



A watershed is an area that drains all precipitation (rain and snow) into a common low point such as a river or a creek. Watersheds typically contain river tributaries that connect to a larger river and eventually into a lake or the sea.

Watershed management is important in preserving the quality and quantity of water resources. Water cycles naturally through the hydrological cycle, where precipitation falls on ground and flows through waterways, to be evaporated again and form precipitation.

Protection of source water and management of watersheds is necessary to protect our drinking water sources. We obtain drinking water from lakes, rivers or groundwater wells. All of these sources of drinking water are related to watersheds through the hydrological cycle.

In the natural environment, watersheds regulate the flow of water by slowly absorbing rainfall into the ground and gradually releasing water into rivers, thereby reducing the risk of floods and soil erosion.

Increased urbanization has affected natural watersheds by altering the natural flow of water. Construction of buildings, pavements and parking lots has increased impervious surface areas. During rainfall episodes, large quantities of stormwater flows through storm sewers and discharge directly into rivers. Contaminants like motor oils, salts and pesticides get washed by rainwater and flow into natural waterways.

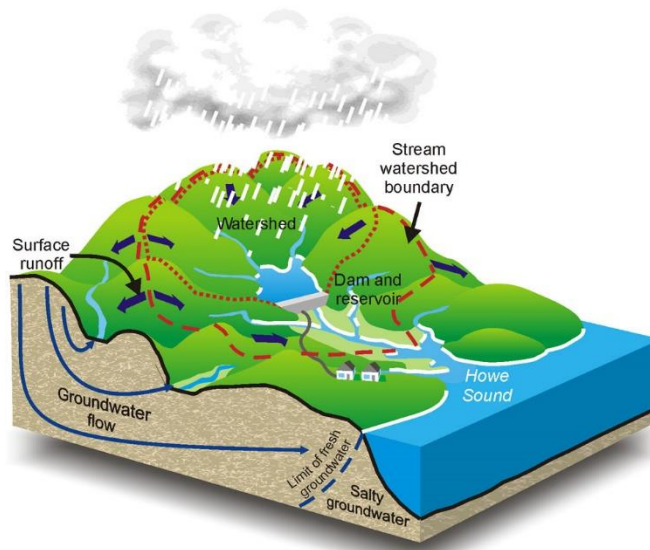
Urbanization has had other negative effects on the health of watersheds and the integrity of the natural water cycle. For instance, in older parts of some cities, combined sewer overflows still discharge diluted sewage during heavy rainfall events directly into waterways. Development has also reduced forest cover significantly, which acts as habitat to natural wildlife.

In response to these challenges, a number of initiatives have been introduced to protect watersheds from the effects of urbanization. In the City of Toronto for example, the Toronto and Region Conservation Authority manages watersheds in the Greater Toronto Area, which includes the sub-watersheds of the Humber River, Rouge River, Don River, among others.

Some of the programs run by the Toronto and Region Conservation Authority include evaluation of stormwater management technologies, educational campaigns on source water protection and flood plain management programs.

We all play a role in protecting the watersheds in which we live. The first step is to learn about the surrounding environment and the ways in which we can preserve it.

For More Information, visit the Toronto and Region Conservation Authority website at: (www.trca.on.ca)



A simplified schematic of the natural hydrological cycle showing a watershed boundary in discontinuous red line