



United States Department of Agriculture

Colorado Snow Surveys

# Water Availability Task Force Meeting

## November 14<sup>th</sup>, 2017

### NRCS Snow Survey and Water Supply Forecasting Program

Karl Wetlaufer

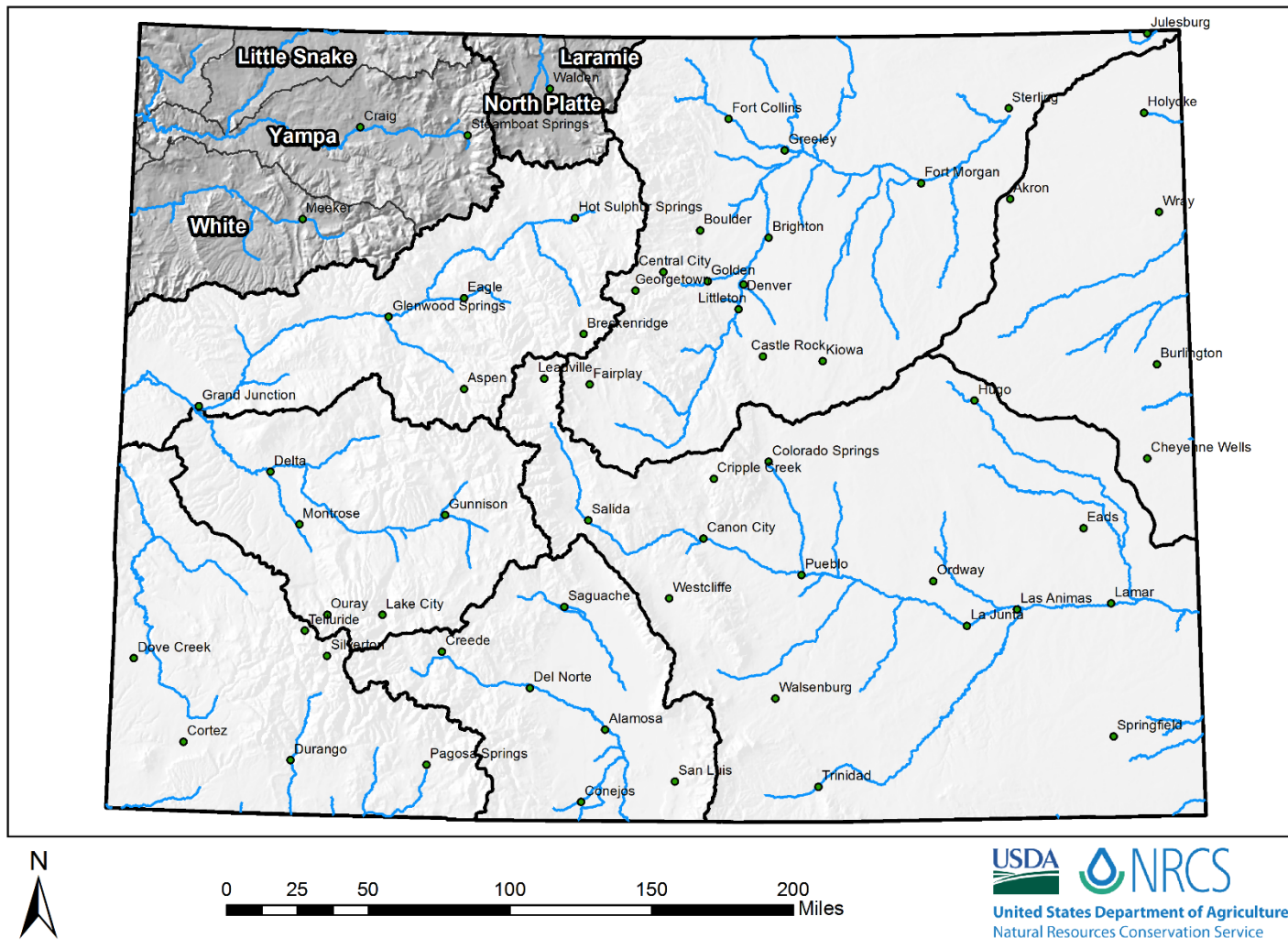
Asst. Snow Survey Supervisor

720-544-2853

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

## Major Basin Summary

Yampa, White, and North Platte River Basins





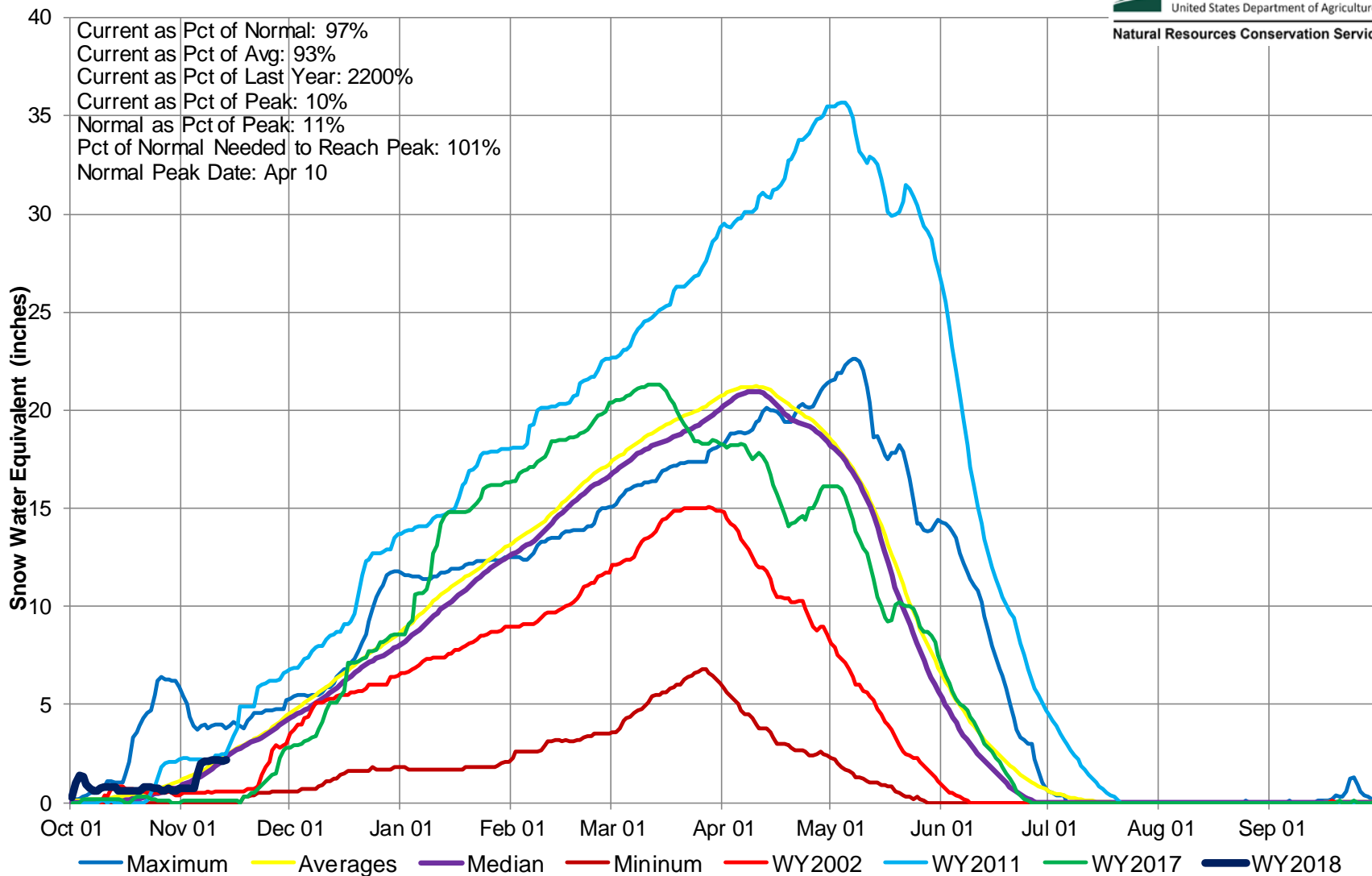
## Yampa and White River Basins High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Nov 13, 2017*



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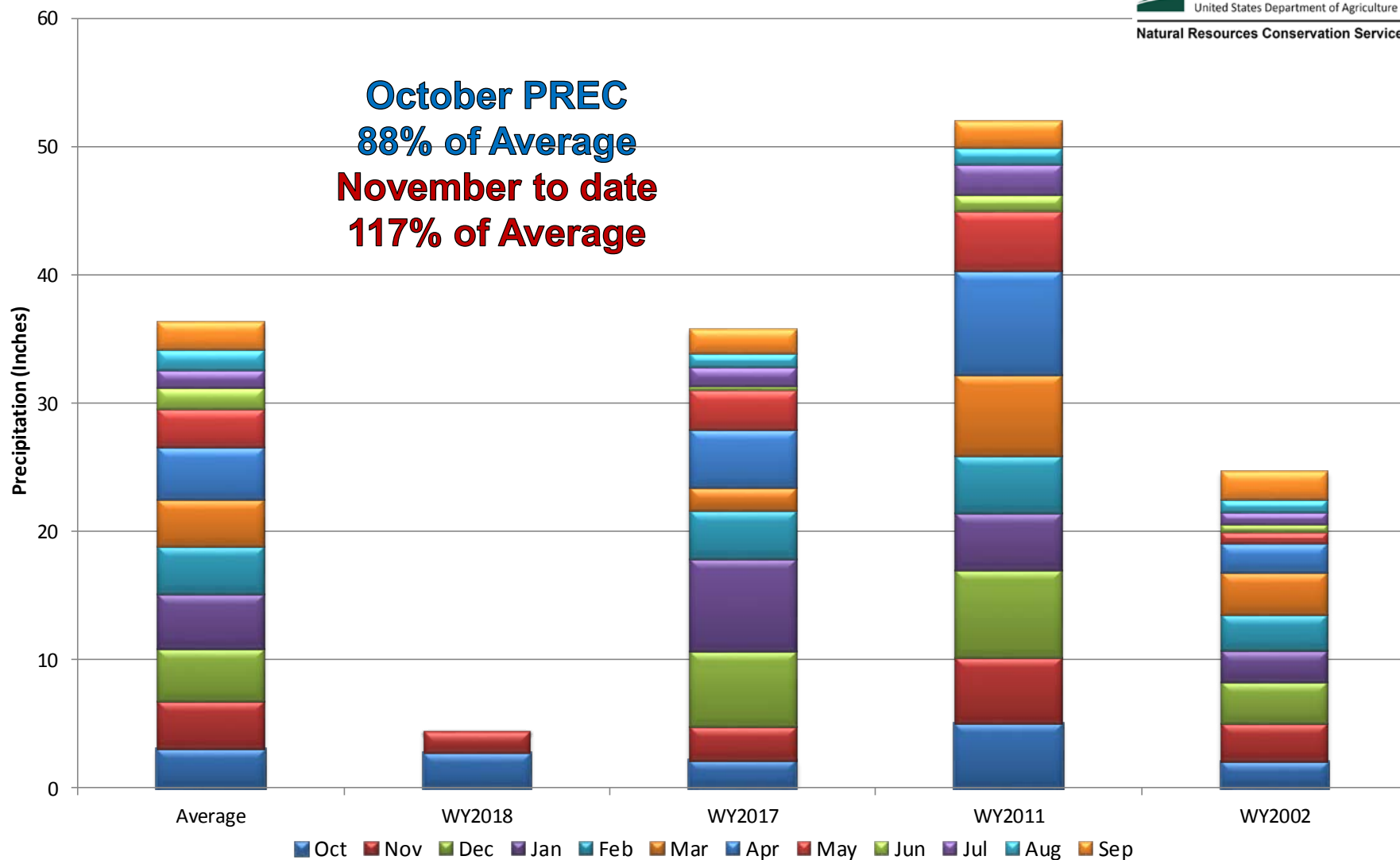
## Yampa and White River Basins High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Nov 13, 2017*



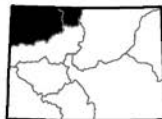
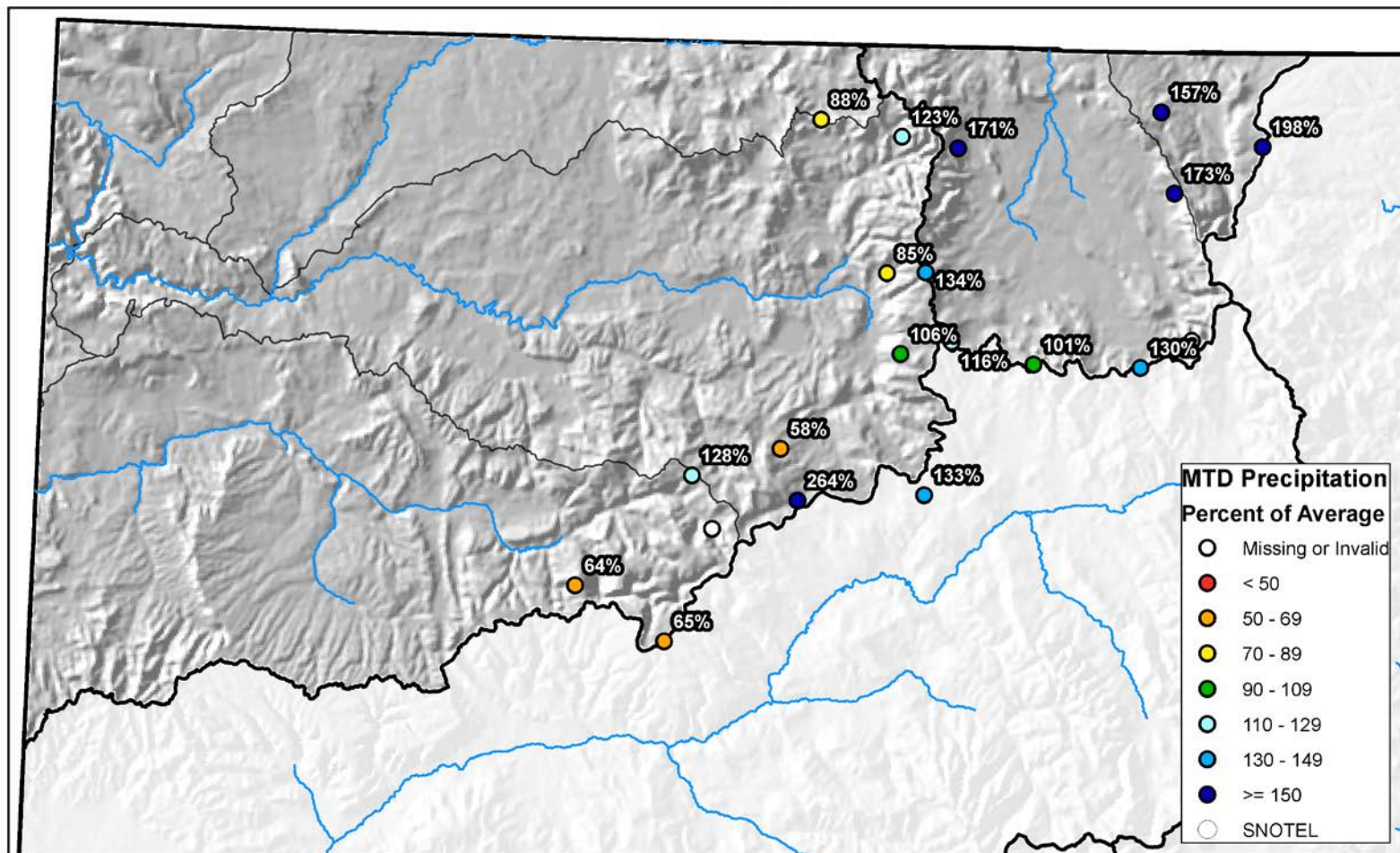
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## Yampa, White, and North Platte River Basins Month to Date Precipitation Summary Current as of Nov 13, 2017



0 10 20 40 60 80 Miles



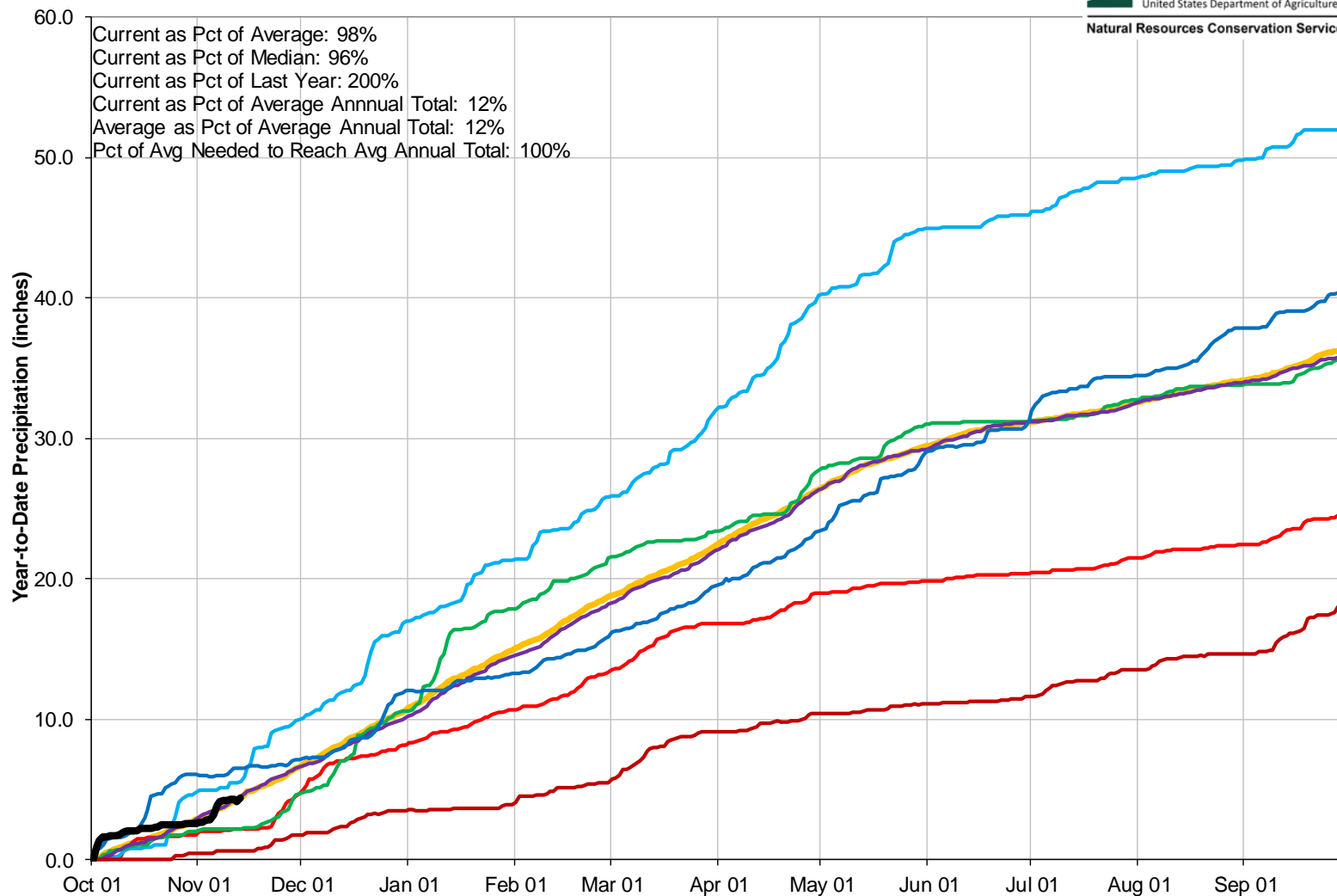
## Yampa and White River Basins High/Low Year-to-Date Precipitation Summary

*Based on Provisional SNOTEL data as of Nov 13, 2017*

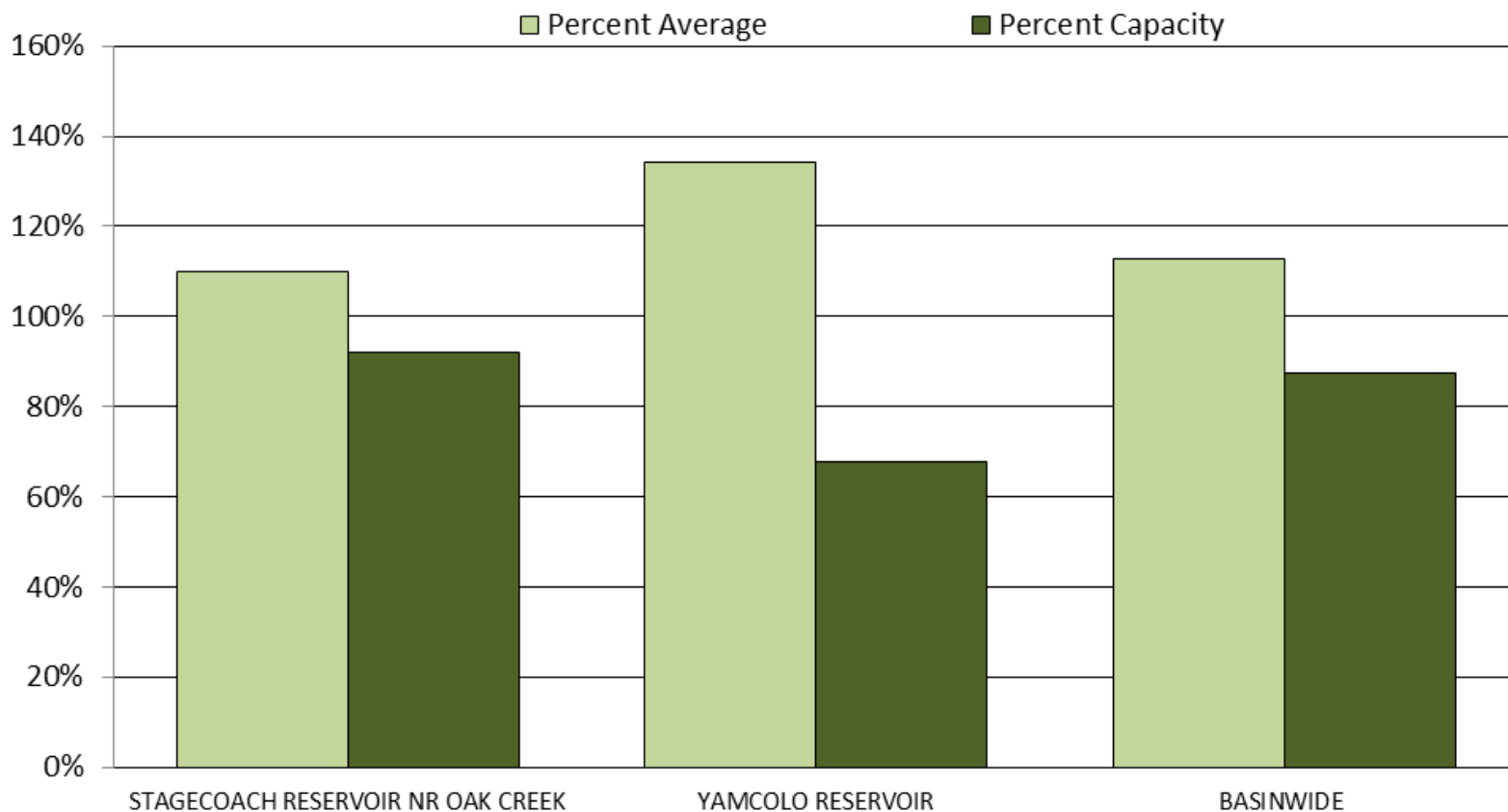


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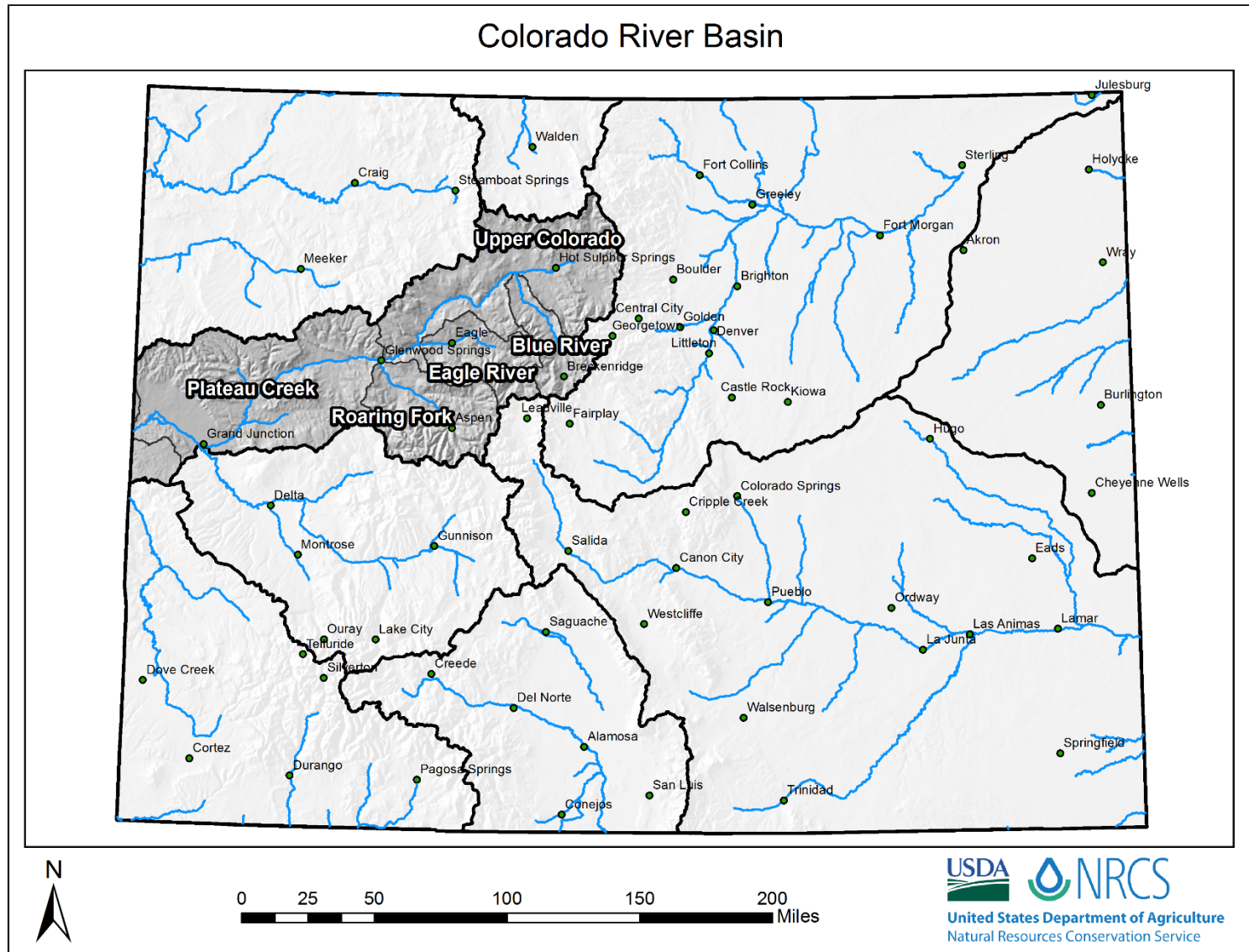
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## Reservoir Storage



