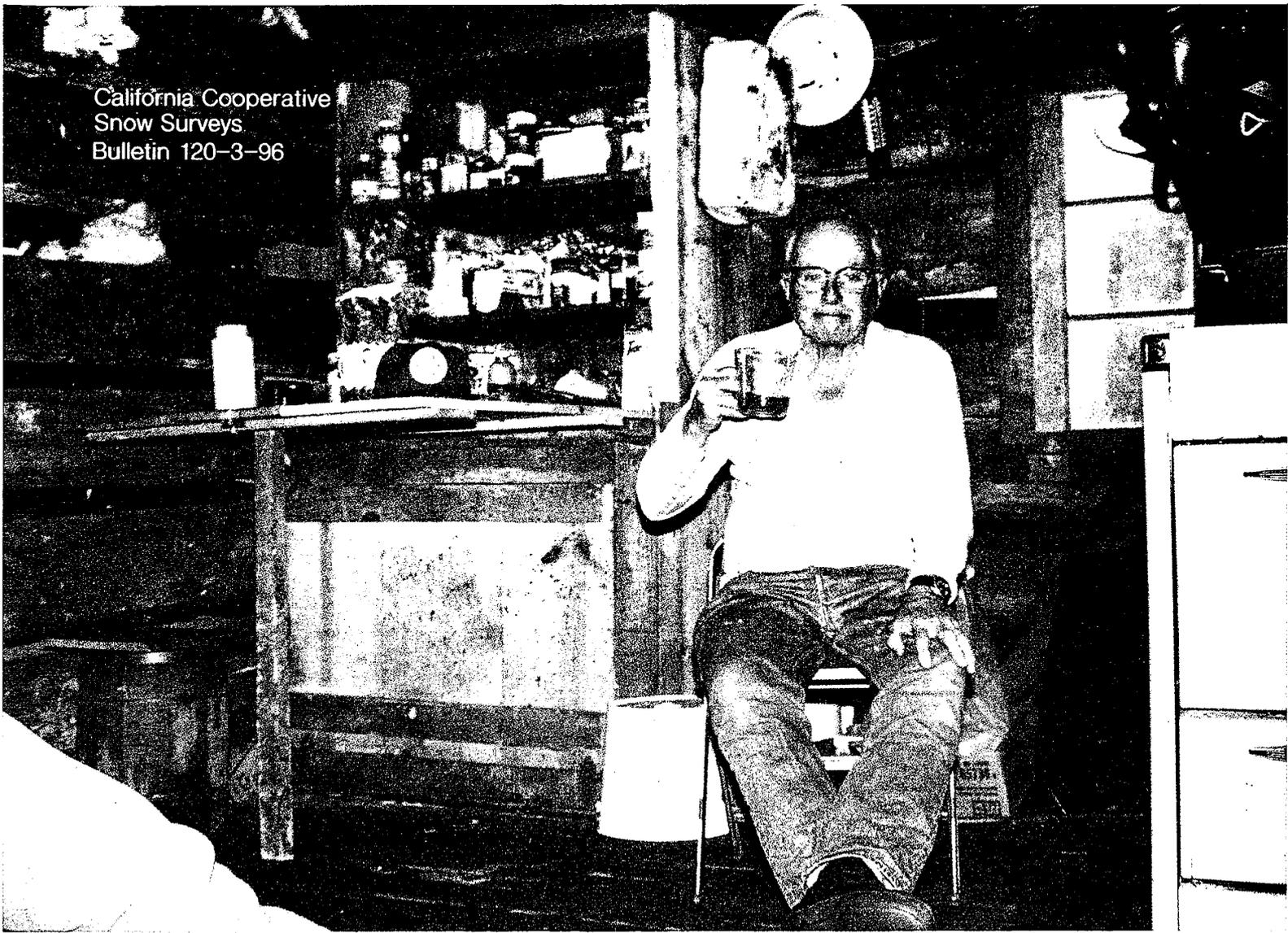


California Cooperative
Snow Surveys
Bulletin 120-3-96



State of California
The Resources Agency

Department of
Water Resources

Water Conditions in California

Report 3 April 1, 1996



Pete Wilson
Governor
State of California

Douglas P. Wheeler
Secretary for Resources
The Resources Agency

David N. Kennedy
Director
Department of Water Resources

STATE OF CALIFORNIA

Pete Wilson, Governor

THE RESOURCES AGENCY

Douglas P. Wheeler, Secretary for Resources

Department of Water Resources

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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
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
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
State Water Contractors
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
Resource Conservation Service
U.S. Department of Commerce
National Weather Service
U.S. Department of Interior
Bureau of Reclamation
Geological Survey, Water Resources
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, 1996

March storm activity came in like a lion and left like a lamb this year. By the end of the first week, over 60 percent of a normal month's precipitation had occurred. But the month closed with less than average precipitation. Except in the north, snowpack accumulation for the month was about normal. Most of the rainy season is now over and it appears that 1996 will be one of those rare years with near average runoff. The water supply outlook remains good.

Forecasts of April through July runoff are near normal statewide. They are slightly above average in the higher elevation basins of the central and southern Sierra and a little below average in the north where watershed elevations are lower. Runoff forecasts for the water year are about 10 percent higher because of the large flows during the winter months.

Snowpack water content is 95 percent of average overall, about as close to normal as we have seen in two decades. Some melting took place near the end of March. Snowpack percentages are higher in the high Sierra watersheds and less in the northern Sierra and North Coast regions. Last year the snowpack on April 1 was 175 percent of average.

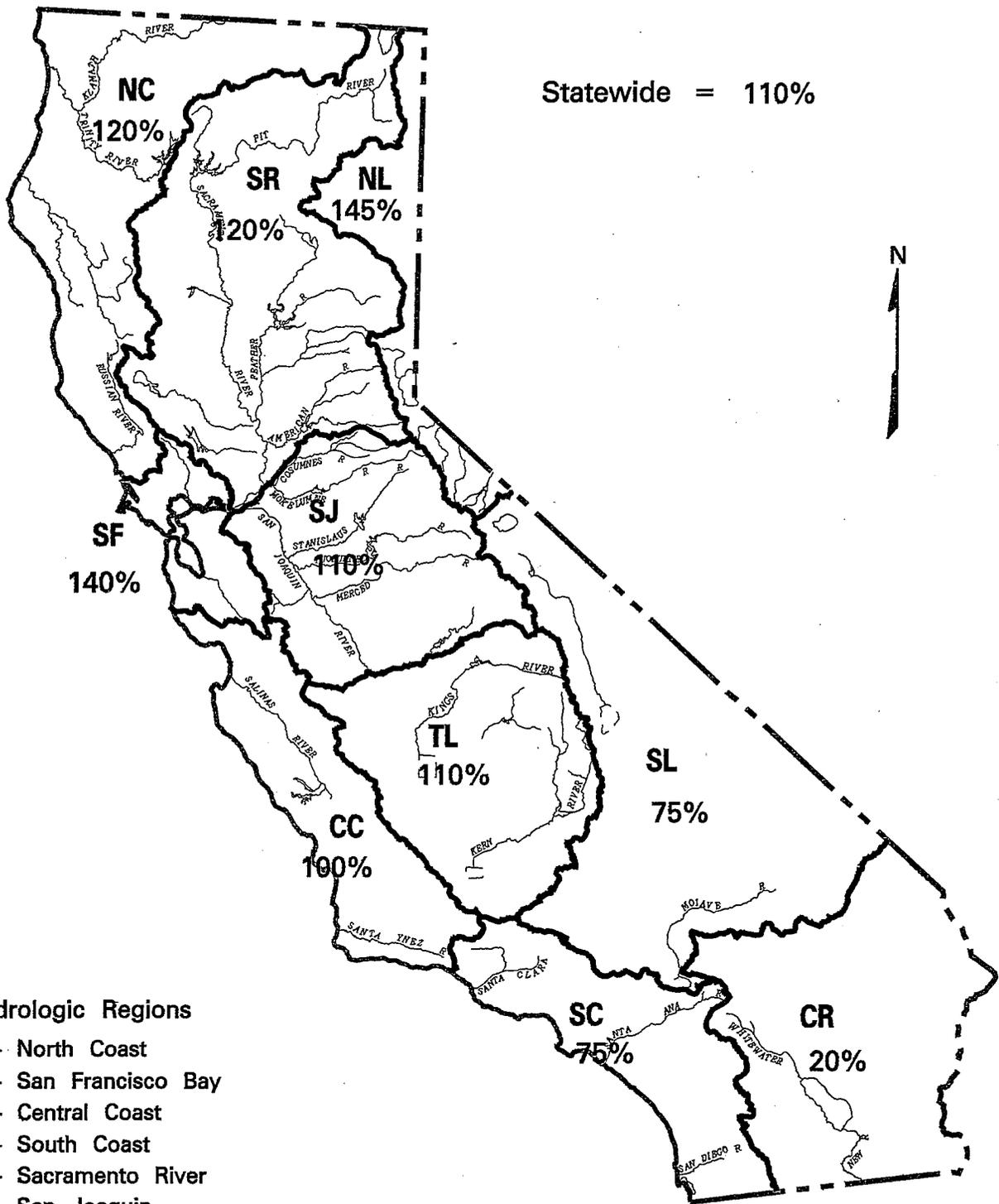
Precipitation during March was about 90 percent of average statewide. Precipitation since October 1 is 110 percent of average. The dryness of the American Southwest this winter extended westward to cover a portion of southern California. Statewide seasonal precipitation last year was 165 percent of average.

