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SACRAMENTO

DIVISION OF WATER RESOURCES
PUBLIC WORKS BUILDING

CALIFORNIA COOPERATIVE SNOW SURVEYS

SNOW SURVEYS AND PRECIPITATION DATA
AND
FORECASTS OF STREAM FLOW

MAY 10, 1940.

This bulletin contains the results of all snow surveys made at the key snow courses throughout the State, during the closing days of April and the early part of May. Also, tabulated herein, are all available precipitation data to May 1st for the foothill and mountain stations, maintained by the U. S. Weather Bureau, State, Districts, and Public Utilities, in the various major stream basins of the Sierra Nevada.

The weather during the past month has been somewhat warmer than the average for April, and the melting of the snowpack has proceeded apace. Not much snow now remains below elevation 6500 and the bare ground and rocks are rapidly showing through in patches even up to elevation 7500, especially on the sunny south slopes.

The snow surveys just made, listed in Table 5 following, show that on the whole below elevation 7500, approximately one half of the April 1st snowpack has melted during the past month.

In the northern Sierra, however, the present zone of melting does not extend beyond the 8000 foot contour; the last measurements from Mount Shasta, Mount Lassen and Carson Pass show very little less water content than that reported a month ago. Toward the southern end of the Sierra, the melting zone has reached higher -- more than 20 per cent of last month's pack having now disappeared from the Kern watershed at elevation 9000.

There were several rains during April, but all of them were light. Reports from the precipitation stations show that the Upper Sacramento watershed received a normal April supply of rain, but the rest of the Sierra was below normal, ranging from a low of 25 per cent for the Stanislaus watershed to a high of 90 per cent for the Kings. In Southern California, the April precipitation was well above normal -- San Diego County having the greatest percentage of surplus.

Come to GOLDEN GATE INTERNATIONAL EXPOSITION
. . . . . February 18th to December 2nd 1939

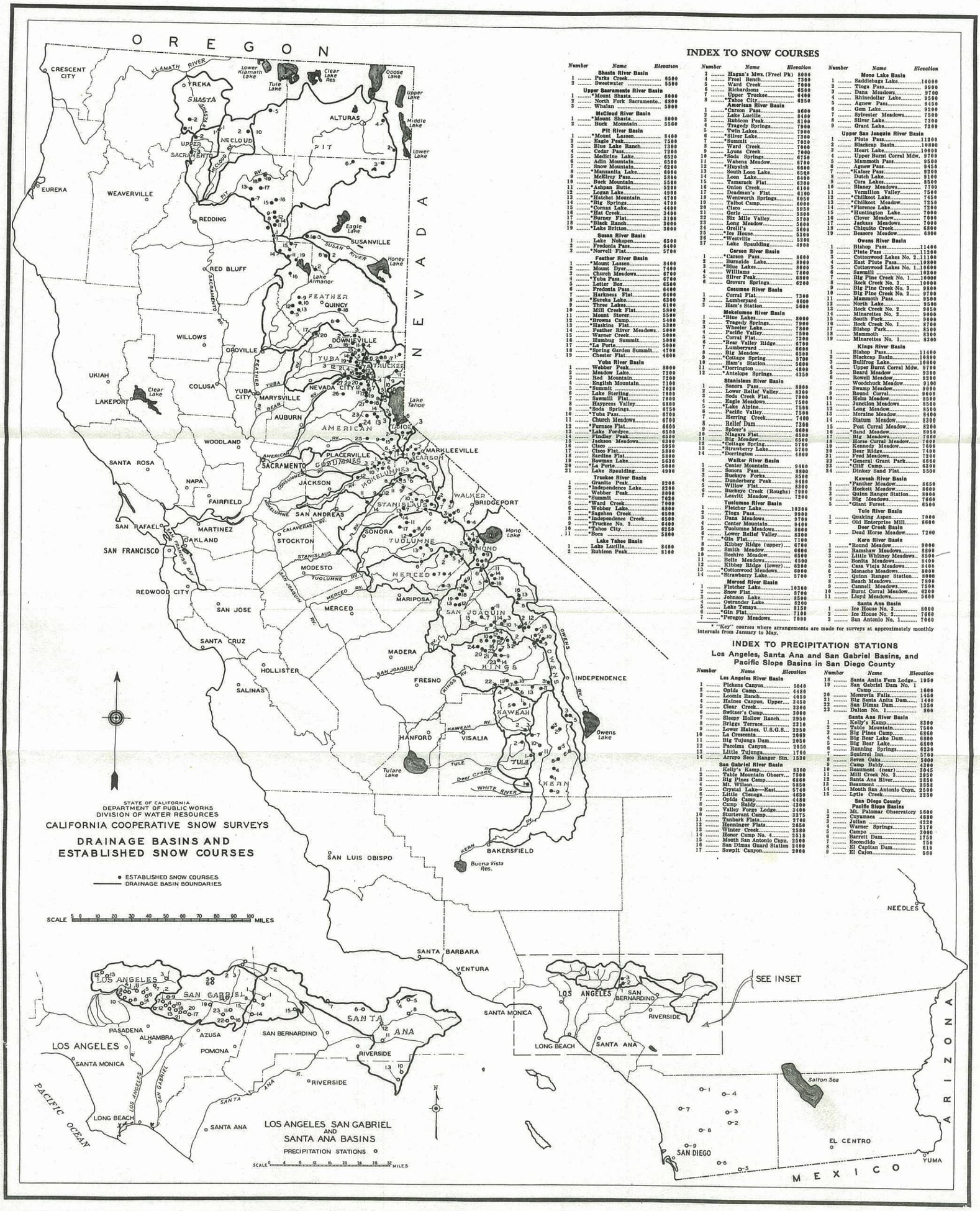
The situation as regards this season's run-off expectations remains the same as appraised a month ago. Consideration of all the factors involved as revealed by available data does not at this time indicate sufficient difference in anticipated results to justify modification of the previous forecasts of April - July snowpack run-off for California streams. Any shortage that might be expected as a result of the deficient April rains is apparently being made up for by the long time carry over effect of the two heavy rain periods of February and March.

Table 2 again summarizes the April forecasts. The final prediction of the Nevada Cooperative Snow Survey Forecast Committee for the east side streams replaces the tentative figures available at the time of the April publication. The California figures remain the same.

More accurate figures are now available for the April rain run-off caused by the storm at the end of March, and these new figures listed in the last column of Table 2, supersede the approximate figures published last month.

In Table 3, which lists the total expected seasonal flow of the main Sierra streams, a few minor modifications have been made as a result of recent available figures for actual stream run-off to the end of March. However, these changes are slight and their effect on the estimates of low water flow and summer salinities in the Delta is so small that no changes have been made in these latter predictions; the figures of Table 4, herein, being identical with those published a month ago.

At the end of this report in the form of an appendix are tabulated the results of snow surveys from several snow courses made during the first part of April, but which were received at Sacramento too late to be included in last month's bulletin.



