CALIFORNIA COOPERATIVE SNOW SURVEYS 98548

(25)

STATE OF CALIFORNIA
The Resources Agency

Department of Water Resources

BULLETIN No. 120-70

WATER CONDITIONS IN CALIFORNIA

REPORT No. 1

FEBRUARY 1, 1970

NORMAN B. LIVERMORE, JR.
Secretary for Resources
The Resources Agency

RONALD REAGAN
Governor
State of California

WILLIAM R. GIANELLI
Director
Department of Water Resources

State of California
The Resources Agency
DEPARTMENT OF WATER RESOURCES

RONALD REAGAN, Governor
NORMAN B. LIVERMORE, Secretary for Resources
WILLIAM R. GIANELLI, Director, Department of Water Resources
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WATER CONDITIONS INDEXES

THE PRINCIPAL INDEXES OF WATER CONDITIONS IN CALIFORNIA ARE LISTED BELOW WITH PERTINENT COMMENTS REGARDING THEIR PRESENTATION IN THIS REPORT.

SNOWPACK - APRIL 1 SNOW DATA ARE MAJOR INDEXES OF SPRING AND SUMMER RUNOFF FROM SIERRA WATERSHEDS AND HISTORICALLY REFLECT THE MAGNITUDE OF THE SNOWPACK AT NEAR MAXIMUM SEASONAL ACCUMULATION. AVERAGES ARE BASED ON THE PERIOD, 1931-1965 (35 YEARS).

PRECIPITATION - AVERAGES ARE BASED ON THE PERIOD, 1931-1965 (35 YEARS).

RESERVOIR STORAGE - AVERAGES ARE BASED ON THE PERIOD, 1960-1969 (10 YEARS)

RUNOFF - UNLESS OTHERWISE NOTED, STREAMFLOW DATA USED AS INDEXES OF BASIN OR AREA RUNOFF HAVE BEEN CORRECTED FOR MAJOR UPSTREAM IMPAIRMENTS. FORECASTS OF RUNOFF ASSUME NORMAL PRECIPITATION TO FOLLOW. RUNOFF PROBABILITY RANGES ARE STATISTICALLY DERIVED FROM HISTORICAL DATA; 80 PERCENT PROBABILITY MEANS THAT ACTUAL RUNOFF WILL FALL WITHIN THE STATED LIMITS EIGHT TIMES OUT OF TEN. AVERAGES ARE BASED ON THE PERIOD, 1916-1965 (50 YEARS).

AGENCIES COOPERATING IN THE CALIFORNIA SNOW SURVEYS PROGRAM

PUBLIC AGENCIES
- BUENA VISTA WATER STORAGE DISTRICT
- CENTRAL CALIFORNIA IRRIGATION DISTRICT
- EAST BAY MUNICIPAL UTILITY DISTRICT
- FRIANT WATER USERS ASSOCIATION
- KAWEAH DELTA WATER CONSERVATION DISTRICT
- KAWEAH RIVER ASSOCIATION
- KINGS RIVER WATER ASSOCIATION
- LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
- LOWER TULE RIVER IRRIGATION DISTRICT
- MERCED IRRIGATION DISTRICT
- MODESTO IRRIGATION DISTRICT
- NEVADA IRRIGATION DISTRICT
- OAKDALE IRRIGATION DISTRICT
- OMOCHUMNE-HARTNELL WATER DISTRICT
- PLACER COUNTY WATER AGENCY
- PORTERVILLE IRRIGATION DISTRICT
- SACRAMENTO MUNICIPAL UTILITY DISTRICT
- SAUCELITO IRRIGATION DISTRICT
- SOUTH SAN JOAQUIN IRRIGATION DISTRICT
- ST. JOHNS RIVER ASSOCIATION
- TULE RIVER ASSOCIATION
- TURLOCK IRRIGATION DISTRICT
- VANDALIA IRRIGATION DISTRICT

PRIVATE ORGANIZATIONS
- ATMOSPHERICS INCORPORATED
- ATMOSPHERIC WATER RESOURCES RESEARCH
- J. G. BOSWELL COMPANY
- KERN COUNTY LAND COMPANY
- LIBERTY FARMS COMPANY
- MT. REBA INC.
- UNION CARBIDE CORPORATION

PUBLIC UTILITIES
- PACIFIC GAS AND ELECTRIC COMPANY
- SIERRA PACIFIC POWER COMPANY
- SOUTHERN CALIFORNIA EDISON COMPANY

MUNICIPALITIES
- CITY OF LOS ANGELES
  - DEPARTMENT OF WATER AND POWER
- CITY OF PORTERVILLE
- CITY AND COUNTY OF SAN FRANCISCO
  - PUBLIC UTILITIES COMMISSION

STATE AND FEDERAL AGENCIES
- CALIFORNIA DEPARTMENT OF WATER RESOURCES
- CALIFORNIA DEPARTMENT OF PARKS AND RECREATION
- U. S. DEPARTMENT OF AGRICULTURE
  - FOREST SERVICE (14 NATIONAL FORESTS)
  - SOIL CONSERVATION SERVICE
- U. S. DEPARTMENT OF COMMERCE
  - WEATHER BUREAU
- U. S. DEPARTMENT OF THE INTERIOR
  - BUREAU OF RECLAMATION
  - GEOLOGICAL SURVEY, WATER RESOURCES DIVISION
  - NATIONAL PARK SERVICE (3 NATIONAL PARKS)
- U. S. DEPARTMENT OF THE ARMY
  - CORPS OF ENGINEERS

OTHER COOPERATIVE PROGRAMS
- NEVADA COOPERATIVE SNOW SURVEYS
- OREGON COOPERATIVE SNOW SURVEYS

FIGURE 1

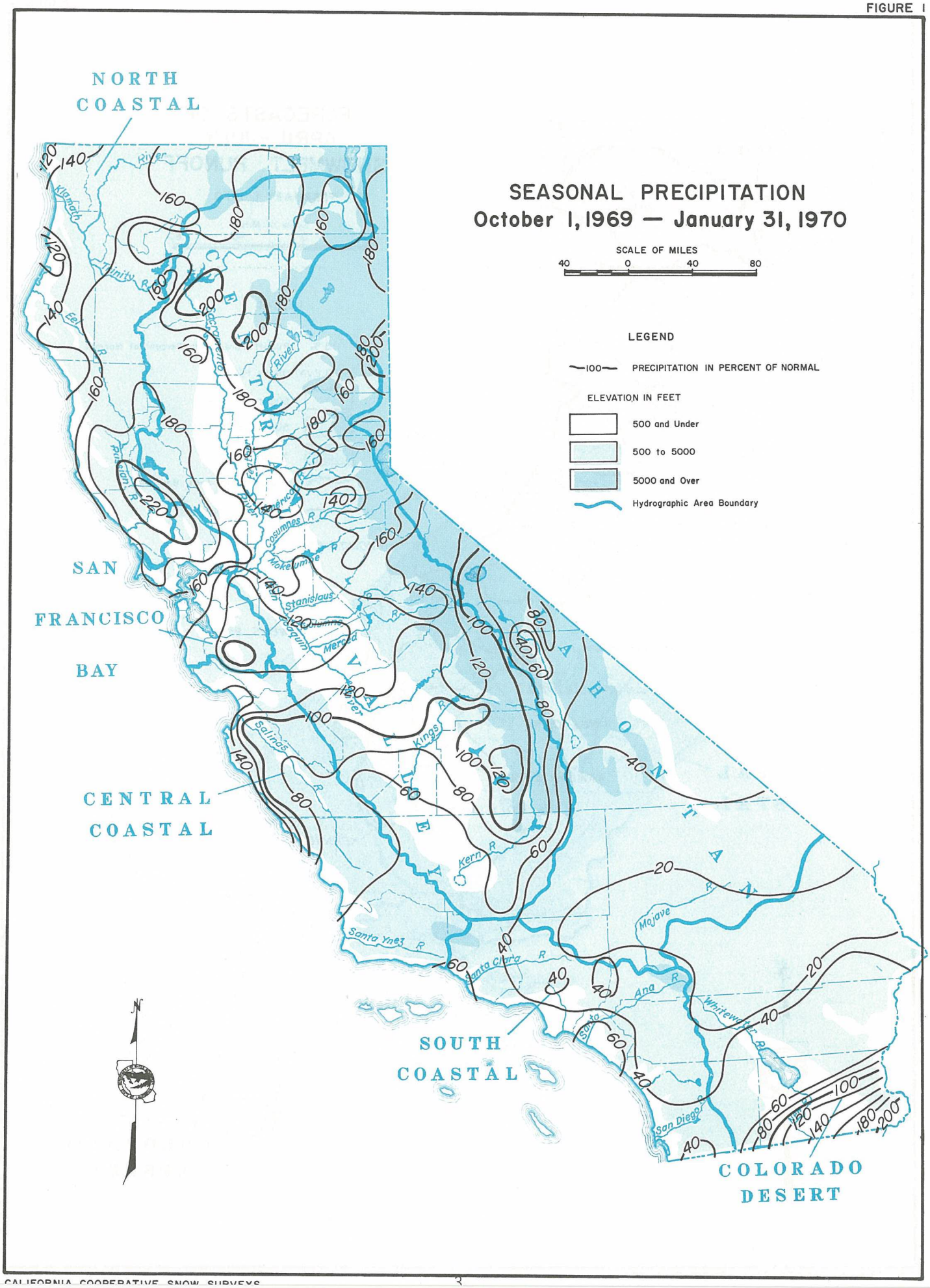
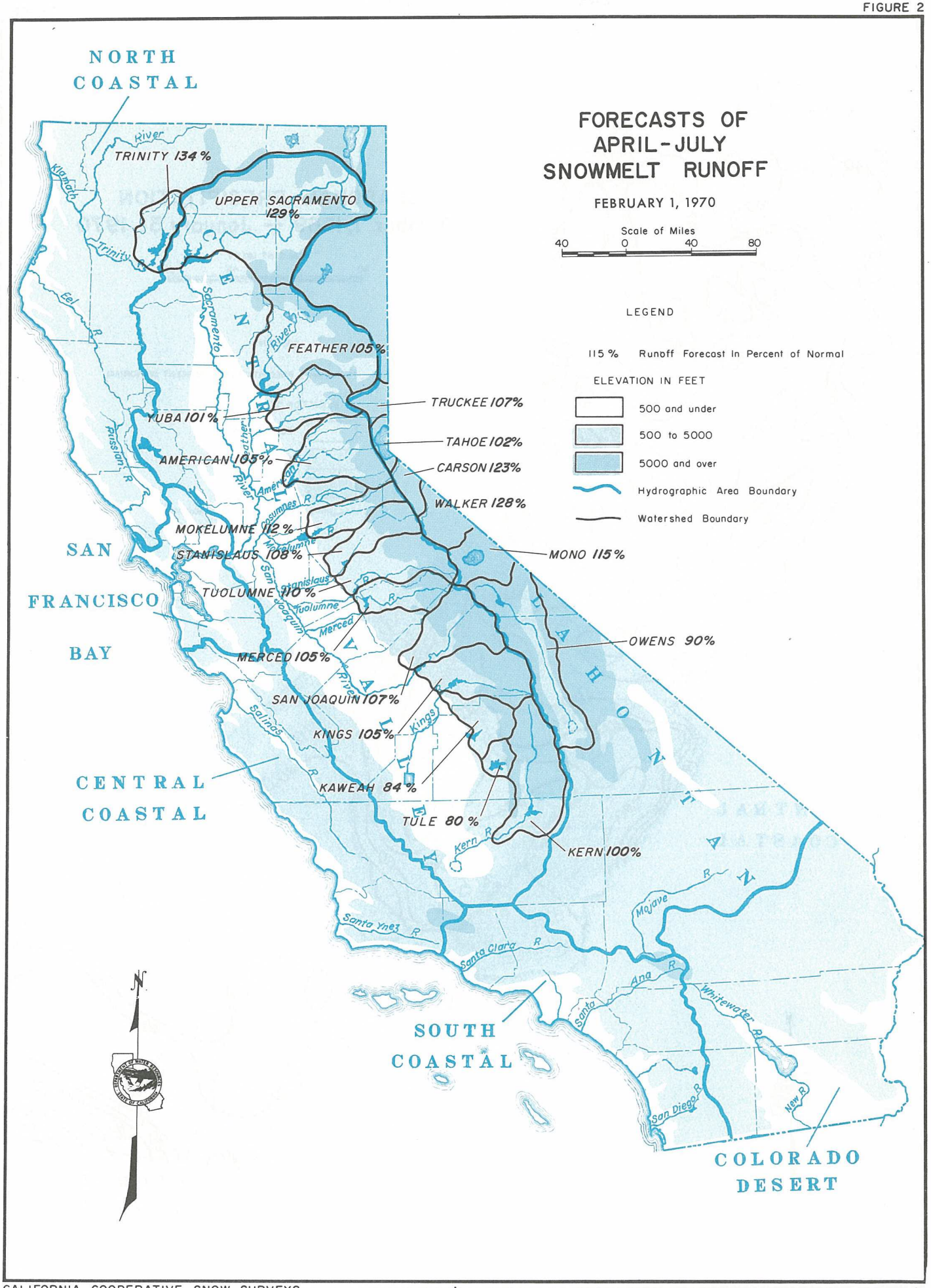

SEASONAL PRECIPITATION
October 1, 1969 — January 31, 1970
SCALE OF MILES
40 0 40 80
LEGEND
100 PRECIPITATION IN PERCENT OF NORMAL
ELEVATION IN FEET
500 and Under
500 to 5000
5000 and Over
Hydrographic Area Boundary
NORTH COASTAL
SAN FRANCISCO BAY
CENTRAL COASTAL
SOUTH COASTAL
COLORADO DESERT
CENTRAL VALLEY
DESERT
Klamath River
Trinity R
Eel R
Russian R
Sacramento River
Feather River
Cosumnes R
Mokelumne R
Stanislaus R
Merced R
Salinas R
Kings R
Kern R
Santa Ynez R
Santa Clara R
Santa Ana R
Mojave R
Whitewater R
San Diego R
N

FIGURE 2


FORECASTS OF
APRIL-JULY
SNOWMELT RUNOFF
FEBRUARY 1, 1970
Scale of Miles
40 0 40 80
LEGEND
115 % Runoff Forecast In Percent of Normal
ELEVATION IN FEET
500 and under
500 to 5000
5000 and over
Hydrographic Area Boundary
Watershed Boundary
NORTH COASTAL
SAN FRANCISCO BAY
CENTRAL COASTAL
SOUTH COASTAL
COLORADO DESERT
TRINITY 134%
UPPER SACRAMENTO 129%
FEATHER 105%
TRUCKEE 107%
YUBA 101%
TAHOE 102%
AMERICAN 105%
CARSON 123%
WALKER 128%
MOKELUMNE 112%
STANISLAUS 108%
MONO 115%
TUOLUMNE 110%
OWENS 90%
MERCED 105%
SAN JOAQUIN 107%
KINGS 105%
KAWEAH 84%
TULE 80%
KERN 100%
CENTRAL VALLEY
LAHONTAN
Klamath River
Trinity R
Eel R
Russian R
Sacramento River
Feather River
American River
Cosumnes R
Mokelumne R
Stanislaus R
Tuolumne R
San Joaquin River
Merced R
Kings R
Salinas R
Kern R
Santa Ynez R
Santa Clara R
Mojave R
Santa Ana R
Whitewater R
San Diego R
New R
N

SUMMARY OF WATER CONDITIONS

FEBRUARY 1, 1970

SNOW ON THE GROUND BY FEBRUARY 1 INDICATES THAT THERE IS A GOOD CHANCE FOR NORMAL WATER SUPPLIES THIS YEAR. THE POSSIBILITY IS REINFORCED BY THE VERY LATE AND DEEP SNOWPACK LAST SPRING THROUGHOUT THE SOUTHERN SIERRA, AND BY THE ABOVE NORMAL RAINS IN JANUARY OF THIS YEAR IN NORTHERN CALIFORNIA. ALL MAJOR RESERVOIRS CARRIED SURPLUS STORED WATER INTO THE FALL MONTHS, AND MANY GROUND WATER BASINS WERE RECHARGED IN 1969.

FORECASTS FOR APRIL THROUGH JULY SNOWMELT RUNOFF ARE FOR NORMAL OR ABOVE NORMAL FLOWS FROM ALL WATERSHEDS EXCEPT FOR THE RELATIVELY LOW ELEVATION KAWEAH AND TULE RIVER BASINS.

DURING THE PROLONGED STORMS OF JANUARY IN NORTHERN CALIFORNIA, MUCH OF THE ACCUMULATED SNOW BELOW THE 7,000-FOOT ELEVATION WAS DISSIPATED DUE TO EXCEPTIONALLY WARM TEMPERATURES AND THE RESULTING RAINFALL OVER THE MOUNTAINS. AUTOMATIC SNOW SENSORS SHOW THAT THE LOWER ELEVATION SNOWPACK LOST AS MUCH AS FIVE INCHES OF WATER DURING THE MIDMONTH STORM PERIOD. A FLOOD EMERGENCY FOR NORTHERN PORTIONS OF THE STATE RESULTED AND MANY FLOOD CONTROL RESERVOIRS WERE OPERATED SO THAT FLOOD CONTROL SPACE WAS UTILIZED DURING THIS PERIOD IN ORDER TO HOLD RELEASES DOWNSTREAM TO NONDAMAGING FLOWS.

DESPITE THE WATER LOSS FROM THE LOW AND MIDELEVATION SNOWPACK DURING THE WARM JANUARY RAINSTORMS, SUBSEQUENT COOLER WEATHER HALTED SNOWMELT AND ALLOWED THE HIGHER ELEVATIONS TO RETAIN A FAIR SNOWPACK AND THEN ACCUMULATE ADDITIONAL AMOUNTS BY MONTH'S END. THE EXTENDED WET REGIME ALSO RESULTED IN ADDING WATER TO ALREADY EXCELLENT CARRY-OVER STORAGE IN RESERVOIRS AND WELL ABOVE AVERAGE SUPPLIES NOW EXIST THROUGHOUT THE STATE.

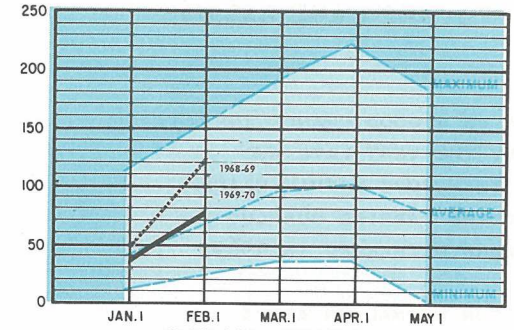
IN THE SOUTH COASTAL AND COLORADO DESERT AREAS, THE JANUARY STORMS WERE MUCH LIGHTER AND PRECIPITATION TO DATE IN THESE AREAS HAS BEEN BELOW NORMAL. HOWEVER, DUE TO THE EXCELLENT SUPPLIES AVAILABLE IN AREAS FROM WHICH WATER IS IMPORTED, THERE SHOULD BE ADEQUATE AMOUNTS FOR SCHEDULING NORMAL DELIVERIES THIS YEAR.

THE RECORD RUNOFF VOLUMES, APPROACHING 300 PERCENT OF NORMAL FOR THIS DATE IN SOME AREAS, HAVE ASSISTED IN MAINTAINING OR IMPROVING GROUND WATER LEVELS. COUPLED WITH THE FAVORABLE RESERVOIR STORAGE AND FORECASTS OF GENERALLY NORMAL OR ABOVE SPRING AND SUMMER RUNOFF, CALIFORNIANS CAN LOOK FORWARD TO ADEQUATE WATER SUPPLIES IN 1970 WITH CAUTIOUS OPTIMISM.

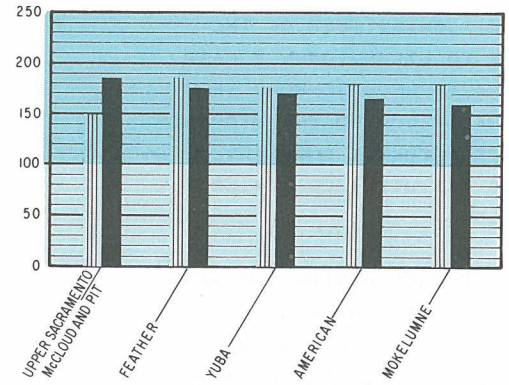
SUMMARY OF WATER CONDITIONS
IN PERCENT OF AVERAGE

HYDROGRAPHIC AREA	PRECIPITATION OCTOBER 1 TO DATE	SNOW WATER CONTENT	RESERVOIR STORAGE	RUNOFF	
				OCTOBER 1 TO DATE	WATER YEAR FORECAST
North Coastal	165	130	135	270	160
San Francisco Bay	160	--	150	305	180
Central Coastal	90	--	125	125	110
South Coastal	40	--	175	70	95
Central Valley					
Sacramento Basin	175	110	145	300	165
San Joaquin and Tulare Lake Basins	105	105	145	220	120
Lahontan	135	100	140	235	130
Colorado Desert	45	--	--	--	--
ENTIRE STATE	135	110	145	275	150

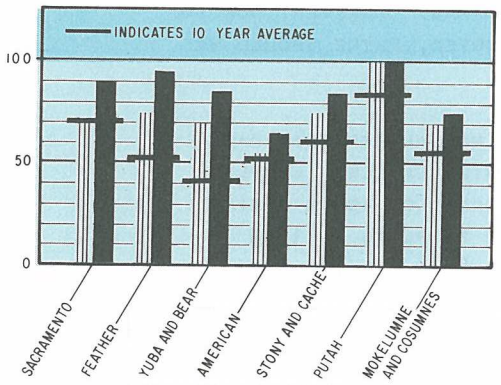
SACRAMENTO RIVER BASIN



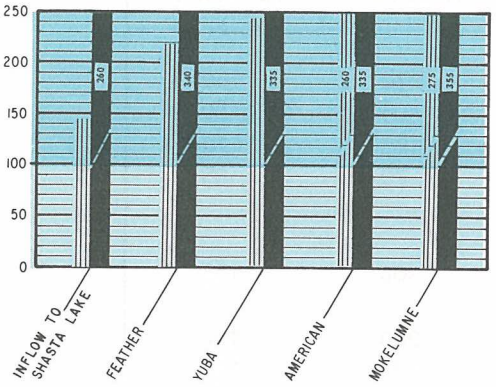
SNOWPACK ACCUMULATION
WATER CONTENT IN PERCENT OF APRIL I AVERAGE



PRECIPITATION
OCTOBER I TO DATE IN PERCENT OF AVERAGE



RESERVOIR STORAGE
CONTENTS OF MAJOR RESERVOIRS IN PERCENT OF CAPACITY



RUNOFF
OCTOBER I TO DATE IN PERCENT OF AVERAGE

FEB. 1, 1969 FEB. 1, 1970

SNOWPACK - MEASUREMENTS OF SNOWPACK WERE OBTAINED AT 68 SNOW COURSES AND 31 AERIAL SNOW DEPTH MARKERS ON OR ABOUT FEBRUARY 1. ALSO, READINGS OF WATER CONTENT WERE OBTAINED FROM 12 SNOW SENSORS. THESE MEASUREMENTS INDICATE THAT SNOWPACK WATER CONTENT WAS 110 PERCENT OF AVERAGE, AS COMPARED TO 195 PERCENT ONE YEAR AGO. THE WATER CONTENT RANGES FROM A HIGH OF 125 PERCENT IN THE SACRAMENTO RIVER BASIN TO A LOW OF 75 PERCENT IN THE YUBA RIVER BASIN. THE WARM STORMS DURING THE MONTH OF JANUARY CAUSED RAIN ON SNOW IN ALL BUT THE HIGHEST ELEVATIONS. DENSITIES RANGED MUCH ABOVE NORMAL. ROBBS VALLEY, IN THE AMERICAN RIVER BASIN, REPORTED A DENSITY OF 55 PERCENT.

