

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RESOURCES

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REPORT ON
WATERMASTER SERVICE
IN
SHASTA RIVER WATERMASTER SERVICE AREA
SISKIYOU COUNTY, CALIFORNIA
1955 SEASON

Sacramento, California
February, 1956

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SUBMISSION TO, AND ADOPTION BY
DEPARTMENT OF PUBLIC WORKS

I, J. M. Page, Senior Hydraulic Engineer, Division of Water Resources, Department of Public Works of the State of California, submit the within contained report entitled "Report on Watermaster Service in Shasta River Watermaster Service Area, Siskiyou County, California, 1955 Season".

/s/ J. M. Page

Senior Hydraulic Engineer

I, W. R. Gianelli, Supervising Hydraulic Engineer, Division of Water Resources, Department of Public Works of the State of California, approve this "Report on Watermaster Service in Shasta River Watermaster Service Area, Siskiyou County, California, 1955 Season".

/s/ W. R. Gianelli

Supervising Hydraulic Engineer

I, L. C. Jopson, Assistant State Engineer, Division of Water Resources, Department of Public Works of the State of California, approve and adopt this "Report on Watermaster Service in Shasta River Watermaster Service Area, Siskiyou County, California, 1955 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 24th day of February, 1956.

DEPARTMENT OF PUBLIC WORKS
STATE OF CALIFORNIA

/s/ L. C. Jopson

By _____
L. C. Jopson
Assistant State Engineer

ORGANIZATION

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INTRODUCTION

This is the twenty^{2nd}-second annual report on watermaster service in the Shasta River Watermaster Service Area, and covers the period of water distribution in 1955 beginning April 1 and terminating September 30.

The service area was created by order of the Division 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 are 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 1955 irrigation season would be approximately fifty per cent of normal. However, irrigation was not as seriously affected as the above figure indicates. Unusually low temperatures during April, May and June reduced the rate of flow and prolonged the runoff period as indicated by comparison of maximum daily mean discharge of Shasta River above Edson-Foulke Yreka Ditch. Normally the maximum discharge is

approximately 200 cubic feet per second compared to 80 cubic feet per second during the 1955 season. The departure from normal climatic conditions resulted in an increased diversion period for direct diversions and less runoff to storage in Dwinell Reservoir than was expected based on precipitation and snow survey data available on April 1. Available water supply of Little Shasta River for 1955 season was 36 per cent of the 1954 season. The available water supply on this stream in 1954 was considered to be normal.

Precipitation

Data on precipitation, as compiled from observations made by the United States Weather Bureau at Yreka, are presented in Table 1. Precipitation for the period from October 1, 1954 to September 30, 1955, was 7.53 inches or 44 per cent of the 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 Division of Water Resources bulletin "Water Conditions in California, April 1, 1955" are presented below:

Snow course	Elevation in feet	Water content of snow in inches		Per cent of mean
		50-year Com- puted mean	1954 ⁵	
Parks Creek	6,500	33.7	23.9	71
Sweetwater	5,500	14.4	6.5	45
Mt. Shasta	8,000	52.6	32.7	62
N. Fk. Sacramento	6,800	22.7	13.2	58
Little Shasta	6,200	No data available		

Average water content of the four courses measured on April 1, 1955 was 67 per cent of the combined normal for the courses.

Stream Flow

Stream flow measuring stations equipped with water stage recorders were maintained during the period of watermaster service on Shasta River above the Edson-Foulke Yreka Ditch, at Edgewood Bridge, and near Montague; on Parks Creek above the Edson-Foulke Yreka Ditch, and the 8-foot weir above the Robertson Ranch; and on Little Shasta River above Harp Ditch. The stream flow measuring station on Little Shasta River above Harp Ditch was maintained in cooperation with the Division of Water Resources Northeastern Counties Investigation. The stream flow measuring station on Shasta River at Edgewood Bridge, is maintained in cooperation with Montague Water Conservation District.

*Table
Nos.*

Intermittent measurements were made of the flows of Carrick and Cleland Springs and are recorded in Tables 8 and 9, respectively.

DISTRIBUTION OF WATER

Distribution of water during the 1955 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
Beaughan Creek above Jackson Ditch ✓	8-foot rectangular weir
Carrick Creek at Highway 97 ✓	3-foot rectangular weir
Dwinnell Reservoir at outlet tower ✓	
Soule Ditch at head ✓	4-foot rectangular weir
Waters and Petersen Ditch at head ✓	3-foot rectangular weir
Quigley No. 3 headgate ✓	4-foot rectangular weir
White Mountain ranch headgate ✓	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
Shasta River at Grenada Irrigation ✓ District pumping plant	rated section

The water stage recorders located at Dwinnell Reservoir outlet tower, at the head of the Montague Water Conservation Districts Shasta River Canal, and by-pass 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 Long-Bell Lumber Company.

Shasta River Above Junction With Boles Creek

During the 1955 season there was sufficient water to satisfy all irrigation demands until about ^{July 24} June 18. Thereafter a shortage occurred throughout the section. Diversion 3 (Durney Mill Ditch) was not used during the season. 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 June 18.

Subsequent to August 22, diversions 4, 5 and 6 (Dobkins #1, Dobkins #2 and I. 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.

A summary of distribution for the 1955 season for those diversions above and including Edson-Foulke Yreka Ditch that are strictly appropriative in nature; is set forth in the following tabulation.

Month	Per cent of allotments delivered		
	Hammond-Scott	Foulke, et al.	Dow - Eddy
April	Sufficient to satisfy all demands		
May	Sufficient to satisfy all demands		
June	98	84	60
July	63	(a) 22	0
August	47	(a) 4	0
September	29	(a) 3	0

(a) Computed from intermittent measurements and correlated flows. Level of water too low to operate recorder.

