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Colorado
Water Supply Outlook Report
April 1, 2016

Kevin Houck and Allison Franz of the Colorado Water Conservation Board measure the Willow Creek Pass snow course. This snow course recorded 129% of normal snow water equivalent, a large increase over the previous month, which is a result of the series of winter storms that hit central and northern Colorado throughout the month of March.

Date: 3/31/2016 Photo By: Joe Busto

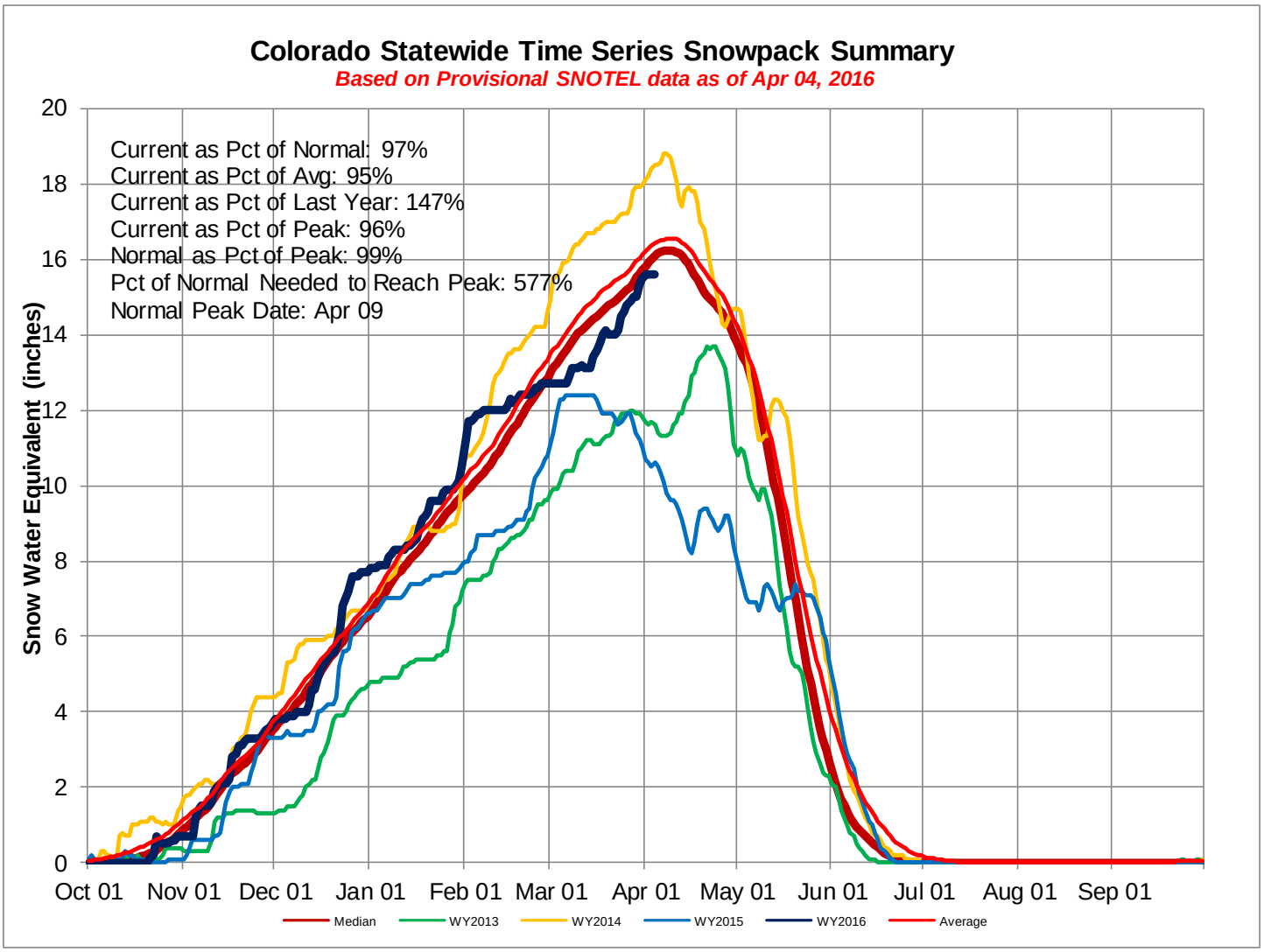
REMINDER: We are soliciting field work photos from our snow surveyors again this year. Each month we will pick one to grace the cover of this report! Please include information on where, when and of who/what the photo was taken.

Contents

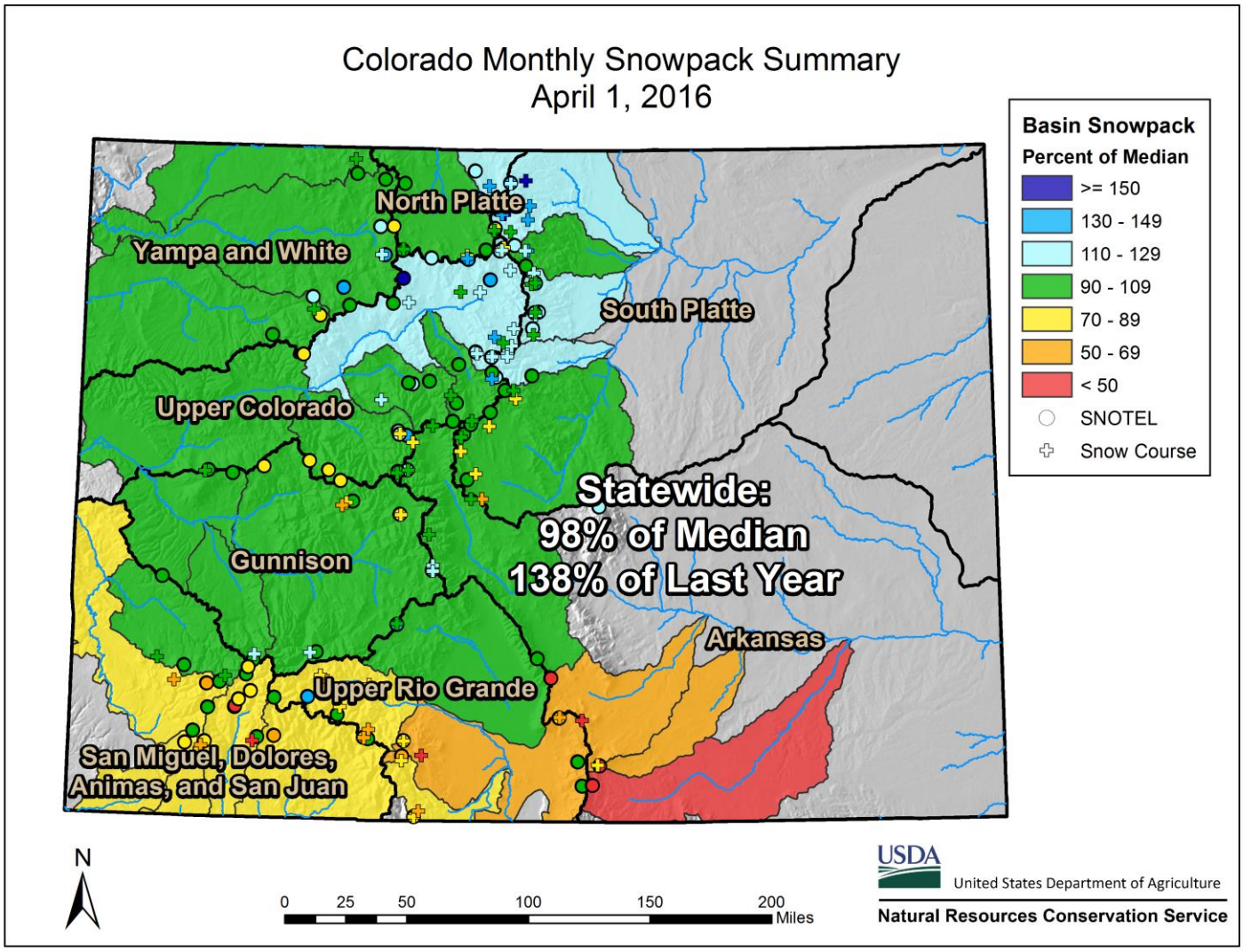
Statewide Water Supply Conditions

Summary

The beginning of March started off slow on the heels of a poor February but precipitation slowly ramped up, first in the northern half of the state then eventually working the wetter weather pattern throughout much of Colorado's mountains. Unfortunately by the time the wet weather had impacted the southern mountains it was too little, too late, and also too warm. In some mountain locations, March precipitation was between 50 and 65 percent of normal and at lower elevations fell in the form of rain instead of snow. Snowpack at the lower elevations of the southern mountains have experienced snowpack melt since the beginning of March. The Dolores and San Juan River basins as a whole gained little additional snowpack since February 1, where the losses in snowpack at lower elevations nullified the accumulations at the higher elevations. Fortunately the northern portion of the state not only avoided the dry, warm weather but made considerable improvements beyond March 1 snowpack levels. Peak snowpack typically occurs in early to mid-April for much of Colorado, which means streamflows will likely begin to crescendo in the near future. This month's forecasts are near normal in the Upper Colorado, North and South Platte watersheds but slightly below to below normal in all other basins.

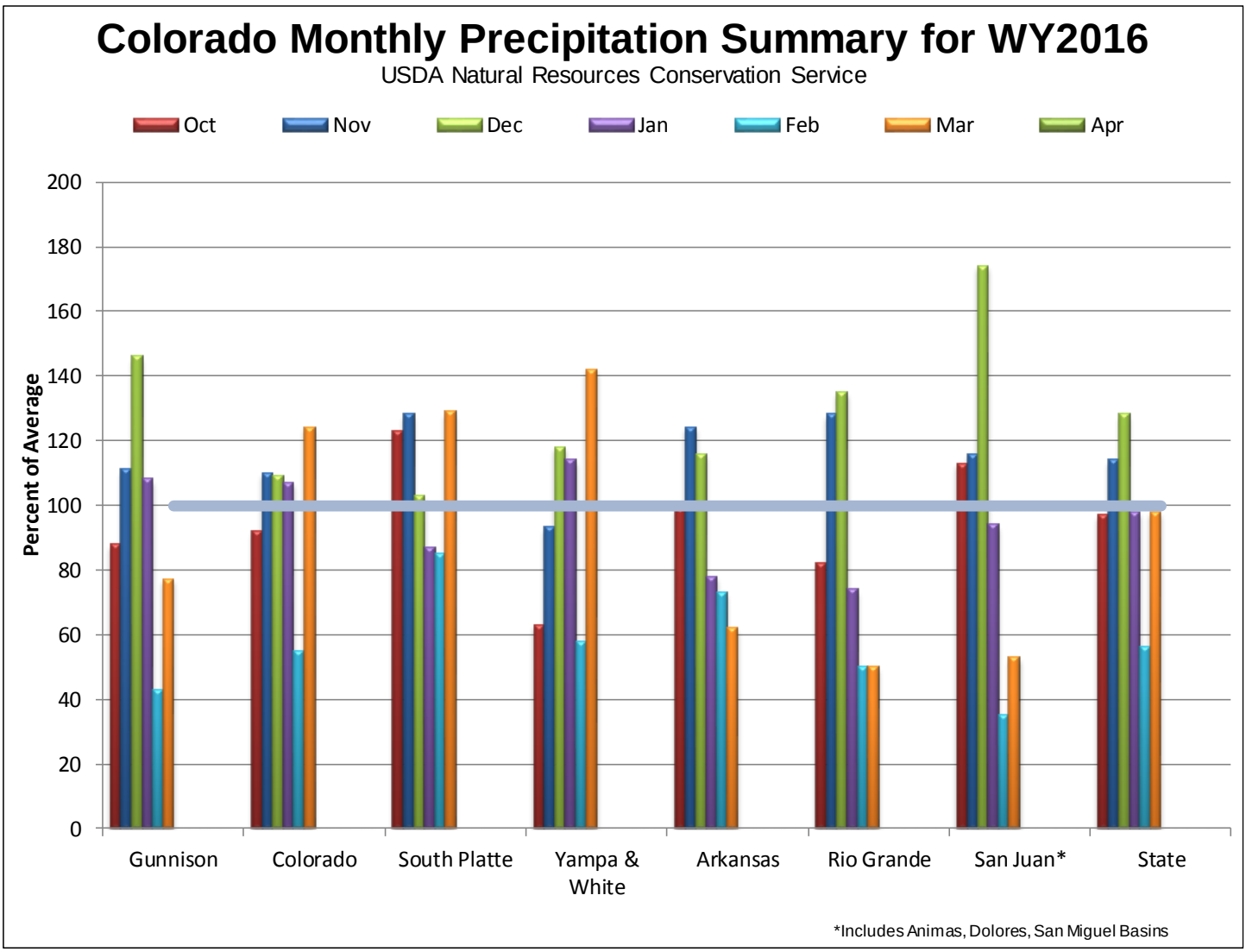


Snowpack



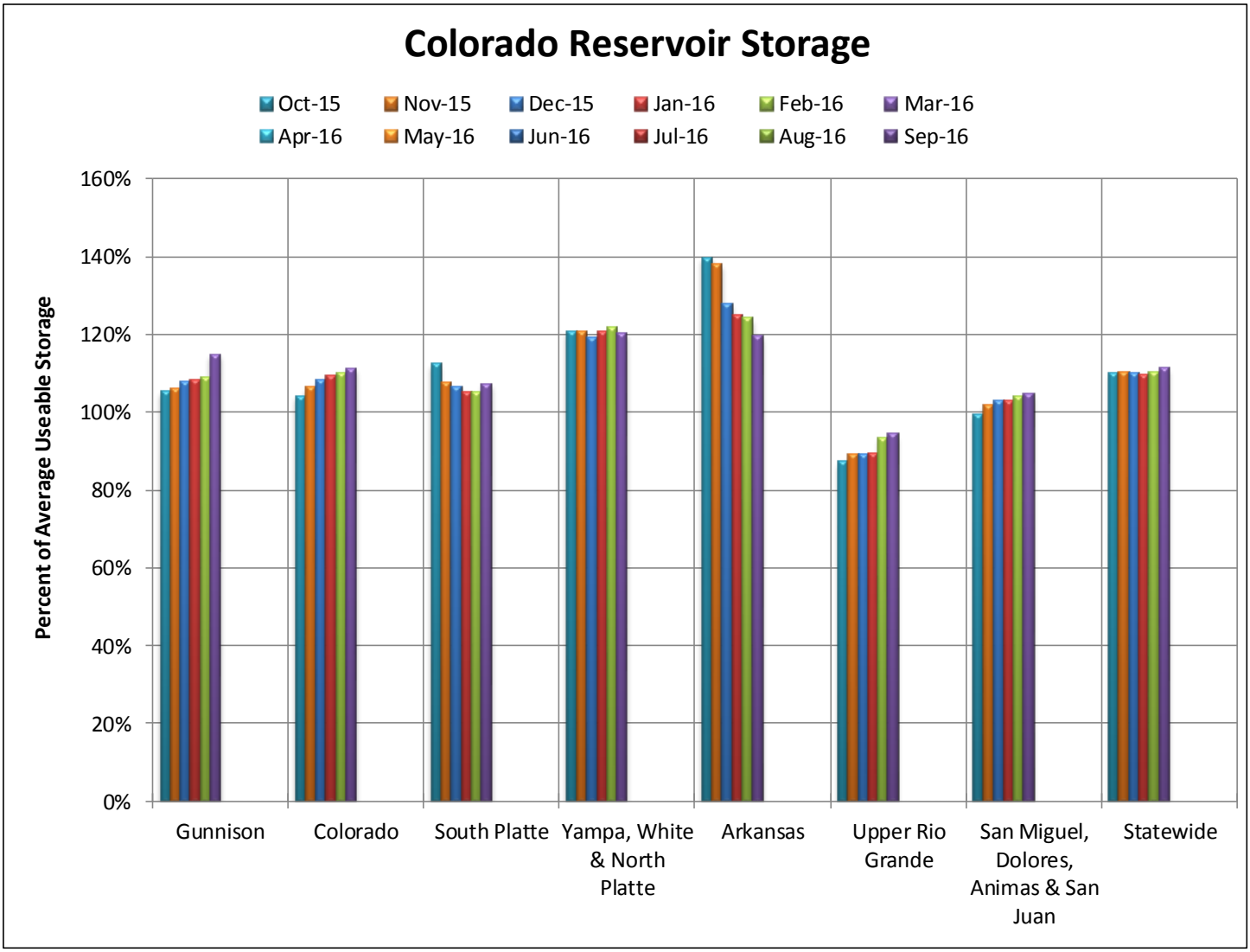
There is a distinctive trend in April 1st snowpack accumulation as one traverses from north to south across Colorado. March storms favored the northern and central river basins allowing these areas to continue to build on a healthy snowpack. Conversely, the southern basins are universally below normal and many low-elevation sites reached early snowpack peaks and have progressed into advanced stages of melt. The southeastern sub-basins of the Arkansas are especially low on snow, but as a result of the near-normal snowpack in the headwater tributaries, that river basin as a whole has only dropped to 92 percent of median snowpack. The Rio Grande has the lowest snowpack of the major river basins, at 79 percent of the median. The combined San Miguel, Dolores, Animas, and San Juan River basin is also below normal at 81 percent of the median. The Gunnison River basin is near normal at 95 percent of median and the other major river basins to the north are above normal. The North Platte has the most ample snowpack in the state compared to normal and currently sits at 109 percent of median. Despite the low snowpack levels in several of the southern basins, Colorado still has a snowpack that is near normal at 98 percent of the median. This is much better than was experienced last year on April 1st when many of the low and mid-elevation SNOTEL sites had already begun to melt and the state had a snowpack that was only 69 percent of the median. Aside from the low-elevation SNOTEL sites in the southern river basins, the majority of Colorado SNOTEL sites represent snowpacks that have yet to exhibit signs of active melt.

Precipitation



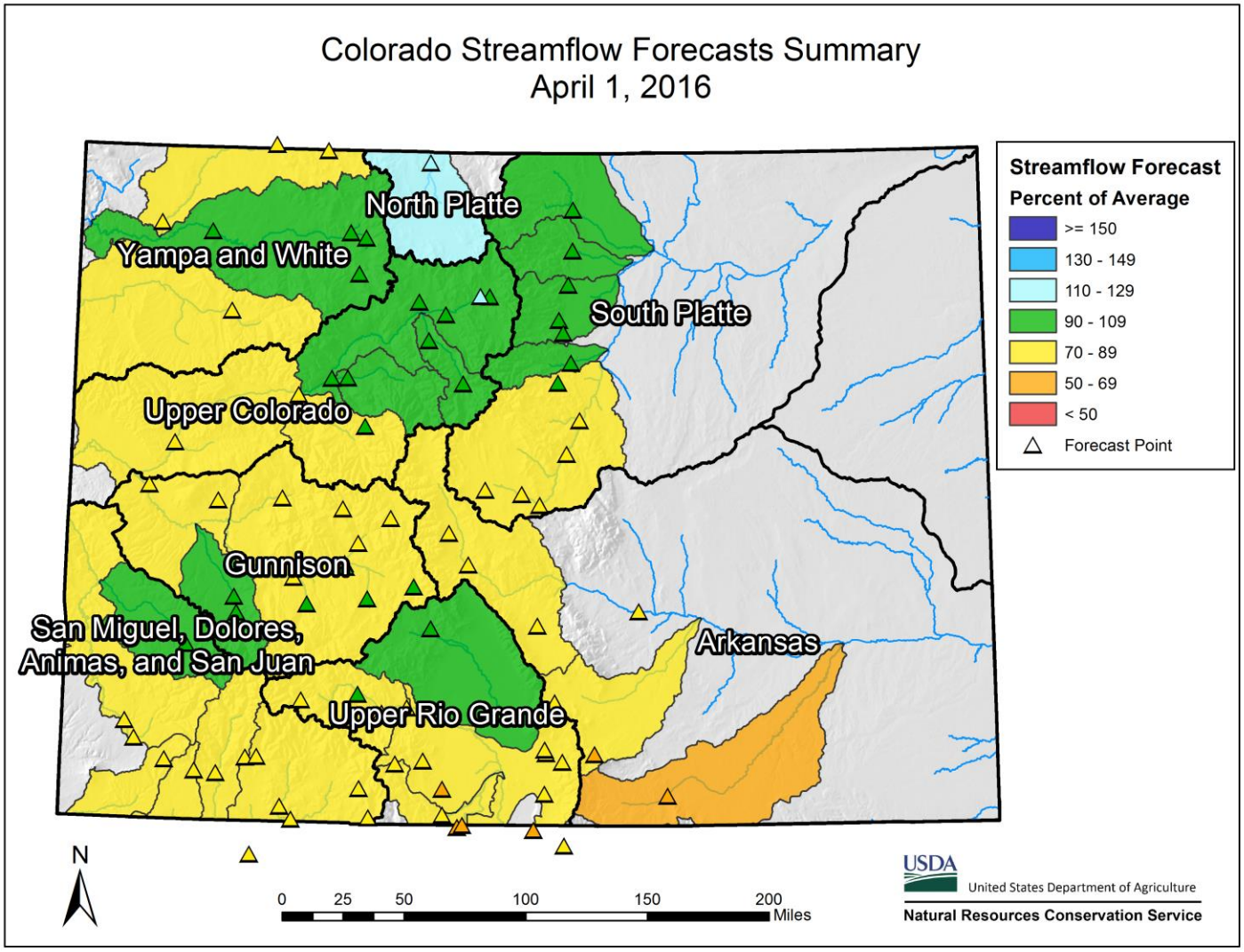
Precipitation patterns varied widely across the state throughout March but averages across the whole state ended up being just below normal, at 98 percent of average, the same as the current water year-to-date precipitation. Precipitation accumulation in March was a very large increase over February, when the statewide average was only 56 percent. There was a very strong signal of basins in the southern half of Colorado receiving well below normal precipitation and the more northerly basins receiving well above normal amounts. The Upper Rio Grande and combined San Miguel, Dolores, Animas and San Juan basins were the lowest in the state receiving 50 and 53 percent of average precipitation, respectively. The Arkansas, also in southern Colorado, had 62 percent of average March precipitation. The Gunnison received more but was still well below normal at 77 percent of average. In stark contrast, the combined Yampa, White, and North Platte basins in the northern part of the state received the most monthly precipitation, relative to normal, at 142 percent. The Colorado and South Platte basins didn't receive quite as much but still had well above normal March precipitation, at 124 and 129 percent of average, respectively. Water year-to-date precipitation by basin varies across the state but is generally surrounding normal values, ranging from a low of 86 percent in the Upper Rio Grande to a high of 110 percent in the South Platte.

Reservoir Storage



Statewide reservoir storage experienced an increase in both net storage and percent of average over the last month, now at 111 percent and holding a total of 406,000 acre-feet above the 1981-2010 average. The Arkansas and combined Yampa and White River basins currently have the highest percent of average reservoir storage in the state, at 120 percent. The Gunnison River basin showed a notable increase in percent of normal reservoir storage over the month of March, rising from 109 to 115 percent of its average stored volume. Much of this change was driven by Blue Mesa, Colorado's largest reservoir, which had a slight increase in storage since a month ago compared to the average storage volumes, which show a notable drop between March 1st and April 1st. Total reservoir storage in the Upper Colorado basin remains relatively similar to last month, exhibiting a one percent increase to where it resides now at 111 percent of average. Storage in the South Platte is 107 percent of average, up two percent from a month ago. Percent of average storage in the combined San Miguel, Dolores, Animas, and San Juan River basins has been steadily climbing throughout water year 2016 and is currently slightly higher than last month, at 105 percent. The Upper Rio Grande continues to have the lowest, and the only below normal, percent of average reservoir storage in the state. That said, it has been steadily rising throughout the water year and continues to move towards normal values, with its current value at 94 percent of average.

