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a. Orange County Flood Control District, "The Control of Floods and Conservation of Water in Orange County California," dated April 1929.

b. Orange County Flood Control District, "Engineering and Geological Reports for Flood Control and Conservation Project of Orange County Flood Control District," dated April 1931.

c. U.S. Engineer Office, Los Angeles, California, "Basis for Design, Santa Ana River Improvement," dated April 1938.

d. U.S. Engineer Office, Los Angeles, California, "Hydrology in the East Fullerton Creek Drainage Area", dated October 1939.

e. U.S. Engineer Office, Los Angeles, California, "Fullerton Dam, Analysis of Design", Revised, dated July, 1940.

f. U.S. Army Engineer District, Los Angeles Corps of Engineers, "Operation and Maintenance Manual for Fullerton Dam", dated July, 1963.

g. U.S. Army Engineer District, Los Angeles Corps of Engineers, Preliminary Report, "Review of Safety and Functional Adequacy of Fullerton Dam", dated October 1968.

h. U.S. Army Engineer District, Los Angeles Corps of Engineer, "Fullerton Dam and Reservoir, Periodic Inspection and Continuing Evaluation Report No. l", dated May 1969.

i. U.S. Army Engineer District, Los Angeles Corps of Engineers, "Interim Report, Review of Design Features of Existing Dams, Hydrology and Hydraulic Review of Prado, Brea, Fullerton, and Salinas Dams", dated November 1969.

j. U.S. Army Engineer District, Los Angeles Corps of Engineers, "Reservoir Regulation Manual for Fullerton Flood-Control Reservoir", dated May 1970.

k. U.S. Army Engineer District, Los Angeles Corps of Engineers, "Operation and Maintenance Manual for Fullerton Dam", dated August 1970.

1. Orange County Planning Department, "The Physical Environment of Orange County", dated November 1971.

m. U.S. Army Engineer District, Los Angeles Corps of Engineers, "Fullerton Dam; Dam, Outlet Works and Spillway, Periodic Inspection Report No. 2", dated February 1974.

n. Orange County Flood Control District, "Hydrology Report, Fullerton Creek Channel, Facility No. A03", Revised June 1974.

o. Orange County Flood Control District, "Hydrology Report, Loftus Diversion Channel, Facility No. A06", Revised, June 1974.

p. U.S. Army Engineer District, Los Angeles Corps of Engineers, q. U.S. Department of Housing and Urban development, Federal Insurance r. U.S. Army Engineer District, Los Angeles Corps of Engineers, s. U.S. Army Engineer District, Los Angeles Corps of Engineers, t. Orange County Environmental Management Agency, "Project Report for

"Fullerton Dam Master Plan", dated August 1974.

Administration, "Flood Insurance Study, City of Fullerton, Orange County, California", dated July 1977. "Fullerton Dam; Dam, Outlet Works and Spillwhy, Periodic Inspection Report No. 3", dated April 1979, "Fullerton Dam; Dam, Outlet Works and Spillway, Periodic Inspection Report No. 4", dated February 1984.

that Portion of Fullerton Creek Channel Facility No A03 from Wilshire Ave. to Chapman Avenue", dated April 1986.

u. U.S Army Engineer District, Los Angeles Corps of Engineers, "Draft Environmental Assessment for Fullerton Dam Water Control Plan," dated September 1986.

FULLERTON DAM FULLERTON CREEK CALIFORNIA

REFERENCES RELEVANT

TO FULLERTON DAM

US ARMY CORPS OF ENGINEERS

LOS ANGELES DISTRICT

PLATE 1-01

Survey) 1970 June uo (based Table Capacity 1 Elevation-Area Dam Fullerton

1632.5 1734.0 1839.0 1947.5 2059.5 1178.9 1262.1 1349.2 1440.1 1534.5 819.4 884.0 951.9 1023.7 1099.5 - ~ 537.3 588.3 642.1 698.6 757.7 164.4 189.9 218.5 249.9 283.9 320.4 359.1 400.1 443.4 489.0 66.8 82.4 99.9 119.4 141.1 13.3 20.4 29.4 40.2 52.7 5 0008 2175. 00 mr Ö 1622.5 1723.7 1828.3 1936.5 2048.2 532.3 583.1 636.6 692.8 751.6 813.1 877.4 944.9 1016.4 1091.8 1170.8 1253.6 1340.3 1430.8 1524.9 **⇒** --162.0 187.2 215.5 246.7 280.4 316.6 355.1 395.8 438.9 484.3 65.3 80.8 98.0 117.4 138.9 2163.4 2282.1 12.7 19.6 28.4 39.0 51.4 0 L- V M ω 0 00mr 312.9 351.2 391.8 434.5 479.6 527.4 577.9 631.1 687.1 745.6 806.9 870.9 938.0 1009.0 1084.1 1162.7 1245.1 1331.4 1421.6 1515.4 2151.7 2270.1 159.6 184.5 212.5 253.4 276.9 97 <u>−</u> 58 63.8 79.2 96.2 115.4 136.7 12.1 18.8 27.4 37.9 50.1 0000 ~ 1612. 1713. 1817. 1925. 2036. o 0000 1602.7 1703.2 1807.1 1914.6 2025.5 1154.7 1236.7 1322.6 1412.5 1505.8 157.2 181.9 209.6 240.2 273.5 522.5 572.7 625.7 681.3 739.6 800.6 864.3 931.1 1001.8 1076.4 309.2 347.3 384.6 430.2 475.0 0.5 62.4 77.6 94.4 113.4 134.5 0.0 0.5 6.4 111.6 18.1 26.5 36.8 48.8 9 140. 258. 0 NN 794.4 857.8 924.2 994.5 1068.8 2128.4 2246.1 1146.7 1228.3 1313.9 1403.3 1496.3 305.5 343.4 383.5 425.8 470.4 517.6 567.6 620.2 675.7 733.7 154.9 179.3 206.6 237.0 270.0 11.0 17.3 25.5 35.7 47.5 61.0 76.0 92.6 1111.4 132.2 0 m m 0 ഹ 1592. 1693. 1796. 1903. 2014. Storage (Acre-Feet) 0.4 0. 0000 138.7 1220.0 1305.1 1394.2 1486.9 1583.1 1682.8 1786.0 1892.8 2003.1 788.2 851.4 917.4 987.3 1061.2 301.9 339.5 379.4 421.5 465.8 512.8 562.4 614.8 670.0 727.8 152.5 176.7 203.8 233.9 266.6 $\sigma \sim$ 59.5 74.4 90.9 109.4 130.1 2050 vooo = 2116. 2234. 10. 16. 24. 24. 00010 1130.8 1211.7 1296.4 1385.1 1477.5 1573.3 1672.7 1775.6 1882.0 1991.9 508.0 557.4 609.5 664.4 721.9 782.0 844.9 910.7 980.1 1053.6 298.2 335.6 375.3 417.2 417.2 m m9.9 15.9 33.5 45.0 58.1 72.9 89.1 107.5 127.9 150.2 174.2 200.9 230.7 263.2 m - 1 N O 2105. 5.00. 0 503.2 552.3 604.1 658.7 716.0 775.9 838.5 903.9 973.0 1046.1 1122.9 1203.4 1287.8 1287.8 1376.1 1468.1 1563.6 1662.6 1765.1 1871.2 1980.7 294.6 331.8 371.2 412.9 456.8 56.8 71.3 87.4 105.5 125.8 ∞. ⊐. 147.9 171.7 198.1 227.6 259.9 9.4 15.2 22.9 32.4 43.8 -1-1-1-0 N 2093. 2210. 0 00-7 N N 769.8 832.1 897.3 965.9 1038.6 1115.1 1195.2 1279.2 1367.1 1458.7 1553.8 1652.5 1754.7 1860.4 1969.6 2082.4 2198.6 145.6 169.2 195.3 224.6 256.5 498.4 547.3 598.8 653.3 710.2 55.4 68.3 85.7 103.6 123.7 291.0 327.9 367.1 408.6 452.3 8.8 14.6 222.0 31.4 42.6 0 - mm i 00-4 1544.2 1642.5 1744.3 1849.7 1958.5 493.7 542.3 593.5 647.6 704.3 763.7 825.8 890.6 958.9 1031.2 11107.3 1187.0 1270.6 1358.1 1449.4 2070.9 2186.8 2306.3 143.4 166.8 192.6 221.5 253.2 287.5 324.2 363.1 400.4 447.8 54.0 68.3 84.1 101.7 121.6 8.3 14.0 21.2 30.4 41.4 0.0 0--0 00-m Elevation (ft.) 305 306 307 285 286 287 287 288 288 290 291 292 293 293 295 296 297 298 298 301 301 303 304 304 280 281 282 283 283 283 275 276 277 278 278 278 261 262 263 264 265 266 267 268 268 269 270 271 272 273 273 174 Area (Acres) 99.9 44.8 49.9 55.3 60.7 3.7 13.5 5.4 40.1 0 0.2 6.7 10.0 16.9 20.7 24.9 30.1

4

FULLERTON DAM FULLERTON CREEK CALIFORNIA

RESERVOIR AREA

AND CAPACITY TABLE

US ARMY CORPS OF ENGINEERS

LOS ANGELES DISTRICT

PLATE 2-01

Flood Control Basin Land Use Allocations 1985

				Term	
	Type*			From To)
Grantee	Instrument	Purpose	Acreage**	YMD YM	D
County of Orange	Lease	Park & Recreation	111.26	7211 1 9719)31
Union Oil Co.	Easement	Water Pipeline		43 1 2 93 1	6
Pacific Tel & Tele	License	Communication Facilities	0	811726 86 7	'25
Group W Cable Inc	License	Cable Line		8171866	530
S. Calif Edison	License	Power Line	0.05	81 215 86 2	214
Glass, Mr. Bud	Lease	Mobile Home, Dam Tender		84 2 6 86 2	2 5
Fullerton, City of	Easement	Sewer Line	0.14	741223 2412	222
Fullerton, City of	Easement	Sewer Line	0.19	73 312 23 3	311
Fullerton, City of	Easement	Water Pipeline	0.42	73 119 23 1	
Fullerton, City of	Easement	Sewer Line	0.07	70 910 20 9	
Orange County FCD	Easement	Storm Drain	4.66	541013 0410	
S. Calif Edison	Easement	Power Line	1.50	54 4 1 04 3	331
Fullerton, City of	Easement	Road	3.09	61 4 5	
Cty Sanitation Dist	Easement	Sewer Line	2.09	661213	
Brea, City of	Easement	Road	3.03	64 413	
Brea, City of	Easement	Sewer Line	1.84	67 426	
California, State of	Easement	Access Road	5.99	68 828	
Orange County FCD	Easement	Access Road	0.38	69 313	
Orange County	Easement	Road	0.63	45 217	
	Easement	Road	5.79	45 220	

*Instruments:

- Easement A privilege or right of use or enjoyment which one person may have in the lands of another, i.e., a right-of-way.
- Lease A contract between the owner and the tenant, setting forth conditions upon which tenant may occupy and use the property, and the term of occupancy.
- License Authority to enter or use another person's land or property, without possessing estate in it - revocable.

**The total of the individual parcels does not exactly equal the total land originally bought due to minor variances in estimating the area of small land tracts.

ſ	FULLERTON DAM
	FULLERTON CREEK
	CALIFORNIA
	FLOOD CONTROL BASIN
	LAND USE ALLOCATIONS
	US ARMY CORPS OF ENGINEERS
	LOS ANGELES DISTRICT

Craig Regional Park Facility Elevations.

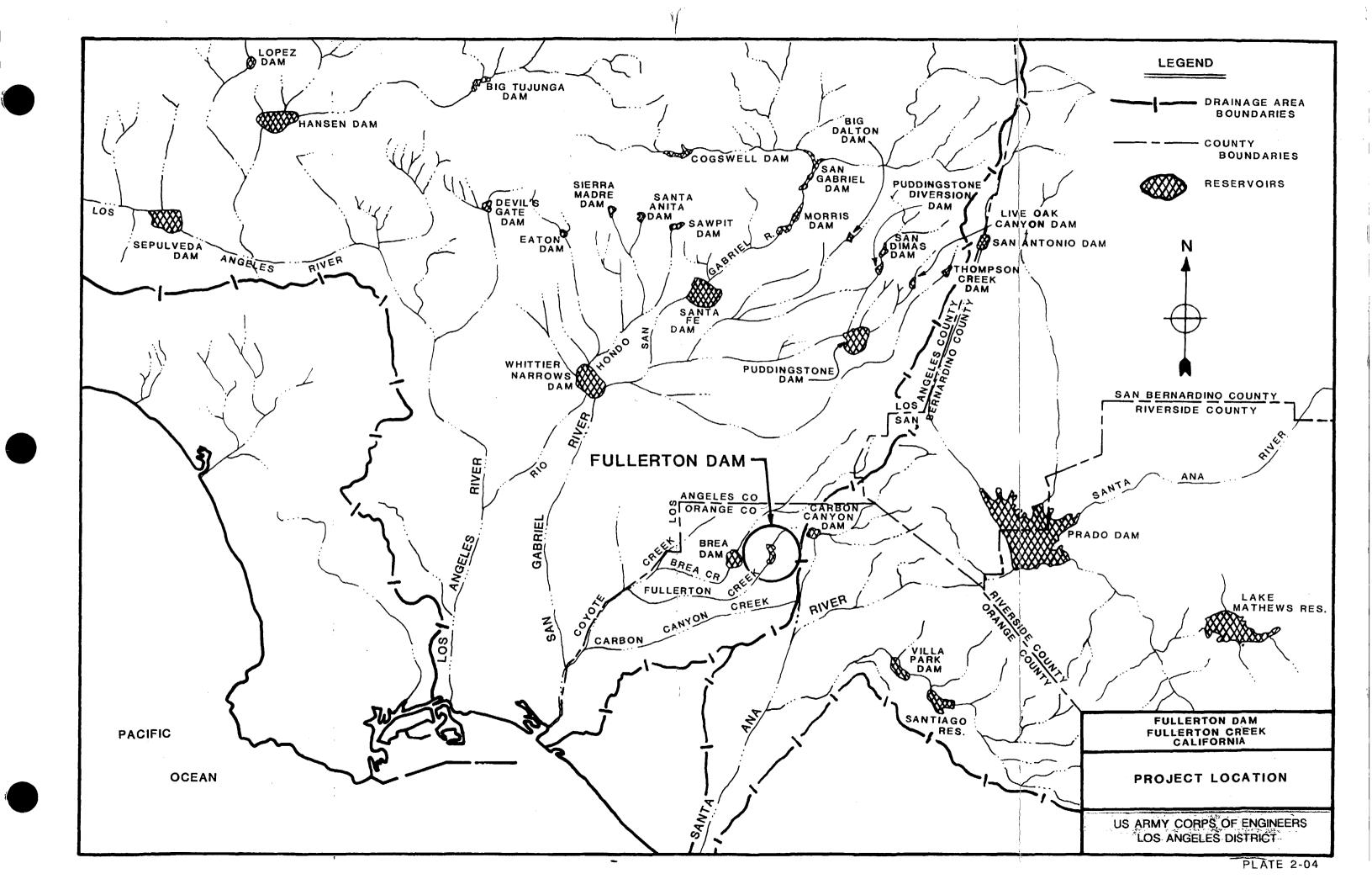
ELEV (FT. N.G.V.D.)

