



STATE OF CALIFORNIA

The Resources Agency

Department of Water Resources

BULLETIN No. 120-75

WATER CONDITIONS IN CALIFORNIA

REPORT No. 4



MAY 1, 1975

CLAIRE T. DEDRICK
Secretary for Resources
The Resources Agency

EDMUND G. BROWN JR.
Governor
State of California

RONALD B. ROBIE
Director
Department of Water Resources

State of California
The Resources Agency
DEPARTMENT OF WATER RESOURCES

EDMUND G. BROWN JR., Governor

CLAIRE T. DEDRICK, Secretary for Resources
RONALD B. ROBIE, Director, Department of Water Resources

DIVISION OF PLANNING

Herbert W. Greydanus Chief

Activities covered by this report are under the direction
of

C. A. McCullough Chief, Flood Control Office

Prepared by

A. Jean Brown Chief, Snow Surveys Branch

Assisted by

Charles H. Howard Associate Engineer, W. R.

Christopher L. Carr Assistant Engineer, W. R.

Ned R. Peterson Assistant Engineer, W. R.

Armando L. Raimundo Water Resources Technician II

William G. T. Fong Water Resources Technician I

C. Deon Lightfoot Stenographer II

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, 1931-1970 (40 YEARS).

PRECIPITATION - AVERAGES ARE BASED ON THE PERIOD, 1931-1970 (40 YEARS).

RESERVOIR STORAGE - AVERAGES ARE BASED ON THE PERIOD, 1965-1974 (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, 1921-1970 (50 YEARS).

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
- KERN COUNTY WATER AGENCY
- KINGS RIVER WATER ASSOCIATION
- KINGS RIVER WATER CONSERVATION DISTRICT
- LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
- LOWER TULE RIVER IRRIGATION DISTRICT
- MERCED IRRIGATION DISTRICT
- MODESTO IRRIGATION DISTRICT
- NEVADA IRRIGATION DISTRICT
- OAKDALE IRRIGATION DISTRICT
- ONOCHUMNE-HARTNELL WATER DISTRICT
- OROVILLE-WYANDOTTE IRRIGATION DISTRICT
- PLACER COUNTY WATER AGENCY
- SACRAMENTO MUNICIPAL UTILITY DISTRICT
- SOUTH SAN JOAQUIN IRRIGATION DISTRICT
- ST. JOHNS RIVER ASSOCIATION
- TULARE LAKE BASIN WATER STORAGE DISTRICT

PUBLIC AGENCIES (CONTINUED)

- TULE RIVER ASSOCIATION
- TURLOCK IRRIGATION DISTRICT
- YUBA COUNTY WATER AGENCY

PRIVATE ORGANIZATIONS

- J. G. BOSWELL COMPANY
- KERN COUNTY LAND COMPANY
- Mt. REBA INC.
- UNION CARBIDE CORPORATION

PUBLIC UTILITIES

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

MUNICIPALITIES

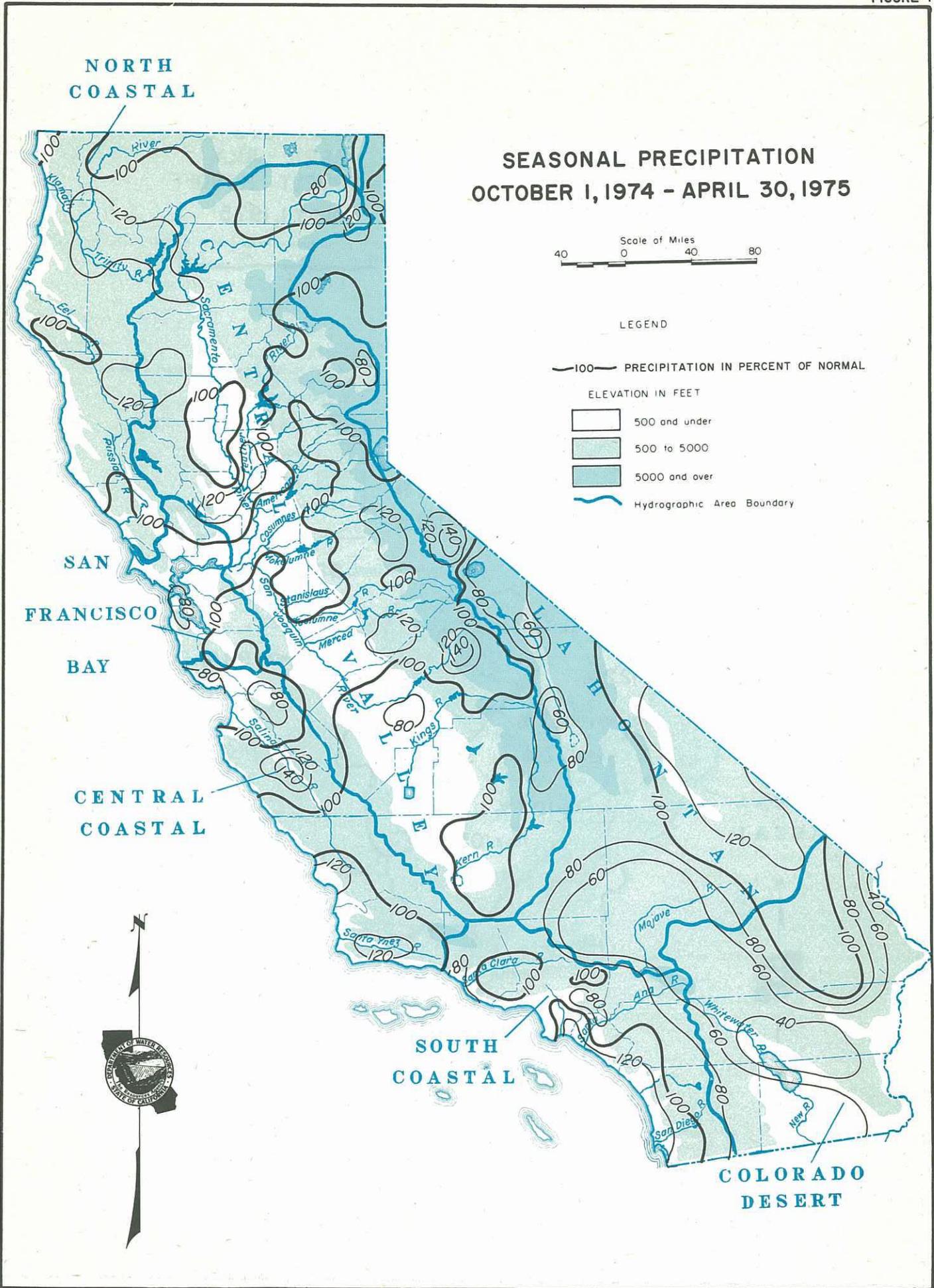
- CITY OF LOS ANGELES
- DEPARTMENT OF WATER AND POWER
- CITY AND COUNTY OF SAN FRANCISCO
- PUBLIC UTILITIES COMMISSION

