

RESERVOIR SEDIMENT  
DATA SUMMARY

Beaver Creek Detention Dam

NAME OF RESERVOIR

20-29

DATA SHEET NO.

DAM	1. OWNER TVA			2. STREAM Beaver Creek			3. STATE Virginia					
	4. SEC. TWP. RANGE			5. NEAREST POST OFF. Bristol			6. COUNTY Washington					
	7. LAT. 36° 38' 28" LONG. 82° 06' 43"			8. TOP OF DAM ELEVATION 1901.0			9. SPILLWAY CREST ELEV. 1891.0					
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		1891.0 1/		170		5,026		5,026		3/	
	b. MULTIPLE USE										9/16/65	
	c. POWER										16. DATE NOR-	
	d. WATER SUPPLY										MAL OPER. BEGAN	
	e. IRRIGATION										9/16/65	
	f. CONSERVATION											
g. INACTIVE		1815.0 2/		0		0		0				
17. LENGTH OF RESERVOIR 4/			2.25 MILES			AV. WIDTH OF RESERVOIR			0.12 MILES			
WATERSHED	18. TOTAL DRAINAGE AREA				13.7 SQ. MI.		22. MEAN ANNUAL PRECIPITATION				41.2 INCHES	
	19. NET SEDIMENT CONTRIBUTING AREA				13.7 SQ. MI.		23. MEAN ANNUAL RUNOFF				15.15 INCHES	
	20. LENGTH 8.5 MILES		AV. WIDTH 1.6 MILES		24. MEAN ANNUAL RUNOFF				11,069 AC.-FT.			
	21. MAX. ELEV. 2580			MIN. ELEV. 1815			25. ANNUAL TEMP: MEAN 57° RANGE 4° to 96°					
	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	
Dec. 7, 1965		0	0	Range		8		170		5,026		490
Aug. 11, 1971		5.8	5.8	Range		8		5/		5,023		
				(D)								
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		
Aug. 11, 1971		40.2										
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				
Aug. 11, 1971		3.0	.517	.038		3.0	.517	.038				
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. TOTAL TO DATE	b. PERIOD	a. AV. AN.	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE					
Aug. 11, 1971		62*	51.3	51.3		.010	.060					

\*Assumed

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															

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
1966	1821.78	6/					
1967	1820.49	6/					
1968	1820.12	6/					
1969	1818.91	6/					
1970	1830.98	6/					
1971	1835.71	6/					

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
		1965						
1815	0	0						
1820	8	19						
1830	19	152						
1840	32	408						
1850	48	807						
1860	70	1,398						
1870	98	2,237						
1880	130	3,374						
1891	170	5,026						

47. REMARKS AND REFERENCES

- 1/ Emergency spillway crest.
- 2/ Base slab and invert elevation of 48" diam. open sluiceway
- 3/ Date embankment completed.
- 4/ Beaver Creek arm 1.34 miles; unnamed tributary 0.91 mile.
- 5/ Not measured or calculated after initial survey.
- 6/ Not record - during low flows would be just above invert elevation of 1815.0'