STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

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

REPORT ON

WATERMASTER SERVICE

IN

SOUTH FORK PIT RIVER WATERMASTER SERVICE AREA

MODOC AND LASSEN COUNTIES, CALIFORNIA

1957 SEASON

Sacramento, California
April, 1958

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SUBMISSION TO, AND ADOPTION BY
DEPARTMENT OF WATER RESOURCES

I, William R. Gianelli, Chief, Water Rights Section, Department of Water Resources of the State of California approve this "Report on Watermaster Service in South Fork Pit River Watermaster Service Area, Modoc and Lassen Counties, California, 1957 Season".

/s/ 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 South Fork Pit River Watermaster Service Area, Modoc and Lassen Counties, California, 1957 Season", as a report of the Department of Water Resources.

Witness my hand and the seal of the Department of Water Resources of the State of California this 30th day of April, 1958.

State of California
Department of Water Resources

/s/ Harvey O. Banks

HARVEY O. BANKS
Director

SEAL

ORGANIZATION
STATE DEPARTMENT OF WATER RESOURCES

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

M. J. Shelton. . . . . Deputy Director of Water Resources

The activity covered by this report is under the

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INTRODUCTION

This is the twenty-second annual report on watermaster service in the South Fork Pit River Watermaster Service Area and covers the period of water distribution in 1957 beginning April 1 and terminating September 30.

The service area was created by order of the Department of Public Works on December 31, 1934, to include with minor exceptions the water rights on South Fork Pit River. Subsequent orders have revised and changed the service area to include the water right of the South Fork Irrigation District, the water rights on Pine Creek and on Pit River in Hot Springs Valley, and to exclude certain rights to water from springs in the South Fork Pit River area.

Prior to inclusion in the service area, the various water rights involved had been determined as follows:

South Fork Pit River	W. E. Armstrong v Frank MacArthur No. 3273 Superior Court, Modoc County, entered October 30, 1934.
Pine Creek	Agreement Determining Rights to Water and to the Use Thereof From Pine Creek Near Alturas, in Modoc County, California, dated November 7, 1934.
Pit River in Hot Springs Valley	Agreement Determining Rights to Water and to the Use Thereof From Pit River and Rattlesnake Creek in Hot Springs Valley in Modoc County, California, dated November 22, 1933.

After Pine Creek and Pit River in Hot Springs Valley were included in the South Fork Pit River Watermaster Service Area, the two service areas which had been created on those streams on January 12, 1935, were abolished.

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

WATER SUPPLY

Above normal precipitation from February through May provided above normal water supply during the major part of the 1957 irrigation season. The spring rains were also sufficient to fill all important reservoirs in the area.

Precipitation

Data on precipitation, compiled from records of the United States Weather Bureau, for Alturas and Jess Valley are shown in Table A-1. The records at these stations for the 1956-1957 season indicate a seasonal precipitation of 113 per cent and 111 per cent of the mean, respectively.

Average water content of the snow pack at Eagle Peak, Blue Lake Ranch, Cedar Pass, and Adin Mountain snow courses, as published in the Division of Water Resources bulletin "Water Conditions in California, April 1, 1957", was 13.2 inches. The average of the 50-year means for the above courses is 16.4 inches. This information is shown in more detail in the following tabulation:

Snow course	Elevation in feet	Water content of snow, in inches		Per cent of mean
		50-year computed mean	1957	
Cedar Pass	7,200	19.9	17.2	86
Eagle Peak	7,500	18.2	18.1	99
Blue Lake Ranch	7,300	13.6	8.9	65
Adin Mountain	6,500	13.8	8.7	63

Stream Flow

South Fork of Pit River. The record of daily mean discharge of South Fork Pit River near Likely from April 1 to September 30, 1957, is presented in Table A-2. These data were taken from preliminary records of the United States Geological Survey and represent impaired flow after use for upstream irrigation in Jess Valley and diversions for storage in West Valley Reservoir.

A recorder station was installed on South Fork Pit River above the West Valley Reservoir diversion ditch late in the season by the Basic Data Section of the Department of Water Resources but was not in operation early enough to provide any significant information.

A record of daily releases from West Valley Reservoir during the period between April 1 and September 30, 1957, is presented in Table A-3.

Data presented in Tables A-2 and A-3 are shown graphically on Plate 1. On the graph, the solid line represents the impaired discharge of South Fork Pit River and the dotted line represents water released from storage in West Valley Reservoir.

Fitzhugh Creek. Frequent observations were made of the flow in Fitzhugh Creek during the season. The flow was above normal throughout the snow melt period. From about the middle of July to the end of the season, the flow remained nearly constant at about 3.0 second-feet.

Pine Creek near Alturas. A record of flow of Pine Creek above all diversions at the California-Oregon Power Company power house is presented in Table A-4. Discharge at this point is obtained by current meter measurements and an automatic water stage recorder. A hydrograph of the flow of Pine Creek has been prepared from the data in Table A-4 and is presented on

Plate 2. The Pine Creek watershed is located mainly at high elevations in the Warner Mountains and the flow is generally inadequate to meet the irrigation demands until the high snow begins to melt about May 1.

