

STATE OF CALIFORNIA  
DEPARTMENT OF PUBLIC WORKS  
DIVISION OF WATER RESOURCES

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EARL WARREN, Governor

C. H. FURCELL, Director of Public Works

A. D. EDMONSTON, State Engineer

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SEIAD CREEK ADJUDICATION

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R E P O R T O N  
W A T E R M A S T E R S E R V I C E

ON

SEIAD CREEK STREAM SYSTEM  
SISKIYOU COUNTY, CALIFORNIA  
1950 SEASON

Sacramento, California  
March, 1951

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SUBMISSION TO, AND ADOPTION BY  
DEPARTMENT OF PUBLIC WORKS

I, L. C. Jopson, Supervising Hydraulic Engineer, Division of Water Resources, Department of Public Works of the State of California, hereby submit the within contained report entitled "Report on Watermaster Service on Seiad Creek Stream System, Siskiyou County, California, 1950 Season".

/s/ L. C. JOYSON  
Supervising Hydraulic Engineer

I, Gordon Zander, Principal Hydraulic Engineer, Division of Water Resources, Department of Public Works of the State of California, hereby approve the within contained "Report on Watermaster Service on Seiad Creek Stream System, Siskiyou County, California, 1950 Season".

/s/ GORDON ZANDER  
Principal Hydraulic Engineer

I, A. D. Edmonston, State Engineer and Chief of the Division of Water Resources, Department of Public Works of the State of California, hereby approve and adopt the within contained report entitled "Report on Watermaster Service on Seiad Creek Stream System, Siskiyou County, California, 1950 Season", as a report of the Department of Public Works.

WITNESS my hand and the seal of the Department of Public Works of the State of California, this            day of            195 .

By /s/ A. D. EDMONSTON  
A. D. Edmonston  
State Engineer

SEAL

ORGANIZATION

C. H. Purcell . . . . . Director of Public Works  
A. D. Edmonston . . . . . State Engineer  
P. H. Van Etten . . . . . Assistant State Engineer  
Gordon Zander . . . . . Principal Hydraulic Engineer

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This report was prepared under the direction of

L. C. JOFSON  
Supervising Hydraulic Engineer

By

John T. Blair  
Junior Civil Engineer

T. R. Merryweather  
Administrative Assistant

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## INTRODUCTION

A petition requesting a determination of all the rights on Seiad Creek stream system, dated November 25, 1946, was filed with the Department of Public Works of the State of California, Division of Water Resources, State Engineer on December 23, 1946. By order of the Department, dated January 28, 1947, the petition was granted and the examination of the stream system was begun on May 1, 1947. The various steps in the proceeding up to and including the 1949 irrigation season are set forth in "Report on Water Supply and Use of Water on Seiad Creek Stream System, Siskiyou County, California, November, 1947" and subsequent annual reports on watermaster service.

On April 3, 1950, decree was entered by the Superior Court, Siskiyou County, California, determining the rights of the various claimants to the water of Seiad Creek stream system.

Subsequent to entry of decree, affidavits were filed with the court requesting that watermaster service be rendered by the Department during the 1950 irrigation season. After hearing, the Court found that there should be supervision of distribution of the water of Seiad Creek stream system during the said season and entered an order providing that the Department of Public Works, acting through the State Engineer, supervise said distribution in accordance with the decree entered on April 3, 1950. A copy of this order, containing the apportionment of the expense of said distribution, is included herein as an appendix to this report.

Supervision of distribution under the court order covered the period from July 1 to September 30, 1950. John T. Blair, Junior Civil Engineer, served as watermaster under the supervision of P. E. Stephenson, Senior Hydraulic Engineer.

## WATER SUPPLY

### Precipitation

Records of precipitation at Happy Camp are presented in Table 1 of this report. These data indicate that the precipitation during the period from October 1, 1949 to September 30, 1950, was about 110 per cent of the 32-year mean at this station. The precipitation during the winter season from October 1, 1949 to March 31, 1950 was about 118 per cent of the 32-year mean.

### Stream Flow

A stream flow measuring station and water stage recorder was maintained on Seiad Creek above all diversions for the period from July 5 to September 30, 1950. Records of daily discharge at this station are submitted at the end of this report in Table 2.

A four-foot weir was maintained on Canyon Creek at the inlet of the culvert under the Seiad Creek Road to measure the contribution of Canyon Creek to the flow of Seiad Creek. Intermittent observations of discharge were made throughout the irrigation season.

