SECTION 8
SHELF
ITEM .2

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RESOURCES

GOODWIN J. KNIGHT, Governor
FRANK B. DURKEE, Director of Public Works
HARVEY O. BANKS, 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

April 1, 1956

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DEPARTMENT OF PUBLIC WORKS
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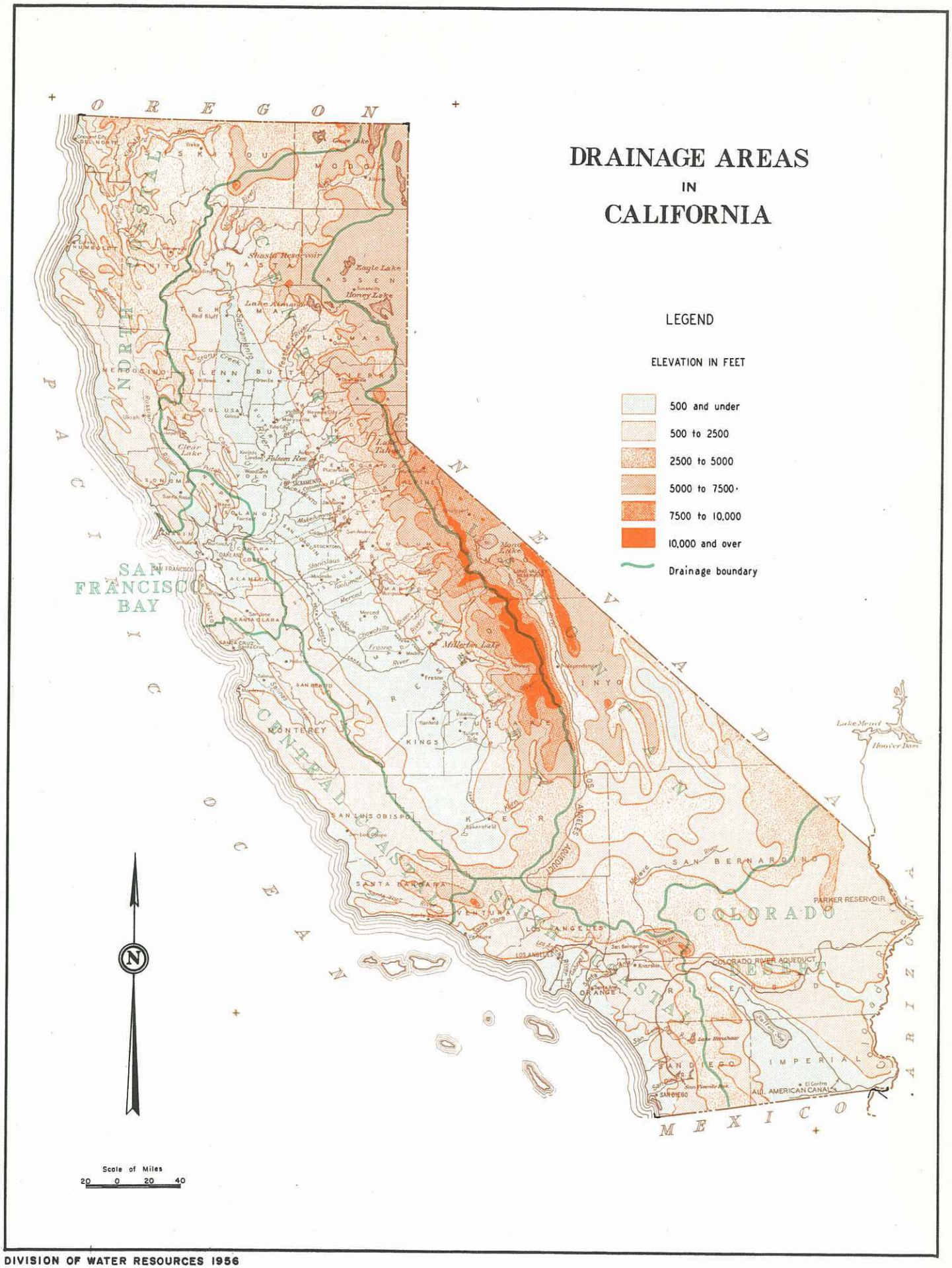

DIVISION OF WATER RESOURCES 1956

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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
- Sacramento 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
- Banta-Carbona Irrigation District
- 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 - SUMMARY OF WATER CONDITIONS

Water supply conditions as of April 1 are still generally satisfactory north of the latitude of Bakersfield. Although precipitation was considerably below normal during February and negligible during March, the record breaking storms in December and January resulted in sufficient snowpack and surface reservoir storage to provide above normal water supply for this portion of California. Shortages in water supply are anticipated only in localized areas where development of conservation storage and ground water basins has not kept pace with growth. In the remainder of the State conditions are generally unsatisfactory. Pumping from ground water basins supplemented by supplies conserved by facilities of the Central Valley Project and on the Colorado River will alleviate to a large extent shortages in local surface water supply. However, the available supply for agricultural areas in the vicinity of San Diego will be critically deficient.

The demand on ground water basins to compensate for the deficiency in surface supplies will further aggravate overdraft conditions in basins located in the western and southern portions of the San Joaquin Valley and in the South Coastal Area. Unless provision is made in the near future for further supplemental supplies, a critical situation will result.

Precipitation, snowpack, reservoir storage and runoff as related to their respective averages on April 1 and forecasted runoff for the entire season in per cent of average in each of the seven drainage areas of the State are summarized in the following tabulation:

Mountain and Sierra Nevada streams will be considerably in excess of that during 1955. The anticipated snowmelt runoff, assuming normal precipitation during the April-July period, is expected to vary from 60 per cent of average on the Tule River to 156 per cent for the Feather River and on most streams will be approximately double that for 1955. The probability of flood stages from spring snowmelt is remote.

Major conservation reservoirs serving areas in California had in storage on April 1 about 48 per cent of their total capacity which is approximately 2,000,000 acre-feet more than one year ago. The storage at Lake Mead on the Colorado River on April 1 was 819,000 acre-feet less than one year ago. Storage in intrastate reservoirs is about 111 per cent of the 10-year average. The estimated storage in conservation reservoirs on streams of the Cascade Mountains and Sierra Nevada, based on the snowmelt runoff now indicated, will be above average at the end of July.

Replenishment of ground water basins in California from winter runoff during the past four months should result in generally higher water levels at the end of the 1956 irrigation season than in the fall of 1955 except in the southern portions of the Central Coastal and Central Valley Areas and in the South Coastal Area where further lowering is indicated.

this Area averaged 70 per cent of normal. Precipitation was negligible throughout the Area during March with the maximum of .24 inch reported at Napa State Hospital which represents only seven per cent of the March normal for this station.

Central Coastal Area

Seasonal precipitation in this Area averaged about 110 per cent of normal, varying from 143 per cent at Hollister to 74 per cent at Santa Maria. Several stations in this Area received no precipitation during March, and the maximum amount reported was .26 inch at Santa Cruz which represents only six per cent of the March normal for this station.

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

Basin	Seasonal Precipitation in Per Cent of Normal April 1, 1955	April 1, 1956
Salinas River	80	120
Santa Ynez River	65	80

South Coastal Area

Seasonal precipitation in this Area averaged about 70 per cent of normal, varying from 89 per cent at Ventura to 30 per cent at San Diego. March precipitation varied from zero for the month at many stations throughout the Area to a maximum of five per cent of normal at Beaumont in the Santa Ana River Basin.

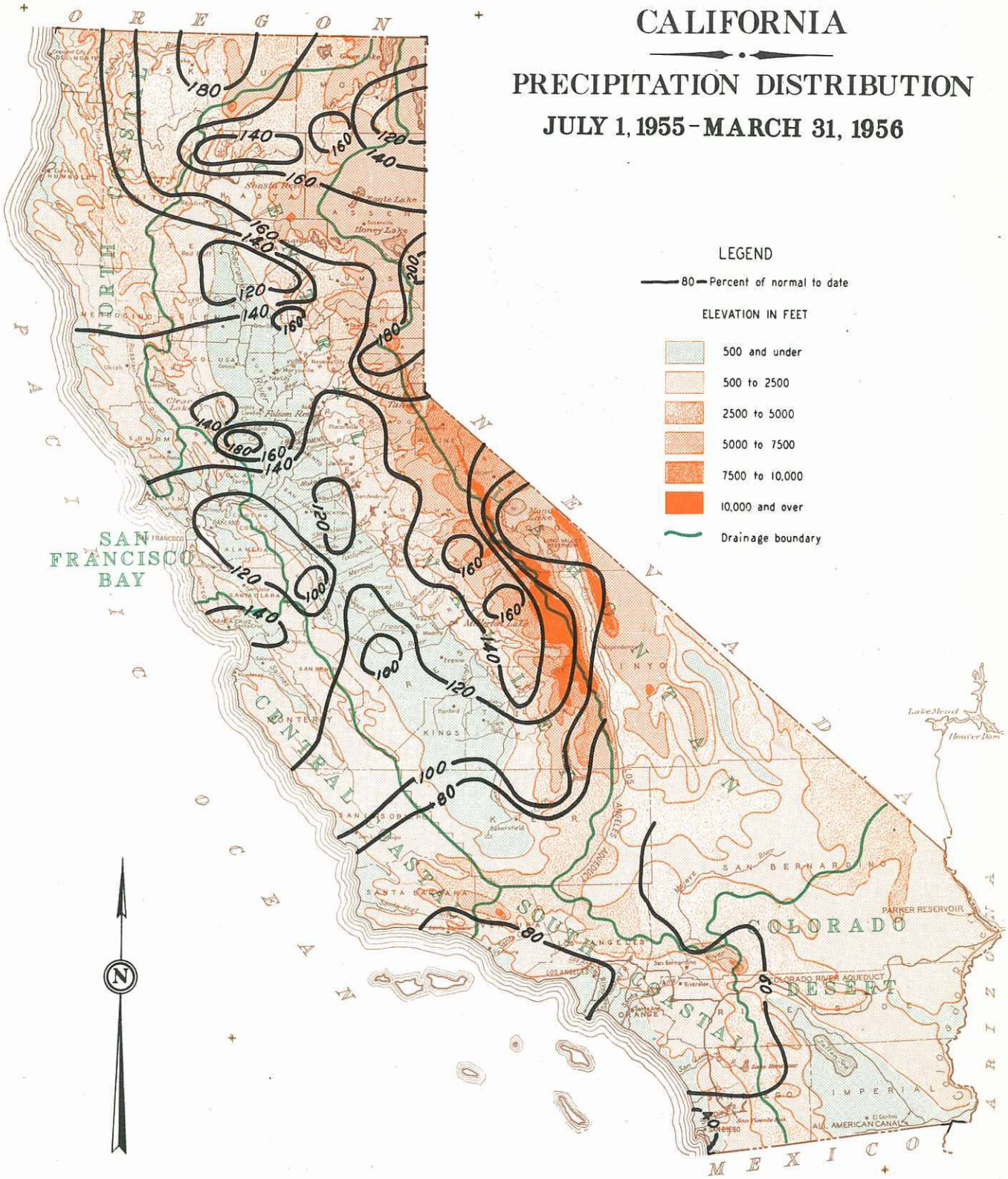
Seasonal precipitation within major drainage basins in per cent of April 1 normal is compared with that of one year ago in the following tabulation:

Basin	Seasonal Precipitation in Per Cent of Normal April 1, 1955	April 1, 1956
Los Angeles River	55	60
San Gabriel River	60	60
Santa Ana River	65	65
San Diego River	60	55

CALIFORNIA

PRECIPITATION DISTRIBUTION

JULY 1, 1955 - MARCH 31, 1956



Basin	Seasonal Precipitation in Per Cent of Normal April 1, 1955	April 1, 1956
Surprise Valley	65	120
Susan River	65	165
Truckee River	80	175
Lake Tahoe	75	165
Carson River	70	150
Walker River	60	135
Mono Lake	55	95
Owens River	70	105

Colorado Desert Area

No precipitation records are received from this Area.

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 will have little influence on spring runoff during 1956. Measurements made on April 1 in the upper portions of Santa Ana River Basin indicated a water content varying from about nine inches at Upper Thunder Mountain (8,500-foot elevation) to less than five inches at the San Antonio #2 course (7,060-foot elevation).

