

**RESERVOIR SEDIMENT
DATA SUMMARY**

Carlyle Lake

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

NAME OF RESERVOIR

24-53
DATA SHEET NO.

DAM	1. OWNER Dept. of Army Corps of Eng.			2. STREAM Kaskaskia River		3. STATE Illinois		
	4. SEC 17-18 TWP. 2N RANGE 2W			5. NEAREST TOWN Carlyle, Ill.		6. COUNTY Clinton		
	7. STREAM BED ELEVATION 405.0			8. TOP OF DAM ELEVATION 472.0		9. SPILLWAY CREST ELEV. 425.0		
RESERVOIR	10. STORAGE ALLOCATION		11. ELEVATION TOP OF POOL	12. ORIGINAL SURFACE AREA ACRES	13. ORIGINAL CAPACITY ACRE-FEET	14. GROSS STORAGE ACRE-FEET	15. DATE STORAGE BEGAN	
	a. MULTIPLE USE						2 Apr. 1 (3) 1967	
	b. FLOOD CONTROL		462.5	57,500	700,000	983,000		
	c. POWER							
	d. WATER SUPPLY						16. DATE NORMAL OPER. BEGAN 1 Aug 1970	
	e. IRRIGATION							
	f. CONSERVATION		445.0	26,000	223,000	283,000		
	g. SEDIMENT							
h. INACTIVE		429.5	7,100	50,000	44,900			
17. LENGTH OF RESERVOIR at joint use 15.1 (4) MILES at pool								
WATERSHED	18. TOTAL DRAINAGE AREA 2680 (4) SQ. MI.				22. MEAN ANNUAL PRECIPITATION 38.22 (34) INCHES			
	19. NET SEDIMENT CONTRIBUTING AREA 1650 SQ. MI.				23. MEAN ANNUAL RUNOFF 9.34 (34) INCHES			
	20. LENGTH 120 MILES		AV. WIDTH 30 MILES		24. MEAN ANNUAL RUNOFF 1,334,994 (34) AC.-FT.			
	21. MAX. ELEV. 725 msl		MIN. ELEV. 405 msl		25. CLIMATIC CLASSIFICATION humid			
	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
April 1967					9	3,851	27,970	
August 1971		4.3	4.3	Range(D)	9	3,850	22,870	
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	
August 1971		36.9	1,533,058	1,881,729	8,846,120	1,533,058	8,846,120	
SURVEY DATA	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	
	August 1971	5100	1186	.718	5100	1186	.718	
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. AN.	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE	
				0008	.0052			

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														
August 1971	9.4	3.8	14.8	18.8	17.9	16.8	11.9	1.8	1.9	2.9					

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
1966	433.0	425.1	945,058				
1967	435.9	425.2	1,584,998				
1968	451.2	429.8	1,975,800				
1969	450.2	429.6	1,607,628				
1970	455.0	433.1	1,861,421				
1971	446.12	440.3	655,461				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
415	1,146	46	450	32,397	419,932			
420	2,181	8,093	455	41,548	605,354			
425	3,851	22,872	460	52,398	839,427			
430	7,109	49,185	465	65,113	1,132,070			
435	12,115	96,971	470	84,360	1,497,230			
440	17,990	171,689						
445	24,583	277,909						

47. REMARKS AND REFERENCES

1. Beginning of storage April 1967.
2. Omitted because of effect of Lake Shelbyville on amount of sediment trapped at Carlyle Lake.
3. Date of initial impoundment.
4. Reference Master Regulation Manual Kaskaskia River Basin, Illinois Dept. of the Army, CE St. Louis District.

48. AGENCY MAKING SURVEY

49. AGENCY SUPPLYING DATA Jorgs of Engineers

50. DATE March 1973