Runoff so far this year is estimated at 125 percent of average, compared to 170 percent last year. March runoff was about 130 percent of average. Estimated runoff during March for the 8 major rivers of the Sacramento and San Joaquin River hydrologic regions was about 4.2 million acre feet.

Reservoir storage is excellent at 120 percent of average. The increase during the month was less than normal because some reservoirs were already quite full and because of the need to maintain flood control space in many major reservoirs. Last year total storage at this time was 110 percent of average.

SUMMARY OF WATER CONDITIONS						
IN PERCENT OF AVERAGE						
HYDROGRAPHIC REGION	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	120	80	110	125	75	105
SAN FRANCISCO BAY	140	--	125	165	--	--
CENTRAL COAST	100	--	115	110	--	--
SOUTH COAST	75	--	125	105	--	--
SACRAMENTO REGION	120	90	110	120	95	110
SAN JOAQUIN REGION	110	100	130	135	110	120
TULARE LAKE REGION	110	105	165	130	115	120
NORTH LAHONTAN	145	115	150	150	115	125
SOUTH LAHONTAN	75	125	90	120	125	120
COLORADO RIVER-DESERT	20	--	--	--	--	--
STATEWIDE	110	95	120	125	100	110

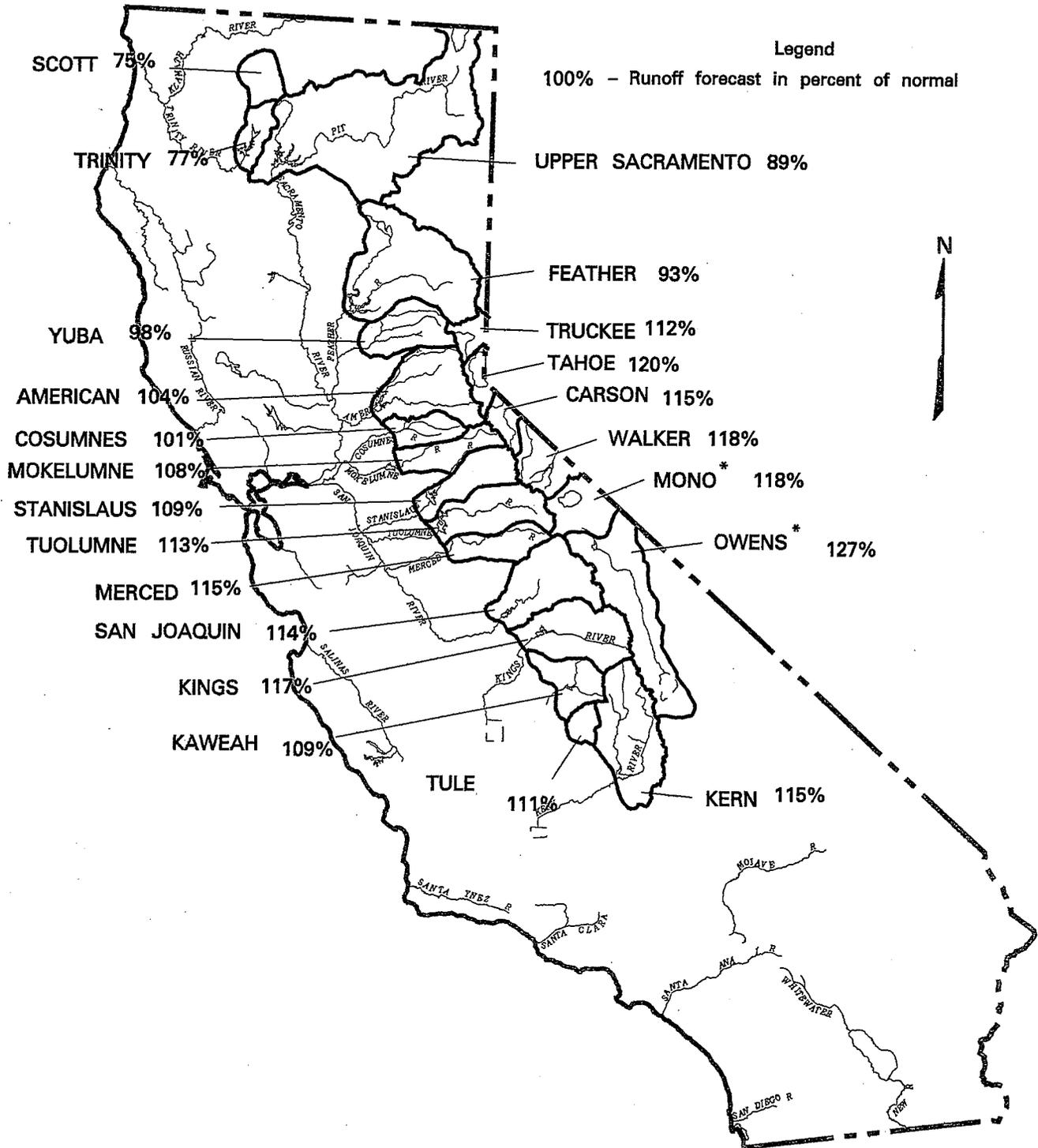
SEASONAL PRECIPITATION
 IN PERCENT OF AVERAGE TO DATE
 October 1, 1995 through March 31, 1996



- 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
 - CR - Colorado River-Desert

WATER YEAR IS OCTOBER 1 THROUGH SEPTEMBER 30

**FORECAST OF APRIL - JULY
UNIMPAIRED SNOWMELT RUNOFF
April 1, 1996**



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

**APRIL 1, 1996 FORECASTS
APRIL-JULY UNIMPAIRED RUNOFF**

HYDROLOGIC REGION and Watershed	Unimpaired Runoff in 1,000 Acre-Feet (1)					
	HISTORICAL			FORECASTS		
	50 Yr Avg (2)	Max of Record	Min of Record	Apr-Jul Forecasts	Pct of Avg	80 % Probability Range (1)
SACRAMENTO RIVER						
Upper Sacramento River						
Sacramento River at Shasta Lake	297	702	39	200	67	
McCloud River at Shasta Lake	411	850	185	330	80	
Pit River at Shasta Lake	1062	1796	480	980	92	
Total Inflow to Shasta Lake	1824	3189	726	1620	89	1,260 - 2,250
Sacramento River above Bend Bridge, near Red Bluff	2491	4674	943	2130	86	1,700 - 3,150
Feather River						
Feather River at Lake Almanor near Prattville	333	675	120	310	93	
North Fork at Pulga	1028	2416	243	950	92	
Middle Fork near Clio (3)	86	518	4	60	70	
South Fork at Ponderosa Dam	110	267	13	100	91	
Total Inflow to Oroville Reservoir	1857	4676	392	1720	93	1,380 - 2,400
Yuba River						
North Yuba below Goodyears Bar	286	647	51	280	98	
Inflow to Jackson Mdws and Bowman Reservoirs	112	236	25	110	98	
South Yuba at Langs Crossing	233	481	57	220	94	
Yuba River at Smartville	1047	2424	200	1030	98	860 - 1,400
American River						
North Fork at North Fork Dam	262	716	43	270	103	
Middle Fork near Auburn	522	1406	100	540	103	
Silver Creek Below Camino Diversion Dam	173	386	37	180	104	
Total Inflow to Folsom Reservoir	1284	3074	229	1330	104	1,150 - 1,800
SAN JOAQUIN RIVER						
Cosumnes River at Michigan Bar	129	363	8	130	101	90 - 200
Mokelumne River						
North Fork near West Point (4)	437	829	104	450	103	
Total Inflow to Pardee Reservoir	465	1065	102	500	108	430 - 630
Stanislaus River						
Middle Fork below Beardsley Dam	334	702	64	360	108	
North Fork Inflow to McKays Point Dam	224	503	34	240	107	
Total Inflow to New Melones Reservoir	713	1710	116	780	109	670 - 1,000
Tuolumne River						
Cherry Creek and Eleanor Creek near Hetch Hetchy	322	727	97	350	109	
Tuolumne River near Hetch Hetchy	606	1392	153	660	109	
Total Inflow to New Don Pedro Reservoir	1200	2682	301	1350	113	1,200 - 1,600
Merced River						
Merced River at Pohono Bridge	362	888	80	410	113	
Total Inflow to Lake McClure	617	1587	123	710	115	630 - 900
San Joaquin River						
San Joaquin River at Mammoth Pool (5)	1014	2279	235	1120	110	
Big Creek below Huntington Lake (5)	95	264	11	105	111	
South Fork near Florence Lake (5)	202	511	58	220	109	
Total Inflow to Millerton Lake	1228	3355	262	1400	114	1,210 - 1,650
TULARE LAKE						
Kings River						
North Fork Kings River near Cliff Camp	239	565	50	280	117	
Total Inflow to Pine Flat Reservoir	1203	3114	273	1410	117	1,230 - 1,650
Kaweah River at Terminus Reservoir	284	814	61	310	109	250 - 370
Tule River at Success Reservoir	63	256	2	70	111	55 - 90
Kern River						
Kern River near Kernville	373	1203	83	430	115	
Total Inflow to Isabella Reservoir	461	1657	84	530	115	460 - 620

