SECTION 8
SHELF
ITEM
(10)

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RESOURCES

GOODWIN J. KNIGHT, Governor
FRANK B. DURKEE, Director of Public Works
A. D. EDMONSTON, State Engineer

REPORTS OF DIVISION OF WATER RESOURCES PREPARED PURSUANT TO SECTION 228, ARTICLE 2, CHAPTER 2, DIVISION 1 OF WATER CODE

WATER CONDITIONS IN CALIFORNIA

February 1, 1955

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STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
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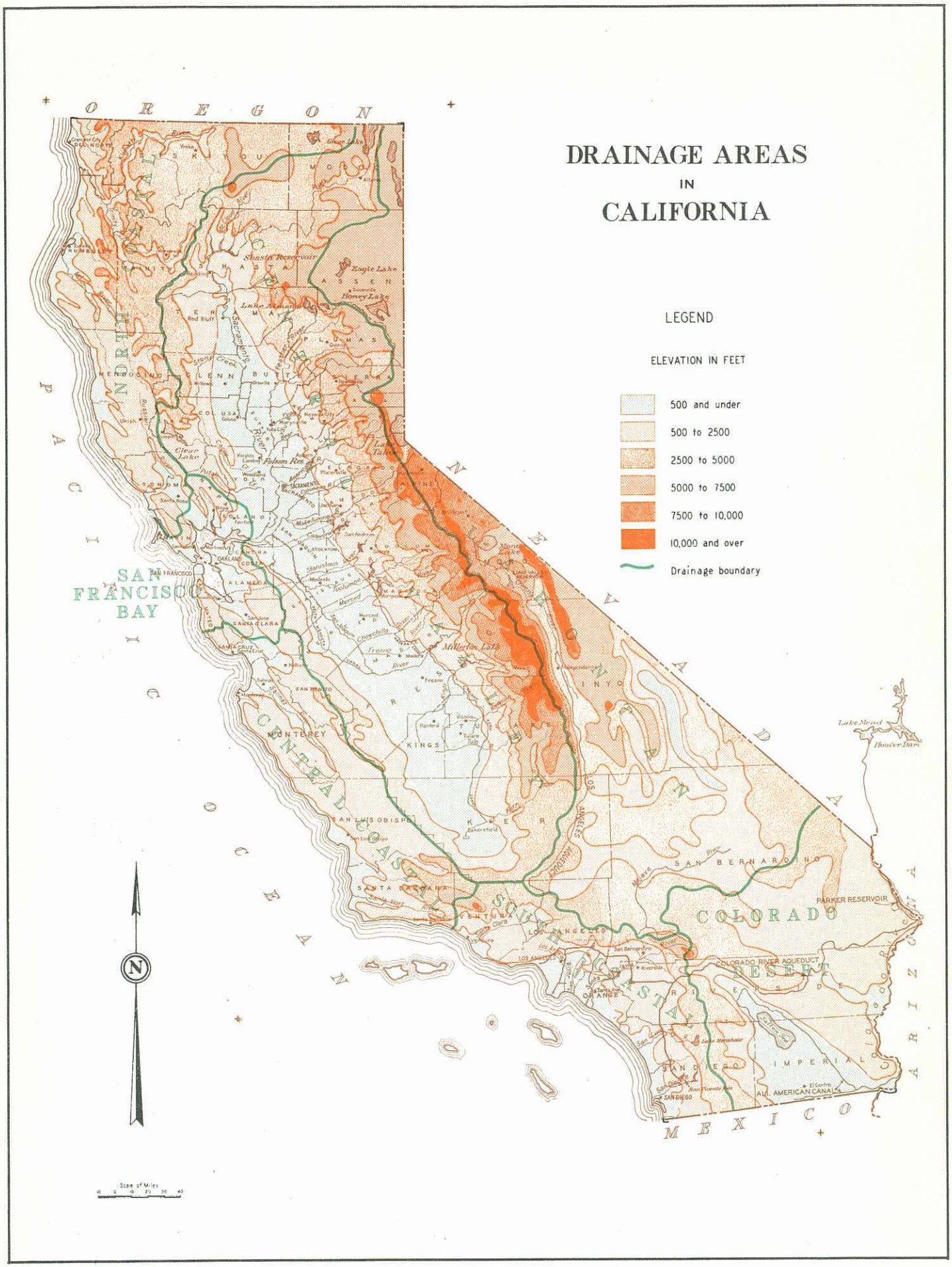
DRAINAGE AREAS
IN
CALIFORNIA
LEGEND
ELEVATION IN FEET
500 and under
500 to 2500
2500 to 5000
5000 to 7500
7500 to 10,000
10,000 and over
Drainage boundary
OREGON
NEVADA
ARIZONA
MEXICO
PACIFIC OCEAN
SAN FRANCISCO BAY
CENTRAL COAST
SOUTH COAST
COLORADO DESERT
Shasta Reservoir
Eagle Lake
Honey Lake
Lake Almanor
Clear Lake
Folsom Res.
Millerton Lake
Lake Mead
Hoover Dam
PARKER RESERVOIR
COLORADO RIVER AQUEDUCT
ALL AMERICAN CANAL
LOS ANGELES AQUEDUCT
SAN BERNARDINO
SAN DIEGO
IMPERIAL
RIVERSIDE
ORANGE
LOS ANGELES
VENTURA
SANTA BARBARA
SAN LUIS OBISPO
MONTEREY
SANTA CLARA
SAN FRANCISCO
OAKLAND
SOLANO
SONOMA
MENDOCINO
GLENN
BUTTE
PLUMAS
SIERRA
SHASTA
TEHAMA
SISKIYOU
MODOC
LAKE
NEVADA
PLACER
SACRAMENTO
SAN JOAQUIN
STOCKTON
MADERA
FRESNO
TULARE
KINGS
KERN
INYO
Scale of Miles
10 0 10 20 30 40

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ORGANIZATION

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AGENCIES COOPERATING WITH THE DIVISION OF WATER RESOURCES IN THE CALIFORNIA SNOW SURVEY PROGRAM

State and Federal Agencies

- Nevada Cooperative Snow Surveys
- Oregon Cooperative Snow Surveys
- Department of Agriculture
  - Forest Service (14 National Forests)
  - Soil Conservation Service
- Department of Commerce
  - Weather Bureau
- Department of the Interior
  - Bureau of Reclamation
  - Geological Survey, Water Resources Division
  - National Park Service (3 National Parks)
- Department of the Army
  - Corps of Engineers

Public Utilities

- California Electric Power Company
- Pacific Gas and Electric Company
- Sierra Pacific Power Company
- Southern California Edison Company
- The California Oregon Power Company

Municipalities

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

Organized Public Agencies

- Los Angeles County Flood Control District
- East Bay Municipal Utility District
- Buena Vista Water Storage District
- Tulare Lake Basin Water Storage District
- Kaweah Delta Water Conservation District
- Washoe County Water Conservation District
- Kaweah River Association
- Kings River Water Association
- St. Johns River Association
- Modesto Irrigation District
- Merced Irrigation District
- Lower Tule River Irrigation District
- Central California Irrigation District
- Corcoran Irrigation District
- Nevada Irrigation District
- Saucelito Irrigation District
- Terra Bella Irrigation District
- Truckee-Carson Irrigation District
- Turlock Irrigation District
- Vandalia Irrigation District
- Chowchilla Water District
- Reclamation District No. 1007

Private Organizations

- Kern County Land Company
- Liberty Farms Company

SECTION 1 - INTRODUCTION

Reports entitled "Water Conditions in California" are prepared as of the first of each month from February through May of each year by the Department of Public Works, Division of Water Resources, pursuant to Section 228, Article 2, Section 2, Division 1, of the Water Code which provides that:

> "The department shall gather and correlate information and data pertinent to an annual forecast of seasonal water crop, including the making of snow surveys, either independently or in cooperation with any person or any county, State, Federal, or other agency."

In the preparation of this report, data and assistance were furnished by many public and private agencies participating in the California Cooperative Snow Surveys; by the operators of storage reservoirs; and by agencies responsible for the reporting of precipitation and runoff records. Agencies cooperating in the collection of precipitation, runoff, and snow survey data are listed immediately following the table of organization. Agencies supplying data on precipitation, snow depth, reservoir storage, and runoff as set forth in Tables 3, 5, 6, 7, 8, 9 and 10, are named therein.

This report is the first of the 1955 series and sets forth the summary of water conditions as of February 1, 1955, including the results of all snow measurements, available precipitation records, stream flow data for representative water courses, and a statement of water in storage in major reservoirs. The various phases of water supply are discussed herein with respect to the drainage areas delineated on the Frontispiece of the report. Comments on the condition of ground water basins will be presented in the report issued subsequent to the April survey.

Summary of Water Conditions

The water conditions throughout California on February 1 were generally satisfactory and in accordance with average expectancy for that date.

With a continuation of normal precipitation during the remainder of the season together with existing snowpack, reservoir storage and general soil moisture conditions, it may be anticipated that near average water supply will be available in most areas. Precipitation, snowpack, reservoir storage and runoff as related to normal on February 1 for the seven major hydrographic Areas of the State are summarized in the following tabulation:

TABLE 1

SUMMARY OF WATER SUPPLY AS OF FEBRUARY 1, 1955

Area	Precipitation in Per Cent of 50-Year Average	Snowpack in Per Cent of 50-Year Average	Reservoir Storage in Per Cent of 10-Year Mean	Runoff Per Cent of 50-Year Weighted Average
North Coastal	90	110	103	75
San Francisco Bay	100	-	108	45
Central Coastal	105	-	163	44
South Coastal	85	-	62	35
Central Valley	100	105	72	74
Lahontan	75	105	85	75
Colorado Desert	-	-	67	81

The first significant stormsof the 1954-1955 season occurred in northern California during the second week of November and in southern California one month later. By January 1 the precipitation averaged above normal in the North Coastal and San Francisco Bay Areas, slightly below normal in the Central Valley and Central Coastal Areas, and only about 60 per cent of normal in South Coastal and Lahontan Areas. Several storms during January produced moderate to heavy precipitation in the southern half of the State and by the end of the month seasonal precipitation was approximately normal in all areas. The variation in seasonal precipitation in California as of February 1 is shown on Plate 1 following page 4, in which it may be noted that the range of precipitation is between 80 and 120 per cent of normal.

The water content of the snowpack on the Sierra Nevada and Cascade ranges averages considerably more than that of one year ago except in the

northern portions of the Central Valley and North Coastal Areas. The January storms deposited moderate to heavy amounts of snow in the higher mountains of the South Coastal Area.

Runoff during the four months prior to February 1 has been below average on all major California streams and is generally less than that of the same period of last year except on streams of the Lahontan Area and those of the Central Valley Area south of the Yuba River Basin. Minor flood flows were reported on North Coastal and South Coastal Area streams during January. There was overflow on Tisdale Weir of the Sacramento River Flood Control Project on a number of occasions during November, December and January. A considerable portion of the runoff, not stored in surface reservoirs within the South Coastal Area, was conserved by spreading on absorptive areas of the major ground water basins.