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 June 21. On June 21 the allotment for the Alexander Ditch, (Diversion 69) was reduced to four-tenths of a 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 July 2. Between July 2 and July 16 service was reduced to 75 per cent of allotments on diversions above Edgewood Bridge. Between July 16 and September 19 service was reduced to 50 per cent of allotments on diversions above Edgewood Bridge. After September 19 the water supply was sufficient to satisfy all priorities having direct flow rights excepting Montague Water Conservation District.

During the period from August 14 to August 22 the flow passing Edgewood Bridge was low enough to require the reduction of allotments for users above Edgewood Bridge to less than 50 per cent. However, the reduction was not made due to a verbal agreement with the Mills Ranch below Edgewood Bridge. During the period from July 16 to September 19 the Rovito Ditch received 65 per cent of the allotment which is the amount required for stockwatering purposes.

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 5.

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 owners 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 10 and continued throughout the season, however irrigation water was released to the District only until July 25. Releases to the District after July 25 were to supply domestic water for the City of Montague. Deliveries to water right owners below the reservoir were made as requested from April 10 to September 29. The Reed Ranch, which normally receives sufficient water through seepage from the reservoir to satisfy their natural flow right, requested delivery of water to supplement seepage for the first time for many years.

About 600 acre-feet of water remained in storage on September 30. During the period of abnormally low storage the District and the local representatives of the State Department of Fish and Game removed the screens from the reservoir outlet. It was noted at that time that some silt had been deposited near the dam since the previous period of abnormally low storage.

Daily releases from Dwinell Reservoir, as shown in Table 13, 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 10. Statistical data on reservoir operation during the 1955 season are set forth in the following tabulation:

MONTHLY SUMMARY OF OPERATION OF DWINNELL RESERVOIR

In Acre-Feet

Date	Storage on hand	Change in storage	Inflow to reservoir ^a	Total draft	Measured release	Seepage and evaporation loss ^b
April 1	15,600	-2,500	1,605	4,105	2,079	2,026
May 1	13,100	-3,000	2,148	5,148	3,069	2,079
June 1	10,100	-3,600	1,110	4,710	2,792	1,918
July 1	6,500	-4,000	394	4,394	3,192	1,202
August 1	2,550	-1,300	220	1,520	964	556
Sept. 1	1,250	-650	393	1,043	707	336
Sept. 30	600					
TOTALS		-15,050	5,870	20,920	12,803	8,117

a Not adjusted for consumptive use on Mills Ranch.

b Not adjusted for possible inflow from Carrick Creek or precipitation.

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	Per cent of allotment
Fred Quigley	198	198	100
John Soule	692	692	100
K. K. Waters and Emily S. Waters	696	696	100
John W. Taylor	1,200	1,200	100
Clarence Reed and Margaret R. Reed	596	216 (a)	36
TOTALS	3,382	3,002	89

(a) Remainder of 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	2,079	385	1,694
May	3,069	503	2,566
June	2,792	546	2,246
July	3,192	503	2,689
August	964	644	320
September	707	421	286
TOTALS	12,803	3,002	9,801

Beaughan Creek

One measurement of the flow of Beaughan Creek was made during the 1955 season at the 8-foot rectangular weir (Long-Bell Upper Weir) located at the head of Beaughan Creek. Results are given below:

<u>Date</u>	<u>Gate height - feet</u>	<u>Discharge - cubic feet per second</u>
5/16/55	0.38	6.18

This amount of water is sufficient to supply approximately 75 per cent of second priority allotments, which total 8.28 cubic feet per second. Distribution was made on that basis throughout the 1955 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 1955 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

The demand on Carrick Creek was greater during the 1955 season than it has been in previous seasons because the Hoy Ranch, which normally supplements their direct flow diversions with ground water was unable to do so because of a defective pump. The increased demand on the direct flow diversion through Hoy Brothers Upper Ditch, (Diversion 122), coupled with the lack of return flow from the land normally irrigated with

ground water, caused intermittent shortages at the Jackson Carrick Creek Upper Ditch, (Diversion 138). These shortages were compensated for by decreasing both the amount diverted and the land irrigated by the Hoy Brothers Upper Ditch, (Diversion 122).

Results of intermittent measurements of Carrick Springs are presented in Table 8.

Parks Creek

A summary of the distribution on Parks Creek for the 1955 season is presented in the following tabulation:

Month	Average per cent of allotments available			
	Duke	Caldonia	Foulke, et al.	Robertson
April	100	100	100	91
May	Sufficient to supply all demands			
June	75	52	75	56
July	60	13	0	10
August	38	0	0	2
September	43	0	0	2

During the latter part of the irrigation season the Duke 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 3 and 4. Records of diversion into the Montague Water Conservation Districts By-Pass Canal to Shasta River are presented in Table 10.

Big Springs

No record was made of water supply available to Big Springs Irrigation District during the 1955 season. Measurement of this source has been accomplished in the past in cooperation with Big Springs Irrigation District's representative. However, the new watermaster for the District this year, did not keep adequate records of diversion, therefore no record of amount of water pumped by the District is included in this report.

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. Big Springs Irrigation District pump was regulated to take all of the water not required for the higher priority allotments referred to above.

The Taylor pump operated to divert the full decreed amount of 7.50 cubic feet per second for the entire season for the first time in many years. A new pump of 7.50 cubic foot per second capacity was installed replacing the old 5.25 cubic foot per second pump that had been in use.

Lower Shasta River

During the 1955 season 100 per cent of allotments were available for all users except the Grenada Irrigation District, which was regulated to 22 cubic feet per second on July 1. The District was regulated to this amount for the remainder of the season except as noted below. On July 16 for a period of five days and on August 6 for a period of eleven days the District was regulated to 34 cubic feet per second while the Shasta River Water Users Association's main pump was inoperative. The District

was also regulated to 17 cubic feet per second on July 24, for nine days when the shortage was most critical.