Streamflow



Water users in Colorado can expect a variety of streamflow conditions across Colorado this spring and summer. As a result of the disparity in precipitation and snowpack accumulation, streamflow forecasts for Colorado's southern basins decreased while forecasts in northern basins improved. The Upper Rio Grande collectively contains forecast points with the lowest predicted streamflow volumes, and most flows are expected to be below 80 percent of average. There are, however, a few forecast points along upper tributaries of the Rio Grande that are expected to be near normal. Forecasts in the Arkansas River basin are equally low, with no forecast points anticipated to experience streamflows above 90 percent of average. The Gunnison, Yampa and White, and combined San Miguel, Dolores, Animas, and San Juan basins are split with some streamflows predicted to be much below normal and others near normal. Following trends in above normal snowpack and precipitation, the Upper Colorado, South Platte, and North Platte River basins will likely see flows that are mostly near to above normal. Although forecasts along the upper South Platte and more southern tributaries of the Upper Colorado are currently projected to be below normal.

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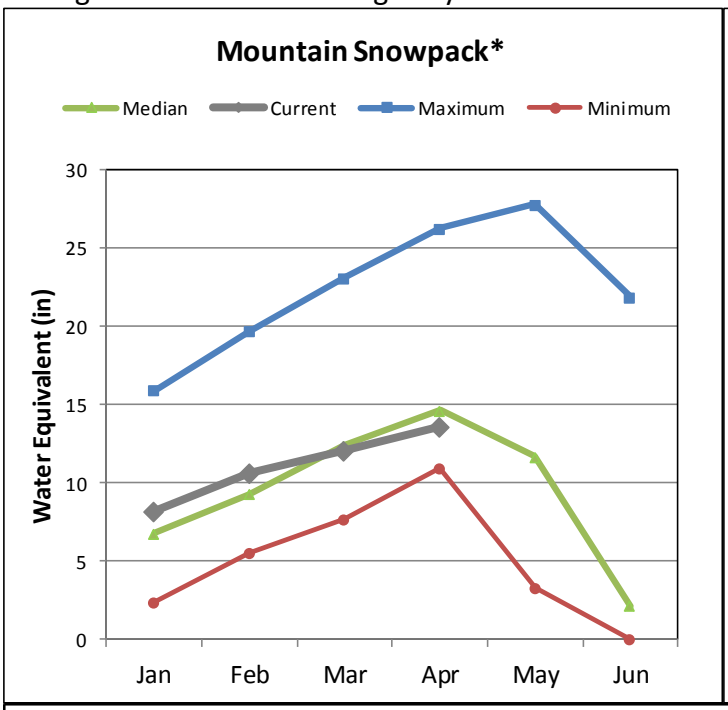
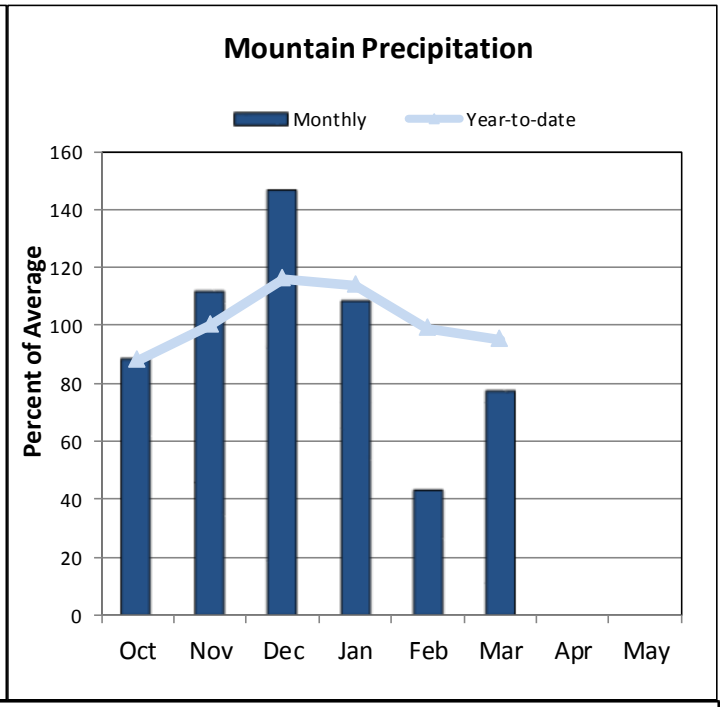
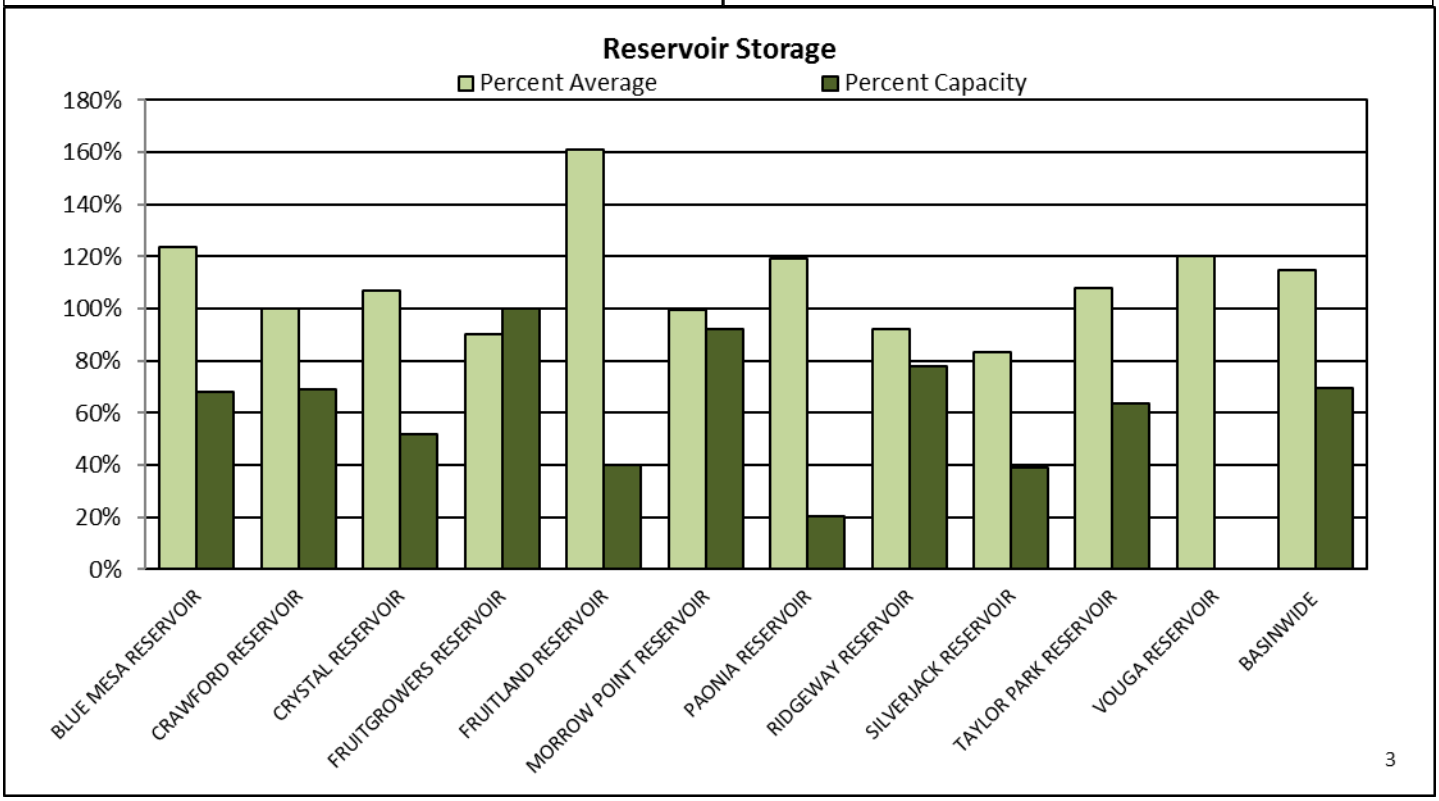
GUNNISON RIVER BASIN

April 1, 2016

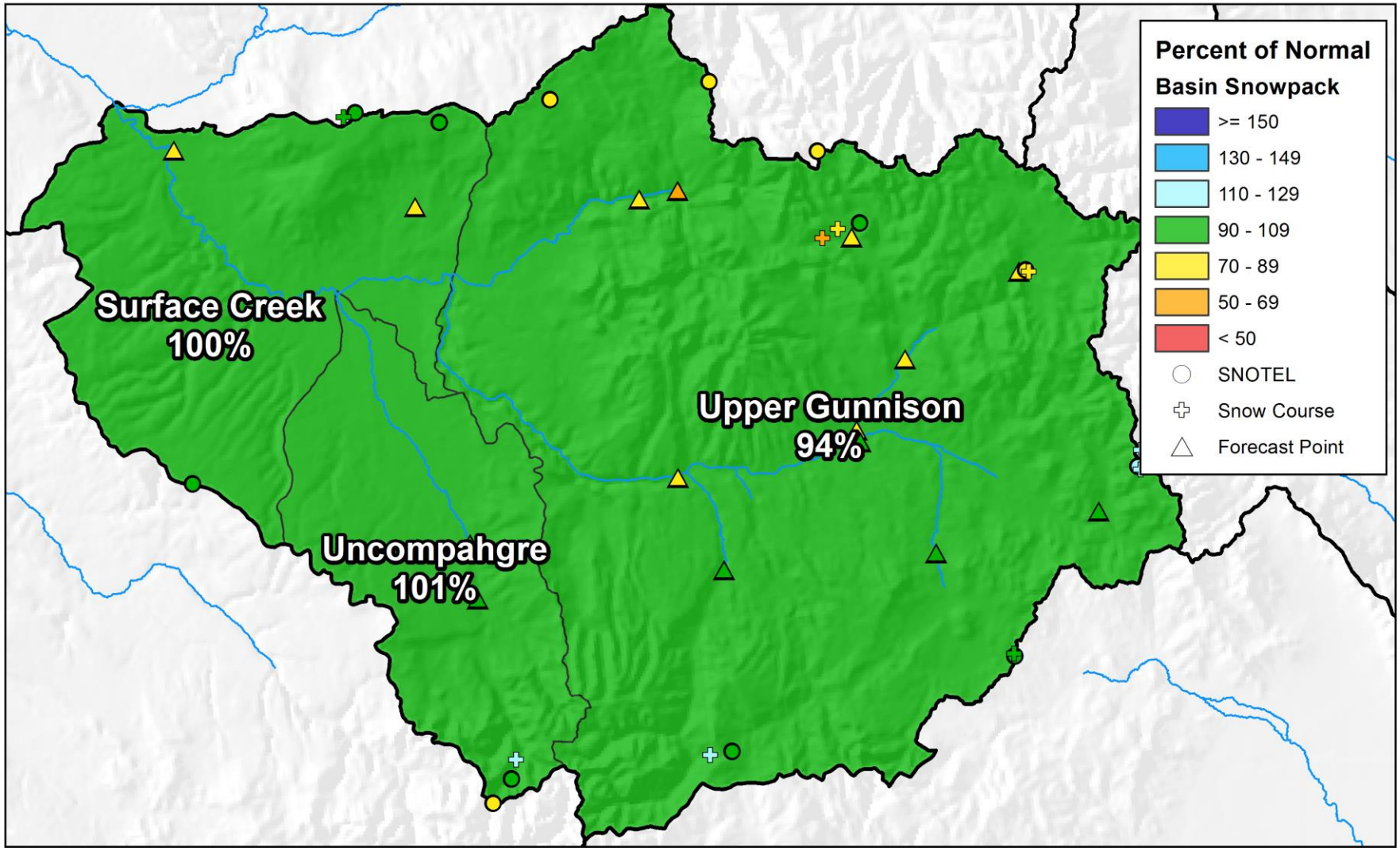
Snowpack in the Gunnison River basin is below normal at 95% of the median. Precipitation for March was 77% of average which brings water year-to-date precipitation to 95% of average. Reservoir storage at the end of March was 115% of average compared to 120% last year. Current streamflow forecasts range from 97% of average for the inflow to Ridgeway Reservoir to 64% for the inflow to Paonia Reservoir.







Gunnison River Basin Snowpack and Streamflow Forecasts
April 1, 2016



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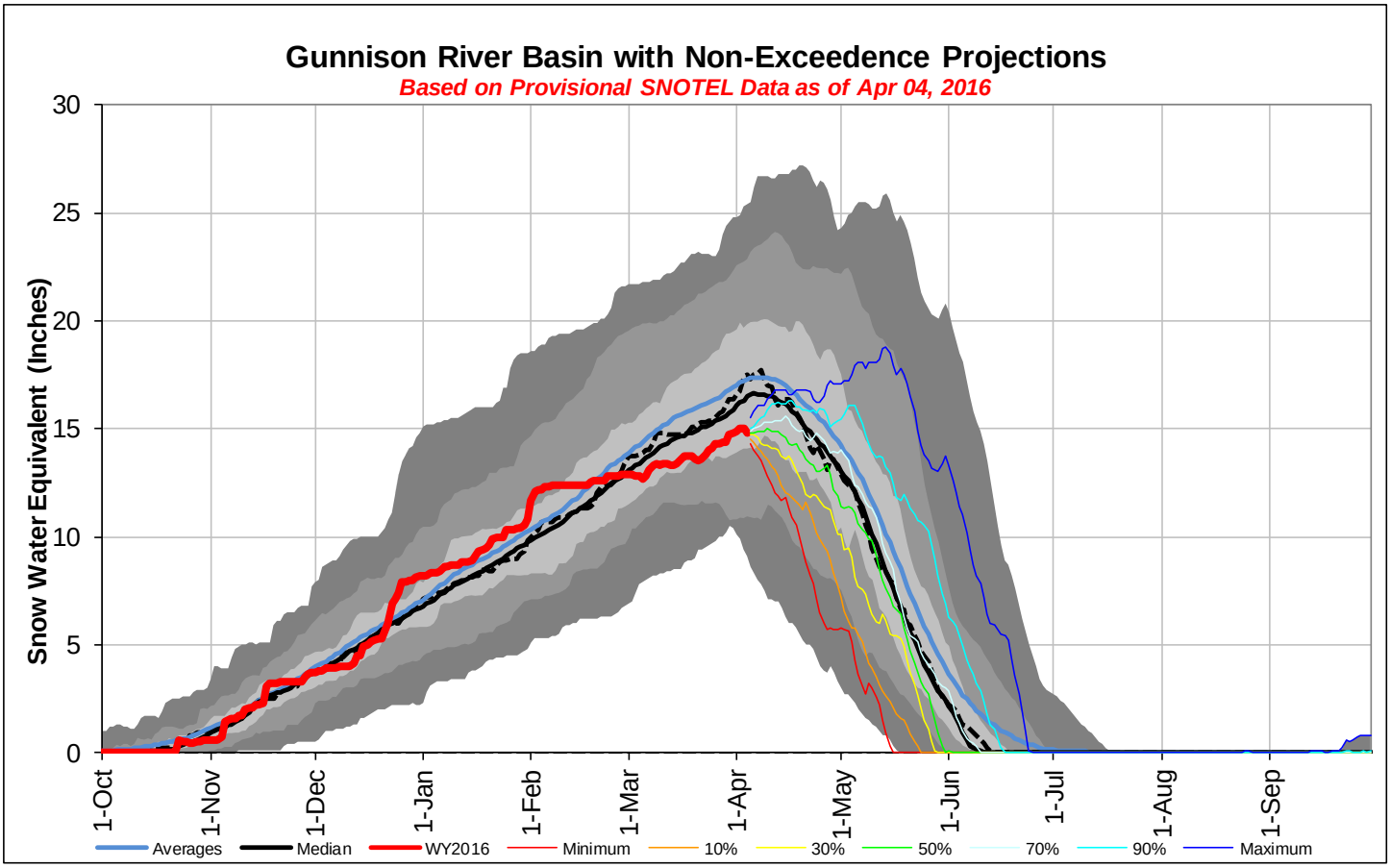
Gunnison River Basin
Streamflow Forecasts - April 1, 2016

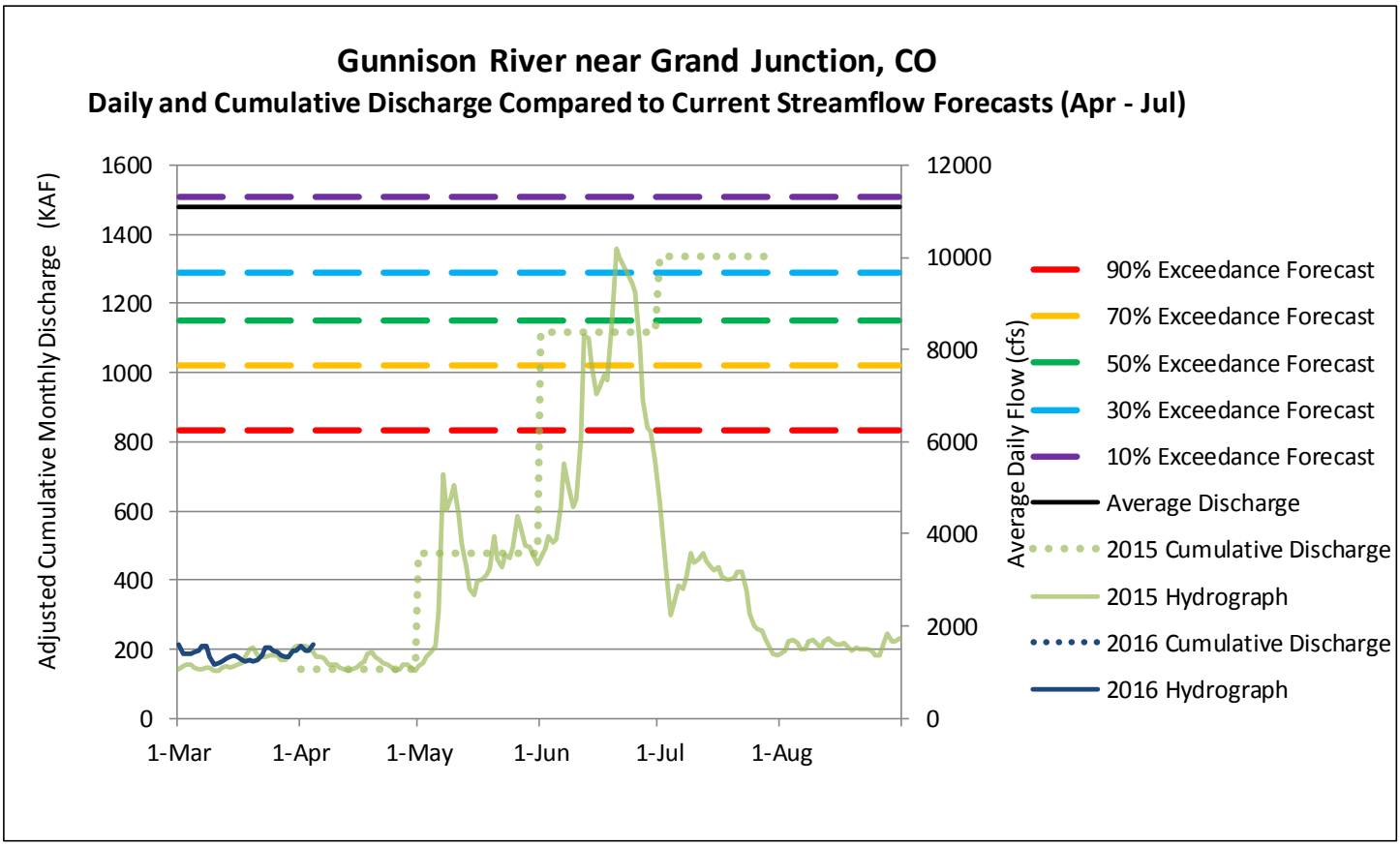
GUNNISON RIVER BASIN	Forecast Period	Forecast Exceedance Probabilities for Risk Assessment: Chance that actual volume will exceed forecast — 90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Taylor Park Reservoir Inflow	APR-JUL	61	73	82	83%	91	106	99
Slate R nr Crested Butte	APR-JUL	55	62	67	81%	73	81	83
East R at Almont	APR-JUL	110	127	139	76%	152	172	182
Gunnison R near Gunnison [2]	APR-JUL	205	250	280	76%	315	365	370
Tomichi Ck at Sargents	APR-JUL	17.1	23	28	93%	34	42	30
Cochetopa Ck bl Rock Ck nr Parlin	APR-JUL	6.6	10.7	14	93%	17.8	24	15
Tomichi Ck at Gunnison	APR-JUL	33	52	68	92%	85	115	74
Lake Fk at Gateview	APR-JUL	86	104	116	94%	130	151	123
Blue Mesa Reservoir Inflow [2]	APR-JUL	410	485	545	81%	605	700	675
Paonia Reservoir Inflow	MAR-JUN	43	56	65	68%	75	92	96
	APR-JUN	38	51	60	66%	70	87	91
	APR-JUL	38	51	62	64%	74	92	97
NF Gunnison R nr Somerset[2]	APR-JUL	160	189	210	72%	230	265	290
Surface Ck at Cedaredge	APR-JUL	10.1	11.8	13	77%	14.3	16.3	16.8
Ridgway Reservoir Inflow	APR-JUL	71	87	98	97%	110	129	101
Uncompahgre R at Colona [2]	APR-JUL	86	111	130	95%	150	183	137
Gunnison R nr Grand Junction [2]	APR-JUL	835	1020	1150	78%	1290	1510	1480

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
3) Median value used in place of average

Reservoir Storage End of March, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Blue Mesa Reservoir	563.0	573.3	454.9	830.0
Crawford Reservoir	9.7	10.1	9.7	14.0
Crystal Reservoir	9.1	9.0	8.5	17.5
Fruitgrowers Reservoir	3.6	3.6	4.0	3.6
Fruitland Reservoir	3.7	3.8	2.3	9.2
Morrow Point Reservoir	111.3	110.4	111.7	121.0
Paonia Reservoir	3.1	4.9	2.6	15.4
Ridgway Reservoir	64.5	77.6	70.0	83.0
Silverjack Reservoir	5.0	6.7	6.0	12.8
Taylor Park Reservoir	67.4	78.7	62.4	106.0
Vouga Reservoir	0.9	0.9	0.8	0.9
Basin-wide Total	841.3	879.0	732.9	1213.4
# of reservoirs	11	11	11	11

Watershed Snowpack Analysis April 1, 2016	# of Sites	% Median	Last Year % Median
UPPER GUNNISON BASIN	18	94%	64%
SURFACE CREEK BASIN	3	100%	57%
UNCOMPAHGRE BASIN	4	101%	59%
GUNNISON RIVER BASIN	22	95%	63%



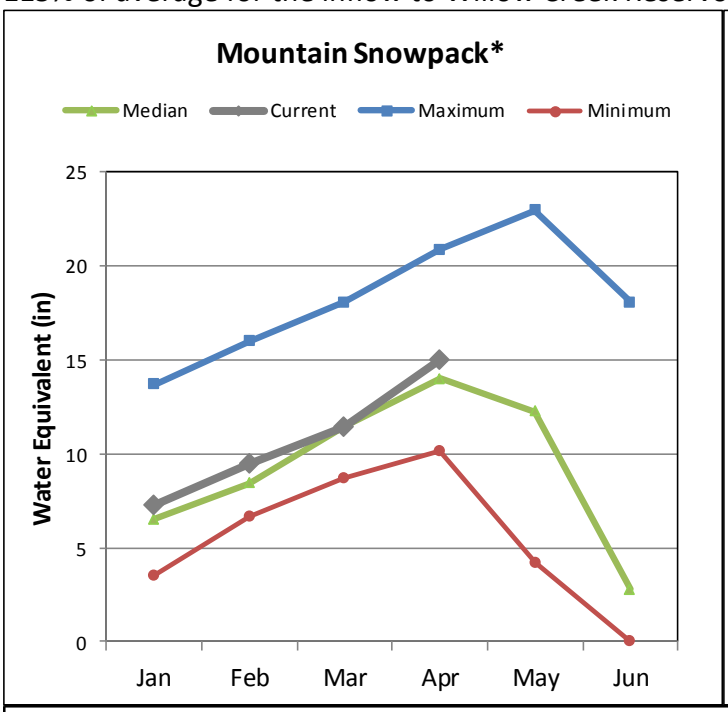


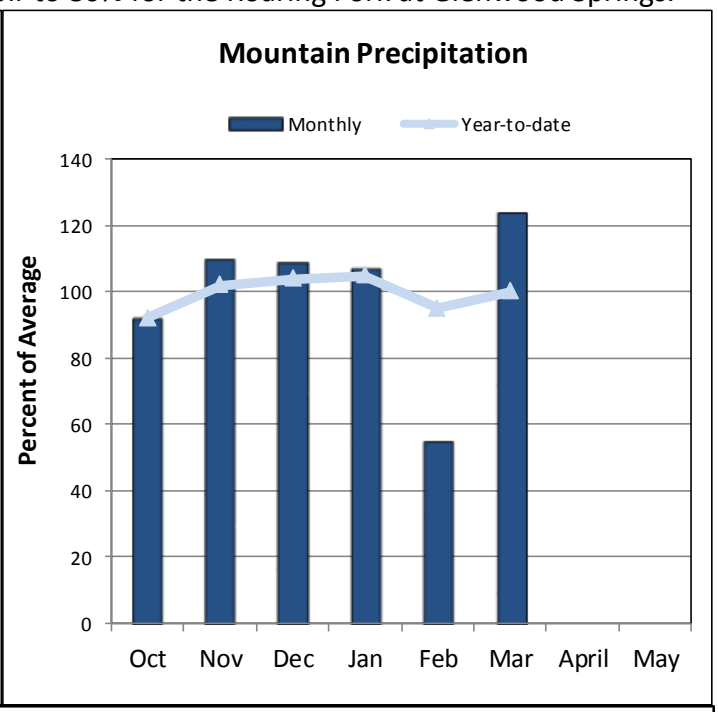
Please refer to the sections at the end of this report for further explanation concerning these graphs.

