



# Water Availability Task Force Meeting

## April 19<sup>th</sup>, 2018

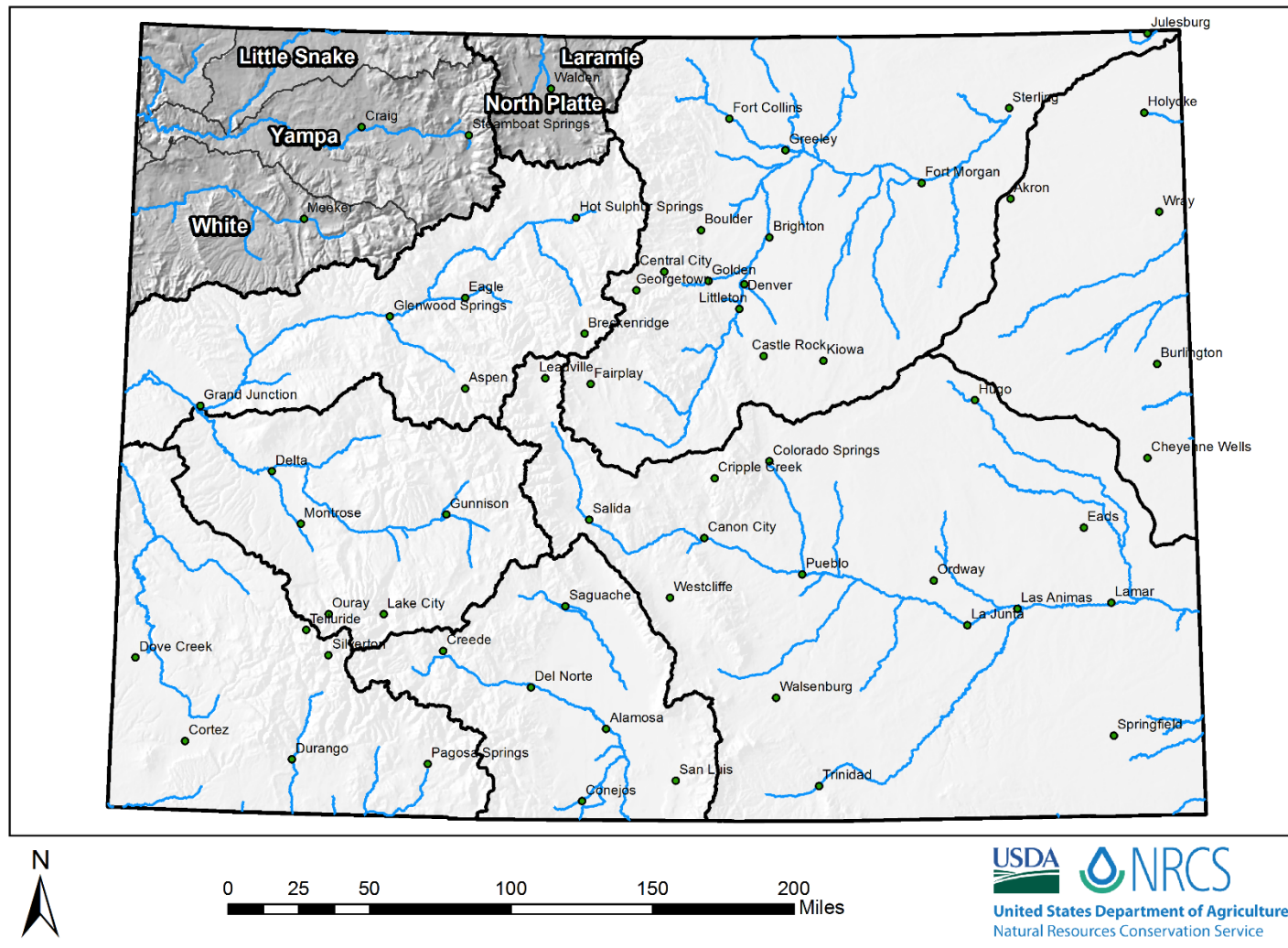
### NRCS Snow Survey and Water Supply Forecasting Program

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Hydrologist  
Snow Survey Supervisor  
720-544-2852

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

## Major Basin Summary

Yampa, White, and North Platte River Basins





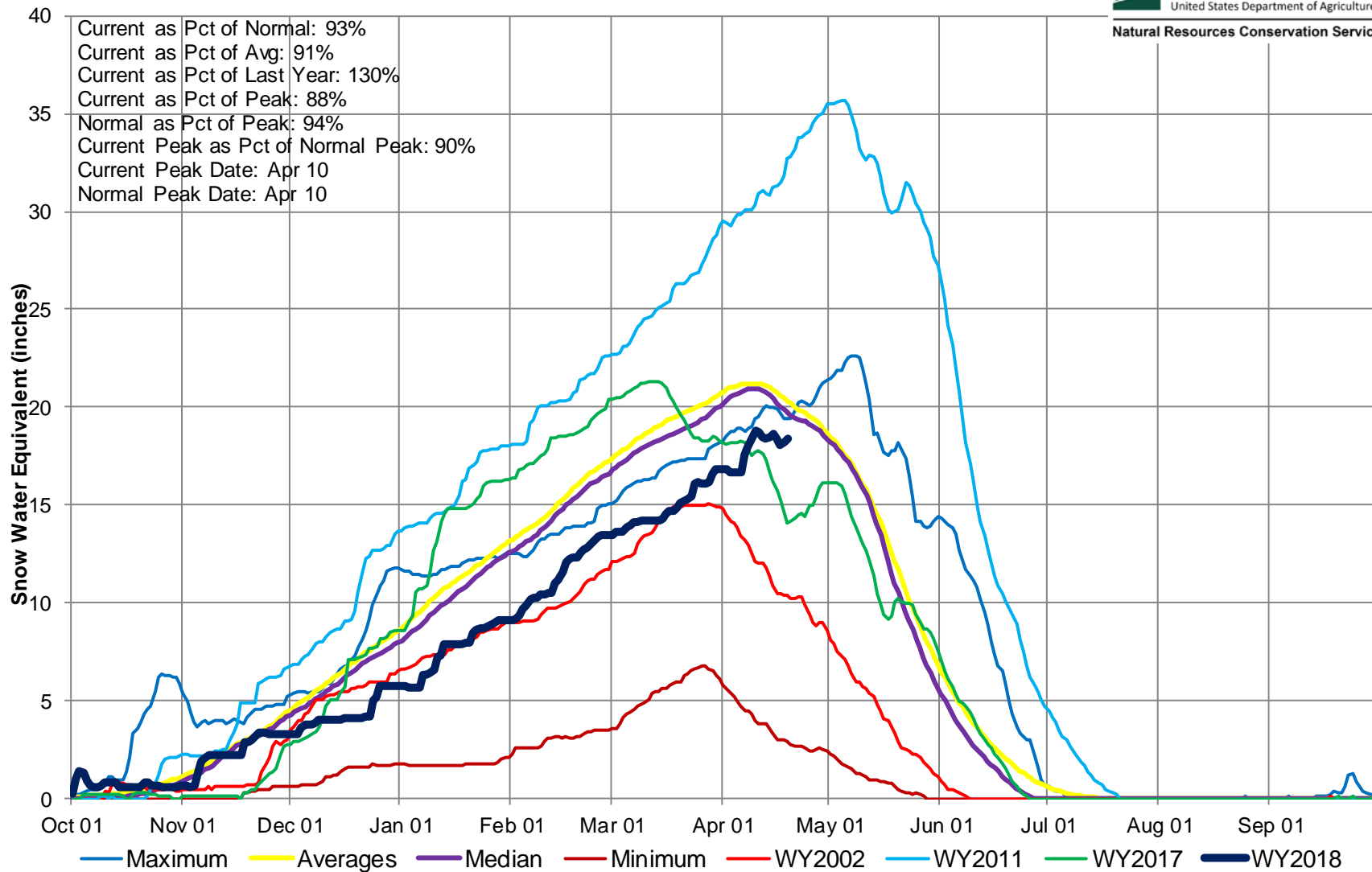
## Yampa and White River Basins High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Apr 19, 2018*



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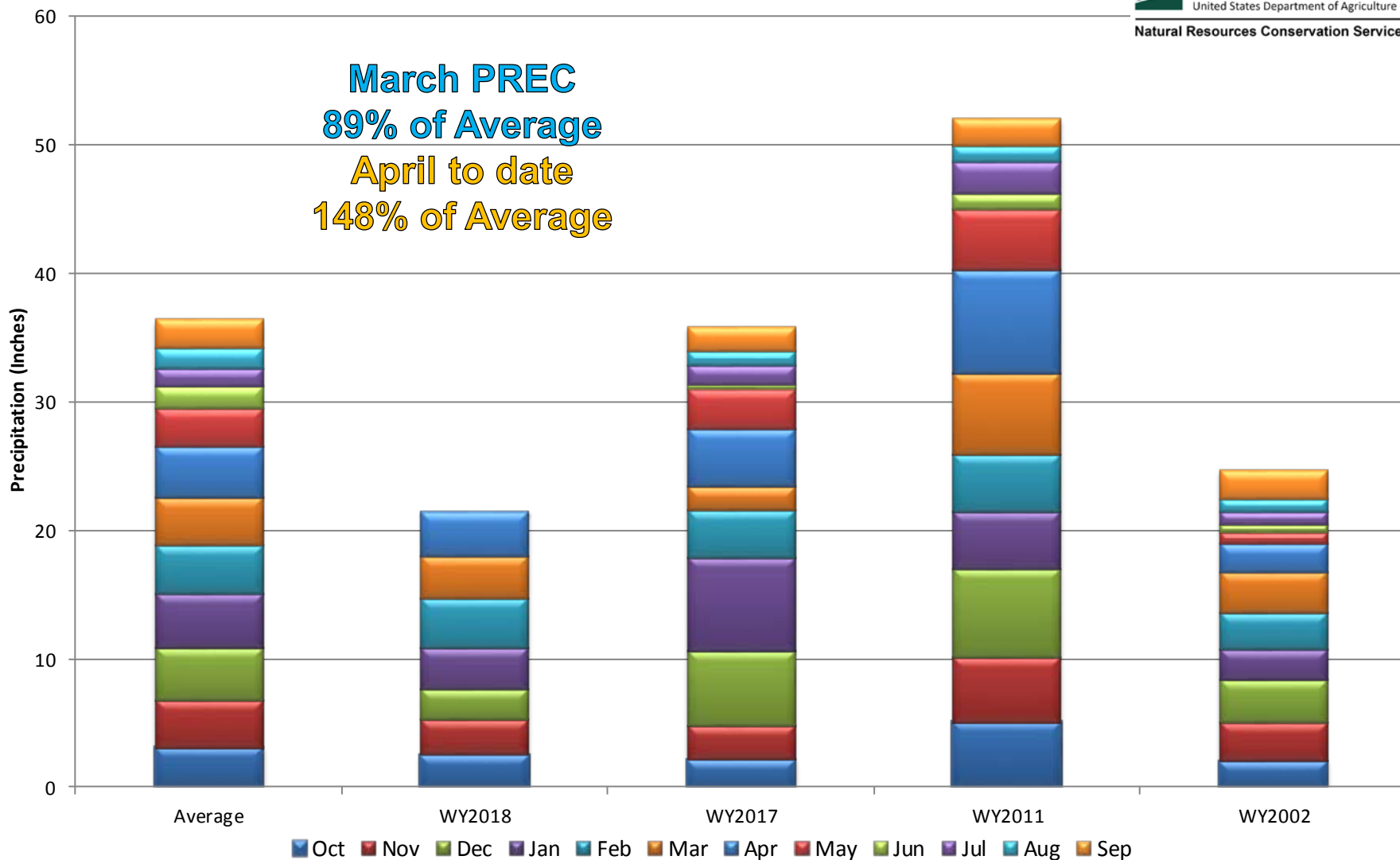
## Yampa and White River Basins High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Apr 19, 2018*



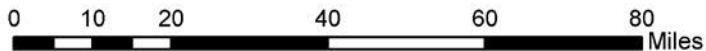
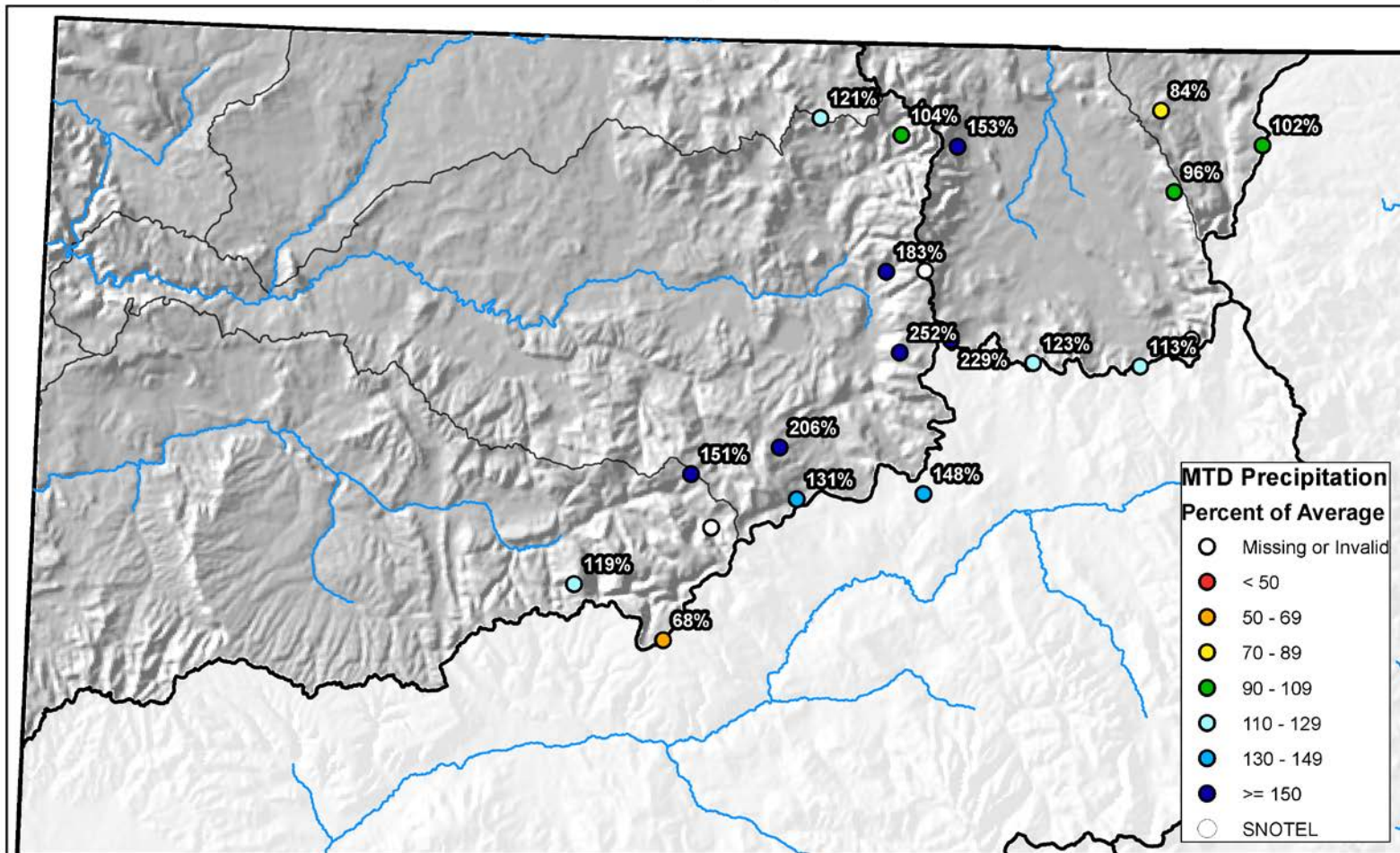
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Natural Resources Conservation Service





