SECTION 8
SHELF
ITEM .2

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RESOURCES

EARL WARREN
Governor
C. H. PURCELL, Director of Public Works
A. D. EDMONSTON, State Engineer

SNOW SURVEY BULLETIN

CALIFORNIA COOPERATIVE SNOW SURVEYS

April, 1950

20141

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DIVISION OF WATER RESOURCES
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CALIFORNIA COOPERATIVE SNOW SURVEYS

MONTHLY BULLETIN OF SNOW SURVEY AND PRECIPITATION DATA

April 10, 1950

This is the third snow survey bulletin issued this winter by the Division of Water Resources.

It contains the results of all snow measurements made at the first of April, all available precipitation data, and also forecasts of runoff for all the main Sierra rivers.

The Division of Water Resources acts as coordinator of this work. The cooperating organizations are listed on the last page of this report.

April 10, 1950

CONDITIONS AS OF APRIL 1st.

California's Sierra snowpack on the first of April indicates that deficient stream runoff will occur in the San Joaquin River Basin from the Merced River south for the 5th consecutive year. The snowpack on the Tuolumne, Stanislaus and Mokelumne watersheds are about normal. The watersheds of the Sacramento indicate conditions are also favorable and snowmelt runoff should be close to normal.

On the basis of data gathered during the April 1st snow survey it is estimated that with normal April weather the over-all runoff from the melting Sierra snowpack will average 87% of normal. In the Sacramento and San Joaquin River Basins there should be enough water to fill all the reservoirs except Shasta on the Sacramento River and Millerton on the San Joaquin River, with water spilling at the peak of the snowmelt runoff.

TABLE 1 on page 3 of this bulletin summarizes by stream basins, the snowpack lying on each mountain watershed. The Kaweah River watershed has relatively the smallest snowpack, being 66% of normal; the Mokelumne with 108% of normal the greatest. The other watersheds range in between these limits.

TABLE 1 also lists the precipitation to date for each watershed in terms of percentage of normal. The precipitation situation is also graphically depicted on page 4 by isohyetal percentage lines superimposed upon the map of California.

So far this season, precipitation over the Central Valley has averaged about 75% of normal, varying from a low of 50% in the Upper Sacramento area to a high of 100% in the Madera area. Rainfall in Southern California is also deficient ranging from around 60% in the San Diego - Los Angeles areas, to 80% on the

San Gabriel and Santa Ana watersheds. In San Diego County precipitation on the whole averages about 65% of normal.

TABLE 2 on page 5 contains the forecasts of runoff of the major Sierra Rivers during the four month's melting period, April 1st to July 31st. In the Sacramento River Basin the indicated runoff is the greatest since 1943. In the San Joaquin River Basin it is better than any of the last three years. The plate on page 6, pictures the expected snowmelt runoff listed in Table 2.

TABLE 3 on page 7 lists in percentage of the 60 year mean, the total seasonal 12-months runoff expected from each river and compares these with similar figures for the past four years. In the Sacramento River Basin the total seasonal runoff is expected to be slightly less than 1948. In the San Joaquin River Basin it will be the largest since 1946.

TABLE 4 on page 8 lists the storage in 27 of the main Sierra reservoirs. With a total capacity of over seven million acre-feet, over five million are already in storage. As the snowpack melts all of these reservoirs with the exception of Shasta and Millerton should fill, and at Shasta it is anticipated that the maximum water stored will be the greatest in its history.

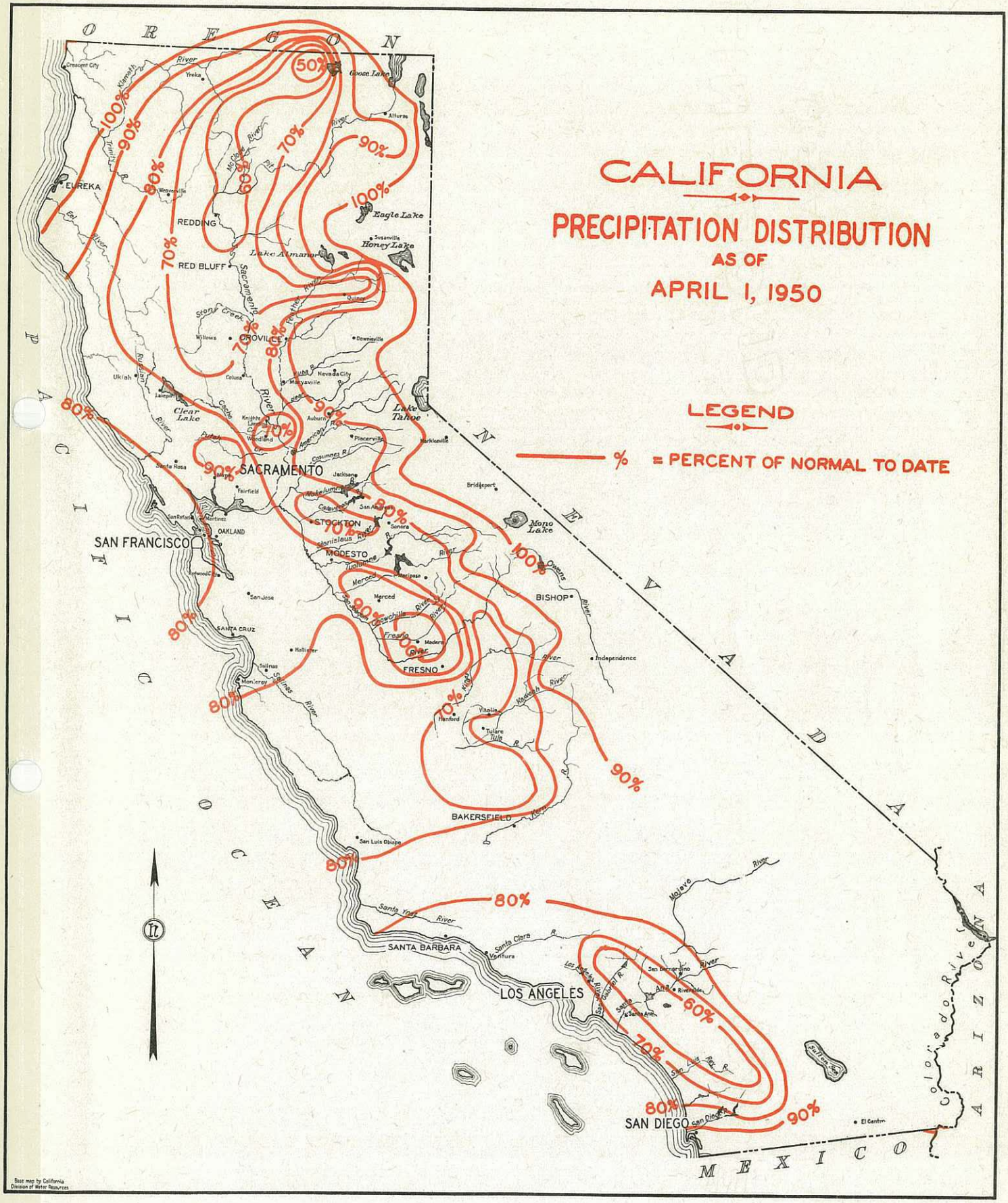
ALL of the forecasts contained herein are predicated upon the prevalence of normal weather conditions during the period of runoff. Abnormal storms or severe droughts, during this period will increase or decrease the runoff accordingly.

TABLE 1

SUMMARY OF SEASONAL PRECIPITATION AND SNOW PACK - APRIL 1, 1950

AVERAGES BY STREAM BASINS

River Basin	Precipitation over mountain watersheds from July 1, 1949 to April 1, 1950 in per cent of normal to April 1st.	Snowpack as of April 1, 1950 in per cent of normal
(Upper Sacramento-McCloud - Pit)	80%	86%
Feather	83%	88%
Yuba	97%	106%
Truckee	107%	107%
Tahoe	107%	109%
American	100%	112%
Mokelumne	95%	107%
Stanislaus	92%	102%
Tuolumne	81%	90%
Merced	85%	93%
Upper San Joaquin	74%	81%
Kings	81%	70%
Kaweah	85%	78%
Kern	75%	81%
Los Angeles	60%	—
San Gabriel	69%	—
Santa Ana	74%	—
San Diego County	64%	—



Base map by California Division of Water Resources

TABLE 2

STREAM FLOW FORECASTS - APRIL 1, 1950

Drainage Area or Stream Gaging Station	Stream Flow[1] April 1 - July 31, Inc.		
	60-Year Normal 1890-1949 Acre-Feet	1950 Forecast in Per cent of Normal	Estimated 1950 flow April - July Acre-Feet
South Fork Pit River near Likely	40,000	100%	40,000
Sacramento River at Shasta Dam 2	1,879,000	90%	1,690,000
Feather River near Oroville	2,221,000	85%	1,890,000
Bowman Area-Middle Yuba and Canyon Creek	100,000	125%	125,000
South Fork of Yuba River at Langs Crossing	243,000	109%	265,000
Yuba River at Smartsville	1,210,000	101%	1,220,000
North Fork American River at Colfax	309,000	104%	320,000
Middle Fork of American nr. E.Auburn	679,000	99%	675,000
American River at Fair Oaks	1,535,000	106%	1,620,000
N.Fk.Mokelumne River nr. West Point	463,000	112%	520,000
Mokelumne River near Mokelumne Hill	534,000	108%	575,000
M.Fk.Stanislaus at Sand Bar Flat near Avery	384,000	104%	400,000
Stanislaus River below Melones Power House	829,000	103%	855,000
Tuolumne River near Hetch Hetchy	674,000	88%	595,000
Tuolumne River at La Grange	1,347,000	85%	1,150,000
Merced River at Pohono Bridge	414,000	79%	325,000
Merced River at Exchequer	708,000	78%	550,000
Big Creek at Huntington Lake	108,000	68%	73,000
S.Fk.San Joaquin R. at Florence Lake	214,000	78%	167,000
San Joaquin R. above mouth of Big Creek	1,167,000	74%	860,000
San Joaquin River at Friant	1,369,000	74%	1,010,000
N.Fk.Kings R. below Rancheria Creek	320,000	61%	195,000
Kings River at Piedra	1,341,000	67%	900,000
Kaweah River near Three Rivers 2	297,000	66%	195,000
Kern River near Bakersfield 2	460,000	74%	340,000
Truckee River at Farad 3	290,000	101%	294,000
*Lake Tahoe 3	Lake Rise 1.55 Ft.	113%	1.75 ft. to Elev. 6226.65
Carson River at Fort Churchill 4	195,000	103%	200,000
West Walker nr. Coleville 4	175,000	86%	150,000
5East Walker at Bridgeport Dam 4	75,000	83%	62,000

1 Full natural flow. That is the flow as measured in the stream with corrections applied for upstream regulation and diversions. The unimpaired flow.

2 Net flow at station after upstream irrigation use.

3 Forecasts by Truckee Basin Water Committee

4 Forecasts by Nevada Cooperative Snow Surveys Committee. (45 year normal)

5 The forecast period for the East Walker is April - August instead of April - July, on account of the late melting snow in the Saw Tooth Range west of Bridgeport.

