UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

California Water Supply Outlook Report

March, 2016

Photo taken on February 25, 2016 by NRCS. NRCS snow surveyor Dan Martynn is taking measurements at the Camp Richardson Snow Course near South Lake Tahoe. Note the Snow Course marker in the background on an orange pole.

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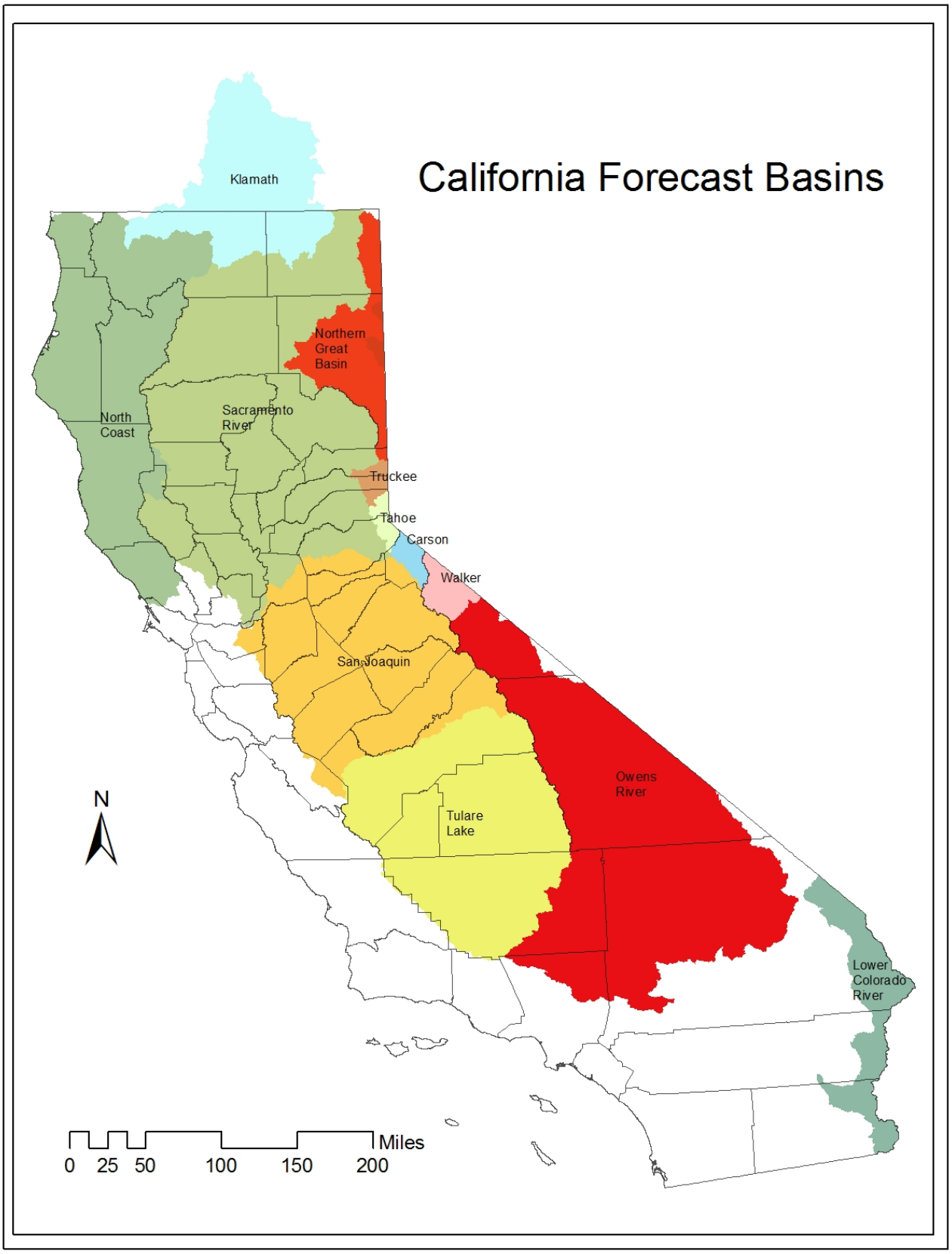
How Forecasts are Made


California Forecast Basins
Klamath
Northern Great Basin
North Coast
Sacramento River
Truckee
Tahoe
Carson
Walker
San Joaquin
Owens River
Tulare Lake
Lower Colorado River
N
0 25 50 100 150 200
Miles

STATE OF CALIFORNIA GENERAL OUTLOOK

March, 2016

SUMMARY

After a very dry February, California experienced substantial precipitation in the form of rainfall or snow during the first two weeks of March. As a result, existing snowpack continued to build and water levels in the major storage reservoirs increased.

SNOWPACK

As of March 10 snowpack conditions for the Northern, Central, and Southern Sierras have decreased from normal to below normal conditions for this time of year. The snow water equivalents (SWE) are currently in the range of 80%-90% of normal with a steady to upward trend due to recent storms. The reduction in the SWE from the last report was due to a February break in the storms, higher than normal temperatures, and recent warmer storms. For more information please visit:

http://cdec.water.ca.gov/cgi-progs/snow/DLYSWEQ

PRECIPITATION

Mountain rainfall precipitation is fairly consistent from the Northern end of the Sierras to the Southern end of the Sierras. As of February 10, rainfall gages in the Northern Sierra Region (8-Station index), Central Sierra Region (5-Station index), and Southern Sierra Region (6-Station index) show rainfall amounts to be slightly above normal (105%-110%) for this time of year.

http://cdec.water.ca.gov/snow_rain.html

RESERVOIRS

Most major reservoirs in California, especially those fed by the Sierra Mountains and Foothills have shown large increases in storage since last month's report. Most are still below average capacity for this time of year, but are trending up due to large storms during the first week of March. March 10 lake level readings show Lake Oroville is at 86% of average storage, Lake Shasta is at 90% of average storage, and New Hogan is at 64% of average storage. Folsom Lake is one reservoir that seems to have recovered from its deficit and is currently at 124% percent of normal storage.

http://cdec.water.ca.gov/cgi-progs/reservoirs/RES

STREAMFLOW

Forecasted flows from Sierra fed streams all show close to normal to slightly below normal due to the build-up of a normal snowpack to date. The streamflow forecasts for the major basins in California are shown as follows:

Sacramento River Basin

3/1/2016

Forecasted streamflow volumes for this April through July are in the 80 and 90 percent of average range, but much higher than this time last year.