A summary of the records obtained at these points and observations of flow made on Darky Creek at County Road Crossing are set forth in Table 3. This table is a record of the total water supply available for the area.

Supplemental to the above measurements and as an aid in distributing the available flow, weirs were maintained in all ditches and intermittent observations and measurements were made thereon. A record of discharge for these ditches is submitted in Table 4.

## DISTRIBUTION OF WATER

A summarization of stream flow records and of diversions is presented in Tables 3 and 4, respectively. A general discussion of the various diversions follows:

### Upper Chace Ditch (Diversion 2)

The full allotment for this ditch was available during the 1950 season.

### Lower Chace Ditch (Diversion 3)

The full allotment for this ditch was available until about August 25. Subsequent to this date until about September 16 an average of 70 per cent was available. After September 16 and until the end of the season the full allotment was again available.

Upper Rainey Ditch (Diversion 4)  
Upper Lowden Ditch (Diversion 5)  
Upper South Rainey Ditch (Diversion 5a)  
Middle Rainey Ditch (Diversion 6)

These ditches were used in conjunction with the Lower Rainey Ditch (Diversion 9) by Marshall E. Burstad. The full allotment for these ditches was available throughout the 1950 season.

### Canyon Creek Ditch (Diversion 7)

Subsequent to July 7 the flow available at the intake to this ditch was sufficient to permit diversion of only a portion of the allotment set forth in Schedule 3. The ditch was dry after about August 20, although there was some flow passing the diversion point at all times.

### Robinson Pump (Diversion 8)

Although this diversion was not used, the entire allotment for this pump was available during the season.

### Priddy Pump (Diversion 8a)

The entire allotment was available throughout the season.

Lower Rainey Ditch (Diversion 9)

This ditch was used by Marshall E. Burstad in conjunction with diversions 4, 5a, 5, and 6, and by W. R. Shadburne in conjunction with Diversion 10. Sufficient water was available throughout the season to satisfy the right set forth in the decree.

Grant Lowden Ditch (Diversion 10)

This ditch was used jointly by W. R. Shadburne and Arroyo Seco Gold Dredging Company and Yreka Gold Dredging Company. The flow was sufficient to supply the domestic requirements of the six cabins on the latter property throughout the season.

Smith Ditch (Diversion 11)

This ditch was not opened until about July 24. Subsequent to that date water for garden use by the Arroyo Seco Gold Dredging Company, et al., was diverted through this ditch in addition to the Smith allotment.

Lower Lowden Ditch (Diversion 12)

This ditch was not used during the 1950 season.

SUMMARY

Supervision of distribution as ordered by the court resulted in an orderly distribution of the available water to the parties having rights under the decree. Diversion through the various ditches is summarized in Table 4.

TABLE 1

PRECIPITATION - HAPPY CAMP, SISKIYOU COUNTY  
Elevation 1,132 Feet

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Seasonal
1928-29	2.92	6.39	10.59	4.26	1.95	2.64	4.14	0.40	1.38	T	.00	.00	34.67
1929-30	1.14	.00	9.40	9.84	8.10	1.00	2.23	1.10	.24	.00	.00	1.03	34.08
1930-31	.90	5.79	3.64	9.05	3.19	6.34	1.94	.33	1.74	.00	.00	.37	33.29
1931-32	4.29	6.15	15.30	5.38	2.23	5.59	3.83	1.77	.19	T	.00	.00	44.73
1932-33	1.33	9.58	7.67	12.33	5.05	9.54	.14	6.40	.88	.00	.43	.43	53.78
1933-34	3.46	.38	13.75	7.60	2.77	3.22	1.65	1.50	.97	.00	.30	.47	36.07
1934-35	6.42	12.26	5.89	8.82	3.05	5.96	4.82	.10	T	.46	.39	.75	48.92
1935-36	3.40	1.95	9.08	18.64	8.10	1.59	1.20	2.86	1.23	.16	T	T	48.21
1936-37	.00	.00	6.40	6.02	9.66	6.35	5.52	.96	1.76	.53	.00	.22	37.42
1937-38	4.27	19.02	10.07	10.70	20.18	17.67	2.77	.07	.00	.00	.00	.38	85.23
1938-39	2.50	5.63	5.20	7.60	7.02	5.77	T	2.40	.82	.00	.00	.15	37.30
1939-40	1.42	.30	16.51	10.64	20.03	9.38	1.30	2.04	.90	.00	.00	3.23	65.75
1940-41	5.09	3.57	15.62	12.93	6.60	2.28	5.35	3.21	1.24	1.92	.30	1.20	59.31
1941-42	1.30	5.58	18.02	6.85	9.12	1.33	4.50	5.89	.13	.00	.05	.87	53.64
1942-43	.73	18.09	16.31	11.78	3.08	5.44	3.67	1.25	1.10	.00	.00	.00	61.45
1943-44	7.53	5.02	1.69	6.53	4.00	3.91	2.61	1.28	1.81	1.02	.41	.10	36.81
1944-45	2.62	12.81	6.08	5.36	10.86	8.55	2.00	4.48	.19	.20	.01	.44	53.60
1945-46	4.42	18.69	18.02	7.17	9.11	4.04	.30	1.18	.49	.57	.00	1.16	65.15
1946-47	3.14	10.78	3.73	5.14	4.34	9.84	.98	.20	3.72	2.10	.22	.34	44.53
1947-48	9.40	1.86	2.24	14.11	7.28	5.43	8.96	2.50	1.97	.88	.02	.67	55.32
1948-49	1.38	6.01	10.39	1.50	8.32	5.88	.49	3.18	.12	.01	.00	.42	37.71
1949-50	2.00	4.76	3.67	18.99	5.97	11.12	2.00	2.40	1.99	0.00	0.00	0.20	53.10
32 Year Mean	2.94	6.33	8.71	8.22	7.14	5.47	2.72	1.72	.89	0.38	0.13	0.66	45.81