* Elevation of Lake Tahoe water surface on March 31 was 6224.90

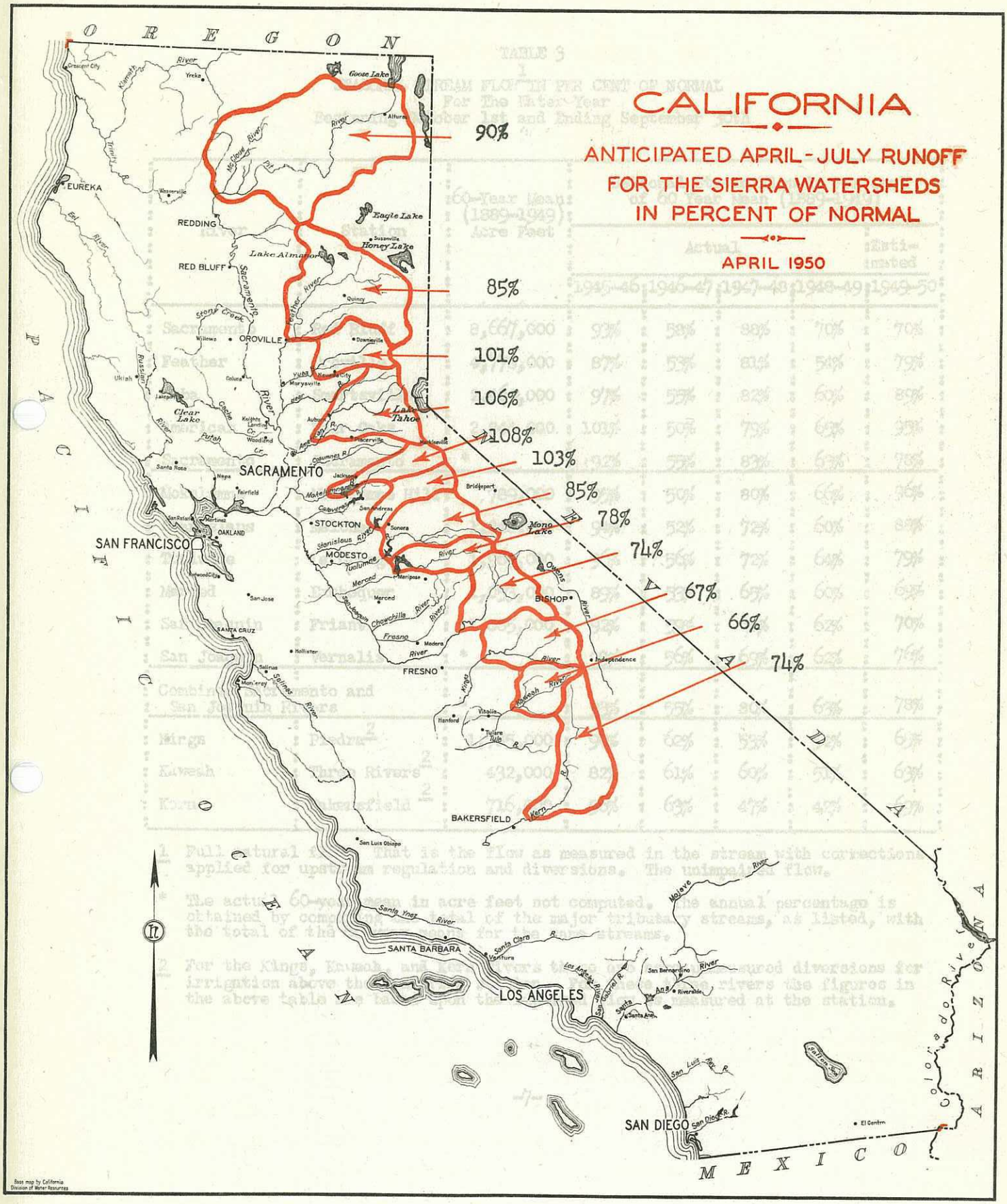

CALIFORNIA
ANTICIPATED APRIL-JULY RUNOFF
FOR THE SIERRA WATERSHEDS
IN PERCENT OF NORMAL
APRIL 1950
90%
85%
101%
106%
108%
103%
85%
78%
74%
67%
66%
74%
OREGON
NEVADA
ARIZONA
MEXICO
PACIFIC OCEAN
EUREKA
REDDING
RED BLUFF
OROVILLE
SACRAMENTO
SAN FRANCISCO
OAKLAND
STOCKTON
MODESTO
FRESNO
BISHOP
BAKERSFIELD
SANTA BARBARA
LOS ANGELES
SAN DIEGO
Goose Lake
Eagle Lake
Honey Lake
Lake Almanor
Clear Lake
Lake Tahoe
Mono Lake
Base map by California Division of Water Resources

TABLE 4

WATER STORED IN SIERRA NEVADA RESERVOIRS ON
April 1, 1950

WATERSHED	RESERVOIR	CAPACITY Acre-Feet	WATER IN STORAGE (Acre-Feet) 1949	1950
Sacramento	Shasta	4,500,000	3,319,000	3,465,700
Feather	Mountain Meadows	24,000	17,600	18,500
	Lake Almanor	649,800	486,200	482,400
	Bucks Storage	103,000	60,400	60,600
	Butt Valley	50,000	43,300	43,300
Yuba	Bowman Lake	68,000	2,200	18,000
	Scotts Flat	26,800	22,600	26,200
	Spaulding System	150,000	16,800	73,200
Bear	Combie	7,200	5,600	7,000
American	Twin Lakes	21,300	5,400	5,800
	Silver Lake	8,900	0	0
Mokelumne	Salt Springs	139,000	4,000	24,500
	Pardee	210,000	159,600	177,800
Stanislaus	Relief	15,100	0	5,700
	Strawberry	17,900	4,000	3,200
	Melones	112,500	10,400	72,600
Tuolumne	Lake Eleanor	27,800	3,700	18,800
	Hetch Hetchy	340,000	43,100	58,100
	Don Pedro	260,000	154,300	160,200
	Owen	49,000	15,400	41,700
	Dallas Warner	27,000	13,500	18,700
Merced	Lake McClure	281,000	114,500	104,200
San Joaquin	Crane Valley	45,400	27,200	29,300
	Florence Lake	64,400	200	300
	Huntington Lake	88,800	14,700	22,200
	Shaver Lake	135,300	22,600	22,800
	Millerton Lake	520,500	229,800	205,000
TOTAL FOR 27 RESERVOIRS		7,942,700	4,796,100	5,165,800

TABLE 5
SNOW SURVEY DATA FOR ALL COURSES
AS OF APRIL 1, 1950

1 DRAINAGE BASINS and SNOW COURSES	ELEVATION in FEET	DATE of SURVEY	DEPTH of SNOW Inches	DENSITY Per Cent	WATER CONTENT Inches	2 Normal Water content Inches	Percent normal water content	Corresponding Water Content 1949 Inches
SCOTT RIVER								
Middle Boulder #1	6700	4- 1-50	52.6	46.6%	24.5	37.7	65%	39.7
Middle Boulder #3	6400	4- 1-50	45.3	47.0%	21.3	New Course	1949	34.3
Wolford Cabin	6400	Record not	received	-	-	-	-	41.6
SHASTA RIVER								
Parks Creek	6500	3-31-50	84.3	39.1%	33.0	33.4	99%	33.4
Little Shasta	6200	3-31-50	61.8	42.1	26.0	26.3	99%	23.6
Sweetwater	5500	3-31-50	40.6	36.5%	14.8	24.6	60%	17.7
UPPER SACRAMENTO RIVER								
Mount Shasta	8000	3-31-50	87.9	45.5%	40.0	56.4	71%	43.4
Deadfall Lakes	7300	4- 1-50	65.8	41.3%	27.2	37.7	72%	34.6
Sand Flats	7000	3-31-50	82.0	44.8%	36.7	47.7	77%	37.9
North Fork Sacramento	6800	4- 1-50	46.2	38.2%	17.6	23.6	75%	28.1
Parks Creek	6500	3-31-50	84.3	39.1%	33.0	33.4	99%	33.4
Gray Rock Lakes	6300	Record not	received	-	-	46.7	-	52.2
Whalan Station	5900	4- 3-50	40.4	44.8%	18.1	19.5	93%	30.1
Mumbo Basin	5700	Record not	received	-	-	-	-	26.8
Highland Lakes	5700	4- 5-50	54.9	47.0%	25.8	35.1	74%	42.5
Slate Creek	5600	4- 1-50	49.1	45.8%	22.5	32.7	69%	41.5
McCLOUD RIVER								
Mount Shasta	8000	3-31-50	87.9	45.5%	40.0	56.4	71%	43.4
Brewer Creek	6000	4- 1-50	57.1	44.1%	25.2	38.7	65%	34.8
Buck Mountain	5560	4- 2-50	54.8	43.2%	23.7	25.9	92%	30.5
Stouts Meadow	5300	4- 1-50	82.5	47.3%	39.0	49.2	79%	44.9
Ash Creek	5000	4- 1-50	41.3	41.6%	17.2	23.0	75%	25.8
Dead Horse Canyon	4500	4- 2-50	28.3	48.4%	13.7	11.8	116%	16.5

1 Data for courses common to more than one basin are listed under each basin.
2 These are computed 60-year normals for the period 1890-1949, inclusive.
N.S.M. - No Survey Made.

TABLE 5 - SNOW SURVEY DATA FOR ALL COURSES - APRIL, 1950 - (Cont'd.)

1 DRAINAGE BASINS and SNOW COURSES	ELEVATION in FEET	DATE of SURVEY	DEPTH of SNOW Inches	DENSITY Per cent	WATER CONTENT Inches	2 Normal Water content Inches	Percent Normal water content	Corresponding Water Content 1949 Inches
PIT RIVER								
Mount Lassen	8400	3-30-50	183.1	44.3%	81.1	97.2	83%	64.5
Eagle Peak	7500	3-31-50	43.8	40.9%	17.9	18.7	96%	19.1
Blue Lake Ranch	7300	3-31-50	30.6	36.9%	11.3	11.6	97%	16.7
Cedar Pass	7200	3-30-50	52.1	36.7%	19.1	20.6	93%	22.0
Blacks Mountain	6650	4-1-50	19.3	43.7%	8.4	8.5	99%	N.S.M.
Medicine Lake	6520	3-31-50	67.5	37.8%	25.5	32.5	78%	25.5
Adin Mountain	6500	4-3-50	23.6	37.7%	8.9	14.3	62%	16.9
Thousand Lakes	6500	4-4-50	88.5	46.2%	40.9	47.5	86%	32.0
Snow Mountain	6200	3-29-50	77.5	47.5%	36.8	40.6	91%	36.6
Manzanita Lake	6000	3-30-50	21.3	31.9%	6.8	8.8	77%	14.1
McElroy Pass	5800	3-31-50	13.1	28.0%	3.7	1.8	206%	5.4
Willow Creek Summit	5600	4-4-50	No Snow on Course			2.7	0%	3.9
Halls Flat	5600	4-1-50	Snow Course Flooded			3.7	-	3.6
Stouts Meadow	5300	4-1-50	82.5	47.3%	39.0	49.2	79%	44.9
Widow Valley Summit	4700	4-4-50	11.8	39.0%	4.6	4.2	110%	0
Dead Horse Canyon	4500	4-2-50	28.3	48.4%	13.7	11.8	116%	16.5
TRINITY RIVER								
Seven Up	7400	3-31-50	121.8	28.4%	34.6	67.3	51%	61.5
Deadfall Lakes	7300	4-1-50	65.8	41.3%	27.2	37.7	72%	34.6
Red Rock Mountain	6600	3-30-50	94.3	36.4%	34.3	50.3	68%	54.3
Bear Basin	6500	3-31-50	74.4	38.4%	28.6	48.3	59%	50.0
Wolford Cabin	6400	Measurement not received			-	-	-	41.4
Shimmy Lake	6400	4-1-50	83.2	41.3%	34.4	52.9	65%	58.0
Whalan Station	5900	4-3-50	40.4	44.8%	18.1	19.5	93%	30.1
Highland Lakes	5700	4-5-50	54.9	47.0%	25.8	35.1	74%	42.5
Mumbo Basin	5700	Measurement not received			-	24.4	-	26.8
Big Flat	5100	3-27-50	42.5	37.6%	16.0	18.8	85%	23.7
STONY CREEK								
Anthony Peak	6200	3-28-50	80.6	44.0%	35.5	32.1	111%	36.8
Plaskett Meadows	6000	3-29-50	57.4	44.4%	25.5	21.0	121%	32.9
FEATHER RIVER								
Mount Lassen	8400	3-30-50	183.1	44.3%	81.1	97.2	83%	64.5
Mount Dyer	7400	3-30-50	66.5	39.2%	26.1	28.2	93%	24.0

1, 2 See footnotes first page of this table.