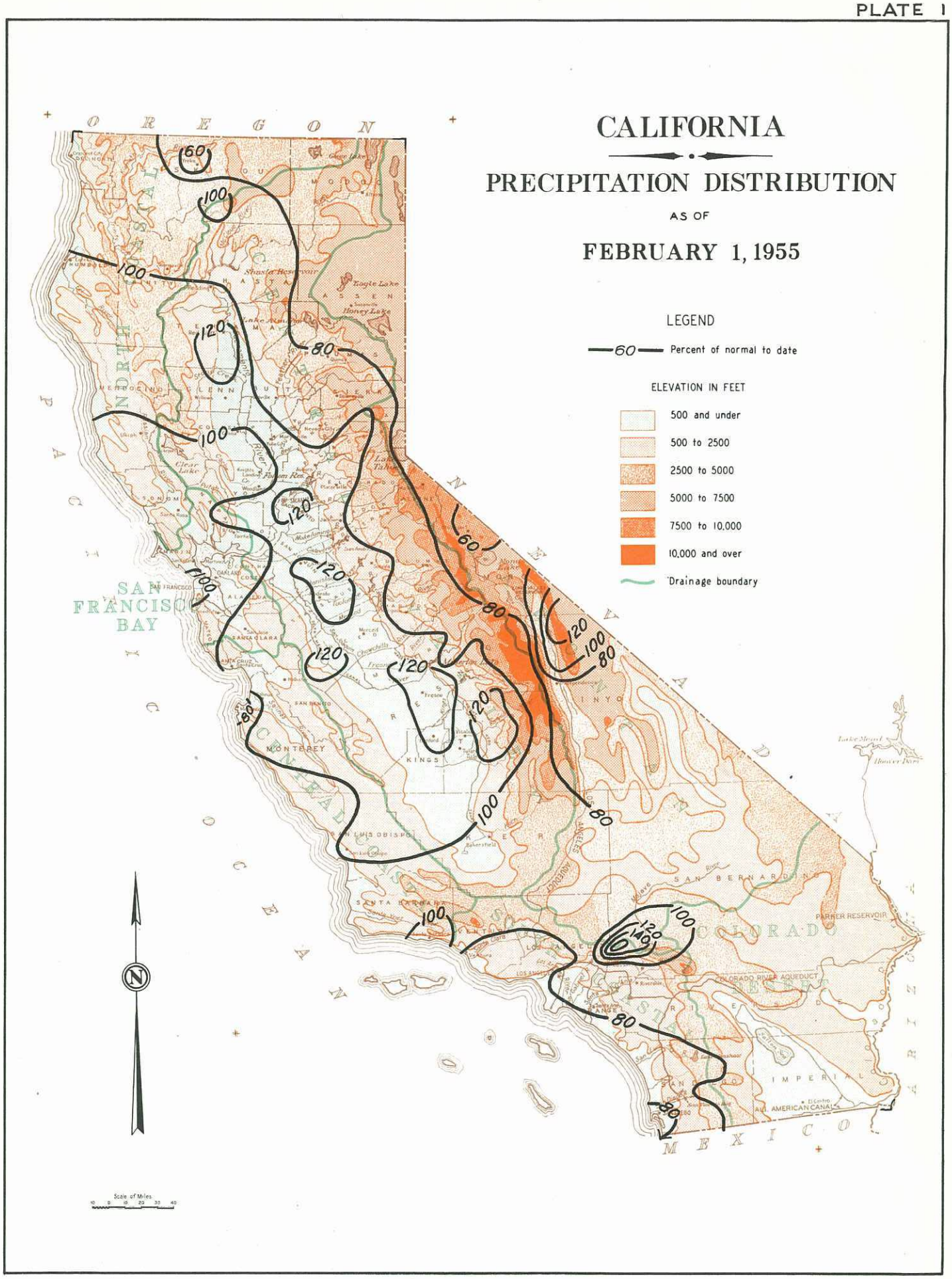
Major conservation reservoirs serving areas in California have in storage about 45 per cent of their total capacity. This amount is approximately 5,070,000 acre-feet less than that of one year ago. The major portion of this decrease in storage was at Lake Mead on the Colorado River where the storage on February 1 was at the lowest stage since 1941. Electrical power generation at Hoover Dam has been reduced as a result of the low storage level at Lake Mead. Water in storage in intrastate reservoirs is about 74 per cent of the 10-year mean and 558,000 acre-feet less than one year ago. With normal precipitation during the remainder of the season, most reservoirs utilized for conservation on streams tributary to the Central Valley Area may be expected to fill during the snowmelt period. A summary of storage in major reservoirs is set forth in the following tabulation:

TABLE 2

SUMMARY OF STORAGE
IN MAJOR RESERVOIRS

Area	Number of Reported Reservoirs	Total Capacity in acre-feet	Water in Storage (Acre-Feet) February 1 1954	October 1 1954	February 1 1955	Per Cent of Capacity February 1 1955
Intrastate						
North Coastal	2	126,720	98,470	46,800	71,250	56
San Francisco Bay	12	448,880	278,940	249,820	278,630	62
Central Coastal	3	248,100	31,650	53,920	54,270	22
South Coastal	20	957,090	235,520	205,540	223,600	23
Central Valley	36	10,343,340	5,272,470	4,807,750	4,774,930	46
Lahontan Area	7	347,870	236,600	204,330	192,450	55
Subtotal	80	12,472,000	6,153,650	5,568,160	5,595,130	45
Interstate						
North Coastal	3	1,132,390	676,680	512,490	518,580	46
Lahontan Area	3	815,500	553,900	484,170	398,540	49
Colorado Desert 1/	1	27,207,000	16,511,000	13,739,000	12,305,000	45
Subtotal	7	29,154,890	17,741,580	14,735,660	13,222,120	45
TOTAL	87	41,626,890	23,895,230	20,303,820	18,817,250	45

1/ Data for Lake Mead which regulates flow of the Lower Colorado River, the major source of water for the Colorado Desert Area.


CALIFORNIA
PRECIPITATION DISTRIBUTION
AS OF
FEBRUARY 1, 1955
LEGEND
60 Percent of normal to date
ELEVATION IN FEET
500 and under
500 to 2500
2500 to 5000
5000 to 7500
7500 to 10,000
10,000 and over
Drainage boundary
OREGON
NEVADA
ARIZONA
MEXICO
PACIFIC OCEAN
SAN FRANCISCO BAY
Shasta Reservoir
Eagle Lake
Honey Lake
Clear Lake
Lake Tahoe
Lake Mead
Hoover Dam
PARKER RESERVOIR
COLORADO RIVER AQUEDUCT
ALL AMERICAN CANAL
MONTEREY
KINGS
INYO
SAN BERNARDINO
IMPERIAL
SANTA BARBARA
Scale of Miles

SECTION 2 - PRECIPITATION

The first general storms of the 1954-55 season occurred during the second week of November. Subsequent storms during December were of relatively light intensity. A series of storms during the first three weeks of January brought heavy precipitation to the southern half of the State. Precipitation records for the period July 1, 1954, to January 31, 1955, are presented in Table 3. Seasonal distribution of precipitation as of February 1 among the drainage areas delineated on the Frontispiece, is as follows:

North Coastal Area

Seasonal precipitation in this area averaged about 90 per cent of normal, varying from 51 per cent at Yreka to 119 per cent at Fort Bragg. Rainfall during the month of January varied from 39 per cent at Yreka to 89 per cent at Eureka.

Seasonal precipitation to date within major basins of the Area in per cent of February 1 normal is compared with that of one year ago in the following tabulation:

	Seasonal Precipitation in Per Cent of Normal	
	February 1, 1954	February 1, 1955
Klamath River Basin	130	90
Eel River Basin	115	110
Russian River Basin	90	95

San Francisco Bay Area

Seasonal precipitation in this area averaged about 100 per cent of normal, varying from 91 per cent at Redwood City to 116 per cent at San Jose. During the month of January the range of precipitation was from 62 per cent of normal at Napa State Hospital to 146 per cent of normal at San Jose. Seasonal precipitation for this Area averaged 55 per cent of normal one year ago.

Central Coastal Area

Seasonal precipitation in this area averaged about 105 per cent of normal, varying from 78 per cent at Paso Robles to 118 per cent at

Salinas. During January, precipitation amounted to 192 per cent of normal at Salinas, 101 per cent at Paso Robles and 108 per cent at Santa Barbara.

Seasonal precipitation to date within major basins of the Area in per cent of February 1 normal is compared with that of one year ago in the following tabulation:

	Seasonal Precipitation in Per Cent of Normal	
	February 1, 1954	February 1, 1955
Salinas River Basin	75	105
Santa Ynez River Basin	80	95

South Coastal Area

Seasonal precipitation in this Area averaged about 85 per cent of normal, varying from 51 per cent at Mt. Wilson to 167 per cent at Table Mountain Observatory. January precipitation varied from a minimum of 61 per cent of normal at Mt. Wilson to a maximum of 362 per cent of normal at Table Mountain Observatory.

Seasonal precipitation within major drainage basins in per cent of February 1 normal is compared with that of one year ago in the following tabulation:

	Seasonal Precipitation in Per Cent of Normal	
	February 1, 1954	February 1, 1955
Los Angeles River Basin	85	85
San Gabriel River Basin	90	90
Santa Ana River Basin	95	95
San Diego County	70	75

Central Valley Area

Seasonal precipitation in this area averaged about 100 per cent of normal, varying from a minimum of 56 per cent of normal at Veramont in the Feather River Basin to a maximum of 130 per cent at Three Rivers in the Klamath River Basin. Precipitation during January varied from 34 per cent of normal at Fall River Mills to 198 per cent at Bakersfield.

Seasonal precipitation within major drainage basins in per cent of the February 1 normal is compared with that of one year ago in the following tabulation:

SECTION 3 - SNOWPACK

The water content of the California snowpack as determined from snow course measurements is near average or above average throughout the Cascade Mountains and Sierra Nevada. These data are presented in Tables 4 and 11. Snowpack conditions among the drainage areas of the State delineated on the Frontispiece, are as follows:

North Coastal Area

Snowmelt runoff in this Area is of importance only on the Klamath River and its tributaries, the Shasta, Scott, Salmon and Trinity Rivers. That system drains a large area in California and South Central Oregon. The Soil Conservation Service, Oregon Experiment Station and Cooperators advise that the water content of the snowpack for the upper Klamath River Basin is 90 per cent of average for February 1. Snow surveys made at a few courses in California indicate the water content of the snowpack to be about 110 per cent of the average for February 1. The snow line is at an elevation of about 3,000 feet.

San Francisco Bay Area

Snow occurs infrequently in this Area and has no bearing on distribution of runoff or general water conditions.

Central Coastal Area

Snow occurs infrequently in this Area and has no bearing on distribution of runoff or general water conditions.

South Coastal Area

Snow accumulating on the high elevations of the watersheds of streams having their source in the San Gabriel and San Bernardino Mountains influences spring runoff during some years. The January storms deposited snow at elevations above 2,500 feet and approximately 3.0 feet of snow was reported in the higher mountains of the Area.

Central Valley Area

The water content of the snowpack averages less than that of one year ago in the Cascade Mountains but is considerably greater throughout the Sierra Nevada. On February 1, the effective snow line was at an elevation of 3,000 feet at Mount Shasta and Donner Summit and at 4,000 feet in Kern County. Snowpack water content in per cent of average expectancy for February 1 on the major basins of the Central Valley Area compared with that of one year ago is shown in the following tabulation:

	Water Content in Per Cent of Average	
	Feb. 1, 1954	Feb. 1, 1955
Upper Sacramento-McCloud and Pit River Basins	110	100
Feather River Basin	90	100
Yuba River Basin	80	105
American River Basin	80	115
Mokelumne River Basin	75	115
Stanislaus River Basin	75	110
Tuolumne River Basin	75	110
Merced River Basin	70	110
Upper San Joaquin River Basin	70	110
Kings River Basin	70	115
Kaweah River Basin	70	115
Kern River Basin	40	100

Lahontan Area

The snowpack water content is average or slightly above average on all basins of this Area presenting a more favorable condition than that of one year ago. Snowpack water content in per cent of average expectancy for February 1 on major basins of the Lahontan Area is set forth in the following tabulation:

	Water Content in Per Cent of Average	
	Feb. 1, 1954	Feb. 1, 1955
Susan River Basin	-	100
Tahoe Lake Basin	80	110
Truckee River Basin	90	110
Carson River Basin	60	105
Walker River Basin	60	100
Mono Lake Basin	70	110
Owens River Basin	75	100

Colorado River Desert Area

Snow which has accumulated on the higher elevations of the watersheds of streams having their source in the San Jacinto Mountains should influence spring runoff during 1955. No reports of measurements were received from cooperators for February 1; however, heavy snow was reported for this Area during mid-January storms.

SECTION 4 - SURFACE RESERVOIR STORAGE

The water impounded in major surface storage reservoirs representing about 90 per cent of the total usable conservation storage serving areas in California, was 45 per cent of capacity as compared with 57 per cent one year ago. Total reservoir storage has decreased 1,500,000 acre-feet since October 1, 1954. The quantities of water in storage on October 1, 1954, and February 1, 1955, are set forth in Tables 5 and 6, respectively. Surface reservoir storage conditions in each of the drainage areas of California delineated on the Frontispiece are as follows:

North Coastal Area

Five storage reservoirs, including three on the Klamath River in the State of Oregon, located on streams tributary to this Area, have in storage about 47 per cent of the total capacity of 1,259,000 acre-feet, which represents about 103 per cent of the 10-year mean as of February 1. Storage in these reservoirs has increased by 30,500 acre-feet since October 1, 1954.

