

RESERVOIR SEDIMENT
DATA SUMMARY

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

SCS-34 Rev. 6-66

Twelve Mile Creek, Site No. 16
NAME OF RESERVOIR

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DATA SHEET NO.

DAM	1. OWNER <u>W.M. Peace-Roy Whitlock</u>			2. STREAM <u>Rices Creek</u>			3. STATE <u>South Carolina</u>									
	4. SEC. <u>TWP. RANGE</u>			5. NEAREST P.O. <u>Pickens 2.5SE</u>			6. COUNTY <u>Pickens</u>									
	7. LAT. <u>34° 50' 29" LONG. 82° 41' 27"</u>			8. TOP OF DAM ELEVATION <u>950.5'</u>			9. SPILLWAY CREST ELEV. <u>943.0'</u>									
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		943.0'		154.2		2049.6		2370.8		11/1955					
	b. MULTIPLE USE															
	c. POWER															
	d. WATER SUPPLY															
	e. IRRIGATION										16. DATE NORMAL OPER. BEGAN					
	f. CONSERVATION															
	g. INACTIVE		1/ 924.0'		56.6		321.2		321.2		1/1956					
17. LENGTH OF RESERVOIR <u>3/</u>			<u>2.50</u> MILES			AV. WIDTH OF RESERVOIR <u>.10</u>			MILES							
WATERSHED	18. TOTAL DRAINAGE AREA <u>8.40</u>				SQ. MI.				22. MEAN ANNUAL PRECIPITATION (<u>25 yr</u>) <u>49</u>				INCHES			
	19. NET SEDIMENT CONTRIBUTING AREA <u>8.16</u>				SQ. MI.				23. MEAN ANNUAL RUNOFF (<u>30 yr</u>) <u>25</u>				INCHES			
	20. LENGTH <u>5.4</u>		MILES		AV. WIDTH <u>1.56</u>		MILES		24. MEAN ANNUAL RUNOFF <u>11,199</u>				AC.-FT.			
	21. MAX. ELEV. <u>1140.0</u>				MIN. ELEV. <u>908.0</u>				25. ANNUAL TEMP: MEAN <u>61°</u> RANGE <u>10°F - 98°F</u>							
	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.	
November, 1955		-		-		Range-Contour		19 Ranges		57 (154)		321 (2370.8)		(.21)		
December, 1974		19.08		19.08		(D)		C.I.=2.0'		48 (154)		257 (2230.3)		(.20)		
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				
December, 1974		49"		11,184		-		225,469		11,184		225,469				
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				
December, 1974		64 (141)		3.4 (7.4)		.42 (.91)		64 (141)		3.4 (7.4)		.42 (.91)				
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		
December, 1974		Sed. P. 67.4 Det. P. 71.5 (69.5)		622 (1408)		622 (1408)		1.0 (.31) 20(6)		(695)		(695)				

SURVEY DATA

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION													
	43-40	40-36	36-32	32-28	28-24	24-20	20-16	16-12	12-08					
December, 1974	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION													
	0.0	2.2	5.8	19.6	26.8	24.0	14.4	6.0	1.2					
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
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN REACH DESIGNATION													
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 - 1955														
943	154.2	2370.8	912	-	1.8	928	74.4	502.3						
940	-	1934.3	908	-	0.0	924	47.9	257.1						
936	-	1420.9	1974 Capacity			920	32.5	96.9						
932	-	976.7	943	154.2	2230.3	916	9.0	9.8						
928	-	604.2	940	137.2	1793.8	912	0.2	0.1						
924	56.6	321.2	936	118.3	1283.4	908	0.0	0.0						
920	-	127.3	932	98.8	847.4									
916	-	20.0												
47. REMARKS AND REFERENCES														
1/ Sediment Pool														
2/ Figures in parenthese include totals for both pools														
3/ Length of arms upstream-downstream - 0.42 mi., 0.30 mi., and 0.38 mi.														
Land Use: Cultivated 12%, Forest 57%, Pasture-Idle land 22%, Urban-Other 9%														
Land Resource Area: Southern Piedmont														
Soils: Cecil, Pacolet (K=.32)														
Geology: 85% medium crystalline biotite granite gneiss, 15% fine to coarse crystalline biotite schist														
48. AGENCY MAKING SURVEY				River Basin-Watershed Planning Staff, SCS, Columbia, SC										
49. AGENCY SUPPLYING DATA				Soil Conservation Service										
						50. DATE 2/1973								

RESERVOIR SEDIMENT

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Twelve Mile Creek, Site No. 16

NAME OF RESERVOIR

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

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DATA SHEET NO.

