STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

EDMUND G. BROWN, Governor
HARVEY O. BANKS, Director of Water Resources
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REPORT ON WATERMASTER SERVICE IN NORTH FORK PIT RIVER WATERMASTER SERVICE AREA MODOC COUNTY, CALIFORNIA 1958 SEASON

Sacramento, California

August, 1959

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SUBMISSION TO, AND ADOPTION BY
DEPARTMENT OF WATER RESOURCES

I, Orville L. Abbott, Senior Hydraulic Engineer, Department of Water Resources of the State of California, approve this "Report on Watermaster Service in North Fork Pit River Watermaster Service Area, Modoc County, California, 1958 Season."

/s/ Orville L. Abbott

Orville L. Abbott
Senior Hydraulic Engineer

I, W. R. Gianelli, Principal Hydraulic Engineer, Department of Water Resources of the State of California, approve this "Report on Watermaster Service in North Fork Pit River Watermaster Service Area, Modoc County, California, 1958 Season."

/s/ W. R. Gianelli

W. R. Gianelli
Principal Hydraulic Engineer

I, Harvey O. Banks, Director of the Department of Water Resources of the State of California, approve and adopt this "Report on Watermaster Service in North Fork Pit River Watermaster Service Area, Modoc County, California, 1958 Season" as a report of the Department of Water Resources.

WITNESS my hand and the seal of the Department of Water Resources of the State of California, this 31st day of August, 1959.

State of California
Department of Water Resources

(SEAL)

HARVEY O. BANKS
Director

ORGANIZATION

STATE DEPARTMENT OF WATER RESOURCES

Harvey O. Banks . . . . . .Director of Water Resources

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INTRODUCTION

This is the nineteenth annual report on watermaster service in the North Fork Pit River Watermaster Service Area and covers the period of water distribution in 1958, beginning April 1 and terminating September 30.

The service area was created by order of the Department of Public Works on December 13, 1939, and was supplemented and revised by order of December 31, 1940. The service area includes water rights determined by decrees of the Superior Court, Modoc County, on North Fork Pit River and tributaries, except Franklin Creek, and on various streams tributary to Goose Lake as follows:

Stream	Case	Number
New Pine Creek*	Keller, et al, vs. Jensen, et al	2821
Cottonwood Creek*	Oliver vs. Robnett, et al	2344
Davis Creek*	Lake Shore Cattle Co., et al, vs. Mulkey, et al	2782
Franklin Creek	Crowder, et al, vs. Indart, et al	3118
North Fork Pit River Linville Creek Joseph Creek Thoms Creek Gleason Creek Parker Creek Shields Creek	In re North Fork Pit River and all its tributaries except Franklin Creek in Modoc County, California	4074

Prior to December 18, 1939, service areas had been created on separate streams as the water rights had been determined. To simplify administration, these smaller service areas were combined into a single unit by the above orders.

Watermaster service has been provided during each irrigation season since the service area was created, and annual reports have been prepared to show the work accomplished.

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*Tributary to Goose Lake

The report is presented under four headings as follows: Introduction, Water Supply, Distribution of Water, and Changes in Ownership of Lands and Water Rights. Appendix A presents data on precipitation and stream flow.

WATER SUPPLY

Precipitation during the spring months was somewhat above normal, and the heavy rainfall during June was especially helpful in providing an adequate water supply until July 15. Above average rainfall throughout most of the summer months helped to augment stream flows.

Precipitation

Precipitation data at Alturas, California, and Lakeview, Oregon, as compiled from records of the United States Weather Bureau for the period October 1, 1957 to September 30, 1958, are presented in Table A-1. The precipitation for the period was 18.19 inches for Alturas and 18.49 inches for Lakeview, which is equivalent to about 145 and 139 per cent, respectively, of the mean at these stations.

The water content of the snowpack on Eagle Peak, Blue Lake Ranch, and Cedar Pass snow courses in 1958, as published in the Department of Water Resources Bulletin entitled "Water Conditions in California as of April 1, 1958," averaged 20.1 inches or 117 per cent of the computed mean for the three courses. This information is shown in more detail in the following tabulation:

Snow course	Elevation, in feet	Water content of snow, in inches: 50-year computed mean	1958	Percent of mean
Eagle Peak	7,500	18.2	21.4	118
Blue Lake Ranch	7,300	13.6	14.0	103
Cedar Pass	7,200	19.9	24.8	125

Stream Flow

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

Recorder location	Control
New Pine Creek below Schroeder's	rated section
Cottonwood Creek below Larkin Garden Ditch	rated section
Davis Creek at Old Fish Wheel	rated section
Linville Creek above Diversions *	3-foot rectangular weir
Linville Creek above Renner House Ditch	2-foot rectangular weir
Franklin Creek above Diversions	4-foot rectangular weir
Joseph Creek below Couch Creek	rated section
Thoms Creek at Alturas-Cedarville Highway	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 below Thoms Creek	rated section

* Record of flow obtained by weekly weir observations.

Records of daily discharge for these stations are presented in Tables A-2 through A-14 in Appendix A. Table A-15 presents the combined flows of North Fork Pit River passing the recorder below Thoms Creek (Table A-14) and Parker Creek passing the recorder above Highway 395 (Table A-13). Table A-16 presents the daily discharge of North Fork Pit River at the new United States Geological Survey station located below the North Fork Ditch.