(1) See inside back cover for definition

(2) All 50 year averages are based on years 1941-1990 unless otherwise noted

(3) 44 year average based on years 1936-79

(4) 36 year average based on years 1936-71

(5) 45 year average based on years 1936-80

**APRIL 1, 1996 FORECASTS
WATER YEAR UNIMPAIRED RUNOFF**

Unimpaired Runoff in 1,000 Acre-Feet (1)													
HISTORICAL			DISTRIBUTION								FORECASTS		
50 Yr Avg (2)	Max of Record	Min of Record	Oct Thru Jan*	Feb *	Mar *	Apr	May	Jun	Jul	Aug & Sep	Water Year Forecasts	Pct of Avg	80 % Probability Range (1)
856	1,964	165											
1,244	2,353	577											
3,145	5,150	1,484											
5,987	10,796	2,479	1,530	1,630	1,050	650	470	280	220	420	6,250	104	5,800 - 7,050
8,664	17,180	3,294	2,360	2,260	1,530	840	620	390	280	520	8,800	102	8,260 - 10,070
780	1,269	366											
2,417	4,400	666											
219	637	24											
291	562	32											
4,617	9,492	994	1,015	1,300	850	700	600	290	130	185	5,070	110	4,700 - 5,820
564	1,056	102											
181	292	30											
379	565	98											
2,390	4,926	369	520	785	420	410	400	180	40	45	2,800	117	2,620 - 3,200
616	1,234	66											
1,070	2,575	144											
318	705	59											
2,736	6,381	349	560	840	560	460	530	280	60	30	3,320	121	3,130 - 3,800
385	1,253	20	64	135	110	70	40	15	5	1	440	114	400 - 510
626	1,009	197											
748	1,800	129	95	160	130	140	210	130	20	5	890	119	820 - 1,020
471	929	88											
1,150	2,952	155	150	275	215	200	310	210	60	20	1,440	125	1,320 - 1,670
461	1,147	123											
770	1,661	258											
1,882	4,430	383	220	350	290	290	490	440	130	30	2,240	119	2,080 - 2,500
461	1,020	92											
966	2,859	150	110	190	160	160	280	220	50	30	1,200	124	1,110 - 1,400
1,337	2,964	308											
112	298	14											
248	653	71											
1,776	4,642	362	160	230	220	270	480	480	170	70	2,080	117	1,880 - 2,350
284	607	58											
1,669	4,294	383	140	180	175	240	500	500	170	65	1,970	118	1,780 - 2,230
444	1,402	92	40	75	65	80	120	90	20	10	500	113	430 - 570
145	615	16	20	40	44	30	25	10	5	1	175	121	160 - 200
558	1,577	163											
716	2,309	175	110	90	100	100	170	170	90	40	870	121	790 - 970

* Indicates observed runoff

**APRIL 1, 1996 FORECASTS
APRIL-JULY UNIMPAIRED RUNOFF**

HYDROLOGIC REGION and Watershed	Unimpaired Runoff in 1,000 Acre-Feet (1)				
	HISTORICAL			FORECASTS	
	50 Yr Avg (2)	Max of Record	Min of Record	Apr-Jul Forecasts	Pct of Avg
NORTH COAST					
Trinity River					
Total Inflow to Lewiston Lake	653	1,593	80	500	77
Scott River					
Near Fort Jones	200	N/A	N/A	150	75
Klamath River					
Total inflow to Upper Klamath Lake (3)	510	655	320	490	96
<hr/>					
NORTH LAHONTAN					
Truckee River					
Lake Tahoe to Farad accretions	268	713	58	300	112
Lake Tahoe Rise (assuming gates closed, in feet)	1.5	3.8	0.2	1.8	120
Carson River					
West Fork at Woodfords	54	131	12	65	120
East Fork near Gardnerville	186	407	43	210	113
Walker River					
West Fork near Coleville	148	330	35	175	118
East Fork near Bridgeport	63	209	7	75	119
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SOUTH LAHONTAN					
Owens River					
Total tributary flow to Owens River (4)	233	579	96	295	127

(1) See inside back cover for definition

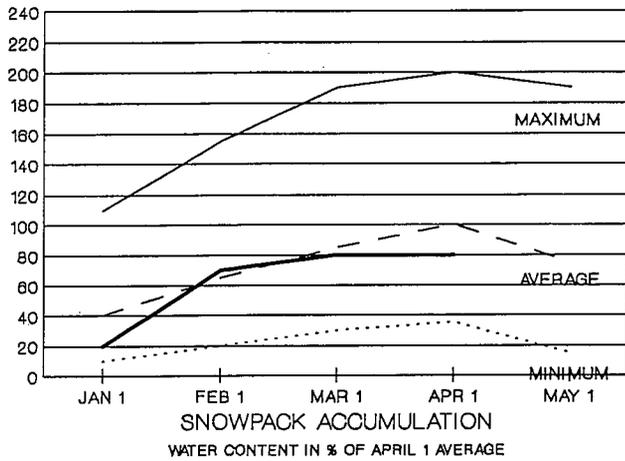
(2) All 50 year averages are based on years 1941-1990 unless otherwise noted

(3) Forecast by U.S. Natural Resources Conservation Service, Portland Oregon, for May through September.

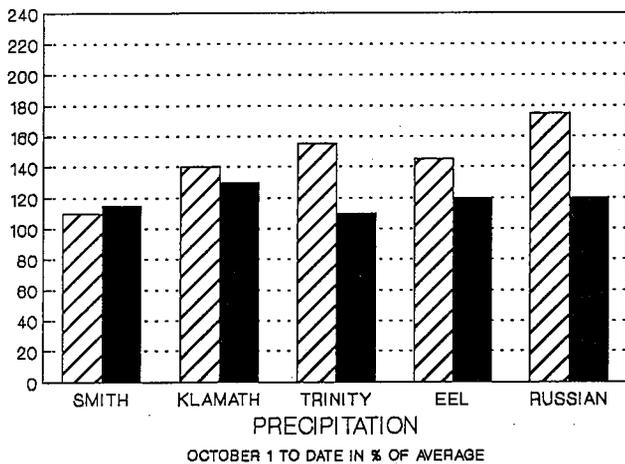
(4) Forecast by Department of Water and Power, City of Los Angeles

NORTH COAST REGION

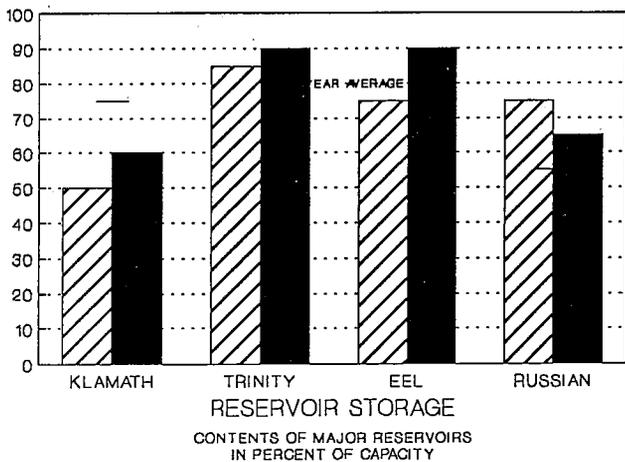
SNOWPACK - First of the month measurements made at 17 snow courses indicate an area wide snow water equivalent of 23.6 inches. This is 80 percent of seasonal (April 1) average. Last year at this time the pack was holding 42.7 inches of water.