SACRAMENTO RIVER BASIN
Streamflow Forecasts - March 1, 2016

Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

Forecast Point / Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	(% AVG.)	30% (KAF)	10% (KAF)	30 Yr Avg (KAF)
Sacramento R at Shasta (DWR)							
APR-JUL			230	76			302
Sacramento R at Shasta (NWS)							
APR-JUL	239	272	325	104	402	504	312
McCloud R ab Shasta (DWR)							
APR-JUL			320	84			379
McCloud R ab Shasta (NWS)							
APR-JUL	279	304	330	84	370	450	392
Pit R at Shasta Lk (DWR)							
APR-JUL			870	83			1046
Pit R at Shasta Lk (NWS)							
APR-JUL	656	696	777	77	921	1106	1013
Inflow to Shasta Lk (DWR)							
APR-JUL	1050		1470	81		2370	1806
OCT-SEP	4235		4945	83		6530	5979
Inflow to Shasta Lk (NWS)							
APR-JUL	1304	1437	1603	89	1966	2451	1803
Sacramento R nr Red Bluff (DWR)							
APR-JUL	1410		2040	82		3470	2485
OCT-SEP	6145		7300	84		9915	8727
Sacramento R nr Red Bluff (NWS)							
APR-JUL	1836	2087	2263	91	2828	3659	2479
Feather R at Lk Almanor (DWR)							
APR-JUL			280	84			333
NF Feather R at Pulga (DWR)							
APR-JUL			820	80			1028
NF Feather R nr Prattville (NWS)							
APR-JUL	174	197	220	66	254	278	333
MF Feather R nr Clio (DWR)							
APR-JUL			65	76			86
SF Feather R at Ponderosa Dam (DWR)							

APR-JUL			85	77			110
Inflow to Oroville Res (DWR)							
APR-JUL	770		1370	78		2520	1758
OCT-SEP	2865		3765	83		5595	4523
Inflow to Oroville Res (NWS)							
APR-JUL	1063	1286	1491	88	1928	2390	1701
N Yuba R bl Goodyears Bar (DWR)							
APR-JUL			210	75			279
N Yuba R bl Goodyears Bar (NWS)							
APR-JUL	193	231	275	101	325	374	273
Inflow Jackson Mdws & Bowman Res (DWR)							
APR-JUL			85	76			112
S Yuba R nr Langs Crossing (DWR)							
APR-JUL			170	73			233
Yuba R at Smartville (DWR)							
APR-JUL	390		750	75		1320	996
OCT-SEP	1410		1960	84		2770	2329
Yuba R at Smartville (NWS)							
APR-JUL	628	735	896	91	1124	1315	981
NF American R at N FK Dam (DWR)							
APR-JUL			220	84			262
MF American R nr Auburn (DWR)							
APR-JUL			420	81			522
MF American R nr Auburn (NWS)							
APR-JUL	364	402	501	102	596	752	490
Inflow to Union Valley Res (NWS)							
APR-JUL	72	83	95	97	113	143	98
Silver Ck bl Camino Div. Dam (DWR)							
APR-JUL			140	81			173
Silver Ck bl Camino Div. Dam (NWS)							
APR-JUL	128	143	171	108	200	250	158
Inflow to Folsom Res (DWR)							
APR-JUL	560		1010	82		1840	1231
OCT-SEP	1770		2365	88		3560	2683
Inflow to Folsom Res (NWS)							
APR-JUL	858	967	1220	99	1446	1837	1232

The average is based on the 1981-2010 reference period.

1) 90% and 10% exceedance probabilities are actually 95% and 5%
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

San Joaquin River Basin

3/1/2016

Forecasted streamflow volumes for this April through July are mostly just below average. Note that the forecast at Michigan Bar on the Consumnes River is at 47%. This is most likely due to the watershed not having high altitude snow pack like the other watersheds.

SAN JOAQUIN RIVER BASIN
Streamflow Forecasts - March 1, 2016

Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

Forecast Point / Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	(% AVG.)	30% (KAF)	10% (KAF)	30 Yr Avg (KAF)
Cosumnes R at Michigan Bar (DWR)							
APR-JUL	40		100	78		250	128
OCT-SEP	180		285	74		550	385
Cosumnes R at Michigan Bar (NWS)							
APR-JUL	32	43	60	47	99	201	128
NF Mokelumne R nr West Point (DWR)							
APR-JUL			390	89			437
Inflow to Pardee Res (DWR)							
APR-JUL	290		420	91		660	461
OCT-SEP			690	92			751
Inflow to Pardee Res (NWS)							
APR-JUL	259	301	344	74	445	581	467
MF Stanislaus R bl Beardsley (DWR)							
APR-JUL			300	90			334
N F Inflow to McKays Pt Dam (DWR)							
APR-JUL			200	89			224
Inflow to New Melones Res (DWR)							
APR-JUL	470		640	92		1030	699
Inflow to New Melones Resr (DWR)							
OCT-SEP	840		1055	90		1550	1167
Inflow to New Melones Res (NWS)							
APR-JUL	464	542	643	93	769	959	690
Cherry & Eleanor Cks, Hetch Hetchy (DWR)							
APR-JUL			270	86			315
Tuolumne R nr Hetch Hetchy (DWR)							
APR-JUL			550	91			604
Tuolumne R nr Hetch Hetchy (NWS)							
APR-JUL	820		1090	183		1710	596
Inflow to New Don Pedro Res (DWR)							
APR-JUL	820		1090	89		1710	1221
OCT-SEP	1405		1760	91		2520	1943

