

Los Angeles County Flood Control District

RUNOFF REPORT
DISTRICT NO. 1A
SAN GABRIEL CANYON - REGULAR

193

Sta. No.	Station Location	Apprx. Elev. Gage USGS	Apprx. Drain. Area Sq. Mi.	Date	Time	Flow in S.F.		Observer's Remarks
						Est.	Meas.	
F 227 R	Devils Cn. Inflow No. 2 Reservoir	2410±	22.23					
F 228 R	West Fork Inflow No. 2 Reservoir	2410±	17.10					
F 209 R	Outflow No. 2 Reservoir	2100±	40.20					
P 3 R	West Fk. Inflow No. 1 Reservoir	1475±	102.24					
P 4 R	East Fk. In- flow No. 1 Reservoir	1475±	87.63					
F 28 R	S.G. River at Edison Intake	1200	202					
F 220 R	Conduit Tunnel Diversion	(Div.)	(Div.)					
F 208 R°	Outflow Pas. Res.	900±	210.85					
F 98 R	North Fork	1825±	18.8					
F 99B R	Bear Creek	1650±	27.7±					
Mcl	W. Fork above Bear Cr.							

Hydrographer _____ Approved _____ Chief Hydraulic Engineer

R - Recorder Station
S - Staff Gage
R° - Pasadena's Recorder

Los Angeles County Flood Control District

REPORT TO E. C. EATON, CHIEF ENGINEER

On

RUNOFF REPORT
SEASON 1930-1931.

F. H. Hay, Chief Hydrographer

December 20, 1931.

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

RUNOFF REPORT

SEASON OF 1930-31

HYDROGRAPHIC DEPARTMENT

In April, 1927, Mr. E. C. Eaton, Chief Engineer of the Los Angeles County Flood Control District, at Los Angeles, California, created the Hydrographic Department with Mr. Francis H. Hay as Chief Hydrographer.

Among other duties of this department being the collection and compilation of stream flow data in Los Angeles, County.

Recorder and staff gage stations were located and established for the measurement of the flow of streams since that time. The Flood Control District received the active co-operation of the United States Geological Survey, Water Resources Branch, Mr. H. D. McGlashon, District Engineer, for California and Mr. F. C. Ebert, Engineer in Charge for Southern California.

Since 1927 many thousand measurements of the flows of various streams in Los Angeles County have been made by hydrographers employed by the District and the calibration of many gaging stations established, and tabulations of runoff compiled for recorder stations.

During the past year several stations were moved due to road and bridge construction and several were changed to more advantageous locations. New Stations were established until at end of the season the District had constructed and has in operation one hundred and sixty (160) stations. Of these fifty-two (52) were equipped with automatic water stage recorders.

The Flood Control District also co-operates in the operation of fifteen (15) stations with the United States Geological Survey, Water Resources Branch, two (2) with the Pasadena Water Department, and one (1) with the Little Rock Palmdale Irrigation District. Making a total of one hundred and seventy-eight (178) stations from which measurements were being received. In Addition a large number of percolation measurements were taken to determine absorption losses in various channels and measurements were made of various streams near Whittier Narrows to try to ascertain the amount of the rising water in that vicinity.

During the season of October 1, 1930 to September 30, 1931, thirty-three hundred (3300) stream flow measurements were taken at the gaging stations and various other points in the river, creeks, and washes in the District.

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RECORDER STATIONS

RUNOFF REPORT

1930-1931

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2	Brown Canyon Creek	At Devonshire Ave.	45-49
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41	Coyote Creek	Below P.E. Bridge near Artesia	58-62
62	Curson Canyon	300 Ft. Above End of Curson Ave. Hollywood	63
53	Dume Creek	At Roosevelt Hwy. Bridge	64-68
104	Eaton Wash	At Broadway Bridge	69-74
110	Fox Creek	Near Junction with Big Tujunga Creek	75-79
65	Little Dalton Creek	At Mouth of Canyon.	80-84
67	Little Santa Anita Creek	1/4 mile below F.C. Dam	85-89
19	Little Tujunga Creek	At Foothill Blvd. Bridge	90-93
L1	Little Rock Creek	2 Miles Above Little Rock Irr. District Dam	94-97
31	Live Oak Creek	Near Mouth of Canyon, 1 Mile Below F.C. Dam	98
5	Los Angeles River	At Van Nuys Blvd. Bridge	99-105
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57	Los Angeles River	At Dayton Ave. Bridge.	123-129
124	Los Angeles River	At Vineland Ave. Bridge	130-138
130	Malibu Creek	At Crater Camp	139-144
112	Mill Creek	At 6 Miles Above Junction with Big Tujunga	145-148
22	Monrovia Creek	200 Ft. Above Junction with Sawpit Creek	149-154
46	Nigger Slough	At Wilmington Ave	155-158
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RECORDER STATIONS

RUNOFF REPORT

1930-1931

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48	San Jose Creek	At Workman Mill Road Bridge	282-289
92	Santa Clara River	At Hwy. Bridge 4 Miles West of Saugus	290-298
43	Sycamore Upper Storm Drain	At Solway St., Glendale	299-303
44	Sycamore Lower Storm Drain	Adams Sq., Glendale	304-309
54	Topanga Creek	At Hwy. Bridge 2 Miles Above Mouth	310-316
9	Verdugo Storm Drain	At Glen Oaks Blvd. Bridge, Glendale	317-321
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RECORDER STATIONS

RUNOFF REPORT

1930-1931

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U15	San Antonia Creek	Near Claremont	374-378
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STAFF GAGE STATIONS

RUNOFF REPORT

1930-1931

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58	Arroyo Seco	At Avenue 26 Bridge	395-396
157	Arroyo Siquis	Roosevelt Hwy. Bridge	
87	Santa Ditch	At Head of Pipe Line	
117	Ballona Creek	At Duquesne St. Bridge, Culver City	
166	Ballona Creek	500 ft. Below Washington Blvd.	
159	Ballona Creek	At P.E.R.R. Bridge 200 Ft from Ocean	
156	Ballona Creek East Branch	Below W. Adams St.	
150	Benedict Canyon Creek	60 Ft. W. of Oakhurst Bridge.	
120	Big Dalton Creek	Venturi 200 Ft. Below F.C. Dam	
128	Big Rock Creek	Flume 300' below Montes	
127	Big Rock Creek	1/4 Mile Above Public Camp Ground	
143	Big Rock Creek	Rising Water 300 Ft. Above Palette	397
10	Big Tujunga Creek	Flume 2000 Ft. Below Dam	
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114	Big Tujunga Wash	At San Fernando Road	398
20	Big Tujunga Wash	At Mulholland St. Bridge	399
155	Big Tujunga Wash	At Foothill Blvd.	400-401
142	Bouquet Canyon Creek	1 1/2 Miles N. Saugus at Hwy. Bridge.	402
52	Brand Canyon	Above Mountain Ave.	
79	Browns Gulch	Near Junction with San Gabriel River	403
3	Calabasas Creek	At Shoup Ave. Near Owens-mouth	
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139	Charlie Canyon Ck.	$\frac{1}{2}$ mi. above Castaic Ck.	
61	Cold Creek	At Crater Camp	408
74	Eaton Wash	At Foothill Blvd.	
141	Elizabeth Lake Creek	Bridge at Center Cabin Site	409
168	El Monte Ave. Storm Drain	Below Lower Azusa Road	
165	Gold Creek	At Little Tujunga Creek	410
131	Gavin Cn. Creek	At Welden Cn. Hwy. 100 ft. above Towsley Ck.	
132	" " "	At Welden Cn. Hwy. 1000ft. above Towsley Cn.	411
51	Hansen Canyon	Near Roxford Ave.	
60	Las Virgenes Ck.	At Colyear Dam	
149	Limekiln Wash	At Devonshire Ave.	
30	Little Dalton Ck.	At Lorraine Ave.	
126	Little Rock Ck.	$\frac{1}{2}$ mi. below dam	
73	Little Santa Anita Ck.	At Double Drive--Arcadia	
164	Little Tujunga Ck.	At Gold Creek	
6	Los Angeles River	At Whitsett Ave. Br.	412-413
35	" " "	At Norton Ave.	
39	" " "	At Artesia Ave.	
LAL	" " "	L.A.W.D. Recorder at Cal. St. extended	
90	Malibu Creek	At Malibu Gorge $\frac{1}{2}$ mile below Crater Cp.	
56	Mandeville Cn. Ck.	Above Administration Bldg. near Roxford Ave.	
49	May Cn. Creek	$\frac{1}{2}$ mi. above Devil's Gate Dam	
153	Millard Creek	At Soledad Cn. Hwy. Roosevelt Hwy. Bridge	414
144	Mint Canyon Creek		
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128	Opid's Camp		
4	Otis Creek	At Ventura Blvd.	
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STAFF GAGE STATIONS

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18	" "	At Mulhalland St. & Foothill Blvd.	
121	Palette Creek	1 mi. above Big Rock Ck.	417
122	" "	Rising Water	
133	Pico Cn. Creek	At Big Rock Creek	418
136	" " "	At Welden Cn. Hwy.	
134	Placerita Cn Ck.	$\frac{1}{2}$ mi. W. Saugus on Hwy. Bridge	419
135	" " "	1 mi. W. Saugus in R.R. Culvert	
80	Polecat Gulch	500 ft. W. Saugus at S.P.R.R.	
129	Rice Cn. Ck.	Above Jct. with San Gabriel R.	
89	Rincon Ditch	At Welden Cn. Hwy.	420
145	Sand Cn. Ck.	At new diversion	
91	San Dimas Ck.	Soledad Cn. Hwy.	
101	" " "	Above F.C. Dam	427
109	San Fernando Ck.	At Venturi flume 200 ft. below F.C. Dam	
161	" " "	At Devonshire Ave.	
94	San Francisquito Ck.	At Nordhoff St. Bridge	
23	San Gabriel R. W. Fk.	Near Castaic Jct.	421
24	" " " " "	Above Narrows	
26	" " North Fork	At Narrows	
27	" " East Fork	Below Cattle Canyon	
78	" " " "	Above Forks	
76	" " West Fork	Above Bear Creek	
77	" " " "	Above North Fork	
86	San Gabriel R.	Below Stanifer Ditch	422-423
72	Santa Anita Wash	$\frac{1}{2}$ mi below Arrow Hwy.	
71	Santa Anita Wash	At Foothill Blvd.	
119	" " "	Venturi Flume below F.C. Dam	
147	Santa Clara R.	At Bouquet Canyon Rd.	
93	" " "	At Lang	424-425
137	" " "	1 mi. W. Castaic Jct.	426
55	Santa Monica Cn.	At N. Channel Road	
125	Santiago Ck.	Above Mouth	
69	Sawpit Wash	50 ft. above Foothill Blvd.	
70	" "	above Arrow Hwy.	
88	Sheep Creek	Below Temple Diversion	
68	Spanish Cn. Ck.	Above Jct. with Sawpit Ck.	
85	Stanifer Ditch	below Headgate	428-429
75	Storm Drain	West of Sawpit Wash, Monrovia	
32	Thompson Ck.	$\frac{1}{2}$ mi. below F.C. Dam	

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STAFF GAGE STATIONS

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160		At P.E.R.R. Bridge 100 ft. from Ocean	
66	Tri City Sewer Outfall	Above Jct. with Rio Hondo	430-431
8	Verdugo Storm Drain	At San Fernando Road	
138	Violin Canyon Wash	Hwy. Bridge At Castaic	
148	Welden Canyon Creek	R.R. Bridge $\frac{1}{2}$ mi. above Mouth Fremont Canyon	432
1	West San Fernando Ok.	At Devonshire Ave.	433
50	Wilson Cn Creek	near County Hospital	
	B. Tujunga Creek	near Big Tujunga Dam No.1	434-449
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San Gabriel River	490-492

RUNOFF

1930-1931.

F.C. No.	Station	Location	Runoff Acre Feet
81	Alhambra Wash	Garvey Avenue Bridge	1503.79
102	Alhambra East Wash	S.P.R.R. Main Line	870.57
103	Alhambra West Wash	S.P.R.R. Main Line	674.60
98	Ballona Creek	Centinela Blvd, near Culver City	18518.17
21	Big Santa Anita Creek	1/4 mile below F.C.Dam	1155.08
106	Big Tujunga East Wash	Magnolia Ave. North Hollywood	90.82
105	Big Tujunga West Wash	Mangolia Ave. North Hollywood	0
111	Big Tujunga Creek	Near Fox Creek	1441.61
2	Brown Canyon Creek	Devonshire Avenue	554.34
37	Compton Creek	Rosecrans Ave. Compton	2398.22
41	Coyote Creek	P.E. Bridge Near Artesia	567.92
62	Curson Creek	300' above end of Curson Road	0
53	Dume Creek	Roosevelt Highway Bridge	126.83
104	Eaton Wash	Broadway Bridge	313.54
110	Fox Creek	Near Junction with Big Tujunga Creek	234.85
65	Little Dalton Creek	At Mouth of Canyon	29.96
67	Little Santa Anita Creek	1/4 mile below F.C.Dam	7.75
19	Little Tujunga Creek	At Foodhill Blvd. Bridge	56.71
L1	Little Rock Creek	2 Miles above L.R.P.I.D. Dam	3613.73
31	Live Oak Creek	1 Mile below F.C.Dam	0
5	Los Angeles River	Van Nuys Blvd. Bridge	3681.21
34	Los Angeles River	Steward and Gray Road	13453.99
36	Los Angeles River	Willow St. Long Beach	14397.18
57	Los Angeles River	Dayton Avenue Bridge	3949.53
124	Los Angeles River	Vineland Avenue Bridge	8373.73 inc.
130	Malibu Creek	Grater Camp	1917.65 inc.
112	Mill Creek	6 miles above junction with Big Tujunga	139.25
22	Monrovia Creek	Above junction with Sawpit Creek	43.11
46	Nigger Slough	At Wilmington Road	1457.14
16	Pacoima Wash	At Parthenia St. Bridge	105.44
40	Puddingstone Creek	Below F. C. Dam	23.17
45	Rio Hondo	Steward & Gray Rd. Bridge	1902.70
64	Rio Hondo	1000' above Mission Bridge	16408.28

RUNOFF
1930-1931

F. C. NO.	STATION	LOCATION	RUNOFF ACRE FEET.
83	Rio Hondo Slough	At San Gabriel Blvd. Bridge	11819.90
107	Rubio Wash	Los Tunas Blvd. Bridge	1114.64
151	San Antonio Creek	At Mouth of Canyon	201.09 in
28	San Gabriel River	At Edison Intake	35693.45
42	San Gabriel River West Fork	Spring St. Long Beach	0
63	San Gabriel River West Fork	Whittier Blvd. Bridge	2492.22
96	San Gabriel River East Fork	1/2 Mile below mouth of Cattle Canyon	19016.74
97	San Gabriel River West Fork	3 1/2 Miles Above N. Fork	6736.68
98	San Gabriel River North Fork	2000' above Narrows	2495.89
99	San Gabriel River Bear Creek	At Pasadena's Boy Scout Camp	4498.91
P2	San Gabriel River East Fork	P.W.D. Sta. Above Mouth Cattle Canyon	15199.02
P1	San Gabriel River	P.W.D. 2 Miles Above	14632.29
P3	San Gabriel River West Fork	North Fork	
100	San Gabriel River Spreading Grounds	At Mouth of Canyon	3553.08
48	San Jose Creek	At Workman Mill Road	530.61
92	Santa Clara River	At Old Highway Bridge 4 Miles W. Saugus	1888.78
43	Sycamore Upper Storm Drain	At Solway St. Glendale	39.80
44	Sycamore Lower Storm Drain	Adams Square, Glendale	190.11
54	Topanga Creek	Highway Bridge, 2 miles Above Wash	705.29
9	Verdugo Storm Drain	Glen Oaks Blvd. Bridge	145.05
47	Walnut Wash	Covina Blvd. Bridge	210.41

RUNOFF

1930-1931

U.S.G.S. STATIONS

F. C. No.	STATION	LOCATION	RUNOFF ACRE FEET
U1	Arroyo Seco	Near Pasadena	1450
U9	Big Dalton Creek	Near Glendora	29.5
U14	Big Rock Creek	Near Valyermo	4270.
U4	Big Santa Anita Creek	Near Sierra Madre	989
U11	Big Tujunga Creek	Near Tujunga	3070
U2	Eaton Creek	Near Pasadena	211
U7	Fish Creek	Near Azusa	888
U12	Haines Canyon Creek	Near Tujunga	0.56
U3	Little Santa Anita Creek	Near Sierra Madre	103
U13	Pacoima Creek	San Fernando	863
U6	Rogers Creek	Near Azusa	260
U15	San Antonio Creek	Near Claremont	8530
U10	San Dumas Creek	Near San Dumas	507
U8	San Gabriel River	Near Azusa and Southern California Edison Canal	31,800
U5	Sawpit Creek	Near Monrovia	596

ALHAMBRA WASH AT GARVEY AVENUE BRIDGE

Location

On the east end, north side of Garvey Ave. bridge, 150 feet west of San Gabriel Boulevard at Wilmar, Los Angeles County, California.

Drainage Area

12.85 square miles.

Installed by

Los Angeles County Flood Control District, January, 1929.

Records Available

Stream measurements November 14, 1928 to January, 1929.

Recorder Records, January, 1929 to September 30, 1931, at offices of the Los Angeles County Flood Control District, Los Angeles, California.

Gage

Stevens, Type L, 8 day recorder installed in shelter house on corrugated iron stilling well attached to upstream east end of highway bridge vertical staff gage installed on pier.

Discharge Measurements

High water flows are measured from bridge. Low water measurements made by wading near gage.

Channel and Control

Channel - sand and gravel
Control - concrete section under bridge.

Extremes of Discharge

1929-1930

Maximum- 1868.20 c.f.s. March 14, 1930.

Minimum-Dry most of the year.

1930-1931

Maximum-1530 c.f.s. February 3, 1931

Minimum-Dry most of year.

Diversions

None above gage

Regulation

None.

Accuracy

Good.

F-81 R

Co-operation

Located, constructed and operated by the
Los Angeles County Flood Control District,
in co-operation with the U.S.G.S. Water
Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 81

Discharge measurements of **Alhambra Wash**

River
Creek

at **Garvey Ave. Bridge**
near

during the year ending September 30, 1931

No.	Date	Made by	Width		Mean velocity	Gage height		Discharge	Rating	Method	Co. C.	Meters	G. H. change	Time	Meter No.
			Feet	Sq. Ft.		Feet	Sec. Ft.								
	1930														282
1	11/17	Lindsay-Burke	32.04	44.59	7.53	1.23	316.0			.6		8		2/15	883
2	1931 1/2	Lindsay	31.01	19.70	4.78	.45	93.9			.6		7		.081/6	"
3	5	Lindsay-Laird	30.03	2.30	6.35	.98	205.0			.6		8		.101/4	"
4	7	" "	32.05	7.26	9.23	1.85	529.0			.6		6		.101/3	"
5	31	Lindsay	32.03	0.90	6.80	1.03	210.2			.6		6		.341/6	"
6	2/3	Lindsay-Laird	32.01	16.2	13.2	3.70	1223.			.6		6		.201/10	"
7	3	" "	32.06	1.60	8.48	1.78	522.4			.6		6		.053/10	"
8	3	" "	32.04	2.20	6.35	1.15	268.0			.6		6		.201/10	"
9	3	" "	32.02	4.60	5.18	.57	127.7			.6		8		.141/6	"
10	4	" "	32.06	8.90	8.71	1.95	600.0			.6		6		1/5	"
11	4/24	" Irwin	31.02	1.79	4.37	.43	95.3			.6		8		1/6	"
12	26	" "	32.01	14.71	11.6	3.66	1334.			.6		6		.451/4	"

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **81**

Rating table for **Alhambra Wash at Garvey Ave. Bridge**

, from Oct. 1st , 1930 , to Sept. 30st , 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
0.02	0.0	1.0	1.10	254	3.5	3.10	1083	4.4						
0.0	2.0	1.5	1.20	289	3.9	3.20	1127							
.02	5.0		1.30	328		3.30	1171							
.04	8.0		1.40	367		3.40	1215							
.06	12.0		1.50	406		3.50	1259							
.08	16.0		1.60	445	4.0	3.60	1303	4.5						
.10	20.0	2.2	1.70	485	4.1	3.70	1348							
.15	31.0		1.80	525		3.80	1393							
.20	42.0		1.90	566	4.2	3.90	1438	4.6						
.25	53.0		2.00	607		4.00	1484							
.30	64.0		2.10	649	4.3	4.10	1530							
.35	75.0		2.20	691		4.20	1576							
.40	86.0		2.30	734	4.4	4.30	1622							
.45	97.0		2.40	777		4.40	1668							
.50	108.0	2.3	2.50	820										
.60	131		2.60	863	4.4									
.70	154		2.70	907										
.80	177		2.80	951										
.90	200	2.4	2.90	995										
1.00	224	3.0	3.00	1039										

The above table is not applicable for obstructed channel conditions. It is based on 12 discharge measurements made during Year 1930-1931

and is fairly well defined between 95.27 second-feet and 1334.0 second-feet.

Computed by R Lindsay

Checked by W.T.K.

Date

ALHAMBRA WASH

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 81

for the Year Ending September 30, 1931

Drainage Area 12.85 Square Miles.

R. LINDSAY

Observer.

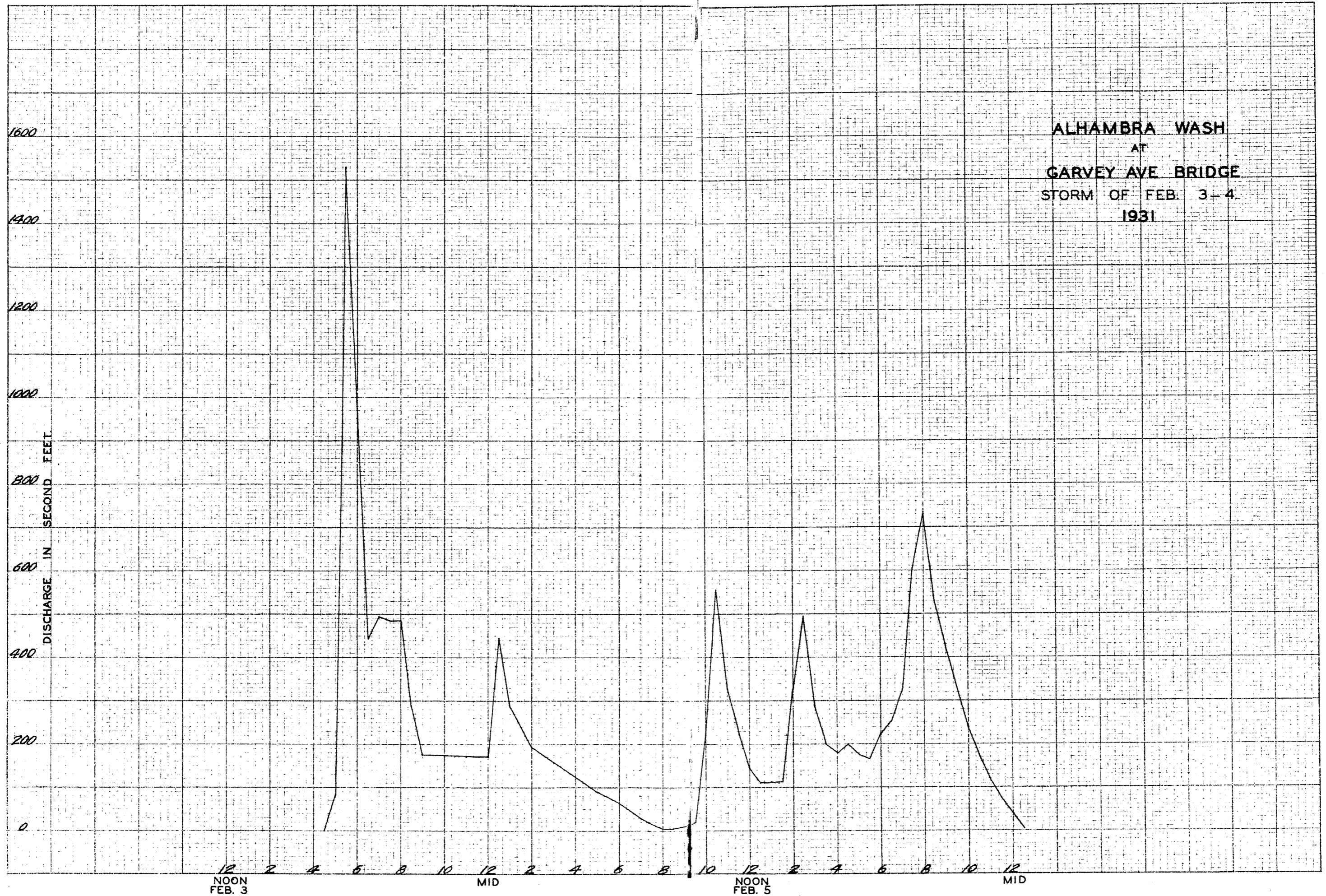
Gage Read CONTINUOUS

Used rating table dated

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	
1	Dry	0	Dry	0	Dry	0	H	19.63	Dry	0	Dry	0	1	Dry	0	Dry	0									1
2							H	14.39	Dry	0			2													2
3							Dry	0	H	122.88			3													3
4							Dry	0	H	208.97			4													4
5							H	17.36	.02	5.0			5													5
6							Dry	0	Dry	0			6													6
7							H	50.26					7													7
8							H	20.04					8													8
9							Dry	0					9													9
10													10													10
11													11													11
12													12													12
13													13													13
14													14													14
15													15													15
16													16													16
17													17													17
18													18													18
19													19													19
20													20													20
21													21													21
22													22													22
23													23													23
24													24													24
25													25													25
26													26													26
27													27													27
28													28													28
29													29													29
30													30													30
31													31													31
TOTAL,																										
Mean Daily Discharge in Second-feet	0		23.64		0		150.16		336.85		0		231.19		6.5		0		0		0		0		0	
Second-feet per square mile			.009				.377		.936				.600		.016											
Run-off, depth in inches																										
Run-off in acre-feet			66.71				297.77		667.97				458.45		12.89											1503.79
Maximum Mean Daily Discharge in Second-feet			17.14				50.26		208.97				226.19		6.5											
Minimum Mean Daily Discharge in Second-feet	0		0		0		0		0		0		0		0											

H.V. V.K.
H.V. V.K.
H.V. V.K.
H.V. V.K.
H.V. V.K.

Maximum stage 4.20
Minimum stage 0
Dry feet at foot of year
Discharge
153



KEUFFEL & ESSER CO., N. Y., NO. 359-211
12 X 20 to the Inch.

F-102 R

ALHAMBRA EAST WASH AT S.P.R.R. MAIN LINE EAST

Location

On southside of Culvert where the Southern Pacific Railroad's Main Line East crosses Alhambra East Wash near Alhambra, California.

Drainage Area

6.85 square miles

Installed by

Los Angeles County Flood Control District on October 1, 1930

Records Available

October 1, 1930 to September 30, 1931 at office of Los Angeles County Flood Control District, Los Angeles, California.

Gage

Stevens L type 8 day water stage recorder installed in small house on top of a corrugated iron pipe stilling, attached to downstream wing wall on west side of wash.

Discharge Measurements

Low water measurements made by wading
High water measurements made from foot of bridge at gage

Channel and Control

Concrete channel
Good Control

Extremes of Discharge

Maximum-930 c.f.s. on April 26, 1931
Minimum-Dry most of year

Diversions

None

Regulation

None

Accuracy

Fair

Co-operation

Located, constructed and operated by the Los Angeles County Flood Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 102

Discharge measurements of Alhambra East Wash

River
Creek

at S.P.R.R. Main Line
~~near~~

, during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Coef.	Meas. secs.	G. H. change	Time	Meter No.
			Feet	Sq. ft.	Ft. per sec.	Feet	Sec. ft.	Percent diff.			No.	Total	Hours	282
1930														
1	11/15	Lindsay	20.0	8.4	2.01	.23	16.82		.6		5	.061	10883	
2	16	Lindsay-Burke	20.0	9.4	2.30	.26	21.83		.6		5	.011	2	"
3	16	" "	11.0	3.7	2.43	.15	8.01		.6		4	.011	10	"
4	17	" "	20.0	13.0	5.08	.30	67.76		.6		5	.082	15	"
5	17	" "	20.0	20.4	6.85	.72	139.7		.6		5	.151	10	"
1931														
6	1/1	" "	20.0	13.4	3.84	.54	51.5		.6		5	.081	6	"
7	5	Burke-Donaldson	28.0	26.6	5.67	1.20	150.8		.6		7	.401	5	271 637
8	7	" "	28.0	31.9	6.40	1.50	204.2		.6		11	.40	"	"
9	8	Burke	20.0	9.6	4.30	.58	41.3		.6		5	1/6	"	"
10	8	Burke-Donaldson	20.0	16.0	5.78	.90	92.3		.6		5	.15	"	"
11	31	Burke-Cole	20.0	12.2	4.04	.65	49.1		.6		5	.14	"	"
12	2/3	" "	28.5	61.5	12.6	3.00	777.0		.6		8	"	"	"
13	3	" "	20.0	14.2	5.65	.89	80.0		.6		5	.09	"	"
14	4	" Oppenheimer	24.0	19.9	7.75	1.65	154.3		.6		11	.10	"	"
15	4	" "	24.0	19.8	7.28	1.27	143.8		.6		6	.35	"	"
16	4/24	Burke-Cole	20.0	14.9	4.31	.72	64.0		.6		5	.07	"	"
17	26	" "	14.5	4.7	4.00	.35	18.7		.6		7	1/4	"	"

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **102**

Rating table for **ALHAMBRA EAST WASH AT S.P.R.R.**

, from **Oct. 1** , 19**30** , to **Sept. 30** , 19**31**

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
0	0	.60	1.00	95.0		2.00	284.0		3.00	540.	3.0			
.05	3.0		.05	101.5		.05	296.0		.10	570.				
.10	6.0		.10	108.0		.10	308.0		.20	600.				
.15	9.5	.70	.15	116.0	1.6	.15	320.0		.30	630.				
.20	13.0		.20	124.0		.20	332.0		.40	660.				
.25	16.5		.25	132.0		.25	344.0		.50	690.				
.30	20.0		.30	140.0		.30	356.0		.60	720.				
.35	24.5	.90	.35	149.0	1.8	.35	368.0		.70	750.				
.40	29.0		.40	158.0		.40	380.0		.80	780.				
.45	33.50		.45	167.0		.45	393.0	2.6		810.				
.50	38.0	1.0	.50	176.0	2.0	.50	406.0			840.				
.55	43.0		.55	186.0		.55	419.0			870.				
.60	48.0		.60	196.0		.60	432.0			900.				
.65	53.0		.65	206.0		.65	445.0			930.				
.70	58.0		.70	216.0		.70	458.0							
.75	64.0	1.2	.75	227.0	2.2	.75	471.0							
.80	70.0		.80	238.0		.80	484.0							
.85	76.0		.85	249.0		.85	497.0							
.90	82.0		.90	260.0		.90	510.0							
.95	88.5	1.3	.95	272.0	2.4	.95	525.0	3.0						

The above table is not applicable for obstructed channel conditions. It is based on **17** discharge measurements made during **year 1930-31**

and is well defined between second-feet and second-feet.

Computed by **H.V.**

Checked by **W.T.K.**

Date

At **xx** S.P.R.R. CULVERT MAIN LINE

for the Year Ending September 30, 19 31

Drainage Area **6.95** Square Miles.

[**R. L. LINDSAY** Observer.]

Gage Read **CONTINUOUS**

Used rating table dated _____

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	
1	Dry	0	Dry	0	Dry	0	H	8.28	Dry	0	Dry	0	Dry	0	Dry	0									
2							H	13.55	Dry	0															
3							Dry	0	H	55.05															
4							Dry	0	H	104.99															
5							H	10.18	Dry	0															
6							Dry	0	Dry	0															
7							H	24.40																	
8							.18	11.60																	
9							Dry	0																	
10									Dry	0															
11									.01	.60															
12			Dry	0					.02	1.20															
13		DRY	.01	.60		DRY			.01	.60		DRY		DRY		DRY		DRY		DRY		DRY		DRY	
14			Dry	0					.01	.60															
15			Dry	0					Dry	0															
16			.03	1.80																					
17			H	16.97																					
18			Dry	0			DRY																		
19																									
20										DRY															
21																									
22													DRY	0											
23													DRY	0	DRY	0									
24													H	11.07	H	5.58									
25													DRY	0	H	4.79									
26													H	133.87	DRY	0									
27			Dry	0									DRY	0											
28			.05	3.0																					
29			.04	2.4						Dry	0														
30			Dry	0						-															
31			Dry	0		Dry	0	H	27.89			Dry	0												

TOTAL	0	24.77	0	95.90	163.04	0	144.94	10.37	0	0	0	0	
Discharge in second-foot		.83		3.09	5.82		4.83	.33	0	0	0	0	
Feet per square mile		.096		.445	.837		.694	.047					
Appl to inches													
Appl to feet	0	49.12	0	190.17	323.30	0	287.42	20.56	0	0	0	0	870.57
Feet per second-foot		12.29	0	27.89	104.99		133.87	5.58					
Feet per foot		0	0	0	0		0	0					

DRY WITH ACHT OF AN YEAR
 DRY WITH ACHT OF AN YEAR
 DRY WITH ACHT OF AN YEAR

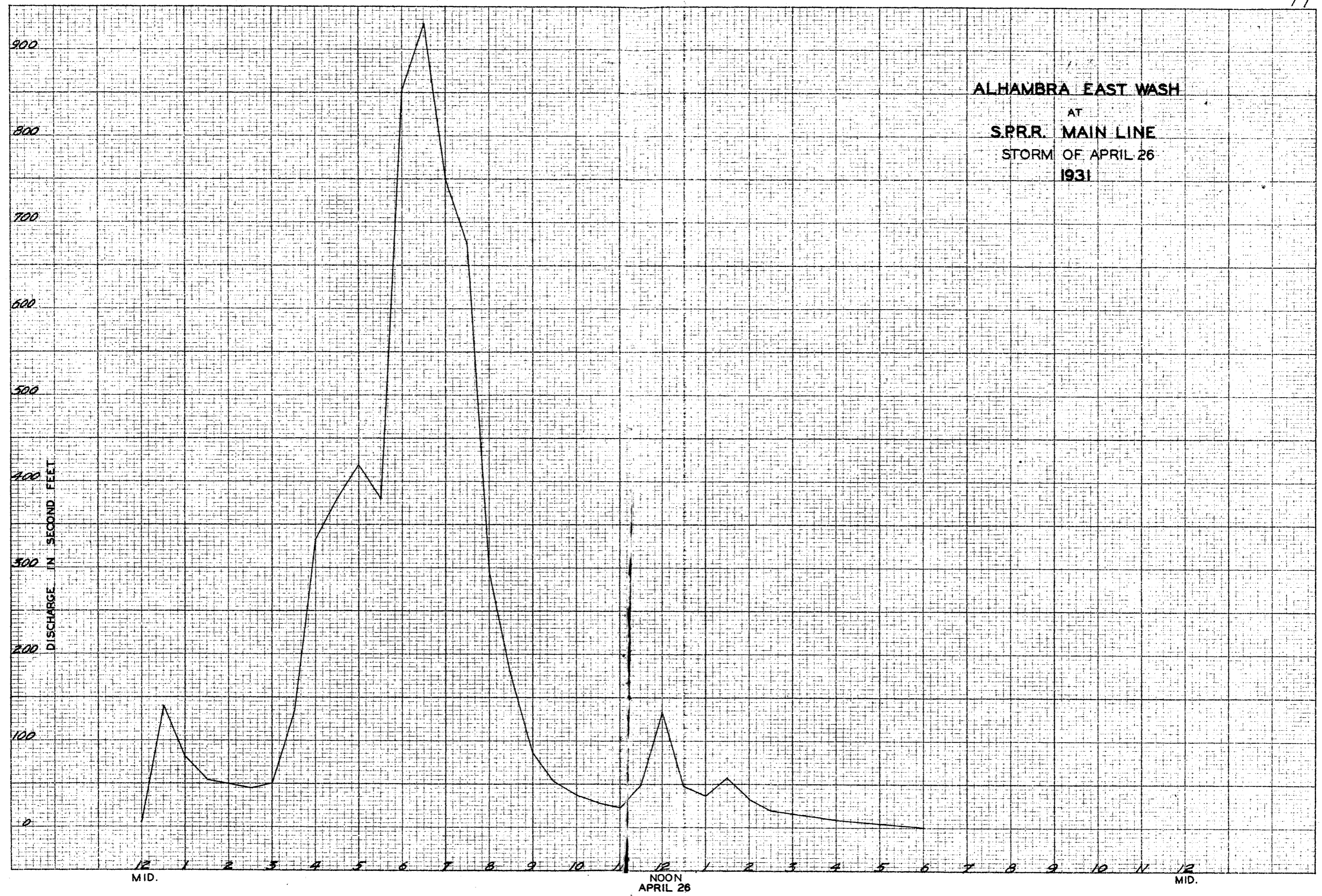
H.V.

H.V.

H.V.

PERIOD YEAR

ALHAMBRA EAST WASH
AT
S.P.R.R. MAIN LINE
STORM OF APRIL 26
1931



KEUFFEL & ESSER CO., N. Y. NO. 359-21L
12 X 20 to the inch.

F-103 R

ALHAMBRA WEST WASH AT S.P.R.R. MAIN LINE EAST

Location

On south side of culvert where the Southern Pacific Railroad Main Line East crosses Alhambra West Wash near Alhambra, California.

Drainage Area

3.47 square miles

Installed by

The Los Angeles County Flood Control District
October 1, 1930.

Records Available

From October 1, 1930 to September 30, 1931 at offices of the Los Angeles County Flood Control District, Los Angeles, California.

Gage

Stevens L type 8 day water stage recorder installed in small shelter house on top of a corrugated iron pipe stilling well on downstream side attached to west wing wall.

Discharge Measurements

Low water measurements made by wading
High water measurements made from foot of bridge, at gage

Channel and Control

Concrete channel, good control

Extremes of Discharge

Maximum-648.5 c.f.s. on April 26, 1931
Minimum-Dry most of year

Diversions

None

Regulations

None

Accuracy

Fair

Co-operation

Located, constructed and operated by the Los Angeles County Flood Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 103

Discharge measurements of **Alhambra West Wash**

**River
Creek**

at **S.P.R.R. Main Line**
near

, during the year ending September 30, 19**31**

No.	Date	Made by	Width Feet	Area of section Sq. ft.	Mean velocity ft. per sec.	Gage height Feet	Discharge Sec.-ft.	Rating Percent diff.	Method	Corr.	Meas. secs.	G. Ht. change	Time Hours	Meter No.
	1930													282
1	11/15	Lindsay	16.0	6.8	3.69	.35	25.1		.6		4	.021	10883	
2	17	Lindsay-Burke	16.0	12.0	4.16	.46	50.1		.6		4	.03	" "	
3	17	" "	16.0	20.5	6.90	1.03	141.6		.6		4	.552	15 "	271
4	1/1	Burke	16.0	5.2	1.80	.27	9.4		.6		4	.021	6	637
5	1	"				Est.	1.9							282
6	1	Lindsay-Burke	16.0	9.7	2.94	.37	28.4		.6		4	.022	15883	271
7	5	Burke-Donaldson	24.0	26.0	9.10	1.10	237.9		.6		6	.761	4	637
8	7	Burke	16.0	4.8	2.14	.28	10.2		.6		4	.041	6	"
9	7	Burke-Donaldson	25.0	19.8	7.81	.93	155.8		.6		9	.05	" "	
10	31	" Cole	16.0	10.4	5.06	.43	52.6		.6		4	.10	" "	
11	2/3	" "	24.0	20.9	10.3	3.78	216.0		.6		11	2.21	4	"
12	3	" "	24.0	28.4	10.1	1.95	287.0		.6		10	2.4	5/12	"
13	3	" "	16.0	8.8	3.62	.37	32.0		.6		4	.021	10	
14	4	" Oppenheim	24.0	19.8	9.15	1.35	180.8		.6		11	.501	6	"
15	4	" "	22.0	19.2	9.80	1.20	188.3		.6		6	.20	" "	
16	4/26	" Cole	16.0	5.4	3.38	1.28	18.2		.6		5	"	"	
17	14	Lindsay				Est.	.5							

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 103

Rating table for ALHAMBRA WEST WASH AT S.P.R.R. BRIDGE

, from Oct. 1, 1930, to Sept. 30, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
0	0		1.00	138.5		3.00	478.5							
.05	.5	.10	.10	155.5	1.70	.10	495.5							
.10	2.0	.30	.20	172.5		.20	512.5							
.15	4.5	.50	.30	189.5		.30	529.5							
.20	8.0	.70	.40	206.5		.40	546.5							
.25	13.0	1.00	.50	223.5		.50	563.5							
.30	20.0	1.40	.60	240.5		.60	580.5							
.35	28.0	1.60	.70	257.5		.70	597.5							
.40	36.0	1.70	.80	274.5		.80	614.5							
.45	45.0		.90	291.5		.90	631.5							
.50	53.5		2.00	308.5		4.00	648.5							
.55	62.0		.10	325.5										
.60	70.5		.20	342.5										
.65	79.0		.30	359.5										
.70	87.5		.40	376.5										
.75	96.0		.50	393.5										
.80	104.5		.60	410.5										
.85	113.0		.70	427.5										
.90	121.5		.80	444.5										
.95	130.0		.90	461.5										

The above table is not applicable for obstructed channel conditions. It is based on 16 discharge measurements made during year 1930-1931

and is fairly well defined between 9.36 second-feet and 287. second-feet.

Computed by H.V.

Checked by V.K.

Date

Gage Height, in Feet, and Discharge, in Second-Foot, of

ALHAMBRA TEST WASH

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

File No. 103

S.P.R.R. CULVERT MAIN LINE

for the Year Ending September 30, 19 31

Area 3.47

Square Miles.

LINDSAY

Observer.

Gage Read CONTINUOUS

Used rating table dated

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		
1	Dry	0	Dry	0	Dry	0	H	14.49	Dry	0	Dry	0	DRY	0	Dry	0					Dry		Dry		1	
2							H	8.09	Dry	0															2	
3							Dry	0	H	52.00															3	
4							Dry	0	H	70.49															4	
5							H	10.21	H	.27															5	
6							Dry	0	Dry	0															6	
7							H	33.06																	7	
8	Dry	0					H	10.33																	8	
9	H	.05					Dry	0																	9	
10	Dry	0							Dry	0															10	
11									H	.22															11	
12			Dry	0					H	.90															12	
13			H	1.28					H	.28												Dry			13	
14			Dry	0					Dry	0												.01	.10		14	
15			Dry	0																		Dry			15	
16			H	2.09																					16	
17			H	15.19														DRY		DRY					17	
18			Dry	0																					18	
19																									19	
20																									20	
21																									21	
22																									22	
23																									23	
24																									24	
25			Dry	0																					25	
26			H	.13																				H	.02	26
27			H	4.69																				Dry		27
28			H	.48					Dry	0															28	
29			Dry	0					-	-															29	
30			Dry	0			Dry	0	-	-															30	
31	Dry	0	-	-	Dry	0	H	15.79	-	-	Dry	0	-	-	Dry	0					Dry	-	-		31	

Dry various times during the year

Minimum stage feet at Discharge

TOTAL,	.05	23.86	0	91.97	124.16	0	100.03	0	0	0	0	.10	.02	
Daily Discharge in second-feet	.002	.80	0	2.97	4.43	0	3.33	0	0	0	0	.003	.001	
Discharge per square mile	.0006	.222	0	.856	1.277	0	.960	0	0	0	0	.0009	.0003	
Depth, depth in inches	.10	47.31	0	182.38	246.21	0	198.36	0	0	0	0	.20	.04	674.60
Depth from Daily	.05	15.19		33.06	70.49		88.64					.10	.02	
Depth from	0	0		0	0		0					0	0	

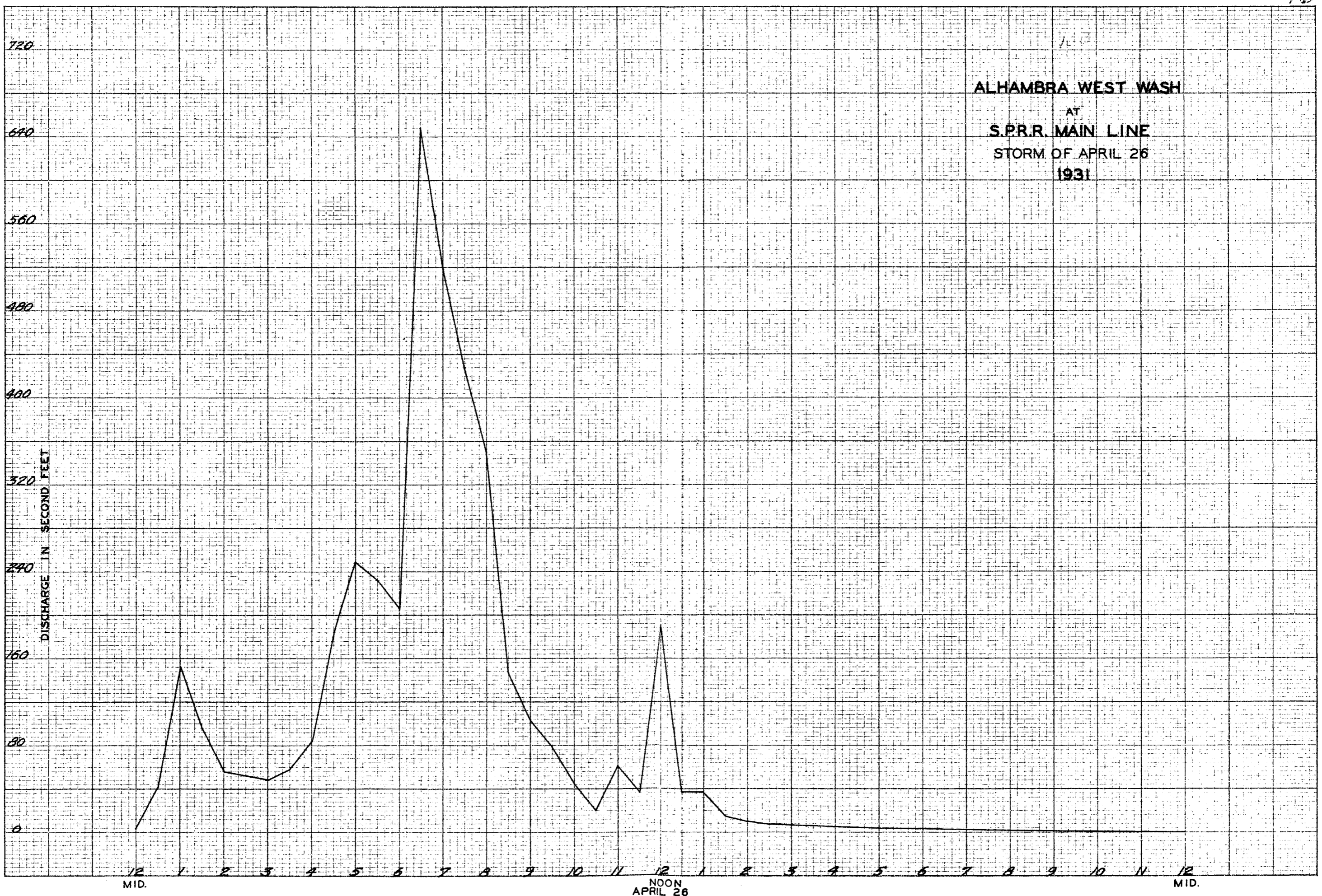
H.V. V.K.

High checked

G. H. checked

PERIOD YEAR

ALHAMBRA WEST WASH
AT
S.P.R.R. MAIN LINE
STORM OF APRIL 26
1931



KEUFFEL & ESSER CO., N. Y. NO. 369-211
12 X 20 to the Inch.

BALLONA CREEK AT CENTINELA BLVD. NEAR CULVER CITY

Location

On Highway Bridge over Ballona Creek at Centinela Boulevard about 2½ miles southwest of Culver City.

Drainage Area

111.97 square miles.

Installed by

Los Angeles County Flood Control District,
February 27, 1928.

Records Available

February 27, 1928 to September 30, 1930 at Los Angeles County Flood Control District, Los Angeles, California.

Gage

An continuous water stage recorder, variable speed, installed in wooden shelter house on corrugated iron pipe stilling well, attached to downstream side of bridge pier on east bank of stream.

Channel

Fine sand and silt.

Control

No control.

Extremes of Discharge

1927-1928

Maximum-1100 c.f.s. May 8, 1928

Minimum-Dry at various times during year

1928-1929

Maximum-4990 c.f.s. March 10, 1929

Minimum-Dry at various times during year

1929-1930

Maximum-4463 c.f.s. January 11, 1930

Minimum-Dry at various times during year

1930-1931

Maximum-6280 c.f.s. April 26, 1931

Minimum-Dry at various times during year

Diversion

Gravel plant at Du quesne Street diverts small amount of water for washing gravel.

18
F-38 R

Regulation

None.

Accuracy

Fair.

Discharge Measurements.

Low water flows made by wading.

High water flows made from cable situated 200 ft. upstream.

Co-operation

Located and constructed by Los Angeles County Flood Control District with the co-operation of the Los Angeles City Storm Drain Department and the U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

1931 38

Discharge measurements of Ballona

Creek

Continental Boulevard Near Culver City

No.	Date	Location	W. of Ballona	Area in Acres	Net Capacity in Cfs	Peak Discharge in Cfs	Peak Discharge in Cfs	Rating Curve Percent Full	Stage in Feet	Time in Days	Notes
1930											
1	10/4	Hardgrove	5.0	2.05	1.31	4.68	2.08	.6	5		FC 20
2	11/16	Irwin-Hardgrove	45.0	47.5	3.09	5.77	99.50	.6	9	.141/4	FC 1
3	17	" "	56.0	158.	3.74	7.19	518.2	.6	11	.401/2	FC 20
4	26	" "	57.0	160.	4.80	7.48	776.0	.6	6	1/3	"
5	26	" "	57.0	160.	4.32	7.20	693.0	.6	6	1/3	"
6	27	" "	58.0	185.	4.65	7.72	1052.0	.6	8	1/3	"
7	27	" "	55.0	190.	5.53	7.73	1055.	.6	9	1/3	"
8	28	Hardgrove	56.0	150.	3.79	6.70	571.0	.6	6	1/3	"
9	28	"	57.0	149.	3.79	7.06	565.0	.6	8	2/5	"
10	1/1	Hardgrove-Bertelson	64.0	317.	6.00	10.00	1904.	.6	7	1/3	"
11	1	" Allen	62.0	206.	3.98	8.32	1326.	.6	7	1/4	"
12	2	Hardgrove-Bertelson	61.0	285.	4.90	8.22	1396.	.6	7	1/7	"
13	5	" Allen	61.0	236.	4.43	8.39	1045.	.6	7	1/4	"
14	5	" "	59.0	216.	4.70	8.1	1164.	.6	7	"	"
15	5	Allen-Bertelson	59.0	170.	3.88	7.47	634.0	.6	7	1/3	"
16	7	Meunier-Ashley	80.0	450.	8.65	12.0	3723.	.6	8	1/2	"
17	7	" "	80.0	370.	8.07	10.6	2990.	.6	9	7/12	"
18	9	Bertelson	20.0	12.0	1.16	4.50	13.90	.6	10		FC 7
19	16	Hardgrove	6.4	2.5	1.27	4.18	3.48	.6	6	1/6	"
20	2/3	Allen-Bertelson	67.0	395.	6.32	11.50	2500.	.6	8	7/12	"
21	3	Meunier-Weinstock	70.0	261.	5.15	8.75	1374.	.6	7	1/4	FC 20
22	3	" "	60.0	252.	4.87	8.53	1130.	.6	7	1/6	"
23	3	" "	60.0	380.	7.57	10.70	2800.	.6	7	7/12	"
24	3	" "	63.0	306.	6.45	9.20	1971.	.6	7	1/5	"
25	4	" "	65.0	258.	6.41	9.10	1654.	.6	7	1/6	"
26	4	Hardgrove-Ayres	67.0	399.	7.30	11.4	2900.	.6	8	1/4	"
27	4	Bertelson-Allen	67.0	390.	7.19	11.4	2805.	.6	8	7/12	"
28	4	Meunier-Weinstock	67.0	429.	8.64	11.4	3794.	.6	7	1/2	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

20
38

Ballona

Creek

Centinela Blvd. Near Culver City

and year ending September 30, 1931

		Area			Per cent		Per cent		No.	FC	
No.	Date	Acres	Sq. Ft.	Sq. Ft.	Per cent	Per cent	Per cent	Per cent	No.	Total	Per cent
1931									No.	Total	Per cent
29	2/4	Meunier-Weinstock	70.0495.5	9.72	12.4	4797.0	.6	.6	8	1/4	20
30	4	"	65.0379.3	9.33	11.8	3538.0	.6	.6	8	1/6	
31	4	"	63.0508.2	8.79	10.3	2711.0	.6	.6	9	1/4	
32	4	"	65.0328.0	5.88	9.8	1929.0	.6	.6	7	1/4	
33	4	"	65.0320.0	8.42	9.9	2054.0	.6	.6	7	"	
34	4	"	63.0330.0	8.45	10.0	2127.0	.6	.6	7	1/3	FC
34A	13	Hardgrove	22.0	10.3	1.88	4.5	14.0	.6	11	"	FC
35	4/23	Hardgrove-Bertelson	55.0	79.0	2.13	5.9	175.9	.6	10	1/4	7
35A	35	"	55.0	105.0	.42	6.2	250.4	.6	11	1/6	"
36	23	"	56.0115.0	2.82	6.40	313.0	.6	.6	11	"	"
36A	23	"	60.0212.0	2.83	7.95	815.0	.6	.6	11	1/3	"
37	24	Bertelson	42.0	26.3	1.24	4.88	32.60	.6	11		FC
38	26	Hardgrove-Allen	66.0	341.8	5	9.91	2762.0	.6	9	"	FC
39	26	"	70.5	422.8	6.63	11.30	3723.0	.6	10	"	"
40	26	"	75.0	594.9	7.55	13.5	5551.0	.6	10	"	"
41	26	"	67.5	593.10	12	14.4	6001.0	.6	9	"	"
42	26	"	75.0	640.9	11	13.81	5956.0	.6	10	"	"
43	26	"	75.0	592.8	14	11.00	4818.0	.6	10	1/6	"
44	26	"	58.0	178.3	66	7.40	652.0	.6	12	"	FC
45	26	"	58.0	196.3	98	7.60	780.0	.6	12	1/12	"
46	26	"	59.0	192.4	17	7.95	824.0	.6	11	1/6	FC
47	27	Bertelson	41.5	21.1	57	4.65	28.5	.6	11	1/4	FC
48	5/1	Hardgrove	6.0	2.6	1.50	4.27	3.83	.6	6	1/6	FC
49	29	"				+	.09				
50	6/5	"				+	.05				
51	12	"				+	.12				
52	19	"				+	.09				
53	26	"				+	.18				

+ 90% V Notch Weir

LOS ANGELES COUNTY
 FLOOD CONTROL DISTRICT
 HYDROGRAPHIC DEPARTMENT

Station No. of

Ballona

Centinela Blvd. Near Culver City

31

No.	Date	Station	Flow	Direction	Remarks
	1931				
54	7/3	Hardgrove	+	.11	
55	10	"	+	.06	
56	17	"		Dry	
57	24	"	+	.20	
58	31	"		Dry	
59	9/11	"	+	.08	

+ 90.3 V Notch Weir

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 38

Rating table for Ballona Creek Centinela Blvd.

, from Oct. 1st, 1930, to June 30th, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
3.90	0	.08	5.00	40.0	.80	6.00	196	2.40	8.00	1000	5.0	10.00	2195	7.5
4.00	.80	.14	.05	44.0	.80	.10	220	3.00	.10	1050	5.0	1.10	2270	7.5
.05	1.50	.14	.10	48.0	.80	.20	250	3.0	.20	1100	5.0	.20	2345	7.5
.10	2.20	.18	.15	52.0	.80	.30	280	4.0	.30	1150	5.0	.30	2420	7.5
.15	3.10	.20	.20	56.0	.80	.40	320	4.0	.40	1200	5.0	.40	2495	7.5
.20	4.10	.26	.25	62.0	1.20	.50	360	4.0	.50	1255	5.5	.50	2570	7.5
.25	5.40	.26	.30	68.0	1.20	.60	400	4.0	.60	1310	5.5	.60	2645	7.5
.30	6.70	.28	.35	75.0	1.40	.70	440	4.0	.70	1365	5.5	.70	2725	8.0
.35	8.10	.36	.40	82.0	1.40	.80	480	4.0	.80	1420	5.5	.80	2805	8.0
.40	9.90	.38	.45	89	1.40	.90	520	4.0	.90	1480	6.0	.90	2885	8.0
.45	11.80	.40	.50	96.0	1.40	7.00	560	4.0	9.00	1540	6.0	11.00	2970	8.5
.50	13.80	.44	.55	104.0	1.60	.10	600	4.0	.10	1600	6.0	.10	3060	9.9
.55	16.00	.44	.60	112.0	1.60	.20	640	4.0	.20	1660	6.0	.20	3150	9.0
.60	18.20	.46	.65	121.0	1.80	.30	680	4.0	.30	1720	6.0	.30	3240	9.0
.65	20.50	.52	.70	130.0	1.80	.40	725	4.5	.40	1785	6.5	.40	3330	9.0
.70	23.10	.52	.75	139.0	1.80	.50	770	4.5	.50	1850	6.5	.50	3420	9.0
.75	25.70	.54	.80	148.	1.80	.60	815	4.5	.60	1915	6.5	.60	3510	9.0
.80	28.40	.56	.85	160	1.80	.70	860	4.5	.70	1980	6.5	.70	3600	9.0
.85	31.20	.56	.90	172	2.40	.80	905	4.5	.80	2050	7.0	.80	3700	10.0
.90	34.00	.56	.95	184	2.40	.90	950	4.5	.90	2120	7.0	.90	3800	10.0
.95	36.80	.64			2.40			5.0			7.5			10.0

The above table is not applicable for obstructed channel conditions. It is based on 51 discharge measurements made during year 1930-1931

and is very well defined between 0 second-feet and 6001 second-feet.

Computed by J K

Checked by H V

Date

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 38

Rating table for Ballona Creek

, from Oct. 1st, 1930, to Sept. 30th, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
12.00	3900	10.0	14.00	6160	12.0									
.10	4000	10.0	.10	6280	12.5									
.20	4100	10.0	.20	6405	12.5									
.30	4200	10.0	.30	6530	13.0									
.40	4300	10.0	.40	6650	13.0									
.50	4400	11.0	.50	6790	13.0									
.60	4510	11.00	.60	6920	13.0									
.70	4620	11.0	.70	7050	13.0									
.80	4730	11.5	.80	7180	13.0									
.90	4845	11.5	.90	7310	13.00									
13.00	4960	12.0	15.00	7440										
.10	5080	12.0												
.20	5200	12.0												
.30	5320	12.0												
.40	5440	12.0												
.50	5560	12.0												
.60	5680	12.0												
.70	5800	12.0												
.80	5920	12.0												
.90	6040	12.0												

The above table is not applicable for obstructed channel conditions. It is based on 51 discharge measurements made during year 1930-1931

and is very well defined between 0 second-feet and 6001 second-feet.

Computed by N. K.
Checked by H. V.
Date

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **38**

Rating table for **Low** Flows Ballona Creek Centinela Blvd Bridge
 , from June 1st , 1931 , to Sept. 30 , , 19 31

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
3.90	0		4.10	.03	.006									
.91	0		.15	.06										
.92	0		.20	.11	.01									
.93	0		.25	.20	.02									
.94	0		.30	.35	.03									
.95	.01		.35	.50	.03									
.96	.01													
.97	.01													
.98	.01													
.99	.01													
4.00	.01													
.01	.01													
.02	.01													
.03	.01													
.04	.01													
.05	.01													
.06	.02													
.07	.02													
.08	.02													
.09	.02													

The above table is not applicable for obstructed channel conditions. It is based on 10 discharge measurements made during Year 1930-1931

and is very well defined between 0 second-feet and .12 second-feet.

Computed by HTK
 Checked by _____
 Date _____

112.

Square Miles.

HARDGROVE

Observer. I

Gage Read CONTINUOUS

Use rating table dated

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge
1	4.10	2.20	4.17	3.50	4.07	1.78	H	430.83	4.37	8.82	4.31	6.98	4.02	1.08	4.10	2.20	4.12	.04	4.27	.26	4.15	.06	4.20	.11
2	4.10	2.20	4.26	5.66	4.03	1.22	H	889.39	4.35	8.10	4.31	6.98	4.02	1.08	4.20	4.10	4.12	.04	4.21	.13	4.15	.06	4.25	.20
3	4.10	2.20	4.20	4.10	4.02	1.08	4.15	3.10	H	941.72	4.31	6.98	4.04	1.36	4.15	3.10	4.12	.04	4.20	.11	4.10	.03	4.25	.20
4	4.10	2.20	4.16	3.30	4.03	1.22	4.05	1.50	H	1504.1	4.31	6.98	4.05	1.50	4.12	2.56	4.12	.04	4.25	.20	4.28	.29	4.25	.20
5	4.10	2.20	4.18	3.70	4.03	1.22	H	138.36	4.77	26.78	4.34	7.82	4.02	1.08	4.13	2.74	4.12	.04	4.20	.11	4.30	.35	4.25	.20
6	4.10	2.20	4.05	1.50	4.05	1.50	4.30	6.70	4.37	8.82	4.05	1.50	3.97	.56	4.09	2.06	4.25	.20	4.20	.11	4.30	.35	4.30	.35
7	4.10	2.20	4.12	2.56	4.04	1.36	H	630.02	4.37	8.82	4.05	1.50	4.02	1.08	4.10	2.20	4.18	.09	4.24	.18	4.25	.20	4.30	.35
8	4.10	2.20	4.20	4.10	4.06	1.64	H	393.33	4.26	5.66	4.02	1.08	3.97	.56	4.09	2.06	4.07	.02	4.19	.10	4.20	.11	4.25	.20
9	4.11	2.38	4.10	2.20	4.06	1.64	4.31	6.98	4.29	6.44	4.00	.80	3.95	.40	4.10	2.20	4.11	.03	4.08	.02	4.25	.20	4.25	.20
10	4.11	2.38	4.04	1.36	4.06	1.64	4.22	4.62	4.29	6.44	4.05	1.50	3.95	.40	4.07	1.78	4.15	.06	4.13	.05	4.20	.11	4.25	.20
11	4.11	2.38	4.10	2.20	4.04	1.36	4.24	5.14	4.39	9.54	4.05	1.50	4.00	.80	4.10	2.20	4.10	.03	4.18	.09	4.25	.20	4.25	.20
12	4.11	2.38	4.10	2.20	3.97	.56	4.19	3.90	4.39	9.54	4.02	1.08	4.03	1.22	4.09	2.06	4.13	.05	4.20	.11	4.20	.11	4.25	.20
13	4.11	2.38	4.18	3.70	3.96	.50	4.19	3.90	5.00	40.00	3.98	.64	4.02	1.08	4.04	1.36	4.17	.08	4.18	.09	4.25	.20	4.25	.20
14	4.11	2.38	4.25	5.40	4.05	1.50	4.58	17.32	4.81	28.96	3.91	.08	4.05	1.50	4.04	1.36	4.21	.13	4.25	.20	4.10	.03	4.25	.20
15	4.11	2.38	4.12	2.56	4.04	1.36	4.19	3.90	4.70	23.10	4.03	1.22	3.97	.56	4.14	2.92	4.22	.15	4.15	.06	4.10	.03	4.25	.20
16	4.05	1.50	4.61	18.66	4.04	1.36	4.17	3.50	4.55	16.00	4.06	1.64	3.98	.64	4.12	2.56	4.33	.44	4.15	.06	4.15	.06	4.35	.50
17	4.00	.80	H	178.06	4.08	1.92	4.17	3.50	4.58	17.32	4.03	1.22	3.95	.40	4.11	2.38	4.23	.17	4.00	.01	4.05	.02	4.35	.35
18	3.92	.15	4.20	4.10	4.14	2.92	4.07	1.78	4.58	17.32	4.03	1.22	3.92	.16	4.14	2.92	4.22	.15	4.10	.03	4.10	.03	4.30	.35
19	3.90	0	4.17	3.50	4.13	2.74	4.13	2.74	4.60	18.20	4.05	1.50	3.97	.56	4.14	2.92	4.19	.10	4.25	.20	3.95	.01	3.25	.20
20	3.90	0	4.16	3.30	4.12	2.56	4.13	2.74	4.39	9.54	4.05	1.50	3.95	.40	4.14	2.92	4.17	.08	4.20	.11	4.10	.03	4.30	.35
21	3.95	.40	4.15	3.10	4.12	2.56	4.13	2.74	4.31	6.98	4.03	1.22	3.95	.40	4.21	4.36	4.19	.10	4.15	.06	4.20	.11	4.30	.35
22	4.00	.80	4.02	1.08	4.14	2.92	4.18	3.70	4.26	5.66	4.07	1.78	3.92	.16	4.16	3.30	4.01	.01	4.00	.01	4.10	.03	4.40	9.90
23	4.00	.80	4.14	2.92	4.14	2.92	4.17	3.50	4.29	6.44	4.07	1.78	H	218.5	4.07	1.78	4.18	.09	4.05	.02	4.10	.03	4.43	11.04
24	3.90	0	4.16	3.30	4.12	2.56	4.09	2.06	4.29	6.44	4.17	3.50	H	163.0	H	135.50	4.12	.04	4.32	.44	3.85	.00	4.40	9.90
25	4.00	.80	3.97	.56	4.06	1.64	4.04	1.36	4.33	7.54	4.17	3.50	5.20	56.0	H	261.61	4.28	.29	4.30	.35	4.00	.01	H	154.41
26	4.16	3.30	H	106.17	4.04	1.36	4.06	1.64	4.29	6.44	4.02	1.08	H	1422.39	4.58	17.32	4.21	.13	4.17	.08	4.05	.02	4.55	16.00
27	4.16	3.30	H	389.02	4.03	1.22	4.04	1.36	4.30	6.70	4.02	1.08	5.06	44.80	4.35	8.10	4.29	.32	4.15	.06	4.20	.11	4.28	.29
28	4.06	1.64	H	146.91	4.05	1.50	4.09	2.06	4.31	6.98	4.07	1.78	4.27	5.92	4.28	6.18	4.07	.02	4.20	.11	4.10	.03	4.22	.15
29	4.13	2.74	4.25	5.40	4.04	1.36	4.05	1.50	-	-	4.07	1.78	4.13	2.74	4.18	.09	4.10	.03	4.25	.20	4.40	9.90	4.35	.50
30	3.99	.72	4.00	.80	4.03	1.22	4.05	1.50	-	-	4.07	1.78	4.11	2.38	4.17	.08	4.18	.09	4.30	.35	4.40	9.90	4.20	.11
31	4.03	1.22	-	-	4.02	1.08	H	244.15	-	-	4.09	2.06	-	-	4.17	.08	-	-	4.20	.11	4.30	.35	-	-

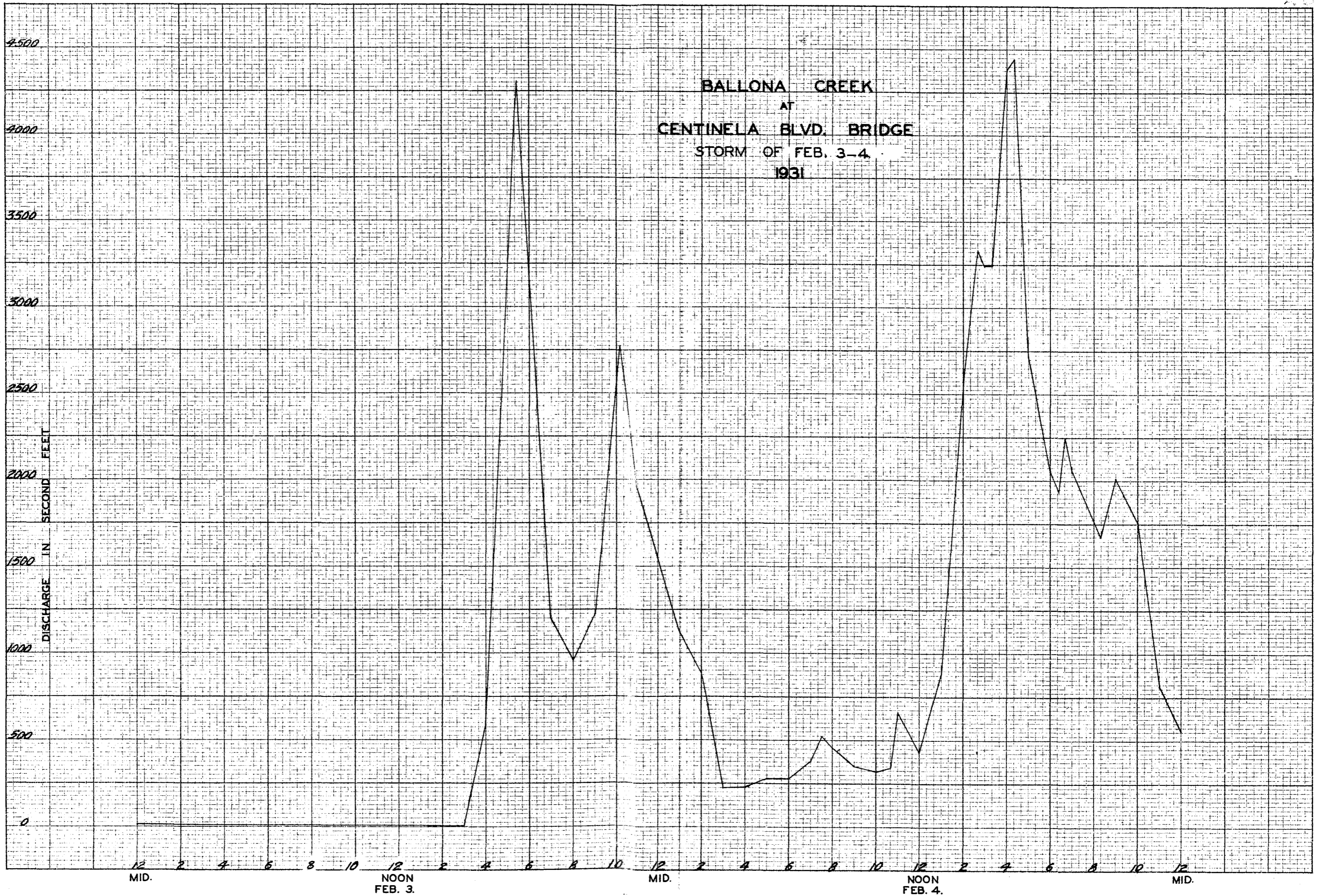
Maximum stage 14.10
 Minimum stage Dry
 Various feet at
 Correction Curve used

W.T.K. V.K. W.T.K. V.K. W.T.K. V.K. W.T.K. V.K. W.T.K. V.K.
 Computed Checked Date
 Disch. applied Disch. checked Date
 G. H. copied G. H. checked Date
 PERIOD YEAR

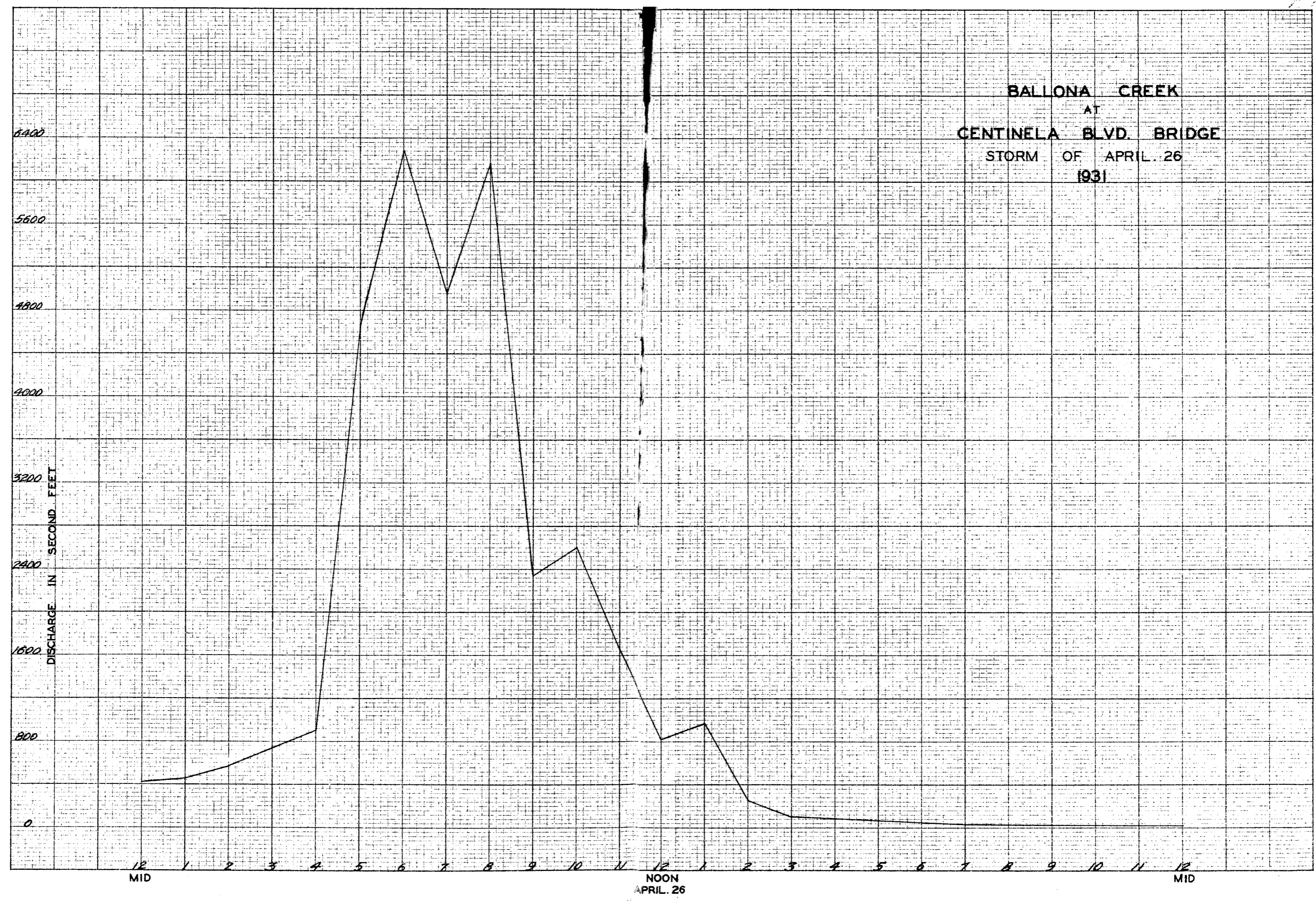
TOTAL,	52.43	914.92	51.42	2818.82	2768.40	75.06	1932.71	487.00	3.10	4.02	22.97	207.61
Mean Daily Discharge in Second-feet	1.69	30.50	1.66	90.93	98.87	2.42	64.42	15.71	.10	.13	.74	6.92
Second-feet per square mile	.015	.272	.015	.812	.883	.022	575.	.140	.0009	.0011	.0066	.0618
Run-off, depth in inches -												
Run-off in acre-feet -	103.97	1814.29	101.97	5589.72	5489.74	148.84	3832.56	965.72	6.15	7.97	45.55	411.69 18,518.17
Maximum Mean Daily Discharge in Second-feet	3.30	389.02	2.92	889.39	1504.10	7.82	1422.39	261.61	.44	.44	9.90	154.41
Minimum Mean Daily Discharge in Second-feet	0	.56	.50	1.50	5.66	.08	.16	.08	.01	.01	0	.11

Oct. 20, 1931

KEUFFEL & ESSER CO., N. Y. NO. 359-21 L
12 x 20 to the Inch.



BALLONA CREEK
AT
CENTINELA BLVD. BRIDGE
STORM OF APRIL 26
1931



BIG SANTA ANITA CREEK 1/4 MILE BELOW FLOOD
CONTROL DAM

Location

In Big Santa Anita Canyon about 1/4 mile below Los Angeles County Flood Control Dam. About 4 miles north of Arcadia.

Drainage Area

11.05 square miles.

Installed by

Los Angeles County Flood Control District,
August, 1927.

Records Available

August 19, 1927-September 30, 1931 at offices of Los Angeles County Flood Control District, Los Angeles, California.

Gage

An continuous water stage recorder located in rubble concrete house on east bank of stream between gaging bridge and weir. Staff gage on stilling well.

Discharge Measurements

Low water flows made by wading about 75 feet below or 15 feet above the gage.
High water measurements made from gaging bridge 15 feet above gage.

Channel and Control

Channel-sand, rock and gravel
Control-35' rubble-concrete cippoletti, 18 feet below recorder house with 24" crest, 12" deep, with cleanout pipe.

Extremes of Discharge

1927-1928

Maximum-16. c.f.s. February 5, 1928

Minimum-.02 c.f.s. January 26-30, 1928.

1928-1929

Maximum-10. c.f.s. September 11, 1928

Minimum-.19 c.f.s. January 26, 1929

1929-1930

Maximum-3.62 c.f.s. April 12, 1930

Minimum-.20 c.f.s. at various times during year

1930-1931

Maximum-8.90 c.f.s. February 20, 1931

Minimum-.16 c.f.s. April 5, 1931.

F-21 R

Diversion

None above gage. Irrigation canal diverts 300' below gage.

Regulation

Flow regulated by discharge through Los Angeles County Flood Control Dam.

Accuracy

Good.

Co-operation

Located, constructed and operated by the Los Angeles County Flood Control District in co-operation with U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

No. 21

Discharge measurements of Big Santa Anita

New
Creek

1/4 mile below Flood Control Dam

during the year ending September 30, 1931

Date	Stage	W. Gage	W. Gage	W. Gage	W. Gage	W. Gage	W. Gage	W. Gage	W. Gage	W. Gage
		ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.
1930										
1 10/5	Lindsay	.8	.22	1.55	.41	.34	.6	1	1/30	885
2 10	"	.08	.22	1.56	.42	.30	.6	2	1/20	"
3 17	"	2.7	.54	.64	.37	.27	.6	4	1/12	871
4 23	Brewster	3.9	.98	1.77	.50	1.73	.6	3	1/5	666
5 30	"	3.0	1.26	1.68	.64	2.62	.6	6	1/4	882
6 11/8	Lindsay	3.7	1.1	2.10	.62	2.55	.6	5	1/12	883
7 14	"	3.9	1.18	2.06	.62	2.39	.6	4	1/10	"
8 21	"	4.8	1.16	1.71	.63	1.9	.6	5	1/6	"
9 28	"	4.0	1.03	1.52	.60	1.88	.6	6	1/10	"
10 12/5	"	4.0	.89	1.75	.58	1.54	.6	5	1/10	"
11 12	"	4.2	.94	2.05	.58	1.93	.6	5	1/10	"
12 20	"	4.3	.81	1.51	.57	1.22	.6	4	1/12	"
13 26	"	4.4	.98	1.56	.55	1.43	.6	5	1/10	"
14 1/2	Lindsay-Laird	4.8	.99	1.49	.56	1.48	.6	5	1/12	"
15 6	" "	3.3	.55	.69	.43	.38	.6	4	1/12	"
16 9	Lindsay	3.6	.55	.87	.38	.48	.6	5	1/10	"
17 13	Lindsay-Laird	3.5	.54	.89	.38	.48	.6	6	1/5	"
18 16	Lindsay	4.1	.84	1.87	.5	.90	.6	6	1/10	"
19 22	"	4.0	.70	1.27	.39	.59	.6	6	1/10	"
20 29	"	4.2	.94	1.40	.63	1.23	.6	7	1/6	"
21 2/5	Lindsay-Laird	3.7	1.46	1.33	.62	1.94	.6	5	1/12	"
22 10	Lindsay	7.1	2.20	1.68	1.04	3.70	.6	6	1/6	"
23 27	"	12.0	3.41	2.21	1.17	7.54	.6	12	1/4	"
24 3/5	"	8.0	3.15	2.08	1.10	6.52	.6	8	1/6	"
25 7	"	5.5	1.54	1.23	.68	1.89	.6	8	1/6	"
26 12	"	5.6	1.45	1.22	.69	1.92	.6	8	1/6	"
27 20	"	5.0	1.12	1.41	.38	1.59	.6	5	1/10	"
28 26	"	4.5	.94	1.48	.35	1.39	.6	5	1/10	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 21

Rating table for Big Santa Anita Creek, $\frac{1}{4}$ mile Below F. C. Dam

, from Oct. 1, 1930, to Sept. 30th, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
.10	0		.50	.60		.90	3.68							
.12	0		.52	.68	.04	.92	3.92	.12						
.14	.01	.005	.54	.76		.94	4.16							
.15	.02		.56	.84		.96	4.40							
.18	.04	.01	.58	.92		.98	4.70	.15						
.20	.06		.60	1.00		1.00	5.00							
.22	.08		.62	1.12	.06	1.02	5.30							
.24	.10		.64	1.24		1.04	5.60							
.26	.12		.66	1.36		1.06	5.90							
.28	.14		.68	1.48		1.08	6.20							
.30	.16		.70	1.60		1.10	6.50							
.32	.18		.72	1.80	.10	1.12	6.82	.16						
.34	.20		.74	2.00		1.14	7.14							
.36	.24	.02	.76	2.20		1.16	7.46							
.38	.28		.78	2.40		1.18	7.78							
.40	.32		.80	2.60		1.20	8.10							
.42	.36		.82	2.80		1.22	8.42							
.44	.40		.84	3.00		1.24	8.74							
.46	.44		.86	3.20										
.48	.52	.04	.88	3.44	.12									

The above table is not applicable for obstructed channel conditions. It is based on 54 discharge measurements made during year 1930-1931

and is well defined between 21 second-feet and 7.54 second-feet.

Computed by W T K

Checked by

Date

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

Page 21

Discharge measurements of Cig Santa Anita

~~****~~
Creek

1.1 mile below Flood Control Dam

During the year ending September 30, 1931

Date	Time	Location	Width Feet	Average Depth Feet	Mean Velocity Meters	Discharge		Rating Percent dis.	Metro. Co. #	No. of Gages	Gage No.		Net Flow
						Cu. Ft. Sec.	Sec. ft.				1st	How.	
1931													262
29	4/4	Lindsay	5.5	1.11	1.35	.66	1.50	.6		5		1/12	883
30	10	"	5.4	1.18	1.36	.67	1.61	.6		5		1/12	"
31	17	"	5.4	1.04	1.30	.65	1.35	.6		5		1/12	"
32	24	"	3.0	.40	.55	.49	.21	.6		3		1/20	"
33	5/2	"	2.0	.59	.82	.50	.32	.6		5		1/12	"
34	7	"	2.6	.42	.90	.51	.38	.6		4		1/12	"
35	22	"	2.6	.43	.88	.50	.25	.6		4		1/6	"
36	15	"	2.8	.44	.88	.51	.30	.6		4		1/12	"
37	29	"	2.5	.7	.79	.50	.29	.6		5		1/12	"
38	6/5	"	3.0	.50	.78	.51	.39	.6		6		1/10	"
39	12	"	4.0	.81	1.53	.64	1.24	.6		7		1/6	"
40	19	"	4.3	.85	1.40	.64	1.19	.6		7		1/6	"
41	26	"	4.5	.79	1.47	.65	1.16	.6		7		1/12	"
42	7/3	"	4.5	.75	1.36	.62	1.02	.6		7		1/10	"
43	10	"	4.4	.81	1.18	.64	1.06	.6		7		1/6	"
44	17	"	4.4	.74	1.39	.62	.99	.6		7		1/6	"
45	24	"	4.3	.75	1.31	.63	1.00	.6		7		1/6	"
46	31	"	4.3	.81	1.36	.67	1.42	.6		7		1/6	"
47	6/7	"	4.3	.93	1.50	.68	1.38	.6		7		1/6	"
48	14	"	4.3	.94	1.56	.68	1.47	.6		7		1/6	"
49	21	"	4.0	.72	1.40	.64	.96	.6		6		1/6	"
50	28	"	4.5	.86	1.67	.68	1.44	.6		7		1/6	"
51	9/4	"	4.3	.94	1.51	.69	1.48	.6		7		1/6	"
52	11	"	4.4	.92	1.55	.69	1.43	.6		7		1/6	"
53	17	"	4.4	.88	1.56	.69	1.37	.6		7		1/6	"
54	26	"	4.0	.63	1.17	.60	.74	.6		6		1/6	"

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of
 ¹/₂ mile
 Below F. C. Dam

BIG SANTA ANITA CREEK
 for the Year Ending September 30, 19 31

LOS ANGELES COUNTY
 FLOOD CONTROL DISTRICT
 HYDROGRAPHIC DEPARTMENT

Drainage Area **11.05** Square Miles.

R. LINDSAY Observer.

Gage Read **Continuous**

Used rating table dated

Table with columns for months (OCTOBER-SEPTEMBER) and rows for daily measurements (1-31) and summary rows (TOTAL, etc.). Each cell contains Gage height and Discharge values.

Flow controlled by F.C. Dam
 Correction curve used.
 Maximum stage .30 feet in Moon
 Minimum stage .16 Discharge

DA...
 H.V.
 V.K.
 Checked
 Period Year

Summary table with rows: TOTAL, Mean Daily Discharge in Second-foot, Mean Discharge in Second-foot per square mile, Mean depth in inches, Maximum Mean Daily Discharge in Second-foot, Minimum Mean Daily Discharge in Second-foot.

BIG TUJUNGA EAST WASH AT MAGNOLIA BOULEVARD

Location

On the downstream side of wooden highway bridge where Magnolia Blvd. crosses Big Tujunga East Wash.

Drainage Area

166.25 square miles

Installed By

The Los Angeles County Flood Control District, August 1930.

Records Available

August, 1930 to September 30, 1931 at the office of the Los Angeles County Flood Control District, Los Angeles, California.

Gage

Stevens Type L 8 day water stage recorder installed in small house on top of a corrugated iron pipe, stilling well attached to center of bridge on downstream side.

Discharge Measurements

Low water measurements made by wading.
High water measurements made from bridge.

Channel and Control

Channel is shifting sand.
No control.

Extremes of Discharge

Maximum-56.1 c.f.s. February 3, 1931
Minimum-Dry most of year.

Diversions

None

Regulations

None

Accuracy

Poor

Co-operation

Located, installed and operated by the Los Angeles County Flood Control District.

LOS ANGELES COUNTY
 FLOOD CONTROL DISTRICT
 HYDROGRAPHIC DEPARTMENT

File No. 106

Discharge measurements of **Big Tujunga East Wash**

~~How~~
~~track~~

at **Magnolia Ave.--North Hollywood**, during the year ending September 30, 19**31**

No.	Date	Made by	Width Feet	Area of section Sq-ft	Mean velocity ft per sec	Gage height		Discharge cfs	Method	Cost	Meters Sec	Gage height	Time	Notes
						Feet	Sec ft							
1931														
1	2/4	Bollinger-Laverty	10.5	4.59	3.06	4.62	14.02	.6	7	.051/6	647	271		
2	5	" "	11.0	4.67	3.54	4.34	16.54	.6	11	.041/3	"			
3	5	Waddicor-Luce	8.0	1.65	1.58	4.12	2.61	.6	6	1/12	271			
4	4/27	Bollinger-Cron	2.2	.44	1.11	4.08	.49	.6	4	.02	"	650		

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. 106

Rating table for BIG TUJUNGA MAGNOLIA AVE

, from Oct. 1 , 1930 , to Sept. 30 , 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
4.00	0	.15												
.05	.75	.16												
.10	1.55	.53												
.15	4.20	.60												
.20	7.20	.64												
.25	10.40	.66												
.30	13.70	.70												
.35	17.20	.70												
.40	20.70	.76												
.45	24.50	.80												
.50	28.50	.80												
.55	32.50	.80												
.60	36.50	.80												
.65	40.50	.80												
.70	44.50	.80												
.75	48.50	.80												
.80	52.50	.90												
.85	57.00													
.90														
.95														

The above table is not applicable for obstructed channel conditions. It is based on 4 discharge measurements made during year 1930-1931

and is well defined between 0.49 second-feet and 16.54 second-feet.

Computed by W. T. K.

Checked by W. T. K.

Date

Daily Gage Height, in Feet, and Discharge, in Second-Feet, of

BIG TUJUNGA EAST WASH

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

At **MAGNOLIA BLVD. BRIDGE**

for the Year Ending September 30, 19 **31.**

File No. **106**

Drainage Area **165.25** Square Miles.

POLLINGER

Observer.]

Gage Read **CONTINUOUS**

Used rating table dated _____

Checked and certified correct
 as to accuracy of gage height
 and discharge
 for the year ending
 Sept. 30, 1931
 by

 Hydrographic Engineer

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		
1																									1	
2																										2
3																										3
4									H	16.0																4
5									H	23.6																5
6									H	3.2																6
7																										7
8																										8
9																										9
10																										10
11																										11
12																										12
13																										13
14																										14
15																										15
16																										16
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23																										23
24																										24
25																										25
26																										26
27																										27
28																										28
29																										29
30																										30
31																										31

TOTAL																										
TOTAL Discharge in																										
second-feet																										
per square mile																										
for the year																										
	0																									

G. H. copied
 G. H. checked
 Date

Disch. applied
 Disch. checked
 Date

W.K.
 V.K.
 W.K.
 V.K.
 W.K.
 V.K.
 W.K.
 V.K.

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of

BIG TUJUNGA CREEK

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

File No. 111

NEAR FOX CREEK

for the Year Ending September 30, 19 31

Drainage Area 66.93 Square Miles.

T. E. MOON-IRWIN Observer.

Gage Read CONTINUOUS

Used rating table dated

Main data table with columns for months (OCTOBER to SEPTEMBER), gage height, discharge, and daily measurements. Includes summary rows at the bottom for totals and averages.

Vertical text on the left margin: Maximum stage 6.55 feet at various times of year. Minimum stage DRY. Discharge recorded.

Vertical text: discharges interpolated from Weekly Measurements until November 11th

Vertical text on the right margin: DAY, Quarter, First, Second, Third, Fourth, Computed, Checked, Date, W.T.K., V.K., G. H. copied, G. H. checked, Date, PERIOD YEAR

F-105 R

BIG TUJUNGA WEST WASH AT MAGNOLIA BLVD. BRIDGE

Location

On the upstream side of a wooden highway bridge near center of channel where Magnolia Blvd. crosses Big Tujunga West Wash.

Drainage Area

106.25 square miles

Installed by

The Los Angeles County Flood Control District,
August 1930.

Records Available

August 1930 to September 1931 at offices of the Los Angeles County Flood Control District, Los Angeles, California.

Gage

Stevens type L 8 day water stage recorder, installed in shelter house on top of a corrugated iron shelter house attached to bridge pier on upstream side.

Discharge Measurements

Low flows measured by wading from bridge at Magnolia Blvd or from bridge at Chandler Blvd a short distance above.

Channel and Control

Channel is sandy and wide and shallow.
No control

Extremes of Discharge

No appreciable flow during year 1930-1931

Diversions

None

Regulations

None

Accuracy

Poor

Co-operation

Located, installed and operated by The Los Angeles County Flood Control District.

F-111 R

BIG TUJUNGA CREEK AT EDISON ROAD CROSSING

Location

On Big Tujunga Creek about 25' above where the Edison Road crosses the creek and 4 miles above Big Tujunga Dam No. 1.

Drainage Area

66.93 square miles

Installed by

Los Angeles County Flood Control District,
November 11, 1930.

Records Available

November 11, 1930 to September 30, 1931 at offices of the Los Angeles County Flood Control District, Los Angeles, California.

Gage

An continuous water stage recorder installed in galvanized iron shelter house on north side of stream. Stilling well is of corrugated iron pipe.

Discharge Measurements

Low water measurements made by wading near station. High water measurements made from cable car at station.

Channel and Control

Channel is gravel and boulder
No control

Extremes of Discharge

Maximum-216.2 c.f.s. on February 5, 1931
Minimum-Dry at various times during year

Diversions

None

Regulation

None

Accuracy

Fair

Co-operation

Located, constructed and operated by The Los Angeles County Flood Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 111

Discharge measurements of

Big Tujunga Creek

~~to~~
Creek

at-
near Fox Creek

during the year ending September 30, 1931.

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Meter	Meas. No.	G. H. change	Time	Meter No.
			Feet	Sq. Ft.	Ft. per sec.	Feet	Sec.-ft.	Percent dim.			Feet	Hours	
	1930												271
1	11/17	Moon	3.5	2.16	.82	5.29	1.77		.6	6	1/6		640
2	17	"	4.0	2.02	.82	5.28	1.65		.6	6	"		"
3	21	"	3.5	1.54	.82	5.14	.48		.6	5	"		"
4	25	"	3.0	1.20	.34	5.17	.41		.6	4	"		"
5	27	"	4.0	.86	.76	5.24	.65		.6	6	"		"
6	12/5	"	3.5	.59	.60	5.18	.35		.6	5	"		"
7	10	"	3.5	.59	.57	5.18	.34		.6	5	"		"
7A	18	Moon-Bertelson	3.0	.45	.62	5.19	.28		.6	5	"		"
8	23	Moon	3.2	.69	.65	5.19	.45		.6	6	"		"
9	31	Moon-Hunter	3.5	.84	.73	5.22	.62		.6	7	1/4		"
10	1/2	Delaney	4.5	1.38	1.14	5.32	1.57		.6	8	"		"
11	5	Moon	6.0	1.80	1.22	5.35	2.19		.6	6	"		"
12	7	"	5.0	1.47	.88	5.30	1.30		.6	5	"		"
13	7	"	6.0	3.20	1.27	5.40	4.07		.6	6	"		"
14	7	"	6.2	3.14	1.23	5.42	3.85		.6	6	"		"
15	9	"	5.5	2.34	.81	5.33	1.90		.6	7	"		"
16	14	"	5.0	1.76	.51	5.26	.91		.6	6	"		"
17	23	"	5.4	1.99	.57	5.26	1.14		.6	6	"		"
18	29	"	5.0	1.86	.56	5.24	1.04		.6	9	"		"
18A	2/3	"	5.5	2.10	.77	5.28	1.61		.6	6	"		"
18B	3	"	5.5	2.16	.78	5.49	1.71		.6	6	"		"
18C	3	"	15.0	14.9	.87	5.43	13.31		.6	8	"		"
18D	3	"	15.0	14.5	.92	5.68	13.38		.6	8	"		"
18E	4	"	16.0	16.3	1.68	5.86	27.31		.6	10	1/3		"
18F	4	"	44.0	34.2	1.45	5.96	49.56		.6	18	1/2		"
18G	4	"	45.0	38.5	1.46	6.03	56.41		.6	14	"		"
18H	4	"	49.0	43.6	2.51	6.23	109.1		.6	11	1/3		"
19	4	"	50.0	60.3	2.85	6.42	171.4		.6	11	"		"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **111**

Discharge measurements of

Big Tujunga Creek

**ENX
Creek**

at
near **Fox Creek**

, during the year ending September 30, 19 **31**

No.	Date	Made by	Width Feet	Area of section Sq.-ft.	Mean velocity ft. per sec.	Gage height Feet	Discharge Sec.-ft.	rating Method	Coef.	Meas. secs.	G. Ht. change	Time Hours	Meter No.
1931													
20	2/4	Moore	44.0	35.9	2.21	6.10	79.30		.6	10		1/3	640
21	4	"	50.0	53.7	2.88	6.37	154.7		.6	10		5/12	"
22	5	"	49.0	36.5	1.84	6.04	66.88		.6	10		1/2	"
23	5	"	49.0	28.3	1.52	5.87	45.13		.6	10		1/3	"
23A	6	"	11.7	9.3	2.06	5.62	19.22		.6	9		1/4	"
23B	7	"	11.7	6.9	1.82	5.52	12.71		.6	9		"	"
24	12	"	11.5	5.6	1.33	5.42	7.45		.6	9		"	"
24A	13	"	11.5	5.9	1.32	5.43	7.73		.6	12		"	"
25	19	"	13.0	5.1	1.15	5.39	6.01		.6	9		"	"
26	26	"	11.0	4.4	.85	5.35	3.69		.6	8		"	"
26A	27	"	11.0	4.3	.85	5.40	3.72		.6	10		"	"
27	3/5	"	6.0	2.4	1.02	5.37	2.45		.6	6		"	"
28	5	"	9.0	4.0	.73	5.37	2.94		.6	9		"	"
29	6	"	9.0	4.0	.70	5.37	2.78		.6	7		"	"
30	6	"	5.8	2.3	1.00	5.37	2.27		.6	7		1/6	"
31	12	"	6.0	2.3	.96	5.35	2.21		.6	6		1/4	"
32	12	"	10.0	3.9	.66	5.35	2.54		.6	9		"	"
33	13	"	6.0	2.5	.84	5.40	2.11		.6	6		"	"
34	13	"	9.0	3.8	.66	5.40	2.49		.6	8		"	"
35	19	"	9.0	3.5	.60	5.35	2.09		.6	8		"	"
36	26	"	5.8	2.4	.66	5.35	1.60		.6	6		"	"
37	26	"	9.0	3.5	.49	5.33	1.70		.6	7		"	"
38	4/2	"	6.0	2.2	.57	5.31	1.26		.6	7		"	"
39	2	"	9.0	3.4	.43	5.31	1.45		.6	8		"	"
40	9	"	5.0	1.7	.54	5.28	.92		.6	5		"	"
41	9	"	9.0	2.8	.34	5.28	.95		.6	7		"	"
42	10	"	5.0	1.8	.52	5.29	.95		.6	5		"	"
43	16	"	5.3	1.8	.44	5.26	.79		.6	5		"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 111

Rating table for BIG TUJUNGA CREEK NEAR FOX CREEK

, from Oct. 1, 1930 to Sept 30, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
5.00	0		.20	.60		.80	35.30							
.01	.03	.03	.21	.63		.85	41.00	1.14						
.02	.06		.22	.66		.90	47.00	1.20						
.03	.09		.23	.69		.95	53.70	1.34						
.04	.12		.24	.72		6.00	61.20	1.50						
.05	.15		.25	.81		.05	70.0	1.76						
.06	.18		.26	.90		.10	80.0	2.00						
.07	.21		.27	1.00		.15	91.0	2.20						
.08	.24		.28	1.10		.20	103.5	2.50						
.09	.27		.29	1.20		.25	112.0	2.70						
.10	.30		.30	1.30	.10	.30	133.0	3.20						
.11	.33		.35	3.00	.34	.35	149.0	3.20						
.12	.36		.40	5.10	.42	.40	165.0	3.20						
.13	.39		.45	8.20	.62	.45	181.0	3.20						
.14	.42		.50	11.60	.68	.50	197.0	3.20						
.15	.45		.55	15.00	.68	.55	213.0							
.16	.48		.60	18.60	.72	.60	229.0							
.17	.51		.65	22.40	.76									
.18	.54		.70	26.40	.80									
.19	.57		.75	30.70	.86									
					.92									

The above table is not applicable for obstructed channel conditions. It is based on 70 discharge measurements made during year 1930-1931

and is not very well defined between .28 second-feet and 171.41 second-feet.

Computed by W. T. K.

Checked by W. T. K.

Date

10

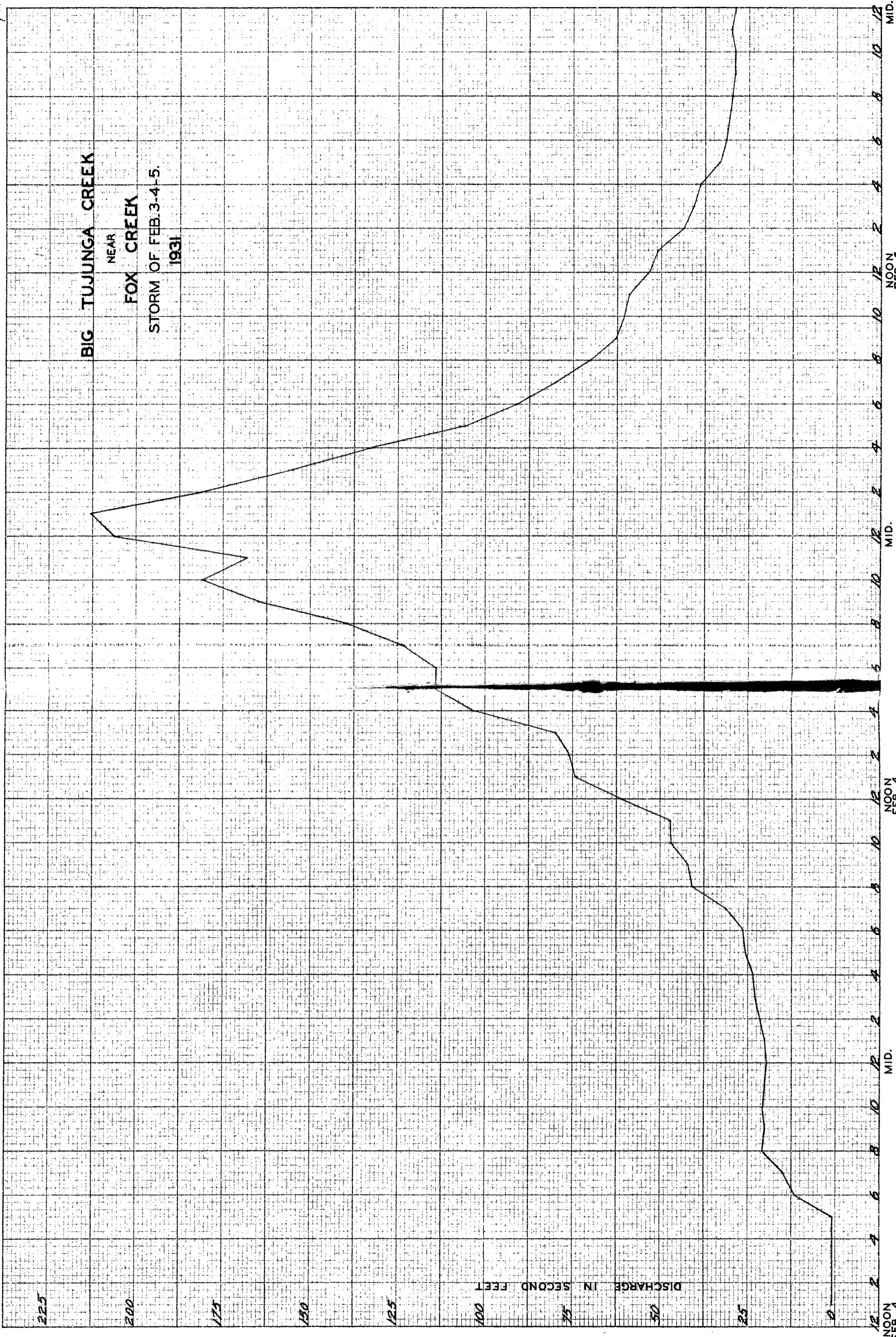
BIG TUJUNGA CREEK

NEAR

FOX CREEK

STORM OF FEB. 3-4-5.

1931



DISCHARGE IN SECOND FEET

NOON FEB. 4

MID.

NOON FEB. 4

MID.

NOON FEB. 5

MID.

BROWN CANYON CREEK AT DEVONSHIRE AVENUE, CHATSWORTH

Location

on downstream end of culvert for Brown Canyon Creek at Devonshire Avenue near town of Chatsworth, Los Angeles County, California.

Drainage Area

14.3 square miles.

Installed by

Los Angeles County Flood Control District,
December 11, 1928.

Records available

December 11, 1928-Sept. 30, 1931 at offices of Los Angeles County Flood Control District, Los Angeles, California.

Gage

Staff gage on concrete wall at southwest corner of structure. Rational recorder installed in small house on top of corrugated iron stilling well on downstream end of culvert.

Channel and Control

Channel at both ends of culvert has a sandy bottom, 3 sections concrete culvert 120 feet long, with concrete floor in culvert.

Extremes of Discharge

No flow 1929-1930.

1930-1931

Maximum-7.70 c.f.s. on April 26, 1931

Minimum-Dry at various times of year.

Regulation

None

Accuracy

Good.

Co-operation

Station located, constructed and operated by Los Angeles County Flood Control District in co-operation with the U.S.G.S. Water Resources Branch.

1

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

Station 8

US here measurements of Brown Canyon

River
Creek

at Devonshire Ave., Chatsworth

during the year ending September 30, 1931

No.	Date	Loc. by	Water			Discharge			Gage	Time
			Depth	Stage	Velocity	Cfs	Sec-ft	Per cent		
1930										
1	11/28	Luce-Waddicor	3.5	.82	.60	.12	.49	.6	7	1/6FC24
2	12/13	Waddicor	2.0	.13	.20	.10	.06	.6	4	1/6FC25
3	12/19	Luce-Waddicor	3.9	1.04	.53	.12	.55	.6	8	1/12FC25
4	26	Luce-Waddicor	5.5	1.97	1.13	1.15	2.22	.6	7	.021/12FC24
5	1/2	Luce-Waddicor	6.0	2.01	1.51	.17	3.22	.6	6	1/6FC24
6	9	Waddicor	5.5	1.72	1.21	.14	1.93	.6	6	1/6FC24
7	13	Luce-Waddicor	4.0	1.33	.68	.10	.96	.6	8	1/12FC13
8	22	Luce-Waddicor	1.9	.45	.15	.08	.07	.6	4	1/6FC25
9	30	Luce-Waddicor	3.7	1.27	1.11	.13	1.41	.6	8	1/6FC25
10	2/7	Luce-Waddicor	1.9	.39	.85	.04	.33	.6	4	1/12FC13
11	13	Luce-Waddicor	4.0	1.11	.87	.08	1.41	.6	6	1/6FC13
12	20	Luce-Waddicor	3.7	1.47	.26	.06	.38	.6	5	1/6FC13
13	27	Luce-Waddicor	4.0	1.25	.76	.07	1.79	.6	7	1/6FC13
14	3/7	Luce-Waddicor	4.6	1.13	1.30	.12	2.76	.6	5	1/6FC13
14A	27	Waddicor	4.2	1.92	.69	.08	1.34	.6	6	1/6FC13
15	4/10	Waddicor	6.1	3.00	.86	.08	2.56	.6	6	1/6FC13
16	26	Luce-Waddicor	12.7	10.24	1.76	.15	18.03	.6	7	1/6FC13
17	9/18	Luce	2.0	.46	.10	.04	.47	.6	4	1/12FC13

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. 2

Rating table for Brown Canyon Creek at Devonshire Ave

, from Oct. 1st , 19 30, to Sept. 30th , 19 31

From
Oct 1
to Feb 4

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
.07	.10													
.08	.20		.29	8.05										
.09	.30		.30	8.50	.45									
.10	.50	.20	.31	9.00	.50									
.11	.80	.30	.32	9.50		.03	0							
.12	1.15	.35	.33	10.00		.04	.35	.35						
.13	1.50	.35	.34			.05	.70	.35						
.14	1.90	.40	.35			.06	1.10	.40						
.15	2.30	.40				.07	1.50	.40						
.16	2.70	.40				.08	1.90	.40						
.17	3.10	.40				.09	2.30	.40						
.18	3.55	.45				.10	2.70	.40						
.19	4.00	.45				.11	3.20	.50						
.20	4.45	.				.12	3.70	.50						
.21	4.90					.13	4.30	.60						
.22	5.35					.14	5.0	.70						
.23	5.80					.15	5.70	.70						
.24	6.25					.16	6.60	.90						
.25	6.70					.17	7.70	.90						
.26	7.15					.18	9.00	1.30						
.27	7.60					.19	10.40	1.40						
.28								1.80						

From Feb 5
To Sept 30

20 12.20
21 14.50 2.30
22 18.00 3.50

The above table is not applicable for obstructed channel conditions. It is based on 17 discharge measurements made during

and is fairly well defined between .06 second-feet and 18.03 second-feet.

Computed by H V
Checked by V K
Date

Daily Gage Height, in Feet, and Discharge, in Second-Feet, of

BROWN CANYON CREEK

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

At DEVONSHIRE AVE.

for the Year Ending September 30, 19 31

Drainage Area 14.3 Square Miles.

J. W. LUCE [Observer.]

Gage Read CONTINUOUS

Used rating table dated

Main data table with columns for months (OCTOBER to SEPTEMBER), gage height, discharge, and daily data from 1 to 31. Includes summary rows for TOTAL, Mean Daily Discharge, and Maximum Mean Daily Discharge.

Vertical text on the left margin: 'Most of water from L. A. City Aqueduct' and 'Minimum gage DRY'.

Vertical text on the right margin: 'H.V. V.K.', 'G. H. copied', 'G. P. checked', 'Disch. checked', 'Date'.

PERIOD YEAR

COMPTON CREEK AT ROSECRANS AVE., COMPTON

Location

On Rosecrans Ave. bridge about 1 mile northwest of Compton, Los Angeles County.

Drainage Area

21.74 square miles.

Installed by

Los Angeles County Flood Control District
January 22, 1928.

Records Available

January 22, 1928 to September 30, 1931 at
Los Angeles County Flood Control District,
Los Angeles California.

Gage

An continuous water stage recorder in small house on top of corrugated iron pipe stilling well attached to last wing wall of bridge, downstream side. Staff gage is attached to stilling well.

Discharge Measurements

High water measurements are made from bridge.
Low water measurements are made by wading near gage.

Channel and Control

Channel is hard clay, banked.
Good control

Extremes of Discharge

1928-1929

Maximum-924 c.f.s. March 10, 1929

Minimum-Dry at various times during year

1929-1930

Maximum-580 c.f.s. March 14, 1930

Minimum-Dry at various times during year

1930-1931

Maximum-678.5 c.f.s. April 26, 1931

Minimum-Dry at 12 noon, September 21, 1931.

F-37 R

Diversions
None.

Regulation
None.

Accuracy
Good.

Co-operation
Located, constructed and operated by the Los Angeles County Flood Control District in co-operation with the U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
RECORDS SECTION DETAILMENT

Discharge and contents of **Compton Creek**

1931

Rosecrans Ave.-Compton

July 1 to July 31, 1931

Date	Time	Location	Flow (cfs)	Velocity (ft/sec)	Depth (ft)	Temperature (F)	Direction	Remarks	
1930									
1	10/3	Jordan	6.0	1.70	.76	.56	1.29	.6	0 1/6 262
2	10	Jordan-Bewley	7.0	1.79	.74	.86	1.52	.6	7 " "
3	17	Jordan	6.3	1.59	.64	.86	1.02	.6	7 " "
4	24	"	6.2	1.31	.53	.52	.70	.6	7 " "
5	11/6	"	6.5	1.59	.62	.41	.99	.6	7 " "
6	13	"	7.5	2.02	.57	.44	1.16	.6	7 1/4 "
7	16	"	6.2	5.54	1.99	.91	11.00	.6	8 .01/6 "
8	17	Jordan-Bewley	41.0	163.	2.30	2.75	163.3	.6	11 .18 1/4 "
9	20	Jordan-Seal	6.0	1.74	.51	.30	.89	.6	7 5/12 "
10	28	Seal	12.0	3.45	1.51	.84	12.75	.6	12 .10 1/4 "
11	12/5	"	6.9	1.74	.59	.30	1.03	.6	13 1/6 "
12	12	"	6.1	1.30	.41	.30	1.09	.6	12 1/4 "
13	19	"	6.0	1.37	.59	.29	.80	.6	12 1/5 "
14	1931 1/2	"	38.0	54.2	2.28	2.32	123.9	.6	10 .105/12 "
15	7	"	20.0	72.2	2.82	1.75	215.3	.6	10 .16 1/3 "
16	6	"	7.0	1.61	.85	.30	1.22	.6	7 1/5 "
17	8	Jordan-Seal	33.5	52.3	2.27	2.42	134.7	.6	10 .04 1/4 "
18	9	Seal	7.5	1.17	.61	.29	1.33	.6	12 7/30 "
19	16	"	7.5	2.22	.62	.31	1.45	.6	8 1/3 "
20	23	"	6.5	1.55	.50	.29	.88	.6	6 1/4 "
21	30	"	7.2	1.57	.68	.30	1.06	.6	7 1/6 "
22	31	"	24.2	40.0	1.71	1.99	79.83	.6	12 .103/10 "
23	2/3	Seal-Bergas	28.0	48.2	1.71	2.50	131.8	.6	12 .10 1/3 "
24	4	" "	41.0	107.8	2.80	3.62	315.3	.6	11 .01 " "
25	6	Seal	7.0	1.96	.60	.28	1.20	.6	7 .01 1/5 "
26	13	"	9.8	2.77	1.66	.72	7.93	.6	16 .03 1/4 "
27	20	"	7.2	2.10	.70	.31	1.46	.6	8 1/5 "
28	27	"	7.2	2.52	.65	.56	1.64	.6	8 .01 1/4 "

LOS ANGELES COUNTY
 PEST CONTROL DISTRICT
 HYGIENE & PESTICIDE DEPARTMENT

Division of Entomology

Compton

Check

Rosecrans Ave.-Compton

Report for the month of March 1931

No.	Date	Location	Area	Inf.	Cont.	Cost	Rate	Days	Notes	Total
1931										282
29	3/6	Seal	2.1	2.65	.71	.57	1.29	.6	8	.041/4 962
30	13	"	7.1	2.58	.59	.54	1.40	.6	8	.011/5 "
31	20	"	7.1	2.62	.75	.55	1.96	.6	11	4/15 "
32	27	"	2.1	.39	.19	.18	.05	.6	4	2/15 "
33	4/5	"	6.7	2.51	.54	.31	1.37	.6	8	.027/30 "
34	10	"	7.1	2.22	.30	.31	1.34	.6	8	1/6 "
35	17	"	7.2	2.49	.56	.40	1.59	.6	8	.011/5 "
36	24	"	10.5	8.25	1.88	1.11	15.57	.6	10	.027/30 "
37	27	Seal-Fergus	41.0	89.0	2.55	2.12	212.4	.6	11	.152/15 "
38	5/1	Seal	7.2	2.55	.76	.54	1.92	.6	8	1/5 "
39	8	"	7.2	2.34	.73	.39	2.05	.6	9	.021/12 "
40	15	"	6.3	1.33	.91	.35	1.52	.6	11	1/4 "
41	22	"	6.3	1.38	1.04	.36	1.74	.6	8	.011/12 "
42	29	"	7.2	2.72	.72	.33	1.96	.6	8	.011/5 "
43	6/5	"	1.5	.14	.57	.16	.28	.6	4	.011/10 "
44	13	"	7.2	2.40	.53	.22	1.29	.6	8	1/5 "
45	19	"	7.5	2.37	.62	.40	1.94	.6	8	1/6 "
46	26	"	6.3	1.01	.60	.22	.31	.6	7	3/20 "
47	7/3	"	2.5	.41	.73	.20	.50	.6	5	1/12 "
48	7/10	"	2.8	.44	.64	.20	.28	.6	5	.01 " "
49	15	"	2.0	.71	.83	.15	.59	.6	6	1/5 "
50	24	"	3.0	.95	2.00	.40	1.90	.6	6	2/15 "
51	31	"	7.6	2.25	.88	.56	3.45	.6	8	" "
52	8/7	"	2.5	.42	.57	.18	.24	.6	5	1/2 "
53	14	"	7.4	2.58	.84	.46	2.17	.6	7	1/6 "
54	21	"	7.2	2.76	.37	.42	1.85	.6	8	.01 3/20 "
55	28	"	2.5	.14	.24	.14	.09	.6	4	.01 1/12 "
56	9/4	"	2.6	.39	.83	.26	.60	.6	6	" "

100 HIGHER UNIT
 FLEET CONTROL DIVISION
 HYDROGRAPHIC DEPARTMENT

Disburs. measurements of Compton

Rosecrans Ave.-Compton

1931

No.	Date	Work by	Wash	Ass't	Man	Over	Disburse				
			Cost	Cost	Cost	Cost	Cost				
1931											
57	9/11	Seal	2.5	.58	.65	.17	.24	.6	5	1/10962	
58	9/18	"	6.9	1.88	.71	.30	1.33	.6	7	.011/12 "	
59	9/25	"	9.6	4.81	1.20	.68	5.79	.6	9	7/30 "	
60	9/25	"	7.0	2.13	.79	.34	1.70	.6	8	.011/6 "	

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 37

Gaging table for Compton Creek, Rosecrans Ave., Compton.

