

Water Supply Outlook



CALIFORNIA AND NORTHERN NEVADA

May 2001



California Nevada River Forecast Center
NOAA National Weather Service
Sacramento, California

DEFINITIONS:

Acre-Feet: The volume equal to one acre covered one foot deep (43,560 cubic feet).

Forecast Period: Generally, April 1st through July 31st, unless otherwise noted.

April-High Forecast Period: For the Lake Tahoe Stage Rise, the period from April 1st to the highest recorded lake stage level.

April 1st Average: The April 1st snowpack average is used as a reference point because it is normally the end of the winter snowfall season and the beginning of the spring runoff season.

Residual Period: The forecast period from the first of the current month through September 30th.

Probability Forecasts: Precipitation and snowfall accumulation of known probability as determined by analysis of past records are utilized in the preparation of probability runoff forecasts. The forecasts include an evaluation of the standard error of the prediction model. The forecasts are presented at three levels of probability as follows:

- **Most Probable Volume:** Given the current hydrometeorological conditions to date, this is the best estimate of what the actual runoff volume will be this season.
- **Most Probable Volume (% Normal):** Most probable volume in percent of the 1961-1990 average.
- **Reasonable Maximum Volume:** Given current hydrometeorological conditions, the seasonal runoff that has a 10 percent chance of being exceeded.
- **Reasonable Minimum Volume:** Given current hydrometeorological conditions, the seasonal runoff that has a 90 percent chance of being exceeded.

SNOTEL: Acronym for SNOW TELemetry. This is a automated snow measurement system operated by the USDA - Natural Resources Conservation Service. These sites use meteor burst communications technology to transmit hydrometeorological information such as snow water equivalent from snow pillows, accumulated precipitation and maximum, minimum and average air temperature.

Water equivalent: The depth of water that would result from melting the snowpack at a point.

Water Year: The period from October 1st through September 30th.

General Outlook

May 1, 2001

California benefitted from a series of April storms that brought above normal monthly precipitation to several regions in the state. Stormy periods between April 6th-8th and 19th-21st brought some minor accumulations to the snowpack, especially in the central and southern Sierra Nevada. A period of well above normal temperatures followed near the end of April resulting in an accelerated melting of the snowpack. Monthly precipitation ranged from 175 percent in the Tulare Lake basin, 135 percent in the San Joaquin basin, tapering off to only 5 percent in the southeast California deserts. The statewide average was 95 percent, which brought the seasonal average to about 77 percent of normal.

The Sierra Nevada snowpack on May 1st ranged from 50 percent of average in the north to 60 percent in the south. In eastern California and northern Nevada, the snowpack was measured at about 60 percent of average in the Carson-Walker basins, 40 percent of average in the Tahoe-Truckee basins, and 55 percent in the Humboldt basin. The 25 percent of average snowpack in the Upper Klamath of southern Oregon ranks among the lowest of its historical record.

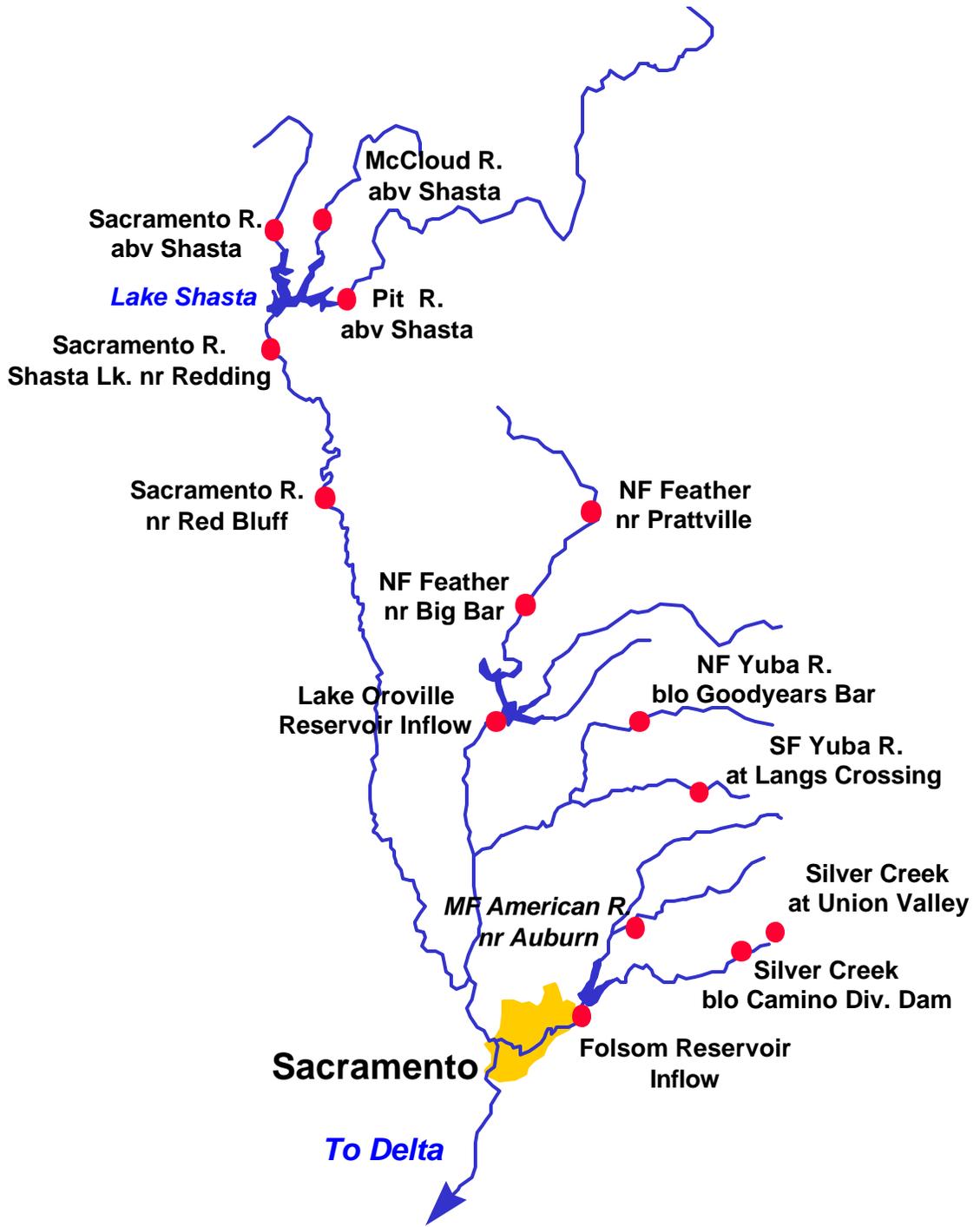
Runoff amounted to about 55 percent of the monthly average, a decrease of about 12 percent from last month. The seasonal average now stands at 46 percent.

The statewide reservoir storage is about 98 percent of the monthly average, or about 71 percent of capacity. It was 116 percent of monthly average at this same time last year.