INDEX TO SNOW COURSES

Number	Name	Elevation
	Shasta River Basin	
1	Parks Creek	5500
2	Sweetwater	5500
	Upper Sacramento River Basin	
1	*Mount Shasta	8000
2	North Fork Sacramento	6800
3	Shalan	5800
	McCloud River Basin	
1	*Mount Shasta	8000
2	Buck Mountain	5500
	Pit River Basin	
1	*Mount Lassen	8400
2	Eagle Peak	7500
3	Blue Lake Ranch	7300
4	Cedar Pass	7200
5	Medicine Lake	6520
6	Antlo Mountain	6500
7	Snow Mountain	6200
8	Manzanita Lake	6000
9	McElroy Pass	5800
10	Buck Mountain	5500
11	*Ashpan Butte	5300
12	Logan Lake	4900
13	*Hatchet Mountain	4700
14	*Big Springs	4700
15	*Dorras Lake	4400
16	*Hat Creek	3400
17	*Burney Flat	3100
18	*Black Ranch	3000
19	*Lake Britton	3000
	Susan River Basin	
1	Lake Nokogen	6500
2	Fredonia Pass	6400
3	*Norrell Flat	5700
	Feather River Basin	
1	*Mount Lassen	8400
2	Lake Dyer	7400
3	Church Meadows	6700
4	*Yuba Pass	6700
5	Letter Box	6500
6	Fredonia Pass	6400
7	Harkness Flat	6400
8	*Eureka Lake	6300
9	Three Lakes	6100
10	Mill Creek Flat	5800
11	Mount Stover	5500
12	*Browns Camp	5400
13	*Haskins Flat	5300
14	Feather River Meadows	5000
15	Warner Creek	5000
16	Humbug Summit	5000
17	*La Porte	5000
18	*Spring Garden Summit	4700
19	Chester Flat	4600
	Yuba River Basin	
1	Webber Peak	8000
2	Meadow Lake	7200
3	Red Mountain	7200
4	English Mountain	7100
5	Summit	7000
6	Lake Sterling	7000
7	Sawmill Flat	7000
8	Hayfork Valley	6800
9	*Soda Springs	6750
10	*Yuba Pass	6700
11	Church Meadows	6700
12	*Furnace Flat	6600
13	*Lake Fordyce	6500
14	Findley Peak	6500
15	Jackson Meadows	6300
16	Cisco	5950
17	Cisco Flat	5800
18	Sardine	5800
19	Bowman Lake	5630
20	*La Porte	5000
21	Lake Spaulding	4900
	Truckee River Basin	
1	Granite Peak	8200
2	*Independence Lake	8200
3	Webber Peak	8000
4	*Summit	7020
5	*Ward Creek	7000
6	Webber Lake	6800
7	*Sagehen Creek	6500
8	*Independence Creek	6500
9	*Truckee No. 3	6400
10	*Tahoe City	6250
11	*Rock	5800
	Lake Tahoe Basin	
1	Lake Lucille	8400
2	Rubicon Peak	8100
3	Hagan's Mwx. (Freel Pk)	8000
4	Freel Bench	7200
5	Ward Creek	7000
6	Richardsons	6500
7	Upper Truckee	6400
8	*Tahoe City	6250
	American River Basin	
1	*Carson Pass	8600
2	Lake Lucille	8400
3	Rubicon Peak	8100
4	Tragedy Springs	7900
5	Twin Lakes	7900
6	*Silver Lake	7300
7	*Summit	7020
8	Ward Creek	7000
9	Lyons Creek	7000
10	*Soda Springs	6750
11	Wabena Meadow	6700
12	*Huysink	6600
13	South Loon Lake	6500
14	Loon Lake	6400
15	Tamarack Flat	6200
16	Onion Creek	6100
17	Deadman's Flat	6100
18	Wentworth Springs	6050
19	Talbot Camp	6000
20	Claro	5950
21	Gerle	5800
22	Six Mile Valley	5700
23	Long Meadow	5600
24	Orelli's	5600
25	*Ice House	5300
26	*Westville	5200
27	Lake Spaulding	4900
	Carson River Basin	
1	*Carson Pass	8600
2	Burnside Lake	8000
3	*Blue Lakes	8000
4	Williams	7800
5	Silver Peak	6900
6	Grovers Springs	6200
	Cosumne River Basin	
1	Corral Flat	7300
2	Lumberyard	6600
3	Ham's Station	5600
	Mokelumne River Basin	
1	*Blue Lakes	8000
2	Tragedy Springs	7900
3	Wheeler Lake	7800
4	Pacific Valley	7500
5	Corral Flat	7300
6	*Bear Valley Ridge	6700
7	Lumberyard	6600
8	Big Meadow	6500
9	*Cottage Spring	5700
10	Ham's Station	5600
11	*Dorrington	4800
12	*Antelope Springs	4350
	Stanislaus River Basin	
1	Sonora Pass	8800
2	Lower Relief Valley	8300
3	Soda Creek Flat	7900
4	*Eagle Meadows	7500
5	*Lake Alpine	7500
6	Pacific Valley	7500
7	Herring Creek	7400
8	Relief Dam	7300
9	Spicer's	6600
10	Niagara Flat	6500
11	Big Meadow	6500
12	*Cottage Spring	5700
13	*Strawberry Lake	5700
14	*Dorrington	4800
	Walker River Basin	
1	Center Mountain	9400
2	Sonora Pass	8800
3	Buckeye Forks	8500
4	Dunderberg Peak	8400
5	Willow Flat	8300
6	Buckeye Creek (Roughs)	7900
7	Leavitt Meadow	7200
	Tuolumne River Basin	
1	Fletcher Lake	10300
2	Tioga Pass	9900
3	Dana Meadows	9700
4	Center Mountain	9400
5	Tuolumne Meadows	8600
6	Lower Relief Valley	8300
7	*Gin Flat	7100
8	Kibbey Ridge (upper)	6700
9	Smith Meadow	6600
10	Heebhre Meadow	6500
11	Belle Meadows	6500
12	Kibbey Ridge (lower)	6200
13	*Cottonwood Meadows	6000
14	*Strawberry Lake	5700
	Merced River Basin	
1	Fletcher Lake	10300
2	Snow Flat	8700
3	Johnson Lake	8500
4	Ostrander Lake	8300
5	Lake Tenaya	8150
6	*Gin Flat	7100
7	*Peregoy Meadows	7000
	Mono Lake Basin	
1	Saddlebags Lake	10000
2	Tioga Pass	9900
3	Dana Meadows	9700
4	Rhinedollar Lake	9500
5	Agnew Pass	9450
6	Gem Lake	9200
7	Sylvester Meadows	7500
8	Silver Lake	7300
9	Grass Lake	7200
	Upper San Joaquin River Basin	
1	Piute Pass	11300
2	*Blackcap Basin	10900
3	Heart Lake	10000
4	Upper Burnt Corral Mdw.	9700
5	Mammoth Pass	9500
6	Agnew Pass	9450
7	*Kaiser Pass	9200
8	Dutch Lake	9100
9	Cora Lakes	8500
10	Blaney Meadows	7700
11	Vermilion Valley	7500
12	*Chilkoot Lake	7450
13	*Chilkoot Meadow	7350
14	*Florence Lake	7200
15	*Huntington Lake	7000
16	Clover Meadow	7000
17	Jackass Meadows	7000
18	Chiquito Creek	6900
19	Bessore Meadow	6800
	Owens River Basin	
1	Bishop Pass	11400
2	Piute Pass	11200
3	Cottonwood Lakes No. 2	11100
4	East Piute Pass	10800
5	Cottonwood Lakes No. 1	10600
6	Sawmill	10200
7	Big Pine Creek No. 1	10000
8	Rock Creek No. 3	10000
9	Big Pine Creek No. 3	9800
10	Big Pine Creek No. 2	9700
11	Mammoth Pass	9500
12	North Lake	9300
13	Rock Creek No. 2	9050
14	Minarettes No. 2	9000
15	South Fork	9000
16	Rock Creek No. 1	8700
17	Bishop Park	8500
18	Mammoth	8300
19	Minarettes No. 1	8300
	Kings River Basin	
1	Bishop Pass	11400
2	Blackcap Basin	10800
3	Bullfrog Lake	10600
4	Upper Burnt Corral Mdw.	9700
5	Beard Meadow	9300
6	Rowell Meadow	9200
7	Woodchuck Meadow	9100
8	Swamp Meadow	9000
9	Round Corral	8600
10	Helm Meadow	8500
11	Junction Meadows	8500
12	Long Meadow	8500
13	Moraine Meadow	8400
14	Statum Meadow	8300
15	Post Corral Meadow	8200
16	*Sand Meadow	8050
17	Big Meadows	7600
18	Horse Corral Meadow	7600
19	Kennedy Meadow	7500
20	Bear Ridge	7400
21	Fred Meadows	7200
22	*General Grant Park	6600
23	*Cliff Camp	6200
24	Dinkey Sand Flat	5500
	Kaweah River Basin	
1	*Panther Meadow	8650
2	Hockett Meadow	8600
3	Quinn Ranger Station	8500
4	Big Meadows	7600
5	*Giant Forest	6500
	Tule River Basin	
1	Quaking Aspen	7000
2	Old Enterprise Mill	6000
	Deer Creek Basin	
1	Dead Horse Meadow	7200
	Kern River Basin	
1	*Round Meadow	9000
2	Ramshaw Meadows	8500
3	Little Whitney Meadows	8500
4	Bonita Meadows	8400
5	Casa Vieja Meadows	8400
6	Monache Meadows	8000
7	Quinn Ranger Station	8000
8	Beach Meadows	7800
9	Cannell Meadows	7500
10	Burnt Corral Meadow	6200
11	Lloyd Meadows	5600
	Santa Ana Basin	
1	Ice House No. 3	8000
2	Ice House No. 2	7600
3	San Antonio No. 1	7060
4	Hagan's Mwx. (Freel Pk)	8000
5	Rhinedollar Lake	9500
6	Agnew Pass	9450
7	*Kaiser Pass	9200
8	Dutch Lake	9100
9	Cora Lakes	8500
10	Blaney Meadows	7700
11	Vermilion Valley	7500
12	*Chilkoot Lake	7450
13	*Chilkoot Meadow	7350
14	*Florence Lake	7200
15	*Huntington Lake	7000
16	Clover Meadow	7000
17	Jackass Meadows	7000
18	Chiquito Creek	6900
19	Bessore Meadow	6800
	San Gabriel River Basin	
1	Kelly's Ramp	8300
2	Table Mountain Observ.	7500
3	Big Pines Camp	6860
4	Mt. Wilson	5850
5	Crystal Lake—East	5740
6	Little Cienega	4650
7	Opids Camp	4480
8	Camp Baldy	4300
9	Valley Forge Lodge	3400
10	Sturtevant Camp	3375
11	Tanbark Flats	2700
12	Hemlinger Flats	2650
13	Winter Creek	2580
14	Homer Camp No. 4	2513
15	Mouth San Antonio Cnyn.	2500
16	San Dimas Guard Station	2400
17	Sawpit Canyon	2000
18	Santa Anita Fern Lodge	1950
19	San Gabriel Dam No. 1	1600
20	Monrovia Falls	1450
21	Big Santa Anita Dam	1400
22	San Dimas Dam	1350
23	Dalton No. 1	800
	Santa Ana River Basin	
1	Kelly's Ramp	8300
2	Table Mountain	7500
3	Big Pines Camp	6860
4	Big Bear Lake Dam	6500
5	Big Bear Lake	6500
6	Running Springs	6230
7	Squirrel Inn	5700
8	Seven Oaks	5000
9	Camp Baldy	4200
10	Beaumont (Gear)	3045
11	Mill Creek No. 1	2950
12	Santa Ana River	2850
13	Beaumont	2550
14	Mouth San Antonio Cnyn.	2500
15	Cycle Creek	2250
	San Diego County Pacific Slope Basins	
1	Mt. Palomar Observatory	5600
2	Cuyamaca	4880
3	Julian	4250
4	Warner Springs	3170
5	Campo	3000
6	Barrett Dam	1750
7	Escondido	750
8	El Capitan Dam	610
9	El Cajon	500

