

California Cooperative
Snow Surveys
Bulletin 120-94-3



State of California
The Resources Agency

Department of
Water Resources

Water Conditions in California

Report 3 April 1, 1994



Douglas P. Wheeler
Secretary for Resources
The Resources Agency

Pete Wilson
Governor
State of California

David N. Kennedy
Director
Department of Water Resources

STATE OF CALIFORNIA

Pete Wilson, Governor

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COOPERATING AGENCIES

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
- Kern Delta Water District
- Kings River Conservation District
- Lower Tule River Irrigation District
- Merced Irrigation District
- Modesto Irrigation District
- Nevada Irrigation District
- North Kern Water Storage District
- Northern California Power Agency
- Oakdale Irrigation District
- Omochumne-Hartnell Water District
- Oroville-Wyandotte Irrigation District
- Placer County Water Agency
- Sacramento Municipal Utility District
- San Bernardino County Flood Control District
- South San Joaquin Irrigation District
- Tri-Dam Project
- Tulare Lake Basin Water Storage District
- Turlock Irrigation District
- Yuba County Water Agency
- West Basin Municipal Water District

Private Organizations

- J.G. Boswell Company
- Kaweah River Association
- Kings River Water Association
- St. Johns River Association
- Tule River Association
- U.S. Tungsten Corporation
- State Water Contractors

Public Utilities

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

Municipalities

- City of Bakersfield
Water Department
- City of Los Angeles
Department of Water and Power
- City and County of San Francisco
Hetch Hetchy Water and Power

State Agencies

- California Department of Forestry
& Fire Protection
- California Department of Water Resources

Federal Agencies

- U.S. Department of Agriculture
Forest Service(14 National Forests)
- Pacific Southwest Forest and Range
Experiment Station
- Soil Conservation Service
- U.S. Department of Commerce
National Weather Service
- U.S. Department of Interior
Bureau of Reclamation
- Geological Survey, Water Resources
Division
- National Park Service(3 National Parks)
- U.S. Department of Army
Corps of Engineers

Other Cooperative Programs

- Nevada Cooperative Snow Surveys
- Oregon Cooperative Snow Surveys

SUMMARY OF WATER CONDITIONS

APRIL 1, 1994

March was very dry, one of the driest of record in northern California. Dry and warm weather conditions caused early melting and a significant reduction in snowpack during the month. As a result the water supply outlook has worsened and the current water year is expected to be critically dry. Carryover reservoir storage from last year will help meet some of the needs for water.

Forecasts of April through July runoff are now projected to be only about 50 percent of average, down 15 percent from one month ago. Water year forecasts have been lowered about 10 percent, comparable with runoff in 1991 and 1992.

Snowpack water content is half average for this date, compared to 150 percent one year ago. Normally, peak snowpack accumulation is around April 1, but this year amounts have diminished during March. Snowpack percentages are fairly similar in most regions of the state, except that the North Lahontan area is lower.

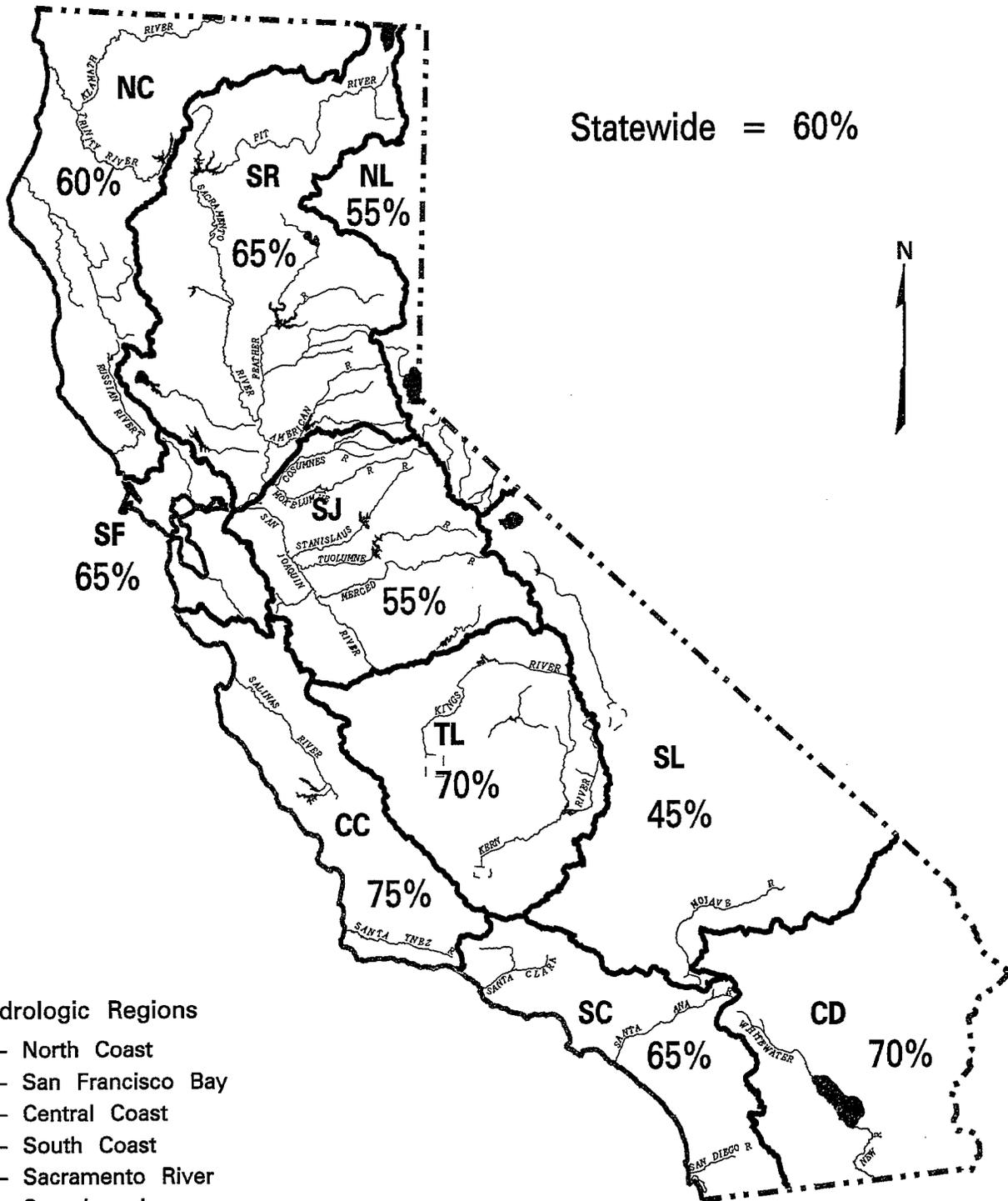
Precipitation during March was 40 percent of average statewide. Only the extreme south and some eastern California locations had above normal monthly precipitation. Seasonal precipitation is 60 percent, compared to 150 percent last year and 65 percent one month ago.

Runoff in March was 45 percent of normal. Runoff so far this water year since October 1 has been about 40 percent of average compared to 110 percent last year.

Reservoir storage continued to gain slowly, about 0.8 million acre-feet during March. Statewide storage remained near 95 percent of average, not much different from one year ago.

SUMMARY OF WATER CONDITIONS						
IN PERCENT OF AVERAGE						
HYDROGRAPHIC AREA	PRECIPITATION OCTOBER 1 TO DATE	APRIL 1 SNOW WATER CONTENT	APRIL 1 RESERVOIR STORAGE	RUNOFF OCTOBER 1 TO DATE	APR-JULY RUNOFF FORECAST	WATER YEAR RUNOFF FORECAST
NORTH COAST	60	55	100	35	50	40
SAN FRANCISCO BAY	65	--	100	25	--	--
CENTRAL COAST	75	--	75	25	--	--
SOUTH COAST	65	--	120	70	--	--
SACRAMENTO BASIN	65	50	85	40	50	45
SAN JOAQUIN BASIN	55	50	100	35	45	40
TULARE LAKE BASIN	70	55	105	50	50	50
NORTH LAHONTAN	55	40	35	50	40	40
SOUTH LAHONTAN	45	55	85	65	55	55
COLORADO DESERT	70	--	--	--	--	--
STATEWIDE	60	50	95	40	50	45

