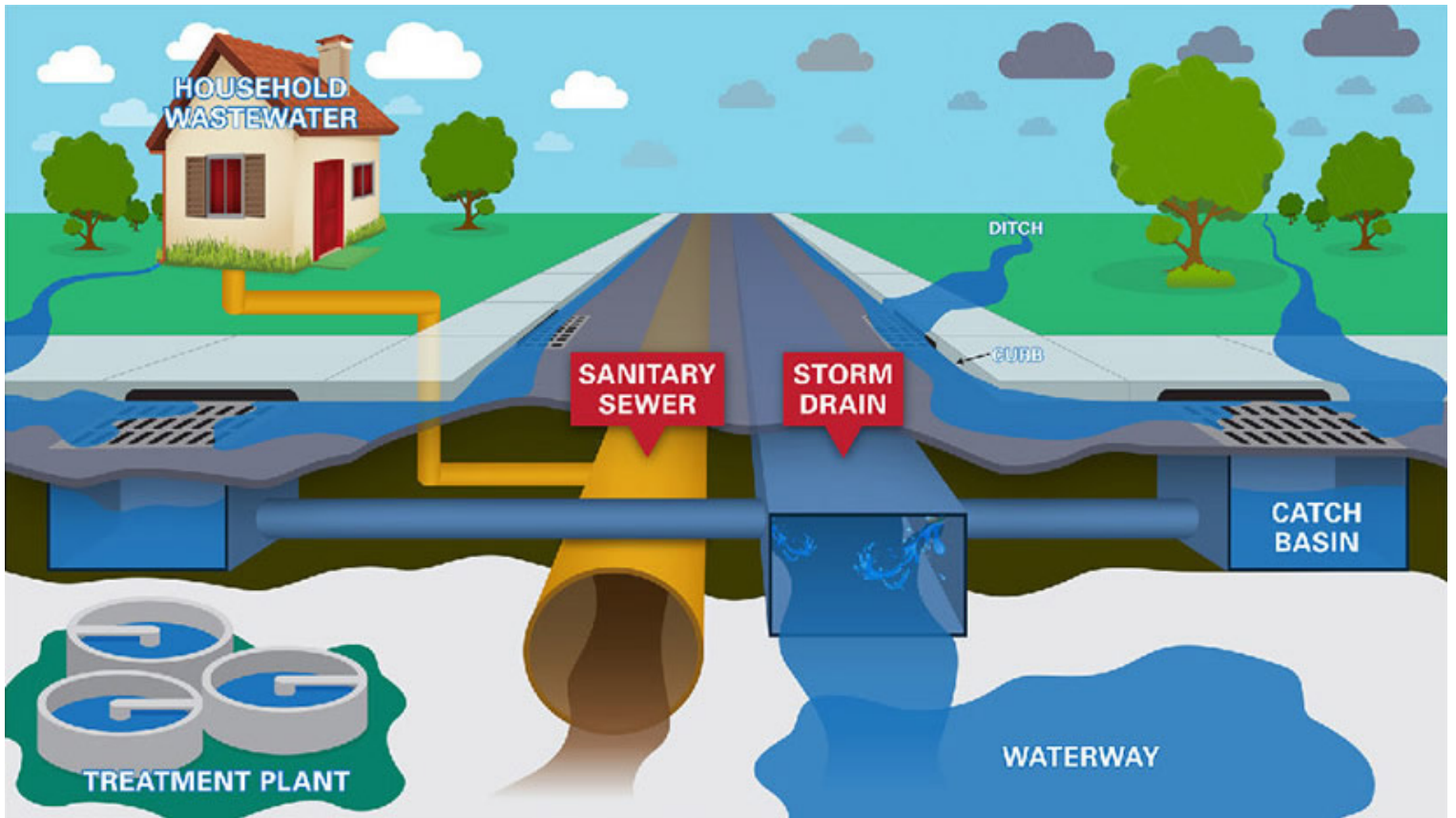


HOW IS STORM AND WASTE WATER MANAGED?