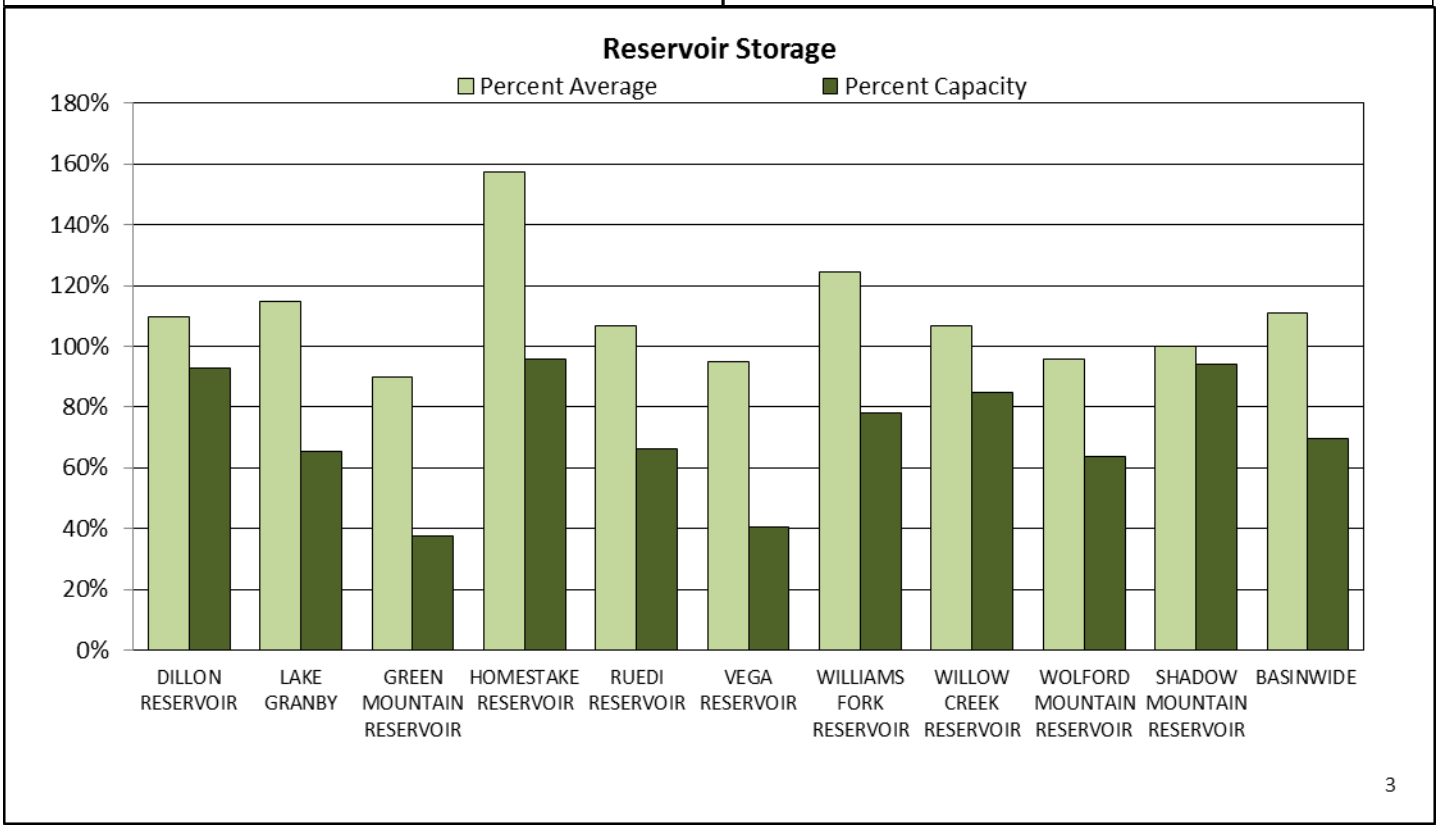
UPPER COLORADO RIVER BASIN

April 1, 2016

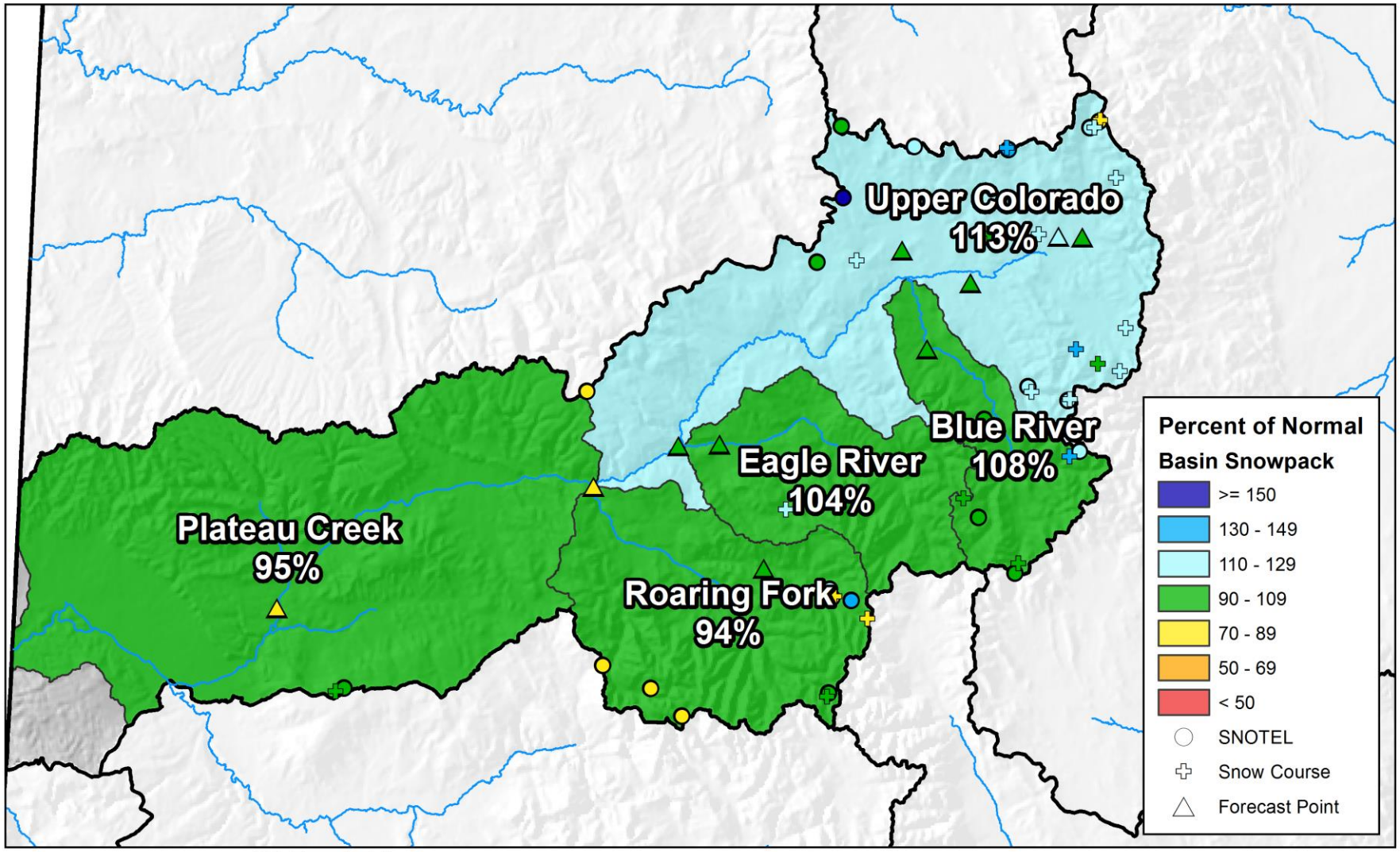
Snowpack in the Colorado River basin is above normal at 107% of the median. Precipitation for March was 124% of average which brings water year-to-date precipitation to 100% of average. Reservoir storage at the end of March was 111% of average compared to 125% last year. Current streamflow forecasts range from 115% of average for the inflow to Willow Creek Reservoir to 80% for the Roaring Fork at Glenwood Springs.







Upper Colorado River Basin Snowpack and Streamflow Forecasts
April 1, 2016



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Upper Colorado River Basin
Streamflow Forecasts - April 1, 2016

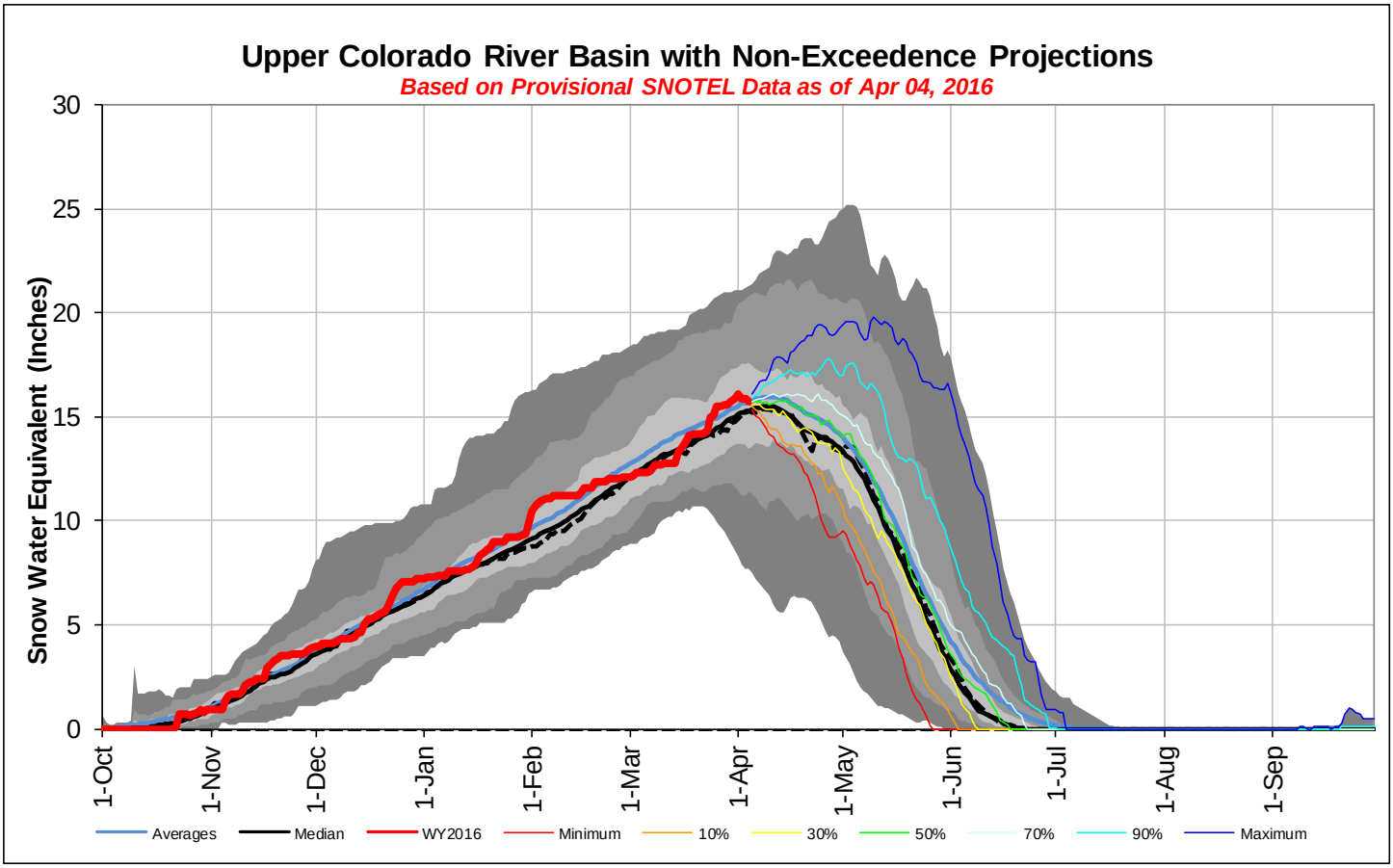
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

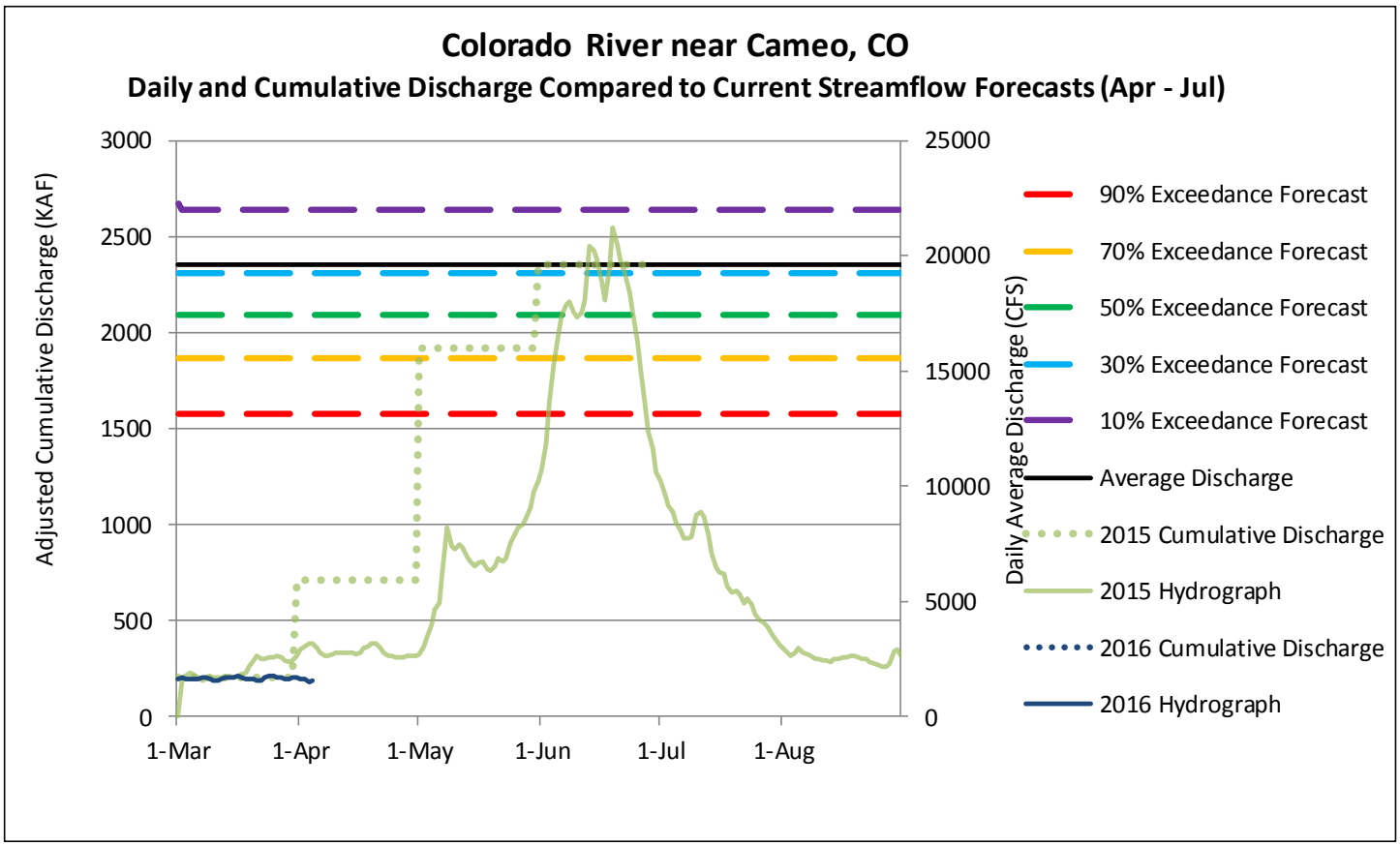
UPPER COLORADO RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Lake Granby Inflow [2]	APR-JUL	154	187	210	95%	235	280	220
Willow Ck Reservoir Inflow	APR-JUL	34	45	54	115%	63	79	47
Williams Fk bl Williams Fk Reservoir[2]	APR-JUL	77	91	102	105%	113	131	97
Wolford Mtn Reservoir Inflow	APR-JUL	37	47	54	100%	63	76	54
Dillon Reservoir Inflow[2]	APR-JUL	125	150	167	102%	186	215	163
Green Mountain Reservoir Inflow[2]	APR-JUL	210	250	280	102%	310	360	275
Eagle R bl Gypsum [2]	APR-JUL	225	275	310	93%	350	410	335
Colorado R nr Dotsero [2]	APR-JUL	990	1220	1390	99%	1570	1850	1400
Ruedi Reservoir Inflow [2]	APR-JUL	102	119	131	94%	143	163	139
Roaring Fk at Glenwood Springs[2]	APR-JUL	425	495	550	80%	605	690	690
Colorado R nr Cameo [2]	APR-JUL	1580	1870	2090	89%	2310	2670	2350

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
3) Median value used in place of average

Reservoir Storage End of March, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Dillon Reservoir	231.0	239.8	210.7	254.0
Green Mountain Reservoir	54.9	61.5	61.2	146.8
Homestake Reservoir	41.1	20.4	26.1	43.0
Lake Granby	304.7	402.9	265.0	465.6
Ruedi Reservoir	67.5	74.7	63.2	102.0
Shadow Mountain Reservoir	17.3	17.2	17.3	18.4
Vega Reservoir	13.3	15.6	14.0	32.9
Williams Fork Reservoir	75.7	80.4	60.8	97.0
Willow Creek Reservoir	7.7	6.9	7.2	9.1
Wolford Mountain Reservoir	41.9	45.9	43.7	65.9
Basin-wide Total	855.1	965.3	769.2	1234.7
# of reservoirs	10	10	10	10

Watershed Snowpack Analysis April 1, 2016	# of Sites	% Median	Last Year % Median
BLUE RIVER BASIN	8	108%	98%
HEADWATERS COLORADO RIVER	36	113%	80%
MUDDY CREEK BASIN	5	118%	71%
EAGLE RIVER BASIN	5	104%	69%
PLATEAU CREEK BASIN	3	100%	57%
ROARING FORK BASIN	10	94%	68%
WILLIAMS FORK BASIN	5	119%	86%
WILLOW CREEK BASIN	5	126%	53%
UPPER COLORADO RIVER BASIN	49	107%	76%