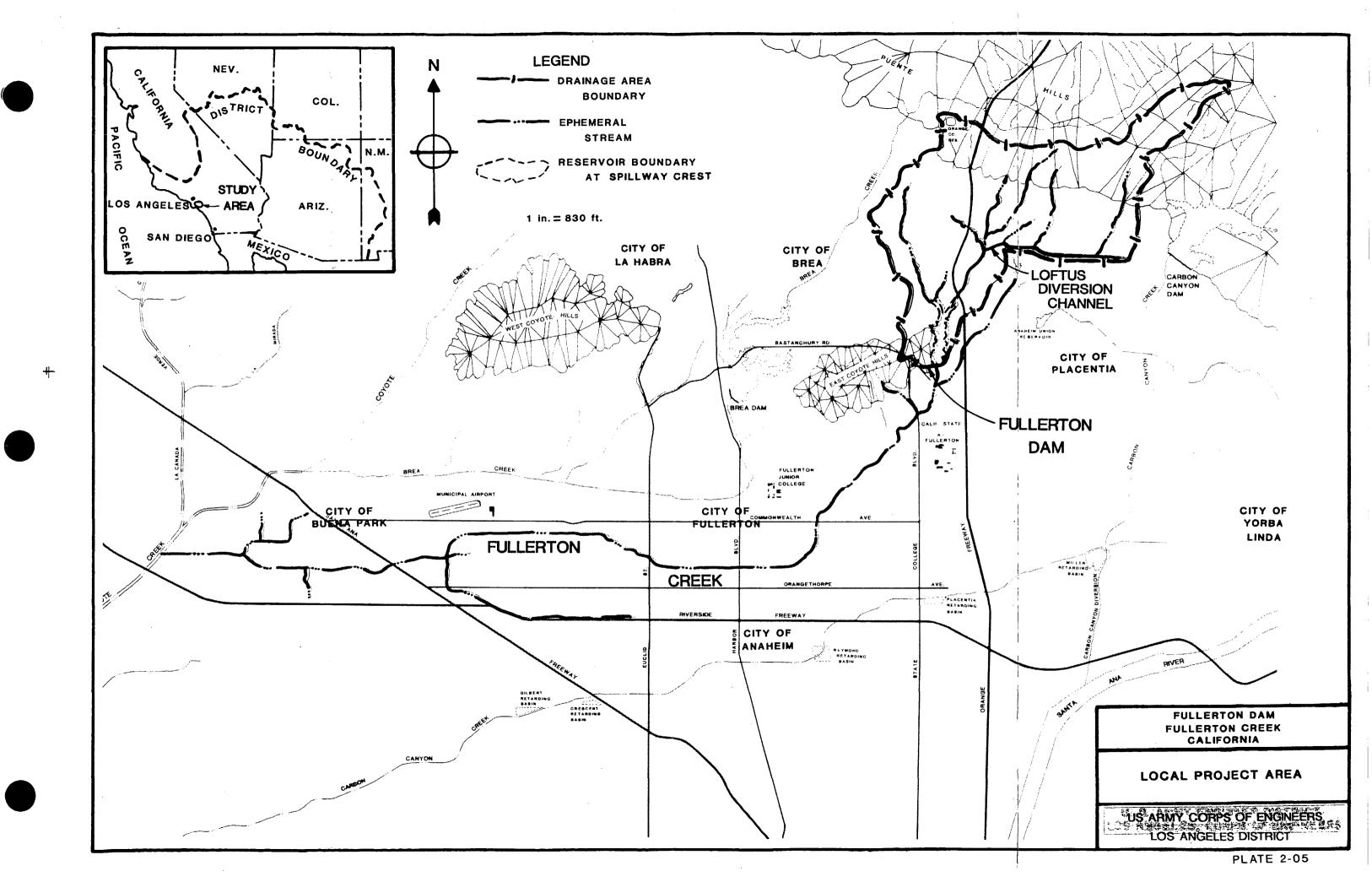
FEATURES IN BASIN

_

268	Turn Around Road
Silted Over	
	Multi-Purpose Turfball Field
275	Baseball Field No. 2
276	Baseball Field No. 1
277	Baseball Field No. 3
277	Baseball Field No. 4
279	Baseball Field No. 5
281	Handball Courts
282	Ramada No. 2
284	Volleyball Courts (Sand)
284	Basketball Courts
285	Ramada Storage
286	Volleyball Courts (Sand)
287	Restroom No. 3
287	-
288	Maintenance Building
	Ramada Storage/Restroom
288	Equestrian Trail
288	Basketball Courts
289	Gazebo Tot Lot #1
291	Ramada No. 1
291	Ramada No. 4
293	Gazebo No. 2
295	Ramada No. 3
295	Restroom No. 4
296	Restroom No. 2
298	Restroom No. 6
304	Equestrian Trail
309	Gazebo No. 1
314.5.	Restroom No. 1
321	
328	Amphitheater
-	Administration Building
328	Gazebo No. 3
332	Restroom No. 5
338	Gazebo Tot Lot #2
341	Viewing Pavilion
	FULLERTON DAM
	FULLERTON CREEK
	CALIFORNIA
F	
	CRAIG REGIONAL PARK
	FACILITY ELEVATIONS
	· · · · · ·
h h	US ARMY CORPS OF ENGINEERS

LOS ANGELES DISTRICT





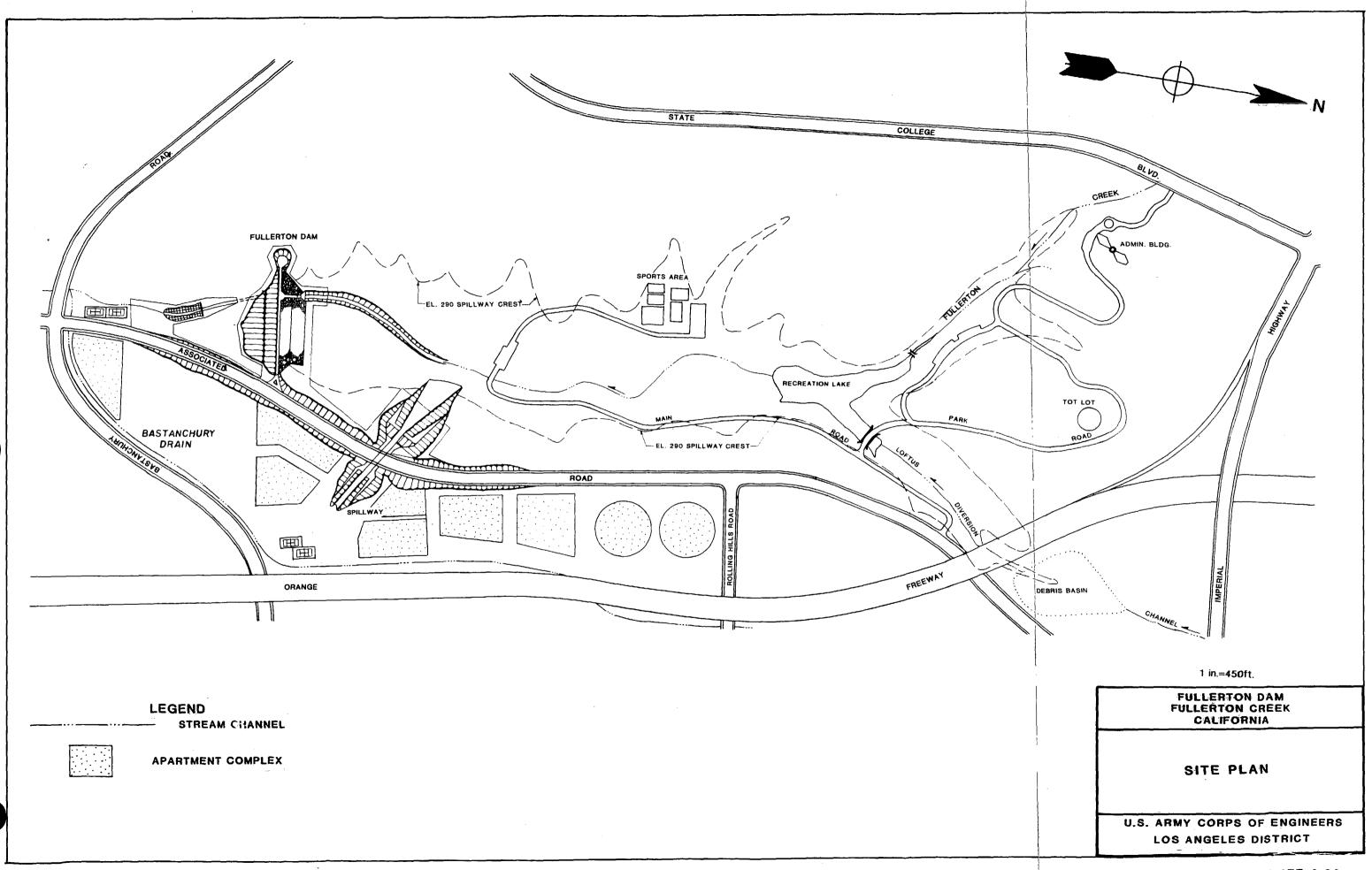
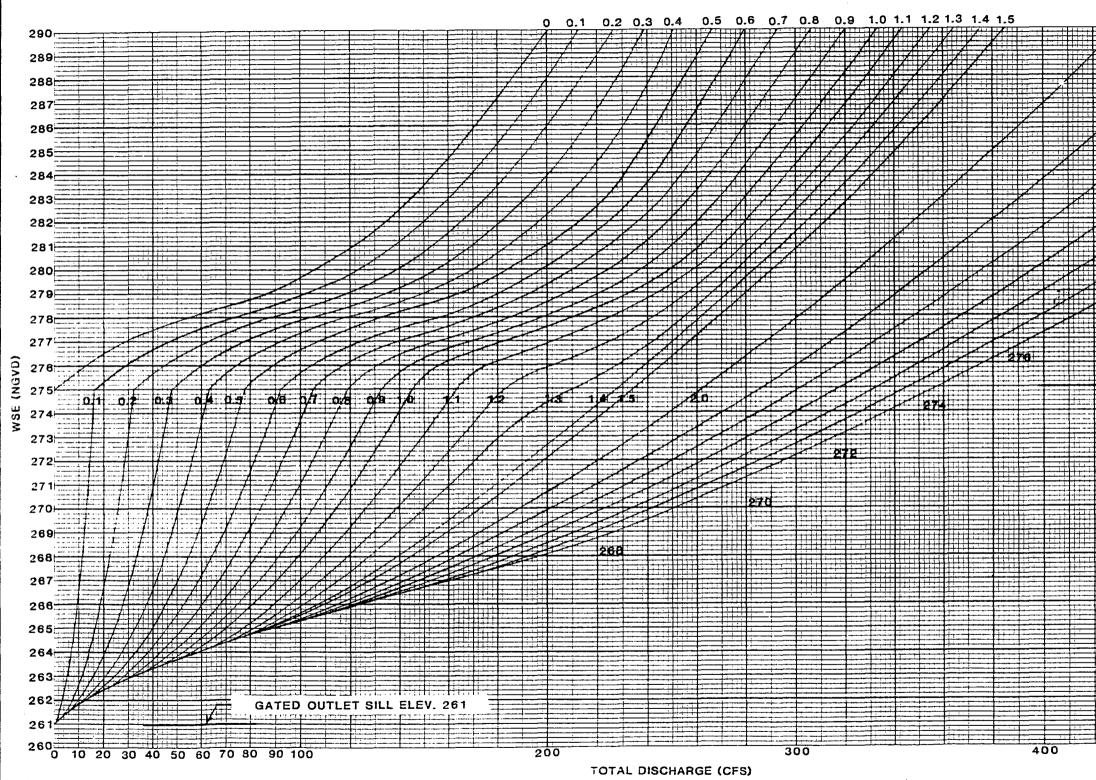
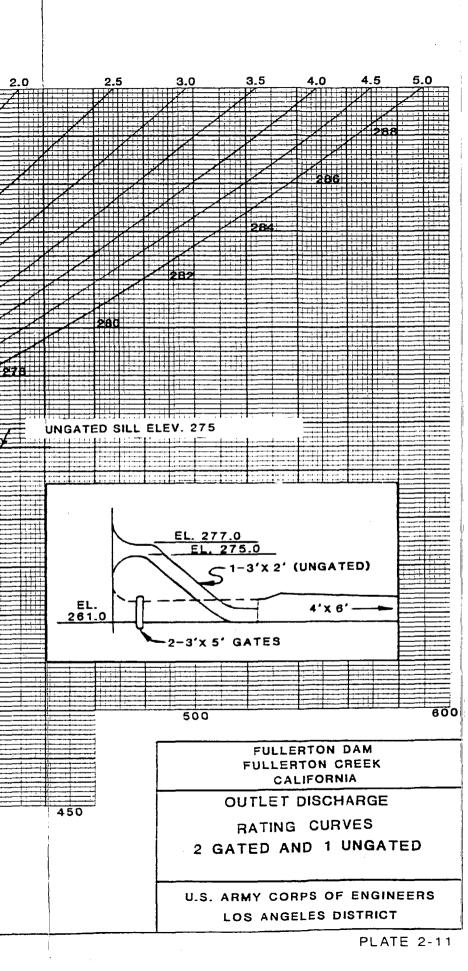
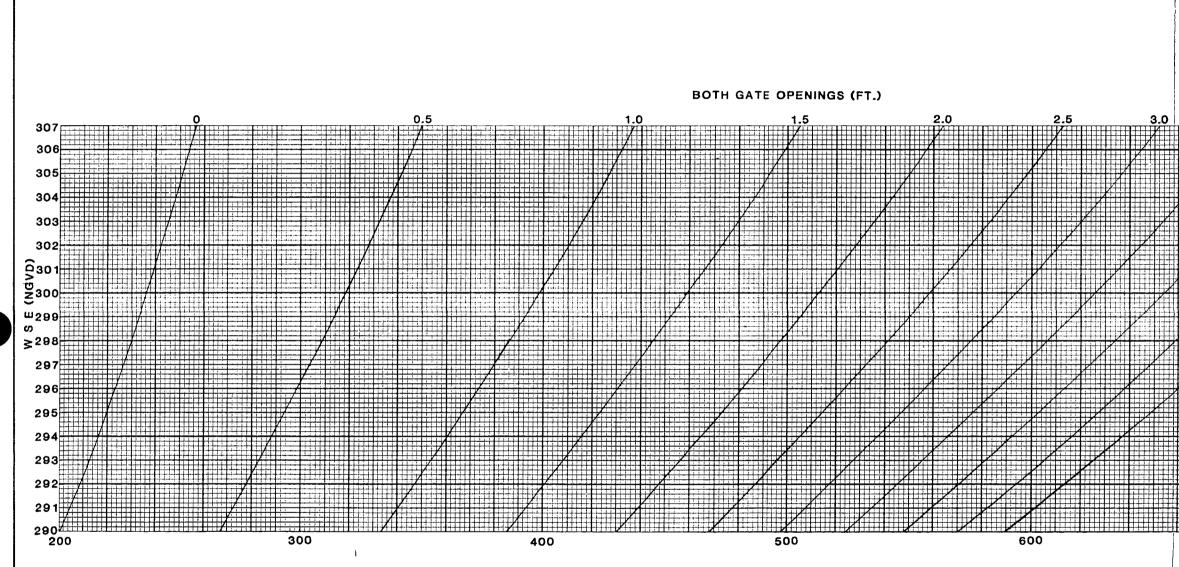


PLATE 2-06

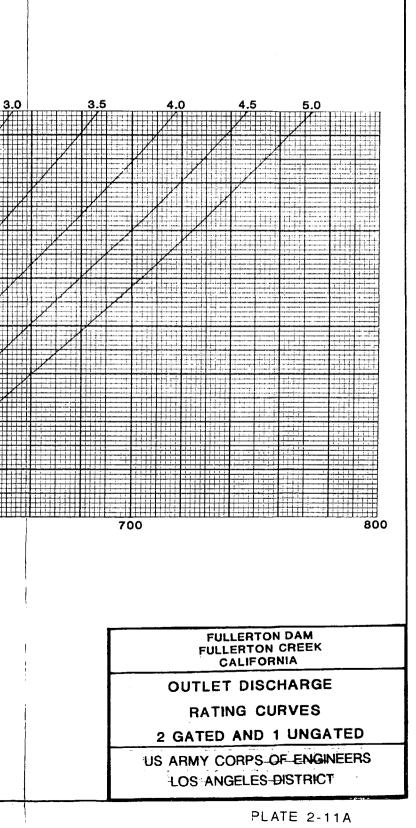
BOTH GATE OPENINGS (FT.)

