

To Mar. 31, 1956, PFRA provided the necessary assistance to construct 357 community projects, the majority of which are located on six watersheds originating in the three Prairie Provinces. These projects conserve the surplus spring runoff water to supplement short supply later in the year. Community projects also provide homes for farmers moved from submarginal areas to where they can be assured a livelihood.

PFRA's responsibility for the development of large community irrigation schemes terminates with the construction of primary reservoirs and connecting canals. However, where the need for early returns to farmers proved imminent, PFRA has assisted further in the development of the irrigable land and has maintained a constant surveillance of the project's operations and progress. At times agreement has been reached between PFRA and the provincial government concerned whereby PFRA provides engineering and financial assistance to 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.—*St. Mary Irrigation Project.*—The St. Mary Irrigation project was undertaken by agreement between the Government of Canada and the Province of Alberta. The Government of Canada agreed to construct the main supply reservoirs and connecting works. The Province undertook the responsibility for construction of the auxiliary reservoirs and distribution 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. It is 195 feet high and 2,536 feet wide and creates a reservoir capable of storing 320,000 acre-feet of water. Approximately 200 miles of main canal have been built.

South Saskatchewan River Development.—This development in central Saskatchewan is a proposed multi-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.

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 supply to 100,000 acres of land at present irrigated and will bring an additional 140,000 acres of provincial and privately owned lands "under the ditch" Work has progressed rapidly on construction and the repair and enlargement of old structures. The Government of Alberta is responsible for the construction of the distribution system for provincial and privately owned lands (see p. 417).

Red Deer Irrigation Project.—The proposed Red Deer River development concerns the irrigation of an estimated 400,000 acres of land located in the east central part of Alberta. The project will consist of a dam on the Red Deer River at Ardley and about 100 miles of main canal to two main reservoirs—Craig Lake and Hamilton Lake. The dam will contain power installations to produce power for pumping and also for sale commercially. An estimated 20,000,000 kwh. of water power will be available for sale when power is fully developed.

British Columbia Projects.—Irrigation development in British Columbia has been undertaken in connection with the Veterans' Land Act and at the request of the British Columbia Government. Three projects (the Chase irrigation project and the Johnstone Western Canada ranching projects No. 1 and No. 2) have been completed within the South Thompson Valley area. On these projects 809 acres of land have been developed for irrigation for the benefit of approximately 40 veterans of World War II.