Table of Contents

List of Figures

List of Tables

Appendices

Acronyms

ABTP ..... Ashbridges Bay Treatment Plant
AEM ..... Adaptive Environmental Management
AHT ..... Aquatic Habitat Toronto
ANSI ..... Area of Natural and Significant Interest
ASI ..... Archaeological Services Inc.
AWI ..... Area-Wide Initiative
BA ..... British-American Oil Company Limited
BMW ..... Bayerische Motoren Werke (Bavarian Motor Works)
BOD ..... Biological oxygen demand
BTEX ..... Benzene, Toluene, Ethylbenzene, Xylene
CCME ..... Canadian Council of Ministers of the Environment
CDF ..... Confined Disposal Facility
CEAA ..... Canadian Environmental Assessment Act
CHS ..... Canadian Hydrographic Service
CLC ..... Community Liaison Committee
CN ..... Canadian National
CN/CNR ..... Canadian National/Canadian National Railway
COSEWIC ..... Committee on the Status of Endangered Wildlife in Canada
COSSARO ..... Committee on the Status of Species at Risk in Ontario
CP ..... Canadian Pacific
CPR ..... Canadian Pacific Railway
CSO ..... Combined Sewer Overflow
CW ..... Created Wetland
DFO ..... Fisheries and Oceans Canada
DMNP ..... Don Mouth Naturalization and Port Lands Flood Protection Project
DNAPL ..... Dense Non-aqueous Phase Liquid
DO ..... Dissolved Oxygen
DTAH ..... Du Toit Allsopp Hillier / Du Toit Architects Limited
DVP ..... Don Valley Parkway
DWA ..... Designated Waterfront Area
EA ..... Environmental Assessment
EC ..... Environment Canada
EC ..... Electrical Conductivity
ELC ..... Ecological Land Classification
EMS ..... Emergency Medical Services
ESA ..... Environmentally Sensitive Area
ESA ..... Environmental Site Assessment
ESSROC ..... Essroc Italcementi Group
FEAC ..... Federal Environmental Assessment Coordinator
FO (D/C/M) ..... Upland Forest

FPL..... Flood Protection Landform
GIS..... Geographic Information System
GLL..... Gartner Lee Limited
GMMP..... Groundwater Management Master Plan
GO..... Greater Toronto Transit Authority
GTA..... Greater Toronto Area
HAAT..... Habitat Alteration Assessment Tool
HASP..... Health and Safety Plan
HEC-RAS..... Hydrologic Engineering Centres River Analysis System
HHI..... Historic Horizon Inc.
HONI..... Hydro One Networks Inc.
HR&A..... HR&A Advisors Inc.
HRL..... Heritage Research Limited
IBA..... Important Bird Area
IEA..... Individual Environmental Assessment
L..... Lacustrine Environment
LDL..... Lower Don Lands
LDRW..... Lower Don River West
LEL..... Lowest Effects level
LNAPL..... Light Non-aqueous Phase Liquid
LOA..... Length Overall
LOS..... Level of Service
MAM..... Meadow Marsh
MAS..... Emergent Marsh
MBCA..... Migratory Birds Convention Act
MBR..... Migratory Bird Regulations
MCTS..... Marine Communication and Traffic Services
MMAH..... Ministry of Municipal Affairs and Housing
MNR..... Ministry of Natural Resources
MOE..... Ministry of the Environment
MP..... Member of Parliament
MPP..... Member of Provincial Parliament
MTRCA..... Metropolitan Toronto and Region Conservation Authority
MVVA..... Michael Van Valkenburgh Associates Inc.
NAPL..... Non-aqueous Phase Liquids
NHIC..... Natural Heritage Information Centre
NOTMAR..... Notices to Mariners
NOTSHIP..... Notices to Shipping
NTU..... Nephelometric Turbidity Units
NRI..... NRI Industries Inc.
NWPA..... Navigable Waters Protection Act
NWPP..... Navigable Waters Protection Program