## Major Basin Summary





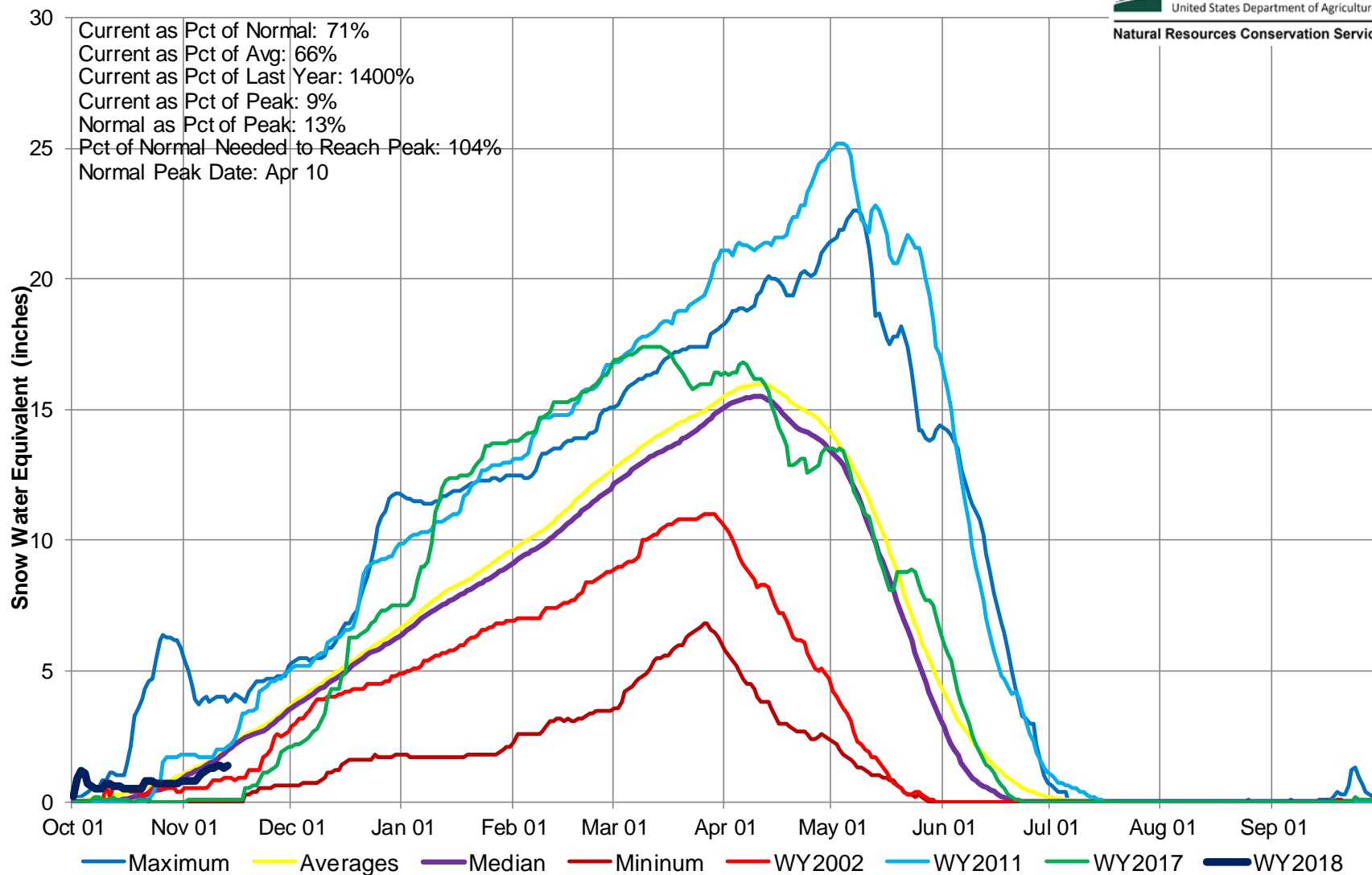
## Upper Colorado River Basin High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Nov 13, 2017*



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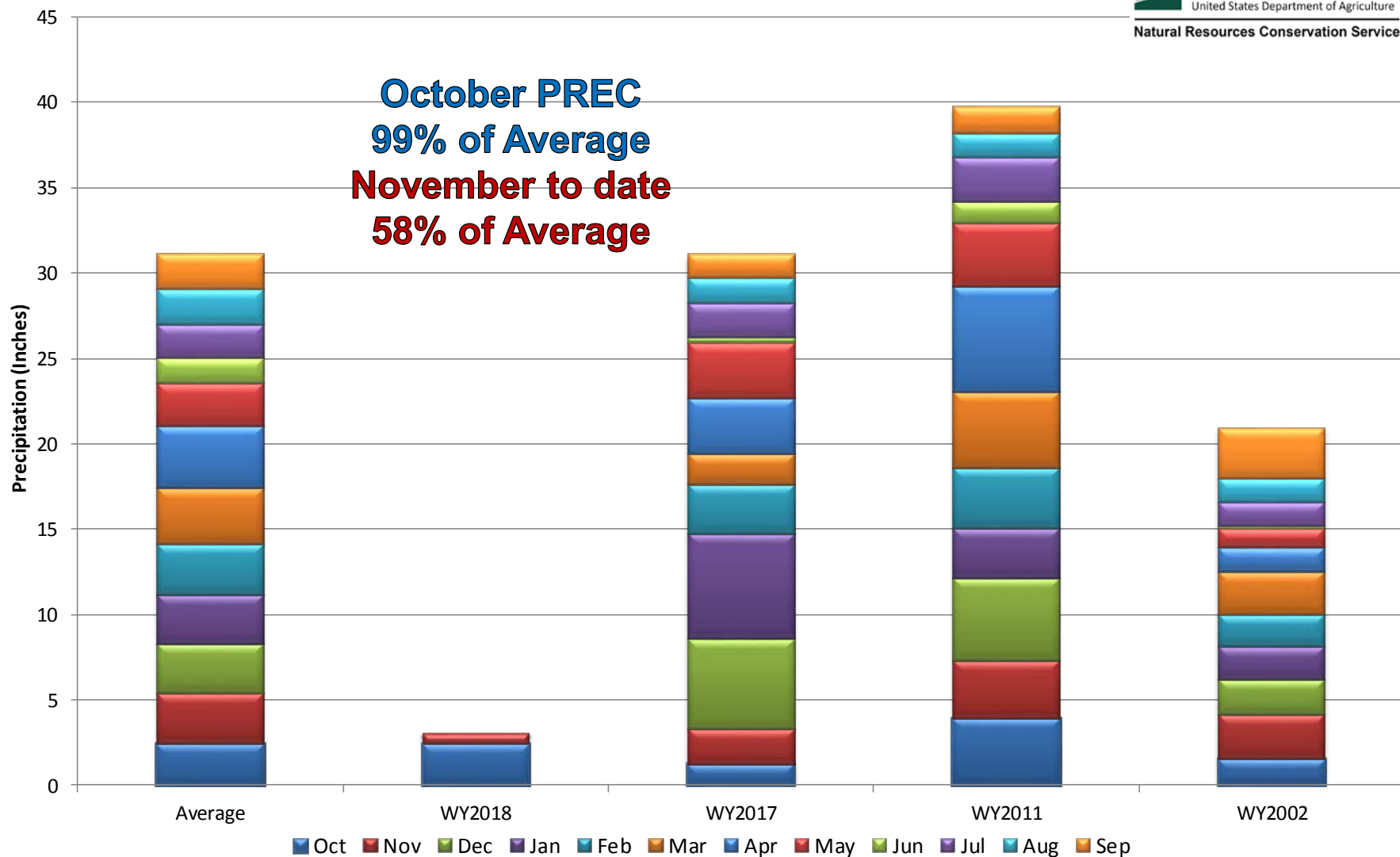
## Upper Colorado River Basin High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Nov 13, 2017*



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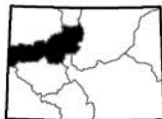
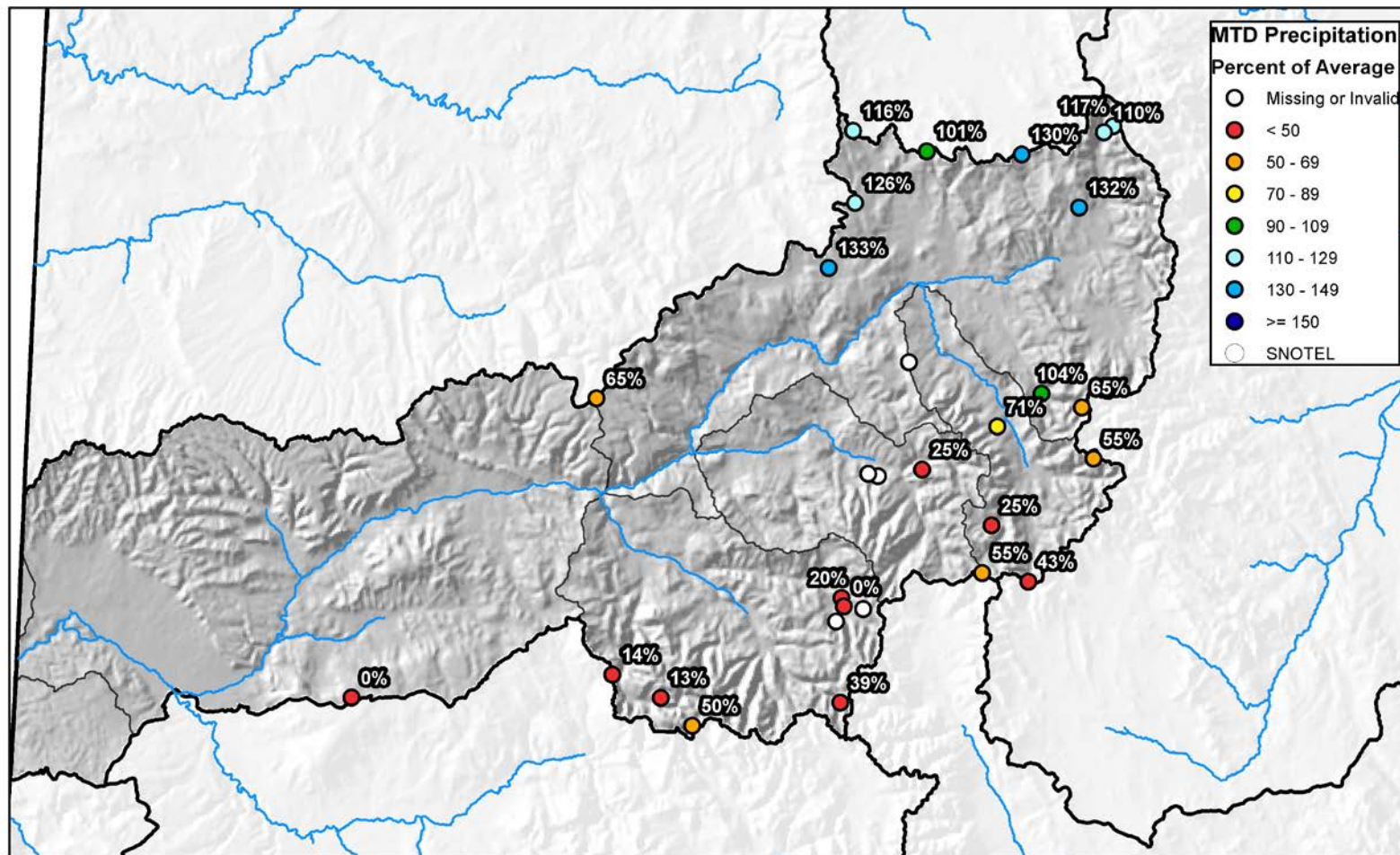
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## Upper Colorado River Basin Month to Date Precipitation Summary

Current as of Nov 13, 2017



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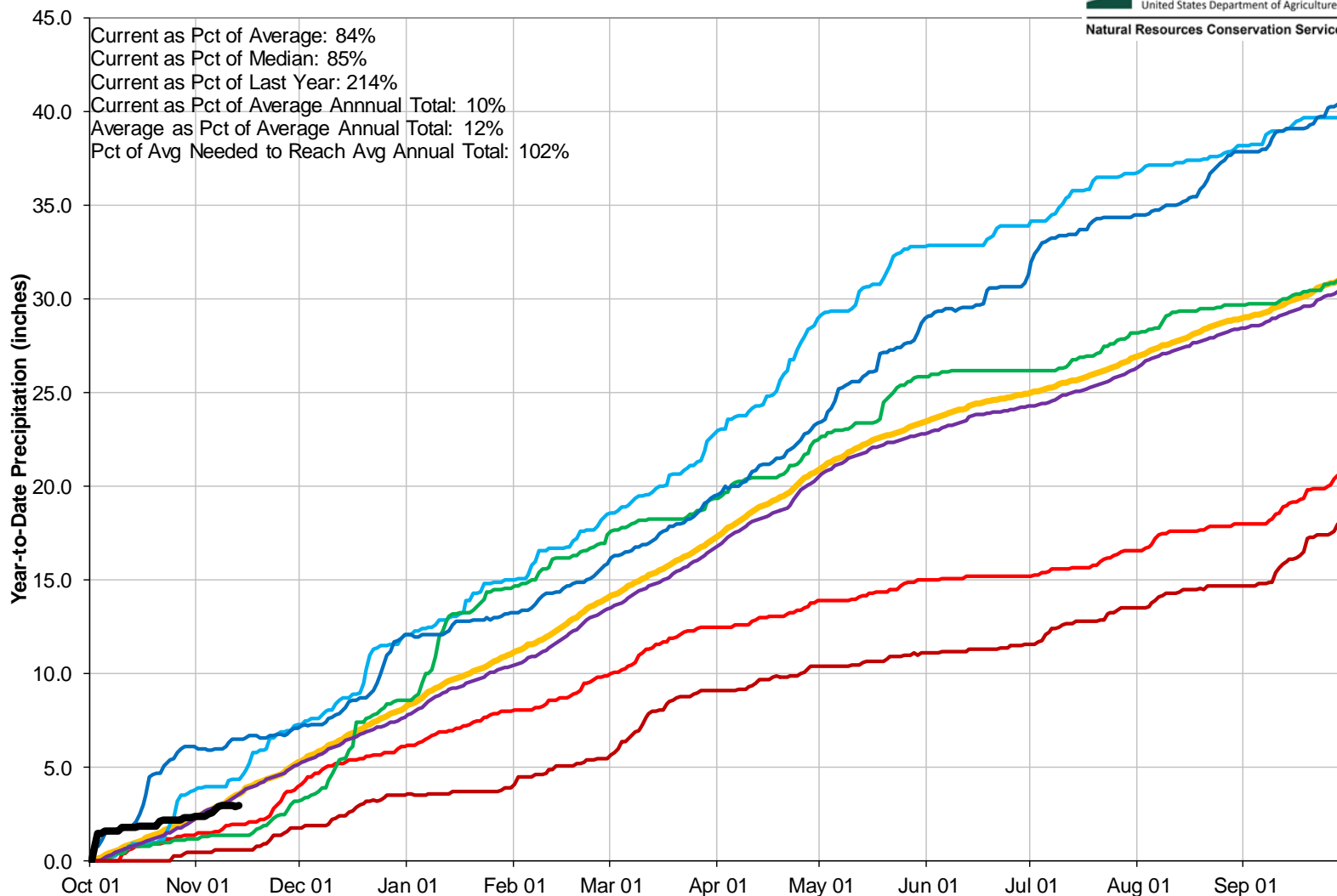
## Upper Colorado River Basin High/Low Year-to-Date Precipitation Summary

*Based on Provisional SNOTEL data as of Nov 13, 2017*

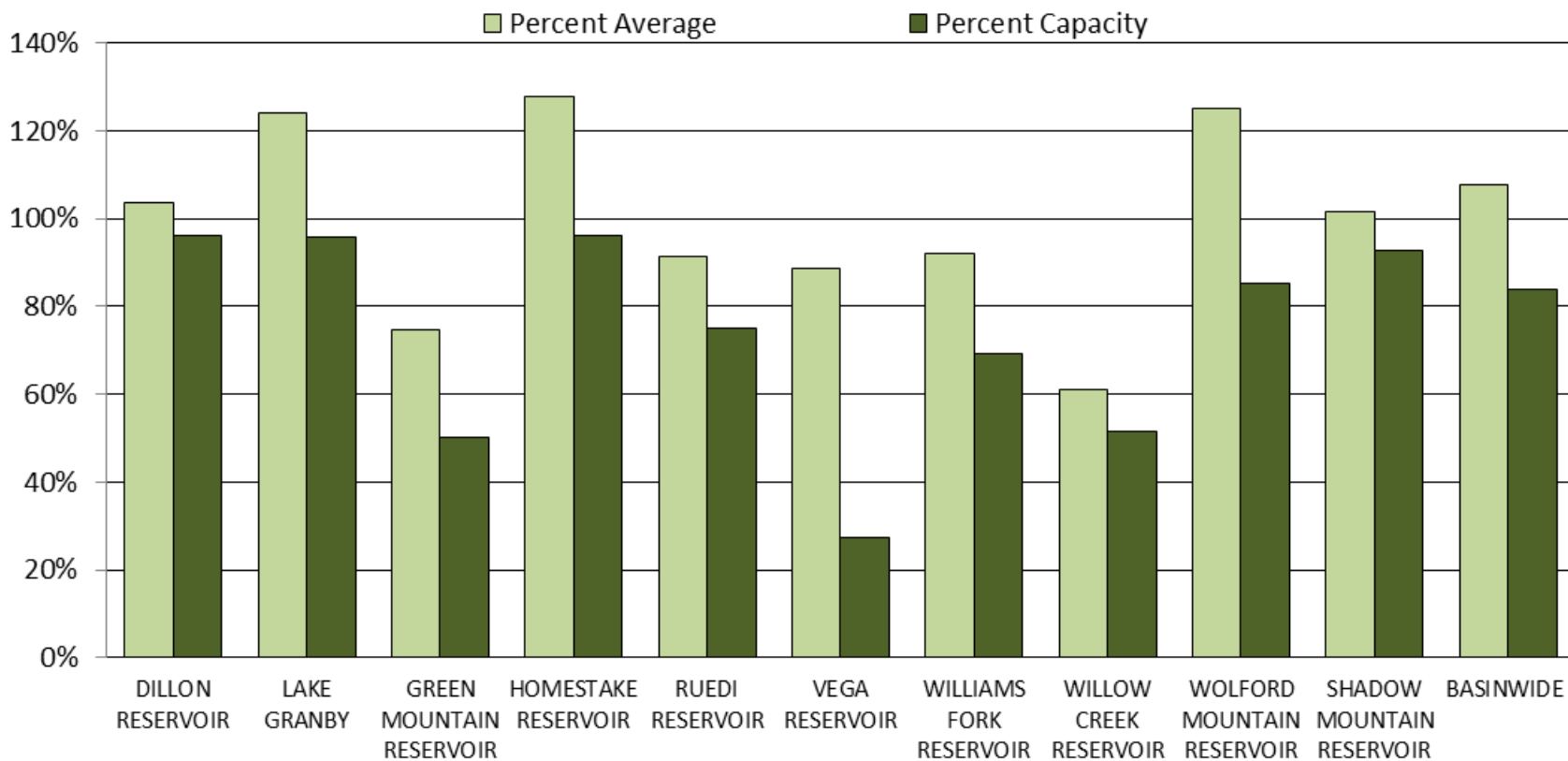


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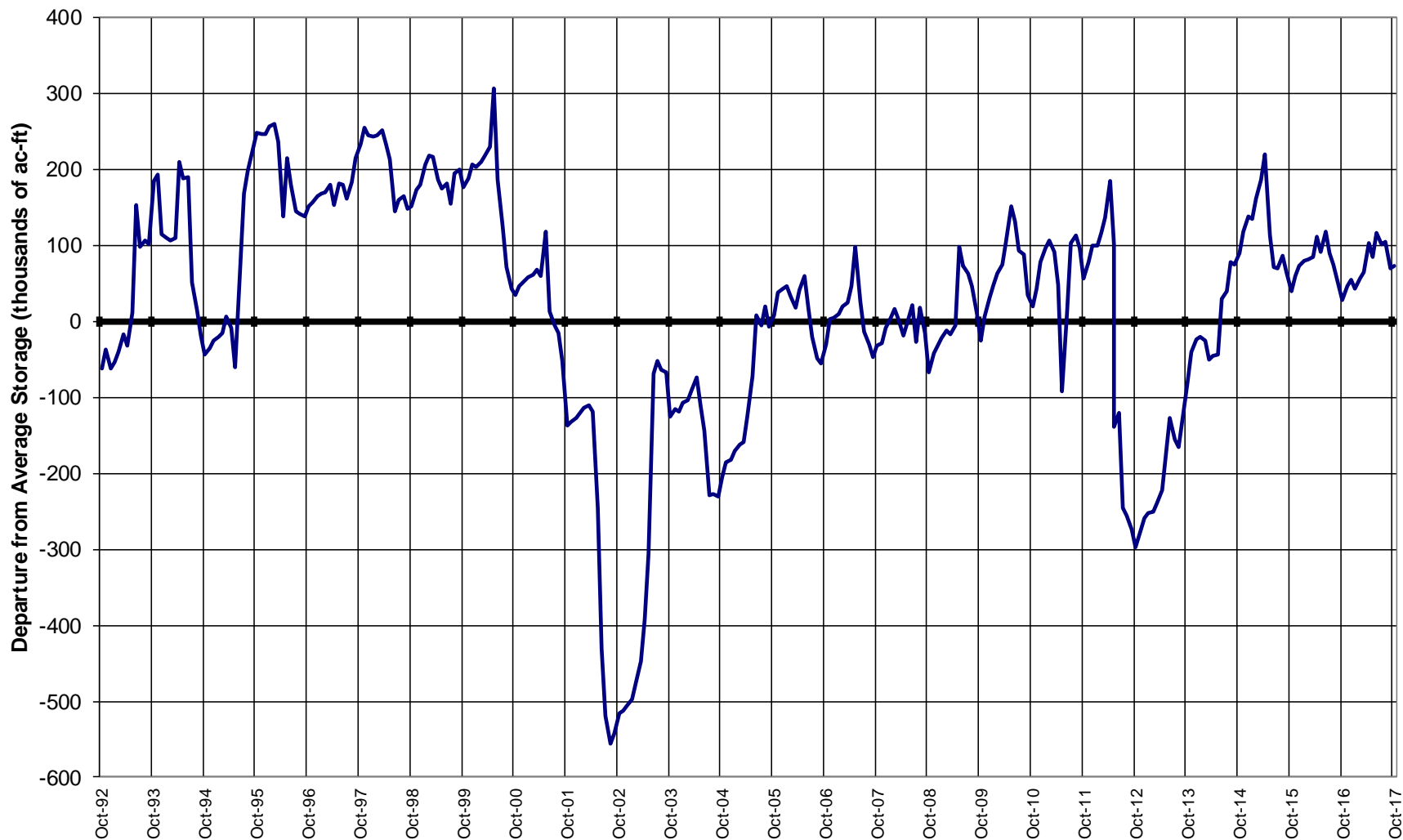


## Reservoir Storage



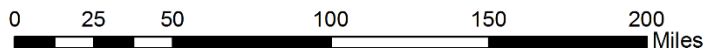
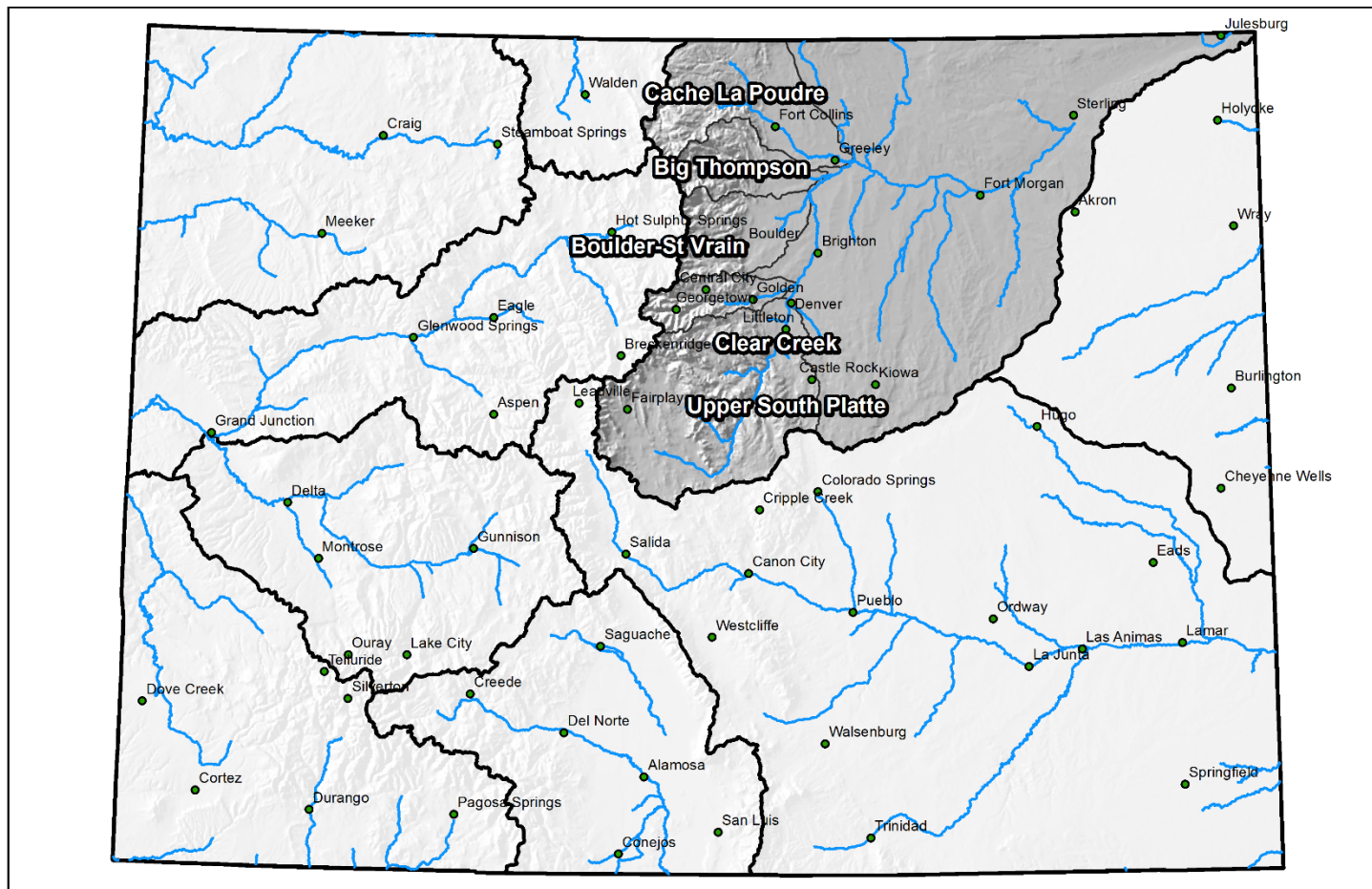


## COLORADO RIVER BASIN Reservoir Storage Departure from Average



## Major Basin Summary

### South Platte River Basin







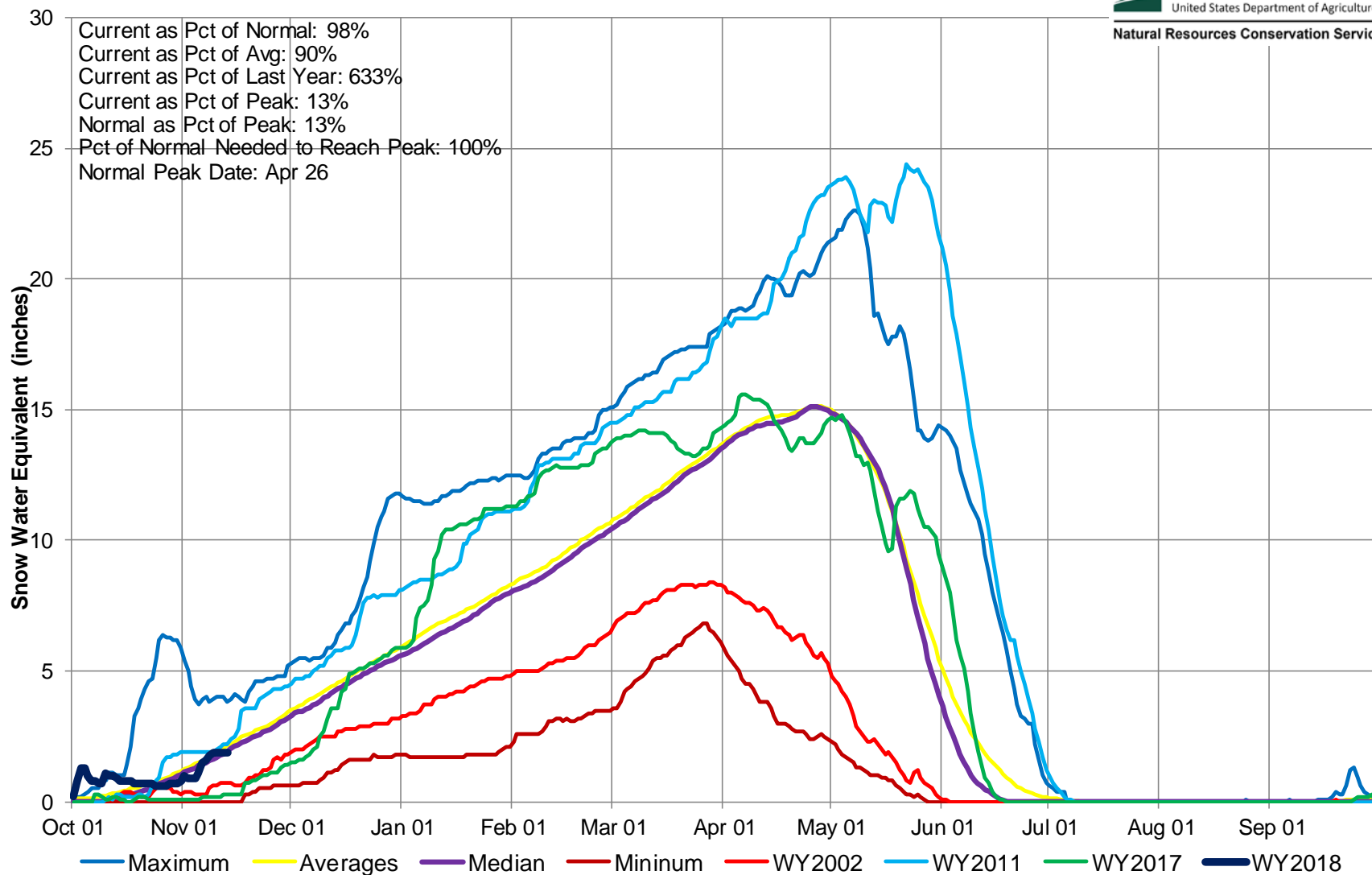
## South Platte River Basin High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Nov 13, 2017*



