

RESERVOIR SEDIMENT
DATA SUMMARY
SCS-34 Rev. 6-66

Crabtree Creek Watershed Site No. 1
NAME OF RESERVOIR

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

6 - 15

DATA SHEET NO.

Trib. of

DRAINAGE	1. OWNER E. C. Johnson		2. STREAM Stirrup Iron Creek		3. STATE North Carolina		
	4. SEC. TWP. RANGE		5. NEAREST P. O. Morristville		6. COUNTY Wake		
	7. LAT. 35° 51' 30" LONG. 78° 49' 30"		8. TOP OF DAM ELEVATION 324		9. SPILLWAY CREST ELEV. 316		
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	316	65	430	430	Jun 1976	
	b. MULTIPLE USE						
	c. POWER						
	d. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN	
	e. IRRIGATION						
	f. CONSERVATION					Jun 1976	
g. INACTIVE	1/ 305	18		1/			
17. LENGTH OF RESERVOIR 2/	1.56 MILES	AV. WIDTH OF RESERVOIR	0.065 MILES				
WATERSHED	18. TOTAL DRAINAGE AREA		2.06 SQ. MI.		22. MEAN ANNUAL PRECIPITATION 45.14 INCHES		
	19. NET SEDIMENT CONTRIBUTING AREA		1.89 SQ. MI.		23. MEAN ANNUAL RUNOFF 14.0 INCHES		
	20. LENGTH 2.55 MILES	AV. WIDTH 0.81 MILES	24. MEAN ANNUAL RUNOFF		1538 AC.-FT.		
	21. MAX. ELEV. 421	MIN. ELEV. 289	25. ANNUAL TEMP.: MEAN 59.9° RANGE 7° - 98° F				
	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
Jun 18, 1976	0	0	-	-	65	430	
Oct 9, 1979	3.25	3.25	Range (D)	42	65	3/ 426	
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	
Oct 9, 1979	45	1538*	1538	4999	1538*	4999	
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	
Oct 9, 1979	4/ 4.32	1.33	0.68	4.32	1.33	0.68	
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
Oct 9, 1979	5/ 45.74 (12)	676	676	0.3	1.00	558	634

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION														
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION														
Oct 9, 1979	6/														
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
Oct 9, 1979	18	24	16	15	11	9	4	1	1	1					
45. RANGE IN RESERVOIR OPERATION															
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.								
Water elevation at time of survey - 305.0. Land Use, acres: cultivated, 253; woods, 706; pasture, 105; idle, 107; roads & railroads, 48; critical eroding, 3; water, 25. Geology: Upper Triassic. Undifferentiated red, brown or purple claystone, siltstone, sandstone and conglomerate: also gray and black claystone, shale and sandstone.															
46. ELEVATION-AREA-CAPACITY DATA															
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY							
6/															
47. REMARKS AND REFERENCES															
1/ Design life 100 years. 2/ Reservoir has two arms, 0.93 and 0.63 miles long. 3/ Volume for the pool computed by the Dobson Prismoidal Equation. 4/ Volume of sediment accumulation in both sediment and flood pools. No significant aerated sediment. 5/ Weighted average. All samples submerged. Weighted averages were made based on percentages of sediment determined for each segment the sample represents. 6/ Method of computation prevented the determination of this information. * Assumed															
48. AGENCY MAKING SURVEY USDA, Soil Conservation Service															
49. AGENCY SUPPLYING DATA USDA, Soil Conservation Service															
50. DATE August 7, 1980															