USDA United States Department of Agriculture
Natural Resources Conservation Service

# Colorado
# Water Supply Outlook Report
## March 1, 2016

**The South Park area east of the Como snow course was largely snow free at the end of February, illustrating the dry and windy conditions that plagued much of Colorado throughout the month.**

**Date: 2/24/2016 Photo By: Brian Domonkos**

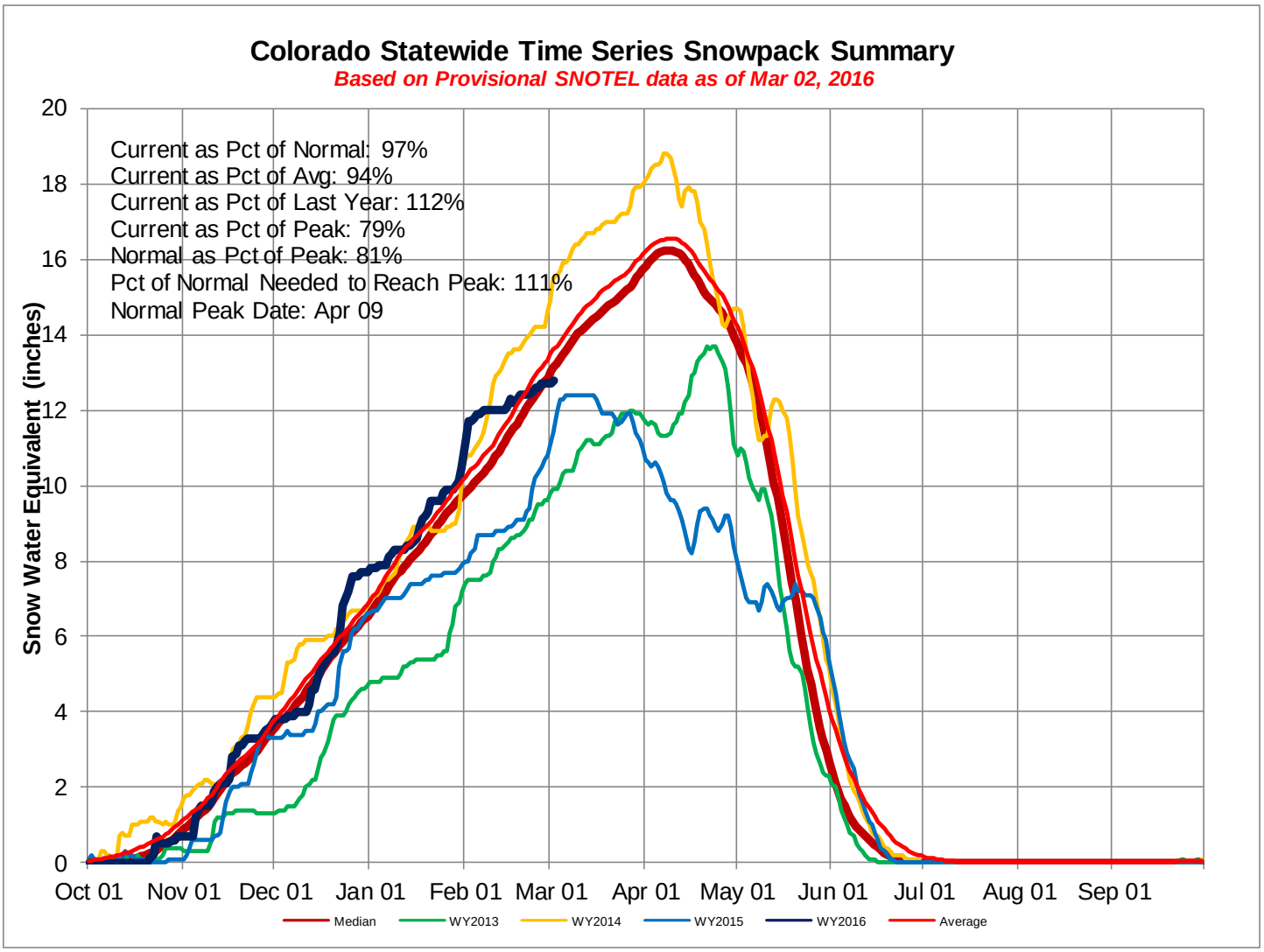
**REMINDER:** We are soliciting field work photos from our snow surveyors again this year. Each month we will pick one to grace the cover of this report! Please include information on where, when and of who/what the photo was taken.

# Contents

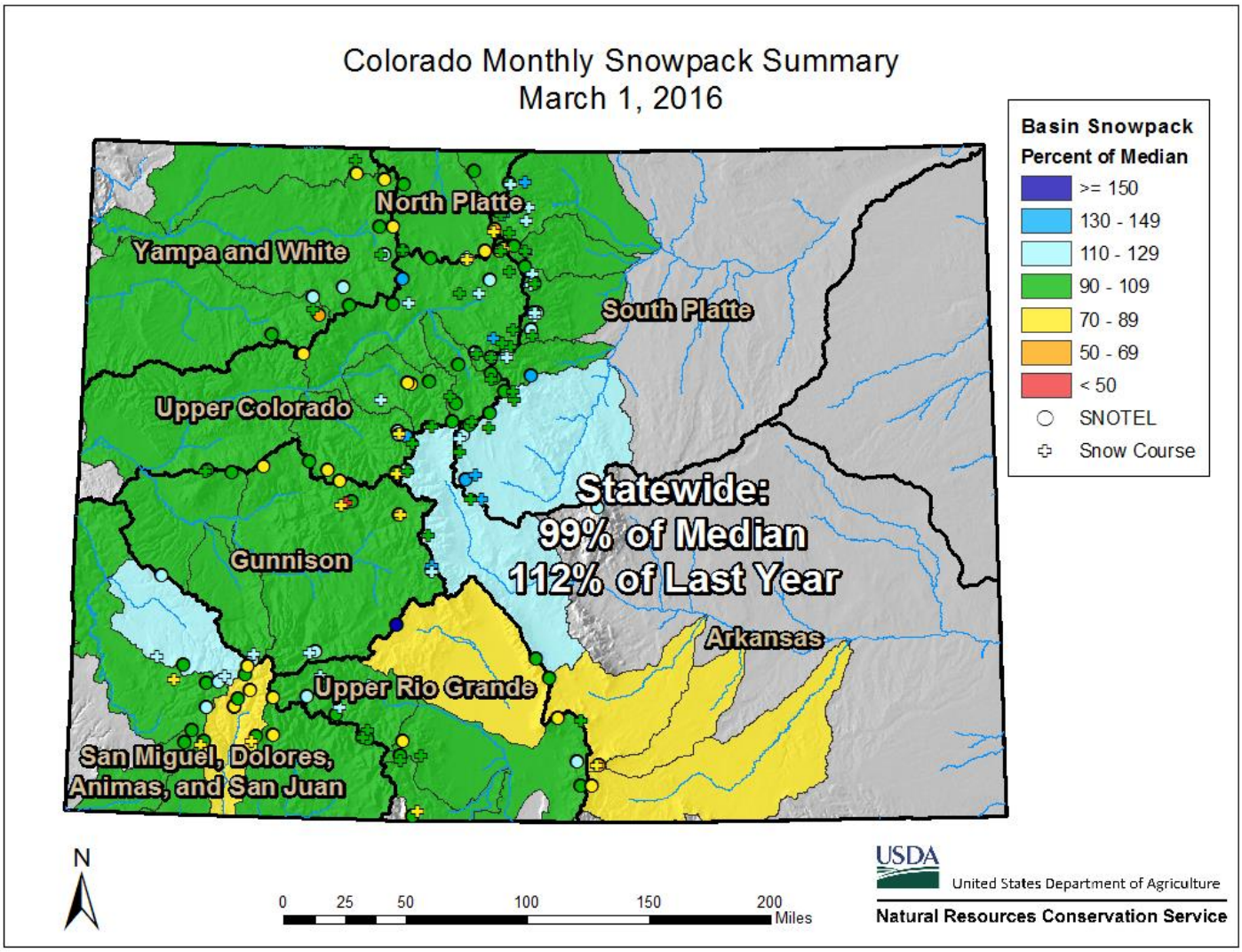
# Statewide Water Supply Conditions

## Summary

Statewide snowpack accumulation and precipitation during February was minimal at best, providing the lowest February increments in more than thirty years. Fortunately, Colorado saw little to no snowpack melt due to the recent warm weather, as compared to the snowpacks of Arizona and Western New Mexico, which experienced significant snowpack depletion. By March 1st, snowpack dropped 13 percent to 99 percent of normal, and water year to date precipitation fell 11 percent to 98 percent of normal after a month where precipitation totaled 56 percent. Only two of the major watersheds in the state were able to eke out February precipitation accumulations better than 60 percent of normal, but all were below normal, with the greatest accumulation coming from the South Platte, at 85 percent. Strong snowpack at the beginning of February, as well as consistently better than normal reservoir storage are currently the two positive factors in the water supply budget. At 110 percent of normal, statewide reservoir storage has not dropped below this level since May of 2015. Yet, as a direct result of an abnormally dry February, Colorado's streamflow forecasts have dropped across the state generally ranging between 75 – 105 percent of normal with a few outliers. However, all future streamflow volumes still hinge on the pivotal months of March and April.

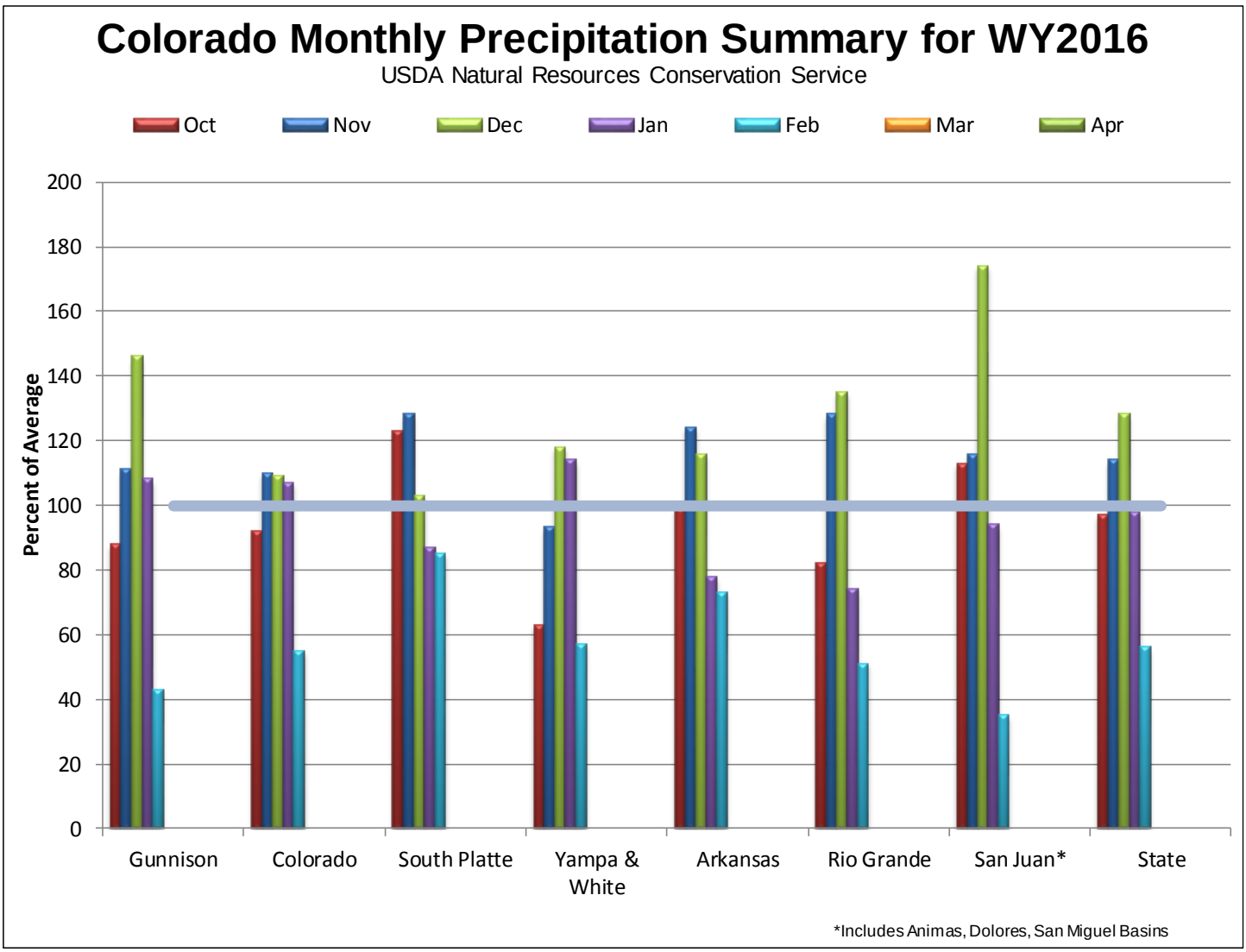


## Snowpack



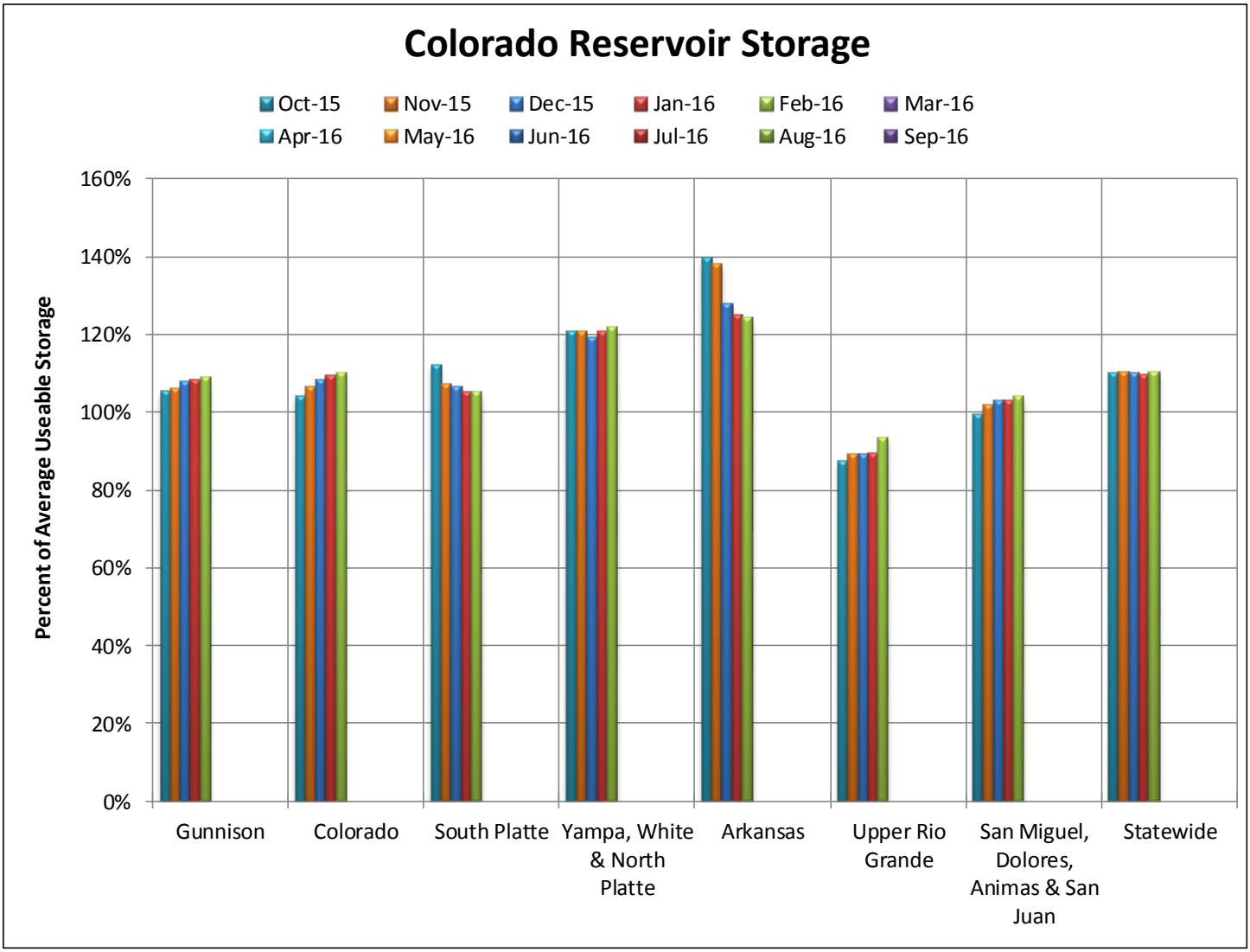

February brought by far the driest month to date of the 2016 water year to Colorado. This was reflected in a 13 percent drop in percent of normal snowpack over the last month, but as of March 1st snowpack was still very near normal, at 99 percent of median. With the exception of the Yampa, White, and North Platte River basins snowpacks in all major basins across the state are clustered very closely around normal values, in the 97 to 102 percent of median range. Even though the basins of northwest Colorado do lag behind, it is not by very much, with the combined Yampa and White basins at 93 percent and the North Platte at 92 percent of normal values. The South Platte and Arkansas basins are tied for the most plentiful snowpacks in the state, at 102 percent of median. The Colorado, Gunnison, Upper Rio Grande, and combined San Miguel, Dolores, Animas, and San Juan basins are below normal but not far behind, with their respective snowpacks residing between 97 and 99 percent of median, as of March 1st. Many observed historical El Nino events in Colorado have followed a similar pattern to what has been observed so far this year, and have ended with above normal precipitation through the end of winter and early spring. Whether that occurs this year or not, having a near normal snowpack this time of year provides a solid foundation for summer water supply as we get nearer to peak accumulation and snowmelt runoff season.

## Precipitation



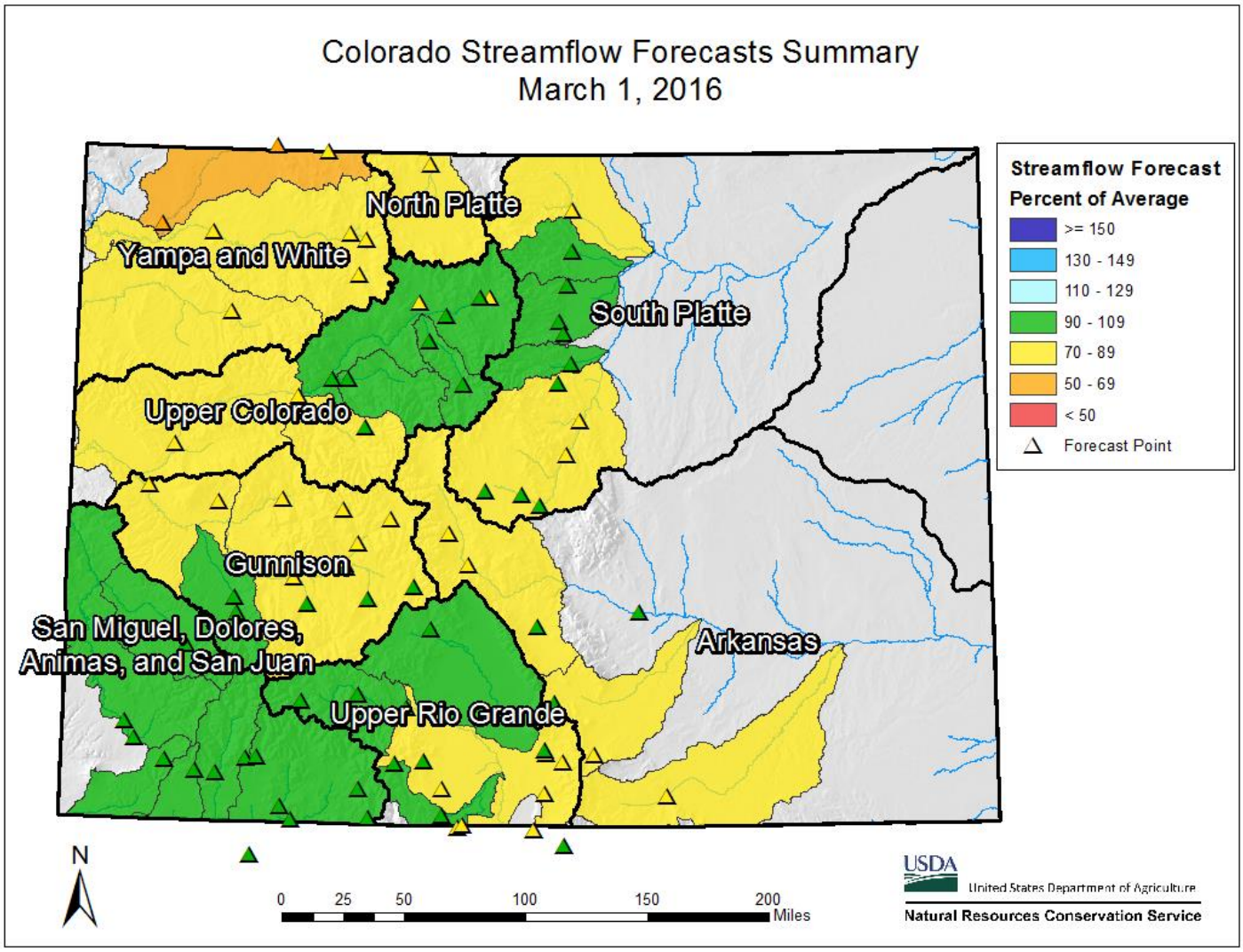

Mountain precipitation was universally well below normal in Colorado during February, with the statewide percentage coming in at only 56 percent of average. After the storm during the first week of February, the combined San Miguel, Dolores, Animas, San Juan River basin was generally missed by February precipitation events and received only 35 percent of average February precipitation. The Gunnison River basin also experienced a very dry month with basin-wide precipitation amounting to only 43 percent of average. Of the major river basins, the South Platte River basin fared the best during February, and received 85 percent of average precipitation for the month. The Arkansas also fared better than most of the other basins with 73 percent of average February precipitation. Despite dry conditions across the state, water year-to-date precipitation remains near normal statewide. All major river basins remain within 10 percentage points of normal conditions for water year precipitation. Even the combined San Miguel, Dolores, Animas, and San Juan River basin, which experienced the largest drop in percent of normal remains at 105 percent of average for the water year. As a result of the ample precipitation that occurred during November and December, February's low precipitation was not enough to drastically tip the scales against favorable water supply conditions. However, to maintain this balance, March and April storms need to produce near average precipitation for Colorado.

## Reservoir Storage




Overall reservoir storage across Colorado remains largely unchanged from last month, with the statewide percent of normal storage remaining exactly the same, at 110 percent of the 30 year average. The Arkansas and combined Yampa and White basins have the highest percent of normal storages in the state at 124 and 122 percent of average, respectively. The Gunnison and Upper Colorado River basins both rose one percentage point over the last month and are both storing very near the statewide average value, respectively holding 109 and 110 percent of average volume. Storage in reservoirs of the South Platte remains unchanged from the end of January, holding 105 percent of their average volume of water. Only very slightly behind, the combined San Miguel, San Juan, Dolores, Animas, and San Juan basins of southwest Colorado rose one percent from last month to their current value of 104 percent of average. While the Upper Rio Grande is the only major basin in the state with below average reservoir storage, it did gain three percent over last month to where it currently resides at 93 percent of average. These generally near and above normal reservoir storage volumes across the state should allow reservoir operators to have some flexibility in their management plans depending on how the rest of winter and spring runoff pan out.

## Streamflow




Seasonal streamflow forecasts for Colorado have largely decreased from what was predicted last month, and a large range of variability exists for forecast points across the state with values ranging from 65 percent of average to greater than 100 percent of average. While the combined San Miguel, Dolores, Animas, and San Juan river basins experienced the largest drop in percent of average for forecasts, streams in these basins are still looking to produce some of the best runoff in terms of percent of average, and remain close to normal. The Gunnison River basin streamflow forecasts exhibit the most variability and range from 73 percent of average for the inflow to Paonia Reservoir along the North Fork of the Gunnison to 107 percent of average for Cochetopa Creek near Parlin, which is the highest forecast streamflow percent of average in the state. The forecast points with the lowest percent of average occur in the Yampa, White, and North Platte basins, which are all in the 65 to 89 percent of average range, the lowest in the state being along the Little Snake River. Near normal snowpack and precipitation accumulations in the next couple of months will be key in boosting these lower streamflow forecasts into a more favorable range.