Central Valley Area

The water content of the snowpack throughout the Cascade Mountains and Sierra Nevada averages considerably more than that of one year ago. On April 1, the effective snow line was at an elevation of 4,000 feet at Mount Shasta, 5,000 feet in the American River Basin, and 8,000 feet in Kern County. The water content of the snowpack on the major basins of the Central Valley Area in per cent of average expectancy for April 1 as compared with that of one year ago is set forth in the following tabulation:

Basin	Water Content in Per Cent of Average	
	April 1, 1955	April 1, 1956
Upper Sacramento-McCloud and Pit River	60	150
Feather River	55	150
Yuba River	65	130
American River	65	125
Mokelumne River	65	115
Stanislaus River	60	115
Tuolumne River	65	115
Merced River	65	115
Upper San Joaquin River	65	125
Kings River	65	100
Kaweah River	60	70
Tule River	40	20
Kern River	60	105

Lahontan Area

av. = 110

The water content of the snowpack is considerably more than that of one year ago on all basins of this Area. Snowpack water content on

SECTION 4 - SURFACE RESERVOIR STORAGE

There are over 225 conservation reservoirs with individual capacities in excess of 1,000 acre-feet and an aggregate usable storage capacity exceeding 42,700,000 acre-feet which impound water for beneficial uses within California or jointly with adjacent states. Reports are received monthly from operators of 89 of these reservoirs representing over 99 per cent of the total usable capacity. Water in storage in these reservoirs on April 1 was about 48 per cent of their total capacity. Intrastate reservoirs in operation for 10 or more years had in storage about 111 per cent of their 10-year average as of April 1. Surface reservoir storage conditions in each of the major 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, had in storage about 81 per cent of the total capacity of 1,276,000 acre-feet, which represents about 136 per cent of the 10-year average as of April 1. Storage in these reservoirs has increased about 594,000 acre-feet since October 1, 1955. The reservoirs in California on Shasta and Eel Rivers had in storage about 111 per cent of their 10-year average. Storage on major streams of the Area on April 1 in per cent of the 10-year average compared with that of one year ago is shown in the following tabulation:

Stream	Storage in Per Cent of 10-Year Average	
	April 1, 1955	April 1, 1956
Klamath River	106	140
Shasta River	78	206
Eel River	86	88

1,057,000 acre-feet. Eighteen of these reservoirs, in operation for more than 10 years, had in storage about 67 per cent of their 10-year average as of April 1. Total storage has increased by 48,000 acre-feet since October 1, 1955. A portion of the water in storage has been imported from Colorado River. Storage in reservoirs on major streams or of major reservoir systems on April 1 in per cent of the 10-year average compared with that of one year ago is set forth in the following tabulation:

Reservoir Systems	Storage in Per Cent of 10-Year Average April 1, 1955	April 1, 1956
Bear Creek	72	47
San Jacinto River	48	37
Metropolitan Water District	97	100
San Luis Rey River	17	10
Boulder Creek	16	7
Sweetwater River	73	76
City of San Diego	68	62

Central Valley Area

Thirty-seven reservoirs in this Area, for which reports are received, have in storage 66 per cent of their aggregate storage capacity of 11,372,000 acre-feet. Thirty of these reservoirs, in operation for more than 10 years, had in storage about 113 per cent of their 10-year average as of April 1. Storage in the 37 reservoirs has increased by 3,292,000 acre-feet since October 1, 1955. Storage on major streams of the Area on April 1 in per cent of the 10-year average compared with that of one year ago is shown in the following tabulation:

Stream	Storage in Per Cent of 10-Year Average April 1, 1955	April 1, 1956
Feather River	70	93
Yuba River	38	186
American River	32	119
Stony Creek	71	115
Mokelumne River	75	128
Stanislaus River	12	175
Tuolumne River	63	125
Merced River	57	146
San Joaquin River	105	84

SECTION 5 - STREAM FLOW

Runoff of California streams during the first six months of the 1955-56 season has been above average expectancy in streams north of the Tehachapi Mountains. In the area to the south runoff has been generally less than 40 per cent of average. A summary of stream flow in each of the drainage areas delineated on the Frontispiece is as follows:

North Coastal Area

The flow of all streams in this Area has been well above average during the first six months of the 1955-56 season. Unimpaired runoff in representative major stream basins between October 1, 1955, and April 1, 1956, in per cent of average as compared with that for the same period one year ago is shown in the following tabulation:

Stream	Seasonal Runoff in Per Cent of Average	
	April 1, 1955	April 1, 1956
Trinity River at Lewiston	52	180
Russian River near Guerneville	42	247

San Francisco Bay Area

Fow in all streams of this Area during the first six months of the 1955-56 season has been well above normal. Unimpaired runoff in representative stream basins between October 1, 1955, and April 1, 1956, in per cent of average compared with that for the same period one year ago is set forth in the following tabulation:

Stream	Seasonal Runoff in Per Cent of Average	
	April 1, 1955	April 1, 1956
Napa River near St. Helena	33	382
Coyote Creek near Madrone	24	180

Central Coastal Area

Flow in streams in this Area varied from well above average in the northern portion of the area to considerably below average in the south

Unimpaired runoff in the major stream basins of the Area between October 1, 1955, and April 1, 1956, in per cent of average compared with that for the same period one year ago is shown in the following tabulation:

Stream	Seasonal Runoff in Per Cent of Average April 1, 1955	April 1, 1956
Sacramento River (Red Bluff)	60	189
Feather River	47	223
Yuba River	43	230
American River	44	238
Mokelumne River	49	262
Stanislaus River	45	232
Tuolumne River	51	249
Merced River	38	247
San Joaquin River (Below Friant)	53	258
Kings River	60	264
Kaweah River	64	284
Tule River	55	200
Kern River	62	160

Lahontan Area

The runoff of streams in this Area during the first five months of the 1955-56 season was generally above average expectancy. The Truckee River gaging station record at Farad was lost during the flood of December 1955. Unimpaired runoff in Owens River near Round Valley between October 1, 1955, and April 1, 1956, was 105 per cent of average compared with 100 per cent of average for the same period one year ago.

Colorado Desert Area

The Regional River Control Division, U. S. Bureau of Reclamation, Region 3, Boulder City, Nevada, advises that the runoff of Colorado River near Grand Canyon between October 1, 1955, and April 1, 1956, has been 2,105,000 acre-feet, which is 75 per cent of the 30-year average flow for the period 1922-23 to 1951-52, inclusive.

There was an observed net drop of about six feet in ground water levels in Oxnard Forebay Basin since the spring of 1955, although about 8,840 acre-feet of Santa Clara River water has been spread near Saticoy since October 1, 1955.

The ground water levels underlying the Oxnard Plain Basin dropped approximately four feet during the year, and the trough in the piezometric surface located from two to three miles inland from the coast southeast of City of Oxnard remained slightly below sea level. The pressure level in Pleasant Valley Basin has dropped about three feet since the spring of 1955, and at some wells it is still as much as 20 feet below sea level.

There was a net drop in ground water levels in the Pasadena Subarea of the Raymond Basin area of about four feet since the spring of 1955.

A general decline of about four feet in ground water levels was observed throughout the Main San Gabriel Basin since the spring of 1955, although approximately 13,139 acre-feet of local runoff were reportedly spread on the alluvial cones at the mouths of several canyons, or percolated in unlined stream channels since October 1, 1955. Depths to water vary from a maximum of about 300 feet near Azusa to a minimum at the area of rising water in the vicinity of Whittier Narrows.

In the Los Angeles Forebay area, depths to ground water averaged about six feet greater than one year ago in the perennial depression underlying Vernon. The average depth to ground water is now about 239 feet.

A net drop of about eight feet occurred in ground water levels in the Montebello Forebay area since last spring, although 20,230 acre-feet of local runoff and Colorado River water were spread in the artificial recharge grounds adjacent to Rio Hondo and San Gabriel River since October 1, 1955.

In the Central Coastal Plain Pressure Area, which receives most of its supply from the Montebello Forebay area, a net drop in water levels of

An average net drop in ground water levels of about four feet occurred since last spring in the Santa Ana Forebay area, although approximately 28,600 acre-feet of Colorado River water were spread in the channel of the Santa Ana River since April 1, 1955. Levels underlying approximately 70 per cent of this area are below sea level.

Between the spring of 1955 and the spring of 1956, ground water levels at observed wells in the East Coastal Plain Pressure Area of Orange County rose approximately one foot, possibly as the result of decrease in ground water extractions. Observed pressure levels vary from eight feet below sea level near the coast to 37 feet below sea level in the trough about midway between the coast line and the City of Santa Ana. The elevation in the trough is about six feet higher than last year. Intrusion of sea water is continuing along the coast line with the furthest inland advance being noted in the Talbert zone in the Santa Ana gap.

There was an average drop of about three feet since the spring of 1955 in the ground water levels at observed wells in San Luis Rey River, with levels being 15 feet below sea level at the southwest edge of Mission Basin near Oceanside.

The ground water levels underlying the Santa Margarita Valley and Tia Juana Basin in San Diego County dropped approximately three feet and six feet, respectively, during the year.

Central Valley

There was a general rise of about one foot in ground water levels of the Sacramento Valley unit, although there was an unseasonable use of ground water for irrigation due to a shortage of precipitation during March.

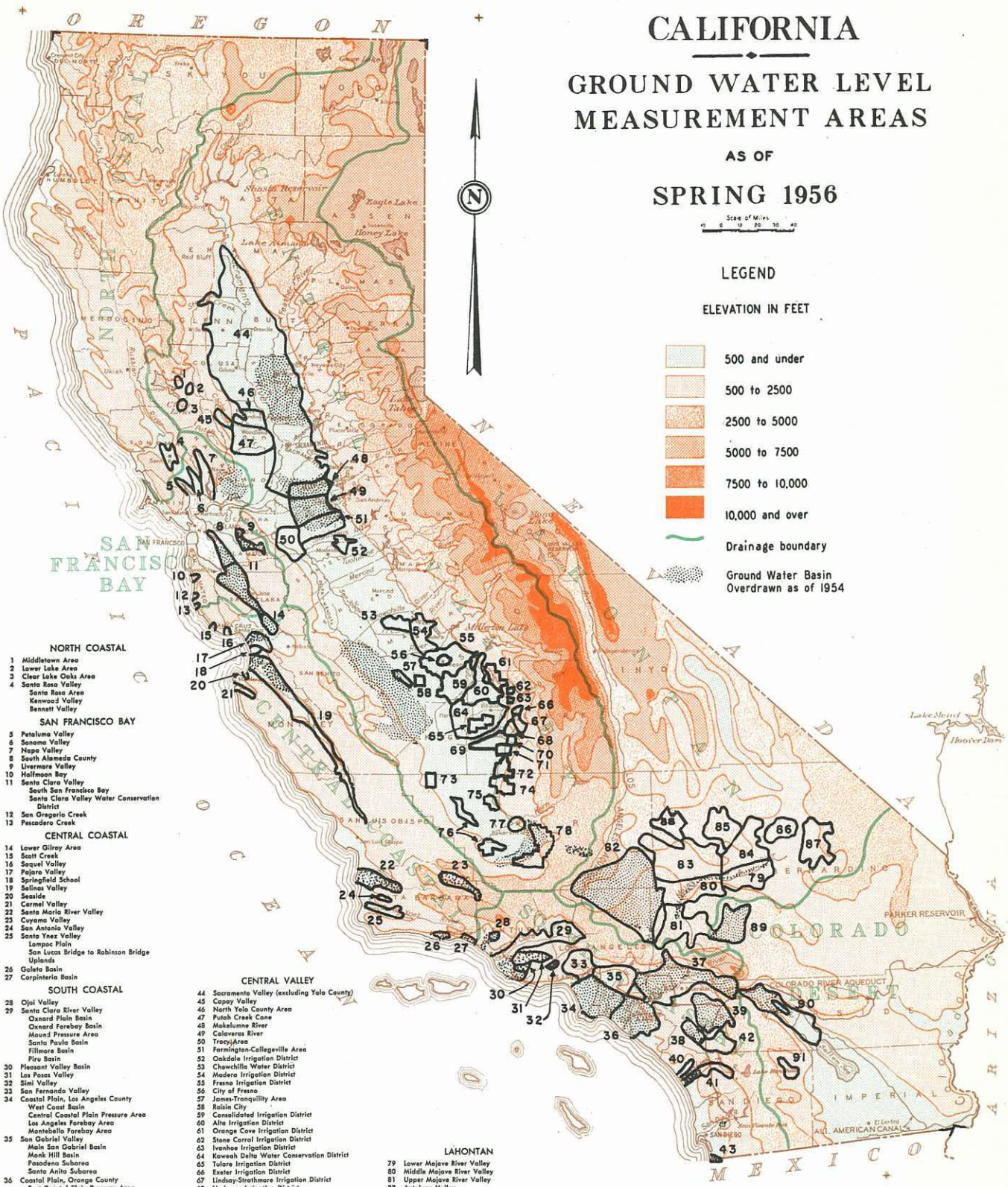
Between spring 1955 and spring 1956 there was a general rise of ground water levels of about seven feet in Capay Valley and two to three feet in Putah Creek Cone, Yolo County. There are indications of a rise in

CALIFORNIA

GROUND WATER LEVEL MEASUREMENT AREAS

AS OF

SPRING 1956



NORTH COASTAL

1 Middletown Area
2 Lower Lake Area
3 Clear Lake Oaks Area
4 Santa Rosa Valley
Santa Rosa Area
Kenwood Valley
Bennett Valley

SAN FRANCISCO BAY

5 Petaluma Valley
6 Sonoma Valley
7 Napa Valley
8 South Alameda County
9 Livermore Valley
10 Halfmoon Bay
11 Santa Clara Valley
South San Francisco Bay
Santa Clara Valley Water Conservation District
12 San Gregorio Creek
13 Pescadero Creek

CENTRAL COASTAL

14 Lower Gilroy Area
15 Scott Creek
16 Soquel Valley
17 Pajaro Valley
18 Springfield School
19 Salinas Valley
20 Seaside
21 Carmel Valley
22 Santa Maria River Valley
23 Cuyama Valley
24 San Antonio Valley
25 Santa Ynez Valley
Lompoc Plain
San Lucas Bridge to Robinson Bridge Uplands
26 Goleta Basin
27 Carpinteria Basin

SOUTH COASTAL

28 Ojai Valley
29 Santa Clara River Valley
Oxnard Plain Basin
Oxnard Forebay Basin
Mound Pressure Area
Santa Paula Basin
Fillmore Basin
Piru Basin
30 Pleasant Valley Basin
31 Las Posas Valley
32 Simi Valley
33 San Fernando Valley
34 Coastal Plain, Los Angeles County
West Coast Basin
Central Coastal Plain Pressure Area
Los Angeles Forebay Area
Montebello Forebay Area
35 San Gabriel Valley
Main San Gabriel Basin
Monk Hill Basin
Pasadena Subarea
Santa Anita Subarea
36 Coastal Plain, Orange County
East Coastal Plain Pressure Area
Santa Ana Forebay Area
Irvine Basin
37 Upper Santa Ana Valley
Chino Basin
Bunker Hill Basin
38 Elsinore Basin
39 San Jacinto Basin
40 Santa Margarita Valley
41 San Luis Rey Valley
42 Temecula Valley
43 Tia Juana Basin

CENTRAL VALLEY

44 Sacramento Valley (excluding Yolo County)
45 Copay Valley
46 North Yolo County Area
47 Putah Creek Cone
48 Mokelumne River
49 Calaveras River
50 Tracy Area
51 Farmington-Collegeville Area
52 Oakdale Irrigation District
53 Chowchilla Water District
54 Madera Irrigation District
55 Fresno Irrigation District
56 City of Fresno
57 James-Tranquility Area
58 Raisin City
59 Consolidated Irrigation District
60 Alta Irrigation District
61 Orange Cove Irrigation District
62 Stone Corral Irrigation District
63 Ivanhoe Irrigation District
64 Kaweah Delta Water Conservation District
65 Tulare Irrigation District
66 Exeter Irrigation District
67 Lindsay-Strathmore Irrigation District
68 Lindmore Irrigation District
69 Lower Tule River Irrigation District
70 Porterville Irrigation District
71 Saucelito Irrigation District
72 Delano-Earlimart Irrigation District
73 Devils Den Area
74 South San Joaquin Muncipal Utility District
75 Shafter-Wasco Irrigation District
76 Buena Vista Water Storage District
77 City of Bakersfield
78 Arvin Edison Water Storage District
Edison Area

LAHONTAN

79 Lower Mojave River Valley
80 Middle Mojave River Valley
81 Upper Mojave River Valley
82 Antelope Valley
83 Harper Valley
84 Coyote Lake Valley
85 Superior Valley
86 Cronise Valley
87 Soda Lake Valley
88 Cuddeback Valley

COLORADO DESERT

89 Lucerne Valley
90 Coachella Valley
91 Borrego Valley

in the Antelope Valley, together with subnormal replenishment. The ground water level in Antelope Valley dropped approximately five feet during the year.

