

Factoids

- Canadians are the 2nd highest urban water users in the world
- Total residential water use increased 21% during the 1990's
- It takes 30,000 litres to make one average computer.
- It takes about 250,000 litres to make an average car.
- A number of surface waters have reached or are nearing their capacity for withdrawals
- Uncertainties of stream flows and lake levels are increasing due to climate change
- Engineering and other water management disciplines usually focus on design methods that optimize components in isolation...
- Every drop of renewable fresh water flows through an ecosystem to support essential functions including cycling of nutrients, contaminant flushing, and habitat maintenance.
- The judge in the 2002 enquiry into the Walkerton water contamination strongly recommended that "watershed-based, locally organized source protection planning was...the first line of defence in a multi-barrier approach to drinking water safety."
- Integrated water resource management considers the cumulative impacts of all activities within a region to ensure the overall health of the watershed.
- A watershed plan analyzes the water flows in and out of the watershed and attempts to balance competing needs by allocating the limited resources equitably and sustainably.
- The current water allocation system rarely considers environmental needs when allocating licenses and permits.
- Minimum flow levels are vital to the preservation of water quality and species habitat.
- Sufficient flows need to be maintained on a watershed basis, starting with the calculation of a 'water budget'.

- The federal government has powerful legal tools at its disposal – the Fisheries Act and the Canadian Environmental Protection Act – to protect aquatic ecosystems from damaging infrastructure expansions, excessive withdrawals and pollution discharges
- Water managers worldwide are slowly abandoning the endless quest for more water (supply-side approach) and are moving incrementally toward a demand-side approach. This requires us to protect the environment, restore ecosystems and achieve social equity.
- Freshwater ecosystems provide many services to humans such as water for agriculture, industry and residential, flood control and purification of human and industrial waste.
- To meet basic needs such as drinking water, sanitation, food preparation and bathing, Health Canada recommends 60 to 80 Litres per capita per day (lcd). The United Nations recommends 50 litres/capita/day.
- Groundwater is the water that runs underground replenishing our aquifers, our wells, our rivers, wetlands, streams and estuaries. Groundwater moves through the aquifers in a horizontal motion. It also moves vertically from surface down through the till, and it travels from the bedrock up, or through the bedrock to the aquifer.
- Groundwater extraction is depleting a number of aquifers
- Groundwater is the source of drinking water for approximately one-third of Canadians. This number increases to 80% for rural residents.
- Industries and municipalities also extract groundwater. Industries include mining, oil, gas, bottled water, manufacturing, forestry, agriculture and various forms of energy production. Municipalities use it for water treatment, gardens, fountains, vehicle washing, and other uses besides provision to residents.
- In 1999, the average municipal draw was 638 litres per capita/day (including the national average of residential use per capita of 343 litres/day).
- Contrary to the popular belief, we don't have twenty percent of the world's water supply. We rank third for water supply, equal with the US, Indonesia and China. When we look closer at where the easily accessible water is, we have less than 3% of the world's water supply.
- The aquifers should provide continuous high quality water to our system which includes wetlands, forests, people, fish, etc. A healthy aquifer also controls sea water intrusions, or the invasion of salty ocean water into our freshwater.

- Groundwater replenishment rates can be calculated and maximum extraction rates determined to prevent 'groundwater mining' and depletion of aquifers.
- British Columbia does not monitor extraction of water.
- British Columbia does not require the protection of water at source by managing healthy watersheds, as was recommended by the Walkerton inquiry.