STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RESOURCES

o

EARL WARREN, Governor

C.H. PURCELL, Director of Public Works

EDWARD HYATT, State Engineer

REPORT ON WATERMASTER SERVICE IN SUSAN RIVER WATERMASTER SERVICE AREA Lassen County, California

1945 SEASON

By

Harrison Smitherum
Supervising Hydraulic Engineer

Sacramento, California

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EDWARD HYATT, STATE ENGINEER
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Sacramento, California
February 21, 1947

Mr. Gordon Zander
Principal Hydraulic Engineer
Sacramento, California

Dear Sir:

Herewith is submitted the annual report covering watermaster service within the Susan River Watermaster Service Area, Lassen County, California, during the 1945 season.

The report presents a general description of water supply conditions in 1945 and a discussion of the results obtained in the distribution thereof.

Records of precipitation, runoff and other pertinent data are included.

Respectfully submitted,

Harrison Smitherum
Supervising Hydraulic Engineer

HS-al

INTRODUCTION

The Susan River Watermaster Service Area was created by order of the State Engineer on November 10, 1941, in accordance with Sections 4,000 to 4,360 of the Water Code. The service area as created includes all of the water rights set forth in the decree in the case of J. J. Fleming, et al. vs. J. R. Bennett, et al., No. 4573, Superior Court, Lassen County, entered April 18, 1940, with the exception of certain rights excluded in the order, which have been discussed heretofore in the watermaster report for the 1943 season.

Watermaster service, as provided in the aforementioned code sections was commenced for the 1945 season on April 12, and terminated on September 30. G. M. Vickroy, J. W. McPartland and A. S. Wheeler were in charge of the distribution during the above period under the supervision of Harrison Smitherum, Supervising Watermaster.

WATER SUPPLY

Precipitation

Table 1 contains data obtained from U. S. Weather Bureau records collected at Susanville, California. Monthly precipitation and snowfall records are shown for the period October 1944 to September 1945 with the 45 year means for each month.

The total seasonal precipitation for 1944-45 was 13.49 inches as compared with the 45 year mean of 18.56 inches.

The results of the California Cooperative Snow Surveys published in April 1945 show the water content of the snow in the general vicinity of the Susan River watershed as of April 1, 1946 to be about 90 per cent of

the long time mean.

Stream Flow

Measuring stations equipped with water stage recorders were maintained at the following points:

(1) Susan River at Haws (Below Ramsey Ditch)
(2) Old Channel of Susan River at Stan Browns
(3) Susan River at Johnstonville Bridge
(4) A & B Canal at Johnstonville
(5) Gold Run Creek above all diversions
(6) Willow Creek below Belfast Bridge

The measuring stations located on the Old Channel of Susan River and on the A & B Canal are affected by backwater from diversion dams located immediately downstream, thus rendering the gage height-discharge ratio unreliable at some stages. The data obtained from the records at the various measuring stations are presented in Tables 2 to 10, inclusive of this report.

Tables 4 to 8, inclusive, are tabulations of the discharge at the key measuring stations. Table 9 gives the discharge of Ramsey ditch at its head, and Table 3 sets forth the computed discharge of Susan River above Ramsey Ditch as compiled from a summation of Tables 4 and 9. In Table 2 the computed natural flow of Susan River above Ramsey Ditch is set forth which was determined by deducting the controlled storage release from Hog Flat and McCoy Reservoirs shown in Table 10 from the above mentioned discharge of Susan River above Ramsey Ditch (Table 3)

Sufficient records of run-off for the Susan River stream system are not available for the computation of satisfactory long time normals. However, by comparison with the natural flow at Haws for previous years of record the flow of Susan River reached a maximum flow during April rather than during May which is the usual occurrence. The natural flow at this

station during 1945 was about 55 per cent of the average for the preceding five years 1940 to 1944, inclusive.