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

INDEX TO PRECIPITATION STATIONS

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

Number	Name	Elevation
	Los Angeles River Basin	
1	Pickens Canyon	5040
2	Opids Camp	4480
3	Loomis Ranch	4050
4	Haines Canyon, Upper	3450
5	Clear Creek	3300
6	Switzer's Camp	3000
7	Sleepy Hollow Ranch	2950
8	Briggs Terrace	2310
9	Lower Haines, U.S.G.S.	2250
10	La Crescenta	2060
11	Big Tujunga Dam	2050
12	Pacoima Canyon	2050
13	Little Tujunga	1700
14	Arroyo Seco Ranger Stn.	1520
	San Gabriel River Basin	
1	Kelly's Ramp	8300
2	Table Mountain Observ.	7500
3	Big Pines Camp	6860
4	Mt. Wilson	5850
5	Crystal Lake—East	5740
6	Little Cienega	4650
7	Opids Camp	4480
8	Camp Baldy	4300
9	Valley Forge Lodge	3400
10	Sturtevant Camp	3375
11	Tanbark Flats	2700
12	Hemlinger Flats	2650
13	Winter Creek	2580
14	Homer Camp No. 4	2513
15	Mouth San Antonio Cnyn.	2500
16	San Dimas Guard Station	2400
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18	Santa Anita Fern Lodge	1950
19	San Gabriel Dam No. 1	1600
20	Monrovia Falls	1450
21	Big Santa Anita Dam	1400
22	San Dimas Dam	1350
23	Dalton No. 1	800
	Santa Ana River Basin	
1	Kelly's Ramp	8300
2	Table Mountain	7500
3	Big Pines Camp	6860
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12	Santa Ana River	2850
13	Beaumont	2550
14	Mouth San Antonio Cnyn.	2500
15	Cycle Creek	2250
	San Diego County Pacific Slope Basins	
1	Mt. Palomar Observatory	5600
2	Cuyamaca	4880
3	Julian	4250
4	Warner Springs	3170
5	Campo	3000
6	Barrett Dam	1750
7	Escondido	750
8	El Capitan Dam	610
9	El Cajon	500

