

RESERVOIR SEDIMENT
DATA SUMMARY

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

DEWEY LAKE
NAME OF RESERVOIR

19-65

DATA SHEET NO.

DAM	1. OWNER Dept. of Army, C. of E.		2. STREAM Johns Creek		3. STATE Kentucky		
	4. SEC. TWP. RANGE		5. NEAREST P O Van Lear		6. COUNTY Floyd		
	7. LAT 37° 44' 16" LONG. 82° 43' 50"		8. TOP OF DAM ELEVATION 718.0		9. SPILLWAY CREST ELEV. 686.0		
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. FLOOD CONTROL	686.0 ^{1/}	3,340	76,100	93,300	15 May '50	
	b. MULTIPLE USE	650.0 ⁻	1,100	4,900	17,200		
	c. POWER						
	d. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN	
	e. IRRIGATION					14 Jun '50	
	f. CONSERVATION	645.0 ^{2/}	880	12,231	12,300		
g. INACTIVE	608.25	18	69	69			
17. LENGTH OF RESERVOIR 30.5 MILES		AV. WIDTH OF RESERVOIR 0.17 MILES					
WATERSHED	18. TOTAL DRAINAGE AREA 206 SQ. MI.		22. MEAN ANNUAL PRECIPITATION 44.68 INCHES				
	19. NET SEDIMENT CONTRIBUTING AREA 200.8 SQ. MI.		23. MEAN ANNUAL RUNOFF 15.39 INCHES				
	20. LENGTH 58.6 MILES	AV. WIDTH 3.5 MILES	24. MEAN ANNUAL RUNOFF 169,100 AC.-FT.				
	21. MAX. ELEV. 2485		MIN. ELEV. 600		25. ANNUAL TEMP. MEAN 57 RANGE		
	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
15 May 1950		-	Contour	5 feet	3,340	93,300	0.554
30 Jan 1953			Range (D)	40	3,340	93,300	0.554
11 Nov 1973	20.78	20.78	Range (D)	40	3,348	92,100	0.547
2 Nov 1975	1.98	22.76	Range (D)	40	3,343	91,900	0.545
21 Jul 1978	2.71	25.47	Range (R)	18	3,346	91,400	0.541
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	
11 Nov 1973	43.65	168,300	241,700	3,500,200	168,300	3,500,200	
2 Nov 1975	55.76	286,800	290,700	573,700	179,000	4,073,900	
21 Jul 1978	43.82	180,800	206,400	490,000	179,200	4,563,900	
26. DATE OF SURVEY	37. PERIOD CAPACITY LOSS, 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	
11 Nov 1973	1,170	56.3	0.28	1,170	56.3	0.28	
2 Nov 1975	290	146.5	0.73	1,460	64.2	0.32	
21 Jul 1978	447	164.9	0.82	1,907	74.9	0.37	
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. ANN.	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE
11 Nov 1973	55	335	335	0.06	1.25	295	295
2 Nov 1975	55 ^{3/}	874	383	0.07	1.56	446	316
21 Jul 1978	55 ^{3/}	984	447	0.08	2.04	804	368

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION									
	76-86	66-76	56-66	46-56	36-46	26-36	16-26	6-16	0-6	
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION									
11 Nov 1973	2.9	14.6	25.7	35.7	2.7	-5.6	6.7	13.9	3.4	
2 Nov 1975	1.6	11.8	26.9	31.9	3.5	-3.5	6.9	16.8	4.1	
21 Jul 1978	2.8	12.9	26.6	30.4	3.4	-1.2	6.9	15.0	3.2	

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													
11 Nov 1973	14.1	15.4	14.1	20.9	12.0	1.7	0.9	8.5	9.8	2.6				
2 Nov 1975	9.3	16.4	17.8	18.2	11.6	1.0	4.8	8.6	8.9	3.4				
21 Jul 1978	16.4	18.0	17.5	12.7	10.5	0.8	7.0	5.8	7.0	4.3				

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.
See attached sheet.							

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
ORIGINAL			686	3,340	93,300	680	2,865	72,800
645	880	12,300	1978 RESURVEY			686	3,346	91,400
650	1,100	17,200	645	859	10,800			
655	1,320	23,200	650	1,126	15,800			
660	1,580	30,500	655	1,311	21,800			
665	1,870	39,100	660	1,582	29,000			
670	2,200	49,200	665	1,870	37,600			
675	2,530	61,000	670	2,182	47,700			
680	2,910	74,600	675	2,503	59,300			

47. REMARKS AND REFERENCES

1/ Seasonal pool for recreation and fish and wildlife enhancement
 2/ Minimum pool for sediment and fish and wildlife
 3/ From measurements made in December 1973

48. AGENCY MAKING SURVEY U. S. Army Engineer District
 49. AGENCY SUPPLYING DATA Huntington, WV
 50. DATE JUNE 1979

DEWEY LAKE

RESERVOIR SEDIMENT DATA SUMMARY

45. RANGE IN RESERVOIR OPERATION

<u>Water Year</u>	<u>Max. Elev.</u>	<u>Min. Elev.</u>	<u>Inflow, Ac. Ft.</u>
1953 (Part)	648.1	643.5	84,200
1954	650.6	641.2	44,400
1955	682.3	644.8	210,000
1956	667.5	634.5	234,300
1957	670.0	644.6	193,600
1958	667.8	644.9	238,700
1959	652.2	645.0	90,800
1960	651.2	644.7	133,300
1961	659.5	644.8	219,000
1962	670.8	644.4	222,100
1963	665.2	623.6	161,400
1964	655.4	644.6	104,800
1965	658.5	624.3	173,300
1966	655.2	644.1	109,400
1967	664.9	642.3	210,900
1968	653.1	644.5	163,600
1969	651.1	644.6	82,200
1970	662.4	641.5	156,000
1971	663.3	644.7	191,000
1972	671.5	644.8	241,700
1973	661.1	643.5	231,400
1974	668.2	634.9	275,500
1975	666.9	643.9	290,700
1976	651.6	629.6	153,600
1977	668.0	643.9	141,400
1978 (Part)	661.4	643.1	206,400