STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

PUBLICATION OF THE
DIVISION OF WATER RESOURCES
EDWARD HYATT, STATE ENGINEER

REPORT ON

WATER MASTER SERVICE

ON

FRANKLIN CREEK

MODOC COUNTY, CALIFORNIA

FOR THE SEASON OF 1934

By

J. W. McPartland
Deputy Water Master

Sacramento, California
March 1935

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1. Precipitation Data.
2. Continuous Records of Daily Discharge in Cubic Feet per Second of Franklin Creek above all Diversions for the Period April 3d to September 24, 1934.
3. Average Water Deliveries on Franklin Creek Compared with Allotments - 1934 season.
4. Estimated Crop Yields on Typical Lands Irrigated from Franklin Creek - 1934.

PLATE:

1. Hydrographs of Franklin Creek Showing Water Supply above all Diversions in 1932 and 1934.

LETTER OF TRANSMITTAL

March 1, 1935

Mr. Harold Conkling
Deputy State Engineer
Sacramento, California.

Dear Sir:

Attention: Mr. Gordon Zander
Supervising Hydraulic Engineer

A report covering the water distribution work of the water master on Franklin Creek, Modoc County, California, during the period April 3d to September 24, 1934, is transmitted herewith.

The methods and practices followed in the distribution of water of Franklin Creek under the provisions of the case of C. E. Crowder, et al., vs. P. Indart, et al. are described and the results obtained under this distribution are also presented.

Respectfully submitted,

J. W. McPartland
Deputy Water Master

ORGANIZATION

Earl Lee Kelly	Director of Public Works
Edward Hyatt	State Engineer
Harold Conkling	Deputy State Engineer

GORDON ZANDER

Supervising Hydraulic Engineer

T. Russel Simpson	Senior Hydraulic Engineer
L. C. Jopson	Modoc County Water Master
J. W. McPartland	Deputy Water Master

GENERAL DESCRIPTION OF WORK

Water master service on Franklin Creek, during the 1934 season was conducted in accordance with the decree in the case of C. E. Crowder et al., vs. F. Indart, et al. The decree on the above case was entered on September 8, 1933.

The field work was commenced on April 3d by J. W. McPartland, Deputy Water Master. On June 9th, L. C. Jopson, Modoc County Water Master assumed the duties of water master which terminated on September 24, 1934.

The water supply of Franklin Creek during the 1934 season produced sufficient water for the first priority, with 100 per cent allotment to a minimum of 71 per cent for the second priority; from April 3d to June 21st the third priority received approximately a mean of 13 per cent with no water available during the entire season for the fourth priority. One-half of the water of the second priority allotted to the Crowder Ranch commencing on September 15th was insufficient to reach the Crowder Ranch and some was allowed to be used by the water users above the Crowder Ranch as before September 15th for domestic and stock watering purposes.

Due to the shortage of water on April 9th, at the request of some of the water users, the South Fork of Franklin Creek was shut off, leaving all the available water in the North Fork.

DISCUSSION OF RESULTS FOR THE SEASON

The monthly and seasonal precipitation at Lakeview, Oregon, for the period of water master service on Franklin Creek is tabulated in Table 1. The mean precipitation for the station from 1884 to 1934 is also shown, as well as a tabulation of the precipitation in 1933-34 in per cent of the total mean precipitation. The seasonal precipitation in 1933-34 was 82.0 per cent of the total mean.

Table 2 is a tabulation in cubic feet per second of Franklin Creek at the register station above all diversions.

Table 3 is a tabulation of the per cent of allotments delivered in each of the priority classes during the periods indicated. Total deliveries, per cent of total allotments delivered, total water supply and per cent of channel accretion or loss are also included in the table.

Table 4 is a tabulation of the estimated crop yields on typical lands irrigated from Franklin Creek in 1934.

Measuring devices and headgates were installed during the 1934 season as follows:

2 foot rectangular weir - North Fork (Woody Ranch)
12 inch rectangular weir - Erickman Ditch
12 inch rectangular weir - Hanson Upper Ditch

During the haying season, certain users in the second priority turned their water off, the water being used by those who were in a position to do so. The water for the Sherer Ranch was kept in the Morrison Ditch until August 17th when the flow of Franklin Creek was insufficient, combined with poor ditches, for delivery to the Sherer Ranch and the water was returned to the Creek.

The Lee and Dawson Ranches commenced rotating the use of their respective amounts of water from about April 18th to the end of the season.

CONTROVERSIES

There were no disputes over the distribution of water of Franklin Creek during the 1934 season.