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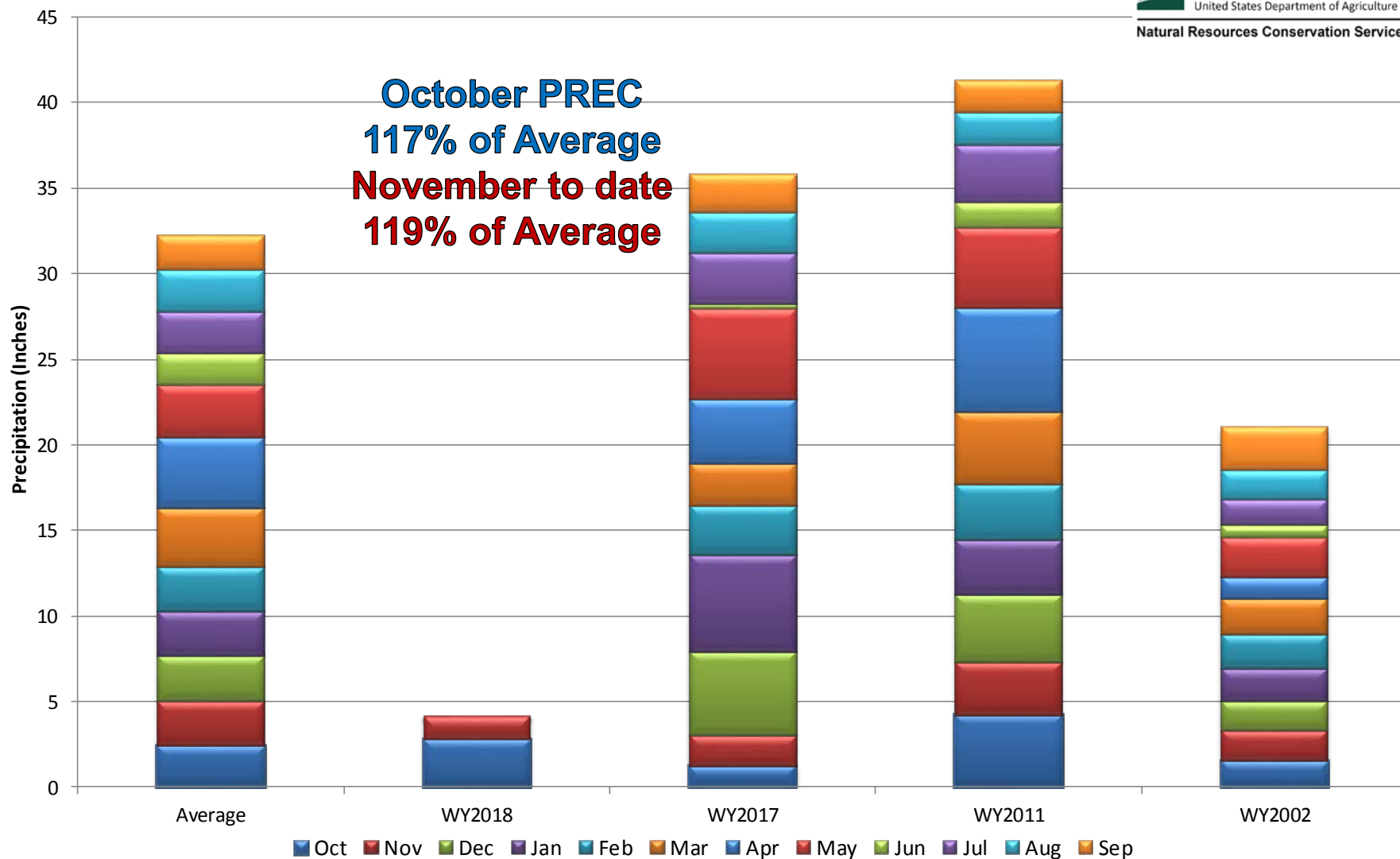
## South Platte River Basin High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Nov 13, 2017*



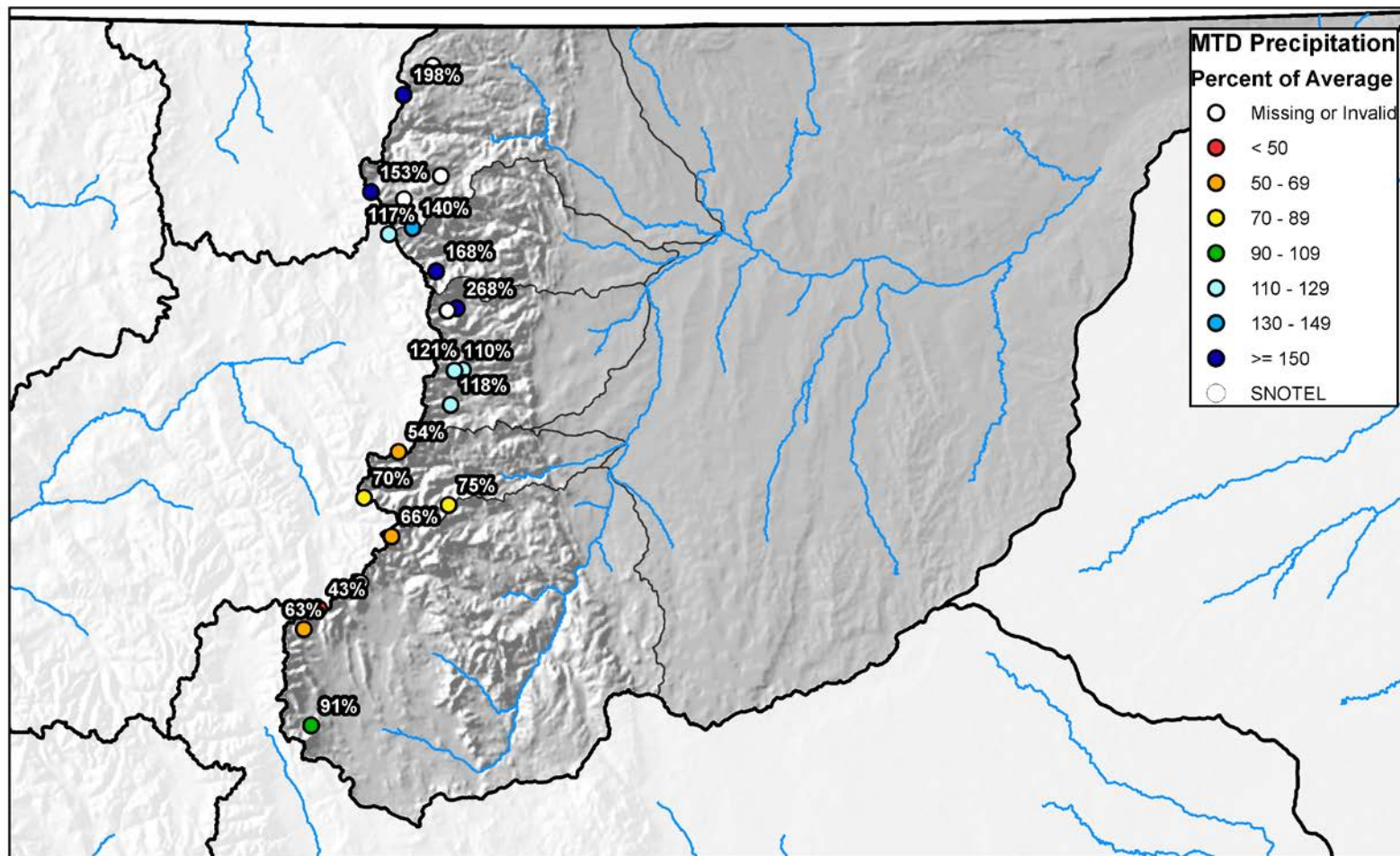
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## South Platte River Basin Month to Date Precipitation Summary

Current as of Nov 13, 2017



0 10 20 40 60 80 Miles

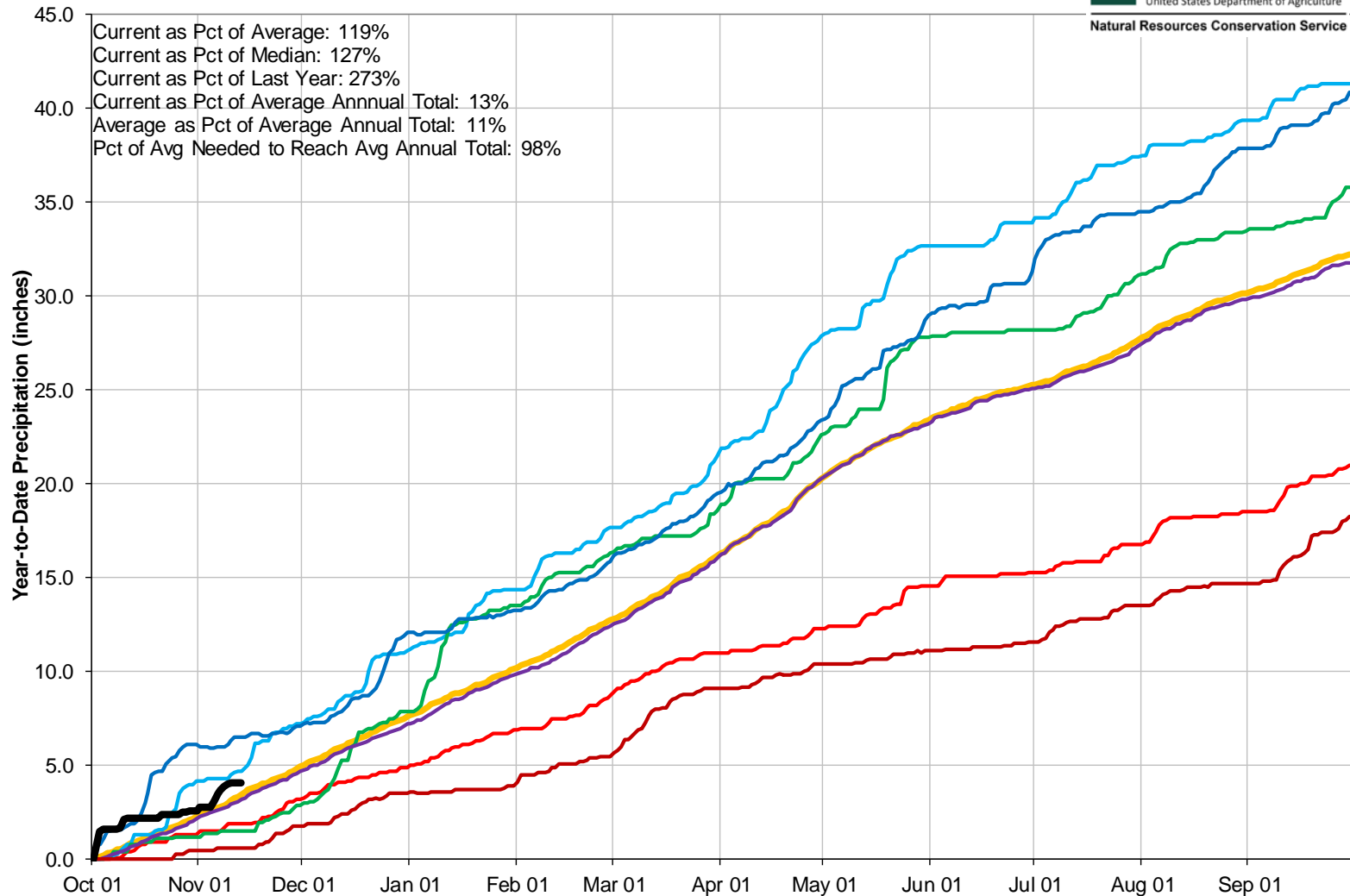
## South Platte River Basin High/Low Year-to-Date Precipitation Summary

*Based on Provisional SNOTEL data as of Nov 13, 2017*

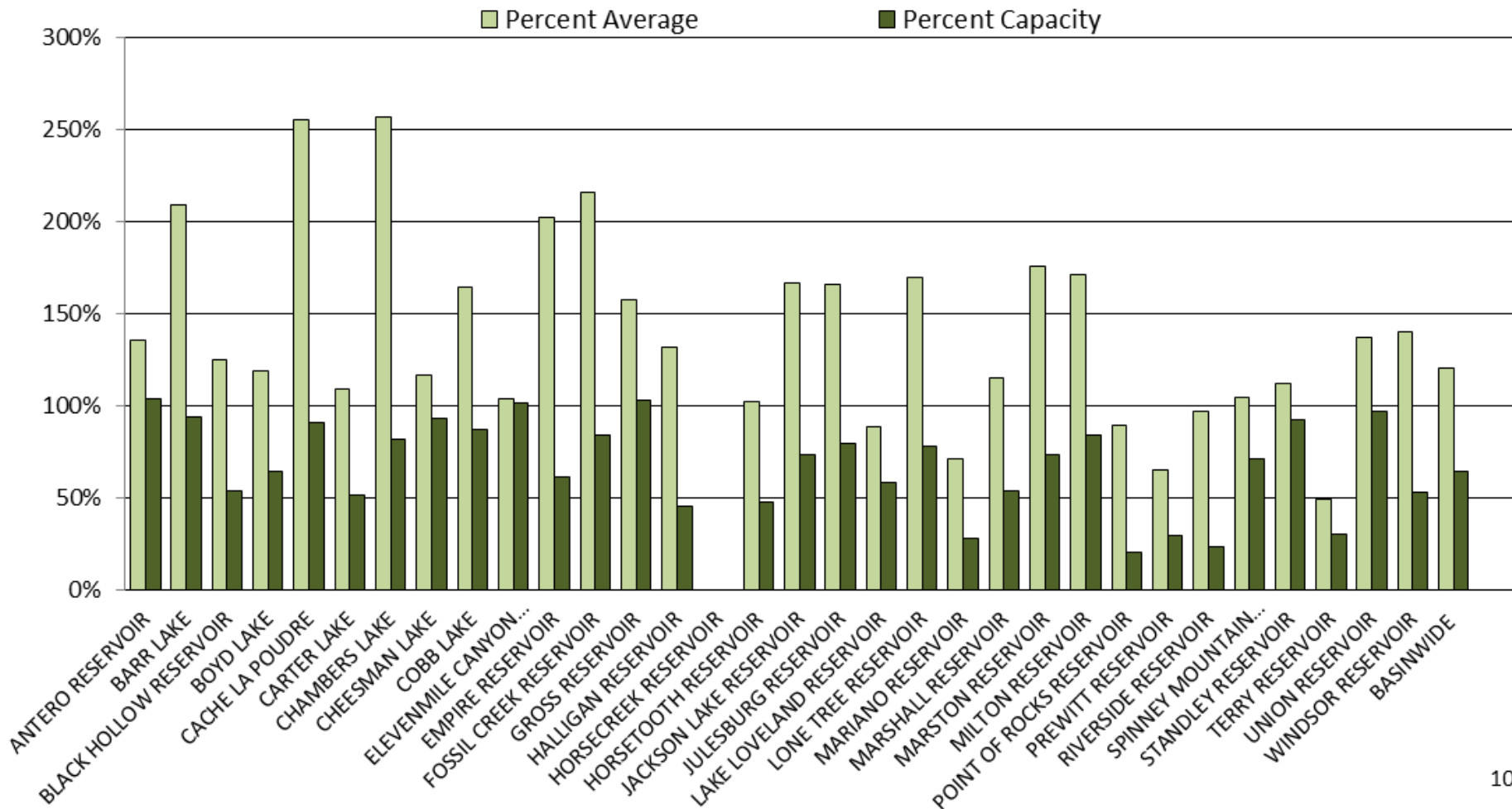


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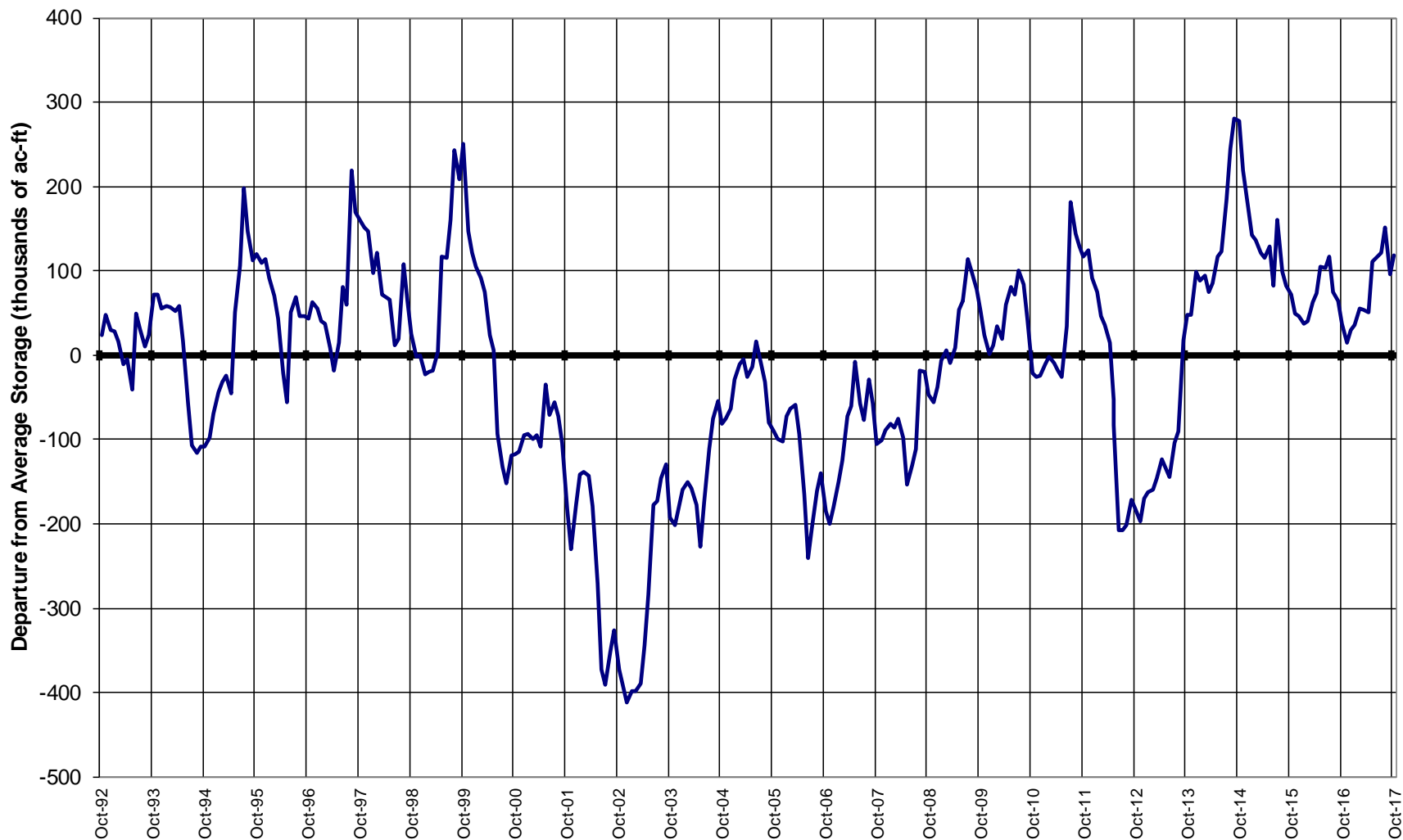


## Reservoir Storage





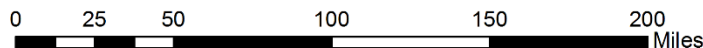
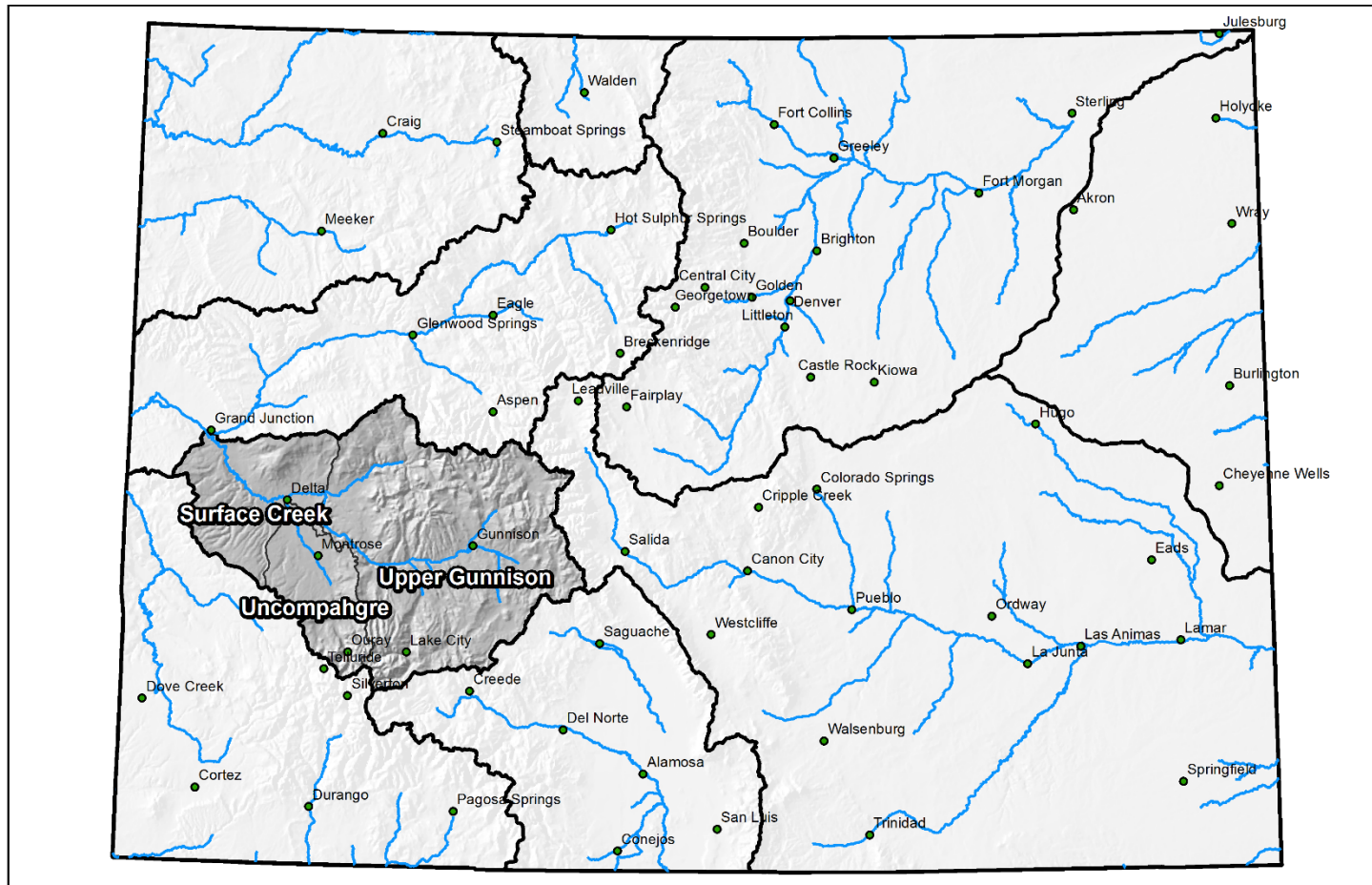
## SOUTH PLATTE RIVER BASIN Reservoir Storage Departure from Average





## Major Basin Summary

### Gunnison River Basin







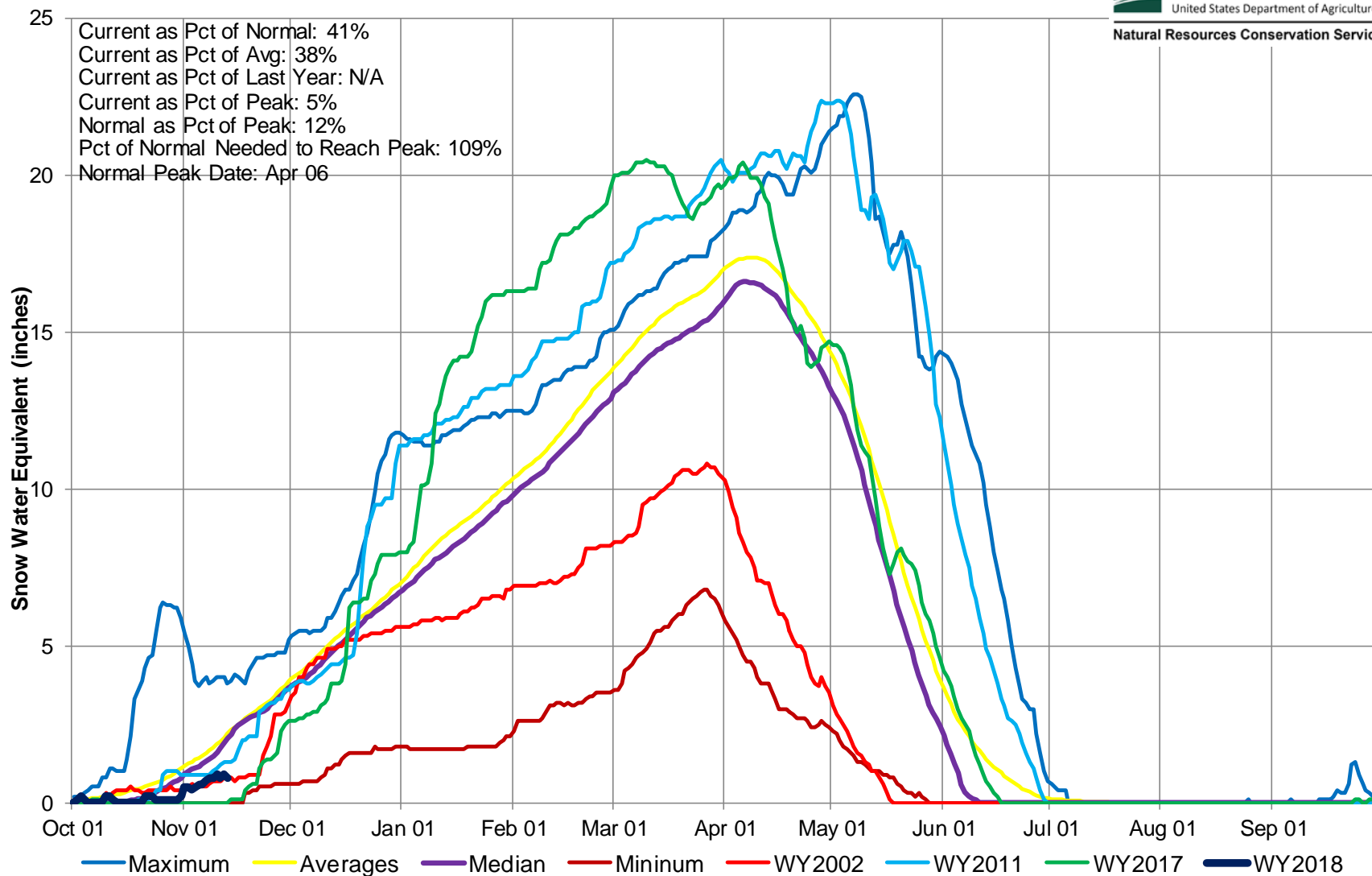
## Gunnison River Basin High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Nov 13, 2017*