TABLE 1

SUMMARY OF APRIL PRECIPITATION AND SEASONAL PRECIPITATION TO DATE

AVERAGES BY STREAM BASINS

Stream Basin	Precipitation during April, 1940 in per cent of normal	Precipitation July 1, 1939 to April 30, 1940 in per cent of Normal to date
Upper Sacramento - McCloud - Pit	105%	130%
Feather	45%	125%
Yuba	50%	130%
Truckee - Tahoe	50%	135%
American	45%	130%
Mokelumne	30%	115%
Stanislaus	25%	140%
Tuolumne	35%	135%
Merced	35%	115%
Upper San Joaquin	65%	125%
Kings	90%	135%
Kaweah	75%	140%
Kern *	*	*
Los Angeles	110%	100%
San Gabriel	135%	105%
Santa Ana	155%	105%
San Diego County	220%	110%

* No precipitation stations actually in watershed.

TABLE 2

STREAM FLOW FORECASTS - MAY 1, 1940

Drainage Area or Stream Gaging Station	Stream Flow April 1 to July 31, inclusive 1: 50 Year Normal 1890-1939 Acre Feet	Forecast Flow from snowpack, Per Cent of Normal	Estimated 1940 flow from snowpack	2 Additional Flow during April due to heavy rains at end of March
Feather River near Oroville	2,293,000	44%	1,000,000	*
Bowman Area-Middle Yuba and Canyon Creek	98,000	97%	95,000	2,000
S. F. Yuba River at Lang's Crossing	246,000	94%	230,000	10,000 **
Yuba River at Smartsville	1,211,000	68%	820,000	125,000 **
North Fork American River near Colfax	318,000	52%	165,000	28,000
Middle Fork American River near Auburn	706,000	60%	425,000	60,000
American River at Fairoaks	1,571,000	60%	950,000	150,000
N. F. Mokelumne River near West Point	468,000	80%	375,000	12,000
Mokelumne River near Mokelumne Hill	545,000	73%	400,000	18,000
Middle Fork Stanislaus R. near Avery	388,000	86%	335,000	4,000
Stanislaus River below Melones P. H.	846,000	80%	675,000	20,000
Tuolumne River near Hetch Hetchy	680,000	101%	685,000	2,000
Tuolumne River at La Grange	1,363,000	84%	1,150,000	23,000
Merced River at Pohono Bridge	421,000	95%	400,000	2,000 **
Merced River at Exchequer	720,000	83%	600,000	10,000
Big Creek at Huntington Lake	111,000	90%	100,000	0
S. F. San Joaquin R. at Florence Lake	217,000	111%	240,000	0
San Joaquin River above Big Creek	1,187,000	93%	1,100,000	5,000
San Joaquin River at Friant	1,392,000	86%	1,200,000	15,000
N. F. Kings R. Below Rancheria Creek	330,000	91%	300,000	0
Kings River above Piedra	1,367,000	88%	1,200,000	6,000
Kaweah River near Three Rivers	299,000	84%	250,000	--
Kern River near Bakersfield	471,000	74%	350,000	--
Truckee River at Farad 3	326,000	75%	245,000	--
Lake Tahoe 3	Lake Rise: 1.68 feet		Lake Rise: of 1.38 ft. to maximum: elevation of 6228.1	--
Carson River at Fort Churchill 3	230,000	80%	185,000	--
West Walker at Chris Flat 3	191,000	80%	153,000	--
4 East Walker at Bridgeport Dam 3	73,000	71%	52,000	--

1 Full natural flow (measured flow corrected for regulations above).

2 The end of March storm caused all streams to rise and added a considerable amount of water to the April flow that came from rain run-off and not from melting snow. Most of the amounts shown in this column are based upon records now available reporting the actual stream flow and reservoir storage figures during and after the storm.

* Figure not yet available -- gage washed out. ** Approximate figures only.

3 Forecasts of probable flow by Nevada Cooperative Snow Surveys Committee.

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

TABLE 3

SEASONAL STREAM FLOW[1] IN PER CENT OF NORMAL[2]

For the 12 Months Period
Beginning October 1st and ending September 30th of following year.

Stream	Seasonal Stream Flow in Per Cent of 40-year Mean (1889-1929)				
	Actual				[3] Estimated
	1935-36	1936-37	1937-38	1938-39	1939-40
Sacramento River at Red Bluff	76%	64%	157%	47%	104%
Feather River at Oroville	82%	60%	163%	36%	98%
Yuba River at Smartsville	98%	70%	152%	34%	104%
American River at Fairoaks	111%	76%	147%	34%	101%
Sacramento River at Sacramento [4]	86%	65%	156%	40%	102%
Mokelumne River at Mokelumne Hill	105%	82%	145%	40%	91%
Stanislaus River at Knights Ferry	98%	82%	151%	39%	96%
Tuolumne River at La Grange	105%	97%	166%	44%	101%
Merced River at Exchequer	103%	109%	187%	43%	114%
San Joaquin River at Friant	94%	111%	185%	47%	93%
San Joaquin River near Vernalis [4]	100%	100%	172%	44%	100%
Combined Sacramento and San Joaquin Rivers [4]	91%	75%	160%	41%	101%
Kings River at Piedra	101%	124%	173%	52%	91%
Kaweah River at Three Rivers	110%	153%	197%	61%	98%
Kern River near Bakersfield	112%	169%	190%	71%	88%

1 Full Natural Flow. That is, the flow as measured in the stream with corrections applied for upstream regulation and diversions.

2 40-year mean (1889-1929).

3 Revised slightly from last month's figures. These estimates obtained by combining latest flow measurements now available from October 1, 1939 to March 31, 1940, with snowpack run-off estimates.

4 Including tributaries

TABLE 4

MINIMUM STREAM FLOW AND MAXIMUM DELTA SALINITY

Stream	Minimum Flow in Second-feet					
	Actual					Estimated[1]
	1935	1936	1937	1938	1939	1940
Sacramento River at Red Bluff	2860	2700	2780	3880	2700	3300
Sacramento River at Colusa	1780	1540	1370	3000	1320	2200
Sacramento River at Sacramento[2]	2705	2540	1720	5190	630	2900
Feather River at Nicolaus	690	603	230	772	68	600
American River at Sacramento	178	415	238	434	44	300
San Joaquin River near Vernalis	850	980	950	2030	545	1000
Combined Sacramento and San Joaquin River flow to Delta[2]	3940	3600	2820	7365	1315	4000

Sacramento-San Joaquin Delta Stations	Maximum Salinity - (High Tide) in parts of chlorine per 100,000 parts of water					
	Actual					Estimated
	1935	1936	1937	1938	1939	1940
O and A Ferry	540	580	640	256	1240	500
Antioch	290	270	350	51	920	300
Collinsville	390	300	490	86	1040	400
Emmaton	88	54	102	7	580	75
Jersey	86	78	102	9	500	75
Three Mile Slough Bridge	77	57	120	-	590	50
Rio Vista	7	8	33	-	405	10
Central Landing	8	7	11	10	138	10

1 Estimates based upon correlation between seasonal stream flow percentages and minimum flow, as developed from past experience, and assuming a 1940 rice area similar to that of 1939 - (preliminary data).

