Lake, with an area of 75 sq miles, is the highest major lake at 3,842 feet. Heights of the more important Canadian mountains and other elevations are given in Table 1.2.

1.1.2 Inland waters

Every year about 8,000,000 million tons of water fall on Canada in the form of rain and snow. Much of it is evaporated but a large amount drains back to the oceans as surface run-off, forming rivers and lakes along its route. This surface water, ceaselessly moving, is the dominant feature of the Canadian environment. It has been estimated, in fact, that about 7.6% of Canada's total area is covered by fresh water (Table 1.1). There are probably more lakes here than in any other country in the world – so many that they have never been counted. The total area of fresh water is given as 291,571 sq miles but this figure does not include most of the small ponds, non-permanent lakes and sloughs, seasonally flooded areas or large areas of marsh and wet tundra. As much as one seventh of all the fresh, liquid, surface water in the world is contained within Canada's boundaries.

A large portion of this water is contained in the Great Lakes. Slightly more than 37% of their total area is in Canada (Table 1.3). These lakes include some of the largest bodies of fresh water in the world, so large that they have measurable, although very slight, tides.

Other large lakes in Canada, ranging in area from 12,300 to 9,500 sq miles, are Great Bear Lake, Great Slave Lake and Lake Winnipeg. Apart from these, notable for their size, countless smaller lakes are scattered over the major portion of Canada lying within the Canadian Shield. For example, in an area of 6,094 sq miles, accurately mapped, south and east of Lake Winnipeg there are 3,000 lakes; in an area of 5,294 sq miles southwest of Reindeer Lake in Saskatchewan there are 7,500 lakes. The size and elevation of Canada's principal lakes over 150 sq miles in area are listed in Table 1.4.

Lake storage is very valuable – it represents water that can be drawn upon in time of drought to be replaced in time of plenty. Lakes are natural regulators of river flow. But the true measure of a country's water wealth is the amount of water that can be depended upon to be replaced each year – the amount that remains after evaporation has been subtracted from precipitation. This is the amount that flows in its rivers. Here, too, Canada is very fortunate. The combined mean annual flow of all its rivers has been estimated at 3.5 million cu feet per second – about 9% of the total flow of all the rivers of the world. Set against a population of less than 1% of the world total, this constitutes a very generous endowment of fresh water.

It is understandable that Canada's history of settlement and industrial development has been influenced by its great rivers. The country's first industry, the fur trade, flourished because of the ready access to the interior provided by the St. Lawrence River, the Great Lakes and their tributary streams and the many other great and small waterways. Early exploration and settlement depended on this same natural means of access. The plentiful water supplies of the flat and fertile plains of southern Ontario and Quebec attracted an industrious farming people. The river-borne transportation of lumber and later the power of water-driven turbines were vital factors in the building of the country's industrial base. Today, more than ever, water is the key to Canada's development, supplying the renewable energy required for industrial growth, providing easy and relatively cheap transport for bulk raw materials and playing a vital part in the processing of those materials.

Table 1.5 lists the principal rivers of Canada and their tributaries. The tributaries and sub-tributaries are indicated by indention of names; thus, the Ottawa and other rivers are shown as tributary to the St. Lawrence, and the Gatineau and other rivers as tributary to the Ottawa.

The accompanying map shows the major drainage basins of Canada. Probably the most important is the Atlantic drainage basin, being dominated by the Great Lakes - St. Lawrence system which drains an area of approximately 678,000 sq miles and forms an unequalled navigable inland waterway through a region rich in natural and industrial resources. From the head of Lake Superior to Belle Isle at the entrance of the Gulf of St. Lawrence the distance is 2,280 miles. The entire drainage area to the north of the St. Lawrence and the Great Lakes is occupied by the southern fringe of the Canadian Shield – a rugged, rocky plateau over the edge of which tumble many swift-flowing tributary rivers. These rivers, as well as the St. Lawrence itself, provide the electric power necessary to operate the great industries of the area. South of the St. Lawrence, the smaller rivers are important locally. The Saint John, for instance, drains a fertile area and provides most of New Brunswick's hydro power.