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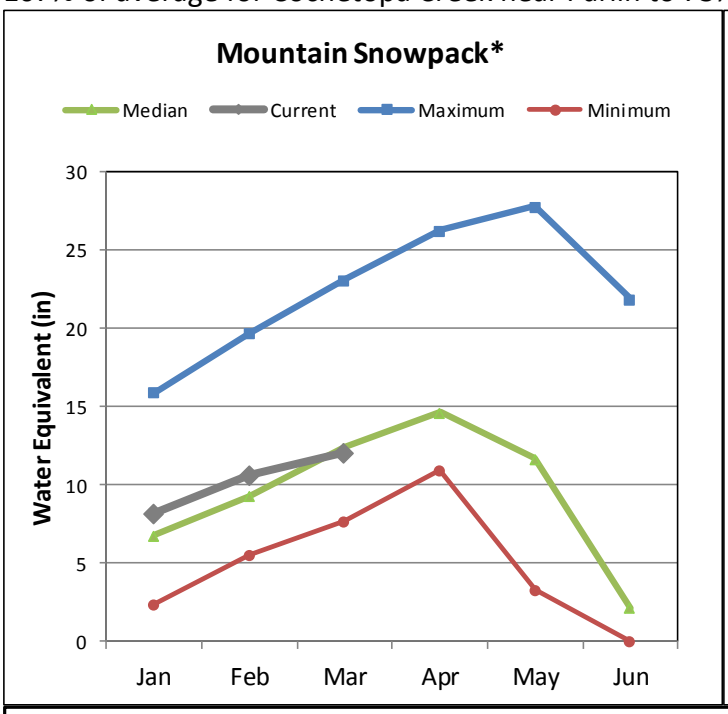
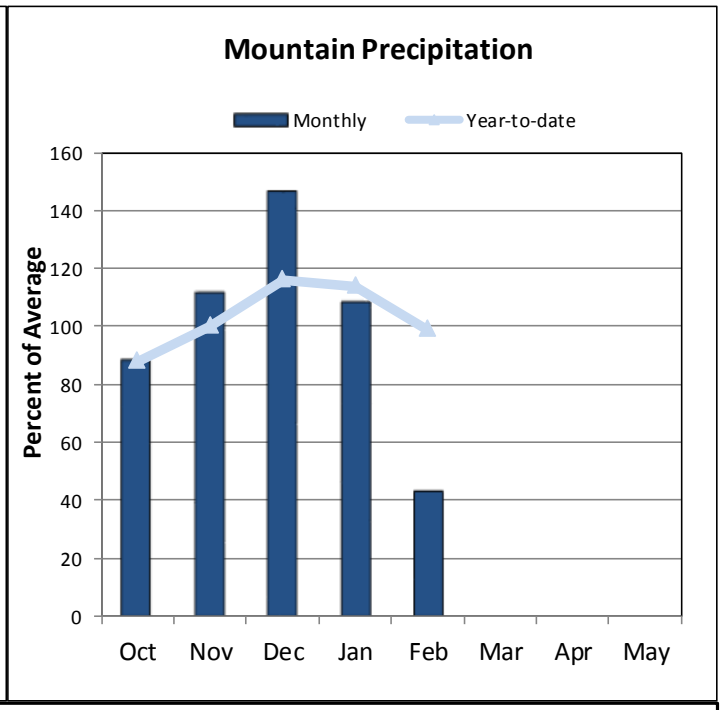
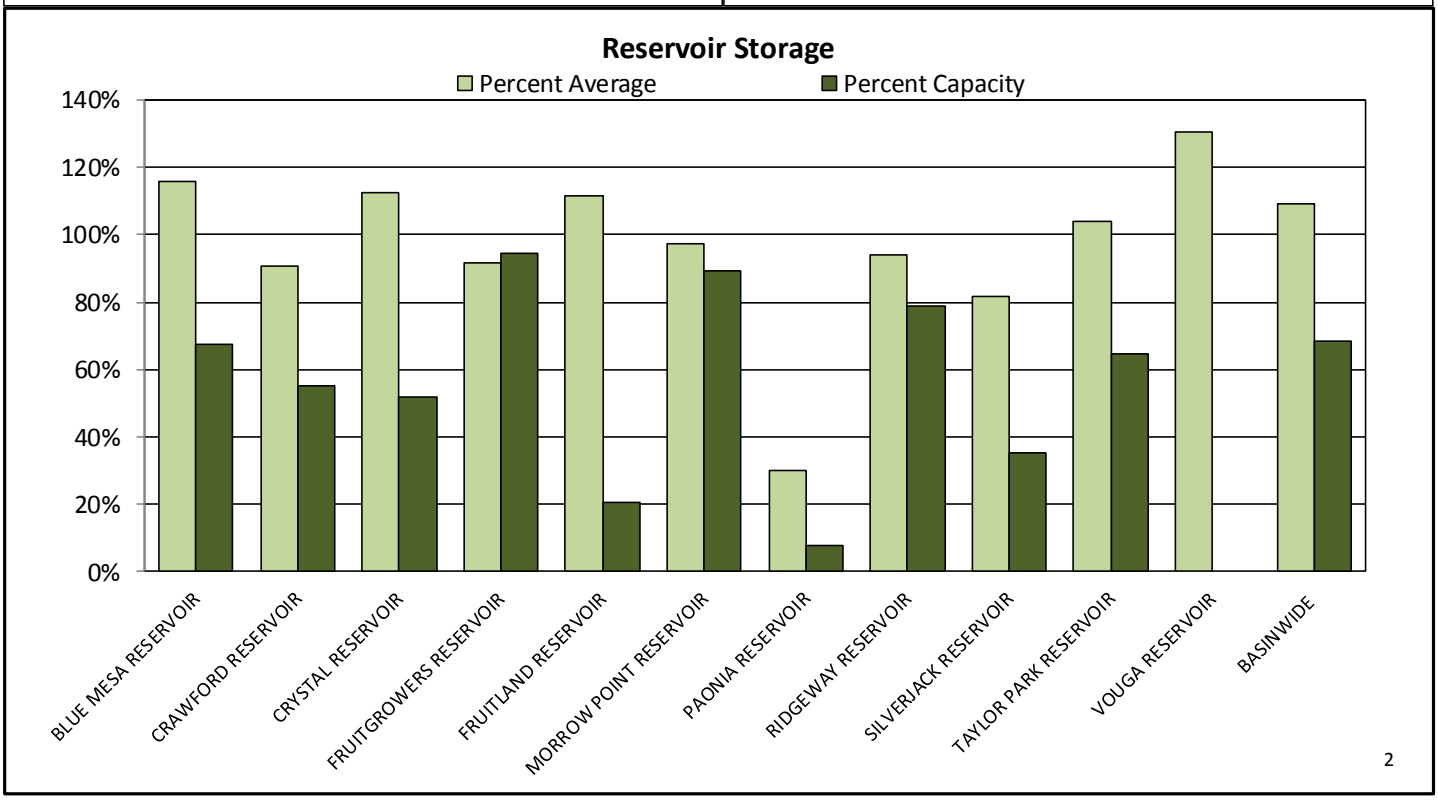
# GUNNISON RIVER BASIN

March 1, 2016

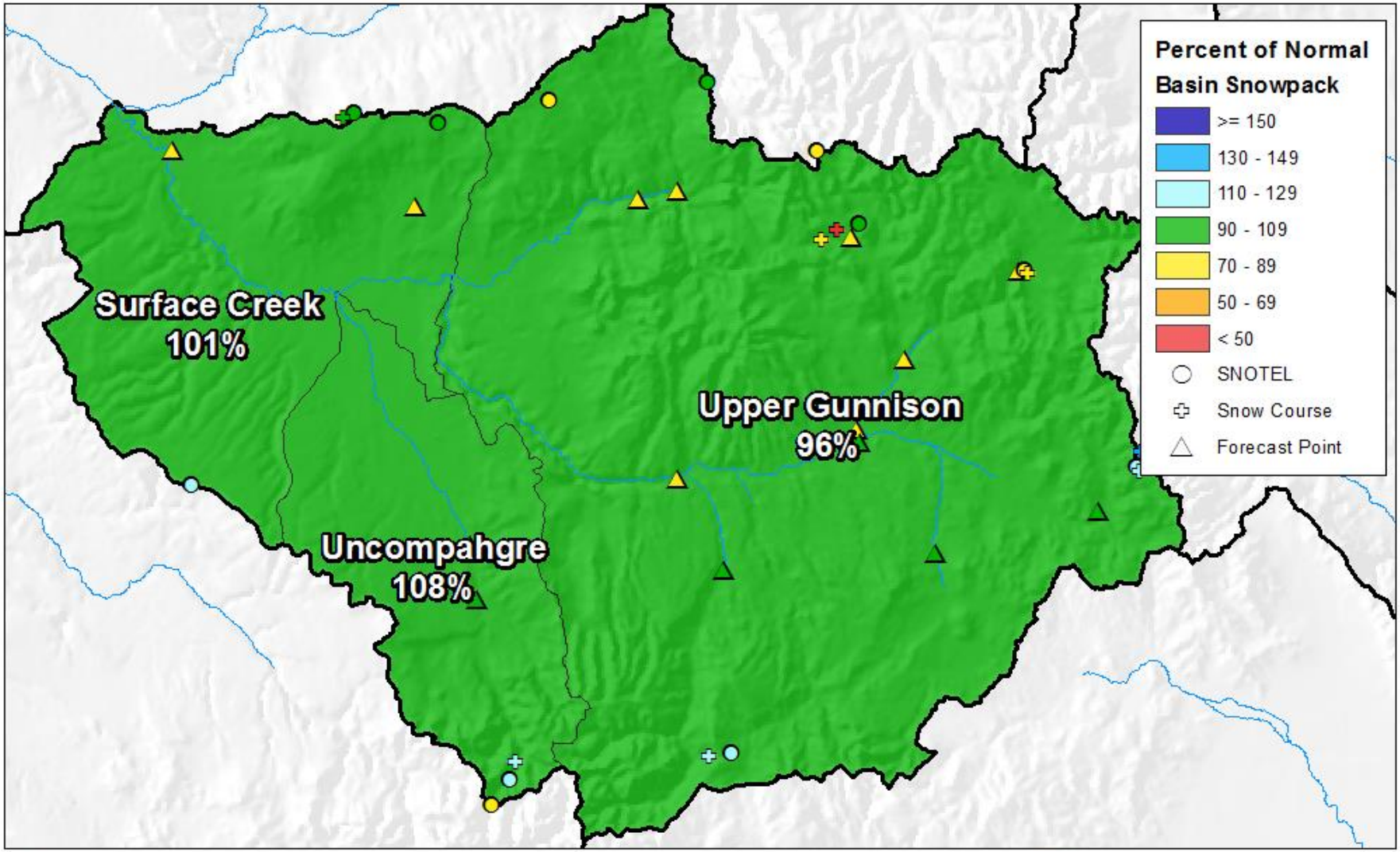
Snowpack in the Gunnison River basin is barely below normal at 98% of the median. Precipitation for February was 43% of average which brings water year-to-date precipitation to 99% of average. Reservoir storage at the end of February was 109% of average compared to 111% last year. Current streamflow forecasts range from 107% of average for Cochetopa Creek near Parlin to 73% for the inflow to Paonia Reservoir.



# Gunnison River Basin Snowpack and Streamflow Forecasts
March 1, 2016



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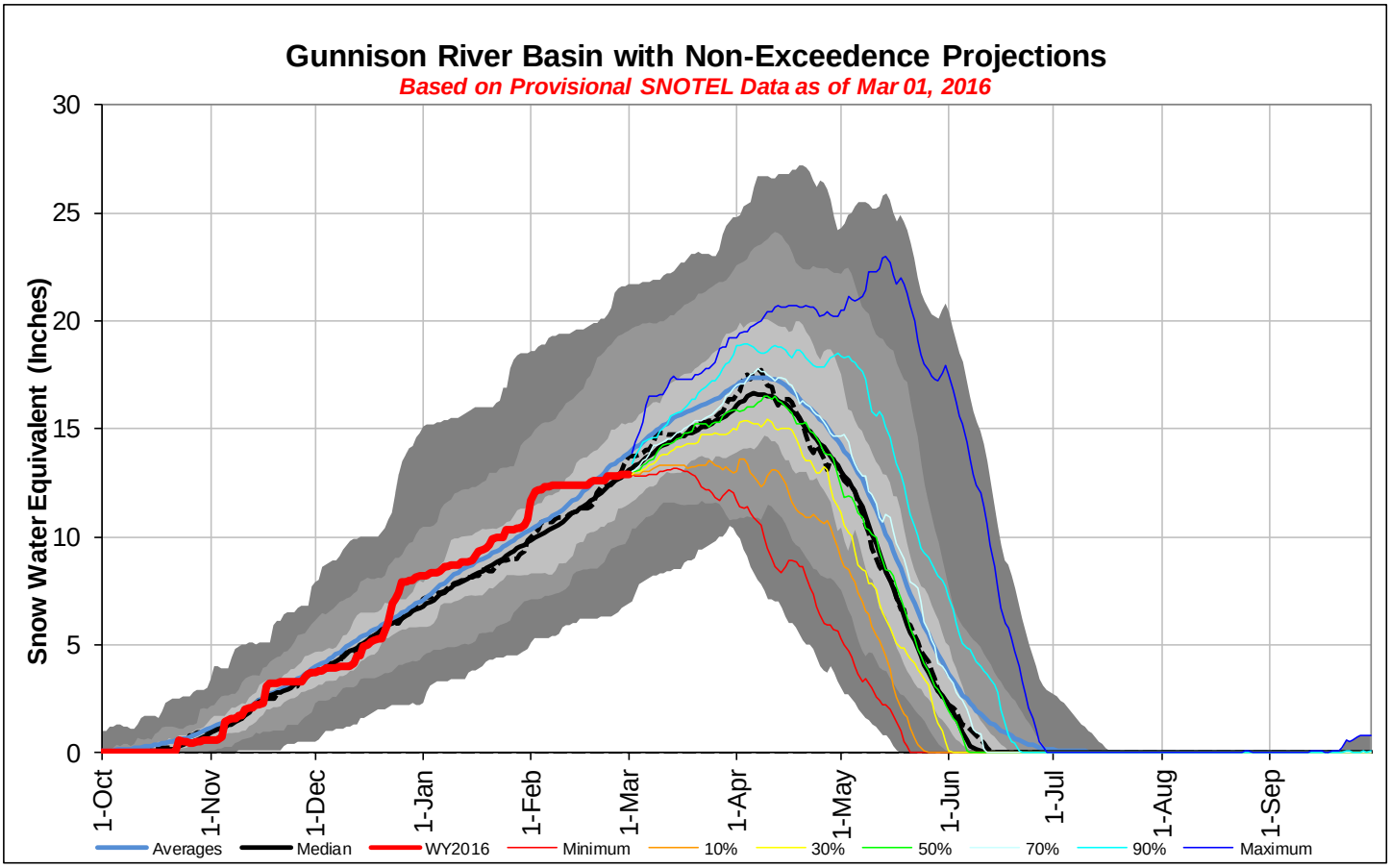
# Gunnison River Basin
## Streamflow Forecasts - March 1, 2016

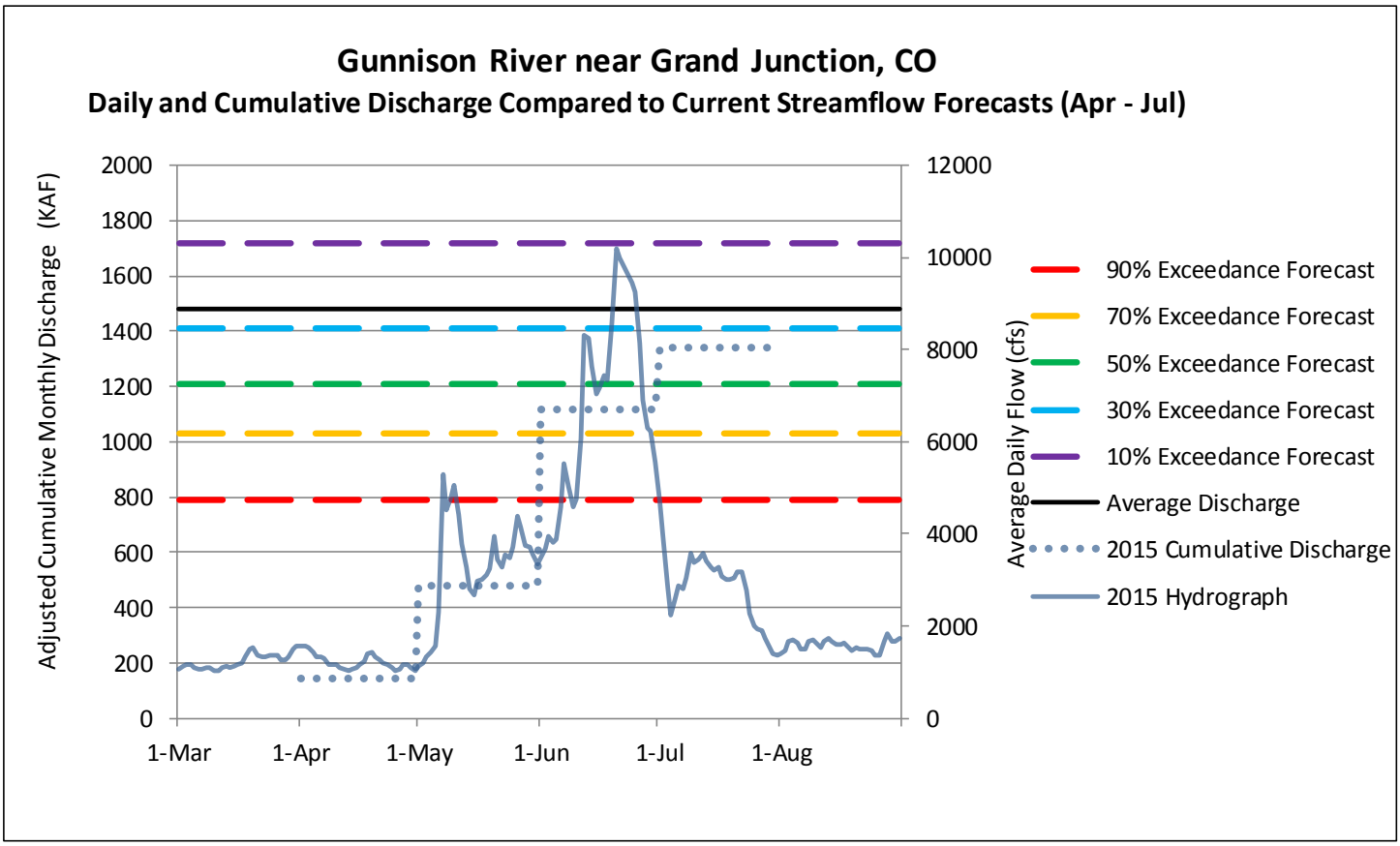
| GUNNISON RIVER BASIN | Forecast Period | 90% (KAF) | 70% (KAF) | 50% (KAF) | % Avg | 30% (KAF) | 10% (KAF) | 30yr Avg (KAF) |
|---|---|---|---|---|---|---|---|---|
| | | Forecast Exceedance Probabilities for Risk Assessment<br>Chance that actual volume will exceed forecast | | | | | | |
| Taylor Park Reservoir Inflow | APR-JUL | 59 | 74 | 85 | 86% | 96 | 115 | 99 |
| Slate R nr Crested Butte | APR-JUL | 55 | 63 | 69 | 83% | 76 | 86 | 83 |
| East R at Almont | APR-JUL | 106 | 127 | 143 | 79% | 159 | 185 | 182 |
| Gunnison R near Gunnison [2] | APR-JUL | 199 | 250 | 290 | 78% | 330 | 400 | 370 |
| Tomichi Ck at Sargents | APR-JUL | 17.5 | 25 | 31 | 103% | 38 | 49 | 30 |
| Cochetopa Ck bl Rock Ck nr Parlin | APR-JUL | 6.9 | 11.9 | 16 | 107% | 21 | 29 | 15 |
| Tomichi Ck at Gunnison | APR-JUL | 32 | 55 | 75 | 101% | 98 | 136 | 74 |
| Lake Fk at Gateview | APR-JUL | 86 | 109 | 125 | 102% | 143 | 172 | 123 |
| Blue Mesa Reservoir Inflow [2] | APR-JUL | 400 | 500 | 575 | 85% | 655 | 785 | 675 |
| Paonia Reservoir Inflow | MAR-JUN | 43 | 58 | 70 | 73% | 83 | 104 | 96 |
| | APR-JUL | 40 | 58 | 71 | 73% | 86 | 110 | 97 |
| NF Gunnison R nr Somerset[2] | APR-JUL | 154 | 191 | 220 | 76% | 245 | 295 | 290 |
| Surface Ck at Cedaredge | APR-JUL | 9.2 | 11.4 | 13 | 77% | 14.7 | 17.4 | 16.8 |
| Ridgway Reservoir Inflow | APR-JUL | 67 | 86 | 100 | 99% | 115 | 139 | 101 |
| Uncompahgre R at Colona [2] | APR-JUL | 78 | 110 | 135 | 99% | 163 | 210 | 137 |
| Gunnison R nr Grand Junction [2] | APR-JUL | 790 | 1030 | 1210 | 82% | 1410 | 1720 | 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 February, 2016 | Current (KAF) | Last Year (KAF) | Average (KAF) | Capacity (KAF) |
|---|---|---|---|---|
| Blue Mesa Reservoir | 558.5 | 546.6 | 482.2 | 830.0 |
| Crawford Reservoir | 7.7 | 8.0 | 8.5 | 14.0 |
| Crystal Reservoir | 9.1 | 9.0 | 8.1 | 17.5 |
| Fruitgrowers Reservoir | 3.4 | 3.6 | 3.7 | 3.6 |
| Fruitland Reservoir | 1.9 | 1.1 | 1.7 | 9.2 |
| Morrow Point Reservoir | 108.1 | 110.0 | 111.1 | 121.0 |
| Paonia Reservoir | 1.2 | 1.1 | 4.0 | 15.4 |
| Ridgway Reservoir | 65.4 | 77.5 | 69.4 | 83.0 |
| Silverjack Reservoir | 4.5 | 6.4 | 5.5 | 12.8 |
| Taylor Park Reservoir | 68.4 | 78.0 | 65.7 | 106.0 |
| Vouga Reservoir | 0.9 | 0.9 | 0.7 | 0.9 |
| Basin-wide Total | 829.1 | 842.3 | 760.6 | 1213.4 |
| # of reservoirs | 11 | 11 | 11 | 11 |

| Watershed Snowpack Analysis March 1, 2016 | # of Sites | % Median | Last Year % Median |
|---|---|---|---|
| UPPER GUNNISON BASIN | 17 | 96% | 76% |
| SURFACE CREEK BASIN | 3 | 101% | 56% |
| UNCOMPAHGRE BASIN | 4 | 108% | 89% |
| GUNNISON RIVER BASIN | 21 | 98% | 79% |



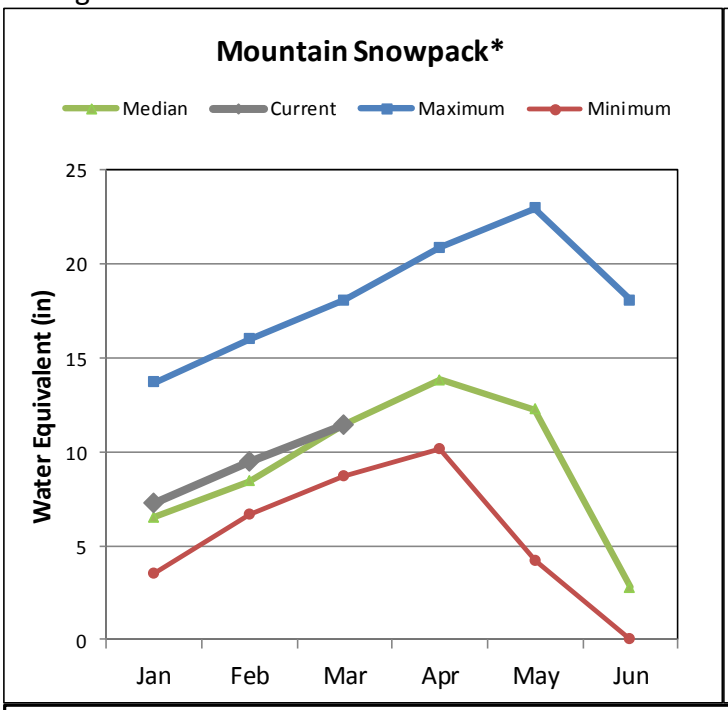



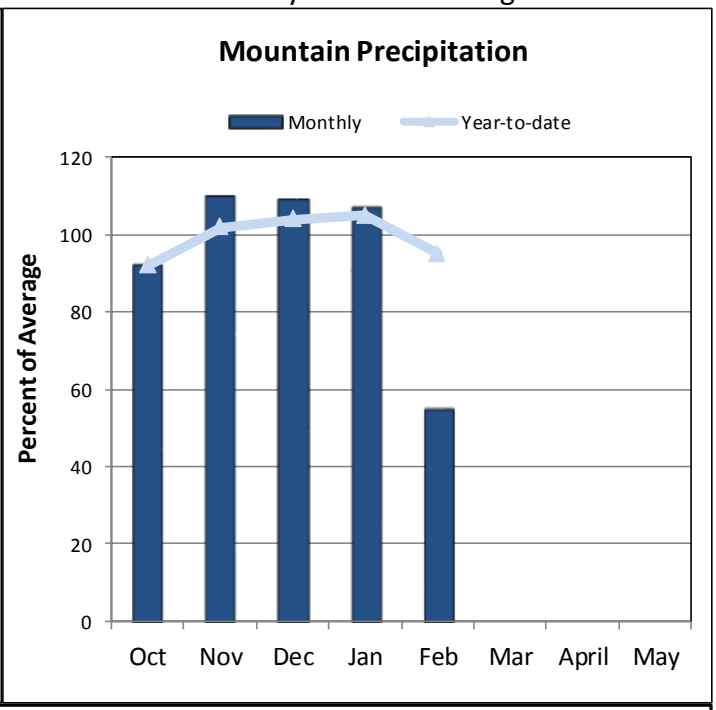

Please refer to the sections at the end of this report for further explanation concerning these graphs.

