



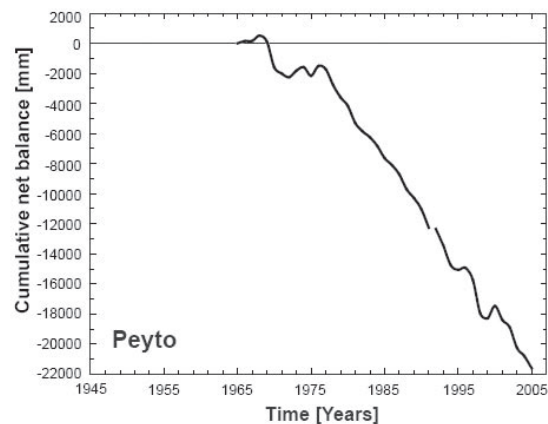
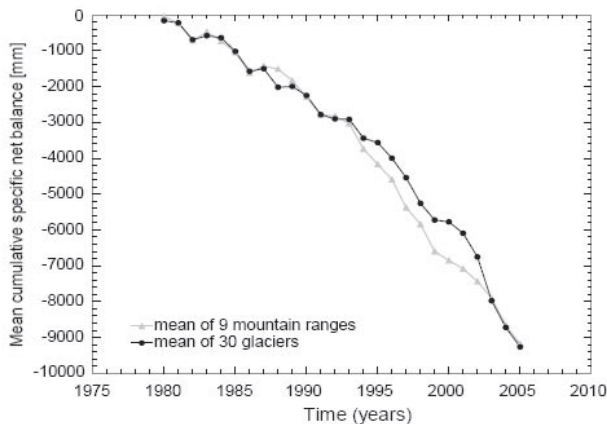
Update on Retreat of Canadian Glaciers

Glaciers and ice caps are key indicators of global climate change. The International Glacier Commission began monitoring glaciers in 1894. Originally the focus was on gaining insights into processes of climate change such as formation of ice ages – more recently the focus has shifted towards processes associated with global warming trends. Currently, the IGC reports data from more than 100 glaciers spanning 9 mountain ranges in 22 countries. In Canada, data is reported to the IGC by the Canadian Glacier Variations Monitoring and Assessment Network (CGVMAN), established in 1993 and operating within the National Glaciology Group at the Geological Survey of Canada.

Recently, the IGC updated their results up to 2006 that show a continued steady decline for 7 glaciers ranging from BC's Coastal mountains to the high Arctic. For example, the Peyto Glacier, at the headwaters of the North Saskatchewan River, has lost 22 metres of thickness since 1965. As it continues to retreat from its current thickness of 200 metres, it is not clear at what elevation it will achieve a new equilibrium.

The impact of glacial retreat on base flows varies considerably across Alberta's rivers basins. In the south, the Oldman has zero contribution from glacial runoff

– depending entirely upon rain, snow and groundwater contributions to varying amounts throughout the year. Conversely, in the Bow River basin, glacial melt contributes an average of 2.5% to annual flows. During summer months, it contributes an average of 7% whereas in a low flow year (as in 1970), scientists report more than 50% of the August flow upstream of Calgary has been derived from glacial melt water. As glaciers in the Bow, North Saskatchewan and Athabasca River basins continue their retreat, snow melt and spring rains will take on increasing importance in Alberta's hydrographic balance.



Note: Figures used with permission of International Glacier Commission

“Cumulative net balance” is equivalent to “thickness” and normalized for the difference between ice and snow density.



Traditional Environmental Knowledge Study Launched

Fossil Water and the Lesser Slave Lake Indian Regional Council have secured a \$7,500 grant from the Alberta Stewardship Network for a TEK study intended to gather valuable information regarding the ecological history of the lake and its environs. Created in 1972, the LSLIRC was created to improve economic and social conditions of the First Nation people in the Lesser Slave Lake area. Today, the LSLIRC consists of five First Nations including Driftpile, Kapawe'no, Sawridge, Sucker Creek and Swan River First Nations.

Lesser Slave Lake is one of Alberta's largest, covering more than 1,100 sq. km. It is home to 28 species of fish and has a rich history of sustenance, sport and commercial fishery use. Increased agricultural, forestry and land development in the region have placed increased pressure on the watershed by contributing to altered stream flows and increased sedimentation.

The TEK study will include digital recordings of TEK from elders and community members combined with selective geo-referencing using GPS. Ultimately, the TEK baseline will assist in the development of watershed management strategies intended to enhance the role of the lake as life source for its communities.

Alberta WaterPortal Nears 1st Anniversary

The Alberta WaterPortal was established in June 2007 to host a new dialogue about water in Alberta. With an emphasis on decision-support tools and best management practises, traffic to the Portal has grown steadily 15,000 visitors looking at over 75,000 web pages. The Portal's News Alert service now has almost 300 subscribers. This dynamic site can be found at www.albertawater.com.

Most recently the WaterPortal has completed its application for status as a not-for-profit society. Founding partners, including the Bow River Basin Council, Alberta WaterSMART, Suncor, IBM and Tesera have contributed to startup funding and continue to add functions and content

to the site with the goal of becoming a reliable source of knowledge and information needed to shape watershed policy. In particular, the WaterPortal team is working on a specific module to support Alberta's nine Watershed Planning and Advisory Councils.





FOSSIL WATER

About the Fossil Water Report

The Fossil Water Report is published six times a year as a service to our clients and partners. Each issue will focus on three areas:

- (i) trends that are important to water managers in western Canada
- (ii) perspectives from our active projects
- (iii) news and views regarding fossil water resources around the world

If you would like to receive copies of our report, visit our website @ www.fossilwater.ca

About Fossil Water Corporation

Fossil Water Corporation provides turnkey water and wastewater solutions to the energy and development sectors. Our goal is to become part of our client's competitive advantage by delivering innovative solutions that consider the full life-cycle of our clients' projects.

Our name comes from our commitment to treat water as a non-renewable resource – we seek to unlock the hidden value in this precious resource.

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