The following table offers a comparison, since 1940 of the natural flow of Susan River above Haws:

NATURAL FLOW SUSAN RIVER AT HAWS ACRE FEET

(Including Ramsey Ditch)

Year	April	May	June	July	Total
1940	(a) 7,250	11,700	1,560	706	21,216
1941	(b) 3,060	26,000	5,240	1,220	35,520
1942	(c)10,300	18,600	9,160	1,570	40,630
1943	(d) 5,800	8,890	4,050	1,320	20,060
1944	(e) 7,390	9,240	3,460	1,180	21,270
1945	(f) 5,650	6,140	2,210	980	14,980

(a) 10 day period
(b) 7 day period
(c) 13 day period
(d) 11 day period
(e) 24 day period
(f) 18 day period

DISTRIBUTION OF WATER

The waters of Susan River and tributaries included in the water-master service area were distributed during the 1945 season in accordance with the water rights defined in the judgment and decree in the case of J. J. Fleming, et al., vs. J. R. Bennett, et al., Superior Court, Lassen County, California, No. 4573.

The decree divides the waters of the stream system into three groups, depending upon the source, or sources of water supply. Schedule

3 of the decree defines the rights to water from Willow Creek which includes Upper Willow Creek Valley, Lower Willow Creek and a part of the requirements for the Susan River delta area below Colony Dam. Schedule 4 of the decree defines the rights to water from Gold Run Creek, Piute Creek, Hills Creek, Haulscraw Creek, and Lassen Creek above their confluence with Susan River. Schedules 5 and 6 of the decree defines the rights to Susan River exclusive of the tributaries.

A discussion of water distribution in the three groups in accordance with the schedules follows:

Willow Creek (Schedule 3)

A major part of the run-off on Upper and Lower Willow Creek resulting from spring rains and melting snow occurred prior to the beginning of watermaster service in 1945. As a result, irrigation use was almost entirely dependent upon the flow from springs during the irrigation season. Some water was stored in Walsh Reservoir prior to April 1 which was available during the irrigation season to supplement the spring flow.

Release of stored water was commenced on May 11th to supplement the spring flow and was continued until about June 15th when the last flashboard was removed.

The Susan River Delta Area was supplied by return flow from the river and spring flow from Lower Willow Creek after about June 15th. The available water was sufficient to supply from 35 to 50 per cent of second priority allotments of Schedule 3.

Lassen, Gold Run, Hills and Piute Creeks (Schedule 4)

Lassen Creek

The flow of Lassen Creek was adequate to fill all irrigation requirements during April and May. During the remainder of the season the entire flow was used on the Hulsman Ranch.

Gold Run Creek

The flow of Gold Run Creek was adequate to supply all irrigation demands until about June 1. Subsequent to about July 18 all available water was allocated to the first priority right.

Hills Creek

The flow of Hills Creek was adequate to supply all demands until about June 1. By the end of the season there was only enough water available to reach the Clark Ranch.

Piute Creek

There was a surplus of water in Piute Creek during April and May with adequate water to supply all demands until about August 1. Subsequent to this date there was sufficient flow available to supply about 65 per cent of all allotments.

Susan River (Schedules 5 and 6

There was adequate water in Susan River during April to meet all demands. During May the flow dropped so there was insufficient water available to supply the rights in schedule 6 and by the end of the month there was only about 90 per cent of the water necessary to supply the demands of the rights in schedule 5.

The average flow of Susan River above the Ramsey Ditch and the per cent of allotments delivered to the first and second priority rights under schedule 5, during the months of May, June, July, August and September, are shown in the following tabulation:

Month	Average available Natural Flow of Susan River above Ramsey Ditch c.f.s.	Per Cent of Allotments delivered	
		1st Priority * 4.90 c.f.s.	2nd Priority 67.55 c.f.s.
May	99.8	100	100
June	37.1	100	47.8
July	16.0	100	16.4
Aug.	7.4	100	3.7
Sept.	** 4.5	92	0

* Does not include 11.05 cubic feet per second allocated to lands upstream from gaging station.

** 28 day period

The Woodstock, Bankley, Ripley, Barham, Shanks, Johnson and Chappius, Upper Coulthurst, and Colony Dams were all operated during the 1945 season.

Susan River Reservoirs 1945

The two mountain reservoirs, McCoy Flat and Hog Flat, owned and maintained by the Lassen Irrigation Company were both drained during the 1945 season. A total of 6160 acre feet of stored water, released during June, July, and August, was measured at the gaging station at Haws above Susanville. This amount was rediverted at Johnstonville Dam by the Lassen Irrigation Company.