San Francisco Bay Area

Twelve storage reservoirs located on streams tributary to San Francisco Bay, for which reports have been received, have in storage about 62 per cent of their total capacity of 449,000 acre-feet. Seven of these reservoirs, in operation for more than 10 years, have in storage 108 per cent of the 10-year mean as of February 1. A portion of the water in storage has been imported from Sierra Nevada streams. Storage in these reservoirs has decreased by 29,000 acre-feet since October 1, 1954.

Central Coastal Area

Three reservoirs located in this area have in storage about 22 per cent of their total capacity of 248,000 acre-feet. Two of these reservoirs, in operation for more than 10 years, have in storage 163 per cent of

the 10-year mean as of February 1. Storage in these reservoirs has increased by 400 acre-feet since October 1, 1954.

South Coastal Area

Twenty reservoirs in this area, for which reports have been received, have in storage about 24 per cent of their aggregate capacity of 957,000 acre-feet. Seventeen of these reservoirs, in operation for more than 10 years, have in storage about 62 per cent of the 10-year mean as of February 1. Total storage has increased by 18,000 acre-feet since October 1, 1954. A portion of the water in storage has been imported from Colorado River.

Central Valley Area

Thirty-six reservoirs in this area, for which reports have been received, have in storage 46 per cent of their aggregate storage capacity of 10,343,000 acre-feet. Twenty-nine of these reservoirs, in operation for more than 10 years, have in storage about 72 per cent of the 10-year mean. Storage in the 36 reservoirs has decreased by 33,000 acre-feet since October 1, 1954.

Lahontan Area

Ten reservoirs in this area, for which reports have been received, have in storage about 51 per cent of their total capacity of 1,163,000 acre-feet, which represents about 85 per cent of the 10-year mean as of February 1. The water surface elevation at Lake Tahoe was 6,226.18 feet on February 1 as compared with 6,227.31 feet one year ago. Storage in these reservoirs has decreased by 97,500 acre-feet since October 1, 1954.

Colorado Desert Area

The Office of River Control, U. S. Bureau of Reclamation, Boulder City, Nevada, advises that the storage in Lake Mead on February 1 was 12,305,000 acre-feet, which is 67 per cent of average for the last 10 years and 45 per cent of its total capacity. Storage in Lake Mead has decreased by 1,434,000 acre-feet since October 1, 1954.

SECTION 5 - STREAM FLOW

Runoff of California streams during the first four months of the 1954-55 season has been considerably below average expectancy in all parts of the State. Runoff data for representative California streams are set forth in Table 7. A summary of stream flow in each of the drainage areas delineated on the Frontispiece is as follows:

North Coastal Area

Runoff of most streams in this Area has been below average during the first four months of the 1954-55 season. The computed natural runoff of the Klamath River at Somesbar during that period was 77 per cent and for the Russian River at Guerneville 69 per cent of the 50-year normal flow.

San Francisco Bay Area

During the first four months of the 1954-55 season the runoffs of Napa River near St. Helena and Coyote Creek near Madrone were 49 per cent and 40 per cent of the 50-year normal, respectively.

Central Coastal Area

Runoff of streams in this Area was considerably below average expectancy during the first four months of the 1954-55 season. The runoff in Huasna River near Santa Maria during that period was 13 per cent of the 50-year normal and in Arroyo Seco near Soledad it was 47 per cent.

South Coastal Area

Runoff on streams in the northern portion of this Area during the first four months of the 1954-55 season was approximately 35 per cent of the computed long-term mean. No reports were received on runoff in streams in San Diego County. Peak flows to the ocean on Ballona Creek and Los Angeles River on January 18 were 10,650 and 22,000 second-feet, respectively. The peak flows for other streams of this Area during January are shown in Table 8. About 48,000 acre-feet of water, including importations from Colorado River, have been spread on absorptive areas of ground water basins of the Area since

the first of October. The quantities spread in the major basins of the Area are shown in Table 9.

Central Valley Area

Runoff from streams of this Area during the first four months of the 1954-55 season varied from 52 per cent of the 50-year mean on the Merced River at Exchequer to 88 per cent on the Sacramento River near Red Bluff.

Runoff into the Sacramento Valley following storms in November, December and January produced unimportant rises within the Sacramento River Flood Control Project but small overflow at Tisdale Weir. No flood control releases from Shasta Reservoir were necessary during the first four months of the 1954-55 season.

Lahontan Area

The runoff of streams in this Area during the first four months of the 1954-55 season was generally below average expectancy. Runoffs for Truckee River at Farad and Owens River near Round Valley were 68 and 99 per cent of average, respectively.

Colorado Desert Area

The office of River Control, U. S. Bureau of Reclamation, Boulder City, Nevada, advises that the runoff of Colorado River near Grand Canyon between October 1, 1954, and February 1, 1955, has been 1,440,000 acre-feet, which is 81 per cent of the 30-year mean flow.

SECTION 6 - FORECAST OF WATER CONDITIONS

The snowpack, water impounded in reservoirs, general soil moisture conditions and the assumption of normal precipitation during the remainder of the season indicate that average or slightly below average water supply will be available in most areas of the State.

The U. S. Weather Bureau's 30-day outlook for the month of February indicates near normal precipitation for all of California except that portion north of the latitude of Redding where below normal amounts are anticipated. The Bureau points out that the outlook given here is not a specific forecast in the usual meteorlogical sense, but is an estimate of the average precipitation and temperature for the month based upon the best indications now available. For more specific predictions reference should be made to the local forecasts published by the nearest Weather Bureau office.

Forecasts of water conditions for the remainder of the 1954-1955 water-year, among the drainage areas of the State delineated on the Frontispiece, are as follows:

North Coastal Area

The Soil Conservation Service, Oregon Experiment Station and cooperators have forecast that April-July runoff into Upper Klamath Lake will total 370,000 acre-feet if average precipitation occurs during the remainder of the season. This estimated quantity of runoff is 82 per cent of the average for the 1943-1952 period.

Data from snow surveys made on the watersheds of Klamath River tributaries in California indicate stream flow will be near average if normal precipitation occurs during the remainder of the season.

The reservoirs in California on Shasta and Eel Rivers will probably fill to capacity during the spring runoff period.

San Francisco Bay Area

The above average storage in surface reservoirs together with

favorable soil moisture resulting from near normal precipitation should provide average surface water supply for this Area provided normal precipitation occurs during the remainder of this season. The reservoirs of the Area are not expected to fill to capacity but should have storage equal to, or greater than, their 10-year mean at the end of the runoff period.

Central Coastal Area

The above average storage in surface reservoirs, together with favorable soil moisture conditions indicate that near normal surface water supply conditions may be anticipated for this Area provided normal precipitation occurs during the remainder of this season. The reservoirs of this Area are not expected to fill during this water-year.

South Coastal Area

Favorable soil moisture conditions are indicated by the above normal precipitation amounts during January. Surface runoff should result during subsequent storms; however, the water impounded in surface reservoirs is considerably less than the 10-year mean. These conditions indicate that, assuming normal precipitation during the remainder of the season, the surface water supply during the remainder of this water-year will be less than average expectancy for this Area. Surface reservoirs, except those storing imported water, are not expected to fill this season.

Central Valley Area

The snowpack of February 1, the water impounded in surface reservoirs and the general soil moisture conditions indicate near average water supply for this Area during 1955.

Preliminary forecasts of snowmelt runoff during the months of April through July in streams in this Area with the assumptions of normal precipitation and no precipitation during the period February through June are set forth in the following tabulation:

Watershed and Station	50-Year Normal (1901-1950) Acre-Feet	April 1 - July 31, 1955 Unimpaired Runoff: Assuming Normal Precipitation for Feb.-June, 1955 Acre-Feet	Assuming No Precipitation for Feb.-June, 1955
Sacramento at Shasta Dam1/	1,944,000	1,800,000	900,000
Sacramento at Red Bluff	2,606,000	2,400,000	1,000,000
Feather at Oroville	2,056,000	1,750,000	700,000
Yuba at Smartville	1,169,000	1,100,000	400,000
American at Fair Oaks	1,463,000	1,400,000	600,000
Mokelumne at Mokelumne Hill	513,000	500,000	200,000
Stanislaus at Melones Dam	785,000	730,000	200,000
Tuolumne at La Grange	1,286,000	1,200,000	350,000
Merced at Exchequer	667,000	600,000	200,000
San Joaquin at Friant	1,300,000	1,200,000	500,000
Kings at Piedra	1,269,000	1,200,000	500,000
Kaweah at Three Rivers1/	282,000	280,000	120,000
Kern at Bakersfield1/	468,000	450,000	150,000

1/ Not corrected for upstream impairments.

All conservation reservoirs of the Area are expected to fill during the snowmelt runoff period with the possible exception of Shasta and Folsom.

Lahontan Area

The snowpack as of February 1, water impounded in surface reservoirs and general soil moisture conditions indicate that precipitation in excess of average will be required to provide normal water supply conditions during the remainder of this water-year.

The City of Los Angeles, Department of Water and Power, forecasts:

> " . . . Provided an average percentage of increase is experienced during February and March, and average weather conditions are enjoyed from April 1 to September 30, we may expect a runoff approximating 85 per cent of the long-term (1908-54) mean.

On this basis it is estimated that the unimpaired discharge of Owens River below Long Valley Reservoir from April 1 through July 31 may approximate 57,000 acre-feet."

Colorado Desert Area

The U. S. Bureau of Reclamation, Region 3, Boulder City, Nevada, forecasts that the April-July runoff of the Colorado River near Grand Canyon would be approximately 7,500,000 acre-feet, which is 88 per cent of the 32-year mean runoff for that period, provided normal precipitation occurs during the remainder of the season.

A P P E N D I X A

BASIC DATA

TABLE 3

PRECIPITATION DATA

JULY 1, 1954 TO JANUARY 31, 1955

1 Basin and Precipitation Station	Elevation in Feet	2 Source of Data	Precipitation During January, 1955			Precipitation from July 1, 1954 to January 31, 1955			3 Average Seasonal Precipitation (July to June) Inches
			Total (Inches)	3 Average (Inches)	In per cent of Average	Total (Inches)	3 Average (Inches)	In per cent of Average	
NORTH COASTAL AREA									
Crescent City	35	U.S.W.B.	8.77	11.97	73	37.92	40.43	94	69.99
Yreka	2625	U.S.W.B.	1.12	2.85	39	5.34	10.51	51	17.87
Eureka	43	U.S.W.B.	5.73	6.47	89	24.09	21.00	115	37.32
Weaverville	2030	U.S.W.B.	3.30	6.52	51	17.83	19.86	90	33.63
Fort Bragg	74	U.S.W.B.	4.64	7.37	63	25.79	21.63	119	37.50
Ukiah	650	U.S.W.B.	3.55	7.58	47	17.02	20.54	83	35.45
Santa Rosa	167	U.S.W.B.	3.63	5.93	61	15.95	16.19	99	29.18
SAN FRANCISCO BAY AREA									
Napa State Hospital	60	U.S.W.B.	3.04	4.88	62	12.02	13.06	92	23.70
San Francisco	52	U.S.W.B.	4.05	4.40	92	12.74	11.48	111	20.53
Oakland	440	U.S.W.B.	4.14	4.50	92	10.31	11.90	95	21.95
Redwood City	31	U.S.W.B.	4.58	5.09	90	10.90	11.91	91	20.82
San Jose	95	U.S.W.B.	4.13	2.83	146	8.41	7.22	116	13.70
CENTRAL COASTAL AREA									
Santa Cruz	125	U.S.W.B.	6.58	6.11	108	17.45	15.82	110	28.57
Hollister	284	U.S.W.B.	N.R.	2.70	--	---	6.98	--	13.13
Salinas	74	U.S.W.B.	5.66	2.94	192	8.64	7.31	118	13.73
Big Sur State Park	300	U.S.W.B.	8.70	7.44	117	23.34	19.89	117	37.99
King City	320	U.S.W.B.	3.33	2.32	144	5.36	5.24	102	10.49
Paso Robles	740	U.S.W.B.	3.57	3.52	101	6.37	8.12	78	15.91
San Luis Obispo	300	U.S.W.B.	5.60	4.89	115	11.47	11.44	100	21.81
Santa Maria	217	U.S.W.B.	4.41	3.31	133	7.07	7.44	95	14.56
Santa Barbara	120	U.S.W.B.	4.39	4.06	108	10.07	9.37	107	18.51
SOUTH COASTAL AREA									
Valley Stations									
Ventura	50	U.S.W.B.	4.34	3.64	119	6.52	8.19	80	15.63
Los Angeles	312	U.S.W.B.	4.30	2.95	146	7.19	7.45	96	14.90
San Bernardino	1094	U.S.W.B.	4.46	3.13	143	8.73	8.57	102	17.47
Escondido	750	U.S.W.B.	4.58	3.17	145	6.54	8.50	77	17.03
San Diego	19	U.S.W.B.	3.59	1.97	182	4.88	5.67	86	10.58
El Capitan Dam	610	U.S.W.B.	4.65	2.79	167	6.22	8.23	76	17.97
Los Angeles River									
Opids Camp	4480	L.A.C.F.C.D.	9.76	7.84	125	15.39	19.55	79	40.82
Loomis Ranch	4050	L.A.C.F.C.D.	4.85	3.94	123	8.91	10.51	85	20.76
Haines Canyon, Upper	3450	L.A.C.F.C.D.	7.61	5.24	145	12.23	12.72	96	29.62
Clear Creek	3300	L.A.C.F.C.D.	7.87	6.66	118	12.55	15.78	80	31.00
Sleepy Hollow Ranch	2950	L.A.C.F.C.D.	6.62	6.11	108	11.34	14.84	76	31.18