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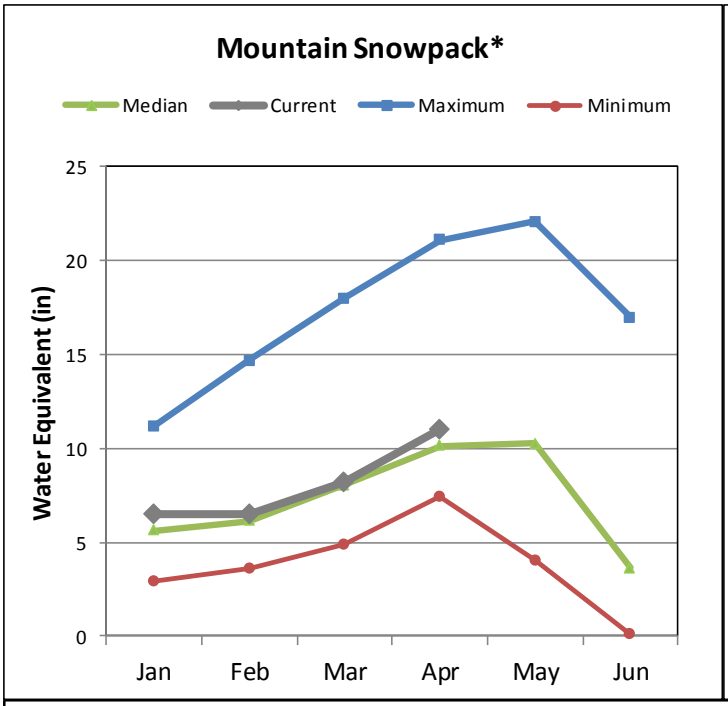
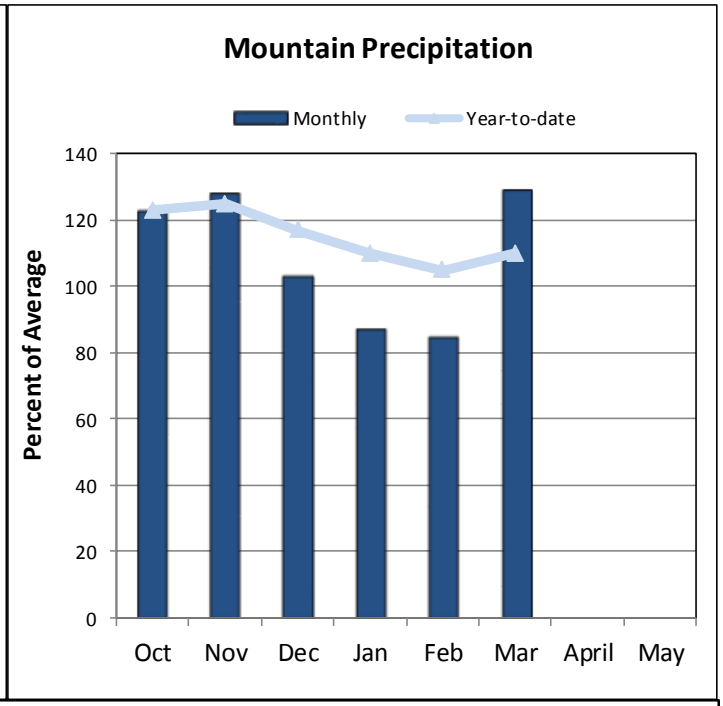
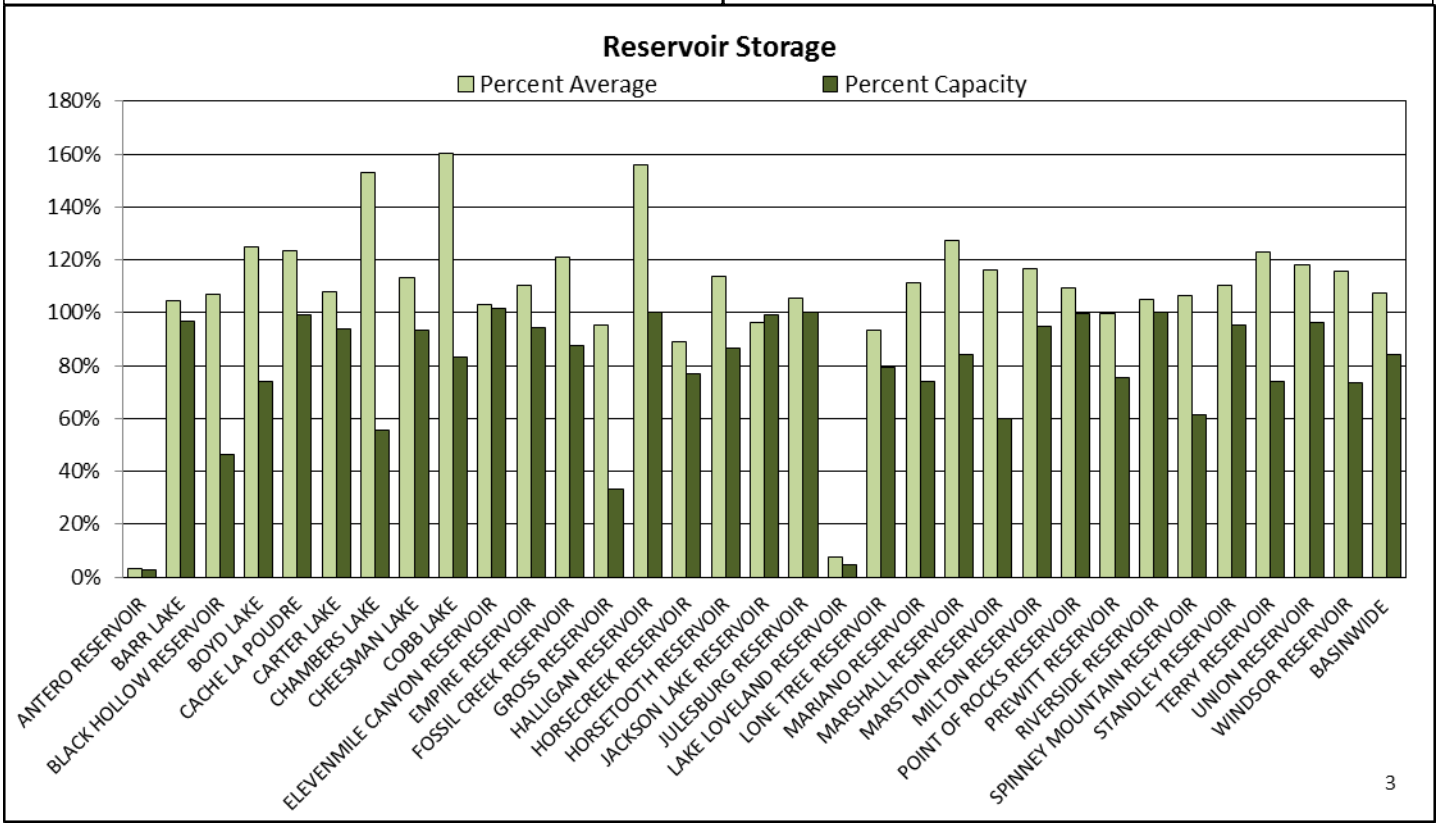
SOUTH PLATTE RIVER BASIN

April 1, 2016

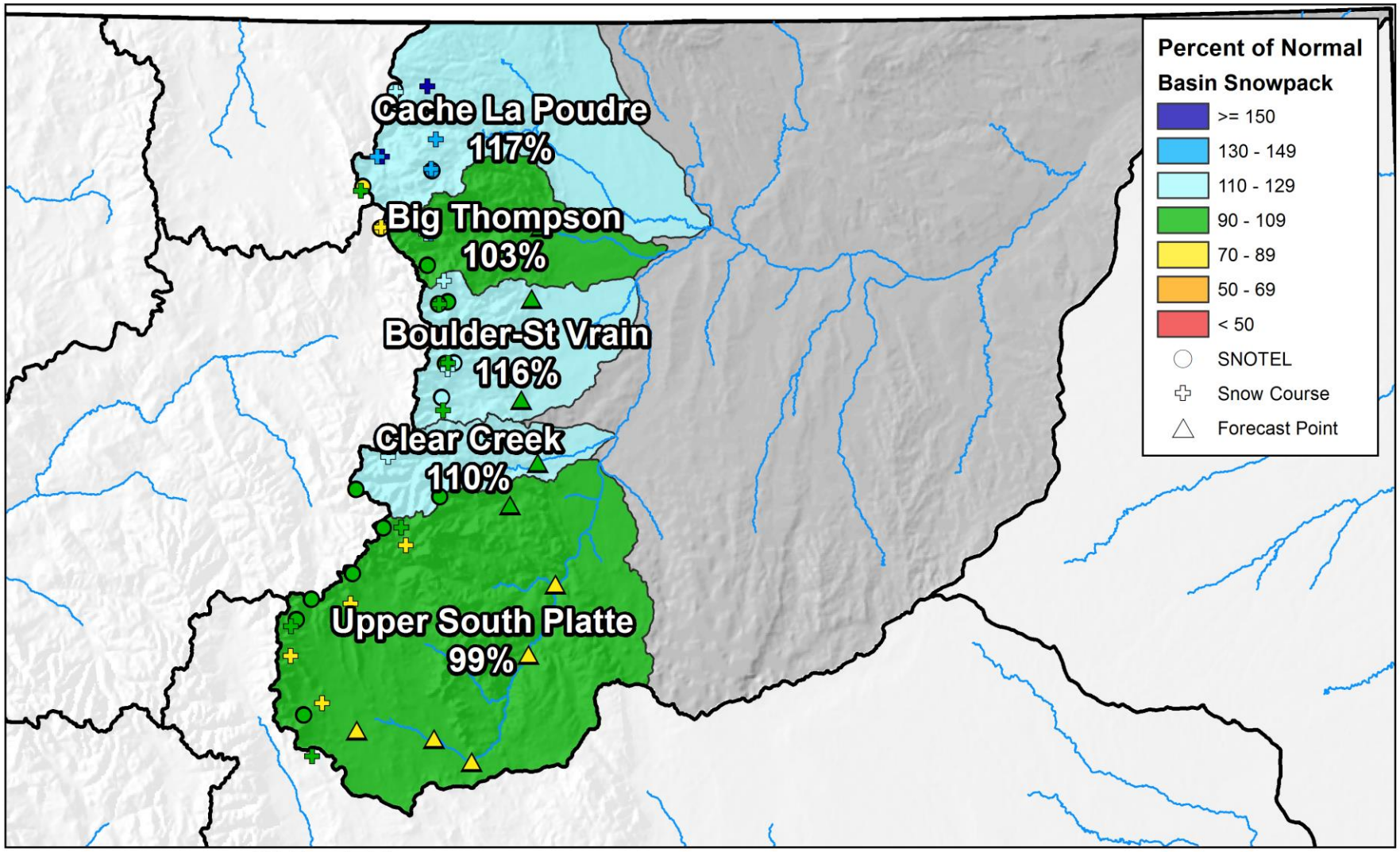
Snowpack in the South Platte River basin is above normal at 108% of the median. Precipitation for March was 129% of average which brings water year-to-date precipitation to 110%. Reservoir storage at the end of March was 107% of average compared to 114% last year. Streamflow forecasts range from 109% of average for Boulder Creek near Orodell to 81% for the South Platte River at South Platte.







South Platte River Basin Snowpack and Streamflow Forecasts
April 1, 2016



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South Platte River Basin
Streamflow Forecasts - April 1, 2016

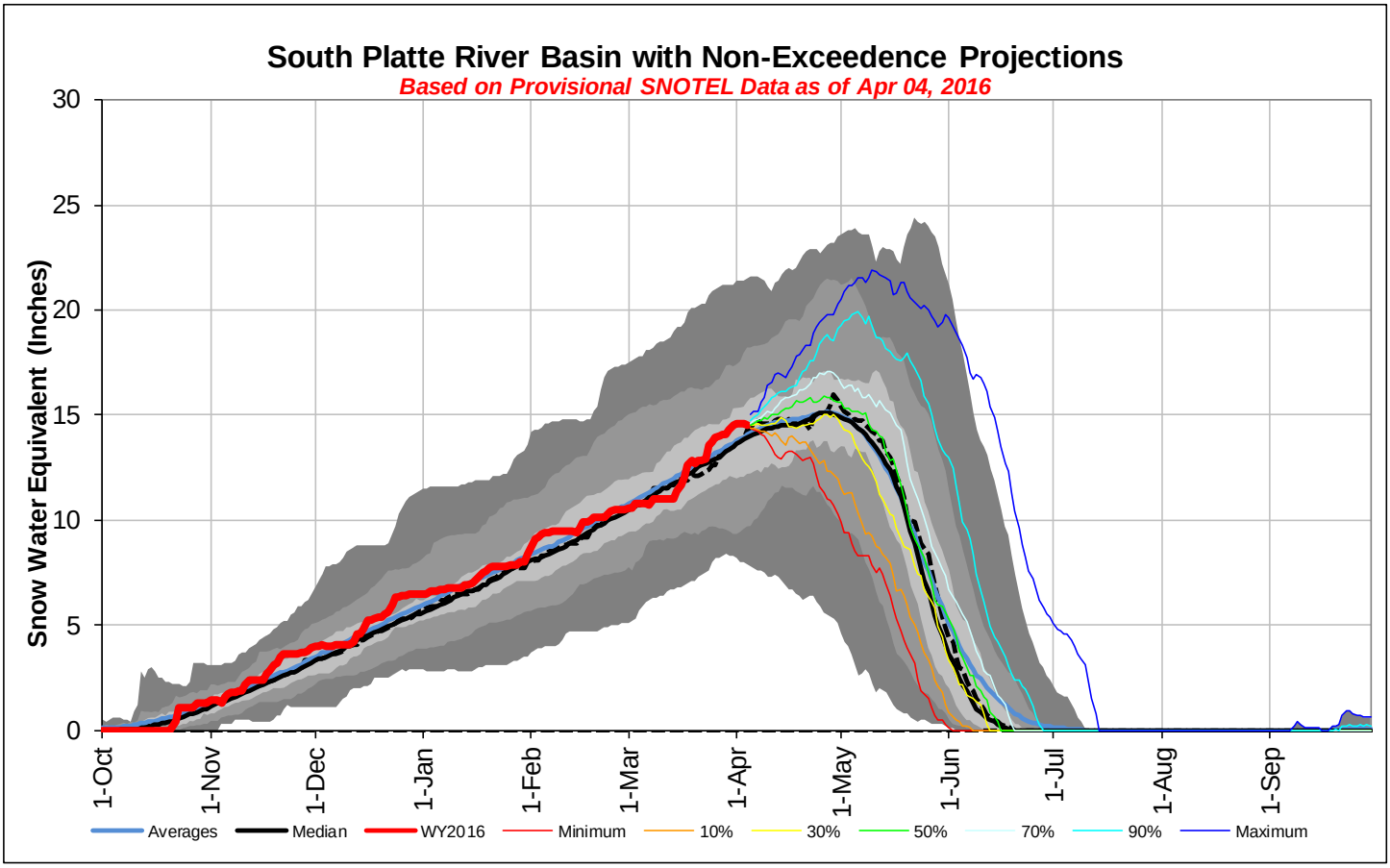
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

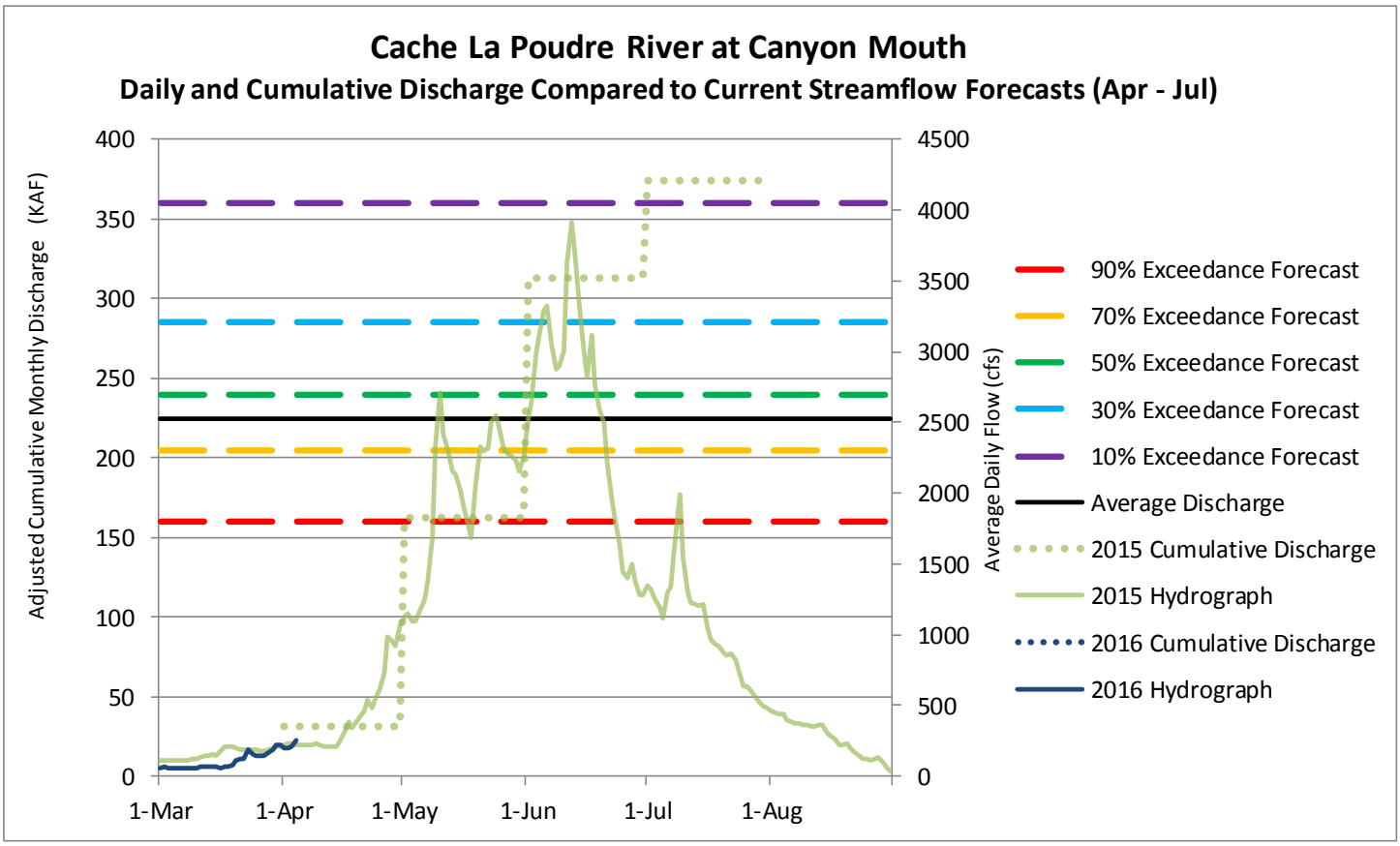
SOUTH PLATTE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Antero Reservoir Inflow[2]								
	APR-JUL	6.8	9.9	12	83%	14.1	17.2	14.5
	APR-SEP	8.6	12.3	14.8	83%	17.3	21	17.8
Spinney Mountain Reservoir Inflow[2]								
	APR-JUL	23	33	42	88%	54	78	48
	APR-SEP	28	41	54	89%	71	105	61
Elevenmile Canyon Reservoir Inflow[2]								
	APR-JUL	23	34	44	88%	57	84	50
	APR-SEP	27	42	56	88%	75	114	64
Cheesman Lake Inflow[2]								
	APR-JUL	42	63	83	83%	109	164	100
	APR-SEP	52	79	105	83%	139	210	126
South Platte R at South Platte[2]								
	APR-JUL	68	107	146	81%	199	315	180
	APR-SEP	83	132	182	81%	250	400	225
Bear Ck ab Evergreen								
	APR-JUL	7.5	11.8	16.1	98%	22	35	16.4
	APR-SEP	9.9	15.5	21	100%	28	45	21
Clear Ck at Golden								
	APR-JUL	75	94	106	101%	119	138	105
	APR-SEP	87	112	129	101%	146	171	128
St. Vrain Ck at Lyons[2]								
	APR-JUL	73	83	90	102%	97	107	88
	APR-SEP	87	99	107	104%	115	127	103
Boulder Ck nr Orodell[2]								
	APR-JUL	48	54	59	109%	64	70	54
	APR-SEP	53	62	68	108%	74	83	63
South Boulder Ck nr Eldorado Springs[2]								
	APR-JUL	32	37	41	105%	44	50	39
	APR-SEP	34	40	45	105%	50	56	43
Big Thompson R at Canyon Mouth[2]								
	APR-JUL	68	81	90	100%	99	112	90
	APR-SEP	80	96	107	100%	118	134	107
Cache La Poudre at Canyon Mouth[2]								
	APR-JUL	160	205	240	107%	285	360	225
	APR-SEP	174	220	260	104%	305	390	250

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
3) Median value used in place of average

Reservoir Storage End of March, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Antero Reservoir	0.5	15.9	14.9	19.9
Barr Lake	29.1	28.9	27.8	30.1
Black Hollow Reservoir	3.0	4.3	2.8	6.5
Boyd Lake	35.8	31.3	28.7	48.4
Cache La Poudre	10.0	10.6	8.1	10.1
Carter Lake	102.2	105.2	94.9	108.9
Chambers Lake	4.9	6.9	3.2	8.8
Cheesman Lake	73.6	73.2	65.1	79.0
Cobb Lake	18.6	19.6	11.6	22.3
Elevenmile Canyon Reservoir	99.4	99.3	96.4	98.0
Empire Reservoir	34.5	34.8	31.2	36.5
Fossil Creek Reservoir	9.7	9.3	8.0	11.1
Gross Reservoir	9.9	12.3	10.4	41.8
Halligan Reservoir	6.4	6.4	4.1	6.4
Horsecreek Reservoir	11.3	12.4	12.7	14.7
Horsetooth Reservoir	129.3	146.8	113.7	149.7
Jackson Lake Reservoir	25.9	25.7	26.9	26.1
Julesburg Reservoir	20.5	20.5	19.4	20.5
Lake Loveland Reservoir	0.5	11.2	6.8	10.3
Lone Tree Reservoir	6.9	7.0	7.4	8.7
Mariano Reservoir	4.0	4.4	3.6	5.4
Marshall Reservoir	8.4	9.6	6.6	10.0
Marston Reservoir	7.8	0.0	6.7	13.0
Milton Reservoir	22.3	22.0	19.1	23.5
Point Of Rocks Reservoir	70.3	69.7	64.4	70.6
Prewitt Reservoir	21.3	24.6	21.4	28.2
Ralph Price Reservoir	6.4	13.0		16.2
Riverside Reservoir	55.8	55.5	53.1	55.8
Spinney Mountain Reservoir	30.0	43.0	28.2	49.0
Standley Reservoir	40.0	41.2	36.2	42.0
Terry Reservoir	5.9	6.0	4.8	8.0
Union Reservoir	12.5	11.0	10.6	13.0
Windsor Reservoir	11.2	10.7	9.7	15.2
Basin-wide Total	921.5	979.3	858.5	1091.5
# of reservoirs	32	32	32	32

Watershed Snowpack Analysis April 1, 2016	# of Sites	% Median	Last Year % Median
BIG THOMPSON BASIN	7	103%	86%
BOULDER CREEK BASIN	6	113%	93%
CACHE LA POUDRE BASIN	10	117%	85%
CLEAR CREEK BASIN	4	110%	86%
SAINT VRAIN BASIN	3	108%	85%
UPPER SOUTH PLATTE BASIN	16	99%	88%
SOUTH PLATTE RIVER BASIN	46	108%	87%



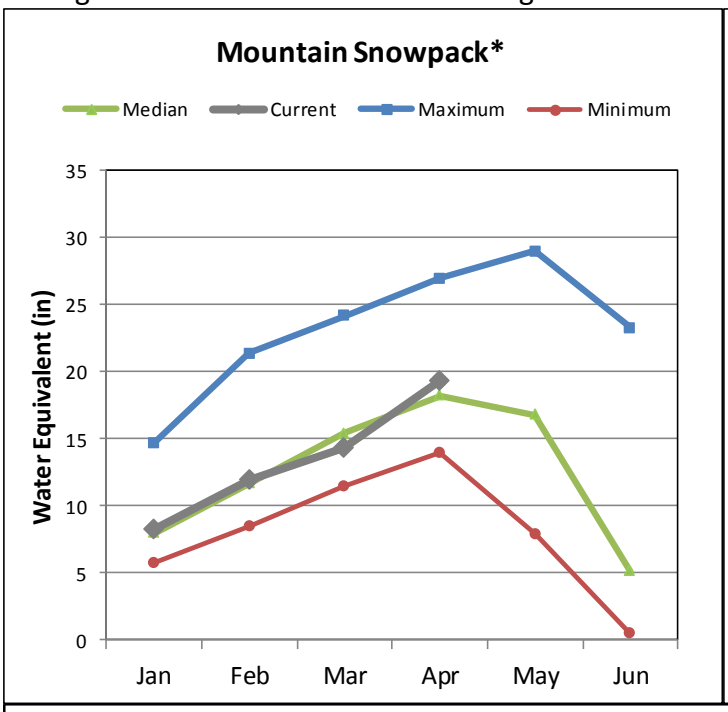


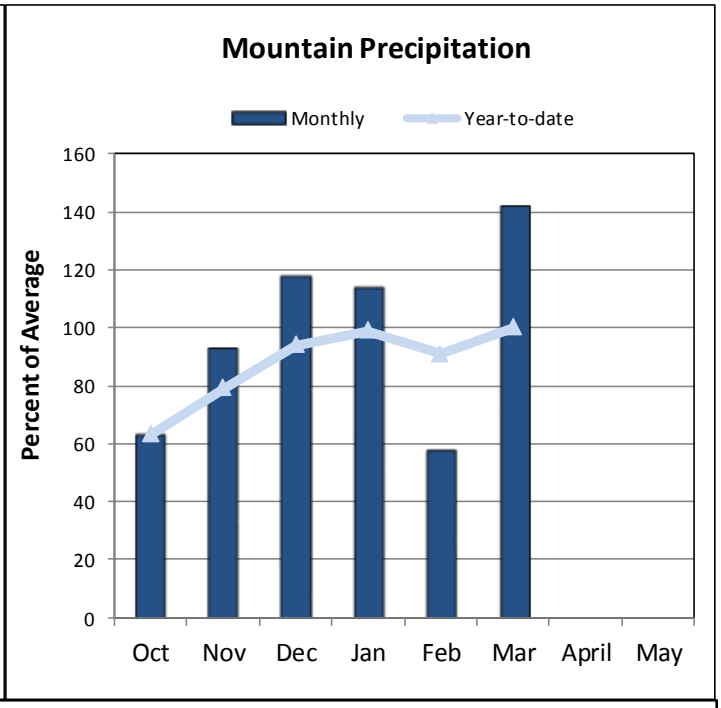
Please refer to the sections at the end of this report for further explanation concerning these graphs.