Pit River and Rattlesnake Creek in Hot Springs Valley, and Big Sage Reservoir. The principal sources of water for irrigation in Hot Springs Valley are North Fork and South Fork of Pit River, Big Sage Reservoir, and Rattlesnake Creek. The two forks of Pit River, which combine at the upper end of the Valley, are joined a short distance below by Rattlesnake Creek. The natural channel of Rattlesnake Creek is also used to convey water released from Big Sage Reservoir to meet deficiencies in natural water supply.

A recorder station was installed below the confluence of Rattlesnake Creek and Pit River by the Basic Data Section of the Department of Water Resources late in the season but was not in operation early enough to provide significant data. Care must be taken in obtaining reliable stream flow records at this station because of backwater caused by the Hagge Dam.

Below Rattlesnake Creek other small streams contribute to the water supply of Pit River in Hot Springs Valley during the early part of each season. In 1957 the flow from these sources continued until about June 25.

A stream flow measuring station is maintained by the United States Geological Survey on Pit River near Canby. This station is located at the outlet of Hot Springs Valley, and in the absence of other records, the flow there is indicative of water supply conditions in the Hot Springs Valley area. The record of discharge at this station also includes return flow from irrigation in the area. Table A-5 is a record of the flow of Pit River near Canby, as taken from preliminary records compiled by the United States Geological Survey.

A hydrograph prepared from the data in Table A-5 is presented on Plate 3. Superimposed is a hydrograph of the releases from Big Sage Reservoir.

DISTRIBUTION OF WATER

Distribution of water during the 1957 season was in accordance with the decrees and agreements, which set forth water rights throughout the service area. The above normal water supply simplified distribution problems during the early part of the season.

South Fork of Pit River

Regulations of diversions of the natural flow from South Fork of Pit River, including Fitzhugh Creek and other upstream tributaries, was made in accordance with Schedules 2 and 3 of the South Fork of Pit River Judgment and Decree No. 3273, which sets forth the several rights and priorities. The flow of West Valley Creek comprises a part of the South Fork of Pit River stream system, and its distribution is governed by the decree. Strict compliance with the decree would require the entire flow of West Valley Creek to pass unobstructed through West Valley Reservoir at all times that the water supply of the stream system was insufficient to fill all decreed allotments. However, in practice the flow of West Valley Creek is stored in the Reservoir during the irrigation season and is released from time to time along with water belonging to the South Fork Irrigation District. The District's water and the decreed allotments are then separated at the various head gates downstream. This separation of commingled water is simplified by the fact that there are only three ranches entitled to a share of the natural flow that are not within the South Fork Irrigation District.

The regulation of West Valley Reservoir was performed in accordance with the by-laws of the South Fork Irrigation District. Headgates and river dams are adjusted to deliver storage water to district members requesting water. The amount of water to which each member was entitled was determined by multiplying the total amount of storage at the beginning of the season by the percentage factor of each owner as follows:

Name of present owner	Name of original owner	Per cent of stored water	Total per cent of stored water presently owned
Beeson, Somer and Beeson, Georgia	Williams, Roy	0.80	0.80
Burmister, Arthur H.	Stepp, Ray	1.07	1.07
Derner, Anna C.	Gaustad, R. O.	1.79	1.79
Doty, Frank E.	Armstrong, W. E.	2.18	2.18
Flournoy Bros.	Flournoy, J. D.	3.98	
	McCarva, Douglas	0.24	
	Stinson, A. L.	0.03	
	Van Loan, D. E.	5.98	
	Coffman, A. T.	0.73	16.51
	Christensen, V.F.	5.55	
H. C. Cattle Co.	Christensen, V.F.	14.91	14.91
McCarva, Peter and McCarva, Phyllis	McCarva, John and McCarva, Peter	2.63	
	Gaustad, R. J.	1.95	4.58
Monroe, H. H. and Monroe, Harold C.	McArthur, Frank	22.81	22.81
Nelson, Katie H.	Nelson, Katie H.	2.74	2.74
Ramsey, Maston and Ramsey, Addie M.	Hughes, Jesse	2.23	2.23
Van Loan, Kenneth D. & Van Loan, Bernadine	Hughes, W. H.	2.51	
	Van Loan, D. E.	2.55	5.06
Williams, Gary and Williams, Theresa	Williams, Gary and Williams, Theresa	2.51	2.51

Name of present owner	Name of original owner	Per cent of stored water	Total per cent of stored water presently owned
Winema Farms	McArthur, Frank	22.81	22.81
TOTALS		100.00	100.00

The natural flow of South Fork Pit River was sufficient to supply the irrigation demand from April 1 to July 18. At all other times the deficiency was met by reservoir releases. No reservoir releases were made for pre-irrigation of grain land after April 1 because of the high natural flow of the river. The reservoir filled by the first part of April and water flowed over the spillway until the reservoir was opened on July 18. The spill on that date was about five second-feet. Some of the hay fields were ready for irrigation of fall pasture at this time and reservoir releases were started. Releases were increased and reached a peak for the season of 168 cubic feet per second on August 20. By August 23 all lands had been irrigated at least once after haying and releases were gradually reduced.

Some of the meadows became unusually dry in September and releases were increased on September 18 to provide for a second irrigation after haying.

Daily mean releases for the 1957 season from West Valley Reservoir are given in Table A-3.

Average percentages of decreed allotments available from the natural flow of South Fork of Pit River, exclusive of West Valley Reservoir releases, are shown in the following tabulation.

