

High Mountain Dams in Upalco Unit,
Brown Duck Lake Dam
Ashley National Forest
4.4 miles north of Miners Gulch Campground
~~Hanna-Vicinity~~ MOUNTAIN HOME VICINITY
Duchesne County
Utah

HAER No. UT-42-B

HAER
UTAH,
7-MOHO.V,
1-B-

PHOTOGRAPHS

WRITTEN HISTORIC 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 Upalco Unit, Brown Duck Lake Dam

HAER No. UT-42-B

Location: 4.4 miles north of Miners Gulch Campground, Ashley National Forest
~~Hanna~~-vicinity, Duchesne County, Utah
MOUNTAIN HOME VICINITY
UTM: 12.543050.4493580
Quad: Kidney Lake

Date of Construction: 1920

Builder/Designer: Farnsworth Canal and Reservoir Company

Present Owner: Moon Lake Water Users Association, Roosevelt, Utah 84066

Original Use: Dam

Present Use: Dam

Significance: Brown Duck Lake is one of three high mountain lakes dammed by the Farnsworth Canal and Reservoir Company in 1920. The dam is representative, though structurally damaged, and the recent replacement of the outlet mechanism has compromised its historical integrity.

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

October 20, 1985

HISTORICAL INFORMATION

The Farnsworth Canal and Reservoir Company filed for irrigation water storage rights on three mountain lakes -- Brown Duck, Island and Kidney -- in the Lake Fork River drainage in July 1915. The permits were approved by the State Engineer the following April, and the small-scale earth-fill dams completed by November 1920. The lowest of the three lakes in the Brown Duck Basin, this reservoir receives water from the other two. With a surface area of 36 acres, Brown Duck is the smallest of the three lakes, and with a crest length of 220 feet, the retention structure is the shortest. The dam is partially breached in 1967; it has not functioned for agricultural water storage since. It remains in damaged and uncertain condition.

ARCHITECTURAL INFORMATION

Dam length: 220 feet
Dam height: 15 feet
Dam width: 20 feet
Construct: Earth fill dam with stone riprap facing
Lake size: 36.1 acres; 268 acre-foot maximum capacity
Outlet: Gated steel pipe; concrete spillway

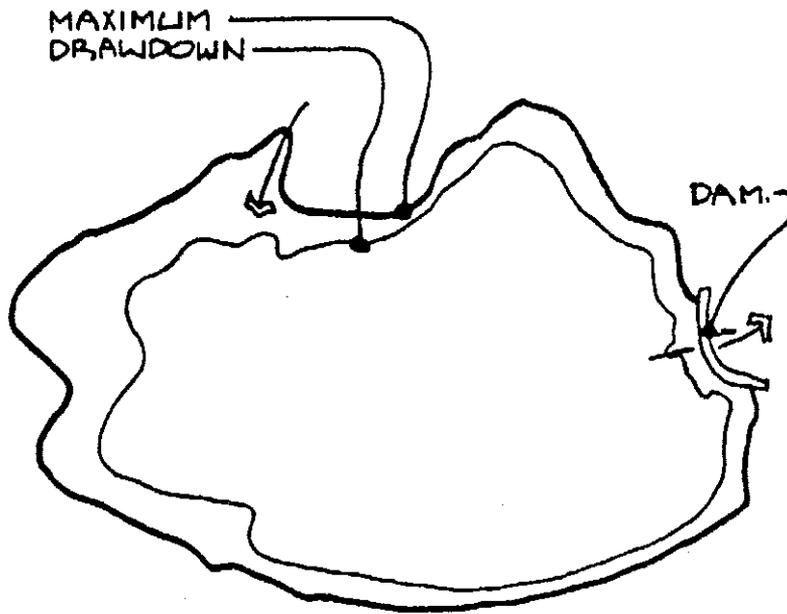
BIOGRAPHICAL INFORMATION

"Preliminary Engineering Report: Stabilization of High Mountain Lakes, Upalco Unit," National Forest Service Report, 1970, page 4.

William F. Gettleman, "Report on the Lakes and Reservoir of the Headwaters of the Uintah, Whiterocks and Lakefork Rivers, Uintah Project, Utah; February 1932," page 18.

Field inspection by Clayton Fraser, July 22, 1985.

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



 SCALE: 1" = 600'