STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

GOODWIN J. KNIGHT, Governor
HARVEY O. BANKS, Director of Water Resources
W. J. SHELTON, Deputy Director of Water Resources

REPORT ON

WATERMASTER SERVICE

IN

SHASTA RIVER WATERMASTER SERVICE AREA

SISKIYOU COUNTY, CALIFORNIA

1956 SEASON

Sacramento, California
April, 1958

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SUBMISSION TO, AND ADOPTION BY
DEPARTMENT OF WATER RESOURCES
STATE OF CALIFORNIA

I, William R. Gianelli, Chief, Water Rights Section, Department of Water Resources of the State of California, approve this "Report on Watermaster Service in Shasta River Watermaster Service Area, Siskiyou County, California, 1956 Season".

/s/ William R. Gianelli

William R. Gianelli
Chief, Water Rights Section

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 Shasta River Watermaster Service Area, Siskiyou County, California, 1956 Season", as a report of the Department of Water Resources.

WITNESS my hand and seal of the Department of Water Resources of the State of California, this ___ day of ___, 1958.

State of California
Department of Water Resources

/s/ Harvey O. Banks

HARVEY O. BANKS
Director

(SEAL)

ORGANIZATION
DEPARTMENT OF WATER RESOURCES

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RECORDS OF WATER SUPPLY AND USE OF WATER

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INTRODUCTION

This is the twenty-third annual report on watermaster service in the Shasta River Watermaster Service Area, and covers the period of water distribution in 1956, beginning April 1 and terminating September 30.

The service area was created by order of the Department of Water Resources on March 1, 1933, to include, with certain exceptions, all the water rights determined in the decree entered in the Shasta River adjudication proceedings on December 30, 1932, Superior Court, Siskiyou County, No. 7035. The service area was changed by order of December 30, 1935, to exclude the water rights on Willow Creek and tributaries. Watermaster service has been provided during each irrigation season since the service area was created and annual reports prepared to show the work accomplished during each season.

The report is presented under four headings as follows: Introduction, Water Supply, Distribution of Water, and Changes in Ownership of Lands and Water Rights. Following the text is Appendix A which contains tables presenting precipitation data at Yreka and water supply records at various locations within the area.

WATER SUPPLY

Precipitation and snow survey data indicated the Shasta River water supply for the 1956 irrigation season would be approximately 170 per cent of normal.

Precipitation

Data on precipitation, as compiled from observations made by the United States Weather Bureau at Yreka, are presented in Table A-1.

Precipitation for the period from October 1, 1955, to September 30, 1956, was 30.94 inches or 180 per cent of mean.

Snow Surveys

Data on water content of snow pack at five representative snow courses in or near the Shasta River stream system as set forth in the Department of Water Resources bulletin "Water Conditions in California, April 1, 1956" are presented below:

Snow course	Elevation in feet	Water content of snow in inches		Per cent of mean
		50-year computed mean	1956	
Parks Creek	6,500	33.7	61.9	184
Sweetwater	5,500	14.4	30.7	213
Mt. Shasta	8,000	52.6	68.1	129
North Fork Sacramento	6,800	22.7	39.1	172
Little Shasta	6,200	26.4	33.1	125

Average water content of the five courses measured on April 1 was 155 per cent of the combined normal for the courses.

Stream Flow

All stream flow measuring stations normally maintained during the period of watermaster service were either damaged or completely destroyed during the floods of December, 1955. Stations successfully repaired or reinstalled and rated were Shasta River at Edgewood Bridge; Parks Creek above the Edson-Foulke Yreka Ditch; and the 8-foot weir above the Robertson

Ranch. The stream flow measuring station on Shasta River at Edgewood Bridge is maintained in cooperation with Montague Water Conservation District.

Intermittent measurements were made of the flows of Carrick and Gleland Springs and are recorded in Tables A-5 and A-6, respectively.

DISTRIBUTION OF WATER

Distribution of water during the 1936 irrigation season was in accordance with the decree entered in the Shasta River adjudication proceedings and with various agreements and practices developed over the period of watermaster service.