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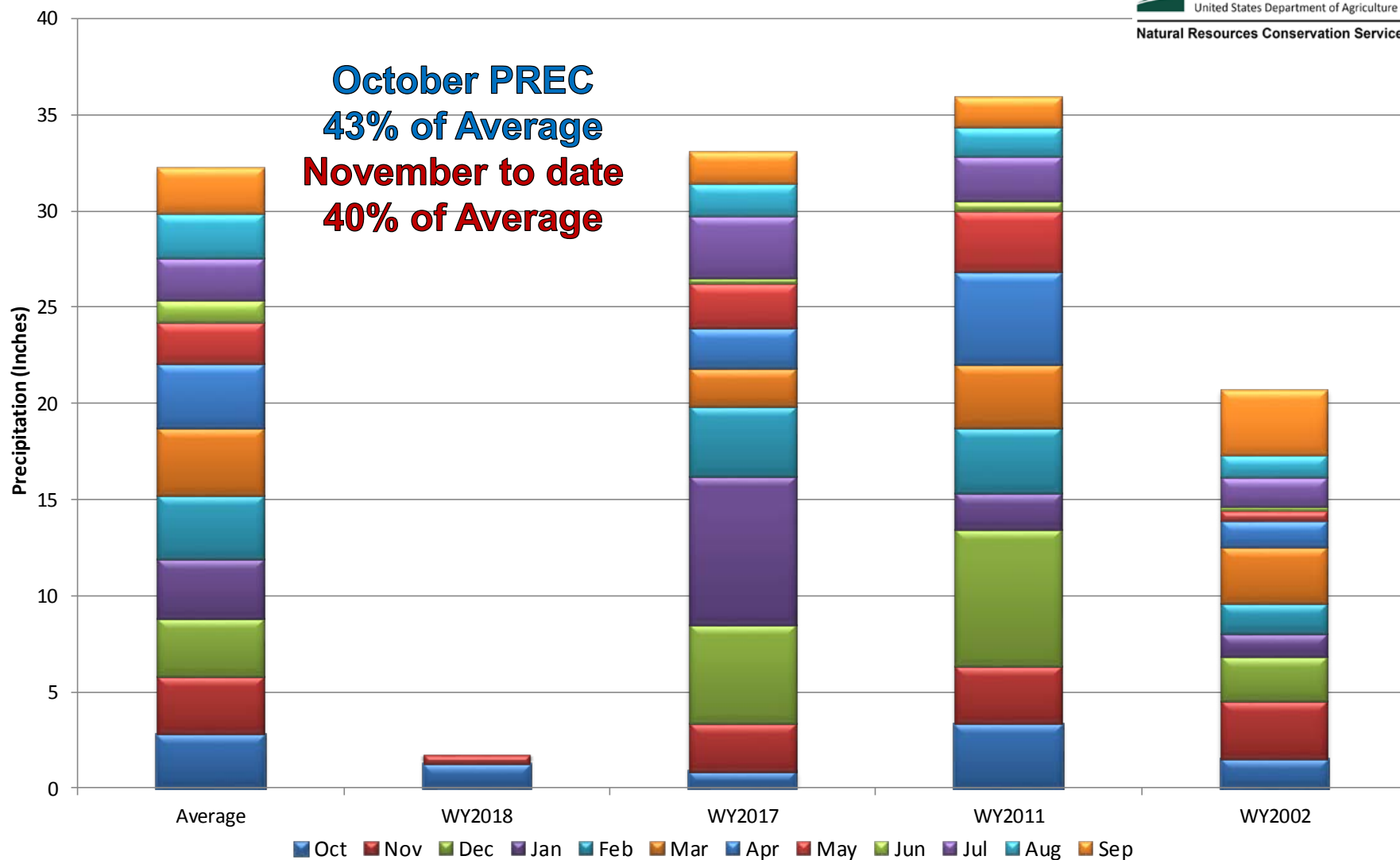
## Gunnison River Basin High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Nov 13, 2017*



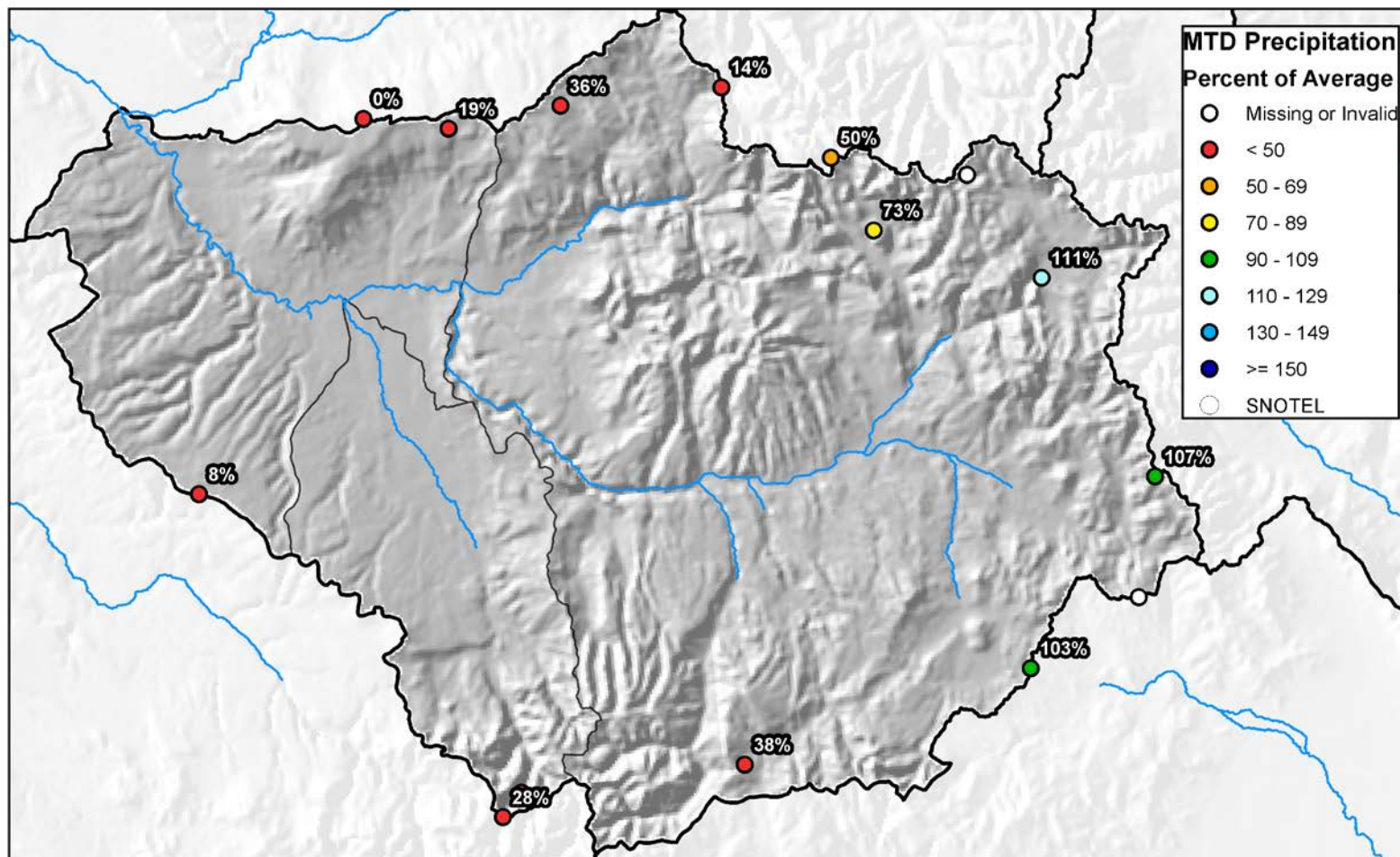
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## Gunnison River Basin Month to Date Precipitation Summary

Current as of Nov 13, 2017

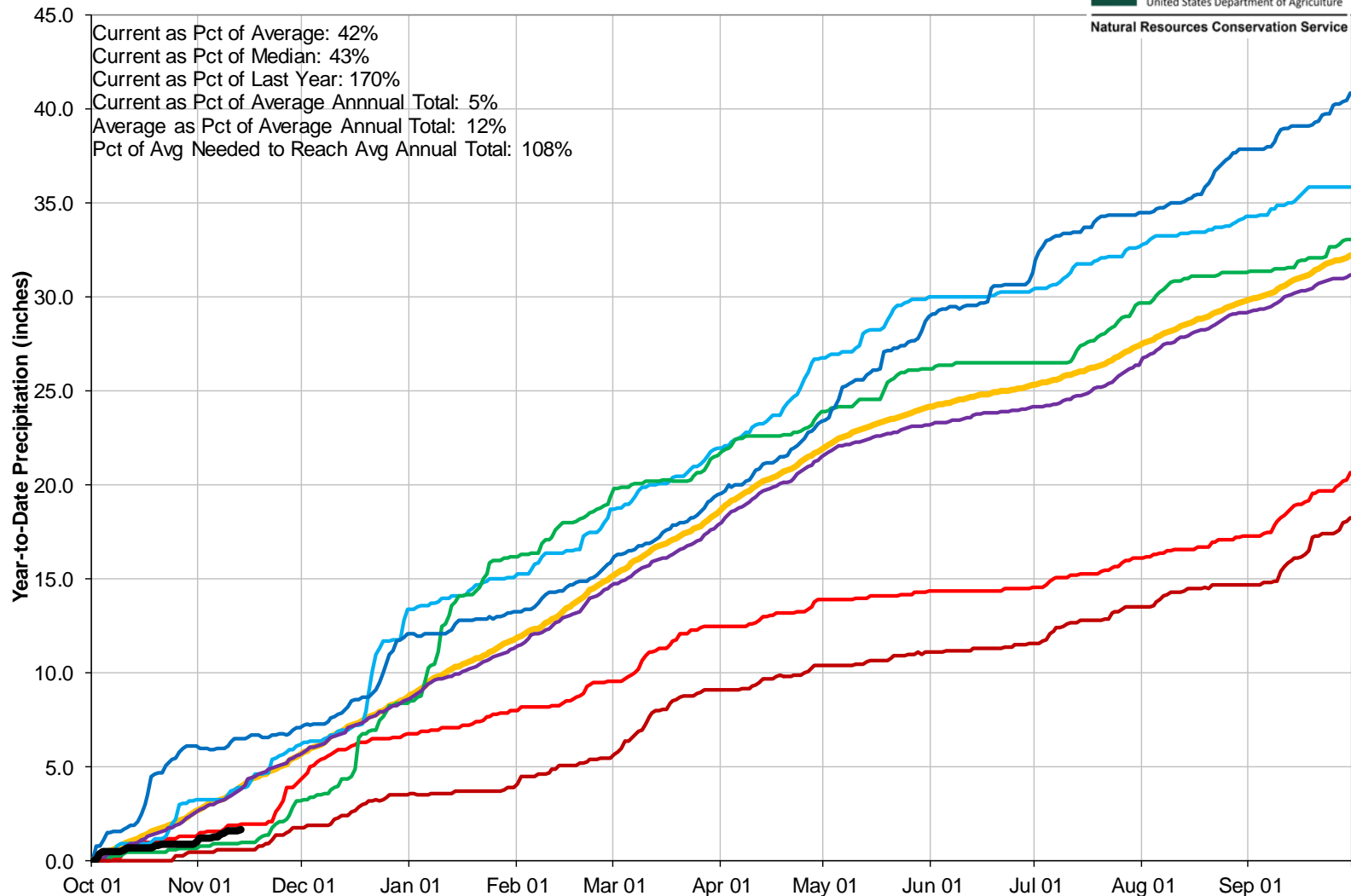


0 5 10 20 30 40 Miles



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

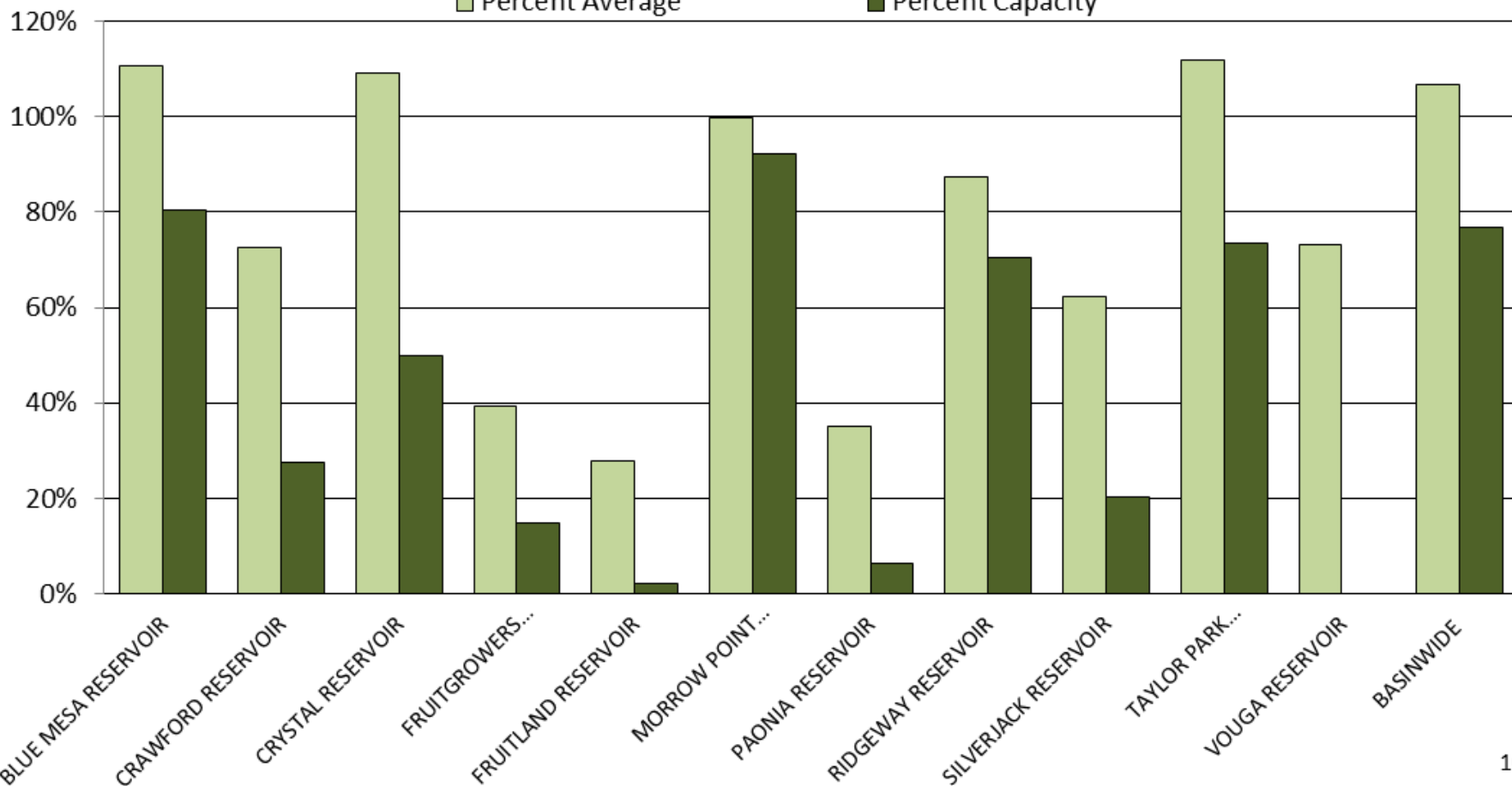
*Based on Provisional SNOTEL data as of Nov 13, 2017*



## Reservoir Storage

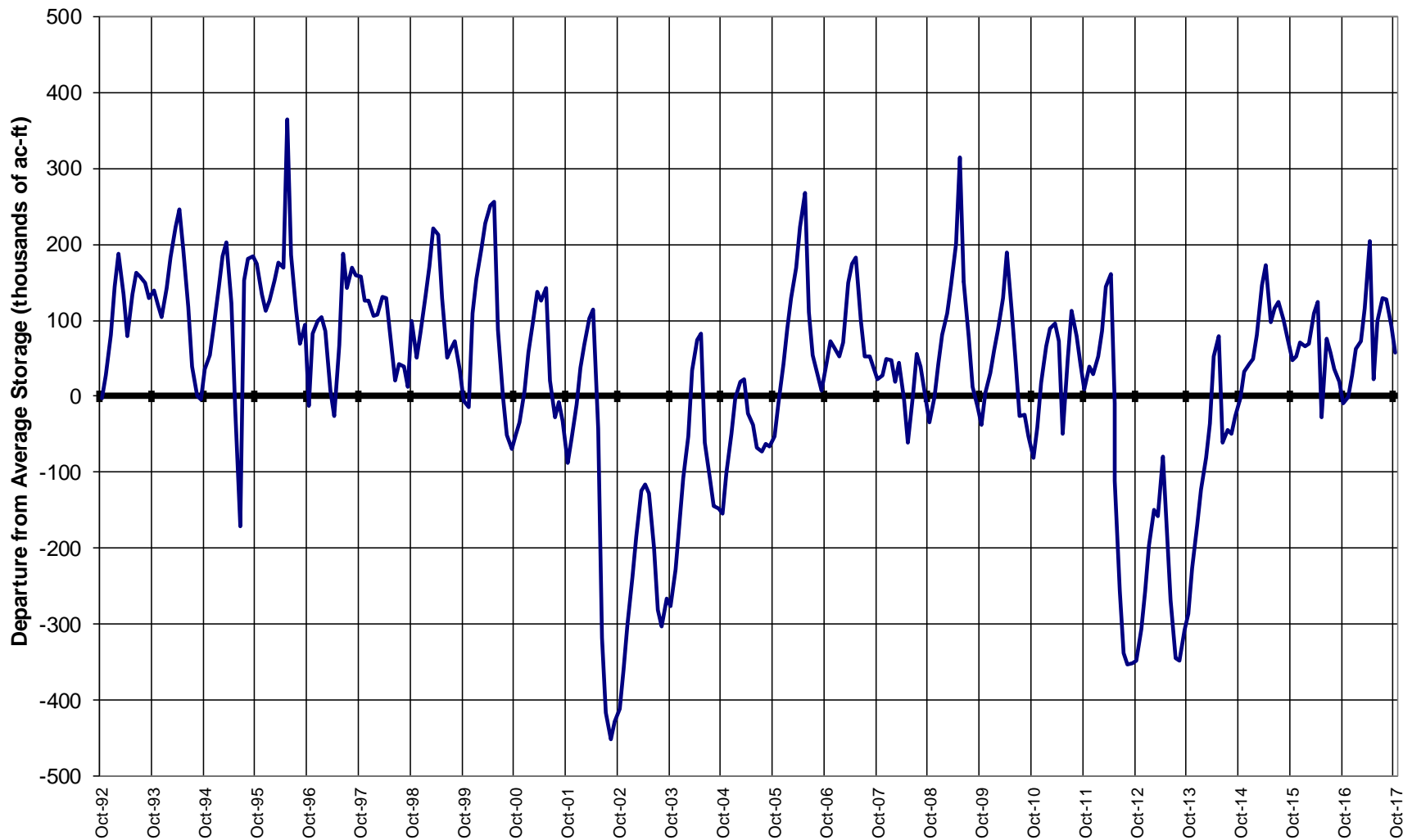
■ Percent Average

■ Percent Capacity





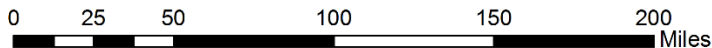
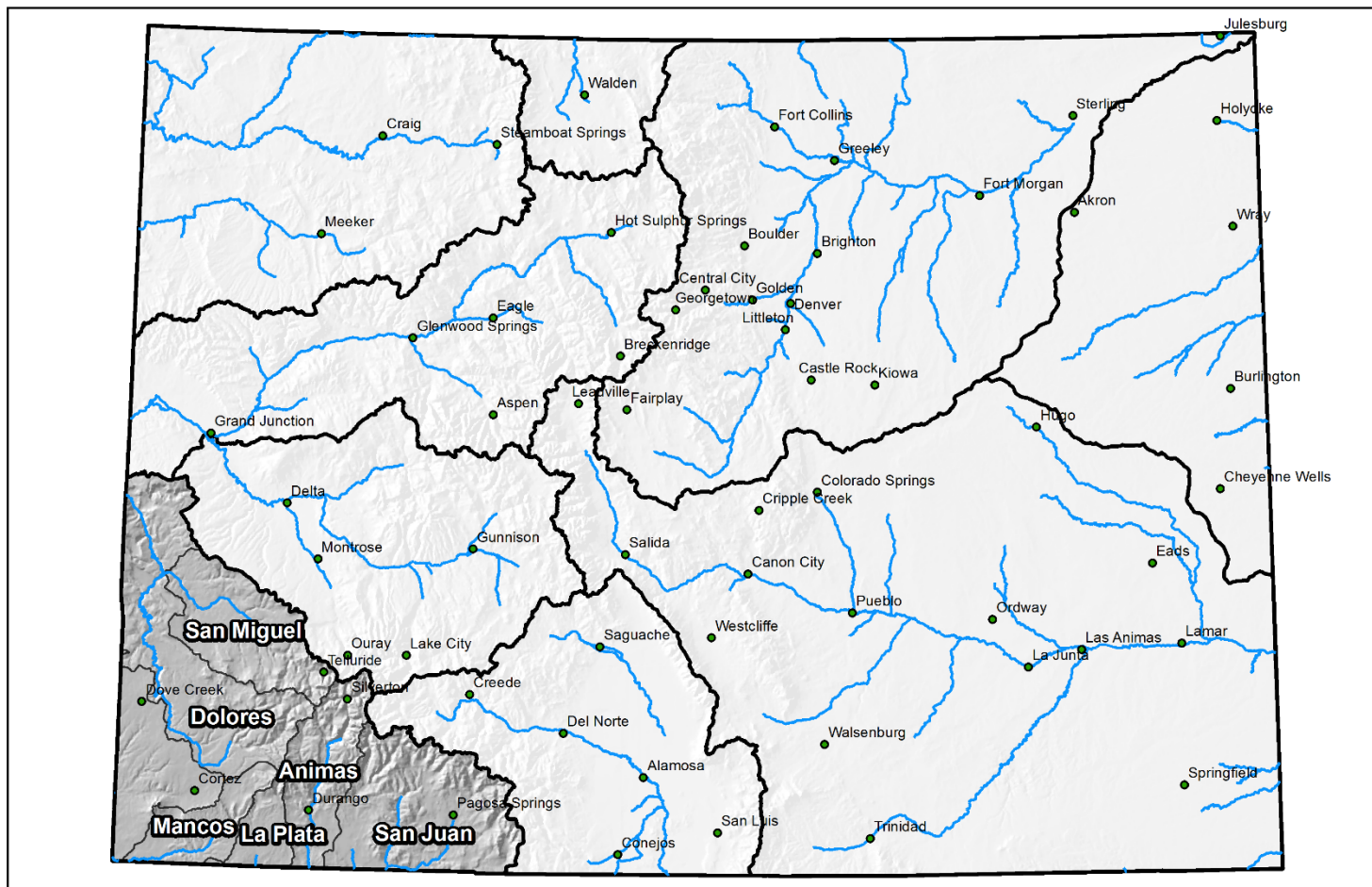
## GUNNISON RIVER BASIN Reservoir Storage Departure from Average





## Major Basin Summary

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





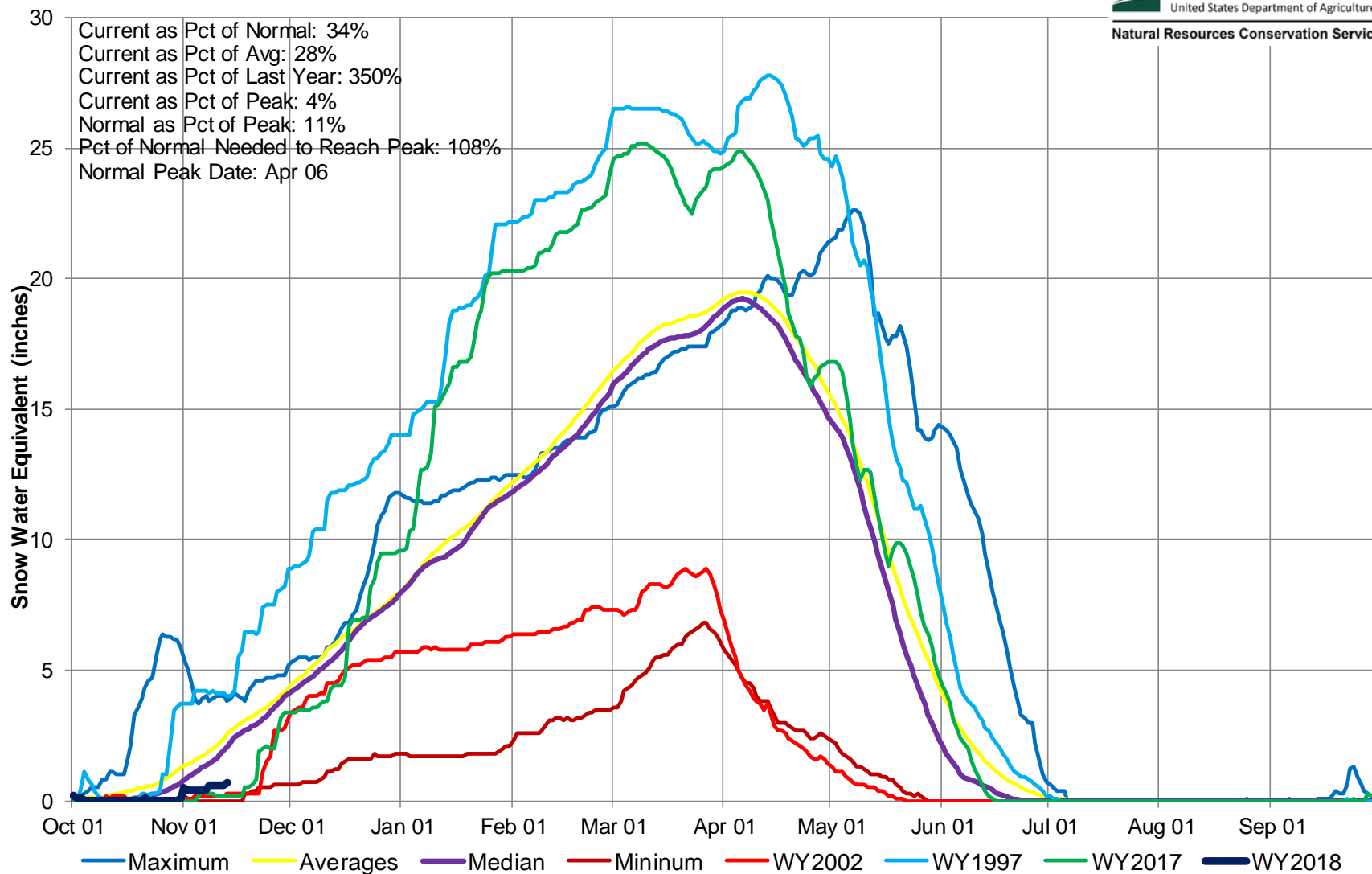
## San Miguel, Dolores, Animas and San Juan River Basins High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Nov 13, 2017*



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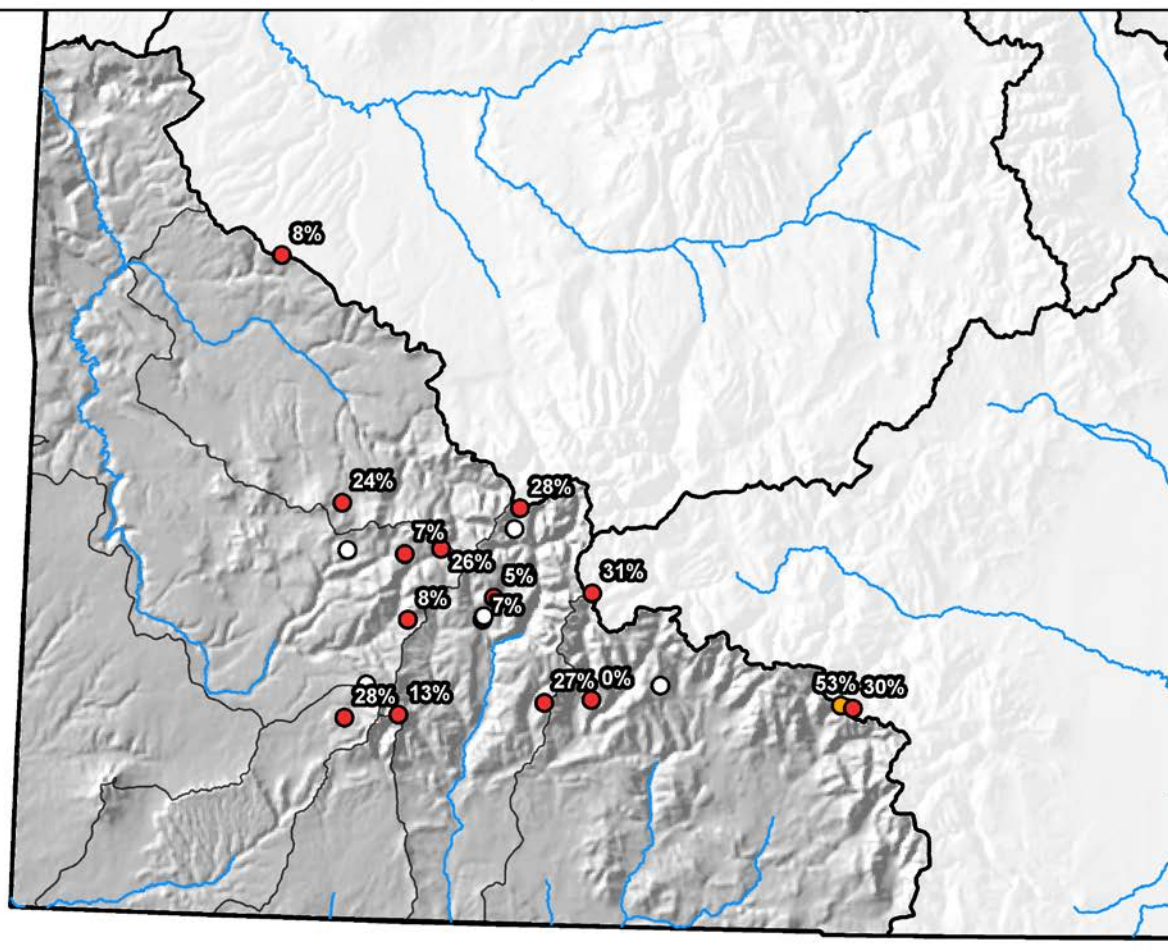


