

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Area II
Boise, Idaho
July 29, 1974

Capt. Water
Reservoirs

DESIGN REPORT

Job : Box Lake Dam
Project : CO-01 - BLV-1974
Location : McCall, Idaho
Authority: PL-46
Phase : Design

SUMMARY: This report outlines basic data, assumptions and criteria used to design and prepare drawings for dam repair at Box Lake. Design computations are attached to this report.

DESCRIPTION OF JOB: The proposed work consists of replacing a 70 foot section of dam with earth fill and impermeable membrane on Box Lake dam, and providing an additional emergency spillway for safety purposes in case existing emergency spillways are plugged with snow. Box Lake is located in Sections 32, 33, T20N, RA4, and Section 4, T19N, R4E., approximately 10 miles northwest of McCall, Idaho on the Payette National Forest.

The existing dam washed out in 1972, apparently from overtopping caused from snow plugged spillways (see USFS report attached). This caused loss of irrigation water and considerable damage to one half mile of Box Creek and also deposited sediment in Sisters Lake.

Lake Reservoir Company has four reservoirs for irrigation storage. Box Lake has decreed right of 1395 acre feet of water by Reclamation Permit R 448 and has Forest Service special use permit No. 2720 dated September 1, 1935. Actual storage is estimated to be 650 acre feet. All water goes from Cascade Reservoir into the Payette River and is distributed to the following areas:

Enterprise Irrigation District	100 Shares
Coop Irrigation Company	1241 Shares
Emmett Irrigation District	1688 Shares
Letha Irrigation District	1095 Shares
Lower Payette Irrigation District	876 Shares

RECEIVED

GRANITE LAKE 2900 AC FEET

195 ACRES

14.87 000 ACRES

INVENTORY OF DAMS BY ID NUMBER

ID NUMBER	NAME	NAME OF OWNER	COUNTY	STREAM	LOCATION									
INSP DATE	PURPOSE	RISK	DAM SIZE	DAM TYPE	STORAGE AC-FT	HEIGHT FT	DRAINAGE SQ-MI	RES-AREA ACRES	YEAR COMP	CREST LEN-FT	*****SPILLWAY*****	IDF	COND	CERT EXP
D63-XX13E 0592 0	2	3	EARTH	HILLTOP LAND AND CATTLE CO	PAYETTE	TR-SNAKE RIVER	0.1	1	1981	300	ERCHAN	2.0	0	03-06N-05W GD 0000
D65-0784 0694 IR	3	3	EARTH	IDAHO DEPARTMENT OF LANDS	VALLEY	TRIPPOD CREEK	8.4	6	1940	200	RKCHAN	7.9	333	16-11N-03E GD 1196
D65-10520 0992 I	3	2	EARTH	LAKE RESERVOIR CO	VALLEY	BOX CREEK	9.3	145	1935	250	RPCHAN	4.2	109	33-20N-04E GD 1195
D65-10780 0692 K	3	3	EARTH	TERRACE LAKES REC RANCH INC	BOISE	EASLEY CREEK	14.0	1	1967	250	PIPE	5.0	110	33-10N-04E FR 0000
D65-12202 0893 I	1	1	EARTH	TOM J DAVIS	VALLEY	BEAVER CREEK	68.0	137	1994	2000	RKCHAN	6.5	1100	17-14N-04E UF 1194
D65-12382 0594 EI	3	2	EARTH	DAVE LITTLE FARMS	GEM	BISSELL CREEK	26.5	3	1975	300	OVFL	5.5	894	35-08N-02W GD 1196
D65-12868 0894 H	3	2	EARTH	RONALD C YANKE	VALLEY	TR-CASCADE RESERVOIR	25.0	5	1988	560	GLHOLE	2.8	22	13-15N-03E GD 1195
D65-12897 0793 SG	3	3	EARTH	U S BUREAU OF LAND MGMT	WASHINGTON	HOLLAND GULCH	17.0	2	1987	113	RPCHAN	3.5	59	23-10N-03W GD 0000
D65-13257 0794 SG	3	3	EARTH	U S BUREAU OF LAND MGMT	WASHINGTON	TR-BIG WILLOW CREEK	19.8	3	1990	450	RPCHAN	3.1	43	23-10N-01W GD 1199

INVENTORY OF DAMS BY ID NUMBER

ID NUMBER	NAME	NAME OF OWNER	COUNTY	STREAM	LOCATION SEC-T-R			
INSP DATE	PURPOSE RISK DAM SIZE TYPE	STORAGE AC-FT HEIGHT FT DRAINAGE SQ-MI	RES-AREA ACRES	YEAR COMP	CREST LEN-FT TYPE	*****SPILLWAY***** DEPTH-FT DISC-CFS CFS	IDF CFS	COND CERT EXP

D65-13267	INDIAN CREEK	INDIAN CREEK RANCH	PAYETTE	INDIAN CREEK	Q100	07-09N-02W		
1094 1	2 3	97	18.8	22.0	16	1990	125	RPCHAN 8.7 1356 1000 GD 1195

D65-13410	MUNDAY-HANEY	BUD L MUNDAY AND ROBERT HANEY	VALLEY	TR-ROUND VALLEY CREEK	Q100	21-12N-04E		
0892 SR	3 2	9	23.0	0.1	1	1992	175	ERCHAN 2.0 0 17 FR 0000