Did you know the Town of Drayton Valley has two major waste water collection systems?

WASTEWATER

Wastewater is everything that needs to be treated before being released back to the environment including sewage, water from your washing machine and dishwasher

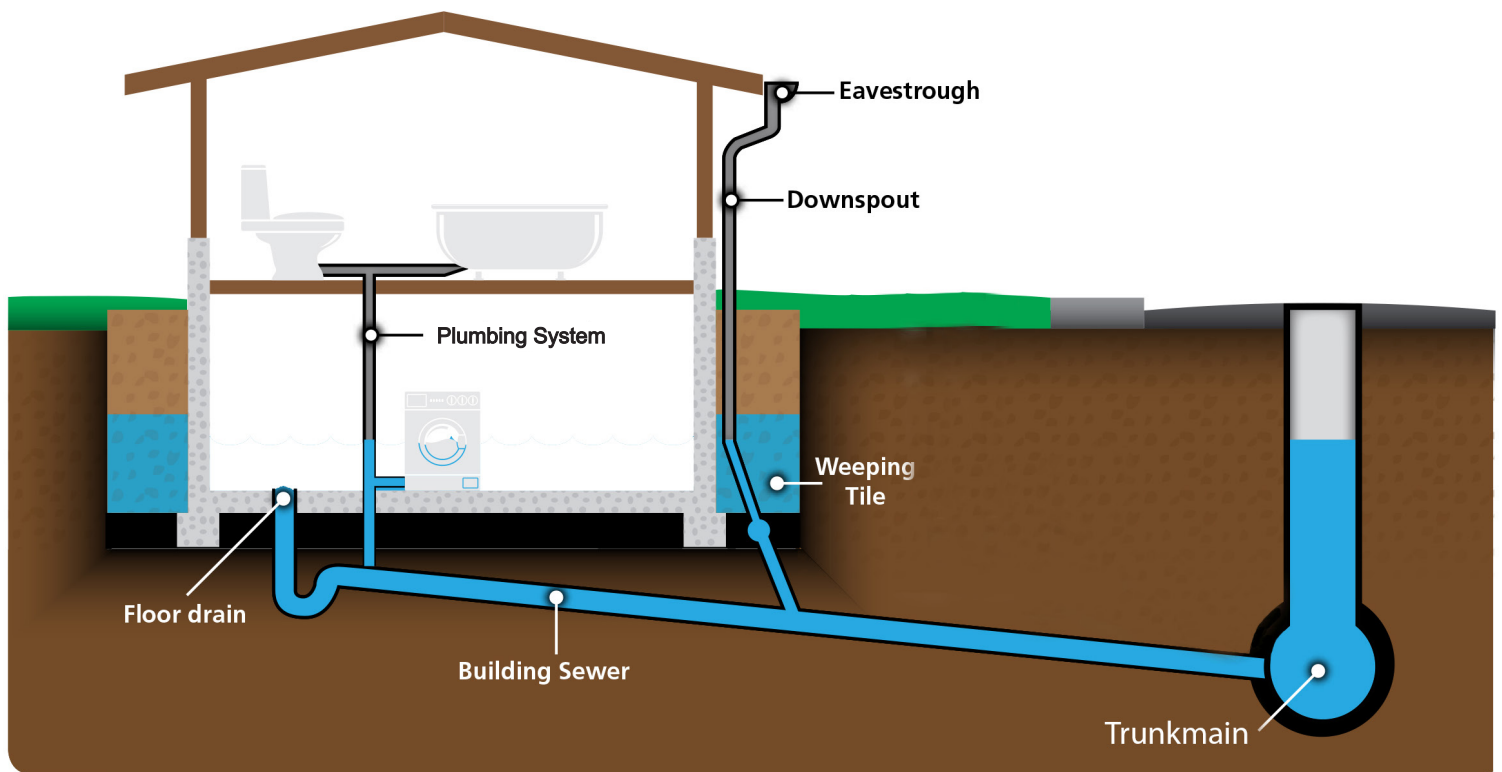
- Wastewater drains from your home from a small line that connects to an underground system of pipes that flows to a major collector called a TRUNKMAIN. The trunkmain takes the wastewater to the lagoons at the Waste Water Treatment Facility for processing.
- A lagoon is a method used by the municipality to treat wastewater so that it can be returned to the environment. Through a series of six pond-like basins, wastewater is moved through the system and cleaned. After leaving the lagoons, wastewater is passed through ultraviolet lights which sterilize remaining bacteria before being released back to the river.