Release from Hog Flat Reservoir was made between June 7 and June 22 in the amount of about 25 cubic feet per second. Commencing on June 28 water was released from both Hog Flat and McCoy Flat Reservoirs. The combined release averaged about 65 cubic feet per second during July. The supply of stored water was exhausted by August 23.

SUMMARY

The demands for irrigation water during April were exceedingly heavy due to the sub-normal rain-fall during this month. The high temperature during this month caused early flow from melting snow so that sufficient water was available to meet all demands. Normal precipitation during May and June assisted in the maturation of all crops and resulted in a nearly normal crop yield for the 1945 season.

TABLES

TABLE 1

PRECIPITATION AT SUSANVILLE, CALIFORNIA
ELEVATION 4,238 FEET
COMPARISON BETWEEN PRECIPITATION FOR
SEASONAL YEAR 1944-45 AND FOR 45 YEAR MEAN

Month	Monthly Mean 45 years		1944-45		Snowfall in inches	
	Inches	% Total Mean	Inches	% Total Mean	Normal	1944-45
October	1.13	6.1	0.35	1.9	-	0
November	2.09	11.3	3.67	19.8	-	1.9
December	3.08	16.6	1.58	8.5	14.1	19.0
January	3.38	18.2	2.42	13.0	25.0	2.0
February	2.79	15.0	2.45	13.2	12.9	-
March	2.50	13.5	0.70	3.8	8.9	-
April	1.12	6.0	0.33	1.8	1.7	-
May	.83	4.5	0.70	3.8	-	-
June	.49	2.6	0.46	2.5	-	-
July	.28	1.5	0.27	1.5	-	-
August	.33	1.8	0.09	.4	-	-
September	.54	2.9	0.47	2.5	-	-
Total	18.56	100.0	13.49	72.7	62.6	22.9

Note: U. S. Weather Bureau records do not give monthly departures from normal for 1945, therefore, the mean for the previous 45 year period is used for this report. Said records further indicate that beginning January 1, 1944, the observations were taken at the airport near Johnstonville.

TABLE 2

DAILY DISCHARGE IN CUBIC FEET PER SECOND
NATURAL FLOW OF SUSAN RIVER ABOVE RAMSEY DITCH
APRIL 13 to SEPTEMBER 28, 1945

Day	April	May	June	July	August	Sept.
1		164	49.8	19.4	11.7	4.4
2		172	48.0	19.4	11.3	4.7
3		173	48.9	19.2	11.3	5.0
4		164	48.0	18.4	11.3	5.0
5		148	54.3	18.4	10.4	5.0
6		139	59.0	18.2	10.4	5.0
7		126	58.6	17.8	10.4	4.2
8		119	54.5	17.8	10.5	4.2
9		109	48.4	17.6	9.5	4.4
10		109	45.2	17.4	9.8	4.4
11		97.0	43.0	17.4	8.7	4.4
12		92.8	40.6	17.4	8.5	4.1
13	70.6	111	38.4	16.7	8.1	4.1
14	72.8	104	36.4	16.7	7.7	4.1
15	86.0	92.2	35.4	16.5	7.0	4.0
16	114	82.1	34.4	16.5	6.5	4.0
17	133	95.8	33.4	16.3	5.5	4.1
18	154	98.2	32.4	16.1	5.7	4.1
19	193	89.8	31.4	15.8	5.7	4.1
20	232	84.3	30.4	15.6	5.7	4.1
21	247	84.3	29.5	15.4	4.9	4.4
22	222	76.9	28.4	14.9	4.5	4.4
23	188	70.3	26.2	14.3	4.1	4.4
24	185	69.2	25.9	14.1	4.1	4.3
25	183	66.0	24.5	14.1	4.2	5.3
26	157	65.0	24.5	14.1	4.4	5.3
27	149	60.0	23.1	14.1	4.7	5.3
28	147	59.0	21.2	14.1	4.4	5.3
29	153	59.0	20.0	14.2	4.4	
30	163	59.0	19.9	13.4	4.4	
31		55.2		12.6	4.4	
Total	*2849.4	3094.1	1113.7	503.9	224.2	** 126.1
Mean	* 158.3	99.8	37.1	16.2	7.1	** 4.5
Acre-Ft	* 5650	6140	2210	1000	450	** 250