## San Miguel, Dolores, Animas, and San Juan River Basins Month to Date Precipitation Summary

Current as of Nov 13, 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

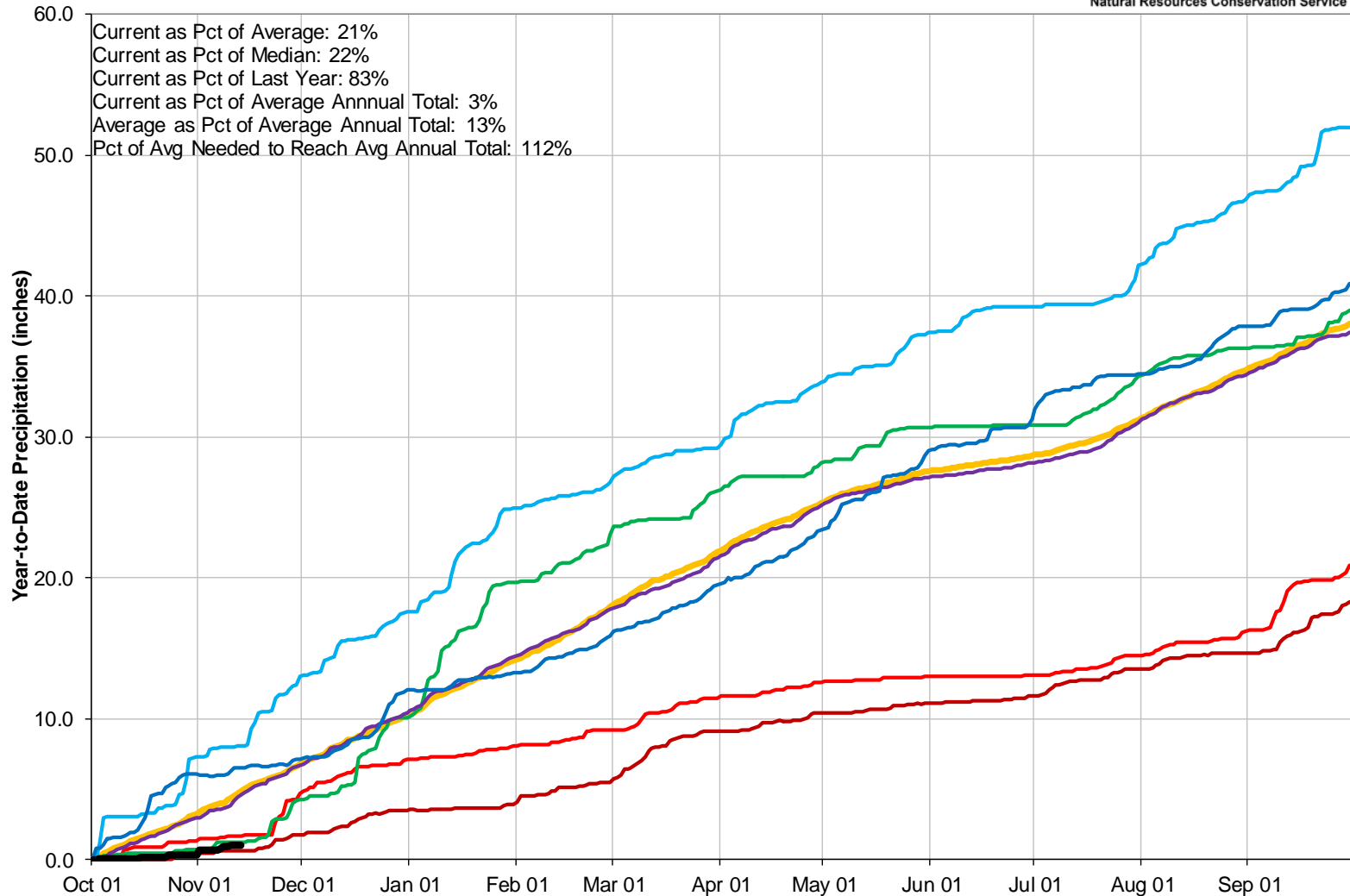
## San Miguel, Dolores, Animas and San Juan River Basins High/Low Year-to-Date Precipitation Summary

*Based on Provisional SNOTEL data as of Nov 13, 2017*

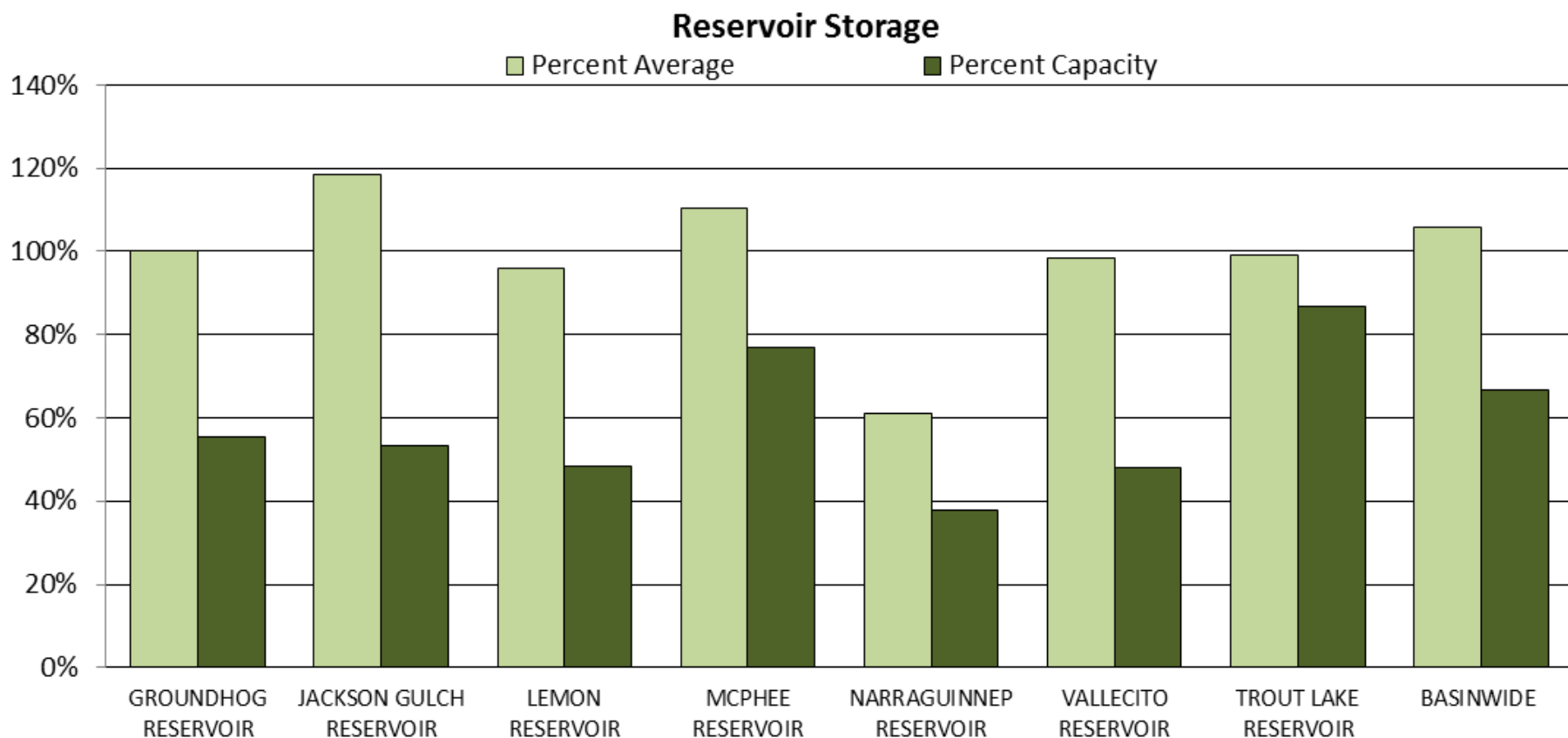


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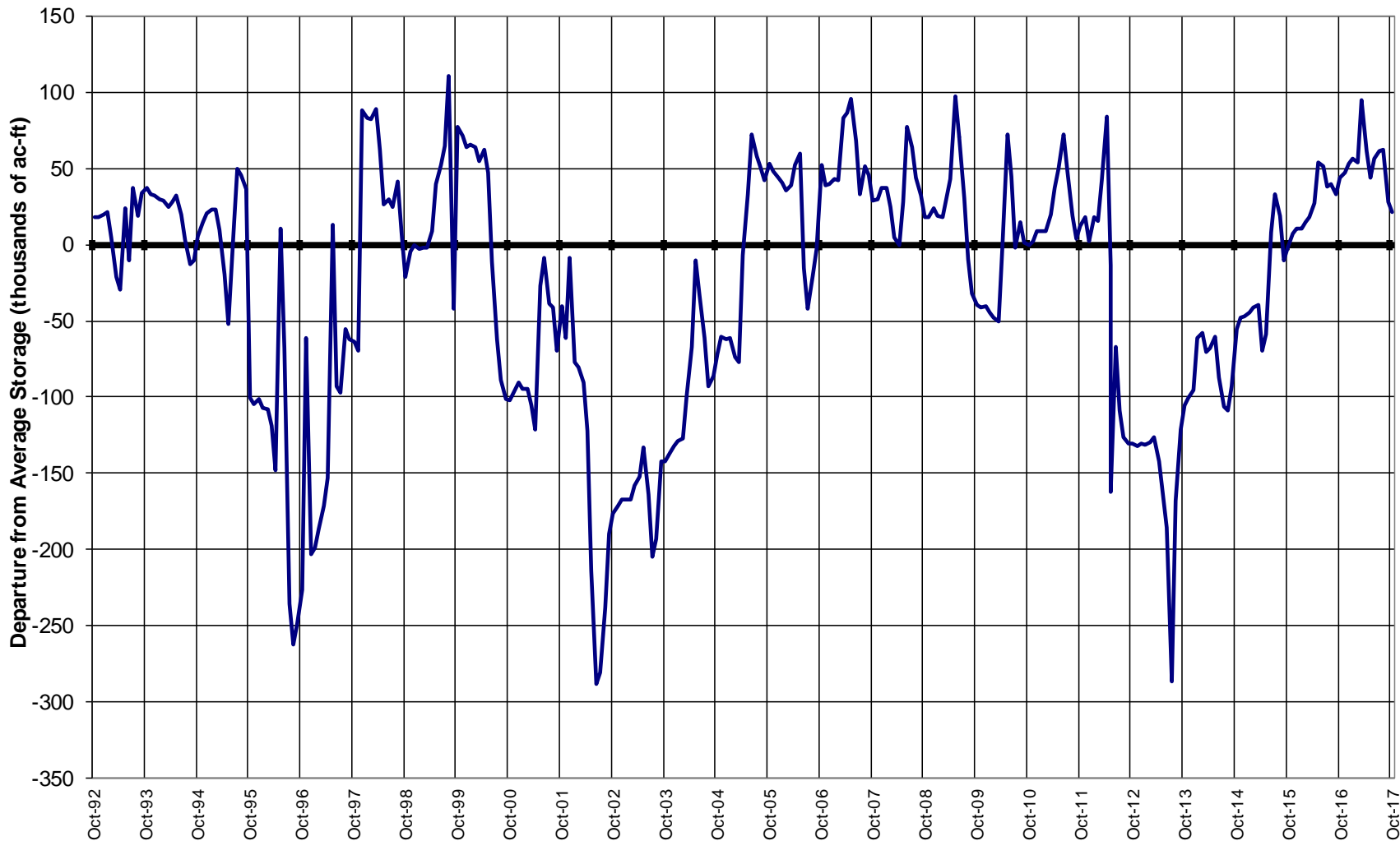






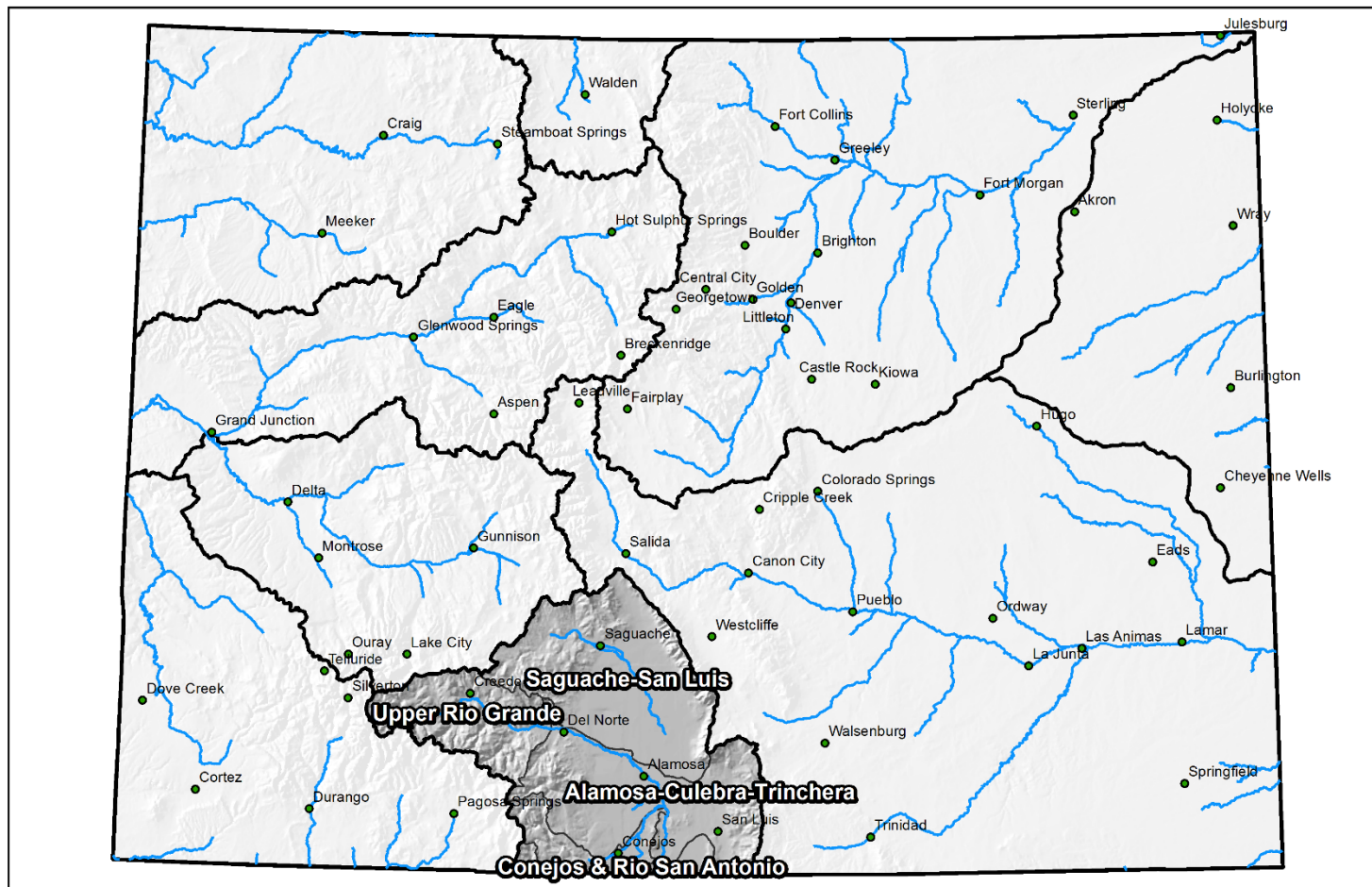
## SAN MIGUEL, DOLORES, ANIMAS AND SAN JUAN RIVER BASINS

Reservoir Storage  
Departure from Average



## Major Basin Summary

### Upper Rio Grande River Basin



0 25 50 100 150 200 Miles



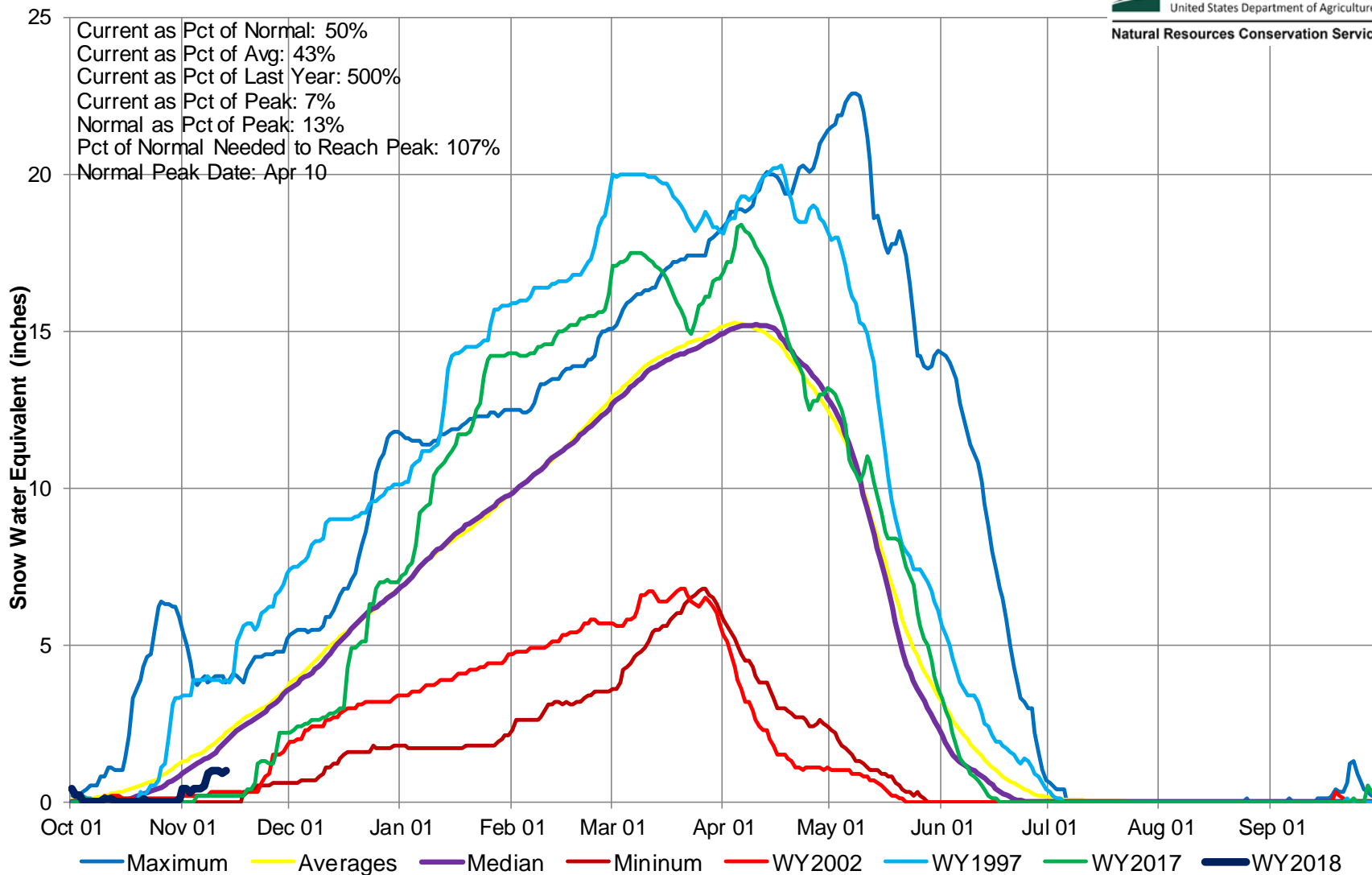
## Upper Rio Grande Basin High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Nov 13, 2017*



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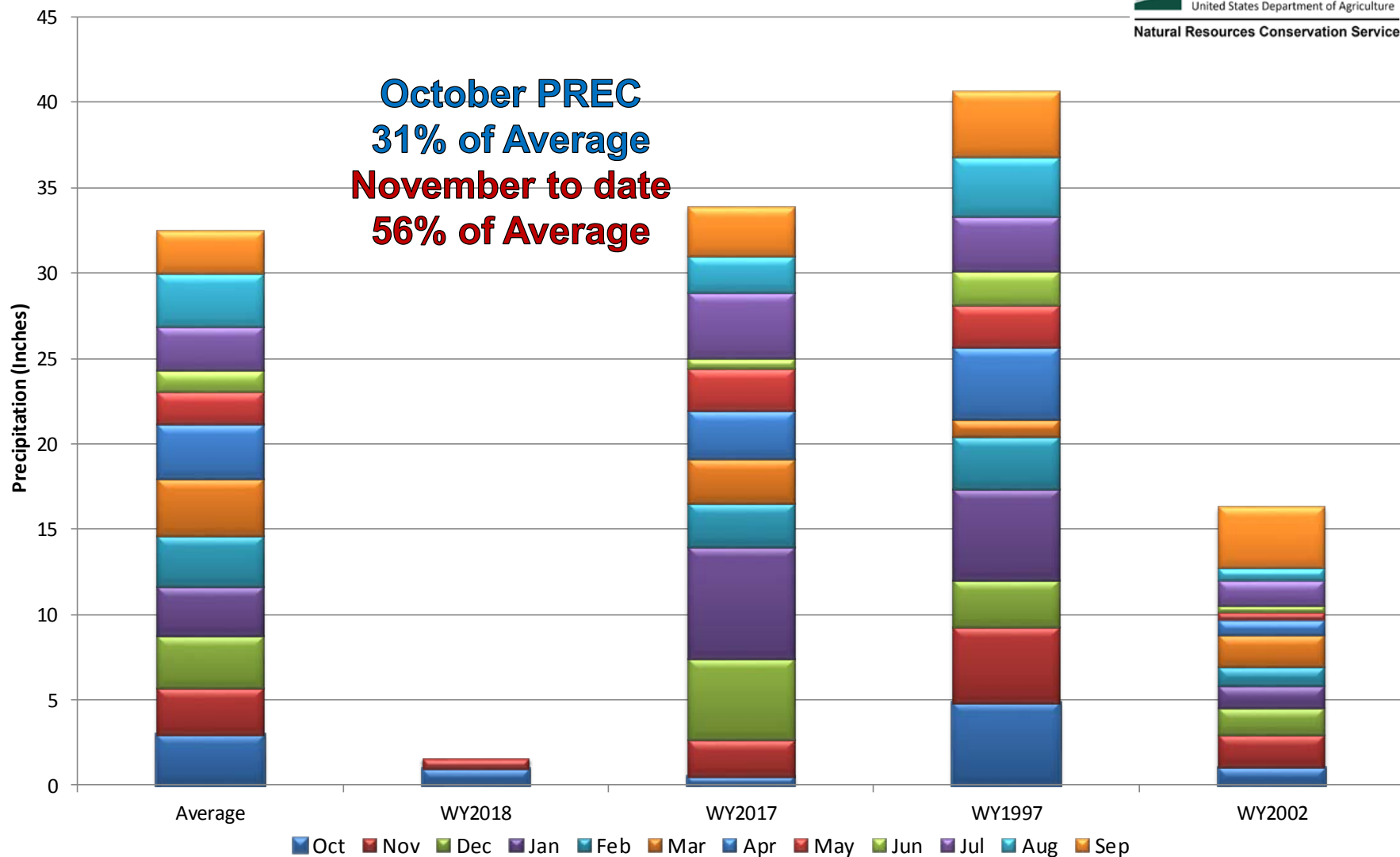
## Upper Rio Grande Basin High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Nov 13, 2017*



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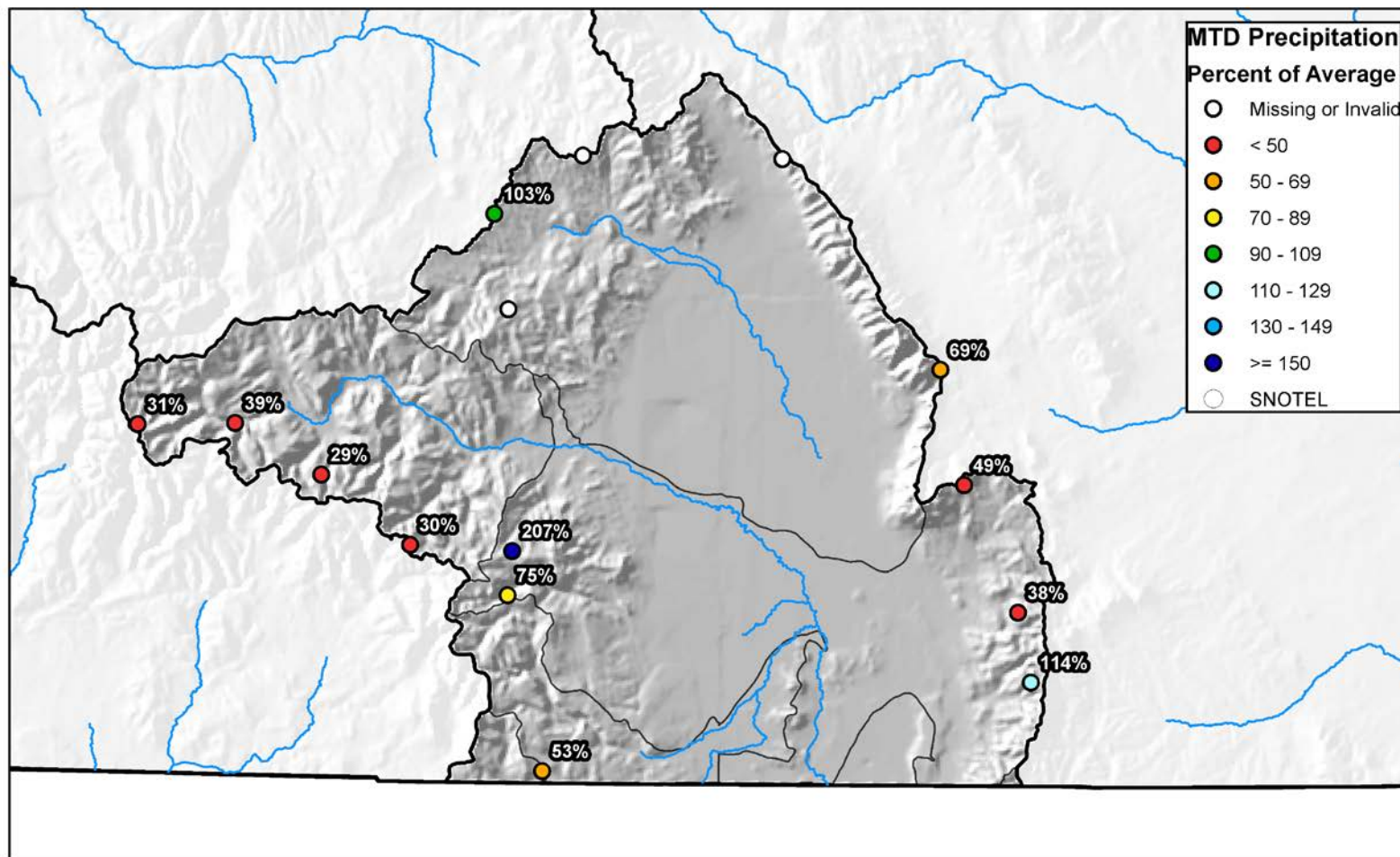
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## Upper Rio Grande River Basin Month to Date Precipitation Summary