Mr. Dawson (Dawson Ranch) and Mr. Woody (Lee Ranch) constructed a dam across Franklin Creek just below the Lee house which would hold approximately 1.5 acre-feet. Due to the shortage of water, Dawson and Woody would store their water for a period of 24 hours and release same to give them a larger irrigation head to try to cover more ground. Mr. Crowder interviewed Judge Jamison of the Superior Court of Modoc County and stated the dam would hinder the amount of water due him from Franklin Creek, but the writer informed Judge Jamison that the water master would have control over said dam and that any water due Crowder would pass through the head gate unmolested to Mr. Crowder and under the circumstances the Judge agreed that Mr. Dawson and Mr. Woody would not injure Mr. Crowder.

RECOMMENDATION

There are a number of headgates and Parshall measuring flumes which should be installed, when the necessary time and material are available.

FINANCIAL STATEMENT

Under the provisions of Section 37f of the Water Commission Act, all funds collected in a water master district are kept separate and placed in a fund to the credit of that district.

There is submitted on the following page, a statement of the funds collected and expenditures during the period from March 1, 1934 to January 1, 1935, for the Franklin Creek Water Master District.

FINANCIAL STATEMENT

FRANKLIN CREEK WATER DISTRICT FUND

JANUARY 1, 1935

RECEIPTS

Contributed by State in 1934	$200.00	
Contributed by Taxpayers (Jan.1/34 to Jan.1/35)	176.76	
	376.76	$376.76

DISBURSEMENTS
(Jan. 1/34 to Jan. 1/35)

Water Master Compensation.	177.38	
Water Master Travel Expense	68.32	
Contingencies		
	245.70	245.70
BALANCE		131.06

TABLES

TABLE 1

PRECIPITATION DATA
AVERAGE AT LAKEVIEW, OREGON

Season	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Seasonal
1927-28	0.61	0.98	4.04	0.71	1.14	1.06	2.22	0.95	0.21	0.34	T	0.10	12.36
1928-29	.11	.39	1.21	.64	1.00	.50	.69	2.04	.02	1.31	0.00	.02	7.93
1929-30	.16	.45	T	3.22	1.69	1.18	1.05	.90	1.11	.21	T	.51	10.48
1930-31	.85	.29	1.02	.07	.38	1.10	1.39	.22	.19	.89	T	T	6.40
1931-32	.26	1.32	.96	1.60	1.26	.39	1.89	2.33	1.17	.98	T	.02	12.18
1932-33	.00	.44	.39	1.01	1.53	.70	1.04	.96	1.36	.59	.27	T	8.29
1933-34	.24	1.48	.01	1.14	1.31	1.60	1.50	1.06	1.81	1.20	.00	T	11.35
Mean 1884-1934	.65	.86	1.65	1.72	1.88	1.76	1.43	1.12	1.26	.94	.34	.25	13.86
1933-1934 in per cent of total mean	1.7	10.7	.1	8.2	9.5	11.5	10.8	7.7	13.1	8.7	.0	.0	82.0