To supplement the water supply records referred to under "Stream Flow" and to maintain close observation of diversion and use, thirteen additional water stage recorders were installed at critical points on streams and diversion conduits as follows:

Station	Type of control
Beaughan Creek below Long Bell mill pond	2-foot Parshall flume
Carrick Creek at Highway 97	3-foot rectangular weir
Dwinnell Reservoir at outlet tower	
Waters and Peterson Ditch at head	3-foot rectangular weir
Quigley No. 3 head gate	4-foot rectangular weir
White Mountain ranch head gate	4-foot rectangular weir
Montague Water Conservation District Bypass Canal from Parks Creek	rated section
Montague Water Conservation District Shasta River Canal at head	10-foot Parshall flume
Big Springs Lake at Big Springs Irrigation District pumping plant	
Edson-Foulke Yreka Ditch north of Parks Creek	rated section

The water stage recorders located at Dwinnell Reservoir outlet tower, at the head of the Montague Water Conservation District's Shasta River Canal, and Bypass canal from Parks Creek were operated in cooperation with the above-named District. The recorder located on Beaughan Creek below Long-Bell mill pond was operated in cooperation with the International Paper Company, Long-Bell Lumber Division.

Shasta River Above Junction with Boles Creek

During the 1956 season, there was sufficient water to satisfy all irrigation demands until about July 24. Thereafter a shortage occurred throughout the section. Diversion 3 (Durney Mill Ditch) on Shasta River and Diversions 11 and 13 (Dow-Eddy and Hammond-Eddy Lower Ditches) on Eddy Creek were shut off on the above date. All other ditches were regulated to the respective decreed allotments subsequent to July 24.

Subsequent to August 22, Diversions 4, 5, and 6 (Dobkins #1, Dobkins #2 and T. M. Dow Ditches) were regulated on an equal and correlative basis. The available supply was not sufficient to satisfy decreed allotments during the balance of the season.

Boles Creek and Shasta River below Junction with Boles Creek

The water supply in this section was sufficient to satisfy all priorities having direct flow rights, including the Montague Water Conservation District, until about August 13. On August 13, the allotment for the Alexander Ditch, (Diversion 69) was reduced to four-tenths cubic

foot per second for stockwatering purposes only and was regulated to that amount for the remainder of the irrigation season. By eliminating the rights of the Montague Water Conservation District and distributing water on an equal and correlative basis, all users down to and including the Mills Ranch received an average of 100 per cent of allotments until August 17. Between August 17 and the end of the irrigation season, service was reduced to 75 per cent of allotments on diversions above Edgewood Bridge.

The daily mean discharge of Shasta River at Edgewood Bridge, which represents the amount of water available to the Mills Ranch and the Montague Water Conservation District, is presented in Table A-4.

Dwinnell Reservoir and Shasta River below Dwinnell Reservoir

Watermaster service on this section of the stream system involves operation of the Montague Water Conservation District's Dwinnell Reservoir during the irrigation season. The watermaster, in cooperation with the District, exercises control over deliveries from the reservoir to the District and to certain natural flow water right owners below the reservoir.

Deliveries to water right owners below the reservoir are made in accordance with agreements between the District and the several water right owners. These agreements specify the amount of water to be released to the respective owners in lieu of their natural flow rights. In general, each agreement sets forth the total amount of water in acre-feet measured at the heads of the respective ditches to which the water

right owner is entitled and provides that delivery from the reservoir shall be made upon demand of the water user. All releases of water to the water right owners below the reservoir are subject to control of the watermaster, who also regulates releases from the reservoir in accordance with requirements of the Montague Water Conservation District. Rediversion of the water to natural flow water right owners below the reservoir is also regulated.

Delivery of water to the Montague Water Conservation District commenced on April 11 and continued throughout the season. Deliveries to water right owners below the reservoir were made as requested from April 11 to September 30.

Daily releases from Dwinnell Reservoir, as shown in Table A-10, are the summation of deliveries to natural flow water right owners below the reservoir, deliveries to the Fred Quigley Ranch as measured by the Montague Water Conservation District, and the discharge through the 10-foot Parshall flume near the head of the District's Shasta River Canal. The amount of water diverted from Parks Creek to Shasta River for storage in Dwinnell Reservoir is presented in Table A-7. Statistical data on reservoir operation during the 1956 season are set forth in the following tabulation:

MONTHLY SUMMARY OF OPERATION OF DWINNELL RESERVOIR

In Acre-Feet

Date	Storage	Change in storage	Inflow to reservoir[a]	Total draft	Measured release	Seepage and evaporation loss[b]
April 1	41,810					
		1,030	10,530	9,550	1,758	7,792
May 1	42,210					
		3,150	14,000	10,850	1,803	9,047
June 1	45,360					
		3,150	9,880	13,030	2,728	10,302
July 1	42,210					
		9,780	1,960[c]	11,740	4,634	7,106
August 1	32,430					
		8,050	420	8,470	4,034	4,436
Sept. 1	24,380					
		4,490	370	4,860	2,079	2,781
Sept. 30	19,890					
TOTALS		31,290	37,210	58,500	17,045	41,464

a. Not adjusted for consumptive use on Mills Ranch
b. Not adjusted for possible inflow from Carrick Creek or precipitation.
c. Estimated.

