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THE RESOURCES AGENCY OF CALIFORNIA

Department of Water Resources

WATERMASTER SERVICE IN NORTHERN CALIFORNIA
1961 SEASON

FEBRUARY 1963

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Administrator
The Resources Agency of California

EDMUND G. BROWN
Governor
State of California

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Department of Water Resources

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THE RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

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CHAPTER I. INTRODUCTION

Watermaster service areas are created and amended where necessary in accordance with Part 4, Division 2 of the Water Code for stream systems where the water rights have been determined by court decree or signed agreement. Distribution of water within these service areas is in accordance with these decrees and agreements.

Watermaster service was provided by the Department of Water Resources in 16 watermaster service areas in Northern California during the 1961 season. The locations of these service areas are shown on Plate 1. Two of these service areas (Middle Fork Feather River and Indian Creek) are in the Delta Branch, and the remaining 14 are in the Northern Branch.

The first watermaster service areas were created in September 1929, and the most recent was created in April 1959. Prior to 1929 there were no provisions for the creation of watermaster service areas, and watermaster service was provided on a year-to-year basis under provisions of the Water Commission Act of 1913. The first such watermaster service was provided on Hat Creek and North Fork Cottonwood Creek during the 1924 irrigation season.

Table 1 presents data on the dates watermaster service areas were created, the decrees or agreements defining the water rights, and other pertinent information on each of the stream systems in the various watermaster service areas.

The department also supervised the distribution of water on all of the stream systems covered in this report, except Cedar Creek in Surprise Valley, prior to the entry of court decrees or recorded agreements defining the water rights. This supervision of distribution was provided by the

TABLE 1

SUPERIOR COURT DECREES REGULATING WATER DISTRIBUTION
AND DATES WATERMASTER SERVICE AREAS CREATED

Watermaster service area	Name of stream system	County	Decree number	Date watermaster service area created	Remarks
Ash Creek	Ash Creek	Modoc* and Lassen	3670	4-3-59	Included as part of Big Valley service area 1949 through 1958.
Big Valley	Pit River	Modoc* and Lassen	6395	11-13-34	Service provided in accordance with recorded agreement in 1934. Service area operated under recorded agreement 1935 through 1958, and under decree since 1959.
Burney Creek	Burney Creek	Shasta	5111	9-11-29	Service provided in accordance with decree since 1926.
Butte Creek	Butte Creek	Butte	18917	1-7-43	
Cow Creek	North Cow Creek	Shasta	5804	10-17-32	
	Oak Run Creek	Shasta	5701	10-17-32	Included in Cow Creek service area 1-21-38.
	Clover Creek	Shasta	6904	1-21-38	
Hat Creek	Hat Creek	Shasta	[5724 [7858	9-11-29	Service provided in accordance with decree since 1924.
Indian Creek	Indian Creek	Plumas	4185	2-19-51	
Middle Fork Feather River	Middle Fork Feather River	Plumas* and Sierra	3095	3-29-40	Service provided in accordance with the decree by order of the court in 1940.
North Fork Cottonwood Creek	North Fork Cottonwood Creek	Shasta	5479	9-11-29	Service provided intermittently in accordance with the decree since 1924.

TABLE 1 (CONTINUED)

SUPERIOR COURT DECREES REGULATING WATER DISTRIBUTION
AND DATES WATERMASTER SERVICE AREAS CREATED (CONTINUED)

Watermaster service area	Name of stream system	County	Decree number	Date watermaster service area created	Remarks
North Fork Pit River	North Fork Pit River and all tributaries except Franklin Creek	Modoc	4074	12-18-39]	These stream systems consolidated into North Fork Pit River service area 12-13-40.
	New Pine Creek	Modoc	2821	6-22-32]	
	Cottonwood Creek	Modoc	2344	12-13-40]	
	Davis Creek	Modoc	2783	7-13-32]	
	Franklin Creek	Modoc	3118	12-14-33]	
Seiad Creek	Seiad Creek	Siskiyou	13774	11-6-50	Service provided in accordance with decree by order of the court in 1950.
Shackleford Creek	Shackleford Creek	Siskiyou	13775	11-6-50	Service provided in accordance with decree by order of the court in 1950.
Shasta River	Shasta River	Siskiyou	7035	3-1-33	
South Fork Pit River	South Fork Pit River	Modoc* and Lassen	3273	12-31-34	
	Pine Creek	Modoc	Agreement	1-12-35	
	Pit River in Hot Springs Valley	Modoc	Agreement	1-12-35	
Surprise Valley	Cedar Creek	Modoc	[1206 [2343	9-11-29	Service started in accordance with the decree in 1926.
	Soldier Creek	Modoc	2405	9-11-29]	Service was provided on Soldier and Owl Creeks in accordance with the decrees by order of the court in 1929.
	Owl Creek	Modoc	2401	9-11-29]	

TABLE 1 (CONTINUED)

SUPERIOR COURT DECREES REGULATING WATER DISTRIBUTION
AND DATES WATERMASTER SERVICE AREAS CREATED (CONTINUED)

Watermaster service area	Name of stream system	County	Decree number	Date watermaster service area created	Remarks
Surprise Valley (Continued)	Emerson Creek	Modoc	2840	4-2-30]	All stream systems in Surprise Valley except Bidwell Creek were consolidated into the Surprise Valley service area on 1-10-39.
	Mill Creek	Modoc	3024	12-30-31]	
	Deep Creek	Modoc	3101	12-29-34]	
	Pine Creek	Modoc	3391	1-13-37]	
	Rader Creek	Modoc	3626	6-12-37]	
	Eagle Creek	Modoc	3284	1-10-39]	
	Bidwell Creek	Modoc	6420	3-16-60	
Susan River	Susan River	Lassen	4573	11-10-41	
	Baxter Creek	Lassen	8174	2-16-56	
	Parker Creek	Lassen	8175	2-16-56	

*Decree entered by the superior court of this county.

department under the provisions of Article 226 of the Water Code in connection with the investigation of water supply and use of water on these stream systems.

Following the creation of each service area, watermaster service has been provided each year therein, and a report prepared annually for each area by the department. Starting with the 1959 season, the activities in all of the service areas have been combined into a single report.

This report is presented in three chapters: Introduction, Water Supply, and Distribution of Water. It covers the distribution of water in watermaster service areas of Northern California during the 1961 irrigation season which extended from March 15 to September 30, 1961. In past reports a fourth chapter was included showing changes in ownership of lands and water rights; however, certain sections of the water code were repealed and amended during the 1961 state legislative session which changed the method of billing and collecting the water users' portion of the cost of watermaster service.

This change provides that the counties levy the apportionments at the same time and in the same manner as county taxes for all property on their tax rolls. The department now bills only agencies not included on the county tax rolls. There were no changes of ownership among these agencies during the 1961 season.

The amendments for billing of watermaster service were made by the Legislature in an effort to provide a more efficient means of collecting apportionments and to simplify payment by incorporating separate assessments with county taxes.

CHAPTER II. WATER SUPPLY

The water supply available for distribution during the 1961 watermaster season was below normal for the third consecutive year in nearly all of the watermaster service areas. This water supply is primarily the unregulated flow of natural streams with only a few areas where stored or foreign water is a significant factor in distribution. For this reason, the major portion of this water supply is available for distribution during the spring months of April, May, and June.

The major factors which affect this runoff are the snowpack, the total precipitation, and the distribution of precipitation.

Table 2 presents data on the snowpack of several representative snow courses obtained from the April 1, 1961, water conditions report of the Department of Water Resources. The snowpack is the source of most of the runoff available during the spring.

Table 3 presents a summary of the precipitation at several representative stations. These seasonal totals give an indication of the total water supply; however, the distribution of the precipitation is also significant. The precipitation during April, May, and June is important, not only because it increases the total supply, but also because the accompanying cold storms retard the snowmelt runoff and reduce the demand for water. This is particularly true in the Modoc County area where the average precipitation during this period is 25 to 30 percent of the season's total.

The monthly distribution of the precipitation for these stations is presented as Appendix A. Table 4 presents the runoff for some representative stations for the period October 1, 1960, through September 30, 1961, as

TABLE 2

GENERAL INFORMATION AND 1961 DATA FOR
REPRESENTATIVE SNOW COURSES

Watermaster service area	Snow course	Elevation in feet	April 1 water content of snow in inches: 50-year computed mean	April 1 water content of snow in inches: 1961	1961 water content in percent of mean
Indian Creek	Mount Deyer	7,400	24.2	23.2	96
North Fork Pit River	Eagle Peak	7,200	16.2	13.1	81
	Blue Lake Ranch	7,300	11.3	7.6	67
	Cedar Pass	7,100	17.0	17.4	102
Middle Fork Feather River	Independence Lake	8,450	41.1	24.6	60
	Yuba Pass	6,700	31.8	18.9	59
Shasta River	Parks Creek	6,900	34.1	42.4	124
	Sweetwater	5,900	14.2	14.3	101
	North Fork Sacramento	6,800	23.4	29.7	127
	Mount Shasta	7,900	49.4	53.6	108
	Little Shasta	6,200	21.4	24.3	114
South Fork Pit River	Cedar Pass	7,100	17.0	17.4	102
	Eagle Peak	7,200	16.2	13.1	81
	Blue Lake Ranch	7,300	11.3	7.6	67
	Adin Mountain	6,350	14.0	12.1	86
Surprise Valley	Eagle Peak	7,200	16.2	13.1	81
	Blue Lake Ranch	7,300	11.3	7.6	67
	Cedar Pass	7,100	17.0	17.4	102
Susan River	Silver Lake	6,450	27.7	26.2	95
	Norvel Flat	5,700	16.5	14.1	85

TABLE 3

SUMMARY OF 1960-61 PRECIPITATION DATA

Station	Mean precipitation	1960-61 precipitation	1960-61 percent of mean
	In inches		
Bieber, Lassen County	16.23	15.75	97
Hat Creek Powerhouse No. 1, Shasta County	17.23	18.48	107
Chico, Butte County	24.22	23.82	98
Redding, Shasta County	37.40	34.17	91
Greenville, Plumas County	40.95	31.41	77
Vinton, Plumas County	10.63	10.65	100
Alturas, Modoc County	12.53	8.81	70
Happy Camp, Siskiyou County	45.77	55.96	122
Fort Jones, Siskiyou County	20.86	22.22	106
Yreka, Siskiyou County	17.22	20.47	119
Jess Valley, Modoc County	16.86	12.86	76
Cedarville, Modoc County	12.37	5.94	48
Susanville Airport, Lassen County	15.31	9.54	62
Sierraville, Sierra County	23.81	14.09	59
Lakeview, Oregon	14.25	12.75	90

TABLE 4

SUMMARY OF 1960-61 RUNOFF DATA

Station	Average annual flow, in acre-feet	1960-61 water year, flow in acre-feet	Percent of average
Pit River near Canby	165,800	41,870	25
Shasta River near Yreka	127,400	105,100	82
Susan River at Susanville	73,840	28,270	38
Hat Creek near Hat Creek	94,840	93,920	99
Butte Creek near Chico	283,100	205,500	73
Middle Fork Feather River near Cleo	199,100	40,530	20

compared to the average. These data give an indication of the overall conditions but do not necessarily show the amounts of water available for distribution during the watermaster season.

Records of streamflow for various stations utilized by the watermasters during the season were obtained from the U. S. Geological Survey, the Surface Water Measurement Units of the Department of Water Resources, and from records kept by the watermasters in the field. These records are presented in Appendix B.

CHAPTER III. DISTRIBUTION OF WATER

The distribution of water is presented in this chapter alphabetically by watermaster service areas. A number of the service areas are made up of several stream systems with different distribution problems. A general discussion of the amount of water available for distribution on each of these stream systems, along with some of the special problems and construction work accomplished on headgates and measuring devices, is presented separately under the service area.

The distribution on each stream system is carried out in accordance with the court decree or agreement defining the water rights for that particular stream system. Data on these decrees are included in Table 1, pages 2, 3, and 4.

Ash Creek Service Area

Distribution of water from Ash Creek during the 1961 season followed the methods and practices initiated in past seasons with little or no modifications. Shortages of both irrigation and stock water occurred on this stream throughout the 1961 season. Irrigation commenced early in April with approximately 70 percent of total allotments available.

Butte Creek water users experienced a severe shortage throughout the irrigation season. By the end of July, there was insufficient water supply to provide stock water to the lower reach of this stream, necessitating pumping from wells by the lower users for stockwatering purposes.

On Willow Creek it was necessary to shut off the Parks Ranch early in April. After the middle of April, there was insufficient water to satisfy second priority rights. By the first of June and for the remainder of the season, water was available for approximately 40 percent of first priority rights.

Big Valley Service Area

The extremely short spring runoff noticeably affected the distribution of water in Big Valley due to its dependence on the return flow from irrigation in the Hot Springs Valley. The first distribution problem occurred about the middle of April when the users in Big Valley installed river dams.

Immediately after the haying season, during the first week in August, it was necessary for the shareholders in the Big Valley Mutual Water Company to release water from Roberts Reservoir to irrigate their lands.

The amounts of water released from Roberts Reservoir to each shareholder in the Big Valley Mutual Water Company are shown in Table 5. Shareholders are entitled to available water in accordance with the number of shares they hold.

TABLE 5

RELEASES OF WATER FROM ROBERTS RESERVOIR--1961

Name of shareholder	Acre-feet of water	Number of shares
Lester Babcock	180	3
Bob Bartel	120	2
Oral Gerig	180	3
Peter Gerig	300	5
Clarence Hawkins	60	1
C. Iest	60	1
Merlin Kennedy	60	1
Ward Kramer	100	2
Cyril Mamath	60	1
Lewis Monchamp	17	1
TOTAL	1,137	20

No water was available for wild-type flood irrigation from the natural flow of the Pit River from August 1 until late in September.

Records of the daily mean discharge of Pit River near Canby, Pit River near Bieber, and the daily mean releases from Roberts Reservoir are presented in Tables B-1, B-2, and B-3 of Appendix B. Precipitation data for the Big Valley area are shown in Table A-2. "Hydrographs of Pit River near Canby and Roberts Reservoir Releases--1961 Season" are shown graphically on Plate 2.

Burney Creek Service Area

The distribution of water from Burney Creek was carried out on a continuous flow basis throughout the season. All the diversions from Burney Creek were in operation except the Cayton Ditch which has been abandoned. The water formerly carried in that ditch is now delivered to the Elling Ranch through the Elling Town Ditch.

The water supply available for distribution, which is determined by addition of all diversions from the creek, was sufficient to supply all allotments until about June 1. The flow then gradually decreased to a low of 30 percent of allotments in July and continued through the end of the season.

Butte Creek Service Area

Foreign water diverted into Butte Creek from the Feather River is diverted into the Parrott Ditch together with the natural flow allotment to that ditch. The foreign water, which passes through DeSabla Reservoir and Powerplant to supply peak power demands, causes wide fluctuations in the flow of Butte Creek, especially when the creek is low. According to the "Memorandum and Order," which was entered on May 10, 1949 by the Superior Court of Butte County, water users below Parrott Dam must be provided their natural flow allotments at all times without undue fluctuation caused by intermittent presence of foreign water. During 1961, this condition was met by regulation of Parrott Dam.

Water stage recorders were maintained on Compton-Entler Ditch, Marybill Ditch, Durham Colony Ditch, Dayton Ditch at Edgar Slough, and Parrott Ditch to aid in the distribution of water from Butte Creek. The Pacific Gas and Electric Company maintains a record of flow of Hendricks Canal. The records of daily mean discharge for the most significant of these stations are presented in Tables B-4 through B-8. Precipitation data for the Chico station, for the Butte Creek area, are shown in Table A-3.

Cow Creek Service Area

Water supply was sufficient to supply all allotments on Cow Creek until the first part of July. At that time allotments were cut to 70 percent, gradually decreasing to a low of 25 percent by the end of the season.

Early in July, it was necessary to shut off the pump diverting water to the Ira J. Thorne Ranch. Water is diverted to this ranch under Application No. 11581, Permit No. 7066.

Cedar Creek. The water supply in Cedar Creek was such that only stock water was available from the middle of July to the end of the season. No water was available to the lower water users after the middle of July.

Clover Creek. Water was available to satisfy 100 percent of allotments until about August 1 when the allotments were reduced to 90 percent. The flow steadily decreased until August 10 when water was available for 70 percent of allotments. Thereafter the flow remained nearly constant.

Oak Run Creek. Sufficient water was available to supply all first and second priority allotments for the entire irrigation season.

Hat Creek Service Area

Rotation of diversions from Hat Creek was initiated on May 1, 1961, commencing with the upper users. One hundred percent of allotments were available until the end of June. At this time the available supply began decreasing steadily until it reached a low for the season in July of

approximately 70 percent. During August and September the flow remained at this level. Construction was started of several concrete diversion dams, metal headgates, and concrete Parshall flumes for the ditches diverting from Hat Creek.

The available supply in Hat Creek was measured at a United States Geological Survey gaging station. Data on daily mean discharges at this station are presented in Table B-13.

Indian Creek Service Area

Distribution of water in the Indian Creek Service Area during the 1961 irrigation season followed the practices of past seasons in accordance with the allotments and priorities set forth in the Indian Creek Decree.

Automatic water stage recorders were operated by the department on Lights Creek and Indian Creek.

Wolf Creek. The water supply of Wolf Creek during the season was sufficient to supply all demands until about the first of June. During the next two months, the water supply gradually diminished and by the end of July, the third priority users were receiving only 30 percent of allotments. The Dee Dodge, Herman Posch, and C. G. Fredrickson Ranches each use pumps to divert their respective allotments during the 1961 season.

Lights Creek and Tributaries. The flow of Lights Creek was adequate to supply all demands until about the middle of May. Thereafter, the flow gradually decreased until the middle of June, when the supply was sufficient to supply only irrigation allotments to the Freeman-Bates and DeFanti-Smith ditches. Close regulation of these diversions was required throughout the remainder of the season. By the end of June, water was available above the county road for only the Freeman-Bates Ditch.

Below the county road, stock water was available for the Peter-Lower Ditch throughout the season.

The Burns diversion was not used during the 1961 season.

Indian Creek in Indian Valley. The water supply of Indian Creek was sufficient to supply all allotments until about the first of June. A more than adequate supply was available to the users below the Mill Race Ditch until the temporary diversion dam for that ditch was installed about the middle of June. The Mill Race Ditch users stopped the leakage through this diversion dam near the end of June, and for the remainder of the season, the downstream diversions were supplied mainly by return flow from the upper ranches.

Middle Fork Feather River Service Area

Automatic water stage recorders were maintained by the department on Little Last Chance Creek near Chilcott, Smithneck Creek above diversions Miller Creek above Forks, and Middle Fork Feather River at Portola. In addition, a recorder was maintained by the watermaster on the Little Truckee Ditch.

The daily mean discharge of Little Last Chance Creek near Chilcoot represents the total water available for distribution from that stream. In the fall of 1958, this station was moved a short distance upstream, to a point above diversion No. 21. It is no longer necessary to adjust the record by the amount of water being diverted into diversion No. 21.

Little Last Chance Creek. The flow of Little Last Chance Creek was sufficient to satisfy first priority rights, and 50 percent of second priority rights until April 5, 1961.

After that date the supply diminished rapidly and by the first of May distribution of water was discontinued.

Smithneck Creek. Water was available to satisfy all demands until April 1, after which a rotation schedule was put into operation on

all three channels below Loyalton. Rotation continued until about June 1 when the entire flow of the creek was required to supply first priority rights above Loyalton.

West Side Canal Group. The West Side Canal Group as defined in Schedule 7 of the decree consists of Hamlin, Miller, and Turner Creeks. The water supply in these streams was sufficient to meet all demands until about May 1, after which, regulation was required on all three creeks and on the West Side Canal. Rotation was practiced on Turner Creek below the highway from May 1 until the latter part of September. Stock water was maintained throughout the Turner Creek channel during the entire season.

Little Truckee Ditch. The Sierra Valley Water Company imported a total of 9,954 acre-feet of water through the Little Truckee Ditch during the period April 3-September 30. Water was distributed to the shareholders in accordance with Schedule 9 of the Middle Fork Feather River Decree.

Pursuant to the order of the District Court of the United States in Decree No. 5597, entered October 24, 1958, the discharge of Little Truckee Ditch is measured at the point of diversion.

North Fork Cottonwood Creek Service Area

Water distribution in this service area involves regulation of Moon Creek, Jerusalem Creek, and the main stream of North Fork Cottonwood Creek. It is customary for the watermaster to check at regular intervals the amount of water released from storage in the Misselbeck Reservoir into North Fork Cottonwood Creek for downstream rediversion. The right to store and release this water is not included in the decree. However, the Happy Valley Water Company, owner of the reservoir, has constructed measuring flumes on North Fork Cottonwood Creek above the reservoir and on Moon Creek, which joins North Fork Cottonwood Creek between Misselbeck Dam and the point

of rediversion. The summation of the flow through these two measuring devices is considered to be the natural flow available for distribution to the North Fork Cottonwood Creek users as shown in the decree.

