



United States Department of Agriculture

Colorado Snow Surveys

# Water Availability Task Force Meeting

## February 15<sup>th</sup>, 2017

### NRCS Snow Survey and Water Supply Forecasting Program

Karl Wetlaufer

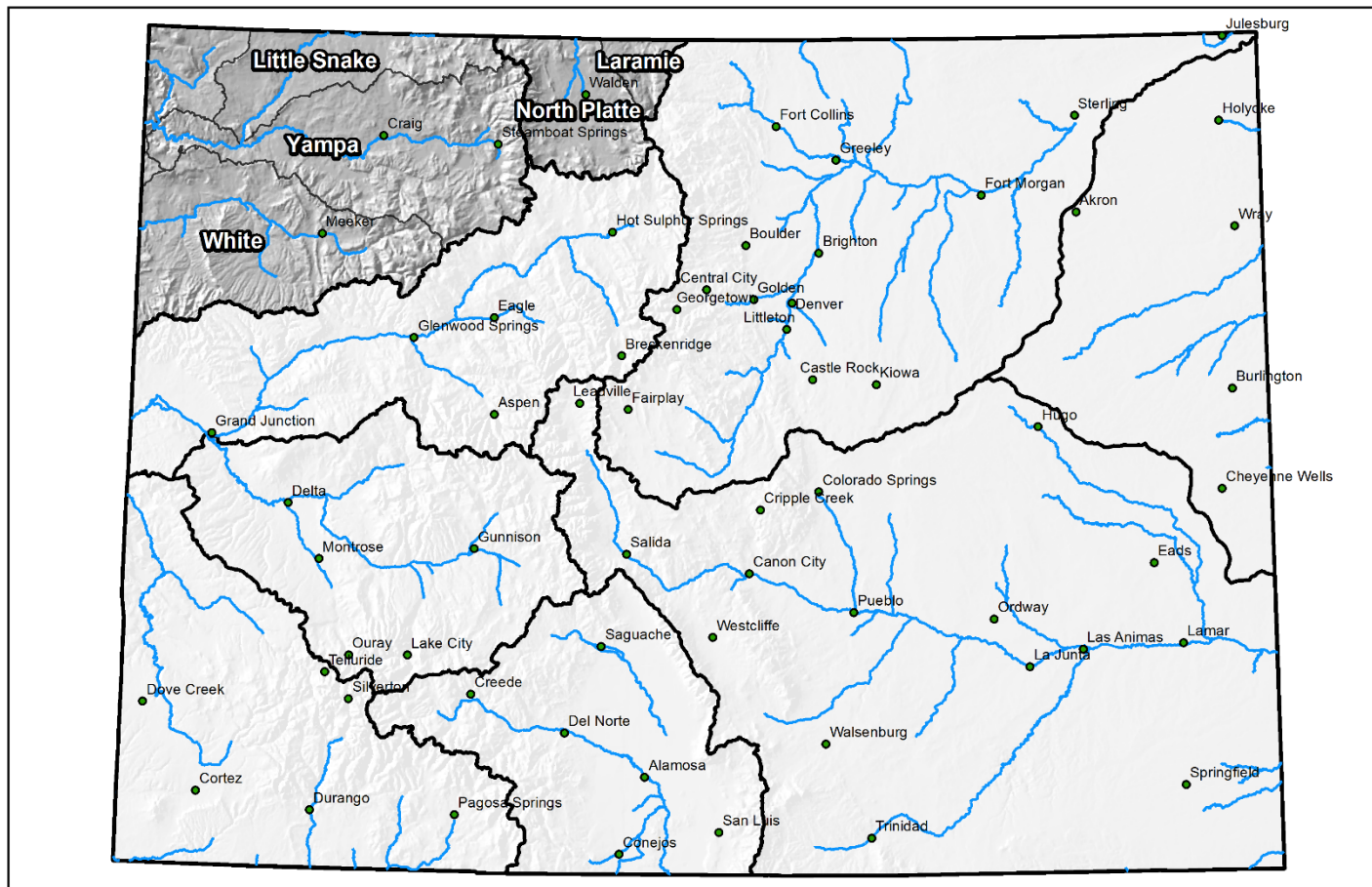
Asst. Snow Survey Supervisor

720-544-2853

<http://www.nrcs.usda.gov/wps/portal/nrcs/main/co/snow/>

## Major Basin Summary

Yampa, White, and North Platte River Basins

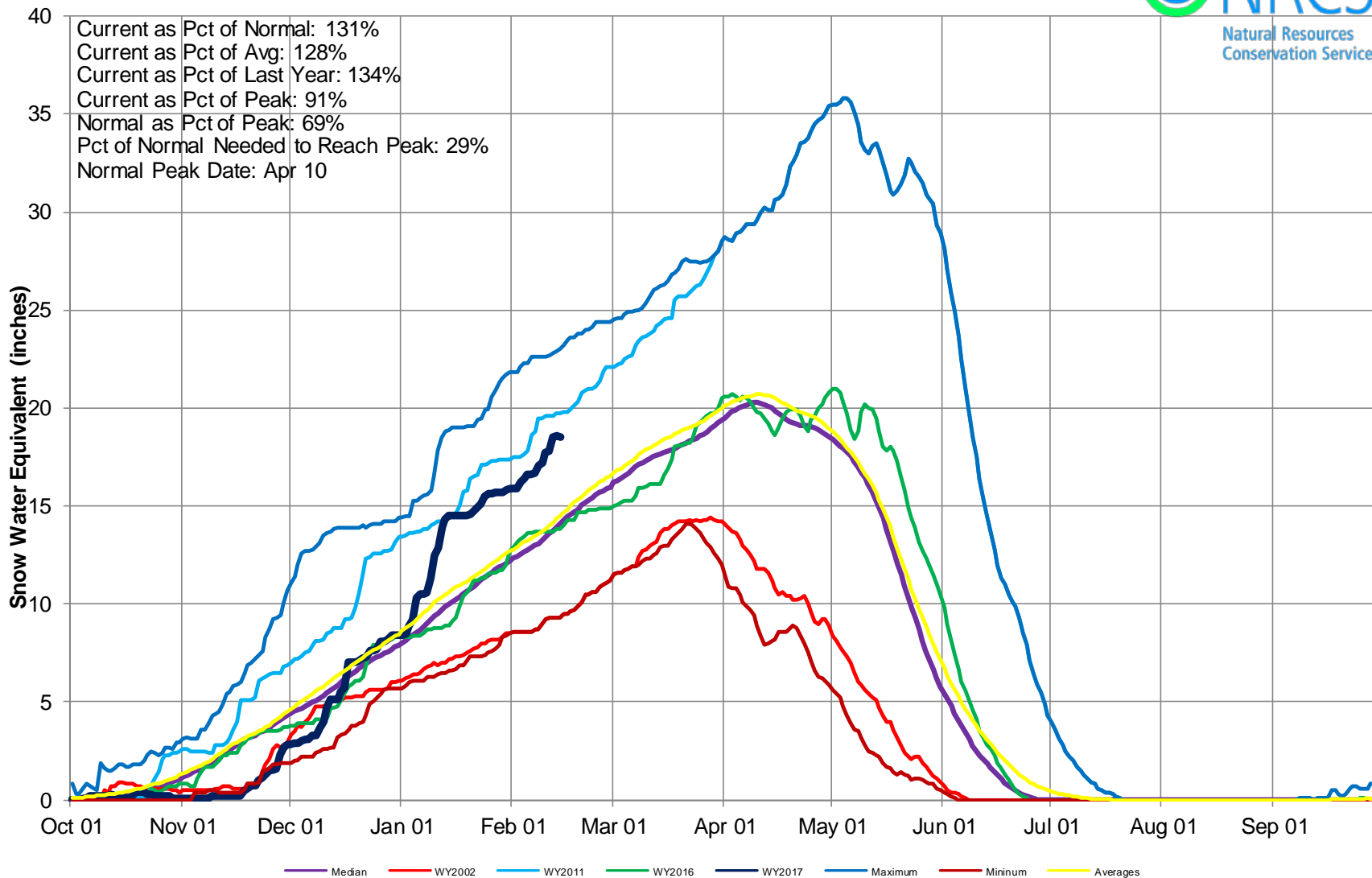


0 25 50 100 150 200 Miles



## Yampa, White & North Platte River Basins High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Feb 14, 2017*



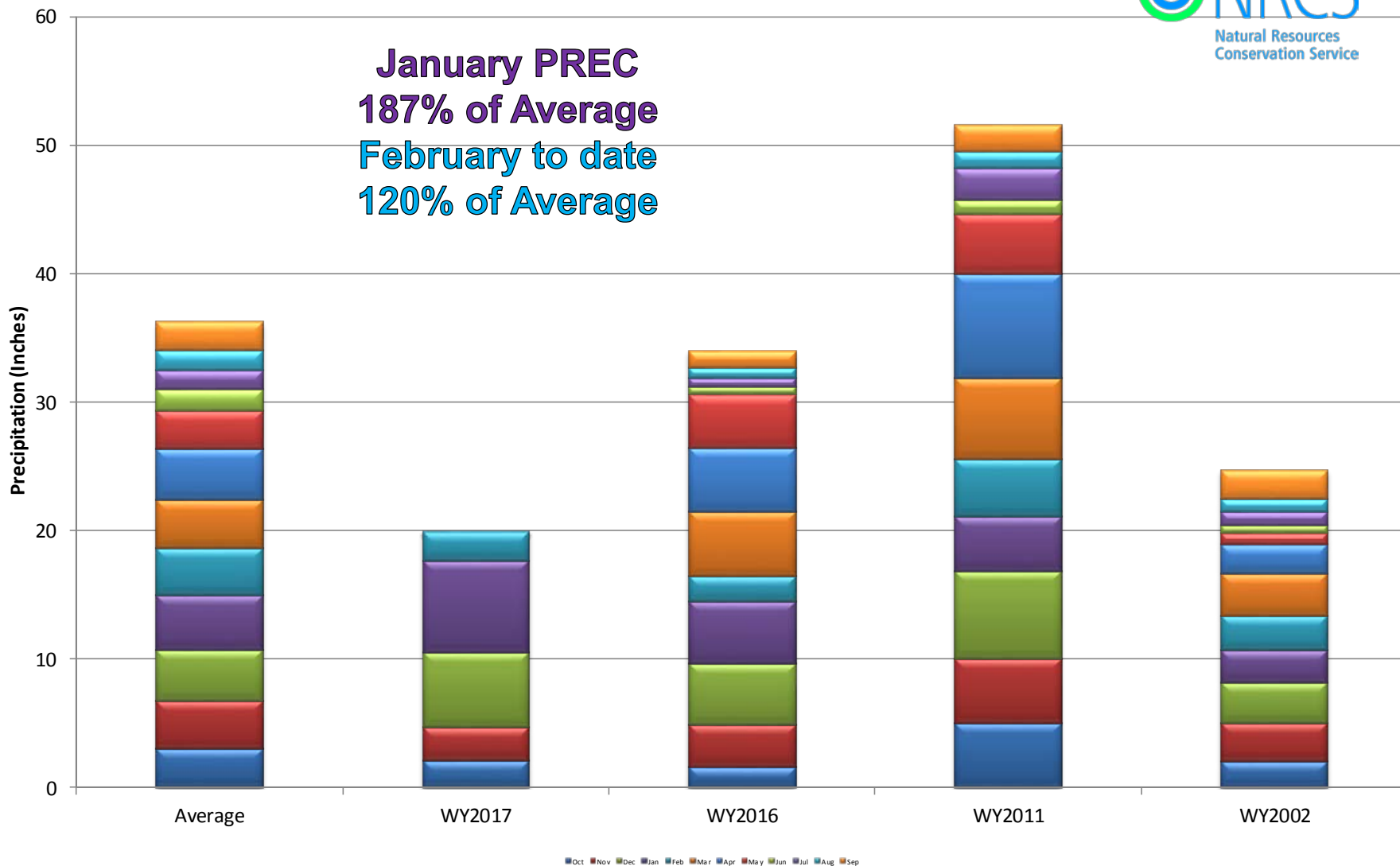


## Yampa & White River Basins High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Feb 14, 2017*

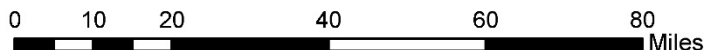
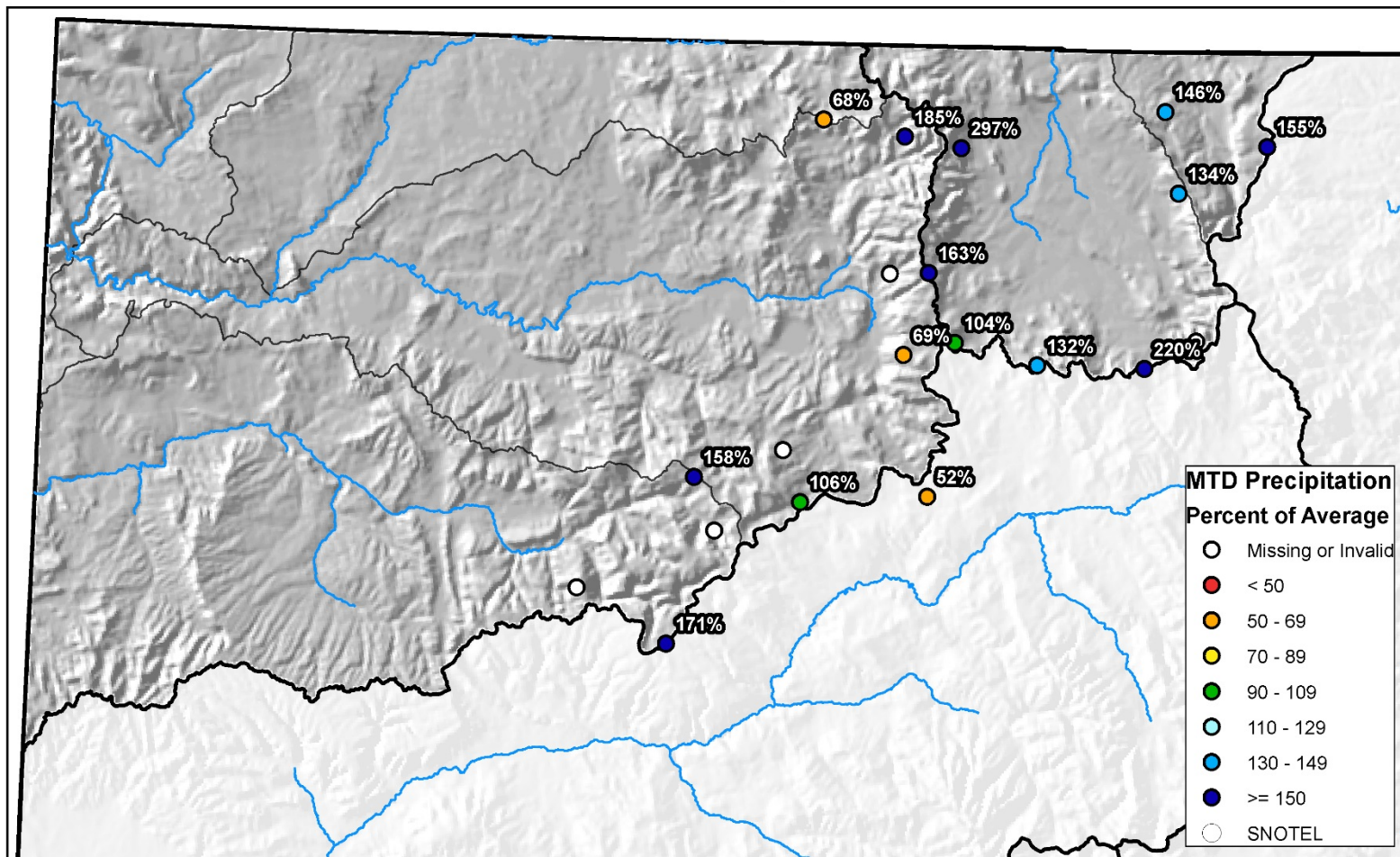


**January PREC**  
**187% of Average**  
**February to date**  
**120% of Average**





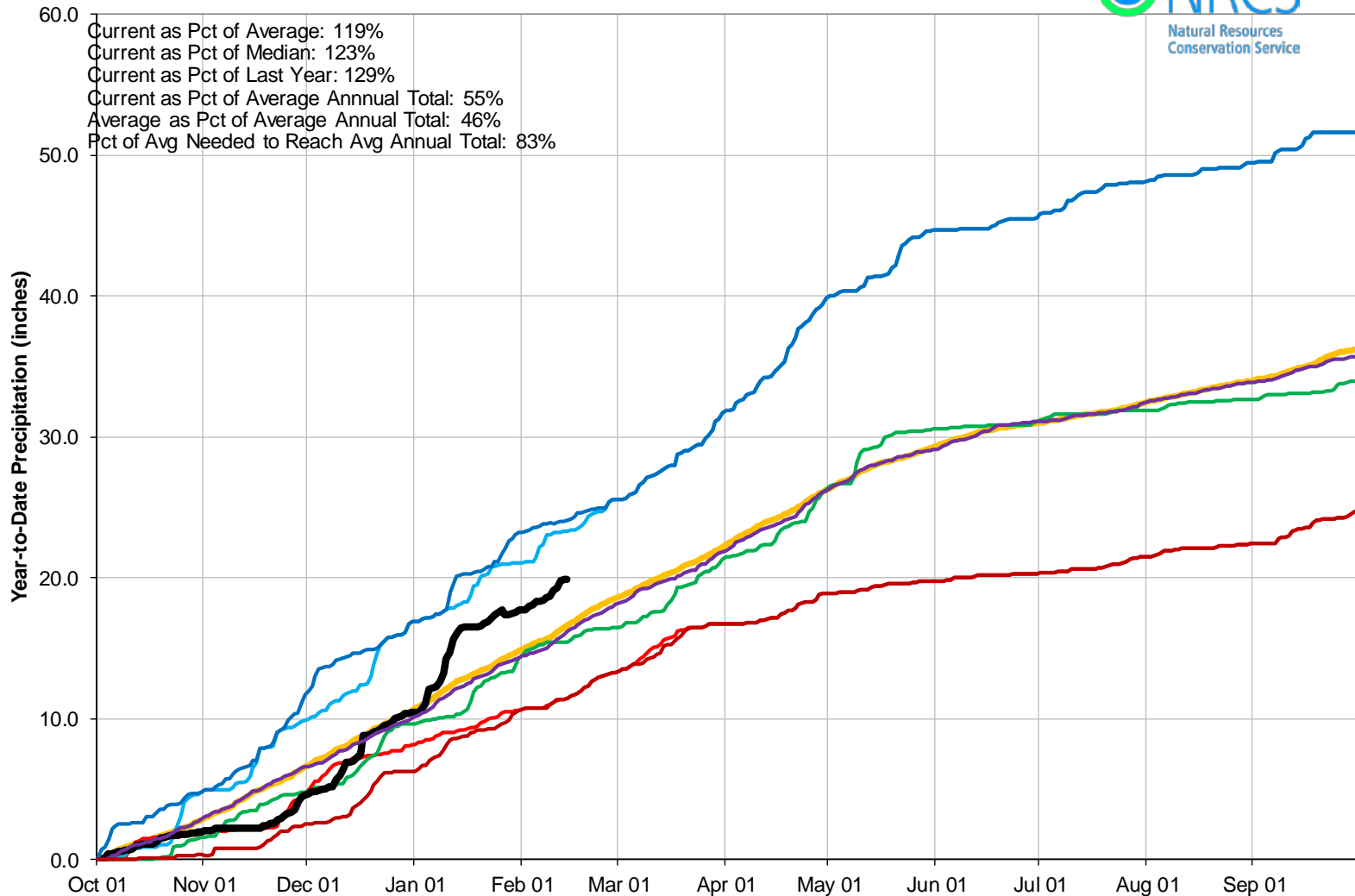
## Yampa, White, and North Platte River Basins Month to Date Precipitation Summary Current as of Feb 14, 2017



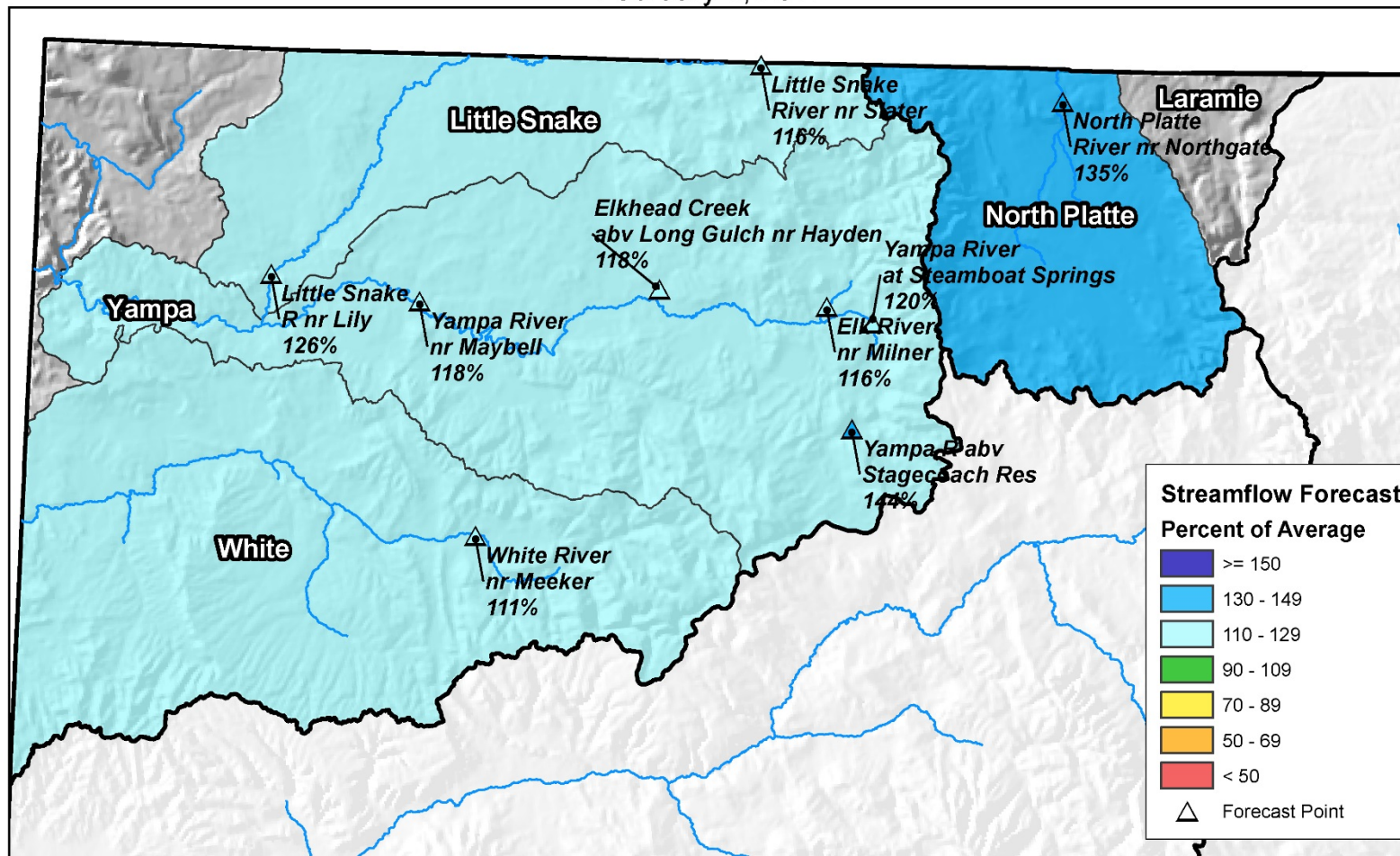


## Yampa & White River Basins High/Low Year-to-Date Precipitation Summary

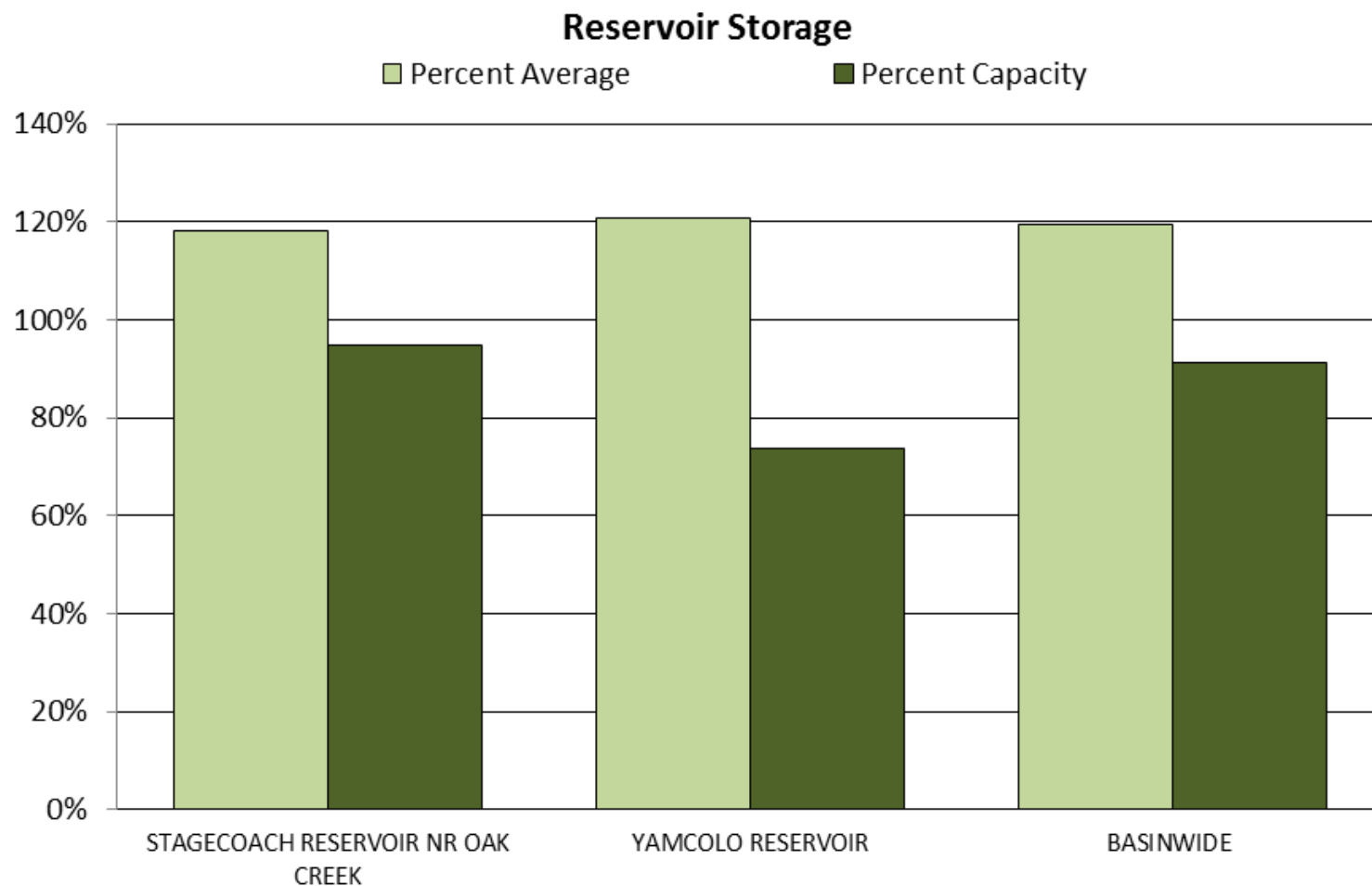
*Based on Provisional SNOTEL data as of Feb 14, 2017*