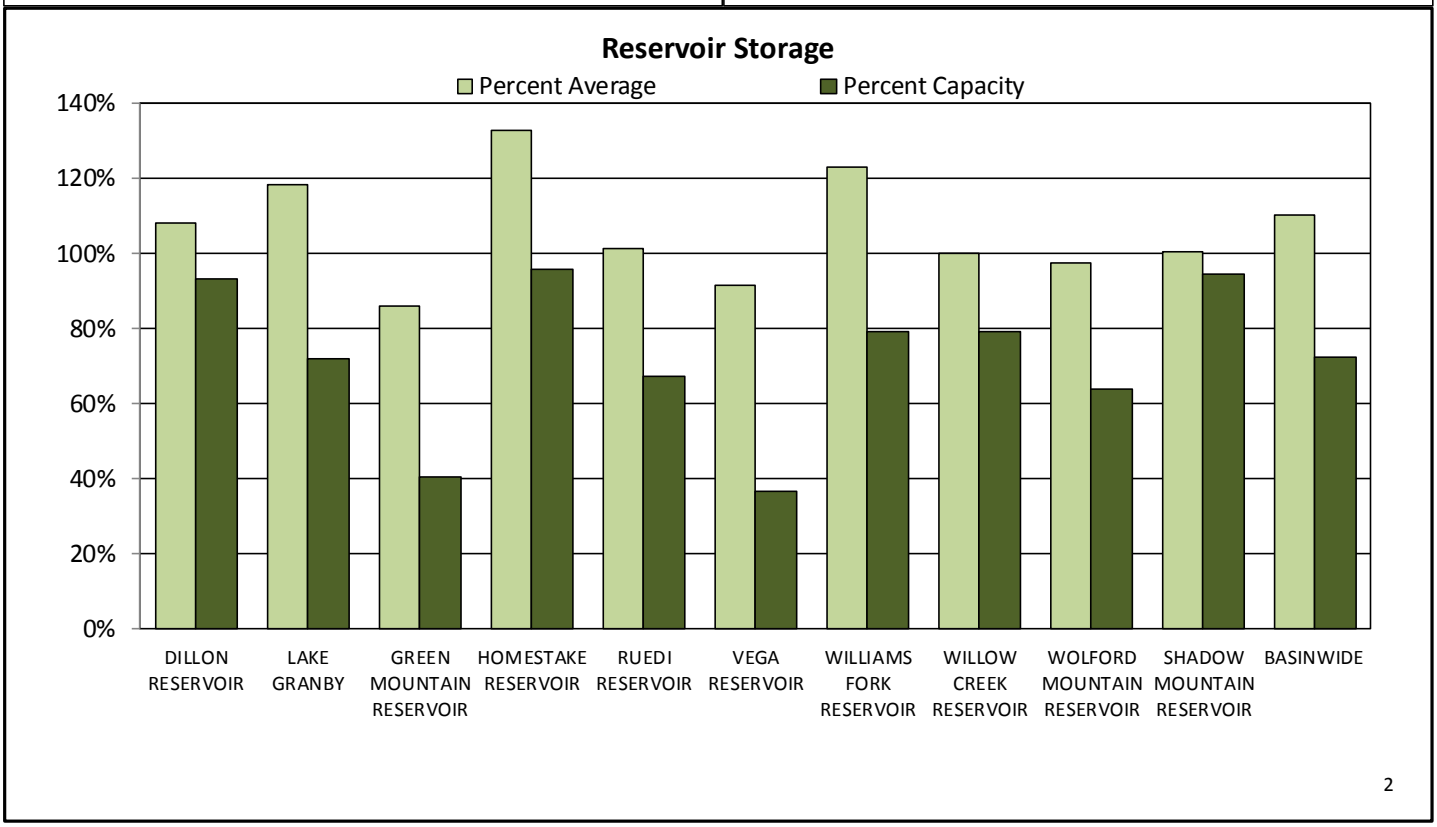
# UPPER COLORADO RIVER BASIN

March 1, 2016

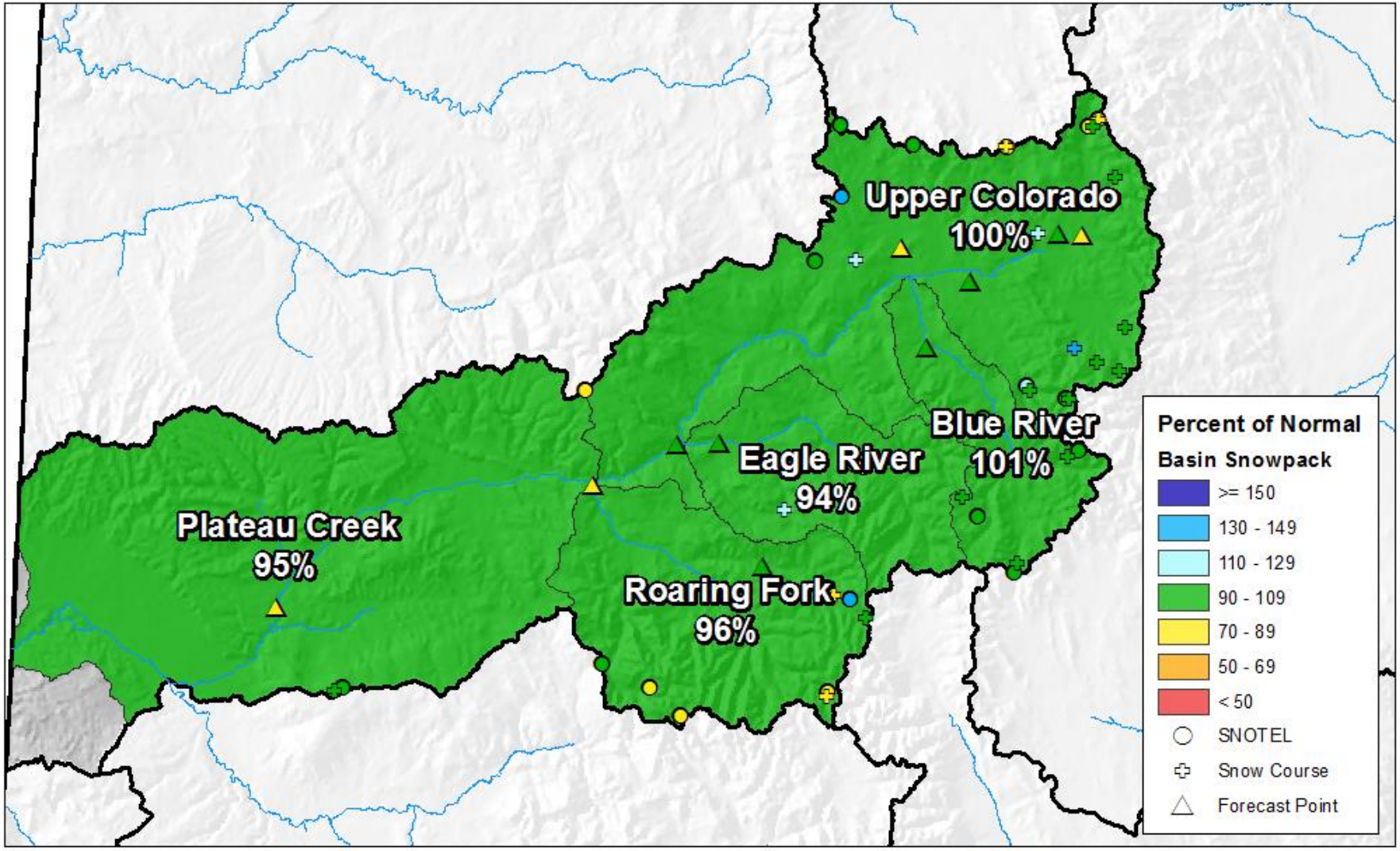
Snowpack in the Colorado River basin is near normal at 99% of the median. Precipitation for February was 55% of average which brings water year-to-date precipitation to 95% of average. Reservoir storage at the end of February was 110% of average compared to 121% last year. Current streamflow forecasts range from 97% of average for the inflow to Dillon Reservoir to 82% for the inflow to Lake Granby and the Roaring Fork.



# Upper Colorado River Basin Snowpack and Streamflow Forecasts
March 1, 2016



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# Upper Colorado River Basin
## Streamflow Forecasts - March 1, 2016

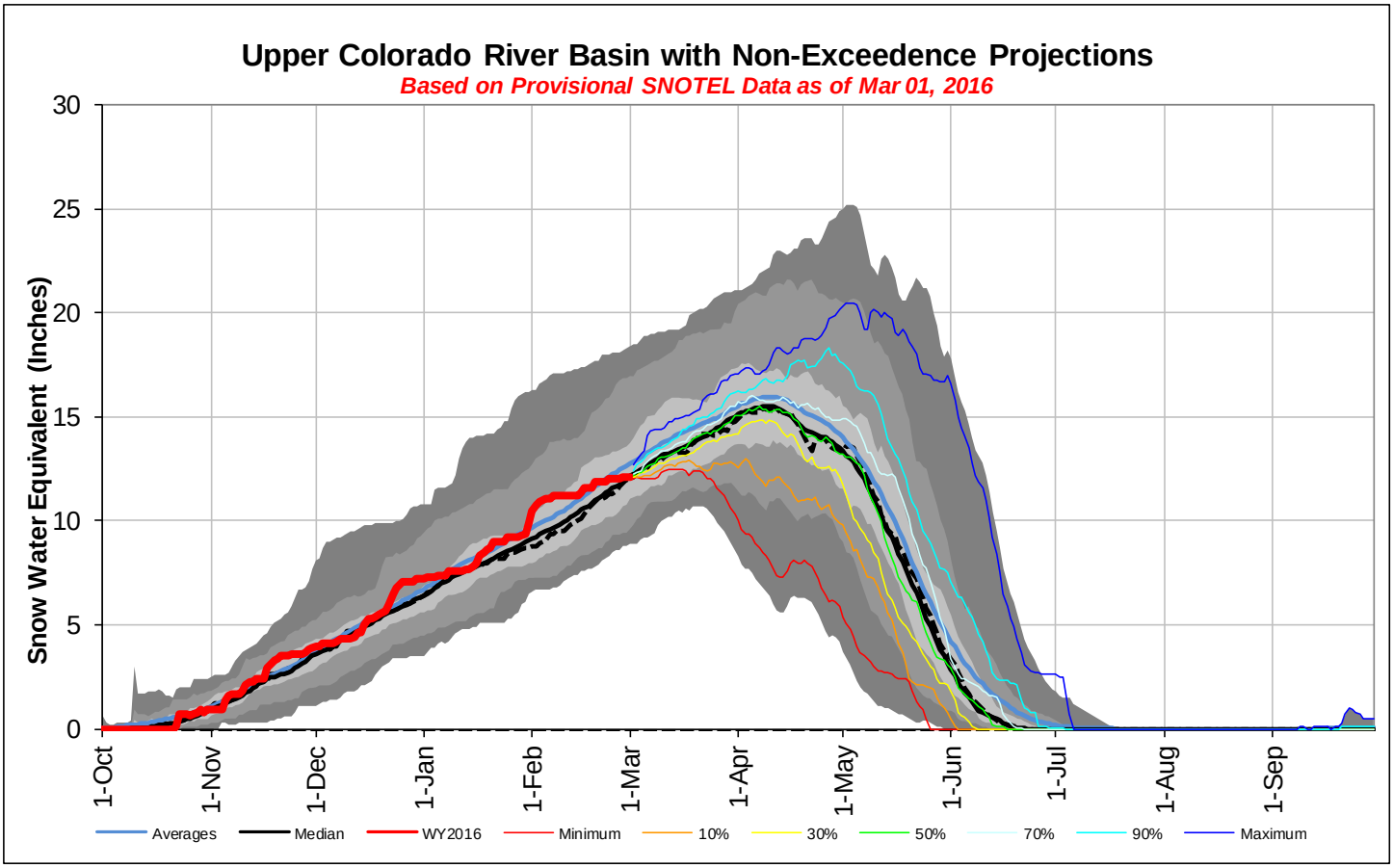
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

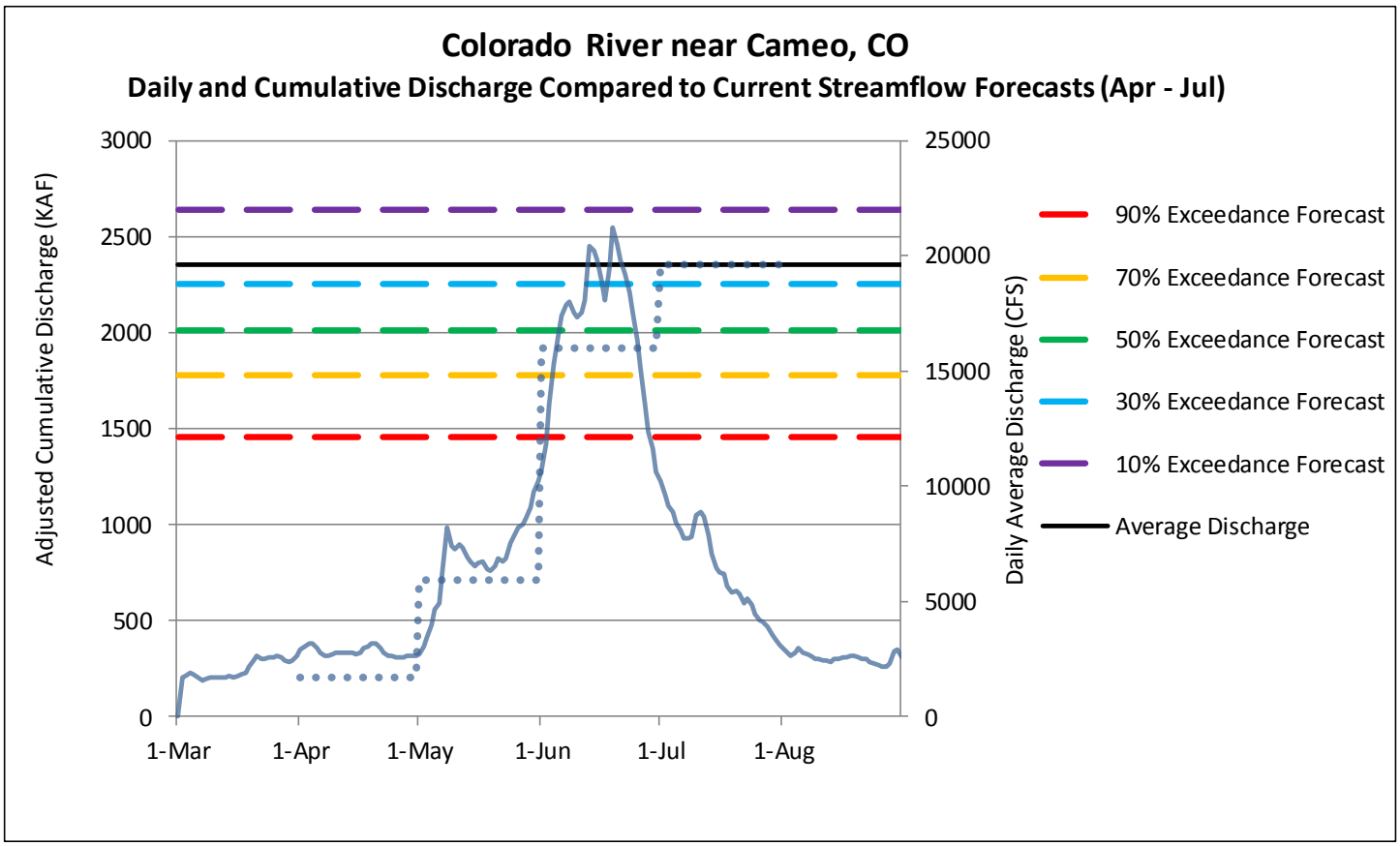
| UPPER COLORADO RIVER BASIN | Forecast Period | 90% (KAF) | 70% (KAF) | 50% (KAF) | % Avg | 30% (KAF) | 10% (KAF) | 30yr Avg (KAF) |
|---|---|---|---|---|---|---|---|---|
| Lake Granby Inflow [2] | APR-JUL | 125 | 157 | 181 | 82% | 205 | 250 | 220 |
| Willow Ck Reservoir Inflow | APR-JUL | 25 | 35 | 43 | 91% | 52 | 66 | 47 |
| Williams Fk bl Williams Fk Reservoir[2] | APR-JUL | 62 | 79 | 92 | 95% | 105 | 127 | 97 |
| Wolford Mtn Reservoir Inflow | APR-JUL | 30 | 40 | 47 | 87% | 55 | 68 | 54 |
| Dillon Reservoir Inflow[2] | APR-JUL | 110 | 138 | 158 | 97% | 180 | 215 | 163 |
| Green Mountain Reservoir Inflow[2] | APR-JUL | 183 | 230 | 265 | 96% | 300 | 360 | 275 |
| Eagle R bl Gypsum [2] | APR-JUL | 215 | 265 | 310 | 93% | 350 | 420 | 335 |
| Colorado R nr Dotsero [2] | APR-JUL | 840 | 1080 | 1270 | 91% | 1470 | 1780 | 1400 |
| Ruedi Reservoir Inflow [2] | APR-JUL | 95 | 116 | 131 | 94% | 148 | 174 | 139 |
| Roaring Fk at Glenwood Springs[2] | APR-JUL | 420 | 505 | 565 | 82% | 630 | 735 | 690 |
| Colorado R nr Cameo [2] | APR-JUL | 1460 | 1780 | 2010 | 86% | 2250 | 2640 | 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 February, 2016 | Current (KAF) | Last Year (KAF) | Average (KAF) | Capacity (KAF) |
|---|---|---|---|---|
| Dillon Reservoir | 236.6 | 244.7 | 219.4 | 254.0 |
| Green Mountain Reservoir | 59.0 | 64.4 | 68.7 | 146.8 |
| Homestake Reservoir | 41.2 | 20.4 | 31.0 | 43.0 |
| Lake Granby | 333.7 | 410.5 | 282.6 | 465.6 |
| Ruedi Reservoir | 68.6 | 78.1 | 67.9 | 102.0 |
| Shadow Mountain Reservoir | 17.4 | 17.3 | 17.3 | 18.4 |
| Vega Reservoir | 12.0 | 14.4 | 13.1 | 32.9 |
| Williams Fork Reservoir | 76.7 | 78.1 | 62.4 | 97.0 |
| Willow Creek Reservoir | 7.2 | 8.0 | 7.2 | 9.1 |
| Wolford Mountain Reservoir | 42.1 | 45.5 | 43.2 | 65.9 |
| Basin-wide Total | 894.5 | 981.4 | 812.8 | 1234.7 |
| # of reservoirs | 10 | 10 | 10 | 10 |

| Watershed Snowpack Analysis March 1, 2016 | # of Sites | % Median | Last Year % Median |
|---|---|---|---|
| BLUE RIVER BASIN | 8 | 101% | 114% |
| HEADWATERS COLORADO RIVER | 36 | 100% | 99% |
| MUDDY CREEK BASIN | 5 | 104% | 92% |
| EAGLE RIVER BASIN | 5 | 94% | 98% |
| PLATEAU CREEK BASIN | 3 | 101% | 56% |
| ROARING FORK BASIN | 10 | 96% | 85% |
| WILLIAMS FORK BASIN | 5 | 108% | 107% |
| WILLOW CREEK BASIN | 5 | 104% | 86% |
| UPPER COLORADO RIVER BASIN | 49 | 99% | 93% |



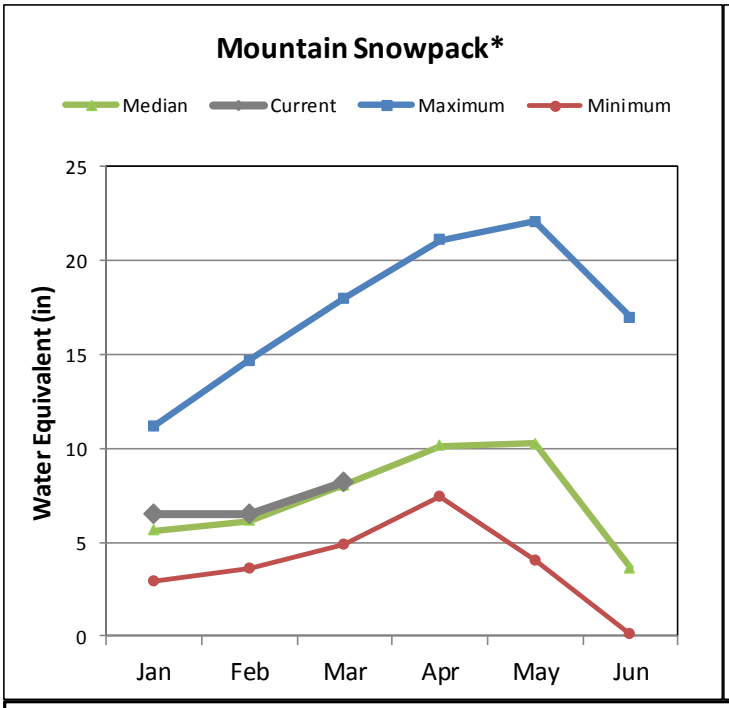



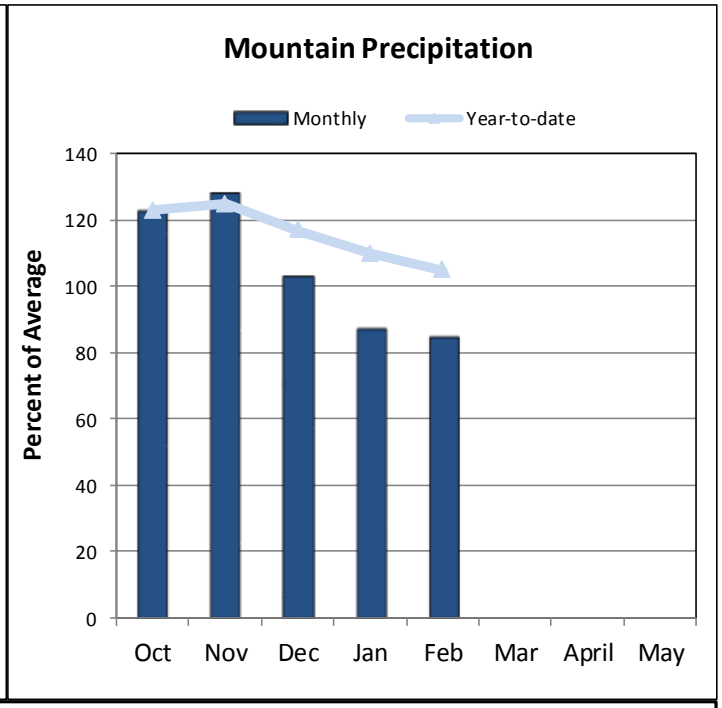

Please refer to the sections at the end of this report for further explanation concerning these graphs.