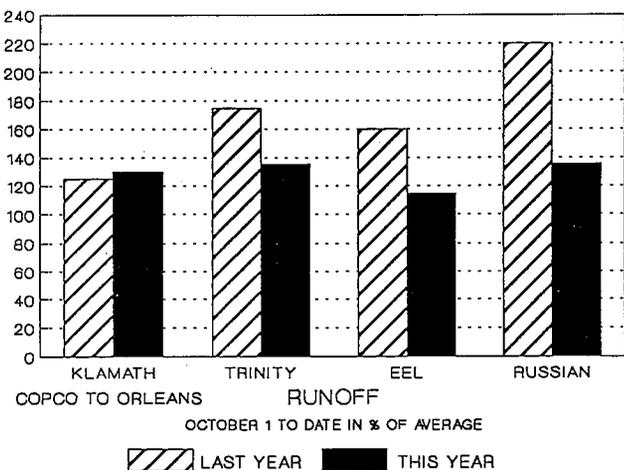
PRECIPITATION - Seasonal precipitation (October 1 through the end of last month) on this area was 120 percent of normal. Precipitation last month was about 85 percent of the monthly average. Seasonal precipitation at this time last year stood at 145 percent of normal.



RESERVOIR STORAGE - First of the month storage in 7 reservoirs was 2.7 million acre-feet which is 110 percent of average. About 85 percent of available capacity was being used. Storage in these reservoirs at this time last year was 110 percent of average.

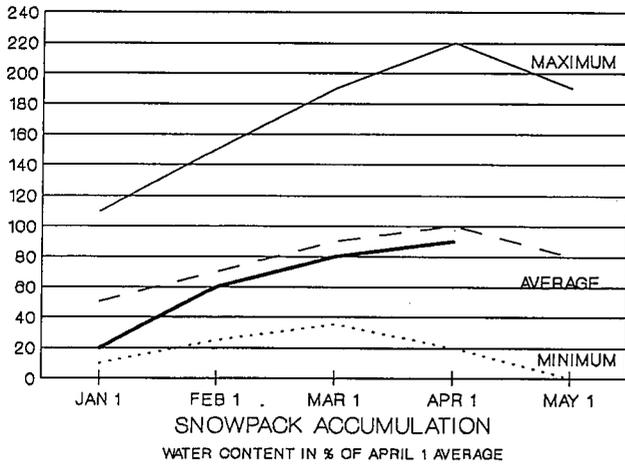


RUNOFF - Seasonal runoff of streams draining the area totaled 12.0 million acre-feet which is 125 percent of average for this period. Last year, runoff for the same period was 155 percent of average.

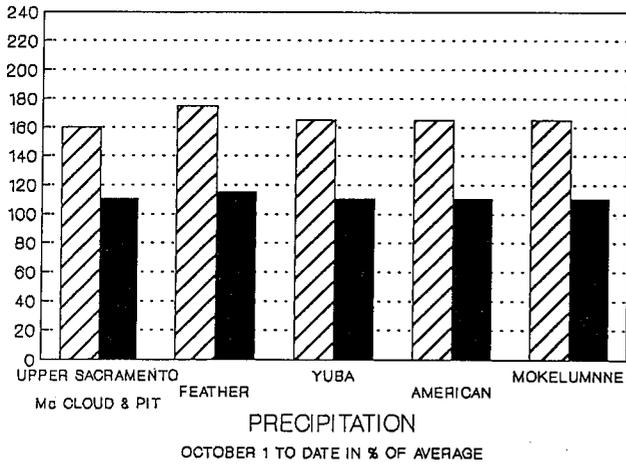


SACRAMENTO RIVER REGION

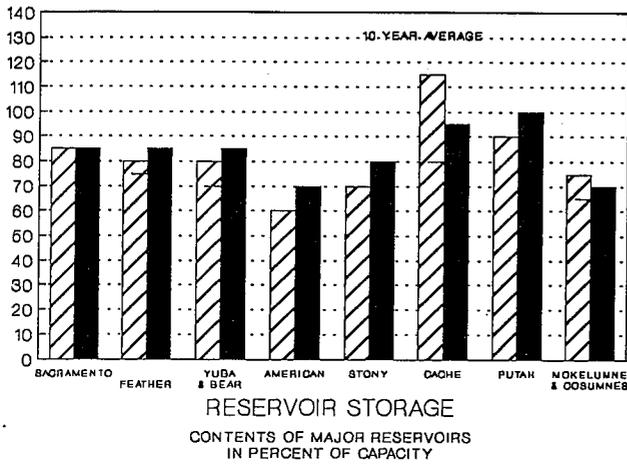
SNOWPACK - First of the month measurements made at 84 snow courses indicate a basin-wide snow water equivalent of 26.2 inches. This is 90 percent of the average for this date. Last year at this time, the pack was holding 49.1 inches of water.



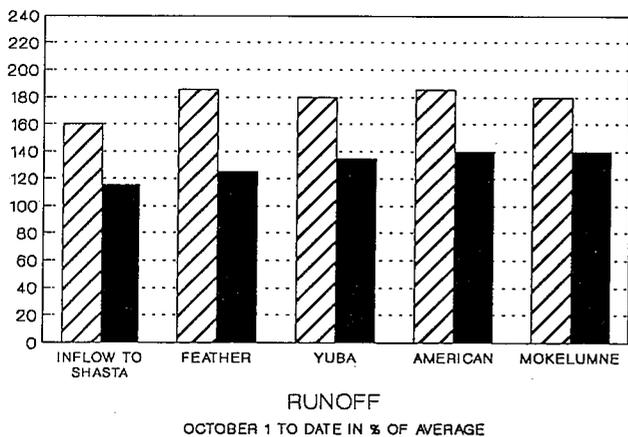
PRECIPITATION - Seasonal precipitation (October 1 through the end of last month) on the Sacramento River Region was 120 percent of normal. Precipitation last month was about 85 percent of the monthly average. Seasonal precipitation at this time last year stood at 170 percent of average.



RESERVOIR STORAGE - First of the month storage in 43 reservoirs was 13.7 million acre-feet which is 110 percent of average. About 85 percent of available capacity was being used. Storage in these reservoirs was about 105 percent of average at this time last year.



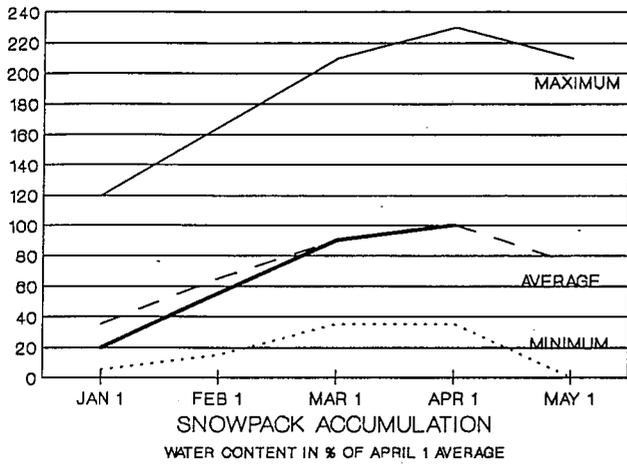
RUNOFF - Seasonal runoff from streams draining into the basin totaled 13.0 million acre-feet which is 120 percent of average for this period. Last year runoff for the same period was 180 percent of average.



The Sacramento River Region 40-30-30 Water Supply Index is forecasted to be 9.4 million acre-feet assuming median meteorological conditions for the remainder of the year. This classifies the year as "wet" in the Sacramento-San Joaquin Delta according to the State Water Resources Control Board. This time last year, "wet" water supply conditions also were forecast.

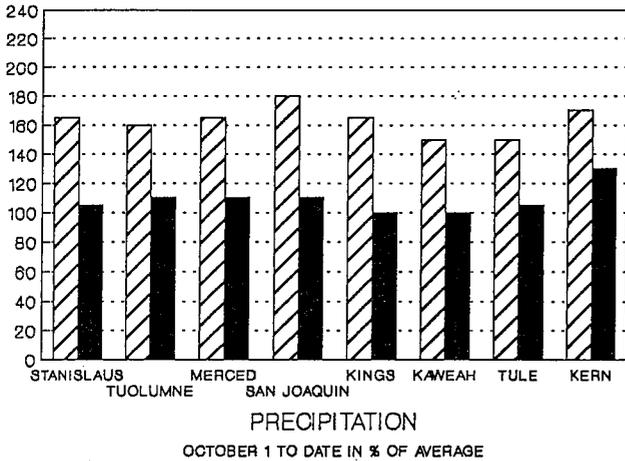
▨ LAST YEAR ■ THIS YEAR

SAN JOAQUIN RIVER AND TULARE LAKE REGIONS



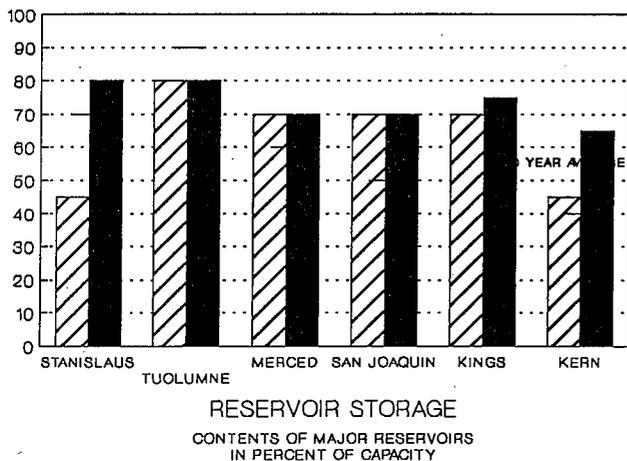
SNOWPACK - First of the month measurements made at 72 San Joaquin River Region snow courses indicate a basin wide snow water equivalent of 29.6 inches which is 100 percent of the seasonal (April 1) average. Last year at this time, the pack was holding 56.0 inches of water.