## Yampa, White, and North Platte River Basins Streamflow Forecast Summary February 1, 2017

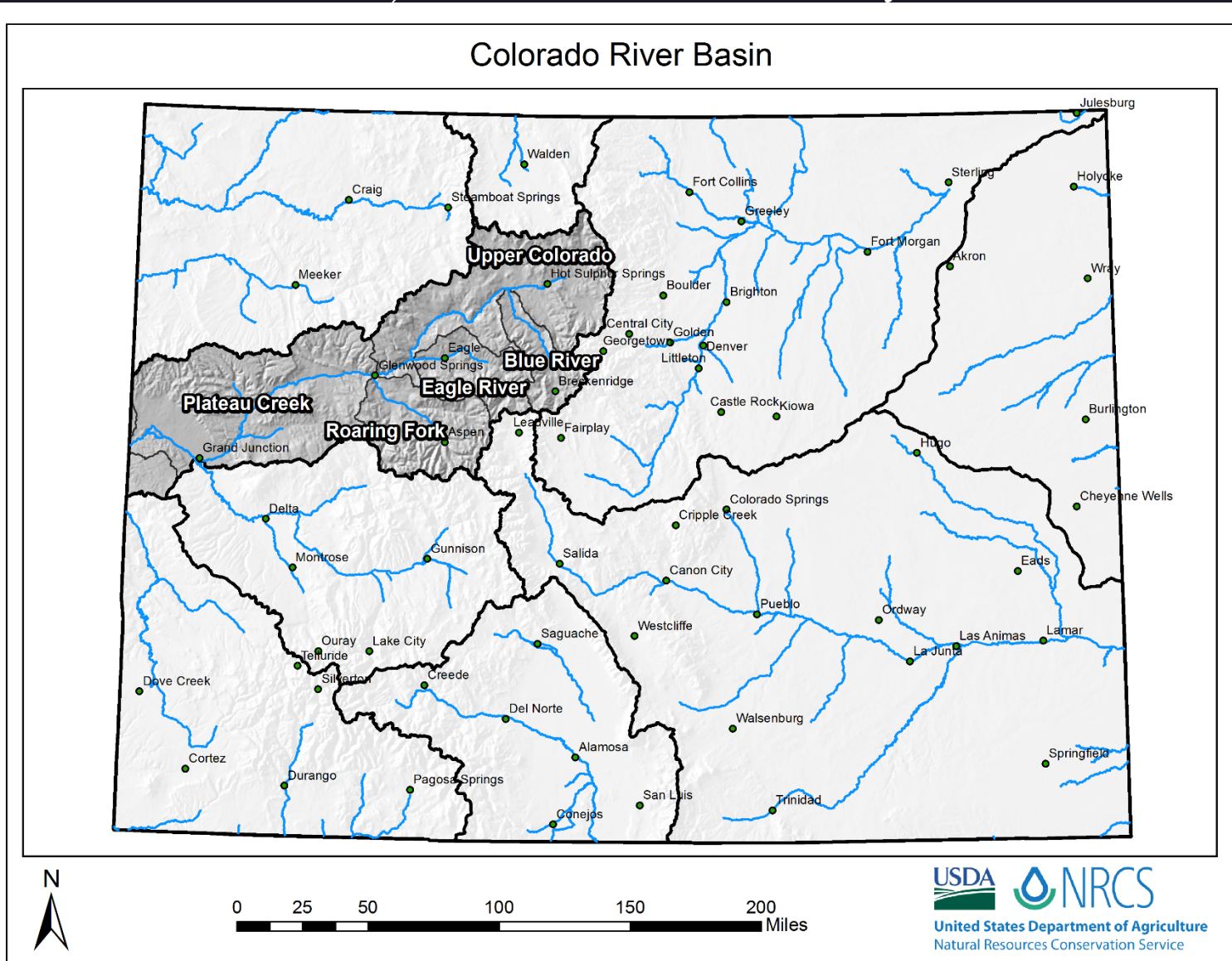


0 10 20 40 60 80 Miles





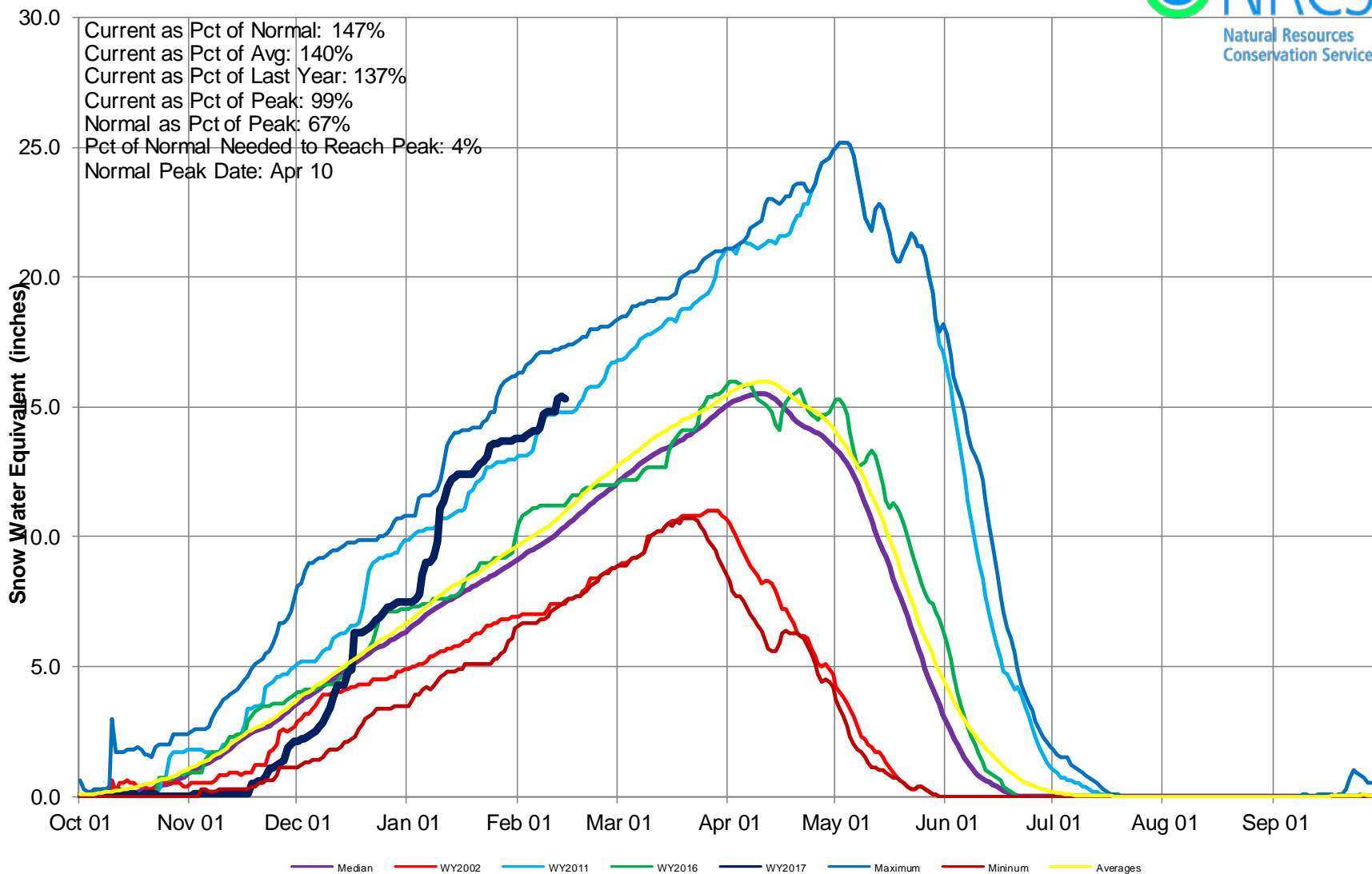
## Major Basin Summary





## Upper Colorado River Basin High/Low Snowpack Summary

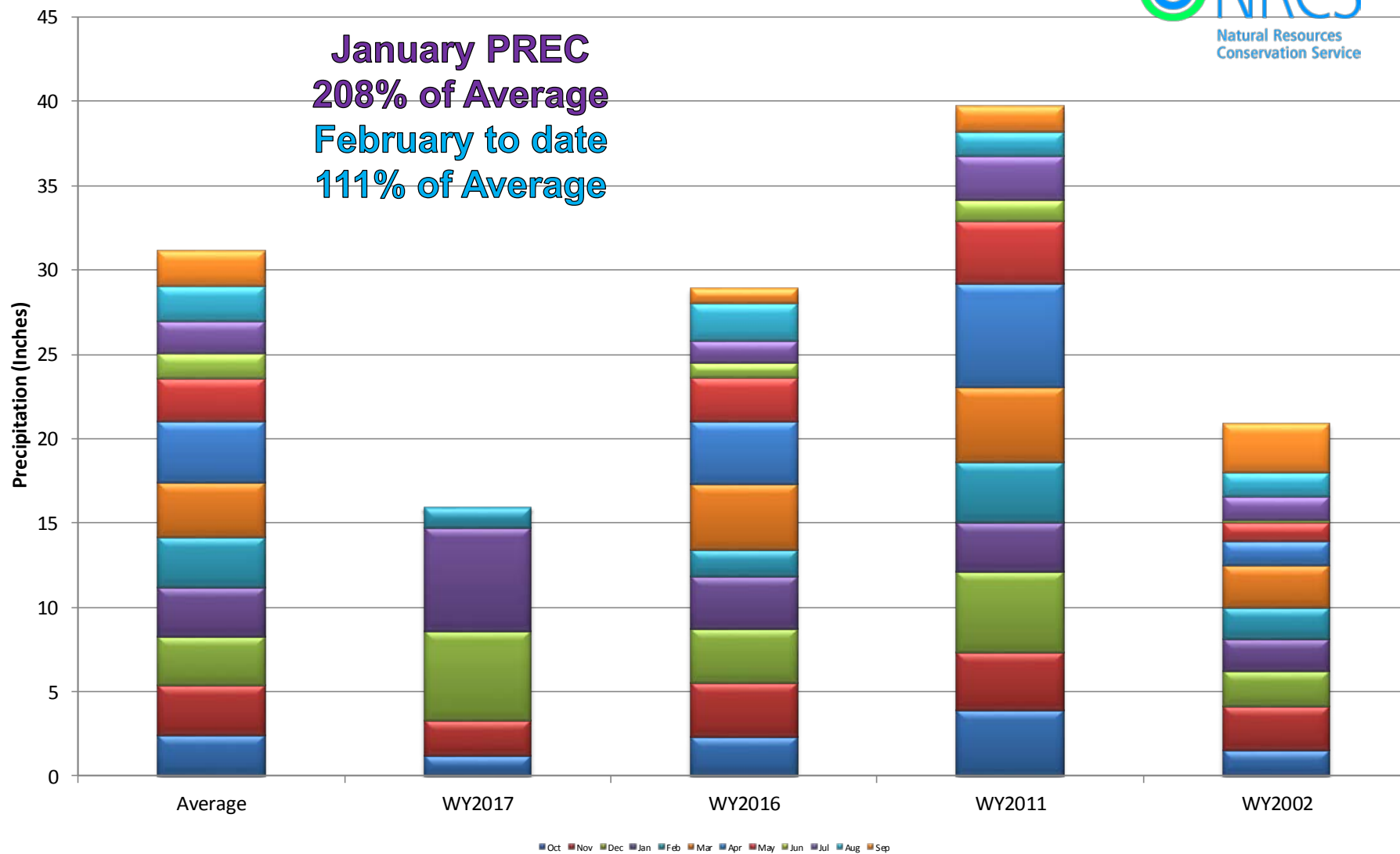
*Based on Provisional SNOTEL data as of Feb 14, 2017*





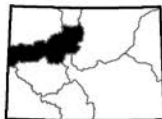
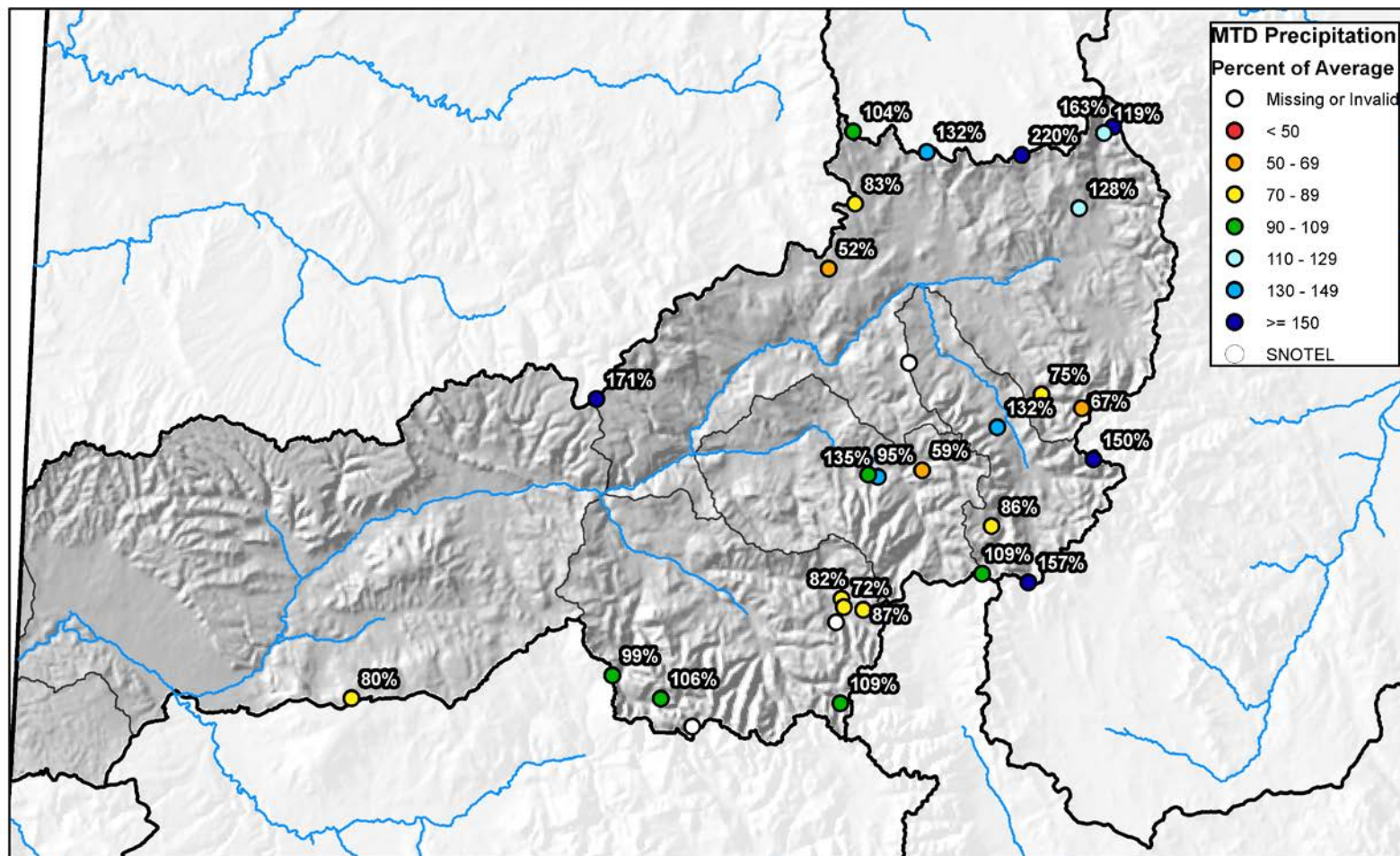
## Upper Colorado River Basin High/Low Monthly Precipitation Summary

**Based on Provisional SNOTEL data as of Feb 14, 2017**



## Upper Colorado River Basin Month to Date Precipitation Summary

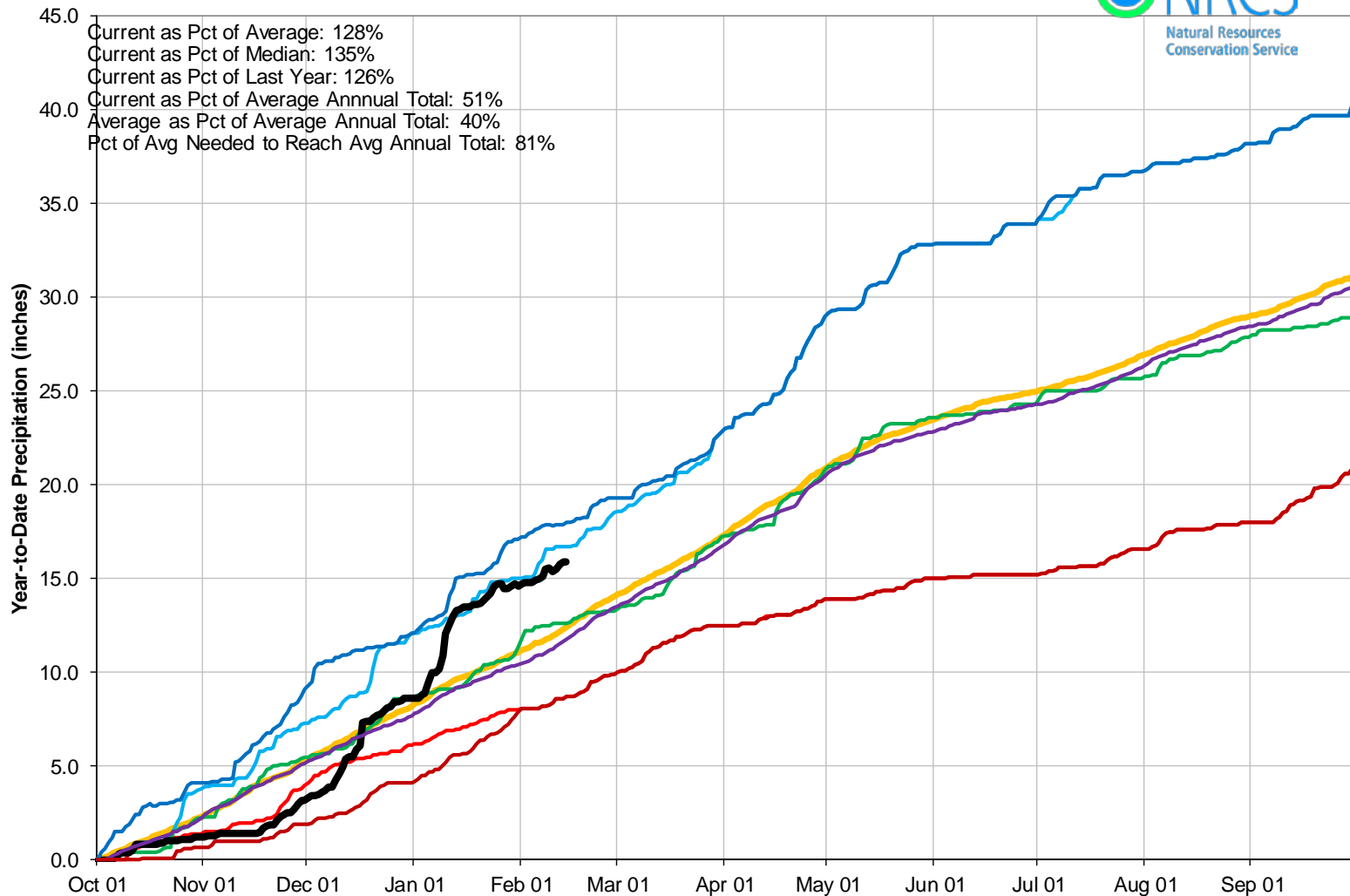
Current as of Feb 14, 2017





## Upper Colorado River Basin High/Low Year-to-Date Precipitation Summary

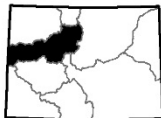
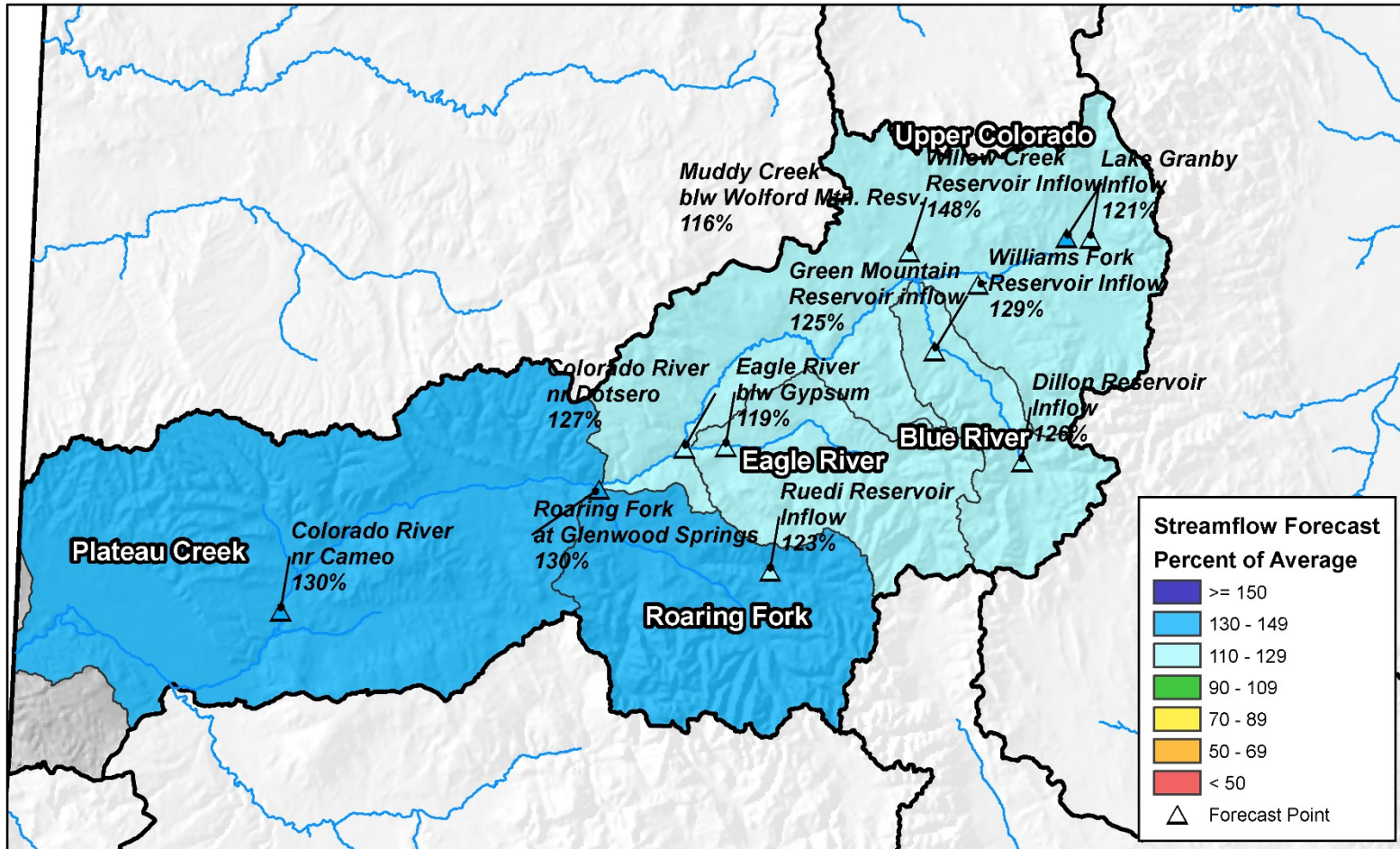
*Based on Provisional SNOTEL data as of Feb 14, 2017*



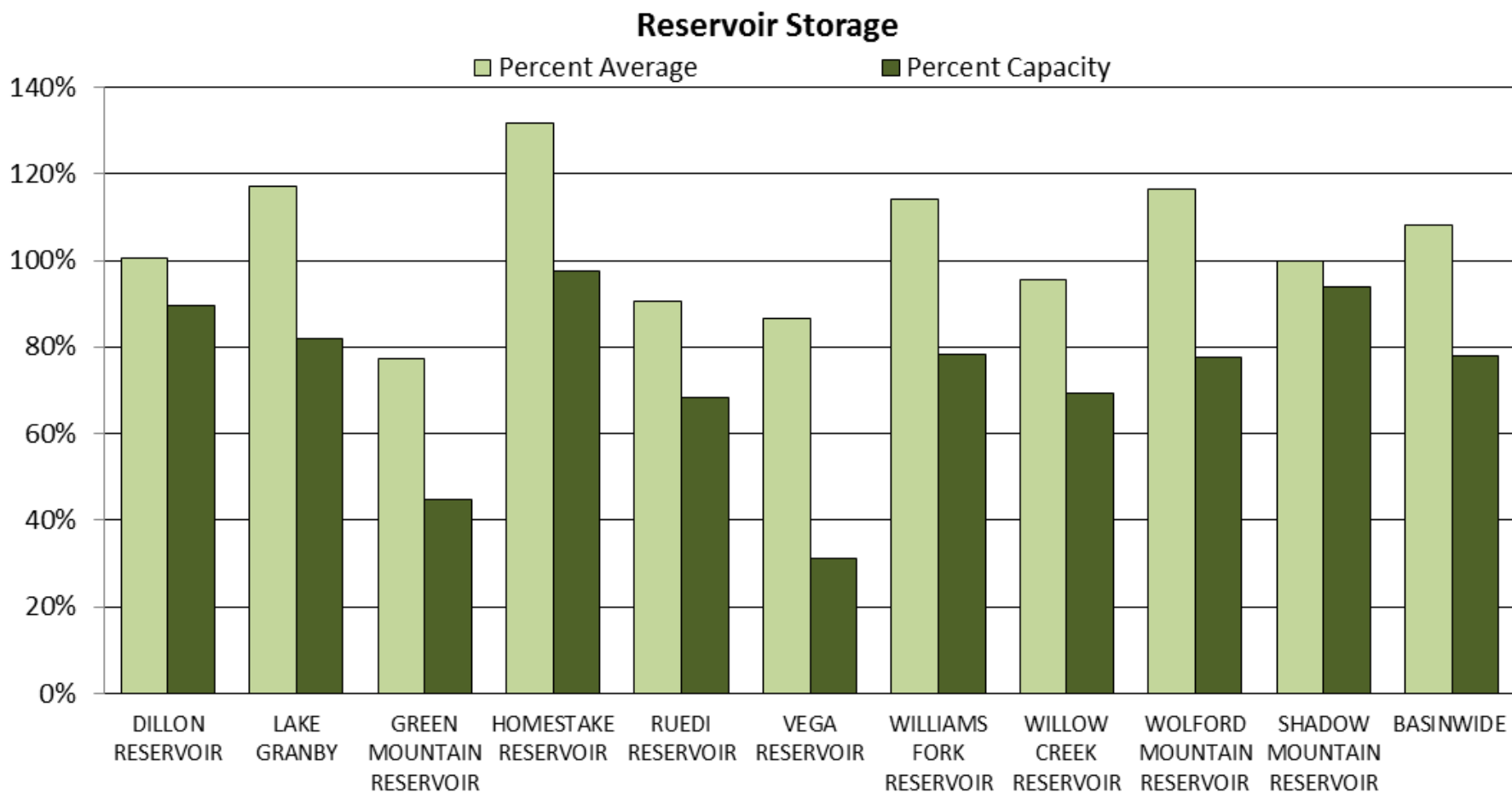


## Upper Colorado River Basin Streamflow Forecast Summary

February 1, 2017

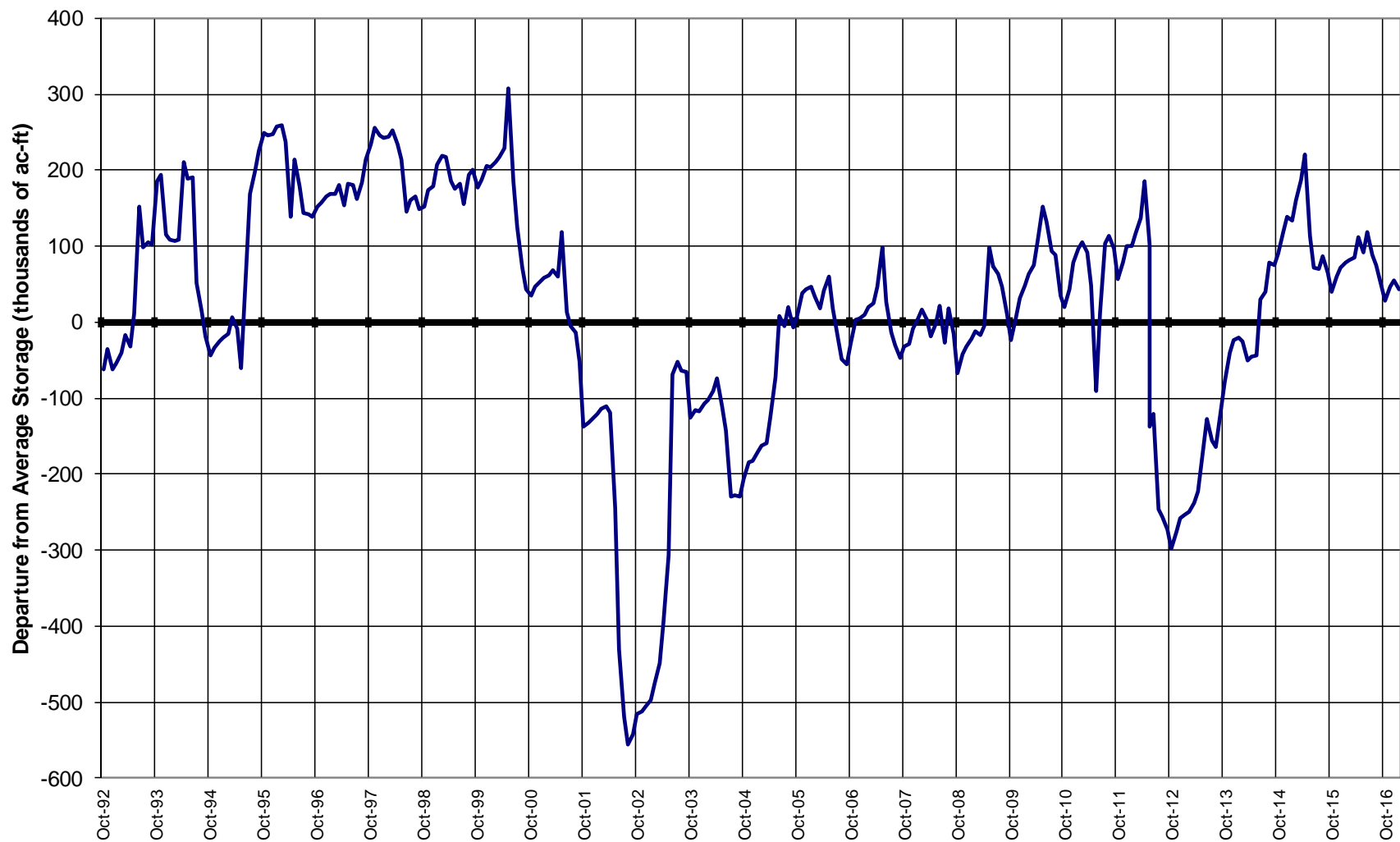


0 10 20 40 60 80 Miles





## COLORADO RIVER BASIN Reservoir Storage Departure from Average





## A map of Colorado illustrating its major river basins. The basins are labeled in bold black text: Cache La Poudre, Big Thompson, Boulder-St Vrain, Clear Creek, and Upper South Platte. These basins are shaded in light gray. Major cities are marked with green dots and labeled. The state's boundaries are shown as a thick black outline, and county boundaries are indicated by thinner black lines. Blue lines represent the river networks throughout the state.

