

Sewage and Run-off Water

CityPlan

Riley Park/South Cambie RPSC

Sewer System

The basic objectives of municipal sewer collection systems are:

- to safeguard public health and minimize impact on the environment by collecting domestic, commercial and industrial liquid waste for disposal;
- to minimize property damage, public nuisance and impact on the environment by collecting and controlling precipitation runoff for disposal.

Sewer collection systems should be maintained and replaced in a timely, programmed manner, so that their operating efficiency is maximized, service levels to the public are maintained and the municipality's investment in infrastructure is protected.

Sewer systems can be classed as :

- Sanitary Sewer: carries wastewater such as sewage and industrial waste.
- Storm Sewer: carries storm runoff and ground water.
- Combined Sewer: combines the above functions

Vancouver's System

Approximately 60% of the City's sewer system is combined, but as part of the City's infrastructure replacement programs, deteriorated combined sewers will be replaced with separated sanitary and storm sewers over the next 50 years. Separate systems are preferred because they:

- greatly reduce the likelihood of basement flooding,
- allow the use of stormwater as a resource, for streams, ponds and other water features.
- eliminate wet weather combined sewers overflows into water bodies

such as False creek and the Fraser river,

- eliminate the unnecessary expense of conveying and treating clean stormwater at a treatment plant.

During dry weather all wastewater and ground water from residential drainage systems (gutters and downspouts) is conveyed to the Iona Wastewater Treatment Plant through large trunk sewers. When it rains, storm runoff in combined sewers exceeds the capacity of the trunk sewers and causes overflows into the marine environment (ocean or rivers). A separated system would take storm run-off and ground water only to the marine environment, and sewage and industrial waste only to the Iona Treatment Plant.

Run-off Water

Two issues of concern with runoff water are quantity and quality. Impervious surfaces (paved or built upon land) interfere with natural drainage and absorption patterns. Instead of percolating into the soil, rainwater is collected and channelled into the storm sewers which, during high rainfall, can sometimes backup into streets and homes. The City is addressing this issue as outlined below in City and Community Initiatives.

The quality of run-off water is also related to soil permeability. The ground is a natural filter for many waterborne impurities. When it rains, accumulations of spilled and leaked contaminants wash off impervious surfaces into the storm sewers and then into our rivers and oceans.

Ocean and river water can also be contaminated by the willful disposal of toxic wastes. Any toxic substance poured down toilets, sinks or storm sewers may end up in our streams,

rivers and oceans where it can kill or contaminate fish, shellfish and other aquatic life.

City and Community Initiatives:

Sewer Separation

The City's sewer infrastructure replacement program replaces 1% of the system annually. The program is aimed at replacing our oldest sewers and sewers which have deteriorated prematurely and are causing flooding. Since the early 1950's most of the new sewers built by the City have been separated storm and sanitary sewers.

Private Property Separation:

All new commercial and residential construction is required to provide separated sewer service connections.

Soil Permeability

On May 16, 2000 City Council approved amendments to all RS (single family) zoning schedules to limit the amount of paving and impermeable materials allowed. These amendments will affect all single-family areas in the Riley Park/South Cambie area. The Engineering Department is looking at alternatives to full lane paving that would permit more permeability.

Downspout Disconnection & Rain Barrels

The City's Downspout Disconnection program encourages residents to stop the water draining from roof gutters and downspouts from entering the sewer system. This reduces the load on the system thereby providing environmental and economic benefits and a reduction in the potential for downstream flooding. Rain barrels, available from the City, can be used to store water from downspouts. This stored rainwater can be used to water gardens thereby conserving water and

reducing runoff. For more information contact 604-873-7357.

Hazardous and Inappropriate Wastes

Hazardous or toxic waste should not be poured down sinks, toilets, floor drains or catch basins. This includes oil, gasoline, solvents, paint, paint thinner, grease, plastic, rubber and any other non organic liquid or solid. Call the Recycling Council of BC Hotline at 604-732-9253 to find your nearest depot to return these materials.

Garburators

Many people use garburators to dispose of organic waste. However, there is increasing evidence that garburator effluent can have a harmful effect on the marine environment. In some municipalities garburators are not permitted for this reason. It is more environmentally sound to dispose of food waste in a composter or in the garbage. To obtain a composter you may call the Composting Hotline at 604-736-2250.

Storm Drain Marking

All catch basins (street drains) ultimately drain to a water body. A city wide education program is aimed at enhancing this awareness. Volunteers paint fish symbols near catch basins with pain and stencils provided by the City in order to discourage unlawful dumping of environmentally damaging substances into the street gutter or catch basin. For more information, call the Environmental Protection Branch at 604-871-6540.

Clear Storm Drains

During heavy rainstorms in the falls, leaves are knocked off trees and are carried with already fallen leaves to catch basins (street drains). These leaves can then plug the inlet grating causing street flooding. As it is not economically feasible for the City crews to continually check all catch basins, we ask that residents help keep catch basins near their homes and places of work free from leaves.

If you are cleaning your property of leaves please do not dispose of them

into the street where they can get washed into catch basins. Leaves can be set out for City pickup on the days indicated on the Collection Schedule. (See Fact Sheet on Garbage, Recycling and Yard Trimmings).

Sources

City of Vancouver:
Engineering Department, Sewers