STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

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

REPORT ON

WATER MASTER SERVICE

ON

NEW PINE CREEK

MODOC COUNTY, CALIFORNIA

FOR THE SEASON OF 1938

By

J. Victor Scammon
Water Master's Assistant

Sacramento, California
March 1940

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DIVISION OF WATER RESOURCES
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LETTER OF TRANSMITTAL

March 15, 1940

Mr. Harold Conkling
Deputy State Engineer
Sacramento, California

Dear Sir: Attention: Mr. Gordon Zander
Supervising Hydraulic Engineer

There is submitted herewith a report covering water master service on New Pine Creek in Modoc County, California, during the 1938 season.

The report describes the methods and practices followed in the distribution of the waters of New Pine Creek under the provisions of the decree in the case of Edward E. Keller, et. al., v. Anna Jensen, et. al., and presents the results obtained under this distribution.

Respectfully submitted,

Water Master's Assistant

INTRODUCTION

Water master service was conducted in the New Pine Creek Water Master District during the 1938 season under the provisions of sections 37 and 37a of the Water Commission Act.

The decree in the case of Edward Keller, et.al., v. Anna Jensen, et. al., entered on June 14, 1932, was used as the basis of the water distribution.

The field work was commenced on April 28 by W. A. Alexander, who relinquished his duties as water master to J. Victor Scammon on June 19. Thereafter Mr. Scammon, under the direction of T. R. Simpson, Supervising Water Master, acted as water master until the termination of the season on September 18, 1938.

DISCUSSION OF RESULTS

In Table 1 is presented a monthly and seasonal record of the precipitation at Lakeview, Oregon. The mean precipitation for the station from 1884 to 1938 is shown as well as a tabulation of the precipitation in 1937-38 in percent of the total mean precipitation. The seasonal precipitation in 1937-38 was 151.3 percent of the total mean.

Table 2 is a daily record of the flow in cubic feet per second of New Pine Creek at the register station below the Schroeder Ranch.

Table 3 is a tabulation of estimated flow in cubic feet per second of New Pine Creek above all diversions. This table is a summation of the daily discharge in Table 2 and the estimated combined diversions by the Schroeder Ranch.

Table 4 is a tabulation of the per cent of allotments delivered to each priority class during the periods indicated. The per cent of total allotments delivered and surplus over deliveries are also shown in the table. During the period of high flow in May and June, 200 per cent of allotments was diverted in order to facilitate the irrigation on the ranches.

In Table 4 the special uses on the Cook and the Butler Ranches were not considered. According to the decree Walter Butler is allowed 0.40 cubic foot per second for six days in each of the two periods from April 1st to May 20th and May 20th to June 20th. C. J. Cook is allowed 0.72 cubic foot per second under the same conditions. Both users customarily divert at the same time and rotate in the use of the water but owing to the excess water during their periods of use in 1938 they were permitted to divert as much as they found convenient.

The water supply until June 30 was sufficient to meet the requirements of all priorities. The Surplus Ditch was allowed to run over the allotted

time during May and June as there was water running into the lake throughout those months.

After July 1 there were full allotments under the changed schedule until July 5 and then a diminishing delivery until a minimum of full first priority and 31 per cent second priority allotments was reached about September 15.

The available water was adequate to permit the flour mill to open on September 6 without interfering with the irrigation use on the California Ditch.

The California Ditch was thoroughly cleaned in May so that a full head was diverted as long as there was water available, eliminating the necessity of rotating.

Plate 1 is a hydrograph of the water supply in 1938 and 1932.

VIOLATION OF DECREE OR CONTROVERSIES

No violation of the decree or controversies over the distribution of the water of New Pine Creek developed during the 1938 season.

RECOMMENDATIONS

It is recommended that all possible effort be made to have adequate gates and control structures installed in the California Ditch.

TABLES

TABLE 1

MONTHLY PRECIPITATION DATA AT LAKEVIEW, OREGON

Season	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July	August	Seasonal
1928-1929	.11	.39	1.21	.64	1.00	.50	.69	2.04	.02	1.31	0.00	.02	7.93
1929-1930	.16	.45	T	3.22	1.69	1.18	1.00	.90	1.11	.21	T	.51	10.48
1930-1931	.85	.29	1.02	.07	.38	1.10	1.39	.22	.19	.89	T	T	6.40
1931-1932	.26	1.32	.96	1.60	1.26	.39	1.89	2.33	1.17	.98	T	.02	12.18
1932-1933	.00	.44	.39	1.01	1.55	.70	1.04	.96	1.36	.59	.27	T	8.29
1933-1934	.24	1.48	.01	1.14	1.31	1.60	1.50	1.06	1.81	1.20	.00	T	11.35
1934-1935	.60	.97	3.09	1.35	1.63	1.16	1.38	3.36	.99	0.33	0.34	0.00	15.20
1935-1936	T	.95	.56	1.73	4.30	2.78	.78	1.06	1.15	0.52	.00	.16	13.99
1936-1937	.35	T	.00	.59	1.10	2.78	1.74	1.57	0.41	1.53	.04	.00	10.11
1937-1938	0.17	2.31	2.69	3.92	1.42	2.61	3.02	.92	0.67	.32	0.56	0.10	18.81
Mean 1884-1938	0.58	0.89	1.60	1.51	1.65	1.57	1.26	0.98	1.05	0.72	0.35	0.26	12.42
1937-1938 in per cent of total mean	1.4	18.6	21.6	31.5	11.4	21.0	24.3	7.4	5.4	2.6	5.3	.8	151.3

T = Trace, or precipitation less than 0.01 inch

TABLE 4

AVERAGE WATER DELIVERIES
ON
NEW PINE CREEK
COMPARED WITH ALLOTMENTS--
1938 SEASON

Period	Per Cent of Allotment Delivered: 1st Priority	2nd Priority	3rd Priority	4th Priority	Total	Average Flow Above Diversions c.f.s.	Surplus
4/28--5/7	200				200	63.0	18.6
5/8--5/17	200	NO	ALLOTMENT		200	68.9	24.5
5/18--5/27	200				200	64.7	20.3
5/28--6/6	200				200	74.1	29.7
6/7--6/16	200				200	55.4	11.0
6/17--6/26	100				100	37.6	15.4
6/27--6/30	100				100	26.0	4.8
7/1--7/6	100	100	100	100	100	26.0	4.8
7/7--7/16	100	100	100	21	78	17.2	0
7/17--7/26	100	100	100	10	61	13.6	0
7/27--8/5	100	100	90	0	54	11.9	0
8/6--8/15	100	100	41	0	42	9.2	0
8/16--8/25	100	100	5	0	32	7.0	0
8/26--9/4	100	63	0	0	24	5.3	0
9/5--9/14	100	37	0	0	19	4.3	0
9/15--9/18	100	31	0	0	19	4.1	0

PRIORITIES:

April 28 to June 30 -- 1st--22.18 c.f.s.
July 1 to September 18-- 1st-- 2.92 "
2nd-- 3.81 "
3rd-- 5.84 "
4th-- 9.61 "