DEPARTMENT OF PUBLIC WORKS

STATE OF CALIFORNIA

REPORTS OF THE

DIVISION OF WATER RESOURCES

EDWARD HYATT, State Engineer

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REPORT ON WATER MASTER SERVICE ON CEDAR CREEK

MODOC COUNTY, CALIFORNIA

1932 SEASON

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By

Leslie C. Jopson, Modoc County Water Master

Sacramento, California

March 1933

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STATE OF CALIFORNIA

Department of Public Works

SACRAMENTO

DIVISION OF WATER RESOURCES
401 PUBLIC WORKS BUILDING

EDWARD HYATT, STATE ENGINEER
CHIEF OF DIVISION

March 1933.

Mr. Harold Conkling,
Deputy State Engineer,
Sacramento, California.

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

Herewith is presented a report of the water master service in the Cedar Creek Water Master District, Modoc County, California, for the 1932 season.

The methods and practices followed in the distribution of the waters of Cedar Creek, including the Thoms Creek Ditch, in accordance with the decrees in the cases of W. E. Hill, et al. vs. H. Acty, et al. and D. M. Lighty vs. H. E. Cook, are described in this report. The results obtained under this distribution are also presented.

Respectfully submitted,

L. C. JOPSON
Modoc County 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
Leslie C. Jopson	Modoc County Water Master
Heath Stanley	Deputy Water Master

GENERAL DESCRIPTION OF WORK

Water master service was conducted in the Cedar Creek Water Master District in 1932 in accordance with the provisions of the decrees in the cases of W. E. Hill et al. vs. Herman Acty et al. and D. M. Lighty vs. John R. Cook, et al.

The field work was commenced by the writer on March 28th and was ended on June 30th. Mr. Heath Stanley was employed on a part time daily basis as deputy water master on Cedar, Owl, Emerson, Mill and Soldier Creeks during April and May.

The water supply of Cedar Creek in 1932 was ample up to the beginning of June. During the greater part of April and the first half of May there was a considerable surplus of water above the amount required for all irrigation. The Thoms Creek Ditch was open from May 20th to June 30th. The maximum average daily flow was 3.00 cubic feet per second.

All the ditches were opened at some time during the season and all the ranches were completely irrigated.

DISCUSSION OF RESULTS FOR SEASON

The precipitation at Cedarville for the seasonal year September 1, 1931, to August 31, 1932, has been compared with that of the preceding years of water master service in Surprise Valley in Table 1 of this report. The seasonal precipitation for 1931-32 was 110.7 per cent of the mean for the period 1894-1931. The wet winter of 1931-32 was followed by a dry spring and summer which made the seasonal total less than might have been expected.

Table 2 shows the water supply of Cedar Creek above all diversions for the 1932 season. The amount of water diverted into the Cedar Creek watershed by the Thoms Creek Ditch is included in this tabulation. The hydrograph at the end of the report shows this water supply graphically and compares it to that of 1927 which was an approximately normal year.

Table 3 is a tabulation of the estimated daily discharge of the Thoms Creek Ditch into Cedar Creek.

Table 4 is a tabulation of the per cent allotments delivered to each priority class during the periods indicated. The average daily discharge and channel loss as well as the per cent allotments of the Thoms Creek water are shown.

Table 5 shows the crop yields on typical lands irrigated from Cedar Creek.

RECOMMENDATIONS

New headgates and measuring devices should be installed on the various ditches diverting from Cedar Creek.

FINANCIAL STATEMENT

The funds collected from the water users in the various Water Master Districts to meet the costs of water master service are placed to the credit of the various water master district funds by the State Treasurer. The State contributes an amount to the funds equal to that contributed by the water users. These funds are then drawn on by the Division of Water Resources to meet the costs of water master service.

