

RESERVOIR SEDIMENTATION  
DATA SUMMARY

Lake Winona

NAME OF RESERVOIR

15-2

DATA SHEET NO.

DAM	1. OWNER <b>City of Little Rock</b>			2. RIVER <b>Alum Fork, Saline R.</b>			3. STATE <b>Arkansas</b>									
	4. SEC. <b>30</b> TWP. <b>2N</b> RANGE <b>17W</b>			5. NEAREST TOWN <b>Little Rock</b>			6. COUNTY <b>Saline</b>									
	7. STREAM BED ELEV. <b>640</b>			8. TOP OF DAM ELEV. <b>755</b>			9. SPILLWAY CREST ELEV. <b>740</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. 1937					
	b. POWER															
	c. WATER SUPPLY		<b>740</b>		<b>1,085</b>		<b>34,533</b>		<b>34,533</b>		16. DATE NORMAL OPER. BEGAN					
	d. IRRIGATION															
	e. CONSERVATION										Oct. 1937					
	f. INACTIVE															
17. LENGTH OF RESERVOIR <b>4.0</b> MILES					AV. WIDTH OF RESERVOIR <b>0.4</b> MILES											
WATERSHED	18. TOTAL DRAINAGE AREA <b>43.0</b> SQ. MI.				22. MEAN ANNUAL PRECIPITATION <b>42.3 (5)</b> INCHES											
	19. NET SEDIMENT CONTRIBUTING AREA <b>41.3</b> 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 <b>Humid</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. 1937 May 1950		<b>12.6</b>		<b>12.6</b>		<b>Range Recon.</b>		<b>22</b>		<b>1,085</b> <b>1,085</b>		<b>34,533</b> <b>34,340</b>		<b>803</b> <b>799</b>	
	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			
	May 1950		<b>193</b>		<b>15.3</b>		<b>0.37</b>		<b>193</b>		<b>15.3</b>		<b>0.37</b>			
	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	
May 1950		<b>50*</b>		<b>403</b>		<b>403</b>		<b>0.04</b>		<b>0.56</b>						

\* Assumed

25. 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  
 Reconnaissance Investigation of Sedimentation in Lake Winona by V. H. Jones and J. A. Ogle; Mimeo., 1950.  
 The sediment in the lake is principally a fine, soft, gray clay and silt.

Region 4, Soil Conservation Service  
 U. S. Dept. of Agriculture  
 Fort Worth, Texas

48. AGENCY SUPPLYING DATA  
 49. DATE March 1951