, from Oct. 1st, 1930, to Sept. 30th, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
0	0		1.00	13.00		2.00	75.0		4.00	402.5				
.05	.20	.04	05	15.0	.40	10	85.00	1.0	10	422.5	2.0			
.10	.40		10	17.0	.40	20	95.20	1.02	20	442.5				
.15	.60		15	19.0	.40	30	106.4	1.12	30	462.5				
.20	.80		20	21.0	.40	40	118.5	1.21	40	482.5				
.25	1.00		25	23.0	.40	50	132.0	1.35	50	502.5				
.30	1.20		30	25.5	.50	60	145.5	1.35	60	522.5				
.35	1.40		35	28.0	.50	70	160.0	1.45	70	542.5				
.40	1.60		40	31.0	.60	80	175.5	1.55	80	567.5				
.45	1.80		45	34.0	.60	90	192.5	1.70	90	582.5				
.50	2.00	.04	50	37.0	.60	3.00	209.5	1.70	5.00	602.5				
.55	2.50	.10	55	40.0	.60	10	227.5	1.80	10	622.5				
.60	3.00	.10	60	43.0	.60	20	245.5	1.80	20	642.5				
.65	3.75	.15	65	46.5	.70	30	264.5	1.90	30	662.5				
.70	4.75	.20	70	50.0	.70	40	283.5	1.90	40	682.5				
.75	5.75	.20	75	53.75	.75	50	303.0	1.95	50	702.5				
.80	7.00	.25	80	57.75	.80	60	322.5	1.95	60	722.5				
.85	8.25	.25	85	62.0	.85	70	342.5	2.0						
.90	9.75	.30	90	66.25	.85	80	362.5	2.0						
.95	11.25	.35	95	70.25	.90	90	382.5	2.0						

The above table is not applicable for obstructed channel conditions. It is based on 60 discharge measurements made during Year 1920-1931

and is very well defined between .09 second-feet and 315.29 second-feet.

Computed by W T K

Checked by W T K

Date

Gage Height, in Feet, and Discharge, in Second-Feet, of

COMPTON CREEK

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

ROSECREANS ROAD

for the Year Ending September 30, 19 31

Square Miles.

SEAL

Observer.]

Gage Read

CONTINUOUS

Used rating table dated

Minimum stage 0 feet at 12 Noon on 2-21-31

Correction Curve Used

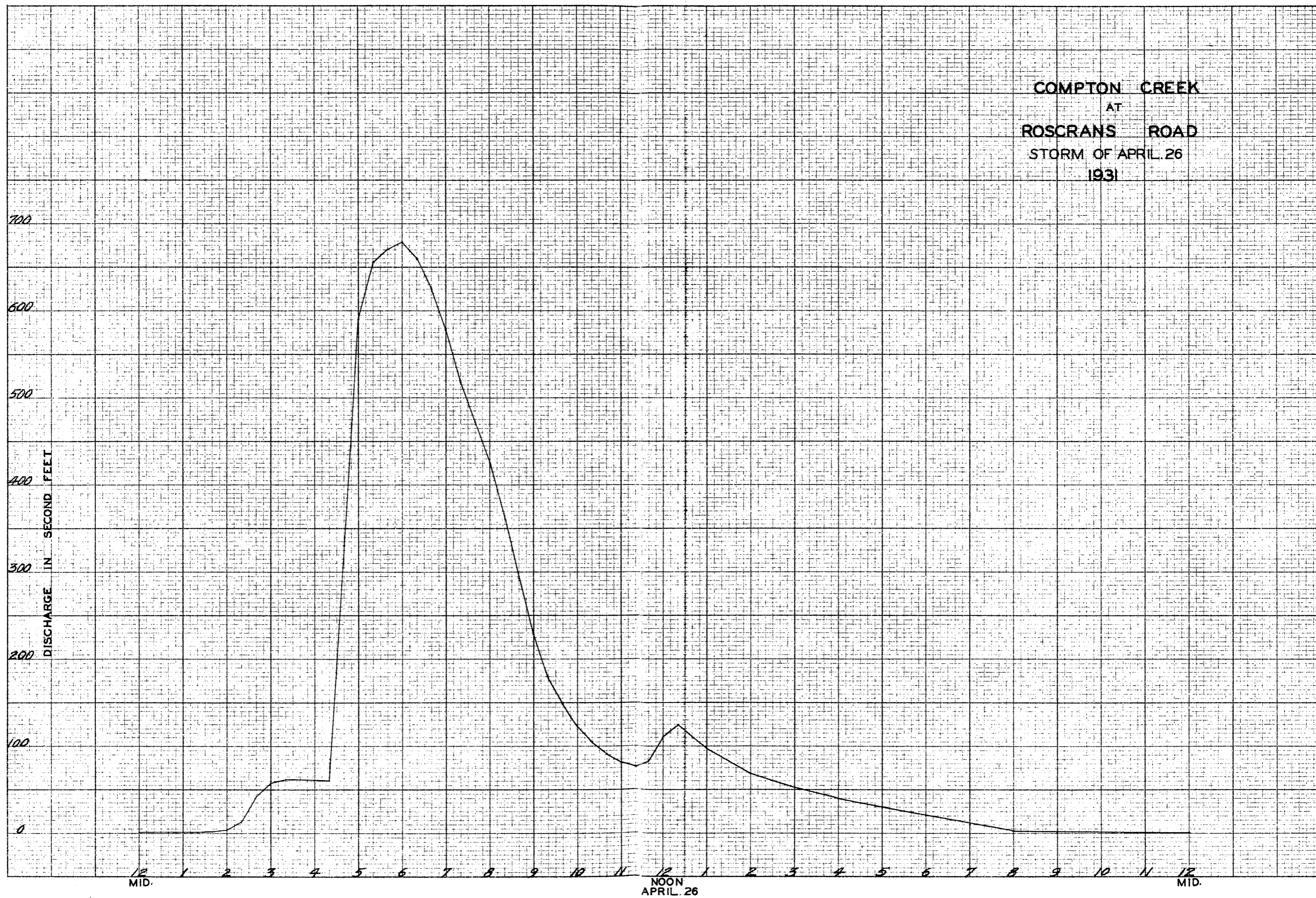
Main data table with columns for months (OCTOBER to SEPTEMBER), gage height, discharge, and day. Includes handwritten 'H' and 'V' marks.

DAY, Quarter, Date, G. H. copied, C. H. checked, Disch. applied, Disch. checked

H V V. K.

Summary table with rows for TOTAL, Mean Daily Discharge in Second-feet, Second-feet per square mile, Run-off, depth in inches, Run-off in acre-feet, Maximum Mean Daily Discharge in Second-feet, and Minimum Mean Daily Discharge in Second-feet.

COMPTON CREEK
AT
ROSCRANS ROAD
STORM OF APRIL 26
1931



F-41 R

COYOTE CREEK BELOW P. E. BRIDGE NEAR ARTESIA

Location

100 feet south of Pacific Electric Railroad Trestle on the east bank of the Creek 2.5 miles from Artesia, Los Angeles County, California.

Drainage area

110.07 square miles.

Installed by

Los Angeles County Flood Control District,
January 14, 1930.

Records Available

December 1, 1928 to September 30, 1931 at Los Angeles County Flood Control District, Los Angeles California.

Gage

Rational, 7 day recorder inclosed in shelter house on top of corrugated iron still well. Staff gage connected to stilling well.

Discharge Measurements

High Measurements are made from P.E.R.R. Trestle.
Low Measurements are made by wading.

Channel and Control

Channel is clay badly grown up with tules.
No control.

Extremes of Discharge

1929-1930

Maximum-91 c.f.s. January 15, 1930.

Minimum-Dry at various times during year.

1930-1931

Maximum-217.67 c.f.s. February 5, 1931,

Minimum-Dry at various times during year.

Diversi on

None

Regulation

None

Accuracy

Poor.

Co-operation

Located, constructed, and operated by Los Angeles County Flood Control District in co-operation with the U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 41

Discharge measurements of Coyote

River
Creek

at ~~below~~ below R.R. bridge near Artesia during the year ending September 30, 1931

N	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating Method	Coef.	Meas. secs.	G. Ht. change	Time	Meter No.
			Feet	Sq. ft.	ft. per sec.	Feet	Sec.-ft.				Percent diff.		
1931													
1	2, 4	Seal - erg...	29.4	14.00	.31	3.04	7.10		.6	13	.051/4	962	282
2	5	" "	57.05	10.7	3.34	7.37	106.0		.6	10	.08	"	"
3	6	Seal	52.0	47.00	4.80	4.44	23.35		.6	11	.021/3	"	"

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **41**

Rating table for **COYOTE CREEK BELOW P.E. BRIDGE NEAR ARTESIA**

, from Oct. 1, 1930, to Sept. 30, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
2.05	0		3.05	9.17		4.10	19.50		6.10	50.20		8.10	159.75	
2.10	.40	.08	.10	9.64		.20	20.50		.20	52.80		.20	167.00	
.15	.85	.09	.15	10.11		.30	21.57	.107	.30	55.40		.30	174.25	
.20	1.30		.20	10.58		.40	22.64		.40	58.00		.40	181.50	
.25	1.75		.25	11.05		.50	23.71		.50	62.00	.40	.50	188.75	
.30	2.20		.30	11.52	.096	.60	24.78		.60	66.00		.60	196.00	
.35	2.65		.35	12.00	.100	.70	25.85		.70	70.00		.70	203.25	
.40	3.10		.40	12.50		.80	26.92		.80	74.00		.80	210.50	
.45	3.55		.45	13.00		.90	28.00	.108	.90	78.00		.90	217.75	
.50	4.00		.50	13.50		5.00	29.33	.133	7.00	84.20	.62	9.00	225.0	
.55	4.47	.094	.55	14.00		.10	30.66		.10	90.40				
.60	4.94		.60	14.50		.20	32.00	.134	.20	96.60				
.65	5.41		.65	15.00		.30	33.67	.166	.30	102.80				
.70	5.88		.70	15.50		.40	35.33		.40	109.0				
.75	6.35		.75	16.00		.50	37.00	.167	.50	116.25	.725			
.80	6.82		.80	16.50		.60	39.00	.200	.60	123.50				
.85	7.29		.85	17.00		.70	41.00		.70	130.75				
.90	7.76		.90	17.50		.80	43.00		.80	138.00				
.95	8.23		.95	18.00		.90	45.00		.90	145.25				
3.00	8.70		4.00	18.50		6.00	47.60	.25	8.00	152.50				

The above table is not applicable for obstructed channel conditions. It is based on 3 discharge measurements made during year 1930-1931

and is fairly well defined between 7.18 second-feet and 106.6 second-feet.

Computed by H.V.

Checked by V.K.

Date

Daily Gage Height, in Feet, and Discharge, in Second-Feet, of

COYOTE CREEK

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 41

BELOW P.E. BRIDGE NEAR ARTESIA

for the Year Ending September 30, 19 31

Drainage Area 110. Square Miles.

D. L. SEAL

Observer.]

Gage Read CONTINUOUS

Used rating table dated

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY		
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		Quarter	First
1							Dry	0	2.28	2.02			1	Dry	0	2.06	.08	Dry	0	0						1		
2							"	0	2.51	4.09			2			Dry										2		
3							"	0	2.46	3.64			3													3		
4							"	0	H	13.06			4													4		
5							2.07	.16	H	131.89			5													5		
6							2.10	.40	H	26.06			6													6		
7							2.13	.67	H	12.35			7													7		
8							2.30	2.20	H	9.91			8													8		
9							2.56	4.56	2.79	6.73			9													9		
10							2.64	5.32	2.56	4.56			10													10		
11							2.54	4.38	2.42	3.28			11													11		
12							2.45	3.55	2.32	2.38			12													12		
13							2.36	2.74	2.29	2.11			13													13		
14	DRY		DRY		DRY		2.27	1.93	2.60	4.94		DRY	14	DRY		DRY		DRY		DRY		DRY		DRY		14		
15							2.18	1.12	2.51	4.09			15													15		
16							2.09	.32	2.32	2.38			16													16		
17							2.08	.24	2.26	1.84			17													17		
18							2.06	.08	2.20	1.30			18													18		
19							Dry	0	2.15	.85			19													19		
20							2.22	1.48	2.10	.40			20													20		
21							2.20	1.30	2.10	.40			21													21		
22							2.10	.40	2.09	.32			22													22		
23							2.13	.67	2.08	.24			23													23		
24							2.15	.85	2.07	.16			24													24		
25							Dry	0	2.06	.08			25	Dry	0											25		
26							2.07	.16	2.05	0			26	2.09	.32											26		
27							2.09	.32	Dry	0			27	Dry	0											27		
28							2.10	.40	"	0			28	2.71	5.97											28		
29							2.10	.40	-	-			29	2.55	4.47											29		
30							2.10	.40	-	-			30	2.23	1.57			Dry	0		Dry	0				30		
31							2.15	.85	-	-			31	-	-	Dry	0			Dry	0					31		
TOTAL,		0	0	0	34.90	239.08	0	12.33	.08	0	0	0																
Daily Discharge in second-feet		0	0	0	1.13	8.54	0	.41	.003	0	0	0																
Cubic feet per square mile		0	0	0	.01	.085	0	.004	0	0	0	0																
Depth in inches -																												
Mean Daily Discharge in Second-feet		0	0	0	69.21	474.10	0	24.45	.16	0	0	0														567.92		
Maximum Daily Discharge in Second-feet		0	0	0	5.32	131.89	0	5.95	.07	0	0	0																
Minimum Daily Discharge in Second-feet		0	0	0	0	0	0	0	0	0	0	0																

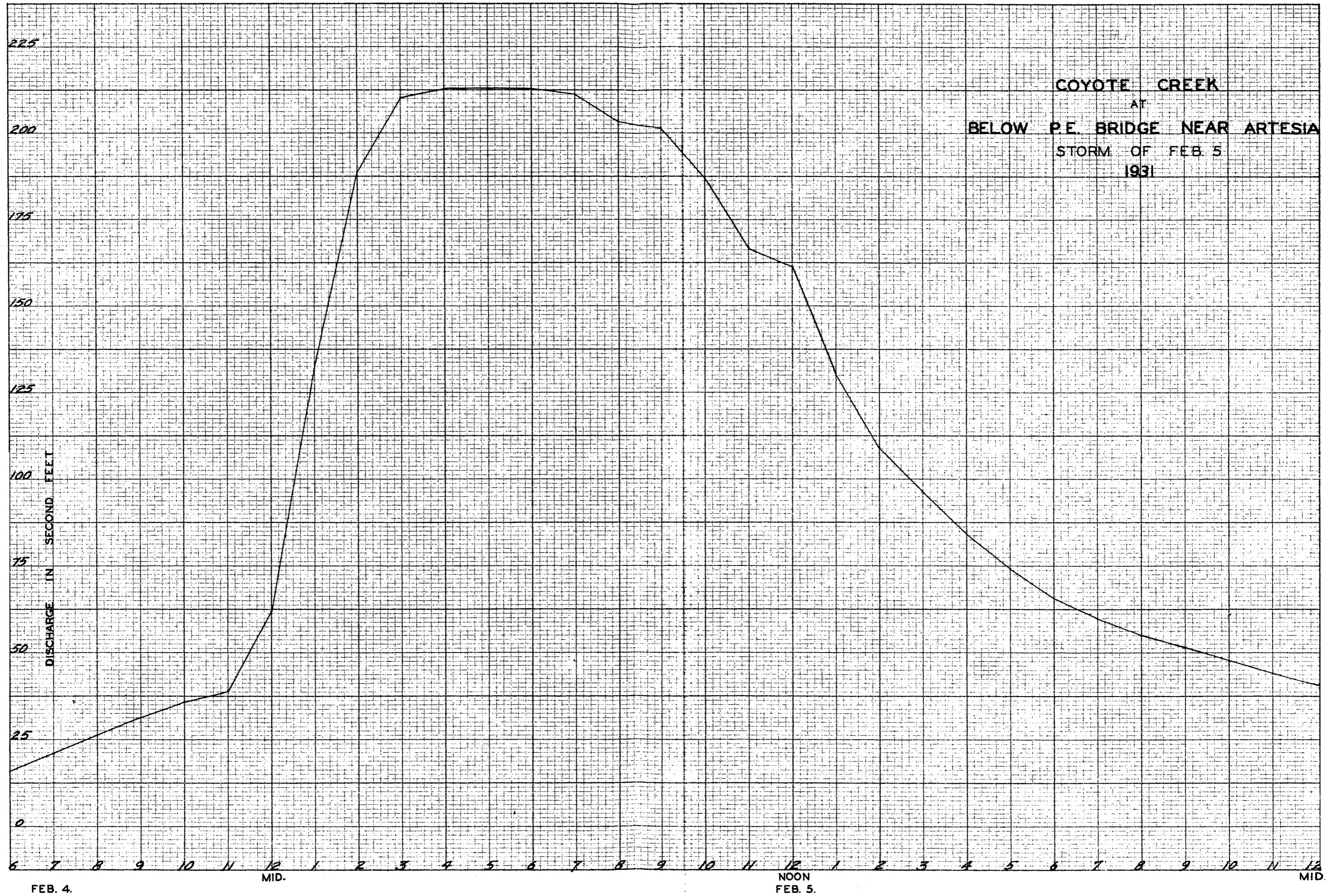
H.V. V.K.

H.V.

H.A.V.

G.H. copied
G.H. checked

PERIOD YEAR



F-62 R

Curson Canyon - Hollywood

Location

In Curson Canyon about 200 feet above end of Curson Avenue.

Drainage Area

.07 square miles.

Installed by

Los Angeles County Flood Control District.
February 14, 1928.

Gage

Stevens type L, 8 day recorder installed in shelter house on top of corrugated iron stilling well.

Records Available

February 14, 1928 to September 30, 1931 at offices of Los Angeles County Flood Control District, Los Angeles, California.

Discharge Measurements

Can be made by wading.

Channel and control

Channel in decomposed granite. Weir control.

Extremes of Discharge

No flow since recorder located.

Diversion

None

Regulations

None.

Co-operation

Located, constructed and operated by Los Angeles County Flood Control District.

F-53 R

DUME CREEK (ZUMA) AT ROOSEVELT HIGHWAY
BRIDGE.

Location

On Roosevelt Highway Bridge, near Dume Point
about 1/4 mile from Pacific Ocean.

Drainage Area

8.76 square miles.

Installed by

Los Angeles County Flood Control District
January 15, 1930

Records Available

October 1, 1930 to September 30, 1931 at offices of
the Los Angeles County Flood Control District.
Los Angeles, California.

Gage

An continuous water stage recorder installed in
house on top of galvanized iron pipe stilling well
on downstream side of bridge.

Discharge Measurements

High flows measured from bridge.
Low flows measured by wading.

Channel and Control

Sand and gravel. No control.

Extremes of Discharge

1929-1930

Maximum-426.0 c.f.s. on January 15, 1930

Minimum-Dry most of year

1930-1931

Maximum-205 c.f.s. February 4, 1931

Minimum-Dry most of year

Diversions

None

Regulations

None

Accuracy

Fair

Co-operation

Located, installed, and operated by the
Los Angeles County Flood Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 53

Discharge measurements of _____ Date _____

River
Creek

at Roosevelt Highway Bridge during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Coef.	Meas. sec.	G. H. change	Time	Meter No.
1931			Feet	Sq.-ft.	Ft. per sec.	Feet	Sec.-ft.	Percent diff.			No.	Total	Hours	FC
1	2/4	Hardgrove-Ayres	36.0	21.8	2.50	2.63	54.2		.6		7		1/12	7
2	4	" "	49.0	45.8	3.03	2.78	139.1		.6		13		5/12	"
3	4/25	" "	24.0	13.1	1.70	2.29	22.3		.6		12		1/6	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 53

Rating table for Dume Creek at Roosevelt Highway Bridge

, from Oct. 1st, 1930, to Sept. 30th, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
1.64	0		2.04	11.90		2.44	31.70							
.66	.50	.25	.06	12.60	.35	.46	33.30	.80						
.68	1.00		.08	13.30		.48	34.90							
.70	1.50		.10	14.00		.50	36.50							
.72	2.10	.30	.12	14.80	.40	.52	38.90	1.20						
.74	2.70		.14	15.60		.54	41.30							
.76	3.30		.16	16.40		.56	43.70							
.78	3.90		.18	17.20		.58	46.10							
.80	4.50		.20	18.00		.60	48.50							
.82	5.10		.22	18.90	.45	.65	59.50	2.20						
.84	5.70		.24	19.80		.70	77.00	3.50						
.86	6.30		.26	20.70		.75	109.00	6.40						
.88	6.90		.28	21.60		.80	157.0	9.60						
.90	7.50		.30	22.50		.85	205.0							
.92	8.10		.32	23.70	.60									
.94	8.70		.34	24.90										
.96	9.30		.36	26.10										
.98	9.90		.38	27.30										
2.00	10.50		.40	28.50										
.02	11.20	.35	.42	30.10	.80									

The above table is not applicable for obstructed channel conditions. It is based on 3 discharge measurements made during year 1930-1931

and is fairly well defined between 22.31 second-feet and 139.1 second-feet.

Computed by H V

Checked by K

Date

DUME CREEK

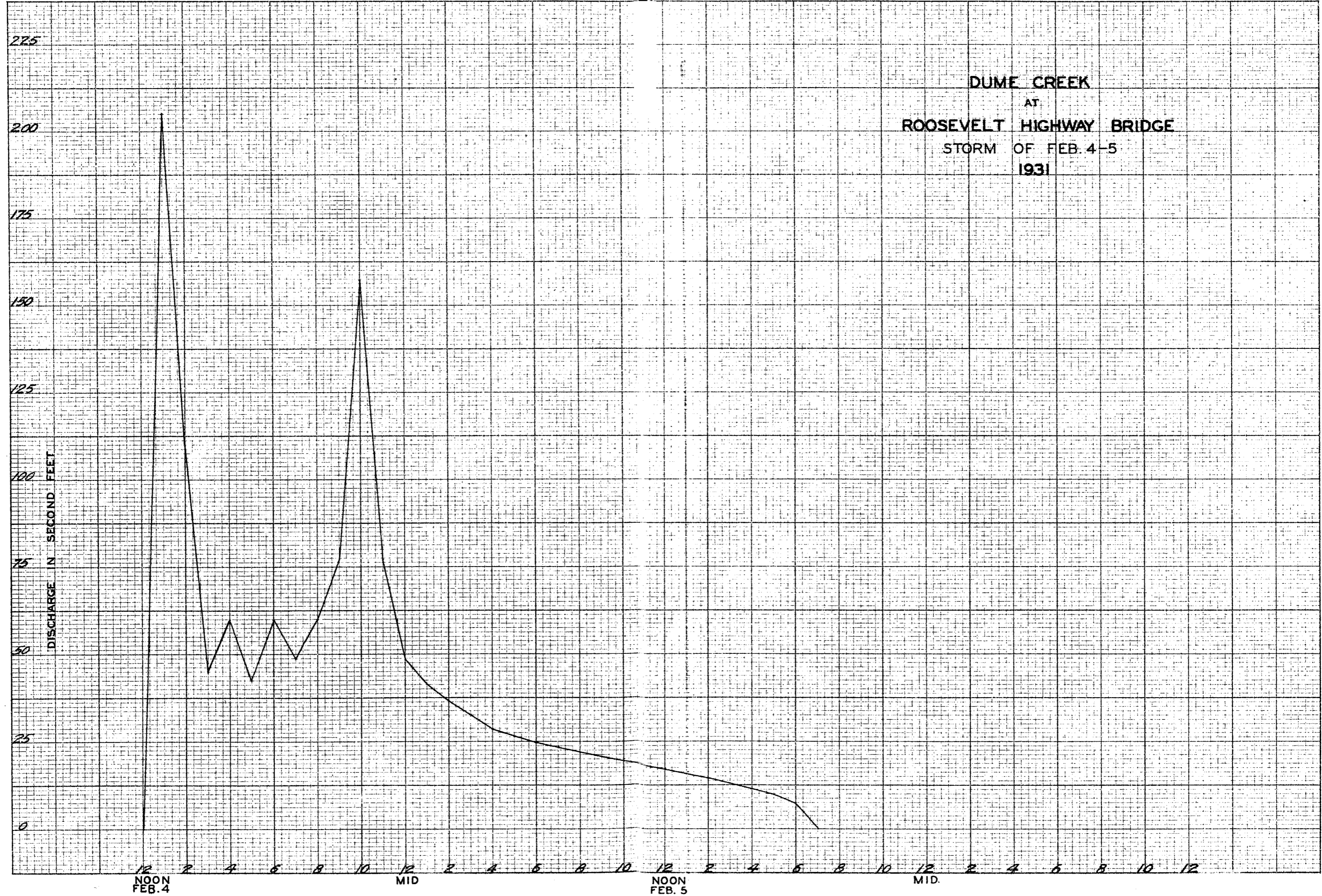
AT

ROOSEVELT HIGHWAY BRIDGE

STORM OF FEB. 4-5

1931

KEUFFEL & ESSER CO., N. Y. NO. 359-211
12 x 20 to the inch.



EATON WASH AT BROADWAY BRIDGE

Location

On the west end of the upstream side of bridge where Broadway crosses Eaton Wash in San Gabriel, Los Angeles County, California.

Drainage Area

0.50 square miles

Installed By

The Los Angeles County Flood Control District,
December 28, 1930

Records Available

From December 28, 1930 to September 30, 1931
at Los Angeles County Flood Control District office,
Los Angeles, California.

Gage

Stevens L type 5 day water stage recorder installed in small shelter house on top of a corrugated iron pipe stilling well at west end of bridge.

Discharge Measurements

Low water measurements made by wading.
High water measurements made from bridge.

Channel and Control

Channel- shifting sand
Control-none

Extremes of Discharge

Maximum-359 c.f.s. on April 26, 1931
Minimum-Dry most of year

Diversions

None

Regulation

None

Accuracy

Poor

Co-operation

Located, installed and operated by The Los Angeles County Flood Control District.

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **104**

Discharge measurements of

Eaton Wash

**River
Creek**

Broadway Bridge

, during the year ending September 30, 1931

No.	Date	Made by	Width		Mean velocity	Gage height		Discharge	Rating	Method	Coef.	Meas. secs.	G. Ht. change	Time	Meter No.
			Feet	Sq. ft.		Feet	Feet								
	1931														282
1	1/5	Lindsay-Laird	27.0	5.60	4.04	2.34	22.64		.6			8		1/6	883
2	31	Lindsay	9.5	2.14	2.79	1.98	5.97		.6			9		1/4	"
3	2/3	Lindsay-Laird	34.0	12.50	4.76	2.85	59.50		.6			10		1/5	"
4	4	" "	34.0	18.60	6.66	2.96	124.0		.6			10		1/6	"
5	5	" "	21.5	3.26	2.53	2.54	8.24		.6			10		1/4	"
6	26	Lindsay	34.0	11.75	3.94	2.87	46.36		.6			10		1/6	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 104

Rating table for EATON WASH AT BROADWAY BRIDGE

, from Oct. 1, 1930, to 9:00 P.M. Feb. 4, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
1.76			2.16	14.10		2.56	33.08		2.96	123.90				
1.78			.18	15.04		.58	34.08	.50	.98	135.70				
1.80			.20	15.98		.60	35.08		3.00	147.50				
1.82			.22	16.92		.62	36.18	.55	.02	159.30				
1.83			.24	17.86		.64	37.28		.04	171.10				
.86	0		.26	18.80		.66	38.38		.06	182.90				
.88	.94	.47	.28	19.74		.68	39.48		.08	194.70				
.90	1.88		.30	20.68		.70	40.58		.10	206.50				
.92	2.82		.32	21.62		.72	41.74	.58	.12	218.30				
.94	3.76		.34	22.56		.74	42.90		.14	230.10				
.96	4.70		.36	23.50		.76	44.30	.70	.16	241.90				
.98	5.64		.38	24.44		.78	46.10	.90	.18	253.70				
2.00	6.58		.40	25.38		.80	48.30	1.10	.20	265.50				
.02	7.52		.42	26.32		.82	51.50	1.60	.22	277.30				
.04	8.46		.44	27.26		.84	55.90	2.20	.24	289.10				
.06	9.40		.46	28.20		.86	65.90	5.00	.26	300.90				
.08	10.34		.48	29.14		.88	77.50	5.80	.28	312.70				
.10	11.28		.50	30.08		.90	89.10		.30	324.50				
.12	12.22		.52	31.08	.50	.92	100.70		.32	336.30				
.14	13.16		.54	32.08		.94	122.30		.34	348.10				

The above table is not applicable for obstructed channel conditions. It is based on 4 discharge measurements made during period

and is fairly well defined between 5.97 second-feet and 124.0 second-feet.

Computed by

Checked by W.T.K.

Date

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 104

Rating table for **EATON WASH AT BROADWAY BRIDGE**

, from 9:00P Feb. 4, 19 31, to Sept. 30, 19 31

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
2.35	0	.47	2.70	19.00	1.50									
.36	.47		.72	22.00										
.37	.94		.74	25.00	2.00									
.38	1.41		.76	29.00	2.50									
.39	1.88		.78	34.00	3.00									
.40	2.35		.80	40.00	3.50									
.42	3.29		.82	47.00	4.00									
.44	4.23		.84	55.00	5.45									
.46	5.17		.86	65.90										
.48	6.11													
.50	7.05													
.52	7.99													
.54	8.93													
.56	9.87													
.58	10.81													
.60	11.75													
.62	12.69													
.64	13.63													
.66	15.00	.685												
.68	17.00	1.00												

The above table is not applicable for obstructed channel conditions. It is based on 4 discharge measurements made during Period February 4, Sept. 30, 1931

and is fairly well defined between 8.24 second-feet and 124.0 second-feet.

Computed by _____
Checked by W.T.K.
Date _____

Daily Gage Height, in Feet, and Discharge, in Second-Feet, of

EATON WASH

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **104**

At **BROADWAY BRIDGE**

for the Year Ending September 30, 19 **31**

Drainage Area **6.50** Square Miles.

R. LINDSAY

Observer.]

Gage Read **CONTINUOUS**

Used rating table dated

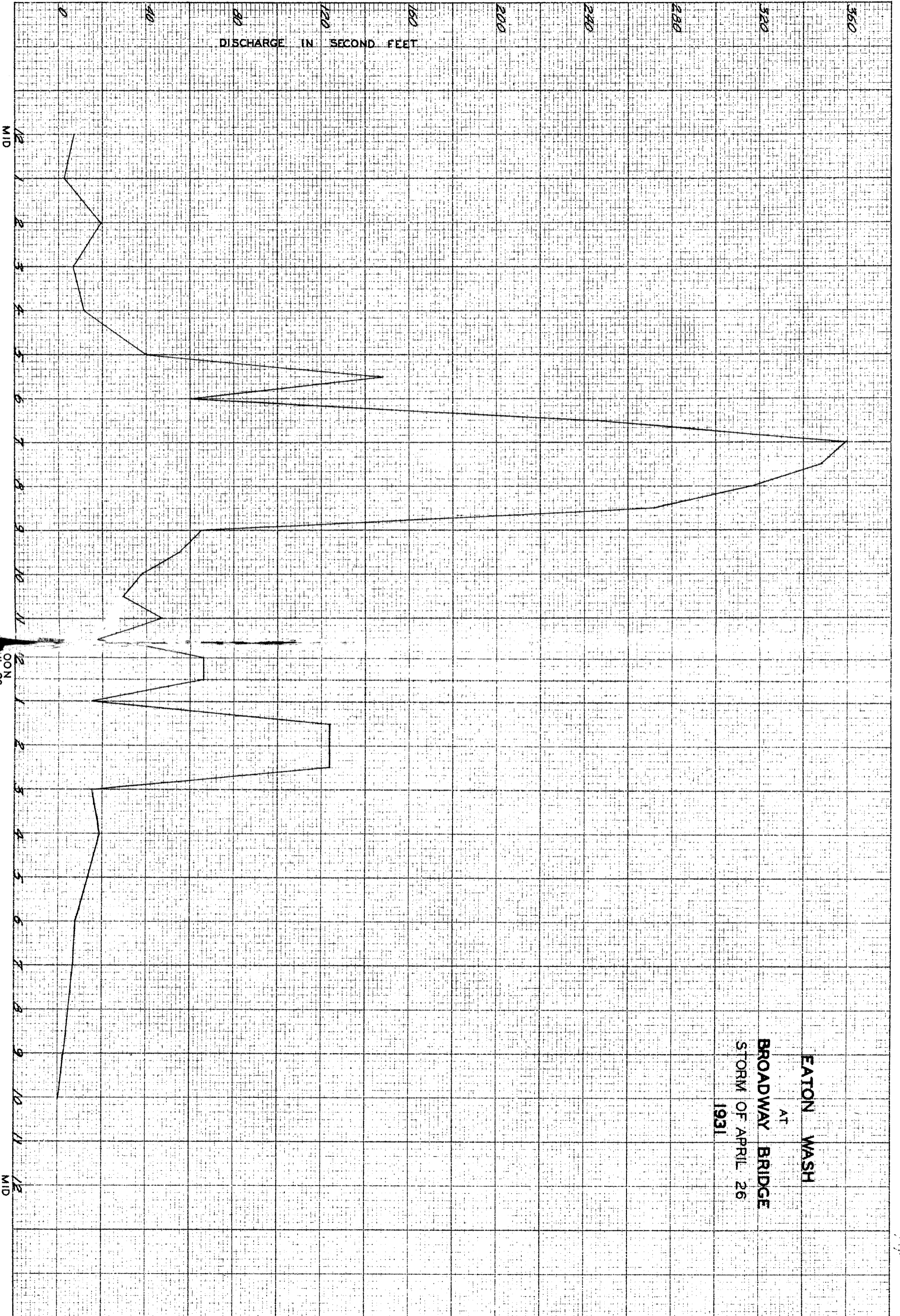
second-feet second-feet	DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY	Fourth Third Second First	Computed Checked Date
		Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge			
	1							1.90	1.88		Dry			1	Dry		Dry										1		
	2							1.88	.94		Dry			2													2		
	3													3													3		
	4													4													4		
	5							1.90	1.88	2.48	6.11			5													5		
	6													6													6		
	7							1.91	2.35					7													7		
	8													8													8		
	9													9													9		
	10													10													10		
	11													11													11		
	12													12													12		
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	26													26													26		
	27													27													27		
	28													28													28		
	29													29													29		
	30													30													30		
	31							1.88	.94					31													31		
	TOTAL							0	7.99	88.64		0								0	0	0	0	0	0		158.12		
	Mean Daily Discharge in Second-foot							0	.85	3.16		0								0	0	0	0	0	0		.422		
	second-foot per square mile							.014	.24	1.21	.50	0								0	0	0	0	0	0		.023		
	Run-off, depth in inches							.014	.179			0								0	0	0	0	0	0		.320		
	Run-off in acre-foot	0	0	0	0	0	0	15.84	175.77		0	0	0							0	0	0	0	0	0		313.54		
	Maximum Mean Daily Discharge in Second-foot							2.35	57.32																				
	Minimum Mean Daily Discharge in Second-foot							0	0																				

Maximum stage **3.36** feet at **7:00 A.M. APRIL 20, 1931** Discharge **227.70** second-feet on **DISCHARGE**

Minimum stage **0** feet at **DRY** Most of the Year

Secondary installed at Broadway 12-28-31
Moved from Ellis Lane
No measurements on Ellis Lane Station

PERIOD YEAR



EATON WASH
AT
BROADWAY BRIDGE
STORM OF APRIL 26
1931

CON
IL 26

177

F-110 R

FOX CREEK
NEAR JUNCTION WITH BIG TUJUNGA CREEK

Location

On Fox Creek a Tributary to Big Tujunga Creek
1/2 mile above Junction with Big Tujunga Creek,
about 500 feet above lower falls.

Drainage Area

9.35 Square Miles

Installed by

The Los Angeles County Flood Control District,
November 5 1930

Records Available

November 5, 1930 to September 30, 1931 at offices
of the Los Angeles County Flood Control District,
Los Angeles, California.

Gage

An continuous water stage recorder installed in
shelter house. Stilling well is corrugated iron
pipe.

Discharge Measurements

Low water measurements made by wading near station,
and V notch weir.
High water measurements made from cable car
50' below gage.

Channel and Control

Channel is gravel and boulders
Good bed rock control.

Extremes of Discharge

Maximum-6.90 c.f.s. on February 4, 1931
Minimum-.04 c.f.s at various times during year.

Diversions

None

Regulations

None

Control

None

Accuracy

Good

Co-operation

Located, installed and operated by Los Angeles
County Flood Control District.

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **110**

Discharge measurements of **Fox** River
Creek

Jct. with Big Tujunga Creek, during the year ending September 30, 19**31**

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	rating	Method	Coef.	Meas.	G. H.	Time	Meter No.
			Feet	Sq.-ft.	Ft. per sec.	Feet	Sec.-ft.				No.	Total		
	1930													
1	11/25	Moon					.07							
2	27	"	2.0	.35	.35	.66	.12	.6			4		1/6	FC 12
3	27	"					.12							
4	12/4	"		"	"	"	.12							
5	9	"		"	"	"	.12							
6	18	"		"	"	"	.12							
7	23	"		"	"	"	.12							
8	31	"		"	"	"	.13							
9A	1/6	"		"	"	"	.21							
10	14	"		"	"	"	.26							
11	22	"		"	"	"	.25							
12	29	"		"	"	"	.30							
13	2/4	"	8.0	4.40	.71	.95	3.12	.6			8		1/4	"
14	4	"	8.0	3.74	.75	.92	2.81	.6			7		"	"
15	7	"	5.0	1.25	.97		1.21	.6			8		"	"
16	12	"	6.0	1.95	.70	.82	1.38	.6			6		"	"
17	19	"	6.0	1.55	.58	.79	.90	.6			6		"	"
18	26	"	6.0	1.38	.50	.77	.69	.6			7		"	"
19	3/5	"	6.0	1.30	.50	.75	.65	.6			6		"	"
20	12	"	6.0	1.21	.54	.75	.65	.6			5		"	"
21	19	"	6.0	1.03	.56	.74	.58	.6			6		"	"
22	26	"	6.0	1.18	.48	.73	.56	.6			6		"	"
23	4/2	"	6.0	1.17	.36	.73	.42	.6			6		"	"
24	9	"	6.0	1.02	.33	.71	.34	.6			6		"	"
25	16	"					.24							
26	23	"	6.0	1.39	.51	.77	.78	.6			7		1/6	"
27	28	"	5.5	1.70	.53	.79	.90	.6			6		"	"
28	5/6	"	6.0	1.35	.46	.74	.62	.6			6		"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 110

Discharge measurements of Fox River Creek

~~at~~ Jct. with Big Tujunga Creek, during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Coef.	Meas. secs.	G. Ht. change	Time	Meter No.
			<i>Feet</i>	<i>Sq.-ft.</i>	<i>Ft. per sec.</i>	<i>Feet</i>	<i>Sec.-ft.</i>	<i>Percent diff.</i>			<i>No.</i>	<i>Total</i>	<i>Hours</i>	<i>FC</i>
1931														
28	5/15	Irwin-Waddicor	1.3	.40	1.13	.74	.45			.6	3		1/10	24
29	26	Irwin	1.5	.37	1.27	.73	.47			.6	3		1/6	"
30	6/12	"	1.5	.17	.82	.70	.14			.6	3		1/4	"
31	26	"				Est.	.12							
32	7/17	"	1.5	.22	.08	.64	.19			.6	11		1/10	"
33	24	"	1.3	.29	.07	.65	.20			.6	3		1/12	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 110

Rating table for FOX CREEK NEAR JUNCTION WITH BIG TUJUNGA CREEK

, from Oct. 1, 1930, to Sept. 30, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
.50	.05		.70	.32	.06	.90	2.52	.18	1.10	6.50	.20			
.51	.05		.71	.38	.06	.91	2.70		.11	6.70	"			
.52	.05	.01	.72	.44	.07	.92	2.90	.20	.12	6.90				
.53	.06		.73	.51	.07	.93	3.10	.20						
.54	.06		.74	.58	.07	.94	3.30	.20						
.55	.06		.75	.65	.07	.95	3.50	.20						
.56	.07		.76	.72	.07	.96	3.70	.20						
.57	.07		.77	.80	.08	.97	3.90	.20						
.58	.07	.01	.78	.89	.09	.98	4.10							
.59	.08		.79	.98	.09	.99	4.30							
.60	.08		.80	1.08	.10	1.00	4.50							
.61	.09		.81	1.18	.10	1.01	4.70							
.62	.09		.82	1.28	.10	1.02	4.90							
.63	.10	.01	.83	1.39	.11	1.03	5.10							
.64	.10		.84	1.53	.14	1.04	5.30							
.65	.11	.01	.85	1.67	.14	1.05	5.50							
.66	.12		.86	1.82	.15	1.06	5.70							
.67	.16	.04	.87	1.99	.17	1.07	5.90							
.68	.21	.05	.88	2.16	.17	1.08	6.10							
.69	.26	.05	.89	2.34	.18	1.09	6.30							
		.06			.18									

The above table is not applicable for obstructed channel conditions. It is based on .33 discharge measurements made during year 1930-1931

and is fairly well defined between .07 second-feet and 3.12 second-feet.

Computed by W.T.K.

Checked by H.V.

Date

LITTLE DALTON AT MOUTH OF CANYON

Location

About 500' above mouth of Little Dalton Cr.
approximately 2 miles northeast of Glendora,
Los Angeles County, California.

Drainage Area

3.28 square miles

Installed by

Los Angeles County Flood Control District
January 28, 1929.

Records Available

January 28, 1929 to September 30, 1931, Los Angeles
County Flood Control District offices, Los Angeles,
California.

Gage

Vertical staff gage 10' upstream from weir on west
side of channel. Rational 7 day water stage recorder
installed in wooden shelter house on corrugated iron
pipe, 10' upstream from weir.

Discharge Measurements

High water measurements made from foot bridge at
recorder house. Low water measurements made by
wading near gage.

Channel and Control

Channel - rocky bottom and sides. Flow controlled
by 10' Cippoletti weir. Crest of 10' Cippoletti
weir on 0.00 of staff gage.

Extremes of Discharge

1929-1930

Maximum-28.0 c.f.s. on May 3, 1930.

Minimum-dry at various times during year.

1930-1931

Maximum-6.34 c.f.s. April 26, 1931

Minimum- Dry at various times during year

Diversions

None above station.

Regulation

None

Accuracy

Good.

F-65 R

Co-operation

Located, constructed and operated by Los Angeles County Flood Control District in co-operation with U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 65

Discharge measurements of

Little Dalton

River
Creek

mouth of canyon

during the year ending September 30, 1931

No.	Date	Made by	Width Feet	Area of section Sq.-ft.	Mean velocity Ft. per sec.	Gage height		Discharge Sec.-ft.	Rating	Method	Cost	Meas. secs.	G. Ht. change	Time Hours	Meter No.
						Feet	Sec.-ft.								
	1930														
1	11/17	Brewster				Est.		.04							
2	1931 1/2	"	4.0	.66	1.53		.29	1.01	.6			4	.021	12666	271
3	8	"				Est.		.01							
4	9	"				Est.		.04							
5	2/3	"	4.0	.93	2.63		.28	2.45	.6			4	1/4	"	
6	4	"	5.0	1.55	3.65		.40	5.66	.6			5	1/6	"	
7	4	"	2.0	.41	2.37		.26	.97	.6			2	1/6	"	
8	4	"	2.0	.43	2.42		.26	1.04	.6			2	"	"	
9	5	"	3.0	.61	1.79		.28	1.09	.6			3	"	"	
10	6	"	2.0	.44	2.41		.27	1.06	.6			2	"	"	
11	13	"	1.0	.17	1.06		.08	.18	.6			2	"	"	
12	20	"	1.0	.11	.91		.06	.10	.6			2	"	"	
13	27	"	1.0	.12	.58		.05	.07	.6			2	"	"	
14	4/26	"	6.0	1.71	2.22		.34	3.80	.6			6	"	"	
15	26	"	4.0	1.19	3.28		.34	3.90	.6			4	"	"	
16	27	"	2.4	.60	2.35		.22	1.41	.6			3	1/10	"	

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **65**

Rating table for **Little Dalton Creek at Mouth of Canyon**

, from **Oct. 1st**, 19**30**, to **Sept. 30th**, 19**31**

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
0	0	.01	.20	1.16	.12	.40	5.68							
.01	.01		.21	1.28	.14	.41	6.01							
.02	.02		.22	1.42	.16	.42	6.34							
.03	.03		.23	1.56	.18	.43	6.68	.34						
.04	.04	.03	.24	1.72	.20	.44	7.02							
.05	.07		.25	1.88	.22	.45	7.36							
.06	.10	.04	.26	2.06	.24									
.07	.14		.27	2.24	.26									
.08	.18	.05	.28	2.44	.28									
.09	.23		.29	2.64	.30									
.10	.28	.06	.30	2.86	.32									
.11	.34		.31	3.08	.34									
.12	.40	.08	.32	3.34	.36									
.13	.48		.33	3.60	.38									
.14	.56		.34	3.86	.40									
.15	.64		.35	4.12	.42									
.16	.72	.10	.36	4.42	.44									
.17	.82		.37	4.72	.46									
.18	.92	.12	.38	5.02	.48									
.19	1.04		.39	5.35	.50									

The above table is not applicable for obstructed channel conditions. It is based on **15** discharge measurements made during **year 1930 - 1931**

and is **very** well defined between **.07** second-feet and **5.66** second-feet.

Computed by **H V**
Checked by
Date

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of **LITTLE DALTON CREEK**

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

At **MOUTH OF CANYON**

for the Year Ending September 30, 19 **31**

Drainage Area **3.26**

Square Miles.

C. L. BREWSTER

Observer.]

Gage Read

CONTINUOUS

Use rating table dated

Maximum stage .42 feet at 4:00 P.M. on 4.-26-31
Minimum stage **Dry** feet at various times

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	
1			Dry				H	.05		Dry	.03	.03	1		Dry										1	
2							H	.21		Dry	.03	.03	2												2	
3							H	.14	H	1.80	.02	.02	3												3	
4							H	.06	H	1.57	.01	.01	4												4	
5								Dry	.19	1.04		Dry	5												5	
6								"	.13	.48			6												6	
7								"	H	.50			7												7	
8								.06	.10	.21	1.28		8												8	
9								.07	.14	.16	.72		9												9	
10								.01	.01	.11	.34		10												10	
11										.07	.14		11												11	
12										.07	.14		12												12	
13										.10	.28		13												13	
14										.11	.34		14												14	
15										.09	.23		15												15	
16			Dry							.08	.18		16												16	
17	DRY		.61	.01	Dry		DRY			.07	.14		17	DRY		DRY		DRY		DRY		DRY		DRY	17	
18				Dry						.06	.10		18												18	
19										.06	.10		19												19	
20										.06	.10		20												20	
21										.06	.10		21												21	
22										.05	.07		22		Dry										22	
23								dry		.05	.07		23	H	.04										23	
24										.05	.07		24	H	.16										24	
25										.05	.07		25		Dry										25	
26				Dry						.05	.07		26	H	1.84										26	
27			H	.10						.05	.07		27		.22	1.42									27	
28			H	.23						.04	.04		28		.12	.40									28	
29				Dry						-	-		29		.02	.02									29	
30				"						-	-		30		Dry										30	
31							H	.05		-	-	Dry	31		-										31	

Quarter First Second Third Fourth
 G. H. copied
 G. H. checked
 Date
H.V.
V.K.
H.V.
V.K.
H.V.
V.K.
H.V.
V.K.

TOTAL,	0	.34	0	.76	10.04	.09	3.88	0	0	0	0	0
Mean Daily Discharge in Second-feet	0	.01	0	.02	.36	.003	.13	0	0	0	0	0
Second-feet per square mile		.003		.006	.110	.0009	.037					
Run-off, depth in inches												
Run-off in acre-feet		.67		1.51	19.91	.18	7.69					29.96
Maximum Mean Daily Discharge in Second-feet		.23		.21	1.80	.03	1.84					
Minimum Mean Daily Discharge in Second-feet		0		0	0	0	0					

F-67 R

LITTLE SANTA ANITA CREEK 1/4 MILE BELOW FLOOD
CONTROL DAM

Location

Near Mouth of Little Santa Anita Canyon, otherwise known as Sierra Madre, approximately 1 mile northeast of Sierra Madre, Los Angeles County, California.

Drainage Area

2.49 square miles.

Installed by

Los Angeles County Flood Control District,
January 28, 1929.

Records Available

January 28, 1929 to September 30, 1931 at offices of Los Angeles County Flood Control District, Los Angeles, California. U.S.G.S. records of flow at U. S. G. S. Station above dam from July 31, 1916 to date, at offices of U.S.G.S. Water Resources Branch.

Gage

Stevens L type 8 day water stage recorder installed in shelter house on stilling well at upper end of swimming pool, on east side of creek. 2' Cippoletti weir, 6" deep, opening into weir built on old wall 22' at crest, 2½' wide and 50" deep used as a control. Vertical staff gage attached to stilling well of recorder house.

Discharge measurements

High water flows measured in channel above gage.
Low water flows, by wading in channel above gage.

Channel and Control

Channel - gravel and boulders. Check dams have been constructed about every 50 feet above the swimming pool. Control 2' Cippoletti weir, 6" deep opening into a weir 22' at crest, 2½' wide and 50" deep.

Extremes of Discharge

1929-1930

Maximum-8.90 c.f.s. April 26, 1931

Minimum-Dry at various times during year.

1930-1931

Maximum-8.90 c.f.s. April 26, 1931

Minimum-Dry at various times during year.

Diversions

Water diverted above flood control dam by Sierra Madre Water Department.

F-67-R

Regulation

Flow regulated by construction of Los Angeles County Flood Control Dam 1/4 mile above recorder.

Accuracy

Good.

Co-operation

Located, constructed and operated by Los Angeles County Flood Control District in co-operation with U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 67

Discharge measurements of

Little Santa Anita

River
Creek

at $\frac{1}{4}$ mi. below F.C. dam (Sierra Madre) during the year ending September 30, 1931

No.	Date	Made by	Width Feet	Area of section Sq. ft.	Mean velocity ft. per sec.	Gage height		Discharge rating	Method	Cof.	Meas. secs.	G. Ht. change	Time Hours	Meter No.
						Feet	Sec. ft.							
	1930													
1	9/12	Lindsay						Dry						282
2	2/4	Lindsay-Laird	4.6	.75	1.73	.40	1.30	.6				7	1/6	883
3	5	Lindsay				Est.	.20							
4	5	Irwin				Est.	.38							
5	4/26	Lindsay-Laird	5.0	2.12	2.75	.60	5.79	.6				4	1/12	"

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **67**

Rating table for Little Santa Anita Creek, 1/4 Mile below F. C. Dam

, from Oct. 1, , 1930, to Sept. 30, , 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
0			.20	.20		.40	1.15		.60	5.75				
.01			.21	.23	.03	.41	1.24	.09	.61	6.35	.60			
.02			.22	.26		.42	1.33		.62	6.95				
.03	0		.23	.29		.43	1.42		.63	7.60	.65			
.04	.01	.005	.24	.32		.44	1.51		.64	8.25				
.05	.01		.25	.35	.04	.45	1.60		.65	8.90				
.06	.02		.26	.39		.46	1.75	.15	.66	9.55				
.07	.02		.27	.43		.47	1.90							
.08	.03	.01	.28	.47		.48	2.05							
.09	.04		.29	.51		.49	2.20							
.10	.05		.30	.55		.50	2.35							
.11	.06		.31	.60	.05	.51	2.59	.24						
.12	.07		.32	.65		.52	2.83							
.13	.08		.33	.70		.53	3.07							
.14	.09		.34	.75		.54	3.31							
.15	.10		.35	.80		.55	3.55							
.16	.12	.02	.36	.87	.07	.56	3.93	.38						
.17	.14		.37	.94		.57	4.31							
.18	.16		.38	1.01		.58	4.69							
.19	.18		.39	1.08		.59	5.22	.53						

The above table is not applicable for obstructed channel conditions. It is based on 4 discharge measurements made during

and is Very well defined between .2 second-feet and 5.79 second-feet.

Computed by

Checked by **T N**

Date **V K**

Little Santa Anita Creek

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

1/4 mile Below F.O. Dam for the Year Ending September 30, 1931

Area 2.43 Square Miles. R.E. LINDSAY Observer. Gage Read CONTINUOUS Used rating table dated

Maximum stage 6.90 feet at 12:00 N. on 4-26-31. Minimum stage DRY feet at Most of the Year.

Main data table with columns for months (OCTOBER to SEPTEMBER) and days (1-31). Rows contain gage height and discharge data, including 'Dry' entries and specific values like 2.08 and .26.

Summary table with rows for 'TOTAL', 'Daily Discharge in Second-feet', 'Second-feet per square mile', 'Run-off, depth in inches', 'Run-off in acre-feet', 'Maximum Mean Daily Discharge in Second-feet', and 'Maximum Mean Daily Discharge in Second-feet'.

Vertical text on the right side: H.V., V.K., H.V., H.V., H.V., G.H. copied, G.H. checked, Date.

F-19 R

LITTLE TUJUNGA CREEK-FOOTHILL BOULEVARD BRIDGE

Location

On bridge across Little Tujunga Creek at Foothill Boulevard, 2 miles east of San Fernando, Los Angeles County, California.

Drainage Area

21.0 square miles.

Installed by

Los Angeles County Flood Control District, December 26, 1928.

Records Available

December 26, 1928 to September 30, 1931 at Los Angeles County Flood Control District, Los Angeles, California

Gage

Staff gage at downstream end of south face of third concrete pier from east end of bridge. Rational 7 day water stage recorder mounted in shelter house on corrugated iron stilling well on downstream end of bridge.

Discharge Measurements

High water measurements --- taken at the bridge. Low water measurements by wading near bridge.

Channel and Control

Channel-sand and silt. No control.

Extremes of Discharge

No appreciable flow 1929-1930.

1930-1931

Maximum-30 c.f.s. February 4, 1931

Minimum-Dry most of year

Diversions

None.

Regulation

None

Accuracy

Only fair due to scouring during high flows.

Co-operation

Located, constructed and operated by Los Angeles County Flood Control District in co-operation with U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 19

Discharge measurements of Little Tujunga

near
Creek

at Foothill Blvd. Bridge during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Coef.	Meas. secs.	G. H. change	Time	Notes
			Feet	Sq. ft.	Ft./sec.	Feet	Sec.-ft.	Percent dist.			No.	Total	Hours	
	1930													
1	11/27	Luce-Waddicor	9.0	1.10	2.45	3.15	2.57			.6	6	.06	1/2	FC
	1931													
2	2/4	" "	21.9	6.68	4.42	5.19	29.50			.6	11	.02	1/4	FC
3	2/5	" "	18.0	2.82	1.75	3.15	4.89			.6	13		1/6	FC
4	4/26	" "	16.6	2.57	1.76	3.50	4.52			.6	14		1/6	"

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. 19

Rating table for Little Tujungo Wash at Foothill Blvd. Bridge

, from Oct. 1, 1930, to Sept. 30, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
2.30	0	.20	3.30	20.0	.20									
.135	1.0		.35	21.										
.40	2.		.40	22.										
.45	3.		.45	23.										
.50	4.		.50	24.										
.55	5.		.55	25.										
.60	6.		.60	26.										
.65	7.		.65	27.										
.70	8.		.70	28.										
.75	9.		.75	29.										
.80	10.		.80	30.										
.85	11.		.85	31.										
.90	12.		.90	32.										
.95	13.		.95	33.										
3.00	14.		4.00	34.										
.05	15.													
.10	16.													
.15	17.													
.20	18.													
.29	19.													

The above table is not applicable for obstructed channel conditions. It is based on 4 discharge measurements made during yearly period Oct. 1, 1930 to Sept. 30, 1931

and is well defined between second-feet and second-feet.

Computed by W.K.

Checked by

Date

F-5 R

LOS ANGELES RIVER AT VAN NUYS BOULEVARD BRIDGE

Location

On downstream side of highway bridge crossing Los Angeles River at Van Nuys Blvd.

Drainage Area

157. square miles.

Installed by

Los Angeles County Flood Control District
December 19, 1928.

Records Available.

December 19, 1928 to September 30, 1931 at Los Angeles County Flood Control District offices, Los Angeles, California.

Gage

Staff gage installed on south side, at downstream end of pier of bridge. Rational recorder installed in small house on corrugated iron stilling well at downstream end of pier, just below the staff gage.

Discharge Measurements

Low water measurements made by wading near gage. High water measurements made from bridge.

Channel and Control

Channel bed and banks are of silt and adobe. No artificial control but channel has not scoured since installation of station. The Bureau of Power and Light, City of L. A. has installed a small flume and removable weir board below the station. Bridge is in two spans.

Extremes of Discharge

1928-1929

Maximum-127. c.f.s. April 4, 1929

Minimum-.13 c.f.s. September 30, 1929

1929-1930

Maximum-389 c.f.s. March 15, 1931

Minimum-Dry September 19 and 20, 1930

1930-1931

Maximum-1295 c.f.s. February 4, 1931

Minimum-.06 c.f.s. August 27, 1931

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of **Little Tujunga Wash**
 at **Foothill Blvd. Bridge** for the Year Ending September 30, 19 **31**

LOS ANGELES COUNTY
 FLOOD CONTROL DISTRICT
 HYDROGRAPHIC DEPARTMENT

File No. **19**

Drainage Area **21.0** Square Miles. [**Luce** Observer.] Gage Read **Continuous** Used rating table dated

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	
1								0		0			1												1	
2								0		0			2												2	
3								0	H	6.44			3												3	
4								0	H	3.52			4												4	
5								0		0			5												5	
6								0		0			6												6	
7							2.31	.20		0			7												7	
8								0		0			8												8	
9								0		0			9												9	
10								0		0			10												10	
11								0		0			11												11	
12								0		0			12												12	
13								0	H	6.15			13												13	
14								0	H	7.08			14												14	
15								0		0			15												15	
16		DRY		DRY		DRY		0		0		DRY	16	DRY		DRY		DRY		DRY		DRY		DRY	16	
17		DRY		DRY		DRY		0		0		DRY	17	DRY		DRY		DRY		DRY		DRY		DRY	17	
18		DRY		DRY		DRY		0		0		DRY	18	DRY		DRY		DRY		DRY		DRY		DRY	18	
19		DRY		DRY		DRY		0		0		DRY	19	DRY		DRY		DRY		DRY		DRY		DRY	19	
20		DRY		DRY		DRY		0		0		DRY	20	DRY		DRY		DRY		DRY		DRY		DRY	20	
21		DRY		DRY		DRY		0		0		DRY	21	DRY		DRY		DRY		DRY		DRY		DRY	21	
22		DRY		DRY		DRY		0		0		DRY	22	DRY		DRY		DRY		DRY		DRY		DRY	22	
23		DRY		DRY		DRY		0		0		DRY	23	DRY		DRY		DRY		DRY		DRY		DRY	23	
24		DRY		DRY		DRY		0		0		DRY	24	DRY		DRY		DRY		DRY		DRY		DRY	24	
25		DRY		DRY		DRY		0		0		DRY	25	DRY		DRY		DRY		DRY		DRY		DRY	25	
26		DRY		DRY		DRY		0		0		DRY	26	H	2.60										26	
27		DRY		DRY		DRY	H	2.60		0			27												27	
28		DRY		DRY		DRY		0		0			28												28	
29		DRY		DRY		DRY		0		0			29												29	
30		DRY		DRY		DRY		0		0			30												30	
31		DRY		DRY		DRY		0		0			31												31	

TOTAL,					2.60		.20			23.19				2.60											
Mean Daily Discharge in Second-foot					.08		.006			.83				.08											
Mean Discharge per square mile					.004		.003			.04				.004											
Maximum stage					0		0			5.16				5.16		0		0		0		0		0	56.71
Minimum stage					0		0			0				0											

Quarter First Second Third Fourth
 Disch. applied
 Disch. checked
 Date
 G. H. copied
 G. H. checked
 Date
 PERIOD YEAR

L-1 R

LITTLE ROCK CREEK 2 MILES ABOVE DAM

Location

2 miles above Little Rock Palmdale Irrigation District's Dam about 1000' above junction of Little Rock and Santiago Creeks.

Drainage Area

49.0 square miles

Installed by

Little Rock, Palmdale Irrigation District
September, 1930.

Records Available

October 1, 1930 to September 30, 1931 at offices of Los Angeles County Flood Control District, Los Angeles, California.

Gage

Stevens type A-30 continuous water stage recorder installed in large shelter house, Iron Pipe stilling well.

Discharge Measurement

Low water measurements by wading
High water measurements from suspension bridge 10 below gage.

Channel and Control

Channel gravel and boulders
Rubble concrete control with notch for low flows.

Extremes of Discharge

Maximum-430 c.f.s. April 26, 1931
Minimum-Dry at various times of year

Diversions

None

Regulation

None

Accuracy

Good

Co-operation

Located and installed by Little Rock Palmdale Irrigation District. Operated by Little Rock Palm Irrigation District in co-operation with the Los Angeles County Flood Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **L1**

Discharge measurements of

Little Rock Creek

**Lower
Creek**

at 2 mi. above Dam Little Rock Irr. Dist. during the year ending September 30, 1931
near

No.	Date	Made by	Width Feet	Area of section Sq.-ft.	Mean velocity Ft. per sec.	Gage height Feet	Discharge Sec.-ft.	Rating Percent dim	Method	Coef	Meas. secs.	G. H. change	Time Hours	Meter No.
1930														
1	12/18	Luce-Waddicor	4.0	1.11	.69	.14	.76		.6		8		1/6	24
2	29	" "	4.4	.93	.86	.15	.79		.6		9		"	"
3	1/3	" "	4.5	1.19	1.28	.19	1.53		.6		6		1/12	"
4	14	" "	4.8	1.36	1.22	.21	1.66		.6		9		"	25
5	20	" "	4.8	1.43	1.22	.22	1.75		.6		10		1/6	"
6	2/7	" "	9.6	7.94	3.66	1.03	29.42		.6		12		"	"
7	24	" "	9.5	4.71	3.90	.56	9.36		.6		12		"	"
8	3/21	" "	9.5	3.20	1.48	.36	4.75		.6		11		1/12	"
9	4/23	" "	4.7	1.70	1.23	.20	2.09		.6		9		1/6	13
10	27	" "	42.5	72.48	2.32	2.19	167.48		.6		16		1/4	"
11	27	" "	42.0	70.42	2.42	2.19	171.67		.6		17		.01 1/3	"
12	27	" "	42.0	68.68	2.23	2.18	153.52		.6		16		1/6	"
13	27	" "	40.0	61.12	2.19	2.08	134.0		.6		18		.01 1/4	"
14	27	" "	40.0	60.35	2.29	2.07	138.6		.6		16		.01	"
15	27	" "	35.5	38.70	1.68	1.65	64.1		.6		18		1/3	"
16	28	" "	34.5	37.39	1.49	1.58	55.4		.6		14		1/4	"
17	28	" "	34.5	36.44	1.45	1.58	52.76		.6		15		1/3	"
18	28	" "	37.0	45.88	1.48	1.66	67.92		.6		22		.02	"
19	28	" "	36.0	37.90	1.74	1.65	65.97		.6		14		1/4	"
20	29	" "	37.5	32.3	1.53	1.49	49.53		.6		19		"	"
21	29	" "	34.0	30.0	1.51	1.43	46.54		.6		19		1/2	25
22	29	Luce	38.5	32.0	1.49	1.45	47.90		.6		20		1/6	"
23	29	"	38.5	31.1	1.50	1.44	47.42		.6		20		"	"
24	29	"	9.5	11.3	4.03	1.44	45.85		.6		9		1/4	"
25	6/20	"	8.0	.80	.80	.10	.64		.6		7		1/6	"

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **L 1**

Rating table for **LITTLE ROCK CREEK 2 MILES ABOVE LITTLE ROCK IRRIGATION**

CO. DAM, from **Oct. 1**, 19 **30**, to **Sept. 30**, 19 **31**

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
0		.02	.40	5.00	.20	1.40	45.0	.60	2.40	245.0				
.02	.04	.03	.45	6.00	.30	.45	48.0	.70	.45	263.5				
.04	.10	.04	.50	7.50	.40	.50	51.0	.80	.50	282.0				
.06	.18	.05	.55	9.00	.50	.55	54.5	.90	.55	300.5				
.08	.28	.06	.60	10.50	.60	.60	59.0	1.10	.60	319.0				
.10	.40	.08	.65	12.00	.70	.65	64.5	1.20	.65	337.5				
.12	.56	.10	.70	13.50	.80	.70	70.0	1.30	.70	356.0				
.14	.76	.12	.75	15.50	.90	.75	77.0	1.40	.75	374.5				
.16	1.00	.15	.80	17.50	1.00	.80	84.0	1.50	.80	393.0				
.18	1.24	.18	.85	19.50	1.10	.85	92.5	1.60	.85	411.5				
.20	1.48	.20	.90	21.50	1.20	.90	101.0	1.70	.90	430.0				
.22	1.74	.25	.95	23.50	1.30	.95	110.5	1.80	.95	448.5				
.24	2.00	.30	1.00	25.50	1.40	2.00	120.5	1.90	3.00	467.0				
.26	2.30	.35	.05	27.50	1.50	.05	132.0	2.00						
.28	2.60	.40	.10	29.50	1.60	.10	144.0	2.10						
.30	3.00	.45	.15	32.00	1.70	.15	157.5	2.20						
.32	3.40	.50	.20	34.50	1.80	.20	173.0	2.30						
.34	3.80	.55	.25	37.00	1.90	.25	189.5	2.40						
.36	4.20	.60	.30	39.50	2.00	.30	208.0	2.50						
.38	4.60	.65	.35	42.00	2.10	.35	226.5	2.60						

The above table is not applicable for obstructed channel conditions. It is based on **25** discharge measurements made during **year 1930-1931**

and is well defined between **.64** second-feet and **171.67** second-feet.

Computed by **H.V.**

Checked by **W.T.K.**

Date

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of

LITTLE ROCK CREEK

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

File No. L 1

2 MILES ABOVE DAM

for the Year Ending September 30, 1931

Drainage Area 49. Square Miles.

J. W. LUCE Observer.

Gage Read CONTINUOUS

Used rating table dated

Main data table with columns for months (OCTOBER to SEPTEMBER), gage height, discharge, and daily observations. Includes summary rows for TOTAL, Mean Daily Discharge, and various hydrological metrics.

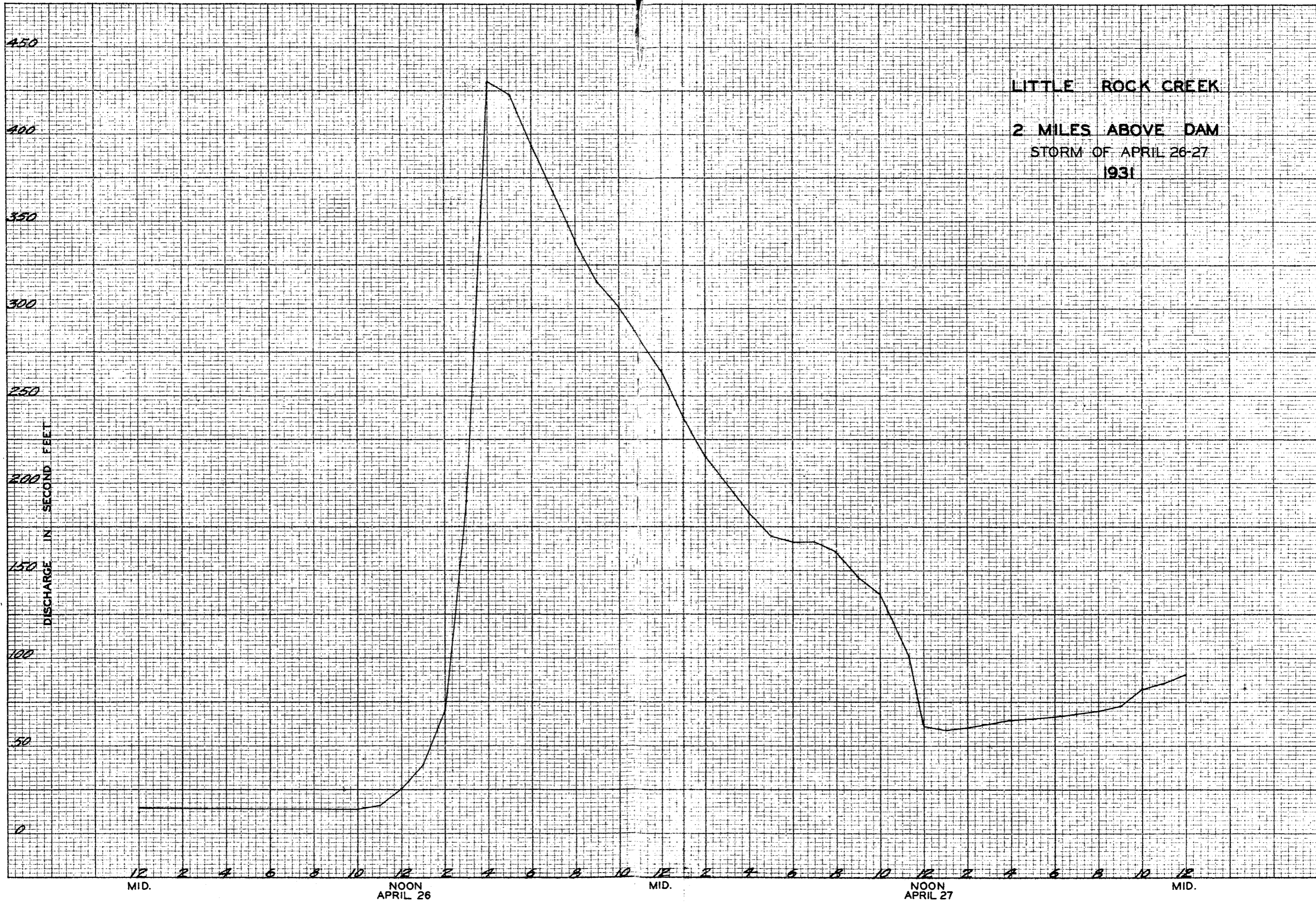
Vertical text on the left margin: Maximum stage 2.90 feet at 4:00 P.M. on 4-26-31; Minimum stage 0.00 feet at 4:30.0

Dry various times

Vertical text on the right margin: H.V. V.K. H.V. V.K. H.V. V.K. G.H. copied G.H. checked Date

PERIOD YEAR

KEUFFEL & ESSER CO., N. Y. NO. 355-21 L
12 X 20 to the Inch.



F-5 R

Diversions
None above gage.

Regulation
None.

Co-operation
Constructed and operated by the Los Angeles County
Flood Control District in co-operation with the
U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 5

Discharge measurements of Los Angeles

River
Creek

at Van Nuys Blvd. Bridge

during the year ending September 30, 1931

No.	Date	Made by	Width Feet	Ave. of Section Feet	Mean velocity ft. per sec.	Gage Height Feet	Discharge Sec.-ft.	Method	Coeff.	Mean secs.	G. H. change	Time Hours	Water Temp.
1930													
								Percent dist.		No.	Total		
1	10/3	Bollinger	4.0	6.26	1.54	3.47	9.66		.6	5		1/4	271 650
2	10	Bollinger-Laverty	4.0	6.73	1.69	3.60	11.24		.6	4		1/6	"
3	17	Bollinger	4.0	5.60	2.75	3.38	15.40		.6	4		1/4	"
4	24	"	4.0	5.06	2.89	3.23	13.59		.6	4		1/4	"
5	31	Bollinger-Anderson	6.4	7.94	1.65	3.28	13.07		.6	8		1/2	271 670
6	11/7	Bollinger	6.2	8.92	1.69	3.32	15.10		.6	10		1/4	271 650
7	14	"	7.0	8.65	1.89	3.30	16.40		.6	9		1/3	"
8	17	Bollinger-Joyce	5.7	9.79	1.71	3.42	16.79		.6	8	.04	1/6	"
9	21	Bollinger-Laverty	3.0	.54	.89	3.12	.48		.6	6		1/6	"
10	12/12	Bollinger	2.1	.50	.78	1.96	.39		.6	5		1/12	"
11	26	"	2.0	.45	.77	1.94	.35		.6	4		1/6	"
1931													
12	1/2	"	3.6	1.45	1.05	2.17	1.50		.6	7		1/6	"
13	8	Bollinger-Laverty	6.3	11.18	3.19	3.77	35.71		.6	6	.18	1/2	"
14	9	Bollinger	4.0	2.23	1.20	2.36	2.38		.6	7		1/4	"
15	16	"	5.0	3.00	1.64	2.57	4.92		.6	6	.02	1/4	"
16	2/3	Bollinger-Laverty	22.3	55.40	4.36	6.00	250.2		.6	6		1/2	" 271
17	5	"	26.7	63.8	3.38	6.23	315.4		.6	10	.15	1/3	647
18	12	"	26.7	36.8	2.56	4.04	99.4		.6	9	.20	1/3	"
19	13	"	4.6	3.82	1.01	2.57	3.80		.6	5	.01	1/4	" 271
20	20	Bollinger	2.9	1.12	1.16	2.19	1.30		.6	5		1/12	650
21	27	"	2.3	.99	.82	2.16	.81		.6	4		1/4	"
22	3/6	Bollinger-Keifer	3.3	1.21	.47	2.17	.57		.6	6		1/12	"
23	13	Bollinger	2.7	.82	.71	2.18	.58		.6	4		1/6	"
24	27	"	3.0	.74	.70	2.13	.52		.6	6		1/4	"
25	4/3	"	2.6	.34	.77	2.03	.26		.6	5		1/6	"
25A	10	"	2.7	.49	.65	2.03	.32		.6	4		1/12	"
26	17	"	3.0	.89	.89	2.15	.79		.6	4		1/12	"
27	23	"	3.1	1.16	1.43	2.25	1.66		.6	5		1/6	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 5

Discharge measurements of Los Angeles

River
~~at~~

at Van Nuys Blvd. Bridge

during the year ending September 30, 1931

No.	Date	Read by	Width feet	Area of flow sq. ft.	Mean velocity ft. per sec.	Gage height feet	Discharge cfs.	Rating coefficient	Discharge cfs.	Rating coefficient	Discharge cfs.	Rating coefficient
1931												
28	4/24	Bollinger-Laverty	4.5	1.04	1.30	2.18	1.04	.6	7	1/6	271	650
29	26	Bollinger-Bergman	27.2	47.35	2.17	4.90	103.63	.6	8	.05	1/3	"
30	5/1	Bollinger	2.9	.64	.65	1.98	.55	.6	5	1/6	"	"
31	8	"	2.7	.62	.82	1.96	.51	.6	5	1/6	"	"
32	15	"	2.8	.47	.64	1.23	.30	.6	4	1/6	"	"
33	22	"	2.4	.40	.58	1.82	.23	.6	4	1/4	"	"
34	29	"	2.3	.49	.69	1.90	.34	.6	4	1/6	"	"
35	6/5	"	2.4	.37	.54	1.32	.20	.6	4	1/6	"	"
36	12	"	2.3	.33	.57	1.81	.19	.6	4	1/6	"	"
37	19	"	1.0	.20	.75	1.78	.15	.6	2	1/6	"	"
38	26	"	1.3	.33	.82	1.84	.27	.6	2	1/6	"	"
39	7/3	"	1.3	.26	.50	1.78	.13	.6	2	1/6	"	"
40	10	"	1.4	.27	.81	1.78	.22	.6	3	1/12	"	"
41	17	"	1.3	.21	.48	1.78	.10	.6	2	1/6	"	"
42	24	"	1.3	.25	1.04	1.78	.26	.6	2	1/12	"	"
43	31	"	1.3	.43	.58	1.75	.25	.6	2	1/12	271	647
44	8/6	"	1.3	.25	.80	1.76	.20	.6	2	1/12	"	"
45	15	"	1.0	.19	.95	1.76	.18	.6	2	1/12	"	"
46	21	"	1.0	.17	.77	1.74	.13	.6	2	1/12	"	"
47	28	"	2.6	1.21	1.16	2.12	1.40	.6	5	.01	1/6	"
48	9/4	"	1.0	.13	.77	1.74	.10	.6	2	1/6	"	"
49	11	"	1.1	.17	.59	1.73	.10	.6	2	1/12	"	"
50	18	"	1.1	.15	.60	1.73	.09	.6	2	1/12	"	"
51	25	"	2.3	.13	.62	1.72	.08	.6	2	1/12	"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 5

High Flow
Rating table for Los Angeles River Van Nuys Blvd. Bridge

, from Oct 1st , 1930 , to Sept. 30th, , 19 31

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
3.60	19.50		5.00	123		7.00	453		9.00	853		11.00	1253	
.70	22.5	.30	10	136	1.30	7.10	473		.10	873		.10	1273	
.80	26.0	.35	.20	150	1.40	.20	493		.20	893		.20	1293	
.90	30.0	.40	.30	165	1.50	.30	513		.30	913		.30	1313	
4.00	35.0	.50	.40	180	1.50	.40	533		.40	933		.40	1333	
.10	40.0	.50	.50	195	1.50	.50	553		.50	953		.50	1353	
.20	46.0	.60	.60	210	1.50	.60	573		.60	973		.60	1373	
.30	53.0	.70	.70	225	1.50	.70	593		.70	993		.70	1393	
.40	60.0	.70	.80	240	1.50	.80	613		.80	1013		.80	1413	
.50	68.5	.85	.90	255	1.50	.90	633		.90	1033		.90	1433	
.60	77.5	.90	6.00	270	1.50	8.00	653		10.00	1053		12.00	1453	
.70	87.5	1.0	.10	285	1.50	.10	673		.10	1073				
.80	99.0	1.15	.20	302	1.70	.20	693		.20	1093				
.90	111.0	1.20	.30	320	1.80	.30	713		.30	1113				
		1.20	.40	338	1.80	.40	733		.40	1133				
			.50	356	1.80	.50	753		.50	1153				
			.60	375	1.90	.60	773		.60	1173				
			.70	394	1.90	.70	793		.70	1193				
			.80	413	1.90	.80	813		.80	1213				
			.90	433	2.0	.90	833		.90	1233				
					2.0									

The above table is not applicable for obstructed channel conditions. It is based on 51 discharge measurements made during year 1930- 1931

and is fairly well defined between 258.3 second-feet and .08 second-feet.

Computed by W T K
Checked by C E B 9-27-31
Date June 8, 1931

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **5**

Rating table for **Low Flow, Los Angeles River, Van Nuys Blvd. Bridge**

, from **Oct. 1st** , 19**30** , to **Sept. 30th** , 19**31**

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
1.60			2.00	.48		40	2.66		40	15.80				
.62	0		.02	.52	.02	45	3.06	.08	45	16.70	.18			
.64	.02	.01	.04	.56	.02	50	3.50	.09	50	17.60	.18			
.66	.04		.06	.62	.03	55	3.95	.10	55	18.55	.19			
.68	.06		.08	.68	.03	60	4.5	.10	60	19.50	.19			
.70	.08		.10	.75	.035	65	4.95	.10						
.72	.10		.12	.82	.035	70	5.50	.11						
.74	.12		.14	.90	.04	75	6.05	.11						
.76	.14		.16	1.00	.05	80	6.65	.12						
.78	.16		.18	1.10	.05	85	7.25	.12						
.80	.18		.20	1.22	.06	90	7.90	.13						
.82	.20		.22	1.34	.06	95	8.55	.13						
.84	.22	.01	.24	1.48	.07	3.00	9.25	.14						
.86	.24	.01	.26	1.62	.07	.05	9.95	.14						
.88	.26	.01	.28	1.76	.07	.10	10.70	.15						
.90	.28	.01	.30	1.90	.07	.15	11.50	.16						
.92	.32	.02	.32	2.05	.075	.20	12.35	.17						
.94	.36	.02	.34	2.20	.075	.25	13.20	.17						
.96	.40	.02	.36	2.35	.075	.30	14.05	.17						
.98	.44	.02	.38	2.50	.075	.35	14.90	.18						
		.02			.08									

The above table is not applicable for obstructed channel conditions. It is based on **51** discharge measurements made during **year 1930-1931**

and is **fairly** well defined between **258.3** second-feet and **.08** second-feet.

Computed by **W T K**
 Checked by **C.E.B. 2-29-31**
 Date **June 8 1931**

Gage Height, in Feet, and Discharge, in Second-Foot, of

LOS ANGELES RIVER

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

VAN NUYS BLVD. BRIDGE

for the Year Ending September 30, 1931

Maximum stage 11.24 feet at 9 P.M. on Feb. 4, 1931 Discharge 1035.0 second-foot
Minimum stage 1.68 feet at all day on Aug. 27, 1931 Discharge .06 second-foot

Area 497 Square Miles.

C. E. BOLLINGER

Observer

Gage Read CONTINUOUS

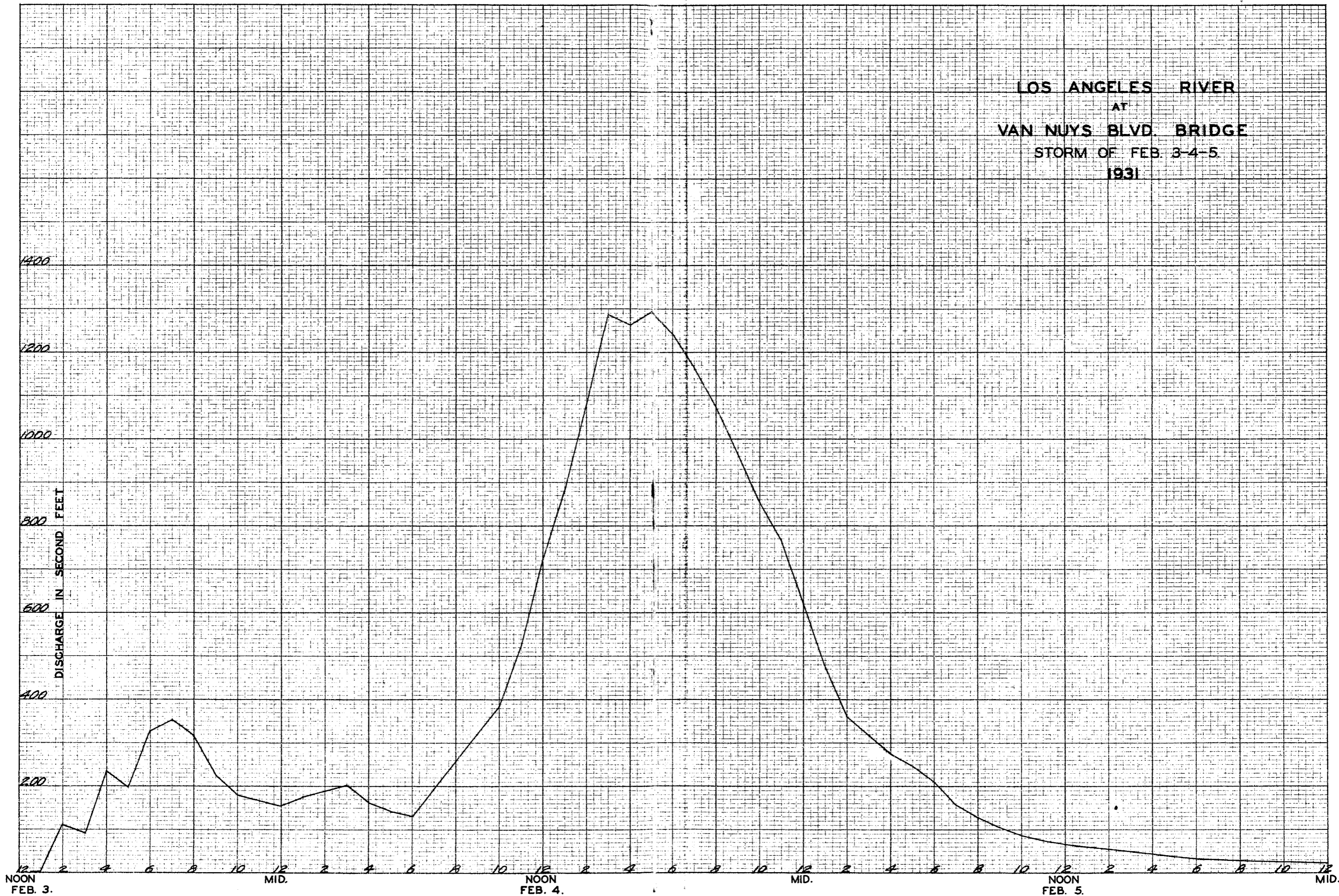
Used rating table dated

Main data table with columns for months (OCTOBER to SEPTEMBER), Gage height, Discharge, and DAY. Includes summary rows for TOTAL, Mean Daily Discharge, etc.

Vertical text on the right side including 'W.T.K.' and 'V.K.' signatures and 'Computed'/'Checked' labels.

PERIOD YEAR

LOS ANGELES RIVER
AT
VAN NUYS BLVD. BRIDGE
STORM OF FEB. 3-4-5
1931



LOS ANGELES RIVER AT STEWART & GRAY ROAD BRIDGE

Location

On highway bridge over Los Angeles River at Stewart and Gray Road, about 3 miles west of Downey, Los Angeles County, California. About 1/2 mile above junction with the Rio Hondo.

Drainage Area

613.76 square miles

Installed by

State Division of Water Rights of California in 1923.

Re-established by

Los Angeles County Flood Control District
March 1, 1928

Records Available

For previous records see Bulletin #5, State of California Division of Water Rights, San Gabriel Investigation. Recorder records from March 1, 1928 to September 30, 1931 at Los Angeles County Flood Control District, Los Angeles, California.

Gage

Rational 7 day water stage recorder set in small house on top of corrugated iron pipe stilling well attached to downstream end of bridge pier.

Discharge Measurements

High water measurements made from upstream side of bridge.

Low water measurements made by wading near gage.

Channel and Control

Channel - sand and silt.

No Control

Extremes of Discharge

1927-1928

Maximum-1115 c.f.s. February 4, 1928

Minimum-Dry at various times of year

1928-1929

Maximum-2007 c.f.s. November 14, 1928

Minimum-Dry at various times during year

1929-1930

Maximum-2213. c.f.s. March 15, 1930

Minimum-Dry at various times during year

1930-1931

Maximum-4361 c.f.s. February 4, 1931

Minimum-1.29 c.f.s. September 3 and 4, 1931

Diversions

None.

Regulation

None.

Accuracy

Fair

Co-operation

Located, constructed and operated by Los Angeles County Flood Control District in co-operation with the U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 34

Discharge measurements of **Los Angeles**

River
Creek

at **Stewart and Gray Rd. Bridge**, during the year ending September 30, 19 **31**
near

No.	Date	Made by	Width Feet	Area of section Sq.-ft.	Mean velocity Ft. per sec.	Gage height Feet	Discharge Sec.-ft.	Rating Percent diff.	Method Coef.	Meas secs.	G. Ht. change	Time Hours	Meter No.
	1930												282
1	10/3	Jordan	13.5	3.60	.95	2.33	3.42		.6	11		1/3	962
2	10	Jordan-Bewley	12.0	4.10	1.20	2.17	4.91		.6	11		1/6	"
3	17	Jordan	13.5	3.37	.94	2.17	3.17		.6	9		1/4	"
4	24	"	9.0	2.75	1.30	2.17	3.57		.6	9		"	"
5	30	Jordan-Hanson	19.0	4.11	.96	2.20	3.95		.6	11		"	"
6	11/6	Jordan	12.5	3.30	.97	2.19	3.21		.6	10		1/3	"
7	13	"	7.5	2.61	1.17	2.25	3.06		.6	7		1/4	"
8	16	"	30.5	11.1	1.76	2.37	19.60		.6	16		1/3	"
9	17	Jordan-Bewley	158.	107.	3.51	3.16	374.2		.6	16		.045/12	"
10	20	Seal-Jordan	16.0	454.	.79	1.99	3.62		.6	10		.011/4	"
11	28	Seal	58.0	30.00	1.73	2.33	51.78		.6	10		.031/3	"
12	12/5	"	18.0	4.82	.72	1.91	3.47		.6	9		.011/5	"
13	12	"	18.6	5.08	.74	2.02	3.74		.6	10		1/4	"
14	19	"	18.2	5.53	.77	2.07	4.26		.6	9		.011/5	"
15	26	"	14.5	2.48	.64	1.92	1.58		.6	13		1/3	"
16	1/2	"	114.	104.	3.83	2.89	398.2		.6	18		.167/12	"
17	6	"	46.1	18.36	1.40	1.84	25.74		.6	10		.051/6	"
18	8	Jordan-Seal	64.0	63.9	3.09	2.40	197.6		.6	13		3/10	"
19	9	Seal	55.0	15.8	1.09	1.87	17.22		.6	11		1/3	"
20	16	"	20.7	5.43	.71	1.80	3.87		.6	10		.011/4	"
21	23	"	28.0	6.43	.70	1.85	4.52		.6	10		"	"
22	30	"	22.2	5.02	.86	1.91	4.34		.6	11		"	"
23	2/4	Seal-Fergus	193.30	3.	4.92	3.80	1491.		.6	11		.10 1	"
24	4	" "	280.5	42.3	6.61	5.95	3585.		.6	19		.402/6	"
25	5	" "	179.	98.9	1.64	3.55	163.1		.6	11		.031/3	"
26	6	Seal	29.0	8.85	1.32	3.09	11.69		.6	10		"	"
27	13	"	30.3	10.31	1.93	3.03	19.86		.6	10		.011/4	"
28	14	"	38.5	11.63	1.53	2.81	17.87		.6	11		"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

1931

Station No. 1000000000

Los Angeles

1931

Stewart and Gray Rd. Bridge

ending Sept 30, 1931

1931											
29	2/14	Local	56.3	8.27	1.42	2.74	11.74	.6	12	.011/4	282
30	20	"	15.6	2.30	.84	2.74	5.95	.6	8	1/3	"
31	27	"	12.6	1.68	.64	2.75	2.99	.6	11	1/4	"
32	3/6	"	11.0	2.40	.98	2.74	2.34	.6	11	.021/60	"
33	15	"	19.7	1.07	2.56	2.67	2.52	.6	10	2.67 1/5	"
34	20	"	17.8	2.25	.51	2.72	1.50	.6	10	"	"
35	27	"	10.3	1.47	.85	2.74	3.88	.6	9	.01 1/6	"
36	4/3	"	10.0	2.32	1.20	2.71	3.79	.6	10	"	"
37	10	"	10.5	2.79	1.05	2.76	2.87	.6	10	.01	"
37A	17	"	7.9	2.53	1.29	2.71	3.27	.6	7	1/5	"
38	24	"	64.0	45.5	2.86	3.17	138.0	.6	11	.02 1/4	"
39	26	Local-Serrus	177.	141.	2.91	2.65	410.9	.6	12	.06 1/5	"
40	5/1	Local	11.0	2.65	1.25	2.49	3.24	.6	9	"	"
41	8	"	14.4	1.27	1.11	2.50	5.20	.6	10	7/30	"
42	15	"	16.5	2.59	1.04	2.55	2.71	.6	8	3/20	"
43	22	"	9.6	1.21	1.48	2.54	1.26	.6	9	1/4	"
44	29	"	12.5	2.12	.91	2.52	1.94	.6	11	1/5	"
45	6/5	"	20.0	2.90	1.33	2.52	7.85	.6	10	2/15	"
46	13	"	24.0	6.10	1.19	2.40	7.23	.6	11	1/5	"
47	19	"	14.7	2.25	1.27	2.38	7.38	.6	9	1/6	"
48	26	"	7.6	1.02	1.06	2.32	1.15	.6	7	"	"
49	7/3	"	8.2	2.38	1.1	2.32	2.87	.6	8	"	"
50	10	"	8.0	2.12	1.31	2.34	2.15	.6	8	"	"
51	17	"	8.2	2.19	1.02	2.35	2.25	.6	8	1/5	"
52	24	"	7.0	1.61	1.09	2.27	1.76	.6	7	2/15	"
53	31	"	5.7	1.64	1.15	2.30	1.88	.6	6	1/12	"
54	8/7	"	7.5	1.93	1.13	2.32	2.19	.6	7	"	"
55	14	"	8.5	2.68	1.16	2.23	2.10	.6	8	3/20	"

LOS ANGELES COUNTY
 FLOOD CONTROL DISTRICT
 HYDROGRAPHIC DEPARTMENT

1931 34

Discharge measurements of

Los Angeles

Sheet
 1 of 1

at Stewart and Gray Rd. Bridge

During the year ended September 30, 1931

Date	Time	Stage	Discharge			Total Discharge	Stage	Time	Total Hours	Total
			Observed	Computed	Correction					
1931										
56	8/21	seal	8.2	2.12	.66	2.26	1.41	.6	8	1/4 962
57	28	"	9.4	2.28	.85	2.35	1.93	.6	9	1/5 "
58	9/4	"	8.7	2.41	.56	2.26	1.34	.6	8	1/6 "
59	11	"	7.9	1.84	.95	2.27	1.75	.6	8	.01 " "
60	18	"	11.0	3.35	.89	2.38	3.59	.6	11	1/5 "
61	25	"	22.0	25.0	1.42	2.78	35.45	.6	10	.03 1/4 "

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 34

Rating table for Los Angeles River Steward & Gray Rd. Bridge.

, from Oct. 1st, 1930, to Sept. 30th, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
1.50			2.50	6.65	.17	.50	545	11	.50	2975	14			
.55			.55	7.50	.18	.60	655	11	.60	3115	14			
.60			.60	8.40	.22	.70	765	11	.70	3255	14			
.65			.65	9.50	.24	.80	875	11	.80	3395	14			
.70			.70	10.70	.24	.90	985	11	.90	3535	14			
.75			.75	11.90	.28	4.00	1095	11	6.00	3675	14			
.80			.80	13.30	.28	.10	1205	11.5	.10	3815	14			
.85	1.35	.03	.85	14.7	.30	.20	1320	11.5	.20	3955				
.90	1.50	.04	.90	16.20	.30	.30	1435	11.5	.30	4095				
.95	1.70	.04	.95	17.70	.32	.40	1550	11.5	.40	4235				
2.00	1.90	.05	3.00	19.30	.14	.50	1665	12	.50	4375				
.05	2.15	.06	.05	50.	11	.60	1785	12						
.10	2.45	.07	.10	105	11	.70	1905	12.5						
.15	2.80	.08	.15	160	11	.80	2030	13						
.20	3.20	.08	.20	215	11	.90	2160	13						
.25	3.60	.10	.25	270	11	5.00	2290	13.5						
.30	4.10	.10	.30	325	11	.10	2425	13.5						
.35	4.60	.12	.35	380	11	.20	2560	13.5						
.40	5.20	.14	.40	435	11	.30	2695	14.						
.45	5.90	.15	.45	490	11	.40	2835	14						

The above table is not applicable for obstructed channel conditions. It is based on 61 discharge measurements made during

and is fairly well defined between 1.34 second-feet and 3585.6 second-feet.

Computed by K

Checked by K

Date

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of

LOS ANGELES RIVER

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

At ~~Box~~ STEWARD & GRAY ROAD BRIDGE

for the Year Ending September 30, 19 31

Drainage Area 614.0 Square Miles.

SEAL

Observer.]

Gage Read CONTINUOUS

Used rating table dated

Main data table with columns for months (OCTOBER to SEPTEMBER), days, gage height, and discharge. Includes vertical text on the left: 'Correction Curve Used on Gage Heights' and 'Minimum stage 1.63 feet at Midnight on Sept. 3-4'.

Minimum stage 1.63 feet at Midnight on Sept. 3-4

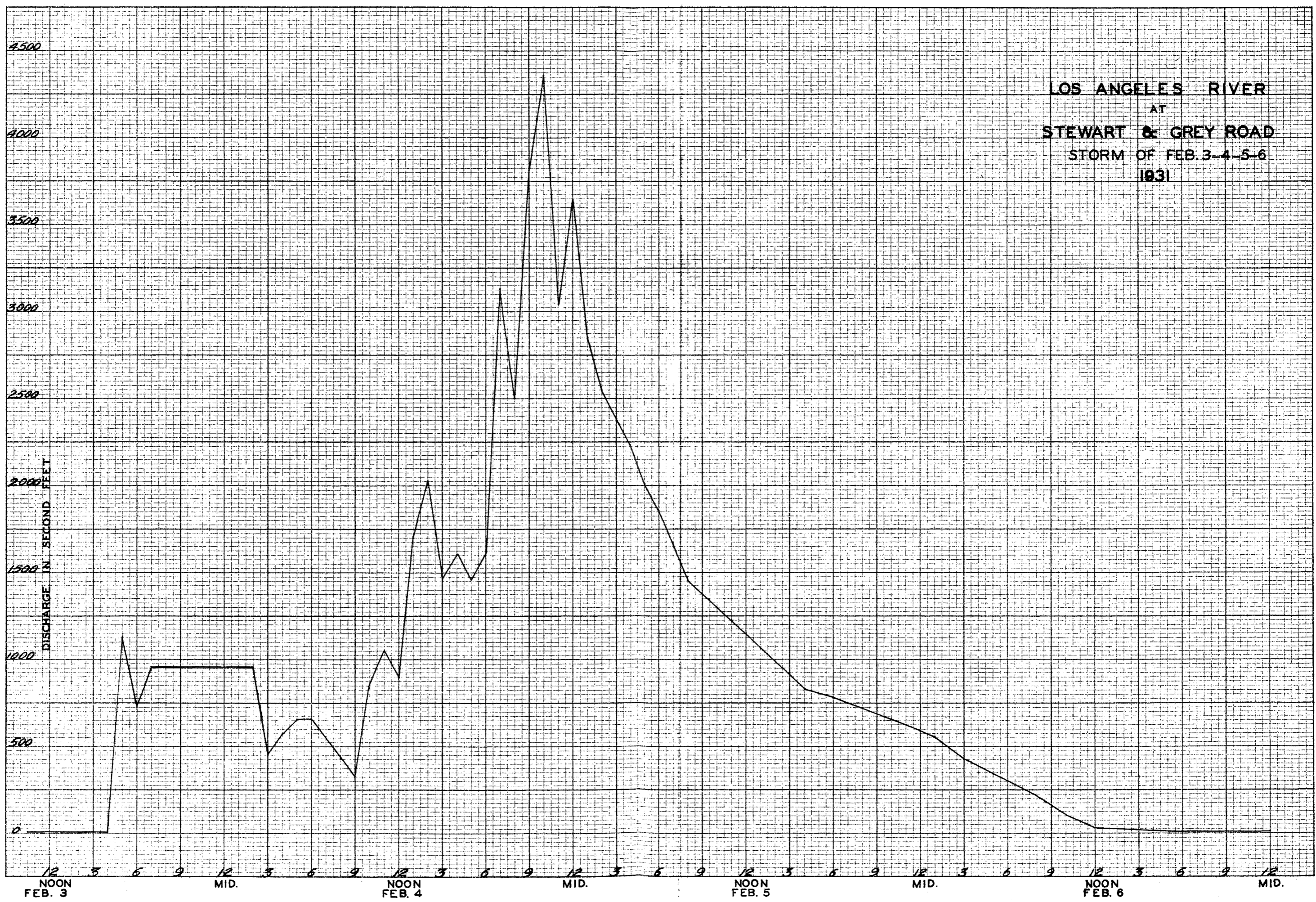
Correction Curve Used on Gage Heights

Vertical text on the right side of the table, including 'WTK V.K.', 'Computed', 'Checked', and 'Date'.

Summary table at the bottom with columns for 'TOTAL', 'Daily Discharge in Second-Foot', 'Daily Discharge per square mile', and 'Total Discharge in Second-Foot' for each month.

LOS ANGELES RIVER
AT
STEWART & GREY ROAD
STORM OF FEB. 3-4-5-6
1931

KEUFFEL & ESSER CO., N. Y. NO. 353-21 L
12 X 20 to the Inch.



LOS ANGELES RIVER AT WILLOW STREET LONG BEACH

Location

On pipe bridge crossing Long Beach Channel at Willow Street, approximately 1 mile north of Long Beach, Los Angeles County, California.

Drainage Area

1062.26 square miles approximately

Installed by

Los Angeles County Flood Control District
December 26, 1928.

Records Available

December 26, 1928 to September 30, 1931, Los Angeles County Flood Control District, Los Angeles, California.

Gage

Stevens Type A 30 continuous water stage recorder installed in shelter house mounted on corrugated iron stilling well attached to downstream side of pipe bridge pier. Outside vertical staff gage attached to bridge pier.

Discharge Measurements

High water measurement made from bridge. Low flows measured by wading near bridge.

Channel and Control

Channel - fine sand and silt.
Control - shifting constantly.

Extremes of Discharge

1928-1929

Maximum-2871 c.f.s. March 10, 1929

Minimum-.88 c.f.s. August 1, 1929

1929-1930

Maximum-1669 c.f.s. March 15, 1930

Minimum- 0 c.f.s. November 9, 1929

1930-1931

Maximum- 3700 c.f.s. Midnight, February 3-4-1931

Minimum- Dry at various times during year

F-36 R

116

Diversions

None above gage in immediate vicinity.

Regulation

None.

Accuracy

Fair

Co-operation

Located, constructed and operated by Los Angeles County Flood Control District in co-operation with the U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
 PUBLIC BEACH DISTRICT
 SURVEILLANCE DEPARTMENT

36

Beach name and number

Los Angeles

7-11-31

Willow Street--Long Beach

Reporting year ending September 30, 1931

Year	Month	Day	Beach Name	Area	Length	Width	Depth	Volume	Area	Volume
1930	1	10/3	Jordan	11.5	4.73	.75	6.93	2.59	.6	11 .011/3 962
	2	10	Jordan-Bewley	37.3	18.90	.89	7.16	18.30	.6	15 .011/3 "
	3	17	Jordan	15.6	4.15	.43	6.16	1.73	.6	8 1/4 "
	4	24	"	11.7	4.02	.71	6.34	3.51	.6	13 1/3 "
	5	30	Jordan-Hanson	11.8	2.98	.51	6.80	.64	.6	8 1/4 "
	6	11/13	Jordan	11.3	4.31	.45	6.35	1.62	.6	8 .021/4 "
	7	17	Jordan-Bewley	39.3	30.53	1.19	7.19	26.44	.6	11 .041/4 "
	8	17	"	109.85	85.90	2.37	7.37	247.0	.6	22 .641/3 "
	9	17	"	184.14	112.2	2.36	6.37	397.2	.6	17 .227/12 "
	10	17	"	147.13	104.3	2.80	8.34	373.9	.6	15 .385/12 "
	11	20	Jordan-Seal	15.6	4.39	1.6	6.94	6.97	.6	15 .10 " "
	12	28	Seal	84.05	58.00	1.97	7.72	109.9	.6	21 .05 3/4 "
	13	12/5	"	11.8	4.85	.64	6.27	5.08	.6	12 .04 1/4 "
	14	12	"	21.6	7.52	.58	6.22	4.18	.6	11 .05 " "
	15	19	"	39.3	11.49	.37	6.33	7.73	.6	12 .02 1/3 "
	16	26	"	15.3	6.38	.84	6.36	5.36	.6	13 .105/12 "
	17	1/2	"	175.16	9.2	1.28	8.49	560.0	.6	12 .32 2/3 "
	18	6	"	67.03	7.40	1.43	7.39	90.88	.6	10 1/3 "
	19	8	Bewley-Seal	124.11	7.3	3.09	8.35	384.0	.6	11 " "
	20	8	Jordan-Bewley	126.93	9.2	2.31	8.10	245.2	.6	26 2/3 "
	21	9	Seal	64.0	26.9	1.26	7.36	43.73	.6	10 .011/6 "
	22	16	"	20.7	9.54	1.08	7.01	10.30	.6	10 .331/6 "
	23	23	"	55.03	1.54	.74	7.07	8.60	.6	11 .327/12 "
	24	30	"	22.3	7.30	.86	7.02	6.75	.6	12 .121/4 "
	25	31	"	121.10	2.2	2.32	8.17	236.6	.6	10 1/4 "
	26	2/3	Seal-Fergus	350.47	4.4	3.02	9.25	1432.	.6	22 .7011/2 "
	27	4	"	343.59	1.5	4.72	9.55	2785.	.6	19 .10 1 "
	28	4	Bewley-Harner	167.19	5.5	3.90	8.56	764.	.6	14 5/12 "

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

36

Discharge measurements of **Los Angeles**

at **Willow St.-Long Beach**

during the year ending September 30, 1931

No.	Date	Station	Width Feet	Area of Flow Sq. Ft.	Mean Velocity Feet per Sec.	Stage Feet	Discharge Cu. Ft.	Velocity Coefficient	Time in Hours	Remarks
1931										
29	2/4	Bewley-Harmer	170.	202.2	3.72	8.69	752.8	.6	14	1/3 W 282
30	5	Seal-Bewley	125.	197.8	3.83	8.30	754.6	.6	10	.057/12962
31	6	Seal	101.	41.5	1.71	6.67	71.10	.6	11	" "
32	13	"	39.7	21.1	1.85	6.56	38.91	.6	11	.041/3 "
33	14	"	85.0	41.5	1.63	6.84	67.69	.6	11	.017/30 "
34	20	"	17.2	5.7	.86	6.22	4.03	.6	9	1/4 "
35	27	"	16.1	6.2	1.03	6.26	7.7	.6	11	.041/4 "
36	3/6	"	15.8	6.5	1.12	6.51	7.29	.6	9	.021/6 "
37	13	"	23.1	7.2	.71	6.26	5.08	.6	11	.021/4 "
38	20	"	17.2	7.3	.87	6.25	3.31	.6	9	.501/6 "
39	27	"	8.2	4.8	.87	6.24	4.07	.6	8	.017/30 "
40	4/3	"	10.8	5.3	.94	6.29	4.98	.6	11	.013/20 "
41	10	"	10.9	4.4	.83	6.26	3.65	.6	11	3/10 "
42	17	"	12.0	4.2	.61	6.23	2.58	.6	12	1/4 "
43	24	"	111.	32.3	2.51	7.31	156.4	.6	12	7/30 "
44	26	Jordan-Bewley	220.	459.	3.85	9.50	1766.	.6	14	.45 1 "
45	26	Seal-Fergus	237.	258.	3.23	6.51	850.	.6	15	.128/15 "
46	27	Seal	102.	140.	1.50	7.36	349.	.6	10	.031/6 "
47	5/1	"	24.5	9.5	.92	6.42	6.75	.6	13	.014/15 "
48	8	"	5.1	3.0	.85	6.26	2.46	.6	9	.013/15 "
49	15	"	10.0	2.4	.45	6.16	1.07	.6	10	.0111/60 "
50	22	"	9.0	3.9	.62	6.24	1.80	.6	9	" "
51	29	"	12.5	4.8	.57	6.32	2.69	.6	11	.011/5 "
52	6/5	"	13.5	5.7	.59	6.49	3.19	.6	11	.021/3 "
53	13	"	12.0	3.8	.44	6.46	1.67	.6	12	7/30 "
54	19	"	13.3	4.2	.73	6.49	3.05	.6	10	1/5 "
55	26	"	16.5	4.1	.46	6.46	1.91	.6	8	.013/20 "
56	3	"	17.5	6.8	1.13	6.60	7.76	.6	8	.022/15 "

LOS ANGELES COUNTY
 PUBLIC UTILITIES DEPARTMENT
 HYDROGRAPHIC DEPARTMENT

36

Sanitation Department

Los Angeles

Sheet
 36

Willow St.-Long Beach

31

Year	Month	Day	Time	Temp	Wind	Dir	Humid	Bar	Wind	Dir	Notes
1931											
57	7	10	Seal	7.8	2.8	.76	6.50	2.10	.6	8	.011/3 282 962
58	17		"	17.5	4.6	.53	6.50	2.40	.6	9	1/6 "
59	24		"	10.0	3.0	.60	6.49	1.78	.6	10	1/5 "
60	31		"	14.0	4.7	.73	6.51	3.40	.6	8	1/6 "
61	8/7		"	10.0	3.0	.56	6.49	1.73	.6	10	1/5 "
62	14		"	14.5	4.8	.60	6.51	2.96	.6	8	3/20 "
63	21		"	9.2	4.0	.62	6.51	1.28	.6	9	1/6 "
64	28		"	8.1	3.4	.73	6.49	2.39	.6	8	.011/6 "
65	9/4		"	3.5	2.1	.65	6.48	2.99	.6	9	.013/20 "
66	11		"	6.3	3.3	.65	6.32	2.32	.6	9	1/5 "
67	18		"	6.5	1.6	.74	6.50	2.69	.6	7	.01 " "

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 36

Rating table for Los Angeles River, Willow Street, Long Beach

At 1. P.M.

from Oct. 1st, 1930 to Feb. 4, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
6.70	30	.02	80	140	3.5	60	3200							
6.75	.40	.05				70	3960							
.80	.65	.23	90	175		80								
.85	1.80	.40				90								
.90	3.80					10.00								
.95	5.80		8.00	210	3.5									
7.00	7.80		10	255	4.5	10								
.05	9.80		20	300	4.5	20								
.10	11.80		30	355	5.5	30								
.15	13.80		40	420	6.5	40								
.20	15.80		50	495	7.5	50								
.25	17.80		60	585	9.0	60								
.30	25.3	1.50	70	685	10.0	70								
.35	32.8		80	805	12.0	80								
.40	40.3		90	930	12.5	90								
.45	50.15	1.97	9.00	1060	13.0	11.00								
.50	60		10	1200	14.0	10								
.55	70		20	1360	16.0	20								
.60	80		30	1580	22.0	30								
.65	92.5	2.5	40	1940	36.0	40								
.70	105	2.5	50	2440	50.0	50								
		3.5			76.0									

The above table is not applicable for obstructed channel conditions. It is based on 25 discharge measurements made during Year 1929 and 1930

and is Fairly well defined between 0.64 second-feet and 1432 seven feet.

Computed by W K
Checked by H V
Date

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **36**

Rating table for **Los Angeles River, Willow St., Long Beach**

At **1 P.M.**
from **Feb. 4**, **1931**, to **Sept. 30**, **1931**

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
6.00	0	.2	8.00	565	7.0	10.00	2240	10.0						
.10	2.0		10	635	7.0	10	2340							
.20	4.0		20	705	7.0	20	2440							
.30	6.0		30	780	7.5	30	2590							
.40	8.0		40	855	7.5	40	2640							
.50	10.0		50	930	7.5	50	2740							
.60	20.0	1.0	60	1005	7.5	60	2890							
.70	30.0		70	1085	8.0	70	2940							
.80	40.0		80	1170	8.5	80	3040							
.90	55.0	1.5	90	1255	8.5	90	3140							
7.00	70.	1.5	9.00	1340	8.5	11.00	3240							
.10	95	2.5	10	1425	8.5	10	3340							
.20	125	3.0	20	1510	8.5	20	3440							
.30	160	3.5	30	1595	8.5	30	3540							
.40	200	4.0	40	1685	9.0	40	3640							
.50	255	5.5	50	1775	9.0	50	3740							
.60	310	5.5	60	1865	9.0	60								
.70	370	6.0	70	1955	9.0	70								
.80	430	6.0	80	2045	9.0	80								
.90	495	6.5	90	2140	9.5	90								
		7.0			10.0									

The above table is not applicable for obstructed channel conditions. It is based on 41 discharge measurements made during Year 1929 and 1930

and is Fairly well defined between 1.67 second-feet and 2785 second-feet.