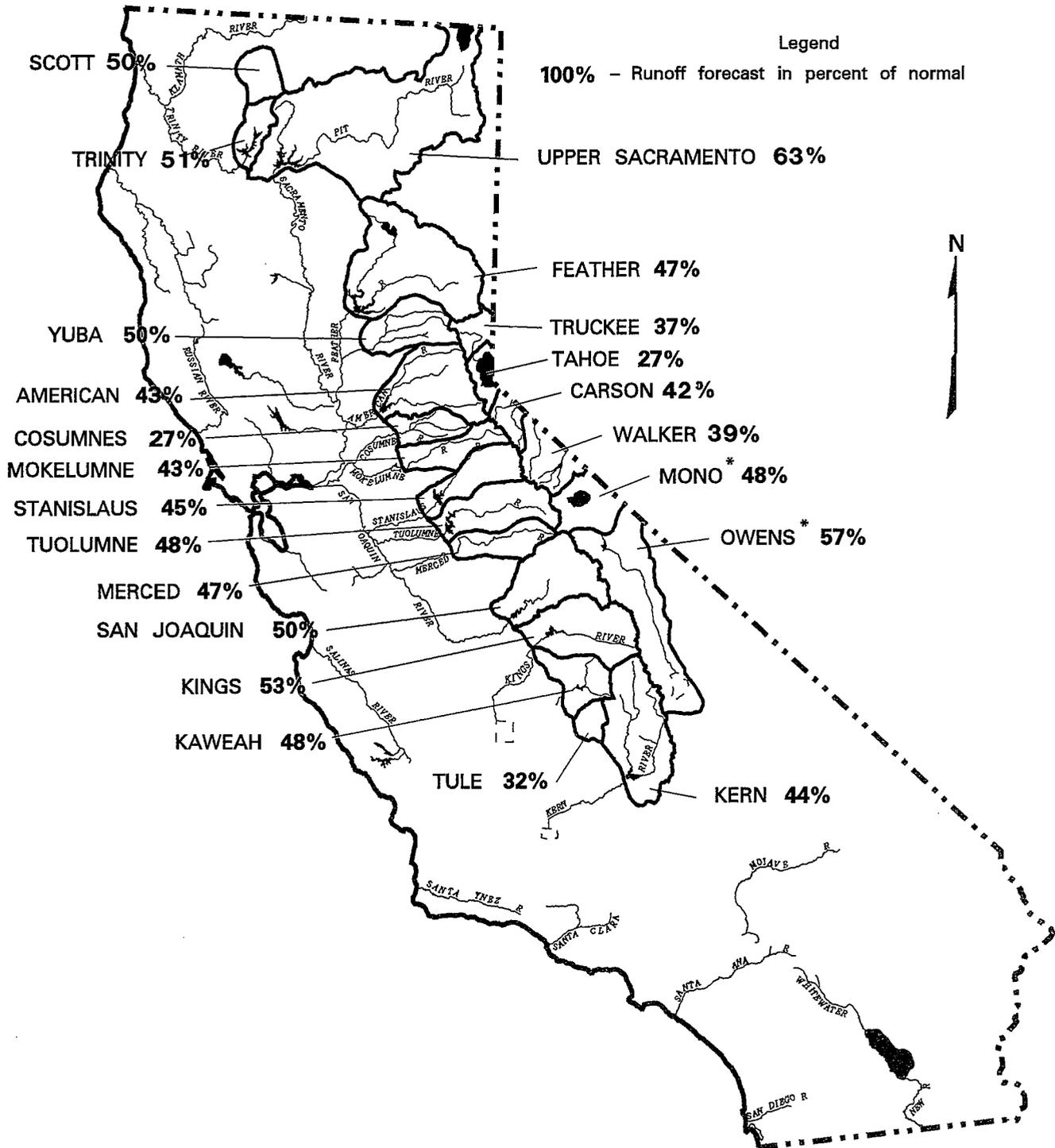
SEASONAL PRECIPITATION
 IN PERCENT OF AVERAGE TO DATE
 OCTOBER 1, 1993 THROUGH MARCH 31, 1994



- Hydrologic Regions**
- NC - North Coast
 - SF - San Francisco Bay
 - CC - Central Coast
 - SC - South Coast
 - SR - Sacramento River
 - SJ - San Joaquin
 - TL - Tulare Lake
 - NL - North Lahontan
 - SL - South Lahontan
 - CD - Colorado Desert

WATER YEAR IS OCTOBER 1 THROUGH SEPTEMBER 30

**FORECAST OF APRIL - JULY
UNIMPAIRED SNOWMELT RUNOFF
APRIL 1, 1994**



* FORECAST BY DEPARTMENT OF WATER AND POWER, CITY OF LOS ANGELES

**FORECASTS OF APRIL-JULY UNIMPAIRED RUNOFF
FOR CENTRAL VALLEY STREAMS
APRIL 1, 1994**

DRAINAGE BASIN AND WATERSHED	April through July Unimpaired Runoff 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
SACRAMENTO RIVER BASIN						
Upper Sacramento River						
Sacramento River at Shasta Lake	297	702	39	150	51	
McCloud River at Shasta Lake	411	850	185	260	63	
Pit River at Shasta Lake	1,062	1,796	480	700	66	
Total inflow to Shasta Lake	1,824	3,189	726	1,150	63	940-1,800
Sacramento River above Bend Bridge, near Red Bluff	2,491	4,674	943	1,440	58	1,210-2,450
Feather River						
Feather River at Lake Almanor near Pratville	333	675	120	180	54	
North Fork at Pulga	1,028	2,416	243	500	49	
Middle Fork near Clio (1)	86	518	4	20	23	
South Fork at Ponderosa Dam	110	267	13	60	55	
Total inflow to Oroville Reservoir	1,857	4,676	392	880	47	550-1,580
Yuba River						
North Yuba below Goodyears Bar	286	647	51	140	49	
Inflow to Jackson Mdws and Bowman Reservoirs	112	236	25	60	54	
South Yuba at Langs Crossing	233	481	57	120	52	
Yuba River at Smartville	1,047	2,424	200	520	50	370-900
American River						
North Fork at North Fork Dam	262	716	43	100	38	
Middle Fork near Auburn	522	1,406	100	250	48	
Silver Creek below Camino Diversion Dam	173	386	37	70	40	
Total inflow to Folsom Reservoir	1,284	3,074	229	550	43	400-1,030
<i>Sacramento River at Sacramento</i>						
SAN JOAQUIN RIVER BASIN						
Cosumnes River at Michigan Bar	129	363	8	35	27	20-70
Mokelumne River						
North Fork near West Point (2)	437	829	104	190	43	
Total inflow to Pardee Reservoir	465	1,065	102	200	43	140-330
Stanislaus River						
Middle Fork below Beardsley Dam	334	702	64	160	48	
North Fork inflow to McKay's Point Dam	224	503	34	100	45	
Total inflow to Melones Reservoir	713	1,710	116	320	45	220-560
Tuolumne River						
Cherry Creek and Eleanor Creek near Hetch Hetchy	322	727	97	150	47	
Tuolumne River near Hetch Hetchy	606	1,392	153	300	50	
Total inflow to Don Pedro Reservoir	1,200	2,682	301	570	48	430-830
Merced River						
Merced River at Pohono Bridge	362	888	80	160	44	
Total inflow to Exchequer Reservoir	617	1,587	123	290	47	220-470
San Joaquin River						
San Joaquin River at Mammoth Pool (3)	1,014	2,279	235	530	52	
Big Creek below Huntington Lake (3)	95	264	11	45	42	
South Fork near Florence Lake (3)	202	511	58	110	54	
Total inflow to Millerton Lake	1,228	3,355	262	620	50	450-870
<i>San Joaquin River near Vernalis</i>						
TULARE LAKE BASIN						
Kings River						
North Fork Kings River near Cliff Camp	239	565	50	120	50	
Total inflow to Pine Flat Reservoir	1,203	3,114	273	640	53	480-860
Kaweah River at Terminus Reservoir	284	814	61	135	48	95-190
Tule River at Success Reservoir	63	256	2	20	32	10-40
Kern River						
Kern River near Kernville	373	1,203	83	180	54	
Total inflow to Isabella Reservoir	461	1,657	84	205	44	160-300

All 50-year averages are based on data for water years 1941-1990 except:

(1) 44-year average based on years 1936-79.

(3) 45-year average based on years 1936-80.

(2) 36-year average based on years 1936-71.

See inside back cover for definition of unimpaired runoff and 80 percent probability ranges.