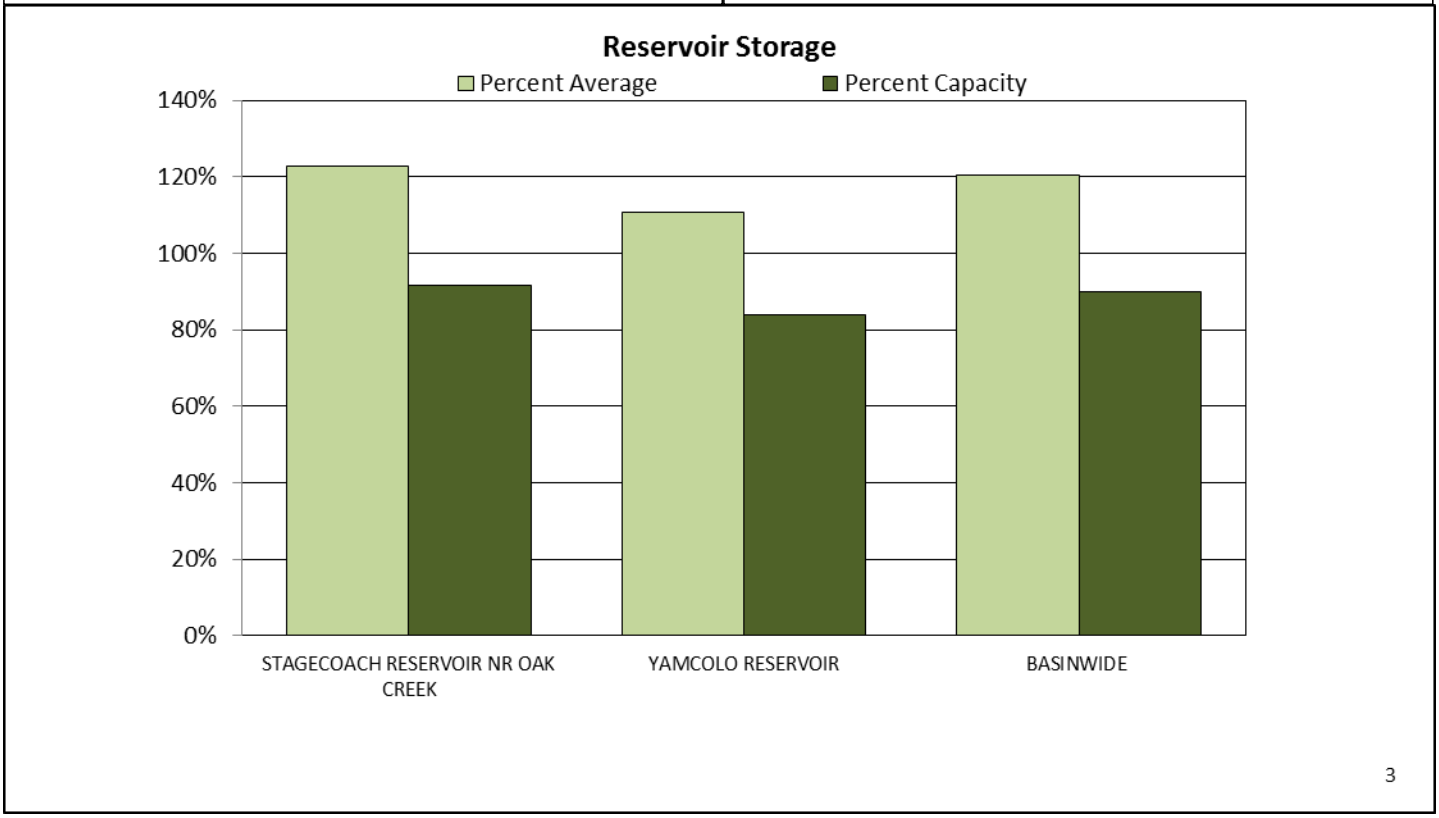
YAMPA, WHITE, NORTH PLATTE AND LARAMIE RIVER BASINS

April 1, 2016

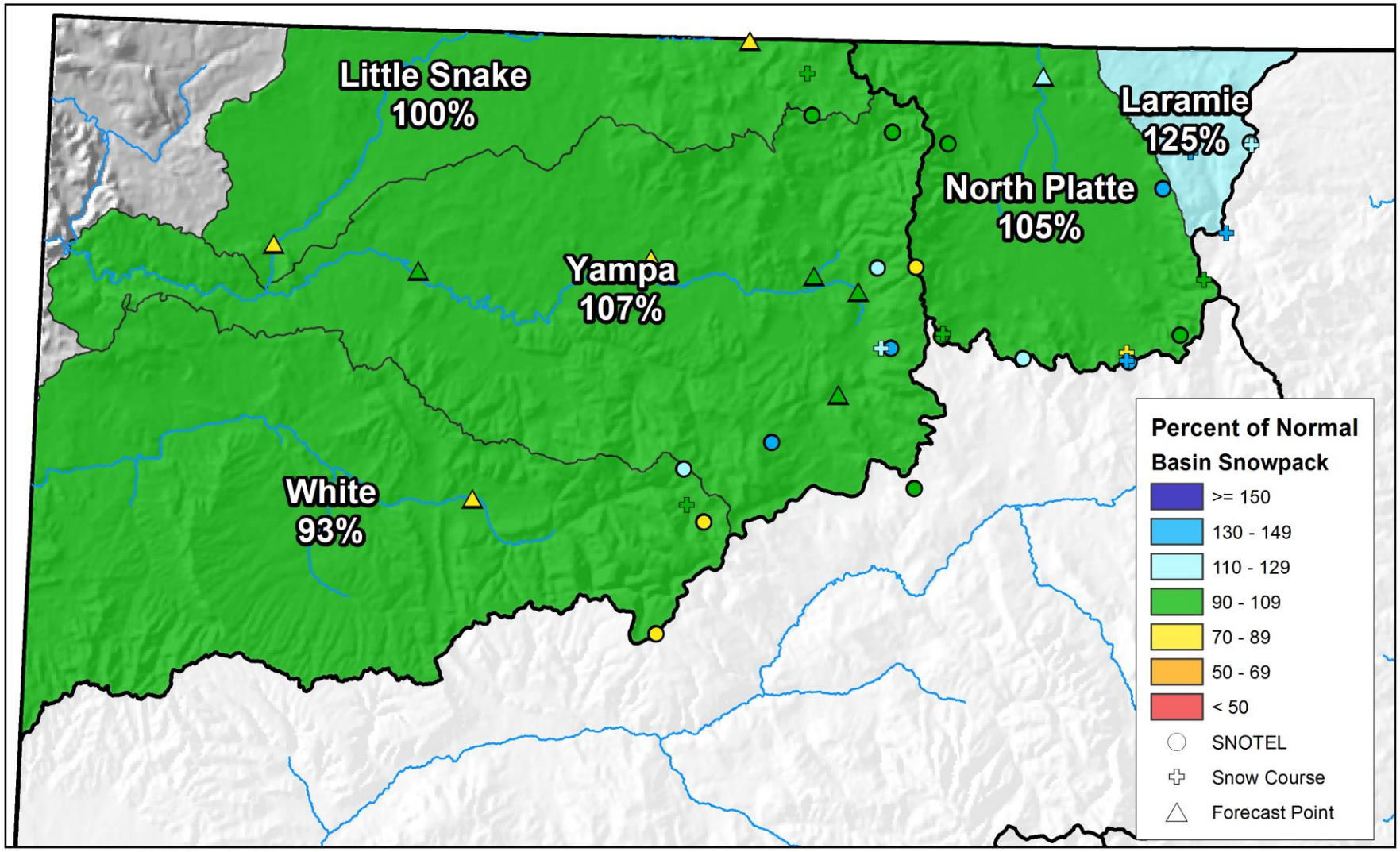
Snowpack in the Yampa, White & North Platte basins is above normal at 106% of the median. Precipitation for March was 142% of average and water year-to-date precipitation is at 100% of average. Reservoir storage at the end of March was 120% of average compared to 125% last year. Streamflow forecasts range from 111% of average for the North Platte near Northgate to 75% for the Little Snake River near Dixon.

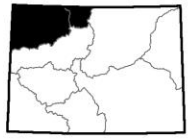


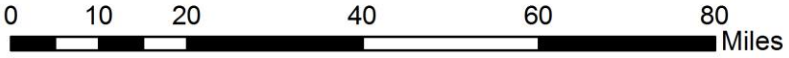




Yampa, White, and North Platte River Basins Snowpack and Streamflow Forecasts
April 1, 2016







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Yampa-White-North Platte River Basins
Streamflow Forecasts - April 1, 2016

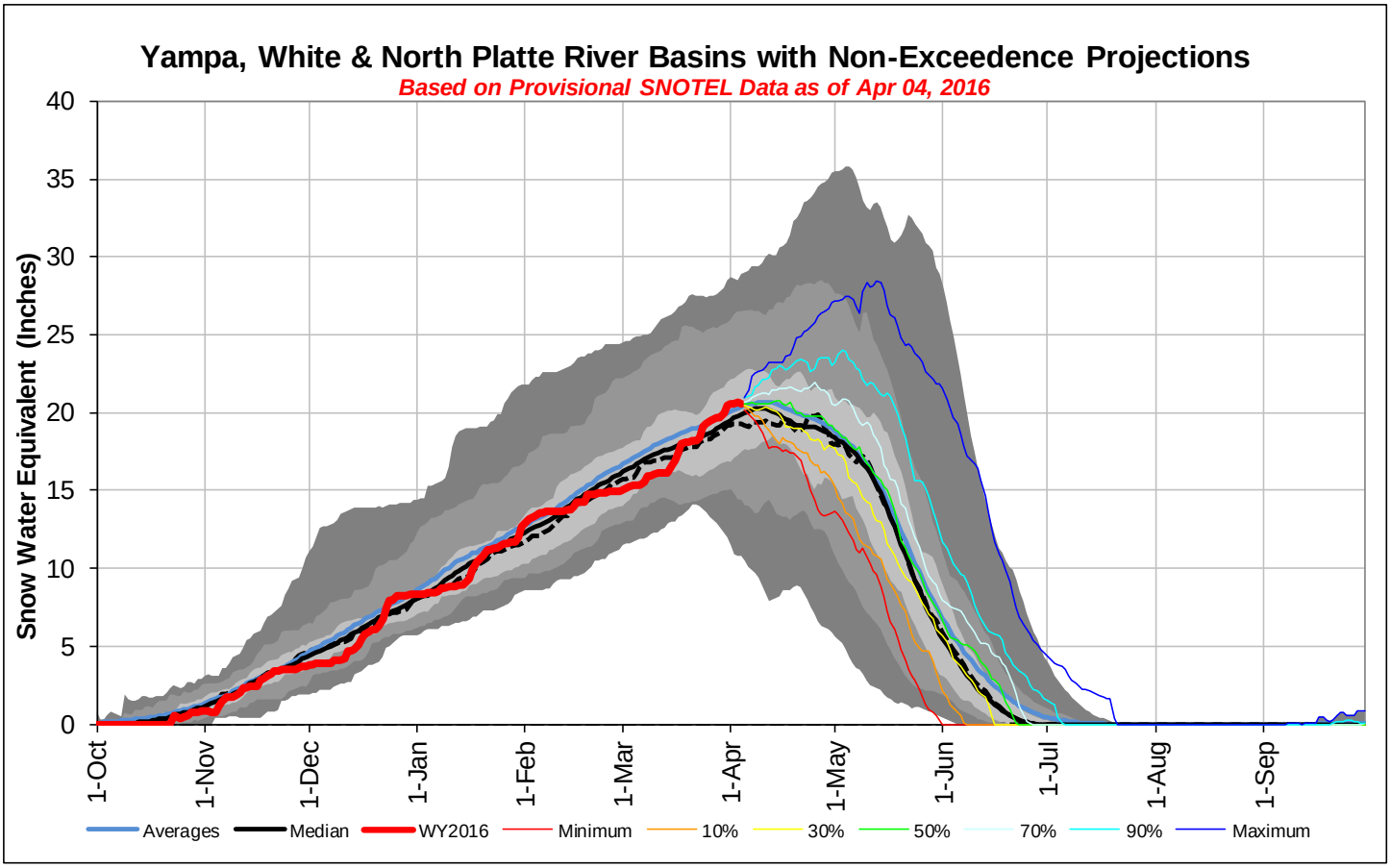
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

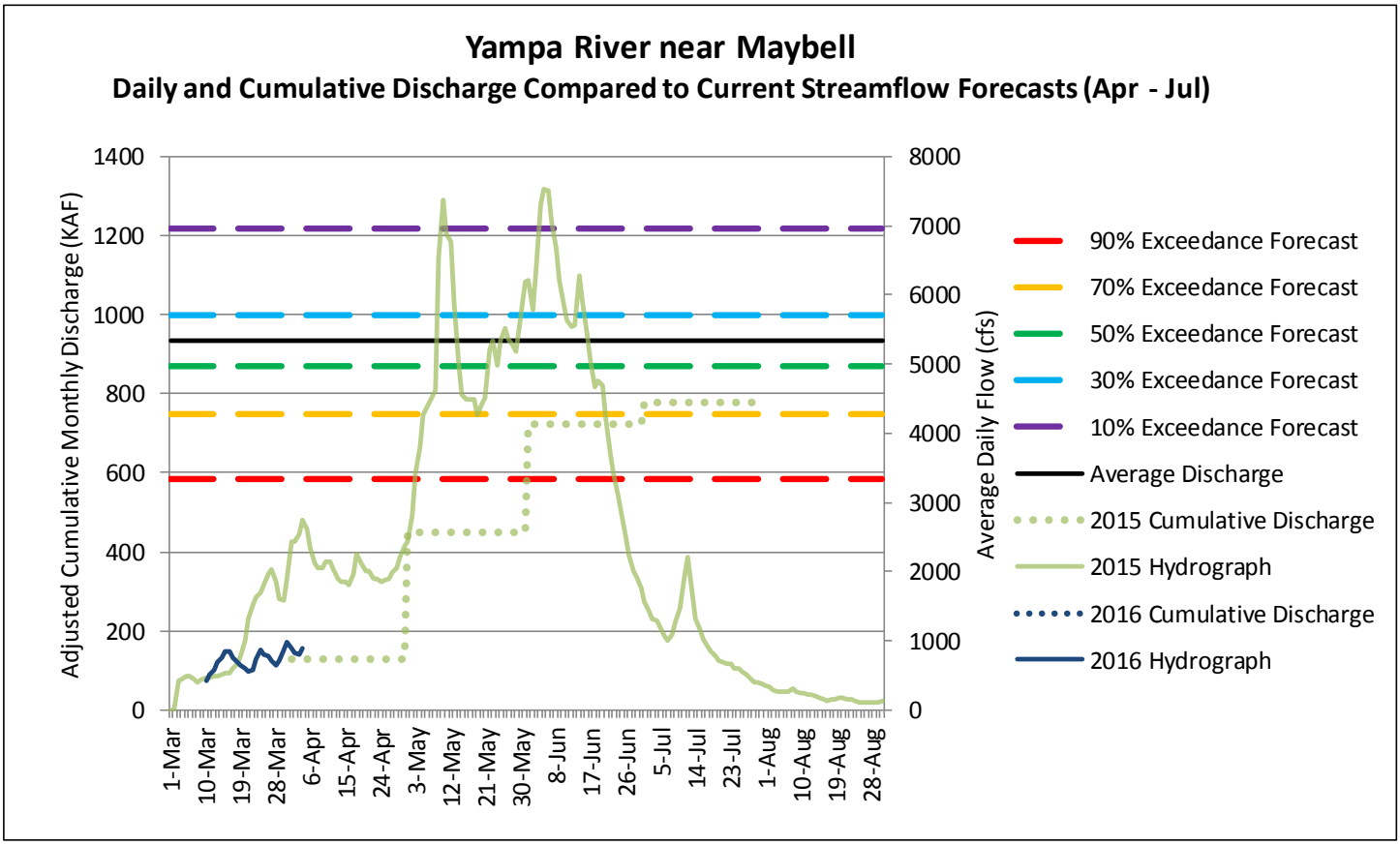
YAMPA-WHITE-NORTH PLATTE RIVER BASINS	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
North Platte R nr Northgate								
	APR-JUL	159	215	250	111%	290	345	225
	APR-SEP	169	230	275	110%	320	380	250
Laramie R nr Woods[2]								
	APR-JUL	86	109	125	109%	141	164	115
	APR-SEP	94	120	137	109%	155	181	126
Yampa R ab Stagecoach Reservoir [2]								
	APR-JUL	11.6	16.8	21	91%	26	33	23
Yampa R at Steamboat Springs[2]								
	APR-JUL	183	220	250	96%	280	325	260
Elk R nr Milner								
	APR-JUL	215	270	315	98%	360	435	320
Elkhead Ck ab Long Gulch								
	APR-JUL	35	49	60	82%	72	91	73
Yampa R nr Maybell[2]								
	APR-JUL	585	750	870	93%	1000	1220	935
Little Snake R nr Slater[2]								
	APR-JUL	89	110	125	80%	142	168	156
Little Snake R nr Dixon[2]								
	APR-JUL	143	210	260	75%	315	415	345
Little Snake R nr Lily[2]								
	APR-JUL	158	225	280	81%	340	435	345
White R nr Meeker								
	APR-JUL	154	195	225	80%	260	310	280

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
3) Median value used in place of average

Reservoir Storage End of March, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Stagecoach Reservoir nr Oak Creek	33.4	34.7	27.2	33.3
Yamcolo Reservoir	7.3	7.5	6.6	8.7
Basin-wide Total	40.7	42.2	33.8	42.0
# of reservoirs	2	2	2	2

Watershed Snowpack Analysis April 1, 2016	# of Sites	% Median	Last Year % Median
LARAMIE RIVER BASIN	5	125%	85%
NORTH PLATTE RIVER BASIN	12	105%	73%
LARAMIE & NORTH PLATTE RIVER BASINS	17	109%	75%
ELK RIVER BASIN	2	94%	60%
YAMPA RIVER BASIN	11	107%	66%
WHITE RIVER BASIN	5	93%	68%
YAMPA & WHITE RIVER BASINS	15	102%	65%
LITTLE SNAKE RIVER BASIN	9	100%	57%
YAMPA-WHITE-NORTH PLATTE RIVER BASINS	37	106%	68%



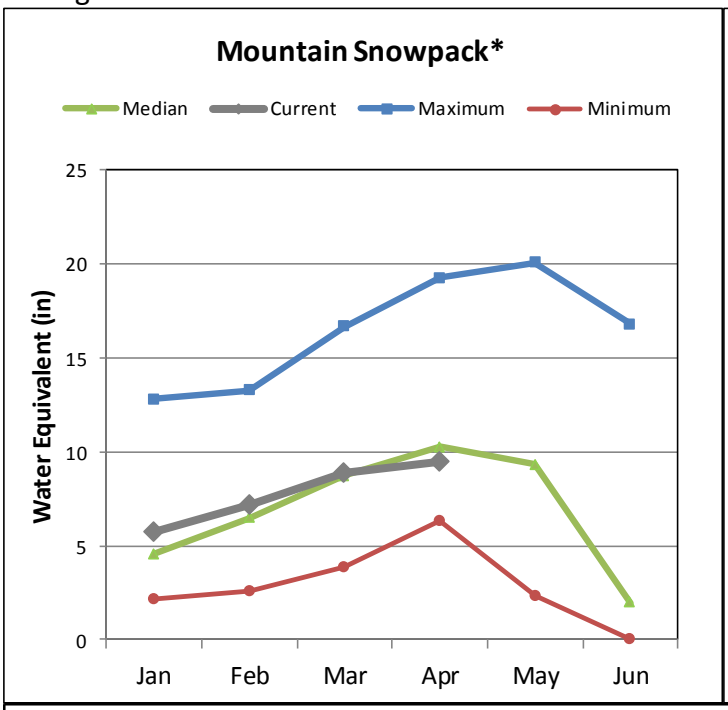


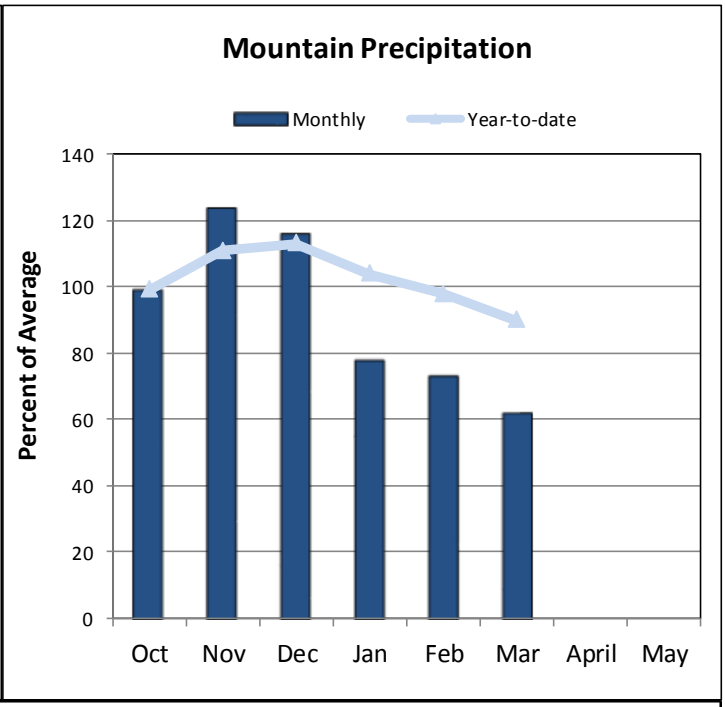
Please refer to the sections at the end of this report for further explanation concerning these graphs.

