North Platte Project

The North Platte project extends 111 miles along the North Platte valley from Guernsey, WY to Bridgeport. The project provides irrigation to about 226,000 acres that are divided into four irrigation districts. In addition, it provides a supplemental irrigation service ice to eight water-user associations serving a combined 109,000 acres.

Primary features of the North Platte project include Pathfinder Dam and Reservoir, Guernsey Dam and powerplant, Whalen Diversion Dam, Fort Laramie Canal, Interstate Canal and Reservoir System and the Northport Canal.

The North Platte River is the most important river in southeastern Wyoming and western Nebraska in terms of water for irrigation, power generation, recreation and wildlife habitat.

Storage structures for the North Platte project are interspersed along the North Platte River and require close coordination of operations. These operations are further complicated by agreements and laws governing water rights. The use and quantity of water are allocated for certain defined purposes - some on a priority basis, some on a proportionate share basis and some on a geographical source basis.

Primary water use is for irrigating some 390,000 acres of cropland in four irrigation divisions: Interstate, Fort Laramie, Northport and Storage. Two-thirds of the projects irrigated lands are in these four divisions, the remaining one-third, about 100,000 acres are represented by nine districts and canal companies receiving water under Warren Act contracts.

The North Platte Project includes 1,602 miles of canals and laterals and 352 miles of open drains, as well as nearly 200 miles of electrical transmission lines.

Structures
North Platte River water passes the Seminoe and Kortes Dams before entering the reservoir at Pathfinder Dam, which impounds the flow from the Sweetwater River. Pathfinder Reservoir has a storage capacity of 1,016,000 acre feet (one acre foot being enough water to cover one acre of ground with 12 inches of water, or 325,581 gallons) approximately to and hold much of the North Platte Project water.

During the irrigation season, water is released from the reservoir as required, including water from Seminoe Reservoir to be diverted at Alcova Dam for irrigation use on the U.S. Bureau of Reclamation’s Kendrick Project.

Pathfinder (completed in 1909) was one of the very first dams built by the U.S. Reclamation Service. The dam is in a granite canyon on the North Platt River, about three miles below its junction with the Sweetwater River, and about 47 miles southwest of Casper, WY. The dam was built from granite quarried from nearby ills and it has a structural height of 214 feet. The reservoir gathers an average annual run-off of 1.4 million acre-feet of water.

**Guernsey**

Guernsey Dam is about 25 miles Glendo Dam and is used to control river flow. Water released from Pathfinder Reservoir can be stored at this dam and then released to satisfy varying irrigation demands. The water is released through the dam’s powerplant.

The dam itself is in a rocky canyon two miles from Guernsey, WY. It is a diaphragm-type embankment of sluiced clay, sand and gravel that has a structural height of 135 feet. It’s original capacity of 73,810 acre-feet has been reduced by siltation to about 46,000 acre-feet. The powerplant has two 2,400 kilowatt generators.

**Whalen Diversion Dam and Fort Laramie and Interstate Canals**
Water for the North Platte Project has been diverted from the river by the Whalen Diversion Dam since 1909. Water is diverted on the south side of the river into the Fort Laramie Canal and on the right side of the river into the Interstate Canal. The dam is a gravity, concrete ogee weir with an embankment wing spanning the river about eight miles below Guernsey Dam.

The Fort Laramie Canal has an initial capacity of 1,500 cubic feet per second (cfs) and winds its way for 129 miles to an area south of Gering, delivering irrigation water along its course. The canal was built between 1915 and 1924.

The Interstate Canal has an initial capacity of 2,100 cfs and was built between 1905 and 1915. It follows the contour of the land for 95 miles to Lake Alice and Lake Minatare Reservoirs (part of the Inland Lakes). The 35-mile long High-Line Canal extends from Lake Alice to the southwest with a diversion capacity of 160 cfs.

**Northport Canal**

The Northport Canal is a continuation of the privately built Tri-State Canal, which is part of the Farmers Irrigation District. Water in the Northport Canal was designed to irrigate more than 16,000 acres of cropland in the Northport Division. The canal is 27 miles long and has a diversion capacity of 250 cubic feet per second.

**Inland Lakes**

The Inland Lakes, east of Scottsbluff, were created to store and facilitate timely delivery of irrigation water. Today, they also provide critical wildlife habitat and recreational opportunities. They include Lake Minatare, Lake Winters Creek, lake Alice and Little Lake Alice.
The largest of the four is Lake Minatare with a surface area of 2,160 acres and 12 miles of shoreline. Lake Winters Creek lies northwest of Lake Minatare. It has 379 surface acres of water and about four miles of shoreline.

Lake Alice, named for Alice Roosevelt, one of President Theodore Roosevelt’s six children, is the second largest of the lakes with a reservoir capacity of 752 surface acres and six miles of shoreline. Little Lake Alice, laying between lake Alice and Lake Winters Creek is the smallest of the Inland Lakes. It has about 180 acres of surface water and less than four miles of shoreline.

Construction on the Inland Lakes began in 1910 and was completed with the construction of Lake Winters Creek in 1917.