The water supply during 1961 was sufficient to supply all allotments throughout the season. The daily mean discharge of North Fork Cottonwood Creek near Igo is shown in Table B-16.

North Fork Pit River Service Area

Stream gaging stations equipped with water stage recorders were maintained at a number of points in the North Fork Pit River Service Area during 1961. The location and type of control for each are shown in Table 6.

TABLE 6

RECORDER STATIONS IN NORTH FORK PIT RIVER SERVICE AREA - 1961

Recorder station	Type of Control
New Pine Creek below Schroeder's	rated section
Cottonwood Creek below Larkin Garden Ditch	rated section
Davis Creek at Old Fish Wheel	rated section
Linville Creek at Old Power House	3-foot weir
Franklin Creek above Diversions	4-foot rectangular weir
Joseph Creek below Couch Creek	rated section
Thoms Creek at Cedarville-Alturas Highway	rated section
Gleason Creek near Jones Ranch	3-foot rectangular weir
Parker Creek at Fogarty Ranch	rated section
Shields Creek below Pepperdine Ranch	6-foot weir
Parker Creek above Highway 395	rated section
North Fork Pit River below Thoms Creek	rated section
North Fork Pit River near Alturas	rated section

The records of the daily mean discharge at these stations are presented in Tables B-17 through B-29.

New Pine Creek. The flow was not sufficient to fill allotments until the middle of May. All allotments were then filled until the latter part of June. The flow then steadily decreased until the middle of August when water was available for only first and part of second priority for the remainder of the season.

Cottonwood Creek. The flow of Cottonwood Creek was sufficient to satisfy partial third priority rights until about June 19. Second priority allotments were then partially filled until June 23, after which water was available for only first priority allotments. From August 2 until the end of the season, the water would no longer reach the Vincent diversion No. 4 and was therefore diverted in the Larkin Main Ditch.

Davis Creek. The flow of Davis Creek gradually increased until the first week in June when a high of 70 percent of third priority water was available. Thereafter, the flow decreased through July and August until only first and second priority allotments were filled and continued through the remainder of the season.

Linville Creek. The flow of Linville Creek remained steady and was sufficient to fill approximately 70 percent of first priority water until the middle of June. A gradual decrease in discharge through July and August brought the flow down to a low of 51 percent of first priority allotments which continued for the remainder of the season.

Franklin Creek. The flow of Franklin Creek increased gradually from April until the last week of May when a maximum of 90 percent of third priority water was available. The flow then continually decreased until the end of June when only first and second priority water demands could be met, and continued at this flow for the remainder of the season.

Joseph Creek. The flow in Joseph Creek was sufficient to satisfy third priority allotments until about mid-June, decreasing gradually until about July 5 when water was available for only first priority allotments. By August 1, the water supply was sufficient to satisfy approximately 50 percent of first priority rights.

Thoms Creek. The flow in Thoms Creek was sufficient to meet all rights until June 26, decreasing gradually until July 27 when the water no longer reached the gaging station.

Gleason Creek. The flow of Gleason Creek was sufficient to meet first and second priority rights until June 10. The flow then gradually decreased until the first week of July when the water no longer reached the gaging station.

Parker Creek. The flow in Parker Creek was sufficient to satisfy all rights until June 14. From then until the end of the season, the flow gradually decreased, reaching a low of 100 percent of second priority allotments by the middle of September.

The Dorris Reservoir Ditch from Parker Creek (Diversion 122) was allowed to divert the water allotted to Diversion 142 on the North Fork Pit River until June 7.

North Fork Pit River. The flow in the North Fork Pit River was sufficient to satisfy first and second priority rights until June 8. The flow declined until about July 9, thereafter no first priority water was available above the junction with Parker Creek.

Seiad Creek Service Area

Only four diversions from Seiad Creek were in use during the 1961 season, numbers 3, 7, 10, and 12. For this reason, sufficient water was available to satisfy the demands of these diversions until the first of August. Then the flow gradually decreased to about 50 percent of the rate needed to fully meet these allotments.

Shackleford Creek Service Area

The lower Shackleford Creek and Mill Creek groups had sufficient water to satisfy their third and fourth priority allotments throughout the season. Sufficient water was available to all allotments on Mill Creek throughout the irrigation season.

Early in August, the natural flow in upper Shackleford Creek was supplemented by releases from Cliff Lake.

Shasta River Service Area

Water stage recorders were operated by the watermasters in the Shasta River Watermaster Service Area to facilitate more even water distribution. The locations of these recorders and the type of control of each gaging station is shown in Table 7.

TABLE 7

RECORDER STATIONS IN SHASTA RIVER
WATERMASTER SERVICE AREA - 1961

Recorder station	Type of Control
Shasta River near Edson-Foulke Yreka Ditch	rated section
Shasta River at Edgewood Bridge	rated section
Shasta River near Montague	rated section
Parks Creek above the Edson-Foulke Yreka Ditch	rated section
Little Shasta River above Harp Ditch	rated section
Beaughan Creek below International Paper Company mill pond	2-foot Parshall flume
Carrick Creek at Highway 97	3-foot rectangular weir
Dwinnell Reservoir at outlet tower	
Miller Ditch at head	1-foot Parshall flume
Quigley No. 3 headgate	4-foot rectangular weir
White Mountain Ranch Ditch headgate	4-foot rectangular weir
Montague Water Conservation District bypass canal from Parks Creek	rated section

Dwinnell Reservoir. Deliveries to water right owners below Dwinnell Reservoir are made in accordance with agreements between the district and the several parties that have water rights to the natural flow. The agreements specify the amounts of water to be released to the respective owners in lieu of their natural flow rights. In general, each agreement sets forth the total amount of water in acre-feet, measured at the heads of the respective ditches to which the water right owner may divert, and provides that delivery from the reservoir shall be made upon demand.

Delivery of water to the Montague Water Conservation District commenced on April 13 and continued throughout the season. Natural flow water right owners from Shasta River received their allotments in the amounts shown in Table 8.

TABLE 8

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	Percent of allotment
John W. Taylor	1,200	1,200	100
Marvin Miller and Inez M. Miller	924	924	100
W. W. Valentine, Jr.	596	0	0
K. K. Waters and Emily S. Waters	464	464	100
James Warrne	198	0	0
TOTALS	3,382	2,588	

Beaughan Creek. The discharge of the springs was measured on August 2. The flow at that time was 7.48 cubic feet per second. This amount is sufficient to supply about 90 percent of second priorty allotments.

The International Paper Company diverts practically the entire flow of Beaughan Creek, including the downstream users' share of the water available, for industrial use at its sawmill. After such use, the downstream users' share of the water is returned to the stream below the mill pond.

Carrick Creek. There was sufficient water to supply all allotments until about June 20; thereafter water was regulated to fifth and sixty priority

rights. The seventh priority right received water on occasions, usually during haying, or when some other user was not diverting.

Computed measurements of Carrick Springs consist of the summation of the flow in the two upper ditches and the flow of the creek below the ditches. The measurements made during 1961 are presented in the following tabulation.

TABLE 9
INTERMITTENT MEASUREMENTS ON CARRICK CREEK

Date	Discharge in second-feet
May 25	8.0
June 20	7.3
July 14	7.4
August 14	7.3
September 5	7.4

Parks Creek. Water was available for 100 percent of all priority rights during April and May. Through June, the flow decreased steadily and by the end of July when water was no longer available for the Edson-Foulke Yreka Ditch.

Lower Shasta River. Regulation of the lower portion of the Shasta River began April 17, but it was not necessary to limit the water diverted by the Grenada Irrigation District. The supply remained fairly steady through the end of September.

Little Shasta River. There was sufficient water supply in Little Shasta River until the middle of June. After that, the system was regulated to 100 percent of fifth priority allotments. Thereafter the available water for fifth priority allotments slowly decreased throughout the remainder of the season.

South Fork Pit River Service Area

West Valley Reservoir was regulated in accordance with the bylaws of the South Fork Irrigation District. The amount of water to which each member is entitled is determined by the total amount of water in storage at the beginning of the irrigation season.

Water was diverted by each shareholder in proportion to their natural flow rights to the use of water from South Fork Pit River. The major shareholder in West Valley Reservoir is the Pit River Ranch with a 47.80 percent interest.

Water was released from West Valley Reservoir on June 6 and was continuous thereafter.

Data on the daily mean releases from the reservoir and the daily mean discharge of the South Fork Pit River near Likely as obtained from the United States Geological Survey are presented in Table B-43. Hydrographs of the flow of Pit River near Likely and the releases from West Valley Reservoir are shown on Plate 3.

Pine Creek near Alturas. By the end of June and for the remainder of the season, water was available for only a portion of the first priority rights. A record of the daily mean discharge of Pine Creek near Alturas below Power House is presented in Table B-46.

Pit River and Rattlesnake Creek in Hot Springs Valley and Big Sage Reservoir. The major sources of water for irrigation in Hot Springs Valley are the North and South Forks of Pit River, Big Sage Reservoir, and Rattlesnake Creek. The two forks of the Pit River combine at the upper end of the valley and are joined a short distance below by Rattlesnake Creek. The natural channel of Rattlesnake Creek is used to convey water

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water released from Big Sage Reservoir for irrigation in Hot Springs Valley.

Storage in Big Sage Reservoir was about 37,000 acre-feet at the beginning of the irrigation season. The record of the daily mean discharge of Pit River near Canby is presented in Table B-1.

Surprise Valley Service Area

Bidwell Creek. In general the ranchers in the Bidwell Creek area did not suffer from as severe a water shortage as did those in the rest of Surprise Valley. An extremely cold period in late April reduced the flow to less than 50 percent of first priorities. However, during May and early June the available water supply satisfied all high priorities and in general was fairly adequate for the remaining users.

The construction program which began in the fall of 1960 consisting of numerous concrete diversion dams, headgates and parshall measuring flumes was continued in the spring of 1961 and brought to near completion. It is anticipated that during the 1962 season, the few structures needed will be completed.

The above-mentioned diversion structures and measuring devices have definitely demonstrated their value during the past irrigation season. These structures were of immense assistance to the watermaster and enabled him to maintain adequate control and distribution. As a result, no major problems were encountered.

Mill Creek. Although the total available water supply was approximately 60 percent of normal, extended cold weather in April prevented the snowpack from melting as rapidly as would ordinarily be expected, and as a result provided the ranchers with a fairly constant water supply through May and early June. Therefore, nearly all the

available water supply was used beneficially. Only occasionally did small amounts escape to Upper Alkali Lake.

Because of the above condition, the Mill Creek users enjoyed a far better irrigation season during this third consecutive year of drought than had been anticipated.

During the latter part of July and continuing throughout the remainder of the season, flow in Mill Creek receded to approximately 50 to 75 percent of first priority rights and created many problems in maintaining adequate garden water for the town users and stock water for the larger ranches.

Plans have been made for construction of adequate headgates and measuring devices on the town ditches during the spring of 1962. When this is accomplished, distribution of water during the low flow periods to the multitude of town users will be much improved.

Soldier Creek. Soldier Creek users suffered from an exceptionally low stream runoff. There was no fifth priority water and very little fourth priority water available during the season. Crops throughout the area were generally substandard and in several instances extremely poor.

The available water supply was approximately 58 percent of normal. This condition was further aggravated due to the typically high channel loss throughout the length of the creek's two main branches.

During July, August, and September, initially low flows combined with unseasonably hot weather produced a high rate of evaporation and channel loss which in turn created numerous difficulties in distribution. Rotation of the water could not be agreed upon by the users as all ranchers were desirous of maintaining a continuous flow for stock water.

The lower users entered into an agreement to remove the existing diversion structure at the head of the east and west channels and construct a

reinforced concrete diversion dam with an adjustable rectangular metal weir. This was accomplished in the fall of the year and will be in operation during the 1962 irrigation season.

Pine Creek. There was insufficient runoff to complete a full rotation cycle on Pine Creek. The total available water supply was approximately 64 percent of normal. Due to the accumulative method of distribution on this creek, there were no serious problems.

The water supply in Pine Creek receded to insignificant amounts in early June and ceased to flow by the end of that month. A flash flood in August, which peaked at 100 - 150 cfs for a few hours, washed out a considerable section of earth immediately adjoining the south channel division and measuring structure, necessitating extensive repair work prior to the 1962 irrigation season.

Cedar Creek. Cedar Creek seldom produced more than 25 percent of second priority water and at no time was water available for third priorities. Most ranches suffered heavily from poor crops. One exception was that of the Frank Watson ranch. It is entitled to the first 5.0 cfs in Cedar Creek at all times. Accordingly, this ranch maintained its good production rates.

Deep Creek. The total available water supply in the Deep Creek area, including both major branches, was approximately 50 percent of normal. No third priority water was available. Crops were generally poor.

Owl Creek. The flood control and diversion project completed in 1960 was placed in service at the beginning of the 1961 irrigation season. These works consist of a dam in the main channel of the mouth of the canyon, a 36" x 300' underground pipe leading from the dam to a flume; an 1,800' concrete flume with an elevation drop of 100'; a division box at the end of the flume, and a lateral pipe leading from the aforementioned division box to another division box.

This creek annually deposits vast amounts of sand and gravel along its lower reaches creating widespread damage to the adjoining ranch lands and their irrigation systems. The above-cited project greatly alleviated this erosion problem, and it is anticipated that with a few improvements now under construction in the system, the difficulties encountered during the past season will be satisfactorily overcome.

The total available water supply for Owl Creek users was approximately 71 percent of normal. Due in large measure to the new diversion works, there was, in general, better crop production than would ordinarily be expected in such a dry year.

Rader Creek. The total available water supply of Rader Creek was approximately 66 percent of normal. Distribution of runoff water was accomplished with no difficulties through most of the irrigation season. Crop production was substandard as expected.

Eagle Creek. The total available water supply of Eagle Creek was approximately 67 percent of normal. There were no distribution problems through most of the season.

A new concrete division box and two concrete parshall flumes were constructed in the Gee and Grider Ditches. The old Grider Ditch diversion point was abandoned and combined with the Gee Ditch diversion.

The flow of Eagle Creek raised above the full decreed quantities in only a few instances. Full use was made of the flow available throughout the season.

Emerson Creek. Emerson Creek produced a near record low of 46 percent of the normal available water supply. During an approximate two-week period in mid-May, there was water available to satisfy two-thirds of the second priority decreed rights, resulting in the only adequate irrigation of the season. Throughout the year the creek required a great deal of attention

because of the extreme low flows and the unwillingness of the users to agree on an emergency rotation schedule.

Sam Harris constructed a diversion dam and a Parshall flume, thereby completing the number of such structures required of the major users.

Susan River Service Area

Water supply was low for the third consecutive season in the Susan River service area. The three major reservoirs were empty by July 1, and at no time during the irrigation season were all allotments satisfied. Honey Lake was dry for the second consecutive year. Data on flow of water at various points throughout the service area are presented in Tables B-58 through B-67.

Willow Creek Valley. Irrigation commenced in March and there was insufficient water available to irrigate all acreage under the decree throughout the irrigation season. There has been a problem on Willow Creek for years in getting the allotments for downstream users past the Barron Ranch. The same problem occurred early in the 1961 season, and notice was given to Mr. Barron that it was his responsibility to deliver the downstream allotments off his ranch. This notice was ignored, and it became necessary to give written notice every two weeks as to shortages and overages in the deliveries off the Barron Ranch.

Under the direction of the District Attorney the department gave written notice to Mr. Barron and Mr. Wright, his foreman for the ranch, to deliver a specific quantity of water to the downstream users. This order was also ignored; therefore a complaint was filed against them for disobeying the order of a watermaster.

Trial was held in the local justice court and a jury was requested by the defendants. The defendants were found guilty as charged and the court sentenced Mr. Barron and Mr. Wright to six months probation with the court's direction to obey all lawful orders of the watermaster.

The Willow Creek Canal through the Hanson Cattle Company land was cleaned in the fall of 1961. The aforementioned incidents should facilitate the distribution of water on Willow Creek in the future.

Lower Willow Creek and Susan River below Old Colony Dam. Irrigation in this area commenced in February. The flow gradually diminished until July, reaching a low of about 10 cubic feet per second where it remained until the end of the watermaster season. The California Department of Fish and Game, which has a game refuge on the old Fleming Ranch, had trouble with their wells this past season and were more dependent on their natural rights from Tanner Slough.

Lassen, Gold Run, Hills, and Piute Creeks. Sufficient water was available in Lassen and Holtzclaw Creeks to satisfy first priority rights during April and May. The flow gradually decreased and in August and September only stock water was available.

The water supply of Gold Run Creek was insufficient to fill all rights during the entire irrigation season. The flow decreased from 50 percent of second priority rights in March until all the water was placed in the Satica Ditch in July because it would not reach other diversions. A headgate and Parshall flume were installed by the Satica Brothers in their upper diversion. This was the only diversion used by the ranch in the 1961 season.

The water supply of Hills Creek was sufficient to satisfy about 50 percent of the rights in March. This decreased gradually and only stock water was left in the stream in July. The Emerson and Ridenour Reservoirs were only half filled during the irrigation season. A headgate and a Parshall flume were installed in the Emerson Reservoir Diversion from Hills Creek.

The water supply in Piute Creek was sufficient to meet all demands until June, at which time only stock water was available to all users except the California-Pacific Utilities Company.

Susan River. At the beginning of the irrigation season, the amount of water available in the Susan River was not sufficient to meet all requirements. The irrigation water lasted longer than was expected because of the cold spring. This held the snow runoff until later when it was of more benefit to the crops.

The construction of headgates and measuring devices on the main channel of the Susan River commenced late in the fall of 1961 and will be carried on through the 1962 season.

The Tanner Slough Dam leaks through the foundation making it impossible to regulate the flow of water into Tanner Slough.

There was some dispute on the rights of the Lassen Irrigation District to divert water into Leavitt Lake after it had once been filled. The decision was made that once Leavitt Lake was filled, the third priority rights then had claim to the waters even if Hog Flat and McCoy Reservoirs were not full.

A record of the daily mean discharge of Susan River at Susanville is shown in Table B-58. A hydrograph of the same station is presented on Plate 4, "Hydrographs of Susan River at Susanville and Stored Water Available for Rediversion at Susanville, 1961 Season."

Baxter Creek. There was insufficient water in Baxter Creek to fill all allotments in March, and this condition existed until June when only stock water was available. From July until the end of the season, stock water was available to only first priority water users.

Headgates were constructed on the ditches of the lower users on Baxter Creek from Eddy Garza's diversion downstream. The other diversions should have headgates by the end of the 1962 season.

Parker Creek. There was insufficient water in Parker Creek to fill first priority allotments during March. The supply diminished rapidly with no water passing Highway 395 after early June.

Storage Reservoirs. Releases from McCoy and Hog Flat Reservoirs commenced in May; by July 1, both reservoirs were dry. The Emerson and Ridenour Reservoirs on Hills Creek were only about one-half filled this year but had sufficient storage to supply stock water in July, August, and September when Hills Creek and Gold Run Creek were dry.