At the same time, 46 Tulare Lake Region snow courses indicated a basin-wide snow water equivalent of 23.1 inches which is 105 percent of the average for this date and 105 percent of the seasonal average. Last year at this time, the Basin was holding 39.3 inches of water.



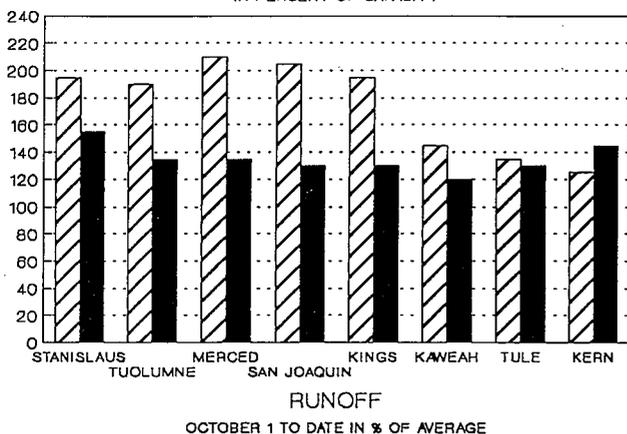
PRECIPITATION - Seasonal precipitation (October 1 through the end of last month) on the San Joaquin River Region was 110 percent of normal. Precipitation last month was 95 percent of the monthly average. Seasonal precipitation at this time last year stood at 165 percent of normal.

Seasonal precipitation on the Tulare Lake Region was 110 percent of normal. Precipitation last month was 90 percent of the monthly average. Seasonal precipitation at this time last year stood at 165 percent of normal.



RESERVOIR STORAGE - First of the month storage in 33 San Joaquin River Region reservoirs was 9.1 million acre-feet which is 130 percent of average. About 80 percent of available capacity was being used. Storage in these reservoirs at this time last year was 115 percent of average.

First of the month storage in 6 Tulare Lake Region reservoirs was 1.4 million acre-feet which is 165 percent of average. About 70 percent of available capacity was being used. Storage in these reservoirs at this time last year was 150 percent of average.



RUNOFF - Seasonal runoff of streams draining into the San Joaquin River Region totaled 3.3 million acre-feet which is 135 percent of average for this period. Last year, runoff for this same period was 200 percent of average.

Seasonal runoff of streams draining into the Tulare Lake Region totaled 1.1 million acre-feet which is 130 percent of average for this period. Last year, runoff for this same period was 160 percent of average.

The San Joaquin River Region 60-20-20 Water Supply Index is forecasted to be 4.0 MAF which classifies the year as "wet".

LAST YEAR
 THIS YEAR

NORTH AND SOUTH LAHONTAN REGIONS

SNOWPACK - First of the month measurements made at 19 North Lahontan snow courses indicate an area wide snow water equivalent of 32.8 inches which is 115 percent of average for this date. Last year at this time, the pack was holding 34.8 inches of water.

At the same time, 22 South Lahontan courses indicated an area-wide snow water equivalent of 29.6 inches which is 125 percent of the average for this date. Last year at this time, the pack was holding 44.0 inches of water.

PRECIPITATION - Seasonal precipitation (October 1 through the end of last month) over the North Lahontan Region was 145 percent of normal. Precipitation last month was 155 percent of the monthly average. Seasonal precipitation at this time last year stood at 180 percent of normal.

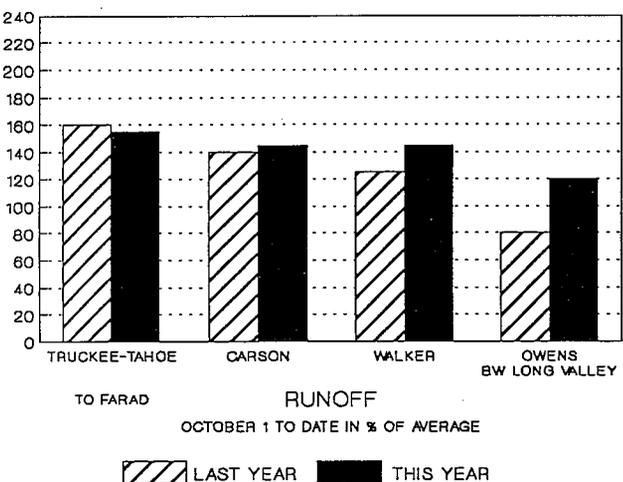
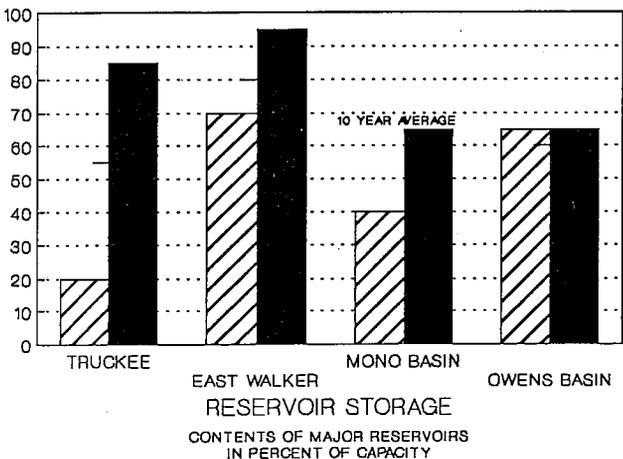
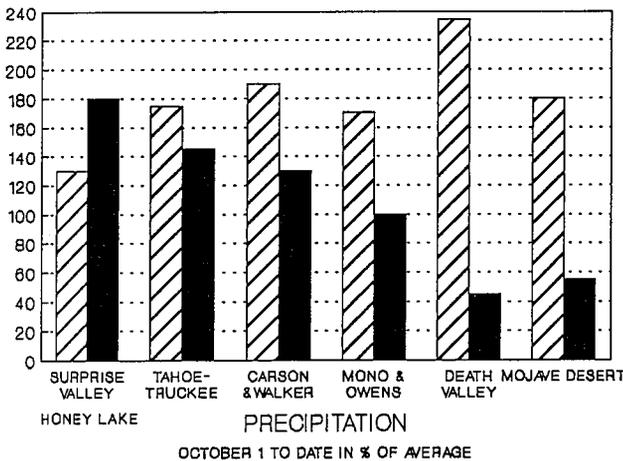
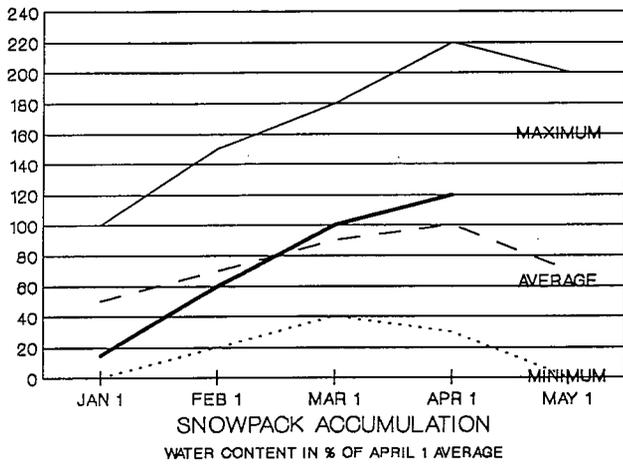
Seasonal precipitation over the South Lahontan Region was 75 percent of normal. Last month's precipitation was 90 percent of the monthly average. Seasonal precipitation at this time last year stood at 190 percent of normal.

RESERVOIR STORAGE - First of the month storage in 5 North Lahontan reservoirs was 896 thousand acre-feet which is 150 percent of average. About 85 percent of available capacity was being used. Storage in these reservoirs at this time last year was 40 percent of average. Lake Tahoe has risen 5 feet above its natural rim.

