

RESERVOIR SEDIMENTATION
DATA SUMMARY

Buchanan Reservoir

NAME OF RESERVOIR

52-3

DATA SHEET NO.

DAM	1. OWNER Lower Colorado Riv. Auth.		2. RIVER Colorado		3. STATE Texas			
	4. SEC. - TWP. - RANGE -		5. NEAREST TOWN Burnet		6. COUNTY Burnet, Llano			
	7. STREAM BED ELEV. 888		8. TOP OF DAM ELEV.		9. SPILLWAY CREST ELEV. 1,020			
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							
	b. POWER	1,020	23,490	970,010	970,010	June 1937		
	c. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN		
	d. IRRIGATION							
	e. CONSERVATION							
	f. INACTIVE					June 1937		
17. LENGTH OF RESERVOIR 15		MILES		AV. WIDTH OF RESERVOIR 3.0		MILES		
WATERSHED	18. TOTAL DRAINAGE AREA 19,350 ^{1/}		SQ. MI.		22. MEAN ANNUAL PRECIPITATION 22.68 ^{2/}		INCHES	
	19. NET SEDIMENT CONTRIBUTING AREA 19,313		SQ. MI.		23. MEAN ANNUAL RUNOFF		INCHES	
	20. LENGTH MILES		AV. WIDTH MILES		24. MEAN ANNUAL RUNOFF 1,494,900 ^{2/}		AC.-FT.	
	21. MAX. ELEV.		MIN. ELEV.		25. CLIMATIC CLASSIFICATION Sub-Humid			
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.
	June 1937	-	-	-	-	23,490	970,010	50
	Feb. 1941	3.7	3.7	Range Recon.	39	23,490	954,859	49
	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	
	Feb. 1941		1,017,262 ^{3/}	2,809,000 ^{3/}	3,763,870 ^{3/}	1,017,262 ^{3/}	3,763,870 ^{3/}	
	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	
	Feb. 1941	15,151	4,095	0.21	15,151	4,095	0.21	
	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	
Feb. 1941				0.42	1.56	-	-	

1/ Drainage area is 31,250 sq. mi., of which 11,900 sq. mi. are non-contributing
 2/ Based on an average of five gaging stations located within the drainage area.
 3/ Records from Red Bluff bridge gage, about 15 miles above the lake. Records

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
 Unpublished data.
 The Silt Load of Texas Streams by Texas Board of Water Engineers 1939 - 1941.
 The sediment is predominantly red and gray clay. Very little sediment was found outside the main channel in the lower part of the reservoir.

48. AGENCY SUPPLYING DATA Region 4, Soil Conservation Service⁴⁹ DATE January 2, 1951
U. S. Dept. of Agriculture
Fort Worth, Texas