

RESERVOIR SEDIMENT  
DATA SUMMARY

DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS

SANTA FE FLOOD CONTROL BASIN (Revised)

NAME OF RESERVOIR

70-87a

DATA SHEET NO.

DAM	1. OWNER Corps of Engineers			2. STREAM San Gabriel River			3. STATE California									
	4. SEC. 6 TWP. 1S RANGE 10W			5. NEAREST P.O. Baldwin Park			6. COUNTY Los Angeles									
	7. LAT. 34° 06' 47" LONG. 117° 58' 03"			8. TOP OF DAM ELEVATION 513.0			9. SPILLWAY CREST ELEV. 496.0									
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		496.0		1,073		34,670		34,670		1943					
	b. MULTIPLE USE															
	c. POWER															
	d. WATER SUPPLY															
	e. IRRIGATION															
	f. CONSERVATION															
	g. INACTIVE										16. DATE NORMAL OPER. BEGAN					
										29 Jan 49						
17. LENGTH OF RESERVOIR 1.38				MILES				AV. WIDTH OF RESERVOIR 1.22				MILES				
18. TOTAL DRAINAGE AREA 236.0				SQ. MI.				22. MEAN ANNUAL PRECIPITATION 30.00				INCHES				
19. NET SEDIMENT CONTRIBUTING AREA 20.54 1/				SQ. MI.				23. MEAN ANNUAL RUNOFF 3.06				INCHES				
20. LENGTH 28.36				MILES				AV. WIDTH 8.32				MILES				
24. MEAN ANNUAL RUNOFF 38,584 (26)												AC.-FT.				
21. MAX. ELEV. 10,080				MIN. ELEV. 421.0				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.		31. SURFACE AREA, ACRES		32. CAPACITY, ACRE-FEET		33. C/I. RATIO, AC.-FT. PER AC.-FT.	
	Apr 43		Orig survey				Contour		2'		1,073		34,670			
	Nov 49		6.6		6.6		"		2'		1,090		34,276			
	Mar 59		9.3		15.9		"		2'		1,090		33,987			
	Jun 61		2.2		18.1		"		2'		1,070		33,385			
	Feb 67		5.7		23.8		"		2'		1,070		32,716			
	Sep 68		1.6		25.4		"		2'		1,070		34,916			
	Aug 69		.9		26.3		"		2'		1,080		32,642			
	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			
Nov 49		27.24		30,038		97,750		198,250		30,038		198,250				
Mar 59		29.50		14,878		53,037		138,366		21,171		336,616				
Jun 61		13.39		143		295		314		18,615		336,930				
Feb 67		32.66		34,186		114,796		194,863		22,344		531,793				
Sep 68		27.06		27,873		15,166		44,597		22,693		576,390				
Aug 69		82.21		484,981		436,483		436,483		38,512		1,012,873				
SURVEY DATA	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			
	Nov 49		394		59.7		2.91		394		59.7		2.91			
	Mar 59		289		31.1		1.51		683		43.0		2.09			
	Jun 61		602		274.		13.32		1,285		71.0		3.46			
	Feb 67		669		117.		5.72		1,954		82.1		4.00			
	Sep 68		Excavation increased capacity.													
	Aug 69		2,274		2,527.		123.00		4,228		161.		7.84			
	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	
Nov 49								0.17		1.14						
Mar 59								0.12		1.97						
Jun 61								0.20		3.71						
Feb 67								0.24		5.64						
Sep 68								---		3/0.71						
Aug 69								0.22		5.85						

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION										
	81-80	80-70	70-60	60-50	50-40	40-30	30-20	20-10	10-Crest		
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION										
Nov 49	3	13	33	-5	-21	-17	16	21	57		
Mar 59	2	86	12								
Jan 61		-7	10	10	12	10	19	22	24		
Feb 67		16	34	29	16	7			-2		
Sep 68	2,200 Acre-feet removed by excavation.										
Aug 69	3	26	30	20	16	6	2		-3		

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.
1945-46	424.27	Dry	33,250	1957-58	427.95	Dry	53,037
1946-47	425.71	"	38,800	1958-59	437.35	"	9,953
1947-48	423.22	"	8,280	1959-60	422.85	"	295
1948-49	Dry	"	0	1960-61	421.93	"	10
1949-50	"	"	0	1961-62	447.83	"	45,782
1950-51	"	"	0	1962-63	426.26	"	146
1951-52	461.73	"	37,358	1963-64	422.35	"	25
1952-53	438.75	"	25,670	1964-65	426.44	"	341
1953-54	433.63	"	8,360	1965-66	458.25	"	114,796
1954-55	Dry	"	0	1966-67	473.97	"	77,488
1955-56	427.75	"	447	1967-68	427.82	"	882
1956-57	424.60	"	3,550	1968-69	473.52	"	436,483

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
421	0	0	465	494	8,274	510	1,290	49,225
425	2	2.7	470	580	10,963			
430	12	30.1	475	680	14,110			
435	55	188	480	790	17,771			
440	130	634	485	870	21,893			
445	204	1,474	490	970	26,498			
450	274	2,668	495	1,060	31,571			
455	332	4,165	500	1,150	37,101			
460	408	6,017	505	1,210	43,001			

47. REMARKS AND REFERENCES  
 1/ Item 19 - Excludes drainage area above Morris Dam (215.46 sq. mi.).  
 2/ Item 25 - Temperatures taken at Pasadena, California.  
 3/ Item 41 - Percent of increase above original capacity due to excavation.