APPENDIX A

PRECIPITATION RECORDS

APPENDIX A

PRECIPITATION RECORDS

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TABLE A-1

PRECIPITATION AT BIEBER, LASSEN COUNTY, CALIFORNIA

In inches

Month	Average precipitation	1960-1961 precipitation
October	1.80	0.39
November	1.75	5.33
December	2.21	0.89
January	2.44	1.30
February	2.35	2.37
March	1.86	2.10
April	1.28	0.45
May	1.28	1.60
June	0.41	0.27
July	0.23	T
August	0.14	0.80
September	0.48	0.25
TOTALS	16.23	15.75

TABLE A-2

PRECIPITATION AT HAT CREEK POWERHOUSE NUMBER 1
SHASTA COUNTY, CALIFORNIA

In inches

Month	Average precipitation	1960-1961 precipitation
October	1.30	0.32
November	1.82	5.96
December	2.53	1.46
January	2.45	1.02
February	2.91	2.77
March	1.92	2.70
April	1.55	1.13
May	1.20	1.24
June	0.80	0.98
July	0.16	0.01
August	0.15	0.66
September	0.44	0.23
TOTALS	17.23	18.48

TABLE A-3

PRECIPITATION AT CHICO, BUTTE COUNTY, CALIFORNIA

In inches

Month	Average precipitation	1960-1961 precipitation
October	1.30	0.44
November	2.65	5.44
December	4.50	2.10
January	4.70	5.35
February	4.15	3.70
March	3.21	4.19
April	1.78	0.99
May	0.99	0.66
June	0.41	0.44
July	0.02	0.01
August	0.03	0.10
September	0.48	0.40
TOTALS	24.22	23.82

TABLE A-4

PRECIPITATION AT REDDING, SHASTA COUNTY, CALIFORNIA

In inches

Month	Average precipitation	1960-1961 precipitation
October	2.26	0.39
November	4.06	5.80
December	6.48	8.44
January	7.19	2.90
February	5.99	5.32
March	4.96	5.97
April	2.93	2.00
May	1.83	2.04
June	0.86	0.75
July	0.01	T
August	0.06	0.02
September	0.67	0.54
TOTALS	37.40	34.17

TABLE A-5

PRECIPITATION AT GREENVILLE, PLUMAS COUNTY, CALIFORNIA

In inches

Month	Average precipitation	1960-1961 precipitation
October	2.61	0.42
November	4.81	9.21
December	5.93	2.57
January	8.89	2.40
February	5.44	4.88
March	6.47	5.69
April	2.84	2.25
May	1.71	2.42
June	0.75	0.00
July	0.35	0.00
August	0.21	1.43
September	0.94	0.14
TOTALS	40.95	31.41

TABLE A-6

PRECIPITATION AT VINTON, PLUMAS COUNTY, CALIFORNIA

In inches

Month	Average precipitation	1960-1961 precipitation
October	0.52	0.32
November	1.02	2.06
December	1.88	0.91
January	1.99	0.75
February	1.31	1.24
March	1.14	1.33
April	0.89	0.62
May	0.64	0.68
June	0.83	1.46
July	0.06	0.65
August	0.10	0.37
September	0.25	0.26
TOTALS	10.63	10.65

TABLE A-7

PRECIPITATION AT ALTURAS, MODOC COUNTY, CALIFORNIA

In inches

Month	Average precipitation	1960-1961 precipitation
October	0.99	0.18
November	1.23	2.80
December	1.51	0.51
January	1.79	0.10
February	1.37	1.67
March	1.40	1.30
April	1.11	0.18
May	1.19	0.86
June	0.79	0.26
July	0.40	T
August	0.22	0.74
September	0.53	0.21
TOTALS	12.53	8.81

TABLE A-8

PRECIPITATION AT HAPPY CAMP, SISKIYOU COUNTY, CALIFORNIA

In inches

Month	Average precipitation	1960-1961 precipitation
October	3.40	1.12
November	6.81	11.17
December	8.63	6.27
January	8.05	5.54
February	7.23	10.63
March	5.34	12.84
April	2.63	3.27
May	1.71	3.63
June	0.83	0.40
July	0.35	0.00
August	0.12	0.26
September	0.67	0.83
TOTALS	45.77	55.96

TABLE A-9

PRECIPITATION AT FORT JONES, SISKIYOU COUNTY, CALIFORNIA

In inches

Month	Average precipitation	1960-1961 precipitation
October	1.78	0.34
November	2.88	6.00
December	3.66	2.94
January	3.09	2.12
February	2.83	3.55
March	2.41	3.22
April	1.12	0.51
May	1.24	0.94
June	0.74	0.39
July	0.39	0.06
August	0.29	0.50
September	0.43	1.65
TOTALS	20.86	22.22

TABLE A-10

PRECIPITATION AT YREKA, SISKIYOU COUNTY, CALIFORNIA

In inches

Month	Average precipitation	1960-1961 precipitation
October	1.23	0.35
November	2.39	4.68
December	2.93	2.68
January	2.88	1.37
February	2.36	3.25
March	1.65	2.78
April	1.01	0.83
May	1.03	1.37
June	0.64	1.42
July	0.36	0.11
August	0.26	0.31
September	0.48	1.32
TOTALS	17.22	20.47

TABLE A-11

PRECIPITATION AT JESS VALLEY, MODOC COUNTY, CALIFORNIA

In inches

Month	Average precipitation	1960-1961 precipitation
October	1.31	0.29
November	1.62	3.69
December	1.84	0.67
January	1.91	0.49
February	1.90	2.00
March	1.89	1.57
April	1.66	0.62
May	1.93	1.83
June	1.52	0.33
July	0.34	0.01
August	0.25	1.04
September	0.69	0.32
TOTALS	16.86	12.86

TABLE A-12

PRECIPITATION AT CEDARVILLE, MODOC COUNTY, CALIFORNIA

In inches

Month	Average precipitation	1960-1961 precipitation
October	1.05	0.10
November	1.49	1.69
December	1.55	0.46
January	1.74	0.23
February	1.51	0.76
March	1.46	0.78
April	0.94	0.42
May	1.00	0.38
June	0.74	0.32
July	0.44	0.11
August	0.17	0.59
September	0.48	0.10
TOTALS	12.37	

TABLE A-13

PRECIPITATION AT SUSANVILLE AIRPORT, LASSEN COUNTY, CALIFORNIA

In inches

Month	Average precipitation	1960-1961 precipitation
October	1.02	0.33
November	2.05	2.84
December	2.91	1.00
January	2.51	0.65
February	2.33	1.63
March	1.56	0.95
April	0.85	0.64
May	0.85	0.97
June	0.69	0.31
July	0.16	0.00
August	0.08	0.22
September	0.30	0.00
TOTALS	15.31	9.54

TABLE A-14

PRECIPITATION AT SIERRAVILLE, SIERRA COUNTY, CALIFORNIA

In inches

Month	Average precipitation	1960-1961 precipitation
October	1.38	0.66
November	2.77	3.10
December	3.82	1.59
January	4.97	1.02
February	3.88	2.34
March	2.88	2.00
April	1.65	1.51
May	1.10	1.51
June	0.60	0.00
July	0.24	0.03
August	0.15	0.11
September	0.37	0.22
TOTALS	23.81	14.09

TABLE A-15

PRECIPITATION AT LAKEVIEW, OREGON

In inches

Month	Average precipitation	1960-1961 precipitation
October	1.14	0.14
November	1.43	2.92
December	1.99	1.56
January	1.73	0.83
February	1.61	1.34
March	1.49	1.40
April	1.17	0.43
May	1.45	1.38
June	1.38	1.01
July	0.18	0.01
August	0.16	1.32
September	0.52	0.41
TOTALS	14.25	12.75

APPENDIX B

STREAMFLOW RECORDS

APPENDIX B

STREAMFLOW RECORDS

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TABLE B-1

DAILY MEAN DISCHARGE OF PIT RIVER NEAR CANBY

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	113	12	11	27	1.1	16
2	132	4.5	2.6	29	2.0	16
3	122	2.0	309	63	1.1	15
4	125	4.9	305	103	3.2	15
5	125	11	201	135	2.0	13
6	106	22	177	113	2.8	12
7	63	36	174	56	61	13
8	68	59	109	32	79	17
9	73	113	71	23	56	54
10	68	191	45	16	61	43
11	45	118	38	30	49	29
12	45	24	34	38	32	34
13	47	40	38	34	26	29
14	26	29	49	54	22	27
15	34	16	40	45	19	34
16	38	12	20	47	14	26
17	36	11	41	43	15	26
18	27	13	45	43	19	29
19	24	45	54	49	17	20
20	22	45	38	49	17	19
21	13	41	30	36	17	17
22	19	34	24	19	16	16
23	19	27	27	12	15	17
24	17	24	22	9.7	14	17
25	14	16	19	5.7	6.6	15
26	11	13	15	4.5	15	14
27	14	12	22	3.2	19	13
28	13	15	19	3.6	24	12
29	13	15	17	1.0	22	12
30	12	15	22	1.0	19	13
31		15		1.0	16	
Mean	49.5	33.4	67.3	36.3	22.0	21.1
Runoff acre-feet	2940	2050	4000	2230	1350	1260

Total = 13,830 acre-feet

TABLE B-2

DAILY MEAN DISCHARGE OF PIT RIVER NEAR BIEBER

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	381	6.7	8.7	1.7	0	0.1
2	317	8.3	8.7	1.3	0	.1
3	302	7.1	9.6	3.1	0	.1
4	285	3.1	8.7	1.3	0	.1
5	265	3.4	8.3	.6	0	0
6	246	2.6	7.1	.4	0	0
7	242	3.1	3.1	.3	0	0
8	195	6.7	4.3	.2	0	0
9	162	7.1	7.5	.1	0	0
10	158	9.6	21	.2	0	0
11	145	22	49	.3	0	0
12	68	33	125	.2	0	0
13	63	21	147	.2	.2	0
14	74	32	84	.1	6.3	0
15	58	27	44	11	2.1	0
16	43	27	26	2.8	.4	0
17	42	21	11	.6	.2	0
18	36	32	34	.2	.1	0
19	32	26	28	.2	.1	0
20	14	16	7.1	.1	.1	0
21	8.3	20	2.1	.1	.1	0
22	14	52	.6	.1	.1	0
23	17	45	.5	0	0	0
24	26	26	.4	0	0	0
25	26	16	.3	0	0	0
26	12	12	.4	0	0	0
27	10	9.6	.7	0	0	0
28	10	8.7	.3	0	0	0
29	8.3	6.7	.3	0	0	0
30	6.7	7.9	1.1	0	0	0
31	--	8.7	--	0	.1	--
Mean	109	17.0	21.6	0.81	0.32	0.01
Runoff acre-feet	6,480	1,050	1,290	50	19	0.8

Total = 8,890 acre-feet

TABLE B-3

DAILY MEAN RELEASES FROM ROBERTS RESERVOIR

June 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1					33	
2					32	
3					31	
4					31	
5					31	
6					30	
7					30	
8						
9						
10						
11						
12						
13						
14						
15						
16	No Record	No Record	No Releases	No Releases	No Releases	No Releases
17						
18						
19						
20						
21						
22						
23					21	
24					21	
25					20	
26				35	19.0	
27				35	18.0	
28				35	17.0	
29				35	16.0	
30				35	15.0	
31				34	0	
Mean				35	24	
Runoff Acre-feet				414	723	

Total = 1, 137 acre-feet

TABLE B-4

DAILY MEAN DISCHARGE OF BUTTE CREEK BELOW UPPER COLONY DAM

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1				No Record	7.8	1.4
2					4.5	1.4
3					2.0	1.6
4					2.0	1.6
5				22	2.0	1.6
6				22	1.6	1.6
7				22	1.6	1.6
8				21	1.0	1.6
9				17.0	1.6	1.0
10				17.0	1.0	1.0
11				20	1.0	1.0
12				20	1.6	1.0
13				10	1.6	1.0
14				10	1.6	1.0
15				10	1.4	1.0
16	No Record	No Record	No Record	10	1.0	1.0
17				6.8	1.6	0.8
18				6.2	3.4	0.8
19				5.0	3.4	0.8
20				5.0	2.3	0.8
21				5.2	2.0	0.8
22				7.4	2.0	0.6
23				5.0	2.0	0.6
24				4.0	2.0	0.6
25				1.0	2.0	0.6
26				1.2	2.0	0.6
27				1.2	1.6	0.6
28				1.3	1.6	0.6
29				4.6	1.0	0.6
30				6.2	1.0	0.6
31				9.8	1.0	--
Mean				10.0	2.0	1.0
Runoff acre-feet				536	123	59

Total = 718 acre-feet

TABLE B-5

DAILY MEAN DISCHARGE OF UPPER COLONY DITCH

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	0	28.1	69.7	50.9	44.9	42.0
2	0	41.4	69.1	49.9	44.9	41.1
3	0	44.4	69.1	49.9	43.9	41.1
4	0	41.1	68.5	50.9	43.5	41.5
5	0	44.4	67.9	50.4	43.0	39.6
6	0	44.9	67.9	49.4	43.0	42.0
7	0	45.4	67.9	49.4	43.5	43.5
8	5.5	44.4	67.4	49.4	43.5	43.9
9	9.9	44.4	67.4	49.4	43.0	44.4
10	17.9	48.9	66.2	46.9	42.5	44.9
11	25.4	50.9	66.2	44.9	43.5	43.9
12	25.4	51.5	65.6	44.9	47.9	43.5
13	30.4	51.5	65.1	49.4	46.9	43.0
14	36.9	52.0	60.0	52.0	44.4	42.5
15	39.6	51.5	58.4	52.5	42.5	42.5
16	40.1	50.9	59.5	53.0	43.9	43.9
17	40.1	50.9	58.4	51.5	43.0	47.4
18	41.1	50.9	59.5	51.5	42.0	44.9
19	41.5	50.9	59.0	50.9	42.5	43.9
20	44.9	51.5	59.0	49.9	43.5	37.8
21	41.3	50.9	54.6	46.9	41.5	37.3
22	20.9	51.5	55.6	47.4	40.1	36.0
23	32.9	50.9	57.3	47.9	40.6	35.5
24	27.4	49.9	54.1	47.4	40.6	35.1
25	24.2	49.9	53.5	45.4	40.1	34.2
26	23.8	49.9	51.5	44.9	40.1	30.4
27	23.8	49.9	54.1	43.5	41.5	29.9
28	23.8	48.9	57.3	44.4	41.5	35.1
29	37.3	48.9	54.1	46.4	42.5	39.6
30	46.4	53.5	52.0	44.9	41.5	40.6
31	--	65.6	--	44.4	42.5	--
Mean cfs	30.4	48.7	61.2	48.4	42.8	40.4
Runoff, in acre-feet	1,386	2,990	3,635	2,970	2,629	2,398

Total = 16,008 acre-feet

TABLE B-6

DAILY MEAN DISCHARGE OF DAYTON DITCH AT EDGAR SLOUGH

June 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1			No Rec.	16.4	12.8	14.0
2			21	16.0	12.4	14.0
3			21	15.8	12.4	14.0
4			21	16.2	12.2	14.0
5			21	16.0	12.2	14.0
6			21	16.0	14.0	13.8
7			19.9	16.0	16.0	13.8
8			19.8	16.0	15.6	13.8
9			20	16.0	15.6	13.7
10			21	16.0	15.6	13.7
11			21	16.0	14.7	13.7
12			21	16.0	14.7	13.7
13			21	16.0	14.7	13.7
14			21	16.0	15.0	13.7
15			21	16.0	15.0	13.0
16	No Record	No Record	21	16.2	16.0	13.3
17			22	16.1	15.6	10.9
18			22	16.1	15.8	6.1
19			22	16.0	16.0	
20			22	16.2	16.0	
21			22	16.4	16.0	No Record
22			22	16.2	15.8	
23			22	16.8	14.9	
24			22	16.6	16.4	
25			21	16.2	15.6	
26			21	13.0	14.9	
27			21	13.0	14.8	
28			20	12.4	14.6	
29			18.0	12.8	14.0	
30			15.8	12.2	14.0	
31			--	12.2	14.0	
Mean cfs			20.8	15.4	14.8	13.2
Runoff, in acre-feet			1,197	948	905	469

Total = 3,519 acre-feet

TABLE B-7

DAILY MEAN DISCHARGE OF PARROTT DITCH

April 1 to September 30, ~~1962~~ 1961

In second-feet

Day	April	May	June	July	August	September
1	4.7	173	105	98	77	59
2	4.7	173	96	97	76	55
3	5.0	172	93	97	72	55
4	5.0	172	93	98	70	56
5	5.0	171	92	99	66	50
6	4.7	171	91	100	66	57
7	4.7	161	90	99	68	63
8	4.4	159	93	99	65	65
9	4.1	156	92	98	64	63
10	31	156	97	97	63	63
11	58	159	99	97	57	63
12	32	130	99	102	63	63
13	34	125	99	100	58	63
14	61	122	109	99	55	66
15	70	121	111	98	55	66
16	70	119	113	95	53	68
17	82	116	114	95	53	90
18	89	116	119	94		50
19	89	121	108	93		38
20	90	118	97	91		45
21	122	110	96	94	No Record	45
22	116	102	96	94		45
23	109	102	94	93		45
24	106	110	102	92		44
25	106	109	101	83		44
26	116	109	101	73		49
27	123	109	99	68		49
28	152	108	99	87		44
29	166	103	100	78		38
30	174	102	98	79		38
31	--	103	--	78		--
Mean cfs	67.9	131.6	99.8	92.4	63.5	54.6
Runoff, in acre-feet	4,035	8,076	5,928	5,671	2,138	3,241

Total = 29,089 acre-feet

TABLE B-8

DAILY MEAN DISCHARGE OF HENDRICK CANAL

April 1 to September 30, 1961

In Second-Feet

Day	April	May	June	July	August	September
1	98.9	95.9	98.2	87.4	64.2	45.4
2	101.2	95.9	98.2	89.0	59.5	45.4
3	102.0	96.6	98.2	88.2	59.5	44.9
4	102.0	96.6	98.2	87.4	57.0	49.0
5	89.7	96.6	98.9	87.4	49.6	49.0
6	97.4	98.9	98.2	86.7	50.2	50.8
7	98.2	95.1	98.9	89.0	53.3	58.2
8	98.9	95.1	99.7	88.2	50.2	57.0
9	100.5	100.5	99.7	86.7	47.7	55.7
10	100.5	99.7	100.5	85.9	47.1	55.7
11	98.9	98.2	99.7	89.7	46.5	55.1
12	94.3	96.6	99.7	89.0	47.1	54.5
13	95.1	98.2	98.2	89.0	46.0	53.9
14	102.0	98.9	98.9	92.0	45.4	57.0
15	99.7	98.9	96.6	90.5	44.9	57.0
16	98.2	98.9	95.9	90.5	44.9	59.5
17	99.7	98.2	98.2	91.3	44.9	68.2
18	98.9	98.2	96.6	90.5	47.7	35.1
19	98.2	98.9	93.6	89.7	48.3	31.5
20	98.2	99.7	90.5	89.7	49.0	26.9
21	95.1	98.9	80.5	91.3	47.1	23.7
22	93.6	99.7	78.3	91.3	46.5	22.0
23	86.7	99.7	83.6	89.7	46.0	18.8
24	86.7	101.2	82.1	87.4	45.4	22.0
25	85.9	100.5	85.9	71.6	47.1	23.3
26	85.1	100.5	85.1	66.9	46.0	17.1
27	84.4	99.7	83.6	65.5	46.0	14.6
28	84.4	100.5	85.1	66.2	46.5	15.7
29	85.1	100.5	82.8	65.5	42.7	14.9
30	96.6	98.2	83.6	64.9	47.1	15.7
31	---	93.6	---	63.5	50.8	---
Mean	95.2	98.3	92.9	83.9	48.8	39.9
Runoff acre-feet	5,665	6,047	5,528	5,160	3,003	2,375

Total = 27,778 Acre-feet

TABLE B-9

DAILY MEAN DISCHARGE OF OAK RUN CREEK NEAR OAK RUN

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	24	10	8.6	2.7	3.2	1.9
2	22	9.6	9.4	1.8	3.3	2.4
3	20	8.6	7.2	1.4	2.9	1.8
4	19	7.7	6.6	2.9	2.4	1.1
5	18	7.7	6.5	2.8	2.6	1.2
6	16	9.8	6.5	3.4	2.2	1.3
7	15	9.0	6.2	2.7	2.0	2.0
8	14	8.8	5.9	1.4	1.4	1.8
9	14	9.6	5.8	1.3	1.6	2.4
10	13	11	5.2	1.5	1.6	2.7
11	12	16	4.7	1.7	1.8	2.6
12	12	11	5.3	1.8	2.4	2.6
13	11	9.6	5.2	2.2	2.9	3.0
14	11	8.8	4.7	2.1	2.9	3.1
15	10	8.3	4.5	2.2	2.5	3.3
16	8.5	7.9	3.9	2.2	1.7	5.0
17	7.9	7.7	2.6	1.8	1.7	4.8
18	7.9	7.4	2.8	2.2	3.9	4.4
19	6.2	7.4	2.2	2.7	4.4	4.1
20	7.6	7.6	2.4	2.7	4.1	3.8
21	10	6.8	1.6	2.6	3.4	3.5
22	24	5.9	1.6	2.2	2.0	3.1
23	74	6.1	1.6	2.3	1.3	3.4
24	20	5.9	1.8	2.2	1.7	3.1
25	15	4.1	2.5	1.4	1.5	2.4
26	13	7.6	2.4	1.4	1.4	2.2
27	11	6.8	2.7	1.6	1.2	2.0
28	10	6.4	3.3	1.6	1.2	2.4
29	12	6.6	3.0	1.9	2.5	2.8
30	11	8.6	2.6	2.2	2.2	3.4
31	--	7.2	--	3.4	1.8	--
Mean	15.6	8.24	4.31	2.14	2.31	2.79
Runoff acre-feet	930	507	256	132	142	166