OASD ..... Ontario Archaeological Sites Database
OMB ..... Ontario Municipal Board
OMNR ..... Ontario Ministry of Natural Resources
OPA..... Official Plan Amendment
OPSS ..... Ontario Provincial Standards Specifications
ORC ..... Ontario Realty Corporation
ORM..... Oak Ridges Moraine – only used once, should be removed
PAH..... Polycyclic Aromatic Hydrocarbon
PCB..... Polychlorinated Biphenyl
PF..... Public Forum
PHC..... Petroleum Hydrocarbons
PLAC..... Port Lands Action Committee
PPS ..... Provincial Policy Statement
PSQG..... Provincial Sediment Quality Guidelines
PSS ..... Property Specific Standards
PTTW..... Permit to Take Water
PWQO..... Provincial Water Quality Objective
QEW..... Queen Elizabeth Way
R..... Natural River Channel
RA ..... Responsible Authority
RA/RM..... Risk Assessment/Risk Management
RAP..... Remedial Action Plan
RFP ..... Request for Proposal
ROW ..... Right-of-Way
SAR..... Sodium Adsorption Ratio
SAS ..... Submergent Marsh
SCS..... Site Condition Standard
SEDERI..... South East Downtown Economic Redevelopment Initiative
SEL ..... Severe Effect Level
SLR ..... SLR Consulting Limited
SMF..... Soil Management Facility
SMMP ..... Soils Management Master Plan
SPA ..... Special Policy Area
SRBA ..... South Riverdale Business Association
SSC..... Suspended Sediment Concentration
SSO..... Storm Sewer Outfall
SSP ..... Steel Sheet Piling
SW (D/C/M)..... Treed Swamp
SWT ..... Thicket Swamp
TAC ..... Technical Advisory Committee
TBS ..... Treasury Board of Canada Secretariat
TC ..... Transport Canada

TEDCO..... Toronto Economic Development Corporation
THC..... Toronto Harbour Commission
TMC ..... Turning Movement Count
ToR ..... Terms of Reference
TPA ..... Toronto Port Authority
TPLC..... Toronto Port Lands Company
TRCA ..... Toronto and Region Conservation Authority
TRU..... TRU is the company name, and does not have an associated acronym.
TSP ..... Total Suspended Particulate
TSS ..... Total Suspended Solids
TTC ..... Toronto Transit Commission
TTR ..... Toronto Terminals Railway
TWRC ..... Toronto Waterfront Revitalization Corporation
U.K. ..... United Kingdom
U.S. ..... United States of America
VIA ..... VIA Rail Canada
VOC ..... Volatile Organic Compound
WSE..... Water Surface Elevation
WT..... Waterfront Toronto

Units

$ ..... Canadian Dollars
% ..... Per cent
cm ..... Centimetre
ha ..... Hectare
km ..... Kilometre
km/hr ..... Kilometres per hour
km^2 ..... Square kilometres
m ..... Metre
m^2 ..... Square metre
m^3 ..... Cubic metre
m/s ..... Metres per second
m^3/s ..... Cubic metres per second
mASL ..... Metres above sea level
mbgs ..... Metres below ground surface
µg/L ..... Microgram per litre
mg/L ..... Milligrams per litre
mL ..... Millilitres
mm ..... Millimetre
NTU ..... Nephelometric turbidity units
s ..... Second
tons/yr ..... Tons per year

Glossary of Terms

Abutment	The end support of a bridge superstructure, i.e., the part of the structure that supports the arch.
Active recreational space	An area designated for active recreational, e.g., organized sports or individual exercise.
Adaptive management/ Adaptive environmental management (AEM)	The implementation of new or modified mitigation measures over the life of a project to address unanticipated environmental effects.
Adverse environmental effect	An effect leading to one or more of: • impairment of the quality of the natural environment for any use that can be made of it • injury or damage to property or to plant or animal life • harm, material discomfort, an adverse effect on health, or impairment of the safety of any person • rendering any property or plant or animal life unfit for human use • loss of enjoyment of normal use of property • interference with the normal conduct of business
Aerobic	A situation or process requiring oxygen.
Ambient air monitoring program	A systematic, long-term assessment of pollutant levels in the air by measuring the quantity and types of certain pollutants in the outdoor air.
Amenity value	A feature that increases attractiveness or value, especially of a piece of real estate or a geographic location.
Aliquot	A portion of a sample.
Anaerobic	A situation or process not requiring oxygen.
Archaeological resource	Any material remains of past human life or activity which are of archaeological interest.
Area of Natural and Scientific Interest (ANSI)	An area of land and water that represents significant geological and biological features.
Backfill	The material that has been used to refill an excavation.
Baffled settling tank	An enclosure that regulates the flow of water and allows particulates to settle to the bottom, thereby separating the particulates from the water.
Barrier beach	A somewhat linear landform within or extending into a body of water, typically composed of sand, silt or small pebbles.
Bathymetry	The study of underwater depth of lake or ocean floors.
Bedload	Particles in a flowing fluid (usually water) that are transported along a stream bed (bottom).
Benthic	Associated with the bottom of a water body such as a sea or a lake.
Berm	A level space, shelf, or raised barrier separating two areas.
Biennial plant	A flowering plant that takes two years to complete its biological lifecycle.
Biodegradable	A material that can be broken down easily by the environment.