## Yampa, White, and North Platte River Basins Month to Date Precipitation Summary Current as of Apr 19, 2018





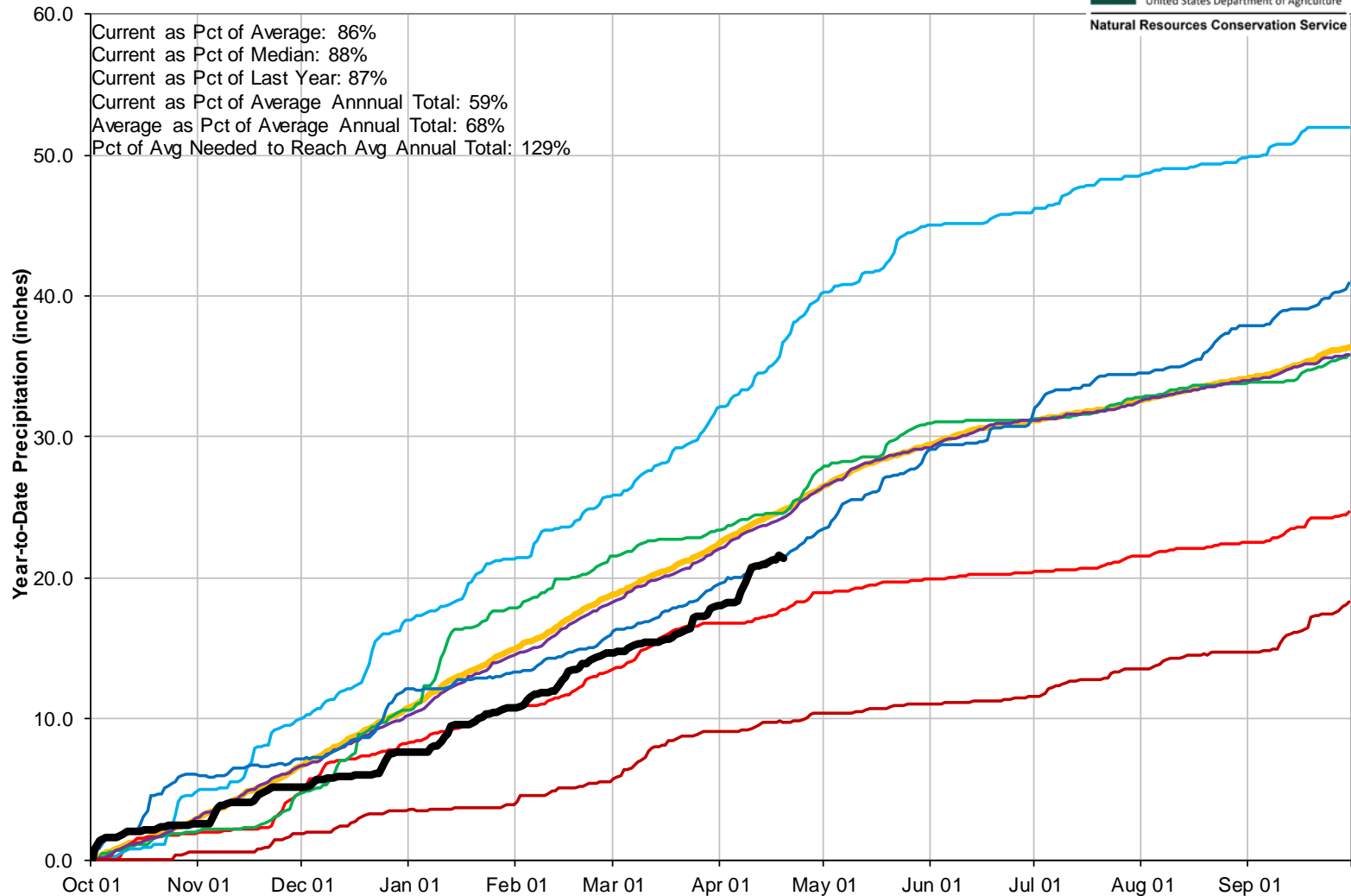
## Yampa and White River Basins High/Low Year-to-Date Precipitation Summary

*Based on Provisional SNOTEL data as of Apr 19, 2018*

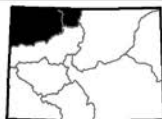
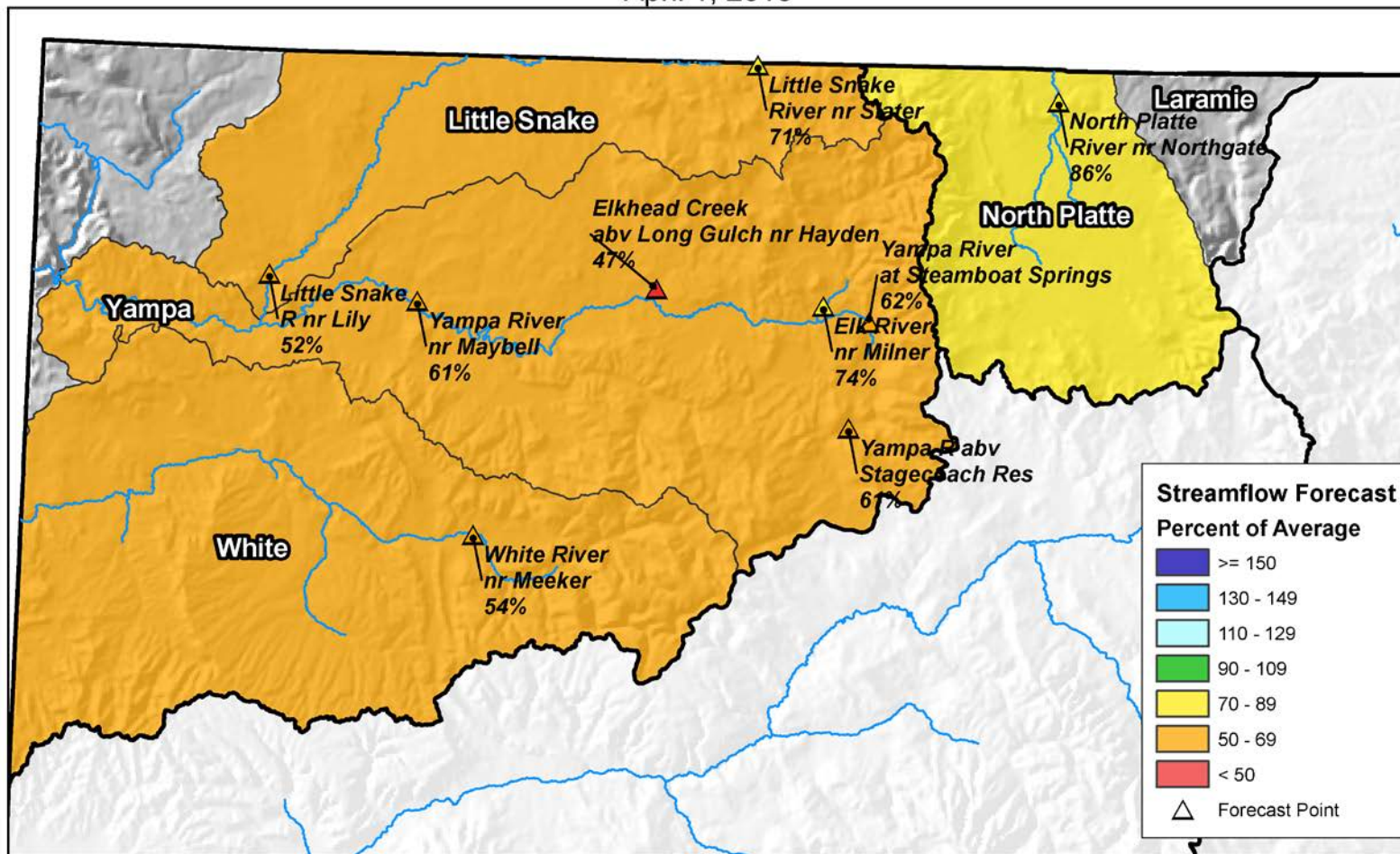


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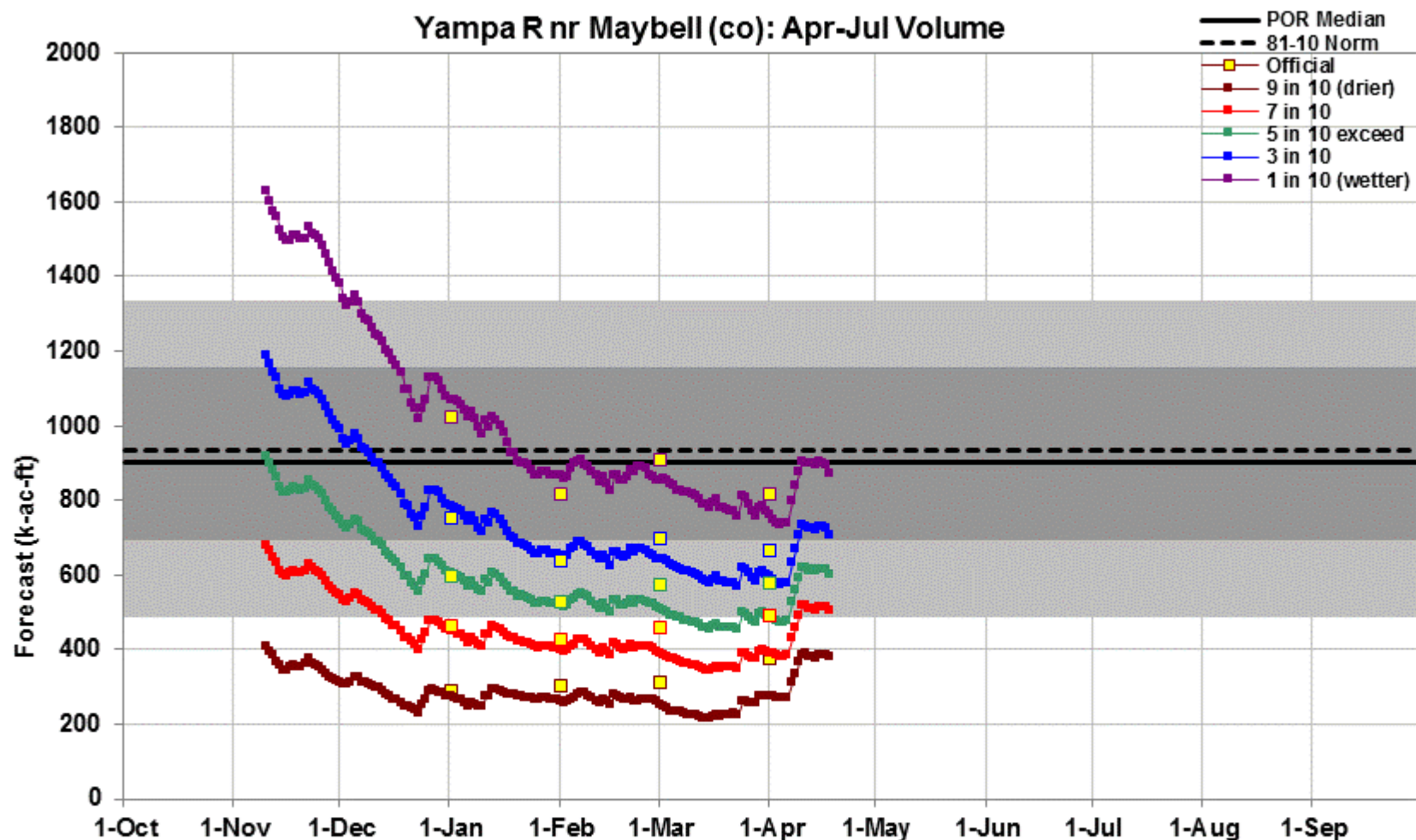