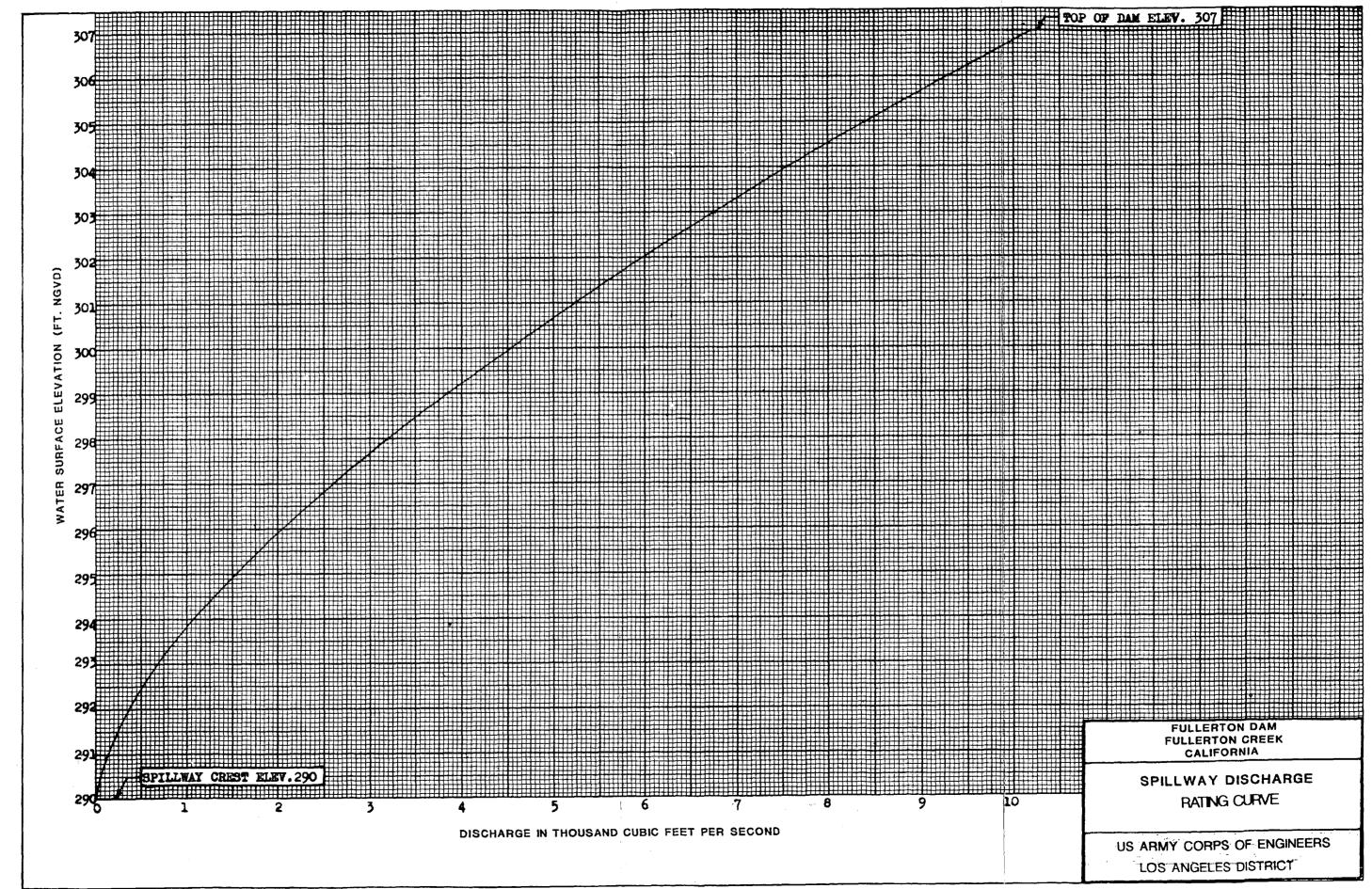




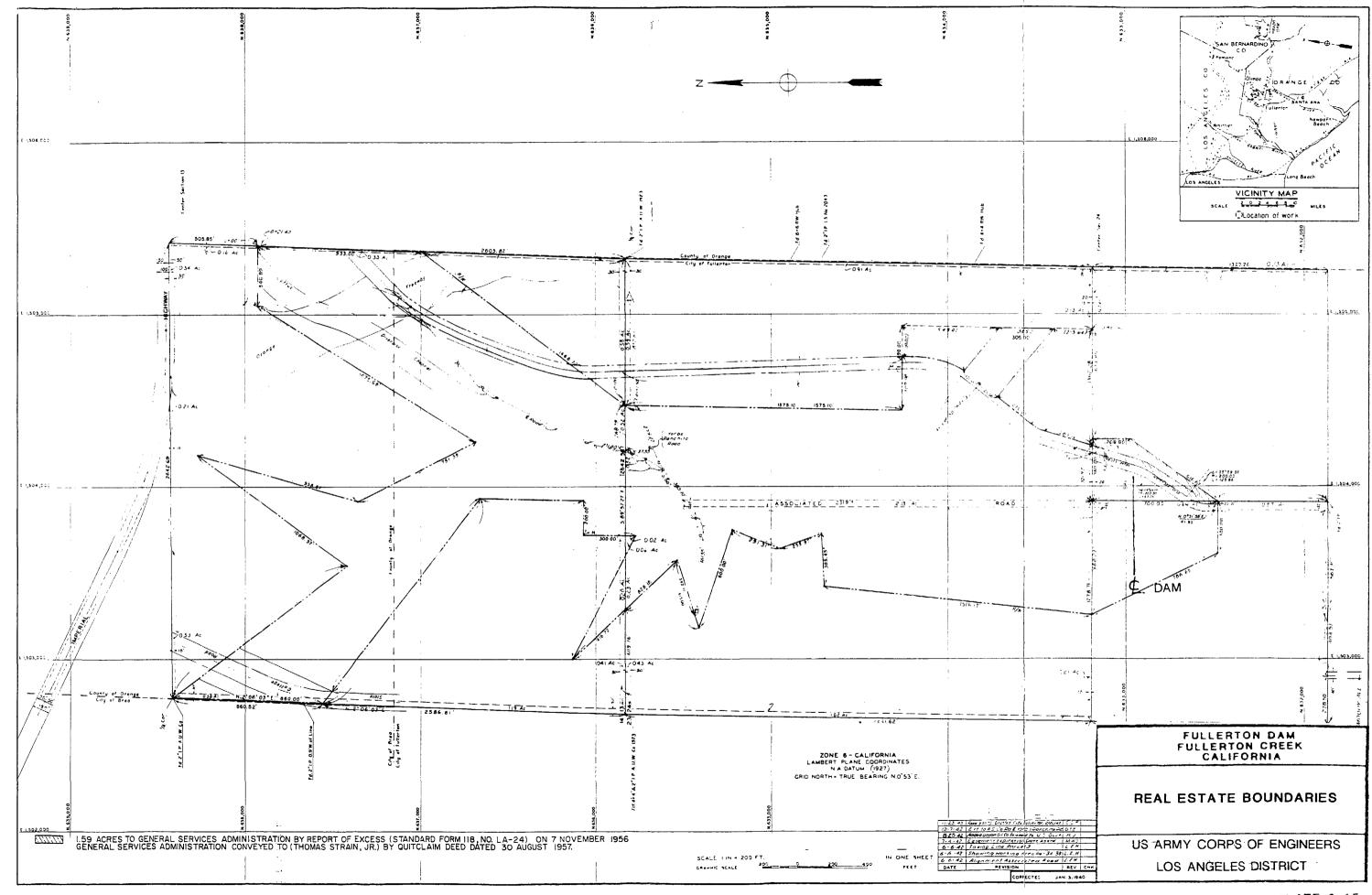


TOTAL DISCHARGE (CFS)









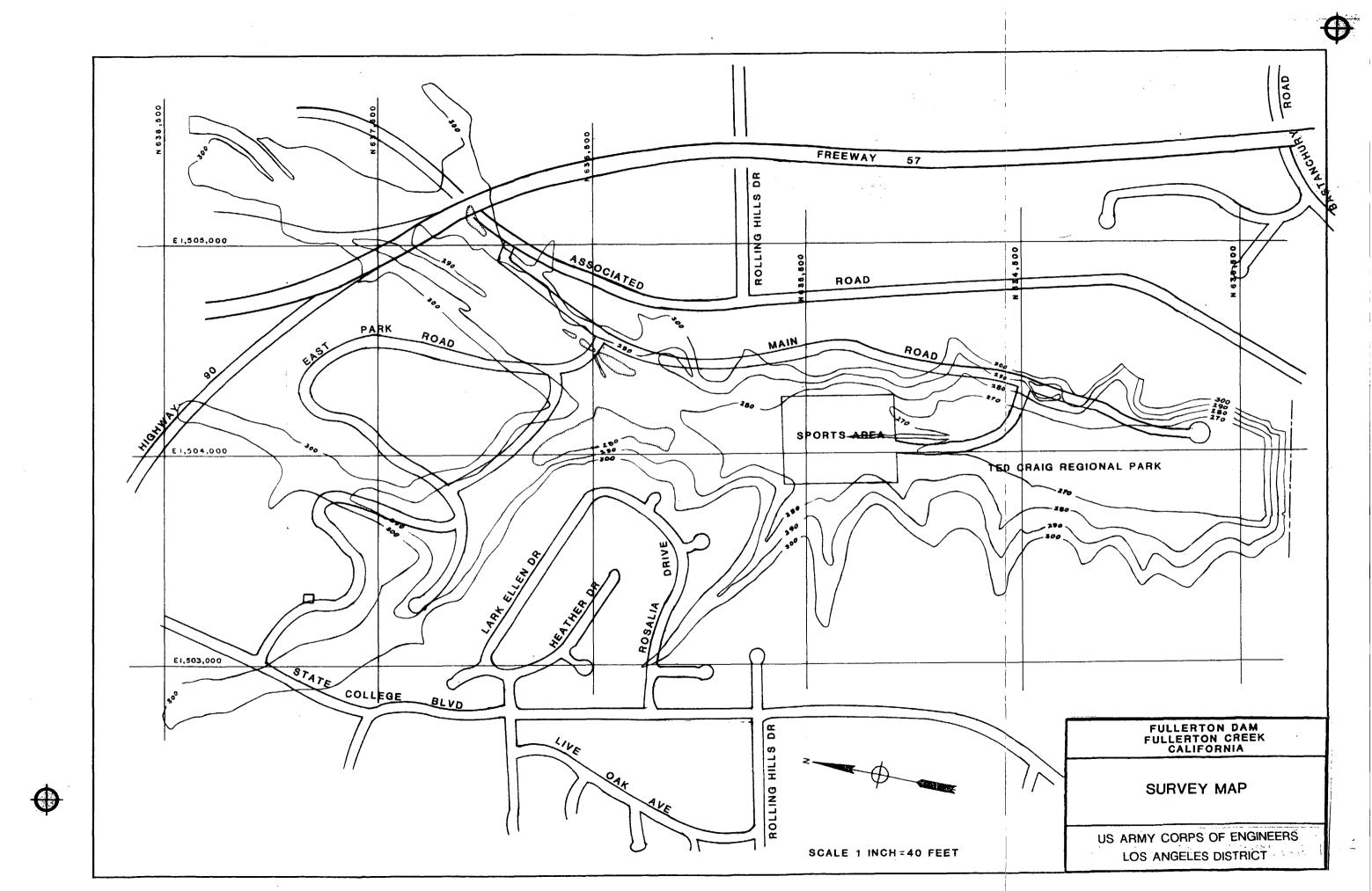
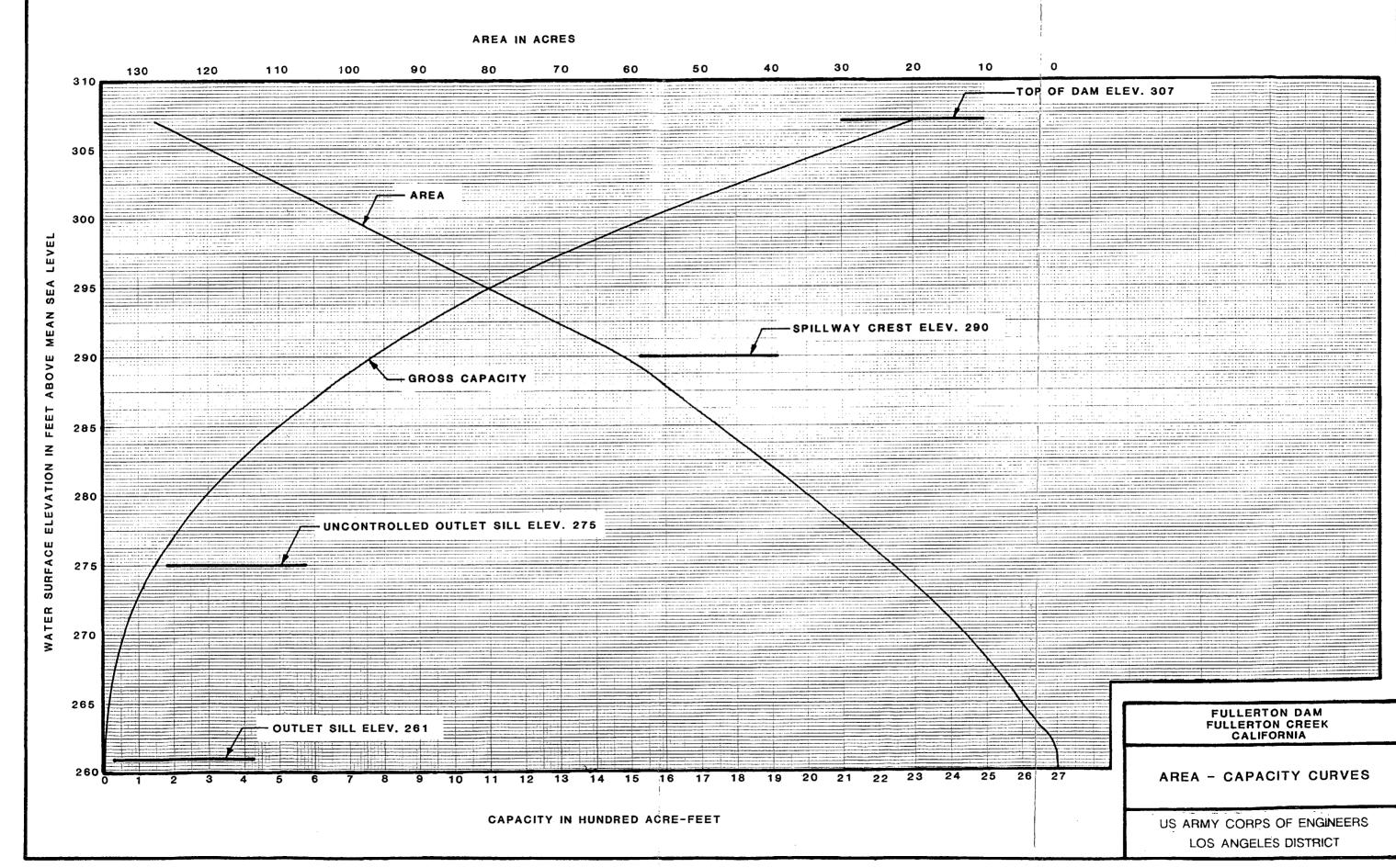
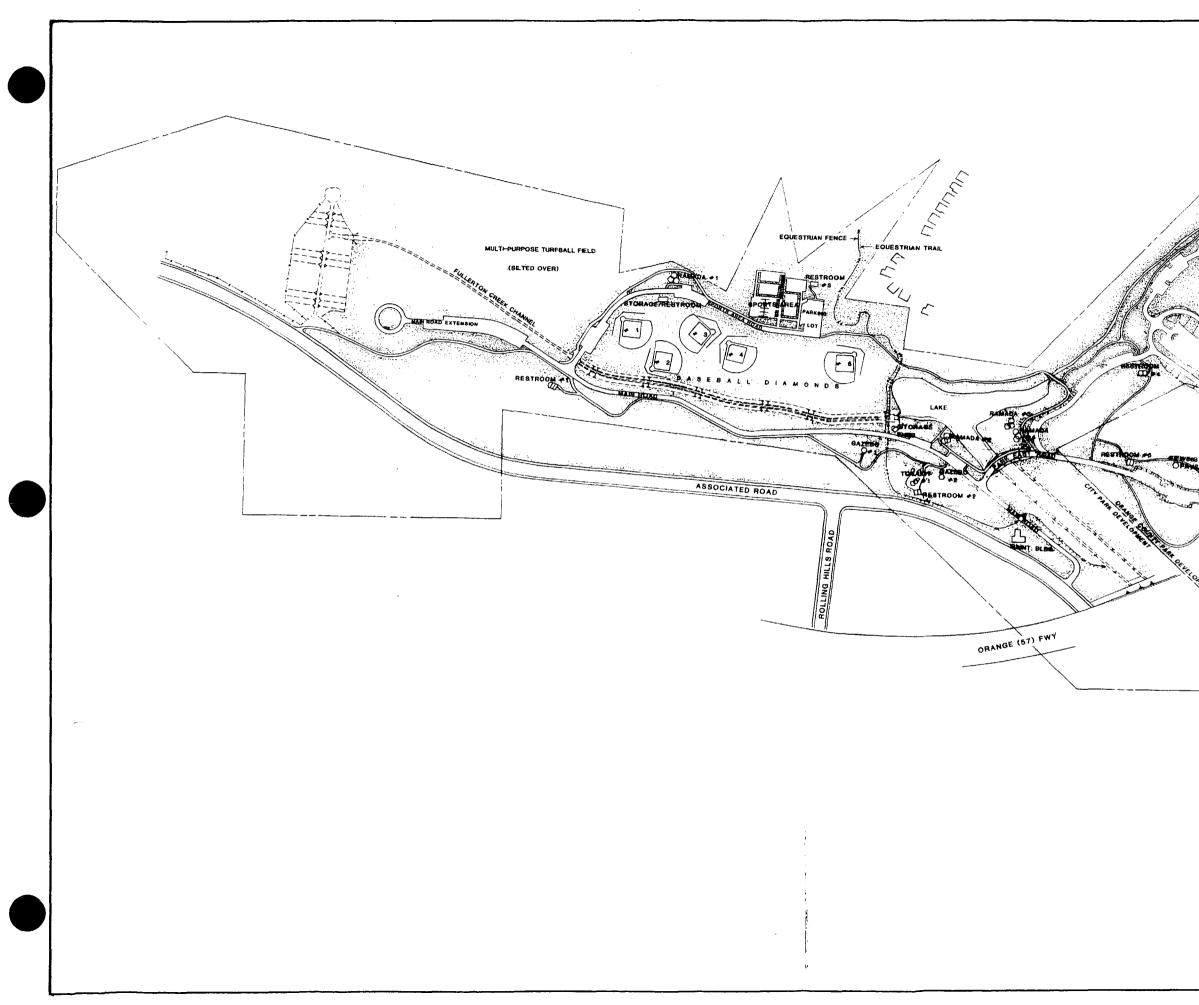
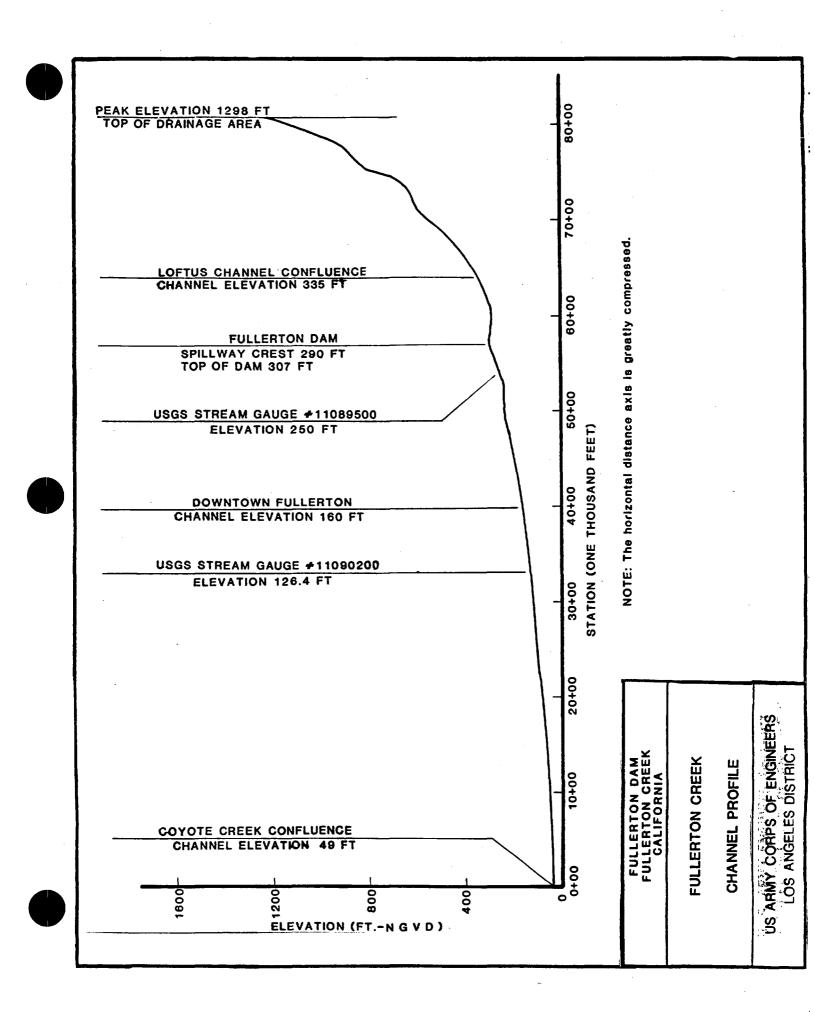


