

William Pearce Irrigation Project.—Topographical and soil surveys were continued during 1951 on this project and soil, climatic and engineering reports were made. Because of the excessive cost of constructing two separate projects, one in Saskatchewan and another in Alberta, a combined Alberta-Saskatchewan development has been proposed and investigated to some extent. However, a Royal Commission has recently been appointed by the Federal Government to advise regarding the Saskatchewan project and it is probable that a combined development will be investigated by the Commission.

Macleod Irrigation District.—During 1951, the Water Resources Office extended further assistance to the Macleod Irrigation District by improving laterals. P.F.R.A. is investigating ways and means of augmenting the water supply which is insufficient for the project. Expenditures by the Province on this project were: 1948-49, \$7,783; 1949-50, \$10,127; 1950-51, \$10,349; and 1951-52, \$13,603.

Ross Creek Irrigation District.—The construction phase of this project was completed in 1951 and is now considered ready for operation. Classification of the irrigable area has commenced and it is estimated that the area classified as irrigable will amount to 2,400 acres.

P.F.R.A. installed a proper headgate and improved the spillway of its diversion structure on Gros Ventre Creek thus ensuring proper operation of the main canal. Expenditures by the Province on this project were: 1950-51, \$52,964, and 1951-52, \$46,469.

Heart River Diversion Project.—This multiple-purpose project was brought to virtual completion in 1951. The concrete spillway at the dam was completed and two 6' x 6' steel headgates installed. During the spring runoff the reservoir on the Heart River filled up rapidly and overflowed into Winagami Lake through the north diversion canal, completely filling the lake, and the overflow in the south channel reached sizeable dimensions. In 1951 a combined control structure and roadway was built in the inlet to the south channel thus permitting control of the level of Winagami Lake. The project held back over 200,000 acre-feet of water during the 1951 runoff. Purchase of flooded areas around Winagami Lake was under way.

An aerial survey resulted in the production of an accurate topographic map from the southeast corner of Winagami Lake over to the Heart River. It has been established that a two-mile canal can readily be built to exploit the storage of the lake for power development. The power head involved is 70 ft. and the canal would be designed to carry 200 c.f.s. Economic aspects of this project are under investigation.

The town of McLennan is desirous of bringing water for domestic use from Winagami Lake by canal to Kimiwan Lake.

West Prairie River Control.—To protect the town of High Prairie and the road leading north from that town, the Water Resources Office has built a new bed for the West Prairie River with dykes on each side for a distance of about 1,500 ft., around a portion of the old bed that had become blocked with logs and silt.

A study is being made of the flooding in the area north and east of High Prairie, where a problem is created by logs and silt brought down from the Swan Hills.

Michichi Creek Diversion.—In 1951 the Department of Public Works started the construction of a new channel for Michichi Creek in North Drumbeller to prevent flooding. The project will be completed in 1952.