

RESERVOIR SEDIMENT
DATA SUMMARY

CS-34 Rev. 6-66

Lexen Creek Weir¹

NAME OF RESERVOIR

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

63-19

DATA SHEET NO.

DAM	1. OWNER USDA - F.S.			2. STREAM Lexen Creek			3. STATE Colorado																													
	4. SEC. TWP. RANGE			5. NEAREST P.O. Fraser			6. COUNTY Grand																													
	7. LAT. 39° 54' " LONG 105° 53' "			8. TOP OF DAM ELEVATION			9. SPILLWAY CREST ELEV.																													
RESERVOIR	10. STORAGE ALLOCATION		11. ELEVATION TOP OF POOL		12. ORIGINAL SURFACE AREA, ACRES		13. ORIGINAL CAPACITY, ACRE-Feet		14. GROSS STORAGE, ACRE-Feet		15. DATE STORAGE BEGAN																									
	a. FLOOD CONTROL																																			
	b. MULTIPLE USE																																			
	c. POWER																																			
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN																									
	e. IRRIGATION										10-1-55																									
	f. CONSERVATION																																			
	g. INACTIVE		N.A.²		200 Ft²																															
WATERSHED	17. LENGTH OF RESERVOIR				MILES				AV. WIDTH OF RESERVOIR				MILES																							
	18. TOTAL DRAINAGE AREA				0.48				SQ. MI.				22. MEAN ANNUAL PRECIPITATION (9)				17.58³				INCHES															
	19. NET SEDIMENT CONTRIBUTING AREA				0.48				SQ. MI.				23. MEAN ANNUAL RUNOFF (15)				16.34⁴				INCHES															
	20. LENGTH				1				MILES				AV. WIDTH				0.5				MILES				24. MEAN ANNUAL RUNOFF (15)				416.67⁴				AC. FT.			
	21. MAX. ELEV.				11,584 Ft.				MIN. ELEV.				9,800 Ft.				25. ANNUAL TEMP.: MEAN				33°F				RANGE				35°F.³							
SURVEY DATA	26. DATE OF SURVEY		27. PERIOD YEARS		28. ACCL. YEARS		29. TYPE OF SURVEY		30. NO. OF RANGES OR CONTOUR INT.		31. SURFACE AREA, ACRES		32. CAPACITY, ACRE-Feet		33. C/I. RATIO, AC.-FT. PER AC.-FT.																					
	10-1-56		1		1		↑ See Remark ⁵ ↓																													
	10-1-57		1		2																															
	10-1-58		1		3																															
	10-1-59		1		4																															
	10-1-60		1		5																															
	10-1-61		1		6																															
	(continued on next page)																																			
	26. DATE OF SURVEY		34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW, ACRE-Feet				36. WATER INFL. TO DATE, AC.-FT.																											
					a. MEAN ANNUAL		b. MAX. ANNUAL		c. PERIOD TOTAL		a. MEAN ANNUAL		b. TOTAL TO DATE																							
	10-1-56		24.75 ³		434.27 ⁴																															
	10-1-57		32.78		693.24																															
	10-1-64		18.16		330.00																															
	10-1-65		26.45		452.96																															
	10-1-66		16.76		255.56																															
(continued on next page)																																				
26. DATE OF SURVEY		37. PERIOD CAPACITY LOSS, ACRE-Feet				38. TOTAL SED. DEPOSITS TO DATE, ACRE-Feet																														
		a. PERIOD TOTAL		b. AV. ANNUAL		c. PER SQ. MI.-YEAR		a. TOTAL TO DATE		b. AV. ANNUAL		c. PER SQ. MI.-YEAR																								
10-1-56						226Ft ³ /MI ²		.005																												
10-1-57						393		.009																												
10-1-58						468		.011																												
10-1-59						83		.002																												
10-1-60						80		.002																												
(continued on next page)																																				
26. DATE OF SURVEY		39. AV. DRY WGT., LBS. PER CU. FT.		40. SED. DEP., TONS PER SQ. MI.-YR.		41. STORAGE LOSS, PCT.		42. SED. INFLOW, PPM																												
				a. PERIOD		b. TOTAL TO DATE		a. AV. ANN.		b. TOT. TO DATE		a. PERIOD		b. TOT. TO DATE																						
10-1-56				10.24		10.24																														
10-1-57				17.92		14.08																														
10-1-58				21.12		16.43																														
10-1-59				3.84		13.28																														
10-1-60				3.52		11.33																														
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26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION														
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION														
26. DATE OF SURVEY	44. REACH DESIGNATION PERCENT OF TOTAL ORIGINAL LENGTH OF RESERVOIR														
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	-105	-110	-115	-120	-125
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN REACH DESIGNATION														
45. RANGE IN RESERVOIR OPERATION															
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.								
46. ELEVATION-AREA-CAPACITY DATA															
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY							
47. REMARKS AND REFERENCES															
<ol style="list-style-type: none"> 1 Leaf, Charles F. 1970. Sediment yields from central Colorado snow zone. J. Hydraul. Div., Amer. Soc. Civil Eng., 96(HY1): 87-93. 2 Entire pond used to collect bedload sediment and debris. 3 Records collected at Fraser Experimental Forest Headquarters (El. 9,070 ft.). 4 April-Sept. Runoff. 5 Pond surveyed every fall by cross-sectioning (Tabulation is in Ft.³/Mi.²). 6 Leaf, Charles F. 1971. Closure, Sediment yields from central Colorado snow zone. J. Hydraul. Div., Amer. Soc. Civil Eng., 97(HY2): 350-351. 															
48. AGENCY MAKING SURVEY Rocky Mt. Forest and Range Exp. Station															
49. AGENCY SUPPLYING DATA Same															
												50. DATE 8/1/71			