PLATE 2-16





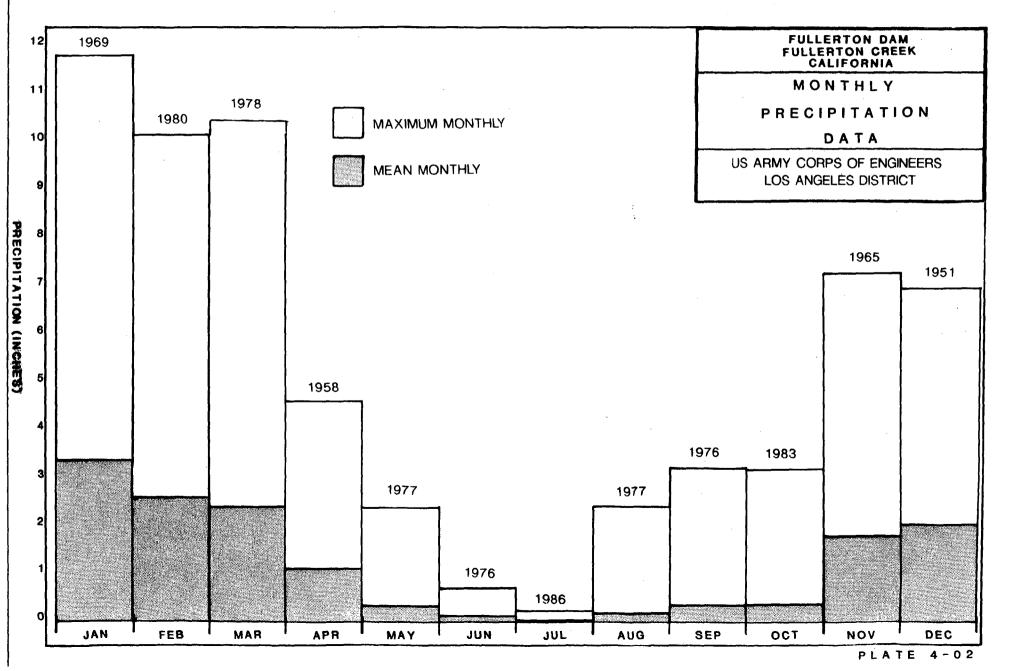
STATE COLLEGE 14 05 VEI 05 - CORPS OF ENGINEERS PROJECT TAKING LINE SCALE 1 INCH = 200 FEET FULLERTON DAM Fullerton Creek California TED CRAIG REGIONAL PARK U.S. ARMY CORPS OF ENGINEERS LOS ANGELES DISTRICT PLATE 2-18



FULLERTON DAM GAUGE AT FULLERTON DAM

PERIOD OF RECORD 1948- PRESENT

MEAN ANNUAL PRECIPITATION 13.6 IN



Fullerton Dam Historic Precipitation Data (in inches).

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTAL
10/9							0.00	0.00	0.00	0.04	0.00	2.05	
1948	1 01	1.64	1.19	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.82	2.87	8.73
1949	1.91 2.54	2.44	0.95	0.72	0.03	0.00	0.00	0.00	0.00	0.00	2.83	0.00	9.51
1950 1951	2.34	0.68	0.40	1.56	0.38	0.00	0.00	0.11	0.15	0.00	1.15	6.84	13.54
1951	8.36	0.08	6.06	1.75	0.00	0.00	0.00	0.00	0.11	0.00	3.55	3.06	22.89
1952	1.35	0.56	0.88	1.13	0.00	0.00	0.00	0.00	0.00	0.00	1.16	0.29	5.37
1955	6.12	2.40	3.97	0.10	0.00	0.07	0.00	0.00	0.00	0.00	1.46	0.86	14.98
1954	4.29	1.12	0.17	0.84	1.30	0.00	0.00	0.00	0.00	0.00	1.35	0.67	9.74
1955	8.21	0.43	0.00	2.20	1.17	0.00	0.00	0.00	0.00	0.33	0.00	0.38	12.72
1950	3.81	1.02	0.72	1.11	1.14	0.24	0.00	0.00	0.00	1.56	0.81	3.10	13.51
1957	2.38	6.25	4.26	4.51	0.00	0.02	0.00	0.25	0.40	0.09	0.20	0.00	18.36
1958	1.77	3.44	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.09	1.41	7.11
1959	2.73	2.82	0.52	1.17	0.12	0.00	0.00	0.00	0.00	0.69	1.94	0.10	10.09
1960	0.85	0.00	0.39	0.12	0.00	0.00	0.00	0.00	0.00	0.00	1.08	1.75	4.19
1961	2.87	8.23	0.91	0.00	0.19	0.01	0.00	0.00	0.00	0.10	0.03	0.00	12.34
1963	0.52	4.83	1.84	1.54	0.00	0.05	0.00	0.08	2.00	0.61	2.79	0.00	14.26
1965	1.15	0.15	1.75	0.47	0.21	0.18	0.00	0.00	0.00	0.18	1.23	1.26	6.58
1964	0.53	0.13	1.70	4.08	0.00	0.00	0.05	0.10	0.77	0.00	7.18	3.35	17.89
1965	0.93	1.44	0.38	0.00	0.02	0.00	0.00	0.00	0.02	0.02	2.30	6.15	11.26
1967	4.15	0.00	1.78	3.05	0.01	0.00	0.00	0.00	0.42	0.00	3.18	1.81	14.40
1968	1.06	0.66	3.13	0.61	0.00	0.00	0.14	0.00	0.00	0.20	0.24	1.43	7.47
1969	11.68	9.67	1.11	0.76	0.06	0.00	0.06	0.00	0.00	0.00	2.06	0.19	25.59
1970	1.98	2.45	1.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	3.78	14.06
1970	0.59	0.86	0.35	0.47	0.22	0.00	0.00	0.00	0.00	0.33	0.25	5.60	8.67
1972	0.00	0.00	0.00	0.31	0.00	0.20	0.00	0.40	0.10	0.32	3.65	1.88	6.86
1973	3.02	4.79	2.80	0.00	0.00	0.00	0.00	0.00	0.00	0.10	1.73	0.52	12.96
1974	6.53	0.10	3.44	0.31	0.19	0.00	0.00	0.00	0.00	0.49	0.00	3.51	14.57
1975	0.10	2.65	4.26	1.40	0.00	0.00	0.00	0.00	0.00	0.22	0.61	0.22	9.46
1976	0.00	3.75	1.96	1.37	0.03	0.60	0.00	0.00	3.12	0.00	0.62	0.86	12.31
1970	2.44	0.67	0.92	0.00	2.30	0.00	0.00	2.35	0.00	0.00	0.08	5.56	14.32
1978	7.40	7.62	10.24	1.94	0.00	0.00	0.00	0.00	1.16	0.07	1.80	2.63	32.86
1979	10.40	0.00	4.47	0.00	0.00	0.00	0.00	0.00	0.00	0.86	0.21	0.29	16.23
1980	7.81	10.05	3.12	0.43	0.25	0.01	0.00	0.00	0.00	0.00	0.00	0.79	22.46
1981	2.94	1.64	3.62	0.29	0.05	0.00	0.00	0.00	0.00	0.21	3.46	0.58	12.79
1982	3.15	0.64	5.50	1.57	0.03	0.00	0.00	0.02	0.38	0.16	3.96	1.95	17.36
1983	4.62	5.24	8.33	3.63	0.14	0.00	0.00	0.17	0.95	3.09	3.45	2.03	31.65
1984	0.28	0.00	0.26	0.68	0.00	0.00	0.00	0.05	0.23	0.13	2.05	5.14	8.82
1985	1.21	1.90	1.34	0.00	0.08	0.00	0.00	0.00	0.24	0.15	3.95	0.29	9.16
1986	2.26	4.83	3.50	0.59	0.00	0.00	0.16	0.00	2.00	0.49	1.12	0.21	15.16
1987	3.40	0.96	0.94	0.13	0.02	0.00	0.05	0.07	0.20	2.07	0.84	2.14	10.82
1988	2.25	1.20	0.07	1.88	0.00	0.00	0.00						
Ave.	3.25	2.43	2.23	1.03	0.21	0.04	0.01	0.10	0.30	0.31	1.68	1.89	13.62
Max.	11.68	10.05	10.24	4.51	2.30	0.60	0.16	2.35	3.12	3.09	7.18	6.84	32.86
	-		-		···· •								

PLATE 4-03

LOS ANGELES DISTRICT

US ARMY CORPS OF ENGINEERS

DATA

HISTORIC PRECIPITATION

FULLERTON DAM

FULLERTON DAM FULLERTON CREEK CALIFORNIA

ANNUAL

PEAK 24 HR

1.10 1.10 2.11 1.58 4.18

1.78 2.58 1.37

5.43 1.39

2.85 1.59 1.29 0.80 4:09

Precipitation Depth-Duration-Frequency

STATION:	FULLERTON DAM	ELEVATION:	340 ft.	LAT:	33.897	LONG:	117.885
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MAXIMUM PRECIPITATION FOR INDICATED DURATION

RETURN PERIOD IN YEARS	<u> 15 Min</u>	<u>30 Min</u>	<u>1 hr</u>	<u>2 hr</u>	<u>3 hr</u>	<u>6 hr</u>	<u>12 hr</u>	<u>24 hr</u>	Water year
2	0.25	0.35	0.50	0.71	0.86	1.24	1.73	2.22	12.22
2 5	0.37	0.51	0.73	1.04	1.27	1.82	2.55	3.27	17.20
10	0.45	0.62	0.89	1.26	1.54	2.21	3.09	3.96	20.36
20	0.52	0.72	1.03	1.47	1.79	2.57	3.59	4.61	23.26
25	0.54	0.75	1.08	1.53	1.87	2.68	3.75	4.81	24.16
40	0.59	0.82	1.17	1.67	2.04	2.92	4.07	5.23	26.00
50	0.61	0.85	1.21	1.73	2.11	3.02	4.22	5.42	26.86
100	0.68	0.94	1.35	1.92	2.34	3.36	4.69	6.02	29.46
200	0.75	1.03	1.48	2.10	2.57	3.68	5.14	6.60	31.98
ME AN	0.276	0.382	0.546	0.778	0.949	1.360	1.899	2.438	13.103
N	29	29	34	34	34	34	34	34	33
Record maximum	1953	1961	1978	1979	1974	1979	1979	1956	1978
Record year	0.54	0.65	0.98	1.35	1.63	2.45	3.68	5.43	32.86

SOURCE: Rainfall Depth-Duration-Frequency for California, State of CA, DWR. Revised November 1982.

> Pearson Type III distribution used in analysis. Database duration from 1942-1982.

FULLERTON DAM FULLERTON CREEK CALIFORNIA

PRECIPITATION DEPTH-

DURATION-FREQUENCY

US ARMY CORPS OF ENGINEERS LOS ANGELES DISTRICT

WATERYEAR	PEAK INFLOW DATE	ESTIMATED* PEAK INFLOW (CFS)	24 HR DATE (IF DIFFERENT)	MAX. 24 HR** INFLOW (CFS)	PEAK OUTFLOW DATE	USGS INST. PEAK OUTFLOW (CFS)	MAX WSE DATE	MAX WSE
1930-31	4 FEB	12		2	NO DAM	CONSTRUCTED		
31-32	4 FEB	230		52		CONSTRUCTED		
32-33	29 JAN	40		5		CONSTRUCTED		
33-34	1 JAN			63		CONSTRUCTED		
1934-35	17 OCT	1050		96	NO DAM	CONSTRUCTED		
35-36	12 FEB	292		39	NO DAM	CONSTRUCTED		
36-37	16 FEB	636		184		CONSTRUCTED		
37-38	2 MAR	900		346		CONSTRUCTED		
38-39	19 DEC	333		50		CONSTRUCTED		
1939-40	8 JAN	358				CONSTRUCTED	1/ 1/17	101 00
40-41	14 MAR	3800+			DAM NO:	r COMPLETED	14 MAR JUN	282.80 265.89
41-42	10 DEC	12		0 216	16 MAR	298	23 JUN	279.71
42-43 43-44	22 JAN 22 FEB	435 380		139	25 FEB	102	23 50N 22 FEB	277.21
1944-45	15 MAR	43	14 NOV	12	14 NOV	85	14 NOV	267.80
45-46	23 DEC	135	14 1104	25	23 APR	63	23 DEC	240.39
46-47	25 DEC 25 DEC	31		14	3 JAN	22	26 DEC	270.39
47-48		0		0		0		261.00
48-49		Ő		0		0		261.00
1949-50	6 FEB	25		4	8 FEB	66	6 FEB	266.00
50-51		0		0		0		261.00
51-52	16 JAN	600	18 JAN	178	19 JAN	115	18 JAN	281.75
52-53	2 DEC	60		4	2 DEC	38	2 DEC	266.20
53-54	13 FEB	120		25	25 JAN	56	13 FEB	269.79
1954-55	16 JAN	76		12	19 JAN	83	19 JAN	268.10
55-56	26 JAN	435		157	27 JAN	198	26 JAN	279.92
56-57	23 APR	12		 88	23 APR 18 MAR	12 110	23 APR 4 FEB	266.40 275.53
57-58	3 FEB	420 21		4	6 JAN	18	9 FEB	265.04
58-59 1959-60	9 FEB 2 FEB	56		7	12 JAN	17	2 FEB	265.95
60-61	$\frac{2}{3}$ OCT	7			3 OCT	7	3 OCT	261.40
61-62	15 FEB	233	11 FEB	56	13 FEB	57	11 FEB	271.46
62-63	10 FEB	96		28	10 FEB	23	10 FEB	268.80
63-64	20 NOV	27		7	20 NOV	15	20 NOV	265.15
1964-65	9 APR	74		12	9 APR	20	9 APR	267.21
65-66	23 NOV	120		47	29 DEC	22	23 NOV	270.67
66-67	24 JAN	. 495		97	24 JAN	128	24 JAN	275.68
67-68	8 MAR	385		81	8 MAR	26	8 MAR	273.20
68-69	24 FEB	600	25 JAN	241	25 JAN	313	25 JAN	278.55
1969-70	4 MAR	73		18	5 MAR	36	5 MAR	267.45
70-71	21 DEC	425	27 DEC	43	21 DEC	30	21 DEC	271.51
71-72 72-73	24 DEC 16 JAN	237 283	27 DEC 11 FEB	55 78	24 DEC 2 MAR	23 26	27 DEC 13 FEB	271.30 273.76
73-74	6 JAN	515	7 JAN	106	7 JAN	259	TJ FEB 7 JAN	276.89
1974-75	4 DEC	475	7 574	52	8 MAR	60	4 DEC	272.08
75-76	10 SEP	225		. 69	12 SEP	48	11 SEP	272.74
76-77	3 JAN	260		38	17 AUG	162	3 JAN	270.76
77-78	1 MAR	1500		257	9 FEB	263	4 MAR	280.90
78-79	5 JAN	1490	30 JAN	356+	31 JAN	296	31 JAN	285.57+
1979-80	13 FEB	1700		275	18 FEB	299	16 FEB	279.60
80-81	1 MAR	98 0		164	1 MAR	275	1 MAR	276.19
81-82	17 MAR	560		167	1 APR	219	17 MAR	270.60
82-83	1 MAR	1890	.	327	1 MAR	392+	1 MAR	285.00
83_8/	1 007	960	24 NOV	176	1 0.07	2/3	1 0.07	276 70

Peak Annual Flow at Fullerton Reservoir

*Data set is not homogeneous. Values are derived from:

960

810

- USGS gauges near damsite

1 OCT

27 DEC

⁺Historic maximum.

