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

Muddy Creek Watershed Site No. 16
NAME OF RESERVOIR

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

7 - 18
DATA SHEET NO.

DAM

1. OWNER Mrs. Blantie Denton Davis	2. STREAM South Muddy Creek	3. STATE North Carolina
4. SEC. TWP. RANGE	5. NEAREST P. O. Marion	6. COUNTY McDowell
7. LAT. 35° 36'05" LONG. 81° 53' 11"	8. TOP OF DAM ELEVATION 1214	9. SPILLWAY CREST ELEV. 1210

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	16. DATE NORMAL OPER. BEGAN
a. FLOOD CONTROL	1210	143	2230.	2360	6-19-63	
b. MULTIPLE USE						
c. POWER						
d. WATER SUPPLY						
e. IRRIGATION						
f. CONSERVATION						6-19-63
g. INACTIVE	1186	31	130	1/ 130		

17. LENGTH OF RESERVOIR 2/ 2.46 MILES; AV. WIDTH OF RESERVOIR 0.09 MILES

WATERSHED

18. TOTAL DRAINAGE AREA 12.8 SQ. MI.		22. MEAN ANNUAL PRECIPITATION	54.46 INCHES
19. NET SEDIMENT CONTRIBUTING AREA 12.6 SQ. MI.		23. MEAN ANNUAL RUNOFF	27.24 INCHES
20. LENGTH 6.7 MILES	AV. WIDTH 1.91 MILES	24. MEAN ANNUAL RUNOFF	18,596 AC.-FT.
21. MAX. ELEV. 2243	MIN. ELEV. 1175	25. ANNUAL TEMP.: MEAN 58.5° RANGE	7° - 97° 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.
6-19-63	0	0	Range (D)	29	143	2360	0.127
1-17-80	16.6	16.6	Range (D)	31	143	3/ 2339	0.126

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
1-17-80	54.46	18,596	18,596	308,694	18,596	308,694

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
1-17-80	4/ 21.38	1.29	0.1	21.38	1.29	0.1

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
1-17-80	5/ 49 (9)	106	106	.06	0.91	53.63	54.11

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION											
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION											
1-17-80	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
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN REACH DESIGNATION														
1-17-80	19	33	22	13	5	3	0	2	2	1					

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
6/								

47. REMARKS AND REFERENCES 1/ Design life 50 years. Dry sediment pool.
2/ Reservoir has two arms. Arm 1 - 1.84 miles; arm 2 - 0.63 miles.
3/ Volume for pool was computed by the Dobson Prismoidal Equation.
4/ Volume of sediment accumulation in both sediment and flood pools. Total all periods.
5/ Weighted average. Most sediment aerated.
6/ Method of computation prevented determination of this information. No water in pools at time of survey.
Land use in site watershed: 2.5% cropland, 93% woodland, 2% pasture, 2.5% misc.
Geology: Granite gneiss, mica gneiss, mica schist and horneblende gneiss.

48. AGENCY MAKING SURVEY USDA, Soil Conservation Service
49. AGENCY SUPPLYING DATA USDA, Soil Conservation Service
50. DATE Oct 30, 1980