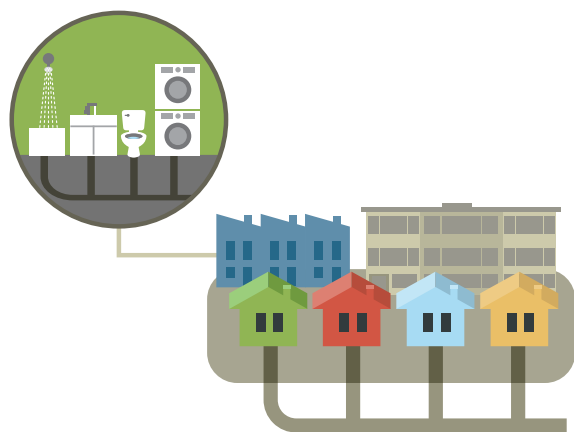




HOW DOES OUR WASTEWATER SYSTEM WORK?

We all create wastewater as part of our daily lives. As a region of 2.7 million people, we collectively produce about 1 billion litres of wastewater every day, enough to fill BC Place.

We are all part of a region-wide system that collects and treats this wastewater before releasing it into the environment. How does this system work? What happens to wastewater after it leaves our homes?



WHAT IS WASTEWATER?

Wastewater is “used” water from our homes, businesses and industrial operations. We create wastewater by using our sinks, toilets, washing machines and anything else that sends water into a drain. Stormwater, from rain and melting snow, is also wastewater.

WHY DO WE TREAT WASTEWATER?

Treating wastewater removes substances that can harm human health and the environment. If we don't remove pollutants from wastewater, they go directly into our rivers and oceans. This can threaten marine life, public health and our ability to swim, boat and fish in our local waters.



EARLY WASTEWATER SYSTEMS

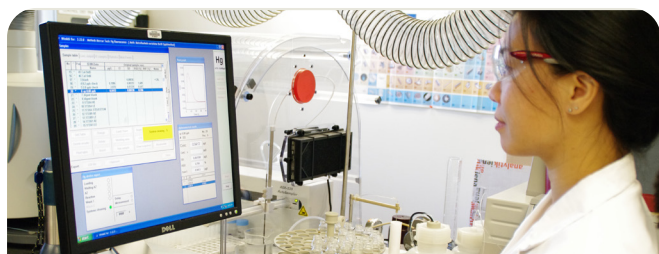
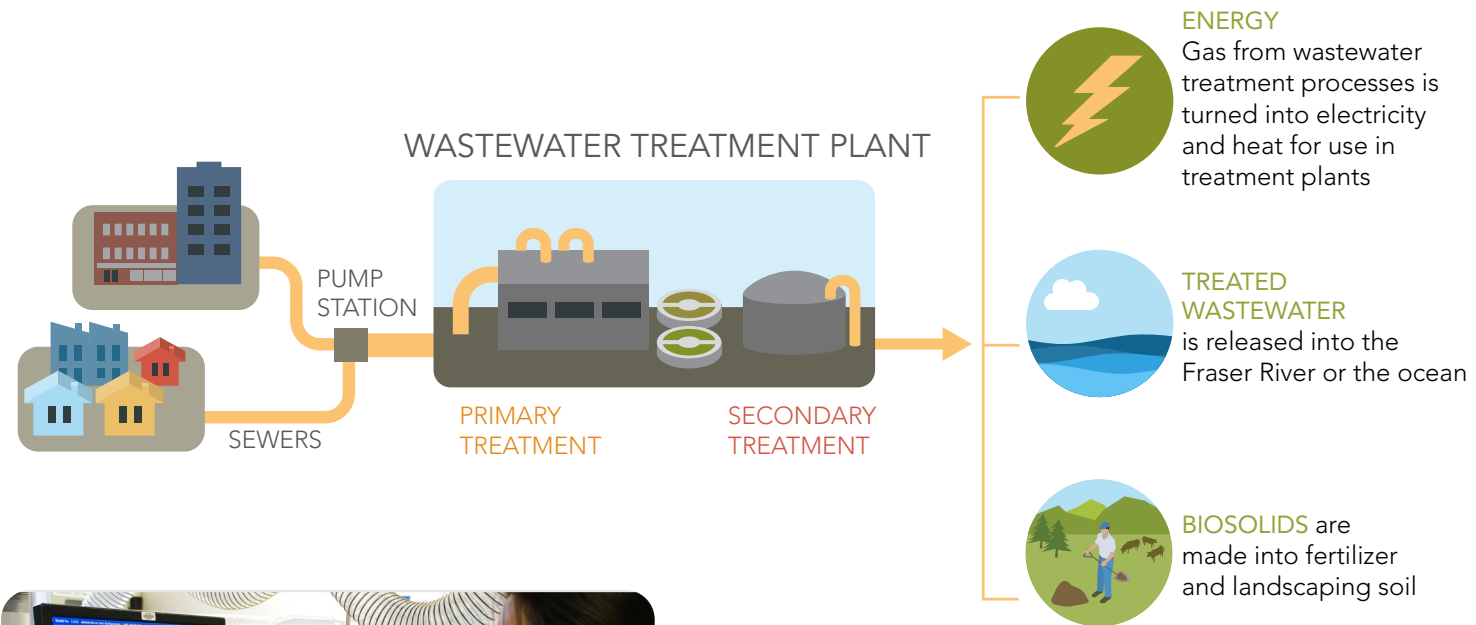
Wastewater systems were developed mainly to address health issues. The early wooden sewers of the 1880s discharged directly into local beaches. This led to typhoid fever, cholera, and other waterborne diseases. Better wastewater treatment helped eliminate these diseases.