* 18 day period
** 28 day period

Total acre-feet for period - 15,700

TABLE 3

DAILY DISCHARGE IN CUBIC FEET PER SECOND
SUSAN RIVER ABOVE RAMSEY DITCH
INCLUDING WATER RELEASED FROM STORAGE
April 13 to September 28, 1945

Day	April	May	June	July	August	Sept.
1		164	49.8	98.4	78.7	4.4
2		172	48.0	97.4	61.3	4.7
3		173	48.9	97.2	59.3	5.0
4		164	48.0	98.4	57.3	5.0
5		148	54.3	92.4	57.4	5.0
6		139	59.0	91.2	59.4	5.0
7		126	73.6	88.8	58.4	4.2
8		119	83.5	87.8	53.5	4.2
9		109	75.4	84.6	53.5	4.4
10		109	73.2	82.4	46.8	4.4
11		97.0	70.0	82.4	35.7	4.4
12		92.8	66.6	82.4	30.5	4.1
13	70.6	111	64.4	77.7	28.1	4.1
14	72.8	104	61.4	78.7	25.7	4.1
15	86.0	92.2	60.4	82.5	24.0	4.0
16	114	82.1	57.4	84.5	20.5	4.0
17	133	95.8	55.4	82.3	14.5	4.1
18	154	98.2	55.4	80.1	13.7	4.1
19	193	89.8	58.4	76.8	13.7	4.1
20	232	84.3	57.4	74.6	13.7	4.1
21	247	84.3	53.5	72.4	12.9	4.4
22	222	76.9	45.4	71.9	12.5	4.4
23	188	70.3	32.2	74.3	8.1	4.4
24	185	69.2	25.9	72.1	4.1	4.3
25	183	66.0	24.5	72.1	4.2	5.3
26	157	65.0	24.5	72.1	4.4	5.3
27	149	60.0	23.1	72.1	4.7	5.3
28	147	59.0	21.2	72.1	4.4	5.3
29	153	59.0	20.0	73.2	4.4	
30	163	59.0	62.9	75.4	4.4	
31		55.2		77.6	4.4	
Total	*2849.4	3094.1	1553.7	2525.9	874.2	**126.1
Mean	158.3	99.8	51.8	81.5	28.2	**4.5
Acre-Ft.	5650	6140	3080	5010	1730	**250

* 18 day period
** 28 day period

Total acre-feet for period - 21,860

TABLE 4

DAILY DISCHARGE IN CUBIC FEET PER SECOND
SUSAN RIVER BELOW RAMSEY DITCH
INCLUDING WATER RELEASED FROM STORAGE
April 13 to September 21, 1945

Day	April	May	June	July	August	Sept.
1		157	43.8	95.0	75.3	3.0
2		165	42.0	94.0	58.0	3.3
3		166	42.9	93.8	56.0	3.6
4		157	42.0	95.0	54.0	3.6
5		142	48.3	89.0	54.0	3.6
6		132	53.0	87.8	56.0	3.6
7		119	67.6	85.4	55.0	2.8
8		112	77.5	83.0	50.1	2.8
9		102	72.0	79.7	50.1	3.0
10		103	69.8	77.5	43.8	3.0
11		90.2	66.6	77.5	33.0	3.0
12		86.0	63.2	77.5	28.1	2.7
13	67.6	104	61.0	74.2	26.0	2.7
14	69.8	97.6	58.0	75.3	23.9	2.7
15	83.0	85.4	57.0	79.7	22.5	2.6
16	111	75.3	54.0	81.9	19.0	2.6
17	130	89.0	52.0	79.7	13.0	2.7
18	151	91.4	52.0	77.5	12.2	2.7
19	190	83.0	55.0	74.2	12.2	2.7
20	229	77.5	54.0	72.0	12.2	2.7
21	244	77.5	50.1	69.8	11.4	3.0
22	219	70.9	42.0	68.7	11.0	3.0
23	185	64.3	28.8	70.9	6.6	3.0
24	182	63.2	22.5	68.7	2.6	2.9
25	180	60.0	21.1	68.7	2.8	3.9
26	154	59.0	21.1	68.7	3.0	3.9
27	142	54.0	19.7	68.7	3.3	3.9
28	140	53.0	17.8	68.7	3.0	3.9
29	146	53.0	16.6	69.8	3.0	
30	156	53.0	59.5	72.0	3.0	
31		49.2		74.2	3.0	
Total	*2779.4	2891.5	1430.9	2418.6	807.1	**86.9
Mean	*154.4	93.3	477.0	78.0	26.0	**3.1
Acre-Ft	*5510	5730	2840	4800	1600	**770