## Yampa, White, and North Platte River Basins Streamflow Forecast Summary April 1, 2018



0 10 20 40 60 80 Miles

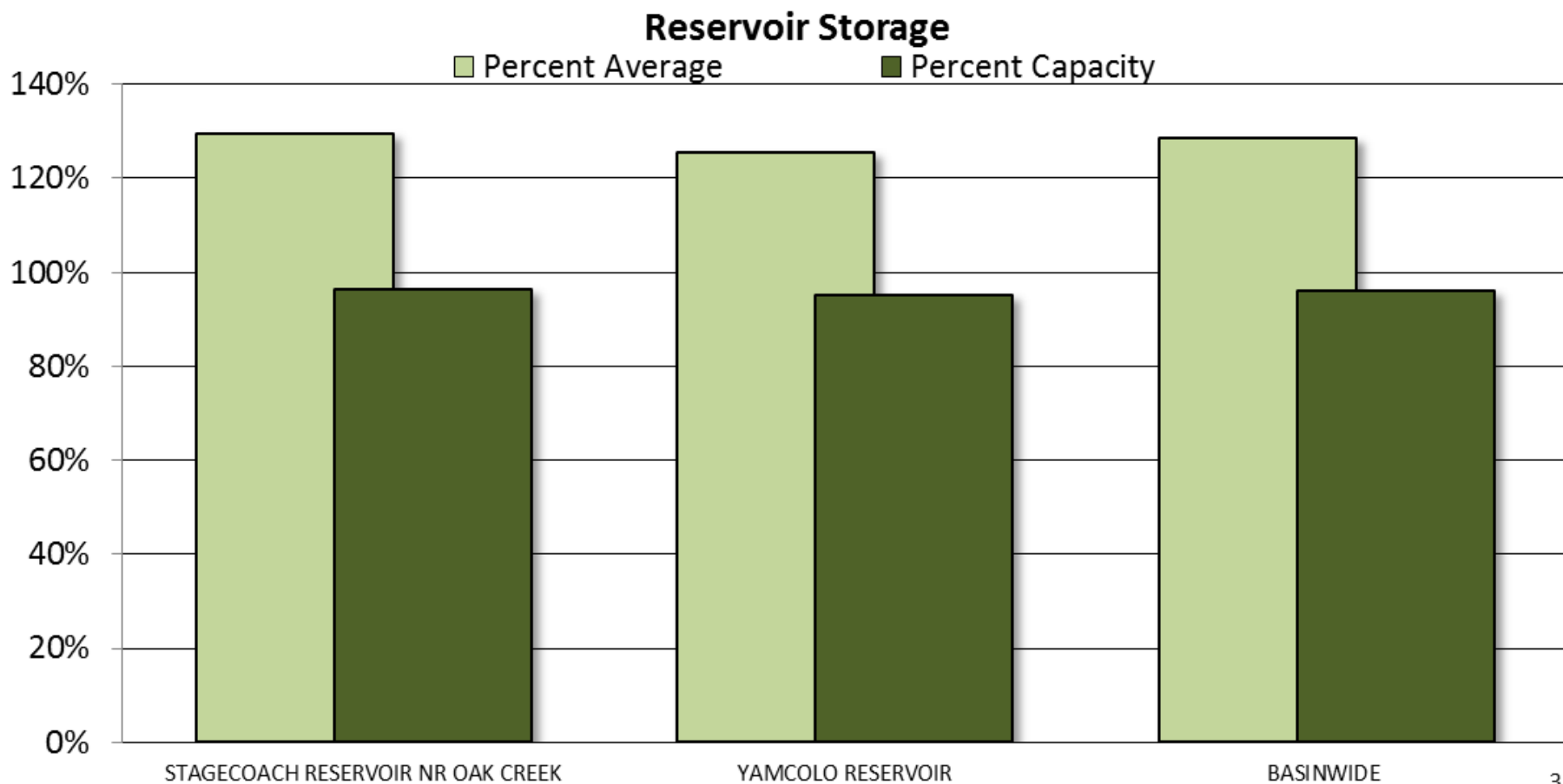




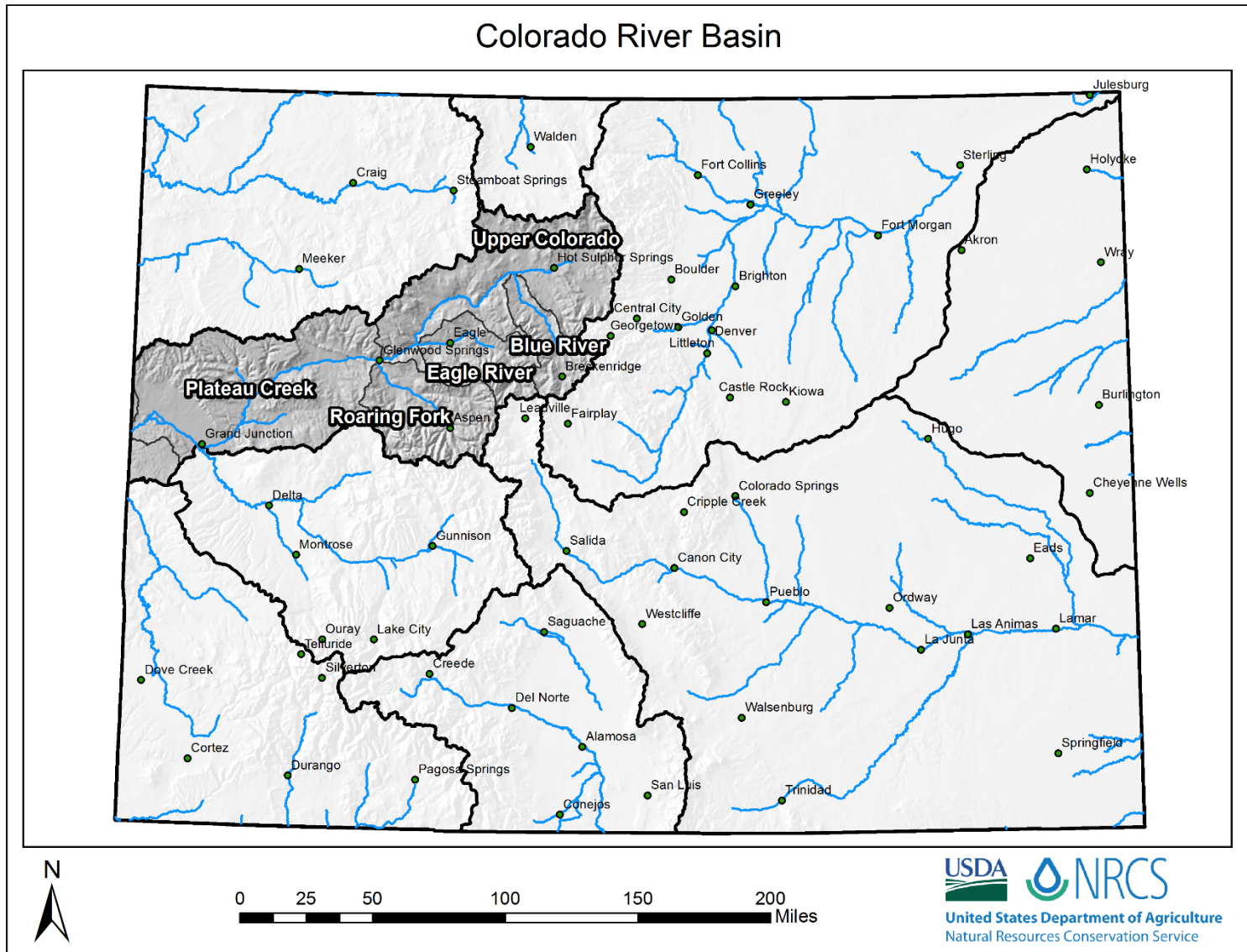
Created 7:50 Apr 18 2018



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## Major Basin Summary







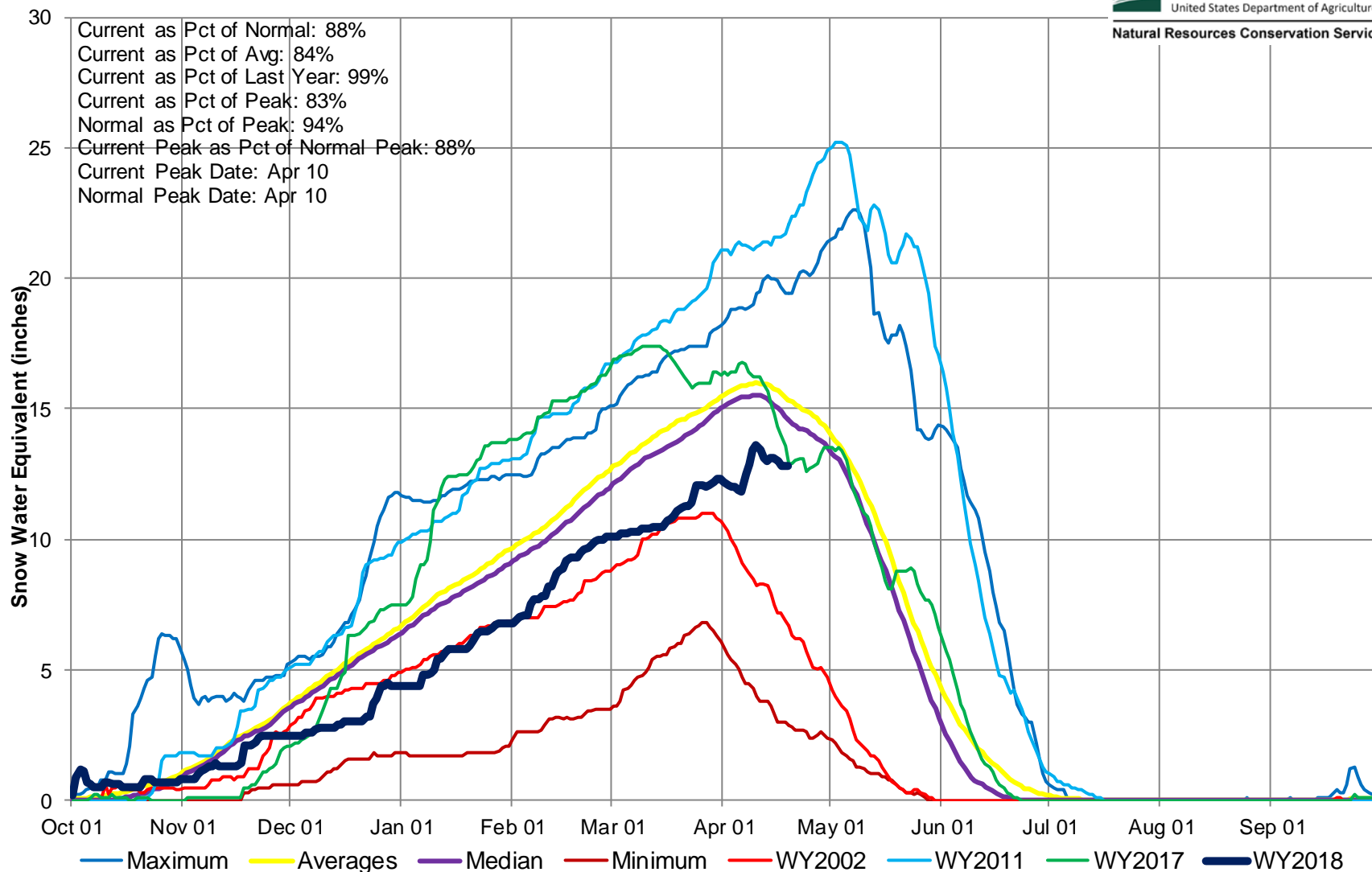
## Upper Colorado River Basin High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Apr 19, 2018*



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Natural Resources Conservation Service





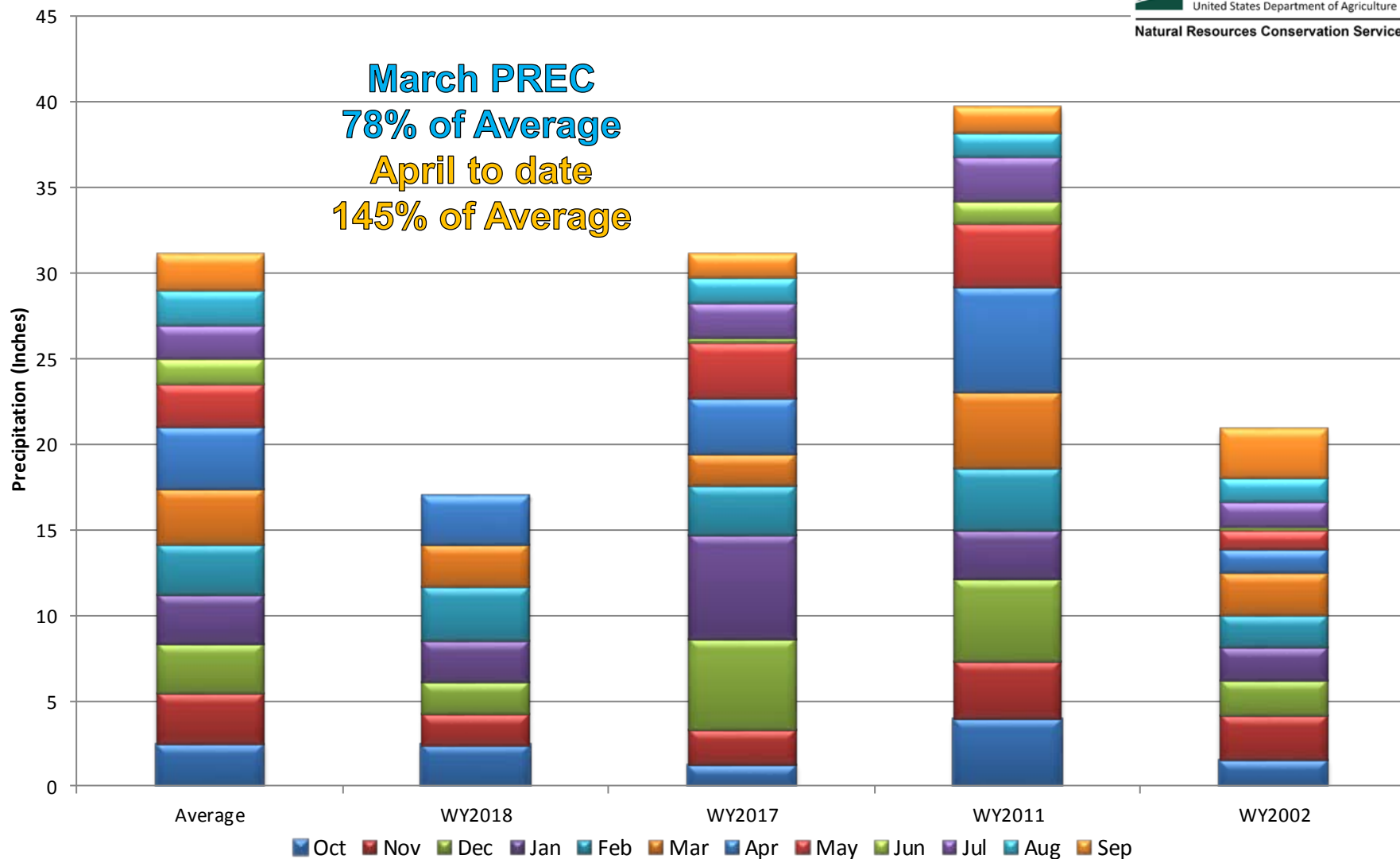
## Upper Colorado River Basin High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Apr 19, 2018*



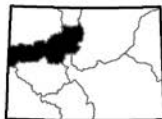
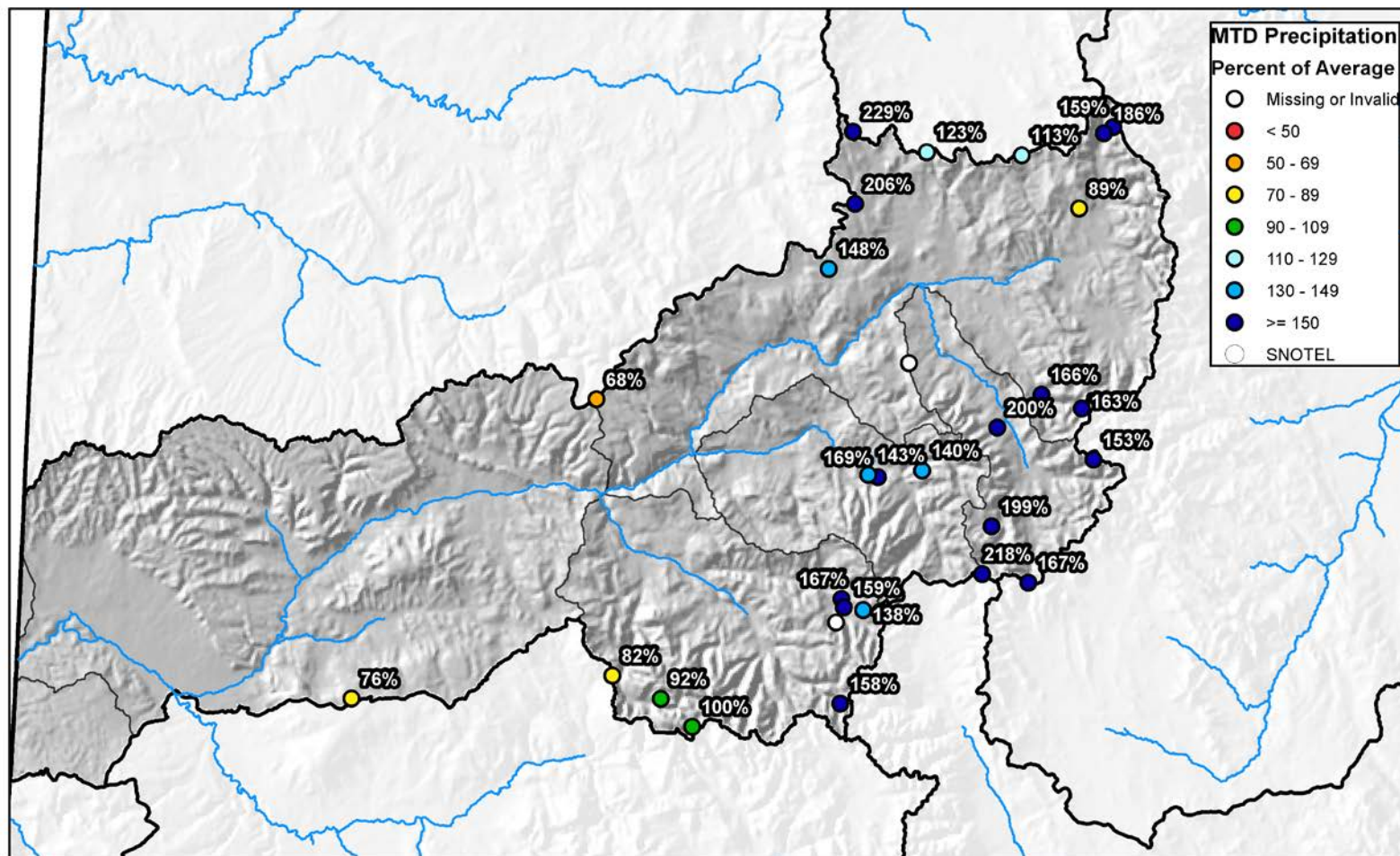
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## Upper Colorado River Basin Month to Date Precipitation Summary