FINANCIAL STATEMENT

CEDAR CREEK WATER MASTER DISTRICT FUND

March 1, 1933

RECEIPTS

Balance on March 1, 1932	$216.19	
Contributed by State in 1932.....	150.00	
Contributed by Taxpayers (Mar.1/32 to Mar.1/33)	143.05	$509.24

DISBURSEMENTS

Water Master Compensation	$114.05	
Water Master Travel Expense	38.73	
Cost of Publication of Financial Statement	22.50	$175.28

BALANCE $333.96

T A B L E S

TABLE 1

PRECIPITATION

Cedarville, California

Season	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Seasonal
1924-25	0.25	2.06	1.86	1.66	1.08	1.34	0.61	0.65	1.59	0.49	0.29	0.30	12.18
1925-26	1.34	1.57	1.31	1.25	1.06	1.18	.13	1.26	1.07	T	.09	.09	10.35
1926-27	.15	.53	2.73	1.16	1.82	2.02	1.73	.81	.95	.35	T	T	12.25
1927-28	.32	.86	2.87	.86	.92	.75	2.93	.81	T	.55	.00	.00	10.87
1928-29	.40	.15	1.43	.42	2.08	.59	1.20	1.85	.29	1.98	.00	T	10.39
1929-30	.07	.19	.00	3.02	3.39	1.53	.83	.51	.67	T	.02	T	10.23
1930-31	1.64	.59	1.22	.18	.67	.66	1.68	.58	.25	2.25	.00	.00	9.72
1931-32	.33	3.20	.96	1.85	2.23	.70	1.97	1.87	.53	.22	T	T	13.86
Mean 1894 to 1932	0.55	1.01	1.59	1.61	1.76	1.55	1.45	.90	1.03	.65	.24	.18	12.52
1931-32 in per cent of total mean	2.6	25.6	7.8	14.8	17.8	5.6	15.7	14.9	4.2	1.8	.0	.0	110.7

TABLE 2

CONTINUOUS RECORDS OF DAILY DISCHARGE IN CUBIC FEET PER SECOND OF CEDAR CREEK, INCLUDING THOMS CREEK DITCH, ABOVE ALL DIVERSIONS FOR THE PERIOD MARCH 28th TO JUNE 30th, 1932.

Day	Mar.	Apr.	May	June	July	
1		46.0	44.0	11.5		
2		46.0	41.0	12.4		
3		41.0	41.0	12.0		
4		*38.0	40.0	10.9		
5		35.0	37.0	10.3		
6		32.0	38.0	9.70		
7		30.0	*39.0	8.70		
8		29.0	*40.0	8.25		
9		32.0	*40.0	7.75		
10		35.0	*39.0	7.30		
11		36.0	*39.0	7.00		
12		38.0	*38.0	6.60		
13	NO RECORD	37.0	38.0	6.60	NO RECORD	
14		35.0	36.0	6.30		
15		35.0	33.0	6.00		
16		33.0	30.0	6.00		
17		32.0	25.0	5.55		
18		33.0	23.0	5.25		
19		35.0	21.0	5.10		
20		32.0	21.0	4.95		
21		26.0	23.0	4.65		
22		23.0	20.0	4.40		
23		23.0	18.5	4.10		
24		28.0	16.5	3.95		
25		29.0	14.5	3.75		
26		27.0	15.6	3.50		
27		30.0	16.5	3.30		
28	43.0	41.0	15.0	3.10		
29	40.0	41.0	14.5	2.80		
30	40.0	42.0	17.1	2.60		
31	44.0	--	14.5	--		
Total Sec. Feet Days	**167.0	1020.0	888.7	194.30		95 Day Period
Mean Sec. Feet	41.8	34.0	28.7	6.48		23.9
Maximum Sec. Feet	44.0	46.0	44.0	12.4		46.0
Minimum Sec. Feet	40.0	23.0	14.5	2.6		2.6
Total Ac. Feet	331	2020	1760	385		4500

* Discharge Estimated
** 4 Day Period

TABLE 3

ESTIMATED DAILY DISCHARGE IN CUBIC FEET PER SECOND OF THOMS CREEK DITCH INTO CEDAR CREEK - 1932.