A record of flow available to water users below Montague Bridge is presented in Table 6. Records of diversion by Grenada Irrigation District and Shasta River Water Users Association are submitted in Tables 15 and 16, respectively. A summary of these data are presented in the following tabulation:

Month	Average diversion : Grenada Irrigation : District	Average diversion : Shasta River : Water Association :	Average available : water supply : Flock, et al.
	In cubic feet per second		
April	24	39	66
May	27	34	48
June	27	40	21
July	21	40	17
August	24	29	20
September	13	35	68

Little Shasta River

Close regulation was necessary on Little Shasta River throughout the entire irrigation season. The only time during the season that the flow exceeded that required to satisfy the fifth priority allotments was after a storm in the latter part of April. From September 20 until the end of the irrigation season sufficient water was intermittently returned to Little Shasta River from the Russ Cornick Ditch to satisfy varying percentages of the fifth priority allotments. A summary of distribution during the 1955 season is presented in the following tabulation:

Month	Average per cent of allotments available						
	1	2	3	4	5	6	7
April	100	100	100	100	92	0	0
May	100	100	100	100	85	0	0
June	100	100	100	100	43	0	0
July	100	100	100	100	17	0	0
August	100	100	100	100	9	0	0
September	100	100	100	100	24	0	0

The discharge record of Little Shasta River during the 1954-1955 season is presented in Table 7.

Record of intermittent measurements of the discharge of Cleland Spring during the 1955 season is presented in Table 9.

CHANGES IN OWNERSHIP OF LANDS AND WATER RIGHTS

Changes in ownership of lands and water rights, which have occurred during period covered by this report and subsequent to filing "Statement for Shasta River Watermaster Service Area, County of Siskiyou, State of California, for 1955," and which shall be included in the 1956 statement for the Service Area, are listed in the following tabulation:

Tract number	Name of water right owner appearing in 1955 statement	Name of water right owner to appear in 1956 statement	Amount of water, in cubic feet per second
5-65A	Browne, James H. and Browne, Alyce B.	Whitsett, Frank and Whitsett, Mildred C.	12.595
*5-15	Day, Frank R. and Day, Margaret S.	Shelley, L. L.	0.66
5-108	Mazzini, Henry	Murphey, Homer	1.40
5-16	Maggetti, Peter J. and Maggetti, James A.	Maggetti, Peter J. Maggetti, James A.	2.18 2.18
5-86	Mongini, Frank and Mongini, Anne	Baucher, George A. and Baucher, Maxine E.	2.50
5-59	Peterson, Anna M.	Greenwald, F. L.	0.64
5-87	Ray, C. A., Ray, Charlotte, Ray, Kenneth L. and Ray, Geraldine	Crossley, Lane W. and Crossley, Yvonne Constance	5.30
5-84	Rucker, Laverne R.	Hogeland, H. W. and Hogeland, Sabel C.	3.62
5-56	Solus, Frank H., Solus, Rose A. and Solus, Harry A.	Costello, Laura M.	2.98
5-3 5-62	Soule, John	Miller, W. L. and Miller, Inez M.	4.12

* This change to make an administrative correction only.

TABLE 1

PRECIPITATION AT YREKA
SISKIYOU COUNTY, CALIFORNIA
1954-1955

In Inches

Month	Mean precipitation	1954-1955 precipitation
October	1.23	0.36
November	2.39	0.90
December	2.93	1.97
January	2.88	1.12
February	2.36	0.42
March	1.65	0.77
April	1.01	0.28
May	1.03	0.18
June	0.64	0.09
July	0.36	0.15
August	0.26	0.52
September	0.48	0.77
TOTALS	17.22	7.53

TABLE 2

DAILY MEAN DISCHARGE OF SHASTA RIVER ABOVE EDSON-FOULKE YREKA DITCH

April 8 to September 27, 1955

In Cubic Feet per Second

Day	April	May	June	July	August	September
1		41	43	11.2	2.6	b
2	No	39	37	11.6	2.0	b
3		37	39	14.0	1.6	b
4		34	48	12.2	1.6	b
5	Record	35	61	10.4	1.5	b
6		34	62	9.4	1.4	b
7		41	62	8.4	1.4	b
8	10.2	46	60	9.4	1.5	b
9	10.2	41	61	10.4	1.5	b
10	13.4	39	62	9.4	1.6	b
11	12.5	43	60	8.0	1.8	b
12	8.0	47	47	6.4	1.9	b
13	9.8	41	42	5.2	2.0	b
14	13.0	36	36	5.0	1.6	1.2
15	14.0	33	31	5.0	1.6	0.9
16	22	29	28	5.0	1.5	1.6
17	19.8	27	25	5.2	1.4	2.4
18	25	28	22	4.8	1.2	1.2
19	35	43	21	4.0	1.1	1.6
20	32 a	69	24	3.6	1.1	1.6
21	29 a	80	22	2.8	1.0	1.9
22	30 a	71	20	3.2	0.8	2.2
23	32 a	63	18.0	3.4	0.7	2.4
24	34 a	64	15.8	3.0	b	2.4
25	35 a	55	15.4	3.4	b	2.4
26	37 a	47	13.4	3.4	b	2.4
27	34 a	44	14.0	3.6	b	2.4
28	35 a	41	13.4	3.6	b	No
29	36 a	47	13.0	3.6	b	
30	37	53	13.4	3.0	b	Record
31		50		2.8	b	
Mean	25	45	34	6.3	1.5	1.9
Runoff, in acre-feet	1120	2770	2040	385	68	53

