

RESERVOIR SEDIMENTATION
DATA SUMMARY

Fair Oaks Debris Basin

70-42b

NAME OF RESERVOIR (Sheet 1 of 2)

DATA SHEET NO.

DAM	1. OWNER LACFD			2. RIVER Fairoaks Canyon			3. STATE California			
	4. SEC. TWP. 2 N RANGE 12 W			5. NEAREST TOWN Altadena			6. COUNTY Los Angeles			
	7. STREAM BED ELEV. 1557.6			8. TOP OF DAM ELEV. 1566.5			9. SPILLWAY CREST ELEV. 1561.9			
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									
	c. WATER SUPPLY									
	d. IRRIGATION					16. DATE NORMAL OPER. BEGAN				
	e. CONSERVATION									
	f. INACTIVE					Dec. 1935				
WATERSHED	17. LENGTH OF RESERVOIR .07 MILES			AV. WIDTH OF RESERVOIR .02 MILES						
	18. TOTAL DRAINAGE AREA .21 SQ. MI.			22. MEAN ANNUAL PRECIPITATION 23.9 INCHES						
	19. NET SEDIMENT CONTRIBUTING AREA .21 SQ. MI.			23. MEAN ANNUAL RUNOFF			INCHES			
	20. LENGTH .88 MILES		AV. WIDTH .24 MILES		24. MEAN ANNUAL RUNOFF		AC.-FT.			
	21. MAX. ELEV. 2625		MIN. ELEV. 1557.6		25. CLIMATIC CLASSIFICATION Subhumid					
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.		
	Sept. 1936	1	1							
	" 1938	2	3	26. DATE OF SURVEY	27. PERIOD YEARS	28. ACCL. YEARS				
	" 1941	3	6							
	" 1943	2	8	1947	1	12				
	" 1944	1	9	1948	1	13				
	" 1945	1	10	1949	1	14				
	" 1946	1	11	1950	1	15				
	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	d. MEAN ANNUAL	e. TOTAL TO DATE			
	Sept. 1936	19.9								
	" 1938	34.9	26. DATE OF SURVEY	34. PERIOD ANNUAL PRECIPITATION	No record of inflow.					
	" 1941	31.7								
	" 1943	27.9	1946-47	23.9						
	" 1944	27.9	1947-48	11.0						
" 1945	21.5	1948-49	13.0							
" 1946	20.1	1949-50	15.9							
26. DATE OF SURVEY	37. PERIOD SEDIMENT DEPOSITS ACRE-FEET 2/			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.				
Sept. 1936	9.74	9.74	46.4	9.74	9.74	46.4				
" 1938	20.0	10.0	47.6	29.7	9.90	47.1				
" 1941	2.47	.82	3.9	32.2	5.37	25.6				
" 1943	2.01	1.00	4.8	34.2	4.28	20.4				
" 1944	.05	.05	.24	34.2	3.80	18.1				
" 1945	.36	.36	1.71	34.8	3.46	16.5				
" 1946	.60	.60	2.86	35.2	3.20	15.2				
1947	.41	.41	1.95	35.6	2.97	14.1				
1948	.004	.004	.019	35.6	2.74	13.0				
1949	0	0	0	35.6	2.54	12.1				
1950	0	0	0	35.6	2.37	11.3				
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			

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
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														
<p><u>1/</u> Item 32. Capacity of debris basin varies. Debris excavated at various times.</p> <p><u>2/</u> Item 37. Sedimentation values computed by LACFCD are based on complete water year.</p>														
48. AGENCY SUPPLYING DATA LACFCD & C. of E.										49. DATE <u>12 March 1951</u>				

RESERVOIR SEDIMENT
DATA SUMMARY

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

FAIR OAKS DEBRIS BASIN

NAME OF RESERVOIR

70-42d

DATA SHEET NO.

