October 1, 1937.

YAKIMA PROJECT, WASHINGTON

Location. -- The Yakima Project is located in south central Washington, on the eastern slope of the Cascade Mountains, in the drainage basin of the Yakima River and its tributaries. The irrigated section extends from Easton to Kennewick, Washington, a distance of about 175 miles, and includes lands in Kittitas, Yakima, and Benton counties.

Climate.—The elevation above sea level ranges from 400 feet to about 2,200 feet. The climate is mild and free from extreme weather conditions. The average temperature range is from a maximum of 100° F. to a minimum of 0° F. with only occasional extremes beyond this range. At Yakima, centrally located on the project, the average rainfall is 8.15 inches, the annual mean temperature is 50.5° F., and the frost-free period is 187 days. The irrigation season extends from about April 1 to October 31.

Water supply. -- An adequate and dependable water supply is obtained from the natural flow of the Yakima River and its tributaries, supplemented by storage provided in six reservoirs having a combined capacity of 1.039,350 acre-feet. These reservoirs and respective capacities are as follows:

Bumping	34,000	acre-feet
Kachess	210,000	11 11
Keechelus	152,000	11 11
Clear Creek	5,830	n n
Tieton	202,500	11 11
Cle Elum	435,000	11 11

Irrigation works. -- Project irrigation works constructed or acquired by the Bureau of Reclamation, including those of the Tieton, Sunnyside, Kittitas, and Kennewick divisions, consist of more than 1,250 miles of canals and laterals and all other necessary structures such as diversion dams, tunnels, flumes, pipe lines, bridges, and culverts. Irrigation works of the Roza Division are now being built at an estimated cost of \$15,000,000. The Wapato Division was constructed by the United States Indian Service. Works now serving 150,000 acres were constructed by private companies or individuals.

Irrigable lands. -- Water is now available for approximately 370,400 acres of land in the Yakima Valley from irrigation works and storage reservoirs constructed by the Federal Government to divisions and contractors as follows:

Sunnyside Division	102,120	acres
Tieton Division	29,540	11
Kittitas Division	70,190	- 11
Wapato Division	120,000	11
Projects constructed by private		
capital	46,250	11
Small Warren Act contractors	2,300	

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The Roza Division, construction of which was started in 1936 and is now under way, has an irrigable area of about 72,000 acres. The date of completion will depend on future appropriations to be made by Congress and on the progress of construction.

The proposed Kennewick Division in Benton County has an irrigable area of about 35,000 acres, but since construction of the Prosser Power Plant and rehabilitation of the irrigation system serving 4,000 acres in the Kennewick Highlands unit, development of the remaining area appears remote.

When and if all contemplated developments in the Yakima Valley are completed, the total area under irrigation will approximate 590,000 acres, of which about 410,000 acres are now irrigated.

There are no public lands available for homestead settlement at the present time. Some lands in private ownership can be purchased for prices ranging from \$10 to \$50 per acre for unimproved land and from \$50 to \$750 per acre or more for improved land, depending on location, soil, improvements, and water right.

Power development. -- In 1932 construction of a 4,200 H.P. (3,000 k.v.a.) power plant on the Yakima River near Prosser was completed. Power is generated primarily for pumping irrigation water to about 4,000 acres of developed lands in the Kennewick division. Power for pumping is also supplied under contract to several other small irrigation districts. All surplus power is sold to the commercial power company operating in the vicinity.

Soil, topography, and crops.—The predominant soil is a volcanic ash of considerable depth, usually underlaid with gravel or decomposed basalt. The topography is rolling, affording for the most part good natural drainage. The principal crops are fruit, especially apples, and alfalfa hay, potatoes, and grains. Small fruits, berries, and truck crops are also important products. All of the principal field crops do well. Sugar beets promise to become one of the important cash crops since the development of a blight-resistant strain.

Transportation and markets.—The main line of the Northern Pacific Rail-way traverses the entire length of the project. The Chicago, Milwaukee, and St. Paul Railway crosses the Kittitas division. Branch lines of both the Northern Pacific and the Union Pacific systems provide shipping facilities to project farms within a few miles haul. A concrete paved highway traverses the entire length of the valley and improved secondary roads give easy access to towns and shipping points. Produce is shipped to most of the larger marketing centers in the United States and yearly increasing amounts are exported. Cannerics, fruit evaporating plants, meat packing plants, creameries, cheese factories, wineries, etc., on the project provide a market for many farm products. Two large cooperative fruit growers associations and numerous produce houses afford facilities for distributing and marketing all kinds of farm produce. Cold storage is available for 11,647 car loads.

Towns and schools.—Yakima, with a population of approximately 30,000 including the surrounding suburban areas, is the county seat of Yakima County and the business center of the project. Ellensburg, with a population of about 5,000, is the county seat of Kittitas County and the principal trading center of the Kittitas Division. The largest town on the Sunnyside Division is Sunnyside, with a population of 2,100. Among the other 27 smaller towns and trading points are Prosser, the county seat of Benton County, Grandview, and Zillah.

Excellent educational facilities are available. There are 26 accredited high schools, including four junior high schools. A State College of Education is maintained at Ellensburg and a junior college and two business colleges are located in Yakima.

Operating conditions and costs.--Landowners are required to return the construction cost of the project works over a period of years. Total construction costs of the several completed divisions vary from \$31 to \$165 per acre, including the cost of storage. The amount of annual payments varies according to terms of the different contracts. In addition to the construction charge an assessment is made to cover the annual cost of operating and maintaining the system. Assessments and collections are made through irrigation districts and water users associations.

Recreation. -- Project reservoirs and mountain streams, where boating, fishing, and swimming may be enjoyed, are within a few hours' drive from any point in the valley. In surrounding areas mountain climbing, hunting, and camping are attractions. Mt. Rainier National Park with its glaciers and perpetual snow is but 90 miles from Yakima over one of the most scenic highways in the Pacific Northwest.

For further information write to the Project Superintendent, Bureau of Reclamation, Yakima, Washington.