2 Mean for minimum 10 day period.

PROGRESS REPORT OF SNOW SURVEY AND PRECIPITATION DATA
TO MAY 1, 1940
TABLE 5
SNOW SURVEY DATA FOR KEY COURSES - MAY, 1940

1 Drainage Basins and Snow Courses	Elevation in Feet	Date of Survey	Depth of Snow Inches	Density per Cent	Water Content Inches	Corresponding Water Content Last Year Inches	Melting as Shown by Per Cent Departure From April First Water Content	
							This year	Last Year
UPPER SACRAMENTO RIVER								
Mount Shasta	8000	4-30-40	143.1	51.6%	73.9	8.1	-3% **	-65%
McCLOUD RIVER								
Mount Shasta	8000	4-30-40	143.1	51.6%	73.9	8.1	-3% **	-65%
PIT RIVER								
Mount Lassen	8400	5- 7-40	194.6	55.9%	108.7	30.9	-2%	-31%
Manzanita Lake	6000	5- 1-40	No Snow on Course			0	*	-
FEATHER RIVER								
Mount Lassen	8400	5- 7-40	194.6	55.9%	108.7	30.9	-2%	-31%
Yuba Pass	6700	5- 4-40	40.6	37.9%	15.4	0	-58%	-100%
Letter Box	6500	5- 1-40	No Snow on Course			N.S.M.	-100%	-
Eureka Lake	6300	5- 4-40	20.8	31.3%	6.5	N.S.M.	-79%	-
La Porte	5000	5- 1-40	No Snow on Course			0	*	-100%
Spring Garden Summit	4700	5- 3-40	" " " "			0	*	-
YUBA RIVER								
Donner Summit	7000	5- 1-40	68.7	54.3%	37.3	0	-23%	-100%
Soda Springs	6750	5- 1-40	56.1	55.8%	31.3	0	-27%	-100%
Yuba Pass	6700	5- 4-40	40.6	37.9%	15.4	0	-58%	-100%
Furnace Flat	6600	4-29-40	81.6	50.7%	41.4	0	-8%	-100%
Lake Fordyce	6500	4-30-40	57.4	47.6%	27.3	0	-24%	-100%
AMERICAN RIVER								
Carson Pass	8600	4-26-40	80.2	48.5%	38.9	8.6	-1%	-64%
Silver Lake	7300	4-25-40	20.4	45.1%	9.2	0	-54%	-100%
Huysink Lake	6600	5- 4-40	66.4	50.9%	33.8	11.0	-29%	-66%
Ice House	5300	5- 1-40	No Snow on Course			0	*	-100%
CARSON RIVER								
Carson Pass	8600	4-26-40	80.2	48.5%	38.9	8.6	-1%	-64%
Blue Lakes	8000	4-30-40	85.8	46.2%	39.6	9.4	-11%	-58%

* No snow on these snow courses when survey was made a month ago.

** A measurement made at Mount Shasta on April 6, 1940, showed 73.9" water (see Appendix).

TABLE 5 - SNOW SURVEY DATA FOR KEY COURSES - MAY 1940 (CONCLUDED)

1 Drainage Basins and Snow Courses	Elevation in Feet	Date of Survey	Depth of Snow Inches	Density per Cent	Water Content Inches	Corresponding Water Content Last Year Inches	Melting as Shown by Per Cent Departure From April First Water Content	
							This Year	Last Year
MOKELUMNE RIVER								
Carson Pass	8600	4-26-40	80.2	48.5%	38.9	8.6	-1%	-64%
Blue Lakes	8000	4-30-40	85.8	46.2%	39.6	9.4	-11%	-58%
Lake Alpine	7500	5- 1-40	80.0	49.1%	39.3	2.6	-14%	-88%
Bear Valley Ridge	6700	4-25-40	6.0	48.3%	2.9	0	-86%	-100%
STANISLAUS RIVER								
Lake Alpine	7500	5- 1-40	80.0	49.1%	39.3	2.6	-14%	-88%
Strawberry Lake	5700	5- 1-40	No Snow on Course			0	*	-
TUOLUMNE RIVER								
Gin Flat	7100	5- 2-40	38.8	43.3%	16.8	N.S.M.	-55%	-
Beehive Meadow	6500	5- 1-40	14.5	46.9%	6.8	N.S.M.	-68%	-
Cottonwood Meadows	6000	5- 1-40	No Snow on Course			N.S.M.	*	-
Strawberry Lake	5700	5- 1-40	" " " "			0	*	-
MERCED RIVER								
Ostrander Lake	8200	5- 1-40	65.3	50.7%	33.1	8.2	-8%	-64%
Gin Flat	7100	5- 2-40	38.8	43.3%	16.8	N.S.M.	-45%	-
Peregoy Meadows	7000	5- 1-40	30.8	43.8%	13.5	4.2	-51%	-78%
UPPER SAN JOAQUIN RIVER								
Kaiser Pass	9200	5- 3-40	82.0	**45.0%	**37.0	12.2	** -22%	-48%
Florence Lake	7200	5- 2-40	No Snow on Course			0	-100%	-
Chilkoot Lake	7450	5- 1-40	61.6	45.5%	28.0	N.S.M.	-32%	-
Chilkoot Meadow	7250	5- 1-40	54.3	52.5%	28.5	N.S.M.	-35%	-
Huntington Lake	7000	5- 3-40	Patches of Snow Only			0	-100%	-100%
KINGS RIVER								
Sand Meadows	8050	5- 4-40	38.9	53.4%	20.8	-	-39%	-
Teakettle Creek #2	7070	4-28-40	56.5	37.2%	21.0	-	-	-
Teakettle Creek #1	6710	4-22-40	22.9	55.0%	12.6	-	-	-
General Grant Park	6660	5- 1-40	No Snow on Course			0	-100%	-100%
Cliff Camp	6300	5- 4-40	Patches of Snow only			-	-100%	-
KAWEAH RIVER								
Panther Meadow	8650	5- 2-40	77.9	48.5%	37.8	13.4**	-16%	-46%
Giant Forest	8360	5- 2-40	No Snow on Course			0	-100%	-100%
KERN RIVER								
Round Meadow	9000	4-28-40	48.7	52.4%	25.5	0	-22%	-100%

* No snow on these snow courses when survey was made a month ago.

