

Managing Stormwater in Your Yard: Adapting to Climate Change

Where does the rain go?

The hard surfaces in our cities—buildings, streets, driveways, sidewalks, parking lots—can't absorb rainwater. Most of the rain that falls in cities makes its way overland into storm sewers, picking up pollutants and garbage along the way. The water in these storm sewers goes directly into local streams and rivers, often causing erosion to occur.

Rain should be absorbed into the ground, where it can be filtered naturally and used by trees and plants. Any leftover rainwater can then make its way into groundwater storage where it will be slowly released into rivers and streams over time.

Climate adaptation in Thunder Bay

The City of Thunder Bay is developing a Climate Adaptation Strategy to adjust to anticipated changes in climate. The goal is to reduce the impact and risks of climate change, as well as to take advantage of opportunities associated with current and future impacts of climate change.



Rainwater should be absorbed into the soil whenever possible, instead of flowing into storm sewers that empty into our local streams.

Local weather patterns, including storm events, are affected by climate change. Climate scientists predict that the western part of the Lake Superior basin will experience greater weather extremes and more frequent and intense storms. The Thunder Bay region may experience an increase in precipitation (snow and rain) of up to 22%.¹ These summer and winter storms will unleash more precipitation that will fall with greater force. How will that affect us?

With heavy rainfall events:

- Less water will be absorbed into the soil than with a slow gentle rain.
- There will be more rainwater flowing overland and collecting dirt, grit and pollutants. The contaminated rainwater will then make its way to local rivers by way of the underground storm sewer system.
- There will be greater erosion of soil from stream banks and from steep terrain.
- Saturated soils will be unable to absorb rainwater.
- Flooding will increase in low lying areas.
- Stormwater and sanitary sewer systems may not be able to handle the larger volume of rainwater.

We can help protect our neighbourhoods from flooding and drainage problems by capturing rainwater in our yards. The rain that soaks into the soil will also replenish groundwater and protect our local streams from flooding and erosion. Capturing rainwater in our yards is one way we can adapt to increased precipitation caused by climate change.

¹ICLEI Local Governments for Sustainability (2013). Canadian Climate Change Scenarios Network Localizer Reports for Thunder Bay, Ontario

CAPTURE RAINWATER IN YOUR YARD !

SLOW THE FLOW OF RAIN INTO STORM SEWERS

Make sure your downspouts empty onto a surface that can absorb rainwater, like a lawn or a garden bed.

Install a rain barrel at your downspout to capture rain water. Use the rain to water your yard, and make sure your barrel is empty before the next rainfall.

ABSORB THE RAIN IN YOUR YARD

Plant trees, shrubs, wildflowers and native grasses in your yard because they absorb large amounts of rainwater.

Switch out hard surfaces such as paved driveways and concrete walkways to gravel or permeable paving to allow the rainwater to soak into the ground.

Build a rain garden—a landscaped depression that absorbs rainwater runoff from the roof of a house, garage, or other hard surface like a parking area.

Install a soakaway pit or infiltration gallery to absorb large amounts of rainwater. A soakaway pit is a hole filled with gravel or other medium that allows rainwater to percolate into the soil.

KEEP RAIN WATER CLEAN

Pick up your dog's waste to keep the bacteria it contains from being washed into the storm sewers, then into our rivers.

Dispose of hazardous waste properly.

Do not litter, or better yet, pick up any that litter you see. Cigarette butts are one of the most toxic items of trash. When they are thrown onto sidewalks and roads, a heavy rain will wash them into storm drains, then into streams.

Prefer compost or other natural fertilizers that break down slowly, and apply only during dry weather.

Avoid coal tar based driveway sealants because they contain chemicals that can harm aquatic life.

For more information on managing your stormwater, contact Ecosuperior.org
Earthcarethunderbay.ca or Slowrain.ca



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