STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

REPORTS OF THE
DIVISION OF WATER RESOURCES
EDWARD HYATT, STATE ENGINEER

REPORT ON

WATERMASTER SERVICE WITHIN

SUSAN RIVER WATERMASTER SERVICE AREA

LASSEN COUNTY, CALIFORNIA

1944 SEASON

By

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Sacramento, California

March 1945.

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SACRAMENTO

DIVISION OF WATER RESOURCES
401 PUBLIC WORKS BUILDING

March 30, 1945

Mr. Harold Conkling
Deputy State Engineer
Sacramento, California

Attention: Mr. Gordon Zander
Supervising Hydraulic Engineer

Dear Sir:

The annual report on watermaster service in the Susan River Watermaster Service Area, in Lassen County, California, is submitted herewith.

The report presents a general description of water supply conditions in 1944 and a discussion of the results obtained in the distribution thereof.

Records of precipitation, run-off and other pertinent data are included.

Respectfully submitted,

L. C. JOHNSON
Associate Hydraulic Engineer

FOR VICTORY
BUY
UNITED
STATES
SAVINGS
BONDS
AND STAMPS

Report on

Watermaster Service Within

Susan River Watermaster Service Area

Lassen County, California

1944 Season

INTRODUCTION

Watermaster service in the Susan River Watermaster Service Area was continued during the 1944 irrigation season in accordance with the provisions of Section 4000 to 4360, inclusive, of the Water Code of California. Water distribution was started for the season on April 6 and terminated on September 30.

Mr. J. W. McPartland, duly appointed watermaster for the Susan River Watermaster Service Area regulated the diversions throughout the season under the supervision of Harrison Smitherum, Supervising Watermaster.

WATER SUPPLY

Precipitation

Table 1 has been prepared from the records of the United States Weather Bureau to show the monthly precipitation and the recorded snowfall at Susanville for the seasonal year beginning October 1, 1943 and ending September 30, 1944. The monthly mean precipitation and snowfall have also been tabulated.

A comparison of the seasonal precipitation in 1943-44 with the 45 year mean shows that the 1943-44 precipitation was only 74.5 per cent

of the mean. The per cent of the precipitation falling as snow at Susanville is also subnormal with a large proportion of the total occurring during February.

The results of the California Cooperative Snow Surveys published April 10, 1944, shows that the snow pack as of April 1, 1944, was generally below normal but with good snow cover at some stations at intermediate elevations.

Stream Flow

Measuring stations equipped with automatic water stage recorders were maintained on Susan River below the Ramsey Ditch and at Johnstonville; on Old Channel of Susan River below Woodstock Dam, on Gold Run Creek above all diversions, on Willow Creek at Belfast Bridge and on the A & B canals at Johnstonville. Intermittent measurements and gage height observations were made on various other streams and on ditches during the season.

Tables 4 to 8, inclusive, are tabulations of the stream flow at the five principal recorder stations. Table 9 is a tabulation of the daily discharge of the Ramsey Ditch and Table 10 is a tabulation of the net amount of water released from McCoy Flat and Hog Flat reservoirs which is available for rediversion at Susanville. Table 3 is a tabulation of the flow of Susan River above the Ramsey Ditch. Table 2 is a tabulation of the natural flow of Susan River above the Ramsey Ditch.

Hydrographs of Susan River below the Ramsey Ditch, Gold Run Creek above all diversions and Willow Creek at Belfast Bridge are shown for the 1944 irrigation season on the accompanying plate. The hydrographs of Susan River and Gold Run Creek for 1935 are also shown on the plate for comparison with other years.

The limited number of years of run-off data on Susan River prevent

a determination of a normal for the stream. However, a summary of the run-off by months over the period of record gives some useful information as to what the actual conditions were in 1944 and such a table is given below from 1940 through 1944. A similar tabulation showing the run-off from 1935 through 1939 has been included in the 1939 watermaster report.

NATURAL FLOW - SUSAN RIVER AT HAWS ACRE-FEET

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

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

The above table indicates that the seasonal run-off in 1944 compared favorably with other years with some variation in the monthly division of its occurrence. The stream flow on Gold Run Creek followed nearly the same pattern.

DISTRIBUTION OF WATER

The waters of Susan River and tributaries included in the watermaster service area were distributed during the 1944 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 stream system under water distribution naturally divides itself into three groups according to source or sources of water supply.

