

RESERVOIR SEDIMENT
DATA SUMMARY

Thompson Creek Flood-Control Basin

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

NAME OF RESERVOIR

70-35b

DATA SHEET NO.

DAM	1. OWNER LACFCD			2. STREAM Thompson Creek			3. STATE California									
	4. SEC. 27 TWP. 1N RANGE 8W			5. NEAREST P.C. Claremont			6. COUNTY Los Angeles									
	7. LAT 34° 08' 22" LONG 117° 42' 45"			8. TOP OF DAM ELEVATION 1,648			9. SPILLWAY CREST ELEV. 1634.1									
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		1634.1		36.0		692		692		1927-28					
	b. MULTIPLE USE															
	c. POWER															
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN					
	e. IRRIGATION										Mar 1928					
	f. CONSERVATION															
g. INACTIVE																
17. LENGTH OF RESERVOIR 0.464			MILES			AV. WIDTH OF RESERVOIR 0.095			MILES							
18. TOTAL DRAINAGE AREA 3.5			SQ. MI.			22. MEAN ANNUAL PRECIPITATION 24.98			INCHES							
19. NET SEDIMENT CONTRIBUTING AREA 3.5			SQ. MI.			23. MEAN ANNUAL RUNOFF 1.06			INCHES							
20. LENGTH 2.2		MILES		AV. WIDTH 1.59		MILES		24. MEAN ANNUAL RUNOFF 197 (44) AC-F.T.								
21. MAX. ELEV. 4,615		MIN. ELEV. 1582		25. ANNUAL TEMP MEAN 62.2° RANGE 448.8°-75.6°												
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.	
	1916		-		-		-		-		36		692		3.51	
	Oct 1932		2/4.6		4.6		Contour		1-5		30		643		3.26	
	Jan 1943		10.3		14.9		"		1-5		29		612		3.11	
	Sep 1954		11.7		26.6		"		1-5		28		571		2.90	
	Jan 1957		3.3		29.9		"		1-5		28		566		2.87	
	Jun 1957		.4		30.3		"		1-5		28		570		2.89	
	Dec 1959		1.5		31.8		"		1-5		28		578		2.93	
	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			
1916		-		-		-		-		-		-				
Oct 1932		19.2		*ND		ND		ND		ND		ND				
Jan 1943		28.1		260		1,100		2,630		260		2,630				
Sep 1954		19.3		100		310		1,190		170		3,820				
Jan 1957		20.95		20		58.3		66		130		3,886				
Jun 1957		-		-		-		1		-		3,887				
Dec 1959		10.12		263		389		395		135		4,282				
26. DATE OF SURVEY		37. 3/ 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				
1916		-		-		-		-		-		-				
Oct 1932		49		10.6		3.04		49		10.65		3.04				
Jan 1943		31		3.0		.86		80		5.37		1.53				
Sep 1954		41		3.5		1.00		121		4.55		1.30				
Jan 1957		10		3.0		.86		131		4.38		1.25				
Jun 1957		0		-		-		131		4.32		1.23				
Dec 1959		0		-		-		131		4.12		1.18				
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		
1916																
Oct 1932								1.54		7.08						
Jan 1943								.78		11.56						
Sep 1954								.66		17.48						
Jan 1957								.61		18.21						
Jun 1957								.58		17.63						
Dec 1959								.52		16.47						

* ND - Not determined.

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION													
				64-60	60-50	50-40	40-30	30-20	20-10	10				
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION														
Original Oct 1932 Jan 1943 Sep 1943 Jan 1957 Jun 1957 Dec 1959	Complete storage table not available.													
				1	9	13	10	19	29	19				
						94	6		21	79				
	Storage increased by excavation.													
	Storage increased by excavation.													
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.							
1941-42	1,577.4	Dry	.3	1950-51	Dry	Dry	0							
1942-43	1,623.8	1,572.0	767	1951-52	1,605.8	Dry	314							
1943-44	1,609.6	1,573.0	284	1952-53	1,579.5	1,573.0	12							
1944-45	1,599.6	1,573.0	149	1953-54	1,603.8	1,573.0	191							
1945-46	1,600.6	1,573.0	148	1954-55	1,592.0	1,591.0	4.4							
1946-47	1,591.7	1,573.0	88	1955-56	1,602.7	Dry	58.3							
1947-48	Dry	Dry	0	1956-57	1,587.6	Dry	4.4							
1948-49	Dry	Dry	0	1957-58	1,619.4	Dry	389.4							
1949-50	1,580.3	Dry	6	1958-59	1,589.8	Dry	5.6							
46. ELEVATION-AREA-CAPACITY DATA														
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY						
1,579	0	0	1,615	13.3	200.1									
1,580	.2	.2	1,620	16.6	274.1									
1,585	1.5	5.0	1,625	19.7	365.6									
1,590	2.8	15.5	1,630	23.5	472.7									
1,595	4.4	32.9	1,635	29.2	603.7									
1,600	6.4	59.5	1,640	35.6	765.7									
1,605	7.8	95.2	1,645	41.6	959.3									
1,610	10.6	140.1												
47. REMARKS AND REFERENCES														
1/ New datum used since 1942. Spillway crest elevation changed from 1,634.85 to 1,684.1.														
2/ Storage and surface area assumed same at time of initial normal operation, March 1928, as 1916 survey.														
3/ Item 37 - Sediment removed at various times.														
48. AGENCY MAKING SURVEY														
49. AGENCY SUPPLYING DATA														
LACFCD and C of E										50. DATE 18 February 1963				

