STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RESOURCES

-----oOo-----

EARL WARREN, Governor

C. H. PURCELL, Director of Public Works

EDWARD HYATT, State Engineer

S N O W S U R V E Y B U L L E T I N

CALIFORNIA COOPERATIVE

SNOW SURVEYS

-----oOo-----

MARCH 10, 1945

Ss

EDWARD HYATT, STATE ENGINEER
CHIEF OF DIVISION

EARL WARREN
GOVERNOR OF CALIFORNIA

C. H. PURCELL
DIRECTOR

STATE OF CALIFORNIA
Department of Public Works
SACRAMENTO

DIVISION OF WATER RESOURCES
PUBLIC WORKS BUILDING

CALIFORNIA COOPERATIVE SNOW SURVEYS

MONTHLY BULLETIN OF SNOW SURVEY AND PRECIPITATION DATA

March 10, 1945

This is the second 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 March and also all available precipitation data.

The Division of Water Resources acts as coordinator of this work. The cooperating organizations are listed on page 16 of this report.

CONDITIONS AS OF MARCH 10TH

California's snow-pack is now 15% below normal.

A month ago the pack was normal, but the increase since then has been less than the usual February expectations. The few storm periods that have occurred were gentle in character, bringing small amounts of light snow that added but little water content. The overall picture is a snow-pack 85% of normal for this season of the year.

The distribution as to elevation is somewhat uneven, in that the shortage is greater in the lower areas. Above elevation 8,000 feet the pack is 95% of normal, while below 8,000 it is only 75% of normal. Those rivers having a larger part of their drainage areas at high elevations, have a better available snow-pack than those with low-lying watersheds.

Most of the foothill reservoirs in the Sierra, as a result of the runoff from the early February storm, now have a good supply on hand. The U. S. Bureau of Reclamation on March 9th reported 2,376,000 acre-feet in Shasta and 296,000 acre-feet in Friant, being 64% and 68%, respectively, of the present total capacity available.

Good weather conditions prevailed while the snow surveyors were out making the current round of measurements. Sampling conditions were difficult in places due to a thick ice crust several feet below the snow surface.

A few of the figures at key points are listed below to give a rough picture of snow conditions along the length of the Sierra.

Watershed	Snow Course	Date	Snow Depth	Water Content
Sacramento	Mount Shasta	2-25-45	90"	38"
Feather	Letterbox	3- 5-45	81"	33"
Yuba	Donner Summit	2-28-45	76"	25"
Mokelumne	Blue Lakes	3- 1-45	94"	31"
Tuolumne	Tioga Pass	2-26-45	69"	27"
Merced	Snow Flat	2-25-45	99"	34"
San Joaquin	Kaiser Pass	3- 1-45	94"	36"
Kings	Sand Meadow	2-28-45	76"	27"
Kaweah	Panther Meadow	2-27-45	92"	34"
Kern	Round Meadow	2-27-45	59"	20"

Complete measurements at all snow courses will be made at the end of March, from which estimates of spring runoff will be made. The bulletin with the forecasts should be ready for mailing about April 10th.

The precipitation figures given herein are to the end of February. Precipitation since July 1st at most stations north of the Tehachapis is normal or above. In Southern California most precipitation stations report precipitation to March 1st below normal. San Diego County on the whole is 25% below normal.

RIVER BASIN	PRECIPITATION July 1, 1944 to March 1, 1945 in percent of normal to March 1.	Corresponding figure this time last year
Upper Sacramento -)	100%	65%
McCloud - Pit		
Feather	95%	70%
Yuba	100%	70%
American	100%	70%
Mokelumne	100%	75%
Stanislaus	115%	75%
Tuolumne	110%	80%
Merced	105%	85%
Upper San Joaquin	115%	80%
Kings	110%	85%
Kaweah	115%	80%
Kern	100%	105%
Los Angeles	85%	150%
San Gabriel	90%	120%
Santa Ana	95%	105%
San Diego County	75%	115%

Detailed figures at the separate stations in all watersheds are shown in the following sheets. All snow measurements are listed in Table 1 and all precipitation data in Table 2.