**FORECASTS OF WATER YEAR UNIMPAIRED RUNOFF
FOR CENTRAL VALLEY STREAMS
APRIL 1, 1994**

Water Year October through September Unimpaired Runoff in 1,000's Acre-Feet												
HISTORICAL			* * * DISTRIBUTION								FORECASTS	
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
856	1,964	165										
1,244	2,353	577										
3,145	5,150	1,484										
5,987	10,796	2,479	1,070	390	380	430	320	220	180	340	3,330 (3,100-4,170)	56
8,664	17,180	3,294	1,470	650	540	520	390	300	230	400	4,500 (4,230-5,700)	52
780	1,269	366										
2,417	4,400	666										
219	637	24										
291	562	32										
4,617	9,492	994	490	230	330	390	260	150	80	130	2,060 (1,710-2,800)	45
564	1,056	102										
181	292	30										
379	565	98										
2,390	4,926	369	170	105	175	240	200	65	15	20	990 (840-1,390)	41
616	1,234	66										
1,070	2,575	144										
318	705	59										
2,736	6,381	349	120	95	160	270	210	60	10	5	930 (780-1,440)	34
												46
385	1,253	20	10	15	15	20	10	4	1	0	75 (60-110)	19
626	1,009	197										
748	1,800	129	22	17	44	90	90	18	2	2	285 (220-420)	38
471	929	88										
1,150	2,952	155	50	30	60	140	130	40	10	5	465 (360-710)	40
461	1,147	123										
770	1,661	258										
1,882	4,430	383	70	50	110	210	260	85	15	10	810 (660-1,080)	43
461	1,020	92										
966	2,859	150	30	25	40	100	130	50	10	5	390 (315-570)	40
1,337	2,964	308										
112	298	14										
248	653	71										
1,776	4,642	362	85	40	75	180	250	140	50	30	850 (670-1,120)	48
												44
284	607	58										
1,669	4,294	383	75	40	75	170	270	150	50	20	850 (685-1,080)	51
444	1,402	92	20	15	25	45	60	25	5	5	200 (155-260)	45
145	615	16	8	7	10	10	8	1	1	0	45 (35-65)	31
558	1,577	163										
716	2,309	175	65	25	40	60	75	50	20	20	355 (305-460)	50

* Unimpaired runoff to date

FORECASTS OF APRIL-JULY UNIMPAIRED RUNOFF FOR SELECTED CALIFORNIA

STREAMS

APRIL 1, 1994

DRAINAGE BASIN AND WATERSHED	April through July Unimpaired Runoff in 1,000 Acre-Feet				
	HISTORICAL			FORECASTS	
	50 Year Average	Maximum of Record	Minimum of Record	April-July Forecast	Percent of Average
NORTH COAST AREA					
Trinity River at Lewiston	653	1,593	80	330	51
Scott River at Ft. Jones	200	*	*	100	50
Upper Klamath Lake(1)(2)(5)	521	1,151	177	266	51
LAHONTAN AREA					
Truckee River, Lake Tahoe to Farad accretion	268	713	58	100	37
Lake Tahoe Rise in feet (assuming gates closed)	1.5	3.75	0.23	0.4	27
East Carson River near Gardnerville	186	407	43	75	40
West Carson River at Woodfords	54	131	12	26	48
East Walker River near Bridgeport	63	209	7	15	24
West Walker River near Coleville	148	330	35	68	46
Owens River(3)	233	579	96	132	57

(1)Forecast period of April-September

(2)Forecast by U.S. Soil Conservation Service, Portland, Or.

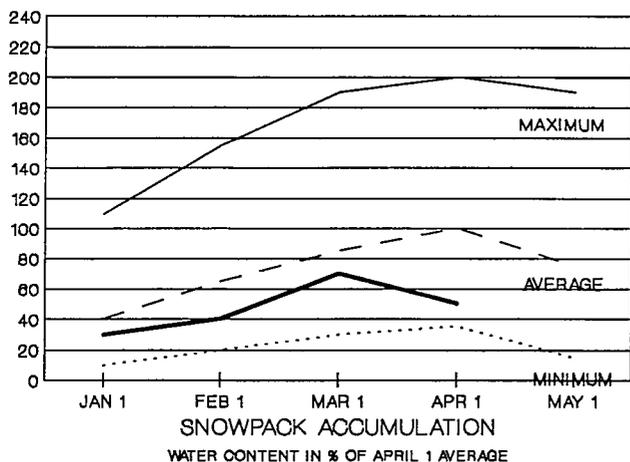
(3)Forecast by Dept. of Water and Power, City of Los Angeles

(4)Inside back cover for definition of unimpaired runoff.

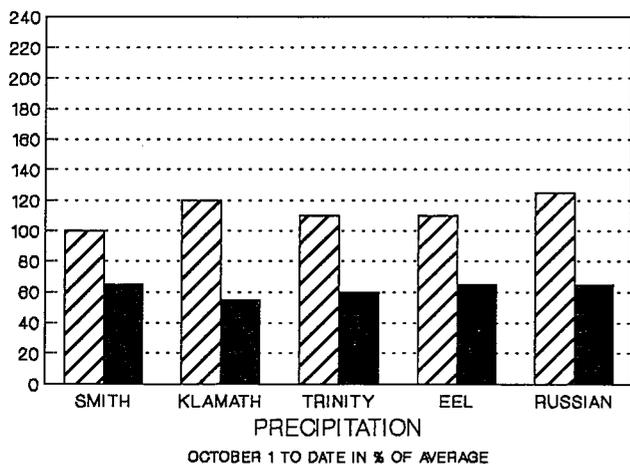
(5)Average period of 30 years

NORTH COAST AREA

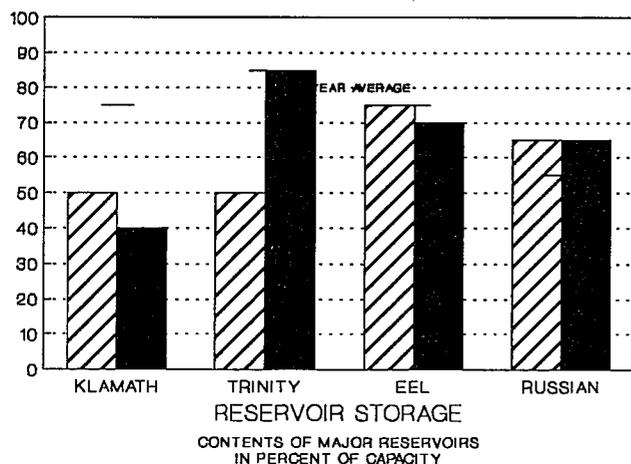
SNOWPACK - First of the month measurements made at 18 snow courses indicate an area wide snow water equivalent of 15.9 inches. This is 55 percent of the seasonal (April 1) average. Last year at this time the pack was holding 29.1 inches of water.



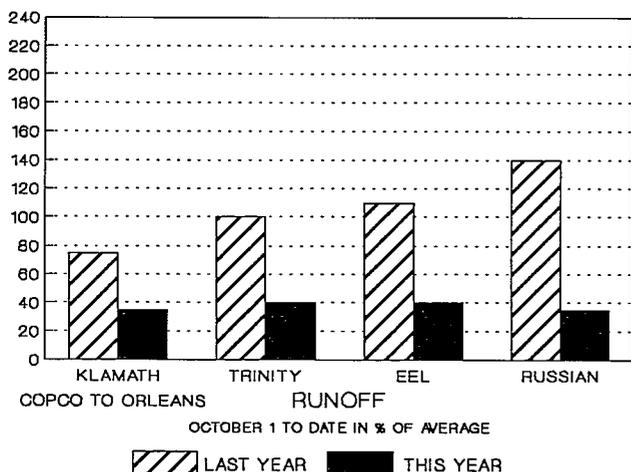
PRECIPITATION - Seasonal precipitation (October 1 through the end of last month) on this area was 60 percent of normal. Precipitation last month was about 25 percent of the monthly average. Seasonal precipitation at this time last year stood at 115 percent of normal.



RESERVOIR STORAGE - First of the month storage in 7 reservoirs was 2.5 million acre-feet which is 100 percent of average. About 80 percent of available capacity was being used. Storage in these reservoirs at this time last year was 70 percent of average.

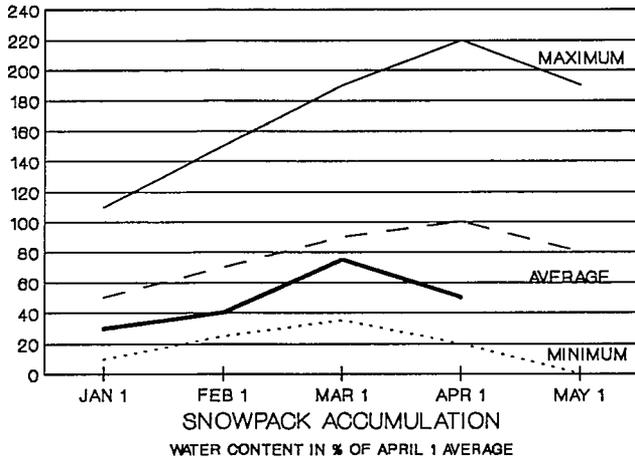


RUNOFF - Seasonal runoff of streams draining the area totaled 3.5 million acre-feet which is 35 percent of average for this period. Last year, runoff for the same period was 100 percent of average.