D65-2149	PADDOCK VALLEY	LITTLE WILLOW IRRIGATION DIST	WASHINGTON	LITTLE WILLOW CREEK	PMF	17-10N-02W		
0794 1	1 1	36400	43.0	35.0	1340	1949	300	RKCHAN 7.0 360 21500 GD 1196

D65-2255	WARREN DIVERSION	WARREN DITCH CO	VALLEY	BIG CREEK	Q500	03-13N-04E		
0893 1	2 2	100	13.0	56.0	25	1924	100	RKCHAN 7.0 908 1560 GD 1195

D65-2278	PAYETTE LAKE	LAKE RESERVOIR CO	VALLEY	N FK PAYETTE RIVER	0.5 PMF	08-18N-03E		
0894 IR	2 1	41000	8.2	144.0	5337	1944	168	OVFL 12.0 7330 11000 GD 1196

D65-2288	BLACK CANYON	U S BUREAU OF RECLAMATION	GEM	PAYETTE RIVER	PMF	22-07N-01W		
0891 IPR	1 1	29822	111.0	2712.0	1100	1924	1039	CNOVFL 17.5 39060 192500 GD 1193

D65-2316	SHAW TWINS UPPER	JOHN SHAW	VALLEY	TR-LAKE FORK CREEK	Q100	22-18N-04E		
0890 J	3 2	188	15.0	0.1	20	1930	75	RKCHAN 2.0 48 19 GD 1195

D65-2916	LOUIE LAKE	BOULDER IRRIGATION CO	VALLEY	LOUIE CREEK	Q100	33-18N-04E		
0893 1	3 2	361	15.0	0.5	35	1928	110	RPCHAN 2.7 7 42 GD 1195

D65-2917	DEADWOOD	U S BUREAU OF RECLAMATION	VALLEY	DEADWOOD RIVER	PMF	08-11N-07E		
0792 IPR	1 1	161900	137.0	112.0	3000	1931	749	CNOVFL 6.0 11300 52200 GD 1193

INVENTORY OF DAMS BY ID NUMBER

ID NUMBER	NAME	NAME OF OWNER	COUNTY	STREAM	LOCATION										
INSP DATE	PURPOSE	RISK	DAM SIZE	DAM TYPE	STORAGE AC-FT	HEIGHT FT	DRAINAGE SQ-MI	RES-AREA ACRES	YEAR COMP	CREST LEN-FT	*****SPILLWAY*****	IDF	COND	CERT EXP	
D65-2918	PAYETTE LAKE UPPER	LAKE RESERVOIR CO	VALLEY	N FK PAYETTE RIVER	Q500	36-21N-03E									
0893 1	2	2	CNGRV		3000	12.0	42.0	315	1953	70	SCHAN	3.0	106	1240	GD 1195
D65-2919	GRANITE LAKE	LAKE RESERVOIR CO	VALLEY	LAKE CREEK	Q500	03-20N-03E									
0893 1	2	2	EARTH		2900	20.5	2.2	195	1952	1460	CNOVFL	4.3	73	160	GD 1195
D65-2923	BLACKWELL (FALL CREEK)	J B SCOTT	VALLEY	FALL CREEK	Q100	20-19N-04E									
0893 1	3	2	RKMAS		178	6.0	2.3	37	1925	50	OVFL	0.0	150	0	FR 0000
D65-2925	SAGE HEN	SQUAW CREEK IRRIGATION CO	GEM	SAGE HEN CREEK	0.5 PMF	34-12N-02E									
0594 1	2	1	EARTH		5210	38.0	10.5	238	1958	500	CNCHAN	8.5	1670	3725	GD 1195
D65-2926A1	KNOX MEADOW	JAMES CRUICKSHANK	VALLEY	LAKE FORK CREEK (OS)	Q500	13-18N-03E									
0893 1	2	2	EARTH		1073	13.0	1.4	156	1941	600	CHNAFD	5.6	59	150	GD 1195
D65-2926A2	KNOX MEADOW DIKE	JAMES CRUICKSHANK			Q500	13-18N-03E									
0893 AUX	2	0	EARTH		0	2.0	1.4	156		310	CHNAFD	2.8	0	150	GD 1195
D65-2927	CASCADE	U S BUREAU OF RECLAMATION	VALLEY	N FK PAYETTE RIVER	PMF	26-14N-03E									
0792 1FP	1	1	EARTH		703200	78.0	620.0	28300	1948	785	CNCHAN	32.0	12500	119100	GD 1193
D65-2931	CALLENDER	TOM J DAVIS	VALLEY	BEAVER CREEK	Q100	17-14N-04E									
0893 1	3	2	EARTH		210	27.0	6.8	50	1946	300	RKCHAN	4.7	166	323	NA 1194
D65-2936	KOSKELLA	AUGUST AND MATT KOSKELLA	VALLEY	TR-GOLD FORK RIVER	Q100	06-15N-04E									
0894 1	3	2	EARTH		74	21.0	0.4	12	1947	310	ERCHAN	2.6	14	53	GD 1196

Sight survey —
Dam Plans