Inflow to New Don Pedro Res (NWS)							
APR-JUL	952	1120	1254	97	1466	1741	1288
Merced R, Pohono Bridge Yosemite(DWR)							
APR-JUL			300	81			372
Merced R, Pohono Bridge Yosemite (NWS)							
APR-JUL	313	361	409	106	462	526	385
Inflow to Lake McClure (DWR)							
APR-JUL	360		500	79		850	636
OCT-SEP	610		790	79		1220	1007
Inflow to Lake McClure (NWS)							
APR-JUL	493	576	659	103	768	930	642
San Joaquin R at Mammoth Pool (DWR)							
APR-JUL			790	77			1026
Big Ck bl Huntington Lk (DWR)							
APR-JUL			65	71			91
SF San Joaquin R nr Florence Lk (DWR)							
APR-JUL			160	80			201
Inflow to Millerton Lk (DWR)							
APR-JUL	670		950	76		1540	1258
OCT-SEP	990		1325	72		2020	1831
Inflow to Millerton Lk (NWS)							
APR-JUL	958	1109	1209	96	1510	1800	1258

The average is based on the 1981-2010 reference period.

1) 90% and 10% exceedance probabilities are actually 95% and 5%
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

Tulare Lake Basin

3/1/2016

Forecasted streamflow volumes for this April through July are below average, ranging from 59% to 89% of average.

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TULARE LAKE BASIN

Streamflow Forecasts - March 1, 2016

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Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

Forecast Point	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	(% AVG.)	30% (KAF)	10% (KAF)	30 Yr Avg (KAF)
NF Kings R nr Cliff Camp (DWR)								
	APR-JUL			180	75			239
Inflow to Pine Flat Res (DWR)								
	APR-JUL	640		920	74		1510	1236
	OCT-SEP	930		1255	73		1940	1729
Inflow to Pine Flat Res (NWS)								
	APR-JUL	842	974	1089	89	1329	1735	1231
Kaweah R at Terminus Res (DWR)								
	APR-JUL	150		220	76		400	290
	OCT-SEP	240		325	71		540	456
Kaweah R at Terminus Res (NWS)								
	APR-JUL	168	200	246	85	336	442	288
Tule R at Success Res (DWR)								
	APR-JUL	22		42	66		110	64
	OCT-SEP	65		96	65		190	147
Tule R at Success Res (NWS)								
	APR-JUL	28	37	51	81	89	119	63
Kern R nr Kernville (DWR)								
	APR-JUL			250	65			384
Inflow to Isabella Res (DWR)								
	APR-JUL	190		300	65		600	465
	OCT-SEP	300		435	59		800	733
Inflow to Isabella Res (NWS)								
	APR-JUL	262	318	391	86	539	728	454

The average is based on the 1981-2010 reference period.

1) 90% and 10% exceedance probabilities are actually 95% and 5%
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

North Coast Area Basin

3/1/2016

Forecasted streamflow volumes for this April through July are below average, ranging from 94% to 107% of average.

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NORTH COASTAL AREA

Streamflow Forecasts - March 1, 2016

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Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

Forecast Point / Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	(% AVG.)	30% (KAF)	10% (KAF)	30 Yr Avg (KAF)
Trinity R at Lewiston (DWR)							
APR-JUL	410		610	94		920	651
OCT-SEP	1085		1380	100		1840	1376
Inflow to Clair Engle Lk (NWS)							
APR-JUL	594	644	712	107	837	946	666
Scott R nr Fort Jones (NWS)							
APR-JUL			164	0			0.0
APR-JUL	136	149	163	94	177	209	173

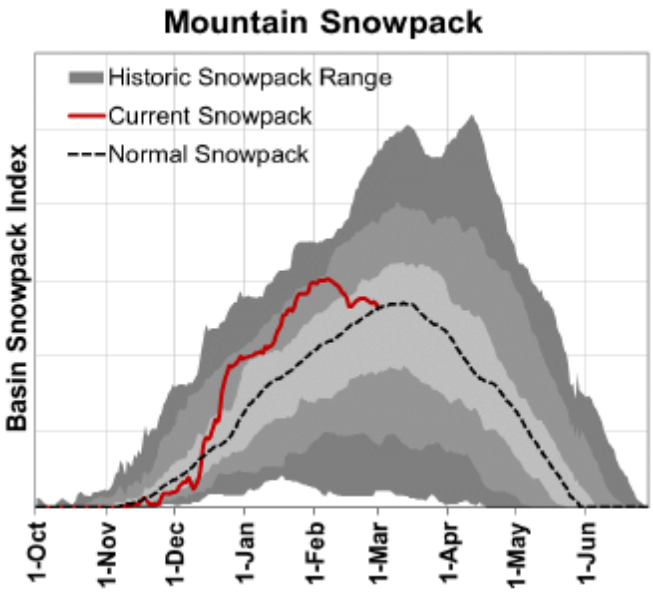
The average is based on the 1981-2010 reference period.