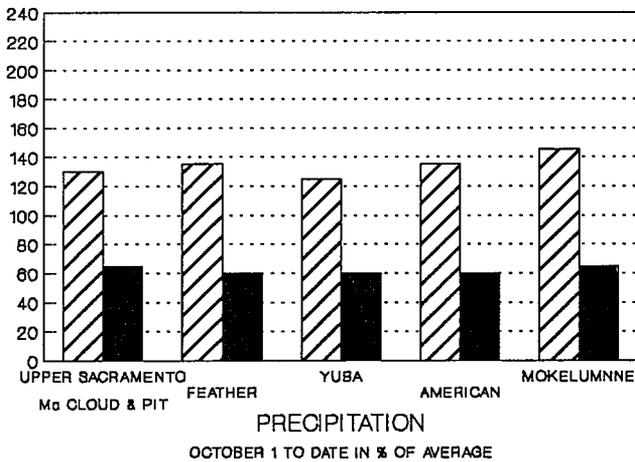


SACRAMENTO BASIN

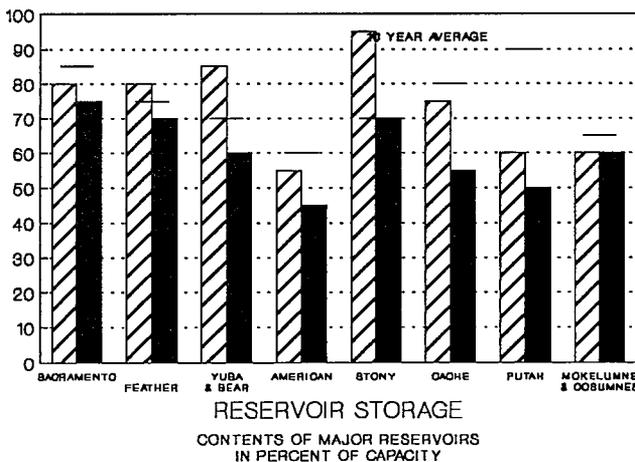
SNOWPACK - First of the month measurements made at 79 snow course indicate a basin-wide snow water equivalent of 16.0 inches. This is 50 percent of the average for this date. Last year at this time, the pack was holding 41.6 inches of water.



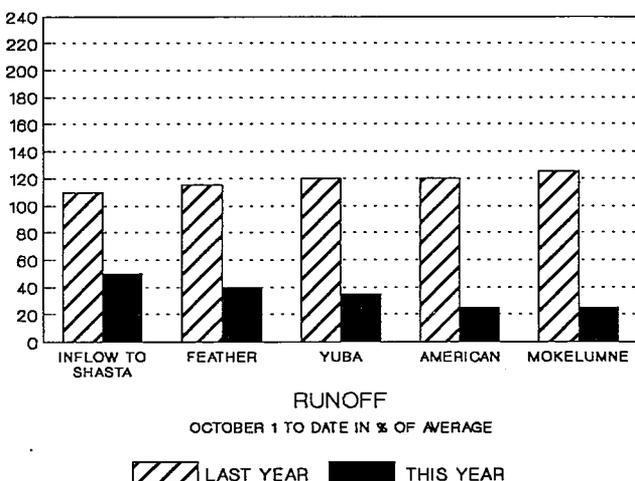
PRECIPITATION - Seasonal precipitation (October 1 through the end of last month) on the Sacramento Basin was 65 percent of normal. Precipitation last month was about 25 percent of the monthly average. Seasonal precipitation at this time last year stood at 135 percent of average.



RESERVOIR STORAGE - First of the month storage in 43 reservoirs was 10.7 million acre-feet which is 85 percent of average. About 65 percent of available capacity was being used. Storage in these reservoirs was about 97 percent of average at this time last year.



RUNOFF - Seasonal runoff from streams draining into the basin totaled 4.5 million acre-feet which is 40 percent of average for this period. Last year runoff for the same period was 115 percent of average.



The Sacramento River Index for the year is forecast at 8.5 million acre-feet assuming median meteorological conditions for the remainder of the year. This classifies the year as "critically dry" in the Sacramento-San Joaquin Delta according to the State Water Resources Control Board's Decision 1485. The SRI at this time last year was forecasted to be 21.4 million acre-feet.

SAN JOAQUIN AND TULARE LAKE BASINS

SNOWPACK - First of the month measurements made at 72 San Joaquin Basin snow courses indicate a basin wide snow water equivalent of 16.5 inches which is 50 percent of the seasonal (April 1) average. Last year at this time, the pack was holding 51.5 inches of water.

At the same time, 46 Tulare Lake Basin snow courses indicated a basin-wide snow water equivalent of 12.2 inches which is 55 percent of the seasonal average. Last year at this time, the Basin was holding 33.5 inches of water.

PRECIPITATION - Seasonal precipitation (October 1 through the end of last month) on the San Joaquin Basin was 55 percent of normal. Precipitation last month was 20 percent of the monthly average. Seasonal precipitation at this time last year stood at 150 percent of normal.

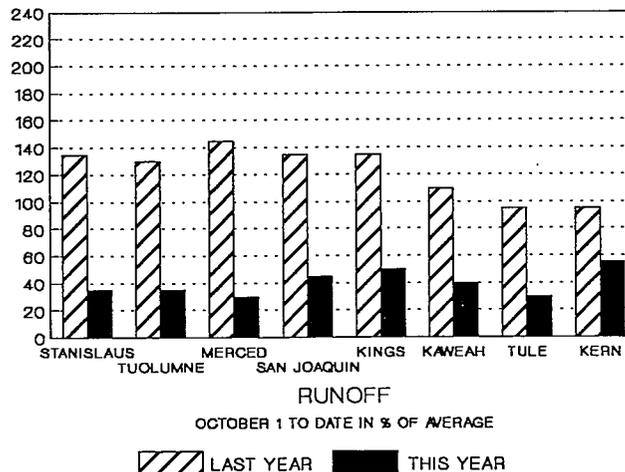
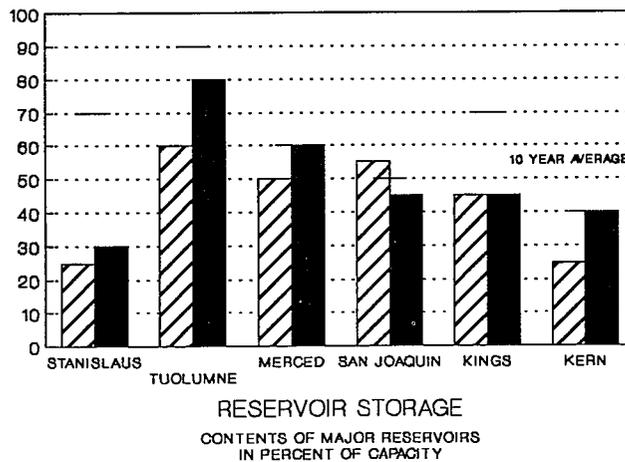
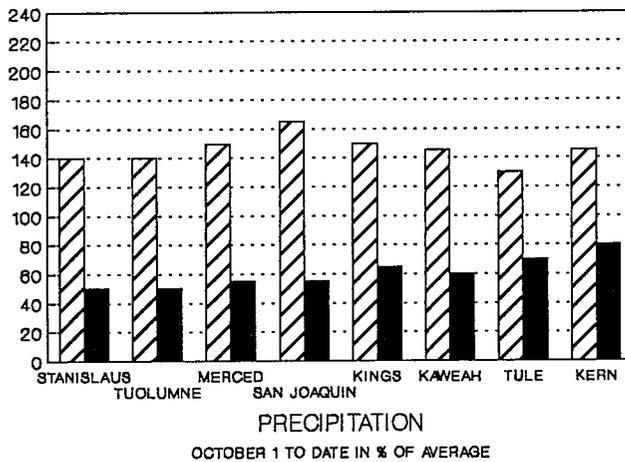
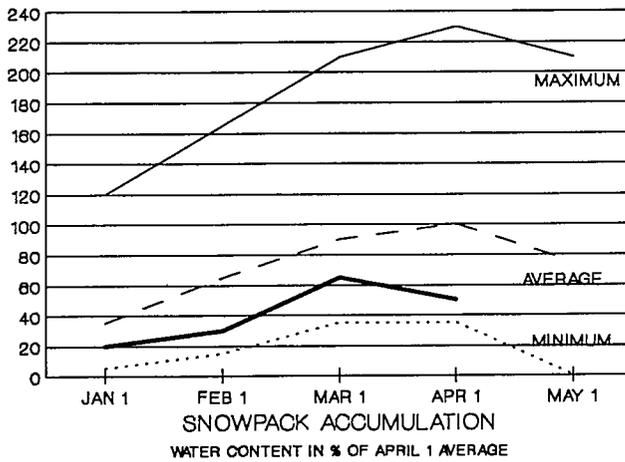
Seasonal precipitation on the Tulare Lake Basin was 70 percent of normal. Precipitation last month was 35 percent of the monthly average. Seasonal precipitation at this time last year stood at 145 percent of normal.

