

High Mountain Dams in Bonneville Unit,
Wall Lake Dam
Wasatch National Forest
2.3 miles north of Trial Lake Campground
Kamas vicinity
Summit County
Utah

HAER No. UT-41-M

HAER
UTAH,
22-KAM.V,
H-M-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
Rocky Mountain Regional Office
National Park Service
U.S. Department of the Interior
P.O. Box 25287
Denver, Colorado 80537

HISTORIC AMERICAN ENGINEERING RECORD

HAER
UTAH,
22-KAM.V,
1-M-

High Mountain Dams in Bonneville Unit, Wall Lake Dam

HAER No. UT-41-M

Location: 2.3 miles north of Trial Lake Campground, Wasatch National Forest
Kamas vicinity, Summit County, Utah

UTM: 12.503360.4505040
Quad: Mirror Fork

Date of Construction: 1914

Builder/Designer: Provo Reservoir Company and Sego Irrigation Company, Provo, Utah
Wasatch Irrigation Company and Timpanogos Irrigation Company, Heber
City, Utah

Present Owner: Union Reservoir Company, Heber City, Utah 84032

Original Use: Dam

Present Use: Dam

Significance: Wall Lake is the deepest body of water to be reservoired in the Bonneville Unit of the Central Utah Project. Its dam, built conservatively by four of the principal regional irrigation companies, is the oldest man-made structure to reservoir a natural lake in the upper Provo River drainage, along with the dams on Trial and Washington lakes. Picturesquely placed and well-preserved, the dam and outlet works are representative of medium-scale earth-fill construction in the unit. Wall Lake is one of the more significant of the Provo drainage retention structures.

Inventoried by: Clayton Fraser and James Jurale
Fraserdesign
Loveland, Colorado

October 16, 1985

HISTORICAL INFORMATION

In May 1914, the National Forest Service issued a special use permit to the Provo Reservoir Company and the Sege Irrigation Company of Provo, Utah, and the Wasatch and Timpanogos irrigation companies of Heber City to dam several lakes at the headwaters of the North Fork of the Provo River for irrigation. Of the lakes approved for modification -- Crystal, Washington, Trial and Star -- Wall was the highest (10,160 feet), deepest (115 feet) and northernmost. It was characterized by an irregular shoreline of talus slopes and scattered conifers. Dams on Washington, Trial and Wall lakes were completed in 1914. The Wall Lake Dam, an obtuse V-shaped, 615-foot structure, was made of a compacted clay core, covered with earth and rock waste fill and faced with rock riprap on both upstream and downstream slopes. The outlet consists of a 20" diameter riveted steel pipe, with an inclined slide headgate at the pipe inlet and a 20" Ludlow gate valve at the downstream toe. Both dam and outlet works remain, although longitudinal cracks have been observed on the dam. Major reconstruction is proposed.

ARCHITECTURAL INFORMATION

Dam length: 615 feet
Dam height: 35 feet
Dam width: 16 feet
Construct: Clay core earth fill dam with stone riprap facing
Lake size: 85.0 acres; 3,533 acre-foot maximum capacity; 35 vertical foot maximum drawdown
Outlet: 20" steel pipe with gate; 20' x 6' stone and concrete spillway

BIOGRAPHICAL INFORMATION

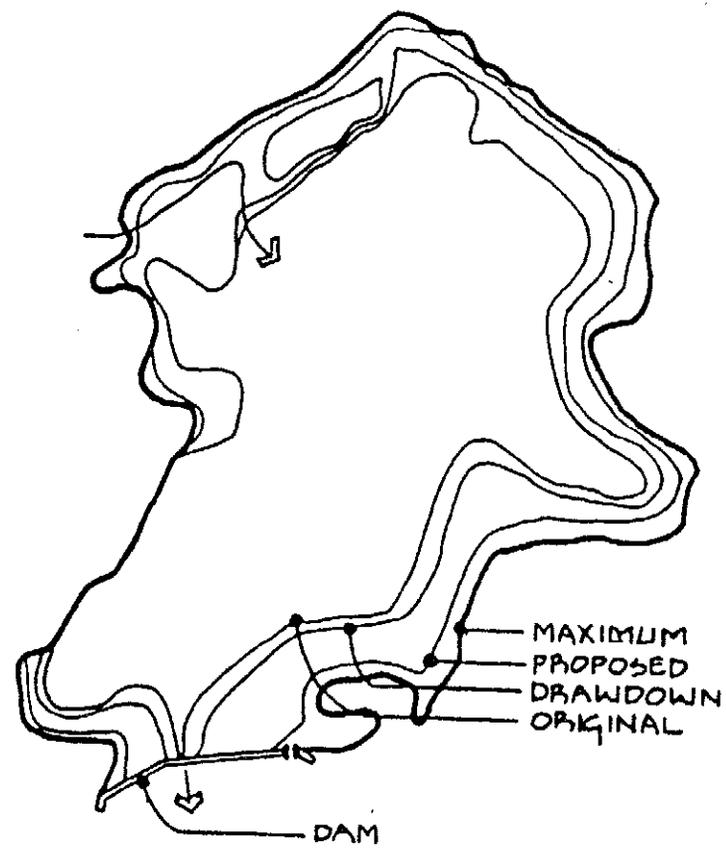
"Preliminary Engineering Report: Stabilization of High Mountain Lakes, Provo River Drainage," National Forest Service Report, 1969, page 62.

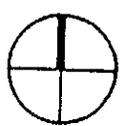
Wall Lake reservoir File #160K, Kamas Ranger Station, Wasatch National Forest, Kamas, Utah.

Field inspection by Clayton Fraser, July 21, 1985.

For additional information, see Irrigation Canals in the Uinta Basin, HAER No. UT-30.

High Mountain Dams in Bonneville Unit,
Wall Lake Dam
HAER No. UT-41-M
(Page 3)



 SCALE: 1" = 800'