Computed by W K

Checked by H V

Date

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of

LOS ANGELES RIVER

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

File No. 36

At WILLOW ST. LONG BEACH

for the Year Ending September 30, 19 31

Drainage Area 1062.26

Square Miles.

SEAL

Observer.]

Gage Read CONTINUOUS

Used rating table dated

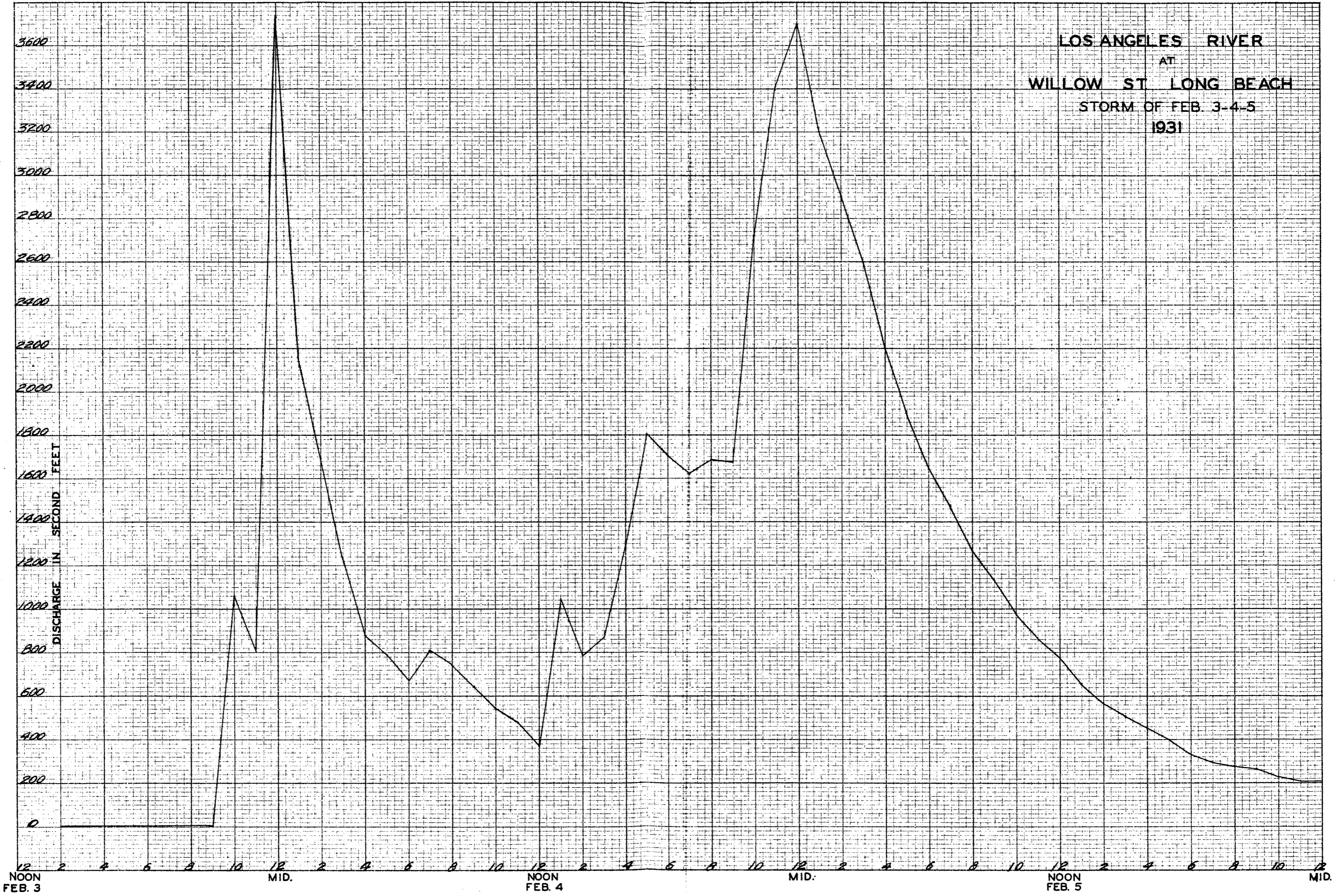
Vertical text on the left margin: Minimum stage 0, Maximum stage 11.50, feet at 12 H on Feb. 3 and 4, Discharge 13.0 on Feb. 3 and 4, times on various, Discharge, second-foot.

Main data table with columns for months (OCTOBER to SEPTEMBER) and days (1 to 31). Each day entry includes Gage height and Discharge values. Includes a 'DAY' column on the far left and right of the monthly columns.

Summary table at the bottom with rows for 'TOTAL', 'Mean Daily Discharge in Second-foot', 'Run-off depth in inches', 'Run-off in acre-feet', 'Maximum Mean Daily Discharge in Second-foot', and 'Minimum Mean Daily Discharge in Second-foot'. Columns correspond to the months of the year.

Vertical text on the right margin: WTK V.K., WTK V.K., WTK V.K., G. H. copied, G. H. checked, Date, PERIOD YEAR.

LOS ANGELES RIVER
AT
WILLOW ST LONG BEACH
STORM OF FEB. 3-4-5
1931



KEUFFEL & ESSER CO., N. Y. NO. 359-211
12 x 20 to the inch.

F-57 R

LOS ANGELES RIVER AT DAYTON AVENUE BRIDGE

Location

On west abutment of Dayton Avenue Bridge across Los Angeles River at Los Angeles, California.

Drainage Area

510.24 square miles.

Installed by

Los Angeles County Flood Control District
December 1929.

Records Available

December 1929 to September 30, 1931 at offices of Los Angeles County Flood Control District, Los Angeles, California.

Gage

An continuous water stage recorder in shelter house on top of corrugated iron stilling well fastened to west abutment of bridge.

Discharge Measurements

High water measurements made from cable suspended under bridge. Low water measurements made by wading.

Channel and Control

Sand and silt. No control.

Extremes of Discharge

1929-1930

Maximum-500.0 c.f.s. on March 15, 1930.

Minimum-Dry at various times of year

1930-1931

Maximum-453.5 c.f.s. on February 4, 1931

Minimum-Dry at various times of year

Diversions

Regulations

None.

Accuracy

Fair.

Co-operation

Located, constructed and operated by Los Angeles County Flood Control District in co-operation with the U.S.G.S. Water Resources Branch and City of Los Angeles.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 57

Discharge measurements of Los Angeles

River
Creek

at Dayton Ave. Bridge

during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	rating	Method	Coef.	Meas. secs.	G. Ht. change	Time	Meter No.
			Feet	Sq.-ft.	Ft. per sec.	Feet	Sec.-ft.	Percent diff.			No.	Total	Hours	271
1930														
1	11/27	Bollinger-Joyce	13.0	9.97	.87	1.68	8.98		.6		9		1/4	650
2	27	" "	12.5	7.96	1.07	1.63	8.56		.6		8	.04	1/6	"
1931														
3	1/2	Bollinger	32.1	32.7	1.67	2.27	54.69		.6		16	.02	1/3	"
4	2	"	31.9	28.6	1.48	2.18	42.54		.6		16	.20	"	"
5	5	Bollinger-Laverty	28.2	19.1	.96	1.90	18.36		.6		13	.13	1/2	"
6	7	" "	62.0	79.2	2.16	2.82	171.71		.6		23	.05	"	"
7	8	" "	52.5	29.6	1.38	2.02	40.80		.6		15	.05	1/4	"
8	8	Odekirk-Woodson	58.0	45.5	1.92	2.23	87.45		.6		15	.05	"	"
9	8	" "	58.0	38.4	1.59	2.15	60.90		.6		20	.10	1	"
10	2/4	Bollinger-Laverty	58.0	89.6	3.27	2.90	292.80		.6		13	.24	1/2	"
11	4	Odekirk-Woodson	65.0	128.	3.30	3.45	432.65		.6		12		"	"
12	4	" Noonow	65.0	121.	3.34	3.30	403.81		.6		12		1/3	"
13	4	" "	65.0	124.	3.81	3.44	472.10		.6		12		1/2	"
14	4	Odekirk	65.0	121.	3.69	3.35	448.69		.6		12		1/3	"
15	5	Bollinger-Laverty	75.0	204.	4.79	5.31	978.80		.6		13	.42	1.56	47
16	28	Bollinger	3.6	1.03	1.28	1.27	1.32		.6		5		1/4	650
17	4/23	Bollinger-Cron	14.7	5.78	1.57	1.51	9.06		.6		11		"	"
18	23	" "	16.9	10.2	2.06	1.78	21.12		.6		11	.01	1/6	"
19	24	" Laverty	47.5	26.3	2.68	2.28	70.54		.6		16	.14	1/4	"
20	26	" "	83.0	123.	5.13	3.26	643.40		.6		15	.13	1/2	11
21	27	" Cron	11.9	3.50	1.45	1.67	5.08		.6		10		1/6	650
22	27	" "	46.5	31.9	2.93	2.58	93.38		.6		12	.15	1/3	"
23	5/9	Bollinger				#	.14							
24	25	Bollinger-Laverty	52.0	34.9	2.14	2.38	74.60		.6		16	.11	1/3	"

90% V Notch Weir

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **57**

Rating table for Los Angeles River at Dayton Ave. Bridge.

, from Oct. 1st , 19 30 , to April 26th , 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
1.20	0		2.20	75.0	2.00	3.20	325.0	3.00	4.20	636.5	3.30	5.20	966.5	3.30
1.25	.95	.19	.25	85.0		.25	340.0		.25	653.0		.25	983.0	
1.30	1.90		.30	95.0		.30	355.0		.30	669.5		.30	1002.0	3.80
1.35	2.85		.35	105.0		.35	370.0		.35	686.0		.35	1026	4.80
1.40	3.80		.40	115.0		.40	385.0		.40	702.5		.40	1050	4.80
1.45	4.75		.45	127.5	2.50	.45	400.0		.45	719.0		.45	1075	5.00
1.50	5.70		.50	140.0		.50	415.0		.50	735.5		.50	1100	5.00
1.55	6.65		.55	152.5		.55	430.0		.55	752.0		.60	1150	5.00
.60	7.60		.60	165.0		.60	445.0		.60	768.5		.70	1210	6.00
.65	8.55		.65	177.5		.65	460.0		.65	785.0		.80	1275	6.50
.70	9.50		.70	190.0		.70	476.0	3.20	.70	801.5		.90	1345	7.00
.75	10.45		.75	202.5		.75	492.0		.75	818.0		6.00	1425	8.00
.80	15.20	.95	.80	215.0		.80	508.0		.80	834.5		.10	1515	9.00
.85	20.00	.96	.85	227.5		.85	524.0		.85	851.0		.20	1615	10.0
.90	27.00	1.40	.90	240.0		.90	540.0		.90	867.5		.30	1725	11.0
.95	34.00		.95	254.0	2.80	.95	556.0		.95	884.0		.40	1865	14.0
2.00	41.00	3.00	2.00	268.0		4.00	572.0		5.00	900.5		.50	2025	16.0
.05	48.00		.05	282.0		.05	588.0		5.05	917.0		.60	2200	17.5
.10	55.00		.10	296.0		.10	604.0		5.10	933.5		.70	2400	20.0
.15	65.00	2.00	.15	310.0		.15	620.0		5.15	950.0		.80	2625	22.5
					3.00						3.30			27.5

The above table is not applicable for obstructed channel conditions. It is based on 19 discharge measurements made during year 1930-1931

and is well defined between 1.32 second-feet and 978.08 second-feet.

Computed by H V
Checked by W T K
Date _____

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 57

Rating table for Los Angeles River at Dayton Ave. Bridge

, from Oct. 1st, 1930, to April 25, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
6.90	2900													
		27.5												
7.00	3175													
		30.0												
.10	3475													
		32.5												
.20	3800													
		35.0												
.30	4150													
		35.0												
.40	4500													
.50	4850													

The above table is not applicable for obstructed channel conditions. It is based on discharge measurements made during

and is well defined between second-feet and second-feet.

Computed by H V

Checked by W T K

Date

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **57**

Rating table for **Los Angeles River at Dayton Ave. Bridge**

, from **April 26**, 19**31**, to **Sept. 30**, 19**31**

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
1.20	0	.19	2.20	75.00	2.50	3.20	600.0	8.00						
1.25	.95		.25	87.50		.25	640.0							
.30	1.90		.30	100.0		.30	680.0							
.35	2.85		.35	112.5		.35	720.0							
.40	3.80		.40	125.0		.40	762.5	8.50						
.45	4.75		.45	142.5	3.50	.45	805.0							
.50	5.70		.50	160.0		.50	847.5							
.55	6.65		.55	180.0	4.00	.55	890.0							
.60	7.60		.60	200.0		.60	932.5							
.65	8.55		.65	227.5	5.50	.65	975.0							
.70	9.50		.70	255.0		.70	1017.5							
.75	10.45		.75	282.5		.75	1060.0							
.80	15.20	.95	.80	310.0		.80	1102.5							
.85	20.00	.96	.85	344.0	6.80	.85	1145.0							
.90	27.00	1.40	.90	378.0		.90	1187.5							
.95	34.00		.95	412.0		.95	1230.0							
2.00	41.00		3.00	446.0	4.00									
.05	48.00		.05	480.0										
.10	55.00		.10	520.0	8.00									
.15	65.00	2.00	.15	560.0										

The above table is not applicable for obstructed channel conditions. It is based on **5** discharge measurements made during **year 1930 - 1931**

and is well defined between **.14** second-feet and **643.4** second-feet.

Computed by **H V**

Checked by **W T K**

Date

Stage Height, in Feet, and Discharge, in Second-Foot, of

LOS ANGELES RIVER

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

At DAYTON AVE. BRIDGE

for the Year Ending September 30, 19 31

Drainage Area 510.24 Square Miles.

C. E. BOLLINGER [Observer.]

Gage Read CONTINUOUS

Used rating table dated

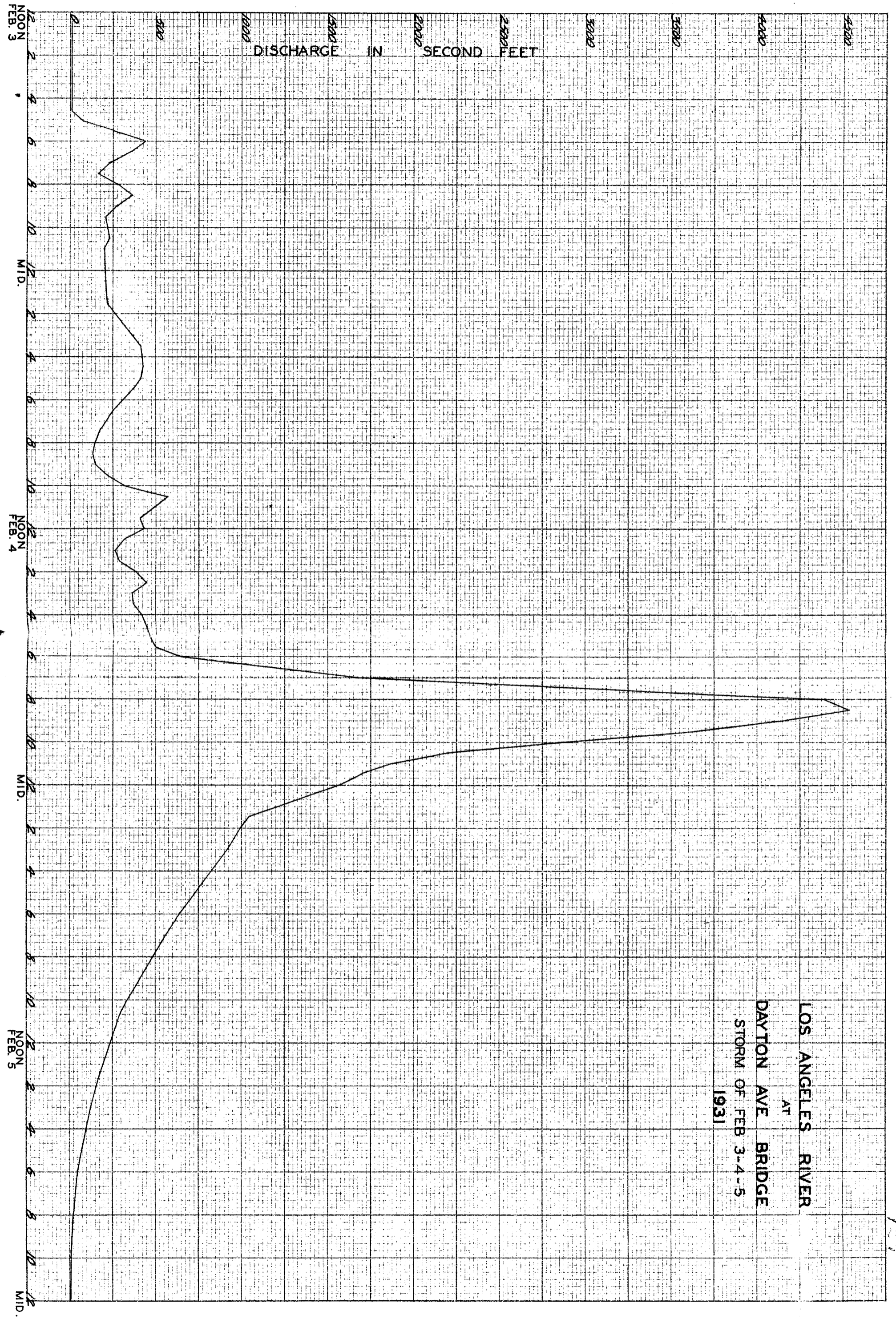
Main data table with columns for months (OCTOBER to SEPTEMBER), days (1-31), gage height, discharge, and various notes.

Vertical text on the left side: 'Minimum stage 7.35 feet at 8:30 P.M. on Feb. 4th, 1931. Discharge 452.0'. 'Dry' and 'Various' notes.

Correction curve used on 6. Hrs. I = Low flows interpolated between measurements.

Vertical text on the right side: 'H.V.' and 'V.K.' checkmarks, 'Computed', 'Checked', 'Date' labels.

Summary table with rows for 'TOTAL', 'Mean Daily Discharge in Second-foot', 'Second-foot per square mile', 'Run-off, depth in inches', 'Run-off in acre-feet', 'Minimum Mean Daily Discharge in Second-foot', and 'Maximum Mean Daily Discharge in Second-foot'.



LOS ANGELES RIVER
AT
DAYTON AVE BRIDGE
STORM OF FEB 3-4-5
1931

103

F-124 R

LOS ANGELES RIVER AT VINELAND AVENUE BRIDGE

Location

On downstream end of pier on north side of highway bridge across Los Angeles River at Vineland Avenue, near Universal City, California.

Drainage Area

400 ± square miles

Records Available

December 29, 1930 to September 30, 1931
Records from January 22, 1928 to September 30, 1930 taken at Universal City near Lankershim Boulevard. Records are available at Los Angeles County Flood Control District's office.

Gage

Rational, 7 day water stage recorder in small house on top of corrugated iron stilling well fastened to bridge pier.

Discharge Measurements

Low water measurements made by wading near bridge. High water measurements made from bridge.

Channel and Control

Channel, sand and gravel
No control

Extremes of Discharge

1930-1931
Maximum-1236.60 c.f.s. on February 4, 1931
Minimum- .06 c.f.s. on July 1, 1931

Diversions

None

Regulation

None

Accuracy

Fair

Co-operation

Located, constructed, and operated by the Los Angeles County Flood Control District with co-operation of U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 124

Discharge measurements of Los Angeles River

Lower
Reach

at Vineland Ave. Bridge

during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Coef.	Meters sec.	G. H. change	Time	Meter No.
			Feet	Sq. Ft.	Ft. per sec.	Feet	Sec.-ft.	Percent diff.			No.	Total	Hours	271
1	1/2	Bollinger	10.2	5.24	1.43	2.74	7.47		.6		9	1/4	650	
1A	7	Bollinger-Laverty	15.0	18.60	3.65	3.57	67.80		.6		8	.061/3	"	
2	9	Bollinger	11.6	4.69	1.43	2.74	6.71		.6		11	1/4	"	
2A	16	"	11.5	4.57	1.41	2.72	6.46		.6		11	"	"	
3	30	"	10.2	2.78	.77	2.54	2.14		.6		9	1/6	"	
4	31	Bollinger-Laverty	12.7	8.30	2.20	2.97	18.30		.6		13	.031/4	"	
5	2/4	"	40.5	84.3	3.90	5.92	328.4		.6		10	.55	1	"
6	5	"	47.0	83.7	3.39	4.89	283.4		.6		10	.061/2	647	271
7	6	"	18.0	10.9	1.43	3.15	15.6		.6		10	1/4	"	
8	12	"	41.5	34.2	2.64	3.71	90.2		.6		15	.57	"	"
9	13	"	42.0	40.2	2.52	4.00	101.4		.6		16	.01	"	"
10	13	"	25.0	17.4	1.80	3.38	31.30		.6		11	1/3	"	271
11	20	Bollinger	26.3	13.8	1.41	3.38	18.1		.6		13	.011/2	650	
12	27	"	20.7	16.8	1.61	4.67	27.15		.6		12	1/4	"	
13	3/6	Bollinger-Jordan	15.3	14.7	1.75	4.63	25.81		.6		18	"	"	
14	13	Bollinger	10.2	4.27	.89	3.65	3.79		.6		12	"	"	
15	27	"	9.2	3.47	1.04	3.64	3.62		.6		11	"	"	
16	4/3	"	8.5	3.10	.98	3.48	3.05		.6		9	"	"	
16A	10	"	8.9	2.66	.90	3.48	2.38		.6		9	1/3	"	
17	17	"	8.5	3.78	1.15	3.65	4.35		.6		10	1/6	"	
18	24	Bollinger-Laverty	7.4	3.81	1.23	3.65	4.71		.6		12	1/4	"	
19	26	"	45.8	54.2	1.75	4.53	93.20		.6		14	1/3	"	
20	5/1	Bollinger	8.4	3.11	.97	3.35	3.03		.6		10	1/6	"	
21	8	"	7.9	2.63	1.02	3.55	2.70		.6		9	"	"	
22	15	"	7.7	2.04	.99	3.35	2.01		.6		9	"	"	
23	22	"	5.9	1.56	.96	3.29	1.50		.6		8	"	"	
24	29	"	8.6	2.11	.90	3.30	1.89		.6		9	1/4	"	
25	6/5	"	8.0	2.13	.82	3.35	1.74		.6		9	1/6	"	

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 124

Discharge measurements of

Los Angeles

River
Creek

at
near

Vineland Ave. Bridge

, during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	rating	Method	Coef.	Meas. secs.	G. Ht. change	Time	Meta. No.
1931			Feet	Sq.-ft.	Ft. per sec.	Feet	Sec.-ft.	Percent diff.			No.	Total	Hours	
26	6/12	Bollinger	6.8	1.67	.81	3.38	1.36		.6		9		1/6	271 650
27	19	"	4.9	2.17	.61	3.40	1.33		.6		8		"	"
28	26	"	4.5	1.51	.89	3.36	1.35		.6		7		"	"
29	7/3	"	4.3	.67	.64	3.35	.43		.6		5		"	"
30	10	"	5.2	2.65	.52	3.34	1.37		.6		5		"	"
31	17	"	21.5	18.7	1.45	4.30	27.19		.6		16		1/3	"
32	24	"	16.9	17.4	1.67	4.26	29.17		.6		12		"	"
33	31	"	16.7	17.5	1.69	4.24	29.49		.6		16		"	271 647
34	8/7	"	15.4	16.4	1.78	4.30	28.98		.6		16		1/4	"
35	14	"	9.8	13.5	1.58	4.14	21.5		.6		11		1/6	"
36	21	"	13.5	13.3	1.57	4.13	20.9		.6		14		1/4	"
37	28	"	12.8	12.8	1.52	4.05	19.4		.6		13		"	"
38	9/4	"	6.4	2.33	1.13	3.41	2.64		.6		7		"	"
39	11	"	6.7	1.54	1.04	3.40	1.60		.6		7		1/6	"
40	18	"	7.8	1.81	1.04	3.37	1.85		.6		9		"	"
41	25	"	9.8	1.72	.96	3.28	1.66		.6		7		"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 124

Rating table for L. A. RIVER AT VINELAND AVE BRIDGE

11 A. M.

, from Oct. 1, 1930, to Feb. 4, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
2.30	0		3.60	70.8	.98	5.60	291.0	1.20	7.60	531	1.20			
2.35	0	.06	.70	80.6		.70	303.0		.70	543				
.40	.30		.80	90.4		.80	315.0		.80	555				
.45	.60		.90	100.2		.90	327.0		.90	567				
.50	.90	.18	4.00	110.0	1.08	6.00	339.0		8.00	579				
.55	1.80	.28	.10	120.8		.10	351.		.10	591				
.60	3.20		.20	131.6		.20	363		.20	603				
.65	4.60		.30	142.4		.30	375		.30	615				
.70	6.00	.40	.40	153.2		.40	387		.40	627				
.75	8.00		.50	164.0		.50	399		.50	639				
.80	10.00	.55	.60	175.4	1.14	.60	411		.60	651				
.85	12.75		.70	186.8		.70	423		.70	663				
.90	15.50		.80	198.2		.80	435		.80	675				
.95	18.25		.90	209.6		.90	447		.90	687				
3.00	21.00	.80	5.00	221.0	1.16	7.00	459		9.00	699				
.10	29.00		.10	232.6		.10	471		.10	711				
.20	37.00		.20	244.2		.20	483		.20	723				
.30	45.00		.30	255.8		.30	495		.30	735				
.40	53.00		.40	267.4		.40	507		.40	747				
.50	61.00	.98	.50	279.0	1.20	.50	519		.50	759				

The above table is not applicable for obstructed channel conditions. It is based on 6 discharge measurements made during period Oct. 1, 1930 to Feb. 4, 1930

and is well defined between 2.14 second-feet and 67.8 second-feet.

Computed by H.V.
Checked by V.K.
Date

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 124

Rating table for L. A. RIVER AT VINELAND AVE. BRIDGE

, from 12 N. Feb. 4th, 1931, to 12:00 N. Feb. 23 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
2.95	0	.6	4.90	287.2	2.16	6.90	718.2	2.16	8.90	1151.2	2.16			
3.00	3.0	.9	5.00	308.8		7.00	740.8		9.00	1172.8				
.10	12.0		.10	330.4		.10	762.4		.10	1194.4				
.20	21.0		.20	352.0		.20	784.0		.20	1216.0				
.30	30.0	1.0	.30	373.6		.30	805.6		.30	1237.6				
.40	40.0		.40	395.2		.40	827.2		.40	1259.2				
.50	50.0	1.2	.50	416.8		.50	848.8		.50	1280.8				
.60	62.0		.60	438.4		.60	870.4		.60	1302.4				
.70	74.0		.70	460.0		.70	892.0		.70	1324.0				
.80	86.0	1.5	.80	481.6		.80	913.6							
.90	101.0		.90	503.2		.90	935.2							
4.00	116.0		6.00	524.8		8.00	956.8							
.10	131.0		.10	546.4		.10	978.4							
.20	146.0	1.96	.20	568.0		.20	1000							
.30	165.6		.30	589.6		.30	1021.6							
.40	185.2		.40	611.2		.40	1043.2							
.50	204.8		.50	632.8		.50	1064.8							
.60	224.4		.60	654.4		.60	1086.4							
.70	244.0	2.16	.70	676.0		.70	1108.0							
.80	265.6		.80	697.6		.80	1129.6							

The above table is not applicable for obstructed channel conditions. It is based on 6 discharge measurements made during period Feb 4, 1930 to Feb 23, 1931

and is well defined between 15.60 second-feet and 328.4 second-feet.

Computed by H.V.

Checked by V.K.

Date

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 124

Rating table for L. A. River at Vineland Ave. Bridge

, from 12 N. Feb. 23, 19 31, to April 25, , 19 31

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
3.15	0	.06	4.15	12.00	.20									
.20	.30		.20	13.00	.26									
.25	.60		.25	14.30										
.30	.90	.08	.30	15.60										
.35	1.30		.35	16.90										
.40	1.70	.09	.40	18.20										
.45	2.15		.45	19.70	.30									
.50	2.60	.10	.50	21.20										
.55	3.10		.55	22.80	.32									
.60	3.60	.12	.60	24.40										
.65	4.20		.65	26.00										
.70	4.80		.70	27.60										
.75	5.40		.75	29.20										
.80	6.00	.15	.80	30.80										
.85	6.75		.85	32.40										
.90	7.50		.90	34.00										
.95	8.25		.95	35.60										
4.00	9.00	.20	5.00	37.20										
.05	10.00		.05	38.80										
.10	11.0		.10	40.40										

The above table is not applicable for obstructed channel conditions. It is based on 17 discharge measurements made during period Feb. 23, 1931 to April 25, 1931

and is well defined between 3.05 second-feet and 27.15 second-feet.

Computed by H.V.

Checked by V.K.

Date

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 124

Rating table for Los Angeles River at Vineland Ave. Bridge

, from April 26th, 1931, to Sept. 30th, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
3.15	0		4.15	41.25	.95	5.15	254.75	2.55	3.55	4.80	.18	4.55	48.00	.80
.20	.30	.06	.20	46.0		.20	267.5		.60	5.70	.20	.60	52.00	
.25	.65	.07	.25	53.0	1.40	.25	280.25		.65	6.70	.24	.65	56.00	
.30	1.00		.30	60.0		.30	293.0		.70	7.90	"	.70	60.00	
.35	1.65	.13	.35	67.0		.35	305.75		.75	9.10	"	.75	66.00	1.20
.40	2.30		.40	74.0		.40	318.5		.80	10.30		.80	72.00	
.45	3.25	.19	.45	85.0	2.20	.45	331.25		.85	11.85	.31	.85	80.00	1.60
.50	4.20		.50	96.0		.50	344.0		.90	13.40		.90	88.00	
.55	5.50	.26	.55	107.0		From April 26			.95	15.20	.36	.95	98.00	2.00
.60	6.80		.60	118.0		to July 15			4.00	17.00	.38	5.00	110.0	2.40
.65	8.70	.38	.65	129.0		July 15 to			.05	18.90		.05		
.70	10.60		.70	140.0		Sept. 1			.10	20.80	.42	.10		
.75	12.90	.46	.75	152.75	2.55	3.15	0	.06	.15	22.90		.15		
.80	15.20		.80	165.50		.20	.30	.07	.20	25.00	.60	.20		
.85	17.90	.54	.85	178.25		.25	.65	"	.25	28.00		.25		
.90	20.60		.90	191.0		.30	1.00	.13	.30	31.00		.30		
.95	23.80	.64	.95	203.75		.35	1.65	"	.35	34.00		.35		
4.00	27.0	.95	5.00	216.5		.40	2.30	.14	.40	37.00	.70	.40		
.05	31.75		.05	229.25		.45	3.00	.18	.45	40.50		.45		
.10	36.50		.10	242.0		.50	3.90	"	.50	44.00	.80	.50		

The above table is not applicable for obstructed channel conditions. It is based on 15 discharge measurements made during period April 26, 1931 to Sept. 30, 1931.

and is well defined between .43 second-feet and 93.2 second-feet.

Computed by H V

Checked by V K

Date

Daily Gage Height, in Feet, and Discharge, in Second-Feet, of

LOS ANGELES RIVER

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

File No. 124

At VINELAND AVE. BRIDGE

for the Year Ending September 30, 1931

Drainage Area 400 + Square Miles.

C. E. POLLINGER Observer.

Gage Read CONTINUOUS

Used rating table dated

Minimum stage 3.16 feet at Midnight on July 1-2-1931 Discharge .06 second-feet
7 P.M. on Feb. 4th Discharge 1236.60 second-feet

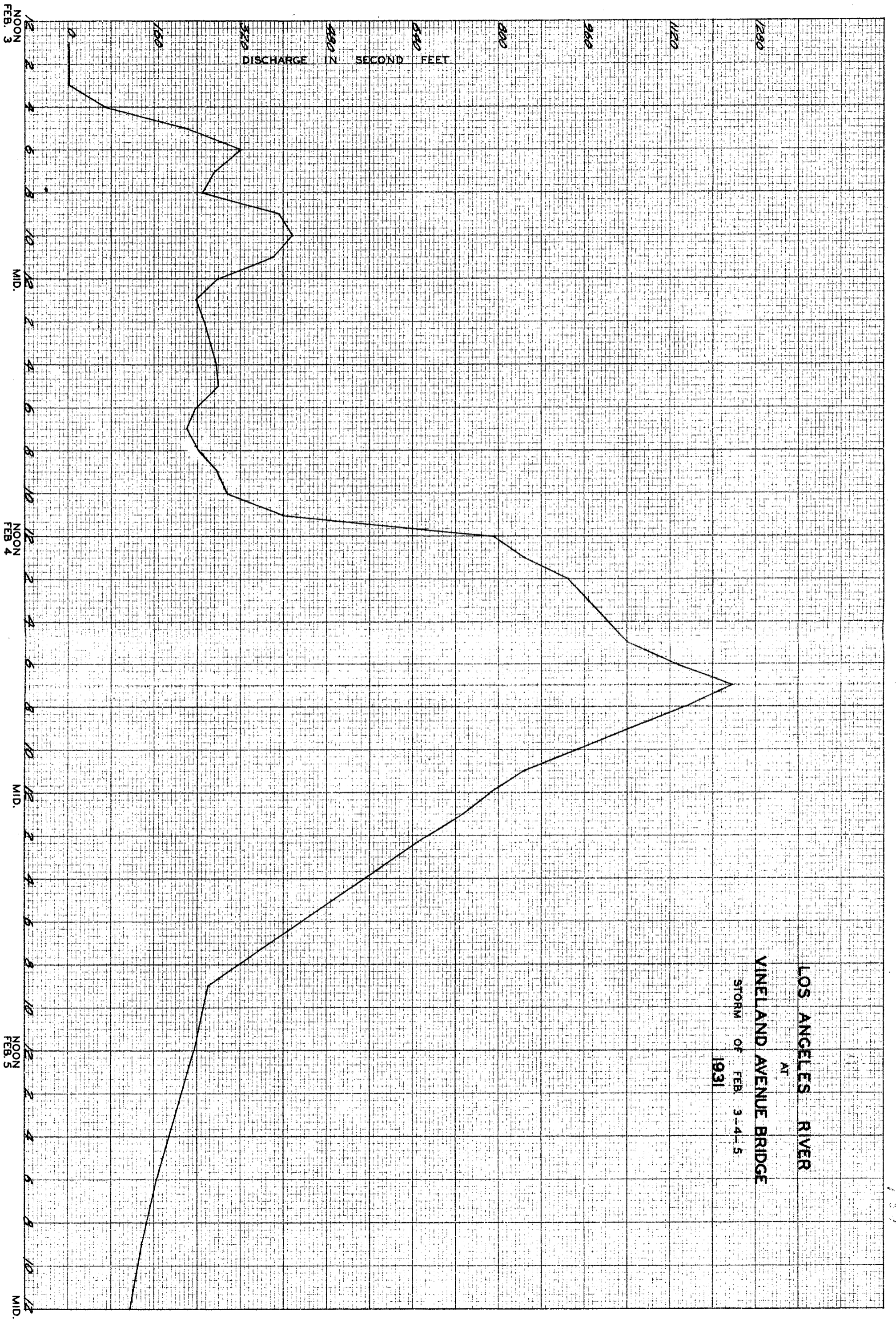
Correction Curve used on Gage Hts.

Recorder installed 12-29-30

Table with columns for months (OCTOBER to SEPTEMBER) and days (1 to 31). Each day has two columns for 'Gage height' and 'Discharge'. Data is provided for most days, with some missing values marked as 'H'.

Summary table with columns for Quarter (First, Second, Third, Fourth), G. H. checked, Disch. checked, Date, and H.V. V.K. (checked/unchecked).

TOTAL summary table with columns for various metrics: Ino., Daily Discharge in Second-feet, Second-feet per square mile, Run off, depth in inches, Run off in acre-feet, Maximum Mean Daily Discharge in Second-feet, and Minimum Mean Daily Discharge in Second-feet. Includes a final 'Inc.' value of 8,373.73.



LOS ANGELES RIVER
AT
VINELAND AVENUE BRIDGE
STORM OF FEB. 3-4-5
1931

F-130 R

MALIBU CREEK AT CRATER CAMP

Location

At upper end of Malibu Gorge about 1/4 mile downstream from Crater Camp in Santa Monica Mountains,

Drainage Area

103 square miles

Installed by

Los Angeles County Flood Control District,
January 17, 1931

Records Available

January 17, 1931 to September 30, 1931 at offices of Los Angeles County Flood Control District, Los Angeles, California.

Gage

An continuous water stage recorder installed in small house on top of corrugated iron pipe stilling well on west side of stream 1/4 mile below Crater Camp.

Discharge Measurements

Low flows are made by wading
High flows are made from cable car at gage.

Channel and Control

Channel is soil and boulders with considerable growth of vegetation.
No control

Extremes of Discharge

Maximum-743.2 c.f.s. February 4, 1931
Minimum-.07 c.f.s. September 30, 1931

Diversions

None

Regulations

None

Accuracy

Fair

Co-operation

Located installed and operated by the Los Angeles County Flood Control District in co-operation with the U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 130

Discharge measurements of

Malibu

~~Lower~~
Creek

at **Crater Camp**

during the year ending September 30, 1931

No.	Date	Made by	Width		Mean velocity <i>ft. per sec.</i>	Gage height <i>feet</i>	Discharge <i>sec. ft.</i>	Rating	Method	Coef.	Meas. secs.	G. H. change	Time	Meter No.
			<i>feet</i>	<i>sq. ft.</i>										
	1931													
1	1/30	Bollinger	V Notch Weir				.10							271
2	2/5	Hardgrove-Ayres	59.0	75.7	1.70	5.54	129.0		.6		11	1/2	588	
3	6	Bollinger	18.1	21.7	1.90	4.85	41.2		.6		13	1/6	271 647	
4	13	Bollinger-Laverty	13.2	8.12	.81	4.30	6.28		.6		10	"	"	
5	20	Bollinger	13.2	5.31	.72	4.28	3.82		.6		7	1/4	271 650	
6	27	"	11.3	6.36	.61	4.28	3.90		.6		12	"	"	
7	3/6	Bollinger-Jordan	12.5	6.91	.42	4.28	2.93		.6		12	"	"	
8	13	Bollinger	4.7	3.47	.80	4.28	2.67		.6		7	1/6	"	
9	27	"	4.6	3.36	.46	4.28	1.56		.6		6	"	"	
10	4/3	"	4.6	1.86	1.00	4.30	1.86		.6		7	1/4	"	
11	10	"	3.8	1.99	.85	4.32	1.70		.6		7	1/6	"	
12	17	"	4.1	1.90	1.00	4.29	1.90		.6		7	"	"	
13	24	Bollinger-Laverty	4.2	2.23	.99	4.38	2.21		.6		7	"	"	
13A	26	Keifer-Hardgrove	49.0	49.8	1.35	5.51	67.20		.6		11	5/12	271 588	
13B	27	Hardgrove-Ayres	28.0	21.7	1.29	5.00	27.90		.6		10	1/3	"	
14	28	Bollinger-Cron	25.5	19.1	.83	4.86	15.88		.6		13	5/12	271 650	
15	5/1	Bollinger	7.5	5.0	1.28	4.69	6.40		.6		11	1/6	"	
15A	8	"	5.4	4.1	.82	4.48	3.35		.6		8	"	"	
16	15	"	4.4	1.88	.93	4.30	1.75		.6		7	"	"	
17	22	"	3.8	2.13	.73	4.25	1.56		.6		7	1/4	"	
18	29	"	3.8	2.44	.75	4.25	1.83		.6		7	1/6	"	
19	6/5	"	4.3	2.37	.67	4.23	1.59		.6		8	"	"	
20	12	"	4.6	1.75	.59	4.23	1.04		.6		8	"	"	
21	19	"	2.7	1.66	.37	4.16	.62		.6		4	"	"	
22	19	"	2.1	.49	1.10	4.16	.54		.6		4	"	"	
23	26	"	1.8	.34	1.06	4.15	.36		.6		3	"	"	
24	7/3	"	V Notch Weir				.15							
25	10	"	"	"	"		.26							

LOS ANGELES COUNTY
 FLOOD CONTROL DISTRICT
 HYDROGRAPHIC DEPARTMENT

File No. 130

Discharge measurements of

Malibu

River
 Creek

at
~~near~~

Crater Camp

during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gate height	Discharge	Rating	Method	Coef	Meas. secs.	G. H. change	Time	Meter No.
			<i>Feet</i>	<i>Sq. Ft.</i>	<i>Ft. per sec.</i>	<i>Feet</i>	<i>Sec.-ft.</i>	<i>Percent diff.</i>			<i>Secs.</i>	<i>Total</i>	<i>Hours</i>	
1931														
26	7/17	Bollinger	V Notch	Weir			.30							
27	24	"	"	"	"		.25							
28	31	"	"	"	"		.13							
29	8/6	"	"	"	"		.22							
30	14	"	"	"	"		.22							
31	21	"	"	"	"		.16							
32	28	"	"	"	"		.15							
33	9/4	"	"	"	"		.13							
34	11	"	"	"	"		.08							
35	18	"	"	"	"		.10							
36	25	"	"	"	"		.08							

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 130

Rating table for MALIBU CREEK AT CRATER CAMP

, from Oct. 1, 1930, to Sept. 30, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
3.90	.10		4.30	4.50	.40	5.30	.95	1.4	7.30	443				
.92	.10		.35	6.50	.40	.40	109	1.4	.40	462				
.94	.11		.40	9.00	.50	.50	124	1.5	.50	481				
.96	.11		.45	11.5	.50	.60	139	1.5	.60	500				
.98	.12		.50	14.5	.60	.70	154	1.5	.70	519				
4.00	.12		.55	17.5	.60	.80	170	1.6	.80	538				
.02	.13		.60	20.5	.70	.90	186	1.6	.90	557				
.04	.13		.65	24.0	.80	6.00	203	1.7	6.00	576				
.06	.14		.70	28.0	.80	.10	220	1.7	.10	595				
.08	.14		.75	32.0	.80	.20	238	1.8	.20	614				
.10	.15	.005	.80	36.5	.90	.30	256	1.8	.30	633				
.12	.35	.10	.85	41.0	.90	.40	274	1.8	.40	652				
.14	.65	.15	.90	46.0	1.0	.50	292	1.8	.50	671				
.16	1.0	.17	.95	51.0	1.0	.60	310	1.8	.60	690				
.18	1.35	.17	5.00	56.5	1.1	.70	339	1.9	.70	709				
.20	1.80	.22	.05	62.0	1.1	.80	348	1.9	.80	728				
.22	2.25	.22	.10	68.0	1.2	.90	367	1.9	.90	747				
.24	2.70	.22	.15	74.0	1.2	7.00	386	1.9	9.00	766				
.26	3.25	.27	.20	81.0	1.4	.10	405							
.28	3.80	.27	.25	88.0	1.4	.20	424							
		.35			1.4									

The above table is not applicable for obstructed channel conditions. It is based on 36 discharge measurements made during year 1930-1931

and is fairly well defined between .08 second-feet and 129.0 second-feet.

Computed by

Checked by

Date

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of

MALIBU CREEK

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

At CRATER CAMP

for the Year Ending September 30, 1931

Drainage Area 103 Square Miles.

[BOLLINGER Observer.]

Gage Read CONTINUOUS

Used rating table dated

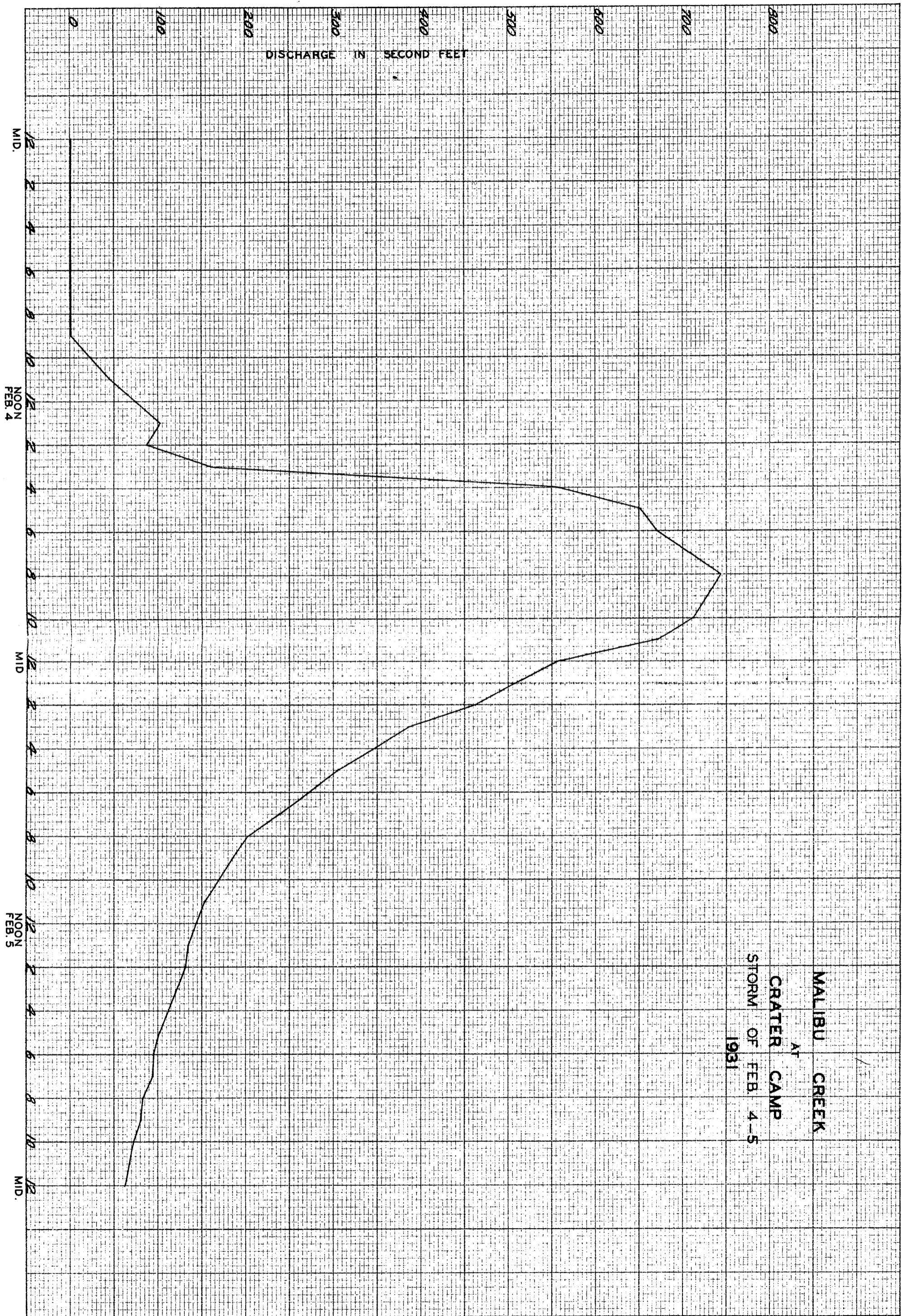
Main data table with columns for months (OCTOBER to SEPTEMBER), days (1-31), gage height, and discharge. Includes a vertical note 'Recorder Installed Jan. 17, 1931'.

Vertical text on the left margin: Maximum stage 8.86 feet at 6 P.M. on Feb. 4 on Sept. 30. Minimum stage 3.85 feet at Discharge .07 second-foot.

Correction Curve used

Vertical text on the right margin: W.T.K. V.K. W.K. V.K. W.K. V.K. G.H. conf'd G.H. checked. Includes a 'PERIOD YEAR' label at the bottom.

Summary table with rows for 'TOTAL', 'Mean Daily Discharge in Second-foot', 'Second-foot per square mile', 'Run-off, depth in inches', 'Run-off in acre-feet', 'Mean Daily Discharge in Second-foot', and 'Mean Daily Discharge in Second-foot'. Includes 'Inc' and 'Tot' values.



MALIBU CREEK
AT
CRATER CAMP
STORM OF FEB. 4-5
1931

MILL CREEK .6 MILES ABOVE JUNCTION WITH BIG
TUJUNGA CREEK

Location

On Mill Creek 200' below junction of North Fork of Mill Creek, .6 mile above junction with Big Tujunga Creek.

Drainage Area

21.14 square miles

Installed by

Los Angeles County Flood Control District
November 16, 1930

Records Available.

November 16, 1930 to September, 1931 at offices of the Los Angeles County Flood Control District, Los Angeles, California.

Gage

An continuous water stage recorder installed in a galvanized iron shelter house on east bank of stream. Stilling well is constructed of galvanized iron pipe.

Discharge Measurements

Low water measurements made with V. notch weir and by wading
High water measurements made from cable car 10' above gage

Channel and Control

Channel-Rock and gravel
Control-Is of concrete and rock for low water

Extremes of Discharge

Maximum-1.73 c.f.s. on April 26, 1931
Minimum-Dry at various times during year

Diversions

None

Regulation

None

Accuracy

Good

Co-operation

Located, installed and operated by the Los Angeles County Flood Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 112

Discharge measurements of Mill Creek

~~Diver~~
~~Crack~~

near .6 mile above Jett with B. Tujunga Cr. during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Stage height	Discharge	Rating	Method	Cost	Meas. sec.	G. H. change	Time	Meter No.
			Feet	Sq. Ft.	Ft. per sec.	Feet	Sec. ft.	Percent diff.				No.	Total Hours	
	1930													
1	11/28	Moon		V Notch		Weir	.16							
2	12/4	"		" "		"	.13							
3	5	"		" "		"	.29							
4	11	"		" "		"	.15							
5	17	Moon-Bertelson	5.0	1.27	.82		1.00	.6				7	1/4	FC 12
7	18	Moon		V Notch		Weir	.16							
8	1931 1/1	"		" "		"	.20							
9	7	"		" "		"	.25							
10	15	"		" "		"	.26							
11	23	"		" "		"	.25							
12	30	"		" "		"	.25							
13	2/6	"	4.0	1.68	.57	1.90	.96	.6				7	1/4	"
14	13	"		V Notch		Weir	.46							
16	20	"		" "		"	.41							
17	27	"		" "		"	.37							
18	3/6	"		" "		"	.37							
19	13	"		" "		"	.37							
20	20	"		" "		"	.37							
21	27	"		" "		"	.37							
22	4/3	"		" "		"	.34							
23	10	"		" "		"	.34							
24	24	"	3.2	.60	1.12	1.87	.67	.6				4	1/6	"
25	28	"	3.0	.67	1.19	1.88	.80	.6				5	"	"
26	5/7	"		V Notch		Weir	.30							
27	15	"		" "		"	.09							
28	26	Irwin		" "		"	.39							
29	6/26	"		" "		"	.02							
30	12	"		" "		"	.05							

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 112

Rating table for **BIG TUJUNGA NEAR MILL CREEK**

, from **Oct. 1**, 19 **30**, to **Sept. 30**, 19 **31**

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
1.79	0													
.80	.08													
.81	.14													
.82	.21													
.83	.29													
.84	.37													
.85	.46													
.86	.55													
.87	.64													
.88	.74													
.89	.84													
.90	.94													
.91	1.05													
.92	1.15													
.93	1.28													
.94	1.41													
.95	1.54													
.96	1.73													

The above table is not applicable for obstructed channel conditions. It is based on 29 discharge measurements made during **Year 1930 - 1931**

and is well defined between 0 second-feet and 1.00 second-feet.

Computed by **W. T. K.**

Checked by **W. T. K.**

Date

Gage Height, in Feet, and Discharge, in Second-Foot, of

MILL CREEK

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 112

6 MILES ABOVE JUNCTION WITH BIG TUJUNGA

for the Year Ending September 30, 1931

Area 21.14 Square Miles.

T.E. MOON-IRWIN [Observer.]

Gage Read CONTINUOUS

Used rating table dated

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	
1			Dry		1.80	.08	1.82	.21	1.80	.08	1.85	.46	1	1.85	.46	1.85	.46		.27	V	.01				1
2					1.80	.08	1.84	.37	1.80	.08	1.85	.46	2	1.85	.46	1.85	.46		.25		.01				2
3					1.80	.08	1.84	.37	1.84	.37	1.85	.46	3	1.85	.46	1.85	.46		.23		.01				3
4		Dry			1.80	.08	1.84	.37	1.88	.74	1.85	.46	4	1.85	.46	1.85	.46		.21		.01				4
5					1.80	.08	1.85	.46	1.87	.64	1.85	.46	5	1.85	.46	1.84	.37		.19		.01				5
6					1.81	.14	1.84	.37	1.87	.64	1.85	.46	6	1.84	.37	1.84	.37		.17		Dry				6
7					1.81	.14	1.84	.37	1.89	.84	1.85	.46	7	1.84	.37	1.83	.29		.15						7
8			Dry		1.81	.14	1.85	.46	1.88	.74	1.85	.46	8	1.84	.37		.26		.13						8
9					1.81	.14	1.85	.46	1.87	.64	1.85	.46	9	1.83	.29		.23		.11						9
10					1.85	.46	1.85	.46	1.87	.64	1.85	.46	10	1.82	.21		.20		.09						10
11		Dry			1.85	.46	1.84	.37	1.87	.64	1.85	.46	11	1.82	.21		.17		.07						11
12					1.81	.14	1.84	.37	1.86	.55	1.85	.46	12	1.82	.21		.15	V	.05						12
13					1.81	.14	1.84	.37	1.86	.55	1.85	.46	13	1.82	.21		.13		.05						13
14					1.82	.21	1.84	.37	1.86	.55	1.85	.46	14	1.82	.21		.11		.05						14
15			Dry		1.82	.21	1.84	.37	1.86	.55	1.86	.55	15	.82	.21	V	.09		.05						15
16			0		1.83	.29	1.84	.37	1.87	.64	1.86	.55	16	.82	.21		.09		.04						16
17			.05		1.82	.21	1.84	.37	1.87	.64	1.86	.55	17	.82	.21		.09		.04						17
18			.05		1.82	.21	1.84	.37	1.87	.64	1.86	.55	18	.81	.14		.09		.04		DRY		DRY		18
19			.05		1.82	.21	1.85	.46	1.87	.64	1.86	.55	19	.81	.14		.09		.04					DRY	19
20			.05		1.83	.29	1.85	.46	1.86	.55	1.85	.46	20	.81	.14		.09		.04						20
21			.05		1.84	.37	1.85	.46	1.84	.37	1.85	.46	21	.81	.14		.09		.03						21
22			#		1.84	.37	1.84	.37	1.85	.46	1.85	.46	22	.81	.14		.09		.03						22
23			.07		1.83	.29	1.83	.29	1.84	.37	1.85	.46	23	1.82	.21		.09		.03						23
24			.08		1.81	.14	1.81	.14	1.84	.37	1.85	.46	24	1.87	.64		.09		.03						24
25		Dry			1.81	.14	1.83	.29	1.84	.37	1.85	.46	25	1.87	.64		.24		.03						25
26			.12		1.82	.21	1.84	.37	1.84	.37	1.85	.46	26	1.93	1.28	V	.39	V	.02						26
27			.14		1.83	.29	1.84	.37	1.84	.37	1.85	.46	27	1.89	.84		.37		.02						27
28			1.81	.14	1.83	.29	1.84	.37	1.85	.46	1.84	.37	28	1.87	.64		.35		.02			.21	.01		28
29			1.81	.14	1.83	.29	1.84	.37	-	-	1.84	.37	29	1.86	.55		.33		.02			1.70	.94		29
30			1.80	.08	1.82	.21	1.83	.29	-	-	1.85	.46	30	1.85	.46		.31		.02			1.31	.01		30
31			-	-	1.82	.21	1.81	.14	-	-	1.85	.46	31	-	-		.29		-			1.31	.01		31
TOTAL,		0	1.17	6.60	11.24	14.50	14.53	11.34	7.30	2.52	.05	.97	0												
Daily Discharge in Second-feet			.04	.22	.36	.52	.47	.38	.24	.08	.001	.03													
Second-feet per square mile		0	.002	.01	.017	.025	.022	.017	.011	.004	0	.001	0												
Run-off, depth in inches																									
Run-off in acre-feet		0	2.32	13.09	22.29	28.75	28.81	22.49	14.48	5.00	.10	1.92	0	139.25											
Maximum Mean Daily Discharge in Second-feet		0	.14	.46	.46	.84	.55	1.28	.46	.27	.01	.94	0												
Minimum Mean Daily Discharge in Second-feet		0	0	.08	.14	.08	.37	.21	.09	.02	0	0	0												

Minimum stage 0 feet at various times during year
 Maximum stage 1.96 feet at 12:15 P.M. April 26
 Minimum stage 0 feet at various times during year
 Maximum stage 1.12 feet at 12:15 P.M. April 26

Weekly measurements
 # V notch Weir measurements.

W.T.K. W.T.K.
 Computed Checked Dye
 Disch. applied Disch. checked
 G. H. copied G. H. checked
 W.T.K. W.T.K.
 Date
 PERIOD YEAR

MONROVIA CANYON CREEK - ABOVE JUNCTION WITH
SAWPIT CREEK

Location

In Monrovia Cn. 150' above junction with Sawpit Creek, about 3 miles northeast of town of Monrovia, Los Angeles County, California.

Drainage Area

1.90 square miles as measured on U. S. G. S. topographic map.

Installed by

Los Angeles County Flood Control District
November 10, 1927.

Records Available

From November 10, 1927 to September 30, 1931 at offices of the Los Angeles County Flood Control District, Los Angeles, California.

Gage

Staff gage installed on rubble masonry recorder house on west bank of stream. Au continuous water stage recorder, installed in Rubble masonry house on south side of creek.

Discharge Measurements

Wading measurements made at gage. High water measurements made from bridge installed at gage.

Channel and Control

Channel is rock and gravel. Concrete control located 10' below gage with low water opening a two foot crest cippoletti weir.

Extremes of Discharge

1927-1928

Maximum-.84 c.f.s. February 4, 1928

Minimum-.05 c.f.s. July 30-31, 1928

1928-1929

Maximum-7.08 c.f.s. March 10, 1929

Minimum-.02 c.f.s. at various times during year

1929-1930

Maximum-5.86 c.f.s. January 15, 1930

Minimum-Dry at various times during year.

1930-1931

Maximum-13.26 c.f.s. April 26, 1931

Minimum-Dry September 19 to 1931

Diversions

Monrovia Pipe line diverts water above gage.

157
F-22 R

Regulation

None.

Accuracy

Good for low flows.

Co-operation

Located and operated by Los Angeles County Flood Control District in co-operation with U.S.G.S. Water Resources branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 22

Discharge measurements of **Monrovia**

Rowley
Creek

at ^{Above} 200 ft. Junction With **Sawpit Creek**, during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Corr.	Mean stage	G. H. Change	Time	Meter No.
			Feet	Sq. ft.	Ft. per sec.	Feet	Cu. ft.	Percent			No.	Total	Hours	
1930														
1	10/5	Lindsay				Est.	.005							
2	9	"				"	.01							
3	23	Brewster				"	.01							
4	30	"				"	.01							
5	11/14	Lindsay	.5	.04	.50	.04	.02	.6			1			282 883
6	17	Lindsay-Burke	.5	.05	.57	.06	.03	.6			1			"
7	21	Lindsay-Jordan				Est.	.03							
8	28	Lindsay	.08	.50	.80	.06	.04	.6			1			"
9	12/5	"				Est.	.05							
10	12	"				Est.	.05							
11	20	"				Est.	.04							
12	27	"	.50	.07	.58	.06	.04	.6			1			"
1931														
13	1/2	Lindsay-Laird				Est.	.05							
14	6	" "	.50	.08	.66	.07	.05	.6			1			"
15	8	" "	1.00	.10	.15	1.26	.20	.6			2			"
16	9	Lindsay				Est.	.20							
17	15	"	1.00	.18	.67	.09	.12	.6			2			"
18	22	"				Est.	.08							
19	29	"	1.00	.26	.51	.08	.07	.6			2			"
20	31	"				Est.	.07							
21	2/4	"	1.10	.28	1.75	.21	.48	.6			2			"
22	2/5	Lindsay-Laird	1.10	.31	2.76	.26	.70	.6			2			"
23	12	Lindsay				Est.	.15							
24	19	"				Est.	.15							
25	27	"	.50	.09	.89	.06	.02	.6			1			"
26	3/5	"				Est.	.08							
27	12	"				Est.	.05							
28	20	"				Est.	.04							

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

PLATE 22

Discharge measurements of Monrovia

1931
1931

Above
200 ft. Junction With Sawpit Creek
^

Date	Gage Name	W. of Creek	A. of Creek	Dist. to Creek	Max. Depth	Max. Flow	Rate	Stage	Notes
1931									
29 3/26	Lindsay					Est.	.04		
30 4/3	"					Est.	.04		
31 24	"					Est.	.05		
32 26	Lindsay-Laird	6.0	5.50	3.11	1.00	10.90	.6	6	.191/6 809
33 26	" "	6.0	5.88	3.19	1.14	12.26	.6	7	1/10 "
34 30	Lindsay	1.9	.28	.50	.09	.14	.6	4	1/12 "
35 5/8	"	1.9	.22	.36	.08	.08	.6	5	1/12 "
36 22	"				Est.	.04			
37 25	"				Est.	.06			
38 28	"				Est.	.04			
39 6/5	"				Est.	.03			
40 12	"				Est.	.04			
41 19	"				Est.	.03			
42 26	"				Est.	.05			
43 7/3	"				Est.	.02			
44 10	"				Est.	.02			
45 16	"				Est.	.02			
46 24	"				Est.	.02			
47 31	"				Est.	.01			
48 8/7	"				Est.	.01			
49 14	"				Est.	.02			
50 21	"					Dry			
51 28	"				Est.	.005			
52 9/4	"				Est.	.01			
53 11	"				Est.	.005			
54 17	"				Est.	.005			
55 25	"				Est.	.01			

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 22

Rating table for Monrovia Creek, 200 feet above Junction with Sawpit Ck.

, from Oct 1, 1930, to Sept. 30, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
.0	0		.20	.45	.05	20	12.60	.18						
.01	0		.25	.70	.05	25	13.50	.18						
.02	0		.30	.95	.05	30	15.40	.18						
.03	0		.35	1.30	.07	35	16.30	.18						
.04	.01		.40	1.70	.08	40	17.20	.18						
.05	.02	.01	.45	2.25	.11	45	18.10	.18						
.06	.03		.50	2.80	.11	50	19.0	.18						
.07	.05	.02	.55	3.45	.13									
.08	.07		.60	4.10	.13									
.09	.09		.65	4.80	.14									
.10	.11		.70	5.50	.14									
.11	.13		.75	6.25	.15									
.12	.15		.80	7.00	.15									
.13	.17		.85	7.80	.16									
.14	.19		.90	8.60	.16									
.15	.21	.02	.95	9.40	.16									
.16	.25	.04	1.00	10.20	.16									
.17	.30	.05	.05	11.05	.17									
.18	.35		.10	11.90	.17									
.19	.40	.05	.15	12.75	.17									

The above table is not applicable for obstructed channel conditions. It is based on 56 discharge measurements made during Year 1930-1931

and is fairly well defined between 0 second-feet and 12.26 second-feet.

Computed by W.T.K.
Checked by _____
Date _____

MONROVIA CREEK
ABOVE JUNCTION WITH SAWPIT CREEK for the Year Ending September 30, 19 31

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

Drainage Area 1.90 Square Miles. [LINDSAY Observer.] Gage Road CONTINUOUS Used rating table dated

Minimum stage 1.13 feet at 12:25 P.M. on April 25, 1931 Discharge 13.25 second-feet
Minimum stage DRY on Sept. 19-24-1931 Discharge second-feet

June, July, Aug. and Sept. estimated due to gage silting up.

Table with columns for months (OCTOBER to SEPTEMBER) and days (1-31). Each month has sub-columns for Gage height and Discharge. Includes a 'DAY' column on the far left and right. The table contains numerical data for gage height and discharge, with some entries marked as 'ESTIMATED'.

Summary table with rows for 'TOTAL', 'Mean Daily Discharge in Second-feet', 'Second-feet per square mile', 'Gage height, depth in inches', and 'PERIOD YEAR'. It provides aggregate statistics for the entire year.

Vertical text on the right side: 'WTK H V', 'Computed', 'Checked', 'Date', 'Disch. applied', 'Disch. checked', 'Date', 'G. H. copied', 'G. H. checked', 'Date', 'PERIOD YEAR'.

#46

NIGGER SLOUGH AT WILMINGTON AVENUE

Location

On east bank of Slough about 50 feet above
Wilmington Avenue

Drainage Area

66.49 square miles.

Installed by

Los Angeles County Flood Control District,
November 1928. Recorder Installed January 14, 1930.

Records available

November 24, 1928 to September 30, 1931 at office
of Los Angeles County Flood Control District, Los
Angeles, California.

Gage

Rational, 7 day water stage recorder installed in
shelter house on top of a corrugated iron stilling
well at upstream end of Culvert under road.

Discharge Measurements

Low water measurements taken by wading.
High water measurements taken from bridge.

Channel and control

Channel in clay.
No Control

Extremes of Discharge

1928-1929

Maximum - 4.96 c.f.s. March 15, 1929

Minimum - 0.79 c.f.s. December 22, 1928

1929-1930

Maximum - 42.47 c.f.s. March 17, 1930

Minimum - 3.07 c.f.s. April 26, 1930

1930-1931

Maximum - 15.16 c.f.s. April 26, 1931

Minimum - 77 c.f.s. January 23, 1931

Diversions

None

Regulation

None

Accuracy

Poor, due to inflow from sewer below station
backing up water at gage

Co-operation

Located, installed and operated by the Los Angeles
County Flood Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 46

Discharge measurements of Higger Slough

~~282~~
~~282~~

at Wilmington Ave.

during the year ending September 30, 1931

No.	Date	Made by	Width		Mean velocity	Gage height		Discharge	rating	Method	Coef.	Meas. secs.	G. Ht. change	Time	Meter No.
			Feet	Sq. ft.		Feet	Sec. ft.								
1930															
1	10/3	Jordan	6.5	4.65	.36	1.39	1.77		.6			7		1/6	282
2	10	Jordan-Bewley	6.0	3.67	.39	1.34	1.45		.6			7		"	"
3	17	Jordan	6.5	4.47	.39	1.38	1.74		.6			7		"	"
4	24	"	6.0	4.30	.34	1.34	1.42		.6			7		"	"
5	11/6	"	6.0	4.47	.35	1.36	1.57		.6			7		"	"
6	13	"	6.5	4.42	.35	1.35	1.54		.6			7		"	"
7	20	Jordan-Seal	6.4	4.30	.34	1.37	1.53		.6			7	.01	1/49	282
8	28	Seal	5.3	4.19	.33	1.46	1.15		.6			6		1/69	282
9	12/5	"	6.0	4.30	.35	1.42	1.51		.6			6	.01	1/5	"
10	12	"	6.0	4.33	.40	1.32	1.71		.6			11	.01	1/3	"
11	19	"	6.6	3.44	.47	1.40	1.63		.6			6	.01	1/4	"
12	26	"	6.3	3.10	.49	1.44	1.51		.6			6	.01	1/6	"
1931															
13	1/9	"	5.5	3.92	.28	1.56	1.16		.6			5	.01	"	"
14	23	"	7.5	6.05	.13	1.68	.77		.6			6		1/4	"
15	30	"	6.3	4.64	.37	1.45	1.71		.6			6		1/6	"
16	2/6	"	9.3	11.0	.85	2.24	3.21		.6			9		"	"
17	13	"	8.0	7.8	.60	1.84	4.71		.6			8		1/5	"
18	20	"	6.9	5.82	.51	1.59	2.96		.6			8		1/4	"
19	27	"	6.6	4.71	.42	1.40	1.97		.6			7		1/6	"
20	3/6	"	6.1	4.48	.36	1.39	1.62		.6			6		2/15	"
21	13	"	6.3	4.80	.37	1.46	1.78		.6			7		1/5	"
22	20	"	6.2	4.76	.29	1.45	1.41		.6			6		2/15	"
23	27	"	6.3	4.91	.32	1.43	1.56		.6			6		1/5	"
24	4/3	"	6.2	4.71	.35	1.46	1.66		.6			6		2/15	"
25	10	"	5.5	4.49	.41	1.48	1.82		.6			6	.01	1/6	"
26	17	"	5.4	4.27	.40	1.43	1.71		.6			6		1/5	"
27	24	"	5.3	4.43	.38	1.47	1.63		.6			6		2/15	"
28	5/1	"	7.9	6.54	.59	1.71	3.87		.6			8	.02	1/4	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 46

Discharge measurements of **Higger Slough**

River-Creek

at **Wilmington Ave.**

during the year ending September 30, 1931

N	Date	Method	Width Feet	Area of section sq. ft.	Mean velocity ft. per sec.	Gage height Feet	Discharge Sec. ft.	Rating Method	Coeff	Meas. sec.	G. Ht. change	Time Hours	Meter No.
1931													
29	5/8	Seal	6.5	4.86	.39	1.45	1.41	.6		6	.01	1/6	968
30	15	"	6.8	4.85	.34	1.45	1.14	.6		6		2/15	"
31	22	"	6.1	4.95	.41	1.48	2.04	.6		6	.01	"	"
32	29	"	6.8	5.00	.26	1.54	1.32	.6		6		1/6	"
33	6/5	"	6.4	5.01	.38	1.50	1.92	.6		6	.01	"	"
34	13	"	7.5	6.55	.36	1.38	2.33	.6		6		"	"
35	19	"	6.6	5.12	.32	1.48	1.76	.6		6		2/15	"
36	26	"	7.4	6.15	.23	1.35	1.44	.6		6	.01	"	"
37	7/3	"	6.7	5.15	.42	1.51	2.17	.6		6		1/12	"
38	10	"	6.7	4.93	.39	1.47	1.92	.6		6		1/6	"
39	10	"	7.3	6.92	.27	1.61	1.60	.6		6	.01	1/5	"
40	17	"	6.8	5.16	.41	1.53	2.31	.6		6	.01	2/15	"
41	24	"	6.6	5.01	.39	1.47	1.49	.6		6		1/10	"
42	31	"	6.9	5.14	.30	1.56	1.64	.6		6		"	"
43	8/7	"	7.5	6.44	.33	1.71	2.48	.6		6		2/15	"
44	14	"	6.7	4.93	.42	1.53	1.82	.6		7		3/20	"
45	21	"	6.5	4.62	.50	1.47	2.27	.6		7		1/6	"
46	28	"	7.0	4.95	.32	1.47	1.58	.6		7		1/4	"
47	9/4	"	6.6	4.54	.59	1.33	1.79	.6		7		2/15	"
48	11	"	7.0	5.18	.32	1.47	1.65	.6		7		3/20	"
49	18	"	7.2	5.55	.50	1.54	1.66	.6		7		1/4	"
50	25	"	7.0	5.45	.39	1.53	2.14	.6		7		4/15	"

Daily Gage Height, in Feet. and Discharge, in Second-Feet, of

Nigger Slough

At **Wilmington Ave.**

for the Year Ending September 30, 1931

Drainage Area **66.49** Square Miles.

[**D. L. Seal**

Observer.]

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		DAY
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	
1		1.77		1.51		1.30		1.51		1.71		1.87	1
2		1.77		1.52		1.36	H	4.25		1.71		1.82	2
3	meas.	1.77		1.54		1.41	H	2.82		1.71		1.77	3
4		1.72		1.55		1.46		1.51		1.71		1.72	4
5		1.68		1.56	meas.	1.51		1.51	H	4.08		1.67	5
6		1.63	meas.	1.57		1.54	H	5.05	H	8.83	meas.	1.62	6
7		1.59		1.57		1.57	H	4.93		10.10		1.64	7
8		1.54		1.56		1.60	H	8.61		9.20		1.67	8
9		1.50		1.56		1.62	H	4.35		8.30		1.69	9
10	meas.	1.45		1.55		1.65		1.14		7.41		1.71	10
11		1.49		1.55		1.68		1.12		6.51		1.73	11
12		1.53		1.54	meas.	1.71		1.10		5.61		1.76	12
13		1.57	meas.	1.54		1.70		1.07	meas.	4.71	meas.	1.78	13
14		1.62		1.54		1.69		1.04		4.46		1.73	14
15		1.66		1.54		1.68		1.01		4.21		1.67	15
16		1.70		1.54		1.66		.98		3.96		1.62	16
17	meas.	1.74		1.53		1.65		.95		3.71		1.57	17
18		1.69		1.53		1.64		.92		3.46		1.52	18
19		1.65		1.53	meas.	1.63		.89		3.21		1.46	19
20		1.60	meas.	1.53		1.61		.86	meas.	2.96	meas.	1.41	20
21		1.56		1.48		1.59		.83		2.82		1.43	21
22		1.51		1.44		1.58		.80		2.68		1.45	22
23		1.47		1.39		1.56	meas.	.77		2.54		1.47	23
24	meas.	1.42		1.34		1.55		.90		2.39		1.50	24
25		1.43		1.29		1.53		1.04		2.25		1.52	25
26		1.44		1.25	meas.	1.51		1.17		2.11		1.54	26
27		1.45		1.20		1.51		1.31	meas.	1.97	meas.	1.56	27
28		1.47	meas.	1.15		1.51		1.44		1.92		1.57	28
29		1.48		1.20		1.51		1.58		-		1.59	29
30		1.49		1.25		1.51		1.71		-		1.60	30
31		1.50		-		1.51		1.71		-		1.62	31
TOTAL.		48.89		43.85		48.54		58.88		116.24		50.28	
Mean Daily Discharge in Second-feet		1.58		1.46		1.57		1.90		4.15		1.62	
Cubic-foot per square mile		.024		.022		.024		.029		.062		.024	
Run-off, depth in inches -													
run-off in acre-feet		96.95		86.95		96.25		116.76		230.50		99.71	
Minimum Mean Daily Discharge in Second-feet		1.77		1.57		1.69		8.61		10.10		1.87	
Minimum Mean Daily Discharge in Second-feet		1.42		1.15		1.33		.77		1.71		1.41	

Maximum stage 2.70 feet at 7 PM on APRIL 20, 1931
 Minimum stage 1.67 feet at 10 AM on JANUARY 23, 1931
 Due to sewer stopping flow, discharge is interpolated between measurements except hydrographs.

F-16 R

PACOIMA WASH - PARTHENIA STREET BRIDGE.

Location

On highway bridge crossing Pacoima Wash at Parthenia Street approximately 3 miles Northwest of Van Nuys, Los Angeles County, California.

Drainage Area.

50.63 square miles.

Installed by

Los Angeles County Flood Control District,
December 26, 1928.

Records Available

December 26, 1928 to September 30, 1931 at Los Angeles County Flood Control District, Los Angeles, California.

Gage

Rational 7 day water stage recorder installed in shelter house on corrugated iron stilling well attached to downstream side of bridge pier. Vertical staff gage at stilling well.

Discharge Measurements

High water measurements made from downstream side of bridge.

Low water measurements made by wading near gage.

Channel and Control

Channel-sand. Banks overgrown with weeds.

Control-None.

Extremes of Discharge

1929-1930

Maximum-69.60 sec. ft. January 11, 1930

Minimum-Dry most of year.

1930-1931

Maximum-270 c.f.s. January 11, 1930

Minimum-Dry most of year.

Diversions

None near gage

Regulation

Regulation, except for local runoff, by Los Angeles County Flood Control Dam in Pacoima Canyon.

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No **46**

Gage Read continuous

Used rating table dated

APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY	Quarter	Fourth	Third	Second	First	Date
Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge							
	1.63 meas.	3.87		1.58		1.96		1.76		1.70		1						
	1.65	3.52		1.66		2.07		1.88		1.73		2						
bas.	1.66	3.17		1.75 meas.		2.17		2.00		1.76		3						
	1.68	2.82		1.83		2.11		2.12	meas.	1.79		4						
	1.71	2.46	meas.	1.92		2.05		2.24		1.77		5						
	1.73	2.11		1.97		1.99		2.36		1.75		6						
	1.75	1.76		2.02		1.94	meas.	2.48		1.73		7						
	1.77	meas.	1.41	2.07		1.88		2.38		1.71		8						
	1.80	1.37		2.13		1.82		2.28		1.69		9						
bas.	1.82	1.33		2.18	meas.	1.76		2.18		1.67		10						
	1.80	1.29		2.23		1.82		2.09	meas.	1.65		11						
	1.79	1.26		2.28		1.89		2.00		1.65		12						
	1.77	1.22	meas.	2.33		1.95		1.91		1.65		13						
	1.76	1.18		2.24		2.02	meas.	1.82		1.65		14						
	1.74	meas.	1.14	2.14		2.08		1.88		1.66		15						
	1.73	1.27		2.05		2.15		1.94		1.66		16						
bas.	1.71	1.40		1.95	meas.	2.21		2.00		1.66		17						
	1.71	1.53		1.86		2.11		2.06	meas.	1.66		18						
	1.70	1.65	meas.	1.76		2.00		2.13		1.72		19						
	1.70	1.78		1.71		1.90		2.20		1.79		20						
	1.69	1.91		1.67		1.80	meas.	2.27		1.86		21						
	1.69	meas.	2.04	1.62		1.70		2.17		1.93		22						
	1.68	1.94		1.58		1.59		2.07		2.00		23						
bas.	1.68	1.83		1.53	meas.	1.49		1.97		2.07		24						
	1.68	1.73		1.49		1.51		1.87		2.14		25						
H	10.45	1.63	meas.	1.44		1.53		1.77		2.10		26						
H	10.81	1.53		1.54		1.55		1.67		2.07		27						
H	8.07	1.42		1.65		1.57	meas.	1.58		2.04		28						
	5.70	meas.	1.32	1.75		1.59		1.61		2.01		29						
	4.79	1.41		1.86		1.61		1.64		1.98		30						
	-	1.49		-	meas.	1.64		1.67		-		31						
	82.85	55.79		55.79		57.46		62.00		54.25								
	2.76	1.80		1.86		1.85		2.00		1.81								
	.082	.027		.028		.028		.030		.027								
	164.29	110.63		110.63		113.94		122.95		107.58		1457.14						
	10.81	3.87		2.33		2.21		2.48		2.14								
	1.63	1.14		1.44		1.49		1.58		1.65								

Computed
Checked
Date

Disch. applied
Disch. checked
Date

G. H. copied
G. H. checked
Date

PERIOD
YEAR

F-16 R

Accuracy

Fairly Good.

Co-operation

Located, constructed and operated by Los Angeles
County Flood Control District in co-operation with
U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

FIG. NO. 16

The high measurements of Pacoima Wash

Check

d Parthenia St. Bridge
netw

period for year ending September 30, 1931

No.	Date	Station	Width feet	Mean depth feet	Mean velocity m.p.h.	Discharge cfs	Discharge cfs	Factor	Velocity m.p.h.	No.	St. I channel	Time hours	Notes FC
1930													
1	11/27	Luce-Waddicor	5.5	.62	1.32	3.95	.76		.6	4	.04	1/6	24
2	11/27	" "	4.0	.45	1.51	5.89	.65		.6	4		1/12	"
1931													
3	1/5	" "	5.8	.58	1.07	1.90	.73		.6	8	.01	1/6	"
4	1/7	" "	16.0	4.11	2.92	4.21	12.31		.6	8		1/6	"
5	7	" "	16.0	3.65	2.84	4.17	10.37		.6	8	.02	1/12	"
6	8	" "	11.0	1.90	2.19	4.05	4.12		.6	8		1/12	"
7	8	" "	11.0	1.84	2.10	4.01	3.81		.6	9		1/6	" FC
8	31	" "	10.9	2.49	2.08	4.01	5.19		.6	11	.01	1/6	12 FC
9	2/5	" "	.6	34.1	5.51	4.59	190.4		.6	11	.03	1/3	25 FC

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 16

Rating table for Pacoima Wash at Parthenia St. Bridge

, from Oct. 1st, 1930, to Sept. 30th, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
3.62	0		4.02	3.90		4.42	61.00							
.64	.05	.025	.04	4.40		.44	68.50							
.66	.10		.06	5.05	.325	.46	76.0							
.68	.15		.08	5.70	.45	.48	88.0	6.00						
.70	.20	.05	.10	6.60	.50	.50	100.0	7.00						
.72	.30		.12	7.50	.625	.52	114.0	9.00						
.74	.40		.14	8.50	.75	.54	132.0	10.00						
.76	.50		.16	9.50	.875	.56	152.0	12.00						
.78	.60		.18	10.75	1.00	.58	176.0	14.00						
.80	.70	.10	.20	12.00	1.125	.60	204.0	16.00						
.82	.90		.22	15.00	1.25	.62	236.0	17.00						
.84	1.10		.24	18.00	1.375	.64	270.0	17.00						
.86	1.30		.26	21.00	1.50	.66	304.0	17.00						
.88	1.50	.125	.28	24.00	1.625	.68	338.0	"						
.90	1.75		.30	28.00	1.75	.70	372.0	"						
.92	2.00	.15	.32	32.00	1.875									
.94	2.30		.34	36.00	2.00									
.96	2.60	.20	.36	41.00	2.125									
.98	3.00		.38	46.00	2.25									
4.00	3.40	.25	.40	53.50	2.375									

The above table is not applicable for obstructed channel conditions. It is based on 9 discharge measurements made during year 1930-1931

and is fairly well defined between .65 second-feet and 190.44 second-feet.

Computed by
Checked by V K
Date

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of

PACOIMA WASH

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 16

PARthenia ST. BRIDGE

for the Year Ending September 30, 1931

50.63 Square Miles.

J. W. LUCE

Observer.

Gage Read CONTINUOUS

Used rating table dated

OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY AUGUST SEPTEMBER

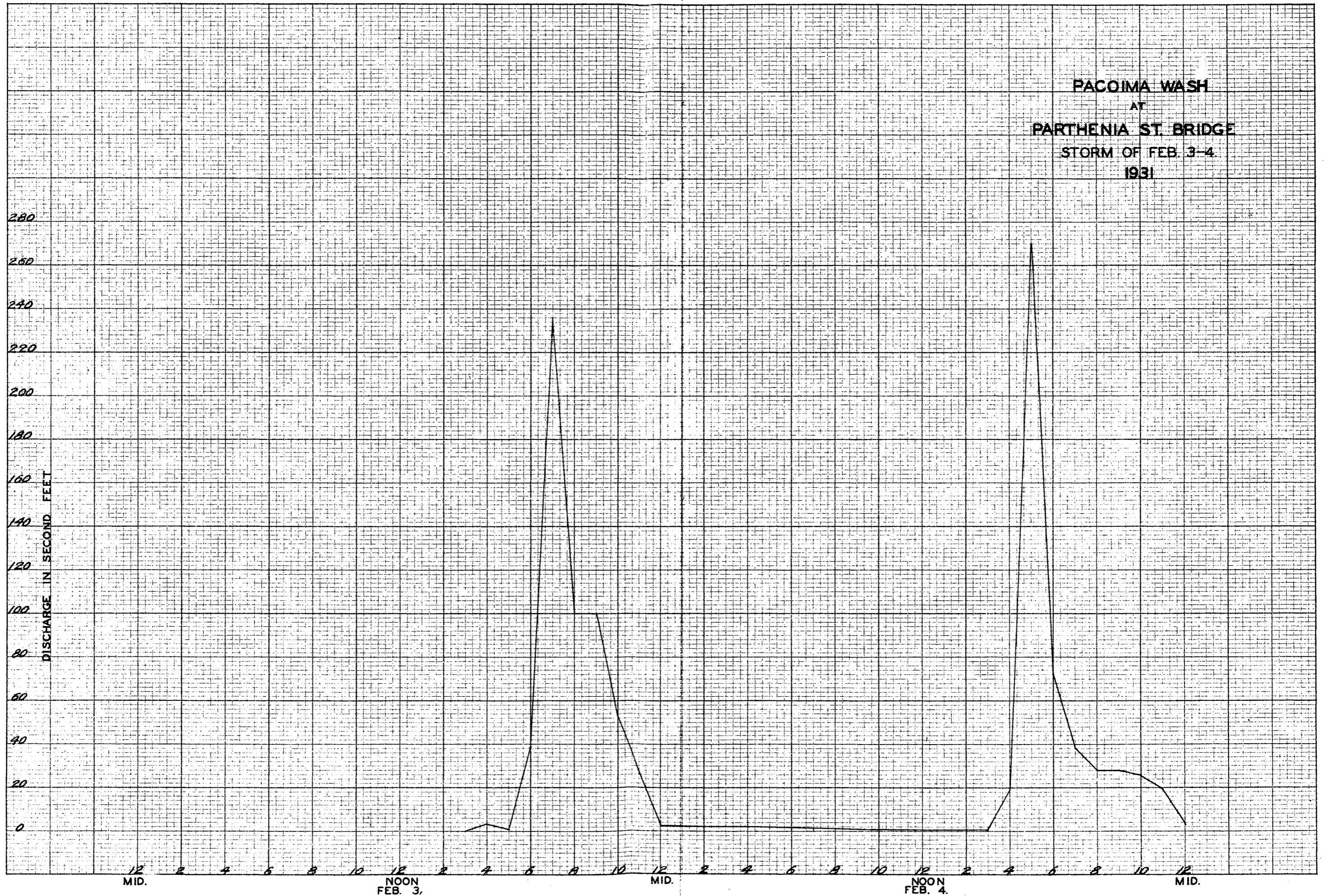
DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge
1	Dry	0	Dry	0	Dry	0	Dry	0	3.63	.03	Dry	0	1	Dry	0	Dry	0	Dry	0	Dry	0	Dry	0	1
2									Dry	0			2											2
3									H	23.48			3											3
4							Dry	0	H	21.71			4											4
5							H	.11	3.68	.15			5											5
6							Dry	0	Dry				6											6
7							H	1.35					7											7
8							H	2.29					8											8
9							3.65	.08					9											9
10							Dry	0					10											10
11													11											11
12													12											12
13													13											13
14													14											14
15													15											15
16		DRY		DRY		DRY		DRY		DRY		DRY	16		DRY		DRY		DRY		DRY		DRY	16
17													17											17
18													18											18
19													19											19
20													20											20
21													21											21
22													22											22
23													23											23
24													24						Dry					24
25													25											25
26				Dry	0								26									Dry	0	26
27				H	.75								27											27
28				3.63	.03				Dry	0			28											28
29				Dry	0				-	-			29											29
30				Dry	0		Dry	0	-	-			30	Dry	0		Dry	0						30
31	Dry	0	-	-	Dry	0	H	3.19	-	-	Dry	0	31		Dry	0			0	Dry	0			31

Quarter First Second Third Fourth
 H.V. V.K.
 H.V. V.K.
 H.V. V.K.
 H.V. V.K.
 G.H. copied G.H. checked
 Date Date
 PERIOD YEAR

Maximum stage 40.0 feet at 5 P.M. on 2-4-31
 Discharge 470.0
 Minimum stage 0.0 feet at 5 P.M. on 2-4-31
 Discharge 0.0
 Dry most of year

TOTAL,	0	.78	0	7.02	45.37	0	0	0	0
Mean Daily Discharge in Second-foot	0	.03		.23	1.62				
Second-foot per square mile		.0006		.005	.03				
Run-off, depth in inches -									
Run-off in acre-feet -	0	1.55	0	13.92	89.97	0	0	0	0
Maximum Mean Daily Discharge in Second-foot		.75		3.19	23.48				
Minimum Mean Daily Discharge in Second-foot		0		0	0				

PACOIMA WASH
AT
PARTHENIA ST. BRIDGE
STORM OF FEB. 3-4
1931



PUDDINGSTONE CREEK BELOW FLOOD CONTROL DAM

Location

Concrete shelter house and stilling well on east side Puddingstone Channel approximately 1000' below Puddingstone Dam near San Dimas, Los Angeles County, California.

Drainage Area

32.7 square miles.

Installed by

Los Angeles County Flood Control District.
December 28, 1927.

Records Available

December 28, 1927 to September 30, 1931 at offices of Los Angeles County Flood Control District, Los Angeles, California.

Gage

An continuous water stage recorder located in concrete house on eastbank of stream.

Discharge Measurements

Made by wading near recorder house. Staff gage attached to recorder house.

Channel and Control

Channel of sand and gravel with bed rock near gage. Control, reinforced concrete, cippoletti weir 18" deep by 24" wide.

Extremes of Discharge

1927-1928

Maximum-.60 c.f.s. February 4, 1928

Minimum-Dry at various times during year.

1928-1929

Maximum-2.03 c.f.s. December 13, 1928

Minimum-Dry at various times during year.

1929-1930

Maximum-1.45 c.f.s. May 3, 1930

Minimum-Dry at various times during year

1930-1931

Maximum-.94 c.f.s. April 26, 1931

Minimum-Dry at various times during year.

F-40 R

Diversions

None above gage.

Regulation

Flow regulated by Los Angeles County.

Flood Control District's Dam 1000' above gage.

Accuracy

Good.

Co-operation

Located, constructed and operated by Los Angeles County Flood Control in co-operation with U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
 FLOOD CONTROL DISTRICT
 HYDROGRAPHIC DEPARTMENT

PL. NO. 40

Discharge measurement of

Puddingstone

 Creek

Below M. C. Dam

Discharge year: Jan. 1, 1931, to Dec. 31, 1931.

DATE	TIME	STATION	DISCHARGE (CFS)	WATER TEMPERATURE (F)	WIND VELOCITY (MPH)	WIND DIRECTION	WIND STATE	WIND REPORT	WIND DIRECTION	WIND STATE	WIND REPORT	WIND DIRECTION	WIND STATE	WIND REPORT
1931														
1	9/26	Brewster	.5	.15	.40	.04	.06	.6				1	1/10666	271
2	10/4	"				Vol.	.06							
3	8	"				Vol.	.03							

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **40**

Rating table for Puddingstone Creek Below Flood Control Dam

, from Oct. 1st , 1930 , to Sept. 30th , 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
.00	.00		.20	.60										
.01	.01		.21	.65										
.02	.02		.22	.69										
.03	.04		.23	.74										
.04	.05		.24	.79										
.05	.08		.25	.84										
.06	.10		.26	.89										
.07	.12		.27	.94										
.08	.15		.28	.98										
.09	.18		.29	1.07										
.10	.21		.30	1.12										
.11	.25		.31	1.16										
.12	.28													
.13	.32													
.14	.35													
.15	.39													
.16	.43													
.17	.47													
.18	.51													
.19	.56													

The above table is not applicable for obstructed channel conditions. It is based on _____ discharge measurements made during _____

and is _____ well defined between _____ second-feet and _____ second-feet.

Two foot cippoletti weir table used. Seepage and underflow at weir will balance measurements showing lower discharges

Computed by **M Rupert**
Checked by **J L Irwin 1/28/31**
Date _____

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of

PUDDINGSTONE CREEK

LOS ANGELES COUNTY. FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

BELOW F. C. DAM

for the Year Ending September 30, 19 31

Drainage Area 32.7 Square Miles.

C. L. BREWSTER Observer.]

Gage Read CONTINUOUS

Used rating table dated

Main data table with columns for months (OCTOBER to SEPTEMBER) and days (1 to 31). Each day has columns for Gage height and Discharge. Includes a 'DAY' column on the right side of the table.

Vertical text on the left margin: 'Maximum discharge of the year', 'Minimum stage', 'Flow controlled by Dam', 'Various times of the year', 'Discharge', 'second-feet', 'feet at', 'P.M.', '7:30', '0'.

Vertical text on the right margin: 'Quarter', 'First', 'Second', 'Third', 'Fourth', 'H. V.', 'V. K.', 'G. H. copied', 'G. H. checked', 'Date', 'PERIOD YEAR'.

Summary table at the bottom with rows for 'TOTAL', 'Mean Daily Discharge in Second-foot', 'Second-foot per square mile', 'Depth in inches', and 'Discharge in acre-feet'. Columns correspond to months and a final total column.

RIO HONDO AT STEWART & GRAY ROAD BRIDGE

Location

On highway bridge over Rio Hondo at Stewart and Gray Road about $1\frac{1}{2}$ miles west of Downey, Los Angeles County, California, and $1/2$ miles above junction with Los Angeles River.

Drainage Area

373.64 square miles

Installed by

California State Division of Water Rights, 1923.

Re-established by

Los Angeles County Flood Control District,
March 1, 1928.

Records Available

Some previous records in Bulletin #5.
California State Division of Water Rights, San Gabriel Investigation. Records from March 1, 1928 to September 30, 1931 available at Los Angeles County Flood Control District, Los Angeles, California.

Gage

Rational 7 day water state recorder in small house set on top of corrugated pipe stilling well attached to bridge pier on downstream end.

Discharge Measurements.

High water measurements made from cable car 200 ft. above bridge. Low water measurements by wading near gage

Channel and Control

Channel-sandy, rock riprap banks.
Control-none.

Extremes of Discharge

1928-1929

Maximum-912 c.f.s. April 4, 1929

Minimum-Dry at various times during year

1929-1930

Maximum-743 c.f.s. March 15, 1930

Minimum-Dry at various times during year

1930-1931

Maximum-841 c.f.s. February 4, 1931

Minimum-Dry at various times during year

F-45 R

Diversions

Some diversion from stream vicinity of Montebello.

Regulation

None

Accuracy

Good for low flows.

Co-operation

Located, constructed and operated by Los Angeles County Flood Control in co-operation with U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 45

Discharge measurements of Rio Hondo

River
Creek

at Stewart and Gray Rd. bridge

during the year ending September 30, 19 31

No.	Date	Made by	Width		Mean velocity	Gage height		Discharge	Rating	Method	Coef.	Meas. secs.	G. Ht. change	Time	Meter No.
			Feet	Sq. ft.		ft. per sec.	Feet								
	1930														
1	10/17	Jordan	5.3	1.35	1.00	5.25	1.39		.6			5	.021/6	962	
2	12/5	Seal	12.0	5.91	.72	5.20	3.84		.6			11	.011/3	"	
3	12/12	"	15.0	4.69	.89	5.32	5.18		.6			11	.011/4	"	
4	12/19	"	13.5	5.66	.81	5.45	5.39		.6			13	.021/3	"	
5	26	"	11.8	4.75	.41	5.14	1.96		.6			10	.03 5/12	"	
6	1/5 1931	"	32.1	14.3	.87	5.75	12.40		.6			7	.06 1/4	"	
7	1/7	Seal-Jordan	89.5	93.50	2.04	6.71	191.5		.6			12	5/12	"	
8	1/9	Seal	6.5	2.47	.39	4.95	.72		.6			5	1/12	"	
9	2/5	Seal-Jordan	98.0	123.7	3.00	7.34	417.3		.6			10	.30 1/2	"	
10	2/5	Bewley-Seal	54.0	41.0	1.11	6.05	45.58		.6			12	.01 1/4	"	
11	2/6	Seal	10.1	1.20	.76	4.93	.91		.6			10	"	"	
12	3/20	"	2.0	.19	.66	4.70	1.25		.6			4	2/15	"	
13	4/26	Seal-Fergus	64.0	106.68	.22	6.64	236.8		.6			12	.13 1/3	"	
14	4/27	" "	62.5	53.6	1.73	6.55	92.89		.6			9	.02	"	

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 45

Rating table for RIO HONDO AT STEWART & GREY RD. BRIDGE

, from Oct. 1, 1930, to Sept. 30, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
4.50	0	.006	5.50	6.10		6.50	135.00		7.50	498.0		9.00	1158.0	
.55	.03		.55	6.80	.20	.55	147.00		7.55	520.0	4.40	.10	1202.0	
.60	.06		.60	7.80		.60	161.60	2.92	.60	542.0		.20	1246.0	
.65	.09		.65	8.80	.24	.65	176.20		.65	564.0		.30	1290.0	
.70	.12	.013	.70	10.00	.50	.70	190.80		.70	586.0		.40	1334.0	
.75	.18		.75	12.50	.85	.75	205.40		.75	608.0		.50	1373.0	
.80	.25	.025	.80	16.75	1.10	.80	220.0		.80	630.0	3.60	.60	1422.0	
.85	.37		.85	21.00		.85	238.0		.85	652.0		.70	1466.0	
.90	.50	.050	.90	26.50	1.30	.90	256.0		.90	674.0		.80	1510.0	
.95	.75		.95	32.00		.95	274.0		.95	696.0		.90	1554.0	
5.00	1.00	.067	6.00	38.50	1.50	7.00	292.0		8.00	718.0		10.00	1598.0	
.05	1.33		.05	45.00	1.80	.05	310.0		.10	762.0	4.00			
.10	1.67		.10	52.50		.10	330.0		.20	806.0				
.15	2.00	.10	.15	60.00	2.40	.15	350.0		.30	850.0				
.20	2.50		.20	69.00		.20	370.0		.40	894.0				
.25	3.00		.25	78.00		.25	390.0		.50	938.0				
.30	3.50		.30	87.00		.30	410.0	4.40	.60	982.0				
.35	4.00	.14	.35	99.00		.35	432.0		.70	1026.0				
.40	4.70		.40	111.00		.40	454.0		.80	1070.0				
.45	5.40		.45	123.00		.45	476.0		.90	1114.0				

The above table is not applicable for obstructed channel conditions. It is based on 14 discharge measurements made during year 1930-1931

and is fairly well defined between .72 second-feet and 417.3 second-feet.

Computed by H.V.

Checked by K

Date

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of

RIO HONDO

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

At STEWART & GREY RD. BRIDGE

for the Year Ending September 30, 19 31

Drainage Area 373.64 Square Miles.

D. L. SEAL

Observer.]

Gage Read

CONTINUOUS

Used rating table dated

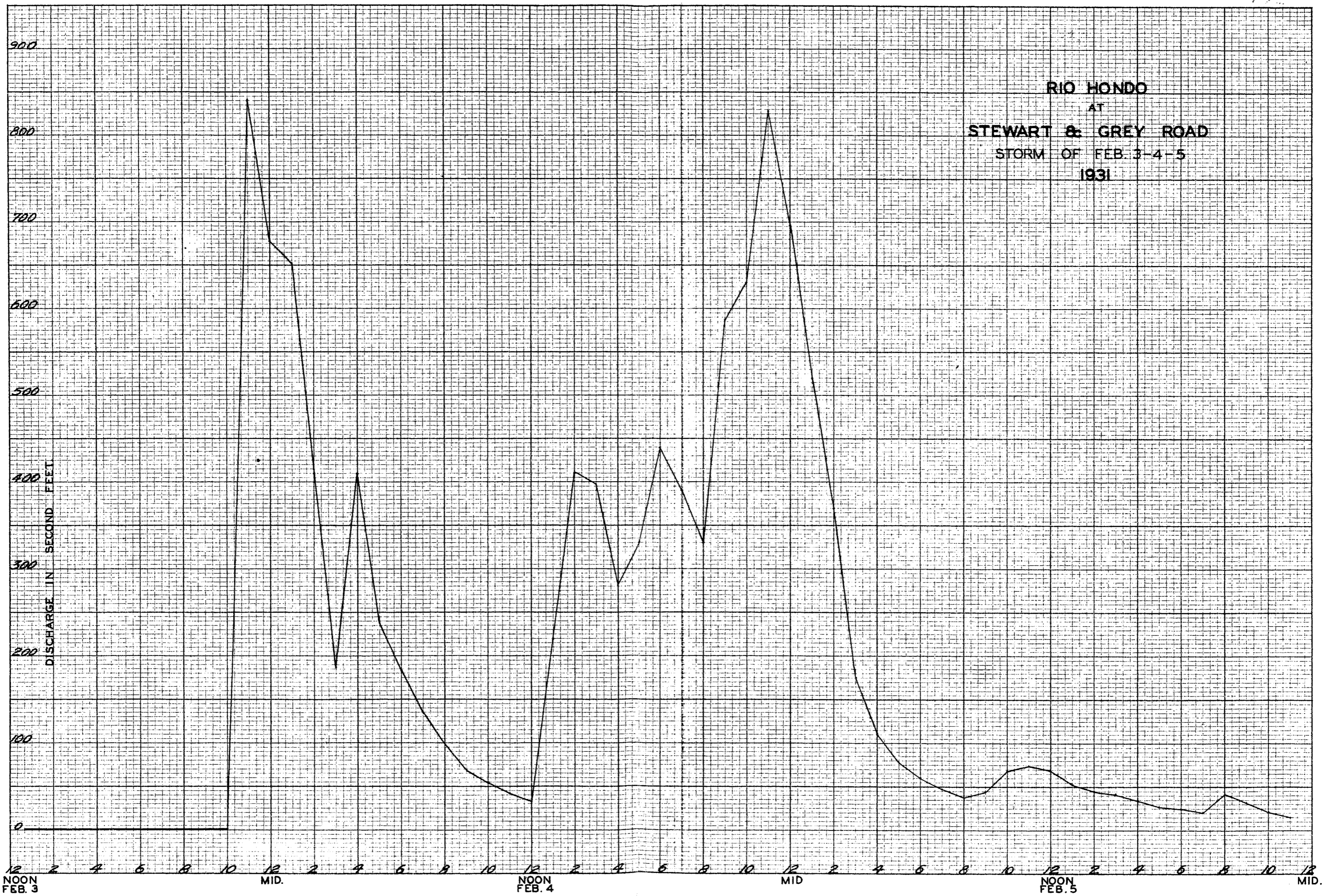
DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY	Quarter	Checked	Date
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge				
1	Dry	0	Dry		4.89	.48	5.24	2.90	4.92	.60	Dry		1	Dry	0	Dry	0	4.65	.09	Dry	0	Dry	0		1				
2		0			5.00	1.00	H	12.93	4.65	.09			2		0			4.62	.07						2				
3		0			5.10	1.67	4.87	.42	H	49.27			3	Dry	0			4.51	.01						3				
4		0			5.10	1.67	4.74	.17	H	335.29			4	4.51	.01			Dry	0						4				
5		0			5.14	1.93	4.73	.16	H	99.20			5	4.67	.10			"	0					Dry	5				
6		0			5.03	1.20	H	4.92	5.16	2.10			6	4.70	.12			Dry	0						6				
7		0			5.16	2.10	H	29.95	4.80	.25			7	Dry	0			4.51	.01						7				
8		0			5.17	2.20	H	34.17	4.97	.85			8					4.53	.02						8				
9		0			5.17	2.20	4.98	.90	4.75	.18	Dry	0	9					Dry	0						9				
10	Dry	0			5.23	2.80	4.82	.30	4.72	.14	4.54	.02	10												10				
11	4.58	.05			5.25	3.00	4.78	.22	4.71	.13	4.62	.07	11												11				
12	Dry	0		DRY	5.12	1.80	4.76	.19	4.71	.13	4.80	.25	12											Dry	12				
13	"	0			5.15	2.00	4.74	.17	4.65	.09	4.91	.55	13			DRY					DRY				13				
14	Dry	0			4.92	.60	4.71	.13	4.62	.07	4.73	.16	14	Dry	0										14				
15	4.76	.19			4.93	.65	4.58	.05	4.55	.03	4.68	.11	15	4.60	.06										15				
16	4.71	.13			5.05	1.33	Dry	0	4.53	.02	4.75	.18	16	4.57	.04										16				
17	4.87	.42			5.12	1.80			4.52	.01	4.69	.11	17	Dry	0			Dry	0						17				
18	4.79	.24			5.18	2.30			4.51	.01	4.69	.11	18					4.51	.01						18				
19	4.53	.02			5.18	2.30			Dry	0	4.78	.22	19					Dry	0					DRY	19				
20	Dry	0			5.20	2.50			4.76	.19			20												20				
21		0			5.35	4.00			4.91	.55			21												21				
22		0	Dry	0	5.15	2.00			4.81	.28			22												22				
23		0	4.81	.28	4.97	.85			4.70	.12			23												23				
24		0	5.02	1.13	4.87	.42			4.75	.18			24												24				
25		0	4.71	.13	5.08	1.54			4.58	.05			25	Dry	0										25				
26		0	4.90	.50	5.14	1.93			Dry	0			26	H	154.72									Dry	26				
27		0	4.82	.30	4.98	.90			Dry	0			27	H	162.11	Dry	0								27				
28		0	4.57	.04	5.02	1.13		Dry	0		Dry	0	28	4.85	.37	4.62	.07								28				
29		0	Dry	0	4.79	.24		-	-	4.58	.05		29	4.67	.10	4.51	.01					Dry			29				
30		0	4.55	.03	5.08	1.54	Dry	0	-	-	4.83	.33	30	4.67	.10	4.52	.01	Dry	0					30					
31	Dry	0	-	-	5.08	1.54	H	6.80	-	-	4.52	.01	31	-	-	4.52	.01	-	-	Dry	0	Dry	0	-	-	31			
TOTAL,		1.05	2.41	51.62	94.38	488.46	3.54	317.73	.10	.21	0	0																	
Mean Daily Discharge in Second-foot		.03	.08	1.67	3.04	17.45	.11	10.59	.003	.01	0	0																	
Second-foot per square mile		.0001	.0002	.005	.01	.046	.0003	.028	0	0	0	0																	
Total depth in inches		2.08	4.78	102.36	187.16	968.62	7.02	630.06	.20	.42	0	0																	
Mean Daily Discharge in Second-foot		.42	1.13	4.00	34.17	335.29	.55	162.11	.07	.09	0	0																	
Total discharge in Second-foot		0	0	.24	0	0	0	0	0	0	0	0																	

Minimum stage 8.28 feet at 11 P.M. on Feb. 2, 1931
 Minimum stage DRY feet at Various times of the year

H.V. V.K.
 H.V.
 H.V.
 H.V.
 G. H. copied
 G. H. checked
 Date

PERIOD YEAR

RIO HONDO
AT
STEWART & GREY ROAD
STORM OF FEB. 3-4-5
1931



KEUFFEL & ESSER CO., N. Y. NO. 359-21 L
12 x 30 to the inch.

F-64-R

RIO HONDO 1000' ABOVE MISSION BRIDGE

Location

On west side of stream approximately 1000' above Mission Bridge, Montebello Oil Fields, 2 miles northeast of Montebello, Los Angeles County, Cal.

Drainage Area

349.9 square miles.

Installed by

Los Angeles County Flood Control District, July, 1928. Originally installed by the State of California Division of Water Rights.

Records Available

July 1928 to September 30, 1931 at offices of the Los Angeles County Flood Control District, Los Angeles, California, See State of California Division of Water Rights. Bulletins for records prior to this date.

Gage

Au continuous water stage recorder installed in wooden shelter house. Vertical metal staff gage attached to stilling well.

Discharge Measurements

High water measurements from cable car 60' below recorder house.
Low water measurements from wading near recorder house.

Channel and Control

Shifting sand channel.
No Control.

Extremes of Discharge

1928-1929

Maximum-2400 c.f.s. November 14, 1928

Minimum-6.23 c.f.s. August 23, 1929

1929-1930

Maximum-1260 c.f.s. March 15, 1930

Minimum-5.88 c.f.s. September 4, 1930

1930-1931

Maximum-4040 c.f.s. February 3, 1931

Minimum-4.33 c.f.s. August 31, 1931.

Diversions

None above gage.

F-64 R

Regulation
None.

Accuracy
Fair.

Co-operation
Operated by Los Angeles County Flood Control
District in co-operation with the U.S.G.S.
Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 64

Discharge measurements of

Rio Hondo

River
~~Creek~~

~~at~~ ^{new} 1000 ft. above Mission Bridge

, during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Coef.	Meas. secs.	G. Ht. change	Time	Meter No.
			Feet	Sq. ft.	Ft. per sec.	Feet	Sq. ft.				Percent diff.	No.	Total	Hours
	1930													
1	10/3	Brewster	23.0	7.26	1.42	.96	10.33		.6		8		1/2	666
2	10	Brewster-Thayer	23.0	7.98	1.59	1.04	12.66		.6		8		1/3	"
3	17	Brewster	23.0	6.94	1.35	.94	9.39		.6		8		"	"
4	24	"	22.0	6.46	1.35	.87	8.75		.6		8		"	"
5	31	"	22.0	7.57	1.41	.88	10.69		.6		8		"	"
6	11/7	"	24.0	6.66	1.38	.86	9.20		.6		8		"	"
7	15	"	21.0	7.62	1.48	.86	11.24		.6		7		"	"
8	17	Lindsay-Burke	88.0	159.3	3.65	2.93	581.60		.6		12		7/12	282 883 271
9	21	Brewster	15.0	8.78	1.37	.80	12.03		.6		8		1/3	666
10	28	Brewster-Deeple	12.0	8.90	2.00	.92	17.83		.6		7	.02	1/2	"
11	12/5	Brewster	13.0	7.48	1.82	.84	13.62		.6		8		1/4	"
12	12	"	12.0	6.70	1.89	.78	12.67		.6		7		1/3	"
13	19	"	12.0	8.07	2.10	.79	16.91		.6		7	.02	1/3	"
14	26	"	11.5	6.65	1.64	.76	10.91		.6		6		1/4	"
15	1931 1/2	Lindsay-Burke	60.0	86.6	2.46	2.22	213.90		.6		13	.17	1/3	282 883 271
16	9	Brewster	13.0	10.9	1.50	1.00	16.39		.6		7		1/4	666
17	16	"	25.0	10.1	1.60	.87	16.13		.6		10		1/3	"
18	16	Dalton-Irwin	31.0	14.6	1.57	1.00	23.09		.6		20	.01	1/4	FC 2 271
19	23	Brewster	25.0	8.9	1.60	.88	14.27		.6		9		1/3	666
20	30	"	22.0	9.06	1.67	.87	15.15		.6		7		1/3	"
21	2/3	Hedge-Westlund	157.	282.	5.88	3.27	1653.9		.6		13		5/6	271 655
22	4	"	130.	146.	5.00	2.50	731.0		.6		10	.03	5/12	"
23	4	"	89.0	117.	5.52	2.49	644.2		.6		12		1/3	"
24	5	"	53.0	39.1	3.34	1.70	130.40		.6		11		1/4	"
25	6	Brewster-Pollard	31.0	22.6	1.64	1.38	37.20		.6		8		"	666
26	13	Brewster	23.0	12.0	1.58	1.24	19.02		.6		7		"	"
27	20	"	24.0	12.4	1.32	1.22	16.43		.6		7		"	"
28	27	"	14.0	8.38	1.54	1.21	12.91		.6		7		"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 64

Discharge measurements of

Rio Hondo

River
Creek

near 1000 ft. above Mission Bridge

during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Method	Coef.	Meas. secs.	G. Ht. change	Time	Meas. No.
			Feet	Sq. Ft.	Ft. per sec.	Feet	Sec.-ft.			Percent diff.	No.	Total	Hours
1931													
29	3/6	Brewster	14.0	8.94	1.59	1.19	14.17		.6	7		1/4	271 666
30	13	"	30.0	9.62	1.22	1.19	11.72		.6	9		1/3	"
31	20	"	28.0	10.00	1.18	1.20	11.77		.6	8		"	"
32	27	"	16.0	8.70	1.40	1.23	12.14		.6	7		"	"
33	4/3	"	18.0	8.90	1.36	1.22	12.07		.6	7		"	"
34	10	"	14.0	6.68	1.40	1.22	9.60		.6	6		"	"
35	17	"	16.0	6.76	1.41	1.21	9.52		.6	8		1/4	" 282
36	24	Lindsay-Irwin	33.0	29.6	3.96	1.70	117.1		.6	10	.161	1/6	883
37	26	" "	147.	338.	5.72	4.07	1932.		.6	13	.042	1/3	" FC
37A	26	Hedge-Westlund	52.0	103.	5.22	2.08	332.4		.6	8		1/3	6
37B	26	" "	52.0	105.	6.26	2.30	660.5		.6	8		1/6	"
37C	26	" "	52.0	99.3	5.93	2.32	589.0		.6	9		1/6	" 282
38	27	Lindsay	49.0	80.9	3.09	2.28	283.0		.6	9	.051	1/4	883
39	28	"	46.0	23.0	1.34	1.41	30.80		.6	12		"	"
40	5/1	Brewster	18.0	11.7	1.43	1.26	16.75		.6	8		1/3	271 666
41	8	"	30.0	11.1	1.17	1.30	13.00		.6	9		1/4	"
42	22	"	28.0	8.4	1.41	1.26	11.78		.6	10		1/3	"
43	29	"	16.0	8.0	1.23	1.27	10.66		.6	8		"	"
44	6/5	"	26.0	9.1	1.21	1.30	10.95		.6	8		"	"
45	12	"	26.0	8.32	1.29	1.28	10.74		.6	10		"	"
46	19	"	5.0	5.02	1.41	1.20	7.06		.6	5		1/4	"
47	26	"	25.0	8.26	1.18	1.27	9.71		.6	9	.011	1/3	"
48	7/3	"	12.0	4.34	1.40	1.20	6.08		.6	6		1/5	"
49	10	"	26.0	6.92	1.11	1.24	7.71		.6	8		1/3	"
50	17	"	22.0	6.44	1.03	1.20	6.63		.6	6		1/6	"
51	24	"	7.0	3.27	1.58	1.18	5.18		.6	7		1/4	"
52	31	"	24.0	5.54	1.05	1.18	6.11		.6	6		"	"
53	8/7	"	22.0	6.60	1.13	1.24	7.48		.6	7		1/3	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 64

Discharge measurements of **Rio Hondo**

**River
Creek**

± 1000 ft. above Mission Bridge
near

during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gate height	Discharge	Rating	Method	Class.	Meas. secs.	G. Ht. change	Time	Meter No.
			Feet	Sq. Ft.	ft. per sec.	Feet	Sec.-ft.	Percent alt.			No.	Total	Hours	
	1931													271
54	8/14	Brewster	22.0	6.30	1.16	1.23	7.31		.6		7		1/3	666
55	21	"	14.0	5.20	1.17	1.21	6.07		.6		7		1/4	"
56	28	"	14.0	4.96	1.29	1.22	6.39		.6		7		"	"
57	9/4	"	12.0	4.66	1.37	1.22	6.40		.6		6		1/3	"
58	11	"	20.0	5.78	1.32	1.20	7.62		.6		8		1/4	"
59	18	Lindsay	15.0	7.58	1.40	1.22	11.00		.6		9	.02	"	883
60	25	"	16.5	6.96	1.84	1.24	10.28		.6		10		"	"

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **64**

1

Low Flow
Rating table for **Rio Hondo 500 feet above Mission Bridge**

, from **Oct. 1st** , **1930** , to **Feb. 3rd** , **1931**

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
.60	8.10		1.00	26		2.00	192							
.62	8.40	.15	1.05	31	1.0	.05	206	2.80						
.64	8.70	.15	.10	36	1.0	.10	220	2.80						
.66	9.00	.15	.15	42	1.20	.15	234	2.80						
.68	9.30	.15	.20	48	1.20	.20	250	3.20						
.70	9.70	.20	.25	55	1.40	.25	266	3.20						
.72	10.10	.20	.30	62	1.4	.30	282	3.20						
.74	10.50	.20	.35	69	1.40									
.76	10.95	.225	.40	76	1.40									
.78	11.50	.275	.45	83	1.40									
.80	12.05	.275	.50	91	1.60									
.82	12.65	.30	.55	100	1.80									
.84	13.40	.375	.60	109	1.80									
.86	14.25	.425	.65	118	1.80									
.88	15.25	.50	.70	127	1.80									
.90	16.50	.625	.75	137	2.0									
.92	18.00	.75	.80	147	2.0									
.94	20.00	1.00	.85	158	2.20									
.96	22.	1.00	.90	169	2.20									
.98	24	1.00	.95	180	2.20									
		1.00			2.40									

The above table is not applicable for obstructed channel conditions. It is based on **20** discharge measurements made during **period Oct 1, 1930 - Feb. 3rd, 1931**

and is **fairly** well defined between **8.75** second-feet and **213.9** second-feet.