(a) Computed

Total for period - 6,440 acre-feet

(b) Water level too low to record

TABLE 3

DAILY LEAN DISCHARGES OF PANK'S CREEK ABOVE HINSON-FORLME YREKA DITCH

April 8 to September 20, 1955

In Cubic Feet per Second

Day	April	May	June	July	August	September
1		19.7	34	4.4	1.7	3.1
2	No	19.7	34	4.9	1.7	3.1
3		21	36	5.7	1.6	3.0
4		21	43	5.2	1.6	3.0
5	Record	26	45	4.4	1.7	2.1
6		40	43	4.2	1.7	1.6
7		59	42	3.9	1.8	1.6
8	15.0	69	37	3.4	1.8	1.6
9	14.6	63	34	4.2	1.7	1.6
10	13.7	63	31	3.9	1.6	1.6
11	15.5	69	30	3.2	1.6	1.6
12	15.5	75	26	3.1	1.6	1.7
13	15.5	57	22	2.7	1.6	1.7
14	19.1	41	20	2.5	1.6	3.4
15	20	33	18.5	2.4	1.6	2.5
16	19.1	30	14.6	2.5	1.5	2.5
17	19.7	33	12.1	2.6	1.4	3.0
18	18.5	43	10.2	2.4	1.4	2.4
19	18.5	65	9.2	2.2	1.4	2.1
20	19.1	90	8.2	2.1	1.4	2.0
21	19.1	87	7.4	1.8	1.6	2.0
22	19.1	65	6.8	1.8	1.8	1.9
23	21	57	7.1	1.9	1.7	2.7
24	22	54	7.1	1.9	1.7	4.9
25	21	45	6.2	1.9	1.7	5.2
26	20	40	5.9	1.6	2.3	5.2
27	19.1	41	5.4	1.7	2.7	5.2
28	19.1	43	4.9	1.6	2.7	5.2
29	18.5	40	4.4	1.6	2.7	No
30	18.5	48	4.4	1.6	2.7	Record
31		38		1.7	2.9	
Mean	18.3	49	20	2.9	1.8	2.8
Runoff in acre-feet	835	2990	1210	177	112	154

*otal for period 5180 acre-feet

TABLE 4

DAILY MEAN DISCHARGE OF PARKS CREEK AT ROBERTSON WEIR

April 7 to September 28, 1955

In Cubic Feet per Second

Day	April	May	June	July	August	September
1		16.5	14.7	3.3	0.1	0.1
2	No	16.5	14.4	1.1	.1	.1
3		16.5	16.0	2.0	.1	.1
4	Record	16.5	16.3	2.7	.1	.1
5		16.5	16.3	3.1	.1	.1
6		16.5	16.3	3.1	.1	.1
7	10.5	20	18.7	2.7	.1	.1
8	7.8	21	11.6	2.6	.1	.1
9	9.1	22	9.6	2.6	.1	.1
10	6.2	23	11.3	2.9	.1	.1
11	4.7	23	14.0	2.7	.1	.1
12	5.1	23	14.7	2.0	.1	.1
13	5.1	23	11.6	1.5	.1	.1
14	5.1	22	11.0	1.0	.1	.1
15	12.4	23	11.3	0.6	.1	.1
16	11.9	20	9.6	0.5	.1	.1
17	17.5	21	8.5	0.5	.1	.1
18	18.6	21	5.9	0.4	.1	.1
19	14.9	26	3.3	0.4	.1	.1
20	24.4	30	2.7	0.4	.1	.1
21	21.4	27	1.9	0.3	.1	.1
22	13.8	25	1.9	0.3	.1	.1
23	13.3	23	2.0	0.1	.1	.1
24	13.8	23	2.7	0.1	.1	.1
25	21.4	22	3.1	0.1	.1	.3
26	32.0	18.3	4.1	0.1	.1	.3
27	21.4	15.0	3.7	0.1	.1	.4
28	15.9	14.4	3.7	0.1	.1	.4
29	15.9	14.4	4.3	0.1	.1	No
30	16.9	15.7	4.8	0.1	.1	
31		14.7		0.1	.1	Record
Mean	14.1	20	9.0	1.21	0.1	0.1
Runoff, in acre-feet	670	1250	535	75	0.6	.7