STORMWATER

Stormwater is anything that occurs naturally such as rain, snow, and does not need to be treated, or any water that flows above land including your downspouts

- This water runs along roadways in the gutters or overland through parks, yards, playgrounds. etc.
- The water is caught by catchbasins, manholes and ditches that feed into the stormmain collector system.
- The stormwater system contains a series of wet and dry ponds that allow for the slow release of the stormwater into natural drainage in the surrounding area. Sand dirt, silt, and other sediments settle into the ponds, and cleaner water returns to the river and streams.

WASTEWATER CHALLENGES



Service lines from your home connect to secondary lines that take wastewater to either the north or south trunk-mains. These trunks carry wastewater to the treatment facility for processing

Major rain events can overload the capacity of this system. While most rainwater flows into storm drains and fills storm ponds, some makes its way into the wastewater collection system. This is what is referred to as inflow and infiltration. There are a few ways this can happen:



1
Residential sump pumps being routed into drains connected to the wastewater collection system.



2
Eavestrough connected to the wastewater collection system (as pictured in above photo).



3
Storm water entering the wastewater collection system through opening in manhole covers

IF THE COLLECTION SYSTEM BECOMES OVERLOADED, THERE IS A HIGH RISK OF WASTEWATER BACKUPS IN LOCAL RESIDENCES AND BUSINESSES!

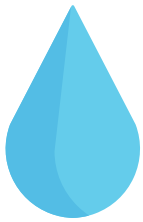
LAGOON & WATER TREATMENT CHALLENGES

Infiltration and inflow can also cause stress on the Town's wastewater treatment facility!

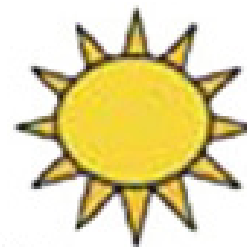
In Drayton Valley, water flows to the Waste Water Treatment Plant via the north and south sanitary trunk mains. There are 6 lagoons at the Water Treatment Plant, and the two main trunk lines flow into lagoons 1 and 2.

Lagoon 3 is an aerobic cell, where the majority of Carboaceous Biochemical Oxygen Deman (CBOD) and Total Suspended Solids (TSS) are removed. If these analytes are not removed from the wastewater, they can have a serious and potentially toxic effect on the environmental health of the river once the wastewater leaves our facility.

