

R U N O F F C U R V E S .

Southern California Watersheds.

(Arrohead, Cuyamaca, Lake, San Diego, Cottonwood.)

Compiled by W. S. Post.

Nov. 1912 .

Runoff Curves

513 American Bank Bldg.
San Diego, Cal.

WILLIAM S. POST
ASSOC. MEM. A.S.C.E.
1217 HIBERNIAN BLDG.
LOS ANGELES, CALIFORNIA

513 American National Bank Building,
San Diego, Cal. Nov. 23, 1912.

Mr. W. D. Lovell,
1415 8th St., S. E.,
Minneapolis, Minn.

Dear Sir:-

The enclosed diagrams are a study of the runoff on the San Diego River, from the records of the San Diego Flume Company. These records have been carefully checked up from the original reports and I consider them trustworthy.

Diagram No. 1 is the runoff in acre feet per sq. mile of Cuyamaca Lake, fro, 1893 to date, 19 years; showing a mean curve and the high and low limits of the variations.

Diagram No. 2, gives the same data for the remainder of the basin, 92 square miles.

Diagram No. 3, repeats the mean curves for Cuyamaca and lower San Diego River, and also shows the curve for Arrowhead, (headwaters of Mojave River near San Bernardino) which has been carefully observed for years, and a curve constructed from the values suggested by Mr. O'Shanghuessy in May. I plot the San Luis Rey for 1905-06 and 1911-12 and the Santa Ysabel for 1911-12 to indicate where they stand in relation to these curves.

It seems to me to demonstrate that our runoff will lie between the Cuyamaca and San Diego Curves and considerably higher than O'Shanghuessy's

Very sincerely yours,

William S. Post.

RAINFALL-RUN-OFF.

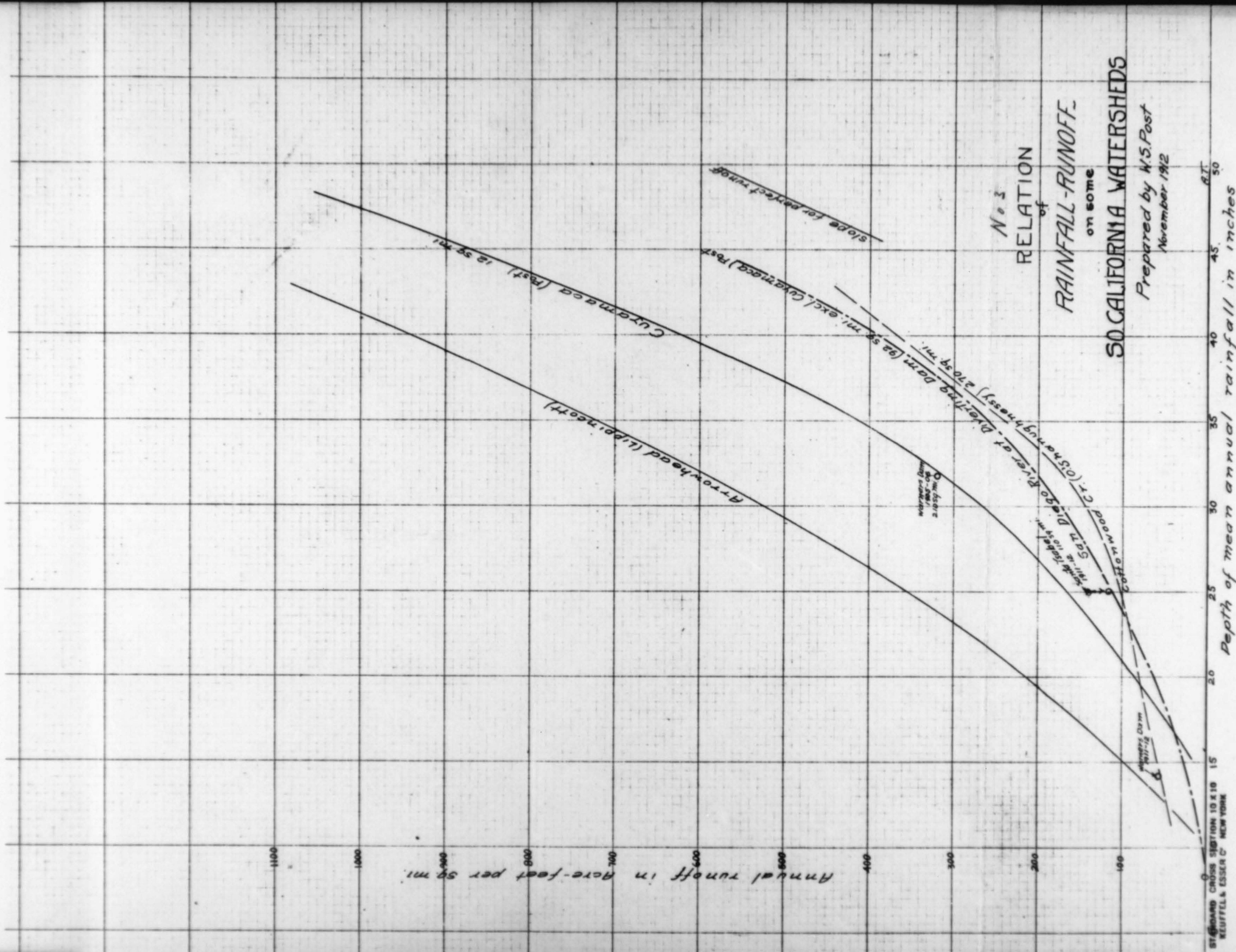
Record of Actual Gagings on Some Southern California Watersheds.
Used in Accompanying Diagrams.