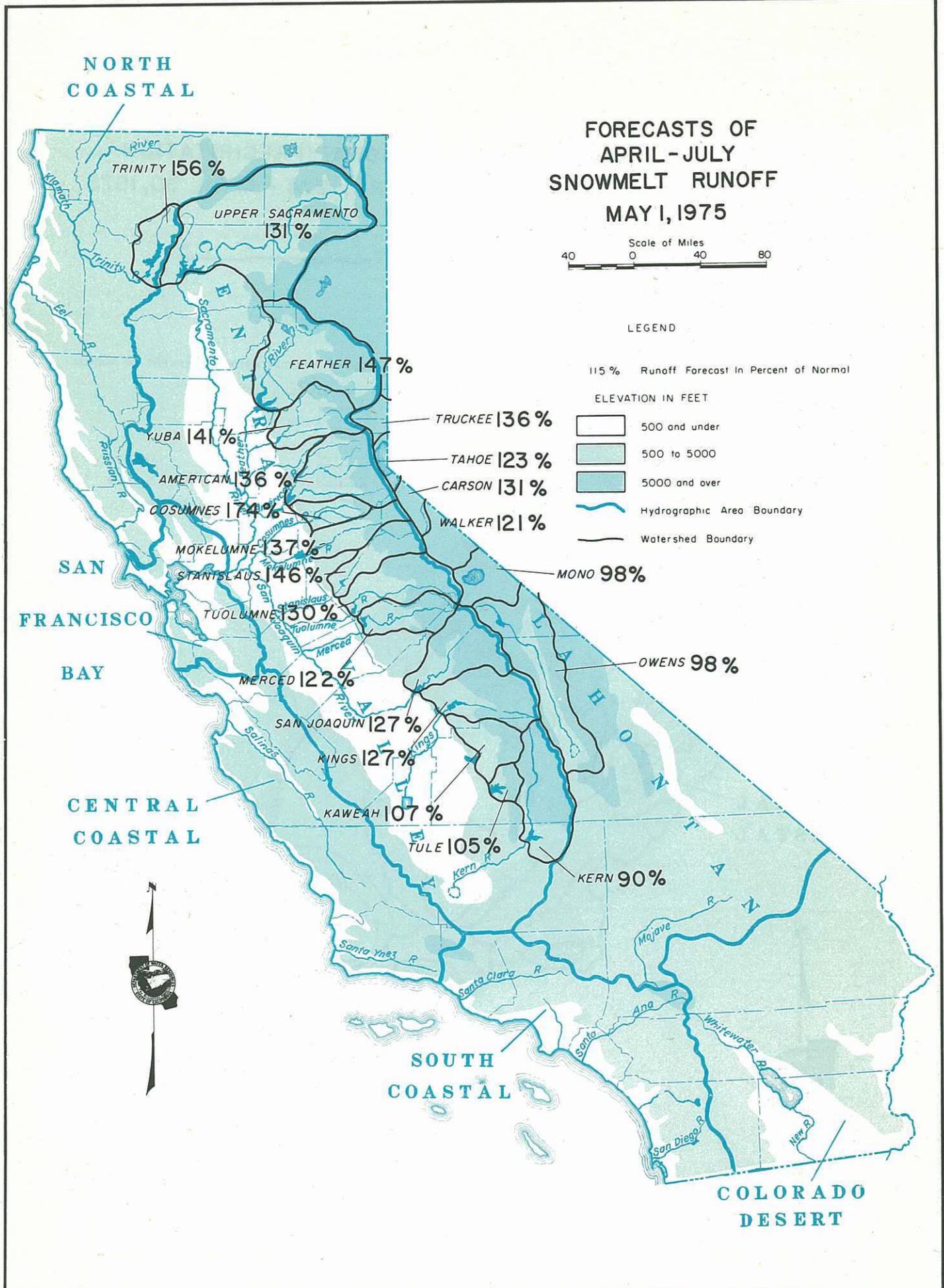
STATE AND FEDERAL AGENCIES

- CALIFORNIA DEPARTMENT OF WATER RESOURCES
- CALIFORNIA DEPARTMENT OF PARKS AND RECREATION
- U. S. DEPARTMENT OF AGRICULTURE FOREST SERVICE (14 NATIONAL FORESTS)
- PACIFIC SOUTHWEST FOREST AND RANGE EXPERIMENT STATION
- SOIL CONSERVATION SERVICE
- U. S. DEPARTMENT OF COMMERCE NATIONAL WEATHER SERVICE
- 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





SUMMARY OF WATER CONDITIONS

MAY 1, 1975

WATER SUPPLY CONDITIONS CONTINUED TO IMPROVE DURING APRIL. THE BEGINNING OF SNOWMELT HAS BEEN DELAYED A MONTH DUE TO ADDITIONAL SNOWFALL AND TEMPERATURES IN APRIL WHICH AVERAGED 5 TO 10 DEGREES BELOW NORMAL. THIS DELAY INCREASES THE POTENTIAL OF RAPID SNOWMELT AND SUSTAINED HIGH STREAMFLOW AND COULD CREATE SOME WATER REGULATION DIFFICULTIES DURING THE NEXT FOUR TO SIX WEEKS.

FORECASTS OF RUNOFF FOR THIS SPRING AND SUMMER ARE NEAR OR ABOVE AVERAGE FOR ALL STREAMS IN CALIFORNIA EXCEPT THE KERN RIVER WHICH IS ABOUT 10 PERCENT BELOW AVERAGE. FORECASTS FOR CENTRAL VALLEY STREAMS, NORTH OF THE KERN RIVER, RANGE FROM 105 PERCENT OF NORMAL ON THE TULE RIVER TO A HIGH OF 174 PERCENT FOR THE COSUMNES RIVER.

SNOWPACK DATA FROM MAY 1 SNOW SURVEYS SHOW THAT THE PACK IS ABOVE NORMAL THROUGHOUT THE STATE. SNOW WATER CONTENT HAS FINALLY REACHED MAXIMUM ACCUMULATION AFTER RECEIVING SEVERAL MORE INCHES OF WATER DURING THE LAST MONTH. THE SNOW IS NOW BEGINNING TO MELT, ABOUT A MONTH LATER THAN USUAL, WHICH SHOULD TEND TO PROLONG THE SNOWMELT RUNOFF PERIOD THIS YEAR.

PRECIPITATION PATTERNS WERE ERRATIC DURING APRIL BECAUSE OF COLD, UNSETTLED CONDITIONS. IN GENERAL, PRECIPITATION WAS BELOW AVERAGE ON THE CENTRAL VALLEY FLOOR, NORTHERN COASTAL AREAS, AND IN THE LOWER ELEVATIONS OF THE SOUTHERN LAHONTAN AREA. PRECIPITATION WAS WELL ABOVE AVERAGE IN MOUNTAINOUS AREAS OF THE STATE AND ON THE SOUTH COASTAL AND INLAND DESERT AREAS. FOR THE WATER YEAR, OCTOBER 1 TO DATE, PRECIPITATION TOTALS HAVE BEEN NEAR OR ABOVE AVERAGE EXCEPT FOR THE SOUTHERN SAN JOAQUIN BASINS.

RUNOFF DURING APRIL ALSO VARIED WIDELY OVER THE STATE. COASTAL STREAMS FROM MONTEREY NORTH EXPERIENCED ABOVE NORMAL RUNOFF. IN THE SACRAMENTO VALLEY, RUNOFF RANGED FROM 55 PERCENT OF NORMAL ON THE MOKELUMNE RIVER TO 140 PERCENT ON THE SACRAMENTO RIVER. BELOW NORMAL RUNOFF OCCURRED IN THOSE BASINS WHERE MOST OF THE PRECIPITATION WAS RETAINED AS SNOW AT HIGHER ELEVATIONS. THIS CONDITION WAS MOST EVIDENT IN THE SAN JOAQUIN VALLEY BASINS WHERE APRIL RUNOFF AVERAGED 50 TO 60 PERCENT OF NORMAL. RUNOFF FOR THE FIRST SEVEN MONTHS OF THE WATER YEAR HAS BEEN BELOW NORMAL IN ALL BUT THE NORTH AND CENTRAL COASTAL AREAS AND IN THE NORTHERN SACRAMENTO RIVER BASIN. PROJECTIONS OF WATER YEAR RUNOFF INDICATE TOTAL VOLUMES IN THE CENTRAL VALLEY WILL BE ABOUT 10 TO 15 PERCENT ABOVE AVERAGE FOR THE 12-MONTH PERIOD. ONLY THE SAN FRANCISCO BAY AND SOUTH COASTAL AREAS WILL EXPERIENCE BELOW NORMAL WATER YEAR RUNOFF.

RESERVOIR STORAGE IS AVERAGE THROUGHOUT THE STATE EXCEPT IN THE NORTH COASTAL AREA AND THE SAN JOAQUIN VALLEY WHERE STORAGE IS 95 PERCENT OF AVERAGE. HOWEVER, CENTRAL VALLEY RESERVOIRS HAVE GAINED ONE MILLION ACRE-Feet IN STORAGE DURING THE LAST MONTH, AND MOST STATE AND FEDERAL PROJECT RESERVOIRS ARE EXPECTED TO FILL THIS YEAR.