DELIVERIES TO NATURAL FLOW WATER
RIGHT OWNERS BELOW DWINNELL RESERVOIR

Name of water right owner	Allotment as per agreement, in acre-feet	Amount delivered from Dwinnell Reservoir: Acre-feet	Amount delivered from Dwinnell Reservoir: Per cent of allotment
Fred Quigley	198	198	100
M. L. Miller and Inez M. Miller	692	240[a]	35
K. K. Waters and Sally G. Waters	696	0[b]	0
John W. Taylor	1,200	1,200	100
Florence Reed and Margaret R. Reed	596	0[b]	0
TOTALS	3,382	1,638	48

a. Full allotment not demanded
b. Allotment supplied by seepage from Dwinnell Reservoir.

SUMMARY OF DELIVERIES
FROM DWINNELL RESERVOIR

In Acre-Feet

Month	Measured release	Deliveries to natural flow rights	Deliveries to M.W.C.D. Canal
April	1,758	117	1,641
May	1,803	233	1,570
June	2,728	320	2,408
July	4,643	322	4,321
August	4,034	344	3,690
September	2,079	302	1,777
TOTALS	17,045	1,638	15,407

Beaughan Creek

One measurement of the flow of Beaughan Creek was made during the 1956 season at the 8-foot rectangular weir (Long-Bell Upper Weir) located at the head of Beaughan Creek. Results are given below:

Date	Gate height - feet	Discharge - cubic feet per second
May 22	0.37	5.94

This amount of water is sufficient to supply approximately 72 per cent of second priority allotments, which total 8.28 cubic feet per second. Distribution was made on that basis throughout the 1956 season.

Long-Bell Lumber Company diverts practically the entire flow of Beaughan Creek, including the downstream users' share of the available water, for industrial use at its saw mill. After such use, the downstream

users' share of the water, which is equivalent to 65 per cent of the measured flow at the Long-Bell Upper Weir, is returned to Beaughan Creek below Long-Bell mill pond. During the 1956 season, the average amount of water returned to the creek under this arrangement was in excess of the requirement at all times. Available water supply in Beaughan Creek below the return from the mill pond is measured by means of a 2-foot Parshall flume.

Carrick Creek

There was sufficient water to supply all allotments throughout the 1956 irrigation season with the exception of Diversion 122 (Hoy Brothers Upper Ditch) which was regulated by the owner to supply a higher priority downstream user.

Results of intermittent measurements of Carrick Springs are tabulated in Table A-5.

Parks Creek

A summary of distribution on Parks Creek for the 1956 season is presented in the following tabulation:

Month	Per cent of allotments available			
	Duke	Caldonia	Foulke, et.al	Robertson
April	Sufficient to supply all demands			
May	Sufficient to supply all demands			
June	Sufficient to supply all demands			
July	100	30	65	60
August	100	10	6	20
September	95	0	0	20

During September the Ikke and Vanderbilt Ranches were the only users on upper Parks Creek who received water. Since both ranches are riparian to Parks Creek, the water available was distributed in proportion to their allotments.

Records of flow available for the above distribution are presented in Tables A-2 and A-3. Records of diversion into the Montague Water Conservation District Bypass Canal to Shasta River are presented in Table A-7.

Big Springs

Water supply of Big Springs followed the normal pattern of low flow early in the season with gradually increasing flow as the season progressed. This supply was sufficient to provide 100 per cent of the Taylor and Louie Brothers allotments throughout the season. The Big Springs Irrigation District pump was regulated to take all of the water not required for the higher priority allotments referred to above.

Big Springs Irrigation District did not keep a record of discharge from their main pump; however, it was noted by the District's manager that the pump was started April 3, 1956, and shut down October 10, 1956. The pump was off for a total of 27 days during the season.

Lower Shasta River

There was sufficient water to supply all demands during the 1956 irrigation season. A record of discharge for Granada Irrigation District pumps was not kept during the season.