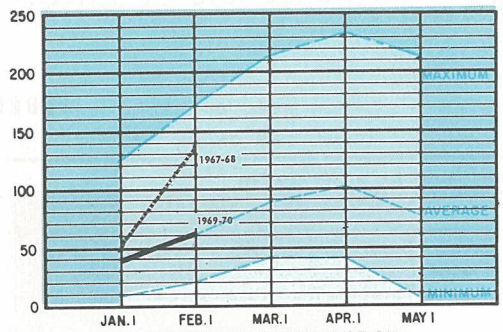
PRECIPITATION - OCTOBER 1 THROUGH JANUARY 31 PRECIPITATION OVER THE SACRAMENTO VALLEY AVERAGED 175 PERCENT OF NORMAL. ALL SUBDRAINAGES, INCLUDING THE VALLEY FLOOR, ARE WELL ABOVE NORMAL. SEASONAL CATCHES ARE ABOUT EQUAL TO THE AMOUNT FOR THIS SAME PERIOD A YEAR AGO. PIT RIVER POWERHOUSE NO. 5 REPORTED AN IMPRESSIVE FOUR-MONTH TOTAL OF 78.83 INCHES, OR 195 PERCENT OF NORMAL.

A VERY WET JANUARY, EXCEEDING TWO AND ONE HALF TIMES NORMAL, BOOSTED A NEAR NORMAL SEASONAL CATCH FOR THE FIRST QUARTER TO WELL ABOVE NORMAL. ALLTIME RECORD CATCHES FOR ANY MONTH OCCURRED AT SEVERAL STATIONS. SOGGY REDDING REPORTED 28.84 INCHES OR 400 PERCENT OF NORMAL. PIT RIVER POWERHOUSE NO. 5 LOGGED IN 45.94 INCHES OR 336 PERCENT. HOBERGS, IN THE CACHE CREEK DRAINAGE, WAS DRENCHED BUT GOOD WITH 7.00 INCHES IN 24 HOURS ON THE 24TH OF JANUARY.

RESERVOIR STORAGE - FEBRUARY 1 STORAGE IN THIRTY-FOUR MAJOR SACRAMENTO VALLEY RESERVOIRS WAS 13,694,000 ACRE-FEET, UP 2,242,000 ACRE-FEET FROM LAST YEAR'S FEBRUARY STORAGE. THIS IS 86 PERCENT OF THEIR COMBINED CAPACITY AND 145 PERCENT OF THEIR FEBRUARY 1 AVERAGE. THE RECENTLY COMPLETED NEW BULLARDS RESERVOIR ON THE YUBA RIVER IS STORING NEAR ITS CAPACITY OF 930,000 ACRE-FEET. THESE EXCELLENT WATER RESERVES ARE A RESULT OF BOTH GOOD HOLDOVER SUPPLIES AND RECORD OR NEAR RECORD INFLOWS DURING THE LAST MONTH.

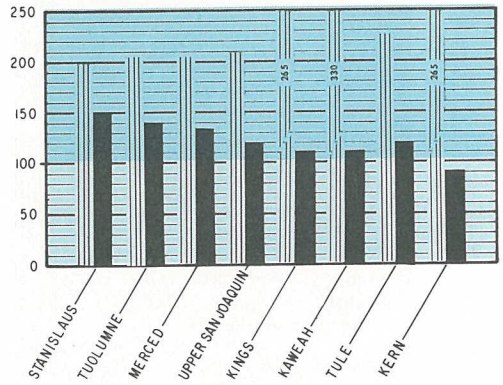
RUNOFF - TOTAL RUNOFF IN MAJOR SACRAMENTO VALLEY STREAMS DURING THE PAST MONTH WAS ABOUT 10 MILLION ACRE-FEET OR 540 PERCENT OF NORMAL. THE HEAVY RAINS PRODUCED RECORD-BREAKING RUNOFF IN MOST STREAMS WITH ALL MAJOR RIVERS EXCEEDING THEIR 50-YEAR RECORDS. INFLOW TO OROVILLE RESERVOIR ON THE FEATHER RIVER AMOUNTED TO OVER 2,300,000 ACRE-FEET OR 650 PERCENT OF NORMAL DURING JANUARY. TOTAL RUNOFF SINCE OCTOBER 1 IN THIS AREA WAS ABOUT 300 PERCENT OF NORMAL.

SAN JOAQUIN RIVER AND TULARE LAKE BASINS



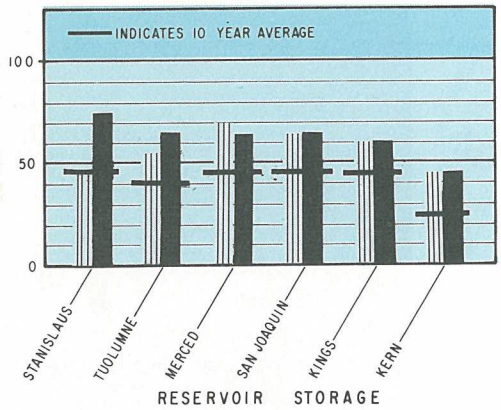
SNOWPACK ACCUMULATION

WATER CONTENT IN PERCENT OF APRIL 1 AVERAGE



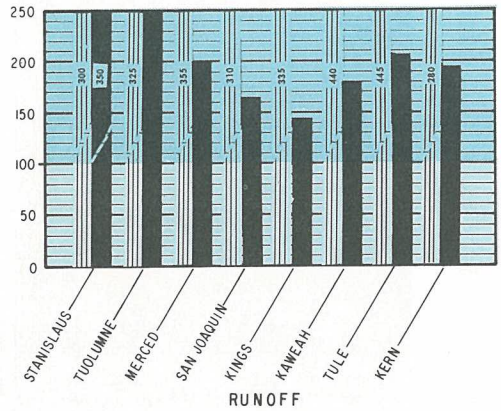
PRECIPITATION

OCTOBER 1 TO DATE IN PERCENT OF AVERAGE



RESERVOIR STORAGE

CONTENTS OF MAJOR RESERVOIRS IN PERCENT OF CAPACITY



RUNOFF

OCTOBER 1 TO DATE IN PERCENT OF AVERAGE

FEB. 1, 1969 FEB. 1, 1970

SNOWPACK - MEASUREMENTS OF SNOWPACK WERE OBTAINED AT 56 SNOW COURSES AND 81 AERIAL SNOW DEPTH MARKERS ON OR ABOUT FEBRUARY 1. ALSO, READINGS OF WATER CONTENT WERE OBTAINED FROM 11 SNOW SENSORS. THESE MEASUREMENTS INDICATE THAT SNOWPACK WATER CONTENT IS 105 PERCENT OF AVERAGE, AS COMPARED TO 225 PERCENT ONE YEAR AGO. SNOWPACK WATER CONTENT RANGES FROM A HIGH OF 125 PERCENT IN THE TUOLUMNE RIVER BASIN TO A LOW OF 70 PERCENT IN THE TULE RIVER BASIN. RAFFERTY MEADOWS, IN THE TUOLUMNE RIVER BASIN, REPORTED 31.2 INCHES OF WATER CONTENT AND IS THE ONLY COURSE WHICH EXCEEDS THE APRIL 1 AVERAGE.

PRECIPITATION - PRECIPITATION FROM OCTOBER THROUGH JANUARY AVERAGED 105 PERCENT OF NORMAL. SUBDRAINAGE SEASONAL VALUES ARE ONLY TWO-THIRDS TO ONE-THIRD OF THOSE EXPERIENCED A YEAR AGO WHICH WAS A RECORD YEAR. ALL DRAINAGES ARE WELL ABOVE NORMAL EXCEPT FOR THE KERN RIVER BASIN. ON THE VALLEY FLOOR A PRECIPITATION DEFICIENCY EXISTS OVER MOST OF THE TULARE LAKE AREA AS A RESULT OF FOUR CONSECUTIVE MONTHS OF SUBNORMAL PRECIPITATION. JANUARY PRECIPITATION AVERAGED 170 PERCENT OF NORMAL OVER ALL AREAS. EXTREME VALUES VARIED FROM 244 PERCENT OF NORMAL AT HETCH HETCHY, IN THE TUOLUMNE RIVER DRAINAGE, TO ONLY 44 PERCENT OF NORMAL AT PATTIWAY, IN THE TEHACHAPI MOUNTAIN DRAINAGE.

RESERVOIR STORAGE - ON FEBRUARY 1, 27 MAJOR RESERVOIRS SERVING THE SAN JOAQUIN VALLEY CONTAINED 3,576,000 ACRE-FEET OF WATER WHICH AMOUNTS TO 60 PERCENT OF THEIR COMBINED CAPACITY AND 145 PERCENT OF NORMAL FEBRUARY 1 STORAGE. THIS IS 87,000 ACRE-FEET LESS THAN THAT HELD ON THIS DATE LAST YEAR WHEN THE SAN JOAQUIN VALLEY HAD JUST EXPERIENCED A RECORD-BREAKING STORM PERIOD. THE HEAVY RAINSTORMS DURING JANUARY WERE NOT AS INTENSE OVER THE AREA THIS YEAR BUT HAVE PRODUCED SUBSTANTIAL WATER RESERVES FOR SUMMER USE.

RUNOFF - JANUARY FLOWS WERE HEAVY IN THE MAJOR STREAMS OF THIS AREA, AMOUNTING TO ABOUT 370 PERCENT OF NORMAL FOR THE MONTH AND IN SOME STREAMS APPROACHING THE RECORD-BREAKING FLOWS OF LAST YEAR. STREAMS AFFECTING THE TULARE LAKE AREA, WHICH EXPERIENCED EXTENSIVE FLOODING LAST YEAR, RECEIVED 240 PERCENT OF NORMAL JANUARY RUNOFF. TOTAL RUNOFF TO DATE FOR THE WATER YEAR AMOUNTS TO 220 PERCENT OF NORMAL FOR THE SAN JOAQUIN VALLEY AREA.

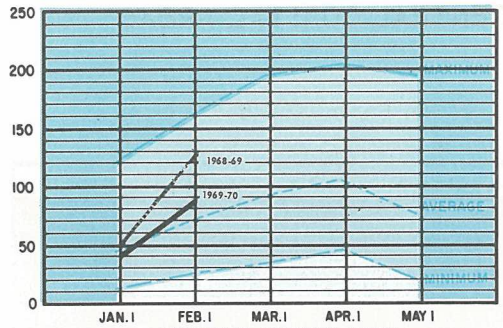
DRAINAGE BASIN AND WATERSHED	April Through July in 1,000 Acre-Feet					
	HISTORICAL			FORECASTS		
	50-Year Average	Maximum of Record	Minimum of Record	April-July Forecast	Percent of Average	80% Prob. Range Acre-Feet
SACRAMENTO RIVER BASIN						
Upper Sacramento River						
Pit River inflow to Shasta Lake	1,012	1,796	480	1,350	133	--
McCloud River inflow to Shasta Lake	416	850	194	490	118	--
Sacramento River inflow to Shasta Lake	281	636	39	340	121	--
Total inflow to Shasta Lake	1,750	3,064	726	2,250	129	1,650 to 3,000
Sacramento River near Red Bluff	2,400	4,611	943	3,100	129	2,300 to 4,100
Feather River						
Inflow to Lake Almanor (nr Prattville)	323	675	120	335	104	--
North Fork at Pulga	1,016	2,416	254	1,020	100	--
Middle Fork near Clio	84	518	8	76	90	--
South Fork at Enterprise	107	267	19	110	103	--
Total inflow to Oroville Reservoir	1,861	4,676	396	1,950	105	1,350 to 2,900
Yuba River						
North Fork below Goodyears Bar	288	647	68	300	104	--
Combined inflow to Jackson Mdw. and Bowman Reservoirs	108	236	37	110	102	--
South Fork at Langs Crossings	231	481	74	235	102	--
Yuba River at Smartville	1,090	2,424	239	1,100	101	750 to 1,750
American River						
North Fork at North Fork Dam	262	716	48	280	107	--
Middle Fork near Auburn	550	1,406	117	580	105	--
Silver Creek below Camino Diversion Dam	179	383	43	200	112	--
Total inflow to Folsom Reservoir	1,329	3,074	257	1,400	105	900 to 2,300
Sacramento River at Sacramento						
Cosumnes River						
Cosumnes River at Michigan Bar	128	361	12	140	109	90 to 240
Mokelumne River						
North Fork near West Point	418	829	143	470	112	--
Total inflow to Pardee Reservoir	464	1,065	127	520	112	400 to 750
SAN JOAQUIN RIVER BASIN						
Stanislaus River						
Middle Fork at Sand Bar Flat near Avery	337	702	83	370	110	--
Total inflow to Melones Reservoir	711	1,710	167	770	108	550 to 1,100
Tuolumne River						
Cherry Creek and Eleanor Creek near Hetch Hetchy	304	560	102	350	115	--
Tuolumne River near Hetch Hetchy	592	1,392	215	700	118	--
Total inflow to Don Pedro Reservoir	1,179	2,609	385	1,300	110	950 to 1,800
Merced River						
Merced River at Pohono Bridge	356	888	121	400	112	--
Total inflow to Exchequer	599	1,491	175	630	105	450 to 930
San Joaquin River						
South Fork near Florence Lake	187	511	58	205	110	--
Big Creek below Huntington Lake	86	264	19	95	110	--
San Joaquin River at Mammoth Pool	949	2,218	254	1,060	112	--
Total inflow to Millerton Lake	1,173	3,355	310	1,250	107	850 to 1,800
San Joaquin River near Vernalis						
TULARE LAKE BASIN						
Kings River						
North Fork near Cliff Camp	228	478	50	240	105	--
Total inflow to Pine Flat Reservoir	1,143	3,163	280	1,200	105	800 to 1,700
Kaweah River						
Total inflow to Terminus Reservoir	261	814	69	220	84	110 to 360
Tule River						
Total inflow to Success Reservoir	56	222	2	45	80	20 to 90
Kern River						
Kern River near Kernville	336	1,200	75	350	104	--
Total inflow to Isabella Reservoir	410	1,649	84	410	100	220 to 620

Water Year --- October Through September --- in 1,000 Acre-Feet

HISTORICAL												
50-Year Average	Maximum of Record	Minimum of Record	October Through January	February	March	April	May	June	July	August and September	Water Year Forecast	Percent of Average
2,848	4,698	1,484	1,994	--	--	--	--	--	--	--	4,570	160
1,215	2,353	632	756	--	--	--	--	--	--	--	1,750	140
761	1,767	171	572	--	--	--	--	--	--	--	1,220	160
5,318	9,700	2,479	4,400	1,000	730	990	670	360	230	420	8,800	165
7,690	15,121	3,294	6,700	--	--	--	--	--	--	--	13,000	169
716	1,269	396	--	--	--	--	--	--	--	--	--	--
2,219	4,400	819	--	--	--	--	--	--	--	--	--	--
197	637	41	--	--	--	--	--	--	--	--	--	--
253	562	67	--	--	--	--	--	--	--	--	--	--
4,159	9,492	1,295	3,450	730	580	750	710	340	150	190	6,900	166
516	1,056	162	--	--	--	--	--	--	--	--	--	--
86	292	60	--	--	--	--	--	--	--	--	--	--
335	565	114	--	--	--	--	--	--	--	--	--	--
2,226	4,544	603	1,700	360	300	370	420	200	110	40	3,500	157
537	1,234	110	--	--	--	--	--	--	--	--	--	--
996	2,575	283	--	--	--	--	--	--	--	--	--	--
291	537	83	--	--	--	--	--	--	--	--	--	--
2,525	5,787	543	1,690	460	350	500	530	250	120	30	3,930	156
												165
339	876	40	244	80	65	70	35	25	10	1	530	156
577	1,009	197	--	--	--	--	--	--	--	--	--	--
690	1,692	190	325	80	70	140	220	140	20	5	1,000	145
452	929	128	--	--	--	--	--	--	--	--	--	--
1,057	2,834	261	470	130	110	220	310	190	50	20	1,500	142
420	740	158	--	--	--	--	--	--	--	--	--	--
726	1,661	265	--	--	--	--	--	--	--	--	--	--
1,741	3,756	546	580	165	170	310	510	390	90	25	2,240	129
431	1,020	145	--	--	--	--	--	--	--	--	--	--
897	2,203	252	230	90	90	140	260	180	50	15	1,055	118
225	653	71	--	--	--	--	--	--	--	--	--	--
99	298	22	--	--	--	--	--	--	--	--	--	--
1,225	2,964	361	--	--	--	--	--	--	--	--	--	--
1,617	4,368	444	270	100	130	270	420	390	170	60	1,810	112
												125
261	542	58	--	--	--	--	--	--	--	--	--	--
1,530	4,243	392	215	85	105	240	440	400	120	55	1,660	108
383	1,265	102	85	30	35	60	85	60	15	10	380	99
124	499	19	49	20	25	25	15	4	1	1	140	113
491	1,800	147	--	--	--	--	--	--	--	--	--	--
604	2,207	175	155	40	50	90	150	120	50	40	695	115

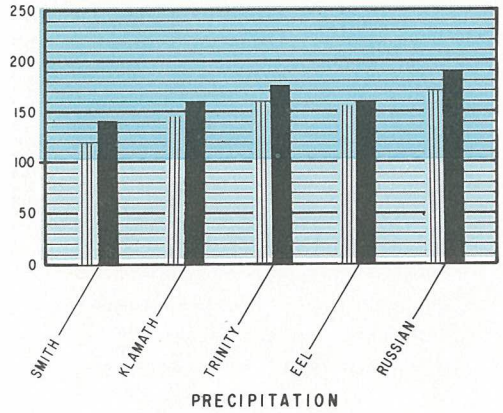
Monthly values are based on historical years of similar magnitude.

NORTH COASTAL AREA



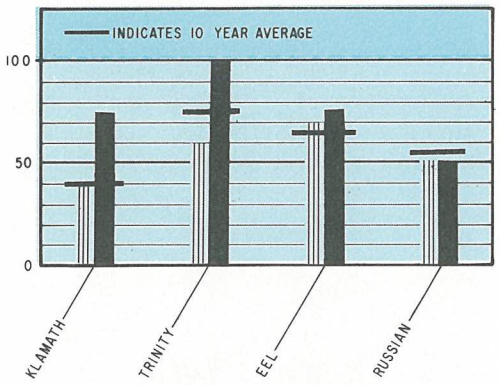
SNOWPACK ACCUMULATION

WATER CONTENT IN PERCENT OF APRIL 1 AVERAGE



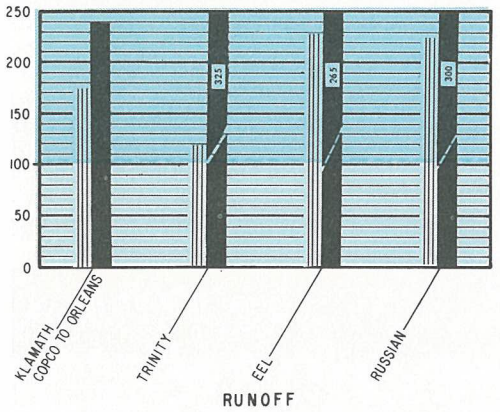
PRECIPITATION

OCTOBER 1 TO DATE IN PERCENT OF AVERAGE



RESERVOIR STORAGE

CONTENTS OF MAJOR RESERVOIRS IN PERCENT OF CAPACITY



RUNOFF

OCTOBER 1 TO DATE IN PERCENT OF AVERAGE

FEB. 1, 1969 FEB. 1, 1970

SNOWPACK - MEASUREMENTS OF SNOWPACK WERE OBTAINED AT 12 SNOW COURSES ON OR ABOUT FEBRUARY 1. THESE MEASUREMENTS INDICATE THAT SNOWPACK WATER CONTENT IS 130 PERCENT OF AVERAGE, AS COMPARED TO 195 PERCENT ONE YEAR AGO. THE WATER CONTENT RANGES FROM 145 PERCENT IN THE TRINITY RIVER BASIN TO 110 PERCENT IN THE SCOTT RIVER BASIN.

THE OREGON COOPERATIVE SNOW SURVEYS REPORTS THAT SNOWPACK WATER CONTENT IN THE UPPER KLAMATH RIVER BASIN ON FEBRUARY 1 WAS 55 PERCENT OF NORMAL AS COMPARED TO 168 PERCENT ONE YEAR AGO.

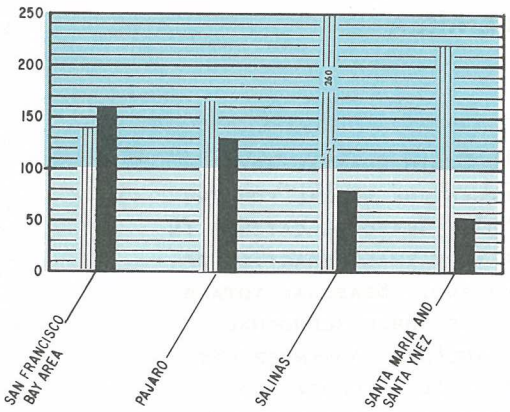
PRECIPITATION - PRECIPITATION IN THIS AREA SINCE OCTOBER 1 AVERAGED 165 PERCENT OF NORMAL. IT VARIED FROM 209 PERCENT OF NORMAL AT HEALDSBURG, IN THE RUSSIAN RIVER DRAINAGE, TO 118 PERCENT OF NORMAL AT HONOR CAMP NO. 42, IN THE MAD RIVER DRAINAGE. SEASONAL PRECIPITATION LAGGED FOLLOWING TWO CONSECUTIVE SUBNORMAL MONTHS IN THE BEGINNING OF THE NEW WATER YEAR. HOWEVER, BOTH A WET DECEMBER AND VERY WET JANUARY HAS CONTRIBUTED TO SUBSTANTIAL GAINS AND A RETURN TO WELL ABOVE NORMAL CONDITIONS FOR THE SEASON. JANUARY PRECIPITATION SWAMPED THE ENTIRE AREA. IT VARIED FROM 230 PERCENT IN THE SMITH RIVER DRAINAGE TO 300 PERCENT OF NORMAL IN THE RUSSIAN DRAINAGE.

RESERVOIR STORAGE - FOUR MAJOR INTRASTATE RESERVOIRS SERVING THIS AREA WERE STORING 2,673,000 ACRE-FEET ON FEBRUARY 1. THIS IS 135 PERCENT OF THEIR AVERAGE STORAGE FOR THIS DATE AND OVER 1,000,000 ACRE-FEET MORE THAN THAT HELD ONE YEAR AGO. THE FOUR RESERVOIRS ARE ALL FULL AS A RESULT OF THE HEAVY JANUARY RAINS. THREE INTERSTATE RESERVOIRS IN THE KLAMATH RIVER DRAINAGE, WHICH CONTRIBUTE TO THE NORTH COASTAL AREA'S WATER SUPPLY, CONTAINED 876,000 ACRE-FEET. THIS IS A GAIN OF 313,000 ACRE-FEET OVER LAST YEAR ON THIS DATE AND IS 185 PERCENT OF FEBRUARY 1 NORMAL STORAGE.

RUNOFF - JANUARY RUNOFF IN FIVE MAJOR NORTH COASTAL STREAMS WAS ABOUT 440 PERCENT OF NORMAL, RANGING FROM 415 PERCENT FOR THE EEL RIVER AT SCOTIA TO A RECORD-BREAKING 595 PERCENT FOR THE TRINITY RIVER AT LEWISTON. OCTOBER THROUGH JANUARY RUNOFF IN THE NORTH COASTAL AREA WAS 265 PERCENT OF NORMAL, TOTALING 12,146,000 ACRE-FEET FOR THIS PERIOD.

FORECASTS - CONDITIONS AT THIS TIME INDICATE THAT RUNOFF OF THE NORTH COASTAL AREA DURING THE 1969-70 WATER YEAR WILL BE ABOUT 160 PERCENT OF AVERAGE. THE APRIL-JULY RUNOFF OF THE TRINITY RIVER AT LEWISTON IS FORECASTED TO BE ABOUT 800,000 ACRE-FEET, WHICH IS 134 PERCENT OF THE AVERAGE RUNOFF AT THIS STATION. THE U. S. SOIL CONSERVATION SERVICE, THE OREGON EXPERIMENT STATION, AND THEIR COOPERATORS, FORECAST THAT APRIL-SEPTEMBER RUNOFF INTO UPPER KLAMATH LAKE WILL BE ABOUT 483,000 ACRE-FEET OR 84 PERCENT OF THE 1953-67 AVERAGE.