1, 2, 3, See footnotes on page A-6

TABLE 3 - PRECIPITATION DATA - JULY 1, 1954 TO JANUARY 31, 1955 (Cont'd)

1 Basin and Precipitation Station	Elevation in Feet	2 Source of Data	Precipitation During January, 1955			Precipitation from July 1, 1954 to January 31, 1955			3 Average Seasonal Precipitation (July to June) Inches
			Total (Inches)	3 Average (Inches)	In per cent of Average	Total (Inches)	3 Average (Inches)	In per cent of Average	
CENTRAL VALLEY AREA (Cont'd)									
Kings River									
Grant Grove	6775	U.S.W.B.	9.42	6.42	147	21.11	17.53	120	40.82
Balch Camp	1300	P.G.&E.	6.45	5.70	113	14.36	13.20	109	27.88
Piedra	500	U.S.W.B.	5.20	4.08	127	10.82	8.89	122	17.68
Kaweah River									
Grant Grove	6775	U.S.W.B.	9.42	6.42	147	21.11	17.53	120	40.82
Giant Forest	6360	U.S.W.B.	10.71	7.69	139	21.18	19.38	109	42.43
Ash Mountain	1600	U.S.W.B.	7.06	4.50	157	13.93	11.37	123	25.83
Three Rivers	870	U.S.W.B.	6.18	3.61	171	11.89	9.16	130	20.22
Kern River									
Springville (Near)	4050	U.S.W.B.	8.34	6.62	126	16.68	16.65	100	35.69
Kern River #3 Intake	3640	S.C.E.C.	4.65	3.61	129	7.65	8.74	88	16.91
Glennville	3300	U.S.W.B.	5.09	3.50	145	8.73	9.30	94	20.05
Kernville	2600	U.S.W.B.	3.12	2.16	144	4.68	5.31	88	10.08
LAHONTAN AREA									
Surprise Valley									
Jess Valley	5400	D.W.R.	1.03	1.92	54	4.93	8.13	61	15.62
Fort Bidwell	4735	U.S.W.B.	0.75	2.39	31	5.32	7.86	68	14.33
Susan River									
Susanville	4271	U.S.W.B.	1.02	3.08	33	4.31	9.80	44	17.36
Doyle	4300	U.S.W.B.	0.68	1.50	45	3.78	6.02	63	10.30
Truckee & Tahoe Basins									
Twin Lakes	7970	U.S.W.B.	6.80	9.29	73	20.43	22.88	89	44.28
Soda Springs	6870	U.S.W.B.	7.07	9.10	78	25.50	24.66	103	46.15
Tahoe	6230	U.S.W.B.	3.36	6.16	54	12.77	17.08	75	31.27
Truckee	6200	U.S.W.B.	3.50	5.41	65	13.13	13.78	95	25.82
Carson River									
Twin Lakes	7970	U.S.W.B.	6.80	9.29	73	20.43	22.88	89	44.28
Walker River									
Bridgeport	6473	U.S.W.B.	0.75	1.74	43	3.20	6.53	49	10.79
Mono Basin									
Ellery Lake	9600	C.E.P.C.	2.73	5.15	53	8.78	14.73	59	29.79
Gem Lake	9120	C.E.P.C.	2.96	4.72	63	8.91	13.50	66	26.58

1, 2, 3, See footnotes on page A-6

TABLE 4

SNOW SURVEY DATA

AS OF FEBRUARY 1, 1955

1 Areas, Drainage Basins, and Snow Courses	Elevation in Feet	Date of Survey	Depth of Snow Inches	Density Per Cent	Water Content Inches	2 Average Water Content as of April 1 Inches	Water Content in Per Cent of April 1 Average	Corresponding Water Content 1954 Inches
NORTH COASTAL AREA								
Scott River								
Middle Boulder #1	6700	1-27	53.5	37.5	20.1	34.2	59	28.3
Middle Boulder #3	6400	1-27	48.5	35.4	17.1	30.9	55	18.5
Shasta River								
Parks Creek	6500	2-2	63.8	32.3	20.6	33.7	61	28.5
Sweetwater	5500	2-1	31.8	26.9	8.6	14.4	60	15.2
Trinity River								
Big Flat	5100	1-30	36.2	27.8	10.1	19.2	53	17.7
SAN FRANCISCO BAY AREA	No Surveys Made in These Areas							
CENTRAL COASTAL AREA								
SOUTH COASTAL AREA								
Little Laguna Meadow	5200	1-12	16.0	20.8	3.3	--	--	N.S.M.
CENTRAL VALLEY AREA								
Upper Sacramento River								
Mount Shasta	8000	1-31	76.8	34.5	26.5	52.6	50	40.9
Sand Flats	7000	1-31	73.2	33.4	24.5	43.4	56	32.0
Parks Creek	6500	2-2	63.8	32.3	20.6	33.7	61	28.5
McCloud River								
Mount Shasta	8000	1-31	76.8	34.5	26.5	52.6	50	40.9
Stouts Meadow	5300	1-28	57.9	31.5	18.3	45.8	40	36.8
Pit River								
Mount Lassen	8400	1-31	117.7	37.6	44.3	86.5	51	47.4
Cedar Pass	7200	2-2	35.7	23.4	8.3	19.9	42	8.7
Adin Mountain	6500	2-2	30.4	25.3	7.7	13.8	56	5.1
Thousand Lakes	6500	2-2	58.5	31.0	18.1	51.5	35	25.0
Manzanita Lake	6000	1-31	26.8	30.1	8.1	10.3	79	7.4
Stouts Meadow	5300	1-28	57.9	31.5	18.3	45.8	40	36.8
Stony Creek								
Anthony Peak	6200	2-2	58.9	30.5	17.9	32.0	56	19.2

1, 2, See footnote on page A-13

TABLE 4 - SNOW SURVEY DATA AS OF FEBRUARY 1, 1955 (Cont'd)

1 Areas, Drainage Basins, and Snow Courses	Elevation in Feet	Date of Survey	Depth of Snow Inches	Density Per Cent	Water Content Inches	2 Average Water Content as of April 1 Inches	Water Content in Per Cent of April 1 Average	Corresponding Water Content 1954 Inches
CENTRAL VALLEY AREA (Cont'd)								
Feather River								
Mount Lassen	8400	1-31	117.7	37.6	44.3	86.5	51	47.4
Mount Dyer	7400	2-7	37.4	32.4	12.1	25.8	47	N.S.M.
Yuba Pass	6700	1-31	58.4	30.7	16.9	35.1	48	16.6
Eureka Bowl	6500	2-1	74.3	31.5	23.4	46.7	50	21.9
Fredonia Pass	6400	2-1	27.8	20.5	5.7	9.9	58	N.S.M.
Harkness Flat	6400	2-2	53.0	28.4	15.2	28.9	53	N.S.M.
Eureka Lake	6300	2-1	63.0	30.6	19.2	36.2	53	17.3
Mount Dyer #2	6200	2-7	29.8	31.5	9.4	New Course 1951		N.S.M.
Letterbox	5600	2-3	81.2	34.9	28.4	54.3	52	27.5
Mount Stover	5500	2-8	34.4	28.8	9.9	16.5	60	N.S.M.
Fredonia Pass #2	5500	2-1	21.7	29.7	6.4	9.9	65	N.S.M.
Browns Camp	5400	1-25	45.5	29.7	13.5	24.3	56	13.8
Gibsonville	5400	1-29	57.2	30.6	17.5	40.0	44	19.0
Haskins Flat	5400	1-24	56.6	28.5	16.2	33.0	49	20.5
Feather River Meadows	5000	1-27	46.4	28.0	13.0	24.3	53	N.S.M.
Warner Creek	5000	1-28	36.2	28.1	10.2	17.5	58	N.S.M.
Humbug Summit	5000	2-4	35.6	29.1	10.4	13.2	79	N.S.M.
Chester Flat	4600	1-26	29.2	33.6	9.8	8.1	121	N.S.M.
Yuba River								
Donner Summit	7020	1-27	77.5	33.3	25.8	44.3	58	19.4
Soda Springs	6750	1-27	73.8	33.5	24.7	40.7	61	18.5
Yuba Pass	6700	1-31	58.4	30.7	16.9	35.1	48	16.6
Furnace Flat	6600	1-28	88.6	36.2	32.1	49.6	65	22.8
Lake Fordyce	6500	1-28	74.0	33.2	24.6	42.3	58	20.4
Gibsonville	5400	1-29	57.2	30.6	17.5	40.0	44	19.0
American River								
Carson Pass	8600	1-27	65.6	36.0	23.6	40.4	58	12.9
Lower Carson Pass	8400	1-27	69.2	35.1	24.3	42.6	57	14.4
Emigrant Lake	8200	1-25	79.9	35.2	28.1	New Course 1953		17.6
Tragedy Springs	7900	1-30	80.9	32.3	26.1	48.0	54	17.7
Twin Lakes	7900	1-26	63.1	33.9	21.4	32.8	65	13.3
Echo Summit	7500	1-31	72.0	34.9	25.1	43.4	58	15.8
Squaw Valley	7500	1-31	88.6	35.1	31.1	New Course 1953		26.6
Silver Lake	7300	1-29	55.5	29.2	16.2	26.1	62	11.8
Donner Summit	7020	1-27	77.5	33.3	25.8	44.3	58	19.4
Philips	6800	1-28	63.7	32.5	20.7	32.1	64	15.3
Soda Springs	6750	1-27	73.8	33.5	24.7	40.7	61	18.5
Tamarack Flat	6600	1-28	65.6	32.0	21.0	32.8	64	15.5
Onion Creek	6100	1-31	52.4	31.4	16.4	26.0	63	11.9
Strawberry	5700	1-28	35.0	28.6	10.0	11.6	86	7.2
Ice House	5300	2-2	41.9	24.9	10.4	22.6	46	N.S.M.