Current as of Apr 19, 2018



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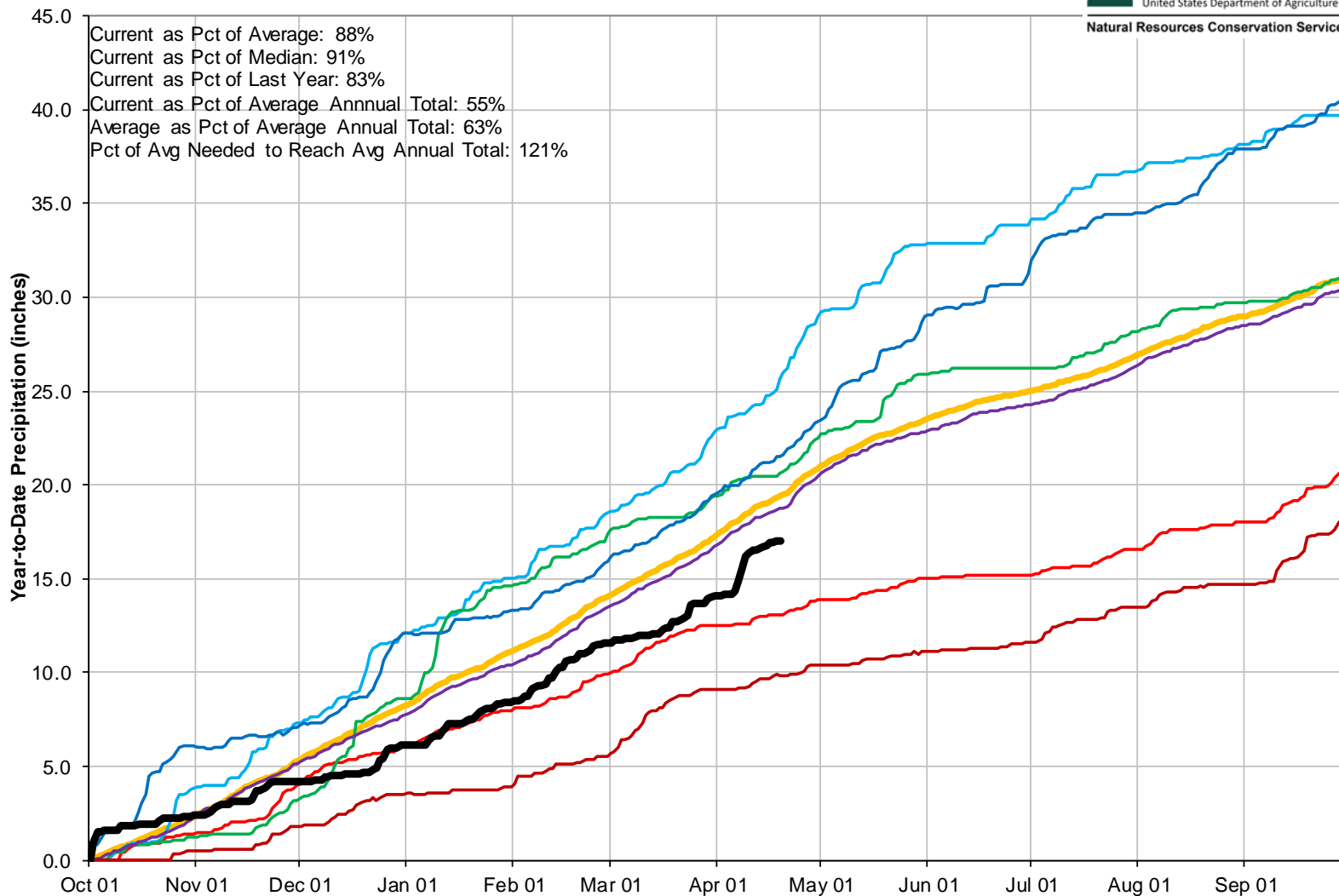
## Upper Colorado River Basin High/Low Year-to-Date Precipitation Summary

*Based on Provisional SNOTEL data as of Apr 19, 2018*



United States Department of Agriculture

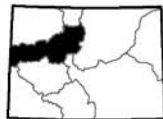
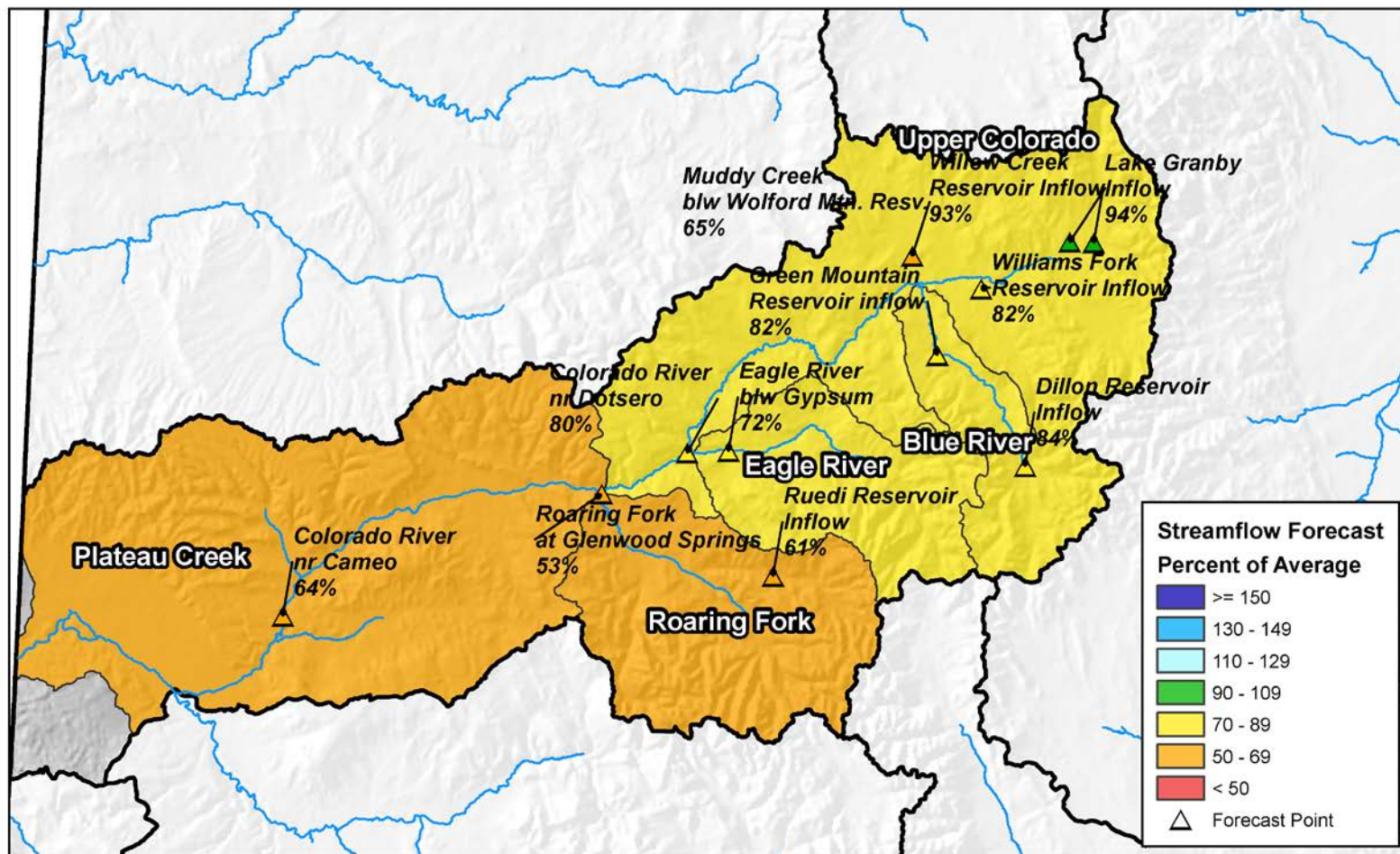
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## Upper Colorado River Basin Streamflow Forecast Summary

April 1, 2018

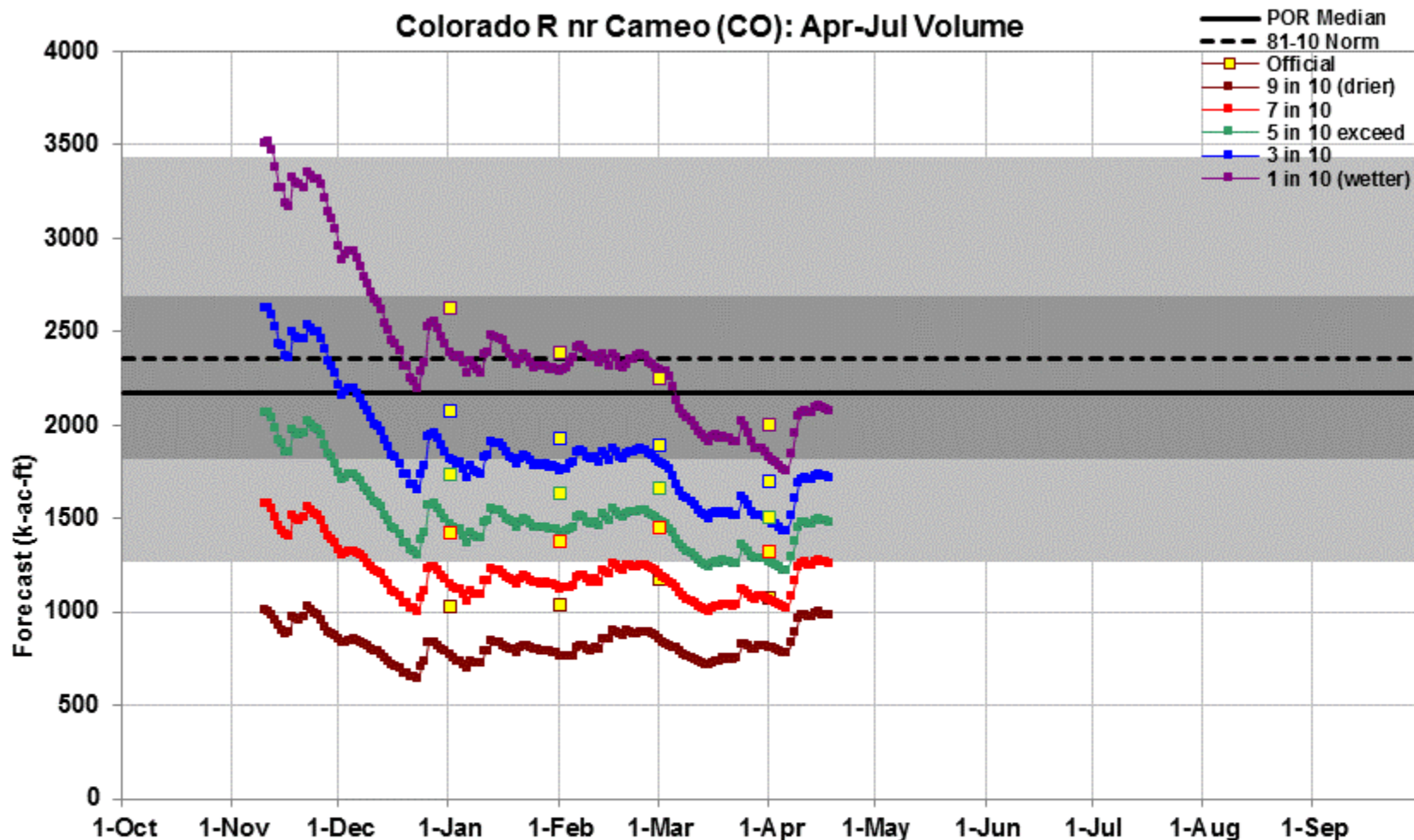


0 10 20 40 60 80 Miles



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Created 7:33 Apr 18 2018

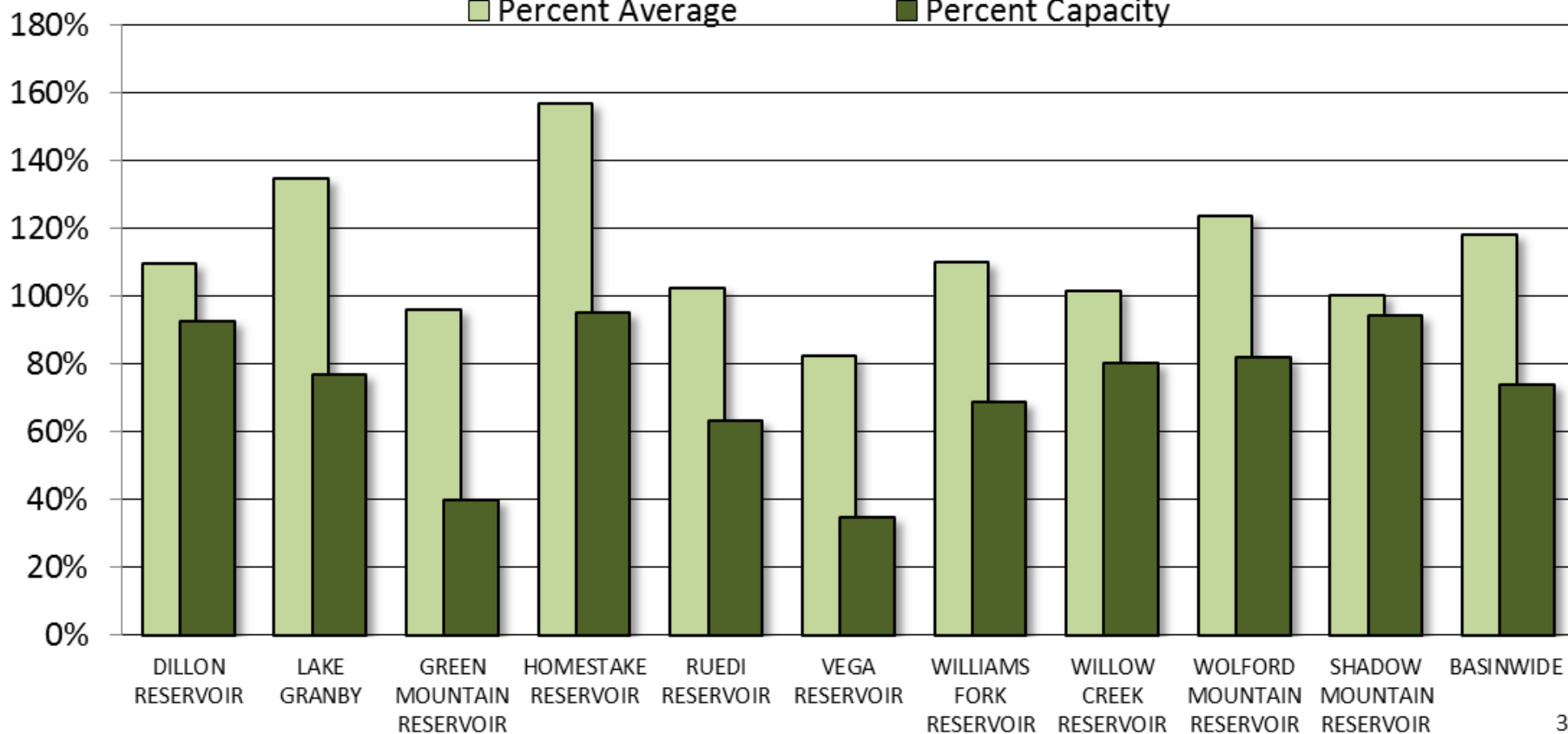




## Reservoir Storage

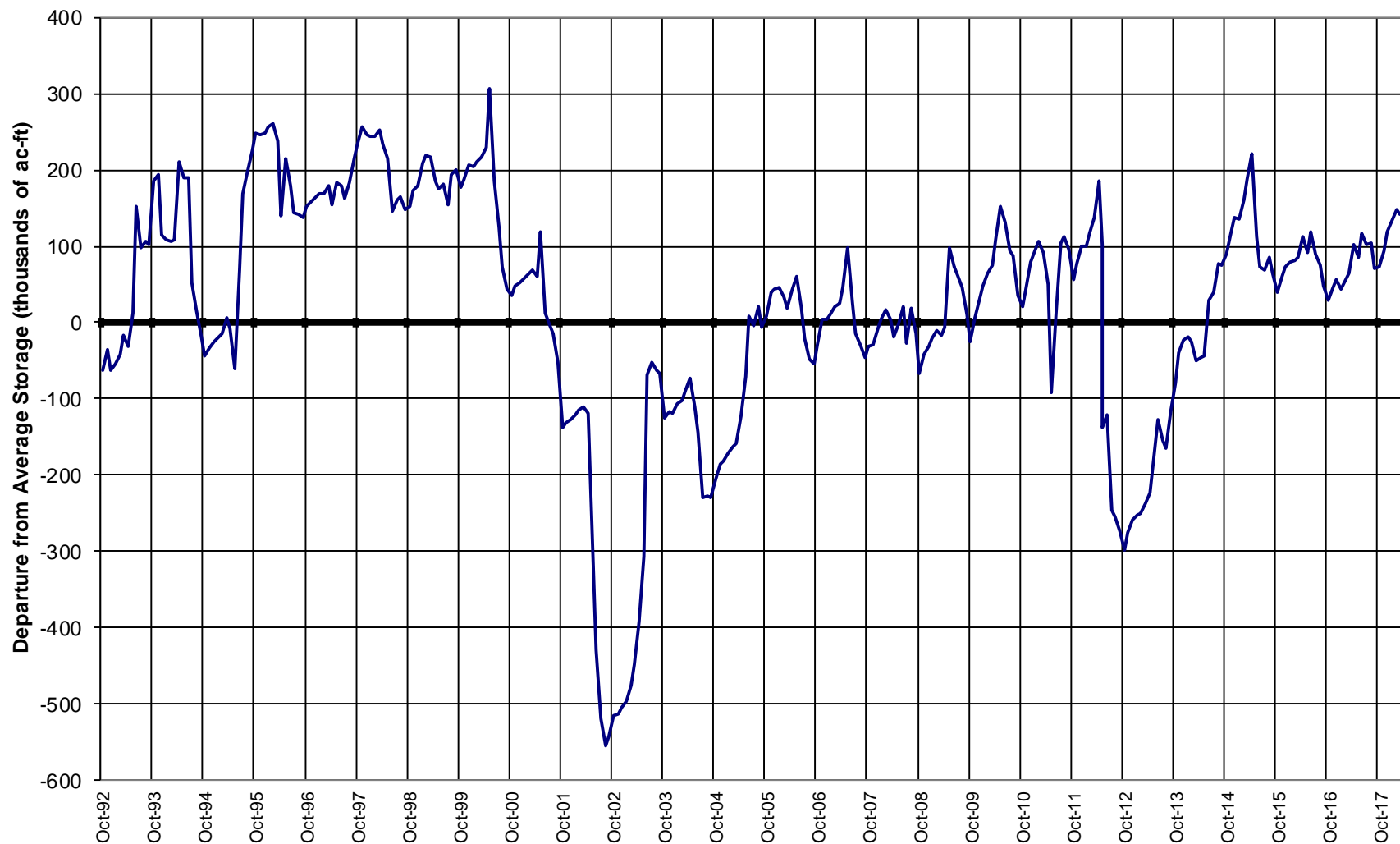
■ Percent Average

■ Percent Capacity





## COLORADO RIVER BASIN Reservoir Storage Departure from Average



[illegible]