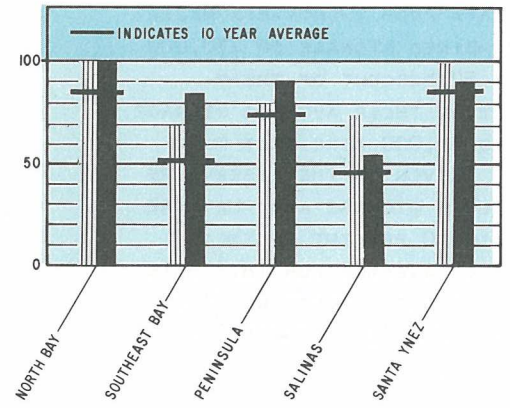
SAN FRANCISCO BAY AND CENTRAL COASTAL AREAS



PRECIPITATION

OCTOBER 1 TO DATE IN PERCENT OF AVERAGE

PRECIPITATION - IN THE SAN FRANCISCO BAY AND CENTRAL COASTAL AREAS, PRECIPITATION WAS 105 PERCENT OF NORMAL FOR THE PERIOD OCTOBER 1 THROUGH JANUARY 31. IT VARIED FROM 42 PERCENT AT CACHUMA, IN THE SANTA YNEZ DRAINAGE, TO 203 PERCENT OF NORMAL AT ANGWIN, IN THE NAPA RIVER DRAINAGE. WITH THE EXCEPTION OF THE SAN FRANCISCO BAY AREA, ALL SUBDRAINAGES INDICATE SUBSTANTIALLY LESS CATCH (ONE-FOURTH TO THREE-FOURTHS) THAN WAS EXPERIENCED DURING THE SAME PERIOD ONE YEAR AGO. HIGH LATITUDE STORM TRACKS FAVORED STORM PATTERNS IN OCTOBER, DECEMBER, AND JANUARY TO ACTIVITY MOSTLY OVER THE NORTHERN HALF OF THE AREA. FOR THE MONTH OF JANUARY, PRECIPITATION AVERAGED 160 PERCENT OF NORMAL. IT VARIED FROM 70 PERCENT OVER THE SANTA MARIA - SANTA YNEZ DRAINAGE TO 240 PERCENT OF NORMAL OVER THE SAN FRANCISCO BAY DRAINAGE.

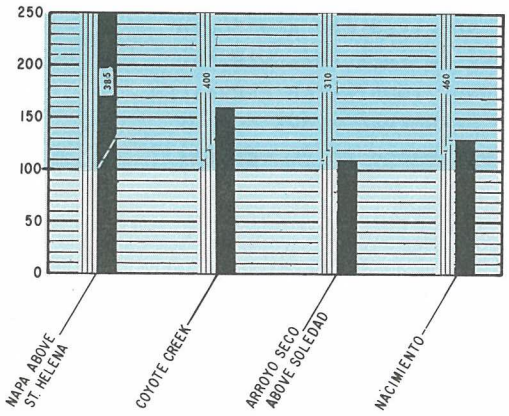


RESERVOIR STORAGE

CONTENTS OF MAJOR RESERVOIRS IN PERCENT OF CAPACITY

RESERVOIR STORAGE - STORAGE IN 17 MAJOR RESERVOIRS IN THE SAN FRANCISCO BAY AREA ON FEBRUARY 1 WAS 550,000 ACRE-FEET. THIS IS 89 PERCENT OF THEIR COMBINED CAPACITY AND 150 PERCENT OF THEIR AVERAGE STORAGE FOR FEBRUARY 1. STORAGE IS 70,000 ACRE-FEET GREATER THAN THAT HELD LAST YEAR AT THIS TIME. SEVEN OF THESE RESERVOIRS CONTAIN WATER SUPPLIES IMPORTED FROM SIERRA WATERSHEDS, WHERE WATER SUPPLY CONDITIONS FOR 1970 APPEAR EXCELLENT AT THIS TIME.

IN THE CENTRAL COASTAL AREA, STORAGE IN SIX MAJOR RESERVOIRS WAS 636,000 ACRE-FEET ON FEBRUARY 1. THIS AMOUNTS TO 65 PERCENT OF THEIR COMBINED CAPACITY AND 125 PERCENT OF NORMAL CONTENTS FOR THIS DATE. ONE YEAR AGO THESE RESERVOIRS WERE STORING 793,000 ACRE-FEET.



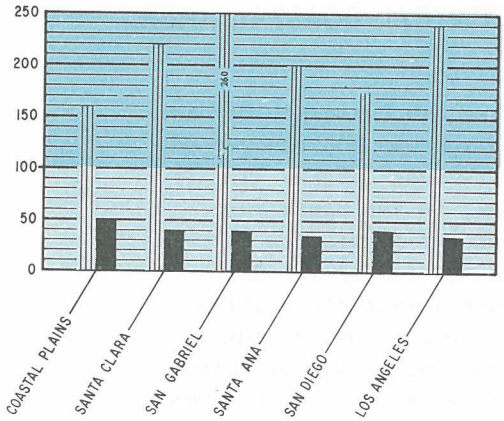
RUNOFF

OCTOBER 1 TO DATE IN PERCENT OF AVERAGE

RUNOFF - JANUARY RUNOFF IN MAJOR SAN FRANCISCO AND CENTRAL COASTAL STREAMS RANGED BETWEEN 176 PERCENT OF NORMAL FOR THE NACIMIENTO RIVER TO A MASSIVE 535 PERCENT OF NORMAL FOR THE NAPA RIVER WHICH PRODUCED 77,000 ACRE-FEET DURING THE MONTH, A NEW RECORD. TOTAL RUNOFF IN THESE AREAS DURING JANUARY APPROACHED 200,000 ACRE-FEET OR 252 PERCENT OF NORMAL. FOR THE WATER YEAR TO DATE RUNOFF HAS BEEN 180 PERCENT OF NORMAL FOR THESE AREAS.

FEB. 1, 1969 ═══ FEB. 1, 1970 ■

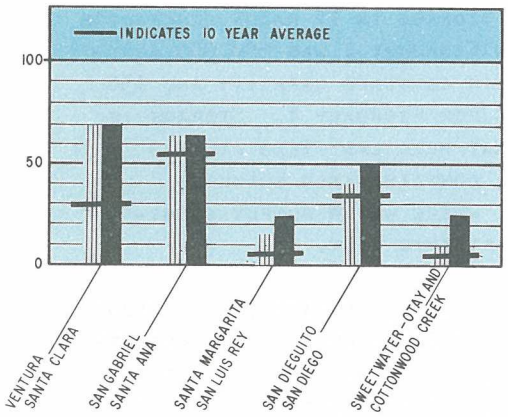
SOUTH COASTAL AREA



PRECIPITATION

OCTOBER 1 TO DATE IN PERCENT OF AVERAGE

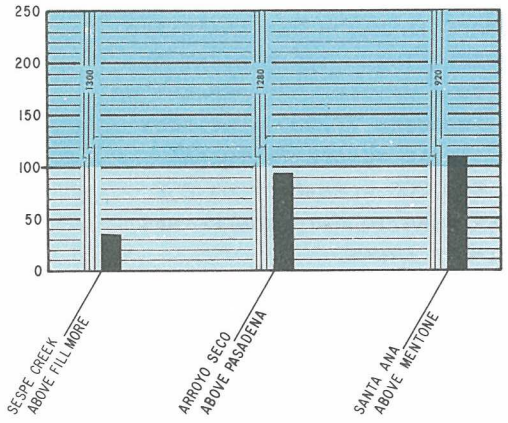
PRECIPITATION - IN THE SOUTH COASTAL AREA, PRECIPITATION AVERAGED ONLY 40 PERCENT OF NORMAL FOR THE PERIOD OCTOBER 1 THROUGH JANUARY 31. SEASONAL CATCHES IN THE SUBDRAINAGES WERE GENERALLY A VERY SMALL FRACTION OF THE AMOUNTS FOR THIS DATE ONE YEAR AGO. SEASONAL TOTALS ARE LAGGING FAR BEHIND AS A RESULT OF THREE SUBNORMAL MONTHS IN OCTOBER, DECEMBER, AND JANUARY. NOVEMBER WAS THE ONLY MONTH WHERE PRECIPITATION YIELDS APPROACHED NORMAL. EXTREMES DURING JANUARY RANGED FROM A HIGH OF 95 PERCENT OF NORMAL WITH 2.13 INCHES AT LAGUNA BEACH, TO A LOW OF 16 PERCENT WITH 0.39 INCH AT DRY CANYON RESERVOIR, IN THE UPPER SANTA CLARA DRAINAGE.



RESERVOIR STORAGE

CONTENTS OF MAJOR RESERVOIRS IN PERCENT OF CAPACITY

RESERVOIR STORAGE - DATA FROM TWENTY-SIX MAJOR RESERVOIRS IN THIS AREA SHOW A COMBINED STORAGE OF 770,000 ACRE-FEET ON FEBRUARY 1. THIS IS 52 PERCENT OF THEIR AGGREGATE CAPACITY AND 175 PERCENT OF THEIR AVERAGE STORAGE FOR THIS DATE. PRESENT STORAGE IS 98,000 ACRE-FEET MORE THAN ON FEBRUARY 1 OF LAST YEAR. ELEVEN OF THE RESERVOIRS INCLUDE COLORADO RIVER WATER IN THEIR STORAGE AND THEY ARE STORING 339,000 ACRE-FEET, WHICH IS 60 PERCENT OF THEIR COMBINED CAPACITY AND 124 PERCENT OF AVERAGE FOR THIS DATE. THE 15 RESERVOIRS STORING ONLY LOCAL WATER CONTAIN 431,000 ACRE-FEET WITH THE LARGEST AMOUNT (208,000 ACRE-FEET) STORED IN CASITAS RESERVOIR.



RUNOFF

OCTOBER 1 TO DATE IN PERCENT OF AVERAGE

RUNOFF - BASED ON DATA RECEIVED FOR KEY SOUTH COASTAL AREA STREAMS, JANUARY RUNOFF IN THIS AREA WAS FAR BELOW NORMAL, REFLECTING THE DRY CONDITIONS WHICH PREVAILED. ALTHOUGH RECEIVING ONLY 40 PERCENT OF NORMAL FLOWS DURING THE MONTH, THE WATER YEAR TO DATE HAS PRODUCED 70 PERCENT OF NORMAL FLOWS SINCE OCTOBER 1.

FEB. 1, 1969 FEB. 1, 1970

COLORADO DESERT AREA

SNOWPACK - FEBRUARY 1 SNOWPACK IN THE UPPER COLORADO RIVER BASIN, ACCORDING TO THE U. S. SOIL CONSERVATION SERVICE, IS ABOUT 50-65 PERCENT IN THE UPPER SAN JUAN AND VIRGIN RIVER BASINS, 100-130 PERCENT IN THE GREEN RIVER IN UTAH AND WYOMING, AND 125-150 PERCENT IN THE GUNNISON AND UPPER COLORADO RIVER BASINS.

PRECIPITATION - PRECIPITATION IN THE COLORADO DESERT AREA WAS 45 PERCENT OF NORMAL FOR THE PERIOD OCTOBER 1 THROUGH JANUARY 31. EXTREMES VARIED FROM 134 PERCENT OF NORMAL AT IMPERIAL TO NO MEASURABLE AMOUNT AT TWENTYNINE PALMS, THE THIRSTIEST SPOT IN THE STATE. JANUARY PRECIPITATION AVERAGED A SCANT 5 PERCENT OVER THE AREA.

RESERVOIR STORAGE - THE STORAGE IN LAKE MEAD ON FEBRUARY 1 WAS 16,890,000 ACRE-FEET. THIS IS 65 PERCENT OF CAPACITY AND IS ABOUT AVERAGE STORAGE FOR THIS DATE. THERE HAS BEEN A NET INCREASE IN STORAGE OF 1,449,000 ACRE-FEET SINCE FEBRUARY 1 OF LAST YEAR.

LAKE POWELL, UPSTREAM FROM LAKE MEAD, HAD 9,375,000 ACRE-FEET IN STORAGE ON FEBRUARY 1. THIS IS 123 PERCENT OF AVERAGE STORAGE FOR THIS DATE. A GAIN IN STORAGE OF 2,225,000 ACRE-FEET WAS MADE DURING THE LAST YEAR AND THIS HAS PUSHED STORAGE IN THE LAKE WELL PAST THE ONE-THIRD CAPACITY MARK.

THE WATER SURFACE ELEVATION OF THE SALTON SEA ON FEBRUARY 1, MEASURED FROM DATUM AT FIG TREE JOHNS GAGE, WAS 231.70 FEET BELOW MEAN SEA LEVEL. THIS REPRESENTS A RISE OF 0.25 FOOT DURING JANUARY AND A DROP OF 0.10 FOOT FROM THE LEVEL OF ONE YEAR AGO.

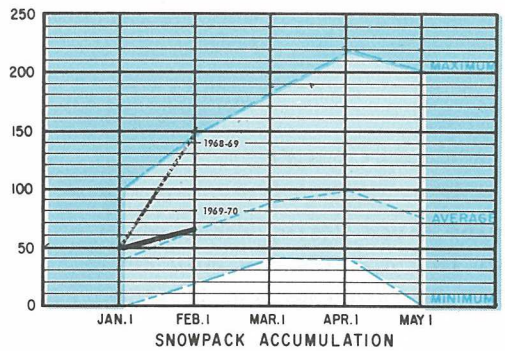
RUNOFF - OCTOBER THROUGH JANUARY RUNOFF OF THE COLORADO RIVER, INFLOW TO LAKE POWELL, CORRECTED FOR REGULATION OF UPPER COLORADO RIVER STORAGE PROJECT RESERVOIRS, WAS ABOUT 1,981,000 ACRE-FEET OR 123 PERCENT OF NORMAL. UNIMPAIRED RUNOFF OF THE COLORADO RIVER DURING JANUARY WAS 356,000 ACRE-FEET OR 111 PERCENT OF NORMAL.

FORECAST JANUARY 1, 1970 - THE U. S. BUREAU OF RECLAMATION, REGION 4, SALT LAKE CITY, UTAH, FORECASTS THAT FLOW IN THE COLORADO RIVER, INFLOW TO LAKE POWELL, DURING APRIL-JULY 1970 WILL BE:

MAXIMUM	13,200,000 ACRE-FEET
MEAN	9,200,000 ACRE-FEET
MINIMUM	5,200,000 ACRE-FEET

THE HISTORICAL APRIL-JULY INFLOW FROM THE PARIA AND LITTLE COLORADO RIVERS BETWEEN LAKE POWELL AND GRAND CANYON HAS AVERAGED ONLY 51,700 ACRE-FEET. THEREFORE, THE FORECAST FOR APRIL-JULY INFLOW TO LAKE POWELL CAN BE CONSIDERED AS ESSENTIALLY EQUIVALENT TO THE FORECAST FOR FLOW OF THE COLORADO RIVER NEAR GRAND CANYON, ASSUMING NO COLORADO RIVER STORAGE PROJECT RESERVOIRS.

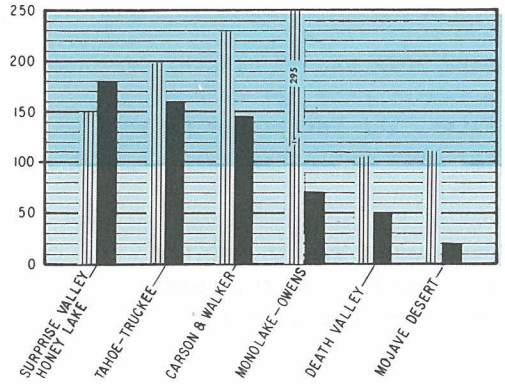
LAHONTAN AREA



SNOWPACK ACCUMULATION

WATER CONTENT IN PERCENT OF APRIL 1 AVERAGE

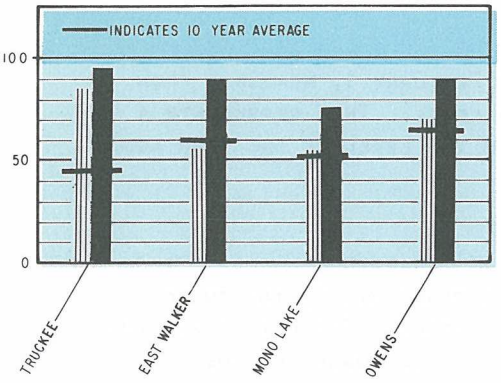
SNOWPACK - MEASUREMENTS OF SNOWPACK WERE OBTAINED AT 46 SNOW COURSES AND 31 AERIAL SNOW DEPTH MARKERS ON OR ABOUT FEBRUARY 1. ALSO, READINGS OF WATER CONTENT WERE OBTAINED FROM 8 SNOW SENSORS. THESE MEASUREMENTS INDICATE THAT SNOWPACK WATER CONTENT WAS 100 PERCENT OF AVERAGE, AS COMPARED TO 240 PERCENT ONE YEAR AGO. IT RANGED FROM A HIGH OF 115 PERCENT IN THE WALKER RIVER AND MONO LAKE BASIN TO A LOW OF 80 PERCENT IN THE TRUCKEE RIVER BASIN.



PRECIPITATION

OCTOBER 1 TO DATE IN PERCENT OF AVERAGE

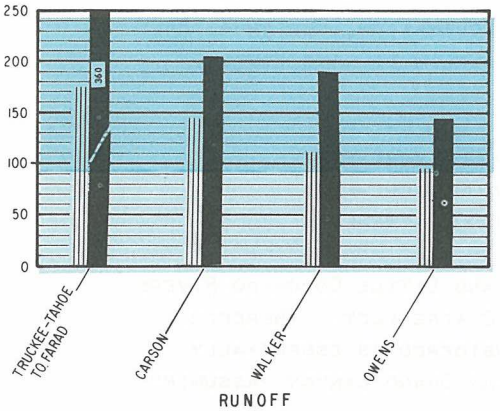
PRECIPITATION - IN THE LAHONTAN AREA, PRECIPITATION WAS 135 PERCENT OF NORMAL FOR THE PERIOD OCTOBER 1 THROUGH JANUARY 31. ALL SUBDRAINAGES FROM THE TRUCKEE SOUTH HAVE CATCH VALUES SUBSTANTIALLY LESS THAN AMOUNTS FOR THIS SAME PERIOD ONE YEAR AGO. THE BOUNDARY BETWEEN THE ABOVE NORMAL AREA TO THE NORTH AND THE SUBNORMAL AREA TO THE SOUTH LIES ALONG THE WALKER-MONO DIVIDE. JANUARY PRECIPITATION AVERAGED 215 PERCENT OF NORMAL FOR THE AREA. EXTREMES WERE 6.16 INCHES OR 377 PERCENT OF NORMAN AT DOYLE, IN THE HONEY LAKE DRAINAGE, TO 0.67 INCH OR 68 PERCENT AT BISHOP, IN THE OWENS RIVER DRAINAGE.



RESERVOIR STORAGE

CONTENTS OF MAJOR RESERVOIRS IN PERCENT OF CAPACITY

RESERVOIR STORAGE - FEBRUARY 1 STORAGE IN SEVEN MAJOR CALIFORNIA RESERVOIRS IN THIS AREA WAS 307,200 ACRE-FEET. THIS IS 88 PERCENT OF THEIR COMBINED CAPACITY AND 140 PERCENT OF THEIR AVERAGE CONTENTS FOR THIS DATE, A GAIN OF 77,000 ACRE-FEET SINCE FEBRUARY 1 OF LAST YEAR. STORAGE IN THREE OTHER MAJOR RESERVOIRS, THAT STORE WATER FOR USE IN BOTH NEVADA AND CALIFORNIA, WAS 766,700 ACRE-FEET ON FEBRUARY 1. THIS IS 93 PERCENT OF CAPACITY AND 195 PERCENT OF AVERAGE STORAGE FOR FEBRUARY 1. LAKE TAHOE HAS 72,000 ACRE-FEET MORE STORAGE THAN ONE YEAR AGO AND THE WATER SURFACE ELEVATION ON FEBRUARY 1, 1970, WAS 6228.7 FEET.



RUNOFF

OCTOBER 1 TO DATE IN PERCENT OF AVERAGE

RUNOFF - JANUARY RUNOFF IN THE LAHONTAN AREA WAS ABOUT 495 PERCENT OF NORMAL. THE TRUCKEE RIVER RUNOFF TOTALED 134,210 ACRE-FEET FOR AN IMPRESSIVE 900 PERCENT OF NORMAL JANUARY RUNOFF, A NEW RECORD. RUNOFF IN THIS AREA SINCE OCTOBER 1 WAS 235 PERCENT OF NORMAL WITH THE TRUCKEE RIVER AGAIN THE HIGHEST PRODUCER AT 360 PERCENT OF NORMAL FOR THE PERIOD.

FORECASTS - CONDITIONS OF FEBRUARY 1 INDICATE THAT RUNOFF FROM THE LAHONTAN AREA DURING THE 1969-70 WATER YEAR WILL BE ABOUT 130 PERCENT OF AVERAGE. THE DEPARTMENT OF WATER AND POWER OF THE CITY OF LOS ANGELES FORECASTS THE APRIL-JULY RUNOFF FOR THE OWENS RIVER BELOW LONG VALLEY RESERVOIR TO BE ABOUT 54,000 ACRE-FEET, 90 PERCENT OF LONG-TERM MEAN.

FEB. 1, 1969 FEB. 1, 1970

LAHONTAN AREA

FORECASTS AS OF FEB. 1, 1970			
	APRIL-JULY RUNOFF		
STREAM AND STATION	AVERAGE IN ACRE-FEET	IN ACRE-FEET	IN PERCENT OF AVERAGE
Bidwell Creek near Ft. Bidwell	10,930	16,000	146
Mill Creek above diversions	4,860	7,000	144
Deep Creek above diversions	3,470	4,000	115
Eagle Creek at Eagleville	4,730	7,000	148
Truckee River, Lake Tahoe to Farad accretion	262,000	280,000	107
Lake Tahoe Rise (assuming gates closed)	1.47 FT.	1.50 FT.	102
East Carson River near Gardnerville	178,000	230,000	129
West Carson River at Woodfords	50,000	50,000	100
East Walker River near Bridgeport	57,000	70,000	123
West Walker River near Coleville	140,000	180,000	129

SNOW LINES

SNOW SAMPLE CORE LENGTHS - DURING WINTER PERIODS WHEN DIFFICULT SNOW SAMPLING CONDITIONS EXIST, WE RECEIVE A FEW SNOW NOTES FROM THE FIELD THAT INCLUDE OBVIOUSLY POOR DATA AT SOME SAMPLE POINTS. USUALLY THE SNOW SURVEYORS' COMMENTS ON THE NOTES EXPLAIN THESE. OCCASIONALLY, IT APPEARS THAT THE SNOW SURVEYORS WERE UNAWARE THAT ONE SAMPLE WAS NOT VALID. THIS CAN BE RECOGNIZED BY A CORE LENGTH THAT IS MUCH SHORTER THAN THE REST AND A RESULTANT DENSITY FIGURE THAT IS TOO LOW. SO - - ON FUTURE SNOW SURVEYS - - REMEMBER THE IMPORTANCE OF THE SNOW NOTE COLUMN MARKED "LENGTH OF CORE". ANY SNOW SAMPLE THAT APPEARS SHORTER THAN THE OTHERS MUST BE CROSSED OUT AND THE POINT RESAMPLED.

COOPERATORS' MEETING - ALMOST CONSTANT SNOWFALL, COUPLED WITH A POWER FAILURE, MADE THE SEVENTEENTH ANNUAL MEETING OF COOPERATORS, ON JANUARY 14-15, SOMEWHAT OF AN ADVENTURE. FEEDBACK FROM THE APPROXIMATELY 80 PARTICIPANTS ESTABLISHED THIS MEETING AT BEAR VALLEY AS ONE OF THE MOST UNIQUE GATHERINGS IN THE HISTORY OF THE CALIFORNIA COOPERATIVE SNOW SURVEYS PROGRAM. DESPITE ALL DIFFICULTIES THE AGENDA OF INTERESTING PAPERS AND THE ENTHUSIASTIC COOPERATORS' REPORTS MADE EVERYONE FEEL THE MEETING WAS QUITE SUCCESSFUL. THE ANNUAL BANQUET (BY CANDLELIGHT) WAS HIGHLIGHTED BY RECOGNITION OF TWO OF CALIFORNIA'S MOST DISTINGUISHED SNOW SURVEYORS; CARROL HORTON OF PACIFIC GAS AND ELECTRIC COMPANY AND BILL LANG OF THE SOUTHERN CALIFORNIA EDISON COMPANY, WHO ARE BOTH RETIRING.