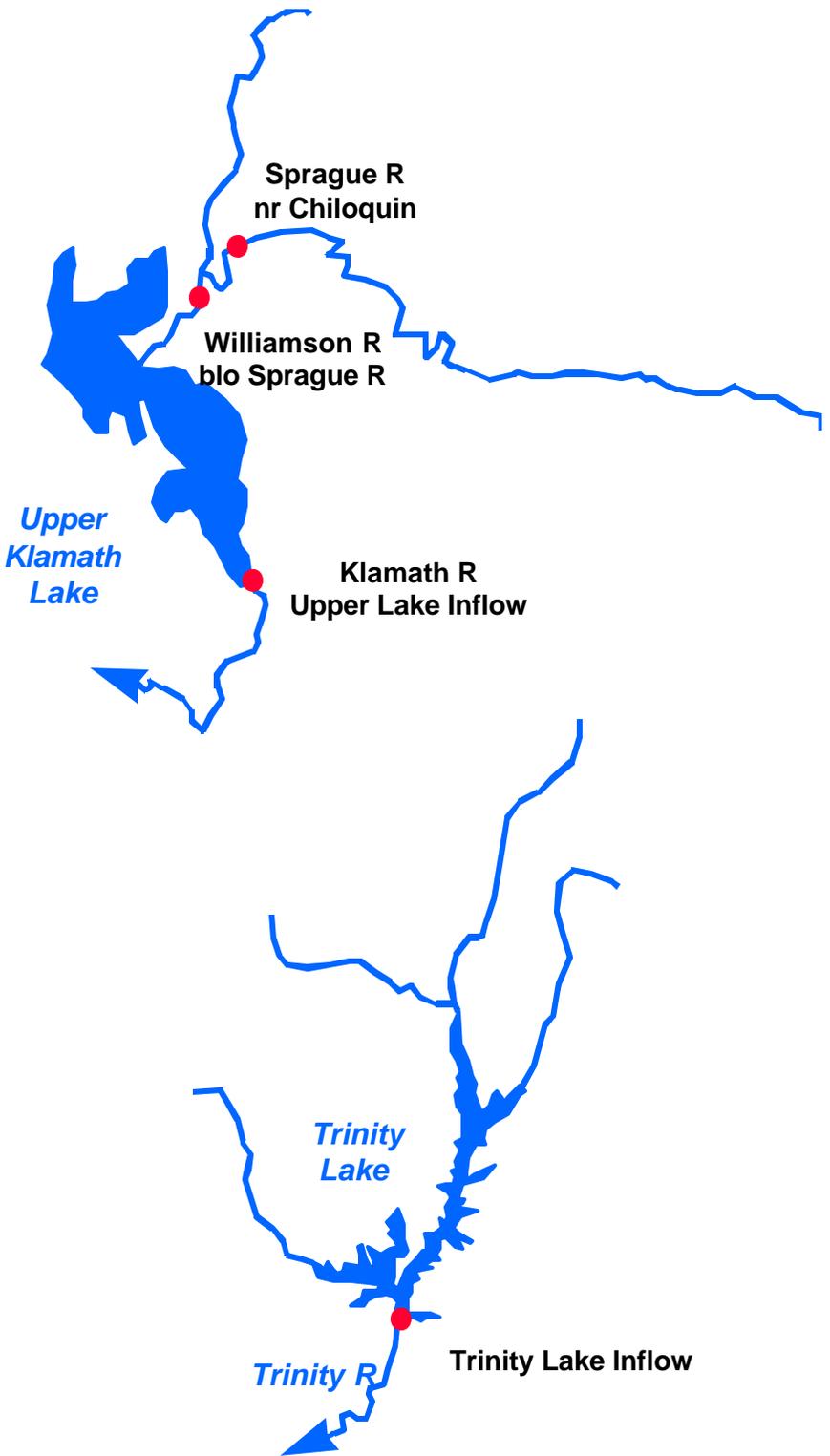
The spring and summer runoff for California is expected to be below to much below average this year, due primarily to the rather dismal start of the precipitation season and the below normal snowpack. April-July forecasts for California watersheds remain much below average, ranging from 65 percent for the McCloud River above Lake Shasta to 41 percent in the Cosumnes River basin. Streamflow forecasts remain much below average along the Sierra Nevada east slopes and the Humboldt basin. Extremely dry conditions still exist in the Upper Klamath basin, where the March-September forecast is expected to remain much below average.

Please note: This will be the last Water Supply Outlook issued for the water year 2001. The Water Supply Outlook is available on the World Wide Web at <http://www.wrh.noaa.gov/cnrfc>.

Sacramento River Basin



Upper Klamath and Trinity River Basins



Water Supply Forecasts

		Most Prob. Vol. KAF	Most Prob. Vol. %Nrml	Reas Max. Vol. KAF	Reas. Min. Vol. KAF	30 Year Avg. KAF
COASTAL BASINS						
Williamson River Sprague, blo	Mar-Sep	230	46	325	134	504
Sprague River Chiloquin, nr	Mar-Sep	88	30	180	35	292
Upper Klamath Falls River Inflow	Mar-Sep	320	45	465	175	706
Trinity River Trinity Lake Inflow	Apr-Jul	420	68	515	325	615
SACRAMENTO RIVER BASIN						
SACRAMENTO RIVER ABOVE BEND BRIDGE						
Pit River Montgomery Ck, nr	Apr-Jul	720	68	845	580	1054
Mccloud River Shasta Lk, abv	Apr-Jul	300	77	385	215	390
Sacramento River Delta	Apr-Jul	215	77	305	125	279
Shasta Lake, Redding, nr	Apr-Jul	1300	74	1700	900	1759
Bend Bridge, abv, Red Bluff	Apr-Jul	1620	67	2290	1300	2411
FEATHER RIVER ABOVE OROVILLE RESERVOIR						
NF Feather River Prattville, nr	Apr-Jul	165	50	235	140	333
Big Bar	Apr-Jul	500	52	740	380	962
Feather River Oroville Reservoir Inflow	Apr-Jul	820	47	1300	700	1746