TABLE 5 - SNOW SURVEY DATA FOR ALL COURSES - APRIL, 1950 - (Cont'd.)

1 DRAINAGE BASINS and SNOW COURSES	ELEVATION in FEET	DATE of SURVEY	DEPTH of SNOW Inches	DENSITY Per cent	WATER CONTENT Inches	2 Normal Water content Inches	Percent Normal water content	Corresponding Water Content 1949 Inches
FEATHER RIVER Cont'd.								
Rowland Creek	6850	3-28-50	52.0	37.7%	19.6	New Course 1950		-
Church Meadows	6700	4- 2-50	74.8	45.5%	34.0	43.4	78%	35.9
Yuba Pass	6700	3-31-50	79.1	48.2%	38.1	41.0	93%	35.2
Letterbox	6500	3-31-50	120.2	49.7%	59.7	61.9	96%	59.2
Silver Lake	6500	4- 1-50	66.0	38.3%	25.3	39.9	63%	24.1
Eureka Bowl	6500	4- 7-50	123.5	45.2%	55.8	New Course 1948		46.2
Fredonia Pass	6400	4- 4-50	Patches only			11.3	0%	11.2
Harkness Flat	6400	3-27-50	85.7	35.5%	30.4	31.0	98%	28.7
Eureka Lake	6300	4- 7-50	83.1	41.9%	34.8	43.4	80%	36.1
Three Lakes	6100	3-28-50	113.2	39.9%	45.2	43.6	104%	43.5
Mill Creek Flat	5800	3-28-50	104.1	38.6%	40.2	42.8	94%	43.3
Mount Stover	5500	3-31-50	45.4	35.5%	16.1	17.5	92%	18.2
Browns Camp	5400	4- 4-50	47.8	47.1%	22.5	25.4	89%	33.8
Gibsonville	5400	4- 1-50	82.1	45.7%	37.5	New Course 1950		-
Haskins Flat	5300	4- 4-50	67.9	46.5%	31.6	35.4	89%	41.4
Feather River Meadows	5000	3-28-50	75.5	37.7%	28.5	26.5	108%	24.4
Warner Creek	5000	3-27-50	51.0	35.9%	18.3	19.2	95%	18.7
Humbug Summit	5000	3-29-50	35.9	39.6%	14.2	13.7	104%	17.0
Chester Flat	4600	3-29-50	24.9	40.2%	10.0	8.0	125%	7.9
SUSAN RIVER								
Silver Lake	6500	4- 1-50	66.0	38.3%	25.3	39.9	63%	24.1
Fredonia Pass	6400	4- 4-50	Patches only			11.3	0%	11.2
Norvell Flat	5700	4- 1-50	43.4	40.8%	17.7	18.3	97%	20.4
YUBA RIVER								
Webber Peak	8000	3-30-50	116.5	36.4%	42.4	48.7	87%	43.0
Castle Creek #5	7370	3-29-50	139.0	43.1%	59.9	53.6	112%	45.9
Meadow Lake	7200	3-30-50	154.5	42.7%	66.0	62.6	105%	52.8
Red Mountain	7200	3-29-50	135.5	40.8%	55.5	55.3	100%	49.8
Donner Summit	7020	3-28-50	114.8	42.2%	48.5	45.2	107%	42.0
Lake Sterling	7000	3-29-50	152.3	42.0%	63.9	61.8	103%	52.5
Sawmill Flat	7000	3-30-50	139.2	42.7%	59.4	57.8	103%	52.8
Soda Springs	6750	3-28-50	109.2	41.6%	45.4	41.5	109%	36.4
Yuba Pass	6700	3-31-50	79.1	48.2%	38.1	41.0	93%	35.2

1, 2 See footnotes first page of this table.

TABLE 5 - SNOW SURVEY DATA FOR ALL COURSES - APRIL, 1950 - (Cont'd.)

1 DRAINAGE BASINS and SNOW COURSES	ELEVATION in FEET	DATE of SURVEY	DEPTH of SNOW Inches	DENSITY Per cent	WATER CONTENT Inches	2 Normal Water content Inches	Percent Normal water content	Corresponding Water Content 1949 Inches
YUBA RIVER Cont'd.								
Church Meadows	6700	4- 2-50	74.8	45.5%	34.0	43.4	78%	35.9
Furnace Flat	6600	3-29-50	122.3	43.8%	53.6	53.4	100%	48.5
Lake Fordyce	6500	3-29-50	116.5	42.6%	49.6	44.7	111%	49.6
Findley Peak	6500	3-29-50	85.3	41.3%	35.2	34.0	104%	39.2
Jackson Meadows	6300	3-29-50	90.8	36.3%	33.0	33.1	100%	39.5
Cisco	5950	3-31-50	64.0	48.6%	31.1	25.7	121%	36.3
Cisco Flat	5800	3-28-50	79.4	40.6%	32.2	24.0	134%	33.2
Sardine Flat	5800	4- 1-50	44.0	46.4%	20.4	17.6	116%	25.7
Six Mile Valley	5700	3-31-50	60.2	48.0%	28.9	25.4	114%	38.0
Bowman Lake	5630	3-29-50	74.5	36.2%	27.0	23.4	115%	32.1
Carpenter Flat	4900	3-31-50	46.5	45.4%	21.1	21.1	100%	37.8
Lake Spaulding	4900	3-28-50	80.1	40.3%	32.3	25.8	125%	42.9
TRUCKEE RIVER								
Mount Rose (In Nevada)	9000	3-31-50	87.5	40.3%	35.3	35.5	99%	27.9
Independence Lake	8400	4- 1-50	112.7	41.1%	46.3	49.1	94%	36.5
Webber Peak	8000	3-30-50	116.5	36.4%	42.4	48.7	87%	43.0
Donner Summit	7020	3-28-50	114.8	42.2%	48.5	45.2	107%	42.0
Independence Camp	7000	4- 1-50	66.8	44.3%	29.6	23.0	129%	25.0
Ward Creek	7000	4- 1-50	123.0	45.6%	56.1	52.9	106%	48.2
Webber Lake	6800	3-30-50	94.8	40.5%	38.4	36.0	107%	35.0
Sage Hen Creek	6500	3-31-50	56.9	40.1%	22.8	20.8	110%	20.6
Truckee #2	6400	4- 2-50	40.8	45.6%	18.6	18.0	103%	18.9
Independence Creek	6300	3-31-50	39.7	42.3%	16.8	15.4	109%	15.6
Tahoe City	6250	4- 2-50	26.8	51.1%	13.7	17.1	80%	22.5
Truckee Ranger Station	6000	3-30-50	32.3	45.8%	14.8	9.3	159%	16.2
Donner Lake	5950	4- 1-50	58.0	44.3%	25.7	25.7	100%	30.0
LAKE TAHOE								
Mount Rose (In Nevada)	9000	3-31-50	87.5	40.3%	35.3	35.5	99%	27.9
Lake Lucille	8400	4- 2-50	180.8	41.3%	74.6	65.4	114%	57.9
Rubicon Peak #1	8100	4- 4-50	151.6	39.4%	59.7	49.0	122%	45.2
Marlette Lake	8000	4- 1-50	69.2	38.9%	26.9	-	-	19.0
Hagans Mds. (Freel Peak)	8000	4- 1-50	58.5	47.2%	27.6	-	-	22.4
Rubicon Peak #2	7500	4- 4-50	82.0	47.3%	38.8	38.0	102%	30.8
Echo Summit	7500	3-31-50	103.5	45.1%	46.7	46.7	100%	37.2
Dagetts Pass (In Nevada)	7350	4- 1-50	36.6	45.4%	16.6	14.3	116%	16.2

1, 2 See footnotes first page of this table.

TABLE 5 - SNOW SURVEY DATA FOR ALL COURSES - APRIL, 1950 - (Cont'd.)

1 DRAINAGE BASINS and SNOW COURSES	ELEVATION in FEET	DATE of SURVEY	DEPTH of SNOW Inches	DENSITY Per cent	WATER CONTENT Inches	2 Normal Water content Inches	Percent Normal water content	Corresponding Water Content 1949 Inches
LAKE TAHOE Cont'd.								
Freel Bench	7300	4- 1-50	32.7	49.8%	16.3	-	-	16.2
Ward Creek	7000	4- 1-50	123.0	45.6%	56.1	52.9	106%	48.2
Glenbrook (In Nevada) #2	6900	4- 1-50	46.3	36.1%	16.7	-	-	14.2
Richardson #2	6500	4- 1-50	60.9	42.4%	25.8	78.7	138%	22.8
Upper Truckee	6400	4- 3-50	24.7	52.6%	13.0	11.0	118%	16.2
Little Valley (In Nevada)	6300	4- 2-50	16.7	48.5%	8.1	-	-	21.7
Tahoe City	6250	4- 2-50	26.8	51.1%	13.7	17.1	80%	22.5
AMERICAN RIVER								
Carson Pass	8600	3-29-50	107.6	41.2%	44.3	44.0	101%	35.4
Lake Lucille	8400	4- 2-50	180.8	41.3%	74.6	65.4	114%	57.9
Rubicon Peak #1	8100	4- 4-50	151.6	39.4%	59.7	49.0	122%	45.2
Tragedy Springs	7900	3-31-50	124.5	40.6%	50.5	50.9	99%	45.6
Twin Lakes	7900	3-28-50	91.7	42.3%	38.8	34.6	112%	30.4
Echo Summit	7500	3-31-50	103.5	45.1%	46.7	46.7	100%	37.2
Lake Audrain	7300	4- 1-50	107.2	42.3%	45.3	42.8	106%	36.6
Silver Lake	7300	4- 1-50	74.0	47.8%	35.4	26.3	135%	27.4
Darrington	7100	4- 1-50	90.6	45.7%	41.4	39.2	106%	33.9
Donner Summit	7020	3-28-50	114.8	42.2%	48.5	45.2	107%	42.0
Ward Creek	7000	4- 1-50	123.0	45.6%	56.1	52.9	106%	48.2
Phillips	6,800	3-28-50	93.6	39.5%	37.0	33.4	111%	34.0
Soda Springs	6,750	3-28-50	109.2	41.6%	45.4	41.5	109%	36.4
Tamarack Flat	6,600	3-28-50	94.1	39.4%	37.1	34.0	109%	34.2
Huysink	6,600	3-29-50	137.7	44.1%	60.7	53.9	113%	50.3
Onion Creek	6,100	3-30-50	64.1	44.1%	28.3	26.0	109%	30.1
Cisco	5950	3-31-50	64.0	48.6	31.1	25.7	121%	36.3
Six Mile Valley	5700	3-31-50	60.2	48.0%	28.9	25.4	114%	38.0
Strawberry	5700	3-28-50	43.6	36.5%	15.9	10.0	159%	21.1
Carpenter Flat	4900	3-31-50	46.5	45.4%	21.1	21.1	100%	37.8
CARSON RIVER								
Carson Pass	8600	3-29-50	107.6	41.2%	44.3	44.0	101%	35.4
Blue Lakes	8000	3-30-50	109.3	38.9%	42.5	42.8	99%	36.3

1, 2 See footnotes first page of this table.