Schedule 3 of the aforementioned decree defines the rights to water from Willow Creek which includes use in Willow Creek Valley, in the Belfast area and a portion of the requirements for the Susan River delta area.

Schedule 4 of the decree defines the rights to water from Gold Run Creek, Hills Creek, Lassen Creek and Piute Creek above their confluence with Susan River.

Schedules 5 and 6 of the decree define the rights to water from Susan River exclusive of the tributaries.

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

Willow Creek (Schedule 5)

The major portion of the run-off from melting snow in the Willow Creek watershed occurred prior to the beginning of watermaster service in 1944. As a result irrigation use was almost entirely dependent upon the flow of springs which produced about 14.0 cubic feet per second throughout the irrigation season. To supplement the spring flow during the irrigation season the Walsh Reservoir had been filled from the run-off prior to April 1st.

It was necessary to begin releasing water from the reservoir to supplement the spring flow on May 6th and on May 26th the last of the flash-boards were removed. Drainage from the land above the reservoir was adequate to supply the required amount of water in lower Willow Creek Valley until the hay crop was mature. Subsequent to June 15th very little water was used in Willow Creek Valley until after the hay crop was harvested. The first priority allotments were diverted continuously throughout the summer.

Lower Willow Creek was supplied in 1944 by return flow from irrigation in Willow Creek Valley, storage water released from Walsh Reservoir

and the flow of springs below Willow Creek Valley. There was sufficient water available in lower Willow Creek to completely fill the first priority and to partially fill the second priority allotments throughout the summer. The effect of releasing storage from Walsh Reservoir during May can be seen by observing the daily discharge as tabulated in Table 7. The increase in flow the last ten days of June was largely due to the water being turned off some of the Willow Creek Valley meadows and into the Old Eagle Lake by-pass canal. Additional water was released through the by-pass canal about July 20th.

The Susan River delta was entirely dependent upon water from lower Willow Creek after about June 10th. The supply was sufficient to deliver from 35 to 60 per cent of second priority allotments in Schedule 3 after the Susan River water had failed.

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 June a shortage of from fifty to seventy-five per cent of the second priority allotment occurred. During July and August the entire flow was diverted and consumed by the first priority rights.

Gold Run Creek

The flow of Gold Run Creek was adequate to fill all irrigation requirements until about June 1. During June there was an increasing shortage and by July 10th the entire flow was being used by the first priority. Less than fifty per cent of first priority allotment was available at the end of the irrigation season.

Hills Creek

The flow of Hills Creek was adequate to fill all allotments until about June 1st. On May 22, the watermaster regulated the division between the Emerson Ranch on one side and the Ridenour and Clark Ranches on the other. A flow of about 6.00 cubic feet per second was available at the division on that date. There was 4.00 cubic feet per second available on June 10 and 2.00 cubic feet per second on July 1st. 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 on Piute Creek during April and May and ample water to fill requirements in June. By August 1st there was only enough water to fill sixty-four per cent of allotments. Thereafter the stream flow remained about constant.

Susan River (Schedules 5 and 6)

The water supply as tabulated in Table 2 was adequate to fill all requirements until the main river dams below Johnstonville were closed about May 15th. Thereafter the tule area received very little water from the upper Susan River and was almost entirely dependent upon the flow of Willow Creek, the water released from Walsh Reservoir in Willow Creek Valley and the pondage behind the Colony dam. By full use of the water from all sources all the crop land was kept reasonably well irrigated throughout the month of May.

During the month of June there was insufficient water to fill all allotments but by good use of the available water the crops usually irrigated during that month received enough water to insure a normal yield.

The average flow of Susan River above the Ramsey Ditch and the per cent of allotments delivered to the first and second priorities, who used all the water after about June 1st, during the months of June, July, August and

September are given 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.
June	58.2	100	54
July	19.2	100	21
Aug.	13.5	100	13
September	**11.6	100	10

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

** 25 day period

The Woodstock, Bantley, Ripley, Barham, Shanks, Johnson and Chappins, Coulthurst Upper and Colony Dams were used during the 1944 season.

Susan River (Reservoirs) 1944

The two mountain reservoirs maintained by the Lassen Irrigation Company, that is, McCoy Flat and Hog Flat, were both drained during the 1944 season. A total of 6,780 acre feet of stored water, released during July, August and September, was measured at the gaging station at Haws above Susanville. This amount was rediverted at Johnstonville Dam by the Lassen Irrigation Company.