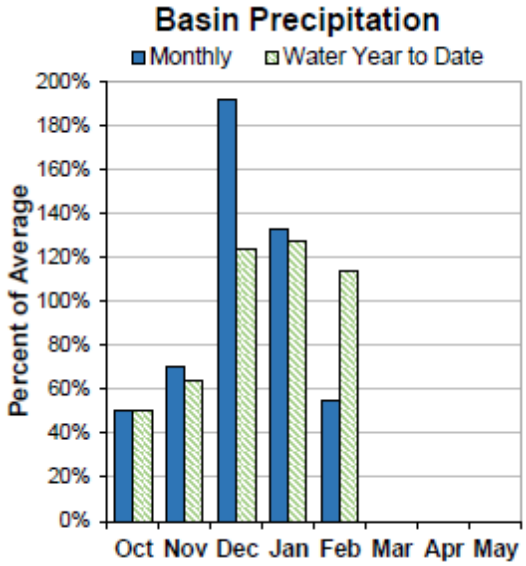
1) 90% and 10% exceedance probabilities are actually 95% and 5%
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

Klamath Basin

March 1, 2016

As of March 1, the basin snowpack was 101% of normal. This is significantly lower than last month when the snowpack was 135% of normal. Snowpack conditions vary greatly across the basin: high elevation sites (more than 6000 ft elevation) and those on the west side of the basin (Cascade Mtns) are near normal to above normal while the snowpack in the rest of the basin is well below normal. February precipitation was 55% of average. Precipitation since the beginning of the water year (October 1 - March 1) has been 114% of average. As of March 1, storage at major reservoirs in the basin ranges from 38% of average at Clear Lake to 111% of average at Upper Klamath Lake. As of March 1, summer streamflow forecasts in the basin range from 76% to 89% of average. Overall, forecasts decreased significantly from last month's report. Water supplies in the basin are likely to be well below normal to below normal this summer.





KLAMATH BASIN
Streamflow Forecasts - March 1, 2016

Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

Forecast Point / Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	(% AVG.)	30% (KAF)	10% (KAF)	30 Yr Avg (KAF)
Gerber Res Inflow (2)							
MAR-JUL	2.4	15.5	26	81	33	46	32
APR-SEP	0.4	4.8	11.0	76	15.7	24	14.4
Sprague R nr Chiloquin							
MAR-JUL	115	171	220	86	249	306	255
Upper Klamath Lk Inflow (1,2)							
MAR-JUL	255	390	495	85	515	655	580
APR-SEP	230	335	410	85	425	530	480
Williamson R bl Sprague R nr Chiloquin							
MAR-JUL	215	280	355	89	370	435	400
APR-SEP	205	260	315	89	330	385	355

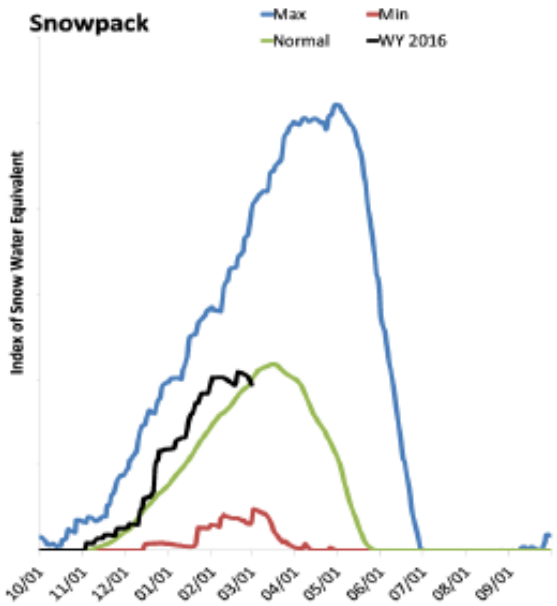
The average is based on the 1981-2010 reference period.

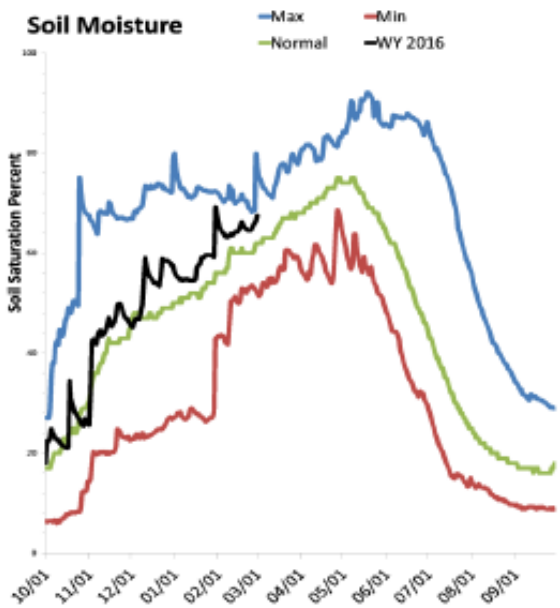
1) 90% and 10% exceedance probabilities are actually 95% and 5%
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