COVER

THIS IS THE WINTER WONDERLAND THAT A MOTORIST CAN OBSERVE FROM THE EVERITT MEMORIAL HIGHWAY. MT. SHASTA DISPLAYS HER HEAVY MANTLE OF SNOW AT MANY POINTS ALONG THIS ALL-YEAR ROAD.

CALIFORNIA COOPERATIVE SNOW SURVEYS

STATE OF CALIFORNIA
The Resources Agency
Department of Water Resources

BULLETIN No. 120-70

WATER CONDITIONS IN CALIFORNIA

REPORT No. 1: Basic Data Supplement

FEBRUARY 1, 1970

NORMAN B. LIVERMORE, JR.
Secretary for Resources
The Resources Agency

RONALD REAGAN
Governor
State of California

WILLIAM R. GIANELLI
Director
Department of Water Resources

FOREWORD

Reports entitled "Water Conditions in California" are prepared as of the first of each month, February through May, and in the fall of each year by the Department of Water Resources, Division of Resources Development, pursuant to Section 228, Article 2, Chapter 2.5, 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."

The February 1, 1970 report, published earlier as a separate volume, was based upon the precipitation, snow survey, reservoir storage and streamflow data presented in this supplement. Data published in this supplement are provisional and subject to revision. Snow course measurement data for the entire season will be summarized in the fall report to be published in mid-October. At 5-year intervals, all snow course measurements are compiled in summary form and published in Bulletin 129, "Snow Survey Measurements".

Allied and supplementary hydrologic information is available in the Bulletin 130 series. Information on this and other publications by the Department of Water Resources may be obtained by writing to:

State of California
Office of Procurement, Documents Section
P. O. Box 1612
Sacramento, California 95807

FOREWORD

REPORTS ENTITLED "WATER CONDITIONS IN CALIFORNIA" ARE PREPARED AS OF THE FIRST OF EACH MONTH, FEBRUARY THROUGH MAY, AND IN THE FALL OF EACH YEAR BY THE DEPARTMENT OF WATER RESOURCES, DIVISION OF RESOURCES DEVELOPMENT, PURSUANT TO SECTION 228, ARTICLE 2, CHAPTER 2.5, 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."

THE FEBRUARY 1, 1970 REPORT, PUBLISHED EARLIER AS A SEPARATE VOLUME, WAS BASED UPON THE PRECIPITATION, SNOW SURVEY, RESERVOIR STORAGE AND STREAMFLOW DATA PRESENTED IN THIS SUPPLEMENT. DATA PUBLISHED IN THIS SUPPLEMENT ARE PROVISIONAL AND SUBJECT TO REVISION. SNOW COURSE MEASUREMENT DATA FOR THE ENTIRE SEASON WILL BE SUMMARIZED IN THE FALL REPORT TO BE PUBLISHED IN MID-OCTOBER. AT 5-YEAR INTERVALS, ALL SNOW COURSE MEASUREMENTS ARE COMPILED IN SUMMARY FORM AND PUBLISHED IN BULLETIN 129, "SNOW SURVEY MEASUREMENTS".

ALLIED AND SUPPLEMENTARY HYDROLOGIC INFORMATION IS AVAILABLE IN THE BULLETIN 130 SERIES. INFORMATION ON THIS AND OTHER PUBLICATIONS BY THE DEPARTMENT OF WATER RESOURCES MAY BE OBTAINED BY WRITING TO:

STATE OF CALIFORNIA
OFFICE OF PROCUREMENT, DOCUMENTS SECTION
P. O. BOX 1612
SACRAMENTO, CALIFORNIA 95807

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COVER

The department's Snow Surveys Office arranges training sessions for cooperators each winter. Here, a class of National Park and U.S. Forest Service rangers are instructed in snow sampling techniques at one such session in Sequoia National Park.

AGENCIES COOPERATING IN THE CALIFORNIA SNOW SURVEY PROGRAM

STATE AND FEDERAL AGENCIES

- CALIFORNIA DEPARTMENT OF WATER RESOURCES
- CALIFORNIA DEPARTMENT OF PARKS AND RECREATION
- U. S. DEPARTMENT OF AGRICULTURE - FOREST SERVICE (14 NATIONAL FORESTS); SOIL CONSERVATION SERVICE
- U. S. DEPARTMENT OF COMMERCE - WEATHER BUREAU
- U. S. DEPARTMENT OF INTERIOR - BUREAU OF RECLAMATION
  - GEOLOGICAL SURVEY, WATER RESOURCES DIVISION;
  - NATIONAL PARK SERVICE (3 NATIONAL PARKS)
- U. S. DEPARTMENT OF THE ARMY - CORPS OF ENGINEERS

PUBLIC UTILITIES

- PACIFIC GAS AND ELECTRIC COMPANY
- SIERRA PACIFIC POWER COMPANY
- SOUTHERN CALIFORNIA EDISON COMPANY

MUNICIPALITIES

- CITY OF LOS ANGELES - DEPARTMENT OF WATER AND POWER
- CITY OF PORTERVILLE
- CITY AND COUNTY OF SAN FRANCISCO - PUBLIC UTILITIES COMMISSION

PUBLIC AGENCIES

- BUENA VISTA WATER STORAGE DISTRICT
- CENTRAL CALIFORNIA IRRIGATION DISTRICT
- EAST BAY MUNICIPAL UTILITY DISTRICT
- FRIANT WATER USERS ASSOCIATION
- KAWEAH DELTA WATER CONSERVATION DISTRICT
- KAWEAH RIVER ASSOCIATION
- KINGS RIVER WATER ASSOCIATION
- LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
- LOWER TULE RIVER IRRIGATION DISTRICT
- MERCED IRRIGATION DISTRICT
- MODESTO IRRIGATION DISTRICT
- NEVADA IRRIGATION DISTRICT
- OAKDALE IRRIGATION DISTRICT
- OMOCHUMNE-HARTNELL WATER DISTRICT
- PLACER COUNTY WATER AGENCY
- PORTERVILLE IRRIGATION DISTRICT
- SACRAMENTO MUNICIPAL UTILITY DISTRICT
- SAUCELITO IRRIGATION DISTRICT
- SOUTH SAN JOAQUIN IRRIGATION DISTRICT
- ST. JOHNS RIVER ASSOCIATION
- TULE RIVER ASSOCIATION
- TURLOCK IRRIGATION DISTRICT
- VANDALIA IRRIGATION DISTRICT

PRIVATE ORGANIZATIONS

- ATMOSPHERICS INCORPORATED
- ATMOSPHERIC WATER RESOURCES RESEARCH
- J. G. BOSWELL COMPANY
- KERN COUNTY LAND COMPANY
- LIBERTY FARMS COMPANY
- MT. REBA INCORPORATED
- UNION CARBIDE CORPORATION

OTHER COOPERATIVE PROGRAMS

- NEVADA COOPERATIVE SNOW SURVEYS
- OREGON COOPERATIVE SNOW SURVEYS

TABLE 1

PRECIPITATION DATA

AREA, DRAINAGE BASIN AND PRECIPITATION STATION	ELEV IN FEET	SOURCE OF DATA (1)	PRECIPITATION (2) JANUARY 1970 AVERAGE	JANUARY 1970 TOTAL FOR MONTH	JANUARY 1970 PERCENT OF AVERAGE	OCT 1, 1969 - JAN 31, 1970 AVERAGE	OCT 1, 1969 - JAN 31, 1970 TOTAL FOR SEASON	OCT 1, 1969 - JAN 31, 1970 PERCENT OF AVERAGE	AVERAGE WATER YEAR
NORTH COASTAL AREA									
SMITH RIVER									
GASQUET RS	384	USWB	15.98	35.35	221	55.30	68.81	124	93.03
CRESCENT CITY 11E	360	DWR	16.20	43.36	268	56.66	84.12	148	102.53
BROOKINGS, OREGON	80	USWB	12.68	23.60	186	44.21	54.25	123	80.72
CRESCENT CITY 1N	40	USWB	11.34	20.90	184	38.98	46.77	120	74.15
KLAMATH RIVER									
KLAMATH FALLS 2SSW, OREGON	4098	USBR	2.06	4.79	233	7.41	11.94	161	14.02
TULELAKE	4035	USWB	1.04	2.45	236	4.57	8.57	187	10.43
CALLAHAN RS	3136	USWB	3.53	8.27	234	11.30	18.20	161	19.90
MONTAGUE	2500	DWR	1.84	4.86	264	6.56	11.52	176	12.54
YREKA	2625	USWB	3.08	8.01	260	10.15	17.79	175	17.96
HAPPY CAMP RS	1090	USWB	10.76	23.95	223	33.21	47.77	144	54.95
ORLEANS	403	USWB	9.46	22.48	238	30.32	43.35	143	51.51
ORICK ARCATA REDWOOD CO	75	DWR	10.04	-	-	36.80	-	-	66.72
TRINITY RIVER									
COFFEE CREEK RS	2500	USWB	7.01	29.00	414	29.60	51.27	173	52.54
BURNT RANCH 1S	2150	USWB	7.60	17.95	236	24.45	37.64	154	42.08
WEAVERVILLE RS	2050	USWB	7.07	17.55	248	21.30	37.32	175	36.77
BIG BAR RS	1260	USWB	6.97	20.09	288	21.56	38.44	178	36.67
EEL RIVER									
MAD RIVER RS	2775	USWB	9.06	28.82	318	34.91	58.47	167	58.85
OLD HARRIS	2225	DWR	12.08	30.93	256	42.70	59.27	139	71.02
HONOR CAMP NO 42	1875	DWR	13.59	25.68	189	43.58	51.22	118	74.93
STANDISH-HICKEY STATE PARK	850	USWB	13.90	33.47	241	44.78	62.38	139	74.48
HONEYDEW 2WSW	375	USWB	18.76	45.26	241	65.06	94.66	145	110.50
UPPER MATTOLE	255	USWB	14.98	29.44	197	46.37	64.78	140	79.62
BLUE LAKE	105	DWR	8.48	11.08	131	27.15	27.14	100	46.99
SCOTIA	139	USWB	8.92	17.32	194	27.41	36.57	133	48.23
FORT BRAGG	80	USWB	7.06	13.43	190	21.66	33.26	154	38.18
EUREKA WB CITY	43	USWB	6.50	12.46	192	21.16	28.75	136	38.36
RUSSIAN RIVER									
CAZADERO	1040	USWB	14.90	42.67	286	40.74	75.40	185	73.35
POTTER VALLEY PH	1014	PG&E	8.87	25.30	285	25.91	44.69	172	44.02
UKIAH	623	USWB	7.30	23.53	322	21.24	40.60	191	36.25
BOONVILLE MAINT STATION	342	USWB	7.39	24.14	327	21.50	42.33	197	37.15
SANTA ROSA	167	USWB	5.81	15.87	273	16.19	31.27	193	28.93
FORT ROSS	116	USWB	7.75	18.42	238	21.77	34.78	160	38.89
HEALDSBURG	102	USWB	8.35	25.24	302	23.02	48.09	209	39.89
SAN FRANCISCO BAY AREA									
MOUNT HAMILTON	4206	USWB	4.97	7.55	152	14.17	11.87	84	26.11
GERBER RANCH	2140	USWB	3.71	7.60	205	9.95	11.56	116	18.03
ANGWIN PAC UNION COLLEGE	1815	USWB	7.93	24.00	303	21.57	43.76	203	37.79
LAGUNITAS LAKE	785	MMWD	10.25	28.00	273	26.60	55.81	210	48.09
LIVERMORE 2SSW	545	USWB	2.83	5.38	190	7.86	9.30	118	14.31
SAN JOSE	70	CSJ	2.65	4.02	152	7.17	7.14	100	13.28
NAPA STATE HOSPITAL	60	USWB	4.70	13.77	293	13.39	25.43	190	23.76
SAN FRANCISCO FOB	52	USWB	4.32	7.81	181	11.64	17.02	146	20.42
REDWOOD CITY	31	USWB	4.17	8.77	210	11.00	14.85	135	19.19
OAKLAND WB AP	3	USWB	3.66	7.78	213	10.04	14.88	148	17.90
CENTRAL COASTAL AREA									
SALINAS RIVER									
PRIEST VALLEY	2300	USWB	3.84	4.59	120	10.08	8.13	81	19.83
PASO ROBLES	700	USWB	2.85	3.71	130	7.20	5.07	70	13.41
SAN ARDO	435	DWR	3.33	-	-	6.96	-	-	12.08
KING CITY	320	USWB	2.18	2.98	137	5.43	4.07	75	10.50
SAN LUIS OBISPO POLY	300	USWB	4.22	7.28	173	11.32	10.52	93	21.43
BIG SUR STATE PARK	235	USWB	8.44	15.28	181	22.23	32.07	144	40.94
SALINAS FAA AP	75	USWB	2.80	2.69	96	7.33	4.73	65	13.88
PT PIEDRAS BLANCAS	59	USWB	3.89	-	-	10.38	-	-	19.13
PAJARO RIVER									
HOLLISTER	285	USWB	2.53	5.42	214	7.07	9.11	129	13.16
SANTA CRUZ	125	USWB	6.54	13.03	199	17.27	22.89	133	30.62
WATSONVILLE WATER WORKS	95	USWB	4.26	7.28	171	11.56	16.45	142	20.98
SANTA MARIA AND SANTA YNEZ R									
CACHUMA DAM	781	USBR	4.08	2.57	63	9.60	4.05	42	18.71
LOS ALAMOS	565	USWB	2.87	3.06	107	7.51	5.26	70	15.05

TABLE 1 - PRECIPITATION DATA (CONTINUED)

AREA, DRAINAGE BASIN AND PRECIPITATION STATION	ELEV IN FEET	SOURCE OF DATA (1)	PRECIPITATION (2) JANUARY 1970 AVERAGE	JANUARY 1970 TOTAL FOR MONTH	JANUARY 1970 PERCENT OF AVERAGE	OCT 1, 1969 - JAN 31, 1970 AVERAGE	OCT 1, 1969 - JAN 31, 1970 TOTAL FOR SEASON	OCT 1, 1969 - JAN 31, 1970 PERCENT OF AVERAGE	AVERAGE WATER YEAR
SANTA MARIA AND SANTA YNEZ R (CONTINUED)									
SANTA MARIA WB AP	238	USWB	2.60	2.15	83	6.77	3.52	52	13.10
SANTA BARBARA	100	USWB	3.50	2.48	71	8.92	4.78	54	17.55
SOUTH COASTAL AREA									
COASTAL PLAIN									
LOS ANGELES WB CITY	312	USWB	2.82	1.59	56	7.30	2.76	38	14.55
SANTA ANA FS	115	USWB	2.65	2.22	84	7.13	4.56	64	14.06
LOS ANGELES WB AP	97	USWB	2.47	1.44	58	6.34	2.82	45	10.46
LAGUNA BEACH	56	USWB	2.24	2.13	95	6.13	4.86	79	12.28
VENTURA	45	USWB	2.96	-	-	7.25	-	-	14.17
LONG BEACH	34	USWB	2.40	-	-	6.49	-	-	12.86
SAN DIEGO WB AP	19	USWB	1.89	0.86	46	5.39	2.15	40	10.18
SANTA CLARA RIVER									
MINT CANYON - THE OAKS	2350	LACFCD	2.38	0.87	37	6.41	2.38	37	12.83
SAUGUS PP NO 1	2105	USWB	3.28	1.51	46	9.02	3.09	34	17.92
DRY CANYON RESERVOIR	1515	USWB	2.39	0.39	16	6.35	1.89	30	12.78
SANTA PAULA	263	USWB	3.50	2.41	69	8.91	4.29	48	17.23
LOS ANGELES RIVER									
HAINES CANYON UPPER	3450	LACFCD	5.43	1.51	28	14.28	3.79	27	28.33
BIG TUJUNGA DAM	2315	LACFCD	5.12	1.33	26	13.15	3.61	27	26.36
ARROYO SECO RS	1220	LACFCD	4.19	2.24	53	11.06	4.55	41	22.12
BURBANK WB AP	699	USWB	2.91	1.33	46	7.34	2.77	38	14.53
SAN GABRIEL RIVER									
MT WILSON	5709	USWB	5.91	2.03	34	16.35	4.60	28	32.68
SAN DIMAS TANBARK FLAT	2745	LACFCD	4.18	1.63	39	10.62	4.44	42	22.16
HOEGEES	2650	LACFCD	7.35	2.95	40	19.23	6.09	32	38.04
HENNINGER FLATS	2550	LACFCD	4.80	2.05	43	12.85	4.77	37	26.23
SAN GABRIEL DAM CAMP	1500	LACFCD	5.12	1.97	38	13.54	4.57	34	26.02
SAN DIMAS DAM	1350	LACFCD	4.27	1.67	39	10.46	4.05	39	21.27
CLAREMONT POMONA COLLEGE	1201	USWB	3.45	1.50	43	8.95	3.57	40	17.54
SANTA ANA RIVER									
BIG BEAR LAKE	6745	USWB	5.09	-	-	11.90	-	-	24.34
SQUIRREL INN NO 2	5680	USWB	7.01	1.99	28	19.68	6.63	34	40.37
MT BALDY G S FC85G	4275	USWB	5.64	3.27	58	16.49	6.67	40	32.44
LYTLE CREEK RS	2760	USWB	5.89	2.32	39	15.66	5.31	34	30.86
ELSINORE	1285	USWB	1.75	1.31	75	5.63	2.03	36	11.40
SAN BERNARDINO CO HOSPITAL	1125	USWB	2.95	1.31	44	8.38	3.14	38	17.04
SAN DIEGO COUNTY									
CUYAMACA	4650	USWB	5.68	1.90	33	15.68	7.80	50	35.94
JULIAN WYNOLA	3650	USWB	4.91	-	-	12.84	-	-	28.08
WARNER SPRINGS	3180	USWB	2.44	0.65	27	7.09	2.01	28	15.86
CAMPO	2630	USWB	2.48	0.85	34	7.04	2.96	42	15.62
BARRETT DAM	1623	CSD	2.92	0.90	31	7.85	2.76	35	16.87
EL CAPITAN DAM	600	USWB	2.73	0.97	36	7.08	3.05	43	15.24
CENTRAL VALLEY AREA									
SACRAMENTO VALLEY FLOOR									
FRENCH GULCH	1100	USWB	7.24	14.72	203	21.61	30.74	142	38.49
REDDING FS NO 2	577	USWB	7.21	28.84	400	20.82	48.01	231	38.14
ONO	980	USWB	6.28	21.06	335	19.62	36.91	188	35.36
VOLTA PH	2200	PG&E	5.06	13.62	269	16.78	31.85	190	32.74
HARRISON GULCH RS	2710	USWB	5.01	17.93	358	20.61	34.74	169	34.66
MINERAL	4911	USWB	8.34	27.40	329	27.69	56.56	204	51.45
RED BLUFF WB AP	341	USWB	4.07	8.27	203	11.95	16.74	140	21.71
CENTERVILLE PH	522	USWB	8.13	20.47	252	23.10	41.92	181	42.89
PASKENTA RS	755	USWB	3.74	11.04	295	11.96	20.01	167	22.23
ORLAND	254	USWB	3.68	8.51	231	10.58	17.15	162	19.07
CHICO EXP STATION	205	USWB	4.86	11.78	242	14.14	24.67	174	25.92
STONY GORGE RESERVOIR	791	USBR	3.76	9.87	262	10.66	17.77	167	19.02
WILLOWS	140	USWB	3.42	7.48	219	9.79	14.78	151	17.48
OROVILLE BRIDGE	165	USWB	5.27	11.95	227	14.92	25.46	171	27.72
EAST PARK RESERVOIR	1205	USBR	3.86	9.99	259	10.61	19.44	183	18.71
STONYFORD COOLEY RANCH	3015	USWB	9.69	30.44	314	29.43	54.40	185	51.24
COLUSA 1SSW	60	USWB	2.94	6.62	225	8.57	13.24	154	15.55
MARYSVILLE	60	USWB	3.87	3.87	100	11.08	12.49	113	20.41
LAKEPORT	1343	USWB	5.87	17.46	297	16.85	32.44	192	28.46
LEESVILLE KEEGAN RANCH	1330	USWB	4.34	12.38	285	12.15	23.34	192	22.16

TABLE 1 - PRECIPITATION DATA (CONTINUED)

AREA, DRAINAGE BASIN AND PRECIPITATION STATION	ELEV IN FEET	SOURCE OF DATA (1)	PRECIPITATION (2) JANUARY 1970 AVERAGE	JANUARY 1970 TOTAL FOR MONTH	JANUARY 1970 PERCENT OF AVERAGE	OCT 1, 1969 - JAN 31, 1970 AVERAGE	OCT 1, 1969 - JAN 31, 1970 TOTAL FOR SEASON	OCT 1, 1969 - JAN 31, 1970 PERCENT OF AVERAGE	AVERAGE WATER YEAR
SACRAMENTO VALLEY FLOOR (CONTINUED)									
NICOLAUS NO 2	47	USWB	3.25	6.41	197	9.44	12.95	137	17.40
DUNNIGAN-POWERS RANCH	104	DWR	3.02	6.19	205	9.04	12.72	141	16.19
COBB	2520	DWR	12.24	42.90	350	36.37	79.94	220	63.91
ROCKLIN	239	USWB	4.32	7.36	170	12.03	15.29	127	22.94
CITRUS HEIGHTS	138	DWR	4.44	8.06	182	12.21	15.84	130	23.22
CAPAY 4W	300	DWR	4.43	9.89	223	12.10	19.40	160	22.06
WOODLAND 1WNW	69	USBR	3.28	7.04	215	9.22	15.25	165	16.63
SACRAMENTO WB CITY	25	USWB	3.48	7.05	203	9.54	14.03	147	17.77
DAVIS 2WSW	60	USBR	3.33	6.79	204	9.14	13.60	149	16.57
WINTERS	135	USBR	4.06	12.41	306	10.26	21.73	212	18.03
SAN JOAQUIN VALLEY FLOOR									
CAMP PARDEE	658	USWB	3.66	6.70	183	10.42	15.33	147	20.50
GALT	47	DWR	3.04	-	-	8.50	-	-	16.39
WALLACE 1SE	214	USWB	3.63	6.60	182	10.04	13.91	139	19.59
RIO VISTA	22	USWB	3.24	7.49	231	8.78	14.04	160	16.14
LODI	40	USWB	3.02	6.52	216	8.64	12.39	143	16.20
ANTIOCH FIBREBOARD MILL	28	USWB	2.60	5.10	196	7.17	9.75	136	13.17
STOCKTON FS NO 4	11	USWB	2.71	6.55	242	7.50	11.36	151	14.35
OAKDALE	155	DWR	2.65	4.59	173	7.27	9.21	127	14.20
KNIGHTS FERRY 2SE	315	USWB	3.14	-	-	9.22	-	-	18.02
TRACY CARBONA	140	USWB	1.80	3.52	196	4.88	5.41	111	9.34
MODESTO	91	USWB	2.16	4.12	191	6.16	7.59	123	11.98
DENAIR 3NNE	137	USWB	2.28	3.19	140	6.25	7.14	114	12.26
NEWMAN 2NW	108	USWB	2.01	3.39	169	5.45	6.11	112	10.47
MERCED FS NO 2	169	USWB	2.21	3.94	178	6.18	8.39	136	12.09
LOS BANOS	125	USWB	1.57	2.99	190	4.57	5.88	129	8.85
DELTA RANCH	90	DWR	1.81	3.33	184	5.04	5.90	117	9.43
FRIANT GOVERNMENT CAMP	410	USWB	2.52	4.43	176	7.18	7.81	109	14.34
MADERA	268	USWB	1.81	3.42	189	5.31	6.40	121	10.69
MENDOTA DAM	166	USWB	1.38	2.52	183	3.81	4.29	113	7.61
FRESNO WB AP	331	USWB	1.93	3.83	198	5.31	5.83	110	10.96
ORANGE COVE	431	USWB	2.41	4.07	169	6.60	5.92	90	13.01
PANOCHE	1265	USWB	1.91	3.41	179	4.82	4.64	96	8.48
LEMON COVE	513	USWB	2.55	4.14	162	6.87	6.99	102	13.82
VISALIA	354	USWB	1.88	3.08	164	4.93	4.55	92	9.96
HANFORD	242	USWB	1.46	1.60	110	3.99	2.86	72	8.00
LINDSAY	395	USWB	2.13	3.25	153	5.64	5.32	94	11.49
COALINGA	671	USWB	1.37	-	-	3.60	-	-	7.34
PORTERVILLE	393	USWB	2.03	2.61	129	5.36	4.42	82	10.93
ANGIOLA	205	USWB	1.38	1.14	83	3.60	2.08	58	7.46
WASCO	333	USWB	1.13	0.77	68	2.96	1.41	48	6.55
SOUTH BELRIDGE	575	DWR	0.89	0.75	84	2.30	1.62	70	5.16
BAKERSFIELD WB AP	494	USWB	1.07	0.66	62	2.79	1.24	45	6.16
TEHACHAPI	3975	USWB	1.62	2.61	161	5.34	3.92	73	11.09
TEJON RANCHO	1425	USWB	1.96	0.78	40	5.37	3.63	68	11.90
PATTIWAY	3868	USWB	1.71	0.76	44	4.58	2.58	56	9.79
UPPER SACRAMENTO, PIT, AND MCCLOUD RIVERS									
JESS VALLEY	5290	USWB	1.87	3.85	206	6.92	9.82	142	17.40
ALTURAS RS	4365	USWB	1.58	3.65	231	5.74	8.97	156	13.10
MOUNT SHASTA WB CITY	3544	USWB	6.07	11.71	193	19.12	28.61	150	36.70
MCCLOUD	3300	USWB	8.67	22.76	263	26.81	45.14	168	50.28
HAT CREEK PH NO 1	3015	PG&E	2.73	6.46	237	8.97	16.84	188	18.08
DUNSMUIR RS	2420	USWB	10.76	1.92	18	31.12	30.50	98	57.83
PIT RIVER PH NO 5	1458	PG&E	13.64	45.94	337	40.49	78.83	195	75.22
VOLLMERS	1359	USWB	10.20	-	-	35.35	-	-	66.65
SHASTA DAM	1076	USBR	10.20	34.13	335	32.28	60.22	187	57.83
FEATHER RIVER									
SIERRAVILLE RS	4975	USWB	4.70	14.17	301	14.33	24.84	173	25.84
VINTON	4945	DWR	1.93	6.72	348	6.54	13.15	201	13.19
PORTOLA	4838	USWB	3.61	9.02	250	10.90	17.21	158	20.81
CANYON DAM	4555	USWB	6.94	18.72	270	20.47	37.95	185	38.61
CHESTER	4525	USWB	5.56	15.84	285	17.07	29.97	176	32.34
BRUSH CREEK RS	3560	USWB	13.76	35.30	257	38.38	69.93	182	71.04
QUINCY RS	3409	USWB	7.11	22.10	311	21.12	40.80	193	40.17
CARIBOU PH	2986	PG&E	7.46	19.61	263	21.49	37.18	173	40.61
LAKE WILENOR	2040	DWR	8.97	31.21	348	26.20	58.77	224	49.78
BUCKS CREEK PH (STORRIE)	1760	PG&E	11.48	31.15	271	34.69	59.62	172	65.17

