STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RESOURCES

EARL WARREN, Governor

FRANK B. DURKEE, Director of Public Works

A. D. EDMONSTON, State Engineer

REPORT ON WATERMASTER SERVICE IN NORTH FORK PIT RIVER WATERMASTER SERVICE AREA
Modoc County, California

1951 SEASON

Sacramento, California
December, 1951

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, submit this "Report on Watermaster Service in North Fork Pit River Watermaster Service Area, Modoc County, California, 1951 Season".

/s/ L. C. JOPSON
Supervising Hydraulic Engineer

I, Gordon Zander, Assistant State Engineer, Division of Water Resources, Department of Public Works of the State of California, approve this "Report on Watermaster Service in North Fork Pit River Watermaster Service Area, Modoc County, California, 1951 Season".

/s/ GORDON ZANDER
Assistant State Engineer

I, A. D. Edmonston, State Engineer and Chief of the Division of Water Resources, Department of Public Works of the State of California, approve and adopt this "Report on Watermaster Service in North Fork Pit River Watermaster Service Area, Modoc County, California, 1951 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 25th day of April, 1952.

DEPARTMENT OF PUBLIC WORKS

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

SEAL

ORGANIZATION

Frank B. Durkee . . . . . Director of Public Works

A. D. Edmonston . . . . . State Engineer

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This report was prepared under the direction of

L. C. JOPSON
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INTRODUCTION

The North Fork Pit River Watermaster Service Area as created December 18, 1939, and changed and enlarged on December 13, 1940 includes the water rights on New Pine Creek, Cottonwood Creek, Davis Creek, Linville Creek, Franklin Creek, Joseph Creek, Thoms Creek, Gleason Creek, Shields Creek, Parker Creek, and North Fork Pit River.

The water rights on New Pine Creek, Cottonwood Creek, Davis Creek and Franklin Creek were determined by separate decrees of the Superior Court, Modoc County and on the other streams by the decree entered by the same court in the North Fork Pit River adjudication proceedings. The titles of the various court cases have been set forth in previous reports.

Watermaster service, as provided in Part 4 of Division 2 of the Water Code, covered the regulation of diversions on all the streams within the service area.

Supervision of diversions during the 1951 season began on April 1 and was terminated on September 30. Dean C. Beaumont, deputy watermaster, was in charge of the distribution of water under the supervision of P. E. Stephenson, Senior Hydraulic Engineer.

WATER SUPPLY

Precipitation

Table 1 is a tabulation of the monthly, seasonal and normal precipitation for Alturas, California compiled from records of the California Cooperative Snow Surveys and for Lakeview, Oregon compiled from records of the U. S. Weather Bureau. The records of these stations for the seasonal year of 1950-

1951 indicate a seasonal precipitation of 97 per cent and 110 per cent of normal, respectively.

The results of precipitation during the winter months as measured by the water content of the snowpack at the Eagle Peak, Blue Lake Ranch and Cedar Pass snow courses on April 1 have been tabulated in Table 2. This data indicates that the average snowpack for the three courses on about April 1, 1951, was approximately 72 per cent of normal.

Stream Flow

Measuring stations equipped with water stage recorders were maintained on the various streams within the service area as follows:

New Pine Creek below Schroeder's - rated section
Cottonwood Creek above Diversions - rated section
Davis Creek at Old Fish Wheel - rated section
Linville Creek at Old Power House - 3-foot rectangular weir
Franklin Creek above Diversions - 4-foot rectangular weir
Joseph Creek below Couch Creek - rated section
Thoms Creek at Alturas - Cedarville Highway Crossing - rated section
Gleason Creek at Jones Ranch - 3-foot rectangular weir
Parker Creek at Fogarty Ranch - rated section
Shields Creek below Pepperdine's - 6-foot rectangular weir
Parker Creek above Highway 395 - rated section
North Fork Pit River above X-L Dam - rated section

The records of daily discharge for these stations are presented in Tables 3 to 13, inclusive, submitted at the end of this report.

DISTRIBUTION OF WATER

Distribution on the various streams within the North Fork Pit River Watermaster Service Area was in accordance with the allotments and priorities set forth in the respective decrees determining the rights thereon. The stream flow available for distribution was determined from the measured discharge at the respective measuring stations. A discussion of the results accomplished follows:

New Pine Creek

Sufficient water was available in New Pine Creek to supply all requirements of the users until about June 25. From this date until the 1st of July approximately 80 per cent of the decreed proration was available for diversion. After the 1st of July the proration system changes to a priority system of distribution and the average percentages of allotments delivered during July, August and September are set forth in the following tabulation:

Priority	Percentage of Allotments Delivered		
	July	August	September
1st	100	100	100
2nd	100	70	23
3rd	100	0	0
4th	75	0	0

Cottonwood Creek

The available flow of Cottonwood Creek was adequate to fill all irrigation and domestic requirements until the 1st of June. Thereafter the flow gradually decreased until only first priority water was available on June 20. On August 23 the Fleming diversion was closed because the supply available for the Fleming Ranch was insufficient to reach the place of use. Thereafter in accordance with Paragraph 12 of the decree Charles M. Oliver vs. Isaac Robnett, et al, No. 2344, Superior Court, Modoc County the entire flow of Cottonwood Creek was allotted to the Vincent Ranch. This regulation was continued throughout the remainder of the season.

