

construct primary works and the province agrees to assist with the development of the irrigable area. Such an agreement is in effect in connection with sections of the Swift Current Irrigation Project being developed in Saskatchewan.

**Major Irrigation Projects.**—During recent years P.F.R.A. has administered special votes by Parliament for the construction of water conservation and development projects that involve large expenditures of money. These undertakings have extended P.F.R.A. administration beyond the boundaries of the P.F.R.A. area in the three Prairie Provinces into British Columbia.

*St. Mary Irrigation Project.*—The St. Mary Irrigation project has been undertaken by agreement between the Government of Canada and the Province of Alberta. The Government of Canada has agreed to construct the main supply reservoirs and connecting works. The Province of Alberta has undertaken the responsibility for construction of the auxiliary reservoirs and distributary system from the main works to the land.

The St. Mary River System is by far the most important irrigation project undertaken in Canada and when completed will irrigate an area of approximately 510,000 acres. Construction of the St. Mary Dam, key structure on the whole project, was completed in 1951 and was marked by an official opening July 16, 1951. Built under Canada's share of the Federal-Provincial agreement, the dam stands 195 feet high and 2,536 feet wide, and creates a reservoir capable of storing 320,000 acre-feet of water. The dam, which was a major engineering accomplishment, took five years to construct.

Approximately 150 miles of main canal have been built by the Government of Canada. Ten thousand acres of land have so far been developed as the Province's share under the agreement, together with over 100 miles of the distribution canal system. Further lands will be developed in 1953 and 1954.

*South Saskatchewan River Development.*—This development in central Saskatchewan is a proposed multiple-purpose project to be used for developing power and irrigation, the irrigable area lying between the town of Elbow and the city of Saskatoon. The key structure on the project will be a dam on the South Saskatchewan River located at a point midway between the towns of Outlook and Elbow.

The plan is to stabilize agriculture in the south-central area of the Province where prolonged droughts have created serious economic problems for over 50,000 farmers. Full use will be made of the river's control, power, urban water supply and recreational benefits. Considerable investigational work has been undertaken on this project, a full report of which was presented to the Government of Canada in 1951.

*Bow River Irrigation Project.*—The Bow River project was purchased by the Government of Canada in 1950 from the Canada Land and Irrigation Company, a private British interest. Development of this project will ensure water to an existing 57,000 acres of irrigated land and will bring an additional 180,000 acres "under the ditch". The project is being undertaken by the Federal Government in order to rehabilitate hundreds of farmers now residing within drought areas of the prairies. In addition, it is expected that this scheme will serve as a stabilizing influence on agriculture in southern Alberta.

Engineering surveys, drainage studies and soil mechanics investigations, started in 1950, were continued.