

TENNESSEE VALLEY AUTHORITY
 RESERVOIR SEDIMENTATION
 DATA SUMMARY

Watauga
 NAME OF RESERVOIR

HYDRAULIC DATA BRANCH
 20-2b
 DATA SHEET NO.

DAM	1. OWNER TVA			2. RIVER Watauga			3. STATE Tennessee									
	4. SEC. TWP.		RANGE		5. NEAREST TOWN Hampton			6. COUNTY Carter								
	7. STREAM BED ELEV. 1685			8. TOP OF DAM ELEV. 1998			9. SPILLWAY CREST ELEV. 1/1975									
RESERVOIR	10. STORAGE ALLOCATION		11. ELEVATION TOP OF POOL		12. SURFACE AREA ACRES		13. STORAGE ACRE- FEET		14. ACCUMULATED ACRE- FEET		15. DATE STORAGE BEGAN					
	a. FLOOD CONTROL		1975		2/ 7, 197		2/ 108, 663		2/ 681, 263							
	b. POWER										12/1/48					
	c. MULTIPLE USE		1/1959		2/ 6, 439		2/ 572, 500		2/ 572, 600		16. DATE NORMAL OPER. BEGAN					
	d. INACTIVE		3/1706.3		2/ 6		2/ 80		2/ 80							
											8/30/49					
WATERSHED	17. LENGTH OF RESERVOIR 16.3				MILES		AV. WIDTH OF RESERVOIR 0.61				MILES					
	18. TOTAL DRAINAGE AREA 468				SQ. MI.		22. MEAN ANNUAL PRECIPITATION 46.8(22)				INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA 458				SQ. MI.		23. MEAN ANNUAL RUNOFF 19.8(31.4)				INCHES					
	20. LENGTH 44		MILES		AV. WIDTH 11		MILES		24. MEAN ANNUAL RUNOFF 494, 200				AC.-FT.			
	21. MAX. ELEV. 5964			MIN. ELEV. 1685			25. CLIMATIC CLASSIFICATION Humid									
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 _w RATIO AC.-FT. PER SQ. MI.	
	Dec. 1, 1948		0		0		Range		30		6, 439		572, 600		1, 224	
	Mar. 27, 1953		4.3		4.3		Range		26		6, 439		571, 402		1, 221	
	Apr. 3, 1958		5.0		9.3		Range		27		6, 439		570, 100		1, 218	
	Aug. 14, 1964		6.4		15.7		Range		29		6, 439		568, 839		1, 215	
							(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		d. MEAN ANNUAL		e. TOTAL TO DATE			
	Mar. 27, 1953		46.7		497, 743		555, 455		2, 140, 296		497, 743		2, 140, 296			
	Apr. 3, 1958		46.0		445, 377		570, 776		2, 226, 885		469, 589		4, 367, 181			
	Aug. 14, 1964		46.7		471, 117		563, 566		3, 015, 150		470, 212		7, 382, 331			
	26. DATE OF SURVEY		37. PERIOD SEDIMENT DEPOSITS ACRE- FEET				38. TOTAL SED. DEPOSITS TO DATE ACRE- FEET.									
		a. PERIOD TOTAL		b. AV. ANNUAL		c. PER SQ. MI.-YEAR		d. TOTAL TO DATE		e. AV. ANNUAL		f. PER SQ. MI.-YEAR				
Mar. 27, 1953		1, 198		279		0. 609		1, 198		279		0. 609				
Apr. 3, 1958		1, 302		260		0. 568		2, 500		269		0. 587				
Aug. 14, 1964		1, 261		197		0. 430		3, 761		240		0. 524				
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. ANNUAL		b. TOT. TO DATE		a. PERIOD		b. TOT. TO DATE		
Mar. 27, 1953		55*		730		730		0. 049		0. 209		493		493		
Apr. 3, 1958		55*		680		703		0. 047		0. 437		515		505		
Aug. 14, 1964		55*		515		628		0. 042		0. 657		369		449		

* Assumed.

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION												
	274-240	240-220	220-200	200-180	180-160	160-140	140-120	120-100	100-80	80-60	60-40	40-Crest	
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION												
Mar. 27, 1953	0	0	4	18	3	1	7	27	13	11	16	0	
Apr. 3, 1958	0	1	2	10	3	3	6	22	22	14	11	6	
Aug. 14, 1964	2	4	6	12	4	2	3	14	19	17	13		

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														
Mar. 27, 1953	3	8	25	15	3	4/26	11	6	3	0					
Apr. 3, 1958	2	3	12	10	10	4/44	14	2	3	1					
Aug. 14, 1964	9	7	12	9	9	4/36	11	3	3	1					

45. RANGE IN RESERVOIR OPERATION								
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	
1949	1947.30	5/ 1700.4	525,054	1957	1958.90	1906.83	570,776	
1950	1958.58	1931.01	555,455	1958	1955.47	1918.14	582,324	
1951	1951.79	1916.82	434,847	1959	1932.11	1885.40	378,575	
1952	1952.96	1909.49	389,012	1960	1956.84	1911.51	541,789	
1953	1933.07	1881.49	375,282	1961	1942.90	1903.85	462,173	
1954	1923.47	1869.83	332,318	1962	1955.22	1913.06	563,566	
1955	1912.38	1814.68	443,457	1963	1950.40	1914.54	463,415	
1956	1925.25	1813.47	407,292	1964	1944.59	1909.28	381,001	

46. ELEVATION-AREA-CAPACITY DATA 2/ (1948)								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
1685	0	0	1795	929	32,087	1900	4,069	261,566
1710	11	134	1810	1,129	47,429	1910	4,500	304,407
1720	38	379	1820	1,249	59,316	1920	4,900	351,394
1730	113	1,136	1830	1,389	72,497	1930	5,311	402,448
1740	183	2,614	1840	1,550	87,185	1940	5,679	457,396
1750	285	4,955	1850	1,997	104,893	1950	6,070	516,142
1760	411	8,435	1860	2,561	127,678	1959	6,439	572,600
1770	572	13,350	1875	3,198	170,865	1970	6,929	695,946
1780	715	19,787	1890	3,714	222,663	1975	7,197	681,263

47. REMARKS AND REFERENCES
 1/ Normal minimum pool elevation 1815. Normal maximum pool elevation 1959. All items after item 16 are based on elevation 1959.
 2/ Revised.
 3/ Invert sluiceway.
 4/ Roan Creek tributary.
 5/ Elevation at closure, Dec. 1, 1948.

48. AGENCY SUPPLYING DATA
 TENNESSEE VALLEY AUTHORITY
 HYDRAULIC DATA BRANCH

49. DATE September 1, 1966