

RESERVOIR SEDIMENT

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

DATA SUMMARY

Greenbelt Lake

NAME OF RESERVOIR

5- 4b

DATA SHEET NO.

SCS-34 Rev. 6-66

DAM	1. OWNER City of Greenbelt			2. STREAM Trib. of Indian Ck.			3. STATE Maryland					
	4. SEC. TWP. RANGE			5. NEAREST P.O. Greenbelt			6. COUNTY Prince Georges					
	7. LAT. ° ' " LONG. ° ' "			8. TOP OF DAM ELEVATION 115.0			9. SPILLWAY CREST ELEV. 109.7					
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										July 1936	
	b. MULTIPLE USE											
	c. POWER										16. DATE NORMAL OPER. BEGAN	
	d. WATER SUPPLY										July 1936	
	e. IRRIGATION											
	f. CONSERVATION		109.7		23.7		196		196			
WATERSHED	17. LENGTH OF RESERVOIR		0.40 MILES		AV. WIDTH OF RESERVOIR		0.1 MILES					
	18. TOTAL DRAINAGE AREA		0.82 ^{6/7} SQ. MI.		22. MEAN ANNUAL PRECIPITATION		41.24 ^{1/2} INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA		0.79 SQ. MI.		23. MEAN ANNUAL RUNOFF		152 ^{7/8} INCHES					
	20. LENGTH 1.0 MILES		AV. WIDTH 1.0 MILES		24. MEAN ANNUAL RUNOFF		656 AC.-F.T.					
	21. MAX. ELEV. 250		MIN. ELEV. 92.5		25. ANNUAL TEMP: MEAN		RANGE					
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.			
	July 1936		-	-	-	-	23.7	196	0.312			
	Feb. 1938		1.6	1.6	Det.	9	23.2	186	0.296			
	Aug. 1957		19.5	21.1	Eng.	9	20.2	151 ^{3/4}	0.240			
	June 1968		10.8	31.9		9	20 [±]	147 ^{3/4}	0.234			
	26. DATE OF SURVEY		34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW, ACRE-Feet ^{4/}			36. WATER INFL. TO DATE, AC.-FT. ^{4/}				
			a. MEAN ANNUAL	b. MAX. ANNUAL	c. PERIOD TOTAL	a. MEAN ANNUAL	b. TOTAL TO DATE					
	Feb. 1938		49.21"	801	902	1269	801	1269				
	Aug. 1957		43.75	703	710	13704	739	14973				
	June 1968		38.84	661**	856	7138**	664**	21931**				
	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				
	Feb. 1938		10.0	6.25	7.91	10.0	6.25	7.91				
Aug. 1957		35.0 ^{5/8}	1.79	2.27	45.0	2.13	2.69					
June 1968		13.0 ^{5/8}	1.20	1.52	58.0	1.82	2.30					
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				
Feb. 1938		60*	10,337	10,337	3.19	5.10	7577	7577				
Aug. 1957		60*	2,970	3,515	1.09	23.0	2455	2890				
June 1968		60*	1,945	3,006	0.9	29.4	1710	2530				

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.

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

47. REMARKS AND REFERENCES
 *Assumed. **Includes deduction for diverted area.
 N.B. This lake has been dredged more than once. Dredged material measured where possible, field densities determined and results reported herein.
 1/ Mean for 31.9 years of record.
 2/ Assumed runoff for "natural" watershed with long-term mean precip. of 43.47 in.
 3/ 9 ac ft gained by dredging.
 4/ Runoff proportioned directly to watershed condition and rainfall.
 5/ Includes 9 ac ft lost by dredging.
 6/ Revised 1968.

48. AGENCY MAKING SURVEY Soil Conservation Service, College Park, Md.
 49. AGENCY SUPPLYING DATA SCS with City of Greenbelt, Md. 50. DATE 2/2/70