TABLE 3

AVERAGE WATER DELIVERIES ON FRANKLIN CREEK
COMPARED WITH ALLOTMENTS - 1934 SEASON

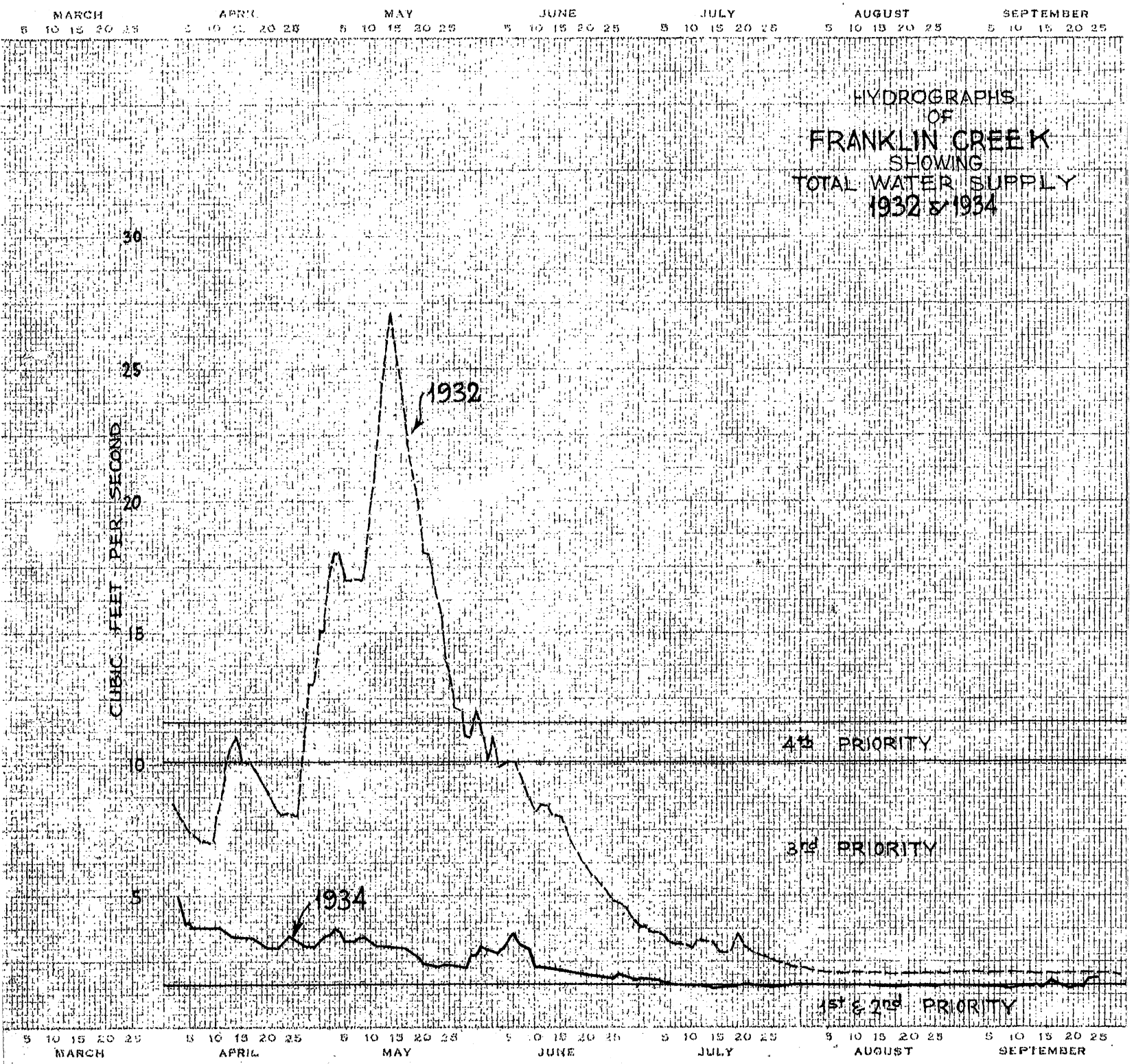
Period	Per Cent of Allotments Delivered					Total Deliveries c.f.s.	Average Flow Above Diversions c.f.s.	Per cent Channel Accretion or Loss
	1st Priority	2nd Priority	3rd Priority	4th Priority	Total			
4/3 to 4/12	100	100	22	0	30	3.51	3.81	-8
4/13 to 4/22	100	100	15	0	25	2.95	3.24	-9
4/23 to 5/2	100	100	16	0	26	2.98	3.27	-9
5/3 to 5/12	100	100	16	0	26	3.03	3.33	-9
5/13 to 5/22	100	100	11	0	22	2.52	2.80	-10
5/23 to 6/1	100	100	8	0	20	2.31	2.60	-11
6/2 to 6/11	100	100	12	0	23	2.65	2.95	-10
6/12 to 6/21	100	100	3	0	16	1.88	2.16	-13
6/22 to 7/1	100	100	0	0	14	1.65	1.94	-15
7/2 to 7/11	100	83	0	0	12	1.40	1.70	-18
7/12 to 7/21	100	76	0	0	11	1.29	1.59	-19
7/22 to 7/31	100	71	0	0	10	1.22	1.52	-20
8/1 to 8/10	100	82	0	0	12	1.39	1.68	-18
8/11 to 8/20	100	79	0	0	12	1.34	1.63	-18
8/21 to 8/30	100	76	0	0	11	1.29	1.59	-19
8/31 to 9/9	100	75	0	0	11	1.27	1.57	-19
9/10 to 9/24	100	80	0	0	12	1.35	1.65	-18

1st Priority Allotments - 0.175 cubic feet per second
2nd Priority Allotments - 1.46 cubic feet per second
3rd Priority Allotments - 8.49 cubic feet per second
4th Priority Allotments - 1.53 cubic feet per second

TABLE 4

ESTIMATED CROP YIELDS ON TYPICAL LANDS
IRRIGATED FROM FRANKLIN CREEK-1934

Owner	Crop	Acres	Total Yield		Yield per Acre	
			Sacks	Tons	Sacks	Tons
F. Lee	Meadow Hay	160.0		50.0		0.3
	Wheat	30.0	150		5	
J. Dawson	Meadow Hay	(Only ½ of total cut)		35.0		
G. Stone	Alfalfa Hay	10.0		13.0		1.3
	Meadow Hay	15.0		16.0		1.0


HYDROGRAPHS
OF
FRANKLIN CREEK
SHOWING
TOTAL WATER SUPPLY
1932 & 1934
MARCH
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
5 10 15 20 25
CUBIC FEET PER SECOND
30
25
20
15
10
5
1932
1934
4th PRIORITY
3rd PRIORITY
1st & 2nd PRIORITY