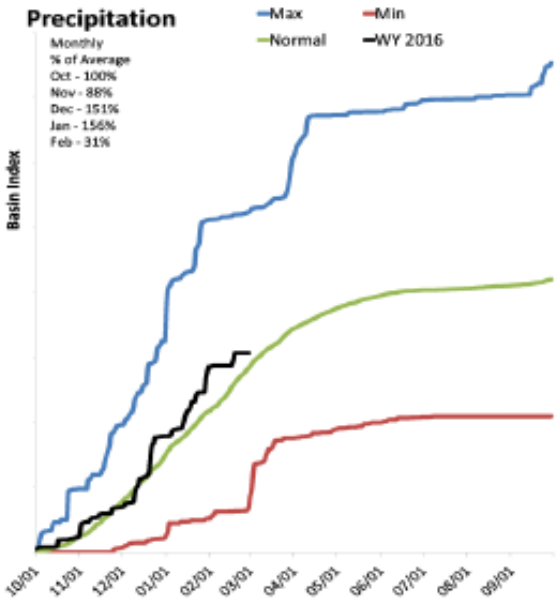
Lake Tahoe Basin

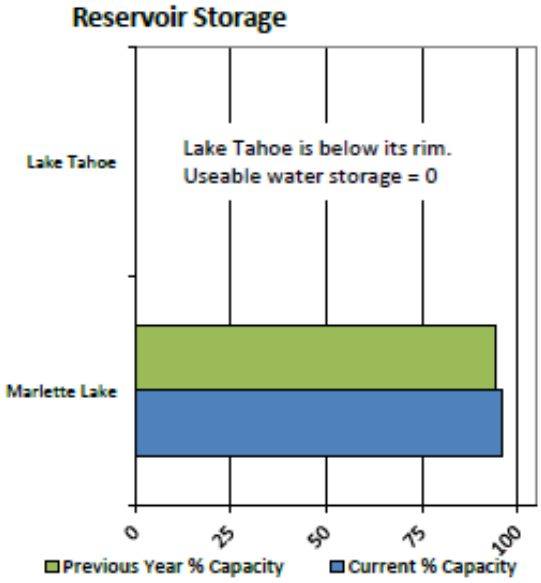
3/1/2016

Snowpack in the Lake Tahoe Basin is near normal at 96% of median, compared to 23% last year. Precipitation in February was much below average at 31%, which brings the seasonal accumulation (Oct-Feb) to 108% of average. Soil moisture is 67% compared to 63% last year. Lake Tahoe's water elevation is 6222.24 ft, which is 0.76 ft below the lake's natural rim and equals a storage deficit of approximately 93 thousand acre-feet. Last year the elevation was 6222.85 ft which equaled a storage deficit of approximately 19 thousand acre-feet. Lake Tahoe is forecast to rise 1.6 feet from March 1 to its highest elevation.









LAKE TAHOE BASIN
Streamflow Forecasts - March 1, 2016

Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

Forecast Point Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	(% AVG.)	30% (KAF)	10% (KAF)	30 Yr Avg (KAF)
Marlette Lk Inflow (Acre-Ft)							
MAR-JUL	116	660	1030	85	1400	1944	1213
APR-JUL	-46.0	452	765	84	1078	1539	911
Lake Tahoe Rise (Gates Closed) (1)							
MAR-HIGH	0.57	1.28	1.60	93	1.92	2.60	1.73
APR-HIGH	0.70	0.99	1.25	95	1.45	2.20	1.31

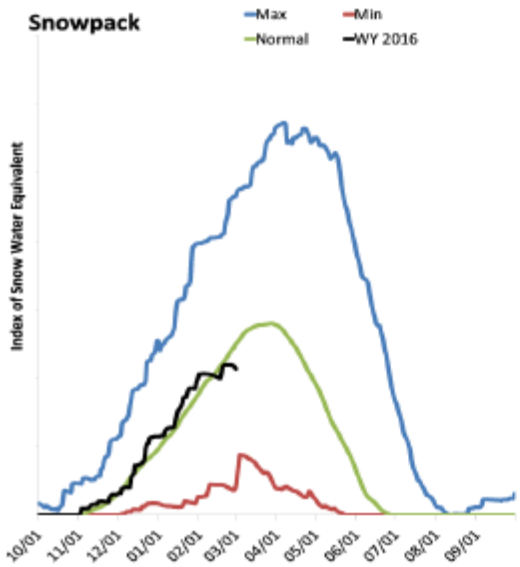
The average is based on the 1981-2010 reference period.

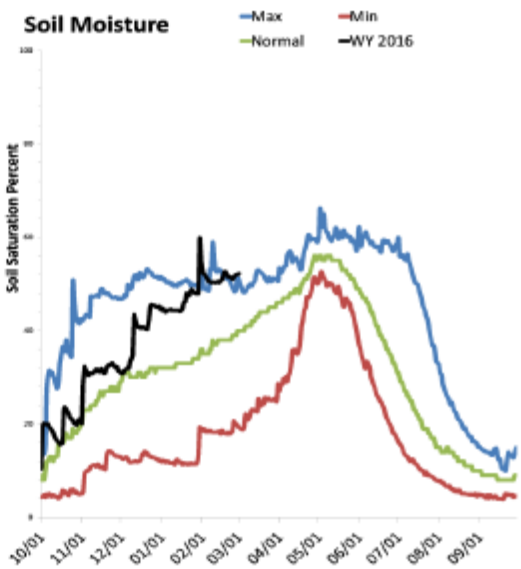
1) 90% and 10% exceedance probabilities are actually 95% and 5%
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

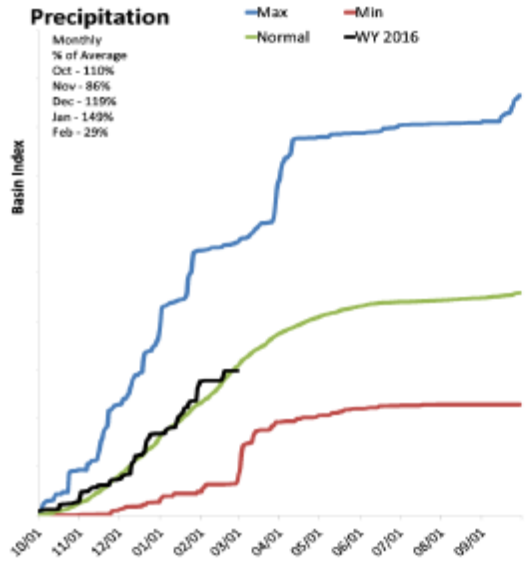
Truckee River Basin

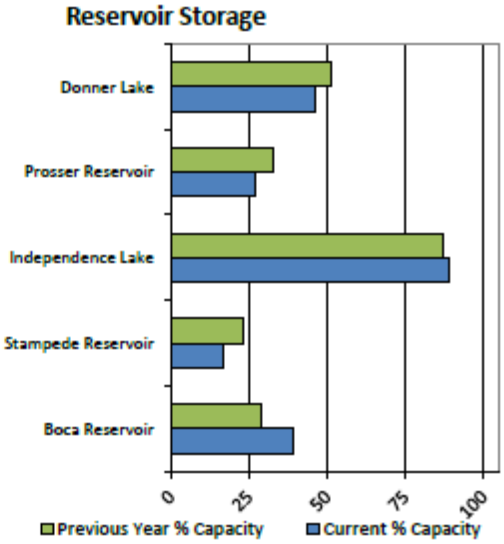
3/1/2016

Snowpack in the Truckee River Basin is below normal at 89% of median, compared to 32% last year. Precipitation in February was much below average at 29%, which brings the seasonal accumulation (Oct-Feb) to 97% of average. Soil moisture is 52% compared to 48% last year. Combined reservoir storage is 25% of capacity, compared to 29% last year. Forecast streamflow volumes range from 83% to 102% of average.