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	APR-JULY FORECAST	WATER YEAR FORECAST
NORTH COASTAL	105	220	95	115	155	120
SAN FRANCISCO BAY	100	--	110	95	--	95
CENTRAL COASTAL	100	--	130	145	--	140
SOUTH COASTAL	90	--	105	75	--	80
SACRAMENTO VALLEY	105	205	100	95	140	115
SAN JOAQUIN VALLEY	105	180	95	70	125	110
LAHONTAN	100	200	120	65	130	115
COLORADO DESERT	60	--	--	--	--	--
STATEWIDE	100	195	100	100	135	115

SACRAMENTO RIVER BASIN

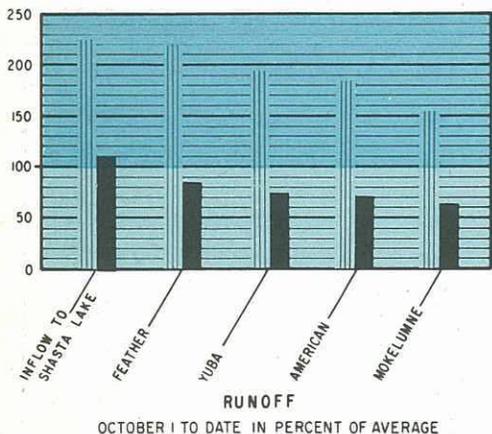
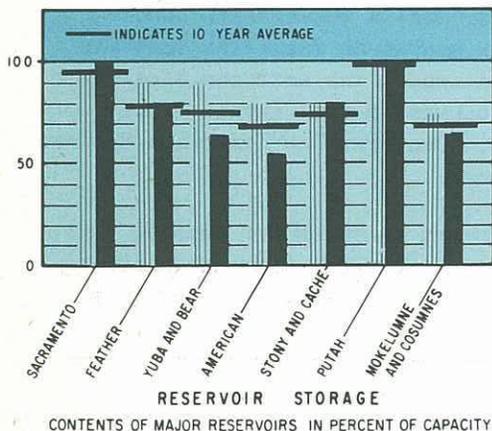
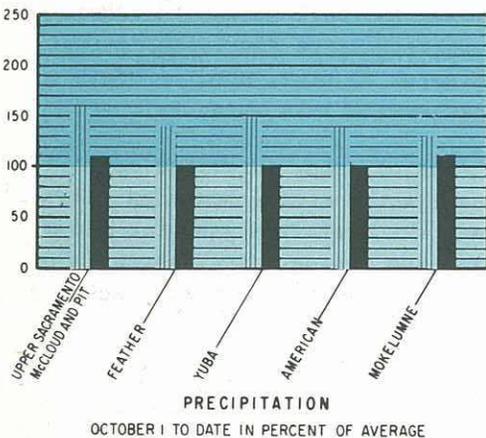
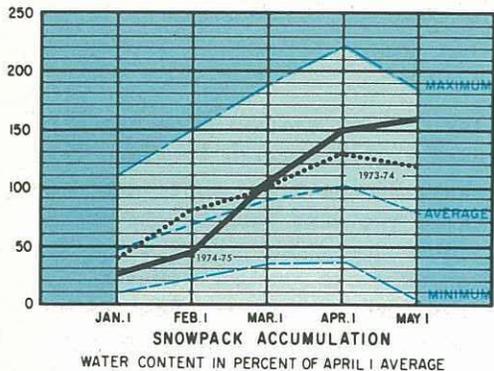
SNOWPACK - MAY 1 SNOW SURVEY MEASUREMENTS INDICATED THAT SNOWPACK WATER CONTENT WAS 205 PERCENT OF AVERAGE AS COMPARED TO 155 PERCENT ONE YEAR AGO. SNOWPACK WATER CONTENT RANGED FROM A HIGH OF 225 PERCENT IN THE PIT RIVER BASIN TO A LOW OF 190 PERCENT IN THE AMERICAN RIVER BASIN. NORMALLY DURING APRIL THE SNOWPACK DECREASES ABOUT 25 PERCENT. HOWEVER, ALL SNOW COURSES CONTINUED TO ACCUMULATE SNOW DURING THE MONTH OF APRIL. ALL SNOW COURSES IN THIS AREA REPORT WATER CONTENTS THAT EXCEED THE APRIL 1 AVERAGE.

SNOW DENSITIES ARE AROUND 45 PERCENT, ABOUT 5 PERCENT BELOW NORMAL. THE LOWER DENSITIES WILL RETARD THE BEGINNING OF SNOWMELT.

PRECIPITATION - FROM OCTOBER 1, 1974 THROUGH APRIL 30, 1975, PRECIPITATION OVER THE SACRAMENTO VALLEY AREA HAS AVERAGED 105 PERCENT OF NORMAL. ALL MOUNTAIN SUBDRAINAGES, AS WELL AS THE VALLEY FLOOR, ARE NEAR NORMAL FOR THIS DATE. SEASONAL VALUES ARE SUBSTANTIALLY LESS THAN THE AMOUNTS FOR THE CORRESPONDING PERIOD ONE YEAR AGO. SEASONAL TOTALS VARIED FROM 65.57 INCHES (107 PERCENT) AT LAKE SPAULDING, IN THE YUBA RIVER DRAINAGE, TO 7.65 INCHES OR 80 PERCENT AT ALTURAS, IN THE PIT RIVER DRAINAGE. APRIL PRECIPITATION AVERAGED 110 PERCENT OVER THE AREA. IT RANGED FROM 10.30 INCHES (84 PERCENT) AT PIT RIVER P. H. No. 5 TO 0.63 INCH (50 PERCENT) AT DUNNIGAN-POWERS.

RESERVOIR STORAGE - MAY 1 STORAGE IN 34 MAJOR RESERVOIRS ON THE SACRAMENTO RIVER SYSTEM WAS 13,722,000 ACRE-Feet. THIS IS AVERAGE STORAGE FOR MAY 1 WITH A DECLINE OF 1,073,000 ACRE-Feet FROM THE STORAGE OF ONE YEAR AGO, BUT A GAIN OF 896,000 ACRE-Feet DURING THE LAST MONTH. WATER SUPPLY CONDITIONS NOW INDICATE THAT MOST MAJOR RESERVOIRS WILL FILL AS FLOOD CONTROL RESERVATIONS ARE WITHDRAWN.

RUNOFF - APRIL RUNOFF FROM STREAMS TRIBUTARY TO THE SACRAMENTO VALLEY WAS OVER 2,725,000 ACRE-Feet, NORMAL FLOW FOR THE MONTH. THIS BOOSTED WATER YEAR TOTAL RUNOFF SINCE OCTOBER 1 TO 12,295,000 ACRE-Feet -- 95 PERCENT OF NORMAL. NORMAL WATER YEAR RUNOFF VOLUMES SHOULD BE REACHED IN THE MONTHS AHEAD AS THE SNOWMELT INCREMENT IS RELEASED FROM THE UPPER BASINS.



MAY 1, 1974



MAY 1, 1975



SAN JOAQUIN RIVER AND TULARE LAKE BASINS

SNOWPACK - MAY 1 SNOW SURVEY MEASUREMENTS INDICATED THAT SNOWPACK WATER CONTENT WAS 180 PERCENT OF AVERAGE COMPARED TO 145 PERCENT A YEAR AGO. SNOWPACK WATER CONTENT RANGED FROM A HIGH OF 210 PERCENT IN THE STANISLAUS RIVER BASIN TO A LOW OF 115 PERCENT IN THE KERN RIVER BASIN.