Computed by **W T K**
Checked by **V K**
Date

2

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 64

High Flow 1000' above
Rating table for Rio Hondo/Mission Bridge

, from Oct. 1st, 1930, to Sept. 30th, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
2.30	282		30	2400										
.40	320	3.8	40	2600	20									
.50	360	4.0	50	2800	20									
.60	405	4.5	60	3000	20									
.70	453	4.8	70	3200										
.80	505	5.2	80	3400										
.90	560	5.5	90	3600										
3.00	620	6.0	5.00	3800										
.10	690	7.0	10	4000										
.20	762	7.2	20	4200										
.30	845	8.3												
.40	940	9.5												
.50	1045	10.5												
.60	1165	12.0												
.70	1300	13.5												
.80	1445	14.5												
.90	1600	15.5												
4.00	1800	20.0												
.10	2000	20												
.20	2200	20												
		20												

The above table is not applicable for obstructed channel conditions. It is based on 14 discharge measurements made during period Oct. 1, 1930, Sept. 30, 1931.

and is Fairly well defined between 282 second-feet and 1932 second-feet.

Computed by W T K
Checked by
Date

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **64**

3

Low Flow

Rating table for **Rio Hondo 500 ft. above Mission Bridge**

, from **Feb 3rd** , 19 **31**, to **May 2nd** , 19 **31**

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
1.20	8.30		80	119.0										
		1.40			2.6									
1.21	9.70		85	132										
					2.8									
.22	11.10		90	146										
					2.8									
.23	12.50		95	160										
					3.2									
.24	13.90	2.00	176											
					3.2									
.25	15.30	.05	192											
					3.2									
.26	16.70	.10	208											
					3.6									
.27	18.10	.15	226											
					3.6									
.28	19.50	.20	244											
					3.6									
.29	20.90	.25	263											
					3.8									
.30	22.30	1.40	30	282										
					3.8									
		1.74												
.35	31.0													
		1.80												
.40	40.0													
		1.80												
.45	49.0													
		1.80												
.50	58.0													
		1.80												
55	67.0													
		1.80												
.60	76.0													
		2.0												
.65	86.0													
		2.0												
.70	96.0													
		2.2												
.75	107.0													
		2.4												

The above table is not applicable for obstructed channel conditions. It is based on **20** discharge measurements made during period **Feb. 3rd, 1931- May 2nd, 1931**

and is **fairly** well defined between **9.52** second-feet and **283.8** second-feet.

Computed by **W T K**

Checked by

Date

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **64**

Rating table for **RIO HONDO** **500 FT ABOVE MISSION BRIDGE**

, from **May 2,** **1931,** to **Sept. 30,** **1931**

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
1.00	4.65	.04	1.20	6.10	.46	1.40	21.60	.88						
.01	4.69		.21	6.56	.56	.41	22.48							
.02	4.73		.22	7.12		.42	23.36							
.03	4.77		.23	7.68		.43	24.24							
.04	4.81		.24	8.24		.44	25.12							
.05	4.85	.05	.25	8.80	.80	.45	26.00							
.06	4.90		.26	9.60										
.07	4.95		.27	10.40										
.08	5.00		.28	11.20										
.09	5.05		.29	12.00	.88									
.10	5.10	.07	.30	12.80										
.11	5.17		.31	13.68										
.12	5.24		.32	14.56										
.13	5.31		.33	15.44										
.14	5.38		.34	16.32										
.15	5.45	.10	.35	17.20										
.16	5.55		.36	18.08										
.17	5.65	.15	.37	18.96										
.18	5.80		.38	19.84										
.19	5.95		.39	20.72										

The above table is not applicable for obstructed channel conditions. It is based on **20** discharge measurements made during **period**

and is **fairly** well defined between **5.11** second-feet and **13.00** second-feet.

Computed by **H.V.**

Checked by **V.K.**

Date

Daily Gage Height, in Feet, and Discharge, in Second-Feet, of RIO HONDO

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

File No. 64

1000 ft. Above Mission Bridge for the Year Ending September 30, 19 31

Drainage Area 350.0 Square Miles. BREWSTER Observer. Gage Read CONTINUOUS Used rating table dated

Maximum stage 2.12 feet at 5:00 P.M. on FEB. 3, 1931
Minimum stage 0.92 feet at 2:00 P.M. on AUG. 31, 1931
Discharge 4.33 second-feet

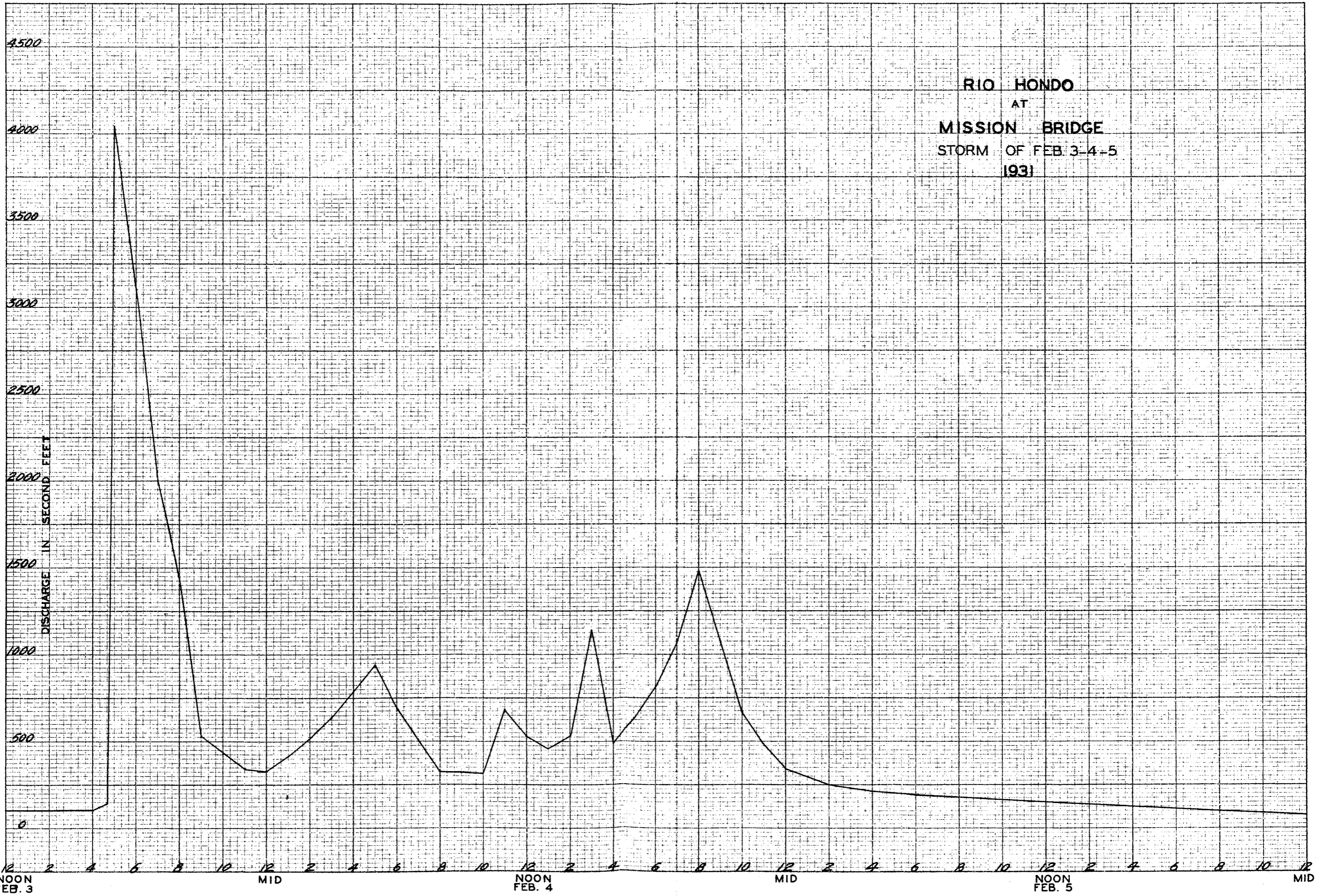
Correction Curve Used

Main data table with columns for months (OCTOBER to SEPTEMBER) and rows for days (1 to 31). Each cell contains Gage height and Discharge values.

Summary table with columns for DAY, Quarter, and Discharge. Includes handwritten notations like 'B.Y.' and 'V.L.'.

Summary table with rows for TOTAL, Mean Daily Discharge in Second-feet, second-feet per square mile, Run-off, depth in inches, Run-off in acre-feet, Maximum Mean Daily Discharge in Second-feet, and Minimum Mean Daily Discharge in Second-feet.

RIO HONDO
AT
MISSION BRIDGE
STORM OF FEB 3-4-5
1931



KEUFFEL & ESSER CO., N. Y. NO. 359-211
12 x 20 to the inch.

F-53 R

RIO HONDO SLOUGH AT SAN GABRIEL BLVD. BRIDGE

Location

On west abutment, upstream side of San Gabriel Boulevard bridge across Rio Hondo Slough.

Drainage

Of seepage and rising water.

Installed by

Los Angeles County Flood Control District, recorder established June 14, 1930. Weekly measurements interpolated for daily flow previously.

Records Available

July 2, 1928 to September 30, 1931 at office of Los Angeles County Flood Control District, Los Angeles, California.

Gage

Rational, 7 day water stage recorder in shelter house on top of corrugated iron stilling well on bridge abutments.

Discharge measurements

High flows measured from bridge.
Low flows measured by wading.

Channel and Control

Sand banks overgrown with weeds.
No control

Extreme measurements

1929-1930

Maximum-19.69 c.f.s. on February 3, 1930.

Minimum-13.52 c.f.s. on September 12, 1930.

1930-1931

Maximum-49.04 c.f.s. February 4, 1931

Minimum-11.63 c.f.s. September 18, 1931

Diversion

None

Accuracy

Good

Diversion

None

Co-operation

Located, installed and operated by Los Angeles County Flood Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 83

Discharge measurements of

Rio Hondo Slough

River
Creek

at - San Gabriel Blvd. Bridge
near

during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gate height	Discharge	Rating	Method	Coef.	Meas. secs.	G. Ht. change	Time	Meter No.
			Feet	Sq. Ft.	M.P.H.	Feet	Sec.-ft.	Percent diff.			No.	Total	Hours	
1930														
1	10/3	Brewster	10.0	7.18	2.25	.75	16.16			.6	10		1/3	271 666
2	10	Brewster-Thayer	10.0	6.82	2.44	.74	16.62			.6	10		"	" 282
3	10	Lindsay-Burke	10.4	6.81	2.08	.75	14.21			.6	10		1/4	883 271
4	17	Brewster	10.0	7.14	2.39	.74	17.04			.6	10		1/3	666
5	24	"	10.0	6.39	2.36	.73	16.35			.6	10		"	" FC
6	29	Jordan-Allen	26.5	14.07	1.02	.73	14.46			.6	9		1/2	23 271
7	31	Brewster	10.0	6.69	2.37	.72	15.87			.6	10		1/3	666
8	11/7	"	10.0	6.97	2.28	.72	15.86			.6	10		"	"
9	14	"	10.0	7.38	2.20	.74	16.23			.6	10		"	"
10	21	"	10.0	7.61	2.23	.75	16.94			.6	10		"	"
11	28	Brewster-Teeple	10.0	8.22	2.05	.82	16.85			.6	10		"	"
12	12/5	Brewster	10.0	7.60	2.24	.78	17.04			.6	10		"	"
13	12	"	10.0	7.40	2.31	.76	17.10			.6	10		"	"
14	19	"	10.0	7.66	2.26	.76	17.29			.6	10		"	"
15	26	"	10.0	7.46	2.20	.75	16.43			.6	10		"	"
1931														
16	1/2	"	10.0	9.40	2.25	.90	21.18			.6	10		"	"
17	9	"	10.0	8.62	2.36	.83	20.34			.6	10		"	"
18	16	"	10.0	7.37	2.29	.77	16.91			.6	10		1/4	"
19	23	"	10.0	7.36	2.41	.75	17.74			.6	10		1/3	"
20	30	"	10.0	7.41	2.42	.75	17.92			.6	10		1/3	"
21	2/6	"	10.0	8.81	2.51	.88	22.11			.6	10		"	"
22	13	"	10.0	7.71	2.52	.80	19.41			.6	10		"	"
23	20	"	10.0	7.50	2.60	.78	19.50			.6	10		"	"
24	27	"	10.0	7.39	2.57	.76	18.98			.6	10		"	"
25	3/6	"	10.0	7.04	2.53	.76	17.85			.6	10		"	"
26	13	"	10.0	6.71	2.68	.75	18.00			.6	10		"	"
27	20	"	10.0	6.59	2.66	.74	17.50			.6	10		"	"
28	27	"	10.0	6.44	2.76	.72	17.80			.6	10		"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 83

Discharge measurements of **Rio Hondo Slough**

River
Creek

at **San Gabriel Blvd. Bridge**
~~near~~

during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gate height	Discharge	Rating	Method	Cost	Meas. secs.	G. H. change	Time	Meter No.
			Feet	Sq. ft.	ft. per sec.	Feet	Sec.-ft.	Percent dit.	No.	Total	Hours	271		
	1931													
29	4/3	Brewster	10.0	6.48	2.63	.72	17.06		.6		10		1/3	666
30	10	"	10.0	6.24	2.73	.70	17.05		.6		10		1/4	"
31	17	"	10.0	6.01	2.85	.69	17.13		.6		10		"	"
32	24	"	10.0	7.03	2.31	.72	16.27		.6		10		1/3	"
33	5/1	"	10.0	7.69	2.53	.77	19.47		.6		10		1/4	"
34	8	"	10.0	7.71	2.29	.77	17.63		.6		10		"	"
35	15	"	10.0	7.65	2.13	.74	16.33		.6		10		1/3	"
36	22	"	10.0	7.62	2.30	.73	17.50		.6		10		"	"
37	29	"	10.0	7.73	2.39	.74	18.50		.6		10		"	"
38	6/5	"	10.0	7.23	2.28	.72	16.49		.6		10		"	"
39	12	"	10.0	7.29	2.22	.71	16.17		.6		10		1/4	"
40	19	"	10.0	7.60	2.00	.75	15.18		.6		10		1/3	"
41	26	"	10.0	6.40	2.08	.70	13.30		.6		10		"	"
42	7/3	"	10.0	7.15	1.97	.69	14.08		.6		10		"	"
43	10	"	10.0	7.05	1.93	.67	14.31		.6		10		"	"
44	17	Brewster-Turner	10.0	7.81	1.75	.73	13.69		.6		10		"	"
45	24	Brewster	9.0	5.33	2.50	.60	13.35		.6		9		"	"
46	31	"	10.0	6.95	1.88	.69	15.09		.6		10		"	"
47	8/7	"	10.0	5.38	2.52	.68	13.54		.6		10		"	"
48	14	"	10.0	5.91	2.29	.67	13.54		.6		10		1/4	"
49	21	"	10.0	5.47	2.34	.57	12.81		.6		10		1/3	"
50	28	"	10.0	6.15	2.14	.53	13.19		.6		10		1/4	"
51	9/4	"	10.0	6.56	2.12	.57	13.94		.6		10		1/3	"
51A	11	"	10.0	6.47	1.95	.56	12.63		.6		10		"	"
52	18	Lindsay	12.5	6.75	1.72	.57	11.63		.6		8		1/6	833
53	25	"	12.2	7.32	1.75	.60	12.83		.6		9		1/4	282

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **83**

Rating table for **Rio Hondo Slough at San Gabriel Blvd. Bridge**

, from **Oct. 1st**, 19**30**, to **Jan. 23rd**, 19**31**

Gage height	Discharge	Differ-ence	Gage height	Discharge	Differ-ence	Gage height	Discharge	Differ-ence	Gage height	Discharge	Differ-ence	Gage height	Discharge	Differ-ence
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
.65	13.45	.31	.85	19.65										
.66	13.76		.86	19.96										
.67	14.07		.87	20.27										
.68	14.38		.88	20.58										
.69	14.69		.89	20.89										
.70	15.00		.90	21.20										
.71	15.31		.91	21.51										
.72	15.62		.92	21.82										
.73	15.93		.93	22.13										
.74	16.24		.94	22.44										
.75	16.55		.95	22.75										
.76	16.86													
.77	17.17													
.78	17.48													
.79	17.79													
.80	18.10													
.81	18.41													
.82	18.72													
.83	19.03													
.84	19.34													

The above table is not applicable for obstructed channel conditions. It is based on **19** discharge measurements made during **year 1930 - 1931**

and is **fairly** well defined between **14.21** second-feet and **21.18** second-feet.

Computed by **H V**

Checked by **W T K**

Date

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 83

Rating table for Rio Hondo Slough at San Gabriel Blvd. Bridge

, from Jan. 23rd, 1931, to Sept. 30th, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
.60	13.20		.80	19.60	1.00	26.00								
.61	13.52	.32	.81	19.92	.32	.05	27.60	.32						
.62	13.84		.82	20.24	.10	29.20								
.63	14.15		.83	20.56	.15	30.80								
.64	14.48		.84	20.88	.20	32.40								
.65	14.80		.85	21.20	.25	34.00								
.66	15.12		.86	21.52	.30	35.60								
.67	15.44		.87	21.84	.35	37.20								
.68	15.76		.88	22.16	.40	38.80								
.69	16.08		.89	22.48	.45	40.40								
.70	16.40		.90	22.80	.50	42.00								
.71	16.72		.91	23.12	.55	43.60								
.72	17.04		.92	23.44	.60	45.20								
.73	17.36		.93	23.76	.65	46.80								
.74	17.68		.94	24.08	.70	48.40								
.75	18.00		.95	24.40	.75	50.00								
.76	18.32		.96	24.72										
.77	18.64		.97	25.04										
.78	18.96		.98	25.36										
.79	19.28		.99	25.68										

The above table is not applicable for obstructed channel conditions. It is based on 35 discharge measurements made during year 1930 - 1931

and is fairly well defined between 11.63 second-feet and 22.11 second-feet.

Computed by H V

Checked by V K

Date

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of RIO HONDO SLOUGH

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

At San Gabriel Blvd. Bridge.

for the Year Ending September 30, 19 31

Drainage Area Square Miles. [C. L. BREWSTER Observer.] Gage Read CONTINUOUS Used rating table dated

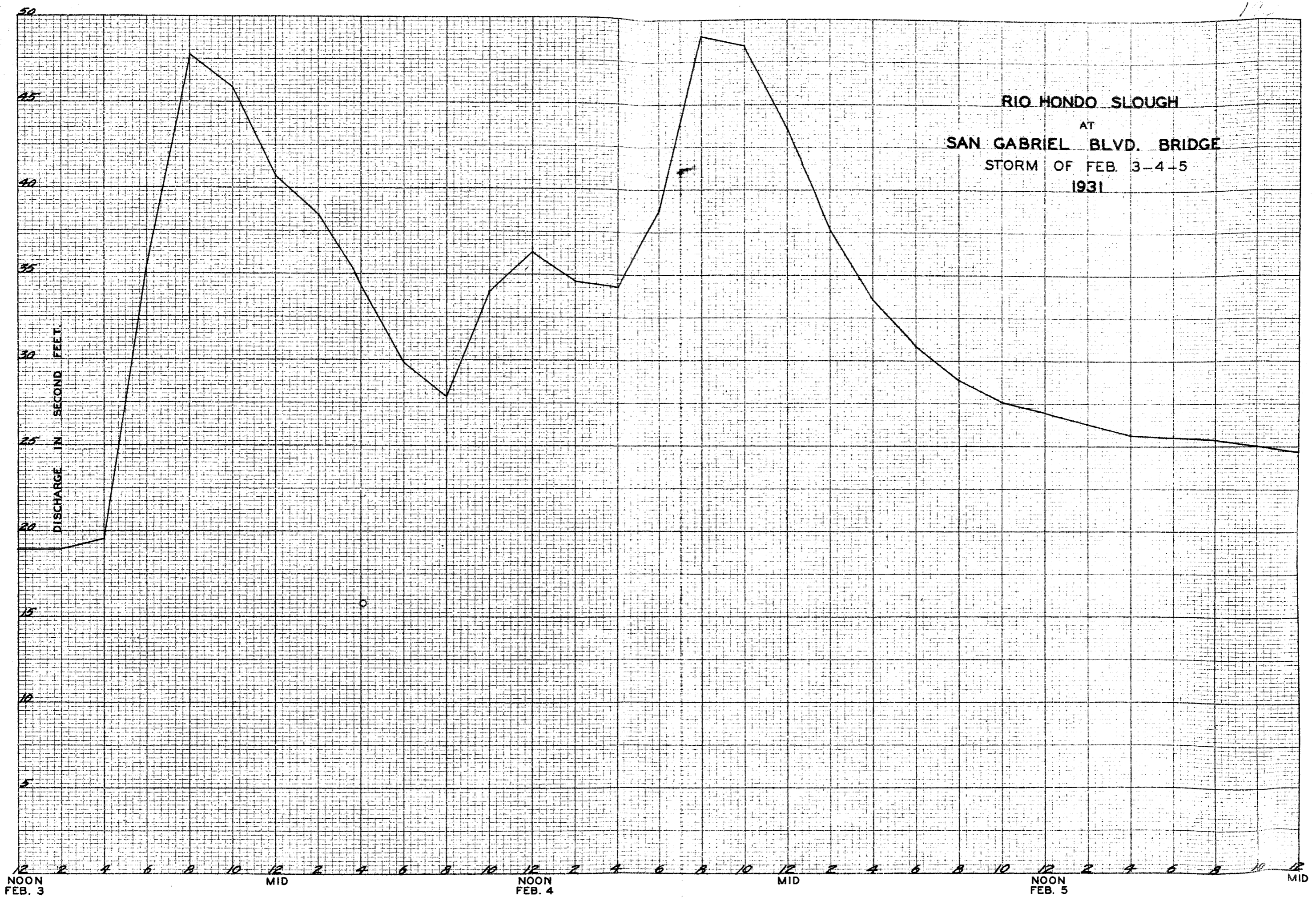
DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	
1	.73	15.93	.72	15.62	.77	17.17	.78	17.48	.78	18.96	.76	18.32	1	.1	16.72	.79	19.28	.73	17.36		13.85		13.15		13.63	1
2	.72	15.62	.72	15.62	.77	17.17	.85	19.65	.78	18.96	.76	18.32	2	.1	16.72	.79	19.28	.72	17.04		13.96		13.21		13.74	2
3	.72	15.62	.72	15.62	.78	17.48	.81	18.41	H	25.95	.76	18.32	3	.1	16.72	.79	19.28	.70	16.40	Meas	14.08		13.27		13.84	3
4	.72	15.62	.72	15.62	.77	17.17	.79	17.79	H	37.35	.74	17.68	4	.1	16.72	.77	18.64	.69	16.08		14.11		13.33	Meas	13.94	4
5	.72	15.62	.72	15.62	.78	17.48	.80	18.10	H	28.97	.74	17.68	5	.1	16.72	.76	18.32	.69	16.08		14.14		13.40		13.75	5
6	.72	15.62	.72	15.62	.76	16.86	.81	18.41	.92	23.44	.74	17.68	6	.2	17.04	.75	18.00		16.09		14.17		13.47		13.56	6
7	.71	15.31	.72	15.62	.77	17.17	.88	20.58	.86	21.52	.74	17.68	7	.1	16.72	.74	17.68		16.10		14.20	Meas	13.54		13.37	7
8	.72	15.62	.72	15.62	.77	17.17	.94	22.44	.84	20.88	.74	17.68	8	.1	16.72	.74	17.68		16.11		14.23		13.54		13.18	8
9	.74	16.24	.73	15.93	.77	17.17	.87	20.27	.82	20.24	.74	17.68	9	.2	17.04	.75	18.00		16.12		14.27		13.54		12.99	9
10	.71	15.31	.73	15.93	.77	17.17	.84	19.34	.82	20.24	.74	17.68	10	.2	17.04	.76	18.32		16.13	Meas	14.31		13.54		12.81	10
11	.68	14.38	.72	15.62	.79	17.79	.83	19.03	.81	19.92	.75	18.00	11	.2	17.04	.75	18.00		16.15		14.22		13.54	Meas	12.63	11
12	.70	15.00	.72	15.62	.78	17.48	.82	18.72	.80	19.60	.75	18.00	12	.2	17.04	.74	17.68	Meas	16.17		14.13		13.54		12.49	12
13	.70	15.00	.73	15.93	.78	17.48	.80	18.10	.80	19.60	.75	18.00	13	.2	17.04	.73	17.36		16.03		14.04		13.54		12.35	13
14	.72	15.62	.73	15.93	.78	17.48	.78	17.48	.80	19.60	.75	18.00	14	.2	17.04	.72	17.04		15.89		13.95	Meas	13.54		12.21	14
15	.73	15.93	.74	16.24	.77	17.17	.77	17.17	.80	19.60	.75	18.00	15	.3	17.36	.70	16.40		15.75		13.86		13.44		12.07	15
16	.75	16.55	.75	16.55	.77	17.17	.76	16.86	.80	19.60	.75	18.00	16	.3	17.36	.70	16.40		15.61		13.77		13.34		11.93	16
17	.76	16.86	.78	17.48	.76	16.86	.77	17.17	.80	19.60	.75	18.00	17	.1	16.72	.70	16.40		15.47	Meas	13.69		13.24		11.78	17
18	.76	16.86	.77	17.17	.76	16.86	.77	17.17	.79	19.28	.75	18.00	18	.9	16.08	.71	16.72		15.33		13.64		13.14	Meas	11.63	18
19	.76	16.86	.76	16.86	.77	17.17	.78	17.48	.80	19.60	.75	18.00	19	.0	16.40	.71	16.72	Meas	15.18		13.59		13.03		11.80	19
20	.77	17.17	.76	16.86	.77	17.17	.78	17.48	.80	19.60	.73	17.36	20	.9	16.08	.71	16.72		14.91		13.54		12.92		11.97	20
21	.78	17.48	.76	16.86	.77	17.17	.79	17.79	.80	19.60	.72	17.04	21	.9	16.08	.72	17.04		14.64		13.49	Meas	12.81		12.14	21
22	.78	17.48	.77	17.17	.77	17.17	.79	17.79	.80	19.60	.72	17.04	22	.8	15.76	.72	17.04		14.37		13.44		12.86		12.31	22
23	.78	17.48	.78	17.48	.76	16.86	.74	17.68	.79	19.28	.72	17.04	23	.9	16.08	.74	17.68		14.10		13.39		12.91		12.48	23
24	.73	15.93	.78	17.48	.76	16.86	.74	17.68	.79	19.28	.73	17.36	24	.9	16.08	.74	17.68		13.83	Meas	13.35		12.96		12.65	24
25	.72	15.62	.76	16.86	.75	16.55	.74	17.68	.79	19.28	.73	17.36	25	.2	17.04	.75	18.00		13.56		13.31		13.01	Meas	12.83	25
26	.70	15.00	.74	16.24	.75	16.55	.74	17.68	.78	18.96	.73	17.36	26	.3	23.76	.77	18.64	Meas	13.30		13.27		13.07		13.01	26
27	.69	14.69	.78	17.48	.75	16.55	.75	18.00	.78	18.96	.73	17.36	27	.2	23.44	.76	18.32		13.41		13.23		13.13		13.19	27
28	.67	14.07	.77	17.17	.75	16.55	.75	18.00	.76	18.32	.73	17.36	28	.2	20.24	.75	18.00		13.52		13.19	Meas	13.19		13.37	28
29	.65	13.45	.76	16.86	.75	16.55	.75	18.00	-	-	.72	17.04	29	.0	19.60	.75	18.00		13.63		13.15		13.30		13.55	29
30	.68	14.38	.76	16.86	.75	16.55	.75	18.00	-	-	.71	16.72	30	.0	19.60	.75	18.00		13.74		13.12		13.41		13.73	30
31	.71	15.31	-	-	.75	16.55	.78	18.96	-	-	.71	16.72	31	.	-	.74	17.68		-	Meas	13.09		13.52		-	31

TOTAL,	487.63	491.54	528.55	566.39	585.79	546.48	524.00	550.00	458.10	425.78	411.43	384.93
Mean Daily Discharge in Second-foot	15.73	16.38	17.05	18.27	20.92	17.63	17.47	17.74	15.27	13.73	13.27	12.83
Second-foot per square mile												
Run-off, depth in inches -												
Run-off in acre-feet -	966.97	974.72	1048.11	1123.15	1161.62	1083.67	1039.09	1090.65	908.41	844.32	815.87	763.32
Minimum Mean Daily Discharge in Second-foot	17.48	17.48	17.79	22.44	37.35	18.32	23.76	19.28	17.36	14.31	13.54	13.94
Minimum Mean Daily Discharge in Second-foot	13.45	15.62	16.55	16.86	18.32	16.72	15.76	16.40	13.30	13.09	12.81	11.63

Maximum stage 1.72 feet at 6:00 P.M. on 2-4-31
 Minimum stage - feet at 9:00 A.M. on Sept. 18
 Discharge 49.04 second-foot
 Discharge 11.63 second-foot
 Correction curve used on Gage Hts.
 Disch. interpolated from June 5 as flow fairly constant. recorder
 record is uncertain due to boys building dam across channel

Period Year
 G. H. copied
 G. H. checked
 Disch. applied
 Disch. checked
 Computed
 Checked
 Date
 H.V.
 V.K.
 H.V.
 V.K.
 H.V.
 V.K.

KEUFFEL & ESSER CO., N. Y. NO. 359-21 L
12 X 20 to the inch.



RIO HONDO SLOUGH
AT
SAN GABRIEL BLVD. BRIDGE
STORM OF FEB. 3-4-5
1931

13

F-107 R

RUBIO WASH AT LOS TUNAS BOULEVARD BRIDGE

Location

On East Wing wall of bridge across Rubio Wash at Los Tunas Bridge.

Drainage Area

13.18 square miles.

Installed by

The Los Angeles County Flood Control District in September, 1930. This station was moved from Broadway Street Bridge where it was previously located.

Records Available

October 1, 1930 to September 30, 1931 at offices of Los Angeles County Flood Control District, Los Angeles, California. Records back to November, 1928 taken at Broadway Street. Records available at the Los Angeles County Flood Control Office.

Gage

Stevens Type L, 8 day water stage recorder in wood shelter house on top of corrugated iron pipe stilling well located on east wing wall, upstream side of bridge. Staff gage on upstream side of stilling well.

Discharge Measurements

Low water measurements made by wading. High water measurements taken from foot of bridge 300' above Los Tunas Bridge.

Channel

Channel gravel

Control

Concrete dam 4' below stilling well

Extremes of Discharge

Maximum 1690. c.f.s. on February 3, 1931
Minimum-Dry most of year

Diversions

None

Accuracy

Very good

Co-operation

Located, installed and operated by the Los Angeles County Flood Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 107

Discharge measurements of **Rubio Wash**

~~Rubio~~
~~Creek~~

at ~~near~~ **Las Tunas Blvd.--Supersedes #82** , during the year ending September 30, 1931

N	Date	Made by	Width		Mean velocity	Stage height		Discharge	Rating	Method	Cost	Meas. No.	G. H. change	Time	Meter No.	
			Feet	So. ft.		Feet	Secs.									
	1930				ft. per sec.	Feet	Secs.									282
1	11/13	Lindsay	13.0	3.35	5.67	.36	19.0			.6		5		1/12	883	
1A	16	Lindsay-Burke	45.3	25.90	1.59	.46	41.1			.6		12	.091	1/10	"	
2	1/1	Lindsay	45.5	69.14	3.15	1.30	218.6			.6		10	.045	5/12	"	
3	1	"	45.5	52.50	2.16	.86	113.4			.6		10	.201	1/4	"	
4	2	"	45.5	46.68	1.92	.78	89.9			.6		12		"	"	
5	5	Lindsay-Luce	26.0	18.24	12.1	1.42	221.2			.6		5	.101	1/6	"	
6	7	" Laird	46.5	66.67	3.03	1.13	204.4			.6		10	.101	1/4	"	
7	7	Lindsay	26.0	21.40	14.3	1.49	306.4			.6		6	.02	1/6	"	
7A	31	"	45.5	39.60	1.08	.47	43.3			.6		10	.06	1/4	"	
8	2/3	Lindsay-Laird	26.0	62.34	23.1	3.85	1449.			.6		4	.40	1/12	"	
9	3	" "	26.0	13.37	11.8	.99	156.3			.6		5	.27	1/5	"	
10	3	" "	26.0	25.34	14.9	1.56	382.3			.6		4		2/15	"	
11	4	Burke-Oppenheim	18.0	8.26	13.1	.68	108.2			.6		9		1/6	637	271
12	4	Lindsay-Laird	26.0	23.66	14.9	1.55	351.8			.6		4		2/15	883	282
13	24	" -Irwin	17.0	8.60	11.6	.78	99.5			.6		4		1/12	"	
14	26	Lindsay	26.0	34.30	16.2	2.15	576.2			.6		6		1/6	"	

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 107

Rating table for Rubio Wash. at Las Tunas Blvd

, from Oct. 1st, 1930, to Sept. 30th, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
0	0		1.00	152.0		3.00	1004							
.05	2.00	.40	.10	180.0	2.80	.10	1056	5.20						
.10	4.00		.20	208.0		.20	1108							
.15	6.00		.30	240.0	3.20	.30	1160							
.20	8.00		.40	272.0		.40	1213	5.30						
.25	12.00	.80	.50	306.0	3.40	.50	1266							
.30	16.00		.60	340.0		.60	1319							
.35	21.50	1.10	.70	380.0	4.00	.70	1372							
.40	27.00		.80	420.0		.80	1425							
.45	35.00	1.60	.90	463.0	4.30	.90	1478							
.50	43.00		1.00	506.0		1.00	1531							
.55	52.00	1.80	.10	552.	4.60	.10	1584							
.60	61.00		.20	598.		.20	1637							
.65	71.50	2.10	.30	647.	4.90	.30	1690							
.70	82.00		.40	696.		.40	1743							
.75	93.00	2.20	.50	747.	5.10	.50	1795							
.80	104.0		.60	798		.60	1849							
.85	116.0	2.40	.70	849.		.70	1902							
.90	128.0		.80	900.		.80	1955							
.95	140.0	2.40	.90	952.	5.20	.90	2008							

The above table is not applicable for obstructed channel conditions. It is based on 14 discharge measurements made during year 1930 - 1931

and is well defined between 19.0 second-feet and 1449.0 second-feet.

Computed by W T X

Checked by H V

Date

Daily Gage Height, in Feet, and Discharge, in Second-Feet, of

RUBIO WASH

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 107

At ~~XXX~~ Las Tunas Blvd. Bridge

for the Year Ending September 30, 19 31

Drainage Area 13.18 Square Miles.

[R. LINDSAY Observer.]

Gage Read CONTINUOUS

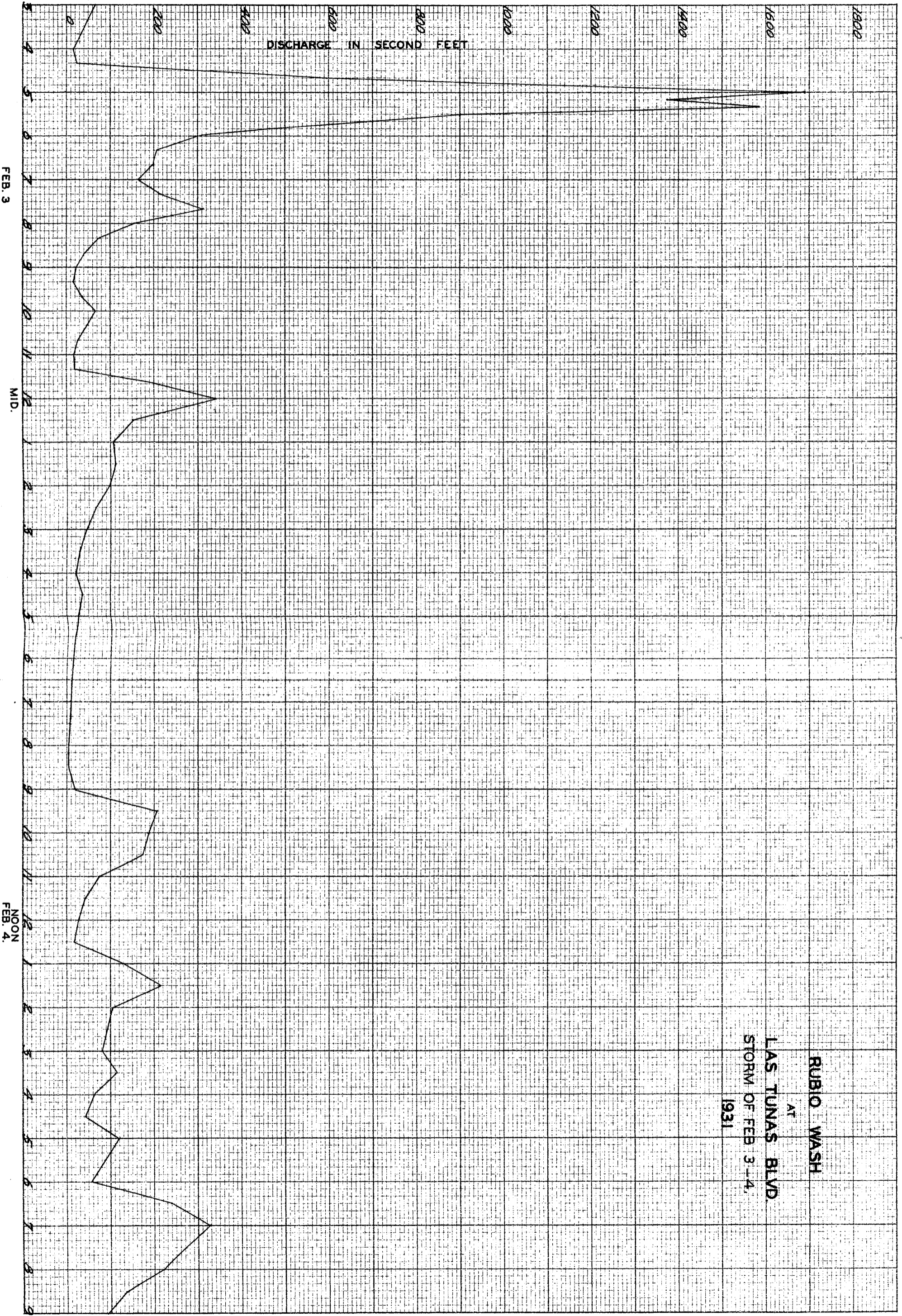
Used rating table dated

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	
1		Dry		Dry		Dry	H	22.06		Dry		Dry	1		Dry		Dry		Dry						Dry	1
2							H	14.79		Dry			2													2
3								Dry	H	94.30			3													3
4								Dry	H	89.15			4													4
5							H	19.06	.07	2.80			5													5
6								Dry		Dry			6													6
7							H	29.71	H	39.75			7													7
8							.25	12.00		Dry			8													8
9								Dry		"			9													9
10				Dry						Dry			10													10
11				Dry					.06	2.40			11													11
12				Dry						Dry			12													12
13			.07	2.80					.02	.80			13													13
14				Dry					.03	1.20			14													14
15				Dry						Dry			15													15
16			.08	3.20									16													16
17			H	38.14									17													17
18				Dry									18													18
19													19													19
20													20													20
21													21													21
22													22			Dry										22
23													23	.20	8.00		Dry									23
24													24	H	15.95	.05	2.00							Dry		24
25				Dry									25	I	.73	.12	4.80						H	1.13		25
26			.02	.80									26	I	106.86		Dry				Dry				Dry	26
27			.17	6.80									27	.20	.80					H	.18					27
28			.08	3.20						Dry			28		dry				H	1.40						28
29				Dry									29		"					Dry						29
30				Dry				Dry					30		Dry					Dry					Dry	30
31		Dry				Dry	H	37.29				Dry	31				Dry									31
TOTAL		0	54.94		0	134.91		230.40		0		132.34		6.80		0		1.58		0		1.13				
Mean Daily Discharge in Second-foot			1.83			4.35		8.23		0		4.41		.21		0		.05		0		.04				
Second-foot per square mile			.14		0	.33		.65		0		.34		.01		0		.004		0		.003				
Run-off, depth in inches																										
Run-off in acre-feet		0	108.95		0	267.53		456.88		0		262.43		13.48		0		3.13		0		2.24		1,114.64		
Maximum Mean Daily Discharge in Second-foot			38.14			29.71		94.30				106.86		4.8				1.40				1.13				
Minimum Mean Daily Discharge in Second-foot			0			0		0				0		0				0				0				

Maximum stage 4.30 feet at 5:00 P.M. on 2-3-31
Minimum stage _____ feet at _____ on _____
Discharge 1690.00 second-feet
Discharge _____ second-feet

I = Interpolated from Pasadena's Station, Clocks stopped
Dry various times

Quarter First Second Third Fourth
H.V. V.K.
Computed _____
Checked _____
Date _____
H.V. V.K.
Disch. applied _____
Disch. checked _____
Date _____
H.V. V.K.
G. H. copied _____
G. H. checked _____
Date _____
PERIOD YEAR



RUBIO WASH
AT
LAS TUNAS BLVD.
STORM OF FEB. 3-4,
1931

FEB. 3

MID.

NOON
FEB. 4.

F-151 R

SAN ANTONIO CREEK AT MOUTH OF CANYON.

Location

200' upstream from headgates of Pomona Valley Protective Association spreading canal 4 miles northeast of Claremont, Los Angeles County, Cal.

Installed by

Los Angeles County Flood Control District,
February 20, 1931.

Records Available

February 20, 1931 to September 30, 1931 at offices of the Los Angeles County Flood Control District, Los Angeles, California.

Gage

Rational 7 day water stage recorder installed in shelter house, mounted on iron pipe stilling well on west bank of creek. Outside vertical staff gage installed on stilling well.

Discharge Measurements

High water measurements made from cable car 10' above recorder.

Low water measurements made by wading in creek near gage.

Channel and Control

Channel-gravel and boulders

Control-concrete control in channel below gage.

Extremes of Discharge

Maximum-98 c.f.s. on April 26, 1931

Minimum-Dry at various times during year

Diversions

Two diversions above station

Regulation

None

Accuracy

Good normally

Co-operation

Located, constructed and operated by Los Angeles County Flood Control District in Co-operation with the U.S.G.S. Water Resources Branch and the Pomona Valley Protective Association.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 151

Discharge measurements of

SAN ANTONIO CREEK AT MOUTH OF CANYON

River
Creek

at
near

, during the year ending September 30, 19 31

No.	Date	Made by	Width		Mean velocity ft. per sec.	Stage Feet	Distance		Method	Coef.	Meas. sec.	G. H. feet	Time hours	Meter No.
			Left	Right			Left	Right						
	1931													
1	4/26	J. L. Irwin	18.	11.20	2.67	0.76	29.87			.6	10		1/5	F.C. 24
2	4/27	J. L. Irwin	8.5	8.02		0.48	13.74			.6	9		1/4	F.C. 24
3	4/27	J. L. Irwin	17.	10.83		0.64	23.52			.6	9		1/4	F.C. 24
4	4/28	J. L. Irwin	4.5	1.22		0.25	.816			.6	5		1/6	F.C. 24

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 151

Rating table for SAN ANTONIO CREEK AT MOUTH OF CANYON

, from April 26, 1931, to April 29, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
5.35	0.0	.06	5.78	10.5		6.18	35.4		6.58	70.0				
.40	.30	.10	.80	11.5		.20	36.8		.60	72.0				
.42	.50	.15	.82	12.5		.22	38.4		.62	73.8				
.44	.70	.15	.84	13.5		.24	40.0		.64	75.0				
.46	1.00	.15	.86	14.5		.26	41.5		.66	76.8				
.48	.30	.20	.88	15.5		.28	43.2		.68	79.3				
.50	.70	.20	.90	16.5		.30	44.3		.70	80.5				
.52	2.10	.20	.92	17.8		.32	46.4		.72	82.5				
.54	.50	.25	.94	19.0		.34	48.0		.74	84.3				
.56	3.00	.25	.96	20.2		.36	49.8		.76	86.0				
.58	3.50	.25	.98	21.4		.38	51.5		.78	88.0				
.60	4.00	.30	6.00	22.7		.40	53.3		.80	90.0				
.64	4.60	.30	.02	24.0		.42	55.2							
.66	5.20	.30	.04	25.3		.44	57.0							
.68	5.80	.35	.06	26.7		.46	58.3							
.70	6.50	.35	.08	28.0		.48	60.3							
.72	7.20	.40	.10	29.5		.50	62.3							
.74	8.00	.40	.12	30.9		.52	64.3							
.76	8.80	.45	.14	32.5		.54	66.3							
	9.70		.16	34.0		.56	68.3							

The above table is not applicable for obstructed channel conditions. It is based on 5 discharge measurements made during April 26, 1931 to April 29, 1931

and is well defined between 0.0 second-feet and 65.0 second-feet.

Computed by J.L. Irwin

Checked by

Date 5-22-31

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of

SAN ANTONIO CREEK

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

At MOUTH OF CANYON

for the Year Ending September 30, 19 31

4.-26-31 to

Used rating table dated 4.-29-31

Area 27.88 Square Miles.

J. L. IRWIN

Observer.]

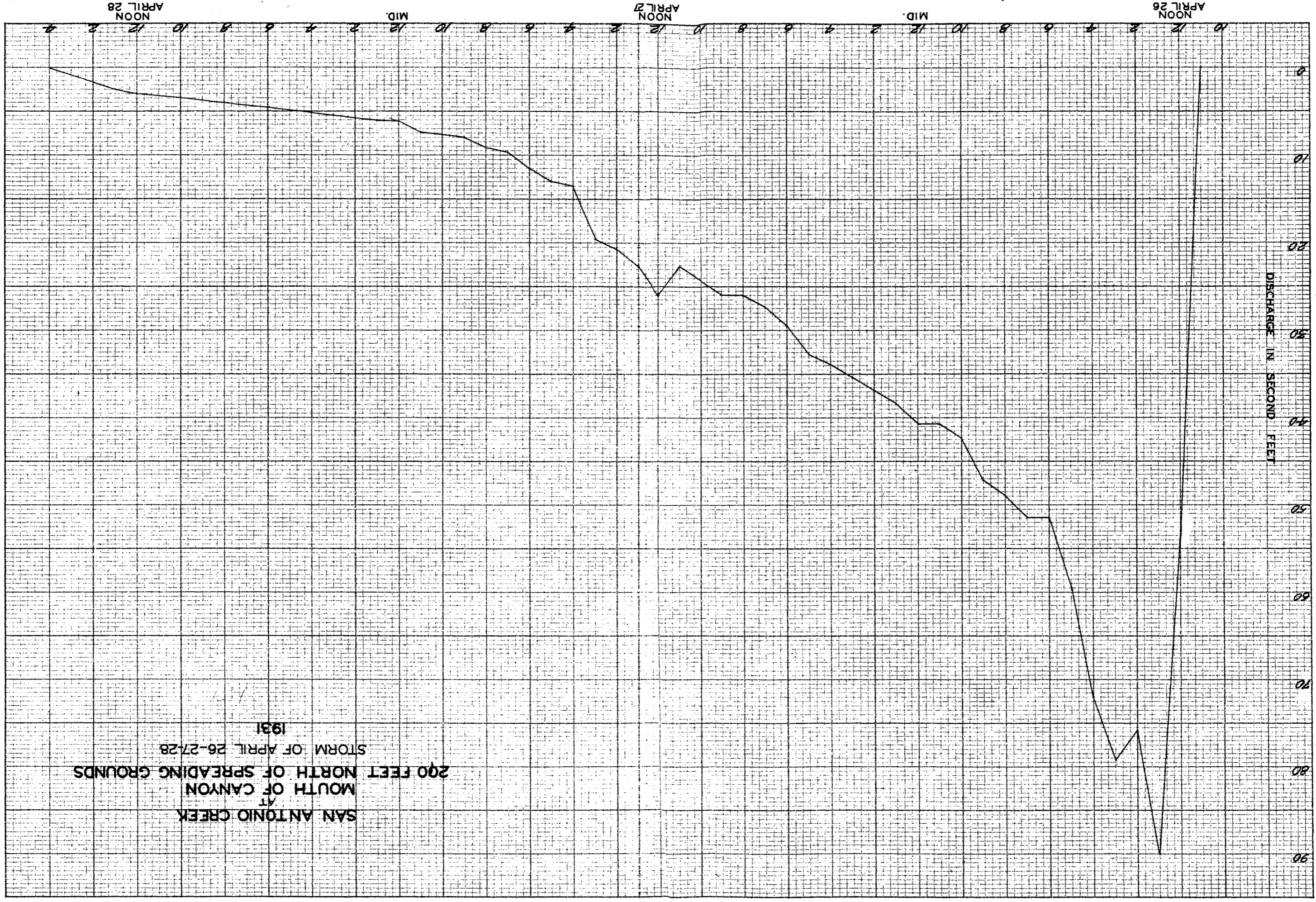
Gage Read CONTINUOUS

Maximum stage 6.24 feet at 12 Noon on 4.-26-31 Discharge 98.0 second-foot
Minimum stage DRY feet at Most on of Year Discharge second-foot

Table with columns for months (OCTOBER to SEPTEMBER) and days (1 to 31). Rows contain gage height and discharge data. Includes notes like 'Station established and Recorder Installed 2-20-31' and 'Estimate Mean Daily Discharge due to Debris Blocking Channel'.

Vertical text on the right side of the table, including 'IRWIN' and 'Computed Checked Date'.

Summary table at the bottom with rows for 'TOTAL', 'Mean Daily Discharge in Second-foot', 'Second-foot per square mile', 'Run-off, depth in inches', 'Run-off in acre-feet', 'Maximum Mean Daily Discharge in Second-foot', 'Minimum Mean Daily Discharge in Second-foot', and 'PERIOD YEAR'.



SAN ANTONIO CREEK
AT
MOUTH OF CANYON
200 FEET NORTH OF SPREADING GROUNDS
STORM OF APRIL 26-27, 28
1931

F-28 R

SAN GABRIEL RIVER AT EDISON INTAKE

Location

In SE 1/4 Sec. 31 T. 2 N. R. 9 W.
About 500' above submerged diversion dam and intake
of Southern California Edison's conduit, about 10
miles North of Azusa, Los Angeles County, California.
At same location as U.S.G.S. gage washed out by
flood of February 1914.

Drainage area

201.97 square miles. Elevation is about 1200'
above sea level.

Installed by

U.S.G.S. Water resources Branch in 1912.

Re-established

November 6, 1927 by Los Angeles County Flood
Control District.

Records Available

For 1912-14 see page 374, U.S.G.S. Water Supply
Paper #447. For Oct. 1, 1927 to Sept. 30, 1931
at Los Angeles County Flood Control District
offices, Los Angeles, California.

Gage

Vertical staff gage on wall of concrete stilling
well, on west bank of stream. Au continuous water
stage recorder installed in house on concrete stilling
well on west bank of stream.

Discharge Measurements

High water measurements made from cable car 500'
above gage or at cable near gage. Low water
measurements are made by wading at section 500' above
gage.

Channel and Control

Channel- gravel and boulders.
Control-changed during season 1929-30. High water
flow controlled by submerged diversion dam 500'
below gage.

Extremes of Discharge

1927-1928

Maximum-1832 c.f.s. February 4, 1928

Minimum-2.7 c.f.s. September 5, 1928

1928-1929

Maximum-990 c.f.s. March 10, 1929

Minimum-3.5 c.f.s. August 13, 1929

1929-1930

Maximum-799 c.f.s. May 3, 1930

Minimum-8.65 c.f.s. October 14, 1929

Extremes of Discharges(Cont'd)

1930-1931

Maximum-2905 c.f.s. April 26, 1931

Minimum-10.10 c.f.s. August 21, 1931.

Diversions

None above gage

Regulations

None

Accuracy

Good

Co-operation

Located, constructed and operated by Los Angeles
County Flood Control District in co-operation with
U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

Page 28

Discharge measurements of **San Gabriel**

River

Edison Intake

during the year ending September 30, 1931

Date	Gage	Stage	Temp	Wind	Flow		Direction	Remarks
					Cfs	Mgd		
1930								
1 10/4	Patterson	49.0	28.4	.66	4.45	16.70	.6	12 11/3 ⁵⁵⁶
2 11	"	49.0	30.8	.75	4.56	25.20	.6	12 1/3 "
3 17	"	49.0	28.9	.71	4.48	20.60	.6	12 1/3 "
4 25	"	49.0	28.9	.69	4.48	20.00	.6	12 1/3 "
5 31	"	49.0	27.6	.66	4.48	18.10	.6	12 1/3 "
6 11/8	"	49.0	27.2	.66	4.48	18.00	.6	12 1/3 "
7 14	"	49.0	30.4	.78	4.61	23.60	.6	12 1/3 "
8 22	"	50.0	28.7	.80	4.51	23.10	.6	12 1/3 ²⁷¹
9 28	Patterson-Delaney	52.0	42.5	1.36	4.84	57.70	.6	13 1/3 ²⁸²
10 29	Delaney	52.5	41.3	1.19	4.77	49.20	.6	14 2/3 ²⁸²
11 12/1	"	51.0	35.9	1.02	4.74	36.60	.6	11 1/2 ²⁸²
12 6	Patterson-Delaney	49.5	30.8	.96	4.69	29.70	.6	13 1/3 ²⁸²
13 10	Delaney	50.5	33.9	.93	4.68	28.70	.6	11 1/2 ²⁸²
14 12	"	50.5	31.8	.95	4.68	30.24	.6	11 2/5 ²⁸²
15 16	"	50.5	29.6	.89	4.68	26.52	.6	11 1/2 ²⁸²
16 20	Patterson	50.0	31.6	.81	4.68	25.70	.6	12 1/3 ²⁷¹
17 26	Delaney	50.0	31.0	.90	4.68	27.98	.6	11 2/5 ²⁸²
18 29	"	50.0	31.3	.89	4.68	27.91	.6	11 1/2 "
19 1/3	"	51.0	37.9	1.04	4.76	37.46	.6	11 2/5 "
20 5	"	50.5	32.6	.94	4.70	30.77	.6	11 2/5 "
21 7	"	50.5	35.0	1.02	4.74	35.68	.6	11 1/2 ²⁸²
22 10	Patterson-Delaney	51.5	38.2	1.25	4.82	47.69	.6	13 1/4 ²⁸²
23 16	Delaney	50.5	34.4	1.05	4.73	36.19	.6	11 2/5 ²⁸²
24 23	"	50.5	32.9	.96	4.70	31.98	.6	11 1/3 ²⁸²
25 31	Patterson	52.5	41.5	1.37	4.87	56.80	.6	13 .01 1/3 ²⁸²
26 2/3	"	53.5	43.7	1.44	4.91	62.90	.6	13 .02 1/3 "
27 4	Patterson-Delaney	55.5	64.1	2.45	5.10	157.00	.6	14 .01 1/3 "
28 4	Patterson	76.0	121.1	3.30	5.23	399.20	.6	15 1/2 "

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 28

Discharge measurements of

San Gabriel

River
Creek

at
near Edison Intake.

during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Coef.	Meas. sec.	G. H. change	Time	Meter No.
			Feet	Sq. ft.	ft. per sec.	Feet	Sec. ft.				Percent dit.	No.	Total	
	1931													282
29	2/4	Patterson	82.0	134.2	3.86	5.37	518.1		.6		16	.02	1/2	897
30	4	"	91.0	145.7	4.33	5.46	631.1		.6		10	.04	"	"
31	4	Patterson-McKee	95.0	171.5	4.98	5.65	854.0		.6		10		5/12	"
32	4	Patterson	98.0	192.0	5.32	5.74	1021.		.6		10	.04	1/2	"
33	4	"	105.2	210.8	5.48	5.81	1155.		.6		12	.02	"	"
34	4	Patterson-McKee	110.2	229.8	5.76	5.90	1324.		.6		12	.017	1/12	"
35	4	" "	110.2	221.0	5.65	5.90	1249.		.6		11		5/12	"
36	5	Patterson	105.2	200.3	5.39	5.72	1079.		.6		12	.05	1/2	"
37	5	"	95.1	153.5	4.73	5.33	725.		.6		10	.04	"	"
38	5	"	87.1	139.8	4.19	5.20	585.2		.6		9		"	"
39	5	"	80.0	137.0	3.59	5.04	491.4		.6		15	.02	"	"
40	5	"	78.0	135.8	3.27	5.02	444.7		.6		15	.032	1/3	"
41	5	"	77.0	128.6	3.38	4.95	434.7		.6		15		"	"
42	6	"	56.0	73.6	2.77	5.00	203.9		.6		12		1/2	"
43	7	"	54.5	63.0	2.37	4.83	149.2		.6		12		5/12	"
44	8	"	56.0	68.6	2.53	4.91	173.7		.6		12		1/3	"
45	9	"	55.0	64.1	2.39	4.82	153.0		.6		13		1/2	"
46	9	Delaney	56.0	65.7	2.45	4.80	161.5		.6		11		"	271 636
47	10	Patterson-Delaney	54.0	57.0	2.05	4.71	116.8		.6		12		1/3	897 271
48	11	Delaney	53.0	53.5	2.17	4.67	116.1		.6		11		1/2	636
49	12	"	53.0	54.9	2.25	4.70	123.2		.6		11		1/3	"
50	14	Patterson	54.0	58.7	2.14	4.74	125.4		.6		12		5/12	897 271
51	17	Delaney	53.0	52.7	1.95	4.66	103.0		.6		12		2/5	636 282
52	18	Patterson	53.0	51.2	1.86	4.62	95.3		.6		13		1/2	897 271
53	20	Delaney	52.5	48.7	1.72	4.58	83.8		.6		12		1/3	636 282
54	25	"	49.0	43.8	1.21	4.48	53.2		.6		11		"	897
55	28	Patterson	52.0	43.7	1.41	4.45	61.7		.6		11		"	"
56	3/2	Delaney	52.0	42.0	1.16	4.38	48.8		.6		12		"	271 636

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 28

Discharge measurements of San Gabriel

River
Creek

at Edison Intake
near

during the year ending September 30, 1931

No.	Date	Made by	Width Feet	Area of section Sq.-ft.	Mean velocity Ft. per sec.	Gage height Feet	Discharge Sec.-ft.	rating Percent diff.	Method	Coef.	Meas. secs. No.	G. Ht. change Total	Time Hours	Meter No.
	1931													
57	3/6	Delaney	51.0	39.9	1.15	4.38	45.80		.6		12		1/3	271 636
58	13	Patterson-Delaney	49.5	38.0	1.11	4.34	42.00		.6		11		1/4	"
59	20	Delaney	49.0	34.4	.97	4.26	33.50		.6		11		"	"
60	27	"	49.5	35.9	1.01	4.28	36.20		.6		11		"	"
61	4/4	"	49.0	33.4	.95	4.21	31.80		.6		11		1/3	"
62	10	Patterson	48.0	30.6	.99	4.16	30.30		.6		12		"	282 897
62A	24	Delaney	55.0	67.8	2.09	4.94	142.1		.6		12		"	271 636
62B	25	Patterson-Delaney	54.5	59.9	2.15	4.81	129.5		.6		12	.01	"	282
63	26	" Kalt	92.0	218.	6.00	6.13	1305.		.6		11	.07	1/2	897
64	26	" "	107.	267.	6.30	6.32	1681.		.6		11	.23	"	"
65	26	" "	115.	324.	7.25	6.68	2343.		.6		11	.04	"	"
66	26	" "	115.	344.	7.68	6.75	2641.		.6		11	.06	"	"
67	26	" "	115.	337.	7.57	6.82	2548.		.6		11	.03	"	"
68	26	" "	115.	374.	7.62	6.82	2847.		.6		12	.04	"	"
69	26	" "	108.	319.	6.50	6.42	2075.		.6		11	.06	"	"
70	26	" "	100.	274.	6.06	6.17	1660.		.6		11	.03	"	"
71	26	" "	100.	261.	6.30	6.12	1641.		.6		10	.02	"	"
72	27	" Garrett	90.0	180.	4.57	5.51	822.		.6		10	.02	"	"
73	27	" "	80.0	171.	4.61	5.48	789.		.6		8	.01	"	"
74	27	" "	85.0	175.	4.37	5.30	764.		.6		17	.02	"	"
75	27	" "	85.0	177.	4.14	5.27	732.		.6		17	.01	"	"
75A	27	Patterson	85.0	163.	3.96	5.17	648.		.6		17	.02	3/4	"
75B	27	"	85.0	159.	3.88	5.15	617.		.6		12	.01	2/3	"
76	28	"	77.0	137.	3.52	4.89	483.		.6		15	.01	"	"
76A	28	"	77.0	144.	3.23	4.87	464.7		.6		16	.01	"	"
77	28	"	72.0	131.	3.11	4.80	407.0		.6		10	.01	1/2	"
78	28	"	72.0	131.	3.06	4.79	401.0		.6		11	.01	"	"
79	28	"	72.0	129.	2.79	4.76	360.2		.6		15	.01	2/3	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 28

Discharge measurements of **San Gabriel**

River
~~at~~

at **Edison Intake**

during the year ending September 30, 1931

No.	Date	Station	Width Feet	Avg. Depth Feet	Mean Velocity Feet/Sec.	Discharge Cfs	Discharge Acres-Feet	Rating	Velocity Coef.	Stage Feet	G. H. Coef.	Time Hours	Water No.
	1931												282
80	4/29	Patterson	54.0	85.2	3.18	4.64	271.2		.6	12		1/2	897
81	29	"	54.0	84.6	3.08	4.63	261.3		.6	12		1/2	"
82	30	Delaney	53.0	77.2	1.82	4.49	218.0		.6	12		1/3	"
83	5/1	Patterson-Delaney	52.5	73.9	2.64	4.42	195.0		.6	12		"	"
84	4	Delaney	47.5	64.7	2.20	4.34	142.6		.6	13		"	"
85	6	Patterson	47.0	60.7	1.91	4.25	115.8		.6	14		1/2	"
85A	9	"	47.0	55.2	1.83	4.15	101.2		.6	13		"	"
86	11	Delaney	47.0	51.7	1.76	4.06	91.0		.6	10		1/4	"
87	16	Patterson	46.5	50.4	1.54	4.00	77.7		.6	11		1/3	"
88	23	"	46.0	45.9	1.21	3.88	53.2		.6	12		1/2	"
89	29	"	47.0	45.6	1.31	3.86	59.7		.6	12		"	"
90	6/6	"	46.0	44.8	1.27	3.65	56.9		.6	12		"	"
91	13	Patterson-Case	46.5	43.2	1.10	3.71	47.5		.6	11		1/3	"
92	20	Patterson	49.0	41.4	.97	3.48	40.0		.6	12		1/2	"
93	25	"	48.0	36.4	.78	3.61	28.4		.6	13		"	"
94	27	"	48.0	37.1	.83	3.61	30.8		.6	12		"	"
95	7/3	"	48.5	33.3	.62	3.35	20.5		.6	11		"	"
96	11	"	48.0	33.0	.63	3.36	20.7		.6	11		"	"
97	18	"	28.0	29.7	.65	3.35	19.4		.6	11		"	"
98	25	"	22.0	12.3	1.48	3.35	18.2		.6	8		1/3	"
99	8/1	" Lane	21.0	11.5	1.47	3.34	16.9		.6	8		1/4	"
100	8	" "	18.0	10.2	1.04	3.28	11.6		.6	10		"	"
101	15	"	26.0	26.8	.69	3.36	18.4		.6	11		5/12	"
102	21	" "	47.5	26.0	.36	3.22	10.1		.6	12		1/3	"
103	28	"	20.0	13.3	.92	3.22	12.2		.6	8		1/4	"
104	9/5	"	21.0	15.2	.97	3.30	14.8		.6	8		1/3	"
105	12	"	17.5	10.8	1.33	3.27	14.4		.6	10		"	"
106	26	"	47.5	31.4	.53	3.33	16.6		.6	12		"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 28

Rating table for San Gabriel River Edison Intake

10:10 P.M.
, from Oct. 1st, 1930, to Feb. 4th, 1931

Gage height	Discharge	Differ-ence	Gage height	Discharge	Differ-ence	Gage height	Discharge	Differ-ence	Gage height	Discharge	Differ-ence	Gage height	Discharge	Differ-ence
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
4.40	16.8	.4	80	48.0	1.50	50	685	13.0						
.42	17.6	.4	82	51.0	1.50	55	750	13.0						
.44	18.4	.4	84	54.	2.0	60	815	14.0						
.46	19.2	.4	86	58	2.0	65	885	15.0						
.48	20.0	.4	88	62	2.5	70	960	17.0						
.50	20.8	.4	90	67	2.5	75	1045	18.0						
.52	21.6	.4	92	72	4.5	80	1135	19.0						
.54	22.4	.4	94	81	4.5	85	1230	19.0						
.56	23.2	.4	96	90	5.0	90	1325	19.0						
.58	24.0	.5	98	100	5.0	95	1420	19.0						
.60	25.0	.7	5.00	110	7.0	6.00	1515	19.0						
.62	26.4	.8	05	145	11.0	6.05	1610	19.0						
.64	28.0	1.0	10	200	11.0	6.10	1705							
.66	30.0	1.0	15	255	12.0									
.68	32.0	1.25	20	315	12.0									
.70	34.5	1.25	25	375	12.0									
.72	37.0	1.25	30	435	12.0									
.74	39.5	1.25	35	495	12.0									
.76	42.0	1.50	40	555	13.0									
.78	45.0	1.50	45	620	13.0									

The above table is not applicable for obstructed channel conditions. It is based on 34 discharge measurements made during 10/ 1 to 2/4, 1931

and is Fairly well defined between 18.0 second-feet and 1324. second-feet.

Computed by WK
Checked by H V
Date

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 28

River at

Rating table for San Gabriel/Edison Intake

10:10 A.M.

11 A.M.

, from Feb. 4, 1931, to Feb. 6th, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
4.80	345		80	1150										
.85	372	5.4	85	1200	10.0									
.90	402	6.0	90	1250	10.0									
.95	432	6.0	95	1300	10.0									
5.00	465	6.6	6.00	1350	10.0									
.05	500	7.0												
.10	535	7.0												
.15	575	8.0												
.20	615	8.0												
.25	655	8.0												
.30	695	8.0												
.35	735	8.0												
.40	780	9.0												
.45	825	9.0												
.50	870	9.0												
.55	915	9.0												
.60	960	9.0												
.65	1005	9.0												
.70	1050	9.0												
.75	1100	10.0												
		10.0												

The above table is not applicable for obstructed channel conditions. It is based on 7 discharge measurements made during period 2/4 to 2/6, 1931

and is fairly well defined between 434.7 second-feet and 1249 second-feet.

Computed by W K

Checked by H V

Date

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 28

Rating table for River at San Gabriel/ Edison Intake

, from Feb. 6 11 A.M., 19 31, to April 26 10:30 A.M., 19 31

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference		
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.		
4.00	25.5	.3	5.00	204	3.8											
.05	27.0	.3	05	223	5.4											
.10	28.5	.3	10	250	6.0											
.15	30.0	.3	15	280	8.0											
.20	31.5	.7	20	320												
.25	35.0	1.0	---Same as Table #1.													
.30	40.0	1.2														
.35	46.0	1.2														
.40	52.0	1.8														
.45	61.0	1.8														
.50	70.0	2.0														
.55	80.0	2.2														
.60	91.0	2.2														
.65	102.0	2.8														
.70	116.0	2.8														
.75	130.0	2.8														
.80	144.0	2.8														
.85	158.0	2.8														
.90	172	3.2														
.95	188	3.2														

The above table is not applicable for obstructed channel conditions. It is based on 23 discharge measurements made during period 2/6 to 4/26, 1931

and is fairly well defined between 30.3 second-feet and 203.9 second-feet.

Computed by W. K.

Checked by H. V.

Date

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 28

Rating table for San Gabriel River Edison Intake
10:30 A.M.
from April 26, 1930, Sept. 30, 1931

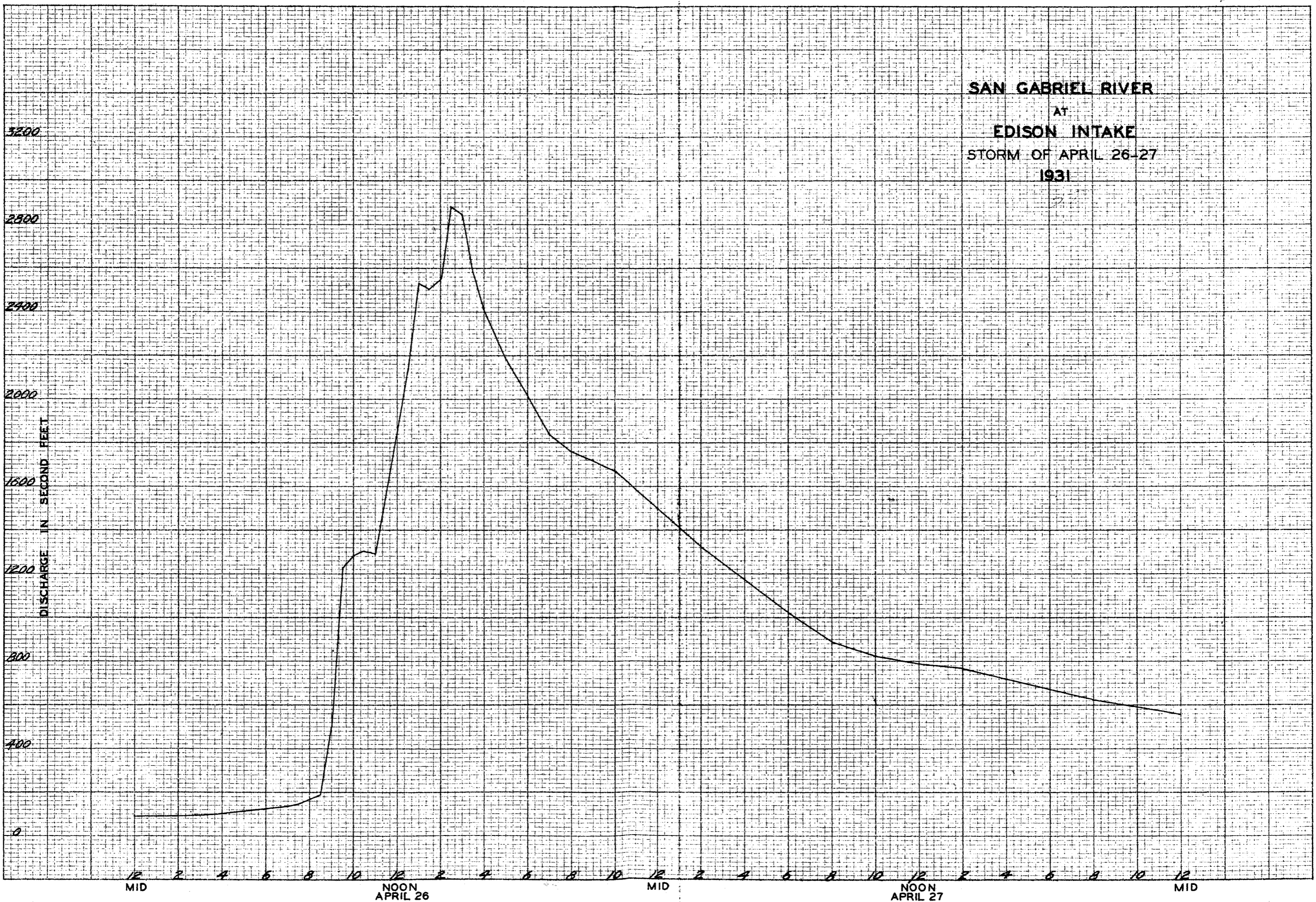
Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
3.00	9.5	.06	4.00	74	1.6	5.00	465	7.0	7.00					
.05	9.8	.10	05	82	1.8	10	535	8.0	10					
.10	10.3	.16	10	91	2.0	20	615	8.0	20					
.15	11.1	.22	15	101	2.4	30	695	8.5						
.20	12.2	.28	20	113	2.6	40	780	9.0						
.25	13.6	.32	25	126	2.8	50	870	9.5						
.30	15.2	.36	30	140	3.2	60	965	10						
.35	17.0	.44	35	156	3.2	70	1065	11						
.40	19.2	.52	40	172	3.6	80	1175	11.5						
.45	21.8	.54	45	190	3.6	90	1290	12.						
.50	24.5	.64	50	208	4.0	6.00	1410	12.5						
.55	27.7	.66	55	228	4.0	10	1535	13.0						
.60	31.0	.80	60	248	4.4	20	1665	13.5						
.65	35.0	.80	65	270	4.8	30	1800	13.5						
.70	39.0	.80	70	294	5.2	40	1935	16.0						
.75	43.0	1.0	75	320	5.2	50	2095	18.5						
.80	48.0	1.0	80	346	5.2	60	2280	22.5						
.85	53.0	1.2	85	372	6.0	70	2505	25.5						
.90	59.0	1.4	90	402	6.0	80	2260	29.0						
.95	66.0	1.6	95	432	6.6	90	3050							

The above table is not applicable for obstructed channel conditions. It is based on 49 discharge measurements made during 4/26 to 9/30, 1931

and is fairly well defined between 10.1 second-feet and 2847.0 second-feet.

Computed by W K
Checked by H V
Date

SAN GABRIEL RIVER
AT
EDISON INTAKE
STORM OF APRIL 26-27
1931



KEUFFEL & ESSER CO., N. Y. NO. 359-21 L
12 X 20 to the Inch.

F-42 R

SAN GABRIEL RIVER AT SPRING STREET
LONG BEACH

Location

On Spring Street Bridge crossing the San Gabriel River about four miles east of Signal Hill, Long Beach, Los Angeles County, California.

Drainage Area

479 square miles.

Installed by

Los Angeles County Flood Control District
February 6, 1928.

Records Available

Records previous to February 6, 1928 at offices of State of California Division of Water Rights. February 6, 1928 to September 30, 1931 at offices of Los Angeles County Flood Control District, Los Angeles, California.

Gage

Rational 7 day water stage recorder located in wooden shelter house, set on corrugated iron stilling well attached to bridge pier on downstream side of bridge. Staff gage fastened to pier beside the stilling well.

Discharge Measurements

Low measurements are made by wading below bridge.
High flow will be made from upstream side of bridge.

Channel and Control

Channel of sand and silt.
No control

Extremes of Discharge

No flow 1927-28, 1928-1929, 1929-1930 or 1930-31.

Diversions

No diversions near this station.

Regulation

None

Accuracy

Co-operation

Located, constructed and operated by Los Angeles County Flood Control District in co-operation with U.S.G.S. Water Resources Branch.

F-63 R

SAN GABRIEL RIVER AT WHITTIER BOULEVARD BRIDGE

Location

On highway bridge crossing the San Gabriel River at Whittier Blvd. just west of Whittier, Los Angeles County, California.

Drainage Area

410 square miles.

Installed by

Originally established by the State of California, Division of Water Rights in 1923-1924. Re-established by Los Angeles County Flood Control District, July, 1928.

Records Available

State of California, Division of Water Rights Bulletins for records previous to July 1928. July, 1928 to September 30, 1931 at offices of Los Angeles County Flood Control District, Los Angeles, California.

Gage

An continuous water stage recorder installed in wooden recorder house on top of stilling well attached to downstream end of bridge pier. A vertical staff gage in stilling well and one attached to outside of stilling well.

Discharge Measurements

High water measurements made from cable car 500' below bridge.
Low Water measurements made by wading at station.

Channel and Control

Channel-Shifting sand and silt
Control-None

Extremes of Discharge

1928-1929

Maximum-297 c.f.s. March 10, 1929

Minimum-Dry at various times of year.

1929-1930

Maximum-575.5 c.f.s. January 11, 1930

Minimum-Dry at various times during year.

1930-1931

Maximum-404 c.f.s. February 4, 1931

Minimum-Dry at various times during year.

Diversions

A number of pipelines and canals divert water from stream above gage.

F-63 R

Regulation

None

Accuracy

Fair

Co-operation

Installed and operated by Los Angeles County
Flood Control District in co-operation with
the U.S.G.S. Water Resources Branch,

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **63**

Discharge measurements of **San Gabriel**

River
Creek

at **Whittier Blvd. Bridge**
near

during the year ending September 30, 19**31**

No.	Date	Made by	Area of section			Gage height		Discharge	Method	Coef.	Meas. secs.	G. Ht. change	Time	Meter No.
			Width	Sq. ft.	Mean velocity	Feet	Sec.-ft.							
1931														
1	1/8	Brewster	20.0	10.42	1.29	1.28	13.49		.6	6		1/4	666	
2	9	"	33.0	14.58	1.27	1.24	18.53		.6	9		1/4	"	
3	16	"	32.0	11.16	1.40	1.08	15.57		.6	10		1/3	"	
4	2/3	"	34.0	19.18	1.42	1.28	27.17		.6	9		1/3	"	
5	4	"	36.0	32.42	1.49	1.28	48.35		.6	10		1/4	"	
6	4	"	63.0	91.01	3.63	1.72	330.7		.6	8	.18	1/3	"	
7	5	"	59.0	53.97	1.61	1.40	86.71		.6	11		1/3	"	
8	6	Brewster-Pollard	33.0	15.24	1.15	1.16	17.50		.6	8		1/4	"	
9	13	Brewster	33.5	13.05	1.53	1.13	19.95		.6	10		1/3	"	
10	20	"	33.0	12.33	1.27		15.64		.6	11		1/3	"	
11	27	"	34.0	13.38	1.34	1.20	17.91		.6	9		1/3	"	
12	3/6	"	33.4	11.19	1.31	1.16	14.71		.6	9		1/3	"	
13	4/26	"	42.0	40.94	2.18	1.42	89.12		.6	10	.04	1/3	"	
14	27	"	35.0	34.94	2.33	1.36	81.44		.6	10		1/3	"	
15	27	"	54.0	46.26	1.87	1.44	86.72		.6	11		1/3	"	
16	28	"	34.0	22.48	1.72	1.30	38.50		.6	9		1/3	"	
17	5/1	"	34.0	11.92	1.22	1.08	14.60		.6	9		1/4	"	
18	8	"	34.0	9.88	1.20	1.12	11.83		.6	9		1/4	"	

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **63**

Rating table for **San Gabriel River Whittier Blvd. Bridge**

, from **Oct. 1st**, 1930, to **Sept. 30th**, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
0			1.00	6.25	.35	2.00								
.05			.05	8.0	.60									
.10			.10	11.0	1.0									
.15			.15	16.0	1.4									
.20			.20	23.0	1.8									
.25			.25	32.0	2.2									
.30			.30	43.0	2.8									
.35			.35	57.0	3.6									
.40			.40	75.0	4.8									
.45	.01		.45	99.0	5.8									
.50	.01	.048	.50	128.0	7.2									
.55	.25	.05	.55	164.0	8.4									
.60	.50	.05	.60	206	9.4									
.65	.75	.05	.65	253	10.4									
.70	1.0	.10	.70	305	11.0									
.75	1.50	.10	.75	360	11.0									
.80	2.0	.20	.80	415										
.85	3.0	.20	.85											
.90	4.0	.20	.90											
.95	5.0	.25	.95											

The above table is not applicable for obstructed channel conditions. It is based on **18** discharge measurements made during **year 1930 - 1931**

and is **fairly** well defined between **11.83** second-feet and **330.65** second-feet.

Computed by **W T K**

Checked by **V K**

Date

Daily Gage Height, in Feet, and Discharge, in Second-Feet, of **SAN GABRIEL RIVER**
At **WHITTIER BLVD. BRIDGE**
~~XXXX~~ for the Year Ending September 30, 19 **31**

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

Drainage Area **286** Square Miles. [**BREWSTER** Observer.] Gage Read **CONTINUOUS** Used rating table dated

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	
1								0		0	1.16	17.4	1	0	1.13	14.0										1
2								0		0	1.15	16.0	2	0	1.14	15.0										2
3								0	H	8.0	1.15	16.0	3	0	1.13	14.0										3
4								0	H	106.2	1.16	17.4	4	0	1.12	13.0										4
5								0	1.46	104.8	1.14	15.0	5	0	1.11	12.0										5
6								0	1.18	20.2	1.14	15.0	6	0	1.10	11.0										6
7							H	1.5	1.14	15.0	1.13	14.0	7	0	1.09	10.4										7
8							1.14	15.0	1.16	17.4	1.12	13.0	8	0	1.08	9.8										8
9							1.20	23.0	1.19	21.6	H	10.3	9	0	1.03	7.3										9
10							1.20	23.0	1.22	26.6	.70	1.0	10	0	1.03	7.3										10
11							1.13	14.0	1.21	24.8		0	11	0	1.03	7.3										11
12							1.15	16.0	1.20	23.0		0	12	0	H	3.0										12
13	DRY		DRY		DRY		1.05	8.0	1.21	24.8		0	13	0	H	0.5	DRY		DRY		DRY					13
14	DRY		DRY		DRY		1.08	9.8	1.20	23.0		0	14	0		0	DRY		DRY		DRY					14
15							1.11	12.0	1.20	23.0		0	15	0		0										15
16							1.13	14.0	1.19	21.6		0	16	0		0										16
17							1.04	7.65	1.19	21.6		0	17	0		0										17
18							1.04	7.65	1.20	23.0		0	18	0		0										18
19							.96	5.25	1.20	23.0		0	19	0		0										19
20							H	2.8	1.21	24.8		0	20	0		0										20
21							0	1.20	23.0		0	0	21	0		0										21
22							0	1.19	21.6		0	0	22	0		0										22
23							0	1.18	20.2		0	0	23	0		0										23
24							0	1.18	20.2		0	0	24	0		0										24
25							0	1.17	18.8		0	0	25	0		0										25
26							0	1.17	18.8		0	0	26	H	21.0	0										26
27							0	1.17	18.8		0	0	27	1.1	45.8	0										27
28							0	1.15	16.0		0	0	28	1.1	45.8	0										28
29							0	-	-		0	0	29	1.1	6.25	0										29
30							.55	.25	-	-	0	0	30	1.1	8.60	0										30
31							0	-	-		0	0	31		-	0										31

Maximum stage **1.79** feet at **10:50 P.M.** on **Feb. 4.**
Minimum stage **Dry** feet at **most** on **of year**

Correction curve used.

TOTAL,	0	0	0	159.90	709.8	135.10	127.40	124.60	0	0	0	0
Mean Daily Discharge in Second-feet	0	0	0	5.16	25.35	4.36	4.25	4.02	0	0	0	0
Second-feet per square mile	0	0	0	.02	.09	.01	.01	.01				
Run-off, depth in inches -												
Run-off in acre-feet -	0	0	0	317.08	1407.53	267.90	52.63	247.08				2492.22
Maximum Mean Daily Discharge in Second-feet	0	0	0	23.0	106.2	17.4	5.8	15.0				
Minimum Mean Daily Discharge in Second-feet	0	0	0	0	0	0	0	0				

W.T.K. V.K.
W.T.K.
W.T.K.
W.T.K.
G. H. copied
G. H. checked
Date

F-96 R

SAN GABRIEL RIVER - EAST FORK 1/2 MILE BELOW
MOUTH OF CATTLE CANYON

Location

On north bank of East Fork, San Gabriel River,
5 miles above junction of East and West Forks.
1/2 mile below mouth of Cattle Canyon.

Drainage Area.

76.35 square miles

Installed by

Los Angeles County Flood Control District in
October, 1929.

Records Available

October 1, 1929 to September 30, 1931 at offices
of Los Angeles County Flood Control District,
Los Angeles, California.

Gage

An continuous water stage recorder installed in
galvanized iron shelter house on top of corrugated
iron pipe stilling well and secured to vertical
rock bank on north bank of stream

Discharge Measurements

High water flows are measured from cable car
located 20' above recorder house.
Low water flows are measured by wading.

Channel and Control

Channel-Sand, gravel and boulders
Control-Low control built of boulders not
permanent

Extremes of Discharge

1929-1930

Maximum-108.50 c.f.s. May 16, 1930

Minimum-6.90 c.f.s. various times during year

1930-1931

Maximum-776.6 c.f.s. April 26, 1931

Minimum-1.0 c.f.s. August 24, 1931

Diversions

Small intermittent diversions for placer
mining above station during year 1930-1931.

223
F-96 R

Regulation

None

Accuracy

Fair

Co-operation

Located, constructed by Los Angeles County Flood Control District, operated in co-operation with the U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

No. 96

Discharge measurements of **San Gabriel River E. Fork**

**River
Gage**

at $\frac{1}{2}$ mi. below mouth Cattle Cr. during the year ending September 30, 1931
near Flood Control Station

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Coeff.	Meas. succs.	G. H. change	Time	Meter No.	
			Feet	Sq. ft.	Ft. per sec.	Feet	Sec.-ft.	Percent alt.				No.	Total	Hours	
1930															
1	10/2	Patterson	22.5	16.9	1.06	3.40	17.9		.6		8		1/4	556	
2	10	"	22.5	17.3	1.09	3.54	18.8		.6		8		1/3	"	
3	17	"	22.5	16.6	1.02	3.49	17.0		.6		8		"	"	
4	24	"	22.5	16.6	1.01	3.57	16.7		.6		8		"	"	
5	31	"	22.0	16.2	.98	3.70	15.9		.6		8		"	"	
6	11/7	"	23.0	16.3	.94	3.74	15.3		.6		8		1/4	"	
7	14	"	22.5	17.0	1.02	3.79	17.4		.6		8		1/3	"	
8	21	Patterson-Delaney	22.5	15.8	1.20	3.84	19.9		.6		8		1/4	638	
9	28	Delaney	39.0	32.4	1.36	3.95	44.0		.6		10		"	"	
10	12/5	Patterson-Jordan	23.5	17.1	1.09	3.83	13.6		.6		12		"	282	
11	12	Delaney	24.0	16.8	1.07	3.84	18.0		.6		8		1/3	897	
12	19	Patterson	22.5	17.1	1.02	3.82	17.5		.6		8		"	271	
13	26	Delaney	24.0	16.6	1.00	3.84	16.69		.6		9		"	636	
14	1/2	Patterson	23.5	18.0	1.09	3.91	19.6		.6		8		"	282	
15	9	Delaney	24.0	18.3	1.18	3.91	21.53		.6		9		"	897	
16	16	"	24.5	17.0	1.09	3.87	18.64		.6		8		1/4	271	
17	23	"	24.0	16.5	1.03	3.84	16.98		.6		8		"	636	
18	2/6	"	24.0	25.4	2.28	4.10	58.1		.6		8		"	282	
19	13	Patterson	21.5	23.4	1.97	3.98	46.2		.6		11		1/3	897	
20	20	Delaney	25.0	21.1	1.74	3.96	36.7		.6		8		1/4	271	
21	25	"	25.0	20.3	1.41	3.92	28.6		.6		8		"	636	
22	3/6	"	24.5	19.6	1.32	3.52	26.0		.6		8		"	"	
23	13	"	24.5	18.9	1.23	3.46	23.3		.6		8		"	"	
24	18	"	24.0	17.5	1.14	3.40	19.9		.6		8		1/6	"	
25	25	"	24.0	19.0	1.22	3.46	23.1		.6		8		1/4	"	
26	4/3	Patterson	23.0	13.2	1.76	3.34	23.2		.6		10		1/3	282	
27	10	"	22.0	12.6	1.63	3.29	20.9		.6		10		"	897	
28	16	"	21.0	11.4	1.58	3.22	18.0		.6		10		"	"	

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 80

Discharge measurements of **San Gabriel River E. Fork**

River
Creek

$\frac{1}{2}$ mi. below mouth Cattle Cr.
Flood Control Station

during the year ending September 30, 19 31

No.	Date	Made by	Width Feet	Area of section Sq. ft.	Mean velocity ft. per sec.	Gage height Feet	Discharge Sec. ft.	Percent diff.	Method	Coef.	Mess. secs.	G. Ht. change	Time Hours	Meter No.
	1931													282
29	4/24	Patterson	34.0	34.0	2.53	4.05	85.90				10	.061/3	897	271
30	29	Delaney	25.0	38.8	3.07	3.87	119.0				9	2/5	636	
31	5/1	"	51.5	35.8	2.55	3.70	91.0				14	1/3	"	282
31A	8	Patterson	31.0	29.2	2.35	3.43	68.7				10	"	897	
32	15	"	28.0	24.1	1.91	3.24	46.1				10	"	"	
33	22	"	26.0	21.6	1.71	3.15	36.9				10	"	"	
34	28	"	27.0	22.8	1.82	3.20	41.6				10	1/4	"	
35	6/5	"	26.0	21.3	1.75	3.16	37.2				10	1/3	"	
36	12	"	23.0	21.7	1.29		28.1				8	1/4	"	
37	18	"	22.0	19.8	1.22	2.24	24.2				8	1/3	"	
38	25	"	21.5	18.3	1.08	3.27	19.7				8	"	"	
39	7/3	"	21.5	13.0	1.19	3.37	15.5				8	"	"	
40	9	"	22.5	18.9	.82	3.36	15.4				9	"	"	
41	16	"	22.0	16.2	.98	3.45	15.9				8	"	"	
42	24	"	22.5	20.6	.73	3.42	15.1				9	"	"	
43	31	Patterson-Lane	22.5	21.7	.62	3.40	13.4				8	1/4	"	
44	8/7	" "	22.0	20.7	.58	3.38	12.0				8	"	"	
45	14	Patterson	22.0	13.8	.95	3.45	13.1				8	"	"	
46	21	"	22.0	20.2	.49	3.34	9.9				8	"	"	
47	28	Patterson-Lane	22.5	20.3	.49	3.32	10.0				9	"	"	
48	9/4	Patterson	20.5	11.4	1.02	3.44	11.6				8	"	"	
49	11	"	23.5	13.0	.79	3.35	10.3				8	"	"	
50	17	"	22.5	12.5	.78	3.34	9.8				8	"	"	
51	25	"	23.0	14.2	.89	3.51	12.6				8	"	"	

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 96

Rating table for SAN GABRIEL RIVER EAST FORK

, from Oct. 1, 1930, to Feb. 27, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
3.30	11.9		.70	14.7		.10	58.0							
		.05			.09									
.32	12.0		.72	14.88		.15	68.0							
		.05			.09									
.34	12.1		.74	15.06		.20	78.5							
		.05			.14									
.36	12.2		.76	15.34		.25	91.5							
		.05			.23									
.38	12.3		.78	15.8		.30	106.5							
		.05			.25									
.40	12.4		.80	16.3		.35	124.0							
		.06			.40									
.42	12.52		.82	17.1		.40	145.5							
		.06			.45									
.44	12.64		.84	18.0		.45	171.0							
		.06			.75									
.46	12.76		.86	19.5		.50	200.0							
		.06			1.0									
.48	12.88		.88	21.5		.55	230.0							
		.06			1.65									
.50	13.0		.90	24.8		.60	260.0							
		.08												
.52	13.16		.92	28.1										
		.08												
.54	13.32		.94	31.4										
		.08												
.56	13.48		.96	34.7										
		.08												
.58	13.64		.98	38.0										
		.08												
.60	13.80		4.00	41.3										
		.09												
.62	13.98		.02	44.6										
		.09												
.64	14.16		.04	47.9										
		.09												
.66	14.34		.06	51.2										
		.09												
.68	14.52		.08	54.5										
		.09												

The above table is not applicable for obstructed channel conditions. It is based on 21 discharge measurements made during period 10/1/30 to 2/27/31

and is well defined between 15.3 second-feet and 58.1 second-feet.

Computed by W.T.K.

Checked by W.T.K.

Date

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 96

Rating table for SAN GABRIEL RIVER EAST FORK

at 9:00 A.M.

, from Feb. 27, 1931, to April 26, 1931,
June 25, 1931, to Sept. 30, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
2.90	5.00	.40	.90	67.6	1.26									
2.95	7.00	.40	.95	73.2	1.26									
3.00	9.0	.40	4.00	79.5	1.26									
.05	11.0	.40	.05	85.8										
.10	13.0	.40	.10	92.1										
.15	15.0	.40												
.20	17.0	.46												
.25	19.0	.50												
.30	21.3	.54												
.35	23.8	.56												
.40	26.5	.64												
.45	29.3	.70												
.50	32.5	.72												
.55	36.0	.80												
.60	39.6	.84												
.65	43.6	.86												
.70	47.8	.98												
.75	52.1	1.00												
.80	57.0	1.12												
.85	62.0	1.12												

The above table is not applicable for obstructed channel conditions. It is based on 22 discharge measurements made during periods 2/27 to April 26 and 5/25 to 9/30

and is well defined between 9.8 second-feet and 85.9 second-feet.

Computed by W. T. K.

Checked by W. T. K.

Date

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 96

Rating table for San Gabriel River East Fork

9:00 A.M.

, from April 26, 1931, to June 25th, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
			3.00	22.2	.98	4.00	156.0		5.00	686				
			.05	27.1		.05	173.0	3.4	.05	723	7.4			
			.10	32.0		.10	191.0	3.6	.10	761	7.6			
			.15	36.9		.15	210	3.8	.15	800	7.8			
			.20	41.8		.20	230	4.0	.20	840	8.0			
			.25	46.7		.25	251	4.2						
			.30	51.6		.30	273	4.4						
			.35	56.5		.35	296	4.6						
			.40	61.4		.40	320	4.8						
			.45	66.3		.45	345	5.0						
			.50	71.2		.50	371	5.2						
			.55	76.1		.55	398	5.4						
			.60	81.0		.60	426	5.6						
			.65	86.0	1.0	.65	455	5.8						
			.70	91.00	1.0	.70	485	6.0						
			.75	97.0	1.2	.75	516	6.2						
			.80	105	1.6	.80	548	6.4						
			.85	115.0	2.0	.85	581	6.6						
			.90	126.5	2.3	.90	615	6.8						
			.95	140.5	2.8	.95	650	7.0						
					3.1			7.2						

The above table is not applicable for obstructed channel conditions. It is based on 9 discharge measurements made during 4/26 to 5/25

and is well defined between 24.2 second-feet and 119.0 second-feet.

Computed by WTK

Checked by WTK

Date

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of

SAN GABRIEL RIVER EAST FORK

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

1/2 mile below Cattle Canyon

for the Year Ending September 30, 1931

Drainage Area 78.35 Square Miles.

PATTERSON

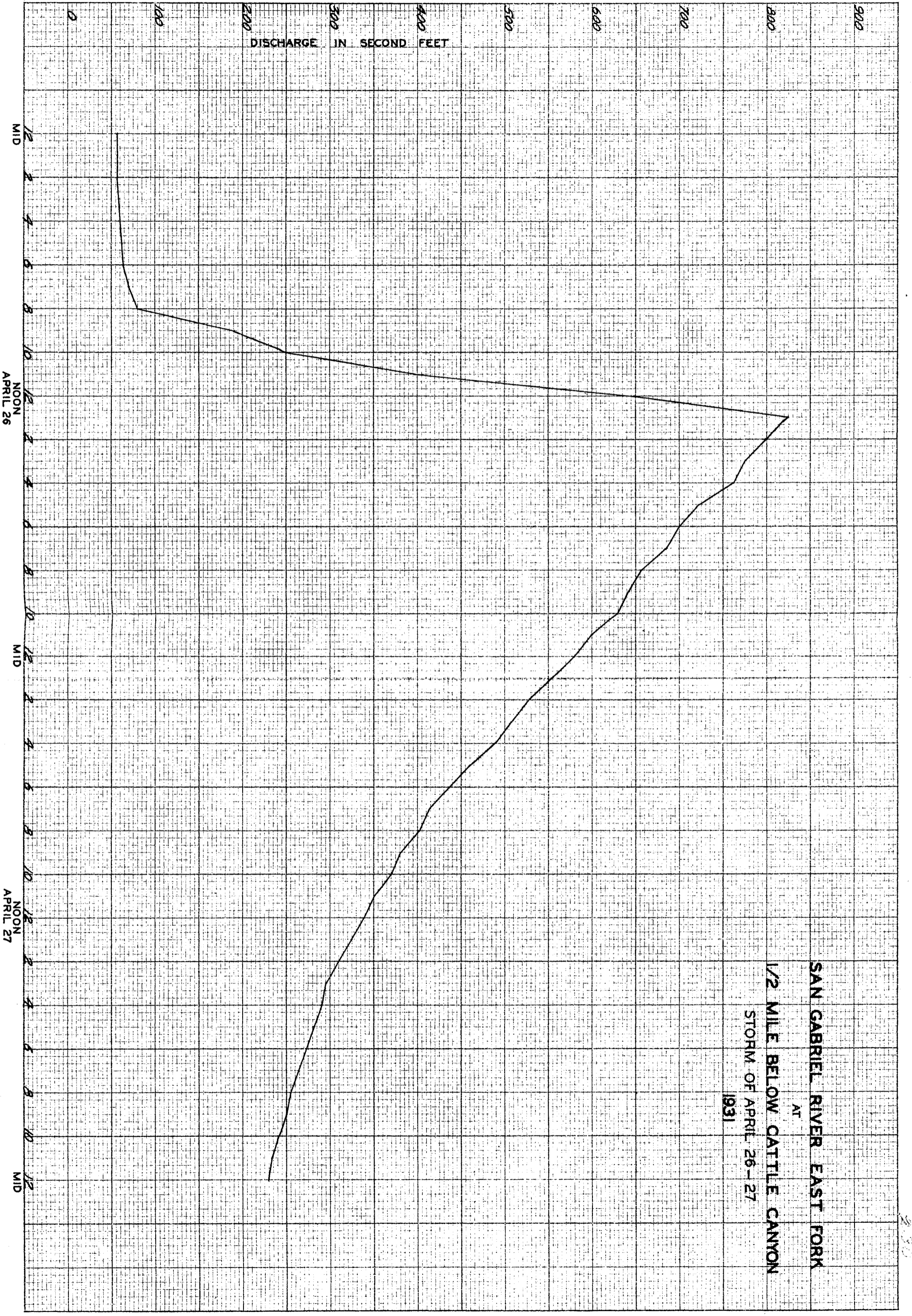
Observer.]

Gage Read CONTINUOUS

Used rating table dated

Main data table with columns for months (OCTOBER to SEPTEMBER), days (1-31), gage height, and discharge. Includes handwritten notes on the left and right margins.

Summary table with rows for TOTAL, Mean Daily Discharge in Second-foot, Second-foot per square mile, Run-off, depth in inches, Run-off in acre-foot, Maximum Mean Daily Discharge in Second-foot, and Minimum Mean Daily Discharge in Second-foot.



SAN GABRIEL RIVER EAST FORK
AT
1/2 MILE BELOW CATTLE CANYON
STORM OF APRIL 26-27
1931

F-97 R

SAN GABRIEL RIVER WEST FORK

Location

On north bank of West Fork, San Gabriel River,
3½ miles above junction of the west and north
forks.

Drainage Area

48.97 square miles.

Installed by

Los Angeles County Flood Control District, August, 1929.

Records Available

October 1, 1929 to September 30, 1931 at offices of
Los Angeles County Flood Control District, Los Angeles,
California.

Gage

An continuous type, water stage recorder installed in
galvanized iron shelter house on corrugated iron
stilling well and secured to a vertical rock bank ap-
proximately 40 feet high, on north bank of stream.

Discharge Measurements

High water flows are measured from cable located just
below recorder house. Low water measurements by
wading near gage.

Channel and Control

Channel - sand and gravel, rock and boulders.
Control - rock and gravel.

Extremes of Discharge

1929-1930

Maximum-206 c.f.s. March 14, 1930

Minimum-2.06 c.f.s. various times.

1930-1931

Maximum-751 c.f.s. April 26, 1931

Minimum-.05 c.f.s. various times during year.

Diversions

None above gage.

Regulation

None

Accuracy

Fair

Co-operation

Located, constructed and operated by the Los Angeles
County Flood Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 97

Discharge measurements of **San Gabriel River West Fork**

River
Creek

^m
~~near~~ **3½ mi. above North Fork**

during the year ending September 30, 1931

No.	Date	Gage Name	Width Feet	Average Depth Feet	Mean Velocity Feet per Sec.	Discharge		Rating Feet	Coeff.	Meas. No.	G. H. Gauges	Time Hours	Meter No.
						Est.	Sec.						
1930													
1	10/1	Patterson				Est.	.30						
2	16	"				Est.	.40						
3	23	"				Est.	.40						
4	30	"				Est.	.45						
5	11/13	"				Est.	.60						
6	26	"	5.5	2.0	.80	3.21	1.60		.6	5		1/4	262 556
7	12/4	Delaney-Patterson	10.9	3.2	.94	3.36	3.00		.6	9		1/3	282 897 262
8	12	Patterson	6.0	2.7	.89	3.32	2.40		.6	6		1/4	556
9	18	"	6.0	2.6	.85	3.22	2.20		.6	6		"	"
10	26	"	6.0	2.7	.96	3.34	2.60		.6	6		"	282 897
1931													
11	1/2	Delaney	11.0	6.1	1.55	3.60	9.41		.6	8		1/3	271 636 282
12	9	Patterson	25.0	16.6	1.00	3.72	16.60		.6	9		"	897
13	16	"	11.5	7.0	.77	3.47	5.40		.6	6		"	"
14	23	"	10.9	3.5	1.20	3.43	4.20		.6	8		1/4	"
15	29	Delaney	12.0	3.9	.96	3.40	3.77		.6	6		"	271 636 282
16	2/6	Patterson	37.0	28.5	2.45	3.64	69.90		.6	11		1/2	897
17	6	"	30.0	31.5	2.35	3.66	74.00		.6	10		1/3	"
18	13	Delaney	22.0	13.9	2.04	3.48	28.24		.6	9		1/4	271 636
19	19	"	22.0	13.3	1.72	3.38	23.20		.6	10		"	"
20	20	"	21.0	19.2	1.15	3.35	22.00		.6	10		5/12	282 897
21	27	"	16.5	8.0	1.30	3.16	10.43		.6	8		1/4	271 636 282
22	3/6	Patterson	19.0	9.9	.80	3.05	7.90		.6	7		1/3	897 271
23	12	Delaney	15.8	6.4	1.00	2.99	6.43		.6	8		1/6	666
24	20	"	15.5	6.0	.92	2.89	5.55		.6	8		"	"
25	27	Patterson	12.5	3.7	1.14	2.86	4.20		.6	9		1/4	282 897
26	4/3	"	6.5	3.5	.86	2.79	3.00		.6	6		"	"
27	10	Delaney	13.5	4.1	.65	2.76	2.64		.6	6		1/6	271 636 282
28	17	Patterson	5.5	2.7	.74	2.71	2.00		.6	5		1/4	897

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 97

Discharge measurements of **San Gabriel River West Fork**

1000
+000

at **3 1/2 mi. above North Fork**

during the year ending September 30, 19**31**

No.	Date	Made by	Area of section		Mean velocity	Gage height	Discharge		Method	Corr.	Meters	G. 10. change	Time	Meter No.
			Width	Sp. ft.			Feet	Sec. ft.						
	1931		Feet	Sp. ft.	Feet per sec.	Feet	Sec. ft.	Percent unit.			No.	Total	Hours	282
29	5/1	Patterson	30.0	13.7	2.29	3.12	31.4	.6			14		1/2	897
30	7	"	22.0	13.5	1.06	2.92	14.3	.6			8		1/3	"
31	14	Patterson-Neifer	19.4	11.3	.83	2.84	9.4	.6			8		1/4	"
32	21	Patterson	11.0	6.4	.94	2.72	6.0	.6			6		"	"
33	29	"	12.0	7.9	1.09	2.76	8.6	.6			7		"	"
34	6/4	"	11.0	6.9	.96	2.64	6.6	.6			6		"	"
35	12	Patterson-Case	10.0	4.9	.84	2.64	4.1	.6			7		"	"
36	19	Patterson	9.5	4.0	.80	2.56	3.2	.6			5		1/6	"
37	26	"	9.0	3.2	.59	2.36	1.9	.6			5		"	"
38	7/2	"	5.5	2.0	.70	2.28	1.4	.6			5		"	"
39	10	"	4.0	1.3	.72	2.25	.9	.6			4		"	"
40	17	"	3.0	.5	.31	2.21	.2	.6			3		1/12	"
41	25	"					Dry							
42	30	"					Dry							
43	8/6	"					Dry							
44	13	"				Est.	.1							
45	19	"				Est.	.05							
46	27	"				Est.	.05							
47	9/3	"	3.0	.92	.38	1.98	.35	.6			3		1/6	"
48	10	"	3.0	.98	.56	2.00	.55	.6			3		"	"
49	18	"				Est.	.05							
50	24	"				Est.	.05							

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 97

Rating table for SAN GABRIEL RIVER WEST FORK

10 P.M.

, from Oct. 1, 1930, to Feb. 3, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
2.60	.25	.01	.50	9.40	.52									
.65	.30	.01	.65	12.0	.64									
.70	.35	.01	.70	15.2	.96									
.75	.40	.01	.75	20	1.0									
.80	.45	.01	.80	25.										
.85	.50	.02	.85	30.										
.90	.60	.02	.90	35.										
.95	.70	.02	.95	40.										
3.00	.80	.03	4.00	45.										
.05	.95	.03												
.10	1.10	.04												
.15	1.30	.05												
.20	1.55	.05												
.25	1.80	.08												
.30	2.20	.10												
.35	2.70	.16												
.40	3.50	.20												
.45	4.50	.25												
.50	5.75	.30												
.55	7.25	.43												

The above table is not applicable for obstructed channel conditions. It is based on 15 discharge measurements made during 10/1, 1930 to 2/3, 1931

and is well defined between 1.6 second-feet and 16.6 second-feet.

Computed by W.T.K.

Checked by W.T.K.

Date

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 97

Rating table for SAN GABRIEL RIVER WEST FORK

10 P.M.

, from Feb. 3, 19, to April 26, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
2.00	.60	.12	60	57.0	2.6	60	3.35	3.0						
.65	1.20	.12	65	70.0	2.6	65	3.50	3.1						
.70	1.80	.13	70	83.0	2.6	70	365.5	3.1						
.75	2.45	.13	75	96.0	2.6	75	381.0	3.1						
.80	3.10	.16	80	109	2.6	80	396.5	3.1						
.85	3.90	.16	85	122	2.6	85	412.0	3.1						
.90	4.70	.20	90	135	2.8	90	427.5	3.1						
.95	5.70	.20	95	149	2.8	95	443.0	3.1						
3.00	6.70	.24	4.00	163	2.8	5.00	458.5	3.1						
.05	7.90	.24	05	177	2.8	05	474	3.1						
.10	9.10	.34	10	191	2.8	10	489.5	3.1						
.15	10.8	.42	15	205	2.8	15	505	3.1						
.20	12.9	.48	20	219	2.8	20	520.5	3.1						
.25	15.3	.56	25	233	2.8	25	536	3.1						
.30	18.1	.64	30	257	2.9									
.35	21.3	.74	35	261.5	2.9									
.40	25.0	.80	40	276.0	2.9									
.45	29.0	1.1	45	290.5	2.9									
.50	34.5	1.9	50	305	3.0									
.55	44.0	2.6	55	320	3.0									

The above table is not applicable for obstructed channel conditions. It is based on 13 discharge measurements made during 2/3 to 4/26, 1931

and is well defined between 2.0 second-feet and 74.0 second-feet.

Computed by W.T.K.

Checked by W.T.K.

Date

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 97

Rating table for San Gabriel River West Fork Low Flows

, from April 26th, 1931, to Sept. 30th, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
2.00	0		3.00	20.5		.50	325							
	5			.05	25.0	.90	.60	355						
	.10			.10	30.0	1.0	.70	385						
	.15			.15	35.0	1.0	.80	415						
	.20	.07		.20	40.0	1.1	.90	445						
	.25	.07		.25	45.5	1.1	5.00	475						
	.30	.07		.30	51.0	1.2	.10	505						
	.35	.07		.35	57.0	1.4	.20	535						
	.40	.08		.40	64.	1.6	.30	565						
	.45	.08		.45	72.0	1.6	.40	595						
	.50	.09		.50	80	2.0	.50	625						
	.55	.09		.60	100	2.0	.60	655	3.0					
	.60	.12		.70	120	2.0	.70	685						
	.65	.14		.80	140	2.0	.80	715						
	.70	.14		.90	163	2.3	.90	745						
	.75	.34	4.00	188	2.5	6.00	775							
	.80	.34		.10	214	2.6								
	.85	.34		.20	240	2.6								
	.90	.56		.30	267	2.7								
	.95	.70		.40	295	2.8								
		.80				3.0								

The above table is not applicable for obstructed channel conditions. It is based on 22 discharge measurements made during 4/26 to 9/30, 1931

and is well defined between 15 second-feet and 31.4 second-feet.

Computed by W T K

Checked by W T K

Date

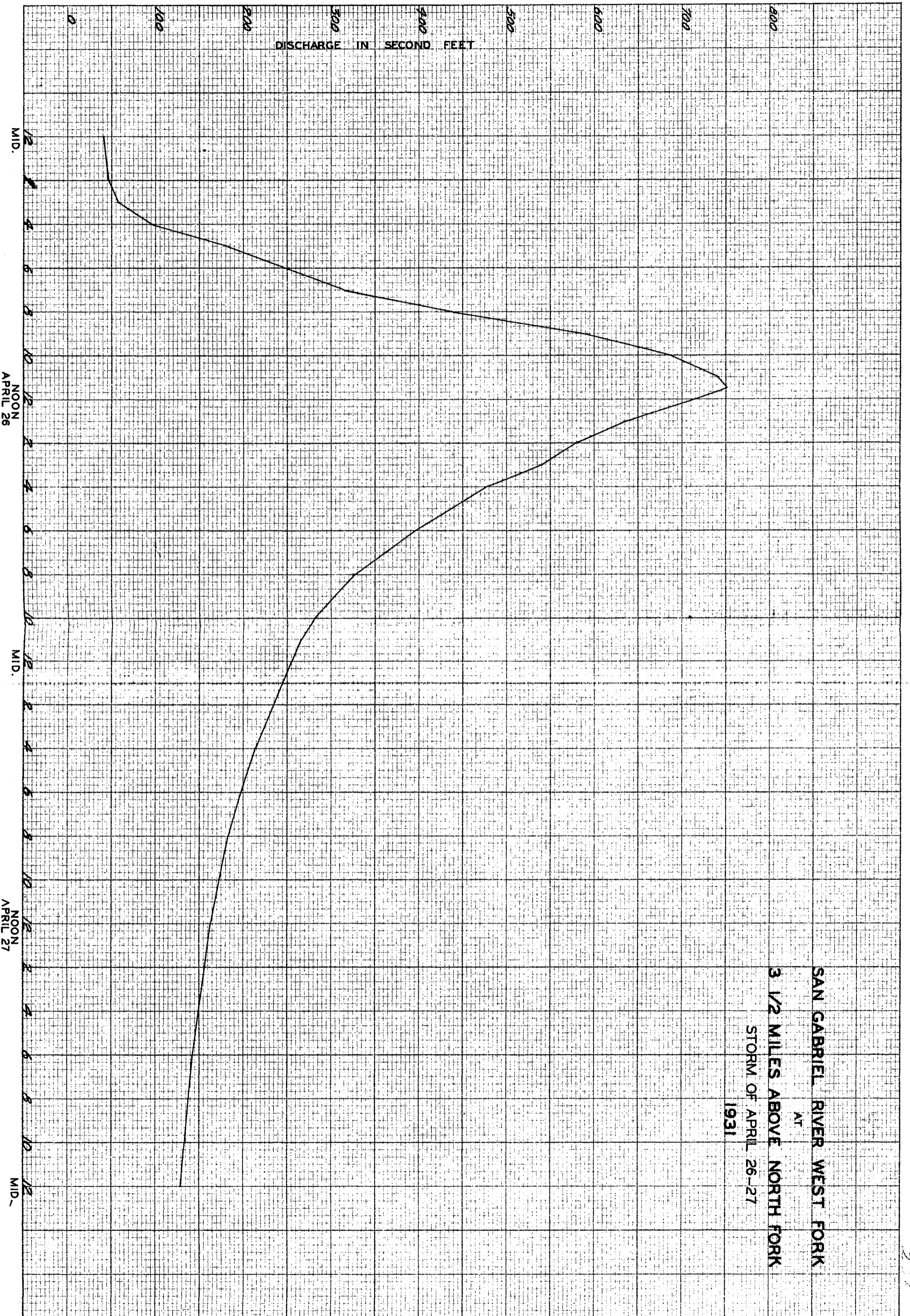
Daily Gage Height, in Feet, and Discharge, in Second-Foot, of **San Gabriel River West Fork** **3 1/2 miles above North Fork** for the Year Ending September 30, 1931

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

File No. 97

Drainage Area **49.** Square Miles. [**Patterson** Observer.] Gage Read **continuous** Used rating table dated

Table with columns for months (OCTOBER to SEPTEMBER) and days (1-31). Rows include gage height and discharge data. Includes summary rows for TOTAL, Mean Daily Discharge, Second-foot per square mile, Run-off, and Maximum Mean Daily Discharge. Includes vertical text on the left: 'Maximum stage. 5.92 feet at 11:30am April 26, 1931' and 'Discharges following this date are interpolated between estimates above and below gage. No water flowing at gage.'