TABLE 5 - SNOW SURVEY DATA FOR ALL COURSES - APRIL, 1950 - (Cont'd.)

1 DRAINAGE BASINS and SNOW COURSES	ELEVATION in FEET	DATE of SURVEY	DEPTH of SNOW Inches	DENSITY Per cent	WATER CONTENT Inches	2 Normal Water content Inches	Percent Normal water content	Corresponding Water Content 1949 Inches
COSUMNES RIVER								
Corral Flat	7300	3-31-50	105.4	45.2%	47.6	46.3	103%	44.7
Lumberyard	6600	3-28-50	99.4	37.9%	37.7	37.1	102%	46.9
Hams Station	5600	3-28-50	19.3	30.1%	5.8	7.2	81%	29.8
MOKELUMNE RIVER								
Carson Pass	8600	3-29-50	107.6	41.2%	44.3	44.0	101%	35.4
Blue Lakes	8000	3-30-50	109.3	38.9%	42.5	42.8	99%	36.3
Twin Lakes	7900	3-28-50	91.7	42.3%	38.8	34.6	112%	30.4
Tragedy Springs	7900	3-31-50	124.5	40.6%	50.5	50.9	99%	45.6
Wheeler Lake	7800	3-31-50	137.1	42.6%	58.4	61.8	94%	53.6
Pacific Valley	7500	4-1-50	103.4	43.7%	45.2	42.7	106%	38.8
Lake Alpine	7500	3-30-50	116.6	44.9%	52.3	45.4	115%	42.9
Silver Lake	7300	4-1-50	74.0	47.8%	35.4	26.3	135%	27.4
Corral Flat	7300	3-31-50	105.4	45.2%	47.6	46.3	103%	44.7
Bear Valley Ridge	6700	3-28-50	88.9	39.5%	35.1	30.9	114%	37.2
Lumberyard	6600	3-28-50	99.4	37.9%	37.7	37.1	102%	46.9
Big Meadow	6500	3-29-50	88.2	44.8%	39.5	32.6	121%	42.1
Cottage Spring	5700	4-3-50	31.7	46.7%	14.8	12.5	118%	29.6
Hams Station	5600	3-28-50	19.3	30.1%	5.8	7.2	81%	29.8
Dorrington	4800	4-3-50	15.4	42.9%	6.6	6.3	105%	25.6
Antelope Springs	4350	3-28-50	Patches only		-	1.5	-	22.2
STANISLAUS RIVER								
Sonora Pass	8800	3-30-50	65.7	38.4%	25.2	28.0	90%	27.0
Lower Relief Valley	8300	3-29-50	99.9	40.7%	40.7	47.6	86%	40.3
Soda Creek Flat	7900	3-30-50	65.3	39.2%	25.6	27.0	95%	23.3
Eagle Meadows	7500	4-1-50	62.1	45.2%	28.1	29.6	95%	28.9
Lake Alpine	7500	3-30-50	116.6	44.9%	52.3	45.4	115%	42.9
Pacific Valley	7500	4-1-50	103.4	43.7%	45.2	42.7	106%	38.8
Herring Creek	7400	4-2-50	70.8	46.8%	33.1	34.4	96%	34.2
Relief Dam	7300	3-31-50	54.4	42.8%	23.3	25.2	92%	25.3
Spicers	6600	4-2-50	72.3	47.9%	34.6	33.1	105%	37.9
Niagara Flat	6500	3-26-50	72.3	34.7%	25.1	24.5	102%	29.9
Big Meadow	6500	3-29-50	88.2	44.8%	39.5	32.6	121%	42.1
Cottage Spring	5700	4-3-50	31.7	46.7%	14.8	12.5	118%	29.6
Dorrington	4800	4-3-50	15.4	42.9%	6.6	6.3	105%	25.6

1, 2 See footnotes first page of this table.

TABLE 5 - SNOW SURVEY DATA FOR ALL COURSES - APRIL, 1950 - (Cont'd.)

1 DRAINAGE BASINS and SNOW COURSES	ELEVATION in FEET	DATE of SURVEY	DEPTH of SNOW Inches	DENSITY Per cent	WATER CONTENT Inches	2 Normal Water content Inches	Percent Normal water content	Corresponding Water Content 1949 Inches
WALKER RIVER								
Virginia Lakes	9500	4- 1-50	46.1	35.6%	16.4	21.3	77%	18.5
Center Mountain	9400	3-29-50	115.6	33.7%	38.9	43.4	90%	39.9
Sonora Pass	8800	3-30-50	65.7	38.4%	25.2	28.0	90%	27.0
Buckeye Forks	8500	3-29-50	68.1	32.2%	21.9	23.8	92%	22.7
Willow Flat	8250	3-29-50	20.0	47.5%	9.5	16.2	59%	12.2
Buckeye Roughs	7900	3-30-50	59.9	40.1%	24.0	23.8	101%	25.0
Leavitt Meadows	7200	3-30-50	[illegible].4	68 %	[illegible].0	11.6	43%	11.8
TUOLUMNE RIVER								
Fletcher Lake	10300	3-31-50	95.8	37.6%	36.0	37.6	96%	28.1
Tioga Pass	9900	3-30-50	69.2	34.7%	24.0	31.2	77%	15.3
Dana Meadows	9700	3-30-50	80.0	36.9%	29.5	34.1	87%	26.9
Rafferty Meadows	9600	3-31-50	93.3	36.5%	34.1	New Course 1948		30.0
Center Mountain	9400	3-29-50	115.6	33.7%	38.9	43.4	90%	39.9
Bond Pass	9300	3-30-50	122.0	37.7%	46.0	49.8	92%	32.0
Grace Meadows	8800	3-30-50	108.0	37.2%	40.2	46.4	87%	33.0
Snow Flat	8700	4- 1-50	115.0	36.5%	42.0	48.6	86%	38.9
Tuolumne Meadows	8600	3-31-50	66.6	38.4%	25.6	25.3	101%	18.7
Horse Meadow	8400	3-31-50	118.0	38.5%	45.4	New Course 1948		46.7
Lower Relief Valley	8300	3-29-50	99.9	40.7%	40.7	47.6	86%	40.3
Spotted Fawn	8000	4- 1-50	115.0	40.8%	46.9	New Course 1948		50.0
Wilmer Lake	8000	3-30-50	128.0	37.3%	47.7	51.6	92%	40.9
Saches Springs	7900	4- 2-50	88.4	43.7%	38.6	New Course 1948		42.7
Huckleberry Lake	7800	4- 1-50	106.0	38.1%	40.4	New Course 1948		40.9
Paradise	7600	3-28-50	117.0	40.3%	47.1	49.2	96%	39.4
Gin Flat	7100	3-29-50	81.3	44.2%	35.9	39.1	92%	45.9
Kibbey Ridge - Upper	6700	4- 2-50	43.0	45.6%	19.6	24.5	80%	32.2
Vernon Lake	6700	3-29-50	77.5	38.6%	29.9	31.0	96%	33.4
Beehive Meadow	6500	3-28-50	77.4	36.4%	28.2	29.5	96%	35.1
Bell Meadows	6500	4- 1-50	41.6	47.1%	19.6	21.7	90%	29.4
Kibbey Ridge - Lower	6200	4- 2-50	59.7	46.4%	27.7	32.1	86%	40.1
MERCED RIVER								
Fletcher Lake	10300	3-31-50	95.8	37.6%	36.0	37.6	95.7%	28.1

1, 2 See footnotes first page of this table.

TABLE 5 - SNOW SURVEY DATA FOR ALL COURSES - APRIL, 1950 - (Cont'd.)

1 DRAINAGE BASINS and SNOW COURSES	ELEVATION in FEET	DATE of SURVEY	DEPTH of SNOW Inches	DENSITY Per cent	WATER CONTENT Inches	2 Normal Water content Inches	Percent Normal water content	Corresponding Water Content 1949 Inches
MERCED RIVER Cont'd.								
Snow Flat	8700	4- 1-50	115.0	36.5%	42.0	48.6	86%	38.9
Ostrander Lake	8200	3-30-50	91.2	38.5%	35.1	43.0	82%	38.3
Lake Tenaya	8150	3-29-50	100.8	41.8%	42.1	39.3	107%	34.2
Gin Flat	7100	3-29-50	81.3	44.2%	35.9	39.1	92%	45.9
Peregoy Meadows	7000	3-31-50	75.0	40.0%	30.0	32.4	93%	37.6
MONO LAKE								
Gem Pass	10450	3-29-50	69.1	35.0%	24.2	31.1	78%	N.S.M.
Saddle Bags Lake	10000	3-30-50	91.5	38.7%	35.4	37.0	96%	N.S.M.
Tioga Pass	9900	3-30-50	69.2	34.7%	24.0	31.2	77%	15.3
Dana Meadows	9700	3-30-50	80.0	36.9%	29.5	34.1	87%	26.9
Rhinedollar Lake	9500	3-29-50	81.7	36.3%	29.9	34.3	87%	N.S.M.
Agnew Pass	9450	3-28-50	68.6	36.9%	25.3	34.8	73%	34.1
Gem Lake	9200	3-29-50	67.8	33.6%	22.8	30.7	74%	N.S.M.
UPPER SAN JOAQUIN RIVER								
Mono Pass	11450	4- 4-50	72.3	33.9%	24.6	New Course	1950	-
Piute Pass	11200	3-31-50	93.9	36.3%	34.1	35.5	96%	22.4
Emerald Lake	10800	4- 6-50	83.6	30%	34.9	40.5	86%	27.3
Blackcap Basin	10800	4- 4-50	77.4	38.5%	29.8	39.5	75%	35.0
Pioneer Basin	10300	4- 4-50	88.0	38.2%	33.6	New Course	1950	-
Heart Lake	10100	4- 4-50	65.3	38.3%	25.0	32.0	78%	22.4
Volcanic Knob	10100	4- 2-50	77.4	38.4%	29.7	34.6	86%	23.0
Rose Marie	10000	4- 3-50	68.0	39.1%	26.6	33.4	80%	22.3
Colby Meadow	10000	4- 6-50	52.5	26 %	20.3	25.6	79%	17.2
Upper Burnt Corral	9700	4- 4-50	80.8	37.1%	30.0	39.2	77%	32.6
Mammoth Pass	9500	4- 4-50	92.2	42.2%	38.9	49.7	78%	43.1
Agnew Pass	9450	3-28-50	68.6	36.9%	25.3	34.8	73%	34.1
Kaiser Pass	9200	3-29-50	101.3	38.2%	38.7	42.7	91%	35.4
Dutch Lake	9100	3-31-50	74.5	36.1%	26.9	31.4	86%	25.2
Coyote Lakes	8600	3-28-50	85.8	35.7%	30.6	35.9	85%	28.4
Cora Lakes	8500	3-31-50	74.1	42.2%	31.3	40.3	78%	28.3
Nellie Lake	8250	3-27-50	100.6	38.3%	38.5	39.2	98%	37.6
Vermilion Valley	7500	4- 1-50	23.0	48.3%	11.1	14.3	78%	14.3

1, 2 See footnotes first page of this table.

