
Evapotranspiration	The combined loss of water from a given area and during a specific period of time by evaporation from the soil surface and by transpiration from plants.
Event	Occurrence of an incident (isolated or frequent) with the potential to promote the introduction of a threat into the environment. An event can be intentional, as in the case of licensed discharge or accidental, as in the case of a spill.
Events-Based Area (EBA)	EBAs are determined by modelling and other forms of analysis of spills that could cause an exceedance at an intake. This area allows potential significant drinking water threats to be identified for surface water intakes. The identification of activities as significant drinking water threats is done under Technical Rule 130.
Floodplain	A plain bordering a river, which has been formed from deposits of sediment carried down the river. When a river rises and overflows its banks, the water spreads over the floodplain.

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Fuel	A product of petroleum that may include BTEX (benzene, toluene, ethylbenzene and xylene) or Petroleum Hydrocarbons F1, F2, F3, or F4 that is a liquid at standard temperatures and pressures and that is designed for use in an engine or heating and is governed under the Liquid Fuels Handling Code. O. Reg. 213/01 (Fuel Oil) and/or O. Reg. 217/01 (Liquid Fuels) made under the <i>Technical Standards and Safety Act, 2000</i>
Geology	The study of science dealing with the origin, history, materials and structure of the earth, together with the forces and processes operating to produce change within and on the earth.
Geomorphology	The scientific study of the origin of land, riverine and ocean features on the Earth surface.
Gradient	The rate or regular graded ascent or descent.
Groundwater	Subsurface water that occurs beneath the water table in soils and geological formations that are fully saturated.
Groundwater Discharge	The function of a wetland to accept subsurface water and hold it for release over long periods of time.
Groundwater Recharge Area	The area where an aquifer is replenished from (a) natural processes, such as the infiltration of rainfall and snowmelt and the seepage of surface water from lakes, streams and wetlands, (b) from human interventions, such as the use of storm water management systems, and (c) whose recharge rate exceeds a specified threshold.
Groundwater table	The meeting point between the groundwater and the unsaturated layer above it.
Groundwater Vulnerability	The probability of contaminants propagating to a specified region in the groundwater system after introduction at some location above the uppermost aquifer.
GUDI	Groundwater Under the Direct Influence of surface water.
Hazard	A contaminant and/or pathogen threat.
Hazard rating	The numeric value which represents the relative potential for a contaminant of concern to impact drinking water sources at concentrations significant enough to cause human illness.
Highly Vulnerable Aquifer (HVA)	An aquifer that can be easily changed or affected by contamination from both human activities and natural processes as a result of (a) its intrinsic susceptibility, as a function of the thickness and permeability of overlying layers, or (b) by preferential pathways to the aquifer.
Hydrogeology	The study of the movement and interactions of groundwater in geological materials.
Hydrology	The study of the Earth's water, particularly of water on and under the ground before it reaches the ocean or before it evaporates into the air.
Implementing Body	Can be (a) a municipality, local board or conservation authority, (b) a ministry, board, commission, agency or official of the Government of Ontario, or (c) a body prescribed by the regulations or an official of a body prescribed by the regulations or another person or group
Infiltration	The movement of water into soil pores from the ground surface.
instrument	Any document of legal effect, including a permit, licence, approval, authorization, direction or order, that is issued or otherwise created under an Act, but does not include a regulation within the meaning of Part III of the <i>Legislation Act, 2006</i>

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Intake Protection Zone	A zone established around a surface water intake of drinking water as prescribed in the <i>Technical Rules: Clean Water Act, 2006</i> . The IPZ-1 is a circle that has a radius of 1000 metres (1 km) from the centre point of every intake that serves as the source or entry point of raw water supply for the system. The Assessment Report identified that where the area delineated includes land, the IPZ-1 only included a setback on the land of up to 120 metres or the regulated limit. An area known as IPZ-2 is delineated in the Assessment Report based on a two hour time of travel to the centre point including surface water and drainage that would contribute to the two hour time of travel up to 120 metres in land. In some cases an IPZ-3 is delineated where there are activities further away from the intake which could have an impact on water quality.
Intrinsic Susceptibility Index (ISI)	ISI is a calculated value that estimates the susceptibility of a given groundwater aquifer to contamination by activity or water on the surface at a given point. It is a numerical indicator of an aquifer's intrinsic susceptibility to contamination expressed as a function of the thickness and permeability of overlying layers.
Intrinsic Vulnerability	The potential for the movement of a contaminant(s) through the subsurface based on the properties of natural geological materials.