1, 2, See footnote on page A-13

TABLE 4 - SNOW SURVEY DATA AS OF FEBRUARY 1, 1955 (Cont'd)

1 Areas, Drainage Basins, and Snow Courses	Elevation in Feet	Date of Survey	Depth of Snow Inches	Density Per Cent	Water Content Inches	2 Average Water Content as of April 1 Inches	Water Content in Per Cent of April 1 Average	Corresponding Water Content 1954 Inches
CENTRAL VALLEY AREA (Cont'd)								
Cosumnes River								
Corral Flat	7300	1-28	75.9	35.6	27.0	43.7	62	16.5
Lumberyard	6600	1-31	63.7	31.1	19.8	36.2	55	13.4
Hams Station	5600	1-31	19.7	28.7	5.7	9.7	59	3.9
Mokelumne River								
Highland Meadow	8800	1-27	77.3	36.4	28.1	New Course 1951		21.4
Carson Pass	8600	1-27	65.6	36.0	23.6	40.4	58	12.9
Emigrant Lake	8200	1-25	79.9	35.2	28.1	New Course 1953		17.6
Twin Lakes	7900	1-26	63.1	33.9	21.4	32.8	65	13.3
Tragedy Springs	7900	1-30	80.9	32.3	26.1	48.0	54	17.7
Wheeler Lake	7800	1-28	87.4	34.6	30.2	56.6	53	22.2
Pacific Valley	7500	1-26	69.8	30.7	24.1	39.6	61	15.2
Lake Alpine	7500	1-25	74.0	32.0	23.7	43.4	55	17.1
Silver Lake	7300	1-29	55.5	29.2	16.2	26.1	62	11.8
Corral Flat	7300	1-28	75.9	35.6	27.0	43.7	62	16.5
Bear Valley Ridge	6700	1-25	64.5	30.4	19.6	29.6	66	11.1
Lumberyard	6600	1-31	63.7	31.1	19.8	36.2	55	13.4
Big Meadow	6500	1-24	73.7	24.5	18.1	34.4	53	14.2
Cottage Spring	5700	1-29	34.0	26.4	9.0	15.8	57	7.2
Hams Station	5600	1-31	19.7	28.7	5.7	9.7	59	3.9
Dorrington	4800	1-29	24.4	27.6	6.7	9.0	74	4.6
Antelope Springs	4350	1-31	Patches only			4.8	0	
Stanislaus River								
Sonora Pass	8800	1-25	48.0	30.4	14.6	26.3	56	7.9
Highland Meadow	8800	1-27	77.3	36.4	28.1	New Course 1951		21.4
Lake Alpine	7500	1-25	74.0	32.0	23.7	43.4	55	17.1
Pacific Valley	7500	1-26	69.8	30.7	24.1	39.6	61	15.2
Herring Creek	7400	1-26	61.3	27.6	17.0	32.9	52	13.7
Spicers	6600	1-26	58.5	28.8	16.9	32.5	52	13.2
Big Meadow	6500	1-24	73.7	24.5	18.1	34.4	53	14.2
Cottage Spring	5700	1-29	34.0	26.4	9.0	15.8	57	7.2
Dorrington	4800	1-29	24.4	27.6	6.7	9.0	74	4.6
Tuolumne River								
Tioga Pass	9900	1-27	51.7	29.6	15.3	28.8	53	11.3
Dana Meadows	9700	1-27	56.8	28.5	16.2	32.4	50	12.5
Bond Pass	9300	1-31	77.0	33.2	25.6	44.8	57	N.S.M.
Grace Meadow	8800	1-29	67.5	34.1	23.0	37.4	61	N.S.M.
Snow Flat	8700	1-28	78.9	33.0	26.1	45.2	58	16.5
Horse Meadow	8400	1-31	81.4	35.5	28.4	47.6	60	N.S.M.

1, 2, See footnote on page A-13

TABLE 4 - SNOW SURVEY DATA AS OF FEBRUARY 1, 1955 (Cont'd)

1 Areas, Drainage Basins, and Snow Courses	Elevation in Feet	Date of Survey	Depth of Snow Inches	Density Per Cent	Water Content Inches	2 Average Water Content as of April 1 Inches	Water Content in Per Cent of April 1 Average	Corresponding Water Content 1954 Inches
CENTRAL VALLEY AREA (Cont'd)								
Tuolumne River (Cont'd)								
Spotted Fawn	8000	2-1	78.8	32.4	25.5	47.6	54	N.S.M.
Wilmer Lake	8000	1-29	75.8	33.0	25.0	47.0	53	N.S.M.
Saches Springs	7900	2-1	76.2	31.5	24.0	40.8	59	N.S.M.
Huckleberry Lake	7800	2-1	70.7	31.7	22.4	42.9	52	N.S.M.
Paradise	7600	1-28	72.8	34.2	24.9	44.9	55	17.0
Gin Flat	7100	1-28	57.8	33.4	19.3	37.3	52	15.2
Kibbey Ridge-Upper	6700	2-2	41.4	27.1	11.2	35.0	32	N.S.M.
Vernon Lake	6700	1-28	51.6	28.1	14.5	29.7	49	13.5
Beehive Meadow	6500	1-27	56.6	28.6	16.2	28.9	56	14.8
Kibbey Ridge-Lower	6200	2-2	55.5	28.5	15.8	31.5	50	N.S.M.
Merced River								
Snow Flat	8700	1-28	78.9	33.0	26.1	45.2	58	16.5
Ostrander Lake	8200	1-28	65.4	31.3	20.5	37.9	54	12.9
Gin Flat	7100	1-28	57.8	33.4	19.3	37.3	52	15.2
Peregoy Meadows	7000	1-29	57.3	31.4	18.0	31.4	57	13.2
Upper San Joaquin River								
Mono Pass	11450	2-7	51.2	33.7	17.6	31.7	56	11.8
Piute Pass	11200	1-29	57.5	32.2	18.5	35.1	57	12.6
Emerald Lake	10800	1-27	59.4	30.1	17.9	38.1	47	11.3
Pioneer Basin	10300	2-8	58.5	32.9	19.2	38.4	50	14.0
Heart Lake	10100	1-25	58.5	28.7	16.8	29.2	58	9.1
Volcanic Knob	10100	1-23	60.6	28.0	17.0	33.3	51	10.4
Rose Marie	10000	1-25	59.4	27.0	16.0	31.0	52	10.5
Colby Meadow	10000	1-27	47.7	28.5	13.6	23.5	58	9.1
Mammoth Pass	9500	2-1	83.0	32.8	27.2	47.1	58	18.3
Agnew Pass	9450	1-31	67.7	29.8	20.2	33.2	68	12.2
Kaiser Pass	9200	2-3	75.4	30.3	22.8	40.6	56	15.0
Dutch Lake	9100	1-31	61.6	28.4	17.5	29.8	59	12.4
Coyote Lakes	8600	1-25	73.0	25.9	18.9	24.8	76	13.1
Cora Lakes	8500	1-26	73.8	28.6	21.2	38.9	54	14.1
Nellie Lake	8250	1-27	74.4	30.3	22.5	40.2	56	15.3
Chilkoot Lake	7450	1-24	67.0	29.3	19.6	41.2	48	15.6
Chilkoot Meadow	7250	1-24	70.2	28.5	20.0	39.5	51	16.0
Florence Lake	7200	1-30	29.6	25.7	7.6	9.1	84	4.0
Huntington Lake	7000	1-27	52.9	27.3	14.4	23.2	62	8.8
Clover Meadow	7000	1-25	62.0	25.9	16.0	26.1	61	11.1
Jackass Meadows	7000	1-25	59.9	23.7	14.2	24.0	59	12.8
Chiquito Creek	6800	1-25	60.1	24.2	14.5	23.5	62	11.0
Beasore Meadow	6800	1-24	51.8	27.5	14.3	31.8	45	13.2
Poison Meadow	6650	1-24	55.9	29.0	16.2	30.9	52	12.4

1, 2, See footnote on page A-13

TABLE 4 - SNOW SURVEY DATA AS OF FEBRUARY 1, 1955 (Cont'd)

1 Areas, Drainage Basins, and Snow Courses	Elevation in Feet	Date of Survey	Depth of Snow Inches	Density Per Cent	Water Content Inches	2 Average Water Content as of April 1 Inches	Water Content in Per Cent of April 1 Average	Corresponding Water Content 1954 Inches
CENTRAL VALLEY AREA (Cont'd)								
Kings River								
Charlotte Ridge	10800	2-3	62.0	30.2	18.7	New Course 1955		
Blackcap Basin	10800	1-28	62.8	32.5	20.4	38.2	53	N.S.M.
Bullfrog Lake	10600	2-3	52.4	28.5	14.9	New Course 1955		
Upper Burnt Corral Meadow	9700	1-29	70.2	31.6	22.2	37.7	59	N.S.M.
Woodchuck Meadow	9100	1-27	66.4	29.0	19.3	33.5	58	N.S.M.
Long Meadow	8500	1-29	63.4	29.3	18.6	31.1	60	N.S.M.
Junction Meadow	8500	2-4	47.0	31.0	14.6	21.9	67	N.S.M.
Post Corral Meadow	8200	1-29	55.8	27.6	15.4	29.1	53	N.S.M.
Sand Meadow	8050	1-30	62.5	32.0	20.0	31.4	64	12.0
Big Meadows	7660	2-5	53.0	30.8	16.3	29.6	55	11.5
Grant Grove	6660	2-1	44.3	30.2	13.4	16.2	83	7.8
Cliff Camp	6500	1-25	42.8	26.4	11.3	15.3	74	6.2
Kaweah River								
Panther Meadow	8650	1-30	72.4	32.0	23.2	40.3	58	16.0
Big Meadows	7660	2-5	53.0	30.8	16.3	29.6	55	11.5
Giant Forest	6360	1-29	46.6	28.1	13.1	18.7	70	6.9
Kern River								
Round Meadow	9000	1-30	49.9	28.3	14.2	27.2	52	5.8
LAHONTAN AREA								
Truckee River								
Squaw Valley	7500	1-31	88.6	35.1	31.1	New Course 1953		26.6
Donner Summit	7020	1-27	77.5	33.3	25.8	44.3	58	19.4
Independence Camp	7000	1-31	43.4	30.9	13.4	25.6	52	N.S.M.
Sage Hen Creek	6500	1-31	36.8	30.2	11.1	20.0	56	9.0
Truckee #2	6400	1-28	32.3	28.2	9.1	16.4	55	7.4
Independence Creek	6300	1-31	34.6	29.5	10.2	14.8	69	N.S.M.
Tahoe City	6250	1-31	27.3	26.8	7.3	13.1	56	6.4
Truckee Ranger Station	6000	2-2	36.1	25.2	9.1	12.0	76	6.1
Donner Lake	5950	2-1	48.1	27.9	13.4	25.9	52	11.2
Boca	5900	2-1	26.1	24.1	6.3	5.5	115	3.2
Lake Tahoe								
Marlette Lake	8000	1-26	51.1	32.5	16.6	26.5	63	8.5
Hagans Mds. (Freel Peak)	8000	1-27	44.3	32.3	14.3	19.9	72	8.5
Echo Summit	7500	1-31	72.0	34.9	25.1	43.4	58	15.8
Squaw Valley	7500	1-31	88.6	35.1	31.1	New Course 1953		26.6
Daggetts Pass (In Nevada)	7350	1-25	28.3	28.6	8.1	13.9	58	5.7
Freel Bench	7300	1-27	32.8	29.6	9.7	12.3	79	6.3

1, 2, See footnote on page A-13

TABLE 4 - SNOW SURVEY DATA AS OF FEBRUARY 1, 1955 (Cont'd)

1 Areas, Drainage Basins, and Snow Courses	Elevation in Feet	Date of Survey	Depth of Snow Inches	Density Per Cent	Water Content Inches	2 Average Water Content as of April 1 Inches	Water Content in Per Cent of April 1 Average	Corresponding Water Content 1954 Inches
LAHONTAN AREA (Cont'd)								
Lake Tahoe (Cont'd)								
Ward Creek	7000	1-28	75.2	36.8	27.7	48.4	57	20.8
Glenbrook(In Nevada) #2	6900	1-25	32.1	28.4	9.1	16.7	54	7.2
Richardson #2	6500	1-26	42.5	27.5	11.7	20.2	58	9.6
Upper Truckee	6400	1-27	29.4	29.9	8.8	8.6	102	5.3
Tahoe City	6250	1-31	27.3	26.8	7.3	13.1	56	6.4
Carson River								
Carson Pass	8600	1-27	65.6	36.0	23.6	40.4	58	12.9
Walker River								
Virginia Lakes	9500	1-25	38.9	29.3	11.4	21.2	54	6.9
Sonora Pass	8800	1-25	48.0	30.4	14.6	26.3	56	7.9
Mono Lake								
Gem Pass	10450	2-1	58.9	32.9	19.4	32.3	60	9.4
Saddle Bags Lake	10000	1-26	55.0	29.7	16.2	36.7	44	11.3
Tioga Pass	9900	1-27	51.7	29.6	15.3	28.8	53	11.3
Dana Meadows	9700	1-27	56.8	28.5	16.2	32.4	50	12.5
Rhinedollar Lake	9500	1-26	53.7	27.2	14.5	32.5	45	10.3
Agnew Pass	9450	1-31	67.7	29.8	20.2	33.2	68	12.2
Gem Lake	9200	1-31	63.6	29.7	18.9	28.9	65	10.9
Upper Owens River								
Mammoth Pass #1	9500	2-1	83.0	32.8	27.2	47.1	58	18.3
Minarettes #2	9000	2-2	61.3	31.3	19.2	34.1	56	15.3
Minarettes #1	8300	2-2	47.0	30.0	14.1	23.7	59	10.0
Mammoth Pass #2	8300	2-1	46.6	31.1	14.5	22.4	65	9.2
Rock Creek								
Mono Pass	11450	2-7	51.2	33.7	17.6	31.7	56	11.8
Rock Creek #3	10000	2-3	33.6	29.5	9.9	15.2	65	8.1
Rock Creek #2	9050	2-3	28.9	26.6	7.7	10.5	73	6.7
Rock Creek #1	8700	2-3	23.7	27.4	6.5	9.6	68	4.7
Bishop Creek								
Piute Pass	11200	1-29	57.5	32.2	18.5	35.1	57	12.6
East Piute Pass	10800	1-28	37.3	33.8	12.6	23.2	54	5.8
North Lake	9500	1-29	28.8	25.4	7.3	10.4	70	5.3
Bishop Park	8500	1-29	20.3	23.6	4.8	5.3	91	4.1