PROGRESS REPORT OF SNOW SURVEY AND PRECIPITATION DATA
TO MARCH 1, 1945

TABLE 1 - SNOW SURVEY DATA FOR KEY COURSES

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 for entire Season (to April 1st) Inches	Percentage of total normal seasonal water content on ground at date of survey this year	Corresponding water content last year 1944 inches	Corresponding percentage of normal seasonal water content at same time last year 1944
SHASTA RIVER									
Parks Creek	6500	2-26-45	60.8	35.0%	21.3	33.4	64%	19.1	57%
Sweetwater	5500	2-27-45	25.4	26.4%	6.7	14.2	47%	8.8	62%
UPPER SACRAMENTO RIVER									
Mount Shasta	8000	2-25-45	89.6	42.1%	37.7	60.2	63%	31.8	53%
Sand Flats	7000	2-25-45	73.6	37.1%	27.3	New Course 1945			—
Whalan Station	5900	2-26-45	36.5	42.2%	15.4	20.7	74%	19.5	94%
McCLOUD RIVER									
Mount Shasta	8000	2-25-45	89.6	42.1%	37.7	60.2	63%	31.8	53%
Dead Horse Canyon	4500	3-1-45	20.5	40.5%	8.3	New Course 1945			—
PIT RIVER									
Cedar Pass	7200	3-1-45	48.5	32.8%	15.9	21.8	73%	N.S.M.	—
Adin Mountain	6500	3-5-45	35.1	33.0%	11.6	15.9		N.S.M.	—
Burney Springs	4800	3-1-45	Trace	of	Snow Only	New Course 1945			—
Dead Horse Canyon	4500	3-1-45	20.5	40.5%	8.3	New Course 1945			—
STONY CREEK BASIN									
Anthony Peak	6200	2-26-45	34.0	48.8%	16.6	New Course 1944		17.4	—
Plaskett Meadows	6000		No	Survey	Made	New Course 1944		N.S.M.	—
FEATHER RIVER									
Yuba Pass	6700	2-28-45	69.0	31.4%	21.7	39.3	55%	32.6	83%
Letterbox	6500	3-5-45	81.2	41.0%	33.3	39.1	85%	54.0	138%
Eureka Lake	6300	2-26-45	60.6	36.8%	22.3	38.6	58%	36.0	93%
Browns Camp	5400	2-23-45	26.6	48.9%	13.0	22.3	58%	33.5	150%
Haskins Flat	5300	2-23-45	44.8	38.6%	17.3	34.9	50%	42.3	121%
La Porte	5000	2-28-45	33.0	37.0%	12.2	30.6	40%	21.4	70%

1 Data for courses common to more than one basin are listed under each basin

2 Normals in this column have been determined by comparing recorded snow survey data with long-time stream flow records. Where a "crest" snow course is common to two basins the normal computed by comparison with stream flow in one basin may differ from that similarly computed for the other. Until such time as the true normal can be determined from an actual long-time record of snow surveys, it is required that different normals be used for such a course according to the basin in which it is grouped.

N.S.M. No survey made.

