

GENERAL INTRODUCTION

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2. The more level portion in the centre.
3. The mountain and foothill country in the west.

In the first, or eastern portion, the Winnipeg river is the main feature. This river, with its drainage area of 53,500 square miles, has a well-regulated flow and affords numerous water-powers of immense value. Two of the sites have already been developed and supply the city of Winnipeg with its electrical energy, while construction work on some of the other sites has either been commenced or is on the eve of starting. Numerous smaller streams in this eastern portion also afford splendid opportunities for water-power development, some of them being actually utilized on the Minnedosa and Shell rivers. This section also includes the Grand rapids of the Saskatchewan river, where a head of 80 feet is available, affording an exceptionally good power site.

The second, or middle portion, is traversed by two main arteries, the North Saskatchewan and South Saskatchewan rivers. These, with their main tributaries, flow with an even, moderate current with no concentrated descents of importance. Although, strictly speaking, this portion is not entirely without water-powers, yet the possibilities of such are rather unfavourable. In almost every case the total head would have to be created and several proposed developments have already been abandoned on account of the high cost of development.

The third portion, of which the Bow river is typical, has many valuable water-powers. There are none of unusual size, those on the Bow river itself probably being the most important. The slopes of the streams, characteristic of a mountainous region, are generally very steep, and, while the flow of water is subject to fairly large variation, good opportunities for storage and artificial regulation are afforded.

With regard to special measures taken by the Dominion Government in connection with the administration of the water-powers in the southern portion of the Prairie Provinces, the setting aside of the eastern slope of the Rocky mountains as a forest reserve, known as the Rocky Mountains Forest Reserve, may be mentioned first. This step was taken on the recommendation of the Commission of Conservation, and, as a result, an area of 17,900 square miles has been assured protection from such denudation as has already taken place in some of the older provinces. All the upper tributaries of the North Saskatchewan and South Saskatchewan rivers have their sources within this area, and the beneficial effect of conserving its forest cover is evident as far east as the Grand rapid on the main Saskatchewan river. With a similar object in view, the Commission has recently