* 18 day period
** 28 day period
Total acre-feet forperiod - 20,650

TABLE 5

DAILY DISCHARGE IN CUBIC FEET PER SECOND
OLD CHANNEL OF SUSAN RIVER BELOW WOODSTOCK DAM
April 20 to September 20, 1945

Day	April	May	June	July	August	Sept
1		18.9	16.4	5.9	6.3	3.3
2		18.9	15.9	8.1	6.3	3.1
3		19.2	15.9	8.1	6.3	3.0
4		19.5	15.7	5.8	5.6	3.1
5		18.4	16.2	5.4	4.5	3.1
6		18.1	16.9	7.0	4.5	3.0
7		17.9	17.4	7.0	4.5	3.0
8		16.2		7.0	4.7	3.5
9		16.4		6.8	4.9	3.9
10		16.7		6.3	4.8	3.0
11		16.4		5.9	4.3	3.5
12		16.2		5.8	4.7	3.5
13		17.4		5.7	6.8	3.5
14		17.1		5.6	7.0	4.1
15		15.9		5.5	7.0	4.2
16		15.9		4.6	5.9	4.3
17		18.4		3.1	4.4	3.9
18		17.9		2.8	3.8	4.2
19		17.9		5.5	3.7	4.2
20	20.2	17.6		5.6	3.0	4.2
21	22.7	17.6		5.7	2.6	
22	16.9	17.4		5.8	2.8	
23	17.4	17.4		5.9	2.5	
24	19.5	17.4		5.9	2.3	
25	20.5	17.1	6.8	5.9	2.4	
26	19.5	16.9	6.8	5.8	2.7	
27	18.6	16.9	6.8	5.8	3.1	
28	18.1	16.4	6.8	5.9	2.9	
29	18.1	16.4	6.8	6.3	2.7	
30	21.2	16.4	6.3	6.5	3.2	
31		16.4		6.3	3.2	
Total	*212.7	537.2	**154.7	183.3	133.4	***71.6
Mean	* 19.3	17.3	**11.9	5.9	4.3	*** 3.6
Acre Ft.	* 420	1060	**310	360	260	***140

* 11 day period
** 13 day period
*** 20 day period

Total acre-feet for period 2,550

TABLE 6

DAILY DISCHARGE IN CUBIC FEET PER SECOND
SUSAN RIVER AT JOHNSTONVILLE
April 13 to September 19, 1945

Day	April	May	June	July	August	Sept.
1		82.7	39.0	15.4	8.6	2.0
2		92.0	39.8	15.8	7.5	2.0
3		95.2	44.0	15.4	4.2	2.0
4	No	92.0	44.0	13.7	4.8	2.0
5		82.1	56.5	11.8	4.7	2.0
6		65.3	52.0	9.9	4.8	2.0
7		59.1	56.5	9.4	4.4	2.0
8	Record	53.0	59.1	6.9	3.8	2.0
9		53.0	55.5	6.6	3.6	2.2
10		53.0	44.0	5.9	3.7	2.0
11		43.0	35.0	6.2	3.5	2.0
12		35.0	32.6	6.9	3.4	2.0
13	25.5	64.7	31.8	6.8	3.3	2.0
14	27.8	58.0	29.0	7.2	3.3	2.0
15	30.3	51.5	28.6	7.4	3.0	2.0
16	58.0	38.2	25.8	8.6	3.0	2.1
17	75.5	53.0	23.1	8.7	3.0	2.1
18	90.7	54.0	24.0	8.3	3.0	2.1
19	105	44.6	24.3	8.6	3.0	2.1
20	134	35.8	23.1	8.7	3.0	
21	157	31.8	22.2	8.6	3.0	
22	147	30.2	18.5	8.3	2.9	No
23	115	29.4	17.0	7.5	2.8	
24	110	31.0	15.5	8.1	2.8	
25	104	29.0	14.2	8.6	2.7	Record
26	94.0	27.8	14.8	8.2	2.3	
27	81.5	27.0	13.8	10.0	2.2	
28	69.5	21.0	12.9	12.5	2.2	
29	74.3	31.0	11.8	8.5	2.1	
30	81.5	37.8	12.9	6.5	2.1	
31		35.4		7.3	2.0	
Total	*1580.6	1536.6	921.3	282.3	108.7	**38.6
Mean	* 87.8	49.6	30.7	9.10	3.51	**2.03
Acre-Ft	*3140	3050	1830	560	220	**80