Knowledge Gaps	Lack of referenced materials or expertise to assess certain characteristics of the specific watershed that can be adequately described without tabular or spatial data.
Land Use	A particular use of space at or near the earth surface with associated activities, substances and events related to the particular land use designation.
Landfilling	the disposal of waste by deposit, under controlled conditions, on land or on land covered by water, and includes compaction of the waste into a cell covering the waste with cover materials at regular intervals
Legal Effect	The requirements of the implementing body to fulfill the policy. The policies in the Source Protection Plan have one of three types of legal effect: "must conform/comply with" policies, "have regard to policies", and "non-legally binding" policies
Livestock Density	The number of farm animals grown, produced or raised per unit of area.
Managed Lands	Land to which materials are applied as nutrients. Managed lands are defined in the <i>Technical Rules: Clean Water Act, 2006</i> (section 1, page 3) and refer to any land where nutrients are applied (ASM, NASM or commercial fertilizer). Golf courses and tree farms may also be counted.
Model	An assembly of concepts in the form of mathematical equations or statistical terms that portrays a behavior of an object, process or natural phenomenon.
Model Calibration	The process for generating information over the life cycle of the project that helps to determine whether a model and its analytical results are of a quality sufficient to serve as the basis of a decision.
Monitoring	Periodic evaluation of a site to determine success in achieving goals.
Moraine	The debris or rock fragments brought down with the movement of a glacier.
Municipal Drinking Water System	A drinking water system or part of a drinking water system that is owned by a municipality or by a municipal service board, or from which a municipality obtains or will obtain water under the terms of a contract between the municipality and the owner of the system.
Municipal Planning Authority	An authority established under section 14.1 of the <i>Planning Act</i> .
Municipal Well	A Municipality owned pumping well that provides drinking water to five or more residences.
Non-agricultural source material (NASM)	Same meaning as in section 1 of O. Reg. 276/03 (General) made under the <i>Nutrient Management Act, 2002</i> ; such as pulp and paper biosolids, sewage biosolids, anaerobic digestion output, and any other material that is not from an agricultural source and that is capable of being applied to land as a nutrient.

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Non-Point Source	A source of pollutants from a wide geographic area, such as manure runoff, stream bank erosion, and storm water runoff, which threatens the quality of surface and groundwater sources of drinking water.
Nutrient	Something that nourishes and promotes growth. It is possible to have too many nutrients in an ecosystem, which can result in an unhealthy imbalance or overgrowth of certain species.
Nutrient unit	The amount of nutrients that give the fertilizer replacement value of the lower of 43 kilograms of nitrogen or 55 kilograms of phosphate as nutrient annually.
Official Plan (OP)	Is a policy document prepared by a Municipality, which states in broad terms the Municipality's strategic vision for community development and land use. The primary role of the Official Plan is to establish a series of Municipal policies to manage physical change and the effects on the social, economic and natural environment within the Municipality. An official plan is prepared in accordance with part III of the <i>Planning Act</i> .
Ontario Ministry of the Environment and Climate Change (MOECC)	The provincial ministry that is spearheading Drinking Water Source Protection in Ontario. The <i>Clean Water Act</i> was passed in 2006 and proclaimed into full effect in July of 2007, and ensures that communities are able to identify potential risks to their supply of drinking water, and take action to reduce or eliminate these risks.
Operating Authority	In respect of a drinking water system, the person or entity that is given responsibility by the owner for the operation, management, maintenance or alteration of the system.
Organic Solvent	Any volatile organic compound that is used as a cleaning agent, dissolver, thinner, or viscosity reducer, or for a similar purpose.
Organic Matter	Of, relating to, or derived from living organisms.
Outdoor Confinement Area	An enclosure for livestock or game animals Has the same meaning as in Ontario Regulation 267/03 (General) made under the " <i>Nutrient Management Act, 2002</i> ".
Overburden	Unconsolidated geologic material above the bedrock.
Pasture, Grazing	Area where partial defoliation of forage plants by the animal takes place or to feed animals on growing grass or herbage; to forage.
Pathogen	Any disease-producing agent, especially a virus, bacterium, or other microorganism.
Percolation	The downward movement of water in the ground through porous soil and cracked or loosely-packed rock.
Permeability	The quality of having pores or openings that allow liquids to pass through.
Permit to Take Water	Any person that takes more than 50,000 litres of water per day from any source requires a permit issued by the Ministry of the Environment and Climate Change Director under the <i>Ontario Water Resources Act</i> , unless they meet the criteria for certain exempted water takings.