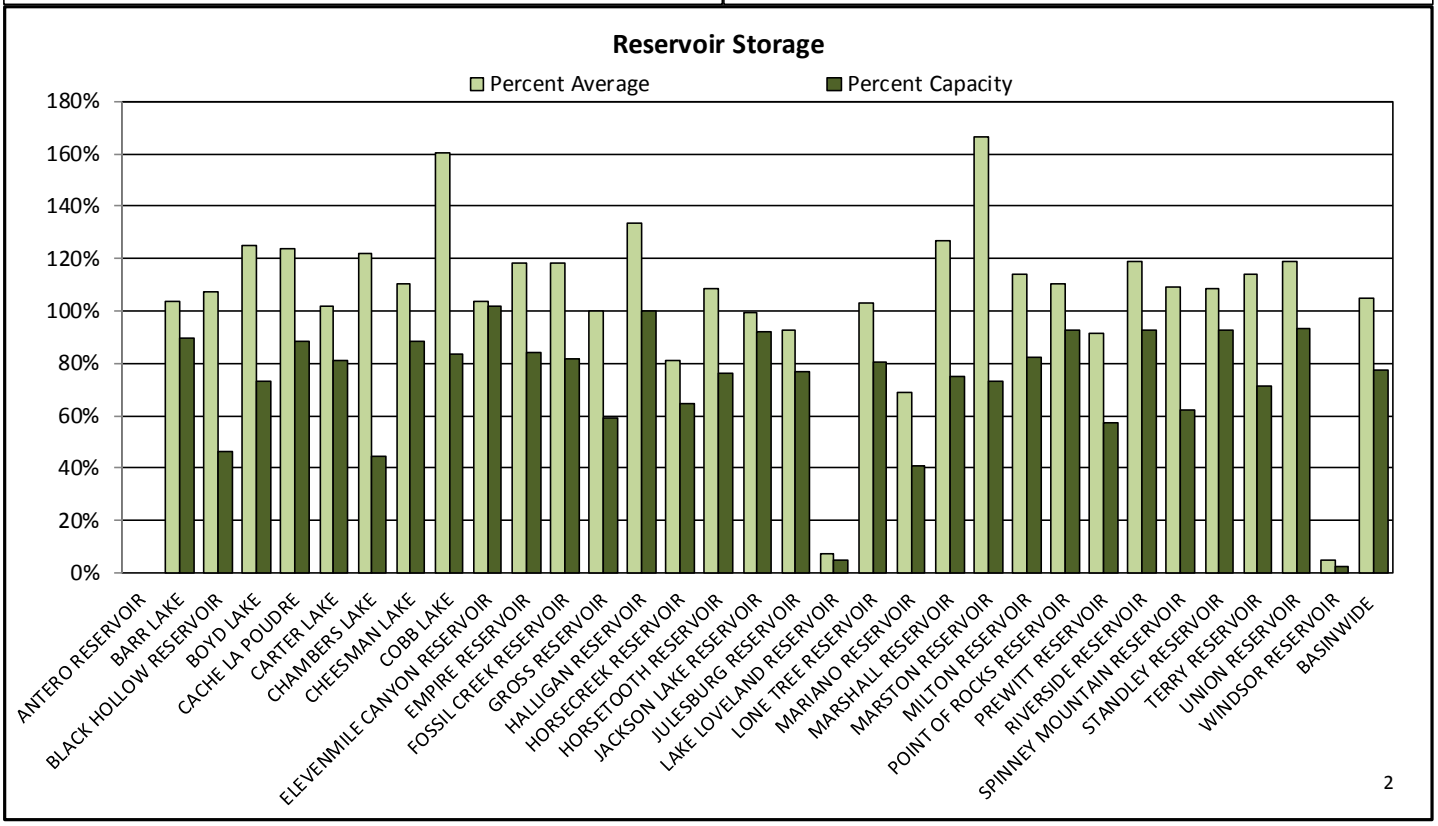
# SOUTH PLATTE RIVER BASIN

March 1, 2016

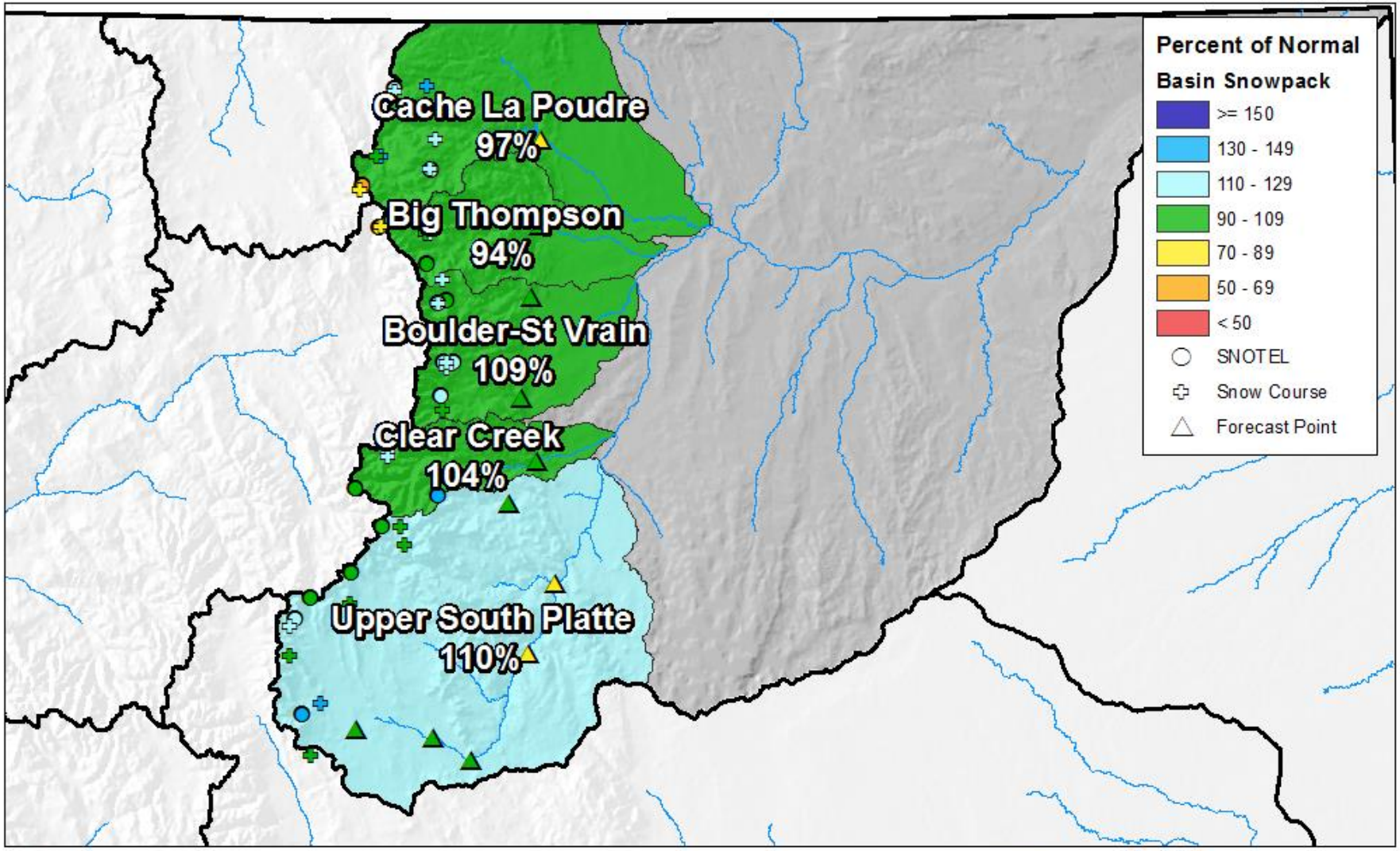
Snowpack in the South Platte River basin is above normal at 102% of the median. Precipitation for February was 85% of average which brings water year-to-date precipitation to 105%. Reservoir storage at the end of February was 105% of average compared to 119% last year. Streamflow forecasts range from 104% of average for Boulder Creek near Orodell at Golden to 83% for the South Platte River at South Platte.



# South Platte River Basin Snowpack and Streamflow Forecasts
## March 1, 2016




USDA United States Department of Agriculture

Natural Resources Conservation Service

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# South Platte River Basin
## Streamflow Forecasts - March 1, 2016

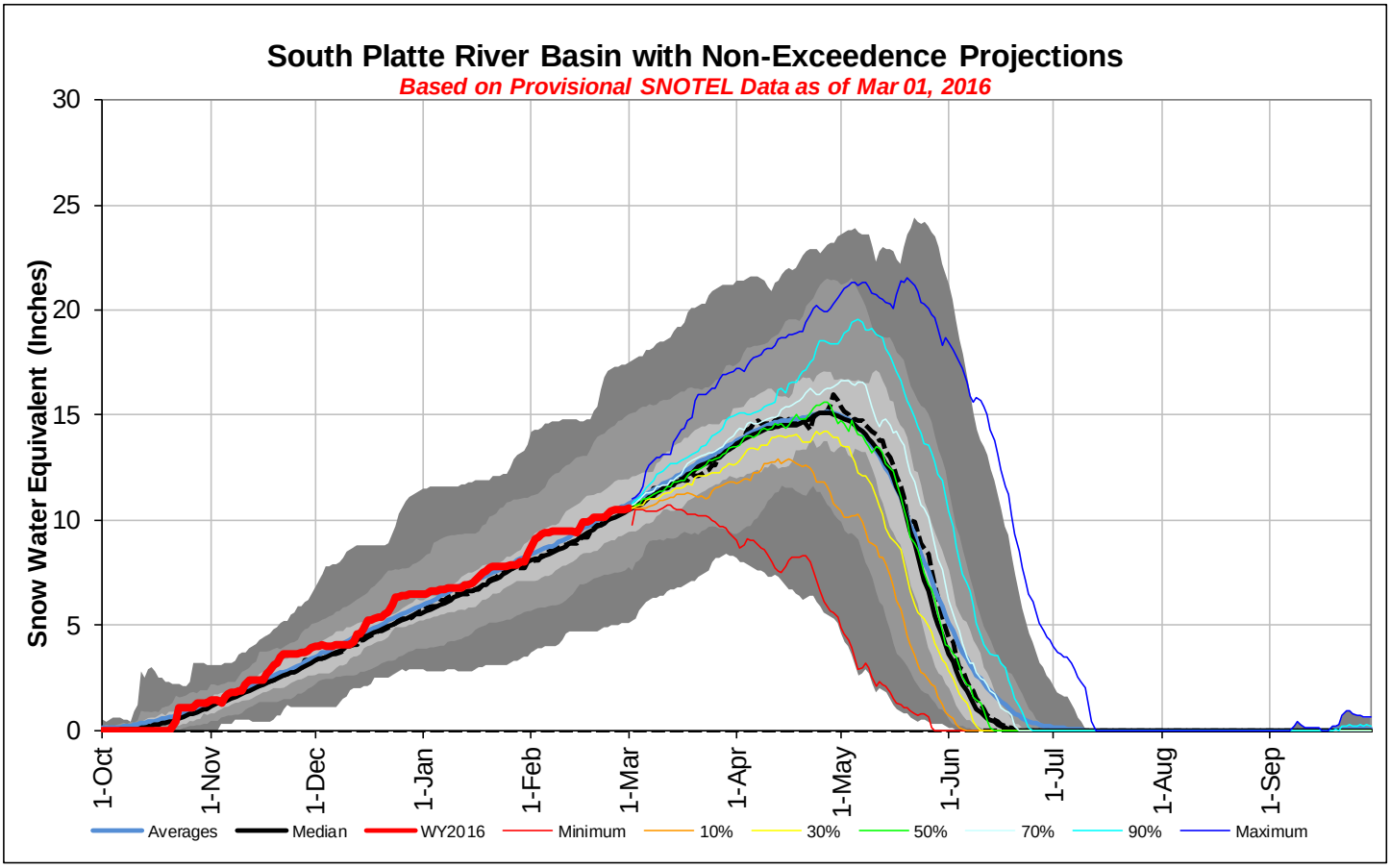
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

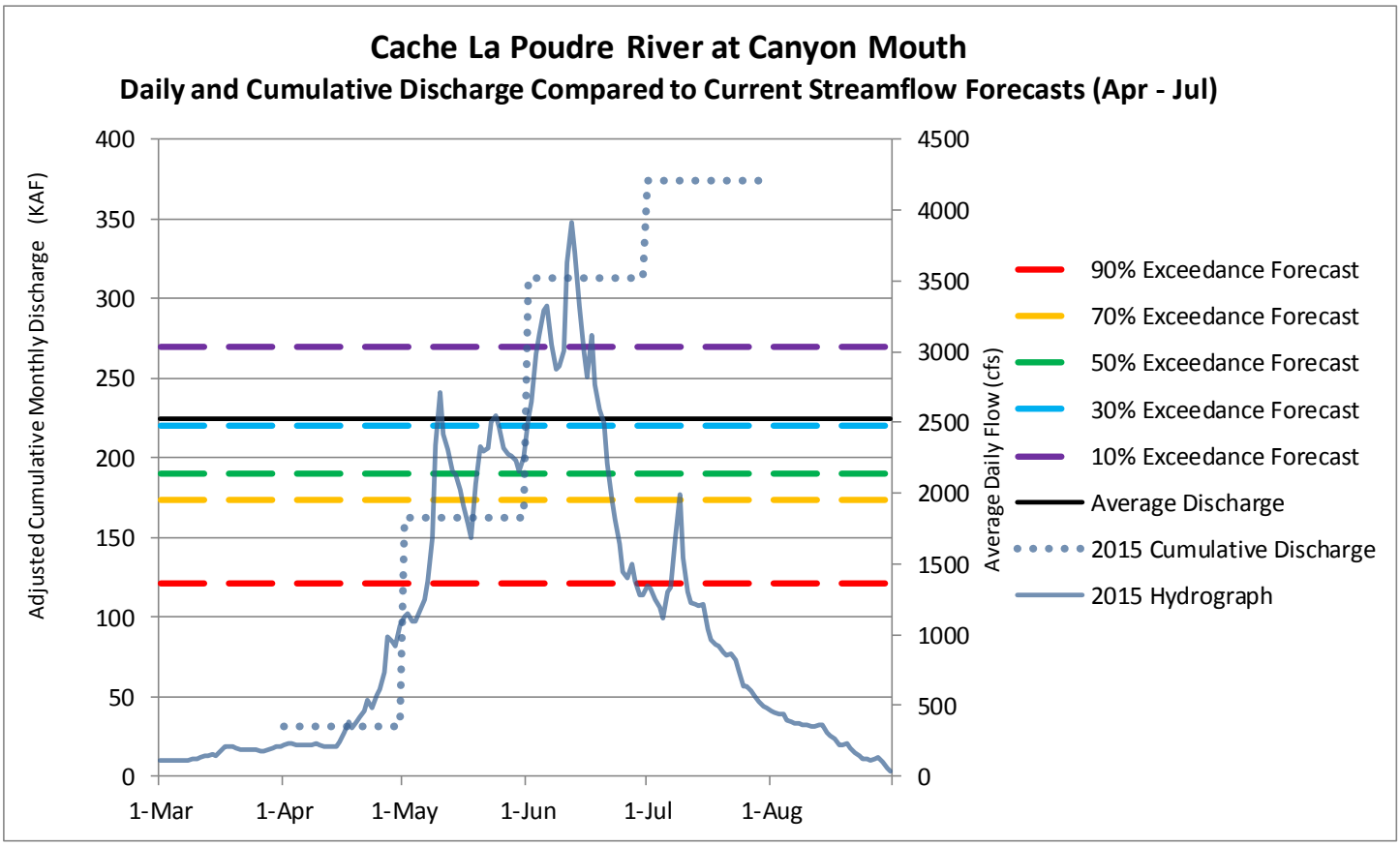
| SOUTH PLATTE RIVER BASIN | Forecast Period | 90% (KAF) | 70% (KAF) | 50% (KAF) | % Avg | 30% (KAF) | 10% (KAF) | 30yr Avg (KAF) |
|---|---|---|---|---|---|---|---|---|
| Antero Reservoir Inflow[2] | | | | | | | | |
| | APR-JUL | 7.6 | 11.1 | 13.5 | 93% | 15.9 | 19.4 | 14.5 |
| | APR-SEP | 9.6 | 13.7 | 16.5 | 93% | 19.3 | 23 | 17.8 |
| Spinney Mountain Reservoir Inflow[2] | | | | | | | | |
| | APR-JUL | 24 | 35 | 45 | 94% | 58 | 86 | 48 |
| | APR-SEP | 28 | 43 | 57 | 93% | 76 | 114 | 61 |
| Elevenmile Canyon Reservoir Inflow[2] | | | | | | | | |
| | APR-JUL | 23 | 35 | 46 | 92% | 61 | 91 | 50 |
| | APR-SEP | 28 | 44 | 59 | 92% | 80 | 125 | 64 |
| Cheesman Lake Inflow[2] | | | | | | | | |
| | APR-JUL | 41 | 64 | 87 | 87% | 117 | 183 | 100 |
| | APR-SEP | 51 | 81 | 110 | 87% | 150 | 235 | 126 |
| South Platte R at South Platte[2] | | | | | | | | |
| | APR-JUL | 70 | 110 | 149 | 83% | 205 | 320 | 180 |
| | APR-SEP | 86 | 137 | 187 | 83% | 255 | 405 | 225 |
| Bear Ck ab Evergreen | | | | | | | | |
| | APR-JUL | 6.5 | 10.7 | 15 | 91% | 21 | 35 | 16.4 |
| | APR-SEP | 8.6 | 13.8 | 19.1 | 91% | 26 | 42 | 21 |
| Clear Ck at Golden | | | | | | | | |
| | APR-JUL | 68 | 86 | 99 | 94% | 112 | 130 | 105 |
| | APR-SEP | 79 | 104 | 121 | 95% | 138 | 163 | 128 |
| St. Vrain Ck at Lyons[2] | | | | | | | | |
| | APR-JUL | 68 | 81 | 89 | 101% | 97 | 110 | 88 |
| | APR-SEP | 78 | 93 | 103 | 100% | 113 | 128 | 103 |
| Boulder Ck nr Orodell[2] | | | | | | | | |
| | APR-JUL | 45 | 52 | 56 | 104% | 60 | 67 | 54 |
| | APR-SEP | 51 | 60 | 65 | 103% | 70 | 79 | 63 |
| South Boulder Ck nr Eldorado Springs[2] | | | | | | | | |
| | APR-JUL | 29 | 34 | 37 | 95% | 41 | 45 | 39 |
| | APR-SEP | 30 | 37 | 41 | 95% | 45 | 52 | 43 |
| Big Thompson R at Canyon Mouth[2] | | | | | | | | |
| | APR-JUL | 59 | 73 | 82 | 91% | 91 | 105 | 90 |
| | APR-SEP | 72 | 89 | 100 | 93% | 111 | 128 | 107 |
| Cache La Poudre at Canyon Mouth[2] | | | | | | | | |
| | APR-JUL | 111 | 158 | 190 | 84% | 220 | 270 | 225 |
| | APR-SEP | 121 | 174 | 210 | 84% | 245 | 300 | 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 February, 2016 | Current (KAF) | Last Year (KAF) | Average (KAF) | Capacity (KAF) |
|---|---|---|---|---|
| Antero Reservoir | 0.0 | 16.1 | 15.2 | 19.9 |
| Barr Lake | 26.9 | 25.1 | 26.0 | 30.1 |
| Black Hollow Reservoir | 3.0 | 4.4 | 2.8 | 6.5 |
| Boyd Lake | 35.3 | 30.5 | 28.2 | 48.4 |
| Cache La Poudre | 8.9 | 9.4 | 7.2 | 10.1 |
| Carter Lake | 88.5 | 108.1 | 87.0 | 108.9 |
| Chambers Lake | 3.9 | 7.1 | 3.2 | 8.8 |
| Cheesman Lake | 69.9 | 69.8 | 63.4 | 79.0 |
| Cobb Lake | 18.6 | 19.6 | 11.6 | 22.3 |
| Elevenmile Canyon Reservoir | 99.5 | 99.3 | 95.8 | 98.0 |
| Empire Reservoir | 30.6 | 35.4 | 25.9 | 36.5 |
| Fossil Creek Reservoir | 9.1 | 9.3 | 7.7 | 11.1 |
| Gross Reservoir | 24.8 | 24.6 | 24.8 | 41.8 |
| Halligan Reservoir | 6.4 | 6.4 | 4.8 | 6.4 |
| Horsecreek Reservoir | 9.5 | 11.8 | 11.7 | 14.7 |
| Horsetooth Reservoir | 114.0 | 134.1 | 104.8 | 149.7 |
| Jackson Lake Reservoir | 24.0 | 24.0 | 24.2 | 26.1 |
| Julesburg Reservoir | 15.7 | 16.0 | 16.9 | 20.5 |
| Lake Loveland Reservoir | 0.5 | 8.9 | 6.8 | 10.3 |
| Lone Tree Reservoir | 7.0 | 6.7 | 6.8 | 8.7 |
| Mariano Reservoir | 2.2 | 3.9 | 3.2 | 5.4 |
| Marshall Reservoir | 7.5 | 9.1 | 5.9 | 10.0 |
| Marston Reservoir | 9.5 | 0.0 | 5.7 | 13.0 |
| Milton Reservoir | 19.4 | 21.7 | 17.0 | 23.5 |
| Point Of Rocks Reservoir | 65.3 | 70.2 | 59.2 | 70.6 |
| Prewitt Reservoir | 16.2 | 20.9 | 17.7 | 28.2 |
| Ralph Price Reservoir | 6.4 | 12.6 | | 16.2 |
| Riverside Reservoir | 51.7 | 53.6 | 43.5 | 55.8 |
| Spinney Mountain Reservoir | 30.6 | 41.3 | 28.1 | 49.0 |
| Standley Reservoir | 38.8 | | 35.7 | 42.0 |
| Terry Reservoir | 5.7 | 6.0 | 5.0 | 8.0 |
| Union Reservoir | 12.1 | 11.4 | 10.2 | 13.0 |
| Windsor Reservoir | 0.4 | 10.6 | 8.9 | 15.2 |
| Basin-wide Total | 816.7 | 915.3 | 779.2 | 1049.5 |
| # of reservoirs | 31 | 31 | 31 | 31 |

| Watershed Snowpack Analysis March 1, 2016 | # of Sites | % Median | Last Year % Median |
|---|---|---|---|
| BIG THOMPSON BASIN | 7 | 94% | 105% |
| BOULDER CREEK BASIN | 6 | 111% | 118% |
| CACHE LA POUDRE BASIN | 10 | 97% | 103% |
| CLEAR CREEK BASIN | 4 | 104% | 108% |
| SAINT VRAIN BASIN | 3 | 103% | 166% |
| UPPER SOUTH PLATTE BASIN | 16 | 110% | 108% |
| SOUTH PLATTE RIVER BASIN | 46 | 102% | 110% |



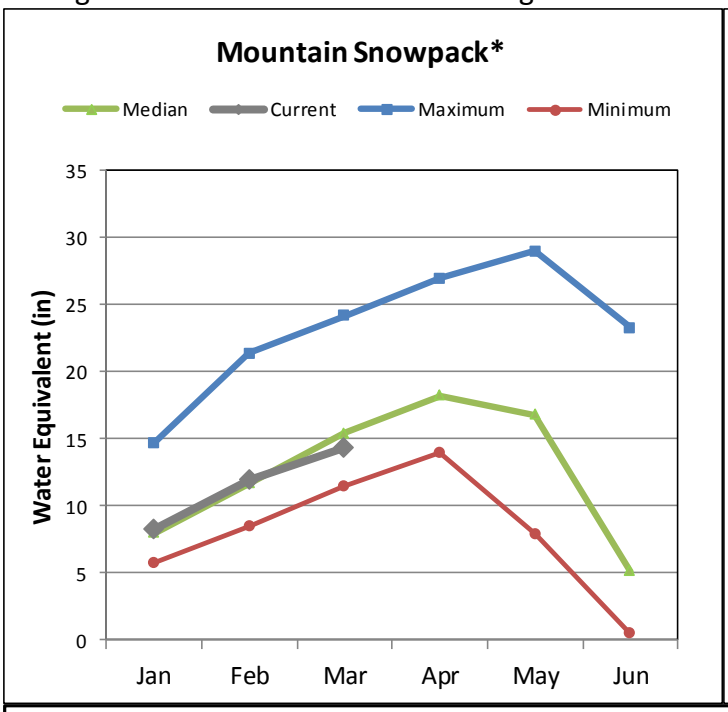



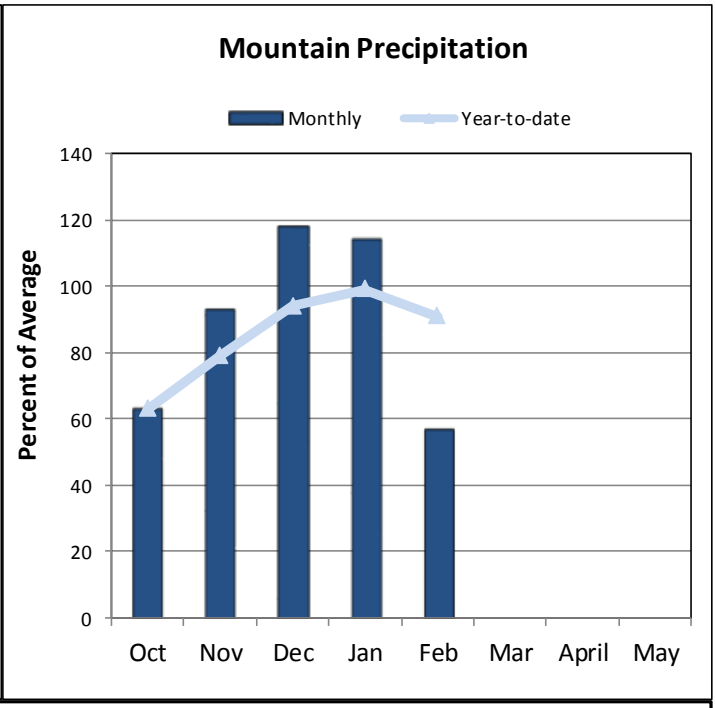

Please refer to the sections at the end of this report for further explanation concerning these graphs.

