

RESERVOIR SEDIMENTATION
DATA SUMMARY

Little Rock Reservoir

70-13

Irrigation District

NAME OF RESERVOIR

DATA SHEET NO.

DAM	1. OWNER Little Rock and Palmdale		2. RIVER Little Rock Creek		3. STATE California			
	4. SEC. 27 TWP. 5 N RANGE 11 W		5. NEAREST TOWN Palmdale		6. COUNTY Los Angeles			
	7. STREAM BED ELEV. 3149		8. TOP OF DAM ELEV. 3264		9. SPILLWAY CREST ELEV. 3250			
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					April 1924		
	b. POWER							
	c. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN		
	d. IRRIGATION	3250	102	4217	4217			
	e. CONSERVATION							
	f. INACTIVE							
17. LENGTH OF RESERVOIR 1.3 MILES	AV. WIDTH OF RESERVOIR 0.13 MILES							
WATERSHED	18. TOTAL DRAINAGE AREA 68.0 SQ. MI.		22. MEAN ANNUAL PRECIPITATION 20 INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA 68.0 SQ. MI.		23. MEAN ANNUAL RUNOFF INCHES					
	20. LENGTH 15 MILES	AV. WIDTH 4.2 MILES		24. MEAN ANNUAL RUNOFF AC.-FT.				
	21. MAX. ELEV. 8214	MIN. ELEV. 3149		25. CLIMATIC CLASSIFICATION Semi-arid				
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.
	April 1924	- 1/	- 1/	-	-	102	4217	62.0
	Jan. 1936	11	11	Contour Detailed	10 ft.	101	4139	60.9
	June 1938	3	14	"	"	88	3648	53.6
	Oct. 1943	5	19	"	"	88	3404	50.1
	Dec. 1946	3	22	"	"	94	3352	49.3
	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	
	June 1938			51,620				
	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	
	Jan. 1936	78	7.10	0.10	78	7.10	0.10	
	June 1938	491	164.0	2.41	569	40.6	0.60	
	Oct. 1943	244	48.8	0.72	813	42.8	0.63	
	Dec. 1946	52	17.3	0.25	865	39.3	0.58	
				(1036) 2/	(47.1)	(0.69)		
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	
Jan. 1936	85 *	185	185	0.17	1.85			
June 1938		4460	1110	0.96	13.49			
Oct. 1943		1330	1170	1.01	19.28			
Dec. 1946		460	1070	0.93	20.51			
			(1280)					

* Assumed
 1/ Age based on runoff seasons.
 2/ Includes above-crest deposits upstream attributable to the reservoir.

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION												
	110-90	90-70	70-50	50-30	30-10	10-Crest	Crest-20						
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION												
	5	15	18	18	20	7	17						

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
3,260	112	-	3,210	39	812			
3,250	94	3,352	3,200	29	473			
3,240	78	2,492	3,190	20	230			
3,230	61	1,798	3,180	9	87			
3,220	49	1,251	3,170	5	17			
			3,160	0	0			

47. REMARKS AND REFERENCES

Brown, C. B., Report on the sedimentation surveys of Little Rock Reservoir, Los Angeles County, California. U. S. Soil Conserv. Serv., Spec. Rpt. 6, 11 pp., illus., processed. Washington, D. C., Dec. 1943

Region 7, Soil Conservation Service
U. S. Department of Agriculture
Portland, Oregon

48. AGENCY SUPPLYING DATA

49. DATE August 30, 1950

RESERVOIR SEDIMENTATION
DATA SUMMARY

Little Rock

70-13b

NAME OF RESERVOIR

DATA SHEET NO.

Irrigation District

DAM	1. OWNER Little Rock & Palmdale/		2. RIVER Little Rock Creek		3. STATE California			
	4. SEC. 27 TWP. 5N RANGELLW		5. NEAREST TOWN Palmdale		6. COUNTY Los Angeles			
	7. STREAM BED ELEV. 3149		8. TOP OF DAM ELEV. 326 Ft.		9. SPILLWAY CREST ELEV. 3250			
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					April 1924		
	b. POWER							
	c. WATER SUPPLY	3250	102	4217	4217	16. DATE NORMAL OPER. BEGAN		
	d. IRRIGATION							
	e. CONSERVATION					April 1924		
f. INACTIVE								
WATERSHED	17. LENGTH OF RESERVOIR 1.3 MILES		AV. WIDTH OF RESERVOIR 0.13 MILES					
	18. TOTAL DRAINAGE AREA 68.0 SQ. MI.		22. MEAN ANNUAL PRECIPITATION 20 INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA 67.84 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. CLIMATIC CLASSIFICATION Semi-arid					
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.
	April, 1924	-	-	-	-	102	4217	62.0
	Oct. 1951	5	27	Contour	10 ft.	88	3297	48.4
	Aug. 1953	2	29	Detail	10 ft.	89	3313	48.7
	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	
	Oct. 1951	55	10.0	0.15	920	31.7	0.47	
Aug. 1953	16 ^{8/}	--	--	--	--	--		
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	
Oct. 1951	85*	278	870	0.79	21.82	-	-	
Aug. 1953	85*	--	--	-	-	-	-	

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION														
	100-90	90-80	80-70	70-60	60-50	50-40	40-30	30-20	20-10	10-0					
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION														
Aug. 1953	10 5	10 6	13 9	12 10	10 11	11 10	21 12	-2 13	7 10	5 10					
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 / 1953 survey															
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY							
3150	.00	0	3230	61.62	1,781										
3160	.00	0	3240	78.28	2,478										
3170	5.05	18	3250	88.73	3,313										
3180	10.38	93	3260	110.04	4,304										
3190	18.40	234													
3200	27.88	464													
3210	37.91	795													
3220	49.21	1,229													
47. REMARKS AND REFERENCES															
<u>1/</u> 1953 Survey <u>8/</u> Not computed because of scour during period. *Assumed Ref: Sedimentation Surveys of Little Rock Reservoir, Los Angeles County, Calif. December 1953., 8 pp., typed, illus. Unpublished.															
48. AGENCY SUPPLYING DATA					SCS, Portland, Oregon					49. DATE <u>Nov. 15, 1954</u>					

RESERVOIR SEDIMENTATION
DATA SUMMARY

Little Rock Reservoir

70-13 b

Irrigation District

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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		
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* Assumed

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2/ Includes above-crest deposits upstream attributable to the reservoir.

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	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION											
	5	15	18	18	20	7	17					

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49. DATE August 30, 1950