0 25 50 100 150 200 Miles



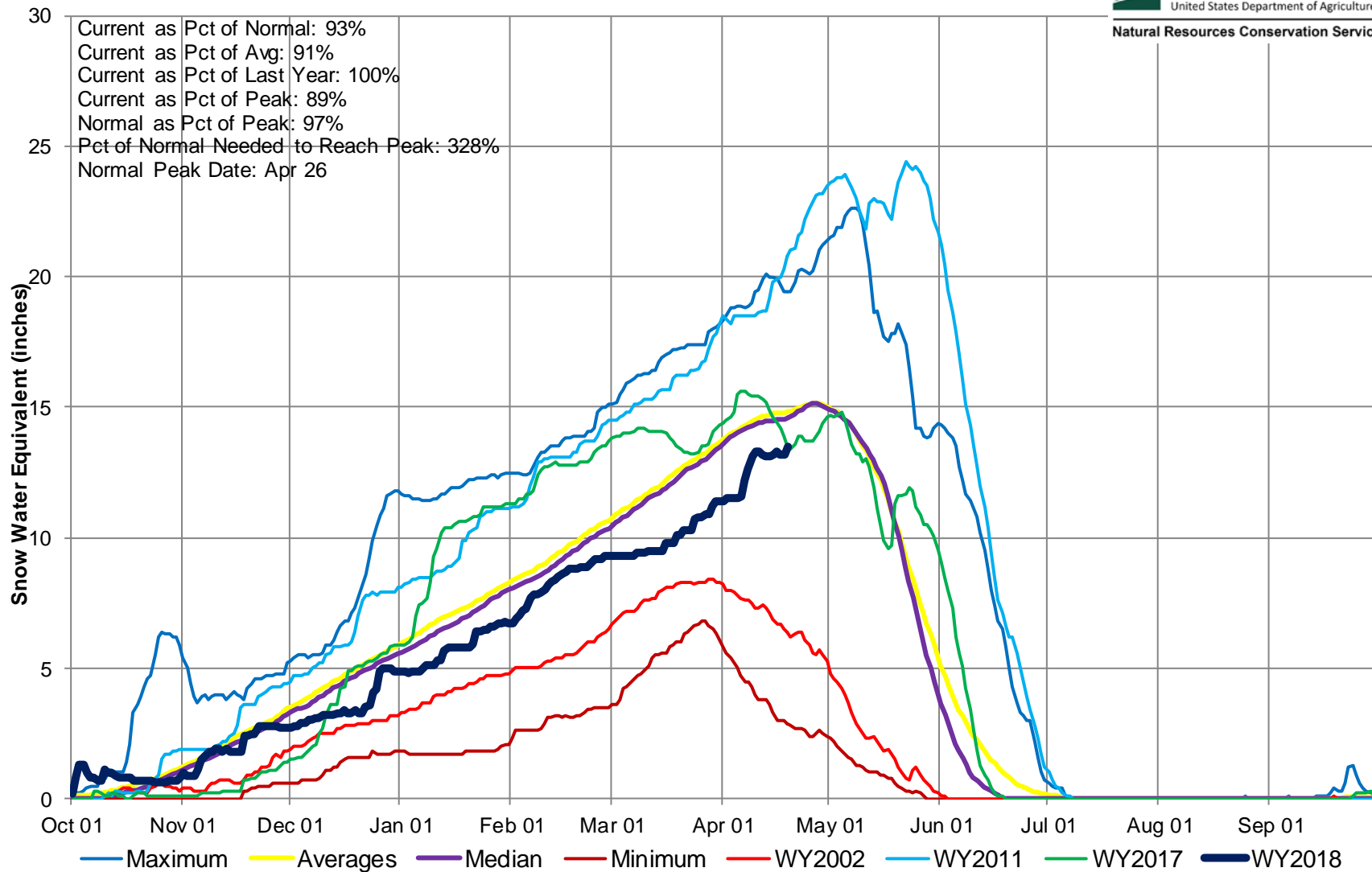
## South Platte River Basin High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Apr 19, 2018*



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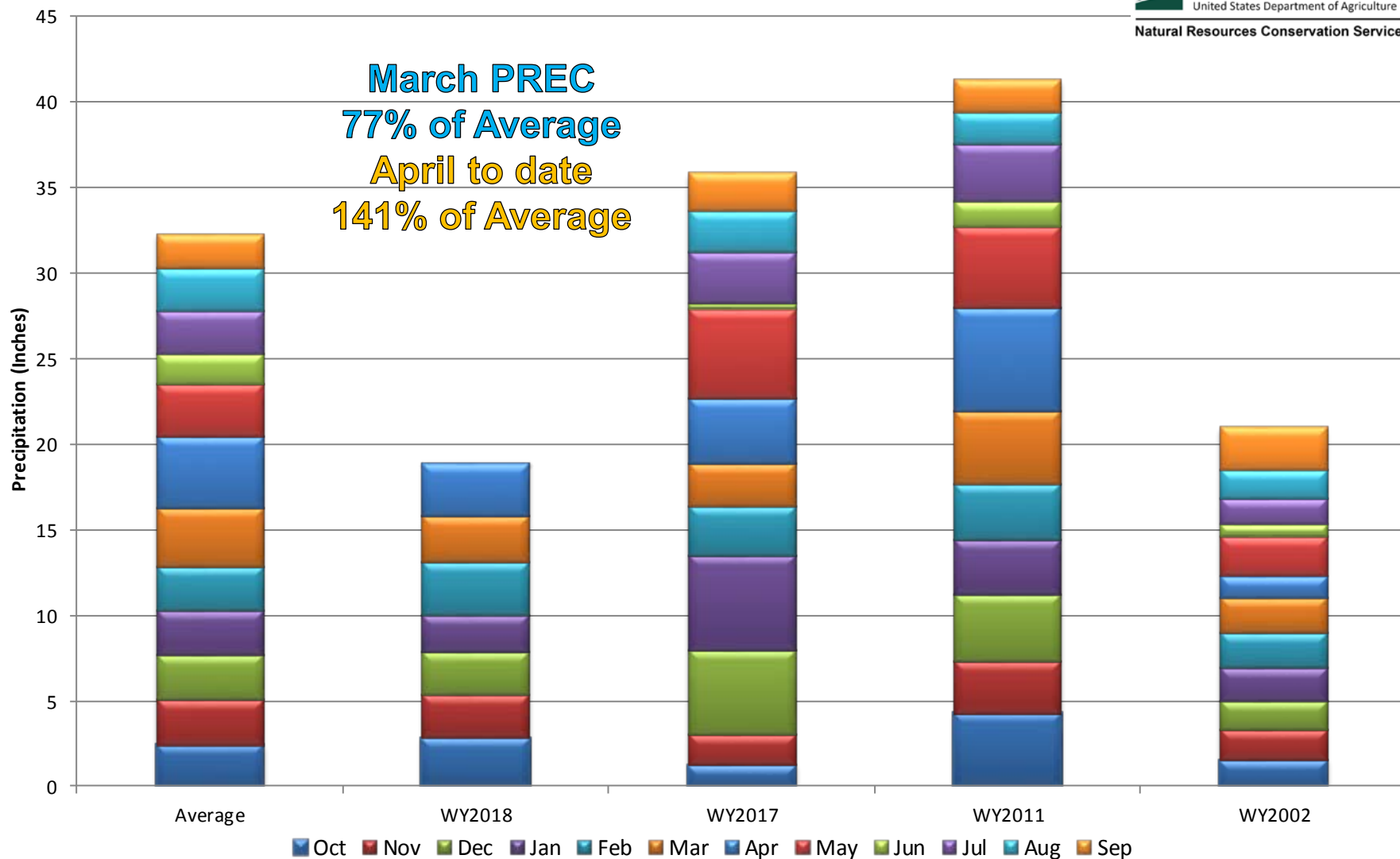
## South Platte River Basin High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Apr 19, 2018*



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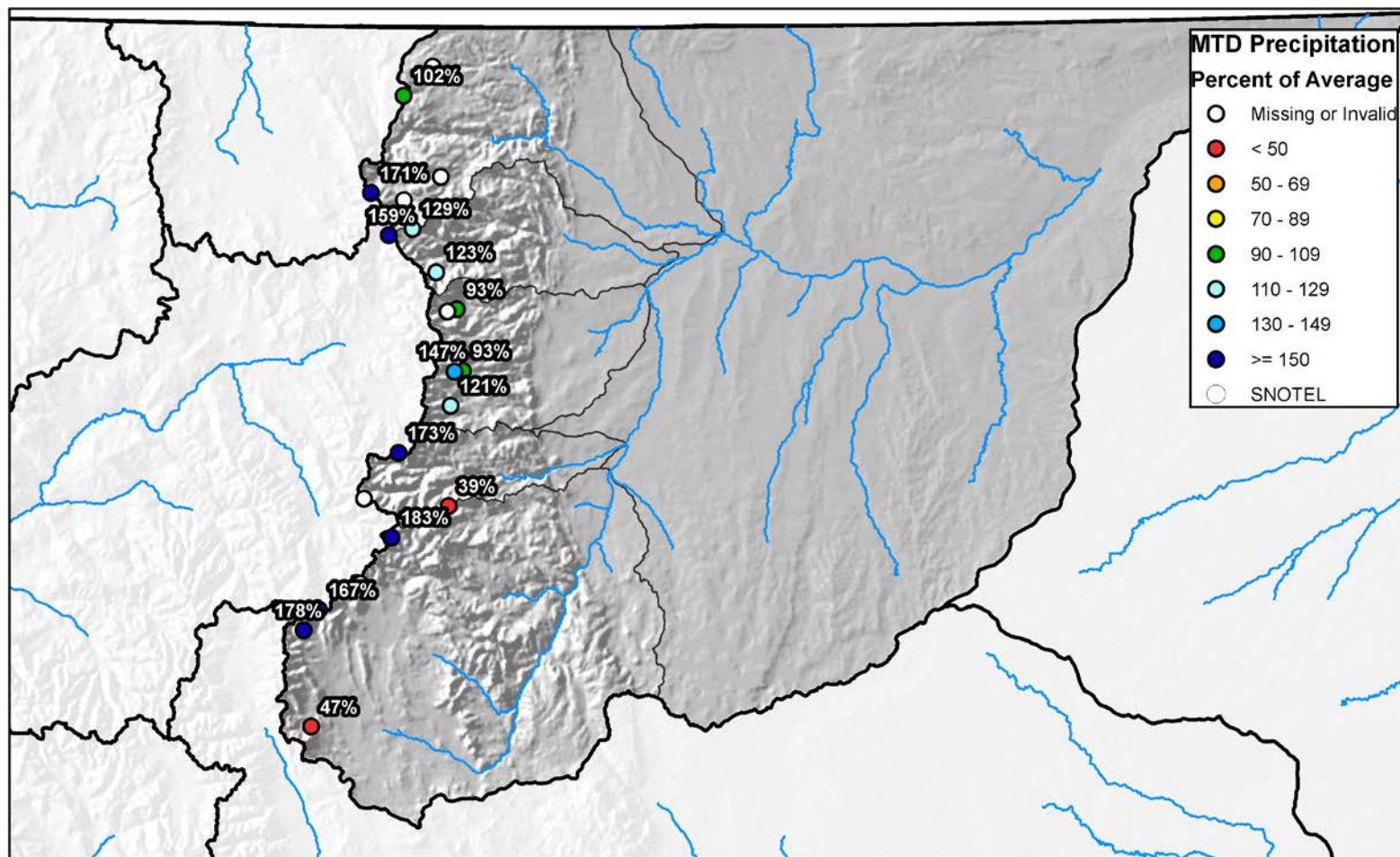
Natural Resources Conservation Service





## South Platte River Basin Month to Date Precipitation Summary

Current as of Apr 19, 2018



0 10 20 40 60 80 Miles





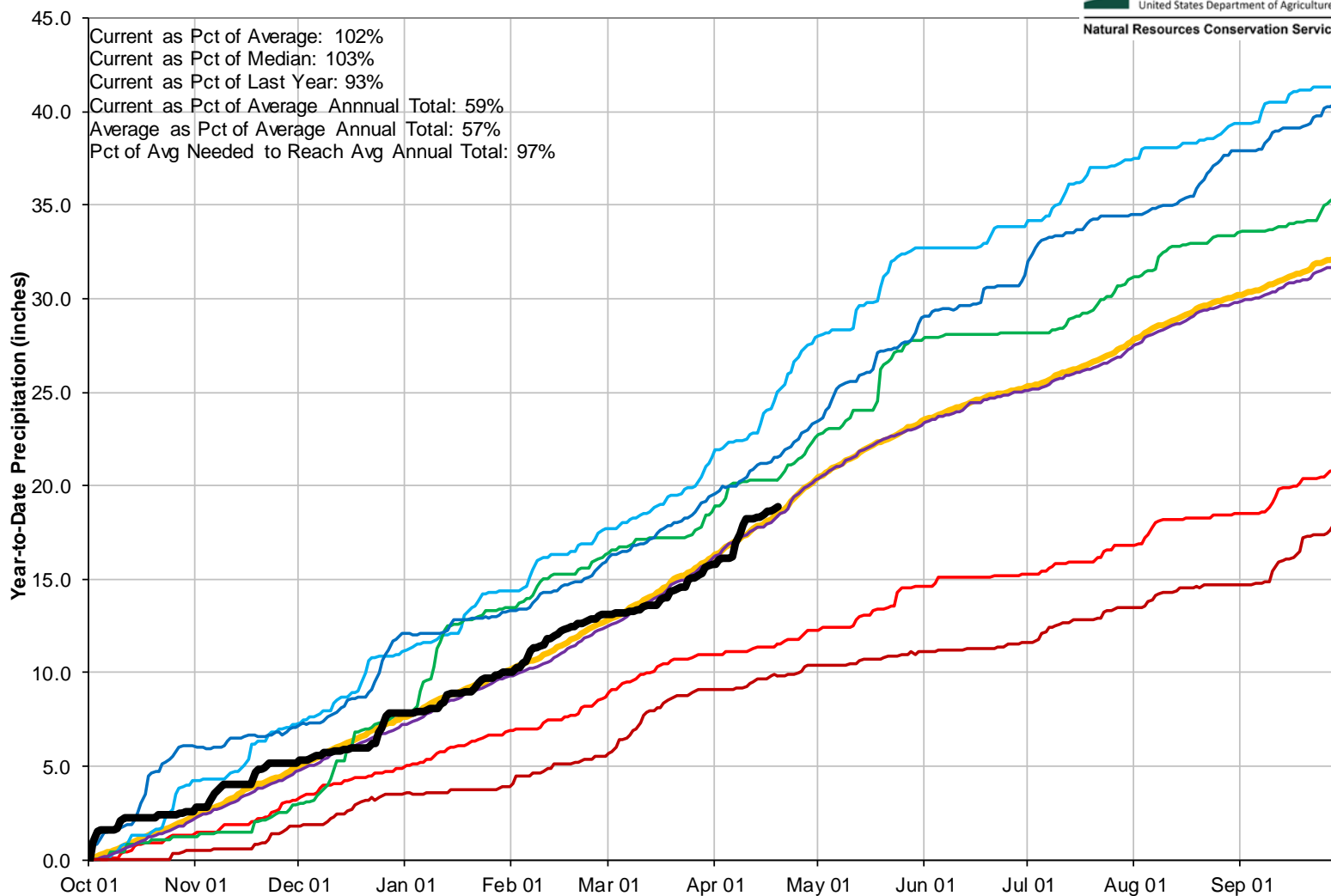
## South Platte River Basin High/Low Year-to-Date Precipitation Summary

