

KEY STORAGE FACILITIES

Reservoir: DULL KNIFE (or ENL OF 6800R)

Date: 28 Feb. 2001

Location: SWSE 22,T47N,R85W

Owner: NORTH FORK POWDER RIVER WATER USERS ASSN

Year of Construction: 1966

Enlargement History: 1967

Total Storage: 5003 acre-feet

Active Storage: 4345 acre-feet

Dead Storage: 3.055 acre-feet

Area/Capacity Data: *(Source: Undated table on file with State Engineer's Office, Water Div. II)*

Contour	Area (acres)	Average Area (acres)	Capacity (af)	Cum. Vol. (af)
8075	0.00			
		0.99	5.0	5.0
8080	1.98			
		4.09	20.5	25.4
8085	6.20			
		9.54	47.7	73.1
8090	12.87			
		18.38	90.9	164.0
8095	23.89			
		31.14	155.7	319.7
8100	38.39			
		44.11	220.6	540.2
8105	49.83			
		56.01	277.6	817.8
8110	62.19			
		67.72	338.6	1156.4
8115	73.24			
		79.13	395.7	1552.0
8120	85.02			
		89.56	447.8	1999.8
8125	94.10			
		98.03	490.2	2490.0
8130	101.96			
		106.40	532.0	3022.0
8135	110.84			
		115.25	576.3	3598.2
8140	119.66			
		123.65	618.3	4216.5
8145	127.64			
		128.07	128.5	4345.0
8146	128.50			

Dam Construction Type: Compacted earth fill

End-of-Month Storage Records: No

Water Rights: (Source: Tabulation of Adjudicated Surface Water Rights of the State of Wyoming, Water Division Number Two, Oct. 1999.)

Reservoir	Permit Number	Permitted Use	Priority Date	Volume (af)	Headgate Location (S-T-R)
Dull Knife Res.	6800R	I	08-27-1959	4216.71	22-47-085
Enl. Dull Knife	6915R	I	06-19-1967	128.51	22-47-085

Designated Use: Irrigation

Recreational Use: Fishing

Associated Irrigation Diversions: (Source: Carmine LoGuidice, Div. II water commissioner/hydrographer)

Diversion	Tributary
Webb Perkins	N. Fork Powder
Canon	N. Fork Powder
Morgareidge & Francis	N. Fork Powder
Jones	N. Fork Powder
Capitola	N. Fork Powder
Strickler & Rinke	N. Fork Powder
Dry Bob	N. Fork Powder
Blaine	N. Fork Powder
Ritter	N. Fork Powder
Affalter	N. Fork Powder
Jarrard	N. Fork Powder
Buck 1 & 2	N. Fork Powder
Burriss	N. Fork Powder
Jarrard 2	N. Fork Powder
Miles	N. Fork Powder
Sahara	N. Fork Powder

Associated Industrial Diversions: None

References: Carmine Loguidice, water commissioner, State Engineer's Office Div. 2, 20 Feb. 2001.

Active Dams, State Engineer's Office Safety of Dams Engineering Div. Database, transmitted by Larry Stockdale, Safety of Dams engineering consultant, 16 Feb. 2001.

Tabulation of Adjudicated Surface Water Rights of the State of Wyoming, Water Division Number Two, Oct. 1999, database transmitted by Rebecca Mathisen, SEO Technical Services Division administrator, 8 Sept. 2000.

Net Evaporative Losses from Dull Knife Reservoir:

Lewis Annual Evaporation (in.) 45
 Total Storage (acre-feet) 5,003

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average percent of total storage	56.72	57.55	57.87	60.80	71.16	72.71	68.17	64.03	57.62	57.03	58.79	60.84
Generated storage (acre-feet)	2838	2879	2895	3042	3560	3638	3411	3203	2883	2853	2941	3044
Corresponding area (acres)	98.03	98.03	98.03	106.4	106.4	115.25	106.4	106.4	98.03	98.03	98.03	106.4

Calculations:

Monthly Lewis Evap. (inches)	1.215	1.125	1.755	3.6	5.175	5.895	7.695	7.02	5.175	3.42	1.755	1.17	
Monthly Precipitation (inches)	1.25	1.25	2.25	2.75	3.25	2.75	1.25	1.25	1.75	1.75	1.75	1.25	
Net Evaporation (inches)	0	0	0	0.85	1.925	3.145	6.445	5.77	3.425	1.67	0.005	0	TOTAL
Total Net Evaporation (acre-feet)	0	0	0	8	17	30	57	51	28	14	0	0	205