Current as of Nov 13, 2017



0 10 20 40 60 80 Miles



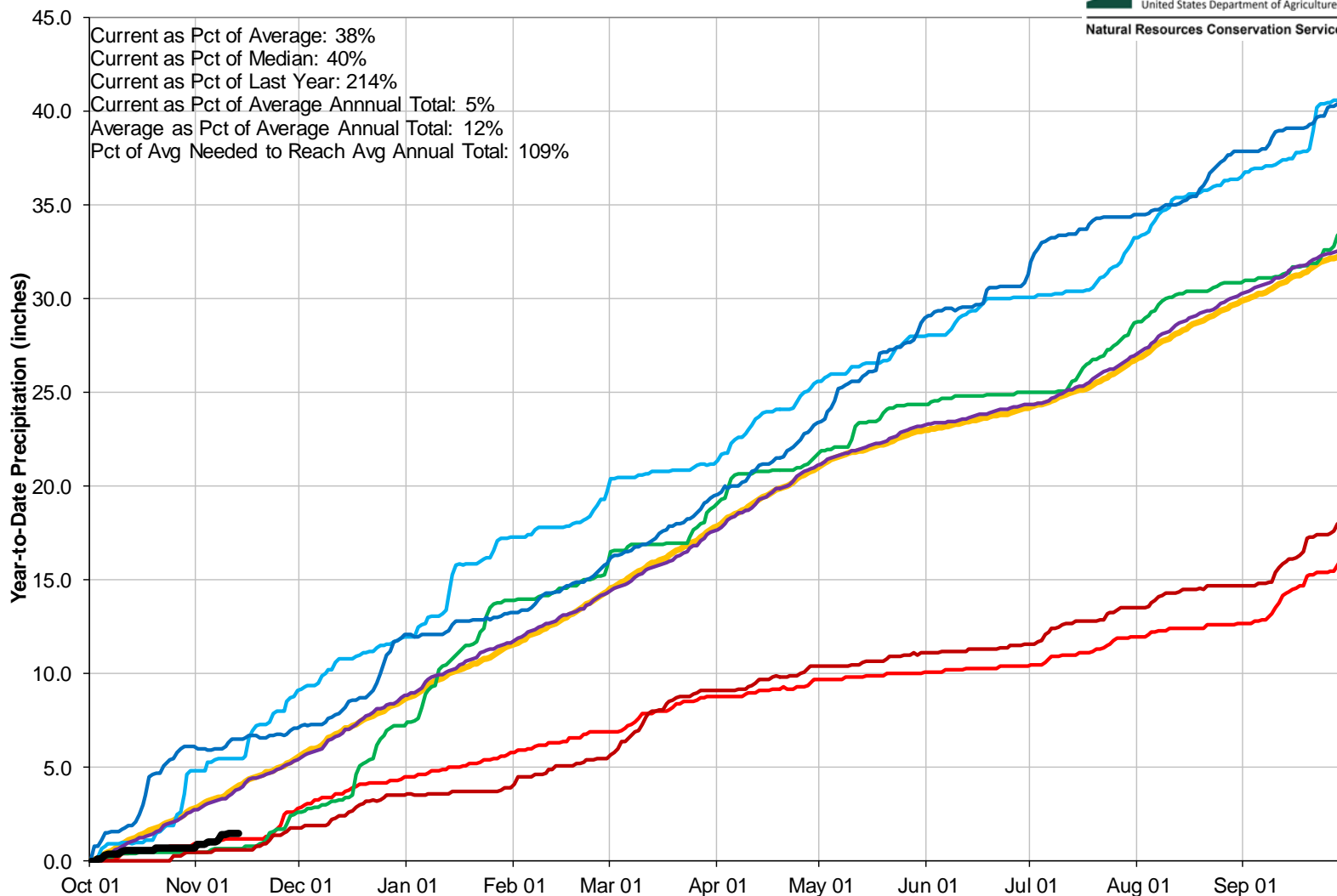
## Upper Rio Grande Basin High/Low Year-to-Date Precipitation Summary

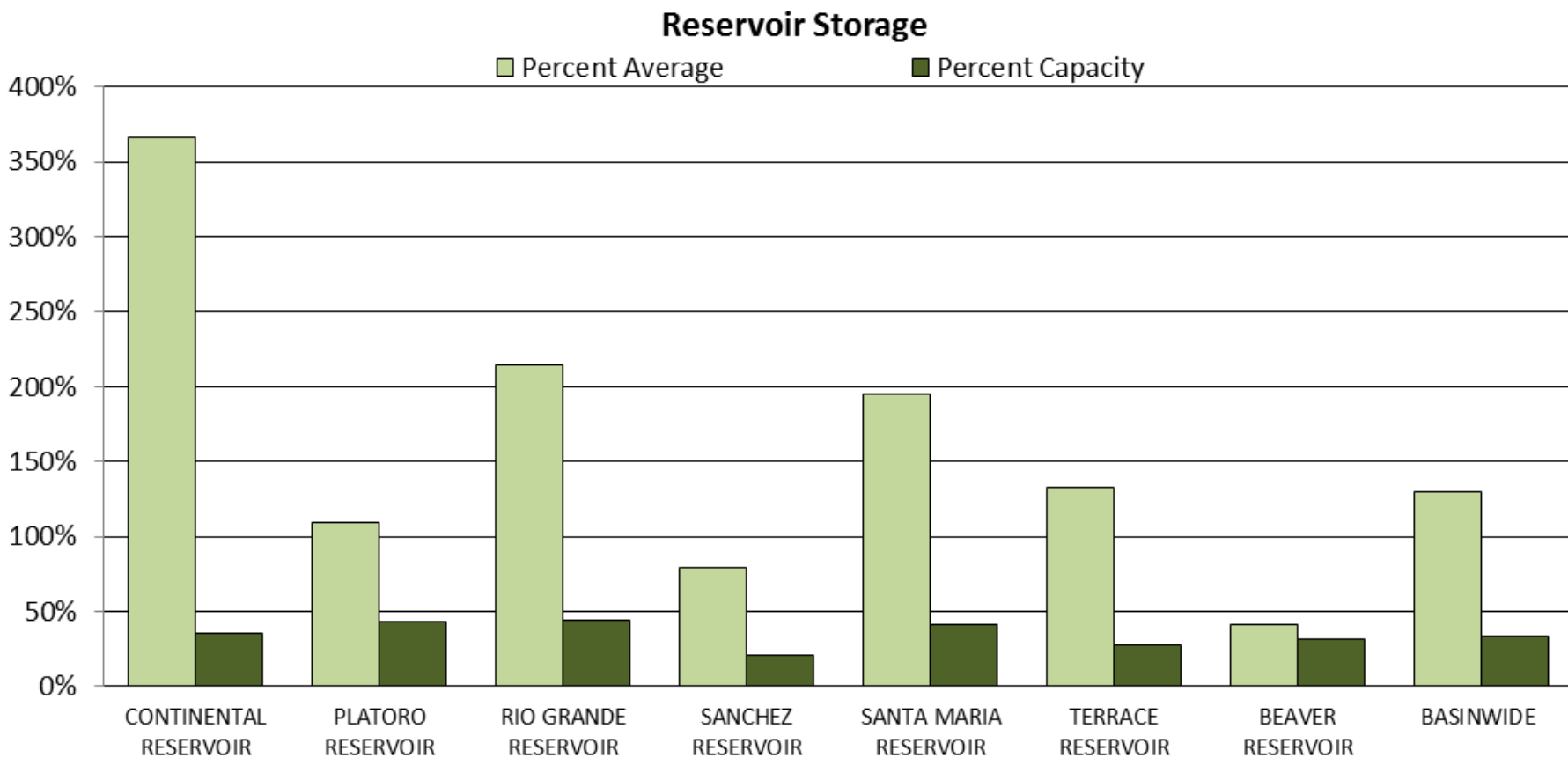
*Based on Provisional SNOTEL data as of Nov 13, 2017*



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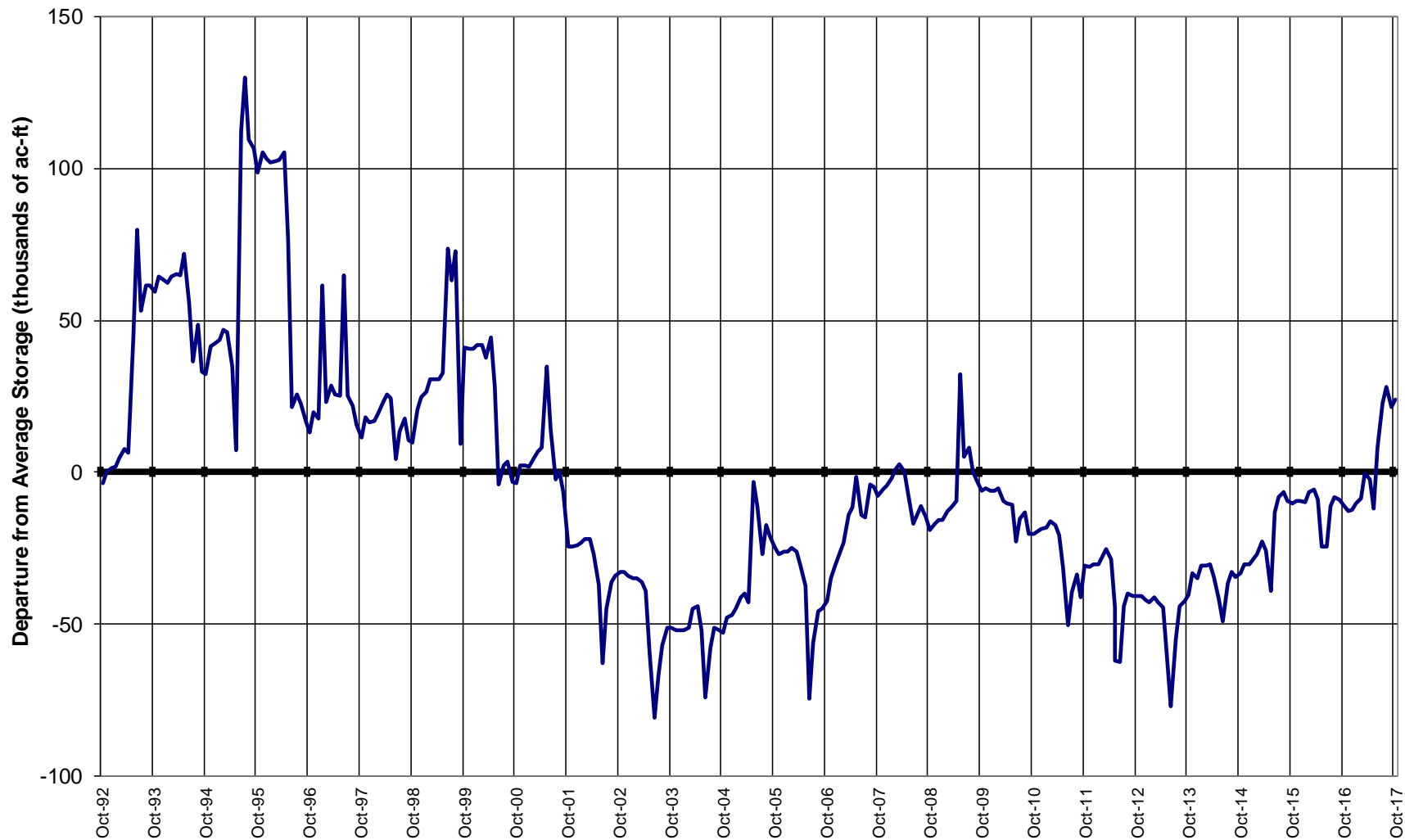
Natural Resources Conservation Service





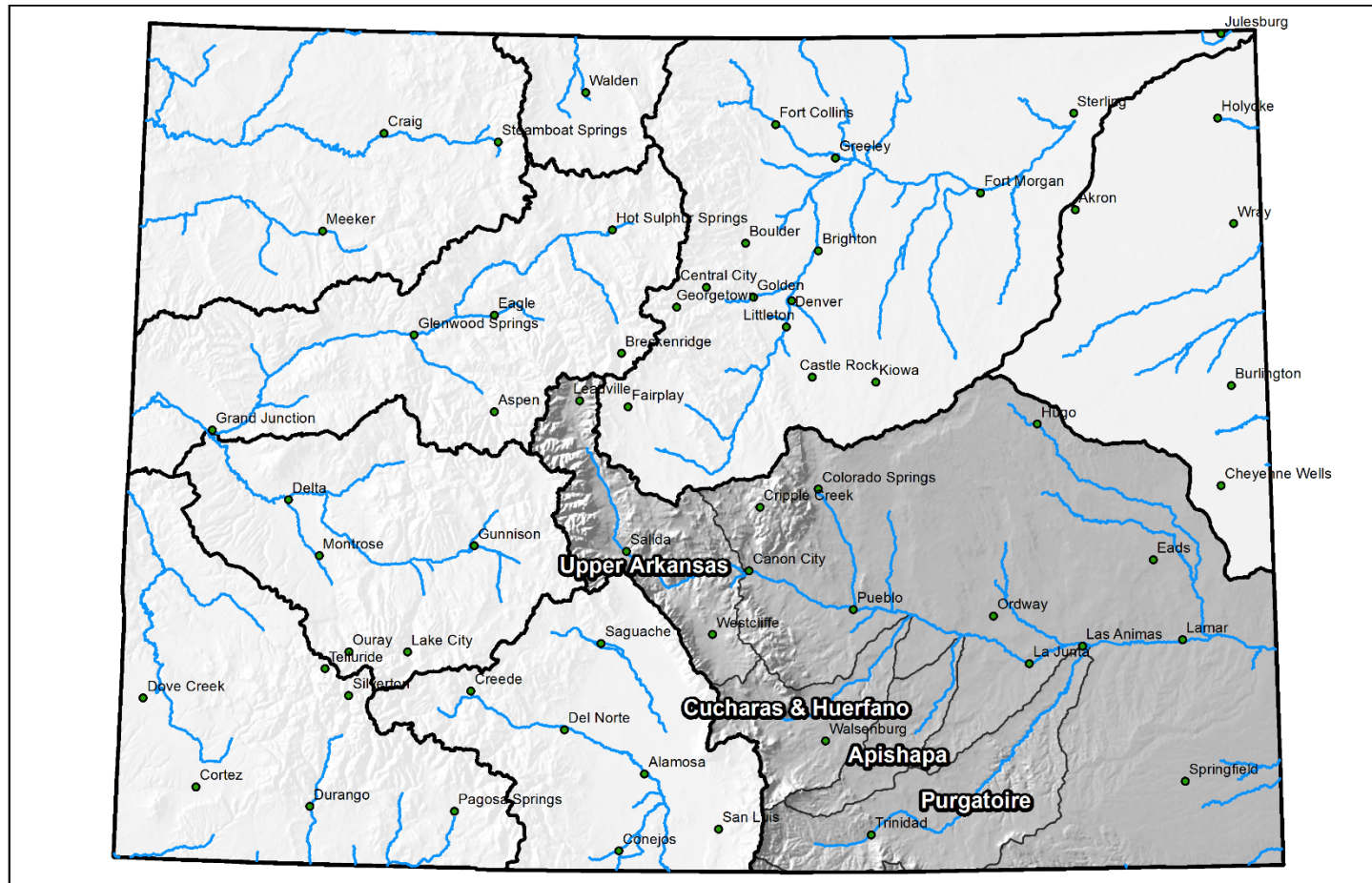


## UPPER RIO GRANDE BASIN Reservoir Storage Departure from Average



## Major Basin Summary

### Arkansas River Basin



0 25 50 100 150 200 Miles

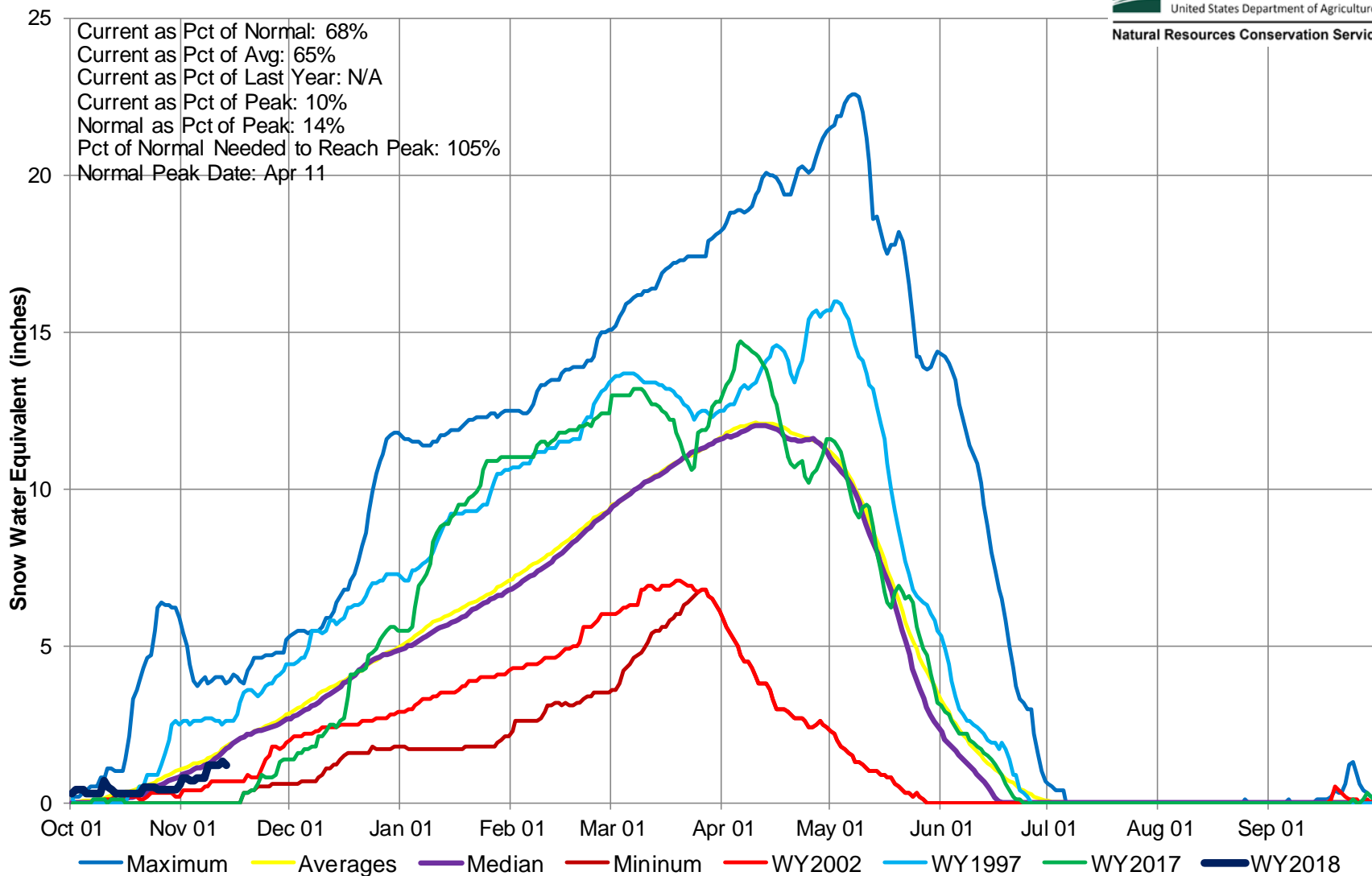




## Arkansas River Basin High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Nov 13, 2017*

USDA  
United States Department of Agriculture  
Natural Resources Conservation Service



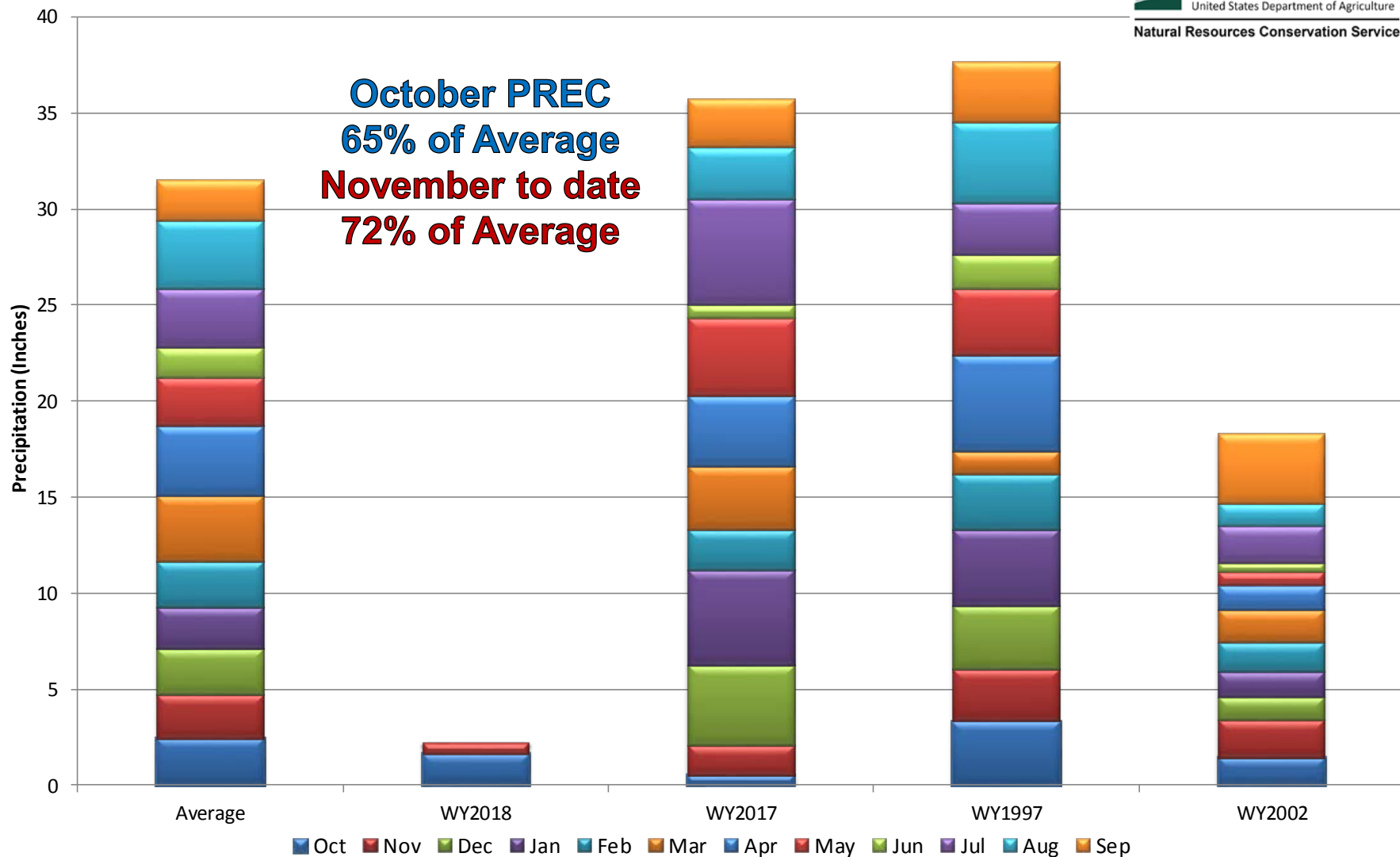
## Arkansas River Basin High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Nov 13, 2017*



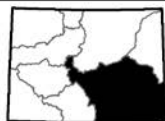
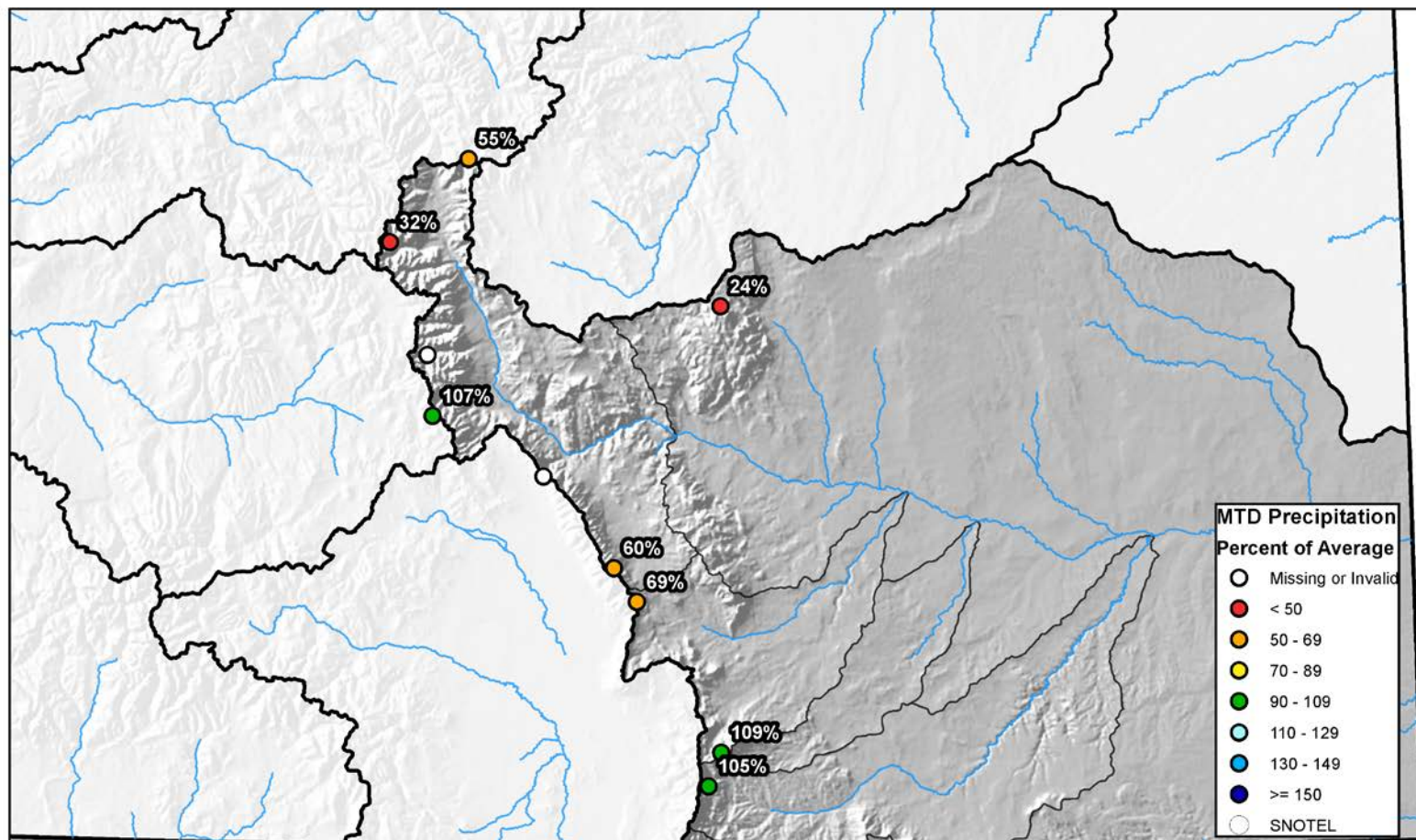
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## Arkansas River Basin Month to Date Precipitation Summary