Total for period - 2,530 acre-feet

TABLE 5

DAILY MEAN DISCHARGE OF SHASTA RIVER AT EDGEWOOD BRIDGE

October 1, 1954 to September 30, 1955

In Cubic Feet per Second

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
1	16.4	25	46	43	57	43	23(*)	34	29	6.3	4.8	3.6
2	17.2	25	67	41	47	42	22(*)	28	21	8.2	4.8	3.9
3	17.6	26	68	34	44	40	21(*)	25	19.5	10.2	4.8	3.6
4	18.1	26	78	35	41	38	20(*)	23	22	9.8	4.8	4.2
5	17.2	26	272	33	44	40	19.4(*)	22	32	9.8	4.5	4.2
6	18.1	26	311	35	45	25	18.7(*)	22	32	9.1	4.2	4.1
7	25	26	147	33	46	24	17.2	25	31	8.8	4.1	3.0
8	25	205	93	34	51	24	14.0	32	37	9.4	4.8	3.2
9	25	227	122	34	49	27	11.5	25	35	9.4	3.4	3.4
10	25	90	87	33	43	26	13.2	22	36	8.2	3.6	3.6
11	24	112	72	32	43	22	14.3	27	36	7.0	3.4	4.1
12	22	142	69	32	46	21	12.5	27(*)	27	6.6	3.2	4.2
13	23	87	63	34	49	21	11.5	27(*)	24	5.6	3.2	4.5
14	22	121	62	33	51	20	12.1	27(*)	22	5.1	3.0	8.2
15	22	309	58	32	50	19.5	15.5	26(*)	21	4.5	3.0	5.6
16	20	158	52	32	58	19.0	16.0	26(*)	18.1	5.1	2.8(*)	7.0
17	21	104	49	29	68	20	23	26	14.8	6.0	2.5(*)	8.8
18	20	83	46	32	55	19.5	22	22	11.5	6.0	2.7(*)	8.2
19	22	74	45	34	45(*)	18.6	24	33	11.8	6.0	2.8	9.1
20	26	66	45	35	41(*)	18.1	63	69	8.2	6.0	3.2	9.1
21	26	62	44	34	40(*)	17.6	67	81	6.6	5.4	3.0	8.8
22	26	60	44	39	39(*)	17.6	39	67	5.4	4.2	2.8	9.4
23	25	59	44	40	39(*)	17.2	29	44	4.8	4.8	3.6	9.4
24	25	55	44	39	38	18.1	26	52	6.3	4.8	3.2	10.2
25	25	50	42	38	39	17.6	36	48	7.9	4.8	3.6	10.2
26	25	49	38	37	41	17.2	51	45	8.5	4.1	3.4	10.2
27	25	48	34	36	44	16.0	42	39	8.2	4.5	3.6	9.4
28	25	46	36	36	42	17.6	39	32	7.9	4.8	3.6	8.5
29	25	45	36	40	--	29	42	36	7.9	4.8	3.4	8.5(*)
30	25	42	39	75	--	24	40	38	7.6	4.2	3.6	8.5(*)
31	25	--	40	72	--	23(*)	--	34	--	4.8	3.4	--
Mean	23	82	74	38	46	24	27	35	18.7	6.4	3.6	6.6
Runoff in ac. ft., 1,400		4,910	4,550	2,310	2,570	1,470	1,600	2,150	1,110	393	220	394

* Estimated

Total runoff 23,100 acre-feet

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TABLE 6

DAILY MEAN DISCHARGE OF SHASTA RIVER AT MONTAGUE BRIDGE

April 10 to September 28, 1955

In Cubic Feet per Second

Day	April	May	June	July	August	September
1	No	124	35	8.4	17.8	23
2		116	35	21	20	23
3		109	32	21	23	28
4	Record	103	27	16.6	17.8	27
5		103	28	23	44	21
6		58	29	18.8	27	17.8
7		45	18.8	16.6	29	21
8		44	9.4	21	25	22
9		51	17.8	18.8	24	22
10	32	42	21	24	32	17.8
11	34	36	20	15.6	29	13.4
12	37	34	28	28	21	13.4
13	40	40	31	32	21	18.8
14	41	37	16.6	31	20	42
15	36	48	22	32	20	65
16	37	61	18.8	17.8	24	63
17	49	53	18.8	15.6	9.4	74
18	81	49	15.6	12.4	13.4	101
19	87	46	12.4	12.4	13.4	122
20	83	30	13.4	7.4	15.6	129
21	85	10.5	9.4	8.4	13.4	133
22	70	12.5	12.4	8.4	16.6	150
23	65	20	12.4	7.4	21	147
24	53	27	24	9.4	8.4	145
25	58	32	24	9.4	24	145
26	93	28	17.8	18.8	23	114
27	91	18.8	29	21	18.8	109
28	97	24	13.4	15.6	16.6	111
29	109	24	13.4	9.6	13.4	No
30	114	27	11.4	16.6	9.4	
31	--	27	--	15.6	16.6	Record
Mean	66	48	21	17.2	20	68
Runoff, in acre-feet	2,760	2,930	1,220	1,060	1,240	3,800

Total for period - 13,000 acre-feet

TABLE 7

DAILY MEAN DISCHARGE OF LITTLE CHASTA RIVER ABOVE HARP DITCH

October 1, 1954 to September 1955

In Cubic Feet per Second

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	5.2	5.0	7.0	9.3	5.2	5.0	21(*)	22	15	6.2	2.6(*)	2.3
2	5.2	5.0	7.0	7.5	3.7	5.0	19(*)	19	14	6.0	2.6(*)	2.3
3	5.2	5.0	6.2	5.0	5.0	4.8	18(*)	19	14	6.0	2.6(*)	2.2
4	5.2	5.0	5.7	18	5.5	3.9	16(*)	20	14	6.0	2.6(*)	2.2
5	5.2	5.0	5.7	19	5.7	4.4	14	24	14	5.7	2.6	2.0
6		5.2	6.7	8.0	5.0	5.5	14	32	14	5.2	2.6	2.3
7		5.2	6.0	8.7	5.2	6.0	17	35	14	5.2	2.6	2.3
8	H	5.0	3.5	10	5.7	7.0	21	35	13	5.0	2.6	2.5
9	O	7.2	7.2	9.3	6.2	9.6	25	34	12	4.6	2.6	2.6
10		5.7	4.2	5.5	5.0	3.9	29	33	12	4.6	2.0	2.6
11		6.2	3.9	3.7	6.0	11	20	35	12	4.6(*)	2.5	2.3
12	H	10	7.8	7.0	5.5	12	17	33	11	4.0(*)	2.3	2.5
13	E	6.5	7.5	5.5	6.2	9.0	19	28	11	3.3(*)	2.5	2.7
14	C	7.0	6.7	4.8	6.7	7.0	18	25	11	3.3(*)	2.5	5.0
15	O	10	7.2	4.8(*)	7.5	5.2	11	25	10	3.3(*)	2.3	3.5
16	H	9.3	4.8	4.8(*)	10	6.0	14	23	10	3.3(*)	2.3	4.1
17	D	6.7	9.0	4.8(*)	13	6.5	17	23	10	3.3(*)	1.9	4.1
18		5.2	8.4	4.8(*)	7.0	7.0	18	23	9.0	3.3(*)	2.0	3.5
19		6.2	7.2	4.8(*)	7.0	7.0	17	23	9.0	3.3(*)	2.3	3.0
20		6.0	7.5	4.8(*)	7.2	5.2	19	23	8.4	3.3(*)	2.3	3.0
21		5.0	6.7	4.6(*)	6.2	6.2	18	23	6.0	3.3(*)	2.3	2.9
22		5.2	6.7	4.6(*)	6.0	7.2	19	22	7.8	3.3(*)	2.3	2.9
23		6.2	7.8	4.6(*)	6.0	7.2	19	20	7.5	3.3(*)	2.3	2.9
24		6.2	7.2	4.6(*)	5.7	8.7	18	19	8.0	3.3(*)	2.2	2.9
25		6.0	5.5	4.6(*)	5.5	13	17	18	7.8	3.2(*)	2.5	2.9
26	5.2	6.0	6.7	4.6	5.0	14	14	18	6.5	3.2(*)	2.3	2.9
27	5.2	6.0	5.0	5.2	4.2	16	14	17	6.7	3.1(*)	2.5	2.9
28	5.0	5.0	12	5.0	5.5	10	17	17	6.7	3.0(*)	2.5	2.9
29	4.8	3.7	9.9	5.7	—	31	16	16	6.5	3.0(*)	2.5	NO
30	4.8	2.9	9.6	6.0(*)	—	25	18	16	6.5	3.0(*)	2.0	RECORD
31	5.0	—	13	6.2	—	23	—	15	—	2.8(*)	2.2	
Mean	5.1	6.0	7.0	6.7	6.2	10.6	18.0	23.7	10.3	4.1	2.4	2.9
Runoff ac. ft.	111	358	433	412	362	651	1,070	1,460	614	254	147	159