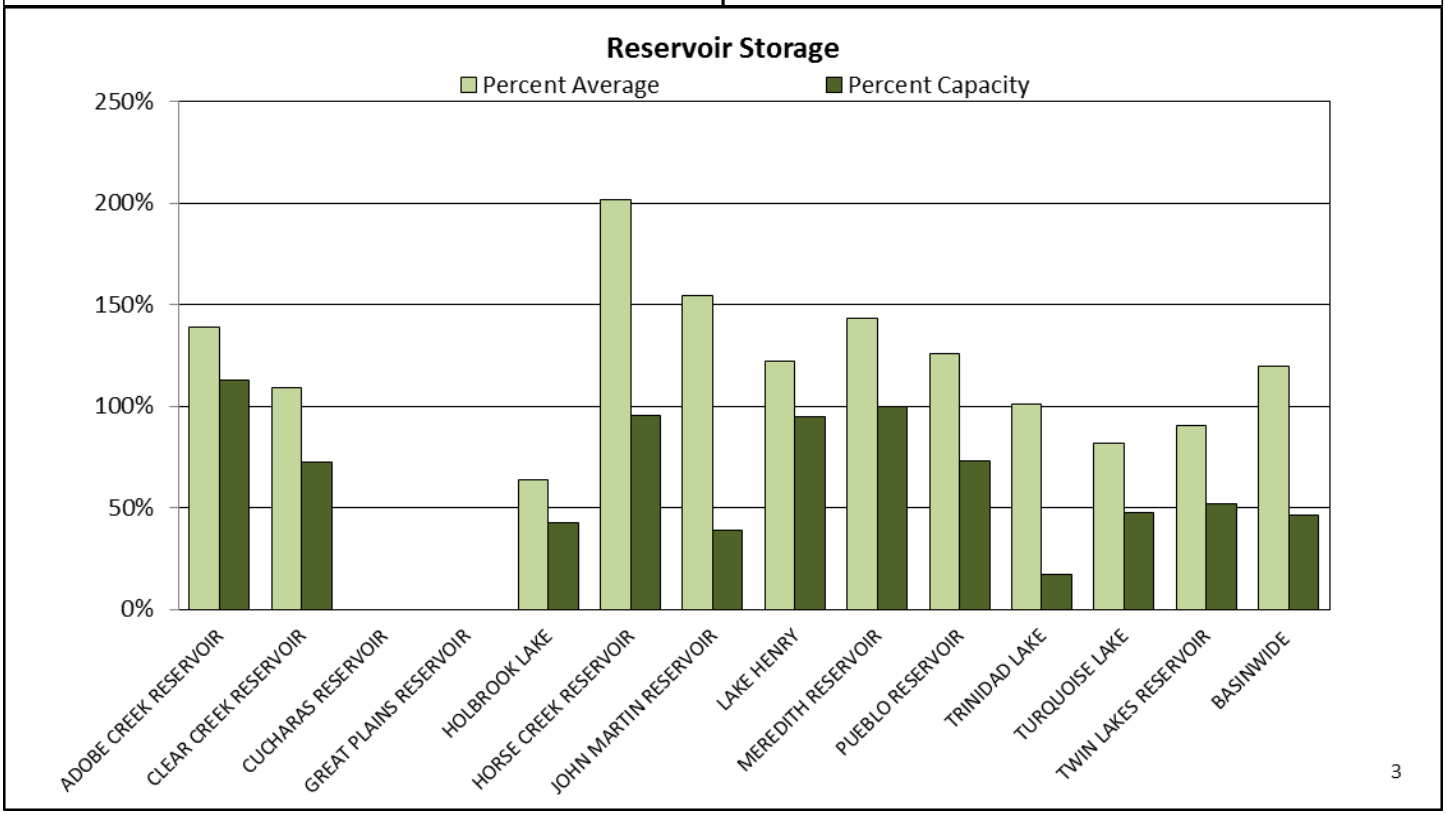
ARKANSAS RIVER BASIN

April 1, 2016

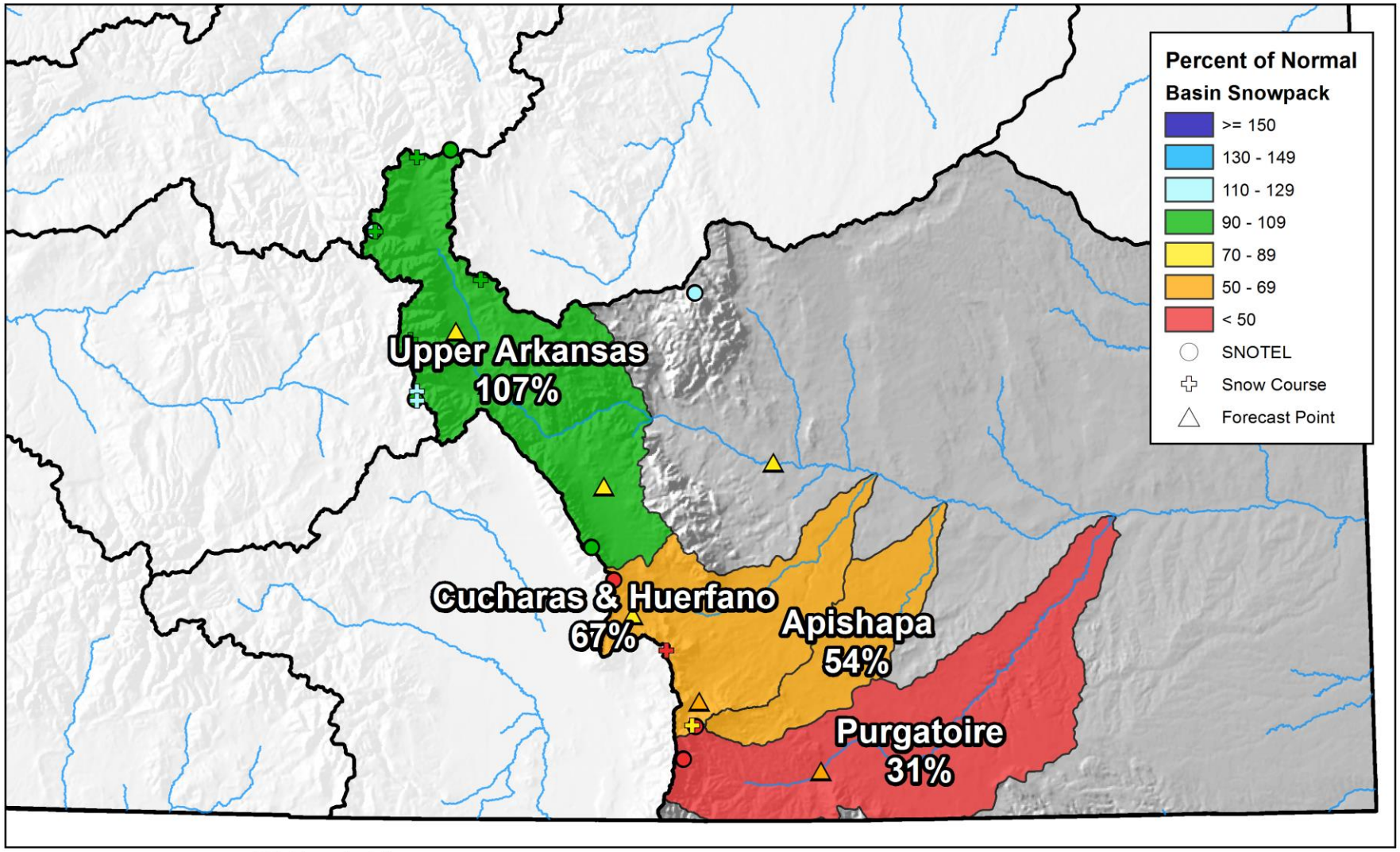
Snowpack in the Arkansas River basin is below normal at 92% of the median. Precipitation for March was 62% of average which brings water year-to-date precipitation to 90% of average. Reservoir storage at the end of March was 120% of average compared to 80% last year. Current streamflow forecasts range from 88% of average for the Arkansas at Salida and the Pueblo Reservoir inflow to 62% for the Cucharas River near La Veta.







Arkansas River Basin Snowpack and Streamflow Forecasts
April 1, 2016



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Arkansas River Basin
Streamflow Forecasts - April 1, 2016

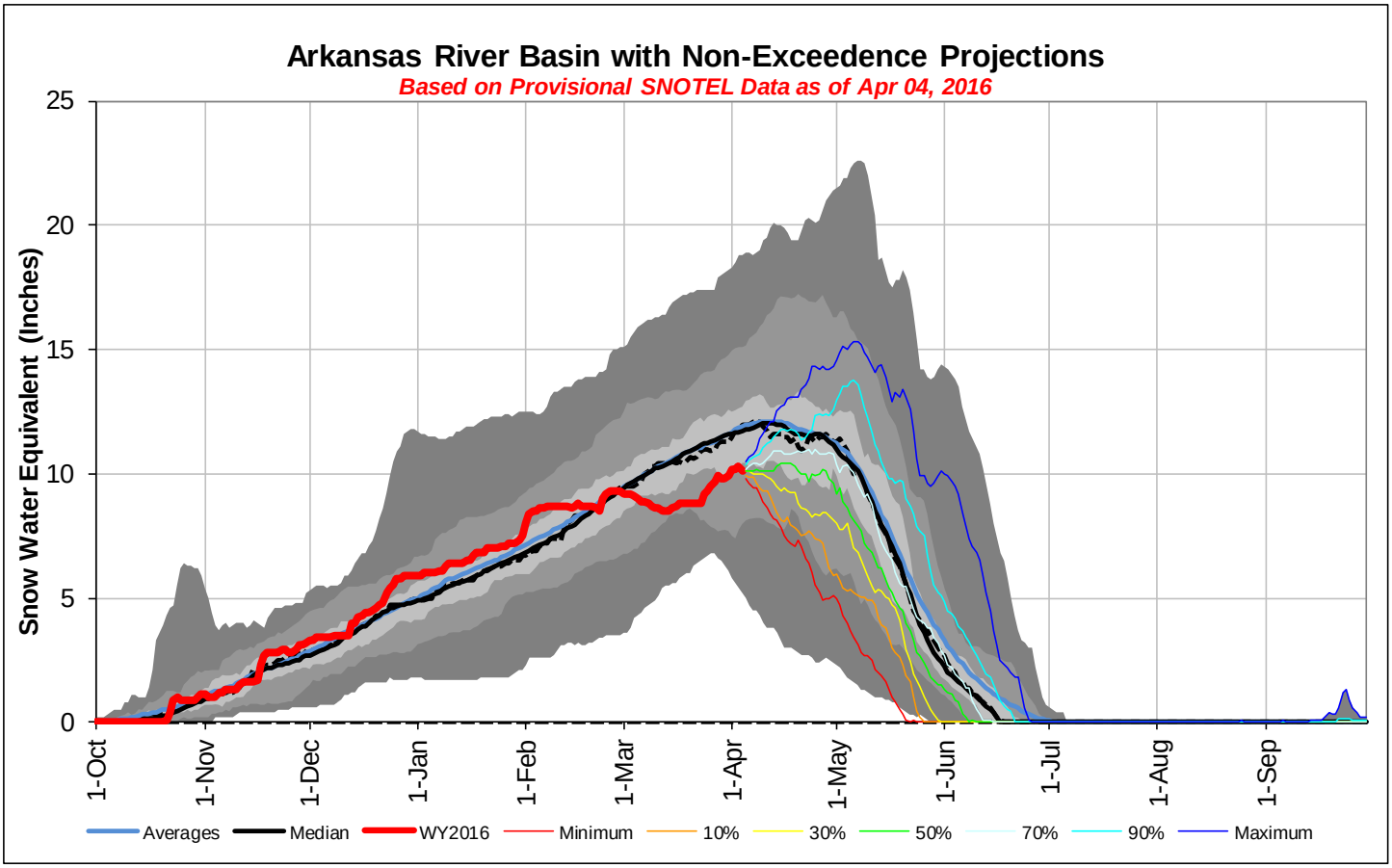
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

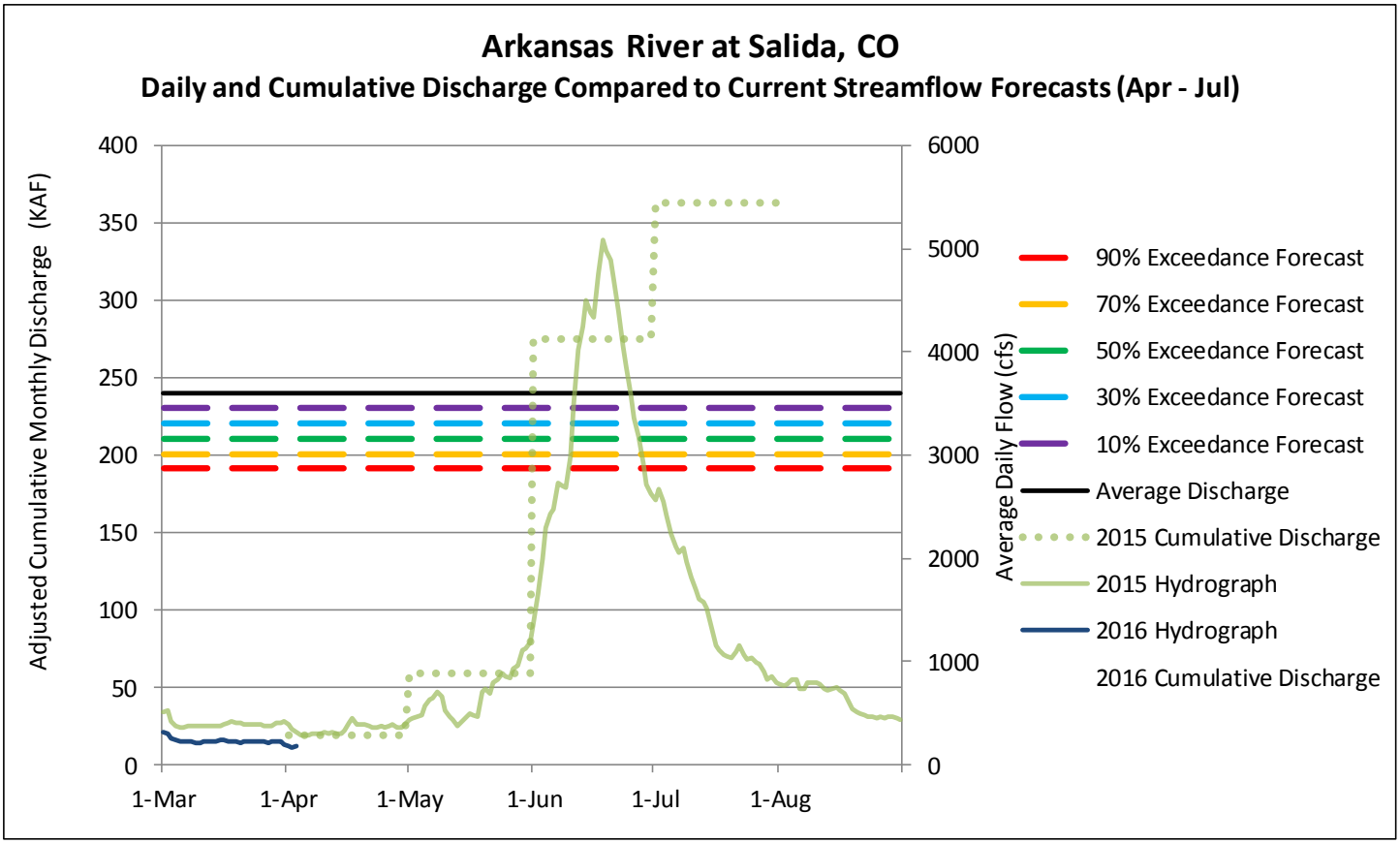
ARKANSAS RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Chalk Ck nr Nathrop								
	APR-JUL	10.3	14.7	18.1	86%	22	28	21
	APR-SEP	12.5	17.9	22	85%	27	34	26
Arkansas R at Salida[2]								
	APR-JUL	191	200	210	88%	220	230	240
	APR-SEP	225	245	260	88%	275	295	295
Grape Ck nr Westcliffe								
	APR-JUL	8.8	10.8	12.2	77%	13.7	16.1	15.9
	APR-SEP	12.7	14.3	15.5	79%	16.7	18.6	19.6
Pueblo Reservoir Inflow[2]								
	APR-JUL	181	255	315	88%	380	485	360
	APR-SEP	230	325	400	88%	480	615	455
Huerfano R nr Redwing								
	APR-JUL	4.6	6.8	8.6	72%	10.6	13.9	11.9
	APR-SEP	6.5	9.3	11.5	76%	13.9	18	15.2
Cucharas R nr La Veta								
	APR-JUL	3.2	5.6	7.6	62%	9.9	14	12.2
	APR-SEP	4.7	7.3	9.5	67%	11.9	16	14.1
Trinidad Lake Inflow[2]								
	MAR-JUL	9.7	18.4	26	70%	35	52	37
	APR-JUL	7.6	16.3	24	69%	33	50	35
	APR-SEP	9.2	21	32	68%	45	69	47

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
3) Median value used in place of average

Reservoir Storage End of March, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Adobe Creek Reservoir	70.1	34.8	50.4	62.0
Clear Creek Reservoir	8.3	9.0	7.6	11.4
Cucharas Reservoir		0.0	5.9	40.0
Great Plains Reservoir	0.0	0.0	37.0	150.0
Holbrook Lake	3.0	2.9	4.7	7.0
Horse Creek Reservoir	25.8	0.0	12.8	27.0
John Martin Reservoir	239.3	52.4	155.0	616.0
Lake Henry	8.9	8.9	7.3	9.4
Meredith Reservoir	41.9	41.4	29.2	42.0
Pueblo Reservoir	259.3	257.6	205.8	354.0
Trinidad Lake	28.8	19.9	28.5	167.0
Turquoise Lake	60.3	62.2	73.5	127.0
Twin Lakes Reservoir	44.8	41.4	49.6	86.0
Basin-wide Total	790.5	530.5	661.4	1658.8
# of reservoirs	12	12	12	12

Watershed Snowpack Analysis April 1, 2016	# of Sites	% Median	Last Year % Median
UPPER ARKANSAS BASIN	9	107%	95%
CUCHARAS & HUERFANO BASINS	5	67%	67%
PURGATOIRE RIVER BASIN	2	31%	53%
ARKANSAS RIVER BASIN	16	92%	86%



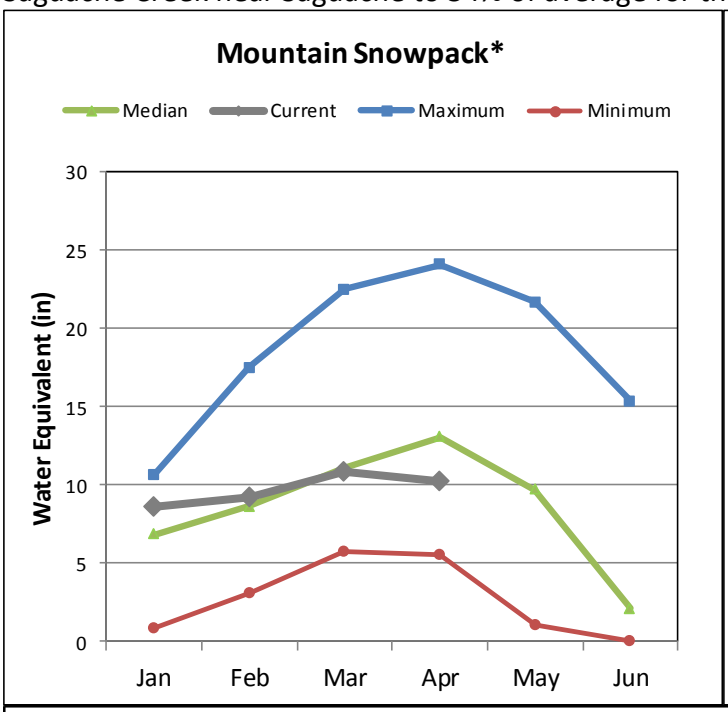


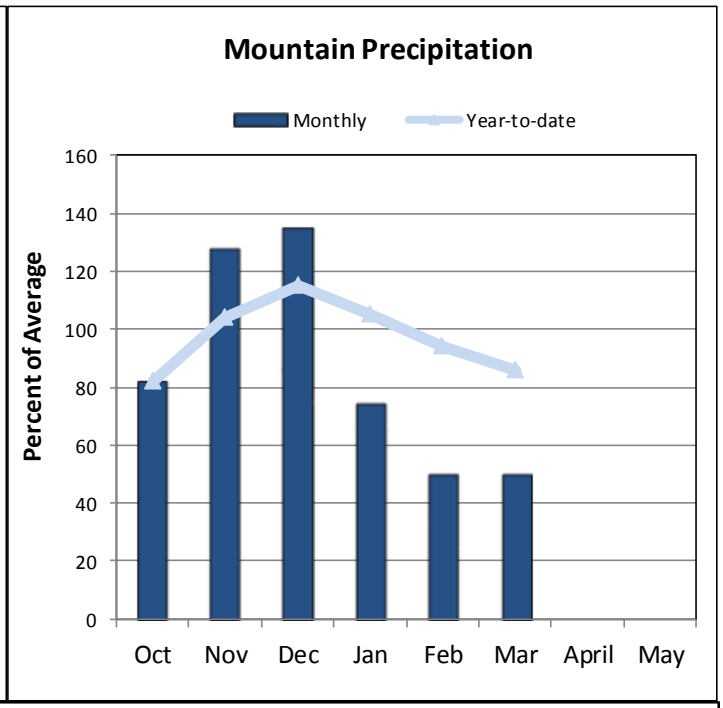
Please refer to the sections at the end of this report for further explanation concerning these graphs.

