

RESERVOIR SEDIMENTATION  
DATA SUMMARY

Lake Nasworthy

NAME OF RESERVOIR

54-2

DATA SHEET NO.

DAM	1. OWNER <b>West Texas Utilities Co.</b>			2. RIVER <b>S. Concho River</b>			3. STATE <b>Texas</b>			
	4. SEC. - TWP. - RANGE -			5. NEAREST TOWN <b>San Angelo</b>			6. COUNTY <b>Tom Green</b>			
	7. STREAM BED ELEV. <b>1,835</b>			8. TOP OF DAM ELEV. <b>1,885</b>			9. SPILLWAY CREST ELEV. <b>1,870</b>			
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					Oct. 1930				
	b. POWER									
	c. WATER SUPPLY	<b>1,870</b>	<b>1,326</b>	<b>11,485</b>	<b>11,485</b>	16. DATE NORMAL OPER. BEGAN				
	d. IRRIGATION									
	e. CONSERVATION									
	f. INACTIVE					Oct. 1930				
17. LENGTH OF RESERVOIR <b>4.57</b> MILES			AV. WIDTH OF RESERVOIR <b>0.46</b> MILES							
WATERSHED	18. TOTAL DRAINAGE AREA <b>3,294</b> SQ. MI.			22. MEAN ANNUAL PRECIPITATION <b>22</b> INCHES						
	19. NET SEDIMENT CONTRIBUTING AREA <b>3,292</b> SQ. MI.			23. MEAN ANNUAL RUNOFF INCHES						
	20. LENGTH <b>90</b> MILES		AV. WIDTH <b>36.6</b> MILES		24. MEAN ANNUAL RUNOFF AC.-FT.					
	21. MAX. ELEV. <b>2,800</b>		MIN. ELEV.		25. CLIMATIC CLASSIFICATION <b>Subhumid</b>					
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 <sub>w</sub> RATIO AC.-FT. PER SQ. MI.		
	Oct. 1930	-	-	-	-	1,326	11,485	3.49		
	Dec. 1938	8.2	8.2	Range Detailed	53	1,326	10,294	3.13		
	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			
	Dec. 1938	1,191	145	0.044	1,191	145	0.044			
	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		
Dec. 1938	67.5 (12)	64.7	64.7	1.26	10.37	-	-			

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 Reference: Unpublished Report on Sedimentation in Lake Nasworthy, by V. H. Jones, 1938.

The sediment on the main reservoir is chiefly loose dark brown silt, clay and fine sand. Large sand and gravel deposits occur in the channel areas near the head of the lake.

A large section of the high upland flat areas in the watershed probably do not contribute runoff but as it has not been accurately delineated it is included in the watershed figure.

48. AGENCY SUPPLYING DATA Region 4, Soil Conservation Service  
U. S. Dept. of Agriculture  
Fort Worth, Texas

49. DATE August 11, 1950