Davis Creek

The average monthly percentages of allotments delivered from Davis Creek during the 1951 watermaster season are presented in the following tabulation:

Priority	Percentage of Allotments Delivered					
	April	May	June	July	August	September
1st	100	100	100	100	100	100
2nd	100	100	100	7	2	0
3rd	79	92	45	0	0	0
4th	0	33	0	0	0	0

Linville Creek

The flow of Linville Creek provided an average of about 65 per cent of the first priority allotment throughout the 1951 watermaster season.

Franklin Creek

The average percentages of allotments delivered from Franklin Creek during the 1951 watermaster season are set forth in the following tabulation:

Priority	Percentage of Allotments Delivered					
	April	May	June	July	August	September
1st	100	100	100	100	100	100
2nd	100	100	100	100	100	100
3rd	77	87	58	9	2	1
4th	9	50	33	0	0	0

Joseph Creek

The average percentages of allotments delivered from Joseph Creek during the 1951 season are presented in the following tabulation:

Priority	Percentage of Allotments Delivered					
	April	May	June	July	August	September
1st	100	100	91	76	68	55
2nd	100	100	38	0	0	0
3rd	96	100	16	0	0	0
4th	96	100	12	0	0	0

Water released from the Halls Meadow Reservoir through the Joseph Creek Stream System during the 1951 season is tabulated below:

Dates	Approximate Average Flow
July 1 to August 2	1.0 c.f.s.
August 10 to August 15	3.4 c.f.s.

Thoms Creek

The available flow of Thoms Creek is considerably greater than recorded at the recorder station due to diversion by some first and second priority rights above the station and the occurrence of considerable return flow from irrigation below the station. Accordingly, the record at the station does not reflect the available water supply but merely indicates the flow condition.

The runoff of Thoms Creek was adequate to satisfy all rights until the middle of July. Thereafter the supply decreased slowly until about August 10, when water was available for only 90 per cent of the first priority allotments. After about September 1 the available flow was sufficient to provide 50 per cent of the second priority allotment.

Gleason Creek

The available flow of Gleason Creek from April 1 to May 25 was adequate to satisfy all priority requirements. After the 25th of May the flow of this stream decreased until about August 10, when only 1st priority water was available. Diversion by the 1st priority water right owners above the recorder station continued until about September 1st, upon which date Gleason Creek went dry.

Parker Creek

The average percentages of allotments delivered from Parker Creek during the 1951 season are presented in the following tabulation:

Priority	Percentage of Allotments Delivered					
	April	May	June	July	August	September
1st	100	100	100	89	84	92
2nd	100	100	100	66	0	30
3rd	100	100	58	8	0	2
4th	100	100	33	0	0	0

Shields Creek

The average percentages of allotments delivered from Shields Creek during the 1951 season are set forth in the following tabulation:

Priority	Percentage of Allotments Delivered					
	April	May	June	July	August	September
1st	100	100	100	100	100	100
2nd	100	100	90	50	33	47
3rd	100	100	50	0	0	0
4th	100	100	50	0	0	0

North Fork Pit River

The average percentages of allotments delivered from North Fork Pit River are presented in the following tabulation:

Priority	Percentage of Allotments Delivered					
	April	May	June	July	August	September
1st	100	100	98	44	19	12
2nd	100	100	43	0	0	0
3rd	100	100	18	0	0	0
4th	100	100	6	0	0	0
5th	100	100	0	0	0	0

CHANGES IN OWNERSHIP OF LANDS AND WATER RIGHTS

The changes in ownership of lands and water rights, which have occurred subsequent to filing "Statement for North Fork Pit River Watermaster Service Area, County of Modoc, State of California, for 1951", which shall be included in the statement for said watermaster service area for 1952, are listed in the following tabulation:

Tract Number	Name of Water Right Owner Appearing in 1951 Statement	Name of Water Right Owner to Appear in 1952 Statement	Amount of Water c.f.s.
9-112	Collis, Randall	Correa, John and Correa, Margaret L.	2.27
9-85	Dukes, H. B.	Dukes, W. F.	0.65
9-51	Echard, D. M.	Brunnemer, Earl Justin and Brunnemer, Ruby L.	0.40
9-58	Hedglin, Gene B. and Hedglin, Anna M.	Dolan, Paul F. and Dolan, Francis	0.0375
9-124	Weidman, Harold P.; Weidman, Hilda Smith; Weidman, W. Merle; and Weidman, Ora S.	Pahl, Emil F. and Pahl, Bonnie W.	2.00

TABLE 1

PRECIPITATION AT ALTURAS, CALIFORNIA
AND LAKEVIEW, OREGON
1950-1951

ALTURAS, CALIFORNIA - Elevation 4,460 Feet

Month	Normal Precipitation Inches	1950-1951 Precipitation Inches
October	1.24	1.35
November	1.37	1.66
December	1.34	.91
January	1.57	1.42
February	1.26	1.23
March	1.23	1.07
April	1.19	1.25
May	1.09	2.20
June	.67	.15
July	.33	.00
August	.29	.35
September	.50	.09
Total	12.08	11.68

LAKEVIEW, OREGON - Elevation 4,756 Feet

Month	Normal Precipitation Inches	1950-1951 Precipitation Inches
October	0.96	1.74
November	1.62	1.36
December	1.79	2.69
January	1.93	2.43
February	1.85	2.16
March	1.43	.74
April	1.18	.92
May	1.25	2.70
June	.92	.00
July	.31	.00
August	.25	.44
September	.64	.35
Total	14.13	15.53

Data compiled from records of California Cooperative Snow Surveys and U. S. Weather Bureau.

TABLE 2

SNOW SURVEY DATA - UPPER PIT RIVER AREA
April 1st Measurement

Year	Water Content of Snow - Inches		
	Eagle Peak Elevation - 7,500	Blue Lake Ranch Elevation - 7,300	Cedar Pass Elevation - 7,200
1942	14.7	11.7	19.3
1943	23.7	15.3	25.8
1944	13.5	8.5	12.3
1945	22.2	15.8	22.4
1946	21.2	16.2	22.9
1947	6.4	5.3	10.3
1948	14.4	10.1	15.7
1949	19.1	16.7	22.0
1950	17.9	11.3	19.1
1951	13.6	9.4	12.8
Computed 60-year Normal	18.7	11.6	20.6
Per Cent of Normal	73	81	62

Data compiled from records of California Cooperative Snow Surveys.

TABLE 3

Daily Discharge in Cubic Feet Per Second
NEW PINE CREEK BELOW SCHROEDER'S
April 1 to September 30, 1951

Day	April	May	June	July	August	September
1	27	31	45	16	7.0	4.7
2	28	29	42	16	7.0	4.7
3	30	29	42	15	6.8	4.6
4	30	31	41	15	6.5	4.6
5	30	29	41	15	6.3	4.3
6	32	35	40	14	6.2	4.3
7	34	32	40	14	6.2	4.2
8	33	35	39	12	6.2	3.9
9	34	36	39	12	6.1	3.8
10	34	36	35	12	6.0	3.4
11	35	54	33	12	5.9	3.4
12	38	48	30	12	5.9	3.4
13	45	50	31	11	5.9	3.5
14	49	46	31	11	5.9	3.5
15	46	38	31	11	5.9	3.5
16	46	38	33	10	5.9	3.6
17	48	40	30	10	5.9	3.6
18	46	38	28	10	5.9	3.6
19	45	46	26	10	5.9	3.6
20	42	52	25	10	5.4	3.6
21	36	54	22	10	5.3	3.6
22	39	52	22	10	5.3	3.7
23	40	51	22	10	5.0	3.7
24	32	51	19	10	5.0	3.8
25	31	51	18	10	4.8	3.9
26	30	51	17	9.2	4.8	3.9
27	32	50	17	9.0	4.8	4.0
28	31	50	17	8.6	4.8	4.0
29	30	50	17	8.0	4.8	4.0
30	31	48	17	7.5	4.8	4.0
31		44		7.0	4.8	
Total Sec Ft.Days	1084	1325	890	347.3	177.0	116.4
Mean Sec. Ft.	36.1	42.7	29.7	11.2	5.7	3.9
Total Acre-feet	2150	2627	1765	689	351	231

Total for 183-day period - 7813 acre-feet

TABLE 4

Daily Discharge in Cubic Feet Per Second
COTTONWOOD CREEK ABOVE DIVERSIONS
April 1 to September 30, 1951

