

embraces the trunk stream from Fort Smith down to the Arctic coast, a distance of 1,300 miles, over which a depth of five feet of water can be obtained. This, with the shore line of Great Slave lake, 1,440 miles in length, and the small part of Peel river, is the only part of the section that is now being used by steamers. The remainder of the navigable waters of the section are only available for light draft steamers and cannot be navigated by the deeper draft steamers that now ply on the portion previously mentioned. The Liard river is obstructed on its lower part by a strong rapid which, however, could be ascended by powerful light draft steamers with the aid of a line, making the navigable water on this stream 440 miles in length. Great Bear river, 90 miles in length, also has a shallow rapid about half way up its course which could be ascended in the same way. With this obstruction removed or overcome, the whole of Great Bear lake, with a shore line of about 1,360 miles, becomes connected with the Mackenzie system. Peel river is navigable for shallow draft steamers from the Mackenzie to the mouth of Wind river.

The Mackenzie has a number of other tributaries about which little or nothing is known, but which, on exploration, might prove to be navigable for certain distances. Among these are Little Buffalo river, Willow river, Hareskin river, Arctic Red river and some others.

The Lower Mackenzie section is navigated at present by a few small steamers that are operated solely for the benefit of the fur traders and the missions. In spite of its greater length and the depth of its channel, it is, however, used less than any of the other three sections. This, because of its remoteness.

Taking the Lower Mackenzie section and the Athabasca lake section together, it will readily be understood how important they become in connection with the exploration and development of the whole Lower Mackenzie region and a great part of the region to the east, which cannot easily be reached from Hudson bay. These two sections of the waterways are to-day suffering from the handicap of being separated from railway connection by obstructions which are not easily surmounted. This handicap will, however, be removed when the promised railway to Fort McMurray is built. It would greatly increase the value of these waterways if the obstruction of 16 miles at Fort Smith could be overcome, either by a tramway or a system of locks, and it is probable that one or the other of these projects will one day be carried out.