Colorado Desert Area

Between spring of 1955 and spring of 1956, there was an average drop of about two feet in ground water levels in Coachella Valley. Levels in the Palm Springs area dropped about four feet since last spring. Observed ground water levels in Borrego Valley are about three feet lower than in the spring of 1955 and water levels at wells in Lucerne Valley dropped about one foot during the year.

Forecasts of water conditions for the remainder of the 1955-56 water year, for each of the drainage areas of the State delineated on the Frontispiece, are as follows:

North Coastal Area

The Soil Conservation Service, Oregon Experiment Station and co-operators have forecast that April-July runoff into Upper Klamath Lake will total 850,000 acre-feet if average precipitation occurs during the remainder of the season. This estimated quantity of runoff is 144 per cent of the average for the 1938-52 period.

It is indicated that snowmelt runoff from the remainder of this Area will be about 113 per cent of average expectancy with normal precipitation conditions during the remainder of the rainfall season. No unusual deficiencies in municipal and agricultural supplies are anticipated in this Area. Stream flow during the latter part of the summer will approximate that of average expectancy. The reservoirs in California on Shasta and Eel Rivers are expected to fill to above average storage amounts during the spring runoff period.

San Francisco Bay Area

The major portion of the water used in this Area is for municipal purposes and is made available through extensive developments for the importation of water from streams tributary to the Central Valley Area. There is an adequate reserve supply available to meet the demand on these systems for several years.

In the Santa Clara Valley it is indicated that runoff for the season 1955-56 will exceed 140 per cent of normal. Surface supplies should provide some replenishment to ground water basins and higher ground water levels than existed in the fall of 1955 are anticipated in most basins at the end of the irrigation season. Recharge of the ground water basins should to some extent retard sea water intrusion into the aquifers.

water supplies. Heavy draft on ground water basins to meet the municipal demand in adjacent areas will result in generally lower water levels by the fall of 1956 than existing at the same time in 1955. This anticipated lowering may be alleviated in some basins in Los Angeles and Orange Counties through the spreading of water imported from the Colorado River.

Reserve storage and new sources of supply will generally satisfy municipal demands in coastal areas north of Los Angeles County and the severe curtailment in use which was necessary a few years ago is not indicated at this time.

Agricultural water supplies will be locally deficient at scattered locations throughout the Area. In many instances a full supply will be available only through further overdraft on ground water basins.

Central Valley Area

The snowpack of April 1, the water impounded in surface reservoirs and the general soil moisture conditions indicate above average water supply for this Area.

Forecasts of snowmelt runoff during the months of April through July for streams of this Area, based on assumptions of normal precipitation and no precipitation during the period April through June are set forth in the following tabulation:

Most conservation reservoirs of the Area will fill during the snowmelt runoff period. With normal temperatures and precipitation, the peak of the snowmelt runoff will probably occur during late May or early June and subsequent flows will be near average. The aggregate storage of all conservation reservoirs of the Area will be considerably greater at the end of the irrigation season than in the fall of 1955.

The unregulated runoff of Sacramento River tributaries and releases of water from storage in Shasta Reservoir will provide an adequate supply for irrigation purposes to lands along Sacramento River and in the Sacramento-San Joaquin Delta.

The lands along the west side of the San Joaquin Valley south of Mendota obtain their supplies entirely by "mining" from ground water basins in which there is little possibility for natural replenishment. This condition will continue during this year.

In the Kern River service area it is anticipated that there will be no deficiencies in water supply to meet secondary rights. Relatively heavy draft on ground water supplies will be required to meet the demand.

Lahontan Area

The snowpack as of April 1, water impounded in surface reservoirs and general soil moisture conditions indicate that the snowmelt runoff will be about 125 per cent of normal. Satisfactory water supply conditions are anticipated in areas of California served from the streams of this Area.

The snow survey committee for the Truckee River Basin with representatives from the Washoe Water Conservation District, Truckee-Carson Irrigation District and Sierra Pacific Power Company forecast that:

> "Donner Lake. The outlet gates for this reservoir have been open since the end of February with only natural flow passing through. The snow surveys indicate this reservoir will be filled to capacity.

"Summary - 1956 Forecast.

	Amount	Per Cent Normal	Elevation
Lake Tahoe rise assuming gates closed	1.9	125	6228.9
Truckee River at Farad exclusive of Tahoe releases and assuming no storage in other reservoirs (natural flow)	350,000	125	-
Little Truckee (natural flow)	120,000	125	-

Note: Subnormal or abnormal spring precipitation and temperatures will affect these estimates accordingly."

The Soil Conservation Service and Nevada State Engineer, cooperating, report that the Carson-Walker River watersheds have about 130 per cent of average snow water content as of this date. Considering the snow on each of the respective watersheds and assuming average weather conditions for the remainder of the season, their forecast of April-July runoff is as follows:

Streams	15-Year Average 1938-1952 in acre-feet	April-July 1956 Forecast in acre-feet
East Carson River near Gardnerville	195,000	250,000
West Carson River at Woodfords	55,000	70,000
Carson River near Carson City	192,000	311,000
Carson River near Fort Churchill	189,000	250,000
East Walker near Bridgeport 1/	73,000	110,000
West Walker near Coleville	160,000	210,000

1/ April-August period.

The City of Los Angeles Department of Water and Power issued the following statement on April 1 regarding water supply conditions in Mono Basin and Owens Valley:

"Although subnormal precipitation on the Eastern Sierra watershed during February and March has resulted in a decrease in water content, the remaining snowpack exhibits water content and density which promises slightly better than normal runoff, probably between 105 and 115 per cent of the 48-year (1908-55)

RUNOFF FORECASTS

TABLE 1

UNIMPAIRED RUNOFF FORECASTS[1]

APRIL 1, 1956

Area, Stream, and Station	Source of Forecast[2]	April 1-July 31, Inc. 1956 Forecast in acre-feet	50-Year Average 1901-1950 in acre-feet	1956 Forecast Per Cent of Average
NORTH COASTAL				
Upper Klamath Lake, Net Inflow[3]	O.C.S.S.	850,000	424,000[8]	200
Shasta Riv. above Yreka Ditch	D.W.R.	19,000	[9]	
Trinity Riv. at Lewiston[3]	D.W.R.	820,000	725,000	113
CENTRAL VALLEY				
S. F. Pit Riv. nr. Likely	D.W.R.	38,000	38,000	100
Sacramento Riv. at Shasta Dam[3]	D.W.R.	2,200,000	1,944,000	113
Sacramento Riv. nr. Red Bluff	D.W.R.	2,900,000	2,606,000	111
N. F. Feather Riv. nr. Prattville	D.W.R.	420,000	278,000[6]	151
M. F. Feather Riv. nr. Clio[3]	D.W.R.	160,000	95,000	168
M. F. Feather Riv. at Bidwell Bar	D.W.R.	1,100,000	693,000	159
S. F. Feather Riv. at Enterprise	D.W.R.	200,000	122,000	164
Feather Riv. nr. Oroville	D.W.R.	3,200,000	2,056,000	156
N. Yuba Riv. below Goodyears Bar	D.W.R.	420,000	305,000	138
Bowman Area-M. Yuba Riv. & Canyon Creek	D.W.R.	160,000	120,000	133
S. F. Yuba Riv. at Langs Crossing	D.W.R.	330,000	236,000	140
Yuba Riv. nr. Smartville	D.W.R.	1,600,000	1,169,000	137
N. F. American Riv. at Colfax	D.W.R.	380,000	290,000	131
M. F. American Riv. nr. Auburn	D.W.R.	800,000	610,000	131
Silver Creek nr. Placerville	D.W.R.	270,000	205,000	132
American Riv. at Fair Oaks	D.W.R.	1,900,000	1,463,000	130
N. F. Mokelumne Riv. nr. West Point	D.W.R.	560,000	445,000	126
Mokelumne Riv. nr. Mokelumne Hill	D.W.R.	620,000	513,000	121
M. F. Stanislaus Riv. at Sand Bar Flat nr. Avery	D.W.R.	470,000	367,000	128
Stanislaus Riv. below Melones P. H.	D.W.R.	1,000,000	785,000	127
Cherry Creek nr. Hetch Hetchy	D.W.R.	275,000	220,000	125
Eleanor Creek nr. Hetch Hetchy	D.W.R.	145,000	114,000	127
Tuolumne Riv. nr. Hetch Hetchy	D.W.R.	830,000	642,000	129
Tuolumne Riv. above La Grange Dam	D.W.R.	1,650,000	1,286,000	128
Merced Riv. at Pohono Bridge	D.W.R.	490,000	395,000	124
Merced Riv. at Exchequer	D.W.R.	830,000	667,000	124
S. F. San Joaquin Riv. nr. Florence Lake	D.W.R.	250,000	205,000	122
Big Creek at Huntington Lake	D.W.R.	125,000	99,000	126
San Joaquin Riv. above Big Creek	D.W.R.	1,380,000	1,105,000	125
San Joaquin Riv. below Friant	D.W.R.	1,650,000	1,300,000	127
N. F. Kings Riv. nr. Cliff Camp	D.W.R.	300,000	252,000	119
Kings Riv. at Piedra[3]	D.W.R.	1,500,000	1,269,000	118
Kaweah Riv. nr. Three Rivers[3]	D.W.R.	280,000	282,000	99
Tule Riv. nr. Porterville[3]	D.W.R.	30,000	50,000	60
Kern Riv. nr. Kernville[3] [4]	D.W.R.	340,000	381,000	89
Kern Riv. nr. Bakersfield[3]	D.W.R.	400,000	468,000	85

TABLE 1 - UNIMPAIRED RUNOFF FORECASTS[1], APRIL 1, 1956 (Cont'd)

Area, Stream, and Station	Source of Forecast[2]	April 1-July 31, Inc. 1956 Forecast in acre-feet	50-Year Average 1901-1950 in acre-feet	1956 Forecast Per Cent of Average
LAHONTAN				
Little Truckee Riv. at Boca	T.B.W.C.	120,000	95,000	126
Truckee Riv. at Farad[3]	T.B.W.C.	350,000	281,000	125
Lake Tahoe[3] [5]	T.B.W.C.	1.9ft.	Rise 1.5 feet	127
E. Carson nr. Gardnerville	N.C.S.S.	250,000	195,000[8]	128
W. Carson at Woodfords	N.C.S.S.	70,000	55,000[8]	127
Carson Riv. nr. Fort Churchill	N.C.S.S.	250,000	189,000[8]	132
Carson Riv. nr. Carson City	N.C.S.S.	311,000	192,000[8]	162
E. Walker nr. Bridgeport[7]	N.C.S.S.	110,000	73,000[8]	151
W. Walker nr. Coleville	N.C.S.S.	210,000	160,000[8]	131
Owens Riv. nr. Round Valley	L.A.D.W.P.	69,000	71,560	97
COLORADO DESERT				
Colorado Riv. at Grand Canyon[3]	U.S.B.R.	7,000,000[11]	8,100,000[10]	87

1/ Corrected for upstream regulation.

2/ O.C.S.S. - Oregon Cooperative Snow Surveys; D.W.R. - Division of Water Resources, State of California; T.B.W.C. - Truckee Basin Water Forecast Committee; N.C.S.S. - Nevada Cooperative Snow Surveys; L.A.D.W.P. - Los Angeles Department of Water and Power; U.S.B.R. - United States Bureau of Reclamation.

3/ Uncorrected for upstream regulation.

4/ Includes Kern River #3 Canal.

5/ Assuming Lake Tahoe gates closed.

6/ April through June.

7/ April through August.

8/ 15-year normal (1938 through 1952).

9/ Normal not available.

10/ 32-year normal (1923 through 1954).

11/ Provisional forecast based upon incomplete reports.