Prior to the release of the stored water from McCoy Flat on July 5 it was necessary to begin spilling water on May 19th to pass the natural flow through for irrigation of prior rights below Susanville. When the River ceased flowing above the reservoir the outlet was closed until the stored water was released.

The stored water was released first from McCoy Flat at a rate of about 120 cubic feet per second; when the flow began to fail from that source, the Hog Flat outlet was opened to maintain the flow.

Water stored in Lake Leavitt and water diverted directly from the river through Lake Leavitt or from the Colony Dam supplied demands of the Lassen Irrigation Company prior to July 6, 1945. The Colony Dam ditch was used from April 27 to about May 10.

CROPS

The crops grown in 1944 were generally good.

SUMMARY

The cold spring retarded plant growth throughout the area but also held back the snow from melting so that adequate water was available to irrigate most crops until they reached maturity. The periods of stormy weather in June helped materially in spreading the water over the ground.

After haying a limited amount of irrigation for second crop and pasture occurred in favored localities. Elsewhere stock water was delivered without serious difficulty.

CONTROVERSIES

No serious controversies occurred during the 1944 season.

TABLE 1

PRECIPITATION AT SUSANVILLE, CALIFORNIA

ELEVATION 4,286 Feet

COMPARISON BETWEEN PRECIPITATION FOR SEASONAL YEAR 1943-44 AND FOR 45 YEAR PERIOD

Month	Monthly Mean 45 Years		1943-44		Snowfall in Inches	
	Inches	Per Cent of Total Mean	Inches	Per Cent of Total Mean	Normal	1943-44
October	1.13	6.1	1.17	8.5	—	—
November	2.09	11.3	.89	6.4	—	—
December	3.08	16.6	.90	6.5	14.1	4.2
January	3.38	18.2	2.06	14.9	25.0	14.0
February	2.79	15.0	3.14	22.7	12.9	28.2
March	2.50	13.5	1.98	14.3	8.9	8.0
April	1.12	6.0	1.03	7.4	1.7	—
May	.83	4.5	.14	1.0	—	—
June	.49	2.6	1.82	13.2	—	—
July	.28	1.5	.47	3.4	—	—
August	.33	1.8	.04	.3	—	—
September	.54	2.9	.19	1.4	—	—
	18.56	100.0	13.83	100.0	62.6	54.4

TABLE 2

Daily Discharge in Cubic Feet per Second
Natural Flow of Susan River Above Ramsey Ditch
April 7 to September 25, 1944

Day	April	May	June	July	August	September
1		230	84.0	26.5	17.0	10.3
2	No	218	85.0	25.5	17.0	10.3
3	Record	206	90.0	22.5	17.0	10.3
4		199	80.0	20.5	17.0	10.3
5		224	76.0	19.5	16.0	11.3
6		232	70.0	19.0	16.0	11.5
7	159	243	67.0	19.0	15.0	11.3
8	181	240	66.0	19.0	15.0	11.3
9	147	226	66.0	19.0	15.0	11.3
10	139	201	69.0	20.0	16.0	11.5
11	159	179	65.0	20.0	16.0	11.3
12	159	160	58.0	20.0	16.0	10.3
13	147	154	57.0	20.0	15.0	10.3
14	139	154	58.0	18.0	14.0	10.3
15	150	153	58.0	18.0	14.0	10.3
16	153	137	59.0	18.0	13.0	10.8
17	134	124	60.0	18.0	13.0	10.8
18	122	120	58.0	18.0	13.0	10.8
19	136	106	57.0	18.0	13.0	10.8
20	131	109	56.0	19.0	12.0	10.8
21	126	114	50.0	19.0	11.3	15.8
22	131	113	48.0	19.0	10.8	14.8
23	163	106	41.0	19.0	11.3	14.8
24	174	97.0	40.0	18.0	10.8	14.8
25	162	93.0	37.0	18.0	10.8	14.8
26	160	91.0	52.0	18.0	10.3	
27	154	89.0	43.0	18.0	10.3	No
28	160	86.0	37.0	17.0	10.3	Record
29	206	84.0	33.0	17.0	10.3	
30	232	82.0	30.0	17.0	10.8	
31	—	82.0	—	17.0	10.3	
Total	3,724*	4,657.0	1,746.0	594.5	417.3	290.5**
Mean	155.1	150.2	58.20	19.18	13.46	11.62
Runoff in A.F.	7,390*	9,240	3,460	1,180	828	576**