DISTRIBUTION OF WATER

Distribution on the various streams within the North Fork Pit River Watermaster Service Area was generally in accordance with the allotments and priorities set forth in the respective decrees determining the rights thereon. Stream flow available for distribution was determined from the measured discharge at the respective measuring stations.

New Pine Creek

The water supply was adequate to meet all demands until the middle of July and by September 1 the flow had decreased to an amount sufficient for first priority and 78 per cent of second priority rights.

A summary of distribution of water based on the flow at the recorder is presented in the following tabulation:

Month	Per cent of allotments available			
	First priority	Second priority	Third priority	Fourth priority
April	100	100	100	100
May	100	100	100	100
June	100	100	100	100
July	100	100	91	56
August	100	100	27	0
September	100	78	0	0

Cottonwood Creek

The discharge of Cottonwood Creek was sufficient to satisfy first, second and third priority rights until July 1. The flow then rapidly declined until July 16 when water was available for first priority allotments only.

On August 20, a water level recorder was placed at the head of Vincent's ditch to assure proper distribution to the Vincent and Fleming Ranches. However, during low flows Vincent closes the lower end of his pipeline, which backs water above his point of diversion and submerges the recorder station.

A summary of distribution based on flow at the regular recorder is presented in the following tabulation:

Month	Per cent of allotments available					
	First priority	Second priority	Third priority	Fourth priority	Fifth priority	Sixth priority
April	100	100	100	97	75	41
May	100	100	100	100	100	100
June	100	100	100	24	0	0
July	73	16	8	0	0	0
August	14	0	0	0	0	0
September	8	0	0	0	0	0

Davis Creek

The flow of Davis Creek was sufficient to fill all demands until the latter part of June. The flow decreased

steadily until mid August and then levelled off. First and second priorities only were supplied from that time to the end of the season.

A summary of distribution, based on flow at the recorder, is presented in the following tabulation:

Month	Per cent of allotments available			
	First priority	Second priority	Third priority	Fourth priority
April	100	100	93	2
May	100	100	100	89
June	100	100	74	0
July	100	100	29	0
August	100	100	5	0
September	100	87	0	0

Linville Creek

The weir at the old power house on Linville Creek was first measured on June 27 to determine the water supply available for distribution, and intermittent observations were made throughout the season at this point.

The flow declined until the latter part of June when water was available for approximately 70 per cent of first priority allotments. The flow then remained nearly constant for the remainder of the season.

A summary of distribution, based on flow at the power house weir, is presented in the following tabulation:

Month	Per cent of allotments available	
	First priority	Second priority
June	72	0
July	71	0
August	67	0
September	64	0

Franklin Creek

The water supply filled most demands until the middle of June, then gradually decreased until the end of the season, when the supply available met only 15 per cent of third priority rights. First and second priority rights received 100 per cent of their allotments throughout the season. The lower portions of both the north and south channels were cleaned by Leonard Johnson. This action should assist in delivering water to the lower ranches.

A summary of the distribution of water, based on flow at the recorder, is presented in the following tabulation:

Month	Per cent of allotments available			
	First priority	Second priority	Third priority	Fourth priority
June	100	100	56	0
July	100	100	23	0
August	100	100	17	0
September	100	100	15	0

Joseph Creek

The flow of Joseph Creek was sufficient to supply all demands until the middle of June. The flow then steadily

decreased until July 25 when only 100 per cent of first priority rights was supplied. The flow continued to drop until the end of the season, when 38 per cent was available.

A summary of distribution, based on flow at the recorder station, is presented in the following tabulation:

Month	Per cent of allotments available			
	First priority	Second priority	Third priority	Fourth priority
April	100	100	100	100
May	100	100	100	100
June	100	100	84	38
July	98	29	01	0
August	62	0	0	0
September	46	0	0	0

Thoms Creek

The flow of Thoms Creek was sufficient to supply all demands until August 11 and then steadily declined to the end of the season.

A summary of distribution is presented below:

Month	Per cent of allotments available		
	First priority	Second priority	Third priority
June	100	100	100
July	100	100	100
August	100	100	77
September	100	100	47

Gleason Creek

On June 5, flow was available for 100 per cent of first and second priority and 72 per cent of third priority rights. The flow then decreased steadily until August 15, when the Creek ceased to flow. It remained dry for the rest of the season.

A summary of distribution of water, based on flow at the recorder, is presented in the following tabulation:

Month	Per cent of allotments available				
	First priority	Second priority	Third priority	Fourth priority	Fifth priority
June	100	100	44	0	0
July	100	72	1	0	0
August	100	12	0	0	0

Shields Creek

Water from Shields Creek flowed into Plum Canyon Reservoir until the latter part of June. However, the reservoir had filled during the winter runoff and most of this water spilled back into Plum Canyon Creek during the first part of the season. The Pepperdine Ditch, which supplies most of the water to the Reservoir, was regulated on July 1 and only a small amount of drainage reached the Reservoir after this date.

Water was available to satisfy all demands on Shields Creek until July 5 and decreased gradually thereafter until the end of the season. At this time, water was available for 44 per cent of second priority rights.

A summary of distribution of water, based on the flow at the recorder, is presented in the following tabulation:

Month	Per cent of allotments available			
	First priority	Second priority	Third priority	Fourth priority
April	100	100	-	100
May	100	100	-	100
June	100	100	-	100
July	100	86	-	45
August	100	66	-	0
September	100	41	-	0

Allotments from Shields Creek are interrelated with those on Parker Creek, and no third priority allotments attach to Shields Creek.