Mean rainfall is approximate, based on various
Rain Gage Records.

<u>Watershed</u>	<u>Season or year</u>	<u>Area</u>	<u>Mean Rainfall</u>	<u>Ac.Ft. per Sq. Mi.</u>
Cottonwood	1906	270	32.33	230
	1907		15.67	144
	1908		18.69	35
	1909		28.56	121
	1910		12.61	45
San Luis Rey (Warners)	1905-06	210	31.8	319
	1911-12		14.1	55
Santa Ysabel	1911-12	210	25.	102
Cuyamaca	1893-94	12	12.7?	214
	94-95		46.3	941
	95-96		19.8	179
	96-97		32.9	351
	97-98		23.4	69
	98-99		19.7	39
	99-00		23.4	22
	1900-01		36.2	253
	01-02		30.4	196
	02-03		31.8	209
	03-04		19.8	41
	04-05		48.9	568
	05-06		46.4	1065
	06-07		37.6	772
	07-08		24.1	267
	08-09		37.0	598
	09-10		28.4	428
10-11	28.4	231		
11-12	28.3	293		
Average			32.9	354.5

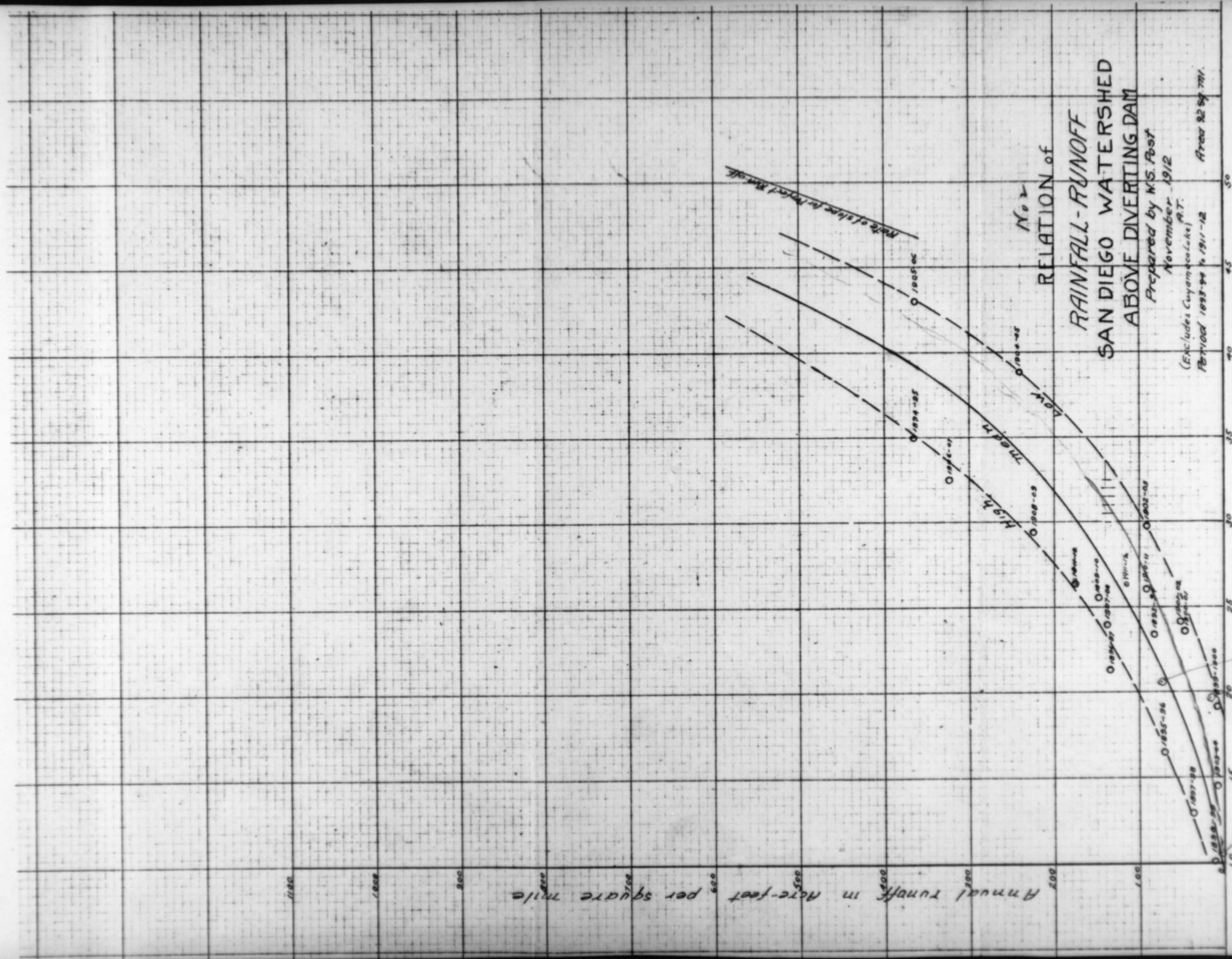
RAINFALL-RUN-OFF. Cont'd.

<u>Watershed</u>	<u>Season or year</u>	<u>Area</u>	<u>Mean Rainfall</u>	<u>Ac.Ft. per Sq. Mi.</u>