SAN GABRIEL RIVER WEST FORK
AT
3 1/2 MILES ABOVE NORTH FORK
STORM OF APRIL 26-27
1931

F-98 R

SAN GABRIEL RIVER NORTH FORK 2000 FEET ABOVE NARROWS

Location

On east bank of North Fork, San Gabriel River, .7 of a mile above mouth (of North Fork). Approximately 15 miles north of the town of Azusa, Los Angeles County, California.

Drainage Area

18.79 square miles.

Installed by

Los Angeles County Flood Control District, September, 1929.

Records Available

October 1, 1929 to September 30, 1931 at offices of Los Angeles County Flood Control District, Los Angeles, California.

Gage

An, continuous type water stage recorder installed in galvanized iron shelter house on corrugated iron stilling well and secured to vertical rock bank, approximately 25 feet high, on east bank of stream.

Discharge Measurements

High water flows are measured from cable located just above recorder house, low water measurements are made by wading near gage.

Channel and Control

Channel-sand, gravel, rock and boulders. Control-rock and boulders, not permanent.

Extremes of Discharge

1929-1930

Maximum-18.42 c.f.s. on May 3, 1930.

Minimum-1.56 c.f.s. at various times during year.

1930-1931

Maximum-15.65 c.f.s. April 26, 1931

Minimum-1.64 c.f.s. September 30, 1931.

Diversions

None above gage

Regulation

None

Accuracy

Fair

F-95 R

Co-operation

Located, installed and operated by the Los Angeles County Flood Control District, with co-operation of U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 98

Discharge measurements of San Gabriel River North Fork

River
Creek

at 2000 ft. above Narrows

during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Method	Coef.	Meas. Secs.	G. In. Change	Time	Meters No.
			Feet	Sq. Ft.	Ft. per sec.	Feet	Sec. ft.						
1930													
1	10/3	Patterson	7.2	4.4	.68	3.72	3.0	.6		7		1/4	262
2	10	"	8.0	5.1	.75	3.80	3.8	.6		7		"	"
3	17	"	8.0	4.8	.71	3.78	3.4	.6		5		"	"
4	23	"	8.0	4.7	.70	3.77	3.3	.6		5		"	"
5	11/7	"	7.0	4.2	.57	3.46	2.4	.6		7		"	"
6	14	"	8.0	4.9	.73	3.78	3.6	.6		5		"	"
7	28	Patterson-Delaney	8.0	5.1	.74	3.95	3.8	.6		7		1/6	282 897
8	12/1	Delaney	7.8	4.8	.67	3.86	3.2	.6		7		1/3	271 638 282
9	5	Patterson-Jordan	7.5	4.8	.63	3.85	3.0	.6		8		1/4	897
10	19	Patterson	7.5	4.5	.67	3.86	3.0	.6		5		1/6	"
11	26	"	8.0	5.0	.68	3.86	3.4	.6		5		"	"
1931													
12	1/2	Delaney	8.0	5.1	.69	3.90	3.5	.6		7		1/3	271 636
13	23	"	7.5	4.8	.62	3.91	3.0	.6		7		1/6	"
14	2/6	"	8.5	5.8	.97	4.04	5.6	.6		7		1/4	"
15	13	"	8.5	5.8	.92	4.01	5.3	.6		7		1/6	"
16	19	"	8.0	5.7	.91	3.99	5.2	.6		7		"	"
17	3/2	"	8.0	5.4	.87	3.96	4.7	.6		7		"	"
18	13	"	8.0	5.3	.85	3.93	4.5	.6		7		"	"
19	25	"	8.0	4.9	.78	3.87	3.6	.6		6		"	"
20	4/1	"	8.0	4.9	.77	3.86	3.8	.6		6		"	"
21	24	"	8.0	5.6	.83	3.90	4.7	.6		6		1/4	"
22	27	"	9.0	8.1	1.46	4.09	11.8	.6		6		"	"
23	5/4	"	8.0	5.4	1.00	3.92	5.4	.6		6		1/6	"
24	8	"	8.0	5.3	.94	3.87	5.0	.6		6		"	"
25	15	Patterson-Keifer	8.0	5.3	.91	3.84	4.8	.6		5		"	282 897
26	29	Waddicor	6.3	4.3	.84	3.77	3.6	.6		7		"	262 556 282
27	6/5	Patterson	8.0	5.1	.69	3.77	3.5	.6		5		"	897
28	12	"	8.0	4.9	.69	3.74	3.4	.6		5		"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 98

Discharge measurements of **San Gabriel River North Fork**

**River
Creek**

at **2000ft. above Narrows**
near

during the year ending September 30, 19 **31**

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Coef.	Mean gage	G. H. change	Time	Meta No.
			Feet	Sq. ft.	ft. per sec.	Feet	Sec. ft.	Percent det.			No.	Total	Hours	282
	1931													
29	6/20	Patterson	8.0	4.6	.67	3.74	3.1			.6	5		1/6	897
30	25	"	7.5	4.4	.66	3.75	2.9			.6	5		"	"
31	7/17	"	9.0	3.8	.82	3.67	3.1			.6	5		"	"
32	24	"	7.0	3.8	.68	3.62	2.6			.6	6		1/4	"
33	31	" Lane	7.0	3.7	.62	3.54	2.3			.6	5		1/6	"
34	8/7	" "	6.5	3.5	.63	3.54	2.2			.6	6		"	"
35	14	"	7.0	4.0	.70	3.64	2.8			.6	7		"	"
36	20	"	9.0	3.2	.62	3.52	2.0			.6	5		"	"
37	27	" Lane	6.8	3.6	.64	3.54	2.3			.6	7		"	"
38	9/4	"	7.0	3.8	.63	3.55	2.4			.6	5		"	"
39	11	"	6.7	3.5	.60	3.45	2.1			.6	7		"	"
40	18	" Lane	6.6	3.5	.54	3.46	1.9			.6	7		"	"
41	25	"	7.0	3.6	.56	3.51	2.0			.6	7		"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 98

Rating table for SAN GABRIEL RIVER NORTH FORK.

, from Oct. 1, 1930, to Sept. 30, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
3.50	1.94	.03	3.70	2.87	.07	3.90	5.10	.20	4.10	12.40	.65	3.40	1.64	.03
.51	1.97	.03	.71	2.94	.07	.91	5.30	.20	.11	13.05	.65	3.41	1.67	.03
.52	2.00	.03	.72	3.01		.92	5.50		.12	13.70		3.92	1.70	
.53	2.04	.04	.73	3.08		.93	5.70		.13	14.35		3.43	1.73	
.54	2.08		.74	3.16	.08	.94	5.90		.14	15.00		3.44	1.76	
.55	2.12		.75	3.24		.95	6.10		.15	15.65		3.45	1.79	
.56	2.16		.76	3.32		.96	6.40	.30	.16	16.30		3.46	1.82	
.57	2.20		.77	3.40		.97	6.70	.30	.17	16.95		3.47	1.85	
.58	2.25	.05	.78	3.50	.10	.98	7.00		.18	17.60		3.48	1.88	
.59	2.30		.79	3.60		.99	7.30		.19	18.25		3.49	1.91	
.60	2.35		.80	3.70		4.00	7.60	.40	4.20	18.90		3.50	1.94	.03
.61	2.40		.81	3.80		.01	8.00							
.62	2.45		.82	3.90	.12	.02	8.40							
.63	2.50		.83	4.02		.03	8.80							
.64	2.55		.84	4.14	.14	.04	9.20	.50						
.65	2.60		.85	4.28		.05	9.70							
.66	2.65		.83	4.42	.16	.06	10.20							
.67	2.70		.87	4.58		.07	10.70							
.68	2.75		.88	4.74	.18	.08	11.20	.60						
.69	2.80	.07	.89	4.92		.09	11.80							

The above table is not applicable for obstructed channel conditions. It is based on 41 discharge measurements made during Year 1930-1931

and is Fairly well defined between 1.90 second-feet and 11.80 second-feet.

Computed by H.V.

Checked by W.T.K.

Date

Daily Gage Height, in Feet, and Discharge, in Second-Feet, of **San Gabriel River**

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

At **North Fork - 2000' above Narrows** for the Year Ending September 30, 1931

Drainage Area **18.79** Square Miles. [**G. Patterson** Observer.]

Gage Read **continuous** Used rating table dated

Maximum stage **4.15** feet at **11:00 P** on **April 26, 1931** Discharge **15.65** second-feet
Minimum stage **3.40** feet at **4:00 P** on **Sept. 30, 1931** Discharge **1.64** second-feet

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	
1	3.70	2.87	3.66	2.65	3.75	3.24	3.77	3.40	3.82	3.90	3.89	4.92	3.80	3.70	3.97	6.70	3.77	3.40	3.67	2.70	3.62	2.45	3.61	2.40	1
2	3.69	2.80	3.66	2.65	3.75	3.24	3.79	3.60	3.81	3.80	3.88	4.74	3.80	3.70	3.95	6.10	3.77	3.40	3.66	2.65	3.60	2.35	3.60	2.35	2
3	3.69	2.80	3.66	2.65	3.74	3.16	3.77	3.40	3.83	4.02	3.88	4.74	2.79	3.60	3.94	5.90	3.76	3.22	3.66	2.65	3.62	2.45	3.64	2.55	3
4	3.69	2.80	3.66	2.65	3.74	3.16	3.76	3.32	3.96	6.40	3.88	4.74	3.78	3.50	3.94	5.90	3.77	3.40	3.68	2.65	3.62	2.45	3.62	2.45	4
5	3.67	2.70	3.67	2.70	3.73	3.08	3.76	3.32	3.96	6.40	3.87	4.58	3.78	3.50	3.93	5.70	3.78	3.50	3.66	2.65	3.61	2.40	3.58	2.25	5
6	3.68	2.75	3.66	2.65	3.73	3.08	3.79	3.60	3.93	5.70	3.88	4.74	3.78	3.50	3.91	5.30	3.78	3.50	3.68	2.75	3.61	2.40	3.58	2.25	6
7	3.69	2.80	3.65	2.60	3.73	3.08	3.80	3.70	3.92	5.50	3.88	4.74	3.78	3.50	3.91	5.30	3.77	3.40	3.68	2.75	3.60	2.35	3.58	2.25	7
8	3.75	3.24	3.68	2.75	3.73	3.08	3.83	4.02	3.92	5.50	3.87	4.58	3.78	3.50	3.89	4.92	3.78	3.50	3.68	2.75	3.60	2.35	3.59	2.30	8
9	3.80	3.70	3.69	2.80	3.74	3.16	3.81	3.80	3.91	5.30	3.87	4.58	3.77	3.40	3.88	4.74	3.78	3.50	3.66	2.65	3.60	2.35	3.60	2.35	9
10	3.82	3.90	3.69	2.80	3.75	3.24	3.81	3.80	3.90	5.10	3.87	4.58	3.76	3.32	3.87	4.58	3.76	3.32	3.67	2.70	3.63	2.50	3.61	2.40	10
11	3.81	3.80	3.73	3.08	3.75	3.24	3.79	3.60	3.91	5.30	3.86	4.42	3.76	3.32	3.87	4.58	3.76	3.32	3.67	2.70	3.64	2.55	3.61	2.40	11
12	3.79	3.60	3.74	3.16	3.73	3.08	3.79	3.60	3.92	5.50	3.86	4.42	3.77	3.40	3.88	4.74	3.77	3.40	3.68	2.75	3.67	2.70	3.59	2.30	12
13	3.78	3.50	3.78	3.50	3.73	3.08	3.78	3.50	3.91	5.30	3.86	4.42	3.77	3.40	3.88	4.74	3.76	3.32	3.68	2.75	3.71	2.94	3.57	2.20	13
14	3.77	3.40	3.79	3.60	3.73	3.08	3.77	3.40	3.91	5.30	3.86	4.42	3.79	3.60	3.88	4.74	3.74	3.16	3.69	2.80	3.71	2.94	3.60	2.35	14
15	3.77	3.40	3.78	3.50	3.72	3.01	3.76	3.32	3.90	5.10	3.85	4.28	3.78	3.50	3.88	4.74	3.74	3.16	3.69	2.80	3.65	2.60	3.60	2.35	15
16	3.75	3.24	3.78	3.50	3.72	3.01	3.76	3.32	3.91	5.30	3.95	4.28	3.76	3.32	3.87	4.58	3.73	3.08	3.69	2.80	3.62	2.45	3.56	2.16	16
17	3.75	3.24	3.81	3.80	3.72	3.01	3.75	3.24	3.91	5.30	3.85	4.28	3.76	3.32	3.86	4.42	3.73	3.08	3.68	2.75	3.60	2.35	3.53	2.04	17
18	3.74	3.16	3.81	3.80	3.72	3.01	3.74	3.16	3.91	5.30	3.84	4.14	3.76	3.32	3.85	4.28	3.73	3.08	3.65	2.60	3.58	2.25	3.53	2.04	18
19	3.75	3.24	3.80	3.70	3.72	3.01	3.74	3.16	3.90	5.10	3.85	4.28	3.75	3.24	3.84	4.14	3.72	3.01	3.64	2.55	3.56	2.16	3.56	2.16	19
20	3.75	3.24	3.78	3.50	3.73	3.08	3.73	3.08	3.90	5.10	3.83	4.02	3.74	3.16	3.83	4.02	3.72	3.01	3.64	2.55	3.55	2.12	3.52	2.00	20
21	3.75	3.24	3.76	3.32	3.74	3.16	3.73	3.08	3.90	5.10	3.82	3.90	3.74	3.16	3.82	3.90	3.72	3.01	3.63	2.50	3.55	2.12	3.50	1.94	21
22	3.75	3.24	3.78	3.50	3.75	3.24	3.73	3.08	3.90	5.10	3.81	3.80	3.75	3.24	3.82	3.90	3.68	2.80	3.63	2.50	3.54	2.08	3.50	1.94	22
23	3.74	3.16	3.80	3.70	3.76	3.32	3.72	3.01	3.90	5.10	3.81	3.80	3.83	4.02	3.83	4.02	3.69	2.80	3.63	2.50	3.52	2.00	3.49	1.91	23
24	3.74	3.16	3.79	3.60	3.76	3.32	3.71	2.94	3.90	5.10	3.82	3.90	3.86	4.42	3.85	4.28	3.69	2.80	3.63	2.50	3.53	2.04	3.50	1.94	24
25	3.74	3.16	3.78	3.50	3.77	3.40	3.72	3.01	3.90	5.10	3.83	4.02	3.83	4.02	3.85	4.28	3.67	2.70	3.61	2.40	3.53	2.04	3.49	1.91	25
26	3.74	3.16	3.77	3.40	3.77	3.40	3.73	3.08	3.90	5.10	3.83	4.02	4.02	8.40	3.83	4.02	3.66	2.65	3.59	2.30	3.53	2.04	3.49	1.91	26
27	3.72	3.01	3.78	3.50	3.77	3.40	3.74	3.16	3.90	5.10	3.83	4.02	4.08	11.20	3.82	3.90	3.67	2.70	3.62	2.45	3.53	2.04	3.48	1.88	27
28	3.71	2.94	3.78	3.50	3.77	3.40	3.75	3.24	3.89	4.92	3.83	4.02	4.01	8.00	3.80	3.70	3.67	2.70	3.62	2.45	3.58	2.25	3.49	1.91	28
29	3.69	2.80	3.75	3.24	3.77	3.40	3.75	3.24	-	-	3.83	4.02	3.98	7.00	3.79	3.60	3.68	2.75	3.62	2.45	3.64	2.55	3.47	1.85	29
30	3.67	2.70	3.74	3.16	3.76	3.32	3.77	3.40	-	-	3.82	3.90	3.97	6.70	3.78	3.50	3.66	2.65	3.63	2.50	3.59	2.30	3.45	1.79	30
31	3.65	2.60	-	-	3.77	3.40	3.83	4.02	-	-	3.81	3.80	-	-	3.77	3.40	-	-	3.62	2.45	3.60	2.35	-	-	31

Quarter First Second Third Fourth
 Date
 H.V. V.K.
 H.V. V.K.
 H.V. V.K.
 G. H. copied G. H. checked
 Date
 PERIOD YEAR

TOTAL,	97.35	96.46	98.89	104.60	144.84	133.10	128.96	142.62	93.42	80.95	72.92	64.53
Mean Daily Discharge in Second-feet	3.14	3.21	3.19	3.37	5.17	4.29	4.30	4.60	3.11	2.61	2.35	2.15
Second-feet per square mile	.16	.17	.17	.18	.27	.22	.23	.24	.17	.14	.13	.11
Run-off, depth in inches												
Run-off in acre-feet	193.05	191.28	196.10	207.42	287.22	263.94	255.73	282.82	185.25	160.52	144.60	127.96
Maximum Mean Daily Discharge in Second-feet	3.90	3.80	3.40	4.02	6.40	4.92	11.20	6.70	3.50	2.80	2.94	2.40
Minimum Mean Daily Discharge in Second-feet	2.60	2.60	3.01	2.94	3.80	3.80	3.16	3.40	2.65	2.45	2.00	1.79

F-99 R

275
BEAR CREEK - A TRIBUTARY OF SAN GABRIEL AT
PASADENA'S BOY SCOUT CAMP

Location

On east bank of Bear Creek, a tributary to San Gabriel River, one and one-half miles above mouth (of Bear Creek) at Pasadena's Boy Scout Camp.

Drainage Area

25.95 square miles.

Installed by

Los Angeles County Flood Control District,
July, 1929.

Records Available

October 1, 1929 to September 30, 1931, at offices of Los Angeles County Flood Control District, Los Angeles, California.

Gage

An, continuous type water stage recorder installed, in galvanized iron shelter house on corrugated iron stilling well and secured to sloping rock bank, on east bank of stream.

Discharge Measurements

High water flows are measured from cable located just below recorder house. Low water measurements by wading near gage.

Channel and Control

Channel-sand, gravel, rock and boulders.
Control-Sand and Gravel.

Extremes of discharge

1929-1930

Maximum-108.00 c.f.s. May 3, 1930.

Minimum-10 c.f.s. Oct. 13, 1930.

1930-1931

Maximum-527 c.f.s. April 26, 1931.

Minimum-.01 c.f.s. August 27, 1931.

Diversion

None

Regulation

None

Accuracy

Fair

F-99 R

Co-operation

Located, constructed and operated by
Los Angeles County Flood Control District
with co-operation of U.S.G.S.
Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 99

Discharge measurements of

Bear

~~river~~
Creek

at **Tributary of San Gabriel River**
near

during the year ending September 30, 19 **31**

No.	Date	Made by	Width Feet	Area of section Sq. Ft.	Mean velocity Ft. per sec.	Gate height Feet	Discharge Sec. Ft.	ratio, Method Coeff.	Meas. secs.	G. Ht. change	Time Hours	Meter No.
1930												
1	10/3	Patterson	4.0	1.23	.67	2.24	.83	.6	4		1/6	556
2	10	"	4.5	1.60	.75	2.34	1.20	.6	4		1/4	"
3	16	"	4.5	1.40	.72	2.30	1.00	.6	4		1/6	"
4	23	"	4.0	1.34	.68	2.28	.91	.6	4		"	"
5	30	"	4.5	1.50	.67	2.28	1.00	.6	4		"	"
6	11/13	"	5.5	2.00	.80	2.41	1.60	.6	5		"	"
7	12/4	Delaney-Patterson	12.7	11.50	.29	2.55	3.30	.6	6		1/4	282 897
8	12	Patterson	7.0	3.80	.95	2.56	3.60	.6	7		"	556
9	18	"	6.5	3.40	.88	2.55	3.00	.6	5		"	"
10	26	"	6.5	3.40	.88	2.55	3.00	.6	6		"	"
1931												
11	1/2	Delaney	13.8	14.22	.37	2.65	5.24	.6	7		1/3	271 636
12	9	Patterson	15.0	15.10	.41	2.69	6.20	.6	8		"	282 897
13	16	"	7.5	4.30	1.12	2.62	4.80	.6	6		1/4	"
14	23	"	14.0	14.10	.32	2.62	4.50	.6	9		"	"
15	29	Delaney	14.0	13.48	.19	2.60	2.63	.6	7		"	271 636
16	2/6	Patterson	24.8	24.60	1.50	2.96	36.90	.6	11		"	282 897
17	6	"	24.3	23.70	1.49	2.94	35.40	.6	9		"	"
18	13	Delaney	23.5	16.38	1.26	2.75	20.64	.6	8		"	271 636
19	19	"	22.5	15.70	1.11	2.70	17.40	.6	8		"	"
20	20	Patterson	22.8	17.20	.81	2.67	13.90	.6	9		1/3	282 897
21	27	Delaney	22.0	12.48	.70	2.58	8.70	.6	8		1/4	271 636
22	3/6	Patterson	15.0	15.60	.42	2.51	6.50	.6	8		1/3	282 897
23	12	Delaney	21.0	10.52	.37	2.48	5.65	.6	8		1/4	271 636
24	20	"	20.5	10.10	.48	2.44	4.80	.6	8		1/4	"
25	27	Patterson	22.0	12.30	.30	2.42	3.70	.6	11		1/3	282 897
26	4/3	Delaney	20.5	9.02	.39	2.40	3.54	.6	8		1/6	271 636
27	10	"	20.4	8.14	.27	2.36	2.18	.6	9		1/3	"
28	24	"	23.0	19.30	1.52	2.90	29.30	.6	9		1/4	"

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **99**

Rating table for **LOW FLOWS BEAR CREEK TRIBUTARY SAN GABRIEL RIVER**

1 A.M.

PASADENA BOY SCOUT CAMP, from Oct 1, 1930, to Feb 4, 1931, 19 31

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
2.00			40	1.50		80	12.40							
.02			42	1.64	.07	82	14.0	.80						
.04			44	1.80	.08	84	16.0	1.0						
.06			46	1.98	.09	86	18.1	1.05						
.08			48	2.18	.10	88	20.4	1.15						
.10			50	2.42	.12	90	23.1	1.35						
.12			52	2.68	.13	92	25.9	1.40						
.14			54	2.98	.15	94	29.0	1.55						
.16	.67		56	3.32	.17	96	32.6	1.80						
.18	.71	.02	58	3.66	.17	98	36.2	1.80						
.20	.75		60	4.06	.20	3.00	40.0	1.90						
.22	.79	.02	62	4.50	.22									
.24	.83	.02	64	4.96	.23									
.26	.90	.035	66	5.46	.25									
.28	.98	.04	68	6.00	.27									
.30	1.06	.04	70	6.60	.30									
.32	1.14	.04	72	7.60	.50									
.34	1.22	.04	74	8.60	.50									
.36	1.30	.04	76	9.60	.60									
.38	1.38	.04	78	10.80	.60									
		.06			.80									

The above table is not applicable for obstructed channel conditions. It is based on 15 discharge measurements made during period 10/1 to 2/4, 1931

and is well defined between .83 second-feet and 6.20 second-feet.

Computed by W.T.K.
 Checked by W.T.K.
 Date _____

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 99

Rating table for HIGH FLOWS BEAR CREEK TRIBUTARY SAN GABRIEL RIVER AT

PASADENA BOY SCOUT CAMP, from Oct 1st, 1931, to Sept. 30, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
3.00	40.0	1.0	5.0	452.										
.10	50.0	1.2	.10	477.										
.20	62.	1.5	.20	502										
.30	77.	1.5	.30	527										
.40	92.	1.7	.40	552										
.50	109.	1.8												
.60	127.	2.0												
.70	147.	2.0												
.80	167.	2.2												
.90	189.	2.2												
4.00	211.	2.2												
.10	233	2.2												
.20	255	2.2												
.30	277	2.2												
.40	302	2.5												
.50	327													
.60	352													
.70	377													
.80	402													
.90	427													

The above table is not applicable for obstructed channel conditions. It is based on 50 discharge measurements made during year 1930-1931

and is well defined between .43 second-feet and 36.9 second-feet.

Computed by H.T.K.
Checked by H.T.K.
Date

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 99

Rating table for LOW FLOWS BEAR CREEK TRIBUTARY SAN GABRIEL RIVER

PASADENA BOY SCOUT CAMP, from Feb. 4, 1 A.M. 31, to Sept. 30, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
1.90	0	.005	.30	1.74	.12	.70	17.40	.65						
.92	.01		.32	2.00	.13	.72	18.70	.65						
.94	.02		.34	2.26	.13	.74	20.0	.65						
.96	.03		.36	2.56	.15	.76	21.4	.70						
.98	.04		.38	2.86	.15	.78	22.8	.70						
2.00	.06	.01	.40	3.26	.20	.80	24.3	.75						
.02	.08	.01	.42	3.70	.22	.82	25.8	.75						
.04	.12	.02	.44	4.18	.24	.84	27.3	.75						
.06	.16	.02	.46	4.84	.33	.86	28.8	.75						
.08	.20	.03	.48	5.60	.38	.88	30.3	.80						
.10	.26	.03	.50	6.40	.40	.90	31.9	.80						
.12	.32	.04	.52	7.24	.42	.92	33.5	.80						
.14	.40	.05	.54	8.20	.48	.94	35.1	.80						
.16	.50	.06	.56	9.20	.50	.96	36.7	.80						
.18	.62	.06	.58	10.20	.50	.98	38.3	.85						
.20	.74	.08	.60	11.30	.55	3.00	40.0							
.22	.90	.10	.62	12.40	.55									
.24	1.10	.10	.64	13.60	.60									
.26	1.30	.10	.66	14.80	.60									
.28	1.50	.10	.68	16.10	.65									

The above table is not applicable for obstructed channel conditions. It is based on 35 discharge measurements made during period 2/4/ to 9/30, 1931

and is well defined between .43 second-feet and 36.9 second-feet.

Computed by W.T.K.

Checked by W.T.K.

Date

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of **Bear Creek** Tributary of **San Gabriel River** at **Pasadena Boy Scout Camp** for the Year Ending September 30, 19 **31**

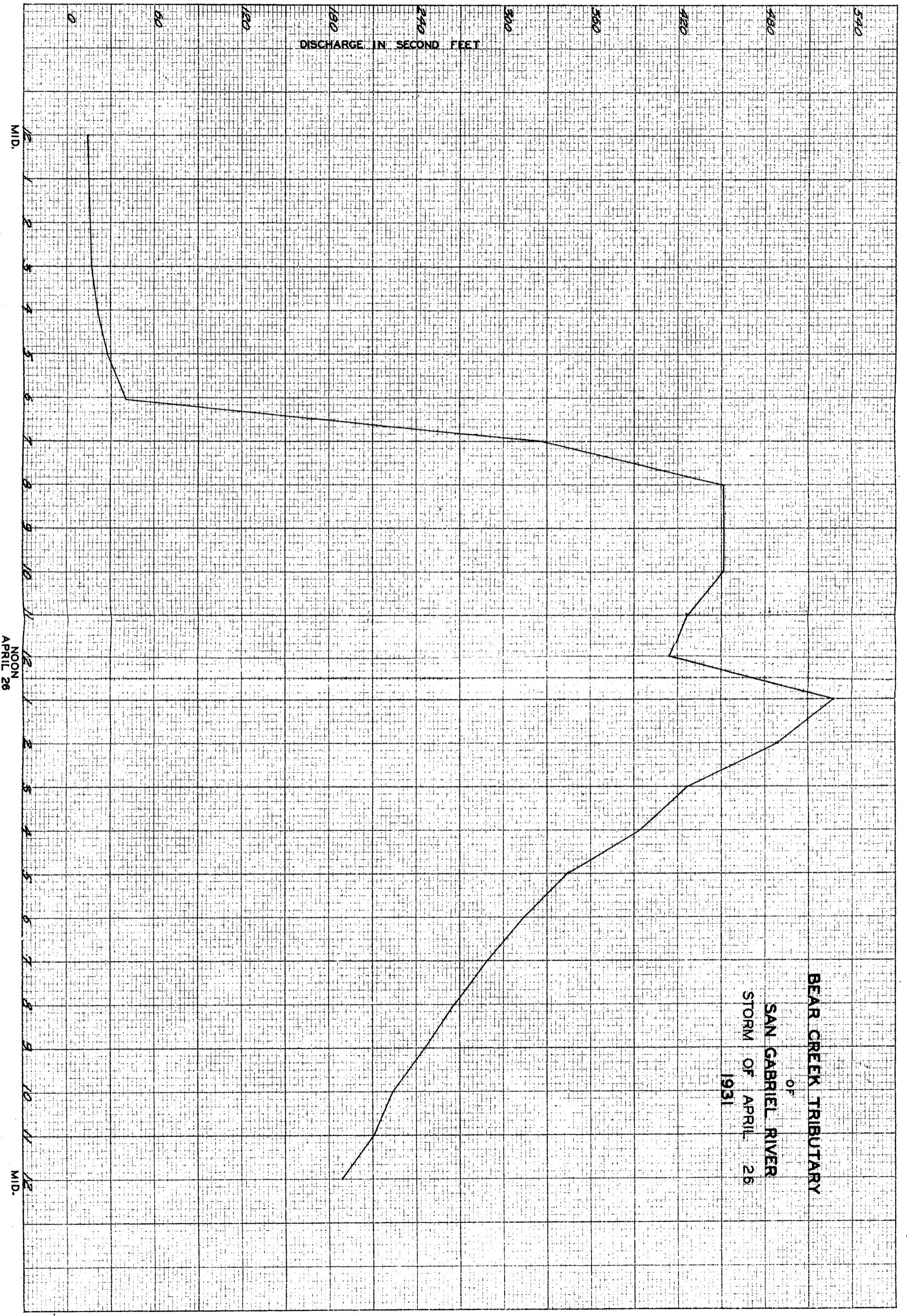
LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **99**

Drainage Area **26** Square Miles. **Patterson** Observer. Gage Read **continuous** Used rating table dated

Table with columns for months (OCTOBER to SEPTEMBER) and days (1-31). Each day entry includes Gage height and Discharge values. Includes vertical text on the left: 'Maximum stage 5.30 feet at 1 P.M. on Apr. 26, 1931' and 'Minimum stage 1.92 feet at 10 P.M. on Aug. 27, 1931'. Includes vertical text on the right: 'W.R. V.K.' and 'Computed Checked Date'.

Summary table with rows: TOTAL, Mean Daily Discharge in Second-foot, Second-foot per square mile, Run-off, depth in inches, Run-off in acre-feet, Maximum Mean Daily Discharge in Second-foot, Minimum Mean Daily Discharge in Second-foot.



BEAR CREEK TRIBUTARY
OF
SAN GABRIEL RIVER
STORM OF APRIL 26
1931

SAN GABRIEL RIVER EAST FORK P.W.D. STATION
500 FEET ABOVE MOUTH OF CATTLE CANYON

Location

At Camp Benita on East Fork San Gabriel River about 500' above junction of Cattle Canyon and the East Fork. 3 miles above San Gabriel Forks. 16 miles northeast of Azusa, Los Angeles County, California.

Drainage Area

58.2 square miles measured on U.S.G.S. topographic sheets.

Installed by

Pasadena Water Department, 1924.

Records Available

From October 1, 1927 to September 30, 1931 at offices of Los Angeles County Flood Control District, Los Angeles, California. Previous to October 1, 1927 at Pasadena Water Department, Pasadena, California.

Gage

Staff gage installed on east bank of stream at recorder. Stevens continuous water stage recorder installed in corrugated iron stilling well on east bank of stream.

Discharge Measurements

Low water measurements made by wading near the gage. High water measurements made from cable car located about 50' below recorder.

Channel and Control

Channel at gage sand, gravel and boulders. Rock banks.
No control

Extremes of Discharge**1927-1928**

Maximum-267 c.f.s. February 4, 1928

Minimum-5.4 c.f.s. September 20, 1928

1928-1929

Maximum-443 c.f.s. March 10, 1929

Minimum-4.68 c.f.s. October 7-10, 1929

1929-1930

Maximum-122.02 c.f.s. May 3, 1930

Minimum-6.58 c.f.s. October 6-8, 1930

1930-1931

Maximum-267.2 c.f.s. April 26, 1931

Minimum-2.13 c.f.s. September 22, 1931

P-2 R

Diversions

No diversions above the gage

Regulation

None

Accuracy

Poor due to lack of control and backwater effects from Cattle Canyon during high flows.

Co-operation

Operation by Pasadena Water Department, previous to October 1, 1927. Now operated by Los Angeles County Flood Control District in co-operation with Pasadena Water Department and U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **P2**

Discharge measurements of **San Gabriel River East Fork**

**River
creek**

at P.W.D. Sta. 500 ft. above Mouth of **Cattle Canyon** during the year ending September 30, 19 **31**

No.	Date	Made by	Width Feet	Area of section Sq.-ft.	Mean velocity ft. per sec.	Gage height Feet	Discharge Sec.-ft.	Rating Percent dist.	Method	Coef.	Meas. secs.	G. Ht. change	Time Hours	Meter No.
	1930													282
1	10/2	Patterson	23.5	15.3	.93	2.50	14.2			.6	8		1/4	897
2	10	"	23.5	16.1	1.02	2.56	16.5			.6	8		1/3	556
3	24	"	23.5	14.9	.99	2.54	14.8			.6	8		"	"
4	31	"	23.0	13.7	.83	2.56	11.3			.6	8		"	"
5	11/7	"	23.5	14.1	.77	2.56	10.9			.6	8		"	"
6	21	Patterson-Delaney	23.5	14.5	1.09	2.78	15.8			.6	8		"	271 638
7	12/5	" Jordan	23.5	14.5	1.14	2.75	16.5			.6	12		"	282 897
8	12	Delaney	24.0	14.1	1.08	2.76	15.20			.6	8		2/5	271 638
9	26	"	24.0	12.9	.97	2.81	12.44			.6	8		"	271 636
10	1/2	Patterson	23.5	16.8	1.13	2.75	19.00			.6	8		1/3	282 897
11	9	Delaney	24.5	14.8	1.15	2.72	17.11			.6	8		"	271 636
12	16	"	23.5	13.8	1.14	2.66	15.66			.6	8		1/4	"
13	23	"	23.5	13.6	1.11	2.63	15.09			.6	8		"	"
14	2/6	"	25.0	20.4	2.26	2.92	45.96			.6	8		"	"
15	20	"	24.5	16.8	1.56	2.70	26.20			.6	9		"	"
16	25	"	24.0	16.3	1.23	2.64	20.10			.6	8		"	"
17	3/6	"	24.0	15.7	1.20	2.56	18.80			.6	8		"	"
18	13	"	24.0	15.3	1.15	2.52	17.60			.6	8		"	"
19	18	"	24.0	14.5	1.10	2.48	16.00			.6	8		"	"
20	25	"	24.0	15.6	1.18	2.54	18.44			.6	8		1/6	"
21	4/3	Patterson	24.5	15.6	1.16	2.50	18.10			.6	8		1/4	282 897
22	10	"	23.5	16.3	.99	2.48	16.20			.6	8		1/3	282 556
23	24	"	25.5	25.8	2.53	3.04	65.20			.6	9		1/3	282 897
24	29	Delaney	25.0	32.8	2.71	3.06	89.00			.6	9		"	271 636
25	5/8	Patterson	24.5	19.9	2.37	2.74	47.30			.6	8		"	282 897
26	22	"	23.5	17.7	1.83	2.59	32.40			.6	8		"	"
27	28	"	24.0	18.7	2.13	2.66	39.90			.6	8		"	"
28	6/5	"	25.5	20.2	1.54	2.58	31.10			.6	9		"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. P2

Discharge measurements of **San Gabriel River East Fork**

River
Creek

at ~~near~~ P.W.D. Sta. 500ft. above Mouth of **Cattle Canyon**, during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Cofc	Meas. secs.	G. Ht. change	Time	Meter No.
			Feet	Sq.-ft.	Ft. per sec.	Feet	Sec.-ft.				Percent diff.	No.	Total	
	1931													282
29	6/12	Patterson-Case	23.5	17.9	1.39	2.48	24.8		.6		9		1/4	897
30	18	Patterson	24.5	16.2	1.28	2.42	20.7		.6		9		1/3	"
31	25	"	24.0	14.7	1.16	2.35	17.1		.6		9		"	"
32	7/3	"	23.5	14.6	1.01	2.32	14.7		.6		8		1/4	"
33	9	"	23.0	13.6	.96	2.28	13.0		.6		8		1/3	"
34	16	"	23.0	14.6	.87	2.24	12.7		.6		8		"	"
35	24	"	23.5	13.5	.90	2.24	12.1		.6		9		"	"
36	31	"	23.0	13.1	.84	2.22	11.0		.6		8		"	"
37	8/7	"	23.0	12.8	.80	2.20	10.2		.6		8		1/4	"
38	21	"	22.5	11.8	.75	2.16	8.8		.6		8		"	"
39	28	"	22.5	11.5	.76	2.15	8.7		.6		8		"	"
40	9/4	"	20.5	10.9	.97	2.18	10.6		.6		8		"	"
41	11	"	22.5	11.7	.78	2.15	9.1		.6		8		"	"
42	25	"	20.5	11.1	.98	2.13	10.9		.6		8		"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. P-2

Rating table for SAN GABRIEL RIVER EAST FORK

PASADENA STATION, from Oct. 1, 1930, to Feb. 4, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
2.40	5.5		.80	21.2										
.42	6.0	.25	.82	22.3	.55									
.44	6.6	.30	.84	23.6	.65									
.46	7.2	.30	.86	25.0	.70									
.48	7.8	.30	.88	26.4	.70									
.50	8.4	.30	.90	27.8	.70									
.52	9.0	.30	.92	29.30	.75									
.54	9.7	.35	.94	30.80										
.56	10.4	.35	.96	32.3										
.58	11.2	.40	.98	33.8										
.60	12.0	.40	3.00	35.3										
.62	12.8	.40												
.64	13.6	.40												
.66	14.4	.40												
.68	15.2	.40												
.70	16.2	.40												
.72	17.2	.50												
.74	18.2	.50												
.76	19.2	.50												
.78	20.2	.50												

The above table is not applicable for obstructed channel conditions. It is based on 13 discharge measurements made during 10/1, 1930 to 2/4, 1931

and is well defined between 10.9 second-feet and 19.0 second-feet.

Computed by W.T.K.

Checked by W.T.F.

Date

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. P 2

Rating table for SAN GABRIEL RIVER EAST FORK

, from , 19 , to , 19

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
2.40	13.0		.80	34.0		.20	93.0							
.42	13.5	.25	.82	35.5	.75	.22	96.5							
.44	14.2	.35	.84	37.5	1.0	.24	100.0							
.46	15.0	.40	.86	39.5	1.0	.26	103.5							
.48	15.8	.40	.88	41.5	1.0	.28	107.0							
.50	16.6	.40	.90	44.0	1.25	.30	110.5							
.52	17.5	.45	.92	46.5	1.25	.32	114.0							
.54	18.4	.45	.94	49.0	1.25	.34	117.5							
.56	19.3	.45	.96	51.5	1.25	.36	121.0							
.58	20.2	.45	.98	54.5	1.50	.38	124.5							
.60	21.2	.50	3.00	58.0	1.75	.40	128.0							
.62	22.2	.50	.02	61.5	1.75	.42	131.5							
.64	23.2	.50	.04	65.0	1.75	.44	135.0							
.66	24.4	.60	.06	68.5		.46	138.5							
.68	25.6	.60	.08	72.0		.48	142.0							
.70	26.8	.65	.10	75.5		.50	145.5							
.72	28.1	.70	.12	79.0										
.74	29.5	.75	.14	82.5										
.76	31.0	.75	.16	86.0										
.78	32.5	.75	.18	89.5										
		.75												

The above table is not applicable for obstructed channel conditions. It is based on 9 discharge measurements made during 2/4 to 4/24, 1931

and is well defined between 16.0 second-feet and 45.96 second-feet.

Computed by W.T.K.

Checked by W.T.K.

Date

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. P 2

Rating table for SAN GABRIEL RIVER EAST FORK, PASADENA STATION

, from April 24, 1931, to Sept. 30, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
2.00	4.2		3.00	81.5	1.3	4.00	221.							
.05	5.7	.30	.05	88.	1.4	.05	228.							
.10	7.2	.30	.10	95		.10	235.							
.15	8.7	.30	.15	102		.15	242.							
.20	10.5	.36	.20	109		.20	249.							
.25	12.5	.40	.25	116		.25	256.							
.30	14.7	.44	.30	123		.30	263.							
.35	17.0	.46	.35	130		.35	270.							
.40	19.5	.50	.40	137										
.45	22.5	.60	.45	144										
.50	26.0	.70	.50	151										
.55	29.5	.70	.55	158										
.60	33.5	.80	.60	165										
.65	39.0	1.1	.65	172										
.70	44.5	1.1	.70	179										
.75	50.5	1.2	.75	186										
.80	56.5	1.2	.80	193										
.85	62.5	1.2	.85	200										
.90	68.5	1.2	.90	207										
.95	75.0	1.3	.95	214										

The above table is not applicable for obstructed channel conditions. It is based on 20 discharge measurements made during 4/24 to 9/30 1931

and is well defined between 8.70 second-feet and 89.0 second-feet.

Computed by W.T.K.

Checked by W.T.K.

Date

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of San Gabriel River Pasadena's East Fork Station 500' above Mouth Cattle Canyon for the Year Ending September 30, 1931

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

Drainage Area 58.18 Square Miles.

Patterson Observer.

Gage Read Continuous

Used rating table dated

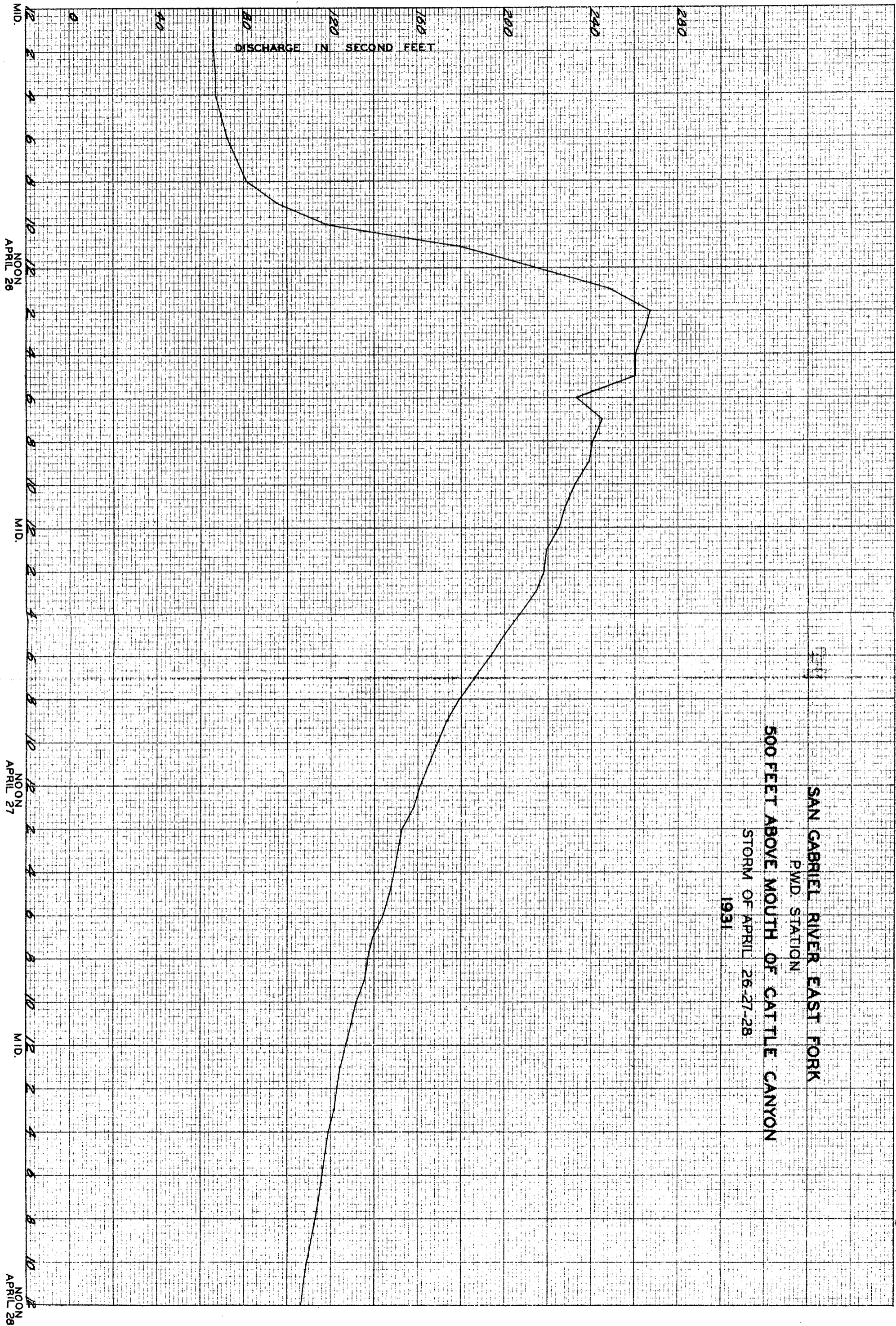
Maximum stage 4.33 feet at Noon on April 26 Discharge 267.2 second-foot. Minimum stage 2.13 feet at 3:00 P.M. on Sept 22 Discharge 6.1 second-foot.

Correction curve used on Gage Heights

Main data table with columns for months (OCTOBER to SEPTEMBER), days (1-31), gage height, and discharge. Includes summary rows for totals and mean values.

Vertical column on the right side containing 'DAY' labels (1-31), 'Quarter' labels (First, Second, Third, Fourth), and 'Computed'/'Checked' status with initials 'WTK' and dates.

Summary table at the bottom with rows for 'TOTAL', 'Mean Daily Discharge in Second-foot', 'Second-foot per square mile', 'Total depth in inches', and 'Total acre-feet'.



SAN GABRIEL RIVER EAST FORK
P.W.D. STATION
500 FEET ABOVE MOUTH OF CATTLE CANYON
STORM OF APRIL 26-27-28
1931

P-3 A

**SAN GABRIEL RIVER WEST FORK
P.W.D. STATION 2 MILES ABOVE FORKS.**

Location

One quarter mile above Camp Rincon Ranger Station on the south bank of West Fork of San Gabriel River 13.5 miles north of Azusa, Los Angeles County, California.

Drainage area

102.24 square miles.

Installed by

County Road Department for Pasadena Water Department. This station was moved from P. 1 which was about 1 1/2 miles downstream.

Records available

December 2, 1930 to September 30, 1931 at offices of Los Angeles County Flood Control District, Los Angeles, California.

Gage

Vertical staff gages on inside and outside of corrugated iron stilling well on south bank of river. Stevens continuous water stage recorder installed in house on top of stilling well.

Discharge Measurements

High water measurements made from cable car 15 feet above gage. Low water measurements made by wading near gage.

Extremes of Discharge

Maximum-1529 c.f.s. on April 26, 1931.
Minimum-0.85 c.f.s. on September 5, 1931.

Channel and Control

Channel is gravel and sand
Control of large boulders

Co-operation

Constructed for Pasadena Water Department and operated by Los Angeles County Flood Control District.

SAN GABRIEL RIVER - WEST FORK P.W.D. STATION
1/2 MILE ABOVE FORKS.

Location

About one-half mile above San Gabriel Canyon Forks on West Fork near Camp Rincon - about 12 miles north of Azusa, Los Angeles County, California.

Drainage Area

106.23 square miles measured on U.S.G.S. topographic sheets.

Installed by

Pasadena Water Department, 1924
Station abandoned November 19, 1930 due to road construction.

Records Available

From October 1, 1927 to December 2, 1930 at Los Angeles County Flood Control District, Los Angeles, California. Records from December 2, 1930 are being secured at P.3 (which is 1 1/4 miles upstream). Previous to October 1, 1927 at Pasadena Water Department, Pasadena, California.

Gage

Staff gage installed on south bank of stream at recorder well. Stevens continuous water stage recorder installed in corrugated iron stilling well on south bank of stream.

Discharge Measurements

Low water flow measured near gage. High water measurements made from cable car located about one quarter mile above gage.

Channel and Control

Channel at gage sand, gravel and boulders. Rock banks.
No control.

Extremes of Discharge

1927-1928

Maximum-1590 c.f.s. February 4, 1928

Minimum-1.3 c.f.s. September 1, 1928

1928-1929

Maximum-775 c.f.s. April 4, 1929

Minimum-Dry at various times of year

1929-1930

Maximum-301.2 c.f.s. March 15, 1930

Minimum-1.90 c.f.s. at various times of year.

1930-1931

Maximum-30 c.f.s. March 8, 1930

Minimum-3.20 c.f.s. November 6, 1930.

P.1

Diversions

None above gage.

Regulation

None

Accuracy

Fair

Co-operation

Operated by Pasadena Water Department previous to October 1, 1927. Now operated by Los Angeles County Flood Control District in co-operation with U.S.G.S. Water resources Branch and Pasadena Water Department.

LOS ANGELES COUNTY
 FLOOD CONTROL DISTRICT
 HYDROGRAPHIC DEPARTMENT

File No. P-1

Discharge measurements of **San Gabriel River West Fork**

~~River~~
~~Creek~~

at ~~Sta.~~ **P.W.D. Sta. $\frac{1}{4}$ mi. above Forks** during the year ending September 30, 19**31**

No.	Date	Made by	Width			Gage height	Discharge		Method	Coef.	Meas. secs.	G. Ht. change		Time	Meter No.
			Feet	Sp. ft.	ft. per sec.		Feet	Sec. ft.				Percent diff.	No.		
	1930														262
1	10/3	Patterson	10.0	5.8	.69	1.50	.40		.6		7		1/4	556	
2	10	"	11.0	6.9	.84	1.58	5.80		.6		6		"	"	
3	17	"	10.0	6.0	.80		4.80		.6		6		"	"	
4	24	"	10.0	6.0	.70		4.20		.6		7		"	"	
5	31	"	10.0	5.7	.67		3.80		.6		6		"	"	
6	11/7	"	9.5	5.3	.60		3.20		.6		6		"	"	
7	14	"	11.0	6.8	.85		5.80		.6		6		"	"	
8	20	"	11.0	6.6	.79		5.20		.6		6		"	"	
9	29	"	26.0	22.4	1.26		28.20		.6		10		"	"	

After Nov. 29, 1930 Recorder Moved 2 miles above Forks
 Records after this date will be found under P-3

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. P-3

Discharge measurements of **San Gabriel River West Fork**

~~River~~
~~Outlet~~

at P.W.D. Sta. 2 miles above Forks

during the year ending September 30, 19 **31**

No.	Date	Made by	Width	Area of	Mean	Gage	Discharge	Rating	Method	Coeff.	Meas. sec.	G. Ht.	Time	Meter No.
			Feet	Sq. ft.	Velocity Ft. per sec.							Feet		
Records Previous to Dec. 5, 1930 Will be found under P-1														
10	12/5	Patterson-Jordan	13.0	10.2	1.09	3.07	11.10				10	1/4	282	897
11	10	Delaney	13.0	8.9	1.18	3.04	10.41				7	1/3	271	638
12	12	"	13.0	9.3	1.11	3.02	10.34				11	1/2	"	271
13	26 1931	"	13.0	9.9	1.01	3.02	10.05				8	1/3	636	
14	1/5	"	13.0	11.1	1.19	3.07	13.26				9	"	"	"
15	9	"	16.0	19.2	1.55	3.23	29.89				9	"	"	"
16	16	"	13.0	12.1	1.33	3.16	16.10				8	1/4	"	"
17	23	"	13.0	11.2	1.23	3.14	13.78				9	"	"	"
18	2/4	"	38.0	85.6	3.65	4.05	313.9				8	4/5	"	"
18A	4	"	38.0	88.4	3.25	4.14	331.2				8	.09	2/3	"
19	4	"	38.5	97.8	5.00	4.25	492.0				8	.06	2/5	"
20	4	"	38.5	101.	5.20	4.31	525.8				8	.05	1/2	"
21	4	"	48.5	124.	5.30	4.48	661.8				10	.05	2/3	"
22	4	"	48.5	133.	5.60	4.53	741.1				10	.05	2/5	"
23	4	"	48.5	137.	5.00	4.72	799.5				11	1	"	"
25	5	"	30.0	81.	4.40	3.87	355.4				6	.03	2/3	"
26	5	"	37.5	81.2	3.30	3.69	266.1				7	.02	1/3	"
27	5	"	37.0	73.4	2.90	3.59	214.1				6	.02	"	"

Cont'd

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. P3

Discharge measurements of **San Gabriel River West Fork**

**River
Creek**

at P.W.D. Sta. 2 mi. above Forks

during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gate height	Discharge	Rating	Method	Coef.	Meas. secs.	G. H. change	Time	Meter No.
	1931		Feet	Sq.-ft.	Ft. per sec.	Feet	Sec.-ft.	Percent dit.			No.	Total	Hours	
28	2/6	Delaney	31.5	57.1	2.14	3.30	122.4		.6		6		1/3	271 636
29	9	"	35.5	42.8	2.07	3.18	88.5		.6		9		"	"
30	10	Patterson-Delaney	36.0	38.0	1.80	3.09	68.5		.6		9		1/4	"
31	11	Delaney	35.0	36.3	1.70	3.05	61.7		.6		9		1/4	"
32	12	"	35.0	36.1	1.78	3.06	64.2		.6		9		"	"
33	13	"	35.5	34.2	1.74	3.02	59.6		.6		9		1/3	"
34	13	Patterson	36.0	35.3	1.69	3.02	59.6		.6		10		"	282 897 271
35	14	Delaney	36.5	39.0	2.02	3.15	78.7		.6		9		1/4	636
36	17	"	36.0	32.8	1.83	3.04	59.3		.6		10		2/5	"
37	19	"	35.5	30.1	1.62	2.96	49.3		.6		10		1/4	"
38	20	"	35.5	28.9	1.55	2.92	44.7		.6		10		"	"
39	25	"	34.5	25.0	1.13	2.80	28.4		.6		10		1/3	"
40	3/6	"	34.0	22.2	.98	2.72	21.7		.6		9		"	"
41	13	"	33.5	21.3	.88	2.67	18.8		.6		9		1/4	"
42	20	"	32.5	18.6	.81	2.60	15.0		.6		9		"	"
43	25	"	33.0	19.0	.81	2.63	15.5		.6		9		"	"
44	27	"	32.5	18.7	.72	2.60	13.5		.6		9		"	"
45	4/3	"	32.5	17.2	.68	2.56	11.7		.6		8		1/6	"
46	24	"	36.5	37.3	1.93	3.20	72.1		.6		9		1/4	"
47	25	"	35.5	30.5	1.47	2.98	44.7		.6		8		1/4	"
48	26	"	50.0	198.0	7.55	5.87	1498.		.6		10		.033/4	"
49	26	"	45.0	188.0	8.10	5.84	1516.		.6		9		.082/5	"
50	26	"	50.0	171.0	7.00	5.49	1198.		.6		10		.081/2	"
51	26	"	50.0	168.0	6.70	5.38	1130.		.6		10		.082/5	"
52	26	"	45.0	142.5	5.82	4.96	830.		.6		9		.021/3	"
53	26	"	45.0	139.0	5.80	4.88	808.		.6		9		.101/2	"
54	26	"	45.0	117.5	5.13	4.57	603.0		.6		9		.05	"
55	26	"	45.0	109.0	5.20	4.52	564.0		.6		9		.05	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. P3

Discharge measurements of San Gabriel River West Fork

River
Creek

at P.W.D. Sta. 2 mi. above Forks
near

during the year ending September 30, 1931

No.	Date	Made by	Width Feet	Area of section Sq.-ft.	Mean velocity Ft. per sec.	Gage height Feet	Discharge Sec.-ft.	Rating Percent diff.	Method	Coef.	Meas. secs.	G. Ht. change	Time Hours	Meter No.
1931														
56	4/27	Delaney	47.0	81.8	4.02	3.95	329.0		.6		8	.031	1/3	636
57	27	"	47.0	81.4	3.93	3.90	320.0		.6		8	.02	"	"
58	27	"	41.5	71.6	4.10	3.84	293.0		.6		8	.01	"	"
59	27	"	41.0	67.2	3.90	3.81	262.0		.6		8	.011	1/4	"
60	27	"	41.0	66.0	3.67	3.73	236.0		.6		8	.011	1/3	"
61	28	"	40.0	51.5	2.94	3.57	150.4		.6		8	.011	1/4	"
62	28	"	40.0	49.5	2.84	3.55	140.4		.6		8		1/3	"
63	29	"	40.0	40.5	2.50	3.46	97.0		.6		9		"	"
64	30	"	39.5	36.2	2.00	3.34	71.7		.6		9		1/4	"
65	5/1	"	39.0	35.4	1.98	3.28	69.5		.6		9		"	"
66	4	"	38.0	28.5	1.50	3.15	42.7		.6		10		"	"
67	8	Patterson-Delaney	37.5	23.9	1.08	3.04	25.9		.6		10		"	"
68	15	" Keifer	37.5	21.9	1.29	2.94	28.3		.6		10		"	282 897
69	22	Patterson	33.5	15.1	1.12	2.75	16.9		.6		11		1/3	" 262
70	25	Waddicor	37.1	24.5	1.31	3.05	32.1		.6		15		1/4	556
71	29	"	35.8	19.6	1.11	2.84	21.8		.6		10		"	" 282
72	6/5	Patterson	33.0	15.1	1.16	2.85	17.5		.6		11		1/3	897
73	13	"	31.5	13.5	1.10	2.86	14.9		.6		11		"	"
74	19	"	32.0	14.7	.75	2.79	11.0		.6		11		"	"
75	25	"	14.0	6.8	1.09	2.77	7.4		.6		7		1/4	"
76	7/3	"	19.5	10.0	.72	2.67	7.2		.6		7		"	"
77	9	"	19.0	9.3	.69	2.60	6.4		.6		7		"	"
78	18	"	13.0	6.1	.90	2.58	5.5		.6		9		"	"
79	24	"	12.0	5.1	.71	2.50	3.6		.6		9		1/3	"
80	31	"	7.3	3.0	1.07	2.41	3.2		.6		6		1/4	"
81	8/7	"	7.5	3.1	.97	2.51	3.0		.6		8		"	"
82	14	"	8.0	3.3	1.09	2.58	3.6		.6		8		"	"
83	21	"	7.5	3.1	.94	2.52	2.9		.6		8		"	"

LOS ANGELES COUNTY
 FLOOD CONTROL DISTRICT
 HYDROGRAPHIC DEPARTMENT

File No. **P3**

Discharge measurements of **San Gabriel River West Fork**

**River
 Creek**

at **P.W.D. Sta. 7 mi. above Forks**, during the year ending September 30, 19**31**

No.	Date	Made by	Area of section		Mean velocity	Gage height		Discharge	Rating	Method	Coef.	Meas. secs.	G. Ht. change	Time	Meter No.
			Feet	Sq. ft.		ft. per sec.	Feet								
	1931														
84	8/27	Patterson-Lane	7.0	3.0	.93	2.57	2.80			.6		8		1/4	897
85	4/4	Patterson	7.5	3.0	.90	2.54	2.60			.6		8		"	"
86	11	"	7.5	3.1	.90	2.58	2.80			.6		8		"	"
87	18	"	7.5	3.1	.87	2.51	2.70			.6		8		"	"
88	25	"	6.5	3.5	.86	2.63	3.00			.6		6		"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. P-3

Rating table for SAN GABRIEL RIVER WEST FORK

Pasadena Station, from Dec. 2, 1930, to Feb. 4, 9 P.M., 1931.

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
3.00	8.00		4.00	282.	6.2									
.05	10.50	.50	.05	313.	7.0									
.10	13.00	.50	.10	348.	7.4									
.15	15.50	.50	.15	385.	8.0									
.20	20.	.90	.20	425.	8.0									
.25	26.	1.20	.25	465.	8.0									
.30	33.	1.40	.30	510.	9.0									
.35	43.	2.00	.35	555.	9.0									
.40	58.	2.00	.40	605.	10.0									
.45	66.	2.60	.45	660.	11.0									
.50	79.	2.60	.50	715.										
.55	92.	2.60	.55	770.										
.60	107.	3.00	.60	825.										
.65	122.	3.00	.65	880.										
.70	139.	3.40	.70	935.										
.75	159.	4.00	.75	990.										
.80	180.	4.2												
.85	202.	4.4												
.90	227.	5.0												
.95	252.	5.0												
		6.0												

The above table is not applicable for obstructed channel conditions. It is based on 22 discharge measurements made during 12/2 to 2/4 1931

and is well defined between 3.2 second-feet and 741.1 second-feet.

Computed by W.T.K.

Checked by W.T.K.

Date

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. P 3

Rating table for SAN GABRIEL RIVER WEST FORK PASADENA STATION

9 A.M.

, from Feb. 4, 9 PM, 1931, to April 26, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
2.45	8.5	.30	.45	174.	3.6	.45	641	5.8						
2.50	10.00	.30	.50	192.	4.0	.50	670	5.8						
.55	11.50	.50	.55	210.	4.0	.55	699	5.8						
.60	14.00	.50	.60	230.	4.0	.60	728	6.0						
.65	16.50	.50	.65	250.	4.2	.65	757	6.0						
.70	19.00	.90	.70	270.	4.2	.70	787	6.0						
.75	23.50	1.0	.75	291.	4.6	.75	817	6.0						
.80	28.5	1.0	.80	312.	4.6	.80	847	6.0						
.85	23.5	1.1	.85	335.	4.8	.85	877	6.0						
.90	39.0	1.20	.90	358.	4.8	.90	907	6.0						
.95	45.0	1.60	.95	382.	4.8	.95	937	6.0						
3.00	53.0	1.80	4.00	406	5.0	5.00	1067							
.05	62.0	1.80	.05	430	5.0									
.10	71.0	2.0	.10	455	5.2									
.15	81.0	2.4	.15	480	5.2									
.20	93.0	2.8	.20	506	5.4									
.25	107.	3.0	.25	532	5.4									
.30	122.	3.4	.30	559	5.4									
.35	139.	3.4	.35	586	5.6									
.40	156.	3.6	.40	613	5.8									

The above table is not applicable for obstructed channel conditions. It is based on 24 discharge measurements made during 2/4 to 4/26 1931

and is well defined between 11.70 second-feet and 799.5 second-feet.

Computed by W.T.K.

Checked by W.T.K.

Date

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. P 3

Rating table for SAN GABRIEL RIVER WEST FORK

9 A.M.

PASADENA STATION, from April 26, 19, to Sept. 30, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
2.00			3.00	30.15		4.00	324		6.00	1625				
.05			.05	33.90	.75	.10	368	4.4	.10	1705	8.0			
.10			.10	37.65	.75	.20	414	4.6	.20	1790	8.5			
.15			.15	42.65	1.0	.30	460	4.6	.30					
.20			.20	53.00	2.07	.40	508	4.8						
.25			.25	64.0	2.20	.50	562	5.4						
.30			.30	78.0	2.80	.60	618	5.6						
.35			.35	93.0	3.0	.70	676	5.8						
.40	0		.40	108.	3.0	.80	735	5.9						
.45	.85	.17	.45	123.	3.0	.90	800	6.5						
.50	1.70	.17	.50	138.	3.0	5.00	865	6.5						
.55	2.75	.21	.55	153.	3.0	.10	935	7.0						
.60	4.25	.30	.60	171.	3.6	.20	1005	7.0						
.65	6.25	.40	.65	189.	3.6	.30	1075	7.0						
.70	8.75	.50	.70	207.	3.6	.40	1150	7.5						
.75	11.75	.60	.75	225	3.6	.50	1225	7.5						
.80	15.25	.70	.80	243.	3.6	.60	1305	8.0						
.85	18.90	.73	.85	262.	3.8	.70	1385	8.0						
.90	22.65	.75	.90	281.	3.8	.80	1465	8.0						
.95	26.40	.75	.95	302.	4.2	.90	1545	8.0						
		.75			4.4			8.0						

The above table is not applicable for obstructed channel conditions. It is based on 42 discharge measurements made during 4/26 to 9/30, 1931

and is well defined between 2.60 second-feet and 1516.0 second-feet.

Computed by W. T. K.
Checked by W. T. K.
Date

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of

San Gabriel River
Pasadena's West Fork Station
for the Year Ending September 30, 1931

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. P 1
3

At Near 2 miles above Forks

Drainage Area 102.24 Square Miles.

Patterson [Observer.]

Gage Read Continuous

Used rating table dated

Maximum stage 5.92 feet at 2 P.M. on April 26, 1931 Discharge 1529.0 second-foot.
Minimum stage 2.45 feet at 7:00 P.M. on Sept 5, 1931 Discharge .85 second-foot.

* This station moved 2 miles up stream on account of Road Construction P.I. used until Dec. 3, 1930

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		
1	1.52	4.4		3.8		20.0	3.07	11.50	3.28	30.20	2.77	25.5	2.58	13.0	3.27	69.6	2.84	18.17	2.68	7.75	2.55	2.75	2.57	3.35	1	
2	1.51	4.2		3.6		15.0	3.20	20.0	3.23	23.6	2.75	23.5	2.57	12.5	3.21	55.2	2.82	16.71	2.67	7.25	2.53	2.33	2.58	3.65	2	
3	1.50	4.0		3.6		3.07	11.50	3.17	17.3	H	30.3	2.74	22.6	2.57	12.5	3.16	44.72	2.79	14.55	2.68	7.75	2.52	2.12	2.58	3.65	3
4	1.49	3.8		3.4		3.07	11.50	3.12	14.0	H	484.0	2.74	22.6	2.56	12.0	3.12	39.65	2.79	14.55	2.65	6.25	2.56	3.05	2.54	2.54	4
5	1.47	3.4		3.4		3.06	11.00	3.14	15.0	H	338.4	2.75	23.5	2.55	11.5	3.08	36.15	2.82	16.71	2.64	5.85	2.59	3.95	2.49	1.53	5
6	1.47	3.4		3.2		3.06	11.0	3.20	20.0	3.35	139.0	2.74	22.6	2.55	11.5	3.03	32.40	2.84	18.17	2.64	5.85	2.58	3.65	2.47	1.19	6
7	1.48	3.6		3.2		3.08	11.0	3.19	19.1	3.30	122.0	2.73	21.7	2.54	11.2	2.98	28.65	2.83	17.44	2.65	6.25	2.57	3.35	2.51	1.91	7
8	1.47	3.4		4.6		3.06	11.0	3.30	33.0	3.32	128.8	2.72	20.8	2.53	10.9	2.92	24.15	2.84	18.17	2.65	6.25	2.55	2.75	2.55	2.75	8
9	1.56	5.6		4.8		3.06	11.0	3.29	31.6	3.17	85.8	2.71	19.9	2.53	10.9	2.93	24.90	2.85	18.90	2.65	6.25	2.55	2.75	2.56	3.05	9
10	1.57	5.8		5.0		3.06	11.0	3.22	22.4	3.08	67.4	2.70	19.0	2.52	10.6	2.91	23.40	2.83	17.44	2.63	5.45	2.56	3.05	2.58	3.65	10
11	1.56	5.6		5.4		3.07	11.5	3.21	21.2	3.09	69.2	2.69	18.50	2.51	10.3	2.89	21.90	2.79	14.55	2.63	5.45	2.56	3.05	2.56	3.05	11
12	1.55	5.4		5.6		3.08	12.0	3.18	18.2	3.05	62.0	2.69	18.50	2.51	10.3	2.90	22.65	2.80	15.25	2.64	5.85	2.57	3.35	2.56	3.05	12
13	1.52	4.4		5.8		3.07	11.5	3.16	16.4	3.04	60.2	2.67	17.50	2.52	10.6	2.93	24.90	2.78	13.85	2.63	5.45	2.58	3.65	2.53	2.33	13
14	1.51	4.2		5.8		3.07	11.5	3.17	17.3	3.11	73.0	2.66	17.00	2.53	10.9	2.94	25.65	2.75	11.75	2.63	5.45	2.57	3.35	2.53	2.33	14
15	1.51	4.2		5.6		3.06	11.0	3.18	18.2	3.14	79.0	2.65	16.5	2.52	10.6	2.95	26.40	2.75	11.75	2.62	5.05	2.56	3.05	2.55	2.75	15
16		4.5		5.6		3.06	11.0	3.17	17.3	3.06	63.8	2.64	16.0	2.49	9.7	2.94	25.65	2.76	12.45	2.61	4.65	2.56	3.05	2.56	3.05	16
17		4.8		10.0		3.06	11.0	3.16	16.4	3.02	56.6	2.63	15.5	2.48	9.4	2.91	23.40	2.76	12.45	2.60	4.25	2.54	2.54	2.55	2.75	17
18		4.8		9.0		3.06	11.0	3.15	15.5	3.01	54.8	2.62	15.0	2.47	9.1	2.86	19.65	2.75	11.75	2.59	3.95	2.53	2.33	2.55	2.75	18
19		4.6		6.0		3.06	11.0	3.15	15.5	2.97	48.2	2.61	14.5	2.47	9.1	2.83	17.44	2.75	11.75	2.58	3.65	2.54	2.54	2.58	3.65	19
20		4.6		5.2		3.06	11.0	3.14	15.0	2.96	46.6	2.60	14.0	2.47	9.1	2.82	16.71	2.75	11.75	2.58	3.65	2.55	2.75	2.58	3.65	20
21		4.4		5.0		3.06	11.0	3.14	15.0	2.92	41.4	2.59	13.5	2.45	8.5	2.83	17.44	2.72	9.95	2.57	3.35	2.55	2.75	2.56	3.05	21
22	Station Removed	4.4		5.4		3.06	11.0	3.12	14.0	2.87	35.7	2.59	13.5	2.48	8.8	2.83	17.44	2.68	7.75	2.59	3.95	2.53	2.33	2.56	3.05	22
23		4.4		6.0		3.06	11.0	3.12	14.0	2.85	33.5	2.59	13.5	2.72	20.8	2.81	15.98	2.66	6.75	2.58	3.65	2.52	2.12	2.55	2.75	23
24		4.2		5.8		3.06	11.0	3.12	14.0	2.82	30.5	2.62	15.0	3.01	54.8	2.82	16.71	2.64	5.85	2.55	2.75	2.52	2.12	2.52	2.12	24
25		4.2		6.0		3.06	11.0	3.13	14.5	2.81	29.5	2.63	15.5	2.91	40.2	3.00	30.15	2.66	6.75	2.56	3.05	2.52	2.12	2.55	2.75	25
26		4.2		7.0		3.06	11.0	3.13	14.5	2.80	28.5	2.59	13.5	H	675.5	2.98	28.65	2.69	8.25	2.54	2.54	2.51	1.91	2.54	2.54	26
27		4.0		11.0		3.06	11.0	3.14	15.0	2.80	28.5	2.57	12.5	H	329.6	2.93	24.90	2.71	9.35	2.53	2.33	2.51	1.91	2.53	2.33	27
28		4.0		30.0		3.06	11.0	3.13	14.5	2.78	26.5	2.58	13.0	3.60	171.0	2.90	22.65	2.71	9.35	2.54	2.54	2.55	2.75	2.53	2.33	28
29		4.0		28.2		3.05	10.5	3.14	15.0	-	-	2.58	13.0	3.40	108.0	2.88	21.15	2.69	8.25	2.55	2.75	2.63	5.45	2.54	2.54	29
30		3.8		26.0		3.05	10.5	3.15	15.5	-	-	2.57	12.5	3.32	84.0	2.91	23.40	2.69	8.25	2.56	3.05	2.57	3.35	2.54	2.54	30
31		3.8		-		3.06	11.0	3.27	28.8	-	-	2.58	13.0	-	-	2.87	20.40	-	-	2.57	3.35	2.57	3.35	-	-	31

TOTAL	134.10	233.00	356.50	549.70	2317.00	533.20	1716.90	842.04	378.61	145.61	89.57	82.63
Mean Daily Discharge in Second-foot	4.33	7.77	11.50	17.73	82.75	17.20	57.23	27.16	12.62	4.70	2.89	2.75
Second-foot per square mile	.04	.07	.11	.17	.81	.17	.56	.27	.12	.05	.03	.03
Run-off, depth in inches												
Run-off in acre-feet	265.92	462.04	706.94	1090.06	4594.61	1057.24	3404.61	1669.77	750.78	288.74	177.62	163.86
Maximum Mean Daily Discharge in Second-foot	5.8	30.0	20.0	33.0	484.0	25.5	675.5	69.6	18.90	7.75	3.95	3.65
Minimum Mean Daily Discharge in Second-foot	3.4	3.2	10.5	11.5	23.6	12.5	9.1	15.98	5.85	2.33	1.91	1.19

DAY
Quarter
First
Second
Third
Fourth
Computed
Checked
Date

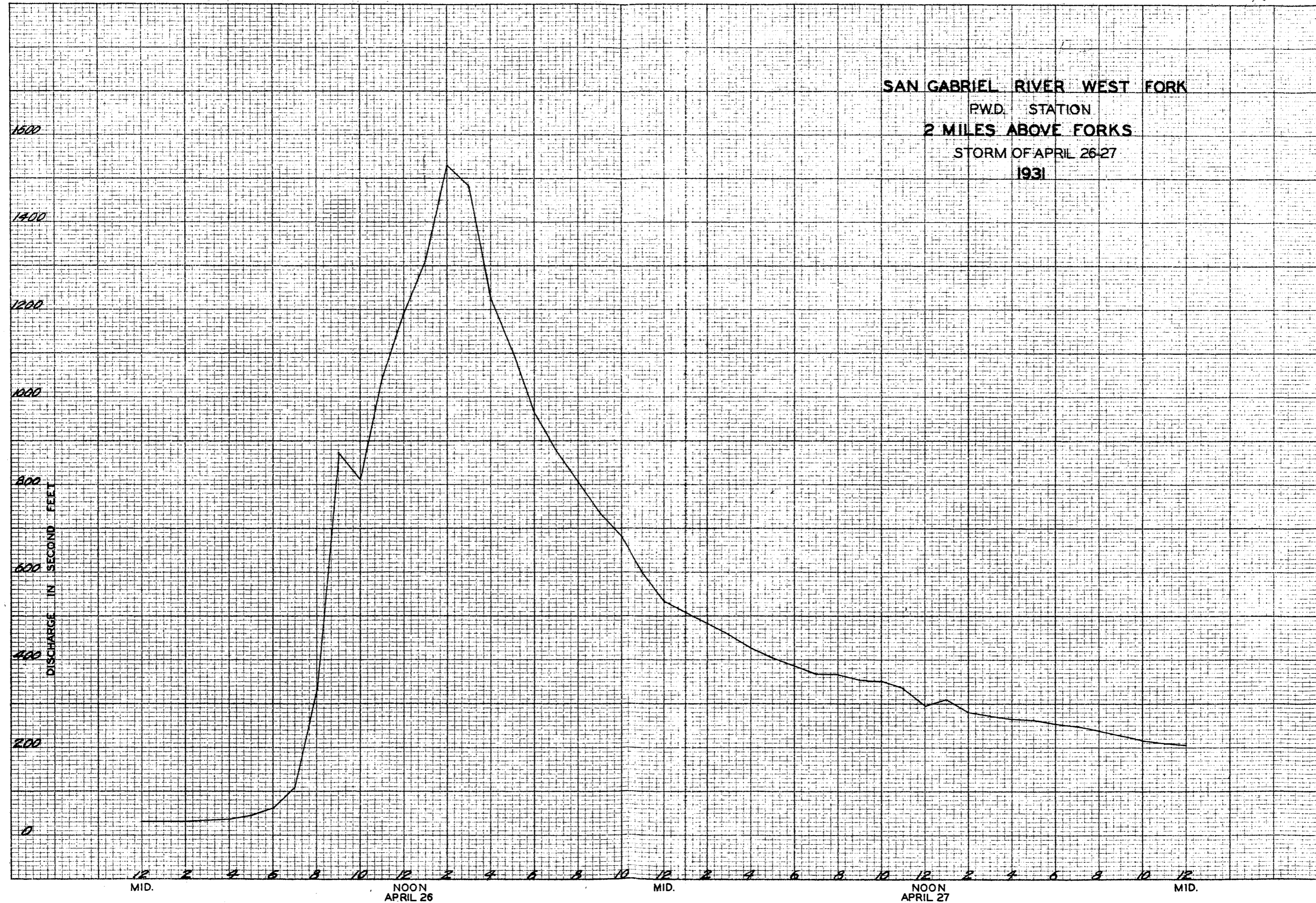
W.K. H.V. V.K.
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W.K. H.V. V.K.

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G. H. checked
Date

PERIOD YEAR

KEUFFEL & ESSER CO., N. Y. NO. 369-21 L
12 X 20 to the inch.

SAN GABRIEL RIVER WEST FORK
P.W.D. STATION
2 MILES ABOVE FORKS
STORM OF APRIL 26-27
1931



F-100 R

SAN GABRIEL SPREADING DITCH AT MOUTH OF
SAN GABRIEL CANYON.

Location

On upstream side of Canyon Line Railroad Bridge.
Near mouth of San Gabriel Canyon. 2 miles North
of Azusa, Los Angeles County, California.

Installed By

Los Angeles County Flood Control District
February 13, 1929.

Records Available

February 8, 1929 to September 30, 1931 at offices
of Los Angeles County Flood Control District,
Los Angeles, California.

Gage

Rational 7 day water stage recorder installed in
recorder house mounted on corrugated iron pipe
stilling well at north side and upstream end of
bridge. Outside vertical staff gage installed
on stilling well.

Discharge Measurements

High water measurements made at bridge,
Low water measurements made by wading in ditch
near gage.

Channel and Control

Channel is hard bottom not easily eroded.
Control is good.

Extremes of Discharges

1929-1930

Maximum-78.1 c.f.s. May 5, 1931

Minimum-Dry at various times of year

1930-1931

Maximum-78.1 c.f.s. May 5, 1931

Minimum-Dry at various times during year

Diversions.

This station is on a ditch which receives water
from two sources. One is waste water from South-
ern California Edison Company's power house tail-
race. The other is by direct diversion from
San Gabriel River through a tunnel.

Regulation.

By diversion gates

F-100 R

Accuracy
Good.

Co-operation
Located, constructed and operated by Los
Angeles County Flood Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 100

Discharge measurements of **San Gabriel Spreading Ditch**

~~River~~
~~Creek~~

at **Mouth of canyon**
near

during the year ending September 30, 19 **31**

No.	Date	Gauging	Width	Area of	Mean	Gate	Discharge	Rating	Method	Coef.	Meas.	G. Ht.	Time	Meter
			Feet	Sq. Ft.	Velocity	Height	Sec. Ft.				Per cent	secs.		change
1931														
1	1/6	Lindsay-Laird	8.3	7.77	2.17	1.49	16.90		.6		10	.02	1/4	883
2	10	Lindsay	9.2	6.79	1.95	1.36	13.20		.6		10	.01	"	"
3	16	"	7.5	2.96	.89	.91	2.64		.6		7		1/6	"
4	23	"				Est.	.25							
5	24	"	2.5	.77	.36	.63	.28		.6		4		1/12	"
6	30	"					Dry							
7	2/6	Lindsay-Laird	11.7	16.60	3.88	2.29	60.44		.6		11		1/4	"
8	13	Lindsay	10.5	12.08	3.03	1.92	36.68		.6		11		"	"
9	20	"	9.9	10.50	2.68	1.74	28.20		.6		10		"	"
10	27	"	9.5	7.58	2.06	1.45	15.65		.6		9		1/6	"
11	3/6	"	6.6	2.45	.68	.83	1.57		.6		7		"	"
12	13	"	6.5	1.76	.48	.75	.86		.6		6		"	"
13	20	"					Dry							
14	27	"					Dry							
15	5/1	"	11.3	15.50	3.15	2.15	48.80		.6		11		1/4	"
16	8	"	11.0	15.50	3.16	2.15	49.00		.6		11		1/2	"
17	15	"	9.2	6.92	1.81	1.34	12.54		.6		9		1/5	"

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. 100

Rating table for **SAN GABRIEL RIVER SPREADING DITCH AT MOUTH OF SAN GABRIEL**

CANYON

, from **Oct. 1** , 19 **30** , to **Sept. 30** , 19**31**

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
.55	0	.03	1.55	19.0	.38									
.60	.15	.03	.60	20.9										
.65	.30	.06	.65	22.8	.38									
.70	.60	.08	.70	24.8	.40									
.75	1.00	.08	.75	27.1	.46									
.80	1.40	.08	.80	29.5	.48									
.85	1.90	.10	.85	32.0	.50									
.90	2.60	.14	.90	35.0	.60									
.95	3.40	.16	.95	38.0	.60									
1.00	4.30	.18	2.00	41.2	.64									
.05	5.30	.20	.05	44.7	.70									
.10	6.40	.22	.10	48.5	.76									
.15	7.60	.24	.15	52.5	.80									
.20	8.80	.24	.20	57.0	.90									
.25	10.10	.26	.25	61.5	.90									
.30	11.40	.26	.30	66.0	.90									
.35	12.70	.26	.35	71.0	1.00									
.40	14.20	.30	.40	76.0	"									
.45	15.70	.30	.45	81.0	"									
.50	17.30	.32	.50	86.0	"									
		.34			"									

The above table is not applicable for obstructed channel conditions. It is based on 17 discharge measurements made during year 1930-1931

and is fairly well defined between .61 second-feet and 60.44 second-feet.

Computed by H.V.

Checked by W.T.K.

Date _____

At MOUTH OF SAN GABRIEL CANYON
1931

SAN GABRIEL SPREADING DITCH
for the Year Ending September 30, 19 31

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. 100

Drainage Area

Square Miles.

R. LINDSAY

Observer.]

Gage Read CONTINUOUS

Used rating table dated

Maximum stage 2.42
Minimum stage Dry
set at 10 P.M. on May 5, 1931
feet at most of on year
Discharge 75.0
second-feet
Discharge

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	
1	Dry	0	Dry	0	Dry	0	Dry	0	1.64	22.42	1.28	10.88	1	Dry	0	2.13	50.90							1	
2							Dry	0	H	14.82	1.20	8.80	2			2.13	50.90							2	
3							H	4.75	1.14	7.36	1.12	6.88	3			2.12	50.10							3	
4							1.31	11.66	1.88	33.80	1.03	4.90	4			2.08	46.98							4	
5							1.27	10.62	1.92	36.20	.94	3.24	5			2.22	58.80							5	
6							1.46	16.02	H	42.83	.86	2.04	6			2.37	73.00							6	
7							1.33	12.18	H	37.34	.82	1.60	7			2.22	58.80							7	
8							1.60	20.90	H	34.90	.81	1.50	8			2.12	50.10							8	
9							1.60	20.90		34.66	.79	1.32	9			2.05	44.70							9	
10							1.43	15.10		31.98	.78	1.24	10			1.95	38.00							10	
11							1.29	11.14		29.90	.76	1.08	11			H	28.61							11	
12							1.22	9.32		31.37	.75	1.00	12			1.38	13.60							12	
13							1.14	7.36		30.47	.75	1.00	13			1.37	13.30							13	
14							1.07	5.74		32.71	.76	1.08	14			1.35	12.70							14	
15							1.00	4.30		34.40	.75	1.00	15			1.32	11.92							15	
16							.93	3.08		32.60	.77	1.16	16			1.28	10.88							16	
17							.86	2.04		30.76	.H	.54	17			1.20	8.80							17	
18	DRY		DRY		DRY		.62	.21		29.78	Dry	0	18			.92	2.92	DRY		DRY		DRY		18	
19							.62	.21	H	30.06	"		19			H	.97							19	
20							.62	.21	1.72	25.72	"		20			Dry	0							20	
21							.62	.21	1.69	24.40	"		21			Dry	0							21	
22							.62	.21	1.62	21.66	"		22				0							22	
23							.62	.21	1.58	20.14	"		23			0	0							23	
24							.62	.21	1.54	18.66	"		24			7.14	Dry	0						24	
25							.62	.21	1.51	17.64	"		25			.48	H	.10						25	
26							.62	.21	1.46	16.02	"		26			23.27	H	1.52						26	
27							.60	.15	1.44	15.40	"		27			331.00	Dry	0						27	
28							.58	.09	1.37	13.30	"		28			38.78	Dry	0						28	
29							.58	.09	-	-	"		29			47.72	Dry	0						29	
30							.56	.03	-	-	"		30			2451.70	"	0						30	
31	Dry	0	-	-	Dry	0	H	6.16	-	-	Dry	0	31			-	"	0						31	

TOTAL,		0		0		0	163.52		751.30		49.26		200.09		627.60		0		0		0		0	
Mean Daily Discharge in Second-feet							5.27		26.83		1.59		6.67		20.25		0		0		0		0	
Second-feet per square mile																								
Run-off, depth in inches																								
Run-off in acre-feet		0		0		0	324.26		1489.83		97.68		396.78		1244.53		0		0		0		0	
Maximum Mean Daily Discharge in Second-feet							20.90		37.34		10.88		51.70		73.00									3,553.08
Minimum Mean Daily Discharge in Second-feet							0		7.36		0		0		0									

Quarter First Second Third Fourth
G. H. copied G. H. checked Date
Disch. applied Disch. checked Date
H. V. V. K. H. V. V. K. H. V. V. K.

SAN JOSE CREEK AT WORKMAN MILL ROAD BRIDGE

Location

Workman Mill Road Bridge over San Jose Creek about 1 mile north of Whittier, Los Angeles County, Calif.

Drainage Area

85.18 square miles

Installed

Recorder Station and cable station established in 1923 about 2000' above Workman Mill Road Bridge by the State of California Division of Water Rights. Recorder re-located January 2, 1929 by Los Angeles County Flood Control District on downstream side of Workman Mill Road Bridge. Cable station moved to 200' above Workman Mill Road Bridge in March 1931.

Records Available

Records previous to January 2, 1929 published in State of California Division of Water Rights Bulletins. From January 2, 1929 to September 30, 1931 at offices of Los Angeles County Flood Control District, Los Angeles California.

Gage

An continuous water stage recorder installed in small wooden shelter house on top of corrugated iron stilling well fastened to downstream end of bridge pier. Vertical staff gage set on bridge pier near stilling well.

Discharge Measurements

High water flows are measured from Cable car 200' above bridge.
Low water flows are measured by wading near station.

Channel and Control

Channel-shifting sand and silt,
No control

Extremes of Discharge

1928-1929

Maximum-77 c.f.s. March 10, 1929

Minimum-Dry at various times during year

1929-1930

Maximum-264 c.f.s. January 15, 1930

Minimum-Dry at various times during year

1930-1931

Maximum-323 c.f.s. February 4, 1931

Minimum-.04 June 2 and 7, 1931

Diversion

None above gage

F-48 R

Regulations

None

Co-operation

Constructed and operated by Los Angeles County
Flood Control District in co-operation with
U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 48

Discharge measurements of San Jose Creek

Kramer
Creek

at Workman Mill Road Bridge
~~near~~

during the year ending September 30, 1931

No.	Date	Made by	Width Feet	Area of section Sqr. Ft.	Mean Velocity Ft. per sec.	Gage height Feet	Discharge Sec. ft.	Rating Method	Coef.	Meas. sect.	G. Ht. change	Time Hours	Meter No.
													Percent diff.
1930													
1	10/5	Brewster	1.0	.30	1.55	1.03	.46		.6	2		1/6	666
2	10	Brewster-Thayer	2.0	1.20	1.18	2.04	1.54		.6	3		"	"
3	17	Brewster	1.0	.18	1.00	1.33	.18		.6	2		1/5	"
4	24	"	1.0	.19	.70	1.33	.14		.6	2		1/6	"
5	31	"	1.0	.48	.79	1.39	.38		.6	2		"	"
6	11/7	"	1.0	.30	.84	1.00	.42		.6	2		"	"
7	14	"	1.0	.30	.73	1.04	.43		.6	2		"	"
8	21	"	.5	.15	.96	1.38	.24		.6	1		1/12	"
9	28	"	1.0	.53	.79	1.39	.28		.6	2		1/10	"
10	12/5	"	1.0	.16	.58	1.31	.26		.6	2		1/6	"
11	12	"	1.0	.42	.81	1.34	.34		.6	2		"	"
12	19	"	1.0	.40	.75	1.00	.20		.6	2		"	"
13	26	"	1.0	.31	.82	1.30	.13		.6	2		"	"
1931													
14	1/2	"	1.5	.33	1.56	2.02	.79		.6	3		"	"
15	8	"	1.0	.33	1.38	2.27	2.00		.6	6		1/4	"
16	9	"	1.0	.48	1.39	1.32	.32		.6	2		1/6	"
17	16	"	1.0	.22	.54	1.33	.12		.6	2		1/6	"
18	23	"	1.0	.31	.37	1.33	.12		.6	2		1/10	"
19	30	"	1.0	.16	.75	1.37	.12		.6	2		1/6	"
20	2/3	"	64.0	87.3	1.32	2.02	134.5		.6	11		1/3	"
21	4	"	42.0	42.9	2.35	2.36	100.6		.6	11		"	"
22	4	Nestland	33.0	42.2	1.65	2.65	73.4		.6	10		1/4	271
23	4	Brewster-Cornick	33.0	97.0	3.00	2.43	200.4		.6	9		1/2	666
24	5	Brewster	3.0	2.31	1.74	1.40	6.30		.6	6		1/4	"
25	6	Brewster-Follard	1.5	.80	.31	1.15	.73		.6	3		1/6	"
26	13	Brewster	1.0	.28	.71	2.05	.20		.6	2		"	"
27	20	"	1.0	.24	.75	2.32	.18		.6	2		"	"
28	27	"	1.0	.50	.30	2.06	.24		.6	2		"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 48

Discharge measurements of San Jose

Creek

at Workman Mill Road Bridge

during the year ending September 30, 1951

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Coef.	Meas. succ.	G. H. change	Time	Meter No.
1951			Feet	Sq. Ft.	F.P.S.	Feet	Second	Percent			No.	Total	Hours	271
29	3/6	Brewster	1.0	.30	.79	2.06	.81	.5			2		1/6	666
30	13	"	1.0	.33	.82	2.08	.85	.5			2		"	"
31	20	"	1.5	.47	.94	2.15	.44	.5			5		"	"
32	27	"	1.5	.52	1.00	2.15	.32	.5			3		"	"
33	4/3	"	1.0	.14	1.00	2.16	.14	.6			2		1/5	"
34	10	"	1.0	.36	1.50	2.50	.39	.6			2		1/6	"
35	17	"	1.2	.53	.84	2.26	.50	.6			2		1/10	"
36	24	"	1.0	.30	.97	2.21	.29	.6			2		"	"
37	26	"	6.0	7.38	1.50	2.60	10.07	.6			6		1/5	"
38	26	Westlund	91.094	.00	1.04	2.24	90.80	.6			10		1/3	27
39	26	"	90.065	.00	1.12	2.28	89.70	.6			9		1/6	"
40	26	Brewster	58.065	.38	1.28	1.20	81.68	.6			7		1/4	666
41	27	"	6.0	7.36	1.24	2.55	9.13	.6			4		1/6	"
42	27	"	6.0	7.97	1.58	2.64	12.65	.6			6		1/5	"
43	28	"	2.4	2.41	1.36	2.24	2.28	.6			3		1/6	"
44	5/1	"	1.0	.23	.96	2.07	.22	.6			2		"	"
45	8	"	.6	.11	.82	1.04	.09	.6			1		1/10	"
46	15	"	1.0	.26	1.35	2.09	.35	.6			2		1/6	"
47	22	"	1.5	.17	.94	2.07	.16	.6			2		"	"
48	29	"	.6	.08	.87	1.98	.07	.6			1		1/10	"
49	6/5	"	.8	.12	.83	2.00	.10	.6			1		"	"
50	12	"	.8	.11	.82	2.00	.09	.6			1		1/6	"
51	19	"	1.0	.15	1.20	2.15	.18	.6			1		"	"
52	26	"	1.0	.13	.69	2.05	.09	.6			2		1/12	"
53	7/3	"	.8	.19	.79	2.04	.15	.6			1		"	"
54	10	"	.8	.18	.72	2.00	.13	.6			1		"	"
55	17	"	.6	.11	.91	2.00	.10	.6			1		"	"
56	24	"	.8	.29	.79	2.05	.23	.6			1		"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **48**

Rating table for **San Jose Creek Workman Mill Road Bridge**

, from **Oct. 1st**, 19**30**, to **Sept. 30th**, 19**31**

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
1.60			.60	10.0										
.65			.65	11.0	.20									
.70	0		.70	12.0	.20									
.75	.05	.01	.75	15.0	.60									
.80	.10	.01	.80	20.0	1.0									
.85	.15	.03	.85	25.0	1.0									
.90	.30	.06	.90	32.0	1.4									
.95	.60	.08	.95	40.0	1.6									
2.00	1.0	.10	3.00	51.0	2.2									
.05	1.5	.12	.10	80.0	2.9									
.10	2.1	.12	.20	124	4.4									
.15	2.7	.12	.30	180	5.6									
.20	3.4	.14	.40	260	8.0									
.25	4.1	.14	.50	365	10.5									
.30	4.9	.16	.60											
.35	5.7	.16	.70											
.40	6.5	.16	.80											
.45	7.3	.16	.90											
.50	8.20	.18	4.00											
.55	9.1	.18												

The above table is not applicable for obstructed channel conditions. It is based on **65** discharge measurements made during **year 1930-1931**

and is **very** well defined between **.07** second-feet and **290.42** second-feet.

Computed by **W T K**
Checked by **W T K**
Date

Daily Gage Height, in Feet, and Discharge, in Second-Feet, of

SAN JOSE CREEK

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

File No. 48

At WORKMAN MILL RD. BRIDGE

for the Year Ending September 30, 19 31

Drainage Area 85.18 Square Miles.

C. L. BREWSTER Observer.

Gage Read CONTINUOUS

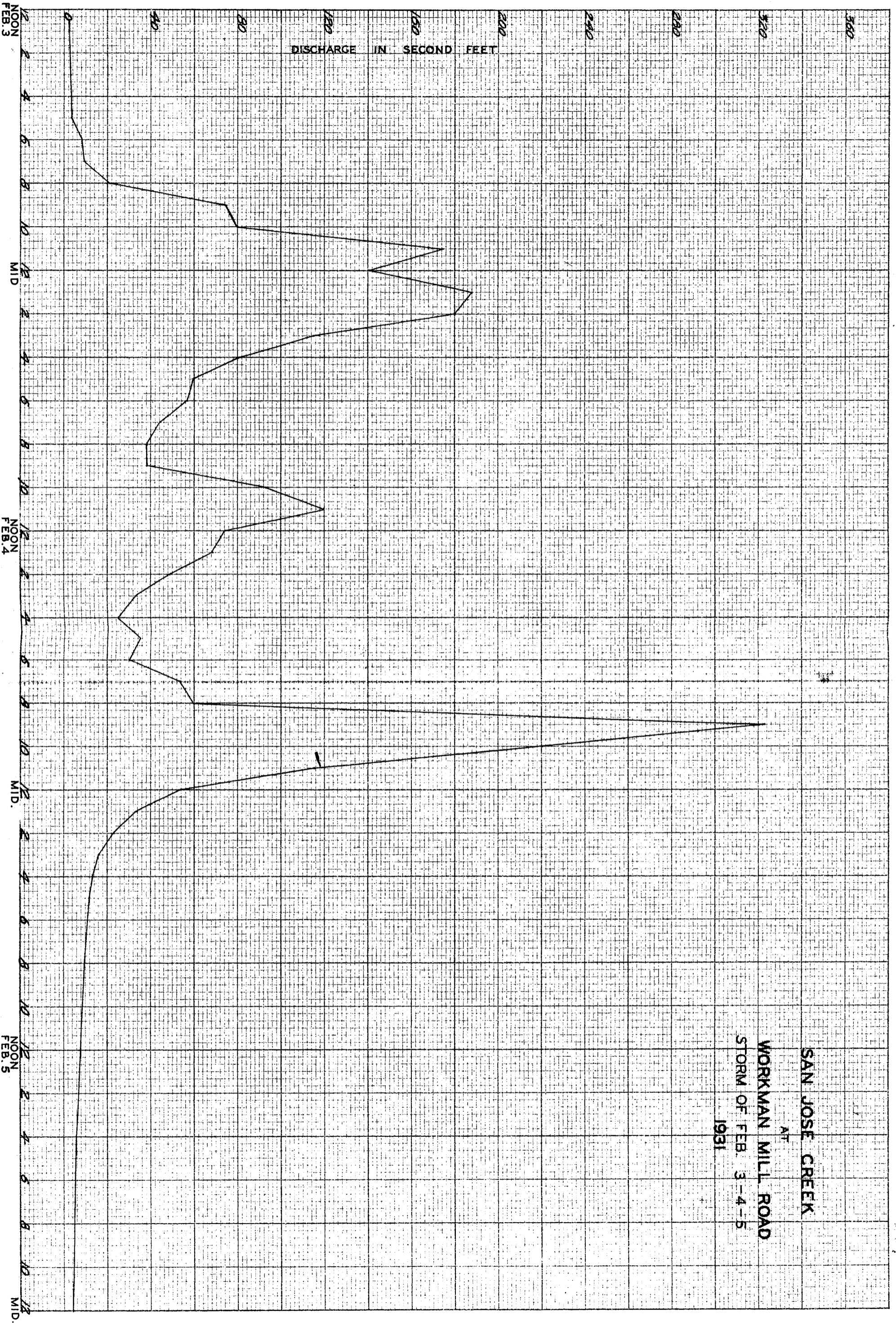
Used rating table dated

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	
1	1.97	.76	1.91	.36	1.86	.18	1.86	.18	2.14	2.58	1.87	.21	1	1.88	.24	1.88	.24	1.78	.08	1.79	.09	1.90	.30	1.91	.36	1
2	1.95	.60	1.90	.30	1.85	.15	1.97	.76	2.02	1.20	1.84	.14	2	1.87	.21	1.89	.27	1.78	.08	1.86	.18	1.88	.24	1.90	.30	2
3	1.96	.68	1.90	.30	1.83	.13	1.98	.84	H	19.64	1.83	.13	3	1.87	.21	1.91	.36	1.79	.09	1.88	.24	1.89	.27	1.92	.42	3
4	1.96	.68	1.90	.30	1.83	.13	1.95	.60	H	91.61	1.87	.21	4	1.86	.18	1.84	.14	1.78	.08	1.88	.24	1.91	.36	1.90	.30	4
5	1.92	.42	1.91	.36	1.88	.24	1.94	.54	H	10.35	1.93	.48	5	1.86	.18	1.82	.12	1.79	.09	1.87	.21	1.88	.24	1.88	.24	5
6	1.89	.27	1.91	.36	1.89	.27	1.96	.68	2.00	1.00	1.88	.24	6	1.86	.18	1.82	.12	1.80	.10	1.86	.18	1.89	.27	1.87	.21	6
7	1.85	.15	1.91	.36	1.87	.21	2.08	1.86	1.96	.68	1.90	.30	7	1.86	.18	1.82	.12	1.89	.27	1.85	.15	1.91	.36	1.84	.14	7
8	1.85	.15	1.90	.30	1.87	.21	2.30	4.90	2.00	1.00	1.94	.54	8	1.85	.15	1.82	.12	1.83	.13	1.85	.15	1.91	.36	1.83	.13	8
9	1.88	.24	1.91	.36	1.85	.15	1.96	.68	1.94	.54	1.91	.36	9	1.85	.15	1.81	.11	1.80	.10	1.84	.14	1.89	.27	1.85	.15	9
10	2.10	2.10	1.93	.48	1.84	.14	1.89	.27	1.91	.36	1.92	.42	10	1.87	.21	1.80	.10	1.79	.09	1.83	.13	1.88	.24	1.87	.21	10
11	1.95	.60	1.91	.36	1.84	.14	1.87	.21	1.90	.30	1.92	.42	11	1.89	.27	1.79	.09	1.80	.10	1.83	.13	1.86	.18	1.89	.27	11
12	1.90	.30	1.93	.48	1.89	.27	1.86	.18	1.89	.27	1.91	.36	12	1.91	.36	1.79	.09	1.79	.09	1.83	.13	1.85	.15	1.88	.24	12
13	1.87	.21	1.92	.42	1.89	.27	1.86	.18	1.89	.27	1.89	.27	13	1.91	.36	1.83	.13	1.89	.27	1.84	.14	1.86	.18	1.89	.27	13
14	1.85	.15	1.91	.36	1.88	.24	1.86	.18	1.89	.27	1.85	.15	14	1.90	.30	1.91	.36	1.88	.24	1.84	.14	1.91	.36	1.89	.27	14
15	1.83	.13	1.93	.48	1.86	.18	1.85	.15	1.89	.27	1.85	.15	15	1.90	.30	1.91	.36	1.84	.14	1.85	.15	1.91	.36	1.88	.24	15
16	1.85	.15	1.94	.54	1.87	.21	1.84	.14	1.88	.24	1.87	.21	16	1.91	.36	1.90	.30	1.86	.18	1.85	.15	1.91	.36	1.89	.27	16
17	1.88	.24	2.00	1.00	1.87	.21	1.84	.14	1.88	.24	1.88	.24	17	1.93	.48	1.89	.27	1.83	.13	1.85	.15	1.89	.27	1.87	.21	17
18	1.90	.30	1.97	.76	1.92	.42	1.85	.15	1.88	.24	1.92	.42	18	1.92	.42	1.86	.18	1.90	.30	1.85	.15	1.89	.27	1.87	.21	18
19	1.85	.18	1.93	.48	1.90	.30	1.84	.14	1.93	.48	1.85	.15	19	1.92	.42	1.86	.18	1.88	.24	1.86	.18	1.89	.27	1.88	.24	19
20	1.85	.15	1.90	.30	1.91	.36	1.85	.15	1.89	.27	1.93	.48	20	1.89	.27	1.82	.12	1.86	.18	1.86	.18	1.88	.24	1.85	.15	20
21	1.84	.14	1.88	.24	1.91	.36	1.85	.15	1.89	.27	1.93	.48	21	1.88	.24	1.85	.15	1.82	.12	1.87	.21	1.86	.18	1.86	.18	21
22	1.88	.24	1.86	.18	1.90	.30	1.85	.15	1.89	.27	1.94	.54	22	1.89	.27	1.82	.12	1.80	.10	1.87	.21	1.84	.14	1.84	.14	22
23	1.86	.18	1.85	.15	1.87	.21	1.85	.15	1.89	.27	1.94	.54	23	1.86	.18	1.87	.21	1.80	.10	1.88	.24	1.85	.15	1.83	.13	23
24	1.84	.14	1.84	.14	1.89	.27	1.85	.15	1.89	.27	1.93	.48	24	1.88	.24	1.85	.15	1.80	.10	1.88	.24	1.83	.13	1.82	.12	24
25	1.85	.15	1.84	.14	1.88	.24	1.85	.15	1.88	.24	1.93	.48	25	2.08	1.86	1.84	.14	1.82	.12	1.88	.24	1.83	.13	1.85	.15	25
26	1.84	.14	1.85	.15	1.85	.15	1.84	.14	1.89	.27	1.92	.42	26	H	25.41	1.83	.13	1.78	.08	1.89	.27	1.86	.18	1.86	.18	26
27	1.85	.15	1.88	.24	1.87	.21	1.83	.13	1.88	.24	1.92	.42	27	2.57	9.46	1.83	.13	1.77	.07	1.90	.30	1.90	.30	1.88	.24	27
28	1.86	.18	1.88	.24	1.90	.30	1.83	.13	1.87	.21	1.94	.54	28	2.17	2.98	1.82	.12	1.79	.09	1.89	.27	1.91	.36	1.90	.30	28
29	1.85	.15	1.90	.30	1.87	.21	1.84	.14	-	-	1.92	.42	29	2.08	1.86	1.77	.07	1.81	.11	1.86	.18	1.93	.48	1.90	.30	29
30	1.87	.21	1.88	.24	1.84	.14	1.86	.18	-	-	1.92	.42	30	1.95	.60	1.84	.14	1.80	.10	1.86	.18	1.92	.42	1.88	.24	30
31	1.91	.36	-	-	1.86	.18	2.05	1.50	-	-	1.90	.30	31	-	-	1.81	.11	-	-	1.89	.27	1.91	.36	-	-	31
TOTAL	10.50		10.58		6.98		15.90		133.85		10.92		48.53		5.25		3.97		5.82		8.38		6.81			
Mean Discharge in second-feet	.34		.36		.23		.51		4.78		.35		1.62		.17		.13		.19		.27		.23			
Second-feet per square mile	.004		.004		.003		.006		.056		.004		.02		.002		.001		.002		.003		.003			
Depth in inches	20.82		21.18		13.84		31.53		265.42		21.65		96.23		10.41		7.87		11.54		16.62		13.50		530.61	
Maximum Mean Daily Discharge in Second-feet	2.10		1.00		.42		4.90		91.61		.54		25.41		.36		.30		.30		.48		.42			
Minimum Mean Daily Discharge in Second-feet	.14		.14		.14		.13		.21		.13		.15		.09		.08		.09		.13		.12			

Maximum stage 3.56 feet at 9:00 P.M. on Feb. 3, 1929 Discharge 323.0 second-feet
Minimum stage 1.74 feet at 7:00 P.M. on June 2 and 7 Discharge .04 second-feet

Correction Curve Used.

W.T.K. V.K.
H.V. V.K.
H.V. V.K.
G.H. copied G.H. checked
PERIOD YEAR



SAN JOSE CREEK
AT
WORKMAN MILL ROAD
STORM OF FEB. 3-4-5
1931

F-92 R

SANTA CLARA RIVER AT OLD HIGHWAY BRIDGE

4 MILES WEST OF SAUGUS, CALIF.

Location

On Downstream end of south pier on old Highway Bridge, about 4 miles west of Saugus.

Drainage Area

355.3 square miles.

Records Available

October 1, 1929 to September 30, 1931.
Recorder started January 18, 1930 (weekly measurements only, from Oct. 1, 1929 to January 18, 1930.) at offices of the Los Angeles County Flood Control District, Los Angeles, Calif.

Gage

An continuous water stage recorder in small house on top of corrugated iron pipe stilling well fastened to bridge pier, staff gage same location.

Discharge Measurements

High Water flows made from cable at upstream end of pier.
Low flows made by wading.

Channel and Control

Channel sand and gravel.
No control.

Extremes of Discharge

1929-1930

Maximum-193.25 c.f.s. March 15, 1930
Minimum-.02 c.f.s. July 16, 1930.

1930-1931

Maximum-2308 c.f.s. February 1, 1931
Minimum-.11 c.f.s. July 2, 3, and 4, 1931

Diversions

None near station

Regulation

None

Co-operation

Constructed and operated by the Los Angeles County County Flood Control District with co-operation of U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 92

Discharge measurements of **Santa Clara**

River
Green

at **Old Highway Bridge-4 mi. W. of Saugus** during the year ending September 30, 19 **31**
~~near~~

N.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Method	Corr.	Meas.	G. Ht.	Time	Meter No.
			Feet	Sq. ft.	Ft. per sec.	Feet	Sec. ft.			Per cent diff.	No.		
1930													
1	10/11	Luce	1.7	.40	.65	4.06	.26	.6		4		1/12	24
2	17	"	1.1	.36	.81	4.04	.29	.6		4		"	"
3	24	"	1.4	.34	.71	4.04	.24	.6		4		"	"
4	31	"	1.4	.35	.70	4.02	.25	.6		4		1/6	"
5	11/7	Luce-Jordan	1.5	.31	.71	4.04	.22	.6		4		"	"
6	11	" Waddicor	1.5	.33	.64	4.04	.21	.6		4		1/12	"
7	21	" "	1.5	.44	.68	4.06	.30	.6		4		"	"
8	28	" "	1.8	.51	.78	4.11	.40	.6		5		"	"
9	12/5	" "	1.7	.42	.79	4.08	.33	.6		5		"	"
10	12	" "	1.9	.53	.57	4.08	.30	.6		5		"	"
11	19	" "	1.8	.57	.32	4.09	.19	.6		4		"	"
12	26	" "	1.9	.64	.55	4.10	.35	.6		5		"	"
1931													
13	1/2	" "	2.0	.72	.57	4.14	.41	.6		4		"	"
14	8	" "	7.2	3.06	1.10	4.11	3.38	.6		8		"	"
15	8	" "	7.2	3.34	1.09	4.11	3.63	.6		7		"	"
16	8	Waddicor	9.0	5.96	2.23	4.15	13.31	.6		8	.02	1/6	"
17	8	Luce-Waddicor	8.7	5.90	1.43	4.13	12.76	.6		8	.06	"	"
18	8	" "	9.0	6.12	2.19	4.17	13.40	.6		8	.02	"	"
19	8	" "	9.5	6.80	2.27	4.18	15.55	.6		8		"	"
20	8	" "	9.5	6.57	2.20	4.19	14.50	.6		8	.02	"	"
21	8	" "	9.0	7.87	2.18	4.20	17.27	.6		8		1/12	"
22	8	" "	9.0	6.99	2.38	4.21	16.34	.6		8	.01	1/6	"
23	9	" "	5.0	.95	.77	3.80	.73	.6		7		1/12	"
24	16	" "	3.0	.67	.73	3.72	.49	.6		6		1/6	13
25	23	" "	4.0	.80	.69	3.75	.55	.6		7		1/12	25
26	30	" "	2.9	.76	.71	3.75	.54	.6		6		1/6	"
27	2/3	" "	9.1	9.75	2.29	4.23	22.38	.6		7		"	13
28	3	" "	8.9	8.38	3.26	4.27	27.39	.6		6	.06	"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 92

Discharge measurements of

Santa Clara

River
Creek

at ~~near~~ Old Highway Bridge-4 mi. W. of Saugus, during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Method	Coef.	Meas. secs.	G. Ht. change	Time	Meter No.	
			Feet	Sq. Ft.	Ft./Sec.	Feet	Sec.-ft.				Percent diff.			No.
1931														
29	2/3	Luce-Waddicor	25.04	25.25	1.99	4.87	86.30			9	.051	1/2	25	
30	4	Luce	30.04	1.30	2.45	4.89	101.4			8	.03	"	"	
31	4	Luce-Waddicor	40.01	52.9	2.53	5.95	387.6			8	.101	1/6	"	
32	4	"	23.0	98.4	3.04	5.83	298.69			5	.051	1/3	"	
33	5	"	27.0	34.6	4.33	5.62	149.72			6	.04	"	"	
34	5	"	9.4	1.86	1.90	5.10	3.53			7		1/12	FC	
35	12	"	4.8	1.07	1.12	5.15	1.20			7		"	"	
36	20	"	4.5	.67	.91	5.07	.63			9		"	"	
37	27	"	3.0	.53	1.04	4.90	.55			6		"	FC	
38	3/7	Luce	2.9	.62	.77	4.82	.48			6		1/6	25	
39	14	"	2.7	.57	.84	4.85	.48			5		1/12	"	
40	20	Luce-Waddicor	3.0	.42	.81	4.85	.34			6		1/6	FC	
41	27	"	2.8	.45	.73	4.90	.33			6		1/12	FC	
42	4/3	"	2.7	.41	.63	4.89	.26			6		"	FC	
43	10	Waddicor	2.9	.41	.85	4.88	.35			6		"	"	
44	17	"	2.9	.42	.81	4.89	.34			6		"	"	
45	24	Luce-Waddicor	3.4	.55	.84	4.98	.46			6		"	"	
46	27	"	8.1	1.48	1.05	6.10	1.55			9		1/6	"	
47	5/1	"	3.0	.40	.93	5.16	.37			6		1/12	"	
48	8	Waddicor	3.0	.34	.59	4.99	.20			4		1/6	"	
49	18	"	3.0	.30	.63	4.94	.19			3		1/12	"	
50	22	Luce	3.0	.37	.67	4.92	.25			5		1/6	FC	
51	29	"	1.5	.11	.68	5.30	.21			3		1/12	"	
52	6/5	"	1.8	.37	.07	5.04	.27			4		1/6	"	
53	19	"	2.0	.29	.06	4.83	.19			4		1/12	"	
54	26	"	3.0	.21	.07	4.82	.15			6		1/6	"	
55	27	"	V Notch Weir					.12						
56	7/3	"	"	"	"		.11							

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **92**

Discharge measurements of **Santa Clara**

**River
Creek**

at **Old Highway Bridge-4 mi. W. of Saugus**, during the year ending September 30, 19**31**

No.	Date	Made by	Area of section			Gage height		Discharge	Rating	Method	Coef.	Meas. secs.	G. Ht. change	Time	Meter No.
			Width	Area of section	Mean velocity	Feet	Sec.-ft.								
1931			Feet	Sq. Ft.	Feet per sec.	Feet	Sec.-ft.	Percent diff.			No.	Total	Hours		
57	7/10	Luce	V Notch Weir					.13							
58	17	"	" "					.13							
59	22	"	1.7	.23	.05	4.80	.13		.6		4		1/12	FC 13	
60	8/7	"	2.0	.20	.70	4.82	.15		.6		4		"	"	
61	30	"	5.5	2.45	2.26	6.16	5.51		.6		5		"	"	
62	9/11	"	2.5	.30	.10	5.15	.31		.6		5		"	"	
63	18	"	2.3	.31	.09	4.95	.27		.6		5		1/6	"	
64	25	"	2.7	.31	.80	4.97	.25		.6		6		1/12	"	

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **92**

Rating table for **SANTA CLARA RIVER AT STATE HIGHWAY BRIDGE**

, from **Oct. 1**, 19 **30**, to **Feb. 4**, (Ind) 19 **31**

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
3.75	0	.16	4.75	71.0	1.30	5.75	266.	4.40						
.80	.80	.20	.80	77.50	1.30	.80	288.	5.20						
.85	1.80	.24	.85	84.00	1.30	.85	314.	6.00						
.90	3.00	.30	.90	90.50	1.40	.90	344.	9.20						
.95	4.50	.38	.95	97.50	1.40	.95	390	14.00						
4.00	6.40	.42	5.00	104.50	1.50	6.00	460							
.05	8.50	.52	.05	112.0	1.50	.05	530							
.10	11.10	.58	.10	119.5	1.60	.10	600							
.15	14.00	.60	.15	127.5	1.60	.15	670							
.20	17.00	.70	.20	135.5	1.70	.20	740							
.25	20.50	.70	.25	144.0	1.70	.25	810							
.30	24.00	.80	.30	152.5	1.80	.30	880							
.35	28.00	.90	.35	161.5	1.90	.35	950							
.40	32.50	.90	.40	171.0	2.10	.40	1020							
.45	37.00	1.00	.45	181.5	2.30	.45	1090							
.50	42.00	1.00	.50	193.0	2.40	.50								
.55	47.00	1.10	.55	205.0	2.60									
.60	52.50	1.20	.60	218.0	2.80									
.65	58.50	1.20	.65	232.0	3.20									
.70	64.50	1.30	.70	248.0	3.60									

The above table is not applicable for obstructed channel conditions. It is based on **32** discharge measurements made during **period Oct. 1 - Feb. 4, 1931**

and is **Fairly** well defined between **19** second-feet and **38.7** second-feet.