TABLE 1 - SNOW SURVEY DATA FOR KEY COURSES - MARCH, 1945 - Continued

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 for entire season (to April 1st) Inches	Percentage of total normal seasonal water content on ground at date of survey this year	Corresponding water content last year 1944 Inches	Corresponding percentage of normal seasonal water content at same time last year 1944
SUSAN RIVER									
Norvell Flat	5700	2-26-45	33.0	40.0%	13.2	New	Course 1940	N.S.M.	---
YUBA RIVER									
Donner Summit	7000	2-28-45	75.8	32.8%	24.9	39° 41.5 94%	60%	27.4	66%
Soda Springs	6750	2-28-45	69.3	34.9%	24.2	38.6	63%	27.3	71%
Yuba Pass	6700	2-28-45	69.0	31.4%	21.7	34.4	63%	32.6	95%
Furnace Flat	6600	2-26-45	83.7	39.4%	33.0	49.3	67%	43.4	88%
Lake Fordyce	6500	2-27-45	75.7	35.4%	26.8	42.2	64%	38.0	90%
La Porte	5000	2-28-45	33.0	37.0%	12.2	30.2	40%	21.4	71%
TRUCKEE RIVER									
Donner Summit	7000	2-28-45	75.8	32.8%	24.9	39° 47.8 81%	52%	27.4	57%
Tahoe City	6250	3-1-45	17.8	32.6%	5.8	15.9	37%	11.4	72%
LAKE TAHOE									
Marlette Lake	8000	3-1-45	69.4	31.0%	21.5	27.8	77%	21.2	76%
Echo Summit	7500	3-1-45	90.7	31.1%	28.2	40.0	70%	23.0	58%
Tahoe City	6250	3-1-45	17.8	32.6%	5.8	15.9	36%	11.4	72%
Truckee Ranger Station	6000	3-1-45	29.8	33.9%	10.1	New	Course 1945	---	---
Donner Lake	5950	3-1-45	45.3	32.9%	14.9	New	Course 1944	23.1	---
AMERICAN RIVER									
Carson Pass	8600	2-23-45	84.3	39.9%	33.6	45.0	75%	22.3	50%
Echo Summit	7500	3-1-45	90.7	31.1%	28.2	40.6	69%	23.0	57%
Silver Lake	7300	2-26-45	42.7	34.2%	14.6	27.4	53%	23.5	86%
Donner Summit	7000	2-28-45	75.8	32.8%	24.9	39° 47.8 81%	52%	27.4	57%
Soda Springs	6750	2-28-45	69.3	34.9%	24.2	45.8	53%	27.3	60%
Huysink	6600	2-28-45	89.4	36.4%	32.5	53.7	61%	42.9	80%
Ice House	5300	3-3-45	27.1	33.9%	9.2	19.9	46%	17.7	89%
CARSON RIVER									
Carson Pass	8600	2-23-45	84.3	39.9%	33.6	48.0	70%	22.3	46%
Blue Lakes	8000	3-1-45	93.7	33.4%	31.3	48.1	65%	25.5	53%

1, 2 See footnotes first page of this table.

TABLE 1 - SNOW SURVEY DATA FOR KEY COURSES - MARCH, 1945 - Continued

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 for entire season (to April 1st) Inches	Percentage of total normal seasonal water content on ground at date of survey this year	Corresponding water content last year 1944 Inches	Corresponding percentage of normal seasonal water content at same time last year 1944
MOKELUMNE RIVER									
Carson Pass	8600	2-23-45	84.3	39.9%	33.6	40.7	83%	22.3	55%
Blue Lakes	8000	3-1-45	93.7	33.4%	31.3	40.6	77%	25.5	63%
Lake Alpine	7500		No Survey	Made		43.5	—	N.S.M.	—
Silver Lake	7300	2-26-45	42.7	34.2%	14.6	24.9	59%	23.5	94%
Bear Valley Ridge	6700	2-22-45	47.0	33.2%	15.6	29.1	54%	28.0	96%
Cottage Springs	5700	2-27-45	13.3	30.1%	4.0	—	—	18.1	—
Dorrington	4800	3-1-45	Trace of	Snow	Only	—	—	14.4	—
Antelope Springs	4350	2-28-45	Trace of	Snow	Only	—	—	9.8	—
STANISLAUS RIVER									
Lake Alpine	7500		No Survey	Made		44.0	—	N.S.M.	—
Strawberry Lake	5700	2-28-45	14.5	34.5%	5.0	11.3	44%	14.3	127%
Cottage Springs	5700	2-27-45	13.3	30.1%	4.0	—	—	18.1	—
Dorrington	4800	3-1-45	Trace of	Snow	Only	—	—	14.4	—
TUOLUMNE RIVER									
Tioga Pass	9900	2-26-45	69.2	39.6%	27.4	30.9	89%	N.S.M.	—
Gin Flat	7100	2-26-45	55.1	40.1%	22.1	40.2	55%	N.S.M.	—
Beehive Meadow	6500	2-27-45	46.9	34.3%	16.1	30.0	54%	23.2	77%
Strawberry Lake	5700	2-28-45	14.5	34.5%	5.0	11.4	44%	14.3	125%
MERCED RIVER									
Snow Flat	8700	2-25-45	99.0	34.5%	34.2	49.5	69%	33.0	67%
Ostrander Lake	8200	2-27-45	78.4	39.9%	31.3	37.9	83%	29.7	78%
Gin Flat	7100	2-26-45	55.1	40.1%	22.1	41.3	54%	N.S.M.	—
Peregoy Meadow	7000	2-28-45	49.6	33.5%	16.6	32.7	51%	28.4	87%
MONO LAKE									
Tioga Pass	9900	2-26-45	69.2	39.6%	27.4	30.9	89%	N.S.M.	—
UPPER SAN JOAQUIN RIVER									
Kaiser Pass	9200	3-1-45	94.3	38.3%	36.1	45.4	80%	31.6	70%
Dutch Lake	9100	3-5-45	77.7	31.4%	24.4	32.0	76%	23.5	73%
Nellie Lake	8250	3-1-45	80.7	39.2%	31.6	New	Course 1944	32.1	—
Chilkoot Lake	7450	3-2-45	72.8	47.3%	34.4	45.5	76%	36.8	81%
Chilkoot Meadow	7250	3-2-45	63.5	48.5%	30.8	44.4	69%	38.2	86%
Florence Lake	7200	3-6-45	21.4	30.2%	6.5	9.6	68%	12.8	133%
Huntington Lake	7000	3-1-45	34.4	32.8%	11.3	26.2	43%	27.6	105%
Poison Meadow	6850	3-2-45	43.8	37.0%	16.2	New	Course 1944	33.4	—

