

**RESERVOIR SEDIMENT
DATA SUMMARY**

WAPPAPELLO

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

NAME OF RESERVOIR

16-13a

DATA SHEET NO.

U.S.A. Engineer District,

DAM	1. OWNER Memphis, CE		2. STREAM St. Francis		3. STATE Missouri			
	4. SEC. 2,3 TWP.26N RANGE 7E		5. NEAREST TOWN Poplar Bluff		6. COUNTY Wayne			
	7. STREAM BED ELEVATION 311		8. TOP OF DAM ELEVATION 420		9. SPILLWAY CREST ELEV. 395			
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					10 July 40		
	b. FLOOD CONTROL	395	23,200	586,400	625,000			
	c. POWER							
	d. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN		
	e. IRRIGATION							
	f. CONSERVATION	355	5,200	38,600	38,600	20 Apr 41		
	g. SEDIMENT							
	h. INACTIVE							
17. LENGTH OF RESERVOIR 28		MILES		AV. WIDTH OF RESERVOIR 1.3		MILES		
WATERSHED	18. TOTAL DRAINAGE AREA 1,310		SQ. MI.		22. MEAN ANNUAL PRECIPITATION 43.68		INCHES	
	19. NET SEDIMENT CONTRIBUTING AREA 1,206		SQ. MI.		23. MEAN ANNUAL RUNOFF 16.57		INCHES	
	20. LENGTH 70	MILES	AV. WIDTH 19	MILES	24. MEAN ANNUAL RUNOFF 1,158,000		AC.-FT.	
	21. MAX. ELEV. 1772		MIN. ELEV. 311		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.
	10 July 1940			1/		23,200	625,000	477
	1 July 1947	7.0	7.0	Range (D)	90	23,200	624,651	477
	1 Mar 1964	16.7	23.7	Range (D)	10	23,200	613,161	468
	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	
	1 July 1947	43.56	1,167,000	2,487,000	8,170,000	1,167,000	8,170,000	
	1 Mar 1964	42.93	1,075,000	2,276,000	17,955,000	1,102,000	26,125,000	
	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	
1 July 1947	349	49.9	.0414 ^{2/}	349	49.9	.0414		
1 Mar 1964	11,490	688.0	.5705	11,839	499.5	.4142		
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	
July 1947				.0080	.056			
Mar 1964				.0799	1,894			

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE AND BELOW, CREST ELEVATION											
	0-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION												

July 1947	Not determined											
March 1964	0	5	30	34	11	7	4	3	4	2	0	0

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
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN REACH DESIGNATION														

July 1947	14.9	19.4	23.3	24.3	4.6	9.2	4.3	0.0	0.0	0.0				
March 1964	15.9	27.1	29.6	10.0	6.1	4.2	3.2	2.9	1.0	0.0				

45. RANGE IN RESERVOIR OPERATION 2/

WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV. ✓	INFLOW AC.-FT.
See attached sheet for required data, Item 45							

46. ELEVATION-AREA-CAPACITY DATA

ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
320	30	54	360	8,400	62,800	400	25,200	734,200
325	102	598	365	10,400	109,600	405	27,800	865,900
330	122	930	370	12,400	166,200	410	30,000	1,010,300
335	136	1,575	375	15,200	235,200	415	32,600	1,166,900
340	610	3,410	380	16,900	315,900	420	35,100	1,336,200
345	1,300	8,100	385	18,600	403,900			
350	2,100	16,400	390	20,800	502,800			
355	4,100	30,900	395	23,200	613,200			

47. REMARKS AND REFERENCES

1/ Original data from topographic survey of 1935-1936.
 2/ Based upon incomplete resurvey; 1963 value of 0.57 is more reliable.
 3/ Elevations are in feet mGl. Subtract 0.26 feet from mGl to obtain msl, 1941 adjustment

U.S. Army Engineer District,
 Memphis, CE

50. DATE 19 Feb 1965

49. AGENCY SUPPLYING DATA

U. S. Army Engineer District, Memphis, CE

Wappapello Reservoir

45. RANGE IN RESERVOIR OPERATION			
Year	Max. Elev.	Min. Elev.	Inflow Thousand Acre-Feet
1941	364.10	354.83	585
1942	366.23	355.19	1,239
1943	382.37	355.49	967
1944	373.31	355.14	573
1945	399.35	355.55	2,487
1946	370.65	356.09	1,494
1947	367.90	356.10	924
1948	369.28	356.05	1,041
1949	379.60	356.08	1,802
1950	374.82	356.60	1,876
1951	368.97	356.52	1,799
1952	365.72	356.82	899
1953	362.94	355.90	545
1954	363.85	355.60	522
1955	367.70	356.03	655
1956	363.00	355.42	511
1957	380.57	355.90	2,276
1958	371.62	356.56	1,530
1959	364.26	356.35	955
1960	362.89	356.85	734
1961	374.27	355.99	1,107
1962	366.69	356.50	890
1963	363.14	355.69	558
1964	375.70	355.62	738