1, 2, See footnote on page A-13

TABLE 4 - SNOW SURVEY DATA AS OF FEBRUARY 1, 1955 (Cont'd)

1 Areas, Drainage Basins, and Snow Courses	Elevation in Feet	Date of Survey	Depth of Snow Inches	Density Per Cent	Water Content Inches	2 Average Water Content as of April 1 Inches	Water Content in Per Cent of April 1 Average	Corresponding Water Content 1954 Inches
LAHONTAN AREA (Cont'd)								
Big Pine Creek								
Big Pine Creek #1	10000	1-31	43.0	30.2	13.0	24.4	53	8.8
Big Pine Creek #3	9800	1-31	36.8	29.6	10.9	17.1	64	8.3
Big Pine Creek #2	9700	1-31	35.4	27.7	9.8	17.3	57	8.3
Cottonwood Creek								
Cottonwood #2	11100	2-8	26.0	29.6	7.7	13.5	57	N.S.M.
Cottonwood #1	10600	2-8	25.3	26.8	6.8	12.8	53	N.S.M.
COLORADO DESERT AREA No Surveys Made in This Area								

1 Courses pertinent to more than one basin are listed under each basin.
2 Computed 50-year average for the period 1901-1950, inclusive.
N.S.M. - No Survey Made.
N.R. - No Report.

TABLE 5

WATER CONTENT OF MAJOR STORAGE RESERVOIRS

February 1

Watershed	Reservoir	Operator	10-year Mean 1945-54 (Acre-Feet)	Usable Capacity (Acre-Feet)	Water in Storage (Acre-Feet) 1954	Water in Storage (Acre-Feet) 1955	1955 Storage in Per Cent of 10-year Mean
NORTH COASTAL AREA							
Klamath River	Clear Lake 1/	U. S. Bureau of Reclamation	186,360	513,320	262,170	233,910	126
	Gerber 1/	U. S. Bureau of Reclamation	29,360	94,270	45,370	27,190	93
	Upper Klamath 1/	U. S. Bureau of Reclamation	271,240	524,800	369,140	257,480	95
Shasta River	Shasta R. (Dwinnell)	Montague Water Con. District	17,060	33,000	24,200	13,160	77
South Eel River	Scott (Lake Pillsbury)	Pacific Gas & Electric Co.	69,580	93,720	74,270	58,090	84
SAN FRANCISCO BAY AREA							
Conn Creek	Conn Creek Dam	City of Napa	4/	30,500	30,000	27,800	--
Lagunitas Creek	Kent	Marin Muni. Water District	4/	16,500	---	15,000	--
San Pablo Creek	San Pablo Dam 2/	East Bay M.U.D.	29,880	43,170	33,460	30,270	101
San Leandro Creek	Upper San Leandro 2/	East Bay M.U.D.	25,220	41,400	27,710	29,040	115
	Chabot 2/	East Bay M.U.D.	6,470	12,550	9,570	7,740	120
Calaveras Creek	Calaveras 2/	City & Co. of San Francisco	49,630	96,820	59,870	58,760	118
Laguna Creek	Upper Crystal Springs) 2/	City & Co. of San Francisco)	51,130	58,380	46,550	55,980	109
San Mateo Creek	Lower " ")	City & Co. of San Francisco)					
San Andreas Creek	San Andreas 2/	City & Co. of San Francisco	15,290	19,000	13,740	15,380	101
Coyote Creek	Coyote	Santa Clara Valley Water Conservation District	8,800	24,560	1,720	4,810	55
	Leroy Anderson		4/	75,000	51,480	29,060	--
Los Gatos Creek	Austrian	San Jose Water Works	4/	6,000	2,980	1,920	--
	Lexington	Santa Clara Valley Water Conservation District	4/	25,000	1,860	2,870	--
CENTRAL COASTAL AREA							
Salinas River	Salinas	San Luis Obispo Co. Flood Control & Water Conservation District	13,840	26,000	18,600	19,700	142
Santa Ynez River	Gibraltar	City of Santa Barbara	6,130	15,600	1,380	12,770	208
	Cachuma	U. S. Bureau of Reclamation	4/	206,500	11,670	21,800	--
SOUTH COASTAL AREA							
Bear Creek	Bear Valley	Bear Valley Mutual Water Co.	26,210	72,170	12,840	17,250	56
San Jacinto River	Lake Hemet	Lake Hemet Water Company	3,110	13,400	830	1,010	32
Temecula Creek	Vail	Vail Company	4/	49,500	6,020	5,020	--
San Gabriel River	Morris	Metropolitan Water District	26,450	35,170	23,880	22,530	85
Tributary Cajalco Cr.	Lake Mathews 2/	Metropolitan Water District	87,410	100,000	83,950	75,197	86
San Luis Rey River	Henshaw	Vista Irrigation District	60,450	194,320	7,710	7,290	12
Boulder Creek	Cuyamaca	LaMesa, Lemon Grove & Spring Valley Irrigation District	1,610	11,600	250	20	1
Sweetwater River	Lake Loveland	California Water & Telep. Co.	4/	25,250	730	820	--
	Sweetwater (Main) 2/	California Water & Telep. Co.	7,820	27,150	10,160	7,230	93
City of San Diego	Municipal Reservoirs 2/ 3/	City of San Diego	137,280	399,530	89,150	85,560	62
Santa Ysabel Creek	Sutherland	City of San Diego	4/	29,000	---	1,670	--

1/, 2/, 3/, 4/ See footnotes on page A-16

TABLE 5 - WATER CONTENT OF MAJOR STORAGE RESERVOIRS AS OF FEBRUARY 1 (Cont'd)

Watershed	Reservoir	Operator	10-year Mean 1945-54 (Acre-Feet)	Usable Capacity (Acre-Feet)	Water in Storage (Acre-Feet) 1954	Water in Storage (Acre-Feet) 1955	1955 Storage in Per Cent of 10-year Mean
CENTRAL VALLEY AREA							
Sacramento	Shasta	U. S. Bureau of Reclamation	4/	4,500,000	3,421,000	3,186,700	4/
Feather	Mountain Meadows	Pacific Gas & Electric Co.	11,020	24,000	0	0	0
	Lake Almanor	Pacific Gas & Electric Co.	460,210	649,800	434,920	227,910	50
	Bucks Storage	Pacific Gas & Electric Co.	71,750	101,700	56,230	32,790	46
	Butt Valley	Pacific Gas & Electric Co.	35,260	49,900	33,940	40,750	116
Yuba	Bowman Lake	Nevada Irrigation District	22,400	69,400	10,220	5,100	23
	Scotts Flat	Nevada Irrigation District	4/	26,800	16,000	9,350	--
	Spaulding System	Pacific Gas & Electric Co.	67,530	137,400	54,090	31,270	46
Bear	Combie	Nevada Irrigation District	4,040	7,200	4,890	3,600	89
American	Twin Lakes	Pacific Gas & Electric Co.	9,160	21,580	2,590	2,560	28
	Silver Lake	Pacific Gas & Electric Co.	1,370	8,590	170	830	61
Stony Creek	East Park	U. S. Bureau of Reclamation	33,610	50,800	46,260	22,430	67
	Stony Gorge	U. S. Bureau of Reclamation	25,390	50,050	34,420	23,190	91
Cache Creek	Clear Lake	Clear Lake Water Co.	165,590	319,000	239,700	177,240	107
Cosumnes	Sly Park	U. S. Bureau of Reclamation	4/	41,000	---	4,080	--
Mokelumne	Lower Bear River	Pacific Gas & Electric Co.	4/	48,500	10,300	4,360	--
	Salt Springs	Pacific Gas & Electric Co.	18,470	140,000	9,520	6,710	36
	Pardee	East Bay M.U.D.	171,280	210,000	183,150	145,900	85
Stanislaus	Relief	Pacific Gas & Electric Co.	4,870	15,550	0	0	0
	Strawberry	Pacific Gas & Electric Co.	5,880	18,270	2,320	4,570	78
	Melones	Pacific Gas & Electric Co.	29,340	112,600	15,130	10,770	37
Tuolumne	Lake Eleanor	City & Co. of San Francisco	14,510	26,100	5,340	12,600	87
	Hetch Hetchy	City & Co. of San Francisco	140,260	360,400	115,100	84,700	60
	Don Pedro	Turlock & Modesto I.D.	137,700	260,000	134,380	115,640	84
	Owen	Turlock & Modesto I.D.	28,800	49,000	36,100	26,930	94
	Dallas Warner	Modesto Irrigation District	12,920	27,000	13,150	16,000	124
Merced	Lake McClure	Merced Irrigation District	112,350	280,900	58,030	51,390	46
San Joaquin	Crane Valley	Pacific Gas & Electric Co.	25,090	45,400	4,380	13,770	55
	Vermilion Valley	Southern Calif. Edison Co.	4/	125,000	0	2,800	--
	Florence Lake	Southern Calif. Edison Co.	270	64,400	300	310	115
	Huntington Lake	Southern Calif. Edison Co.	46,700	89,200	44,580	43,210	93
	Shaver Lake	Southern Calif. Edison Co.	28,950	135,300	39,480	27,140	94
	Millerton Lake (Friant)	U. S. Bureau of Reclamation	258,430	520,500	208,000	290,900	113
Kings	Pine Flat	U. S. Corps of Engineers	4/	1,001,000	30,870	139,250	--
Kern	Isabella	U. S. Corps of Engineers	4/	552,000	350	10,180	--
	Buena Vista	Buena Vista Associates	36,670	205,000	7,560	0	0
LAHONTAN AREA							
Truckee River	Lake Tahoe 1/	U. S. Bureau of Reclamation	419,880	732,000	516,000	381,600	91
Little Truckee	Boca 1/	U. S. Bureau of Reclamation	9,600	41,050	5,430	3,160	33
E. Walker River	Bridgeport 1/	Walker River I.D.	28,070	42,450	32,470	13,780	49
Leevining Creek	Saddlebag Lake	Calif. Electric Power Co.	5,950	11,140	700	3,150	53
Rush Creek	Gem Lake	Calif. Electric Power Co.	5,820	17,600	5,930	8,330	143
	Grant Lake	City of Los Angeles	30,580	47,530	31,920	41,950	137

1/, 2/, 3/, 4/ See footnotes on page A-16

TABLE 5 - WATER CONTENT OF MAJOR STORAGE RESERVOIRS AS OF FEBRUARY 1 (Cont'd)

Watershed	Reservoir	Operator	10-year Mean 1945-54 (Acre-Feet)	Usable Capacity (Acre-Feet)	Water in Storage (Acre-Feet) 1954	Water in Storage (Acre-Feet) 1955	1955 Storage in Per Cent of 10-year Mean
LAHONTAN AREA (Cont'd)							
Owens River	Long Valley 2/ (Lake Crowley)	City of Los Angeles	134,080	183,470	139,830	80,550	60
	Tinemaha 2/	City of Los Angeles	4,040	16,410	1,020	2,320	57
Bishop Creek	Hillside (South Lake)	Calif. Electric Power Co.	6,160	13,190	2,400	3,250	53
Rose Valley	Haiwee (South) 2/	City of Los Angeles	48,690	58,530	54,800	52,900	109
COLORADO DESERT AREA							
Colorado River	Lake Mead 1/	U. S. Bureau of Reclamation	18,403,200	27,207,000	16,511,000	12,305,000	67