(*) Estimated

Total for period - 6,020 acre-feet

TABLE 8

DISCHARGE OF CARRICK SPRINGS

April 1 to September 30, 1955

Intermittent Measurements of Discharge, in Cubic Feet per Second

Day	April	May	June	July	August	September
1						
2						
3						
4					6.58	
5				6.32		
6						
7						6.50
8						
9						
10			6.25			
11				6.32	6.50	
12						
13				6.41		
14			6.25			
15						
16						
17					6.50	
18						
19						
20			6.32	6.50		
21						6.67
22						
23						
24					6.50	
25						
26						
27						
28						
29			6.25			
30						
31					6.50	

TABLE 9

DISCHARGE OF CLELAND SPRING

April 1 to September 30, 1955

Intermittent Measurement of Discharge in Cubic Feet per Second

Day	April	May	June	July	August	September
1						
2			11.04			
3						
4					11.04	
5						
6						
7				10.89		
8						
9						10.93
10						
11						
12						
13						
14						
15				10.74		
16						
17						
18						
19		11.30				
20			10.84			
21					10.93	
22						
23						
24						
25						
26						
27						
28			11.04			
29						
30					10.93	
31						

TABLE 7

DAILY MEAN DISCHARGE OF MONTAGUE WATER CONSERVATION DISTRICT'S PARKS CREEK CANAL

October 1, 1954 to September 30, 1955

In Cubic Feet per Second

Day	Oct	Nov	Dec	Jan	Feb	March	April	May	June	July	Aug	Sept
1		N	1.3	1.8	1.0	3.5	0.6	1.1	8.1			
2		O	5.5	1.8	2.5	0.9	0.6	1.1	5.0			
3			1.8	1.6	2.0	0.9	0.6	1.1	3.5			
4		F	3.5	1.0	1.7	0.8	0.7	1.1	5.0			
5		L	11.8	0.9	2.1	0.8	0.6	1.6	6.1			
6		O	21	1.1	2.1	0.4	0.6	3.3	3.8			
7		W	8.9	1.0	2.2	0.3	0.6	13.7	3.5			
8			9.1	1.1	2.1	0.2	0.6	19.0	9.1			
9		39	13.0	0.8	2.1	0.3	0.6	10.1	8.1			
10		11.1	5.7	0.9	1.1	0.3	0.5	8.1	5.3			
11		19.0	3.8	0.8	1.3	0.3	0.5	12.3	2.5			
12	N	19.5	3.6	0.9	1.3	0.3	0.5	11.9	0.7	N	N	N
13	O	10.8	1.0	0.9	1.3	0.3	0.5	6.6	0.6	O	O	O
14		11.9	3.0	0.8	1.2	0.3	0.5	3.5	0.2			
15		13	2.9	0.9	1.2	0.2	0.5	2.7				
16	F	22	2.7	0.8	1.3	0.2	0.5	2.2				
17	L	11.1	2.2	0.8	2.7	0.2	0.6	2.3	N	F	F	F
18	O	10.8	2.0	0.9	2.1	0.2	0.6	3.2	O	L	L	L
19	W	6.1	2.0	1.0	1.7	0.2	0.6	19.5		O	O	O
20		3.2	2.0	1.1	0.6	0.2	0.7	21		W	W	W
21		2.7	1.5	1.2	0.0	0.1	0.1	20				
22		2.7	1.6	1.3	0.0	0.1	0.3	16.2	F			
23		2.7	1.1	1.3	0.0	0.1	0.3	13.7	L			
24		2.5	1.6	1.1	0.1	0.2	0.3	13.7	O			
25		2.2	1.1	1.5	0.1	0.2	0.1	8.6	W			
26		2.1	1.2	1.6	3.3	0.3	0.5	1.9				
27		2.0	0.9	1.7	7.6	0.3	0.3	9.1				
28		1.7	0.8	1.3	7.8	0.6	0.8	17.1				
29		1.1	0.9	1.3	--	1.0	1.5	13.7				
30		1.0	1.7	8.1	--	0.8	1.1	13.7				
31		--	1.8	8.1	--	0.7	--	10.5				
Mean	O	7.5	1.3	1.6	2.0	0.5	0.6	8.9	2.1	O	O	O
Runoff ac. ft.	O	1146	261	100	113	30	35	517	123	O	O	O