TABLE 5 - SNOW SURVEY DATA FOR ALL COURSES - APRIL, 1950 - (Cont'd.)

1 DRAINAGE BASINS and SNOW COURSES	ELEVATION in FEET	DATE of SURVEY	DEPTH of SNOW Inches	DENSITY Per Cent	WATER CONTENT Inches	2 Normal Water content Inches	Percent Normal water content	Corresponding Water Content 1949 Inches
UPPER SAN JOAQUIN RIVER Cont'd.								
Chilkoot Lake	7450	4- 2-50	68.1	48.3%	32.9	44.7	74%	46.7
Chilkoot Meadow	7250	4- 2-50	63.8	49.8%	31.8	43.2	74%	46.7
Florence Lake	7200	3-30-50	18.2	41.8%	7.6	8.7	87%	11.9
Huntington Lake	7000	3-27-50	61.4	36.0%	22.1	23.6	94%	28.1
Clover Meadow	7000	4- 1-50	46.8	42.9%	20.1	27.0	74%	30.4
Jackass Meadows	7000	4- 1-50	38.6	46.6%	18.0	25.2	71%	29.8
Chiquito Creek	6800	4- 1-50	40.2	48.5%	19.5	24.0	81%	30.2
Beasore Meadow	6800	4- 2-50	55.0	48.9%	26.9	31.9	84%	40.0
Poison Meadow	6500	4- 2-50	42.3	47.5%	20.1	27.1	74%	44.2
KINGS RIVER								
Bishop Pass	11400	4- 2-50	90.1	40.7%	36.7	35.7	103%	28.0
Blackcap Basin	10800	4- 4-50	77.4	38.5%	29.8	39.5	75%	35.0
Upper Burnt Corral	9700	4- 4-50	80.8	47.1%	30.0	39.2	77%	32.6
Beard Meadow	9300	4- 4-50	79.6	35.7%	28.4	36.3	78%	28.2
Rowell Meadow	9200	3-30-50	68.2	34.8%	23.7	32.6	73%	23.6
Woodchuck Meadow	9100	4- 5-50	69.7	37.3%	26.0	35.7	73%	30.0
Swamp Meadow	9000	4- 4-50	82.1	43.0%	35.3	42.1	84%	38.1
Round Corral	9000	4- 5-50	68.2	36.4	24.8	39.2	63%	32.0
Junction Meadow	8500	3-30-50	49.1	37.7%	18.5	23.3	79%	20.3
Helm Meadow	8500	4- 4-50	47.3	46.5%	22.0	33.2	66%	25.3
Long Meadow	8500	4- 4-50	61.6	33.8%	20.8	33.0	63%	27.8
Statum Meadow	8300	4- 5-50	62.6	38.2%	23.9	36.2	66%	31.2
Post Corral Meadow	8200	4- 4-50	55.6	36.3%	20.2	31.1	65%	22.8
Sand Meadow	8050	4- 4-50	56.2	44.1%	24.8	33.3	74%	28.5
Big Meadows	7660	4- 1-50	54.4	44.0%	23.9	31.1	77%	27.7
Horse Corrall Meadow	7600	3-31-50	39.0	41.3%	16.1	21.9	74%	19.6
Bear Ridge	7400	4- 5-50	47.6	48.3%	23.0	30.5	75%	35.6
Fred Meadows	7200	4- 5-50	37.6	51.6%	19.4	25.3	77%	34.4
Grant Grove	6660	4- 1-50	27.1	43.1%	11.7	15.5	43%	27.8
Cliff Camp	6300	4- 5-50	7.3	31.5%	2.3	15.5	15%	26.2
Dinkey Sand Flat	5500	4- 5-50	23.8	43.7%	10.4	14.6	71%	30.4

1, 2 See footnotes first page of this table.

TABLE 5 - SNOW SURVEY DATA FOR ALL COURSES - APRIL, 1950 - (Cont'd.)

1 DRAINAGE BASINS and SNOW COURSES	ELEVATION in FEET	DATE of SURVEY	DEPTH of SNOW Inches	DENSITY Per cent	WATER CONTENT Inches	2 Normal Water content Inches	Percent Normal water content	Corresponding Water Content 1949 Inches
KAWEAH RIVER								
Panther Meadow	8650	3-28-50	101.3	32.8%	33.2	40.1	83%	29.9
Hockett Meadow	8600	3-30-50	71.5	39.4%	28.2	34.3	82%	25.6
Quinn Ranger Station	8000	3-29-50	44.4	40.1%	17.8	23.9	74%	19.9
Mineral King	8000	4- 3-50	46.9	49.1	23.0	New Course 1948		17.2
Big Meadows	7660	4- 1-50	54.4	44.0%	23.9	31.1	77%	27.7
Giant Forest	6360	3-28-50	34.5	40.3%	13.9	18.6	75%	24.9
TULE RIVER								
Quaking Aspen	7000	3-30-50	17.0	38.2%	6.5	16.5	39%	22.7
Old Enterprise Mill	6600	3-31-50	30.6	41.2%	12.6	19.8	64%	25.1
DEER CREEK								
Dead Horse Meadow	7200	4- 3-50	11.9	47.3%	5.6	15.4	36%	28.6
KERN RIVER								
Big Horn Plateau	11400	3-30-50	72.2	28.3%	20.4	New Course 1949		13.9
Cottonwood Pass	11100	3-26-50	41.6	26.2%	10.9	New Course 1948		5.8
Siberian Pass	10800	3-27-50	62.3	28.4%	17.7	New Course 1948		10.4
Crabtree Meadow	10800	3-29-50	58.2	30.0%	17.5	New Course 1949		12.7
Guyot Flat	10700	3-29-50	64.4	29.3%	18.9	New Course 1949		12.0
Sandy Meadows	10700	3-30-50	53.2	35.0%	18.6	New Course 1949		13.0
Tyndall Creek	10600	3-30-50	59.3	30.4%	18.0	New Course 1949		12.9
Rock Creek	9900	3-27-50	51.5	33.0%	17.0	New Course 1949		9.8
Big Whitney Meadow	9800	3-26-50	52.5	31.2%	16.4	New Course 1948		11.1
Round Meadow	9000	4- 1-50	62.7	45.5%	28.5	27.6	103%	28.4
Ramshaw Meadows	8800	3-28-50	35.7	27.5%	9.8	12.4	79%	9.3
Little Whitney Meadows	8500	3-25-50	37.9	29.6%	11.2	14.9	75%	10.4
Bonita Meadows	8400	3-31-50	28.9	41.2%	11.9	15.2	78%	14.8
Casa Vieja Meadows	8400	3-29-50	55.1	36.8%	20.3	20.9	97%	14.8
Monache Meadows	8000	Record not	received	-	-	9.9	-	5.9
Quinn Ranger Station	8000	3-29-50	44.4	40.1%	17.8	23.9	74%	19.9
Beach Meadows	7800	3-30-50	17.7	41.3%	7.3	11.2	65%	10.3
Burnt Corral Meadow	6200	Record not	received	-	-	5.4	-	0.0
Lloyd Meadows	5600	Record not	received	-	-	4.5	-	0.0
OWENS RIVER								
UPPER OWENS								
Mammoth Pass #1	9500	4- 4-50	92.2	42.2%	38.9	49.7	78%	43.1
Minarettes #2	9000	4- 3-50	72.3	41.8%	30.2	35.9	84%	31.6

1, 2 See footnotes first page of this table.

TABLE 5 -- SNOW SURVEY DATA FOR ALL COURSES - APRIL, 1950 - (Cont'd.)

1 DRAINAGE BASINS and SNOW COURSES	ELEVATION in FEET	DATE of SURVEY	DEPTH of SNOW Inches	DENSITY Per Cent	WATER CONTENT Inches	2 Normal Water content Inches	Percent Normal water content	Corresponding Water Content 1949 Inches
OWENS RIVER Cont'd.								
UPPER OWENS								
Minarettes #1	8300	4- 3-50	43.4	46.1%	20.0	23.5	85%	23.8
Mammoth Pass #2	8300	4- 4-50	40.0	45.8%	18.3	23.9	77%	22.1
BISHOP CREEK								
Bishop Pass	11400	4- 2-50	90.1	40.7%	36.7	35.7	103%	28.0
Piute Pass	11200	3-31-50	93.9	36.3%	34.1	35.5	96%	22.4
East Piute Pass	10800	4- 1-50	32.4	32.1%	10.4	19.6	53%	13.2
Sawmill	10200	4- 2-50	51.2	32.8%	16.8	21.6	78%	16.2
North Lake	9500	3-31-50	18.5	37.3%	6.9	11.6	59%	10.3
South Fork	9000	4- 2-50	No Snow on Course			7.3	0 %	3.6
Bishop Park	8500	4- 1-50	No Snow on Course			6.4	0 %	7.1
ROCK CREEK								
Rock Creek #3	10000	3-30-50	44.7	32.4%	14.5	15.9	91%	14.9
Rock Creek #2	9050	3-30-50	36.8	34.8%	12.8	10.9	117%	11.8
Rock Creek #1	8700	3-30-50	29.6	33.8%	10.0	10.2	98%	9.8
BIG PINE CREEK								
Big Pine Creek #1	10000	3-28-50	66.6	29.3%	19.5	26.5	74%	19.5
Big Pine Creek #3	9800	3-28-50	47.1	29.7%	14.0	18.8	74%	14.0
Big Pine Creek #2	9700	3-28-50	52.1	27.6%	14.4	18.9	76%	14.6
COTTONWOOD CREEK								
Cottonwood #2	11100	3-28-50	21.9	31.5%	6.9	13.2	52%	9.4
Cottonwood #1	10600	3-28-50	25.4	31.5%	8.0	12.4	65%	11.2
SOUTHERN CALIFORNIA								
SANTA ANA RIVER								
San Antonio #2	8400	3-29-50	27.0	46.7%	12.6	-	-	24.8
Ice House #3	8000	3-30-50	26.4	43.6%	11.5	-	-	20.6
Ice House #2	7660	3-30-50	10.2	49.0%	5.0	-	-	19.8

1, 2 See footnotes first sheet of this table.

