

RESERVOIR SEDIMENTATION
DATA SUMMARY

Mountain Creek Reservoir

51-7

NAME OF RESERVOIR

DATA SHEET NO.

DAM	1. OWNER Dallas Power & Light Co.		2. RIVER Mountain Creek		3. STATE Texas				
	4. SEC. - TWP. - RANGE -		5. NEAREST TOWN Dallas		6. COUNTY Dallas				
	7. STREAM BED ELEV. 429		8. TOP OF DAM ELEV. 467		9. SPILLWAY CREST ELEV. 457				
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			
	a. FLOOD CONTROL					March 1937			
	b. POWER	457	3,586	37,520	37,520				
	c. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN			
	d. IRRIGATION								
	e. CONSERVATION								
	f. INACTIVE					March 1937			
17. LENGTH OF RESERVOIR 3.22 MILES		AV. WIDTH OF RESERVOIR 1.75 MILES							
WATERSHED	18. TOTAL DRAINAGE AREA 280 SQ. MI.		22. MEAN ANNUAL PRECIPITATION 36.2 (60) INCHES						
	19. NET SEDIMENT CONTRIBUTING AREA 274.4 SQ. MI.		23. MEAN ANNUAL RUNOFF INCHES						
	20. LENGTH 27 MILES	AV. WIDTH 11 MILES	24. MEAN ANNUAL RUNOFF AC.-FT.						
	21. MAX. ELEV. 800		MIN. ELEV.		25. CLIMATIC CLASSIFICATION 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.	
	March 1937	-	-	-	-	3,586	37,520	134	
	Nov. 1946	9.7	9.7	Range Detailed	12	3,441 1/2	27,100	97	
	26. DATE OF SURVEY		34. PERIOD ANNUAL PRECIPITATION	35. PERIOD WATER INFLOW ACRE- FEET			36. WATER INFL. TO DATE AG.-FT.		
			a. MEAN ANNUAL	b. MAX. ANNUAL	c. PERIOD TOTAL		d. MEAN ANNUAL		e. 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	d. TOTAL TO DATE	e. AV. ANNUAL	f. PER SQ. MI.-YEAR	
	Nov. 1946		10,420	1,074	3.91	10,420	1,074	3.91	
	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	
Nov. 1946					2.86	27.77	-	-	

1/ Shoreline was not remapped in 1946. Area loss computed as proportion of decrease in crest to crest widths of ranges from 1937 to 1946. Area is probably 100 ± ac. less than shown.

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
 "Mountain Creek Siltation Survey," by Ebasco Service, Inc., New York, N. Y., January 1947. Study conducted for Dallas Power & Light Co. and results made available by them for SCS use. Original cross-sections were sounded and 1946 volume computed by average depth methods.

Rainfall, runoff, discharge and lake stage records are maintained by Dallas Power & Light Co.

48. AGENCY SUPPLYING DATA Ebasco Services, Inc.
 Reported by: Region 4
 Soil Conservation Service
 U. S. Dept. of Agriculture
 Fort Worth, Texas

49. DATE January 2, 1951