WHAT HAPPENS AFTER I FLUSH?



METRO VANCOUVER LIQUID WASTE SYSTEM MAP

Metro Vancouver operates a system of sewers, pump stations and treatment plants that connect to the municipal sewer system. This system collects wastewater and delivers it to five regional wastewater treatment plants. Treated wastewater is released into the Fraser River or the ocean.



TESTING AND MONITORING

Wastewater is tested to check for substances that could affect human health and the environment, and to make sure treatment plants are working efficiently and meeting regulations.

Metro Vancouver also monitors waters where wastewater is discharged, water quality at beaches and the overall health of the aquatic environment.

WHAT POLLUTANTS DOES WASTEWATER TREATMENT REMOVE?

Wastewater treatment removes:

- solids (like poo)
- dissolved organic materials
- garbage that shouldn't be in the system (like disposable wipes)
- some chemicals
- pathogens that can make people very sick

PRIMARY TREATMENT

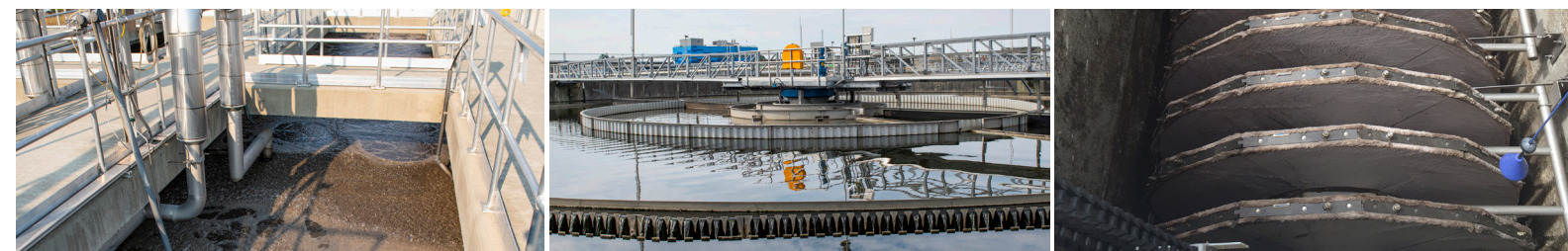
Removes materials that settle or float and up to 50% of dissolved organic materials.

SECONDARY TREATMENT

A biological process that removes 90% or more of materials.

TERTIARY TREATMENT

The new Lions Gate and Northwest Langley wastewater treatment plants will use tertiary treatment to remove ammonia, nutrients (like phosphorus and nitrogen), and almost all organic matter.



METRO VANCOUVER TREATS ABOUT 1 BILLION LITRES OF WASTEWATER EVERY DAY— ENOUGH TO FILL BC PLACE.



