

RESERVOIR SEDIMENTATION
DATA SUMMARY

Horse Creek Reservoir 1/
NAME OF RESERVOIR

48 - 4

DATA SHEET NO.

DAM	1. OWNER Ft. Lyon Canal Co.			2. RIVER Horse Creek		3. STATE Colorado				
	4. SEC. 22 TWP. 21S RANGE 55W			5. NEAREST TOWN Ordway		6. COUNTY Otero				
	7. STREAM BED ELEV.			8. TOP OF DAM ELEV.		9. SPILLWAY CREST ELEV.				
RESERVOIR	10. STORAGE ALLOCATION	11. ELEVATION TOP OF POOL	12. SURFACE AREA ACRES	13. STORAGE ACRE- FEET	14. ACCUMULATED ACRE- FEET	15. DATE STORAGE BEGAN				
	d. FLOOD CONTROL					2/				
	b. POWER					Nov. 1900				
	c. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN				
	d. IRRIGATION		2,923	36,203	36,203					
	e. CONSERVATION									
	f. INACTIVE									
WATERSHED	17. LENGTH OF RESERVOIR			MILES	AV. WIDTH OF RESERVOIR			MILES		
	18. TOTAL DRAINAGE AREA			52.01	SQ. MI.	22. MEAN ANNUAL PRECIPITATION			INCHES	
	19. NET SEDIMENT CONTRIBUTING AREA			47.44	SQ. MI.	23. MEAN ANNUAL RUNOFF			INCHES	
	20. LENGTH		MILES	AV. WIDTH		MILES	24. MEAN ANNUAL RUNOFF			AC.-FT.
	21. MAX. ELEV.		MIN. ELEV.		25. CLIMATIC CLASSIFICATION					Semi-arid
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/W RATIO AC.-FT. PER SQ. MI.		
	Nov. 1900	-	-	-	-	2,923	36,203	696		
	April 1940	39.4	39.4	Range detailed	14	2,847	30,738	591		
	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		
	26. DATE OF SURVEY	37. PERIOD SEDIMENT DEPOSITS 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			
	April 1940	450 ^{3/} 5,474 ^{4/} (6,170)	11.42 ^{3/} 139	0.241 ^{3/} (1.01) ^{5/}	450 ^{3/} 5,474 ^{4/}	11.42 ^{3/} 139.0	0.241 ^{3/} (1.01) ^{5/}			
	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. ANNUAL	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE		
April 1940	68.36 (21)	1,515 ^{5/}	1,515 ^{5/}	15.12	0.38					

1/ Off-channel reservoir

2/ First received water from Arkansas River April 1910, and from Horse Creek in 1916.

26.	DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, 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																	
<p><u>3/</u> From reservoir drainage basin, excluding water diverted from Arkansas River and Horse Creek. Based on information from sedimentation survey of Brown Reservoir No. 1, Las Animas Co., Colorado.</p> <p><u>4/</u> From all sources.</p> <p><u>5/</u> Per 100 acre-feet of water diverted from the Arkansas River and Horse Creek. Total of 564,918 acre-feet of water diverted to the Reservoir between 1910 and 1939.</p>																	
48. AGENCY SUPPLYING DATA																	
<p style="text-align: center;">Sedimentation Section Soil Conservation Service</p> <p style="text-align: center;">U. S. Dept. of Agriculture Washington, D. C.</p>																	
															49. DATE <u>July 23, 1951</u>		