Day	April	May	June	July	Aug.	Sept.
1	19	17	9.5	1.8	0.6	0.05
2	19	17	8.0	1.8	.4	.05
3	18	17	7.5	1.8	.8	.04
4	18	17	7.5	1.8	.8	.04
5	17	18	7.5	1.8	.6	.05
6	17	18	7.5	1.5	.4	.06
7	17	20	7.0	1.5	.15	.06
8	19	23	6.5	1.1	.14	.07
9	19	28	6.5	1.1	.14	.06
10	20	28	6.5	1.1	.12	.07
11	18	32	6.0	1.1	.12	.06
12	18	30	5.5	1.1	.12	.06
13	19	29	5.0	1.1	.11	.07
14	20	28	5.0	1.0	.11	.06
15	20	26	5.0	1.0	.11	.06
16	20	26	5.0	1.0	.10	.08
17	22	25	4.6	.9	.10	.10
18	22	25	4.2	.8	.10	.10
19	20	25	3.6	.7	.10	.10
20	18	23	3.3	.6	.10	.11
21	18	23	3.0	.6	.10	.11
22	16	22	2.9	.6	.09	.11
23	18	22	2.6	.6	.09	.11
24	18	22	2.6	.6	.09	.12
25	18	22	2.6	.6	.09	.12
26	18	21	2.4	.6	.08	.12
27	17	21	2.2	.6	.08	.12
28	18	20	2.0	.6	.07	.12
29	17	20	2.0	.6	.06	.12
30	17	17	2.0	.6	.06	.12
31		12		.6	.06	
Total Sec. Ft. Days	555	694	145.5	31.2	6.09	2.52
Mean Sec. Ft.	18.5	22.4	4.8	1.0	.20	.8
Total Acre-feet	1100	1376	288	61.8	12.0	4.99

Total for 183-day period - 2843 acre-feet.

TABLE 5

Daily Discharge in Cubic Feet Per Second
DAVIS CREEK AT OLD FISH WHEEL
April 1 to September 30, 1951

Day	April	May	June	July	Aug.	Sept.
1	22	25	35	9.4	5.7	5.1
2	22	24	25	9.4	5.7	5.0
3	20	24	22	9.4	5.7	4.9
4	20	25	25	9.4	6.2	4.9
5	21	24	28	9.0	6.2	5.0
6	20	34	28	9.0	6.0	5.0
7	21	39	27	9.0	6.0	4.9
8	22	33	27	9.0	6.0	4.9
9	25	36	26	9.0	6.0	4.9
10	26	38	26	9.0	5.7	4.9
11	26	40	25	9.0	5.7	4.9
12	28	38	24	8.8	5.7	4.9
13	30	46	24	9.0	5.4	4.9
14	34	44	21	8.0	5.4	4.9
15	35	44	19	7.4	5.4	4.9
16	36	44	18	7.4	5.4	4.9
17	37	44	18	6.6	5.4	4.9
18	37	46	18	6.0	5.7	4.9
19	35	48	16	6.0	6.0	4.9
20	35	48	16	6.0	6.0	4.9
21	34	48	16	5.9	5.7	4.9
22	33	48	15	5.9	6.0	4.9
23	34	48	15	5.9	5.2	4.9
24	32	48	14	5.9	5.0	5.0
25	31	48	14	5.7	4.9	4.9
26	30	46	14	5.7	4.8	4.9
27	30	41	12	5.7	5.0	5.0
28	30	40	11	5.7	5.0	5.0
29	28	39	11	5.7	5.0	5.0
30	28	38	10	5.7	5.0	5.0
31		36		5.7	5.0	
Total Sec. Ft. Days	862	1224	600	229.3	171.9	148.0
Mean Sec. Ft.	28.7	39.5	20.0	7.4	5.5	4.9
Total Acre-Ft.	1709	2428	1190	455	341	293

Total for 183-day period - 6416 acre-feet.

TABLE 6

Daily Discharge in Cubic Feet Per Second
LINVILLE CREEK AT OLD POWER HOUSE
April 1 to September 30, 1951