First of the month storage in 8 South Lahontan reservoirs was 254 thousand acre-feet which is 90 percent of average. About 65 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 streams draining the North Lahontan Region totaled 419 thousand acre-feet which is 150 percent of average for this period. Last year, runoff for this same period was 145 percent of average.

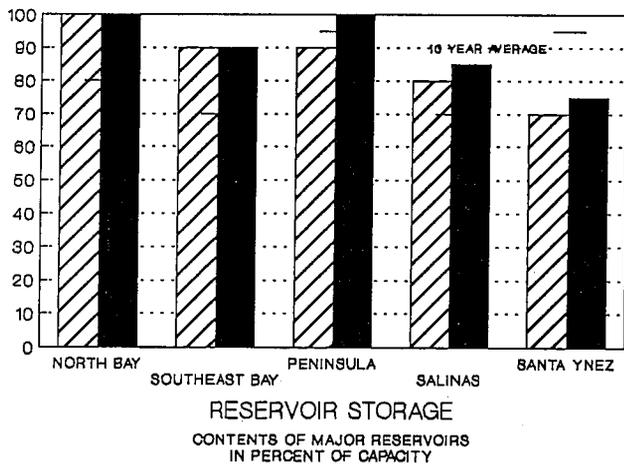
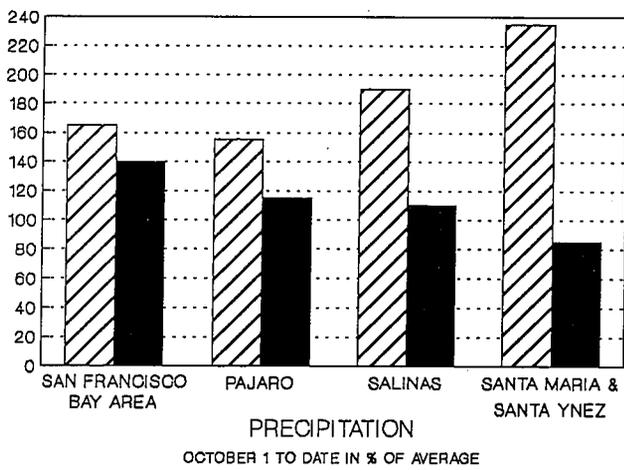
Seasonal runoff of the Owens River in the South Lahontan Region totaled 83 thousand acre-feet which is 120 percent of average for this period. Last year, runoff for this same period was 80 percent of average.



SAN FRANCISCO BAY AND CENTRAL COAST REGIONS

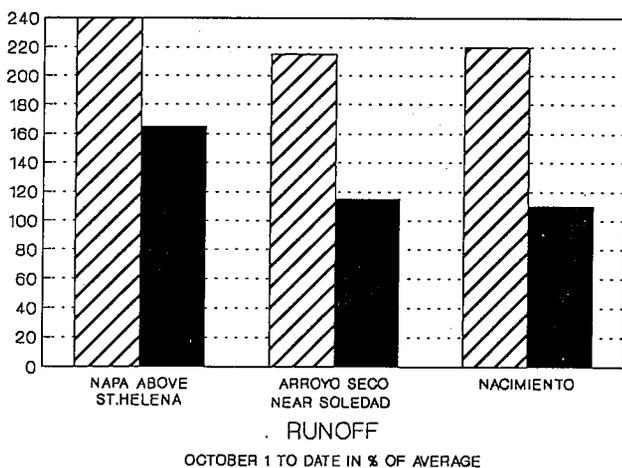
PRECIPITATION - Seasonal precipitation (October 1 through the end of last month) on the San Francisco Bay Region was 140 percent of normal. Precipitation last month was 80 percent of the monthly average. Seasonal precipitation at this time last year stood at 165 percent of normal.

Seasonal precipitation on the Central Coast Region averaged 100 percent of normal. Precipitation last month was 80 percent of the monthly average. Seasonal precipitation at this time last year stood at 195 percent of normal.



RESERVOIR STORAGE - First of the month storage in 18 major Bay area reservoirs was 640 thousand acre-feet which is 125 percent of average. About 90 percent of available capacity was being used. Storage in these reservoirs at this time last year was 125 percent of average.

First of the month storage in 6 major Central Coast reservoirs was 777 thousand acre-feet which is 115 percent of average. About 80 percent of available capacity was being used. Storage in these reservoirs at this time last year was 110 percent of average.



RUNOFF - Seasonal runoff of the Napa River in the San Francisco Bay Region totaled around 104 thousand acre-feet which is 165 percent of average for this period. Last year, runoff for this same period was 240 percent of average.

Seasonal runoff of selected Central Coast streams totaled 311 thousand acre-feet which is 110 percent of average for this period. Last year, runoff for this same period was 220 percent of average.

▨ LAST YEAR ■ THIS YEAR

SOUTH COAST AND COLORADO RIVER REGIONS

PRECIPITATION - Seasonal precipitation (October through the end of March) on the South Coast was 75 percent of normal. March precipitation was 90 percent of the monthly average. Seasonal precipitation at this time last year stood at 180 percent of normal.

Seasonal precipitation in the Colorado Desert region was 20 percent of normal. Seasonal precipitation at this time last year was 175 percent of the average. March precipitation was 45 percent of average.

RUNOFF - Seasonal runoff from selected South Coast streams totaled 44 thousand acre-feet which is 105 percent of average. Last year, runoff for the same period was 270 percent of average.

The April through July inflow to Lake Powell is forecasted to be 8.9 million acre-feet which will be 115 percent of average.

RESERVOIR STORAGE - April 1 storage in 29 major South Coast Region reservoirs was 1.7 million acre-feet or 125 percent of average. About 85 percent of available capacity was being used. Storage in these reservoirs at this time last year was 140 percent of average.

First of the month combined storage in Lakes Powell, Mead, Mohave and Havasu was about 44.4 million acre-feet which is 120 percent of average. About 83 percent of available capacity was being used. One year ago, these reservoirs were storing 39.3 million acre-feet.

COLORADO RIVER BASIN ABOVE LAKE POWELL - The first of the month snowpack, according to the U.S. Soil Conservation Service reports was 110 percent of average and ranges from 130 percent in the Upper Colorado Basin to 70 percent in the San Juan River.

CENTRAL VALLEY PROJECT

Based on April 1 conditions, Bureau of Reclamation April-July forecasts for runoff into CVP reservoirs are: Trinity--83 percent of average, Shasta--93 percent of average, American--104 percent of average, Stanislaus--105 percent of average, San Joaquin above Friant--112 percent of average. As of March 31, 1996 CVP storage was 9.9 million acre feet which is an increase of approximately 1.2 million acre feet compared to one year ago, and is approximately 121% of the average for that date.

The Bureau of Reclamation announced water allocations for the CVP on March 15, 1996. Agricultural contractors north of the Delta received 100% of their contract supply, while those south of the Delta received an increase to 80% of their contractual supply; urban contractors received 100% of contractual supply. Wildlife refuges received 100% of level II supplies. Sacramento River water rights settlement contractors and San Joaquin Exchange contractors remain at 100% supplies.

Friant Division allocations are currently 100% Class I, and 35% Class II supplies. Stanislaus River contractors received a special allocation this year and New Melones storage resulting from this year's runoff is predicted to be at its highest since 1986.

STATE WATER PROJECT

Favorable conditions during March have improved water supply expectations and allowed approval of 100% of 1996 delivery requests. Oroville Reservoir is expected to fill this spring.