RESERVOIR STORAGE - First of the month storage in 33 San Joaquin Basin reservoirs was 7.1 million acre-feet which is 100 percent of average. About 60 percent of available capacity was being used. Storage in these reservoirs at this time last year was 85 percent of average.

First of the month storage in 6 Tulare Lake Basin reservoirs was 860 thousand acre-feet which is 105 percent of average. About 40 percent of available capacity was being used. Storage in these reservoirs at this time last year was 90 percent of average.

RUNOFF - Seasonal runoff of streams draining into the San Joaquin Basin totaled 770 thousand acre-feet which is 35 percent of average for this period. Last year, runoff for this same period was 135 percent of average.

Seasonal runoff of streams draining into the Tulare Lake Basin totaled 400 thousand acre-feet which is 50 percent of average for this period. Last year, runoff for this same period was 115 percent of average.

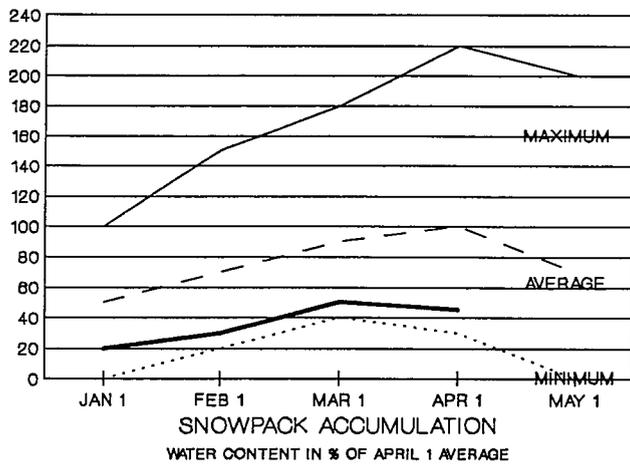


▨ LAST YEAR ■ THIS YEAR

NORTH AND SOUTH LAHONTAN AREA

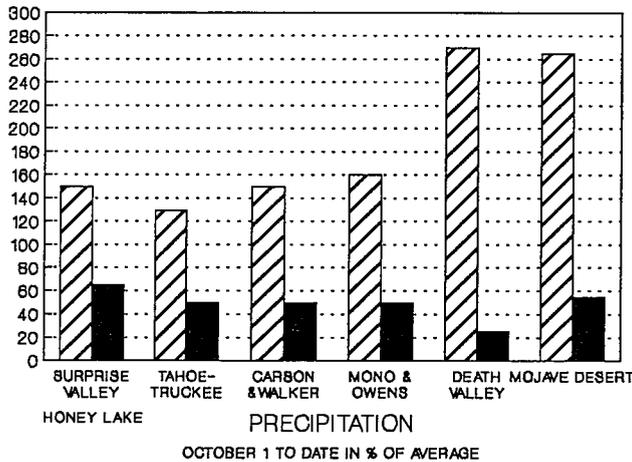
SNOWPACK - First of the month measurements made at 27 North Lahontan snow courses indicate an area wide snow water equivalent of 11.7 inches which is 40 percent of the seasonal (April 1) average. Last year at this time, the pack was holding 32.5 inches of water.

At the same time, 22 South Lahontan courses indicated an area-wide snow water equivalent of 13.3 inches which is 55 percent of the average for this date. Last year at this time, the pack was holding 37.9 inches of water.



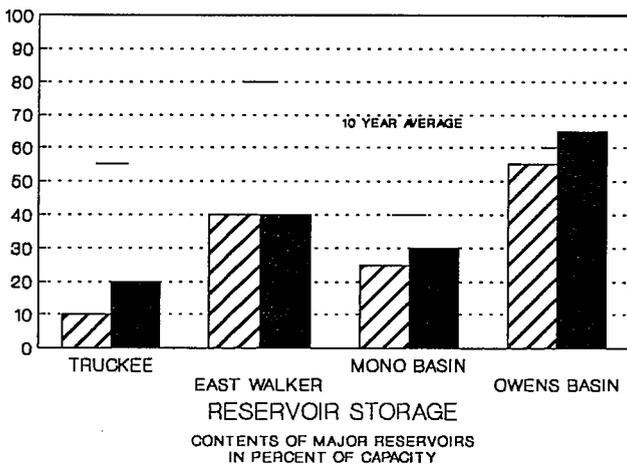
PRECIPITATION - Seasonal precipitation (October 1 through the end of last month) over the North Lahontan area averaged 55 percent of normal. Precipitation last month was 60 percent of the monthly average. Seasonal precipitation at this time last year stood at 145 percent of normal.

Seasonal precipitation over the South Lahontan area was 45 percent of normal. Last month's precipitation was 60 percent of the monthly average. Seasonal precipitation at this time last year stood at 205 percent of normal.



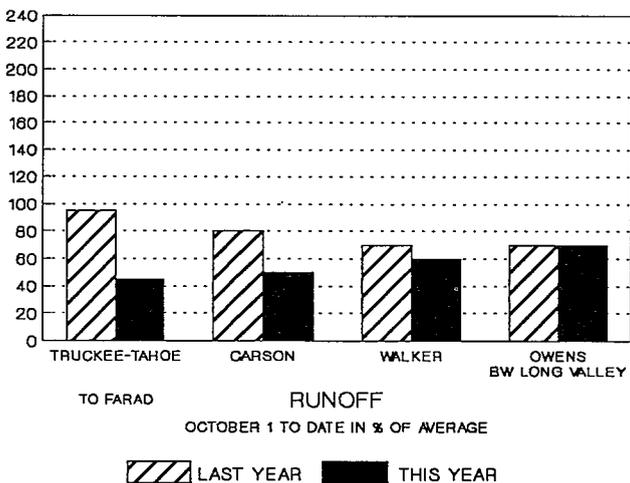
RESERVOIR STORAGE - First of the month storage in 5 North Lahontan reservoirs was 215 thousand acre-feet which is 35 of average. About 20 percent of available capacity was being used. Storage in these reservoirs at this time last year was 20 percent of average. Lake Tahoe was 0.6 foot below its natural rim.

First of the month storage in 8 South Lahontan reservoirs was 240 thousand acre-feet which is 85 percent of average. About 60 percent of available capacity was being used. Storage in these reservoirs at this time last year was also 85 percent of average.



RUNOFF - Seasonal runoff of streams draining the North Lahontan area totaled 140 thousand acre-feet which is 50 percent of average for this period. Last year, runoff for this same period was 85 percent of average.

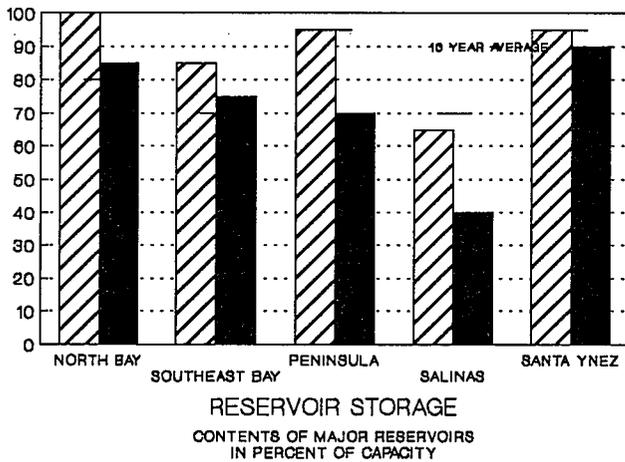
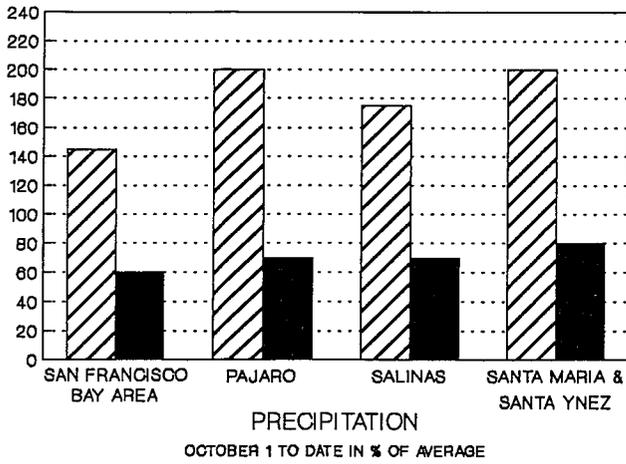
Seasonal runoff of the Owens River below Long Valley in the South Lahontan area totaled 45 thousand acre-feet which is 70 percent of average for this period. Last year, runoff for this same period was 70 percent of average.