* 18 day period
** 19 day period

Total acre-feet for period 8,880

TABLE 7

DAILY DISCHARGE IN CUBIC FEET PER SECOND
WILLOW CREEK BELOW BELFAST BRIDGE
April 20 to September 26, 1945

Day	April	May	June	July	August	Sept
1		16.3	19.0	15.4	16.0	17.6
2		16.0	18.7	15.4	16.0	16.6
3		16.0	18.7	15.7	15.4	16.0
4.		16.0	19.6	16.2	15.4	16.0
5		16.0	20.1	16.2	15.4	16.0
6		16.0	21.0	15.7	15.7	16.6
7		16.0	21.0	15.7	16.6	16.6
8	No	16.0	21.8	15.7	16.6	16.6
9		16.0	22.4	16.0	16.9	16.3
10		16.0	23.3	15.4	17.6	15.7
11		16.0	21.8	15.4	16.9	16.0
12		16.0	21.2	15.4	16.6	16.3
13	Record	16.5	20.4	15.2	15.7	16.0
14		17.1	19.6	14.9	15.7	15.7
15		17.4	19.0	14.6	16.3	15.4
16		17.6	18.4	14.4	16.3	15.7
17		18.2	17.9	14.1	16.6	15.7
18		18.4	17.6	14.4	16.9	16.0
19		18.4	17.6	14.1	17.4	16.6
20	18.4	18.1	17.1	14.4	17.4	16.3
21	18.2	18.1	16.0	14.6	17.7	16.3
22	17.6	18.4	15.7	14.9	18.0	16.3
23	17.1	18.1	15.7	14.9	18.3	16.3
24	17.1	18.1	15.7	14.9	18.6	16.6
25	17.4	18.1	15.4	14.6	18.6	16.6
26	17.6	18.1	15.7	14.6	18.9	16.6
27	17.6	18.1	16.2	14.9	19.2	16.6
28	17.4	18.1	15.7	15.7	19.5	
29	17.1	18.1	15.7	16.0	19.8	No
30	16.5	19.3	15.4	16.3	19.2	
31		19.3		16.0	18.6	Record
Total	* 192.0	535.8	553.4	471.7	533.8	**439.0
Mean	* 17.4	17.3	18.4	15.2	17.2	**16.3
Acre-ft	*380	1060	1100	940	1060	**870

* 11 day period
** 27 day period

Total Acre-feet for period - 5,410

TABLE 8

DAILY DISCHARGE IN CUBIC FEET PER SECOND
GOLD RUN CREEK ABOVE DIVERSIONS
April 19 to September 6, 1945

Day	April	May	June	July	August	Sept
1		38.8	13.1	3.9	0.7	0.6
2		40.4	12.6	3.7	0.7	0.6
3		41.2	12.6	3.5	0.7	0.6
4		45.0	13.6	3.3	0.7	0.6
5		40.4	12.1	3.1	0.7	0.6
6		40.4	11.1	2.9	0.7	0.6
7	No	38.3	10.7	2.7	0.7	
8		36.0	9.8	2.4	0.7	
9		36.0	9.8	2.2	0.7	
10		38.3	9.3	2.1	0.6	
11		31.1	9.3	2.1	0.6	
12	Record	25.8	8.9	2.1	0.6	No
13		24.5	8.5	2.0	0.6	
14		22.6	8.2	1.9	0.6	
15		22.0	7.4	1.6	0.6	
16		25.1	7.1	1.5	0.6	Record
17		21.4	6.7	1.4	0.6	
18		20.8	6.7	1.2	0.6	
19	32.5	20.2	6.4	1.2	0.6	
20	32.5	19.0	6.1	1.2	0.6	
21	29.3	18.4	5.8	1.2	0.6	
22	24.2	17.8	5.5	1.2	0.6	
23	22.0	16.1	5.5	1.1	0.6	
24	24.2	15.6	5.3	1.0	0.6	
25	20.5	14.6	5.1	0.8	0.6	
26	20.5	13.6	4.9	0.8	0.6	
27	22.0	13.1	4.7	0.8	0.6	
28	27.7	12.6	4.5	0.7	0.6	
29	34.8	13.1	4.3	0.7	0.6	
30	35.5	12.6	4.1	0.7	0.6	
31		13.1		0.7	0.6	
Total	*325.7	787.9	239.7	55.7	**19.5	3.6
Mean	* 27.1	25.5	7.98	1.80	** .63	.60
Acre-Ft	* 640	1570	480	110	**40	7

