

RESERVOIR SEDIMENT
DATA SUMMARY

SCS-34 Rev. 6-66

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Upper Hocking No. 1

NAME OF RESERVOIR

21-59

DATA SHEET NO.

[AM]	1. CONC. Hunters Run Cons. Dist.		2. STREAM Hunters Run		3. STATE Ohio											
	4. SEC. 6 SW 13N RANGE 19W		5. NEAREST P.O. Lancaster		6. COUNTY Fairfield											
	7. LAT " " LONG. " "		8. TOP OF DAM ELEVATION 1012.0		9. SPILLWAY CREST ELEV. 1009.0											
RESERVOIR	10. STORAGE ALLOCATION		11. ELEVATION $\frac{1}{2}$ TOP OF POOL		12. ORIGINAL SURFACE AREA, ACRES											
	a. FLOOD CONTROL		1009.0		36.9											
	b. MULTIPLE USE															
	c. POWER															
	d. WATER SUPPLY															
	e. IRRIGATION															
	f. CONSERVATION		988.0		5.4											
	g. INACTIVE															
				13. ORIGINAL CAPACITY, ACRE-Feet												
				422.5												
				14. GROSS STORAGE, ACRE-Feet												
				450.0												
				15. DATE STORAGE BEGAN												
				May 1956												
				16. DATE NORMAL OPER. BEGAN												
				May 1956												
17. LENGTH OF RESERVOIR		0.301 MILES		AV. WIDTH OF RESERVOIR		0.033 MILES										
18. TOTAL DRAINAGE AREA		1.04 SQ. MI.		22. MEAN ANNUAL PRECIPITATION		INCHES										
19. NET SEDIMENT CONTRIBUTING AREA		0.94 SQ. MI.		23. MEAN ANNUAL RUNOFF		9.2 INCHES										
20. LENGTH 1.48 MILES		AV. WIDTH 0.72 MILES		24. MEAN ANNUAL RUNOFF		510 AC.-FT.										
21. MAX. ELEV. 1160		MIN. ELEV. 969.8		25. ANNUAL TEMP: MEAN		RANGE										
WATERSHED	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.	
	April 1956		0		0		Range (D)		6		36.9 (5.4)		450.0 (27.5)		0.882	
	June 1962		6.08		6.08		"		"		36.9 (5.4)		446.13 (23.63)		0.875	
	25. 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			
	June 1962		36.99		510		695		3,102		510		3,102			
	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			
	June 1962		3.87 (3.87)		0.637 (0.637)		0.678 (0.678)		3.87 (3.87)		0.637 (0.637)		0.678 (0.678)			
	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		
June 1962		71.6		1,057		1,057		0.14 (2.32)		0.86 (14.07)						

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
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
See attached sheet.								

47. REMARKS AND REFERENCES

1/ Elevation 988.0 (First stage of inlet) Sediment Pool
 " 1005.0 (Second stage of inlet)
 " 1009.0 (Emergency spillway)

Figures in parenthesis refer to sediment pool.

Table 1. - Area and Capacity of Reservoir 1

Gage height (feet) ^{1/}	Elevation (feet above mean sea level)	Surface area (acres) ^{2/}	Capacity (Acre-feet) ^{2/}	Remarks
--	973	0.3	0.2	
--	974	0.4	0.5	
--	975	0.6	1.2	
--	976	0.7	1.5	
--	977	0.8	2.5	
--	978	1.0	3.1	
--	979	1.1	4.0	
--	980	1.3	5.0	
--	981	1.5	6.1	
--	982	1.8	7.9	
--	983	2.1	10.0	
0.00	984	2.4	12.8	Gage datum
1.00	985	3.0	15.8	
2.00	986	3.8	19.1	
3.00	987	4.5	23.1	
4.00	988	5.4	27.5	Crest of low stage inlet
5.00	989	6.3	33.5	
6.00	990	7.3	40.5	
7.00	991	8.3	48.5	
8.00	992	9.4	57.2	
9.00	993	10.9	67.5	
10.00	994	12.5	79.8	
11.00	995	14.1	93.2	
12.00	996	15.8	108.5	
13.00	997	17.3	125.5	
14.00	998	18.9	143.8	
15.00	999	20.5	163.5	
16.00	1,000	22.1	184.3	
17.00	1,001	23.8	207.0	
18.00	1,002	25.5	231.1	
19.00	1,003	27.2	258.5	
20.00	1,004	28.9	286.0	
21.00	1,005	30.4	316.2	Crest of high stage inlet
22.00	1,006	31.9	347.5	
23.00	1,007	33.4	379.5	
24.00	1,008	34.9	413.5	
25.00	1,009	36.9	450.0	Earth spillway
26.00	1,010	39.0	487.5	
27.00	1,011	41.3	527.0	
28.00	1,012	43.6	--	

^{1/} From rating table No. 1, dated 9/17/56

^{2/} Storage and capacity based on SCS "as constructed" curve dated November 8, 1956.

8/10/70

RESERVOIR SEDIMENT DATA SUMMARY

Upper Hocking Site # 1

21 - 59a

NAME OF RESERVOIR

DATA SHEET NO.

DAM	1. OWNER		2. STREAM Hunters Run		3. STATE Ohio											
	4. SEC. TWP. RANGE		5. NEAREST P. O. Lancaster		6. COUNTY Fairfield											
	7. LAT. ° ' " LONG. ° ' "		8. TOP OF DAM ELEVATION		9. SPILLWAY CREST ELEV.											
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		1009.0		36.9		422.5		450.0		5/56					
	b. MULTIPLE USE															
	c. POWER															
	d. WATER SUPPLY															
	e. IRRIGATION															
	f. CONSERVATION		988.0		5.4		27.5		27.5		5/56					
g. INACTIVE																
WATERSHED	17. LENGTH OF RESERVOIR		0.288		MILES		AV. WIDTH OF RESERVOIR		0.029		MILES					
	18. TOTAL DRAINAGE AREA		1.04		SQ. MI.		22. MEAN ANNUAL PRECIPITATION				INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA		0.98		SQ. MI.		23. MEAN ANNUAL RUNOFF		9.2		INCHES					
	20. LENGTH		1.48		MILES		AV. WIDTH		0.72		MILES					
	21. MAX. ELEV.		1160		MIN. ELEV.		969.8		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.	
	4/56		0		0		Range (D)		6		36.9		450.0		0.882	
	6/62		6.1		6.1		Range (D)		6		5.4		27.5		0.875	
	8/71		9.2		15.3		Range (D)		4		36.9		446.1			
	9/81		10.1		25.4		Contour (R)		4 CI		4.9		17.3			
	9/81						Range (D)		3		4.5		12.4			
	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			
	June 1962		36.99		510		695		3102		510		3102			
	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				
6/62		3.87		0.637		0.646		3.87		0.637		0.646				
8/71		6.3		0.685		0.697		10.2		0.667		0.677				
9/81		4.9		0.49		0.494		15.1		0.59		0.604				
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				
6/62		71.6		1007		1007		0.14 0.86								
8/71		48.2		513		710		2.32 14.07								
9/81		76.3		1448		1004		2.43 37.1								
9/81								0.13 3.35								