*Based on Provisional SNOTEL data as of Apr 19, 2018*



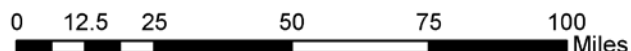
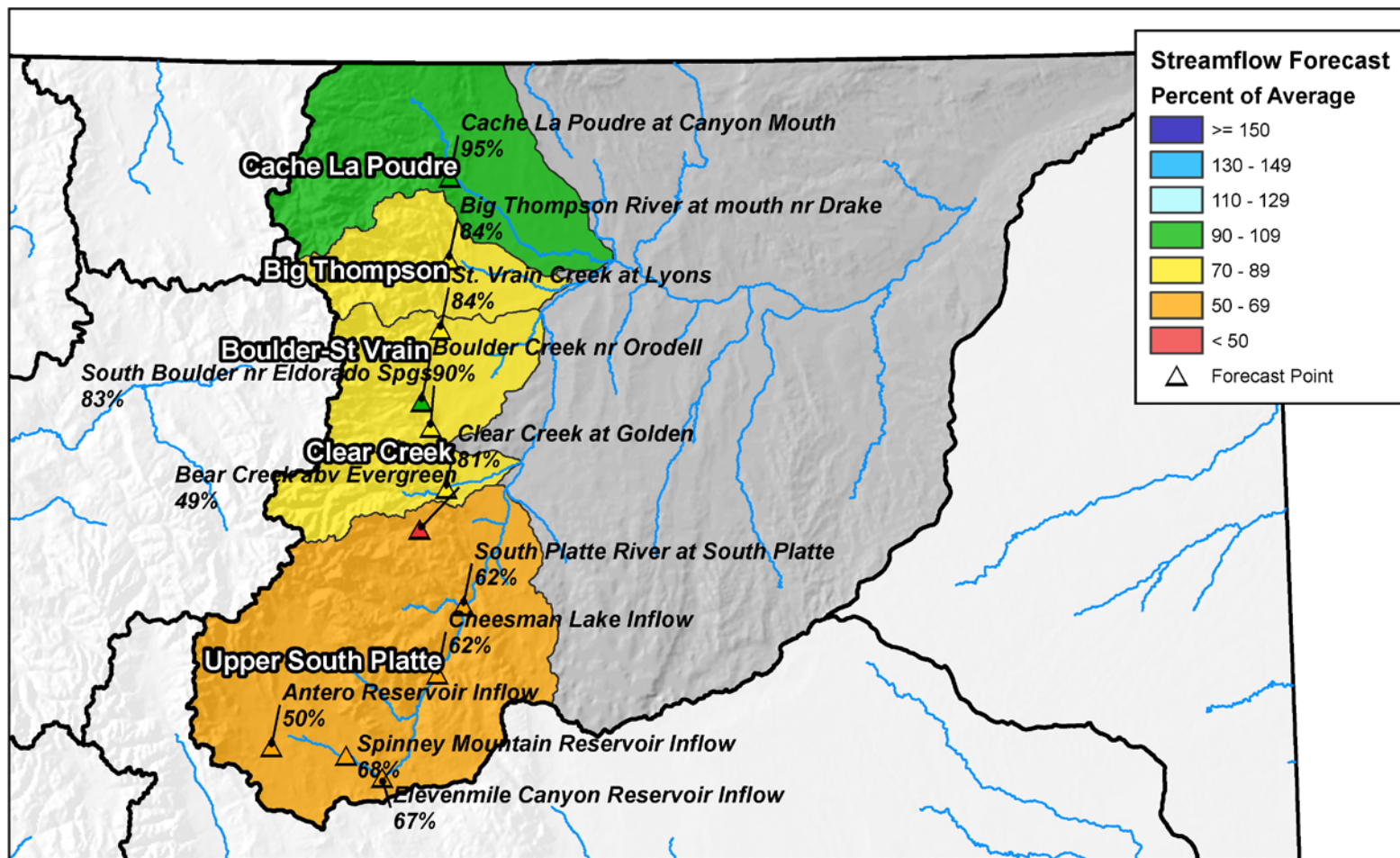
United States Department of Agriculture