Parker Creek

The discharge of Parker Creek was sufficient to satisfy all demands until August 3. On that date, the Dorris Reservoir Ditch from Parker Creek was closed as the downstream users required the entire flow of the Creek to satisfy their prior rights. By the end of August, the flow had gradually declined until approximately 90 per cent of third priority allotments were available. Thereafter the flow remained nearly constant until the end of the season.

A summary of distribution, based on flow at the Fogarty recorder, is presented in the following tabulation:

Month	Per cent of allotments available			
	First priority	Second priority	Third priority	Fourth priority
April	100	100	100	100
May	100	100	100	100
June	100	100	100	100
July	100	100	97	80
August	100	100	92	23
September	100	100	89	0

North Fork Pit River

The supply met all demands until August 3, and decreased thereafter until the end of the season when the supply was sufficient for seven per cent of second priority rights.

A summary of distribution, based on the flow at the recorder, is presented in the following tabulation:

Month	Per cent of allotments available				
	First priority	Second priority	Third priority	Fourth priority	Fifth priority
April	100	100	100	100	100
May	100	100	100	100	100
June	100	81	52	33	0
July	97	28	1	0	0
August	69	0	0	0	0
September	56	0	0	0	0

Parker Creek joins North Fork Pit River downstream from the X-L Ranch, to which first priority allotments attach. Therefore, during a portion of the season, water is available from

Parker Creek to supply second-priority allotments, although there is insufficient water available to completely satisfy first-priority allotments on the main stream above this tributary.

CHANGES IN OWNERSHIP OF LANDS AND WATER RIGHTS

Changes in ownership of lands and water rights which have occurred since issuance of "Statement for North Fork Pit River Watermaster Service Area, County of Modoc, State of California, for 1958," are listed in the following tabulation:

Tract Number	Name of water right owner appearing in 1958 statement	Name of water right owner appearing in 1959 statement	Amount of water in second-feet
9-69, 9-70	McGirr, W. E. and Zelma P.	Beebe, Floyd	2.54
9-40	Estate of Brown, C. A.	Bishop, C. M. and Kathleen A.	2.40
9-56-1	Brunnemer, William	Brunnemer, Earl and Ruby	0.01
9-82-1-	Carlsberg, A. W.	Rice, John B. and Kate L.	0.87
9-108	Dunn, Farlan and Grace	Bailey, Bill	1.80
9-118-1, 9-119	Heesch, Margaret M.	Fitch, Oran F. and Erma M.	4.84
9-16-2, 9-17	Perkins, George W.	Hinton, J.	1.39
9-89	Royce, Maggie A.	Fields, C. F. and Edna	0.25
9-105	Pepperdine, Howard S.	Moore, Milo E., Moore, Norma B. and Henderson, Ivan V.	0.70

APPENDIX A

RECORDS OF WATER SUPPLY

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TABLE A-1

PRECIPITATION AT ALTURAS, CALIFORNIA, AND
LAKEVIEW, OREGON

1957-1958

In Inches

Month	Alturas		Lakeview	
	Mean precipitation	1957-1958 precipitation	Mean precipitation	1957-1958 precipitation
October	0.99	2.40	0.96	2.20
November	1.23	2.43	1.62	1.33
December	1.51	1.76	1.79	2.18
January	1.79	1.85	1.73	2.22
February	1.37	2.39	1.61	2.84
March	1.40	1.35	1.49	1.60
April	1.11	0.47	1.17	1.32
May	1.19	1.05	1.45	1.02
June	0.79	2.75	0.92	2.04
July	0.40	0.85	0.18	0.98
August	0.22	0.40	0.16	0.42
September	0.53	0.49	0.52	0.83
TOTALS	12.53	18.19	13.60	18.98

TABLE A-2

DAILY MEAN DISCHARGE OF NEW PINE CREEK
BELOW SCHROEDER'S

June 12 to September 22, 1958

In Second-Feet

Day	April	May	June	July	August	September
1			N	43	10.3	5.8
2			O	38	10.3	5.8
3				34	10.3	5.8
4			R	32	10.3	5.8
5			E	31	10.3	5.8
			C			
6			O	31	10.3	5.3
7			R	29	11.0	5.3
8			D	28	9.5	5.8
9				27	9.5	5.8
10				25	8.7	5.8
11				23	8.7	5.8
12			78	21	8.2	5.8
13			78	20	8.2	7.0
14			74	20	8.2	6.5
15			72	17.8	7.5	5.3
16			72	17.8	7.5	5.3
17			72	17.0	7.5	5.3
18			72	17.0	7.0	5.8
19			71	15.7	7.0	5.3
20			70	14.7	7.0	5.3
21			70	14.7	7.0	5.3
22			69	14.7	6.5	5.3
23			67	18.7	6.5	N
24			63	11.0	6.5	O
25			58	10.3	6.5	
						R
26			56	10.3	6.5	E
27			53	10.3	6.5	C
28			52	10.3	6.5	O
29			49	10.3	6.5	R
30			46	10.3	6.5	D
31			---	10.3	5.8	
Mean			65.4	20.6	8.0	5.7
Runoff, ac-ft			2,460	1,260	492	248

Total for period - 4,460 acre-feet.

