

## WELCOME TO THE COLUMBIA ICEFIELD REGION

You are in Jasper National Park, one of the four Rocky Mountain National Parks which include Banff, Yoho and Kootenay. These parks are part of a national system of protected areas and represent significant examples of Canada's natural and cultural heritage. Together, these four National Parks are also designated a UNESCO World Heritage Site.

The landscape protected here is both beautiful and dramatic. You will be well rewarded if you spend time to learn something of its intriguing 'recent' past. The **Glacier Gallery** has many excellent exhibits to explain more about the area. In addition, there are several short walks in the immediate vicinity that provide excellent views of glaciers and the valleys they have carved.

### About the Mountains ...



The mountains surrounding you originally formed on the floor of an ancient sea. Two hundred million years ago, the north-west drifting North American continent collided with another plate moving north east. In the ensuing geological chaos, the sedimentary rock layers that had formed on the bottom of the oceans were warped, twisted, piled upon one another and broken along fault lines. This mountain building phase continued until around twenty five million years ago.

The mountains were subsequently carved by glaciers. At the height of the last ice age (150,000 to 10,000 years ago) the northern glaciers and mountain glaciers flowed together to form an ice sheet that stretched across Canada. During this time the mountain glaciers carved out the valleys and shaped the mountain peaks surrounding you. While mountain building has ended, the glaciers continue to sculpt the mountains, particularly those in this area.

### About the Glaciers...



Glaciers form where more snow falls each winter than melts each summer. Over time, and under pressure, the snow compacts and metamorphoses into dense glacial ice. A glacier is a mass of this ice which is at least 100 m thick and moves under the force of gravity (i.e. it flows downhill.) Accordingly, glaciers are often referred to as 'rivers of ice'.

### About the Icefield...



Just as rivers sometimes flow out from lakes, glaciers sometimes flow out from an icefield. An icefield is a sheet of glacial ice that is trapped by higher surrounding land and which feeds more than one glacier. The Columbia Icefield is one such 'lake of ice', bounded by peaks such as Mt. Columbia, Mt. Andromeda and Mt. Kitchener. It covers approximately 200 km<sup>2</sup> and feeds six large glaciers: Columbia, Castleguard, Dome, Stutfield, Saskatchewan and Athabasca. The last of these, the Athabasca Glacier, is one of the most accessible glaciers in the world and the focus of most visits to the area.

### About the Rivers...

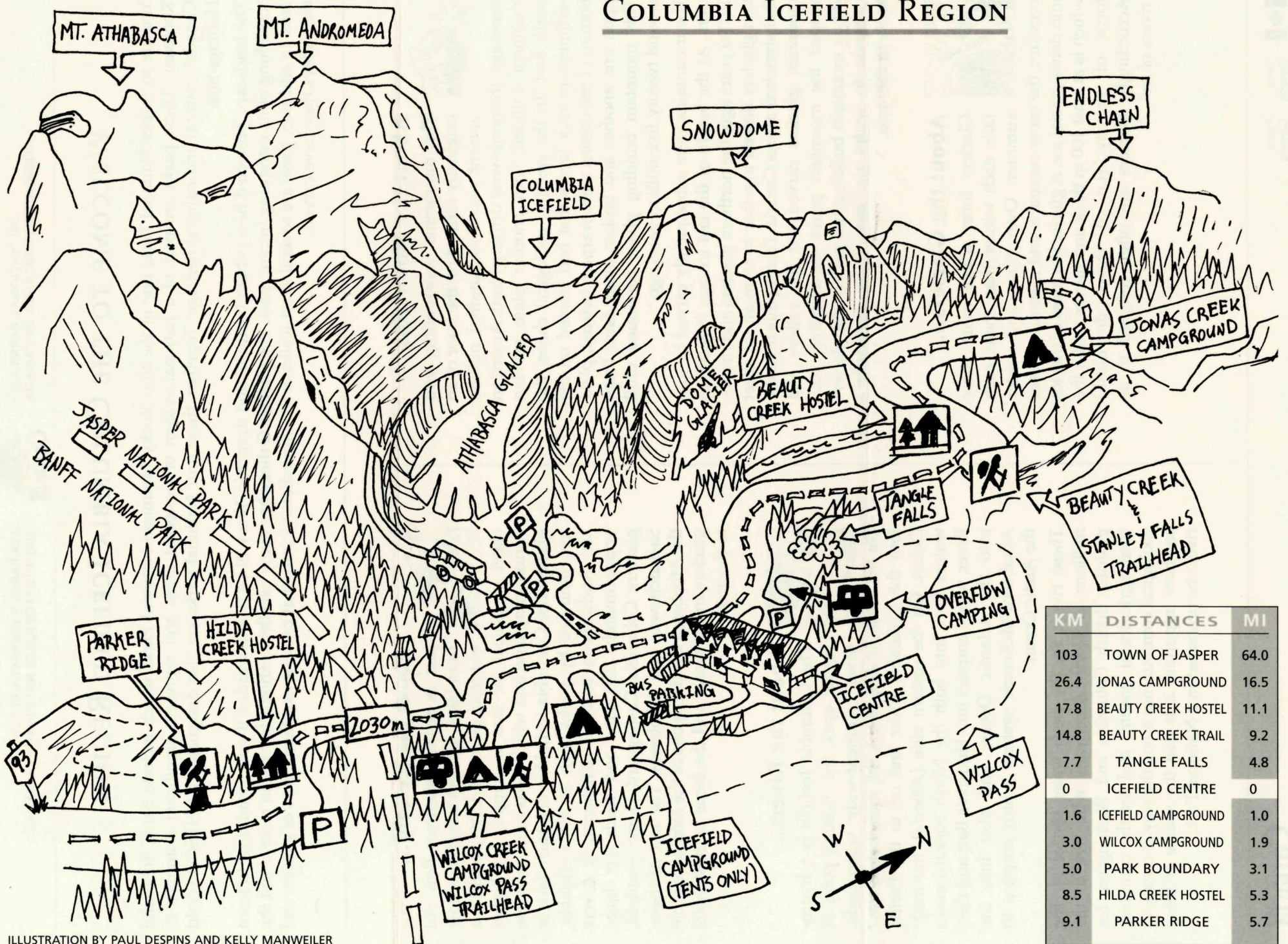


The Columbia Icefield is a hydrological apex, the meeting point of three continent-wide watersheds. On the western side (B.C.), the melt-waters flow into the Columbia River and on to the Pacific Ocean. On the eastern side (Alberta), the melt-waters flow into both the North Saskatchewan River, which empties into Hudson's Bay, and then into the Atlantic Ocean; and also into the Athabasca-McKenzie system, which empties to the Arctic Ocean.

These rivers are the fresh water source for the millions of North Americans who live in the prairies, British Columbia and Washington, for their agricultural systems and for the countless ecological communities along the way. It is easy to see how important it is that the source of these rivers be protected in a National Park.



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KM	DISTANCES	MI
103	TOWN OF JASPER	64.0
26.4	JONAS CAMPGROUND	16.5
17.8	BEAUTY CREEK HOSTEL	11.1
14.8	BEAUTY CREEK TRAIL	9.2
7.7	TANGLE FALLS	4.8
0	ICEFIELD CENTRE	0
1.6	ICEFIELD CAMPGROUND	1.0
3.0	WILCOX CAMPGROUND	1.9
5.0	PARK BOUNDARY	3.1
8.5	HILDA CREEK HOSTEL	5.3
9.1	PARKER RIDGE	5.7