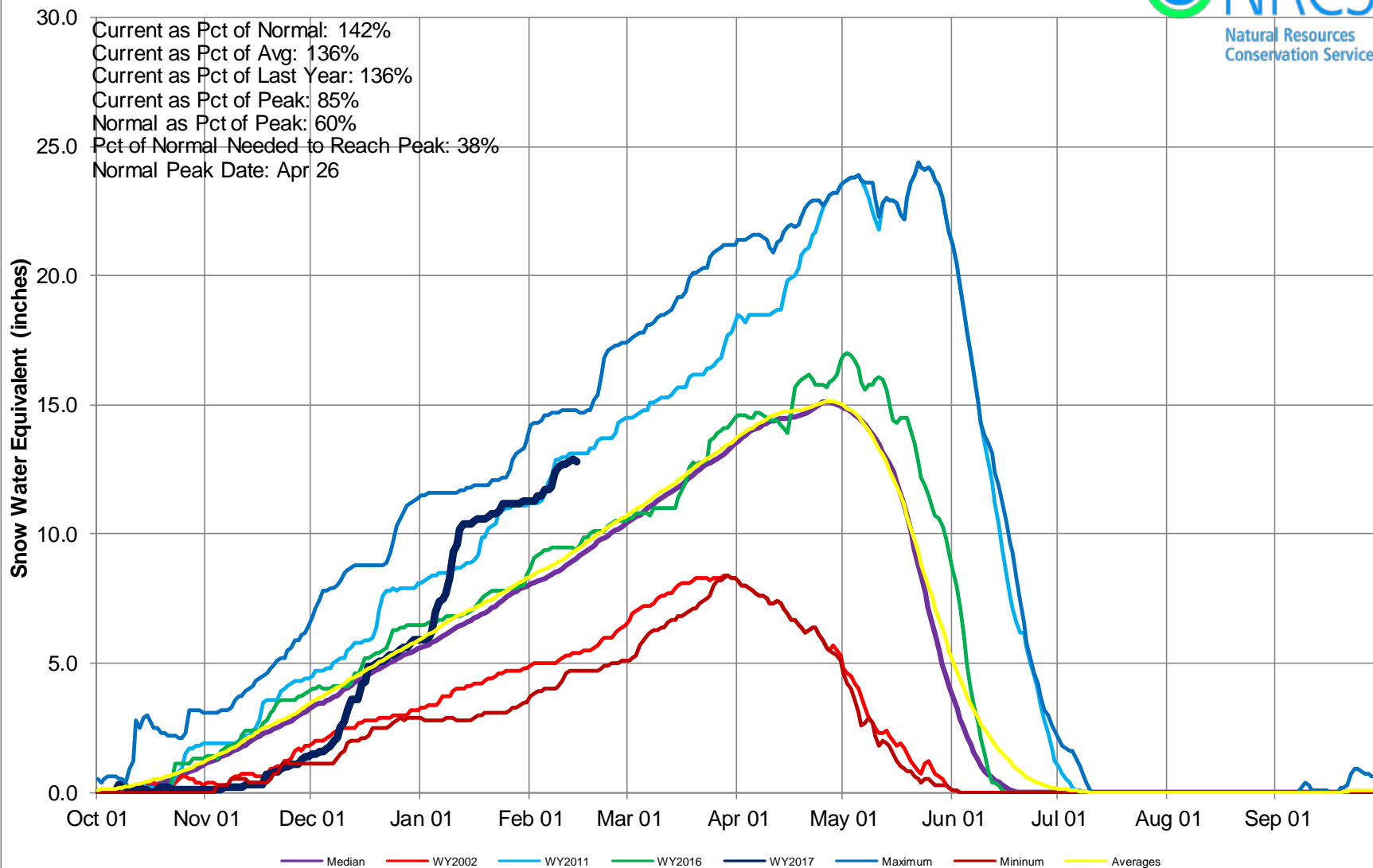


0 25 50 100 150 200 Miles



## South Platte River Basin High/Low Snowpack Summary

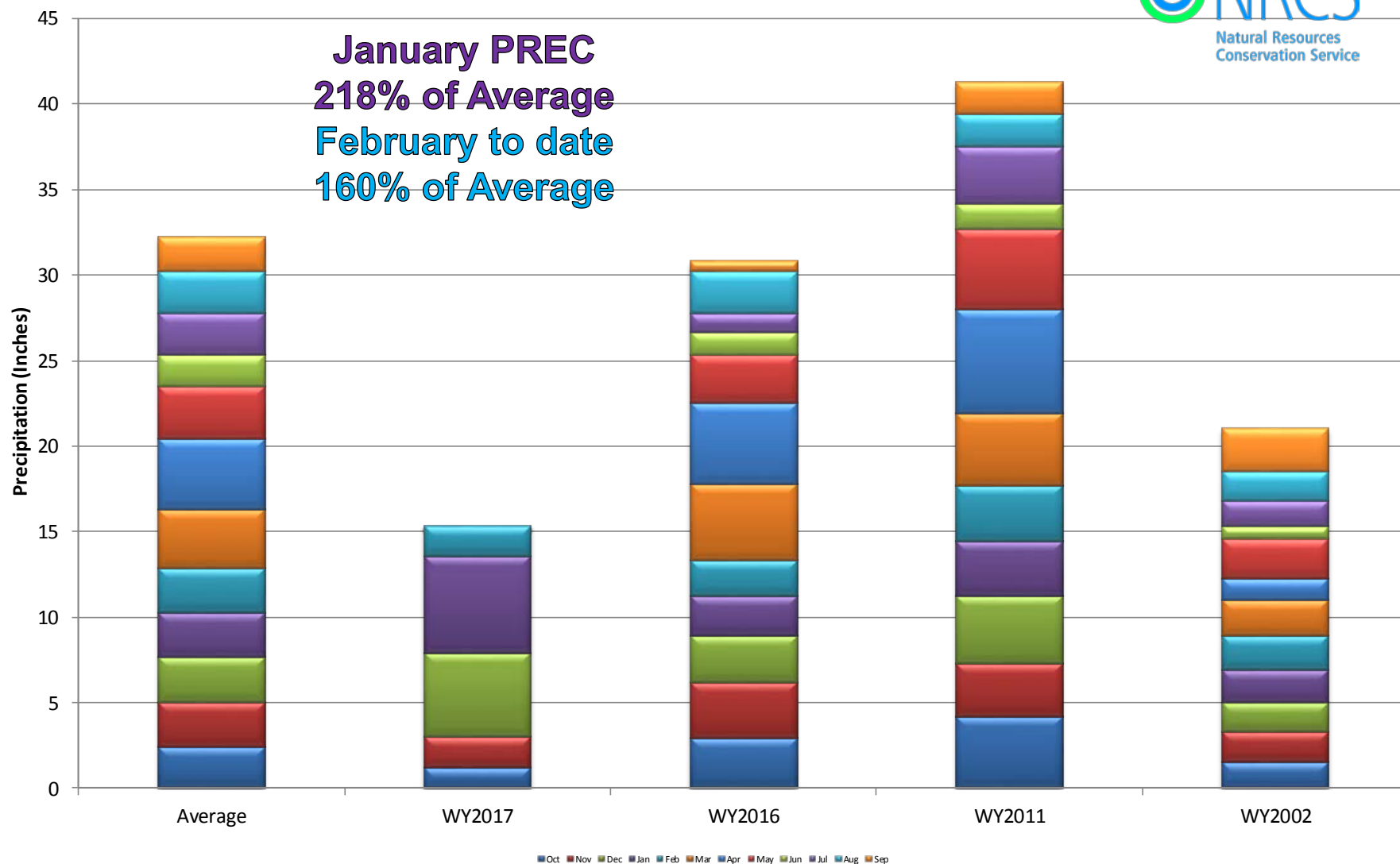
*Based on Provisional SNOTEL data as of Feb 14, 2017*





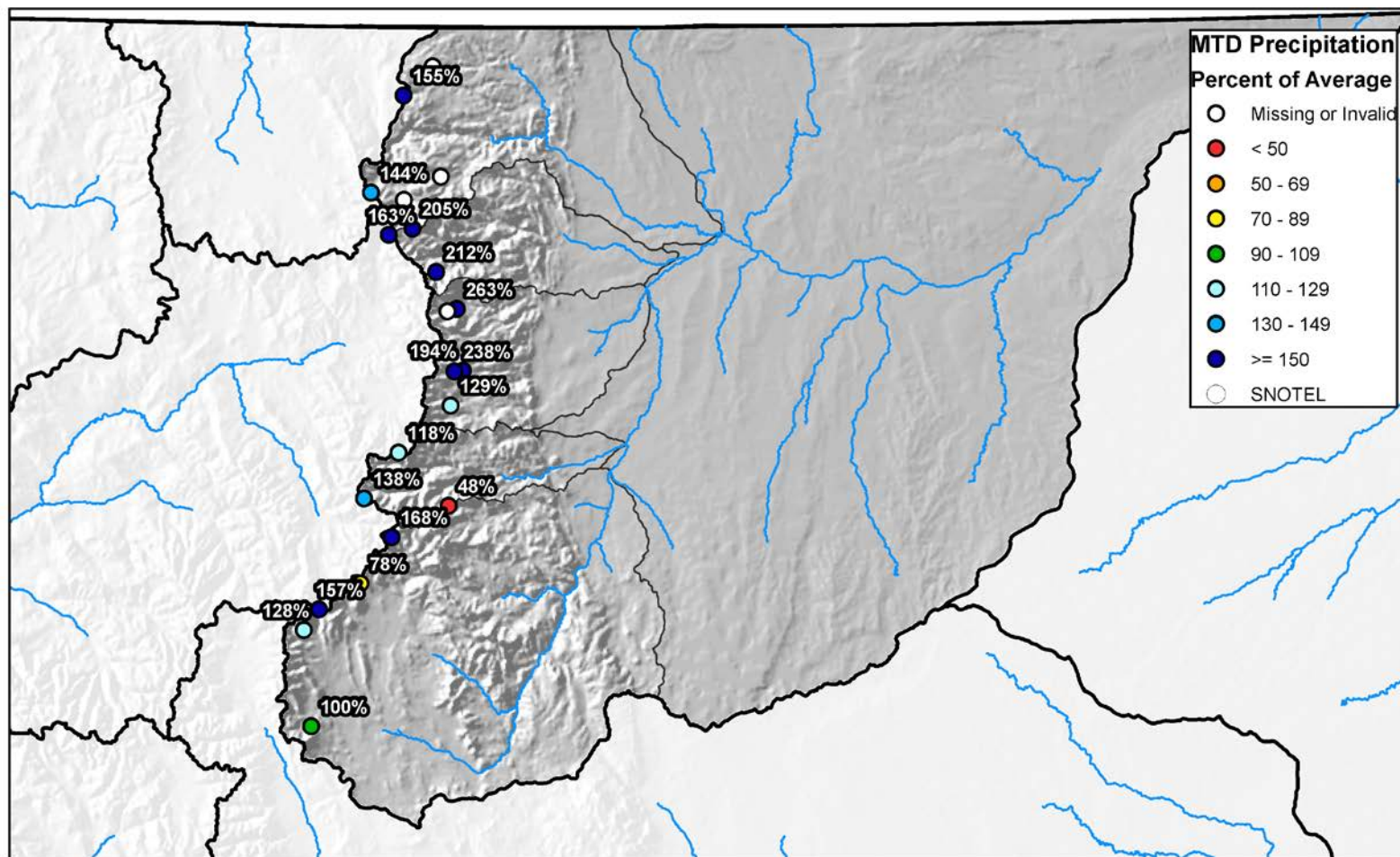
## South Platte River Basin High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Feb 14, 2017*



## South Platte River Basin Month to Date Precipitation Summary

Current as of Feb 14, 2017



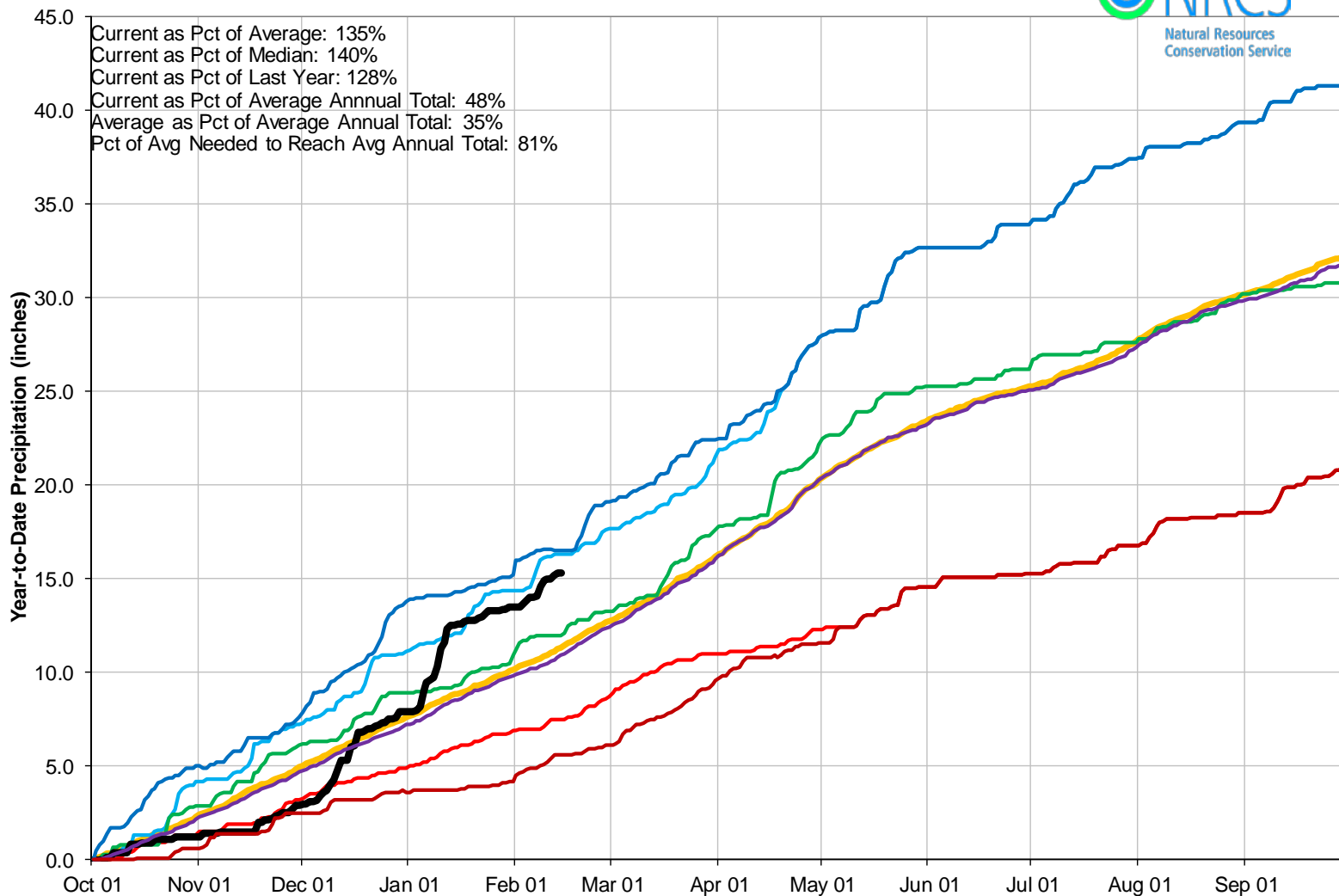
0 10 20 40 60 80 Miles





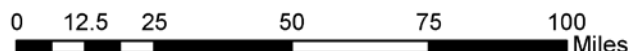
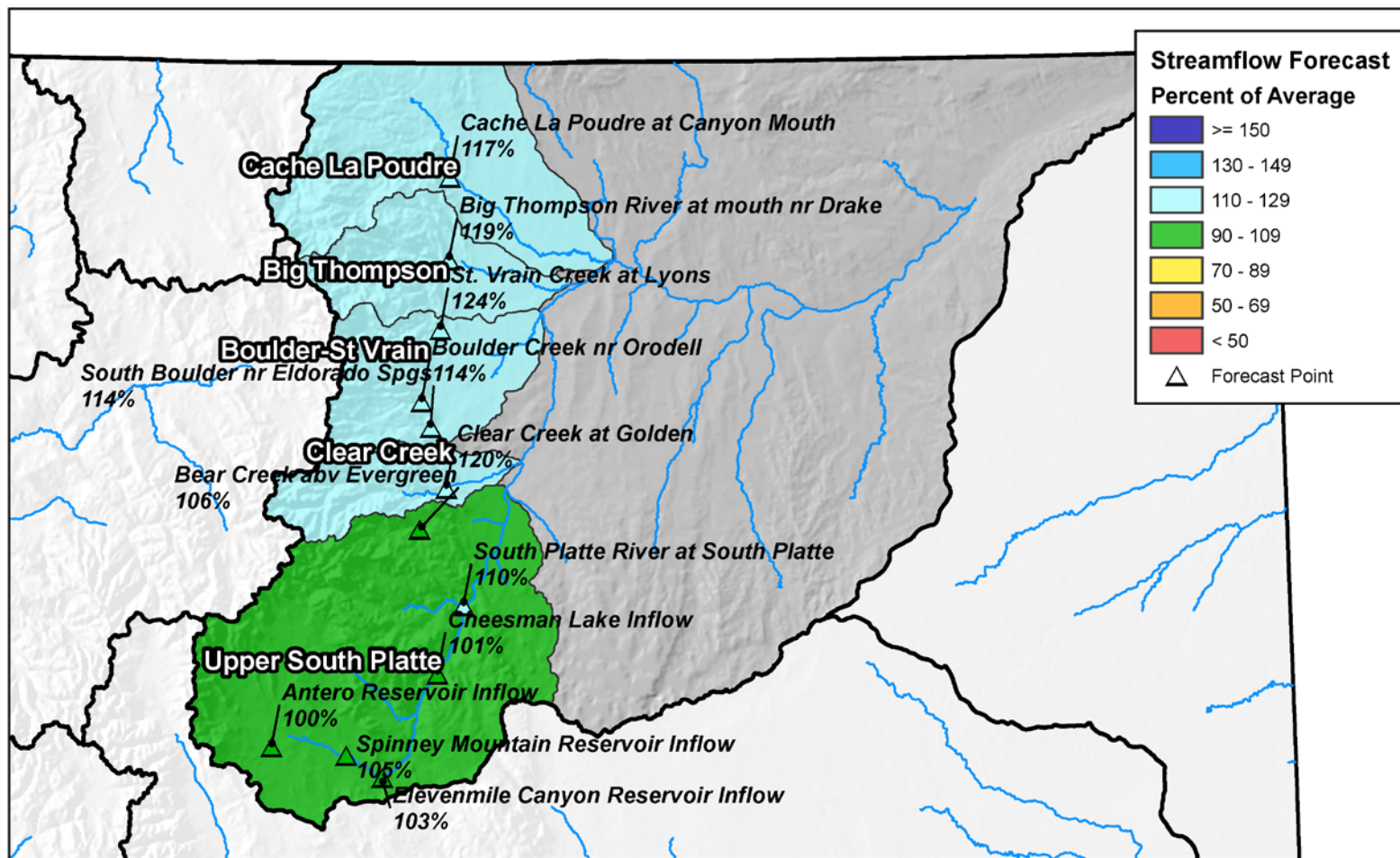
## South Platte River Basin High/Low Year-to-Date Precipitation Summary

*Based on Provisional SNOTEL data as of Feb 14, 2017*

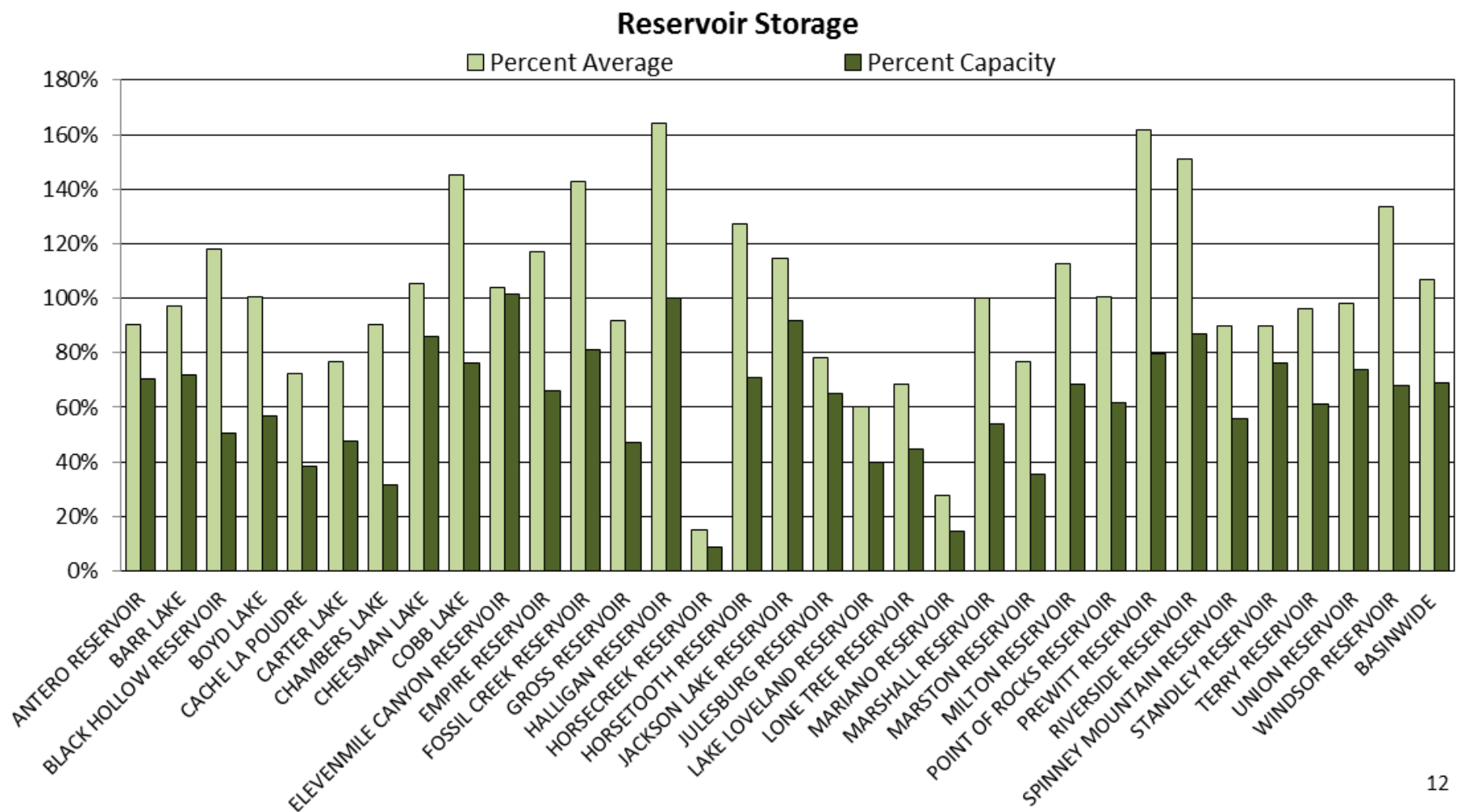


## South Platte River Basin Streamflow Forecast Summary

February 1, 2017

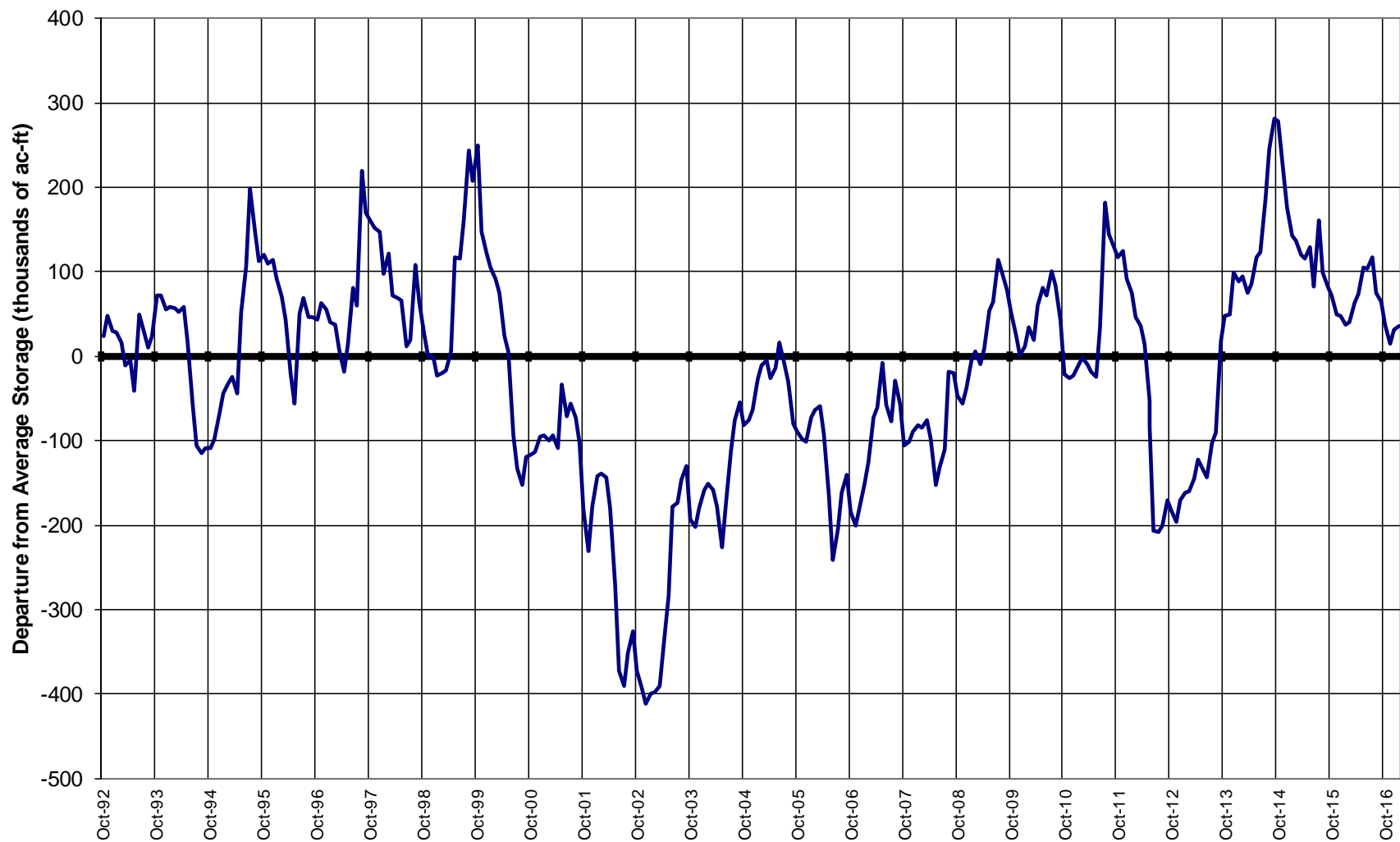






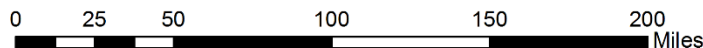
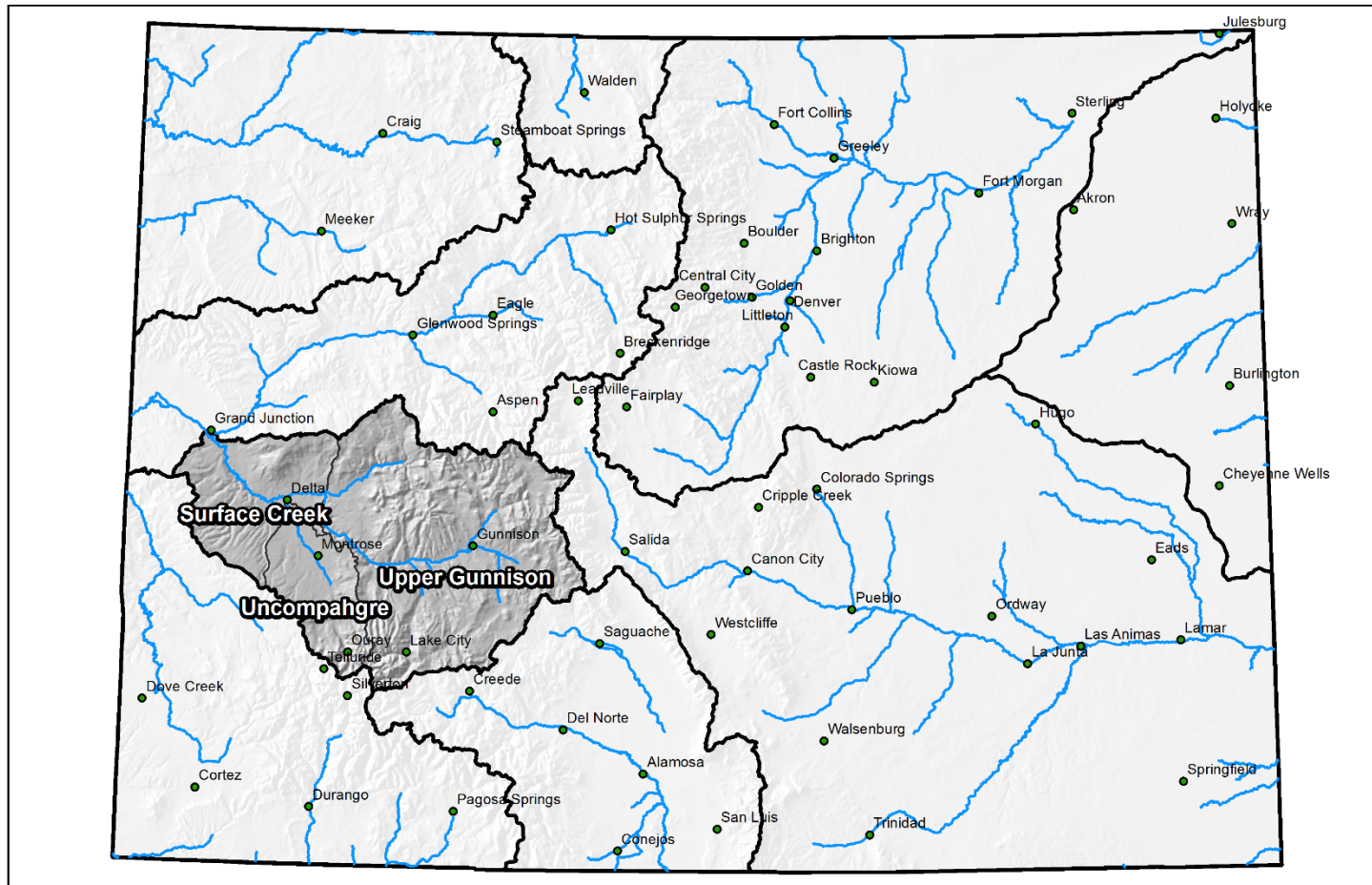


## SOUTH PLATTE RIVER BASIN Reservoir Storage Departure from Average



## Major Basin Summary

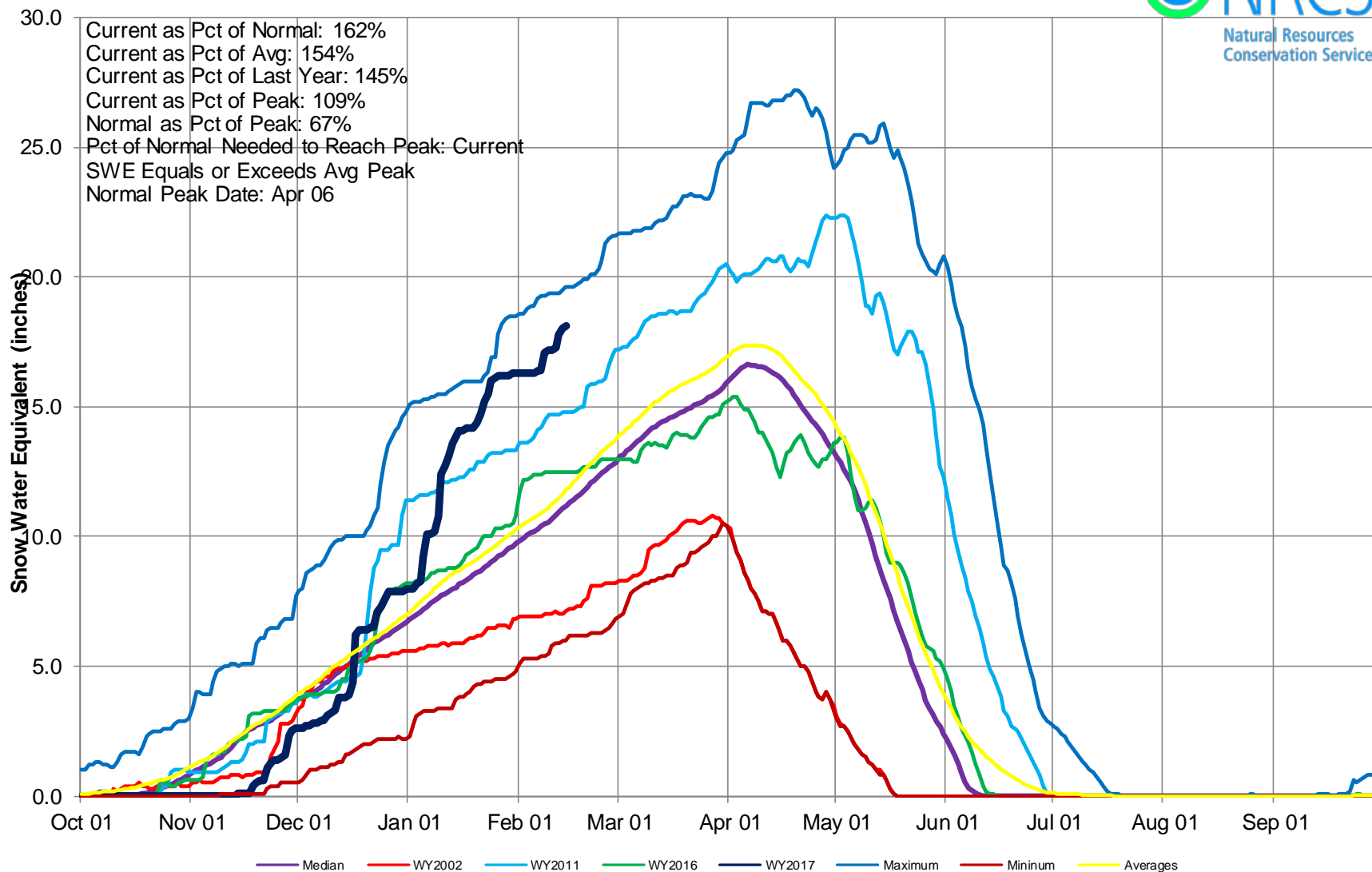
### Gunnison River Basin





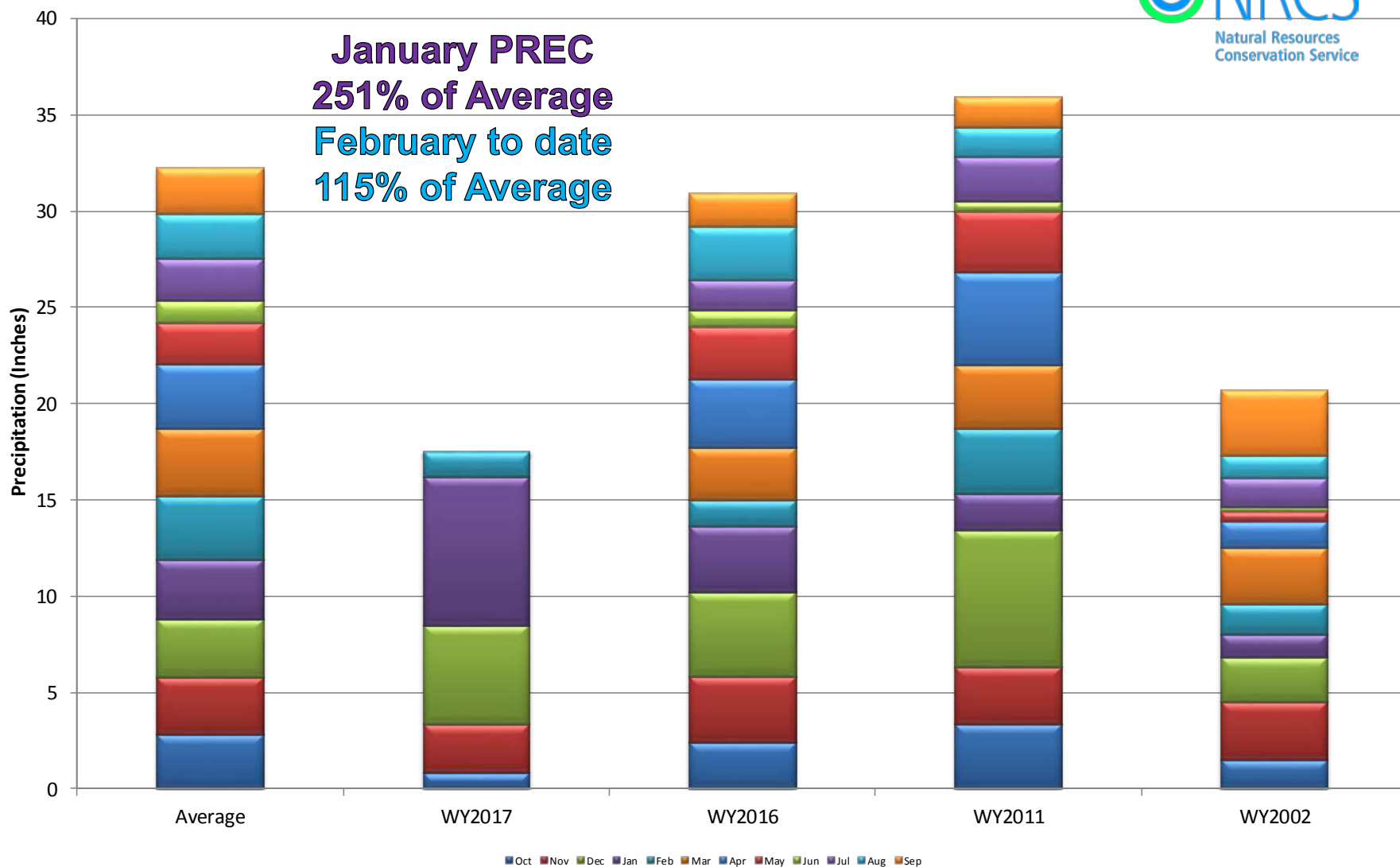
## Gunnison River Basin High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Feb 14, 2017*