TABLE 2

Daily Discharge in Cubic Feet Per Second  
SEIAD CREEK ABOVE DIVERSIONS  
July 5 to September 30, 1950

Day	July	August	September
1		3.7	2.6
2		3.7	2.6
3		3.7	2.6
4		3.7	2.6
5	5.9	3.7	2.6
6	5.9	3.7	2.6
7	5.9	3.7	2.6
8	5.9	3.5	2.6
9	5.9	3.5	2.6
10	5.9	3.5	2.6
11	5.9	3.4	2.6
12	5.9	3.4	2.6
13	5.4	3.4	2.6
14	4.9	3.4	2.6
15	4.9	3.4	2.6
16	4.6	3.3	2.6
17	4.6	3.3	2.6
18	4.6	3.1	2.6
19	4.6	2.9	2.6
20	4.6	2.9	2.6
21	4.6	2.9	2.6
22	4.6	2.9	2.6
23	4.6	2.9	2.6
24	4.6	2.9	2.6
25	3.9	2.9	2.6
26	3.9	2.9	2.6
27	3.7	2.9	2.6
28	3.7	2.9	2.6
29	3.7	2.9	2.6
30	3.7	2.9	2.6
31	3.7	2.6	
Total Sec.			
Ft. Days	*130.1	100.5	78.0
Mean			
Sec. Ft.	*4.2	3.2	2.6
Total			
Ac. Ft.	*260	200	155

\* 27 day Period

Discharge during 88-day period - 615 acre-feet.

TABLE 3

Discharge in Cubic Feet Per Second  
SEIAD CREEK AND TRIBUTARIES  
July 5 to September 26, 1950

Date	Inflow				Outflow
	Seiad Creek above all Diversions	Canyon Creek 4' Weir	Darky Creek	Total Water Supply	Seiad Creek below all Diversions
July 5	5.9	1.2	0.3	7.4	4.0
7	5.9	1.2	0.2	7.3	3.5
12	5.9	0.8	0.1	6.8	2.5
20	4.6	0.3	0	4.9	2.0
24	4.6	0.3	0	4.9	1.0
Aug. 1	3.7	0.3	0	4.0	0.8
7	3.7	0.2	0	3.9	0.5
15	3.4	0.2	0	3.6	0.5
21	2.9	0.1	0	3.0	0.5
30	2.9	0.1	0	3.0	0.5
Sept. 7	2.6	0	0	2.6	0.4
13	2.6	0	0	2.6	0.4
20	2.6	0	0	2.6	0.4
26	2.6	0	0	2.6	0.4

TABLE 4

Discharge in Cubic Feet Per Second  
of  
DIVERSIONS FROM SEIAD CREEK AND TRIBUTARIES  
July 5 to September 27, 1950