1, 2 See footnotes first page of this table. N.S.M. No survey made.

TABLE 1 - SNOW SURVEY DATA FOR KEY COURSES - MARCH, 1945 - Continued

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 for entire season (to April 1st) Inches	Percentage of total normal seasonal water content on ground at date of survey this year	Corresponding water content last year 1944 Inches	Corresponding percentage of normal seasonal water content at same time last year 1944
KINGS RIVER									
Sand Meadow	8050	2-28-45	75.7	35.1%	26.6	33.6	79%	27.9	83%
Big Meadows	7690	2-28-45	58.2	35.1%	20.4	32.4	63%	21.6	67%
Grant Grove	6660	2-28-45	21.1	33.2%	7.0	15.7	45%	24.4	150%
Cliff Camp	6300	3-1-45	15.8	41.1%	6.5	16.7	39%	22.7	136%
KAWEAH RIVER									
Panther Meadow	8650	2-27-45	92.3	37.4%	34.5	39.7	87%	26.9	68%
Giant Forest	6500	2-28-45	36.8	37.2%	13.7	18.8	73%	19.1	101%
KERN RIVER									
Round Meadow	9000	2-27-45	59.0	33.6%	19.8	27.5	72%	31.0	113%

1, 2 See footnotes first page of this table

PROGRESS REPORT OF SNOW SURVEY AND PRECIPITATION DATA
TO MARCH 1, 1945
TABLE 2 - PRECIPITATION DATA

1 BASIN AND PRECIPITATION STATION	ELEVATION IN FEET	PRECIPITATION DURING FEBRUARY 1945 (Inches)	PRECIPITATION FROM JULY 1 1944 to MARCH 1, 1945			2 Normal Seasonal Precipitation (July to June) Inches	SNOW ON GROUND ON MARCH 1st (Inches)		
			Total (Inches)	2 Normal (Inches)	In per cent of Normal		This Year	3 Previous Maximum	3 Previous Minimum
UPPER SACRAMENTO - PIT AND McCLOUD RIVERS									
Jess Valley	5400	3.80	11.58	10.17	114%	15.58	4	20-1933(15)	0
Alturas	4460	2.26	6.96	8.07	86%	12.09	0	12-1917(22)	0
Bieber	4200	2.71	11.25	11.43	98%	15.99	0	14-1937(15)	0
Mount Shasta	3555	8.17	25.40	25.09	101%	34.91	0	14-1919(32)	0
Hat Creek	3400	3.79	11.80	12.83	92%	18.10	0	18-1937(23)	0
Fall River Mills	3340	3.97	13.78	13.33	103%	19.03	0	20-1937(22)	0
McCloud	3270	8.47	33.81	36.78	92%	49.72	0	44-1937(32)	0
FEATHER RIVER									
Bucks Storage Dam	5100	13.52	48.41	52.05	93%	71.83	34	193-1938(14)	3-1934
Westwood	5000	5.68	—	18.41	—	24.09	6	34-1932(24)	0
Sierraville	5000	9.89	21.33	18.86	113%	25.61	6	36-1922(32)	0
Mineral	4935	9.70	35.74	37.69	95%	52.11	T	92-1938(19)	5-1931
Portola	4832	No Report		12.80	—	17.94	—	33-1922(31)	0
Inskip	4808	11.54	—	56.74	—	—	4	106-1922(31)	0
Prattville	4600	7.24	25.64	27.28	94%	37.37	9	66-1938(14)	0
Canyon Dam	4570	7.84	24.65	27.74	89%	38.55	13	64-1938(32)	0
Chester	4550	6.55	21.52	23.04	93%	31.94	13	62-1922(31)	0-1924
Doyle	4300	2.51	5.34	8.02	67%	10.89	1	—	—
Veramont	3500	8.05	23.24	25.49	91%	34.49	0	19-1944(15)	0
Quincy	3409	11.17	29.19	29.02	101%	40.43	T	24-1922(32)	0
West Branch	3216	15.99	50.00	54.00	93%	72.85	0	43-1937(32)	0
Caribou	3000	9.49	27.09	30.03	90%	41.52	0	17-1938(14)	0
Lake Wilenor	2000	12.08	35.78	39.11	91%	55.87	—	—	—
Storrie	1760	13.46	41.81	47.68	88%	65.56	0	—	—