SAN FRANCISCO AND CENTRAL COAST AREAS

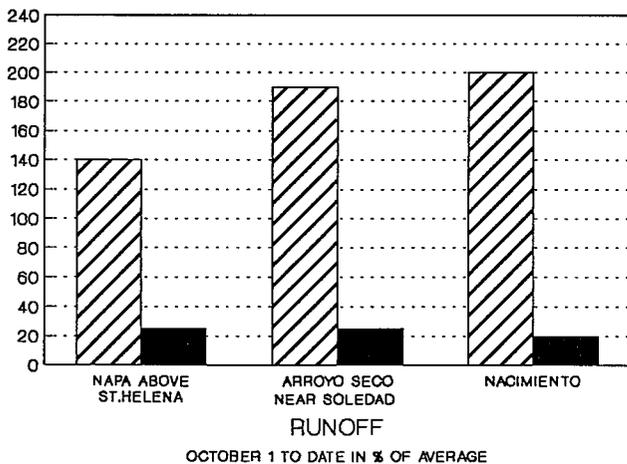
PRECIPITATION - Seasonal precipitation (October 1 through the end of last month) on the San Francisco Bay area was 60 percent of normal. Precipitation last month was 10 percent of the monthly average. Seasonal precipitation at this time last year stood at 145 percent of normal.

Seasonal precipitation on the Central Coast area averaged 75 percent of normal. Precipitation last month was 40 percent of the monthly average. Seasonal precipitation at this time last year stood at 190 percent of normal.



RESERVOIR STORAGE - First of the month storage in 18 major Bay area reservoirs was 520 thousand acre-feet which is about average. About 75 percent of available capacity was being used. Storage in these reservoirs at this time last year was 120 percent of average.

First of the month storage in 6 major Central Coast reservoirs was 510 thousand acre-feet which is 75 percent of average. About 55 percent of available capacity was being used. Storage in these reservoirs at this time last year was 95 percent of average.



RUNOFF - Seasonal runoff of the Napa River in the San Francisco Bay area totaled 15 thousand acre-feet which is 25 percent of average for this period. Last year, runoff for this same period was 140 percent of average.

Seasonal runoff of selected Central Coast streams totaled 65 thousand acre-feet which is 25 percent of average for this period. Last year, runoff for this same period was nearly 200 percent of average.

▨ LAST YEAR ■ THIS YEAR

SOUTH COAST AND COLORADO RIVER AREAS

PRECIPITATION - Seasonal precipitation (October through the end of last month) on the South Coast was 65 percent of normal. Precipitation last month was 80 percent of the monthly average. Seasonal precipitation at this time last year was 205 percent of normal.

Seasonal precipitation in the Colorado Desert area was 70 percent of normal. Precipitation last month was over 200 percent of average. Seasonal precipitation at this time last year was 345 percent of the average.

RUNOFF - Seasonal runoff from selected South Coast streams totaled 30 thousand acre-feet which is 70 percent of average. Last year, runoff for the same period was 390 percent of average.

The April through July inflow to Lake Powell is forecasted to be 5.2 million acre-feet which will be 67 percent of normal.

RESERVOIR STORAGE - March 31 storage in 29 major South Coast area reservoirs was 1.6 million acre-feet or 120 percent of average. About 80 percent of available capacity was being used. Storage in these reservoirs at this time last year was 145 percent of average.

First of the month combined storage in Lakes Powell, Mead, Mohave and Havasu was about 41.3 million acre-feet which is 110 percent of average. About 75 percent of available capacity was being used. One year ago, these reservoirs were storing 105 percent of average.

UPPER COLORADO RIVER BASIN - The first of the month snowpack, according to the U.S. Soil Conservation Service reports was 75 percent of average and ranges from 70 percent in the Upper Green drainage to 82 percent in the Colorado Plateau.

STATE WATER PROJECT

On April 1, State Water Project conservation storage (Lake Oroville plus the state's share of San Luis) was 3.68 million acre-feet. The water supply outlook for 1994 is very poor and has not allowed any improvement to the delivery allocation of 2.03 million acre-feet, or 50 percent of contractual entitlements of 4.15 MAF.

RESERVOIR STORAGE

(AVERAGES BASED ON PERIOD RECORD)

RESERVOIR	CAPACITY 1,000 AF	AVERAGE STORAGE 1,000 AF	STORAGE AS OF MARCH 31		PERCENT AVERAGE
			1993 1,000 AF	1994 1,000 AF	
<u>STATE WATER PROJECT</u>					
Oroville	3,538	2,817	2,936	2,624	93
San Luis SWP	1,060	972	976	1,049	108
Lake Del Valle	77	37	40	29	78
Silverwood	73	67	72	56	84
Pyramid Lake	171	159	165	165	104
Castaic Lake	324	283	320	295	104
Perris Reservoir	132	116	125	116	100
<u>CENTRAL VALLEY PROJECT</u>					
Clair Engle Lake	2,450	1,993	1,271	2,031	102
Shasta Lake	4,552	3,774	3,792	3,496	93
Whiskeytown	241	213	226	205	96
Folsom	975	636	623	410	64
New Melones	2,420	1,538	511	742	48
Millerton Lake	521	307	451	326	106
San Luis CVP	980	827	829	948	115
<u>COLORADO RIVER PROJECT</u>					
Lake Mead	26,159	19,651	21,981	21,291	108
Lake Powell	25,002	14,946	13,413	17,785	119
Lake Mohave	1,810	1,639	1,691	1,665	102
Lake Havasu	619	548	572	577	105
<u>EAST BAY MUNICIPAL UTILITY DISTRICT</u>					
Pardee	210	179	194	185	103
Camanche	417	260	251	258	99
East Bay (4 reservoirs)	151	132	136	129	98
<u>CITY & COUNTY OF SAN FRANCISCO</u>					
Hetch Hetchy	360	124	81	200	162
Cherry Lake	268	109	110	246	226
Lake Eleanor	26	10	8	23	230
South Bay (4 reservoirs)	225	175	216	182	104
<u>CITY OF LOS ANGELES(DWP)</u>					
Crowley Lake(Long Valley)	183	130	122	124	102
Grant Lake	48	27	17	16	76
Other Aqueduct Storage(6 reservoirs)	83	69	49	59	86