Bio-engineered	Living plants, or a combination of living and non-living materials, that are used to stabilize slopes and drainage ways.
Biological diversity/Biodiversity	The diversity of plant and animal life in a particular area (e.g., habitat, city, world).
Biomass	The mass of living biological organisms in a given area or ecosystem at a given time.
Biomass export	A measure of the amount of organic matter that is expelled from a system.
Biophysical component	The parts of the environment that are not socio-economic (e.g., recreation, traffic, economic cost). These include the natural environment (flora, fauna) and the physical environment (air, soil, water, etc.)
Biophysical interaction	A process by which one component of the environment comes into contact with one of the biophysical components.
Bioswale	Landscape elements designed to remove silt and pollution from surface runoff water.
Biotreatment	The processing of waste or hazardous substance using living organisms such as bacteria, fungi or protozoa.
Boom	A barrier placed in a river, designed to collect and/or contain floating debris.
Borehole	A hole drilled to construct a well.
Bridge footing	The supporting base or groundwork of a bridge.
Brownfield	Former industrial lands, now vacant or underused, but with potential for redevelopment.
Built heritage feature	A site with 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 a community.
Cantilever	A projecting structure, such as a beam, that is supported at one end and carries a load at the other end or along its length.
Channel invert	The bottom of a river channel.
Climate change	A change in the statistical distribution of weather over periods of time that range from decades to millions of years.
Coffer dam	An enclosure within a water environment constructed to allow water to be displaced by air for the purpose of creating a dry work environment.
Combined sewer overflow (CSO)	An event where stormwater exceeds the capacity of a combined sewer and stormwater/sewage are released to an adjacent water body.
Conceptual design	A product of the design process that meets the stated objectives of the DMNP.
Confirmatory studies	Studies undertaken to confirm a project-related hypothesis.
Contiguous wetland habitat	Wetland habitat that is spatially connected without any interruptions by other habitat types or constructed areas.
Controlled wetland	A wetland area where hydrologic inputs are managed by outside controls (e.g., weir releases into the wetland area)
Constructability	The feasibility of constructing a given project component.
Convey/Conveyance	The ability of the valley form to direct flood water through the project area.

Core contiguous area	An area of wetland habitat within the DMNP approximately 10 ha in area.
Core wetland area	A primary constructed wetland within the DMNP.
Crashwall	A physical barrier used to intercept wave action offshore creating an area of calmer water near shore.
Created wetland	A wetland area that has been constructed as opposed to naturally occurring.
Critical constraint	A restriction that a system places on the design of a project which must be addressed if project objectives are to be met.
Critical habitat	An area essential to the conservation of a listed species.
Cumulative environmental effect	The sum of the net effects from a project (i.e., effects minus mitigation measures) with other past, present and reasonably foreseeable future environmental net effects from other actions.
Cutterhead	A rotating head, which itself forms a cutter, or a rotating stock to which cutters may be attached.
Dataset	A collection of data.
Debris management	An active process of removing non-sediment material from the Don River to maintain desired hydrologic function.
Decommissioning	A formal process to remove something from active status.
Delft3D	A 2D/3D modeling system to investigate hydrodynamics, sediment transport and morphology and water quality for fluvial, estuarine and costal environments.
Delta	A landform composed of deposited sediment that is created at the mouth of a river where it flows into another water body.
Dendritic drainage	Drainage system with irregular stream branching, with tributaries joining the main stream at all angles.
Dense non-aqueous phase liquid (DNAPL)	A liquid that is denser than water and does not dissolve in water.
Downcutting	A geologic process that deepens the channel of a stream or valley by removing material from the stream bed or valley floor.
Drainage basin	The area from which all precipitation flows to a single stream or set of streams.
Dredge spoil	The material removed from the river bed through dredging activity.
Dredging	Removal of sand, silt, rock or other underwater sea bottom material.
Drowned rivermouth	A funnel-shaped estuary formed by the submergence of the lower portion of the river valley.
Early/mid successional	Vegetation in the early/middle stages of development.
Ecosystem-based approach	A strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use.
Edge effect	The effect of the juxtaposition of contrasting environments on an ecosystem.
Electro-fishing	A common scientific survey method used to sample fish populations, which uses electricity to stun fish before they are caught.
Embayment	A bay or bay-like formation.