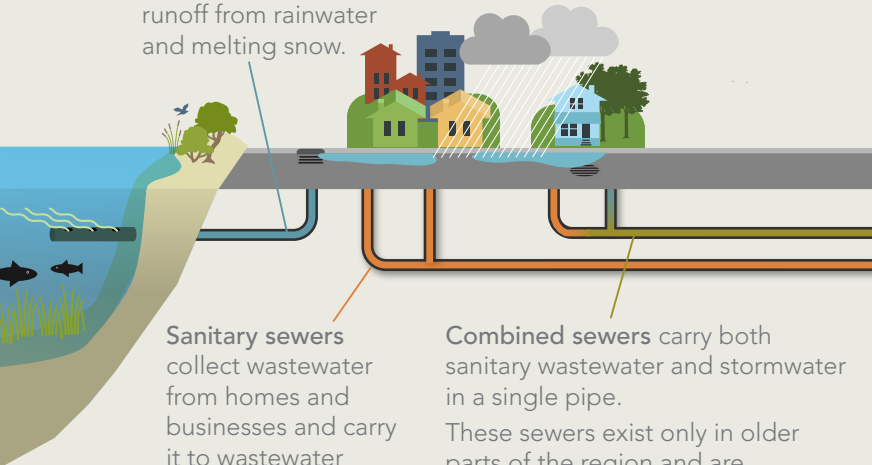
THE LONGEST FLUSH

If you flush a toilet in Maple Ridge and Pitt Meadows, the wastewater will reach the Annacis Island Wastewater Treatment Plant 13 hours later. That's a long trip!

CHOICES WE MAKE AFFECT OUR ENVIRONMENT

Our region's wastewater system has three types of sewers:

Stormwater sewers collect runoff from rainwater and melting snow.



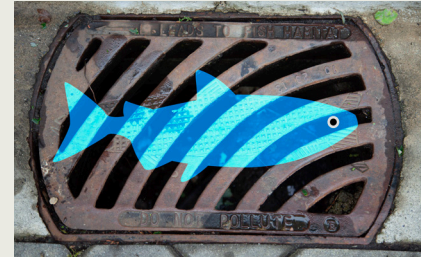
Sanitary sewers collect wastewater from homes and businesses and carry it to wastewater treatment plants.

Combined sewers carry both sanitary wastewater and stormwater in a single pipe.

These sewers exist only in older parts of the region and are designed to discharge into the environment during heavy rain, to avoid backups into homes and businesses.

FISH AND STORMWATER ARE CONNECTED

Stormwater sewers collect rain and flow directly into the nearest body of water. Along the way to the stormwater sewer, rain picks up pollutants that can be harmful to fish and other marine life.



**HELP PROTECT OUR LOCAL WATERS:
NEVER DISPOSE OF ANYTHING HARMFUL
IN OR NEAR STORMWATER SEWERS**

BETTER SOLUTIONS

Our system removes most harmful substances, but it can't handle everything. Everyday items in our homes – like cleaning products, shampoos, paint and medications – contain chemicals that are hard to fully remove when wastewater is treated.

HELP KEEP CHEMICALS OUT OF OUR LOCAL WATERWAYS:

- Use less: Our region has soft water, so you can use half the manufacturer's recommended amount of soap, laundry detergent, etc. and still get good results.
- Choose products that are gentler on the environment.
- Dispose of products safely. Find out where to take products at metrovancoverrecycles.org
- Keep chemicals out of the drain.



MEET THE UNFLUSHABLES

Many products that say they're flushable really aren't. Things like disposable wipes and paper towels don't break down quickly enough in the wastewater system (or at all). They can clog our sewers and the pipes in your home. They go in the garbage, not the toilet. The only things that should be flushed are pee, poo and toilet paper.

Metro Vancouver is a federation of 21 municipalities, one Electoral Area and one Treaty First Nation that collaboratively plans for and delivers regional-scale services. Its core services are drinking water, wastewater treatment, and solid waste management.

For more resources, visit metrovancover.org
Search: "School Programs"
or "Liquid Waste"



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SERVICES AND SOLUTIONS FOR A LIVABLE REGION