

RESERVOIR SEDIMENTATION
DATA SUMMARY

Berlin Reservoir

21 - 38

NAME OF RESERVOIR

DATA SHEET NO.

DAM	1. OWNER Corps of Engineers, US Army		2. RIVER Mahoning River		3. STATE Ohio			
	4. SEC. TW Deerfield Range Berlin		5. NEAREST TOWN Berlin Center		6. COUNTY Mahoning, Portage and Stark			
	7. STREAM BED ELEV. 949		8. TOP OF DAM ELEV. 1045		9. SPILLWAY CREST ELEV. 1014			
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	Winter 1/1032	5,500	55,800	91,200	July 1943		
	b.	Summer 1032	5,500	32,800	91,200			
	c. WATER SUPPLY	Winter 1016.6	2,200	33,600	35,400	16. DATE NORMAL OPER. BEGAN		
	d.	Summer 1024.7	3,590	56,600	58,400			
	e. CONSERVATION							
	f. INACTIVE		980	240	1,800	1,800	July 1943	
17. LENGTH OF RESERVOIR		15	MILES	AV. WIDTH OF RESERVOIR		0.57		
WATERSHED	18. TOTAL DRAINAGE AREA		249	SQ. MI.	22. MEAN ANNUAL PRECIPITATION (8 yrs.)		38.11	
	19. NET SEDIMENT CONTRIBUTING AREA		246	SQ. MI.	23. MEAN ANNUAL RUNOFF (21 yrs.)		12.46	
	20. LENGTH		20	MILES	AV. WIDTH		16	
				MILES	24. MEAN ANNUAL RUNOFF		165,500	
	21. MAX. ELEV.		1280	MIN. ELEV.	949	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.ML
	Nov. 1951	8.42	8.42	Range	27	5,500	91,200	366
	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	
	Nov. 1951	38.11	167,300	246,900	1,409,000	167,300	1,409,000	
	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.-YR.	a. TOTAL TO DATE	b. AV. ANNUAL	c. PER SQ. MI.-YR.	
	Nov 1951	2,692	320	1.30	2,692	320	1.30	
	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. ANNUAL	b. TO DATE	a. PERIOD	b. TO DATE
Nov. 1951	100 (Est.)	2,830	2,830	0.351	2.95	1910 (by volume) 3060 (by weight)	1910 3060	

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION												
	83-52	52-36	36-28	28-20	20-0								
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION													
Nov. 1951	16	57	25	2	0								

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														
Nov. 1951	26	36	9	13	13	3								

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
1943 (Jul-Sep)	1032.00	1010.14	29,100	1949	1022.43	981.03	137,000
1944	1028.80	978.82	83,500	1950	1028.84	996.87	214,500
1945	1031.46	987.98	151,600	1951	1025.84	999.61	246,900
1946	1031.00	995.00	168,100	(Oct-Nov)			
1947	1031.35	981.70	215,000	1951	1008.95	998.32	17,800
1948	1030.42	981.85	145,500				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
949	0	0						
960	-	98	995	651	8,449	1030	4,930	80,720
965	32	216	1000	826	12,125	1032	5,500	91,200
970	64	453	1005	1,100	16,865			
975	125	908	1010	1,505	23,335			
980	242	1,800	1015	2,005	32,070			
985	375	3,347	1020	2,680	43,670			
990	510	5,557	1025	3,655	59,370			

47. REMARKS AND REFERENCES

This data sheet accompanies report upon Sedimentation of Berlin Reservoir, Mahoning River Basin, Ohio

1/ Flood Control storage is varied seasonally in accordance with industrial water demand.

48. AGENCY SUPPLYING DATA
Pittsburgh District, Corps of Engineers, U. S. Army, Pittsburgh, Pa.

49. DATE June 1953