TOTAL for Period 1,660 acre-feet

TABLE 11

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

April 9 to September 27, 1955

In Cubic Feet per Second

Day	April	May	June	July	August	September
1	No	37	hh	14.5	4.0	0.5
2		40	h2	16.2	3.8	0.5
3		40	h1	18.5	3.2	0.5
4	Record	40	hh	17.4	2.7	0.4
5		h1	h5	15.3	2.3	0.4
6		hh	hh	14.3	2.3	0.4
7		h6	hh	13.2	2.3	0.4
8		h6	h3	13.0	2.5	0.3
9	30	h5	hh	15.1	2.5	0.4
10	32	h5	hh	14.1	2.5	0.4
11	30	h5	h1	12.0	2.5	0.5
12	27	h6	39	9.7	2.5	0.6
13	27	hh	37	8.4	2.7	0.4
14	27	h2	36	7.1	2.3	1.7
15	26	39	3h	7.1	1.9	1.5
16	28*	38	32	6.9	1.9	1.7
17	30*	h1	31	7.8	1.7	3.2
18	32*	h6	29	7.4	1.5	1.9
19	34*	h9	29	6.3	1.5	2.3
20	36*	50	27	5.9	1.3	2.3
21	37*	50	25	5.0	1.0	2.3
22	38	h9	25	5.0	1.0	2.3
23	40	h9	24	4.8	1.0	2.3
24	h1	h8	23	4.8	0.8	2.3
25	40	h5	22	4.4	0.8	2.3
26	40	h3	21	4.2	0.8	2.5
27	40	hh	20	4.6	0.3	2.5
28	h1	hh	20	4.8	0.5	
29	37	h8	18.9	4.6	0.6	No
30	35	h7	16.6	4.2	0.6	
31		h6		4.0	0.5	Record
Mean	3h	hh	33	2.1	1.8	1.4
Runoff in acre-feet	1480	2730	1950	556	111	73

* Estimated

Total for period 6900 acre-feet

TABLE 12

DAILY MEAN STORAGE IN DWINNELL RESERVOIR

October 1, 1954 to September 30, 1955

In Acre-Feet

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	5,300	5,650	9,900	13,200	14,600	15,800	15,600	13,100	10,100	6,500	2,550	1,250
2	5,300	5,700	10,000	13,300	14,600	15,950	15,600	13,100	9,900	6,350	2,500	1,250
3	5,300	5,700	10,100	13,400	14,750	15,950	15,600	12,950	9,900	6,200	2,450	1,200
4	5,200	5,700	10,200	13,400	14,750	15,950	15,600	12,850	9,800	6,000	2,450	1,150
5	5,200	5,800	10,500	13,550	14,750	15,950	15,600	12,850	9,700	5,850	2,400	1,100
6	5,200	5,800	11,100	13,550	14,850	15,950	15,450	12,750	9,600	5,800	2,350	1,100
7	5,200	5,800	11,400	13,550	14,850	15,950	15,450	12,750	9,500	5,650	2,300	1,050
8	5,200	6,000	11,700	13,550	15,000	15,950	15,450	12,650	9,400	5,500	2,250	1,050
9	5,200	6,600	11,800	13,650	15,000	15,950	15,350	12,550	9,400	5,400	2,200	1,000
10	5,200	6,950	12,000	13,650	15,000	16,050	15,350	12,300	9,400	5,300	2,150	1,000
11	5,200	7,100	12,100	13,650	15,100	16,050	15,200	12,200	9,400	5,150	2,150	1,000
12	5,200	7,350	12,200	13,650	15,100	16,050	15,100	12,000	9,300	5,000	2,050	950
13	5,300	7,600	12,300	13,650	15,100	16,050	14,850	11,900	9,200	4,800	2,000	900
14	5,300	7,800	12,300	13,800	15,200	15,950	14,600	11,700	9,200	4,600	1,950	900
15	5,300	8,250	12,400	13,800	15,200	15,950	14,500	11,600	9,000	4,500	1,950	900
16	5,300	8,650	12,550	13,800	15,350	15,950	14,400	11,500	8,800	4,350	1,900	850
17	5,300	8,800	12,550	13,800	15,350	15,950	14,250	11,400	8,700	4,250	1,800	850
18	5,350	9,000	12,650	13,900	15,450	15,950	14,150	11,200	8,550	4,100	1,800	800
19	5,350	9,100	12,650	13,900	15,450	15,950	14,000	11,100	8,550	4,000	1,750	800
20	5,350	9,200	12,750	13,900	15,600	15,800	13,900	11,000	8,350	3,850	1,700	800
21	5,400	9,300	12,850	13,900	15,600	15,800	13,800	10,900	8,250	3,750	1,650	750
22	5,400	9,300	12,850	14,000	15,600	15,800	13,650	10,800	8,100	3,650	1,600	700
23	5,500	9,400	12,950	14,000	15,600	15,800	13,550	10,800	7,900	3,550	1,550	700
24	5,500	9,500	12,950	14,150	15,700	15,700	13,400	10,700	7,700	3,350	1,500	700
25	5,500	9,600	12,950	14,150	15,700	15,700	13,300	10,600	7,550	3,250	1,450	650
26	5,550	9,600	13,100	14,150	15,700	15,700	13,200	10,600	7,350	3,150	1,450	650
27	5,550	9,600	13,100	14,250	15,800	15,700	13,200	10,500	7,200	3,050	1,400	650
28	5,550	9,700	13,100	14,250	15,800	15,700	13,200	10,400	7,000	2,950	1,400	600
29	5,550	9,800	13,200	14,250	--	15,700	13,200	10,400	6,850	2,850	1,350	600
30	5,650	9,800	13,200	14,400	--	15,600	13,200	10,300	6,650	2,750	1,300	600
31	5,650	--	13,200	14,500	--	15,600	--	10,200	--	2,650	1,300	--