**MAJOR WATER DISTRIBUTION PROJECTS
RESERVOIR STORAGE**

(AVERAGES BASED ON PERIOD RECORD)

RESERVOIR	CAPACITY 1,000 AF	AVERAGE STORAGE 1,000 AF	1995 1,000 AF	STORAGE AT END OF MARCH		
				1996 1,000 AF	PERCENT AVERAGE	PERCENT CAPACITY
<i>STATE WATER PROJECT</i>						
Lake Oroville	3,538	2,817	2,774	2,985	106%	84%
San Luis Reservoir (SWP)	1,062	972	1,155	1,059	109%	100%
Lake Del Valle	77	37	39	40	107%	51%
Lake Silverwood	73	67	67	39	59%	53%
Pyramid Lake	171	159	167	166	104%	97%
Castaic Lake	324	283	300	302	107%	93%
Perris Lake	132	116	121	124	106%	94%
<i>CENTRAL VALLEY PROJECT</i>						
Clair Engle Lake	2,448	1,993	2,121	2,170	109%	89%
Lake Shasta	4,552	3,774	3,928	3,883	103%	85%
Whiskeytown Lake	241	213	215	209	98%	87%
Folsom Lake	977	636	585	627	99%	64%
New Melones Reservoir	2,420	1,538	1,009	2,049	133%	85%
Millerton Lake	520	307	475	505	165%	97%
San Luis Reservoir (CVP)	971	827	880	965	117%	99%
<i>COLORADO RIVER PROJECT</i>						
Lake Mead	26,159	19,651	20,443	22,031	112%	84%
Lake Powell	25,002	14,946	16,627	20,220	135%	81%
Lake Mohave	1,810	1,639	1,700	1,632	100%	90%
Lake Havasu	619	548	547	527	96%	85%
<i>EAST BAY MUNICIPAL UTILITY DISTRICT</i>						
Pardee Reservoir	210	179	199	203	113%	97%
Camanche Reservoir	417	260	318	226	87%	54%
East Bay (4 reservoirs)	151	132	145	143	109%	95%
<i>CITY AND COUNTY OF SAN FRANCISCO</i>						
Hetch-Hetchy Reservoir	360	123	147	242	196%	67%
Cherry Lake	268	109	181	233	214%	87%
Lake Eleanor	26	10	22	25	245%	97%
South Bay/Peninsula (4 reservoirs)	225	175	216	223	127%	99%
<i>CITY OF LOS ANGELES (D.W.P.)</i>						
Lake Crowley	183	131	127	127	97%	70%
Grant Lake	48	29	21	43	148%	91%
Other Aqueduct Storage (6 res.)	83	77	69	63	82%	76%

DEPARTMENT OF WATER RESOURCES - CALIFORNIA COOPERATIVE SNOW SURVEYS
TELEMETERED SNOW WATER EQUIVALENTS - April 1, 1996

BASIN NAME STATION NAME	ID	ELEV FEET	APR 1 AVG	TODAY	INCHES OF WATER EQUIVALENT		
					PERCENT OF APR 1	24 HRS AGO	1 WEEK AGO
TRINITY RIVER							
Peterson Flat	PET	7150	29.2	22.7	78%	22.7	22.5e
Red Rock Mountain	RRM	6700	39.6	40.5	102%	40.5	39.2
Bonanza King	BNK	6450	40.5	----	----	----	----
Shimmy Lake	SHM	6200	40.3	----	----	----	----
Middle Boulder #3	MB3	6200	28.3	14.4	51%	15.0	13.7
Highland Lakes	HIG	6030	29.9	11.2	37%	11.5	11.5
Scotts Mountain	SCT	5900	16.0	12.4	77%	12.2	12.2
Mumbo Basin	MUM	5700	22.4	15.4	69%	15.8	15.7
Big Flat	BFL	5100	15.8	21.4	135%	21.5	21.2
SACRAMENTO RIVER							
Cedar Pass	CDP	7100	18.1	21.2	117%	21.2	19.2
Blacks Mountain	BLA	7100	12.7	----	----	----	----
Sand Flat	SDF	6750	42.4	----	----	----	----
Medicine Lake	MED	6700	32.6	18.1	56%	18.1	17.5
Adin Mountain	ADM	6350	13.6	15.0	110%	15.2	13.9
Snow Mountain	SNM	5950	27.0	19.6	73%	19.8	19.0
Slate Creek	SLT	5600	29.0	15.1	52%	15.3	16.4
Stouts Meadow	STM	5400	36.0	26.0	72%	26.3	25.8
FEATHER RIVER							
Kettlerock	KTL	7300	25.5	34.7	136%	34.4	33.6
Grizzly	GRZ	6900	29.7	30.6	103%	30.6	28.9
Pilot Peak	PLP	6800	52.6	40.7	77%	40.6	40.9
Gold Lake	GOL	6750	36.5	42.6	117%	42.4	41.4
Humbug	HMB	6500	28.0	37.0	132%	36.9	36.5
Rattlesnake	RTL	6100	14.0	14.5r	104%	14.5	14.8
Bucks Lake	BKL	5750	44.7	39.1	88%	39.0	38.9
Four Trees	FOR	5150	20.0	8.9	44%	9.4	11.3
YUBA & AMERICAN RIV							
Lake Lois	LOS	8800	39.5	71.2	180%	71.2	66.0
Schneiders	SCN	8750	34.5	50.2	146%	50.2	48.2
Caples Lake Course	CAP	7800	30.9	34.6	112%	34.6	32.6
Alpha	ALP	7600	35.9	36.4	101%	36.3	34.3
Beta	BTA	7600	35.9	36.7	102%	36.7	35.0
Forni Ridge	FRN	7600	37.0	34.5	93%	34.5	33.0
Silver Lake	SIL	7100	22.7	27.7	122%	28.6	27.1
Cent Sierra Snow Lab	CSL	6950	33.6	33.5	100%	34.3	33.9
Huysink	HYS	6600	42.6	35.3	83%	35.3	34.3
Van Vleck	VVL	6700	35.9	41.3	115%	41.7	40.0
Robbs Saddle	RBB	5900	21.4	26.8	125%	27.5	27.5
Greek Store	GKS	5600	21.0	23.5	112%	24.1	24.3e
Blue Canyon	BLC	5280	9.0	0.1	1%	0.1	0.1
Robbs Powerhouse	RBP	5150	5.2	4.1	79%	5.3	7.5
MOKEL. & STANIS. RIV							
Deadman Creek	DDM	9250	37.2	34.8	94%	34.7	32.8
Highland Meadow	HHM	8800	47.9	52.6	110%	52.7	51.4
Gianelli Meadow	GNL	8350	55.5	45.6	82%	45.6	44.6
Lower Relief Valley	REL	8100	41.2	42.3	103%	43.6	42.3
Blue Lakes	BLK	8000	33.1	33.7	102%	33.7	32.4
Mud Lake	MDL	7900	44.9	51.4	114%	51.5	49.7
Stanislaus Meadow	SLM	7750	47.5	43.1	91%	42.8	41.8
Bloods Creek	BLD	7200	35.5	32.2r	91%	32.2r	----
Black Springs	BLS	6500	32.0	29.5e	92%	29.8	26.5e
TUOLUMNE & MERCED R.							
Dana Meadows	DAN	9800	27.7	34.0	123%	34.0	33.3
Slide Canyon	SLI	9200	41.1	47.8	116%	49.1	47.1
Snow Flat	SNF	8700	44.1	----	----	----	----
Tuolumne Meadows	TUM	8600	22.6	22.6	100%	22.8	22.7
Horse Meadow	HRS	8400	48.6	46.4	95%	46.4	43.1
Ostrander Lake	STR	8200	34.8	37.3	107%	37.3	36.0
Paradise	PDS	7650	41.3	47.0	114%	47.7	45.1
Gin Flat	GIN	7050	34.2	23.4	68%	24.2	23.8
Lower Kibbie	KIB	6600	27.4	22.4	82%	23.1	23.1
SAN JOAQUIN RIVER							
Volcanic Knob	VLC	10100	30.1	32.7	109%	32.7	32.7
Agnew Pass	AGP	9450	32.3	29.4	91%	30.1	30.7
Kaiser Point	KSP	9200	37.8	35.9	95%	35.9	36.9
Green Mountain	GRM	7900	30.8	27.3e	89%	27.3e	----

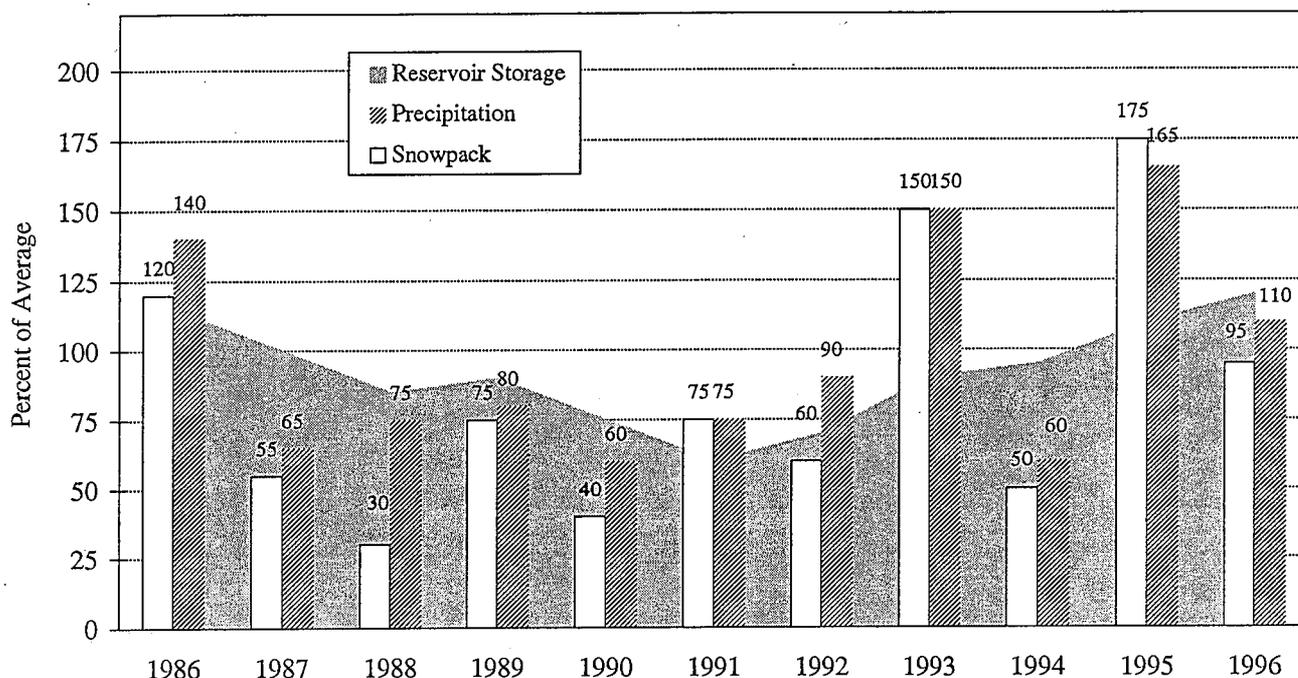
DEPARTMENT OF WATER RESOURCES - CALIFORNIA COOPERATIVE SNOW SURVEYS
TELEMETERED SNOW WATER EQUIVALENTS - April 1, 1996