Current as of Nov 13, 2017



0 10 20 40 60 80 Miles



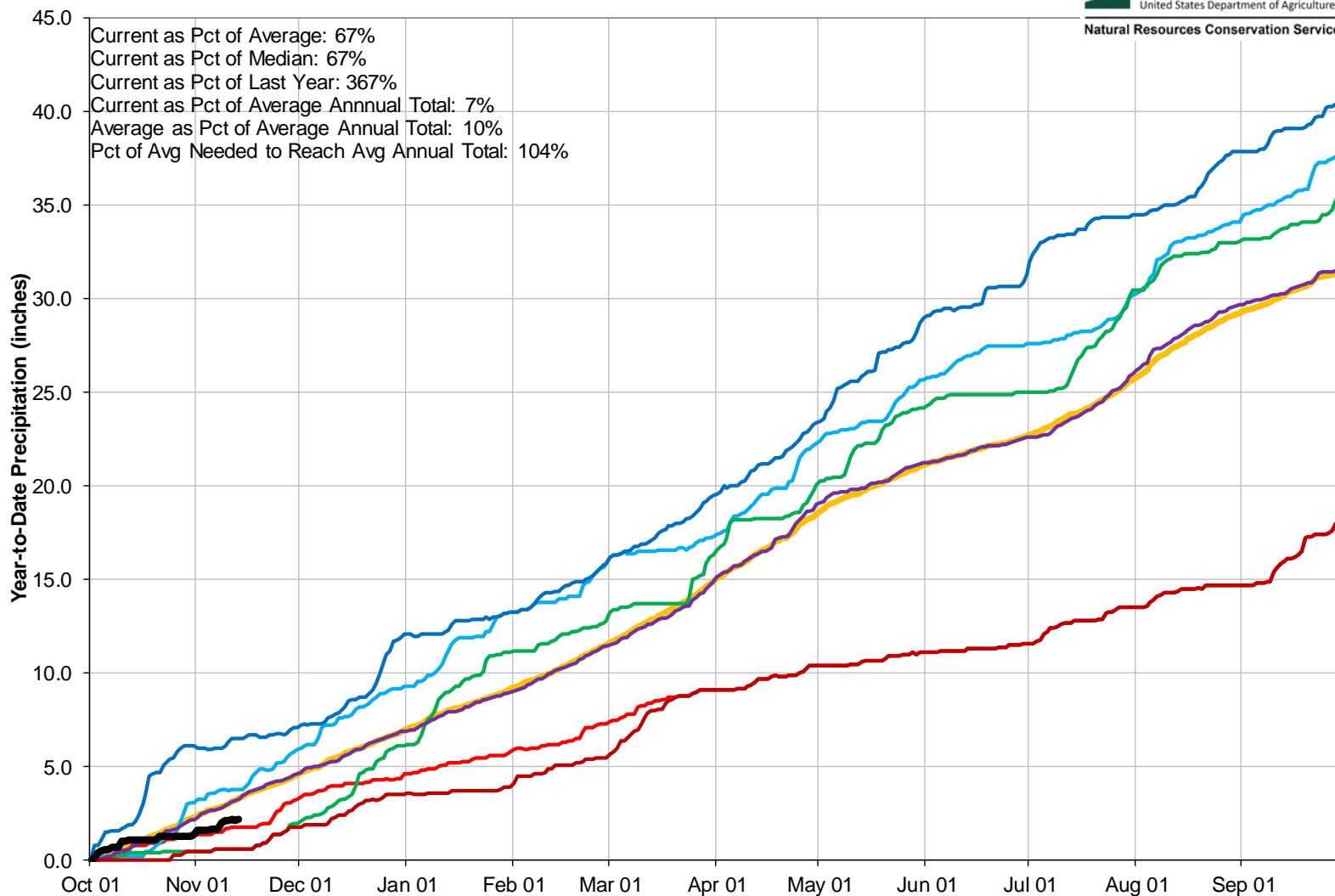
## Arkansas River Basin High/Low Year-to-Date Precipitation Summary

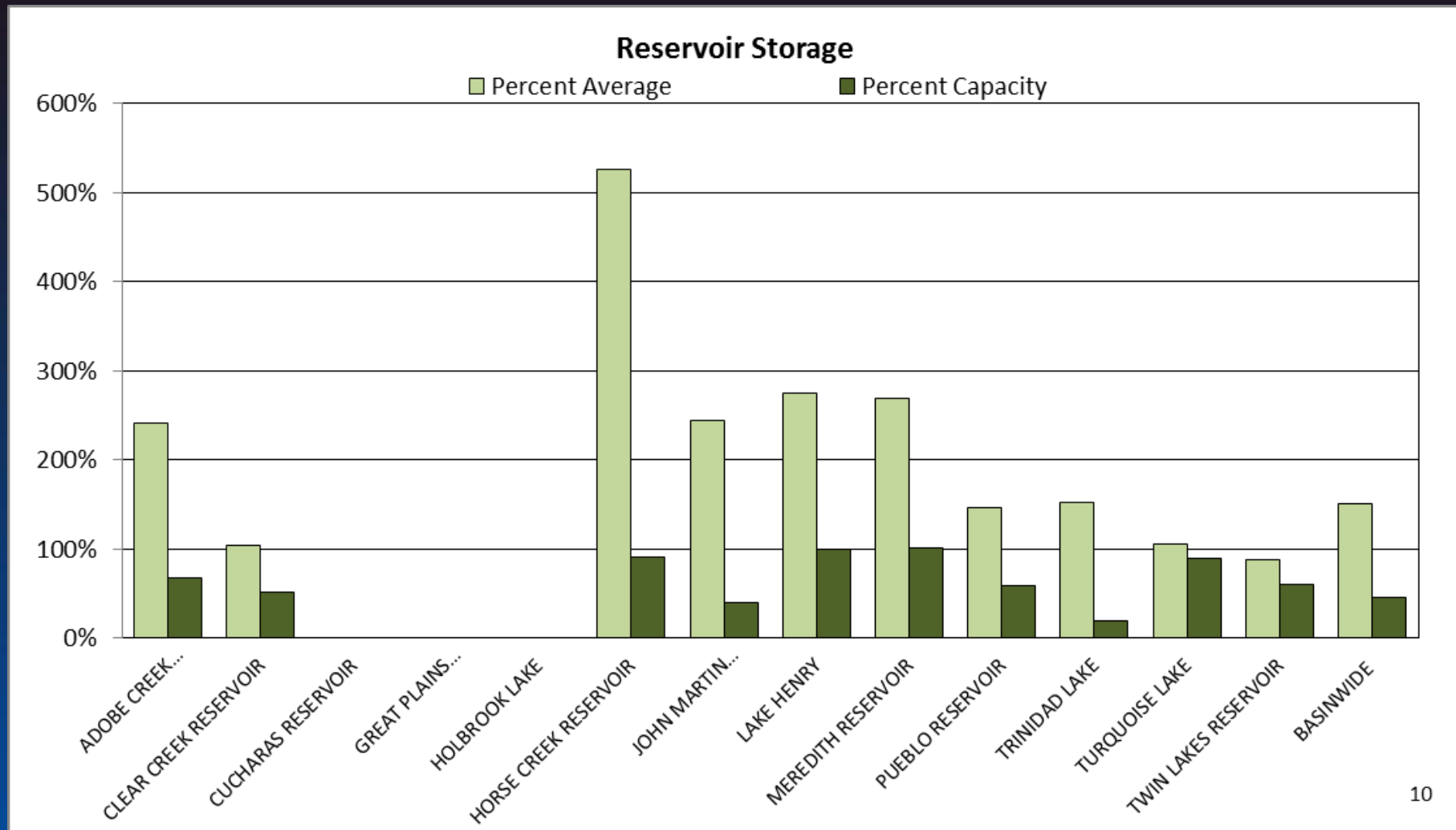
*Based on Provisional SNOTEL data as of Nov 13, 2017*



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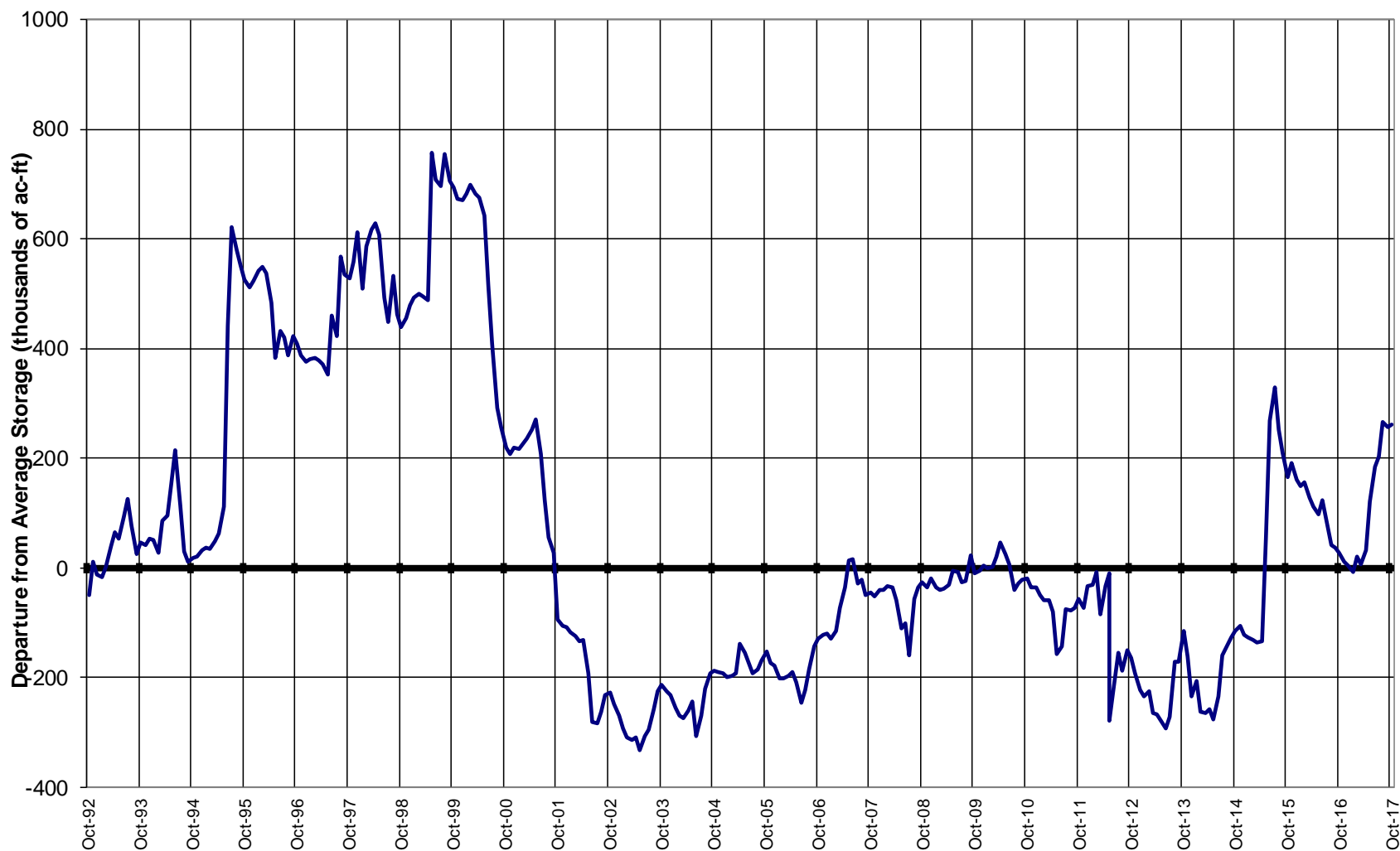




## ARKANSAS RIVER BASIN

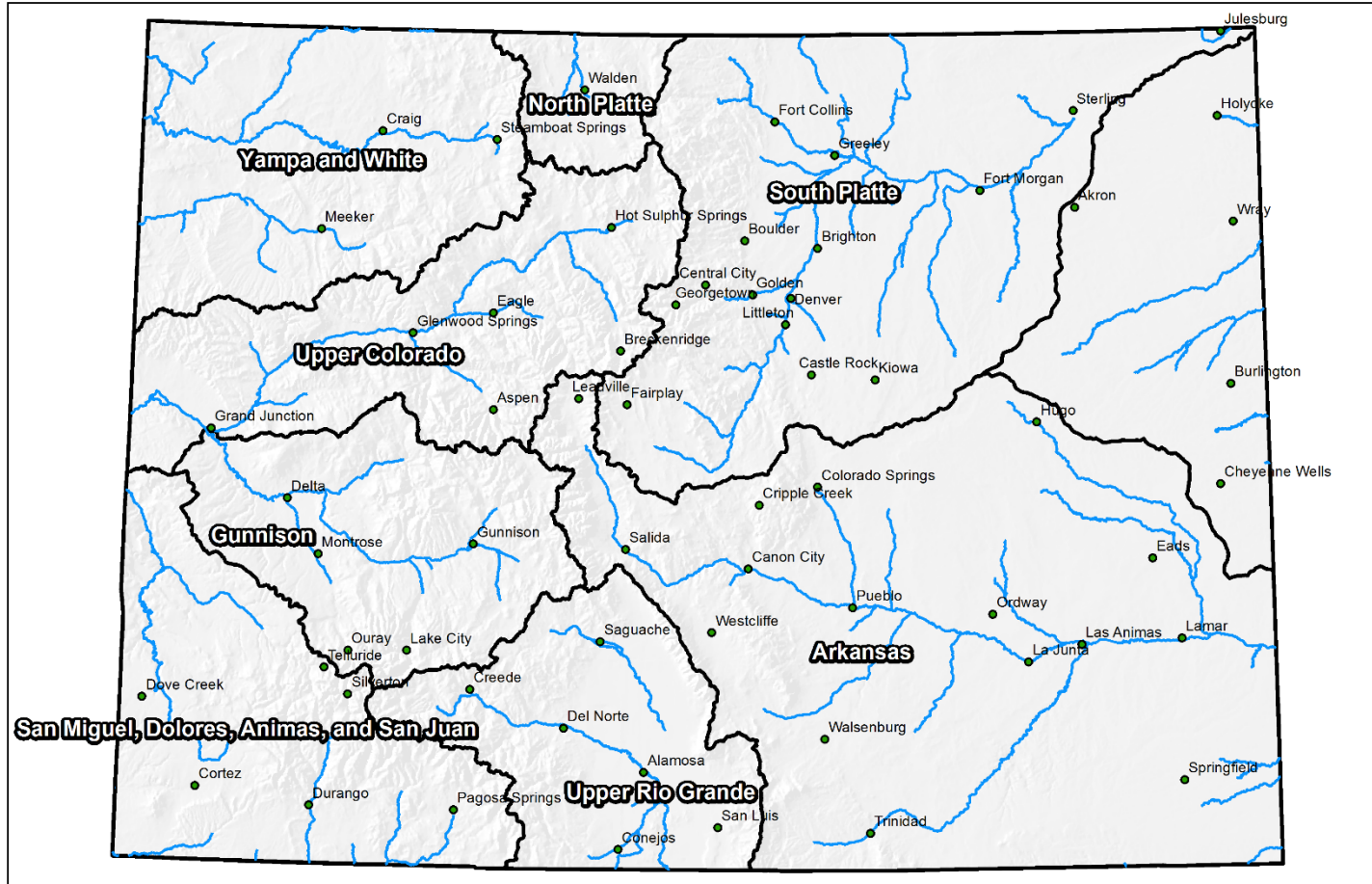
### Reservoir Storage

### Departure from Average



## Colorado Statewide Summary

Colorado Major Basins



0 25 50 100 150 200 Miles



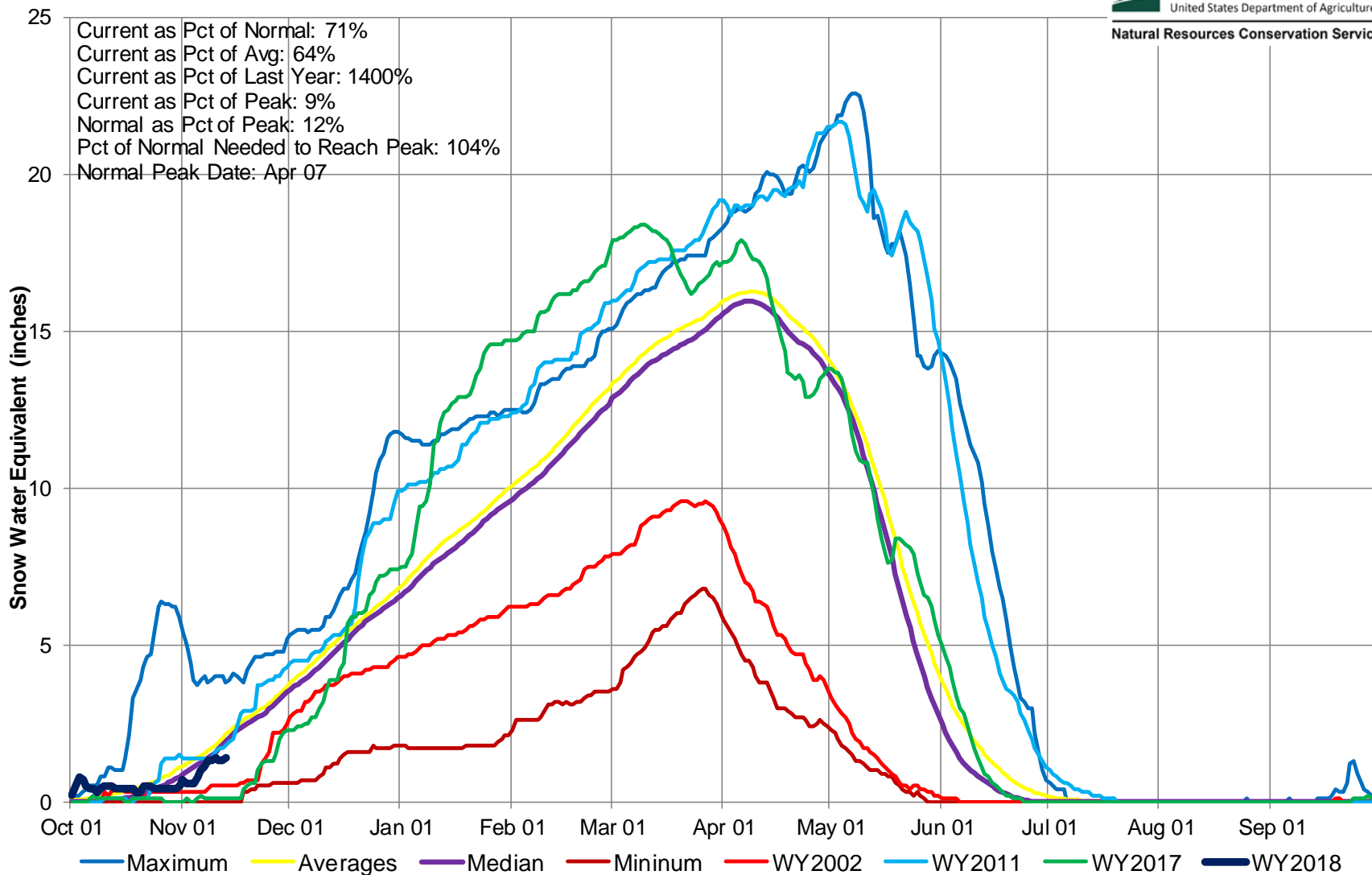
## Colorado Statewide High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Nov 13, 2017*



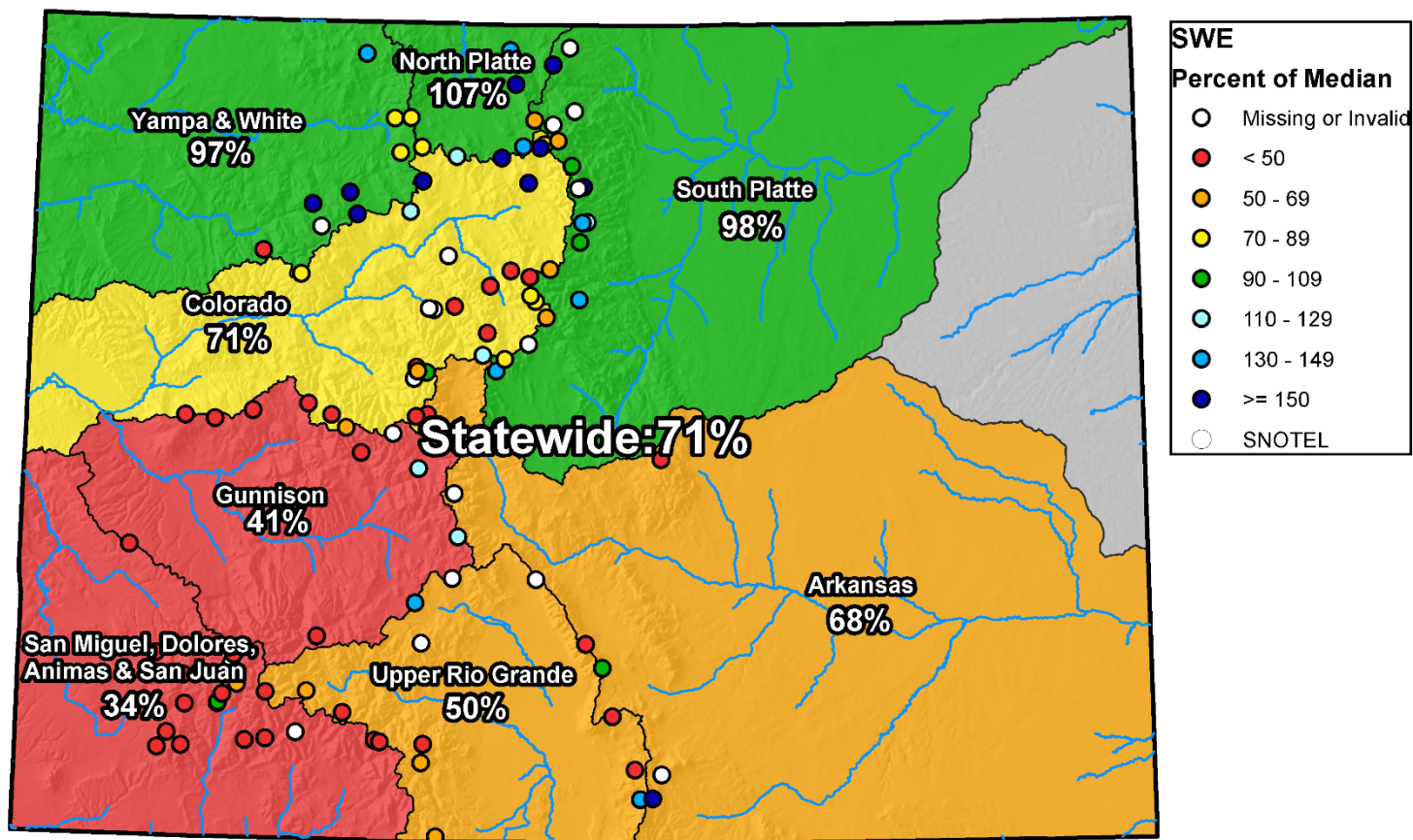
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## Colorado SNOTEL Snow Water Equivalent (SWE) Update Map with Site Data

Current as of Nov 13, 2017



0 25 50 100 150 200 Miles



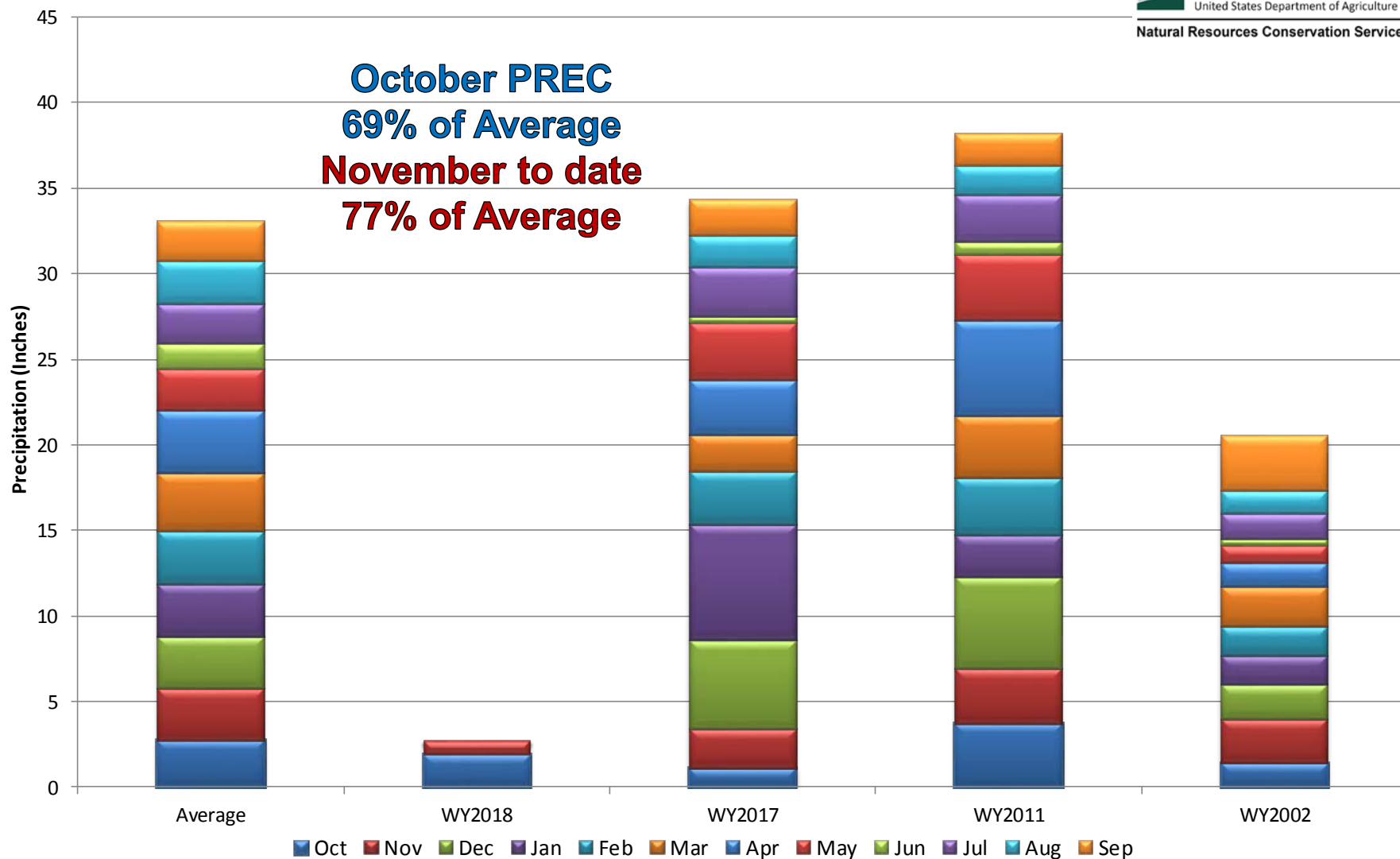
## Colorado Statewide High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Nov 13, 2017*



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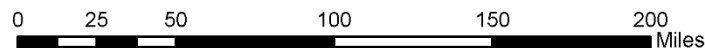
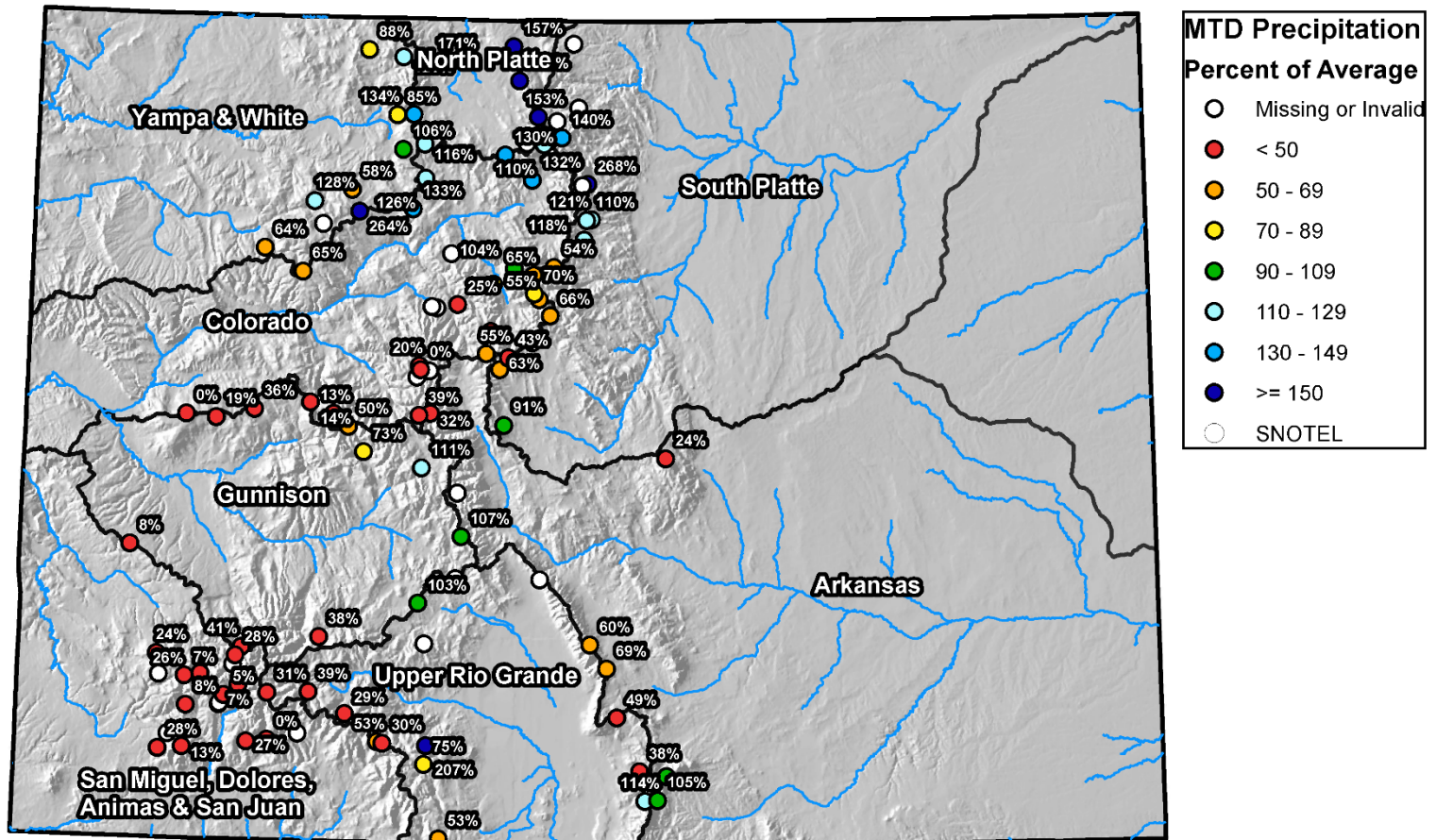
Natural Resources Conservation Service