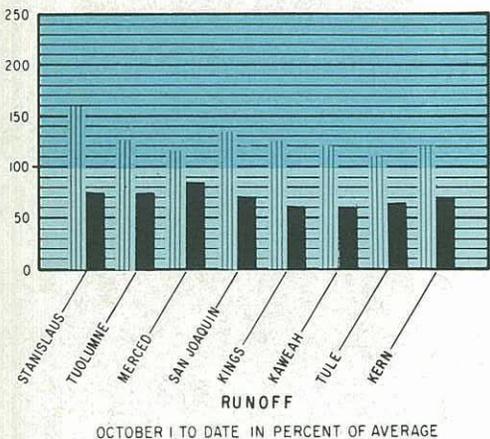
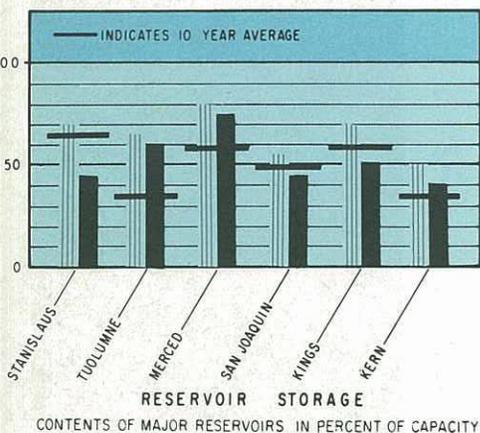
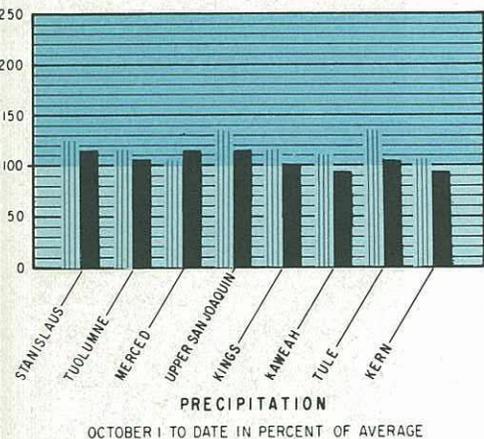
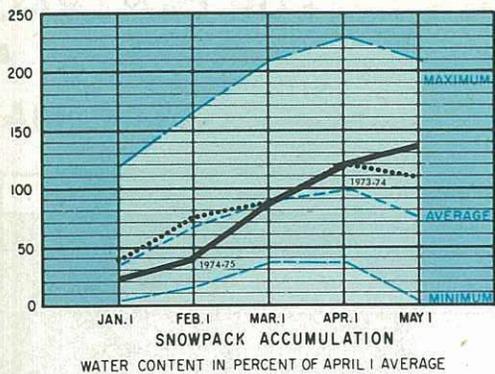
COURSES CONTINUED TO RECEIVE ADDITIONAL WATER CONTENT DURING THE MONTH. A FEW LOW ELEVATION COURSES REPORTED SMALL AMOUNTS OF MELT. ALMOST ALL COURSES NORTH OF THE KERN RIVER BASIN REPORT WATER CONTENTS THAT EXCEED THE APRIL 1 AVERAGE.

SNOW DENSITIES ARE AROUND 40 PERCENT, ABOUT 10 PERCENT BELOW AVERAGE. THE LOW DENSITIES WILL CAUSE A DELAY IN THE BEGINNING OF SNOWMELT.

PRECIPITATION - FROM OCTOBER 1, 1974 THROUGH APRIL 30, 1975, PRECIPITATION WAS 105 PERCENT OF NORMAL OVER THE SAN JOAQUIN RIVER AND TULARE LAKE BASINS. SIERRA DRAINAGES AS WELL AS THE VALLEY FLOOR ARE NEAR NORMAL. EXCEPT FOR THE MERCED, CATCH VALUES OVER THE MOUNTAIN DRAINAGES ARE SLIGHTLY LESS THAN AMOUNTS RECEIVED FOR THE CORRESPONDING PERIOD ONE YEAR AGO. HIGH SEASONAL TOTALS WERE REPORTED FROM CALAVERAS BIG TREES WITH 56.98 INCHES OR 113 PERCENT AND HUNTINGTON LAKE WITH 43.70 INCHES (147 PERCENT). APRIL PRECIPITATION AVERAGED 135 PERCENT OVER THE AREA. AMOUNTS IN MOUNTAIN WATERSHEDS RANGED FROM 7.60 INCHES (236 PERCENT) AT HUNTINGTON LAKE TO 0.44 INCH (57 PERCENT) AT WOFFORD HEIGHTS, IN THE KERN. VALLEY FLOOR STATIONS VARIED FROM 2.10 INCHES (102 PERCENT) AT CAMP PARDEE TO ONLY 0.54 INCH (46 PERCENT) AT FRESNO.

RESERVOIR STORAGE - MAY 1 STORAGE IN 27 MAJOR RESERVOIRS SERVING THE SAN JOAQUIN VALLEY WAS 4,259,000 ACRE-Feet OR 95 PERCENT OF AVERAGE STORAGE FOR THIS DATE. THIS IS DOWN 887,000 ACRE-Feet FROM LAST YEAR. STORAGE ON THE CALAVERAS, SAN JOAQUIN, AND KINGS RIVERS IS SLIGHTLY BELOW AVERAGE. ONLY THE STANISLAUS RIVER RESERVOIRS ARE MUCH BELOW AVERAGE, AT 65 PERCENT. STORAGE ON ALL OTHER STREAM SYSTEMS IS AVERAGE OR ABOVE.

RUNOFF - APRIL RUNOFF WAS 57 PERCENT OF AVERAGE ON TRIBUTARIES TO THE SAN JOAQUIN VALLEY. ALL STREAMS WERE BELOW AVERAGE FOR THE MONTH, DUE TO COLD WEATHER THAT HELD MUCH OF THE PRECIPITATION AS SNOW IN THE UPPER WATERSHEDS. WATER YEAR RUNOFF HAS BEEN FAR BELOW AVERAGE SO FAR, ABOUT 1 MILLION ACRE-Feet, BUT TOTALS SHOULD APPROACH OR EXCEED NORMAL AS FLOW INCREASES FROM SNOWMELT RUNOFF IN THE MONTHS AHEAD.



MAY 1, 1974



MAY 1, 1975



FORECASTS OF APRIL - JULY FOR CENTRAL A MAY

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						
Sacramento River inflow to Shasta Lake	285	636	39	420	147	--
McCloud River inflow to Shasta Lake	420	850	194	480	114	--
Pit River inflow to Shasta Lake	1,013	1,796	480	1,350	133	--
Total inflow to Shasta Lake	1,777	3,064	726	2,330	131	2,110 to 2,630
Sacramento River above Bend Bridge, near Red Bluff	2,422	4,611	943	3,250	134	2,940 to 3,670
Feather River						
Inflow to Lake Almanor (near Prattville)	326	675	120	440	135	--
North Fork at Pulga	1,025	2,416	254	1,475	144	--
Middle Fork near Clito	86	518	8	145	169	--
South Fork at Ponderosa Dam	106	267	19	155	146	--
Total inflow to Oroville Reservoir	1,862	4,676	396	2,730	147	2,510 to 3,030
Yuba River						
North Yuba below Goodyears Bar	287	647	68	400	139	--
Combined inflow to Jackson Mdw. and Bowman Reservoirs	111	236	37	150	135	--
South Yuba at Langs Crossings	232	481	74	315	136	--
Yuba River at Smartville	1,081	2,424	239	1,520	141	1,440 to 1,660
American River						
North Fork at North Fork Dam	261	716	48	360	138	--
Middle Fork near Auburn	543	1,407	117	750	138	--
Silver Creek below Camino Diversion Dam	179	383	43	245	137	--
Total inflow to Folsom Reservoir	1,321	3,074	257	1,790	136	1,690 to 1,940
<i>Sacramento River at Sacramento</i>						
Cosumnes River						
Cosumnes River at Michigan Bar	132	361	12	230	174	210 to 260
Mokelumne River						
North Fork near West Point	415	829	143	575	139	--
Total inflow to Pardee Reservoir	466	1,065	127	640	137	600 to 700
SAN JOAQUIN RIVER BASIN						
Stanislaus River						
Middle Fork below Beardsley Dam	338	702	84	485	143	--
Total inflow to Melones Reservoir	717	1,710	167	1,050	146	990 to 1,150
Tuolumne River						
Cherry Creek and Eleanor Creek near Hetch Hetchy	304	572	102	395	130	--
Tuolumne River near Hetch Hetchy	599	1,392	215	720	120	--
Total inflow to Don Pedro Reservoir	1,195	2,682	385	1,550	130	1,450 to 1,680
Merced River						
Merced River at Pohono Bridge	358	888	121	440	123	--
Total inflow to Exchequer Reservoir	608	1,491	175	740	122	700 to 810
San Joaquin River						
San Joaquin River at Mammoth Pool	966	511	58	1,230	127	--
Big Creek below Huntington Lake	90	264	19	115	128	--
South Fork near Florence Lake	187	2,279	254	235	126	--
Total inflow to Millerton Lake	1,193	3,355	310	1,510	127	1,410 to 1,630
<i>San Joaquin River near Vernalis</i>						
TULARE LAKE BASIN						
Kings River						
North Fork near Cliff Camp	230	565	50	295	128	--
Total inflow to Pine Flat Reservoir	1,162	3,114	280	1,480	127	1,380 to 1,580
Kaweah River						
Total inflow to Terminus Reservoir	270	814	69	290	107	265 to 315
Tule River						
Total inflow to Success Reservoir	59	224	2	62	105	50 to 70
Kern River						
Kern River near Kernville	353	1,258	83	315	89	--
Total inflow to Isabella Reservoir	420	1,657	84	380	90	310 to 450