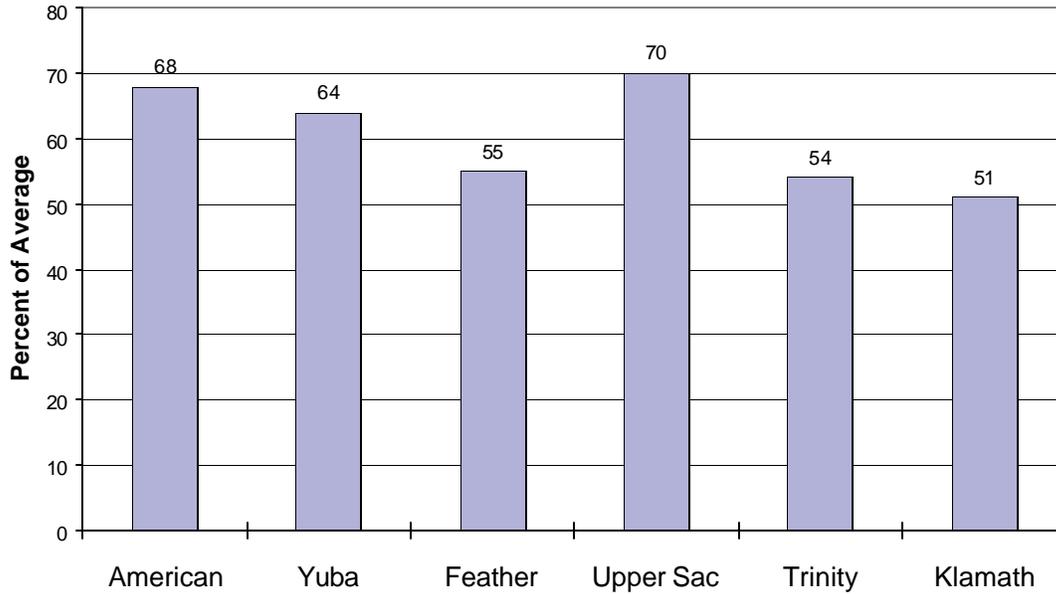
Water Supply Forecasts

		Most Prob. Vol. KAF	Most Prob. Vol. %Nrm1	Reas Max Vol. KAF	Reas. Min Vol. KAF	30 Year Avg. KAF
Yuba River above Smartville						
North Yuba River						
Goodyears Bar, blo	Apr-Jul	160	59	200	119	273
South Yuba River						
Langs Crossing	Apr-Jul	140	62	205	74	225
Yuba River						
Smartville, nr	Apr-Jul	590	60	770	410	980
American River above Folsom Reservoir						
MF American River						
Auburn, nr	Apr-Jul	290	59	445	170	490
Silver Ck						
Union Valley	Apr-Jul	54	55	76	32	98
Camino Dam, blo	Apr-Jul	87	55	126	55	158
American River						
Folsom Reservoir Inflow	Apr-Jul	670	56	890	450	1199