Little Shasta River

During the 1956 season, there was sufficient water to satisfy all irrigation demands by users owning fifth priority rights or better until about July 10. From July 10 until the end of the irrigation season, the amount available for fifth priority users decreased steadily, until September 15 when water was available for about 40 per cent of fifth priority allotments. A summary of distribution during the 1956 season is presented in the following tabulation:

Month	Per cent of allotments available				
	1st priority	2nd priority	3rd priority	4th priority	5th priority
April	100	100	100	100	100
May	100	100	100	100	100
June	100	100	100	100	100
July	100	100	100	100	75
August	100	100	100	100	44
September	100	100	100	100	42

A record of intermittent measurements of the discharge of Cleland Spring during the 1956 season is presented in Table A-6.

CHANGES IN OWNERSHIP OF LANDS AND WATER RIGHTS

Changes in ownership of lands and water rights, which have occurred during the period covered by this report and subsequent to filing "Statement for Shasta River Watermaster Service Area, County of Siskiyou, State of

California, for 1956", and which were included in the 1957 statement for the service area, listed in the following tabulation:

Tract number	Name of water right owner appearing in 1956 statement	Name of water right owner appearing in 1957 statement	Amount of water, in second-feet
5-53-1	Poulke, Levis M.	Anadite Corporation	1.45
5-36	Baucher, George A. and Baucher, Maxine E.	Parks Creek Ranch	2.50
5-43	Fleck, George W.	Watson, Donald E. and Watson, Illene D.	4.18
5-84	Hogeland, H. W. and Hogeland, Mabel C.	Neal, A. W. and Neal, Alma	3.62
5-88	Jones, George W. and Jones, Myrtle R.	Moro, Isabella C.	6.00
5-74	Lemos, Jesse H. and Lemos, Henrietta M.	Lemos, Harold A. and Lemos, Minnie I.	1.40
5-95* 5-96 5-106	The Long-Bell Lumber Company, a corporation	International Paper Company	9.37
5-2	Bower, Beulah M.	Removed from service area by order dated March 11, 1957	Mining

* This change to make an administrative correction only.

TABLE A-1

PRECIPITATION AT YREKA
SISKIYOU COUNTY, CALIFORNIA
1955-1956

In Inches

Month	Mean precipitation	1955-1956 precipitation
October	1.23	0.96
November	2.39	3.82
December	2.93	9.92
January	2.88	5.61
February	2.36	5.29
March	1.65	0.77
April	1.01	0.32
May	1.03	1.19
June	0.64	0.60
July	0.36	0.95
August	0.26	0.62
September	0.48	0.89
TOTALS	17.22	30.94

TABLE A-2

DAILY MEAN DISCHARGE OF PARKS CREEK ABOVE ESSEX-FOULKE YREKA DITCH

May 1 to September 26, 1956

In Second-feet

Day	April	May	June	July	August	September
1		102	132	35	6.6	2.0
2		118	120	33	6.2	2.0
3		138	135	31	5.8	1.8
4		168	114	29	6.2	1.3
5		134	78	28	6.6	1.3
6		108	70	27	7.0	1.1
7		104	74	23	6.6	0.9
8		92	90	18.8	6.2	0.9
9		90	104	18.2	5.5	0.9
10		92	108	17.7	4.8	0.9
11		80	92	17.1	4.4	0.9
12		66	88	16.7	3.8	0.9
13		98	82	15.6	3.5	0.9
14		58	102	15.0	3.2	0.9
15		70	80	14.6	3.2	0.9
16		117	58	14.1	2.9	0.9
17		178	58	13.6	2.6	0.9
18		230	67	13.1	2.3	0.9
19		274	104	12.6	2.3	1.1
20		268	70	12.6	2.3	1.1
21		250	58	12.2	2.3	1.1
22		268	54	11.8	2.0	0.9
23		260	54	11.3	2.0	0.9
24		204	52	10.8	2.0	0.7
25		172	48	10.4	2.0	0.7
26		156	48	9.9	2.0	0.7
27		126	47	9.5	2.0	NO
28		109	44	8.6	2.0	RECORD
29		126	40	8.2	2.0	
30		153	37	7.8	2.0	
31		162	-	7.4	2.0	
Mean		146	77	16.6	3.7	1.1
Runoff acre-ft		8,990	4,580	1,020	226	54

