

RESERVOIR SEDIMENT
DATA SUMMARY

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

SHIELDS DEBRIS BASIN

NAME OF RESERVOIR

70-55b

DATA SHEET NO.

DAM	1. OWNER LACFCD		2. STREAM Shields		3. STATE California			
	4. SEC. Land TWP. Grant RANGE		5. NEAREST P O La Crescenta		6. COUNTY Los Angeles			
	7. LAT. 34° 15' 10" LONG. 118° 14' 20"		8. TOP OF DAM ELEVATION 2070.2		9. SPILLWAY CREST ELEV. 2058.3			
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					16. DATE NORMAL OPER. BEGAN Jan 1937		
	b. MULTIPLE USE							
	c. POWER							
	d. WATER SUPPLY							
	e. IRRIGATION							
	f. CONSERVATION							
	g. INACTIVE							
17. LENGTH OF RESERVOIR .06 MILES		AV. WIDTH OF RESERVOIR .02 MILES						
WATERSHED	18. TOTAL DRAINAGE AREA .27 SQ. MI.		22. MEAN ANNUAL PRECIPITATION 27.5 INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA .27 SQ. MI.		23. MEAN ANNUAL RUNOFF INCHES					
	20. LENGTH 1.38 MILES	AV. WIDTH .20 MILES	24. MEAN ANNUAL RUNOFF AC. FT.					
	21. MAX. ELEV. 4480		MIN. ELEV. 2050.3		25. ANNUAL TEMP. MEAN 62.2° RANGE 48.8°-75.6°			
	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.
Sept 1938	1	1						
Sep 1939	1	2						
Sep 1941	2	4						
Sep 1943	2	6						
Sep 1944	1	7						
Sep 1945	1	8						
Sep 1946	1	9						
SURVEY DATA	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 1938	46.2	No record of inflow.					
	Sep 1939	29.7						
	Sep 1941	38.7						
	Sep 1943	33.5						
	Sep 1944	33.1						
	Sep 1945	27.1						
	Sep 1946	22.2						
	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		
Sep 1938	20.8	20.8	77.0	20.8	20.8	77.0		
Sep 1939	2.72	2.72	10.1	23.5	11.8	43.7		
Sep 1941	5.85	2.93	10.9	29.3	7.33	27.1		
Sep 1943	3.15	1.58	5.85	32.5	5.42	20.1		
Sep 1944	.63	.63	2.33	33.1	4.73	17.5		
Sep 1945	.14	.14	.52	33.3	4.16	15.4		
Sep 1946	.28	.28	1.04	33.5	3.72	13.8		
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. 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 25 - Temperature taken at Pasadena, California.

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.

RESERVOIR SEDIMENTATION
DATA SUMMARY

Shields Debris Basin

70-55 b

NAME OF RESERVOIR

DATA SHEET NO.

DAM	1. OWNER LACPCD			2. RIVER Shields Channel			3. STATE California			
	4. SEC. TWP. RANGE			5. NEAREST TOWN La Crescenta			6. COUNTY Los Angeles			
	7. STREAM BED ELEV. 2,050.3			8. TOP OF DAM ELEV. 2070.2			9. SPILLWAY CREST ELEV. 2058.3			
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					Jan. 1937					
WATERSHED	17. LENGTH OF RESERVOIR .06 MILES			AV. WIDTH OF RESERVOIR .02 MILES						
	18. TOTAL DRAINAGE AREA .27 SQ.MI.			22. MEAN ANNUAL PRECIPITATION 27.5 INCHES						
	19. NET SEDIMENT CONTRIBUTING AREA .27 SQ.MI.			23. MEAN ANNUAL RUNOFF INCHES						
	20. LENGTH 1.38 MILES			AV. WIDTH .20 MILES			24. MEAN ANNUAL RUNOFF AC.-FT.			
	21. MAX. ELEV. 4,480			MIN. ELEV. 2050.3			25. CLIMATIC CLASSIFICATION Sub-Humid			
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. 1947	1	10					1/		
	Sept. 1948	1	11							
	Sept. 1949	1	12							
	Sept. 1950	1	13							
	Mar. 1952	1.5	14.5							
	Sept. 1961	9.5	24.0							
	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			
	Sept. 1947	24.2	No record of inflow							
	Sept. 1948	11.9								
	Sept. 1949	16.2								
	Sept. 1950	20.4								
	Mar. 1952	30.9								
	Sept. 1961	19.42								
26. DATE OF SURVEY	37. PERIOD SEDIMENT DEPOSITS ACRE-FEET 1/2			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. 1947	.01	.01	0.04	33.6	3.36	12.4				
Sept. 1948	0	0		33.6	3.05	11.3				
Sept. 1949	0			33.6	2.80	10.4				
Sept. 1950	0			33.6	2.58	9.56				
Mar. 1952	4.42	2.94	10.9	37.9	2.62	9.68				
Sept. 1961	5.33	.56	2.07	43.2	1.80	6.67				
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	-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/ Capacity of debris basin varies. Debris excavated at various times.