TABLE 1 - PRECIPITATION DATA (CONTINUED)

AREA, DRAINAGE BASIN AND PRECIPITATION STATION	ELEV IN FEET	SOURCE OF DATA (1)	PRECIPITATION (2) JANUARY 1970 AVERAGE	JANUARY 1970 TOTAL FOR MONTH	JANUARY 1970 PERCENT OF AVERAGE	OCT 1, 1969 - JAN 31, 1970 AVERAGE	OCT 1, 1969 - JAN 31, 1970 TOTAL FOR SEASON	OCT 1, 1969 - JAN 31, 1970 PERCENT OF AVERAGE	AVERAGE WATER YEAR
CENTRAL VALLEY AREA (CONTINUED)									
YUBA RIVER									
SODA SPRINGS 1E	6885	USWB	11.67	24.43	209	34.38	47.90	139	66.08
BOWMAN DAM	5347	USWB	11.94	31.85	267	35.08	63.28	180	67.03
LAKE SPAULDING	5156	USWB	11.91	33.12	278	35.45	62.18	175	66.90
DEER CREEK PH	3700	USWB	12.57	34.86	277	36.23	65.92	182	67.87
DOWNIEVILLE RS	2895	USWB	10.96	28.76	262	32.55	54.54	168	61.45
CAMPTONVILLE RS	2755	USWB	11.06	30.96	280	32.18	54.98	171	59.43
GRASS VALLEY	2400	USWB	10.28	21.76	212	29.05	43.98	151	55.02
NEVADA CITY	2600	USWB	9.88	22.57	228	28.11	44.88	160	53.31
INDIAN ROCK	2240	DWR	10.40	29.06	279	36.43	57.52	158	67.74
DOBBINS COLGATE FOREBAY	1550	USWB	7.64	3.31	43	22.15	22.55	102	41.00
COLGATE PH	585	PG&E	7.56	17.33	229	21.34	34.87	163	39.81
NORTH SAN JUAN	2081	DWR	9.05	20.96	232	25.63	41.71	163	47.93
AMERICAN RIVER									
TWIN LAKES	7829	PG&E	8.47	18.59	219	23.56	37.84	161	48.06
BIG BEND RS	5739	USWB	12.19	36.25	297	36.49	66.54	182	69.13
BLUE CANYON WB AP	5280	USWB	11.42	32.05	281	33.17	61.18	184	61.35
SLY PARK	3530	USBR	9.31	21.79	234	26.08	41.41	159	49.96
PACIFIC HOUSE	3440	USWB	9.65	19.43	201	26.58	36.58	138	51.00
GEORGETOWN RS	3001	USWB	10.39	25.93	250	28.52	49.05	172	53.84
COLFAX	2418	USWB	8.91	19.69	221	24.95	39.47	158	47.03
PLACERVILLE	1890	USWB	7.38	16.20	220	20.75	31.76	153	39.70
AUBURN	1297	USWB	6.70	13.66	204	18.44	30.60	166	34.89
FOLSOM DAM	350	USBR	4.48	7.63	170	12.42	17.28	139	23.58
MOKELUMNE RIVER									
SALT SPRINGS PH	3700	PG&E	7.87	19.32	245	22.39	37.16	166	43.89
WEST POINT 3 SW	2365	USWB	6.87	14.29	208	18.92	29.06	154	36.78
TIGER CREEK PH	2355	PG&E	8.25	20.66	250	23.63	39.41	167	45.79
FIDDLETOWN LYNCH RANCH	2140	USWB	6.55	13.34	204	18.08	28.43	157	34.20
ELECTRA PH	715	PG&E	5.35	10.06	188	15.31	22.28	146	29.77
STANISLAUS RIVER									
PINECREST	5620	PG&E	7.21	16.71	232	21.12	25.59	121	42.00
SPRING GAP FOREBAY	4875	PG&E	7.20	19.24	267	21.09	32.99	156	41.61
CALAVERAS BIG TREES	4696	USWB	9.89	23.17	234	27.87	45.11	162	53.90
TUOLUMNE RIVER									
LAKE ELEANOR	4662	USWB	7.71	19.20	249	22.18	32.65	147	42.66
HETCH HETCHY	3870	USWB	5.62	13.74	244	17.63	24.19	137	35.01
SONORA RS	1749	USWB	5.66	12.41	219	16.19	24.26	150	31.95
MERCED RIVER									
YOSEMITE NP	3985	USWB	6.30	14.18	225	18.88	26.40	140	36.69
DUDLEYS	3000	USWB	7.02	13.68	195	19.96	26.44	132	38.36
MARIPOSA	2011	USWB	5.44	5.44	100	15.63	15.24	98	29.99
EXCHEQUER RESERVOIR	484	USWB	3.31	4.88	147	9.62	11.89	124	19.10
UPPER SAN JOAQUIN RIVER									
FLORENCE LAKE	7345	SCEC	3.52	7.48	212	11.35	12.13	107	23.66
HUNTINGTON LAKE	7020	USWB	5.14	10.38	202	16.02	19.92	124	32.50
CRANE VALLEY PH	3440	PG&E	7.42	12.60	170	20.61	21.95	107	40.44
NORTH FORK RS	2630	USWB	5.87	11.13	190	17.08	19.29	113	33.54
KINGS RIVER									
GRANT GROVE	6580	USWB	6.56	13.68	209	22.26	21.70	97	44.25
BALCH PH	1720	USWB	4.95	9.83	199	13.91	18.16	131	28.31
PINE FLAT DAM	615	USCE	3.66	6.26	171	9.87	9.48	96	19.44
KAWEAH RIVER									
GIANT FOREST	6412	USWB	7.63	15.93	209	21.18	23.19	109	43.80
ASH MOUNTAIN	1708	USWB	4.42	9.47	214	12.42	14.27	115	26.13
THREE RIVERS EDISON PH NO 2	950	USWB	3.82	7.25	190	10.19	10.51	103	21.06
TULE RIVER									
TULE RIVER INTAKE	2450	SCEC	4.75	10.32	217	13.11	15.91	121	26.70
KERN RIVER									
KERN RIVER INTAKE NO 3	3650	USWB	3.81	5.98	157	9.05	8.19	91	17.72
GLENNVILLE	3140	USWB	3.05	6.66	218	8.47	8.76	103	18.03
KERN RIVER PH NO 3	2703	USWB	2.48	3.67	148	5.68	4.79	84	11.31
WOFFORD HEIGHTS	2700	USWB	2.26	3.89	172	5.37	4.88	91	10.41

TABLE 1 - PRECIPITATION DATA (CONTINUED)

AREA, DRAINAGE BASIN AND PRECIPITATION STATION	ELEV IN FEET	SOURCE OF DATA (1)	PRECIPITATION (2) JANUARY 1970 AVERAGE	TOTAL FOR MONTH	PERCENT OF AVERAGE	OCT 1, 1969 - JAN 31, 1970 AVERAGE	TOTAL FOR SEASON	PERCENT OF AVERAGE	AVERAGE WATER YEAR
LAHONTAN AREA									
SURPRISE VALLEY									
CEDARVILLE	4670	USWB	1.75	4.14	237	6.10	11.64	191	12.80
FORT BIDWELL	4498	USWB	2.24	5.12	229	7.24	12.34	170	14.84
MADELINE PLAINS-HONEY LAKE									
RAVENDALE JIM MARR RANCH	5540	DWR	1.50	-	-	3.94	-	-	8.46
SUSANVILLE COURTHOUSE	4325	DWR	2.94	8.40	286	9.18	15.68	171	17.21
DOYLE	4240	USWB	1.66	6.26	377	5.28	11.78	223	10.19
SUSANVILLE AP	4148	USWB	2.53	7.11	281	7.92	13.67	173	14.72
WENDEL 1E	4040	DWR	1.22	2.94	241	4.01	6.73	168	7.87
TRUCKEE AND TAHOE BASIN									
TAHOE CITY	6230	USWB	5.89	15.27	259	17.32	28.07	162	31.74
TRUCKEE RS	5995	USWB	5.88	15.41	262	16.86	26.81	159	31.59
CARSON RIVER									
WOODFORDS	5671	USWB	3.89	9.82	252	10.45	18.63	178	21.52
WALKER RIVER									
BRIDGEPORT	6470	USWB	1.66	3.64	219	4.40	5.77	131	9.17
MONO BASIN									
ELLERY LAKE	9600	USWB	4.07	8.85	217	11.80	16.41	139	23.99
GEM LAKE	8970	USWB	3.27	4.98	152	10.44	9.04	87	21.17
MONO LAKE	6450	USWB	2.73	4.29	157	8.75	7.50	86	17.05
OWENS RIVER									
WHITE MOUNTAIN NO 2	1247	USWB	2.17	-	-	7.02	-	-	14.38
SOUTH LAKE	9580	SCEC	2.74	4.46	163	8.11	8.04	99	17.67
LAKE SABRINA	9065	SCEC	2.67	3.60	135	8.04	5.28	66	17.41
CROOKED CREEK	6700	LADWP	1.76	2.89	164	4.92	3.63	74	10.18
BIG PINES PH NO 3	4680	LADWP	1.63	2.16	133	4.58	2.61	57	8.44
BISHOP WB AP	4108	USWB	0.99	0.67	68	3.01	1.05	35	5.75
INDEPENDENCE	3950	USWB	0.80	1.81	226	2.71	2.05	76	5.04
LA AQUEDUCT AT INTAKE	3841	LADWP	0.98	1.71	174	2.81	1.89	67	5.35
HAIWEE	3825	USWB	0.92	0.57	62	2.94	0.69	24	6.07
COTTONWOOD GATES	3710	LADWP	1.15	1.30	113	3.11	1.34	43	6.17
DEATH VALLEY									
DEATH VALLEY	-194	USWB	0.19	0.00	0	0.74	0.37	50	1.80
MOJAVE DESERT									
BIG PINES CAMP	6860	LACFCD	4.20	1.90	45	12.31	5.26	43	24.92
FAIRMONT	3060	USWB	2.93	0.76	26	7.79	1.80	23	14.99
PALMDALE FAA AP	2517	USWB	1.55	0.00	0	4.29	0.73	17	8.37
INYOKERN	2440	USWB	0.62	0.13	21	1.85	0.46	25	4.15
DAGGETT FAA AP	1922	USWB	0.61	0.03	5	2.05	0.27	13	4.54
BAKER 9NNW	1045	USWB	0.48	0.11	23	1.58	0.46	29	3.84
COLORADO DESERT AREA									
TWENTYNINE PALMS	1975	USWB	0.52	0.00	0	1.90	0.00	0	3.97
IRON MOUNTAIN	922	USWB	0.44	0.10	23	1.38	0.73	53	2.99
NEEDLES FAA AP	913	USWB	0.52	0.01	2	1.92	0.30	16	4.56
BLYTHE FAA AP	390	USWB	0.46	0.00	0	1.51	0.64	43	3.84
YUMA, ARIZONA, WB AP	199	USWB	0.26	0.00	0	0.94	0.00	1	2.26
IMPERIAL	-64	USWB	0.35	0.00	0	1.23	1.65	134	2.72
THERMAL FAA AP	-120	USWB	0.38	0.10	26	1.45	0.78	54	2.85

(1) USWB - UNITED STATES WEATHER BUREAU. LACFCD - LOS ANGELES COUNTY FLOOD CONTROL DISTRICT. DWR - CALIFORNIA DEPARTMENT OF WATER RESOURCES. PG&E - PACIFIC GAS AND ELECTRIC COMPANY. SCEC - SOUTHERN CALIFORNIA EDISON COMPANY. LADWP - LOS ANGELES DEPARTMENT OF WATER AND POWER. MMWD - MARIN MUNICIPAL WATER DISTRICT. CSJ - CITY OF SAN JOSE. USBR - UNITED STATES BUREAU OF RECLAMATION. CSD - CITY OF SAN DIEGO. USCE - UNITED STATES ARMY CORPS OF ENGINEERS.

(2) MONTHLY AND SEASONAL TOTALS IN INCHES. AVERAGES IN INCHES ARE BASED ON THE 35-YEAR PERIOD, 1930-31 THROUGH 1964-65.

TABLE 2

SNOW COURSE DATA

AREA, DRAINAGE BASIN, AND SNOW COURSE (1)	CALIF NUMBER	ELEV IN FEET	DATE OF SURVEY	DEPTH IN INCHES	DENSITY IN PERCENT	WATER CONTENT IN INCHES	WATER CONTENT IN PER-CENT OF APR 1 AVG.	WATER CONTENT APRIL 1 AVG (2) INCHES	WATER CONTENT ONE YEAR AGO IN INCHES
NORTH COASTAL AREA									
SHASTA RIVER									
PARKS CREEK	1	6700	1-28-70	99.5	32	32.3	95	34.0	38.9
SWEETWATER	3	5850	1-28-70	37.9	23	8.8	63	13.9	22.0
SCOTT RIVER									
MIDDLE BOULDER 1	5	6600	1-29-70	72.5	31	22.7	74	30.5	30.7
MIDDLE BOULDER 3	311	6200	1-29-70	63.1	33	20.9	80	26.2	30.7
DYNAMITE MEADOW	298	5700	1-29-70	52.9	25	13.0	78	16.6	28.0
SWAMPY JOHN	285	5500	1-28-70	67.0	34	23.0	62	37.2	58.6
TRINITY RIVER									
DEADFALL LAKES	9	7200	1-28-70	77.4	37	28.6	91	31.6	33.7
RED ROCK MOUNTAIN	10	6700	1-28-70	106.5	40	42.3	100	42.2	50.1
BEAR BASIN	11	6500	1-28-70	81.3	39	31.7	85	37.5	43.2
SHIMMY LAKE	12	6200	1-28-70	107.4	45	48.0	104	46.1	50.8
HIGHLAND LAKES	16	6000	2- 3-70	67.8	43	29.0	93	31.3	39.4
BIG FLAT	17	5100	1-28-70	27.5	39	10.6	71	14.9	28.7
SOUTH COASTAL AREA									
SANTA ANA RIVER									
CHRISTMAS TREE HILL	351	8500	2- 5-70	0.0	-	0.0	-	(3)	(4)
SAN YCA	352	7500	2- 5-70	0.0	-	0.0	-	(3)	(4)
CENTRAL VALLEY AREA									
SACRAMENTO RIVER									
MOUNT SHASTA	18	7900	1-30-70	132.2	38	50.0	103	48.5	48.4
SAND FLAT	19	6800	1-30-70	100.6	38	38.3	95	40.2	39.6
SLATE CREEK	22	5600	1-29-70	46.7	32	15.1	56	27.1	36.8
MCCLOUD RIVER									
STOUTS MEADOW	25	5400	2- 4-70	36.7	38	14.0	35	40.5	40.3
PIT RIVER									
CEDAR PASS	30	7100	2- 3-70	37.5	34	12.6	75	16.7	17.8
THOUSAND LAKES	33	6500	1-28-70	60.2	46	27.4	77	35.7	42.8
ADIN MOUNTAINS	35	6350	1-30-70	26.4	36	9.4	71	13.2	20.4
NEW MANZANITA LAKE	343	5900	1-29-70	2.8	29	0.8	10	7.7	15.0
FEATHER RIVER									
UPPER LASSEN PEAK	336	8500	1-29-70	188.5	44	83.7	108	77.4	58.0
LOWER LASSEN PEAK	47	8250	1-30-70	184.2	47	85.7	114	75.4	57.5
KETTLE ROCK	361	7300	2- 3-70	44.8	38	17.1	-	(3)	32.7
MOUNT DYER 1	48	7100	1-28-70	52.4	35	18.6	77	24.3	29.0
GRIZZLY	359	6900	1-29-70	58.4	37	21.4	-	(3)	37.1
EUREKA BOWL	279	6800	1-28-70	65.3	32	20.7	49	42.0	54.1
ROWLAND CREEK	280	6700	1-28-70	45.3	32	14.6	84	17.4	25.5
MT HOUGH	360	6700	1-30-70	56.0	37	21.0	-	(3)	34.9
EUREKA LAKE	52	6200	1-28-70	36.3	35	12.6	39	32.0	40.0
MOUNT DYER 2	290	6050	1-28-70	25.3	28	7.0	44	15.8	21.9
FRENCHMAN COVE	353	5800	1-28-70	4.2	19	0.8	-	(3)	10.9
ANTELOPE RIDGE	354	5650	2- 3-70	12.0	38	4.6	-	(3)	12.0
ABBEY	355	5650	1-29-70	13.6	40	5.4	-	(3)	16.4
MOUNT STOVER	55	5600	1-28-70	32.0	32	10.3	64	16.2	22.6
BROWNS CAMP	56	5400	1-27-70	9.9	41	4.1	18	22.3	34.0
HASKINS FLAT	57	5200	1-27-70	12.0	50	6.0	21	29.2	36.6
CHESTER FLAT	61	4600	1-28-70	9.7	41	4.0	59	6.8	19.6
STONY CREEK									
ANTHONY PEAK	62	6200	1-28-70	17.3	45	7.8	27	28.9	28.6
YUBA RIVER									
CASTLE CREEK 5	65	7400	1-29-70	101.9	41	41.5	82	50.9	63.1
DONNER SUMMIT	69	6900	1-26-70	56.7	42	23.9	62	38.6	56.6
YUBA PASS	74	6700	2- 2-70	42.3	41	17.3	57	30.4	40.0
CISCO	80	5900	1-26-70	17.9	31	5.6	23	24.8	43.9
CHAPMAN CREEK	372	5850	2- 2-70	6.5	37	2.4	-	(3)	25.7
GIBSONVILLE	277	5400	2- 1-70	6.8	40	2.7	9	31.4	36.5
LAKE SPAULDING	85	5200	1-26-70	0.0	-	0.0	0	24.9	26.7
AMERICAN RIVER									
UPPER CARSON PASS	106	8500	1-29-70	69.2	38	26.4	76	34.6	44.4
EMIGRANT VALLEY	297	8400	1-29-70	86.8	41	36.0	83	43.3	55.3
LOWER CARSON PASS	331	8400	1-29-70	75.9	39	29.5	79	37.2	(4)
CAPLES LAKES	107	8000	1-29-70	64.0	35	22.2	74	30.0	38.8
ALPHA	365	7600	1-29-70	63.2	40	25.5	-	(3)	39.8
LOST CORNER MOUNTAIN	338	7500	2- 5-70	62.4	41	25.6	79	32.4	45.7

TABLE 2 - SNOW COURSE DATA (CONTINUED)