BASIN NAME STATION NAME	ID	ELEV FEET	APR 1 AVG	TODAY	INCHES OF WATER EQUIVALENT PERCENT OF APR 1	24 HRS AGO	1 WEEK AGO
Tamarack Summit	TMR	7600	30.5	27.3	89%	27.3	27.7
Chilkoot Meadow	CHM	7150	38.0	32.2	85%	32.2	32.0
Huntington Lake	HNT	7000	20.1	25.9	129%	25.9	25.5
Graveyard Meadow	GRV	6900	18.8	18.1e	96%	18.1e	19.0e
Poison Ridge	PSR	6900	28.9	17.4	60%	18.4	18.6
KINGS RIVER							
Bishop Pass	BSH	11200	34.0	31.4	92%	31.4	30.7r
Charlotte Lake	CRL	10400	27.5	32.0	117%	32.3	31.6r
State Lakes	STL	10400	29.0	----	----	----	----
Mitchell Meadow	MTM	10375	32.9	37.5	114%	37.5	36.2
Blackcap Basin	BCB	10300	34.3	35.0r	102%	35.0r	35.0
Upper Burnt Corral	UBC	9700	34.6	37.2	108%	37.2	35.3
West Woodchuck Mdw	WWC	9100	32.8	34.1	104%	34.9	34.4
Big Meadows	BIM	7600	25.9	19.3	75%	19.4	19.9
KAWEAH & TULE RIVERS							
Quaking Aspen	QUA	7200	21.0	17.9	85%	18.6	19.9
Giant Forest	GNF	6400	10.0	----	----	----	----
KERN RIVER							
Upper Tyndall Creek	UTY	11500	27.7	30.2	109%	30.1	30.0
Crabtree	CBT	10700	19.8	18.8	95%	19.0	19.4
Chagoopa Plateau	CHP	10300	21.8	24.8	114%	25.5	25.5
Pascoes	PSC	9150	24.9	37.2	149%	37.4	36.2
Tunnel	TUN	8950	15.6	13.3	85%	14.0	14.6
Wet Meadow	WTM	8900	30.3	20.8	69%	21.4	23.0
Casa Vieja Mdw	CSV	8400	20.9	----	----	----	22.0e
Beach Meadow	BCH	7650	11.0	3.8	35%	4.8	7.4
SURPRISE VALLEY AREA							
Dismal Swamp	DSS	7050	29.2	43.1	148%	43.0	----
TRUCKEE RIVER							
Mount Rose Ski Area	MSK	8850	38.5	52.2	136%	52.3	50.3r
Independence Lake	IDP	8450	41.4	43.0	104%	42.3	40.8
Big Meadows	BMW	8700	25.7	29.8	116%	30.0	28.8
Independence Camp	IDC	7000	21.8	19.0	87%	19.8	18.8
Independence Creek	INN	6500	12.7	16.4	129%	17.0	17.0
LAKE TAHOE BASIN							
Heavenly Valley	HVN	8800	28.1	33.2	118%	33.0	31.1
Hagans Meadow	HGM	8000	16.5	20.6	125%	20.4	20.1
Marlette Lake	MRL	8000	21.1	34.2	162%	34.0	31.8
Echo Peak	EP5	7800	39.5	46.8	118%	46.8	44.6
Rubicon No. 2	RP2	7500	29.1	33.3	114%	33.3	31.6
Ward Creek No. 3	WC3	6750	39.4	35.2	89%	36.0	34.9
Fallen Leaf Lake	FLL	6300	7.0	5.1	73%	6.0	7.4
CARSON RIVER							
Ebbetts Pass	EBB	8700	38.8	45.7	118%	45.5	43.5
Poison Flat	PSN	7900	16.2	25.1	155%	26.2	26.1
WALKER RIVER							
Virginia Lakes Ridge	VRG	9200	20.3	22.8	112%	22.8	22.2
Lobdell Lake	LBD	9200	17.3	20.3	117%	20.5	20.2
Sonora Pass Bridge	SPS	8750	26.0	27.9	107%	28.0	20.0r
Leavitt Meadows	LVM	7200	8.0	11.5	144%	12.3	12.8
OWENS RIVER/MONO LK.							
Gem Pass	GEM	10750	31.7	39.8	126%	39.8	37.9
Sawmill Meadow	SWM	10300	19.4	22.2	114%	22.2	22.2
Cottonwood Lakes	CWD	10200	11.6	15.2	131%	15.2	14.5
Big Pine #3	BGP	9800	17.9	17.0	95%	17.7	17.7
South Lake	SLK	9600	16.0	20.4	128%	20.6	20.2
Mammoth Pass (rp)	MHP	9500	42.4	41.8	99%	41.8	41.0
Rock Creek	RCK	10000	14.0	14.5	104%	14.8	15.0

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

April 1 Statewide Conditions



***** SNOWLINES *****

WESTERN SNOW CONFERENCE The 64th annual meeting of the Western Snow Conference is being held April 15-18 in Bend, OR. The conference theme is "Snow Hydrology in Western Watersheds". The gathering will be at the Inn of the Seventh Mountain. It's not too late to attend this years meeting. Next years meeting will be in Canada. Contact Frank Gehrke at (916) 574-2635 or gridley@water.ca.gov if you need more information

APRIL STORMS A storm during the first two days of April produced about half of the average precipitation total for the month in Northern California. The added rainfall almost assures that the eventual runoff this season will exceed the dry end of the probability range shown in this report.

MAIL LIST If you are able to access the information presented in this report via the internet on our web site - <http://snow.water.ca.gov> please have your name removed from the mailing list. To do this send a note asking to be deleted from the Bulletin 120 mailing list to:

Department of Water Resources

Attn: Mailing List Coordinator

P.O. Box 942836

Sacramento, CA 94236-0001

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 period 1941-1990. For more details contact California Cooperative Snow Surveys, P.O. Box 942836, Sacramento, CA 94236-0001, (916) 574-2635 or gridley@water.ca.gov.

INDICES OF WATER AVAILABILITY

The Sacramento River Hydrologic Region 40-30-30 Water Supply Index. The 40-30-30 represent the percentage weight given to the three variables in the formula for the index. The first variable is the forecasted unimpaired runoff from April through July (40 Percent). The second variable is the forecasted unimpaired runoff from October through March (30 Percent). The third variable is the previous year's index with a cap to account for required flood control releases during wet years. The basins used in this computation are those used in the Sacramento River water year unimpaired runoff.

The Sacramento River water year unimpaired runoff is the sum of: Sacramento River above Bend Bridge, Feather River Inflow to Lake Oroville, Yuba River near Smartville and American River Inflow to Folsom Lake.

The San Joaquin River Hydrologic Region 60-20-20 Water Supply Index. In a similar manner, the 60-20-20 represents the percentage weights on April through July runoff, October through March runoff and previous year's index. The San Joaquin River unimpaired runoff is the sum of: Stanislaus River Inflow to New Melones Lake, Tuolumne River Inflow to New Don Pedro Reservoir, Merced River Inflow to Lake McClure and San Joaquin River Inflow to Millerton Lake.

Prior month unimpaired runoff is the sum of the runoff in the eight major rivers used in the two above indices.

Snow Surveyor emeritus Don Paulsen relaxing on a 1992 survey at Huckleberry Cabin near Yellowhammer Lake-
Photo by Matt Colwell, DWR

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