TRUCKEE RIVER BASIN
Streamflow Forecasts - March 1, 2016

Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

Forecast Point / Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	(% AVG.)	30% (KAF)	10% (KAF)	30 Yr Avg (KAF)
Sagehen Ck nr Truckee							
MAR-JUL	3.1	4.3	5.3	83	6.5	8.9	6.4
APR-JUL	2.5	3.6	4.5	80	5.7	8.1	5.6
L Truckee R ab Boca Resv							
MAR-JUL	56	83	101	102	119	146	99
APR-JUL	60	73	85	101	102	120	84
Truckee R at Farad							
MAR-JUL	148	225	280	91	330	410	307
APR-JUL	170	210	235	92	284	330	255

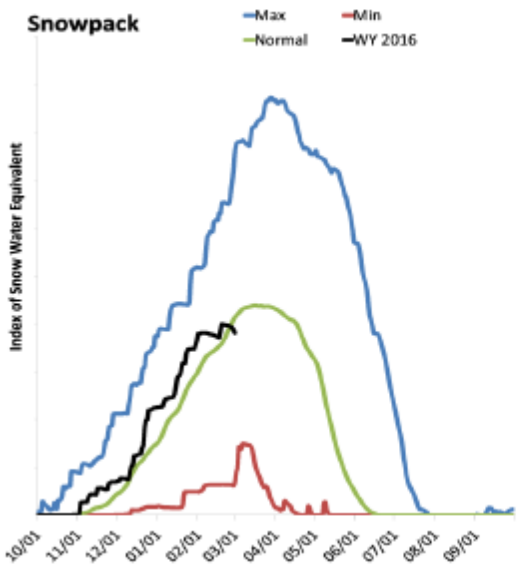
The average is based on the 1981-2010 reference period.

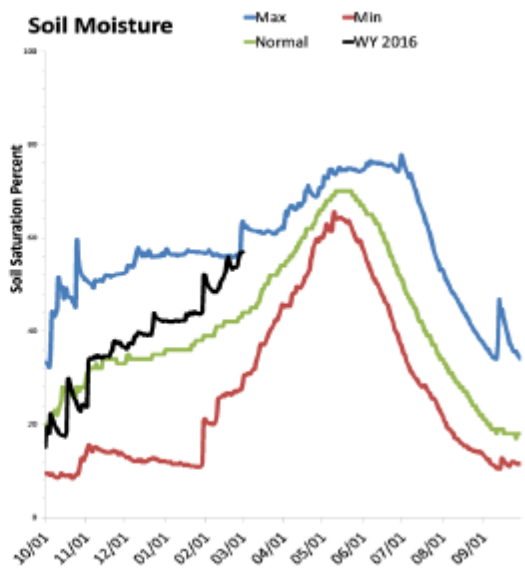
1) 90% and 10% exceedance probabilities are actually 95% and 5%
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

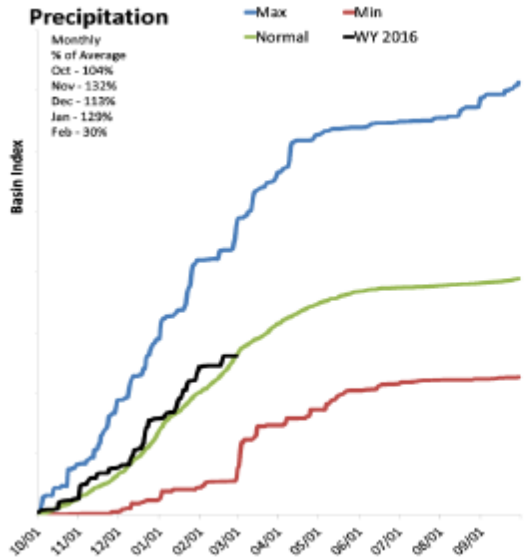
Carson River Basin

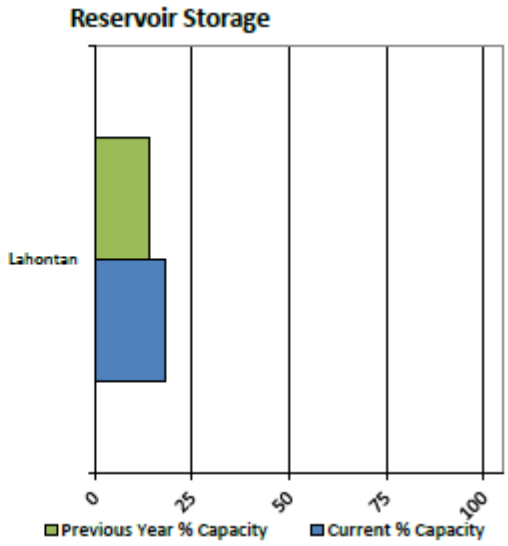
3/1/2016

Snowpack in the Carson River Basin is near normal at 93% of median, compared to 36% last year. Precipitation in February was much below average at 30%, which brings the seasonal accumulation (Oct-Feb) to 100% of average. Soil moisture is 57% compared to 50% last year. Storage in Lahontan Reservoir is 18% of capacity, compared to 14% last year. Forecast streamflow volumes range from 90% to 116% of average.