Emergent Marsh	A wetland that is permanently flooded and dominated by grasses and broadleaved flowering plants with less than 25% woody species.
Environment	As defined in the *Canadian EA Act*, *"environment" means the components of the Earth, and includes:* • *land, water and air, including all layers of the atmosphere,* • *all organic and inorganic matter and living organisms, and* • *the interacting natural systems that include [the components listed above].*
Environmental Assessment	A process for identifying project and environment interactions, predicting environmental effects, identifying mitigation measures, evaluating significance, reporting and following-up to verify accuracy and effectiveness.
Environmentally sensitive area (ESA)	An area with values which are identified to be of local interest and is designated and managed by a municipality.
Erosion	A condition in which the Earth's surface is worn away by the action of water and wind.
Estuary	A partly enclosed coastal body of water with one or more rivers or streams flowing into it, and with a free connection to the open sea.
Exotic (invasive) species	A species that has been introduced from another geographic region to an area outside of its natural range.
Extirpated	A species or subspecies that has been eliminated from a particular area, but not from its entire range.
Fauna	Animal life.
Feeder channel	A stream or river connected to a larger river.
Floating skimmer	Equipment used to remove free and floating oil.
Flood protection	Measures taken to prevent the flooding of an area (e.g., embankments, wetlands, etc.).
Flow rate	The volume of fluid which passes through a given surface per unit time.
Forage fish	Also called prey fish, are small fish which are preyed on by larger predators for food.
Fossiliferous	Bearing or containing fossils.
Foundry	A factory that produces metal castings.
Freeboard	The distance between normal water level and the top of a river bank.
French drain	A ditch covered with gravel or rock that redirects surface and groundwater away from an area.
Geoenvironmental	Related to the part of the lithosphere (crust of the Earth) which is affected by humans.
Geographic Information System (GIS)	A computerized system that captures, stores, analyzes, manages, and presents data that are linked to location.
Geomembrane	An impermeable membrane (layer) used widely as cut-offs and liners, usually in canals and ponds.
Geomorphology	The scientific study of landforms and the processes that shape them.

Geotextile	A permeable fabric which, when used in association with soil, has the ability to separate, filter, reinforce, protect, or drain.
Grab sampling	A research technique by which all of the test material is collected at one time.
Grading	Ensuring a level (or possibly sloped to specific degree) base for a construction work.
HAAT model	The Habitat Alteration and Assessment Tool (HAAT) model, which is used for assessing productivity of fish habitat based on substrate and other criteria.
Habitat suitability indices	Numerical indices that represents the capacity of a given habitat to support a selected species. Results represent the interactions of the habitat characteristics and how each habitat relates to a given species.
Hardpiped utility	A utility transferred or connected through inflexible piping.
Headwater	The place from which the water in a river or stream originates.
Herbaceous	Describes a plant that has leaves and stems that die down at the end of the growing season to the soil level, with no persistent woody stem above ground.
Hydraulic	Applied science term relating to fluids in motion.
Hydrocyclone	A machine used to separate solid particles in a liquid suspension (e.g., sediment contained in water) based on the densities of the particles.
Hydrograph	A graph showing changes in the discharge (amount of water) of a river over a period of time.
Hydrology	The study of the movement, distribution, and quality of water.
Hydroperiod	The length of time, frequency, and depth that a particular area remains flooded.
Ice management	Measures used to ensure that ice does not block river flow.
"In the dry"	Construction activities completed in generally dry conditions.
"In the wet"	Construction activities completed in generally wet conditions (e.g., completely or partially under water).
Indicator	Measurement used to assess the effect of a project an environmental component.
Indigenous species (plant or animal)	A species that is native to a given region or ecosystem as a result of only natural processes, with no human intervention.
Inert	Materials that are uncontaminated and/or do not move about easily in the environment.
Inorganic	Compounds considered to be of a mineral, not biological, origin.
Interbeds	Alternating layers of different materials in a section of bedded rocks.
Interior habitat	The forest area located greater than 300 feet from the forest edge.
Intermixed gravel	Various forms of rock that are between 2 mm and 64 mm mixed together with one another.
Interpolate	To introduce (something additional or extraneous) between other things or parts.
Inundate	To flood with water.
Isostatic	Changes in elevation created by the weight of one material on another.