## Gunnison River Basin High/Low Monthly Precipitation Summary

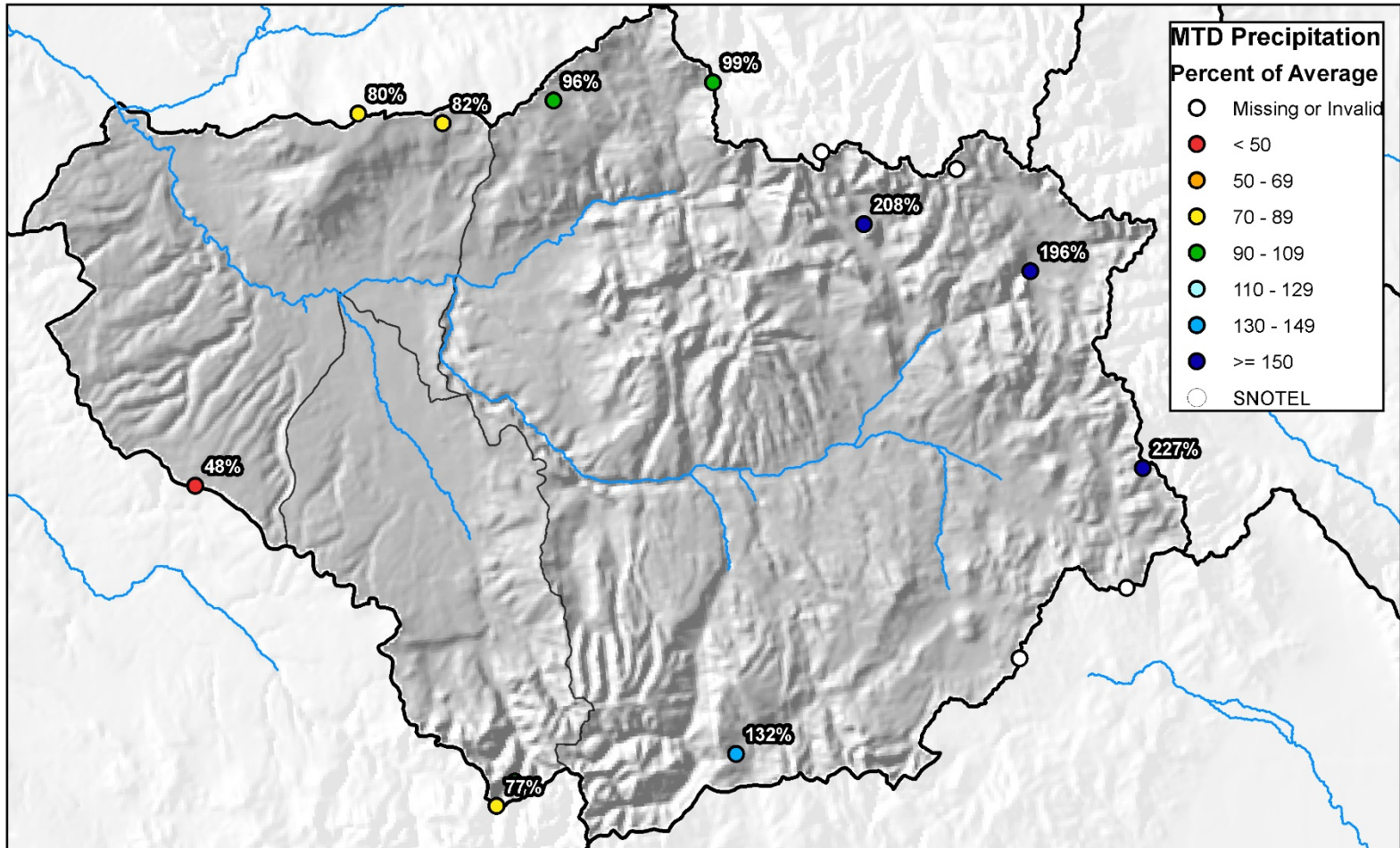
**Based on Provisional SNOTEL data as of Feb 14, 2017**





## Gunnison River Basin Month to Date Precipitation Summary

Current as of Feb 14, 2017



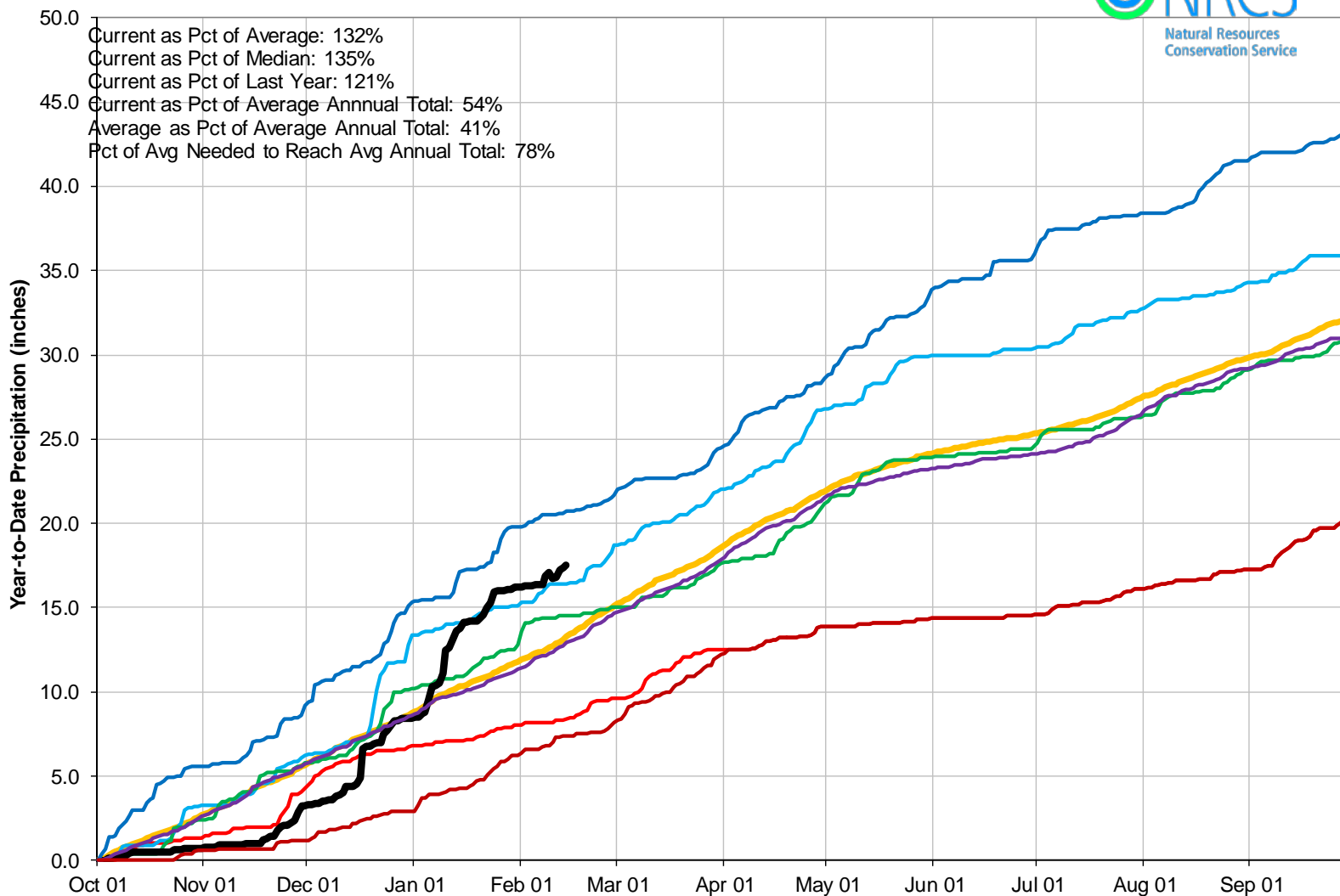
0 5 10 20 30 40 Miles





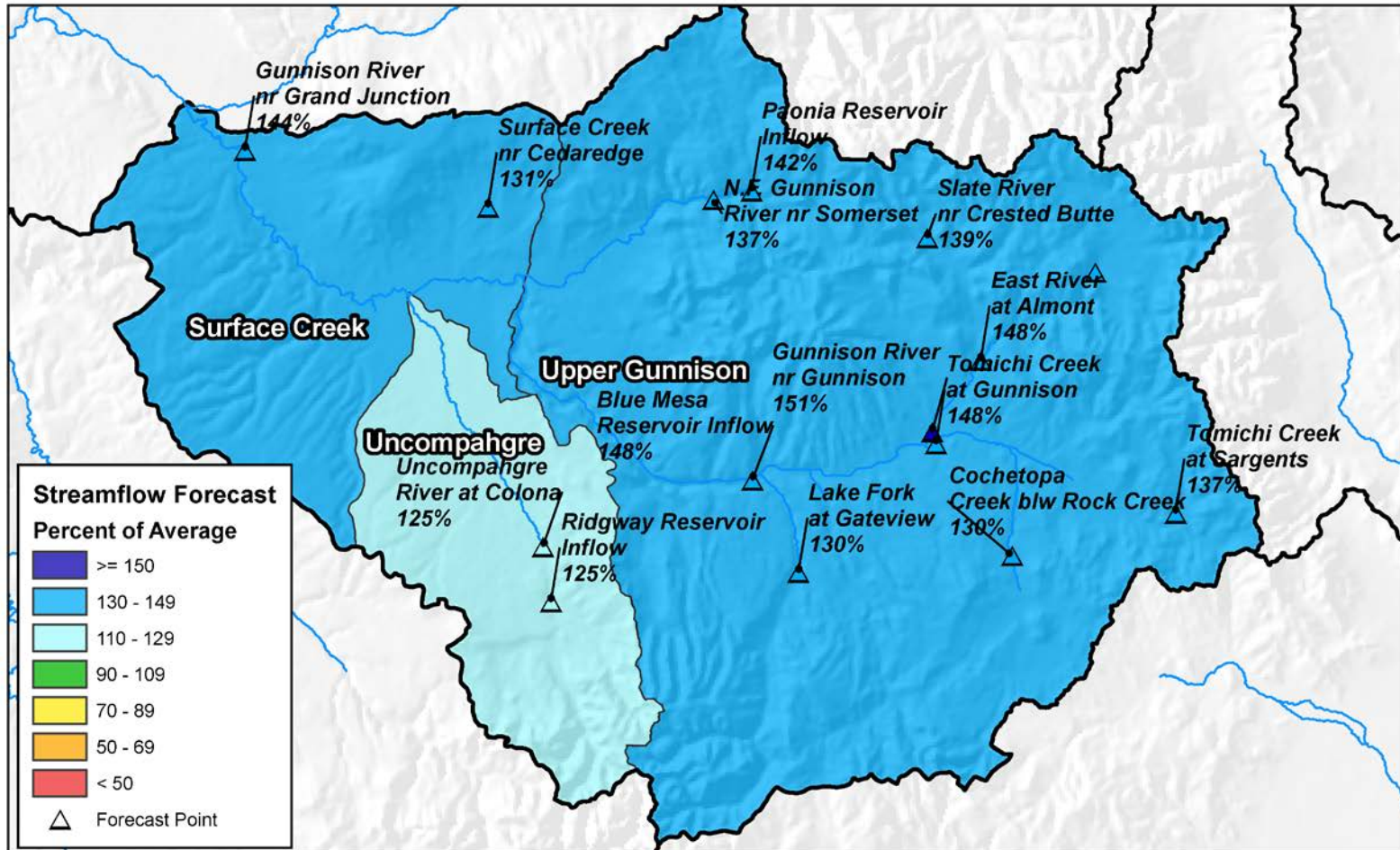
## Gunnison River Basin High/Low Year-to-Date Precipitation Summary

*Based on Provisional SNOTEL data as of Feb 14, 2017*

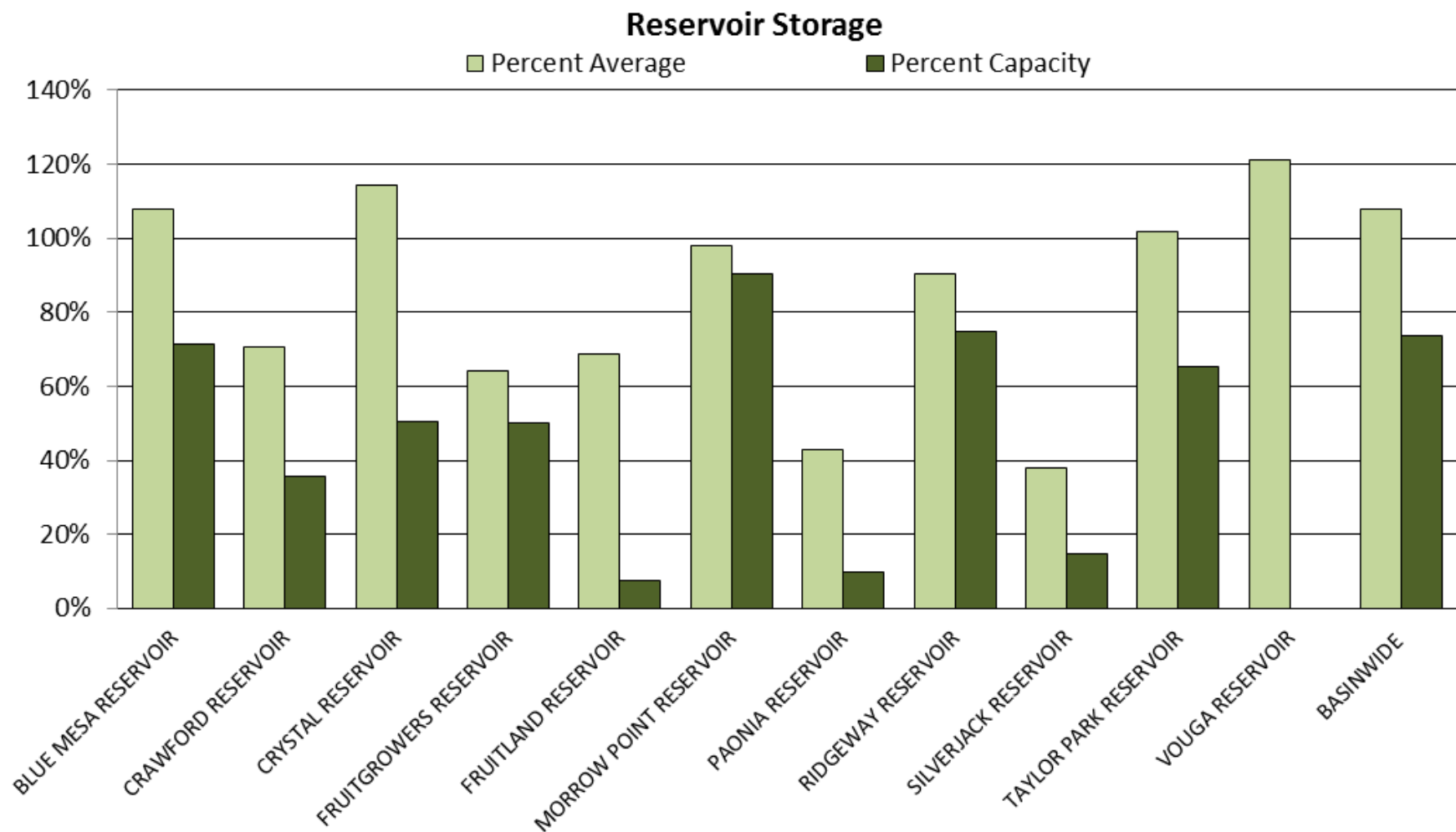


## Gunnison River Basin Water Supply Forecast Summary

February 1, 2017



0 5 10 20 30 40 Miles

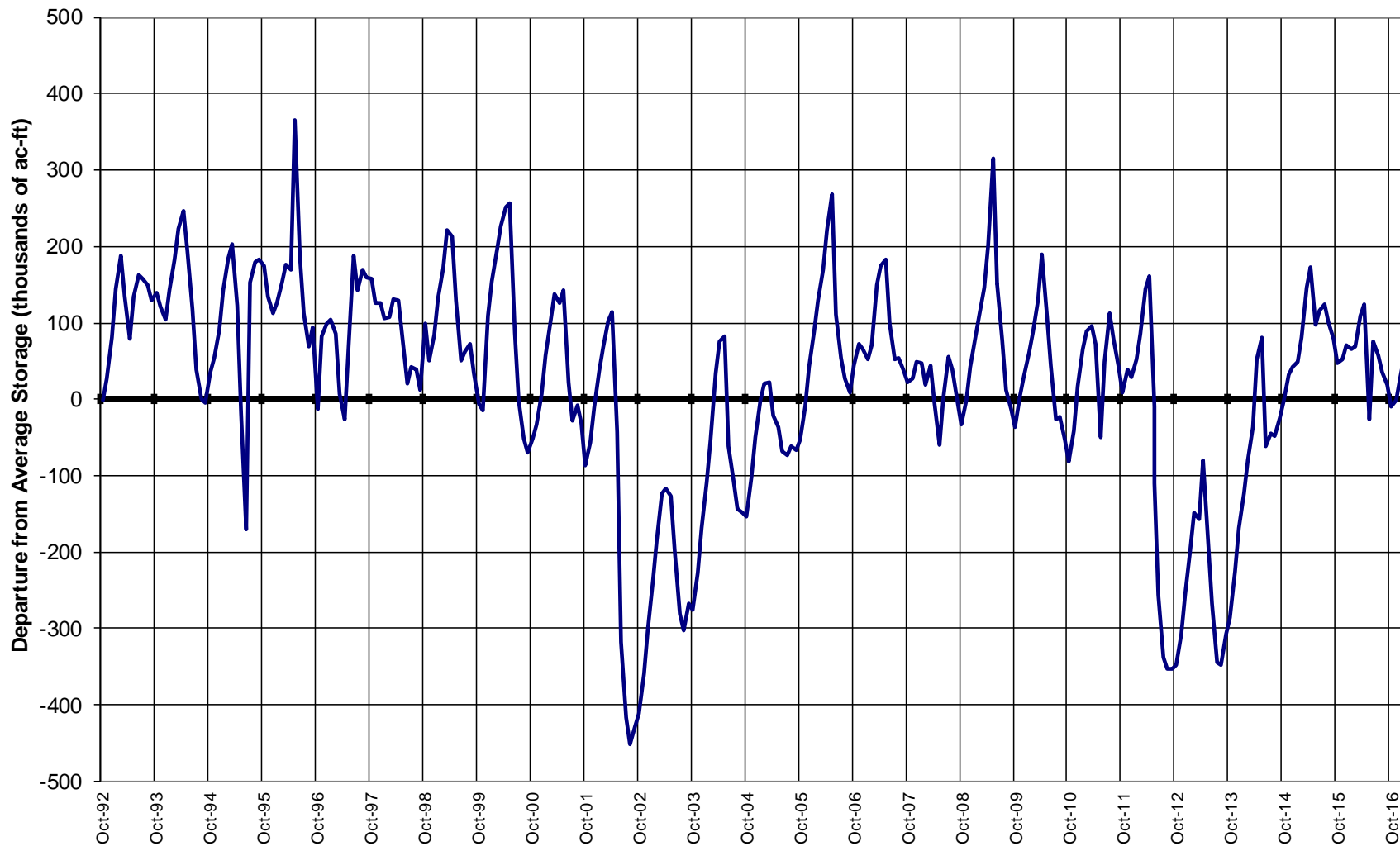




## GUNNISON RIVER BASIN

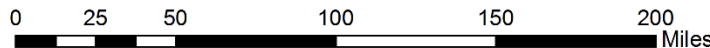
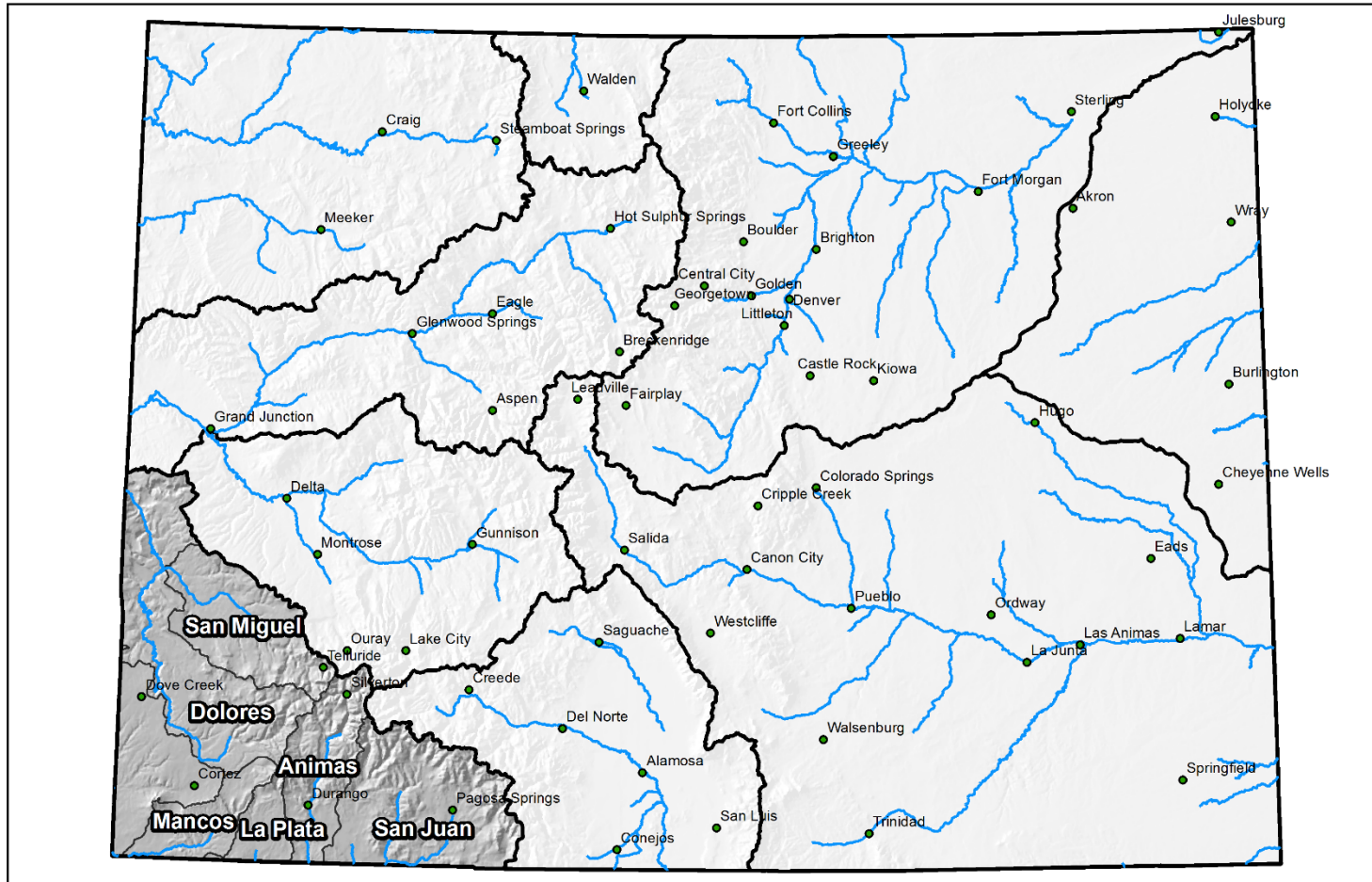
### Reservoir Storage

### Departure from Average



## Major Basin Summary

San Miguel, Dolores, Animas, and San Juan River Basins

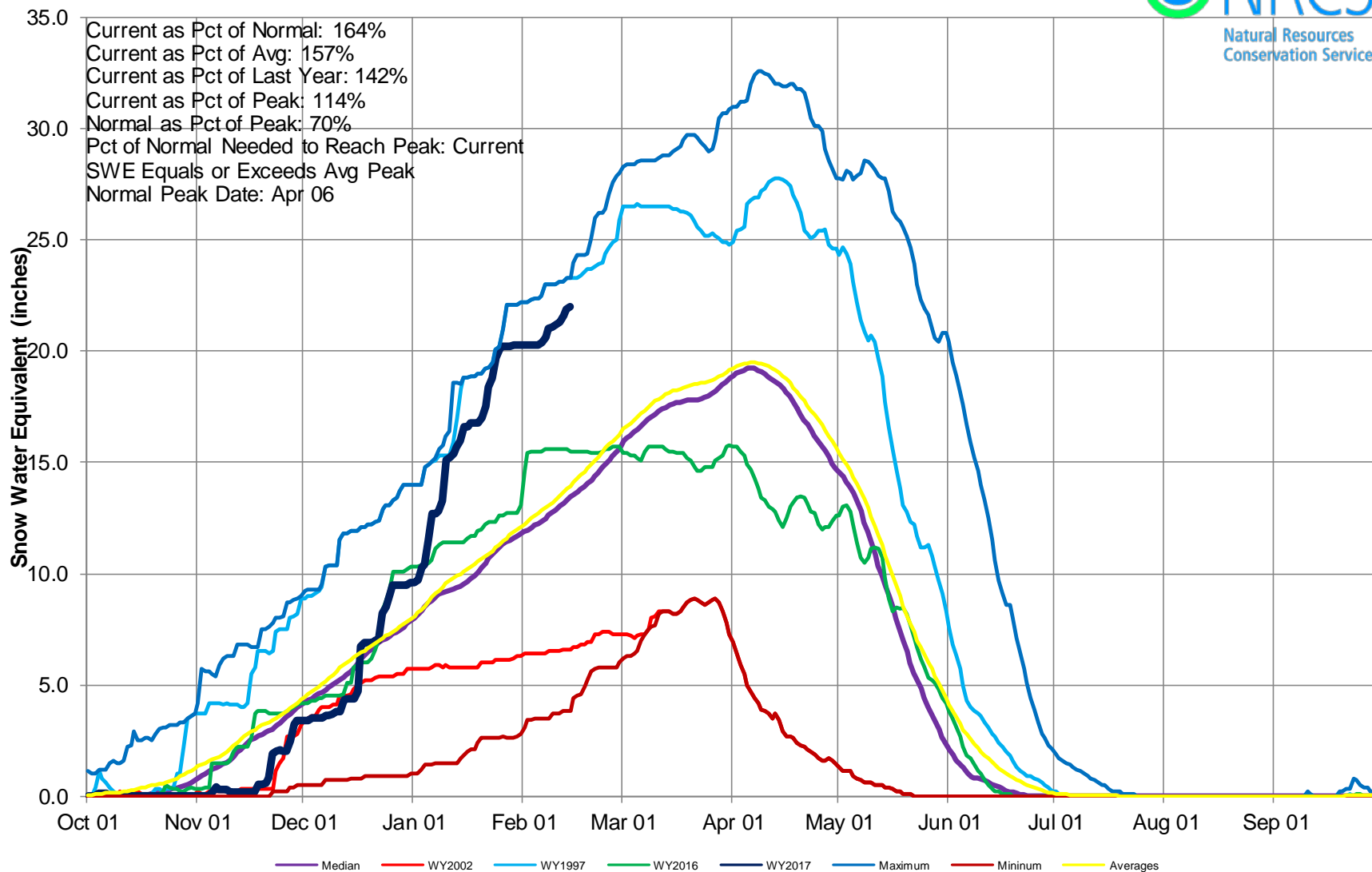






## San Miguel, Dolores, Animas and San Juan River Basins High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Feb 14, 2017*