1. OWNER <u>W.M. Peace-Roy Whitlock</u>	2. STREAM <u>Rices Creek</u>		3. STATE <u>South Carolina</u>					
4. SEC. <u>TWP.</u>	RANGE		5. NEAREST P.O. <u>Pickens 2.5 SE</u>		6. COUNTY <u>Pickens</u>			
7. LAT. <u>34° 50' 29"</u> LONG. <u>82° 41' 27"</u>			8. TOP OF DAM ELEVATION <u>950.5'</u>		9. SPILLWAY CREST ELEV. <u>943.0'</u>			
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	943.0'	154.2	2049.6	2370.8	11/1955		
	b. MULTIPLE USE							
	c. POWER							
	d. WATER SUPPLY							
	e. IRRIGATION					1/1956		
	f. CONSERVATION							
	g. INACTIVE <u>1/</u>	924.0'	56.6	321.2	321.2			
17. LENGTH OF RESERVOIR <u>3/</u>	2.50 MILES		AV. WIDTH OF RESERVOIR		0.10 MILES			
WATERSHED	18. TOTAL DRAINAGE AREA	8.40 SQ. MI.		22. MEAN ANNUAL PRECIPITATION (25 yr)		49 INCHES		
	19. NET SEDIMENT CONTRIBUTING AREA	8.16 SQ. MI.		23. MEAN ANNUAL RUNOFF (30 yr)		25 INCHES		
	20. LENGTH <u>5.4</u> MILES	AV. WIDTH <u>1.56</u> MILES	24. MEAN ANNUAL RUNOFF		11,184 AC.-FT.			
	21. MAX. ELEV. <u>1140.0'</u>	MIN. ELEV. <u>908.0'</u>	25. ANNUAL TEMP.: MEAN <u>61°F</u> RANGE <u>10°F - 98°F</u>					
	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.
November 1955	-	-	Range-	19 ranges	57 (154)	321 (2370.8)	0.03 (0.21)	
December 1974	19.08	19.08	Contour (D)	2.0' CI	48 (154)	257 (2230.3)	0.02 (0.20)	
March 1980	5.25	24.33			46 (154)	243 (2195.6)	0.02 (0.20)	
SURVEY DATA	26. DATE OF SURVEY	34. PERIOD ANNUAL PRECIPITATION	28.	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
	December 1974	49"	11,184	-	-	213,391	11,184	213,391
	March 1980	49"	11,184	-	-	58,716	11,184	272,107
	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	
	December 1974	64 (141)	3.4 (7.4)	0.41 (0.90)	64 (141)	3.4 (7.4)	0.41 (0.90)	
	March 1980	14 (34.7)	2.7 (6.6)	0.33 (0.81)	78 (175)	3.2 (7.2)	0.39 (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
December 1974	Sed.P. 67.4 Det.P. 71.5 (69.5)	601 (1371)	601 (1371)	1.1 (0.31)	20 (6)	(695)	(695)	
March 1980	70.8 (9)	615 (1342)	601 (1364)	1.0 (0.30)	24 (7)	(725)	(733)	

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION									
	CR-03	03-07	07-11	11-15	15-19	19-23	23-27	27-31	31-35	
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION										
December 1974	0.0	2.2	5.8	19.6	26.8	24.0	14.4	6.0	1.2	
March 1980	0.8	3.8	6.0	18.7	25.9	23.5	14.5	5.8	1.0	

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															

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		1955	912	-	1.8	924	39.4	242.3
943	154.2	2370.8	908	-	0.0	920	30.3	89.3
940	-	1934.3				916	8.0	8.1
936	-	1420.9	1980 Capacity			912	0.06	0.04
932	-	976.7	943	153.4	2195.6	908	0.0	0.0
928	-	604.2	940	136.9	1760.5			
924	56.6	321.2	936	117.7	1253.9			
920	-	127.3	932	98.4	820.2			
916	-	20.0	928	73.0	480.2			

47. REMARKS AND REFERENCES

- Sediment pool.
- Figures in parentheses include totals for both pools.
- Length of arms upstream-downstream - 0.42 mi, 0.30 mi, and 0.38 mi.
Land use: cultivated, 12%; forest, 57%; pasture-idle land, 22%; urban-other, 9%.
No significant change since last survey.
Land Resource Area: Southern Piedmont.
Soils: Cecil, Pacolet (k = .32).
Geology: 85% medium crystalline biotite granite gneiss, 15% fine to coarse crystalline biotite schist.

48. AGENCY MAKING SURVEY River Basin-Watershed Staff, SCS, Columbia, SC

49. AGENCY SUPPLYING DATA Soil Conservation Service

50. DATE September 1980