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DATA SUMMARY

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

Thompson Creek Flood-Control Basin

NAME OF RESERVOIR

70-35c

DATA SHEET NO.

DAM	1. OWNER LACFGD			2. STREAM Thompson Creek			3. STATE California									
	4. SEC. 27 TWP. IN RANGE 8W			5. NEAREST P.O. Claremont			6. COUNTY Los Angeles									
	7. LAT 34° 08' 22" LONG 117° 42' 45"			8. TOP OF DAM ELEVATION 1,648			9. SPILLWAY CREST ELEV. 1634.1									
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		1634.1		36.0		692		692		1927-28					
	b. MULTIPLE USE															
	c. POWER															
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN					
	e. IRRIGATION										Mar 1928					
	f. CONSERVATION															
g. INACTIVE																
17. LENGTH OF RESERVOIR 0.464			MILES			AV. WIDTH OF RESERVOIR 0.095			MILES							
WATERSHED	18. TOTAL DRAINAGE AREA 3.5				SQ. MI.				22. MEAN ANNUAL PRECIPITATION 24.98				INCHES			
	19. NET SEDIMENT CONTRIBUTING AREA 3.5				SQ. MI.				23. MEAN ANNUAL RUNOFF 1.06				INCHES			
	20. LENGTH 2.2				MILES				AV. WIDTH 1.59				MILES			
	21. MAX. ELEV. 4,615				MIN. ELEV. 1582				25. ANNUAL TEMP. MEAN 62.2°				RANGE 48.8°-75.6°			
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.	
	Jul 62		2.6		34.4		Contour		1-5		27		554		2.81	
	Feb 67		4.6		39.0		"		"		27		510		2.59	
	Feb 69		2.0		41.0		"		"		25.8		448		2.27	
	Nov 72		3.75		44.75		"		5'		27		503		2.55	
	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			
	Jul 62		17.91		41		100		108		128		4,390			
	Feb 67		23.09		249		496		1146		142		5,536			
	Feb 69		33.56		1180		842		2360		193		7,896			
Nov 72		13.29		151		2556		567		189		8,463				
26. DATE OF SURVEY		37. 2 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				
Jul 62		24		9.23		2.64		155		4.51		1.29				
Feb 67		44		9.57		2.73		199		5.10		1.46				
Feb 69		62.5		31.25		8.93		262		6.38		1.82				
Nov 72		Excavation increased capacity.														
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		
Jul 62								.58		20.0						
Feb 67								.67		26.3						
Feb 69								.86		35.3						
Nov 72								.61		27.3						

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION													
	50-60	40-50	30-40	20-30	10-20	Crest	10							
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION														
Jul 62	2	11	18	21	22	26								
Feb 67		27	30	18	9	16								
Feb 69		6	27	37	26	4								
Nov 72	55 Acre-feet removed by excavation.													
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.							
1957-58	1619.4	Dry	389.4	1969-70	1603.8	Dry	54.0							
1958-59	1589.8	Dry	5.6	1970-71	1601.5	Dry	32.0							
1959-60	1581.4	1578	2.0	1971-72	1598.7	Dry	6.0							
1960-61	1583.1	1578	5.2											
1961-62	1602.1	1578.5	100.7											
1962-63	1602.5	1587.0	88.5											
1963-64	1592.0	Dry	23.4											
1964-65	1596.5	1587	25.6											
1965-66	1609.0	1587	495.8											
1966-67	1630.1	1591	842											
1967-68	1597.9	1591	166.6											
1968-69	1630.8	1591	2556											
46. ELEVATION-AREA-CAPACITY DATA														
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY						
1595	0	0	1640	34.8	688.4									
1600	4.1	10.5	1645	40.9	875.7									
1605	6.8	37.7												
1610	9.4	77.6												
1615	13.5	134.2												
1620	16.7	210.5												
1625	19.1	299.9												
1630	22.3	402.7												
1635	28.7	527.5												
47. REMARKS AND REFERENCES														
1/ Item 25 - Temperature taken at Pasadena, California.														
2/ Item 37 & 41 - Sediment removed at various times. Percent of increase above original capacity due to excavation.														
48. AGENCY MAKING SURVEY			LACFCD			50. DATE								
49. AGENCY SUPPLYING DATA			C of E			12 Feb 73								