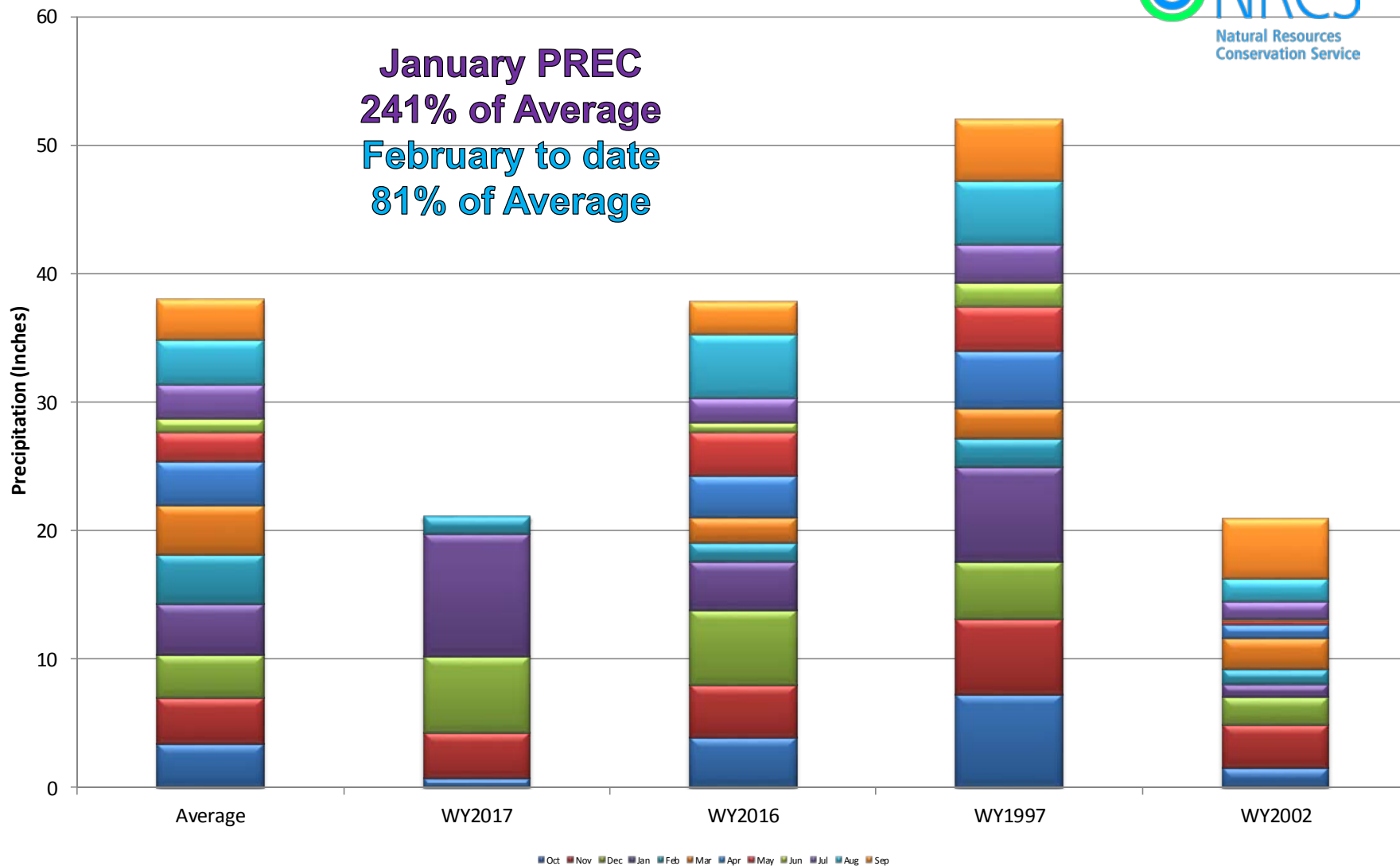




## San Miguel, Dolores, Animas & San Juan River Basins High/Low Monthly Precipitation Summary



**January PREC**  
**241% of Average**  
**February to date**  
**81% of Average**

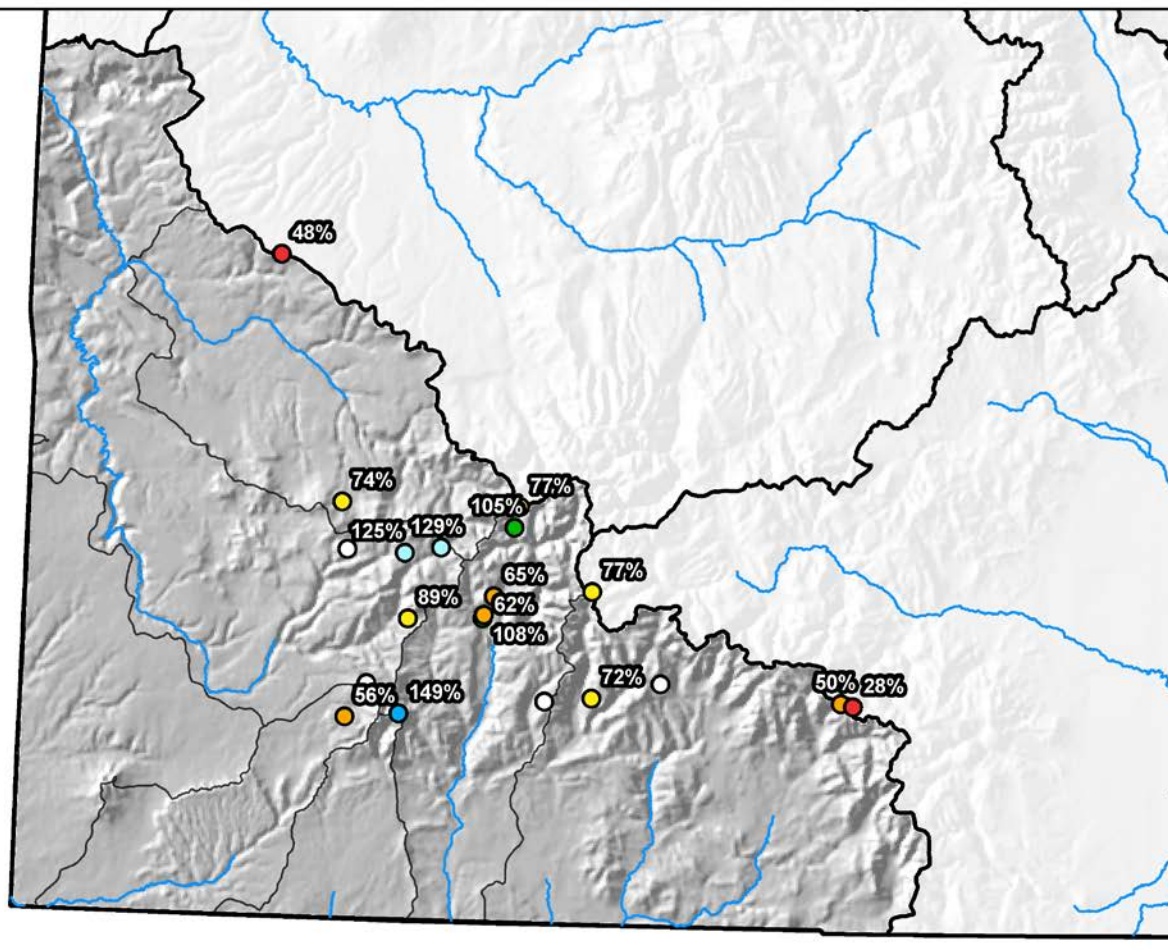


## San Miguel, Dolores, Animas, and San Juan River Basins Month to Date Precipitation Summary

Current as of Feb 14, 2017

### MTD Precipitation Percent of Average

- Missing or Invalid
- < 50
- 50 - 69
- 70 - 89
- 90 - 109
- 110 - 129
- 130 - 149
- ≥ 150
- SNOTEL

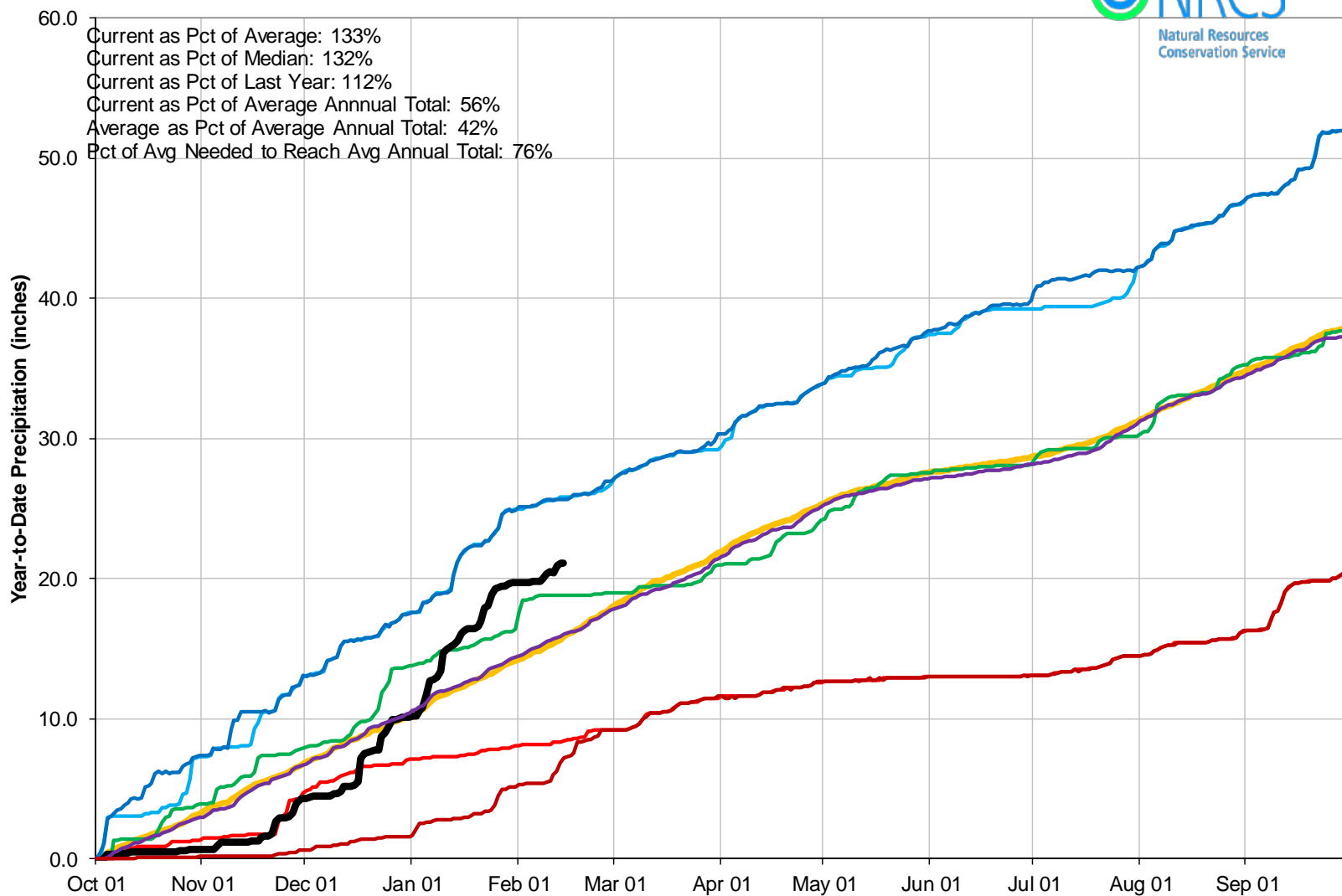


0 10 20 40 60 80 Miles



## San Miguel, Dolores, Animas & San Juan River Basins High/Low Year-to-Date Precipitation Summary

*Based on Provisional SNOTEL data as of Feb 14, 2017*

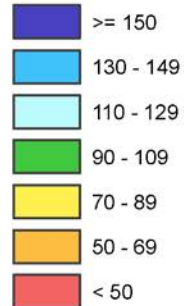




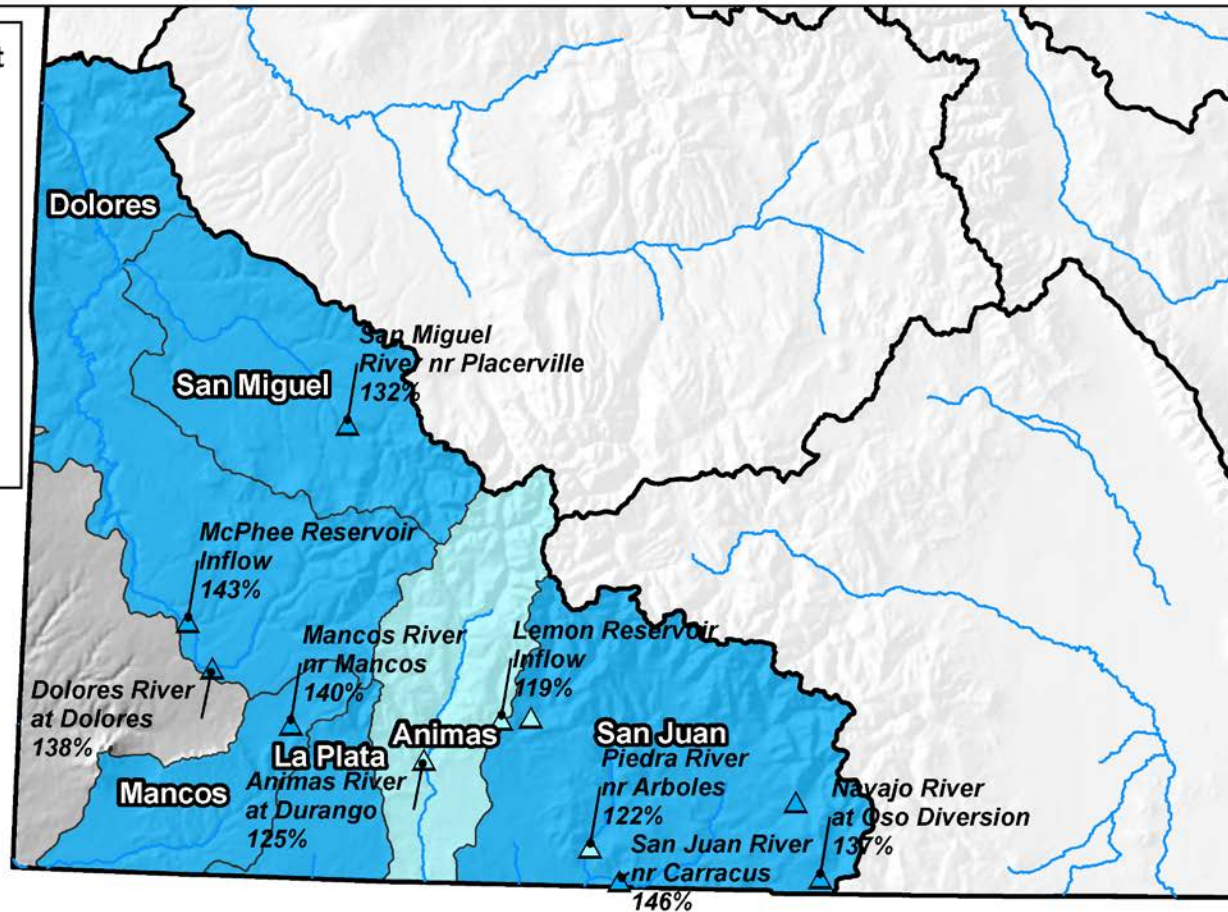
## San Miguel, Dolores, Animas, and San Juan River Basins Streamflow Forecast Summary

February 1, 2017

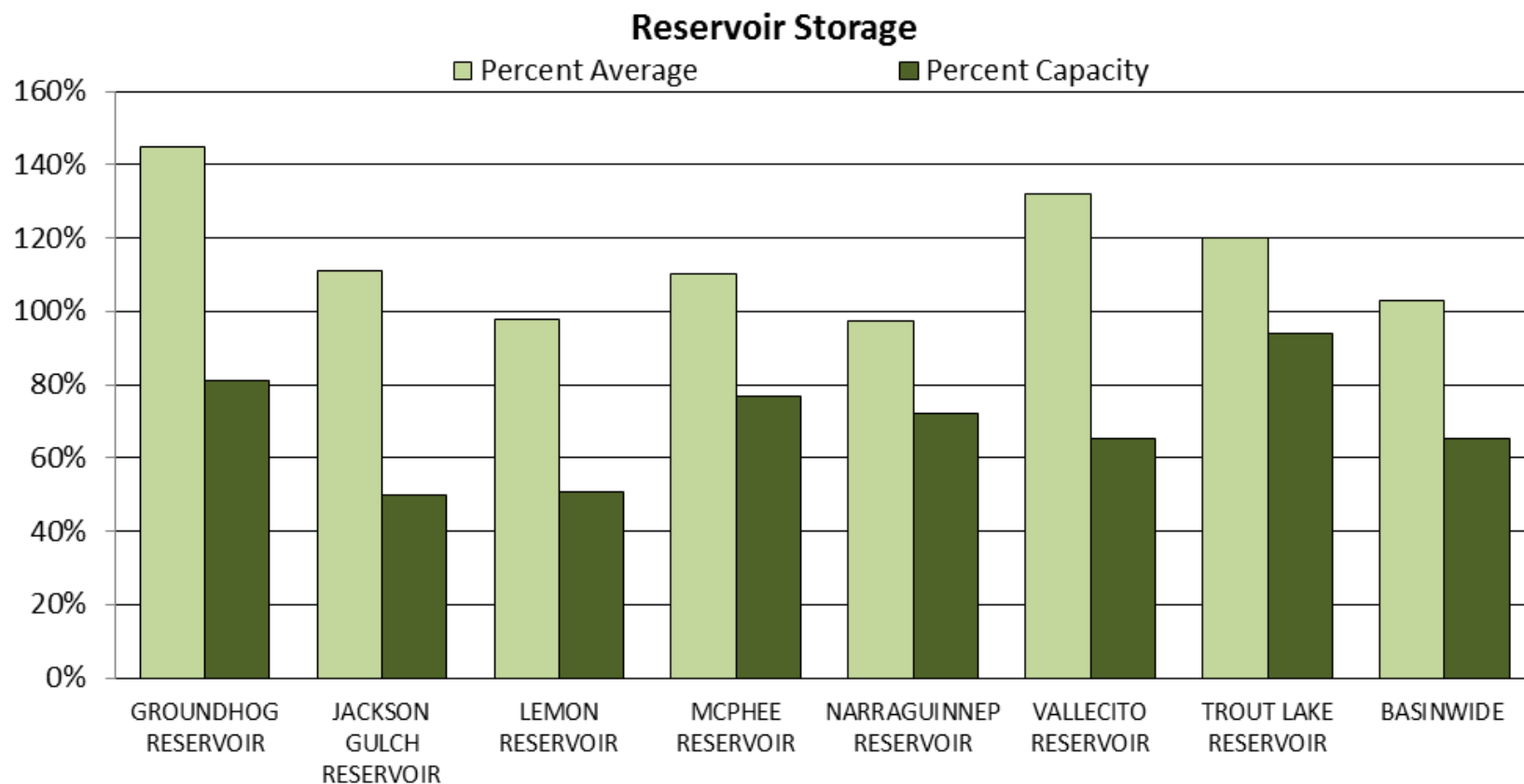
### Streamflow Forecast Percent of Average



△ Forecast Point



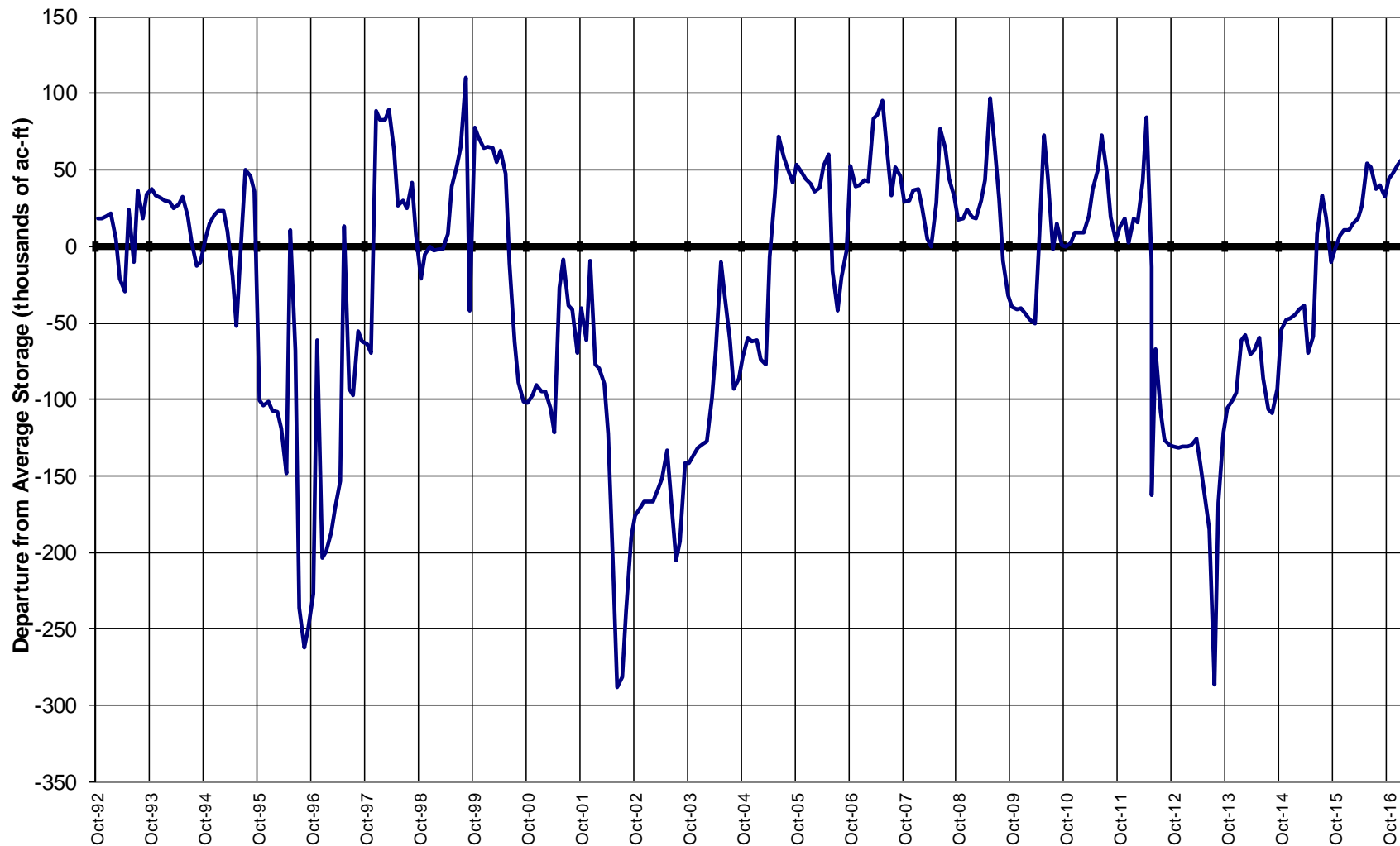






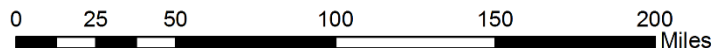
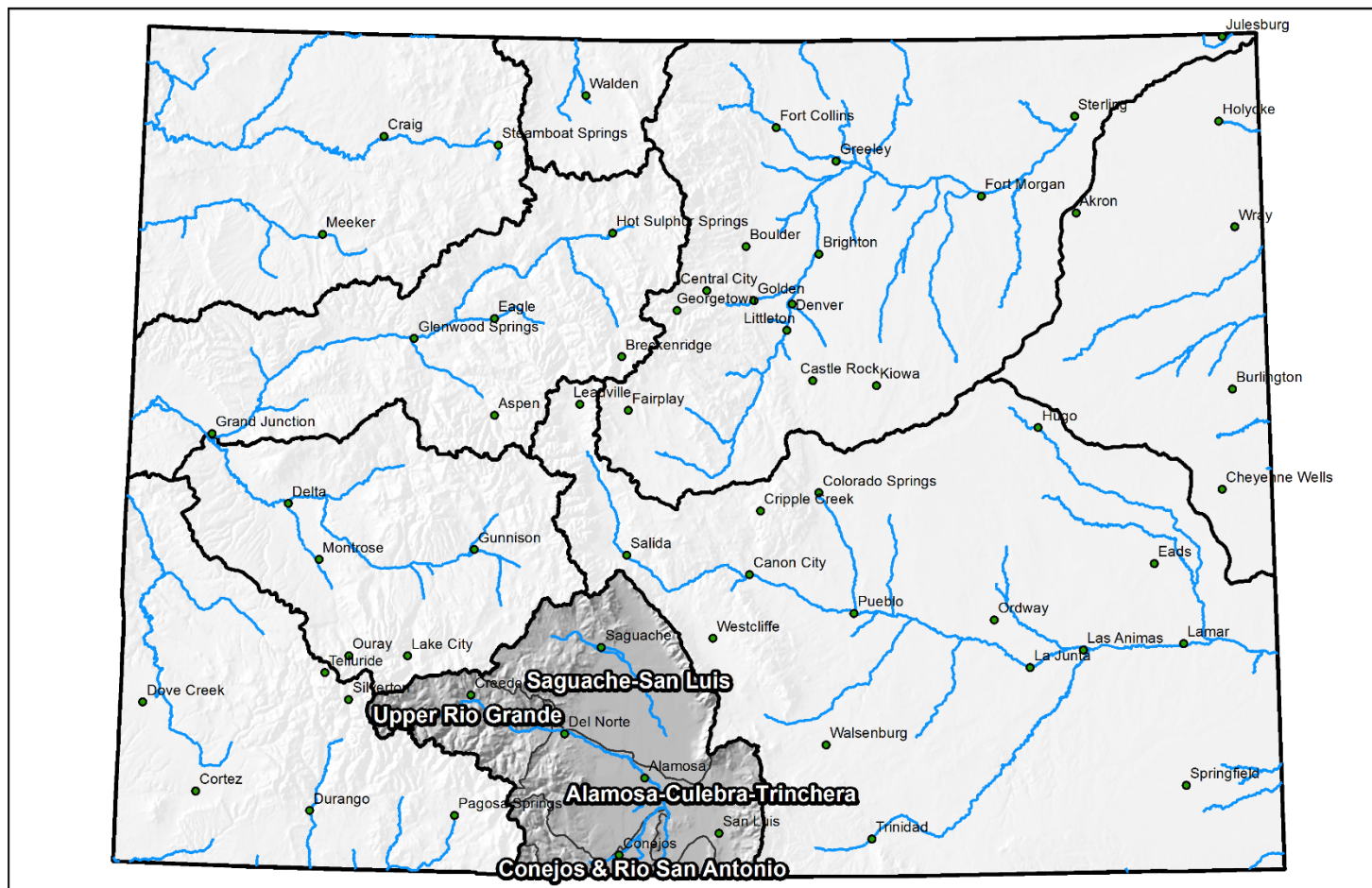
## SAN MIGUEL, DOLORES, ANIMAS AND SAN JUAN RIVER BASINS

Reservoir Storage  
Departure from Average



## Major Basin Summary

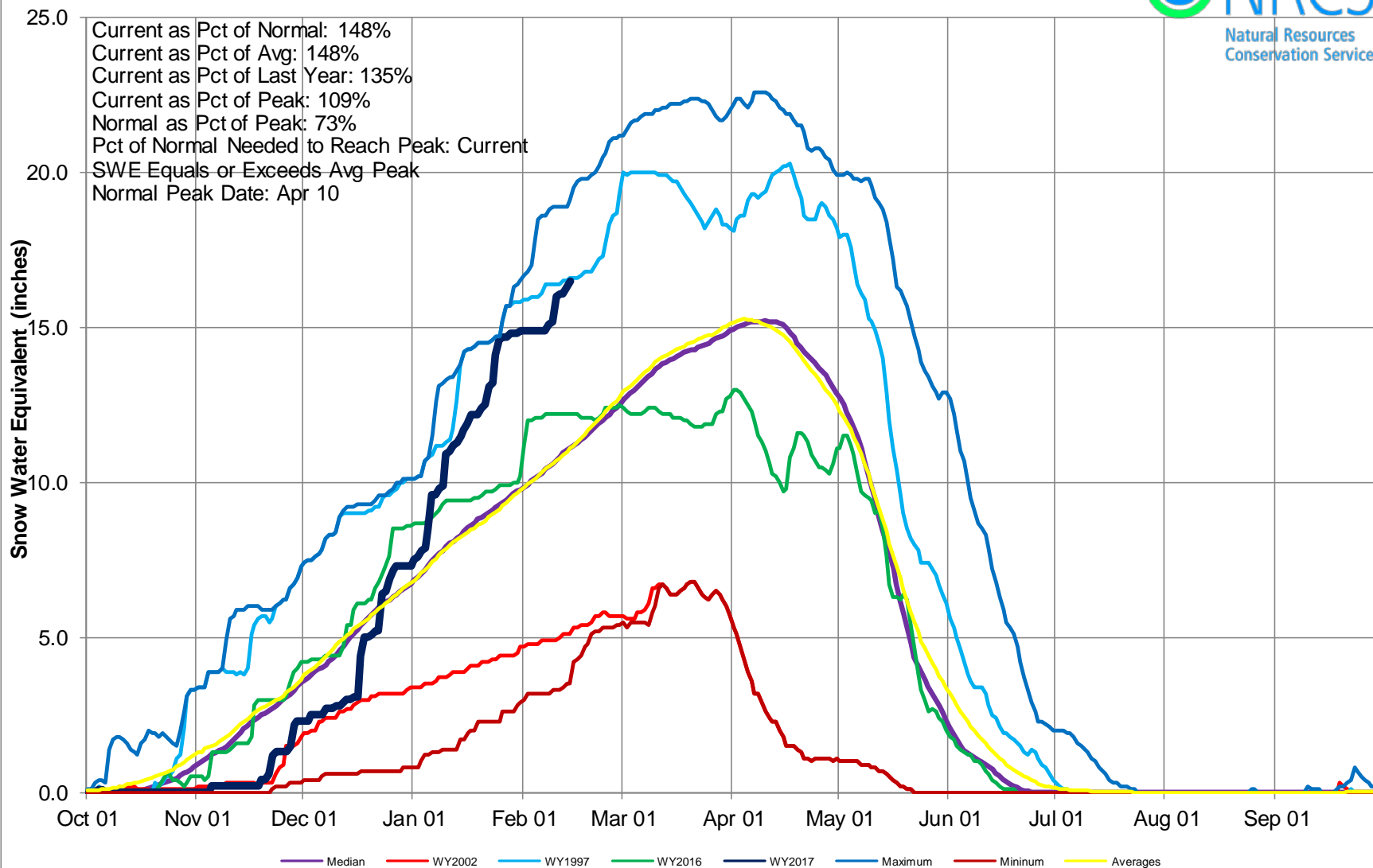
### Upper Rio Grande River Basin





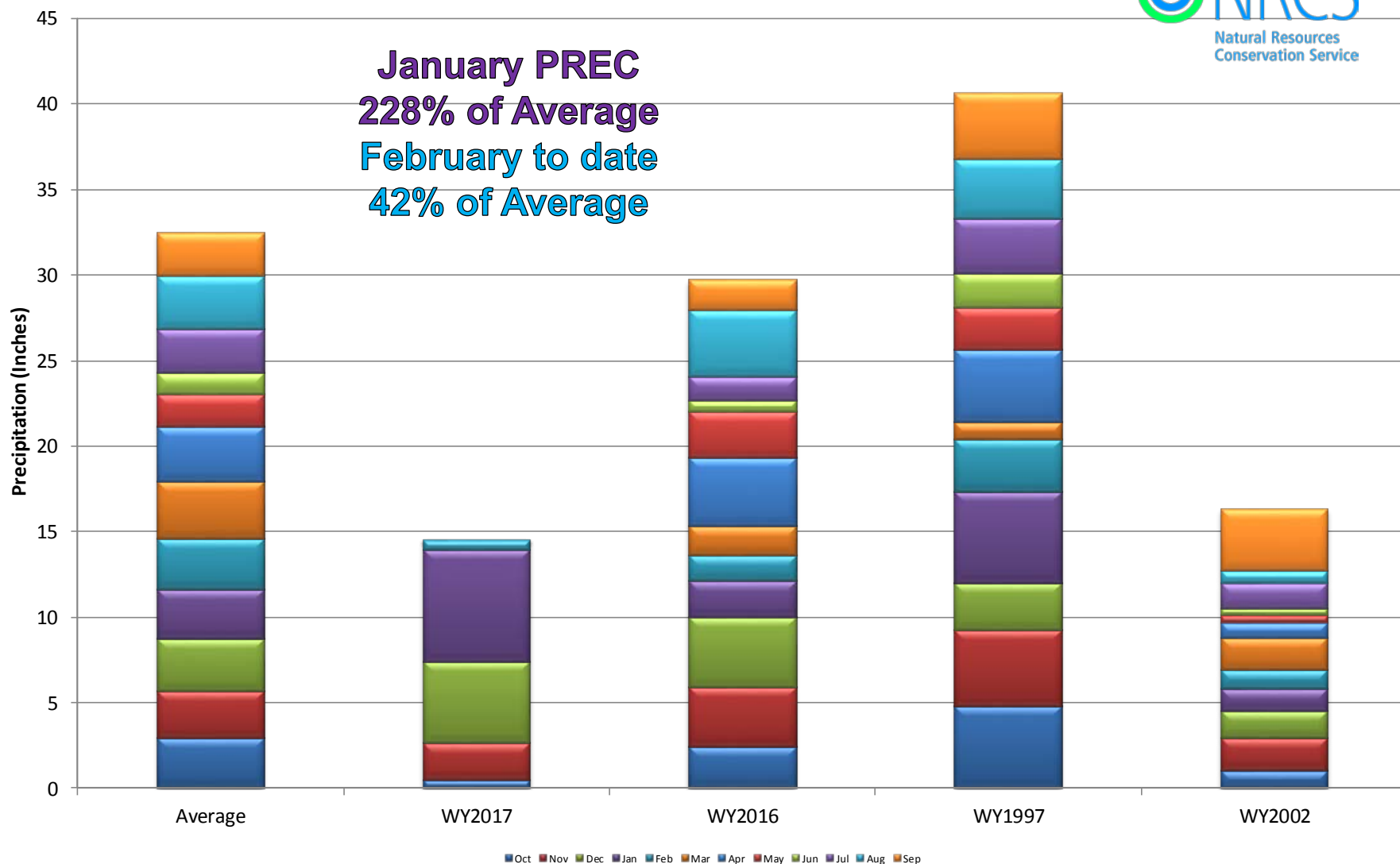
## Upper Rio Grande Basin High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Feb 14, 2017*