DEPARTMENT OF WATER RESOURCES - CALIFORNIA DATA EXCHANGE CENTER
TELEMETERED SNOW WATER EQUIVALENTS - APRIL 1, 1994

BASIN NAME STATION NAME	AGENCY	ELEV FEET	APR 1 AVG	TODAY	INCHES OF WATER EQUIVALENT		
					PERCENT OF APR 1	24 HRS AGO	1 WEEK AGO
TRINITY RIVER							
PETERSON FLAT	USBR	7150	----	17.6	----	17.6	17.8
RED ROCK MOUNTAIN	USBR	6700	39.6	24.8	63%	25.5	28.1
BONANZA KING	USBR	6450	40.5	----	----	----	21.5
SHIMMY LAKE	USBR	6200	40.3	28.2	70%	29.5	33.4
MIDDLE BOULDER #3	USBR	6200	28.3	12.4	44%	12.4	13.1
HIGHLAND LAKES	USBR	6030	29.9	12.6	42%	13.7	16.4
SCOTTS MOUNTAIN	USBR	5900	----	11.4	----	11.8	12.6
MUMBO BASIN	USBR	5700	22.4	----	----	----	----
BIG FLAT	USBR	5100	----	9.0	----	9.6	11.0
SACRAMENTO RIVER							
CEDAR PASS	SCS	7100	18.1	----	----	12.6	13.0
BLACKS MOUNTAIN	DWR	7100	----	8.4	----	8.5	9.4
SAND FLAT	USBR	6750	42.4	24.8	58%	24.8	25.8
MEDICINE LAKE	USBR	6700	----	16.4r	----	16.4	16.4
ADIN MOUNTAIN	SCS	6350	13.6	----	----	8.5	----
SNOW MOUNTAIN	USBR	5950	27.0	18.3	68%	18.7	20.5
SLATE CREEK	USBR	5600	29.0	16.5	57%	16.9	16.7
STOUTS MEADOW	USBR	5400	36.0	21.2	59%	21.2	24.0
FEATHER RIVER							
KETTLEROCK	DWR	7300	25.5	11.3	44%	11.4	14.2
GRIZZLY	DWR	6900	29.7	13.3	45%	14.0	15.4
PILOT PEAK	DWR	6800	52.6	14.6	28%	14.9	18.5
GOLD LAKE	DWR	6750	36.5	25.6	70%	25.8	26.6
HUMBUG	DWR	6500	28.0	23.0	82%	23.5	24.1
RATTLESNAKE	DWR	6100	14.0	9.1	65%	10.0	14.0
BUCKS LAKE	DWR	5750	44.7	36.0	81%	36.5	39.4
FOUR TREES	DWR	5150	20.0	12.6	63%	13.6	17.2
YUBA & AMERICAN RIV							
LAKE LOIS	DWR	8800	----	26.2	----	27.4	28.1
SCHNEIDERS	SMUD	8750	34.5	20.8	60%	20.9	20.6
CAPLES LAKE COURSE	USBR	7800	30.9	14.1	45%	14.4	15.5
ALPHA	SMUD	7600	35.9	15.9	44%	16.5	18.6
BETA	DWR	7600	----	17.4	----	17.7	19.0
FORNI RIDGE	USBR	7600	37.0	14.8	40%	15.0	16.3
SILVER LAKE	USBR	7100	22.7	8.5	38%	9.1	10.1
CENT SIERRA SNOW LAB	USFS	6950	33.6	16.8	50%	17.5	19.7
HUYSINK	USBR	6600	42.6	22.6	53%	22.6	22.6
VAN VLECK	SMUD	6700	35.9	21.0	58%	21.5	23.5
ROBBS SADDLE	SMUD	5900	21.4	13.4	63%	13.9	15.5
GREEK STORE	USBR	5600	21.0	11.2	53%	12.0	14.6
BLUE CANYON	USBR	5280	9.0	.4	4%	.4	.6
ROBBS POWERHOUSE	SMUD	5150	5.2	.0	0%	.0	1.1
MOKEL. & STANIS. RIV							
DEADMAN CREEK	USBR	9250	37.2	16.1	43%	16.4	16.2
HIGHLAND MEADOW	USBR	8800	47.9	7.6	16%	8.5	8.4
GIANELLI MEADOW	USBR	8350	55.5	22.2	40%	22.2	23.2
LOWER RELIEF VALLEY	DWR	8100	41.2	17.4	42%	18.7	18.7
BLUE LAKES	SCS	8000	33.1	----	----	16.9	16.6
MUD LAKE	SMUD	7900	44.9	27.3	61%	27.6	28.5
STANISLAUS MEADOW	USBR	7750	47.5	21.2	45%	21.7	23.0
BLOODS CREEK	USBR	7200	35.5	18.7	53%	19.1	20.3
BLACK SPRINGS	USBR	6500	32.0	16.8	53%	17.0	18.2
TUOLUMNE & MERCED R.							
DANA MEADOWS	DWR	9800	27.7	15.9	57%	16.0	16.0
SLIDE CANYON	DWR	9200	----	21.6	----	21.6	19.7
SNOW FLAT	DWR	8700	44.1	20.6r	47%	20.3	17.0
TUOLUMNE MEADOWS	DWR	8600	22.6	10.2	45%	10.4	9.7
HORSE MEADOW	DWR	8400	48.6	23.5	48%	23.5	23.5
OSTRANDER LAKE	DWR	8200	34.8	13.4	38%	14.0	15.3
PARADISE	DWR	7650	----	18.9	----	19.6	20.9
GIN FLAT	DWR	7050	34.2	16.7	49%	17.0	17.3
LOWER KIBBIE	DWR	6600	27.4	10.0	37%	10.6	13.3
SAN JOAQUIN RIVER							
VOLCANIC KNOB	USBR	10100	30.1	14.4	48%	14.4	13.7
AGNEW PASS	USBR	9450	32.3	20.0	62%	20.0	18.0
KAISER POINT	USBR	9200	37.8	13.0	34%	14.1e	14.4e
GREEN MOUNTAIN	USBR	7900	30.8	12.2	40%	13.0	13.8

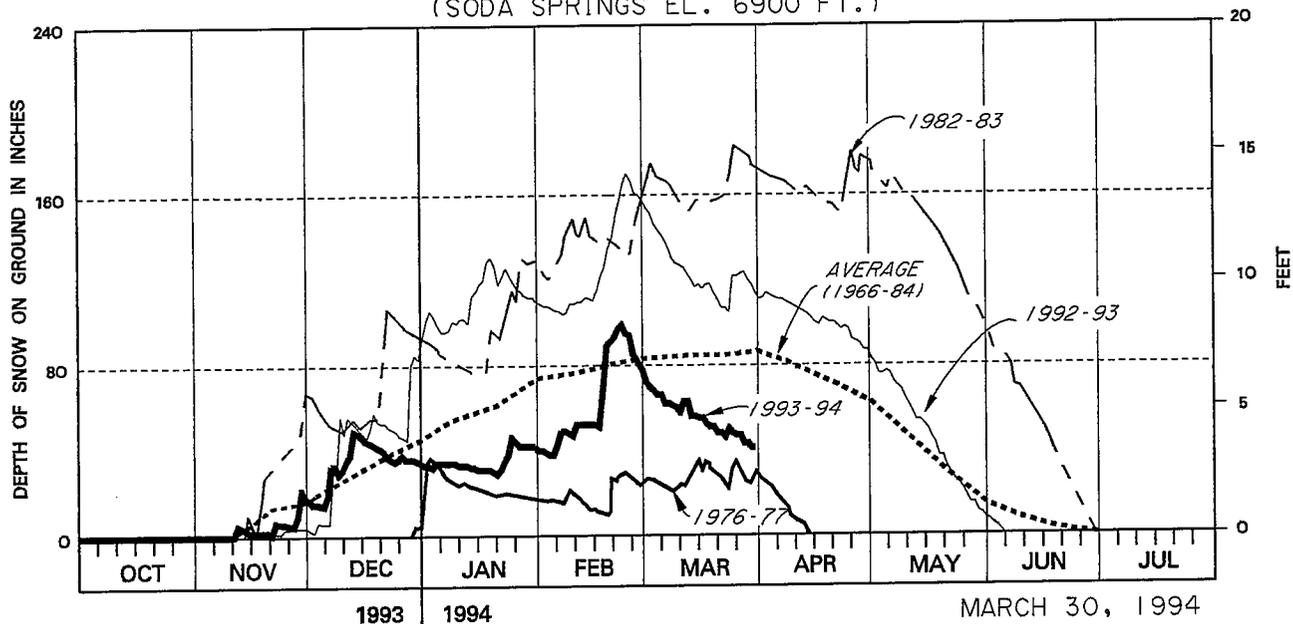
DEPARTMENT OF WATER RESOURCES - CALIFORNIA DATA EXCHANGE CENTER
TELEMETERED SNOW WATER EQUIVALENTS - APRIL 1, 1994

