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the Winnipeg river, and any other river in Manitoba to be reserved for development only under the water-power regulations referred to.

It was early found necessary, in connection with the consideration of sundry applications for power privileges on the Winnipeg river in Manitoba, for the Water Power Branch to have extensive power and storage studies made of that portion of the Winnipeg river within the province of Manitoba. These investigations show that eight distinct power sites, by means of storage easily and cheaply accomplished at the Lake of the Woods, at Lac Seul and other lakes in the province of Ontario, it is possible and economically feasible to develop over 400,000 horse-power 24-hour horse-power, all within eighty miles of the city of Winnipeg and within considerable transmission distance of all commercial centres of the present settled portions of the province.

Of the eight possible power sites on the Winnipeg river, there are three now under development, representing a total power capacity of 159,000 24-hour horse-power. One site is completely developed by the Winnipeg Electric Railway Company on the Pinawa channel, and produces about 26,500 horse-power under most favourable conditions. Another site at Portage la Poudre falls, developed by the city of Winnipeg, produces at the present time about 20,800 horse-power, but is capable of extensions to a maximum of 77,000 24-hour horse-power. Development at the third power site at Great falls, having a maximum possible development of 95,500 24-hour horse-power, is about to be commenced.

There is, therefore, at the present time about 47,300 horse-power produced on the Winnipeg river, and transmitted for use in and around the city of Winnipeg, which can, with the two present plants, be increased to 103,500 24-hour horse-power.

The five remaining power sites on the Winnipeg river are under the control of the Dominion Government, and can furnish a further amount of 24-hour power to a maximum extent of 210,700 horse-power.

In addition, there are several important power sites on the Winnipeg and English rivers within the province of Ontario, which are within easy transmission distance of Winnipeg.

Such this abundance of dependable and economically feasible power spells an assured industrial future for the province of Manitoba, and especially for the cities of Winnipeg, Portage la Prairie and Brandon.

It is interesting to note that the Winnipeg river, in its natural condition, forms one of the most notable power rivers in the world, having a total drop in the province of Manitoba of 271 feet, and in average years its maximum flowage being only about four times its minimum—about 12,000 cubic feet per second. Full information regarding the enormous potential power resources of the river is set out in detail in chapter 3, by Mr. J. T. Johnston, hydraulic engineer of the Water Power Branch, under whose direction the surveys and investigations of the branch have been carried on. Particular attention is called to the two diagrams on plates 9 and 10, which illustrate graphically the power situation on this river under conditions of regulation and non-regulation.