Lake level fluctuation	Changes in the level of a lake due to various factors, including climatic fluctuations and variations in inputs and outputs to the lake.
Lacustrine	Pertaining to lakes.
Leachate	A liquid formed by water percolating through soil or waste in a landfill.
Levee	A natural or artificial slope or wall to regulate water levels that is often parallel to the course of a river.
Life-cycle assessment	Methodology used to assess a product's full environmental cost, from the harvesting of raw material to final disposal.
Light non-aqueous phase liquid	A liquid that is less dense than water and does not dissolve in water (e.g., oil and gasoline).
Listed wildlife species	Animals with some conservation status, either provincially or federally.
Low-flow channel	The channel of the new river mouth where water will flow under normal (non-flooding) conditions.
Low-level interceptor	A sewer designed to convey dry weather flow (and a minor component of wet weather flow) from the combined sewer system to the treatment plant. When wet weather flows exceed the capacity of the interceptor sewer, the excess flows are discharged to the environment as combined sewer overflow (CSO).
Lower Don Lands (LDL)	The area of land generally bordered by Lake Shore Boulevard/Gardiner Expressway to the north, the Inner Harbour to the west, the Ship Channel to the south, and the Don Roadway to the east.
Macrophyte	An aquatic plant that grows in or near water and is either emergent (coming out of the water), submergent (fully underwater), or floating.
Meadow marsh	A wetland that is seasonally flooded and dominated by grasses and broadleaved flowering plants with less than 25% woody species.
Microtopography	Very small scale variations in the height and roughness of the ground surface.
Mitigation	An attempt to offset potential adverse effects of human activity on the environment.
Mitigative measure	Action or program intended to offset known impacts to an existing natural resource such as a stream, wetland, or endangered species.
Morphologic/Morphology	Relating to the shapes of river channels and how they change over time.
Non-aqueous phase liquid (NAPL)	A liquid that does not dissolve in water.
Nuisance effect	An effect of a project that is considered to be inconvenient or annoying (e.g., noise, traffic).
Oligochaetes	A subclass in the biological phylum Annelida and includes various earthworms.
Orthophoto	An aerial photograph geometrically corrected (“orthorectified”) such that the scale is uniform and the photo has the same lack of distortion as a map.
Overbank area	The area that is covered by water as a river floods over its banks.
Overflow channel	The channel of the new river mouth where water will flow under flooding conditions, once there is too much water to be contained in the low-flow channel.
Overflow spillway	See “Overflow channel”.