TABLE 2

UNIMPAIRED APRIL-JULY RUNOFF 1/
(Thousands of Acre-Feet)

April 1, 1956

River and Station	50-year Average (1901-1950)	Year								
		1948	1949	1950	1951	1952	1953	1954	1955	1956 Forecast
Sacramento River near Red Bluff	2,606	3,955	1,961	1,935	1,953	3,712	2,895	2,851	2,083	2,900
Feather River near Oroville	2,056	2,497	1,416	1,988	1,505	4,638	2,381	1,956	1,234	3,200
Yuba River near Smartville	1,169	1,406	961	1,204	867	2,424	1,329	943	786	1,600
American River at Fair Oaks	1,463	1,699	1,243	1,593	1,087	2,864	1,631	1,054	988	1,900
Mokelumne River near Mokelumne Hill	513	520	434	571	346	959	493	372	330	620
Stanislaus River below Melones Power House	785	764	606	832	531	1,438	719	639	506	1,000
Tuolumne River above La Grange Dam	1,286	1,183	1,026	1,180	947	2,145	1,117	1,028	846	1,650
Merced River at Exchequer	667	598	509	552	439	1,073	451	484	418	830
San Joaquin River below Friant	1,300	1,036	976	1,010	921	2,199	874	989	900	1,650
Kings River at Piedra	1,269	869	821	1,028	854	2,196	867	1,077	857	1,500
Kaweah River near Three Rivers 2/	282	226	181	222	172	588	213	231	194	280
Tule River near Porterville 2/	48	41	24	22	23	155	35	38	22	30
Kern River near Bakersfield	468	240	210	300	263	1,119	329	354	225	400

1/ Corrected for upstream regulation.
2/ Uncorrected for upstream regulation.

TABLE 3

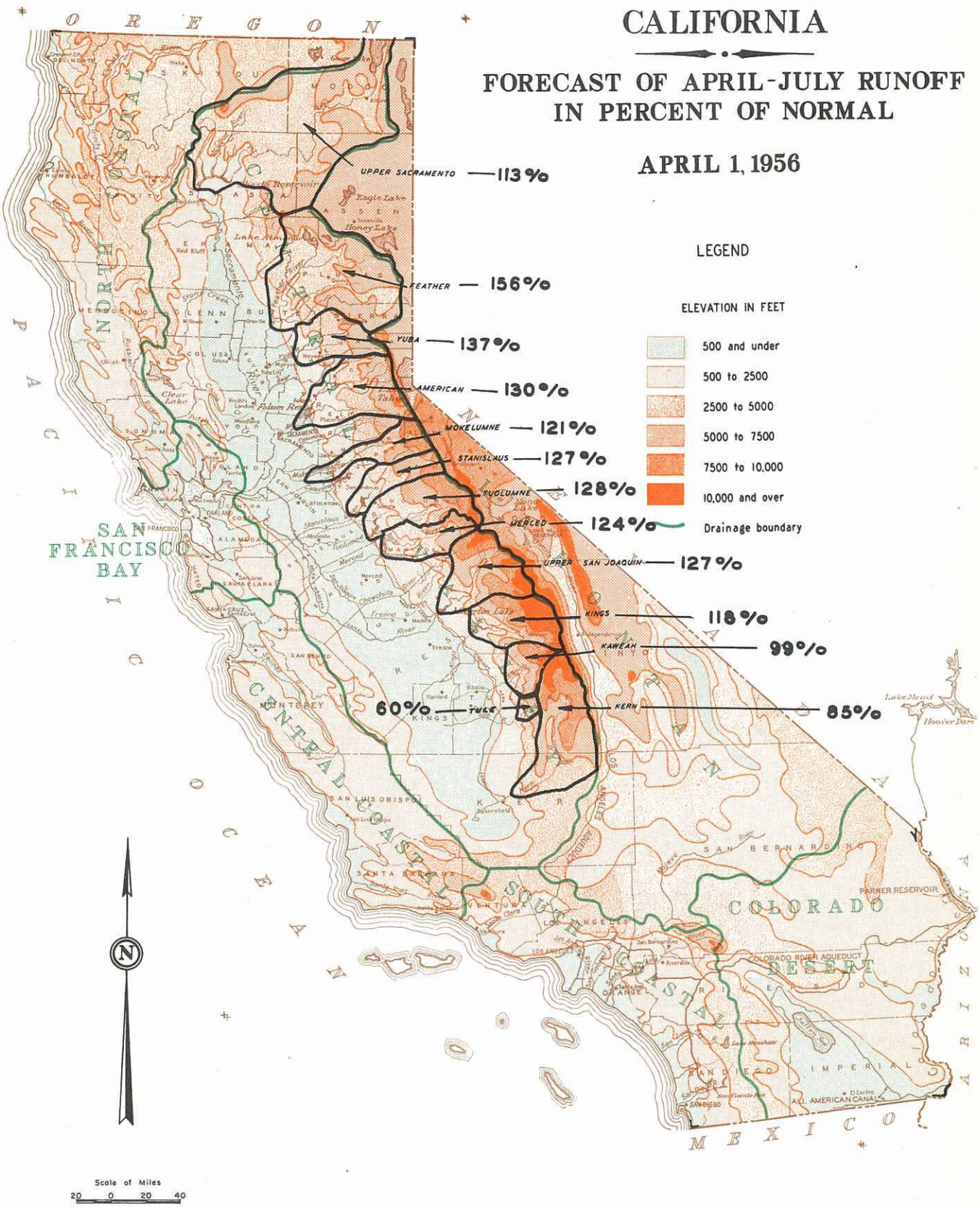
UNIMPAIRED SEASONAL RUNOFF 1/

(OCTOBER 1 TO SEPTEMBER 30)

APRIL 1, 1956

River	Station	Acre-Feet: Computed 2/ Oct. 1-Mar. 31	Forecasts for 1955-56 Water Year: Apr. 1-July 31	Aug. 1-Sept. 30	Oct. 1-Sept. 30	50-Year Average (1901-1950)	Seasonal Runoff in Per Cent of Average: Actual 1951-52	1952-53	1953-54	1954-55	Estimated 1955-56
Sacramento	Red Bluff	9,778,000	2,900,000	500,000	13,178,000	8,288,000	139	117	112	69	159
Feather	Oroville	5,037,000	3,200,000	230,000	8,467,000	4,496,000	176	115	94	55	189
Yuba	Smartville	2,605,000	1,600,000	60,000	4,265,000	2,345,000	176	109	81	55	182
American	Fair Oaks	2,908,000	1,900,000	40,000	4,848,000	2,718,000	183	98	74	58	178
Sacramento	Sacramento 2/	-----	-----	-----	-----	-----	160	113	98	62	172
Mokelumne	Mokelumne Hill	619,600	620,000	7,000	1,247,000	756,000	175	90	70	58	165
Stanislaus	Melones	858,930	1,000,000	25,000	1,884,000	1,174,000	164	82	75	58	160
Tuolumne	La Grange	1,400,000	1,650,000	40,000	3,090,000	1,884,000	163	77	77	60	164
Merced	Exchequer	761,160	830,000	20,000	1,611,000	994,000	157	63	67	53	162
San Joaquin	Friant	1,061,300	1,650,000	80,000	2,791,000	1,787,000	171	66	66	65	156
San Joaquin	Vernalis 2/	-----	-----	-----	-----	-----	164	74	71	60	161
Combined Sacramento and San Joaquin 2/		-----	-----	-----	-----	-----	161	103	91	61	169
Kings	Piedra	920,970	1,500,000	80,000	2,500,000	1,690,000	169	68	79	66	148
Kaweah	Three Rivers 3/	335,090	280,000	10,000	625,000	411,000	201	75	74	67	152
Tule	Porterville 3/	102,650	30,000	0	133,000	102,000	207	75	71	49	130
Kern	Bakersfield	311,290	400,000	40,000	746,000	729,000	203	94	72	51	103

1/ Corrected for upstream regulation.
2/ Actual runoff not computed. Percentages are based on runoff of the major tributaries listed above.
3/ Uncorrected for upstream regulation.


CALIFORNIA
FORECAST OF APRIL-JULY RUNOFF
IN PERCENT OF NORMAL
APRIL 1, 1956
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
UPPER SACRAMENTO — 113%
FEATHER — 156%
YUBA — 137%
AMERICAN — 130%
MOKELUMNE — 121%
STANISLAUS — 127%
TUOLUMNE — 128%
MERCED — 124%
UPPER SAN JOAQUIN — 127%
KINGS — 118%
KAWEAH — 99%
TULE — 60%
KERN — 85%
OREGON
PACIFIC OCEAN
MEXICO
ARIZONA
NEVADA
SAN FRANCISCO BAY
CENTRAL COASTAL
SOUTH COASTAL
COLORADO DESERT
PARKER RESERVOIR
COLORADO RIVER AQUEDUCT
ALL AMERICAN CANAL
Lake Mead
Hoover Dam
Scale of Miles
20 0 20 40

55

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RESOURCES

GOODWIN J. KNIGHT, Governor
FRANK B. DURKEE, Director of Public Works
HARVEY O. BANKS, 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

April 1, 1956

Basic Data

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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
- Sacramento 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
- Banta-Carbona Irrigation District
- 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

TABLE 1

PRECIPITATION DATA

JULY 1, 1955 TO MARCH 31, 1956

1 Basin and Precipitation Station	Elevation in Feet	2 Source of Data	Precipitation During March, 1956			Precipitation from July 1, 1955 to March 31, 1956			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.	4.44	8.33	53	78.40	59.49	132	69.99
Yreka	2625	U.S.W.B.	0.77	1.89	41	27.81	15.36	181	17.87
Eureka	43	U.S.W.B.	2.36	5.08	46	42.77	32.09	133	37.32
Weaverville	2030	U.S.W.B.	0.55	3.93	14	50.19	30.26	166	33.63
Fort Bragg	74	U.S.W.B.	0.93	4.96	19	46.16	33.05	140	37.50
Ukiah	650	U.S.W.B.	0.79	4.66	17	49.00	31.86	154	35.45
Santa Rosa	167	U.S.W.B.	0.31	4.08	8	40.37	25.86	156	29.18
SAN FRANCISCO BAY AREA									
Napa State Hospital	60	U.S.W.B.	0.24	3.36	7	31.64	21.27	149	23.70
San Francisco	52	U.S.W.B.	0.12	3.04	4	24.77	18.57	133	20.53
Oakland	440	U.S.W.B.	0.04	3.30	1	22.75	19.62	116	21.95
Redwood City	31	U.S.W.B.	0.19	3.13	6	26.01	18.88	138	20.82
San Jose	95	U.S.W.B.	0.07	2.30	3	16.03	12.20	131	13.70
CENTRAL COASTAL AREA									
Santa Cruz	125	U.S.W.B.	0.26	4.20	6	36.25	25.75	141	28.57
Hollister	284	U.S.W.B.	0.15	2.21	7	16.69	11.69	143	13.13
Salinas	74	U.S.W.B.	0.14	2.33	6	16.66	12.24	136	13.73
Big Sur State Park	300	U.S.W.B.	0.18	6.31	3	46.43	34.05	136	37.99
King City	320	U.S.W.B.	0.00	1.91	0	11.89	9.54	125	10.49
Paso Robles	740	U.S.W.B.	0.01	2.79	3	14.45	14.49	100	15.91
Santa Maria	217	U.S.W.B.	T	2.63	0	9.61	13.04	74	14.56
Santa Barbara	120	U.S.W.B.	0.00	3.39	0	14.78	16.88	88	18.51
SOUTH COASTAL AREA									
Valley Stations									
Ventura	50	U.S.W.B.	0.00	2.91	0	12.90	14.50	89	15.63
Los Angeles	312	U.S.W.B.	T	2.70	0	11.82	13.60	87	14.90
San Bernardino	1094	U.S.W.B.	0.01	3.05	3	11.05	15.26	72	17.47
Escondido	750	U.S.W.B.	0.00	2.88	0	7.88	15.00	53	17.03
San Diego	19	U.S.W.B.	T	1.67	0	2.86	9.59	30	10.58
El Capitan Dam	610	U.S.W.B.	0.00	3.31	0	7.98	15.09	53	17.97
Los Angeles River									
Opids Camp	4480	L.A.C.F.C.D.	0.00	7.68	0	21.12	38.56	55	40.82
Loomis Ranch	4050	L.A.C.F.C.D.	0.00	3.82	0	R.N.C.	18.61	--	20.76
Haines Canyon, Upper	3450	L.A.C.F.C.D.	0.00	5.62	0	13.93	25.24	55	29.62
Clear Creek	3300	L.A.C.F.C.D.	0.00	5.93	0	17.70	28.20	63	31.00

1, 2, 3, See footnotes on page 6.