AND WATER YEAR RUNOFF

LEY STREAMS

F

975

Water Year --- October through September --- in 1,000 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
785	1,792	171	111	93	240	116	--	--	--	36	900	115
1,230	2,353	632	322	139	233	149	--	--	--	126	1,300	106
2,895	5,314	1,484	768	324	575	449	--	--	--	313	3,330	115
5,482	10,796	2,479	1,272	850	1,401	825	770	435	300	457	6,310	115
7,948	15,916	3,294	1,847	1,379	2,306	1,385	930	560	375	588	9,370	118
727	1,269	396	--	--	--	--	--	--	--	--	--	--
2,283	4,400	819	--	--	--	--	--	--	--	--	--	--
209	637	41	--	--	--	--	--	--	--	--	--	--
260	562	67	--	--	--	--	--	--	--	--	--	--
4,287	9,492	1,295	573	522	856	630	1,260	610	230	239	4,920	115
529	1,056	162	--	--	--	--	--	--	--	--	--	--
169	292	61	--	--	--	--	--	--	--	--	--	--
343	565	114	--	--	--	--	--	--	--	--	--	--
2,274	4,544	603	185	293	384	265	740	400	115	68	2,450	108
554	1,234	110	--	--	--	--	--	--	--	--	--	--
1,014	2,575	233	--	--	--	--	--	--	--	--	--	--
300	537	83	--	--	--	--	--	--	--	--	--	--
2,573	5,787	543	205	255	420	300	890	490	110	60	2,730	106
												114
351	876	40	23	59	105	70	110	45	5	3	420	120
586	1,009	197	--	--	--	--	--	--	--	--	--	--
705	1,692	190	37	40	83	70	320	210	40	10	810	115
457	929	128	--	--	--	--	--	--	--	--	--	--
1,085	2,834	261	62	69	146	120	495	335	100	23	1,350	124
428	765	158	--	--	--	--	--	--	--	--	--	--
740	1,661	265	--	--	--	--	--	--	--	--	--	--
1,791	3,856	546	115	145	223	175	645	550	180	47	2,080	116
439	1,020	145	--	--	--	--	--	--	--	--	--	--
920	2,188	252	52	108	130	100	335	240	65	20	1,050	114
225	653	71	--	--	--	--	--	--	--	--	--	--
105	298	22	--	--	--	--	--	--	--	--	--	--
1,255	2,964	361	--	--	--	--	--	--	--	--	--	--
1,659	4,368	444	105	76	135	130	540	620	220	64	1,890	114
												117
265	607	58	--	--	--	--	--	--	--	--	--	--
1,568	4,203	392	90	54	101	100	460	645	275	65	1,790	114
403	1,270	102	27	15	35	30	130	100	30	13	380	95
133	504	19	16	12	20	17	28	14	3	2	112	84
521	1,686	163	--	--	--	--	--	--	--	--	--	--
627	2,227	175	76	24	37	40	155	125	60	38	555	89

Monthly unimpaired values are proportionally distributed based on historical years of similar magnitude.
 * Unimpaired flows to date.

NORTH COASTAL AREA

SNOWPACK - MAY 1 SNOW SURVEY MEASUREMENTS INDICATED THAT SNOWPACK WATER CONTENT WAS 220 PERCENT OF AVERAGE COMPARED TO 170 PERCENT ONE YEAR AGO. SNOWPACK WATER CONTENT RANGED FROM A HIGH OF 250 PERCENT IN THE SCOTT RIVER BASIN TO A LOW OF 205 PERCENT IN THE TRINITY RIVER BASIN. SNOW DENSITIES AVERAGE ABOUT 45 PERCENT, ABOUT 5 PERCENT BELOW NORMAL FOR THIS TIME OF YEAR.

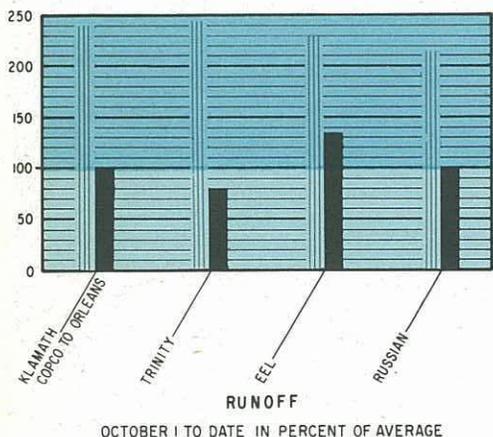
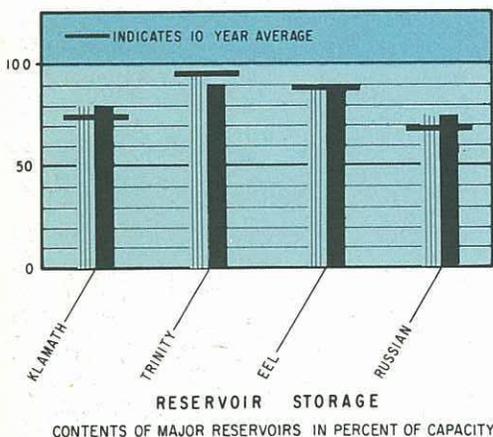
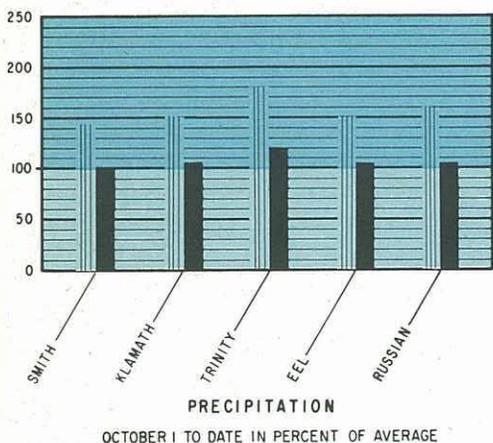
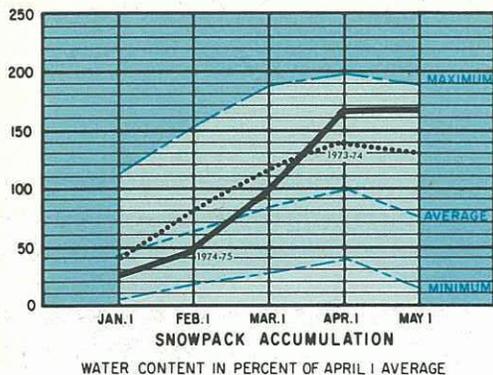
THE OREGON COOPERATIVE SNOW SURVEYS, THROUGH THE U. S. SOIL CONSERVATION SERVICE, PORTLAND, OREGON, REPORTS THAT SNOWPACK WATER CONTENT IN THE UPPER KLAMATH RIVER BASIN ON MAY 1 WAS 290 PERCENT OF NORMAL AS COMPARED TO 185 PERCENT ONE YEAR AGO.

PRECIPITATION - PRECIPITATION IN THE NORTH COASTAL AREA AVERAGED 105 PERCENT OF NORMAL FOR THE PERIOD OCTOBER 1 THROUGH APRIL 30. SUBDRAINAGE CATCH VALUES ARE GENERALLY A THIRD LESS THAN THOSE FOR THE CORRESPONDING PERIOD ONE YEAR AGO. HIGH SEASONAL TOTALS WERE REPORTED FROM HONEYDEW 1SW WITH 89.44 INCHES (87 PERCENT), GASQUET R. S. WITH 87.66 INCHES (104 PERCENT), AND CAZADERO 3W WITH 68.84 INCHES (98 PERCENT).

RESERVOIR STORAGE - THE FOUR MAJOR RESERVOIRS IN THIS AREA WERE STORING 2,377,000 ACRE-FEET ON MAY 1. THIS IS ALMOST AVERAGE FOR THIS DATE AND 212,000 ACRE-FEET LESS THAN ONE YEAR AGO. THREE INTERSTATE RESERVOIRS ON THE KLAMATH RIVER SYSTEM WERE STORING 934,000 ACRE-FEET, 105 PERCENT OF AVERAGE FOR MAY 1, A DECREASE OF 34,000 ACRE-FEET SINCE ONE YEAR AGO.