Las Plumas	506	11.41	34.95	37.66	93%	50.04	0	—	—

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 55 year normals for the period 1890-1944, inclusive. Where the periods of record are less than 55 years, the normals have been computed by comparison with the records of stations for which the actual 55 year data are complete. This gives all normals based upon the same period of years and comparable.

3 The periods covered by published records of snow on the ground differ considerably for the various stations, and long-time records are available for only a few stations. In these columns the numeral in parentheses indicates the number of years record upon which the data are based. The year of zero minimum is only shown when zero did not occur in more than one year in the period of record.

TABLE 2 - PRECIPITATION DATA - to MARCH 1st, 1945 - Continued

1 BASIN AND PRECIPITATION STATION	ELEVATION IN FEET	PRECIPITATION DURING FEBRUARY 1945 (Inches)	PRECIPITATION FROM JULY 1 1944 to MARCH 1, 1945			2 Normal Seasonal Precipitation (July to June) Inches	SNOW ON GROUND ON MARCH 1st (Inches)		
			Total (Inches)	2 Normal (Inches)	In per cent of Normal		This Year	3 Previous Maximum	3 Previous Minimum
YUBA RIVER									
Soda Springs	6871	11.55	37.40	33.54	112%	47.33	69	*215-1911(39)	*23-1912
Bowman Dam	5346	No Report		48.76	—	70.47	—	100-1938(20)	6-1931
Lake Spaulding	4600	17.51	47.66	46.73	102%	67.76	16	106-1919(32)	0-1924
Deer Creek	3700	17.39	49.74	49.58	100%	69.04	0	46-1938(31)	0
Downieville	3150	11.10	40.87	45.70	89%	65.01	0	15-1937(32)	0
Nevada City	2570	13.81	37.21	36.27	103%	50.73	0	—	—
Dobbins (near)	1650	9.73	27.50	30.35	91%	42.20	0	—	0
TRUCKEE AND TAHOE BASINS									
Twin Lakes	7970	8.56	24.73	31.70	78%	45.76	80	125-1936(23)	20-1924
Soda Springs	6871	11.55	37.40	33.54	112%	47.33	69	*215-1911(39)	*23-1912
Tahoe	6230	8.68	23.71	23.88	99%	32.65	18	90-1922(29)	6-1924
Truckee	6200	7.58	21.32	19.03	112%	26.22	—	57-1944(12)	0-1934
AMERICAN RIVER									
Twin Lakes	7970	8.56	24.73	31.70	78%	45.76	80	125-1936(23)	20-1924
Soda Springs	6871	11.55	37.40	33.54	112%	47.33	69	*215-1911(39)	*23-1912
Blue Canyon A.S.	5272	No Report		—	—	—	—	—	—
Colfax	2420	14.49	35.72	34.08	105%	48.15	0	—	—
Placerville	1924	12.17	30.08	28.68	105%	40.82	0	—	0
CARSON RIVER									
Blue Lakes	8040	11.60	32.47	35.06	93%	49.94	98	—	—
Twin Lakes	7970	8.56	24.73	31.70	78%	45.76	80	125-1936(23)	20-1924
MOKELUMNE RIVER									
Blue Lakes	8040	11.60	32.47	35.06	93%	49.94	98	—	—
Twin Lakes	7970	8.56	24.73	31.70	78%	45.76	80	125-1936(23)	20-1924
Salt Springs Reservoir	3660	11.68	32.53	30.63	106%	44.61	T	10-1938(14)	0
Tiger Creek	2400	12.70	33.18	32.07	103%	46.02	1	—	0
West Point	2326	10.76	28.85	27.74	104%	40.23	6	—	0
Electra	699	7.65	22.89	22.08	104%	31.67	0	—	0

