

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

Teakettle #3 (1938-55)

SOIL CONSERVATION SERVICE
 71-34a

NAME OF RESERVOIR Kings R.

DATA SHEET NO.

DAM	1. OWNER <u>USDA, Forest Service</u>		2. RIVER <u>Teakettle Cr. trib.</u>		3. STATE			
	4. SEC. <u>21</u> TWP. <u>11S</u> RANGE <u>27E</u>		5. NEAREST TOWN <u>Fresno</u>		6. COUNTY <u>California</u>			
	7. STREAM BED ELEV. <u>6700 ft.</u>		8. TOP OF DAM ELEV. <u>6708.5 ft.</u>		9. SPILLWAY CREST ELEV. <u>6705.4</u> 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) <u>6705.4 ft.</u>	<u>0.046</u>	<u>0.131</u> ²⁾			Fall, 1938	
WATERSHED	17. LENGTH OF RESERVOIR <u>0.011</u> MILES		AV. WIDTH OF RESERVOIR <u>0.00496</u> MILES					
	18. TOTAL DRAINAGE AREA <u>0.856</u> SQ. MI.		22. MEAN ANNUAL PRECIPITATION <u>40</u> INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA <u>0.856</u> SQ. MI.		23. MEAN ANNUAL RUNOFF		INCHES			
	20. LENGTH <u>1.94</u> MILES		AV. WIDTH <u>0.44</u> MILES		24. MEAN ANNUAL RUNOFF			
					AC-FT.			
21. MAX. ELEV. <u>8100 ft.</u>		MIN. ELEV. <u>6700 ft.</u>		25. CLIMATIC CLASSIFICATION <u>Humid</u>				
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	--	0.046	0.131	0.153
	" , 1940	2	2	"	--	"	0.127	0.148
	" , 1941	1	3	"	--	"	0.109	0.127
	" , 1948	7	10	"	--	"	0.040	0.050
	" , 1951 ³⁾	3	13	"	--	"	0.007	0.008
	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, 1940	0.0043	0.0022	0.0026	0.0043	0.0022	0.0026	
	" , 1941	0.0175	0.0175	0.0204	0.0218	0.0073	0.0085	
	" , 1948	0.0672	0.0096	0.0112	0.0890	0.0089	0.0105	
	" , 1951	0.0390	0.0130	0.0160	0.1280	0.0098	0.0115	
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												

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 10f: Water yield research facility; inflow = outflow over weir.
- 2) Item 13f: 1938.
- 3) Item 26 (1951): Last date for which significant data is available; this reservoir was held inoperative until 1956 when its sediment load was removed. Subsequent sedimentation data on 1956-60 sheet.

RESERVOIR SEDIMENT
DATA SUMMARY

Teakettle Reservoir No. 3
NAME OF RESERVOIR

(Sheet 2 of 3)

71-34a

DATA SHEET NO.

Kings R.

DAM	1. OWNER <u>USDA, Forest Service</u>		2. STREAM <u>Teakettle Cr. Trib Kings R.</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' 40"</u> LONG. <u>119° 01' 35"</u>		8. TOP OF DAM ELEVATION <u>6708.5 ft</u>		9. SPILLWAY CREST ELEV. <u>6705.4 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		
	b. MULTIPLE USE							
	c. POWER							
	d. WATER SUPPLY							
	e. IRRIGATION					16. DATE NORMAL OPER. BEGAN		
	f. CONSERVATION					Fall, 1956		
g. INACTIVE	<u>1/</u>	<u>6705.4 ft.</u>	<u>0.046</u>	<u>0.117</u>				
WATERSHED	17. LENGTH OF RESERVOIR		<u>0.011</u> MILES	AV. WIDTH OF RESERVOIR		<u>0.00496</u> MILES		
	18. TOTAL DRAINAGE AREA		<u>0.856</u> SQ. MI.	22. MEAN ANNUAL PRECIPITATION		<u>40</u> INCHES		
	19. NET SEDIMENT CONTRIBUTING AREA		<u>0.856</u> SQ. MI.	23. MEAN ANNUAL RUNOFF		<u>14.45</u> INCHES		
	20. LENGTH	<u>1.94</u> MILES	AV. WIDTH	<u>0.44</u> MILES	24. MEAN ANNUAL RUNOFF		<u>660</u> AC.-F.T.	
	21. MAX. ELEV.	<u>8100 ft.</u>	MIN. ELEV.	<u>6700 ft.</u>	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	-	0.046	0.117	-
	" 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	1467.53			1467.53		
	" 1959	31.74	469.05			469.05		
	" 1960	26.70	349.30			349.30		
	" 1961	27.36	245.88			245.88		
	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						0.0073		
" 1959						0.0042		
" 1960						0.0003		
" 1961						0.00		
26. DATE OF SURVEY	39. AV. DRY WGT., LBS. PER CU. FT.	40. SED. DEP., TONS PER SQ. MI.-Y		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	-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