TABLE A-3

DAILY MEAN DISCHARGE OF COTTONWOOD CREEK
BELOW LARKIN GARDEN DITCH

June 18, to September22, 1958

In Second Feet

Day	April	May	June	July	August	September
1		N	N	5.2	0.8	0.3
2		O	O	5.0	1.0	.3
3				4.3	0.9	.3
4		R	R	4.1	0.8	.3
5		E	E	3.9	0.8	.3
		C	C			
6		O	O	3.6	0.7	.3
7		R	R	3.2	0.6	.3
8		D	D	3.2	0.6	.3
9				3.0	0.6	.3
10				3.0	0.5	.3
11				2.8	0.5	.3
12				2.8	0.4	.3
13				2.6	0.4	.3
14				2.4	0.4	.3
15				2.4	0.4	.3
16				2.8	0.5	.3
17				2.8	0.5	.3
18			7.3	2.8	0.5	.3
19			7.3	2.4	0.4	.3
20			7.3	2.4	0.4	.3
21			7.3	2.1	0.4	.3
22			7.0	2.1	0.4	.3
23			7.0	2.1	0.4	N
24			7.0	1.9	0.3	O
25			6.7	1.8	0.3	
						R
26			6.4	1.6	0.3	E
27			5.8	1.5	0.3	C
28			5.6	1.3	0.3	O
29			5.6	1.1	0.3	R
30			5.2	1.1	0.3	D
31			---	0.9	0.3	
Mean			6.5	2.6	0.5	0.3
Runoff, ac-ft			168	162	30	13

Total for period - 373 acre-feet.

TABLE A-4

DAILY MEAN DISCHARGE OF DAVIS CREEK
AT OLD FISH WHEEL

June 11 to September 17, 1958

In Second-Feet

Day	April	May	June	July	August	September
1			N	22	6.3	3.4
2			O	22	5.4	3.4
3				20	8.4	3.4
4			R	19.3	8.4	3.4
5			E	18.5	8.1	3.4
			C			
6			O	17.9	7.6	3.4
7			R	17.0	6.9	4.2
8			D	16.7	6.3	4.7
9				15.2	6.3	4.2
10				15.2	5.4	4.2
11			42	14.8	5.4	3.4
12			35	14.2	4.7	3.4
13			33	13.8	5.4	4.2
14			31	13.0	4.7	4.7
15			31	13.0	4.2	4.7
16			31	13.8	3.4	4.7
17			30	16.7	5.4	4.2
18			30	14.2	6.9	N
19			30	14.2	4.7	O
20			33	12.7	4.7	
						R
21			29	12.3	5.4	E
22			27	12.3	3.4	C
23			27	12.7	2.7	O
24			28	11.9	2.4	R
25			26	11.0	2.4	D
26			25	10.6	2.4	
27			24	10.1	2.7	
28			24	9.2	4.2	
29			23	8.4	4.2	
30			26	8.1	4.2	
31			---	7.0	3.4	
Mean			2 9	14.1	5.0	3.9
Runoff, ac-ft.			1,160	867	309	133

Total for period - 2,469 acre-feet.

TABLE A-5

DAILY MEAN DISCHARGE OF LINVILLE CREEK
AT OLD POWER HOUSE

June 27 to September22, 1958

In Second-Feet

Day	April	May	June	July	August	September
1		N	N	2.7	2.6	2.6
2		O	O	2.7	2.6	2.6
3				2.7	2.6	2.6
4		R	R	2.7	2.5	2.6
5		E	E	2.7	2.5	2.6
		C	C			
6		O	O	2.7	2.6	2.6
7		R	R	2.7	2.6	2.6
8		D	D	2.7	2.6	2.6
9				2.7	2.6	2.6
10				2.7	2.7	2.5
11				2.7	2.7	2.5
12				2.7	2.6	2.5
13				2.7	2.6	2.5
14				2.7	2.6	2.5
15				2.7	2.6	2.5
16				2.8	2.6	2.5
17				2.8	2.6	2.5
18				2.8	2.6	2.5
19				2.9	2.6	2.5
20				2.9	2.6	2.5
21				2.9	2.6	2.5
22				3.0	2.6	2.5
23				3.0	2.6	
24				3.0	2.6	N
25				2.9	2.6	O
26				2.9	2.6	R
27			2.7	2.8	2.6	E
28			2.7	2.8	2.6	C
29			2.7	2.7	2.6	O
30			2.7	2.7	2.6	R
31			---	2.6	2.6	D
Mean			2.7	2.8	2.6	2.5
Runoff, ac-ft.			22	170	160	111

Total for period - 463 acre-feet
Table prepared from weekly weir readings.