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

* Data for Norden or Summit where daily snow depths reported by Southern Pacific Company are read. U.S.W.B. station was moved a short distance from Norden to Soda Springs in April, 1931.

TABLE 2 - PRECIPITATION DATA - to MARCH 1st, 1945 - Continued

1 BASIN AND PRECIPITATION STATION	ELEVATION IN FEET	PRECIPITATION DURING FEBRUARY 1945 (Inches)	PRECIPITATION FROM JULY 1 1944 to MARCH 1, 1945			2 Normal Seasonal Precipitation (July to June) Inches	SNOW ON GROUND ON MARCH 1st (Inches)		
			Total (Inches)	2 Normal (Inches)	In per cent of Normal		This Year	3 Previous Maximum	3 Previous Minimum
STANISLAUS RIVER									
Strawberry Lake	5620	10.78	31.21	26.83	116%	39.20	15	63-1932(14)	2-1940
Calaveras Big Trees	4700	15.05	41.80	36.16	116%	53.26	3	54-1944(15)	T-1940
WALKER RIVER									
Bridgeport	6473	4.28	8.22	8.16	101%	10.73	0	---	---
Shields Ranch	5300	3.97	6.35	8.84	72%	12.41	3	12-1922(26)	0
TUOLUMNE RIVER									
Strawberry Lake	5620	10.78	31.21	26.83	116%	39.20	15	63-1932(14)	2-1940
Lake Eleanor	4650	12.07	32.58	31.02	105%	44.69	T	41-1917(30)	0
Hetch Hetchy	3530	10.35	26.21	23.85	110%	35.77	2	15-1919(30)	0
Groveland	2828	10.38	28.86	27.10	106%	38.35	---	---	---
Sonora	1825	9.54	24.40	23.18	105%	33.34	0	---	0
MERCED RIVER									
Yosemite	3960	10.65	26.15	25.71	102%	36.49	0	29-1922(31)	0
Dudley's	3000	No Report		---	---	---	---	10-1933(25)	0
Mariposa	1932	10.84	24.05	22.02	109%	30.83	0	---	0
Merced Falls	351	4.39	11.44	11.49	100%	16.19	0	---	0
MONO BASIN									
Ellery Lake	9600	3.58	12.10	22.15	55%	32.69	80	175-1936(21)	25-1925
Gem Lake	9120	No Report		19.55	---	27.47	---	122-1936(21)	26-1937
UPPER SAN JOAQUIN RIVER									
Huntington Lake	7000	9.38	24.64	22.23	111%	32.45	43	97-1922(30)	7-1924
Big Creek	4900	11.06	26.29	22.31	118%	33.13	0	21-1944(30)	0
Crane Valley	3500	14.43	34.72	30.35	114%	42.62	T	---	0
North Fork	3000	13.11	30.12	24.88	121%	35.21	0	---	0
Auberry	2050	7.74	22.50	18.66	121%	26.86	0	---	0