** Estimated.

PROGRESS REPORT OF SNOW SURVEY AND PRECIPITATION DATA
TO MAY 1, 1940
TABLE 6 - PRECIPITATION DATA

1 Basin and Precipitation Station	Elevation in Feet	Precipitation during April 1940 Inches	2 Normal precipitation for April Inches	April 1940 precipitation in per cent of April Normal	Precipitation since July 1, 1939, inches (inc. snow as water)	2 Normal precipitation since July 1 to this date	Precipitation to date since July 1 in per cent of normal	2 Normal seasonal precipitation (July to June) Inches	Precipitation to date since July 1st, in per cent of seasonal normal
UPPER SACRAMENTO - PIT AND MC CLOUD RIVERS									
Jess Valley	5400	2.86	1.84	155%	16.32	12.60	130%	14.99	109%
Alturas	4460	1.03	1.22	84%	12.84	10.43	123%	12.13	106%
Bieber	4200	1.19	1.54	77%	19.47	16.46	118%	18.35	106%
Mt. Shasta	3555	1.82	2.57	71%	44.75	31.71	141%	34.27	131%
Hat Creek	3400	0.74	1.03	72%	19.32	16.26	119%	18.80	103%
Fall River Mills	3340	0.81	0.65	125%	21.42	16.38	131%	18.77	114%
McCloud	3270	4.06	2.99	136%	65.41	45.66	143%	49.87	131%
Kennett	730	4.70	4.29	110%	91.36	59.90	153%	64.28	142%
FEATHER RIVER									
Bucks Storage Dam	5100	2.42	4.88	50%	91.79	81.17	113%	84.77	108%
Westwood	5000	0.45	1.64	27%	30.43	25.19	121%	27.48	111%
Sierraville	5000	0.72	1.49	48%	39.26	24.39	161%	26.00	151%
Mineral	4935	1.75	4.31	41%	47.27	54.57	87%	58.45	81%
Portola	4832	0.71	1.22	58%	25.32	16.76	151%	17.65	143%
Inskip	4808	1.72	5.51	31%	85.45	76.98	111%	81.69	105%
Prattville	4600	0.64	2.45	26%	46.93	36.58	127%	38.78	121%
Canyon Dam	4570	0.49	2.38	21%	47.15	36.05	131%	38.48	123%
Chester	4550	0.51	1.83	28%	37.83	30.64	123%	33.03	115%
Doyle	4300	1.21	0.53	228%	12.22	11.30	108%	12.57	97%
Veramont	3500	0.60	2.25	27%	46.64	34.33	136%	36.45	128%
Quincy	3409	0.81	2.71	30%	50.59	37.67	134%	40.43	125%
West Branch	3216	1.44	5.04	29%	86.21	71.60	120%	76.10	113%
Caribou	3000	0.64	3.22	20%	49.04	40.86	120%	43.45	113%
Lake Wilenor	2000	1.49	5.20	29%	63.86	51.68	124%	54.73	117%
Storrie	1760	1.25	4.99	25%	75.41	61.51	123%	64.64	117%
Las Plumas	506	0.96	4.02	24%	67.71	49.66	136%	52.65	129%

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 50-year normals for the period 1890-1939 inclusive. Where the periods of record are less than 50 years, the normals have been computed by comparison with the records of stations for which the actual 50-year data are complete. This gives all normals based upon the same period of years and comparable.

TABLE 6 - PRECIPITATION DATA TO MAY 1, 1940 - Continued

1 Basin and Precipitation Station	Elevation in Feet	Precipitation during April 1940 Inches	2 Normal precipitation for April Inches	April 1940 precipitation in per cent of April Normal	Precipitation since July 1, 1939 inches (inc. snow as water)	2 Normal precipitation since July 1 to this date	Precipitation to date since July 1 in per cent of Normal	2 Normal seasonal precipitation (July to June) Inches	Precipitation to date since July 1st, in per cent of seasonal Normal
YUBA RIVER									
Soda Springs	6871	2.46	3.49	70%	65.64	43.93	149%	46.43	141%
Bowman Dam	5346	2.06	5.16	52%	83.73	65.17	128%	70.18	119%
Drum Forebay	4653	2.10	5.11	41%	75.29	54.29	139%	58.07	130%
Lake Spaulding	4000	2.80	5.44	53%	85.34	62.10	137%	66.74	128%
Scales	4300	2.38	-	-	95.92	-	-	-	-
Deer Creek	3700	2.49	5.42	46%	86.41	65.48	132%	69.70	124%
Downieville	3150	-	5.32	-	-	60.07	-	64.07	-
Nevada City	2570	1.65	3.82	43%	58.91	46.91	126%	49.68	119%
Dobbins	1650	1.23	3.16	39%	45.10	40.01	113%	42.66	106%
TRUCKEE AND TAHOE BASINS									
Twin Lakes	7970	0.83	3.64	23%	51.93	42.53	122%	46.31	112%
Soda Springs	6871	2.46	3.49	70%	65.64	43.93	149%	46.43	141%
Tahoe	6230	0.85	2.41	35%	40.81	30.79	133%	32.77	125%
Truckee	6200	1.03	1.70	61%	34.97	24.63	142%	25.84	135%
AMERICAN RIVER									
Twin Lakes	7970	0.83	3.64	23%	51.93	42.53	122%	46.31	112%
Soda Springs	6871	2.46	3.49	70%	65.64	43.93	149%	46.43	141%
Blue Canyon	4965	2.18	4.59	47%	75.66	55.06	137%	59.07	128%
Drum Forebay	4653	2.10	5.11	41%	75.29	54.29	139%	58.07	130%
Colfax	2420	1.16	3.61	32%	51.20	44.70	115%	47.56	108%
Placerville	1925	-	3.07	-	-	38.06	-	40.35	-
CARSON RIVER									
Blue Lakes	8040	1.57	3.07	51%	48.76	45.92	106%	49.91	98%
Twin Lakes	7970	0.83	3.64	23%	51.93	42.53	122%	46.31	112%
MOKELUMNE RIVER									
Blue Lakes	8040	1.57	3.07	51%	48.76	45.92	106%	49.91	98%
Twin Lakes	7970	0.83	3.64	23%	51.93	42.53	122%	46.31	112%
Lake Alpine	7500	0.89	5.12	17%	59.59	55.20	108%	60.09	99%
Salt Springs	3660	1.09	4.61	24%	54.17	43.04	126%	46.60	116%
Tiger Creek	2400	1.33	3.80	35%	55.00	44.70	123%	47.56	116%
Electra	699	0.90	2.46	37%	35.90	30.40	118%	32.04	112%