Total = 2,133 acre-feet

TABLE B-10

DAILY MEAN DISCHARGE OF COOK AND BUTCHER DITCH

April 1 to September 30, 1961

In Second-Feet

Day	April	May	June	July	August	September
1	1.5	6.3	9.9	10.4	5.5	4.6
2	0.6	5.2	3.7	10.3	4.6	3.2
3	0.5	4.3	0.1	9.9	2.8	2.4
4	0.5	3.2	1.3	10.0	2.9	2.8
5	0.3	2.5	4.2	9.8	3.9	4.1
6	0.1	6.8	2.8	10.0	4.9	4.2
7	0.1	9.5	1.3	10.0	5.1	2.7
8	0.1	7.1	0.4	10.0	2.5	2.4
9	0.1	6.8	0.1	8.7	3.6	1.6
10	0.1	10.5	0.1	8.2	3.6	1.2
11	0.1	11.8	0.1	8.3	4.2	1.5
12	0.1	12.7	7.4	7.6	4.2	2.8
13	0.1	10.3	10.5	7.2	3.5	2.5
14	0.1	8.5	8.9	6.3	3.1	2.8
15	6.2	7.8	7.1	4.8	1.0	3.3
16	9.2	6.5	5.8	3.3	1.6	4.3
17	9.4	5.5	7.8	4.2	2.4	7.5
18	8.9	5.0	16.7	4.3	3.5	6.6
19	7.5	5.4	16.4	4.5	4.3	6.0
20	6.3	6.2	15.6	5.3	5.7	4.8
21	6.3	5.8	15.6	4.9	5.5	3.6
22	6.3	5.3	15.5	5.8	4.3	3.6
23	6.3	7.3	15.8	4.0	4.0	3.1
24	6.3	13.0	14.7	5.4	2.1	2.3
25	6.3	11.6	13.4	4.8	3.5	2.1
26	6.3	14.8	12.4	4.9	2.4	2.1
27	6.3	14.3	11.8	4.1	2.9	2.0
28	6.3	11.4	11.6	3.1	3.5	3.6
29	6.3	9.7	11.7	3.1	5.1	3.5
30	6.3	12.7	10.3	3.9	6.0	3.8
31	---	12.6	----	4.1	5.5	---
Mean	3.8	8.4	8.4	6.5	3.8	3.4
Runoff acre-feet	226	516	501	398	233	200

Total = 2,074 acre-feet

TABLE B-11

DAILY MEAN DISCHARGE OF MILLVILLE DITCH

April 1 to September 30, 1961

In Second-Feet

Day	April	May	June	July	August	September
1	1.0	5.9	6.2	5.8	4.8	5.5
2	1.0	6.0	6.3	5.8	4.6	5.4
3	1.0	6.2	6.2	5.8	4.3	4.4
4	2.6	6.3	6.1	5.9	3.8	3.3
5	5.5	6.2	6.0	6.2	4.6	3.4
6	5.4	6.4	5.9	6.3	4.8	3.6
7	5.4	6.5	5.9	6.3	4.6	3.9
8	5.3	6.3	5.9	6.2	4.4	4.4
9	5.2	6.3	5.8	6.1	5.2	4.2
10	5.2	6.4	5.9	6.0	4.6	4.2
11	5.6	6.5	6.0	5.8	4.6	4.4
12	6.2	6.4	6.0	5.8	5.0	4.3
13	6.1	6.3	5.9	5.9	4.9	4.2
14	6.1	6.2	5.9	5.9	5.0	4.6
15	6.0	6.2	5.8	5.6	4.7	4.7
16	6.0	6.2	5.7	5.4	4.7	5.4
17	6.0	6.2	5.7	5.4	4.6	5.5
18	6.1	6.2	5.6	5.3	4.4	5.2
19	6.3	6.2	5.6	5.2	4.5	5.0
20	6.1	6.2	5.5	5.2	5.2	5.0
21	6.2	6.2	5.5	5.3	5.2	5.1
22	6.8	6.1	5.5	5.5	5.0	5.0
23	8.5	6.1	5.5	5.5	4.6	5.0
24	7.3	6.1	5.5	5.4	4.5	5.0
25	6.7	6.1	5.4	5.0	4.6	4.9
26	6.2	6.1	5.4	5.2	4.6	4.8
27	6.1	6.1	5.7	4.7	4.6	4.8
28	6.0	6.1	6.0	4.4	5.2	4.8
29	6.0	6.1	6.0	4.6	5.5	4.8
30	5.9	6.2	5.9	5.0	5.5	4.8
31	---	6.1	---	5.2	5.5	---
Mean	5.5	6.2	5.8	5.6	4.8	4.7
Runoff acre-feet	325	382	346	341	294	277

Total = 1,965 acre-feet

TABLE B-12

DAILY MEAN DISCHARGE
of
LITTLE COW CREEK NEAR INGOT

April 1 to September 30, 1961
In second-feet

Day	April	May	June	July	August	September
1	224	144	100	14	7.3	8.7
2	221	134	118	13	7.5	9.0
3	230	126	93	14	7.1	8.4
4	239	119	85	14	7.4	8.4
5	232	116	81	14	7.7	8.2
6	209	134	73	14	8.1	7.7
7	189	125	68	13	8.4	7.4
8	174	108	62	12	8.4	7.0
9	168	112	58	12	9.0	7.1
10	158	147	55	12	8.4	7.4
11	151	268	53	12	8.6	7.3
12	167	151	52	11	8.5	6.9
13	149	127	46	11	7.8	6.8
14	137	115	41	9.3	7.4	7.1
15	130	112	38	8.0	7.2	7.7
16	130	107	34	7.8	7.4	11
17	132	102	32	7.5	7.9	12
18	129	97	30	9.1	8.1	11
19	116	103	27	9.4	8.6	9.3
20	107	108	25	8.8	9.5	8.9
21	113	104	23	8.5	8.5	8.2
22	172	100	23	7.5	8.1	8.1
23	423	91	23	7.8	8.2	8.1
24	296	84	20	7.7	8.0	7.8
25	202	82	18	7.6	8.0	8.1
26	157	103	17	6.9	8.3	8.0
27	136	87	17	6.8	8.4	7.9
28	127	78	16	6.8	8.6	8.0
29	144	75	15	7.4	9.4	7.7
30	143	93	15	7.6	9.2	7.6
31	---	85	--	7.5	9.4	---
Mean	177	114	45.3	9.9	8.2	8.2
Runoff Acre-feet	10,520	7,016	2,694	611	505	490

Total = 21,836 acre-feet

TABLE B-13

DAILY MEAN DISCHARGE OF HAT CREEK NEAR HAT CREEK

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	124	138	175	141	124	119
2	126	134	183	138	124	119
3	130	138	183	136	126	117
4	132	136	190	134	126	113
5	132	134	190	132	126	113
6	130	138	190	132	128	113
7	128	134	196	130	132	113
8	126	136	196	128	138	119
9	126	141	185	126	124	123
10	128	156	190	128	115	123
11	132	147	190	128	115	123
12	138	143	188	128	119	123
13	130	143	193	130	117	121
14	128	147	196	130	117	121
15	130	154	196	128	115	121
16	136	158	196	126	117	123
17	145	161	193	124	115	123
18	147	166	188	123	115	119
19	138	173	180	123	123	117
20	132	180	180	119	123	115
21	132	183	180	117	123	115
22	130	183	175	117	123	113
23	130	178	168	117	123	113
24	128	173	168	117	123	113
25	126	178	166	117	123	113
26	126	180	161	117	123	112
27	126	168	158	117	123	113
28	128	168	154	117	124	117
29	132	170	145	117	124	119
30	134	180	138	123	121	119
31	--	168	--	124	121	--
Mean	131	158	180	125	122	118
Runoff acre-feet	7,800	9,690	10,690	7,700	7,520	6,990

Total = 50,390 acre-feet

TABLE B-14

DAILY MEAN DISCHARGE OF LITTLE LAST CHANCE CREEK NEAR CHILCOOT

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	11.0	6.9	7.9	0.5	0.1	0.4
2	14.0	6.8	11.0	0.6	0.1	0.4
3	15.0	7.5	7.7	1.0	0.1	0.3
4	17.0	7.7	5.3	1.3	0.0	0.3
5	15.0	6.9	3.9	1.0	0.1	0.4
6	13.0	7.0	3.8	0.7	0.1	0.4
7	13.0	6.7	3.3	0.7	0.2	0.4
8	11.0	6.1	3.2	0.5	0.2	0.4
9	12.0	5.6	2.9	0.5	0.3	0.4
10	11.0	6.0	2.6	0.4	0.2	0.4
11	10.0	6.3	2.6	0.4	0.2	0.5
12	10.0	6.8	2.3	0.4	0.3	0.4
13	12.0	6.9	2.1	0.5	0.4	0.5
14	8.4	5.6	1.4	0.4	0.4	0.6
15	7.7	5.1	0.7	0.5	0.2	0.9
16	7.9	4.9	1.2	0.4	0.2	0.5
17	8.1	4.7	1.4	0.4	0.2	1.1
18	8.3	4.5	1.1	0.4	0.2	1.1
19	5.8	4.8	0.8	0.3	0.2	0.9
20	5.6	6.0	0.8	0.2	0.3	0.8
21	6.1	5.0	0.8	0.2	0.3	1.1
22	7.5	4.4	0.6	0.2	0.3	1.2
23	9.3	4.1	0.6	0.2	0.2	0.9
24	9.7	4.2	0.4	0.1	0.3	1.1
25	12.0	3.6	0.7	0.0	0.3	1.0
26	12.0	3.5	0.6	0.0	0.3	0.6
27	9.2	3.5	0.4	0.0	0.4	0.6
28	8.8	3.1	0.4	0.1	0.5	1.1
29	7.3	3.1	0.4	0.1	0.5	1.0
30	7.0	3.1	0.4	0.1	0.5	0.9
31	--	4.1	--	0.1	0.4	--
Mean cfs	10.2	5.3	2.4	0.4	0.3	0.7
Runoff, in acre-feet	604	326	141	24	16	41

Total = 1,152 acre-feet

TABLE B-15

DAILY MEAN DISCHARGE OF LITTLE TRUCKEE DITCH AT HEAD

April 3 to September 30, 1961

In Second-Feet

Day	April	May	June	July	August	September
1	No Record	59	59	19.0	2.2	1.8
2	No Record	59	59	17.0	2.1	1.7
3	3.0	59	59	18.0	2.1	1.6
4	20	59	59	17.0	2.1	1.6
5	40	56	59	15.0	2.0	1.6
6	52	53	59	13.0	2.1	1.6
7	55	51	59	12.0	2.0	1.6
8	45	53	59	11.0	2.3	1.6
9	51	56	59	9.5	2.1	1.7
10	51	56	59	8.5	2.0	1.7
11	52	47	59	7.9	2.1	1.6
12	53	48	59	7.6	1.9	1.5
13	49	53	59	7.0	2.0	1.4
14	49	54	59	5.9	1.9	1.4
15	50	56	59	5.1	1.6	1.4
16	54	56	59	4.5	1.4	1.4
17	55	57	59	4.0	1.5	1.6
18	58	56	59	3.7	1.5	1.9
19	55	56	59	3.5	1.5	1.8
20	52	56	59	3.5	1.6	1.7
21	49	56	59	3.1	1.5	1.6
22	49	58	58	3.0	1.4	1.6
23	49	59	56	3.0	1.5	1.5
24	49	59	51	2.8	1.6	1.5
25	49	59	45	2.8	1.6	1.5
26	47	59	41	2.6	1.6	1.4
27	49	59	36	2.6	1.7	1.4
28	52	59	31	2.4	2.1	1.4
29	55	59	27	2.3	2.1	1.4
30	58	59	23	2.2	1.8	1.4
31	--	59	--	2.2	1.8	--
Mean	48	56	54	7.1	1.8	1.6
Runoff acre-feet	2,673	3,455	3,182	439	112	93

Total = 9,954 Acre-feet

TABLE B-16

DAILY MEAN DISCHARGE
of
NORTH FORK COTTONWOOD CREEK NEAR IGO

April 1 to September 30, 1961
In second-feet

Day	April	May	June	July	August	September
1	233	125	28	16	8.7	9.4
2	232	101	35	12	7.8	9.4
3	225	93	31	13	8.8	7.4
4	217	91	29	12	8.7	8.8
5	209	92	28	16	9.2	8.4
6	184	103	25	16	9.6	8.6
7	158	99	24	17	9.7	7.7
8	130	95	21	17	9.0	8.7
9	122	95	20	15	12	8.4
10	123	95	18	14	9.4	8.5
11	120	79	17	11	8.1	9.6
12	114	77	18	13	10	8.5
13	103	71	18	11	11	8.7
14	100	70	16	16	11	9.3
15	96	65	15	11	11	11
16	94	63	14	10	12	19
17	91	60	13	9.6	12	29
18	87	60	12	10	10	20
19	83	54	14	8.5	11	14
20	113	54	14	9.3	30	13
21	128	50	15	9.6	25	15
22	159	48	15	9.0	24	13
23	156	47	15	9.3	21	13
24	151	34	16	9.0	11	12
25	145	31	16	8.7	7.2	11
26	141	31	15	8.5	8.2	10
27	141	30	15	8.6	10	11
28	135	28	15	8.3	11	11
29	131	29	16	8.1	11	11
30	130	31	16	9.1	9.5	11
31	---	29	---	8.9	9.1	---
Mean	142	65.5	18.8	11.4	11.8	11.5
Runoff Acre-feet	8,432	4,026	1,119	703	726	685

Total = 15,691 acre-feet

TABLE B-17

DAILY MEAN DISCHARGE OF NEW PINE CREEK
BELOW SCHROEDER'S

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	No Record	16.7	32.8	14.8	7.0	3.7
2		15.8	40.3	14.2	6.7	3.7
3		16.2	47.4	15.4	6.7	3.7
4		16.7	44.0	15.4	6.1	3.7
5		15.8	41.1	14.8	6.1	3.7
6		15.8	44.0	14.2	6.1	3.7
7		15.8	45.5	14.2	5.6	3.7
8		15.8	39.8	11.8	5.6	3.7
9		17.1	37.1	11.8	5.1	3.7
10		18.8	34.9	11.4	5.1	
11		18.8	34.9	10.9	5.6	
12	11.0	17.7	34.1	10.9	5.1	
13	11.0	17.1	33.3	10.2	5.1	
14	10.4	18.3	33.3	10.2	4.6	
15	10.4	20.9	30.3	9.9	4.6	
16	11.7	29.9	30.3	9.5	4.6	
17	12.4	27.0	30.3	9.9	4.6	
18	16.2	24.3	29.6	9.5	4.4	
19	14.4	40.3	28.2	9.9	4.4	
20	13.6	40.3	26.7	8.9	4.1	
21	12.4	47.6	26.7	8.6	4.1	No Record
22	12.1	55.0	26.7	8.6	3.9	
23	11.7	40.3	26.0	8.9	3.7	
24	10.7	27.0	26.0	8.6	3.7	
25	11.0	29.9	21.9	8.6	3.9	
26	11.4	32.8	21.9	8.3	3.7	
27	11.4	24.3	18.9	7.7	3.7	
28	12.8	19.5	16.1	7.0	3.7	
29	13.2	20.1	16.1	7.0	3.7	
30	15.3	21.8	14.8	5.6	3.2	
31	---	24.3	---	6.1	3.7	
Mean cfs	12.3	24.6	31.1	10.4	4.8	3.7
Runoff, in acre-feet	462	1,508	1,847	639	293	65.9

Total = 4,815 acre-feet

TABLE B-18

DAILY MEAN DISCHARGE OF COTTONWOOD CREEK
BELOW LARKIN GARDEN DITCH

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	No Record	7.6	10.9	2.0	0.2	0.1
2		6.4	11.3	1.1	0.1	0.1
3		6.7	11.3	1.1	0.1	0.1
4		6.7	11.3	1.3	0.1	0.1
5		6.4	11.6	1.1	0.1	0.1
6		6.1	11.6	1.0	0.1	0.1
7		5.9	11.3	1.0	0.1	0.1
8		6.1	10.6	0.8	0.1	
9		7.6	10.1	0.6	0.1	
10		9.2	9.5	0.5	0.1	
11		9.2	9.2	0.4	0.1	
12		8.6	8.9	0.3	0.1	
13		8.3	7.6	0.3	0.1	
14		8.6	6.7	0.3	0.1	
15	7.0	8.9	6.4	0.3	0.1	
16	7.6	9.2	6.1	0.3	0.1	No Record
17	9.5	9.5	5.9	0.3	0.1	
18	9.5	9.5	5.6	0.3	0.1	
19	8.6	10.6	5.3	0.3	0.1	
20	6.7	11.3	4.7	0.2	0.1	
21	6.1	11.3	4.2	0.2	0.1	
22	5.6	11.3	4.2	0.2	0.1	
23	5.3	11.3	3.6	0.2	0.1	
24	4.7	11.1	2.8	0.2	0.1	
25	4.2	10.6	2.5	0.2	0.1	
26	4.2	10.6	2.0	0.2	0.1	
27	4.4	9.8	2.0	0.2	0.1	
28	4.7	9.5	1.3	0.2	0.1	
29	5.6	9.2	1.4	0.2	0.1	
30	6.1	9.8	2.5	0.2	0.1	
31	---	9.7	---	0.2	0.1	
Mean cfs	6.2	8.9	6.7	0.5	0.1	0.1
Runoff, in acre-feet	198	548	401	31.1	6.3	1.4

Total = 1,186 acre-feet

TABLE B-19

DAILY MEAN DISCHARGE OF DAVIS CREEK
AT OLD FISH WHEEL

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	No Record	16.5	22.0	8.3	5.5	6.9
2		16.5	25.0	8.3	5.5	6.9
3		16.5	24.0	8.3	5.5	6.7
4		16.7	25.0	8.0	5.5	6.7
5		16.7	25.0	8.0	5.5	6.7
6		17.0	24.0	8.0	5.5	6.7
7		16.7	24.0	8.0	5.5	6.7
8		16.2	22.0	8.0	5.3	6.7
9		17.0	24.0	8.0	5.3	6.7
10		17.8	19.9	6.5	5.3	6.7
11		18.4	19.5	6.5	5.2	
12		17.8	19.5	6.5	5.2	
13		17.8	18.2	6.3	5.2	
14	16.2	18.2	16.5	6.7	4.8	
15	16.2	19.0	16.2	6.5	4.8	
16	16.4	19.9	15.9	6.3	5.0	No Record
17	17.5	23.0	14.9	6.1	5.2	
18	17.8	22.0	13.5	5.9	5.5	
19	17.5	23.0	13.1	5.9	5.8	
20	16.5	25.0	11.5	5.7	6.0	
21	16.5	25.0	11.1	5.7	6.7	
22	16.5	25.0	10.5	5.7	6.7	
23	15.8	25.0	10.1	5.7	6.7	
24	15.6	25.0	9.8	5.7	6.9	
25	14.6	25.0	9.2	5.5	7.1	
26	14.4	24.0	8.8	5.5	7.1	
27	14.4	22.0	8.6	5.5	7.1	
28	14.4	22.0	8.4	5.5	7.1	
29	16.5	22.0	8.4	5.5	6.9	
30	15.4	22.0	8.4	5.5	7.1	
31	---	22.0	---	5.5	7.1	
Mean cfs	16.0	20.3	16.2	6.6	5.9	6.7
Runoff, in acre-feet	538	1,249	964	386	364	134

Total = 3,635 acre-feet

TABLE B-20

DAILY MEAN DISCHARGE OF LINVILLE CREEK
AT OLD POWER HOUSE

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	No Record	2.5	2.7	2.2	2.0	2.0
2		2.5	2.7	2.2	2.0	2.0
3		2.5	2.7	2.2	2.0	2.0
4		2.5	2.7	2.2	2.0	2.0
5		2.5	2.5	2.2	2.0	2.0
6		2.5	2.5	2.2	2.0	2.0
7		2.5	2.5	2.2	2.0	2.0
8		2.5	2.5	2.2	2.0	2.0
9		2.5	2.5	2.2	2.0	2.0
10		2.5	2.5	2.2	2.0	2.0
11		2.5	2.5	2.1	2.0	No Record
12		2.5	2.5	2.1	2.0	
13		2.5	2.4	2.1	2.0	
14	2.7	2.5	2.2	2.1	2.0	
15	2.5	2.5	2.2	2.1	2.0	
16	2.5	2.5	2.2	2.1	2.0	
17	2.5	2.5	2.2	2.1	2.0	
18	2.5	2.5	2.2	2.1	1.9	
19	2.5	2.5	2.2	2.2	1.9	
20	2.5	2.5	2.2	2.2	1.9	
21	2.5	2.6	2.2	2.2	2.0	
22	2.5	2.7	2.2	2.2	2.0	
23	2.5	2.7	2.2	2.2	2.0	
24	2.5	2.7	2.2	2.2	2.0	
25	2.5	2.7	2.2	2.2	2.0	
26	2.5	2.7	2.2	2.1	2.0	
27	2.5	2.7	2.2	2.1	2.0	
28	2.5	2.7	2.2	2.1	2.0	
29	2.5	2.7	2.2	2.1	2.0	
30	2.5	2.7	2.2	2.1	2.0	
31	---	2.7	---	2.1	2.0	
Mean cfs	2.5	2.6	2.4	2.2	2.0	2.0
Runoff, in acre-feet	84.2	158	140	132	122	39.6