Pesticides	Chemicals including insecticides, fungicides, and herbicides that are used to kill living organisms.
Physiography	The study or description of landforms.
Point Source	A source of pollutants from a municipal treatment plant or an industrial facility, often by way of a pipe.
Policy	A statement of intention. A policy may be designed to guide current and future actions and decisions, and to achieve a desired goal or outcome. A policy may refer to the policy approaches or the measures that will be used to achieve it.
Prescribed Drinking Water Threats	Activities prescribed as drinking water threats for the purpose of the definition of "drinking water threat" in subsection 2 (1) of the <i>Clean Water Act</i> .
Prescribed Instrument	An instrument that is issued or otherwise created under a provision prescribed by the regulations as listed in Section 1.0.1 of Regulation 287/07.

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Raw Water	Water in its natural state, prior to any treatment; not the same as 'pure' water which does not exist in nature. Raw water is water that is in a drinking-water system or in plumbing that has not been treated in accordance with: (a) the prescribed standards and requirements that apply to the system, or (b) such additional treatment requirements that are imposed by the license or approval for the system.
Recharge Area	An area in which water infiltrates and moves downward into the zone of saturation of an aquifer; area that replenishes groundwater.
Regional Discharge	Water that has traveled deep beneath the ground through the saturated zone and resurfaces at the water table.
Regulated Areas	Those areas for which Conservation Authorities delineate and restrict land uses by making regulations under subsection 28(1) of the <i>Conservation Authority Act</i> . This subsection applies to watercourses, streams, lakes, valleys, flood plains, and wetlands in Ontario.
Restricted Land Uses	A tool provided under section 59 of the <i>Clean Water Act, 2006</i> used to identify where either a section 57 prohibition or section 58 risk management plan policies are required for future significant drinking water threats.
Return Period	The frequency in which a flow event in a stream is likely to repeat itself.
Riparian Area	The area that lies as a transition zone between upland areas such as fields, etc. and streams, wetlands, lakes, rivers, etc. The zone is intermittently inundated and usually supports wet meadow, marshy or swampy vegetation.
Risk	The likelihood of a drinking water threat (a) rendering an existing or planned drinking water source impaired, unusable or unsustainable, or (b) compromising the effectiveness of a drinking water treatment process, resulting in the potential for adverse human health effects.
Risk Management Official	The Risk Management Official appointed under Part IV of the <i>Clean Water Act, 2006</i> . The Risk Management Official is responsible for making decisions about risk management plans and risk assessments and must meet the prescribed criteria in the regulations under the <i>Clean Water Act, 2006</i> .
Risk Management Plan	A tool available under section 58 of the <i>Clean Water Act, 2006</i> . The risk management plan identifies the measures that a person engaged in an activity will take to ensure the activity is no longer a significant drinking water threat.
Runoff (also surface runoff or overland flow)	Water that moves over land rather than being absorbed into the ground. Runoff is greatest after heavy rains or snowmelts, and can pick up and transport contaminants from landfills, farms, sewers, industry and other sources. Overland flow usually occurs in urban settings (pavement, roofs, etc.) or where the soils are very fine textured or heavily compacted.
<i>Safe Drinking Water Act, 2002</i>	Provides for the protection of human health and prevention of drinking water health hazards through the control and regulation of drinking water systems and drinking water testing.
Sediment	Material deposited by water, wind or glaciers.
Sedimentary Bedrock	Rock formed of mechanical, chemical or organic sediment such as rock formed from sediment transported from elsewhere, by chemical precipitation from solution or from inorganic remains of living organisms.
Semi-Quantitative	Describes an approach or methodology that uses measurable or ranked data, derived from both quantitative and qualitative assessments, to produce numerical values to articulate results.
Sensitivity Analysis	Sensitivity analysis evaluates the effect of changes in input values or assumptions on a model results.
Septic System (Conventional)	Used to treat household sewage and wastewater by allowing solids to decompose and settle in a tank, then flow by gravity or pump/siphon to a drainage or tile field for soil absorption.

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Significant Drinking Water Threat	A drinking water threat which poses or has the potential to pose a significant risk to drinking water. The Provincial <i>Table of Drinking Water Threats: Clean Water Act, 2006</i> along with the vulnerability score in the Assessment report provides the basis for the risk assessment
Significant Groundwater Recharge Area (SGRA)	The area where an aquifer is replenished through the infiltration of rainfall and snowmelt and the seepage from lakes, streams and wetlands.