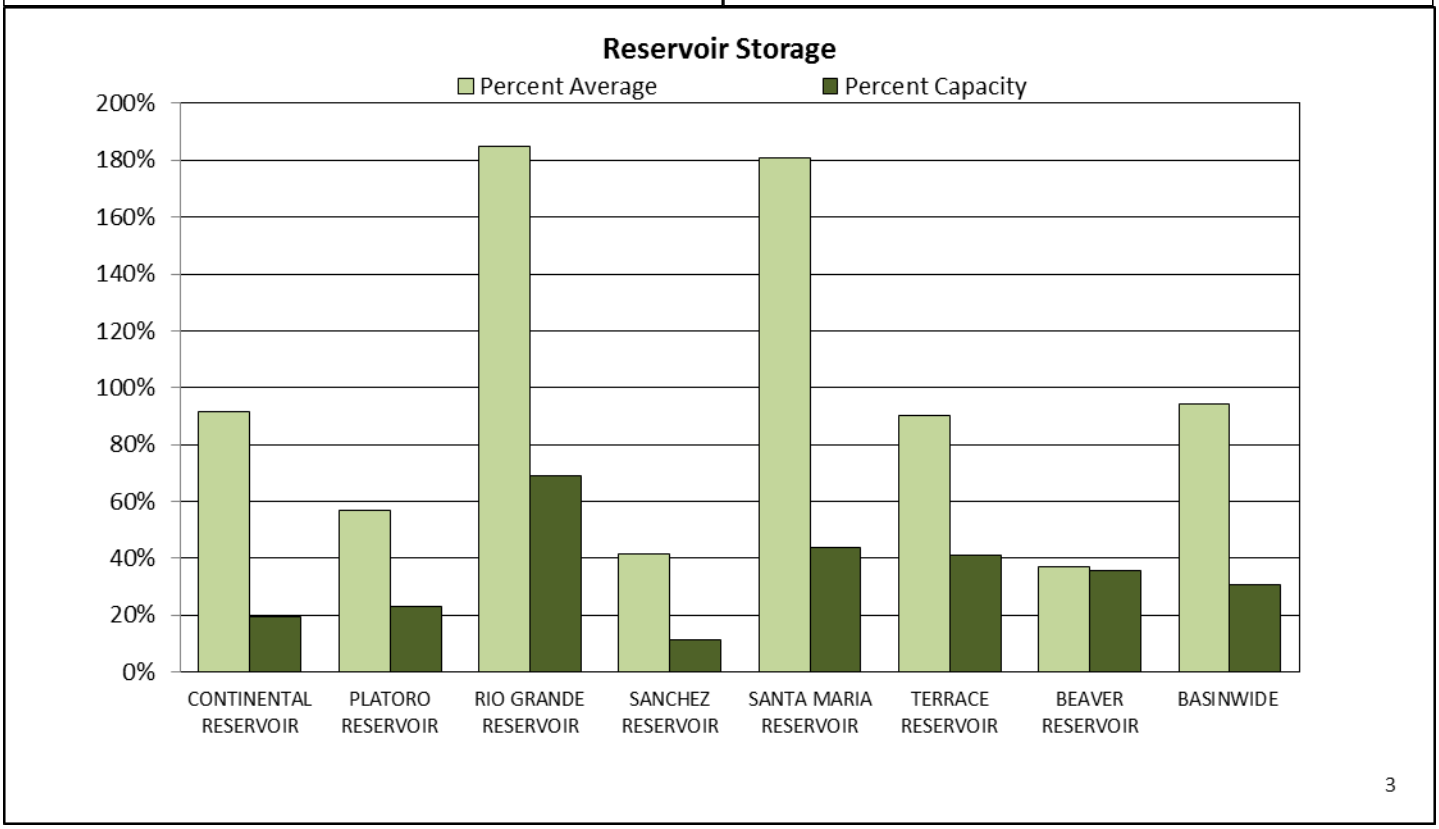
UPPER RIO GRANDE RIVER BASIN

April 1, 2016

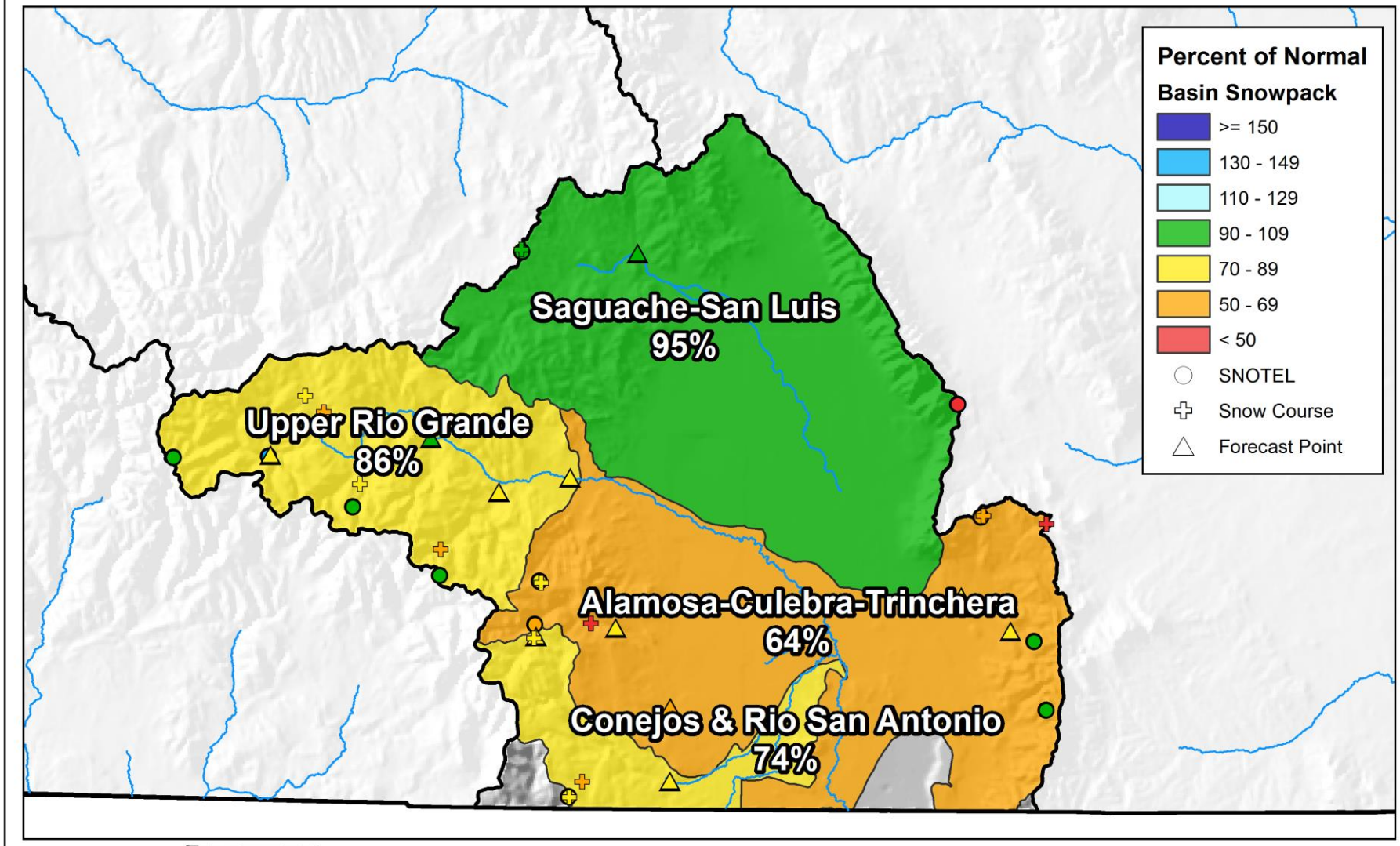
Snowpack in the Upper Rio Grande River basin is below normal at 79% of median. Precipitation for March was 50% of average which brings water year-to-date precipitation to 86% of average. Reservoir storage at the end of March was 94% of average compared to 78% last year. Streamflow forecasts range from 97% of average for Saguache Creek near Saguache to 54% of average for the San Antonio River at Ortiz.







Upper Rio Grande River Basin Snowpack and Streamflow Forecasts
April 1, 2016



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Upper Rio Grande Basin
Streamflow Forecasts - April 1, 2016

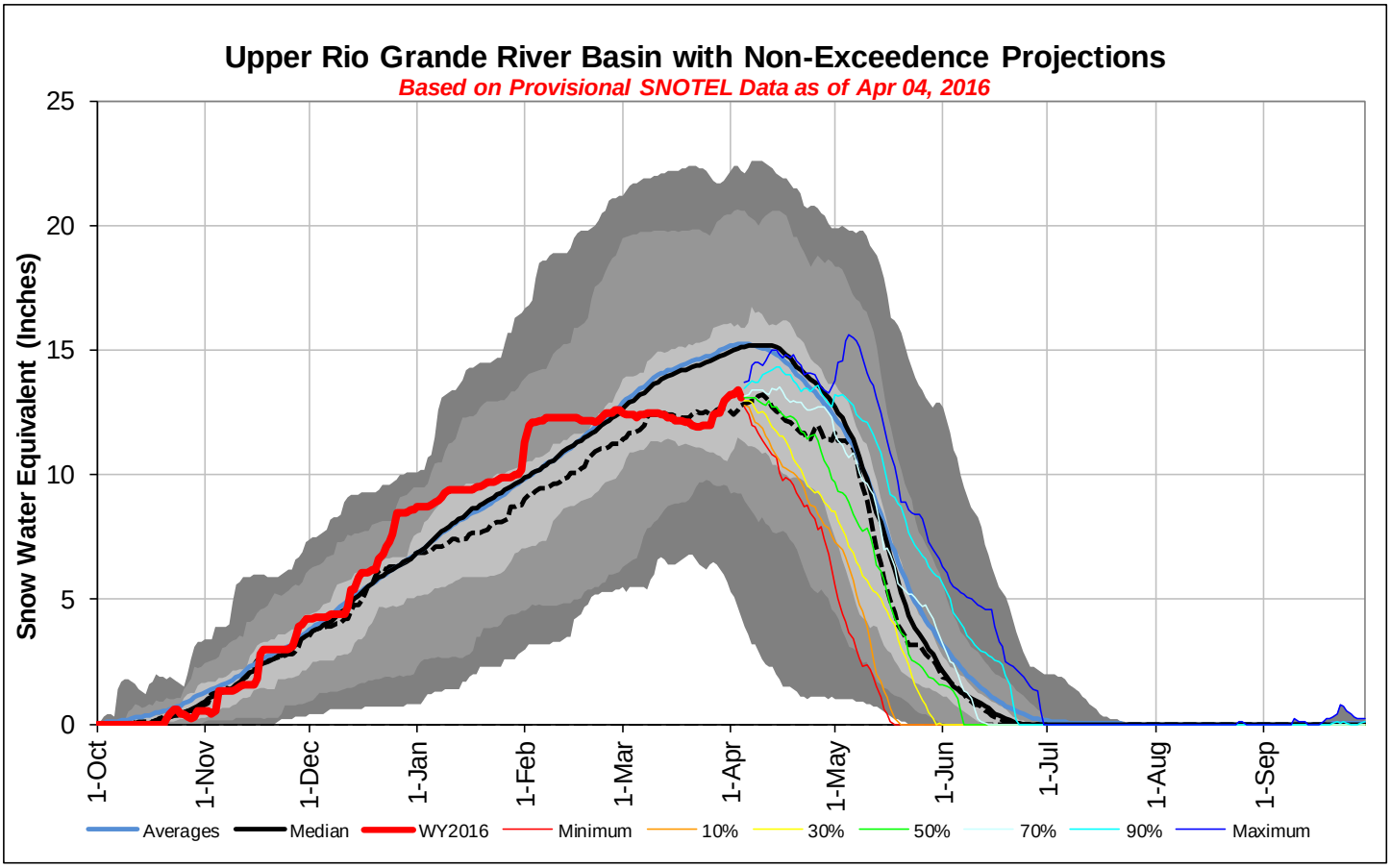
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

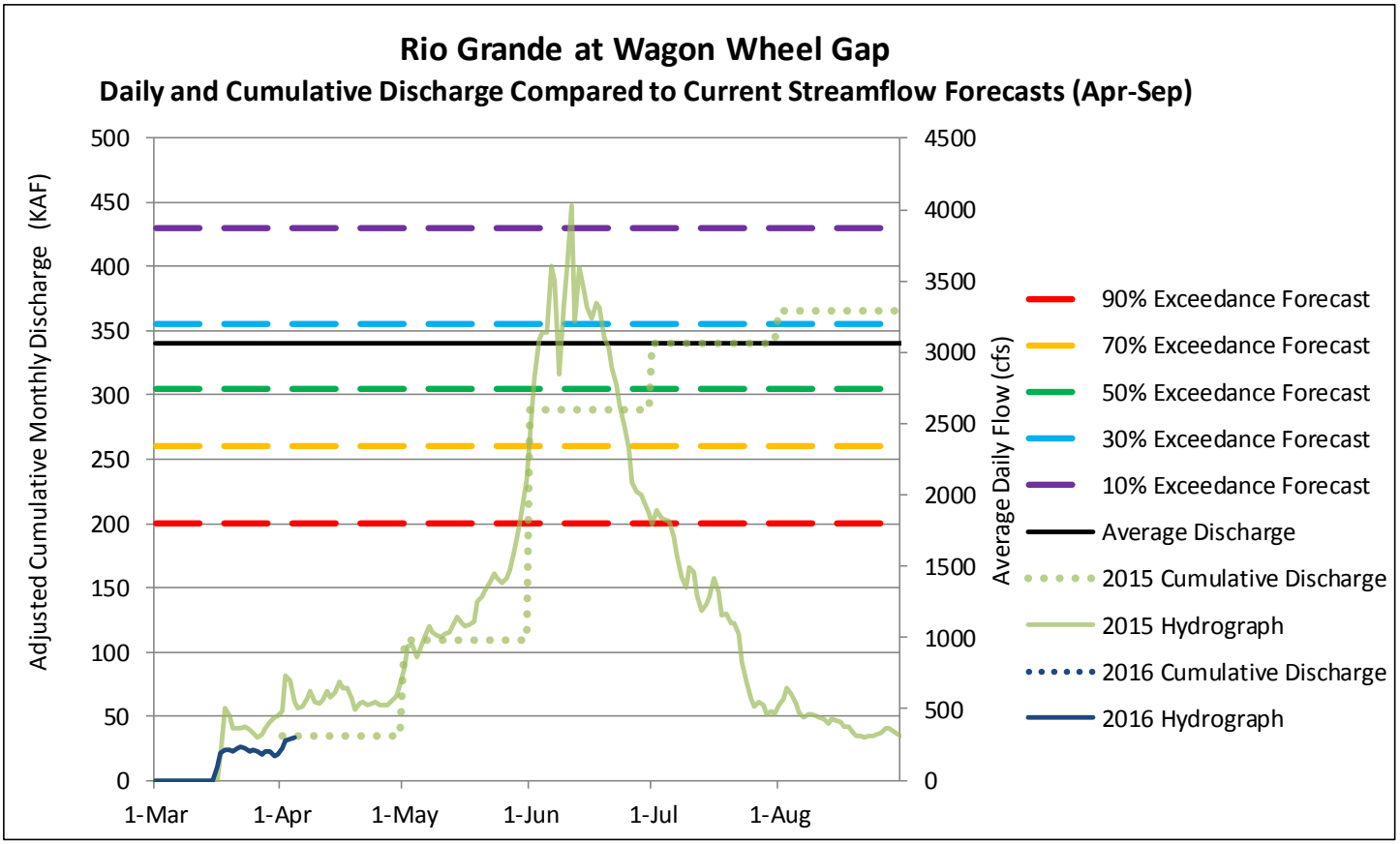
UPPER RIO GRANDE BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Rio Grande at Thirty Mile Bridge[2]								
	APR-JUL	68	84	97	86%	110	132	113
	APR-SEP	73	94	110	85%	128	155	129
Rio Grande at Wagon Wheel Gap[2]								
	APR-SEP	200	260	305	90%	355	430	340
SF Rio Grande at South Fork[2]								
	APR-SEP	69	85	96	76%	109	128	127
Rio Grande nr Del Norte [2]								
	APR-SEP	295	375	435	84%	500	600	515
Saguache Ck nr Saguache								
	APR-SEP	17.6	25	31	97%	37	48	32
Alamosa Ck ab Terrace Reservoir								
	APR-SEP	39	48	55	81%	62	74	68
La Jara Ck nr Capulin								
	MAR-JUL	3.1	4.8	6.1	69%	7.7	10.2	8.9
	APR-JUL	2.8	4.5	5.8	71%	7.4	9.9	8.2
Trinchera Ck ab Turners Ranch								
	APR-SEP	7	8.7	10	79%	11.3	13.5	12.6
Sangre de Cristo Ck [2]								
	APR-SEP	5.2	9	12.1	74%	15.7	22	16.3
Ute Ck nr Fort Garland								
	APR-SEP	5.4	8	10	78%	12.2	15.9	12.8
Platoro Reservoir Inflow								
	APR-JUL	34	40	45	80%	50	58	56
	APR-SEP	37	44	50	81%	56	65	62
Conejos R nr Mogote [2]								
	APR-SEP	105	130	149	77%	169	200	194
San Antonio R at Ortiz								
	APR-SEP	5	7	8.5	54%	10.2	13	15.6
Los Pinos R nr Ortiz								
	APR-SEP	34	42	48	66%	55	65	73
Culebra Ck at San Luis								
	APR-SEP	9.4	13.8	17.3	75%	21	27	23
Costilla Reservoir Inflow								
	MAR-JUL	4.2	6.2	7.8	70%	9.7	12.7	11.1
	APR-JUL	3.7	5.7	7.3	71%	9.2	12.2	10.3
Costilla Ck nr Costilla [2]								
	MAR-JUL	7.9	12.9	17.1	66%	22	30	26
	APR-JUL	6.8	11.8	16	67%	21	29	24

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
3) Median value used in place of average

Reservoir Storage End of March, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Beaver Reservoir	1.6	0.0	4.3	4.5
Continental Reservoir	5.3	8.8	5.8	27.0
Platoro Reservoir	13.8	11.8	24.2	60.0
Rio Grande Reservoir	35.3	31.2	19.1	51.0
Sanchez Reservoir	11.7	3.8	28.1	103.0
Santa Maria Reservoir	19.7	15.8	10.9	45.0
Terrace Reservoir	7.4	6.9	8.2	18.0
Basin-wide Total	94.8	78.3	100.6	308.5
# of reservoirs	7	7	7	7

Watershed Snowpack Analysis April 1, 2016	# of Sites	% Median	Last Year % Median
ALAMOSA CREEK BASIN	3	57%	43%
CONEJOS & RIO SAN ANTONIO BASINS	5	74%	63%
CULEBRA & TRINCHERA BASINS	5	77%	74%
HEADWATERS RIO GRANDE RIVER BASIN	13	86%	54%
UPPER RIO GRANDE BASIN	25	79%	59%



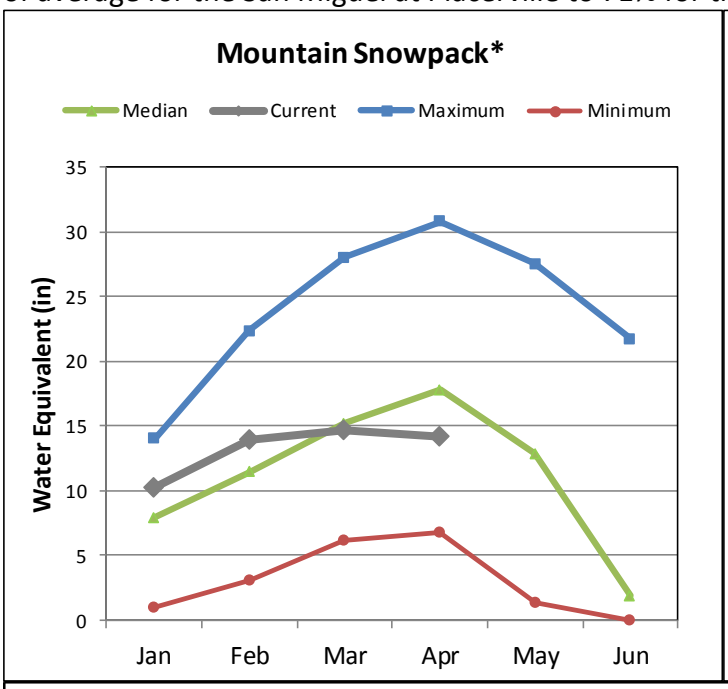


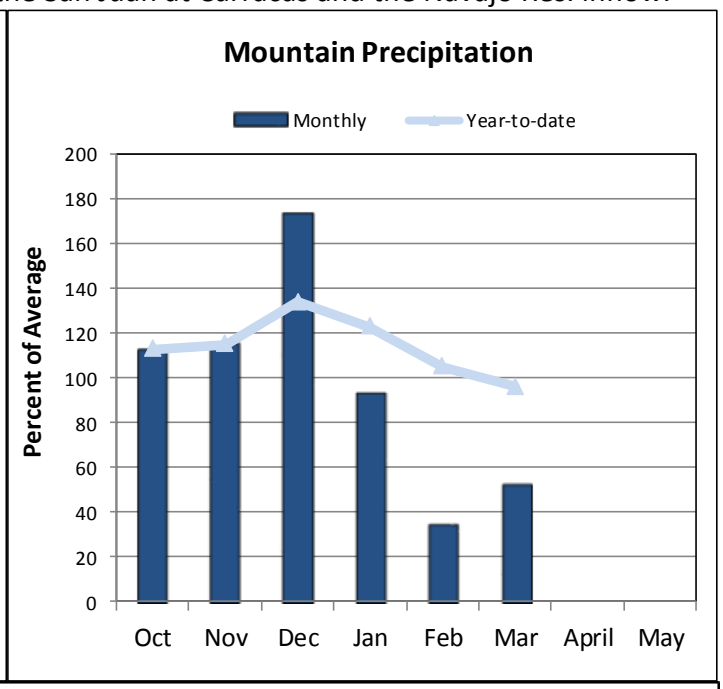
Please refer to the sections at the end of this report for further explanation concerning these graphs.

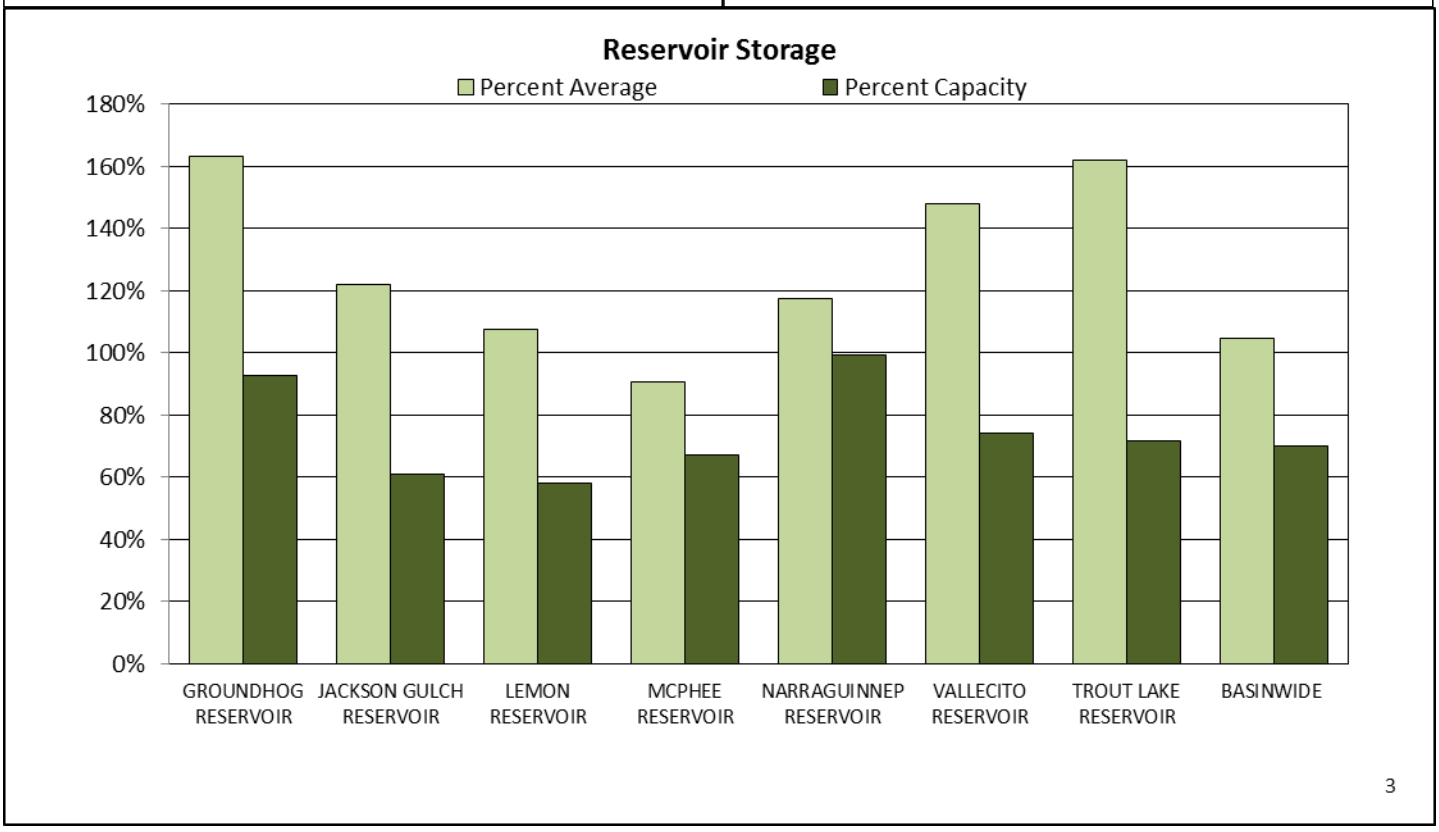
SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS

April 1, 2016

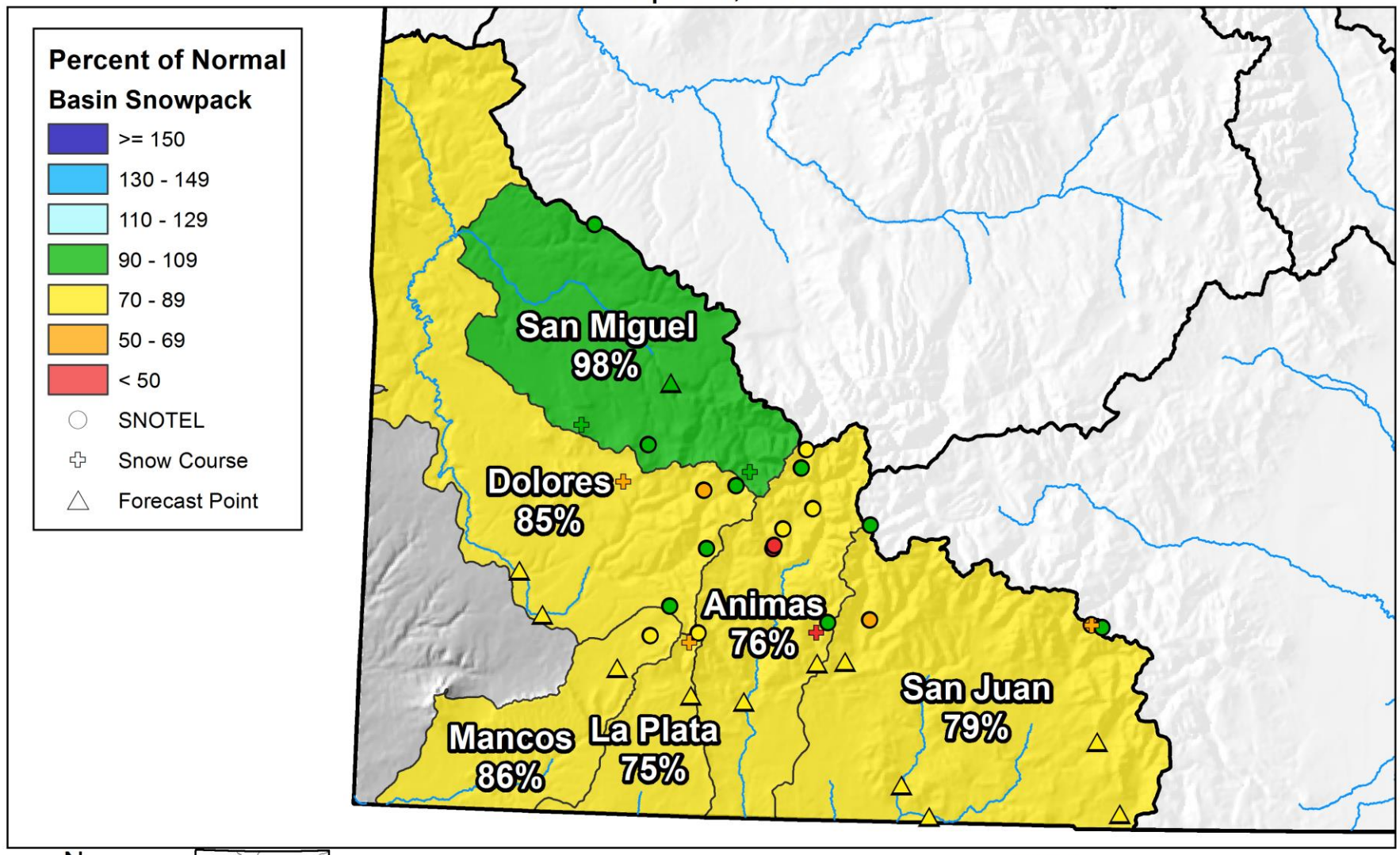
Snowpack in the combined southwest river basins is below normal at 81% of median. Precipitation for March was 53% of average which brings water year-to-date precipitation to 96% of average. Reservoir storage at the end of March was 105% of average compared to 90% last year. Current streamflow forecasts range from 98% of average for the San Miguel at Placerville to 71% for the San Juan at Carracas and the Navajo Res. inflow.