Total for period - 14,870 acre-feet

TABLE A-3

DAILY MEAN DISCHARGE OF PARKS CREEK AT ROBERTSON WEIR

April 16 to September 19, 1956

In Second-Feet

Day	April	May	June	July	August	September
1		17.4	18.7	15.7	2.0	2.9
2	N	17.4	16.0	16.3	2.6	2.9
3	O	20	16.3	16.3	3.1	2.9
4		23	19.9	14.7	3.5	2.9
5	R	27	18.9	13.2	3.3	2.9
	E					
6	C	32	18.0	9.2	3.9	2.0
7	O	27	15.9	8.2	3.1	1.7
8	R	21	14.7	6.4	3.1	1.5
9	D	20	14.2	5.5	3.1	1.5
10		26	11.7	5.7	2.6	1.7
11		20	12.2	6.9	2.6	1.5
12		16.0	20	7.2	2.0	1.5
13		17.0	23	5.7	1.7	0.7
14		16.0	27	5.5	1.7	1.0
15		18.0	22	5.3	1.4	1.4
16	26	19.3	19.0	5.1	1.7	1.4
17	25	20	18.7	5.3	1.4	1.5
18	25	24	18.7	4.8	1.5	2.0
19	22	29	22	4.1	1.7	3.5
20	25	28	19.3	4.1	1.7	
21	28	25	18.3	3.3	2.2	N
22	29	23	16.7	3.1	2.0	O
23	26	28	15.0	3.5	1.7	
24	21	22	15.0	3.3	1.5	R
25	17.0	19.0	12.6	3.1	1.9	E
						C
26	14.7	20	12.0	3.9	1.9	O
27	14.8	21	12.3	5.2	1.9	R
28	17.3	20	14.7	3.5	2.7	D
29	19.1	19.7	16.3	3.1	2.7	
30	16.6	21	15.4	2.7	2.4	
31	-	21	-	2.4	2.7	
Mean	22	22	17.2	6.5	2.3	2.0
Runoff ac-ft	646	1,340	1,020	401	141	74

Total for period - 3,620 acre-feet

TABLE A-4

DAILY MEAN DISCHARGE OF SHASTA RIVER AT EDGEWOOD BRIDGE

October 1, 1955 to September 30, 1956

In Second-Feet

Day	October	November	December	January	February	March	April	May	June	July	August	September
1	7.8	17.7	35	211	89	125	122	161	247		6.5	7.0
2	7.8	18.0	32	205	88	138	112	163	233		7.0	6.5
3	7.6	19.0	30	229	96	147	107	182	254		8.0	6.5
4	7.6	19.4	104	400	110	132	104	211	252		8.0	7.0
5	7.8	20	78	254	111	115	120	192	195	N	8.0	6.0
6	8.4	20	56	365	108	111	121	148	170	O	9.2	5.4
7	8.8	20	42	536	108	111	130	158	160		8.0	4.9
8	9.8	20	45	261	104	115	135	155	160	R	8.0	4.3
9	10.4	20	45	237	104	111	143	150	405	E	7.5	3.8
10	12.9	20	39	280	101	110	179	184	211	C	7.5	4.3
11	12.5	19.4	45	254	97	103	184	194	195	O	7.0	4.3
12	12.1	19.4	45	243	110	100	158	160	175	R	4.9	4.9
13	13.2	20	42	299	104	101	158	143	168	D	4.9	4.9
14	14.0	20	40	250	99	103	164	138	215		4.9	5.4
15	14.8	20	39	1,034	88	103	175	145	197		3.8	6.0
16	14.3	19.4	38	444	86	105	173	171	155		4.3	6.5
17	13.2	20	49	235	86	115	142	207	140		4.9	6.5
18	12.9	21	416	219	86	124	145	250	143		5.4	7.0
19	13.6	70	954	203	76	133	171	313	194		6.5	9.8
20	14.3	229	788	211	225	138	215	333	158		9.8	11.4
21	16.8	107	1,600*	171	1,253	153	243	333	145		9.2	11.4
22	17.7	54	1,600*	207	996	155	261	363	125		8.0	11.4
23	17.7	37	366	182	591	166	294	397	112		7.0	11.4
24	17.7	36	405	155	207	179	328	352	107		7.5	11.4
25	16.4	35	561	147	177	194	280	301	100		7.5	10.8
26	18.5	37	561	161	153	182	243	209	89		8.0	10.3
27	18.0	38	306	133	140	156	211	252	81		7.0	
28	18.0	36	237	125	135	138	194	241	72		7.0	
29	17.2	34	205	110	133	132	173	243	70		6.0	
30	17.7	33	205	103	-	122	161	263	60		6.0	
31	17.2	-	221	95	-	132	-	274	-		7.0	
Mean	13.4	37	314	258	202	131	178	228	166		6.9	7.3
Runoff sc-ft	825	2,180	19,260	15,860	11,600	8,040	10,580	14,000	9,880		424	374

