

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

HAER No. UT-41-L

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

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

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High Mountain Dams in Bonneville Unit, Trial Lake Dam

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Location: 0.2 miles west of Trial Lake Campground, Wasatch National Forest
Kamas vicinity, Summit County, Utah

UTM: 12.503880.4503400
Quad: Mirror Lake

Date of Construction: 1914

Builder/Designer: Provo Reservoir Company and Se-go 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: Trial Lake is the second largest body of water to be reservoired in the Bonneville Unit of the Central Utah Project. Its dam, built cooperatively 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 Wall and Washington lakes. Although standard in its sloped profile and steel outlet works, the dam is technologically notable as having a concrete core beneath its earth-fill construction. An easily accessible structure with a high visibility, Trial is one of the most significant of the Bonneville Unit dams.

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

October 17, 1985

HISTORICAL INFORMATION

The Provo River originates from Trial Lake, the second largest of the reservoired lakes in the Bonneville Unit. In May 1914, the National Forest Service granted permission to the Provo Reservoir Company and the Segoe Irrigation Company of Provo, Utah, and to the Wasatch and Timpanogos Irrigation companies of Heber City, Utah, to dam Trial and four other lakes in the area for irrigation water storage. A pair of medium-scale dams was completed later that year across the natural outlet for Trial Lake at its southern end. Six hundred feet long and 40 feet high, the primary dam consisted of compacted earth fill over a concrete core, with 18" of stone riprap on its sloped upstream and downstream faces. The outlet was an 18" diameter riveted steel pipe, with a slide headgate at the pipe inlet and a 20" Ludlow gate valve on the downstream toe. The dam and outlet works remain in good condition. It is proposed that the dam be reconfigured, the spillway lowered and new outlet works installed to lower the level of the lake.

ARCHITECTURAL INFORMATION

Dam length: 600 feet
Dam height: 40 feet
Dam width: 18 feet
Construct: Earth fill dam with stone riprap facing
Lake size: 98.0 acres; 2,020 acre-foot maximum capacity; 36 vertical foot maximum drawdown
Outlet: 18" steel pipe with gate

BIOGRAPHICAL INFORMATION

"Preliminary Engineering Report: Stabilization of High Mountain Lakes, Provo River Drainage, National Forest Service Report, 1969, page 57.

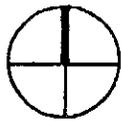
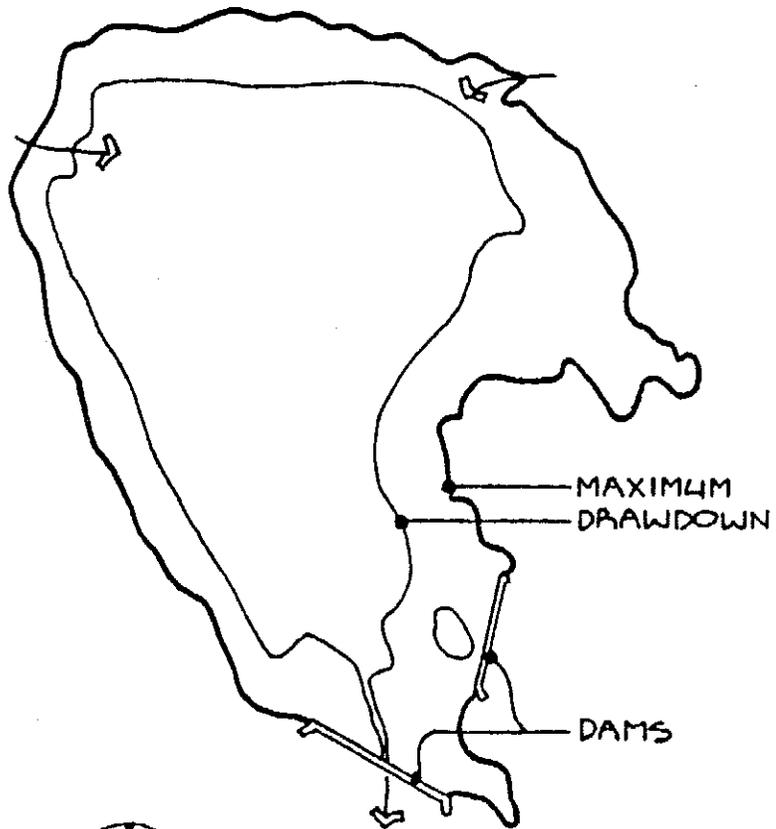
Trial Lake Reservoir File #16-J, Kamas Ranger Station, Wasatch National Forest, Kamas, Utah

E. W. Kramer, "District Engineer's Report on the Applications of the Provo, Timpanogos, Wasatch and Segoe Irrigation Companies," Salt Lake City, 1915, Provo Reservoir Company Files, W-CNFSO, Federal Building, Salt Lake City, 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,
Trial Lake Dam
HAER No. UT-41-L
(Page 3)



SCALE: 1" = 800'