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

TABLE 2 - PRECIPITATION DATA - to MARCH 1st, 1945 - Continued

1 BASIN AND PRECIPITATION STATION	ELEVATION IN FEET	PRECIPITATION DURING FEBRUARY 1945 (Inches)	PRECIPITATION FROM JULY 1 1944 to MARCH 1, 1945			2 Normal Seasonal Precipitation (July to June) Inches	SNOW ON GROUND ON MARCH 1st (Inches)		
			Total (Inches)	2 Normal (Inches)	In per cent of Normal		This Year	3 Previous Maximum	3 Previous Minimum
OWENS BASIN									
South Lake	9620	9.23	14.10	13.14	107%	17.67	66	77-1938(21)	17-1931
Lake Sebrina	9100	9.01	13.58	13.51	100%	17.82	57	74-1936(21)	6-1928
Lake Mary	9000	9.44	—	—	—	—	108	—	—
Crooked Creek	6700	5.75	7.85	7.40	106%	10.03	—	—	—
Big Pines Power House No. 3	5400	5.79	6.69	6.53	102%	8.24	—	—	—
Independence	3957	No Report		3.72	—	4.64	—	—	—
Los Angeles Aqueduct at Intake	3880	3.90	4.81	3.47	139%	4.34	—	—	—
Cottonwood Gates	3600	3.29	3.83	4.13	93%	5.19	—	—	—
KINGS RIVER									
Grant Grove	6775	17.29	35.73	28.48	125%	42.50	31	119-1932(21)	10-1928
Cliff Camp	6150	12.61	29.00	28.44	102%	40.46	15	87-1932(21)	0
Balch Camp	1300	10.15	22.76	19.69	116%	29.11	0	—	0
Piedra	500	6.04	13.91	13.16	106%	18.64	0	—	0
KAWEAH RIVER									
Grant Grove	6775	17.29	35.73	28.48	125%	42.50	31	119-1932(21)	10-1928
Giant Forest	6360	17.07	33.80	29.65	114%	44.32	37	129-1922(24)	0-1924
Ash Mountain	1600	8.95	19.25	17.04	113%	26.57	0	—	0
Three Rivers	870	7.49	16.37	14.02	117%	20.85	0	—	0
KERN RIVER									
Springville (near)	4050	No Report		24.47	—	36.60	—	46-1933(31)	0
Glennville (near)	3300	7.21	15.81	13.79	115%	21.15	T	—	—
Kernville	2600	4.69	6.84	7.90	87%	10.51	0	—	0
LOS ANGELES RIVER BASIN									
Opids Camp	4480	9.96	25.54	29.54	87%	41.43	8	—	0
Haines Canyon (upper)	3450	8.01	18.38	20.04	92%	30.26	0	—	0
Briggs Terrace	2310	7.61	17.90	21.04	85%	29.85	0	—	0
Lower Haines (U.S.G.S.)	2250	6.09	13.93	18.49	75%	26.70	0	—	0
Big Tujunga Dam	2050	7.41	18.11	21.88	83%	30.97	0	—	0
Little Tujunga	1700	5.33	14.68	—	—	—	0	—	0
Arroyo Seco Ranger Station	1530	6.50	15.26	19.67	78%	27.09	0	—	0

