

RESERVOIR SEDIMENTATION

Stony Gorge

72 - 11

DATA SUMMARY U. S. Dept. of Interior

NAME OF RESERVOIR

DATA SHEET NO.

DAM	1. OWNER Bureau of Reclamation/		2. RIVER Stony Creek		3. STATE California			
	4. SEC. 16 TWP. 20N RANGE 6W		5. NEAREST TOWN Elk Creek		6. COUNTY Glenn			
	7. STREAM BED ELEV. 727		8. TOP OF DAM ELEV. 847		9. SPILLWAY CREST ELEV. 841			
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					Nov. 1928		
	b. POWER							
	c. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN		
	d. IRRIGATION	841	1,292	48,889	48,889			
	e. CONSERVATION							
f. INACTIVE								
WATERSHED	17. LENGTH OF RESERVOIR			MILES	AV. WIDTH OF RESERVOIR		MILES	
	18. TOTAL DRAINAGE AREA		199.3 1/	SQ. MI.	22. MEAN ANNUAL PRECIPITATION		18 - 55 INCHES	
	19. NET SEDIMENT CONTRIBUTING AREA		197.2	SQ. MI.	23. MEAN ANNUAL RUNOFF		INCHES	
	20. LENGTH		MILES	AV. WIDTH	MILES	24. MEAN ANNUAL RUNOFF		AG- FT.
	21. MAX. ELEV.		7,000	MIN. ELEV.	727	25. CLIMATIC CLASSIFICATION		Semi-arid to 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. MI.
	Nov. 1928	-	-	-	-	1,292	48,889	245
	March 1946	17.3	17.3	Range detailed	13	1,292	48,219	242
	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 SEDIMENT DEPOSITS 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 1946	670	38.7	0.196	670	38.7	0.196	
	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. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE	
March 1946	54 (6)	231	231	0.08	1.37			

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, 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
1/ Excluding drainage area above East Park Reservoir.

Brown, C. B. and Thorp, E. M. Reservoir sedimentation in the Sacramento-San Joaquin Drainage Basins, California. U. S. Soil Conserv. Serv., Special Report 10, 69 pp., illus., processed, Washington, D. C. July 1947.

Region 7, Soil Conservation Service
U. S. Dept. of Agriculture
Portland, Oregon

48. AGENCY SUPPLYING DATA

49. DATE February 26, 1951

RESERVOIR SEDIMENTATION
DATA

Stony Gorge

72-11a

Dept. of Interior

NAME OF RESERVOIR

DATA SHEET NO.

DAM	1. OWNER U.S. Bur. of Reclamation/		2. RIVER Stony Creek		3. STATE California			
	4. SEC. 16 TWP. 20N RANGE 6W		5. NEAREST TOWN Elk Creek		6. COUNTY Glenn			
	7. STREAM BED ELEV. 727		8. TOP OF DAM ELEV. 847		9. SPILLWAY CREST ELEV. 841			
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					Nov. 1928		
	b. POWER							
	c. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN		
	d. IRRIGATION	841	1292	50,100 ^{1/}	50,100 ^{1/}			
	e. CONSERVATION							
f. INACTIVE								
WATERSHED	17. LENGTH OF RESERVOIR			MILES	AV. WIDTH OF RESERVOIR		MILES	
	18. TOTAL DRAINAGE AREA		199.3 ^{2/}	SQ. MI.	22. MEAN ANNUAL PRECIPITATION		19-50+ INCHES	
	19. NET SEDIMENT CONTRIBUTING AREA		197.2	SQ. MI.	23. MEAN ANNUAL RUNOFF		INCHES	
	20. LENGTH		MILES	AV. WIDTH		MILES	24. MEAN ANNUAL RUNOFF	AC.-FT.
	21. MAX. ELEV. 7,000		MIN. ELEV. 727		25. CLIMATIC CLASSIFICATION			Semi-arid to 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. MI.
	Nov. 1928 May 1960	-- 31.5	-- 31.5	-- Range (D)	-- 13	1,292 1,274	50,100 ^{1/} 44,425	-- --
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	
SURVEY DATA	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.	
SURVEY DATA	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
SURVEY DATA	May 1960	54	1,074 ^{3/}	1,074 ^{3/}	0.359	11.3	--	--

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, 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

1/ U. S. Bureau of Reclamation capacity curve (3-31-45); U.S.G.S. Water Supply Paper 1635, Part 11.

2/ The natural drainage area less area above East Park Reservoir. Flow diverted from the basin to East Park Reservoir after the year 1914.

3/ Based on the natural drainage area.

48. AGENCY SUPPLYING DATA U. S. Geological Survey, Water Resources Division, Branch of Quality of Water, Sacramento, California DATE October, 1961

RESERVOIR SEDIMENT
DATA SUMMARY

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Stony Gorge

NAME OF RESERVOIR

72-11b

DATA SHEET NO.

SCS-34 Rev. 6-66

Department of Interior

DAM	1. OWNER U.S. Bur. of Reclamation		2. STREAM Stony Creek		3. STATE California											
	4. SEC. 16 TWP. 20N RANGE 6W		5. NEAREST P.O. Elk Creek		6. COUNTY Glenn											
	7. LAT. " " " " " " " "		8. TOP OF DAM ELEVATION 847		9. SPILLWAY CREST ELEV. 841											
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										Nov. 1928					
	b. MULTIPLE USE															
	c. POWER															
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN					
	e. IRRIGATION		841		1,280		150,000		150,000							
	f. CONSERVATION															
	g. INACTIVE															
WATERSHED	17. LENGTH OF RESERVOIR				MILES				AV. WIDTH OF RESERVOIR				MILES			
	18. TOTAL DRAINAGE AREA 2199				SQ. MI.				22. MEAN ANNUAL PRECIPITATION 19-50+				INCHES			
	19. NET SEDIMENT CONTRIBUTING AREA 197				SQ. MI.				23. MEAN ANNUAL RUNOFF 15.65				INCHES			
	20. LENGTH				MILES				AV. WIDTH				MILES			
	24. MEAN ANNUAL RUNOFF 166,100				AC.-FT.				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.	
	Nov. 1928		--		--		--		--		1,280		150,000		--	
	Nov. 1962		34.1		34.1		Range (0)		13		1,274		48,160		0.29	
	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. 1962 (1929-62)		--		166,100		--		--		166,100		--			
	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			
	Nov. 1962		1,840		54.0		30.27		1,840		54.0		30.27			
	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				
Nov. 1962		54		3319		3319		0.11		3.68		--				

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

- 1 Spillway elevation, USGS Water-Supply Paper 1798-F.
- 2 The natural drainage area less area above East Park Reservoir. Flow diverted from the basin to East Park Reservoir after 1914.
- 3 Based on the natural drainage area.

Knott, J.M., and Dunnam, C.A., 1969, Sedimentation in upper Stony Creek basin, eastern flank of the coast ranges of northern California: U.S. Geol. Survey Water-Supply Paper 1798-F, 35p.

48. AGENCY MAKING SURVEY
 49. AGENCY SUPPLYING DATA U.S. Geol. Survey, Water Resources⁵⁰. DATE August 1971