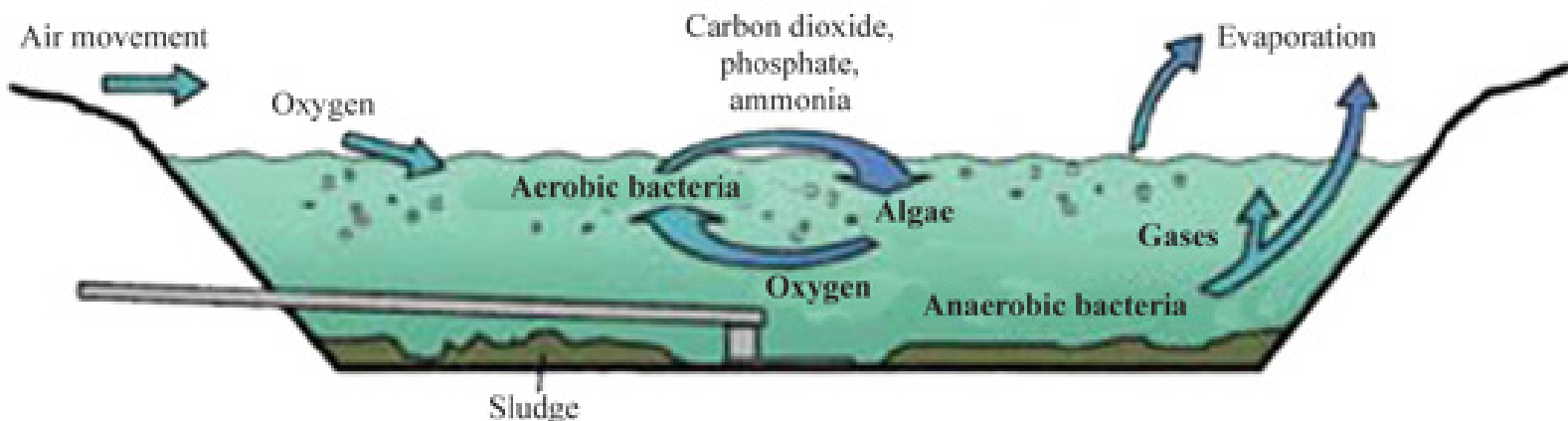
Lagoons 4 and 5 are aerobic cells that contain the bacteria necessary to further break down CBOD and TSS. They also contain a bacteria that digest harmful contaminants and allows gaseous stripping to be released into the atmosphere. After leaving cell 6, the wastewater goes to the UV building where it flows through a channel containing 6 modules of ultraviolet lights, which sterilize remaining bacteria before the water is released back into the river.



During times of heavy rain, the strain of extra drainage going through the trunk mains from incorrectly placed eavestrough and sump pumps can cause the Water Treatment Facility to become overloaded, and even at risk of overflow. In the event of overflow, the quality of water can be compromised, and put the health of our drinking water at risk, as well as allowing pollutants to be introduced into our river and outlying environment.



Light



WHAT CAN YOU DO TO PREVENT WASTE WATER BACKUPS?



EAVESTROUGH & DOWNSPOUTS

Ensure your downspouts are not connected to the sanitary sewer! Eavestrough and downspouts should be redirected onto an area of your property which is at least 1.5 m away from your home (and your neighbour's home or other residences). Common places where downspouts drain are into rain barrels, or onto lawns or rain gardens, which are a naturally permeable surface!

Eavestroughs should be cleaned at least twice a year to ensure they are clear of leaves and other debris.



BACKWATER VALVES

Backwater valves can prevent sewage and water from backing up into your home through basement outlets. They are designed so the valve will close automatically if water is backing up from the main sewer. The valve, which normally remains open to allow the free flow of air, will ensure the gate floats into a closed position in the event of backflow. Installing the valve on the main building drain will protect your home.

A permit and inspection are required in order to install a new backwater valve.



WEEPING TILE

Weeping tile is a perforated plastic or clay tile pipe that runs underground along your home's footing. It's important to ensure your weeping tile is not connected to the sanitary sewer main. Normally, weeping tile is connected to a sump pump and drains into a storm sewer or dry well which is the ideal set up, and this will not cause undue strain on the Town's sanitary system during times of heavy rain or snow melt.

Unfortunately it is impossible to tell if your home has weeping tile without digging underground, however most houses built after 1985 have some sort of foundation drainage.



SUMP PUMPS

Sump pumps work to drain water that has collected in a sump pit, and drain them to appropriate locations including storm sewers. Sump pumps should be installed in the lowest part of your basement, and should be maintained on a regular basis, to clear contaminants that can become caught in the float. Power outages can also cause issues, as many sump pumps are electric. It is also a good idea to rinse or pressure wash the sump pit on occasion.

Sump pumps and weeping tile can also be crucial in the prevention of basement flooding in your home during heavy rain and snow melt.