1/ Interstate Reservoir Used Jointly by California and Adjacent States
2/ Includes Foreign Water
3/ Combined Storage for 10 Reservoirs in Full Operation During 10-year Period
4/ Not in Complete Operation for Full Period

TABLE 6

WATER CONTENT OF MAJOR STORAGE RESERVOIRS

October 1

Watershed	Reservoir	Operator	10-year Mean 1944-53 (Acre-Feet)	Usable Capacity (Acre-Feet)	Water in Storage (Acre-Feet) 1953	Water in Storage (Acre-Feet) 1954	1954 Storage in Per Cent of 10-year Mean
NORTH COASTAL AREA							
Klamath River	Clear Lake 1/	U. S. Bureau of Reclamation	176,440	513,320	254,490	238,210	135
	Gerber 1/	U. S. Bureau of Reclamation	26,250	94,270	50,170	29,280	112
	Upper Klamath Lake 1/	U. S. Bureau of Reclamation	200,300	524,800	262,700	245,000	122
Shasta River	Shasta R. (Dwinnell)	Montague Water Con. District	4,650	33,000	11,330	5,450	117
South Eel River	Scott (Lake Pillsbury)	Pacific Gas & Electric Co.	53,120	93,720	42,510	41,350	78
SAN FRANCISCO BAY AREA							
Conn Creek	Conn Creek Dam	City of Napa	4/	30,500	27,000	26,400	--
Lagunitas Creek	Kent	Marin Muni. Water District	4/	16,500	---	---	--
San Pablo Creek	San Pablo Dam 2/	East Bay M.U.D.	24,900	43,170	31,170	29,180	117
San Leandro Creek	Upper San Leandro 2/	East Bay M.U.D.	20,910	41,400	28,840	29,160	139
	Chabot 2/	East Bay M.U.D.	5,670	12,550	10,130	7,990	141
Calaveras Creek	Calaveras 2/	City & Co. of San Francisco	45,020	96,820	67,770	53,100	118
Laguna Creek	Upper Crystal Springs 2/	City & Co. of San Francisco)	45,830	58,380	56,470	50,980	111
San Mateo Creek	Lower " ")	City & Co. of San Francisco)					
San Andreas Creek	San Andreas 2/	City & Co. of San Francisco	14,750	19,000	17,840	17,170	116
Coyote Creek	Coyote	(Santa Clara Valley)	4,650	24,560	4,810	0	0
	Leroy Anderson	(Water Conservation District)	4/	75,000	59,630	33,570	--
Los Gatos Creek	Austrian	San Jose Water Works	4/	6,000	2,690	2,270	--
	Lexington	Santa Clara Valley Water Conservation District	4/	25,000	0	0	--
CENTRAL COASTAL AREA							
Salinas River	Salinas	San Luis Obispo Co. Flood Control & Water Conservation District	11,400	26,000	17,300	19,600	172
Santa Ynez River	Gibraltar	City of Santa Barbara	5,800	15,600	13,440	12,720	219
	Cachuma	U. S. Bureau of Reclamation	4/	206,500	9,190	21,600	--
SOUTH COASTAL AREA							
Bear Creek	Bear Valley	Bear Valley Mutual Water Co.	26,050	72,170	13,150	16,470	63
San Jacinto River	Lake Hemet	Lake Hemet Water Company	2,600	13,400	1,150	820	32
Temecula Creek	Vail	Vail Company	4/	49,500	6,210	5,730	--
San Gabriel River	Morris	Metropolitan Water District	27,070	35,170	22,880	22,670	84
Tributary Cajalco Cr.	Lake Mathews 2/	Metropolitan Water District	84,820	100,000	96,280	53,270	63
San Luis Rey River	Henshaw	Vista Irrigation District	58,970	194,320	5,820	5,910	10
Boulder Creek	Cuyamaca	LaMesa, Lemon Grove & Spring Valley Irrigation District	940	11,600	60	0	0
Sweetwater River	Lake Loveland	California Water & Telep. Co.	4/	25,250	470	690	--
	Sweetwater (Main) 2/	California Water & Telep. Co.	8,040	27,150	11,570	9,990	124
City of San Diego	Municipal Reservoirs 2/3/	City of San Diego	139,450	399,530	97,150	88,570	64
Santa Ysabel Creek	Sutherland	City of San Diego	4/	29,000	---	1,420	--

1/, 2/, 3/, 4/ See footnotes on page A-19

TABLE 6 - WATER CONTENT OF MAJOR STORAGE RESERVOIRS AS OF OCTOBER 1 (Cont'd)

Watershed	Reservoir	Operator	10-year Mean 1944-53 (Acre-Feet)	Usable Capacity (Acre-Feet)	Water in Storage (Acre-Feet) 1953	Water in Storage (Acre-Feet) 1954	1954 Storage in Per Cent of 10-year Mean
CENTRAL VALLEY AREA							
Sacramento	Shasta	U. S. Bureau of Reclamation	4/	4,500,000	3,455,700	3,056,800	--
Feather	Mountain Meadows	Pacific Gas & Electric Co.	7,200	24,000	6,320	4,000	56
	Lake Almanor	Pacific Gas & Electric Co.	477,170	649,800	508,450	396,420	83
	Bucks Storage	Pacific Gas & Electric Co.	75,330	101,700	68,510	62,740	83
	Butt Valley	Pacific Gas & Electric Co.	41,770	49,900	41,450	20,560	49
Yuba	Bowman Lake	Nevada Irrigation District	43,340	69,400	45,550	35,080	81
	Scotts Flat	Nevada Irrigation District	4/	26,800	9,280	6,460	--
	Spaulding System	Pacific Gas & Electric Co.	86,750	137,400	104,280	68,130	79
Bear	Combie	Nevada Irrigation District	1,580	7,200	630	700	44
American	Twin Lakes	Pacific Gas & Electric Co.	15,800	21,580	17,100	11,010	70
	Silver Lake	Pacific Gas & Electric Co.	3,240	8,590	4,450	2,950	91
Stony Creek	East Park	U. S. Bureau of Reclamation	16,690	50,800	24,620	12,620	76
	Stony Gorge	U. S. Bureau of Reclamation	4,520	50,050	9,180	2,150	48
Cache Creek	Clear Lake	Clear Lake Water Co.	40,720	319,000	119,000	94,100	231
Cosumnes	Sly Park	U. S. Bureau of Reclamation		41,000			
Mokelumne	Lower Bear River	Pacific Gas & Electric Co.		48,500			
	Salt Springs	Pacific Gas & Electric Co.	80,470	140,000	106,000	91,050	113
	Pardee	East Bay M.U.D.	83,880	210,000	192,460	171,860	205
Stanislaus	Relief	Pacific Gas & Electric Co.	7,740	15,550	3,900	1,990	26
	Strawberry	Pacific Gas & Electric Co.	10,260	18,270	10,820	8,500	83
	Melones	Pacific Gas & Electric Co.	9,050	112,600	10,520	10,480	116
Tuolumne	Lake Eleanor	City & Co. of San Francisco	10,410	26,100	16,120	15,870	152
	Hetch Hetchy	City & Co. of San Francisco	245,130	360,400	277,830	220,400	90
	Don Pedro	Turlock & Modesto I.D.	95,680	260,000	120,160	56,300	59
	Owen	Turlock & Modesto I.D.	14,520	49,000	8,670	9,410	65
	Dallas Warner	Modesto Irrigation District	6,240	27,000	6,090	5,830	93
Merced	Lake McClure	Merced Irrigation District	36,320	280,900	32,800	9,170	25
San Joaquin	Crane Valley	Pacific Gas & Electric Co.	27,680	45,400	13,100	24,420	88
	Vermilion Valley	Southern Calif. Edison Co.	4/	125,000	---	---	--
	Florence Lake	Southern Calif. Edison Co.	23,590	64,400	20,280	21,500	91
	Huntington Lake	Southern Calif. Edison Co.	82,680	89,200	87,580	88,070	107
	Shaver Lake	Southern Calif. Edison Co.	75,890	135,300	79,280	79,930	105
	Millerton Lake (Friant)	U. S. Bureau of Reclamation	4/	520,500	158,000	142,800	--
Kings	Pine Flat	U. S. Corps of Engineers	4/	1,001,000	0	63,100	--
Kern	Isabella	U. S. Corps of Engineers	4/	552,000	300	13,350	--
	Buena Vista	Buena Vista Associates	43,210	205,000	18,570	0	0
LAHONTAN AREA							
Truckee River	Lake Tahoe 1/	U. S. Bureau of Reclamation	426,840	732,000	630,000	470,400	110
Little Truckee	Boca 1/	U. S. Bureau of Reclamation	18,060	41,050	13,860	10,270	57
E. Walker River	Bridgeport 1/	Walker River I.D.	13,530	42,450	20,410	3,500	26
Leevining Creek	Saddlebag Lake	Calif. Electric Power Co.	7,980	11,140	630	5,100	64
Rush Creek	Gem Lake	Calif. Electric Power Co.	11,320	17,600	12,890	14,870	131
	Grant Lake	City of Los Angeles	31,000	47,530	25,270	25,790	83

1/, 2/, 3/, 4/ See footnotes on page A-19

TABLE 6 - WATER CONTENT OF MAJOR STORAGE RESERVOIRS AS OF OCTOBER 1 (Cont'd)

Watershed	Reservoir	Operator	10-year Mean 1944-53 (Acre-Feet)	Usable Capacity (Acre-Feet)	Water in Storage (Acre-Feet) 1953	Water in Storage (Acre-Feet) 1954	1954 Storage in Per Cent of 10-year Mean
LAHONTAN AREA (Cont'd)							
Owens River	Long Valley 2/ (Lake Crowley)	City of Los Angeles	126,170	183,470	152,160	114,570	91
	Tinemaha 2/	City of Los Angeles	3,240	16,410	9,520	11,940	369
Bishop Creek	Hillside (South Lake)	Calif. Electric Power Co.	11,320	13,190	7,760	6,230	55
Rose Valley	Haiwee (South) 2/	City of Los Angeles	38,460	58,530	36,050	25,830	67
COLORADO DESERT AREA							
Colorado River	Lake Mead 1/	U. S. Bureau of Reclamation	20,927,700	27,207,000	18,384,000	13,739,000	66

1/ Interstate Reservoir Used Jointly by California and Adjacent States
2/ Includes Foreign Water
3/ Combined Storage for 10 Reservoirs in Full Operation During 10-year Period
4/ Not in Complete Operation for Full Period

TABLE 7

RUNOFF DATA[1]

October 1, 1954 to January 31, 1955

Area, Stream, and Station	Source of Data[2]	Measured Acre-Feet	Unimpaired Runoff 3/ Computed Acre-Feet	Average[4] Acre-Feet	Computed Per Cent of Average
NORTH COASTAL AREA					
Klamath River at Somesbar	USGS	1,180,000	1,186,100	1,545,000	77
Russian River near Guerneville	USGS-PG&E	464,800	394,680	576,000	69
SAN FRANCISCO BAY AREA					
Napa River near St. Helena	USGS	10,480	10,480	21,400	49
Coyote Creek near Madrone	USGS	6,910	7,680	19,380	40
CENTRAL COASTAL AREA					
Arroyo Seco near Soledad	USGS	17,320	17,320	36,710	47
Huasna River near Santa Maria	USGS	500	500	3,940	13
SOUTH COASTAL AREA					
Sespe Creek near Fillmore	USGS	3,390	3,980	19,560	20
Arroyo Seco near Pasadena	USGS	400	400	2,030	20
Santa Ana River near Mentone	USGS	560	9,140	16,890	54
CENTRAL VALLEY AREA					
Sacramento near Red Bluff	USGS	1,987,900	2,165,860	2,453,000	88
Feather near Oroville	USGS	777,700	635,860	972,000	65
Yuba at Smartville[5]	USGS-PG&E	168,700	282,280	471,000	60
American at Fair Oaks	USGS-PG&E	350,490	287,420	457,000	63
Mokelumne near Mokelumne Hill	USGS	139,700	51,540	85,400	60
Stanislaus below Melones Power House	USGS	79,150	78,860	128,000	62
Tuolumne above La Grange	USGS	181,700	141,400	216,000	65
Merced at Exchequer	USGS	14,430	57,450	111,000	52
San Joaquin below Friant	USGS-USBR	43,410	94,260	166,000	57
Kings at Piedra	USGS	20,570	89,730	145,000	62
Kaweah near Three Rivers[6]	USGS	27,030	27,030	45,600	59
Tule River near Porterville[6]	USGS	12,160	12,160	19,700	62
Kern near Bakersfield[6]	KCLC	69,330	65,950	97,300	68
LAHONTAN AREA					
Truckee River at Farad	FWT&CR	101,460	105,990	156,600	68
Owens River near Round Valley	LADW&P	79,160	42,770	43,000	99
COLORADO DESERT AREA					
Colorado River near Grand Canyon	USGS-USBR	1,444,000	1,440,000	1,784,300[7]	81

1/ All data preliminary, subject to revision.

