SCS-34
Jan. 1958

(SHeet 1 of 3)

U.S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

RESERVOIR SEDIMENTATION DATA SUMMARY

Teakettle #1 (1938-1955)
NAME OF RESERVOIR

71-31a
DATA SHEET NO.

DAM

1. OWNER USDA, Forest Service	2. RIVER Teakettle Cr. Trib./Kings R.	3. STATE California
4. SEC. 27 TWP. 11S RANGE 27E	5. NEAREST TOWN Fresno	6. COUNTY Fresno
7. STREAM BED ELEV. 6400 ft.	8. TOP OF DAM ELEV. 6,412.2 ft.	9. SPILLWAY CREST ELEV. 6407.7 ft

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					
b. POWER					Fall, 1938
c. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN
d. IRRIGATION					
e. CONSERVATION					
f. INACTIVE 1)	6407.7 ft.	0.087	0.39 2)		Fall, 1938

17. LENGTH OF RESERVOIR	0.021 MILES	AV. WIDTH OF RESERVOIR	0.0065 MILES

WATERSHED

18. TOTAL DRAINAGE AREA	0.77 SQ. MI.	22. MEAN ANNUAL PRECIPITATION	40 INCHES
19. NET SEDIMENT CONTRIBUTING AREA	0.77 SQ. MI.	23. MEAN ANNUAL RUNOFF	INCHES
20. LENGTH 2.23 MILES	AV. WIDTH 0.34 MILES	24. MEAN ANNUAL RUNOFF	AC.-FT.
21. MAX. ELEV. 8000 ft.	MIN. ELEV. 6400 ft.	25. CLIMATIC CLASSIFICATION	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.
Fall, 1938	--	--	Detailed	--	0.087	0.39	0.51
" , 1948	10.0	10.0	"	--	"	0.18	0.23
" , 1951	3.0	13.0	"	--	"	0.002	0.003
" , 1955	4.0	17.0	"	--	"	0.000 3)	0.000

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
Fall, 1948	0.208	0.0208	0.0271	0.208	0.0208	0.027
" , 1951	0.250	0.0833	0.1100	0.458	0.0352	0.046
" , 1955	0.024	0.0060	0.0078	0.482	0.0284	0.037

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

71-31a

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 LENGH 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) Item 10f: Water yield research facility; inflow = outflow over weir.
2) Item 13 : Fall, 1938.
3) Item 32 : Overtopped by sediment, no measurements taken in 1956; sediment removed down to original reservoir bottom.

Data on 1956-1960 data sheet indicate sedimentation beginning in Oct. 1956.

48. AGENCY SUPPLYING DATA U. S. Forest Service 49. DATE March 26, 1962

1959

RESERVOIR SEDIMENT
DATA SUMMARY

(Sheet 2 of 3)

Teakettle Reservoir No. 1
NAME OF RESERVOIR

71-31a
DATA SHEET NO.

Kings R.

DAM

1. OWNER USDA, Forest Service	2. STREAM Teakettle Cr. Trib/	3. STATE California
4. SEC. 27 TWP. 11S RANGE 27E	5. NEAREST P. O. Fresno	6. COUNTY Fresno
7. LAT 36° 57' " LONG. 119° 01' "	8. TOP OF DAM ELEVATION 6,412.2	9. SPILLWAY CREST ELEV. 6,407.7

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					Fall 1956
d. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN
e. IRRIGATION					
f. CONSERVATION					
g. INACTIVE 1/	6407.7	0.087	0.352		Fall 1956

17. LENGTH OF RESERVOIR 0.021 MILES; AV. WIDTH OF RESERVOIR 0.0065 MILES

WATERSHED

18. TOTAL DRAINAGE AREA	0.77 SQ. MI.	22. MEAN ANNUAL PRECIPITATION	40 INCHES
19. NET SEDIMENT CONTRIBUTING AREA	0.77 SQ. MI.	23. MEAN ANNUAL RUNOFF	13.45(8) INCHES
20. LENGTH 2.23 MILES; AV. WIDTH	0.34 MILES	24. MEAN ANNUAL RUNOFF	552 AC.-FT.
21. MAX. ELEV. 8,000 ft.; MIN. ELEV.	6,400 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.
Fall, 1956	-	-	Detailed	-	0.087	0.352	
" 1957	1.0	1.0	"	-	"		
" 1958	1.0	2.0	"	-	"		
" 1959	1.0	3.0	"	-	"		
" 1960	1.0	4.0	"	-	"		
" 1961	1.0	5.0	"	-	"		

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
Fall, 1958	57.16	1330.10			1330.10	
" 1959	31.74	426.16			426.16	
" 1960	26.70	332.41			332.41	
" 1961	27.36	207.35			207.35	

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
Fall, 1958						0.0091
" 1959						0.00
" 1960						0.0158
" 1961						0.00

26. DATE OF SURVEY	39. AV. DRY WGT., LBS. PER CU. FT.	40. SED. DEP., TONS PER SQ. MI.-YR.		41. STORAGE LOSS, FCT		42. SED. INFLOW, FCT	
		a. PERIOD	b. TOTAL TO DATE	a. AV. ANN.	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE

RESERVOIR SEDIMENT
DATA SUMMARY

(Sheet 3 of 3)

Teakettle Reservoir No. 1
NAME OF RESERVOIR

71-31a
DATA SHEET NO.

DAM

1. OWNER	2. STREAM	3. STATE
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
a. FLOOD CONTROL					
b. MULTIPLE USE					
c. POWER					
d. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN
e. IRRIGATION					
f. CONSERVATION					
g. INACTIVE					

17. LENGTH OF RESERVOIR MILES | AV. WIDTH OF RESERVOIR MILES

WATERSHED

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.
Fall, 1962	1.0	6.0	Detailed	-	0.087	-	
" 1963	1.0	7.0	"	-	"	-	
" 1964	1.0	8.0	"	-	"	-	
" 1965	1.0	9.0	"	-	"	-	

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
Fall, 1962	51.90				828.64	
" 1963	49.64				993.89	
" 1964	29.81				457.76	
" 1965	53.48				1163.91	

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
Fall, 1962						0.0065
" 1963						0.3228
" 1964						0.0889
" 1965						0.0054

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	
		a. PERIOD	b. TOTAL TO DATE	a. AV. ANN.	b. TOT. TO DATE	a. PERIOD	b. TOTAL TO DATE

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/ Item 10g: Water-yield research facility; inflow = outflow over weir.

48. AGENCY MAKING SURVEY

49. AGENCY SUPPLYING DATA U. S. Forest Service

50. DATE 8/22/66