Date	Upper Chace Ditch	Lower Chace Ditch	Upper Rainey Ditch	Upper Lowden Ditch	Middle Rainey Ditch	Canyon Creek Ditch	Grant Lowden Ditch	Lower Lowden Ditch	Smith Rainey Ditch	Lower Rainey Ditch	Total Diversions
July 5	2.6	0	1.2	0	0	0.5	0.6	0	0	2.3	7.20
7	2.5	0	1.2	0	0	0.5	0.6	0	0	2.2	7.00
12	2.1	0	1.2	0	0.6	0.3	0.5	0	0	2.1	6.8
20	2.0	0	0	0	0.6	0.2	0.5	0	0	1.4	4.7
24	1.9	0	0	0	0.4	0.1	0.8	0	0.5	0.5	4.2
Aug. 1	0	0.4	0	0.6	0	0.2	1.2	0	0.5	1.9	4.2
7	0	0.4	0.7	0.6	0	0.3	1.2	0	0.6	0.9	4.7
15	0	0.4	0.6	0	0.6	0.2	1.0	0	0.5	1.0	4.3
21	0	0.3	0	0	0.6	0	1.8	0	0.5	1.2	4.4
30	0	0.3	0	0	0.6	0	1.8	0	0.5	1.1	4.3
Sept. 7	0	0.2	0.5	0.2	0	0	1.6	0	0.4	1.3	4.2
13	0	0.2	0.5	0.2	0	0	1.4	0	0.3	1.3	3.9
20	0	0.4	0.3	0.2	0	0	1.3	0	0.3	1.3	3.8
27	0	0.4	0.3	0.2	0	0	1.3	0	0.3	1.3	3.8

APPENDIX

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF SISKIYOU

...oOo...

IN THE MATTER OF THE DETERMINATION	)	
OF THE RIGHTS OF THE VARIOUS CLAIM-	)	NO. 13774
ANTS TO THE WATER OF SEIAD CREEK	)	ORDER FOR SUPERVISION OF
STREAM SYSTEM IN SISKIYOU COUNTY	)	DISTRIBUTION OF WATER DURING
CALIFORNIA	)	THE 1950 IRRIGATION SEASON

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A hearing having been held on May 29, 1950, before the Court pursuant to an order of this Court entered herein dated May 8, 1950 to determine whether there should be supervision of distribution of the water of Seiad Creek stream system for the 1950 irrigation season, by the Department of Public Works, acting through the State Engineer, in accordance with the rights of the parties established and set forth in the decree entered herein:

Evidence, both oral and documentary, having been introduced, the matter having been argued and submitted for decision:

Being fully advised in the premises, the Court finds and determines that due notice of the hearing has been given, that supervision of distribution of water of Seiad Creek stream system during the 1950 irrigation season, in accordance with the rights of the parties established in the decree entered herein, is necessary to enforce the provisions of said decree, to preserve the public peace, convenience and welfare, and to prevent waste or unreasonable use or unreasonable method of use of water in accordance with the provisions of Section 3, Article XIV of the Constitution; that the statement of estimated expenses for supervision of distribution of water of Seiad Creek stream system during the 1950 irrigation season and apportionment thereof, on file herein, sets forth a total amount of expenses which is proper and reasonable, and an

equitable apportionment thereof among the parties to this proceeding who will be benefited by such supervision, now therefore,

IT IS ORDERED that the Department of Public Works, acting through the State Engineer, supervise distribution of water of Seiad Creek stream system during the 1950 irrigation season in accordance with the decree entered in this proceeding on April 3, 1950, in Volume 19 of the Judgment Book at page 462;

That the parties to the above entitled proceeding whose names appear as hereinafter set forth pay to said Department of Public Works the amounts stated opposite their respective names, and that said parties transmit said respective amounts to A. D. Edmonston, State Engineer, 401 Public Works Building, Sacramento 14, California, within 30 days after the date of service by mail upon said parties of notice of the order. The names of said parties and the respective amounts are as follows:

Name of Claimant	Continuous Flow Equivalent Cu. Ft. per Sec.	Portion of Expense
Arroyo Seco Gold Dredging Co. and Yreka Gold Dredging Co.	3.60	\$ 48.76
Marshall F. Burstad	1.70	23.68
R. G. and Blanche A. Priddy	0.16	3.36
Glenn S. Robinson	0.06	2.04
Walter W. Robinson, Sr.	0.30	5.21
Walter W. Robinson, Jr.	0.30	5.21
W. R. Shadburne	0.60	9.17
Frank E. and Margaret Smith	0.10	2.57
<b>Total</b>	<b>6.82</b>	<b>\$ 100.00</b>

It is further ordered that this order shall have the force and effect of a final judgment for the payment of money and shall draw interest at the rate provided by law, and execution may issue in favor of said Department of Public Works, against any party delinquent.

JAMES M. ALLEN  
Judge of the Superior Court

Date: May 29, 1950