AREA, DRAINAGE BASIN, AND SNOW COURSE (1)	CALIF NUMBER	ELEV IN FEET	DATE OF SURVEY	DEPTH IN INCHES	DENSITY IN PERCENT	WATER CONTENT IN INCHES	WATER CONTENT IN PERCENT OF APR 1 AVG.	WATER CONTENT APRIL 1 AVG (2) INCHES	WATER CONTENT ONE YEAR AGO IN INCHES
AMERICAN RIVER (CONTINUED)									
ECHO SUMMIT	108	7450	1-28-70	75.2	36	26.9	72	37.3	51.2
LAKE AUDRAIN	110	7300	1-28-70	72.5	36	25.8	73	35.5	51.0
SILVER LAKE	109	7100	1-26-70	39.7	37	14.7	64	22.8	37.6
DARRINGTON	111	7100	1-29-70	57.5	39	22.4	73	30.6	44.2
WRIGHTS LAKE	316	6900	1-30-70	64.3	43	27.7	85	32.6	45.1
PHILLIPS	113	6800	1-29-70	54.4	43	23.3	81	28.7	43.1
LYONS CREEK	320	6700	1-30-70	57.4	43	24.5	79	31.1	40.0
HUYSINK	115	6600	1-30-70	61.1	42	25.7	56	45.9	56.0
TAMARACK FLAT	289	6550	1-29-70	53.4	39	20.9	75	27.9	40.0
WABENA MEADOWS	114	6300	1-30-70	55.8	33	18.6	48	39.1	49.7
MIRANDA CABIN	369	6200	1-30-70	51.6	39	20.0	-	(3)	47.9
ONION CREEK	120	6100	1-30-70	27.5	39	10.8	50	21.5	35.3
DIAMOND CROSSING	371	6050	1-30-70	24.7	38	9.5	-	(3)	30.7
TALBOT CAMP	122	5750	1-30-70	23.5	29	6.8	37	18.3	31.7
STRAWBERRY	124	5700	1-29-70	11.9	46	5.5	65	8.5	22.1
ROBBS VALLEY	322	5600	2- 5-70	12.7	55	7.0	31	22.3	22.5
ICE HOUSE	127	5300	1-30-70	1.4	36	0.5	4	13.2	9.9
MOKELUMNE RIVER									
TRAGEDY CREEK	364	8150	1-26-70	77.1	40	30.8	-	(3)	57.1
TRAGEDY SPRINGS	130	7900	1-26-70	74.2	39	29.1	67	43.3	57.6
WHEELER LAKE	131	7800	2- 5-70	95.2	43	41.1	80	51.6	64.9
PACIFIC VALLEY	132	7500	2- 3-70	62.2	45	27.8	77	36.2	49.7
CORRAL FLAT	133	7200	1-27-70	64.5	31	20.2	52	38.8	56.4
PODESTA	363	7200	1-27-70	76.7	30	23.2	-	(3)	60.4
BEAR VALLEY RIDGE 1	134	6700	1-26-70	31.0	38	11.9	47	25.4	30.1
BEAR VALLEY RIDGE 2	339	6600	1-26-70	38.3	40	15.3	54	28.2	37.6
LUMBERYARD	135	6500	1-28-70	35.5	39	14.0	45	31.0	32.9
MUD SPRINGS	362	5800	1-28-70	5.5	29	1.6	-	(3)	14.1
HAMS STATION	136	5500	1-28-70	3.8	29	1.1	13	8.2	9.9
ANTELOPE SPRINGS	137	4350	1-28-70	0.0	-	0.0	0	3.2	5.3
STANISLAUS RIVER									
HIGHLAND MEADOW	323	8800	2- 3-70	88.8	43	37.8	79	48.1	59.7
LOWER RELIEF VALLEY	138	8100	1-28-70	70.5	40	27.9	72	38.5	54.6
LAKE ALPINE	141	7550	1-30-70	83.0	39	32.3	80	40.6	55.0
HERRING CREEK	142	7300	1-28-70	45.4	39	17.7	64	27.8	40.0
SPICERS	144	6600	2- 3-70	47.4	46	21.6	75	28.8	46.0
BIG MEADOW	146	6550	1-30-70	39.9	43	17.2	62	27.8	36.5
HELLS KITCHEN	373	6550	1-30-70	37.1	40	14.8	-	(3)	29.9
NIAGARA FLAT	145	6500	1-28-70	32.0	39	12.6	62	20.4	31.0
COTTAGE SPRING	147	5750	1-30-70	9.3	37	3.4	24	14.2	20.6
DORRINGTON	149	4750	1-30-70	0.0	-	0.0	0	5.6	6.2
TUOLUMNE RIVER									
DANA MEADOWS	157	9850	2- 3-70	73.1	34	24.7	84	29.3	37.5
RAFFERTY MEADOWS	158	9400	2- 3-70	75.5	41	31.2	103	30.2	46.6
TUOLUMNE MEADOWS	161	8600	2- 3-70	40.5	32	13.1	60	21.9	36.7
KERRICK CORRAL	348	7000	1-26-70	26.7	43	11.6	-	(3)	23.8
MERCED RIVER									
SNOW FLAT	176	8700	2- 4-70	76.4	40	30.3	74	41.2	56.2
OSTRANDER LAKE	177	8200	1-30-70	49.6	34	17.0	52	33.0	44.3
LAKE TENAYA	178	8150	2- 4-70	61.6	43	26.2	79	33.0	33.0
GIN FLAT	179	7000	2- 4-70	26.4	44	11.6	34	33.8	41.4
PEREGOY MEADOWS	180	7000	1-31-70	38.4	38	14.5	45	32.0	45.0
SAN JOAQUIN RIVER									
MONO PASS	182	11450		NO SURVEY MADE				32.8	(4)
PIUTE PASS	183	11300	1-28-70	74.6	34	25.1	73	34.2	51.7
PIONEER BASIN	276	10400		NO SURVEY MADE				37.2	(4)
ROSE MARIE	187	10000		NO SURVEY MADE				29.0	(4)
AGNEW PASS	189	9450	1-30-70	61.2	31	18.7	61	30.6	41.9
KAISER PASS	190	9100	1-28-70	73.6	35	26.0	69	37.5	56.4
DUTCH LAKE	191	9100		NO SURVEY MADE				27.3	(4)
BADGER FLAT	346	8300	1-28-70	56.4	34	19.0	61	31.2	45.4
NELLIE LAKE	194	8000	1-29-70	57.7	34	19.6	54	36.4	54.5
LAKE THOMAS A EDISON	324	7800	2- 3-70	34.8	30	10.6	75	14.1	28.2
CHILKOOT LAKE	196	7450	1-29-70	37.2	45	16.8	46	36.4	53.6
TAMARACK CREEK	347	7250	1-30-70	27.2	44	12.0	49	24.4	40.2
FLORENCE LAKE	198	7200	2- 4-70	13.1	30	3.9	53	7.4	15.6
CHILKOOT MEADOW	197	7150	1-29-70	39.2	44	17.2	48	35.7	49.0
HUNTINGTON LAKE	199	7000	1-29-70	24.1	39	9.4	47	20.2	27.0
POISON MEADOW	204	6800	1-29-70	16.1	44	7.1	29	24.6	25.6
KINGS RIVER									
BISHOP PASS	222	11200	1-30-70	63.8	33	21.0	70	29.8	53.7

TABLE 2 - SNOW COURSE DATA (CONTINUED)

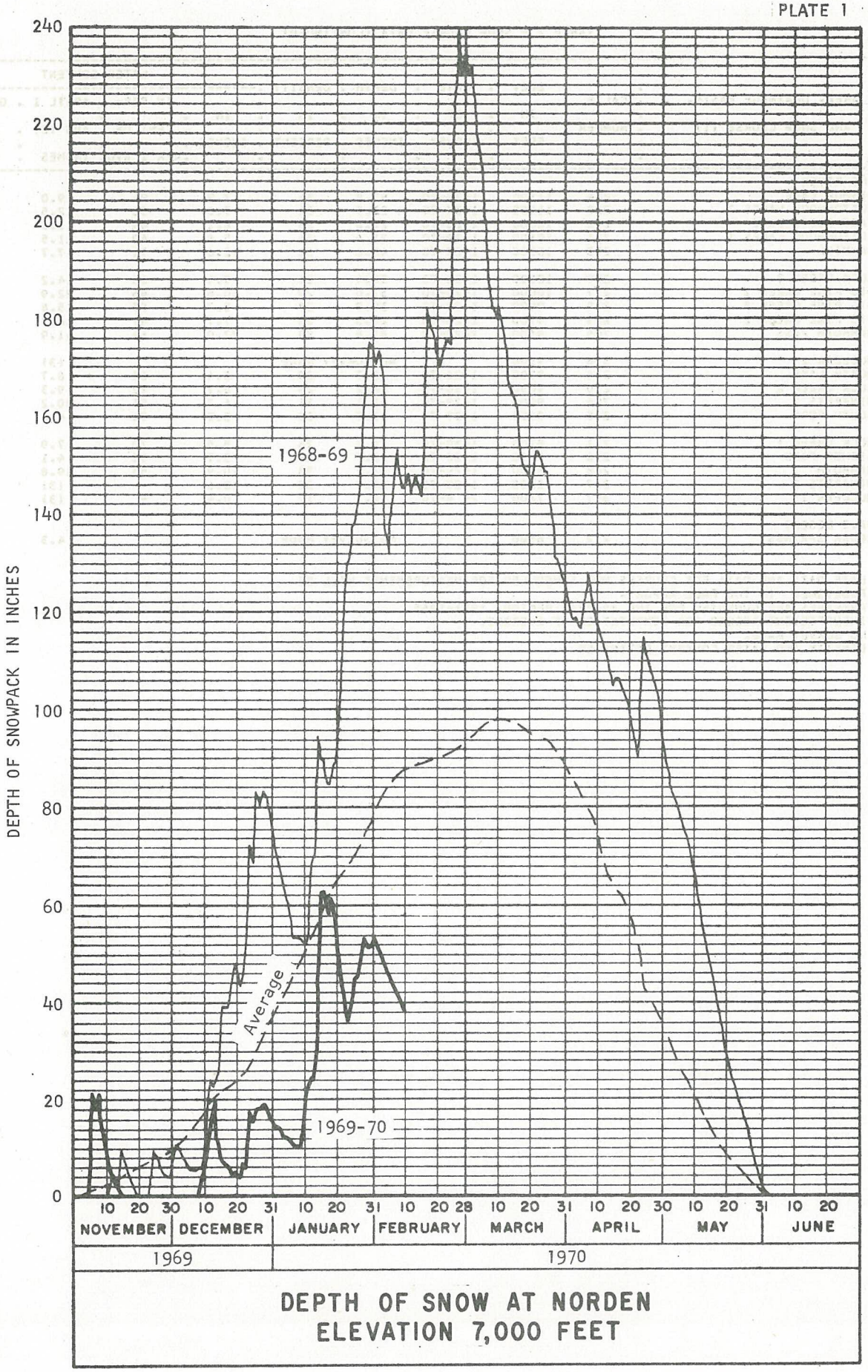
AREA, DRAINAGE BASIN, AND SNOW COURSE (1)	CALIF NUMBER	ELEV IN FEET	DATE OF SURVEY	DEPTH IN INCHES	DENSITY IN PERCENT	WATER CONTENT IN INCHES	IN PER-CENT OF APR 1 AVG.	APRIL 1 AVG (2) INCHES	ONE YEAR AGO IN INCHES
KINGS RIVER (CONTINUED)									
CHARLOTTE RIDGE	299	10700		NO SURVEY MADE				29.4	57.2
BULLFROG LAKE	307	10650		NO SURVEY MADE				27.8	(4)
BLACKCAP BASIN	223	10300	1-26-70	63.4	30	19.0	58	32.6	48.7
UPPER BURNT CORRAL MEADOW	224	9700	1-26-70	70.4	29	20.4	61	33.3	48.0
DODSONS MEADOW	308	8050	1-26-70	44.4	34	15.1	55	27.4	41.0
GRANT GROVE	240	6600	1-26-70	5.5	44	2.4	17	14.4	24.6
BIG MEADOWS	236	7600	1-31-70	23.4	57	13.3	53	25.2	46.5
KAWEAH RIVER									
WHITE CHIEF	374	9200		NO SURVEY MADE				(3)	(4)
FAREWELL GAP	292	9000	1-29-70	62.7	36	22.4	71	31.7	64.7
PANTHER MEADOW	243	8600	1-26-70	43.0	38	16.2	45	35.9	60.0
MINERAL KING	245	8000	1-28-70	31.6	41	12.9	67	19.2	38.4
GIANT FOREST	246	6400	1-26-70	5.4	41	2.2	13	16.7	17.5
TULE RIVER									
QUAKING ASPEN	247	7000	1-30-70	11.3	46	5.2	39	13.3	19.9
DEER CREEK									
DEAD HORSE MEADOW	249	7300	2- 3-70	0.0	-	0.0	0	12.7	13.8
KERN RIVER									
BIGHORN PLATEAU	250	11350	2- 7-70	40.9	34	14.0	62	22.7	33.7
COTTONWOOD PASS	251	11050	2-12-70	30.5	28	8.4	64	13.2	26.4
SIBERIAN PASS	252	10900	2- 5-70	31.9	30	9.6	53	18.0	30.0
CRABTREE MEADOW	253	10700	2- 6-70	42.5	32	13.4	71	19.0	29.4
GUYOT FLAT	254	10650	2- 6-70	39.8	32	12.6	62	20.2	31.3
TYNDALL CREEK	255	10650	2- 7-70	39.2	32	12.4	68	18.3	29.9
SANDY MEADOWS	275	10650	2- 7-70	41.6	32	13.5	73	18.4	30.4
BIG WHITNEY MEADOW	257	9750	2- 5-70	27.1	29	7.9	47	16.8	28.0
ROCK CREEK	256	9600	2- 5-70	37.9	31	11.6	68	17.0	30.0
ROUND MEADOW	258	9000	1-27-70	21.7	38	8.2	32	25.3	43.2
RAMSHAW MEADOWS	259	8700	2- 4-70	13.9	27	3.8	34	11.2	(4)
LITTLE WHITNEY MEADOW	260	8500	2- 3-70	23.2	31	7.2	55	13.2	(4)
LAHONTAN AREA									
SURPRISE VALLEY									
BARBER CREEK	313	6500	1-29-70	26.0	32	8.4	72	11.6	13.8
HAYS CANYON NEVADA	349	6400	1-29-70	6.0	27	1.6	89	1.8	5.9
49 MOUNTAIN NEVADA	350	6000	1-29-70	3.0	37	1.1	42	2.6	7.1
RESERVATION CREEK	314	5900	1-28-70	23.0	34	7.9	67	11.8	12.7
TRUCKEE RIVER									
SQUAW VALLEY 2	318	7500	1-31-70	110.0	35	39.0	76	51.6	62.6
INDEPENDENCE CAMP	88	7000	1-30-70	35.0	37	12.9	57	22.7	34.2
SAGE HEN CREEK	90	6500	1-30-70	24.0	30	7.3	41	17.9	25.0
INDEPENDENCE CREEK	91	6500	1-30-70	12.0	36	4.3	33	12.9	(4)
TRUCKEE 2	92	6400	1-31-70	22.0	32	7.0	43	16.2	20.3
DONNER PARK 2	342	6000	2- 4-70	14.0	34	4.8	28	17.3	21.2
BOCA 2	95	5900	2- 4-70	3.0	37	1.1	23	4.8	9.0
LAKE TAHOE BASIN									
HEAVENLY VALLEY	375	8850	1-28-70	65.0	34	22.2	-	(3)	33.0
HAGANS MEADOW	98	8000	1-28-70	46.0	36	16.4	93	17.6	25.9
MARLETTE LAKE NEVADA	332	8000	1-28-70	52.0	34	17.9	80	22.5	30.8
DAGGETTS PASS NEVADA	337	7350		NO SURVEY MADE				11.7	18.0
FREEL BENCH	100	7300	1-29-70	24.0	35	8.5	75	11.3	19.2
WARD CREEK	101	7000	1-27-70	76.0	39	29.7	66	45.0	51.0
GLENBROOK 2	333	6900	2- 2-70	29.0	31	9.0	70	12.9	16.9
WARD CREEK 3	376	6750	1-27-70	61.0	40	24.3	-	(3)	46.2
RICHARDSONS 2	103	6500	2- 1-70	26.9	30	8.2	49	16.7	21.0
UPPER TRUCKEE	104	6400	1-29-70	12.3	37	4.5	60	7.5	14.2
TAHOE CITY	105	6250		NO SURVEY MADE				11.0	19.4
WALKER RIVER									
VIRGINIA LAKES	150	9500	1-26-70	35.0	31	11.0	65	17.0	23.7
VIRGINIA LAKES RIDGE	377	9200	1-26-70	34.0	28	9.5	-	(3)	22.4
CENTER MOUNTAIN	151	9400		NO SURVEY MADE				35.4	(4)
SONORA PASS	152	8800	1-27-70	51.0	32	16.4	68	24.1	35.4
BUCKEYE FORKS	153	8500		NO SURVEY MADE				19.2	(4)
BUCKEYE ROUGHS	155	7900		NO SURVEY MADE				20.4	(4)
MONO LAKE BASIN									
GEM PASS	281	10400	1-29-70	66.2	33	21.7	67	32.5	39.9
TIOGA PASS	181	9800	2- 3-70	60.2	39	23.7	92	25.8	35.2
SADDLEBAG LAKE	287	9750	2- 3-70	75.1	35	26.6	80	33.2	40.7
ELLERY LAKE RHINEDOLLAR	286	9600	2- 3-70	67.6	35	23.4	78	30.1	38.8
GEM LAKE	282	9150	1-29-70	57.5	28	16.0	51	31.3	39.7

TABLE 2 - SNOW COURSE DATA (CONTINUED)

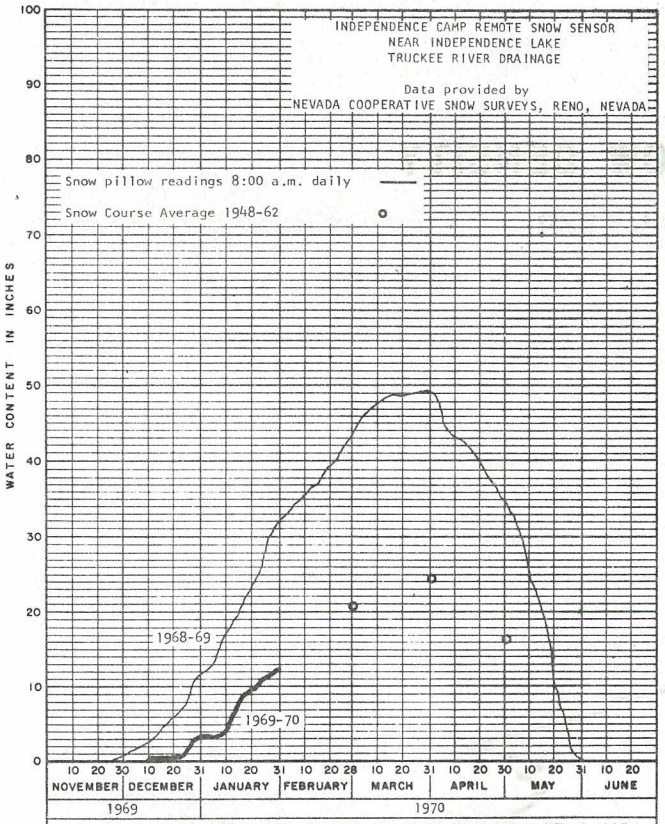
AREA, DRAINAGE BASIN, AND SNOW COURSE (1)	CALIF NUMBER	ELEV IN FEET	DATE OF SURVEY	DEPTH IN INCHES	DENSITY IN PERCENT	WATER CONTENT IN INCHES	WATER CONTENT IN PER-CENT OF APR 1 AVG.	WATER CONTENT APRIL 1 AVG (2) INCHES	WATER CONTENT ONE YEAR AGO IN INCHES
OWENS RIVER									
BISHOP LAKE	284	11300	1-29-70	52.8	34	17.9	94	19.0	37.4
COTTONWOOD LAKES 2	220	11100	1-29-70	22.5	31	7.0	56	12.5	22.0
EAST PIUTE PASS	212	10800	1-26-70	27.6	29	8.1	69	11.8	22.8
COTTONWOOD LAKES 1	221	10600	1-29-70	21.6	26	5.6	49	11.5	23.3
SAWMILL	213	10300	1-29-70	40.6	31	12.6	71	17.7	30.3
ROCK CREEK 3	209	10000	1-30-70	36.4	26	9.4	66	14.2	26.8
BIG PINE CREEK 1	217	10000	1-29-70	37.0	29	10.6	46	22.9	36.8
BIG PINE CREEK 3	218	9800	1-29-70	30.9	28	8.7	55	15.8	32.5
BIG PINE CREEK 2	219	9700	1-29-70	27.3	28	7.7	47	16.3	30.7
MAMMOTH PASS	205	9500	1-29-70	81.8	33	27.0	64	41.9	56.6
NUCLEAR 2	358	9500		NO SURVEY MADE				(3)	32.4
NORTH LAKE	214	9300	1-26-70	18.7	29	5.4	62	8.7	20.9
ROCK CREEK 2	210	9050	1-30-70	28.2	24	6.7	72	9.3	20.4
MINARETS 2	206	9000	1-29-70	53.1	31	16.7	55	30.2	41.4
SOUTH FORK	215	8850	1-29-70	11.7	30	3.5	76	4.6	15.4
ROCK CREEK 1	211	8700	1-30-70	21.1	26	5.5	70	7.9	18.0
BISHOP PARK	216	8400	1-28-70	12.7	29	3.7	90	4.1	16.4
MAMMOTH	208	8300	1-29-70	33.2	33	10.9	55	19.8	37.1
MINARETS 3	367	8200	1-29-70	34.9	30	10.6	-	(3)	32.2
NUCLEAR 1	357	7800	2- 4-70	2.3	17	0.4	-	(3)	13.2
MOJAVE DESERT									
CEDAR SPRINGS	272	6500		NO SURVEY MADE				4.3	0.6

(1) LATE DATA AND DATA FOR COURSES NOT SCHEDULED FOR MEASUREMENTS WILL BE PUBLISHED IN THE FALL REPORT.
(2) AVERAGES ARE COMPUTED FOR THE 35-YEAR PERIOD, 1931-1965
(3) INSUFFICIENT RECORD FOR COMPUTATION OF AVERAGE.
(4) NO SURVEY MADE.
(5) DENSITY AND WATER CONTENT ESTIMATED.

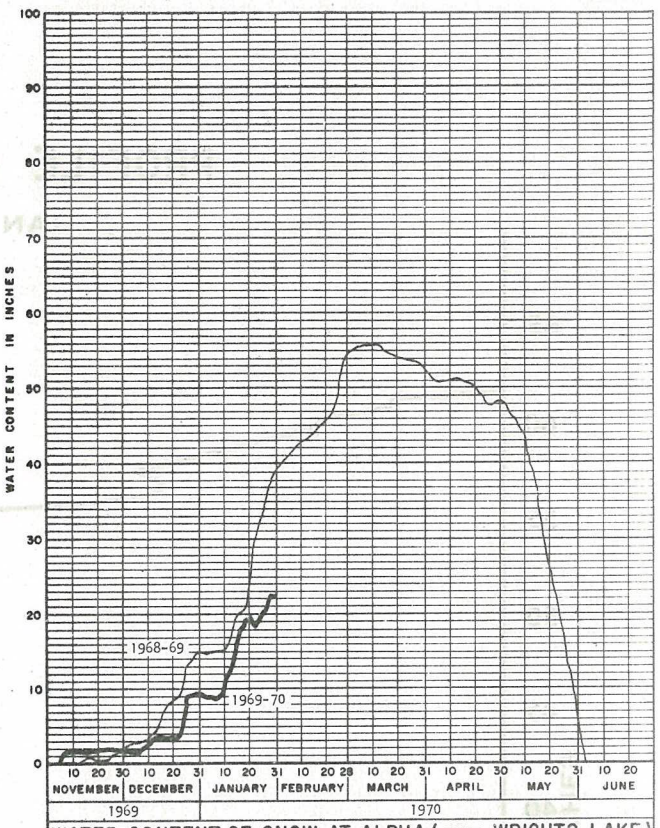
PLATE 1



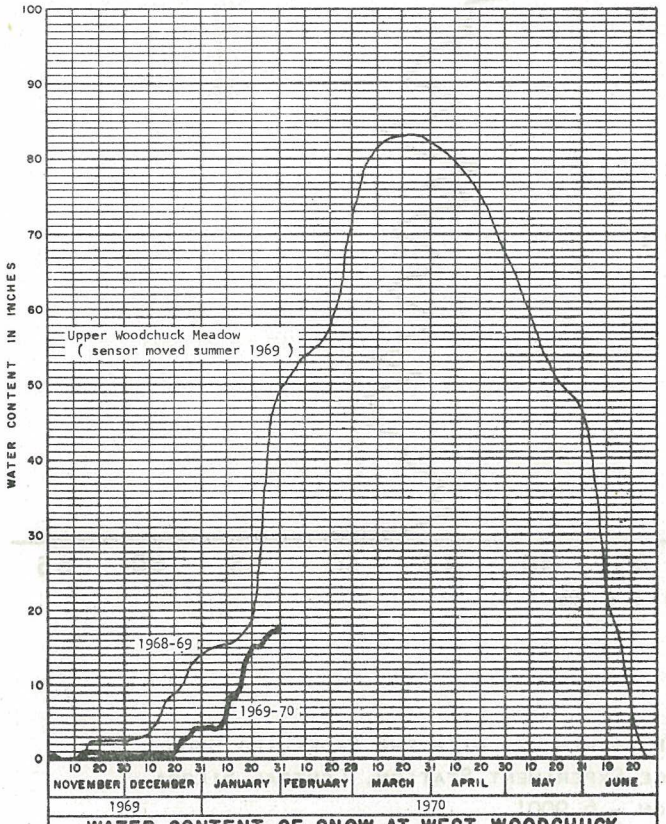
DEPTH OF SNOW AT NORDEN
ELEVATION 7,000 FEET



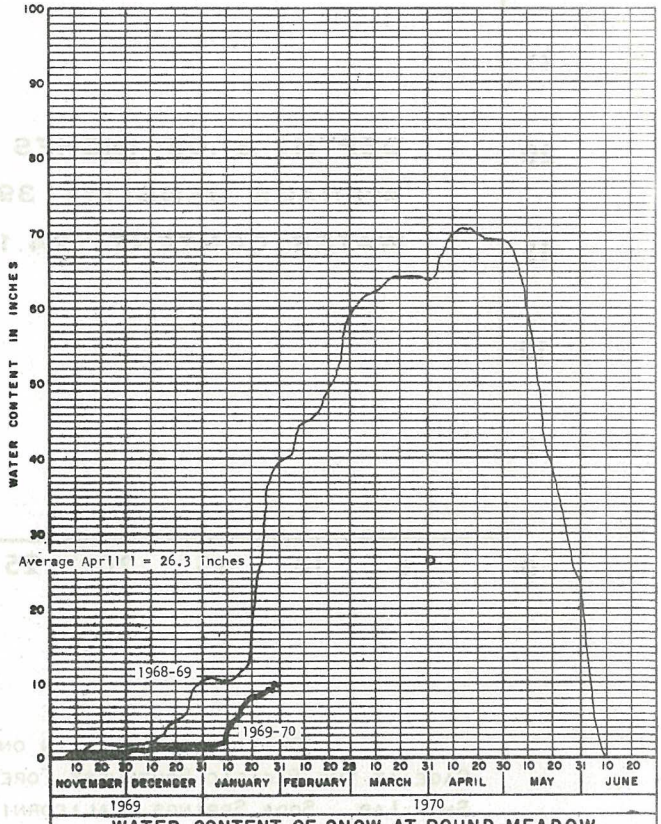
WATER CONTENT OF SNOW AT INDEPENDENCE CAMP
ELEVATION 7,000 FEET
TRUCKEE RIVER BASIN