83-84

1984-85

- dam inflow records before and after completion of Loftus Diversion Channel.

- estimated peaks primarily based on hourly interval reservoir data.

24 NOV

18 DEC

**Data is homogeneous; adjusted for current conditions. Values derived from any 24-hour period of

176

111

1 OCT

18 DEC

243

221

276.70

271.90

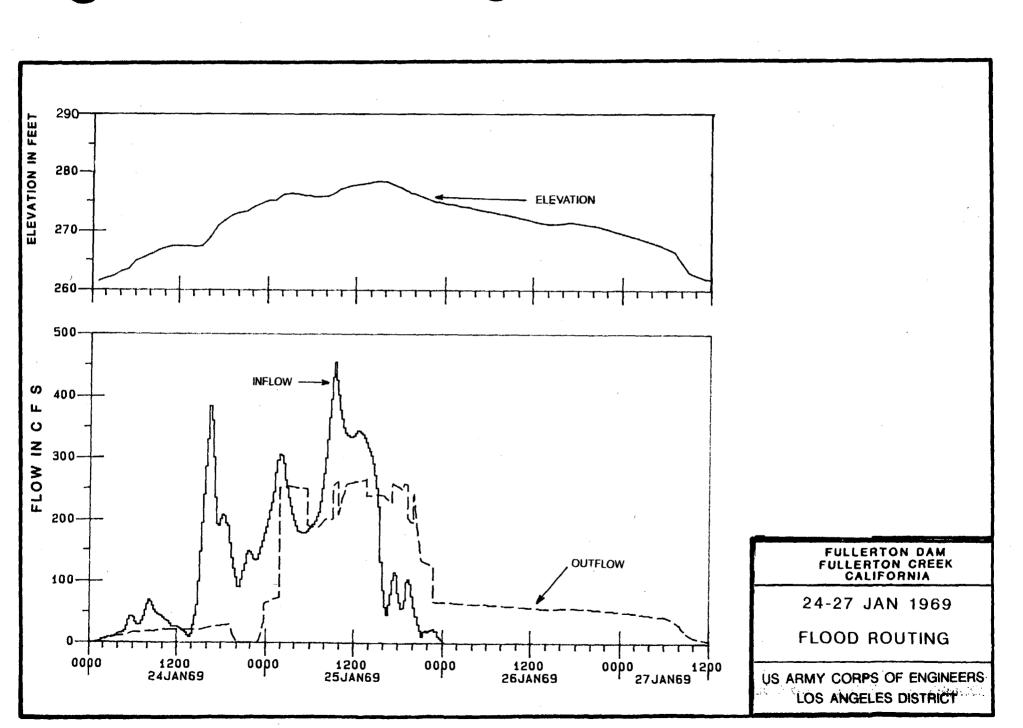
1 OCT

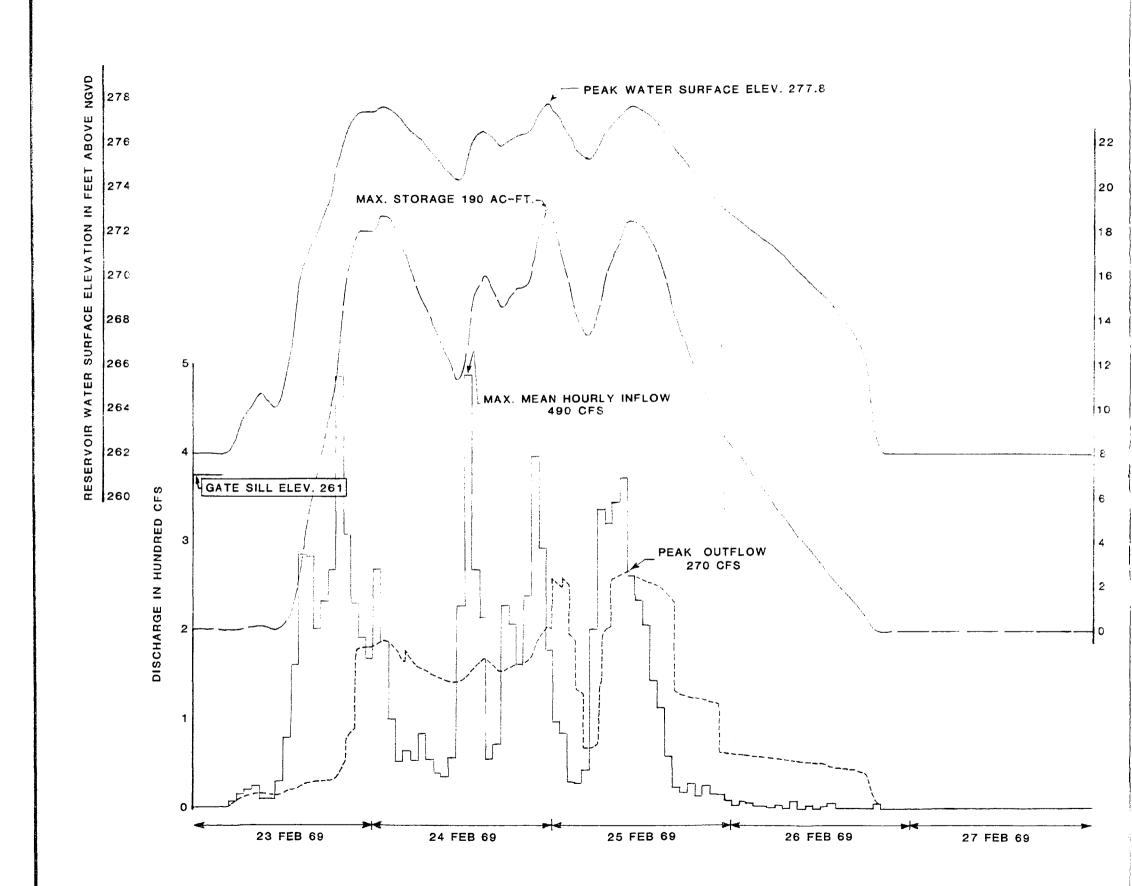
18 DEC

PLATE 4-05

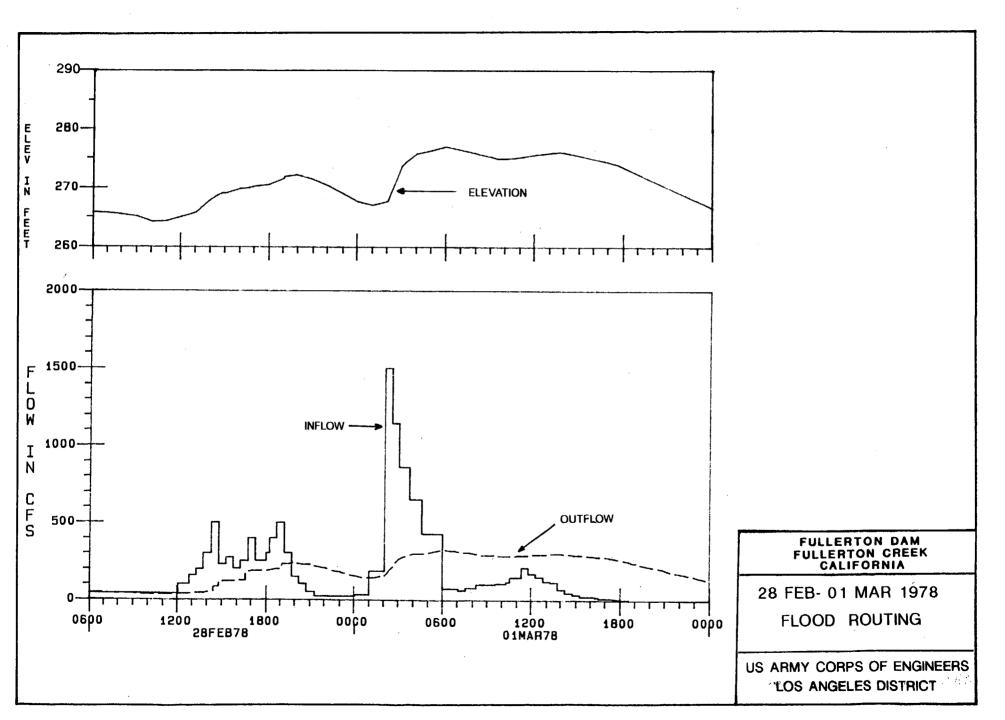
US ARMY CORPS OF ENGINEERS FULLERTON RESERVOIR PEAK ANNUAL FLOW AT LOS ANGELES DISTRICT FULLERTON DAM FULLERTON CREEK CALIFORNIA

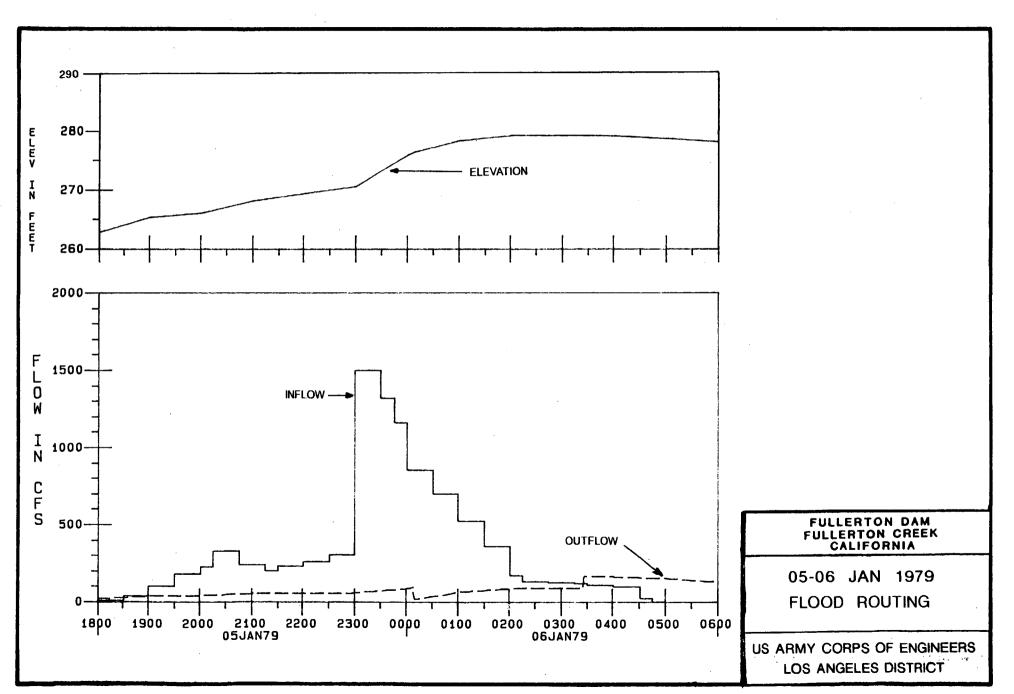
greatest inflow during event.

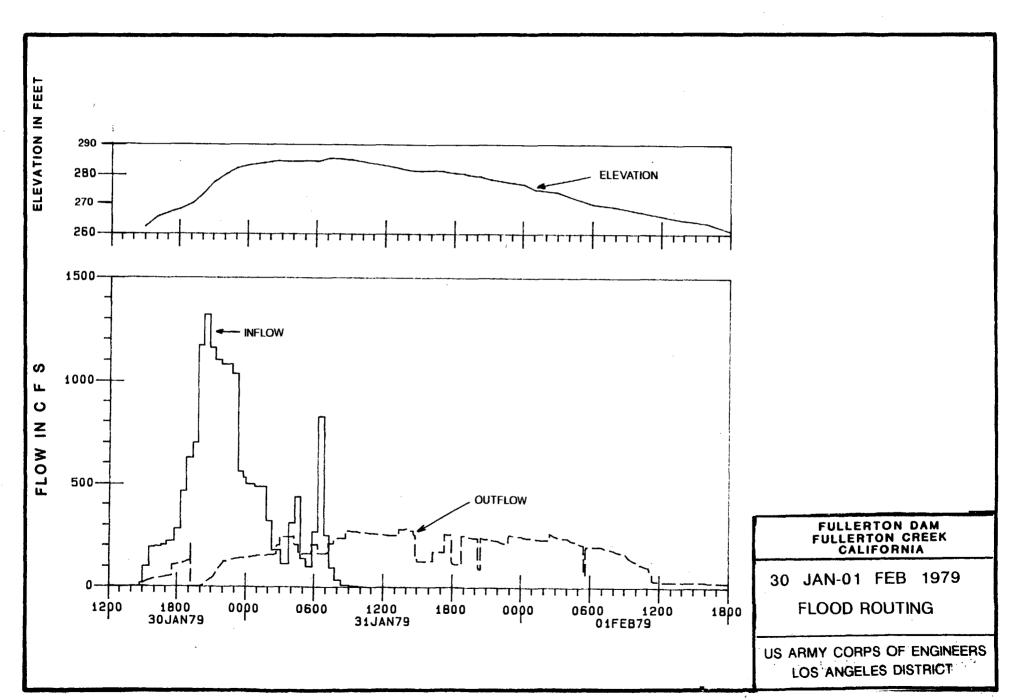


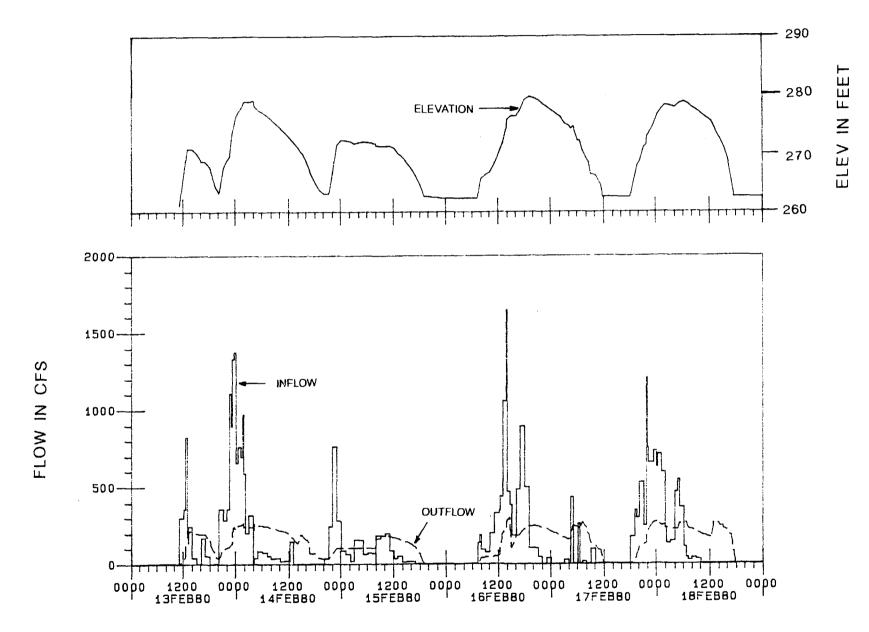


D AC-FT	
STORAGE IN HUNDRED AC-FT	
	FULLERTON DAM FULLERTON CREEK CALIFORNIA 23-27 FEB 1969
	FLOOD ROUTING US ARMY CORPS OF ENGINEERS LOS ANGELES DISTRICT