RUNOFF - APRIL RUNOFF FROM NORTH COASTAL STREAMS WAS 1,743,000 ACRE-FEET, 105 PERCENT OF AVERAGE. TOTAL WATER YEAR RUNOFF HAS BEEN 12,386,000 ACRE-FEET, OR 115 PERCENT OF AVERAGE, SINCE OCTOBER 1. ALMOST HALF OF THIS RUNOFF OCCURRED DURING MARCH DUE TO HEAVY PRECIPITATION. DURING APRIL THE NORTH COAST AREA WAS THE ONLY AREA IN THE STATE THAT EXPERIENCED ABOVE NORMAL RUNOFF.

FORECASTS - CONDITIONS AT THIS TIME INDICATE THAT RUNOFF OF THE NORTH COASTAL AREA DURING THE 1974-75 WATER YEAR WILL BE ABOUT 120 PERCENT OF AVERAGE. THE APRIL-JULY RUNOFF OF THE TRINITY RIVER AT LEWISTON IS FORECASTED TO BE ABOUT 960,000 ACRE-FEET, WHICH IS 156 PERCENT OF THE AVERAGE RUNOFF AT THIS STATION. THE U. S. SOIL CONSERVATION SERVICE, THE OREGON EXPERIMENT STATION, AND THEIR COOPERATORS, FORECAST THAT THE MAY-SEPTEMBER RUNOFF INTO UPPER KLAMATH LAKE WILL BE ABOUT 530,000 ACRE-FEET OR 150 PERCENT OF THE 1958-72 AVERAGE.



MAY 1, 1974



MAY 1, 1975



SAN FRANCISCO BAY AND CENTRAL COASTAL AREAS

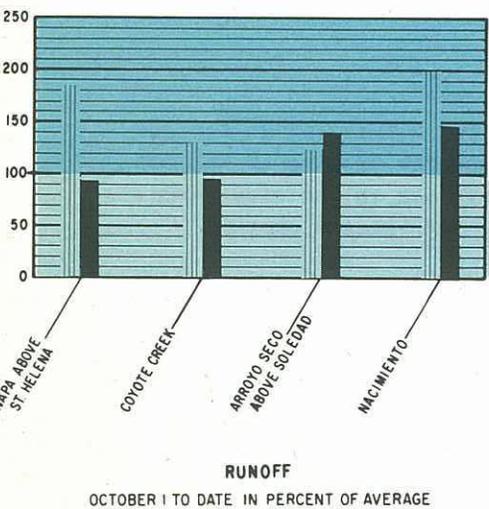
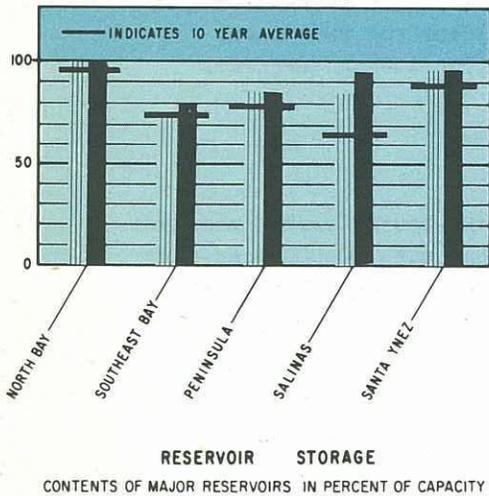
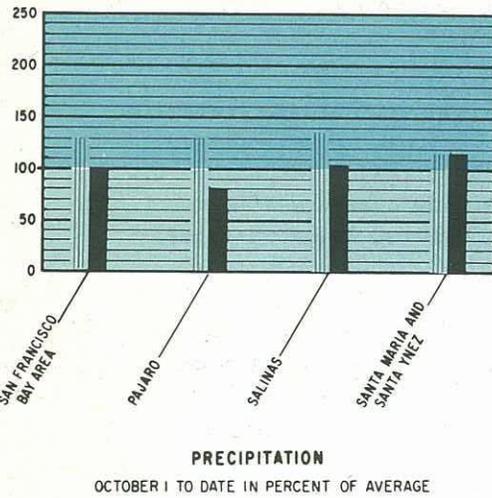
PRECIPITATION - IN THE SAN FRANCISCO BAY AND CENTRAL COASTAL AREAS, PRECIPITATION AVERAGED NORMAL FOR THE PERIOD OCTOBER 1 THROUGH APRIL 30. IT VARIED FROM 48.22 INCHES (102 PERCENT) AT LAGUNITAS LAKE, IN MARIN COUNTY, TO 9.75 INCHES (78 PERCENT) AT HOLLISTER 2, IN THE PAJARO RIVER DRAINAGE. EXCEPT FOR THE SANTA MARIA AND SANTA YNEZ, ALL SUBBASIN CATCHES ARE ABOUT ONE-FOURTH LESS THAN LAST YEAR'S VALUES. APRIL PRECIPITATION AVERAGED NEAR NORMAL. EXTREME AMOUNTS VARIED FROM 3.46 INCHES (96 PERCENT) AT LAGUNITAS LAKE TO 0.81 INCH (67 PERCENT) AT SANTA MARIA.

RESERVOIR STORAGE - THE 17 MAJOR RESERVOIRS IN THE SAN FRANCISCO BAY AREA WERE STORING 529,000 ACRE-Feet ON MAY 1. THIS IS 110 PERCENT OF AVERAGE AND ABOUT 33,000 ACRE-Feet MORE THAN WAS IMPOUNDED ONE YEAR AGO. SEVEN OF THESE RESERVOIRS RECEIVE WATER IMPORTED FROM SIERRA WATERSHEDS. FOR THESE AREAS OF ORIGIN, ABOVE NORMAL APRIL THROUGH JULY RUNOFF IS FORECASTED FOR THIS YEAR.

IN THE CENTRAL COASTAL AREA, STORAGE IN SIX MAJOR RESERVOIRS WAS 931,000 ACRE-Feet ON MAY 1. THIS IS ABOUT 40,000 ACRE-Feet MORE THAN WAS STORED ONE YEAR AGO AND REPRESENTS 132 PERCENT OF AVERAGE. WHALE ROCK AND SANTA MARGARITA RESERVOIRS ARE FILLED TO MAXIMUM CAPACITY AT THIS TIME.

RUNOFF - APRIL RUNOFF IN REPRESENTATIVE SAN FRANCISCO BAY AREA STREAMS WAS 9,800 ACRE-Feet, OR 80 PERCENT OF AVERAGE FOR THE MONTH. FEBRUARY AND MARCH PRODUCED MOST OF THE WATER YEAR RUNOFF WHICH NOW TOTALS 107,300 ACRE-Feet OR 96 PERCENT OF AVERAGE FLOW FOR THE PERIOD OCTOBER 1 THROUGH APRIL 30.

RUNOFF IN THE CENTRAL COASTAL AREA WAS ABOUT NORMAL DURING APRIL, TOTALING 34,700 ACRE-Feet OR 98 PERCENT OF AVERAGE. FOR THE WATER YEAR, RUNOFF HAS SO FAR TOTALLED 409,600 ACRE-Feet OR 144 PERCENT OF AVERAGE.



SOUTH COASTAL AND COLORADO DESERT AREAS

PRECIPITATION - IN THE SOUTH COASTAL AREA, PRECIPITATION AVERAGED 90 PERCENT OF NORMAL FOR THE PERIOD OCTOBER 1, 1974, THROUGH APRIL 30, 1975. SEASONAL VALUES OF SUB-DRAINAGES ARE CLOSE TO THOSE EXPERIENCED DURING THE SAME PERIOD LAST YEAR. INCLUDING FOUR SUBNORMAL MONTHS OF NOVEMBER, DECEMBER, JANUARY, AND FEBRUARY, SEASONAL EXTREMES HAVE VARIED FROM 33.71 INCHES (107 PERCENT) AT MT. WILSON, IN THE SAN GABRIEL RIVER DRAINAGE, TO 10.35 INCHES (74 PERCENT) AT CAMPO, IN SAN DIEGO COUNTY.

PRECIPITATION IN THE COLORADO DESERT AREA DURING OCTOBER THROUGH APRIL HAS AVERAGED 60 PERCENT OF NORMAL. EXTREMES VARIED FROM 107 PERCENT (2.22 INCHES) AT IRON MOUNTAIN TO 36 PERCENT AT THERMAL WHERE ITS SEVEN-MONTH TOTAL OF 0.97 INCH IS THE LOWEST, STATEWIDE. APRIL PRECIPITATION VARIED WIDELY, AVERAGING ABOUT 275 PERCENT OF NORMAL.