Day	May	June	July	
1		1.60		
2		1.50		
3		1.35		
4		1.20		
5		1.10		
6		1.00		
7		.90		
8		.80		
9		.70		
10		.60		
11		.50		
12		.45		
13		.40		
14		.35		
15	NO	.30	NO	
16		.25		
17	DIVERSION	.25	DIVERSION	
18		.25		
19		.25		
20	0.60	.30		
21	2.00	.30		
22	1.60	.30		
23	1.50	.30		
24	1.90	.30		
25	2.30	.30		
26	2.80	.20		
27	2.90	.20		
28	3.00	.20		
29	3.00	.10		
30	3.00	.10		
31	2.20	---		
Total Sec. Feet Days	*26.80	16.35		42 Day Period
Mean Sec. Feet	2.23	.54		1.03
Maximum Sec. Feet	3.00	1.60		3.00
Minimum Sec. Feet	.60	.10		.10
Total Acre Feet	53.1	32.4		85.5

* 12 Day Period

TABLE 4

WATER DELIVERIES ON CEDAR CREEK COMPARED TO ALLOTMENTS - 1932

Period 1932	Average Daily Discharge Including Thoms Cr. Ditch c.f.s.	Cedar Creek: Average Channel Loss c.f.s.	Cedar Creek: Average Combined Diversions c.f.s.	Cedar Creek: Per cent of Full Allotments Delivered: 1st Priority 5.00 c.f.s.	2nd Priority 15.00 c.f.s.	3rd Priority 3.90 c.f.s.	Total 23.90 c.f.s.	Thoms Creek: Average Combined Diversions c.f.s.	Thoms Creek: Per cent of Allotment Delivered 5.00 c.f.s.
3/28 to 4/6	40.50	2.00	*38.50	100	100	100	100	0.00	0
4/7 to 4/16	34.00	2.00	*32.00	100	100	100	100	0.00	0
4/17 to 4/26	28.80	2.00	*26.80	100	100	100	100	0.00	0
4/27 to 5/6	39.50	2.00	*37.50	100	100	100	100	0.00	0
5/7 to 5/16	37.20	2.00	*35.20	100	100	100	100	0.00	0
5/17 to 5/26	19.81	2.00	16.00	100	73	0	67	1.81	36
5/27 to 6/5	13.47	1.50	9.89	100	33	0	41	2.08	42
6/6 to 6/15	7.42	1.00	5.82	100	5	0	24	0.60	12
6/16 to 6/25	4.77	0.50	3.97	79	0	0	17	0.30	6
6/25 to 6/30	3.06	0.10	2.80	56	0	0	12	0.16	3

