

possible, or to retrace the course if promising conditions were discovered, have become a part of the history of the "job," and to the perseverance and hardihood of these pioneers the successful culmination of the investigation is largely due.

An examination of the upper watershed of the Koksilah River in the latter part of 1907 led to the first consideration of a possible power development on the Jordan River, the head waters of which lie adjacent to, and only separated by a few hundred yards from the source of the Koksilah. A visit to the mouth of the Jordan on the west coast of the island, a few weeks later, disclosed a large and rapid stream, further exploration of which was prevented at the time by the absence of trails and prevailing wet season, which renders pioneer work in this country almost impossible. A gauging station was, however, established near the mouth of the stream, and a series of observations of run-off instituted.

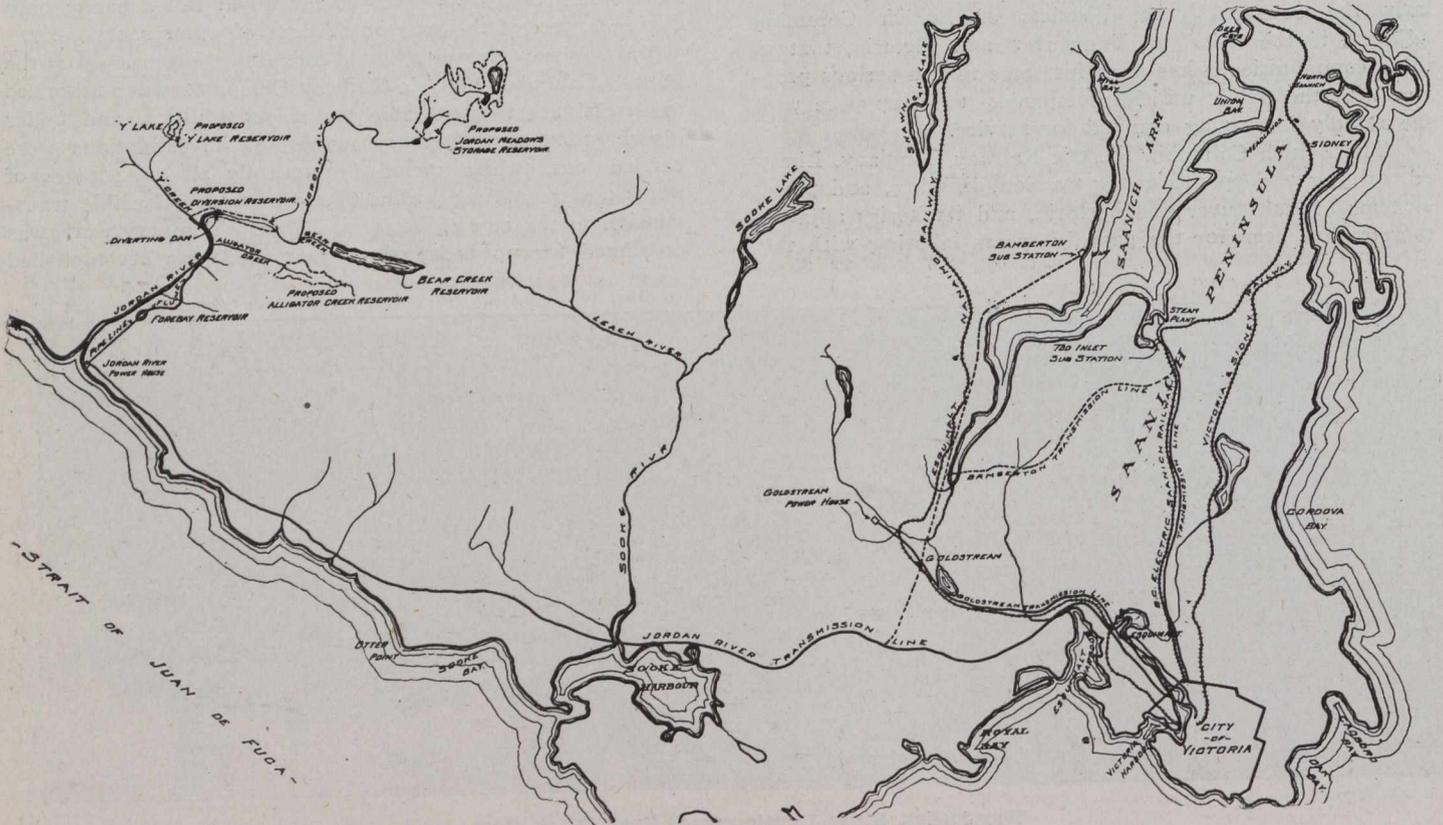
Early in the spring of 1908, a party of engineers was

The Jordan River flows into the Straits of Juan de Fuca at a point about 40 miles west of the city of Victoria. It is one of the large streams on Vancouver Island, the drainage area being about 75 square miles, the greater part of which lies above an elevation of 1,200 feet. The source of the main river is at Jordan Meadows, which lies about midway between the east and west coasts of the island at an elevation about 1,700 above sea-level.

Three large tributary streams join the main river in the upper 10 miles of its course, Bear Creek and Alligator Creek from the east, and "Y" Creek from the west, forming a high level watershed, the entire run-off from which is available for power purposes.

*The entire watershed is covered with a very heavy growth of timber, and at the higher levels receives each year a covering of snow from 4 feet to 7 feet in depth, which is gradually melted in the spring, but does not, as a rule, entirely disappear until June or July.

British Columbia is noted for excessive precipitation,



Map of the Southern End of Vancouver Island.

Showing the Jordan River Development in relation to the City of Victoria.

engaged to explore thoroughly the river and all its branches, investigate the possible reservoir sites, and ascertain in a preliminary way the head or fall obtainable.

This information was gathered during the summer, and in November, 1908, Mr. Meredith, who had in the meantime entered the firm of Sanderson & Porter, engineers, of New York, then made a formal report on the project, having determined that the watershed with the run-off observed, and the use of certain storage reservoirs which had been discovered would, with the head available, amply warrant development for power purposes. Sanderson and Porter were then retained as engineers for the British Columbia Electric Railway Company, Limited, to design and construct the Jordan River power development.

A subsidiary corporation, known as the Vancouver Island Power Company, Limited, was formed under the auspices of the British Columbia Electric Railway Company to finance and otherwise assume charge of the project.

and great changes in amount of precipitation in short distances. On the mainland near Vancouver an annual precipitation of 160 inches has been observed, and a variation of 100 per cent. in annual precipitation has been noted in the same season at points only a few miles apart.

The average precipitation over the entire Jordan River watershed, as shown by observations extending over a period of four years, is about 80 inches.

The development has the usual features of storage reservoirs, diverting dams, flumes, forebay reservoir, pressure pipes, power house, transmission lines, and sub-station, but the extraordinary conditions under which the work was accomplished, the development of special methods of meeting the abnormal conditions governing the work, and the details of the execution under these conditions possess more than passing interest.

The Jordan River has a wide variation between summer and winter flow. The highest portion of its watershed is