

WASTEWATER MINI GLOSSARY

WASTEWATER SERVICES GLOSSARY

As you read the Wastewater Services and Liquid Waste Management Plan Factsheets, you may come across some technical terms. Some of these terms are explained below.

Benchmarking: An ongoing process of sharing ideas and comparing products, services and practices with those of similar organizations to improve quality and optimize performance. Through benchmarking, the RDN can improve performance and reduce costs.

Biogas: Biogas refers to the methane and carbon dioxide produced as a by-product of anaerobic digestion. Biogas is a sustainable fuel source used as fuel for heat or to create electricity.

Biosolids: Stabilized municipal sewage sludge resulting from a municipal wastewater or septage treatment process or septage that meets quality criteria for beneficial use under the Organic Matter Recycling Regulation.

Carbonaceous 5-day biochemical oxygen demand (BOD₅): is the rate at which aerobic biological organisms use the oxygen in water or wastewater over a five day incubation period.

Chemically-enhanced primary treatment: Chemically-enhanced primary treatment is the same as primary treatment, except a polymer is added to make the settling process more efficient. Primary wastewater treatment essentially uses gravity to treat the wastewater in large settling tanks. The tanks allow the lighter fats, oils, and grease to rise to the surface while the heavier materials settle to the bottom to form sludge. Fats, oil, and grease are skimmed off and sent to the landfill. The sludge is treated further, to become biosolids. Primary treatment produces an effluent quality with a carbonaceous 5-day biochemical oxygen demand (BOD₅) not exceeding 130 mg/L and total suspended solids (TSS) concentration not exceeding 130 mg/L.

Cogeneration: A form of resource recovery which refers to the use of biogas (methane and carbon dioxide by-products) to generate both electricity and heat.

Development cost charge: Funds collected to offset that portion of the costs related to services that are incurred as a direct result of this new development. DCCs are applied as one-time charges and are usually collected from developers at the time of subdivision approval or at the time of issuing a building permit.

Digester: Wastewater treatment infrastructure which stabilizes sludge in the process to produce biosolids.

Effluent: Liquid resulting from the treatment of wastewater

Environmental Management System: An Environmental Management System is a tool used to evaluate and improve environmental performance. The RDN Wastewater Service's EMS is ISO 14001 certified. >



LIQUID WASTE MANAGEMENT PLAN



Forcemain: Large sewer lines that control the flow of wastewater to the treatment plant. This type of pipe is similar to an interceptor, except that it is typically located in low-lying areas and wastewater must pass through a pumping station, rather than be transported by gravity.

Inflow and infiltration: 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 control the flow of wastewater to the treatment plant. These pipes generally follow the natural slope of land allowing gravity to transport wastewater. This type of pipe is similar to a forcemain, except that it is typically gravity-fed, not pressurized by pump stations.

Ministry of Environment: The approving authority for the Liquid Waste Management Plan.

Municipal Wastewater Regulation: Provides guidance on meeting the current standards and requirements for the treatment, reuse and disposal of sewage. It applies to all discharges of domestic wastewater except those regulated under the Public Health Act Sewerage System Regulation and discharges from single or multi-family dwellings. Also applies to any discharges of sewage to water bodies.

Official Community Plans: 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: The pipe which transports treated wastewater effluent to its discharge location (in the RDN, the discharge locations are in the Strait of Georgia).

Private laterals: privately owned pipelines which deliver wastewater from private property to the municipal collection system (owned by a municipality or the RDN).

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

Resource recovery: the recovery of value from waste resources (e.g. energy generation, water reuse, and nutrient recovery).

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 (BOD₅) and total suspended solids (TSS) concentrations not more than 45 mg/L, as defined by the Municipal Wastewater Regulation.

Sludge: the materials that settle in a primary settling tank (primary sludge) and secondary clarifier (secondary sludge). Sludge in the RDN is treated further to become biosolids.

Trickling Filter: secondary treatment technology at French Creek Pollution Control Centre

Wastewater Systems Effluent Regulations: Regulations under the federal Fisheries Act designed to harmonize wastewater management in Canada. They include minimum effluent quality standards that can be achieved through secondary wastewater treatment

Wastewater: “used” water and the wastes that it carries. Basically, they are terms for what is 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 sanitary wastewater pipes.

Watershed: an area of land that catches rain and snow and where water flows downward into a specific river, stream, lake, or aquifer.

Vancouver Island Health Authority (VIHA): The provincial government agency that provides health care services to people on Vancouver Island, the islands of the Georgia Strait, and the mainland communities between Powell River and Rivers Inlet.



For more information, visit the RDN Wastewater Services website at www.rdn.bc.ca or contact Wastewater Services at (250) 390-6560, (250) 954-3792, or 1-877-607-4111. Alternately, you may email rcu@rdn.bc.ca.

