

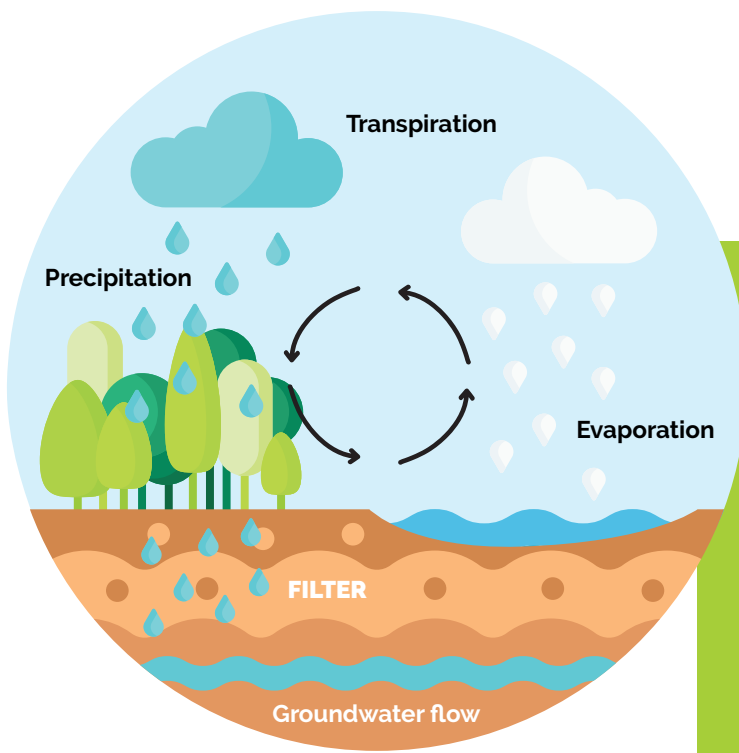
# Healthy Forests and their Roots Keep Water Clean

## How do Forests Keep Our Water Clean?

Forests are an integral part of the water cycle. Precipitation that falls on forests returns to the atmosphere through evaporation and transpiration.

Evaporation is the process that transforms water into the air from the forest canopy and soil; and transpiration is the process of water moving through a tree and evaporating from its leaves. Water that doesn't return to the air is stored temporarily in the forest soil before becoming runoff that feeds streams and lakes, or it percolates deeper down through the soil to become groundwater.

Healthy forests  
keep **water clean.**



Forests in Ontario are vast and provide many benefits to our society including biodiversity, wildlife habitat, and recreational opportunities. Forests store carbon and regulate air, soil, and water quality.

Sustainable forest management in Ontario enhances water sheds and protects wildlife habitat and biodiversity along with forest values.

Two-thirds of Ontario's drinking water comes from surface waters, including lakes and reservoirs. Much of that water originated in forested areas.

Forest cover also slows down erosion and delays the release of water into streams, helping stabilize the quality and quantity of water in the area.

Forests act as natural sponges, collecting and filtering rainfall and releasing it slowly into streams and rivers, helping to maintain water quality. The chemical makeup of water changes as it passes through a forest ecosystem. It gets cleaner because the soil filters out substances such as mercury, pesticides, and other pollutants.

Forests provide these benefits by filtering sediments and other pollutants from the water in the soil before it reaches a water source, such as a stream, lake, or river. Well managed forests renew and maintain the quality of groundwater.

### Lower Treatment Costs

While forests aid in the filtration of water they provide benefits to our health and the health of an ecosystem. Studies have also found that forests are directly linked to reducing water treatment costs. The more forest in a watershed, the lower the cost to treat the water.

Therefore, one of the most important benefits that healthy managed forests deliver is a reliable supply of clean water. For this reason, researchers monitor threats that could upset the delicate forest-water balance and seek ways to minimize those threats.

### What is a water shed?

A watershed is the area of land that catches rain and snow that drains or seeps into a marsh, stream, river, lake, or groundwater.

## Forest management planning ensures critical areas are maintained.



**Sustainable forest management conserves aquatic, wetland & shoreline forest habitats.**