Day	April	May	June	July	August	Sept.
1	2.8	2.6	2.6	2.6	2.5	2.5
2	2.8	2.6	2.6	2.6	2.5	2.5
3	2.8	2.6	2.6	2.6	2.5	2.5
4	2.9	2.6	2.6	2.6	2.5	2.5
5	2.8	2.8	2.6	2.5	2.5	2.5
6	2.8	3.0	2.6	2.5	2.5	2.6
7	2.7	3.9	2.6	2.5	2.5	2.6
8	2.7	3.4	2.6	2.5	2.5	2.5
9	2.7	3.4	2.6	2.5	2.5	2.5
10	2.7	3.5	2.6	2.5	2.5	2.5
11	2.7	3.9	2.6	2.5	2.5	2.5
12	2.7	3.9	2.6	2.5	2.5	2.5
13	2.7	4.2	2.6	2.5	2.5	2.5
14	2.7	4.2	2.6	2.5	2.5	2.6
15	2.7	3.7	2.5	2.5	2.5	2.6
16	2.7	3.3	2.5	2.5	2.5	2.5
17	2.8	3.3	2.5	2.5	2.5	2.6
18	2.8	3.2	2.5	2.5	2.6	2.6
19	2.7	3.2	2.5	2.5	2.6	2.6
20	2.7	3.1	2.5	2.5	2.6	2.6
21	2.7	3.2	2.5	2.5	2.6	2.6
22	2.7	3.2	2.5	2.5	2.7	2.6
23	2.7	3.0	2.5	2.5	2.7	2.6
24	2.7	3.0	2.5	2.5	2.7	2.6
25	2.6	2.9	2.5	2.5	2.6	2.6
26	2.6	2.9	2.5	2.5	2.6	2.6
27	2.6	2.9	2.5	2.5	2.6	2.6
28	2.7	2.8	2.5	2.5	2.6	2.6
29	2.9	2.7	2.5	2.5	2.5	2.6
30	2.7	2.7	2.5	2.5	2.5	2.6
31		2.7		2.5	2.5	
Total Sec. Ft. Days	81.8	98.4	76.4	77.9	78.9	76.8
Mean Sec. Ft.	2.7	3.2	2.5	2.5	2.5	2.6
Total AC. Ft.	162	195	151	155	156	152

Total for 183-day period - 971 acre-feet.

TABLE 7

Daily Discharge in Cubic Feet Per Second
FRANKLIN CREEK ABOVE DIVERSIONS
April 1 to September 30, 1951

Day	April	May	June	July	Aug.	Sept.
1	5.5	7.5	6.0	2.7	1.9	1.9
2	5.5	7.5	5.6	2.6	1.8	1.9
3	5.6	7.8	5.3	2.6	1.7	2.0
4	5.5	8.3	5.3	2.6	1.6	1.9
5	5.6	8.3	5.3	2.6	1.8	1.9
6	5.6	9.2	4.7	2.6	1.8	1.9
7	5.7	10.0	4.6	2.6	1.8	1.9
8	6.1	11.	4.5	2.6	1.8	1.9
9	6.8	13.	4.5	2.6	1.8	1.9
10	7.1	13.	4.1	2.6	1.8	1.9
11	7.1	17.	3.9	2.6	1.7	1.9
12	7.5	17.	3.9	2.6	1.7	1.9
13	9.5	17.	3.9	2.5	1.7	1.9
14	10.9	15.	3.7	2.5	1.7	1.9
15	10.0	15.	3.5	2.5	1.7	1.9
16	10.9	14.	3.4	2.4	1.7	1.9
17	13.1	13.	3.3	2.4	1.7	1.9
18	11.8	12.	3.2	2.4	1.7	1.9
19	11.6	12.	3.3	2.4	1.7	1.9
20	10.9	12.	3.2	2.3	1.7	1.9
21	10.2	11.	3.0	2.3	1.7	1.9
22	10.0	11.	3.0	2.3	1.9	1.9
23	9.8	10.	2.9	2.2	1.9	1.9
24	9.2	9.5	2.8	2.2	1.9	1.9
25	8.3	9.2	2.8	2.2	1.9	1.9
26	7.8	8.7	2.8	2.2	1.9	1.9
27	7.8	8.3	2.7	2.2	1.9	1.9
28	8.2	7.5	2.7	2.2	1.9	1.9
29	8.2	7.5	2.7	2.2	1.9	1.9
30	7.5	6.7	2.7	2.2	1.9	1.9
31		6.4		2.2	1.9	
Total Sec. Ft. Days	249.3	335.4	113.3	75.1	55.5	57.1
Mean Sec. Ft.	8.3	10.8	3.8	2.4	1.8	1.9
Total Acre-Ft.	494	665	225	149	110	113

Total for 183-day period - 1756 acre-feet.

TABLE 8

Daily Discharge in Cubic Feet Per Second
JOSEPH CREEK BELOW COUCH CREEK
April 1 to September 30, 1951