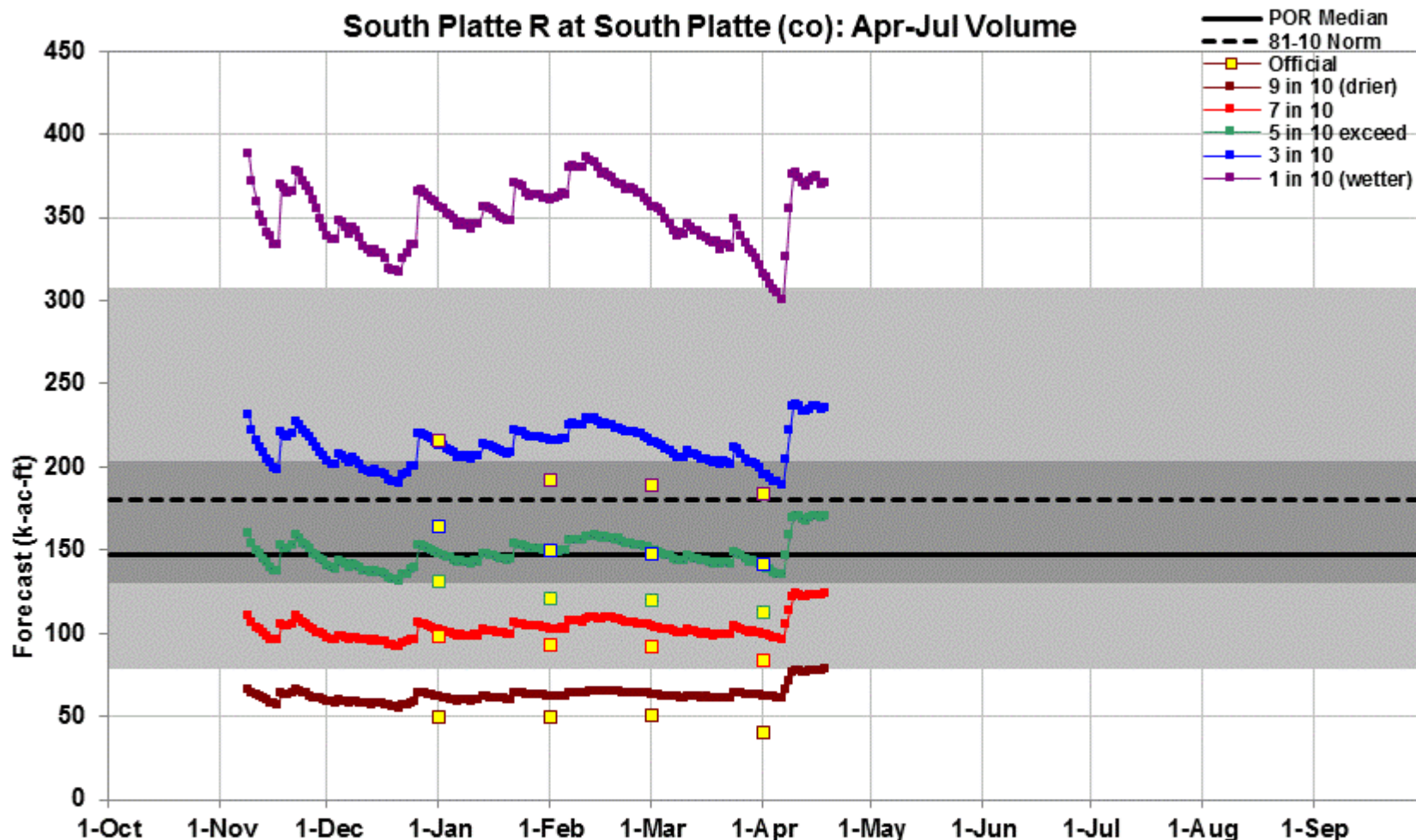
Natural Resources Conservation Service



## South Platte River Basin Streamflow Forecast Summary

April 1, 2018

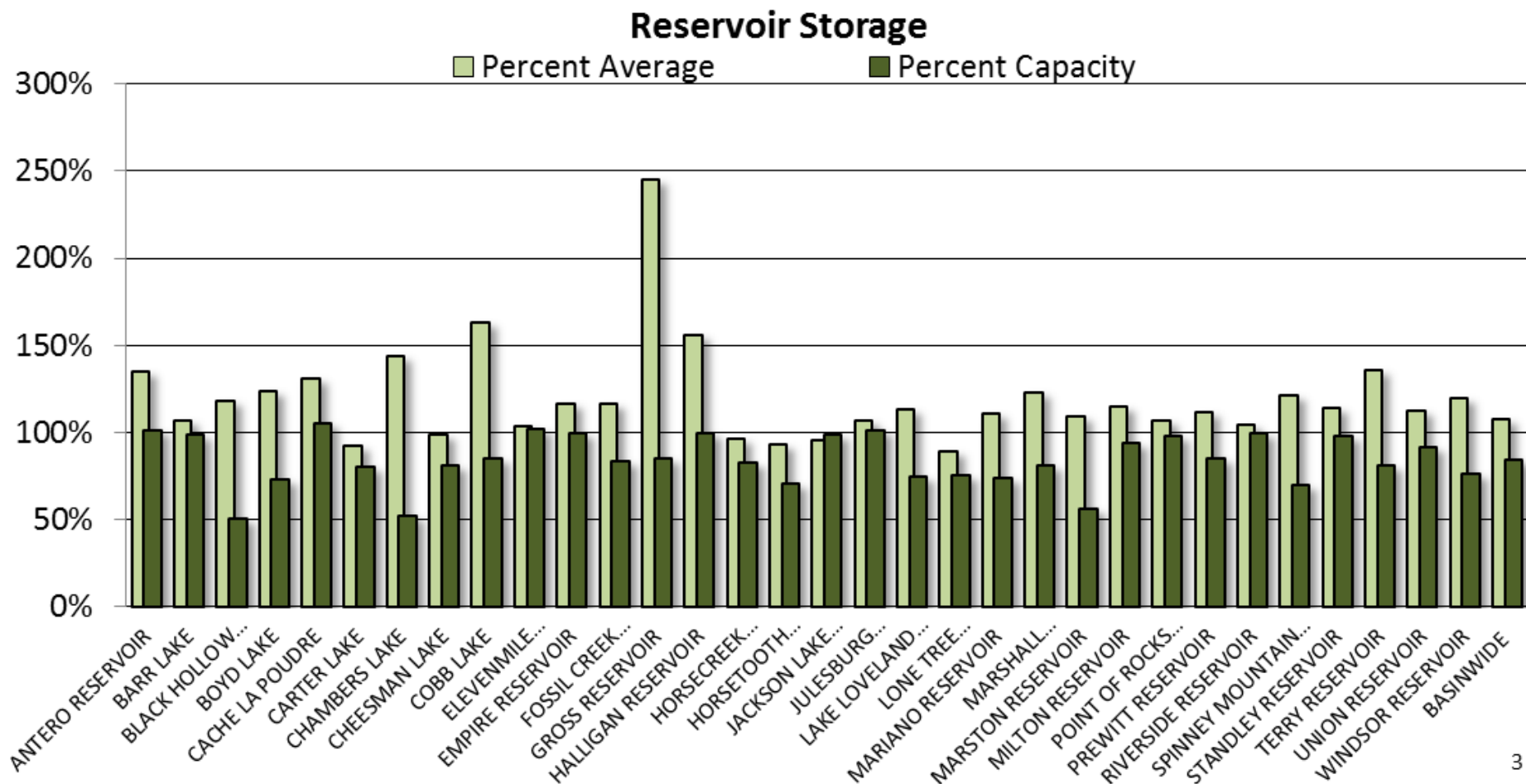




Created 7:03 Apr 18 2018

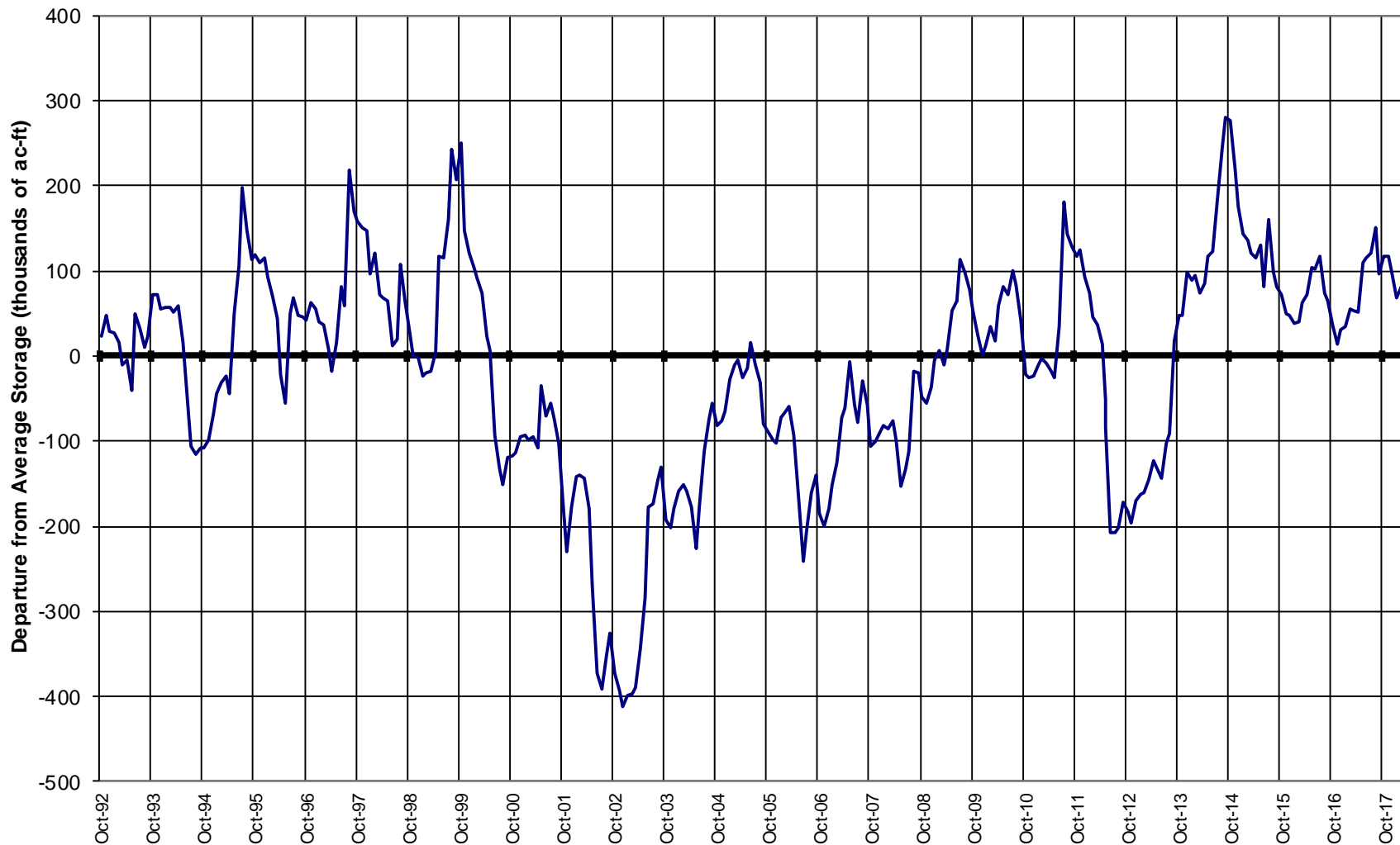


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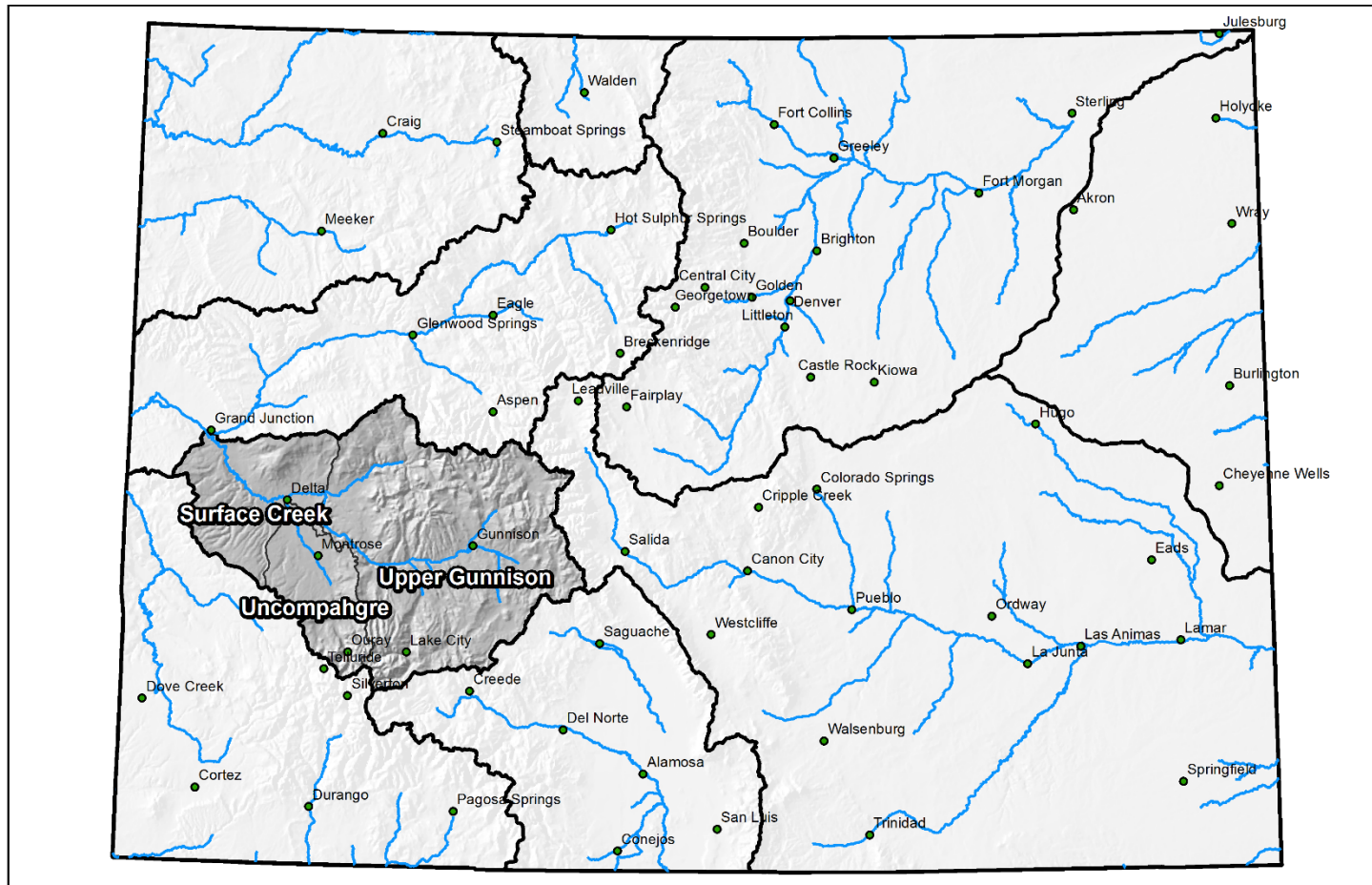
## SOUTH PLATTE RIVER BASIN Reservoir Storage Departure from Average





## Major Basin Summary

### Gunnison River Basin



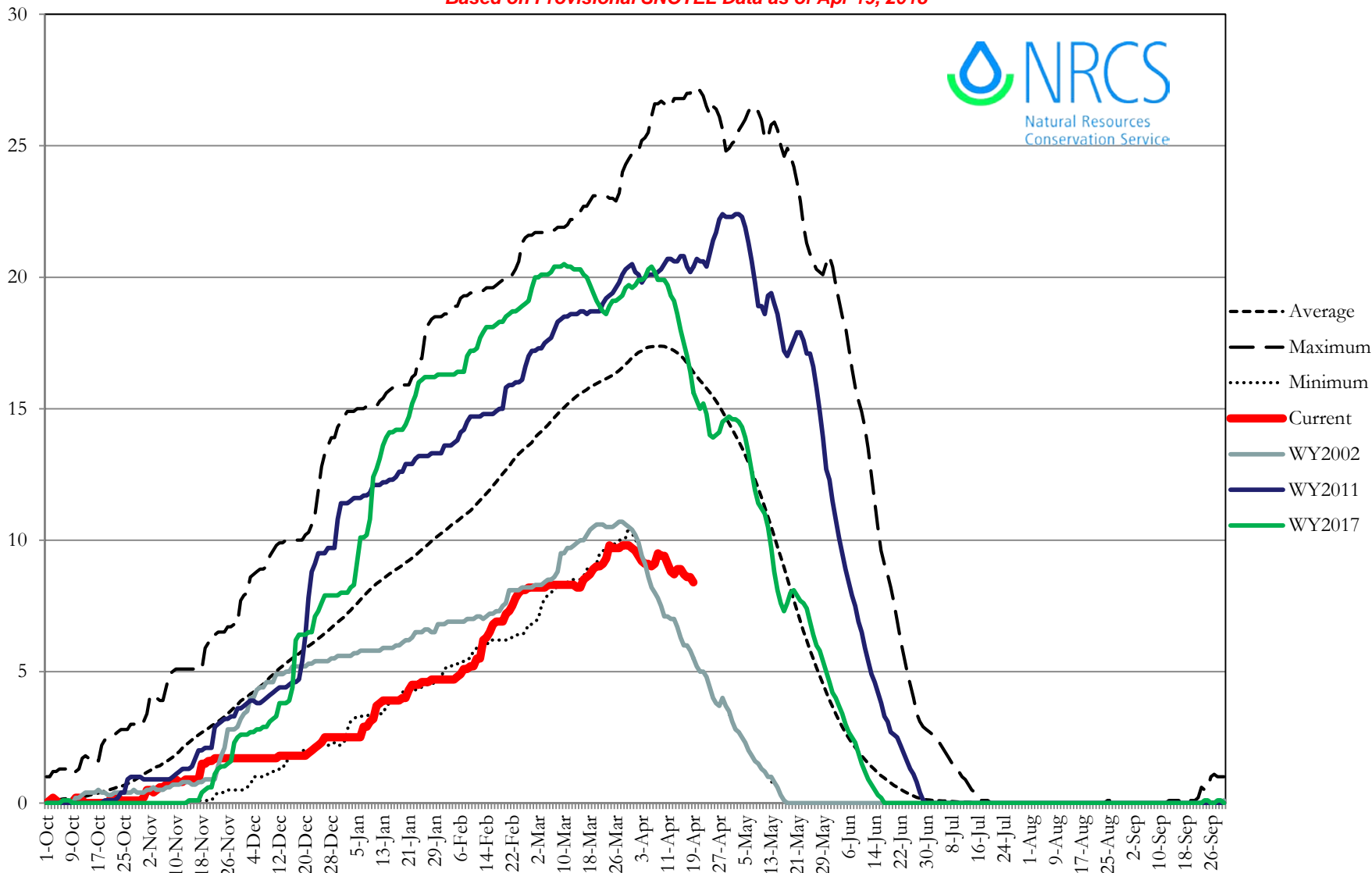
0 25 50 100 150 200 Miles





## Gunnison River Basin Snowpack with Select Analog Years

*Based on Provisional SNOTEL Data as of Apr 19, 2018*





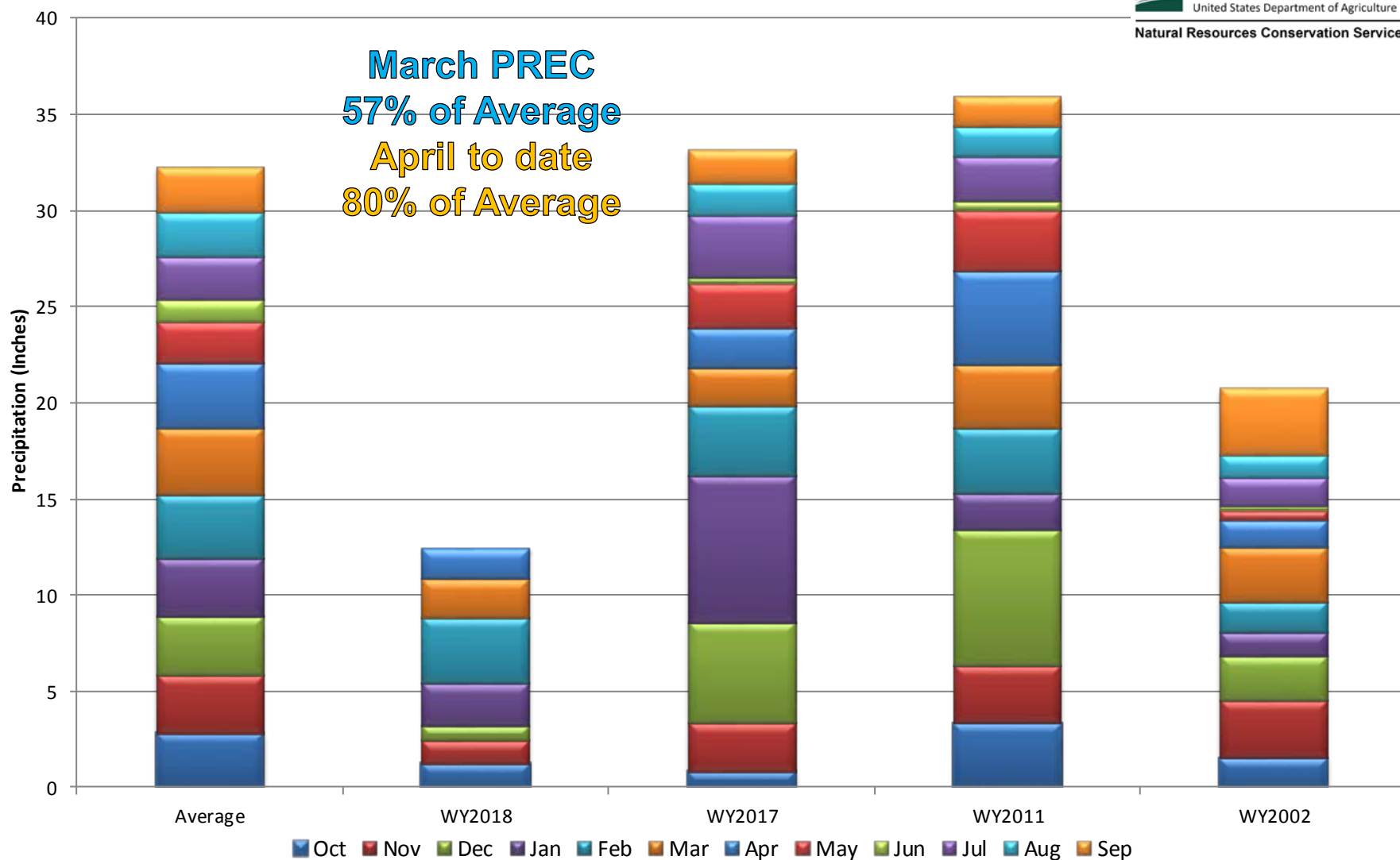
## Gunnison River Basin High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Apr 19, 2018*



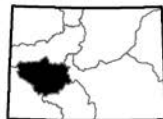
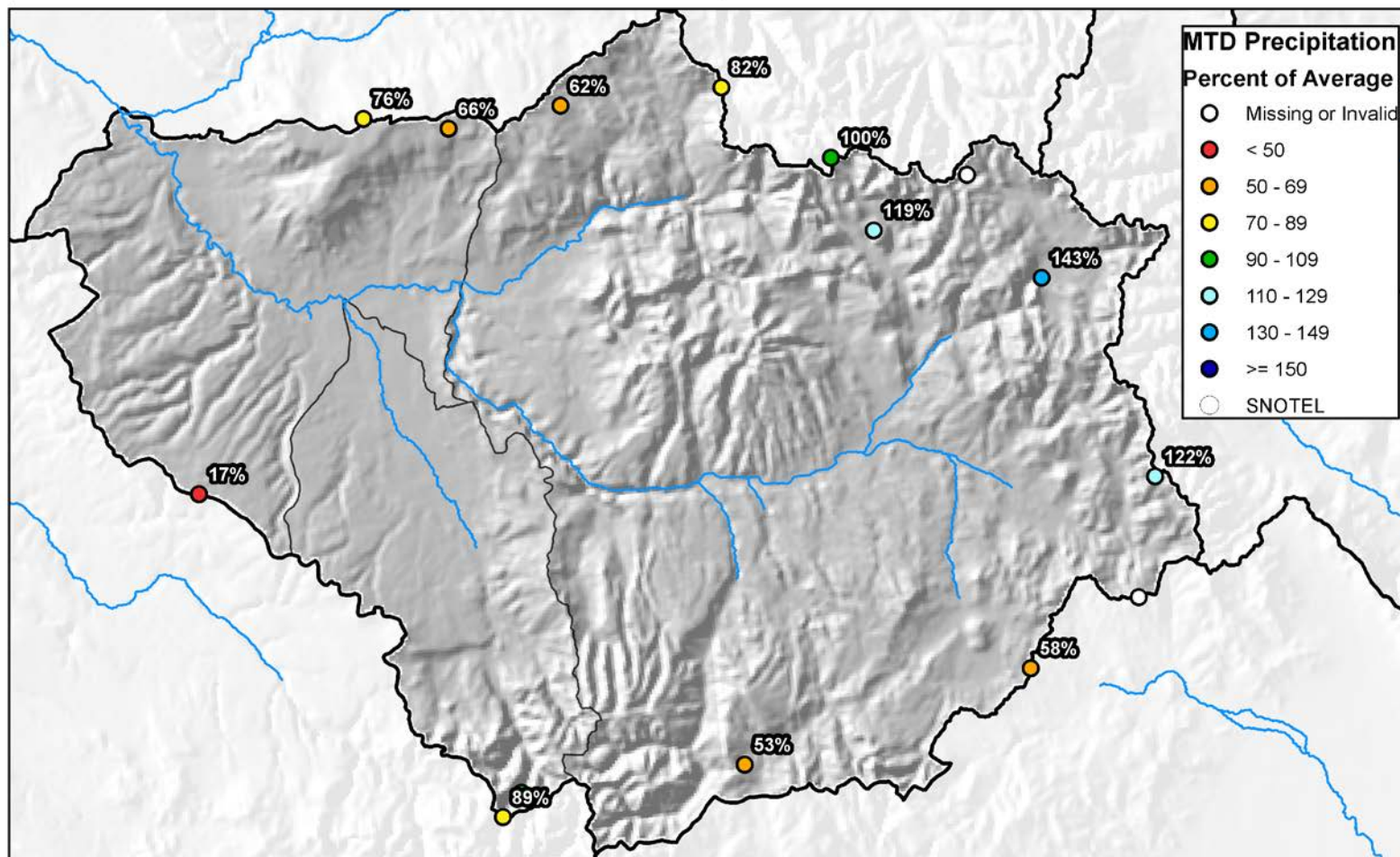
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## Gunnison River Basin Month to Date Precipitation Summary