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

TABLE 6 - PRECIPITATION DATA TO MAY 1, 1940 - Continued

1 Basin and Precipitation Station	Elevation in Feet	Precipitation during April 1940 Inches	2 Normal precipitation for April Inches	April 1940 precipitation in per cent of April Normal	Precipitation since July 1, 1939 inches (inc. snow as water)	2 Normal precipitation since July 1 to this date	Precipitation to date since July 1 in per cent of Normal	2 Normal seasonal precipitation (July to June) Inches	Precipitation to date since July 1st, in per cent of seasonal Normal
STANISLAUS RIVER									
Lake Alpine	7500	0.89	5.12	17%	59.69	55.20	108%	60.09	99%
Strawberry Lake	5620	1.43	4.26	34%	55.60	34.93	159%	38.03	146%
Calaveras Big Trees	4700	1.13	4.73	24%	60.40	49.60	122%	52.53	115%
WALKER RIVER									
Lundy Lake	7760	-	0.85	-	-	14.00	-	15.55	-
Bridgeport	6473	-	-	-	-	-	-	-	-
Shields Ranch	5300	-	0.96	-	-	10.97	-	12.43	-
TUOLUMNE RIVER									
Strawberry Lake	5620	1.43	4.26	34%	55.60	34.93	159%	38.03	146%
Lake Eleanor	4050	1.44	3.75	38%	53.87	40.54	133%	43.39	124%
Hetch Hetchy	3530	0.83	3.27	25%	41.20	32.64	126%	35.86	115%
Groveland	2828	1.42	2.89	49%	44.24	36.22	122%	37.99	116%
Sonora	1825	1.00	2.58	39%	38.41	31.05	124%	32.80	117%
MERCED RIVER									
Wawona	4096	1.04	3.88	27%	48.36	47.01	103%	49.67	97%
Yosemite	3900	0.97	2.58	38%	42.62	33.14	129%	35.75	119%
Dudley's	3000	-	3.04	-	-	38.38	-	40.30	-
Mariposa	1932	-	2.24	-	-	27.82	-	29.27	-
Merced Falls	351	0.54	1.35	40%	17.70	15.86	112%	16.71	106%
MONO BASIN									
Ellery Lake	9600	0.80	3.54	23%	31.98	37.58	85%	40.93	78%
Gem Lake	9120	0.96	2.42	40%	30.82	29.98	103%	31.30	98%
Lundy Lake	7760	0.43	0.85	51%	19.13	14.00	137%	15.55	123%
UPPER SAN JOAQUIN RIVER									
Huntington Lake	7000	1.21	2.32	52%	36.81	28.03	131%	30.49	121%
Big Creek	4900	1.71	2.60	66%	31.70	29.12	109%	31.66	100%
Crane Valley	3500	1.55	3.06	51%	49.45	38.03	130%	40.28	123%
North Fork	3000	2.21	2.44	91%	41.28	31.34	132%	33.27	125%
Auberry	2050	1.10	1.71	64%	28.11	23.44	120%	24.84	113%

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

TABLE 6 - PRECIPITATION DATA TO MAY 1, 1940 - Continued

1 Basin and Precipitation Station	Elevation in Feet	Precipitation during April 1940 Inches	2 Normal precipitation for April Inches	April 1940 precipitation in per cent of April Normal	Precipitation since July 1, 1939 Inches (inc. snow as water)	2 Normal precipitation since July 1 to this date	Precipitation to date since July 1 in per cent of Normal	2 Normal seasonal precipitation (July to June) Inches	Precipitation to date since July 1st, in per cent of seasonal Normal
OWENS BASIN									
South Lake	9620	0.46	1.67	28%	14.90	17.96	83%	19.45	77%
Lake Sebrina	9100	0.60	1.17	51%	17.42	17.40	100%	19.03	92%
Bishop Creek	8390	0.53	0.85	62%	9.54	14.02	68%	15.28	62%
Birch Creek	8000	0.69	0.76	91%	11.16	13.21	84%	14.30	78%
Intake #2, Bishop Creek	8000	0.67	0.83	81%	9.26	11.61	80%	12.80	72%
Crooked Creek	6700	0.32	0.59	54%	7.66	9.63	80%	10.44	73%
Big Pine Power Plant #3	5400	0.22	0.32	69%	5.50	7.89	70%	8.18	67%
Independence	3957	-	0.17	-	-	4.25	-	4.51	-
L. A. Aqueduct at Intake	3880	0.27	0.03	900%	4.93	3.13	158%	3.37	146%
Cottonwood Gates	3600	0.16	0.15	107%	4.60	3.66	126%	3.92	117%
KINGS RIVER									
General Grant Park	6775	2.32	3.52	66%	49.47	38.51	128%	41.99	118%
Cliff Camp	6150	2.19	1.69	130%	-	37.15	-	39.88	-
Balch Camp	1300	1.90	1.69	112%	33.66	24.51	137%	26.53	127%
Piedra	500	0.76	1.33	57%	22.84	16.35	140%	17.10	134%
KAWEAH RIVER									
General Grant Park	6775	2.32	3.52	56%	49.47	38.51	128%	41.99	118%
Giant Forest	6300	2.37	4.03	59%	51.52	38.99	132%	42.23	122%
Ash Mountain	1600	1.74	2.31	75%	34.05	24.43	139%	26.12	130%
Three Rivers	870	2.01	1.78	113%	30.78	18.56	166%	19.77	156%
KERN RIVER									
Springville (near)	4050	2.63	3.06	86%	54.86	32.23	170%	34.45	159%
Glennville	3300	2.95	2.00	148%	26.89	19.18	140%	20.49	131%
Kernville	2600	0.43	0.55	78%	13.12	9.57	137%	9.93	132%
LOS ANGELES RIVER BASIN									
Pickens Canyon	5040	2.37	-	-	31.62	-	-	-	-
Opids Camp	4480	3.32	3.31	100%	36.12	38.19	95%	39.77	91%
Loomis Ranch	4050	1.91	1.97	97%	21.49	19.23	112%	20.27	106%
Haines Canyon, Upper	3450	2.85	2.20	130%	32.04	29.08	110%	30.88	104%
Clear Creek	3300	2.91	3.59	81%	31.43	37.18	85%	38.52	82%
Switzer's Camp	3000	2.47	3.29	75%	28.66	32.99	87%	34.63	83%
Sleepy Hollow Ranch	2950	2.18	2.52	87%	25.58	30.59	84%	31.65	81%
Briggs Terrace (Continued)	2310	2.10	-	-	28.86	-	-	-	-