TABLE 6
PRECIPITATION DATA
AS OF APRIL 1,1950

1 BASIN AND PRECIPITATION STATION	ELEVATION IN FEET	PRECIPITATION DURING MARCH 1950			PRECIPITATION FROM JULY 1, 1949 TO APRIL 1, 1950			2 Normal Seasonal Precipitation (July to June) Inches
		Total (Inches)	2 Normal (Inches)	In per cent of Normal	Total (Inches)	2 Normal (Inches)	In per cent of Normal	
UPPER SACRAMENTO - PIT AND McCLOUD RIVERS								
Jess Valley	5400	3.12	1.61	194%	10.10	11.70	86%	15.77
Alturas	4460	2.34	1.20	195%	8.17	9.14	89%	12.09
Bieber	4200	3.33	1.82	183%	12.29	13.15	93%	16.10
Mount Shasta	3555	3.48	4.54	77%	17.32	29.42	59%	34.86
Hat Creek	3400	2.87	1.98	145%	13.09	14.64	89%	17.95
Fall River Mills	3340	2.96	2.43	122%	11.92	15.62	76%	18.93
McCloud	3270	3.91	5.88	66%	29.51	42.14	70%	49.51
FEATHER RIVER								
Bucks Storage Dam	5200	10.18	10.51	97%	48.43	60.76	80%	70.17
Sierraville	5000	4.38	3.32	132%	21.42	21.95	98%	25.34
Mineral	4935	7.39	7.14	104%	33.71	44.31	76%	51.76
Prattville	4600	5.86	5.25	112%	29.14	32.01	91%	37.01
Canyon Dam	4570	5.63	5.35	105%	31.05	32.48	96%	37.96
Chester	4550	5.18	4.34	119%	24.55	26.93	91%	31.57
Doyle	4300	1.24	1.20	103%	5.37	8.97	60%	10.63
Veramont	3500	4.27	4.56	94%	20.62	29.50	70%	33.89
Quincy	3409	Report not received			-	-	-	-
West Branch	3216	10.42	9.35	111%	41.26	62.40	66%	72.19
Caribou	3000	6.38	5.95	107%	31.84	35.25	90%	40.89
Storrie	1760	9.47	9.61	99%	48.19	56.22	86%	64.68
Las Plumas	506	5.31	6.57	81%	38.57	43.39	89%	49.45

1 Certain of the stations are not actually in the basin shown, but are closely adjacent. Stations common to more than one basin are listed under each basin.

2 These are computed 60 year normals for the period 1890-1949, inclusive. Where the periods of record are less then 60 years, the normals have been computed by comparison with the records of stations for which the actual 60 year data are complete. This gives all normals based upon the same period of years and comparable.

3 R.N.C. Record not complete.

TABLE 6 - PRECIPITATION DATA - TO APRIL 1, 1950 (Cont'd.)

1 BASIN AND PRECIPITATION STATION	ELEVATION IN FEET	PRECIPITATION DURING MARCH 1950			PRECIPITATION FROM JULY 1, 1949 TO APRIL 1, 1950			2 Normal Seasonal Precipitation (July to June) Inches
		Total (Inches)	2 Normal (Inches)	In per cent of Normal	Total (Inches)	2 Normal (Inches)	In per cent of Normal	
YUBA RIVER								
Soda Springs	6870	9.89	7.69	129%	46.24	40.99	113%	47.24
Bowman Dam	5346	12.22	11.49	106%	53.38	59.35	90%	69.49
Lake Spaulding	4600	11.86	10.80	110%	53.24	56.86	94%	67.07
Deer Creek	3700	10.84	10.22	106%	55.83	58.94	95%	68.42
Nevada City	2570	7.84	7.81	100%	41.77	43.51	96%	50.34
Dobbins (Near)	1650	8.07	6.03	134%	35.11	35.81	98%	41.55
TRUCKEE & TAHOE BASINS								
Twin Lakes	7970	10.79	7.57	143%	43.40	38.86	98%	45.44
Soda Springs	6870	9.89	7.69	129%	46.24	40.99	113%	47.24
Tahoe	6230	4.86	4.57	106%	25.95	28.07	92%	32.19
Truckee	6200	6.04	4.30	140%	29.73	23.35	127%	26.38
AMERICAN RIVER								
Twin Lakes	7970	10.79	7.57	143%	43.40	38.86	112%	54.44
Soda Springs	6870	9.89	7.69	129%	46.24	40.99	113%	47.24
Blue Canyon A.S.	5272	11.73	-	-	54.98	-	-	-
Colfax	2420	6.73	8.60	78%	38.21	41.00	93%	47.54
Placerville	1924	4.95	6.82	73%	29.23	35.11	83%	40.51
CARSON RIVER								
Twin Lakes	7970	10.79	7.57	143%	43.40	38.86	98%	54.44
MOKELUMNE RIVER								
Twin Lakes	7970	10.79	7.57	143%	43.40	38.86	98%	54.44
Salt Springs Reservoir	3660	6.93	6.98	99%	35.15	37.26	94%	44.32
Tiger Creek	2400	8.17	7.51	109%	39.52	39.12	101%	45.60
West Point	2326	6.38	6.83	93%	30.07	34.12	91%	39.80
Electra	699	5.08	5.51	92%	24.78	27.22	91%	31.32
STANISLAUS RIVER								
Strawberry Lake	5620	5.25	6.08	86%	28.30	32.79	86%	39.21
Calaveras Big Trees	4700	8.58	9.24	93%	44.24	45.15	98%	53.08

1, 2 See footnotes first page of this table.

TABLE 6 - PRECIPITATION DATA - TO APRIL 1, 1950 (Cont'd.)

1 BASIN AND PRECIPITATION STATION	ELEVATION IN FEET	PRECIPITATION DURING MARCH 1950			PRECIPITATION FROM JULY 1, 1949 TO APRIL 1, 1950			2 Normal Seasonal Precipitation (July to June) Inches
		Total (Inches)	2 Normal (Inches)	In per cent of Normal	Total (Inches)	2 Normal (Inches)	In per cent of Normal	
WALKER RIVER								
Bridgeport	6473	18.8	0.99	190%	13.71	8.99	153%	10.56
TUOLUMNE RIVER								
Strawberry Lake	5620	5.25	6.08	86%	28.30	32.79	86%	39.21
Lake Eleanor	4650	6.17	7.08	87%	30.55	37.69	81%	44.31
Hetch Hetchy	3530	5.38	5.90	91%	23.79	29.49	81%	35.46
Groveland	2828	6.51	6.59	99%	27.35	33.12	83%	37.83
Sonora	1825	4.63	5.85	79%	20.63	28.71	72%	33.01
MERCED RIVER								
Yosemite	3960	5.58	5.48	102%	28.65	30.89	93%	36.27
Mariposa	1932	3.51	5.46	64%	21.56	27.00	80%	30.38
Merced Falls	351	1.78	2.72	65%	11.29	14.02	81%	16.04
MONO BASIN								
Ellery Lake	9600	2.11	4.45	47%	14.75	25.65	58%	31.29
Gem Lake	9120	1.64	3.68	45%	9.37	22.74	41%	26.79
UPPER SAN JOAQUIN								
Huntington Lake	7000	3.87	5.00	77%	22.34	27.00	83%	32.24
Big Creek	4900	3.34	5.27	63%	20.95	27.27	78%	32.79
Crane Valley	3500	4.45	6.81	65%	26.50	36.51	70%	42.05
North Fork	3000	3.03	5.89	51%	21.56	30.26	71%	34.76
Auberry	2050	2.58	4.94	52%	16.20	23.18	70%	26.48
OWENS BASIN								
South Lake	9620	2.31	2.18	106%	13.43	15.14	89%	17.59
Lake Sabrina	9100	2.56	2.09	122%	13.93	15.41	90%	17.70
Intake #2 Bishop Cr.	8000	1.35	1.90	71%	7.95	10.59	75%	12.49
Crooked Creek	6700	1.05	1.32	80%	5.42	8.59	63%	9.87
Big Pines Power House #3	5400	0.84	1.01	83%	6.24	7.44	84%	8.11
Independence	3957	No Report		-	-	-	-	-
L.A. Aqueduct at Intake	3880	0.10	0.45	22%	4.44	3.97	112%	4.37

1, 2, 3 See footnotes first page of this table.

TABLE 6 - PRECIPITATION DATA - TO APRIL 1, 1950 (Cont'd.)

1 BASIN AND PRECIPITATION STATION	ELEVATION IN FEET	PRECIPITATION DURING MARCH 1950			PRECIPITATION FROM JULY 1, 1949 TO APRIL 1, 1950			2 Normal Seasonal Precipitation (July to June) Inches
		Total (Inches)	2 Normal (Inches)	In per cent of Normal	Total (Inches)	2 Normal (Inches)	In per cent of Normal	
OWENS BASIN Cont'd.								
Cottonwood Gates	3600	0.17	0.58	29%	3.67	4.74	77%	5.21
Piedra	500	2.61	3.24	81%	10.01	16.07	62%	18.31
KINGS RIVER								
Grant Grove	6775	5.55	6.64	84%	31.79	34.73	92%	42.11
Balch Camp	1300	3.71	4.61	80%	21.70	24.10	90%	28.85
Piedra	500	2.61	3.24	81%	10.01	16.07	62%	18.31
KAWEAH RIVER								
Grant Grove	6775	5.55	6.64	84%	31.79	34.73	92%	42.11
Giant Forest	6360	5.81	7.55	77%	35.50	36.75	97%	43.97
Ash Mountain	1600	3.19	5.00	64%	16.29	21.78	75%	26.31
Three Rivers	870	2.29	3.57	64%	13.07	17.35	75%	20.59
KERN RIVER								
Springville (Near)	4050	2.42	6.46	37%	24.48	30.60	80%	36.35
Kern River #3 Intake	3640	1.24	2.75	45%	10.12	15.52	65%	17.29
Glennville	3300	1.95	3.84	51%	11.69	17.36	67%	20.87
Kernville	2600	0.97	1.63	60%	8.30	9.33	89%	10.27
LOS ANGELES RIVER								
Opids Camp	4480	2.70	7.49	36%	26.55	36.50	73%	40.59
Loomis Ranch	4050	0.84	3.74	22%	9.78	18.62	53%	20.76
Haines Canyon, Upper	3450	2.10	5.50	38%	16.11	25.21	64%	29.70
Clear Creek	3300	2.06	5.87	35%	17.46	28.93	60%	31.66
Sleepy Hollow Ranch	2950	1.83	5.94	31%	15.48	28.39	55%	31.74
Briggs Terrace	2310	2.05	5.38	38%	16.23	25.92	63%	29.15
La Crescenta	2069	No Report	-	-	-	-	-	-
Big Tujunga Dam	2050	1.93	5.62	34%	13.69	26.90	51%	30.11
Arroyo Seco Ranger Sta.	1530	1.69	4.56	37%	13.59	23.68	57%	26.36
SAN GABRIEL RIVER								
Table Mountain Observ.	7500	0.86	2.17	40%	9.77	12.91	76%	14.34

1, 2, 3 See footnotes first page of this table.

TABLE 6 - PRECIPITATION DATA - TO APRIL 1, 1950 (Cont'd.)

