



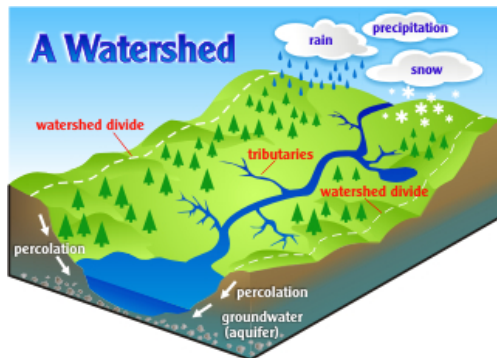
Watersheds
C A N A D A

What is a Watershed?

Watersheds Sustain Life

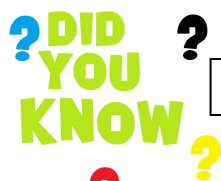
What is a Watershed?

Photo 1: The elements of a watershed



Source: What is a watershed, Langley Environmental Partners Association, <http://www.leps.bc.ca/stewardship/watersheds-of-langley>

A watershed is an area of land that catches rain and snow, and allows it to drain into a stream, river, lake or seep into the ground as groundwater.



There are 2 types of watersheds

- **Open watershed:** All water from a watershed eventually drains into the ocean.
- **Closed Watershed:** Water is removed from a watershed through evaporation or by seeping into the ground. Most watersheds in Canada are open.

Canada's Watersheds

Canada has 5 ocean watersheds: The Arctic, Atlantic, Hudson Bay, Pacific, and the Gulf of Mexico. All of Canada's water is drained into these 5 areas before reaching the sea. This is done by moving through sub-watersheds. Sub-watersheds are determined naturally by land topography.

Photo 2: Drainage basins of Canada



Source: Hydrology, January 2016, Wikipedia: Geography of Canada, https://en.wikipedia.org/wiki/Geography_of_Canada#/media/File:Canada-Drainage.png

Eastern Ontario's water flows into the Atlantic Ocean via the Great-lakes Basin and the St. Lawrence River Watershed. The St. Lawrence River Watershed is one of the most populated watersheds, supporting around 15 million Canadians (Environment and Climate Change Canada, 2015). The population density and associated industrial development has a drastic effect on water consumption. It is estimated that approximately 27.5 billion cubic meters of water is being withdrawn each year. That is just over 12% of the watershed's annual surface flow! (Canadian Geographic, 2011). Find your local watershed by visiting: <http://www.canadiangeographic.ca/watersheds/map>



Keeping our Watersheds Healthy

It's easier than you think!



Watersheds are remarkable systems that are harmoniously interconnected. Eventually, most of the water in Canada will eventually drain into our oceans. That's why it's every Canadian's responsibility to protect our water. By working together, we can help keep our water clean!



Soil Erosion & Sedimentation: When plants and trees are removed along shorelines, soil becomes unstable and deposits into the water. Sediment can destroy spawning beds and negatively impact aquatic habitats.

✓ *Keep your property natural by planting native trees and shrubs. They provide a strong root system to stabilize the soil and create suitable habitat for wildlife.*



Bacteria (E.coli): Outbreaks of E.coli can occur when waste from septic or sewage systems leak or when livestock waste enters a waterway. E.coli outbreaks can cause non-potable drinking water due to its powerful toxins. These toxins can cause severe illness to humans and animals.

✓ *Septic tanks should be regularly inspected to prevent leaks. Keep livestock away from creeks, streams, rivers and lakes to prevent transfer of waste.*



Nutrient Runoff: Excess phosphorus and nitrogen from fertilizers can leach into the water causing an increase growth in algae. Algae blooms can decrease the amount of oxygen, harming aquatic species.

✓ *By establishing a shoreline buffer, you can reduce nutrient inputs. Consider maintaining a chemical free lawn to reduce your footprint.*



Chemical Pollutants: Oil and gas spills can occur during industrial development or even when enjoying outdoor activities. Old boats and skidoos can leak oil and gas, which eventually can deposit into our freshwater systems.

✓ *Check recreational equipment regularly for any leaks and fill up gas tanks while close to shore. Use a funnel and cloths to prevent potential spills.*



Cleaning Products: Cleaning products can contain hazardous chemicals. When poured down the drain, they enter our watersheds threatening many aquatic species.

✓ *Never pour hazardous wastes down the drain. Bring household wastes to your local dump for proper disposal. Consider using natural cleaning products as a greener alternative.*



Personal Care Products: Soap, body wash and toothpaste can contain micro-beads. These tiny beads of plastic are too small to be filtered out and can harm fish and other aquatic species.

✓ *Purchase micro-bead free products. Consider using organic products whenever possible.*