Sacramento/Trinity/Klamath River Basins

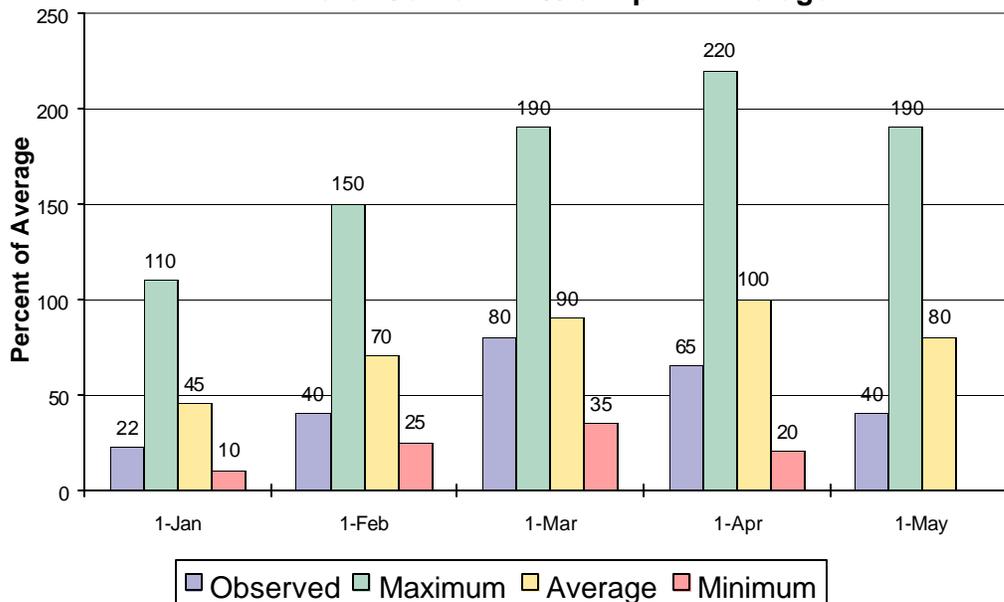
Seasonal Basin Precipitation

October 1 to Date



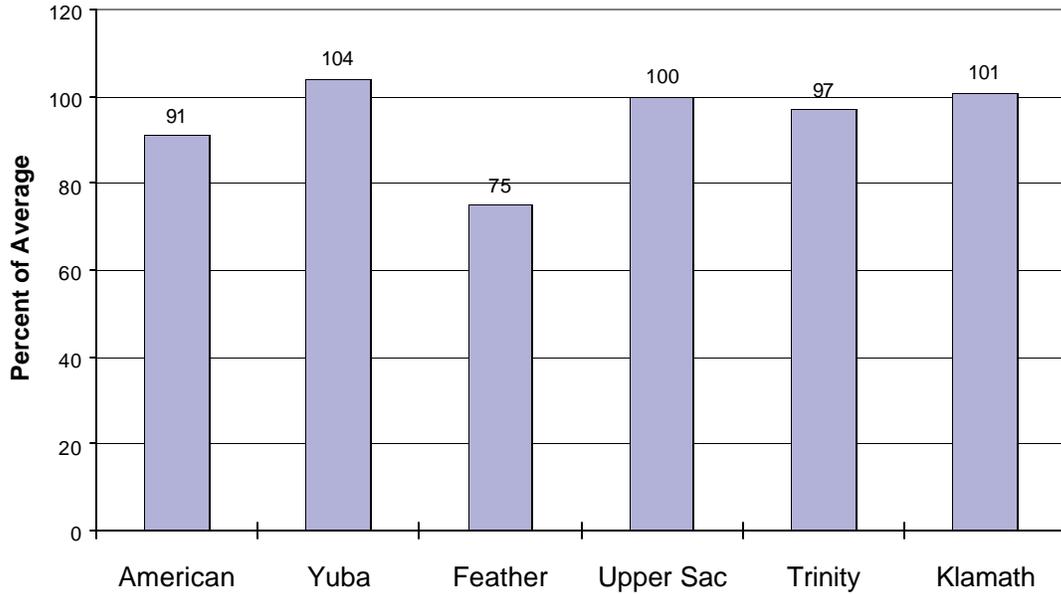
Seasonal Basin Snowpack

Water Content in % of April 1 Average

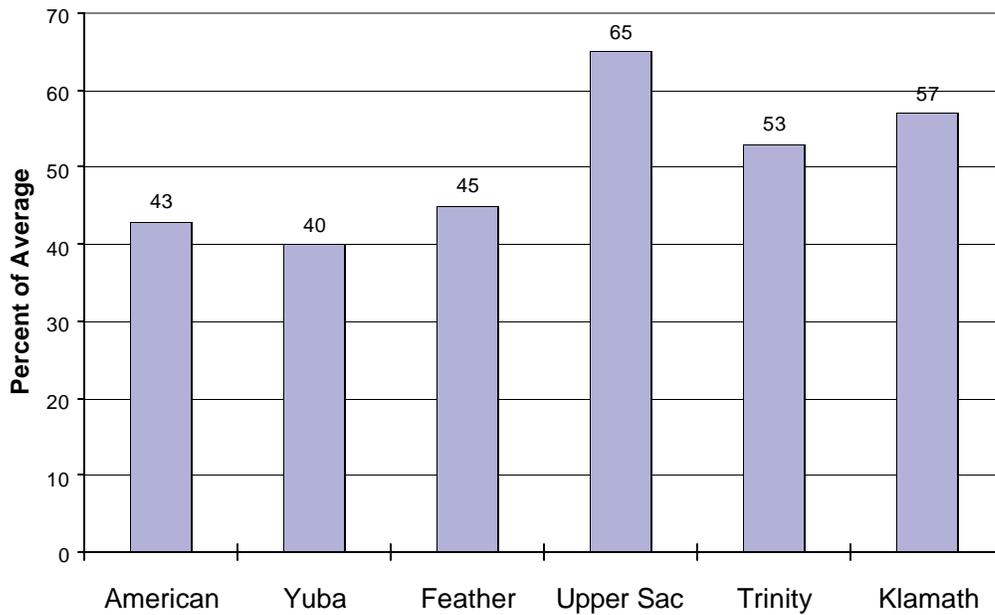


Sacramento/Trinity/Klamath River Basins

Basin Reservoir Storage Contents of Major Reservoirs in % of Average



Seasonal Basin Runoff October 1 to Date



San Joaquin Basin

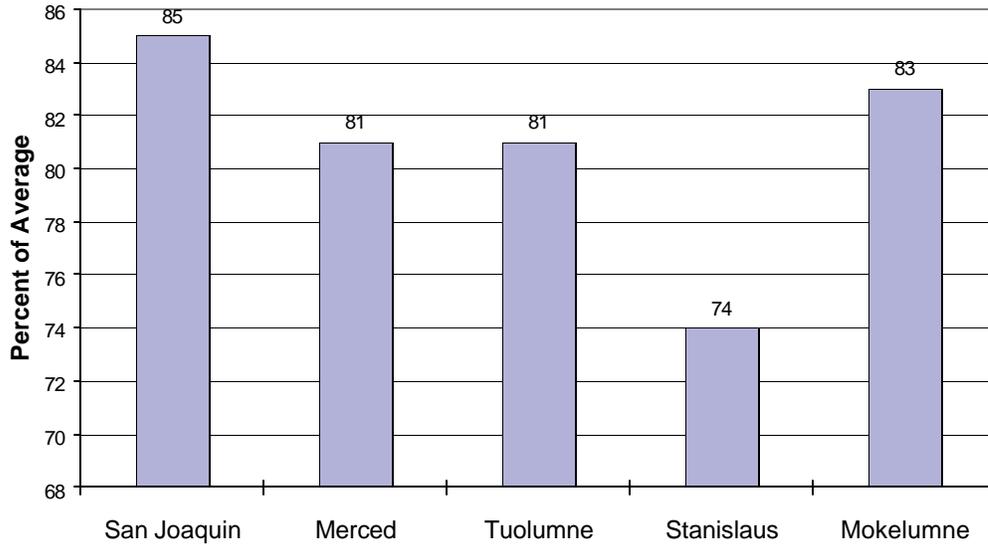


Water Supply Forecasts

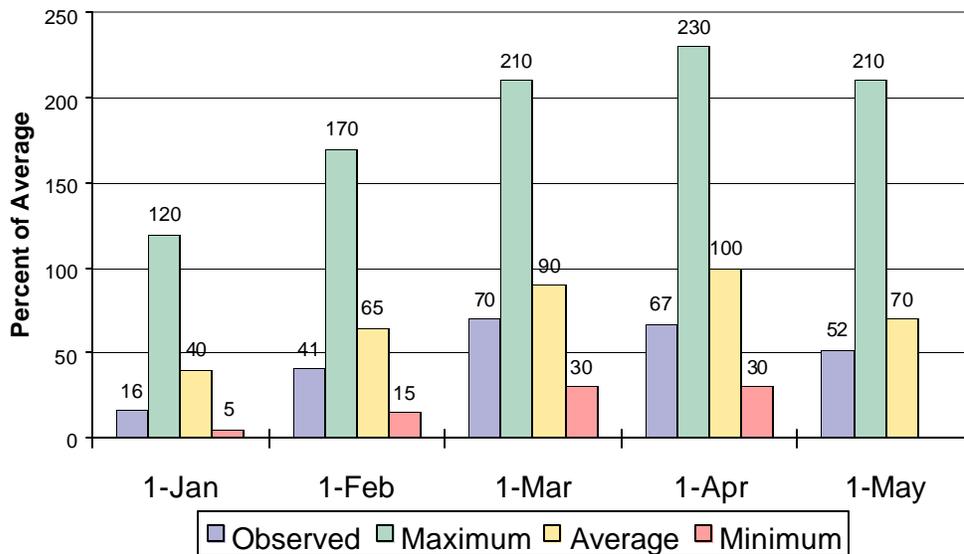
		Most Prob. Vol. KAF	Most Prob. Vol. %Nrml	Reas Max. Vol. KAF	Reas. Min. Vol. KA	30 Year Avg. KAF
SF San Joaquin River						
Hooper Ck, blo, Florence Lake	Apr-Jul	135	70	200	68	192
San Joaquin River						
Millerton Lk	Apr-Jul	860	70	940	780	1237
Merced River						
Pohono Bridge, at, Yosemite	Apr-Jul	270	75	315	225	360
Merced Falls, blo	Apr-Jul	450	73	545	355	620
Tuolumne River						
Hetch Hetchy, nr	Apr-Jul	430	72	485	375	596
La Grange, nr	Apr-Jul	840	71	940	740	1189
MF Stanislaus River						
Beardsley Dam, blo	Apr-Jul	200	62	255	147	320
Stanislaus River						
Goodwin Dam, blo, Knights Ferry	Apr-Jul	430	62	515	345	689
NF Mokelumne River						
West Point	Apr-Jul	230	55	290	171	416
Mokelumne River						
Mokelumne Hill	Apr-Jul	250	56	310	189	450
Cosumnes River						
Michigan Bar	Apr-Jul	50	41	109	24	122

