Investigations of Basement Flooding (Area 28, 29 & 30)
Class Environmental Assessment

Glossary of Terms

Seen or heard a word or two that's new? Here are some definitions to help you better understand the information presented at the Public Information Centre.

Backflow Valve or Check Valve:	A valve that allows one-way flow of sewage out of the home while blocking sewage from flowing into the basement during sewer backup conditions.
Breather (Vent)	A pipe connection from a service lateral to the surface that allows gases to escape the sewer system while not entering the home.
Catchbasin:	A grated inlet structure in a roadway that allows surface water to enter the storm sewer system, while preventing large objects from entering.
Clean Out:	This is a pipe rising from the sewer lateral to the ground surface with a removable cap or plug. It is used to access the sewer lateral for inspection or to free blockages. It is usually located just inside the property line, but there may be additional sewer cleanouts at various other locations on your property, including inside your basement.
Combined Sewers:	A sewer that carries both stormwater and sanitary wastewater.
Cross-connection:	Where a stormwater pipe is incorrectly connected to a sanitary sewer or where a sanitary pipe is incorrectly connected to a storm sewer
Directly Connected Downspout:	A downspout that directly connects below the ground to a service lateral, and not to the surface.
Downspouts:	Pipes connecting to the roof eavestroughs and discharging to the ground level or below ground; also known as roof leaders.
Downspout Disconnection:	The process of disconnecting a home's downspouts from the underground sewer system, to reduce the amount of water entering the sewers.
Dry Weather Flow:	Flow discharging from a sewer during dry periods (i.e., when it isn't raining or snowing). In a sanitary sewer, this consists of domestic wastewater and infiltrated groundwater.
EA Process	EA stands for Environmental Assessment, a provincially mandated decision-making process that outlines the strategic steps and considerations for completing planning & engineering projects that affect the public and the environment.
End-of-Pipe	A stormwater management facility at the outlet of a sewer that deals with

Control:	stormwater and/or combined sewage before it is discharged into a stream, river, or lake. Types of facilities include wet and dry ponds, wetlands, underground storage tanks, and underground infiltration basins etc.
Footing:	A concrete base upon which basement walls are placed. Weeping tile (foundation drains) are placed against this base.
Foundation Drain:	Also called Weeping Tiles. A special piping system that surrounds a basement footing and is designed to lower the groundwater table and drain surface water that has infiltrated alongside the house such that groundwater remains below the basement floor.
Hydraulic Grade Line:	An engineering term used to describe the water level in a system. Also called HGL, It represents the maximum height of water in a sewer or maintenance hole.
Hydraulic/ Hydrologic Model:	A computer program that simulates flow and rainfall events through a drainage system by performing a series of mathematical computations.
Hydraulics:	A branch of engineering that deals with the transmission of water and application of fluid mechanics principles.
Hydrology:	A branch of science that deals with the distribution and movement of water on the surface, below ground, and through the atmosphere.
Impervious Surface:	A surface which does not allow water to pass through, or infiltrate. Example, pavement, concrete, roofs, highly compacted clay etc.
Infiltration:	1) Surface water that moves through the ground into the water table, much like water passes through a coffee filter. 2) Also refers to groundwater (water found below the ground surface) that enters sewer pipes through cracks, pipe joints, and other system leaks. Because sewers are typically buried deep, they are often located below the water table. Storm events can raise groundwater levels and increase infiltration of groundwater into sewer pipes. The highest infiltration flows are observed during or right after heavy rain. Too much infiltration can overload the sanitary sewers and cause backup.
Inflow:	Surface water that directly enters the sanitary sewer system through manhole cover holes, connected downspouts, uncapped clean outs, and/or illegally cross-connected catchbasins.
I/I:	An industry term for Infiltration and Inflow (see above).
MOE:	(Ontario) Ministry of the Environment
O&M:	Operations and Maintenance
One Hundred Year Storm:	A statistical representation of historic rainfall records, meaning there is a 1% chance (probability) that a storm of this magnitude will hit in any given year. This therefore means that it is possible that a storm like this can happen more than once, possibly even in the same year. It is often misinterpreted to mean a storm that only occurs once every 100 years, which is not the case. This can be demonstrated with a deck of cards analogy; the likelihood of getting