San Diego Diverting Dam	1893-94	92	22.8	82
	94-95		35.	366
	95-96		16.5	70
	96-97		21.3	136
	97-98		12.9	38
	98-99		10.2	11
	99-00		19.3	7
	1900-01		23.6	47
	01-02		24.2	50
	02-03		29.3	91
	03-04		14.5	8
	04-05		38.8	240
	05-06		43.	363
	06-07		32.5	324
	07-08		23.9	137
	08-09		29.4	225
	09-10		25.6	148
10-11	26.1	91		
11-12	26.4	176		
Average		29.6	133	



No. 3
RELATION
of
RAINFALL-RUNOFF
ON SOME
SOUTHERN CALIFORNIA WATERSHEDS
Prepared by U.S. Post
November 1912

STANDARD CROSS SECTION 10 x 10
KUFFEL & ESSER - NEW YORK



No. 2
RELATION OF
RAINFALL-RUNOFF
SAN DIEGO WATERSHED
ABOVE DIVERTING DAM

Prepared by M.S. Post
November 1912
(Excludes Cuyamaca Lake) P.T.
Period 1893-94 to 1911-12
Area 92 Sq. Ml.

Depth of mean Annual Rainfall in Inches

50
45
40
35
30
25
20
15
10

Annual runoff in Acre-foot per square mile

1000
2000
3000
4000
5000
6000
7000
8000
9000
10000

Shasta 11,700 1911
1911-12
1913-14
2124"