San Miguel, Dolores, Animas, and San Juan River Basins
Snowpack and Streamflow Forecasts
April 1, 2016



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San Miguel-Dolores-Animas-San Juan River Basins
Streamflow Forecasts - April 1, 2016

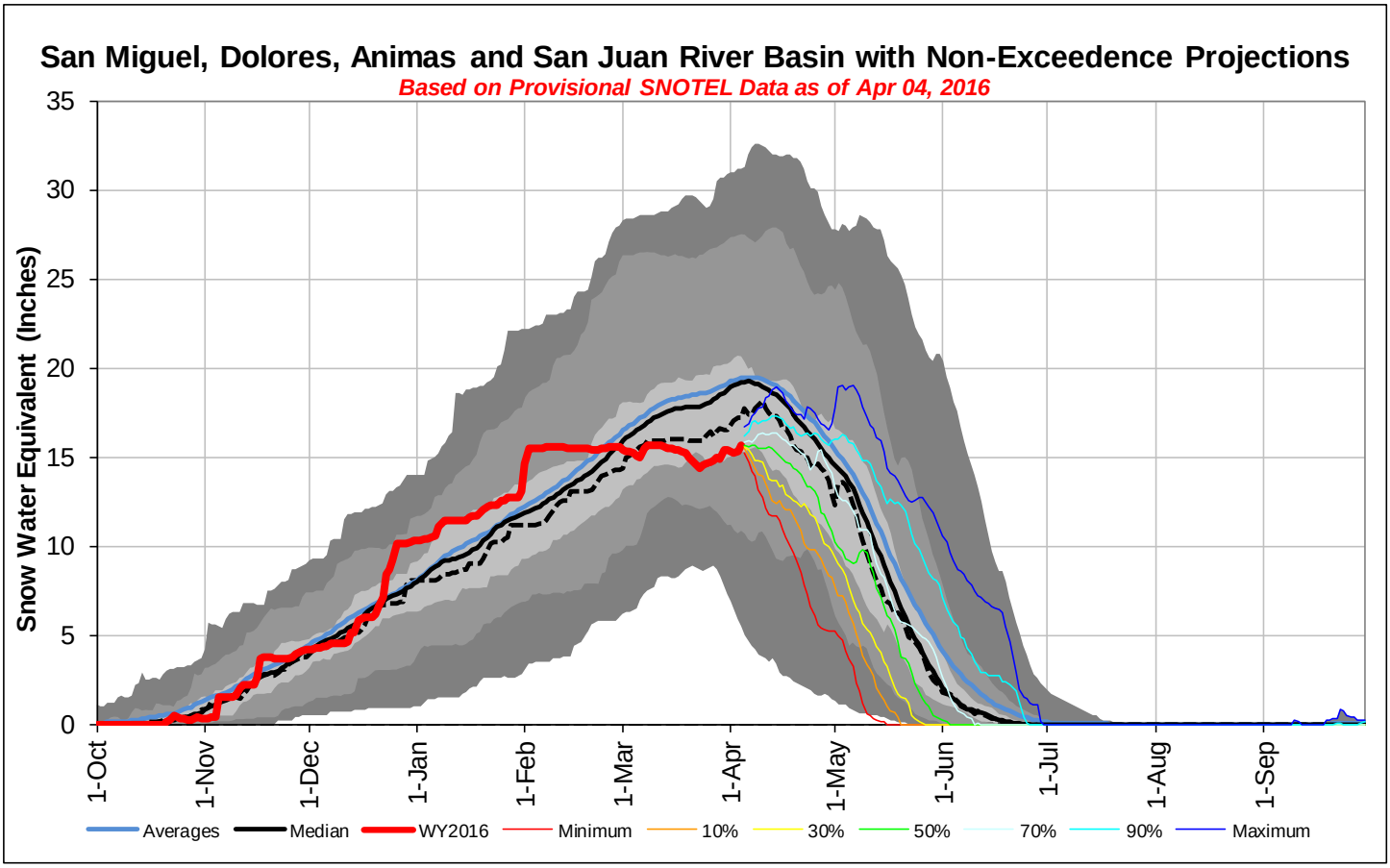
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

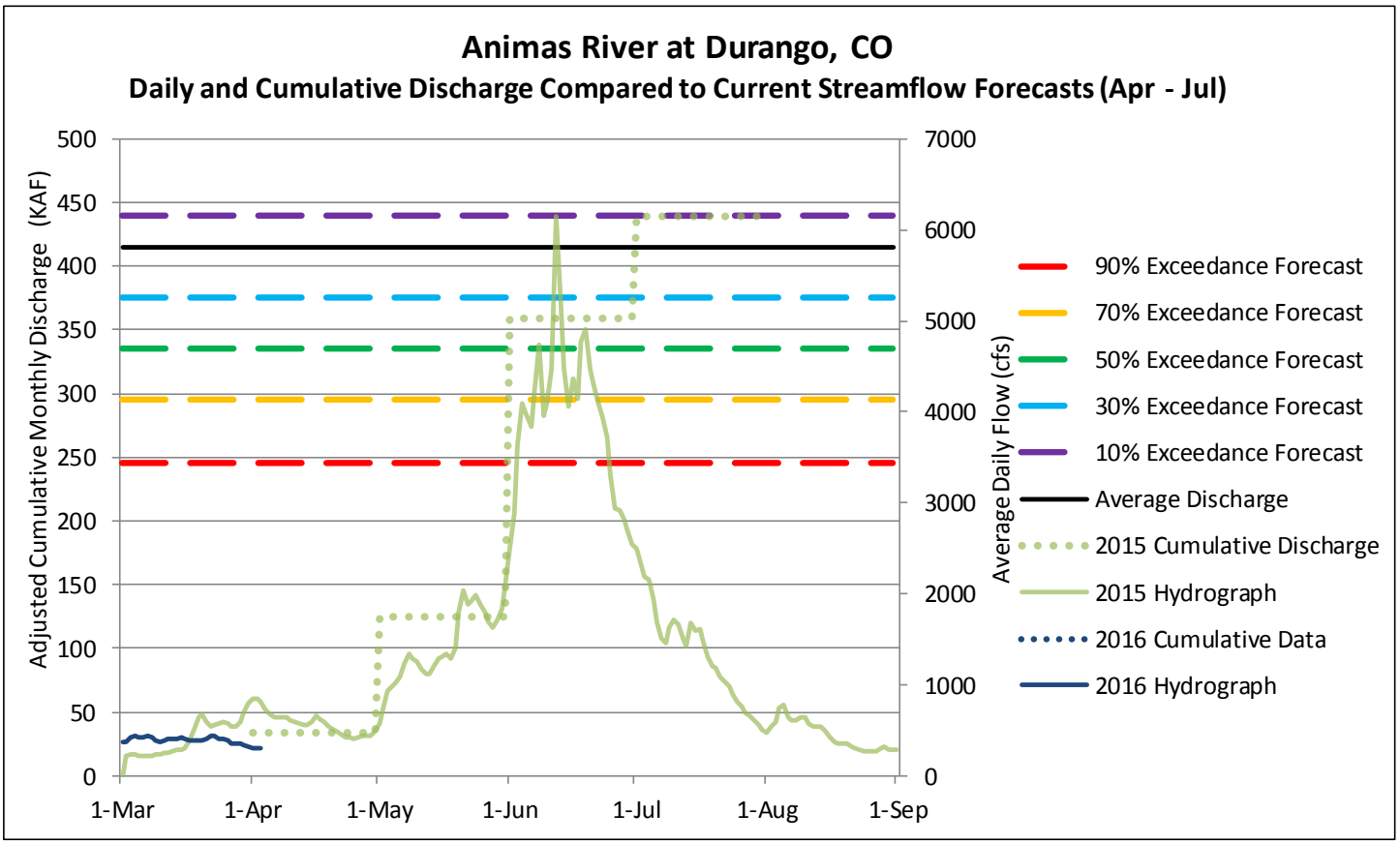
SAN MIGUEL-DOLORES-ANIMAS-SAN JUAN RIVER BASINS	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Dolores R at Dolores	APR-JUL	160	195	220	90%	245	290	245
McPhee Reservoir Inflow	APR-JUL	173	215	245	83%	280	330	295
San Miguel R nr Placerville	APR-JUL	89	110	126	98%	143	170	128
Cone Reservoir Inlet	APR-JUL	2	2.5	2.8	93%	3.2	3.7	3
Gurley Reservoir Inlet	APR-JUL	11.2	13.4	15	91%	16.7	19.3	16.4
Lilylands Reservoir Inlet	APR-JUL	0.98	1.44	1.8	94%	2.2	2.9	1.92
Rio Blanco at Blanco Diversion [2]	APR-JUL	28	35	41	76%	46	55	54
Navajo R at Oso Diversion [2]	APR-JUL	34	42	49	75%	55	66	65
San Juan R nr Carracas [2]	APR-JUL	182	235	270	71%	315	380	380
Piedra R nr Arboles	APR-JUL	114	140	160	76%	181	215	210
Vallecito Reservoir Inflow	APR-JUL	114	138	155	80%	173	200	194
Navajo Reservoir Inflow [2]	APR-JUL	360	455	525	71%	600	725	735
Animas R at Durango	APR-JUL	245	295	335	81%	375	440	415
Lemon Reservoir Inflow	APR-JUL	31	37	42	76%	47	55	55
La Plata R at Hesperus	APR-JUL	13.2	16	18	78%	20	24	23
Mancos R nr Mancos [2]	APR-JUL	18	23	27	87%	31	38	31

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
3) Median value used in place of average

Reservoir Storage End of March, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Groundhog Reservoir	20.4	17.8	12.5	22.0
Jackson Gulch Reservoir	6.1	4.6	5.0	10.0
Lemon Reservoir	23.3	24.4	21.7	40.0
Mcphee Reservoir	255.8	195.3	282.2	381.0
Narraguinnep Reservoir	18.9	19.0	16.1	19.0
Trout Lake Reservoir	2.3	0.0	1.4	3.2
Vallecito Reservoir	93.7	101.0	63.3	126.0
Basin-wide Total	420.5	362.1	402.2	601.2
# of reservoirs	7	7	7	7

Watershed Snowpack Analysis April 1, 2016	# of Sites	% Median	Last Year % Median
ANIMAS RIVER BASIN	11	76%	53%
DOLORES RIVER BASIN	7	88%	44%
SAN MIGUEL RIVER BASIN	5	98%	50%
SAN JUAN RIVER BASIN	4	79%	48%
SAN MIGUEL-DOLORES-ANIMAS-SAN JUAN RIVER BASINS	25	82%	48%





Please refer to the sections at the end of this report for further explanation concerning these graphs.

How to Read Non-Exceedance Projections Graphs

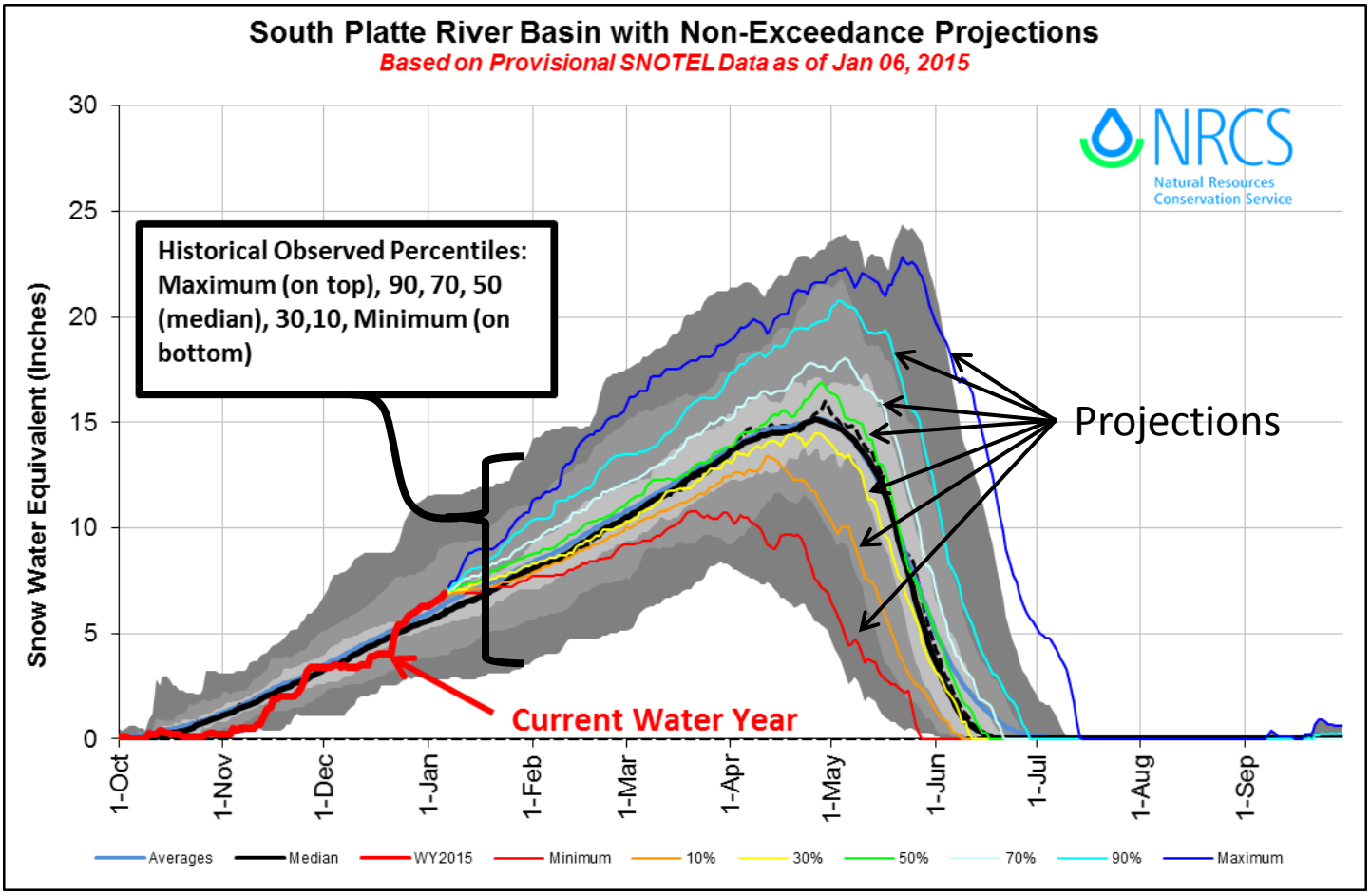
The graphs show snow water equivalent (SWE) projections (in inches) for the October 1 through September 30 water year. Basin "observed" SWE values are computed using SNOTEL sites which are characteristic of the snowpack of the particular basin. The SWE observations at these sites are averaged and normalized to produce these basin snowpack graphs. This new graph format uses non-exceedance projections.

Current water year is represented by the heavy red line terminating on the last day the graphic was updated.

Historical observed percentile range is shown as a gray background area on the graph. Shades of gray indicate maximum, 90 percentile, 70 percentile, 50 percentile (solid black line), 30 percentile, 10 percentile, and minimum for the period of record.

Projections for maximum, 90 percent, 70 percent, 50 percent (most probabilistic snowpack projection, based on median), 30 percent, 10 percent, and minimum exceedances are projected forward from the end of the current line as different colored lines.

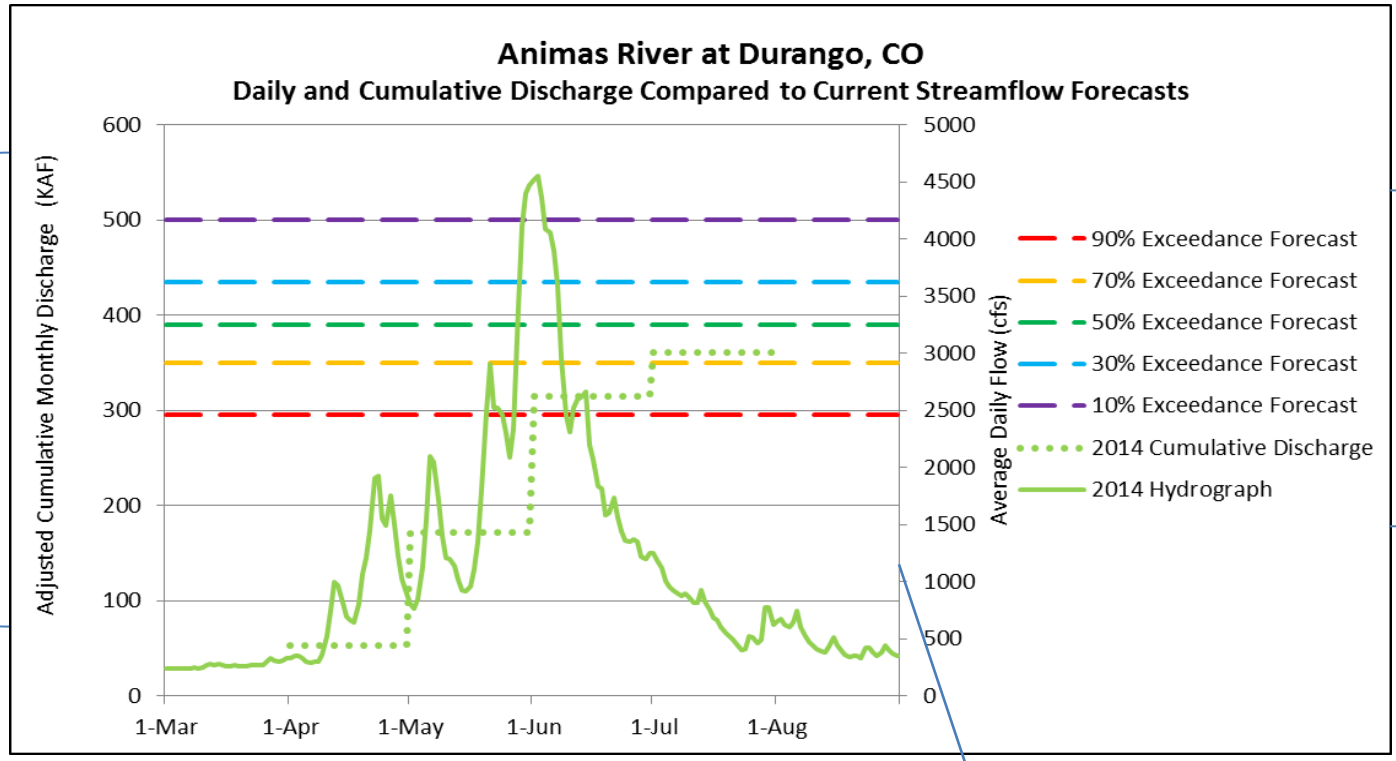
For more detailed information on these graphs visit:
http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_062291.pdf



Explanation of Flow Comparison Charts

The flow comparison charts were developed to provide a quick comparison between the previous years' observed hydrograph, cumulative seasonal discharge, the current streamflow forecasts, and the current years' observed discharge (both hydrograph and cumulative discharge, as the season progresses). Forecast points for these products were generally chosen to be lower in the basin to best represent the basin-wide streamflow response for the season; the true degree of representativeness will vary between basins. When making comparisons of how the shape of the hydrograph relates to the monthly (and seasonal) cumulative discharges it is important to note that the hydrograph represents observed daily flows at the forecast point while the cumulative values may be adjusted for changes in reservoir storage and diversions to best represent what would be "natural flows" if these impoundments and diversions did not exist. This product can provide additional guidance regarding how to most wisely utilize the five exceedance forecasts based on past observations, current trends, and future uncertainty for a wide variety of purposes and water users.

The left y-axis represents values of adjusted cumulative discharge (KAF). This axis is to be used for comparing the current and previous years to the current five volumetric seasonal exceedance forecasts. This graphic only displays the previous years data but data for the current water year will be added as the season progresses.



The legend displays the symbology and color schemes for the various parameters represented. Exceedance forecasts represent total cumulative discharge for the April through July time period with the exception of the Rio Grande at Wagon Wheel Gap (Apr-Sep).

The right y-axis represents observed daily average discharge at the forecast point of interest. This graphic only displays the previous years data but data for the current water year will be added as the Season progresses.

How Forecasts Are Made

For more water supply and resource management information, contact:

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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 snow courses 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. 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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In addition to the water supply outlook reports, water supply forecast information for the Western United States is available from the Natural Resources Conservation Service and the National Weather Service monthly, January through June. The information may be obtained from the Natural Resources Conservation Service web page at http://www.wcc.nrcs.usda.gov/wsf/westwide.html

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