Month	Per cent of allotments available	
	First priority	Second priority
April	100	68
May	100	100
June	100	90
July	100	30
August	100	7
September	100	5

Fitzhugh Creek

Distribution of water on Fitzhugh Creek was made in accordance with the provisions of the decree. The distribution on North Fork Fitzhugh Creek was given particular attention. On June 14 the North Fork was observed to have about seven second feet above the Bowman Ditch with 1.35 second-feet in the Bowman Ditch. On June 30 the Payne Ditch from Mill Creek had two second-feet at the head and 2.7 second-feet at the weir at the mid-point of the ditch. The Payne Ditch was increased to 2.4 second-feet and the Bowman Ditch was regulated to 3.2 second-feet leaving approximately three second-feet in the creek. On July 19 the mid-point weir on the Payne Ditch showed 2.46 second-feet and the Bowman Ditch was regulated to 2.93 second-feet leaving 1.38 second-feet in the creek. On August 1 recorders and weirs were installed on the Payne Ditch just above its junction with North Fork Fitzhugh Creek; at the head of the Bowman Ditch; and on North Fork Fitzhugh Creek just below the Bowman Ditch. The records obtained by these recorders are presented on Plate 4 and show the distribution after that date. It was found that the Payne Ditch had a daily fluctuation of as much as 0.35 second-foot and that there was about 0.1 second-foot loss between the middle

weir and the recorder station just above the junction with the creek. It was also found that the Payne Ditch gained water from cross-drainage between the head and the mid-point weir early in the season and lost water in the same reach later in the season.

Month	Per cent of allotments available	
	First priority	Second priority
April	100	100
May	100	85
June	100	70
July	100	25
August	100	10
September	100	10

Pine Creek Near Alturas

Distribution of Pine Creek was made in accordance with the allotments set forth in Schedule 2 of the Pine Creek Agreement.

Considerable regulation was necessary throughout the season to secure proper distribution. The flow was sufficient to provide full allotments from May 17 through June 17. On June 30, the ranchers began drying their lands for haying, and about 20 second-feet were diverted into Dorris Reservoir rather than allow this water to go to waste. On July 12 this diversion to the reservoir was greatly reduced.

The average percentages of allotments delivered from Pine Creek are presented in the following tabulation:

Month	Percent of allotments delivered or available	
	First priority	Second priority
April	100	25
May	100	91
June	100	92
July	99	27
August	75	0
September	65	0

Hot Springs Valley

Distribution of Pit River water was made in accordance with the allotments set forth in Schedule 2 and 3 of the Hot Springs Valley Agreement. The distribution of Big Sage Reservoir water was made in accordance with the by-laws of the Hot Springs Valley Irrigation District. As the major part of the water from both these sources is used by the same parties through the same irrigation system and devices, the method of distribution is similar for both stored water and natural flow. The Godfrey Dam, the use of which is regulated by agreement among parties affected by its operation, was not used in 1957.

Storage in Big Sage Reservoir was about 60,000 acre-feet on October 1, 1956. The winter storms were sufficient to fill the reservoir and a significant amount of water spilled during April, 1957. Capacity of the reservoir is 77,000 acre-feet. Reservoir releases from May 27 to June 29 were mainly for use on lands adjacent to Rattlesnake Creek and lands irrigated from the Kelly Ditch. Increased releases were necessary for the

main portion of Hot Springs Valley on three occasions as shown in Table A-6 and on Plate 3. On September 4 releases were reduced to an amount to supply irrigation and stockwater for the Kelly Ditch.

CHANGES IN OWNERSHIP OF LANDS AND WATER RIGHTS

Changes in ownership of lands and water rights which have occurred subsequent to filing "Statement for South Fork Pit River Watermaster Service Area, Counties of Modoc and Lassen, State of California, for 1957", are listed in the following tabulation:

Tract number	Name of water right owner appearing in 1957 statement	Name of water right owner to appear in 1957 statement	Amount of water per second ft.
7-15	Oakdale Land Co.	Beeson, Somer and Beeson, Georgia	2.98
7-73,7-74	Goularte, Frank	Quigley, Norman and Quigley, Joyce	16.86
7-81	Brown, Donald S. and Brown, LaVeta O.	Quigley, Norman and Quigley, Joyce	6.25
7-37,7-40	Burnister, Arthur H.	Doty, Frank E.	5.10
7-60,7-61, 7-62	Cummings, John O. and Cummings, Irene W.	Callahan, Raymon W. Jr. and Callahan, Pauline C.	5.55
7-50-2, 7-56	Dorris, H. M.	Dorris, H. M. and Dorris, Carol M.	7.85
7-76	Freeman, J.M. et al.	Danuser, Leslie and Danuser, Charles	1.38
7-31	McGarva, John; McGarva, Maude; McGarva, Peter; McGarva, Phyllis	McGarva, Peter B., McGarva, Phyllis and McGarva, Duane	2.20
7-30	McGarva, John; McGarva, Peter B.; and McGarva, Phyllis	McGarva, Peter B., and McGarva, Phyllis	2.60

