

U.S. DEPARTMENT OF AGRICULTURE
**RESERVOIR SEDIMENTATION
DATA SUMMARY**

Teakettle #2 (1938-1955)

SOIL CONSERVATION SERVICE
71-33a

NAME OF RESERVOIR

Kings R.

DATA SHEET NO.

DAM	1. OWNER USDA - Forest Service		2. RIVER Teakettle Cr. trib.		3. STATE California			
	4. SEC. 21 TWP. 11S RANGE 27E		5. NEAREST TOWN Fresno		6. COUNTY Fresno			
	7. STREAM BED ELEV. 6900 ft.		8. TOP OF DAM ELEV. 6910 ft.		9. SPILLWAY CREST ELEV. 6905.4 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) 6905.4 ft.	0.0585	0.134 2)			Fall, 1938	
WATERSHED	17. LENGTH OF RESERVOIR 0.0095 MILES		AV. WIDTH OF RESERVOIR 0.0067 MILES					
	18. TOTAL DRAINAGE AREA 0.847 SQ. MI.		22. MEAN ANNUAL PRECIPITATION 40 INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA 0.847 SQ. MI.		23. MEAN ANNUAL RUNOFF		INCHES			
	20. LENGTH 2.06 MILES		AV. WIDTH 0.41 MILES		24. MEAN ANNUAL RUNOFF			
	21. MAX. ELEV. 8100 ft.		MIN. ELEV. 6900 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	--	0.0585	0.134	0.160
	" , 1948	10.0	10.0	"	--	"	0.078	0.092
	" , 1951	3.0	13.0	"	--	"	0.021	0.025
	" , 1955	4.0	17.0	"	--	"	0.00223)	0.0026
	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	0.056	0.0056	0.0066	0.056	0.0056	0.0066
		" , 1951	0.063	0.021	0.025	0.119	0.0092	0.0109
	" , 1955	0.027	0.0068	0.0080	0.146	0.0086	0.0102	
	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

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION														
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION														
28. 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 10f: Water-yield research facility; inflow = outflow over weir. 2) Item 13f: 1938. 3) Item 32 : Sediment removed in 1956; no measurement of sediment made in 1956. Subsequent sedimentation data on 1956-60 sheet.															
48. AGENCY SUPPLYING DATA U. S. Forest Service											49. DATE March 26, 1962				

RESERVOIR SEDIMENT
DATA SUMMARY

Teakettle Reservoir No. 2
NAME OF RESERVOIR

(Sheet 2 of 3)

71-33a

Kings R. DATA SHEET NO.

DAM	1. OWNER <u>USDA, Forest Service</u>		2. STREAM <u>Teakettle Cr. Trib</u>		3. STATE <u>California</u>		
	4. SEC. <u>21</u> TWP. <u>11S</u> RANGE <u>27E</u>		5. NEAREST P.O. <u>Fresno</u>		6. COUNTY <u>Fresno</u>		
	7. LAT. <u>36° 57' 35"</u> LONG. <u>119° 02' 00"</u>		8. TOP OF DAM ELEVATION <u>6910 ft.</u>		9. SPILLWAY CREST ELEV. <u>6905.4 ft.</u>		
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					Fall, 1956	
	d. MULTIPLE USE						
	c. POWER						
	d. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN	
	e. IRRIGATION						
	f. CONSERVATION						
	g. INACTIVE 1/	<u>6905.4 ft.</u>	<u>0.0585</u>	<u>0.101</u>			Fall, 1956
17. LENGTH OF RESERVOIR			<u>0.0095</u> MILES	AV. WIDTH OF RESERVOIR		<u>0.0067</u> MILES	
WATERSHED	18. TOTAL DRAINAGE AREA		<u>0.847</u> SQ. MI.	22. MEAN ANNUAL PRECIPITATION		<u>40</u> INCHES	
	19. NET SEDIMENT CONTRIBUTING AREA		<u>0.847</u> SQ. MI.	23. MEAN ANNUAL RUNOFF		<u>12.51</u> INCHES	
	20. LENGTH	<u>2.06</u> MILES	AV. WIDTH	<u>0.41</u> MILES	24. MEAN ANNUAL RUNOFF		<u>565</u> AC.-FT.
	21. MAX. ELEV. <u>8100 ft.</u>		MIN. ELEV. <u>6900 ft.</u>		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
Fall, 1956	-		Detailed	-	<u>0.0585</u>	<u>0.101</u>	
" 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	<u>57.16</u>	<u>1411.33</u>			<u>1411.33</u>		
" 1959	<u>31.74</u>	<u>362.05</u>			<u>362.05</u>		
" 1960	<u>26.70</u>	<u>266.84</u>			<u>266.84</u>		
" 1961	<u>27.36</u>	<u>191.36</u>			<u>191.36</u>		
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						<u>0.0166</u>	
" 1959						<u>0.00</u>	
" 1960						<u>0.0032</u>	
" 1961						<u>0.0032</u>	
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	

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

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