# RECLAMATION Managing Water in the West

# Mid-Pacific Region Newlands Project

The Newlands Project was one of the first Reclamation projects. It provides irrigation water from the Truckee and Carson Rivers for about 57,000 acres of cropland in the Lahontan Valley near Fallon and bench lands near Fernley in western Nevada. In addition, water from about 6,000 acres of project land has been transferred to the Lahontan Valley Wetlands near Fallon.

Lake Tahoe Dam, a small dam at the outlet of Lake Tahoe, the source of the Truckee River, controls releases into the river. Downstream, the Derby Diversion Dam diverts the water into the Truckee Canal and carries it to the Carson River. Other features include Lahontan Dam and Reservoir, Carson River Diversion Dam, and Old Lahontan Power Plant. The Truckee-Carson project (renamed the Newlands Project) was authorized by the Secretary of the Interior on March 14, 1903. Principal features include:



Lake Tahoe Dam and Reservoir.

#### Lake Tahoe Dam

Lake Tahoe Dam controls the top six feet of Lake Tahoe. With the surface area of the lake, this creates a reservoir of 744,600 acre-feet capacity and regulates the lake outflow into the Truckee River. Completed in 1913, Lake Tahoe Dam is a concrete slab and buttress structure. Reclamation modified Lake Tahoe Dam in 1987 under the Safety of Dams program.

### Lahontan Dam, Reservoir, and Power Plant

Lahontan Dam and Reservoir on the Carson River store the natural flow of the Carson River along with water diverted from the Truckee River. The dam, completed in 1915, is a zoned earthfill structure. The reservoir has a storage capacity of 289,700 acre-feet. Old Lahontan Power Plant, immediately below Lahontan Dam, has a capacity of 42,000 kilowatts. The plant was completed in 1911.



Lahontan Dam, Reservoir and Powerplant.

#### **Truckee Canal**

The Truckee Canal extends 32 miles from Derby Diversion Dam to the Lahontan Reservoir. It has conveyed flow rates of approximately 900 cubic feet per second (cfs) in recent decades, but is currently limited due to safety concerns resulting from a breach of the canal in the city of Fernley in January 2008.

#### **Carson River Diversion Dam**

The Carson River Diversion Dam is on the Carson River five miles below Lahontan Dam. The dam diverts water into two main canals to irrigate Carson Division lands. The diversion dam has a concrete control section and has a diversion capacity of 1,950 cfs. It was completed in 1906.



Derby Diversion Dam diverts water into the Truckee Canal.

## **Derby Diversion Dam**

Derby Diversion Dam, on the Truckee River about 20 miles east of Reno, diverts water into the Truckee Canal for conveyance to Lahontan Reservoir and for irrigation of the Truckee Division lands. It is the first irrigation structure designed by the U.S. Reclamation Service (original name for the U.S. Bureau of Reclamation). The dam is a concrete slab and buttress structure 31 feet high, with a diversion capacity of 1,500 cfs.

### "T" and "V" Canals and Power Plant

Two canals carry water from the Carson River Diversion Dam to project lands. The "T" Canal serves lands on the north side of the river. It is nine miles long and has a capacity of 450 cfs. The "V" Canal serves lands on the south side of the river, is 27 miles long and has a capacity of 1500 cfs. The "V" Canal Power Plant is on a drop in the "V" Canal about six miles west of Fallon. It has two 400 kilowatt generators.

### Canal, Distribution, and Drainage System

Overall, the project has 68.5 miles of main canals with a combined diversion capacity of 2,000 cfs. In addition to the primary canals, more than 300 miles of laterals and almost 350 miles of drains have been constructed since work on the first laterals began in 1904.

#### Construction

Construction began in 1903, the same year the project was authorized. The first construction specification Reclamation issued was for the Truckee River Diversion Dam, now known as the Derby Diversion Dam, which was completed in June 1905. By September 1905, the Carson River Diversion Dam and main distributing canals for the Carson Division had been completed. The Truckee Canal and a timber chute to the Carson River (the chute was later replaced by one of concrete, which discharges into Lahontan Reservoir) were completed in November 1906. This permitted the diversion of Truckee River water for use in the Carson Division for the first time in 1907. Construction of Lake Tahoe Dam was completed in 1913.

#### For More Information:

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