Tract number	Name of water right owner appearing in 1957 statement	Name of water right owner to appear in 1957 statement	Amount of water per second ft.
7-39	Morgan, J. C.	Morgan, J.C.; Morgan, Carl Jr., and Morgan, John William	1.90
7-12, 7-45, 7-49-1	Taylor, Leroy Sr. and Taylor, Susanne M.	Swanson, Erwin A.	4.69
7-3, 7-4, 7-6, 7-18, 7-21, 7-23, 7-24, 7-22, 7-27-2	Flournoy, Donald F., Flournoy, Robert L. and Flournoy, Warren J.	Flournoy Brothers	47.52
7-26-2	H. C. Cattle Company	Flournoy Brothers	6.10

APPENDIX A

RECORDS OF WATER SUPPLY

TABLE A-1

PRECIPITATION AT ALTURAS AND JESS VALLEY
MODOC COUNTY, CALIFORNIA
1956-1957

In Inches

Month	Alturas		Jess Valley	
	Mean precipitation	1956-1957 precipitation	Mean precipitation	1956-1957 precipitation
October	0.99	2.77	1.43	3.56
November	1.23	0.20	1.91	0.46
December	1.51	1.36	1.91	1.61
January	1.79	0.95	1.91	0.95
February	1.37	1.99	1.90	3.05
March	1.40	2.55	1.89	3.36
April	1.11	1.16	1.66	2.49
May	1.19	2.15	1.93	2.72
June	0.79	0.10	1.52	0.10
July	0.40	0	0.34	0
August	0.22	0	0.25	0
September	0.53	0.95	0.69	1.00
TOTALS	12.53	14.18	17.34	19.30

TABLE A-2

DAILY MEAN DISCHARGE OF SOUTH FORK PIT RIVER NEAR LIKELY
April 1 to September 30, 1957

In Cubic Feet per Second

Day	April	May	June	July	August	September
1	123	270	420	93	172	50
2	111	274	425	87	168	48
3	92	250	441	85	168	48
4	68	252	428	79	168	48
5	62	277	408	74	170	49
6	84	325	395	69	168	49
7	89	368	368	66	142	48
8	89	398	342	63	105	46
9	92	400	322	53	83	47
10	102	385	310	49	80	46
11	111	390	286	46	82	47
12	115	390	261	45	79	45
13	112	368	230	48	74	46
14	115	342	185	53	74	46
15	114	318	203	57	79	47
16	121	305	193	54	113	42
17	115	315	187	52	170	39
18	124	340	187	63	168	50
19	157	444	173	82	168	62
20	224	444	157	96	172	60
21	286	392	148	105	189	57
22	212	342	138	110	189	57
23	193	315	122	106	142	57
24	179	308	113	124	75	56
25	164	315	113	158	75	89
26	157	322	116	168	75	114
27	162	340	110	178	75	114
28	193	368	105	178	67	100
29	235	388	100	176	48	80
30	268	405	98	180	49	90
31	----	418	----	178	50	----
Mean	142	347	236	96	117	59
Runoff, in acre-feet	8,470	21,360	14,050	5,900	7,210	3,520

Total for period - 60,510 acre-feet.

TABLE A-3

DAILY MEAN RELEASES FROM WEST VALLEY RESERVOIR
April 1 to September 30, 1957

In Second-Feet

Day	April	May	June	July	August	September
1	N	N	N	N	132	34
2	O	O	O	O	131	34
3					131	33
4	R	R	R	R	131	32
5	E	E	E	E	130	32
	L	L	L	L		
6	E	E	E	E	129	31
7	A	A	A	A	79	31
8	S	S	S	S	79	30
9	E	E	E	E	59	30
10					58	30
11					58	29
12					57	29
13					57	29
14					56	28
15					55	28
16					90	27
17					150	27
18				23	150	26
19				45	149	36
20				55	149	36
21				54	169	35
22				54	169	35
23				53	168	34
24				53	60	34
25				110	60	33
26				109	59	90
27				134	59	90
28				134	58	89
29				133	35	54
30				133	35	53
31				132	35	
Mean				87	95	39
Release Ac-ft.				2,420	5,820	2,300

Total for period = 10,540 acre-feet

TABLE A-4

DAILY MEAN DISCHARGE OF PINE CREEK NEAR ALTURAS BELOW POWER HOUSE
April 3 to September 26, 1957

In Second-Feet

Day	April	May	June	July	August	September
1		47	97	50	18.4	13.9
2		47	99	47	18.2	13.8
3	24	40	104	46	18.0	13.7
4	24	38	104	45	17.8	13.6
5	25	44	101	43	17.6	13.5
6	25	49	103	43	17.4	13.4
7	24	57	98	42	17.2	13.3
8	24	59	93	41	17.0	13.2
9	25	59	88	40	16.8	13.1
10	25	62	83	38	16.6	13.0
11	25	64	78	36	16.4	13.0
12	25	60	73	34	16.2	13.0
13	25	59	72	33	16.0	13.0
14	24	60	71	31	15.8	13.0
15	26	57	70	30	15.6	13.0
16	26	58	67	28	15.4	13.0
17	24	60	60	27	15.2	13.0
18	28	64	54	26	15.0	12.9
19	46	68	56	25	14.8	12.9
20	54	72	57	24	14.6	12.8
21	43	70	57	23	14.4	12.8
22	32	65	58	22	14.2	12.8
23	37	66	55	21	14.0	12.7
24	29	64	52	20	13.8	12.7
25	21	64	46	19.8	13.7	12.7
26	25	66	45	19.6	13.6	12.6
27	33	69	48	19.4	13.5	
28	28	72	51	19.2	6.9	NO
29	40	76	51	19.0	10.8	
30	45	84	51	18.8	13.0	RECORD
31	---	92	---	18.6	13.9	
Mean	30	62	71	31	15	13
Runoff Ac-ft	1,650	3,790	4,250	1,880	940	670