Significant Threat Policy	A significant threat policy is (a) a policy set out in a source protection plan that, for an area identified in the assessment report as an area where an activity is or would be a significant drinking water threat, is intended to achieve an objective referred to in paragraph 2 of subsection 22 (2) under the <i>Clean Water Act, 2006</i> , or (b) a policy set out in a source protection plan that, for an area identified in the assessment report as an area where a condition that results from a past activity is a significant drinking water threat, is intended to achieve the objective of ensuring that the condition ceases to be a significant drinking water threat.
Sinkhole	Any depression in the surface of the ground, with or without collapse of the surrounding soil or rock, which provides a means through which surface water can enter the ground and therefore come in contact with groundwater. Sinkholes often allow this contact to occur quite rapidly and do little to filter any contaminants the surface water may contain.
Source Protection (SP, Drinking Water Source Protection)	A program of education, stewardship, planning, infrastructure, and regulation activities that together serve to help prevent the contamination or overuse of source water. Protecting surface water sources such as lakes, rivers and streams, and groundwater sources from contamination or overuse, particularly through the planning process under the <i>Clean Water Act, 2006</i> . The first step in the multi-barrier approach to protecting drinking water.
Source Protection Area	An area established by subsection 4 (1) of the <i>Clean Water Act, 2006</i> , or by the regulations. Areas are based on the existing 36 Conservation Authority boundaries (however there are exceptions). For administrative efficiency, some Source Protection Areas (SPAs) have been grouped together to form Source Protection Regions. Source Protection Areas and Regions have been defined in Ontario Regulation 284/07. Source Protection Area means those lands and waters that have been defined under Ontario Regulation 284/07 as the 'study area' for an Assessment Report and Source Protection Plan under the <i>Clean Water Act, 2006</i> .
Source protection authority	A conservation authority or other person or body that, under subsection 4 (2) or section 5, is required to exercise and perform the powers and duties of a drinking water source protection authority under the <i>Clean Water Act</i> .
Source Protection Committee	A group of individuals who have been appointed under the <i>Clean Water Act</i> by a Source Protection Authority to coordinate Source Protection Planning activities for a Source Protection Area.
Source Protection Plan	A plan prepared under the <i>Clean Water Act, 2006</i> intended to protect existing and future sources of drinking water. The Source Protection Plan for each Source Protection Area (watershed) must set out policies intended to ensure that all significant drinking water threats cease to be significant and that potential threats are managed in such a way that they will never become significant drinking water threats. In general, a Source Protection Plan builds on the information collected in the Assessment Report to establish policies to protect drinking water supplies. Each Plan is approved by the Ontario Ministry of the Environment and Climate Change.
Source Protection Region	Two or more Source Protection Areas that have been grouped together under Ontario Regulation 284/07.

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Source Water	Untreated water in streams, rivers, lakes or underground aquifers which is used for the supply of raw water for drinking water systems.
Specify Actions	Policies that specify the actions to be taken to implement the source protection plan or to achieve the plan's objectives.
Spill	Has the same meaning as in subsection 91(1) of the <i>Environmental Protection Act</i> : when used with reference to a pollutant, means a discharge, (a) into the natural environment, (b) from or out of a structure, vehicle or other container, and (c) that is abnormal in quality or quantity in light of all the circumstances of the discharge.
Subwatershed	An area that is drained by an individual tributary into the main watercourse of a watershed.
Surface Water	All water above the surface of the ground including, but not limited to lakes, ponds, reservoirs, artificial impoundments, streams, rivers, springs, seeps and wetlands.
Surficial Geology	Deals with the study and description of the forms on the outer layer of the Earth.
Table of Drinking Water Threats	The Ministry of the Environment and Climate Change publication "Table of Drinking Water Threats: <i>Clean Water Act, 2006</i> " dated November 16, 2009, as amended from time to time. It is a document released by the MOECC that contains a listing of all potential threat activities and circumstances under which these activities may be considered to be significant, moderate or low risks to water supply sources in the province of Ontario.
Technical Rules	The Ministry of the Environment and Climate Change document titled "Technical Rules: Assessment Report" as amended from time to time, and made under section 107 of the <i>Clean Water Act, 2006</i> .
Terms of Reference	The work plan and budget, as approved by the Minister of Environment and Climate Change, for the preparation of Assessment Report and Source Protection Plan, as defined by the " <i>Clean Water Act</i> ". The Terms of Reference outlines the responsibilities assigned to the Source Protection Committee, Source Protection Authority, Conservation Authority and Member Municipalities in each Source Protection Area, in order to produce the Assessment Report and Source Protection Plan.