TABLE A-6

DAILY MEAN DISCHARGE OF LINVILLE CREEK
ABOVE RENNER HOUSE DITCH

June 20 to September 25, 1958

In Second-Feet

Day	April	May	June	July	August	September
1		N	N	1.9	1.1	0.6
2		O	O	1.6	1.2	0.7
3				1.2	1.2	0.8
4		R	R	0.9	1.3	0.8
5		E	E	1.0	1.2	0.8
		C	C			
6		O	O	1.0	1.2	0.8
7		R	R	1.1	1.2	0.9
8		D	D	1.2	1.1	0.8
9				1.5	1.1	0.8
10				1.4	1.1	0.8
11				1.3	0.8	1.0
12				1.3	0.6	1.0
13				1.4	0.9	1.3
14				1.5	1.0	1.2
15				1.8	0.9	1.2
16				2.0	0.8	1.1
17				2.0	1.1	0.8
18				1.8	0.9	0.9
19				1.7	0.6	1.1
20			2.1	1.3	0.8	1.1
21			1.8	0.9	0.9	1.3
22			1.8	0.9	0.8	1.3
23			2.3	1.0	0.8	1.2
24			2.1	1.0	0.8	1.3
25			1.8	1.0	0.9	1.4
26			1.5	1.0	0.9	No
27			1.5	1.0	0.9	R
28			1.8	1.1	1.0	E
29			2.5	1.1	1.0	C
30			1.3	1.1	0.9	O
31			----	1.1	0.6	R
						D
Mean			1.9	1.3	0.9	1.0
Runoff, ac-ft.			41	79	59	50

Total for period - 229 acre-feet.

TABLE A-7

DAILY MEAN DISCHARGE OF FRANKLIN CREEK
ABOVE DIVERSIONS

June 5 to September 25, 1958

In Second-Feet

Day	April	May	June	July	August	September
1		N	NO	4.6	3.2	2.9
2		O	REC-	4.6	3.4	2.9
3			ORD	4.3	3.3	2.8
4		R		4.1	3.2	2.8
5		E	8.3	3.9	3.3	2.8
		C				
6		O	8.5	3.9	3.3	2.8
7		R	8.2	3.9	3.3	2.8
8		D	8.0	3.8	3.4	3.1
9			8.0	3.7	3.3	2.9
10			7.5	3.7	3.3	2.9
11			7.4	3.5	3.1	2.9
12			8.3	3.5	2.9	2.9
13			7.8	3.5	2.9	3.2
14			6.7	3.5	2.9	3.1
15			6.4	3.5	2.9	2.9
16			6.1	3.8	3.1	2.8
17			5.8	3.9	3.1	2.8
18			5.7	3.7	2.9	2.8
19			6.7	3.5	2.8	2.8
20			6.1	3.4	2.9	2.8
21			5.4	3.4	2.8	2.8
22			5.3	3.4	2.8	2.9
23			5.4	3.4	2.7	2.9
24			5.3	3.4	2.7	2.9
25			5.0	3.3	2.9	2.8
26			4.9	3.2	3.2	NO
27			4.7	3.1	3.2	R
28			4.5	3.1	3.2	E
29			5.1	3.2	3.2	C
30			4.6	3.2	3.1	O
31			----	3.2	2.9	R
						D
Mean			6.4	3.6	3.1	2.9
Runoff, ac-ft.			328	222	188	143

Total for period - 881 acre-feet.

TABLE A-8

DAILY MEAN DISCHARGE OF JOSEPH CREEK
BELOW COUCH CREEK

June 9 to September 17, 1958

In Second-Feet

Day	April	May	June	July	August	September
1		N	N	5.6	1.9	1.2
2		O	O	5.0	1.9	1.2
3				4.5	2.0	1.2
4		R	R	4.2	1.9	1.2
5		E	E	4.0	1.9	1.2
		C	C			
6		O	O	3.8	1.6	1.2
7		R	R	4.0	1.6	1.1
8		D	D	3.8	1.8	1.2
9			11.6	3.7	1.6	1.2
10			12.7	3.5	1.6	0.8
11			10.6	3.2	1.7	0.8
12			11.6	3.0	1.6	0.9
13			8.6	3.0	1.6	0.9
14			7.6	3.0	1.2	0.9
15			7.8	2.9	1.2	1.0
16			8.0	3.0	1.2	0.9
17			8.4	3.2	1.2	0.9
18			8.0	3.1	1.2	
19			8.2	2.8	1.2	N
20			7.6	2.7	1.2	O
21			7.0	2.4	1.4	R
22			7.0	2.4	1.2	E
23			7.0	2.4	1.2	C
24			6.4	2.4	1.1	O
25			6.2	2.2	1.2	R
						D
26			6.0	2.0	1.2	
27			6.0	1.9	1.2	
28			5.8	1.9	1.2	
29			6.6	1.9	1.2	
30			5.6	1.9	1.2	
31			—	1.9	1.2	
Mean			7.9	3.1	1.4	1.0
Runoff, ac-ft.			345	189	88	35

Total for period - 657 acre-feet.

TABLE A-9

DAILY MEAN DISCHARGE OF THOMS CREEK
AT CEDARVILLE-ALTURAS HIGHWAY
June 5 to September 19, 1958

In Second-Feet

Day	April	May	June	July	August	September
1		N	NO	5.8	2.5	1.1
2		O	REC-	6.2	2.5	1.1
3			ORD	5.4	2.5	1.1
4		R		5.0	2.5	1.1
5		E	17.8	4.5	2.4	1.1
		C				
6		O	17.3	4.3	2.4	1.1
7		R	15.8	4.2	2.4	1.0
8		D	15.3	4.1	2.4	0.9
9			14.6	3.9	2.4	0.9
10			13.7	3.8	2.3	0.9
11			13.6	3.9	2.3	1.2
12			18.0	3.9	2.2	1.2
13			15.3	3.7	2.1	1.4
14			13.7	3.9	1.9	1.5
15			12.6	3.9	1.5	1.6
16			11.4	4.1	1.4	1.5
17			10.5	4.5	1.5	1.5
18			9.5	5.0	1.6	1.3
19			10.3	4.7	1.6	1.1
20			9.5	4.3	1.8	N
						O
21			8.9	4.0	2.1	
22			8.2	3.8	2.0	R
23			6.7	3.8	1.6	E
24			7.4	3.9	1.5	C
25			6.5	3.9	1.4	O
						R
26			5.8	3.8	1.3	D
27			5.3	3.4	1.3	
28			5.2	3.1	1.2	
29			7.9	3.1	1.1	
30			6.7	3.0	1.1	
31			---	2.8	1.1	
Mean			11.1	4.1	1.9	1.2
Runoff, ac-ft.			569	253	115	45

Total for period - 982 acre-feet.