Day	April	May	June	July	August	September
1	13	11	8.2	*2.4	4.4	1.5
2	14	10	8.0	2.9	**3.5	1.5
3	12	10	7.3	3.0	1.8	1.5
4	14	10	7.5	3.0	1.6	1.5
5	14	10	8.2	2.9	1.6	1.5
6	15	17	7.4	2.8	1.6	1.5
7	16	24	6.6	2.8	1.6	1.5
8	15	25	6.4	2.7	1.6	1.5
9	15	24	5.8	2.6	1.6	1.5
10	15	24	5.0	2.6	*1.6	1.5
11	13	28	4.0	2.5	4.9	1.5
12	12	28	4.0	2.5	4.9	1.5
13	11	28	3.9	2.4	5.1	1.5
14	11	30	3.6	2.2	5.1	1.2
15	11	30	3.4	2.4	**3.5	1.2
16	12	30	3.0	3.5	1.6	1.2
17	15	29	2.8	3.5	1.6	1.2
18	15	27	2.6	3.2	1.6	1.2
19	14	27	2.2	3.1	1.6	1.2
20	13	26	2.2	2.8	1.6	1.2
21	12	26	2.1	2.5	1.6	1.2
22	10	24	2.0	2.4	1.6	1.2
23	8.2	24	2.0	2.4	2.0	1.2
24	8.0	22	1.9	2.1	1.6	1.2
25	6.5	20	1.9	1.9	1.6	1.2
26	6.5	18	1.9	1.6	1.2	1.2
27	6.6	15	1.8	1.6	1.6	1.2
28	9.4	14	1.8	4.0	1.6	1.2
29	10	11	1.8	3.8	1.6	1.2
30	10	10	1.7	3.8	1.6	1.2
31		8.8		3.8	1.6	
Total Sec. Ft. Days	357.2	640.8	121.0	85.7	70.0	39.9
Mean Sec. Ft.	11.9	20.7	4.0	2.8	2.3	1.3
Total Ac. Ft.	708	1,271	240	170	139	79

Total for 183-day period - 2,607 acre-feet.
* Halls Meadow Reservoir turned on.
** Halls Meadow Reservoir turned off.

TABLE 9

Daily Discharge in Cubic Feet Per Second
THOMS CREEK AT CEDARVILLE-ALTURAS HIGHWAY CROSSING
April 1 to September 30, 1951

Day	April	May	June	July	Aug.	Sept.
1	30	15	10.0	2.4	0.08	0.10
2	30	15	8.8	2.4	.08	.10
3	30	16	8.0	3.1	.06	.10
4	29	20	7.5	3.2	.06	.10
5	30	20	8.0	3.1	.08	.10
6	32	35	6.7	3.1	.10	.11
7	33	46	6.6	3.0	.10	.10
8	33	58	6.2	2.7	.10	.13
9	33	52	6.0	2.8	.08	.10
10	31	53	5.8	2.7	.04	.10
11	27	72	5.6	2.7	.02	.10
12	25	53	5.6	2.4	0	.10
13	26	56	5.0	2.0	0	.10
14	26	66	4.4	2.0	0	.10
15	23	63	4.3	2.0	0	.10
16	26	64	4.0	2.0	0	.11
17	32	56	3.8	2.0	0	.11
18	25	51	3.1	2.0	0	.12
19	22	46	3.4	1.2	0	.12
20	18	42	3.5	.15	0	.12
21	17	35	2.6	.13	.02	.12
22	16	33	2.6	.10	.02	.12
23	16	28	3.1	.10	.03	.13
24	15	24	2.6	.10	.06	.15
25	14	20	2.6	.10	.08	.15
26	12	16	2.5	.10	.08	.15
27	11	13	2.5	.10	.10	.15
28	15	13	2.6	.10	.10	.15
29	14	12	2.4	.10	.10	.15
30	14	12	2.2	.10	.10	.15
31		11		.09	.10	
Total Sec.Ft.Days	705	1116	142.0	48.07	1.59	3.54
Mean Sec. Ft.	23.5	36.0	4.7	1.6	.05	.12
Total Acre-Ft.	1398	2213	281.6	95.3	3.1	7.0

Total for 183-day period - 3998 acre-ft.

TABLE 10

Daily Discharge in Cubic Feet Per Second
GLEASON CREEK NEAR JONES RANCH
April 1 to September 30, 1951

Day	April	May	June	July	August	September
1	3.5	1.6	1.6	0.2	0.05	
2	3.5	1.5	1.5	.2	.04	
3	3.7	2.0	1.3	.2	.04	
4	3.7	2.9	1.3	.2	.02	
5	3.8	2.9	1.4	.15	.02	
6	3.9	6.2	1.3	.15	.01	
7	3.7	8.8	1.3	.15	.01	
8	3.6	8.8	1.2	.10	.01	NO
9	3.4	8.1	1.2	.10	.01	
10	3.4	8.1	.9	.10	.01	
11	3.2	8.8	.7	.10		
12	2.4	8.5	.6	.10		
13	2.5	10.0	.5	.10		
14	2.5	11.6	.5	.10		
15	2.3	11.6	.5	.10		
16	2.1	10.9	.4	.10		
17	2.9	9.5	.4	.10	NO	
18	2.4	8.8	.5	.09		
19	2.0	7.5	.4	.09		
20	1.8	6.5	.3	.09		
21	1.6	5.6	.3	.08		
22	1.5	5.0	.3	.08		FLOW
23	1.5	3.7	.2	.08		
24	1.6	3.4	.2	.07		
25	1.3	2.8	.2	.07		
26	1.3	2.5	.2	.06		
27	1.3	2.1	.2	.06		
28	1.3	1.9	.2	.05	FLOW	
29	1.6	1.8	.2	.05		
30	1.6	1.7	.2	.05		
31		1.7		.05		
Total Sec. Ft. Days	74.9	176.8	20.0	3.22	.22	
Mean Sec. Ft.	2.5	5.7	.7	.10	.01	
Total Ac. Ft.	148	349	39.7	6.39	.43	

Total for 132-day period - 543.5 acre-feet.