Total acre-feet for the period - 22,700

* 24 day period

** 25 day period

Gage height by automatic water stage recorder

TABLE 3

Daily Discharge in Cubic Feet per Second
Susan River above Ramsey Ditch
Including Water Released From Storage
April 7 to September 25, 1944

Day	April	May	June	July	August	September
1		250	84.0	26.5	84.0	13.8
2	No	218	85.0	25.5	85.0	13.8
3	Record	206	90.0	22.5	85.0	13.8
4		199	80.0	20.5	80.0	13.8
5		224	76.0	19.5	75.0	14.8
6		232	70.0	64.0	67.0	14.8
7	159	248	67.0	114	64.0	14.8
8	181	240	66.0	122	64.0	14.9
9	147	226	66.0	128	61.0	14.8
10	139	201	69.0	128	55.0	14.8
11	159	179	63.0	128	48.0	13.8
12	159	160	58.0	128	41.0	11.8
13	147	154	57.0	126	35.0	11.8
14	139	154	58.0	122	33.0	11.8
15	150	153	58.0	120	30.0	11.8
16	153	137	59.0	123	28.0	10.8
17	134	124	60.0	125	26.0	10.8
18	122	120	58.0	127	26.0	10.8
19	136	106	57.0	123	25.0	10.8
20	131	109	56.0	121	21.0	10.8
21	126	114	50.0	121	19.8	15.8
22	131	113	48.0	121	18.8	14.8
23	163	106	41.0	121	18.8	14.8
24	174	97.0	40.0	138	17.8	14.8
25	162	93.0	37.0	131	17.8	14.8
26	160	91.0	52.0	123	16.8	
27	154	89.0	43.0	119	16.8	No
28	160	86.0	37.0	105	15.8	Record
29	206	84.0	33.0	95.0	15.8	
30	232	82.0	30.0	88.0	15.8	
31	-	82.0	-	86.0	14.8	
Total	3,724*	4,657.0	1,748.0	3,159.5	1,221.8	334.0**
Mean	155.1	150.2	58.27	101.6	39.41	13.36
Runoff in A.F.	7,390*	9,240	3,470	6,270	2,420	662**

Total acre-feet for the period - 29,400

* 24 day period
** 25 day period

Gage height by automatic water stage recorder

TABLE 4

Daily Discharge in Cubic Feet per Second
Susan River Below Ramsey Ditch
Including Water Released from Storage
April 7 to September 25, 1944

Day	April	May	June	July	August	September
1		227	78.0	25.0	83.0	13.0
2		214	79.0	24.0	84.0	13.0
3		202	84.0	21.0	84.0	13.0
4		195	74.0	19.0	79.0	13.0
5		220	70.0	18.0	74.0	14.0
6		227	64.0	62.0	66.0	14.0
7	158	242	61.0	112	63.0	14.0
8	180	234	60.0	120	63.0	14.0
9	146	220	60.0	127	60.0	14.0
10	138	195	63.0	126	54.0	14.0
11	158	173	57.0	126	47.0	13.0
12	158	154	52.0	127	40.0	13.0
13	146	148	51.0	124	34.0	11.0
14	138	148	53.0	120	32.0	11.0
15	149	147	54.0	119	29.0	11.0
16	152	131	55.0	122	27.0	10.0
17	153	118	56.0	124	25.0	10.0
18	121	114	54.0	126	25.0	10.0
19	135	100	53.0	122	24.0	10.0
20	130	103	52.0	120	20.0	10.0
21	125	108	47.0	120	19.0	15.0
22	131	107	44.0	120	18.0	14.0
23	163	100	38.0	120	18.0	14.0
24	174	91.0	37.0	137	17.0	14.0
25	162	87.0	35.0	130	17.0	14.0
26	160	85.0	50.0	122	16.0	
27	153	83.0	41.0	118	16.0	No
28	157	80.0	35.0	104	15.0	Record
29	203	78.0	31.0	92.0	15.0	
30	228	76.0	28.0	87.0	15.0	
31	-	76.0	-	85.0	14.0	
Total	3,698*	4,473.0	1,616.0	3,119.0	1,193.0	314.0**
Mean	154.1	144.6	53.87	100.6	38.48	12.56
Runoff in A.F.	7,330*	8,890	3,210	6,190	2,370	623**

