

**RESERVOIR SEDIMENT
DATA SUMMARY**

SCS-34 Rev. 6-66

R-3

Kiowa Creek Watershed

NAME OF RESERVOIR

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

34-8a

DATA SHEET NO.

DAM	1. OWNER Kiowa SCD			2. STREAM Kiowa Creek			3. STATE Colorado					
	4. SEC. 26 TWP. 10S RANGE 64W			5. NEAREST P.O. Elbert			6. COUNTY Elbert					
	7. LAT. 39° 08' 15" LONG 104° 32' 00"			8. TOP OF DAM ELEVATION 6959.20			9. SPILLWAY CREST ELEV. 6953.20					
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		6953.20		20.81		99.89		147.59		16. DATE NORMAL OPER. BEGAN July 1956	
	b. MULTIPLE USE											
	c. POWER											
	d. WATER SUPPLY											
	e. IRRIGATION											
	f. CONSERVATION											
g. INACTIVE												
WATERSHED	17. LENGTH OF RESERVOIR 0.43 MILES				AV. WIDTH OF RESERVOIR 0.07 MILES							
	18. TOTAL DRAINAGE AREA 2.92 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 15.6 INCHES							
	19. NET SEDIMENT CONTRIBUTING AREA 2.89 SQ. MI.				23. MEAN ANNUAL RUNOFF 3.5 1/2 INCHES							
	20. LENGTH 1.9 MILES		AV. WIDTH 1.5 MILES		24. MEAN ANNUAL RUNOFF 545 AC.-F.T.							
	21. MAX. ELEV.		MIN. ELEV.		25. ANNUAL TEMP: MEAN 45°F RANGE 30°-67°F (Cheesman)							
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 1956		--	--	Range	56	20.81	147.6	0.27			
	Mar. 1966		10	10	Range	40	20.81	138.2	0.25			
	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 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			
	Mar. 1966		9.37	0.94	0.32	9.37		0.94	0.32			
	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					
Mar. 1966		80*	557	557	0.64	6.35						

*Assumed

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						
47. REMARKS AND REFERENCES														
<p>Almost all of the sediment in the reservoir was deposited during an extremely large storm on June 17, 1965, in which flow through the emergency spillway was about 4 feet deep. Sediment deposited in the sediment pool totaled 5.62 acre feet (60%). Sediment deposited in the flood pool totaled 3.75 acre feet (40%).</p> <p>1/ Atlas HA-212, USGS 1966</p>														
48. AGENCY MAKING SURVEY				Soil Conservation Service										
49. AGENCY SUPPLYING DATA				Same										
										50. DATE <u>May 2, 1966</u>				

RESERVOIR SEDIMENT DATA SUMMARY

Kiowa Creek R-3

34 - 8a

NAME OF RESERVOIR

DATA SHEET NO.

DAM	1. OWNER Kiowa SCD				2. STREAM Trib. of Kiowa Ck.		3. STATE Colorado	
	4. SEC. 26 TWP. 10S. RANGE 64W			5. NEAREST P.O. Elbert		6. COUNTY Elbert		
	7. LAT. 39° 08' 15 " LONG 104° 32 '00 "			8. TOP OF DAM ELEVATION 6959.2		9. SPILLWAY CREST ELEV. 6953.2		
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		6953.20	20.81	99.89	147.59		July 1956
	b. MULTIPLE USE							
	c. POWER							
	d. WATER SUPPLY							16. DATE NORMAL OPER. BEGAN
	e. IRRIGATION							
	f. CONSERVATION							July 1956
g. INACTIVE 1/		6945.70		47.70	47.70			
WATERSHED	17. LENGTH OF RESERVOIR 0.43 MILES				AV. WIDTH OF RESERVOIR 0.07 MILES			
	18. TOTAL DRAINAGE AREA 2.84 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 17 INCHES			
	19. NET SEDIMENT CONTRIBUTING AREA 2.81 SQ. MI.				23. MEAN ANNUAL RUNOFF 0.5 INCHES			
	20. LENGTH 1.9 MILES		AV. WIDTH 1.5 MILES		24. MEAN ANNUAL RUNOFF 75 AC.-FT.			
	21. MAX. ELEV. 7,240		MIN. ELEV. 6,960		25. ANNUAL TEMP.: MEAN 48 RANGE 28 - 70			
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 1956	-	-	Range	56	20.81	147.59	1.95
	March 1966	9.7	9.7	Range	56	20.81	138.22	1.82
	May 1976	10.1	19.8	Range	56	20.81	136.79	1.81
	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 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	
	March 1966	9.37	0.966	0.34	9.37	0.966	0.34	
May 1976	1.43	0.142	0.05	10.80	0.545	0.19		
26. DATE OF SURVEY	39. AV. DRY WGT., LBS. PER CU. FT.	40. SED. DEP., TONS PERSQ. 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	
March 1966				0.65	6.35			
May 1976				0.37	7.32			

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															
<p>Most of the sediment in the reservoir was deposited during an extremely large storm on June 17, 1965, in which flow through the emergency spillway was about four feet deep. Sediment deposited in the sediment pool totals 7.05 acre-feet (65%). Sediment deposited in the flood pool totals 3.75 acre-feet (35%).</p> <p><u>1/</u> Sediment pool only.</p>															
48. AGENCY MAKING SURVEY				Soil Conservation Service				50. DATE				February 1979			
49. AGENCY SUPPLYING DATA				Soil Conservation Service											