CARSON RIVER BASIN
Streamflow Forecasts - March 1, 2016

Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

Forecast Point / Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	(% AVG.)	30% (KAF)	10% (KAF)	30 Yr Avg (KAF)
EF Carson R nr Gardnerville							
MAR-JUL	91	147	185	90	223	279	205
APR-JUL	71	127	165	89	203	259	186
WF Carson R at Woodfords							
MAR-JUL	36	52	63	107	74	90	59
APR-JUL	28	44	55	102	66	82	54

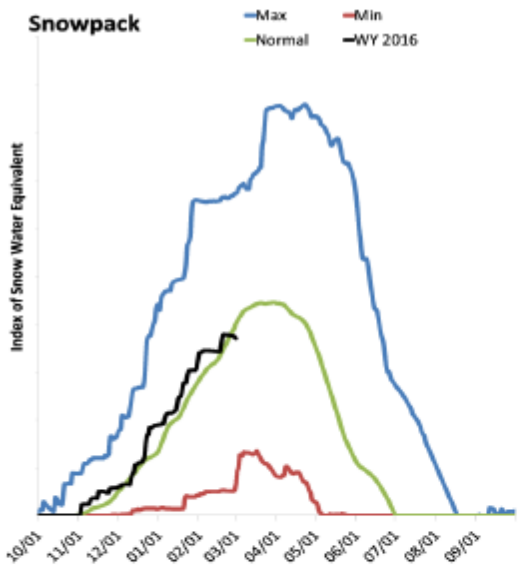
The average is based on the 1981-2010 reference period.

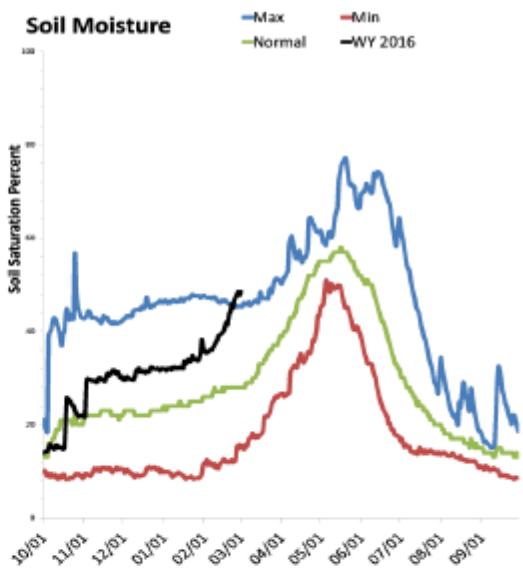
1) 90% and 10% exceedance probabilities are actually 95% and 5%
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

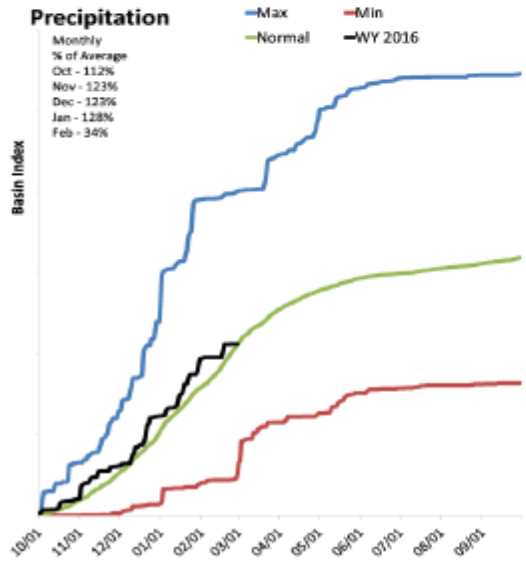
Walker River Basin

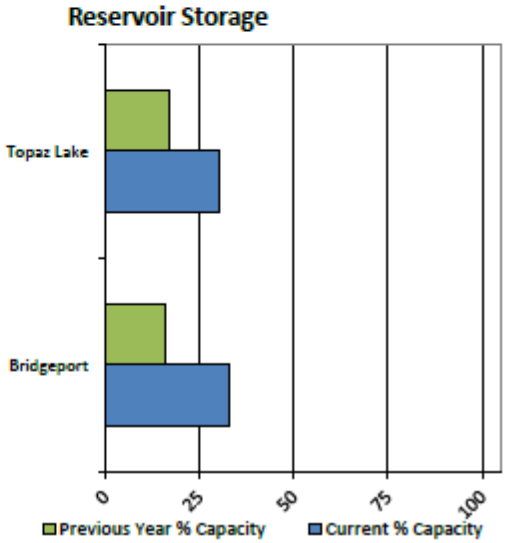
3/1/2016

Snowpack in the Walker River Basin is near normal at 93% of median, compared to 39% last year. Precipitation in February was much below average at 34%, which brings the seasonal accumulation (Oct-Feb) to 100% of average. Soil moisture is 47% compared to 35% last year. Combined reservoir storage is 31% of capacity, compared to 16% last year. Forecast streamflow volumes range from 94% to 100% of average.









WALKER RIVER BASIN
Streamflow Forecasts - March 1, 2016

Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

Forecast Point / Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	(% AVG.)	30% (KAF)	10% (KAF)	30 Yr Avg (KAF)
E Walker R nr Bridgeport							
MAR-AUG	33	59	76	100	93	119	76
APR-AUG	31	53	68	102	83	105	67
W Walker R bl L Walker R nr Coleville							
MAR-JUL	99	135	160	94	185	221	170
APR-JUL	90	126	150	93	174	210	162
W Walker R nr Coleville							
MAR-JUL	109	145	170	99	195	231	172
APR-JUL	95	131	155	95	179	215	163

The average is based on the 1981-2010 reference period.