## Upper Rio Grande Basin High/Low Monthly Precipitation Summary

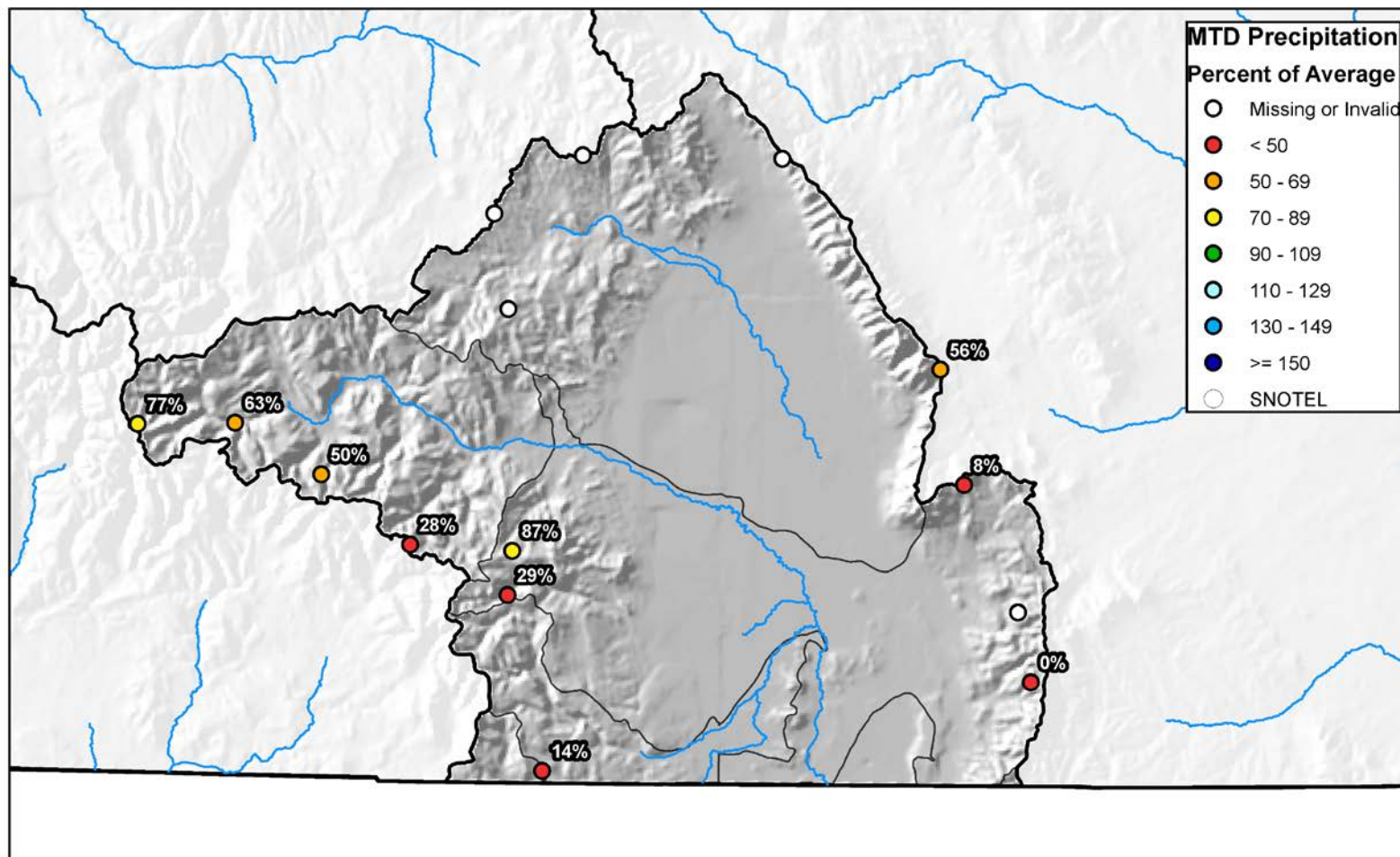
*Based on Provisional SNOTEL data as of Feb 14, 2017*





## Upper Rio Grande River Basin Month to Date Precipitation Summary

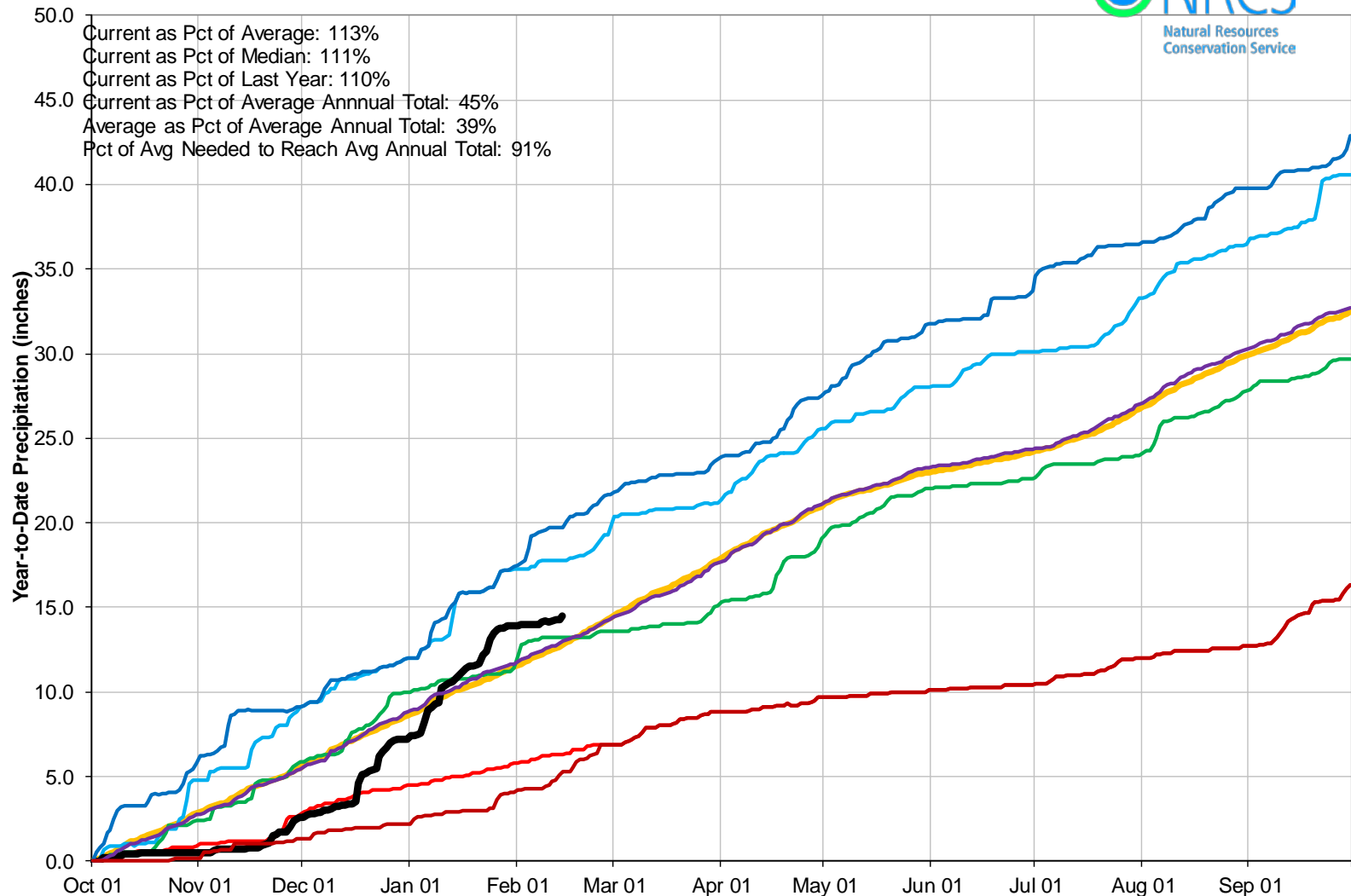
Current as of Feb 14, 2017





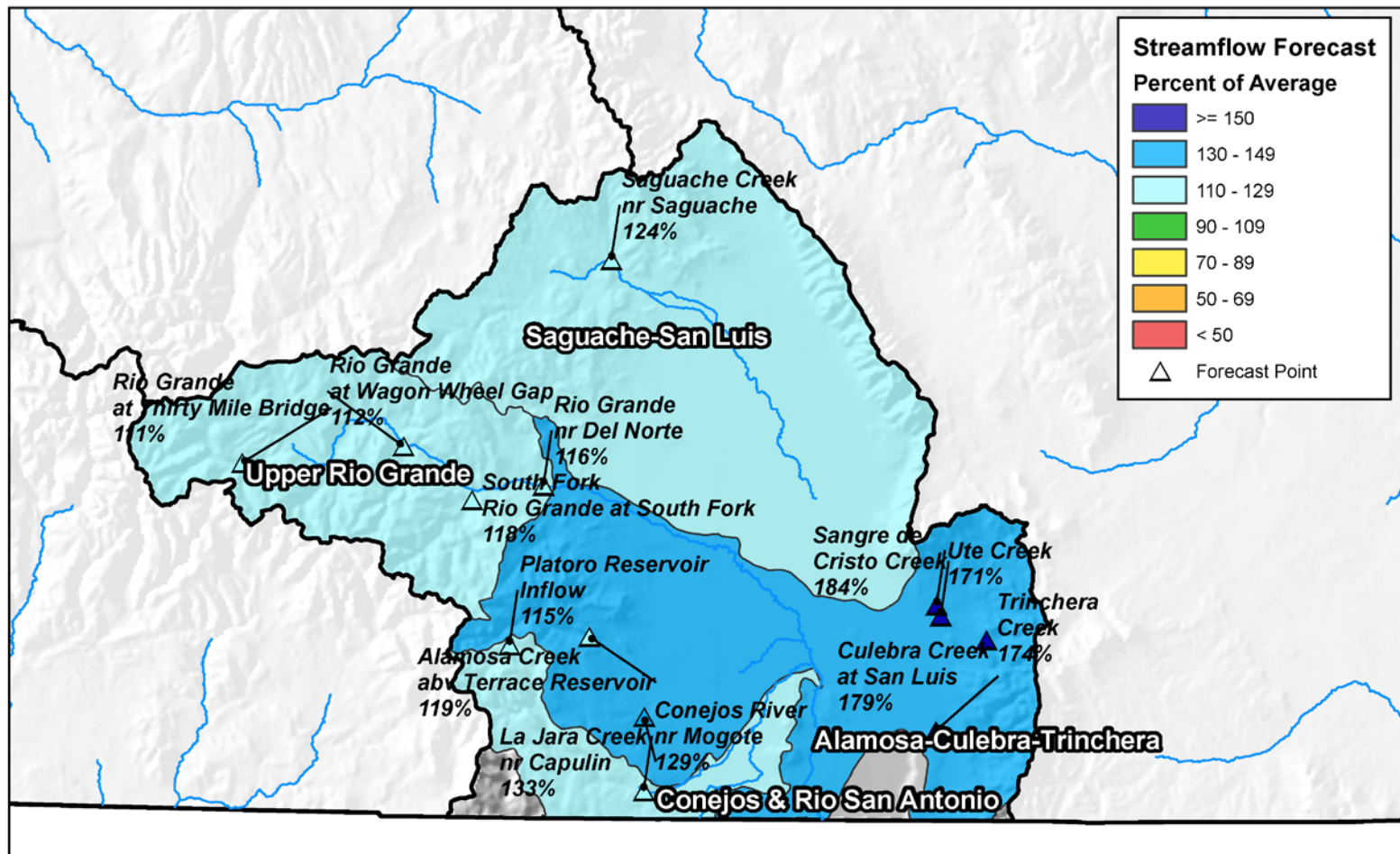
## Upper Rio Grande Basin High/Low Year-to-Date Precipitation Summary

*Based on Provisional SNOTEL data as of Feb 14, 2017*

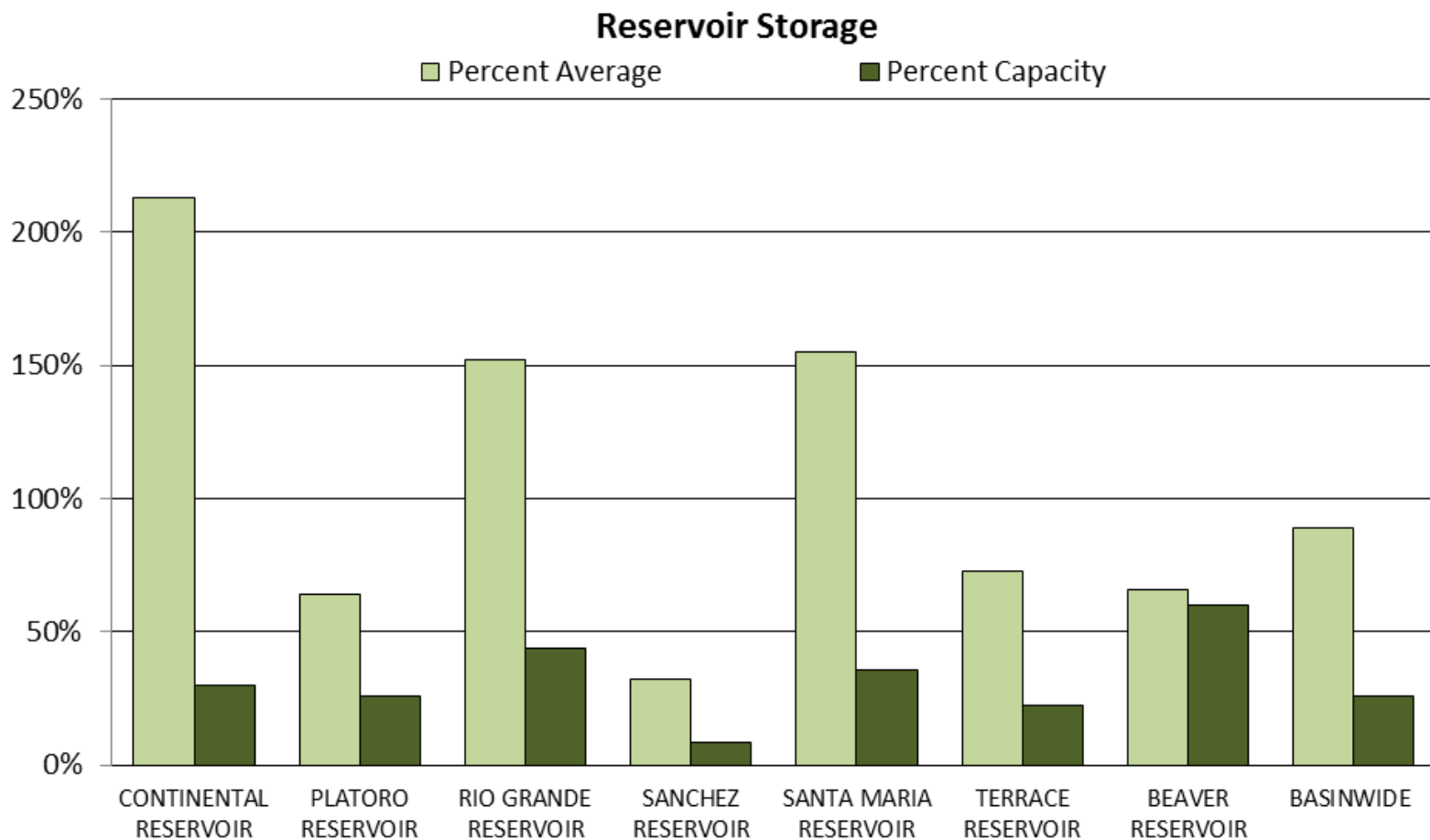


## Upper Rio Grande River Basin Streamflow Forecast Summary

February 1, 2017

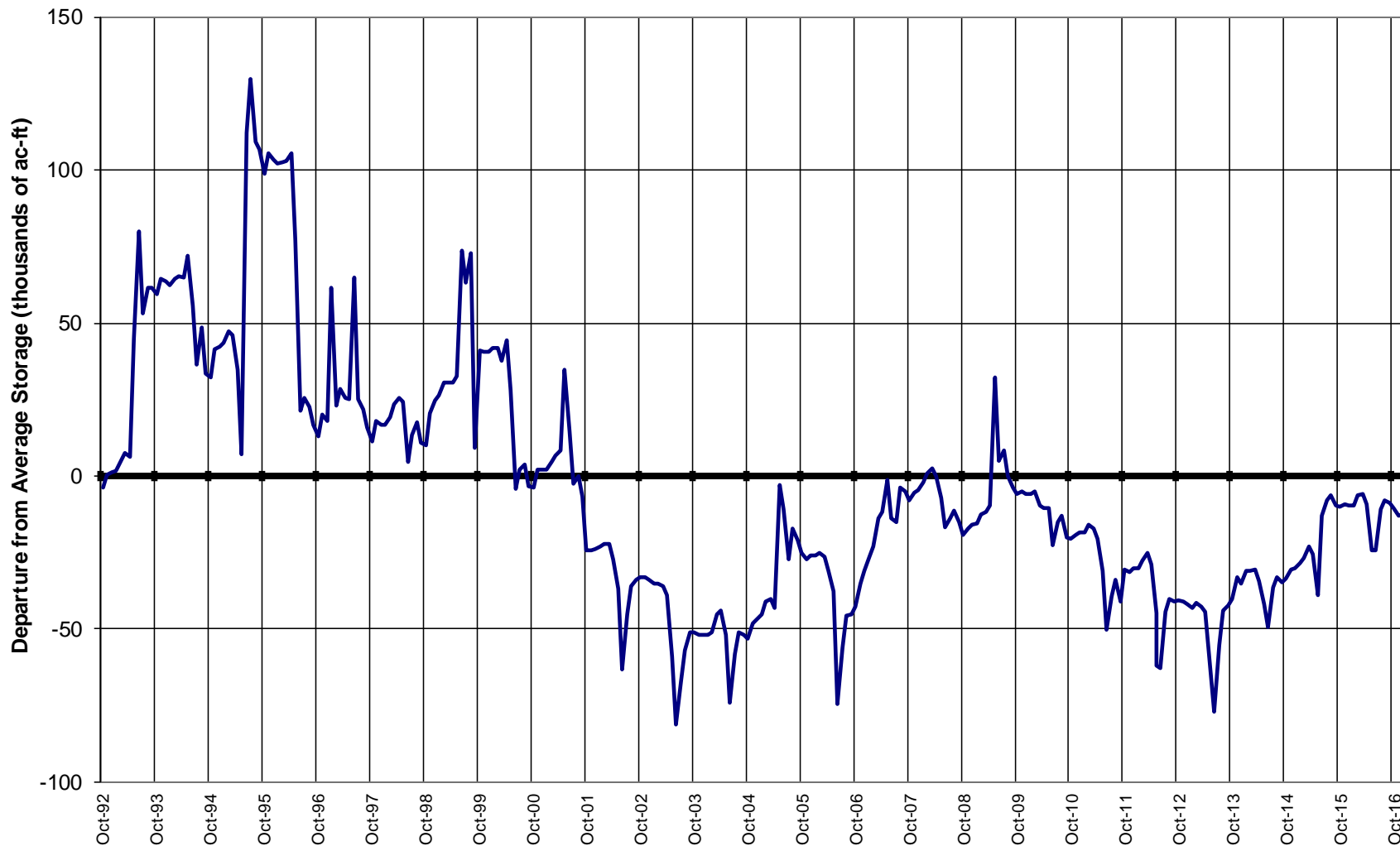


0 10 20 40 60 80 Miles





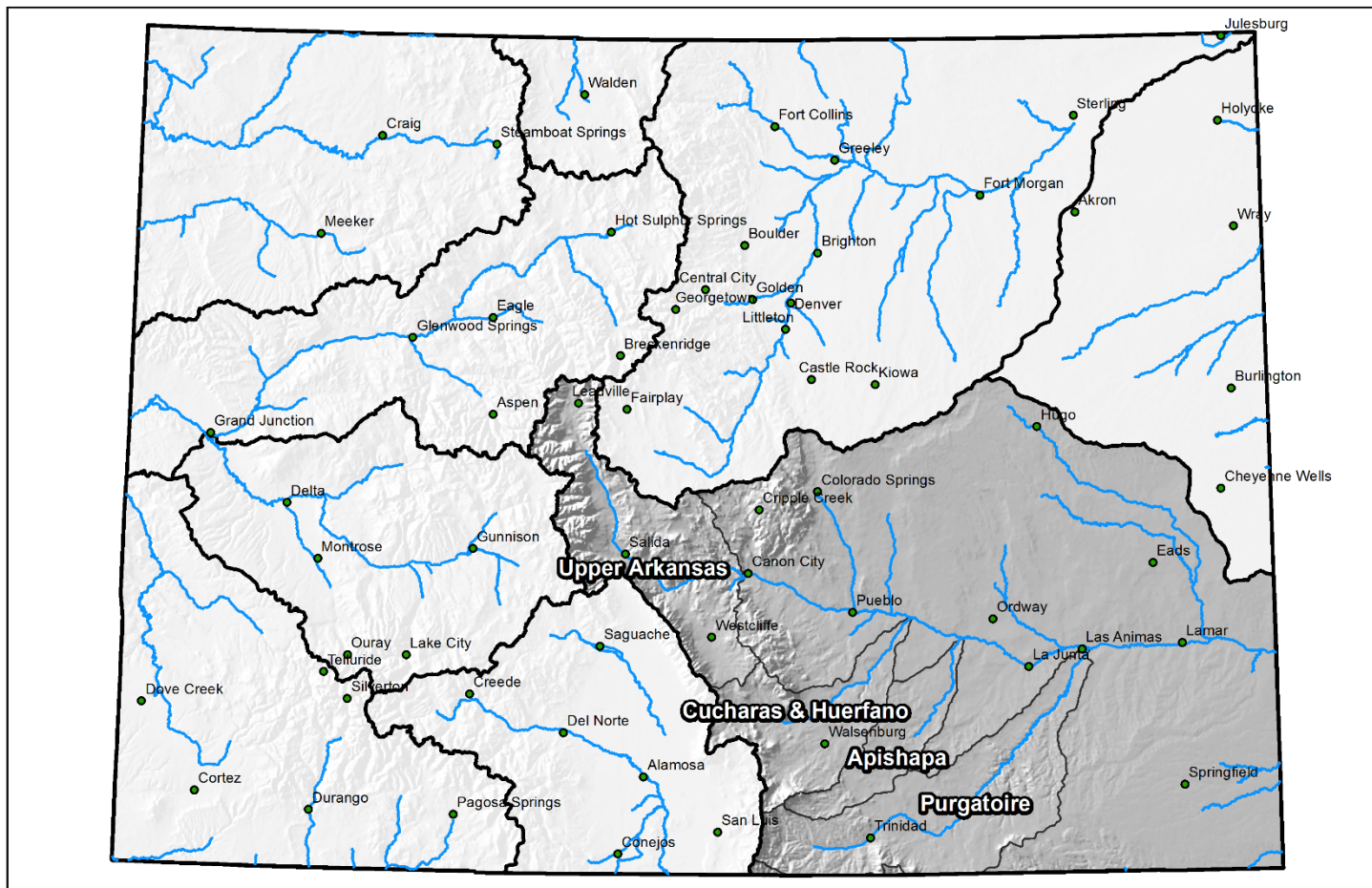
## UPPER RIO GRANDE BASIN Reservoir Storage Departure from Average





## Major Basin Summary

### Arkansas River Basin

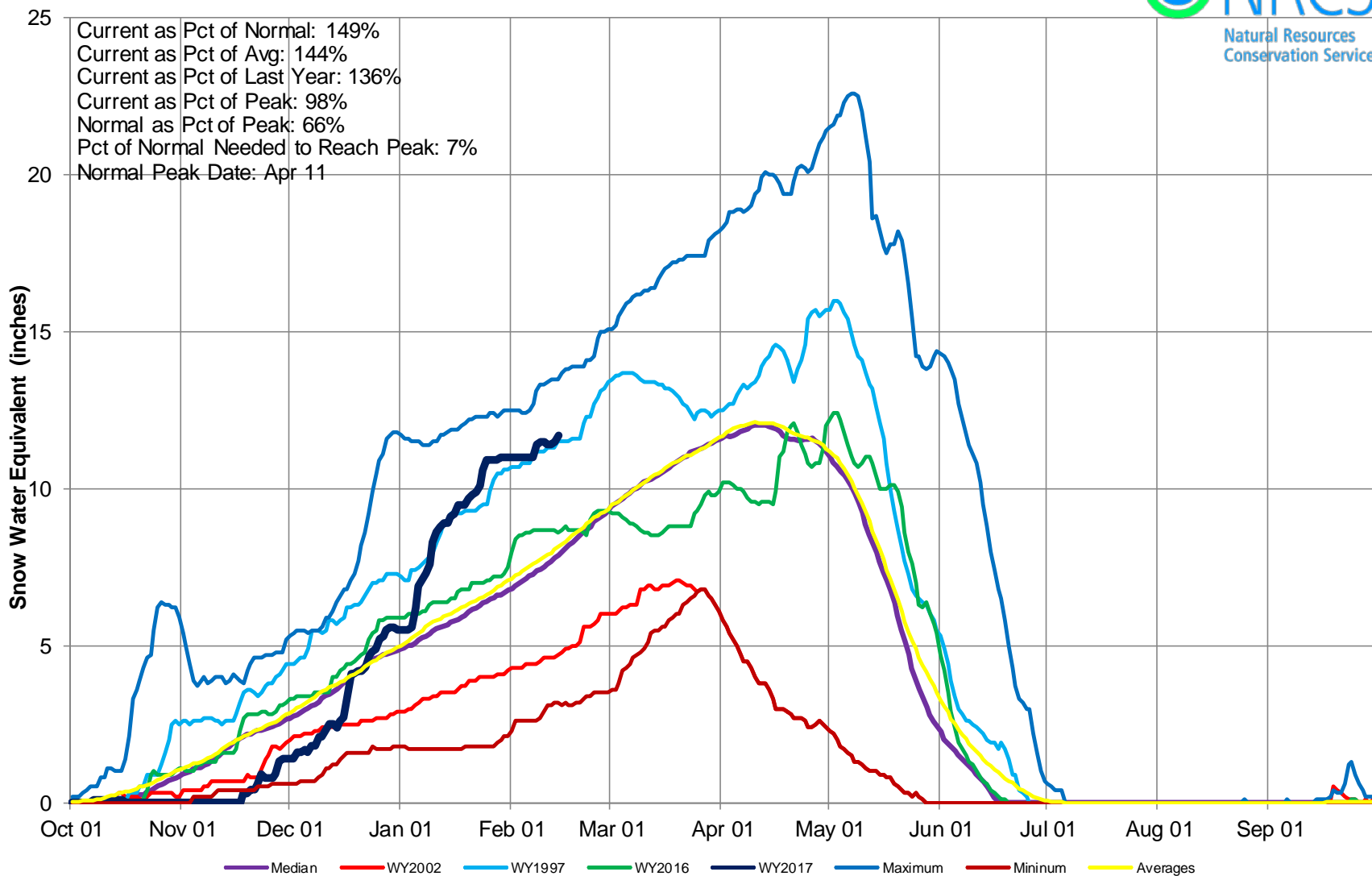


0 25 50 100 150 200 Miles



## Arkansas River Basin High/Low Snowpack Summary

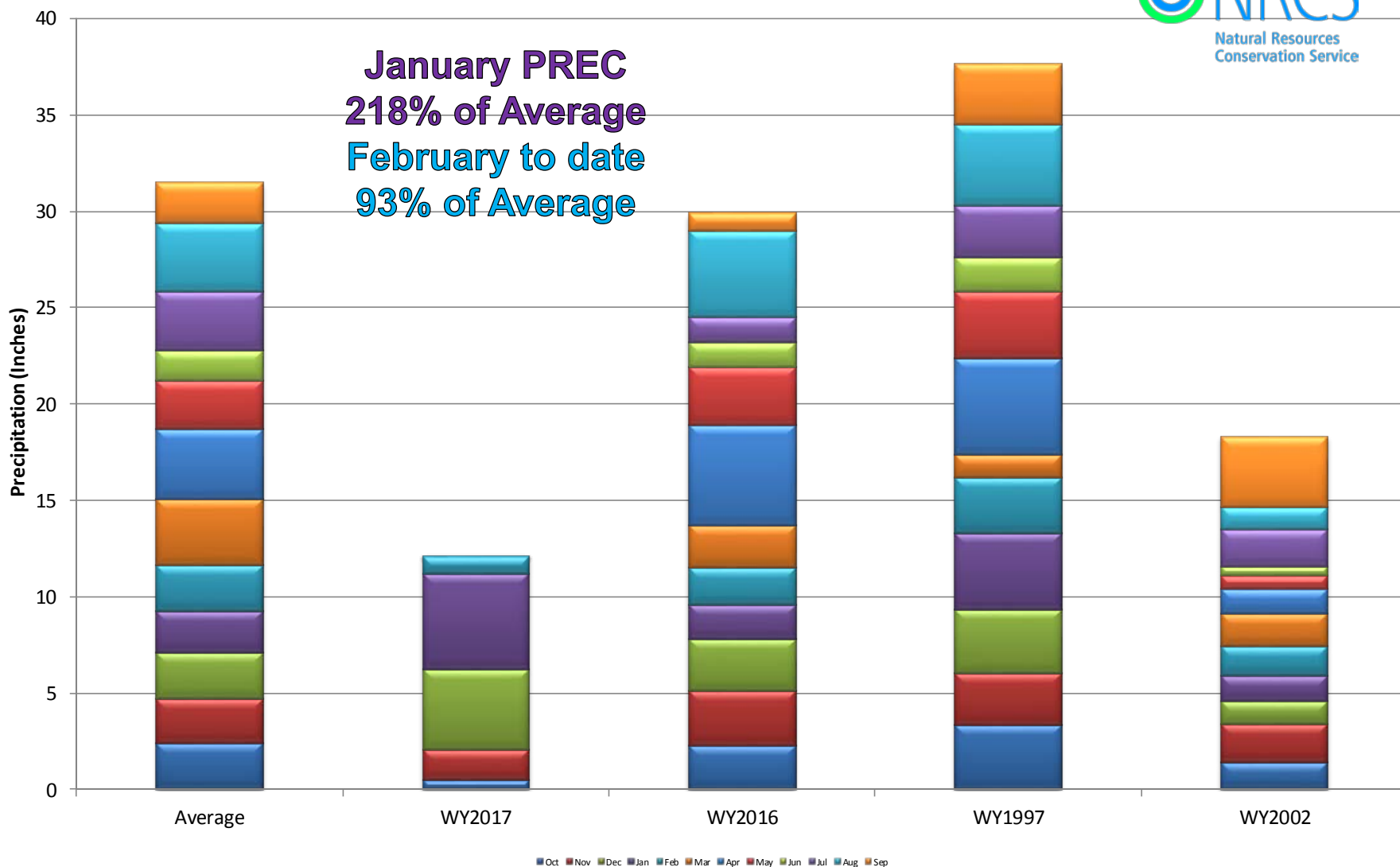
*Based on Provisional SNOTEL data as of Feb 14, 2017*