San Joaquin Basin

Seasonal Basin Precipitation October 1 to Date

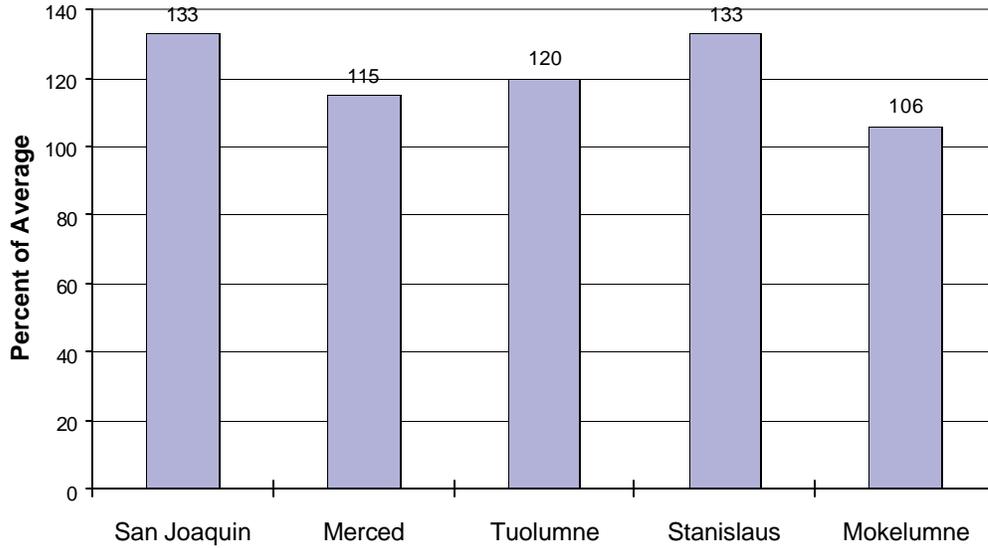


Seasonal Basin Snowpack Water Content in % of April 1 Average

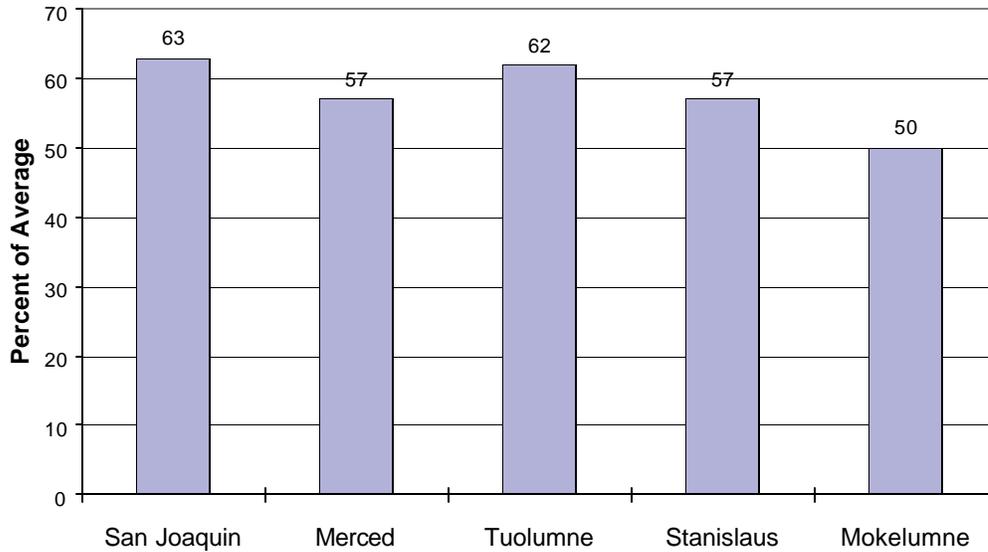


San Joaquin Basin

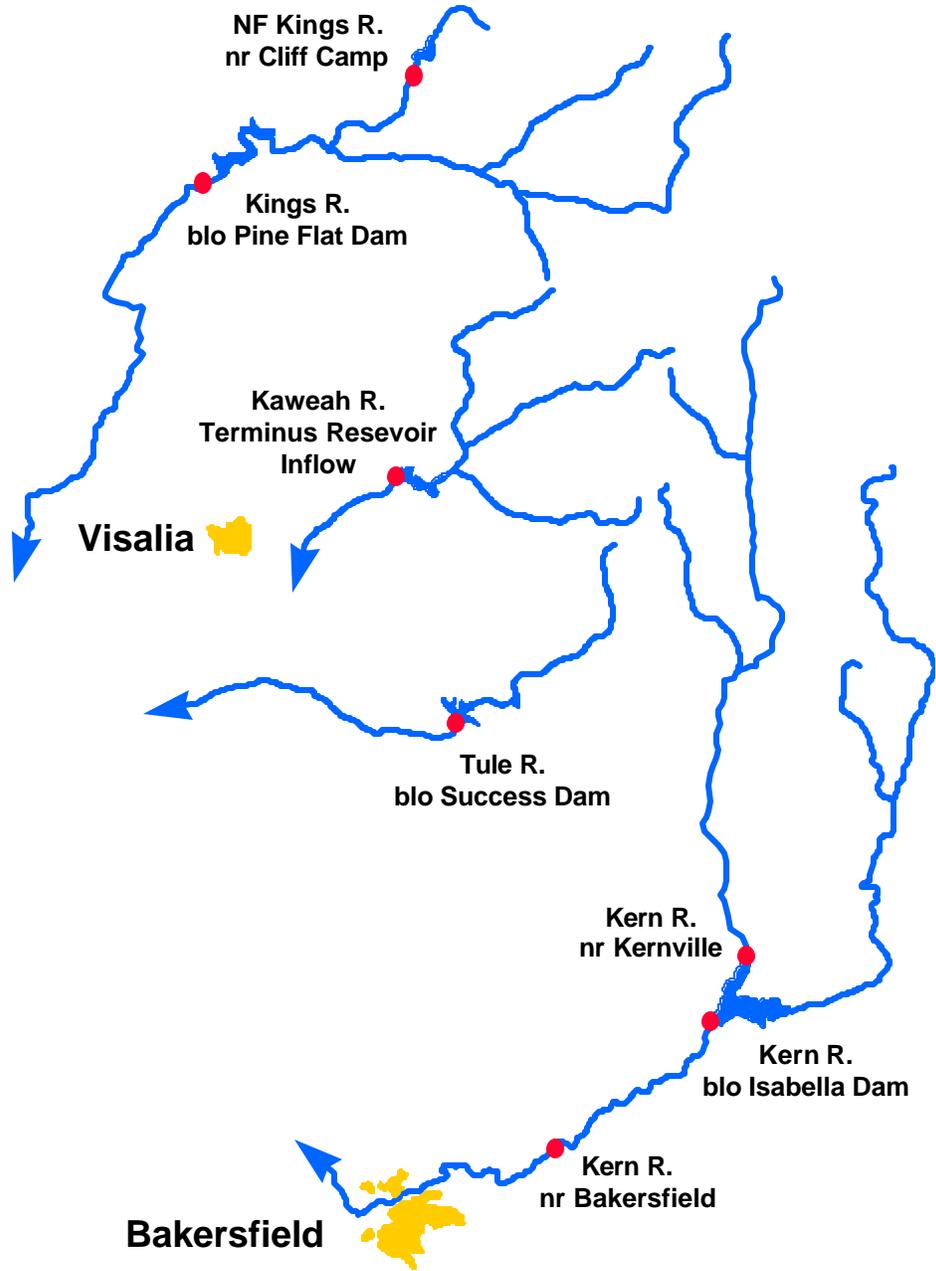
Basin Reservoir Storage Contents of Major Reservoirs in % of Average



