DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

RESERVOIR SEDIMENT DATA SUMMARY

J. Percy Priest Reservoir
NAME OF RESERVOIR

18-20
DATA SHEET NO.

DAM

1. OWNER U. S. Corps of Engineers	2. STREAM Stone River	3. STATE Tennessee
4. SEC. TWP. RANGE	5. NEAREST P O Donelson	6. COUNTY Davidson
7. LAT 36 ° 07 ' " LONG 86 ° 37 ' "	8. TOP OF DAM ELEVATION 518.0	9. SPILLWAY CREST ELEV. 504.5 1/

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	504.5	22,720	350,000 2/	652,000	18 Sep 67
b. MULTIPLE USE					
c. POWER 3/	490 483	14,200 11,630	124,000 34,000	392,000 302,000	16. DATE NORMAL OPER. BEGAN
d. WATER SUPPLY					
e. IRRIGATION					
f. CONSERVATION					14 Nov 67
g. INACTIVE	480.0	10,570	268,000	268,000	

WATERSHED

17. LENGTH OF RESERVOIR 41.8 MILES		AV. WIDTH OF RESERVOIR .85 MILES	
18. TOTAL DRAINAGE AREA 892 SQ. MI.		22. MEAN ANNUAL PRECIPITATION 52.1 INCHES	
19. NET SEDIMENT CONTRIBUTING AREA 892 SQ. MI.		23. MEAN ANNUAL RUNOFF 22.2 INCHES	
20. LENGTH 56 MILES	AV. WIDTH 16 MILES	24. MEAN ANNUAL RUNOFF 1,056,000 AC.-FT.	
21. MAX. ELEV. 1380	MIN. ELEV. 375	25. ANNUAL TEMP MEAN 59°F RANGE 37 - 79°F	

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/I. RATIO, AC.-FT. PER AC.-FT.
Sept 1967	0	0	Range (D)	26	22,720	652,000	0.62
July 1978	10.83	10.83	Range (D)	26	22,720	644,447	0.61
July 1986	8.00	18.83	Range (D)	27	22,720	643,991	0.61

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
July 1978	54.05	1,147,945	1,761,641	12,432,339	1,147,945	12,432,339
July 1986	49.48	857,322	1,876,026	6,858,578	1,024,478	19,290,917

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
July 1978	7553	697.41	0.782	7553	697.41	0.782
July 1986	456	57.00	0.064	8009	425.33	0.477

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
July 1978	----------	----------	NOT CALCULATED				
July 1986							

EXHIBIT No. 33

ENG FORM 1787
NOV 66

PREVIOUS EDITIONS ARE OBSOLETE.

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION											
	120-105	105-90	90-75	75-60	60-45	45-30	30-15	15- TOP OF GATES				
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION											
July 1978	0.72	5.43	10.92	19.00	19.71	22.89	12.09	9.24				
July 1986	0.95	5.61	12.34	26.15	26.55	19.88	4.72	3.80				

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														
July 1978	19.12	31.96	6.91	1.00	7.25	23.47	10.51	-.03	-.05	-.14					
July 1986	10.82	30.44	18.61	17.42	13.51	2.13	6.24	-0.83	0.44	1.22					

45. RANGE IN RESERVOIR OPERATION

WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.
1968	490.13	414.20	1,087,519	1980	496.68	481.45	1,192,870
1969	490.83	474.79	805,887	1981	491.22	480.53	385,691
1970	494.02	481.13	1,182,665	1982	492.69	480.65	903,263
1971	491.74	480.98	858,693	1983	499.47	481.00	1,248,702
1972	492.20	481.08	797,799	1984	505.08	481.50	512,659
1973	498.45	481.30	1,901,493	1985	490.00	481.50	362,524
1974	498.3	481.67	1,566,579	1986	497.50	482.00	382,829
1975	503.41	480.84	1,548,977				
1976	491.27	481.60	1,034,713				
1977	492.90	480.70	731,673				
1978	492.39	480.91	910,071				
1979	495.70	481.26	1,876,026				

46. ELEVATION-AREA-CAPACITY DATA

ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
395	0	0	440	2,260	30,300	485	12,410	318,400
400	62	430	445	2,870	44,100	490	14,150	384,300
405	170	920	450	3,680	60,100	495	17,130	460,200
410	270	1,950	455	4,490	80,600	500	20,120	549,100
415	380	3,640	460	5,300	105,200	505	23,100	655,000
420	550	5,600	465	6,510	135,600	510	27,460	781,000
425	760	8,900	470	7,710	171,100	515	31,980	930,000
430	1,030	13,400	475	8,920	211,700	520	36,500	1,102,000
435	1,640	20,100	480	10,570	260,500			

47. REMARKS AND REFERENCES

1/ Spillway crest at elevation 463.5 surmounted by 4 tainter gates, 41 feet high and 45 feet wide. Elevation shown is top of gates in closed position.

2/ This value is for winter operation, original capacity for the summer was 260,000 acre-ft.

3/ The first value is for the summer and the second value is for the winter.

4/ Depths shown are distances below top of gates ~~in closed position~~.

48. AGENCY MAKING SURVEY U. S. Army Corps of Engineers

49. AGENCY SUPPLYING DATA U. S. Army Corps of Engineers

50. DATE November 1988