* 12 day period
** 6 day period

Total acre-feet for period - 2,850

TABLE 9

DAILY DISCHARGE IN CUBIC FEET PER SECOND
RAMSEY DITCH AT HEAD
April 13 to September 28, 1945

Day	April	May	June	July	August	Sept
1		6.8	6.0	3.4	3.4	1.4
2		6.8	6.0	3.4	3.3	1.4
3		6.8	6.0	3.4	3.3	1.4
4		6.8	6.0	3.4	3.3	1.4
5		6.8	6.0	3.4	3.4	1.4
6		6.8	6.0	3.4	3.4	1.4
7		6.8	6.0	3.4	3.4	1.4
8		6.8	6.0	4.8	3.4	1.4
9		6.8	3.4	4.9	3.4	1.4
10		6.8	3.4	4.9	3.0	1.4
11		6.8	3.4	4.9	2.7	1.4
12		6.8	3.4	4.9	2.4	1.4
13	3.0	6.8	3.4	3.5	2.1	1.4
14	3.0	6.8	3.4	3.4	1.8	1.4
15	3.0	6.8	3.4	2.8	1.5	1.4
16	3.0	6.8	3.4	2.6	1.5	1.4
17	3.0	6.8	3.4	2.6	1.5	1.4
18	3.0	6.8	3.4	2.6	1.5	1.4
19	3.0	6.8	3.4	2.6	1.5	1.4
20	3.0	6.8	3.4	2.6	1.5	1.4
21	3.0	6.8	3.4	2.6	1.5	1.4
22	3.0	6.0	3.4	3.2	1.5	1.4
23	3.0	6.0	3.4	3.4	1.5	1.4
24	3.0	6.0	3.4	3.4	1.5	1.4
25	3.0	6.0	3.4	3.4	1.4	1.4
26	3.0	6.0	3.4	3.4	1.4	1.4
27	6.8	6.0	3.4	3.4	1.4	1.4
28	6.8	6.0	3.4	3.4	1.4	1.4
29	6.8	6.0	3.4	3.4	1.4	
30	6.8	6.0	3.4	3.4	1.4	
31		6.0		3.4	1.4	
Total	69.2	202.8	122.8	107.3	67.1	39.2
Mean	3.8	6.5	4.1	3.5	2.2	1.4
Acre-Ft	140	400	240	210	130	80