TABLE 1 - PRECIPITATION DATA - JULY 1, 1955 TO MARCH 31, 1956 (Cont'd)

1 Basin and Precipitation Station	Elevation in Feet	2 Source of Data	Precipitation During March, 1956			Precipitation from July 1, 1955 to March 31, 1956			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									
Valley Stations									
Redding	718	U.S.W.B.	0.05	5.07	1	47.13	32.59	145	37.94
Willows	136	U.S.W.B.	T	2.44	0	23.93	15.26	157	17.17
Winters	132	U.S.W.B.	0.02	2.41	1	27.13	14.56	186	16.27
Sacramento	25	U.S.W.B.	0.03	2.48	1	24.92	14.25	175	16.31
Stockton	15	U.S.W.B.	0.04	2.24	2	15.87	12.40	128	14.00
Los Banos	125	U.S.W.B.	0.00	1.48	0	9.50	7.57	125	8.65
Merced	173	U.S.W.B.	T	2.11	0	12.29	10.29	119	11.77
Fresno	331	U.S.W.B.	0.08	1.68	5	11.21	8.15	138	9.39
Bakersfield	489	U.S.W.B.	T	1.12	0	2.56	5.13	50	6.26
Upper Sacramento - Pit and McCloud Rivers									
Jess Valley	5400	D.W.R.	0.74	1.75	42	12.02	11.74	102	15.62
Alturas	4460	U.S.W.B.	0.50	1.30	38	11.34	9.17	124	12.00
Bieber	4200	D.W.R.	0.88	1.97	45	22.08	13.15	168	15.94
Mount Shasta	3555	U.S.W.B.	0.29	4.84	6	46.53	29.28	160	34.50
Hat Creek	3400	U.S.W.B.	1.19	2.13	56	22.74	14.65	155	17.78
McCloud	3270	U.S.W.B.	0.32	6.20	5	62.72	41.90	150	48.94
Fall River Mills	3340	U.S.W.B.	0.79	2.33	34	19.21	14.94	129	17.99
Feather River									
Bucks Storage Dam	5100	P.G.&E.	3.41	10.67	32	84.23	60.03	140	68.76
Sierraville	5000	U.S.W.B.	0.38	3.22	12	37.97	21.39	177	24.59
Vinton	4945	D.W.R.	0.06	R.N.C.	--	---	---	---	---
Mineral	4935	U.S.W.B.	1.49	7.25	21	76.08	43.45	175	50.46
Portola	4832	U.S.W.B.	0.27	2.66	10	24.91	15.25	163	17.72
Canyon Dam	4570	U.S.W.B.	1.20	5.17	23	54.16	31.35	173	36.50
Chester	4550	U.S.W.B.	0.94	4.41	21	45.46	26.56	171	30.95
Quincy	3409	U.S.W.B.	0.84	5.76	15	52.85	33.82	156	39.26
Caribou	3000	P.G.&E.	0.87	6.04	14	53.36	34.84	153	40.10
Lake Wilenor	2000	D.W.R.	0.16	7.77	2	54.42	45.67	119	52.99
Storrie	1760	P.G.&E.	1.00	9.75	10	77.19	55.81	138	63.65
Las Plumas	506	U.S.W.B.	0.17	6.98	2	70.78	43.44	163	49.11
Yuba River									
Soda Springs	6870	U.S.W.B.	1.71	7.31	23	74.10	40.15	184	46.15
Lake Spaulding	4600	U.S.W.B.	1.94	10.41	19	86.07	54.98	156	64.60
Deer Creek	3700	U.S.W.B.	1.28	10.25	12	83.97	57.65	146	66.96
Downieville R.S.	2960	U.S.W.B.	1.31	9.53	14	81.78	56.08	146	65.43
Dobbins (Near)	1650	U.S.W.B.	0.20	6.08	3	52.77	35.04	151	40.64
Grass Valley	2690	U.S.W.B.	0.41	8.01	5	69.15	45.16	153	51.95
Nevada City	2570	U.S.W.B.	0.46	7.82	5	67.83	42.64	159	49.33

1, 2, 3, See footnotes on page 6.

TABLE 1 - PRECIPITATION DATA - JULY 1, 1955 TO MARCH 31, 1956 (Cont'd)

1 Basin and Precipitation Station	Elevation in Feet	2 Source of Data	Precipitation During March, 1956			Precipitation from July 1, 1955 to March 31, 1956			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)									
Kern River									
Kern River #3 Intake	3640	S.C.E.C.	0.00	2.72	0	19.01	15.20	125	16.91
Glennville	3300	U.S.W.B.	0.03	3.71	1	17.13	16.76	102	20.05
Kernville	2600	U.S.W.B.	T	1.62	0	8.72	9.17	95	10.08
LAHONTAN AREA									
Surprise Valley									
Jess Valley	5400	D.W.R.	0.74	1.75	42	12.02	11.74	102	15.62
Fort Bidwell	4735	U.S.W.B.	0.74	1.70	43	17.25	11.46	151	14.33
Susan River									
Susanville	4271	U.S.W.B.	0.12	2.28	5	19.77	14.87	133	17.36
Doyle	4300	U.S.W.B.	0.05	1.21	41	17.90	8.75	206	10.30
Truckee & Tahoe Basins									
Twin Lakes	7970	U.S.W.B.	1.35	7.39	18	58.90	38.07	155	44.28
Soda Springs	6870	U.S.W.B.	1.71	7.31	23	74.10	40.15	184	46.15
Tahoe	6230	U.S.W.B.	0.96	4.41	22	44.89	27.36	164	31.27
Truckee	6200	U.S.W.B.	1.03	4.20	25	45.27	22.90	198	25.82
Carson River									
Twin Lakes	7970	U.S.W.B.	1.35	7.39	18	58.90	38.07	155	44.28
Walker River									
Bridgeport	6473	U.S.W.B.	T	1.64	0	11.65	8.17	143	10.79
Mono Basin									
Ellery Lake	9600	C.E.P.C.	0.15	4.25	3	23.39	24.53	95	29.79
Gem Lake	9120	C.E.P.C.	0.15	3.89	4	17.76	22.73	78	26.58
Owens Basin									
South Lake	9620	C.E.P.C.	0.32	2.34	14	20.17	15.37	131	17.80
Lake Sabrina	9100	C.E.P.C.	0.00	2.26	0	19.85	15.62	127	17.88
Intake #2 Bishop Creek	8000	C.E.P.C.	0.00	2.03	0	15.44	10.75	144	12.60
Crooked Creek	6700	L.A.D.W.P.	0.00	1.41	0	12.97	8.68	149	9.94
Big Pines Power House #3	5400	L.A.D.W.P.	0.00	1.09	0	12.69	7.52	169	8.17
Bishop	4108	U.S.W.B.	0.00	0.77	0	5.96	5.13	116	5.73
Independence	3957	U.S.W.B.	0.00	0.48	0	7.21	4.20	172	4.65
L. A. Aqueduct at Intake	3880	L.A.D.W.P.	0.00	0.50	0	8.81	4.04	218	4.41
Haiwee	3800	U.S.W.B.	0.00	0.76	0	3.66	5.44	67	6.17
Cottonwood Gates	3600	L.A.D.W.P.	0.00	0.62	0	2.65	4.78	55	5.24

1, 2, 3, See footnotes on page 6.

TABLE 2

SNOW SURVEY DATA

AS OF APRIL 1, 1956

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 1955 (Inches)
NORTH COASTAL AREA								
Scott River								
Etna Mountain	6700	3-23-56	137.5	44.4	61.1	47.5	129	22.2
Middle Boulder #1	6700	3-30-56	100.0	48.5	48.5	34.2	142	21.3
Middle Boulder #3	6400	3-30-56	84.7	47.7	40.4	30.9	131	16.0
Wolford Cabin	6400	4- 1-56	94.0	44.7	42.0	42.3	99	21.9
Swampy John	6300	3-23-56	139.8	41.5	58.0	48.9	119	26.6
Marble Valley	5900	3-30-56	151.8	48.2	73.1	55.6	131	35.2
Dynamite	5600	3-30-56	66.8	43.4	29.0	New Course 1955		
Log Lake	5500	4- 5-56	77.0	47.0	36.2	34.3	106	23.9
Shasta River								
Parks Creek	6500	4- 2-56	140.9	43.9	61.9	33.7	184	23.9
Little Shasta	6200	3-29-56	71.5	46.3	33.1	26.4	126	N.S.M.
Sweetwater	5500	4- 2-56	76.6	40.1	30.7	14.4	213	6.5
Trinity River								
Seven Up	7400	3-26-56	151.6	46.0	69.8	65.2	107	35.8
Deadfall Lakes	7300	4- 3-56	107.5	46.6	50.1	34.7	144	23.0
Red Rock Mountain	6600	3-26-56	129.4	44.5	57.6	47.0	123	23.6
Bear Basin	6500	3-27-56	113.0	45.0	50.8	41.1	124	26.4
Wolford Cabin	6400	4- 1-56	94.0	44.7	42.0	42.3	99	21.9
Shimmy Lake	6400	3-29-56	144.7	44.4	64.2	46.9	137	29.1
Whalan Station	5900	4- 5-56	79.9	45.4	36.3	20.3	179	3.5
Highland Lakes	5700	4- 6-56	108.1	48.7	52.6	32.9	160	12.2
Mumbo Basin	5700	4- 4-56	95.6	48.2	46.1	27.1	170	7.9
Big Flat	5100	3-25-56	63.4	42.6	27.0	19.2	141	5.4
SAN FRANCISCO BAY AREA No Surveys Made in This Area								
CENTRAL COASTAL AREA								
Santa Clara River								
Mt. Pinos	8750	3- 2-56	5.9	52.5	3.1	New Course 1955		
SOUTH COASTAL AREA								
Santa Ana River								
Upper Thunder Mt.	8500	3-31-56	16.7	49.1	8.2	New Course 1955		5.8
Ice House #3	8000	3-29-56	16.3	42.9	7.0	---	---	14.0
Ice House #2-A	7660	3-29-56	Patches only		0.0	---	---	14.4
Lower Thunder Mt.	7500	3-31-56	Patches only		0.0	New Course 1955		0.5
Cinco Poses	7500	4- 3-56	6.6	21.2	1.4	---	---	Patches
San Antonio #2	7060	3-30-56	14.4	31.2	4.8	---	---	12.5

1/, 2/, See footnotes on page 17.

TABLE 2 - SNOW SURVEY DATA AS OF APRIL 1, 1956 (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 1955 (Inches)
CENTRAL VALLEY AREA (Cont'd)								
Pit River (Cont'd)								
Thousand Lakes	6500	3-28-56	125.6	49.5	62.2	51.5	121	20.9
Medicine Lake	6250	4- 2-56	115.0	45.0	51.7	30.1	172	22.0
Snow Mountain	6200	3-29-56	105.5	56.9	60.0	38.6	155	24.5
Manzanita Lake	6000	4- 1-56	35.2	42.6	15.0	10.3	147	6.4
McElroy Pass	5800	3-30-56	9.8	40.8	4.0	3.5	114	0.0
Halls Flat	5600	4- 3-56	24.7	38.5	9.5	4.0	238	2.3
Stouts Meadow	5300	3-27-56	123.7	49.7	61.5	45.8	134	22.2
Burney Springs	4800	3-28-56	6.7	41.8	2.8	4.9	57	0.0
Dead Horse Canyon	4500	4- 2-56	53.6	44.7	24.0	17.2	140	7.3
Stony Creek								
Anthony Peak	6200	4- 3-56	94.1	49.1	46.2	32.0	144	18.9
Plaskett Meadows	6000	3-28-56	58.6	45.4	26.6	22.7	117	12.5
Feather River								
Mount Lassen	8400	4- 2-56	256.2	48.7	124.7	86.5	144	58.5
Mount Dyer	7400	3-30-56	92.1	44.2	40.7	25.8	158	16.4
Rowland Creek	6850	4- 3-56	62.4	44.1	27.5	21.4	129	12.0
Church Meadows	6700	3-30-56	91.7	48.6	44.6	36.4	123	20.8
Yuba Pass	6700	3-29-56	100.0	49.7	49.7	35.1	142	22.0
Silver Lake	6500	4- 4-56	87.0	50.5	43.9	30.7	143	16.2
Eureka Bowl	6500	3-29-56	134.3	51.5	69.1	46.7	148	27.9
Fredonia Pass	6400	3-29-56	40.6	48.0	19.5	9.9	197	5.8
Harkness Flat	6400	3-27-56	99.8	45.2	45.1	28.9	156	14.9
Eureka Lake	6300	3-29-56	100.9	50.7	51.2	36.2	141	19.7
Mt. Dyer #2	6200	3-30-56	58.0	45.3	26.3	New Course 1951		10.5
Three Lakes	6100	4- 3-56	133.2	46.9	62.5	40.4	155	26.5
Mill Creek Flat	5800	4- 3-56	119.9	48.5	58.2	39.5	147	24.1
Letterbox	5600	4- 3-56	134.7	53.2	71.7	54.3	132	31.4
Mount Stover	5500	4- 2-56	68.6	43.1	29.6	16.5	179	9.8
Fredonia Pass #2	5500	3-29-56	16.9	45.0	7.6	9.9	77	Patches
Browns Camp	5400	3-27-56	60.3	49.9	30.1	24.3	124	14.0
Gibsonville	5400	4- 3-56	70.9	50.1	35.5	40.0	89	16.8
Haskins Flat	5400	3-27-56	80.4	48.6	39.2	33.0	119	17.8
Feather River Meadows	5000	3-27-56	75.0	43.9	32.9	24.3	135	14.1
Warner Creek	5000	3-26-56	58.0	44.3	25.7	17.5	147	8.7
Humbug Summit	5000	3- 3-56	41.1	44.8	18.4	13.2	139	4.6
Chester Flat	4600	3-26-56	35.2	43.5	15.3	8.1	189	Patches
Yuba River								
Webber Peak	8000	3-26-56	159.6	47.9	76.5	44.8	171	34.0
Castle Creek #5	7200	3-27-56	149.2	49.7	74.2	54.4	136	37.6

1/, 2/, See footnotes on page 17.