1) 90% and 10% exceedance probabilities are actually 95% and 5%
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

Owens River Basin

3/1/2016

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OWENS RIVER BASIN

Streamflow Forecasts - March 1, 2016

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Forecast Exceedance Probabilities for Risk Assessment

Chance that actual volume will exceed forecast

Forecast Point Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	(% AVG.)	30% (KAF)	10% (KAF)	30 Yr Avg (KAF)
Owens R (DWR) APR-SEP			204	87			235

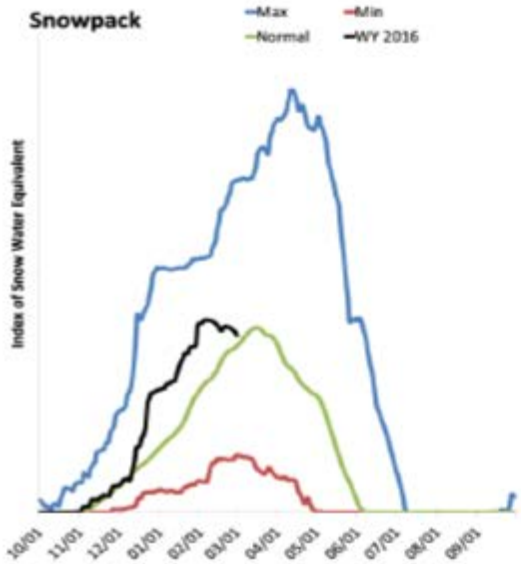
The average is based on the 1981-2010 reference period.

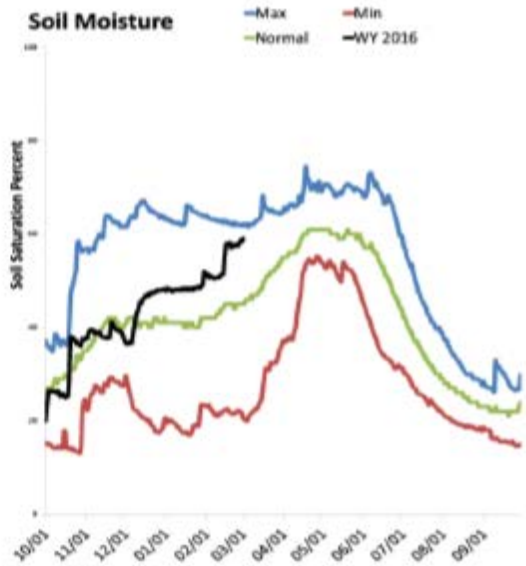
1) 90% and 10% exceedance probabilities are actually 95% and 5%
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

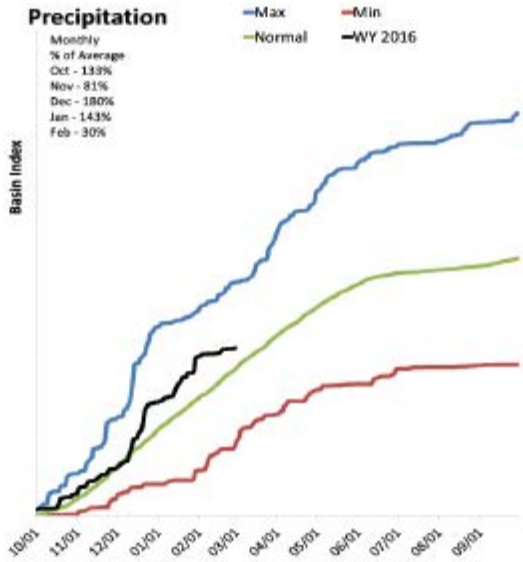
Northern Great Basin

3/1/2016

Snowpack in the Northern Great Basin is near normal at 102% of median, compared to 31% last year. Precipitation in February was much below average at 29%, which brings the seasonal accumulation (Oct-Feb) to 114% of average. Soil moisture is 61% compared to 54% last year. Forecast streamflow volumes range from 88% to 97% of average.







NORTHERN GREAT BASIN
Streamflow Forecasts - March 1, 2016

Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

Forecast Point / Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	(% AVG.)	30% (KAF)	10% (KAF)	30 Yr Avg (KAF)
Davis Ck (Acre Ft)							
APR-JUL	3610	5090	6430	89	8120	11500	7233
APR-SEP	4160	5760	7190	90	8970	12400	7991
Eagle Ck nr Eagleville							
APR-JUL	1.0	2.8	4.0	93	5.2	7.0	4.3
Bidwell CK nr Ft. Bidwell							
APR-JUL	6.4	9.3	11.2	93	13.1	16.0	12.0

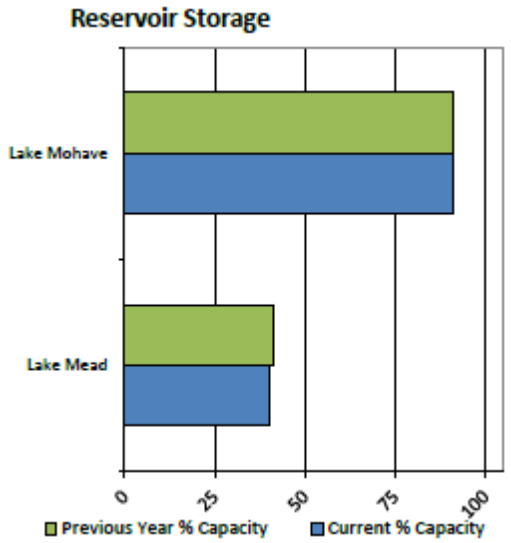
The average is based on the 1981-2010 reference period.

1) 90% and 10% exceedance probabilities are actually 95% and 5%
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

Lower Colorado River Basin

3/1/2016

Snowpack in the Colorado River Basin is forecasted to produce 77% of normal runoff into Lake Powell during the April to July months. Lake Mead water levels have decreased as shown below since last year.



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COLORADO RIVER BASIN

Streamflow Forecasts - March 1, 2016

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Forecast Exceedance Probabilities for Risk Assessment

Chance that actual volume will exceed forecast

Forecast Point Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	(% AVG.)	30% (KAF)	10% (KAF)	30 Yr Avg (KAF)
Lake Powell Inflow (2)							
APR-JUL	3200	4500	5500	77	6610	8410	7160

The average is based on the 1981-2010 reference period.

1) 90% and 10% exceedance probabilities are actually 95% and 5%
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snowcourses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

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