Total for period - 13,180 acre-feet

TABLE A-5

DAILY MEAN DISCHARGE OF PIT RIVER NEAR CANBY
April 1 to September 30, 1957

In Cubic Feet per Second

Day	April	May	June	July	August	September
1	556	580	652	108	159	52
2	658	628	598	82	117	52
3	736	658	604	85	80	54
4	766	664	616	96	50	57
5	676	634	610	124	72	61
6	580	580	568	155	78	80
7	550	580	517	200	80	152
8	539	610	512	117	75	105
9	500	628	355	127	46	82
10	484	688	276	130	39	78
11	478	718	434	99	41	59
12	473	724	562	88	37	63
13	473	706	495	82	34	61
14	495	652	412	80	41	57
15	473	676	325	82	44	61
16	440	628	315	82	42	88
17	418	568	330	90	39	70
18	407	495	276	82	80	85
19	478	473	249	75	114	78
20	604	712	163	70	70	70
21	772	850	175	70	59	70
22	889	882	130	68	80	72
23	928	960	57	65	80	72
24	974	1,010	54	63	72	75
25	941	986	70	48	90	85
26	790	908	75	41	111	88
27	592	784	75	17	90	88
28	539	658	75	11	108	99
29	522	586	102	17	111	117
30	539	506	124	39	90	141
31	—	568	—	68	63	—
Mean	609	687	327	83	74	79
Runoff, in Ac-ft.	36,240	42,250	19,450	5,080	4,550	4,700

Total for period - 112,270 acre-feet.

TABLE A-6

DAILY MEAN RELEASES FROM BIG SAGE RESERVOIR
May 1 to September 30, 1957

In Second-Feet

Day	May	June	July	August	September
1	N	30	83	28	80
2	O	30	83	28	80
3		30	29	28	80
4		30	29	28	28
5	R	30	29	28	28
	E				
6	L	30	29	28	28
7	E	30	29	28	28
8	A	30	29	28	28
9	S	30	29	28	28
10	E	30	29	28	28
11		30	29	28	28
12		30	29	28	28
13		30	29	28	28
14		30	29	81	27
15		30	29	81	27
16		29	29	28	27
17		29	29	28	27
18		29	29	28	27
19		29	29	28	27
20		29	29	28	27
21		29	29	28	27
22		29	29	28	27
23		29	29	28	26
24		29	29	28	26
25		29	29	28	26
26		29	29	27	26
27	30	29	29	27	26
28	30	29	28	27	26
29	30	83	28	27	26
30	30	83	28	80	25
31	30		28	80	
Mean	30	33	32	35	32
Release Ac-ft.	300	1,970	1,990	2,130	1,920

