

RESERVOIR SEDIMENT
DATA SUMMARY

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

Laurel River Reservoir
NAME OF RESERVOIR

18-19
DATA SHEET NO.

DAM	1. OWNER U.S. Corps of Engineers		2. STREAM Laurel River		3. STATE Kentucky						
	4. SEC. TWP. RANGE		5. NEAREST P.O. Corbin		6. COUNTY Laurel						
	7. LAT 36°57'45" LONG 84°16'15"		8. TOP OF DAM ELEVATION 1036		9. SPILLWAY CREST ELEV. 1018.5						
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					22 Sep 73					
	b. MULTIPLE USE										
	c. POWER	1018.5	6,060	185,000	435,600	16. DATE NORMAL OPER. BEGAN					
	d. WATER SUPPLY										
	e. IRRIGATION										
	f. CONSERVATION										
g. INACTIVE	982	4,200	250,600	250,600	12 Oct 77						
WATERSHED	17. LENGTH OF RESERVOIR 252		MILES		AV. WIDTH OF RESERVOIR 0.38						
	18. TOTAL DRAINAGE AREA 282		SQ. MI.		22. MEAN ANNUAL PRECIPITATION 50.6						
	19. NET SEDIMENT CONTRIBUTING AREA 282		SQ. MI.		23. MEAN ANNUAL RUNOFF 23.8						
	20. LENGTH 24		MILES		24. MEAN ANNUAL RUNOFF 366,838						
	21. MAX. ELEV. 1600		MIN. ELEV. 665		25. ANNUAL TEMP: MEAN 56°F RANGE 39-77°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.			
	October 1978	0	0	Range (D)	24	6060	435,600	1.19			
	Sep 1985	6.9	6.9	Range (D)	24	6060	433,898	1.18			
	26. DATE OF SURVEY	34. PERIOD ANNUAL PRECIPITATION	35. PERIOD WATER INFLOW, ACRE-FEET		36. WATER INFL. TO DATE, AC.-FT.						
	Sep 1985	48.8	300,844	373,194	2,406,754	300,844	2,406,754				
	26. DATE OF SURVEY	37. PERIOD CAPACITY LOSS, ACRE-FEET			38. TOTAL SED. DEPOSITS TO DATE, ACRE-FEET						
	Sep 1985	1,702	246.67	0.88	1,702	246.67	0.88				
	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			
	NOT SURVEYED										

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION										
	243.5	218.5	193.5	168.5	143.5	118.5	93.5	68.5	43.5	18.5	
Sep 1985	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION										
	8.81	7.52	9.17	8.70	21.97	26.73	0.41	7.99	3.00	5.70	

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
Sep 1985	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN REACH DESIGNATION														
	46.6	15.6	3.92	12.4	20.5	1.52	4.86	0.44	0.87	2.76					

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.
1978	1020.4	1010.8	369,453				
1979	1019.6	1005.5	445,587				
1980	1018.8	1003.5	262,147				
1981	1015.2	993.2	202,373				
1982	1018.4	1004.3	283,718				
1983	1019.2	1011.6	343,100				
1984	1022.0	1007.9	266,263				
1985	1018.2	1008.5	234,113				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
			660	276	8577	960	3300	166927
			670	410	11948	970	3700	201876
770	0	0	680	590	16843	980	4110	240736
780	13	0	690	830	23993	990	4550	284016
790	24	170	700	1120	34144	1000	5030	331795
800	37	510	710	1500	47594	1010	5540	384675
810	62	969	720	1860	64462	1020	6240	443098
820	91	1698	730	2200	84488	1030	6980	509098
830	127	2751	740	2560	108385	1040	7770	582798
840	172	4192	750	2930	135784			
850	222	6106						

47. REMARKS AND REFERENCES

1/ Numbers shown are lowest elevation of 25 foot intervals and are distance below spillway crest elevation, 1018.5, feet. The interval is 18.5 feet to the crest elevation.

48. AGENCY MAKING SURVEY U.S. Army Corps of Engineers
 49. AGENCY SUPPLYING DATA U.S. Army Corps of Engineers

50. DATE September 1988