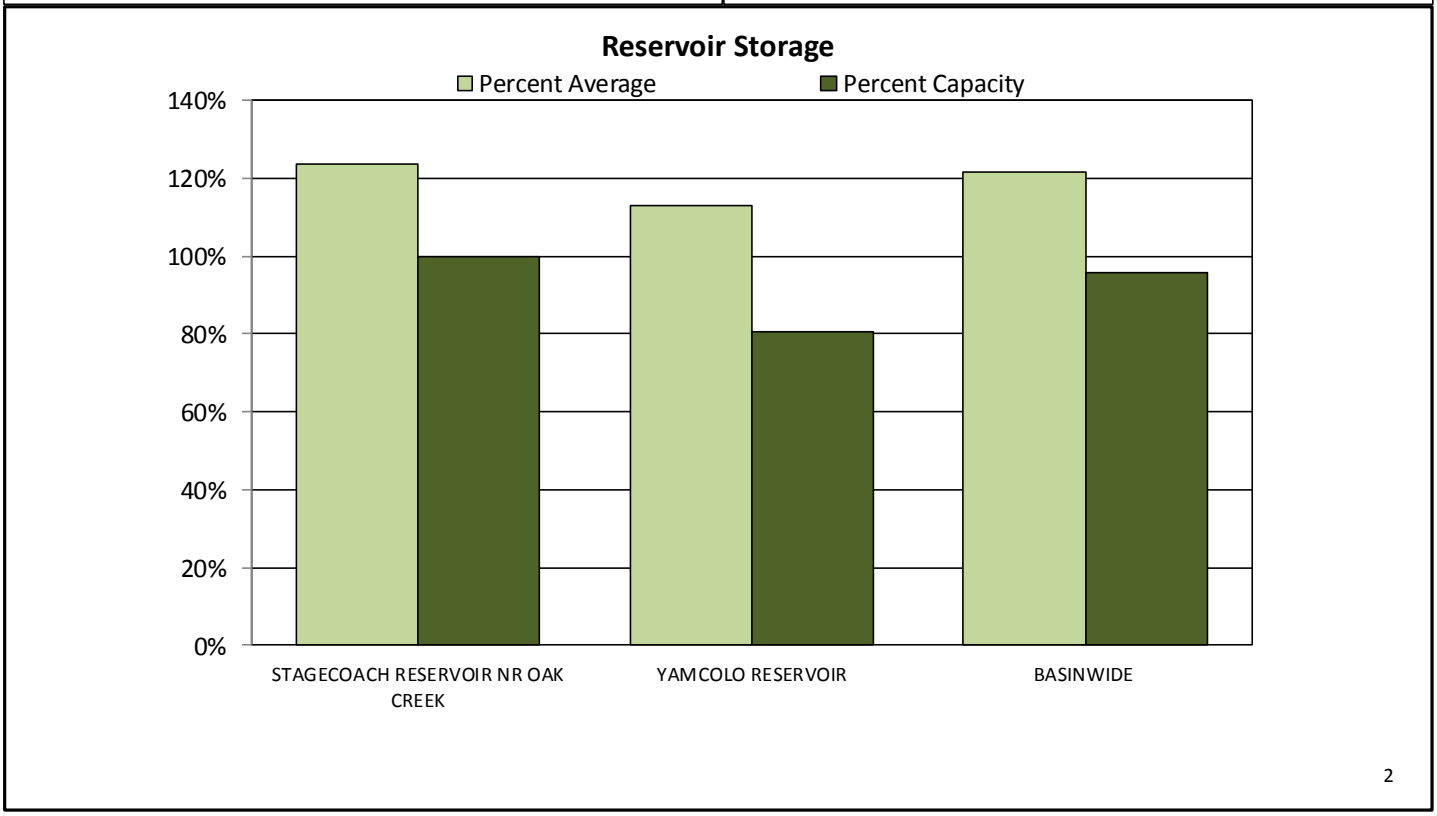
# YAMPA, WHITE, NORTH PLATTE AND LARAMIE RIVER BASINS

March 1, 2016

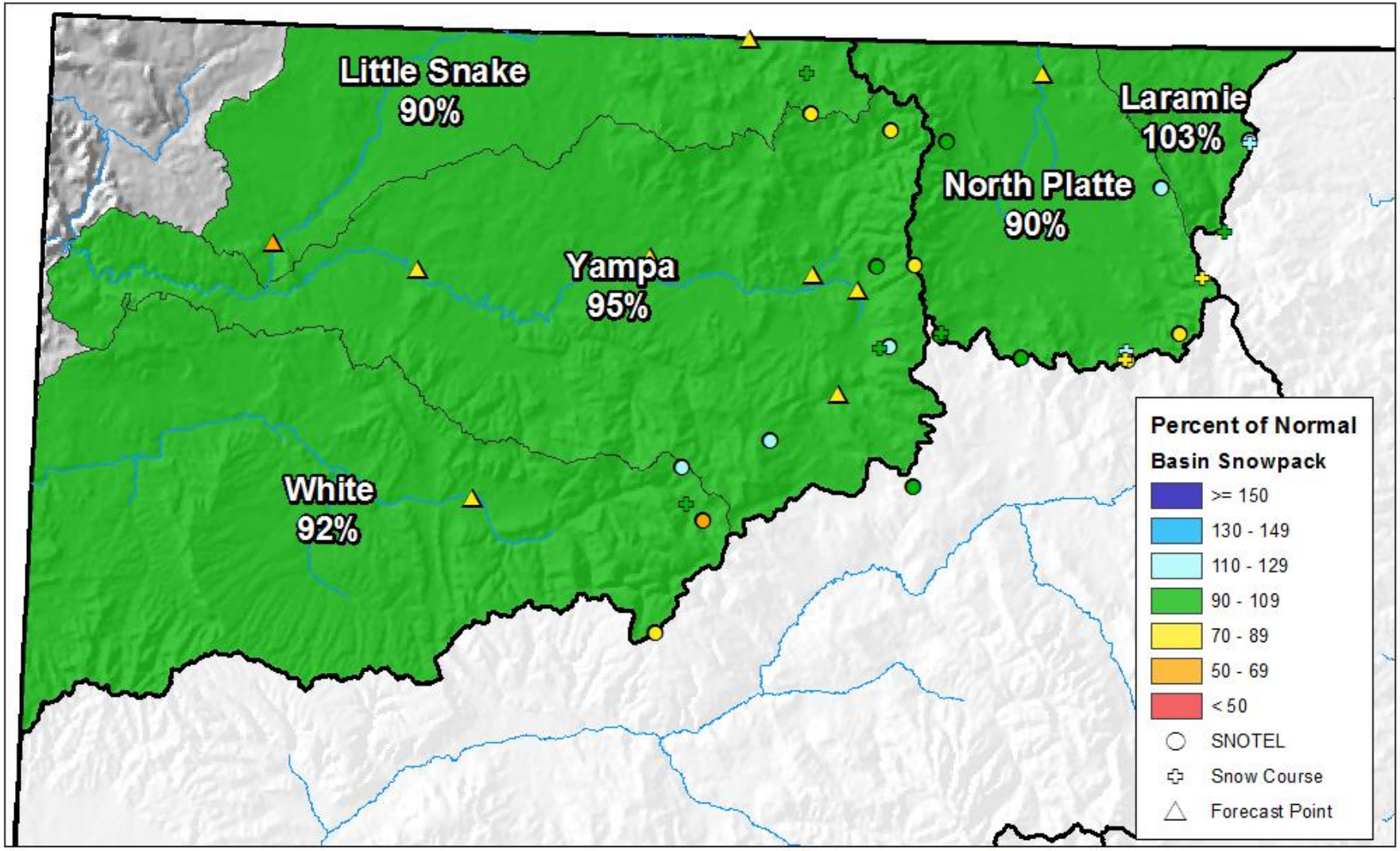
Snowpack in the Yampa, White & North Platte basins is below normal at 93% of the median. Precipitation for February was 57% of average and water year-to-date precipitation is at 91% of average. Reservoir storage at the end of February was 122% of average, the same as last year. Streamflow forecasts range from 89% of average for the North Platte near Northgate to 65% for the Little Snake River near Dixon.



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



Data Current as of: 3/4/2016 11:24:10 AM

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

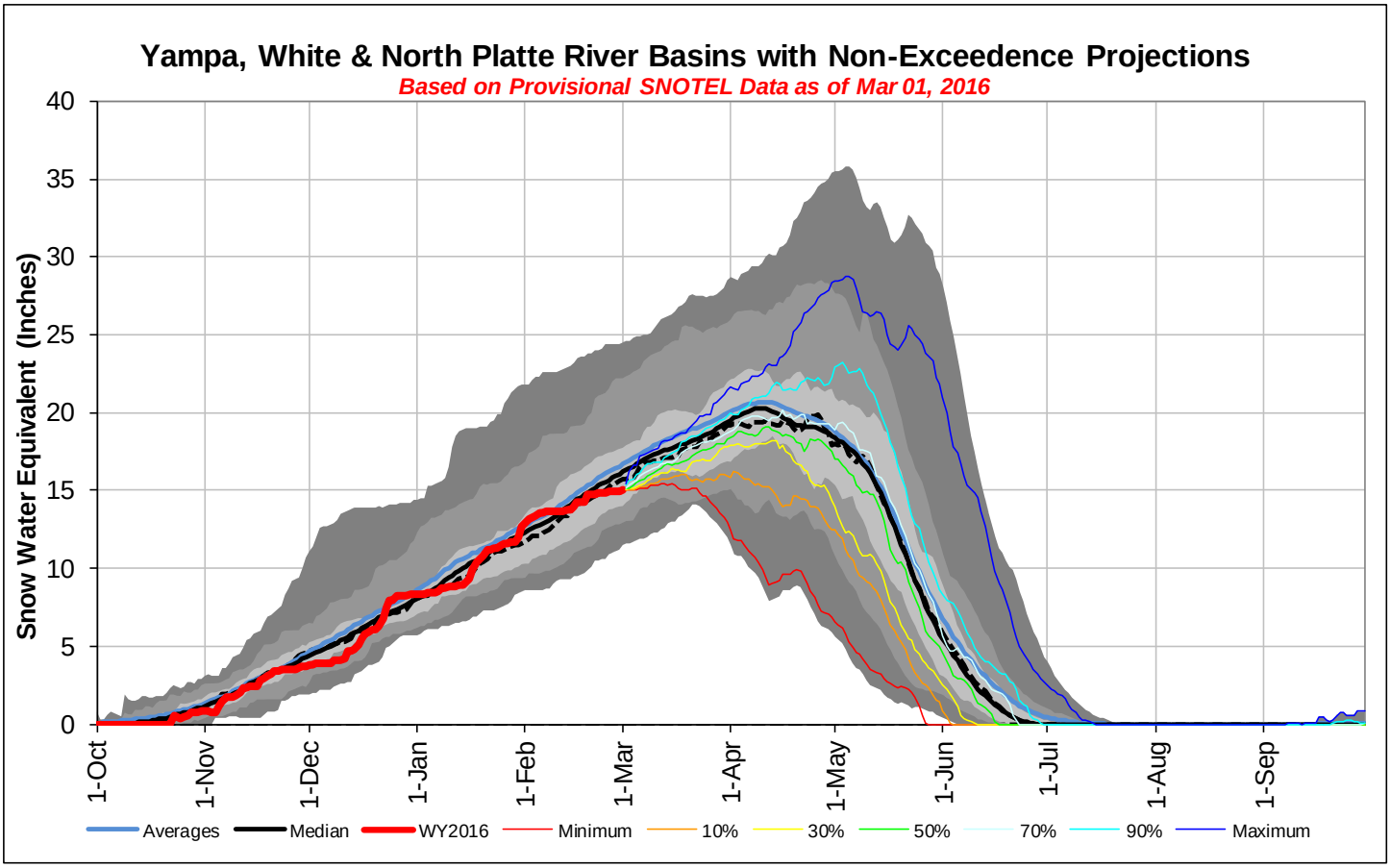
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

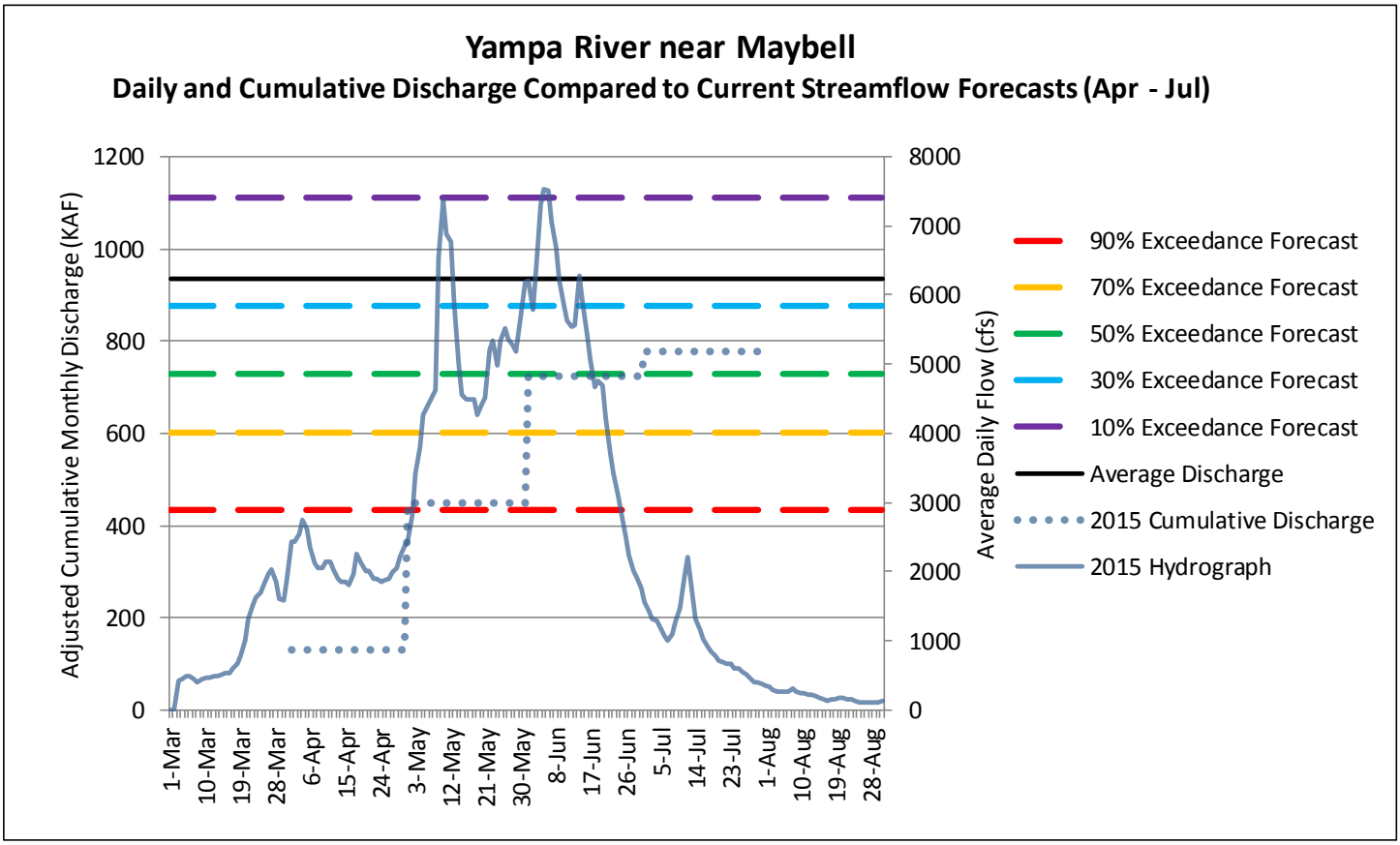
| YAMPA-WHITE-NORTH PLATTE RIVER BASINS | Forecast Period | 90% (KAF) | 70% (KAF) | 50% (KAF) | % Avg | 30% (KAF) | 10% (KAF) | 30yr Avg (KAF) |
|---|---|---|---|---|---|---|---|---|
| North Platte R nr Northgate | | | | | | | | |
| | APR-JUL | 89 | 155 | 200 | 89% | 245 | 310 | 225 |
| | APR-SEP | 100 | 175 | 225 | 90% | 275 | 350 | 250 |
| Laramie R nr Woods[2] | | | | | | | | |
| | APR-JUL | 66 | 87 | 101 | 88% | 116 | 136 | 115 |
| | APR-SEP | 73 | 96 | 112 | 89% | 128 | 151 | 126 |
| Yampa R ab Stagecoach Reservoir [2] | | | | | | | | |
| | APR-JUL | 9.9 | 15 | 19 | 83% | 23 | 31 | 23 |
| Yampa R at Steamboat Springs[2] | | | | | | | | |
| | APR-JUL | 151 | 188 | 215 | 83% | 245 | 290 | 260 |
| Elk R nr Milner | | | | | | | | |
| | APR-JUL | 174 | 225 | 265 | 83% | 310 | 380 | 320 |
| Elkhead Ck ab Long Gulch | | | | | | | | |
| | APR-JUL | 27 | 42 | 54 | 74% | 68 | 91 | 73 |
| Yampa R nr Maybell[2] | | | | | | | | |
| | APR-JUL | 435 | 600 | 730 | 78% | 875 | 1110 | 935 |
| Little Snake R nr Slater[2] | | | | | | | | |
| | APR-JUL | 76 | 98 | 115 | 74% | 133 | 162 | 156 |
| Little Snake R nr Dixon[2] | | | | | | | | |
| | APR-JUL | 114 | 175 | 225 | 65% | 280 | 375 | 345 |
| Little Snake R nr Lily[2] | | | | | | | | |
| | APR-JUL | 107 | 174 | 230 | 67% | 295 | 400 | 345 |
| White R nr Meeker | | | | | | | | |
| | APR-JUL | 147 | 190 | 225 | 80% | 260 | 315 | 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 February, 2016 | Current (KAF) | Last Year (KAF) | Average (KAF) | Capacity (KAF) |
|---|---|---|---|---|
| Stagecoach Reservoir nr Oak Creek | 33.3 | 33.6 | 26.9 | 33.3 |
| Yamcolo Reservoir | 7.0 | 6.8 | 6.2 | 8.7 |
| Basin-wide Total | 40.3 | 40.4 | 33.1 | 42.0 |
| # of reservoirs | 2 | 2 | 2 | 2 |

| Watershed Snowpack Analysis March 1, 2016 | # of Sites | % Median | Last Year % Median |
|---|---|---|---|
| LARAMIE RIVER BASIN | 4 | 104% | 97% |
| NORTH PLATTE RIVER BASIN | 12 | 90% | 84% |
| LARAMIE & NORTH PLATTE RIVER BASINS | 16 | 92% | 86% |
| ELK RIVER BASIN | 2 | 79% | 71% |
| YAMPA RIVER BASIN | 11 | 95% | 82% |
| WHITE RIVER BASIN | 5 | 92% | 76% |
| YAMPA & WHITE RIVER BASINS | 15 | 93% | 79% |
| LITTLE SNAKE RIVER BASIN | 9 | 90% | 69% |
| YAMPA-WHITE-NORTH PLATTE RIVER BASINS | 36 | 93% | 80% |



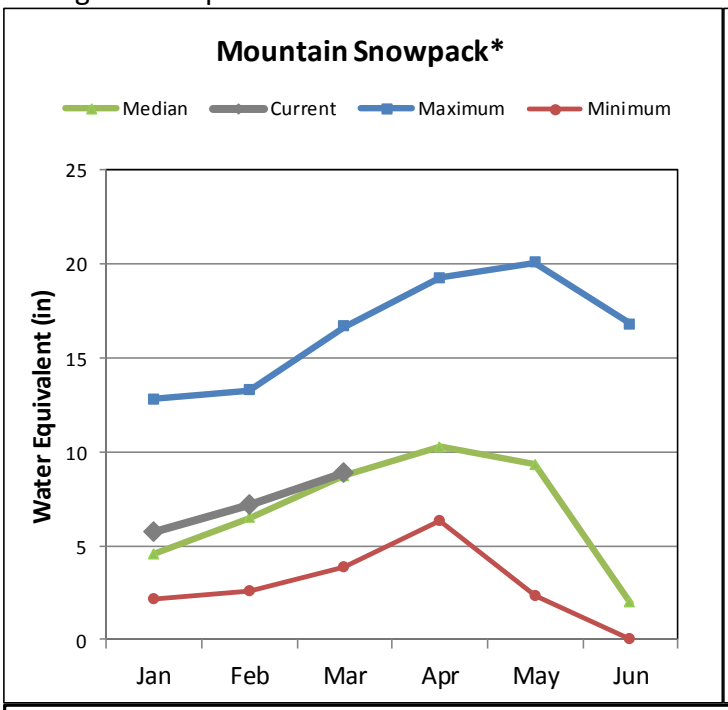



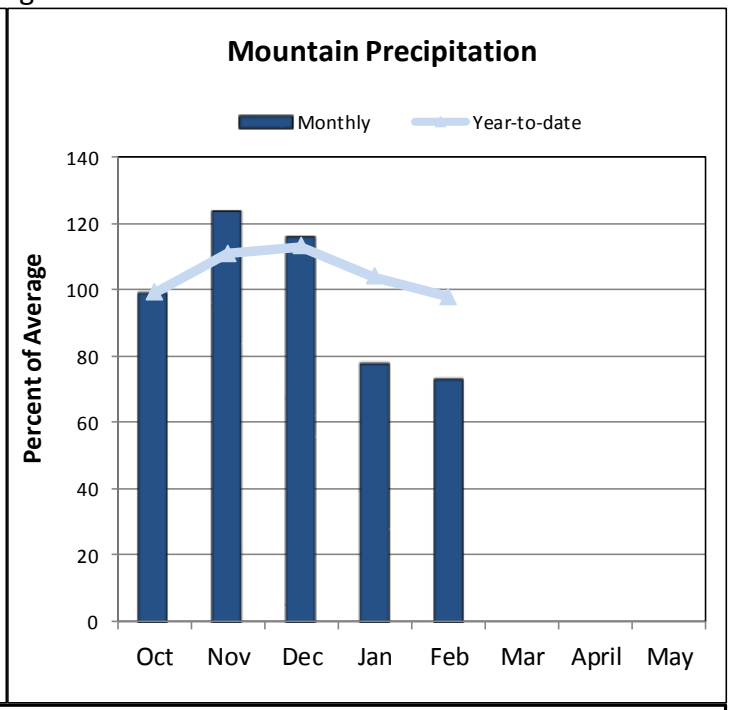

Please refer to the sections at the end of this report for further explanation concerning these graphs.