Total acre-feet for the period - 28,600

* 24 day period
** 25 day period

Gage height by automatic water stage recorder

TABLE 5

Daily Discharge in Cubic Feet per Second
Old Channel of Susan River Below Woodstock Dam
April 10 to September 25, 1944

Day	April	May	June	July	August	September
1		23.0	18.0	6.00	6.00	5.50
2	No	23.0	18.0	7.00	6.00	5.50
3		23.0	18.0	7.00	6.00	5.50
4	Record	23.0	18.0	7.00	7.00	5.50
5		23.0	17.0	7.00	7.00	5.00
6		24.0	16.0	7.00	6.50	4.50
7		24.0	16.0	7.00	6.50	4.50
8		24.0	16.0	7.00	6.50	4.50
9		23.0	16.0	7.00	6.00	5.00
10	4.00	22.0	16.0	7.00	6.00	4.50
11	3.00	21.0	16.0	7.00	6.00	4.50
12	4.00	20.0	15.0	7.00	5.50	4.50
13	5.00	19.0	15.0	7.00	5.50	4.50
14	7.00	19.0	15.0	7.00	5.50	4.50
15	7.00	19.0	14.0	7.00	5.50	4.50
16	7.00	19.0	15.0	7.00	5.50	4.50
17	9.00	19.0	15.0	7.00	5.50	4.50
18	13.0	18.0	17.0	7.00	5.50	5.00
19	16.0	17.0	16.0	7.00	6.00	5.50
20	16.0	18.0	15.0	7.00	6.50	5.50
21	16.0	19.0	15.0	7.00	6.50	6.00
22	17.0	19.0	14.0	7.00	6.00	6.50
23	19.0	19.0	14.0	7.00	6.50	6.50
24	19.0	19.0	14.0	7.00	6.50	6.50
25	19.0	19.0	14.0	7.00	6.50	6.50
26	19.0	19.0	15.0	7.00	7.00	
27	19.0	22.0	17.0	7.00	7.00	No
28	19.0	21.0	15.0	7.00	6.00	Record
29	22.0	19.0	12.0	6.00	5.00	
30	23.0	18.0	10.0	6.00	4.50	
31	---	18.0	---	6.00	4.50	
Total	281.0*	633.0	462.0	213.00	186.50	129.50**
Mean	11.71	20.42	15.40	6.87	6.02	5.18
Runoff in Acre Feet	557*	1,260	916	422	370	257**

Total acre-feet for the period - [illegible],780
* 21 day period
** 25 day period
Gage height by automatic water stage recorder

TABLE 6

Daily Discharge in Cubic Feet per Second
Susan River at Johnstonville
May 10 to September 23, 1944

Day	May	June	July	August	September
1	N	36.0	6.00	3.00	1.50
2	o	32.0	5.50	3.00	1.50
3		32.0	5.00	3.00	1.50
4	R	22.0	4.50	3.00	1.50
5	e	19.0	6.00	3.00	1.00
	c				
6	o	17.0	7.00	3.00	1.00
7	r	16.0	6.00	3.00	1.00
8	d	15.5	5.50	2.50	1.00
9		15.5	5.50	2.50	1.00
10	86.0	16.5	6.00	2.50	1.00
11	76.0	15.0	6.00	2.00	1.00
12	59.0	14.0	6.00	2.50	1.00
13	60.0	12.5	6.00	2.50	1.00
14	68.0	11.0	6.00	2.50	1.00
15	69.0	14.0	5.50	2.50	1.00
16	58.0	14.0	5.00	2.50	1.00
17	39.0	14.0	5.00	2.50	1.00
18	41.0	14.0	5.50	2.00	1.00
19	37.0	13.0	6.00	2.50	1.00
20	36.0	12.5	5.00	2.00	1.00
21	38.0	13.0	5.00	2.00	1.00
22	41.0	12.5	5.00	2.00	1.00
23	32.0	11.0	4.50	2.50	1.00
24	30.0	10.0	4.50	2.00	
25	31.0	10.0	4.00	2.00	N
					o
26	31.0	17.0	4.00	2.00	
27	30.0	16.0	5.00	2.00	R
28	34.0	10.0	4.00	2.00	e
29	36.0	9.00	3.50	1.50	c
30	34.0	6.50	3.50	1.50	o
31	32.0	-	3.50	1.50	r
					d
Total	998.0*	470.5	159.50	73.00	25.00**
Mean	45.36	12.35	5.15	2.35	1.09
Runoff in Acre Feet	1,980	933	316	145	49.6**

