
MEMORANDUM

Subject: Bear River Basin Plan
WHITNEY RESERVOIR

Date: July 25, 2000

Location: Section 9, Township 1N, Range 9W. Located on the West Fork of the Bear River in Utah, approximately 38 miles upstream from Evanston, Wyoming.

Year of construction: 1966

Ownership: Upper Bear River & Mill Creek. Contact is Sam Lowham, 18907 Hwy 150, Evanston, Wyoming 82930

Total Storage: 4,700 acre-feet

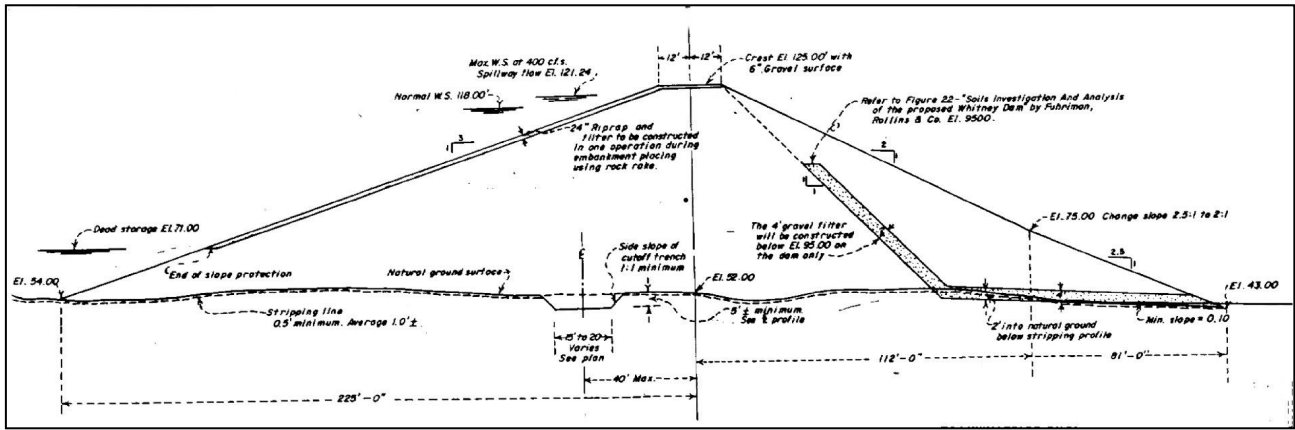
Active Storage: acre-feet

Dead Storage: acre-feet

Area/Capacity Data: At the spillway elevation, area = 188 acres, capacity = 4700 acre-feet

Woodruff Narrows Reservoir Capacity Table		
Elevation	Area (acres)	Cumulative Capacity (acre-feet)
50	0	0
60	105	100
70	220	430
80	265	900
90	360	1580
100	470	2400
110	640	3550
118 (spillway)	188	4,700

Note: Data is interpolated from area capacity curve shown on reservoir design drawings.



Whitney Dam Cross-section

Dam Construction Type: Earth-fill with rock face.

Outlet: 28-inch Diameter reinforced concrete pipe. Outlet capacity = 135 CFS

Spillway: "Duckbill" type spillway, 1650 CFS capacity

Enlargement History: None

End of Month Storage / Release Records: End of month storage records do not appear to have been consistently maintained. Detailed daily release records are available as shown on the attached table.

Water Rights:

Whitney Reservoir Permitted Storage Rights			
Permit No.	Priority	Volume (acre-feet)	Comments
21-1044		4200	Utah Water Right

Designated Use: Irrigation and Stock

Recreational Use: Whitney Reservoir is a popular fishing and campsite location. Access is via the Mirror Lake Scenic Byway.

Associated Irrigation Diversions:

WHITNEY DIVERSIONS	
Irrigation Diversion	Associated Whitney Storage Right (approx) (acre-feet)
Hilliard East Fork	693
Lannon & Lone Mountain	512
Hilliard West Side	508
Bear Canal	1103
Crown & Pine Grove	600
McGraw & Big Bend	220
Lewis Ditch	115
Myers No. 2	191
Danielson Ditch	79
Coffman	123
Tropic	41
TOTAL	4,185

It should be noted that the irrigation diversion volumes listed are approximate only. Some share holders utilize multiple diversions depending upon their needs.

Associated Industrial Diversions: None.

Operational Discussion: Hilliard East Fork Ditch obtains supplemental water from Whitney Reservoir by exchange.

Resources:

- 1) *Utah Division of Water Resources Website, <http://161.119.67.1/cgi-bin/damprt?UT00324>*
- 2) *Water rights shareholders list provided by Don Shoemaker, Wyoming Water Hydrographer-Commissioner for the Upper Division of the Bear River.*
- 3) *Glenn L. Enke – Consulting Engineer, As Constructed Drawings of Whitney Dam, October 1966*

BEAR RIVER STORAGE (Wyoming Section - Upper Division)

WHITNEY RESERVOIR

AVERAGE MONTHLY RELEASE (Acre-Feet)						
YEAR	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1986	12.3	545.5	2,325.4	78.5	49.6	2498.4
1987	59.5	No Record	No Record	2,756.6	324.3	59.5
1988	59.5	Spilling	Spilling	2,867.1	287.4	159.7
1989	59.5	No Record	No Record	2,409.9	2,346.4	99.6
1990	59.5	61.5	99.2	3,046.6	528.0	77.4
1991	59.5	Spilling	Spilling	2,800.7	617.7	800.0
1992	59.5	25.8	Spilling	1,446.0	1,570.9	251.5
1993	59.5	61.5	Spilling	Spilling	61.5	3,286.6
1994	59.5	Spilling	263.8	3,587.5	754.1	3,295.1
1995	59.5	61.5	1,959.7	178.3	542.1	3,655.5
1996	92.2	1,803.0	2,122.3	1,176.2	1,924.6	2,300.8
1997	92.2	92.2	1,318.6	1,616.5	723.0	888.4
1998	190.4	3,596.0	Spilling	1,512.4	108.9	1,805.2
1999	104.5	250.9	2,390.1	1,106.8	699.0	1,525.1

Note: Releases for the months of January through March and October through December are not gaged. The typical release rate during these months is estimated to be between 1.0 CFS (for Game & Fish) and 1.5 CFS.