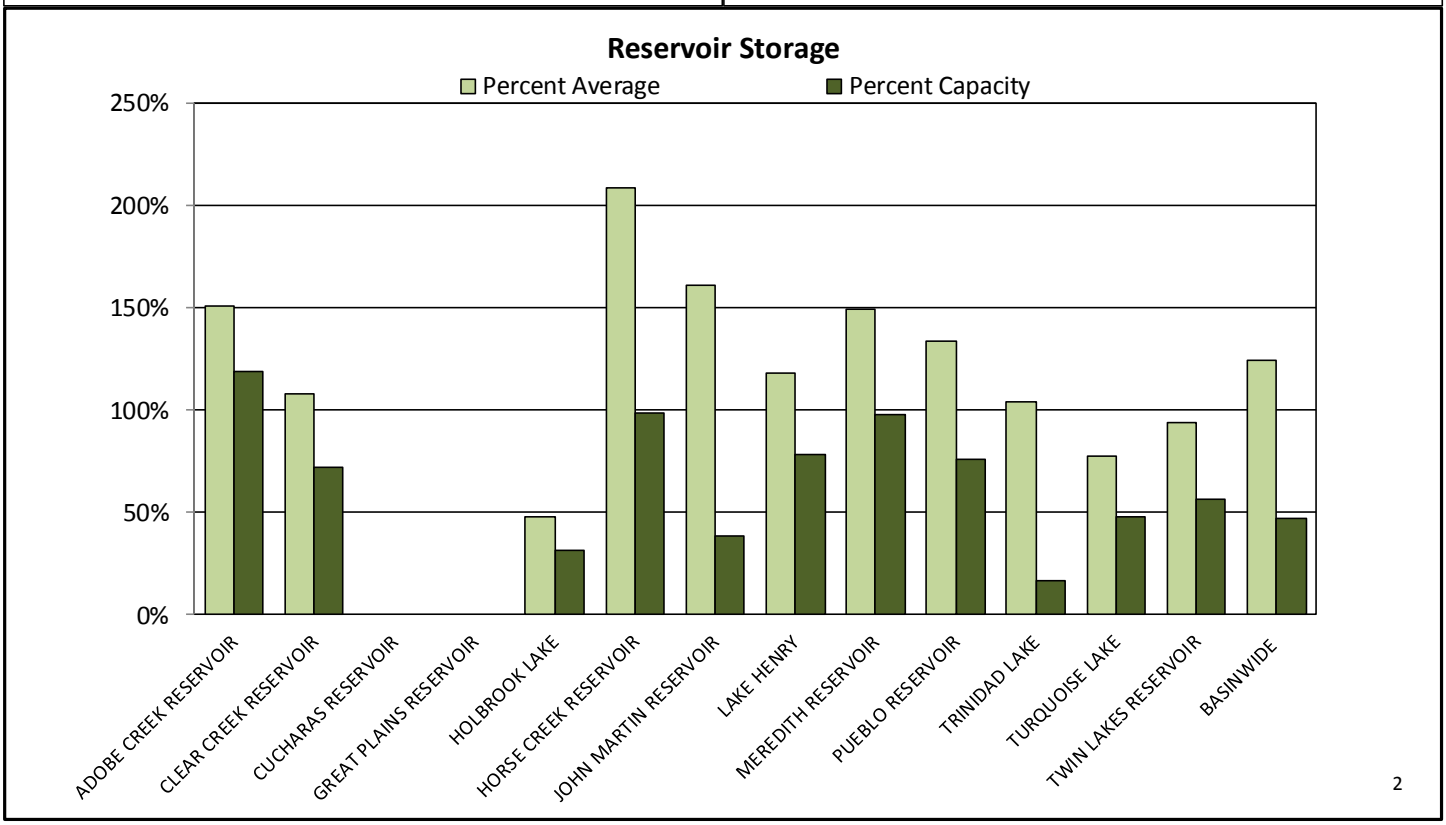
# ARKANSAS RIVER BASIN

March 1, 2016

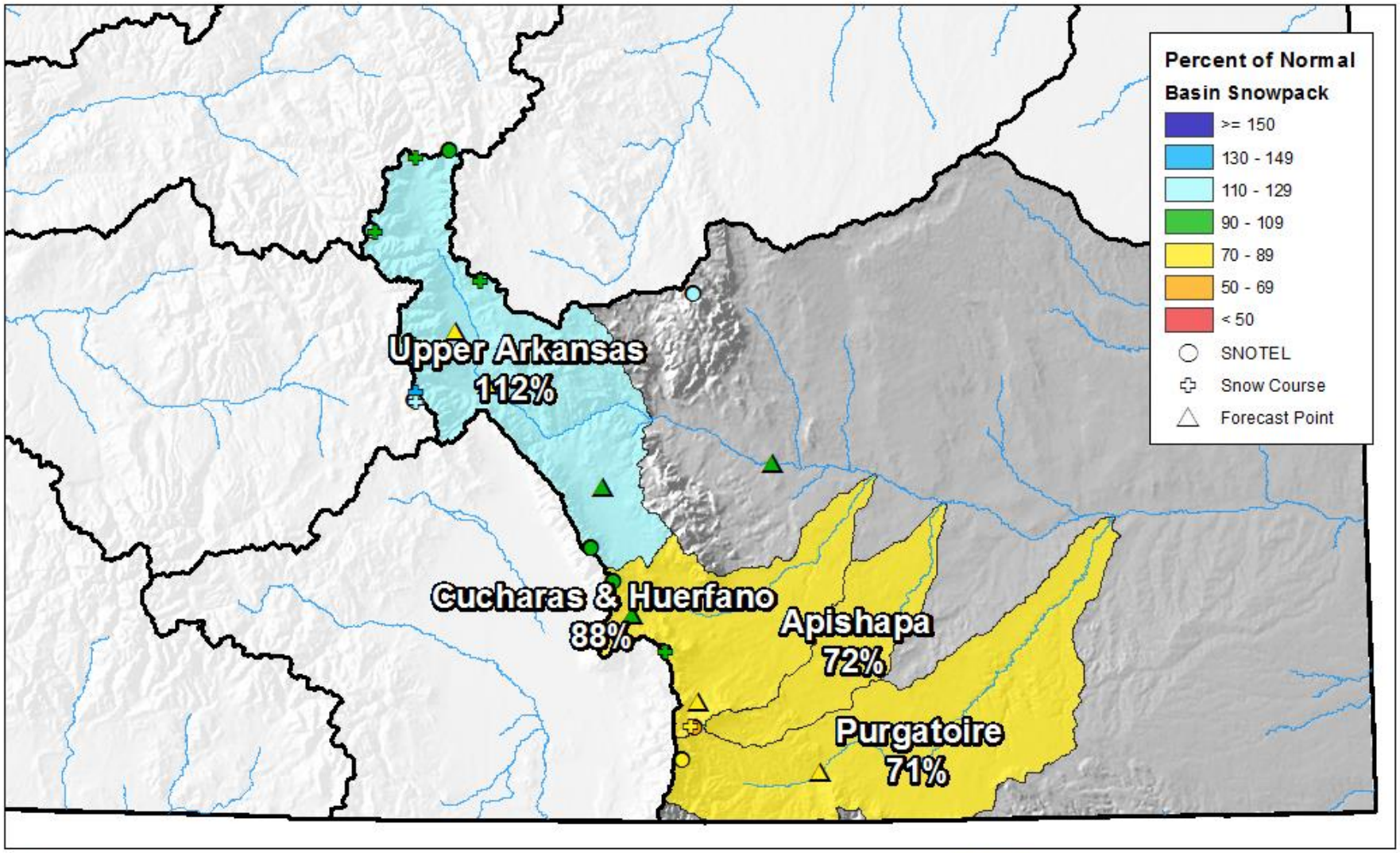
Snowpack in the Arkansas River basin is above normal at 102% of the median. Precipitation for February was 73% of average which brings water year-to-date precipitation to 98% of average. Reservoir storage at the end of February was 124% of average compared to 80% last year. Current streamflow forecasts range from 96% of average for Grape Creek near Westcliffe to 77% of average for the Cucharas River near La Veta.



# Arkansas River Basin Snowpack and Streamflow Forecasts
March 1, 2016



Data Current as of: 3/4/2016 11:24:11 AM

# Arkansas River Basin
## Streamflow Forecasts - March 1, 2016

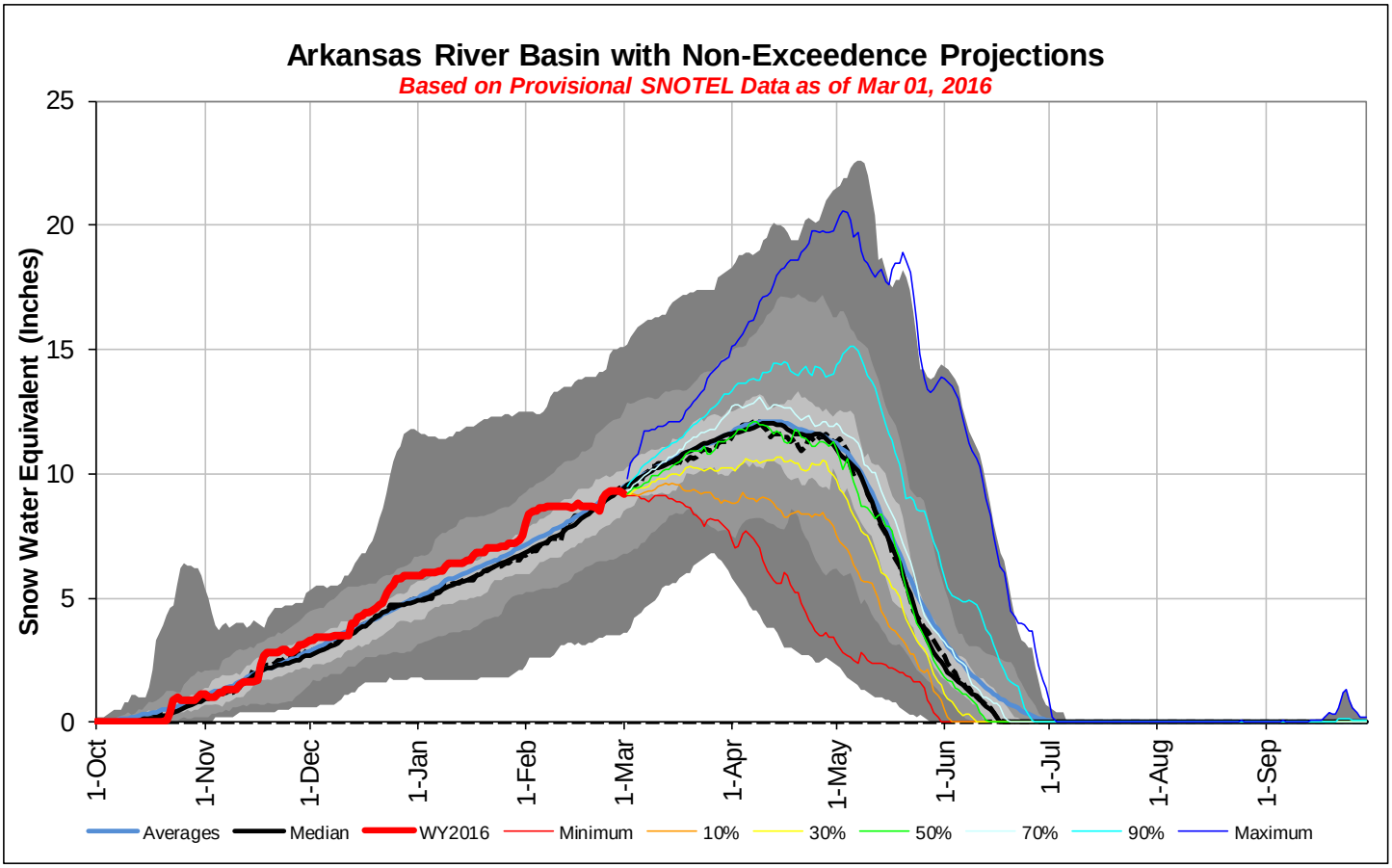
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

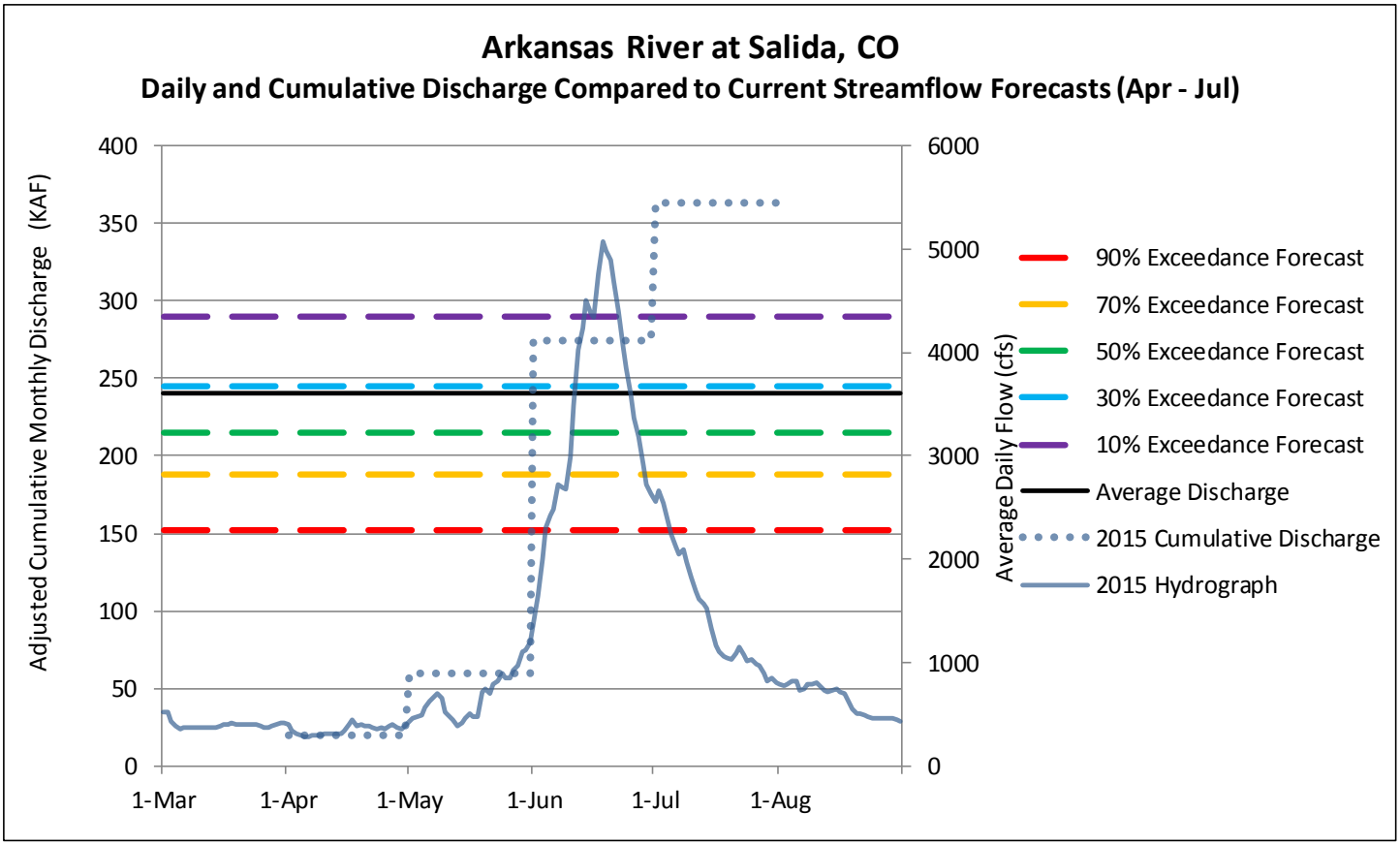
| ARKANSAS RIVER BASIN | Forecast Period | 90% (KAF) | 70% (KAF) | 50% (KAF) | % Avg | 30% (KAF) | 10% (KAF) | 30yr Avg (KAF) |
|---|---|---|---|---|---|---|---|---|
| Chalk Ck nr Nathrop | | | | | | | | |
| | APR-JUL | 10 | 14.9 | 18.7 | 89% | 23 | 30 | 21 |
| | APR-SEP | 12.7 | 18.5 | 23 | 88% | 28 | 36 | 26 |
| Arkansas R at Salida[2] | | | | | | | | |
| | APR-JUL | 152 | 188 | 215 | 90% | 245 | 290 | 240 |
| | APR-SEP | 185 | 230 | 265 | 90% | 300 | 360 | 295 |
| Grape Ck nr Westcliffe | | | | | | | | |
| | APR-JUL | 3.5 | 9.5 | 15.3 | 96% | 22 | 35 | 15.9 |
| | APR-SEP | 6.3 | 13.2 | 19.3 | 98% | 27 | 39 | 19.6 |
| Pueblo Reservoir Inflow[2] | | | | | | | | |
| | APR-JUL | 200 | 280 | 340 | 94% | 405 | 515 | 360 |
| | APR-SEP | 265 | 360 | 430 | 95% | 510 | 635 | 455 |
| Huerfano R nr Redwing | | | | | | | | |
| | APR-JUL | 5.8 | 8.6 | 10.9 | 92% | 13.4 | 17.7 | 11.9 |
| | APR-SEP | 7.8 | 11.3 | 14 | 92% | 17 | 22 | 15.2 |
| Cucharas R nr La Veta | | | | | | | | |
| | APR-JUL | 3.6 | 6.7 | 9.4 | 77% | 12.5 | 17.9 | 12.2 |
| | APR-SEP | 4.9 | 8.4 | 11.3 | 80% | 14.6 | 20 | 14.1 |
| Trinidad Lake Inflow[2] | | | | | | | | |
| | MAR-JUL | 10.7 | 21 | 31 | 84% | 42 | 62 | 37 |
| | APR-SEP | 14.7 | 28 | 40 | 85% | 54 | 78 | 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 February, 2016 | Current (KAF) | Last Year (KAF) | Average (KAF) | Capacity (KAF) |
|---|---|---|---|---|
| Adobe Creek Reservoir | 73.6 | 35.8 | 48.9 | 62.0 |
| Clear Creek Reservoir | 8.2 | 8.8 | 7.6 | 11.4 |
| Cucharas Reservoir | | 0.0 | 5.9 | 40.0 |
| Great Plains Reservoir | 0.0 | 0.0 | 33.7 | 150.0 |
| Holbrook Lake | 2.2 | 2.9 | 4.6 | 7.0 |
| Horse Creek Reservoir | 26.5 | 0.0 | 12.7 | 27.0 |
| John Martin Reservoir | 238.9 | 38.2 | 148.2 | 616.0 |
| Lake Henry | 7.3 | 8.4 | 6.2 | 9.4 |
| Meredith Reservoir | 40.9 | 40.8 | 27.4 | 42.0 |
| Pueblo Reservoir | 268.6 | 253.3 | 200.6 | 354.0 |
| Trinidad Lake | 27.8 | 17.4 | 26.8 | 167.0 |
| Turquoise Lake | 60.6 | 72.8 | 78.5 | 127.0 |
| Twin Lakes Reservoir | 112.3 | 42.4 | 51.8 | 86.0 |
| Basin-wide Total | 866.9 | 520.8 | 647.0 | 1658.8 |
| # of reservoirs | 12 | 12 | 12 | 12 |

| Watershed Snowpack Analysis March 1, 2016 | # of Sites | % Median | Last Year % Median |
|---|---|---|---|
| UPPER ARKANSAS BASIN | 9 | 112% | 110% |
| CUCHARAS & HUERFANO BASINS | 5 | 88% | 81% |
| PURGATOIRE RIVER BASIN | 2 | 71% | 79% |
| ARKANSAS RIVER BASIN | 16 | 102% | 101% |



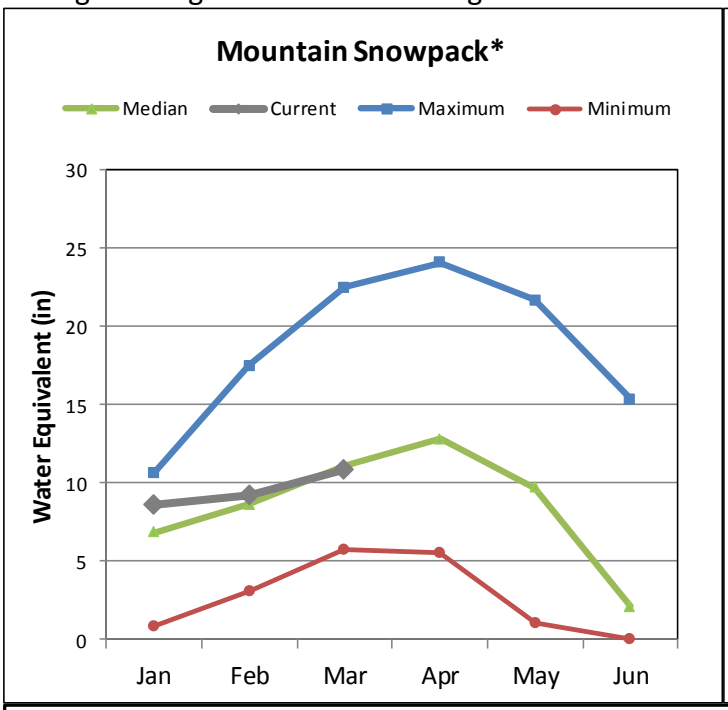



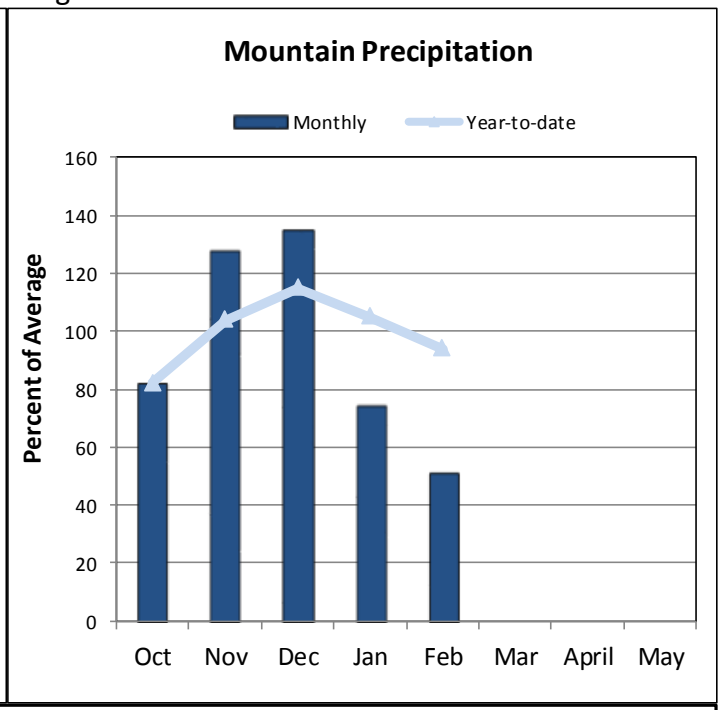

Please refer to the sections at the end of this report for further explanation concerning these graphs.