Threat Policies	Policies in a source protection plan that address a drinking water threat of any risk level (significant, moderate or low), including policies that address activities and conditions.
Time of Travel (ToT)	An estimate of the time required for a particle of water to move from a specific point to an intake: (a) in respect of groundwater, the length of time that is required for groundwater to travel a specified horizontal distance in the saturated zone; and (b) in respect of surface water, the length of time that is required for surface water to travel a specified distance within a surface water body.
Topography	A detailed description or representation of the features, both natural and artificial, or an area. Also the physical and natural features of an area, and their structural relationships.
Total Impervious Surface Area	The surface area of all highways and other impervious land surfaces used for vehicular traffic, parking, and pedestrian paths.
Transport Pathway	A condition of land resulting from human activity that increases the vulnerability of a raw water supply of a drinking water system (e.g. private wells, pits or quarries). It may increase the probability of a contaminant reaching a drinking water source.
Transportation Corridors	A term defining highways (as outlined in subsection 1 (1) of the <i>Highway Traffic Act</i>), railway lines or shipping lanes.
Uncertainty Analysis	Uncertainty analysis investigates the effects of lack of knowledge and other potential sources of error in the model.
Unconfined Aquifer	An aquifer whose upper boundary is the water table.

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Vulnerability	Describes how easily a well or intake can become polluted with a dangerous material. Researchers have studied each municipal well and intake to determine how vulnerable they are.
Vulnerability Score	A score representing the susceptibility of an area to contamination
Vulnerable Area	Areas related to a water supply source that are susceptible to contamination and for which it is desirable to regulate or monitor drinking water threats that may affect the water supply source. Vulnerable areas are (a) a significant groundwater recharge area, (b) a highly vulnerable aquifer, (c) a surface water intake protection zone, or (d) a wellhead protection area.
Waste Disposal Site	Any land upon, into, in or through which, or building or structure in which waste is deposited, disposed of, handled, stored, transferred, treated or processed, and any operation carried out or machinery or equipment used in connection with the depositing, disposal, handling, storage, transfer, treatment or processing of the waste (" <i>Environmental Protection Act</i> ", R.S.O. 1990).
Water Budget	A description and analysis of the overall movement of water within each watershed in the Source Protection Area, taking into consideration surface water and groundwater features, land cover (e.g. proportion of urban versus rural uses), human-made structures (e.g. dams, channel diversions, water crossings), and water takings.
Water Cycle	The continuous movement of water from the oceans to the atmosphere (by evaporation), from the atmosphere to the land by condensation and precipitation, and from the land back to the sea (via stream flow).
Water Quality	A term used to describe the chemical, physical and biological characteristics of water, usually in respect to its suitability for a particular purpose, such as drinking.
Water Supply	Any quantity of available water.
Water Table	The surface below which the soil is saturated with water.
Watershed	An area that is drained by a river and its tributaries.
Watershed Characterization	A characterization of the physical geography and human geography of the watershed and the characterization of the interactions between the physical geography and human geography.
Well	A vertical bore hole in which a pipe-like structure is inserted into the ground in order to discharge (pump) water from an aquifer.
Well Capture Zone	The area in the aquifer that will contribute water to a well in a certain time period. Often measured in days and years. Area at the ground surface is also included if the time period chosen is longer than the travel time for water in the aquifer and the groundwater recharge area is incorporated.
Wellhead	The structure built above a well.
Wellhead Protection Area (WHPA)	The surface and underground area surrounding a water well or well field that supplies a municipal residential system or other designated system through which contaminants are reasonably likely to move so as to eventually reach the water well or wells. The WHPA-A is the 100 metre circle centred on the wellhead. The WHPA-B is the two year time of travel. WHPA-C is the five year time of travel. WHPA-D is the 25 year time of travel. WHPA-E is associated with a GUDI (groundwater under the direct influence of surface water) well is the area within which the surface water could reach the well within two hours.
Wetlands	Land such as a swamp, marsh, bog or fen (not including land that is being used for agricultural purposes and no longer exhibits wetland characteristics) that, (a) is seasonally or permanently covered by shallow water or has the water table close to or at the surface, (b) has hydric soils and vegetation dominated by hydrophytic or water-tolerant plants

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Zoning	The partition of a city, county, township, or other governmental unit or area by ordinance into sections reserved for different purposes, such as residential, business, manufacturing, or agricultural.
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