

RESERVOIR SEDIMENT DATA SUMMARY

Don Williams Lake
NAME OF RESERVOIR

25 - 23
DATA SHEET NO.

DAM	1. OWNER Boone Co. Conserv. Bd.		2. STREAM Bluff Creek		3. STATE Iowa			
	4. SEC. 5 TWP. 84N RANGE 27W		5. NEAREST P.O. Ogden		6. COUNTY Boone			
	7. LAT. 42° 6' 40" LONG. 94° 1' 5"		8. TOP OF DAM ELEVATION 1,075		9. SPILLWAY CREST ELEV. 1065.0			
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					1967		
	b. MULTIPLE USE	1065.0	151.92	2,603.1	2,603.1			
	c. POWER					16. DATE NORMAL OPER. BEGAN		
	d. WATER SUPPLY							
	e. IRRIGATION							
	f. CONSERVATION					1967		
g. INACTIVE								
WATERSHED	17. LENGTH OF RESERVOIR 1.94 MILES		AV. WIDTH OF RESERVOIR 0.12 MILES					
	18. TOTAL DRAINAGE AREA 32.3 SQ. MI.		22. MEAN ANNUAL PRECIPITATION 33.12 INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA 32.06 SQ. MI.		23. MEAN ANNUAL RUNOFF 5.0 INCHES					
	20. LENGTH 13.3 MILES		AV. WIDTH 2.4 MILES		24. MEAN ANNUAL RUNOFF 8610 AC.-FT.			
	21. MAX. ELEV. 1,173		MIN. ELEV. 1,019		25. ANNUAL TEMP.: MEAN 48.9 RANGE 19.3-74.9°F			
SURVEY DATA	25. 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.
	1974	0	0	Range (D)	30	151.9	2,603.1	0.30
	1980	6	6	Range (D)	30	151.9	2,515.8	0.29
	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		
	1980	34.68						
	25. 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	
	1980	87.3	14.55	0.45	87.3	14.55	0.45	
	25. 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	
1980	34.6	342	342	0.56	3.35			

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														
1980	0.8	5.1	12.5	8.6	6.8	17.9	9.4	13.7	16.4	8.8					

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

Mitchem, P. Stan, Sedimentation of Don Williams Lake, Boone County, Iowa, Soil Conservation Service, May, 1980.

Land Use: 92% cropland, 1% pastureland, 7% other.

Sediment: 33% clay, 56% silt, 10% sand.

48. AGENCY MAKING SURVEY Soil Conservation Service
 49. AGENCY SUPPLYING DATA Soil Conservation Service

50. DATE 5/80