Computed by **H.V.**

Checked by **W.T.K.**

Date

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 92

Rating table for SANTA CLARA AT STATE HIGHWAY BRIDGE

, from FEB. 5, 1931, to Aug. 28, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
4.92	0		5.90	346	8.80	6.90	1720							
4.95	.75	.25	5.95	390		.95	1790							
5.00	2.80	.41	6.00	460	14.00	7.00	1860							
5.05	5.90	.62	.05	530		.05	1930							
5.10	10.00	.82	.10	600		.10	2000							
5.15	15.00	1.00	.15	670		.15	2070							
5.20	21.00	1.20	.20	740		.20	2140							
5.25	28.0	1.40	.25	810		.25	2210							
5.30	38.0	2.00	.30	880		.30	2280							
5.35	49.0	2.20	.35	950		.35	2350							
5.40	62.0	2.60	.40	1020										
5.45	78.0	3.20	.45	1090										
5.50	98.0	4.00	.50	1160										
5.55	121.0	4.60	.55	1230										
5.60	145.0	4.80	.60	1300										
5.65	171.0	5.20	.65	1370										
5.70	200.0	5.80	.70	1440										
5.75	232.0	6.40	.75	1510										
5.80	270.0	7.60	.80	1580										
5.85	308.0	7.60	.85	1650										

The above table is not applicable for obstructed channel conditions. It is based on 27 discharge measurements made during period Feb. 5 to Aug. 28, 1931

and is fairly well defined between .11 second-feet and 149.72 second-feet.

Computed by H.V.

Checked by W.T.K.

Date

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 92

Rating table for SANTA CLARA RIVER AT STATE HWY. BRIDGE

, from Aug. 29, 1931, to Sept. 30, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
			4.80			5.80	2.10	.07						
			.85			.85	2.45							
			.90			.90	2.80	.09						
			.95			.95	3.25							
			5.00	.20	.01	6.00	3.70							
			.05	.25		.05	4.25							
			.10	.30		.10	4.80							
			.15	.35		.15	5.45	.13						
			.20	.40		.20	6.10							
			.25	.45		.25	6.95	.17						
			.30	.50		.30	7.80							
			.35	.55		.35	8.65							
			.40	.60		.40	9.50							
			.45	.72	.025	.45	10.35							
			.50	.85	.035	.50	11.20							
			.55	1.02										
			.60	1.20										
			.65	1.40	.04									
			.70	1.60										
			.75	1.85	.05									

The above table is not applicable for obstructed channel conditions. It is based on 3 discharge measurements made during period Aug. 29 to Sept. 30, 1931

and is fairly well defined between .27 second-feet and 5.51 second-feet.

Computed by H.V.

Checked by W.T.K.

Date

AT OLD HIGHWAY BRIDGE

for the Year Ending September 30, 19 31

Drainage Area 355.30 Square Miles.

J. W. LUCE [Observer.]

Gage Read CONTINUOUS

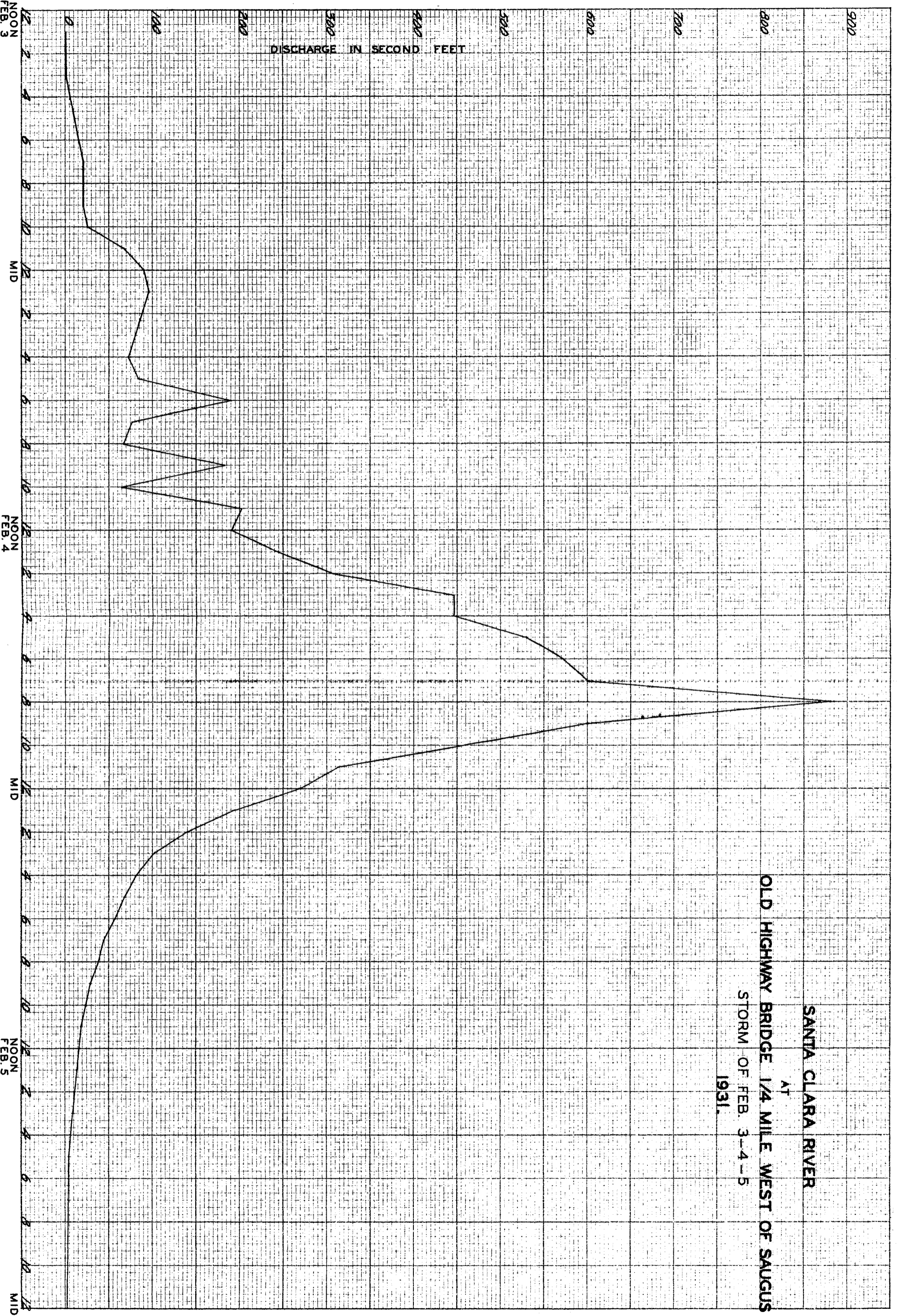
Used rating table dated

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		
1	3.78	.48	3.77	.32	3.76	.16	3.77	.32	3.83	1.40		.53		.28	Meas	.37		.23		.13		.13	5.84	2.38	1	
2	3.77	.32	3.78	.48	3.76	.16	Meas	.41	3.81	1.00		.52		.27		.34		.24		.12		.13	5.70	1.60	2	
3	3.77	.32	3.77	.32	3.77	.32	I	.41	H	10.23		.51	Meas	.26		.31		.25	Meas	.11		.14	5.62	1.28	3	
4	3.77	.32	3.77	.32	3.77	.32	I	.41	H	291.06		.50		.27		.28		.26		.11		.14	5.53	.95	4	
5	3.76	.16	3.77	.32	3.77	.32	I	.41	H	42.38		.49		.28		.26	Meas	.27		.11		.15	5.44	.70	5	
6	3.76	.16	3.76	.16	3.77	.32	I	.41	4.97	1.57	Meas	.48		.29		.24		.26		.12		.15	5.35	.55	6	
7	3.77	.32	3.77	.32	3.77	.32	3.89	2.76	H	260.81		.48		.30		.22		.25		.12	Meas	.15	5.30	.50	7	
8	3.79	.64	3.77	.32	3.77	.32	H	9.31	H	168.21		.48		.31	Meas	.20		.24		.12		.15	5.26	.46	8	
9	3.80	.80	3.77	.32	3.77	.32	3.86	2.04	5.13	13.00		.48		.33		.20		.23		.13		.15	5.23	.43	9	
10	3.79	.64	3.77	.32	3.77	.32	3.78	.48	5.02	4.04		.48	10	Meas	.35		.20		.22	Meas	.13	.15	5.20	.40	10	
11	3.77	.32	3.77	.32	3.77	.32	3.78	.48	4.97	1.57		.48	11		.35		.20		.21		.13	.15	Meas	.31	11	
12	3.77	.32	3.77	.32	3.77	.32	3.78	.48	4.96	1.16		.48	12		.35		.20		.20	Est.	.15		.30	.30	12	
13	3.78	.48	3.78	.48	3.77	.32	3.78	.48	4.97	1.57		.48	13		.35		.20		.19		.13	.15	.29	.29	13	
14	3.77	.32	3.78	.48	3.77	.32	3.78	.48	5.06	6.72	Meas	.48	14		.34		.19		.19		.13	.15	.29	.29	14	
15	3.77	.32	3.78	.48	3.77	.32	3.78	.48	5.04	5.28		.45	15		.34		.19		.19		.13	.15	.28	.28	15	
16	3.78	.48	3.79	.64	3.77	.32	3.78	.48	5.01	3.42		.42	16		.34		.19	Meas	.19		.13	.15	.28	.28	16	
17	3.77	.32	3.78	.48	3.77	.32	3.78	.48	4.99	2.39		.40	17	Meas	.34		.19		.19	Meas	.13	.15	.27	.27	17	
18	3.77	.32	3.77	.32	3.77	.32	3.76	.16	4.99	2.39		.38	18		.35	Meas	.19		.18		.13	.15	Meas	.27	18	
19	3.78	.48	3.76	.16	3.77	.32	3.76	.16	4.98	1.98		.36	19		.36		.20		.18		.13	.15	.26	.26	19	
20	3.78	.48	3.76	.16	3.77	.32	3.76	.16	4.95	.75	Meas	.34	20		.38		.21		.17		.13	.15	.26	.26	20	
21	3.78	.48	3.77	.32	3.77	.32	3.76	.16	I	.72		.34	21		.40		.23		.17		.13	Meas	.15	.25	21	
22	3.77	.32	3.76	.16	3.77	.32	3.76	.16		.69		.34	22		.42	Meas	.25		.16	Meas	.13	.15	.25	.25	22	
23	3.77	.32	3.76	.16	3.77	.32	3.78	.48		.66		.34	23		.44	I	.25		.16		.13	.16	.24	.24	23	
24	3.77	.32	3.76	.16	3.77	.32	3.78	.48		.63		.34	24	Meas	.46	I	.25		.15		.13	.16	.24	.24	24	
25	3.76	.16	3.76	.16	3.77	.32	3.77	.32		.60		.33	25		.46	I	.24		.15		.13	.16	.23	.23	25	
26	3.77	.32	3.76	.16	3.77	.32	3.77	.32		.57		.33	26		.46	I	.23	Meas	.15		.13		.17	Meas	.23	26
27	3.77	.32	3.80	.80	3.77	.32	3.77	.32	Meas	.55	Meas	.33	27	H	.82	I	.22	Meas	.20		.13		.17	.22	27	
28	3.76	.16	3.83	1.40	3.77	.32	3.77	.32		.54		.32	28	I	1.25	I	.21		.18		.13	Meas	.17	.21	.21	28
29	3.76	.16	3.76	.16	3.76	.16	3.78	.48	-	-		.31	29	I	.95	Meas	.21		.16		.13	5.12	.32	.21	.21	29
30	3.76	.16	3.76	.16	3.76	.16	3.79	.64	-	-		.30	30	I	.66		.21		.14		.13	H	2.87	.20	.20	30
31	3.76	.16	-	-	3.76	.16	3.90	3.00	-	-		.29	31	-	-		.22	-	-	Meas	.13	6.04	4.14	-	-	31
TOTAL,		10.88	10.68	9.12	27.48	825.89	12.79	12.76	7.10	5.96	3.93	11.56	14.34													
Mean Daily Discharge in Second-feet		.35	.36	.29	.89	29.50	.41	.43	.23	.20	.13	.37	.48													
Mean Discharge per square mile		.0009	.0010	.0008	.0025	.0030	.0012	.0012	.0006	.0006	.0004	.0010	.0014													
Total Depth in inches		21.58	21.18	18.08	54.49	1637.74	25.36	25.30	14.08	11.82	7.79	22.92	28.44	1,888.78												
Mean Daily Discharge in Second-feet		.64	1.48	.32	9.31	291.06	.53	1.25	.37	.27	.13	4.14	2.38													
Mean Daily Discharge in Second-feet		.16	.16	.16	.16	.54	.29	.26	.19	.14	.11	.13	.20													

Maximum stage 7.20 feet at 7:00 P.M. on 2-7-31.
 Minimum stage 4.32 feet at on July 2, 3, 4, 11.
 Discharge 1.11

Later part of year was interpolated between measurements because station was silted up.

DAY
 Quarter
 First
 Second
 Third
 Fourth
 Date
 G. H. copied
 G. H. checked
 Disch. applied
 Disch. checked
 H. V. V. K.
 H. V. V. K.
 H. V. V. K.
 PERIOD YEAR



SANTA CLARA RIVER
AT
OLD HIGHWAY BRIDGE 1/4 MILE WEST OF SAUCUS
STORM OF FEB. 3-4-5
1931.

F-43 R

SYCAMORE STORM DRAIN UPPER STATION AT
SOLWAY STREET, GLENDALE

Location

Concrete stilling well and shelter house located on west side of Sycamore Storm Drain one block east of Chevy Chase Dr. 90 feet east of Solway Street, Glendale, California.

Drainage Area

2.67 Square Miles.

Installed by

Los Angeles County Flood Control District.
January 30, 1928.

Records Available

January 30, 1928 to September 30, 1931 at the Los Angeles County Flood Control office, Los Angeles, California.

Gage

Stevens L type recorder in concrete shelter adjoining west wall of drain. One staff gage installed in well, another installed on west wall of drain near inlets to stilling well.

Discharge Measurements

Low flows made by wading above weir. High flow measurements made by cable or pipe suspension from planks below weir-notch.

Channel and Control

Concrete Flood Control Channel
Small notch serving as a control in the low flows and as a sand trap during high flows.

Extremes of Discharge

1927-28

Maximum-25 c.f.s. February 3, 1928

Minimum-Dry most of year

1928-1929

Maximum-62. c.f.s. March 10, 1929

Minimum-Dry most of year

1929-1930

Maximum-24 c.f.s. March 14, 1930

Minimum-Dry most of year

1930-1931

Maximum-20.16 c.f.s. February 4, 1931

Minimum-Dry most of year

F-43 R

Diversions

None above gage

Regulation

None

Accuracy

Fair

Co-operation

Located and operated by the Los Angeles County
Flood Control District in co-operation with
U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
 FLOOD CONTROL DISTRICT
 HYDROGRAPHIC DEPARTMENT

Discharge measurements of Sycamore, Upper Storm Drain

at Solway St.-Glendale

During the year ending September 30, 1931

No.	Date	Time	W. of	W. of	W. of	W. of	W. of	W. of	W. of	W. of	W. of	W. of
1931												
1	11/17		Bollinger-Joyce	9.0	1.92	7.18	.45	12.79	.6	6	.051/4	650
2	2/3	"	Laverty	8.0	2.28	6.43	.58	14.87	.6	7	.05 "	"
3	4/26	"	"	7.9	1.58	5.06	.57	8.00	.6	7	.021/6	"

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **43**

Rating table for **SYCAMORE UPPER STORM DRAIN**

SOLWAY ST., GLENDALE, from **Oct. 1,** 19 **30,** to **SEPT. 30,** 19 **31**

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
0	0		.20	.42										
.01	.01	.01	.22	.82	.20									
.02	.02		.24	1.40	.29									
.03	.03		.26	2.00	.30									
.04	.04		.28	2.80	.40									
.05	.05		.30	3.60	.40									
.06	.06		.32	4.50	.45									
.07	.07		.34	5.40	"									
.08	.08		.36	6.30	"									
.09	.09		.38	8.50	1.10									
.10	.10		.40	10.80	1.15									
.11	.11		.42	13.04	1.17									
.12	.12		.44	15.48	"									
.13	.13		.46	17.82	"									
.14	.14		.48	20.16	"									
.15	.15		.50	22.50	"									
.16	.16													
.17	.17													
.18	.18													
.19	.22	.04												
		.20												

The above table is not applicable for obstructed channel conditions. It is based on _____ discharge measurements made during _____

and is _____ well defined between _____ second-feet and _____ second-feet.

Computed by **C.E.B.**

Checked by **W.T.K.**

Date **10-15-31**

UPPER SYCAMORE/STORM DRAIN RIVER

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of

At SOLWAY ST., GLENDALE

for the Year Ending September 30, 1931

Drainage Area 2.67 Square Miles.

C. E. BOLLINGER [Observer.]

Gage Read CONTINUOUS

Used rating table dated

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	
1							.15	.15			Dry		1												1	
2							.14	.14			"		2												2	
3							Dry			.21	.62		3												3	
4							"			.36	6.30		4												4	
5							.07	.07		.32	4.50		5												5	
6							Dry			.12	.12		6												6	
7										Dry			7												7	
8													8												8	
9													9												9	
10													10												10	
11										Dry			11												11	
12										.08	.08		12												12	
13										.22	.82		13												13	
14										.25	1.70		14												14	
15										Dry			15												15	
16													16												16	
17										.15	.15		17												17	
18										.21	.62		18												18	
19										.02	.02		19												19	
20										Dry	Dry		20												20	
21										"	"		21												21	
22													22												22	
23													23												23	
24													24												24	
25													25												25	
26													26												26	
27										.05	.05		27												27	
28										.23	1.11		28												28	
29										.09	.09		29												29	
30										Dry	Dry		30												30	
31													31												31	
										.10	.10															

TOTAL,	0	2.04	0	.46	14.14	0	3.30	.13	0	0	0	0
Daily Discharge in Second Feet	0	.07	0	.015	.50	0	.11	.004	0	0	0	0
Discharge per square mile	0	.76	0	.17	5.34	0	1.24	.05	0	0	0	0
Discharge, depth in inches -	0	4.05	0	.91	28.04	0	6.54	.26	0	0	0	39.80
Discharge in Second Feet	0	1.11	0	.15	6.30	0	2.80	.11	0	0	0	0
Discharge in Second Feet	0	0	0	0	0	0	0	0	0	0	0	0

Minimum stage 10.46 feet at 10 A.M. on Feb. 4, 1931
 Minimum stage DRY feet at MOST of Year
 Discharge 20.10 second-foot
 Discharge

C.F.B. V.K.
 C.F.B.
 C.F.B.
 C.F.B.
 G. H. applied
 G. H. checked
 G. H. applied
 G. H. checked
 PERIOD YEAR

SYCAMORE STORM DRAIN LOWER STATION
ADAMS SQUARE - GLENDALE

Location

In manhole in yard of service station on west side of street and south side of Sycamore Storm Drain at Adams Square, Lower Chevy Chase Drive in Glendale, California.

Drainage Area

6.19 square miles.

Installed by

Los Angeles County Flood Control District
December 15, 1927.

Records Available

December 15, 1927 to September 30, 1931 at offices of the Los Angeles County Flood Control District, Los Angeles, California.

Gage

Stevens Type L Water stage register located in manhole of concrete drain. One staff gage installed in stilling well, another on east wall of drain near inlets to stilling well.

Discharge Measurements.

Made by wading near gage near weir notch at low flows.

High flow measurements made with cable and pipe suspension for meters from planks across drain.

Channel and Control

Concrete flood control channel.

Small notch serving as weir control during low flows and as a sand trap during high flows.

Extremes of Discharge

1927-1928

Maximum-34 c.f.s. Feb. 3, 1928

Minimum-Dry most of year

1928-1929

Maximum-904 c.f.s. November 14, 1928

Minimum-Dry most of year

1929-1930

Maximum-51.0 c.f.s. May 3, 1930

Minimum-Dry most of year

1930-1931

Maximum-212. c.f.s. February 3, 1931

Minimum-Dry most of year.

F-44 R

Diversions

None above gage.

Regulation

None

Accuracy

Fair

Co-operation

Located and operated by Los Angeles County
Flood Control District in co-operation with
U.S.G.S. Water Resources Branch, and City of
Glendale.

LOS ANGELES COUNTY
 FLOOD CONTROL DISTRICT
 HYDROGRAPHIC DEPARTMENT

File No. 44

Discharge measurements of Sycamore Lower Storm Drain

River
 Creek

at Adams Square-Blendale

during the year ending September 30, 1931

No.	Date	Made by	Width Feet	Area of section Sq. ft.	Mean velocity ft. per sec.	Gage height		Discharge Sec.-ft.	Method	Coef.	Meas. secs.	G. Ht. change	Time Hours	Meter No.
						Feet	Sec.-ft.							
1931														
1	1/31	Bollinger-Laverty	9.0	1.84	1.46	.34	1.81			.6	7	.04	1/4	271 650
2	2/3	" "	9.0	8.56	10.93	.91	93.60			.6	6	.48	1/3	"
3	4/23	" Cron	9.0	3.23	6.10	.64	17.72			.6	6		1/6	"
4	4/23	" "	9.0	3.62	6.99	.58	10.42			.6	7	.11	1/6	"
5	4/23	" "	9.0	3.80	6.43	.72	24.44			.6	6	.02	1/4	"

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **44**

Rating table for **SYCAMORE, LOWER STORM DRAIN, ADAMS SQUARE, GLENDALE**

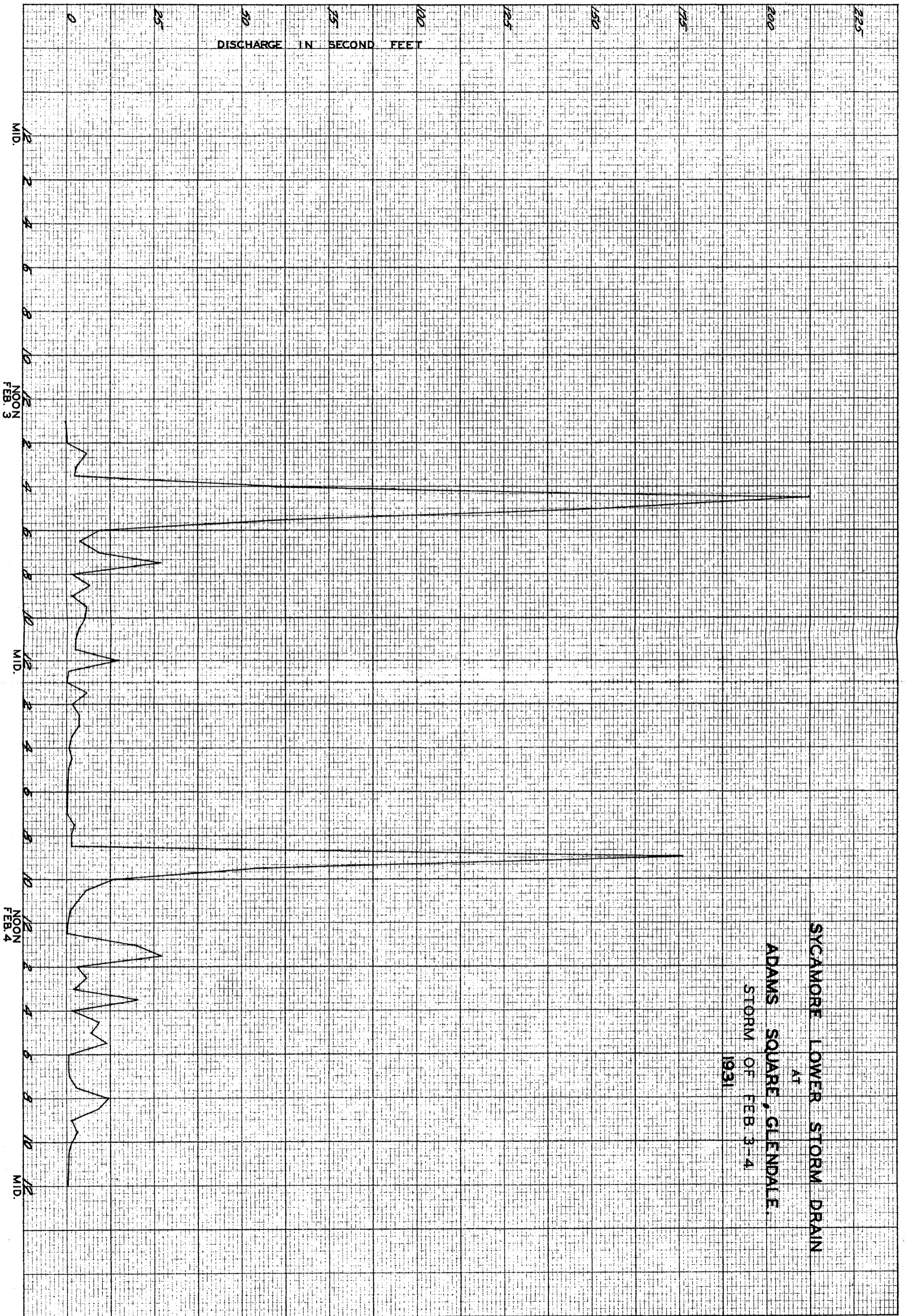
, from **Oct. 1,** , **1930** , to **Sept 30,** , **1931**

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
.00	0		.40	5.66		.80	27.01		1.20	86.40		1.60	158.20	
.02	.11	.055	.42	6.33	.335	.82	28.75	.875	1.22	89.99	1.795	.62	161.79	1.795
.04	.22		.44	7.00		.84	30.51		.24	93.58		.64	165.38	
.06	.33		.46	7.75	.375	.86	32.65	1.07	.26	97.17		.66	168.97	
.08	.44		.48	8.50	.375	.88	34.80	1.075	.28	100.76		.68	172.56	
.10	.55		.50	9.25		.90	37.00	1.10	.30	104.3	1.35	1.70	176.15	
.12	.66		.52	10.00		.92	39.70		.32	107.94		.72	179.74	
.14	.77		.54	11.00	.50	.94	42.40		.34	111.53		.74	183.33	
.16	.88		.56	12.00		.96	45.10		.36	115.12		.76	186.92	
.18	1.0	.06	.58	13.00		.98	47.80		.38	118.71		.78	190.51	
.20	1.33	.165	.60	14.00		1.00	50.5	1.795	1.40	122.30		1.80	194.10	
.22	1.66		.62	15.00		.02	54.09		.42	125.8		.82	197.69	
.24	1.99		.64	16.0		.04	57.68		.44	129.48		.84	201.28	
.26	2.32		.66	17.0		.06	61.27		.46	133.07		.86	204.87	
.28	2.66	.17	.68	18.25	.625	.08	64.86		.48	136.66		.88	208.46	
.30	3.00		.70	19.50		1.10	68.45		1.50	140.25	1.90	212.05		
.32	3.50	.25	.72	20.75		.12	72.04		.52	143.84				
.34	4.00		.74	22.0		.14	75.63		.54	147.43				
.36	4.50		.76	23.67	.835	.16	79.22		.56	151.02				
.38	5.00	.33	.72	25.34		.18	82.81		.58	154.61				

The above table is not applicable for obstructed channel conditions. It is based on _____ discharge measurements made during _____

and is _____ well defined between _____ second-feet and _____ second-feet.

Computed by _____
Checked by _____
Date **10-14-31**



SYCAMORE LOWER STORM DRAIN

AT

ADAMS SQUARE, GLENDALE.

STORM OF FEB. 3-4

1931

F-54 R

TOPANGA CREEK AT HIGHWAY BRIDGE,
2 MILES ABOVE MOUTH.

Location

On highway bridge about 2 miles from ocean.

Drainage Area

17.94 square miles

Installed by

Los Angeles County Flood Control District.
January 1, 1930.

Records Available

January 1, 1930 to September 30, 1931 at offices
of Los Angeles County Flood Control District, Los
Angeles, California.

Gage

An continuous water stage recorder located in small
shelter house on top of corrugated iron stilling
well at west wing wall of bridge.

Discharge Measurements

High water measurements are made from cable located
450 feet above recorder.
Low water measurements made by wading.

Channel and Control

Rocky and full of boulders. No control.

Extremes of Discharge

1929-1930

Maximum-340 c.f.s. March 14, and 15, 1930.

Minimum-.01 c.f.s. at various times of year.

1930-1931

Maximum- 386.c.f.s. February 4, 1931

Minimum-.01 c.f.s. at various times of year.

Regulation

None.

Accuracy

Fair.

Co-operation

Located, constructed and operated by Los Angeles
Flood Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 54

Discharge measurements of **Topanga**

~~River~~
Creek

at **Highway Bridge-2 mi. above mouth** during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Coef.	Meas. sec.	G. H. change	Time	Meta No.
			Feet	Sq.-ft.	Ft. per sec.	Feet	Sec.-ft.	Percent diff.			No.	Total	Hours	FC
1931														
1	1/10	Bertelson	5.0	2.40	.28	.90	.67	.6			5		1/6	7
2	2/3	Hardgrove-Ayres	12.0	8.00	2.23	1.66	17.80	.6			6		1/4	"
2A	6	Bertelson	18.0	6.75	.09	2.48	6.09	.6			10			
3	20	Hardgrove				Est.	.12							
4	27	"				Vol.	.08							
5	3/6	"				+	.05							
6	13	"				+	.05							
7	20	"				+	.03							
8	27	"				+	.02							
9	4/3	"				+	.03							
10	10	"				+	.02							
11	17	"				+	.02							
12	24	"				Est.	1.00							
13	24	Bertelson	5.5	1.48	.05	1.45	.80	.6			6		1/6	FC 1
14	26	Hardgrove-Ayres	22.0	23.5	2.67	2.39	62.90	.6			10		"	FC 7
15	27	Bertelson	9.5	3.85	.04	1.50	1.78	.6			4		1/4	FC 1
16	5/1	Hardgrove				+	.60							
17	8	"				+	.15							
18	15	"				+	.09							
19	22	"				+	.04							
20	29	"				+	.07							
21	6/5	"				+	.03							
22	12	"				+	.08							
23	19	"				+	.04							
24	26	"				+	.03							
25	7/3	"				+	.01							
26	10	"				+	.01							
27	17	"				+	.01							

+ 90% V Notch Weir

LOS ANGELES COUNTY
 FLOOD CONTROL DISTRICT
 HYDROGRAPHIC DEPARTMENT

File No. **54**

Discharge measurements of **Topanga**

Hiver
Creek

at **Highway Bridge-2 mi. above mouth** , during the year ending September 30, **1931**
 near

N	Date	Made by	Width		Area of section		Mean velocity		Gate height	Discharge		Rating	Method	Coef.	Meas. secs.	G. Ht. change	Time	Meter No.
			Feet	Sq. Ft.	Sq. Ft.	Ft. per sec.	Feet	Sec. ft.		Percent diff.								
	1931																	
28	7/24	Hardgrove							+	.01								
29	31	"							+	.01								
30	9/11	"							+	.06								

+ 90% V Notch Weir

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 54

Low
Rating table for Topanga Creek at Highway Bridge two miles from mouth

, from Oct. 1st , 19 30, to Sept. 30th , 19 31

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
.80	0	.01												
.85	.05	.01												
.90	.10	.04												
.95	.30	.05												
1.00	.55	.05												
.05	.80	.06												
.10	1.10	.07												
.15	1.45	.09												
.20	1.90	.10												
.25	2.40	.11												
.30	2.95	.13												
.35	3.60	.16												
.40	4.40	.20												
.45	5.40	.24												
.50	6.60	.32												
.55	8.20	.44												
.60	10.40													

The above table is not applicable for obstructed channel conditions. It is based on 28 discharge measurements made during year 1930-1931

and is fairly well defined between .00 second-feet and 17.8 second-feet.

Computed by W T K
Checked by W T K
Date

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. 54

High

Rating table for Topanga Creek at Highway Bridge, 2 miles from mouth.

, from Oct. 1st , 1930 , to Sept. 30th , 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
1.60	10.40	.50	.20	128	.80	.20	288	.80						
.65	12.90	.50	.30	136		.30	296							
.70	15.40	.50	.40	144		.40	304							
.75	18.00	.52	.50	152		.50	312							
.80	21.00	.60	.60	160		.60	320							
.85	24.00	.60	.70	168		.70	328							
.90	27.00	.60	.80	176		.80	336							
.95	30.5	.70	.90	184		.90	344							
2.00	34.0	.70	4.00	192		6.00	352							
.10	41.0	.70	.10	200		.10	360							
.20	48.0	.70	.20	208		.20	368							
.30	56.0	.80	.30	216		.30	376							
.40	64.0	.80	.40	224		.40	384							
.50	72		.50	232		.50	392							
.60	80		.60	240										
.70	88		.70	248										
.80	96		.80	256										
.90	104		.90	264										
3.00	112		5.00	272										
.10	120		.10	280										

The above table is not applicable for obstructed channel conditions. It is based on 3 discharge measurements made during year 1930 - 1931

and is fairly well defined between 10.50 second-feet and 62.9 second-feet.

Computed by W T K
 Checked by _____
 Date _____

Gage Height, in Feet, and Discharge, in Second-Feet, of

TOPANGA CREEK

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

File No. 54

HWY. BRIDGE 2 MILES FROM MOUTH

for the Year Ending September 30, 19 31

Drainage Area 17.94 Square Miles.

HARDGROVE

Observer.]

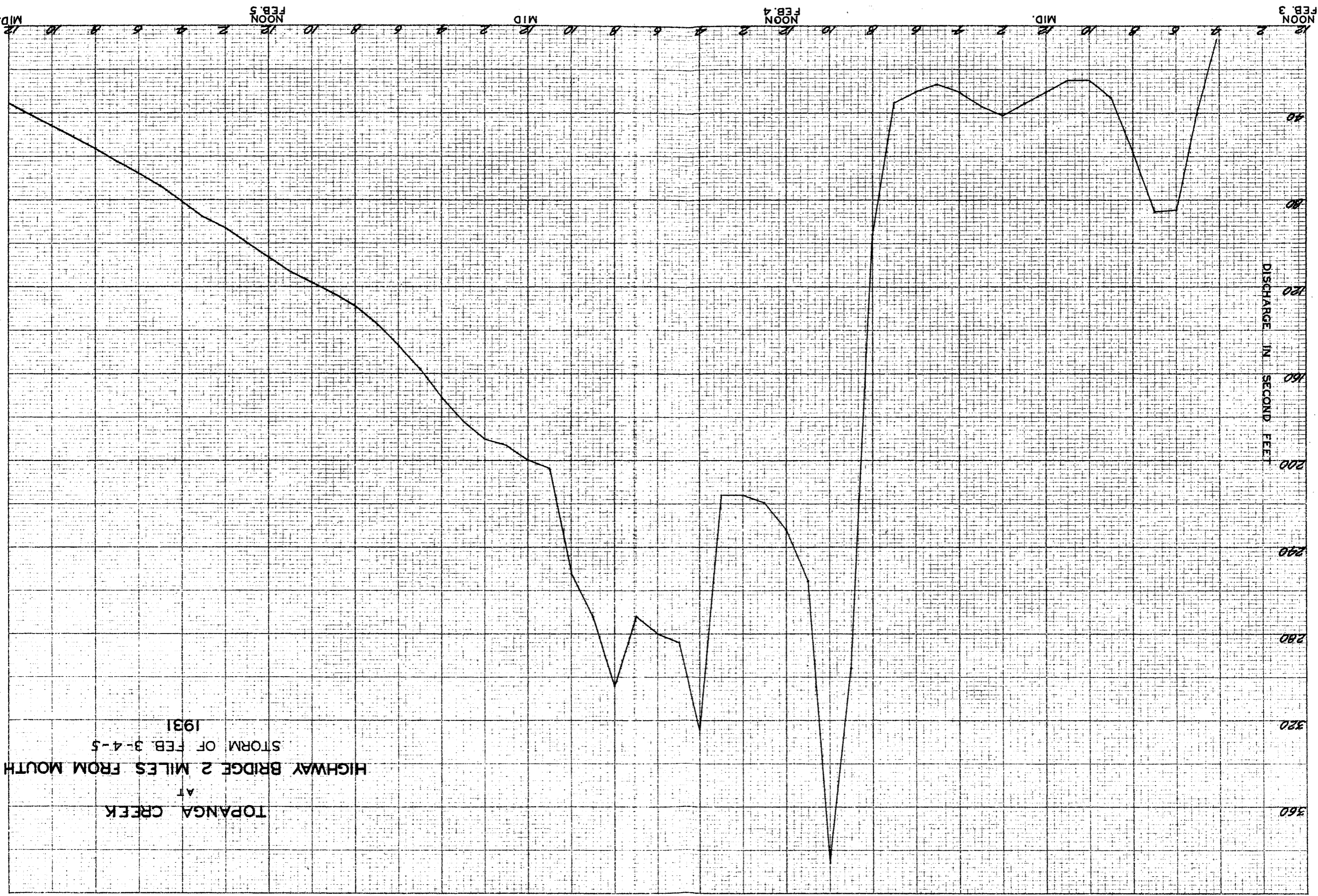
Gage Read CONTINUOUS

Used rating table dated

Main data table with columns for months (OCTOBER to SEPTEMBER), gage height, discharge, and day. Includes summary rows for totals and various discharge metrics.

Vertical text on the left side: Discharge 300.00, Correction Curve Used, Maximum stage 3.40, Minimum stage .81, etc.

Vertical text on the right side: W.T.K., V.K., G.H. copied, G.H. checked, Date, etc.



TOPANGA CREEK
AT
HIGHWAY BRIDGE 2 MILES FROM MOUTH
STORM OF FEB. 3-4-5
1931

F-9 R

VERDUGO STORM DRAIN AT GLEN OAKS BOULEVARD, GLENDALE.

Location

On Glen Oaks Boulevard Bridge spanning Verdugo Wash, City of Glendale, County of Los Angeles, California.

Drainage Area

22.5 square miles.

Installed By

Los Angeles County Flood Control District, December 12, 1928.

Records Available

December 12, 1928, to September 30, 1931 at offices of Los Angeles County Flood Control District, Los Angeles, California.

Gage

Staff gage on downstream side of bridge on North side of concrete channel at lower end of pier. A groove is cut in the concrete floor from the lowest point in the channel to the gage in order to obtain a reading at low flows. Stevens type L, 8 day water stage recorder installed in small wooden house on top of corrugated iron stilling well.

Discharge Measurements.

Low water measurements made by wading at gage. High water measurements are made from bridge.

Channel and Control.

Concrete Flood Control channel with V shaped bottom and perpendicular sides. Control is perfect.

Extremes of Discharge

1928-1929

Maximum-55.5 c.f.s. April 4, 1929
Minimum-Dry at various times during year.

1929-1930

Maximum-80.43 c.f.s. May 3, 1930
Minimum-Dry at various times during year

1930-1931

Maximum-46.15 c.f.s. April 26, 1931
Minimum-.01 c.f.s. at various times during year.

F-9 R

Regulation
None

Diversions
None above gage.

Accuracy
Good.

Co-operation
Constructed and operated by the Los Angeles
County Flood Control District with co-operation
of U.S.G.S. Water Resources Branch and City of
Glendale.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 9

Discharge measurements of Verdugo Storm Drain

444
1000

Glen Oaks Blvd., Glendale

during the year ending September 30, 1931

No.	Date	Reach	Width Feet	Area of Section Sq. Ft.	Mean Velocity Feet/Sec.	Discharge		Rating Feet of Water	Depth Feet	C/S	No.	G. B. Summ.	Time Hours	Meter No.
						Feet	Secs.							
1930														
1	11/15	Bollinger	8.1	1.01	2.77	.15	2.36		.6		6	.01	1/6	271 650
2	15	"	7.5	.72	2.88	.14	2.07		.6		6		1/6	"
3	17	Bollinger-Joyce	11.3	1.77	6.30	.20	11.13		.6		7		1/6	"
4	17	" "	11.9	1.87	6.13	.20	11.47		.6		7		1/6	"
5	1/7	Bollinger-Jordan	16.5	4.84	9.15	.29	44.31		.6		8		1/6	"
6	21	" Lavery	9.5	1.33	6.20	.17	8.25		.6		7	.01	1/6	" 271
7	2/15	" "	9.8	1.14	5.15	.18	5.88		.6		6	.01	1/6	647
8	13	" "	10.5	1.62	5.83	.19	9.43		.6		6	.03	1/6	" 271
9	4/23	Bollinger	7.1	.72	3.06	.11	2.20		.6		5		1/6	650
10	26	Bollinger-Lavery	12.5	2.52	7.15	.24	18.04		.6		10	.02	1/6	"
11	5/24	" "	15.8	3.65	8.23	.29	30.05		.6		11	.02	1/2	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 9

Rating table for Verdugo Storm Drain at Glen Oaks Blvd. Glendale.

, from Oct. 1st, 1930, to Sept. 30th, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
.00	0		.20	11.10		.40	46.15							
.01	.01	.01	.21	12.85	1.75	.41	48.00	1.85						
.02	.02	.01	.22	14.60	"	.42	49.85	"						
.03	.06	.043	.23	16.35	"	.43	50.70	"						
.04	.11	.043	.24	18.10	"	.44	52.55	"						
.05	.15	.044	.25	19.85	"	.45	54.40	"						
.06	.22	.07	.26	21.60	"	.46	56.25	"						
.07	.29	"	.27	23.35	"	.47	58.10	"						
.08	.36	"	.28	25.10	"	.48	59.95	"						
.09	.43	"	.29	26.85	"	.49	61.80	"						
.10	.50	"	.30	28.60	"	.50	63.65	"						
.11	.77	.265	.31	30.35	"	.51	65.50	"						
.12	1.03	.265	.32	32.10	"	.52	67.35	"						
.13	1.30	.270	.33	33.85	"									
.14	1.83	.525	.34	35.66	"									
.15	2.35	.525	.35	37.35	"									
.16	4.10	1.75	.36	39.10	"									
.17	5.85	1.75	.37	40.85	"									
.18	7.60	1.75	.38	42.60	"									
.19	9.35	1.75	.39	44.35	1.80									

The above table is not applicable for obstructed channel conditions. It is based on 11 discharge measurements made during Season Oct 1, 1930 and Sept. 30, 1931 Concrete storm drain

and is very well defined between 2.20 second-feet and 44.0 second-feet.

Computed by C E B 7-19-31
Checked by V K
Date

Gage Height, in Feet, and Discharge, in Second-Feet, of

VERDUGO STORM DRAIN

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

At GLEN OAKS BLVD. GLENDALE

for the Year Ending September 30, 19 31

Drainage Area 22.50 Square Miles.

C. F. BOLLINGER Observer.

Gage Read CONTINUOUS

Used rating table dated

Maximum stage .40 feet at 5 A.M. on April 26, 1931
 Minimum stage .01 feet at 46.15 second stage .04
 Discharge

At various times during year
 I = Interpolated

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge
1	.02	.02	.02	.02	.04	.11	.12	1.03	.07	.29	.03	.06	.4	.11	.03	.06	.04	.11	1.01	.01	.02	.02	.01	.01
2	.02	.02	.03	.06	.03	.06	.10	.50	.02	.02	.03	.06	.3	.06	.03	.06	1.03	.06	1.01	.01	.02	.02	.01	.01
3	.02	.02	.04	.11	.03	.06	.08	.36	H	5.28	.03	.06	.3	.06	.03	.06	1.03	.06	1.01	.01	.02	.02	.01	.01
4	.04	.11	.04	.11	.03	.06	1.04	.11	H	4.07	.03	.06	.3	.06	.04	.11	1.03	.06	1.01	.01	.02	.02	.01	.01
5	.04	.11	.05	.15	1.03	.06	.05	.15	.03	.06	.03	.06	.3	.06	.03	.06	1.03	.06	1.02	.02	.02	.02	.01	.01
6	.04	.11	1.04	.11	.03	.06	.02	.02	.03	.06	.03	.06	.3	.06	.02	.02	.02	.02	1.02	.02	.02	.02	.01	.01
7	.03	.06	.03	.06	.03	.06	H	4.76	.04	.11	.03	.06	.3	.06	.02	.02	1.02	.02	.03	.06	.03	.06	.01	.01
8	.04	.11	.05	.15	.03	.06	.16	4.10	.04	.11	.03	.06	.3	.06	.02	.02	1.02	.02	1.03	.06	.03	.06	.01	.01
9	.10	.50	.04	.11	1.03	.06	.08	.36	.05	.15	.03	.06	.3	.06	.03	.06	1.02	.02	1.03	.06	.03	.06	.01	.01
10	.08	.36	.03	.06	1.03	.06	.05	.15	.06	.22	.03	.06	.3	.06	.03	.06	1.02	.02	1.03	.06	.03	.06	.01	.01
11	.06	.22	.04	.11	1.03	.06	.04	.11	.10	.50	.03	.06	.3	.06	.03	.06	1.02	.02	.03	.06	.03	.06	.01	.01
12	.06	.22	.03	.06	.02	.02	.04	.11	.12	1.03	.03	.06	.3	.06	.05	.15	.03	.06	.02	.02	.03	.06	.03	.06
13	.07	.29	.10	.50	.02	.02	.05	.15	.09	.43	.03	.06	.3	.06	.04	.11	.03	.06	1.01	.01	.03	.06	.02	.02
14	.06	.22	.04	.11	.02	.02	.08	.36	.05	.15	.03	.06	.3	.06	.04	.11	.03	.06	1.01	.01	.02	.02	.02	.02
15	.06	.22	.04	.11	1.02	.02	.04	.11	.02	.02	.03	.06	.3	.06	.09	.43	.03	.06	1.01	.01	.02	.02	.02	.02
16	.05	.15	.10	.50	1.02	.02	.03	.26	.04	.11	.03	.06	.3	.06	.1	.77	.08	.36	.02	.02	.02	.02	.02	.02
17	.05	.15	.15	2.35	1.02	.02	.02	.02	.04	.11	.03	.06	.3	.06	.3	.06	.05	.15	.04	.11	.02	.02	.02	.02
18	.01	.01	.05	.15	1.02	.02	.02	.02	.03	.06	.03	.06	.3	.06	.3	.06	.03	.06	.04	.11	.02	.02	.02	.02
19	.01	.01	1.04	.11	.02	.02	.02	.02	.03	.06	.03	.06	.3	.06	.8	.36	.02	.02	.04	.11	.02	.02	.02	.02
20	.02	.02	1.03	.06	.02	.02	.02	.02	.03	.06	.03	.06	.3	.06	.8	.36	.02	.02	.04	.11	.02	.02	.02	.02
21	.02	.02	.03	.06	.02	.02	.02	.02	.02	.02	.03	.06	.3	.06	.2	.02	.03	.06	.02	.02	.02	.02	.02	.02
22	.02	.02	.04	.11	.02	.02	.02	.02	1.02	.02	.02	.02	.3	.06	.0	.50	.03	.06	.01	.01	.02	.02	.02	.02
23	.02	.02	.03	.06	1.02	.02	.02	.02	1.02	.02	.02	.02	.3	.06	.7	5.85	.03	.06	.03	.06	.02	.02	.02	.02
24	.02	.02	.03	.06	1.02	.02	.02	.02	1.02	.02	.03	.06	.3	.06	.6	4.10	H	2.93	1.01	.01	.02	.02	.02	.02
25	.03	.06	.03	.06	1.02	.02	.02	.02	1.02	.02	.04	.11	.3	.06	.8	.36	H	1.26	.04	.11	.02	.02	.02	.02
26	.02	.02	1.04	.11	.02	.02	.02	.02	1.02	.02	.04	.11	.3	.06	F	8.43	.02	.02	1.01	.01	.02	.02	.02	.02
27	.03	.06	.13	1.30	1.02	.02	.02	.02	1.02	.02	.03	.06	.3	.06	.3	.06	.02	.02	.01	.01	.02	.02	.02	.02
28	.04	.11	.08	.36	1.02	.02	.02	.02	1.03	.06	.04	.11	.3	.06	.3	.06	.03	.06	.01	.01	.02	.02	.01	.01
29	.05	.15	.06	.22	1.02	.02	.02	.02	-	-	.04	.11	.3	.06	.3	.06	.03	.06	.01	.01	.02	.02	.01	.01
30	.04	.11	.04	.11	1.02	.02	.02	.02	-	-	.04	.11	.3	.06	.3	.06	1.04	.11	.01	.01	.02	.02	.01	.01
31	.02	.02	-	-	1.02	.02	.12	1.03	-	-	.04	.11	.3	.06	-	-	1.04	.11	-	-	.02	.02	.01	.01

Quarter First Second Third Fourth
 W.K. V.K.
 G. H. computed
 G. H. checked
 Date
 W.K.
 C.E.B. C.E.C. CEB
 G. H. computed
 G. H. checked
 Date
 PERIOD YEAR

TOTAL,	3.54	7.45	1.11	13.75	13.10	2.08	22.66	6.19	.24	.86	.82	.35
Mean Daily Discharge in Second-feet	.11	.25	.04	.45	.47	.07	.76	.20	.04	.03	.03	.01
Second-feet per square mile	.005	.01	.002	.02	.02	.003	.03	.01	.002	.001	.001	.001
Run-off, depth in inches -												
Run-off in acre-feet -	7.02	14.77	2.20	27.27	25.98	4.12	44.93	12.27	2.46	1.71	1.63	.69
Maximum Mean Daily Discharge in Second-feet	.36	2.35	.11	4.76	5.28	.11	8.43	2.93	.11	.06	.06	.06
Minimum Mean Daily Discharge in Second-feet	.02	.02	.02	.02	.02	.02	.06	.02	.01	.01	.01	.01

F-47 R

WALNUT WASH AT COVINA BOULEVARD BRIDGE

Location

On downstream side of highway bridge crossing Walnut wash at Covina Blvd. Approximately one-half mile southwest of Baldwin Park, Los Angeles County, California.

Drainage Area

99.14 square miles

Installed by

Los Angeles County Flood Control District, December 15, 1928. Originally installed by State of California Division of Water Rights, 1923-1924.

Records Available

December 15, 1928 to September 30, 1931 at offices of Los Angeles County Flood Control District, Los Angeles, California. See State of California Division of Water Rights Bulletins for records previous to December, 1928.

Gage

Rational 7 day water stage recorder installed in shelter house on corrugated iron stilling well, attached to downstream end of highway bridge pier. Vertical staff gage installed on bridge pier at stilling well.

Discharge Measurements

High water flows are measured from bridge. Low water measurements by wading near gage.

Channel and Control

Channel-sand and gravel
Control-none.

Extremes of Discharge

1928-1929

Maximum- 302 c.f.s. March 10, 1929

Minimum-Dry at various times during year

1929-1930

Maximum-900 c.f.s. January 11, 1930

Minimum-Dry at various times during year

1930-1931

Maximum-122.70 c.f.s. February 4, 1931

Minimum-Dry at various times during year.

Diversions
None above gage.

Regulation
None

Accuracy
Fair

Co-operation
Located, constructed and operated by Los Angeles
County Flood Control District in co-operation
with U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 47

Discharge measurements of Walnut Wash

River
Creek

at Covina Blvd. Bridge

during the year ending September 30, 1931

No.	Date	Made by	Width Feet	Area of section Sq.-ft.	Mean velocity ft. per sec.	Gage height Feet	Discharge Sec.-ft.	Rating Method	Cof. f.	Meas. sec.	G. Ht. change	Time Hours	Meter No.
1930													
1	12/12	Brewster	3.0	1.03	1.16	1.80	1.19		.6	3		1/6	271
2	19	"	4.0	1.53	1.12	1.84	1.72		.6	4		"	"
3	1/2	"	4.0	1.33	2.12	1.90	2.85		.6	4		"	"
4	30	"	3.0	.85	.96	1.80	.92		.6	3		"	"
5	2/3	"	32.0	27.1	2.94	2.70	79.63		.6	8		1/3	"
6	4	"	10.0	5.80	2.02	2.15	11.74		.6	5		1/6	"
7	27	"	4.0	.98	1.16	1.80	1.14		.6	4		1/5	"
8	5/6	"	4.0	1.00	1.38	1.83	1.38		.6	4		"	"
9	13	"	3.0	.65	.97	1.80	.63		.6	3		1/6	"
10	4/26	"	10.0	6.54	2.08	2.55	17.78		.6	5		1/5	"
11	26	"	36.0	27.6	2.84	2.70	78.55		.6	10		1/4	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 47

Rating table for Walnut Wash at Covina Blvd. Bridge

, from Oct 1st, 1930, to April 25, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
1.61	0		2.45	34.50										
1.62	0		.50	41.00	1.30									
1.63	.01		.55	48.70	1.54									
1.64	.03	.02	.60	57.80	1.82									
1.65	.05		.65	68.30	2.10									
1.70	.20	.03	.70	79.55	2.25									
1.75	.50	.06	.75	91.55	2.40									
1.80	1.00	.10	.80	104.5	2.59									
1.85	1.80	.16	.85	117.5	2.60									
1.90	2.80	.20												
1.95	4.10	.26												
2.00	5.70	.32												
2.05	7.50	.36												
	.10	.40												
	.15	.46												
	.20	.50												
	.25	.60												
	.30	.70												
	.35	.78												
	.40	.90												
		1.06												

The above table is not applicable for obstructed channel conditions. It is based on 11 discharge measurements made during year 1930 - 1931

and is very well defined between .63 second-feet and 78.55 second-feet.

Computed by H V

Checked by V K

Date

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **47**

Rating table for **Walnut Wash at Covina Blvd. Bridge**

, from **April 26**, 1931, to **Sept. 30**, 1931

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
1.62	0		2.50	34.50										
.63	.01		.55	43.50	1.80									
.64	.03	.02	.60	54.00	2.10									
.65	.05		.65	66.00	2.40									
1.70	.20	.03	.70	78.50	2.50									
.75	.50	.06	.75	91.50	2.60									
.80	1.00	.10	.80	104.50										
.85	1.80	.16	.85											
.90	2.70	.18												
.95	3.70	.20												
2.00	4.80	.22												
.05	6.00	.24												
.10	7.30	.26												
.15	8.70	.28												
.20	10.30	.32												
.25	12.30	.40												
.30	14.80	.50												
.35	17.80	.60												
.40	22.00	.84												
.45	27.50	1.10												
		1.40												

The above table is not applicable for obstructed channel conditions. It is based on **11** discharge measurements made during **April 26, 1931 - Sept. 30, 1931**

and is **very** well defined between **.63** second-feet and **78.55** second-feet.

Computed by **H V**
Checked by **V K**
Date

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of

WALNUT WASH

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 47

At ~~XXX~~ Covina Blvd. Bridge

for the Year Ending September 30, 19 31

Drainage Area 99.14 Square Miles.

Brewster

Observer.]

Gage Read Continuous

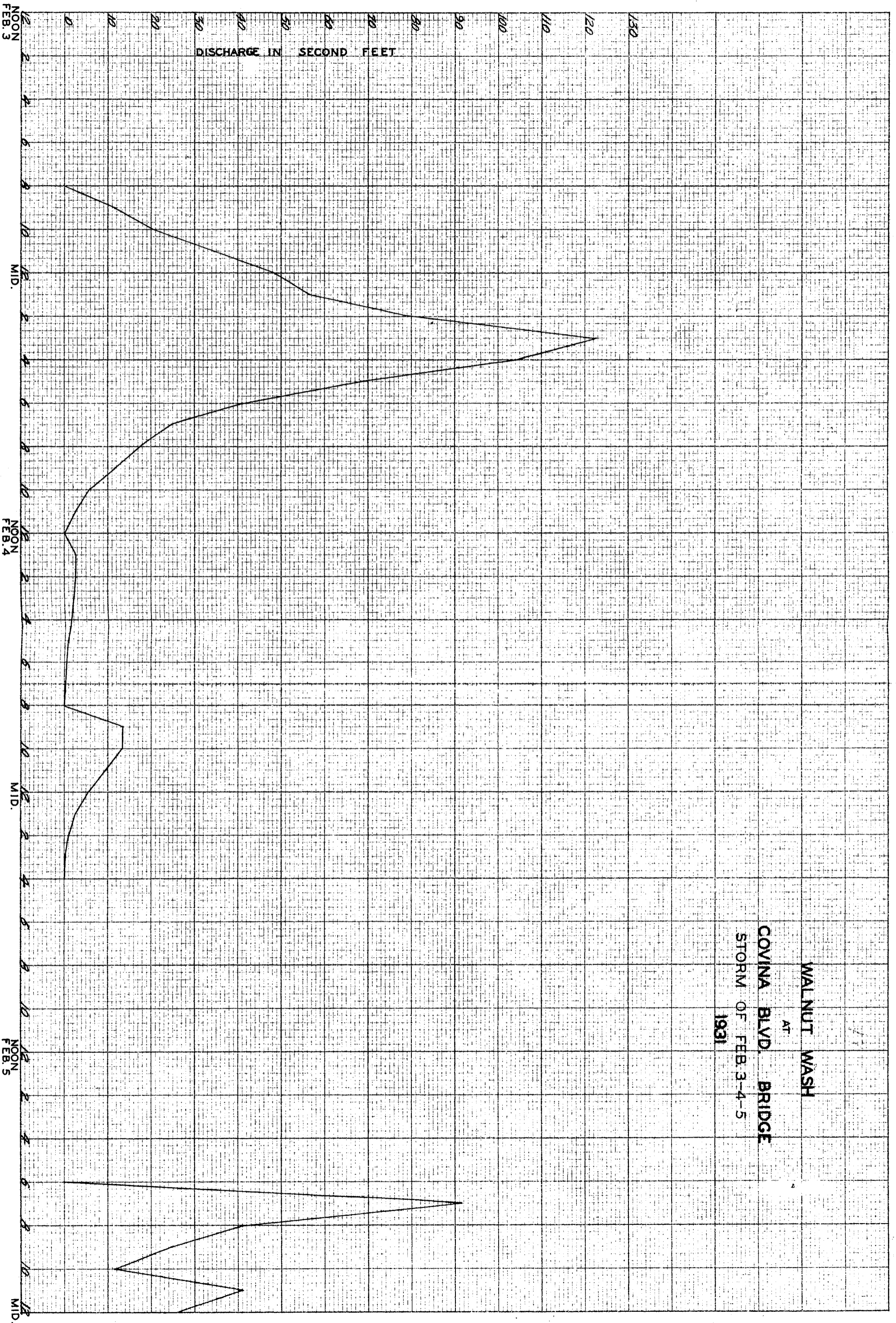
Used rating table dated

Maximum stage 122.70 second-feet
Minimum stage Dry second-feet
feet at 3:00 A.M. on 2-4-31
feet at Part of year

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	
1	Dry	0	Dry	0	Dry	0	1.63	.01	1.66	.08	1.68	.14	1	Dry	0	Dry	0								1
2							1.78	.80	1.64	.03	1.68	.14	2												2
3							1.66	.08	H	3.81	1.70	.20	3												3
4							Dry	0	H	25.42	1.70	.20	4												4
5							1.65	.05	H	9.58	1.76	.60	5												5
6							H	2.67	H	2.92	1.73	.38	6												6
7							H	3.22	Dry	0	1.77	.70	7												7
8					Dry	0	H	4.49	1.65	.05	1.70	.20	8												8
9					1.70	.20	Dry	0	1.63	.01	1.90	2.80	9												9
10					1.66	.08	1.63	.01	1.67	.11	1.64	.03	10												10
11					1.72	.32	1.63	.01	1.73	.38	Dry	0	11			Dry	0								11
12					1.79	.90	Dry	0	1.68	.14	Dry	0	12			1.63	.01								12
13					1.68	.14	1.87	2.20	1.63	.01	1.80	1.00	13		Dry	Dry	0								13
14					1.64	.03	1.68	.14	H	3.40	1.66	.08	14		Dry										14
15		Dry		Dry	1.66	.08	1.66	.08	Dry	0	1.71	.26	15												15
16					1.72	.32	1.63	.01	"	0	1.65	.05	16												16
17					1.76	.60	1.65	.05	"	0	Dry	0	17					Dry		Dry					17
18					1.80	1.00	1.64	.03	"	0			18								Dry				18
19					1.83	1.48	Dry	0	Dry	0			19												19
20					1.87	2.20	1.64	.03	1.63	.01			20												20
21					1.92	3.32	1.63	.01	1.73	.38			21												21
22					1.95	4.10	1.65	.05	1.68	.14			22			Dry									22
23					1.90	2.80	1.69	.17	1.63	.01		Dry	23												23
24					1.85	1.80	1.71	.26	1.64	.03			24												24
25					1.75	.50	1.70	.20	1.65	.05			25		Dry	0									25
26					1.71	.26	1.65	.05	1.66	.08			26		H	15.34	Dry	0							26
27					1.71	.26	1.65	.05	1.68	.14			27		1.63	.01	1.64	.03							27
28					1.71	.26	1.68	.14	1.65	.05			28		1.65	.05	Dry	0							28
29					1.69	.17	1.68	.14	-	-			29		1.64	.03	"	0							29
30					1.63	.01	1.75	.50	-	-			30		1.65	.05	"	0							30
31					1.71	.26	1.74	.44	-	-		0	31		-	-	"	0							31

TOTAL,	0	0	21.09	15.89	46.83	6.78	15.48	.04	0	0	0	0
Daily Discharge in Second-foot	0	0	.68	.51	1.67	.22	.52	.001	0	0	0	0
Second-foot per square mile	0	0	.007	.005	.017	.002	.005	.00001	0	0	0	0
Depth, depth in inches												
Run-off in acre-feet	0	0	41.82	31.51	92.86	13.44	30.70	.08	0	0	0	9 210.41
Mean Daily Discharge in Second-foot	0	0	4.10	4.49	25.42	2.80	15.34	.03	0	0	0	0
Minimum Mean Daily Discharge in Second-foot	0	0	0	0	0	0	0	0	0	0	0	0

Quarter First Second Third Fourth
 Date
 G. H. applied
 G. H. checked
 Date
 H.V. V.K.
 W.T.K. V.K.



WALNUT WASH
AT
COVINA BLVD. BRIDGE
STORM OF FEB. 3-4-5
1931

ARROYO SECO U.S.G.S. STATION NEAR
PASADENA, CALIF.

Location

Near south line of Sec. 30 T. 2 n., R. 12 W.
(unsurveyed) just below trail crossing at
Forest Ranger's Cabin in Angelus National
Forest, $1\frac{1}{2}$ miles above mouth of Millard Canyon,
 $5\frac{1}{2}$ miles northwest of Pasadena, and 3 miles
above Devils Gate Dam.

Drainage Area

16.4 square miles

Records Available

December 1910 to Sept. 30, 1931 at
U.S.G.S. office

Gage

Water stage recorder on right bank.

Discharge Measurements

Made from cable 150 feet above gage or by wading.

Channel and Control

Bed consists of solid rock, gravel and boulders.
A concrete dam, extending to bedrock was built
across the channel 15' below gage well with a
notch in the crest 2' wide and 1' deep. In July,
1919 a concrete intake box was built from gage
house down to the control.

Extremes of Discharge

Maximum-151.0 c.f.s. April 26, 1931

Minimum-Less .01 c.f.s. at various times of year.

Diversions

None

Regulations

None

Accuracy

Good

Co-operation

Constructed and operated by U.S.G.S. Water Resources
Branch in co-operation with the Los Angeles County
Flood Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **U 1**

Discharge measurements of **Arroyo Seco Creek**

at 3 mi. above FC Dam

, during the year ending September 30, 19**31**

No.	Date	Made by	Width	Area of section	Mean velocity	Stage height	Discharge	Rating	Method	Notes	Station No.
			Feet	Sq. Ft.	M. per sec.	Feet	Sec. ft.	Percent full			282
10/3		Lindsay	.5	.06	.86	1.15	.05	.6		1	883
9		"	.5	.08	1.14	1.02	.09	.6		1	"
17		"	.5	.07	1.30	1.10	.09	.6		1	"
23		Brewster	.5	.06	.83	.98	.05	.6		1	1/10686
30		"	.5	.05	1.00	.97	.05	.6		1	"
11/7		Lindsay	.5	.05	1.06	.98	.05	.6			282
14		"	.6	.12	1.11	1.00	.13	.6		1	883
17		Lindsay-Burke	3.5	1.37	1.29	1.28	1.80	.6		4	1/12
21		" Jordan	3.0	.84	.61	1.11	.50	.6		6	1/6
28		H. J. Tompkins	2.1	.85	1.53	1.14	1.30	.6		4	"
28		Lindsay	3.1	1.11	.92	1.14	1.00	.6		4	282
12/5		"	2.0	.94	.94	1.13	.90	.6		4	1/10883
12		"	2.0	.62	1.02	1.10	.65	.6		4	"
17		H. J. Tompkins	2.1	.60	1.08	1.12	.65	.6		4	1/6
18		Lindsay	2.0	.64	.89	1.11	.55	.6		4	"
26		"	2.0	.64	.73	1.15	.47	.6		4	282
1/2		Lindsay-Laird	2.0	.96	2.20	1.28	2.10	.6		4	1/12883
2		H. J. Tompkins	2.1	1.0	1.80	1.24	1.80	.6		4	"
6		Lindsay-Laird	2.0	.80	2.40	1.24	1.90	.6		4	1/6
6		H. J. Tompkins	2.1	.85	2.24	1.20	1.90	.6		4	"
8		Lindsay-Laird	9.2	4.60	1.43	1.69	6.60	.6		8	1/3
8		H. J. Tompkins	9.0	4.50	1.55	1.70	7.00	.6		9	"
9		Lindsay	7.8	3.13	1.45	1.52	4.50	.6		8	"
13		H. J. Tompkins	2.1	.75	2.27	1.20	1.70	.6		4	1/4
15		Lindsay	2.1	.68	2.11	1.19	1.40	.6		4	1/12
19		H. J. Tompkins	2.1	.65	1.69	1.16	1.10	.6		4	"
22		Lindsay	2.1	.65	1.66	1.15	1.10	.6		4	1/12
28		H. J. Tompkins	2.1	.65	1.31	1.14	.85	.6		4	1/4

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **U 1**

Discharge measurements of **Arroyo Seco Creek**

~~at~~ **3 mi. above FC Dam**, during the year ending September 30, 19**31**

No.	Date	Made by	Width		Mean velocity ft. per sec.	Cross Section		Discharge Sec. Ft.	Velocity ft. per sec.	Depth ft.	No. of gauges	Gage No.	Meter No.
			Feet	Sp. Ft.		Feet	Sec. Ft.						
1/29		Lindsay	2.1	.65	1.40	1.13	.9	.6			4	1/12	282 883
31		Lindsay-Laird	2.2	.92	2.02	1.25	1.9	.6			4	"	"
2/4		" "	23.0	12.10	5.18	2.30	63.0	.6			10	1/6	"
4		H. J. Tompkins	25.0	16.00	6.40	2.48	102.0	.6			8	1/2	FC
5		Irwin-Lindsay	11.0	11.00	2.89	2.06	33.0	.6				5/6	24
5		H. J. Tompkins	10.5	12.00	2.58	2.00	31.0	.6			11	1/3	
8		"	10.0	8.80	2.84	2.00	25.0	.6			10	1/2	
11		"	10.1	6.1	1.48	1.80	9.0	.6			10	1/3	
12		Lindsay	10.0	5.8	1.39	1.76	8.1	.6			10	1/5	282 883
14		H. J. Tompkins	10.2	6.2	1.94	1.84	12.0	.6			10	1/2	
19		Lindsay	9.9	3.5	1.36	1.56	4.8	.6			10	1/4	"
20		H. J. Tompkins	8.0	3.5	1.48	1.50	5.2	.6			8	1/6	
25		"	7.0	2.6	1.31	1.38	3.4	.6			7	1/4	
26		Lindsay	2.2	1.04	2.55	1.36	2.7	.6			4	1/12	282 883
3/6		"	2.2	.79	1.94	1.29	1.7	.6			4	1/12	"
12		"	2.2	.86	1.98	1.26	1.7	.6			4	"	"
14		H. J. Tompkins	2.1	.75	1.87	1.24	1.4	.6			4	1/6	
20		"	2.1	.85	1.76	1.16	1.5	.6			4	"	
20		Lindsay	2.1	.72	1.76	1.20	1.3	.6			4	1/12	282 883
24		H. J. Tompkins	2.5	1.10	1.18	1.14	1.3	.6			5	1/6	
26		Lindsay	2.1	.67	1.42	1.14	.95	.6			4	1/12	"
4/2		H. J. Tompkins	2.1	.65	1.39	1.14	.90	.6			4	1/6	
3		Lindsay	2.0	.60	1.47	1.10	.90	.6			4	1/12	"
10		"	2.0	.52	1.00	1.04	.50	.6			4	"	"
15		H. J. Tompkins	2.2	.55	.89	1.00	.49	.6			4	1/4	
17		Lindsay	2.0	.48	.90	1.02	.43	.6			4	1/12	"
24		"	11.0	11.2	3.40	2.10	38.00	.6			6	1/10	"
24		H. J. Tompkins	10.0	11.0	3.36	2.18	37.00	.6			10	1/4	

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **U 1**

Discharge measurements of **ARROYO SECO**

XX PASADENA, CALIFORNIA
near

, during the year ending September 30, 19 **31**

No.	Date	Made by	Width		Area of section	Mean velocity		Discharge		Total	Time	Water No.
			Feet	Sq. ft.		ft. per sec.	Cent.	Sec. ft.	Percent			
	4/26	Lindsay-Laird	19	24	3.51	2.42	83.	.6	7	1/6	282 883	
	4/26	H. J. Tompkins	30.5	23	4.35	2.45	100	.6	9	1/3		
	4/28	"	4.3	5.6	1.79	1.80	10	.6	9	1/4		
	4/30	Lindsay	10	4.7	1.54	1.72	7.2	.6	10	1/5	"	
	5/2	H. J. Tompkins	5.4	2.5	1.60	1.62	4	.6	6	1/4		
	5/7	Lindsay	9.5	2.63	.95	1.50	2.5	.6	9	1/4	"	
	5/7	H. J. Tompkins	2.	1.6	1.88	1.50	3.	.6	4	1/4	"	
	5/15	Lindsay	2.1	.91	2.15	1.46	2.0	.6	4.	1/12	"	
	16	H. J. Tompkins	2.4	1.20	1.34	1.45	1.60	.6	5	1/6		
	21	"	2.2	.85	1.29	1.4	1.10	.6	5	"		
	22	Lindsay	2.1	.80	1.41	1.5	1.10	.6	4	"	"	
	25	"	9.8	4.08	1.46	1.68	5.90	.6	10	"	"	
	25	H. J. Tompkins	9.5	3.20	1.41	1.58	4.50	.6	9	1/4		
	28	Lindsay	2.0	1.15	1.38	1.48	2.10	.6	4	1/12	"	
	6/1	H. J. Tompkins	2.0	1.30	.73	1.46	.95	.6	4	1/4	"	
	4	Lindsay	2.1	.77	1.10	1.46	.85	.6	4	1/12	"	
	5	H. J. Tompkins	2.0	1.30	1.23	1.48	1.60	.6	4	1/4		
	10	"	2.0	1.30	1.00	1.48	1.30	.6	4	1/6		
	12	Lindsay	2.35	1.11	1.14	1.46	1.30	.6	5	1/10	"	
	19	"	2.35	.96	.76	1.44	.75	.6	5	1/12	"	
	20	H. J. Tompkins	2.00	.95	.68	1.44	.65	.6	4	1/6	"	
	24	"	1.70	.50	1.50	1.44	.75	.6	3	1/2		
	26	Lindsay	1.0	.22	1.18	1.38	.26	.6	2	1/10	"	
	7/3	"	1.0	.18	.72	1.34	.13	.6	3	1/12	"	

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of

ARROYO SECO U.S.G.S. STATION

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

PASADENA, CALIFORNIA

for the Year Ending September 30, 19 31

Drainage Area 16.4 Square Miles.

Observer. J

Gage Read CONTINUOUS

Used rating table dated

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY	Quarter	Computed	Checked	Date
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge					
1					1.1	.5			1.6		2.5	1	.8	6.		.9		.2							1					
2					1.1	1.8			1.7		2.3	2	.8	4.5		1.1		.2							2					
3					1.0	1.3			4.1		2.2	3	.8	3.8		1.1		.1							3					
4					.9	.9			84.		1.9	4	.8	3.5		1.2		.1							4					
5					.9	1.5			49.		1.8	5	.8	3.1		1.3		.1							5					
6					.9	2.0			17.		1.7	6	.8	2.8		1.3		.1							6					
7					.8	2.0			25.		1.5	7	.8	2.7		1.3		.1							7					
8					.8	7.			35.		1.5	8	.7	2.7		1.3		.1							8					
9	.1		.1		.7	4.3			19.		1.5	9	.6	2.5		1.3									9					
10	.1		.1		.7	2.4			15.		1.6	10	.5	2.2		1.3									10					
11	.1		.1		.7	2.0			9.5		1.6	11	.5	2.1		1.3									11					
12	.1		.1		.6	1.8			8.		1.6	12	.5	1.9		1.3									12					
13	.1		.1		.6	1.7			10.		1.6	13	.5	1.8		1.3									13					
14	.1		.2		.6	1.6			12.		1.5	14	.5	1.8		1.2									14					
15	.1		.2		.6	1.5			12.		1.5	15	.4	1.8		1.1									15					
16	.1		.2		.6	1.5			10.		1.3	16	.4	1.7		1.0									16					
17	.1		2.0		.6	1.3			8.5		1.3	17	.4	1.5		.9									17					
18	.1		.6		.6	1.2			7.		1.3	18	.4	1.4		.8									18					
19	.1		.4		.6	1.1			5.5		1.3	19	.4	1.4		.7									19					
20	.1		.4		.6	1.1			4.7		1.4	20	.4	1.3		.7									20					
21	.1		.4		.6	1.1			4.1		1.3	21	.4	1.1		.7									21					
22	.1		.5		.5	1.1			3.6		1.2	22	.4	1.1		.6									22					
23	.1		.5		.5	1.1			3.5		1.1	23	1.5	1.0		.6									23					
24			.5		.5	1.0			3.3		1.0	24	21.	1.1		.6									24					
25			.6		.5	1.0			3.2		1.0	25	7.	5.5		.5									25					
26			.6		.5	1.0			2.9		1.0	26	37.	3.3		.5									26					
27			1.5		.5	.9			2.7		.9	27	27.	2.6		.4									27					
28			1.2		.5	.9			2.7		.9	28	13.	2.2		.3									28					
29			1.0		.5	.9					.9	29	8.5	1.8		.3									29					
30			1.1		.5	.9					.9	30	7.	1.4		.3									30					
31			-		.5	1.7					.9	31	-	1.1		-									31					

Maximum stage 2.70 feet at April 26 on at various times Discharge of year Less Minimum stage feet at than 0.1 sec. ft on days for which no discharge is given

TOTAL,			206.		501.		364.6		440.		134.6		72.7		272																
Mean Daily Discharge in Second-feet	.07		.43		.66		1.82		13.0		1.42		4.49		2.35		.91		.046		.02		.01								
Mean depth in inches	4.3		25.6		40.6		99.6		722.		87.3		267		344		54.1		2.8		1.2		.6		1,450						

Note: Flow less than 0.1 sec. ft on days for which no discharge is given

BIG DALTON CREEK U.S.G.S. STATION

NEAR GLENDORA, CALIF.

Location

In Center of Sec. 21, T. 1 N., R. 9 W at Glendora Consolidated Mutual Irrigation Company's Dam, 1/4 mile above mouth of canyon and 2 1/2 miles northeast of Glendora and 2 miles below Flood Control Dam.

Drainage Area

6.53 square miles.

Installed by

U.S.G.S. Water Resources Branch

Records Available

December 1919 to September 30, 1931 at U.S.G.S. office.

Gage

Stevens continuous water stage recorder installed in concrete well and house on west bank of stream.

Discharge Measurements

Low Water flow measured by wading near gage High Water flow measured from cable 50' above gage.

Channel and Control

Control is a rubble masonry dam. Crest of dam is 5' lower at the center than at wings. Pool at dam fills with silt and control is not effective.

Extremes of Discharge

Maximum-1.5 c.f.s. March 11, 1931
Minimum-Dry at various times of year.

Diversions

The Glendora Consolidated Mutual Irrigation Company's dam diverts water 1/2 a mile and 1 1/2 miles above gage through a 10" pipe line. A 12" pipe line diverts water at the dam.

Regulation

Flow regulated by Los Angeles County Flood Control District's Dam above gage.

Accuracy

Good

Co-operation

Constructed and operated by U.S.G.S. Water Resources Branch in co-operation with Los Angeles County Flood Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. U9

Discharge measurements of DALTON CREEK

at GLENDORA, CALIFORNIA
near

, during the year ending September 30, 19 31

No.	Date	Made by	Width Feet	Area in section		Crest height Feet	Discharge Sec. ft.	Percent diff.	Method	Cof. L.	Flow rate		Time Hours	Meter No.
				Sq. ft.	ft. per sec.						No.	Total		
3/11	IRWIN - BREWSTER	3.5	2.10	1.10	1.17	2.3		.6					FC 24	
3/11	"	5.0	3.25	1.30	1.26	4.2		.6					"	
3/11	"	5.0	3.63	1.50	1.30	5.4		.6					"	
3/11	"	5.0	3.91	1.59	1.34	6.2		.6						
3/11	"	5.0	4.12	1.82	1.37	7.5		.6						
3/11	"	5.0	4.25	2.32	1.40	9.9		.6						
3/11	"	6.0	5.2	2.47	1.44	13		.6						
3/11	"	6.0	5.3	2.70	1.46	14		.6						
3/11	"	6.0	5.4	2.78	1.47	15		.6						
3/11	"	6.0	5.4	2.76	1.47	15		.6						
3/12	H. J. Tompkins	1.5	.6	1.08	1.06	.65		.6		.3		1/12		
3/13	Brewster	1.0	.14	.79	.98	.11		.6		2		1/6	271 666	
4/26	F.C. Ebert-Dalton	2.9	1.4	.61	1.06	.85		.6		6		1/6		
4/27	Brewster	1.5	.35	1.83	1.02	.65		.6		2		1/10	271 656	

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of

DALTON CREEK NEAR GLENDORA, CALIF.

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **09**

U.S.G.S. STATION

for the Year Ending September 30, 19 **31**

Drainage Area **6.53** Square Miles.

Observer: []

Gage Read **CONTINUOUS**

Used rating table dated

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	
1									0		0		1	0	0.2		0.4								1	Third
2									0		0		2	0	.1		.5								2	Second
3									0		0		3	0	.1		.5								3	First
4									0.1		0		4	0	.1		.3								4	Quarter
5									.1		0		5	0	.1		.2								5	Fourth
6									.1		0		6	0	.1		.1								6	First
7									.1		0		7	0	.1		0								7	Second
8									.1		0		8	0	.1		0								8	Third
9									.1		0		9	0	0		0								9	Fourth
10									.1		0		10	0	0		0								10	First
11									.1		5.0		11	0	0		0								11	Second
12									.1		.7		12	0	0		0								12	Third
13									.1		.2		13	0	0		0								13	Fourth
14									.1		.1		14	0	0		0								14	First
15									.1		0		15	0	0		0								15	Second
16									.1		0		16	0	0		0								16	Third
17									.1		0		17	0	0		0								17	Fourth
18									.1		0		18	0	0		0								18	First
19									.1		0		19	0	0		0								19	Second
20									.1		0		20	0	0		0								20	Third
21									0		0		21	0	0		0								21	Fourth
22									0		0		22	0	0		0								22	First
23									0		0		23	0	0		0								23	Second
24									0		0		24	0	0		0								24	Third
25									0		0		25	0	0		0								25	Fourth
26									0		0		26	0.5	.2		0								26	First
27									0		0		27	.5	.2		0								27	Second
28									0		0		28	.4	.3		0								28	Third
29									-		0		29	.4	.4		0								29	Fourth
30									-		0		30	.3	.6		0								30	First
31									-		0		31	-	.4		0								31	Second

TOTAL,									1.7		6.			21		30		20								
Daily Discharge in Second-foot	0	0	0	0	0	.06	.19	.07	.10	.07	0	0	0													
Second-foot per square mile																										
Depth, depth in inches																										
Discharge in acre-feet	0	0	0	0	3.3	11.7	4.2	6.1	4.2	0	0	0	29.5													
Maximum Mean Daily Discharge in Second-foot																										
Minimum Mean Daily Discharge in Second-foot																										

Compared
 Checked
 Date
 Checked
 Disch. checked
 Date
 Checked
 Disch. checked
 Date
 G. H. copied
 G. H. checked
 Date
 PERIOD
 YEAR

BIG ROCK CREEK U.S.G.S. STATION

Location

In N.E. 1/4 Sec. 20 T. 4 N., R. 9 W., a quarter of a mile south of the boundary line of the Angeles National Forest, about 1-3/4 miles southeast of Valyerno, Los Angeles County.

Drainage Area

Not meas.

Records Available

1/13/23 to 9/30/31

Gage

Stevens Continuous Water Stage Recorder in wooden well and shelter on right bank.

Discharge Measurements

Made from foot bridge 20 feet below the gage or by wading.

Channel and Control

Boulders and gravel which may shift at high stages; fairly permanent at low and medium stages.

Extremes of Discharge

Maximum-98.0 c.f.s. April 26, 1931
Minimum-8.1 c.f.s. Sept. 20, 1931

Accuracy

Stage Disch. relation not permanent. Rating curve fairly well defined by 23 disch. meas. made during the year. Water stage recorder record excellent. Daily discharge ascertained by applying mean daily gage height to rating table. Records good.

Co-operation

Constructed and operated by the U.S.G.S. Water Resources Branch in Co-operation with the L.A.C.F. C.D.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. U 14

Discharge measurements of Big Rock Creek

~~XXX~~ 2 mi. above Valyermo P.O.-U.S.G.S. Sta during the year ending September 30, 1931

No.	Date	Gage section	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Coef.	Mean area	Discharge	Time	Water No.
			Feet	Sq. ft.	Ft. per sec.	Feet	Sec. ft.	Percent dist.		Sq. ft.	Cu. ft.	Hours	
1930													FC
10/9		Luce-Laverty	8.5	5.01	.97	1.19	4.8		.6	9		1/624	
17		H.J. Tompkins	9.6	5.4	.93	1.16	5.0		.6				FC
25		Luce	9.3	4.92	.87	1.16	4.3		.6	9		1/4	24
11/8		Luce-Jordan	9.5	5.40	.91	1.14	4.9		.6	10		"	"
20		Luce-Waddicor	9.8	5.63	.82	1.18	4.6		.6	10		1/6	"
26		Melin	10.0	5.9	.73	1.23	4.3		.6				FC
26		Luce Waddicor	10.0	5.56	.75	1.21	4.2		.6	10		"	24
12/4		" "	10.0	6.97	.62	1.21	4.4		.6	8		"	"
11		" "	9.8	5.44	.83	1.17	4.5		.6	11		"	"
18		" "	9.8	5.23	.75	1.16	3.9		.6	10		"	"
29		" "	9.3	5.08	.88	1.14	4.5		.6	8		"	"
30		K.R. Melin	9.6	5.5	.78	1.14	4.3		.6				FC
1931													
1/3		Luce-Waddicor	9.2	4.91	.84	1.13	4.1		.6	8		"	24
13		" "	9.3	4.86	.79	1.14	3.8		.6	8		"	25
16		K.R. Melin	9.5	5.4	.65	1.14	3.5		.6				FC
20		Luce-Waddicor	9.4	5.5	.76	1.17	4.2		.6	8		"	25
27		" "	9.3	4.66	.81	1.17	3.8		.6	10		"	FC
2/6		" "	23.	15.9	.95	1.50	15.0		.6	11		"	13
11		K.R. Melin	13.0	12.0	1.00	1.38	12.0		.6	8		"	"
24		Luce-Waddicor	13.	11.0	.87	1.30	9.5		.6	8		"	"
24		K.R. Melin	11.	9.4	.85	1.30	8.0		.6				
4/8		"	9.5	6.7	.78	1.18	5.2		.6				
20		Lord-Melin	10.	6.0	.73	1.15	4.4		.6				
23		Luce-Waddicor	9.	6.54	.85	1.15	4.7		.6	11		"	"
27		" "	19.8	20.2	2.29	1.87	46.0		.6	13		1/4	"
3/10		K.R. Melin	10.0	7.0	.43	1.23	6.5		.6				FC
21		Luce-Waddicor	9.8	6.07	.96	1.20	5.9		.6	11		1/6	25
24		K.R. Melin	9.7	7.1	.89	1.20	6.3		.6				

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. U 14

Discharge measurements of **Big Rock Creek**

at **2 mi. above Valyermo P.O.-U.S.G.S. Sta** during the year ending September 30, 19 **31**
near

No.	Date	Made by	Width Feet	Area of channel sq. ft.	Mean velocity ft. per sec.	Area of flow ft. ²	Discharge cu. ft. per sec.	Percent diff.	W. of Gage	Cost	Meas. No.	Total No.	Notes	Water No.
1931														
4/28		Luce-Waddicor	16.5	17.2	1.66	1.67	28.0		.6		15		1/4	25
5/5		K. R. Melin	13.5	11.0	1.18	1.41	13.0		.6					
19		"	13.0	9.4	.89	1.27	8.4		.6					
6/4		"	9.5	6.8	.81	1.20	5.5		.6					
17		R. S. Lord	9.1	6.7	.66	1.15	4.4		.6					
20		Luce	9.5	6.26	.63	1.13	4.0		.6		10		1/6	FC 25
7/3		R. Stanley Lord	9.4	5.4	.43	1.10	2.3		.6					
13		Schumacker-Lord	9.0	6.4	.42	1.08	2.7		.6					
21		R. Stanley Lord	11.0	7.3	.44	1.08	3.2		.6					
30		K. R. Melin	9.1	6.2	.52	1.07	3.2		.6					
8/1		Luce	9.6	5.7	.50	1.07	3.0		.6		11		1/6	FC 13
13		K. R. Melin	9.0	6.3	.59	1.10	3.7		.6					
23		Luce	10.0	6.06	.60	1.11	3.7		.6		11		1/6	FC 13
27		K. R. Melin	10.0	6.10	.46	1.07	2.8		.6					
9/5		"	10.0	6.00	.52	1.10	3.1		.6					
16		"	9.0	5.8	.52	1.18	3.0		.6					

BIG SANTA ANITA CREEK U.S.G.S STATION

NEAR SIERRA MADRE, CAL.

Location

In SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 10, T. 1 N., R. 11 W., at head of Hermit's Falls, 4 miles northeast of Sierra Madre. About 1 mile above L. A. County Flood Control Reservoir.

Drainage Area

10.5 square miles.

Records Available

July 16, 1916 to Sept. 30, 1931 at U.S.G.S. office

Gage

Water Stage Recorder on right bank at pool at head of Hermit's Falls.

Discharge Measurements

Made from Cable 300' below gage or from wading.

Channel and Control

Channel at gage is pool in bedrock; bed is rough and steep above and below pool. Banks are high, clean and not subject to overflow. Control is bedrock, the same for all stages, and is permanent.

Extremes of Discharge

Maximum-98.0 c.f.s. April 26, 1931

Minimum-Various times of year

Diversions

None

Regulation

None

Accuracy

Good

Co-operation

Constructed and operated by U.S.G.S. Water Resources Branch in co-operation with the Los Angeles County Flood Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **V 4**

Discharge measurements of **Big Santa Anita Creek**

~~at~~ **Above Flood Control Dam**, during the year ending September 30, 19**31**

No.	Date	Made by	Width	Area of section	Mean velocity	Cage height	Discharge	Rating	Method	Coef.	Meas. gage	G. Ht. change	Time	Water No.
			Feet	Sq.-ft.	ft. per sec.	Feet	Sec.-ft.				No.	Total	Hours	
	10/1	H. J. Tompkins	.7	.28	1.07	.70	.30		.6		2		1/4	
	9	"	.7	.28	.64	.66	.18		.6		2		"	
	15	"	.7	.20	1.00	.68	.20		.6		2		"	
	22	"	.7	.21	.81	.68	.17		.6		2		"	
	29	"	.7	.21	.72	.64	.15		.6		2		"	
	11/5	"				.62	.14		Vol.					
	12	"				.62	.13		"					
	19	"	1.8	.70	1.28	.84	.90		.6		4		1/6	
	26	"	1.8	.70	.86	.77	.60		.6		4		1/4	
	12/1	"	1.8	.70	1.28	.84	.90		.6		4		"	
	9	"	1.8	.70	1.07	.80	.75		.6		4		"	
	15	"	1.8	.70	.92	.78	.65		.6		4		1/3	
	23	"	1.8	.70	1.00	.78	.70		.6		4		1/6	282
	26	Lindsay	1.0	.28	1.63	.79	.46		.6		1		"	883
	30	H. J. Tompkins	1.8	.70	1.00	.80	.70		.6		4		1/4	
1931	1/3	"	1.8	.90	2.00	.90	1.80		.6		4		1/6	282
	6	Lindsay	4.5	1.31	1.02	.90	1.3		.6		5		1/10	883
	10	H. J. Tompkins	3.5	1.80	1.28	.96	2.30		.6		7		1/4	
	14	"	Mean	2 Meas.		.90	1.50		.6		4		3/4	
	20	"	3.3	1.3	.85	.86	1.10		.6		4		1/4	282
	22	Lindsay	3.6	1.35	.75	.85	1.00		.6		4		1/12	883
	27	H. J. Tompkins	3.5	1.40	.72	.84	1.00		.6		7		1/4	
	2/2	"	3.5	1.40	.86	.86	1.20		.6		7		"	
	5	"	14.6	17.00	.94	1.54	16.0		.6		8		1/3	
	7	"	8.7	7.10	1.10	1.22	7.8		.6		8		"	
	9	"	8.7	7.8	1.18	1.29	9.2		.6		9		1/2	
	12	"	9.0	5.5	1.02	1.15	5.6		.6		9		1/3	

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **U 4**

Discharge measurements of **Big Santa Anita Creek**

~~at~~ **Above Flood Control Dam**, during the year ending September 30, 19**51**

No.	Date	Made by	Width	Area of section	Mean velocity	Gate height	Discharge	Weir at diff.	Weir coef.	Coef.	Mean depth	W.P. course	Time	Gage No.
			Feet	Sq. ft.	ft. per sec.	Feet	Sec. ft.							
	2/16	H. J. Tompkins	8.9	5.1	1.02	1.13	5.2		.6		9		1/3	282
	20	Lindsay	9.5	3.8	1.03	1.05	3.9		.6		10		1/4	883
	24	H. J. Tompkins	5.5	2.2	1.23	1.00	2.7		.6		5		"	
	3/3	"	5.7	1.7	1.06	.94	1.8		.6		6		"	282
	7	Lindsay	5.7	1.6	.98	.93	1.6		.6		6		1/10	883
	11	H. J. Tompkins	5.5	1.6	.94	.92	1.5		.6		6		1/4	282
	13	Lindsay	5.7	1.6	.97	.92	1.5		.6		6		1/6	883
	17	H. J. Tompkins	1.8	.7	1.71	.90	1.2		.6		4		1/4	
	24	"	1.8	.6	1.67	.88	1.0		.6		4		1/2	282
	27	Lindsay	1.8	.6	1.61	.86	.95		.6		4		1/12	883
	28	H. J. Tompkins	1.8	.6	1.58	.87	.95		.6		4		1/5	
	4/4	"	1.8	.6	1.18	.82	.65		.6		4		1/3	
	8	"	1.8	.6	1.25	.82	.75		.6		4		1/4	
	15	"	1.8	.7	1.28	.82	.90		.6		4		1/6	282
	17	Lindsay	1.8	.6	1.10	.78	.65		.6		4		"	883
	23	H. J. Tompkins	1.4	.5	1.09	.80	.6		.6		2		"	
	25	"	3.2	1.9	1.58	1.00	3.0		.6		4		"	
	27	"	13.9	14.0	1.07	1.51	15.0		.6		7		"	
	30	"	8.3	4.4	1.28	1.18	5.6		.6		8		1/4	282
	5/2	Lindsay	8.0	3.5	1.15	1.10	4.0		.6		5		1/6	883
	2	H. J. Tompkins	8.7	3.5	1.20	1.08	4.2		.6		9		1/4	282
	7	Lindsay	8.6	2.2	1.01	1.01	2.3		.6		9		1/6	883
	8	H. J. Tompkins	2.9	1.2	1.83	1.00	2.2		.6		6		1/4	
	16	"	2.9	.9	1.41	.92	1.2		.6		6		"	
	21	"	2.9	.9	1.30	.90	1.1		.6		6		1/6	
	25	"	2.9	1.4	2.22	1.04	3.1		.6		6		"	
	29	"	1.8	.6	1.73	.88	.95		.6		6		"	
	6/3	"	1.9	.8	1.60	.86	1.20		.6		6		1/10	

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **04**

Discharge measurements of **SANTA ANITA CREEK**

SIERRA MADRE, CALIFORNIA
near

during the year ending September 30, 19 **31**

No.	Date	Made by	Width	Area of section	Mean velocity	Water height	Discharge	Rating	Method	Cof.	No. of gages	% lit change	Time	Water ga.
			Feet	Sq. ft.	Ft. per sec.	Feet	Sec. ft.				Percent diff.	No.	Total	
	6/9	H. J. Tompkins	1.9	.75	1.87	.88	1.4		.6		4		1/8	
	6/16	"	1.9	.75	1.60	.86	1.2		.6		4		1/6	282
	6/19	R. Lindsay	1.9	.75	1.55	.85	1.2		.6		4		1/12	883
	6/23	H. J. Tompkins	1.9	.57	1.75	.80	1.0							
	6/30	"	1.9	.55	1.00	.72	.55		.6		4		1/6	
	7/7	"	.5	.16	1.25	.70	.2		.6		2		1/2	282
	7/10	R. Lindsay	.5	.15	1.13	.70	.17		.6		1		1/6	883
	7/14	H. J. Tompkins	.6	.18	.94	.68	.17		.6		2		1/6	
	7/22	"	.6	.18	.83	.67	.15		.6		2		1/6	
	7/28	"				.60	.11		Vol					
	8/11	"				.60	.08		Vol					
	8/14	"				.60	.11		Vol					
	8/18	"				.64	.16		Vol					
	8/21	"				.62	.13		.6		2		1/10	
	8/25	"				.60	.11		Vol					
	8/27	"				.60	.08		Vol					
	9/1	"				.58	.08		Vol					
	9/8	"				.58	.06		Vol					
	9/15	"				.56	.04		Vol					
	9/17	R. Lindsay	.9	.18	.50	.58	.09		.6		2		1/20	282 883
	9/22	H. J. Tompkins				.56	.04		Vol					
	9/29	"				.56	.04		Vol					

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of **SANTA ANITA CREEK, U.S.G.S. STATION**

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

SIERRA MADRE, CALIFORNIA
Near

for the Year Ending September 30, 19 **31**

Drainage Area **10.5** Square Miles.

Observer.]

Gage Read **CONTINUOUS**

Used rating table dated

Maximum stage **2.80** feet at **Dry** on **April 26** on **various** times of **year**
 Minimum stage **0.1** feet at **various** times of **year**

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	
1		.3		.1		.9		1.0		1.4		1.9	1		.7		4.9		1.2		.5					1
2		.2		.1		.8		2.9		1.2		1.8	2		.7		4.0		1.3		.3					2
3		.2		.1		.8		1.6		2.0		1.8	3		.7		3.4		1.3		.3					3
4		.2		.1		.7		1.2		22.		1.7	4		.7		2.9		1.2		.2					4
5		.2		.1		.7		1.1		16.		1.6	5		.7		2.6		1.4		.2					5
6		.1		.1		.7		1.3		9.5		1.6	6		.6		2.3		1.5		.2					6
7		.1		.1		.7		1.5		14.		1.6	7		.6		2.3		1.4		.2					7
8		.2		.2		.7		3.8		15.		1.5	8		.7		2.0		1.4		.2					8
9		.2		.1		.7		2.9		9.5		1.5	9		.6		1.9		1.4		.2					9
10		.2		.1		.7		2.3		7.		1.5	10		.6		1.6		1.3		.2					10
11		.2		.1		.7		1.9		6.		1.5	11		.6		1.6		1.2		.2					11
12		.2		.1		.7		1.7		6.		1.5	12		.6		1.6		1.2		.2					12
13		.2		.2		.7		1.6		5.5		1.5	13		.7		1.6		1.3		.2		.1			13
14		.2		.3		.7		1.5		6.5		1.4	14		.8		1.5		1.1		.2		.1			14
15		.2		.3		.7		1.4		5.5		1.3	15		.8		1.5		1.1		.1		.1			15
16		.2		.7		.7		1.4		4.9		1.3	16		.7		1.4		1.1		.1		.1			16
17		.2		5.5		.7		1.3		4.4		1.3	17		.6		1.3		1.1		.2		.1			17
18		.2		1.6		.7		1.2		4.2		1.3	18		.6		1.2		1.1		.2		.2			18
19		.2		.9		.7		1.2		4.0		1.3	19		.5		1.0		1.1		.2		.1			19
20		.2		.7		.7		1.1		3.6		1.1	20		.5		1.0		1.0		.2		.1			20
21		.2		.7		.7		1.0		3.4		1.0	21		.5		1.0		1.0		.1		.1			21
22		.2		.4		.7		1.0		2.9		1.0	22		.6		1.0		1.0		.1					22
23		.2		.5		.7		1.0		2.6		1.0	23		2.5		1.0		.8		.1					23
24		.2		.5		.7		1.0		2.6		1.0	24		6.		1.3		.7		.1					24
25		.2		.5		.7		1.0		2.5		1.0	25		3.1		2.9		.7		.1					25
26		.2		.8		.7		1.0		2.2		1.0	26		34.		1.9		.6		.1					26
27		.2		1.1		.7		1.0		2.2		1.0	27		16.		1.5		.6		.1					27
28		.2		1.8		.7		.9		2.0		1.0	28		10.		1.3		.6		.1					28
29		.2		1.3		.7		.9		-		1.0	29		7.		1.2		.6		.1					29
30		.1		1.0		.7		.9		-		.9	30		5.5		1.2		.6		.1					30
31		.1		-		.7		1.7		-		.8	31		-		1.2		-		.1					31

Quarter First Second Third Fourth
 Discharge
 G. H. copied
 G. H. checked
 Date

TOTAL,	5.9	19.9	22.1	45.3	168.6	40.7	98.2	57.1	31.9	5.4			
Mean Daily Discharge in Second-foot	.19	.66	.71	1.46	6.02	1.31	3.27	1.84	1.06	.17	.091	.051	
Second-foot per square mile													
Run-off, depth in inches -													
Run-off in acre-feet -	11.7	39.3	43.7	89.8	33.4	80.6	195	113	63.1	10.4	5.6	3.0	989
Maximum Mean Daily Discharge in Second-foot													
Minimum Mean Daily Discharge in Second-foot													

Note: Flow less than 0.1 sed. ft. on days for which no discharge is given

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **U 11**Discharge measurements of **TUJUNGA CREEK**near **SUNLAND CALIFORNIA**, during the year ending September 30, 1931

No.	Date	made by	Width	Area of section	Mean velocity	Stage height	Discharge	Rating	M. bod.	Corr.	W. of corr.	G. I. change	Time	Meter No.
			Feet	Sq. ft.	ft. per sec.	Feet	Sec. ft.							
	12/6	T. E. Moon	2.0	.25	.64	0.39	.16		.6		4		1/6	F012
	12/13	"	2.0	.29	.56	.39	.16		.6		3		1/6	"
	12/16	"	2.0	.30	.52	.36	.18		.6				1/6	"
	1/2	H. J. Tompkins	4.	1.0	1.0	.50	1.0		.6					953
	1/3	T. E. Moon	3.	.65	1.10	.50	.7		.6					12
	1/6	H. J. Tompkins	3.8	1.4	1.36	.68	1.9		.6				1/4	953
	1/7	John S Hunter	4.	1.27	1.29	.62	1.9		.6				1/4	19
	1/8	H. J. Tompkins	9	4.5	1.98	.92	8.9		.6		9		1/4	953
	1/8	J. S. Hunter	20	5.0	2.22	.91	11		.6				1/2	19
	1/9	"	6.	2.61	2.25	.82	5.5		.6				1/4	19
	1/10	"	5.	1.95	1.69	.75	3.2		.6				1/4	12
	1/13	H. J. Tompkins	4.	1.6	1.50	.70	2.4		.6		5		1/6	914
	1/16	J. S. Hunter	5.8	2.0	1.80	.72	3.7		.6				1/4	19
	1/19	H. J. Tompkins	4.	2.0	1.70	.76	3.4		.6		5		1/6	914
	1/20	J. S. Hunter	6.	2.74	1.15	.74	3.1		.6				1/4	19
	1/21	Moon-Hunter	5.5	1.96	1.66	.74	3.3		.6				1/4	12
	1/23	J. S. Hunter	6.	2.38	1.30	.74	3.2		.6				1/4	19
	1/28	H. J. Tompkins	4.	1.9	1.48	.74	2.8		.6		5		1/4	914
	1/30	J. S. Hunter	5.2	2.13	1.30	.74	2.9		.6				1/4	19
	1/29	"	6.3	2.03	1.61	.74	3.3		.6				1/4	"
	1/31	Moon-Hunter	6.5	3.29	2.00	.90	6.6		.6				1/4	12
	2/2	J. S. Hunter	6.5	2.98	1.87	.88	5.6		.6				1/4	19
	2/3	H. J. Tompkins	4.	2.7	2.08	.92	5.6		.6		5		1/4	914
	2/4	"	2.0	16.	3.64	1.46	58		.6		10		1/4	"
	2/6	"	19	19	2.79	1.45	53		2.8		10		1/4	"
	2/7	J. S. Hunter	25	21	1.82	1.25	39		.6				1/4	19
	2/8	H. J. Tompkins	19	15	2.73	1.28	41		2.8		9			914
	2/11	Moon - Hunter	18.5	12.6	1.53	1.09	19		.6				1/4	12

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. U11

Discharge measurements of TUJUNGA

near SUNLAND, CALIFORNIA

during the year ending September 30, 1931

No.	Date	Made by	Width		Area of section	Mean velocity	Cape height	Discharge	No.	Cuts	Discharge	Total	Hours	Year No.
			Feet	Feet										
2/13	H. J. Tompkins	13.5	8.8	1.94	1.12	17	.6	7		1/3	914			
2/13	J. S. Hunter	18.5	11.8	1.56	1.03	18	.6			1/4	19			
2/13	T. E. Moon	19	13.2	1.41	1.12	19	.6			1/4	12			
2/17	H. J. Tompkins	14	8.3	1.69	1.02	14	.6			1/3	914			
2/18	Moon - Hunter	19	9.7	1.37	1.01	13	.6			1/4	12			
2/20	J. S. Hunter	18	9.3	1.41	.96	13	.6			1/3	19			
2/21	Moon - Hunter	18	8.7	1.20	.95	10	.6			1/4	12			
2/23	H. J. Tompkins	13	6.5	1.54	.94	10	.6	12		1/3	914			
2/25	T. E. Moon	15	7.6	1.34	.92	9.6	.6			1/4	12			
2/27	J. S. Hunter	15	7.4	1.20	.90	8.8	.6			1/4	"			
2/27	J. S. Hunter	16	7.4	1.17	.90	8.7	.6			1/4	"			
3/2	H. J. Tompkins	11.5	6.2	1.26	.88	7.8	.6	12		1/4	914			
3/3	J. S. Hunter	15	6.9	1.15	.86	7.8	.6			1/4	19			
3/4	T. E. Moon	15	6.5	1.03	.86	6.8	.6			1/4	12			
3/5	J. S. Hunter	14.5	6.6	1.10	.85	2.2	.6			1/4	19			
3/6	"	14.5	6.5	1.08	.85	7.1	.6			1/4	19			
3/7	Moon - Hunter	14	6.2	.99	.85	6.4	.6			1/4	12			
3/10	J. S. Hunter	14	6.3	1.03	.85	6.4	.6			1/4	19			
3/11	Moon - Hunter	14	5.5	1.03	.83	5.7	.6			1/4	12			
3/12	J. S. Hunter	14	5.1	1.30	.83	6.6	.6			1/4	19			
3/13	"	14	6.3	1.02	.81	6.4	.6			1/4	19			
3/14	Moon - Hunter	14			.84	7.0	.6			1/4	19			
3/14	H. J. Tompkins	9.5	5.	1.20	.84	6.	.6	9		1/3	914			
3/16	J. S. Hunter	15	5.8	.97	.81	5.6	.6			1/4	19			
3/17	"	15	6.2	.93	.82	5.7	.6			1/4	19			
3/18	"	14	6.3	.92	.82	5.8	.6			1/4	19			
3/19	"	14	5.1	1.02	.81	5.6	.6			1/4	19			
3/19	H. J. Tompkins	9.6	5.0	1.08	.81	5.4	.6			1/4	914			
3/28	J. S. Hunter		6.15	.87	.81	5.4	.6			1/4	19			

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. U 11

Discharge measurements of TUJUNGA

at SUNLAND, CALIFORNIA

during the year ending September 30, 19

No.	Date	Name	Stage		Flow velocity ft. per sec.	Stage		Velocity ft. per sec.	Depth ft.	Gage	Meters	G. H. Elev.	Time	Meter No.
			Feet	Meters		Feet	Meters							
	3/21	Moon - Hunter	1.14	5.4	.80	.80	.43						1/4	12
	3/23	H. J. Tompkins	9.5	4.7	.98	.78	4.6				10		1/4	914
	3/24	J. S. Hunter	13.5	5.31	.80	.78	4.4						1/4	19
	3/25	Moon - Hunter	14.5	5.40	.75	.78	4.1						1/4	12
	3/26	J. S. Hunter	13.5	5.05	.79	.78	4.0						1/6	19
	3/27	H. J. Tompkins	9.6	4.6	1.04	.80	4.8				10		1/3	914
	3/27	J. S. Hunter	12.5	5.3	.73	.77	3.8						1/4	19
	3/28	Moon - Hunter	14	5.2	.74	.78	3.8						1/4	12
	3/30	J. S. Hunter	13.5	5.2	.86	.76	4.5						1/6	19
	3/31	J. S. Hunter	13.5	5.2	.88	.76	4.6						1/4	19
	4/1	Moon - Hunter	13.5	5.0	.82	.80	4.1						1/4	12
	4/1	H. J. Tompkins	9.5	3.9	.90	.81	3.5				10		1/4	914
	4/2	J. S. Hunter	12.5	4.8	.84	.78	4.0							
	4/3	J. S. Hunter	13.5	5.0	.84	.81	4.2						1/4	19
	4/4	Moon - Hunter	14	4.8	.77	.79	3.7						1/4	12
	4/6	J. S. Hunter	12.5	4.9	.74	.77	3.6						1/4	19
	4/6	H. J. Tompkins	4	2.2	1.36	.74	3.0				5		1/4	914
	4/7	J. S. Hunter	12.5	4.6	.75	.76	3.5						1/4	19
	4/8	Moon - Hunter	13	4.6	.65	.71	3.0						1/4	12
	4/9	J. S. Hunter	13	4.6	.70	.76	3.2						1/4	19
	4/10	"	13	4.6	.71	.72	3.4						1/4	19
	4/11	Moon - Hunter	14	4.4	.68	.73	2.9						1/4	12
	4/13	H. J. Tompkins	3.9	1.7	1.18	.68	2.0						1/4	914
	4/14	J. S. Hunter	13	4.6	.60	.68	2.7						1/4	19
	4/16	J. S. Hunter	13	4.5	.55	.66	2.5						1/4	19
	4/18	Moon - Hunter	13.5	3.9	.60	.65	2.4						1/4	12
	4/20	J. S. Hunter	11	2.9	.62	.60	1.8						1/4	19
	4/21	J. S. Hunter	9	2.9	.62	.61	1.8						1/4	19
	4/22	H. J. Tompkins	3.8	1.5	1.00	.60	1.5				5		1/4	914

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

Discharge measurements of TUJUNGA

XX SUNLAND, CALIFORNIA

MENT

During the year ending September 30, 19 31

No.	Date	Agency	Area		Flow cfs	Stage feet	Depth feet	Velocity ft. per sec.	Slope %	Coeff.	Meter		Meter No.
			Feet	Sq. ft.							No.	Feet	
4/24	J. S. Hunter		24	17.4	1.78	1.26	31		.6			1/4	19
4/24	"		24	14.8	1.65	1.08	25		.6			1/4	19
4/24	H. J. Tompkins		18	13	2.16	1.16	28		.6	9		1/4	914
4/26	H. J. Tompkins		20	21	3.44	1.50	72		.6	10		1/4	"
4/25	"		12	7.8	1.54	.96	12		.6	12		1/3	"
4/26	T. E. Moon		19	20	2.36	1.40	47		.6			1/4	12
4/27	J. S. Hunter		20	25	3.31	1.67	85		.6			1/3	19
4/28	H. J. Tompkins		18	14	2.72	1.30	38		.6	9		1/3	914
4/29	J. S. Hunter		1.75	10.9	2.22	1.17	24		.6			1/3	19
4/31	T. E. Moon		18.5	8.7	1.94	1.06	17		.6			1/4	12
5/1	J. S. Hunter		18	9.4	1.82	1.02	17		.6			1/4	19
5/1	H. J. Tompkins		11.5	6.7	2.00	.99	13		.6	12		1/3	914
5/2	Moon - Hunter		18	7.4	1.59	.95	12		.6			1/4	12
5/4	J. S. Hunter		16	6.8	1.30	.91	8.9		.6			1/4	19
5/5	Hunter - Moon		17	6.1	1.28	.87	7.8		.6			1/4	12
5/5	H. J. Tompkins		9.5	5.	1.62	.88	8.1		.6	7		1/3	952
5/7	"		9	4.7	1.42	.82	6.7		.6	9		1/4	"
5/8	Hunter - Moon		14.5	4.7	1.15	.83	5.4		.6			1/4	12
5/12	H. J. Tompkins		8.5	3.8	1.08	.74	4.1		.6	9		5/12	953
5/14	"		8.5	4	1.00	.74	4		.6	9		1/4	"
5/15	J. W Luce		16	4.87	.66	.74	3.2		.6	10		1/4	FC 25
5/18	H. J. Tompkins		8.9	4.4	1.18		5.2		.6	9		1/4	
5/22	J. W. Luce		3.5	1.49	1.22	.86	1.8		.6	7		1/6	
5/23	H. J. Tompkins		3.3	1.6	1.94	.63	3.1		.6	5		1/3	
5/26	"		9	4.5	1.35	.82	6.1		.6	9		1/6	
5/29	J. W. Luce		10.5	2.3	1.24	.74	2.9		.6	9		1/6	
6/1	H. J. Tompkins		3.4	.8	1.12	.58	9		.6	5		1/6	
6/1	"		3.4	1.2	1.42	.68	1.7		.6	5		1/6	

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. U 11

Discharge measurements of **TUJUNGA**

at **SUNLAND, CALIFORNIA**, during the year ending September 30, 19 **31**
near

No.	Date	Made by	Width	Area of section	Mean velocity	Discharge	Stage	Stage	Stage	No.	Total	Hours
			Feet	Sq. ft.	ft. per sec.							
	6/5	H. J. Tompkins	3.4	1.2	1.42	.68	1.7		.6		5	1/6
	6/5	J. W. Luce	3.5	1.36	.44	.64	1.6		.6		7	1/6
	6/12	J. W. Luce	3.2	1.00	.11	.57	1.1		.6		5	1/6
	6/19	J. W. Luce	3.2	.71	.09	.52	.65		.6		7	1/6
	6/19	H. J. Tompkins	3	.7	1.00	.52	7		.6		3	1/12
	6/26	J. W. Luce	2.5	.31		.46	.31		.6		5	1/12
	7/2	H. J. Tompkins	3	.55	.58	.46	.32		.6		3	1/6
	7/3	J. W. Luce	16	.43		.46	.31		.6		4	1/6
	7/7	H. J. Tompkins	1.4	.42	.83	.43	.35		.6		2	1/12
	7/16	"	2.	.3	.67	.40	.2		.6		4	1/6
	7/21	"	1.0	.4	.72	.41	.29		.6		2	1/4
	8/1	"	.6	.2	.85	.40	.17		.6		2	1/4
	8/2	"	.7	.28	.72	.36	.2		.6		2	1/4
	8/13	"	.6	.24	.67	.40	.16		.6		2	
	8/17	"	.6	.24	.42	.62	.10		.6		2	1/4
	9/14	"	.5	2	.50	.60	.10		.6		21	1/4

TUJUNGA CREEK

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of U.S.G.S. STATION

SUNLAND, CALIFORNIA

for the Year Ending September 30, 19 31

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

File No. U 11

Drainage Area 106. Square Miles.

