

Glossary of Terms

Alkalinity – A measurement of the ability of water to buffer or neutralize acid by absorbing hydrogen ions.

Average Concentration: The mean of all Single Sample Results of the concentration of a contaminant in a given stream (for example, Influent or Final Effluent) measured during a specified time period, such as monthly or annually.

Average Flow: The cumulative total of Influent or Final Effluent flow measured during a defined period of time, such as monthly or annually, divided by the number of days during that specified time period.

Average Loading: The value obtained by multiplying the Average Concentration of a contaminant in a given stream (for example, Influent or Final Effluent) by the Average Flow for that stream.

Biological Oxygen Demand (BOD₅): The five-day biochemical oxygen demand measured in an unfiltered sample and includes carbonaceous and nitrogenous oxygen demands.

Carbonaceous Biochemical Oxygen Demand (CBOD₅): The five-day carbonaceous (nitrification inhibited) biochemical oxygen demand measured in an unfiltered sample.

Bypass: A diversion of sewage around one or more treatment processes, excluding Preliminary Treatment System, within the Sewage Treatment Plant with the diverted sewage flows being returned to the Sewage Treatment Plant treatment train upstream of the Final Effluent sampling point(s) and discharged via the approved effluent disposal facilities.

CCTV (Closed Circuit Television Camera): Camera system used to carry out inspections of sewer laterals and chambers for condition assessments.

Coagulant – A chemical, such as ferric chloride or aluminum sulphate, that is used in the wastewater treatment process mainly for the removal of Total Phosphorus (TP).

Combined Sewers: Pipes that collect and convey both wastewater from residential, commercial, institutional and industrial buildings and facilities (including infiltration and inflow) and stormwater runoff through a single-pipe system, but do not include Nominally Separate Sewers.

Digested Sludge or Biosolids: Solids removed during the treatment of wastewater that are treated on site by anaerobic digestion prior to further treatment or transportation.

ECA (Environmental Compliance Approval): Site specific approval document issued by the Ministry of the Environment, Conservation and Parks that outlines the conditions and requirements under which the wastewater treatment and collection systems must operate.

E. Coli: Refers to coliform bacteria that possess the enzyme beta-glucuronidase and are capable of cleaving a fluorogenic or chromogenic substrate with the corresponding release of a fluorogen or chromogen, that produces fluorescence under long wavelength (366 nm) UV light,

or color development, respectively. Enumeration methods include tube, membrane filter, or multi-well procedures. Depending on the method selected, incubation temperatures include $35.5 + 0.5$ °C or $44.5 + 0.2$ °C (to enumerate thermotolerant species). Depending on the procedure used, data are reported as either colony forming units (CFU) per 100 mL (for membrane filtration methods) or as most probable number (MPN) per 100 mL (for tube or multi-well methods).

Event: An action or occurrence, at a given location within the Works that causes a Bypass or Overflow. An Event ends when there is no recurrence of Bypass or Overflow in the 12-hour period following the last Bypass or Overflow. Overflows and Bypasses are separate Events even when they occur concurrently.

Final Effluent: Effluent that is discharged to the environment through the approved effluent disposal facilities, including all Bypasses, that are required to meet the compliance limits stipulated in the Approval for the Sewage Treatment Plant at the Final Effluent sampling point(s).

Forcemain: A pipe that conveys wastewater under pressure out of a sewage pumping station.

Imported Sewage: Sewage hauled to the Sewage Treatment Plant by licensed waste management system operators of the types and quantities approved for co-treatment in the Sewage Treatment Plant, including hauled sewage and leachate within the meaning of R.R.O. 1990, Regulation 347: General – Waste Management, as amended.

Inflow and Infiltration (I&I, I/I): Inflow is water that enters a sewer system through an improper connection such as foundation drains, downspout connections, maintenance hole covers, etc. Infiltration is water that enters a sewer system through defective or leaky pipes, joints connections or maintenance holes.

Influent: Flows to the Sewage Treatment Plant from the collection system and Imported Sewage but excluding process return flows.

Maintenance Hole (MH): A structure that provides access to a sewer system for inspection, cleaning, maintenance, sampling or flow monitoring.

Master Servicing Plan (MSP): A study conducted to assess current water and wastewater services and anticipated future growth. The Water and Wastewater Master Servicing Plan provides direction on how the current system is operated and how we plan to operate and deliver water and wastewater services in the future.

MECP or Ministry: Ministry of the Environment, Conservation and Parks

Monthly Geometric Mean Density: The mean of all Single Sample Results of E. coli measurement in the samples taken during a calendar month, calculated and reported as per the methodology specified by the MECP.

Nominally Separated Sewer: means Separate Sewers that also have connections from roof leaders and foundation drains and are not considered to be Combined Sewers.

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Normal Operating Condition: means the condition when all unit process(es), excluding Preliminary Treatment System, in a treatment train is operating within its design capacity.

Odour Control Facility (OCF): Facility designed to prevent odours from occurring during the collection or treatment of wastewater.

Overflow: means a discharge to the environment from the Works at designed location(s) other than the approved effluent disposal facilities or via the effluent disposal facilities downstream of the Final Effluent sampling point.

Peak Daily Flow Rate: means the largest volume of flow to be received during a one-day period for which the sewage treatment process unit or equipment is designed to handle.

Pollution Prevention Control Plan (PPCP): A PPCP is a study undertaken to identify, investigate, and reduce untreated sewer system overflows to the environment. This Study will identify actions that can be taken to help manage the sanitary and combined sewer system, to reduce overflows and reduce the risk of basement flooding.

Preventative Maintenance (PMs): Routinely scheduled or planned maintenance activities designed to maintain assets in a state of good repair.

Rated Capacity: means the Annual Average Daily Flow for which the Sewage Treatment Plant is designed to handle.

Sludge: Solids removed from sewage during the wastewater treatment process.

SPS (Sewage Pumping Station): Assets designed to lift wastewater from a place of lower elevation to a place of higher elevation.

Spill: A planned or unplanned discharge of a contaminant to the environment that is not typical in quantity or quality. A spill from a wastewater system could be a discharge of partially or untreated wastewater, a chemical used in the treatment process or a release of digester biogas to the environment.

SUBL: Sewer Use By-Law

Total Ammonia Nitrogen (TAN): a measure of the total amount of ammonia present in a sample.

Total Kjeldahl Nitrogen (TKN): the total concentration of organic nitrogen and ammonia present in a sample.

Total Phosphorus (TP): a measure of the total amount of phosphorus in a sample.

Total Suspended Solids (TSS): suspended particles (organic and inorganic material) present in the water sample that is larger than 0.4 micron filter pore size.

Trunk Sewer: A larger diameter sewer that collects wastewater from mainline sewers and conveys it to a sewage pumping station or directly to a wastewater treatment plant.

Wastewater: Water that has been used and discharged by homes, businesses and industries.

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WSER – Wastewater Systems Effluent Regulation

WWTP - Wastewater Treatment Plant