TABLE A-10

DAILY MEAN DISCHARGE OF GLEASON CREEK
NEAR JONES RANCH

June 5 to September 30, 1958

In Second-Feet

Day	April	May	June	July	August	September
1		N	NO	.5	.1	N
2		O	REC-	.5	.1	O
3			ORD	.5	.1	
4		R		.4	.1	F
5		E	1.7	.4	.1	L
		C				O
6		O	1.7	.4	.1	W
7		R	1.6	.4	.1	
8		D	1.6	.4	.1	
9			1.6	.4	.1	
10			1.5	.4	.1	
11			1.4	.3	.1	
12			2.0	.3	.1	
13			1.9	.3	.1	
14			1.6	.3	.1	
15			1.4	.3	.1	
16			1.2	.3	N	
17			1.2	.3	O	
18			1.2	.2		
19			1.1	.2	F	
20			1.1	.2	L	
					O	
21			1.0	.2	W	
22			1.0	.2		
23			0.9	.2		
24			0.8	.2		
25			0.7	.2		
26			0.6	.2		
27			0.5	.2		
28			0.5	.2		
29			0.5	.2		
30			0.5	.2		
31			——	.2		
Mean			1.2	0.3	0.1	
Runoff, ac-ft.			61	18	3	

Total for period - 82 acre-feet.

TABLE A-11

DAILY MEAN DISCHARGE OF PARKER CREEK
AT FOGARTY RANCH

June 19 to September 19, 1958

In Second-Feet

Day	April	May	June	July	August	September
1		N	N	17.5	10.0	7.9
2		O	O	18.8	10.0	7.9
3				17.5	10.0	7.9
4		R	R	17.0	10.0	8.2
5		E	E	16.7	10.0	8.8
		C	C			
6		O	O	15.8	10.0	8.8
7		R	R	15.5	9.7	8.8
8		D	D	15.5	9.7	8.8
9				15.0	10.2	8.8
10				15.5	9.7	8.8
11				15.8	9.0	8.8
12				15.8	8.8	9.0
13				15.5	8.6	9.4
14				14.7	8.6	9.4
15				14.4	8.8	9.7
16				14.4	9.0	9.7
17				14.4	9.0	9.7
18				14.4	9.0	9.7
19			23	14.0	9.0	9.7
20			23	13.6	9.4	N
						O
21			22	13.2	10.2	
22			22	12.5	8.8	R
23			23	12.2	8.6	E
24			23	11.5	9.4	C
25			22	10.9	10.5	O
						R
26			19.2	10.0	10.2	D
27			18.0	9.0	9.4	
28			16.3	8.2	8.2	
29			19.6	7.9	7.7	
30			17.5	7.7	7.9	
31			———	8.2	7.9	
Mean			20.7	13.6	9.3	8.9
Runoff, ac-ft.			492	838	569	336

Total for period - 2,235 acre-feet.

TABLE A-12

DAILY MEAN DISCHARGE OF SHIELDS CREEK
BELOW PEPPERDINE RANCH

June 19 to September 19, 1958

In Second-Feet

Day	April	May	June	July	August	September
1		N	N	5.3	3.8	1.4
2		O	O	6.1	2.4	1.8
3				5.3	2.2	2.6
4		R	R	4.8	3.0	2.2
5		E	E	4.0	3.4	1.6
		C	C			
6		O	O	3.6	3.2	1.3
7		R	R	3.8	2.4	1.4
8		D	D	4.2	2.8	2.5
9				4.2	3.0	1.9
10				4.4	2.4	2.6
11				4.4	2.4	1.9
12				4.2	2.0	1.6
13				3.6	2.2	1.4
14				3.0	2.6	2.0
15				2.6	2.8	2.0
16				3.0	2.0	1.3
17				3.2	2.4	1.6
18				3.4	3.0	2.3
19			6.6	3.0	3.0	2.6
20			6.6	3.0	3.2	
						N
21			6.1	3.0	2.4	O
22			5.3	3.8	2.2	
23			5.7	4.0	3.1	R
24			5.3	4.4	3.1	E
25			4.9	4.6	2.4	C
						O
26			4.6	3.8	1.7	R
27			4.6	3.0	1.6	D
28			3.8	3.0	2.6	
29			4.8	3.4	3.1	
30			4.4	4.0	3.0	
31			—	4.0	1.4	
Mean			5.3	3.9	2.6	1.9
Runoff, ac-ft.			124	238	160	71

Total for period - 593 acre-feet.