TABLE 13

DAILY MEAN RELEASE FROM DWINNELL RESERVOIR

April 10, 1955 to September 30, 1955

In Cubic Feet per Second

Day	April	May	June	July	August	September	
1	N	30	41	63	13.6	14.3	
2	O	21	41	60	15.0	14.7	
3		32	41	58	13.0	13.7	
4	R	32	43	58	13.6	13.3	
5	E	32	44	57	15.3	13.0	
6	L						
7	E	29	42	57	15.4	12.9	
8	A	30	44	56	15.4	11.8	
9	S	47	36	53	15.6	11.4	
10	E	53	9.5	51	15.7	11.0	
	38	58	18.4	51	14.6	10.9	
11		49	61	31	53	16.0	10.6
12		54	66	31	57	16.7	10.6*
13		55	67	39	59	16.4	11.3*
14		55	67	44	59	15.5	11.8**
15		54	67	56	68	15.6	12.2*
16		53	67	59	70	15.6	12.1*
17		53	67	51	70	15.6	12.2*
18		54	66	46	68	16.5	12.1*
19		59	65	42	68	16.9	12.1*
20		58	64	42	67	17.6	12.1*
21		61	66	46	67	17.5	12.1*
22		61	68	54	69	17.5	12.3*
23		57	67	61	68	18.4	12.2*
24		57	61	61	65	19.5	12.2*
25		57	43	60	37	18.7	12.2*
26		52	36	62	22	18.0	12.2*
27		37	34	64	18.8	15.5	12.3*
28		31	34	64	13.6	14.2	12.3*
29		31	39	65	13.8	12.4	10.3*
30		30	43	65	13.7	13.1	5.0*
31	--	42	--	13.6	12.6		
Mean	50	50	47	52	15.7	11.9	
Total acre-feet	2090	3080	2780	3180	948	708	

* Estimated

Total for period = 12,800 acre-feet

TABLE 14

DAILY MEAN DISCHARGE OF BIG SPRINGS IRRIGATION DISTRICT PUMPING PLANT

April 1 to September 30, 1955

In Cubic Feet per Second

Day	April	May	June	July	August	September
1						
2						
3	Data not Available					
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
Mean						
Runoff, in acre-feet						

Total for period - acre-feet.

TABLE 15

DAILY MEAN DISCHARGE OF GRENADA IRRIGATION DISTRICT PUMPING PLANT

April 1 to September 30, 1955

In Cubic Feet per Second

Day	April	May	June	July	August	September
1	23	0	34	22	17	22
2	34	0	34	22	22	22
3	34	0	34	22	22	22
4	34	0	34	34	22	22
5	34	10	34	34	22	22
6	34	23	34	22	38	22
7	34	23	34	22	38	22
8	34	23	17	22	38	22
9	34	23	17	22	34	22
10	34	34	11	22	34	22
11	34	34	0	22	34	22
12	34	34	0	5	34	22
13	34	34	0	0	34	22
14	34	34	17	0	34	22
15	34	34	17	0	34	18
16	34	34	34	34	34	17
17	34	34	22	22	22	17
18	29	34	22	22	22	17
19	17	34	34	22	22	0
20	17	34	34	17	17	0
21	17	34	34	22	22	0
22	17	34	34	22	22	0
23	17	34	34	6	6	0
24	22	34	34	0	0	0
25	22	34	34	0	0	0
26	0	34	34	22	22	0
27	0	34	34	22	22	0
28	0	34	34	22	22	0
29	0	34	34	22	22	0
30	0	34	34	22	22	0
31	--	34	--	22	22	--
Mean	24	27	27	21	24	13
Discharge, in acre-feet	1,440	1,690	1,590	1,280	1,500	748

Total for period 8,250 acre-feet

TABLE 16

DAILY MEAN DISCHARGE OF SHASTA RIVER WATER ASSOCIATION PUMPS

April 1 to September 30, 1955

In Cubic Feet per Second

Day	April	May	June	July	August	September
1	40	11.3	40	39	40	40
2	40	11.3	37	39	40	40
3	40	11.3	40	40	40	40
4	40	11.3	40	40	34	40
5	40	11.3	40	40	11.3	40
6	40	11.3	40	40	11.3	40
7	40	40	40	40	10.4	40
8	40	40	40	40	11.3	40
9	40	40	40	40	11.3	40
10	40	40	40	40	11.3	40
11	40	40	40	40	11.3	40
12	40	40	40	40	11.3	40
13	40	40	40	40	11.3	40
14	40	40	40	40	11.3	40
15	40	40	40	40	11.3	40
16	40	40	40	40	21	40
17	40	40	40	40	40	38
18	40	40	40	40	40	39
19	40	40	40	40	40	40
20	39	40	40	40	40	13.5
21	40	40	40	40	40	11.3
22	40	40	40	40	35	2.5
23	40	40	40	40	34	11.3
24	40	40	35	40	40	11.3
25	40	40	40	40	40	11.3
26	40	40	39	40	40	37
27	40	40	40	40	40	40
28	40	38	40	40	40	40
29	40	40	39	40	40	40
30	11.3	40	40	40	40	40
31	--	40	--	40	40	--
Mean	39	34	40	40	29	35
Discharge in ac.ft.	2320	2110	2360	2450	1760	2060

Total for period 13,100