Season Basin Runoff October 1 to Date



Tulare Basin

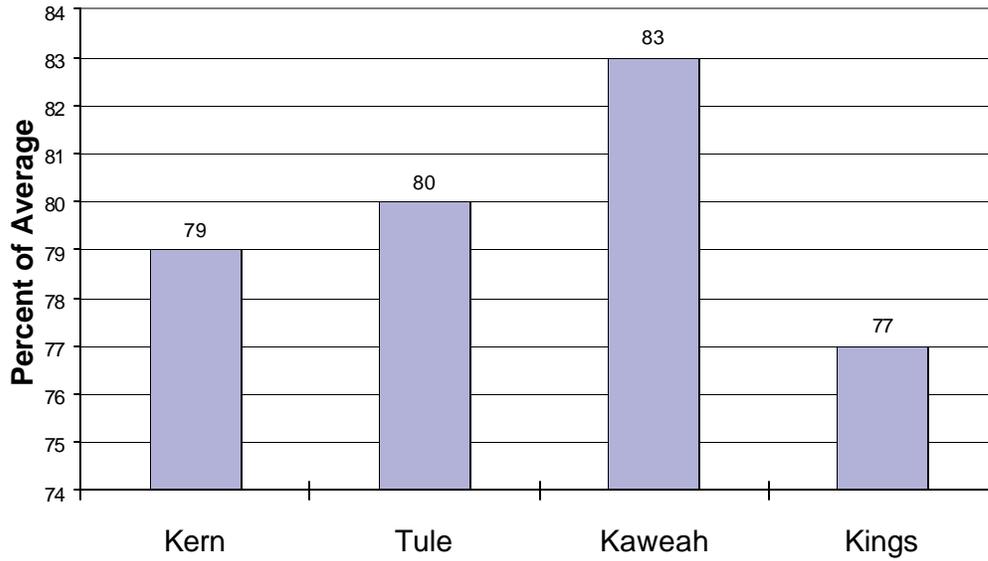


Water Supply Forecasts

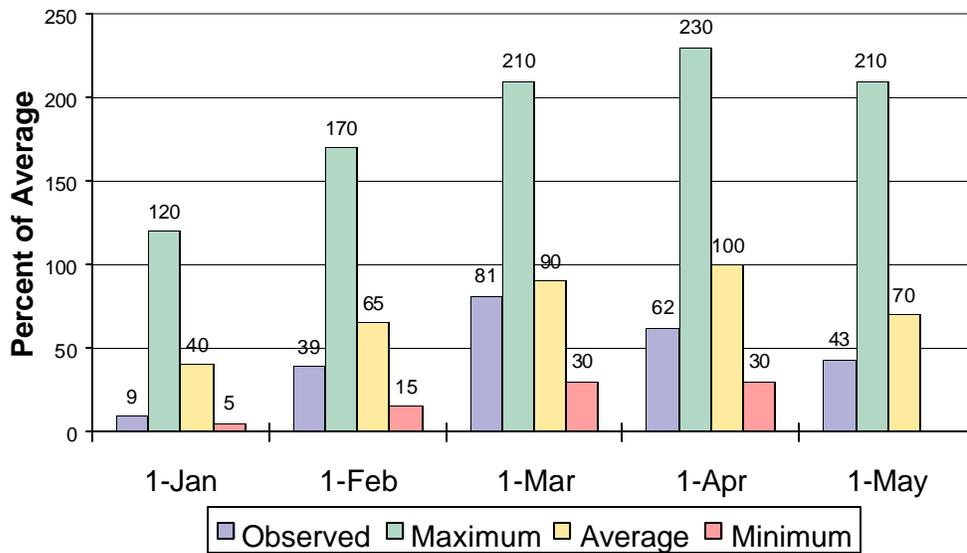
		Most Prob. Vol. KAF	Most Prob. Vol. %Nrml	Reas Max. Vol. KAF	Reas. Min. Vol. KAF	30 Year Avg. KAF
Kern River						
Kernville, nr	Apr-Jul	240	60	315	164	398
Isabella Dam, blo	Apr-Jul	270	56	405	137	484
Bakersfield, nr	Apr-Jul	280	56	420	132	499
Tule River						
Success Dam	Apr-Jul	35	54	59	10	65
Kaweah River						
Terminus Dam	Apr-Jul	185	64	235	137	290
NF Kings River						
Cliff Camp, nr	Apr-Jul	170	70	210	131	243
Kings River						
Pine Flat Dam, blo	Apr-Jul	840	68	950	730	1230