Total for period - 8,310 acre-feet

PLATE 1

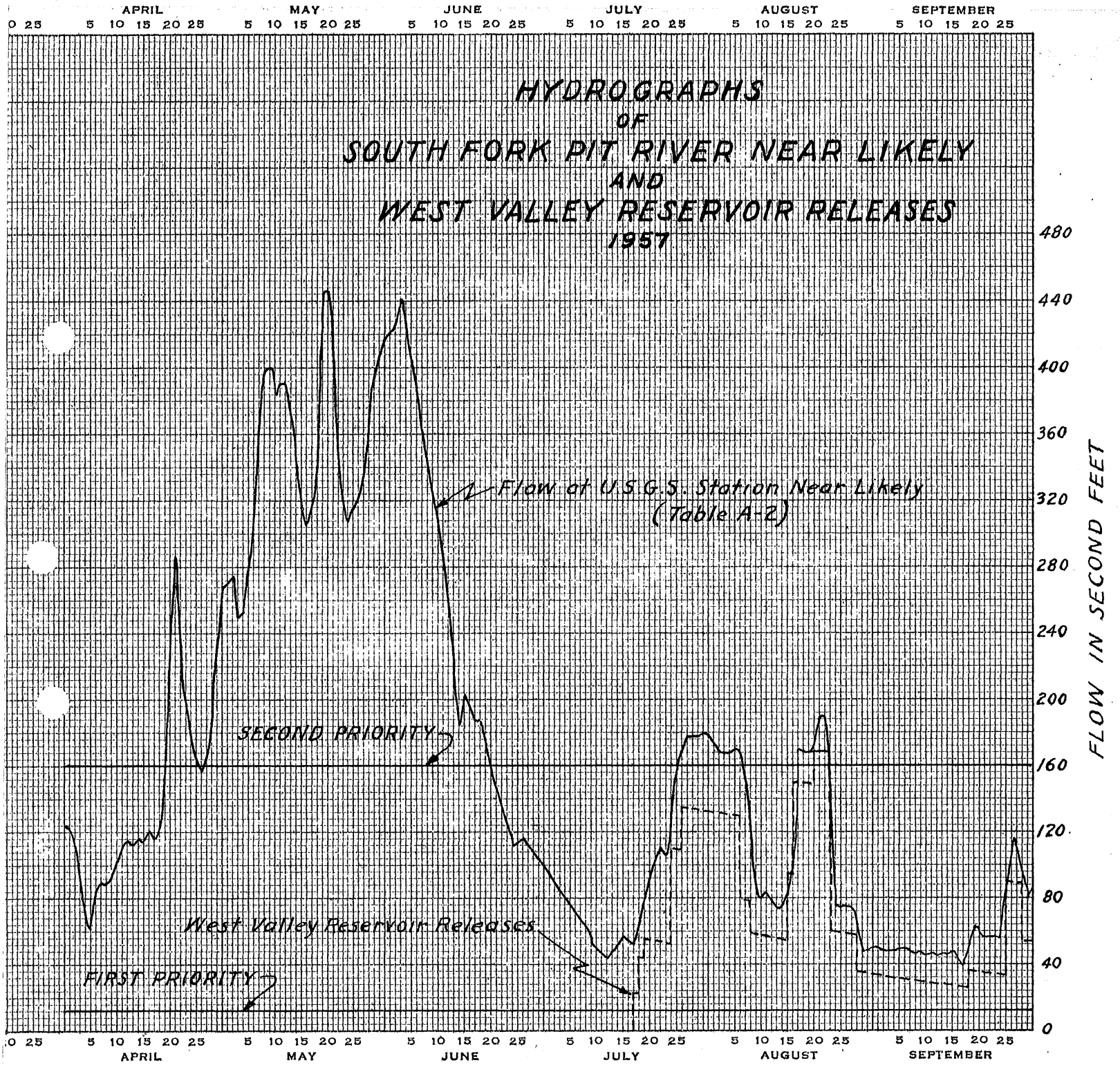

HYDROGRAPHS
OF
SOUTH FORK PIT RIVER NEAR LIKELY
AND
WEST VALLEY RESERVOIR RELEASES
1957
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
0 25 5 10 15 20 25
480
440
400
360
320
280
240
200
160
120
80
40
0
FLOW IN SECOND FEET
Flow at U.S.G.S. Station Near Likely
(Table A-2)
SECOND PRIORITY
West Valley Reservoir Releases
FIRST PRIORITY

