

Major Projects.—Where a special need exists, the costs of such projects are usually shared by the federal and provincial governments and PFRA provides engineering services and supervises construction. Examples of major projects undertaken are as follows.

St. Mary Irrigation Project.—The St. Mary Irrigation Project, jointly undertaken by the Federal Government and the Government of Alberta in 1946, is intended to provide water to irrigate 500,000 acres of land between Lethbridge and Medicine Hat. Three important international streams are involved—the St. Mary, the Belly and the Waterton Rivers. The Federal Government is responsible for construction of the main water storage and supply facilities, and the Alberta Government for the irrigation distribution system and agricultural development. A key structure, the St. Mary Dam, was completed in 1951; the diversion of the Belly River into the St. Mary Reservoir was completed in 1958; and the diversion of the Waterton River to the same reservoir via the Belly River Diversion is planned for completion in 1964. Present facilities extend irrigation to 296,000 acres of land, and the Waterton River water will irrigate the other 214,000 acres.

South Saskatchewan River Development Project.—In 1958 the Federal Government and the Government of Saskatchewan reached an agreement to begin construction on a large multi-purpose project which would enable better use to be made of the water resources of the South Saskatchewan River through irrigation, power development, urban water supply, recreational development and improved river control. The project includes the building of two dams—the major one between the towns of Outlook and Elbow and the other adjacent to the divide between the South Saskatchewan and Qu'Appelle Valleys. The cost of all construction associated with the creation of the reservoir will be shared by the federal and provincial governments at a ratio of three to one, the provincial share not to exceed \$25,000,000. The Federal Government provides all engineering, supervisory and administration requirements.

When completed, the project will provide water for the irrigation of about 500,000 acres between Elbow and the city of Saskatoon, and in the Qu'Appelle Valley. Power potential at the damsite is 475,000 kwh. The reservoir—140 miles long with a capacity of 8,000,000 acre-feet of water (usable storage of 2,750,000 acre-feet)—will cost an estimated \$100,000,000 to construct. The main dam—210 feet high and with an over-all length of 16,700 feet—will be the largest rolled-earth dam in Canada and one of the largest in the world. By the spring of 1964 expenditures on this project had amounted to \$70,000,000.

Northwest Escarpment and Interlake Reclamation Project.—By agreement between the Federal Government and the Manitoba Government, certain flood control and land reclamation projects may be jointly undertaken. Investigation and reclamation work has been done to overcome flooding and erosion problems in the Riding, Duck and Porcupine Mountain areas and the Whitemud watershed, consisting of stream channel improvement, dyking, stream bank erosion control and building cutoffs and diversions. However, since 1958, work has been mainly confined to studies in the Wilson Creek headwaters area, and to completion of the reclamation projects on the Fairford and Icelandic Rivers of the Interlake region.

Assiniboine River Reclamation Project.—Flooding problems along the Assiniboine River between Portage la Prairie and Headingly in Manitoba have, over the years, caused damage to farm land, buildings and other property. Flood protection work, which has been carried on for many years, has consisted mainly of dyke construction and channel improvement; however in 1962 an agreement was signed between the governments of Canada and Manitoba for major flood control measures, including a large-scale flood control and water conservation reservoir on the Assiniboine River near Shellmouth, and the construction of a diversion canal near Portage la Prairie to carry Assiniboine River floodwaters to Lake Manitoba; construction of the main dam will begin in 1964.

Community Pasture Program.—The conversion of submarginal land from cereal crop production to pasture has been considered one of the necessary adjustments in land use in the drier areas of the Prairie Provinces. The 1937 amendment of the Act enabled PFRA to withdraw such land from cultivation and assist farmers to move to better areas.