Total acre-feet for the period - 3,420
* 22 day period
** 23 day period

Gage height by automatic water stage recorder

TABLE 7

Daily Discharge in Cubic Feet per Second
Willow Creek Below Belfast Bridge
April 14 to September 23, 1944

Day	April	May	June	July	August	September
1		20.0	12.5	15.0	13.0	15.5
2	N	18.0	12.0	14.0	12.0	15.5
3	o	17.0	12.0	13.0	13.5	16.0
4		16.0	11.5	12.5	13.5	18.0
5	R	15.0	11.0	12.5	14.0	19.0
	e					
6	c	13.5	10.5	12.0	13.5	17.5
7	o	13.0	10.0	11.5	14.0	16.0
8	r	14.0	10.0	11.0	14.0	16.0
9	d	16.0	9.50	11.0	14.0	16.5
10		16.0	9.00	11.0	13.5	16.5
11		15.0	9.00	11.0	12.0	16.0
12		14.0	9.00	11.0	12.0	15.0
13		13.5	9.50	10.5	14.0	15.0
14	45.0	13.5	9.50	10.5	14.0	16.0
15	45.0	13.0	10.0	10.5	14.0	17.0
16	44.0	13.0	10.5	10.5	14.0	17.5
17	43.0	15.0	11.0	11.0	14.0	18.0
18	42.0	18.0	11.0	11.5	14.5	18.0
19	38.0	19.0	11.0	12.0	15.0	18.0
20	42.0	17.5	11.5	12.5	15.0	18.0
21	39.0	15.0	12.0	14.0	14.5	17.5
22	36.0	14.0	13.0	14.0	14.5	17.5
23	31.0	17.5	13.5	14.0	14.5	17.0
24	30.0	23.0	14.0	14.0	15.5	N
25	30.0	23.0	15.0	14.0	15.5	o
						R
26	29.0	19.0	17.0	15.0	15.5	e
27	28.0	14.0	17.5	15.0	15.5	c
28	26.0	13.5	18.0	15.0	15.5	o
29	24.0	13.0	18.0	15.5	15.5	r
30	23.0	13.0	17.0	15.0	15.5	d
31	---	12.5	---	13.5	15.5	
Total	595.0*	487.5	365.0	393.5	441.0	387.0**
Mean	35.00	15.73	12.17	12.69	14.23	16.83
Runoff in Acre Feet	1,180*	967	724	781	875	768**

Total acre feet for the period 5,300
* 17 day period
** 23 day period

Gage height by automatic water stage recorder

TABLE 8

Daily Discharge in Cubic Feet per Second
Gold Run Creek
April 10 to September 7, 1944

Day	April	May	June	July	August	September
1	N	25.0	14.0	3.00	1.40	0.70
2	o	25.0	13.0	2.50	1.30	.70
3		25.0	11.0	2.50	1.30	.70
4	R	26.0	9.00	2.50	1.20	.60
5	e	29.0	9.00	2.50	1.20	.60
	c					
6	o	39.0	9.00	2.50	1.10	.50
7	r	42.0	9.00	2.50	1.10	.50
8	d	39.0	8.00	2.20	1.10	
9		34.0	7.50	2.10	1.00	
10	6.00	28.0	7.00	2.10	1.00	
11	7.00	23.0	6.00	2.00	.90	
12	6.00	23.0	6.00	2.00	.90	N
13	5.50	23.0	5.50	1.70	.80	o
14	5.50	23.0	5.50	1.60	.70	
15	6.00	21.0	5.00	1.60	.70	R
						e
16	6.00	17.0	5.00	1.50	.70	c
17	5.50	15.0	4.50	1.40	.60	o
18	5.00	15.0	4.50	1.30	.70	r
19	5.50	15.0	4.00	1.20	.70	d
20	5.50	17.0	4.00	1.20	.70	
21	4.50	18.0	4.00	1.10	.70	
22	6.00	18.0	4.00	1.10	.70	
23	8.00	17.0	4.00	1.00	.70	
24	9.00	15.0	3.50	1.00	.70	
25	8.00	14.0	3.50	1.20	.80	
26	7.50	15.0	5.00	2.50	.80	
27	7.50	15.0	4.00	2.60	.80	
28	9.50	15.0	3.00	1.70	.80	
29	15.0	16.0	3.00	1.60	.80	
30	21.0	15.0	3.00	1.50	.80	
31		15.0		1.40	.80	
Total	159.5*	697.0	183.50	56.40	27.50	4.30**
Mean	7.60	22.48	6.12	1.82	.89	.61
Runoff in A.F.	316*	1,382	364	112	54.5	8.5**