BASIN NAME STATION NAME	AGENCY	ELEV FEET	APR 1 AVG	TODAY	INCHES OF WATER EQUIVALENT PERCENT OF APR 1			24 HRS AGO	1 WEEK AGO
TAMARACK SUMMIT	USBR	7600	30.5	14.2	47%		15.4	16.4	
CHILKOOT MEADOW	USBR	7150	38.0	17.3	46%		18.1	19.1	
HUNTINGTON LAKE	USBR	7000	20.1	10.4	52%		11.4	12.0	
GRAVEYARD MEADOW	USBR	6900	18.8	2.0	10%		2.8	4.7	
POISON RIDGE	USBR	6900	28.9	8.1	28%		8.9	11.0	
KINGS RIVER									
BISHOP PASS	DWR	11200	----	16.3	----		16.3	15.1	
CHARLOTTE LAKE	DWR	10400	----	17.7	----		18.1	16.8	
STATE LAKES	USCE	10400	29.0	16.1	56%		16.1	16.1	
MITCHELL MEADOW	USCE	10375	32.9	20.8	63%		20.8	21.1	
BLACKCAP BASIN	USBR	10300	34.3	29.4	86%		30.1	28.7	
UPPER BURNT CORRAL	DWR	9700	34.6	23.5	68%		23.5	22.9	
WEST WOODCHUCK MDW	USCE	9100	32.8	11.6	35%		12.0	13.2	
BIG MEADOWS	DWR	7600	25.9	11.6	45%		12.2	13.0	
KAWEAH & TULE RIVERS									
QUAKING ASPEN	DWR	7200	21.0	10.0	47%		10.8	12.6	
GIANT FOREST	USCE	6400	10.0	.5	5%		.6	1.3	
KERN RIVER									
UPPER TYNDALL CREEK	USCE	11500	27.7	15.6	56%		15.7	15.0	
CRABTREE	DWR	10700	19.8	10.1	51%		10.3	9.4	
CHAGOOPA PLATEAU	DWR	10300	21.8	13.7	63%		13.3	13.1	
PASCOES	USCE	9150	24.9	18.6	75%		18.7	18.3	
TUNNEL	DWR	8950	15.6	4.4	28%		4.6	6.4	
WET MEADOW	USCE	8900	30.3	7.5	25%		8.2	9.1	
CASA VIEJA MDW	DWR	8400	20.9	10.5	50%		11.1	9.8	
BEACH MEADOW	DWR	7650	11.0	.4	3%		.4	.9	
SURPRISE VALLEY AREA									
DISMAL SWAMP	SCS	7050	29.2	----	----		14.4	16.1	
TRUCKEE RIVER									
MOUNT ROSE SKI AREA SCS	8850	38.5	----	----	21.2		21.2		
INDEPENDENCE LAKE	SCS	8450	41.4	----	----		22.7	22.8	
BIG MEADOWS	SCS	8700	25.7	----	----		7.8	8.5	
INDEPENDENCE CAMP	SCS	7000	21.8	----	----		7.0	8.5	
INDEPENDENCE CREEK	SCS	6500	12.7	----	----		----	----	
LAKE TAHOE BASIN									
HEAVENLY VALLEY	SCS	8800	28.1	----	----		12.7	----	
HAGANS MEADOW	SCS	8000	16.5	----	----		5.0	----	
MARLETTE LAKE	SCS	8000	21.1	----	----		10.5	11.3	
ECHO PEAK	SCS	7800	39.5	----	----		19.3	21.2	
RUBICON NO. 2	SCS	7500	29.1	----	----		15.1	----	
WARD CREEK NO. 3	SCS	6750	39.4	----	----		----	----	
FALLEN LEAF LAKE	SCS	6300	7.0	----	----		----	----	
CARSON RIVER									
EBBETTS PASS	SCS	8700	38.8	----	----		----	18.2	
POISON FLAT	SCS	7900	16.2	----	----		----	11.1	
WALKER RIVER									
VIRGINIA LAKES RIDGE	SCS	9200	20.3	----	----		8.2	7.4	
LOBDELL LAKE	SCS	9200	17.3	----	----		8.3	7.6	
SONORA PASS BRIDGE	SCS	8750	26.0	----	----		14.2	13.7	
LEAVITT MEADOWS	SCS	7200	8.0	----	----		1.0	----	
OWENS RIVER/MONO LK.									
GEM PASS	LADWP	10750	31.7	16.3	52%		17.0	16.3	
SAWMILL MEADOW	DWR	10300	19.4	10.5	54%		10.5	10.5	
COTTONWOOD LAKES	LADWP	10200	11.6	6.7	58%		6.6	5.6	
BIG PINE #3	LADWP	9800	17.9	8.5	47%		8.5	7.8	
SOUTH LAKE	LADWP	9600	16.0	.0	0%		.0	----	
MAMMOTH PASS (RP)	USBR	9500	42.4	21.3	50%		21.3	20.3	
MAMMOTH PASS-6 TANKS	USBR	9500	----	----	----		----	----	
ROCK CREEK	LADWP	8200	----	5.9	----		6.5	5.3	

NORMAL SNOWPACK ACCUMULATION EXPRESSED AS A PERCENT OF APRIL 1ST AVERAGE

AREA	JANUARY	FEBRUARY	MARCH	APRIL	MAY
CENTRAL VALLEY NORTH	45	70	90	100	75
CENTRAL VALLEY SOUTH	45	65	85	100	80
NORTH COAST	40	60	85	100	80

SNOW DEPTH AT CENTRAL SIERRA SNOW LAB.
(SODA SPRINGS EL. 6900 FT.)

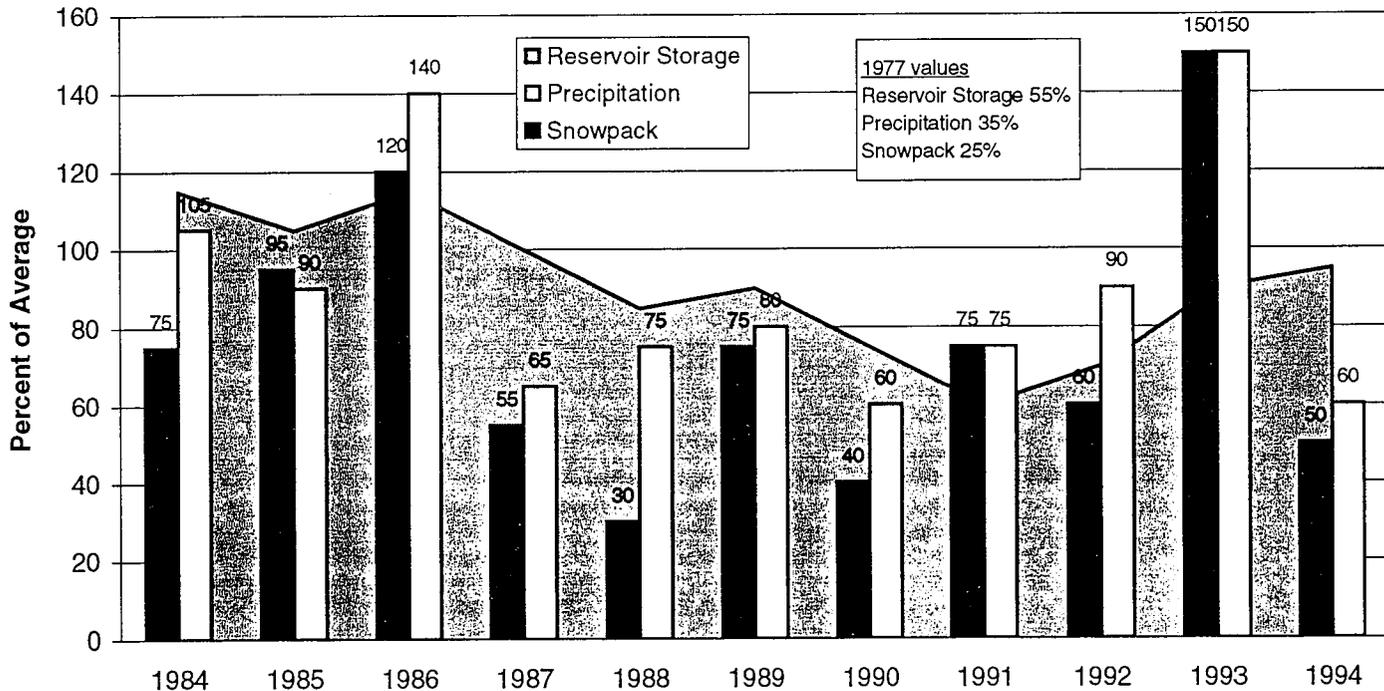


DATA SOURCE: CENTRAL SIERRA SNOW LAB.

***** SNOWLINES *****

Here we go again?

April 1 Conditions



SNOWPACK - Snow data is a major index of spring and summer runoff from Sierra Nevada watersheds. April 1 data historically reflects the magnitude of the snowpack at or near the maximum seasonal accumulation. Averages are based on April 1 data for the period 1941-1990 (50 years, except for data sites established after 1941).

PRECIPITATION - averages are based on April 1 data for the period 1941-1990 (50 years, except for data sites established after 1941).

RUNOFF AND FORECASTS - Runoff data and runoff forecasts are shown as unimpaired values. Unimpaired runoff represents the natural water production of a river basin, unaltered by upstream diversions, storage, or by export or import of water to or from other watersheds. Forecast of runoff assumes median conditions subsequent to the date of forecast.

Runoff probability ranges are statistically derived from historical data. The 80 percent probability range is comprised of the 90 percent exceedence level value and the 10 percent exceedence level value. This means that actual runoff should fall within the stated limits eight times out of ten.

Runoff averages for most streams are based on the 50 year period 1941-1990. For more details contact California Cooperative Snow Surveys, P. O. Box 942836, Sacramento, CA 94236-0001, (916) 653-8292.

On the front cover:

Grant Winslow of Pacific Gas & Electric Company stands next to the solar panel and antenna at the Black Cap Basin snow sensor in the Kings River watershed on the May 1 survey, 1993. The solar panel is mounted 16 feet above the ground surface.

Photo by Dave Hart

State of California –The Resources Agency
DEPARTMENT OF WATER RESOURCES
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