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PLATE 4-11

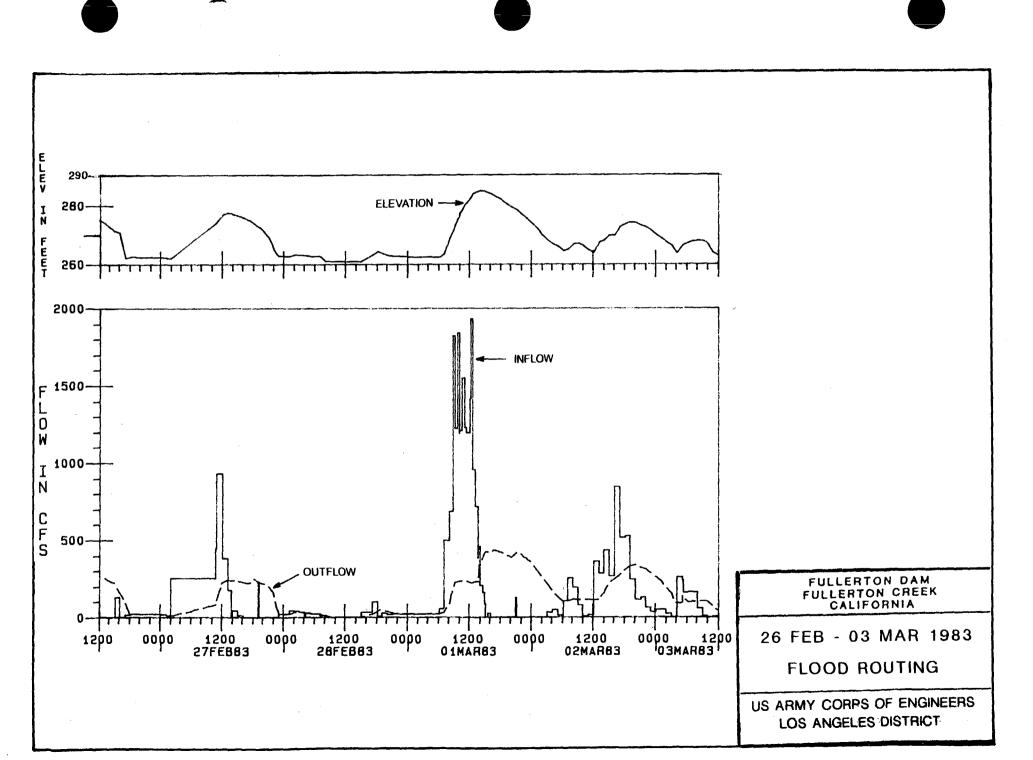
LOS ANGELES DISTRICT

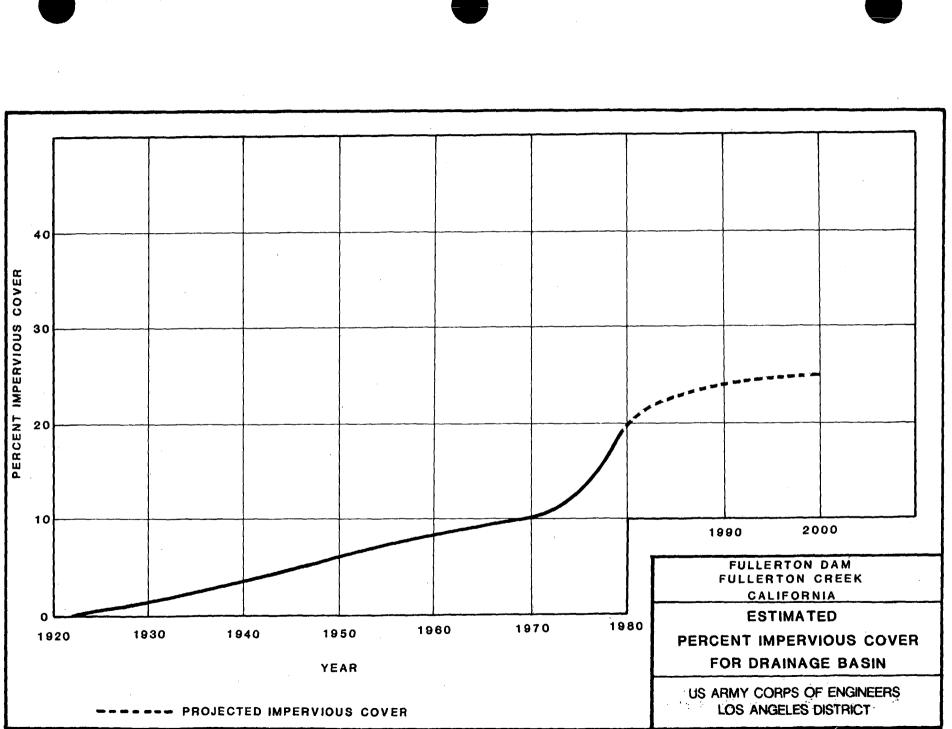
13-18 FEB 1980

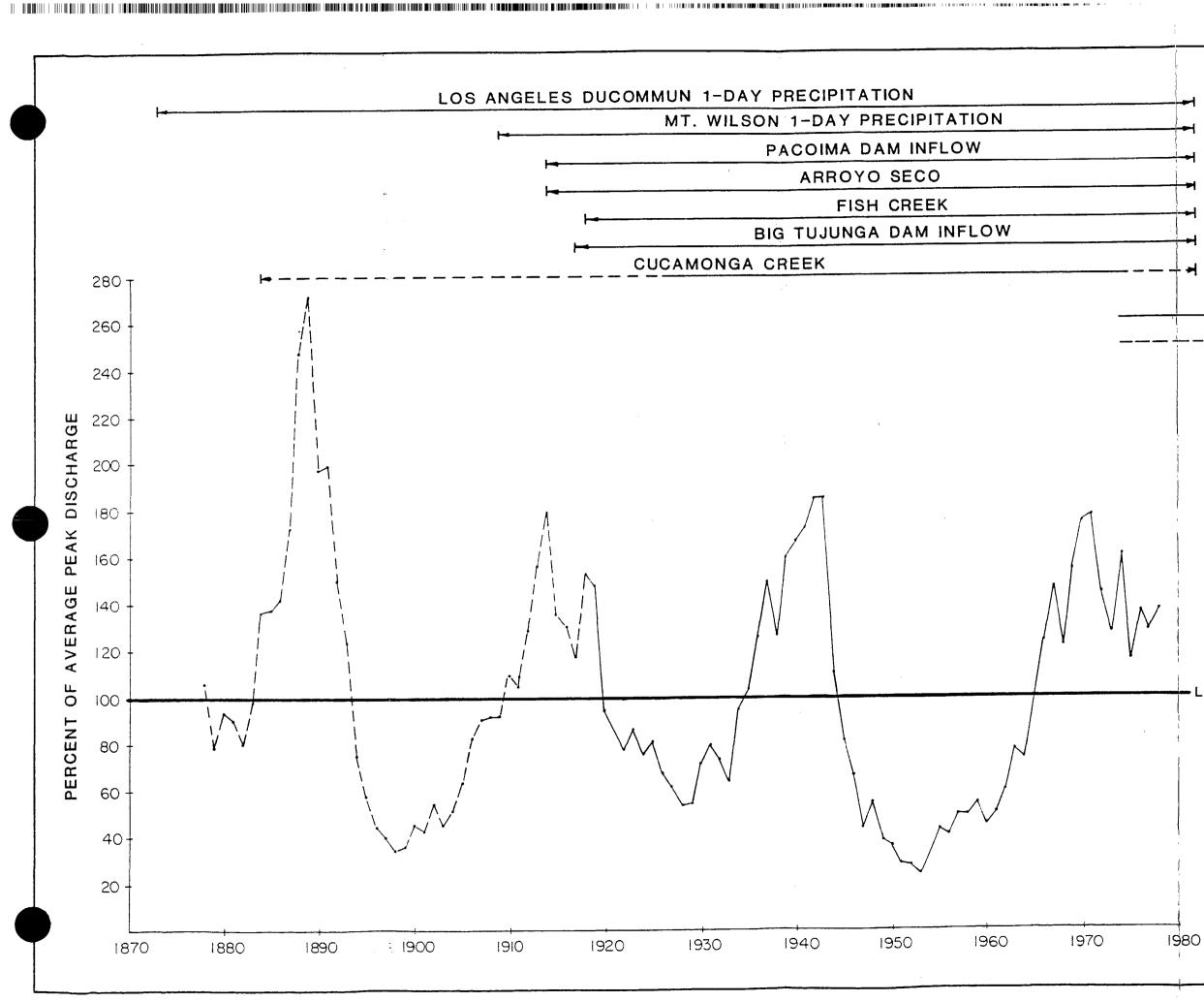
FULLERTON DAM FULLERTON CREEK CALIFORNIA

FLOOD ROUTING

US ARMY CORPS OF ENGINEERS







RAINFALL STATIONS

DISCHARGE STATIONS

RECORDED ESTIMATED FROM CORRELATION WITH RAINFALL DATA

NOTE: GRAPH REPRESENTS 10-YEAR RUNNING MEAN , PLOTTED AT THE MIDDLE OF EACH 10-YEAR PERIOD.

LONG-TERM AVERAGE

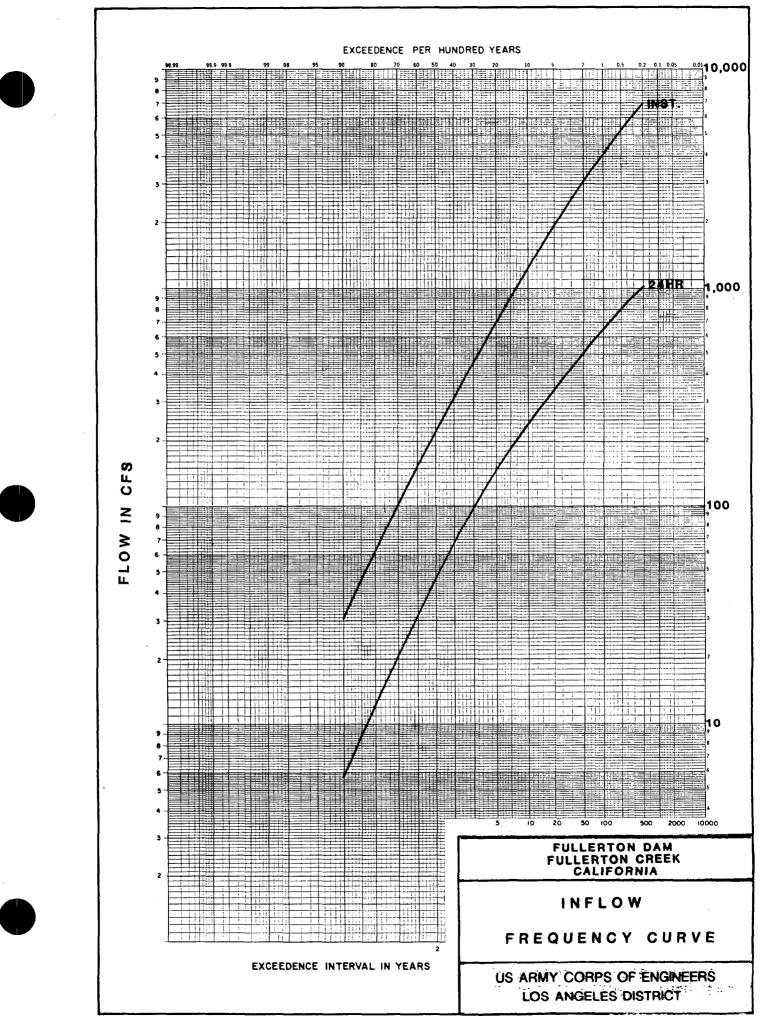
FULLERTON DAM FULLERTON CREEK CALIFORNIA

VARIATION IN 10-YEAR MEAN

PEAK DISCHARGE

LOS ANGELES COUNTY REGION

U.S. ARMY CORPS OF ENGINEERS LOS ANGELES DISTRICT



łΥ	Rank	Plotting Position	Estim. Instant. Peak Inflow (cfs)	WY	Rank	Plotting Position	Estim. Instant. Peak Inflow (cfs)
41	1	1.01	4000	36	28	51.66	248
33	2	2.67	1890	72	29	53.55	237
30	3	4.56	1700	62	30	55.43	233
'8	4	6.44	1500	32	31	57.32	230
'9	5	8.32	1490	76	32	59.20	225
35	6	10.21	1050	54	33	61.08	168
31	7	12.09	9 80	66	34	62.97	120
34	8	13.98	960	63	35	64.85	96
88	9	15.86	950	53	36	66.74	84
52	10	17.75	840	55	37	68.62	76
35	11	19.63	810	65	38	70.51	74
¥3	12	21.51	609	70	39	72.39	73
59	13	23.40	600	45	40	74.27	60
32	14	25.28	560	60	41	76.16	56
37	15	27.17	541	46	42	78.04	53
44	16	29.05	532	47	43	79.93	43
74	17	30.94	515	33	44	81.81	40
57	18	32.82	495	50	45	83.70	35
75	19	34.70	475	64	46 47	85.58	27
56	20	36.59	435	59		87.46	21
71 58	21 22	38.47 40.36	425 420	31 57	48 49	89.35 91.23	12 12
58	22	40.50	385	61	49 50	93.12	7
40	23	42.24	3 04	49	51	95.00	0
39	24	46.01	283	49	52	96.89	0
39 73	25	47.89	283	48 51	53	98.77	0
77	20	49.78	260	51	55	20.11	V
	21	→J • / 0	200				
						FULLERTO	

Ranking of Inflow Events - Peak Inflow at Fullerton Dam

	FULLERTON DAM
	FULLERTON CREEK
	CALIFORNIA
	PEAK INFLOW AT
	FULLERTON DAM
Ī	US ARMY CORPS OF ENGINEERS
	LOS ANGELES DISTRICT

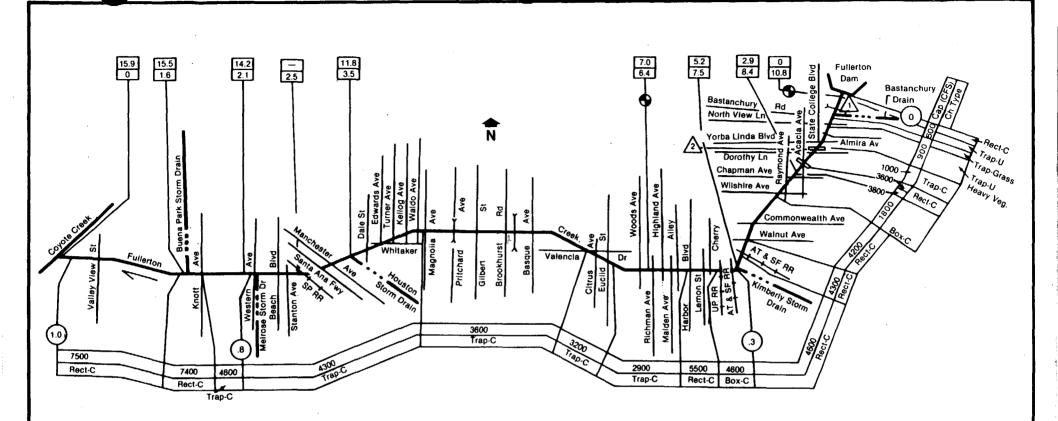


WY	Rank	Plotting Position	24-Hour Mean (cfs)	WY	Rank	Plotting Position	24-Hour Mean (cfs)
79	1	1.36	356	39	27	51.95	50
38	2	3.31	346	66	28	53.89	47
83	3	5.25	327	71	29	55.84	43
80	4	7.20	275	36	30	57.78	39
78	5	9.14	257	77	31	59.73	38
69	6	11.09	241	63 54	32	61.67	28
43	7	13.04	216	54	33	63.62	25
37	8 9	14.98 16.93	184 178	70 47	34 35	65.56 67.51	18 14
52 84	10	18.93	178	47 45	36	69.46	14
82	10	20.82	167	55	37	71.40	12
81	12	22.79	164	65	38	73.35	12
56	13	24.71	157	46	39	75.29	10
44	14	26.65	139	64	40	77.24	7
85	15	28.60	111	60	41	79.18	7
74	16	30.54	106	33	42	81.13	5
67	17	32.49	97	59	43	83.07	4
35	18	34.44	96	53	44	85.02	4
58	19	36.38	88	50	45	86.96	4
68	20	38.33	81	31	46	88.91	2
73	21	40.27	78	48	47	90.86	0
76	22	42.22	69	61	48	92.80	0
62	23	44.16	56	57	49	94.75	0
72	24	46.11	55	51	50	96.69	0
75 32	25 26	48.05 50.00	52 52	49	51	98.64	0
	20		52				
						FULLERTO FULLERTO CALIFO	N CREEK
					24	-HOUR ME	
						AT FULLER	