Tulare Lake Basin

Seasonal Precipitation October 1 to Date

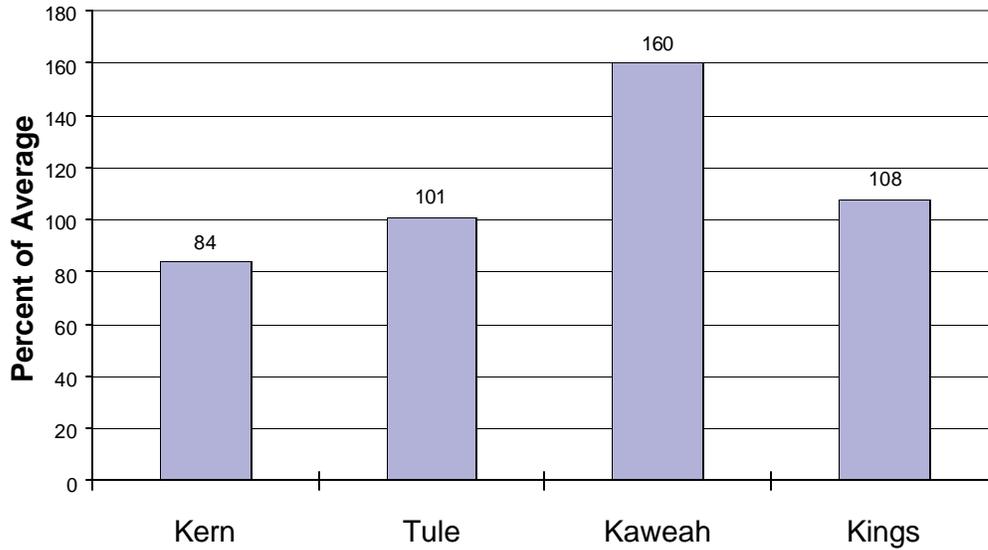


Seasonal Basin Snowpack Water Content in % of April 1 Average

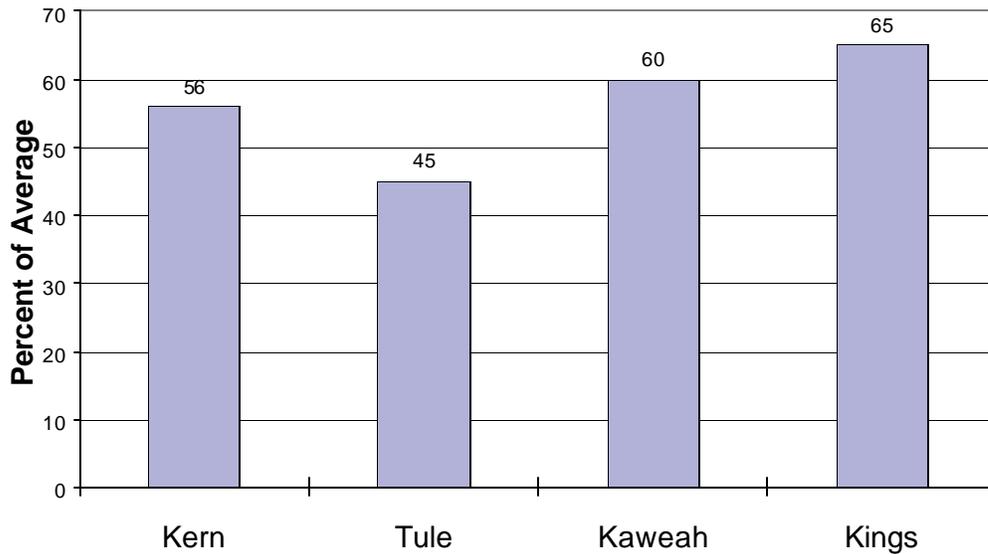


Tulare Lake Basin

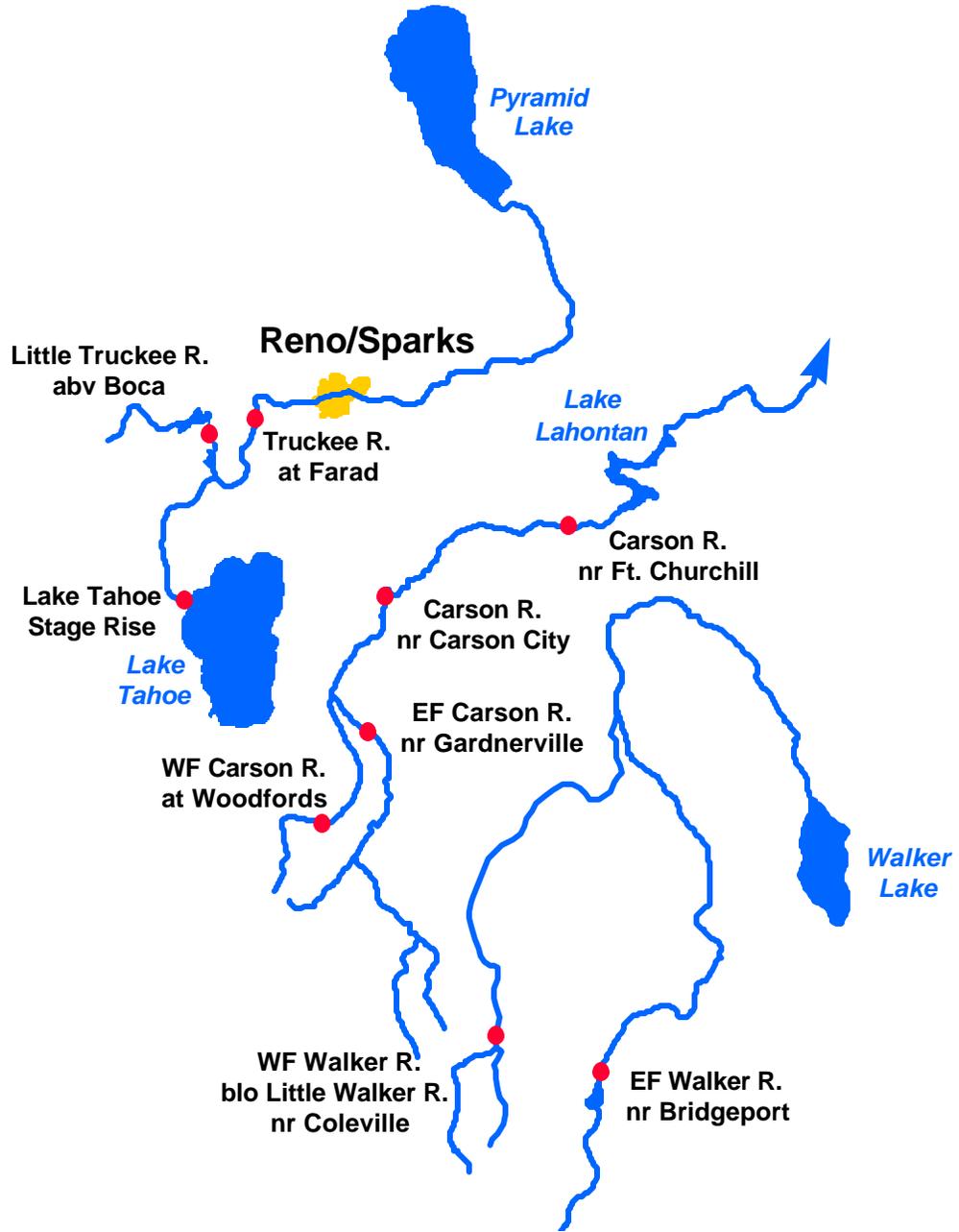
Basin Reservoir Storage Contents of Major Reservoirs in % of Average



Seasonal Basin Runoff October 1 to Date



East Side Sierra Nevada Basins

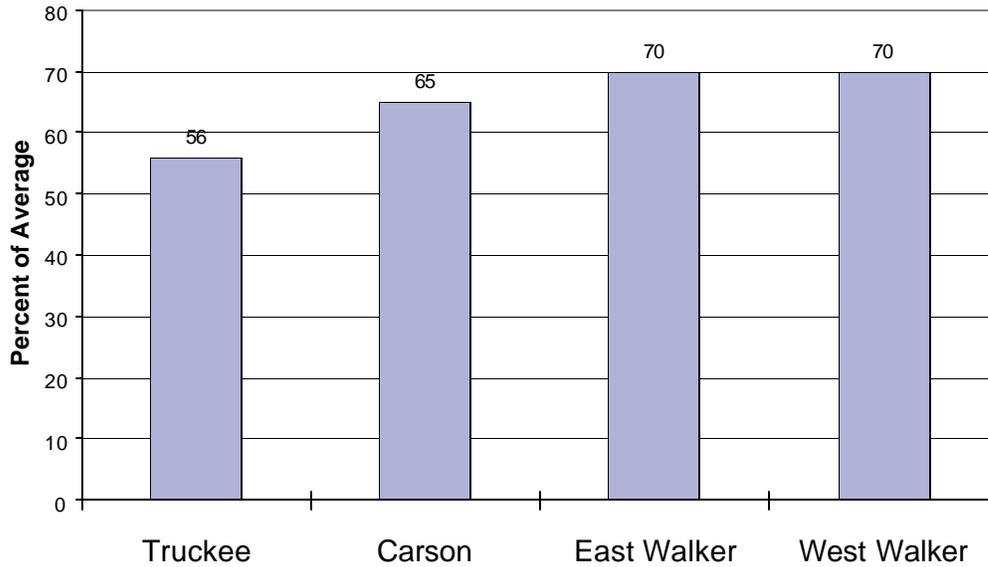


Water Supply Forecasts

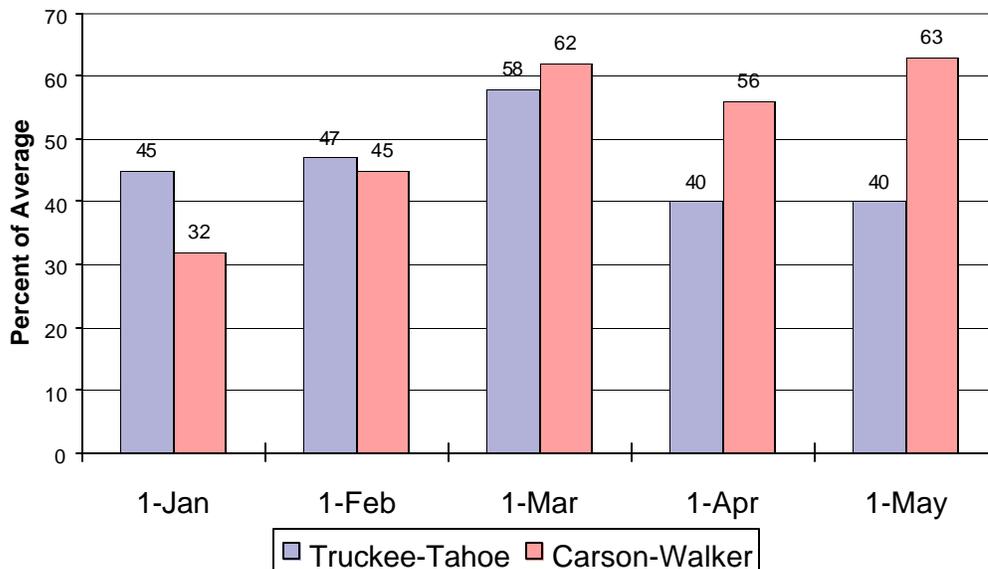
		Most Prob. Vol. KAF	Most Prob. Vol. %Nrml	Reas Max Vol. KAF	Reas. Min Vol. KAF	30 Year Avg. KAF
Truckee River						
Truckee River						
Lake Tahoe Stage Rise	Apr-High	0.4	29	0.6	0.2	1.4
Farad	Apr-Jul	75	29	105	55	263
Carson River						
EF Carson River						
Gardnerville, nr	Apr-Jul	80	43	97	63	186
WF Carson River						
Woodfords	Apr-Jul	22	41	28	18	54
Carson River						
Carson City, nr	Apr-Jul	50	27	80	20	182
Fort Churchill, nr	Apr-Jul	30	18	64	10	167
Walker River						
East Walker River						
Bridgeport, nr	Apr-Aug	27	36	43	11	74
West Walker River						
Ltl Walker, blo, Coleville	Apr-Jul	80	54	91	69	147