TABLE A-13

DAILY MEAN DISCHARGE OF PARKER CREEK
ABOVE HIGHWAY 395

June 6 to September 19, 1958

In Second-Feet

Day	April	May	June	July	August	September
			NO			
1		N	R	6.1	3.1	4.5
2		O	E	6.8	3.8	6.2
3			C	6.1	3.8	7.7
4		R	O	5.8	3.4	7.7
5		E	R	5.8	2.9	6.4
		C	D			
6		O	33	8.7	2.9	5.4
7		R	28	12.2	1.5	6.2
8		D	30	13.2	3.0)	5.4
9			32	11.1	3.0)	5.2
10			25	9.5	3.0)	5.8
					) Est.	
11			24	9.5	3.0)	5.4
12			40	9.0	3.0)	4.5
13			34	8.1	3.0)	3.8
14			27	7.7	1.5	5.4
15			27	7.3	1.2	5.4
16			22	8.1	1.5	4.0
17			21	9.5	4.2	4.8
18			19.6	9.5	5.2	5.8
19			23	8.1	4.0	6.8
20			19.2	8.1	5.2	
						N
21			16.3	8.1	5.8	O
22			14.3	9.0	3.7	
23			13.2	8.7	2.8	R
24			10.1	7.3	3.1	E
25			9.0	5.8	4.8	C
						O
26			6.8	4.8	6.8	R
27			7.3	6.1	4.8	D
28			6.8	5.2	4.8	
29			12.7	3.1	3.8	
30			6.8	3.4	4.0	
31			——	2.9	4.2	
Mean			20.3	7.6	3.6	5.5
Runoff, ac-ft.			1,006	465	220	210

Total for period - 1,901 acre-feet.

TABLE A-14

DAILY MEAN DISCHARGE OF NORTH FORK PIT RIVER
BELOW THOMS CREEK

June 6 to September 17, 1958

In Second-Feet

Day	April	May	June	July	August	September
			NO			
1		N	R	23	7.2	4.8
2		O	E	26	7.5	4.6
3			C	23	7.5	4.4
4		R	O	15.2	7.2	4.4
5		E	R	12.4	6.9	4.4
		C	D			
6		O	45	10.8	6.9	4.4
7		R	44	9.8	6.6	4.4
8		D	44	9.0	5.9	4.6
9			46	8.4	5.9	4.6
10			45	7.2	5.4	4.2
11			45	6.9	5.1	4.4
12			66	6.1	4.4	4.4
13			50	5.9	4.4	4.4
14			39	5.6	4.4	4.4
15			36	6.9	4.4	4.4
16			29	10.0	4.4	4.4
17			28	11.1	4.4	4.4
18			26	12.0	4.4	
19			31	11.1	4.6	N
20			29	10.5	4.8	O
21			24	9.5	5.1	R
22			19.8	9.5	5.1	E
23			19.8	9.5	5.1	C
24			21	10.0	5.1	O
25			18.2	9.5	5.1	R
						D
26			15.2	9.0	5.6	
27			13.3	8.7	5.4	
28			11.9	8.7	4.8	
29			22.0	8.1	4.8	
30			18.2	7.8	4.8	
31			----	7.8	4.8	
Mean			31.4	10.6	5.4	4.4
Runoff, ac-ft.			1,556	651	333	150

Total for period - 2,690 acre-feet.

TABLE A-15

COMPUTED DAILY MEAN DISCHARGE OF PARKER CREEK
AND NORTH FORK PIT RIVER

June 6 to September 17, 1958

In Second-Feet

Day	April	May	June	July	August	September
1		N	NO	29.1	10.3	9.3
2		O		32.8	11.3	10.8
3			REC-	29.1	11.3	12.1
4		R	ORD	21	10.6	12.1
5		E		18.2	9.8	10.8
		C				
6		C	78	19	9.8	9.8
7		R	72	22	8.1	10.6
8		D	74	22.2	8.9	10.0
9			78	19.5	8.9	9.8
10			70	16.7	8.4	10.0
11			69	16.4	8.1	9.8
12			104	15.1	7.4	8.9
13			84	14	7.4	8.2
14			66	13.3	5.9	9.8
15			63	14.2	5.6	9.8
16			51	18.1	5.9	8.4
17			49	20.6	8.6	9.2
18			45.6	21.5	9.6	16 9.2
19			54	19.2	8.6	N
20			48.2	18.6	10.0	O
21			40.3	17.6	10.9	R
22			34.1	18.5	8.8	E
23			33	18.2	7.9	C
24			31.1	17.3	8.2	O
25			27.2	15.3	9.9	R
						D
26			22	13.8	12.4	
27			20.6	14.8	10.2	
28			18.7	13.9	9.6	
29			34.7	11.2	8.6	
30			25	11.2	8.8	
31			——	10.7	9.0	
Mean			51.7	18.2	9.0	9.9
Runoff, ac-ft.			2,561	1,116	553	360

Total for period - 4,590 acre-feet.