TABLE 2 - SNOW SURVEY DATA AS OF APRIL 1, 1956 (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 1955 (Inches)
CENTRAL VALLEY AREA (Cont'd)								
American River (Cont'd)								
Soda Springs	6750	3-29-56	109.2	48.5	53.0	40.7	130	28.3
Tamarack Flat	6600	4- 6-56	79.8	44.7	35.7	32.8	109	23.1
Huysink	6600	3-26-56	132.5	47.2	62.6	51.9	121	36.4
South Loon Lake	6500	4- 5-56	79.7	45.7	36.4	38.0	96	----
Loon Lake	6400	4- 5-56	70.4	43.3	30.4	31.5	97	----
Onion Creek	6100	3-28-56	64.6	44.6	28.8	26.0	111	13.5
Cisco	5950	3-28-56	74.1	47.4	35.1	25.8	136	15.4
Six Mile Valley	5700	3-28-56	52.3	46.3	24.2	26.2	92	14.9
Strawberry	5700	4- 6-56	No Snow on Course			11.7	0	Patches
Long Meadow	5600	4- 5-56	34.0	42.6	14.5	22.5	65	----
Orellis	5600	3-26-56	52.6	44.1	23.2	32.0	73	----
Ice House	5300	3-27-56	15.4	44.8	6.9	22.6	31	1.3
Carpenter Flat	4900	3-28-56	33.4	44.0	14.7	22.7	65	8.1
Cosumnes River								
Corral Flat	7300	3-25-56	107.9	45.9	49.5	43.7	113	33.7
Lumberyard	6600	3-26-56	80.8	49.9	40.3	36.2	111	21.3
Hams Station	5600	3-26-56	No Snow on Course			9.7	0	Patches
Mokelumne River								
Highland Meadow	8800	3-29-56	132.6	54.8	72.6	New Course 1952		37.3
Carson Pass	8600	3-27-56	99.1	47.1	47.1	40.4	117	28.2
Emigrant Lake	8200	3-29-56	116.3	49.6	57.7	New Course 1953		33.1
Blue Lakes	8000	3-28-56	106.0	44.2	46.8	39.5	118	26.4
Twin Lakes	7900	3-28-56	95.7	46.7	44.7	32.8	136	24.6
Tragedy Springs	7900	3-25-56	120.6	47.6	57.4	48.0	120	35.7
Wheeler Lake	7800	3-28-56	140.3	45.3	63.6	56.6	112	39.4
Pacific Valley	7500	3-28-56	104.2	50.5	52.6	39.6	133	27.1
Lake Alpine	7500	3-27-56	109.1	48.2	52.6	43.4	121	28.4
Silver Lake	7300	3-25-56	70.2	47.7	33.5	26.1	128	15.9
Corral Flat	7300	3-25-56	107.9	45.9	49.5	43.7	113	33.7
Bear Valley Ridge	6700	4- 2-56	66.0	42.0	27.7	29.6	94	20.5
Lumberyard	6600	3-26-56	80.8	49.9	40.3	36.2	111	21.3
Big Meadow	6500	3-27-56	67.1	46.3	31.1	34.4	90	16.3
Cottage Spring	5700	3-27-56	21.6	42.1	9.1	15.8	58	2.4
Hams Station	5600	3-26-56	No Snow on Course			9.7	0	Patches
Dorrington	4800	3-30-56	No Snow on Course			9.0	0	0.0
Antelope Springs	4350	3-26-56	No Snow on Course			4.8	0	Patches
Stanislaus River								
Sonora Pass	8800	3-29-56	77.0	48.4	37.3	26.3	142	16.7
Highland Meadow	8800	3-29-56	132.6	54.8	72.6	New Course 1952		37.3
Lower Relief Valley	8300	3-28-56	112.2	46.6	52.3	43.7	120	29.3

1/, 2/, See footnotes on page 17.

TABLE 2 - SNOW SURVEY DATA AS OF APRIL 1, 1956 (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 1955 (Inches)
CENTRAL VALLEY AREA (Cont'd)								
Upper San Joaquin River								
Mono Pass	11450	3-30-56	110.6	46.7	51.6	31.7	163	24.3
Piute Pass	11200	3-26-56	110.9	46.3	51.3	35.1	146	25.5
Emerald Lake	10800	4- 1-56	102.8	44.7	46.0	38.1	121	25.2
Blackcap Basin	10800	3-30-56	96.4	51.0	49.2	38.2	129	25.8
Pioneer Basin	10300	3-30-56	112.7	45.8	51.6	38.4	134	25.2
Heart Lake	10100	3-31-56	83.9	47.9	40.2	29.2	138	20.7
Volcanic Knob	10100	3-29-56	97.6	47.1	46.0	33.3	138	21.8
Rose Marie	10000	3-30-56	90.0	46.6	41.9	31.0	135	21.8
Colby Meadow	10000	4- 2-56	64.9	47.3	30.7	23.5	131	16.0
Upper Burnt Corral	9700	4- 1-56	104.6	46.8	49.0	37.7	130	27.4
Mammoth Pass	9500	3-30-56	113.7	48.4	55.0	47.1	117	35.0
Agnew Pass	9450	4- 1-56	95.2	46.8	44.6	33.2	134	24.6
Kaiser Pass	9200	3-30-56	99.8	47.1	47.0	40.6	116	28.4
Dutch Lake	9100	4- 3-56	85.2	46.7	39.8	29.8	134	22.5
Coyote Lakes	8600	3-31-56	83.4	46.4	38.7	32.7	118	23.2
Cora Lakes	8500	4- 5-56	85.1	49.8	42.4	38.9	109	25.3
Nellie Lake	8250	4- 3-56	90.5	46.3	41.9	40.2	104	37.2
Vermilion Valley	7500	3-29-56	26.0	43.1	11.2	13.6	82	7.0
Chilkoot Lake	7450	4- 3-56	86.2	47.3	40.8	41.2	99	21.2
Chilkoot Meadow	7250	4- 3-56	80.4	43.5	35.0	39.5	89	19.2
Florence Lake	7200	N.R.				9.1		5.6
Huntington Lake	7000	4- 2-56	39.6	39.4	15.6	23.2	67	12.4
Clover Meadow	7000	4- 4-56	57.7	47.4	27.4	26.1	105	14.8
Jackass Meadows	7000	4- 4-56	41.2	48.3	19.9	24.0	83	11.2
Chiquito Creek	6800	4- 3-56	47.2	45.6	21.5	23.5	91	10.5
Beasore Meadow	6800	4- 3-56	50.9	44.0	22.4	31.8	70	13.2
Poison Meadow	6650	4- 3-56	40.1	38.4	15.4	30.9	50	12.2
Kings River								
Bishop Pass	11400	3-27-56	85.5	43.5	37.2	34.5	108	27.4
Blackcap Basin	10800	3-30-56	96.4	51.0	49.2	38.2	129	25.8
Charlotte Ridge	10800	4- 4-56	106.8	45.4	48.5	New Course 1955		25.8
Bullfrog Lake	10600	4- 4-56	98.4	47.4	46.6	New Course 1955		22.2
Upper Burnt Corral	9700	4- 1-56	104.6	46.8	49.0	37.7	130	27.4
Vidette Meadow	9600	4- 5-56	54.8	54.2	29.7	New Course 1956		
Beard Meadow	9300	3-21-56	94.4	48.1	45.4	36.2	125	23.2
Rowell Meadow	9200	4-10-56	54.7	49.9	27.3	30.8	89	18.4
Woodchuck Radio Snow Gage	9200	3-29-56	74.0	50.0	37.0			
Woodchuck Meadow	9100	3-29-56	79.7	47.7	38.0	33.5	113	21.0
Swamp Meadow	9000	4- 3-56	96.0	46.9	45.0	40.0	112	26.5
Round Corral	9000	3-28-56	85.0	47.3	40.2	36.8	109	23.5

1/, 2/, See footnotes on page 17.

TABLE 2 - SNOW SURVEY DATA AS OF APRIL 1, 1956 (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 1955 (Inches)
CENTRAL VALLEY AREA (Cont'd)								
Kern River (Cont'd)								
Ramshaw Meadows	8800	3-28-56	26.4	39.8	10.5	12.2	86	7.6
Little Whitney Meadows	8500	3-27-56	29.9	43.1	12.9	14.4	90	8.9
Bonita Meadows	8400	4- 3-56	21.4	40.2	8.6	15.0	57	7.1
Casa Vieja Meadows	8400	3-30-56	35.1	44.4	15.6	20.4	76	11.1
Monache Meadows	8000	3-29-56	Snow Course Flooded			9.2	--	3.4
Quinn Ranger Station	8000	3-27-56	34.2	44.7	15.3	22.3	69	13.3
Beach Meadows	7800	4- 2-56	9.0	11.0	1.0	11.0	9	3.4
Burnt Corral Meadow	6200	3-25-56	No Snow on Course			5.4	--	No Snow on Course
Lloyd Meadows	5600	3-25-56	No Snow on Course			3.7	--	No Snow on Course
LAHONTAN AREA								
Surprise Valley								
Eagle Peak	7500	4- 4-56	49.9	44.5	22.2	18.2	122	11.8
Blue Lake Ranch	7300	4- 2-56	33.8	46.7	15.8	13.6	116	8.5
Cedar Pass	7200	3-28-56	53.2	43.6	23.2	19.9	117	12.5
Susan River								
Silver Lake	6500	4- 4-56	87.0	50.5	43.9	30.7	143	16.2
Fredonia Pass	6400	3-29-56	40.6	48.0	19.5	9.9	197	6.3
Norvell Flat	5700	4- 6-56	57.6	48.8	28.1	16.5	170	8.5
Truckee River								
Mount Rose (In Nevada)	9000	3-30-56	99.8	49.1	49.0	34.1	144	26.2
Independence Lake	8400	4- 5-56	133.8	46.9	62.6	45.4	138	28.6
Webber Peak	8000	3-26-56	159.6	47.9	76.5	44.8	171	34.0
Squaw Valley #1	7500	4- 4-56	173.3	47.9	83.0	New Course 1953		39.9
Squaw Valley #2	7500	4- 4-56	153.8	50.0	76.8	New Course 1955		----
Donner Summit	7020	3-29-56	104.9	47.7	50.0	44.3	113	30.9
Independence Camp	7000	4- 5-56	68.9	49.1	33.8	25.6	132	15.4
Ward Creek	7000	4- 4-56	120.4	50.6	60.9	48.4	126	34.4
Webber Lake	7000	3-26-56	107.5	41.7	44.8	34.5	130	23.6
Sage Hen Creek	6500	4- 5-56	57.7	41.9	24.2	20.0	121	11.2
Truckee #2	6400	4- 6-56	41.4	42.5	17.6	16.4	107	8.8
Independence Creek	6300	4- 5-56	39.3	41.7	16.4	14.8	111	10.5
Tahoe City	6250	4- 5-56	17.1	45.6	7.8	13.1	60	3.8
Truckee Ranger Station	6000	4- 2-56	29.2	43.2	12.6	12.0	105	6.3
Donner Lake	5950	4- 5-56	51.3	43.6	22.4	25.9	86	14.8
Boca	5900	4- 5-56	8.1	43.2	3.5	5.5	64	2.7
Lake Tahoe								
Mount Rose (In Nevada)	9000	3-30-56	99.8	49.1	49.0	34.1	144	26.2
Lake Lucille	8400	4- 1-56	180.2	46.1	83.0	63.5	131	47.8

1/, 2/, See footnotes on page 17.

TABLE 2 - SNOW SURVEY DATA AS OF APRIL 1, 1956 (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 1955 (Inches)
LAHONTAN AREA (Cont'd)								
Upper Owens River								
Mammoth Pass #1	9500	3-30-56	113.7	48.4	55.0	47.1	117	35.0
Minarettes #2	9000	3-30-56	94.1	46.4	43.7	34.1	128	24.6
Minarettes #1	8300	3-30-56	60.5	46.1	27.9	23.7	118	15.2
Mammoth Pass #2	8300	3-30-56	56.7	45.1	25.6	22.4	114	17.3
Rock Creek								
Mono Pass	11450	3-30-56	110.6	46.7	51.6	31.7	163	24.3
Rock Creek #3	10000	3-29-56	54.2	45.9	24.9	15.2	164	11.6
Rock Creek #2	9050	3-29-56	30.7	44.6	13.7	10.5	130	6.9
Rock Creek #1	8700	3-29-56	25.0	44.8	11.2	9.6	117	5.2
Bishop Creek								
Bishop Pass	11400	3-27-56	85.5	43.5	37.2	34.5	108	27.4
Bishop Lakes	11300	3-28-56	61.5	40.3	24.8	New Course 1951		17.3
Piute Pass	11200	3-26-56	110.9	46.3	51.3	35.1	146	25.5
East Piute Pass	10800	3-25-56	62.5	38.7	24.2	23.2	104	11.9
Sawmill	10200	3-28-56	63.0	43.5	27.4	19.6	140	14.4
North Lake	9500	3-25-56	24.9	43.0	10.7	10.4	103	7.4
South Fork	9000	3-28-56	Patches Only			5.3	0	Patches Only
Bishop Park	8500	3-25-56	Patches Only			5.3	0	No Snow on Course
Big Pine Creek								
Big Pine Creek #1	10000	3-26-56	82.4	45.1	37.2	24.4	152	18.0
Big Pine Creek #3	9800	3-27-56	49.5	44.0	21.8	17.1	127	12.3
Big Pine Creek #2	9700	3-26-56	54.4	40.8	22.2	17.3	128	13.2
Cottonwood Creek								
Cottonwood Pass	11100	3-31-56	37.0	35.7	13.2	16.5	80	8.1
Cottonwood #2	11100	3-27-56	37.1	41.0	15.2	13.5	113	8.8
Cottonwood #1	10600	3-27-56	35.5	43.1	15.3	12.8	120	6.4
Mojave Desert								
Islip #3	7600	3-29-56	4.3	53.4	2.3	New Course 1955		
Islip #4	7570	3-29-56	6.2	50.0	3.1	New Course 1955		
Islip #2	7400	3-29-56	No Snow on Course		0.0	New Course 1955		
Mt. Baden Powell	7150	3-30-56	Patches Only			New Course 1955		
Buckhorn	7100	3-30-56	No Snow on Course		0.0	New Course 1954		N.S.M.
Cedar Springs	6500	3-29-56	No Snow on Course		0.0	New Course 1954		N.S.M.
Squaw Camp	5800	3-29-56	No Snow on Course		0.0	New Course 1954		N.S.M.
COLORADO DESERT AREA								
Whitewater Basin								
Tahquitz Valley	7800	4- 2-56	9.3	16.1	1.5	New Course 1953		1.7

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.