TABLE 11

Daily Discharge in Cubic Feet Per Second
PARKER CREEK AT FOGARTY RANCH
April 1 to September 30, 1951

Day	April	May	June	July	August	September
1	70	62	35	3.7	1.0	1.0
2	70	62	32	3.5	1.0	1.1
3	74	72	30	3.5	1.0	1.2
4	75	100	27	3.5	1.0	1.2
5	75	120	26	4.0	1.0	1.2
6	75	118	25	4.0	1.0	1.2
7	74	110	21	4.0	.9	1.3
8	74	110	22	4.0	.9	1.4
9	73	110	19	3.8	.8	1.4
10	73	115	17	3.8	.8	1.4
11	72	130	16	3.8	.9	1.5
12	74	115	14	3.5	1.0	1.5
13	74	140	14	3.0	1.1	1.6
14	74	135	8.8	3.0	1.1	1.6
15	74	115	8.5	2.8	1.1	1.6
16	69	115	8.8	2.6	1.2	1.6
17	90	115	8.8	2.6	1.2	1.6
18	80	92	9.0	2.6	1.2	1.6
19	79	85	10	2.0	1.2	1.6
20	74	75	8.5	2.0	1.2	1.6
21	73	70	6.6	2.0	1.3	1.7
22	70	62	6.1	1.8	1.2	1.7
23	65	60	5.0	1.4	1.1	1.7
24	65	57	5.0	1.4	1.0	1.7
25	59	50	5.0	1.2	1.1	1.7
26	58	47	5.0	1.0	1.1	1.8
27	57	43	5.0	1.0	1.2	1.8
28	57	40	6.6	1.0	1.2	1.7
29	61	38	6.1	1.0	1.2	1.7
30	61	37	5.0	1.0	1.2	1.7
31		37		1.0	1.2	
Total Sec. Ft. Days	2,120	2,637	415.8	79.5	33.4	45.4
Mean Sec. Ft.	70.7	85.1	13.9	2.6	1.1	1.5
Total Ac. Ft.	4,204	5,229	824.5	157.6	66.2	90.0

Total for 183 - day period - 10,571 acre-feet.

TABLE 12

Daily Discharge in Cubic Feet Per Second
SHIELDS CREEK BELOW PEPPERDINE RANCH
April 1 to September 30, 1951

Day	April	May	June	July	August	September
1	7.0	7.7	5.7	3.0	2.1	2.0
2	7.0	6.9	5.5	3.1	1.3	2.0
3	7.5	7.9	5.3	3.2	1.3	2.3
4	7.5	8.9	5.1	3.2	1.3	2.3
5	7.8	7.7	5.5	2.9	1.3	2.3
6	7.7	19	5.5	2.6	1.3	2.3
7	7.7	25	5.1	2.5	1.3	2.3
8	7.9	20	4.9	2.3	1.3	2.3
9	8.2	16	4.9	2.3	1.2	2.3
10	8.2	16	4.7	2.3	1.2	2.3
11	8.2	12	4.7	2.3	1.3	2.3
12	8.2	13	4.6	2.3	1.3	2.3
13	8.2	14	4.4	2.3	1.3	2.3
14	8.2	14	4.2	2.3	1.3	1.9
15	7.9	10	4.2	2.2	1.3	1.9
16	8.2	12	4.0	2.2	1.3	2.0
17	11.7	11	3.9	2.0	1.3	2.0
18	8.1	11	3.2	2.0	2.0	2.0
19	7.5	10	3.4	1.8	1.8	2.0
20	7.0	10	3.6	1.8	1.8	2.0
21	7.0	9.5	3.2	2.2	1.8	2.0
22	6.8	9.0	3.2	2.2	3.2	2.0
23	6.6	9.0	3.2	2.2	2.3	2.0
24	7.5	8.7	3.2	2.2	2.0	2.0
25	6.8	8.1	3.1	2.2	2.0	2.0
26	6.5	7.7	3.2	2.2	2.0	2.0
27	6.0	7.2	3.2	2.2	2.0	2.0
28	8.3	7.0	3.1	2.2	2.0	2.0
29	8.1	7.0	3.0	2.2	2.0	2.0
30	7.7	6.6	3.0	2.0	2.0	2.0
31		5.9		1.9	2.0	
Total Sec. Ft. Days	231.0	237.8	123.8	72.3	51.6	63.1
Mean Sec. Ft.	7.7	10.9	4.1	2.3	1.7	2.1
Total Ac. Ft.	458	670	245	143	102	125

Total for 183-day period - 1,743 acre-feet.