DAM	1. OWNER LACFGD		2. STREAM Fair Oaks Canyon		3. STATE Calif			
	4. SEC. 33 TWP. 2N RANGE 12W		5. NEAREST P.O. Altadena		6. COUNTY Los Angeles			
	7. LAT 34° 12' 40" LONG 118° 08' 10"		8. TOP OF DAM ELEVATION 1566.5		9. SPILLWAY CREST ELEV. 1561.9			
RESERVOIR	10. STORAGE ALLOCATION		11. ELEVATION TOP OF POOL		12. ORIGINAL SURFACE AREA, ACRES			
	a. FLOOD CONTROL							
	b. MULTIPLE USE							
	c. POWER							
	d. WATER SUPPLY							
	e. IRRIGATION							
	f. CONSERVATION							
	g. INACTIVE							
				14. GROSS STORAGE, ACRE-FEET				
				15. DATE STORAGE BEGAN				
				16. DATE NORMAL OPER. BEGAN				
				Dec 35				
17. LENGTH OF RESERVOIR		0.07 MILES		AV. WIDTH OF RESERVOIR		0.02 MILES		
18. TOTAL DRAINAGE AREA		.21 SQ. MI.		22. MEAN ANNUAL PRECIPITATION		25.9 INCHES		
19. NET SEDIMENT CONTRIBUTING AREA		.21 SQ. MI.		23. MEAN ANNUAL RUNOFF		INCHES		
20. LENGTH		.88 MILES	AV. WIDTH	.24 MILES	24. MEAN ANNUAL RUNOFF		AC-F.T.	
21. MAX. ELEV.		2625	MIN. ELEV.	1554	25. ANNUAL TEMP. MEAN		62.2° RANGE 48.8°-75.6°	
WATERSHED	26. DATE OF SURVEY		27. PERIOD YEARS	28. ACCL. YEARS	29. TYPE OF SURVEY		30. NO. OF RANGES OR CONTOUR INT.	
	Sep 69		1	33.75				
	26. DATE OF SURVEY		34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW, ACRE-FEET			36. WATER INFL. TO DATE, AC.-FT.
	Sep 69		45.91		No record of inflow			
	26. DATE OF SURVEY		37. PERIOD CAPACITY LOSS, ACRE-FEET		38. TOTAL SED. DEPOSITS TO DATE, ACRE-FEET			
	Sep 69		9.86		67.2			
	26. DATE OF SURVEY		39. AV. DRY WGT., LBS. PER CU. FT.		40. SED. DEP., TONS PER SQ. MI.-YR.		42. SED. INFLOW, PPM	
	Sep 69		9.86		46.9		1.99	
	26. DATE OF SURVEY		40. SED. DEP., TONS PER SQ. MI.-YR.		41. STORAGE LOSS, PCT.		42. SED. INFLOW, PPM	
	Sep 69		9.86		46.9		1.99	

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 25 - Temperature taken at Pasadena, Calif.
 2/ Item 32 - Capacity of debris varies. Debris excavated at various times.
 3/ Item 37 - Sedimentation values computed by LACFCD are based on complete water year.

RESERVOIR SEDIMENT
DATA SUMMARY

Fair Oaks Debris Basin

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

NAME OF RESERVOIR

70-42d

DATA SHEET NO.

DAM	1. OWNER LACFCD			2. STREAM Fair Oaks Canyon			3. STATE California					
	4. SEC. 33 TWP. 2N RANGE 12W			5. NEAREST P. O. Altadena			6. COUNTY Los Angeles					
	7. LAT 34° 12' 40" LONG 118° 08' 10"			8. TOP OF DAM ELEVATION 1566.5			9. SPILLWAY CREST ELEV. 1561.9					
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										Dec 35	
	f. CONSERVATION											
	g. INACTIVE											
WATERSHED	17. LENGTH OF RESERVOIR 0.07 MILES				AV. WIDTH OF RESERVOIR 0.02 MILES							
	18. TOTAL DRAINAGE AREA 0.21 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 23.09 INCHES							
	19. NET SEDIMENT CONTRIBUTING AREA 0.21 SQ. MI.				23. MEAN ANNUAL RUNOFF INCHES							
	20. LENGTH 0.88 MILES		AV. WIDTH 0.24 MILES		24. MEAN ANNUAL RUNOFF AC.-FT.							
	21. MAX. ELEV. 2625		MIN. ELEV. 1554		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, 2/ACRE-FEET	33. C/I. RATIO, AC.-FT. PER AC.-FT.			
	Sep 52		2.0	17.0								
	Oct 56		4.1	21.1								
	Jun 58		1.7	22.8								
	Sep 63		5.2	28.0								
	Sep 66		3.0	31.0								
	Sep 68		2.0	33.0								
	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			
	Sep 52		24.8			No record	of inflow.					
	Oct 56		16.5									
	Jun 58		29.0									
	Sep 63		13.6									
	Sep 66		21.07									
	Sep 68		25.56									
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					
Sep 52		1.92	0.96	4.57	37.52	2.21	10.52					
Oct 56		0.12	.03	.14	37.64	1.78	8.48					
Jun 58		6.80	4.00	19.05	44.44	1.95	9.28					
Sep 63		5.20	1.00	4.76	49.64	1.77	8.43					
Sep 66		6.40	2.13	10.14	56.04	1.81	8.62					
Sep 68		1.30	0.65	3.10	57.3	1.74	8.28					
26. DATE OF SURVEY		39. AV. DRY WGT., LBS. PER CU. FT.	40. SED. DEP., TONS PERSQ. 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

- 1/ Item 25 - Temperature taken at Pasadena, Calif.
- 2/ Item 32 - Capacity of debris basin varies. Debris excavated at various times.
- 3/ Item 37 - Sedimentation values computed by LACFCD are based on complete water year.

48. AGENCY MAKING SURVEY LACFCD
 49. AGENCY SUPPLYING DATA C of E

50. DATE 21 May 1969