

RESERVOIR SEDIMENTATION  
DATA SUMMARY

Tridelphia Lake (Brighton Dam)

NAME OF RESERVOIR

5-7

DATA SHEET NO.

Sanitary Commission

DAM	1. OWNER Washington Suburban/			2. RIVER Patuxent		3. STATE Maryland					
	4. SEC. TWP. RANGE		5. NEAREST TOWN Ashton			6. COUNTY Montgomery-Howard					
	7. STREAM BED ELEV. 308			8. TOP OF DAM ELEV. 382		9. SPILLWAY CREST ELEV. 365 1/2					
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										June 27 1942
	b. POWER										
	c. WATER SUPPLY		365.0		847.3		20,222		20,222		15. DATE NORMAL OPER. BEGAN
	d. IRRIGATION										
	e. CONSERVATION										
	f. INACTIVE										
WATERSHED	17. LENGTH OF RESERVOIR 5.3 MILES				AV. WIDTH OF RESERVOIR .17 MILES						
	18. TOTAL DRAINAGE AREA 81.4 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 40.97 INCHES						
	19. NET SEDIMENT CONTRIBUTING AREA 80.08 SQ. MI.				23. MEAN ANNUAL RUNOFF INCHES						
	20. LENGTH MILES		AV. WIDTH MILES		24. MEAN ANNUAL RUNOFF AC.-FT.						
	21. MAX. ELEV.		MIN. ELEV.		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.		
	June 27, 1922		-	-	-	-	847.3	20,222	248		
	Oct. 27, 1950		8.3	8.3	Range Detailed	48	847.3	20,089	247		
	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		
	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	a. TOTAL TO DATE	b. AV. ANNUAL	c. PER SQ. MI.-YEAR			
	Oct. 27, 1950		133	16.0	0.20	133	16.0	0.20			
	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			
Oct. 27, 1950		50*	218	218	0.08	0.66					

1/ With 15' Tainter Gates closed  
\* Assumed

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, 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.

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY

47. REMARKS AND REFERENCES	
Region 1, Soil Conservation Service U. S. Department of Agriculture	
48. AGENCY SUPPLYING DATA	49. DATE
Upper Darby, Pennsylvania	July 17, 1951

RESERVOIR SEDIMENT  
DATA SUMMARY

SCS-34 Rev. 6-62

Triadelphia Lake (Brighton Dam)  
NAME OF RESERVOIR

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

5-7b

DATA SHEET NO.

DAM	1. OWNER Wash. Sub. San. Comm.				2. STREAM Patuxent River		3. STATE Maryland								
	4. 89° 12' N 77° 00" W				5. NEAREST TOWN 1.2 mi. E of Brighton MONTGOMERY-Howard										
	7. STREAM BED ELEVATION 308				8. TOP OF DAM ELEVATION 382		9. SPILLWAY CREST ELEV. 366.4								
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. MULTIPLE USE										27 June 1942				
	b. FLOOD CONTROL														
	c. POWER										16. DATE NORMAL OPER. BEGAN				
	d. WATER SUPPLY		366.4		882		24,625		24,625						
	e. IRRIGATION										Early 1944				
	f. CONSERVATION														
	g. SEDIMENT														
h. INACTIVE															
17. LENGTH OF RESERVOIR 5.3 MILES				AV. WIDTH OF RESERVOIR 0.26 MILES											
WATERSHED	18. TOTAL DRAINAGE AREA 81.4 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 40.97 INCHES										
	19. NET SEDIMENT CONTRIBUTING AREA 80.0 SQ. MI.				23. MEAN ANNUAL RUNOFF 1/ 14.26 (19 yr.) INCHES										
	20. LENGTH 14.2 MILES		AV. WIDTH 5.7 MILES		24. MEAN ANNUAL RUNOFF 1/ 61,903 (19 yr.) AC.-F.T.										
	21. MAX. ELEV. 880		MIN. ELEV. 308		25. CLIMATIC CLASSIFICATION Humid										
	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.
Jan 27, 1942		-		-		-		-		847.3		20,222 2/		248	
Oct 27, 1950		8.3		8.3		Range(D)		48		847.3		20,089 2/		247	
Sep 10, 1958		7.9		16.3		"		48		847.3		19,633 2/		241	
Aug 1, 1964		5.9		22.1		"		47		847.3		19,045 2/		234	
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								
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	a. TOTAL TO DATE	b. AV. ANNUAL	c. PER SQ. MI.-YEAR									
Oct 27, 1950	133	16.0	0.20	133	16.0	0.20									
Sep 10, 1958	456	57.7	0.72	589	36.4	0.46									
Aug 1, 1964	588	99.7	1.25	1,177	53.26	0.67									
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. AN.	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE							
Oct 27, 1950	50*	218	218	0.08	0.66										
Sep 10, 1958	50*	784	501	0.19	2.91										
Aug 1, 1967	61.1	1,663	892	0.22	4.77										

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, 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
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

47. REMARKS AND REFERENCES

1/ from USGS Unity, Md. stream gage

2/ revised due to movable control gates

\*Assumed

48. AGENCY MAKING SURVEY Md. Watershed Planning Party, SCS, USDA

49. AGENCY SUPPLYING DATA SCS, USDA

50. DATE August 1964