

## **Freshwater – A nonrenewable resource**

Although more than two-thirds of the Earth's surface is covered by water, as much as 97.5% is salt water. That leaves only 2.5 % freshwater, most of which is frozen in the ice sheets of Antarctica and Greenland. The result: Less than one percent of the Earth's water supply is available for drinking, cooking, hygiene, irrigation, cleaning, manufacturing, and other uses. This water is found in lakes, rivers, reservoirs, and underground aquifers.

Snow pack, precipitation and glacial melt comprise 10% to 20% of the Columbia River Basin annual flow. In the late summer, when cold water supplies are most crucial, glacial melt accounts for up to 50% of flows in the Basin.

The flow of the river is important economically, socially and environmentally to both Canada and the United States. It is also critical to the vitality and cultural life of First Nations living in both countries. Canada contributes about 40% of the total runoff in the Columbia River, with only 15% of the area.

Changing weather patterns are altering the timing and amount of water the Columbia River receives.

A warmer climate causes runoff to occur earlier and snow to fall later than historical records show, creating a longer dry season and increased susceptibility to drought. Prolonged and intense droughts with lower water supply often occur during periods of peak demand.

Data from 1985 to 2000 show that we've lost an average of 16% of glacial area in the Canadian Columbia River Basin. Glaciers act as frozen freshwater reservoirs and are valuable coldwater sources during the period when aquatic ecosystems are most vulnerable to low flows and high water temperatures.

Increasing temperatures cause higher winter streamflows and extreme precipitation events, which may damage water infrastructure or cause flooding. Higher temperatures encourage the growth of algae and bacteria, impacting water quality and reducing recharge rates for groundwater sources.

With the increasing population of the Columbia Valley, demands on our water supply will escalate.

Let's make sure there is enough water for Mother Nature and for people living downstream in the future because once the water is gone we cannot get it back.

For more information on how you can practice water conservation in your home, at work and at the cabin, contact the Lake Windermere Project at 341-6898. You can also visit the Project office located in the old District of Invermere office beside the Invermere Community Centre. The Lake Windermere Project is a long-term comprehensive stewardship program dedicated to safeguarding the health of our lake. The Lake Windermere Project is made possible by generous support from Wildsight, Environment Canada, Columbia Basin Trust and the Real estate Foundation of B.C. Information provided by the Columbia Basin Trust.