TABLE 13

Daily Discharge in Cubic Feet Per Second
PARKER CREEK ABOVE HIGHWAY 395
April 1 to September 30, 1951

Day	April	May	June	July	Aug.	Sept.
1	20	11	21	3.5	1.0	0.4
2	18	11	18	3.0	.6	.5
3	16	40	15	2.7	.6	.5
4	15	67	13	3.5	.6	.5
5	15	80	15	3.9	.6	.3
6	13	72	12	3.8	.4	.3
7	18	130	11	2.6	.3	.2
8	18	215	11	2.6	.3	.1
9	18	210	15	2.6	.3	.1
10	18	160	14	2.6	.3	.1
11	20	195	13	2.6	.3	.1
12	17	180	12	2.6	.3	.1
13	8.0	180	9.0	2.6	.3	.1
14	6.5	215	8.0	2.6	.2	.1
15	5.0	260	7.7	2.6	.2	.1
16	5.0	215	7.7	2.5	.2	.1
17	35	200	7.7	1.5	.1	.3
18	25	180	7.7	1.5	.4	.3
19	16	110	6.8	1.5	.2	.3
20	12	140	5.2	1.5	.3	.3
21	8.0	130	5.6	1.5	.3	.3
22	7.0	75	6.0	1.3	.3	.4
23	6.0	37	5.3	1.3	.3	.4
24	5.5	35	5.0	1.3	.3	.4
25	6.0	34	4.9	1.3	.3	.4
26	6.0	33	4.0	1.3	.3	.4
27	5.0	35	3.7	1.3	.3	.4
28	5.0	35	3.5	1.2	.3	.4
29	8.0	31	3.6	1.1	.3	.4
30	8.0	26	3.6	1.1	.3	.4
31		23		1.0	.3	
Total Sec. Ft. Days	383.0	3365	275.0	66.0	10.8	8.7
Mean Sec. Ft.	12.8	108.5	9.2	2.1	.3	.3
Total Ac. Ft.	759	6673	545	131	21.4	17.2

Total for 183-day period - 8147 acre-ft.

TABLE 14

Daily Discharge in Cubic Feet Per Second
NORTH FORK PIT RIVER ABOVE XL DAM
April 1 to September 30, 1951

Day	April	May	June	July	August	Sept.
1	48	42	26	3.0	1.1	1.3
2	48	38	21	2.9	.8	1.2
3	48	31	18	2.9	.6	1.1
4	46	42	14	2.7	.6	1.0
5	48	38	23	2.7	.6	1.0
6	50	75	21	2.7	1.1	1.4
7	51	110	14	2.7	.4	.8
8	52	75	13	3.4	.4	1.6
9	52	60	10	2.7	.3	*3.0
10	54	55	9.4	2.7	.3	3.1
11	54	70	9.0	2.3	.4	3.4
12	55	72	9.0	2.1	1.1	3.6
13	55	110	9.1	2.0	1.8	4.0
14	56	110	8.6	1.8	2.1	4.0
15	50	100	8.0	1.6	2.4	3.6
16	54	95	7.8	1.6	.8	4.0
17	53	68	5.8	1.3	.4	4.2
18	52	60	5.3	1.0	.8	4.2
19	52	58	5.1	.9	.9	4.2
20	46	51	5.0	.7	1.2	4.2
21	42	51	5.1	.7	1.2	4.2
22	41	51	4.8	.5	1.2	4.2
23	38	44	4.2	.3	1.2	4.2
24	34	38	4.2	.2	1.6	4.2
25	26	40	4.2	.4	1.6	4.2
26	23	38	4.0	.2	1.5	4.2
27	22	36	3.8	.1	1.1	4.2
28	42	35	3.4	.1	1.0	4.2
29	52	34	3.0	.3	1.1	4.2
30	48	31	2.8	.6	1.1	4.2
31		28		.6	1.3	
Total Sec. Ft. Days	1,392	1,786	281.6	47.7	32.0	96.9
Mean Sec. Ft.	46	58	9.4	1.5	1.0	3.2
Total Ac. Ft.	2,760	3,541	558	94.6	63.4	192.1

* Lauer Reservoir turned on.

Total for 183-day period - 7,209 acre-feet.