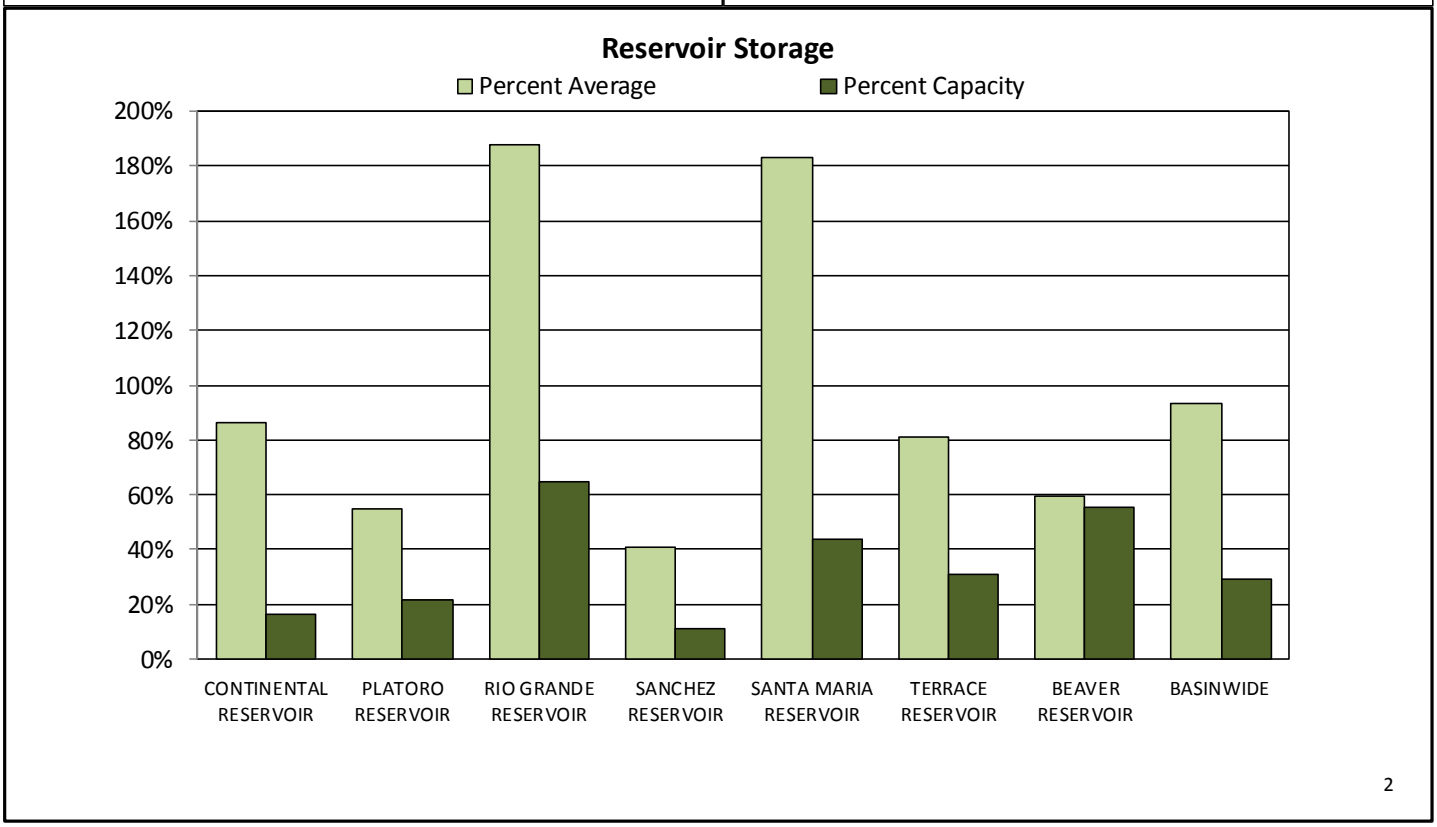
# UPPER RIO GRANDE RIVER BASIN

March 1, 2016

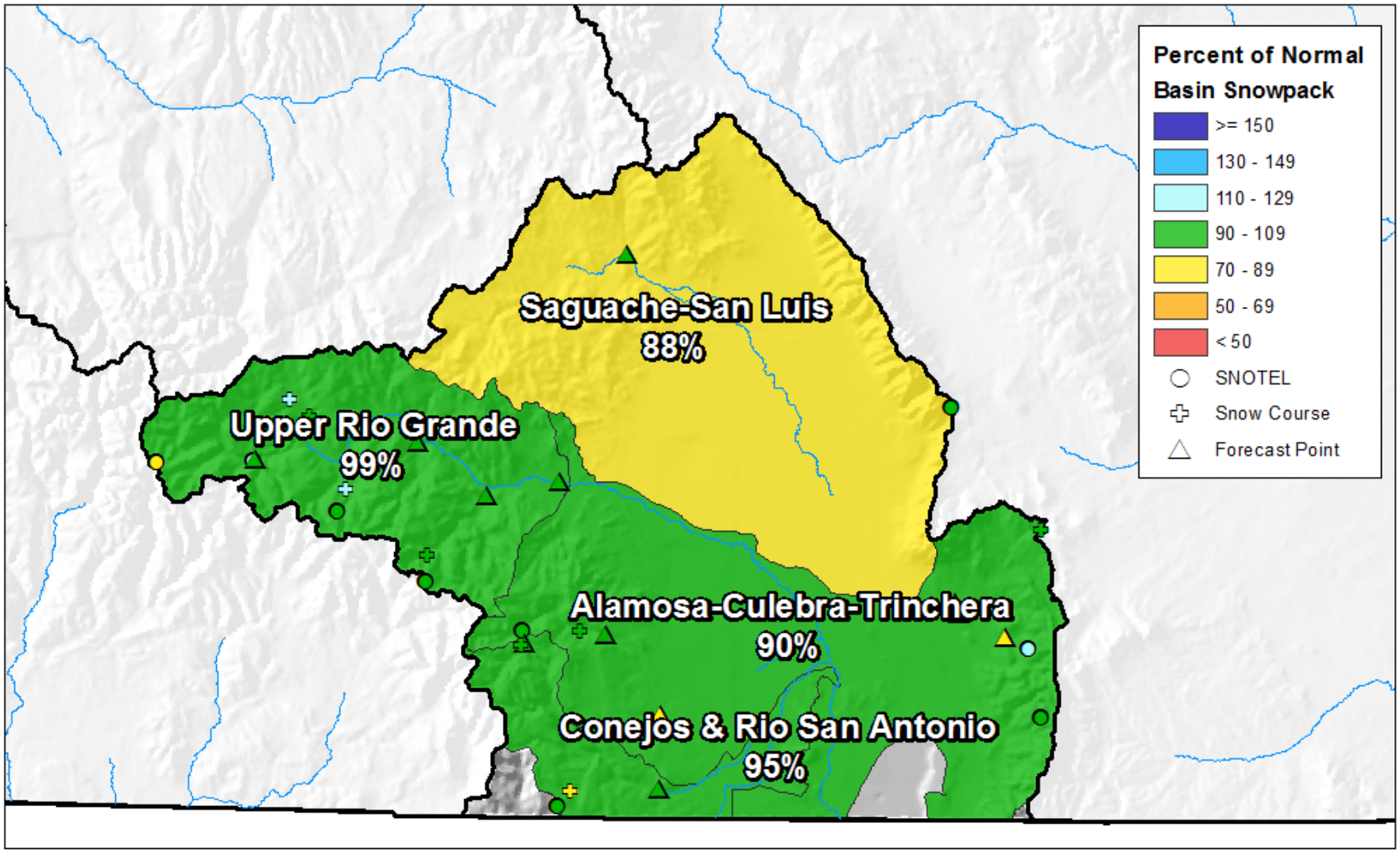
Snowpack in the Upper Rio Grande River basin is near normal at 98% of median. Precipitation for February was 51% of average which brings water year-to-date precipitation to 94% of average. Reservoir storage at the end of February was 93% of average compared to 72% last year. Streamflow forecasts range from 106% of average for Saguache Creek near Saguache to 83% of average for the San Antonio River at Ortiz.



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



Data Current as of: 3/4/2016 11:24:12 AM

# Upper Rio Grande Basin
## Streamflow Forecasts - March 1, 2016

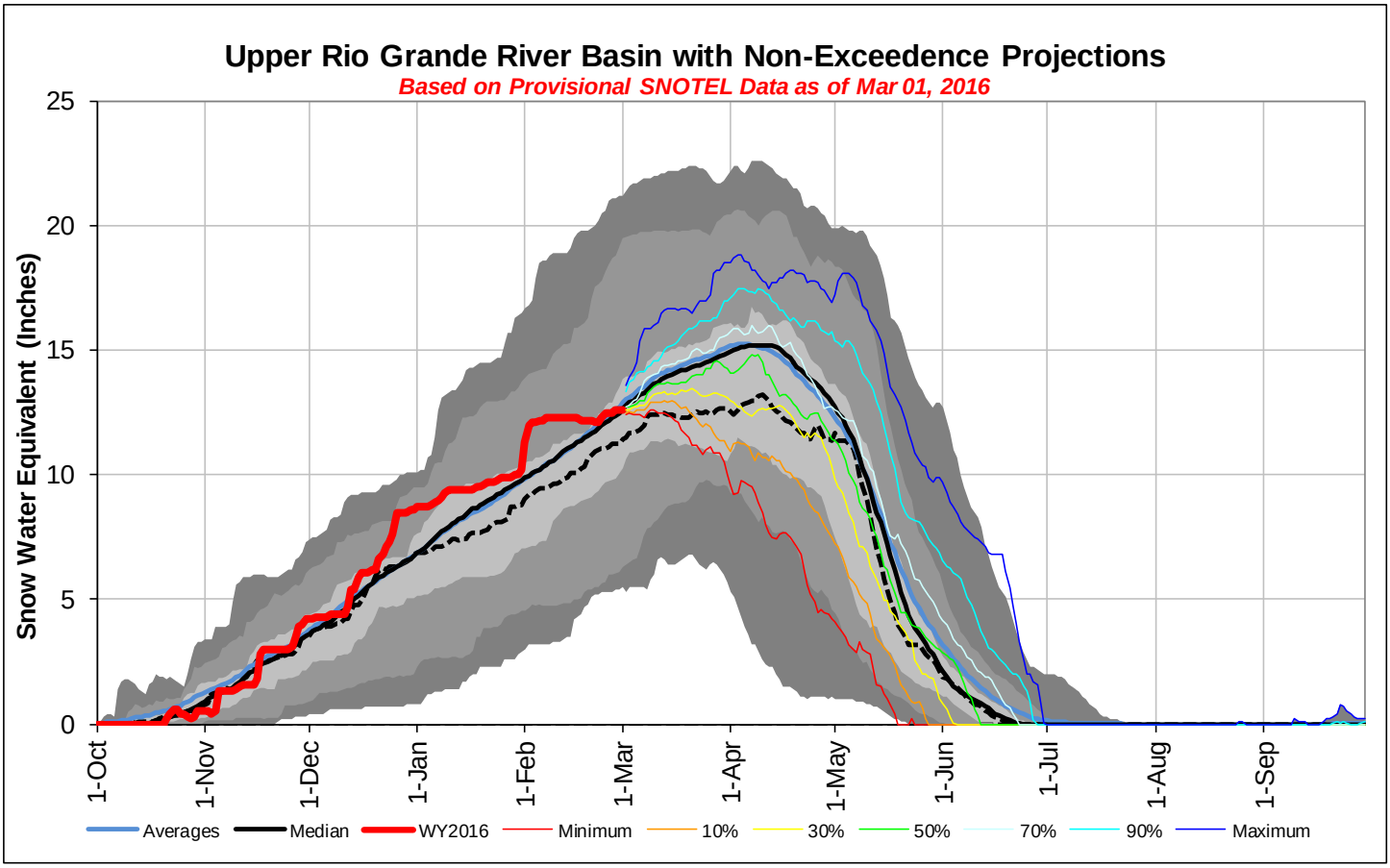
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

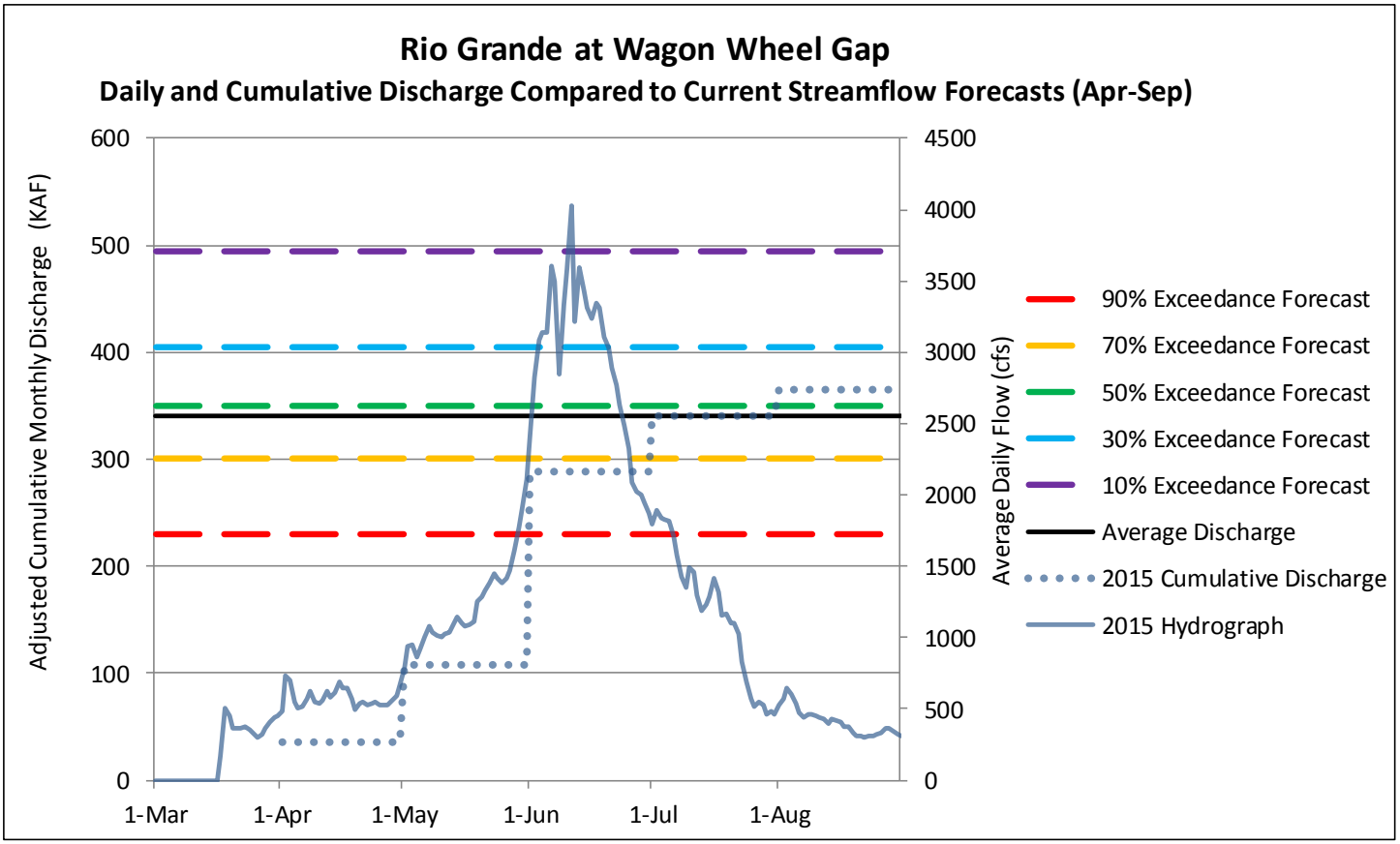
| UPPER RIO GRANDE BASIN | Forecast Period | 90% (KAF) | 70% (KAF) | 50% (KAF) | % Avg | 30% (KAF) | 10% (KAF) | 30yr Avg (KAF) |
|---|---|---|---|---|---|---|---|---|
| Rio Grande at Thirty Mile Bridge[2] | | | | | | | | |
| | APR-JUL | 76 | 96 | 110 | 97% | 125 | 150 | 113 |
| | APR-SEP | 84 | 108 | 125 | 97% | 144 | 174 | 129 |
| Rio Grande at Wagon Wheel Gap[2] | | | | | | | | |
| | APR-SEP | 230 | 300 | 350 | 103% | 405 | 495 | 340 |
| SF Rio Grande at South Fork[2] | | | | | | | | |
| | APR-SEP | 81 | 103 | 120 | 94% | 138 | 166 | 127 |
| Rio Grande nr Del Norte [2] | | | | | | | | |
| | APR-SEP | 335 | 440 | 520 | 101% | 605 | 740 | 515 |
| Saguache Ck nr Saguache | | | | | | | | |
| | APR-SEP | 18.6 | 27 | 34 | 106% | 41 | 53 | 32 |
| Alamosa Ck ab Terrace Reservoir | | | | | | | | |
| | APR-SEP | 41 | 53 | 62 | 91% | 72 | 87 | 68 |
| La Jara Ck nr Capulin | | | | | | | | |
| | MAR-JUL | 4 | 6 | 7.5 | 84% | 9.3 | 12.2 | 8.9 |
| Trinchera Ck ab Turners Ranch | | | | | | | | |
| | APR-SEP | 8 | 9.8 | 11.1 | 88% | 12.5 | 14.7 | 12.6 |
| Sangre de Cristo Ck [2] | | | | | | | | |
| | APR-SEP | 6.4 | 10.3 | 13.6 | 83% | 17.2 | 23 | 16.3 |
| Ute Ck nr Fort Garland | | | | | | | | |
| | APR-SEP | 7 | 9.9 | 12.1 | 95% | 14.5 | 18.6 | 12.8 |
| Platoro Reservoir Inflow | | | | | | | | |
| | APR-JUL | 39 | 48 | 54 | 96% | 61 | 72 | 56 |
| | APR-SEP | 41 | 52 | 59 | 95% | 67 | 80 | 62 |
| Conejos R nr Mogote [2] | | | | | | | | |
| | APR-SEP | 122 | 155 | 180 | 93% | 205 | 250 | 194 |
| San Antonio R at Ortiz | | | | | | | | |
| | APR-SEP | 6.9 | 10.3 | 13 | 83% | 16 | 21 | 15.6 |
| Los Pinos R nr Ortiz | | | | | | | | |
| | APR-SEP | 42 | 55 | 65 | 89% | 76 | 94 | 73 |
| Culebra Ck at San Luis | | | | | | | | |
| | APR-SEP | 10.4 | 15.8 | 20 | 87% | 25 | 33 | 23 |
| Costilla Reservoir Inflow | | | | | | | | |
| | MAR-JUL | 6.1 | 8.5 | 10.3 | 93% | 12.3 | 15.6 | 11.1 |
| Costilla Ck nr Costilla [2] | | | | | | | | |
| | MAR-JUL | 11.4 | 17.6 | 23 | 88% | 28 | 37 | 26 |

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 February, 2016 | Current (KAF) | Last Year (KAF) | Average (KAF) | Capacity (KAF) |
|---|---|---|---|---|
| Beaver Reservoir | 2.5 | 0.0 | 4.2 | 4.5 |
| Continental Reservoir | 4.4 | 7.7 | 5.1 | 27.0 |
| Platoro Reservoir | 13.1 | 10.8 | 23.9 | 60.0 |
| Rio Grande Reservoir | 33.1 | 26.5 | 17.6 | 51.0 |
| Sanchez Reservoir | 11.3 | 4.2 | 27.6 | 103.0 |
| Santa Maria Reservoir | 19.6 | 15.0 | 10.7 | 45.0 |
| Terrace Reservoir | 5.6 | 5.1 | 6.9 | 18.0 |
| Basin-wide Total | 89.6 | 69.3 | 96.0 | 308.5 |
| # of reservoirs | 7 | 7 | 7 | 7 |

| Watershed Snowpack Analysis March 1, 2016 | # of Sites | % Median | Last Year % Median |
|---|---|---|---|
| ALAMOSA CREEK BASIN | 3 | 99% | 52% |
| CONEJOS & RIO SAN ANTONIO BASINS | 4 | 95% | 64% |
| CULEBRA & TRINCHERA BASINS | 4 | 100% | 92% |
| HEADWATERS RIO GRANDE RIVER BASIN | 10 | 100% | 72% |
| UPPER RIO GRANDE BASIN | 20 | 98% | 73% |



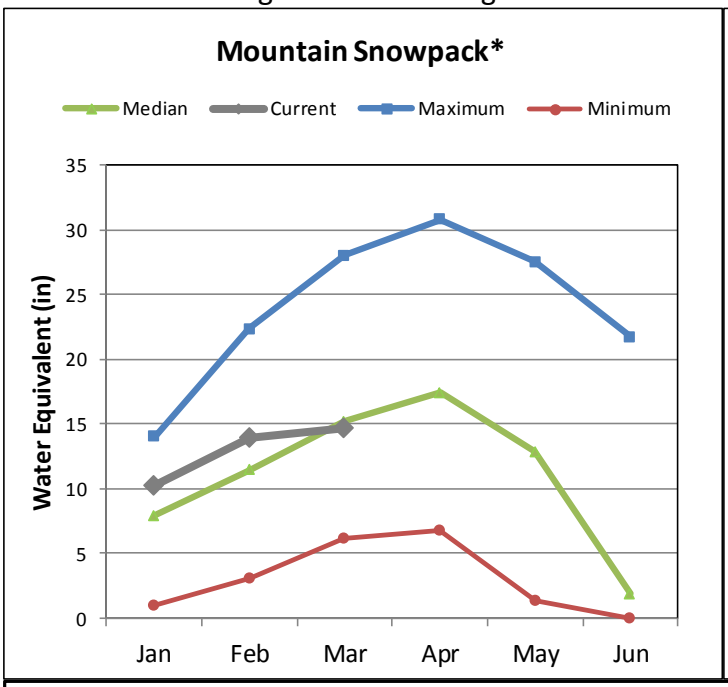



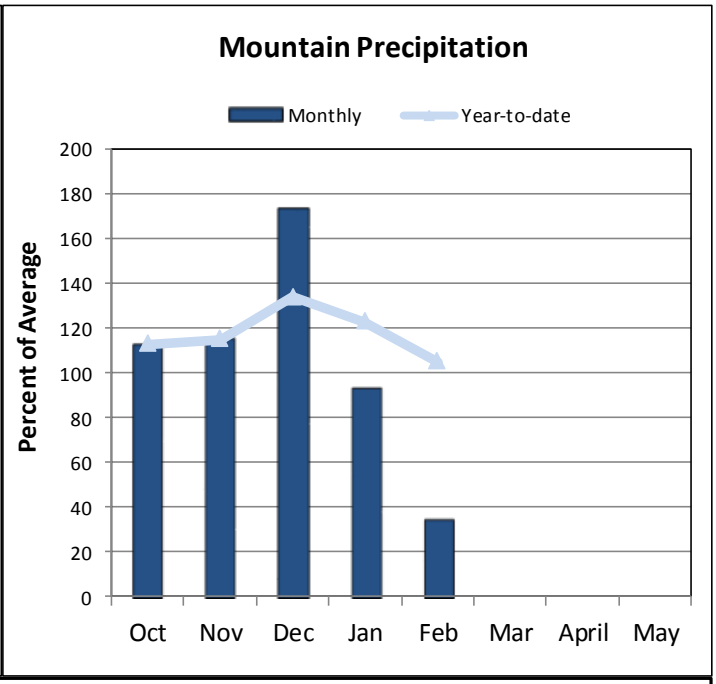

Please refer to the sections at the end of this report for further explanation concerning these graphs.