2/ Sedimentation values computed by LACFCD are based on complete water year.

48. AGENCY SUPPLYING DATA
LACFCD & C of E

49. DATE 1-16-62

RESERVOIR SEDIMENT
DATA SUMMARY

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

Shielda Debris Basin

NAME OF RESERVOIR

70-55c

DATA SHEET NO.

DAM	1. OWNER LACFCD			2. STREAM Shielda Canyon			3. STATE Calif			
	4. SEC. TWP. RANGE			5. NEAREST P.O. La Crescenta			6. COUNTY Los Angeles			
	7. LAT " LONG "			8. TOP OF DAM ELEVATION 2070.2			9. SPILLWAY CREST ELEV. 2058.1			
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									
	b. MULTIPLE USE									
	c. POWER									
	d. WATER SUPPLY									16. DATE NORMAL OPER. BEGAN
	e. IRRIGATION									Jan. 37
	f. CONSERVATION									
	g. INACTIVE									
WATERSHED	17. LENGTH OF RESERVOIR 0.06 MILES				AV. WIDTH OF RESERVOIR 0.02 MILES					
	18. TOTAL DRAINAGE AREA 0.27 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 27.5 INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA 0.27 SQ. MI.				23. MEAN ANNUAL RUNOFF INCHES					
	20. LENGTH 1.38 MILES		AV. WIDTH 0.20 MILES		24. MEAN ANNUAL RUNOFF AC.-FT.					
	21. MAX. ELEV. 4480		MIN. ELEV. 2058.3		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.		
	Sep 66	5	29.0				1/			
	26. DATE OF SURVEY	34. PERIOD ANNUAL PRECIPITATION	35. PERIOD WATER INFLOW, ACRE-FEET		36. WATER INFL. TO DATE, AC.-FT.					
	Sep 66	26.18	No record of inflow							
	26. DATE OF SURVEY	37. 2/ PERIOD CAPACITY LOSS, ACRE-FEET			38. TOTAL SED. DEPOSITS TO DATE, ACRE-FEET					
	Sep 66	9.2	1.84	6.81	52.4	1.81	6.70			
	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		

25. DATE OF SURVEY	43. REACH DESIGNATION IN FEET 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 32 - Capacity of debris basin varies. Debris excavated at various times.
 2/ Item 37 - Sedimentation values computed by IACFCD are based on complete water year.
 3/ Item 25 - Temperature taken at Pasadena, Calif.

RESERVOIR SEDIMENT
DATA SUMMARY

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

Shields Debris Basin

NAME OF RESERVOIR

70-55c

DATA SHEET NO.

DAM	1. OWNER LACFCD			2. STREAM Shields Canyon			3. STATE Calif.						
	4. SEC. Land TWP Grant RANGE			5. NEAREST P.O. La Crescenta			6. COUNTY Los Angeles						
	7. LAT 34° 15' 10" LONG. 118° 14' 20"			8. TOP OF DAM ELEVATION 2070.2			9. SPILLWAY CREST ELEV. 2058.1						
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												
	b. MULTIPLE USE												
	c. POWER												
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN		
	e. IRRIGATION												
	f. CONSERVATION												
	g. INACTIVE										Jan 37		
WATERSHED	17. LENGTH OF RESERVOIR 0.06 MILES				AV. WIDTH OF RESERVOIR 0.02 MILES								
	18. TOTAL DRAINAGE AREA 0.27 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 27.5 INCHES								
	19. NET SEDIMENT CONTRIBUTING AREA 0.27 SQ. MI.				23. MEAN ANNUAL RUNOFF INCHES								
	20. LENGTH 1.38 MILES		AV. WIDTH 0.20 MILES		24. MEAN ANNUAL RUNOFF AC.-FT.								
	21. MAX. ELEV. 4480		MIN. ELEV. 2058.3		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.				
	Sep 66		5	29.0				1					
	Sep 76		10	39.0									
	Sep 78		2	41.0									
	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 66		26.18		No record of inflow.								
	Sep 76		27.55										
	Sep 78		27.28										
	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			
Sep 66		9.2		1.84	6.87	52.4		1.81		6.70			
Sep 76		3.29		.33	1.22	55.69		1.43		5.29			
Sep 78		3.97		1.99	7.37	59.66		1.46		5.41			
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	

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 32 - Capacity of debris basin varies. Debris excavated at various times.

2/ Item 37 - Sedimentation values computed by LACFCD are based on complete water year.

3/ Item 25 - Temperature taken at Pasadena, Calif.