Total = 676 acre-feet

TABLE B-21

DAILY MEAN DISCHARGE OF FRANKLIN CREEK
ABOVE DIVERSIONS

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	No Record	5.3	6.8	2.0	1.8	1.7
2		5.3	6.3	2.0	1.8	1.7
3		5.3	6.3	2.0	1.8	1.7
4		5.6	6.0	2.0	1.8	1.7
5		5.4	5.3	2.0	1.8	1.7
6		5.3	5.3	2.0	1.8	1.7
7		5.3	5.3	2.0	1.8	1.7
8		5.3	5.3	2.0	1.8	1.7
9		5.3	4.9	2.0	1.7	1.7
10		6.8	4.9	2.0	1.7	1.7
11		6.8	4.6	2.0	1.7	
12		6.6	4.6	2.0	1.7	
13	5.1	6.6	4.1	2.0	1.7	
14	5.0	6.6	3.7	2.0	1.7	
15	5.1	6.8	3.7	2.0	1.7	
16	5.6	7.1	3.3	2.0	1.7	
17	6.0	8.1	3.3	2.0	1.7	
18	5.9	9.2	3.1	1.8	1.7	No Record
19	5.4	9.5	2.7	1.8	1.7	
20	4.9	9.2	2.7	1.8	1.7	
21	4.6	9.2	2.4	1.8	1.7	
22	4.3	8.7	2.4	1.8	1.7	
23	4.3	7.8	2.4	1.8	1.7	
24	4.3	7.1	2.3	1.8	1.7	
25	4.2	6.3	2.2	1.8	1.7	
26	3.9	6.0	2.2	1.8	1.7	
27	3.9	5.6	2.0	1.8	1.7	
28	3.9	5.3	2.0	1.8	1.7	
29	4.6	5.3	2.0	1.8	1.7	
30	5.3	6.0	2.0	1.8	1.7	
31	---	6.0	---	1.8	1.7	
Mean cfs	4.8	6.6	3.8	1.9	1.7	1.7
Runoff, in acre-feet	171	405	226	117	106	30.3

Total = 1,055 acre-feet

TABLE B-22

DAILY MEAN DISCHARGE OF JOSEPH CREEK
BELOW COUCH CREEK

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	No Record	3.9	5.9	2.1	1.5	1.3
2		3.9	6.5	2.0	1.3	1.3
3		3.9	6.1	2.0	1.3	1.3
4		3.9	6.1	2.0	1.3	1.3
5		4.2	6.1	1.9	1.3	1.3
6		4.4	5.9	1.9	1.3	1.3
7	7.4	4.2	5.5	1.8	1.3	1.3
8	7.1	3.9	5.5	1.8	1.3	1.3
9	6.9	3.9	5.2	1.8	1.3	1.3
10	6.7	4.3	5.5	1.7	1.3	1.3
11	6.7	4.8	6.5	1.5	1.5	1.3
12	7.1	5.3	6.5	1.5	1.3	1.3
13	6.7	4.8	5.9	1.6	1.3	1.3
14	6.2	4.8	5.5	1.8	1.3	1.3
15	6.2	4.8	5.0	1.6	1.3	1.3
16	6.2	5.0	4.4	1.5	1.3	
17	6.2	5.2	3.9	1.5	1.3	
18	5.8	5.3	3.7	1.3	1.3	
19	5.3	5.5	3.4	1.5	1.3	
20	4.8	5.9	3.3	1.5	1.3	
21	4.6	5.9	3.1	1.5	1.3	No Record
22	4.6	5.9	2.5	1.5	1.3	
23	4.8	5.7	2.5	1.5	1.3	
24	4.6	5.3	2.5	1.5	1.3	
25	4.2	5.3	2.5	1.5	1.3	
26	3.9	4.8	2.5	1.5	1.3	
27	3.9	4.5	2.4	1.5	1.3	
28	3.9	4.4	2.4	1.5	1.3	
29	3.9	3.9	2.4	1.5	1.3	
30	3.8	4.4	2.4	1.5	1.3	
31	--	4.4	--	1.5	1.3	
Mean	5.5	4.7	4.4	1.6	1.3	1.3
Runoff acre-feet	260.4	289.9	260.6	100.6	80.6	38.6

Total = 1,031 acre-feet

TABLE B-23

DAILY MEAN DISCHARGE OF THOMS CREEK
AT CEDARVILLE-ALTURAS HIGHWAY

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1		11.9	13.0	1.9		
2		11.0	13.0	1.9		
3		11.9	11.0	1.9		
4		11.0	10.2	1.9		
5		10.7	9.3	1.9		
6	No Record	11.3	9.0	1.9		
7		11.0	8.1	1.9		
8		13.0	6.4	1.6		
9		13.0	6.1	1.9		
10		13.0	6.0	1.9		
11		13.0	6.1	1.6		
12		14.0	6.3	1.5		
13		15.4	5.8	1.5		
14		16.5	5.2	1.5		
15		16.0	4.4	1.3		
16	20.4	15.0	4.0	1.1	Dry at Recorder	Dry at Recorder
17	23.6	14.0	3.4	1.1		
18	19.1	14.0	3.4	1.0		
19	16.5	14.0	3.4	1.0		
20	14.0	14.0	3.4	1.0		
21	12.7	13.0	3.2	1.0		
22	11.9	11.9	3.0	1.0		
23	11.0	10.5	2.7	1.0		
24	10.8	9.9	2.6	0.9		
25	10.2	8.8	2.6	0.9		
26	9.9	9.7	2.6	0.8		
27	9.9	9.5	2.6	0.5		
28	10.2	8.8	2.2	0.0		
29	11.0	8.8	1.9	Dry		
30	13.0	9.5	1.9			
31	--	9.5	--			
Mean	13.6	12.1	5.4	1.4		
Runoff acre-feet	404	740	322	74.1		

Total = 1,540 acre-feet

TABLE B-24

DAILY MEAN DISCHARGE OF GLEASON CREEK
NEAR JONES RANCH

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1		1.2	0.8	0.2		
2		1.2	1.0	0.2		
3		1.1	1.0	0.2		
4		1.0	1.0	0.2		
5		0.9	0.8	0.2		
6		0.9	0.6	0.2		
7	No Record	0.9	0.7	0.1		
8		0.9	0.6	0.1		
9		0.9	0.6	0.1		
10		0.9	0.6	0.1		
11		0.9	0.5	0.1		
12		0.9	0.5	0.1		
13		1.0	0.4	0.1	No Flow	No Flow
14		1.0	0.3	0.1		
15	1.6	1.0	0.3	0.1		
16	1.6	1.0	0.3	0.1		
17	1.6	1.0	0.3	0.1		
18	1.5	1.0	0.3	0.1		
19	1.4	0.9	0.3	0.1		
20	1.2	0.9	0.3	0.1		
21	1.2	0.9	0.3	0.1		
22	1.2	0.8	0.3	0.1		
23	1.2	0.8	0.3	0.1		
24	1.2	0.7	0.3	0.1		
25	1.1	0.6	0.3	0.1		
26	1.1	0.6	0.2			
27	1.2	0.6	0.2			
28	1.2	0.6	0.2	No Flow		
29	1.2	0.6	0.2			
30	1.2	0.6	0.2			
31	--	0.6	--			
Mean	1.3	0.9	0.5	0.1		
Runoff acre-feet	41.0	53.3	27.1	6.1		

Total = 127.5 acre-feet

TABLE B-25

DAILY MEAN DISCHARGE OF PARKER CREEK
AT FOGARTY RANCH

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1		32.8	35.6	4.8	0.2	2.2
2		30.0	30.0	4.8	0.3	2.3
3		32.1	30.0	4.8	0.3	1.7
4		33.6	30.0	4.8	0.2	1.4
5		33.6	30.0	4.8	1.0	1.4
6	No Record	35.6	33.6	4.8	2.3	1.2
7		35.6	22.0	4.3	1.9	1.2
8		35.6	20.6	3.1	1.0	1.2
9		35.6	20.6	3.0	0.5	
10		39.1	20.6	2.7	1.0	
11		39.1	22.0	2.6	1.7	
12		42.7	22.0	2.6	3.1	
13	39.1	41.2	14.0	2.0	2.3	
14	39.1	41.2	10.2	2.5	2.0	
15	39.1	41.2	9.4	3.1	1.9	
16	41.2	40.5	8.5	3.6	1.7	
17	46.4	36.9	8.5	3.6	1.8	
18	44.2	34.8	8.5	3.6	2.0	
19	41.2	35.0	8.5	1.7	2.0	
20	38.4	35.6	8.5	1.7	2.5	
21	27.4	35.6	7.3	1.9	2.3	No Record
22	25.4	35.6	6.9	2.0	2.0	
23	22.0	34.0	6.9	2.0	1.4	
24	20.6	34.0	6.9	1.4	1.9	
25	18.6	34.0	5.6	0.8	1.9	
26	16.6	25.4	5.1	0.5	1.9	
27	16.0	25.4	5.1	0.5	1.8	
28	27.4	25.4	5.1	1.0	1.9	
29	28.6	25.4	5.1	1.7	2.0	
30	30.0	29.4	4.8	1.4	2.0	
31	--	29.4	--	0.5	2.2	
Mean	31.2	34.4	15.1	2.7	1.6	1.6
Runoff acre-feet	1,111	2,110	895	164	101	24.9

Total = 4,406 acre-feet

TABLE B-26

DAILY MEAN DISCHARGE OF SHIELDS CREEK

[redacted]

BELOW PEPPERDINE RANCH

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1		4.2	3.5	3.2	1.2	1.5
2		4.0	2.5	3.2	1.2	1.8
3		4.4	3.2	2.9	1.4	1.8
4		4.4	3.2	2.9	1.8	1.8
5		4.9	3.7	2.7	2.4	1.8
6		6.4	3.7	2.1	2.4	1.8
7		5.9	3.7	0.7	2.6	1.8
8		4.9	3.7	1.2	2.7	1.8
9		4.0	3.2	1.2	1.8	
10		4.1	2.4	1.2	1.2	
11	No Record	5.3	2.5	0.9	2.2	
12		4.9	3.2	0.9	1.8	
13		3.7	2.4	0.7	0.8	
14		3.7	2.1	1.5	0.7	
15		3.2	2.6	1.8	1.2	
16		3.5	3.2	1.8	1.5	No Record
17		3.7	2.8	1.8	2.4	
18		4.4	1.8	2.0	2.4	
19		4.4	2.9	1.5	2.6	
20		4.9	3.2	1.8	2.6	
21	5.1	4.9	3.2	2.0	2.1	
22	5.3	4.6	2.9	2.0	1.5	
23	5.3	4.6	1.8	1.8	1.8	
24	5.1	4.6	1.8	0.7	2.4	
25	4.4	4.0	1.8	0.7	2.4	
26	4.4	4.0	1.8	0.7	0.7	
27	4.4	2.7	2.9	0.7	0.8	
28	4.2	2.4	2.9	0.8	0.8	
29	3.5	3.2	2.9	0.8	0.8	
30	3.9	3.5	2.9	0.8	1.8	
31	--	4.0	--	1.0	1.2	
Mean	4.6	4.2	2.8	1.5	1.8	1.8
Runoff acre-feet	90.3	260	167	95	105	27.9

Total = 746 acre-feet

TABLE B-27

DAILY MEAN DISCHARGE OF PARKER CREEK
ABOVE HIGHWAY 395

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	No Record	4.8	3.2	3.2	No Record	No Record
2		5.0	4.5	4.3		
3		4.3	4.0	5.6		
4		6.1	3.6	4.8		
5		6.7	3.2	4.8		
6		10.6	2.8	4.8		
7	7.6	12.0	2.6	3.2		
8	9.0	8.7	2.2	1.3		
9	8.7	4.8	2.8	0.8		
10	8.0	5.3	3.0	0.8		
11	7.6	8.7	3.2	0.8		
12	9.4	7.0	4.3	0.6		
13	10.6	4.3	4.3	0.8		
14	7.6	3.8	2.8	0.8		
15	6.7	3.2	3.2	1.1		
16	5.3	2.4	2.6	1.7		
17	4.3	2.2	3.2	2.2		
18	4.3	2.8	2.8	1.3		
19	3.8	2.0	3.2	0.5		
20	5.0	2.8	4.0	0.4		
21	5.6	3.2	3.8	0.2		
22	5.8	2.8	2.6	0.1		
23	6.1	2.2	2.6	0.1		
24	5.8	2.0	2.6	0.1		
25	4.3	1.4	2.6	0.1		
26	2.2	1.7	3.2	0.1		
27	1.3	2.8	3.2	0.1		
28	2.2	2.2	3.2	0.1		
29	3.2	2.2	4.5	0.1		
30	4.3	4.3	4.5	0.1		
31	--	3.6	--	0.1		
Mean	5.8	4.4	3.3	1.5		
Runoff acre-feet	274.6	269.1	194.6	89.1		

Total = 827.4 acre-feet

TABLE B-28

DAILY MEAN DISCHARGE OF NORTH FORK PIT
BELOW THOMS CREEK

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	No Record	14.7	48.8	1.4	1.3	No Record
2		14.7	48.8	1.2	1.1	
3		13.0	37.2	0.9	1.1	
4		11.7	31.3	1.4	1.1	
5		10.1	27.2	0.9	1.3	
6		18.6	24.8	0.9	1.3	
7	42.6	23.0	21.2	0.9	1.1	
8	42.6	23.0	14.5	0.7	1.0	
9	38.9	14.7	14.5	0.4	0.8	
10	35.5	14.7	8.8	0.2	0.7	
11	35.5	27.2	14.5	0.2	0.4	
12	41.6	35.5	18.6	1.5		
13	37.2	33.9	11.1	2.4		
14	31.3	29.0	8.8	2.0		
15	29.0	26.4	7.0	2.0		
16	31.3	24.8	6.4	2.0		
17	35.5	23.0	5.5	2.0		
18	31.3	23.0	4.3	2.0		
19	31.3	20.3	3.6	2.0		
20	26.4	20.3	2.4	2.0		
21	23.0	24.8	1.5	1.7	No Record	
22	22.3	23.0	1.4	1.7		
23	23.0	21.2	2.3	1.5		
24	24.8	17.6	2.1	1.4		
25	22.3	14.5	2.1	1.4		
26	23.6	14.5	2.0	1.3		
27	13.0	16.9	2.0	1.1		
28	11.7	14.5	1.9	1.4		
29	13.0	18.6	1.7	1.4		
30	13.0	35.5	1.5	1.3		
31	--	31.3	--	1.3		
Mean	28.3	21.1	12.6	1.4	1.0	
Runoff acre-feet	1,346	1,315	748	84.2	22.2	

Total = 3,514.9 acre-feet

TABLE B-29

DAILY MEAN DISCHARGE OF NORTH FORK PIT RIVER NEAR ALTURAS

April 1 to September 30, 1961

In second-feet

May	April	May	June	July	August	September
1	59	20	54	0.5	1.0	0.6
2	88	20	70	.3	1.0	.6
3	101	20	53	.4	1.0	.5
4	118	20	39	.4	1.0	.4
5	44	21	24	.4	.8	.4
6	49	30	18	.4	1.0	.4
7	49	26	10	.4	.8	.4
8	44	18	2.1	.5	.8	.4
9	41	17	2.9	.5	.6	.4
10	35	17	4.2	.5	.6	.5
11	31	26	5.8	.6	.8	.5
12	57	30	6.4	.5	.8	.5
13	32	18	6.4	.5	.8	.5
14	27	16	6.4	.6	.8	.5
15	23	19	5.8	.8	.6	.6
16	21	18	3.7	.8	.6	.6
17	23	15	3.3	.8	.8	.8
18	25	4.7	2.9	.8	.8	.8
19	27	1.0	2.9	.8	.8	.6
20	27	2.1	2.9	.8	.8	.4
21	26	5.2	1.0	.5	.8	.3
22	27	9.8	.8	.5	.8	.3
23	27	6.4	.8	.5	.8	.3
24	28	4.7	1.0	.6	.6	.2
25	26	4.2	1.2	.6	.8	.3
26	21	3.3	1.0	.6	.8	.3
27	19	2.9	.6	.8	.8	.3
28	20	3.3	.6	.8	.6	.3
29	20	3.3	.6	.8	.6	.3
30	20	14	.6	1.0	.6	.3
31	--	56	--	1.0	.6	--
Mean	38.5	15.2	11.1	0.61	0.77	0.44
Runoff acre-feet	2,290	936	658	38	48	26

Total = 3,996 acre-feet

TABLE B-30

RALPH EASTLICK DITCH

July 6 to September 30, 1961

In Second-Feet

Day	March	April	May	June	July	August	September
1					No Record	.33	1.23
2						0	1.23
3						0	1.23
4						0	.89
5						0	.89
6					.59	0	.58
7					2.02	0	.89
8					1.61	0	.89
9					1.23	0	.58
10					.89	0	.58
11	No Record	No Record	No Record	No Record	.58	0	.33
12					.12	0	.33
13					.12	0	.12
14					2.93	0	.12
15					2.93	0	.12
16					2.93	0	2.02
17					2.93	0	1.61
18					2.93	0	.89
19					2.93	0	.22
20					2.93	0	
21					2.93	0	No Record
22					2.93	.48	
23					2.93	.89	
24					2.93	.89	
25					2.46	1.61	
26					2.02	2.02	
27					2.02	2.02	
28					1.61	2.02	
29					1.23	1.61	
30					1.23	1.61	
31					1.23	1.23	
Mean					1.87	0.47	0.78
Runoff acre-feet					96	29	29

Total = 159 Acre-feet

SHACKLEFORD DITCH

July 10 to September 30, 1961

In Second-Feet

Day	March	April	May	June	July	August	September
1					No Record	6.84	7.88
2						6.84	7.88
3						6.84	7.88
4						6.84	7.88
5						6.84	7.88
6						6.84	7.88
7						6.84	7.88
8						6.84	7.88
9						6.84	6.84
10					0	7.88	6.84
11	No Record	No Record	No Record	No Record	.09	8.94	6.84
12					.53	10.1	6.84
13					10.1	10.1	6.84
14					11.2	10.1	6.84
15					11.2	10.1	6.84
16					11.2	10.1	6.84
17					11.2	10.1	6.84
18					11.2	10.1	6.84
19					11.2	10.1	6.84
20					11.2	10.1	6.84
21					8.94	10.1	6.84
22					8.94	8.94	6.84
23					8.94	8.94	6.84
24					8.94	8.94	5.86
25					7.88	7.88	5.86
26					7.88	5.86	4.92
27					7.88	5.86	3.08
28					7.88	5.86	No Record
29					6.84	6.84	
30					6.84	8.94	
31					6.84	8.94	
Mean					4.42	5.34	6.87
Runoff acre-feet					193	328	367

Total = 1,225 Acre-feet

TABLE B-32

HOWARD JONES DITCH

July 10 to August 31, 1961

In Second-Feet

Day	March	April	May	June	July	August
1					No Record	.89
2						.58
3						.58
4						.24
5						0
6						0
7						0
8						0
9						.03
10					3.88	.33
11	No Record	No Record	No Record	No Record	5.61	.14
12					5.61	
13					4.47	
14					3.42	
15					2.93	
16					2.93	No Record
17					2.46	
18					1.61	
19					1.61	
20					1.23	
21					2.02	
22					2.93	
23					2.93	
24					2.46	
25					2.02	
26					1.23	
27					1.23	
28					1.23	
29					1.23	
30					1.23	
31					1.23	
Mean					2.35	0.25
Runoff acre-feet					102	6

Total = 116 Acre-feet

TABLE B-33

CAMP DITCH

July 6 to September 30, 1961

In Second-Feet

Day	March	April	May	June	July	August	September
1	No Record	No Record	No Record	No Record	No Record	3.94	2.02
2						3.42	2.46
3						3.42	2.02
4						3.42	2.02
5						4.47	2.02
6					0.86	3.94	2.02
7					3.42	3.94	2.02
8					3.42	3.94	2.02
9					3.42	3.94	2.46
10					3.42	6.83	2.02
11					3.42	6.21	2.02
12					3.42	5.61	2.02
13					2.93	5.61	2.02
14					2.46	5.61	2.02
15					2.46	5.03	2.02
16					1.61	3.94	4.47
17					1.61	3.94	3.94
18					1.23	3.42	2.93
19					1.23	2.93	2.93
20					.89	2.93	2.46
21					1.23	2.46	2.46
22					1.61	2.93	2.46
23					1.61	2.93	1.61
24					1.61	2.93	1.23
25					2.93	2.93	1.23
26					3.94	4.47	.89
27					2.93	5.03	.52
28					2.93	4.47	No Record
29					3.94	3.42	
30					3.42	2.02	
31					3.42	2.02	
Mean					2.51	3.94	1.82
Runoff acre-feet					129	242	111

Total = 486 Acre-feet

TABLE B-34

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

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	No Rec.	82	160	17.0	3.0	3.0
2		78	170	14.0	3.0	3.0
3	129	64	160	14.0	3.0	3.0
4	115	54	160	12.0	3.0	3.0
5	82	48	155	14.0	4.0	4.0
6	61	41	150	17.0	4.0	6.0
7	54	39	145	17.0	4.0	6.0
8	48	46	132	14.0	4.0	6.0
9	53	72	117	12.0	3.0	6.0
10	51	109	103	9.0	5.0	6.0
11	54	82	117	9.0	7.0	6.0
12	61	66	89	9.0	10.0	6.0
13	51	60	89	10.0	10.0	
14	47	69	89	10.0	9.0	
15	50	100	89	9.0	9.0	
16	75	123	72	7.0	7.0	
17	91	142	60	9.0	7.0	
18	77	147	51	7.0	7.0	
19	56	160	45	7.0	5.0	
20	46	162	45	7.0	4.0	
21	43	158	39	7.0	3.0	No Record
22	34	149	34	7.0	3.0	
23	37	145	34	7.0	3.0	
24	34	140	30	9.0	3.0	
25	30	144	26	9.0	3.0	
26	27	138	26	9.0	3.0	
27	27	118	22	9.0	3.0	
28	30	123	20	6.0	3.0	
29	43	129	20	4.0	3.0	
30	57	118	17.0	4.0	3.0	
31	--	118	--	4.0	3.0	
Mean cfs	55.8	104	82.2	9.6	4.6	4.8
Runoff, in acre-feet	3,095	6,384	4,883	592	285	115