PLATE 2

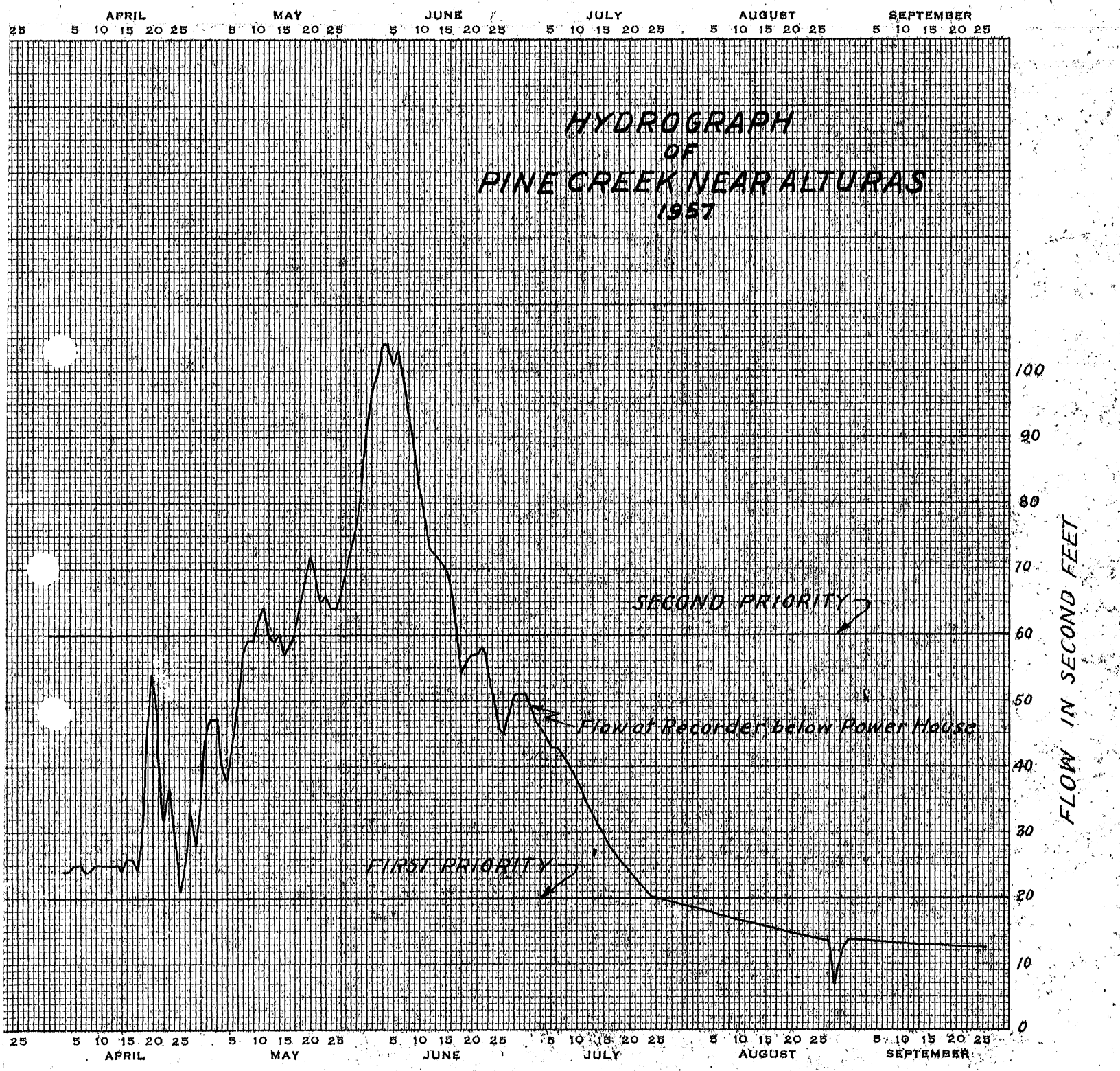

HYDROGRAPH
OF
PINE CREEK NEAR ALTURAS
1957
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
25 5 10 15 20 25
100
90
80
70
60
50
40
30
20
10
0
SECOND PRIORITY
Flow at Recorder below Power House
FIRST PRIORITY
FLOW IN SECOND FEET

PLATE 3

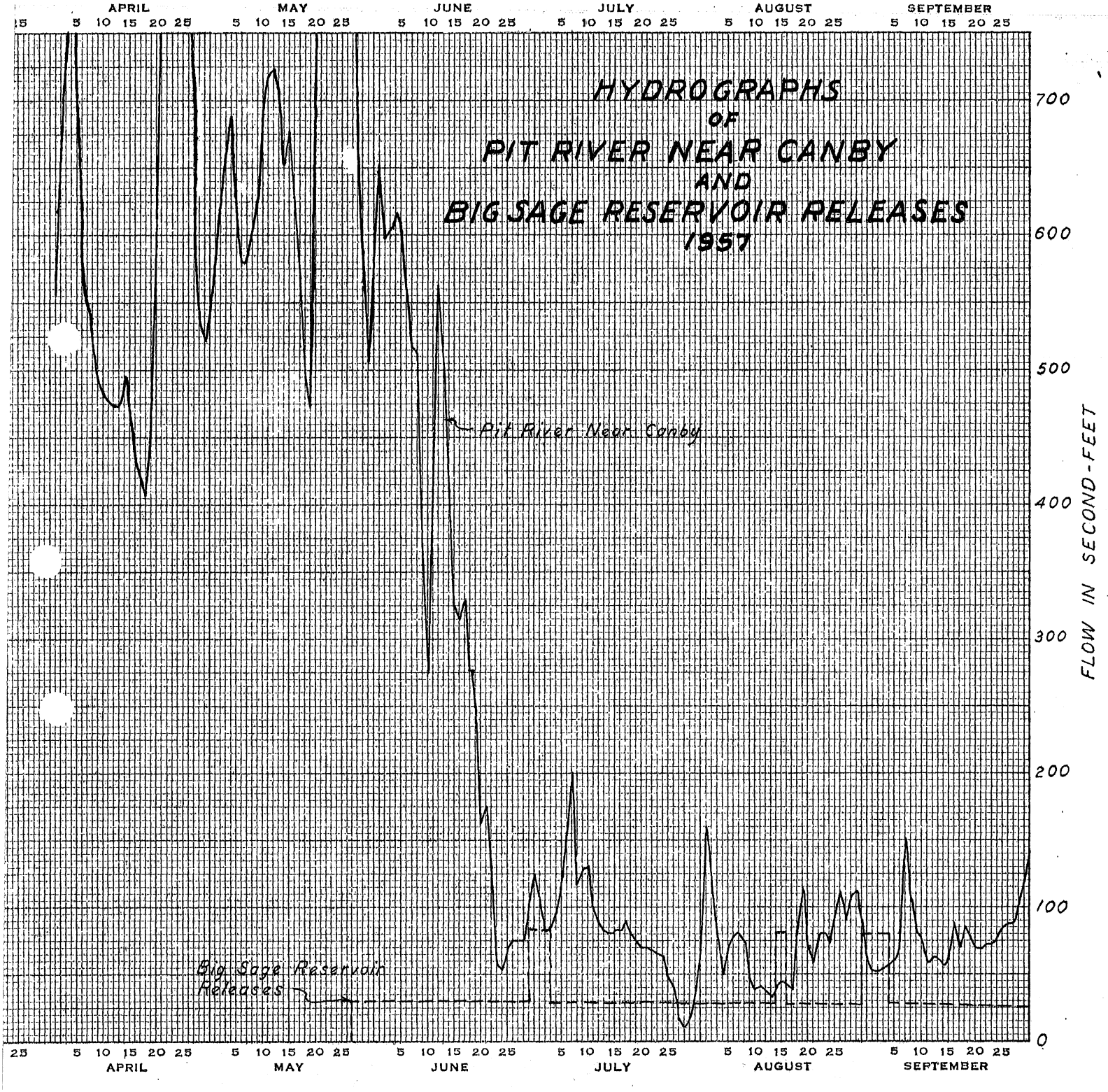
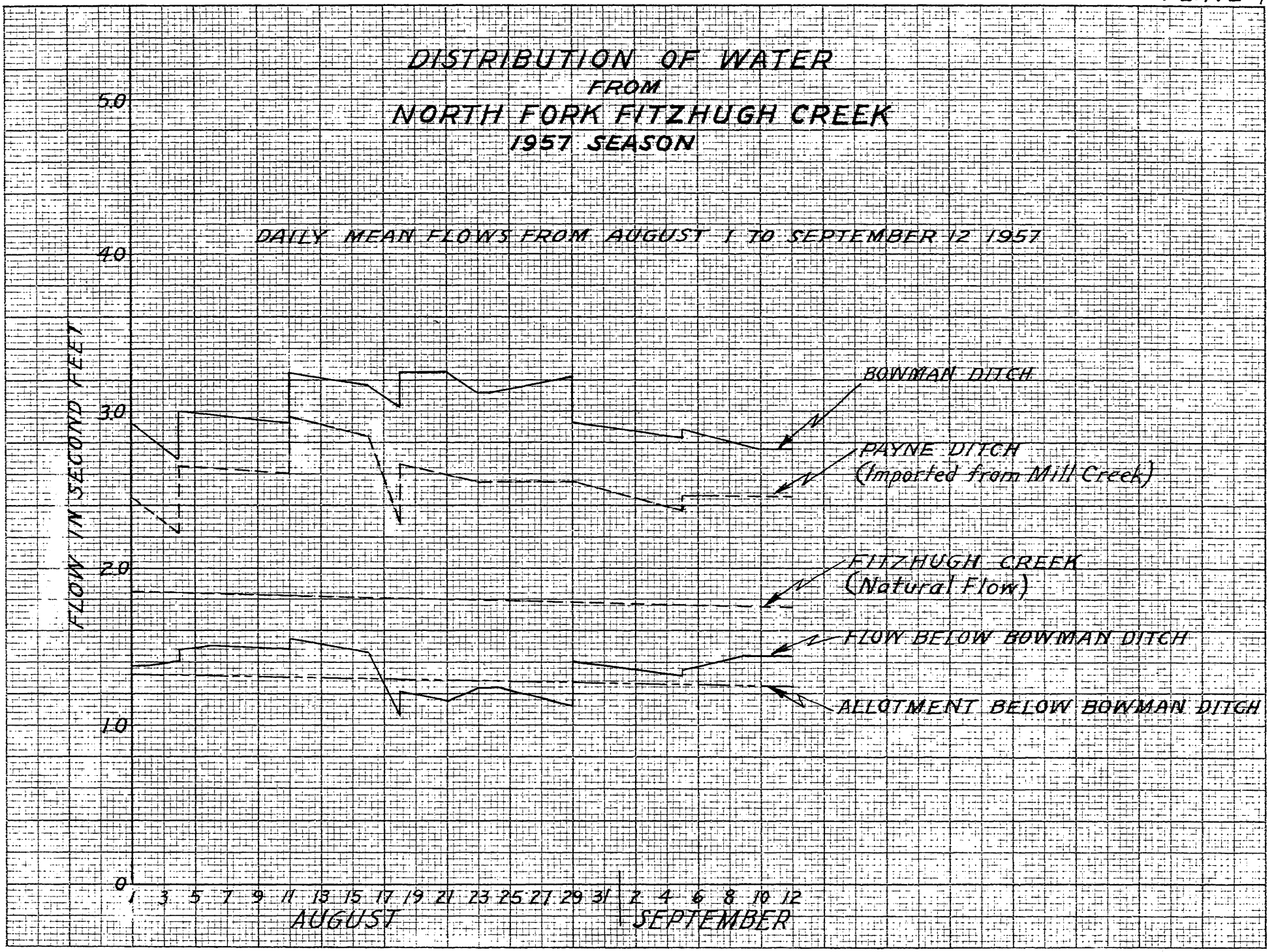

APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
5 10 15 20 25
HYDROGRAPHS
OF
PIT RIVER NEAR CANBY
AND
BIG SAGE RESERVOIR RELEASES
1957
Pit River Near Canby
Big Sage Reservoir Releases
700
600
500
400
300
200
100
0
FLOW IN SECOND-FEET

PLATE 4

DISTRIBUTION OF WATER
FROM
NORTH FORK FITZHUGH CREEK
1957 SEASON

DAILY MEAN FLOWS FROM AUGUST 1 TO SEPTEMBER 12 1957



COPY

WEST VALLEY RESERVOIR CAPACITY TABLE

GAGE HEIGHT Feet	FLOODED AREA Acres	CAPACITY Ac.Ft.	
4727.55	85	0	Elev. outlet lip
28	90	40	
29	100	135	
30	110	240	
31	135	363	
32	165	513	
33	190	690	
34	215	893	
35	240	1120	
36	265	1373	
37	295	1653	
38	320	1960	
39	345	2293	
40	370	2650	
41	400	3035	
42	425	3448	
43	450	3885	
44	480	4350	
45	510	4845	
46	535	5368	
47	560	5915	
48	590	6490	
49	615	7093	
50	640	7720	
51	665	8373	
52	690	9050	
53	715	9753	
54	735	10478	
55	760	11225	
56	785	11998	
57	810	12795	
58	830	13615	
59	855	14457	
60	880	15325	
61	900	16215	
62	915	17123	
62.25	920	17350	Elev. spillway crest
63	936	18050	
64	950	18980	
65	970	19940	
66	990	20920	
67	1010	21920	
68	1025	22940	
69	1045	23970	
70	1060	25000	