Total acre feet for the period 2,240
* 21 day period
** 7 day period

Gage height by automatic water stage recorder

TABLE 9

Daily Discharge in Cubic Feet per Second
Ramsey Ditch at Head
April 7 to September 30, 1944

Day	April	May	June	July	August	September
1		5.50	6.00	1.50	1.40	0.80
2		5.50	6.00	1.50	1.40	.80
3		5.50	6.00	1.50	1.40	.80
4		4.00	6.00	1.50	1.40	.80
5		4.50	6.00	1.50	1.40	.80
6		5.50	5.80	1.50	1.30	.80
7	0.70	6.00	5.80	1.50	1.30	.80
8	.70	6.00	5.80	1.50	1.30	.80
9	.70	6.00	5.80	1.50	1.30	.80
10	.70	6.00	5.80	1.50	1.20	.80
11	.70	6.00	5.70	1.50	1.20	.80
12	.70	6.00	3.70	1.50	1.10	.80
13	.60	6.00	5.60	1.50	1.10	.80
14	.60	6.00	4.60	1.50	1.10	.80
15	.60	6.00	3.60	1.40	1.00	.80
16	.60	6.00	3.60	1.40	1.00	.80
17	.60	6.00	3.60	1.40	1.00	.80
18	.60	6.00	3.60	1.40	1.00	.80
19	.60	6.00	3.60	1.40	1.00	.80
20	.60	6.00	3.60	1.40	.90	.80
21	.60	6.00	3.40	1.40	.80	.80
22	.00	6.00	3.40	1.40	.80	.80
23	.00	6.00	3.10	1.40	.80	.80
24	.00	6.00	2.80	1.40	.80	.80
25	.00	6.00	2.40	1.40	.80	.80
26	.00	6.00	2.50	1.40	.80	.80
27	1.50	6.00	2.00	1.40	.80	.80
28	3.00	6.00	1.80	1.40	.80	.80
29	3.50	6.00	1.60	1.40	.80	.80
30	3.50	6.00	1.60	1.40	.80	.80
31		6.00		1.40	.80	
Total	21.10*	174.50	126.80	44.80	32.60	24.00
Mean	.88	5.63	4.23	1.44	1.05	.80
Runoff in A.F.	41.9*	346	252	88.9	64.7	47.6

Total acre feet for the period 841

* 24 day period

TABLE 10

Daily Discharge in Cubic Feet per Second
Water Released from McCoy Flat and Hog Flat Reservoirs
and Available for Rediversion at Susanville
July 5 to September 15, 1944

Day	July	August	September
1		67.0	3.50
2	No	68.0	3.50
3	Release	68.0	3.50
4		63.0	3.50
5	*	59.0	3.50
6	45	51.0	3.50
7	95	49.0	3.50
8	103	49.0	3.50
9	109	46.0	3.50
10	108	39.0	3.50
11	108	32.0	2.50
12	108	25.0	1.50
13	106	20.0	1.50
14	104	19.0	1.50
15	102	16.0	1.50
16	105	15.0	
17	107	13.0	
18	109	13.0	
19	105	12.0	
20	102	9.00	
21	102	8.50	
22	102	8.00	
23	** 102	7.50	
24	120	7.00	
25	113	7.00	
26	105	6.50	
27	101	6.50	
28	88.0	5.50	
29	76.0	5.50	
30	71.0	5.00	
31	69.0	4.50	
Total	2,565.0 (a)	804.50	43.50 (b)
Mean	98.27	25.95	2.90
Runoff in Acre Feet	5,090	1,600	86.5

Total acre feet for the period 6,780

* McCoy Flat Reservoir opened July 5, 1944

** Hog Flat Reservoir opened July 23, 1944

(a) 26 day period

(b) 15 day period