## Colorado SNOTEL Month-to-Date Precipitation

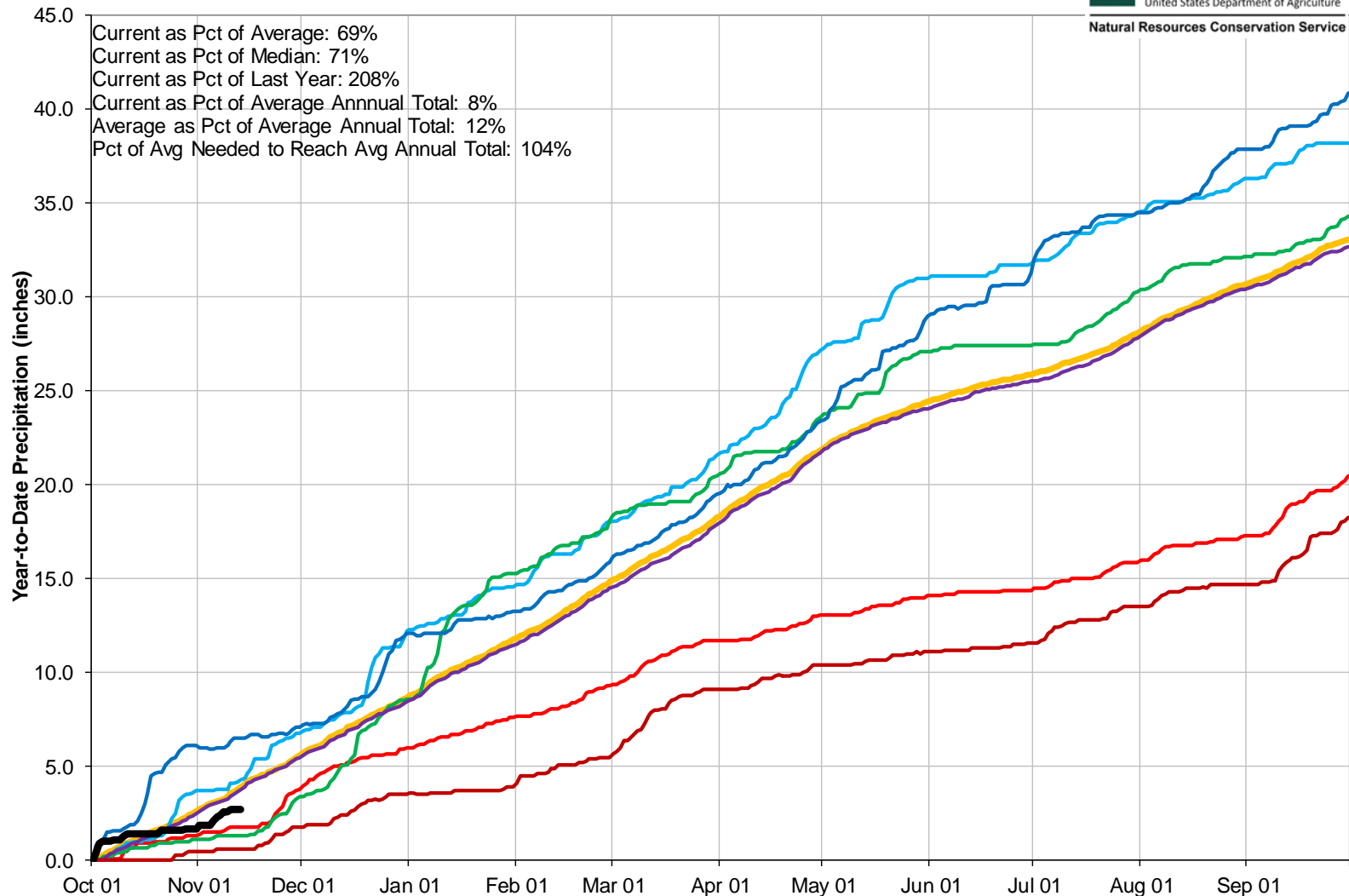
Current as of Nov 13, 2017





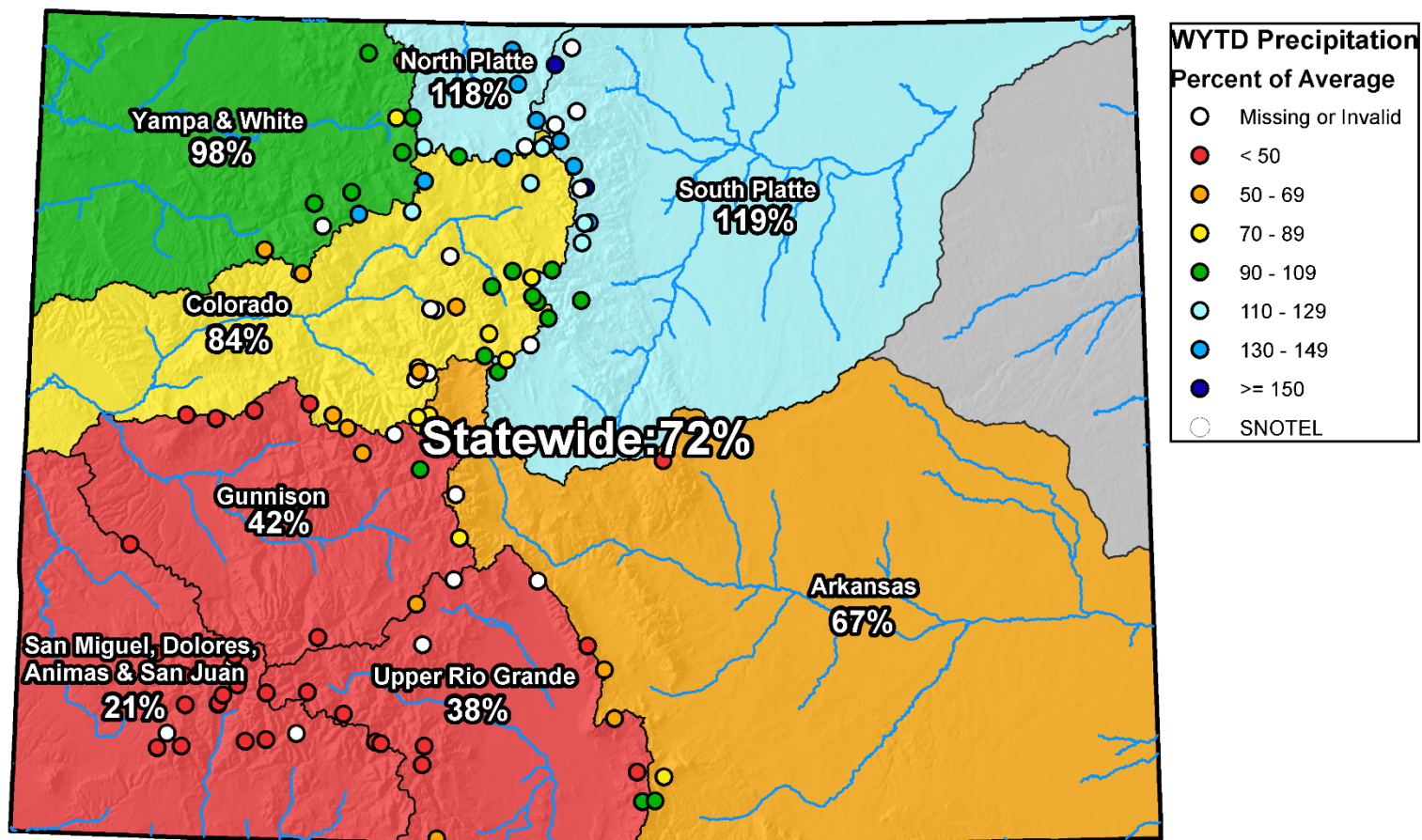
## Colorado Statewide High/Low Year-to-Date Precipitation Summary

*Based on Provisional SNOTEL data as of Nov 13, 2017*



## Colorado SNOTEL Water Year to Date Precipitation

Current as of Nov 13, 2017

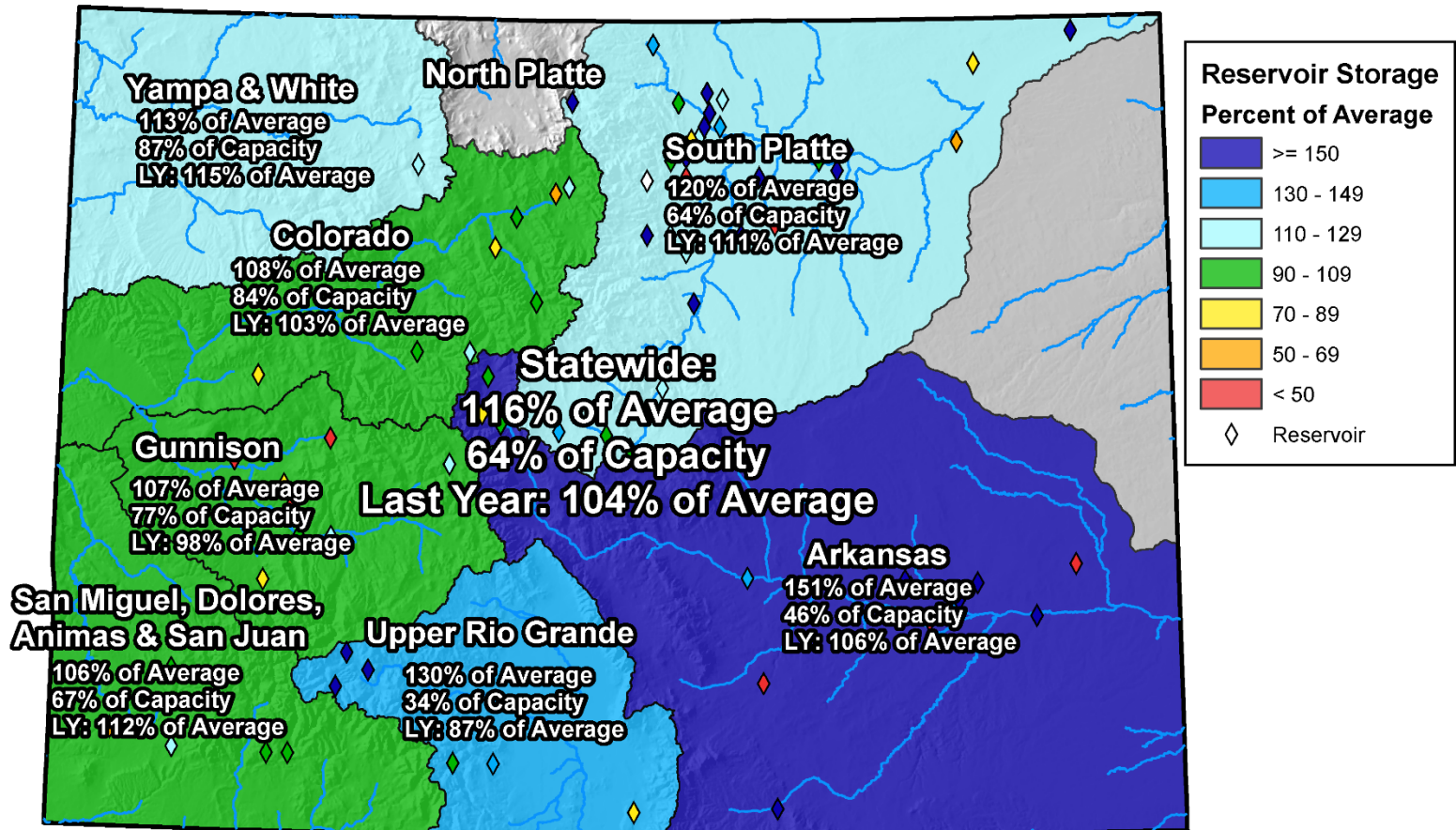


0 25 50 100 150 200 Miles



## Colorado Monthly Reservoir Storage Summary

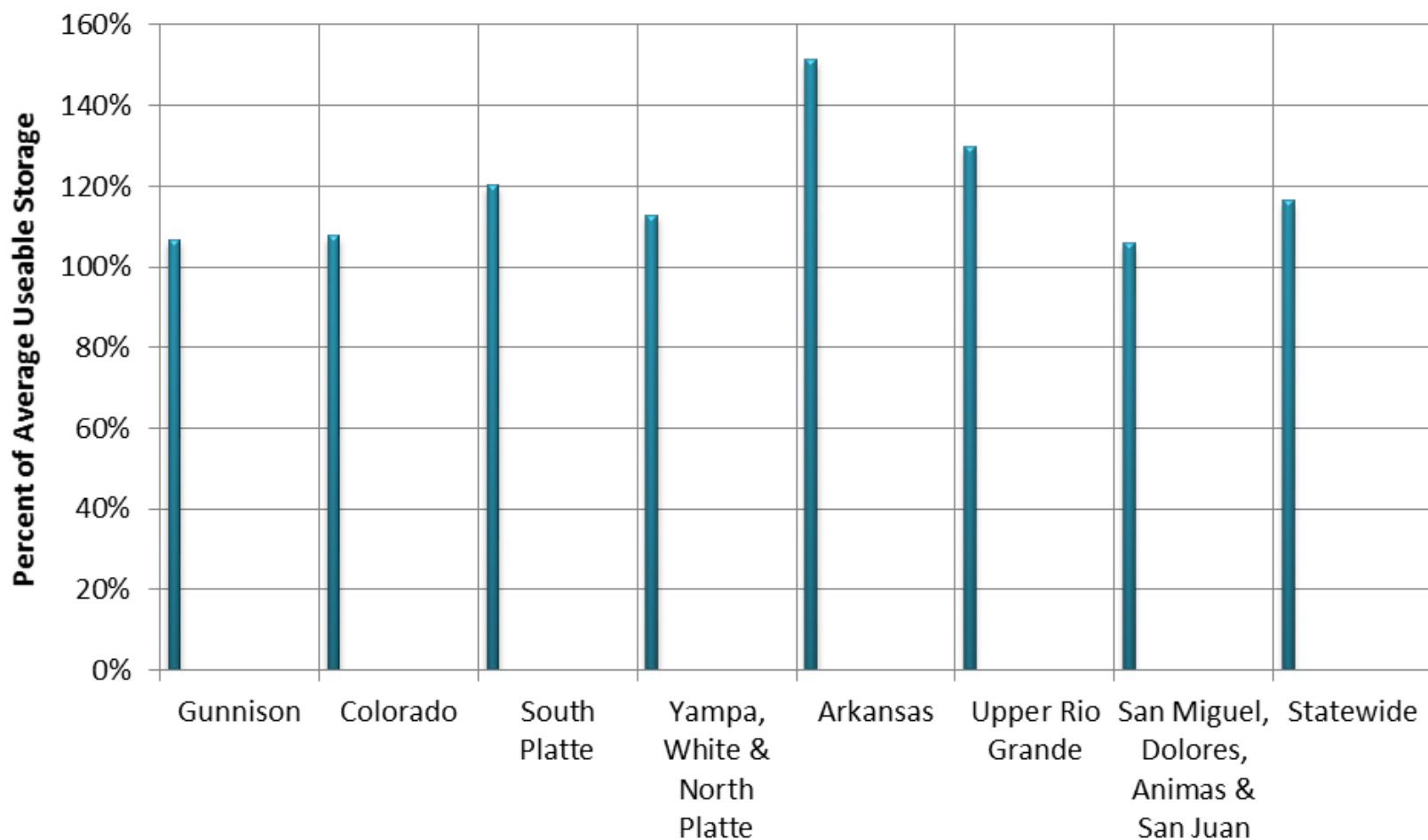
End of October 2017



0 25 50 100 150 200 Miles

## Colorado Reservoir Storage

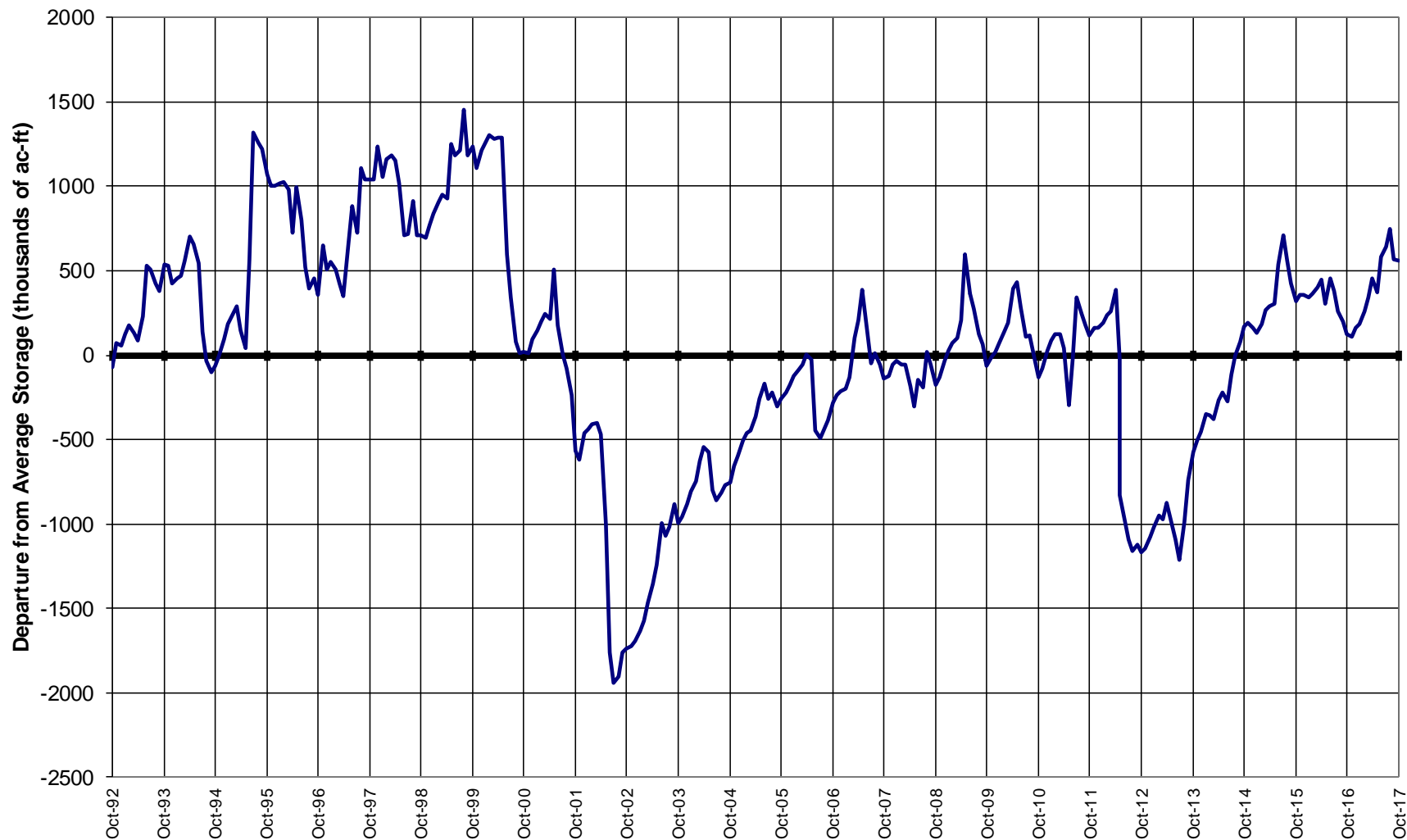
■ Oct-17   ■ Nov-17   ■ Dec-17   ■ Jan-18   ■ Feb-18   ■ Mar-18  
 ■ Apr-18   ■ May-18   ■ Jun-18   ■ Jul-18   ■ Aug-18   ■ Sep-18



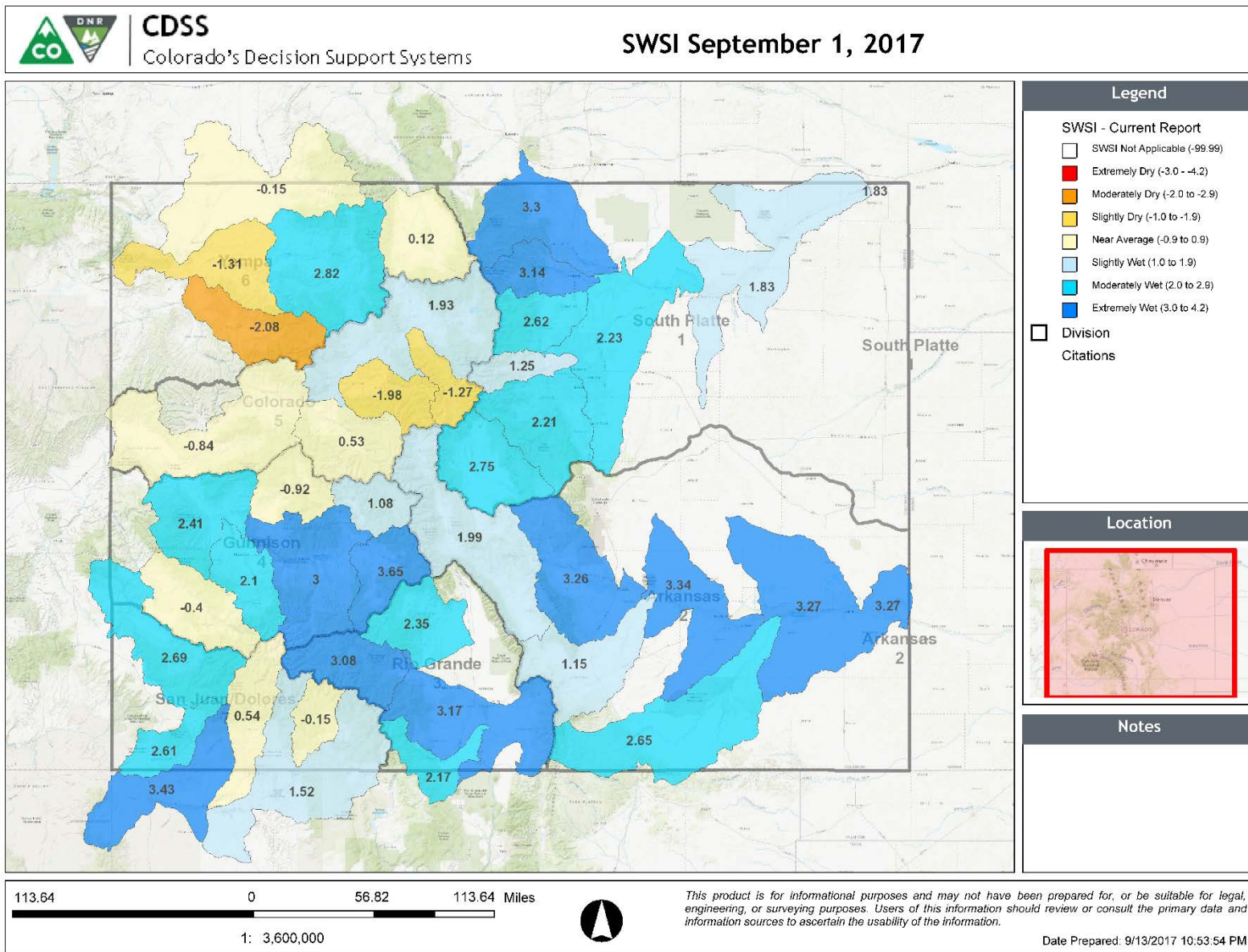




## COLORADO STATEWIDE Reservoir Storage Departure from Average



September 1, 2017 SWSI

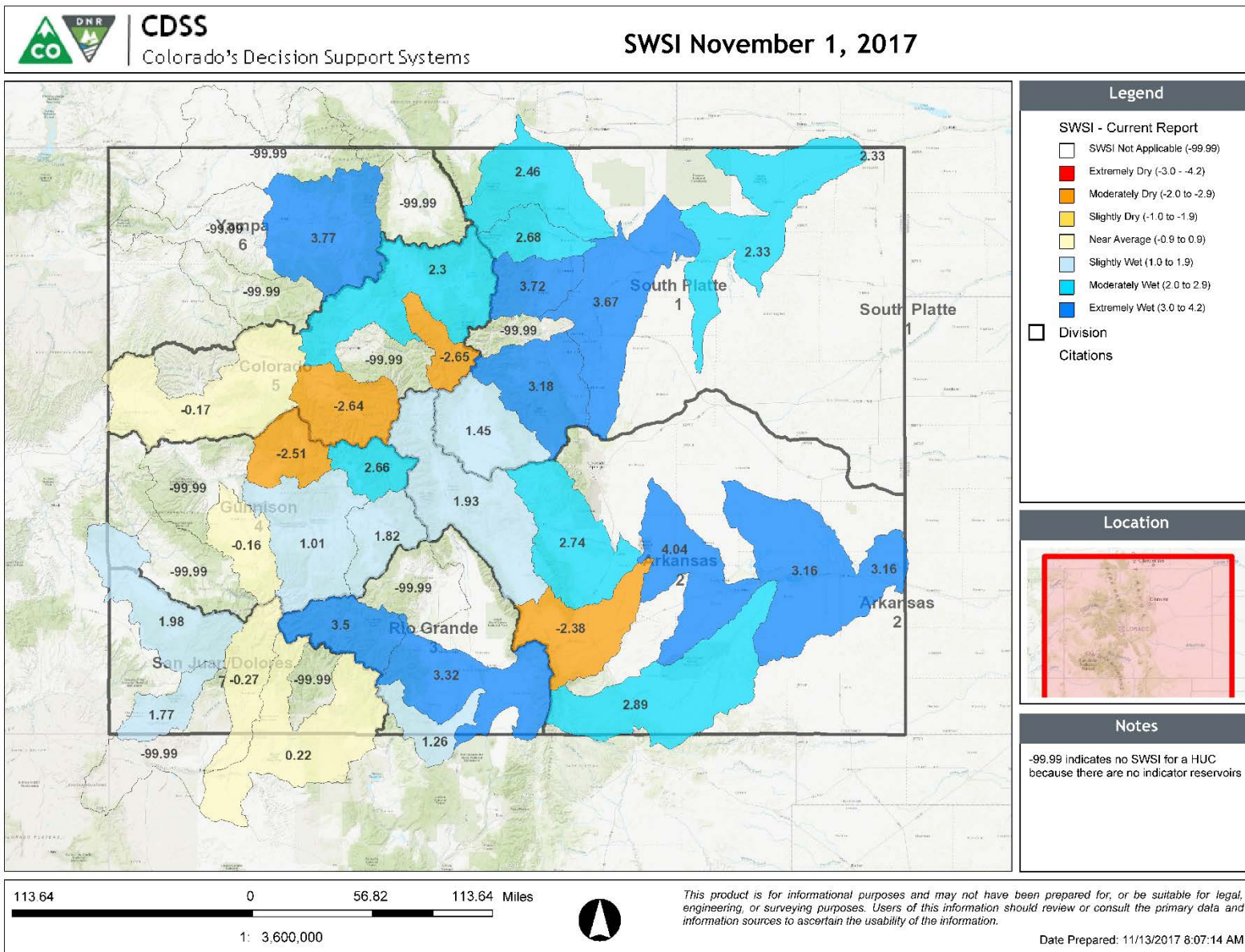




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# Colorado Snow Surveys

November 1, 2017 SWSI





## Summary

- Water Year to date precipitation is below normal averaged across the state
  - Stark contrast between the northern and southern parts of Colorado with the north receiving notably more precipitation
- SWE accumulation shows a similar pattern precipitation
- Reservoir storage is above average in all major basins in the state
- Still early in the snowpack accumulation season
  - While we are currently below normal there is substantially more snow on the ground than this time last year and a lot more winter to come...



United States Department of Agriculture

Colorado Snow Surveys

# Water Availability Task Force Meeting

## November 14<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/>