*Estimated

Total for period - 93,023 acre-feet

TABLE A-5

DISCHARGE OF CARRICK SPRINGS

July 6 to August 29, 1956

Intermittent Measurements of Discharge in Second-Feet

Day	April	May	June	July	August	September
1						
2						
3						
4						
5						
6				6.84		
7						
8						
9						
10						
11						
12						
13				6.83		
14						
15					6.99	
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29					6.91	
30						
31	--		--			--

TABLE A-6

DISCHARGE OF CLELAND SPRINGS

July 2 to September 10, 1956

Intermittent Measurements in Second-Feet

Day	April	May	June	July	August	September
1				[illegible]		
2				12.1		
3						
4						
5						
6						
7						
8						
9						
10						13.44
11						
12						
13						
14						
15					13.09	
16				12.5		
17						
18						
19						
20						
21						
22						
23						
24						
25				12.6		
26						
27						
28						
29						
30					13.44	
31				12.7		

TABLE A-7

DAILY MEAN DISCHARGE OF MONTAGUE WATER CONSERVATION DISTRICT'S PARKS CREEK CANAL
October 1, 1955 to September 30, 1956
In Second-Feet

Day	October	November	December	January	February	March	April	May	June	July	August	September
1		N	24	46		21	20	36	60	2.0		
2		O	22	40		22	20	37	59	2.0		
3			19.5	50	N	22	20	41	71	2.0		
4		F	17.0	60*	O	22	21	46	61	2.0		
5		L	29	65*		21	27	33	41			
6		O	36	70*	R	20	28	15.0	39			
7	N	W	25	76	E	20	29	25	40			
8	O		24	41	C	20	30	32	37			
9		5.0	25	38	O	20	30	32	41	N	N	N
10	F	6.0	24	38	R	20	32	37	51	O	O	O
11	L	5.0	29	38	D	20	33	40	43			
12	O	5.0	30	28		19.0	32	35	38	F	F	F
13	W	6.0	28	32		18.5	31	33	34	L	L	L
14		6.5	28	40		18.5	31	30	49	O	O	O
15		8.0	28	46		18.5	30	34	38	W	W	W
16		7.5	27	32		19.5	30	41	33			
17		7.0	32	25		19.0	30	52	30			
18		9.0	134	21		20	29	68	33			
19		27	461	17.5		20	35	103	44			
20		95	525	17.0		20	42	108	35			
21		38	741	16.5		20	51	125	30			
22		22	365	17.5		21	57	161	24			
23		19.5	72	18.5	30	21	77	175	17.0			
24		24	13.0	17.5	26	22	121	140	16.0			
25		22	15.5	17.0	25	23	85	93	14.0			
26		20	6.0		23	22	68	75	11.0			
27		25	0	NO	23	21	53	63	10.0			
28		25	0	RECORD	22	21	45	55	2.0			
29		24	0		23	21	38	61	2.0			
30		22	14.0		-	21	35	70	2.0			
31		-	51		-	21	-	71	-			
Mean		19.5	92	36	25	20	40	63	33	2.0		
Discharge ac-ft		848	5,630	1,800	341	1,260	2,400	3,890	1,990	15.8		