Total = 15,354 acre-feet

TABLE B-35

DAILY MEAN DISCHARGE OF SHASTA RIVER AT EDGEWOOD

April 1 to September 30, 1961

In Second-Feet

Day	April	May	June	July	August	September
1	104	82	125	23	4.8	9.2
2	125	76	148	22	5.1	8.7
3	163	70	154	19.0	5.2	8.4
4	178	64	196	16.0	5.5	8.9
5	146	60	169	15.0	6.8	7.7
6	132	68	161	16.0	7.4	7.0
7	114	65	145	15.0	8.1	7.1
8	83	43	135	12.0	9.7	7.7
9	77	94	121	10.0	9.1	8.3
10	71	130	107	9.0	8.5	8.5
11	55	116	120	9.1	8.4	8.7
12	60	95	111	11.0	10.0	8.4
13	54	85	103	14.0	11.0	8.9
14	48	72	107	12.0	9.6	9.0
15	32	62	116	11.0	8.3	9.6
16	35	62	115	10.0	7.1	14.0
17	44	66	108	9.2	7.0	18.0
18	44	74	100	8.7	6.7	21
19	39	90	89	8.6	7.9	20
20	36	107	82	7.4	8.8	18.0
21	140	111	78	7.2	9.3	19.0
22	147	107	75	6.7	7.4	17.0
23	100	97	75	6.6	5.9	17.0
24	76	87	69	6.9	5.2	17.0
25	54	84	53	7.0	4.9	17.0
26	45	84	47	7.7	6.1	16.0
27	36	77	41	7.3	8.1	16.0
28	30	73	37	7.4	9.0	15.0
29	56	77	32	7.2	11.0	16.0
30	69	143	27	6.6	9.4	15.0
31	---	97	---	5.6	9.4	----
Mean	79.8	84.5	102	10.8	7.8	12.7
Runoff acre=feet	4,746	5,193	6,042	663	477	758

Total = 17,879 acre-feet

TABLE B-36

DAILY MEAN DISCHARGE OF SHASTA RIVER AT MONTAGUE BRIDGE

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1		85	175	25	47	62
2		101	190	28	64	51
3		101	325	27	75	44
4		85	300	26	85	64
5		83	275	29	76	82
6		112	250	31	42	82
7		150	225	40	31	110
8		140	210	53	59	90
9		101	195	39	53	100
10		125	195	42	62	64
11	No Record	140	185	49	57	44
12		250	225	57	80	44
13		275	225	47	95	50
14		275	185	37	80	49
15		190	170	32	77	140
16		150	165	36	66	250
17		170	160	45	55	350
18		180	140	44	35	350
19		190	120	42	28	350
20		195	85	44	31	300
21	122	210	71	29	35	300
22	400	195	40	29	33	300
23	500	170	35	28	32	300
24	400	160	27	31	57	300
25	300	145	33	26	49	300
26	200	130	32	22	35	300
27	145	150	28	26	42	300
28	135	160	28	30	120	No Record
29	132	165	26	23	150	
30	104	200	25	33	130	
31	--	250	--	51	90	
Mean cfs	244	162	145	35.5	63.6	181
Runoff, in acre-feet	4,827	9,956	8,603	2,180	3,902	10,050

Total = 39,527 acre-feet

TABLE B-37

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

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	No Flow	20	33	26	8.4	4.3
2		21	34	28	7.7	4.3
3		22	35	27	8.2	4.3
4		22	36	27	9.4	4.3
5		23	32	26	14.6	
6		23	30	25	14.6	4.3
7		24	29	24	12.4	4.3
8	12.7	24	28	23	11.9	4.3
9	18.4	28	28	23	11.4	4.3
10	15.8	27	27	21	11.1	4.3
11	21	19.1	27	21	10.9	4.3
12	22	19.1	27	21	10.6	4.3
13	21	19.1	27	22	10.3	4.3
14	20	22	27	26	9.6	4.3
15	20	28	28	23	8.4	4.3
16	22	29	29	21	7.5	4.1
17	23	28	28	20	7.1	4.1
18	23	31	28	19.4	6.5	4.1
19	21	32	26	18.8	6.2	4.3
20	20	33	26	18.8	6.5	4.1
21	12.4	33	26	18.8	6.2	3.8
22	No Flow	32	27	18.4	5.6	3.3
23		31	28	18.4	5.2	
24	13.8	30	31	17.8	4.9	
25	22	30	32	16.9	4.9	
26	27	30	31	14.9	4.7	No Record
27	30	29	29	13.5	4.7	
28	30	30	30	13.2	4.7	
29	24	31	30	13.2	4.9	
30	16.9	33	27	12.9	4.5	
31	--	32	--	10.0	4.5	
Mean cfs	14.5	26.9	29.2	20.3	8.0	4.2
Runoff, in acre-feet	863	1,653	1,734	1,245	491	183

Total = 6,169 acre-feet

TABLE B-38

DAILY MEAN DISCHARGE OF YREKA DITCH NORTH OF PARKS CREEK

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	4.0	46	57	35	9.0	4.2
2	4.0	46	59	35	8.3	4.2
3	5.4	45	57	33	8.5	4.8
4	4.5	43	58	31	8.8	5.2
5	4.3	42	58	30	11.3	6.1
6	4.0	41	57	28	11.7	6.1
7	10.7	41	56	27	11.5	6.1
8	25	48	55	26	10.7	6.1
9	28	50	53	24	10.3	6.1
10	29	51	51	23	9.7	6.1
11	45	46	52	22	9.7	6.1
12	41	46	50	24	10.7	
13	37	44	51	29	11.2	
14	35	48	51	26	10.2	
15	41	55	51	23	9.5	
16	50	57	50	22	8.8	No Record
17	51	58	49	21	8.5	
18	50	58	46	19.0	8.0	
19	42	58	45	18.0	7.8	
20	45	58	45	17.0	7.8	
21	40	57	48	15.7	7.5	
22	21	57	46	15.7	7.2	
23	21	56	45	16.2	6.5	
24	28	54	47	15.2	5.7	
25	35	54	48	14.0	5.0	
26	40	53	44	12.8	4.8	
27	44	52	39	12.0	4.3	
28	46	52	38	11.5	4.2	
29	45	52	40	10.5	4.8	
30	43	54	37	10.2	4.3	
31	--	53	--	10.0	4.2	
Mean cfs	30.6	50.8	49.4	21.2	8.1	5.6
Runoff, in acre-feet	1,820	3,118	2,936	1,301	495	133

Total = 9,803 acre-feet

TABLE B-39

DAILY MEAN STORAGE IN DWINNELL RESERVOIR

April 1 to September 30, 1961

In acre-feet

Day	April	May	June	July	August	September
1	26,300	26,500	24,550	22,650	15,000	9,000
2	26,450	26,400	24,650	22,400	14,850	8,850
3	26,600	26,300	24,800	22,150	14,700	8,700
4	26,750	26,200	25,000	21,900	14,500	8,500
5	26,900	26,150	25,150	21,600	14,200	8,400
6	27,100	26,100	25,250	21,250	14,000	8,250
7	27,200	26,050	25,250	21,000	13,800	8,100
8	27,250	26,000	25,100	20,750	13,550	8,000
9	27,250	25,950	25,150	20,500	13,300	7,850
10	27,250	25,900	25,150	20,250	13,100	7,700
11	27,250	25,850	25,150	20,000	12,800	7,550
12	27,250	25,850	25,250	19,750	12,650	7,450
13	27,250	25,850	25,250	19,550	12,400	7,350
14	27,200	25,850	25,300	19,350	12,200	7,200
15	27,100	25,800	25,300	19,150	12,000	7,100
16	26,950	25,750	25,300	18,850	11,700	7,000
17	26,850	25,650	25,250	18,550	11,550	6,950
18	26,750	25,500	25,150	18,300	11,400	6,950
19	26,650	25,400	25,000	18,050	11,250	6,900
20	26,550	25,250	24,900	17,850	11,100	6,900
21	26,350	25,150	24,750	17,500	10,950	6,900
22	26,650	25,100	24,550	17,300	10,800	6,800
23	26,750	25,000	24,400	17,050	10,600	6,750
24	26,800	24,850	24,200	16,800	10,400	6,700
25	26,800	24,700	24,000	16,500	10,200	6,650
26	26,800	24,550	23,850	16,200	10,000	6,650
27	26,800	24,400	23,650	15,900	9,850	6,600
28	26,650	24,250	23,350	15,600	9,650	6,600
29	26,600	24,100	23,100	15,400	9,500	6,550
30	26,550	24,200	22,850	15,250	9,350	6,500
31	--	24,400	--	15,100	9,200	--

TABLE B-40

DAILY MEAN RELEASES FROM DWINNELL RESERVOIR

April 12 to October 8, 1961

In Second-Feet

Day	April	May	June	July	August	September	October
1	No Record	22	16	76	13.1	61	13
2		50	5.3	76	24	61	16
3		50	12.5	76	52	60	21
4		41	12.6	78	72	60	23
5		52	26	78	76	56	25
6		53	26	84	76	53	25
7		49	38	85	70	53	25
8		50	42	85	75	53	6.2
9		51	41	84	75	52	
10		50	43	84	75	52	
11		43	42	84	75	52	
12	3.0	45	42	82	75	49	
13	5.7	50	3.0	79	75	42	
14	11.2	47	6.4	77	78	41	
15	11.2	53	6.7	76	78	41	
16	15.0	58	50	75	77	33	No Record
17	37	63	50	73	71	19.0	
18	40	78	54	75	60	12.0	
19	49	80	72	79	49	12.0	
20	60	80	72	78	53	12.0	
21	47	80	71	78	57	12.0	
22	2.4	80	71	82	59	12.0	
23	2.4	80	73	81	64	12.0	
24	3.9	80	72	82	63	14.8	
25	3.3	80	71	81	67	18.0	
26	3.2	80	70	81	67	18.0	
27	12.7	81	73	81	67	16.0	
28	35	81	77	84	68	15.0	
29	26	79	74	84	65	12.5	
30	7.7	32	74	84	63	13.5	
31	----	6.8	--	19.7	65	----	
Mean	20	59	46	78	65	34	19
Runoff Acre-feet	744	3,614	2,744	4,796	3,968	2,016	305

Total = 18,187 acre-feet

TABLE B-41

DAILY MEAN DISCHARGE OF SHASTA RIVER WATER ASSOCIATION PUMPING PLANT

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	No Flow	40	40	40	40	40
2		No Flow				
3			No Flow		No Flow	
4		40				
5	32	39	40		40	
6	40	34	8.6		38	
7		34	28		33	
8		34	40	No Flow	40	No Flow
9		39	40			
10		40	40			
11		15.0	39			
12	No Flow	0.0	34			
13		0.0	38		No Flow	
14		0.0	40			
15		40				40
16						16.7
17		No Flow				0.0
18				40		
19	40	40		37		
20	38	39	No Flow	27		
21	31	40				
22	0.0					No Flow
23	No Flow				40	
24					22	
25	0.0	No Flow		No Flow	27	
26	40		40		No Flow	
27		No Flow	35	No Flow		
28	No Flow		40		27	
29			40		33	0.0
30	40		40		39	25
31	--	40	--	27	40	--
Mean cfs	28.7	34.6	38.1	34.9	37.2	21.4
Runoff, in acre-feet	1,705	2,126	2,261	2,140	2,283	1,269

Total = 11,784 acre-feet

TABLE B-42

DAILY MEAN DISCHARGE OF GRENADA IRRIGATION DISTRICT

April 1 to September 30, 1961

In Second-Feet

Day	April	May	June	July	August	September
1	0	39	35	39	0	35
2	0	39	35	39	0	35
3	0	39	35	39	0	35
4	0	39	35	39	19	35
5	0	39	35	39	35	35
6	0	39	26	37	35	35
7	20	39	24	24	35	35
8	24	39	24	24	35	35
9	24	39	24	30	35	35
10	35	39	24	35	35	35
11	39	27	22	35	32	35
12	39	24	0	35	20	35
13	39	24	0	35	22	35
14	39	24	0	35	35	25
15	39	24	0	35	35	0
16	39	20	0	35	35	0
17	39	0	0	35	35	0
18	39	0	0	35	35	0
19	39	0	17	35	35	0
20	35	0	24	35	35	0
21	0	10	27	35	35	0
22	0	24	35	35	35	0
23	0	31	35	35	35	0
24	0	35	23	35	35	0
25	36	35	25	35	35	0
26	39	35	35	35	35	0
27	39	35	37	35	12	0
28	39	35	39	35	0	0
29	39	35	39	23	0	0
30	39	35	39	0	22	0
31	--	35	--	0	35	--
Mean	24	28	23	32	27	16
Runoff Acre-feet	1,426	1,738	1,374	1,976	1,637	950

Total = 9,101 Acre-feet

TABLE B-43

DAILY MEAN DISCHARGE OF SOUTH FORK PIT RIVER NEAR LIKELY

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	10	85	95	60	152	14
2	13	83	70	60	152	14
3	23	83	85	60	148	14
4	44	93	90	60	142	15
5	47	102	95	60	106	15
6	45	135	85	60	82	14
7	44	131	80	55	80	14
8	42	113	75	55	80	17
9	44	115	70	55	76	22
10	45	120	60	64	53	21
11	41	106	60	63	48	20
12	54	82	65	64	41	22
13	45	74	55	65	38	22
14	37	73	50	76	33	14
15	41	78	50	86	31	9.7
16	56	77	45	85	31	9.7
17	79	78	40	83	30	10
18	75	118	40	82	30	12
19	60	146	35	80	30	13
20	49	145	60	80	24	12
21	46	150	75	79	16	12
22	41	150	70	79	15	11
23	40	150	70	101	14	11
24	41	110	65	187	13	12
25	34	90	60	187	13	14
26	40	90	50	185	14	26
27	65	80	40	183	14	35
28	68	95	55	158	14	19
29	72	110	65	127	14	22
30	77	125	65	154	14	25
31	--	105	--	152	14	--
Mean cfs	47.3	106	64	95	50.4	16.4
Runoff, in acre-feet	2,810	6,530	3,810	5,840	3,100	975

Total = 23,065 acre-feet

TABLE B-44

DAILY MEAN DISCHARGE OF SOUTH FORK PIT RIVER NEAR JESS VALLEY

April 1 to September 30, 1961

In Second-Feet

Day	April	May	June	July	August	September
1	11.0	55	89	15.0	6.6	6.7
2	15.0	52	65	13.0	7.8	6.4
3	25	52	82	14.0	7.1	6.8
4	45	55	84	15.0	6.5	7.0
5	43	58	87	14.0	6.6	6.9
6	42	95	79	14.0	7.3	6.5
7	42	87	77	14.0	8.9	6.0
8	39	72	68	16.0	10.0	6.1
9	43	74	63	15.0	9.6	6.2
10	42	79	56	13.0	8.3	4.7
11	40	85	55	12.0	11.0	4.1
12	51	81	60	12.0	14.0	5.4
13	41	73	53	13.0	12.0	5.6
14	35	74	47	13.0	8.5	4.9
15	40	79	44	12.0	7.6	5.1
16	56	78	41	11.0	7.2	5.8
17	80	79	38	10.0	7.1	6.0
18	74	84	36	9.5	6.7	8.0
19	57	89	33	8.9	7.4	8.1
20	48	89	26	9.1	8.0	7.4
21	45	95	21	9.1	7.2	7.3
22	41	96	21	8.8	6.6	6.7
23	39	93	21	8.9	5.4	6.8
24	41	87	19.0	9.2	4.8	7.0
25	34	86	18.0	9.5	5.2	8.4
26	32	85	19.0	10.0	6.0	11.0
27	35	79	18.0	8.9	6.7	12.0
28	39	77	17.0	8.1	6.3	9.6
29	43	87	16.0	5.2	6.4	9.4
30	48	102	15.0	4.4	6.2	9.6
31	---	94	----	4.4	6.4	---
Mean	42.2	79.7	45.6	11.0	7.6	7.1
Runoff acre-feet	2,511	4,901	2,713	674	467	420

Total = 11,686 acre-feet

TABLE B-45

DAILY MEAN RELEASES FROM WEST VALLEY RESERVOIR

April 1 to September 30, 1961

In Second-Feet

Day	April	May	June	July	August	September
1		27		47	57	8.0
2		27		47	57	8.0
3		27		47	56	8.0
4		44		46	56	8.0
5		43		46	56	19.0
6		43		46	55	18.0
7		43		46	55	17.0
8		42		45	55	17.0
9		42		45	54	16.0
10		41		58	54	8.0
11	No Releases	40	No Releases	58	38	8.0
12		40		58	38	8.0
13		40		58	37	8.0
14		40		76	37	8.0
15		40		76	36	8.0
16		40		75	36	8.0
17		40		75	36	8.0
18		40		74	35	8.0
19		38		74	34	8.0
20		38	51	74	34	8.0
21		38	50	73	33	8.0
22		37	50	73	32	8.0
23		37	50	158	32	8.0
24		37	50	156	8	8.0
25		37	49	155	8	8.0
26		37	0	154	8	8.0
27	28	37	22	154	8	8.0
28	28	20	38	86	8	8.0
29	28	20	48	57	8	8.0
30	27	19	48	57	8	8.0
31		18	-	57	8	-
Mean	27.7	35.9	41.4	75.8	34.6	9.6
Runoff acre-feet	220	2202	903	4655	2122	568

Total = 10,670 acre-feet

TABLE B-46

DAILY MEAN DISCHARGE OF PINE CREEK NEAR ALTURAS

April 1 to September 30, 1961

In Second-Feet

Day	April	May	June	July	August	September
1	13.0	20	42	18.0	9.4	7.7
2	14.0	18.0	37	17.0	9.2	8.0
3	16.0	20	34	17.0	8.7	7.5
4	16.0	19.0	32	16.0	8.7	7.5
5	14.0	18.0	32	15.0	9.4	7.2
6	13.0	18.0	33	14.0	9.6	7.2
7	13.0	17.0	35	13.0	9.5	7.2
8	13.0	17.0	35	13.0	9.1	7.0
9	13.0	19.0	35	12.0	8.8	7.1
10	13.0	21	38	12.0	7.3	7.0
11	14.0	20	40	12.0	11.0	6.8
12	15.0	19.0	38	12.0	11.0	6.2
13	14.0	18.0	37	12.0	7.6	6.2
14	14.0	19.0	36	12.0	7.5	6.1
15	14.0	22	35	11.0	7.3	6.3
16	15.0	23	35	11.0	6.7	7.1
17	18.0	25	35	11.0	6.5	7.4
18	18.0	25	33	11.0	6.3	7.9
19	16.0	28	33	11.0	7.2	6.8
20	15.0	30	32	11.0	7.3	6.7
21	14.0	34	30	11.0	7.4	6.5
22	14.0	38	30	11.0	7.2	6.6
23	13.0	39	29	9.7	6.6	6.5
24	14.0	41	27	10.0	6.8	6.2
25	13.0	42	26	10.0	6.6	6.1
26	13.0	41	24	9.8	6.6	6.3
27	14.0	41	22	9.6	6.8	6.2
28	16.0	41	21	9.3	7.2	6.1
29	17.0	41	20	9.5	7.2	6.3
30	18.0	41	19.0	9.0	6.7	6.0
31	---	41	---	9.5	7.8	---
Mean	14.6	27.6	31.8	11.9	7.9	6.8
Runoff acre-feet	867	1,698	1,894	733	486	404

Total = 6,082 acre-feet

TABLE B-47

DAILY MEAN DISCHARGE OF BIDWELL CREEK NEAR FORT BIDWELL

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	24	30	51	11.0	4.6	3.4
2	36	30	52	11.0	4.2	3.6
3	46	31	53	11.0	4.1	3.6
4	42	30	55	11.0	4.1	3.6
5	36	27	55	10.0	4.8	3.4
6	31	27	55	9.3	5.2	3.3
7	29	23	52	9.1	4.4	2.9
8	28	24	50	8.3	4.3	2.9
9	27	29	48	7.7	3.6	3.1
10	28	33	45	7.7	3.7	3.0
11	31	33	46	7.1	3.7	2.9
12	36	30	46	7.2	4.1	2.9
13	31	29	40	7.0	3.9	2.7
14	26	34	37	6.8	3.9	2.7
15	28	37	34	6.2	3.5	2.6
16	36	37	34	5.9	3.2	2.9
17	43	42	30	6.4	3.1	3.4
18	41	45	29	5.8	3.2	4.4
19	35	47	27	5.8	3.1	3.0
20	30	55	24	5.7	3.9	2.6
21	24	57	24	5.7	3.9	2.8
22	23	55	22	5.1	3.4	2.8
23	21	51	19.0	5.8	3.1	3.0
24	17.0	51	19.0	5.2	2.7	2.8
25	17.0	51	18.0	5.3	3.3	2.6
26	17.0	52	16.0	5.2	3.4	2.6
27	19.0	50	14.0	4.6	3.1	2.6
28	24	46	14.0	4.8	4.0	2.4
29	28	46	14.0	4.7	3.7	2.6
30	31	48	12.0	5.2	3.5	2.6
31	--	45	-	4.8	3.2	
Mean	29.5	39.5	34.5	7.0	3.7	3.0
Runoff acre-feet	1755	2430	2053	429	230	178