East Side Sierra Nevada Basins

Seasonal Basin Precipitation October 1 to Date



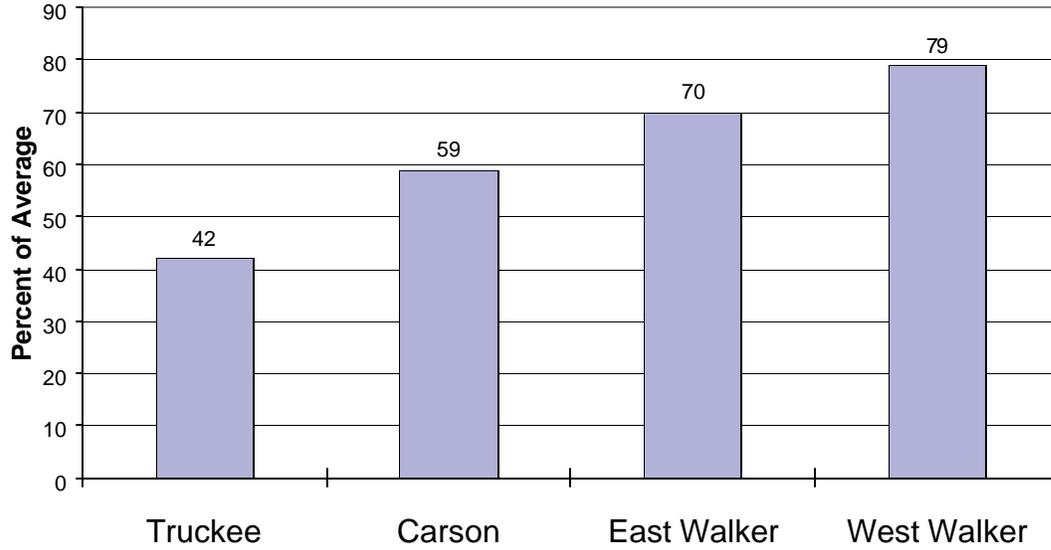
Basin Snowpack % of Average SWE to Date



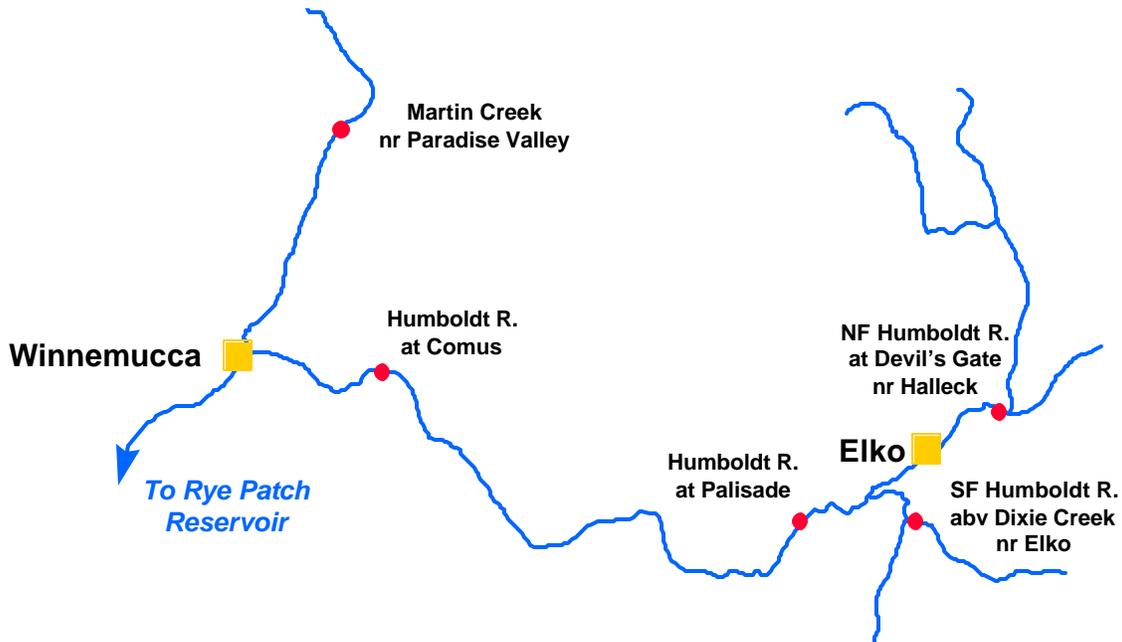
East Side Sierra Nevada Basins

Seasonal Basin Runoff

October 1 to Date



Humboldt River Basin

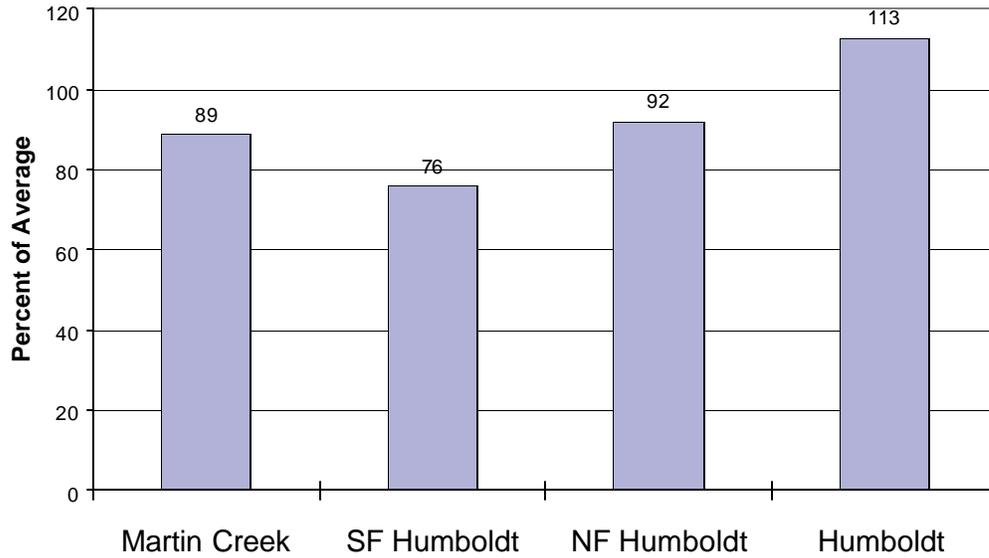


Water Supply Forecasts

		Most Prob. Vol. KAF	Most Prob. Vol. %Nrml	Reas Max Vol. KAF	Reas. Min Vol. KAF	30 Year Avg. KAF
<hr/>						
NF Humboldt River						
Devils Gate, at, Halleck, nr	Apr-Jul	12	35	26	5	34
SF Humboldt River						
Dixie Ck, abv, Elko, nr	Apr-Jul	36	53	63	12	68
Humboldt River						
Palisade	Apr-Jul	85	35	199	25	245
Comus	Apr-Jul	50	24	194	20	209
Martin Ck						
Paradise Valley, nr	Apr-Jul	6	33	11.4	3.5	18

Humboldt River Basin

Seasonal Basin Precipitation October 1 to Date



Basin Snowpack % of Average SWE to Date