	a full house in a given hand is pretty low, but it is not impossible. Nor is it impossible to get 2 full houses in a row, just extremely unlikely.
One Hundred Year Design Storm:	The benchmark for engineering design of new storm drainage systems. Meaning, a one hundred year storm should not cause flooding. This does not mean that the underground sewer can take this flow; instead a combination of the underground and surface drainage systems should combine to protect private property from damage during this event.
Outlet/Outfall:	The discharge point of a sewer system. For storm sewers, normally a waterbody or watercourse; for sanitary sewers, the trunk sewer or treatment plant.
P-trap:	A plumbing fixture that keeps a water seal between the sewer and the house, to prevent sewer gases/odours from entering the home. An example can be found under every sink, and looks like a sideways letter 'P'.
Ponding:	Accumulation, or pooling, of stormwater on the ground surface.
Reverse-slope Driveway:	A driveway that slopes from the road towards the house. Water is typically collected in a catchbasin at the bottom of the driveway.
Road Sag:	A localized low-point in the road, where water has no immediate outlet. Catchbasins are normally located in sags, and sags can be used to help reduce the amount of water entering a storm sewer by retaining it on the surface and slowly letting it enter the system.
Runoff:	Excess rainwater that has reached the surface but cannot soak into the ground, therefore running off and following the natural ground.
Sanitary Sewer:	An underground sewer system designed to receive wastewater and transport it from homes and businesses to the sewage treatment plant. This system is not intended to receive surface rain water.
Service Lateral:	The sewer connection from the house plumbing to the municipal sewer in the street. A house can have up to 2 connections: a sanitary lateral or both a sanitary and storm lateral. Also called a "sewer lateral", or simply "lateral".
Sewer:	An underground pipe that transports storm and/or sanitary waste water by gravity from one location to another.
Sewer Backup:	A condition that occurs when a sewer is under surcharge or if a blockage limits how much flow can pass through a pipe, causing water to back up the sewer and potentially enter the home.
Sewer Surcharge:	A condition that occurs when the amount of water in a sewer is greater than what the sewer can handle, causing the water level to increase rapidly.
Sewershed:	An area defined by the sewer outlet it drains to.
Splash Pad:	These are often concrete or plastic blocks that receive water from downspouts. They help prevent erosion and move water away from the foundation.
Stack:	A pipe in a house that connects to all internal wastewater plumbing and vents to the air through the roof, to eliminate gas build up and odour in the house

Storage:	The temporary detention of water in a surface or subsurface structure, such as a pond, tank, or oversized pipe. Storage helps relieve overloading of the pipe or surface network by storing and slowly releasing water back to the system.
Storm Sewer:	The underground sewer system designed to receive storm water or rainwater that has become runoff. This system carries water away to a receiving water body such as the West Don River, or Newtonbrook Creek.
Stormwater:	Water resulting from rain that enters the surface and subsurface drainage systems.
Sump Pit:	A small pit or chamber located in a house such that it receives discharge from the foundation drains (weeping tile).
Sump Pump:	An automatic pump that drains accumulated weeping tile water in the sump pit to the surface and away from the house, thereby relieving water build-up around basement walls. It is not intended for pumping out large quantities of flood waters.
Trunk Sewer:	The main large diameter sewer that collects smaller neighbourhood sewers and discharges to the outlet.
TRCA	Toronto and Region Conservation Authority. TRCA is responsible for regulating the watercourses in the Greater Toronto Area.
Wastewater:	Water generated by household and commercial plumbing, such as sinks, toilets, washing machines, tubs, and dishwashers.
Watershed:	The surface area draining to a watercourse outlet, such as a creek or river.
Weeping Tile:	Also called Foundation Drains. A special piping system that surrounds a basement footing and is designed to drain the groundwater table or surface water that has infiltrated alongside the house.
Wetland:	A constructed shallow vegetated area, like a marsh, that is designed to treat polluted stormwater and reduce the amount of water entering a downstream stormwater system.
Wet Weather Flow:	Flow generated due to rain or snowmelt in all drainage systems.