1 BASIN AND PRECIPITATION STATION	ELEVATION IN FEET	PRECIPITATION DURING MARCH 1950			PRECIPITATION FROM JULY 1, 1949 TO APRIL 1, 1950			2 Normal Seasonal Precipitation (July to June) Inches
		Total (Inches)	2 Normal (Inches)	In per cent of Normal	Total (Inches)	2 Normal (Inches)	In per cent of Normal	
SAN GABRIEL RIVER Cont'd.								
Big Pines Camp	6860	1.41	4.92	29%	14.51	24.23	60%	26.98
Mt. Wilson	5850	1.38	5.96	23%	17.22	29.81	58%	33.35
Crystal Lake - East	5740	1.85	7.55	25%	21.67	36.94	59%	40.33
Falling Springs	4650	No Report		-	-	-	-	-
Opids Camp	4480	2.70	7.49	36%	26.55	36.50	73%	40.59
Camp Baldy	4300	1.93	6.22	31%	21.00	29.85	70%	33.98
Henninger Flats	2650	2.15	5.40	40%	15.96	25.85	62%	29.15
Mouth San Antonio Canyon	2500	2.31	4.84	48%	19.12	24.15	79%	27.22
Sawpit Canyon	2000	2.28	5.67	40%	18.87	27.74	68%	31.37
San Anita Fern Lodge	1950	2.87	5.80	49%	23.74	30.96	77%	34.17
San Gabriel Dam #1 Camp	1600	1.66	6.14	27%	18.62	28.47	65%	30.74
Monrovia Falls	1450	2.68	5.88	46%	20.22	27.71	73%	30.78
Big Santa Anita Dam	1400	2.18	4.51	48%	16.13	23.12	70%	25.93
San Dimas Dam	1350	1.73	4.47	39%	16.36	21.89	75%	23.86
SANTA ANA RIVER								
Table Mountain Obs.	7500	0.86	2.17	40%	9.77	12.91	76%	14.34
Big Pines Camp	6860	1.41	4.92	29%	14.51	24.23	60%	26.98
Big Bear Lake Dam	6800	2.84	6.68	43%	24.81	32.86	76%	36.68
Running Springs	6230	2.70	6.90	39%	26.31	37.76	70%	42.62
Squirrel Inn	5700	2.60	8.01	32%	30.00	37.20	81%	42.57
Seven Oaks	5000	1.82	4.89	37%	14.12	24.62	57%	27.77
Camp Baldy	4300	1.93	6.22	31%	21.00	29.85	70%	33.98
Mill Creek #2	2950	2.28	4.14	55%	14.08	19.41	72%	23.01
Santa Ana River	2850	2.53	4.92	51%	16.97	23.23	73%	27.02
Mouth San Antonio Canyon	2500	2.31	4.84	48%	19.12	24.15	79%	27.22
Lytle Creek	2250	2.33	5.93	39%	26.38	30.73	86%	34.85
SAN DIEGO COUNTY								
PACIFIC SLOPE BASINS								
Cuyamaca	4680	4.43	6.94	64%	26.95	33.99	79%	39.17
Warner Springs	3170	1.76	2.73	64%	9.26	15.34	58%	17.71

1, 2, 3 See footnotes first page of this table.

TABLE 6 - PRECIPITATION DATA - TO APRIL 1, 1950 (Cont'd.)

1 BASIN AND PRECIPITATION STATION	ELEVATION IN FEET	PRECIPITATION DURING MARCH 1950			PRECIPITATION FROM JULY 1, 1949 TO APRIL 1, 1950			2 Normal Seasonal Precipitation (July to June) Inches
		Total (Inches)	2 Normal (Inches)	In per cent of Normal	Total (Inches)	2 Normal (Inches)	In per cent of Normal	
SAN DIEGO COUNTY Cont'd.								
PACIFIC SLOPE BASINS								
Campo	3000	No Report		-	-	-	-	-
Barrett Dam	1750	1.23	3.35	37%	8.46	16.60	51%	18.91
Escondido	750	1.32	2.81	47%	10.15	14.52	70%	16.41
El Capitan Dam	610	1.62	3.22	50%	10.31	15.07	68%	18.08
El Cajon	560	1.35	2.34	58%	7.68	12.45	62%	14.12

1, 2, 3 See footnotes first page of this table.

APPENDIX

RESULTS OF SNOW SURVEYS MADE DURING THE PERIOD

March 1, 1950 to March 20, 1950

DRAINAGE BASINS and SNOW COURSES	ELEVATION in Feet	DATE of SURVEY	Depth of SNOW Inches	DENSITY Per cent	WATER CONTENT Inches	2 Normal Water Content for entire season (to April 1st) Inches	Percentage of total normal seasonal water content on ground at date of survey this year
UPPER SACRAMENTO RIVER							
Mount Shasta	8000	3-15-50	81.6	42.2%	34.5	56.4	61.2%
Sand Flats	7000	3-15-50	76.5	41.6%	31.8	47.7	66.7%
YUBA RIVER							
Castle Creek #5	7370	3- 9-50	105.0	43.6%	45.8	-	-
Castle Creek #5	7370	3-15-50	104.8	47.1%	49.4	-	-

2 See footnotes first page Table 5.

CALIFORNIA COOPERATIVE SNOW SURVEYS

Agencies Cooperating in the Collection of Data Contained in this Bulletin

Governmental Agencies

State

- California State Department of Public Works
  - Division of Water Resources
- Nevada Cooperative Snow Surveys
- Oregon Cooperative Snow Surveys

Federal

- Department of Agriculture
  - Forest Service (11 National Forests)
- Department of Commerce
  - Weather Bureau
- Department of the Interior
  - Bureau of Reclamation
  - Geological Survey, Water Resources Branch
  - National Park Service (3 National Parks)
- War Department
  - Corps of Engineers

Public Utilities

- California Electric Power Company
- Pacific Gas and Electric Company
- Southern California Edison Company, Ltd.
- The California Oregon Power Company

Municipalities

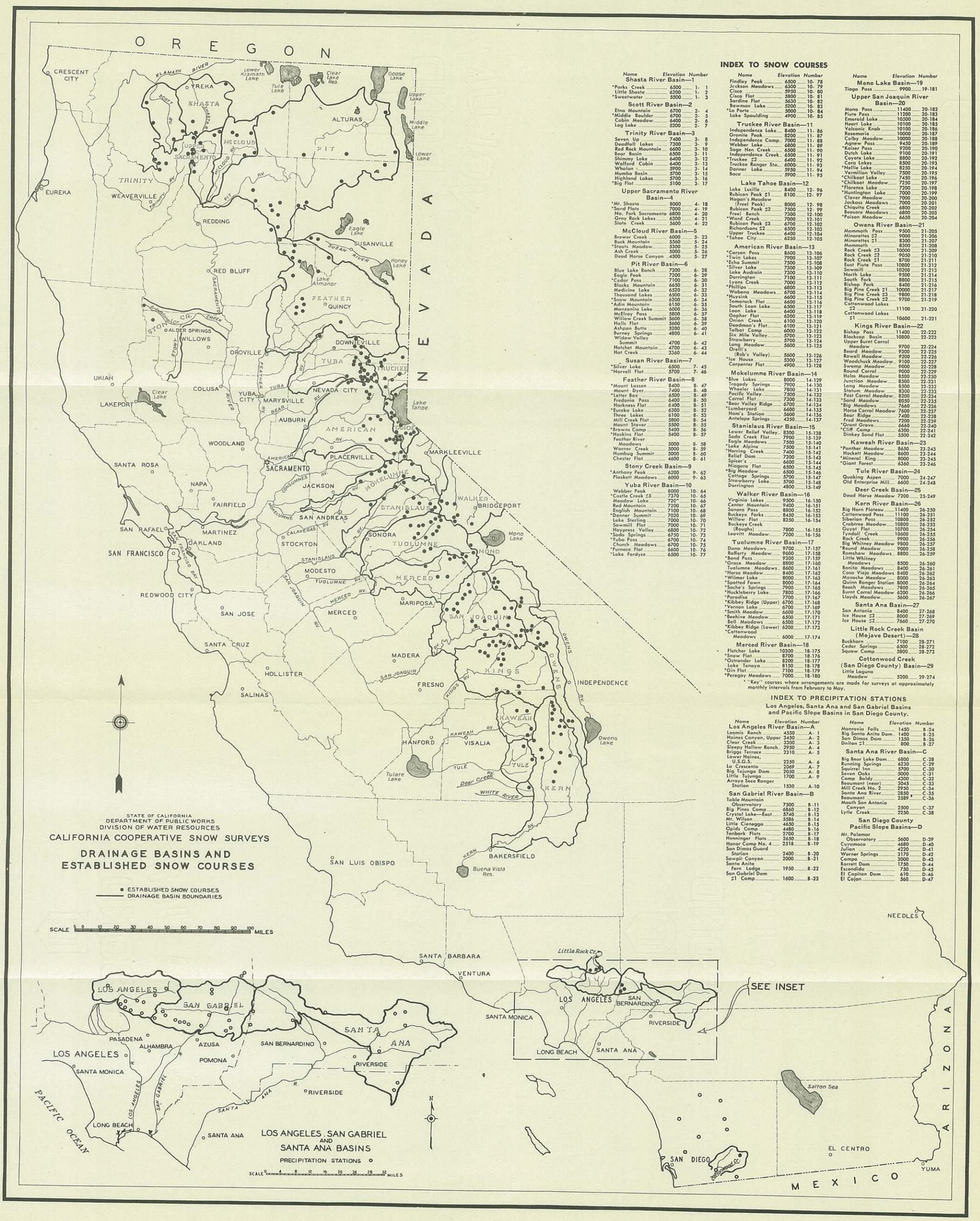
- City of Los Angeles
  - Department of Water and Power
- City of San Francisco
  - Public Utilities Commission

Organized Public Agencies

- Los Angeles County Flood Control District
- East Bay Municipal Utility District
- Tulare Lake Basin Water Storage District
- Buena Vista Water Storage District
- Kaweah Delta Water Conservation District
- Kaweah River Association
- St. Johns River Association
- Kings River Water Association
- Nevada Irrigation District
- Turlock Irrigation District
- Modesto Irrigation District
- Merced Irrigation District
- Terra Bella Irrigation District
- Vandalia Irrigation District

