



Watersheds and Their Importance

Watersheds

- Watersheds are areas of land that catch water from rain and snow, and drain this water into a river, stream, lake, wetland, groundwater, or the ocean.
- Watersheds are also known as catchment basins or drainage basins.
- A healthy watershed produces good quality drinking water. Water is cleansed and oxygenated to support aquatic life when fast moving headwater streams tumble over rocks and plummet down waterfalls. During this time, water is put into contact with ozone and ultraviolet light in the air, which kills parasites and bacteria.



Watersheds are More than Just Water

- Land, and how it is used, is just as important to a watershed as the water itself. What happens on the land, happens to the water too.
- Vegetation, including forests and grasslands, as well as other components of the landscape, from wetlands to the soil, all influence the health of a watershed.
- Forests perform the important tasks of storing, cleansing and slowly releasing water in the upper portion of watersheds. Trees, shrubs, mosses, and soils retain and cycle nutrients, and purify water as it passes through their systems.
- The land acts as a sponge that contributes to flood prevention by holding onto large quantities of water.
- All these natural processes are integral to maintaining good water quality, and reduce the cost of water treatment for human use.
- The American Water Works Association estimates that every 10% increase in forest cover in a watershed results in a 20% reduction in water treatment costs, up to a forest cover of 60%.



Alberta Watersheds

- Alberta is divided into seven major watersheds: Hay River, Peace/Slave Rivers, Athabasca River, Beaver River, North Saskatchewan River, South Saskatchewan River, and Milk River.
- Major watersheds, like the North Saskatchewan, are made up of subwatersheds. Edmonton is within the North Saskatchewan River watershed, which has its headwaters at the Saskatchewan Glacier in the Columbia Icefields in Banff National Park.
- Almost all of the Edmonton and Area Land Trust lands can be found in the subwatersheds Sturgeon, Strawberry and Beaverhill. The exception is the Pipestone Creek Conservation Land which resides in the Battle River watershed.



Climate Change and the Future of Alberta's Hydrology

- Climate change has the potential to severely impact watersheds in Alberta.
- The Boreal Plains landscape in Alberta, where Edmonton is located, is notable for its many shallow lakes and ponds, large wetland complexes with thick peat deposits and upland aspen forests, which are all influenced by the surrounding hydrology.
- Climate change research indicates that the Boreal Plains, and other natural regions, are susceptible to climate change, leaving overall reduced water levels in many areas.

What Can You Do to Protect Watersheds

- Reduce personal demands on water through lifestyle changes in sanitation, car washing, lawn watering, consumption, etc. Take shorter showers, and collect rain water for your garden in a rain barrel.
- Reduce your carbon footprint to take action against climate change. Walk, bike or take transit when possible. Reduce, reuse and recycle. Compost your food scraps and garden waste.
- Support land and watershed protection through the Edmonton and Area Land Trust by donating and volunteering.
- Learn more about your watershed, through organizations such as the North Saskatchewan Watershed Alliance.



The Edmonton and Area Land Trust plays an important role in providing health, educational, economic and social benefits for the entire capital region, both urban and suburban. Contact us for more information about research sources.

#101, 10471 – 178 Street, Edmonton, AB T5S 1R5 (780) 483-7578 info@ealt.ca www.ealt.ca
