

RESERVOIR SEDIMENTATION
DATA SUMMARY

Bridgeport (Upper)

21-7

Scottsdale

NAME OF RESERVOIR

DATA SHEET NO.

DAM	1. OWNER Citizens Water Co. of/		2. RIVER Jacobs Creek		3. STATE Pennsylvania			
	4. SEC. - TWP. - RANGE -		5. NEAREST TOWN Mt. Pleasant		6. COUNTY Westmoreland			
	7. STREAM BED ELEV. 1054		8. TOP OF DAM ELEV. 1071.0		9. SPILLWAY GREST ELEV. 1068.5			
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					March 1887		
	b. POWER							
	c. WATER SUPPLY	1068.5	80.8	612	612	16. DATE NORMAL OPER. BEGAN		
	d. IRRIGATION							
	e. CONSERVATION					March 1887		
	f. INACTIVE							
WATERSHED	17. LENGTH OF RESERVOIR .51 1/ MILES		AV. WIDTH OF RESERVOIR MILES					
	18. TOTAL DRAINAGE AREA 32.5 SQ. MI.		22. MEAN ANNUAL PRECIPITATION INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA 32.38 SQ. MI.		23. MEAN ANNUAL RUNOFF INCHES					
	20. LENGTH MILES		AV. WIDTH MILES		24. MEAN ANNUAL RUNOFF AC.-FT.			
	21. MAX. ELEV.		MIN. ELEV. 1054		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.
	March 1887	-	-	-	-	80.8	612	18.8
	Nov. 16, 1937	50.6	50.6	Recon.	16 meas.	80.8	453	13.9
	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	d. TOTAL TO DATE	e. AV. ANNUAL	f. PER SQ. MI.-YEAR	
	Nov. 16, 1937	159	3.14	0.097	159	3.14	0.097	
	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		
Nov. 16, 1937			0.51	26.0				

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														
<u>1/</u> Original length 2700 ft. with 1 foot added to dam length 2900														
Region 1, Soil Conservation Service U. S. Department of Agriculture														
48. AGENCY SUPPLYING DATA										Upper Darby, Pennsylvania				
										49. DATE <u>July 18, 1950</u>				

RESERVOIR SEDIMENT DATA SUMMARY

SCS-34 Rev. 6-62

Bridgeport (Upper)

NAME OF RESERVOIR

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

21-7a

DATA SHEET NO.

Westmoreland County

DAM	1. OWNER Municipal Authority of/			2. STREAM Jacobs Creek			3. STATE Pennsylvania									
	4. SEC. TWP. RANGE			5. NEAREST TOWN Mt. Pleasant			6. COUNTY Westmoreland									
	7. STREAM BED ELEVATION 1034 5/			8. TOP OF DAM ELEVATION 1059 5/			9. SPILLWAY CREST ELEV 1053.7 5/									
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										March 1887					
	b. FLOOD CONTROL															
	c. POWER															
	d. WATER SUPPLY		1053.7 2/		83.1 5/		642.0 5/		642.0 5/		16. DATE NORMAL OPER. BEGAN					
	e. IRRIGATION															
	f. CONSERVATION															
	g. SEDIMENT										March 1887					
h. INACTIVE																
17. LENGTH OF RESERVOIR		1.1 6/		MILES		AV. WIDTH OF RESERVOIR		0.1 5/		MILES						
WATERSHED	18. TOTAL DRAINAGE AREA		31.64 5/		SQ. MI.		22. MEAN ANNUAL PRECIPITATION		41.37 1/		INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA		31.52 5/		SQ. MI.		23. MEAN ANNUAL RUNOFF		24.20 2/		INCHES					
	20. LENGTH		12.2		MILES		AV. WIDTH		2.6		MILES					
	21. MAX. ELEV.		2100-		MIN. ELEV.		1034		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.	
Mar. 1887		-		-		-				83.1		642.0		20.3		
Nov. 16, 1937		50.6		50.6		Range (R)		16 (M)		80.8		453		14.3		
Nov. 10, 1964		27.0		77.6		D-Range		15 (R) 2 (CI)		63.0		338.5 3/		10.7		
SURVEY DATA	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			
Nov. 16, 1937		189 5/		3.74 5/		.118 5/		189 5/		3.74 5/		.118 5/				
Nov. 10, 1964 3/		114.5		4.24		.134		303.5		3.91		.124				
Nov. 10, 1964 4/		140.3		5.20		.164		329.3		4.24		.134				
SURVEY DATA	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	
	Nov. 16, 1937				168		168		0.58 2/		29.4 5/					
Nov. 10, 1964 3/		65.4 (fine)		191		177		0.61		47.3						
Nov. 10, 1964 4/		91.8 (coarse)		251 7/		197 8/		-		-						

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
Original	-1887		1040	4.5	6.8	1040	21.7	27.3
1053.7	83.1 ac.	642.0 ac.	ft 1038	1.5	0.8	1044	3.2	2.4
1052.0	73.6	493.2	1037	0.0	0.0	1042.5	00.0	00.0
1050.2	67.4	352.3	Present-	1964				
1048.0	57.0	227.9	1053.7	63.0	338.5			
1046.0	41.6	129.2	1052.0	51.9	230.6			
1044.0	28.0	60.6	1050	36.3	142.4			
1042.0	10.6	21.9	1048	28.5	77.5			

47. REMARKS AND REFERENCES 1/ Connelsville, Pa., 2/ Data from Green Lick Run, tributary immediately downstream from the Bridgeport Reservoir., 3/ Capacities include only those below the spillway crest of 1053.7, 4/ Includes deltaic deposits above the spillway crest elevation, 5/ Original data revised. 1964 Survey data based on corrected elevations and topography from transit survey (1963)., 6/ Revised 1964. Based on compared aerial photos and sampling of original bottom sediments, 7/ $191 \div [(.164 - .134) \times 91.8 \times 21.78] = 191 \div 60$ or 251, 8/ $177 \div [(.134 - .124) \times 91.8 \times 21.78] = 177 \div 20$ or 197

48. AGENCY MAKING SURVEY SCS, USDA
 49. AGENCY SUPPLYING DATA SCS, USDA
 50. DATE Sept. 1965