Total = 7,075 acre-feet

TABLE B-48

DAILY MEAN DISCHARGE OF MILL CREEK, SURPRISE VALLEY

March 24 to September 30, 1961

In second-feet

Day	March	April	May	June	July	August	September
1		8.0	17	28	6.0	1.8	1.6
2		9.7	16	31	5.0	1.7	1.7
3		10	16	35	5.0	1.7	1.8
4		12	16	34	6.0	1.7	1.8
5		11	16	31	5.5	2.0	1.7
6		10	18	29	5.0	2.2	1.7
7		10	21	28	4.5	2.5	1.6
8		9.5	16	24	4.3	2.5	1.6
9		9.1	16	23	3.8	2.2	1.6
10		9.0	24	20	3.6	1.9	1.7
11		9.0	28	19	3.5	1.7	1.7
12		12	18	19	3.0	2.0	1.6
13		10	15	17	2.5	1.9	1.6
14		10	15	17	2.7	1.8	1.6
15		13	16	20	2.5	1.8	1.6
16		14	17	19	2.5	1.7	1.8
17		14	18	19	2.4	1.7	2.3
18		13	21	17	2.4	1.6	2.6
19		12	23	16	2.4	1.6	2.5
20		12	42	12	2.3	1.8	2.2
21		9.0	42	11	2.2	1.7	2.0
22		9.0	40	11	2.1	1.6	2.0
23		10	35	10	2.0	1.5	1.9
24	6.5	8.5	32	8.5	1.9	1.4	2.2
25	8.5	8.5	29	8.0	1.9	1.5	2.2
26	7.5	8.5	29	7.5	1.8	1.7	2.1
27	7.5	8.5	25	6.5	1.8	1.7	2.3
28	6.0	9.0	23	6.3	1.9	1.9	2.0
29	6.7	9.5	21	6.0	1.9	1.9	2.0
30	5.9	14	21	6.0	1.8	1.8	2.0
31	6.6	---	22	---	1.8	1.6	---
Mean	6.9	10	23	18	3.1	1.8	1.9
Runoff acre-feet	109	618	1,404	1,069	190	111	114

Total = 3,615 acre-feet

TABLE B-49

DAILY MEAN DISCHARGE OF SOLDIER CREEK, SURPRISE VALLEY

March 19 to September 30, 1961

In second-feet

Day	March	April	May	June	July	August	September
1		7.1	9.6	10	2.4	1.5	2.1
2		13	9.2	13	2.4	1.4	2.1
3		21	9.6	11	2.3	1.5	2.0
4		14	8.9	11	2.3	1.5	2.0
5		13	7.6	10	2.2	1.5	2.0
6		13	9.2	9.0	2.1	1.4	1.9
7		11	9.6	8.5	2.0	15.0	1.9
8		11	13	7.8	1.8	3.0	1.9
9		12	14	7.3	1.8	3.0	1.9
10		14	16	7.3	1.8	2.5	1.9
11		17	12	6.8	1.8	2.5	2.0
12		15	13	6.6	1.8	2.5	2.0
13		11	11	5.5	1.7	2.5	2.0
14		9.6	14	4.3	1.6	2.4	2.0
15		16	13	4.0	1.5	2.4	2.0
16		23	14	3.9	1.5	2.2	2.5
17		28	16	3.7	1.5	2.2	2.5
18		16	17	3.7	1.5	2.0	2.3
19	4.3	9.2	17	3.7	1.5	2.0	2.1
20	4.8	7.9	25	3.4	1.6	2.0	2.1
21	5.3	7.6	24	3.4	1.6	2.0	2.2
22	6.5	6.9	21	3.4	1.6	1.9	2.5
23	6.9	6.7	16	3.7	1.6	1.9	2.4
24	6.0	6.9	15	3.4	1.6	1.9	2.3
25	5.8	7.9	14	3.4	1.6	2.2	2.2
26	5.3	8.9	11	3.1	1.5	2.2	2.2
27	5.1	10	8.9	3.1	1.5	2.2	2.2
28	5.1	12	8.5	3.1	1.5	2.1	2.3
29	5.3	11	8.2	2.5	1.5	2.1	2.3
30	6.0	12	8.9	2.4	1.5	2.1	2.1
31	7.2	---	8.5	---	1.5	2.1	---
Mean	5.7	12	13	5.7	1.7	2.5	2.1
Runoff acre-feet	146	737	799	341	107	154	126

Total = 2,410 acre-feet

TABLE B-50

DAILY MEAN DISCHARGE OF PINE CREEK, SURPRISE VALLEY

March 20 to September 30, 1961

In second-feet

Day	March	April	May	June	July	August	September
1		12	5.9	1.3			
2		16	4.2	1.9			
3		16	4.4	1.4		No Flow	
4		14	4.1	1.0			
5		10	3.5	.9			
6		10	3.6	.7			
7		8.5	4.2	.6		20.0	
8		8.7	7.5	.3		2.0	
9		8.6	5.9	.3		1.0	
10		8.3	5.9	.3		0.5	
11		11	4.9	.3		0.4	
12		12	5.2	.3		0.3	
13		8.1	6.2	.3		0.1	
14		6.2	5.5	.3			
15		6.8	5.2	.3			
16		7.7	4.5	.3			
17		10	4.4	.3			
18		8.9	4.1	.3	No Flow		No Flow
19		5.4	3.5	.3			
20	2.6	4.7	3.6	.2			
21	3.2	4.1	3.3	.1			
22	6.4	4.1	2.8	.1			
23	8.5	4.2	2.4	.1		No Flow	
24	7.5	3.9	2.2	.1			
25	6.6	3.5	1.8	0.0			
26	5.9	3.6	1.7	0.0			
27	5.1	4.4	1.5	0.0			
28	4.8	5.0	1.5	0.0			
29	4.9	5.7	1.4	0.0			
30	6.0	5.0	1.3	0.0			
31	9.5	---	1.3	---			---
Mean	5.5	7.9	3.8	0.4		0.8	
Runoff acre-feet	141	469	233	24	0	48	0

Total = 915 acre-feet

CEDAR CREEK AT CEDARVILLE

March 1 to September 30, 1961

In Second-Feet

Day	March	April	May	June	July	August	September
1	3.8	5.4	8.2	6.5	1.1	0.2	0.2
2	4.1	3.4	7.9	6.4	1.1	0.1	0.2
3	4.2	3.1	7.8	5.8	1.1	0.0	0.2
4	3.9	5.0	7.9	4.9	1.1	0.0	0.2
5	3.9	6.6	7.5	4.8	1.0	0.1	0.2
6	3.6	7.4	7.8	4.4	0.8	0.2	0.2
7	3.8	7.0	8.8	4.2	0.8	0.6	0.2
8	4.0	7.0	8.6	3.8	0.9	1.1	0.2
9	4.1	7.6	9.1	3.7	0.7	1.1	0.1
10	4.3	9.2	8.5	3.5	0.6	0.8	0.1
11	4.5	9.5	8.8	3.5	0.5	11	0.1
12	4.4	9.2	9.5	3.5	0.6	19	0.1
13	5.9	9.2	9.7	2.8	0.5	6.2	0.1
14	7.9	9.2	10.0	2.5	0.5	1.4	0.1
15	8.8	10.0	10.0	2.3	0.4	0.7	0.1
16	8.6	10.0	11.0	2.1	0.3	0.6	0.2
17	7.5	10.0	10.0	1.9	0.3	0.6	0.3
18	7.4	10.0	11.0	1.8	0.3	0.5	0.4
19	8.6	9.9	10.0	1.8	0.3	0.5	0.2
20	8.5	10	11.0	1.6	0.3	0.6	0.2
21	9.3	9.5	11.0	1.5	0.2	0.5	0.2
22	11.0	9.9	10.0	1.5	0.2	0.5	0.2
23	6.9	9.5	11.0	1.3	0.2	0.4	0.2
24	7.7	9.5	9.3	1.6	0.2	0.3	0.2
25	7.2	9.5	9.1	2.1	0.1	0.3	0.2
26	7.2	9.2	8.5	2.1	0.1	0.3	0.1
27	8.5	8.2	7.5	1.8	0.1	0.3	0.1
28	8.5	8.2	7.5	1.4	0.1	0.3	0.1
29	8.5	8.2	7.1	1.3	0.1	0.4	0.1
30	8.6	8.8	7.2	1.1	0.1	0.3	0.1
31	7.6	---	6.8	---	0.2	0.3	---
Mean	6.54	8.31	8.70	2.92	0.48	1.59	0.17
Runoff acre-feet	402	493	534	173	29	97	10

Total = 1,759 acre-feet

TABLE B-52

DAILY MEAN DISCHARGE OF NORTH DEEP CREEK, SURPRISE VALLEY

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	3.3	3.6	3.5	1.2	0.2	0.7
2	3.6	3.6	3.5	1.2	0.2	0.7
3	5.0	3.6	4.0	1.1	0.3	0.7
4	6.0	4.0	4.0	1.0	0.3	0.7
5	10	4.0	4.0	0.9	0.3	0.6
6	10	4.0	3.5	0.9	0.3	0.6
7	9.0	4.5	3.0	0.8	5.0	0.6
8	7.0	5.0	2.8	0.8	1.5	0.5
9	6.0	5.0	2.5	0.7	1.0	0.5
10	5.0	7.0	2.5	0.6	1.0	0.5
11	4.5	8.0	2.5	0.6	10	0.5
12	4.5	8.0	2.3	0.5	1.5	0.5
13	4.5	7.0	2.1	0.5	0.9	0.4
14	4.0	8.0	1.9	0.5	0.7	0.4
15	4.0	6.0	1.6	0.5	0.7	0.4
16	4.0	6.0	1.5	0.4	0.7	0.7
17	3.6	7.0	1.4	0.3	0.7	0.7
18	3.0	8.0	1.4	0.3	0.6	0.7
19	3.0	4.5	1.2	0.3	0.5	0.7
20	3.0	6.0	1.2	0.3	0.5	0.7
21	3.0	7.0	1.2	0.3	0.5	0.6
22	3.0	5.0	1.1	0.3	0.4	0.6
23	3.0	4.0	1.1	0.3	0.4	0.6
24	3.3	3.6	1.1	0.3	0.4	0.6
25	3.0	3.6	1.1	0.3	0.4	0.5
26	3.3	3.6	1.1	0.3	0.4	0.5
27	3.3	3.6	1.1	0.2	0.4	0.5
28	3.3	3.6	1.1	0.2	0.4	0.4
29	3.3	3.0	1.1	0.2	0.7	0.5
30	3.3	2.6	1.2	0.2	0.7	0.5
31	---	2.6	---	0.2	0.7	---
Mean	4.5	5.0	2.1	0.5	1.0	0.6
Runoff acre-feet	267	307	122	32	64	36

Total = 828 acre-feet

TABLE B-53

SOUTH DEEP CREEK, SURPRISE VALLEY

March 15 to September 30, 1961

In Second-Feet

Day	March	April	May	June	July	August	September
1		5.0	6.0	5.0	1.0	0.4	0.5
2		5.0	6.0	4.8	0.9	0.4	0.5
3		7.5	6.3	4.7	0.9	0.4	0.5
4		8.0	6.4	4.5	0.9	0.4	0.5
5		11	6.6	4.4	0.9	0.4	0.5
6		12	6.9	4.3	0.8	0.4	0.5
7		10	7.3	4.1	0.8	5.0	0.5
8		9.5	8.1	3.7	0.7	1.5	0.5
9		8.5	8.5	3.4	0.7	1.5	0.5
10		7.0	8.5	3.2	0.7	1.0	0.5
11		6.5	10	3.1	0.6	5.0	0.5
12		6.5	9.5	2.9	0.6	1.0	0.5
13		6.5	9.3	2.6	0.6	0.8	0.5
14		6.6	8.9	2.4	0.6	0.7	0.5
15		7.0	8.8	2.3	0.6	0.7	0.5
16	No Record	7.0	10	2.2	0.5	0.7	0.5
17		6.5	12	2.1	0.5	0.6	0.5
18		5.0	13	2.0	0.5	0.6	0.5
19		5.0	14	1.8	0.5	0.6	0.5
20		4.5	14	1.7	0.5	0.6	0.5
21		4.5	13	1.6	0.4	0.6	0.5
22		4.0	11	1.6	0.4	0.6	0.5
23		4.0	10	1.5	0.4	0.5	0.5
24		4.0	10	1.4	0.4	0.5	0.5
25		4.5	9.5	1.3	0.4	0.5	0.5
26		4.5	7.5	1.2	0.4	0.5	0.8
27		5.0	6.5	1.1	0.4	0.5	0.8
28		5.5	6.0	1.1	0.4	0.5	0.8
29		5.5	6.0	1.0	0.4	0.5	0.7
30		5.5	5.5	1.0	0.4	0.5	0.7
31		---	5.5	---	0.4	0.5	---
Mean		6.39	8.73	2.60	0.59	0.92	0.54
Runoff acre-feet		379	536	154	36	56	32

Total = 1,195 acre-feet

828
2623

TABLE B-54

OWL CREEK, SURPRISE VALLEY

March 15 to September 30, 1961

In Second-Feet

Day	March	April	May	June	July	August	September
1		11	14	28	11	2.0	2.3
2		17	13	32	11	2.0	2.3
3		30	16	35	11	2.0	2.3
4		16	14	38	10	2.0	2.0
5		12	12	41	9.0	2.0	2.0
6		9.0	18	42	7.5	2.0	2.0
7		9.4	16	42	7.0	2.0	2.0
8		9.2	15	43	7.0	2.0	1.8
9		10	22	40	6.5	2.0	1.7
10		8.9	17	39	6.0	2.0	1.6
11		12	16	39	5.0	2.0	1.6
12		13	15	38	4.5	2.0	1.5
13		8.1	15	33	4.5	2.0	1.5
14		9.5	19	35	5.0	2.0	1.5
15		11	20	35	4.5	2.0	1.6
16	No Record	17	24	33	4.0	1.8	1.6
17		20	27	33	4.0	1.8	1.7
18		14	39	30	3.5	1.7	1.6
19		11	33	29	3.5	1.7	1.6
20		11	34	26	3.0	1.7	1.5
21		9.0	43	23	3.0	1.6	2.2
22		8.1	47	21	3.0	1.6	2.1
23		8.2	40	19	3.0	1.6	2.0
24		8.0	42	18	3.0	1.6	2.0
25	4.4	6.4	43	16	2.5	1.6	2.0
26	4.6	9.3	44	15	2.5	1.5	2.0
27	4.7	12	32	14	2.5	1.5	2.0
28	4.0	13	31	12	2.5	2.5	2.0
29	3.5	12	29	12	2.5	2.5	2.0
30	7.1	23	28	12	2.5	2.5	2.0
31	7.1	---	29	--	2.5	2.5	---
Mean	5.06	12.27	26.03	29.10	5.06	1.93	1.87
Runoff acre-feet	70	729	1,598	1,729	311	118	111

Total = 4,675 acre-feet

TABLE B-55

RADER CREEK, SURPRISE VALLEY

March 15 to September 30, 1961

In Second-Feet

Day	March	April	May	June	July	August	September
1		3.2	5.9	14	6.0	1.9	1.6
2		5.1	6.7	14	5.4	1.9	1.6
3		6.5	7.0	17	6.3	1.9	1.6
4		6.2	6.2	20	4.9	1.9	1.6
5		5.4	5.9	22	4.3	1.9	1.4
6		5.1	6.2	23	3.8	1.9	1.4
7		5.1	6.2	22	3.8	2.1	1.4
8		5.4	7.0	22	3.8	2.1	1.2
9		5.6	7.0	21	3.8	2.1	1.2
10		5.9	6.5	19	3.8	1.9	1.1
11	No Record	6.7	5.9	19	3.8	2.5	1.1
12		7.0	6.2	22	3.5	2.3	0.9
13		5.6	7.0	21	3.5	1.9	0.9
14		5.4	7.6	22	3.1	1.7	0.9
15		6.2	7.0	22	2.9	1.6	1.6
16		7.3	8.5	22	2.9	1.6	1.4
17		7.9	9.4	21	2.7	1.6	1.4
18		6.5	10	20	2.7	1.6	1.2
19		5.6	12	18	2.7	1.6	1.4
20		4.4	12	17	2.7	1.4	1.4
21		3.9	17	16	2.5	1.4	1.4
22		3.9	18	16	2.5	1.4	1.3
23		3.9	18	15	2.5	1.4	1.3
24		3.7	18	14	2.3	1.4	1.5
25		3.7	20	14	2.3	1.7	1.5
26		3.9	21	13	2.3	1.6	1.5
27		4.6	19	11	2.3	1.6	1.5
28		5.4	17	8.5	2.1	1.6	1.4
29		5.6	16	6.3	2.1	1.6	1.4
30		6.5	15	6.0	2.1	1.6	1.4
31		---	14	---	1.9	1.6	---
Mean		5.37	11.06	17.26	3.27	1.75	1.35
Runoff acre-feet		319	679	1,025	201	108	80

Total = 2,415 acre-feet

TABLE B-56

DAILY MEAN DISCHARGE OF EAGLE CREEK AT EAGLEVILLE

April 1 to September 30, 1961

In Second-Feet

Day	April	May	June	July	August	September
1	3.8	7.0	24	9.5	2.3	1.5
2	7.5	6.4	26	8.5	2.1	1.6
3	10.0	7.6	30	8.4	2.0	1.7
4	7.7	6.9	36	8.7	2.0	1.6
5	6.0	5.7	38	8.0	2.0	1.6
6	5.6	5.7	39	6.3	2.1	1.6
7	5.4	5.6	39	5.7	2.2	1.3
8	5.2	7.5	40	5.4	2.1	1.2
9	5.4	9.1	36	4.9	2.0	1.2
10	5.4	8.2	34	4.5	1.8	1.1
11	6.3	6.7	33	4.4	2.3	1.1
12	6.7	5.7	32	4.2	2.1	1.1
13	4.9	6.4	32	4.0	1.9	1.0
14	4.5	8.7	32	4.1	1.8	1.0
15	5.4	8.8	31	3.9	1.8	1.0
16	7.9	11.0	33	3.8	1.8	1.1
17	13.0	13.0	33	3.5	1.7	1.1
18	10.0	18.0	34	3.5	1.8	1.1
19	7.0	22	33	3.3	1.8	1.1
20	5.9	29	30	3.2	1.6	0.9
21	5.5	33	29	3.0	1.5	1.0
22	4.9	31	27	2.9	1.5	1.0
23	4.4	29	24	2.9	1.5	1.0
24	4.1	28	22	2.8	1.5	1.0
25	4.1	29	20	2.8	1.7	1.0
26	4.1	32	19	2.8	1.5	0.9
27	4.6	33	17	2.3	1.5	1.0
28	5.4	30	15	2.3	1.6	1.0
29	6.2	28	13	2.3	1.5	1.0
30	7.4	26	11	2.3	1.5	1.0
31	---	23	--	2.3	1.5	---
Mean	6.1	16.8	28.7	4.4	1.8	1.2
Runoff acre-feet	366	1,033	1,710	271	111	69

Total = 3,560 acre-feet

TABLE B-57

EMERSON CREEK, SURPRISE VALLEY

March 15 to September 30, 1961

In Second-Feet

Day	March	April	May	June	July	August	September
1		6.8	7.8	7.8	2.2	1.6	1.5
2		13	7.4	6.8	2.1	1.6	1.6
3		16	9.2	6.8	3.2	1.6	1.6
4		5.0	8.1	9.2	2.8	1.5	1.6
5		3.0	7.1	9.2	2.8	1.7	1.6
6		3.3	7.4	8.8	2.7	2.0	1.5
7		3.9	6.5	8.4	2.7	2.4	1.4
8		5.7	8.8	7.4	2.5	2.1	1.4
9		8.8	15	6.2	2.5	1.7	1.4
10		10	16	6.2	2.5	1.6	1.4
11		10	10	7.1	2.5	2.5	1.4
12		12	8.8	7.4	2.4	2.4	1.4
13		8.4	9.2	6.5	2.4	2.1	1.4
14		6.3	11	6.0	2.4	1.9	1.4
15		7.4	8.4	5.4	2.2	1.7	1.4
16	No Record	11	9.2	5.0	2.2	1.6	1.7
17		18	11	4.7	2.2	1.6	2.1
18		17	13	4.3	2.2	1.5	1.9
19		12	14	4.1	2.1	1.6	1.6
20		8.8	16	3.9	2.1	1.6	1.6
21		6.0	15	3.7	2.1	1.5	1.5
22		5.7	11	3.5	2.1	1.5	1.5
23		5.2	10	3.3	2.1	1.5	1.5
24		5.0	9.2	3.2	2.0	1.5	1.4
25		5.0	9.2	3.0	2.0	1.7	1.4
26		4.7	10	2.8	2.0	1.6	1.7
27		5.2	9.2	2.7	1.9	1.5	1.7
28		7.1	8.1	2.7	1.9	1.5	1.8
29		8.8	8.4	2.7	1.9	1.5	1.6
30		11	9.6	2.5	1.7	1.5	1.6
31		----	8.1	---	1.6	1.5	---
Mean		8.34	10.05	5.38	2.26	1.71	1.55
Runoff acre-feet		495	617	319	139	105	92