2/ USGS - United States Geological Survey; PG&E - Pacific Gas & Electric Company; USBR - United States Bureau of Reclamation; KCLC - Kern County Land Company; FWT&CR - Federal Watermaster Truckee and Carson Rivers; LADW&P - Los Angeles Department of Water and Power.

3/ Corrected for upstream regulation.

4/ Computed for the 50-year period 1900-01 - 1949-50, inclusive.

5/ Total of Narrows Dam Spill, flow through Narrows Power House and Deer Creek near Smartville.

6/ Uncorrected for upstream regulation.

7/ Based on the 30-year period 1922-23 - 1951-52, inclusive.

TABLE 8

PEAK DISCHARGES TO THE OCEAN
SOUTH COASTAL AREA
JANUARY, 1955

Stream	Discharge Duration (Days)	Peak Date	Discharge (second-feet)
Santa Maria River	0	No flow	No flow
Santa Ynez River	Not reported	January 19	102
Ventura River	Not reported	January 10	3.5
		18	246
		31	4.9
Ballona Creek	31	January 10	7,200
		16	4,290
		18	10,650
		30	3,200
Dominguez Channel	31	January 11	78
		17	71
		19	248
		30	75
Los Angeles River	31	January 10	13,800
		16	5,200
		18	22,000
		31	1,800
Los Cerritos Channel	31	January 10	500
		16	138
		18	570
		31	120
San Gabriel River	4	January 10	560
		18	1,640
Coyote Creek	12	January 10	220
		16	310
		18	500
		31	22
Santa Ana River	31	January 1	15
		6	14
		10	109
		16	48
		18	58
		30	11
San Juan Creek	31	January 1	40
		18	81
Santa Margarita River	0	No flow	No flow
San Luis Rey River	0	No flow	No flow

TABLE 9

ARTIFICIAL RECHARGE OF GROUND WATER BASINS - SOUTH COASTAL AREA

Spreading Grounds	Source	Agency	Amount Spread (acre-feet) October 1, 1954, through January 31, 1955	Amount Spread (acre-feet) January, 1955
Piru	Piru Creek	United Water Cons. Dist.	960	960
Saticoy	Santa Clara River	United Water Cons. Dist.	2,450	2,450
Sierra Madre	Santa Anita Creek, Little Santa Anita Creek, and street runoff	City of Sierra Madre	27	22
Pacoima	Pacoima Wash	Los Angeles County F. C. D.	100	100
Arroyo Seco	Arroyo Seco	Los Angeles County F. C. D.	80	80
Santa Anita	Santa Anita Creek	Los Angeles County F. C. D.	140	140
Rio Hondo Coastal	Colorado River 1/	Los Angeles County F. C. D.	6,155	0
San Gabriel Coastal	San Gabriel River and Colorado River 1/	Los Angeles County F. C. D.	6,020	0
Santa Ana River below Mentone	Santa Ana River	San Bernardino Valley W.C.D.	1,497	896
Mill Creek	Mill Creek	San Bernardino Valley W.C.D.	774	187
Santa Ana River near Olive	Santa Ana River and Colorado River 2/	Orange County Water Dist.	17,785	4,083 3/
Headworks	Los Angeles River	L. A. Dept. of Water and Power	1,400	0
Lytle Creek	Lytle Creek	Fontana Union Water Co.	1,864	821
San Gabriel Canyon, West Side	San Gabriel River	Duarte Mutual Water Co.	2,345	845
San Gabriel Canyon, East Side	San Gabriel River	San Gabriel River Spreading Corp.	4,344	2,506
Placentia	Street runoff, Santa Ana River, and Colorado River 2/	Anaheim Union Water Co.	626	182
Gomber	Santa Ana River and Colorado River 2/	Anaheim Union Water Co.	1,399	320
TOTALS			47,966	13,592

1/ Via Metropolitan aqueduct, Walnut Creek and San Gabriel River.

2/ Via Metropolitan aqueduct and Santa Ana River.

3/ Amount of Colorado River water purchased and released into Santa Ana River near Arlington.

A P P E N D I X B

SUPPLEMENTAL DATA

TABLE 10

AERIAL PHOTOGRAPHIC SNOW DEPTH MEASUREMENTS

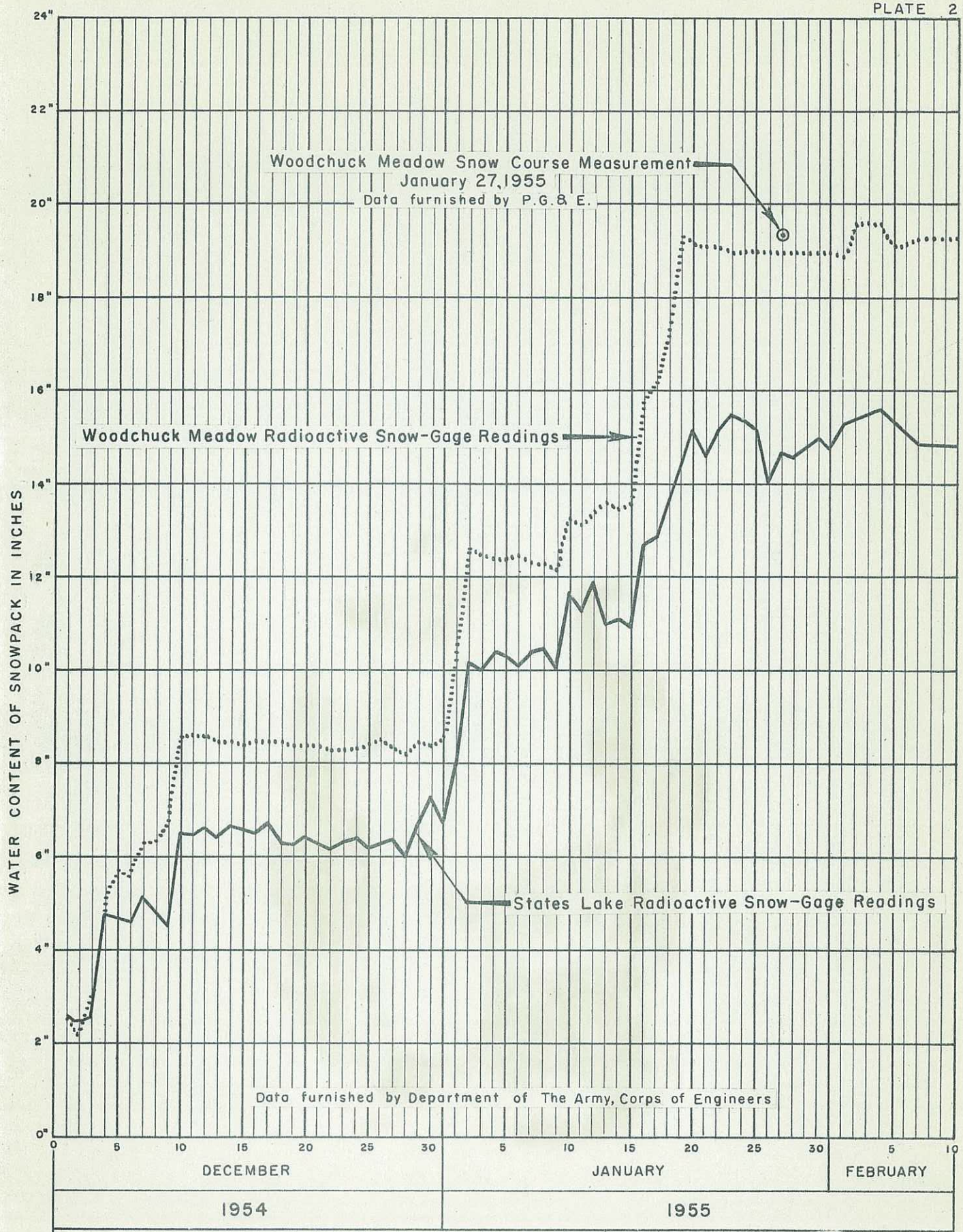
As of February 1, 1955

Area, Stream Basin and Name of Marker	Source of Data*	Elevation in Feet	Date of Measurement	Depth of Snow in Inches
CENTRAL VALLEY AREA				
Tuolumne River				
Dana Meadows	C.E.P.C.	9,700	2- 4-55	50
San Joaquin River				
Humphreys Basin	S.C.E.C.	11,700	12-11-54	48
			1-11-55	60
			2- 5-55	60
Pioneer Basin	S.C.E.C.	10,500	12-11-54	39
			1-11-55	54
			2- 5-55	60
Emerald Lake	S.C.E.C.	10,500	12-11-54	42
			1-11-55	48
			2- 5-55	54
Island Pass	C.E.P.C.	10,300	2- 4-55	76
Bench Canyon	S.C.E.C.	10,200	12-11-54	60
			1-11-55	52
			2- 5-55	48
Volcanic Knob	S.C.E.C.	10,100	12-11-54	42
			1-11-55	45
			2- 5-55	48
Heart Lake	S.C.E.C.	10,100	12-11-54	48
			1-11-55	52
			2- 5-55	52
Rose Marie	S.C.E.C.	10,000	12-11-54	36
			1-11-55	45
			2- 5-55	45
Colby Meadow	S.C.E.C.	10,000	12-11-54	36
			1-11-55	42
			2- 5-55	45
Agnew Pass	C.E.P.C.	9,800	2- 4-55	62
Dutch Lake	S.C.E.C.	9,100	12-11-54	45
			1-11-55	48
			2- 5-55	60
Kaiser Pass	S.C.E.C.	9,000	12-11-54	45
			1-11-55	60
			2- 5-55	66
Coyote Lake	S.C.E.C.	8,600	12-11-54	45
			1-11-55	69
			2- 5-55	66
Twin Meadows	S.C.E.C.	8,400	12-11-54	30
			1-11-55	36
			2- 5-55	42
String Meadow	S.C.E.C.	8,400	12-11-54	51
			1-11-55	60
			2- 5-55	69
Mammoth Pass	S.C.E.C.	8,200	12-11-54	69
			1-11-55	84
			2- 5-55	90
Jackass Meadow	S.C.E.C.	7,200	12-11-54	42
			1-11-55	52
			2- 5-55	51
Kings River				
Blackcap Basin	S.C.E.C.	10,800	12-11-54	45
			1-11-55	48
			2- 5-55	51
Upper Burnt Corral	S.C.E.C.	9,700	2- 5-55	66

TABLE 11

SUPPLEMENTAL SNOW SURVEY DATA - 1955 SEASON

Areas, Drainage Basins, and Snow Courses	Elevation in Feet	Date of Survey	Depth of Snow Inches	Density Per Cent	Water Content Inches	Average Water Content as of April 1 Inches
CENTRAL VALLEY AREA						
San Joaquin River Basin						
Kaiser Pass	9200	1- 6-55	58.7	25.2	14.8	40.6
" "	"	1-12-55	65.9	24.8	16.3	40.6
" "	"	1-23-55	84.0	26.3	22.1	40.6
Florence Lake	7200	1- 9-55	19.8	19.2	3.8	6.9
Huntington Lake	7000	1- 5-55	35.1	26.2	9.2	14.7
Kings River Basin						
Grant Grove	6600	1- 7-55	25.3	30.2	7.7	16.2
San Joaquin River Basin - Delayed Report						
Vermilion Valley	7500	2- 7-55	33.0	33.9	10.2	12.8



SNOWPACK ACCUMULATION – KINGS RIVER WATERSHED
1954-1955 SEASON

DIVISION OF WATER RESOURCES