Ranking of Inflow Events - 24-Hour Mean Inflow at Fullerton Dam

1

US ARMY CORPS OF ENGINEERS



Legend				
	Dam			
-8-	Culvert			
Ō	Stream Gage			
	— Drainage Area — Mi, From:Stream Mouth			
0	Travel Time (Hours)	ł		
≻ —≺	Foot Bridge	ł		
U	Channel Unlined			
R	Rip Rap Side Slopes	ł		
S	Soft Bottom	1		
С	Concrete	1		
G	Grouted Stone			
%-	— Side Slope Bottom			

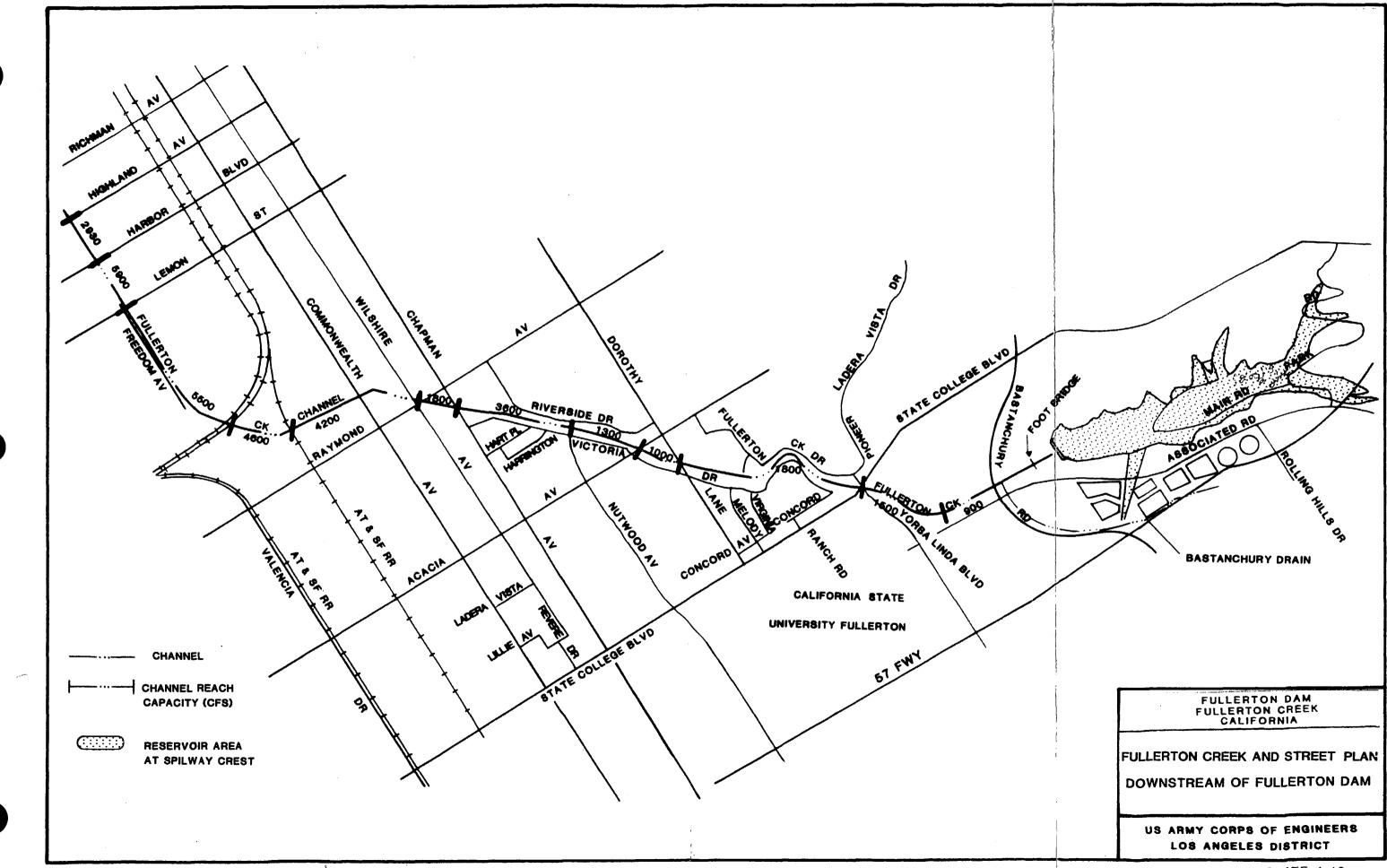
	Significant Features	Miles	Remarks
0	Fullerton Creek Below Fullerton Dam	10.8	Telemetry 046 FLTN
\wedge	Dam Tender House	10.7	
<u>77</u>	Crossings Below Dam 1. Foot Bridge	10.7-8.4	1. Trap-U (30' TW, 5' B, 2 on 1
	2. Bastanchury Rd.		2. RCB 12'×8' 45º WW
	3. North View Ln		3. Double RCB 10'x9.5'
	4. Almira		4. RCB 14'x8' 45° WW
♪	Acacia Park (Downstream of State College & Yorba Linda Blvd)	9.0	Park Alongside Fullerton Creek (Foot Bridge 60' TW 12' Deep, Trap-U)
9	Fullerton Creek at Richman	6.4	Telemetry FCKR
	Note: SP RR Crossing Downstream of Santa Ana Freeway	2.5	OCEMA Considers Serious Hydraulic Condition Exists Cap Unk

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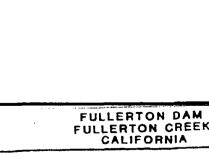
FULLERTON DAM FULLERTON CREEK CALIFORNIA

FULLERTON DAM TO COYOTE CREEK

US ARMY CORPS OF ENGINEERS LOS ANGELES DISTRICT







Hydrologic Instrumentation of Fullerton Dam.

Parameter	Gauge Type	Report Mode	Stored Record (period available)				
Water Surface Elevation	staff boards	Visual	Flood Control Basin Operation Report SPL 19 (1941-present)				
	Stevens A-71 recorder w/quartz	Visual	Reservoir Operation Report SPL 424 (1941-present) paper strip chart (1941-present)	-new -flo -the			
	clock D.R.*	Telemetry	punch tape (1974-present) telemetry data file	at 9 seas 2.4"			
Downstream gauge height	Digital Recorder*	Visual	Flood Control Basin Operators Report SPL 19 (1941-pres.) punch tape (1974-present)	USGS the			
20080		Telemetry	telemetry data file	pape ID ∦			
Outlet Gate opening	gate opening indicator	Visual	Flood Control Basin Operators Report SPL 19 (1941-present)				
	Leitz recorders			Leit			
				ever Leop (cha			
Precipitation	tipping bucket gauge connected by magnetic		Reservoir Operation Report SPL 424 (1941-Present) punch tape (1974-present)	tipp inst			
	sensor to D.R.*	Telemetry	telemetry data file				
	Belfort recording	None	paper chart (1941-present)	data eval			
	gauge			amou to N			
				for			
	glass raintube	Visual	Rainfall Record SPL 31 (1941-present)				

*Digital Recorder - A device that converts gauge motion into coded digital information and records this periodically as a pattern of punched holes in paper tape.

4

Comments

ew recorder installed in 1985 loat well occasionally silts in he paper strip chart is operated 9.6"/day during the rainy ason for better data definition; 4"/day in other periods

GS operates the gauge, publishes he daily record and stores the aper punch tape for USGS Station 0 #11089500

eitz are operational but will ventually be replaced with copold & Stevens Type F recorders chart drum recorders). ipping bucket type gauge istalled in 1985

ata on paper charts is valuated for daily rainfall nounts and charts are then sent NWS in Asheville, N.C. or publication

FULLERTON DAM FULLERTON CREEK CALIFORNIA HYDROLOGIC

INSTRUMENTATION

FULLERTON DAM

US ARMY CORPS OF ENGINEERS

LOS ANGELES DISTRICT

PLATE 5-01

Station Identification	Station Name	Latitude (N)	Longitude (W)	Elev. (ft.)	Type of Gauge(s)
BREA	Brea Dam	30 ⁰ 53' 26"	117 ⁰ 55' 56"	340	CR, RR
CCYN	Carbon Canyon Dam	33 ⁰ 54' 40"	117 ⁰ 50' 29"	403	CR, RR
OCEMA #144	Orange County Reservoir	33 ⁰ 56' 07"	117 ⁰ 52' 58"	660	RR
OCEMA #126	Fullerton Airport	33 ⁰ 521 23"	117 ⁰ 58' 24"	31	RR
OCEMA \$2650	City of Brea	33 ⁰ 54' 53"	117 ⁰ 54' 04"	110	RR, AR
OCEMA \$2410	Miller Basin	33 [°] 51' 54"	117 <mark>0</mark> 51110"	219	RR, AR
FLTN	Fullerton Dam	33 [°] 53' 50"	117 ⁰ 53' 08"	310	CR, RR
USGS #11089500	Fullerton Creek below Fullerton Dam	33° 53' 45"	117 ⁰ 53' 07"	2 50	RS, CS
USGS #11090000	Fullerton Creek at Fullerton	33° 52' 22"	117 ⁰ 54' 22"	170	RS
OCEMA #2	Fullerton Creek at Richman Avenue	33 ⁰ 51' 47"	117 ⁰ 55' 55"	126	RS, AS
*Legend:		Ra: (Precipit			low Water
Non-Standard No.	n-Recording (Staff)	(Fredipi) NI	Surface Elevation NS		
Standard, Non-Red	-	SR			116
Recording (at sit		RI			RS
Corps Event Repor		CR		CS	
	rting Automatic Telemetry	AR			AS

Hydrometeorologic Gauges in the Vicinity of Fullerton Dam.

For locations of these gauges, see plate 5-03.

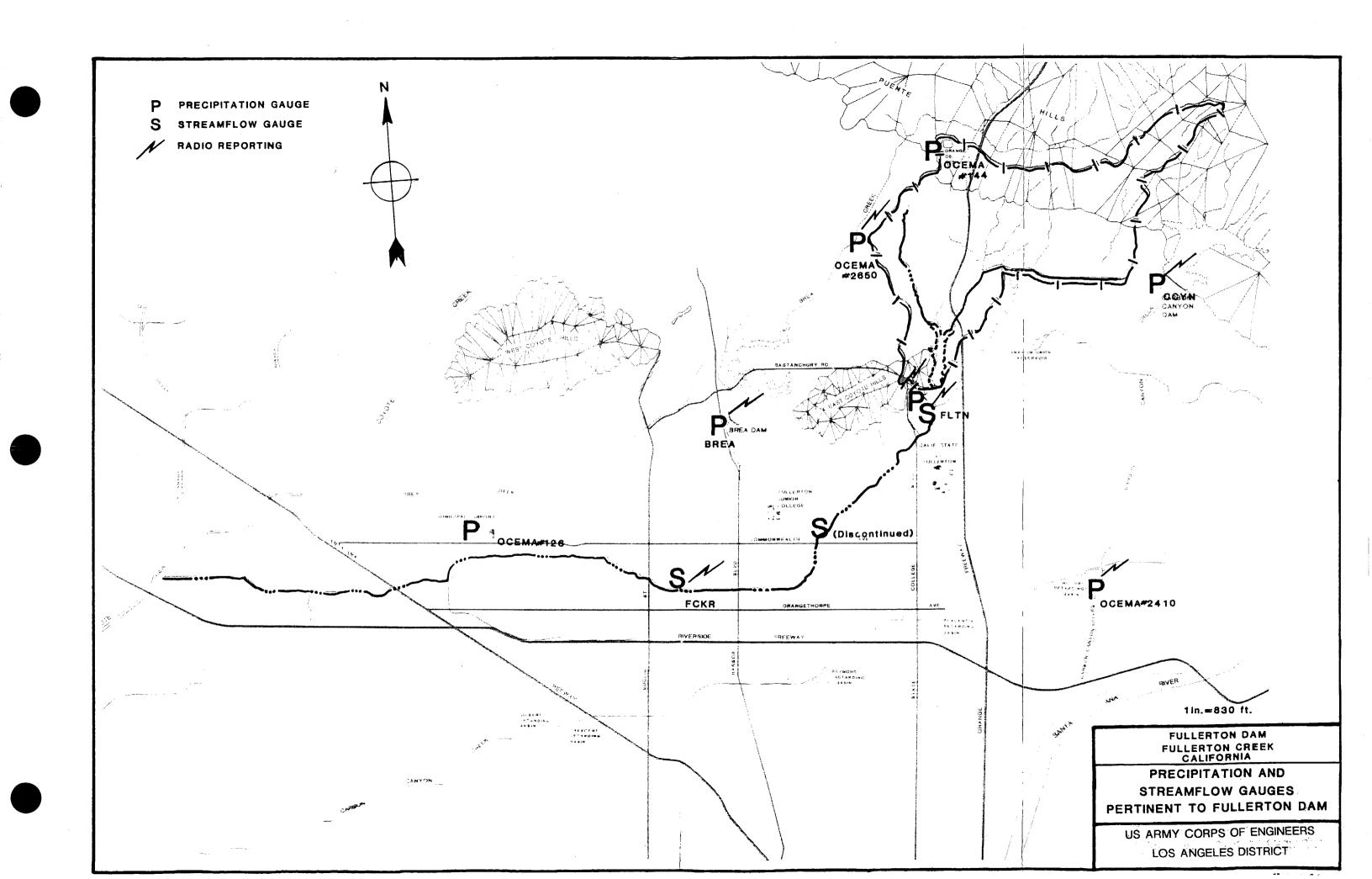
LOS ANGELES DISTRICT

US ARMY CORPS OF ENGINEERS

FULLERTON DAM

HYDROMETEOROLOGIC GAUGES IN THE VICINITY OF

FULLERTON DAM FULLERTON CREEK CALIFORNIA



Rating Table for Fullerton Creek below Fullerton Dam (FLTN)

<u> </u>		·	ai 1
Gauge	Channel	Gauge	Channel
Height (ft)	Flow (cfs)	<u>Height (ft)</u>	Flow_(cfs)
3.00	0	6.10	159.0
3.10	0.01	6.20	168.0
3.20	0.11	6.30	177.0
3.30	0.70	6.40	186.0
3.40	2.65	6.50	195.0
3.50	7.30	6.60	205.0
3.60	15.0	6.70	215.0
3.70	18.3	6.80	225.0
3.80	21.0	6.90	235.0
3.90	23.5	7.00	246.0
4.00	27.0	7.10	257.0
4.10	31.1	7.20	267.0
4.20	35.3	7.30	278.0
4.30	38.9	7.40	288.0
4.40	44.6	7.50	300.0
4.50	49.5	7.60	312.0
4.60	54.4	7.70	323.0
4.70	59.4	7.80	335.0
4.80	64.9	7.90	348.0
4.90	70 . 9	8.00	360.0
5.00	77.0	8.10	372,0
5.10	83.6	8.20	385.0
5.20	90.4	8.30	398.0
5.30	97.4	8.40	411.0
5.40	105.0	8.50	424.0
5.50	112.0	8.60	437.0
5.60	119.0	8.70	450.0
5.70	127.0	8.80	463.0
5.80	135.0	8.9 0	477.0
. 5.90	143.0	9.00	490.0
6.00	151.0		

FULLERTON DAM FULLERTON CREEK
CALIFORNIA
RATING TABLE FOR
FULLERTON CREEK BELOW
FULLERTON DAM (FLTN)
US ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

Gauge Height (ft)	Channel Flow (cfs)	Gauge <u>Height (ft)</u>	Channel Flow (cfs)
. 0.00	0	6.20	1800
0.20	Q.4	6.40	1900
0.40	2.7	6.60	2000
0.60	9.5	6.80	2100
0.80	24.0	7.00	2200
1.00	43.0	7.20	2320
1.20	63.0	7.40	2440
1.40	86.0	7.60	2560
1.60	114	7.80	2680
1.80	145	8.00	2800
2.00	182	8.20	2940
2.20	222	8.40	3080
2.40	266	8.60	3220
2.60	316	8.80	3360
2.80	367	9.00	3500
3.00	419	9.20	3640
3.20	480	9.40	3780
3.40	545	9.60	3920
3.60	616	9.80	4060
3.80	689	10.00	4220
4.00	766	10.20	4380
4.20	847	10.40	4540
4.40	932	10.60	4700
4.60	1020	10.80	4860
4.80	1110	11.00	5020
5.00	1200	11.20	5180
5.20	1300	11.40	5340
5.40	1400	11.60	5500
5.60	1500	11.80	5660
5.80	1600	12.00	5820
6.00	1700		
			х. Х
			ERTON DAM
			ERTON CREEK
			ALIFORNIA
		RATING	G TABLE FOR
		FULLER	TON CREEK AT
		RICHMON	D AVENUE (FCKR)
			(i okny
	Ĺ	US ARMY C	ORPS OF ENGINEERS
	ت_		GELES DISTRICT

