

RESERVOIR SEDIMENT
DATA SUMMARY

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Three Bar C Debris Basin

NAME OF RESERVOIR

60-38a

DATA SHEET NO.

SCS-34 Rev. 6-66

Watershed burned over by wildfire in June 1959.

DAM	1. OWNER USDA - F. S.			2. STREAM Trib. of Rock Cr.		3. STATE Arizona										
	4. SEC. 2 TWP. 4 N RANGE 10 E			5. NEAREST P.O. Roosevelt 10NW		6. COUNTY Gila										
	7. LAT. 33° 43' " LONG. 111° 18' "			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										--					
	b. MULTIPLE USE															
	c. POWER															
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN					
	e. IRRIGATION															
	f. CONSERVATION															
g. INACTIVE		N/A 1/		0.027		N/A 2/		0.08		8-1-59						
17. LENGTH OF RESERVOIR -				MILES				AV. WIDTH OF RESERVOIR -				MILES				
WATERSHED	18. TOTAL DRAINAGE AREA 0.149				SQ. MI.				22. MEAN ANNUAL PRECIPITATION (15) 24.84				INCHES			
	19. NET SEDIMENT CONTRIBUTING AREA 0.149				SQ. MI.				23. MEAN ANNUAL RUNOFF (14) 6.63				INCHES			
	20. LENGTH 0.620		MILES		AV. WIDTH 0.240		MILES		24. MEAN ANNUAL RUNOFF (14) 52.68		AC.-F.T.					
	21. MAX. ELEV. 4300				MIN. ELEV. 3520				25. ANNUAL TEMP: MEAN				RANGE			
	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.	
Rgs 8-1-59		-		0		See Remark 4/						0.08		0.002		
10-1-60		1.17		1.17												
10-1-61		1.00		2.17												
10-1-62		1.00		3.17												
10-1-64		2.00		5.17												
10-1-65		1.00		6.17												
10-1-66		1.00		7.17												
10-1-67		1.00		8.17												
SURVEY DATA	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		
	10-1-60		32.05		82.47			8.91		96.21**		82.23		96.21		
	10-1-61		16.38		8.91			8.91		8.91		48.44		105.12		
	10-1-62		22.89		52.30			52.30		52.30		49.66		157.42		
	10-1-64		23.67		30.97			33.12		61.94		42.43		219.36		
	10-1-65		26.12		91.96			91.96		91.96		50.46		311.32		
	10-1-66		34.20		158.45			158.45		158.45		65.52		469.77		
	10-1-67		20.45		17.48			17.48		17.48		59.64		487.25		
	26. DATE OF SURVEY		37. 5/ 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			
10-1-60		0.97			0.83		5.57		0.97 6/		0.83		5.57			
10-1-61		0.10			0.10		0.67		1.07		0.49		3.29			
10-1-62		0.10			0.10		0.67		1.17		0.37		2.48			
10-1-64		0.00			0.00		0.00		1.17		0.23		1.54			
10-1-65		0.00			0.00		0.00		1.17		0.19		1.28			
10-1-66		0.05			0.05		0.34		1.22		0.17		1.14			
10-1-67		0.00			0.00		0.00		1.22		0.15		1.01			
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		
10-1-60				13,345		13,345										
10-1-61				1,608		7,882										
10-1-62				1,608		5,942										
10-1-64		110*		0		3,690										
10-1-65				0		3,067										
10-1-66				804		2,731										
10-1-67				0		2,420										

N/A - Not Applicable

* - Assumed

** - Partially Estimated

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

- 1/ Entire pool used to collect bedload sediment and debris.
- 2/ Sediment and debris also captured above pool elevation.
- 3/ Each "survey" consists of data accumulated from measurements made after appreciable sediment capture.
- 4/ Cross-sectioning or volumetric measurements; ranges or contours not used.
- 5/ Basin cleaned as needed to maintain capacity.
- 6/ Includes sediment volumes captured above spillway level.

48. AGENCY MAKING SURVEY Rocky Mtn. Forest and Range Expt. Sta.
 49. AGENCY SUPPLYING DATA Same
 50. DATE 9-10-71

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	4. SEC.	TWP.	RANGE		5. NEAREST P. O.			6. COUNTY						
	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			
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	18. TOTAL DRAINAGE AREA				SQ. MI.		22. MEAN ANNUAL PRECIPITATION				INCHES			
	19. NET SEDIMENT CONTRIBUTING AREA				SQ. MI.		23. MEAN ANNUAL RUNOFF				INCHES			
	20. LENGTH		MILES		AV. WIDTH		MILES		24. MEAN ANNUAL RUNOFF				AC.-FT.	
21. MAX. ELEV.			MIN. ELEV.			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.	
	10-1-68		1.00	9.17	See Remark									
	10-1-69		1.00	10.17										
	10-1-70		1.00	11.17	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			
	10-1-68		30.56		11.73	116.73	116.73		65.36		603.98			
	10-1-69		23.42		77.24	77.24	77.24		66.98		681.22			
	10-1-70		26.71		37.66	37.66	37.66		64.36		718.88			
	26. DATE OF SURVEY		37. 5/ 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				
10-1-68		0.00	0.00	0.00		1.22		0.13		0.87				
10-1-69		0.00	0.00	0.00		1.22 6/		0.12		0.81				
10-1-70		0.00	0.00	0.00		1.22		0.11		0.74				
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				
10-1-68				0	2,084									
10-1-69				0	1,941									
10-1-70		110*		0	1,773									

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														
48. AGENCY MAKING SURVEY										50. DATE _____				
49. AGENCY SUPPLYING DATA														