

RESERVOIR SEDIMENT

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

DATA SUMMARY

Duncan Creek, Site No. 8

SCS-34 Rev. 6-66

NAME OF RESERVOIR

2.0 miles NE of Clinton, South Carolina

7-17

DATA SHEET NO.

DAM	1. OWNER State of South Carolina			2. STREAM Sand Creek			3. STATE South Carolina													
	4. SEC. - TWP. - RANGE -			5. NEAREST P.O. Clinton			6. COUNTY Laurens													
	7. LAT. 34° 29 ' 23 " LONG. 81° 50 ' 21 "			8. TOP OF DAM ELEVATION 507.0			9. SPILLWAY CREST ELEV. 504.0													
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		504.0		39.7		356.3		430.7		16. DATE NORMAL OPER. BEGAN  9/64    10/64									
	b. MULTIPLE USE																			
	c. POWER																			
	d. WATER SUPPLY																			
	e. IRRIGATION																			
	f. CONSERVATION																			
g. INACTIVE 1/		489.0		9.8		74.4		74.4												
WATERSHED	17. LENGTH OF RESERVOIR 0.76 2/				MILES		AV. WIDTH OF RESERVOIR 0.08				MILES									
	18. TOTAL DRAINAGE AREA 1.83				SQ. MI.		22. MEAN ANNUAL PRECIPITATION (30 yr) 47.0				INCHES									
	19. NET SEDIMENT CONTRIBUTING AREA 1.77				SQ. MI.		23. MEAN ANNUAL RUNOFF (30 yr) 15.0				INCHES									
	20. LENGTH 2.5		MILES		AV. WIDTH 0.73		MILES		24. MEAN ANNUAL RUNOFF 1,463.9				AC.-FT.							
	21. MAX. ELEV. 655.0			MIN. ELEV. 474.0			25. ANNUAL TEMP: MEAN 63°F RANGE 46°F - 81°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.							
	01/09/64		-	-	Range-Contour		23"(R)"		9.8 (39.7)		74.4 (430.7)		(.294)							
	01/06/75		10.8	10.8	"(D)"		2.0' "(CI)"		8.6 (38.8)		50.5 (381.6)		(.261)							
	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							
	01/06/75		47"		1464		-		15,811		1464		15,811							
	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		
	01/06/75		23.9 (49.1)			2.2 (4.5)			1.2 (2.5)			23.9 (49.1)			2.2 (4.5)			1.2 (2.5)		
	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						
01/06/75		Sed. P. 56.5 Det. P. 71.6 (65.6)		1477 (3572)		1477 (3572)		3.0 (1.0)		32.1 (11.4)		3153		3153						

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION												
	04-00	00-96	96-92	92-89	89-86	86-82	82-78	78-74					
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION												
June 1975	12.0	14.1	13.4	11.8	12.0	13.7	17.1	5.3					

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														
June 1975	58.0	17.5	12.8	3.7	3.5	4.5	0.0	0.0	0.0	0.0					

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

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
Original Capacity 01/09/64								
504	39.7	430.7	478	2.4	3.0			
500	30.7	291.7	474	0.0	0.0			
496	22.7	184.7	01/06/75 - Capacity					
492	14.9	112.1	504	38.8	381.6	489	8.6	50.5
489	9.8	74.4	500	29.0	248.4	486	6.0	29.1
486	8.5	47.1	496	21.1	148.4	482	4.0	7.9
482	5.7	19.2	492	12.8	82.4	478	0.3	0.4
						474	0.0	0.0

47. REMARKS AND REFERENCES

- 1/ Sediment Pool
- 2/ Length of reservoir arms - North 400' South 2800'
- 3/ Figures in parentheses include totals for both pools

Land Use: cultivated 3%; pasture 46.5%; woodland 39.5% and other 11.0%  
 Land Resource Area: Southern Piedmont  
 Major Soils: Cecil (K.32), Enon (K .37), Wilkes (K-.37)  
 Geology: Granitoid gneiss, gneissic granite, schist

48. AGENCY MAKING SURVEY River Basin-Watershed Planning Staff, SCS, Columbia, S.C.  
 49. AGENCY SUPPLYING DATA Soil Conservation Service

50. DATE 01/06/75