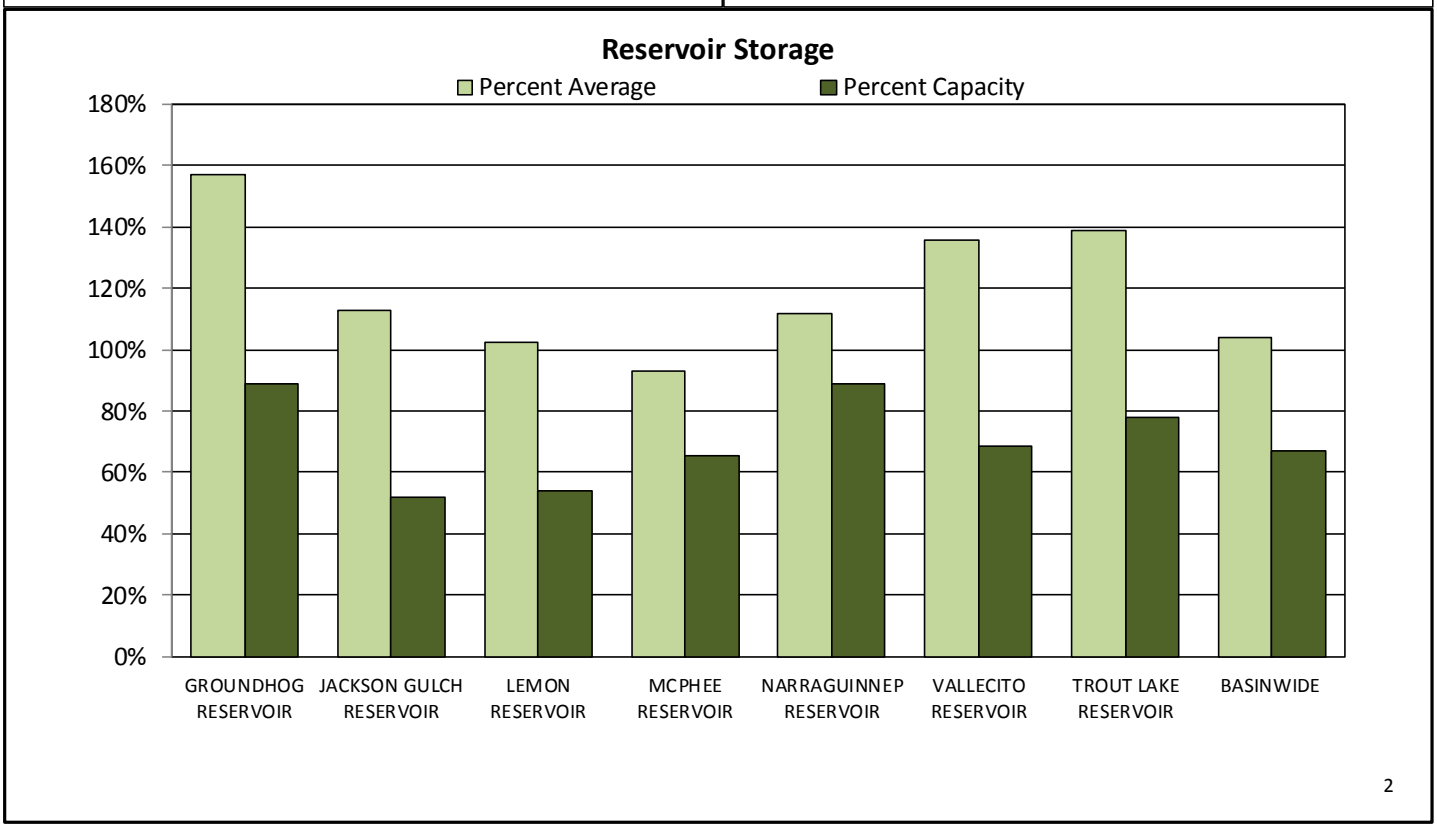
# SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS

March 1, 2016

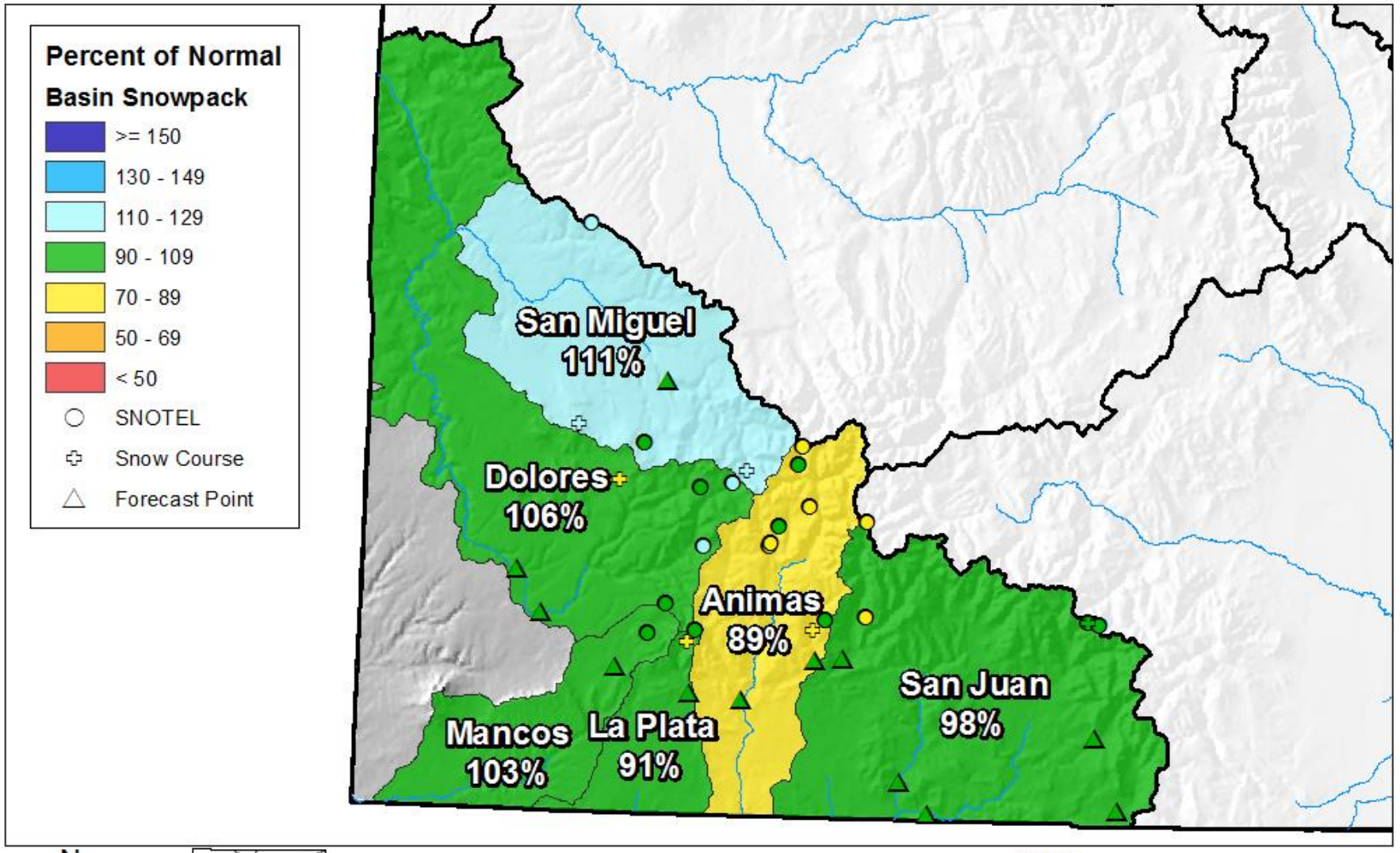
Snowpack in the combined southwest river basins is near normal at 97% of median. Precipitation for February was 35% of average which brings water year-to-date precipitation to 105% of average. Reservoir storage at the end of February was 104% of average compared to 89% last year. Current streamflow forecasts range from 102% of average for the San Miguel near Placerville to 91% for the inflow to Lemon Reservoir.



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



Data Current as of: 3/4/2016 11:24:14 AM

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

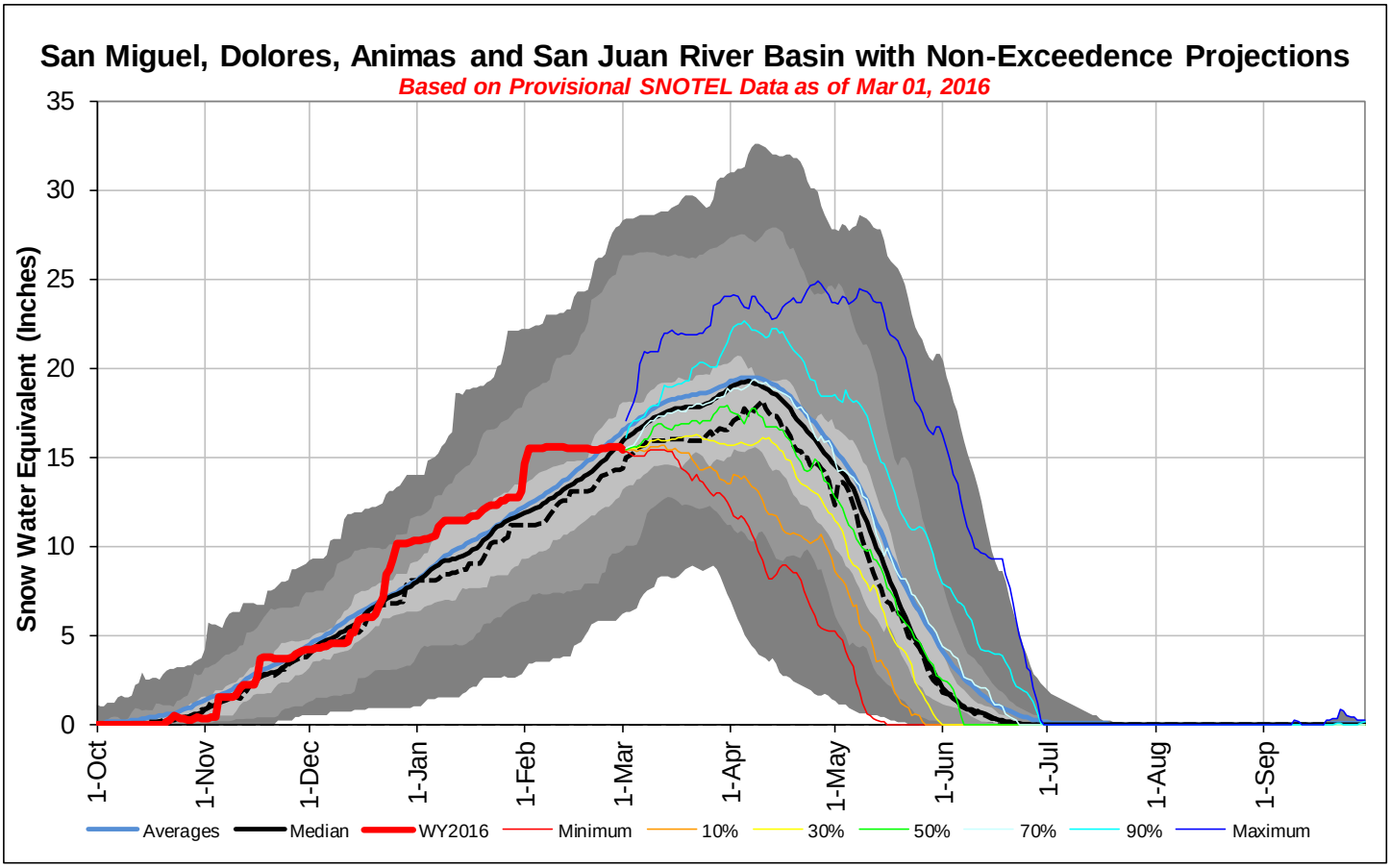
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

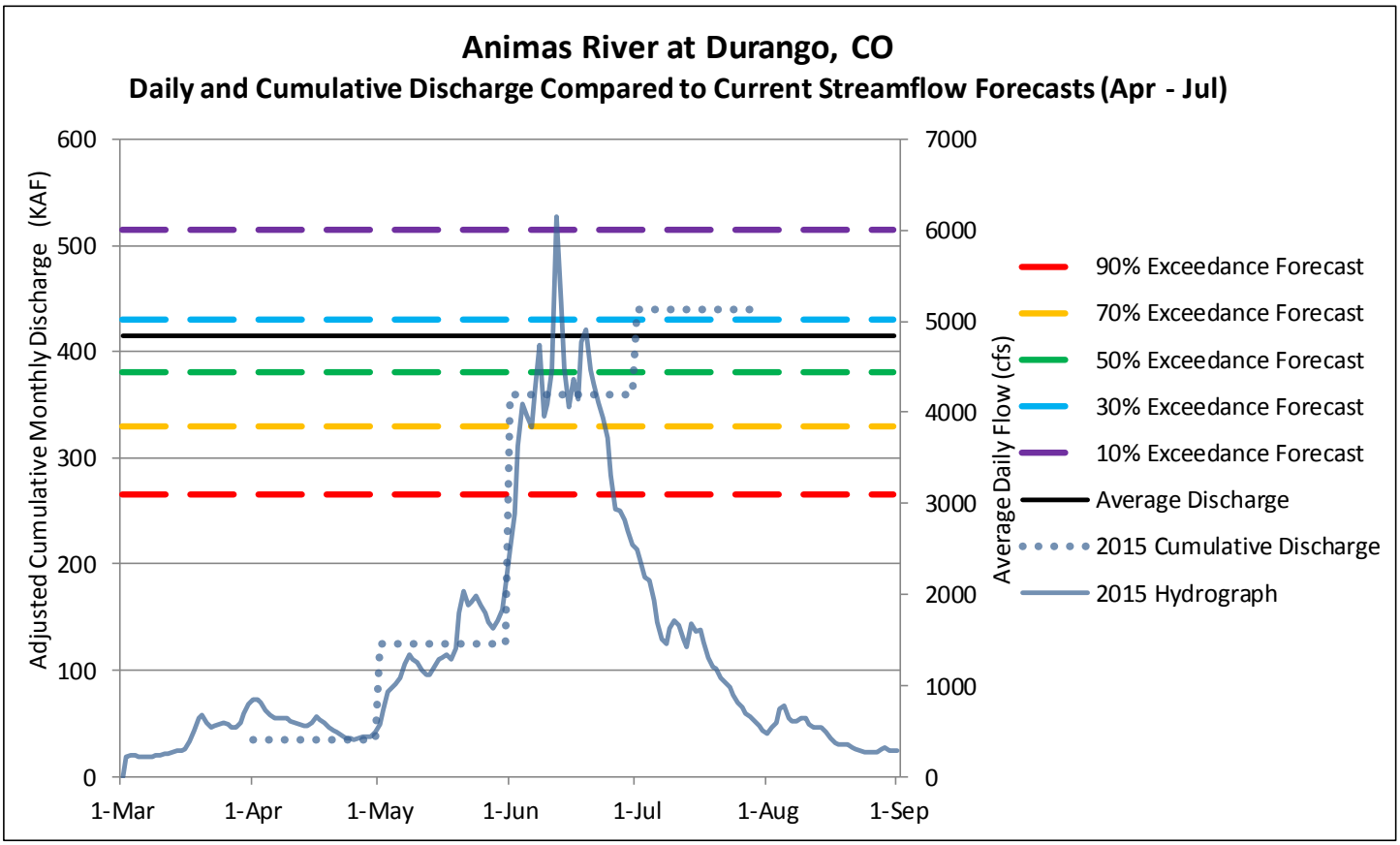
| SAN MIGUEL-DOLORES-ANIMAS-SAN JUAN RIVER BASINS | Forecast Period | 90% (KAF) | 70% (KAF) | 50% (KAF) | % Avg | 30% (KAF) | 10% (KAF) | 30yr Avg (KAF) |
|---|---|---|---|---|---|---|---|---|
| Dolores R at Dolores | APR-JUL | 162 | 205 | 240 | 98% | 270 | 330 | 245 |
| McPhee Reservoir Inflow | APR-JUL | 186 | 245 | 285 | 97% | 330 | 405 | 295 |
| San Miguel R nr Placerville | APR-JUL | 86 | 112 | 131 | 102% | 152 | 186 | 128 |
| Cone Reservoir Inlet | APR-JUL | 1.99 | 2.5 | 2.9 | 97% | 3.4 | 4 | 3 |
| Gurley Reservoir Inlet | APR-JUL | 11.4 | 14 | 16 | 98% | 18.1 | 21 | 16.4 |
| Lilylands Reservoir Inlet | APR-JUL | 0.96 | 1.48 | 1.9 | 99% | 2.4 | 3.1 | 1.92 |
| Rio Blanco at Blanco Diversion [2] | APR-JUL | 31 | 42 | 50 | 93% | 59 | 74 | 54 |
| Navajo R at Oso Diversion [2] | APR-JUL | 37 | 50 | 60 | 92% | 71 | 88 | 65 |
| San Juan R nr Carracas [2] | APR-JUL | 210 | 285 | 345 | 91% | 405 | 510 | 380 |
| Piedra R nr Arboles | APR-JUL | 134 | 172 | 200 | 95% | 230 | 280 | 210 |
| Vallecito Reservoir Inflow | APR-JUL | 133 | 163 | 185 | 95% | 210 | 245 | 194 |
| Navajo Reservoir Inflow [2] | APR-JUL | 445 | 580 | 685 | 93% | 795 | 970 | 735 |
| Animas R at Durango | APR-JUL | 265 | 330 | 380 | 92% | 430 | 515 | 415 |
| Lemon Reservoir Inflow | APR-JUL | 34 | 43 | 50 | 91% | 57 | 68 | 55 |
| La Plata R at Hesperus | APR-JUL | 15 | 19 | 22 | 96% | 25 | 30 | 23 |
| Mancos R nr Mancos [2] | APR-JUL | 18.2 | 25 | 30 | 97% | 36 | 45 | 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 February, 2016 | Current (KAF) | Last Year (KAF) | Average (KAF) | Capacity (KAF) |
|---|---|---|---|---|
| Groundhog Reservoir | 19.5 | 16.1 | 12.4 | 22.0 |
| Jackson Gulch Reservoir | 5.2 | 3.8 | 4.6 | 10.0 |
| Lemon Reservoir | 21.5 | 22.6 | 21.0 | 40.0 |
| Mcphee Reservoir | 249.5 | 186.1 | 268.0 | 381.0 |
| Narraguinnep Reservoir | 16.9 | 16.4 | 15.1 | 19.0 |
| Trout Lake Reservoir | 2.5 | 0.0 | 1.8 | 3.2 |
| Vallecito Reservoir | 86.4 | 99.7 | 63.6 | 126.0 |
| Basin-wide Total | 401.5 | 344.7 | 386.5 | 601.2 |
| # of reservoirs | 7 | 7 | 7 | 7 |

| Watershed Snowpack Analysis March 1, 2016 | # of Sites | % Median | Last Year % Median |
|---|---|---|---|
| ANIMAS RIVER BASIN | 11 | 89% | 70% |
| DOLORES RIVER BASIN | 7 | 106% | 70% |
| SAN MIGUEL RIVER BASIN | 5 | 111% | 72% |
| SAN JUAN RIVER BASIN | 4 | 98% | 63% |
| SAN MIGUEL-DOLORES-ANIMAS-SAN JUAN RIVER BASINS | 25 | 97% | 68% |




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

# How to Read Non-Exceedance Projections Graphs

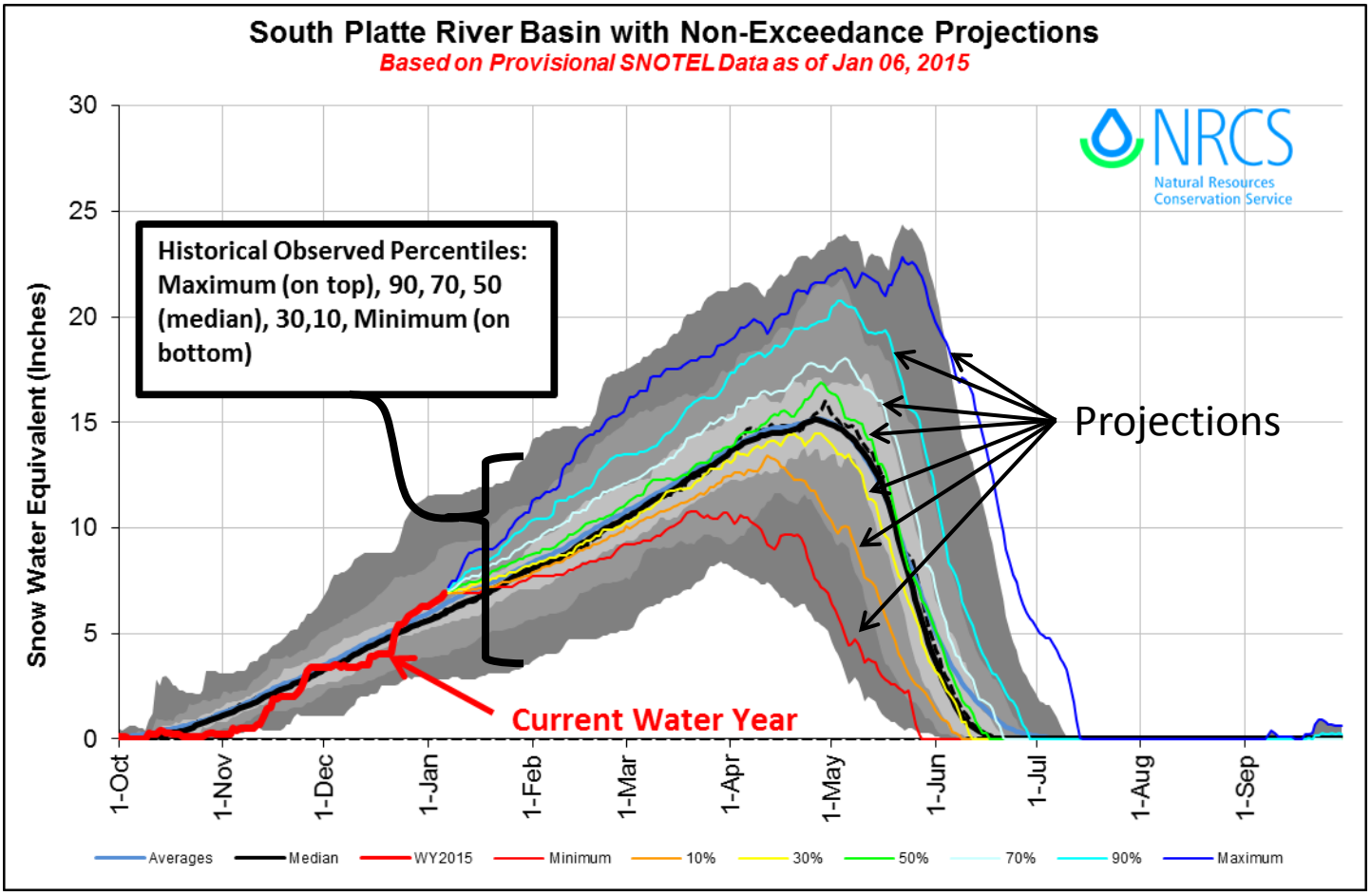
The graphs show snow water equivalent (SWE) projections (in inches) for the October 1 through September 30 water year. Basin "observed" SWE values are computed using SNOTEL sites which are characteristic of the snowpack of the particular basin. The SWE observations at these sites are averaged and normalized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

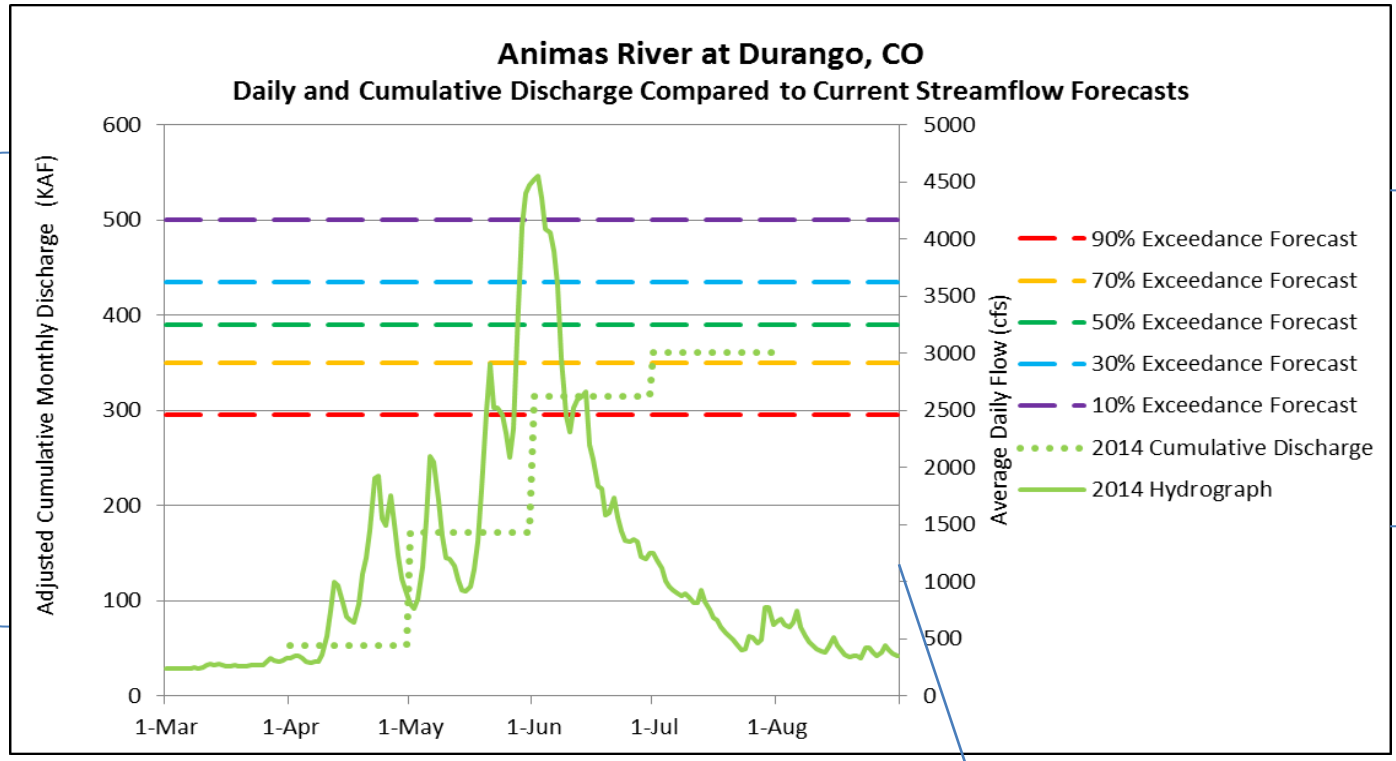
For more detailed information on these graphs visit:
http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_062291.pdf



# 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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**Denver, CO 80225-0426**
**Phone (720) 544-2852**
**Website: http://www.nrcs.usda.gov/wps/portal/nrcs/main/co/snow/**

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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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# Colorado
# Water Supply Outlook Report
## Natural Resources Conservation Service
## Lakewood, CO