Rating Table for Fullerton Creek at Richmond Avenue (FCKR)

LOS ANGELES DISTRICT

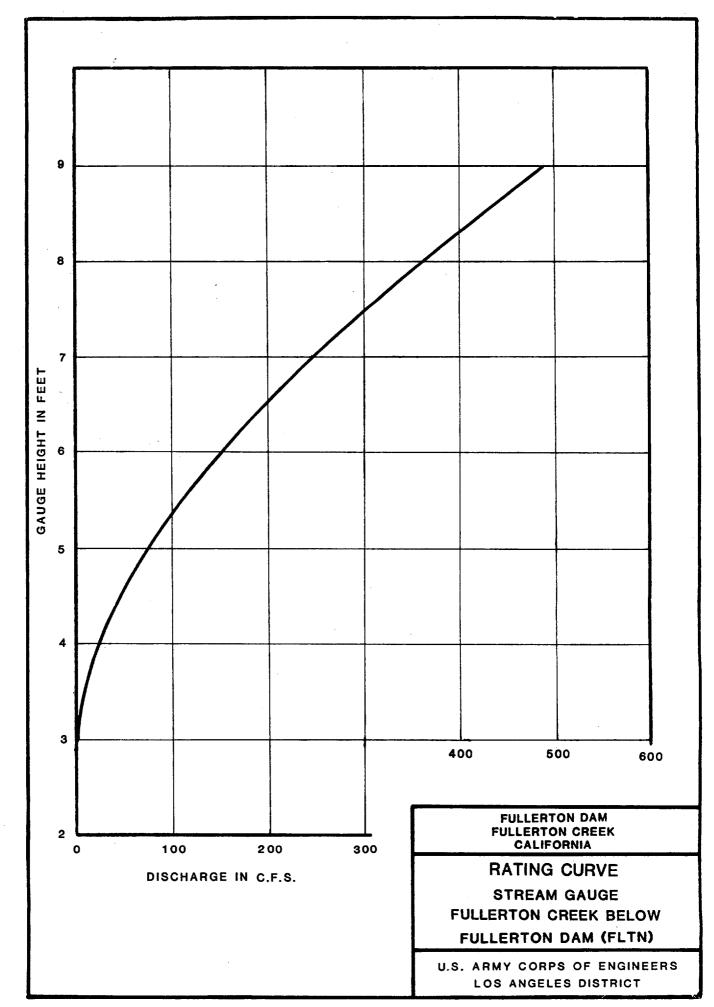


PLATE 5-06

14 12 10 GAUGE HEIGHT IN FEET 8 6 4 2 5000 4000 6000 ` FULLERTON DAM FULLERTON CREEK CALIFORNIA 0 0 1000 2000 3000 **RATING CURVE** DISCHARGE IN C.F.S. STREAM GAUGE FULLERTON CREEK AT **RICHMOND AVE. (FCKR)** U.S. ARMY CORPS OF ENGINEERS LOS ANGELES DISTRICT

PLATE 5-07

Notification List for Fullerton Dam (See Orange Book for Home Phone Numbers)

a. Prior to the starting of releases notify--

	Orange County Storm Center Environmental Management Agency (Manager Operations Division)	714-834-7083 714-634-7003 714-834-3820
	Orange County Sheriff (24-hour)	714-834-3000
	City of Fullerton	714-738-6306
	Fullerton Police Department	714-738-6817 714-738-6800
ь.	If the water will reach elevation 275 notify:	

USACE, Operation and Maintenance Section 818-401-4008 Craig Regional Park, Ranger Station 714-990-0271

c. If water will reach elevation 285 notify:

SPECIAL DAM INSPECTION TEAM

John Karakawa (Team Leader)	213-894-2245
Steve Vaughan	213-894-5546
Andy Korkos	213-894-5949

d. If uncontrolled spillway flow (above elevation 290) or a dam break is imminent make the following emergency evacuation notifications:

USACE, Emergency Management Branch

Orange County Communications Center (24-hour)

Fullerton Police Department

714-738-6800

213-894-3440

714-834-2127

FULLERTON DAM FULLERTON CREEK CALIFORNIA

NOTIFICATION LIST

FOR FULLERTON DAM

US ARMY CORPS OF ENGINEERS

LOS ANGELES DISTRICT

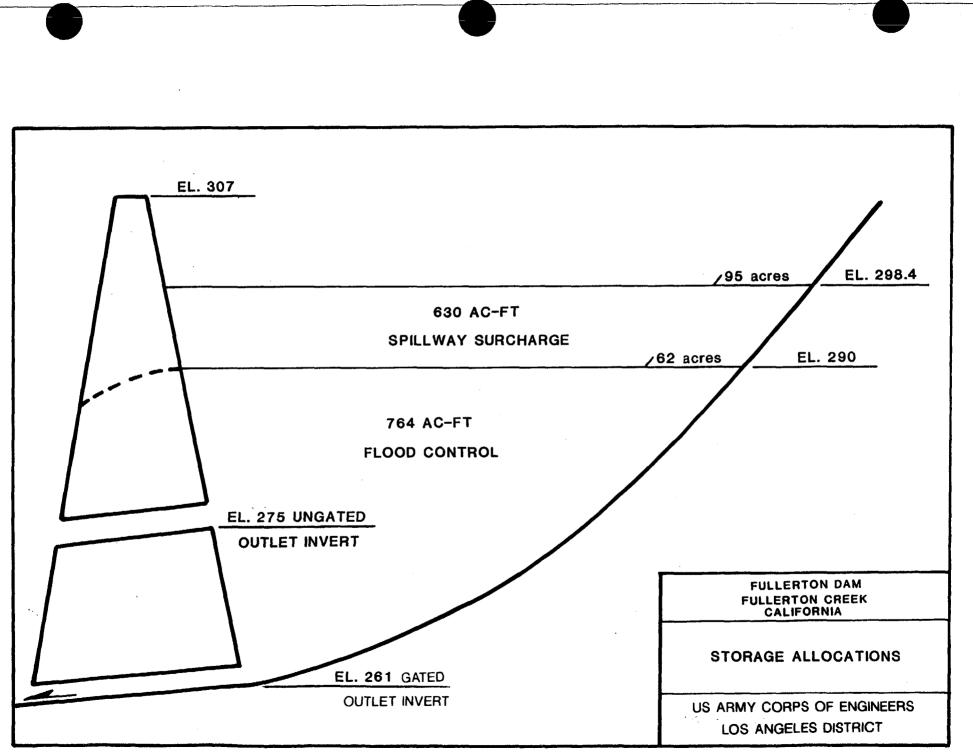
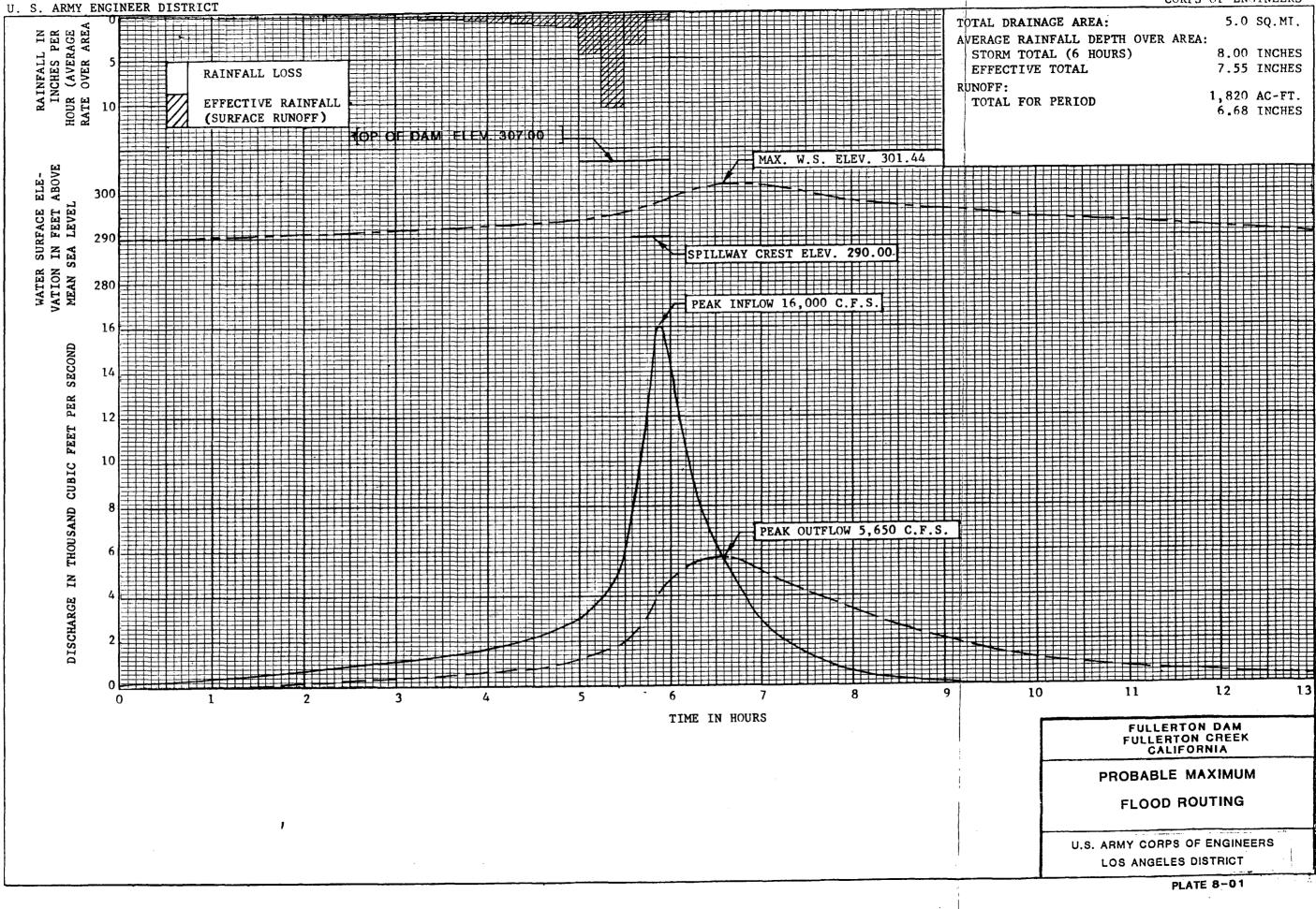
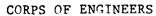
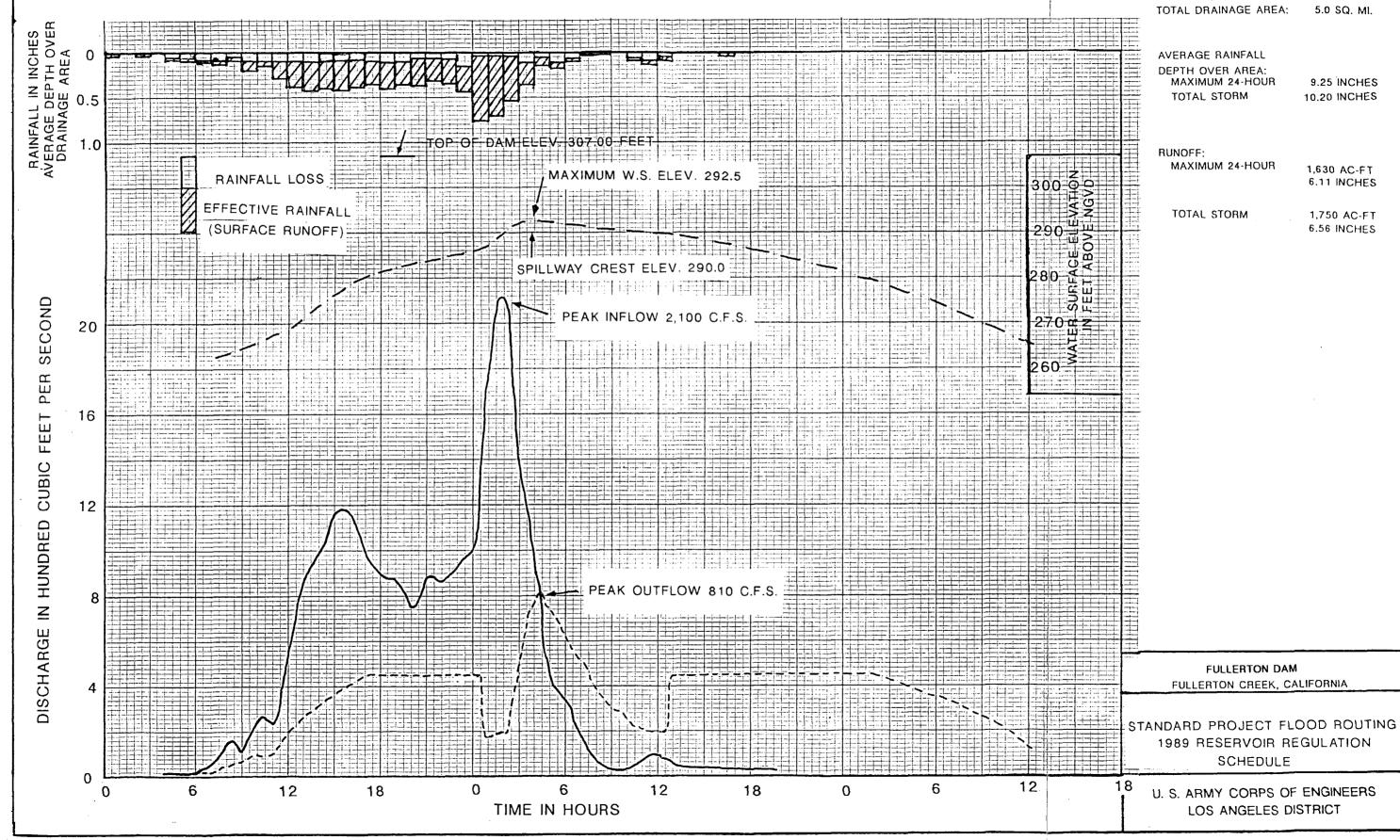


PLATE 7-01

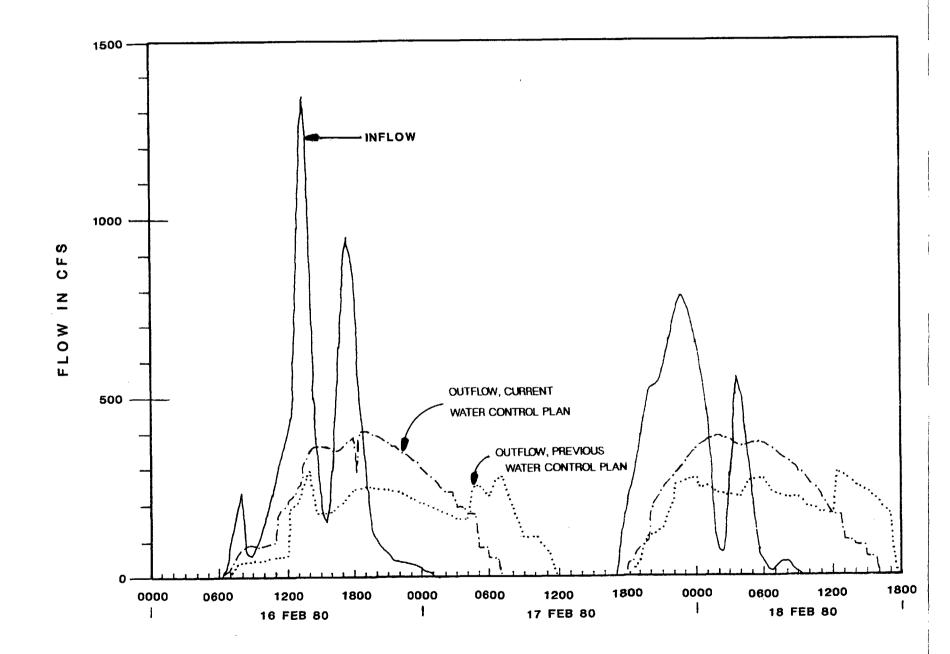


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FULLERTON DAM FULLERTON CREEK CALIFORNIA

16-18 FEBRURARY 1980 FLOOD ROUTING

COMPARING CURRENT AND PREVIOUS

WATER CONTROL PLAN

US ARMY CORPS OF ENGINEERS LOS ANGELES DISTRICT