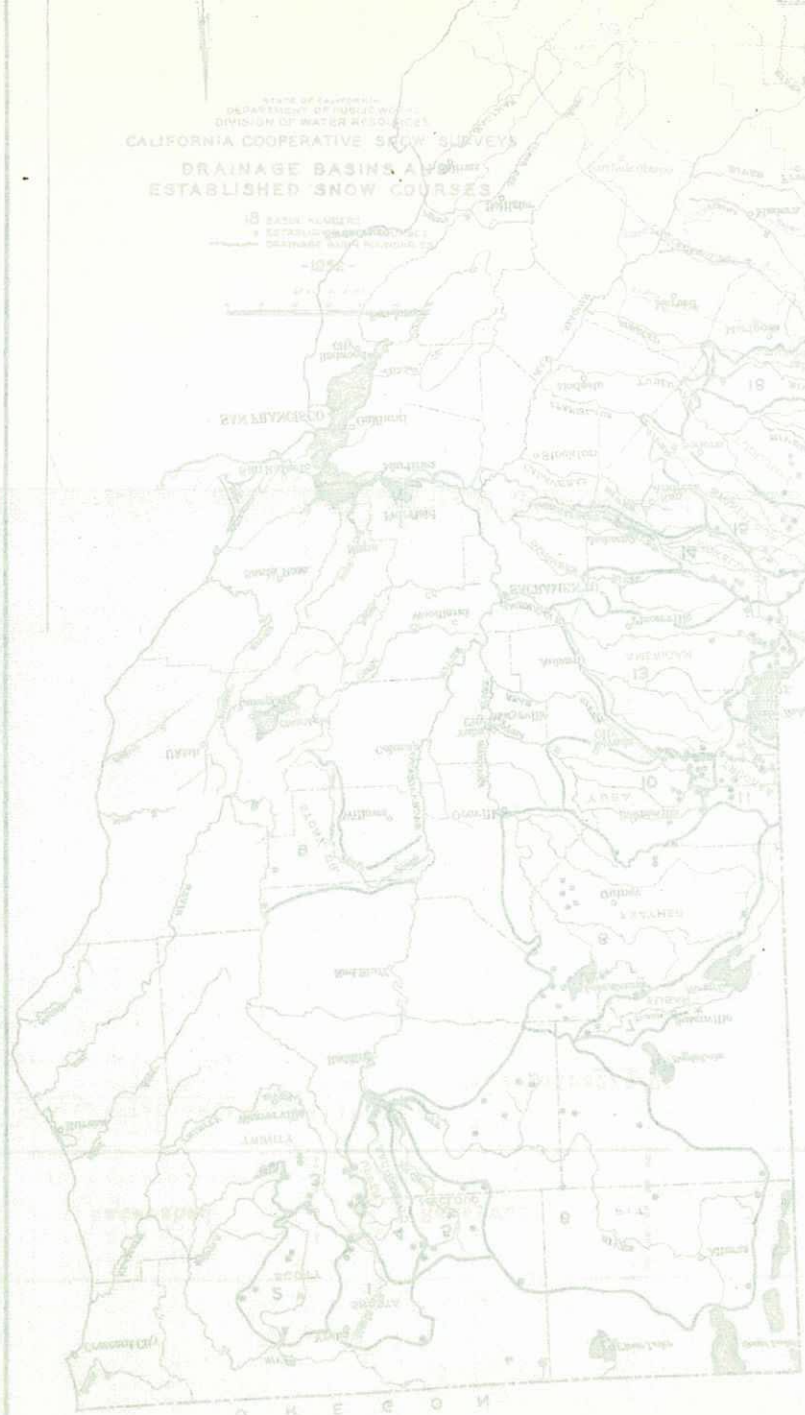


TABLE 3 - WATER CONTENT OF MAJOR STORAGE RESERVOIRS AS OF APRIL 1 (Cont'd)

Watershed	Reservoir	Operator	10-year Average 1946-55 (Acre-Feet)	Usable Capacity (Acre-Feet)	Water in Storage (Acre-Feet) 1955	Water in Storage (Acre-Feet) 1956	1956 Storage in Per Cent of 10-year Average
SOUTH COASTAL AREA (Cont'd)							
City of San Diego	Municipal Reservoirs 2/3/	City of San Diego	132,110	399,530	89,950	82,220	62
Santa Ysabel Creek	Sutherland	City of San Diego	4/	29,000	1,920	2,050	---
CENTRAL VALLEY AREA							
Sacramento	Shasta	U. S. Bureau of Reclamation	3,467,400	4,500,000	3,416,100	3,884,500	112
Feather	Mountain Meadows	Pacific Gas & Electric Co.	16,830	24,000	9,510	23,950	142
	Lake Almanor	Pacific Gas & Electric Co.	443,890	649,800	303,880	401,740	90
	Bucks Storage	Pacific Gas & Electric Co.	66,690	101,700	37,640	59,690	89
	Butt Valley	Pacific Gas & Electric Co.	40,180	49,900	44,350	40,800	101
Yuba	Bowman Lake	Nevada Irrigation District	22,800	69,400	3,300	53,700	236
	Scotts Flat	Nevada Irrigation District	4/	26,800	12,980	26,710	---
	Spaulding System	Pacific Gas & Electric Co.	63,420	137,400	29,420	106,290	168
Bear	Combie	Nevada Irrigation District	5,440	7,200	2,830	7,160	132
American	Folsom	U. S. Bureau of Reclamation	4/	1,010,300	71,500	481,700	---
	Twin Lakes	Pacific Gas & Electric Co.	7,430	21,580	2,160	11,500	155
	Silver Lake	Pacific Gas & Electric Co.	2,350	8,590	950	150	6
Stony Creek	East Park	U. S. Bureau of Reclamation	43,430	50,800	34,990	50,430	116
	Stony Gorge	U. S. Bureau of Reclamation	43,210	50,050	26,600	49,000	113
Cache Creek	Clear Lake	Clear Lake Water Co.	241,190	319,000	201,700	296,000	123
Cosumnes	Sly Park	U. S. Bureau of Reclamation	4/	41,000	11,050	41,360	---
Mokelumne	Lower Bear River	Pacific Gas & Electric Co.	4/	48,500	6,200	22,000	---
	Salt Springs	Pacific Gas & Electric Co.	22,910	140,000	2,080	75,270	328
	Pardee	East Bay M.U.D.	173,340	210,000	144,930	176,560	102
Stanislaus	Relief	Pacific Gas & Electric Co.	4,150	15,550	0	10,000	241
	Strawberry	Pacific Gas & Electric Co.	5,910	18,270	3,730	16,550	280
	Melones	Oakdale & So.San Joaquin I.D.	57,580	112,600	4,560	91,690	159
Tuolumne	Lake Eleanor	City & Co. of San Francisco	18,140	26,100	17,710	14,920	82
	Hetch Hetchy	City & Co. of San Francisco	111,000	360,400	40,560	213,230	192
	Don Pedro	Turlock & Modesto I.D.	185,900	260,000	114,260	178,620	96
	Owen	Turlock Irrigation District	34,870	49,000	40,080	33,280	95
	Dallas Warner	Modesto Irrigation District	16,900	27,000	16,840	17,780	105
Merced	Lake McClure	Merced Irrigation District	154,520	280,900	88,360	226,350	146
San Joaquin	Crane Valley	Pacific Gas & Electric Co.	25,770	45,400	14,040	35,730	139
	Vermilion Valley	Southern Calif. Edison Co.	4/	125,000	3,400	26,320	---
	Florence Lake	Southern Calif. Edison Co.	368	64,400	420	780	212
	Huntington Lake	Southern Calif. Edison Co.	27,670	89,200	26,280	28,850	104
	Shaver Lake	Southern Calif. Edison Co.	22,140	135,300	23,280	25,630	116
	Millerton Lake (Friant)	U. S. Bureau of Reclamation	276,700	520,500	307,100	204,700	74
Kings	Pine Flat	U. S. Corps of Engineers	4/	1,001,000	157,650	429,580	---
Kern	Isabella	U. S. Corps of Engineers	4/	570,000	7,450	127,150	---
	Buena Vista	Buena Vista Associates	21,710	205,000	0	1,070	5

1/, 2/, 3/, 4/, 5/, 6/ See footnotes on page 20.

TABLE 4

SUMMARY OF STORAGE
IN MAJOR RESERVOIRS

Area	Number of Reported Reservoirs	Total Capacity (Acre-Feet)	Water in Storage (Acre-Feet) April 1 1955	October 1 1955	April 1 1956	Per Cent of Capacity April 1 1956
Intrastate						
North Coastal	2	143,920	86,130	41,100	113,045	79
San Francisco Bay	12	448,880	281,280	224,000	425,110	95
Central Coastal	3	248,100	56,490	45,880	76,880	31
South Coastal	21	1,057,090	246,860	188,230	236,370	22
Central Valley	37	11,371,640	5,228,480	4,198,980	7,490,740	66
Lahontan Area	7	347,870	190,050	229,790	237,380	68
Subtotal	82	13,617,500	6,089,290	4,927,980	8,579,525	63
Interstate						
North Coastal	3	1,132,390	694,780	393,430	915,390	81
Lahontan	3	815,500	381,510	313,210	525,190	64
Colorado Desert 1/	1	27,207,000	11,539,000	12,090,000	10,720,000	39
Subtotal	7	29,154,890	12,615,290	12,796,640	12,160,580	42
TOTAL	89	42,772,390	18,704,580	17,724,620	20,740,105	48

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

TABLE 6

WASTE TO THE OCEAN
CENTRAL AND SOUTH COASTAL AREAS
MARCH, 1956

Stream	Discharge Duration, in days	Peak Date	Discharge in second-feet	Waste to Ocean, in acre-feet 1/
CENTRAL COASTAL AREA				
Santa Maria River 2/	0	---	---	0
Santa Ynez River 2/	31	No peak	---	1,140
SOUTH COASTAL AREA				
Ventura River 2/	31	No peak	---	439
Santa Clara River 3/	0	---	---	0
Ballona Creek 4/	31	No peak	---	693
Dominguez Channel 4/	31	No peak	---	627
Los Angeles River 4/	31	No peak	---	1,660
Los Cerritos Channel 4/	26	No peak	---	9
San Gabriel River 4/	0	---	---	0
Coyote Creek 4/	31	No peak	---	20
Santa Ana River 2/	31	No peak	---	1.4
Santa Ana Delhi Drain 5/	31	No peak	---	63
Peters Canyon Drain 5/	12	---	---	11
Aliso Creek 5/	0	---	---	0
Trabuco Creek 5/	1	No peak	---	4
San Juan Creek 2/	31	No peak	---	147
Santa Margarita River 2/	0	---	---	0
San Luis Rey River 2/	0	---	---	0
				4,814.4

1/ All data preliminary, subject to revision.
2/ United States Geological Survey Data.
3/ Ventura County Flood Control District Data.
4/ Los Angeles County Flood Control District Data.
5/ Orange County Flood Control District Data.

TABLE 7 - GROUND WATER DATA, SPRING 1956 (Cont'd)

Number on Map[1]	Area and Ground Water Unit	County	Source of Data[2]	Wells Reported	Depth to Ground Water Spring 1956 in feet: Maximum	Minimum	Average	Average Change Ground Water Spring, 1955 to Spring 1956 in feet
	CENTRAL COASTAL (Cont'd)							
27	Carpinteria Basin	Santa Barbara	USGS	18	333.3	5.6	104.9	-1.0
	SOUTH COASTAL							
28	Ojai Valley	Ventura	VCDPW	3	155.9	17.6	87.7	-9.0
29	Santa Clara River Valley	Ventura						
	Oxnard Plain Basin		CO, USNH, VCDPW	10	83.7	13.4	41.1	-3.9
	Mound Pressure Area		VCDPW	5	215.0	37.8	127.2	-3.8
	Oxnard Forebay Basin		VCDPW	6	102.2	70.9	90.9	-6.1
	Santa Paula Basin		VCDPW	4	285.6	46.3	128.2	-1.5
	Fillmore Basin		VCDPW	3	63.5	18.3	45.7	-2.5
	Piru Basin		VCDPW	3	112.9	42.0	79.1	-14.9
30	Pleasant Valley	Ventura	VCDPW	3	96.0	41.9	71.0	-2.8
31	Los Posas Valley	Ventura	VCDPW	5	280.0	48.0	175.9	-3.0
32	Simi Valley	Ventura	VCDPW	13	276.3	26.5	143.7	-2.4
33	San Fernando Valley	Los Angeles	LADWP	10	279.1	12.1	122.4	-5.8
34	Coastal Plain, Los Angeles County	Los Angeles						
	West Coast Basin		LADWP, ROC, TTC, CE, CI, SCWC, SOC, GPC	10	161.0	83.6	122.6	+7.7
	West Coast Basin (Trough Area)		ROC, TAOC, TTC	12	114.4	96.0	104.6	+13.9
	Central Coastal Plain Pressure Area		LACFCD	9	158.5	49.1	90.8	-4.9
	Los Angeles Forebay Area		SGVPA					
	Montebello Forebay Area		LACFCD	3	297.9	181.3	239.5	-6.2
35	San Gabriel Valley	Los Angeles	CW, SGVPA, LACFCD	7	137.2	46.9	102.8	-7.8
	Main San Gabriel Basin		SGVPA	9	293.5	42.2	157.9	-3.9
	Monk Hill Basin		VWC, CP, RCLWA	5	240.2	181.8	214.0	-2.5
	Pasadena Subarea		CP	5	323.1	106.5	203.0	-3.5
	Santa Anita Subarea		CA, CSM	4	175.7	104.1	126.2	-8.9
36	Coastal Plain, Orange County	Orange						
	East Coastal Plain Pressure Area		SGVPA, OCFCD	7	106.5	39.1	66.6	+1.3
	Santa Ana Forebay Area		OCFCD	3	188.2	143.2	163.2	-3.7
	Irvine Basin		OCFCD	3	177.7	105.8	140.2	-4.5
37	Upper Santa Ana Valley							
	Chino Basin	San Bernardino and Riverside	SAWC, SBCFCD, FUWC	8	440.8	47.1	243.9	-11.0
	Bunker Hill Basin	San Bernardino	SBWD, RWC, GCC	6	279.8	flowing	141.2	-7.2
38	Elsinore Basin	Riverside	DWR	12	131.5	14.1	57.8	-3.1
39	San Jacinto Basin	Riverside	RCFCWCD, DWR	8	166.2	16.6	82.9	-5.5
40	Santa Margarita Valley	San Diego	USGS	7	17.5	4.4	11.8	-2.6
41	San Luis Rey Valley	San Diego	COO	5	64.1	29.1	43.6	-3.2
42	Temecula Valley	Riverside	RCFCWCD, VC	8	49.3	14.0	27.7	-2.6
43	Tia Juana Basin	San Diego	CWTC, DWR	5	32.5	18.4	27.4	-5.6