*Estimated

Total for period - 18,170 acre-feet

TABLE A-8

DAILY MEAN DISCHARGE OF EDSON-FOULKE YREKA DITCH NORTH OF PARKS CREEK

April 17 to September 19, 1956

In Second-Feet

Day	April	May	June	July	August	September
1		53	49	41	22	5.9
2	N	56	47	39	21	5.7
3	O	59	37	42	19.7	5.5
4		63	30	45	18.1	5.5
5	R	61	42	44	17.3	5.5
	E					
6	C	58	39	44	17.6	5.5
7	O	55	38	41	17.3	5.4
8	R	53	39	37	16.6	4.9
9	D	52	41	37	16.2	4.9
10		50	42	31	15.6	4.2
11		39	39	39	14.6	5.2
12		29	31	39	13.6	5.4
13		26	35	37	12.7	5.5
14		25	35	37	11.7	5.4
15		27	26	36	10.8	5.4
16		44	34	34	10.6	4.9
17	49	64	31	32	10.4	4.9
18	49	67	34	32	9.8	4.7
19	53	68	44	33	9.4	5.2
20	62	60	31	32	8.9	
21	70	53	32	31	8.7	N
22	71	49	38	29	8.2	O
23	65	55	44	30	7.2	
24	71	53	42	30	6.7	R
25	55	52	39	29	7.7	E
						C
26	46	51	39	31	7.5	O
27	40	50	47	31	7.5	R
28	37	48	48	27	7.2	D
29	44	49	44	26	7.0	
30	52	50	43	24	6.2	
31	-	51	-	24	5.9	
Mean	55	51	39	34	12.1	5.2
Discharge ac-ft	1,510	3,110	2,300	2,110	740	197

Total for period - 9,967 acre-feet

TABLE A-9

DAILY MEAN STORAGE IN DAINNELL RESERVOIR
October 1, 1955 to September 30, 1956
In Acre-Feet

Day	October	November	December	January	February	March	April	May	June	July	August	September
1	589	944	3,150	23,082	34,672	40,984	41,182	42,208	45,359	42,808	32,432	24,380
2	591	980	3,222	23,264	34,672	40,894	41,182	42,224	45,470	41,888	32,112	24,125
3	595	1,015	3,283	23,544	34,672	40,804	41,164	42,240	45,562	41,584	31,808	23,870
4	598	1,053	3,332	24,125	34,720	40,750	41,146	42,208	45,692	41,296	31,520	23,645
5	530	1,088	3,437	24,650	34,752	40,606	41,146	42,256	45,729	40,876	31,248	23,440
6	565	1,123	3,541	25,025	34,800	40,444	41,146	42,176	45,710	40,516	31,012	23,278
7	574	1,155	3,640	26,030	34,832	40,318	41,164	42,064	45,636	40,174	30,766	23,082
8	582	1,188	3,745	26,765	34,864	40,300	41,182	42,000	45,562	39,832	30,514	22,816
9	598	1,220	3,798	27,155	34,912	40,300	41,232	41,952	45,470	39,418	30,246	22,662
10	600	1,255	3,882	27,440	34,944	40,318	41,296	41,952	45,433	39,077	29,994	22,438
11	600	1,280	3,954	27,740	34,944	40,318	41,344	42,176	45,433	38,737	29,716	22,256
12	602	1,305	4,032	28,055	35,008	40,300	41,360	42,272	45,391	38,363	29,444	22,144
13	606	1,340	4,110	28,900	35,040	40,300	41,360	42,320	45,291	38,023	29,076	21,920
14	608	1,365	4,176	29,204	35,072	40,282	41,360	42,320	45,266	37,666	28,772	21,780
15	612	1,393	4,254	30,300	35,072	40,264	41,344	42,320	45,291	37,360	28,452	21,640
16	620	1,435	4,296	31,632	35,056	40,264	41,392	42,288	45,229	37,105	28,164	21,500
17	632	1,463	4,363	32,224	35,072	40,264	41,376	42,480*	45,081	36,969	27,905	21,360
18	642	1,500	4,701	32,576	35,088	40,264	41,296	42,640*	44,933	36,782	27,650	21,360
19	646	1,584	5,748	32,880	35,168	40,300	41,216	42,800*	44,989	36,493	27,395	21,220
20	650	1,839	7,172	33,152	35,296	40,372	41,216	42,980*	44,896	36,136	27,155	21,080
21	670	2,259	9,029	33,360	37,190	40,462	41,264	43,160*	44,822	35,792	26,915	20,940
22	676	2,457	14,056	33,552	39,281	40,498	41,344	43,520*	44,711	35,472	26,645	20,940
23	694	2,598	17,303	33,776	40,228	40,606	41,488	43,700*	44,492	35,152	26,480	20,800
24	710	2,646	18,960	33,920	40,570	40,732	41,744	43,880*	44,258	34,832	26,315	20,670
25	736	2,715	20,059	34,048	40,750	40,858	41,920	44,060*	44,006	34,608	26,120	20,540
26	780	2,790	21,234	34,288	40,858	40,948	42,032	44,240*	43,736	34,272	25,865	20,410
27	796	2,870	21,920	34,432	40,966	41,038	42,112	44,420*	43,430	33,920	25,625	20,280
28	828	2,945	22,256	34,512	41,128	41,092	42,176	44,600*	43,124	33,600	24,980	20,150
29	858	3,015	22,424	34,592	41,074	41,128	42,208	44,785*	42,800	33,296	24,935	20,020
30	888	3,085	22,620	34,642	-	41,146	42,208	45,044	42,512	33,024	24,860	19,890
31	916	-	22,900	34,672	-	41,164	-	45,192	-	32,736	24,590	-