Observer.

CONTINUOUS

Used rating table dated

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		DAY	MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	
1		.4		.2		.4		.5		7.		8.5	1											1
2		.4		.2		.4		.6		6.		8.	2		15.		1.2		.2		.2		.2	2
3		.4		.2		.4		.7		19.		7.5	3		12.		1.2		.2		.2		.1	3
4		.4		.2		.4		.6		105.		7.	4		9.5		1.0		.2		.2		.1	4
5		.4		.2		.4		.6		152.		7.	5		8.5		1.4		.3		.2		.1	5
6		.4		.2		.4		1.4		57.		7.	6		8.		1.7		.3		.2		.1	6
7		.4		.2		.4		2.5		45.		7.	7		7.		1.7		.3		.2		.1	7
8		.4		.1		.3		11.0		39.		6.5	8		8.5		1.7		.4		.2		.1	8
9		.4		.1		.3		6.0		28.		6.5	9		5.5		1.9		.4		.2		.1	9
10		.4		.1		.3		3.4		22.		6.5	10		5.		1.7		.3		.2		.1	10
11		.4		.1		.3		2.6		21.		6.5	11		4.6		1.7		.3		.2		.1	11
12		.4		.1		.3		2.4		19.		6.5	12		4.3		1.6		.3		.2		.1	12
13		.4		.1		.3		2.4		19.		6.	13		4.1		1.6		.2		.2		.1	13
14		.4		.1		.3		2.4		21.		6.5	14		4.0		1.4		.2		.2		.1	14
15		.4		.1		.3		2.8		21.		6.	15		4.0		1.1		.2		.2		.1	15
16		.4		.2		.3		3.6		17.		6.	16		4.3		1.0		.2		.2		.1	16
17		.3		.4		.3		4.3		14.		6.	17		4.3		1.0		.2		.2		.1	17
18		.3		.4		.3		5.8		13.		6.	18		4.5		.8		.2		.1		.1	18
19		.3		.4		.3		3.4		12.		6.	19		5.		.6		.3		.1		.1	19
20		.3		.4		.3		3.4		12.		6.	20		4.3		.6		.3		.1		.1	20
21		.3		.3		.4		3.4		11.		5.5	21		4.3		.4		.3		.1		.1	21
22		.3		.3		.4		3.4		11.		5.	22		4.3		.4		.3		.1		.1	22
23		.3		.3		.4		3.4		10.		4.7	23		3.6		.3		.3		.1		.1	23
24		.3		.3		.4		3.1		10.		4.7	24		3.8		.2		.2		.1		.1	24
25		.3		.3		.4		3.1		10.		4.5	25		4.3		.2		.2		.1		.1	25
26		.3		.3		.4		2.9		10.		4.3	26		7.5		.2		.2		.1		.1	26
27		.3		.3		.5		2.9		9.5		4.0	27		6.		.2		.2		.2		.1	27
28		.3		.3		.5		2.9		9.		4.3	28		4.5		.2		.2		.2		.1	28
29		.3		.3		.5		2.9		-		4.5	29		3.6		.2		.2		.2		.1	29
30		.3		.4		.5		3.1		-		4.5	30		2.8		.2		.2		.2		.1	30
31		.3		-		.5		7.0		-		4.5	31		2.1		.2		.2		.2		.1	31
															1.4		-		.2		.2		-	31
TOTAL,		10.0		7.1		11.6		96.5		727.5		183.5		168.8		276.		77		54		31		
Mean Daily Discharge in Second-foot		.35		.24		.37		3.11		26.0		5.92		5.45		.92		.25		.17		.10		
Second-foot per square mile																								
Run-off, depth in inches																								
Run-off in acre-feet		21.5		14.3		22.8		191.		1440		364		335.		54.7		15.4		10.4		6.0		3,070
Maximum Mean Daily Discharge in Second-foot																								
Minimum Mean Daily Discharge in Second-foot																								

Maximum stage 2.16 on April 26 Discharge 225.0
Minimum stage 0.1 on various times of year Discharge 0.1

Quarter First Second Third Fourth
Computed
Checked
Date

PERIOD YEAR

253

EATON CREEK U.S.G.S. STATION

NEAR PASADENA, CALIF.

Location

Near line between secs. 2 and 11, T. 1 N.,
R. 12 W., at mouth of canyon just above
Mount Wilson Toll Bridge, and 4 miles
northeast of Pasadena.

Drainage Area

6.5 square miles.

Records Available

March 1, 1918 to Sept. 30, 1931 at U.S.G.S.
office.

Gage

Water stage recorder on left bank just above
toll bridge.

Discharge Measurements

Made by wading near gage

Extremes of Discharge

Maximum-6.0 c.f.s. April 26, 1931

Minimum-Dry at various times of year

Diversions

City of Pasadena diverts water above the
station.

Regulation

None

Accuracy

Good

Co-operation

Constructed and operated by the U.S.G.S. Water
Resources Branch in co-operation with the City
of Pasadena and the Los Angeles County Flood
Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **U 2**

Discharge measurements of **Eaton Creek**

at ~~xxxx~~ **Mt. Wilson Toll Road**, during the year ending September 30, 19**31**

No.	Date	Made by	W. M.	Area of cross-section	Mean velocity	Stage ft. (V)	Discharge Sec. ft.	Corr.	Method	Corr.	Flow gauge	G.L.T. change	Time	Water No.
			Feet	Sq. ft.	ft. per sec.	Feet	Sec. ft.	Percent diff.			No.	Total	Hours	
	1930													282
	11/17	Lindsay-Burke	3.0	1.5	1.69	1.52	2.5		.6		6		1/6	883
	1931													
	2/4	Lindsay-Laird	11.0	6.6	3.15	1.40	21.0		.6		6		1/10	"
	4	H. J. Tompkins	12.0	8.1	3.72	1.96	30.0		.6		12		1/3	
	5	Lindsay-Laird	10.5	4.87	2.89	1.76	14.0		.6		10		1/6	"
	6	H. J. Tompkins	10.0	4.4	2.09	1.68	9.2		.6		10		"	FC
	7	Irwin	15.5	8.4	3.08	1.96	26.0		.6		9		5/12	282
	4/24	Lindsay	12.5	4.37	2.85	1.76	12.0		.6		7		1/10	883
	24	H. J. Tompkins	6.8	2.9	2.55	1.66	7.4		.6		7		1/6	282
	26	Lindsay-Laird	12.5	9.2	3.83	2.06	35.0		.6		6		1/10	883
	26	H. J. Tompkins	12.0	8.5	3.88	2.02	33.0		.6		7		7/12	
	27	"	3.5	2.6	2.00	1.58	5.2		.6		6		1/4	

FISH CREEK U.S.G.S. STATION

NEAR DUARTE, CALIF.

Location

In SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 15, T. 1 N. R. 10 W.
about $\frac{3}{4}$ of a mile above mouth of canyon
and 4 miles northeast of Duarte

Drainage Area

6.5 square miles

Records Available

July 23, 1916 to Sept. 30, 1931 at U.S.G.S.
office

Gage

Curley water stage recorder, installed
July 28, 1917 on left bank. Vertical
staff gage at same site and elevation.

Discharge Measurements

Made by wading

Channel and Control

Gravel and boulders; apparently permanent.
Both banks are high and not subject to
overflow. Concrete control has been built
a short distance below gage.

Extremes of Discharge

Maximum- 70.0 c.f.s. April 26, 1931
Minimum-Dry at various times of year.

Diversions

None above gage.

Regulation

None

Accuracy

Good

Co-operation

Constructed and operated by U.S.G.S. Water
Resources Branch with co-operation of the
Los Angeles County Flood Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. U 7

Discharge measurements of **Fish Creek**

~~at~~ **4000 ft. above Mouth Of Canyon**

During the year ending September 30, 1931

Date	By	1930			1931		Precip. (in.)	Gage	No.	Total	Feet	Aver. No.
		1.00	1.00	1.00	1.00	1.00						
1930												
10/1	H. J. Tompkins	1.1	.28	.68	1.80	.19	.6	2	1/2	953	282	
3	Lindsay	1.0	.20	.75	1.77	.15	.6	2	1/12	883		
10	"	1.0	.30	1.03	1.84	.31	.6	2	"	"		
11	H. J. Tompkins	1.0	.30	1.00	1.80	.30	.6	2	1/2	953	282	
17	Lindsay	1.0	.28	.96	1.82	.27	.6	2	1/30	883	271	
23	Brewster	1.0	.32	.94	1.80	.30	.6	2	1/6	666		
30	"	1.0	.23	1.00	1.78	.23	.6	2	"	"		
30	H. J. Tompkins				1.78	.10	Vol.				282	
11/7	Lindsay	1.0	.20	.70	1.78	.14	.6	2	1/12	883		
14	"	2.8	.74	.76	1.90	.56	.6	6	1/10	"		
17	"	5.2	3.72	2.33	2.58	8.70	.6	5	"	"		
19	H. J. Tompkins	2.9	1.30	.69	1.94	.90	.6	6	1/6	953	282	
21	Lindsay	2.8	1.16	.53	1.89	.62	.6	5	1/10	883		
28	"	3.3	1.92	1.60	2.30	3.10	.6	3	1/12	"		
29	H. J. Tompkins	3.8	1.90	.84	2.09	1.60	.6	6	1/6	953		
12/2	"	3.0	1.00	.75	1.98	.75	.6	6	1/3	"	282	
5	Lindsay	2.8	1.23	.52	1.95	.64	.6	5	1/10	883		
10	H. J. Tompkins	3.0	.95	.63	1.94	.60	.6	6	1/4	953	282	
12	Lindsay	2.8	1.18	.50	1.92	.59	.6	5	1/12	883		
17	H. J. Tompkins	3.0	.95	.58	1.92	.55	.6	6	1/2	953	282	
20	Lindsay	2.8	1.14	.49	1.92	.56	.6	5	1/10	883		
27	"	2.8	1.12	.51	1.92	.57	.6	5	"	"		
1931												
1/2	"	3.6	2.14	1.58	2.29	3.40	.6		1/6	"		
5	H. J. Tompkins	3.0	1.20	.71	2.00	.85	.6	7	"	953	282	
6	Lindsay	3.0	1.56	1.34	2.03	1.70	.6	3	1/12	883		
8	"	5.7	3.58	1.34	2.35	4.80	.6	6	1/6	"		
12	H. J. Tompkins	3.8	1.30	1.31	2.00	1.70	.6	8	"	953	282	
15	Lindsay	3.1	1.58	.82	1.96	1.30	.6	5	1/10	883		

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **U 7**

Discharge measurements of **Fish Creek**

~~at~~ **4000 ft. above Mouth of Canyon**, during the year ending September 30, 1931

Date	Name	Width ft.	Depth ft.	Velocity ft. per sec.	Area sq. ft.	Discharge cfs.	Channel ft.	Slope ft. per ft.	No.	Date	Meter No.
1931											
1/22	H. J. Tompkins	3.8	1.0	.90	1.90	.9		.6	8	1/6	914 282
23	Lindsay	2.9	1.43	.61	1.90	.85		.6	5	1/10	883
2/27	"	3.1	1.65	1.10	1.96	1.80		.6	5	1/6	"
1/29	"	2.85	1.36	.57	1.88	.80		.6	5	1/12	"
30	H. J. Tompkins	2.7	.80	.88	1.88	.70		.6	6	1/4	914 272
2/4	F. C. Ebert	14.5	10.00	2.80	3.17	28.00		.6	13	1/3	14 282
4	Lindsay - Laird	14.5	10.00	2.72	3.17	29.00		.6	13	1/6	883
5	Lindsay-Laird	13.0	7.04	2.18	2.75	15.00		.6	12	1/4	"
10	H. J. Tompkins	6.0	3.60	1.50	2.25	5.40		.6	7	1/2	914 282
13	Lindsay	3.4	2.34	1.82	2.14	4.30		.6	5	1/6	883
16	H. J. Tompkins	4.5	2.90	1.48	2.16	4.30		.6	9	1/4	914 282
20	Lindsay	3.3	2.00	1.20	2.06	2.40		.6	5	1/12	883
24	H. J. Tompkins	3.9	2.00	1.00	2.00	2.00		.6	8	1/4	914
3/4	"	3.5	1.50	.87	1.90	1.30		.6	7	"	" 282
7	Lindsay	2.9	1.39	.86	1.90	1.20		.6	5	1/10	883
13	"	2.9	1.39	.88	1.88	1.20		.6	5	"	"
14	H. J. Tompkins	3.5	1.40	.79	1.88	1.10		.6	7	1/5	914
18	"	3.4	1.20	.75	1.86	.90		.6	7	1/6	" 282
20	Lindsay	2.8	1.20	.70	1.83	.85		.6	5	"	883
25	H. J. Tompkins	3.3	1.20	.58	1.84	.70		.6	6	1/10	" 282
26	Lindsay	2.7	1.16	.65	1.80	.75		.6	5	"	883
30	H. J. Tompkins	3.3	1.10	.59	1.84	.65		.6	6	1/4	914 282
4/3	Lindsay	2.7	1.01	.57	1.80	.65		.6	5	1/12	883
7	H. J. Tompkins	3.3	1.10	.44	1.78	.48		.6	7	1/6	914 282
10	Lindsay	2.6	.78	.24	1.76	.33		.6	5	"	883
14	H. J. Tompkins	3.1	1.00	.43	1.78	.43		.6	7	"	914 282
18	Lindsay	2.6	.79	.27	1.75	.29		.6	5	1/12	883
24	"	6.1	3.38	1.58	2.32	5.40		.6	7	1/10	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **U 7**

Discharge measurements of **Fish Creek**

~~at~~ **4000 ft. above Mouth of Canyon**, during the year ending September 30, 19 **31**

No.	Date	Made by	Width	Area of section	Mean velocity	Stage height	Discharge	Rating	Method	Coef.	No. of gages	G. H. change	Time	Water No.
			Feet	Sq. ft.	Ft. per sec.	Feet	Sec. ft.	Percent diff.			No.	Total	Hours	
1931														282
	4/26	Lindsay	15.2	15.7	3.80	3.59	58.0		.6		11	1/5	883	
	27	H. J. Tompkins	15.0	18.0	3.78	3.66	68.0		.6		8	1/3	914	
	29	"	5.5	4.3	1.79	2.42	7.7		.6		7	1/4	"	282
	5/2	Lindsay	3.9	2.31	1.57	2.18	3.6		.6		6	1/12	883	
	8	"	3.3	2.01	1.09	1.98	2.3		.6		5	1/6	"	
	11	H. J. Tompkins	3.5	1.80	1.00	1.92	1.8		.6		6	1/4	953	
	4	"	3.6	2.20	1.23	2.08	2.7		.6		6	1/5	"	
	19	"	3.3	1.50	.80	1.86	1.20		.6		6	1/4	"	282
	22	Lindsay	2.7	1.53	.57	1.80	.85		.6		5	1/10	883	
	25	"	3.0	1.89	1.04	1.94	2.0		.6		5	"	"	
	26	H. J. Tompkins	3.0	1.40	.78	1.90	1.10		.6		5	1/6	953	282
	29	Lindsay	2.9	1.65	.60	1.84	1.0		.6		5	1/12	883	
	6/3	H. J. Tompkins	3.0	.80	.69	1.80	.55		.6		5	1/4	953	282
	5	Lindsay	2.8	1.61	.57	1.84	.90		.6		5	1/12	883	
	12	H. J. Tompkins	3.2	1.10	.77	1.84	.85		.6		6	1/6	953	
	12	Lindsay	2.8	1.58	.60	1.84	.95		.6		5	1/12	"	
	19	"	2.7	1.44	.47	1.78	.65		.6		5	"	"	
	20	H. J. Tompkins	2.3	.60	.62	1.77	.37		.6		4	1/5	953	
	25	"	2.2	.47	.51	1.70	.24		.6		4	1/12	"	282
	26	Lindsay	1.1	.37	.84	1.70	.31		.6		2	"	883	
	7/1	H. J. Tompkins	1.8	.28	.25	1.62	.07		.6		3	1/6	953	282
	10	Lindsay	1.0	.23	.39	1.60	.09		.6		2		883	
	16	H. J. Tompkins	.6	.12	.42	1.60	.05		.6		2		953	
	17	Lindsay				1.60	.03		V Weir					
	24	H. J. Tompkins	.5	.10	.38	1.62	.04		.6		4		953	
	24	Lindsay				1.60	.02		V Weir					
	29	H. J. Tompkins				1.58	.01		Vol					
	31	Lindsay				1.59	.01		V Weir					

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **U 7**

Discharge measurements of **Fish Creek**

~~at~~ **4000 ft. above mouth of Canyon**, during the year ending September 30, 19**31**

Date	Made by	Water Temp.	Wind Dir.	Wind Velocity	Water		Stage Height	Discharge	Type of Gage	Method of Gauging	No.	Gage Elevation	Time	Gage No.	
					Temp.	Depth									
8/5	H. J. Tompkins						1.6	.02		Vol					
7	Lindsay						1.55	.01		V. Weir					
8	H. J. Tompkins						1.59	.02		Vol					
14	Lindsay						1.62	.04		V. Weir					
14	H. J. Tompkins						1.62	.04		Vol.					
19	"						1.54	.01		Vol					
26	"						1.54	.002		Vol					
28	Lindsay						1.52	.01		Est.					
9/2	H. J. Tompkins						1.54	.01		Vol					
4	Lindsay						1.60	.01		V. Weir					
10	H. J. Tompkins						1.58	.01		Vol					
16	"						1.56	.01		Vol					
17	Lindsay						1.56	.01		V. Weir					
23	H. J. Tompkins						1.54	.01		Vol					
26	Lindsay						1.64	.03		V. Weir					
30	H. J. Tompkins						1.60	.02		Vol.					

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of **FISH CREEK U.S.G.S. STATION**

AZUSA, CALIFORNIA

for the Year Ending September 30, 19 **31**

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **U7**

Drainage Area **6.5** Square Miles.

Observer:]

Gage Read **Continuous**

Used rating table dated

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	
1		.2		.2		1.0		.8		2.2		1.5	1		.6		4.6		.7		.1					1
2		.2		.2		1.0		3.0		1.8		1.5	2		.6		3.9		.6		.1					2
3		.2		.2		.8		1.5		3.1		1.4	3		.6		3.1		.6		.1					3
4		.2		.2		.8		1.2		24		1.3	4		.6		2.5		.6		.1					4
5		.1		.2		.8		1.1		15		1.3	5		.5		2.3		.7		.1					5
6		.1		.2		.8		1.8		7.		1.2	6		.5		2.3		.7		.1					6
7		.1		.2		.7		2.0		9.		1.2	7		.5		2.3		.8		.1					7
8		.1		.2		.6		4.7		10.		1.2	8		.4		2.2		.8		.1					8
9		.2		.2		.6		3.4		7.		1.2	9		.4		1.9		.8		.1					9
10		.4		.2		.6		2.6		5.5		1.2	10		.4		1.9		.8		.1					10
11		.3		.1		.6		2.1		4.9		1.2	11		.4		1.7		.9		.1					11
12		.3		.1		.6		1.7		4.7		1.2	12		.4		1.7		.9		.1					12
13		.3		.5		.6		1.5		4.8		1.2	13		.4		1.6		.9		.1					13
14		.3		.5		.6		1.4		6.5		1.2	14		.4		1.5		.9							14
15		.3		.6		.6		1.3		4.9		1.1	15		.4		1.5		.8							15
16		.3		1.2		.6		1.2		4.3		1.0	16		.4		1.4		.8							16
17		.3		8.		.6		1.2		3.8		1.0	17		.4		1.3		.7							17
18		.3		2.1		.6		1.1		3.3		1.0	18		.3		1.2		.6							18
19		.3		1.0		.6		1.0		3.0		1.0	19		.3		1.0		.6							19
20		.3		.8		.6		1.0		2.8		.8	20		.4		.8		.6							20
21		.3		.6		.6		1.0		2.7		.9	21		.4		.8		.5							21
22		.3		1.3		.6		1.0		2.4		.8	22		.4		.8		.4							22
23		.2		1.5		.6		.9		2.2		.8	23		1.8		.8		.2							23
24		.2		1.3		.6		.9		2.0		.8	24		5.		.8		.2							24
25		.2		1.2		.6		.8		2.0		.8	25		2.3		2.0		.2							25
26		.2		1.4		.6		.8		1.9		.8	26		26.		1.1		.2							26
27		.2		2.2		.6		.8		1.9		.7	27		24.		1.1		.2							27
28		.2		2.2		.6		.8		1.8		.7	28		11.		1.0		.2							28
29		.2		1.5		.6		.8		-		.7	29		7.5		1.0		.1							29
30		.2		1.1		.6		.8		-		.6	30		5.5		.9		.1							30
31		.2		-		.6		3.7		-		.6	31		-		.8		-							31
TOTAL,		7.2		31.2		20.3		47.9		144.5		31.9		92.8		51.8		17.1								
Mean Daily Discharge in Second-feet		.23		1.04		.65		1.55		5.16		1.03		3.09		1.67		.57		.058		.016		.014		
Second-feet per square mile																										
Run-off, depth in inches																										
Run-off in acre-feet		14.1		61.9		40.0		95.3		287.		63.3		184.		103.		33.9		3.6		1.0		.8		888.
Maximum Mean Daily Discharge in Second-feet																										
Minimum Mean Daily Discharge in Second-feet																										

Note: Flow less than 0.1 second-foot on days for which no discharge is given.

Maximum stage **3.72** feet at **Dry** on **April 26**
 Minimum stage **0.0** feet at **various** times of **year**

Quarter First Second Third Fourth
 Disch. applied
 Disch. checked
 Date
 G. H. copied
 G. H. checked
 Date
 Computed
 Checked
 Date

362

HAINES CREEK U.S.G.S. STATION NEAR TUJUNGA

Location

In N.E. $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 16, T. 2 N., R. 13 W.,
500' above mouth of canyon and $1\frac{1}{2}$ miles north-
east of Tujunga.

Drainage Area

1.2 square miles.

Installed by

U.S.G.S. Water Resources Branch

Records Available

Feb. 1917 to Sept. 30, 1931 at U.S.G.S. Branch.

Gage

Water Stage Recorder

Discharge Measurements

Low Water measurements made by wading at the
station. High water measurements made from
bridge at the station.

Channel and Control

Concrete Control at Station.

Extremes of Measurements

Maximum-Not determined

Minimum-Not determined

Diversions

1926. A tunnel driven into stream bed 1 mile
above station diverts into a 4 inch pipe past
gage for domestic supply of Tujunga. Similar
tunnel short distance below station diverts
small supply for part of year.

Regulation

Several small check dams have been built across
stream in upper part of drainage basin.

Accuracy

Fair

Co-operation

Constructed and operated by the U.S.G.S. Water
Resources Branch in co-operation with the Los
Angeles County Flood Control District.

LITTLE SANTA ANITA CREEK U.S.G.S. STATION

NEAR SIERRA MADRE, CALIFORNIA.

Location

Near center of W $\frac{1}{2}$, Sec. 9, T. 1 N., R. 11 W.,
2 miles northeast of Sierra Madre. 2 Miles
above Flood Control Debris Dam.

Drainage Area

1.9 square miles.

Records Available

April 15, 1916 to Sept. 30, 1931 at U.S.G.S.
office.

Gage

Water stage recorder on left bank about 150'
below Scherer's cabin.

Discharge Measurements

Made from wooden bridge near gage or by wading.

Channel and Control

Bed consists of gravel and boulders. Right bank
is rock cliff. Left bank is stone wall 5' high.
Control is small concrete dam with triangular
notch at left end, just below gage. Control not
permanent for high stage on account of gravel
deposited in pool just above dam.

Extremes of Discharge

Maximum-12.0 c.f.s. April 26, 1931
Minimum-Dry at various times of year.

Diversions

None above station

Regulation

None

Accuracy

Good

Co-operation

Constructed and operated by U.S.G.S. Water Resources
Branch in Co-operation with the Los Angeles County
Flood Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **U3**

Discharge measurements of **Little Santa Anita Creek**

~~XX~~ **Above Dam**, during the year ending September 30, 19 **31**

No.	Date	Made by	Width Feet	Area of section Sq. ft.	Mean velocity ft. per sec.	Area of float feet	Discharge Sec. ft.	Percent dilat.	Method	Coeff.	Meas. secs.	G. Ht. change	Time Hours	Water No.
10/13		H. J. Tompkins				.48	.03		Vol.					
21		"				.50	.04		"					
30		"				.46	.02		"					
11/6		"				.44	.02		"					
18		"	.8	.14	.57	.60	.08		.6		3			
25		"				.54	.06		Vol.					
12/2		"	.7	.11	.64	.56	.07		.6		4			953
8		"	.8	.12	.58	.55	.07		.6		3		1/6	953
16		"				.54	.07		Vol.					
24		"				.54	.08		"					
31		"				.54	.07		"					
1/3		"	.9	.15	.53	.60	.08		.6		4		1/6	"
6		"	.9	.14	.57	.62	.08		.6		4		"	914
9		"	1.0	.20	1.00	.70	.2		.6				"	"
15		"	.9	.15	.67	.62	.1		.6		3		"	"
20		"				.62	.13		Vol.					
27		"				.60	.13		"					
2/2		"	.9	.14	.64	.60	.09		.6		2		"	"
5		"	3.8	1.30	1.46	1.14	1.90		.6		8		"	"
18		"	3.3	.7	.52	.80	.37		.6		7		"	"
19		"	3.4	.8	.62	.86	.50		.6		7		"	"
14		"	3.3	.85	.71	.88	.60		.6		7		1/3	"
21		"	3.0	.65	.52	.76	.34		.6		6		"	"
3/3		"	3.2	.55	.36	.70	.20		.6		6		1/12	"
13		"	1.0	.28	.78	.66	.14		.6		3		1/6	"
17		"	1.0	.17	.88	.65	.15		.6		3		1/4	"
25		"	.9	.16	.75	.63	.12		.6		3		1/6	"
31		"	.9	.14	.64	.60	.09		.6		3		"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **U3**

Discharge measurements of **Little Santa Anita Creek**

~~XX~~ ~~XX~~ **Above Dam**

During the year ending September 30, 19 **31**

No.	Date	Made by	Width	Area of	Area	Flow	Discharge	Velocity	M. H. L.	Time	Gage	Order
			Feet	Sq. ft.	Sq. ft.	Cfs.	Sq. ft.					
4/8		H. J. Tompkins	.8	.11	.64	.58	.07	.6	3	1/4	914	
14		"	.8	.1	.60	.56	.06	.6	3	"	"	
23		"	.8	.1	.60	.56	.06	.6			"	
24		"	1.3	.32	1.22	.80	.39	.6	4	1/6	"	
26		"	4.0	1.70	2.12	1.26	3.6	.6	8	1/4	"	
30		"	2.5	.70	.92	.88	.65	.6	4	"	"	
5/7		"	2.2	.75	.48	.74	.36	.6	5	1/6	953	
11		"	2.9	.85	1.53	.94	1.30	.6	5	1/4	"	
15		"	1.9	.55	.44	.70	.24	.6	6	1/3	"	
19		"	1.7	.42	.33	.66	.14	.6	5	1/6	"	
25		"	1.2	.25	.88	.72	.22	.6	4	"	"	
30		"	1.7	.42	.36	.64	.15	.6	5	1/4	"	
6/8		"	1.5	.39	.41	.64	.16	.6	4	1/7	"	
9		"	1.0	.15	.67	.64	.10	.6	3	1/6	"	
16		"	.9	.14	.50	.61	.07	.6	3	1/12	"	
23		"	.7	.07	.36	.56	.03	.6	2	"	"	
7/3		"				.55	.08					Vol.
10		"				.52	.07					Vol.
14		"				.44	.03					Vol.
23		"				.44	.01					"
23		"				.42	.006					"
8/4		"				.42	.004					"
11		"				.42	.007					"
18		"				.42	.004					"
9/1		"				.40	.005					"
29		"				.40	.003					"

SIERRA MADRE, CALIFORNIA

LITTLE SANTA ANITA CREEK U.S.G.S. STATION for the Year Ending September 30, 19 31

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

Drainage Area 1.9 Square Miles.

Observer.

Gage Read CONTINUOUS

Used rating table dated

Main data table with columns for months (OCTOBER to SEPTEMBER), days (1-31), gage height, and discharge. Includes vertical text on the left: 'Maximum stage 1.40', 'Minimum stage Dry', 'on April 26', 'times of year', 'various', 'on', 'feet at', 'feet at', 'Discharge 13.0', 'second-feet', 'Discharge', 'Computed', 'Checked', 'Date'.

Summary table with rows: TOTAL, Mean Daily Discharge in Second-feet, Second-feet per square mile, Run-off, depth in inches, Run-off in acre-feet, Maximum Mean Daily Discharge in Second-feet, Minimum Mean Daily Discharge in Second-feet.

Discharge less than 0.1 sec. ft. on days for which no discharge is given.

U-13 R

PACOIMA CREEK U.S.G.S. STATION NEAR
SAN FERNANDO

Location

In SE $\frac{1}{4}$, NE $\frac{1}{4}$, Section 24, T. 3N.R. 15 W about
600 feet above Mouth of Canyon and 4 miles north-
east of San Fernando, Los Angeles County, Calif.

Drainage Area

27.9 square miles

Installed by

U.S.G.S. Water Resources Branch, March, 1916.

Records Available

March 1916 to September 30, 1929 at U.S.G.S.
Water Resources Branch. October 1, 1929 to
September 30, 1931 at offices of Los Angeles
County Flood Control District, Los Angeles,
California. Due to rock slides in stream below
gage affecting gage the records for 1929-1930
and 1930-31 have been computed from daily out-
flow from dam, measured with a Venturi Flume
located about 100 ft below dam.

Channel and Control

Sand, gravel and boulders, left bank is a steep
rock cliff; right bank sloping and covered with
brush and trees. Concrete control buried by
debris.

Extremes of Discharge

March, 1916 to September 1929 at U.S.G.S. Water
Resources Branch.

1929-1930

Maximum-9.57 c.f.s. on September 29-30, 1930
Minimum-Dry at various times during year

1930-1931

Maximum-4.0 c.f.s. February 14, to 18, 1931
Minimum-Dry at various times during year.

Diversions

None above stations

Regulation

Flow regulated by the Los Angeles County Flood
Control District's Dam.

U-13 R

Accuracy

Poor

Co-operation

Located and constructed by U.S.G.S. Water Resources Branch. Rebuilt and operated by The Los Angeles County Flood Control District in co-operation with the U.S.G.S. Water Resources Branch.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

PL. No. U 13

Discharge measurements of **Pacoima Creek**

at Mouth of Cr. Below FC Dam
near

During the year ending 30, October 30, 19 31

No.	Date	Gage	Gage			Gage			No.	Date	FC
			Feet	ft.	ft.	ft.	ft.	ft.			
1	5/16	R. A. Waddicor	3.3	.90	1.41	2.38	1.27	.6	7	1/12	13
2	29	Luce	3.3	.72	1.43	2.36	1.03	.6	7	1/6	25
3	6/12	"	2.5	.72	2.11		1.52	.6	4	1/12	"
4	26	"	3.3	.53	1.43		.76	.6	6	1/6	"
5	7/11	"	3.5	.72	1.13		.81	.6	5	"	"
6	17	"	3.5	.89	1.04		.93	.6	6	1/12	"

LOS ANGELES COUNTY
 FLOOD CONTROL DISTRICT
 HYDROGRAPHIC DEPARTMENT

File No. U 12

Monthly discharge of HAINES, U.S.G.S. STATION

~~XXXX~~
 Creek

~~XX~~ TUJUNGA, CALIFORNIA
 near

for the year ending Sept. 30, 19 31

(Drainage area 1.2 square miles)

MONTH	DISCHARGE IN CFS AT DATE			Percentage of Normal Discharge	Average Velocity
	Maximum	Minimum	Mean		
October			0.0007		0.04
November			.0005		.03
December			.0007		.04
January			.0010		.06
February			.0012		.07
March			.0014		.09
April			.0010		.06
May			.0010		.06
June			.0007		.04
July			.0005		.03
August			.0004		.02
September			.0003		.02
The year period			.0008		.56

NOTE:

Daily Gage Height, in Feet, and Discharge, in Second-Foot, of

PACOIMA CREEK

U.S.G.S. STATION

for the Year Ending September 30, 19 31

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

File No. U13

XX SAN FERNANDO

Near

Drainage Area 27.9 Square Miles.

WADDICOR

Observer.

Gage Read CONTINUOUS

Used rating table dated

Table with columns for months (OCTOBER to SEPTEMBER) and days (DAY). Each month has sub-columns for Gage height and Discharge. The table contains daily data points for gage height and discharge in second-feet.

Vertical text on the left side: 'second-feet', 'Discharge', 'Flow controlled by dam', 'Computed by outflow from Dam.', 'Various times of year', 'Minimum stage', 'Maximum stage'.

Vertical text on the right side: 'Quarter', 'First', 'Second', 'Third', 'Fourth', 'Date', 'W.K.', 'V.K.', 'Computed', 'Checked', 'Disch. applied', 'Disch. checked', 'PERIOD YEAR'.

Summary table at the bottom with rows for 'TOTAL', 'Discharge in Second-foot', 'Discharge per square mile', 'Depth in inches', 'Mean Daily Discharge in Second-foot', and 'Mean Daily Discharge in Second-foot'. It provides totals for each month and overall for the year.

ROGERS CREEK U.S.G.S. STATION

NEAR AZUSA, CALIF.

Location

In NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 23, T. 1 N., R. 10 W.,
one half mile above mouth of creek and
2 $\frac{1}{2}$ miles north of Azusa.

Drainage

6.4 square miles

Records Available

May 8, 1916 to September 30, 1931 at
U.S.G.S. office.

Gage

Water stage recorder on left bank of mouth
of canyon.

Discharge Measurements

Made by wading or from cable about 150
feet below gage.

Extremes of Discharge

Maximum-38.0 c.f.s. April 26, 1931
Minimum-Dry at various times of year

Diversion

Two small diversions above station diverted
all water at times during year.

Regulation

None.

Accuracy

Fair

Co-operation

Constructed and operated by U.S.G.S. Water
Resources Branch in co-operation with Los
Angeles County Flood Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. U 6

Discharge measurements of

ROGERS

~~XXXX~~
Creek

~~XX~~ AZUSA, CALIF
near

during the year ending September 30, 19 31

No.	Date	Made by	Width	Area of section	Mean velocity	Gaug height	Discharge	Rating	Method	Coef.	Meas. sec.	G. P. change	Time	Meter No.
			Feet	Sq. Ft.	Ft. per sec.	Feet	Sec-ft.							
	11/17	R. Lindsay	6.0	2.29	1.27	2.52	2.9			.6	6		1/6	282883
	11/21	"	7.0	.29	.45	2.15	.13			.6	4		1/0	"
	11/28	"	3.1	.94	1.01	2.34	.95			.6	3		1/12	"
	1/2	"	3.1	1.13	1.09	2.40	1.2			.6	3		1/12	"
	1/6	"	3.1	.74	.91	2.30	.63			.6	3		1/12	"
	1/8	"	4.0	1.78	1.64	2.50	2.9			.6	4		1/10	"
	1/12	H. J. Tompkins	2.4	.44	.77	2.28	.34			.6	4		1/6	
	1/16	R. Lindsay	2.5	.41	.73	2.22	.30			.6	5		1/12	282883
	1/31	"	3.8	1.55	1.16	2.47	1.8			.6	4		1/12	"
	2/4	F. C. Ebert	13.	7.6	1.24	2.85	9.4			.6	10		1/3	
	2/4	R. Lindsay	7.3	5.12	2.50	2.91	13			.6	6		1/6	
	2/5	F. C. Ebert	12.	5.7	1.16	2.77	6.6			.6	10		1/4	
	2/5	R. Lindsay	5.9	3.77	2.22	2.74	8.4			.6	6		1/6	282883
	2/6	Dalton - Ebert	11	4.4	.82	2.57	3.6			.6	6		1/4	
	2/13	R. Lindsay	6.2	2.11	.97	2.46	2.0			.6	6		1/6	282883
	2/19	H. J. Tompkins	3.	.5	1.20	2.38	.6			.6	6		1/6	282883
	2/20	R. Lindsay	5.8	1.43	.72	2.36	1.0			.6	6		1/6	282883
	2/26	H. J. Tompkins	2.8	.33	.57	2.28	.19			.6	4		1/12	282883
	2/27	R. Lindsay	3.0	.79	.86	2.26	.62			.6	4		1/12	282883
	3/6	"	1.5	.30	.62	2.16	.19			.6	3		1/12	"
	4/24	"	5.8	2.23	1.26	2.52	2.8			.6	5		1/10	"
	4/26	F. C. Ebert	13.2	13	2.77	3.47	36.			.6	14		1/4	
	4/27	F. C. Ebert	12.	6.4	1.17	2.75	7.5			.6	11		1/3	
	4/29	H. J. Tompkins	6	2.7	1.19	2.56	3.2			.6	6		1/6	
	4/30	F. C. Ebert	10.5	3.9	.67	2.52	2.6			.6	10		1/3	282883
	5/1	R. Lindsay	5.8	2.09	.90	3.46	1.9			.6	6		1/6	282883
	5/6	H. J. Tompkins	3.1	.46	.89	2.34	.41			.6	4		1/6	
	5/8	R. Lindsay	5.6	1.22	.64	2.30	.8			.6	5		1/10	282883
	5/25	"	3.1	.64	.42	2.20	.27			.6	3		1/12	"

374

SAN ANTONIO CREEK U. S. G. S. STATION
NEAR CLAREMONT, CALIF.

Location

In NW $\frac{1}{4}$ of SE $\frac{1}{4}$ Sec. 36, T. 2 N., R. 8 W., one-half mile below Southern California Edison Co's Sierra Power Plant, and 8 miles NE of Claremont, Calif.

Drainage Area

16.9 square miles.

Installed by

U. S. G. S. Water Resources Branch.

Records Available

March 1901 to Sept. 30, 1931 at U.S.G.S. Station

Gage

Stevens continuous water stage recorder

Channel and Control

Sand and boulders

Extremes of Measurements

Maximum-43.0 c.f.s. April 26, 1931

Minimum-.3 c.f.s. Sept. 1931

Diversions

So. Calif. Edison Co. Diverts Water above station for power purposes. No Return.

Control

None

Accuracy

Fair.

Co-operation

Installed by the U.S.G.S. Water Resources Branch in co-operation with the Los Angeles County Flood Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. U 15

Discharge measurements of SAN ANTONIO CREEK, U.S.G.S. STATION

River
Creek

XX CLAREMONT, CALIF.
near

, during the year ending September 30, 19 31

Date	Made by	Width Feet	Area of section Sq. ft.	Mean velocity ft. per sec.	Gage height Feet	Discharge Sec. ft.	Percent deficit	Corr.	Meas. secs. No.	G. H. Change Total	Time Hours	Meter No.
10/3	H. J. Tompkins	3.2	.75	.67	3.20	0.5		.6	5		1/6	953
10/18	"	3	.9	.61	3.28	.55		.6	3		1/4	"
10/24	"	3	.6	.70	3.28	.42		.6	5		1/4	"
11/1	"	3	.85	.59	3.29	.5		.6	4		1/4	"
11/7	"	3	.8	.55	3.32	.44		.6	3		1/6	"
11/14	"	3.5	1.0	.65	3.26	.65		.6	4		1/6	"
11/21	"	3	1.0	.75	3.34	.75		.6	3		1/3	"
11/28	"	3.5	1.2	.75	3.45	.9		.6	4		1/4	"
12/6	"	3.5	1.2	.67	3.44	.8		.6	4		1/6	"
12/13	"	3	.95	.74	3.42	.7		.6	6		1/4	"
12/22	"	2.5	.8	.70	3.37	.55		.6	5		1/6	"
1/10	"	3	.95	.79	3.45	.75		.6	6		1/4	"
1/16	Lord - Schumacher	2.7	.80	.80	3.43	.65		.6	5		1/12	26314
1/17	H. J. Tompkins	3.5	1.2	.84	3.44	1.0		.6	4		1/4	914
1/23	R. Stanley Lord	2.7	.85	.68	3.42	.58		.6	6		1/6	26314
1/30	"	2.9	.95	.66	3.41	.65		.6	7		1/6	"
2/4	"	10.7	.75	1.33	3.84	10		.6	11		1/6	"
2/6	F. C. Ebert	7	2.9	1.17	3.46	3.4		.6	9		1/4	27214
2/6	R. Stanley Lord	6.5	2.9	1.13	3.44	3.3		.6	12		1/4	26314
2/11	H. J. Tompkins	3.8	1.7	1.30	3.30	2.2		.6	8		1/3	914
2/13	R. Stanley Lord	5.1	2.0	1.15	3.32	2.3		.6	11		1/4	26314
2/20	"	3.7	1.3	1.15	3.27	1.5		.6	9		1/4	"
2/27	"	3.0	1.3	.84	3.22	1.1		.6	7		1/6	"
3/6	"	3.9	1.1	.86	3.21	.95		.6	8		1/4	"
3/13	"	Mean of 2 meas			3.21	.9		.6			1/2	"
3/19	"	4.0	4.0	.85	3.19	.85		.6	9		1/6	"
3/26	"	4.0	4.0	.73	3.15	.8		.6	9		1/6	"
4/2	"	3.0	3.0	.83	3.13	.75		.6	8		1/4	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. U 15

Discharge measurements of SAN ANTONIO

~~San Antonio~~
Creek

★ CLAREMONT, CALIF.
near

during the year ending September 30, 1931

No.	Date	Made by	Water		Mean velocity ft. per sec.	Gage		Decl. corr.	Rating	Meters	Coef.	Meters No.	G. H. ft.	Time	Meter No.
			Feet	Sp. ft.		Feet	Sec. ft.								
4/9		R. Stanley Lord	4.0	1.0	.75	3.11	.75			.6		9		1/6	26314
4/16		"	3.9	1.1	.68	3.12	.75			.6		9		1/6	"
4/18		H. J. Tompkins	3.	.75	.59	3.10	.44			.6		5		1/6	914
4/23		R. Stanley Lord	3.9	1.1	.91	3.16	1.0			.6		8		1/6	26314
4/26		"	11.7	10.	3.20	3.76	32.			.6		11		1/6	"
4/28		F. C. Ebert	10.3	4.3	1.28	3.34	5.5			.6		9		1/3	27214
4/30		R. Stanley Lord	6.6	2.8	1.14	3.27	3.2			.6		12		1/5	26314
5/7		"	5.9	2.2	.73	3.26	1.6			.6		11		1/6	"
5/14		"	5.8	2.0	.65	3.22	1.3			.6		10		1/6	"
5/21		"	4.6	1.2	1.00	3.18	1.2			.6		9		1/6	"
5/28		K. F. Schumacher	3.0	1.1	1.09	3.18	1.2			.6		9		1/6	854
6/18		R. Stanley Lord	3.2	.90	.83	3.13	.75			.6		7		1/6	26314
6/22		H. J. Tompkins	3.5	.8	.94	3.10	.75			.6		3		1/6	958
6/25		R. Stanley Lord	3.2	.8	.88	3.10	.7			.6		8		1/6	26314
7/2		"	3.0	.7	.71	3.08	.5			.6		7		1/6	"
7/9		"	2.8	.55	.76	3.05	.42			.6					"
7/16		"	2.7	.60	.77	3.03	.46			.6		9		1/6	"
7/23		"	3.2	.90	.44	3.03	.40			.6		7		1/6	"
7/30		"	3.3	.92	.50	3.04	.46			.6		8		1/6	"
8/3		H. J. Tompkins	1.5	.37	1.35	3.00	.5			.6		3		1/6	
8/6		R. Stanley Lord	2.5	.51	.82	3.00 3.13	.42			.6		7		1/6	
8/13		"	2.2	.44	1.00	3.21	.44			.6		7		1/6	
8/20		K. F. Schumacher	2.			3.16	.28			.6					
8/27		R. Stanley Lord	2.4	.48	.69	3.13	.33			.6		7		1/10	
9/3		"	2.7	.69	.71	3.20	.49			.6		8		1/6	
9/10		"	2.8	.85	.47	3.19	.4			.6		8		1/6	
9/17		"	2.8	.86	.42	3.19	.36			.6		7		1/6	
9/30		H. R. Melin	1.9	.36	.78	3.28	.28			.6		5		1/6	

Daily Gage Height, in Feet, and Discharge, in Second-Feet, of SAN ANTONIO CREEK, U.S.G.S. STATION

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

CLAREMONT, California. Near

for the Year Ending September 30, 19 31

Drainage Area 16.9 Square Miles.

Observer. J

Gage Read CONTINUOUS

Used rating table dated

Table with columns for months (OCTOBER to SEPTEMBER) and rows for days (1 to 31). Each cell contains Gage height and Discharge values. Includes vertical text on the left: 'second-foot', 'Discharge 0.3', '1931', '00', 'Minimum stage'.

Summary table with columns for months and rows for 'TOTAL', 'Daily Discharge in Second-feet', 'Feet per square mile', 'Depth in inches', 'Mean Daily Discharge in Second-feet', 'Mean Daily Discharge in Second feet'.

Vertical text on the right side: 'Compar', 'Checked', 'Date', 'Month applied', 'Check check of', 'Date', 'G. H. applied', 'G. H. checked', 'Date', 'PERIOD YEAR'.

SAN DIMAS CREEK U.S.G.S. STATION

NEAR SAN DIMAS, CALIFORNIA.

Location

In SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 25, T 1 N., R. 9 W., at mouth of San Dimas Canyon, 3 miles north east of San Dimas, about 1 mile below Los Angeles County Flood Control Dam.

Drainage Area

15.39 square miles.

Records Available

From Nov. 8, 1916 to Sept. 30, 1931 at U.S.G.S. office.

Gage

Stevens continuous water stage recorder. Installed in concrete stilling well just above concrete control.

Discharge Measurements

High Water Measurements made by wading near gage.

Extremes of Discharge

Maximum - 3.7 c.f.s. April 26, 1931

Minimum - Practically dry at various times of year.

Diversions

None

Regulation

Regulated by Los Angeles County Flood Control District Dam.

Accuracy

Good

Co-operation

Constructed and operated by U.S.G.S. Water Resources Branch in co-operation with the Los Angeles County Flood Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. U10

Discharge measurements of **SAN DIMAS, U. S. G. S. STATION**

~~XXXX~~
Creek

~~XX~~ **SAN DIMAS, CALIFORNIA**
near

during the year ending September 30, 19 **31**

No.	Date	Made by	Width	Area of	Mean	Gage	Discharge	Rating	Coeff.	Meas. sec.	G. H. change	Time	Meter No.
			Feet	Sq. Ft.	ft./sec.	height	Sec. ft.				percent diff.	No.	
	10/4	C. L. Brewster	1.0	.14	.85	.08	0.12		.6	2		1/2	271 666
	10/11	"	1.0	.20	.60	.08	.12		.6	2		1/6	"
	10/16	"	1.0	.15	.80	.08	.12		.6	2		1/6	"
	10/25	"	1.0	.14	.85	.08	.12		.6	2		1/6	"
	11/1	"	1.0	.13	.78	.07	.10		.6	2		1/6	"
	11/8	"	1.0	.15	.80	.08	.12		.6	2		1/6	"
	11/15	"	1.0	.16	.81	.08	.13		.6	2		1/6	"
	11/25	"	1.0	.15	.93	.08	.14		.6	2		1/6	"
	11/29	"	1.0	.17	.76	.08	.13		.6	2		1/10	"
	12/6	"	1.0	.17	.82	.08	.14		.6	2		1/6	"
	12/13	"	1.0	.17	.76	.08	.13		.6	2		1/5	"
	12/20	"	1.0	.18	.78	.08	.14		.6	2		1/6	"
	12/27	"	1.0	.18	.67	.08	.12		.6	2		1/6	"
	1/3	"	1.0	.20	1.00	.09	.20		.6	2		1/6	"
	1/17	"	2.0	.68	1.35	.24	.9		.6	4		1/6	"
	1/23	H. J. Tompkins	2.	.6	1.25	.26	.75		.6	4		1/6	914
	1/24	C. L. Brewster	2.	.70	1.30	.24	.9		.6	4		1/6	271 666
	1/31	"	2.0	.60	1.00	.20	.6		.6	4		1/6	
	2/4	F. C. Ebert	2.	.70	1.21	.25	.85		.6	5		1/6	272 14
	2/7	C. L. Brewster	2.	.86	1.45	.32	1.2		.6	4		1/6	271 666
	2/14	"	2.	.67	1.24	.25	.85		.6	4		1/6	
	2/19	H. J. Tompkins	2.	.6	1.08	.26	.65		.6	2		1/12	914
	2/21	C. L. Brewster	2.	.64	1.23	.24	.79		.6	4		1/6	271 666
	2/26	H. J. Tompkins	2.	.6	1.00	.22	.6		.6	2		1/12	914
	2/28	C. L. Brewster	2.	.66	1.14	.24	.75		.6	4		1/5	271 666
	3/5	H. J. Tompkins	2.	.6	1.17	.22	.7		.6	2		1/6	914
	3/7	C. L. Brewster	2.	.66	1.14	.23	.75		.6	4		1/6	271 666
	3/14	"	2.	.65	1.15	.23	.75		.6	4		1/6	271 666

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **U10**

Discharge measurements of **San Dimas Creek** U.S.G.S. Sta.

XX near **San Dimas, California**, during the year ending September 30, 19**31**

No.	Date	Made by	Width	Area of section	Mean velocity	Stage height	Discharge	Rating	Method	Coef.	Meas. sect.	G. Ht. change	Time	Water No.
			Feet	Sq.-ft.	Ft. per sec.	Feet	Sec.-ft.				No.	Total	Hours	
	3/21	Brewster	2.0	.64	.97	.22	.6			.6	4		1/6	
	26	H.J. Tompkins	2.0	1.00	1.50	.42	1.5			.6	2		"	914
	26	"	7.9	3.70	.65	.50	2.4			.6	8		"	"
	28	Brewster	8.0	3.69	.76	.54	2.8			.6	8		1/5	666
	4/2	H.J. Tompkins	7.7	3.7	.81	.52	3.0			.6	8		1/4	914 271
	4	Brewster	8.0	3.74	.71	.53	2.7			.6	8		1/6	666
	4/9	H.J. Tompkins	7.8	3.30	.76	.48	2.5			.6	8		1/4	914 271
	11	Brewster	8.0	3.44	.67	.48	2.3			.6	8		"	666
	11	H.J. Tompkins	7.8	3.30	.70	.48	2.3			.6	8		"	914 271
	18	Brewster	8.0	3.25	.73	.46	2.4			.6	8		"	666
	25	"	2.0	.46	.83	.15	.38			.6	4		1/6	" 272
	26	F.C. Ebert-R. Dalton	9.	.33	.69	.46	2.2			.6	9		1/4	14 271
	5/2	Brewster	2.0	.53	.81	.16	.48			.6	4		1/6	666
	2	H.J. Tompkins	8.6	3.7	.54	.46	2.0			.6	9		1/4	953 271
	9	Brewster	2.0	.56	.66	.14	.37			.6	4		1/5	666
	13	H.J. Tompkins	8.0	2.3	.35	.24	.80			.6	8		1/4	953 271
	16	Brewster	2.0	1.10	.70	.24	.75			.6	4		1/6	666
	23	"	8.0	3.91	.60	.48	2.4			.6	8		1/5	"
	27	H.J. Tompkins	8.5	3.99	.57	.48	2.2			.6	9		1/6	953 271
	29	Brewster	8.0	4.07	.70	.56	2.8			.6	8		1/4	666
	6/2	H.J. Tomkins	9.0	4.10	.68	.54	2.8			.6	9		1/3	953 271
	6	Brewster	8.0	4.0	.73	.56	2.9			.6	8		1/5	666
	12	H.J. Tompkins	9.0	3.7	.76	.52	2.8			.6	9		1/4	953 271
	13	Brewster	8.0	3.76	.77	.54	2.9			.6	8		1/4	666
	17	H.J. Tompkins	8.0	3.80	.66	.48	2.5			.6	8		1/3	953 271
	20	Brewster	8.0	3.51	.71	.48	2.5			.6	8		1/4	666
	25	H.J. Tompkins	1.2	.24	.58	.10	.14			.6	2		1/12	953 271
	27	Brewster	1.0	.20	.90	.10	.18			.6	2		"	666

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

Discharge measurements of

San Dimas Creek

~~at~~
~~gauge~~ Below FC Dam

during the year ending September 30, 1931

No.	Date	Stage	Width	Area of Flow	Mean Velocity	Discharge	Stage	Discharge	No.	Time	Notes
1931											271
	7/3	Brewster	.5	.06	.50	.04	.03	.6	1	1/12	666
	10	"	.5	.05	.40	.04	.02	.6	1	"	"
	18	"	.8	.15	.53	.06	.08	.6	1	"	"
	25	"	.7	.13	.86	.06	.05	.6	1	"	"
	8/1	"	.6	.08	.75	.06	.06	.6	1	"	"
	8	"	.6	.09	.56	.06	.05	.6	1	1/10	"
	15	"	.7	.14	.57	.08	.08	.6	1	1/6	"
	22	"	.6	.07	.87	.06	.06	.6	1	1/10	"
	29	"	.6	.05	1.00	.05	.05	.6	1	"	"
	9/5	"	.6	.06	1.00	.06	.06	.6	1	"	"
	12	"	.6	.06	.83	.05	.05	.6	1	"	"

Gage Height, in Feet, and Discharge, in Second-Foot, of SAN DIMAS CREEK

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT HYDROGRAPHIC DEPARTMENT

SAN DIMAS, CALIFORNIA

for the Year Ending September 30, 19 31

Drainage Area 18.39 Square Miles.

Observer: I

Gage Read CONTINUOUS

Use Rating table dated

Table with columns for months (OCTOBER to SEPTEMBER) and rows for days (1 to 31). Each day row contains Gage height and Discharge values for each month. Summary rows include TOTAL, Mean Daily Discharge, and Run-off.

Note- Flow less than 0.1 second ft on days for which no discharge is given

SAN GABRIEL RIVER AT MOUTH OF CANYON U.S.G.S.

STATION, NEAR AZUSA, CALIF.

Location

In NW $\frac{1}{4}$ Sec. 23, T. 1 N., R. 10 W., near road crossing at mouth of canyon, one-half mile above Southern California Edison's Power House, and 2 miles north of Azusa.

Drainage Area

214 square miles

Records Available

1894 to Sept. 30, 1931 at U.S.G.S. offices Records include flow of So. Cal. Edison Co's. Canal.

Gage

Water stage recorder on right bank at cable 1000' above ford at mouth of canyon, and 500' above the tunnel diversion; installed November 18, 1922. On account of frequent changes in channel it has been necessary to install numerous staff gages and 3 recorder wells near Ford. These have independent datum planes.

Discharge Measurements

Made from cable 1000' above ford or by wading

Channel and Control

Gravel and boulders; shifting during high water

Extremes of Discharge

Maximum-1450 c.f.s. April 26, 1931

Minimum-Dry at various times during year.

Diversions

The power canal of Southern California Edison Company Diverts from San Gabriel River about 5 miles above the station (See U.S.G.S. Records for daily discharge of this canal as observed at power house)

Regulation

None

Accuracy

Fair

Co-operation

Constructed and operated by U.S.G.S. Water Resources Branch and in co-operation with the Los Angeles County Flood Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **U 8**

Discharge measurements of

SAN GABRIEL, U.S.G.S. STATION

River
Kxxx

ASUZA, CALIFORNIA.
near

during the year ending September 30, 19

No.	Date	Made by	Area of section		Mean velocity	Gage height		Distance	Slope	Method	Gage No.	G. Sta. No.	Time	Meters No.
			Width	Depth		Feet	Seconds							
2/5	F. C. Ebert	99	115	3.19	378	367	.6	2&8	20	.04	7/12	272	14	
2/6	"	85	62	1.70	3.02	105	.6		16	.01	1/2	"		
2/6	P. W. D.				2.99	113								
2/6	"				2.93	103								
2/6	R. Lindsay	64.5	56.5	1.65	2.92	94	.6		15		1/4	282	883	
2/7	P. W. D.				2.70	57								
2/7	F. C. Ebert	45	42	1.05	2.65	44	.6		9	0	1/4	272	14	
2/11	P. W. D.				2.48	24								
2/13	Lindsay-Ebert	27	14	1.51	2.44	22	.6		11	0	1/4	282	883	
2/16	P. W. D.				2.50	29								
2/19	H. J. Tompkins	18.2	9.6	1.15	2.32	11	.6		9	0	1/4	914	282	
2/20	R. Lindsay	12.7	7.6	.61	2.24	46	.6		10	0	"	883	272	
4/25	F. C. Ebert	58	36	.89	2.52	32	.6		14	0	1/2	14		
4/26	"	130	196	5.02	4.76	985	.6		14	.16	1/2	"		
4/27	"	123	168	3.63	4.02	609	.6	2&8	25	.04	1	"		
4/28	"	117	102	2.64	3.31	270	.6		24	.02	2/3	"		
4/28	P. W. D.				3.26	245								
4/29	H. J. Tompkins	72	77	2.02	3.01	155	.6	2&8	14	.02	2/3	914		
4/30	F. C. Ebert	76	70	1.84	2.8	129	.6		15	0	7/12	272	282	
5/1	R. Lindsay	55.8	62.7	1.65	2.78	102	.6		19	0	1/2	883		
5/1	P. W. D.				2.78	101								
5/1	H. J. Tompkins	52.6	60	1.62	2.78	97	.6	2&8	11	0	1/2	914		
5/4	"	38.5	42	1.03	2.50	43	.6	"	11	0	1/2	"		
5/5	P. W. D.				2.47	41								
5/5	"				2.45	34								
5/6	H. J. Tompkins	37.5	22	1.46	2.40	32	.6		12	0	1/3	914		
5/8	"	24.4			2.28	21	.6	"	9	0	1/3	"		
5/8	P. W. D.				2.29	19								

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. U 3

Discharge measurements of **SAN GABRIEL, U.S.G.S. STATION**

XXXX

~~XX~~ **AZUSA, CALIFORNIA**
near

during the year ending September 30, 19 **31**

No.	Date	Made by	Width Feet	Area of section Sq. ft.	Mean velocity Ft. per sec.	Gate height Feet	Discharge Sec.-ft.	Rating Percent ditch	Stage Feet	Velocity Ft. per sec.	Volume Cubic feet
	5/8	P. W. D.				2.28	16				
	5/8	R. Lindsay	27.0	18.0	1.13	2.29	20	.6 6/10	10	0 1/4	825
	5/11	H. J. Tompkins	19	6.6	.54	2.05	3.6		8	0 1/4	
	5/12	P. W. D.				1.99	1.4				
	5/12	"				1.98	1.2				
	5/13	H. T. Tompkins	4	1.1	.64	1.95	.7	6/10	4	0	953

(1) Pasadena Water Department
2 Los Angeles County Flood Control.

SAWPIT CREEK U. S. G. S. STATION

NEAR MONROVIA, CALIF.

Location

In SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 13, T. 1 N., R. 11 W., $\frac{3}{8}$ mile below highway bridge, which is just below junction of two main branches and 2 miles north of Monrovia. One half mile below the Los Angeles County Flood Control District's Dam.

Drainage Area

5.3. square miles.

Installed by

U. S. G. S. Water Resources Branch.

Records Available

November 8, 1916 to Sept. 30, 1931 at U.S.G.S. office.

Gage

Stevens continuous water stage recorder installed in rubble masonry well and shelter, on east bank of stream.

Discharge Measurements

Low water measurements by wading near gage.
High water measurements from gaging bridge 5' below gage.

Channel and Control

Stream bed consists of coarse gravel and boulders. Concrete control built in summer of 1927, with low water notch 1' deep and 2' crest. Highwater notch 3' deep, 10' wide.

Extremes of Discharge

Maximum-12.0 c.f.s. April 26, 1931
Minimum-Dry various times of year.

Diversions

Part of the water supply for the city of Monrovia is obtained from the two branches of Sawpit Creek above the gage. See U. S. G. S. records for Monrovia Pipe Line.

Regulation

Flow regulated by the Los Angeles County Flood Control District's Dam.

Accuracy

Good

Co-operation

Constructed and operated by U.S.G.S. Water Resources Branch in co-operation with the Los Angeles County Flood Control District.

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. **U 5**

Discharge measurements of **Sawpit Creek**

~~XXXX~~ **1/2** mi. above **Dam**, during the year ending September 30, 19**31**

Date	Made by	Width Feet	Area of section Sq. Ft.	Mean velocity ft. per sec.	Corr. factor	Discharge Sec. ft.	Rating Percent diff.	Method	Coef.	Mean stage No.	Dist. of gage Total Feet	Time	Water No.
1931													282
1/30	Lindsay-Laird	3.4	1.18	.70	.83	.85			.6	4	1/12		282
2/4	F. C. Ebert	5.0	2.20	.68	.96	1.50			.6	9	1/4		
4/26	Lindsay	6.2	3.86		1.14	12.00			.6	6	1/10		"
27	F. C. Ebert	2.0	.46	1.00	.36	.46			.6	5	1/6		
5/15	Lindsay	.2	.59	.80	.36	.31			.6	4	1/15		"
7/3	"	2.0	.15	0.0	.32	.14			.6	2	1/20		"
10	"	1.5	.18	.83	.36	.15			.6	3	1/12		"
16	H. J. Tompkins	2.0	.30	.70	.32	.21			.6	3	1/10		
16	Lindsay	1.5	.21		.30	.11			.6	3	1/20		"
24	H. J. Tompkins	1.5	.25	.84	.34	.21			.6	3			
24	Lindsay	1.6	.18	.67	.32	.12			.6	4	1/12		"
31	"	1.6	.17	.59	.32	.10			.6	3	"		"
8/1	H. J. Tompkins	1.5	.25	.80	.34	.20			.6	3	1/3		
5	"	.9	.18	.78	.36	.14			.6	2	1/6		282
7	Lindsay	1.5	.20	.71	.34	.16			.6	3	1/12		282
14	"	2.0	.23	.96	.36	.22			.6	4	"		"

XX MONTEVIA, CALIFORNIA

for the Year Ending September 30, 1931

Drainage Area 5.3 Square Miles.

Observer: I

Gage Read CONTINUOUS

Used rating table dated

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	
1		.1		0.				0.		0.		0.	1	0.		.1				0.		.2			1	
2		0.		0.				0.		0.		0.	2	0.		.1				.1		.2			2	
3		0.		0.				0.		.2		0.	3	0.		.1				.2		.2			3	
4		0.		0.				0.		1.1		0.	4	0.		.1				.2		.2			4	
5		0.		0.			.1		.6		0.	5	0.		.1				.1		.2				5	
6		0.		0.			.1		.3		0.	6	0.		.1				.1		.2				6	
7		0.		0.			.1		.2		0.	7	0.		.1				.1		.2				7	
8		0.		0.			.2		.2		0.	8	0.		0.				0.		.2				8	
9		0.		0.			.2		.1		.1	9	0.		0.				0.		.2				9	
10		0.		0.			.1		.1		.1	10	0.		0.				.1		.2				10	
11		0.		0.			0.		.1		.1	11	0.		0.				.2		.2				11	
12		0.		0.			0.		.1		.1	12	0.		0.				.1		.2				12	
13		0.		0.			0.		.1		.1	13	0.		0.				.2		.2				13	
14		0.		0.		NO FLOW	0.		.1		.1	14	0.		0.				.2		.2			NO FLOW	14	
15		0.		0.		NO FLOW	0.		.1		.1	15	0.		.3				.2		.1				15	
16		0.		0.		NO FLOW	0.		.1		.1	16	0.		.8				.2		0			NO FLOW	16	
17		0.		.1		NO FLOW	0.		.1		.1	17	0.		.1				.2		0			NO FLOW	17	
18		0.		0.			0.		.1		.1	18	0.		0.				.2		0				18	
19		0.		0.			0.		.1		.1	19	0.		0.				.2		.3				19	
20		0.		0.			0.		.1		.1	20	0.		0.				.2		0				20	
21		0.		0.			0.		.1		.1	21	0.		0.				.2		0.				21	
22		0.		0.			0.		.1		.1	22	0.		0.				.1		0.				22	
23		0.		0.			0.		.1		.1	23	0.		0.				.1		0.				23	
24		0.		0.			0.		.1		.1	24	0.		0.				.1		0.				24	
25		0.		0.			0.		.1		0.	25	0.		0.				.1		0.				25	
26		0.		0.			0.		.1		0.	26	1.1		0.				.1		0.				26	
27		0.		.1			0.		.1		0.	27	.6		0.				.1		0.				27	
28		0.		0.			0.		0		0.	28	.2		0.				.1		0.				28	
29		0.		0.			0.		-		0.	29	.1		0.				.1		0.				29	
30		0.		0.			0.		-		0.	30	.1		0.				.1		0.				30	
31		0.		-			0.		-		0.	31	-		0.				.2		0.				31	
TOTAL,			.2				.9		4.5		1.6			2.1		1.9			4.1		32					
Discharge in Second-Feet		.003		.007			.03		.16		.05			.07		.06			.13		.10					
Discharge in Feet per square mile																										
Discharge in Inches		.2		.4		0	1.8		8.9		3.1			4.2		3.7		0	8.0		6.1		0	36.4		

Maximum stage 2.14 feet on APRIL 21
 Minimum stage Dry feet at various times of year

Quarter First Second Third Fourth
 G. H. copied
 G. H. checked
 Date

Los Angeles County Flood Control District Hydrographic Department
Sawpit Creek and Monrovia Pipe Line
U.S.G.S. Station
for the Year Ending September 30, 19 31

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

Drainage Area 5.3 Square Miles. Gage Read CONTINUOUS
Observer: [blank] (used rating table dated [blank])

Maximum stage 1.14 feet at on April 26 Discharge 12.0 second-feet.
Minimum stage Dry feet at various on times of Discharge year second-feet.

Date	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge
1	.7		.6		.8		.8		1.0		1.1		.8		1.6		.8		.6		.7		.5	
2	.6		.6		.8		.9		.9		1.1		.8		1.6		.8		.7		.8		.5	
3	.6		.6		.8		.8		1.1		1.1		.8		1.2		.8		.8		.8		.5	
4	.6		.6		.8		.8		2.3		1.1		.8		1.2		.6		.8		.8		.5	
5	.6		.6		.8		.9		1.7		1.1		.8		1.2		.6		.7		.8		.5	
6	.5		.6		.8		.9		1.6		1.1		.6		1.2		.6		.7		.8		.5	
7	.4		.6		.8		.9		1.5		1.1		.6		1.2		.6		.7		.8		.5	
8	.4		.6		.6		1.3		1.3		1.0		.6		1.1		.6		.6		.8		.5	
9	.4		.6		.6		1.3		1.4		.5		.6		1.1		.8		.6		.8		.5	
10	.4		.6		.6		1.2		1.2		.5		.6		1.1		.9		.7		.8		.5	
11	.8		.6		.6		1.0		1.2		1.0		.6		1.1		.9		.8		.8		.5	
12	.6		.6		.6		.9		1.2		1.0		.6		1.1		.9		.6		.8		.5	
13	.6		.6		.6		.9		1.6		1.0		.6		1.1		.9		.7		.8		.5	
14	.6		.5		.6		.8		2.0		1.0		.6		1.1		.9		.7		.8		.5	
15	.6		.6		.6		.8		1.8		1.0		.6		1.4		.9		.7		.7		.5	
16	.6		.6		.6		.8		1.6		1.0		.6		1.8		.9		.7		.5		.5	
17	.6		1.2		.6		.8		1.6		1.0		.6		1.1		.9		.7		.5		.5	
18	.6		.8		.6		.8		1.6		1.0		.6		1.0		.9		.7		.5		.5	
19	.6		.8		.6		.8		1.6		1.0		.6		1.0		.9		.7		.5		.5	
20	.6		.8		.6		.8		1.6		1.0		.6		1.0		.9		.7		.5		.5	
21	.6		.8		.6		.8		1.6		1.0		.6		1.0		.9		.7		.5		.5	
22	.6		.8		.6		.8		1.2		.9		.6		1.1		.8		.6		.5		.5	
23	.6		.8		.6		.8		1.2		.9		.6		1.1		.8		.6		.5		.5	
24	.6		.8		.6		.8		1.2		.9		.6		1.1		.8		.6		.5		.5	
25	.6		.8		.6		.8		1.2		.8		.6		1.1		.6		.6		.5		.5	
26	.6		.8		.6		.8		1.2		.8		.6		1.2		.6		.6		.5		.5	
27	.6		1.0		.8		.8		1.2		.8		.6		1.1		.6		.6		.5		.5	
28	.6		.8		.8		.8		1.1		.8		.6		1.3		.6		.6		.5		.5	
29	.6		.8		.8		.8		1.4		.8		.6		1.4		.6		.6		.5		.5	
30	.6		.8		.8		.8		1.8		.8		.6		1.8		.6		.6		.5		.5	
31	.6		.8		.8		1.1		1.1		.8		.6		1.3		.6		.6		.5		.5	
TOTAL	18.0		212		226		276		397		290		273		348		225		207		204		161	
Mean Daily Discharge in Second-feet	.58		.71		.73		.89		1.42		.94		.91		1.12		.75		.87		.66		.54	

Second-feet per square mile

Maximum stage 1.14 feet at on April 26 Discharge 12.0 second-feet.
Minimum stage Dry feet at various on times of Discharge year second-feet.

Drainage Area 5.3 Square Miles. Gage Read CONTINUOUS
Observer: [blank] (used rating table dated [blank])

Los Angeles County Flood Control District Hydrographic Department

File No. U 5

Quarter First Second Third Fourth Quarter First Second Third Fourth Quarter First Second Third Fourth Quarter

Person Year G. H. Connel Disc. applied G. H. checked Disc. checked

35.7 42.2 44.9 54.7 78.9 57.8 94.1 58.9 44.8 41.2 40.6 32.1 59.6

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 116

Discharge measurements of

Arroyo Ditch

Date
Gage

at $\frac{1}{2}$ mi. North Whittier Blvd., during the year ending September 30, 1931

No.	Date	Made by	Area of section		Mean velocity	Gage height		Discharge	Rating	Method	Coef.	Meas. Sec.	G. H. Chart	No.	Total	Hours	M.
			Width	Sq. ft.		Ft. per sec.	Feet										
1930																	
1	10/3	Brewster	7.5	4.74	1.01	4.81	4.81		.6			7			1/4	600	
2	10	Brewster-Thayer	7.5	5.62	1.30	.64	7.28		.6			7			"	"	
3	17	Brewster	7.5	5.37	1.12	.62	6.03		.6			7			"	"	
4	24	"	7.5	5.42	1.05		5.70		.6			7			"	"	
5	31	"	7.5	4.60	.87	.52	4.00		.6			7			"	"	
6	11/7	"	7.5	4.68	.84	.54	3.94		.6			7			"	"	
7	14	"	7.5	5.79	.85	.62	4.92		.6			7			"	"	
8	21	"	7.5	6.93	1.79	.78	12.39		.6			7			"	"	
9	12/5	"	7.5	6.81	1.72	.78	11.71		.6			7			"	"	
10	12	"	7.5	6.68	1.82	.78	12.15		.6			7			"	"	
11	19	"	7.5	7.69	2.11	.90	16.20		.6			7			1/6	"	
12	26	"	7.5	6.99	1.86	.78	13.03		.6			7			1/4	"	
13	1/9	"					Dry										
14	23	"	7.5	5.03	1.40	.58	7.02		.6			7			"	"	
15	30	"	7.5	5.02	1.19	.56	5.97		.6			7			1/5	"	
16	2/20	"					Dry										
17	3/6	"	7.5	5.56	1.82	.70	10.10		.6			7			1/4	"	
18	13	"	7.5	5.71	1.79	.70	10.20		.6			7			1/5	"	
19	20	"	7.5	6.26	2.01	.74	12.56		.6			7			"	"	
20	27	"	7.5	7.18	2.00	.85	14.37		.6			7			"	"	
21	4/3	"	7.5	7.16	1.74	.84	12.47		.6			7			"	"	
22	10	"	7.5	6.51	1.83	.80	11.89		.6			7			"	"	
23	17	"	7.5	6.45	1.67	.78	10.76		.6			7			1/4	"	
24	24	"	7.5	7.78	1.66	.85	12.92		.6			7			"	"	
25	5/8	"					Dry										
26	15	"	7.5	5.71	1.63	.69	9.28		.6			7			"	"	
27	22	"	7.5	5.54	1.51	.68	8.38		.6			7			1/5	"	
28	29	"	7.5	6.39	1.81	.78	11.55		.6			7			"	"	

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 116

Discharge measurements of

Arroyo Ditch

Janus
Creek

at $\frac{1}{2}$ mi. North Whittier Blvd. during the year ending September 30, 1931

No.	Date	Made by	Width		Mean velocity	Gage height		Discharge	rating	Method	Coef.	Meas. sec.	G. H. change	Time	Meter No.
			Feet	Sq.-ft.		ft. per sec.	Feet								
	1931														271
29	6/5	Brewster	7.5	6.76	1.87	.85	12.66		.6			7		1/5	666
30	12	"	7.5	6.32	1.71	.78	10.81		.6			7		1/4	"
31	19	"	7.5	5.58	1.39	.69	7.78		.6			7		1/5	"
32	26	"	7.5	5.26	1.20	.66	6.29		.6			7		"	"
33	7/3	"	7.5	5.13	1.21	.62	6.22		.6			7		1/4	"
34	7	"	7.5	1.96	.26	.27	.50		.6			7		"	"
35	10	"	7.5	4.80	1.05	.59	5.03		.6			7		"	"
36	17	Brewster-Turner	7.5	4.47	.94	.55	4.21		.6			7		"	"
37	24	Brewster					Dry								
38	8/7	"	7.5	3.81	.72	.49	2.76		.6			7		"	"
39	14	"	7.5	3.67	1.01	.50	3.69		.6			7		"	"
40	21	"	4.0	.87	.74	.26	.64		.6			4		1/6	"
41	28	"	7.5	2.40	.53	.38	1.28		.6			7		1/5	"
42	9/4	"	7.5	2.71	.44	.38	1.19		.6			7		1/4	"
43	11	"	7.5	3.55	.61	.45	2.17		.6			7		1/10	"
44	18	Lindsay	7.5	4.19	.97	.60	4.05		.6			7		1/6	282 883
45	25	"	7.5	4.81	1.13	.66	5.44		.6			8		1/4	271
46	26	Brewster	7.5	4.33	.98	.50	4.24		.6			7		"	666

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 87

Discharge measurements of

Banta Ditch

~~Lower
Creek~~

at Head of Pipe Line

, during the year ending September 30, 1931

Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Coef.	Meas. gage	G. H. change	Time	Meter No.
		Feet	Sq.-ft.	Ft. per sec.	Feet	Sec.-ft.	Percent dif.			No.	Total	Hours	271
1930													
1 10/3	Brewster	4.5	5.37	1.50	.67	8.05			.6	5		1/5	666
2 10	"	4.5	5.68	1.53	.72	8.69			.6	5		"	"
3 17	"	4.5	5.98	1.58	.76	9.47			.6	5		1/4	"
4 24	"	4.5	5.94	1.23	.66	7.32			.6	5		"	"
5 31	"	4.5	5.10	1.25	.57	6.36			.6	5		"	"
6 11/7	"	4.5	5.30	1.28	.62	6.79			.6	5		1/5	"
7 14	"	4.5	5.74	1.34	.66	7.70			.6	5		1/6	"
8 21	"	4.5	6.36	1.24	.70	7.87			.6	5		"	"
9 28	" Teeple	4.5	6.69	1.34	.73	8.98			.6	5		2/5	"
10 12/5	Brewster	4.5	6.31	1.32	.70	8.36			.6	5		"	"
11 12	"	4.5	6.50	1.52	.76	9.86			.6	5		1/4	"
12 19	"	4.5	6.59	1.21	.70	8.00			.6	5		1/6	"
13 26	"	4.5	6.18	1.27	.66	7.86			.6	5		"	"
14 1931 1/2	"	4.5	7.11	1.62	.80	11.54			.6	5		1/4	"
15 9	"					Dry							
16 23	"	4.5	9.58	1.70	2.12	16.26			.6	5		"	"
17 30	"	4.5	5.71	2.90	1.28	16.58			.6	5		1/5	"
18 2/13	"					Dry							
19 3/13	"	4.5	5.03	3.32	1.14	16.72			.6	5		1/6	"
20 20	"	4.5	6.46	1.46	.76	9.43			.6	5		1/5	"
21 27	"	4.5	6.58	1.56	.82	10.25			.6	5		"	"
22 4/3	"	4.5	5.94	1.41	.71	8.38			.6	5		1/10	"
23 10	"	4.5	4.88	1.38	.60	6.73			.6	5		1/6	"
24 17	"	4.5	4.43	1.17	.54	5.18			.6	5		1/4	"
25 24	"	4.5	4.81	1.47	.63	7.09			.6	5		1/5	"
26 5/1	"					Dry							
27 8	"					Dry							
28 22	"	4.5	6.06	1.52	.76	9.19			.6	5		1/6	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 87

Discharge measurements of

Banta Ditch

~~1700~~
~~1700~~

at
~~1700~~

Head of Pipe Line

during the year ending September 30, 1931

No.	Date	Made by	Width		Mean velocity	Gate height		Discharge	Rating	Method	Coeff.	Gages	Total		Remarks
			Feet	Sq. ft.		Feet	Sec-ft.						No.	hours	
1930															
29	5/29	Brewster	4.5	5.74	1.42	.71	8.18		.6			5	1/6	66	
30	6/5	"	4.5	6.09	1.49	.75	9.09		.6			5	"	"	
31	19	"	4.5	4.71	1.01	.52	4.78		.6			5	1/5	"	
32	26	"	4.5	4.36	.92	.48	3.99		.6			5	1/6	"	
33	7/3	"	4.5	4.24	1.01	.44	4.27		.6			5	"	"	
34	10	"	4.5	5.07	.76	.42	3.84		.6			5	"	"	
35	17	"	4.5	2.34	1.42	.41	3.33		.6			5	1/5	"	
36	24	"	4.5	3.88	.81	.41	3.16		.6			5	1/6	"	
37	31	"	4.5	4.17	1.00	.89	4.18		.6			5	"	"	
38	8/7	"	4.5	3.92	.89	.88	3.50		.6			5	"	"	
39	14	"	4.5	4.98	.98	.44	4.90		.6			5	1/5	"	
40	21	"	4.5	3.62	.97	.81	3.52		.6			5	1/6	"	
41	28	"	4.5	4.50	.90	.47	4.04		.6			5	"	"	
42	9/4	"	4.5	4.29	1.25	.52	5.38		.6			5	1/5	"	
	11	"	4.5	4.37	1.13	.50	4.92		.6			5	"	"	282
44	18	Lindsay	4.4	4.63	1.16	1.11	5.38		.6			5	1/12	883	
45	25	"	9.0	13.8	.18	2.54	2.91		.6			5	1/6	"	

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 143

Discharge measurements of

Big Rock

Creek

near Rising Water--300 ft. Above Palette Ck during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Coef.	Mean Secs.	St. H. Channel	Time	Notes
			Feet	Sq.-ft.	ft. per sec.	Feet	Sec.-ft.	Percent dist.			No.	Feet	Hour	FC
	1931													
1	10/25	Luce	19.0	5.20	.62		3.25		.6		9		1/6	24
2	11/20	Luce-Waddicor	20.7	6.19	.78		4.61		.6		9			"
3	26	Waddicor	15.0	5.25	.75		3.94		.6		10			"
4	8/8	Luce	9.0	3.47	.80		2.79		.6		8			FC 13
5	9/7	"	9.3	3.85	.70		2.70		.6		10		1/4	"
6	26	"	9.5	3.77	.77		2.93		.6		7			"

BIG TUJUNGA CREEK U. S. G. S. STATION
NEAR SUNLAND, CALIF.

Location

Near center of sec. 32, T. 3 N., R. 13 W.,
(unsurveyed) at a partly constructed and
abandoned dam, 2 miles above mouth of canyon,
and 4 miles northeast of Sunland and 7 miles
below Flood Control Dam Tujunga No. 1

Drainage Area

106 square miles

Records Available

October 1916 to Sept. 30, 1931

Gage

Water stage recorder on right bank above dam.

Discharge Measurements

Made from cable about 1000' below gage or
by wading

Control and Channel

Bed consists of gravel and boulders. Control
is concrete dam, which has notch in center about
20' long and 1' deep. Stage discharge relation
affected by deposits of sand and gravel above
the Dam.

Extremes of Discharge

Maximum-228.0 c.f.s. April 26, 1931
Minimum-0.1 c.f.s. various times of year

Diversions

Several ranches divert part of the low flow
for irrigation above the station.

Regulation

None

Accuracy

Fair

Co-operation

Constructed and operated by U.S.G.S. Water
Resources Branch in co-operation with the Los
Angeles County Flood Control District.

LOS ANGELES COUNTY
 FLOOD CONTROL DISTRICT
 HYDROGRAPHIC DEPARTMENT

File No. 114

Discharge measurements of

Big Tujunga Wash

River
 Channel

San Fernando Rd.

, during the year ending September 30, 1931

Date	Model	Width Feet	Area of feet	Mean velocity Feet per sec.	Gage height Feet	Discharge cfs	Rating Factor	Method	Cost	Mans. Station	G. H. Control	No.	Total hours	FC
1931														
1 1/31	Luce	9.1	2.99	.18		5.49		.6		7		1/6	25	FC
2 2/20	"	10.5	4.10	1.71		7.01		.6		8		"	13	FC
3 20	Luce-Waddicor	8.6	3.52	1.60		5.62		.6		9		"	"	
4 3/20	" "	7.7	2.27	1.34		3.05		.6		10		1/2		
5 4/3	" "	5.0	1.03	.74		.76		.6		6		1/6	"	
6 25	" "	10.0	2.39	1.73		4.13		.6		10		"	"	
7 26	" "	34.0	16.5	4.08		67.35		.6		12		"	"	

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

Discharge measurements of

Big Tujunga Wash

Howe

at
near

Mulholland St. Bridge

, during the year ending September 30, 1931

No.	Date	Made by	Width		Mean velocity	Gage height		Discharge	Rating	Method	Cont.	Time			
			Feet	Sq. ft.		Ft. per sec.	Feet					Sec.-ft.	No.	Total	Hours
1931															
1	1/31	Luce-Waddicor	9.0	4.98	1.55			7.70		.6		10		1/6	12
2	2/4	" "	24.0	20.4	3.33	5.30		67.79		.6		9		1/3	12
3	5	" "	33.5	37.7	3.60	5.34		132.0		.6		11		1/6	"
4	5	" "	9.3	4.81	1.42			6.87		.6		7		1/12	"
5	14	" "	12.3	8.01	2.06	4.49		16.40		.6		9		1/6	"
6	20	" "	12.2	6.55	1.24	4.37		8.13		.6		9		"	"
7	3/13	Luce	10.4	6.18	.91	4.25		5.66		.6		9		"	"
8	20	Luce-Waddicor	9.2	5.60	1.35			7.55		.6		10		"	"
9	20	" "	10.1	4.69	.87	4.19		4.06		.6		11		"	"
10	4/3	" "	10.5	3.45	.40	4.05		1.37		.6		8		"	"
11	25	" "	10.7	6.30	.91	4.30		5.73		.6		9		"	"
12	26	" "	27.4	21.7	2.16	4.95		46.93		.6		16		1/4	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 155

Discharge measurements of

Big Tujunga Wash

River
Creek

at
~~San~~ Foothill Blvd.

, during the year ending September 30, 19 31

No.	Date	Made by	Width Feet	Area of section Sq.-ft.	Mean velocity ft. per sec.	Gage height Feet	Discharge Sec.-ft.	Rating Method	Coef.	Meas. secs.	G. Ht. change	Time Hours	Met. No.
	1931												
1	1/8	Luce-Waddicor	11.0	3.44	1.26	.84	4.35		.6	6		1/6	FC 24
2	8	" "	11.5	4.18	1.23	.85	5.18		.6	7		" "	
3	9	" "	3.5	1.80	2.27	.76	4.08		.6	6		1/12	"
4	13	" "	3.5	.71	.66		.47		.6	7		"	FC 25
5	16	" "	3.5	1.17	.94		1.11		.6	7		"	FC 13
6	17	" "	3.7	1.14	1.05		1.20		.6	8		1/6	FC 25
7	23	" "	3.5	.69	.71		.49		.6	7		1/12	"
8	30	" "	3.5	.84	.55		.46		.6	7		"	"
9	31	Luce	8.5	3.14	1.50	.82	4.73		.6	6		1/6	FC 13
10	8/2	"	7.7	2.64	.12	.78	3.51		.6	8		"	"
11	4	Luce--Waddicor	31.0	23.3	2.77	1.41	64.77		.6	9		.02 1/4	"
12	5	" "	59.7	51.7	4.87		250.8		.6	24		1/2	"
13	8	" "	25.0	14.7	2.53		37.1		.6	7		1/4	"
14	14	" "	9.5	8.3	2.14	.94	17.4		.6	10		1/6	"
15	16	" "	11.8	8.3	2.16	.97	18.0		.6	11		"	"
16	20	" "	10.0	6.59	2.03	.90	13.4		.6	8		"	"
17	25	Waddicor	9.8	5.86	1.83	.80	11.0		.6	7		"	"
18	27	Luce-Waddicor	9.8	4.31	.98	.81	8.00		.6	11		1/4	"
19	3/5	" "	9.5	4.20	.65	.76	6.20		.6	10		1/6	FC 25
20	13	" "	9.5	4.61	1.81	.75	8.37		.6	10		"	FC 13
21	20	" "	8.1	4.10	1.35	.72	5.53		.6	10		"	FC 25
22	30	" "	8.8	3.81	1.34	.66	5.11		.6	7		"	FC 13
23	4/3	" "	7.7	3.01	.97	.63	2.92		.6	9		"	"
24	7	" "	1.4	.13	.46		.06		.6	3		1/12	"
25	8	" "	2.2	.58	.74	.42	.28		.6	4		1/6	"
26	10	Waddicor	1.0	.09	.33	.26	.03		.6	2		1/12	"
27	24	Luce-Waddicor	12.6	9.22	2.26	.98	20.88		.6	10		1/6	"
28	24	" "	23.0	11.10	2.12	1.06	23.43		.6	11		"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 142

Discharge measurements of

Bouquet Canyon

lower
Creek

at $1\frac{1}{2}$ mi. N. Saugus Hy. Br.

during the year ending September 30, 1931

No.	Date	Made by	Width Feet	Area of section Sq. ft.	Mean velocity Ft. per sec.	Gage height Feet	Discharge Sec. ft.	Rating Percent	Method	Corr.	Gage No.	G. H. Feet	Time Total Hours	Remarks FC
1931														
1	1/8	Luce-Waddicor	5.0	1.25	1.25	2.05	3.12		.6		7		1/6	
2	8	" "	5.1	1.18	2.62	1.03	3.06		.6		6	.041	1/12	"
3	2/4	" "	9.4	5.35	3.61	2.34	19.35		.6		8		1/6	FC
4	4	" "	24.02	1.74	.49	2.78	106.8		.6		10	.06	"	"

LOS ANGELES COUNTY
 FLOOD CONTROL DISTRICT
 HYDROGRAPHIC DEPARTMENT

File No. 167

Discharge measurements of

Bull

~~River~~
 Creek

at San Fernando Mission Blvd.

during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Cost	Mens. sec.	G. Ht. change	Time	Method
			Feet	Sq. Ft.	Ft. per sec.	Feet	Sec.-ft.	Percent full.			No.	Total	Hours	FC
	1931													
1	1/30	Luce-Waddicor	1.6	.29	.59		.17		.6		4		1/1225	FC
2	5/20	" "	1.2	.14	.43		.06		.6		3		" 13	FC
3	5/1	" "	2.7	.74	.46		.34		.6		6		1/6	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 108

Discharge measurements of

Castaic

Creek

Highway Br. $1\frac{1}{4}$ mi. West of Castaic Jct. during the year ending September 30, 1931

Date	Time	Area of Cross- Section	Mean Velocity	Stage Feet	Discharge Cfs	Rating	Water Cont.	Stage Feet	Time Days	Meter No.
1931										
1	1/7	Luce-Waddicor	46.235.63 1.98	5.54	70.6		.6	14	.081/4	24 FC
2	7	" "	46.2 31.4 1.75	5.45	55.0		.6	13	.061/6	25 FC
3	8	" "	22.0 15.1 1.65	5.23	25.0		.6	11	"	24 FC
4	8	" "	22.0 15.3 1.79	5.23	27.41		.6	11	"	" FC
5	2/3	" "	28.8 29.7 1.75	5.50	51.98		.6	12	1/4	13 FC
6	4	" "	198. 240. 1.34		321.46		.6	12	.10	" "
7	26	" "	9.0 10.5 1.77	5.78	18.60		.6	8	.241/6	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 84

Discharge measurements of

Cate Ditch

Below Headgate

during the year ending September 30, 1931

No.	Date	Made by	Width		Mean velocity	Gage height		Discharge	Rating	Method	Crest	Meas. No.	C. H. H. (C. H. H.)		Remarks	
			Feet	Sq. Ft.		Feet	Sec-ft.						Total	Hours		
	1930															
1	10/3	Brewster	6.9	3.79	.29	.99	1.10		.6			7		1/4	000	
2	10	Brewster-Thayer	6.9	4.17	.28	1.04	1.15		.6			7		"	"	
3	17	Brewster	6.9	4.55	.24	1.08	1.08		.6			7		"	"	
4	24	"	6.9	3.51	.38	.92	1.34		.6			7		1/5	"	
5	31	"	6.9	2.16	.49	.73	1.05		.6			7		"	"	
6	11/7	"	6.9	2.11	.71	.67	1.50		.6			7		1/4	"	
7	14	"	6.9	2.36	.53	.70	1.26		.6			7		"	"	
8	21	"	6.9	2.65	.57	.71	1.52		.6			7		"	"	
9	28	Brewster-Teepie	6.9	4.31	.38	.95	1.62		.6			7		"	"	
10	12/5	" "	6.9	4.01	.31	.90	1.26		.6			7		1/3	"	
11	12	Brewster	6.9	3.75	.35	.86	1.31		.6			7		1/4	"	
12	19	"	6.9	3.19	.40	.78	1.28		.6			7		"	"	
13	26	"	6.9	3.14	.43	.76	1.36		.6			7		"	"	
14	1/2	"	6.9	3.57	.67	1.14	3.74		.6			7		"	"	
15	9	"														
16	16	"														
17	23	"														
18	2/6	"														
19	13	"														
20	20	"	5.0	2.98	.38	.56	1.12		.6			5		1/5	"	
21	27	"	5.0	3.02	.39	.62	1.18		.6			5		1/6	"	
22	3/6	"														
23	13	"	6.9	6.35	.26	.26	1.62		.6			7		1/4	"	
24	20	"	6.9	6.14	.27	.25	1.66		.6			7		1/5	"	
25	27	"														
26	4/3	"	6.0	2.56	.80	.18	2.04		.6			6		1/6	"	
27	10	"	6.0	3.38	.76	.16	1.82		.6			6		"	"	
28	17	"	6.0	1.95	.73	.09	1.43		.6			6		1/5	"	

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 84

Discharge measurements of

Cate Ditch

River
Creek

at
near

Below Headgate

, during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Coef.	Meas. secs.	G. H. change	Time	Mean
			Feet	Sq. ft.	ft. per sec.	Feet	Sec.-ft.	Percent diff.			No.	Total	Hours	271
1931														
29	4/24	Brewster	.6	2.93	.89	.19	2.61			.6	6		1/5	666
30	5/1	"					Dry							
31	8	"	7.0	4.01	.75	.34	3.00			.6	7		1/4	"
32	15	"	7.0	3.93	.74	.25	2.92			.6	7		1/5	"
33	22	"	7.0	3.36	.67	.24	2.26			.6	7		"	"
34	29	"	7.0	3.49	.62	.25	2.18			.6	7		"	"
35	6/5	"	7.0	3.77	.66	.26	1.36			.6	7		1/6	"
36	12	"	7.0	3.50	.43	.26	1.51			.6	7		1/4	"
37	19	"	7.0	2.45	.31	.10	.76			.6	7		"	"
38	26	"	7.0	2.66	.31	.10	.33			.6	7		1/6	"
39	7/3	"	4.0	1.52	.36	.04	.55			.6	4		"	"
40	10	"	5.0	1.73	.42	.20	.72			.6	5		"	"
41	17	Brewster-Turner	4.0	1.38	.31	.14	.43			.6	4		"	"
42	24	Brewster	3.0	.81	.23	.09	.19			.6	3		1/10	"
43	31	"	6.0	4.21	.68	.64	2.88			.6	5		1/5	"
44	8/7	"	5.0	5.77	.75	.66	2.82			.6	5		"	"
45	14	"				Est.	.50							
46	21	"	4.0	.54	.35		.19			.6	4		1/6	"
47	28	"	4.0	.87	.36		.51			.6	4		1/10	"
48	9/4	"	4.0	.88	.58		.51			.6	4		1/6	"
49	11	"	3.0	.67	.63		.42			.6	5		1/10	"
50	18	Lindsay	5.3	.79	.58		.46			.6	5		1/12883	282
51	25	"	6.0	1.40	.68		.96			.6	6		1/6	

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 29

Discharge measurements of

Cattle Cr.

Cattle
Creek

* Above Junction East Fork San Gab. R. during the year ending September 30, 1931

Date	Station	Width	Area of section	Mean velocity	Discharge		Method	Cost	Meas. No.	Time	Total
					cu. ft.	cu. ft. per day					
1930											271
1 12/12	Delaney	10.0	3.76	.78	2.96		.6	8	1/3		638
2 26	"	10.0	3.93	.80	3.16		.6	9	"		271
3 1/9	"	10.0	4.15	.97	4.02		.6	8	2/5		636
4 16	"	9.5	3.88	.86	3.08		.6	8	1/4		
5 23	"	9.5	3.89	.85	2.79		.6	8	"		
6 2/6	"	10.0	4.84	1.47	7.14		.6	8	"		
7 20	"	10.0	4.91	1.60	7.86		.6	7	1/6		
8 25	"	10.0	4.81	1.29	6.20		.6	8	1/4		
9 3/6	"	9.5	4.42	1.18	5.20		.6	8	"		
10 13	"	9.5	3.82	1.43	4.60		.6	7	1/6		
11 18	"	9.5	3.88	1.03	4.00		.6	7	"		
12 25	"	10.0	3.90	1.02	4.00		.6	8	"		

**LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT**

File No. **61**

Discharge measurements of Cold River
Creek

at Crater Camp, during the year ending September 30, 1931

No.	Date	Made by	Width		Mean velocity	Gage height	Discharge	Method	Coef.	Meas. secs.	G. Hr. change	Time	Meter
			Feet	Sq.-ft.									
1931													
1	2/27	Bollinger	2.6	.59	.59		.35		.6	3		1/6	271
2	13	"	2.1	.38	.60		.23		.6	3			"
3	5/27	"	2.5	.42	.60		.25		.6	4			"
4	4/3	"	2.3	.31	.32		.10		.6	3			"
5	10	"	1.8	.35	.40		.14		.6	3			"
6	17	"	1.2	.18	.39		.07		.6	2			"
7	24	Bollinger-Laverty	2.4	.72	.67		.48		.6	4			"
8	28	" Cron	5.0	2.29	.48		1.11		.6	5			"
9	5/1	Bollinger	2.1	.50	1.04		.52		.6	3			"
10	8	"	2.7	.41	.68		.28		.6	3		1/12	"
11	6/11	"				Est.	.05						
12	4	"				Est.	.08						
13	19	"				Est.	.05						
14	7/17	"					Dry						

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 141

Discharge measurements of

Elizabeth Lake Cr.

River
Creek

→ Bridge at Center Camp Site
near

, during the year ending September 30, 1931

No.	Date	Gage by	Width Feet	Area of section Sq. ft.	Mean velocity Feet per sec.	Gage height Feet	Discharge Sec. ft.	Method Coeff.	Meas. secs.	G. H. change	Time Hours	Meters No.
	1931											
1	2/12	Luce	9.0	.28	.15		4.43	.6	9		1/12	13
2	20	Luce-Waddicor	6.4	1.77	1.15		2.04	.6	7		1/6	"
3	27	" "	4.5	1.37	.98	3.03	1.34	.6	8		"	FC 25
4	3/7	" Luce	4.5	1.32	.08		1.26	.6	9		"	"
5	7	Luce	4.5	1.37	.79	3.00	1.09	.6	9		"	"
6	16	"	5.5	1.23	.72	2.98	.89	.6	8		"	"
7	21	Luce-Waddicor	4.3	1.18	.61	2.96	.72	.6	6		"	FC 13
8	4/3	" "	3.0	.64	.66	2.94	.42	.6	6		"	"
9	10	Waddicor	2.7	.40	.65	2.96	.26	.6	4		1/12	"
10	17	"	2.0	.37	.51	2.90	.19	.6	4		"	"
11	24	Luce-Waddicor	2.5	.55	.58	2.95	.32	.6	4		"	"
12	5/1	" "	4.0	1.24	.96	3.05	1.29	.6	8		"	"
13	8	Waddicor	2.0	.86	.61	2.94	.52	.6	4		1/4	"
14	18	"	2.0	.58	.46	2.89	.27	.6	4		1/12	"
15	6/6	Luce-	3.0	.23	.12	2.89	.27	.6	6		1/6	25
16	26	"	2.0	.23	.03	2.85	.08	.6	4		"	"
17	7/3	"	1.7	.34	.29	2.85	.10	.6	4		"	"
18	22	"	2.2	.28	.02	2.84	.07	.6	4		1/12	13
19	31	"	2.0	.23	.02	2.80	.06	.6	4		"	"
20	8/7	"	1.8	.21	.03	2.80	.06	.6	4		"	"
21	21	"	1.8	.16	.01		.06	.6	4		1/6	"
22	30	"	10.5	3.59	1.14	3.19	4.07	.6	6		"	"
23	9/11	"	.2	.17	.26	2.79	.09	.6	4		1/12	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 6

Discharge measurements of

Los Angeles

River
~~at~~

at **Whitsett Ave. Bridge**
~~near~~

, during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Coef.	Meas. Sec.	G. M. chart	Time	Meters
			Feet	Sq. Ft.	F.P.S.	Feet	Sq. Ft.				Percent	No.		
	1930													271
1	10/3	Bollinger	7.5	8.69	1.18	1.16	10.29			.6	7		1/4	650
2	10	Bollinger-Laverty	7.6	10.31	1.20	1.27	12.33			.6	8	.03	"	"
3	17	Bollinger	8.0	10.95	1.38	1.36	15.20			.6	7		"	"
4	24	"	7.5	5.87	2.11	1.27	12.39			.6	8		"	"
5	31	Bollinger-Jordan	7.6	10.79	1.46	1.36	15.73			.6	8		1/3	"
6	11/7	Bollinger	7.6	10.66	1.51	1.37	16.13			.6	10		"	"
7	14	"	7.6	10.00	1.26	1.28	12.60			.6	10		"	"
8	21	Laverty-Bollinger	5.6	4.15	.76	.86	3.17			.6	6		1/6	"
9	28	Bollinger	6.2	1.82	.79	.76	1.44			.6	7		1/4	"
10	12/12	"	3.7	.77	1.34	.85	1.03			.6	6		"	"
11	26	"	2.7	2.33	.47	.66	1.10			.6	4		"	"
12	1931 1/16	"	5.0	5.72	.97	.98	5.57			.6	6		1/6	"
13	2/13	Laverty-Bollinger	15.1	11.40	2.23	2.00	24.67			.6	10		1/4	271 647
14	20	Bollinger	14.3	11.28	1.32	.67	14.94			.6	12	.02	"	271 650
15	27	"	14.4	14.84	1.57	1.85	23.23			.6	13	.02	1/3	"
16	3/6	Bollinger-Jordan	14.6	13.94	1.69	1.90	23.62			.6	14		1/4	"
17	21	Bollinger	3.5	1.62	.77	.98	1.24			.6	9		1/6	"
18	27	"	4.6	1.68	.86	.90	1.44			.6	8		1/4	"
19	4/3	"	3.7	1.17	.79	.86	.93			.6	5		1/6	"
20	10	"	3.4	1.01	.78	.86	.79			.6	5		"	"
21	17	"	5.9	1.62	1.14	.92	1.85			.6	7		"	"
22	24	Bollinger-Laverty	7.3	2.37	.90	.94	2.14			.6	9		"	"
23	5/1	Bollinger	5.6	1.43	.77	.66	1.10			.6	8		"	"
24	8	"	7.2	1.36	.65	.58	.88			.6	6		"	"
25	15	"	3.9	1.08	1.02	.49	1.11			.6	7		"	"
26	22	"	4.4	1.00	.74	.65	.74			.6	7		1/4	"
27	29	"	6.8	1.67	.62	.63	1.04			.6	7		1/6	"
28	6/5	"	5.0	1.13	.67	.60	.76			.6	8		"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 152

Discharge measurements of

Gavin Canyon

at **Weldon Cr. Hwy. 100 ft. Abover Towsley Canyon** during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gate height	Discharge	Rating method	Coef.	No. gages	Total hours	FC
			Feet	Sq. Ft.	Feet/Sec.	Feet	Sec. Ft.					
1931												
1	1/9	Luce-Waddicor	2.6	.72	.68		.49	.6		5	1/12	"
2	16	" "	1.3	.14	.57		.08	.6		4	"	13
3	31	" "	3.0	1.31	.88		1.15	.6		6	"	"
4	2/3	Luce	2.0	.17	.05	.02	.09	.6		4	"	"
5	4	Luce-Waddicor	24.	26.9	4.12	.61	111.2	.6		9	1/2	"
6	4	" "	24.	25.4	4.15	.61	105.3	.6		9	1/6	"
7	4	" "	18.	10.1	3.48	.28	26.55	.6		9	"	"
8	12	Luce	2.8	1.05	.96	.06	1.01	.6		6	1/12	"
9	20	"	.2	.45	.28	.03	.41	.6		4	"	"
10	3/15	"	1.2	.06	.03	.05	.02	.6		2	"	25
11	4/24	Luce-Waddicor	3.8	.87	.73	.05	.54	.6		7	"	13
12	5/1	" "	1.2	.20	.70	.02	.14	.6		3	"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 165

Discharge measurements of

Gold

Little
Creek

of **Little Tujunga Creek**

during the year ending September 30, 1931

Date	Made by	Width			Mean velocity	Gage height	Discharge		Method	Coef.	Mean sec.	G. Ht. change	Time	Meter No.
		Feet	Sq. ft.	Ft. per sec.			Feet	Sec.-ft.						
1931														
1 6/26	Luce	V Notch Weir					.03							
2 7/3	"	"	"	"			.02							
3 10	"	"	"	"			.16							
4 17	"	"	"	"			.16							
5 24	"	"	"	"			.01							
6 31	"	"	"	"			.01							

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 156

Discharge measurements of

Big Tujunga Wash

~~Flow~~
~~Gage~~

at
Station

Foothill Blvd.

during the year ending September 30, 1931

Date	Gage	Machine	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Meters	Coeff.	Dues. Sec.	G. H. change	Time	Notes
			Feet	Sq. Ft.	Ft. per sec.	Feet	Cu. Ft.							
1931														
39	4/25	Luce-Waddicor	12.0	6.02	1.84	.86	11.14		.6		10		1/6	13
30	26	" "	20.5	21.00	2.55	1.25	53.49		.6		13	.01	1/4	"
31	27	" "	31.0	20.92	2.57	1.25	53.50		.6		14		1/3	"
32	5/2	Waddicor	11.4	5.94	1.83	.80	9.31		.6		7		1/6	"
33	4	" "	9.0	3.45	1.24	.68	4.39		.6		7		"	"
34	6	" "	9.0	2.87	1.04	.61	2.98		.6		7		"	"
35	8	" "	9.0	2.72	.98	.62	2.67		.6		7		"	"
36	14	" "	1.5	.18	.39		.07		.6		3		1/12	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 6

Discharge measurements of

Los Angeles

river

at Whitsett Ave. Bridge

during the year ending September 30, 1931

Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Cost	No. of sec's	G. H. Coefficient	Time	Sum
1931		feet	sq. ft.	ft./sec.	feet	Sec. ft.	Percent disc.				Total	Hours	271
29 6/12	Bollinger	4.6	1.39	.70	.60	.97		.6		7		1/6	650
30 19	"	3.8	.97	.85	.56	.82		.6		7		"	"
31 26	"	3.7	1.44	.65	.67	.94		.6		5		"	"
32 7/10	"	4.3	1.89	.44	.88	.84		.6		6		"	"
33 17	"	14.3	21.57	1.23	2.15	26.46		.6		13		1/2	"
34 24	"	15.7	22.48	1.10	2.00	24.67		.6		13		"	"
35 31	"	14.7	21.35	1.22	1.89	25.95		.6		15		1/3	647
36 8/6	"	14.5	19.59	1.36	1.87	26.60		.6		15		1/6	"
37 14	"	11.6	15.94	1.11	1.54	17.76		.6		12		"	"
38 21	"	14.0	15.01	1.25	1.46	18.87		.6		15		1/4	"
39 28	"	13.8	15.74	1.13	1.41	17.88		.6		14		"	"
40 9/4	"	3.0	.69	1.02	.54	.70		.6		5		"	"
41 11	"	4.8	.97	.64	.23	.62		.6		6		1/6	"
42 18	"	2.2	.44	1.20	.21	.53		.6		4		"	"
43 25	"	2.3	.57	1.14	.21	.65		.6		4		"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No 154

Discharge measurements of

Pacoima

River
Creek

at
near

Dillons Ranch

during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Cost	Meas. sec.	G. H. change	Time	Notes
			Feet	Sq. Ft.	Ft. per sec.	Feet	Sec. ft.	Percent dip.					Hours	FC
	1930													
1	12/12	Luce-Waddicor	2.0	.36	.25	.31	.09		.6		4		1/1224	
2	1931 1/5	" "	2.0	.35	.14	.	.05		.6		4		" "	
3	5	" "	1.6	.31	.41		.13		.6		4		" "	
4	2/16	" "	14.0	4.94	1.12	.67	5.84		.6		8		1/6	FC 13
5	3/13	" "	9.5	2.59	.52	4.48	1.24		.6		9		" "	
6	4/25	" "	14.5	5.93	1.31	.72	7.79		.6		11		" "	
7	26	" "	17.0	11.36	.73	.89	19.62		.6		11		" "	

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 17

Discharge measurements of

Pacoima Wash

Luce
Waddicor

San Fernando Road-San Fernando, during the year ending September 30, 1931

Date	Made by	Width Feet	Area of section Sq. ft.	Mean velocity Ft. per sec.	Gage height Feet	Discharge Sec. ft.	Rating Method C. of D.	Meas. sec.	G. H. change	Time Hrs.	Stet. No.
1930											
1 11/17	Luce-Waddicor	8.6	2.05	.08	5.70	1.50	.6	7	.011/6	24	FC
2 17	" "	9.4	1.94	.08	5.8	1.73	.6	8	.021/12	"	
3 26	" "	10.0	4.58	1.97	5.90	10.78	.6	5	1/6	"	
4 26	" "	12.0	6.06	2.17	5.91	13.62	.6	6	.01	"	
5 1/7	" "	25.0	12.62	2.71	6.52	34.23	.6	10	.041/4	"	
6 7	" "	24.0	12.31	2.43	6.52	29.98	.6	9	.031/6	"	
7 2/3	" "	33.0	23.78	2.73	6.35	64.96	.6	11	1/4	13	FC
8 4/24	" "	2.3	.63	.79		.50	.6	5	1/12	"	
9 26	" "	14.0	10.24	2.11		21.59	.6	9	1/4	"	

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 121

Discharge measurements of

Palette

near 1 mi. Above Big Rock Ck.
Rising water

during the year ending September 30, 1931

No.	Date	Made by	Width Feet	Area of section Sq-ft.	Mean velocity Ft. per sec.	Gage height		Discharge Cfs.	Rating Method	Coef.	Meas. secs.	G. F. check	Time	Remarks
						Foot	Sec-ft.							
1930														
1	10/25	Luce	2.0	.43	1.12			.48		.6	4		1/12	
2	11/8	Luce-Jordan	2.5	.45	1.07			.48		.6	5		1/6	
3	20	" Waddicor	2.2	.45	1.25			.51		.6	4		1/12	"
4	26	" "	2.0	.44	1.12			.49		.6	5		"	"
5	12/4	" "	1.8	.49	1.36			.65		.6	4		"	"
6	11	" "	2.4	4.46	1.06			.48		.6	5		"	"
7	18	" "	2.5	.54	.95			.51		.6	5		"	"
8	29	" "	2.4	.48	1.13			.56		.6	5		"	"
9	1/3	" "	2.4	.46	1.14			.53		.6	5		"	"
10	13	" "	2.4	.50	1.04			.54		.6	5		"	FC 23
11	20	" "	2.3	.56	.98			.64		.6	5		"	"
12	27	" "	2.2	.49	.90			.44		.6	5		"	FC 13
13	2/6	" "	25.0	.78	1.19			.93		.6	5		1/6	"
14	17	" "	2.2	.64	1.05			.67		.6	5		1/12	"
15	24	" "	2.0	.61	.82			.49		.6	4		1/6	"
16	3/21	Luce	2.7	.58	.08			.50		.6	5		1/12	FC 25
17	4/23	Luce-Waddicor	2.0	.33	.69			.23		.6	4		"	"
18	28	" "	1.8	.29	1.34			.39		.6	4		"	"
19	6/20	Luce	2.4	.31	.06			.21		.6	5		"	"
20	7/20	"	3.0	.57	.05			.31		.6	6		"	"
21	8/1	"	2.4	.35	.07			.27		.6	5		"	"
22	23	"	3.0	.48	.06			.29		.6	6		"	"
23	9/14	"	1.7	.37	1.11			.41		.6	4		"	FC 24
24	20	"	2.0	.44	1.30			.57		.6	4		1/6	"
25	26	"	2.0	.31	1.19			.37		.6	4		1/12	FC 13

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 122

Discharge measurements of

Palette

Big Rock
Creek

at **Big Rock Creek**, during the year ending September 30, 19**31**
near

No.	Date	Made by	Width		Mean velocity	Gage height		Discharge	Coeff.	Method	Coef.	Meas. Secs.	G. H. change	Time	M. S.
			Feet	Sp-ft.		Feet	Sec-ft.								
1930															
1	12/29	Luce-Waddicor	1.4	.08	.25	17.68	.02	.6				2		1 1/2	24
2	1/3	" "	1.5	.09	.33	17.66	.03	.6				2		" "	FC
3	1/3	" "	2.3	.17	.76	17.67	.13	.6				5		1/6	25
1931															
4	1/20	" "	2.0	.13	.46	17.67	.06	.6				4		1/12	"
5	27	" "	2.0	.13	.69	17.68	.09	.6				4		" "	"
6	2/6	" "	2.0	.19	.57	17.70	.07	.6				4		" "	"
7	17	" "	2.4	.21	.05	17.68	.12	.6				5		" "	"
8	3/21	Luce	2.5	.23	.05	17.67	.13	.6				5		" "	"
9	4/23	Luce-Waddicor	1.6	.15	.47	17.64	.07	.6				3		" "	"
10	28	" "	2.0	.23	.61	17.66	.14	.6				4		" "	"

LOS ANGELES COUNTY
 FLOOD CONTROL DISTRICT
 HYDROGRAPHIC DEPARTMENT

File No. 136

Discharge measurements of

Pico Canyon

River
 Creek

$\frac{1}{2}$ mi. W. Saugus At Hwy. Bridge

, during the year ending September 30, 1931

Date	Made by	Width feet	Area of Section Sq-ft	Mean velocity ft. per sec.	Discharge		Percent diff.	Meas. No.	G. L. Time	Meas. No.
					Feet	Sec-ft.				
1931										
1 1/7	Luce-Waddicor	4.3	1.55	1.44	1.48	2.24	.6	5	.131/12	24
2 7	" "	4.3	1.91	1.36	1.55	2.60	.6	4	" "	"
3 2/3	Luce	5.0	2.88	1.60	1.56	4.67	.6	5	" "	13
4 8/30	"	7.0	9.59	2.45	3.60	29.34	.6	7	1/6	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 94

Discharge measurements of

San Francisquito

near
Creek

at
near **Castaic Junction**, during the year ending September 30, 1931

No.	Date	Made by	Area of section		Mean velocity	Gage height		Discharge	Method	Coef.	Meas. sec.	G. Ht. change	Time	Meas. No.
			Width	Area of section		Feet	Sec.-ft.							
1930														
1	11/14	Luce-Waddicor	2.3	.42	.55			.23		.6	4		1/12	24
2	21	"	2.5	.44	.55	1.15		.24		.6	5		"	"
3	28	"	3.0	.58	.50			.29		.6	6		1/6	"
4	12/5	"	3.0	.68	.47			.32		.6	6		1/12	"
5	12	"	3.0	.67	.42	1.14		.28		.6	6		"	"
6	19	"	3.0	.60	.30	1.14		.18		.6	6		"	"
7	26	"	3.0	.57	.32	1.14		.18		.6	6		"	"
8	1931 1/2	"	3.0	.87	.27	1.16		.23		.6	5		"	"
9	16	"	4.5	1.16	.30	1.13		.35		.6	7		"	FC 18
10	23	"	3.7	1.01	.24	1.12		.25		.6	6		"	FC 25
11	30	"	3.2	.66	.32			.21		.6	7		"	"
12	2/14	"	3.5	.79	.44	1.14		.35		.6	6		1/6	FC 13
13	20	"	2.7	.70	.44			.31		.6	5		1/12	"
14	27	"	3.0	.71	.27	1.12		.19		.6	5		"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 86

