

The Sustainable Neighbourhood Retrofit Action Program (SNAP)

is a revitalization program for existing neighbourhoods that aims to accelerate urban renewal and increase climate resilience at the local scale. One of the priorities of the SNAP is decentralizing **stormwater management**.

Green infrastructure

is also called 'low impact development', or LID. It is a method of water management that builds with nature to mimic the natural water cycle to reduce flooding and the need for costly water treatment plants.

WHAT IS THE CITY DOING?

- Brampton Stormwater Management Retrofit Program
- Erosion Remediation and Mitigation Program
- Brampton Million Trees Program
- Natural Heritage and Environmental Management Strategy

WHAT CAN YOU DO?

- Consider softscaping instead of hardscaping
- Allow your downspout to empty into a planted bed
- Install a rain garden
- Capture water with a rain barrel
- Consider permeable paving over impermeable options

FIND OUT MORE AT

www.brampton.ca
or
<https://sustainabletechnologies.ca/>



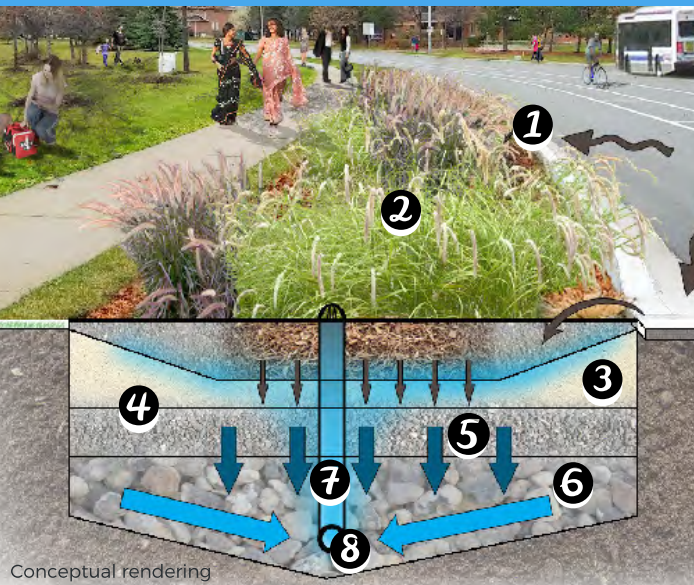
COUNTY COURT BIOSWALE

A SNAP PROJECT

WHY A BIOSWALE?

In 2014, County Court Boulevard was retrofitted with two bioswales as part of scheduled road repaving work. The bioswales filter water runoff from the road, and decrease the amount of pollutants entering the Etobicoke Creek.

Bioswales are just one type of green infrastructure. They were chosen for this project because they are linear and narrow, so they fit in the boulevard. The bioswales were also a pilot project for the City of Brampton to test how effective green infrastructure is at removing pollutants compared to traditional stormwater infrastructure.



The swales were designed to filter the stormwater runoff and ultimately discharge the cleaned water to the Etobicoke Creek. Their performance was monitored once construction was complete.

The plants that grow in the bioswales help with stormwater management by taking up water, storing and breaking down pollutants, and preventing erosion. They also support our pollinators.



I'm not a weed!

HOW THE COUNTY COURT SWALES WORK

- 1 Water (runoff) enters from the road and surrounding area through openings in the curb.
- 2 Plants take up part of the water and help remove pollutants.
- 3 Filter media (soil mix) helps trap pollutants and supports the plants.
- 4 Geotextile (filter fabric).
- 5 Coarse sand layer.
- 6 Stone base wrapped in geotextile.
- 7 The sub-drain carries away excess water to the storm sewers.
- 8 The storm sewers, which only convey stormwater (not wastewater), will discharge the filtered runoff to the Etobicoke Creek.

HOW ARE THEY PERFORMING?

STORMWATER RUNOFF

Monitoring data showed that bioswales reduced the amount of stormwater runoff by 15-34%. They captured over 240, 000 litres of water annually. The reduced stormwater runoff reduces erosion.

POLLUTANT REMOVAL

The bioswales reduced the amount of pollutants in the water it released by 5-77% compared to a nearby control catchment. Some of the pollutants they captured included chromium, copper, nitrogen, oil and grease, iron, and zinc.

COST

Although the bioswales were a little more costly than other types of stormwater management techniques, they are more effective at removing pollutants. They are also easier to maintain than other types of infrastructure, which made their overall pollutant removal cost lower compared to traditional stormwater infrastructure.