Note of slope for Project No. 100500

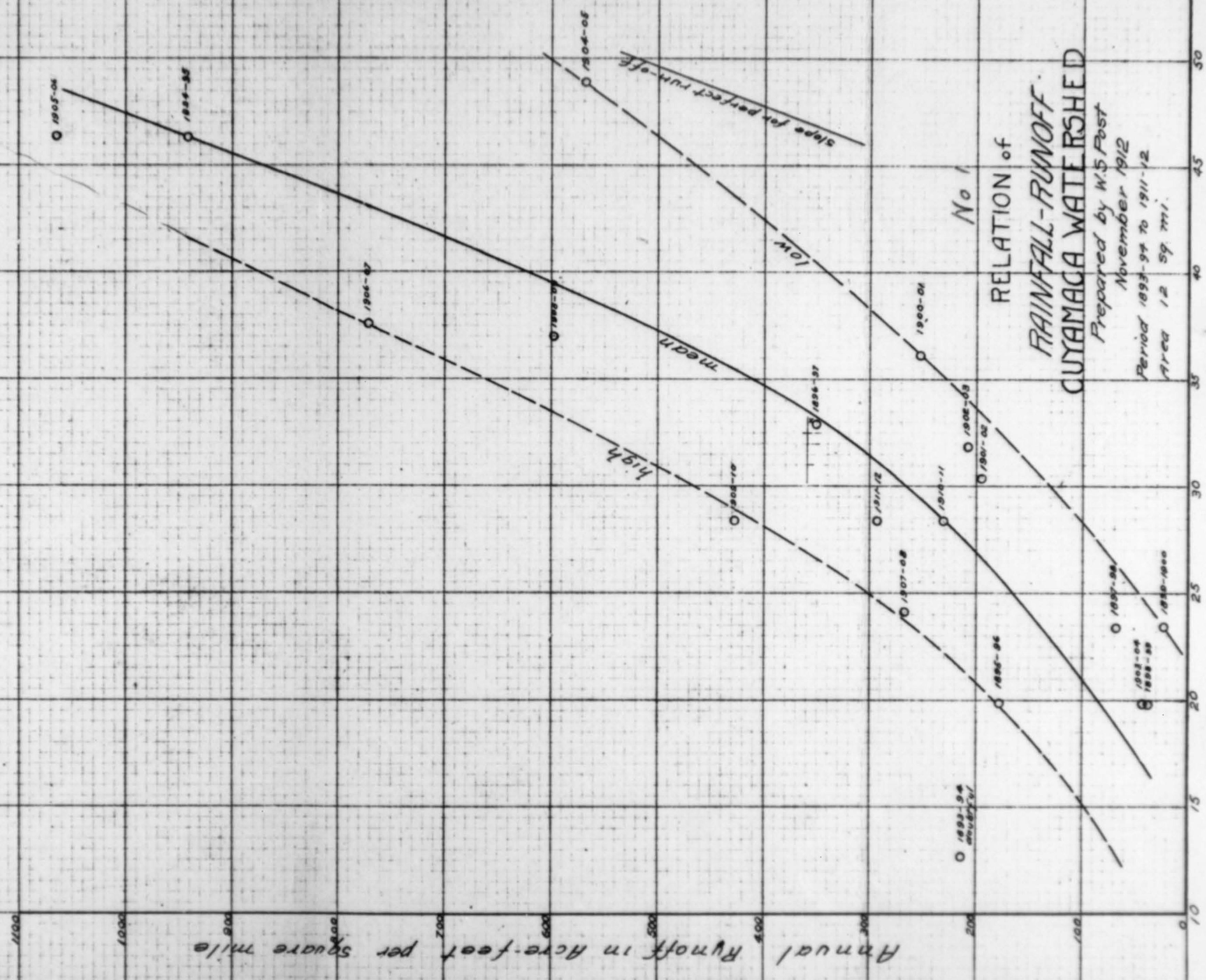
High
Med
Low

1893-94
1894-95
1895-96
1896-97
1897-98
1898-99
1899-00
1900-01
1901-02
1902-03
1903-04
1904-05
1905-06
1906-07
1907-08
1908-09
1909-10
1910-11
1911-12

No. 1
RELATION OF
RAINFALL-RUNOFF.
CUYAMACA WATERSHED

Prepared by W.S. Post
November 1912
Period 1893-94 to 1911-12
Area 12 59 mi.

Depth of mean annual rainfall in inches



Annual Runoff in Acre-feet per square mile

Ed Fletcher Papers

1870-1955

MSS.81

Box: 40 Folder: 13

**Business Records - Reports - Post, W.S - "Report on
Runoff Curves, Southern California Water Sheds"**



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