TABLE 7 - GROUND WATER DATA, SPRING 1956 (Cont'd)

Number on Map 1/	Area and Ground Water Unit	County	Source of Data 2/	Wells Reported	Depth to Ground Water Spring 1956 in feet: Maximum	Minimum	Average	Average Change Ground Water Spring, 1955 to Spring 1956 in feet
	LAHONTAN							
79	Lower Mojave River Valley	San Bernardino	SBCFCD, DWR	3	80.5	28.2	62.9	-1.9
80	Middle Mojave River Valley	San Bernardino	SBCFCD, DWR	4	59.3	14.3	31.4	+0.9
81	Upper Mojave River Valley	San Bernardino	SBCFCD, DWR	2	66.2	43.8	55.0	-2.9
82	Antelope Valley	Los Angeles and Kern	LACFCD, DWR	17	278.2	22.5	159.2	-5.1
83	Harper Valley	San Bernardino	USGS	9	223.5	35.5	92.0	-3.2
84	Coyote Lake Valley	San Bernardino	USGS	6	45.3	flowing	18.0	+0.3
85	Superior Valley	San Bernardino	USGS	4	117.5	84.7	102.5	+0.1
86	Cronise Valley	San Bernardino	USGS	3	45.8	13.9	25.3	-0.5
87	Soda Lake Valley	San Bernardino	USGS	5	75.6	18.7	43.8	-0.2
88	Cuddeback Valley	San Bernardino	USGS	4	147.2	51.6	93.0	-0.2
	COLORADO DESERT							
89	Lucerne Valley	San Bernardino	USGS	18	171.2	flowing	86.5	-1.5
90	Coachella Valley	Riverside	PSWC, CVCWD	15	238.3	flowing	125.7	-2.1
91	Borrego Valley	San Diego	USGS	12	153.2	13.4	60.2	-3.0

1/ See map in first portion of report.

2/ USGS - United States Geological Survey; ACFCWCD - Alameda County Flood Control and Water Conservation District; DWR - Division of Water Resources; SCVWCD - Santa Clara Valley Water Conservation District; MC - Monterey County; VCDPW - Ventura County Department of Public Works; USNH - United States Navy, Construction Battalion Center, Port Hueneme; CO - City of Oxnard; LADWP - Los Angeles Department of Water and Power; ROC - Richfield Oil Corporation; TTC - The Texas Company; CE - City of El Segundo; CI - City of Inglewood; SCWC - Southern California Water Company; SOC - Standard Oil Company; GPC - General Petroleum Corporation; TAOC - Tidewater Associated Oil Company; LACFCD - Los Angeles County Flood Control District; SGVPA - San Gabriel Valley Protective Association; CW - City of Whittier; VWC - Valley Water Company; CP - City of Pasadena; RCLWA - Rubio Canon Land and Water Association; CA - City of Arcadia; CSM - City of Sierra Madre; OCFCD - Orange County Flood Control District; SAWC - San Antonio Water Company; SBCFCD - San Bernardino County Flood Control District; FUWC - Fontana Union Water Company; SBWD - San Bernardino Water Department; RWC - Riverside Water Company; GCC - Gage Canal Company; RCFCWCD - Riverside County Flood Control and Water Conservation District; COO - City of Oceanside; VC - Vail Company; CWTC - California Water and Telephone Company; USBR - United States Bureau of Reclamation; OID - Oakdale Irrigation District; CWD - Chowchilla Water District; MID - Madera Irrigation District; FID - Fresno Irrigation District; COF - City of Fresno; CID - Consolidated Irrigation District; AID - Alta Irrigation District; OCID - Orange Cove Irrigation District; IID - Ivanhoe Irrigation District; KDWCD - Kaweah Delta Water Conservation District; TID - Tulare Irrigation District; EID - Exeter Irrigation District; LSID - Lindsay-Strathmore Irrigation District; LID - Lindmore Irrigation District; LTRID - Lower Tule River Irrigation District; PID - Porterville Irrigation District; SID - Saucelito Irrigation District; DEID - Delano-Earlimart Irrigation District; SSJMUD - South San Joaquin Municipal Utility District; BVWSD - Buena Vista Water Storage District; CWSC - California Water Service Company; PSWC - Palm Springs Water Company; CVCWD - Coachella Valley County Water District.

3/ Flowing

TABLE 8 - ARTIFICIAL RECHARGE OF GROUND WATER BASINS - CENTRAL AND SOUTH COASTAL AREAS (Cont'd)

Spreading Grounds	Source	Agency	Amount Spread (acre-feet) October 1, 1955 through March 31, 1956	Amount Spread (acre-feet) March, 1956
Mouth of San Gabriel Canyon - West Side	San Gabriel River	Duarte Mutual Water Co.	3,907	652
Mouth of San Gabriel Canyon - East Side	San Gabriel River	San Gabriel River Spreading Corporation	7,021	1,104
Little Dalton	Little Dalton Creek	Glendora Irrigating Co.	30	0
Big Dalton	Big Dalton Creek	Los Angeles County F.C.D.	7	0
Rio Hondo Coastal	Colorado River2/ and Rio Hondo	Los Angeles County F.C.D.	8,440 4/	0
Rio Hondo Coastal - West Side	Colorado River2/ and Rio Hondo	Los Angeles County F.C.D.	--	0
San Gabriel Coastal	San Gabriel River and Colorado River2/	Los Angeles County F.C.D.	11,790	0
Thompson Creek	Thompson, Cobal, Williams, Palmer, and Padua Creeks	Pomona Valley Protective Association	0	0
Pomona	San Antonio Creek via Loop Merserve Canyon Water Company pipe line	City of Pomona	403	84
San Antonio	San Antonio Creek	Pomona Valley Protective Association	927	0
Cucamonga Creek, Upper	Frankish and Stamm Tunnel and San Antonio Creek via pipe line	San Antonio Water Co.	706	66
Red Hill	Storm runoff and drainage from citrus orchards	San Bernardino County F.C.D.	141	0
Eighth Street	Cucamonga Creek and runoff from impervious surfaces	San Bernardino County F.C.D.	131	0
Day Canyon	Day Canyon	Etiwanda Water Company	218	74
East Avenue	Day Canyon via Etiwanda Water Company's Conduit	Etiwanda Water Company	178	10
Lytle Creek	Lytle Creek	Fontana Union Water Co.	1,402	3

1/, 2/, 3/, 4/, 5/, See footnotes on page 31.

TABLE 8 - ARTIFICIAL RECHARGE OF GROUND WATER BASINS - CENTRAL AND SOUTH COASTAL AREAS (Cont'd)

Spreading Grounds	Source	Agency	Amount Spread (acre-feet) October 1, 1955 through March 31, 1956	Amount Spread (acre-feet) March, 1956
Olive, North Side	Santa Ana River and Colorado River3/	Santa Ana Valley Irrigation Company	985	154
Gomber and Hazard	Santa Ana River and Colorado River3/	Anaheim Union Water Co.	1,313	404
Placentia	Santa Ana River and Colorado River3/	Anaheim Union Water Co.	977	414
West Anaheim	Runoff from City of Anaheim	Orange County F.C.D.	368	8
		TOTALS	67,615	7,701

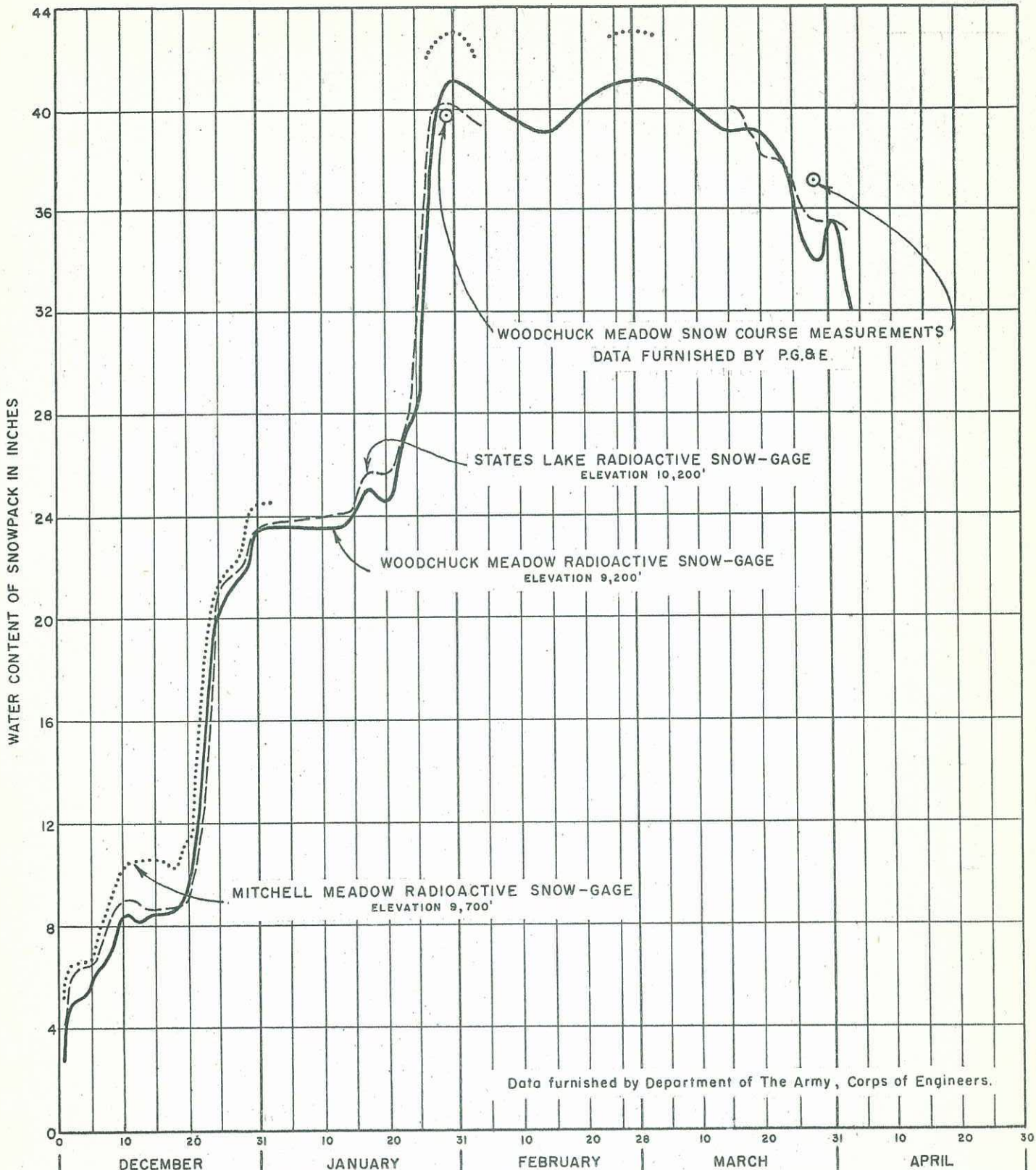
1/ Via Metropolitan Water District Aqueduct.
2/ Via Metropolitan Water District Aqueduct, Walnut Creek, and San Gabriel River.
3/ Via Metropolitan Water District Aqueduct and Santa Ana River.
4/ Includes water spread in Rio Hondo Coastal West Side Spreading Grounds.
5/ Amount of Colorado River water purchased and released into Santa Ana River near Arlington.

TABLE 9 - AERIAL PHOTOGRAPHIC SNOW DEPTH MEASUREMENTS, APRIL 1, 1956 (Cont'd)

Area, Stream Basin and Name of Marker	Source of Data*	Elevation in Feet	Date of Measurement	Depth of Snow in Inches
LAHONTAN AREA (Cont'd)				
Taboose Creek				
Taboose Pass	L.A.D.W.P.	11,200	3-29	84
Sawmill Creek				
Sawmill Pass	L.A.D.W.P.	11,400	3-29	84
Independence Creek				
Kearsarge Pass	L.A.D.W.P.	11,500	3-29	114
Onion Valley	L.A.D.W.P.	9,000	3-29	18
Cottonwood Creek				
Cottonwood Lakes	L.A.D.W.P.	11,200	3-29	66
Horseshoe Meadows	L.A.D.W.P.	11,100	3-29	30
Golden Trout Cabin	L.A.D.W.P.	10,600	3-29	24
Shepherds Creek				
Shepherds Pass	L.A.D.W.P.	11,000	3-29	174

*C.E.P.C. - California Electric Power Company; S.C.E.C. - Southern California Edison Company; L.A.D.W.P. - Los Angeles Department of Water and Power; D.W.R. - Division of Water Resources.

PLATE I



RADIO TRANSMITTED SNOWPACK MEASUREMENTS
KINGS RIVER WATERSHED
1955-1956 SEASON

DIVISION OF WATER RESOURCES 1956