RESERVOIR STORAGE - DATA FROM 26 MAJOR RESERVOIRS IN THE SOUTH COASTAL AREA SHOWED A COMBINED STORAGE OF 720,000 ACRE-FEET ON MAY 1. THIS IS 105 PERCENT OF AVERAGE FOR THIS DATE AND A DECREASE OF 28,000 ACRE-FEET SINCE ONE YEAR AGO. ELEVEN OF THESE RESERVOIRS INCLUDE WATER IMPORTED FROM THE COLORADO RIVER. THESE ELEVEN RESERVOIRS WERE STORING 323,630 ACRE-FEET ON MAY 1 OR 90 PERCENT OF AVERAGE SUPPLIES FOR THIS DATE. SOURCES OF IMPORT ON THE COLORADO RIVER WERE STORING 137 PERCENT OF NORMAL SUPPLIES.

RUNOFF - APRIL RUNOFF OF REPRESENTATIVE STREAMS IN THE SOUTH COASTAL AREA WAS 13,700 ACRE-FEET, OR 19 PERCENT OF AVERAGE. TOTAL YEAR RUNOFF HAS BEEN 90,000 ACRE-FEET OR 76 PERCENT OF AVERAGE. BASED ON MAY 1 PROJECTIONS, TOTAL FLOW FOR THE 1974-75 WATER YEAR WILL BE ABOUT 80 PERCENT OF AVERAGE.

MAJOR WATER DISTRIBUTION PROJECTS

COLORADO RIVER - THE U. S. BUREAU OF RECLAMATION, SALT LAKE CITY, UTAH, FORECASTS THAT FLOW IN THE COLORADO RIVER, INFLOW TO LAKE POWELL, DURING APRIL-JULY WILL BE 10,500,000 ACRE-FEET, ABOUT 134 PERCENT OF THE 50-YEAR AVERAGE.

STORAGE IN LAKE MEAD ON MAY 1 WAS 19,380,000 ACRE-FEET. THIS IS 120 PERCENT OF AVERAGE FOR THIS DATE AND 74 PERCENT OF TOTAL CAPACITY. CURRENTLY STORAGE IS 358,000 ACRE-FEET ABOVE WHAT IT WAS LAST YEAR AT THIS TIME. COMBINED STORAGE IN THE FOUR INTER-STATE RESERVOIRS ON THE COLORADO RIVER IS 40,599,000 ACRE-FEET, 135 PERCENT OF THE APRIL 1 AVERAGE.

MAJOR WATER DISTRIBUTION PROJECTS

CENTRAL VALLEY PROJECT - MAY 1 RUNOFF FORECASTS INDICATE THAT ALL CVP RIVER BASINS WILL HAVE ABOVE NORMAL FLOWS THIS YEAR AND THE U. S. BUREAU OF RECLAMATION REPORTS THAT CLAIR ENGLE, SHASTA, FOLSOM, AND MILLERTON LAKES ARE EXPECTED TO FILL WITH SPRING RUNOFF. ALL CONTRACTUAL WATER AND POWER DELIVERIES WILL BE MET. THE WATER SUPPLY FORECAST FOR MILLERTON LAKE INDICATES A FULL CLASS 1 SUPPLY AND 75 PERCENT OF A FULL CLASS 2 SUPPLY WILL BE AVAILABLE THIS YEAR.

STORAGE IN MAJOR CENTRAL VALLEY PROJECT RESERVOIRS

RESERVOIR	CAPACITY 1,000 AF	10-YEAR AVG. 1965-1974 1,000 AF	STORAGE AS OF MAY 1		
			1974 1,000 AF	1975 1,000 AF	PERCENT AVERAGE
CLAIR ENGLE LAKE	2,447.7	2,281.4	2,363.5	2,151.8	95
SHASTA LAKE	4,552.1	4,328.3	4,395.4	4,579.1	105
WHISKEYTOWN	241.1	228.9	235.8	228.6	100
FOLSOM	1,101.3	752.6	775.5	690.4	90
MILLERTON LAKE	520.5	367.0	434.1	361.9	100
SAN LUIS CVP ^{2/}	970.9	950.0 ^{1/}	969.1	970.9	100

^{1/} LESS THAN 10-YEAR AVERAGE.

^{2/} USBR SHARE.

STATE WATER PROJECT - THE MAY 1 RUNOFF FORECAST FOR THE FEATHER RIVER BASIN SHOWS THAT THE APRIL THROUGH JULY FLOW WILL BE ABOUT 147 PERCENT OF NORMAL. PRESENT CONDITIONS INDICATE THAT LAKE OROVILLE WILL FILL THIS YEAR. ALL SCHEDULED POWER AND WATER COMMITMENTS WILL BE MET.

STORAGE IN STATE WATER PROJECT RESERVOIRS

RESERVOIR	CAPACITY 1,000 AF	10-YEAR AVG. 1965-1974 1,000 AF	STORAGE AS OF MAY 1		
			1974 1,000 AF	1975 1,000 AF	PERCENT AVERAGE
OROVILLE	3,537.8	2,992.4 ^{1/}	3,222.7	3,127.1	105
SAN LUIS SWP ^{2/}	1,067.9	1,000.0 ^{1/}	1,050.1	1,067.9	105
LAKE DEL VALLE	77.1	38.4 ^{1/}	40.3	39.8	105
SILVERWOOD LAKE	75.0	51.5 ^{1/}	72.2	70.8	135
PYRAMID LAKE	171.2	74.1 ^{1/}	131.0	161.1	215
CASTAIC LAKE	323.7	101.1 ^{1/}	80.7	222.4	220
PERRIS RESERVOIR	131.5	100.3 ^{1/}	100.4	100.2	100

^{1/} LESS THAN 10-YEAR AVERAGE.

^{2/} SWP SHARE.

LAHONTAN AREA

SNOWPACK - MAY 1 SNOW SURVEY MEASUREMENTS INDICATED THAT SNOWPACK WATER CONTENT WAS 200 PERCENT OF AVERAGE COMPARED TO 150 PERCENT ONE YEAR AGO. SNOWPACK WATER CONTENT RANGED FROM A HIGH OF 270 PERCENT IN THE SURPRISE VALLEY TO A LOW OF 160 PERCENT IN THE OWENS RIVER BASIN.

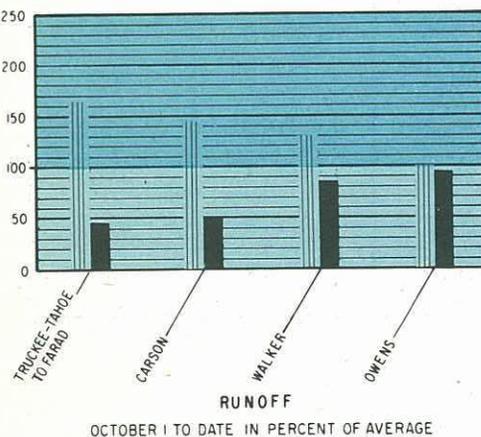
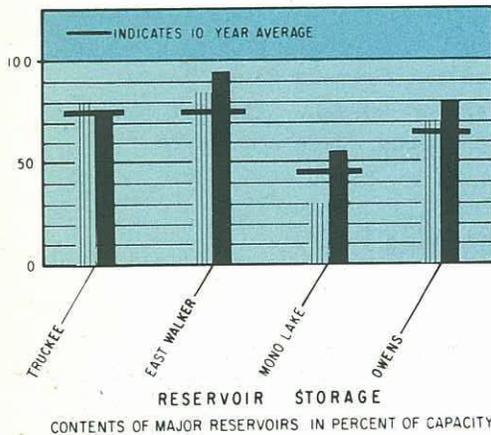
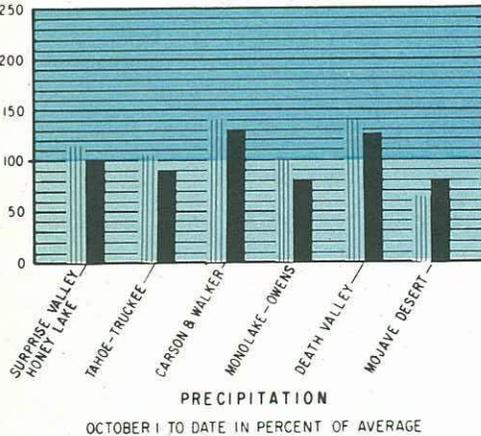
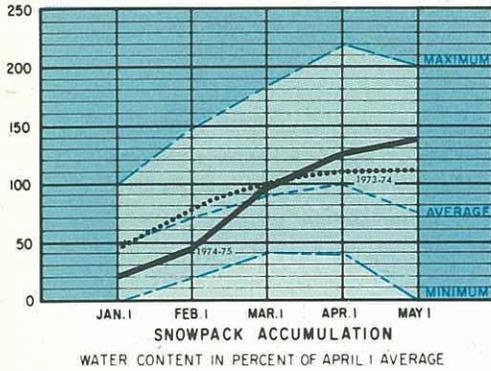
MOST HIGH ELEVATION COURSES IN THIS AREA CONTINUED TO ACCUMULATE ADDITIONAL WATER CONTENT DURING THE MONTH OF APRIL. SNOW DENSITIES ARE AROUND 40 PERCENT, ABOUT 10 PERCENT BELOW AVERAGE. SNOWMELT WILL BE DELAYED UNTIL DENSITIES INCREASE TO NORMAL.

