



# Glossary

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As you read the City of Port Alberni's Liquid Waste Management Plan Factsheets you may come across some technical terms. Some of these terms are explained below.

**Biosolids:** Stabilized and dewatered solids / biomass that results from wastewater treatment.

**Carbonaceous 5-day biochemical oxygen demand (BOD):** The rate that biological organisms use the oxygen in water or wastewater over a five day incubation period. This parameter is determined through laboratory testing and is typically used to understand how well a treatment system is working to clean up the wastewater.

**Combined Sewer Overflow or CSO:** Overflows that occur in sewer systems that collect both wastewater and storm water. During some rainfall events, the capacity of the sewer is exceeded and this results in the discharge of wastewater and storm water to the environment without treatment. **Disinfection:** A treatment process used to reduce levels of harmful pathogens.

**Effluent:** Treated wastewater, which is subsequently re-integrated with the watershed.

**Environmental Impact Study (EIS):** Desktop and field investigations that assess the possible impacts that a proposed project may have on the environment. In BC, provincial guidelines outline the information that must be included as part of an EIS for a new wastewater discharge.

**Forcemain:** Large sewer lines that convey and control the flow of wastewater to the treatment facility. This type of pipe is similar to an interceptor pipeline, except that it is typically located in low-lying areas. Wastewater in the low-lying areas must pass through a pumping station to move it along in the sewer system, rather than be moved along with the help of gravity.

**Inflow and Infiltration (I&I):** Inflow and infiltration is relatively clean water that enters the sanitary sewer system, mainly as a result of a rainfall event or snow melt. Inflow enters the system from the top, for example roof leaders that drain into the sewer system. Infiltration enters the system from below the ground, for example through leaky pipes or house sump pumps.

**Interceptors:** Large sewer lines that convey and control the flow of wastewater to the treatment facility. These pipes generally follow the natural slope of land, which relies on the help of gravity to move the wastewater along in the system. This type of pipe is similar to a forcemain, except that it is typically gravity-fed, not pressurized by pumping stations.

**Wastewater Lagoon:** A type of wastewater treatment facility that consists of one or more surface impoundments. Lagoons treat wastewater by a combination of biological and physical processes. Air can be added to a lagoon using an aeration system – this system is known as an aerated lagoon.

**Ministry of Environment (MOE):** The approving authority for the Liquid Waste Management Plan in the province of BC.



**Municipal Wastewater Regulation (MWR):** Provincial legislation that provides guidance on meeting the current standards and requirements for the treatment, reuse, and disposal of wastewater in British Columbia. The regulation applies to all discharges of domestic wastewater except those regulated under the Public Health Act’s Sewerage System Regulation and discharges from single or multi-family dwellings. The MWR applies to discharges of wastewater to water bodies and to the ground. The requirements of the MWR are enforced by the BC Ministry of Environment.

**Official Community Plan (OCP):** A statement of objectives and policies to guide decisions on planning and land use management, within the area covered by the plan, respecting the purposes of local government.

**Outfall:** A pipe that transports effluent to its discharge location.

**Pumping Station:** A facility that uses the action of pumps to move wastewater within the sewer system, typically from a low-lying area to an area of higher elevation.

**Reclaimed Water:** Municipal wastewater that is treated and suitable for use in accordance with the BC Municipal Wastewater Regulation.

**Resource Recovery:** The practice of recovering material of value from waste resources. Practices to recover value from wastewater include reuse of treated effluent, heat recovery from wastewater, and recovery of nutrients from liquid and solid wastewater streams.

**Secondary Treatment:** Wastewater treatment (usually biological or physical-chemical) to remove organics which consistently produces an effluent quality with a carbonaceous 5-day biochemical oxygen demand (BOD 5 ) and total suspended solids (TSS) concentrations not more than 45 mg/L, as defined by the Municipal Wastewater Regulation.

**Stage 1 (LWMP):** a high-level investigation examining current wastewater management strategies. This stage identifies key wastewater management issues to develop wastewater management alternatives for more thorough consideration in Stage 2. The City’s Stage 1 LWMP was completed in May 2001 and was approved by the BC MOE.

**Stage 2 (LWMP):** utilizes information developed in the previous stage, combined with supplemental studies, to evaluate specific questions related to future wastewater management strategies. The City’s long-term wastewater management strategy will be selected following completion of this stage and will be carried forward to the Stage 3 LWMP.

**Stage 3 (LWMP):** utilizes information developed in previous stages to execute the implementation plan for the preferred wastewater management strategy. Stage 3 includes a wastewater management strategy that achieves provincial and federal regulatory objectives, an implementation schedule, and an Operational Certificate (OC) that will replace the City’s existing discharge permit for the wastewater treatment facility.



**Urban Stormwater:** Precipitation including rainfall and snowmelt that runs off surfaces, such as rooftops, paved streets, highways, and parking lots. Stormwater can pick up and transport pollutants such as oil, trash, pesticides, soils, and other wastes to water bodies untreated.

**Source Control:** Includes practices that protect sewer and wastewater treatment infrastructure, the public, and the environment from discharges that may pose risks to safety and proper operation. These practices typically include laws and public education to limit potentially hazardous discharges.

**Wastewater Systems Effluent Regulations (WSER):** Federal legislation recently enacted under the Fisheries Act. The policy outlines minimum effluent quality standards that apply to wastewater management across Canada, specifically wastewater facilities that discharge to surface water. They include minimum effluent quality standards that can be achieved through biological or secondary wastewater treatment approaches. The requirements of WSER are enforced by Environment Canada.

**Wastewater:** The “used” water and the material that it carries. Basically, wastewater is a term that encompasses water flushed down the toilet or washed down the drain. Wastewater can also include rain water, groundwater, or snow melt (inflow and infiltration) that make their way into sewer pipes.