

RESERVOIR SEDIMENT

DATA SUMMARY

SCS-34 Rev. 6-66

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

Rough River FRS No. 1

NAME OF RESERVOIR

16-31

DATA SHEET NO.

Kingswood Quadrangle

DAM	1. OWNER <b>Breckinridge Co. S.C.D.</b>		2. STREAM <b>Buffalo Creek</b>		3. STATE <b>Kentucky</b>			
	4. SEC. <b>USC &amp; GS Grid. Coord.</b>		5. NEAREST P.O. <b>Kingswood</b>		6. COUNTY <b>Breckinridge</b>			
	7. LAT. <b>1,813,800 - 507,000</b>		8. TOP OF DAM ELEVATION <b>606.5</b>		9. SPILLWAY CREST ELEV. <b>600.</b>			
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	600	41.8	550	617			
	b. MULTIPLE USE							
	c. POWER							
	d. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN		
	e. IRRIGATION							
	f. CONSERVATION					11/7/55		
WATERSHED	17. LENGTH OF RESERVOIR		0.44 MILES		AV. WIDTH OF RESERVOIR		0.05 MILES	
	18. TOTAL DRAINAGE AREA		2.86 SQ. MI.		22. MEAN ANNUAL PRECIPITATION		41.48 (15 yr.) INCHES	
	19. NET SEDIMENT CONTRIBUTING AREA		2.85 SQ. MI.		23. MEAN ANNUAL RUNOFF		17.0 INCHES	
	20. LENGTH 1.7 MILES		AV. WIDTH 1.7 MILES		24. MEAN ANNUAL RUNOFF		2593 AC.-FT.	
	21. MAX. ELEV. 810		MIN. ELEV. 568		25. ANNUAL TEMP: MEAN 60° RANGE -26° F. to 109°			
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.
	11/7/55					14.0	66.99 <sup>1</sup> / <sub>2</sub>	.238
	6/23/70	14.64	14.64	Range (D)	8 ranges	41.8	617.00 <sup>2</sup> / <sub>2</sub>	
						9.54	46.11 <sup>1</sup> / <sub>2</sub>	.230
							596.12 <sup>2</sup> / <sub>2</sub>	
	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	
	6/23/70	44						
	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	
6/23/70	20.88 <sup>1</sup> / <sub>2</sub>	1.43 <sup>1</sup> / <sub>2</sub>	0.50 <sup>1</sup> / <sub>2</sub>	20.88 <sup>1</sup> / <sub>2</sub>	1.43 <sup>1</sup> / <sub>2</sub>	0.50 <sup>1</sup> / <sub>2</sub>		
26. DATE OF SURVEY	39. AV. DRY WGT., LBS. PER CU. FT.	40. SED. DEP., TONS PERSQ. 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	
6/23/70	56.13	611	611 <sup>1</sup> / <sub>2</sub>	2.13 <sup>1</sup> / <sub>2</sub>	31.13 <sup>1</sup> / <sub>2</sub>			

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, 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														
6/23/70	Seg 1 9.96	Seg 2 9.72	Seg 3 10.15	Seg 4 9.05	Seg 5 19.26	Seg 6 18.30	Seg 7 6.08	Seg 8 10.40	Seg 9 7.08						

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

46. 1970 ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
<u>Original Capacity - 1955</u>			<u>1970 Capacity</u>					
473.6	14.0	66.99	473.6	9.54	46.11			

47. REMARKS AND REFERENCES

1/ Sediment Pool - below elev. 581.  
2/ Flood Pool - below elev. 600.  
Pennyroyal Physiographic Region - Land Resource Area - 122  
Geology - The drainage area is Middle Chester. Ls. & S.S. of Mississippian Age.

Land Use - cropland 15%; grassland 63%; woodland 20%; misc. 2%  
In Watershed

48. AGENCY MAKING SURVEY River Basin-Watershed Planning Staff, Lexington, Ky.  
49. AGENCY SUPPLYING DATA Soil Conservation Service  
50. DATE Oct. 14, 1970