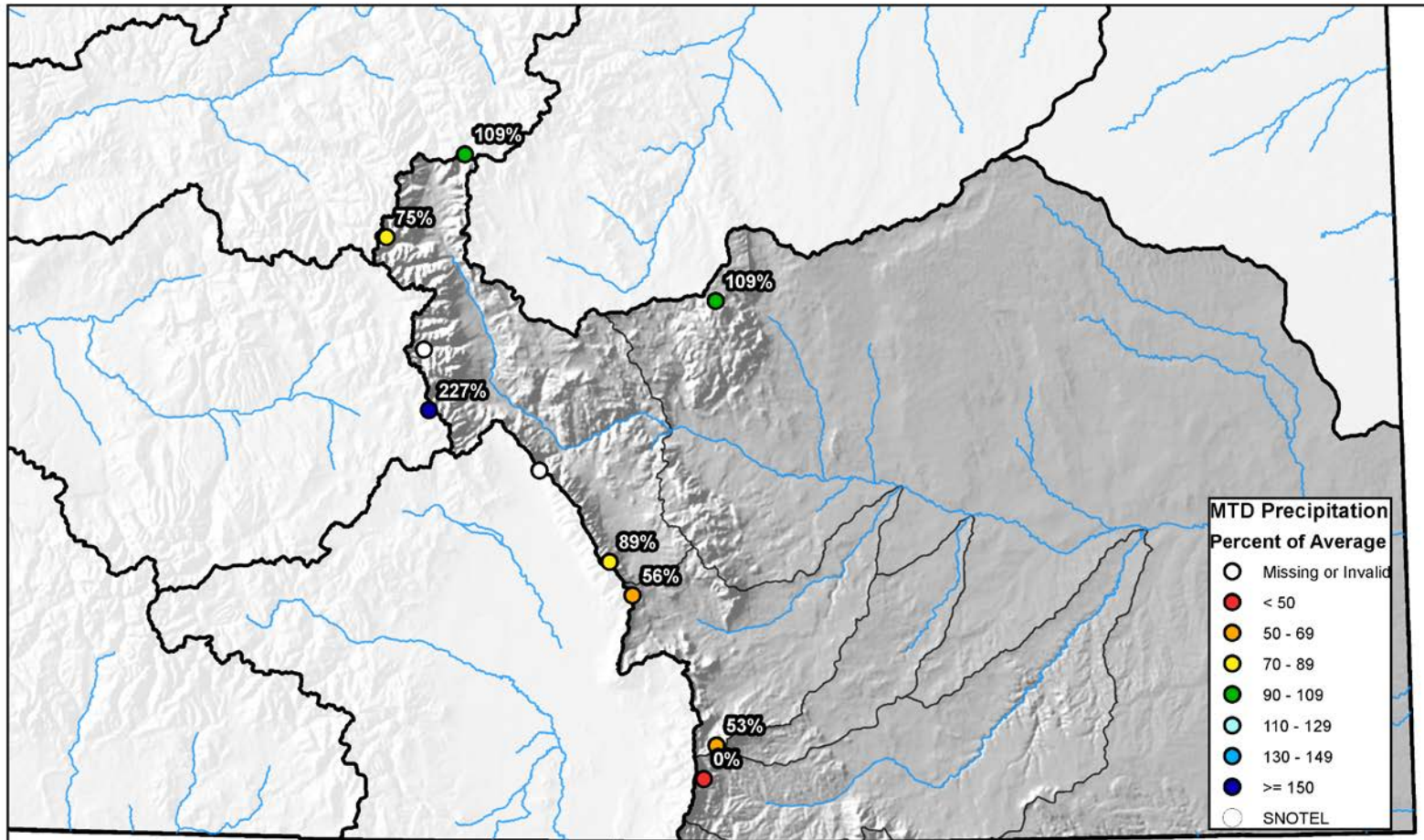
## Arkansas River Basin High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Feb 14, 2017*



## Arkansas River Basin Month to Date Precipitation Summary

Current as of Feb 14, 2017



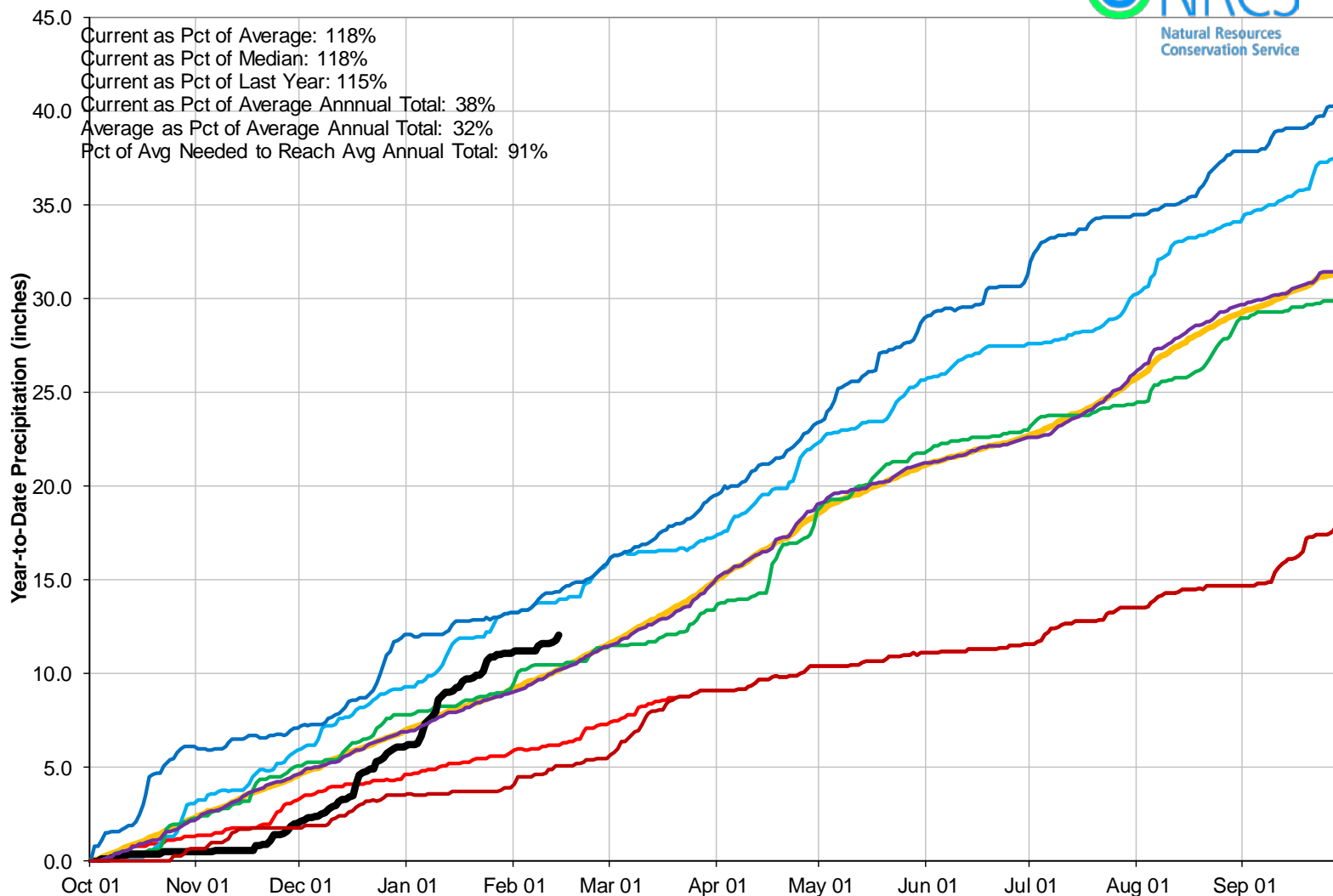
0 10 20 40 60 80 Miles





## Arkansas River Basin High/Low Year-to-Date Precipitation Summary

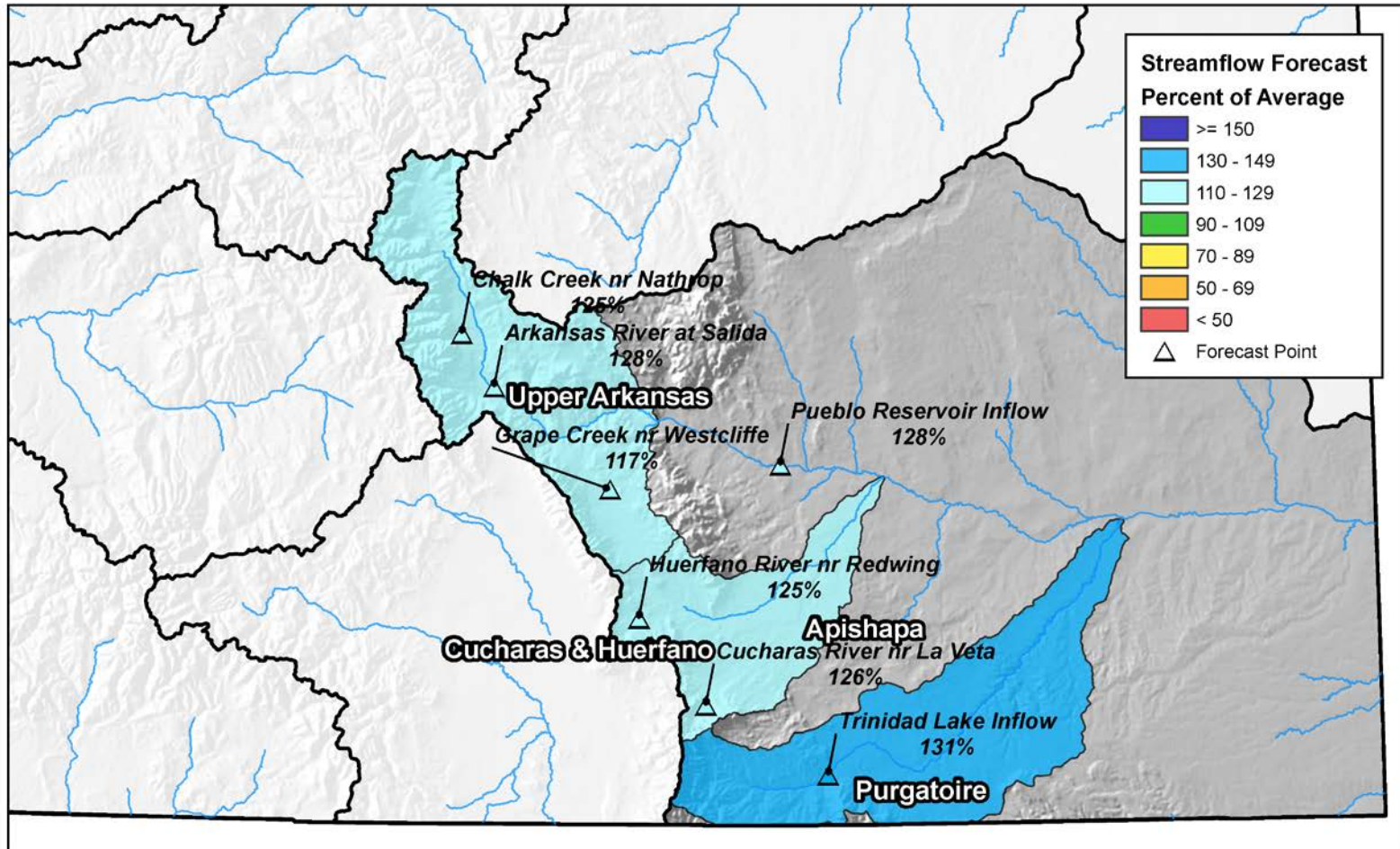
*Based on Provisional SNOTEL data as of Feb 14, 2017*





## Arkansas River Basin Streamflow Forecast Summary

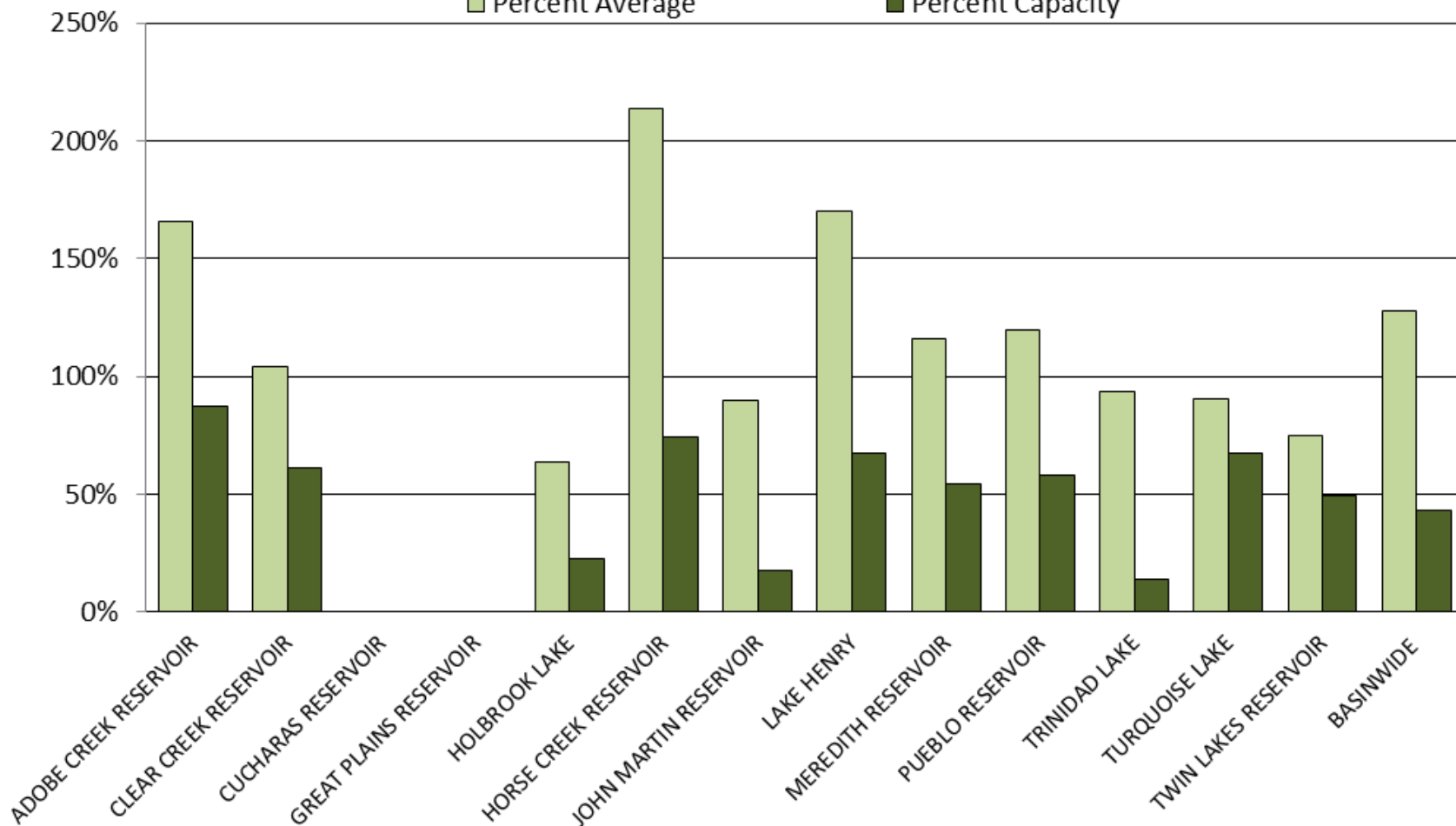
February 1, 2017



0 10 20 40 60 80 Miles

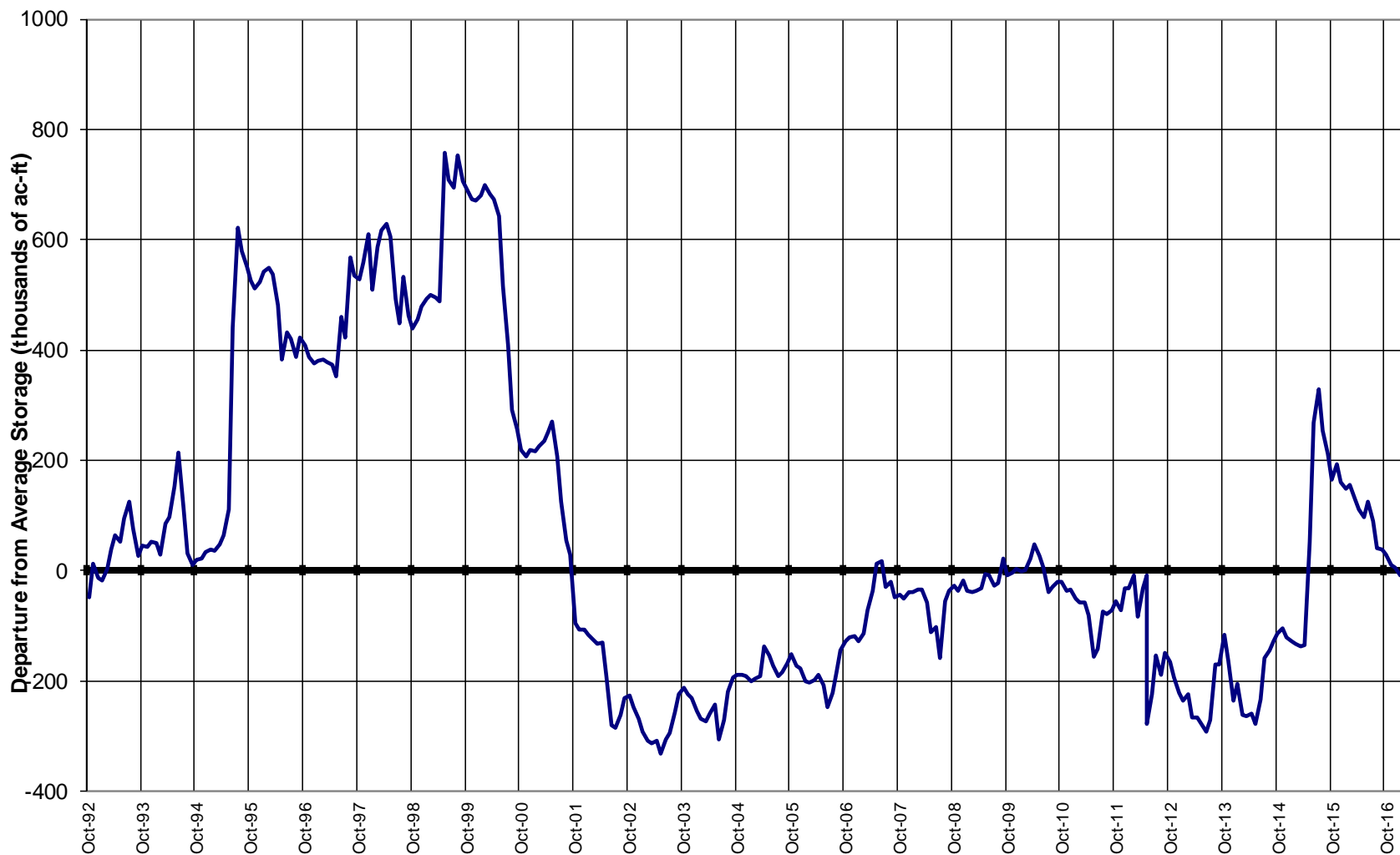
## Reservoir Storage

■ Percent Average    ■ Percent Capacity



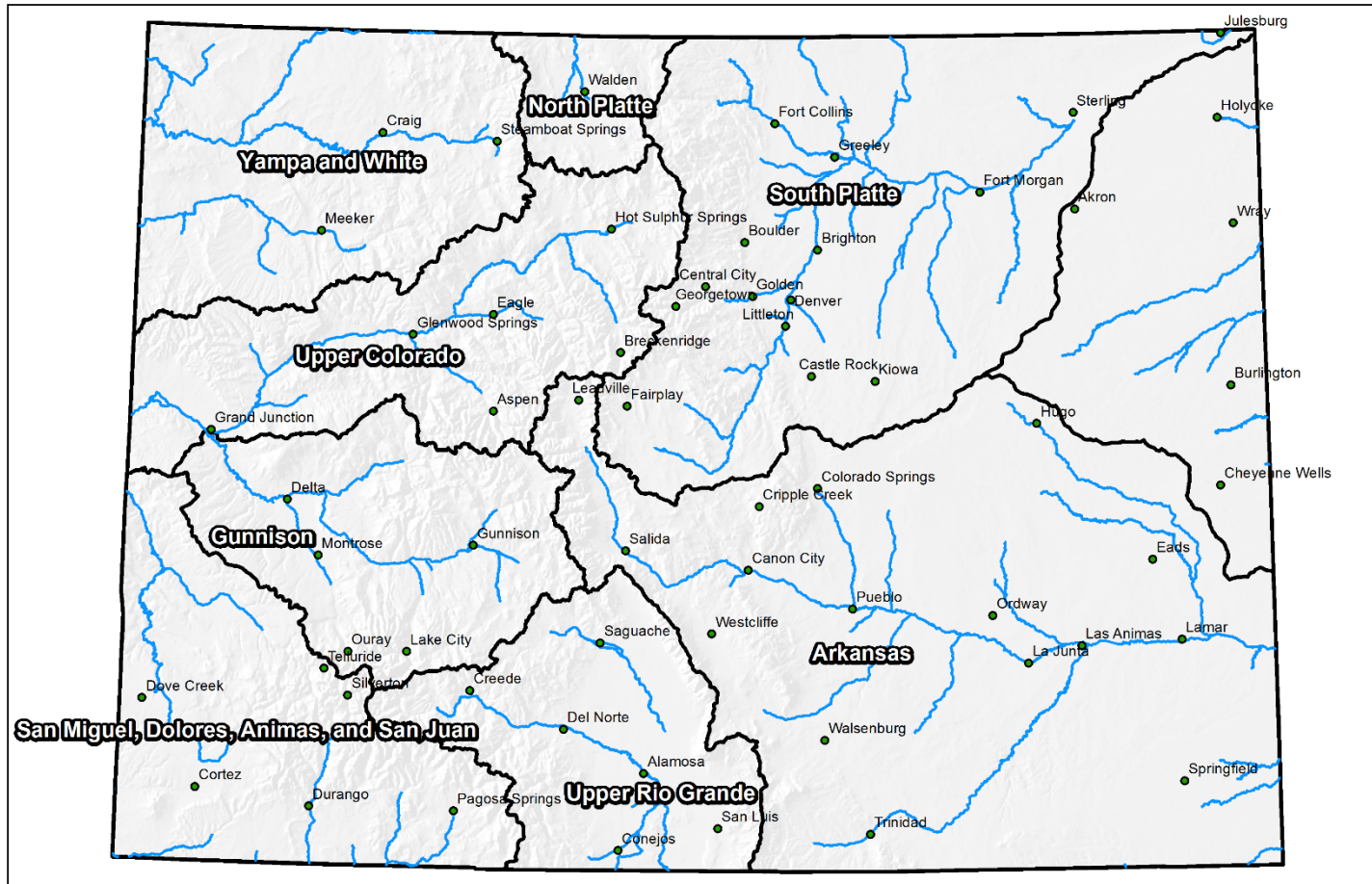


## ARKANSAS RIVER BASIN Reservoir Storage Departure from Average



## Colorado Statewide Summary

Colorado Major Basins

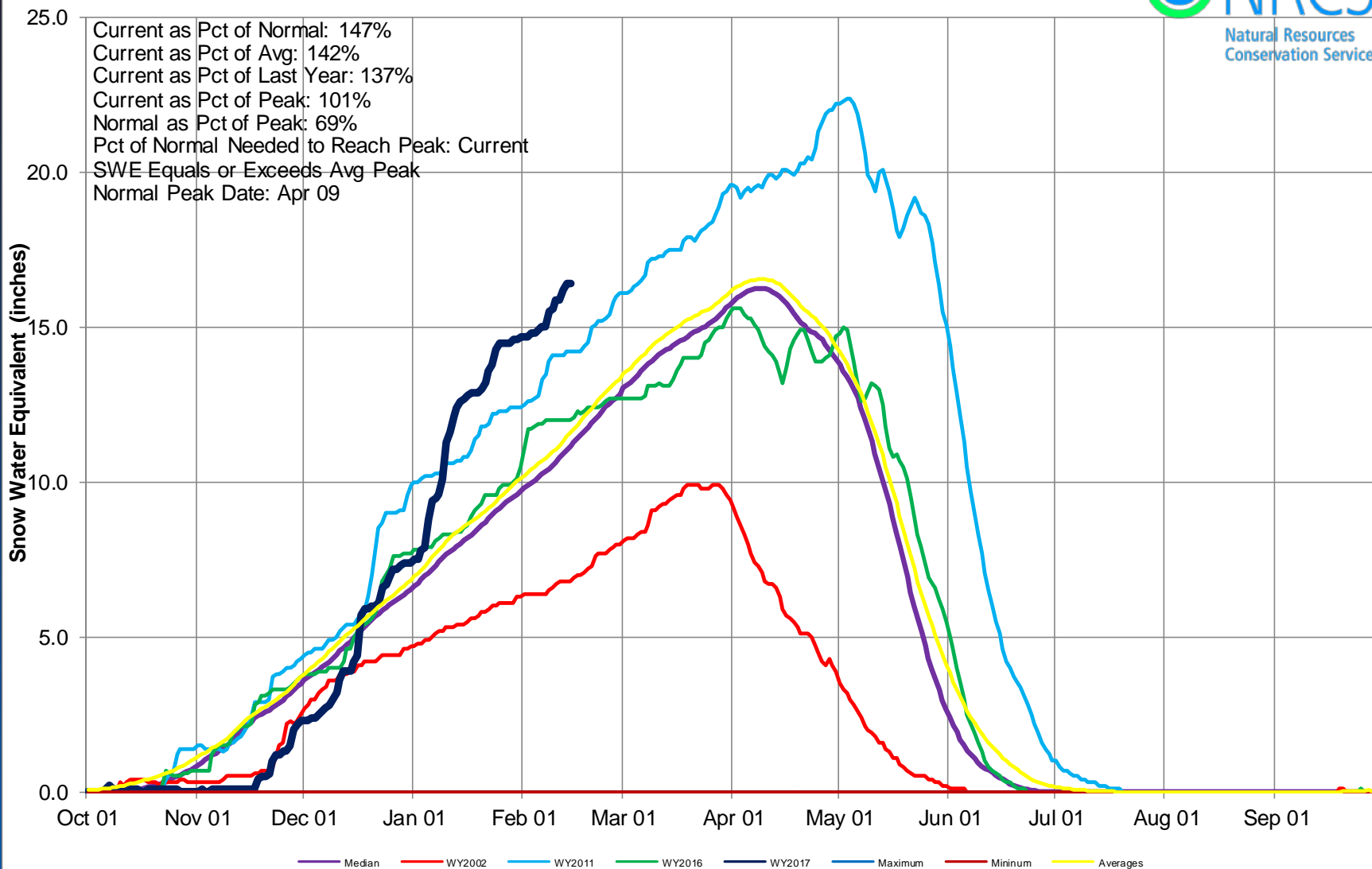


0 25 50 100 150 200 Miles



## Colorado Statewide High/Low Snowpack Summary

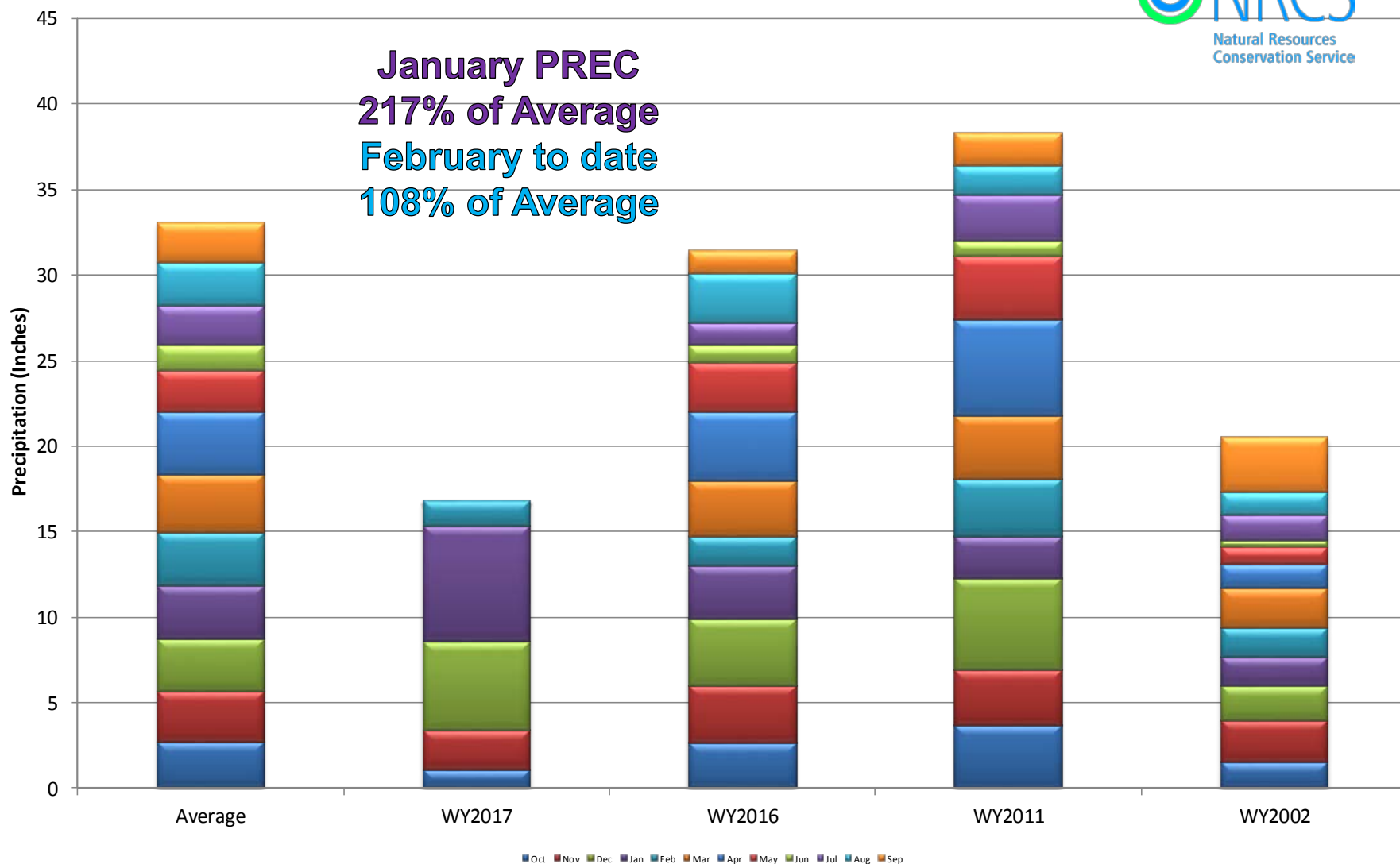
*Based on Provisional SNOTEL data as of Feb 14, 2017*