TABLE A-16

DAILY MEAN DISCHARGE OF NORTH FORK PIT RIVER
BELOW NORTH FORK DITCH

April 1 to September 30, 1958

In Second-Feet

Day	April	May	June	July	August	September
1	210	121	42	16	7.0	8.1
2	180	142	46	28	7.0	8.1
3	183	142	172	21	7.0	8.1
4	221	147	137	17	7.0	7.8
5	207	154	89	14	7.0	7.4
6	178	152	69	13	7.0	7.0
7	162	128	59	13	7.0	6.7
8	144	126	62	14	6.7	6.4
9	147	132	64	12	6.7	6.4
10	165	130	57	11	6.7	6.4
11	157	244	56	11	6.7	6.4
12	167	334	95	10	6.7	17
13	199	240	76	10	7.0	7.0
14	246	196	64	9.5	7.4	7.0
15	261	159	50	9.5	7.8	6.7
16	276	147	44	9.5	7.8	6.4
17	356	142	36	10	8.1	6.4
18	394	135	36	10	8.8	6.4
19	337	128	44	10	8.4	6.4
20	337	128	45	10	8.1	6.7
21	327	126	35	10	8.4	6.4
22	302	121	31	11	8.4	6.7
23	240	114	29	11	9.2	9.2
24	210	123	31	11	9.2	8.8
25	180	110	29	8.4	8.8	8.8
26	157	95	20	6.4	8.8	8.8
27	140	84	10	7.4	8.8	8.8
28	132	64	14	7.8	8.8	8.4
29	119	56	15	7.0	8.8	8.4
30	112	51	16	7.0	8.4	7.0
31	—	44	—	7.0	8.4	—
Mean	215	136	52.4	11.4	7.8	7.7
Runoff, ac-ft.	12,790	8,360	3,120	699	480	456

Total for period - 25,905 acre-feet.

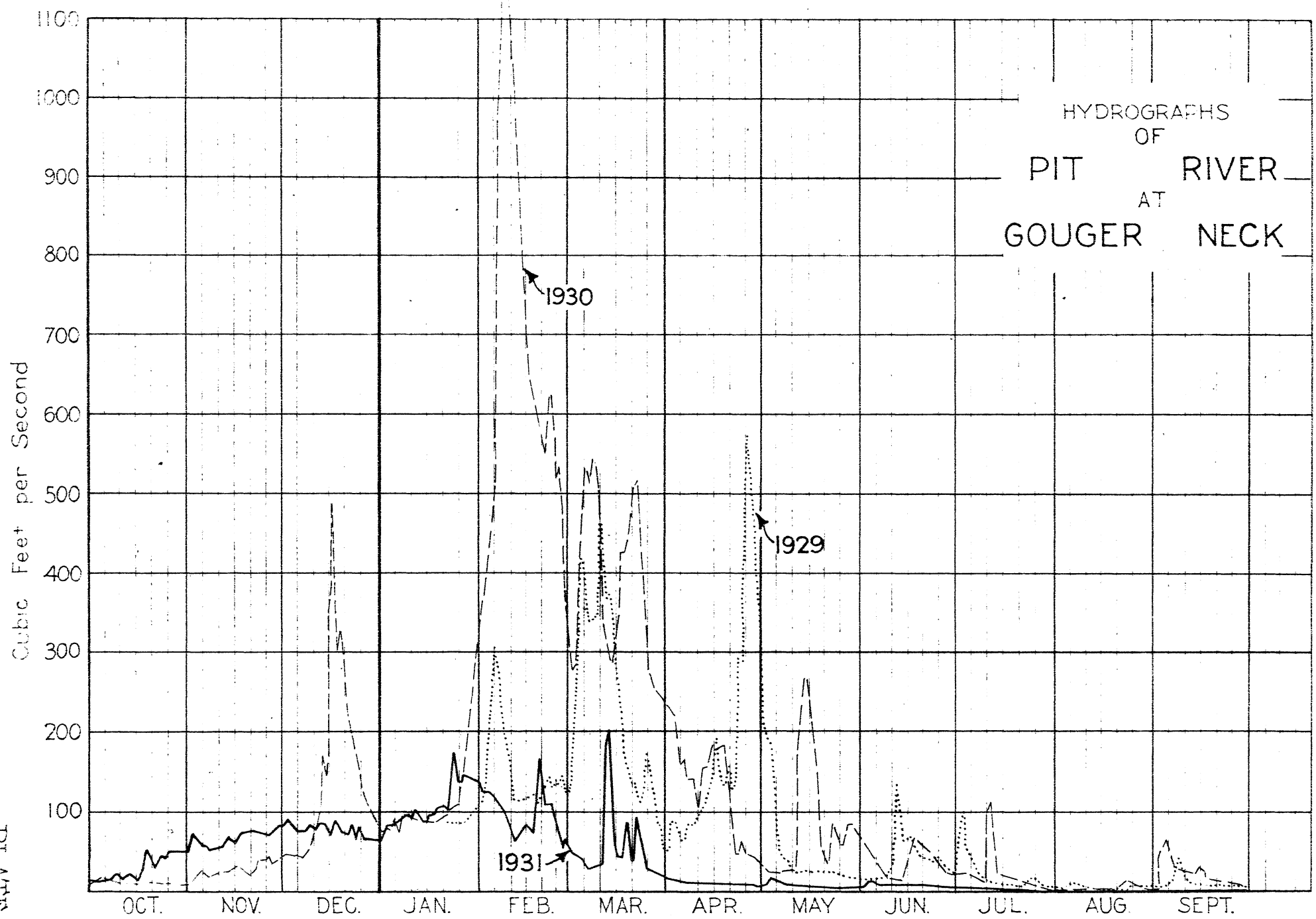
HYDROGRAPHS
OF
PIT RIVER
AT
GOUGER NECK
1930
1929
1931
Cubic Feet per Second
1100
1000
900
800
700
600
500
400
300
200
100
OCT.
NOV.
DEC.
JAN.
FEB.
MAR.
APR.
MAY
JUN.
JUL.
AUG.
SEPT.

PLATE 2