PRECIPITATION - OCTOBER THROUGH APRIL PRECIPITATION AVERAGED NORMAL OVER THE LAHONTAN AREA. SEASONAL AMOUNTS WITH RESPECT TO NORMAL VARIED FROM A LOW OF 43 PERCENT AT DAGGETT TO 146 PERCENT AT BRIDGEPORT. THE OCTOBER-APRIL TOTAL OF 27.53 INCHES AT TRUCKEE WAS 96 PERCENT OF NORMAL. SUBDRAINAGES HAVE VALUES SLIGHTLY LESS THAN THE AMOUNTS FOR THE CORRESPONDING PERIOD ONE YEAR AGO. APRIL PRECIPITATION OVER THE AREA AVERAGED 165 PERCENT WITH SUBNORMAL AMOUNTS OVER MONO LAKE AND THE OWENS RIVER VALLEY.

RESERVOIR STORAGE - MAY 1 STORAGE IN SEVEN MAJOR RESERVOIRS IN THIS AREA WAS 256,000 ACRE-FEET. THIS IS 74 PERCENT OF AVAILABLE CAPACITY AND 119 PERCENT OF AVERAGE FOR THIS DATE. STORAGE IN LAKE TAHOE, BOCA RESERVOIR, AND BRIDGEPORT RESERVOIR, IMPOUNDING WATER FOR USE IN BOTH CALIFORNIA AND NEVADA, WAS 630,000 ACRE-FEET ON MAY 1, A DECREASE FROM A YEAR AGO OF 62,000 ACRE-FEET AND 98 PERCENT OF THE MAY 1 AVERAGE. LAKE TAHOE STORAGE IS 94 PERCENT OF AVERAGE FOR THIS DATE, WITH A SURFACE ELEVATION OF 6227.55 FEET.

RUNOFF - APRIL RUNOFF IN SELECTED STREAMS OF THE LAHONTAN AREA TOTALED 63,300 ACRE-FEET, OR 39 PERCENT OF AVERAGE. NEW MINIMUM RECORDS WERE ESTABLISHED BY THE LOW RUNOFF DURING APRIL, DUE TO THE PERSISTENT COLD WEATHER THAT CAUSED MUCH OF THE PRECIPITATION TO BE DEPOSITED AND HELD AS SNOW AT THE HIGHER ELEVATIONS. RUNOFF AMOUNTS RANGED FROM A LOW OF 2,780 ACRE-FEET FOR THE WEST CARSON, 23 PERCENT OF NORMAL, TO A HIGH OF 8,530 ACRE-FEET FOR THE OWENS RIVER, OR 73 PERCENT OF NORMAL. WATER YEAR RUNOFF REMAINS LOW, AT 64 PERCENT OF AVERAGE, FOR THE PERIOD OCTOBER 1 TO DATE. BASED ON FORECASTED RUNOFF, TOTAL WATER YEAR VOLUMES SHOULD REACH NORMAL AMOUNTS AFTER SNOWMELT RUNOFF IS RECEIVED.

FORECASTS - CONDITIONS ON MAY 1 INDICATE THAT RUNOFF FROM THE LAHONTAN AREA DURING THE 1974-75 WATER YEAR WILL BE ABOUT 115 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 61,000 ACRE-FEET, 98 PERCENT OF AVERAGE.



MAY 1, 1974 MAY 1, 1975

LAHONTAN AREA

FORECASTS AS OF MAY 1, 1975			
STREAM AND STATION	APRIL-JULY RUNOFF		
	AVERAGE IN ACRE-FEET	IN ACRE-FEET	IN PERCENT OF AVERAGE
Bidwell Creek near Ft. Bidwell	11,180	18,000	161
Mill Creek above diversions	4,870	7,500	154
Deep Creek above diversions	3,540	7,500	212
Eagle Creek at Eagleville	4,770	7,400	155
Truckee River, Lake Tahoe to Farad accretion	264,000	360,000	136
Lake Tahoe Rise (assuming gates closed)	1.42 FT.	1.75 FT.	123
East Carson River near Gardnerville	181,000	240,000	133
West Carson River at Woodfords	51,000	65,000	127
East Walker River near Bridgeport	60,000	70,000	117
West Walker River near Coleville	143,000	175,000	122

SNOW LINES



DWR RESTRUCTURING - IN CASE YOU OVERLOOKED THE SMALL PRINT ON PAGE 2, THE SNOW SURVEYS AND WATER SUPPLY FORECASTING SECTION IS NOW THE SNOW SURVEYS BRANCH OF A NEW AND EXPANDED FLOOD CONTROL OFFICE, OF THE (RETITLED) DIVISION OF PLANNING. AN OLD FRIEND OF THE SNOW SURVEY PROGRAM, MR. C. A. (CHARLIE) McCULLOUGH NOW HEADS THE FLOOD CONTROL OFFICE AND COOPERATORS WILL BE SEEING MORE OF HIM AGAIN AS HE SETTLES INTO HIS NEW POSITION.



WESTERN SNOW CONFERENCE - ABOUT 180 MEMBERS AND WIVES ATTENDED THE 43RD ANNUAL MEETING AT CORONADO, CALIFORNIA ON APRIL 23-25. THE FIVE TECHNICAL SESSIONS FEATURED 18 INFORMATIVE PRESENTATIONS ON DATA ACQUISITION, SNOW PHYSICS, HUMAN ATTITUDES, SNOW AND LAND USE PLANNING, AND SNOW HYDROLOGY. ALL THIS AMID THE SPLENDOR OF 88-YEAR-OLD HOTEL DEL CORONADO. IF YOU WERE NOT THERE -- YOU MISSED A GOOD ONE. AND NEXT YEAR, CIRCLE MID-APRIL ON YOUR CALENDAR. THE 44TH CONFERENCE WILL BE HELD IN CALGARY, ALBERTA, CANADA.

FRONT COVER - IN THE HIGH SIERRA, TREES NEAR TIMBERLINE STRUGGLE TO SURVIVE IN A HOSTILE ENVIRONMENT. THIS SLOPE OF WIND-SLABBED SNOW IS ON BOREAL PLATEAU IN THE KERN RIVER BASIN. (PHOTO BY DOUG POWELL.)

BACK COVER - THE YEAR -- 1929. THE MAN -- HARLOWE M. STAFFORD (DECEASED), FIRST DWR SNOW SURVEYS SUPERVISOR AND COORDINATOR OF THE NEWLY FORMED CALIFORNIA COOPERATIVE SNOW SURVEYS PROGRAM. THE PLACE -- CANNELL MEADOW IN THE LOWER KERN RIVER BASIN. THIS WAS THE YEAR MR. STAFFORD SPENT MUCH OF HIS SUMMER ON HORSEBACK, ESTABLISHING NEW SNOW COURSES THROUGHOUT THE STATE. AND TODAY, 45 YEARS LATER, MOST OF THESE COURSES ARE STILL BEING MEASURED BY COOPERATING AGENCIES.

NOTE - A BASIC DATA SUPPLEMENT TO THE BULLETIN No. 120 REPORTS WILL BE DISTRIBUTED LATER THIS MONTH.