Total = 1,774 acre-feet

TABLE B-58

DAILY MEAN DISCHARGE OF SUSAN RIVER AT SUSANVILLE

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	87	68	* 90	6.4	* 0.6	3.3
2	104	* 66	140	5.6	.6	2.0
3	138	65	163	5.4	.6	1.3
4	147	61	167	4.6	.6	1.4
5	*? 124	59	170	4.8	.7	1.4
6	108	63	169	5.0	1.0	1.3
7	102	61	161	4.1	1.5	1.2
8	90	57	163	3.7	2.0	1.2
9	91	57	161	2.2	1.3	1.3
10	87	85	161	2.1	.6	1.4
11	83	80	157	1.8	.3	1.4
12	95	71	154	1.7	.1	1.5
13	89	64	154	1.8	.1	1.5
14	78	63	157	1.8	.1	1.5
15	73	63	157	1.8	0	1.5
16	79	62	159	2.1	.4	1.6
17	88	63	150	1.4	1.0	2.0
18	90	64	145	1.4	1.1	2.2
19	80	65	140	1.3	1.3	2.2
20	71	66	133	1.0	2.0	2.2
21	68	65	124	1.0	1.7	2.2
22	75	61	118	1.0	1.7	2.2
23	75	87	110	1.0	1.7	2.7
24	68	87	100	1.0	1.9	2.8
25	68	83	71	1.0	2.0	3.0
26	72	83	25	1.1	1.9	3.8
27	69	80	14	1.2	2.0	4.4
28	65	75	10	.9	2.5	4.6
29	64	70	8.2	.8	2.6	3.9
30	64	81	6.4	.8	2.7	1.7
31	-	78	-	.7	4.0	-
Mean	86.4	69.5	121	227	1.31	2.16
Runoff acre-feet	5140	4270	7220	140	81	128

Total = 16,979 acre-feet

TABLE B-59

DAILY MEAN DISCHARGE OF GOLD RUN CREEK NEAR SUSANVILLE

April 1 to September 30, 1961

In Second-Feet

Day	April	May	June	July	August	September
1	6.3	11.0	17.0	1.7		
2	9.0	11.0	16.0	1.7		
3	12.0	12.0	15.0	1.5		
4	12.0	11.0	14.0	1.4		
5	9.1	11.0	13.0	1.3		
6	8.3	9.1	12.0	1.3		
7	7.7	9.3	12.0	1.1		
8	7.2	12.0	11.0	0.8		
9	7.4	15.0	11.0	0.7		
10	7.3	16.0	10.0	0.7		
11	8.2	13.0	9.8	0.7		
12	9.0	12.0	8.8	0.7		
13	7.7	13.0	8.4	0.7		
14	7.1	15.0	8.4	0.4		
15	8.2	16.0	7.4	0.5		
16	9.1	17.0	6.7	0.4	No Flow	No Flow
17	14.0	18.0	6.6	0.4		
18	12.0	21	6.0	0.4		
19	9.9	21	5.2	0.3		
20	8.4	22	4.5	0.3		
21	7.8	22	4.5	0.3		
22	7.3	22	3.4	0.3		
23	7.5	19.0	3.4	0.2		
24	6.7	18.0	2.9	0.2		
25	6.8	17.0	3.0	0.2		
26	6.7	16.0	2.4	0.2		
27	6.9	15.0	2.3	0.2		
28	7.9	13.0	2.3	0.2		
29	9.3	13.0	2.2	0.2		
30	11.0	12.0	1.8	0.2		
31	-	12.0	-	0.2		
Mean	8.6	15.0	7.7	0.6		
Runoff acre-feet	510	920	457	38.4		

Total = 1,925 acre-feet

TABLE B-60

DAILY MEAN DISCHARGE OF SUSAN RIVER AT JOHNSTONVILLE BRIDGE

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	No Record	48	38	No Record	No Record	No Record
2		44	33			
3		41	35			
4		41	34			
5		40	34			
6		40	34			
7		39	34			
8		33	33			
9	46	33	30			
10	43	43	30			
11	37	50	30			
12	43	50	29			
13	42	43	27			
14	41	39	17.0			
15	40	41	10.0			
16	41	38	8.0			
17	44	47	7.0			
18	46	47	6.0			
19	44	43	5.0			
20	43	43	4.0			
21	46	44	3.0			
22	49	46				
23	57	47				
24	56	47				
25	55	47				
26	55	48	No Record			
27	53	47				
28	48	48				
29	46	47				
30	48	47				
31	--	40				
Mean cfs	51.4	43.6	22.9			
Runoff, in acre-feet	2,194	2,675	952			

Total = 5,821 acre-feet

TABLE B-61

DAILY MEAN DISCHARGE OF WILLOW CREEK NEAR SUSANVILLE

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	14	14	12	9.8	12	11
2	15	14	12	9.8	12	10
3	15	14	12	9.8	12	11
4	14	14	13	9.8	12	10
5	14	14	12	9.8	12	10
6	14	13	12	10	12	11
7	13	14	12	10	12	11
8	12	14	11	11	12	11
9	12	13	11	10	12	11
10	12	12	11	10	12	11
11	12	12	11	10	12	11
12	12	12	11	10	12	11
13	12	12	11	10	12	11
14	12	12	11	11	12	11
15	12	12	11	11	12	11
16	12	12	11	11	11	11
17	12	12	10	11	11	11
18	12	13	10	11	11	11
19	12	12	10	12	11	11
20	12	12	9.8	12	11	11
21	12	12	9.8	12	11	11
22	13	12	9.8	12	11	11
23	16	12	10	12	11	11
24	20	12	10	12	11	11
25	20	12	10	12	11	11
26	18	12	10	12	11	11
27	17	12	10	12	11	11
28	16	12	9.8	12	11	11
29	15	12	9.8	12	11	11
30	15	12	9.8	12	11	11
31	--	12	--	12	11	--
Mean	13.9	12.5	10.8	11.0	11.5	10.7
Runoff acre-feet	827	772	640	676	706	649

Total = 4,270 acre-feet

TABLE B-62

DAILY MEAN DISCHARGE OF OLD SUSAN CHANNEL AT JENSEN SLOUGH

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1		13.9	15.5	6.5	2.2	2.5
2		13.9	16.8	6.2	1.8	2.3
3		13.6	17.1	5.4	1.8	2.3
4		13.6	17.1	4.9	1.8	2.3
5		13.6	16.8	4.9	1.8	2.3
6	No Record	13.6	15.8	4.6	1.5	2.3
7		13.3	15.9	4.4	1.5	1.4
8		12.6	15.2	4.4	1.8	2.3
9		12.6	14.9	4.1	2.2	2.0
10		12.9	14.2	3.2	2.3	1.5
11		11.9	13.9	2.1	2.5	1.4
12		11.9	13.6	3.3	2.5	1.4
13		11.9	11.9	3.5	2.5	1.4
14		11.9	11.5	3.1	2.3	
15		11.9	11.2	2.0	2.2	
16		11.9	9.9	3.5	1.8	
17		15.1	9.2	3.9	1.8	
18	16.4	14.9	8.6	2.3	1.8	
19	19.9	14.6	7.7	2.3	1.8	
20	15.6	13.8	7.1	2.2	1.8	
21	15.0	13.5	No Record	2.2	2.3	No Record
22	15.0	13.2		1.5	No Record	
23	15.0	13.2		1.7		
24	14.2	16.2		1.8		
25	14.2	16.2		2.0		
26	14.2	15.5		2.0		
27	13.9	15.1	4.9	2.3		
28	15.5	14.9	3.9	2.3		
29	15.5	14.1	7.4	2.3	1.8	
30	13.9	14.1	6.2	2.9	1.8	
31	--	14.1	--	2.9	2.2	
Mean cfs	15.2	13.7	11.9	3.2	2.0	2.0
Runoff, in acre-feet	392.6	838.5	566.9	199.4	94.6	50.3

Total = 2,142.3 acre-feet

TABLE B-63

DAILY MEAN DISCHARGE OF OLD SUSAN CHANNEL AT LEROY CRAMER DITCH

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1			2.7	0.9		
2			2.0	0.8		
3			2.2	0.7		
4			2.9	0.6		
5			3.2	0.8		
6			1.5	0.8		
7		No Record	1.4	1.0		
8			1.4	1.4		
9	0.6		1.4	1.1		
10	1.2		1.3	0.6		
11	2.5		1.3	0.5		
12	2.5		1.4	0.4		
13	2.5		1.6	0.3		
14	No Record		1.2	0.4		
15			0.7	0.0		
16		2.0	0.9	0.0		
17		2.2	1.8	0.3	No Record	No Record
18	2.9	2.4	1.9	0.3		
19	2.9	2.6	1.8			
20	2.5	2.6	1.8			
21	2.6	2.3	No Record			
22	2.5	2.3				
23		2.5				
24		2.8				
25		3.0		Dry at Recorder		
26		2.8				
27		2.8	1.2			
28		2.0	0.5			
29	No Record	2.8	0.6			
30		2.8	0.8			
31		3.0				
Mean cfs	2.3	2.6	1.6	0.6		
Runoff, in acre-feet	44.9	81.0	74.2	21.6		

Total = 221.7 acre-feet

TABLE B-64

DAILY MEAN DISCHARGE OF WILLOW CREEK
NEAR LITCHFIELD

April 1 to September 30, 1961

In second-feet

Day	April	May	June	July	August	September
1	18.0	16.0	19.0	13.0		
2	18.0	17.0	17.0	13.0		
3	18.0	17.0	17.0	13.0		
4	18.0	17.0	18.0	13.0		
5	17.0	17.0	17.0	13.0		
6	16.0	17.0	16.0	13.0		
7	15.0	16.0	15.0	14.0		
8	15.0	16.0	15.0	15.0		
9	15.0	16.0	15.0	14.0		
10	15.0	15.0	14.0	14.0		
11	15.0	16.0	14.0	14.0		
12	15.0	15.0	15.0	14.0		
13	15.0	15.0	14.0	14.0		
14	14.0	16.0	15.0	14.0		
15	14.0	16.0	15.0	14.0		
16	14.0	16.0	15.0	14.0	No Record	No Record
17	14.0	15.0	15.0	14.0		
18	14.0	15.0	15.0	14.0		
19	15.0	14.0	14.0	14.0		
20	15.0	15.0	14.0	13.0		
21	15.0	15.0	14.0	13.0		
22	16.0	15.0	14.0	13.0		
23	18.0	15.0	14.0	13.0		
24	22	15.0	15.0	13.0		
25	23	16.0	14.0	13.0		
26	21	15.0	14.0	13.0		
27	19.0	15.0	14.0	12.0		
28	18.0	15.0	13.0	12.0		
29	17.0	15.0	13.0	13.0		
30	17.0	15.0	13.0	13.0		
31	---	15.0	---	13.0		
Mean cfs	16.5	15.6	14.9	13.3		
Runoff, in acre-feet	982	956	885	822		

Total = 3,645 acre-feet

TABLE B-65

WATER RELEASED FROM STORAGE BY LASSEN IRRIGATION DISTRICT AND AVAILABLE FOR REDIVERSION TO LAKE LEAVITT RESERVOIR

April 1 to September 30, 1961

In Second-Feet

Day	April	May	June	July	August	September
1			10.0			
2			59			
3			81			
4			86			
5			92			
6			94			
7			89			
8			88			
9			88			
10			86			
11			81			
12			78			
13			76			
14			74			
15			72			
16	No Releases	No Releases	70	No Releases	No Releases	No Releases
17			67			
18			65			
19			63			
20			60			
21			58			
22			46			
23			35			
24			28			
25			20			
26			14.0			
27			6.0			
28			0.0			
29			0.0			
30			0.0			
31			-			
Mean			56.2			
Runoff acre-feet			3,338			

Total = 3,338 acre-feet

TABLE B-66

DAILY MEAN DISCHARGE OF JACOBS NEUHAUS DITCH AT BARRON-MURRER PROPERTY LINE

April 1 to September 30, 1961

In Second-Feet

Day	April	May	June	July	August	September
1	2.7	3.5	2.6	2.0	2.3	2.1
2	2.7	1.9	2.0	1.6	2.4	1.6
3	2.7	1.9	2.6	1.6	2.7	1.9
4	2.7	1.9	2.4	1.8	1.6	2.6
5	2.7	2.3	2.0	1.9	1.8	2.6
6	2.7	2.6	1.8	1.7	1.9	2.4
7	2.7	2.5	0.0	2.7	2.0	2.1
8	2.8	2.6	3.0	2.7	2.7	2.1
9	2.8	2.6	2.6	2.2	2.1	1.9
10	2.8	2.6	2.6	2.9	1.5	1.0
11	2.8	2.6	2.5	2.3	1.6	0.6
12	3.0	2.8	2.2	2.8	1.6	0.6
13	2.8	2.8	2.1	3.3	2.3	0.6
14	2.8	2.8	2.1	1.9	1.9	1.8
15	2.7	2.8	2.1	2.3	1.9	
16	2.2	2.9	2.1	2.3	1.7	
17	2.2		2.1	2.3	1.7	
18	2.2		1.9	2.3	2.6	
19	2.6		2.1	2.3	2.2	
20	2.6		2.1	2.1	2.7	
21	2.2		2.1	2.1	2.9	
22	3.1		2.2	2.1	2.8	
23	3.4	No Record	2.2	1.9	2.6	No Record
24	3.2		2.6	1.8	1.8	
25	3.0		2.3	1.9	1.8	
26	2.8		1.8	3.2	2.2	
27	2.6		2.3	3.0	2.5	
28	2.7		2.1	2.9	2.7	
29	3.7		2.1	2.9	2.7	
30	3.7		2.0	2.9	3.0	
31		2.7	-	3.3	2.9	
Mean	2.8	2.6	2.2	2.4	2.2	1.7
Runoff acre-feet	166	86.1	128.0	144	137	47.3

Total = 708.4 acre-feet

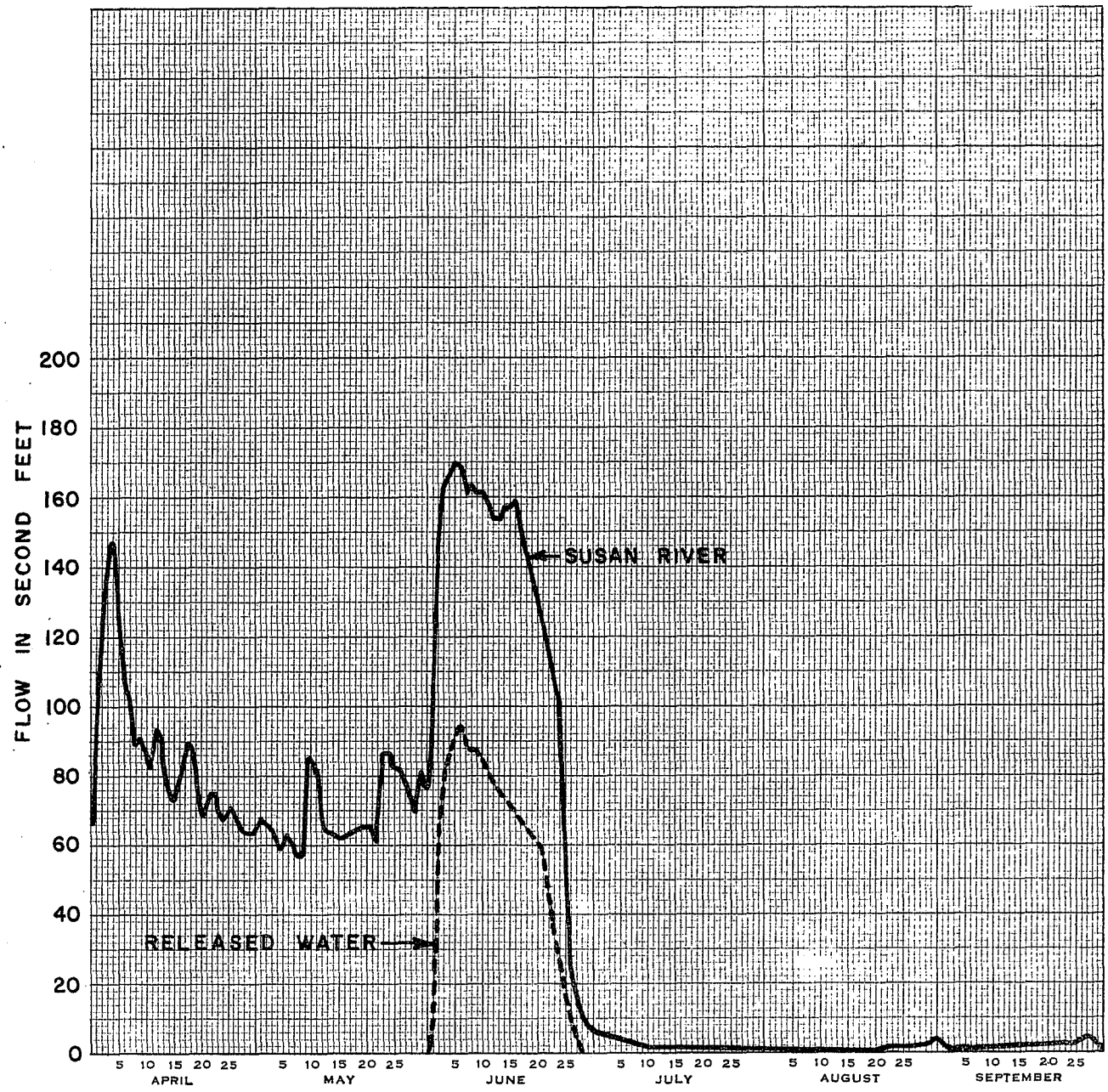
TABLE B-67

DAILY GAGE HEIGHTS OF EAGLE LAKE NEAR SUSANVILLE

April 1 to September 30, 1961

In feet

Day	April	May	June	July	August	September
1	4.05	3.95	3.80	3.35	2.80	2.50
2	4.05	3.95	3.75	3.35	2.80	2.50
3	4.05	3.95	3.75	3.30	2.75	2.45
4	4.05	3.95	3.80	3.30	2.75	2.45
5	4.05	3.90	3.75	3.25	2.75	2.45
6	4.05	3.90	3.75	3.25	2.75	2.40
7	4.05	3.90	3.75	3.25	2.75	2.45
8	4.00	3.90	3.70	3.20	2.80	2.40
9	4.05	3.80	3.70	3.20	2.75	2.35
10	4.00	3.85	3.70	3.20	2.80	2.35
11	4.00	3.90	3.70	3.20	2.80	2.35
12	4.00	3.90	3.70	3.20	2.75	2.35
13	4.05	3.90	3.65	3.15	2.75	2.35
14	4.00	3.90	3.65	3.15	2.75	2.30
15	4.00	3.90	3.65	3.10	2.75	2.25
16	4.00	3.85	3.65	3.10	2.70	2.25
17	4.00	3.90	3.65	3.05	2.70	2.25
18	4.00	3.85	3.60	3.05	2.65	2.25
19	4.00	3.85	3.60	3.05	2.65	2.25
20	3.95	3.85	3.60	3.05	2.65	2.25
21	3.90	3.85	3.60	3.00	2.65	2.25
22	3.95	3.80	3.55	3.00	2.65	2.20
23	4.00	3.80	3.55	2.95	2.60	2.20
24	4.00	3.80	3.55	2.95	2.60	2.15
25	4.00	3.80	3.55	2.90	2.55	2.15
26	4.00	3.75	3.50	2.90	2.55	2.15
27	3.95	3.75	3.45	2.90	2.55	2.15
28	3.95	3.75	3.40	2.85	2.55	2.15
29	3.95	3.75	3.40	2.85	2.55	2.10
30	3.95	3.75	3.40	2.80	2.55	2.10
31	-	3.75	-	2.80	2.50	-



HYDROGRAPHS OF SUSAN RIVER AT SUSANVILLE
AND STORED WATER AVAILABLE FOR REDIVERSION AT SUSANVILLE
1961 SEASON