Private Organizations

- Kern County Land Company
- The San Joaquin Canal Company



INDEX TO SNOW COURSES

Name	Elevation	Number
Shasta River Basin—1		
*Parks Creek	6500	1- 1
Little Shasta	6200	1- 2
Sweetwater	5300	1- 3
Scott River Basin—2		
Etna Mountain	6700	2- 4
*Middle Boulder	5700	2- 5
Cabin Meadow	6400	2- 6
Log Lake	5200	2- 7
Trinity River Basin—3		
Seven Up	7400	3- 8
Deadfall Lakes	7300	3- 9
Red Rock Mountain	6600	3- 10
Bear Basin	6500	3- 11
Shimmy Lake	6400	3- 12
Welford Cabin	6400	3- 13
Whalan	5900	3- 14
Mumbo Basin	5700	3- 15
Highland Lakes	5700	3- 16
*Big Flat	5100	3- 17
Upper Sacramento River Basin—4		
*Mt. Shasta	8000	4- 18
*Sand Flats	7000	4- 19
No. Fork Sacramento	6800	4- 20
Gray Rock Lakes	6300	4- 21
Slate Creek	5600	4- 22
McCloud River Basin—5		
Brewer Creek	6000	5- 23
Buck Mountain	5500	5- 24
*Stouts Meadow	5300	5- 25
Ash Creek	5000	5- 26
Dead Horse Canyon	4500	5- 27
Pit River Basin—6		
Blue Lake Ranch	7300	6- 28
Eagle Peak	7200	6- 29
*Cedar Pass	7100	6- 30
Blacks Mountain	6650	6- 31
Medicine Lake	6520	6- 32
Thousand Lakes	6500	6- 33
*Snow Mountain	6200	6- 34
*Adin Mountain	6150	6- 35
Manzanita Lake	6000	6- 36
McElroy Pass	5800	6- 37
Willow Creek Summit	5600	6- 38
Halls Flat	5500	6- 39
Ashpan Butte	5200	6- 40
Burney Springs	4800	6- 41
Widow Valley Summit	4700	6- 42
Hatchet Mountain	4700	6- 43
Hot Creek	3360	6- 44
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*Harvell Flat	5700	7- 46
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*Mount Lassen	8400	8- 47
Mount Dyer	7400	8- 48
*Letter Box	6500	8- 49
Fredonia Pass	6400	8- 50
Harkness Flat	6400	8- 51
*Eureka Lake	6300	8- 52
Three Lakes	6100	8- 53
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*Meskins Flat	5400	8- 57
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Humbug Summit	5000	8- 60
Chester Flat	4600	8- 61
Stony Creek Basin—9		
*Anthony Peak	6200	9- 62
Plaskett Meadows	6000	9- 63
Yuba River Basin—10		
Webber Peak	8000	10- 64
*Castle Creek #5	7370	10- 65
Meadow Lake	7.25"	10- 66
Red Mountain	7200	10- 67
English Mountain	7100	10- 68
*Donner Summit	7020	10- 69
Lake Sterling	7000	10- 70
Sawmill Flat	7000	10- 71
Hoypress Valley	6800	10- 72
*Sodo Springs	6750	10- 73
*Yuba Pass	6700	10- 74
Church Meadows	6700	10- 75
*Furnace Flat	6600	10- 76
*Lake Fordyce	6500	10- 77
Findley Peak	6500	10- 78
Jackson Meadows	6300	10- 79
Clove	5950	10- 80
Cisco Flat	5800	10- 81
Sardine Flat	5630	10- 82
Bowman Lake	5500	10- 83
*La Porte	5000	10- 84
Lake Spaulding	4900	10- 85
Truckee River Basin—11		
Independence Lake	8400	11- 86
Granite Peak	8200	11- 87
Independence Camp	7000	11- 88
Webber Lake	6800	11- 89
Sage Hen Creek	6500	11- 90
Independence Creek	6500	11- 91
*Truckee #2	6400	11- 92
Truckee Ranger Sta.	6000	11- 93
Donner Lake	5950	11- 94
Boca	5900	11- 95
Lake Tahoe Basin—12		
Lake Lucille	8400	12- 96
Rubicon Peak #1	8100	12- 97
Hagan's Meadow (Fred Peak)	8000	12- 98
Rubicon Peak #2	7500	12- 99
Freel Bench	7300	12-100
*Werd Creek	7000	12-101
Rubicon Peak #3	6700	12-102
Richardsons #2	6500	12-103
Upper Truckee	6400	12-104
Tahoe City	6250	12-105
American River Basin—13		
*Carson Pass	8600	13-106
*Twin Lakes	7900	13-107
*Echo Summit	7500	13-108
Silver Lake	7300	13-109
Lake Audrain	7300	13-110
Dorrington	7100	13-111
Lyons Creek	7000	13-112
*Phillips	6800	13-113
Wabena Meadows	6700	13-114
*Wrinkle	6600	13-115
Tamarack Flat	6600	13-116
South Loon Lake	6500	13-117
Loon Lake	6400	13-118
Gopher Flat	6200	13-119
Onion Creek	6100	13-120
Deadman's Flat	6100	13-121
Talbot Camp	6000	13-122
Six Mile Valley	5700	13-123
Strawberry	5700	13-124
Long Meadow	5600	13-125
Orelli's (Rub's Valley)	5600	13-126
*Ice House	5300	13-127
Carpenter Flat	4900	13-128
Mokelumne River Basin—14		
*Blue Lakes	8000	14-129
Tragedy Springs	7900	14-130
Wheeler Lake	7800	14-131
Pacific Valley	7500	14-132
Corral Flat	7300	14-133
*Bear Valley Ridge	6700	14-134
Lumberyard	6600	14-135
Ham's Station	5600	14-136
Antelope Springs	4350	14-137
Stanislaus River Basin—15		
Lower Relief Valley	8300	15-138
Sodo Creek Flat	7900	15-139
Eagle Meadows	7500	15-140
*Lake Alpine	7500	15-141
*Herring Creek	7400	15-142
Relief Dam	7300	15-143
Spicer's	6600	15-144
Niagara Flat	6500	15-145
*Big Meadow	6500	15-146
Cottage Springs	5700	15-147
Strawberry Lake	5700	15-148
Dorrington	4800	15-149
Walker River Basin—16		
Virginia Lakes	9500	16-150
Center Mountain	9400	16-151
Sonora Pass	8800	16-152
Buckeye Forks	8450	16-153
Willow Flat	8250	16-154
Buckeye Creek (Roughs)	7800	16-155
Leavitt Meadow	7200	16-156
Tuolumne River Basin—17		
Dana Meadows	9700	17-157
Rafferty Meadow	9600	17-158
*Bond Pass	9300	17-159
*Grace Meadow	8800	17-160
Tuolumne Meadows	8600	17-161
*Horse Meadow	8400	17-162
*Wilma Lake	8000	17-163
*Spotted Fawn	8000	17-164
*Soulé's Springs	7900	17-165
*Huckleberry Lake	7800	17-166
*Paradise	7700	17-167
*Kibbey Ridge (Upper)	6700	17-168
*Vernon Lake	6700	17-169
*Smith Meadow	6600	17-170
*Beehive Meadow	6500	17-171
Bell Meadows	6500	17-172
*Kibbey Ridge (Lower)	6200	17-173
*Cottonwood Meadows	6000	17-174
Merced River Basin—18		
Fletcher Lake	10300	18-175
*Snow Flat	8700	18-176
*Ostrander Lake	8200	18-177
Lake Tenaya	8150	18-178
*Gin Flat	7100	18-179
*Peregoy Meadows	7000	18-180
Mono Lake Basin—19		
Tioga Pass	9900	19-181
Upper San Joaquin River Basin—20		
Mono Pass	11400	20-182
Piute Pass	11200	20-183
Emerald Lake	10300	20-184
Heart Lake	10100	20-185
Volcanic Knob	10100	20-186
Rosemarie	10000	20-187
Colby Meadow	10000	20-188
Agnew Pass	9450	20-189
*Kaiser Pass	9700	20-190
Dutch Lake	9100	20-191
Coyote Lake	8800	20-192
Cora Lakes	8500	20-193
*Nellie Lake	8250	20-194
Vermilion Valley	7500	20-195
*Chilkoot Lake	7450	20-196
*Chilkoot Meadow	7250	20-197
*Florence Lake	7200	20-198
*Huntington Lake	7000	20-199
Clover Meadow	7000	20-200
Jackass Meadows	7000	20-201
Chiquito Creek	6800	20-202
Bassess Meadows	6800	20-203
*Poison Meadow	6650	20-204
Owens River Basin—21		
Mammoth Pass	9500	21-205
Minarettes #2	9000	21-206
Minarettes #1	8300	21-207
Mammoth	8300	21-208
Rock Creek #3	10000	21-209
Rock Creek #2	9050	21-210
Rock Creek #1	8700	21-211
East Piute Pass	10800	21-212
Sawmill	10200	21-213
North Lake	9500	21-214
South Fork	8800	21-215
Bishop Park	8400	21-216
Big Pine Creek #1	10000	21-217
Big Pine Creek #3	9800	21-218
Big Pine Creek #2	9700	21-219
Cottonwood Lakes #2	11100	21-220
Cottonwood Lakes #1	10600	21-221
Kings River Basin—22		
Bishop Pass	11400	22-222
Blackcap Basin	10800	22-223
Upper Burnt Corral Meadow	9700	22-224
Beard Meadow	9300	22-225
Rowell Meadow	9200	22-226
Woodchuck Meadow	9100	22-227
Swamp Meadow	9000	22-228
Round Corral	9000	22-229
Helm Meadow	8500	22-230
Junction Meadow	8500	22-231
Long Meadow	8500	22-232
Statum Meadow	8300	22-233
Post Corral Meadow	8200	22-234
*Sand Meadow	8050	22-235
*Big Meadows	7660	22-236
Horse Corral Meadow	7600	22-237
Bear Ridge	7400	22-238
Fred Meadows	7200	22-239
*Grant Grove	6660	22-240
*Cliff Camp	6300	22-241
Dinkey Sand Flat	5500	22-242
Kaweah River Basin—23		
*Panther Meadow	5650	23-243
Hockett Meadow	8600	23-244
*Mineral King	8000	23-245
*Giant Forest	6360	23-246
Tule River Basin—24		
Quaking Aspen	7000	24-247
Old Enterprise Mill	6600	24-248
Deer Creek Basin—25		
Dead Horse Meadow	7200	25-249
Kern River Basin—26		
Big Horn Plateau	11400	26-250
Cottonwood Pass	11100	26-251
Siberian Pass	10800	26-252
Crabtree Meadow	10800	26-253
Guyot Flat	10700	26-254
Tyndall Creek	10600	26-255
Rock Creek	9900	26-256
Big Whitney Meadow	9800	26-257
*Round Meadow	9000	26-258
Ramshaw Meadows	8800	26-259
Little Whitney Meadows	8500	26-260
Sonita Meadows	8400	26-261
Casa Vieja Meadows	8400	26-262
Monache Meadow	8000	26-263
Quinn Ranger Station	8000	26-264
Beach Meadows	7800	26-265
Burnt Corral Meadow	6200	26-266
Lloyds Meadow	5600	26-267
Santa Ana Basin—27		
San Antonio	8400	27-268
Ice House #3	8000	27-269
Ice House #2	7660	27-270
Little Rock Creek Basin (Mojave Desert)—28		
Buckhorn	7100	28-271
Cedar Springs	6300	28-272
Squaw Camp	5800	28-273
Cottonwood Creek (San Diego County) Basin—29		
Little Laguna Meadow	5200	29-274

* "Key" courses where arrangements are made for surveys at approximately monthly intervals from February to May.

INDEX TO PRECIPITATION STATIONS

Los Angeles, Santa Ana and San Gabriel Basins and Pacific Slope Basins in San Diego County.

Name	Elevation	Number
Los Angeles River Basin—A		
Loomis Ranch	4550	A- 1
Haines Canyon, Upper	3450	A- 2
Clear Creek	3300	A- 3
Sleepy Hollow Ranch	2950	A- 4
Briggs Terrace	2310	A- 5
Lower Haines, U.S.G.S.	2250	A- 6
La Crescenta	2069	A- 7
Big Tujunga Dam	2050	A- 8
Little Tujunga	1700	A- 9
Arroyo Seco Ranger Station	1530	A-10
San Gabriel River Basin—B		
Table Mountain Observatory	7500	B-11
Big Pines Camp	6860	B-12
Crystal Lake—East	5740	B-13
Mt. Wilson	5586	B-14
Little Cienegga	4650	B-15
Opids Camp	4480	B-16
Tanbark Flats	2700	B-17
Henninger Flats	2650	B-18
Honor Camp No. 4	2318	B-19
San Dimas Guard Station	2400	B-20
Sawpit Canyon	2000	B-21
Santa Anita Fern Lodge	1950	B-22
San Gabriel Dam #1 Camp	1600	B-23
Monrovia Falls	1450	B-24
Big Santa Anita Dam	1400	B-25
San Dimas Dam	1350	B-26
Dalton #1	800	B-27
Santa Ana River Basin—C		
Big Bear Lake Dam	6800	C-28
Running Springs	6230	C-29
Squirrel Inn	5700	C-30
Seven Oaks	5000	C-31
Camp Baldy	4300	C-32
Beaumont (near)	3045	C-33
Mill Creek No. 2	2950	C-34
Santa Ana River	2850	C-35
Beaumont	2589	C-36
Mouth San Antonio Canyon	2500	C-37
Lytle Creek	2230	C-38
San Diego County Pacific Slope Basins—D		
Mt. Palomar Observatory	5600	D-39
Cuyamaca	4680	D-40
Julian	4220	D-41
Warner Springs	3170	D-42
Campo	3000	D-43
Barrett Dam	1750	D-44
Escondido	730	D-45
El Capitan Dam	610	D-46
El Cajon	560	D-47