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

TABLE 2 - PRECIPITATION DATA - to MARCH 1st, 1945 - Continued

1 BASIN AND PRECIPITATION STATION	ELEVATION IN FEET	PRECIPITATION DURING FEBRUARY 1945 (Inches)	PRECIPITATION FROM JULY 1 1944 to MARCH 1, 1945			2 Normal Seasonal Precipitation (July to June) Inches	SNOW ON GROUND ON MARCH 1st (Inches)		
			Total (Inches)	2 Normal (Inches)	In per cent of Normal		This Year	3 Previous Maximum	3 Previous Minimum
SAN GABRIEL RIVER BASIN									
Table Mountain Obser.	7500	3.53	10.59	10.77	98%	14.46	12	—	—
Big Pines Camp	6860	6.14	17.62	19.54	90%	27.42	21	—	—
Mt. Wilson	5850	No	Report	24.08	—	33.64	—	—	—
Little Cienega	4650	7.03	22.36	—	—	—	4	—	—
Opids Camp	4480	9.96	25.54	29.54	87%	41.43	8	—	0
Camp Baldy	4300	No	Report	23.87	—	34.48	—	—	—
Mouth San Antonio Canyon	2500	No	Report	19.42	—	27.50	—	—	—
San Dimas Guard Station	2400	6.91	19.41	18.61	104%	25.37	0	—	0
Sawpit Canyon	2000	7.84	19.11	22.57	85%	32.08	0	—	0
Santa Anita Fern Lodge	1950	8.31	20.07	25.83	78%	35.09	0	—	—
San Gabriel Dam No. 1 Camp	1600	7.55	20.66	22.80	91%	31.44	0	—	0
Monrovia Falls	1450	7.90	19.73	22.34	88%	31.45	0	—	0
Big Santa Anita Dam	1400	6.74	16.06	19.07	84%	—	0	—	0
San Dimas Dam	1350	6.24	16.64	17.77	94%	24.41	0	—	0
SANTA ANA RIVER BASIN									
Table Mountain Obser.	7500	3.53	10.59	10.77	98%	14.46	12	—	—
Big Pines Camp	6860	6.14	17.62	19.54	90%	27.42	21	—	—
Big Bear Lake Dam	6800	9.68	27.04	26.23	103%	36.83	8	—	—
Running Springs	6230	12.44	31.44	31.22	101%	43.20	13	—	—
Squirrel Inn	5700	14.89	35.77	29.22	122%	42.82	12	44-1937(29)	0
Seven Oaks	5000	5.65	16.70	19.99	84%	28.27	3	—	—
Camp Baldy	4300	No	Report	23.87	—	34.48	—	—	—
Beaumont (near)	3045	4.61	13.51	15.42	88%	23.00	0	—	0
Mill Creek No. 2	2950	5.09	15.14	15.53	97%	23.51	0	—	0
Santa Ana River	2850	6.46	14.72	18.66	79%	27.63	0	—	0
Beaumont	2558	4.02	11.79	13.07	90%	19.37	0	—	0
Mouth San Antonio Canyon	2500	No	Report	19.42	—	27.50	—	—	—
Lytle Creek	2250	10.27	26.79	25.22	106%	35.48	0	—	0

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

TABLE 2 - PRECIPITATION DATA - to MARCH 1st, 1945 - Continued

1 BASIN AND PRECIPITATION STATION	ELEVATION IN FEET	PRECIPITATION DURING FEBRUARY 1945 (Inches)	PRECIPITATION FROM JULY 1 1944 to MARCH 1, 1945			2 Normal Seasonal Precipitation (July to June) Inches	SNOW ON GROUND ON MARCH 1st (Inches)		
			Total (Inches)	2 Normal (Inches)	In per cent of Normal		This Year	3 Previous Maximum	3 Previous Minimum
SAN DIEGO COUNTY									
PACIFIC SLOPE BASINS									
Mt. Palomar Observatory	5600	No	Report	—	—	—	—	—	—
Cuyamaca	4680	6.94	20.51	27.33	75%	39.64	4.0	—	—
Julian	4220	4.40	14.83	21.95	68%	31.99	0	—	—
Warner Springs	3170	2.56	12.40	13.17	94%	17.89	0	—	0
Campo	3000	No	Report	14.28	—	19.56	—	—	—
Barrett Dam	1750	2.13	9.43	13.52	70%	19.37	0	—	0

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

A P P E N D I X

The sheet following contains the results of several snow surveys which, although made during the early part of February, were received too late to be included in the regular February bulletin.

CALIFORNIA COOPERATIVE SNOW SURVEYS

Agencies Cooperating in Collection of Data as to Snow

Governmental Agencies

State

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

Federal

- U. S. Department of Agriculture
  - Bureau of Entomology & Plant Quarantine
  - Forest Service (11 National Forests)
  - Soil Conservation Service
- U. S. Department of the Interior
  - Bureau of Reclamation
  - National Park Service (4 National Parks)

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
- Kings River Water Association
- Nevada Irrigation District
- Oakdale Irrigation District
- South San Joaquin Irrigation District
- Turlock Irrigation District
- Modesto Irrigation District
- Merced Irrigation District

Private Corporations

- Kern County Land Company
- The San Joaquin Canal Company

Agencies Through Which Precipitation Data are Received

- State Division of Water Resources
- U. S. Weather Bureau
- Los Angeles County Flood Control District
- City of Los Angeles
- Pacific Gas and Electric Company
- The California Electric Power Company