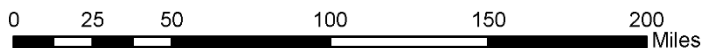
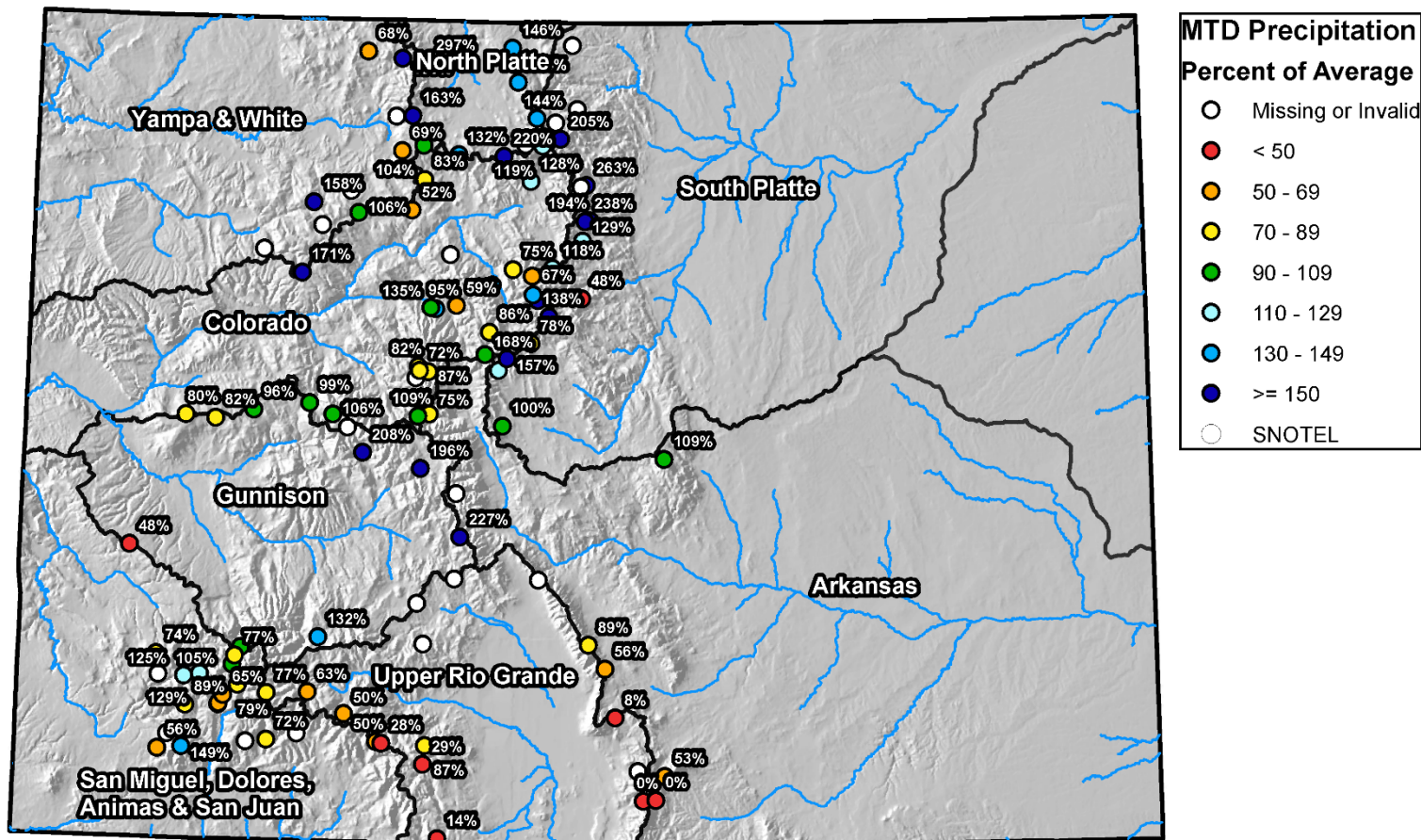
## Colorado Statewide High/Low Monthly Precipitation Summary

**Based on Provisional SNOTEL data as of Feb 14, 2017**



## Colorado SNOTEL Month-to-Date Precipitation

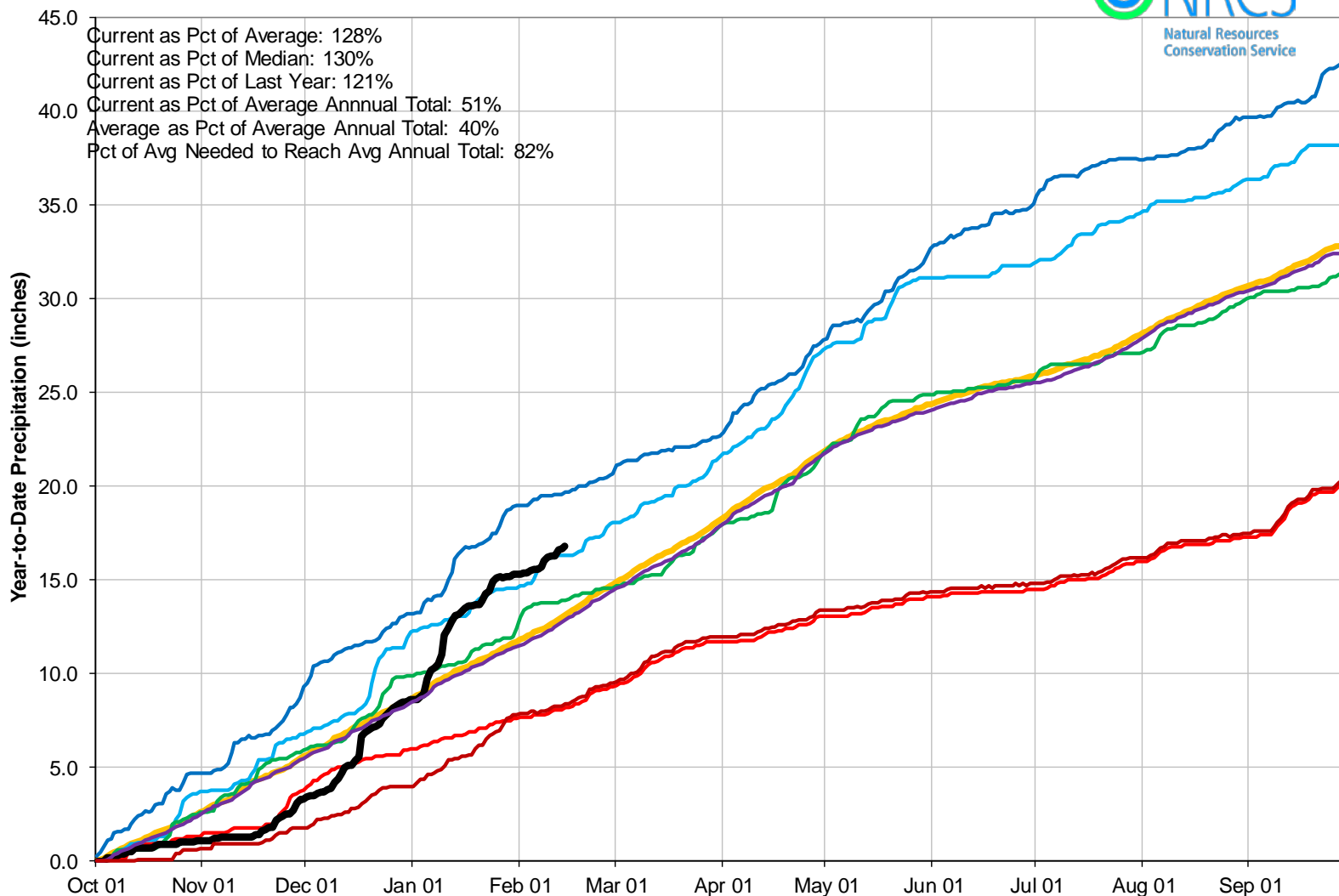
Current as of Feb 14, 2017





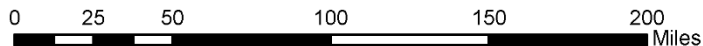
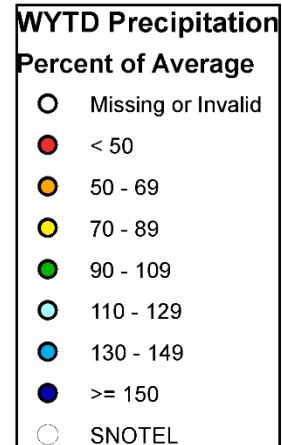
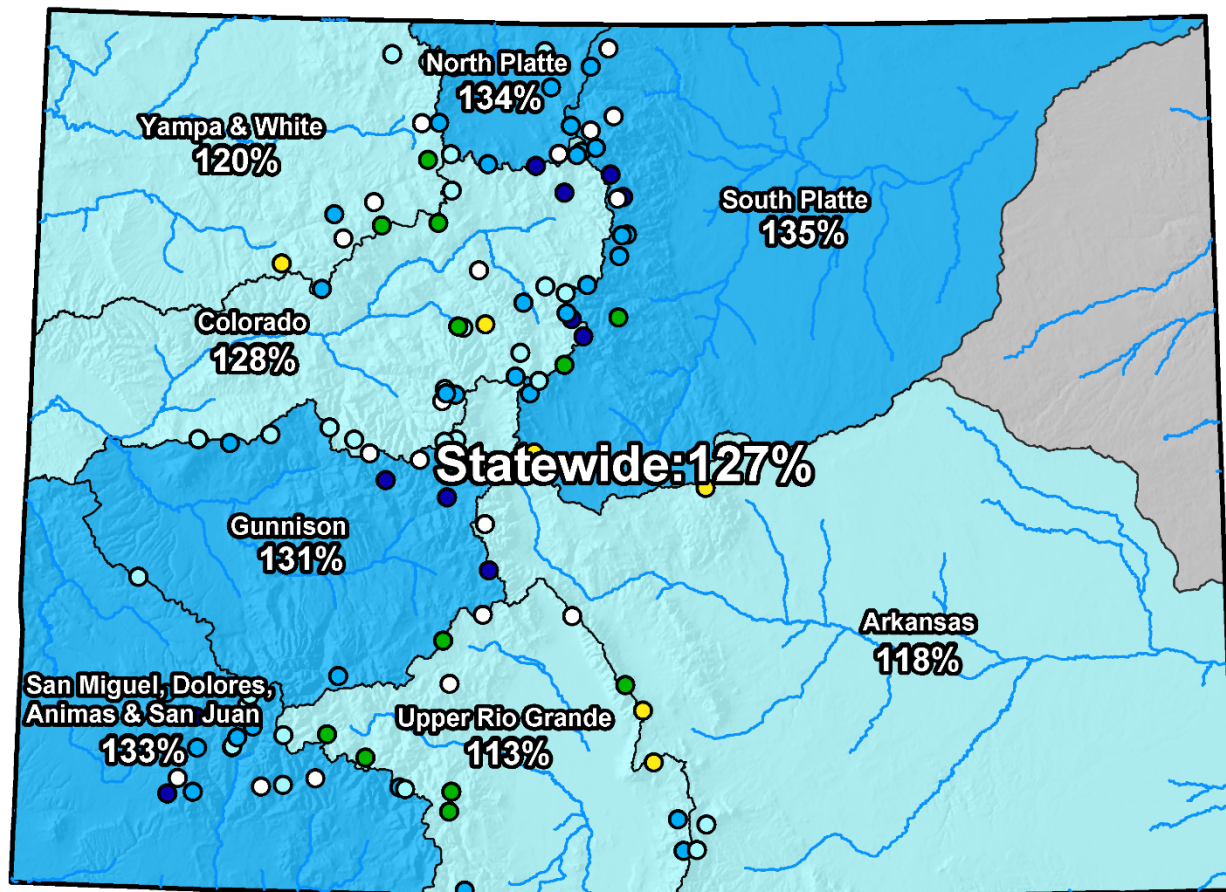
## Colorado Statewide High/Low Year-to-Date Precipitation Summary

*Based on Provisional SNOTEL data as of Feb 14, 2017*



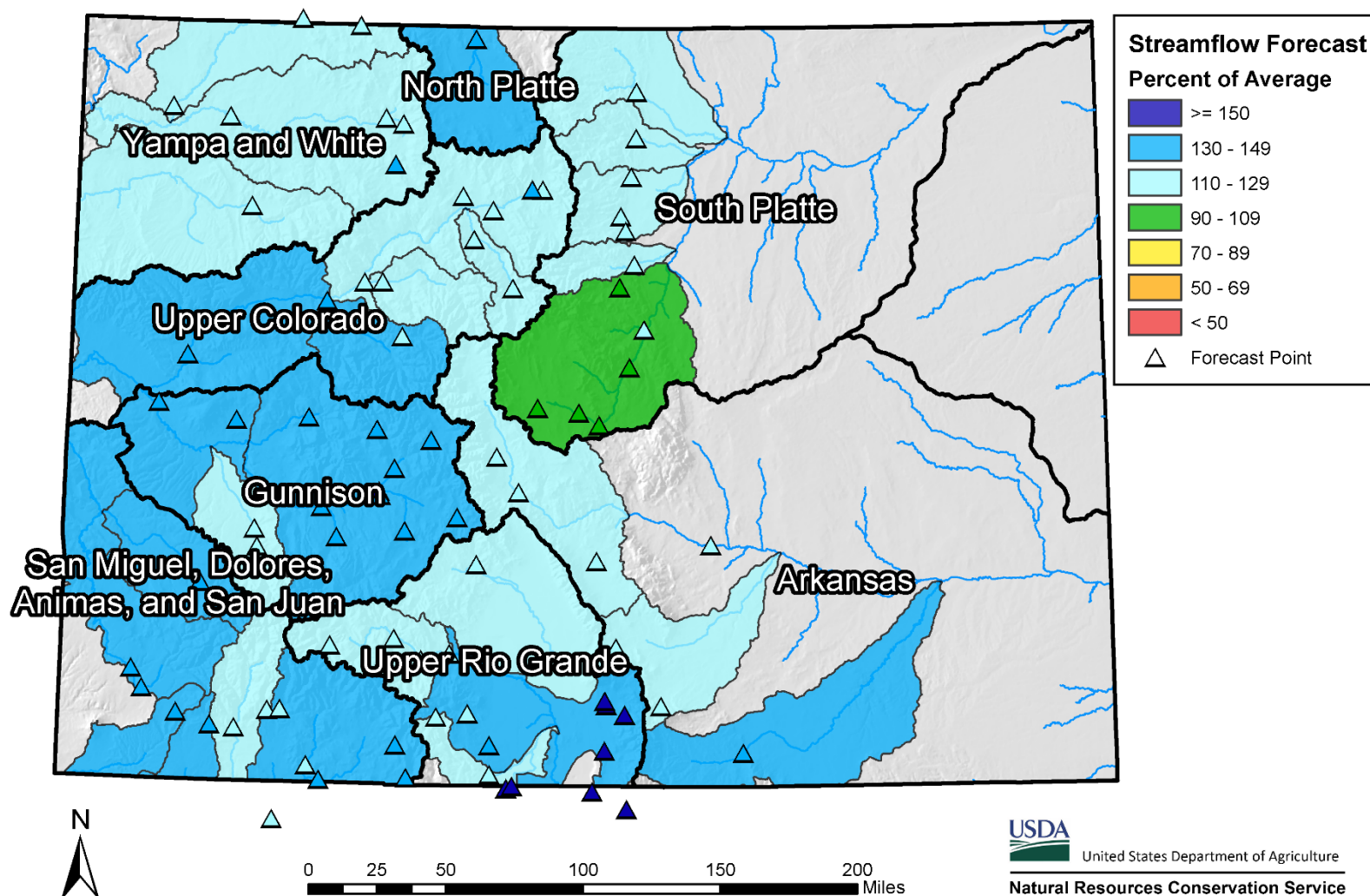
## Colorado SNOTEL Water Year to Date Precipitation

Current as of Feb 14, 2017





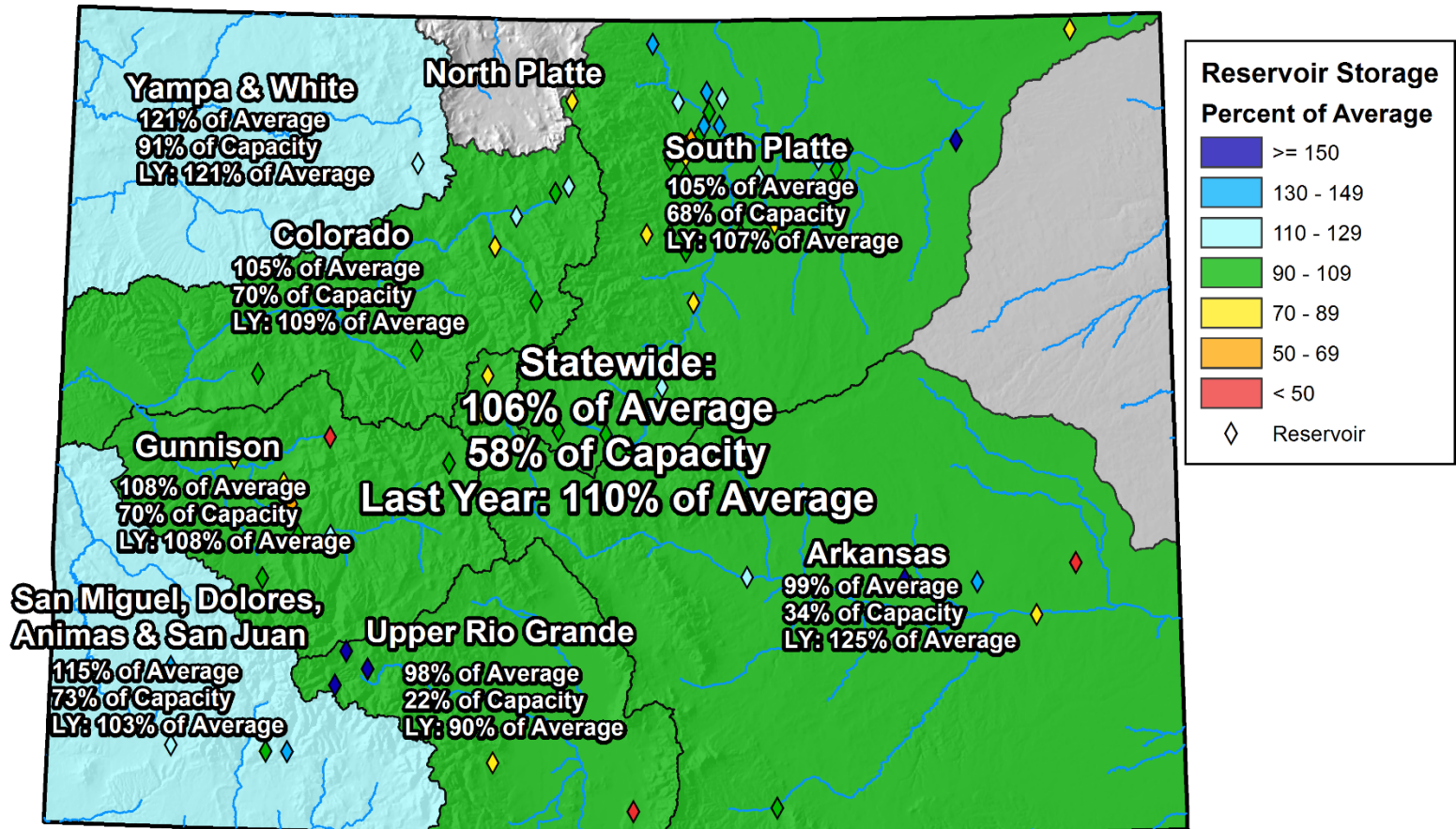
## Colorado Streamflow Forecasts Summary February 1, 2017





## Colorado Monthly Reservoir Storage Summary

End of January 2017

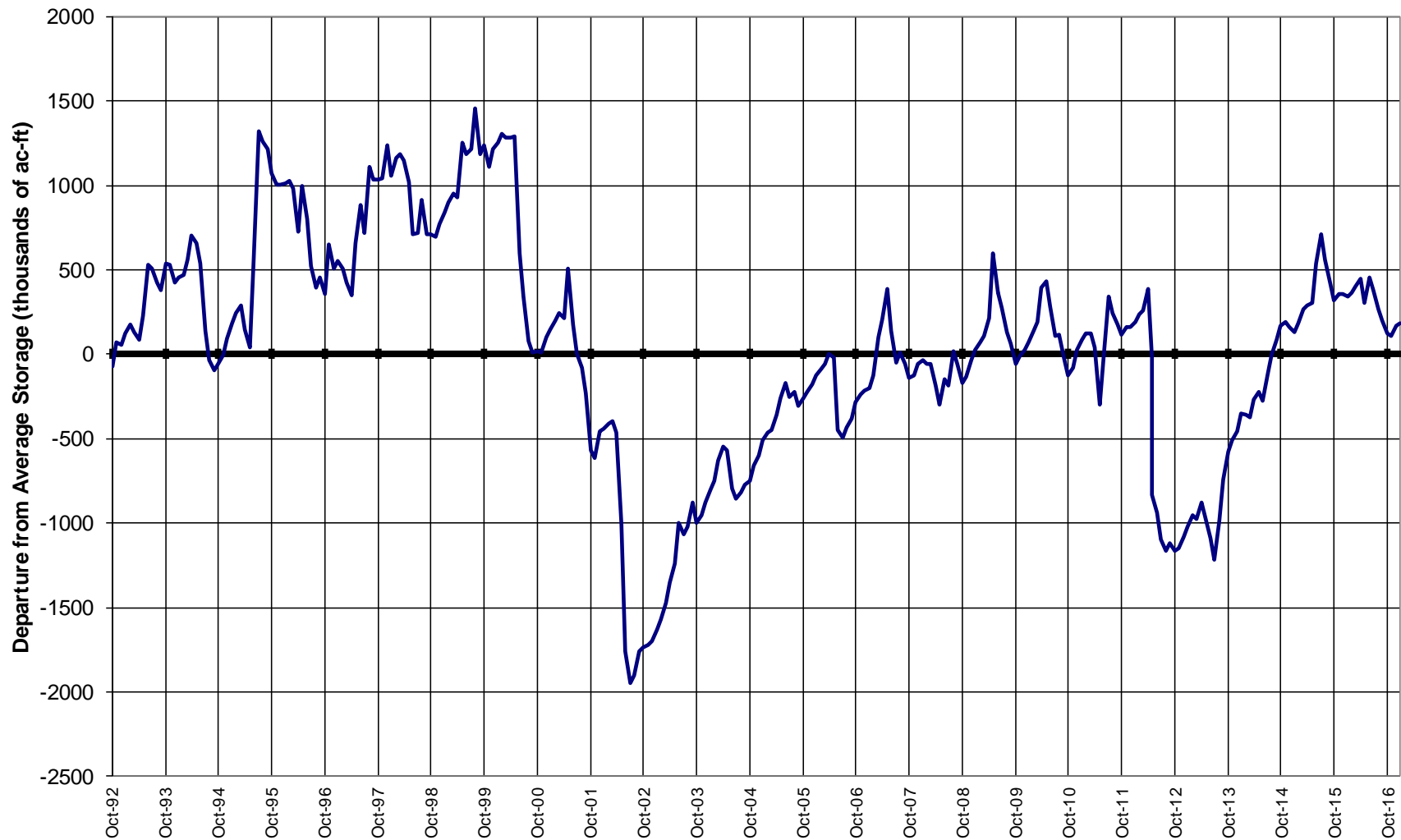


0 25 50 100 150 200 Miles





## COLORADO STATEWIDE Reservoir Storage Departure from Average

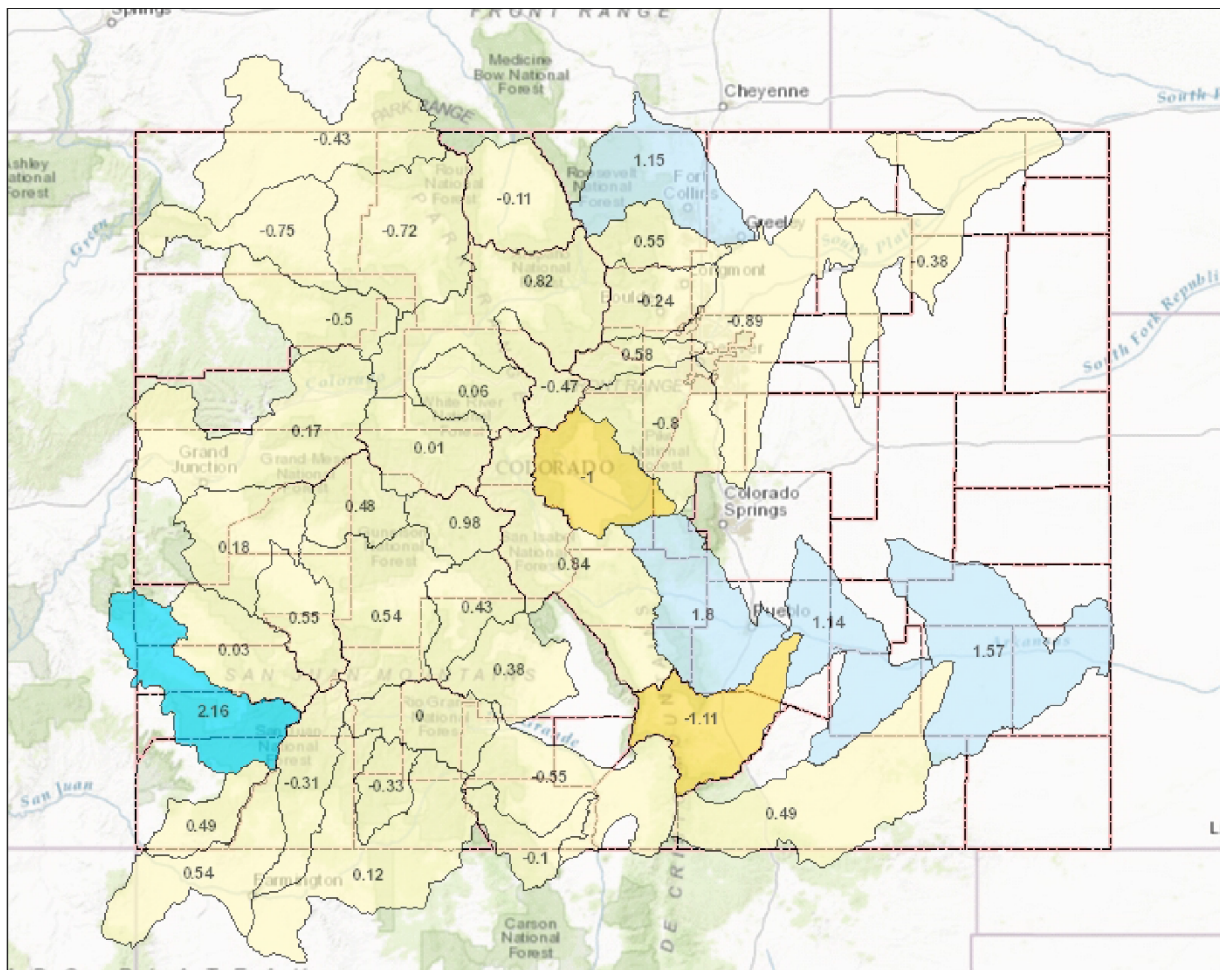




**CDSS**

Colorado's Decision Support Systems

## Map Viewer



### Legend

#### SWSI - Current Report

- SWSI Not Applicable (-99.99)
- Extremely Dry (-3.0 - -4.2)
- Moderately Dry (-2.0 to -2.9)
- Slightly Dry (-1.0 to -1.9)
- Near Average (-0.9 to 0.9)
- Slightly Wet (1.0 to 1.9)
- Moderately Wet (2.0 to 2.9)
- Extremely Wet (3.0 to 4.2)

County

### Location



### Notes

113.39 0 56.7 113.39 Miles

1: 3,592,220



*This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.*

Date Prepared: 1/18/2017 4:58:42 PM

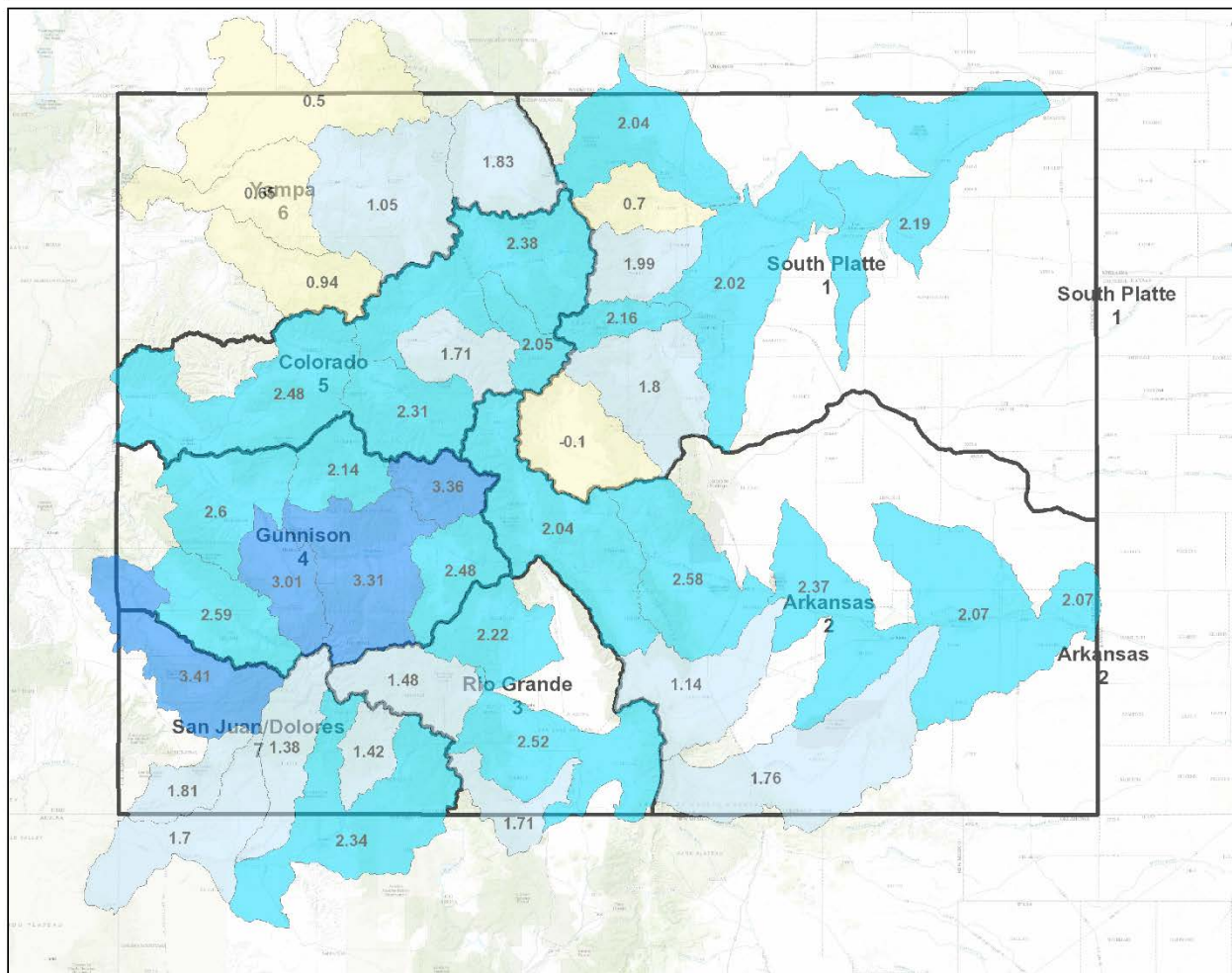




**CDSS**

Colorado's Decision Support Systems

## Map Viewer



### Legend

#### SWSI - Current Report

- ☐ SWSI Not Applicable (-99.99)
- ☐ Extremely Dry (-3.0 to -4.2)
- ☐ Moderately Dry (-2.0 to -2.9)
- ☐ Slightly Dry (-1.0 to -1.9)
- ☐ Near Average (-0.9 to 0.9)
- ☐ Slightly Wet (1.0 to 1.9)
- ☐ Moderately Wet (2.0 to 2.9)
- ☐ Extremely Wet (3.0 to 4.2)

- ☐ Division
- ☐ Citations

### Location



### Notes

113.39 0 56.7 113.39 Miles

1: 3,592,220



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Date Prepared: 2/14/2017 10:39:51 AM



# Summary

- January brought over twice the normal amount of mountain precipitation to Colorado. February has been above normal on average across the state but more spatially variable
- Statewide snowpack as of 1/14/2017 was 147% of median
- Currently nine SNOTEL sites have their highest SWE values on record and 11 have their second highest
- Reservoir storage has remained relatively constant and currently resides at 106% of average
- Substantial increase in SWSI values statewide over last month



United States Department of Agriculture

Colorado Snow Surveys

# Water Availability Task Force Meeting

## February 15<sup>th</sup>, 2017

### NRCS Snow Survey and Water Supply Forecasting Program

Karl Wetlaufer

Asst. Snow Survey Supervisor

720-544-2853

<http://www.nrcs.usda.gov/wps/portal/nrcs/main/co/snow/>