WATER CONTENT OF SNOW AT ALPHA (near WRIGHTS LAKE)
ELEVATION 7,600 FEET
AMERICAN RIVER BASIN



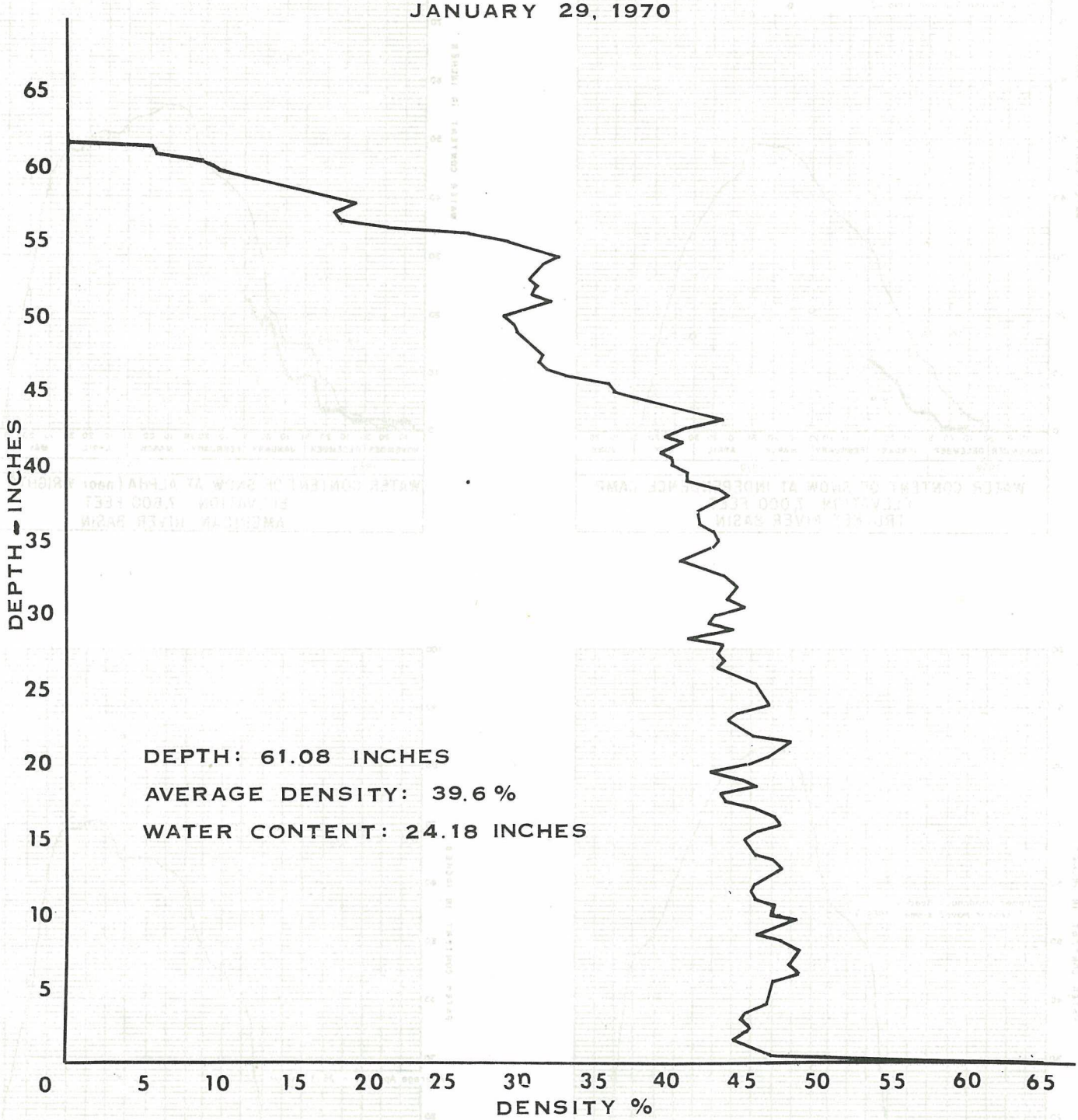
WATER CONTENT OF SNOW AT WEST WOODCHUCK
ELEVATION 8,800 FEET
KINGS RIVER BASIN



WATER CONTENT OF SNOW AT ROUND MEADOW
ELEVATION 9,000 FEET
KERN RIVER BASIN

PROFILE OF SNOW DENSITY

JANUARY 29, 1970



DENSITY OBTAINED IN ONE-HALF-INCH INCREMENTS WITH THE PROFILING SNOW GAGE AT THE PACIFIC SOUTHWEST FOREST AND RANGE EXPERIMENT STATION, CENTRAL SIERRA SNOW LAB., SODA SPRINGS, CALIFORNIA, ELEVATION - 6,900'.

TABLE 3

AERIAL PHOTOGRAPHIC SNOW DEPTH MEASUREMENTS

AREA, DRAINAGE BASIN, AND AERIAL MARKER	CALIF. NO (1)	ELEV IN FEET	DATE OBSERVED	DEPTH IN INCHES	WATER CONTENT IN INCHES ESTI-MATED	WATER CONTENT IN INCHES APR 1 AVG (2)
CENTRAL VALLEY AREA						
FEATHER RIVER						
THREE LAKES	53	6250	1-27-70	42	13	38.0
HARKNESS FLAT	51	6200	1-28-70	62	21	28.3
MILL CREEK FLAT	54	5900	1-27-70	48	14	38.3
FREDONYER PASS 1	50	5750	1-28-70	8	10	8.8
LETTERBOX	49	5600	1-27-70	42	23	47.0
FEATHER RIVER MEADOWS	58	5400	1-28-70	37	14	22.6
WARNER CREEK	59	5100	1-28-70	34	11	15.9
HUMBUG SUMMIT	60	4850	1-28-70	3	10	11.6
YUBA RIVER						
RED MOUNTAIN	67	7200	1-25-70	79	26	48.4
LAKE STERLING	70	7100	1-25-70	84	27	53.3
DONNER SUMMIT	69	6900	1-25-70	57	24	38.6
FURNACE FLAT	76	6700	1-25-70	56	21	46.8
LAKE FORDYCE	77	6500	1-25-70	31	11	40.0
AMERICAN RIVER						
UPPER CARSON PASS	106	8500	2- 2-70	76	27	34.6
LYONS LAKE	552	8500	1-31-70	61	23	--
LAKE LOIS	502	8250	1-31-70	82	29	--
LAKE NO. 3	501	8200	1-31-70	122	42	--
PHIPPS CREEK	503	7600	1-31-70	54	21	--
LOST CORNER MOUNTAIN	338	7500	1-31-70	55	23	32.4
WILLOW FLAT	551	7400	1-31-70	78	30	--
TWO PEAKS	548	7350	1-31-70	55	22	--
SHADOW LAKE	550	7300	1-31-70	66	26	--
SILVER LAKE	109	7100	2- 2-70	36	13	22.8
NIGGER FLAT	555	6950	1-31-70	39	16	--
WRIGHTS LAKE	316	6900	1-31-70	59	24	32.6
QUINNS CORRAL	553	6800	1-31-70	55	22	--
UPPER BASSI	549	6350	1-31-70	28	11	--
HELLS DELIGHT	554	5750	1-31-70	8	4	--
MOKELUMNE RIVER						
BLUE LAKES	129	8000	2- 2-70	96	29	34.8
PACIFIC VALLEY	132	7500	2- 2-70	59	26	36.2
BEAR VALLEY RIDGE NO 1	134	6700	2- 2-70	36	13	25.4
STANISLAUS RIVER						
DEADMAN CREEK	345	9250	1-25-70	75	29	33.6
CLARK FORK MEADOW	344	8900	1-25-70	84	35	36.9
HIGHLAND MEADOW	323	8800	1-25-70	88	33	48.1
MOUNT REBA	566	8480	2- 2-70	91	35	--
LOWER RELIEF VALLEY	138	8100	1-25-70	64	25	38.5
SODA CREEK FLAT	139	7800	1-25-70	32	11	21.5
LAKE ALPINE	141	7550	1-25-70	82	32	40.6
EAGLE MEADOW	140	7500	1-25-70	38	15	23.8
RELIEF DAM	143	7250	1-25-70	33	12	19.4
TUOLUMNE RIVER						
DANA MEADOWS	157	9850	1-29-70	76	25	29.3
BOND PASS	159	9300	1-29-70	101	40	42.4
NEW GRACE MEADOW	368	8900	1-29-70	72	31	--
HORSE MEADOW	162	8400	1-29-70	65	28	45.2
WILMER LAKE	163	8000	1-29-70	86	35	42.3
SACHSE SPRINGS	165	7900	1-29-70	52	21	37.3
SPOTTED FAWN	164	7800	1-29-70	65	27	45.3
HUCKLEBERRY LAKE	166	7800	1-29-70	60	26	41.1
PARISISE	167	7700	1-29-70	52	21	39.3
UPPER KIBBIE RIDGE	168	6700	1-29-70	21	6	19.5
VERNON LAKE	169	6700	1-29-70	27	13	23.9
LOWER KIBBIE RIDGE	173	6700	1-29-70	28	12	26.2
BEEHIVE MEADOW	171	6500	1-29-70	26	12	26.4
SAN JOAQUIN RIVER						
HUMPHREYS BASIN	509	11600	1-29-70	47	15	--
EMERALD LAKE	184	10600	1-31-70	64	21	34.4
PIONEER BASIN	276	10400	1-31-70	78	26	37.2
ISLAND PASS	504	10300	1-29-70	73	24	--
BENCH CANYON	506	10200	1-29-70	73	24	--
HEART LAKE	185	10100	1-31-70	69	23	27.5
VOLCANIC KNOB	186	10100	1-31-70	63	21	30.7
ROSE MARIE	187	10000	1-31-70	60	20	29.0
COLBY MEADOW	188	9700	1-31-70	50	15	21.8
AGNEW PASS	189	9450	1-29-70	64	19	30.6
KAISER PASS	190	9100	1-31-70	72	25	37.5
DUTCH LAKE	191	9100	1-31-70	57	20	27.3
COYOTE LAKE	192	8850	1-29-70	70	24	31.7
CORA LAKES	193	8400	1-29-70	68	24	38.6
STRING MEADOW	508	8400	1-29-70	48	17	--
TWIN MEADOWS	505	8400	1-31-70	38	14	--
CLOVER MEADOW	200	7000	NO SURVEY MADE			23.1
JACKASS MEADOW	201	6950	1-31-70	36	14	23.2
CHIQUITO CREEK	202	6800	1-31-70	30	11	21.7
KINGS RIVER						
BISHOP PASS	222	11200	1-31-70	56	16	29.8
TABOOSE PASS	536	11000	1-29-70	48	16	--
CARDINAL LAKE	513	10900	2- 2-70	60	20	--
CHARLOTTE RIDGE	299	10700	1-29-70	60	20	29.4
BENCH LAKE	510	10600	1-29-70	47	16	--
STATE LAKES	545	10350	1-30-70	57	19	--
KINGS RIVER (CONTINUED)						
BLACKCAP BASIN	223	10300	1-31-70	66	20	32.6
GRANITE BASIN	546	10000	1-30-70	81	26	--
MITCHELL MEADOW	511	9900	1-30-70	60	20	--
RATTLESNAKE CR BASIN	515	9900	1-30-70	63	21	--
BEARD MEADOW	222	9800	1-31-70	56	16	30.9
UPPER BURNT CORRAL MDW	224	9700	1-31-70	74	24	33.3
SCENIC MEADOW	512	9650	1-30-70	42	14	--
WEST WOODCHUCK MEADOW	570	9100	1-30-70	54	18	--
SWAMP MEADOW	228	9000	1-30-70	66	22	35.4
ROUND CORRAL	229	9000	1-30-70	63	21	32.8
ROWELL MEADOW	226	8850	1-30-70	15	9	26.1
WOODCHUCK MEADOW	227	8800	1-30-70	57	19	29.5
LONG MEADOW	232	8500	1-31-70	56	17	27.1
STATUM MEADOW	233	8300	1-30-70	33	12	30.1
HELMS MEADOW	230	8250	1-29-70	54	18	24.2
DODSONS MEADOW	308	8050	1-29-70	48	15	27.4
HORSE CORRAL MEADOW	237	7600	1-29-70	12	6	17.0
PATTERSON MOUNTAIN	567	7320	1-29-70	24	9	--
FRED MEADOW	239	6950	1-29-70	18	7	21.1
KAWEAH RIVER						
GIANT FOREST	568	6650	NO SURVEY MADE			--
KERN RIVER						
UPPER TYNDALL CREEK	516	11400	1-29-70	66	20	--
BIGHORN PLATEAU	250	11350	1-29-70	42	13	22.7
COTTONWOOD PASS	251	11050	NO SURVEY MADE			13.2
SIBERIAN PASS	252	10900	1-29-70	36	11	18.0
CRABTREE MEADOW	253	10700	1-29-70	48	14	19.0
GUYOT FLAT	254	10650	NO SURVEY MADE			20.2
TYNDALL CREEK	255	10650	1-29-70	36	11	18.3
SANDY MEADOW	275	10650	1-29-70	39	12	18.4
SHOTGUN PASS	517	10400	NO SURVEY MADE			--
CHAGOOPA PLATEAU	514	10300	1-29-70	36	11	--
BIG WHITNEY MEADOW	257	9750	NO SURVEY MADE			16.8
ROCK CREEK	256	9600	1-29-70	42	13	17.0
ROUND MEADOW	258	9000	1-29-70	21	6	25.3
WET MEADOW	518	8950	1-29-70	33	10	--
RAMSHAW MEADOW	259	8700	1-29-70	12	4	11.2
LITTLE WHITNEY MEADOW	260	8500	1-29-70	24	7	13.2
CASA VIEJA MEADOWS	262	8400	1-29-70	36	11	18.8
QUINN RANGER STATION	264	8350	1-29-70	24	7	19.9
BONITA MEADOWS	261	8300	NO SURVEY MADE			13.0
MONACHE MEADOWS	263	8000	1-29-70	0	0	7.5
BEACH MEADOWS	265	7650	1-29-70	12	4	9.3
LAHONTAN AREA						
CARSON RIVER						
EBBETS PASS	562	8700	1-26-70	74	270	--
WET MEADOWS LAKE	561	8100	1-26-70	51	190	--
UPPER FISH VALLEY	563	8100	1-26-70	33	120	--
WOLF CREEK	560	8000	1-26-70	62	250	--
POISON FLAT	330	7700	1-26-70	33	120	15.6
WALKER RIVER						
CENTER MOUNTAIN	151	9400	NO SURVEY MADE			35.4
LOBDELL LAKE	564	9200	1-26-70	36	120	--
MONO LAKE BASIN						
DONAHUE PASS	522	10800	1-29-70	61	18	--
ALGER LAKE	521	10600	1-31-70	36	11	--
SLATE CREEK	520	10300	1-29-70	84	25	--
SADDLEBAG LAKE	519	10200	1-29-70	114	34	--
WARREN CREEK	523	10200	1-29-70	66	20	--
TIOGA PASS	181	9800	1-29-70	70	25	25.8
OWENS RIVER						
SCHOBER PASS	525	12300	1-29-70	38	11	--
MOUNT MORGAN	533	12000	1-29-70	54	16	--
PIUTE PASS	565	11700	1-26-70	2	1	--
COYOTE RIDGE	527	11500	1-31-70	60	18	--
BIG PINE CREEK BASIN	534	11500	1-29-70	66	20	--
LAKE DOROTHY	531	11400	1-29-70	66	20	--
SAWMILL PASS	537	11400	NO SURVEY MADE			--
BISHOP LAKE	284	11300	1-29-70	60	18	19.0
COTTONWOOD LAKES	541	11200	1-29-70	36	11	--
PIUTE LAKE (EAST)	524	11000	1-29-70	38	11	--
DRUNKEN SAILOR	530	11000	1-29-70	74	22	--
GEORGE LAKE	529	10600	1-29-70	30	10	--
GOLDEN TROUT CABIN	542	10600	1-29-70	12	4	--
SHEPHERDS PASS	540	10500	1-29-70	66	20	--
BIG PINE LAKES	535	10100	1-29-70	36	11	--
TREASURE LAKE	528	10200	1-29-70	72	22	--
ROCK CREEK LAKES	532	10000	1-29-70	30	10	--
HORSESHOE MEADOWS	543	10000	1-29-70	24	8	--
MAMMOTH PASS	205	9500	1-29-70	90	30	41.9
ONION VALLEY	538	9000	1-29-70	30	10	--

(1) A NUMBER LESS THAN 500 INDICATES THE AERIAL MARKER IS LOCATED WITHIN 1000 FEET OF THE SNOW COURSE HAVING THE SAME NAME AND NUMBER.

(2) THE APRIL 1 AVERAGE WATER CONTENT IS FOR THE ASSOCIATED SNOW COURSE DURING THE PERIOD 1931-65.

TABLE 4

SUMMARY OF STORAGE IN MAJOR RESERVOIRS

AREA	NUMBER OF RESERVOIRS	TOTAL CAPACITY 1000 AF	AGGREGATE STORAGE AS OF FEBRUARY 1: 10-YEAR AVE 1960-1969 1000 AF	1969 1000 AF	1970 1000 AF	1970 PERCENT OF AVERAGE	1970 PERCENT OF CAPACITY
INTRASTATE							
NORTH COASTAL	4	2713.900	1992.330	1630.900	2673.110	134	98
SAN FRANCISCO BAY	17	620.400	370.700	480.310	550.400	148	89
CENTRAL COASTAL	6	985.700	518.920	792.750	636.370	123	65
SOUTH COASTAL	26	1485.600	440.580	671.470	769.830	175	52
SACRAMENTO VALLEY	34	15945.600	9529.700	11451.690	13805.170	145	87
SAN JOAQUIN VALLEY	27	5925.400	2486.050	3662.900	3576.460	144	60
LAHONTAN	7	348.200	215.690	230.260	307.390	143	88
SUBTOTAL	121	28024.800	15553.960	18920.280	22318.730	143	80
INTERSTATE							
NORTH COASTAL	3	1205.100	471.750	562.980	875.520	186	73
LAHONTAN	3	828.300	394.040	653.880	766.680	195	93
COLORADO DESERT (1)	4	53533.000	26505.640	24816.100	28455.700	107	53
SUBTOTAL (1)	10	55566.400	27371.420	26032.960	30097.900	110	54
TOTAL (1)	131	83591.200	42925.380	44953.250	52416.630	122	63

(1) INCLUDES DATA FOR LAKE MEAD AND LAKE POWELL WHICH REGULATE FLOW OF THE LOWER COLORADO RIVER, THE MAJOR SOURCE OF WATER FOR THE COLORADO DESERT AND SOUTH COASTAL AREAS.

TABLE 5

STORAGE IN MAJOR RESERVOIRS

AREA AND DRAINAGE BASIN	RESERVOIR	OPERATOR	CAPACITY (1) 1000 AF	STORAGE AS OF FEBRUARY 1: 10-YR AVE 1960-1969 1000 AF	1969 1000 AF	1970 1000 AF	1970 PER-CENT AVE
NORTH COASTAL AREA							
KLAMATH R	UPPER KLAMATH (2)	USBR	584.000	275.450	346.180	443.900	161
	CLEAR LAKE (2)	USBR	526.800	165.340	190.690	350.060	212
	GERBER (2)	USBR	94.300	30.940	26.110	81.560	264
SHASTA R	DWINNELL	MONTAGUE WCD	50.000	24.250	26.600	46.000	190
TRINITY R	CLAIR ENGLE LAKE	USBR	2447.700	1838.550(6)	1472.600	2494.100	135
SOUTH EEL R	LAKE PILLSBURY	PAC GAS AND ELEC CO	93.700	61.900	68.600	69.080	112
RUSSIAN R	LAKE MENDOCINO	US CORPS OF ENGIN	122.500	67.610	63.100	63.930	95
SAN FRANCISCO BAY AREA							
NORTH BAY							
CONN CR	LAKE HENNESSEY	CITY OF NAPA	31.000	28.240	31.000	31.000	110
NICASIO CR	NICASIO	MARIN MWD	22.500	20.040(6)	21.900	22.440	111
LAGUNITAS CR	KENT	MARIN MWD	16.700	13.480	16.700	16.680	124
	ALPINE	MARIN MWD	8.900	6.410	8.900	8.900	139
SOUTH EAST BAY							
SAN PABLO CR	SAN PABLO (3)	EAST BAY MUD	43.200	29.820	30.070	40.780	137
SAN LEANDRO CR	U SAN LEANDRO (3)	EAST BAY MUD	41.400	32.600	37.740	41.850	128
	CHABOT(3)	EAST BAY MUD	12.600	9.570	10.550	10.770	113
BEAR CR	BRIONES (3)	EAST BAY MUD	60.400	27.330(6)	29.850	48.810	178
SAN ANTONIO CR	SAN ANTONIO	CITY CO SAN FRANCISCO	50.500	28.930(6)	35.290	35.160	120
COYOTE CR	COYOTE	SANTA CLARA VALLEY WC	24.500	12.730	24.510	23.520	185
	LEROY ANDERSON	SANTA CLARA VALLEY WC	93.100	20.780	62.110	76.330	367
LOS GATOS CR	LEXINGTON	SANTA CLARA VALLEY WC	21.400	8.740	20.590	14.930	171
	AUSTRIAN	SAN JOSE WATER WORKS	6.200	3.200	6.090	6.140	192
CALAVERAS CR	CALAVERAS (3)	CITY CO SAN FRANCISCO	100.000	62.200	69.870	94.350	152
PENINSULA							
SAN ANDREAS CR	SAN ANDREAS	CITY CO SAN FRANCISCO	18.500	16.430	16.400	18.660	114
LAGUNA CR	UPPER AND LOWER						
SAN MATEO CR	CRYSTAL SPRINGS(3)	CITY CO SAN FRANCISCO	69.500	50.100	58.740	60.080	120
CENTRAL COASTAL AREA							
SALINAS R	SANTA MARGARITA LK	SAN LUIS OBISPO CITY	26.000	19.560	24.600	21.940	112
	SAN ANTONIO	MONTEREY CO FCWCD	350.000	148.980(6)	232.450	300.000	200
	NACIMIENTO	MONTEREY CO FCWCD	350.000	154.310	291.130	83.800	54

TABLE 5 - STORAGE IN MAJOR RESERVOIRS (CONTINUED)