Discharge measurements of

San Gabriel

River

Below Stanifer Ditch

, during the year ending September 30, 1931

Date	Station	Width feet	Area of section sq. ft.	Mean velocity ft. per sec.	Gage height feet	Discharge cfs.	Rating	Method	Cont.	Meas. sec.	G. H. change	Time Hours	Meter No.
1930													271
1 10/3	Brewster	8.0	10.66	.86	6.79	9.22		.6		8		1/4	666
2 10	Brewster-Thayer	8.0	11.32	.88	6.86	9.86		.6		8		"	"
3 17	Brewster	8.0	10.75	.90	6.79	9.66		.6		8		1/3	"
4 24	"	8.5	8.90	.98	6.79	9.17		.6		8		"	"
5 31	"	8.5	8.66	.97	6.70	8.41		.6		8		1/4	"
6 11/7	"	9.0	10.91	.91	6.72	9.92		.6		9		1/3	"
7 14	"	9.0	10.87	.94	6.74	10.17		.6		9		"	"
8 21	"	9.0	9.54	1.04	6.70	9.91		.6		9		"	"
9 28	Brewster-Teeple	9.0	9.53	1.05	6.72	9.97		.6		9		"	"
10 12/5	Brewster	9.0	9.92	1.04	6.76	10.36		.6		9		1/4	"
11 12	Brewster-Teeple	9.0	9.38	1.15	6.78	12.44		.6		9		"	"
12 19	Brewster	9.0	8.53	1.21	6.77	10.33		.6		9		"	"
13 26	"	9.0	8.37	1.31	6.80	10.93		.6		9		"	"
14 1/2	"	9.0	12.30	1.42	7.04	17.42		.6		9		1/3	"
15 9	"	10.0	15.08	2.00	7.11	26.14		.6		10		1/4	"
16 16	"	10.0	11.92	2.08	7.05	24.82		.6		10		1/3	"
17 23	"	14.0	15.28	1.77	7.10	27.00		.6		8		1/4	"
18 30	"	14.0	15.73	1.81	7.11	28.48		.6		8		"	"
19 2/6	Brewster-Pollard	14.0	19.16	2.03	7.14	38.93		.6		5		"	"
20 13	Brewster	14.4	15.47	1.87	7.03	28.95		.6		7		1/3	"
21 20	"	14.4	16.83	1.63	7.1	27.43		.6		6		1/4	"
22 27	"	14.6	15.99	1.65	7.02	26.44		.6		7		"	"
23 3/6	"	14.6	17.52	1.66	7.03	29.07		.6		7		"	"
24 13	"	16.0	16.02	1.40	6.97	22.41		.6		8		"	"
25 20	"	7.0	7.02	1.74	6.70	12.22		.6		7		"	"
26 27	"	7.0	6.75	1.79	6.71	12.09		.6		7		"	"
27 4/3	"	7.0	6.33	1.74	6.64	11.00		.6		7		"	"
28 10	"	7.0	5.96	1.65	6.64	9.81		.6		7		1/5	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 86

Discharge measurements of

San Gabriel

River
Creek

Below Stanifer Ditch

, during the year ending September 30, 1931

No.	Date	Made by	Width		Mean velocity	Gate height		Discharge	Rating	Method	Coeff.	Meas. succ.	G. H. channel		Meas. No.	
			Feet	Sq. Ft.		Feet	Feet						Total	Feet		
	1931															
29	4/17	Brewster	7.0	5.82	1.73	6.70	10.09			.6		7	1/4	600		
30	24	"	7.0	6.19	1.77	6.70	10.97			.6		7	"	"		
31	5/1	"	10.8	11.13	2.28	6.71	25.54			.6		10	1/3	"		
32	8	"	11.0	11.03	2.16	7.00	23.78			.6		6	1/4	"		
33	15	"	10.5	7.43	2.32	6.98	15.03			.6		6	"	"		
34	22	"	8.0	7.10	1.72	6.75	12.24			.6		8	"	"		
35	29	"	7.0	6.29	1.83	6.75	11.54			.6		7	"	"		
36	6/5	"	7.0	6.30	1.83	6.73	11.54			.6		7	"	"		
37	12	"	7.0	6.08	1.71	6.73	10.38			.6		7	"	"		
38	19	"	7.0	5.69	1.67	6.71	9.51			.6		7	"	"		
39	26	"	7.0	5.51	1.52	6.71	8.39			.6		7	"	"		
40	7/3	"	7.0	5.62	1.20	6.72	8.16			.6		7	"	"		
41	10	"	7.0	5.51	1.39	6.71	7.68			.6		7	"	"		
42	17	"	7.0	4.06	1.62	6.70	7.40			.6		7	"	"		
43	24	"	7.0	4.18	1.78	6.70	7.42			.6		7	"	"		
44	8/7	"	7.0	4.25	1.68	6.70	7.16			.6		7	"	"		
45	14	"	7.0	4.64	1.64	6.72	7.62			.6		7	"	"		
46	21	"	7.0	4.11	1.66	6.72	6.83			.6		7	"	"		
47	28	"	7.0	4.51	1.70	6.73	7.66			.6		7	"	"		
48	9/4	"	7.0	4.74	1.76	6.74	8.34			.6		7	"	"		
49	11	"	8.0	4.29	1.63	6.73	7.01			.6		8	"	"		
50	18	Lindsay	9.0	4.63	1.72	6.73	7.98			.6		9	"	262 883		
51	25	"	9.7	5.80	1.67	6.76	9.68			.6		10	"	"		

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

Form 128

Discharge measurements of

Rice Canyon

~~4444~~
Creek

at
near

Weldon Cr. Highway

during the year ending September 30, 1931

No.	Date	Meas. by	Width Feet	Area of section		Mean velocity Feet per sec.	Gage height		Discharge Second	Percent dis.	Meas. on Cree.	Meas. on Cree.	Remarks
				Staff	Ht. per sec.		Feet	Second					
1931													
1	1/9	Luce-Waddicor	1.5	.25	1.04			.26		.6	3	1/12	FC
2	2/4	" "	10.0	2.73	3.71	.10	23.79			.6	7	1/6	FC
3	12	" "	2.0	.45	.08			.36		.6	4	1/12	"
4	20	Luce	1.7	.24	.04	.03	.10			.6	4	"	"
5	3/17	"	1.0	.50	.02	.01	.10			.6	2	"	FC
6	4/24	Luce-Waddicor	1.3	.09	.33			.03		.6	3	"	FC FC 13

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 93

Discharge measurements of

Santa Clara

River
Creek

at
Gage

Large

, during the year ending September 30, 1931

No.	Date	Name of Gage	Width Feet	Area of section Sq. Ft.	Mean velocity Ft. per sec.	Gage height Feet	Discharge Sec. Ft.	Rating Percent diff.	No. of Stages	G. H. change Feet	Time Hours	Met. No.
1930												
1	10/4	Luce	2.9	.52	.83		.63	.6	6		1/6	24
2	11	"	2.9	.55	.82		.65	.6	6		"	"
3	18	"	2.9	.50	.86		.63	.6	6		"	"
4	24	"	3.0	.54	.72		.59	.6	6		"	"
5	31	"					.62					"
6	11/8	Luce-Jordan					.58					"
7	14	" Waddicor					.68					"
8	21	" "					.76					"
9	28	" "					.81					"
10	12/5	" "					.84					"
11	11	" "					.89					"
12	19	" "					.76					"
13	29	" "					.77					"
14	1931 1/6	" "					.72					"
15	9	" "					.65					"
16	17	" "					.62					FC 25
17	23	" "					.74					"
18	2/4	" "	12.0	3.64	1.84		6.71	.6	6			FC 13
19	14	" "					.92					"
20	28	Luce					.91					FC 25 FC
21	30	Luce-Waddicor	2.9	.55	.58		.32	.6	6		1/12	13
22	3/7	" "					1.01					"
23	14	Luce					.81					FC 25 FC
24	30	Luce-Waddicor	2.5	.26	.52		.13	.6	5		"	13
25	4/17	Waddicor					.50					"
26	24	Luce-Waddicor					.55					"
27	5/18	" "					.38					"
28	22	Luce					.54					FC 25

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 92

Discharge measurements of

Santa Clara

River
Creek

Lang

during the year ending September 30, 1931

Date	Station	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Corr.	Meas. stage	G. H. change	Time	Notes
		Feet	Sq. Ft.	Ft. per sec.	Feet	Sec. ft.	Feet						
1931													
29 6/6	Luce					.46							
30 11	"					.49							
31 19	"					.43							
32 26	"					.45							
33 7/10	"					.51							
34 18	"					.50							
35 8/21	"	3.0	.50	.06		.31		.6		6		1/6	FC 13
36 7/24	"					.47							
37 31	"	3.0	.55	.06		.35		.6		6		1/12	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 175

Discharge measurements of Santa Clara River

1 mi. West of Castaic Junction during the year ending September 30, 1931

No.	Date	Made by	Width Feet	Area of section Sq. ft.	Mean velocity ft. per sec.	Gage height Feet	Discharge Sec.-ft.	Rating Percent dis.	Method	Coef.	Meas. sec.	G. F. change		Remarks
												No.	Total	
1930														
1	11/11	Luce-Waddicor	9.0	5.51	1.57		9.18			.6	9			24
2	21	" "	8.5	6.40	1.45		9.23			.6	9		1/4	"
3	28	" "	7.4	5.59	1.46		8.15			.6	7		1/6	"
4	12/5	" "	8.3	5.86	1.45		8.55			.6	8		"	"
5	13	Waddicor	8.3	6.17	1.43		8.84			.6	6		1/4	FC 25
6	19	Luce-Waddicor	8.1	5.87	1.91		11.27			.6	9		1/6	FC 24
7	26	" "	8.5	5.37	1.35		7.24			.6	9		"	24
8	26	" "	7.8	5.49	1.75		9.61			.6	7		"	"
9	1931 1/2	" "	8.6	6.50	1.56		10.53			.6	9		1/4	"
10	2	" "	8.2	6.96	1.04		11.38			.6	8		1/6	"
11	16	" "	7.5	5.58	2.03		11.35			.6	9		"	FC 13
12	23	" "	8.0	5.67	2.07		11.76			.6	9		1/12	FC 25
13	30	" "	8.0	5.61	2.01		11.73			.6	9		1/6	" FC
14	2/14	" "	9.0	7.66	2.00		15.48			.6	9		"	13
15	20	" "	8.5	6.72	1.90		12.60			.6	7		"	"
16	27	" "	8.0	6.84	2.06		14.06			.6	7		"	FC 25
17	3/16	" "	9.2	7.02	2.24		15.76			.6	9		"	"
18	21	" "	7.6	5.70	1.89		10.63			.6	7		"	FC 13
19	28	Luce	8.5	6.45	1.83		11.88			.6	10		"	FC 25
20	4/3	Luce-Waddicor	8.0	5.73	1.96		11.26			.6	9		"	FC 13
21	10	Waddicor	7.7	5.34	2.27		11.06			.6	6		1/4	"
22	25	Luce	8.5	6.25	1.55		10.73			.6	9		1/6	FC 25
23	5/1	Luce-Waddicor	8.2	6.40	1.87		11.99			.6	9		"	FC 13
24	6/6	Luce	8.2	6.07	1.53		10.34			.6	9		"	FC 25
25	13	"	8.3	5.78	1.79		10.28			.6	9		1/4	"
26	18	"	7.7	5.35	1.60		8.55			.6	8		1/6	"
27	27	"	8.2	5.38	1.84		9.94			.6	9		1/4	"
28	7/10	"	8.2	5.11	1.79		9.19			.6	8		"	"
29	18	"	8.8	5.78	1.54		8.94			.6	10		"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 91

Discharge measurements of

San Dimas

~~River~~
Creek

at
near

Above F.C. Dam

during the year ending September 30, 1931

Date	Gage	Location	Width Feet	Area of section Sq. ft.	Mean velocity F.P.S.	Gage height		Discharge C.F.S.	Method	Coeff.	No. of sets	C. of channel	Time	No.	
						Foot	Cent.								
1931															271
1	1/3	Brewster	4.0	1.37	.81	3.14	1.11		.6		4		1/6	666	
2	10	"	4.0	1.32	1.06	3.12	1.40		.6		4		"	"	
3	17	"	4.0	1.10	.84	3.07	.92		.6		4		"	"	
4	24	"	4.0	1.05	.8	3.07	.93		.6		4		1/4	"	
4	31	"	4.0	1.37	1.11	3.15	1.37		.6		4		1/6	"	
5	2/7	"	7.0	2.91	1.30	3.16	3.79		.6		7		"	"	
6	14	"	5.0	1.93	1.31	3.09	3.53		.6		5		1/5	"	
7	21	"	5.0	1.64	.98	3.32	1.61		.6		5		1/6	"	
8	28	"	5.0	1.55	.94	3.00	1.44		.6		5		1/5	"	
9	3/7	"	5.0	1.56	.83	2.93	1.13		.6		5		1/6	"	
10	14	"	5.0	1.32	.82	2.97	1.08		.6		5		"	"	
11	21	"	4.0	.89	.87	2.95	.73		.6		4		"	"	
12	28	"	4.0	.87	.82	2.94	.71		.6		4		1/10	"	
13	4/4	"	4.0	.82	.72	2.93	.59		.6		4		"	"	
14	11	"	3.0	.52	.48	2.91	.25		.6		3		1/6	"	
15	18	"	3.0	.38	.45	2.90	.17		.6		3		"	"	
16	25	"	3.0	1.30	.91	2.99	1.18		.6		4		"	"	
17	5/2	"	3.0	2.23	.82	2.94	1.83		.6		6		"	"	
18	9	"	4.0	1.31	.79	2.84	1.03		.6		4		"	"	
19	16	"	4.0	1.16	.72	2.82	.83		.6		4		"	"	
20	23	"	3.0	.75	.31	2.70	.29		.6		3		1/5	"	
21	29	"	3.0	.76	.45	2.76	.34		.6		3		1/3	"	
22	6/6	"	3.0	.75	.44	2.75	.32		.6		3		"	"	
23	13	"	2.0	.56	.73	2.77	.41		.6		4		"	"	
24	20	"	2.0	.45	.36	2.75	.16		.6		4		1/10	"	
25	27	"	2.0	.41	.24	2.73	.10		.6		4		1/6	"	
26	7/10	"	1.0	.12	.33	2.60	.04		.6		2		"	"	
27	18	"													

Dry

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 65

Discharge measurements of

Stanifer Ditch

Lower
Creek

Below Headgate

during the year ending September 30, 1931

Date	Made by	Width Feet	Area of Section Sq. ft.	Mean Velocity ft. per sec.	Gate Height Feet	Discharge Sec. ft.	Rating	Method	Coef.	Meas- ure	G. H. Chart	Time	Meas. No.
							Percent disc.						271
1930													
1 10/3	Brewster	9.0	7.35	1.69	3.32	11.87		.6		9		1/3	666
2 10	"	9.0	8.01	1.80	3.42	14.44		.6		9		"	"
3 17	"	9.0	7.42	1.61	3.34	11.91		.6		9		"	"
4 24	"	9.0	7.63	1.53	3.38	11.67		.6		9		"	"
5 31	"	9.0	6.95	1.40	3.32	9.76		.6		9		"	"
6 11/7	"	9.0	7.46	1.47	3.35	10.55		.6		9		1/4	"
7 14	"	9.0	7.29	1.43	3.35	11.03		.6		9		1/3	"
8 21	"	10.0	7.62	1.40	3.32	10.66		.6		9		1/4	"
9 28	" Teeple	9.0	6.43	1.38	3.42	11.67		.6		9		1/3	"
10 12/5	Brewster	9.0	9.09	1.36	3.42	12.32		.6		9		1/4	"
11 12	Brewster - Teeple	9.0	8.78	1.42	3.42	12.39		.6		9		1/3	"
12 19	Brewster	9.0	7.86	1.32	3.34	10.36		.6		9		1/4	"
13 26	"	9.0	7.70	1.28	3.33	9.88		.6		9		"	"
14 1/2	"	9.0	6.53	1.11	3.18	7.24		.6		9		1/3	271
15 9	"	4.0	.94	.51	2.74	.48		.6		4		1/5	666
16 16	Brewster	5.0	1.19	.50	2.78	.59		.6		5		1/4	"
17 23	"												
18 30	"												
19 2/20	"												
20 3/15	"												
21 20	"	9.0	6.74	1.43	3.43	9.62		.6		9		1/4	"
22 27	"	9.0	7.66	1.35	3.51	10.36		.6		9		"	"
23 4/3	"	9.0	7.67	1.06	3.42	8.13		.6		9		"	"
24 10	"	9.0	6.40	1.20	3.37	7.68		.6		9		"	"
25 17	"	8.5	6.52	1.19	3.37	7.79		.6		8		"	"
26 24	"	9.0	7.39	1.16	3.43	8.56		.6		9		"	"
27 5/1	"	3.0	.65	.91	2.65	.59		.6		3		1/6	"
28 8	"	3.0	1.57	1.33	2.7	1.85		.6		3		1/10	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No 85

Discharge measurements of

Stanifer Ditch

Stanifer
Creek

near

Below Headgate

, during the year ending September 30, 1931

No.	Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Co.	Mean	St. Dev.	Time	Notes
			Feet	Sq. ft.	Ft. per sec.	Feet	Sec.-ft.	Percent						
1931														
29	5/15	Brewster	8.0	4.78	1.11	3.13	5.31	.6			8		1/4	662
30	22	"	9.0	7.53	1.19	3.41	8.99	.6			9		"	"
31	29	"	8.5	7.57	1.08	3.40	8.15	.6			9		"	"
32	6/5	"	9.0	7.85	1.17	3.52	9.16	.6			9		"	"
33	12	"	9.0	6.78	1.27	3.45	8.60	.6			9		"	"
34	19	"	8.0	5.30	1.34	3.39	7.08	.6			8		"	"
35	26	"	8.0	4.88	1.45	3.34	7.09	.6			8		1/3	"
36	7/3	"	7.0	4.61	1.44	3.20	6.62	.6			7		1/5	"
37	10	"	7.0	4.29	1.49	3.05	6.40	.6			7		1/4	"
38	17	" Turner	7.0	4.28	1.46	3.02	4.28	.6			7		"	"
39	24	"	7.0	4.39	1.45	3.02	6.36	.6			7		"	"
40	31	"	9.2	4.47	1.45	3.03	6.48	.6			7		"	"
41	8/7	"	7.3	4.58	1.53	3.08	6.71	.6			7		"	"
42	14	"	7.0	4.58	1.44	3.04	6.61	.6			7		"	"
43	21	"	7.0	3.95	1.32	2.96	5.19	.6			7		1/5	"
44	28	"	7.2	4.61	1.47	3.10	6.77	.6			7		1/4	"
45	9/4	"	8.0	4.89	1.49	3.14	7.27	.6			8		"	"
46	11	"	8.0	5.01	1.40	3.12	7.01	.6			8		"	"
47	18	Lindsay	9.0	6.32	1.12	3.19	7.74	.6			9		"	262 885
48	25	"	9.4	6.89	1.21	3.24	8.32	.6			9		"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 66

Discharge measurements of

Tri City Sewer Outfall

River
Creek

Above Jct. Rio Hondo

during the year ending September 30, 1931

No.	Date	Method	Width Feet	Area of section Sq. ft.	Mean velocity ft. per sec.	Gage height Feet	Discharge Sec.-ft.	Rating Method	Coef.	Meas. Sec.	G. H. change	Time Hours	Meas. Total
1	1930 10/3	Brewster	4.0	3.92	1.91	1.71	7.50		.6	4	.061/6		271 666
2	10	Brewster-Thayer	4.0	4.21	2.10	1.72	8.86		.6	4	.12 "	"	"
3	17	Brewster	4.0	5.24	1.67	1.75	8.75		.6	4	.06 "	"	"
4	24	"	3.0	3.70	1.56	1.50	4.21		.6	3	.04 "	"	"
5	31	"	4.0	4.36	1.60	1.70	6.97		.6	4	1/4 "	"	"
6	11/7	"	4.0	4.68	1.61	1.73	7.52		.6	4	.041/5 "	"	"
7	14	"	4.0	2.72	1.67	1.39	4.53		.6	4	.061/10 "	"	"
8	21	"	4.0	3.61	1.70	1.50	6.13		.6	4	.061/6 "	"	"
9	12/5	"	4.0	3.20	1.90	1.56	6.09		.6	4	" "	"	"
10	12	"	4.0	3.16	1.89	1.55	5.98		.6	4	" "	"	"
11	19	"	4.0	3.23	1.93	1.57	6.24		.6	4	" "	"	"
12	26	"	4.0	3.26	1.94	1.57	6.34		.6	4	" "	"	"
13	1931 1/2	"	4.0	3.35	2.02	1.70	6.77		.6	4	" "	"	"
14	9	"	4.0	3.73	2.03	1.73	7.58		.6	4	1/5 "	"	"
15	16	"	4.0	3.83	1.72	1.55	6.59		.6	4	1/6 "	"	"
16	23	"	4.0	4.45	1.55	1.80	6.89		.6	4	" "	"	"
17	30	"	4.0	5.27	1.48	1.68	5.86		.6	4	.06 "	"	"
18	2/6	"	6.0	6.63	2.14	2.26	14.24		.6	6	1/4 "	"	"
19	13	"	5.0	3.38	1.51	1.46	5.09		.6	5	1/5 "	"	"
20	20	"	5.0	4.76	1.67	1.73	7.93		.6	5	1/6 "	"	"
21	27	"	4.0	2.93	1.48	1.42	4.34		.6	4	.04 "	"	"
22	3/6	"	5.0	4.37	1.60	1.70	7.00		.6	5	.041/5 "	"	"
23	13	"	5.0	3.80	1.55	1.54	5.90		.6	5	" "	"	"
24	20	"	5.0	4.72	1.43	1.68	6.77		.6	5	.021/6 "	"	"
25	27	"	5.0	4.26	1.57	1.68	6.70		.6	5	1/5 "	"	"
26	4/3	"	5.0	4.04	1.46	1.68	5.90		.6	5	.041/6 "	"	"
27	10	"	5.0	3.49	1.47	1.58	5.13		.6	5	1/5 "	"	"
28	17	"	6.0	5.21	1.43	1.89	7.48		.6	6	1/4 "	"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 66

Discharge measurements of

Tri City Sewer Outfall

New
Green

Above Jct. Rio Hondo

during the year ending September 30, 1951

Date	Station	Width	Area of section	Mean velocity	Gage height	Discharge	Rating Method	Coef.	Meas. secs.	G. H. change	Time	Notes
		Feet	Sq. Ft.	Feet/Sec.	Feet	Cu. Ft.	Percent diff.		No.	Total	Hours	271
1951												
39 4/24	Brewster	5.5	4.28	1.43	1.77	6.13		.6	5		1/5	286
30 5/1	"	5.5	4.10	1.50	1.78	6.16		.6	5		1/5	"
31 8	"	5.5	4.51	1.43	1.82	6.45		.6	6		.041/5	"
32 15	"	5.0	4.43	1.46	1.85	6.47		.6	5		.02	" "
33 15	"	30.0	9.76	1.21	1.27	11.83		.6	9		1/3	"
34 22	"	5.0	4.31	1.49	1.84	6.41		.6	5		1/6	"
35 29	"	5.0	4.13	1.33	1.81	5.48		.6	5		.041/5	"
36 6/5	"	5.0	4.23	1.35	1.82	5.71		.6	5		.04	" "
37 12	"	5.0	4.11	1.29	1.78	5.29		.6	5		"	"
38 19	"	5.0	4.28	1.40	1.80	6.01		.6	5		.041/6	"
39 26	"	5.0	4.43	1.17	1.81	5.18		.6	5		1/10	"
40 7/3	"	5.0	3.46	1.41	1.74	4.89		.6	5		1/5	"
41 10	"	5.0	2.47	.73	1.49	2.53		.6	5		"	"
42 17	"	5.0	4.22	1.14	1.89	4.82		.6	5		.02 1/6	"
43 24	"	5.0	2.74	1.29	1.52	3.54		.6	5		1/10	"
44 31	"	5.0	3.90	1.23	1.86	4.80		.6	5		1/6	"
45 8/7	"	5.0	4.77	.99	1.89	4.70		.6	5		1/5	"
46 14	"	5.0	3.57	1.40	1.90	5.00		.6	5		1/6	"
47 21	"	4.0	3.06	1.40	1.89	4.28		.6	4		"	"
48 28	"	4.0	3.78	1.07	1.92	4.06		.6	4		.08	" "
49 9/4	"	4.0	3.53	1.17	1.93	4.13		.6	4		"	"
50 11	"	4.0	3.53	1.14	1.86	3.81		.6	4		.12	" "
51 18	Lindsay	6.0	5.07	.71	1.86	3.62		.6	6		.05	" 883
52 25	"	6.5	6.98	.71	2.06	4.99		.6	6		"	"

LOS ANGELES COUNTY
 FLOOD CONTROL DISTRICT
 HYDROGRAPHIC DEPARTMENT

File No. **1**

Discharge measurements of **West San Fernando**

~~Flow~~
 Check

at **Devonshire Ave.**, during the year ending September 30, 19**31**
~~new~~

No.	Date	Made by	Width	Area of section	Mean velocity	Stage height	Discharge	Rating	Method	Coef.	Meas. secs.	No. of channels	Total Hours	Notes
			Feet	Sq.-ft.	Ft. per sec.	Feet	Sec.-ft.							
	1930													
1	11/17	Luce-Waddicor	4.5	2.32	.53	1.52	1.23		.6		7		1.051/12	24 FC
2	12/13	Waddicor	1.4	.12	.18		.06		.6		3		"	25 FC
3	19	Luce-Waddicor	1.5	.13	.38		.05		.6		3		"	" FC
4	26	" "	1.5	.19	.42		.08		.6		3		"	24 FC
5	1/16	" "	1.5	.14	.43		.06		.6		3		"	13 FC

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. 148

Discharge measurements of Weldon Canyon

Freemont
Creek

at R.R. Br. $\frac{1}{2}$ mi. above mouth Freemont Cr. during the year ending September 30, 1931

No.	Date	Type	Width			Gage height	Discharge		Matted	Cob.	Days	Total	Hours	FC	
			Feet	Sq.-ft.	Mean velocity Ft. per sec.		Feet	Sq.-ft.							Percent
1931															
1	1/2	Luce-Waddicor	2.4	.34	.53		.18		.6	5		1 1/2	24		
2	9	" "	2.0	.35	.61	.07	.20		.6	5		"	"		
3	16	" "	2.0	.26	.46		.12		.6	5		"	"		
4	23	" "	2.0	.29	.46		.13		.6	5		"	"		
5	30	" "	2.0	.30	.40		.12		.6	7		"	"		
6	2/3	" "	2.2	.33	.73	.14	.24		.6	5		"	"		
7	4	" "	7.3	5.47	1.64		9.97		.6	6		"	"		
8	20	Luce	.20	.26	.70	.03	.18		.6	5		"	"		
9	27	Luce-Waddicor	2.0	.30	.50	.03	.15		.6	4		"	"		
10	3/17	Luce	1.6	.24	.05	.03	.14		.6	4		"	"		
11	20	Luce-Waddicor	2.5	.20	.40		.08		.6	5		"	"		
12	4/3	" "	1.8	.37	.24		.09		.6	4		"	"		
13	24	" "	2.0	.38	.45		.17		.6	4		1/6	"		
14	5/8	Waddicor	1.0	.15	.38		.05		.6	2		1/12	"		
15	5/8	Luce	V Notch Weir				.11								
16	12	"	"	"	"		.11								
17	19	"	"	"	"		.10								
18	26	"	"	"	"		.10								
19	7/3	"	"	"	"		.10								
20	10	"	"	"	"		.08								
21	17	"	"	"	"		.07								
22	24	"	"	"	"		.05								
23	31	"	"	"	"		.06								
24	12/12	Luce-Waddicor	1.7	.34	.33		.11		.6	4		1/12	24		
25	19	" "	1.7	.32	.45		.10		.6	5		"	"		
26	26	" "	1.7	.19	.42		.08		.6	4		"	"		

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

Discharge measurements of **Various Streams and Tributaries**

River
Creek

at **throughout Los Angeles** during the year ending September 30, 1931
near **Big Tujunga Creek above and below Big Tujunga Dam No.1**

No.	Date	Method	Width Feet	Area of Section Sq. Ft.	Mean Velocity Meters Per Sec.	Gage Height Feet	Discharge Cubic Feet Per Sec.	Stage Feet	Method C	Time Hour	Time Day
1931		B. Tujunga Creek	500'	Below Dam	No.1						
1/31		Moon-Hunter	10.0	7.72	.62		4.78	.6	10	1/4	FC 18
		B. Tujunga Creek		Reservoir	Outflow						
2/2		Hunter	6.0	4.43	.55		2.42	.6	6	"	FC 19
		B. Tujunga Creek		Reservoir	Outflow						
2/2		Hunter	6.0	4.63	.55		2.57	.6	6	"	"
		B. Tujunga Creek		Reservoir	Outflow						
2/3		Hunter	7.0	5.30	5.60		2.97	.6	6	"	"
		B. Tujunga Creek		Reservoir	Outflow						
2/3		Hunter	7.0	5.20	.53		2.73	.6	6	"	"
		B. Tujunga Creek		Reservoir	Outflow						
2/4		Hunter	2.2	10.20	2.40		24.76	.6	7	"	"
		B. Tujunga Creek		Reservoir	Outflow						
2/4		Hunter	25.0	20.5	3.60		73.91	.6	8	"	"
		B. Tujunga Creek		Reservoir	Outflow						
2/5		Hunter	23.0	21.4	05.03		64.94	.6	8	1/2	"
		B. Tujunga Creek		Reservoir	Outflow						
2/5		Hunter	38.0	74.0	2.45		187.2	.6	6	"	"
		B. Tujunga Creek		Reservoir	Outflow						
2/5		Hunter	42.0	78.8	3.04		239.13	.6	7	3/4	"
		B. Tujunga Creek		Reservoir	Outflow						
2/6		Hunter	21.5	16.5	2.24		36.99	.6	10	1/3	"
		B. Tujunga Creek		Reservoir	Outflow						
2/6		Hunter	21.5	17.3	2.35		40.74	.6	10	"	"
		B. Tujunga Creek		Reservoir	Outflow						
2/7		Hunter	20.5	15.9	2.18		34.61	.6	9	1/4	"
		B. Tujunga Creek		Reservoir	Outflow						
2/9		Hunter	20.0	11.6	1.83		21.36	.6	8	"	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. -

Discharge measurements of **Various Streams and tributaries**

River
Creek

at **throughout Los Angeles County** during the year ending September 30, 1931
near **Big Tujunga Creek above and below Big Tujunga Dam No.1**

Date	Station	Width Feet	Area of cross-section		Mean velocity Meters per second	Area Feet ²	Discharge Cusecs.	Rating Percent full	Method	Cost	Meas. secs.	Gage change	Time Hours	Notes
			Sq. ft.	Meters ²										
1931	B. Tujunga Creek	Reservoir Outflow												
2/10	Hunter	20.0	10.9	1.80		19.49		.6			8		1/4	FC 19
	B. Tujunga Creek	300' Below Dam No.1												
2/10	Moon	11.0	6.5	1.72		11.17		.6			7		"	FC 12
	B. Tujunga Creek	Reservoir Outflow												
2/11	Moon-Hunter	26.0	6.7	2.27		15.23		.6			8		"	FC 19
	B. Tujunga Creek	300' Below Dam No.1												
2/11	Moon-Hunter	10.0	5.0	2.17		10.88		.6			10		"	FC 12
	B. Tujunga Creek	Reservoir Outflow												
2/12	Hunter	14.0	7.40	1.54		11.39		.6			7		"	FC 19
	B. Tujunga Creek	Reservoir Outflow												
2/12	Hunter	14.0	7.40	1.54		11.40		.6			7		1/3	"
	B. Tujunga Creek	Reservoir Outflow												
2/13	Hunter	14.5	7.31	1.45		10.63		.6			8		1/4	"
	B. Tujunga Creek	Reservoir Outflow												
2/12	Moon-Hunter	9.0	2.70	1.24		3.36		.6			5		"	FC 12
	B. Tujunga Creek	300' Below Dam No.1												
2/14	Moon-Hunter	11.0	6.80	1.33		9.23		.6			7		"	"
	B. Tujunga Creek	300' Below Dam No.1												
2/14	Moon	11.0	6.80	1.35		9.16		.6			5		"	"
	B. Tujunga Creek	Reservoir Outflow												
2/16	Hunter	15.0	8.10	1.57		12.72		.6			7		"	FC 19
	B. Tujunga Creek	Reservoir Outflow												
2/17	Hunter	15.5	8.10	1.44		11.64		.6			7		"	"
	B. Tujunga Creek	Reservoir Outflow												
2/17	Hunter	15.0	8.10	1.47		11.97		.6			7		"	"
	B. Tujunga Creek	Head of Reservoir												
2/18	Moon-Hunter	11.0	4.34	1.73		7.52		.6			7		"	FC 12

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. -

Discharge measurements of Various Streams and tributaries

River
Creek

throughout Los Angeles County during the year ending September 30, 1931
Big Tujunga Creek above and below Big Tujunga Dam No.1

Date	Gage by	Name	Area of section		Mean Velocity	Gage height	Discharge	Rainfall	Net evap. Cor.	Stage	G. H. (feet)	Time	Meter
			Top	Sp. 9.									
1931													
	B. Tujunga Creek	Reservoir Outflow											FC
2/19	Hunter	12.0	5.15	1.15		6.01		.6		7		1/4	19
	B. Tujunga Creek	Reservoir Outflow											
2/20	Hunter	12.0	5.16	1.17		6.13		.6		6		"	"
	B. Tujunga Creek	Reservoir Outflow											
2/23	Hunter	15.0	4.65	1.25		5.80		.6		6		"	"
	B. Tujunga Creek	Reservoir Outflow											
2/24	Hunter	12.0	3.74	1.40		5.12		.6		5		"	"
	B. Tujunga Creek	Reservoir Outflow											
2/26	Hunter	10.0	3.34	1.28		4.26		.6		4		"	"
	B. Tujunga Creek	Reservoir Outflow											
2/27	Hunter	10.0	3.68	1.30		4.73		.6		5		1/6	"
	B. Tujunga Creek	Reservoir Outflow											
2/28	Moon	11.5	2.84	1.55		3.82		.6		8		1/4	12
	B. Tujunga Creek	Reservoir Outflow											
3/2	Hunter	19.3	6.83	.76		5.18		.6		12		"	19
	B. Tujunga Creek	Reservoir Outflow											
3/3	Hunter	12.8	3.10	1.34		4.15		.6		8		"	"
	B. Tujunga Creek	1000' Below Dam No.1											
3/4	Moon-Hunter	12.0	2.26	1.80		4.08		.6		6		"	12
	B. Tujunga Creek	Reservoir Outflow											
3/5	Hunter	11.4	2.48	1.52		3.28		.6		6		"	19
	B. Tujunga Creek	Reservoir Outflow											
3/6	Hunter	11.5	2.38	1.34		3.18		.6		6		"	"
	B. Tujunga Creek	1000' Below Dam No.1											
3/7	Moon	11.2	1.87	1.47		2.74		.6		8		"	12
	B. Tujunga Creek	Reservoir Outflow											
3/9	Hunter	11.2	2.09	1.75		3.66		.6		6		"	19

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. -

Discharge measurements of **Various Streams and tributaries**

Big Tujunga Creek

at **throughout Los Angeles County** during the year ending September 30, 1931
near **Big Tujunga Creek above and below Big Tujunga Dam No.1**

No.	Date	Method	Width Feet	Area of section Sq. Ft.	Mean velocity Feet per sec.	Gage height Feet	Discharge Sec. Ft.	Per cent of total	Year	Month	Time	Mean No.
1931		B. Tujunga Creek	Reservoir Outflow									FC
	3/10	Hunter	11.0	2.06	1.69		3.48	.6	6		1/4	19
		B. Tujunga Creek	1000' Below Dam No.1									FC
	3/11	Moon-Hunter	11.5	1.89	1.40		2.65	.6	7		"	12
		B. Tujunga Creek	Reservoir Outflow									FC
	3/12	Hunter	11.5	2.12	1.52		3.22	.6	7		"	19
		B. Tujunga Creek	Reservoir Outflow									FC
	3/13	Hunter	11.5	2.04	1.47		3.00	.6	6		"	"
		B. Tujunga Creek	1000' Below Dam No.1									FC
	3/14	Moon	11.0	2.03	1.30		2.65	.6	7		"	12
		Big Tujunga Creek	Reservoir Outflow									FC
	3/16	Hunter	11.5	2.27	1.33		3.03	.6	6		"	19
		B. Tujunga Creek	Reservoir Outflow									FC
	3/17	Hunter	11.5	2.27	1.25		2.85	.6	6		"	"
		B. Tujunga Creek	Reservoir Outflow									FC
	3/18	Hunter	11.0	1.54	1.62		2.50	.6	6		"	"
		B. Tujunga Creek	Reservoir Outflow									FC
	3/19	Hunter	11.0	2.16	1.26		2.74	.6	6		"	"
		B. Tujunga Creek	Reservoir Outflow									FC
	3/20	Hunter	10.5	1.85	1.22		2.25	.6	6		"	"
		B. Tujunga Creek	Reservoir Outflow									FC
	3/21	Moon	3.2	1.03	2.21		2.28	.6	6		"	12
		B. Tujunga Creek	Reservoir Outflow									FC
	3/21	Moon	11.5	1.86	1.19		2.22	.6	7		"	"
		B. Tujunga Creek	Reservoir Outflow									FC
	3/23	Hunter	11.5	1.94	1.25		2.42	.6	8		"	19
		B. Tujunga Creek	Reservoir Outflow									FC
	3/24	Hunter	12.5	1.99	1.31		2.61	.6	8		"	19

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

Discharge measurements of

Various Streams and Tributaries

River
Creek

at **Throughout Los Angeles County** during the year ending September 30, 1931
 from **Big Tujunga Creek above and below Big Tujunga Dam No.1**

Date	Locality	Width feet	Area sq. ft.	Mean velocity ft. per sec.	Discharge cu. ft. per sec.	Method	Cont.	Meas. stage ft.	G. H. stage ft.	Time	Remarks
1931	B. Tujunga Creek	Reservoir Outflow									FC
3/25	Moon-Hunter	13.0	1.91	1.37	2.57	.6	9	1/6			12
	B. Tujunga Creek	Reservoir Outflow									FC
3/26	Hunter	12.5	1.85	1.25	2.32	.6	8	1/4			19
	B. Tujunga Creek	Reservoir Outflow									FC
3/27	Hunter	12.5	2.20	1.35	2.97	.6	7	"			"
	B. Tujunga Creek	Reservoir Outflow									FC
3/28	Moon	8.5	1.53	.02	1.88	.6	9	"			12
	B. Tujunga Creek	Reservoir Outflow									FC
3/30	Hunter	10.5	1.79	1.23	2.20	.6	6	"			19
	B. Tujunga Creek	Reservoir Outflow									FC
3/31	Hunter	10.5	1.96	1.24	2.43	.6	6	"			"
	B. Tujunga Creek	Div.#3 1st River Crossing									FC
4/1	Moon-Hunter	2.0	.56	1.04	.58	.6	4	"			12
	B. Tujunga Creek	1000' Below Dam No.1									FC
4/1	Moon-Hunter	10.2	1.69	1.20	2.02	.6	6	"			"
	B. Tujunga Creek	Reservoir Outflow									FC
4/2	Hunter	10.5	1.80	1.21	2.18	.6	6	"			19
	Big Tujunga Creek	Reservoir Outflow									FC
4/3	Hunter	10.5	1.86	.90	1.64	.6	6	"			"
	B. Tujunga Creek	Reservoir Outflow									FC
4/4	Moon	10.0	1.62	1.00	1.62	.6	8	"			12
	B. Tujunga Creek	Reservoir Outflow									FC
4/6	Hunter	10.0	1.66	.93	1.57	.6	6	"			19
	B. Tujunga Creek	Reservoir Outflow									FC
4/7	Hunter	10.0	1.81	.94	1.71	.6	6	1/6			"
	B. Tujunga Creek	1000' Below Dam No.1									FC
4/8	Moon-Hunter	9.5	1.64	.94	1.54	.6	8	1/4			12

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. -

Measurements of Various Streams and Tributaries

River
Creek

throughout Los Angeles County during the year ending September 30, 1931
Big Tujunga Creek above and below Big Tujunga Dam No.1

Date	Location	Width Feet	Area of Section Sq. Ft.	Mean Velocity ft. per sec.	Gage height Feet	Discharge Sec. ft.	Discharge Percent diff.	No. of Gages	Time of Travel	Notes
1931	B. Tujunga Creek Reservoir Outflow									
4/9	Hunter	9.5	1.66	.98		1.63	.6	8	1/4	FC 19
	B. Tujunga Creek Reservoir Outflow									
4/10	Hunter	9.5	1.53	1.10		1.69	.6	6	"	"
	B. Tujunga Creek Reservoir Outflow									
4/11		6.5	.92	1.10		1.01	.6	6	"	FC 12
	B. Tujunga Div. #1 5 miles Below Dam									
4/11	Moon-Hunter					.20				
	B. Tujunga Div. #2 At Gold Creek									
4/11	Moon-Hunter					.50				
	B. Tujunga Div. #3 9 mi. Below Dam									
4/11	Moon-Hunter					.30				
	B. Tujunga Div. #4 9 mi. Below Dam									
4/11	Moon-Hunter					1.01				
	B. Tujunga Creek Reservoir Outflow									
4/12	Hunter	6.0	.93	1.10		1.08	.6	5	1/4	FC 19
	B. Tujunga Creek Reservoir Outflow									
4/14	Hunter	6.0	.98	1.11		1.09	.6	5	1/6	"
	B. Tujunga Creek Diversion #4 9 mi. Below Dam									
4/14	Hunter	3.0	1.20	.80		.96	.6	3	"	"
	B. Tujunga Creek Diversion #3 9 mi. Below Dam									
4/14	Hunter	2.0	.50	1.00		.50	.6	4	"	"
	Big Tujunga Creek Diversion #2 Gold Creek									
4/14	Hunter	3.0	.70	1.01		.71	.6	3	"	"
	Big Tujunga Creek Reservoir Outflow									
4/15	Moon-Hunter	7.0	1.09	1.03		1.13	.6	5	1/4	FC 12
	B. Tujunga Creek Reservoir Outflow									
4/16	Hunter	6.0	1.08	1.18		1.28	.6	4	1/6	FC 19

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

Discharge measurements of Various Streams and tributaries

at throughout Los Angeles County, during the year ending September 30, 1931
near Big Tujunga Creek above and below Big Tujunga Dam No.1

No.	Date	Gage by	Width Feet	Area of section sq. ft.	Mean velocity ft. per sec.	Gage height Feet	Distance feet	Rating	Stage feet	Flow cfs.	Notes
	1931										
		B. Tujunga Creek	Reservoir Outflow								FC
	4/16	Hunter	6.0	1.08	1.18		1.28	.6		4	1/6 19
		Big Tujunga Creek	Diversion No.1			5 mi. Below	Dam				
	4/16	Hunter	2.0	.60	.50		.32	.6		4	" "
		B. Tujunga Creek	Diversion No.2			7 mi. Below	Dam				
	4/16	Hunter	3.0	.70	1.19		.83	.6		3	" "
		B. Tujunga Creek	Diversion No.3			9 mi. Below	Dam				
	4/16	Hunter	2.0	.58	1.00		.56	.6		4	1/4 "
		B. Tujunga Creek	Diversion No.4			9 mi. Below	Dam				
	4/16	Hunter	3.0	1.20	.90		1.02	.6		3	" "
		B. Tujunga Creek	1 mi. Below Hanson Lodge								
	4/17						4.79				
		B. Tujunga Creek	Reservoir Outflow								FC
	4/18	Moon	6.9	.91	1.90		.90	.6		7	" 12
		B. Tujunga Creek	Reservoir Outflow								FC
	4/20	Hunter	7.3	.89	.90		.78	.6		6	" 19
		B. Tujunga Creek	Reservoir Outflow								
	4/21	Hunter	7.3	.89	.90		.78	.6		6	1/6 "
		Big Tujunga Creek	Diversion #4			9 mi. Below	Dam				
	4/21	Hunter	2.0	.52	.93		.56	.6		4	" "
		Big Tujunga Creek	Diversion #1			5 mi. Below	Dam				
	4/21	Hunter	2.0	.35	.60		.21	.6		4	" "
		B. Tujunga Creek	Diversion #3			9 mi. Below	Dam				
	4/21	Hunter	2.0	.38	.60		.25	.6		3	" "
		B. Tujunga Creek	Diversion #2 Gold Creek			7 mi. Below	Dam				
	4/21	Hunter	3.0	1.00	1.76		1.76	.6		5	" "
		B. Tujunga Creek	Reservoir Outflow								FC
	4/22	Hunter-Moon	7.3	.94	.90		.85	.6		5	1/4 12

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. -

Discharge measurements of **Various Streams and tributaries**

River
Creek

at **throughout Los Angeles County** during the year ending September 30, 19 **31**
near **Big Tujunga Creek above and below Big Tujunga Dam No.1**

Date	Made by	Width Feet	Area of section Sq.-ft.	Mean velocity ft. per sec.	Gage height Feet	Discharge Sec.-ft.	Rating Percent diff.	Method	Cof.	Stem sec.	G. H. change	Time Hours	Met. N.
1931	B. Tujunga Creek	Reservoir Outflow											FC
5/6	Hunter	12.0	5.70	1.09		6.20		.6		6		1/6	19
	B. Tujunga Creek	Reservoir Outflow											
5/7	Hunter	11.0	5.10	1.05		5.38		.6		6		1/4	"
	B. Tujunga Creek	Reservoir Outflow											
5/8	Moon-Hunter	12.0	4.03	1.03		4.17		.6		7		"	FC 12
	B. Tujunga Creek	500' Below Dam											
5/15	Waddicor-Luce	16.0	2.82	.59		1.69		.6		8		"	FC 25
	B. Tujunga Creek	700' Below Dam											
5/15	Luce-Waddicor	9.5	2.47	.87		2.15		.6		8			"
	B. Tujunga Creek	2000' Below Dam											
5/22	Luce	7.5	1.75	.59		1.03		.6		8		1/6	"
	B. Tujunga Creek	1000' Below Dam											
5/22	Luce	8.5	1.61	.65		1.05		.6		9		"	"
	B. Tujunga Creek	1000' Below Dam											
5/27	Luce	7.2	2.26	1.10		2.49		.6		9		1/4	"
	B. Tujunga Creek	1500' Below Dam											
5/27	Luce	8.2	2.93	1.03		3.04		.6		9		"	"
	B. Tujunga Creek	250' Below Dam											
5/27	Luce-Dalton	4.0	1.26	1.33		1.67		.6		9			"
	B. Tujunga Creek	500' Below Dam											
5/27	Luce-Dalton	4.7	1.45	1.39		2.02		.6		9			"
6/5	B. Tujunga Creek	V. Notch Weir				.53							

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

Fig. No. -

Discharge measurements of **Various Streams and tributaries**

River
Creek

at **throughout Los Angeles County** during the year ending September 30, 1931
near **Big Tujunga Creek above and below Big Tujunga Dam No.1**

Date	Made by	Width Feet	Area of Section Sq. Ft.	Mean Velocity Ft. per Sec.	Gage height Feet	Discharge Sec. ft.	Rating Percent full	Time Days	Time Hours	Mean Stage Feet
1931										
	B. Tujunga Creek	Reservoir Outflow								FC
4/23	Hunter	9.0	2.07	1.00		2.05	.6	6	1/4	19
	B. Tujunga Creek	Reservoir Outflow								
4/24	Hunter	13.5	4.93	2.07		10.22	.6	8	"	"
	B. Tujunga Creek	Reservoir Outflow								
4/25	Moon-Hunter	11.0	4.28	1.90		8.16	.6	8	1/6	"
	B. Tujunga Creek	Reservoir Outflow								FC
4/26	Moon	25.5	13.43	2.38		61.5	.6	11	1/4	12
	B. Tujunga Creek	Reservoir Outflow								
4/26	Moon	28.0	25.80	3.61		93.0	.6	10	1/3	"
	Big Tujunga Creek	Reservoir Outflow								
4/26	Moon	30.0	29.75	3.85		114.2	.6	8	1/2	"
	Big Tujunga Creek	Reservoir Outflow								
4/27	Moon	27.0	21.45	3.58		76.27	.6	10	1/4	"
	Big Tujunga Creek	Reservoir Outflow								FC
4/28	Hunter	24.0	14.49	2.44		55.42	.6	10	1/3	19
	B. Tujunga Creek	Reservoir Outflow								
4/29	Hunter	24.0	11.30	1.97		22.28	.6	10	1/4	"
	B. Tujunga Creek	Reservoir Outflow								
4/30	Moon-Hunter	14.5	9.20	1.62		14.94	.6	10	1/6	"
	B. Tujunga Creek	Reservoir Outflow								
5/1	Hunter	13.5	7.18	1.47		10.48	.6	7	1/4	"
	B. Tujunga Creek	Reservoir Outflow			1000' ft.					FC
5/3	Moon-Hunter	11.5	5.35	1.37		7.31	.6	8	"	12
	Big Tujunga Creek	Reservoir Outflow								FC
5/4	Hunter	12.0	5.71	1.22		6.99	.6	6	"	19
	B. Tujunga Creek	Reservoir Outflow								FC
5/5	Moon-Hunter	12.0	5.23	1.08		5.64	.6	7	"	12

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. _____

Discharge measurements of **Various Streams and Tributaries**

River
Creek

at **throughout Los Angeles County**, during the year ending September 30, 1931
near **Big Tujunga Creek above and below Big Tujunga Dam No.1**

Date	Location	Width Feet	Area of section Sq. Ft.	Mean velocity Feet per Sec.	Stage height Feet	Discharge Sec-ft.	Rating percent full	Method	Cont.	Gage		Time	Notes
										No.	Total		
1931	B. Tujunga Creek	1700' Above Dam No.1											
1/10	Hunter	13.0	6.22	2.40		14.94		.6		10		1/4	FC 19
	B. Tujunga Creek	Reservoir Inlet											
1/14	Hunter	10.0	3.28	.59		1.94		.6		10		1/2	"
1/15	"	10.0	3.30	.67		2.21		.6		10			"
1/16	"	8.0	3.14	.67		2.03		.6		8		1/4	"
	B. Tujunga Creek	Reservoir Inlet											
1/17	Moon-Hunter	6.0	1.5	1.56		2.05		.6		9			FC 12
	B. Tujunga Creek	Reservoir Inlet											
1/19	Hunter	5.5	1.27	1.28		1.63		.6		7			FC 19
1/20	"	6.0	1.40	1.24		1.73		.6		7			"
	B. Tujunga Creek	2000' Above Dam No.1											
1/21	Moon-Hunter	5.5	1.13	1.24		1.40		.6		9			FC 12
	B. Tujunga Creek	Reservoir Inflow											
1/22	Hunter	6.0	1.38	1.32		1.82		.6		7			FC 19
1/23	"	5.5	1.27	1.30		1.66		.6		7			"
1/24	"	6.0	1.50	1.31		1.97		.6		7			"
1/26	"	6.0	1.42	1.32		1.88		.6		7			"
	B. Tujunga Creek	2000' Above Dam No.1											
1/28	Moon-Hunter	5.5	1.25	1.12		1.39		.6		9			FC 12
	B. Tujunga Creek	Reservoir Inflow											
1/29	Hunter	6.0	1.65	1.10		1.82		.6		6			FC 19
1/30	"	6.0	1.53	1.34		2.05		.6		6			"
1/31	"	11.0	4.23	1.80		7.70		.6		10			"
	B. Tujunga Creek	2000' Above Dam No.1											
1/31	Moon-Hunter	8.0	2.93	1.67		4.89		.6		8			"
	B. Tujunga Creek	Reservoir Inflow											
2/2	Hunter	7.5	2.02	1.26		2.56		.6		8			"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No.

Discharge measurements of **Various Streams and Tributaries**

River
Creek

at **throughout Los Angeles County** during the year ending September 30, 1931
near **Big Tujunga Creek above and below Big Tujunga Dam No.1**

Date	Station	Width Feet	Area of section Sq. ft.	Mean velocity Ft. per sec.	Gage height Feet	Discharge Sec.-ft.	Rating Percent full	Method	Coeff.	Mean stage Feet	G. H. stage Feet	Time	Notes
1931	Big Tujunga Creek	1000'	Above Dam	No.1									
11/8	Moon	2.6	.41	.57		.23	.6			5		1/6	271 640
15	"	3/4	.49	.82		.40	.6			7		"	"
	Big Tujunga Creek	700'	Above Dam	No.1									
11/15	Moon	2.5	.46	.84		.39	.6			5		"	"
	Big Tujunga Creek	1000'	Above Dam	No.1									
11/17	Moon	5.5	3.48	1.05		3.66	.6			6		1/4	"
17	"	5.5	3.53	1.09		3.87	.6			6		"	"
	B. Tujunga Creek	2000'	Above Dam	No.1									
11/22	Moon	4.5	1.43	.48		.69	.6			7		1/6	"
	B. Tujunga Creek	1500'	Above Dam	No.1									
11/22	Moon	4.5	1.29	.33		.42	.6			5		1/4	"
27	"	7.0	2.47	.72		1.77	.6			9		"	FC 12
29	"	7.0	2.48	.60		1.49	.6			7		"	"
12/6	"	2.8	.75	1.14		.86	.6			5		1/6	"
	B. Tujunga Creek	1700'	Above Dam	No.1									
12/12	Moon	2.7	1.82	.68		1.23	.6			6		"	"
26	"	3.0	1.4	.89		1.25	.6			5		"	FC 12
	B. Tujunga Creek	Above Dam	No.1										
12/30	Moon-Hunter	2.8	1.25	1.31		1.64	.6			6		1/4	"
	B. Tujunga Creek	1700'	Above Dam	No.1									
12/30	Moon	3.0	1.62	.80		1.50	.6			6		"	"
1931	"	3.0	4.00	1.02		3.70	.6			5		"	"
1/2	"	6.0	2.34	1.21		2.84	.6			6		"	FC 19
	B. Tujunga Creek	Reservoir	Inflow										
1/6	Hunter	9.0	2.33	1.47		3.44	.6			9		"	"
	B. Tujunga Creek	1700'	Above Dam	No.1									
1/8	Moon	13.0	6.66	1.07		7.15	.6			8		"	FC 12

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. -

Discharge measurements of

Various Streams and tributaries

River
Creek

throughout Los Angeles County during the year ending September 30, 1931
Big Tujunga Creek above and below Big Tujunga Dam No.1

Date	Location	Width Feet	Area of Section Sq. Ft.	Mean Velocity ft. per sec.	Discharge Cfs.	Discharge Sec. ft.	Method	Days Secs.	G. H. Change Feet	Total Hours	Notes
1930	B. Tujunga Creek	500' below Dam No.1.									271
10/18	Moon	2.2	.34	.52		.18	.6	5		1/6	640
1931	B. Tujunga Creek	Big Tujunga Dam No.1									FC
1/19	Hunter	9.0	3.97	.38	2142.9	1.49	.6	7		1/4	19
	B. Tujunga Creek	Big Tujunga Dam No.1 Outlet									FC
1/20	Hunter	9.0	2.97	.49		1.44	.6	7		"	19
	B. Tujunga Creek	Big Tujunga Dam 300' Below Dam #1									FC
1/21	Moon-Hunter	6.0	2.43	.49		1.19	.6	6		"	12
	B. Tujunga Creek	Reservoir Outflow									FC
1/22	Hunter	7.0	4.15	.28		1.28	.6	6		"	19
	B. Tujunga Creek	300' Below Dam No.1									FC
1/24	Moon	6.0	3.36	.49		1.63	.6	7		"	12
	Big. Tujunga Creek	Reservoir Outflow									FC
1/26	Hunter	4.5	1.77	.67		1.68	.6	5		"	19
	B. Tujunga Creek	500' below Dam No.1									FC
11/27	Moon	1.6	.40	1.27		.51	.6	3		1/12	12
	B. Tujunga Creek	500' below Dam No.1									
1/28	Moon	6.0	2.03	.48		.97	.6	6		1/4	"
	B. Tujunga Creek	Reservoir Outflow									FC
1/29	Hunter	6.0	2.57	.54		1.39	.6	5		"	19
	Big Tujunga Creek	Reservoir Outflow									FC
1/29	Hunter	5.5	1.75	.64		1.12	.6	5		"	19
	B. Tujunga Creek	500' Below Dam No.1									
1/30	Hunter	5.0	3.96	.54		2.15	.6	5		"	
	B. Tujunga Creek	500' Below Dam No.1									FC
1/31	Moon-Hunter	7.0	7.46	.05		3.78	.6	7		"	12
	B. Tujunga Creek	500' Below Dam No.1									FC
1/31	Moon-Hunter	10.0	5.20	.45		2.36	.6	10		1/3	12

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. -

Discharge measurements of **Various Streams and Tributaries**

River
Creek

at throughout Los Angeles County, during the year ending September 30, 1931
near Big Tujunga Creek above and below Big Tujunga Dam No.1

Date	Made by	Width Feet	Area of section Sq. ft.	Mean velocity Ft. per sec.	Gage height Feet	Discharge Sec-ft.	Rating Period date	Method	Cost	Stas. Secs.	G. H. change	Time Hours	Me. No.
1931													
	B. Tujunga Creek	Reservoir Inflow											FC
2/3	Hunter	7.4	2.01	1.29		2.60		.6		8		1/4	19
2/4	"	12.0	11.5	2.62		30.17		.6		12		"	"
2/4	"	15.0	17.5	2.55		44.10		.6		9		"	"
	B. Tujunga Creek	Head of Reservoir											FC
2/7	Moon	12.5	6.67	2.48		16.59		.6		9		"	12
	B. Tujunga Creek	Reservoir Inflow											FC
2/9	Hunter	13.0	7.09	2.49		17.67		.6		10		1/3	19
2/16	"	11.5	5.64	2.19		12.36		.6		8		1/4	"
	B. Tujunga Creek	Head of Reservoir											FC
2/10	Moon	12.5	5.15	2.06		10.63		.6		7		"	12
	B. Tujunga Creek	Reservoir Inflow											FC
2/11	Hunter	11.5	5.40	2.06		11.11		.6		9		"	19
2/12	"	11.5	6.26	1.79		11.25		.6		9		1/2	"
2/12	"	11.5	5.26	2.11		11.13		.6		9		1/4	"
2/13	"	11.5	5.28	2.04		10.79		.6		8		"	"
	Big Tujunga Creek	Head of Reservoir											FC
2/14	Moon-Hunter	12.0	5.53	2.03		11.23		.6		9		"	12
	Big Tujunga Creek	Reservoir Inflow											FC
2/17	Hunter	11.5	5.59	2.11		11.81		.6		8		"	19
	Big Tujunga Creek	Reservoir Outflow 200' Above Office											FC
2/18	Moon-Hunter	11.5	4.95	1.44		7.08		.6		7		"	12
	Big Tujunga Creek	Reservoir Inflow											FC
2/18	Hunter	8.5	2.17	1.05		2.29		.6		6		"	19
2/19	"	11.0	4.73	2.00		9.24		.6		7		"	"
2/20	"	11.0	4.49	1.80		8.01		.6		7		"	"
2/21	"	11.0	4.75	1.60		7.49		.6		7		"	"
2/23	"	10.0	4.00	1.74		6.96		.6		7		1/6	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. _____
IN 111
1951

Discharge measurements of **Various streams and Tributaries**

at **throughout Los Angeles County**, during the year ending September 30, 1951
near **Big Tujunga Creek above and below Big Tujunga Dam No.1**

Date	Made by	Width Feet	Area of section Sq. Ft.	Mean velocity Ft. per sec.	Gage height Feet	Discharge Sec-ft.	Rating Percent dist.	Method	Corr.	Meas. Secs.		Time Hours	Notes
										No.	Total		
1931													
	B. Tujunga Creek	Reservoir Inflow											FC
2/24	Hunter	10.0	4.15	1.81		7.50		.6			6	1/6	19
2/28	"	10.0	3.65	1.74		6.33		.6			7	"	"
	B. Tujunga Creek	Head of Reservoir											FC
2/25	Moon-Hunter	10.0	3.25	1.38		4.47		.6			6	1/4	12
	B. Tujunga Creek	Reservoir Inflow											FC
2/26	Hunter	10.0	3.79	1.52		5.74		.6			6	"	19
2/27	"	10.0	3.86	1.63		6.29		.6			7	"	"
3/2	"	10.0	3.63	1.50		5.44		.6			7	1/6	"
3/3	"	10.0	3.71	1.30		4.79		.6			7	"	"
	B. Tujunga Creek	Head of Reservoir											FC
3/4	Moon-Hunter	10.0	3.07	1.16		3.58		.6			8	1/4	12
	B. Tujunga Creek	Reservoir Inflow											FC
3/5	Hunter	10.0	3.59	1.50		4.61		.6			7	1/6	19
3/6	"	10.0	3.47	1.30		4.47		.6			7	"	"
3/7	"	10.0	3.50	1.25		4.39		.6			7	1/4	"
3/9	"	10.0	4.53	1.13		5.14		.6			6	"	"
3/10	"	10.0	3.40	1.25		4.28		.6			7	1/6	"
	B. Tujunga Creek	Head of Reservoir											FC
3/11	Moon-Hunter	10.0	3.26	1.02		3.31		.6			8	1/4	12
	B. Tujunga Creek	Reservoir inflow											FC
3/12	Hunter	10.0	3.39	1.29		4.35		.6			5	1/6	19
3/13	"	10.0	3.27	1.38		4.51		.6			5	1/4	"
3/14	"	10.0	3.31	1.18		3.91		.6			5	1/6	"
3/16	"	10.0	3.41	1.50		4.40		.6			5	1/4	"
3/17	"	10.0	3.18	1.22		3.89		.6			5	1/6	"
3/18	"	10.0	3.30	1.18		3.88		.6			5	"	"
3/19	"	10.0	3.23	1.20		3.88		.6			5	1/4	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. -

Discharge measurements of **Various Streams and tributaries**

River
Creek

at **throughout Los Angeles County** during the year ending September 30, 19 **31**
near **Big Tujunga Creek above and below Big Tujunga Dam No.1**

No.	Date	Made by	Width Feet	Area of section Sq. Ft.	Mean velocity Feet per sec.	Gate height Feet	Discharge cusec.	Rating Method	Coeff.	Meas. secs.	G. Ht. change	Time Hours	Notes
1931													
B. Tujunga Creek Reservoir Inflow													
	3/20	Hunter	10.0	3.23	1.13		3.66		.6	5		1/4	FC 19
	3/21	"	9.5	3.04	1.30		3.95		.6	5		1/6	"
	3/23	"	9.5	2.91	1.13		3.31		.6	5		"	"
	3/24	"	9.5	2.78	1.15		3.19		.6	5		1/4	"
B. Tujunga Creek Head of Reservoir													
	3/25	Moon-Hunter	10.0	2.91	.80		2.38		.6	7		"	FC 12
	3/26	Hunter B. Tujunga Creek	9.5	3.04	1.03		3.12		.6	5		"	FC 19
	3/27	Hunter	9.5	2.81	1.22		3.42		.6	6		"	"
	3/28	"	9.5	2.78	.93		2.56		.6	5		1/6	"
	3/30	"	9.5	2.76	1.05		2.90		.6	5		1/4	"
	3/31	"	9.5	1.86	1.68		3.12		.6	5		"	"
B. Tujunga Creek Inflow Head of Reservoir													
	4/1	Moon-Hunter	9.5	2.79	1.00		2.80		.6	5		"	FC 12
B. Tujunga Creek Reservoir Inflow													
	4/2	Hunter	9.0	2.65	.98		2.59		.6	5		"	FC 19
	4/3	"	9.0	3.05	1.06		3.23		.6	5		"	"
	4/4	"	9.0	2.59	1.12		2.88		.6	5		1/6	"
	4/6	"	9.0	2.69	1.15		3.11		.6	6		"	"
	4/7	"	9.0	2.51	1.13		2.85		.6	6		"	"
	4/9	"	9.0	2.56	.98		2.52		.6	5		1/4	"
	4/10	"	9.0	2.55	1.01		2.59		.6	5		"	"
	4/11	"	9.0	2.46	.96		2.37		.6	6		1/6	"
	4/13	"	9.0	2.48	.99		2.46		.6	5		"	"
	4/14	"	9.0	2.48	1.03		2.54		.6	6		1/4	" FC
	4/15	"	9.0	2.38	1.00		2.38		.6	6		"	FC 12
	4/16	"	9.0	2.30	1.00		2.29		.6	5		"	FC 19
	4/20	"	8.0	1.88	.90		1.62		.6	5		1/6	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. -

Discharge measurements of Various streams and tributaries

River
Creek

throughout Los Angeles County

during the year ending September 30, 1931

Big Tujunga Creek above and below Big Tujunga Dam No.1

Date	Method	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Coef.	No. of sec.	Area of channel	Time	Notes
1931		Feet	Sq. Ft.	ft. per sec.	Feet	Sec. ft.	Percent full			No.	Total Area		
	B. Tujunga Creek Reservoir Inflow												
4/21	Hunter	8.0	1.88	.95		1.79			.6	6		1/4	FC 19
4/22	" --Moon	6.0	1.08	.83		.90			.6	5		1/6	FC 12
4/22	"	10.0	3.88	1.24		4.81			.6	6		1/4	19
4/24	"	12.5	6.68	2.30		15.20			.6	6		1/2	"
4/25	"	11.0	4.22	1.80		7.51			.6	8		1/4	"
4/25	"	10.5	4.39	1.75		7.60			.6	6		"	"
	B. Tujunga Creek Head of Reservoir												
4/26	Moon	24.0	35.8	4.29		153.7			.6	7		"	FC 12
	B. Tujunga Creek Reservoir Inflow												
4/28	Hunter	15.0	10.5	2.80		29.24			.6	9		1/3	FC 19
4/29	"	13.0	7.5	2.42		18.27			.6	9		1/4	"
	B. Tujunga Creek Reservoir Inflow												
4/30	Moon-Hunter	12.5	5.90	2.25		13.27			.6	9		"	"
	B. Tujunga Creek Reservoir Inflow												
5/1	Hunter	12.0	5.63	2.19		12.34			.6	8		"	"
5/2	"	12.0	5.25	1.90		9.91			.6	9		"	"
5/4	"	11.0	4.05	1.55		6.28			.6	7		"	"
	B. Tujunga Creek Reservoir Inflow												
5/5	Hunter-Moon	11.0	2.68	1.40		5.13			.6	7		"	FC 12
5/6	"	11.0	3.85	1.56		6.02			.6	7		"	FC 19
5/7	Hunter	9.5	3.43	1.32		4.54			.6	7		"	"
5/8	" --Moon	9.5	3.08	1.33		4.09			.6	7		"	FC 12

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. -

Discharge measurements of **Various Streams and tributaries**

River
Creek

at **throughout Los Angeles County** during the year ending September 30, 1931
near

No.	Date	Made by	Width Feet	Area of Section Sq. Ft.	Mean Velocity Ft. per Sec.	Gage Height Feet	Discharge Sec.-ft.	Rating Percent diff.	Method	Coef.	Mean St.	G. H. Class.	Time Hours	Notes
1931		Aliso Creek	At Nordhoff St.											FC
4/26		Luce	8.3	2.51	.33		2.78	.6				8	1/2	13
7/17		"	V Notch Weir				.42							
		Arroyo Sequis	State Highway Bridge											FC
2/3		Hardgrove-Ayres	26.0	4.4	3.87	3.5	94.4	.6				7	1/6	7
		Arroyo Ditch	Above Whittier Blvd.											282
9/19		Jordan	7.5	3.66	.64	.43	2.33	.6				8	1/4	962
11/28		Brewster-Teepie	13.0	9.65	1.85		17.86	.6				8	1/3	666
1/2		Brewster	13.0	7.51	2.70		20.29	.6				7	1/3	"
		Big Rock Creek	Return Ditch from Valyermo											FC
11/26		Luce-Waddicor	3.5	.71	.72		.51	.6				7	1/12	24
11/26		" "	2.0	.47	.66		.31	.6				4	1/6	"
2/17		Luce	8.5	7.1	.98		7.09	.6				8	1/2	13
2/27		Luce-Waddicor	4.0	1.14	1.18		1.34	.6				7	1/12	"
1/20		" "	6.0	2.42	.37		.90	.6				9	"	25
9/26		Luce	1.5	.16	.44		.07	.6				3	"	31
		Benedict Canyon	Oakhurst Ave.											FC
1/1		Irwin	9.0	3.15	2.93		9.24	.6				9	1/3	13
1/5		"	10.0	5.60	5.30		18.42	.6				5	1/4	"
1/7		Allen	10.0	6.15	4.62		28.47	.6				7	1/3	1
1/31		"	9.6	4.64	2.95		13.69	.6				7	1/4	"
2/4		Allen-Bertlesen	11.5	30.6	7.16		218.80	.6				7	"	"
4/26		B. Tujunga East Wash	-- Sherman Way S.P.R.R.				5.45	.6				11	1/12	13
		Luce-Waddicor	14.5	3.20	1.70									FC
		Cook-Woodley Canal	Below Headgate											282
2/27		Lindsay	2.3	2.80	.72		2.02	.6				3	"	883
3/5		"	2.5	3.03	.75		2.26	.6				3	"	"
		Craig's Head Gage	Pacoima											FC
5/12		Luce-Waddicor	2.0	1.41	.60		.85	.6				4	"	25

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. -

Discharge measurements of **Various Streams and Tributaries**

River
Creek

at **throughout Los Angeles County** during the year ending September 30, 1931
near

Date	Made by	Width	Area of section	Mean velocity	Gage height	Discharge	Rating	Method	Cost	Meas. sec.	G. Ht. change	Time	Meter No.
		Feet	Sq. ft.	Ft. per sec.	Feet	Sec. ft.	Percent dip.			No.	Total	Hours	
1931	Craig Diversion	Inflow To Pond											FC
5/15	Luce-Waddicor	2.6	1.67	.05		.97		.6		5		1/12	13
5/15	" "	3.1	.87	.04		.41		.6		6			"
	Clear Creek	100' Below Lodge Dam											FC
2/19	Hunter	2.7	.73	.75		.55		.6		5		1/6	19
	Craig's Head Gage	Pasadena											FC
5/15	Luce-Waddicor	2.0	1.67	.05		.97		.6		5		1/12	13
5/15	" "	3.1	.87	.04		.41		.6		6			"
	Drain of Supulveda Blvd.	Parthenia St.											
4/26	Luce-Waddicor	3.9	2.47	2.97		7.36		.6		6		1/6	"
	Dark Canyon Creek	1000' from Big Tujunga Creek											FC
2/19	Hunter	1.8	.22	.73		.16		.6		4		1/4	19
	Vasquez Canyon Ck.	700' from Big Tujunga Creek											" "
2/19	Hunter	3.0	.33	.61		.20		.6		5			" "
	Baton Wash	At Valley Blvd.											282
1/5	Lindsay-Laird	15.5	4.97	2.44		12.12		.6		7		1/6	883
	Eaton Creek	Pasadena Div. 300' Above U.S.G.S.											
1/9	Lindsay	4.4	1.13	.90		1.02		.6		5		1/10	"
1/15	"	1.7	.19	1.05		.20		.6		4		1/12	"
1/22	"					Dry							
	Baton Wash	Valley Blvd.											
1/31	Lindsay					12.00							
	Eaton Creek	Pasadena Div. Dam											
2/12	Lindsay	3.5	2.14	1.07		2.29		.6		5			"
2/19	Lindsay	3.7	.86	1.27		1.09		.6		4		1/12	"
2/26	"	2.8	.46	.74		.34		.6		4			" "
	Eaton Creek	Pasadena Div. 300' Above U.S.G.S.											
4/30	Lindsay	8.0	2.23	1.59		3.55		.6		7		1/6	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. -

Discharge measurements of Various Streams and tributaries

River
Creek

throughout Los Angeles County during the year ending September 30, 1931

Date	Made by	Width	Area of Section	Mean velocity	Gage height	Discharge	Rating	Method	Coef.	Meas. sec.	G. Int. change	Time	Meter
1931		Feet	Sq. Ft.	Ft. per sec.	Feet		Percent			No.	Total	Days	
	Eaton Creek	Pasadena Div.		Above U.S.G.S.									
5/7	Lindsay					.10							282
5/25	"	3.7	.59	1.00		.59		.6		4		1/12	282
	Little Tujunga Creek	500' Above		Gold Cr.									
6/26	Luce					.01							
7/3					V Notch Weir	.01							
7/10	Luce				V Notch Weir	.01							
7/17	"				V Notch Weir	.01							
	Los Angeles River	Between Buena Vista and		Mariposa St.									271
12/10	Bollinger-Keifer	7.9	5.24	2.30		12.04		.6		8			650
	Los Angeles River	Mariposa St.											
12/10	Bollinger-Keifer	4.0	2.03	2.11		4.28		.6		8			"
	Los Angeles River	Point 200' Below		Dias Ave. Power House									
2/27	Bollinger	14.3	14.3	1.55		22.01		.6		13		1/4	"
3/6	Bollinger-Keifer	14.1	13.27	1.76		23.39		.6		15			"
	Los Angeles River	At Norton Ave.											
4/26	Seal-Fergus	225.	309.	5.31		1640.6		.6		21		5/12	282
	Los Angeles River	400' Below		Vineland Ave.									271
5/22	Bollinger	7.8	2.66	.98	3.29	2.60		.6		11		1/6	650
	Los Angeles River	Rising Water		Van Nuys Blvd.									
4/29	Bollinger					.85							
	Los Angeles River	Rising Water		Dias Ave.									
4/29	Bollinger					1.45							
	Los Angeles River	Rising Water		Whitsett Ave.									
4/29	Bollinger					1.40							
	Los Angeles River	Rising Water		Colfax Ave.									
4/29	Bollinger					2.49							

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. -

Discharge measurements of Various Streams and tributaries River
Creek
at throughout Los Angeles County during the year ending September 30, 1931
near

No.	Date	Made by	Width	Area of section	Mean velocity	Gate height	Discharge	Rating	Method	Coef.	Meas. Sect.	G. Ht. change	Time	Met. No.
			Feet	Sq. Ft.	ft. per sec.	Feet	Sec.-ft.	Percent dis.			No.	Total	Hours	
	1931													
		Los Angeles River	Rising Water	350' below Vineland Ave.										
	4/29	Bollinger					4.48							
		Los Angeles River	Rising Water	Lankershim										
	4/29	Bollinger					5.61							
		E. Wash B. Tujunga Creek	100' Above Mouth											
	4/29	Bollinger					.54							
		Los Angeles River	250' Above Hollywood Way											
	4/29	Bollinger					7.43							
		Los Angeles River	300' Below Buena Vista											
	2/29	Bollinger					11.30							
		Los Angeles River	Buena Vista											
	4/29	Bollinger					14.60							
		Los Angeles River	Mariposa											
	4/29	Bollinger					.80							
		Los Angeles River	California St. $\frac{1}{2}$ mi. Below Hollywood Way Bridge											271
	6/19	Bollinger	9.2	5.25	1.47	.96	7.70	.6			12		1/6	650
	6/26	"	8.6	3.56	1.62		5.75	.6			11		"	"
		Los Angeles River	California St. L.A.F.D. Station											
	7/3	Bollinger	8.9	3.09	1.35		4.18	.6			11		"	"
		Los Angeles River	California St. L.A.F.D. Station											
	7/10	Bollinger	11.8	4.58	1.27		5.84	.6			13		"	"
	7/17	"	9.8	14.3	2.98		41.6	.6			11		1/4	"
	7/24	"	9.4	12.4	2.48		30.7	.6			10		"	"
	7/31	"	9.5	14.9	2.33		34.6	.6			12		"	271 647
	8/6	"	8.9	14.3	2.72		38.9	.6			10		"	"
	8/14	"	8.7	10.2	2.49		25.38	.6			10		"	"
	8/21	"	9.0	11.7	2.44		28.57	.6			10		1/6	"
	8/28	"	8.8	11.0	2.27		24.87	.6			9		1/4	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. -

Discharge measurements of **Various Streams And tributaries**

River
Creek

at **throughout Los Angeles County** during the year ending September 30, 19**31**
near

No.	Date	Made by	Width	Area of Section	Near locality	Gage No.	Discharge	Rating	Method	Coet.	Meas. Secs.	G. H. change	Time	Notes
			Feet	Sq. Ft.	Barrows	Feet	S. Ft.	Percent disc.			No.	Total	Hours	
	1931													
		Los Angeles River	At California St.		-L.A.W.D		Station							271
	9/4	Bollinger	8.8	6.21	1.46		9.07	.6			12		1/4	647
	9/11	"	8.7	6.45	1.14		7.36	.6			9			"
	9/18	"	11.0	10.81	7.92		8.58	.6			11		"	"
	9/25	"	9.8	10.49	.79		8.50	.6			9		1/6	"
		Little Santa Anita Cr.	Double Drive		Arcadia									282
	4/26	Lindsay-Laird	3.7	1.48	2.13		3.15	.6			4		1/10	883
		Mallard Creek	Above Mouth											
	2/5	Lindsay-Laird	3.6	2.71	2.32		6.30	.6			5		1/12	"
		Malibu Creek	1/2 mi Below		Station #130									271
	5/22	Bollinger	7.9	1.23	.61		.75	.6			12			650
		Malibu Creek	3/4 mi. Below		Crater Camp									
	6/12	Bollinger	3.1	.76	.97		.74	.6			6		1/6	"
		Mint Canyon Creek	Soledad Canyon		Road									FC
	2/4	Luce-Waddicor	17.0	11.0	4.61		51.41	.6			6		"	13
		Monrovia Storm Drain	50' Above		Sawpit Road									282
	1/8	Lindsay-Laird	12.5	2.23	1.47		.45 3.28	.6			7		"	883
		Monrovia Storm Drain	Pack Rd.		Monrovia									
	1/31	Lindsay	20.0	3.54	1.79		.52 6.32	.6			5		1/12	"
	2/4	"	23.5	9.06	2.28		.65 20.68	.6			7		1/6	"
		Newhall Land and Farming Co.	Spring--1/4 mi. Below		Castaic Jet.									FC
	12/19	Luce-Waddicor	2.5	.86	.46		.40	.6			5		1/12	224
		Palette Cr. Rising Water	--1/2 mi. Above		Mouth									FC
	8/3	Luce	2.3	.35	.08		.31	.6			5		"	13
		Pico Cr.	New Highway											
	2/3	Luce-Waddicor	13.0	3.44	2.96		.32 10.23	.6			7		1/6	"
	2/4	"	35.0	18.0	3.98		.53 71.63	.6			13		1/4	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. -

Discharge measurements of **Various Streams and tributaries**

River
Creek

throughout Los Angeles County during the year ending September 30, 1931

Date	Station	Width	Area of Section	Mean velocity	Gage height	Discharge	Rating	Method	Coef.	Meas. sects.	G. H. change	Time	Notes
		Feet	Sq. ft.	F. per sec.	Feet	Sec. ft.	Percent dist.			No.	Total	Hours	
1931	Placerita Creek	On R.R. Bridge			$\frac{1}{2}$ mi. N.W.	Saugus							FC
1/7		17.5	4.47	2.07	1.20	9.26	.6			8		1/6	24
	Placerita Creek	R.R. Bridge			On Old Highway	Bridge							
1/7	Luce-Waddicor	17.5	4.75	2.37	1.20	11.27	.6			9		"	"
	Placerita Creek	At Highway 300'			Below Saugus								FC
2/4	Luce-Waddicor	14.0	7.22	3.65	1.31	26.36	.6			8		"	13
	Placerita Creek	R.R. Bridge			West of Saugus								
8/30	Luce	31.0	21.2	4.80	2.01	103.1	.6			12		"	"
	Sand Canyon Creek	Highway Bridge											
2/4	Luce-Waddicor	32.0	19.6	5.72	15.9	112.1	.6			11		"	"
	Santa Clara River	Bouquet Canyon			Road								FC
1/8	Luce-Waddicor	10.0	4.24	1.72		7.33	.6			7		1/12	24
	Santa Clara River	1000'			Below Lang	Station							FC
2/4	Luce-Waddicor	10.0	4.09	.32		13.00	.6			6		"	13
	Santa Clara River	$\frac{1}{2}$ mi. N.E.			of Saugus								FC
2/14	Luce-Waddicor	21.0	15.1	3.13	3.85	48.15	.6			10		1/3	25
	San Francisquito Creek	Above Old			Dam								FC
3/14	Luce	11.7	3.43	.78		2.68	.6			10		1/6	13
	San Francisquito Creek	Above old			Dam Site								
3/27	Luce-Waddicor	12.0	3.61	.74		2.69	.6			8		"	"
3/30	"	3.5	.78	1.23		.96	.6			6		"	"
	San Francisquito Creek	1 mi. Above			Old Dam								
4/10	Waddicor	5.0	1.94	1.22		2.38	.6			4		"	"
4/17	"	3.9	1.14	1.32		1.50	.6			4		"	"
	San Fernando Creek	Devonshire St.											
4/26	Luce-Waddicor	7.0	5.48	2.6		14.50	.6			7		1/12	"
	1st Canyon N. Side	of Tick-			At Highway	to Lang							
2/4	Luce-Waddicor	17.4	12.1	3.41		41.36	.6			7		1/6	"

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
HYDROGRAPHIC DEPARTMENT

File No. -

Discharge measurements of Various streams and tributaries

River
Creek

at throughout Los Angeles County during the year ending September 30, 1931.

No.	Date	Made by	Width		Mean velocity	Grade height	Discharge	Rating	Method	Coeff.	Meas. sec.	G. Ht. change	Time	Meter No.
			Feet	Sq. ft.										
1931														
Tick Canyon Creek At Highway Bridge														
	2/4	Luce-Waddicor	20.7	12.9	.71		91.74	.6			8		1/6	13
Trail Canyon Creek 300' From Big Tujunga Creek														
	2/20	Hunter	4.0	1.00	1.13		1.13	.6			5		"	19
Violin Canyon Creek-Ridge Highway Bridge														
	2/4	Luce-Waddicor	4.5	26.0	4.54		118.43	.6			13		1/12	13

ESTIMATE OF
 RISING WATER - WHITTIER NARROWS

	Rio Hondo Mission Bridge #54	Rio Hondo Slough-San Gabriel Blvd. #83	Gate Ditch #84	Standifer Ditch #85	San Gabriel R. Below Standifer Ditch #86	Total Dis- Charge	Tri City Sewer #66	Total Rising Water
<u>1930</u>								
10/4	10.33	16.16	1.10	11.83	9.22	48.64	7.50	41.14
10/10	12.66	16.62	1.15	14.44	9.86	54.73	8.86	45.87
10/17	9.39	17.04	1.08	11.91	9.66	49.08	8.75	40.33
10/24	8.75	16.35	1.34	11.67	9.17	47.28	4.21	43.07
10/31	10.69	15.87	1.05	9.76	8.41	45.78	6.97	38.81
11/7	9.20	15.86	1.50	10.55	9.92	47.03	7.52	39.51
11/14	11.24	16.23	1.26	11.03	10.17	49.93	4.53	45.40
11/21	12.03	16.94	1.52	16.66	9.91	51.06	6.13	44.93
11/28	17.83	16.85	1.62	11.67	9.97	57.94	4.93	53.01
12/5	13.62	17.04	1.26	12.32	10.36	54.60	6.09	48.51
12/12	12.67	17.10	1.31	12.39	12.44	55.91	5.98	49.93
12/19	16.91	17.29	1.28	10.36	10.33	56.17	6.24	49.93
12/26	10.91	16.43	9.88	9.88	10.93	49.51	6.34	43.17
<u>1931</u>								
1/9	16.39	20.34	Dry	.48	26.14	63.35	7.58	55.77
1/16	13.75	16.91	"	.59	24.82	56.07	6.59	49.48
1/23	14.27	17.74	"	Dry	27.00	52.10	6.89	52.12
1/30	15.15	17.92	"	"	28.48	61.55	5.86	55.69
2/13	19.02	19.41	"	"	28.95	67.38	5.09	62.29
2/20	16.43	19.50	1.12	"	27.43	64.48	7.93	56.55
2/27	12.91	18.98	1.18	"	26.44	59.51	4.34	55.17
3/6	14.17	17.85	Dry	Dry	29.07	61.09	7.00	54.09
3/13	11.72	18.00	1.62	"	22.41	53.75	5.90	47.85
3/20	11.77	17.50	1.66	9.62	12.22	52.77	6.77	46.00
3/27	12.14	17.80	Dry	10.36	12.09	52.39	6.70	45.69
4/3	12.07	17.06	2.04	8.13	11.00	50.30	5.90	44.40
4/10	9.60	17.05	1.82	7.68	9.81	45.96	5.13	40.83
4/17	9.52	17.13	1.43	7.79	10.09	45.96	7.48	38.48
4/24	9.52	16.27	2.61	8.56	10.97	47.93	6.13	41.80

ESTIMATE OF
RISING WATER - WHITTIER NARROWS.

1931	Rio Hondo Mission Bridge #64	Rio Hondo Slough-San Gabriel Blvd. #83	Gate Ditch #84	Standifer Ditch #84	San Gabriel R. Below Standifer Ditch #86	Total Dis- charge	Tri City Sewer #66	Total Rising Water
5/8	13.00	17.63	3.00	1.85	23.78	59.26	6.45	52.81
5/15	11.83	16.33	2.92	5.31	15.03	51.42	6.47	44.95
5/21	11.78	17.50	2.26	8.99	12.24	52.77	6.41	46.36
5/29	10.66	18.50	2.18	2.18	11.54	51.04	5.48	45.56
6/5	10.95	16.49	1.36	9.16	11.54	49.50	5.71	43.79
6/12	10.74	16.76	1.51	8.60	10.38	47.40	5.29	42.11
6/19	7.06	15.18	.76	7.08	9.51	39.59	6.01	33.58
6/26	9.71	13.30	.83	7.09	8.39	39.32	5.18	34.14
7/3	6.08	14.08	.55	6.62	8.16	35.49	4.89	30.60
7/10	7.71	14.31	.72	6.40	7.68	36.82	2.53	34.29
7/17	6.63	13.69	.43	6.23	7.40	34.38	4.82	29.56
7/24	5.18	13.35	.19	6.36	7.42	32.50	3.54	28.96
7/31	6.11	13.09	.88	6.48	7.83	36.39	4.80	31.59
8/7	7.48	13.54	.82	6.78	7.16	37.71	4.70	33.01
8/14	7.31	13.54	.50	6.61	7.62	35.58	5.00	30.58
8/21	6.07	12.81	.19	5.19	6.83	31.09	4.28	26.81
8/28	6.39	13.19	.31	6.77	7.66	34.32	4.06	30.26
9/4	6.40	13.94	.51	7.27	8.34	36.46	4.13	32.33
9/11	7.62	12.63	.42	7.01	7.01	34.69	3.81	30.88
9/18	11.00	11.63	.46	7.74	7.98	38.81	3.62	35.19
9/25	10.28	12.83	.26	8.32	9.68	42.07	5.00	37.07
YEARLY								
TOTAL	4048.65	5915.95	388.11	2547.77	4924.38	17824.86	2095.79	15729.07
C. F. S.								
YEARLY								
TOTAL	8028.47	11731.33	769.62	5052.23	9765.04	35346.70	4155.95	31190.75
A. F.								

The computed values in foregoing table are calculated from weekly measurements and are only approximately correct due to the fact that the streams fluctuated during the week.

Storm flow being eliminated as much as possible.

RECIRCULATION MEASUREMENTS

Big Dalton

Fitter
Creek

February 26

1931

Time	Location	Disch	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sec. Ft.	Loss in Sec. Ft. per acre of Wetted Area
11:40 A.M.	Ben Lomond Avenue	7.22	7800	19.2	149760	3.44	5.02	1.46
1:00 P.M.	Cerritos Ave.	2.20	5600	7.4	41440	.95	2.20	2.32
2:00 P.M.	3000' below Azusa Ave.	0.00						
					Total	4.39	7.22	1.65 Mean

PERCOLATION MEASUREMENTS

Big Dalton

~~River~~
Creek

May 13

19 31

Time	Location	Disch.	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sec. Ft.	Loss in Sec. Ft. per acre of Wetted Area
10:55 A.M.	Ben Lomond Ave	4.48						
			3500	12.0	42000	.96	1.88	1.96
11:50 A.M.	200' below Citrus Ave.	2.60	6000	10.1	60600	1.39	2.22	1.60
1:05 P.M.	Azusa Ave.	.38	1200	4.6	5520	.13	.38	3.00
1:20 P.M.	1200' below Azusa Avenue	0.00						
					Total	2.48	4.48	1.81 Mean

PERCOLATION MEASUREMENTS

Big Santa Anita

~~River~~
Creek

February 18

1931

Time	Location	Disch.	Length of Reach in feet	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sec. Ft.	Loss in Sec. Ft. per acre of Wetted Area
12:45 P.M.	400' below dam	3.76						
			1700	7.46	12,700	.29	+ .35	+ 1.21
1:20 P.M.	Recorder house	4.11						
			400	8.00	3,200	.07	.22	3.14
2:00 P.M.	Diversion dam	3.89						
	Diversion	.26						
	Below "	3.63						
			3000	8.66	26000	.60	1.15	1.92
2:45 P.M.	Mouth of Can. West Side	2.48						
			500	5.00	2500	.06	.41	6.83
3:00 P.M.		2.07						
			500	8.40	4200	.10	.06	+ .60
3:15 P.M.		2.13						
			3900	8.68	33,900	.78	1.24	1.59
4:10	2200' above Orange Grove Avenue	.89						
			2400	7.13	17,100	.39	.39	1.00
4:35 P.M.	1/2 blk. below Orange Grove Avenue	.50						
			1500	4.00	6,000	.14	.30	2.14
5:15 P.M.	Foothill Blvd.	.20						
			600	3.00	1,800	.04	.20	5.00
5:30 P.M.	600' below Foothill Blvd.	0.00						
						2.47	3.91	1.42 Mean

Average percolation from F.C. Gaging Station to Foothill Blvd. 1.71 c.f.s.
Per Acre

RECIRCULATION MEASUREMENTS

Big Santa Anita

~~Boxer~~
Creek

February 21

1931

Time	Location	Disch.	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sec. Ft.	Loss in Sec. Ft. per acre of Wetted Area
9:25 A.M.	450' below dam	9.81	1600	9.00	14,400	.33	.31	.94
10:30 A.M.	Recorder House	9.50	350	10.00	3,500	.08	.80	10.00
11:00 A.M.	Above diversion	8.70						
	Diversion	1.85						
	Below Diversion	6.85						
12:05 P.M.	Inflow	1.02	2350	11.80	27,700	.64	+ .22	+.34
12:15 P.M.	Stream Less Inflow	7.07						
12:15 P.M.	180' below wasteway	8.09						
			1000	10.44	10,440	.24	1.50	5.42
2:30 P.M.	Mouth of Side Canyon	6.79	800	10.50	8,400	.19	.13	.68
3:00 P.M.	Lower end Upper Basin	6.66	7000	13.40	94,860	2.17	3.51	1.63
4:40 P.M.	Lower end of Lower Basin	3.15	1300	7.00	9,100	.23	.19	.83
5:00 P.M.	Foothill Blvd.	2.96	2100	11.50	24,100	.55	2.96	5.38
5:40 P.M.	P.E.Ry bridge	0.00						
					Total	4.44	8.98	

PERCOLATION MEASUREMENTS

Big Tujunga

~~River~~
Creek

February 5

19 31

Time	Location	Disch.	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sec. Ft.	Loss in Sec. Ft. per acre of Wetted Area
10:15 A.M.	750' above San Fernando Rd.	187.74	0					
			250	168.5	42,125			
	San Fernando Rd		500	316.5	158,250			
			500	379.0	189,500			
			500	275.0	137,500			
			1000	157.5	157,500			
			1000	147.5	147,500			
			1000	142.5	142,500			
	Laurel Cn. Rch		300	117.5	35,250			
12:00 Noon	500' Above Laurel Cn. Rch	70.70	500	82.5	41,250			
					1,051,375	24.14	117.04	4.85
			500	80.0	40,000			
			1056	75.0	79,200			
			1056	47.5	50,160			
			1056	37.5	39,600			
	Sherman Way	16.89	6864	22.5	154,440			
					363,400	8.34	53.81	6.45
	Victory Blvd.		5280	12.5	66,000			
	Laurel Cn. Blvd.		2112	16.0	33,792			
	Barbank Blvd.		3696	11.0	40,656			
	Magnolia Blvd.	2.61	2540	9.0	23,760			
					164,208	3.77	14.28	3.79
	Vineland Ave.	2.29	7392	9.0	66,528			
					66528	1.53	.32	.21

PERCOLATION MEASUREMENTS

Big Tujunga

River

February 6

1931

Time	Location	Disch	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sec. Ft.	Loss in Sec. Ft. per acre of Wetted Area
11:50 A.M.	Mouth of Cr.	64.28	0					
			1000	27.5	27,500			
			1000	23.5	23,500			
			"	25.0	25,000			
			1000	31.5	31,500			
			1000	28.0	28,000			
			1000	20.5	20,500			
			1000	27.0	27,000			
			1000	29.5	29,500			
	State Hwy.	55.08	500	27.0	13,500			
			8,500		226,000	5.19	9.20	1.77
			1000	24.5	24,500			
			1000	18.0	18,000			
			1000	19.0	19,000			
			1000	23.5	23,500			
			1000	22.0	22,000			
			1000	19.5	19,500			
			1000	17.0	17,000			
			1000	20.5	20,500			
			1000	27.5	27,500			
			1000	26.5	26,500			
			1000	21.0	21,000			
			4000	200.0	80,000			
			1000	15.0	15,000			
			1000	17.5	17,500			
	Mulholland St.	42.47	1000	23.5	23,500	8.61	12.61	1.46
	City Water	7.26	14,400		375,000			
	Total	49.73						

PERCOLATION MEASUREMENTS

Big Tujunga

River

February 9

1931

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Time	Location	Disch	Length of Reach	Aver. Depth of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sec. Ft.	Loss in Sec. Ft. per acre of Wetted Area
			1000	36.0	36,000			
			1000	32.0	32,000			
			1000	29.0	29,000			
			1000	31.5	31,500			
			1200	31.5	37,800			
			1200	29.5	35,400			
			750	33.5	25,125			
			400	45.0	18,000			
12:00	San Fernando Rd	22.75	500	54.5	22,250			
Noon			<u>8,050</u>		<u>272,075</u>	6.24	5.25	.84
			500	70.0	35,000			
			500	71.5	35,750			
			1000	37.0	37,000			
			1000	9.0	9,000			
	End of Flow	0	<u>1000</u>	<u>3.0</u>	<u>3,000</u>			
			4000		119,750	2.75	22.75	8.27

PERCOLATION MEASUREMENTS

Big Tujunga

~~River~~
Creek

February 6

19 31

Time	Location	Disch.	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sec. Ft.	Loss in Sec. Ft. per acre of Wetted Area
		Total						
11:45 A.M.	Mulholland St.	49.73	1000	45.0	45,000			
			1000	39.0	39,000			
			1000	34.5	34,500			
			1000	38.0	38,000			
			1000	37.5	37,500			
			1000	37.5	37,500			
12:30 P.M.	750' above San Fernando Rd	46.90	1000	50.0	50,000			
			7,000		281,500	6.45	2.83	.44
			250	96.0	24,000			
			5000	215.0	107,500			
			500	312.5	156,500			
			500	240.0	120,000			
			1000	140.0	140,000			
			1000	112.5	112,500			
			1000	80.0	80,000			
	Laurel Cn. Blvd	1.32	300	45.0	13,500			
			5,050		754,000	17.31	45.58	2.63
			500	17.5	8,750			
	End of Flow	0	500	2.5	1,250			
			1000		10,000	.23	1.32	5.74

PERCOLATION MEASUREMENTS

Big Tujunga

~~River~~
Creek

February 11

1931

Time	Location	Disch	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sec. Ft.	Loss in Sec. Ft. per acre of Wetted Area
			1000	34.0	34,000			
			1000	30.0	30,000			
			1000	28.0	28,000			
			1000	30.0	30,000			
			1200	30.0	36,000			
			1200	28.0	32,600			
			750	30.0	22,500			
			400	40.5	16,200			
11:40	San Fernando Rd.	12.61	500	47.5	23,750			
A.M.			8,050		253,050	5.81	7.22	1.24
			500	57.5	28,750			
			500	57.5	28,750			
			1000	29.0	29,000			
			500	5.5	2,750			
	End of Flow	0	500	1.5	750			
			3000		90,000	2.06	12.61	6.12

PERCOLATION MEASUREMENTS

Big Tujunga

~~River~~
Creek

February 11

19 31

Time	Location	Disch	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sq. Ft.	Loss in Sq. Ft. per acre of Wetted Area
10:20 A.M.	Mouth Canyon	17.94	0					
			1000	23.0	23,000			
			1000	23.5	23,500			
			1000	30.0	30,000			
			1000	28.0	28,000			
			1000	19.5	19,500			
			1000	24.0	24,000			
			1000	25.0	25,000			
10:40 A.M.	State Hwy.	16.45	500	21.0	10,500			
			7500		183,500	4.21	1.49	.35.
			1000	19.5	19,500			
			1000	16.5	16,500			
			1000	17.0	17,000			
			1200	19.0	22,800			
			1200	19.5	23,400			
			1200	19.0	22,800			
			1000	16.5	16,500			
			1000	19.5	19,500			
			1000	25.0	25,000			
			1000	22.5	22,500			
			1000	18.0	18,000			
	Gravel Pit		400	200.0	80,000			
			1000	14.5	14,500			
			1000	15.0	15,000			
11:00 A.M.	Mullholland St.	11.83	1000	16.0	16,000			
			15,000		349,000	8.01	4.62	.58
11:00 A.M.	City Water	8.00						
A.M. Total	" "	19.83						

REGULATION MEASUREMENTS

Big Tujunga

~~XXXXX~~
Creek

February 25

1931

Time	Location	Disch.	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sec. Ft.	Loss in Sec. Ft. per acre of Wetted Area
3:05 P.M.	Mouth of Can.	10.67	1000	16.0	16,000			
			1000	18.0	18,000			
			1000	19.5	19,500			
			1000	23.0	23,000			
			1000	20.0	20,000			
			1000	17.0	17,000			
			1000	23.0	23,000			
			1000	24.0	24,000			
			500	20.0	10,000			
3:25 P.M.	State Hwy.	8.94	8500		170,500	3.91	1.73	.44
			1000	18.0	18,000			
			1000	14.5	14,500			
			1000	16.5	16,500			
			1000	19.5	19,500			
			1000	17.5	17,500			
			1000	15.0	15,000			
			1000	12.5	12,500			
			1000	17.5	17,500			
			1000	25.0	25,000			
			1000	20.0	20,000			
			1000	15.0	15,000			
			400	200.0	80,000			
			1000	14.0	14,000			
1000	15.0	15,000						
1000	20.0	20,000						
2:05 P.M.	Mulholland St.	8.32	14,400		329,000	7.35	.62	.08
	City Water	8.42						
	Total	16.74						

PERCOLATION MEASUREMENTS

Big Tujunga

San Fernando
Creek

February 25

1931

Time	Location	Disch.	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sec. Ft.	Loss in Sec. Ft. per acre of Wetted Area
			1056	46.5	49,104.			
			1056	40.0	42,240.			
			1056	28.5	30,096.			
			1056	28.0	29,568.			
			1056	24.5	25,872.			
			1056	26.5	27,964.			
			1000	32.0	32,000.			
			650	30.0	19,500.			
4:00 P.M.	San Fernando Rd.	11.67	7986		256,344.	5.88	5.13	.87
			500	21.0	10,500.			
			500	56.0	28,000.			
			500	85.5	42,750.			
			500	65.0	32,500.			
			500	35.0	17,500.			
			500	14.5	7,250.			
			500	7.0	3,500.			
			3500		142,000.	3.26	11.61	3.56

PERCOLATION MEASUREMENTS

Big Tujunga

River
Creek

February 25

19 31

Time	Location	Disch.	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sec. Ft.	Loss in Sec. Ft. per acre of Wetted Area
11:30 A.M.	U.S.G.S. Sta.	10.19						
2:00 P.M.	Road Crossing	9.79	1500	17	25,500	.58	.40	- .69
2:20 P.M.	.8 mi. below	8.38	2500	15.3	38,250	.88	1.41	- 1.60
2:40 P.M.	U.S.G.S.		2700	19.2	51,840	1.18	+ .41	+ .35
2:40 P.M.	1.3 mi. "	8.79						
3:00 P.M.	1.6 mi. "	10.06	1600	17.5	28,000	.64	+ 1.27	+ 1.98
3:20 P.M.	2.1 mi. below	8.67	2640	13.6	36504	.84	- 1.39	- 1.65
3:40 P.M.	U.S.G.S.		2640	15.6	41184	.95	- 1.74	- 1.83
3:40 P.M.	2.6 mi. below	6.93						
4:00 P.M.	U.S.G.S.		3168	16.0	50688	1.16	+ 1.73	+ 1.49
4:00 P.M.	3.1 mi. Below	8.66						
	U.S.G.S.							

PERCOLATION MEASUREMENTS

Elizabeth Lake

~~River~~
Creek

February 12 19 31

Time	Location	Disch.	Length of Reach	Aver. Width of Reach	Area in Sq.Ft.	Area in Acres	Loss in Reach in Sec. Ft.	Loss in Sec.Ft. per acre of Wetted Area
1:30 P.M.	1 mi. below Sta. 3.38 at Center Cabin site.		1156.0	10.5	12138.0			
			1156.0	11.5	13294.0			
			1156.0	11.0	12716.0			
			1156.0	17.0	19652.0			
			1156.0	21.0	24276.0			
			1156.0	24.5	28322.0			
			1156.0	49.5	57222.0			
			1156.0	51.0	58956.0			
	2.944. below Sta.		528.0	16.5	8712.0			
					235,288.0	5.40	3.38	.62

REGULATION MEASUREMENTS

Los Angeles

River
Gage

April 1

1931

Time	Location	Disen.	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sec. Ft.	Loss in Sec. Ft. per acre of Wetted Area
9:00 A.M.	Van Nuys Blvd.	.61					gain .44	
9:40 A.M.	Fulton Ave.	1.05					" .36	
10:15 A.M.	Dias Ave.	1.41					" 36.71	35 c.f.s. inflow from power plant.
10:30 A.M.	300' below Dias Ave.	37.12					" 1.18	
2:00 P.M.	Colfax Ave.	38.30					" .42	
2:50 P.M.	B. Tujunga 125' Above Mouth	.42						
	L.A. River below Mouth Tujunga	38.72					" 2.39	
2:45 P.M.	Universal City	41.11					" 2.40	
4:00 P.M.	Dark Cn. Rd.	43.51					" 5.55	
	Mariposa St. Burbank outfall Sewer	37.96					" 17.96	
	Riverside Dr. Est. Bridge	20					" 20	
	700' above Los Feliz Br.	0						

EVAPORATION MEASUREMENTS

Los Angeles

River
~~Frank~~

May 5

19 31

Time	Location	Disch	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sq. Ft.	Loss in Sec. Ft. per acre of Wetted Area
9:00 A.M.	300' below Artesia Ave. Br.	2.65						
			1665	20.1	33380	.77	.26	.34
9:30 A.M.	1965' below Artesia Ave. Br.	2.39						
			3075	391	121,786	2.79	.33	.12
10:18 A.M.	1200' above Long Beach Blvd. Bridge	2.06						
			3630	29.6	107290	2.46	.39	.16
11:03 A.M.	2430' below L.B. Blvd. Br.	1.67						
			5690	18.9	108060	2.46	.84	.34
1:00 P.M.	1000' Above Dominguez St	.83						
			3580	15.4	55100	1.26	.83	.66
1:20 P.M.	500' above P.E. Ry. Br.	0.00						
		Apparently no water rises between point of disappearance and Willow St. Crossing. The following is water wasted into the river channel by the Oil Operators Inc. at a point about 900' below Wilmington Ave. This water is brought from the Signal Hill Oil field to the Oil Operators Inc. plant on river bank.						
	500' below discharge/O.O. Inc. Outlet	4.57						
			5620	28.3	159,500	3.66	2.47	.68
2:50 P.M.		2.10						

PERCOLATION MEASUREMENTS

Los Angeles and Aliso Creek		River Creek	October 13 19 31					
Time	Location	Disch.	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sec. Ft.	Loss in Sec. Ft. per acre of Wetted Area
10:30 A.M.	Aliso Ck.- Roscoe St.	11.09	2640	9.5-	25,080	.58	.11	.02
11:20 A.M.	Aliso Ck. Ingomar St.	11.20	4224	10.0	42,240	.97	.69	.71
2:20 P.M.	Aliso Ck. Sherman Way	10.51	1320	10.5	13,860	.32	.16	.50
2:45 P.M.	Aliso Ck. Hart St.	10.67	5544	15.5	85,932	1.97	.46	.43
Los Angeles River								
3:15 P.M.	Reseda Blvd.	10.21	8500	18.0	153,000	3.51	3.98	1.13
4:35 P.M.	Chatsworth Branch S.P.R.R.	6.23	2000	18.0	36,000	.83	4.61	
5:00 P.M.	Mouth San Fernando Ck.	10.84	8400	16.0	134,400	3.09	1.59	5.15
5:30 P.M.	Gleria St.	12.43	10,200	12.0	122,400	2.81	.07	.25
6:00 P.M.	Van Nuys Blvd	12.36						

PERCOLATION MEASUREMENTS

Rio Honda

River
Creek

February 5

1931

Time	Location	Disch.	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sec. Ft.	Loss in Sec. Ft. per acre of Wetted Area	
10:30 A.M.	Split	52.92							
			13,000	47.45	606,910	13.93	25.56	1.83	
1:30 P.M.	Gladstone Power Line	27.36							
			4,000	94.18	376,700	8.60	25.50	2.62	
2:40 P.M.	N.W. Line	1.86							
			4,000	10.33	41,300	.95	1.86	1.96	
3:15 P.M.	650' below Peck Rd.	0.00							
					Average Loss		23.48	52.92	2.25

APPROXIMATION MEASUREMENTS

Rio Hondo

River
Creek

April 29

1931

Time	Location	Disch.	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sec. Ft.	Loss in Sec. Ft. per acre of Wetted Area
9:30 A.M.	1200' below S.F. R.R. Br. Split	57.55						
			13,000	57.51	747,600	17.16	38.34	2.23
12:00 Noon	Gladstone Power line	19.21						
	Water running into Gravel Pits Branch #1 & #2 West to East							
12:00 Noon	Gladstone Power Line	14.71	2,000	43.63	87,250	2.00	4.57	2.29
12:30 P.M.	N.E. of Gravel Pits	10.14						
	East Branch going around gravel pits							
12:00 P.M.	Gladstone Lower Line	4.50	4,000	19.13	76,500	1.76	1.45	.82
12:30 P.M.	N.W. Line	2.05	1,800	15.90	28,600	.66	2.05	3.11
1:00 P.M.	1800' below N.W. Line	0.00						

PERCOLATION MEASUREMENTS

Rio Hondo

River
Creek

April 30

19 31

Time	Location	Disch	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sec. Ft.	Loss in Sec. Ft. per acre of Wetted Area
8:55 A.M.	Split	30.81	13,600	37.31	485,000	11.13	24.13	2.17
10:45 A.M.	Gladstone Power Line	6.68						
	East Branch #1							
10:45 A.M.	13,000' below Split	5.93	2,000	13.50	27,000	.62	2.37	3.82
11:00 A.M.	15,000' below Split	3.56						
	East Branch # 2							
10:45 A.M.	Gladstone Power Line	.75	3,000	5.00	15,000	.34	.75	2.21
11:15	16,000' below Split	0.00						

RECOLATION MEASUREMENTS

Rio Hondo

River

Aug. 4

19 31

~~Crack~~

Time	Location	Disch.	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sq. Ft.	Loss in Sec. Ft. per acre of Wetted Area
9:45 A.M.	Mission Br. Gaging Sta.	4.80	1300	20.0			gain 0.52	
10:15 A.M.	100' below Mission Br.	5.32	1000	15.5	15,500	.36	Loss .60	1.67
10:32 A.M.	300' below gaging sta.	4.70	1000	16.6	16,600	.38	" 1.72	4.53
10:47 A.M.	3300' below gaging Sta.	2.98	1200	17.2	20,640	.47	1.25	2.66
11:30 A.M.	4500' Below gaging sta.	1.73	5000	8.3	41,500	.95	1.63	1.72
12:05 P.M.	9500' Below gaging sta. Jct. with Sl.	.10						

PERCOLATION MEASUREMENTS

Rio Honda Slough

~~River~~
Creek

Aug. 4

1931

Time	Location	Disch	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sec. Ft.	Loss in Sec. Ft. per acre of Wetted Area
12:15 P.M.	Mission Br.	12.84	2400	17.4	41,760	.96	2.56	2.67
12:35 P.M.	2400' Below Mission Br.	10.28	1600	14.6	23,360	.54	3.03	5.61
12:55 P.M.	4000' Below Mission Br.	7.25	2000	11.5	23,000	.53	2.38	4.49
1:25 P.M.	6000' Below Mission Br.	4.87	2000	11.2	22,400	.51	1.71	3.35
1:55 P.M.	8000' Below Mission Br.	3.16	1600	10.8	17280	.40	.56	1.40
2:25 P.M.	9600' Below Mission Br.	2.60						
	Above Junction of Rio Honda							
2:35 P.M.	Below Jct.	4.46	2400	11.0	26,400	.61	.27	.44
3:10	Arroyo Ditch Headgate	4.19						

PERCOLATION MEASUREMENTS

San Dimas

~~River~~
Creek

January 13

1931

Time	Location	Disch.	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sec. Ft.	Loss in Sec. Ft. per acre of Wetted Area
2:05 P.M.	1/2 mi. above Grand Ave.	10.37						
3:00 P.M.	600' below Grand Ave.	4.63	2000	40.1	80200	1.84	5.74	3.12
3:40 P.M.	Citrus Ave.	1.67	4800	12.3	59040	1.36	2.96	2.18
4:00 P.M.	2700' below Citrus Ave.	0.00	2700	8.2	22140	.51	1.67	3.27
						3.71	10.37	2.8 Mean

RECIRCULATION MEASUREMENTS

San Dimas

~~Sucker~~
Creek

Feb. 26

1931

Time	Location	Disch	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sec. Ft.	Loss in Sec. Ft. per acre of Wetted Area
8:20 A.M.	1/4 mi. above Grand Ave.	11.54						
			3300	24.4	80520	1.85	2.43	1.31
9:00 A.M.	1/4 mi. below Grand Ave.	9.11						
			4500	27.6	124200	2.85	6.04	2.12
9:50 A.M.	Citrus Ave. Above inflow	3.07						
9:50 A.M.	Citrus Ave. below inflow	4.07						
			6500	12.5	81250	1.87	3.11	1.66
10:45 A.M.	Azusa Ave.	.96						
			3400	8.9	30260	.69	.96	1.39
11:30 A.M.	3400' below Azusa Ave.	0.00						
						7.26	12.54	

MERCURY VAPOR MEASUREMENTS

San Gabriel

Five

February 6

1931

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Time	Location	Length of Branch	Avg. "Alt" of Branch	Area in Sq. Ft.	Area in Acres	Loss in Branch in Sec. Ft.	Loss in Sec. Ft. per acre of Wetland Area
9:45 A.M.	400' above Foothill Blvd. Bridge	116.44				19.57	
10:10 A.M.	At Split " " San Gabriel	96.87 43.95				10.56	
11:30 A.M.	200' above Power Line	33.39				9.97	
12:30 P.M.	N.W. Line	23.42				8.71	
1:20 P.M.	300' below Lower Azusa Rd.	14.71					

RELATION MEASUREMENTS

San Gabriel

River

April 29

1931

Grook

Time	Location	Disch.	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Loss in Acres	Loss in Reach in Sq. Ft.	Loss in Sq. Ft. per acre of Watted Area
7:30 A.M.	400' Above Foothill Blvd	121.82	4300	58.6	251980	5.78	17.23	2.98
9:00 A.M.	Above Split below Split	104.59 47.04	7300	53.2	388360	8.92	14.66	1.64
10:00 A.M.	Gladstone Power Line	32.38	7400	35.6	263440	6.05	8.25	1.36
11:00 A.M.	N. W. Line	24.13	5400	36.0	194400	4.46	12.61	2.83
12:05	Lower Azusa Road	11.52	3600	34.8	125280	2.88	11.52	4.00
1:00 P.M.	3/4 mi. below Lower Azusa Rd	0.00						

RELATIONSHIP MEASUREMENTS

San Gabriel

River

April 30

1951

Creek

Time	Location	Fisch	Length of Reach	Aver. Width of Reach	Area in Sq. Ft.	Area in Acres	Loss in Reach in Sq. Ft.	Loss in Ac. Ft. per acre of Washed Area
7:50 A.M.	400' above Foothill Blvd.	61.00	4300	52.0	223600	5.13	13.12	2.56
8:50 A.M.	Above Split Below Split	48.88 18.07	7300	37.3	272290	6.25	6.90	1.10
10:00 A.M.	Gladstone Power Line	11.17	7400	29.4	217560	4.99	5.90	1.18
11:00 A.M.	N.W. Line	5.27	5400	18.6	100440	2.31	5.27	2.28
12:10 P.M.	Lower Azusa Road	0.00						