Oxidation	A process where minerals in the soil combine with some of the oxygen dissolved in the soil moisture.
Palaeontological	Relating to the study of prehistoric life, including organisms' evolution and interactions with each other and their environments.
Permeability/Permeable	The ability of a substance or layer (e.g., rocks, ground covering) to allow certain substances (e.g., water, dust) to pass through it.
Petroleum hydrocarbons	A group of organic compounds containing hydrogen and carbon. Most are derived from crude oil and geological sources such as coal.
Phreatic surface	The level of groundwater where hydrostatic pressure is equal to that of the atmosphere, and usually coincides with the water table.
Piscivore	A carnivorous animal whose diet consists primarily of fish.
Polycyclic aromatic hydrocarbons (PAH)	A group of approximately 10,000 compounds, most of which arise from the incomplete burning of carbon-containing materials such as oil, garbage, coal or wood.
Precinct Plan	A plan that provides guidance for future changes to an area. It is published after extensive public consultation and usually acts as a preceptor to Secondary Plan and Zoning By-law amendments.
Promontory	A prominent mass of land which overlooks lower lying land or a body of water.
Provincially Significant Wetland (PSW)	A wetland that is protected by the Province of Ontario under the Provincial Policy Statement (PPS). The Ontario Ministry of Natural Resources uses an evaluation system to classify wetlands in Ontario as either Provincially Significant or Locally Significant.
Refugia	A location of an isolated or relict population of a once widespread animal or plant species.
Recharge (groundwater)	A process where water moves downward from surface water to groundwater.
Remedial Action Plan (RAP)	A document prepared and implemented through cooperation between federal, provincial, and municipal governments, with the goal of reducing pollution in Areas of Concern identified under the Canada-United States Great Lakes Water Quality Agreement.
Revetment	A sloping structure placed on banks or cliffs in such a way as to absorb the energy of incoming water.
Riffle	A part of a stream characterized by shallow, fast-moving water broken by the presence of rocks and boulders.
Riparian vegetation/Riparian zone	Plant communities along river margins (edges).
Riprap	Rock or other material used to armour (protect) shorelines, streambeds, bridge abutments, pilings and other shoreline structures against scour, water or ice erosion.
Riverine habitat	Habitat offered by a river.
Riverine wetland	Riverine wetlands are found within river and stream channels and are strongly influenced by seasonal runoff patterns. When inundated, riverine wetlands provide habitat for water-tolerant plants such as willows, and aquatic animals such as tadpoles and immature fish.
Rivulet	A type of stream (a flowing body of water with a current, confined within a bed and stream banks).

Roughness coefficient	Part of an empirical formula for river water flow, which affects the speed of water in the river.
Ruderal plant	Plants robust enough to grow on bare ground or contaminated land.
Ruderal plant community	A group of plants that is first to colonize disturbed lands. The disturbance may be natural (e.g., wildfires or avalanches), or due to human influence - constructional (e.g., road construction, building construction or mining), or agricultural (e.g., abandoned farming fields or abandoned irrigation ditches).
Sand horizon	A specific layer of sand which is parallel to the soil surface and possesses physical characteristics which differ from the layers above and beneath.
Scalable map	A map which has been defined as the ratio of a distance on the map to the corresponding distance on the ground.
Scouring and deposition	The wearing a way of a material due to the movement of water and the associated settling of the material elsewhere.
Seawaymax	Vessels which are the maximum size that can fit through the canal locks of the St. Lawrence Seaway (225.6 m in length, 23.8 m wide, and with a draft of 7.92 m).
Secchi depth	The depth in water at which the pattern on a Secchi disk is no longer visible; this is a measure of the transparency of the water and is related to water turbidity.
Seiches	Periodic oscillations of water level set in motion by some atmospheric disturbance.
Seepage wetland	A wetland that is located where a gently sloping land surface intersects the water table, and receives water from subterranean aquifers (groundwater).
Shear stresses	Stresses which are applied parallel to the face of a material, as opposed to normal stresses which are applied perpendicularly.
Sinuosity	A measure of deviation of a path length from the shortest possible path.
Slurry	A thick suspension of solids in a liquid
Spill Zone	An area of land predicted to flood during the Regulatory Flood.
Stratum	A layer of rock or soil with internally consistent characteristics that distinguish it from contiguous layers.
Thalweg	A line drawn to join the lowest points along the entire length of a stream bed or valley in its downward slope, defining its deepest channel. It thus marks the natural direction (the profile) of a watercourse, and is almost always the line of fastest flow in any river.
Trophic	Relating to the position that an organism occupies on the food chain (a succession of organisms that eat another organism and are, in turn, eaten themselves). Primary producers (plants) are level 1, herbivores (plant eaters) are level 2, and so on.
Utilidor	A corridor built underground or aboveground to carry utility lines such as electricity, water and sewers.
Volatile organic compounds (VOCs)	Compounds with a high vapour pressure which can easily be released as gases at normal temperatures.
Walkability	A measure of how friendly an area or community is to walking.
Weir	A small overflow-type dam commonly used to raise the level of a river or stream.
Wharfage	The charge assessed against cargo or merchandise, vessel's stores, fuel and supplies for passage on, over, under or through a wharf.