CONTINUATION SHEET 1

26. Date of Survey	27. Period Years	28. Accl. Years	29. Type of Survey	
10-1-62	1	7		
10-1-63	1	8		
10-1-64	1	9		
10-1-65	1	10		
10-1-66	1	11		
10-1-67	1	12		
10-1-68	1	13		
10-1-69	1	14		
10-1-70	1	15		
26. Date of Survey	34. Period Annual Precip.	35. Period Water Flow, A/F.		
		a. Mean Annual	b. Max. Annual	
10-1-67	22.35	378.57		
10-1-68	18.87	396.03		
10-1-69	25.18	419.04		
10-1-70	25.69	568.41		
26. Date of Survey	37. Period Capacity Loss			
	a. Period Total	b. Av. Annual	c. Per Sq. Mi.	
10-1-61			13	
10-1-62			197	
10-1-63			8	
10-1-64			67	
10-1-65			130	
10-1-66			67	
10-1-67			38	
10-1-68			33	
10-1-69			33	
10-1-70			88	

10.00/mi²-yr.

26. Date of Survey	27. Period Years	28. Accl. Years	29. Type of Survey
9/9/71	1	16	
8/30/72	1	17	
9/13/73	1	18	
8/20/74	1	19	
9/3/75	1	20	
9/9/76	1	21	
9/6/77	1	22	
10/23/78	1	23	
8/22/79	1	24	
10/1/80	1	25	

26. Date of Survey	34. Period Annual Precip.	35. Period Water Flow, A/F	
		a. Mean Annual	b. Max. Annual
9/9/71	22.20	578.	
8/30/72	25.03	405.	
9/13/73	23.47	453.	
8/20/74	22.24	522.	
9/3/75	19.36	387.	
9/9/76	18.24	301.	
9/6/77	24.50	210.	
10/23/78	17.60	539.	
8/22/79	22.90	399.	
10/1/80	26.33	422.	

26. Date of Survey	37. Period Capacity Loss		
	a. Period Total	b. Av. Annual	c. Per Sq. Mi.
9/9/71			183.
8/30/72			92.
9/13/73			67.
8/20/74			183.
9/3/75			42.
9/9/76			27.
9/6/77			0
10/23/78			71.
8/22/79			34.
10/1/80			50.

26. Date of Survey	39. Av. Dry Wgt., Lbs./Cu. Ft.	40. Sed. Dep., Tons/Sq. Mi.	
		a. Period	b. Total to Date
9/9/71	90.86		8.32
8/30/72	↓		4.16
9/13/73			3.03
8/20/74			8.32
9/3/75			1.89
9/9/76			1.25
9/6/77			0
10/23/78			3.22
8/22/79			1.51
10/1/80			2.27