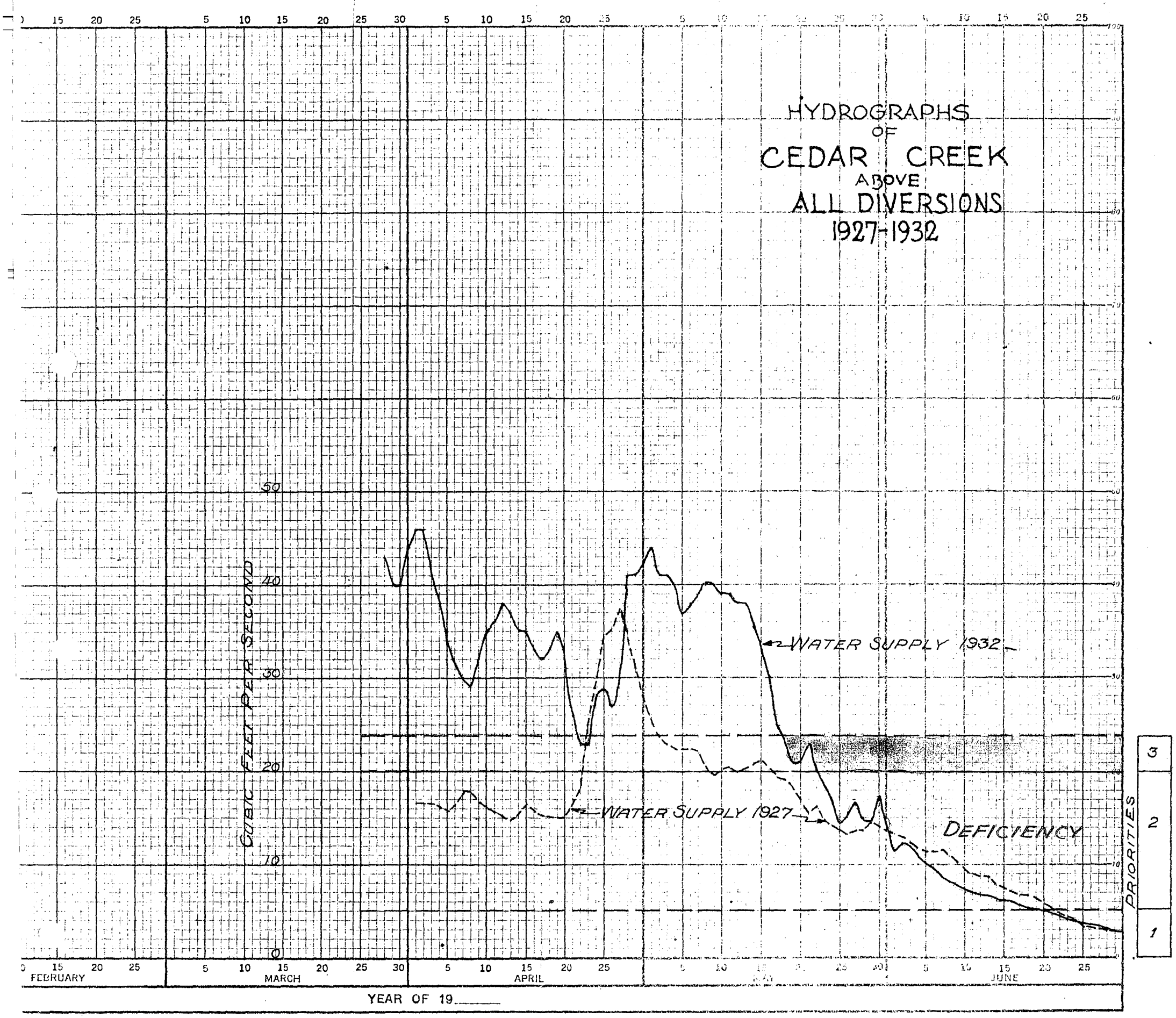
* Indicates surplus over all use in these periods.

TABLE 5

CROP YIELDS FROM TYPICAL LANDS IRRIGATED
FROM CEDAR CREEK - 1932.

Owner	Crop	Acres	Total Yield		Yield per Acre	
			Tons	Sacks	Tons	Sacks
G. L. Beebe	Alfalfa	40	120		3.0	
	Grain Hay	54	100		1.9	
L. McCulley	Alfalfa	100	450		4.5	
	Meadow Hay	150	450		3.0	
Norton and Marsh	Alfalfa	75	150		2.0	
	Wheat	14		170		12.1
H. Rhinehart	Alfalfa	30	90		3.0	
	Wheat	4		75		18.8

P L A T E


HYDROGRAPHS
OF
CEDAR CREEK
ABOVE
ALL DIVERSIONS
1927-1932
CUBIC FEET PER SECOND
50
40
30
20
10
0
WATER SUPPLY 1932
WATER SUPPLY 1927
DEFICIENCY
PRIORITIES
3
2
1
FEBRUARY
MARCH
APRIL
JUNE
YEAR OF 19