*Estimated

TABLE A-10

DAILY MEAN RELEASE FROM DWINNELL RESERVOIR

April 11 to September 30, 1956

In Second-Feet

Day	April	May	June	July	August	September
1	N	24	15.4	88	71	73
2	O	23	16.7	88	71	73
3		41	21	88	70	69
4	R	42	21	87	68	64
5	E	41	25	88	69	51
	L					
6	E	42	27	89	67	49
7	A	49	31	88	59	52
8	S	53	31	88	62	50
9	E	53	36	84	69	44
10		38	35	80	75	43
11	33	3.5	39	84	77	43
12	31	3.0	44	88	74	43
13	33	3.0	53	88	73	38
14	37	4.3	55	87	75	25
15	46	20	50	86	75	18.4
16	46	37	49	49	76	18.4
17	46	38	49	9.5	76	18.8
18	56	38	49	9.5	76	18.4
19	56	38	42	58	75	18.4
20	56	39	32	78	72	18.0
21	56	39	30	85	70	18.0
22	56	37	39	85	62	18.8
23	56	38	48	85	17.8	23
24	55	40	59	80	20	26
25	51	40	70	76	5.8	27
26	49	26	75	77	66	27
27	40	13.0	80	72	71	28
28	31	13.3	82	68	71	24
29	27	13.3	86	68	73	17.6
30	27	9.7	88	71	73	14.3
31	-	11.5	-	72	73	-
Mean	44	29	46	76	66	35
Release ac-ft	1,760	1,800	2,730	4,640	4,030	2,080

Total for period - 17,040 acre-feet

TABLE A-11

DAILY MEAN DISCHARGE OF SHASTA RIVER WATER ASSOCIATION PUMPS

April 4 to September 30, 1956

In Second-Feet

Day	April	May	June	July	August	September
1	0	31.3	11.3	39.8	39.8	39.8
2	0	31.3	11.3	39.8	36.9	39.8
3	0	31.3	11.3	39.8	37.0	39.8
4	36.4	31.3	11.3	39.8	39.8	39.8
5	39.8	31.3	11.3	39.8	39.8	39.8
6	39.8	31.3	11.3	39.8	39.8	39.8
7	39.8	31.3	35.0	21.6	39.8	39.8
8	39.8	15.9	39.8	39.8	39.8	39.8
9	39.8	34.1	39.8	39.8	39.8	39.8
10	39.8	33.4	39.8	39.8	39.8	39.8
11	39.8	11.9	39.8	39.8	39.8	39.8
12	39.8	0	39.8	39.8	39.8	39.8
13	39.8	0	39.8	39.8	39.8	39.8
14	39.8	0	27.3	39.8	39.8	39.8
15	39.8	0	31.6	39.8	39.8	39.8
16	39.8	36.4	38.4	39.8	39.8	39.8
17	39.8	39.8	39.8	39.8	39.8	34.1
18	36.1	39.8	39.8	39.8	39.8	37.8
19	19.8	39.8	39.8	39.8	39.8	22.7
20	5.6	39.8	39.8	39.8	39.8	N
						O
21	24.6	39.8	39.8	37.6	39.8	
22	39.8	39.8	39.8	39.1	39.8	D
23	39.8	39.8	39.8	39.8	39.8	I
24	39.8	39.8	39.8	39.8	36.9	S
25	39.8	39.8	36.6	39.8	9.1	C
						H
26	37.7	39.8	33.6	39.8	39.8	A
27	31.3	39.8	39.8	39.8	39.8	R
28	31.3	39.8	39.8	39.8	39.8	G
29	31.3	39.8	39.8	39.8	39.8	E
30	31.3	39.8	39.8	39.8	39.8	
31	-	39.8	-	39.8	39.8	-
Mean	35.6	30.6	32.9	39.1	38.5	24.4
Discharge acre-feet	1,910	1,880	1,957	2,405	2,369	1,451

Total for period - 11,972 acre-feet