Total acre-feet for period 1,200

TABLE 10

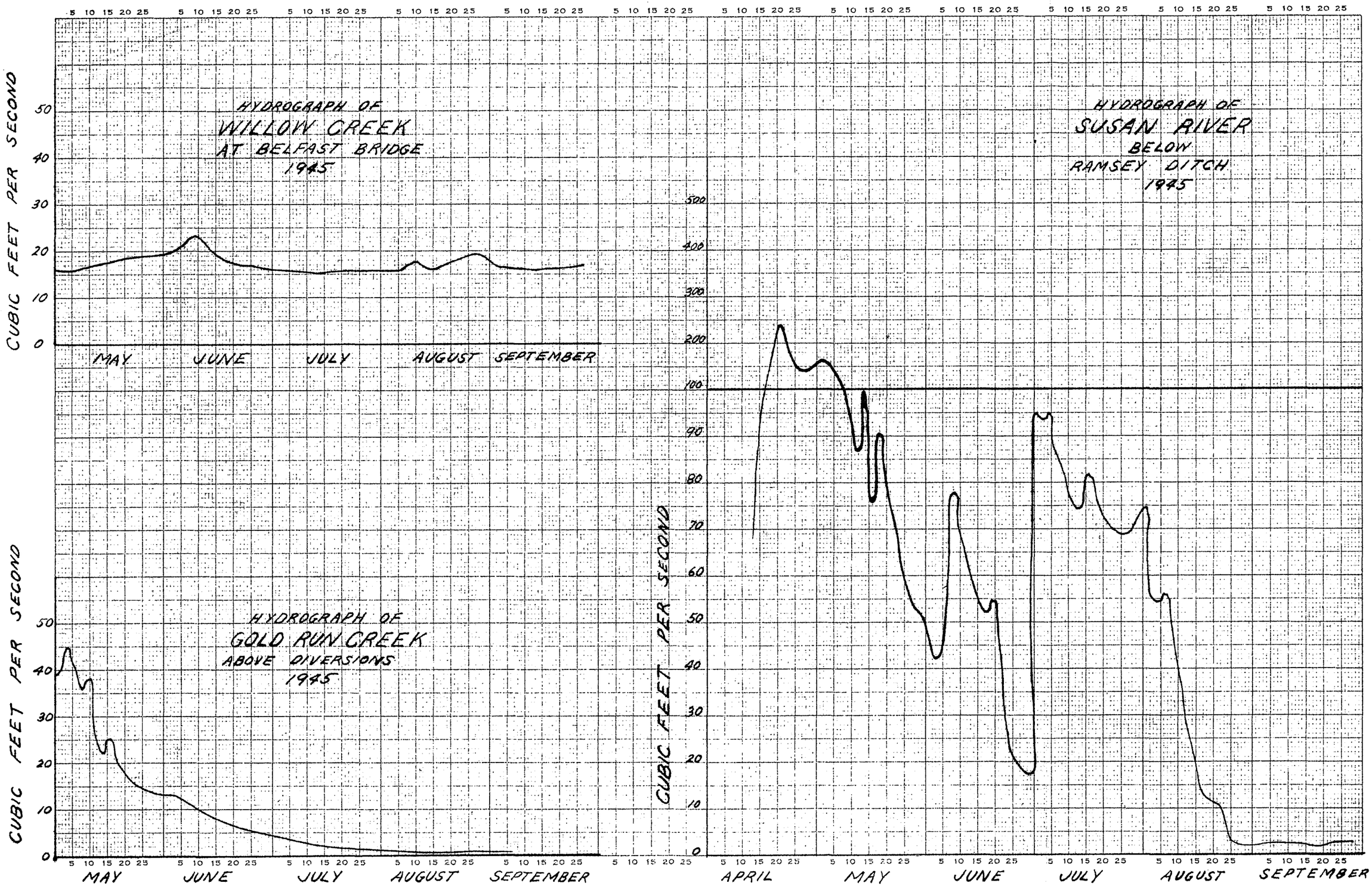
DAILY DISCHARGE IN CUBIC FEET PER SECOND
WATER RELEASED FROM McCOY FLAT AND HOG FLAT RESERVOIRS
AND AVAILABLE FOR REDIVERSION AT SUSANVILLE
June 7 to August 23, 1945

Day	June	July	August
1		79	67
2		78	50
3		78	48
4		80	46
5		74	47
6	(a)	73	49
7	15	71	48
8	29	70	43
9	27	67	44
10	28	65	37
11	27	65	27
12	26	65	22
13	26	61	20
14	25	62	18
15	25	66	17
16	23	68	14
17	22	66	9
18	23	64	8
19	27	61	8
20	27	59	8
21	24	57	8
22	(b) 17	57	8
23	6	60	4
24		58	4
25		58	
26		58	
27		58	
28	(c)	58	
29		59	
30	43	62	
31		65	
Total	* 440	2022	** 649
Mean	* 24.4	65.2	** 28.2
Acre-Feet	* 870	4010	** 1280

* 18 day period
** 23 day period
(a) Hog Reservoir opened June 6, 1945
(b) Hog Flat Reservoir closed June 22, 1945
(c) Hog Flat and McCoy Flat Reservoirs opened June 28, 1945

Total release for period - 6,160 acre-feet

PLATE I



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