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

TABLE 6 - PRECIPITATION DATA TO MAY 1, 1940 - Continued

1 Basin and Precipitation Station	Elevation in Feet	Precipitation during April 1940 Inches	2 Normal precipitation for April Inches	April 1940 precipitation in per cent of April Normal	Precipitation since July 1, 1939 Inches (inc. snow as water)	2 Normal precipitation since July 1 to this date	Precipitation to date since July 1 in per cent of Normal	2 Normal seasonal precipitation (July to June) Inches	Precipitation to date since July 1st, in per cent of seasonal normal
LOS ANGELES RIVER BASIN (Contd. from last page)									
Lower Haines U.S.G.S.	2250	2.39	1.84	130%	26.99	22.60	119%	23.75	114%
La Crescenta	2009	2.30	1.89	122%	27.81	24.71	113%	25.95	107%
Big Tujunga Dam	2050	2.38	1.41	169%	26.52	27.94	95%	28.29	94%
Arroyo Seco Ranger Station	1530	2.58	1.96	132%	25.50	22.58	113%	23.63	108%
SAN GABRIEL RIVER BASIN									
Kelly's Kamp	8300	5.32	2.11	252%	50.52	42.23	120%	42.65	118%
Table Mountain Obs.	7500	0.50	0.75	67%	15.27	13.80	111%	14.35	106%
Big Pines Camp	6860	2.08	1.59	131%	24.90	22.78	109%	23.95	104%
Mt. Wilson	5850	3.40	2.32	147%	39.56	30.83	128%	32.16	123%
Crystal Lake - East	5740	3.40	-	-	38.39	-	-	-	-
Little Cienega	4650	3.30	2.40	138%	35.36	32.96	107%	35.04	101%
Opid's Camp	4480	3.32	3.31	100%	36.12	38.19	95%	39.77	91%
Camp Baldy	4300	2.39	2.55	94%	34.33	30.45	113%	31.70	108%
Sturtevant Camp	3375	2.32	3.90	59%	30.47	33.50	91%	35.50	86%
Tanbark Flats	2700	3.54	2.68	132%	27.56	30.32	91%	31.30	88%
Henninger Flats	2650	3.19	1.82	175%	30.60	24.60	124%	25.15	122%
Winter Creek	2580	3.20	4.93	65%	40.85	39.73	103%	42.14	97%
Mouth San Antonio Canyon	2500	3.64	2.33	156%	30.11	28.89	104%	30.04	100%
San Dimas Guard Station	2400	3.69	2.51	147%	28.40	28.84	98%	29.92	95%
Sawpit Canyon	2000	3.16	2.41	131%	33.04	31.04	106%	32.79	101%
Santa Anita Fern Lodge	1950	2.77	2.50	111%	33.73	31.80	106%	33.57	100%
San Gabriel Dam No.1 Camp	1600	3.01	1.98	152%	25.96	31.19	83%	31.59	82%
Monrovia Falls	1450	3.16	2.49	127%	31.68	30.99	102%	32.67	97%
Big Santa Anita Dam	1400	2.65	2.05	129%	28.38	26.62	107%	28.06	101%
San Dimas Dam	1350	3.19	1.57	203%	24.16	25.47	95%	26.39	92%
Dalton #1	800	2.88	1.40	206%	24.49	19.51	126%	20.63	119%
SANTA ANA RIVER BASIN									
Kelly's Kamp	8300	5.32	2.11	252%	50.52	42.23	120%	42.65	118%
Table Mountain	7500	0.50	0.75	67%	15.27	13.80	111%	14.35	106%
Big Pines Camp	6800	2.08	1.59	131%	24.90	22.78	109%	23.95	104%
Big Bear Lake Dam	6800	1.63	2.27	72%	32.28	35.43	91%	36.73	88%
Big Bear Lake	6800	2.80	1.55	181%	18.43	27.34	67%	27.81	66%

(Continued on next page)

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

TABLE 6 - PRECIPITATION DATA TO MAY 1, 1940 - Continued

1 Basin and Precipitation Station	Elevation in Feet	Precipitation during April 1940 Inches	2 Normal precipitation for April Inches	April 1940 precipitation in per cent of April Normal	Precipitation since July 1, 1939 inches (inc. snow as water)	2 Normal precipitation since July 1 to this date	Precipitation to date since July 1 in per cent of Normal	2 Normal seasonal precipitation (July to June) Inches	Precipitation to date since July 1st, in per cent of seasonal Normal
SANTA ANA RIVER BASIN (Continued from last page)									
Running Springs	6800	5.33	-	-	45.48	-	-	-	-
Squirrel Inn	5700	4.24	3.07	138%	37.00	39.40	94%	41.43	89%
Seven Oaks	5000	1.66	1.70	98%	24.15	26.66	91%	27.65	87%
Camp Baldy	4300	2.39	2.55	94%	34.33	30.45	113%	31.70	108%
Beaumont (near)	3045	4.15	1.77	234%	22.09	20.98	105%	22.27	99%
Mill Creek No. 2	2950	4.59	2.11	218%	25.66	21.34	120%	22.80	113%
Santa Ana River	2850	3.56	2.98	119%	29.27	26.24	112%	26.91	109%
Beaumont	2558	4.53	1.61	281%	22.17	17.61	126%	18.68	119%
Mouth San Antonio Canyon	2500	3.64	2.33	156%	30.11	28.89	104%	30.04	100%
Lytle Creek	2250	3.72	2.45	152%	37.06	32.55	114%	33.98	109%
SAN DIEGO COUNTY, PACIFIC SLOPE BASINS									
Mt. Palomar Observatory	5600	1.03	-	-	23.74	-	-	-	-
Julian	4220	6.29	2.53	249%	33.43	29.86	112%	31.70	105%
Warner Springs	3170	2.02	1.08	187%	17.82	16.89	106%	17.73	101%
Campo	3000	2.72	1.37	199%	17.22	18.74	92%	19.66	88%
Barrett Dam	1750	3.00	1.35	222%	21.11	18.06	117%	19.03	111%
Escondido	750	4.33	1.17	370%	19.58	16.03	122%	16.80	117%
El Capitan Dam	610	2.99	-	-	19.90	-	-	-	-
El Cajon	500	1.03	0.97	106%	15.50	13.47	115%	14.15	110%

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

APPENDIX

RESULTS OF SNOW SURVEYS MADE EARLY IN APRIL
AND REPORTED AFTER APRIL 10

Drainage Basins and Snow Courses	Elevation in feet	Date of Survey	Depth of Snow Inches	Density per Cent	Water Content Inches	Corresponding water Content last year Inches	Normal Seasonal water Content (Entire Season Inches	Percentage of normal seasonal water content to survey date this year	Corresponding percentage of normal seasonal water content last year
UPPER SACRAMENTO RIVER									
Mount Shasta	8000	4-6-40	173.0	44.2%	76.4	23.3	60.7	126%	38%
PIT RIVER									
Blue Lake Ranch	7300	4-11-40	16.3	39.2%	6.4		New Snow Course 1940		
UPPER SAN JOAQUIN									
Mammoth Pass	9500	4- 4-40	131.1	39.9%	52.3	21.2	48.5	108%	44%
Vermilion Valley	7500	4- 9-40	37.6	42.8%	16.1		New Snow Course 1940		
KINGS RIVER									
Teakettle Creek #2	7670	4- 8-40	86.2	39.4%	34.0	-	-	-	-
Teakettle Creek #1	6710	4- 6-40	48.3	40.8%	19.7	-	-	-	-
OWENS RIVER									
UPPER OWENS									
Mammoth Pass #1	9500	4- 4-40	131.1	39.9%	52.3	* 21.2	51.4	102%	41%
Minarettes #2	9000	4- 2-40	102.1	35.9%	36.7	13.6	35.9	102%	38%
Minarettes #1	8300	4- 2-40	64.9	37.4%	24.3	4.9	21.6	113%	23%
Mammoth #2	8300	4- 3-40	62.9	38.2%	24.0	5.0	20.2	119%	25%
ROCK CREEK									
Rock Creek #3	10000	4- 5-40	48.7	37.0%	18.0	* 5.5	13.3	135%	41%
Rock Creek #2	9050	4- 6-40	30.7	38.8%	11.9	1.1	9.4	127%	12%
Rock Creek #1	8700	4- 5-40	26.6	39.1%	10.4	0	9.2	103%	-

* Last year the measurements at these four Upper Owens snow courses, and three Rock Creek snow courses were made one week later than this year's measurements.