AREA AND DRAINAGE BASIN	RESERVOIR	OPERATOR	CAPACITY (1) 1000 AF	STORAGE AS OF FEBRUARY 1 10-YR AVE 1960-1969 1000 AF	1969 1000 AF	1970 1000 AF	1970 PER-CENT AVE
CENTRAL COASTAL AREA (CONTINUED)							
SANTA YNEZ R	GIBRALTAR	SANTA BARBARA CITY	14.800	8.930	13.480	9.470	106
	CACHUMA	USBR	204.900	174.190	205.430	185.590	107
OLD CR	WHALE ROCK	SAN LUIS OBISPO CITY	40.000	12.920(6)	25.660	35.570	274
SOUTH COASTAL AREA							
VENTURA-SANTA CLARA RIVERS							
COYOTE CR	CASITAS	VENTURA R MWD	254.000	81.620(6)	154.880	207.720	253
PIRU CR	LAKE PIRU	UNITED WCD CONS DIST	101.200	25.750	87.730	50.980	198
MATILIJA CR	MATILIJA	VENTURA CO FCD	3.500	3.040	3.910	0.100	3
SAN GABRIEL-SANTA ANA RIVERS							
SAN GABRIEL R	COGSWELL	LA CO FCD	10.900	2.720	4.520	4.750	174
	SAN GABRIEL	LA CO FCD	43.800	6.780	25.560	2.520	37
BEAR CR	BEAR VALLEY	BEAR V MUT WATER CO	72.200	18.680	59.800	63.380	339
TRIB, CAJALCO CR	LAKE MATHEWS (4)	METROPOLITAN WD	182.000	155.120(6)	118.250	148.500	95
SAN JACINTO R	LAKE HEMET	LAKE HEMET WATER CO	13.400	4.110	9.850	10.260	249
	RAILROAD CANYON (3)	TEMESCAL WATER CO	14.700	3.050	6.910	6.910	226
SANTIAGO CR	SANTIAGO (3)	SERRANO AND CARPENTER ID AND IRVINE CO	25.000	10.110	25.000	17.320	171
	VILLA PARK	ORANGE COUNTY FCD	15.600	0.710(6)	1.380	0.130	17
SANTA MARGARITA-SAN LUIS REY RIVERS							
TEMECULA CR	VAIL	VAIL COMPANY	49.500	5.480	15.210	29.960	547
SAN LUIS REY R	HENSHAW	VISTA ID	194.300	8.820	17.730	30.120	341
SAN DIEGUITO-SAN DIEGO RIVERS							
SAN DIEGUITO R	LAKE HODGES (3)	CITY OF SAN DIEGO	33.600	3.710	4.660	10.590	285
SAN YSABEL CR	SUTHERLAND	CITY OF SAN DIEGO	29.700	3.680	5.130	2.770	75
SAN VICENTE CR	SAN VICENTE (3)	CITY OF SAN DIEGO	90.200	63.370	67.540	64.300	101
SAN DIEGO R	EL CAPITAN (3)	CITY OF SAN DIEGO	112.800	15.670	29.360	56.320	359
BOULDER CR	CUYAMACA	HELIX ID	11.800	0.810	2.320	0.800	99
QUAIL CANYON CR	LAKE JENNINGS (3)	HELIX ID	9.800	5.580(6)	6.860	8.070	144
CHAPPAREL CANYON	MURRAY (3)	CITY OF SAN DIEGO	5.700	3.500	3.090	1.500	43
SWEETWATER-OTAY RIVERS - COTTONWOOD CR							
SWEETWATER R	LAKE LOVELAND	CALIF WATER AND TEL C	25.400	1.540	3.250	15.230	988
	SWEETWATER MAIN (3)	CALIF WATER AND TEL C	27.700	3.720	2.780	2.170	58
OTAY R	LOWER OTAY (3)	CITY OF SAN DIEGO	56.500	5.060	5.340	17.850	352
COTTONWOOD CR	MORENA	CITY OF SAN DIEGO	50.200	0.840	1.690	4.560	541
	BARRETT	CITY OF SAN DIEGO	44.800	1.620	2.450	7.520	463
SOLEDAD VALLEY							
BIG SURR CR	MIRAMAR (3)	CITY OF SAN DIEGO	7.300	5.370(6)	6.270	5.500	101
CENTRAL VALLEY AREA							
SACRAMENTO R	SHASTA	USBR	4500.000	3133.720	3205.900	4036.900	129
	WHISKEYTOWN	USBR	241.100	205.290(6)	179.220	245.810	119
FEATHER R	LAKE ALMANOR	PAC GAS AND ELEC CO	1035.500	610.970(6)	590.200	873.150	142
	BUTT VALLEY	PAC GAS AND ELEC CO	49.900	39.110	42.850	41.220	105
	BUCKS STORAGE	PAC GAS AND ELEC CO	101.700	50.490	54.010	84.960	168
	FRENCHMAN	DWR - STATE OF CALIF	51.000	39.470(6)	46.750	56.940	143
	LAKE DAVIS	DWR - STATE OF CALIF	83.000	60.000(6)	68.760	91.060	151
	LITTLE GRASS VALLEY	OROVILLE WYANDOTTE ID	93.000	69.600(6)	76.600	75.500	107
	SLY CREEK	OROVILLE WYANDOTTE ID	65.000	32.280(6)	57.200	57.100	176
	LAKE OROVILLE	DWR - STATE OF CALIF	3484.000	1587.670(6)	2785.200	2803.100	176
YUBA R	NEW BULLARDS BAR	YUBA CO WATER AGENCY	930.000	283.000(6)	283.000	887.840	313
	JACKSON MEADOWS	NEVADA ID	68.700	28.930(6)	30.730	54.710	188
	BOWMAN LAKE	NEVADA ID	69.800	29.770	51.350	64.120	215
	SPAULDING SYSTEM	PAC GAS AND ELEC CO	137.400	46.100	49.850	110.950	241
	SCOTT FLAT	NEVADA ID	48.500	28.080	48.550	48.550	173
BEAR R	ROLLINS	NEVADA ID	66.000	64.870(6)	65.990	65.990	101
	CAMP FAR WEST	SO SUTTER WATER DIST	104.400	101.830(6)	107.900	107.200	104
AMERICAN R	FRENCH MEADOWS	PLACER CO WATER AGENC	133.700	80.160(6)	80.840	102.080	126
	LOWER HELL HOLE	PLACER CO WATER AGENC	208.400	109.250(6)	131.380	146.400	133
	LOON LAKE	SACRAMENTO MUD	76.500	21.580(6)	31.980	41.000	189
	TWIN LAKES	PAC GAS AND ELEC CO	21.600	6.940	6.970	9.090	131
	UNION VALLEY	SACRAMENTO MUD	271.000	136.530(6)	170.360	228.710	167
	ICE HOUSE	SACRAMENTO MUD	46.000	19.260(6)	19.470	37.330	193
	FOLSOM	USBR	1010.300	515.450	566.400	607.500	118

TABLE 5 - STORAGE IN MAJOR RESERVOIRS (CONTINUED)

AREA AND DRAINAGE BASIN	RESERVOIR	OPERATOR	CAPACITY (1) 1000 AF	STORAGE AS OF FEBRUARY 1 10-YR AVE 1960-1969 1000 AF	1969 1000 AF	1970 1000 AF	1970 PER-CENT AVE
CENTRAL VALLEY AREA (CONTINUED)							
STONY CR	EAST PARK	USBR	50.900	33.130	48.900	49.050	148
	STONY GORGE	USBR	50.000	32.570	37.580	37.130	114
	BLACK BUTTE	US CORPS OF ENGIN	160.000	56.530(6)	25.070	89.910	158
CACHE CR	CLEAR LAKE	CLEAR LAKE WATER CO	314.000	231.410	340.730	425.500	184
PUTAH CR	BERRYESSA	USBR	1602.300	1399.580	1646.900	1660.580	119
COSUMNES R	JENKINSON LAKE	USBR	41.000	30.330	41.270	41.340	136
MOKELUMNE R	LOWER BEAR	PAC GAS AND ELEC CO	48.500	9.980	15.980	37.080	371
	SALT SPRINGS	PAC GAS AND ELEC CO	140.900	22.450	44.570	99.060	441
	PARDEE	EAST BAY MUD	210.000	180.890	192.540	189.330	105
	CAMANCHE	EAST BAY MUD	431.500	232.300(6)	306.690	298.980	128
CALAVERAS R	NEW HOGAN	US CORPS OF ENGIN	325.000	177.220(6)	161.860	159.340	89
STANISLAUS R	RELIEF	PAC GAS AND ELEC CO	15.600	2.620	3.090	4.530	172
	DONNELLS	OAKDALE-SO SAN JOAQ I	64.700	25.420	27.000	33.970	134
	HARTLEY LAKE	OAKDALE-SO SAN JOAQ I	98.300	44.330	63.910	78.500	177
	STRAWBERRY	PAC GAS AND ELEC CO	18.300	6.070	4.740	12.120	199
	MELONES	PAC GAS AND ELEC CO	112.600	54.640	102.680	105.320	193
	TULLOCH	OAKDALE-SO SAN JOAQ I	68.200	45.050	42.650	42.470	94
TUOLUMNE R	HETCH HETCHY	CITY CO SAN FRANCISCO	360.400	125.390	129.240	237.210	189
	CHERRY LAKE	CITY CO SAN FRANCISCO	268.200	74.330	90.580	197.760	266
	LAKE ELEANOR	CITY CO SAN FRANCISCO	26.100	6.590	12.360	24.100	365
	DON PEDRO	TURLOCK AND MODESTO I	290.400	130.610	271.660	178.900	137
	TURLOCK LAKE	TURLOCK ID	49.000	34.380	46.650	34.960	102
	MODESTO	MODESTO ID	27.000	14.870	21.100	9.300	63
MERCED R	LAKE MCCLURE	MERCED ID	1026.000	475.930(6)	707.800	685.800	143
SAN JOAQUIN R	FLORENCE LAKE	SO CALIF EDISON CO	64.600	0.830	4.270	0.370	44
	THOMAS A EDISON	SO CALIF EDISON CO	125.200	41.710	19.570	50.440	121
	MAMMOTH POOL	SO CALIF EDISON CO	122.700	44.480	88.410	46.550	105
	HUNTINGTON LAKE	SO CALIF EDISON CO	89.800	51.730	65.470	61.590	119
	SHAVER LAKE	SO CALIF EDISON CO	135.400	29.190	35.500	67.500	231
	CRANE VALLEY	PAC GAS AND ELEC CO	45.400	24.540	34.100	26.920	110
	MILLERTON LAKE	USBR	520.600	327.560	459.000	445.600	136
KINGS R	COURTRIGHT	PAC GAS AND ELEC CO	129.900	42.800	0.890	10.920	26
	WISHON	PAC GAS AND ELEC CO	128.600	21.520	36.190	24.730	115
	PINE FLAT	US CORPS OF ENGIN	1013.400	496.540	783.200	722.600	146
KERN R	ISABELLA	US CORPS OF ENGIN	570.000	136.500	251.950	248.830	182
KAWEAH R	TERMINUS	US CORPS OF ENGIN	150.000	27.820(6)	128.040	35.740	127
TULE R	SUCCESS	US CORPS OF ENGIN	80.000	23.210(6)	70.990	30.390	130
LAHONTAN AREA							
TRUCKEE R	LAKE TAHOE(2,7)	TRUCKEE-CARSON ID	744.600	362.420	628.000	700.000	193
	BOCA (2)	WASHOE CO WCD	41.200	6.810	2.480	27.680	406
EAST WALKER R	BRIDGEPORT (2)	WALKER RIVER ID	42.500	24.790	23.400	39.000	157
MONO LAKE BASIN	SADDLEBAG LAKE	SO CALIF EDISON CO	11.100	3.980	3.820	5.700	143
	GEM LAKE	SO CALIF EDISON CO	17.600	4.980	6.110	5.310	106
	GRANT LAKE	CITY OF LOS ANGELES	47.500	27.880	31.730	44.600	160
OWENS R	SOUTH LAKE	SO CALIF EDISON CO	13.400	4.510	4.890	6.200	137
	LAKE CROWLEY	CITY OF LOS ANGELES	183.500	126.880	147.980	177.720	140
	TINEMAHA	CITY OF LOS ANGELES	16.600	3.570	10.240	13.480	377
	HAIWEE (SOUTH)	CITY OF LOS ANGELES	58.500	43.840	25.490	54.380	124
COLORADO DESERT AREA							
COLORADO R	LAKE POWELL (2,7)	USBR	25002.000	7588.800(6)	7150.000	9375.000	123
	LAKE MEAD (2,7)	USBR	26102.000	16671.600	15441.000	16890.000	101
	LAKE MOJAVE (2,7)	USBR	1810.000	1700.700	1694.100	1648.200	97
	LAKE HAVASU (2,7)	USBR	619.000	544.520	531.000	542.500	100

(1) TOTAL CAPACITY TO THE NEAREST HUNDRED ACRE FEET.
(2) INTERSTATE RESERVOIR USED JOINTLY BY CALIFORNIA AND ADJACENT STATES.
(3) INCLUDES FOREIGN WATER.
(4) STORES ONLY IMPORTED COLORADO RIVER WATER.
(5) NEW RESERVOIR--AVERAGE CONSIDERED EQUAL TO CURRENT STORAGE.
(6) LESS THAN 10-YEAR AVERAGE.
(7) DATA BASED ON ACTIVE OR USABLE CAPACITY TABLES.

TABLE 6

RUNOFF DATA

AREA, STREAM, AND STATION (1)	JANUARY 1970 MEASURED FLOW 1000 AF	JANUARY 1970 UNIMPAIRED RUNOFF 50-YEAR AVE (2) 1000 AF	JANUARY 1970 UNIMPAIRED RUNOFF MONTHLY TOTAL 1000 AF	JANUARY 1970 UNIMPAIRED RUNOFF PER-CENT AVE	OCTOBER 1, 1969 - JANUARY 31, 1970 MEASURED FLOW 1000 AF	OCTOBER 1, 1969 - JANUARY 31, 1970 UNIMPAIRED RUNOFF 50-YEAR AVE (2) 1000 AF	OCTOBER 1, 1969 - JANUARY 31, 1970 UNIMPAIRED RUNOFF SEASONAL TOTAL 1000 AF	OCTOBER 1, 1969 - JANUARY 31, 1970 UNIMPAIRED RUNOFF PER-CENT AVE
NORTH COASTAL AREA								
KLAMATH, COPCO TO ORLEANS (6)	2440.400	579.100	2469.600	426	3256.400	1373.100	3316.900	242
SALMON AT SOMESBAR	738.100	141.000	738.100	523	997.900	335.100	997.900	298
TRINITY AT LEWISTON	73.100	94.000	559.700	595	109.900	252.900	824.200	326
EEL AT SCOTIA	4287.000	1042.000	4307.400	413	5870.400	2246.200	5964.400	266
RUSSIAN AT HEALDSBURG	834.200	178.700	809.300	453	1112.400	349.900	1042.700	298
SAN FRANCISCO BAY AREA								
NAPA NEAR ST HELENA	76.960	14.380	76.960	535	99.410	25.780	99.410	386
COYOTE CREEK NEAR MADRONE	2.920	9.210	22.800	248	15.960	14.260	22.820	160
CENTRAL COASTAL AREA								
ARROYO SECO NEAR SOLEDAD	32.220	17.680	32.220	182	35.120	31.790	35.120	110
NACIMIENTO BELOW NACIMIENTO DAM, NEAR BRADLEY	0.180	36.800	64.770	176	48.400	63.880	83.580	131
SOUTH COASTAL AREA								
SESPE CREEK NEAR FILLMORE	1.990(3)	9.560	1.990	21	5.930(3)	16.620	5.930	36
ARROYO SECO NEAR PASADENA	0.320	0.680	0.320	47	1.310	1.380	1.310	95
SANTA ANA NEAR MENTONE	3.750(4)	5.430	3.750	69	17.140(4)	13.990	15.460	110
SACRAMENTO VALLEY AREA								
INFLOW TO SHASTA (7)	2924.900	600.900	2924.900	487	4398.600	1669.800	4398.600	263
SACRAMENTO ABOVE BEND BRIDGE (8)	3756.000	971.200	4536.700	467	6236.300	2466.800	6699.400	272
FEATHER, INFLOW TO OROVILLE	2321.200	378.400	2471.000	653	3227.300	1010.100	3452.900	342
YUBA AT SMARTVILLE (5)	945.600	200.800	1271.500	633	1060.900	505.800	1715.000	339
AMERICAN, INFLOW TO FOLSOM	1143.300	221.100	1290.600	584	1891.100	508.000	1689.700	333
COSUMNES AT MICHIGAN BAR	195.500	41.010	204.420	498	320.290	78.110	243.030	311
MOKELUMNE, INFLOW TO PARDEE	161.900	36.600	239.200	654	300.900	93.200	325.800	350
SAN JOAQUIN VALLEY AREA								
STANISLAUS, INFLOW TO MELONES	267.400	54.000	354.800	657	380.200	133.200	467.500	351
TUOLUMNE, INFLOW TO DON PEDRO	238.400	89.800	392.200	437	505.700	228.700	579.700	253
MERCED, INFLOW TO EXCHEQUER	28.700	47.700	158.900	333	288.500	114.900	229.100	199
SAN JOAQUIN, INFLOW TO MILLERTON	12.500	59.900	159.400	266	19.800	163.400	270.700	166
KINGS, INFLOW TO PINE FLAT	91.100	52.300	114.900	220	316.900	144.300	212.800	147
KAWEAH, INFLOW TO TERMINUS	28.520	18.320	55.350	302	130.860	46.810	84.080	180
TULE, INFLOW TO SUCCESS	12.550	11.610	33.920	292	62.410	24.360	50.500	207
KERN NEAR BAKERSFIELD	42.300	30.000	66.500	222	169.400	88.000	171.500	195
LAHONTAN AREA								
TRUCKEE, TAHOE TO FARAD (6)	80.760	14.880	134.210	902	133.850	49.260	176.820	359
WEST FORK CARSON AT WOODFORDS	8.610	2.320	8.610	371	16.200	8.840	16.200	183
EAST FORK CARSON NEAR GARDNERVILLE	37.900	8.000	37.900	474	64.700	28.810	64.700	225
WEST WALKER BELOW LITTLE WALKER, NEAR COLEVILLE	9.670	3.400	9.670	284	24.020	14.290	24.020	168
EAST WALKER NEAR BRIDGEPORT	14.790	4.900	11.090	226	22.670	18.680	40.470	217
OWENS BELOW LONG VALLEY DAM	16.370	10.430	15.910	153	79.540	40.790	58.520	143
COLORADO DESERT AREA								
COLORADO, INFLOW TO LAKE POWELL	517.000	320.500	356.000	111	2677.000	1613.800	1981.000	123

(1) RESERVOIR INFLOW DATA ARE BASED ON OBSERVED FLOWS AT STATIONS DOWNSTREAM FROM LISTED FACILITY.
(2) COMPUTED FOR 50 YEAR PERIOD, 1915-16 THROUGH 1964-65.
(3) INCLUDES FILLMORE IRRIGATION COMPANY CANAL.
(4) INCLUDES SOUTHERN CALIFORNIA EDISON COMPANY CANAL.
(5) INCLUDES DEER CREEK.
(6) ACCRETIONS BETWEEN STATIONS.
(7) COMPUTED FROM OPERATING RECORDS-- UNADJUSTED FOR UPSTREAM REGULATION.
(8) UNIMPAIRED FLOWS COMPATIBLE TO THOSE AT DISCONTINUED STATION NEAR READ BLUFF.

TABLE 8

RUNOFF DATA

AREA, STREAM, AND STATION (1)	JANUARY 1970 MEASURED FLOW 1000 AF	JANUARY 1970 UNIMPAIRED RUNOFF 50-YEAR MONTHLY AVE (2) 1000 AF	JANUARY 1970 UNIMPAIRED RUNOFF PER-CENT TOTAL 1000 AF	JANUARY 1970 UNIMPAIRED RUNOFF 80-YEAR SEASONAL AVE 1000 AF	OCTOBER 1, 1969 - JANUARY 31, 1970 MEASURED FLOW 1000 AF	OCTOBER 1, 1969 - JANUARY 31, 1970 UNIMPAIRED RUNOFF TOTAL 1000 AF	OCTOBER 1, 1969 - JANUARY 31, 1970 UNIMPAIRED RUNOFF PER-CENT TOTAL 1000 AF	OCTOBER 1, 1969 - JANUARY 31, 1970 UNIMPAIRED RUNOFF SEASONAL AVE 1000 AF
NORTH COASTAL AREA								
KLAMATH, CORCO TO ORLEANS (4)	2440.400	570.100	2469.600	429	3290.400	1373.100	3916.900	242
SALMON AT SOMESBAR	728.100	141.000	738.100	523	991.400	383.100	997.300	298
TRINITY AT LEWISTON	72.100	96.000	350.700	599	107.000	204.900	324.200	326
EEL AT SCOTIA	4241.000	1042.000	4907.400	412	5830.400	2244.600	5984.400	246
RUSSIAN AT HEALDSBURG	224.200	118.700	809.300	453	1113.400	349.900	1082.700	298
SAN FRANCISCO BAY AREA								
NAPA NEAR ST HELENA	74.900	16.380	76.940	535	99.410	28.780	99.410	386
COYOTE CREEK NEAR MADRONE	2.920	9.210	32.600	248	15.360	14.260	32.840	160
CENTRAL COASTAL AREA								
ARROYO SECO NEAR SOLEDAD	32.220	17.480	32.220	182	35.120	31.790	35.120	110
NACIMIENTO BELOW NACIMIENTO DAM, NEAR BRADLEY	0.160	36.800	54.710	174	48.400	67.880	83.580	131
NORTH COASTAL AREA								
EEL CREEK NEAR FILLMORE	1.980(3)	4.360	1.990	21	5.930(3)	16.820	5.930	36
ARROYO SECO NEAR PASADENA	0.320	0.080	0.320	47	1.310	1.380	1.310	95
SANTA ANA NEAR MENTONE	3.750(4)	5.430	3.750	69	11.190(4)	12.990	19.460	110
SACRAMENTO VALLEY AREA								
INFLOW TO SHASTA (7)	2924.900	400.400	2924.900	487	4398.600	1669.200	4398.600	243
SACRAMENTO ABOVE BEND BRIDGE (8)	3724.000	971.200	4538.300	447	6238.100	2444.000	6899.400	272
FEATHER, INFLOW TO ORDVILLE	2381.200	378.400	2471.300	653	3227.300	1010.100	3452.400	342
YUBA AT SMARTVILLE (5)	965.600	200.800	1271.300	632	1040.400	505.800	1415.600	339
AMERICAN, INFLOW TO FOLSOM	1149.300	221.100	1490.600	584	1841.100	508.000	1584.700	233
COSUMNES AT MICHIGAN BAR	145.500	41.010	204.420	498	320.290	74.110	243.030	311
MOKELUMNE, INFLOW TO PARDEE	344.900	80.600	295.200	684	320.900	93.200	322.800	370
SAN JOAQUIN VALLEY AREA								
STANISLAUS, INFLOW TO NEW HOGAN	207.400	54.000	254.600	537	280.200	143.200	467.300	261
TUOLUMNE, INFLOW TO DON PEDRO	239.400	89.300	372.200	427	507.700	228.100	579.100	253
MERCED, INFLOW TO EXCHEQUER	28.100	47.700	139.900	393	284.300	114.900	224.100	199
SAN JOAQUIN, INFLOW TO MILLERTON	12.500	84.900	137.400	246	14.600	163.400	210.100	156
KINGS, INFLOW TO PINE FLAT	91.100	52.350	114.900	258	316.900	144.300	312.800	147
KAWEAH, INFLOW TO TERMINUS	26.320	14.320	83.340	302	139.840	44.410	84.880	180
TULE, INFLOW TO SUCCESS	12.380	11.610	33.420	292	84.410	24.320	50.300	207
KERN NEAR BAKERSFIELD	42.300	30.000	69.300	372	184.400	48.000	171.300	195
LAHONTAN AREA								
TRUCKEE, TAHOE TO FARGO (6)	20.700	14.880	234.210	902	132.850	44.240	174.820	359
WEST FORK CARSON AT HODGDON	0.410	2.320	8.810	371	16.200	8.840	16.400	183
EAST FORK CARSON NEAR GARDNERVILLE	37.900	8.060	37.400	474	84.700	28.810	84.700	245
WEST WALKER BELOW LITTLE WALKER, NEAR COLEVILLE	6.470	3.400	9.470	284	24.020	14.200	24.020	108
EAST WALKER NEAR BRIDGEPORT	14.700	4.900	11.000	324	22.470	18.880	40.470	227
OWENS BELOW LONG VALLEY DAM	16.310	40.640	15.910	153	79.840	40.790	94.520	143
COLORADO DESERT AREA								
COLORADO, INFLOW TO LAKE POWELL	517.000	320.500	354.000	143	2477.000	1812.800	1981.000	125

(1) RESERVOIR INFLOW DATA ARE BASED ON OBSERVED FLOWS AT STATIONS DOWNSTREAM FROM LISTED FACILITY.
(2) COMPUTED FOR 50 YEAR PERIOD, 1913-16 THROUGH 1962-63.
(3) INCLUDES FILLMORE IRRIGATION COMPANY CANAL.
(4) INCLUDES SOUTHERN CALIFORNIA EDISON COMPANY CANAL.
(5) INCLUDES DEER CREEK.
(6) ADJUSTMENTS BETWEEN STATIONS.
(7) COMPUTED FROM OPERATING RECORDS— UNADJUSTED FOR UPSTREAM REGULATION.
(8) UNIMPAIRED FLOWS COMPARABLE TO THOSE AT DISCONTINUED STATION NEAR ARBUCKLE.