Current as of Apr 19, 2018



0 5 10 20 30 40 Miles



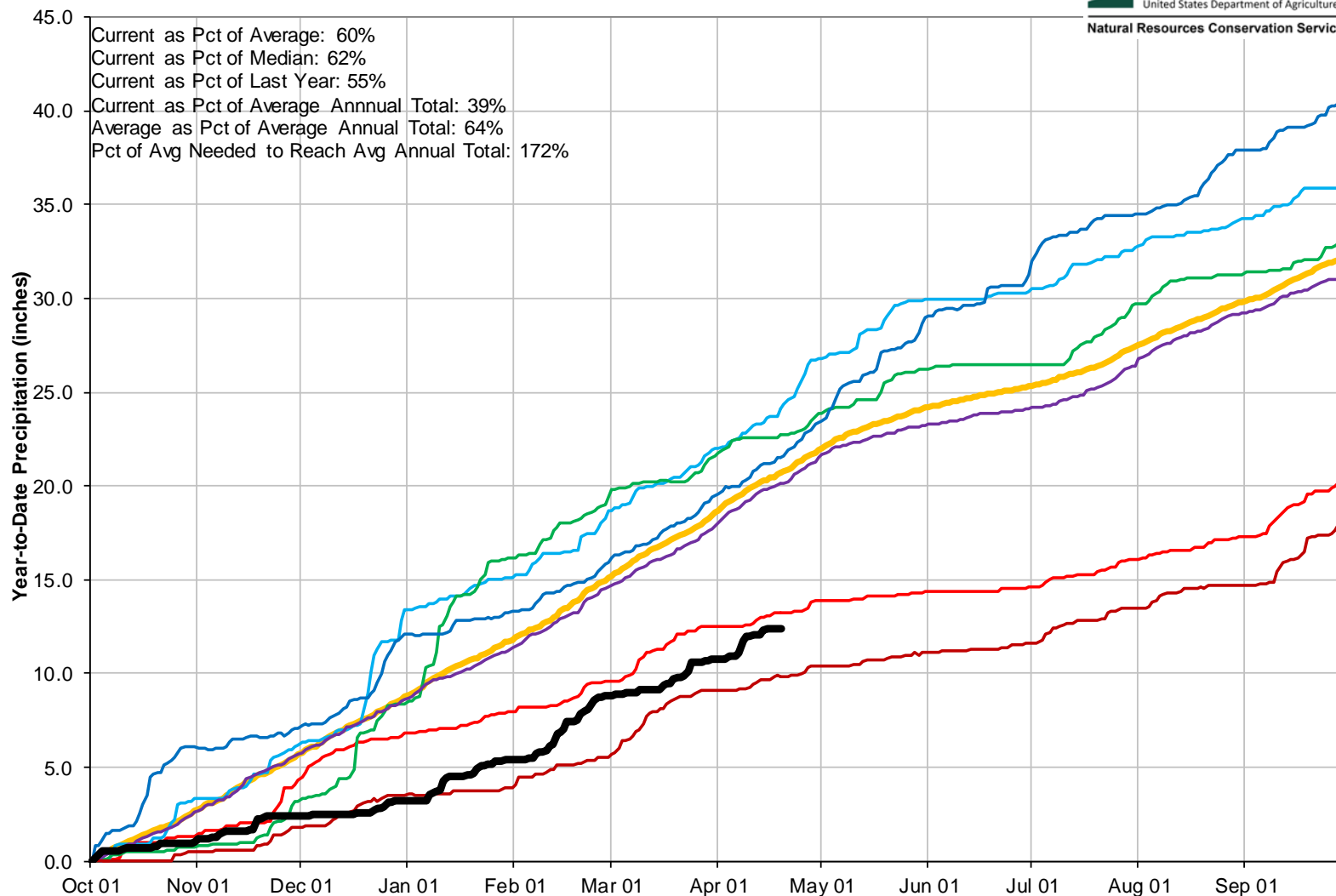
## Gunnison River Basin High/Low Year-to-Date Precipitation Summary

*Based on Provisional SNOTEL data as of Apr 19, 2018*



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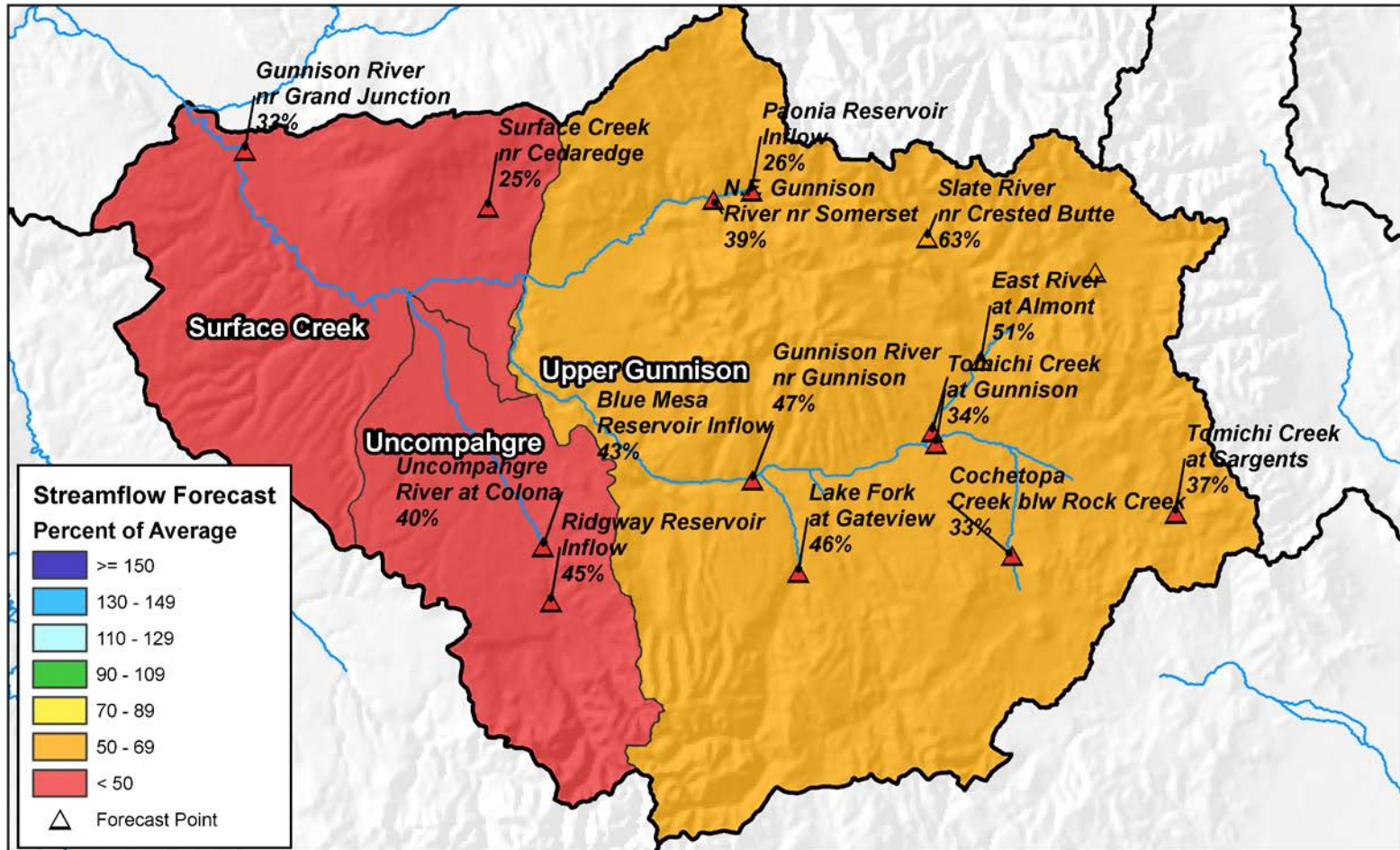
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## Gunnison River Basin Water Supply Forecast Summary

April 1, 2018

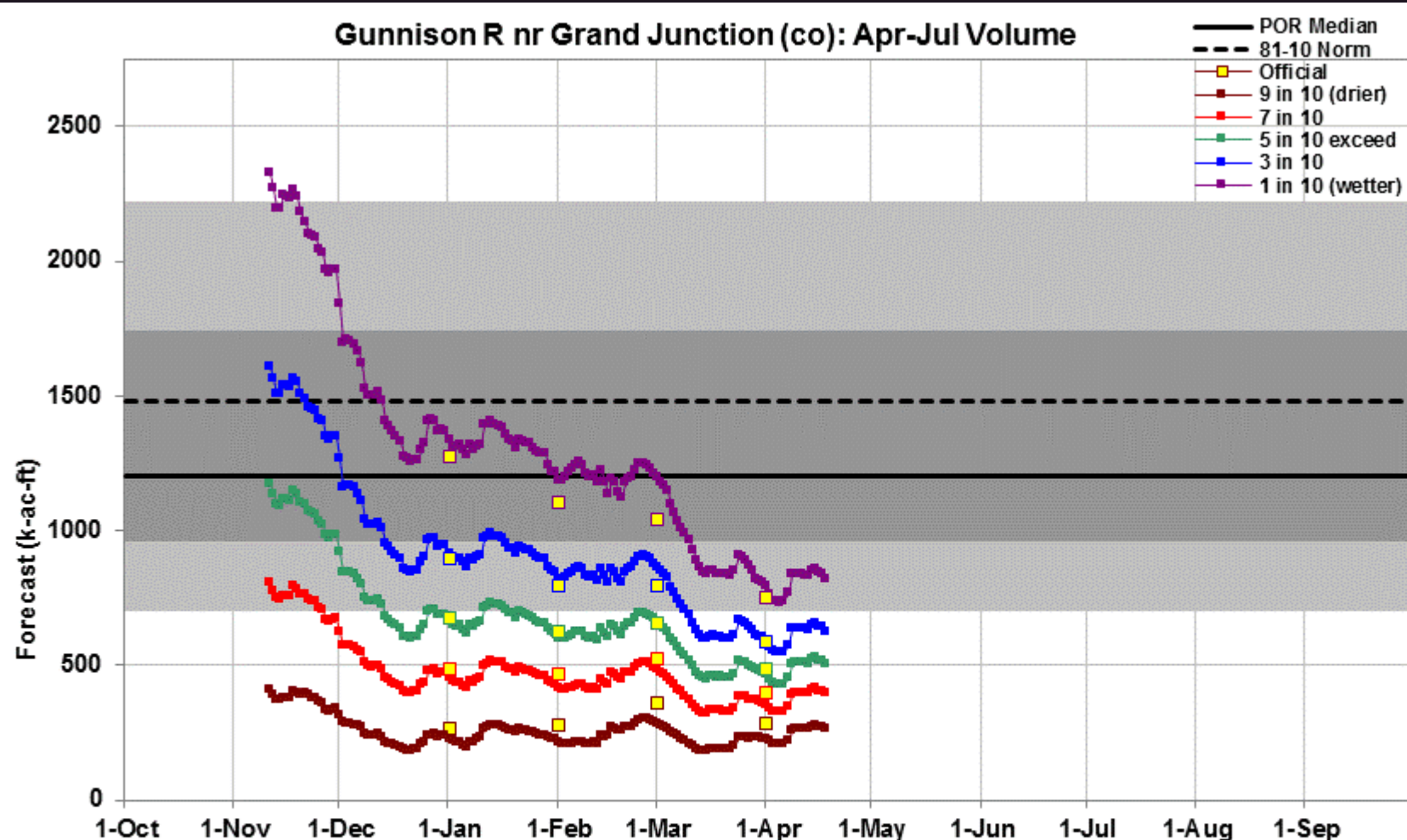


0 5 10 20 30 40 Miles



United States Department of Agriculture

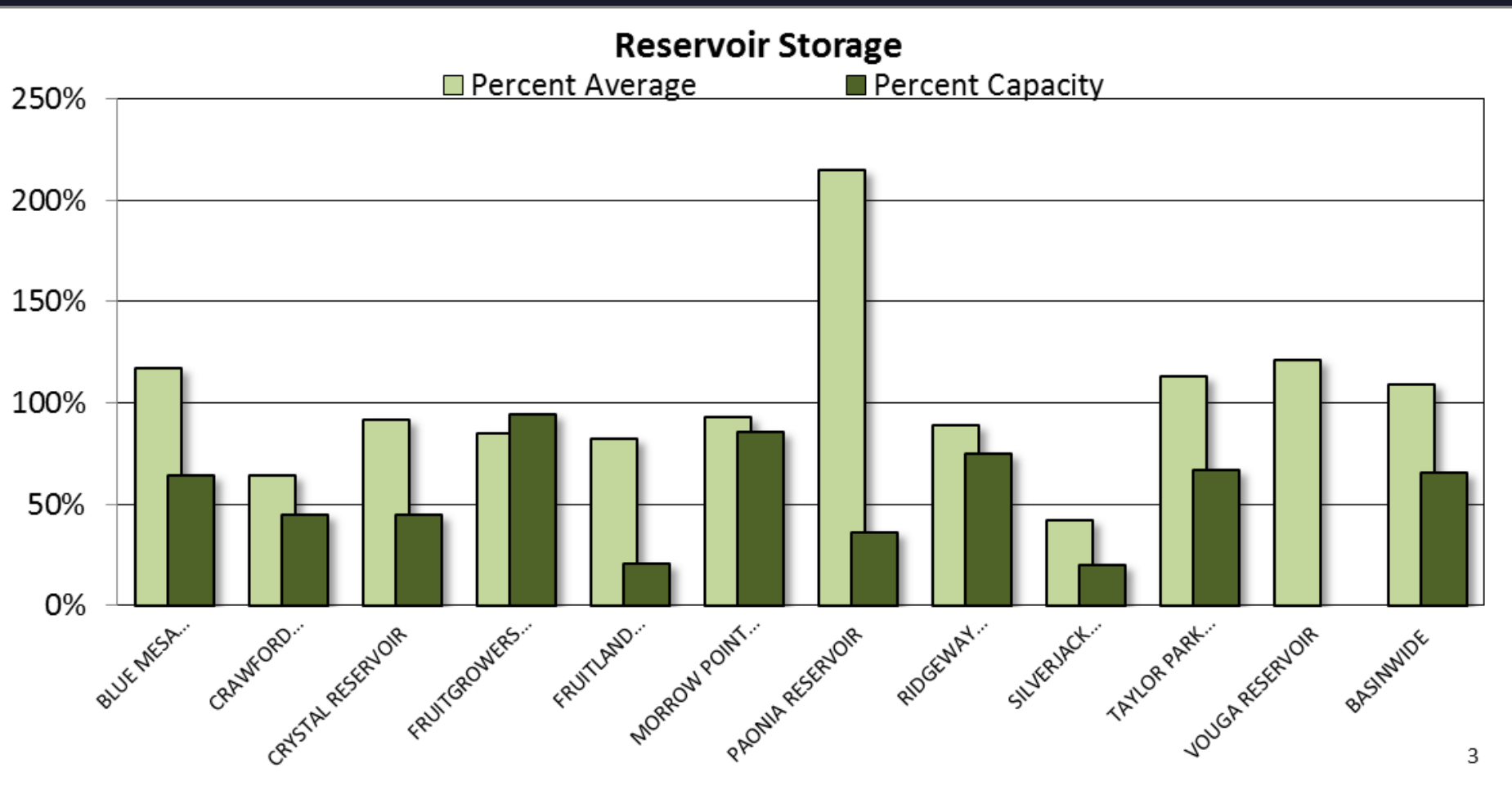
Natural Resources Conservation Service



Created 7:42 Apr 18 2018

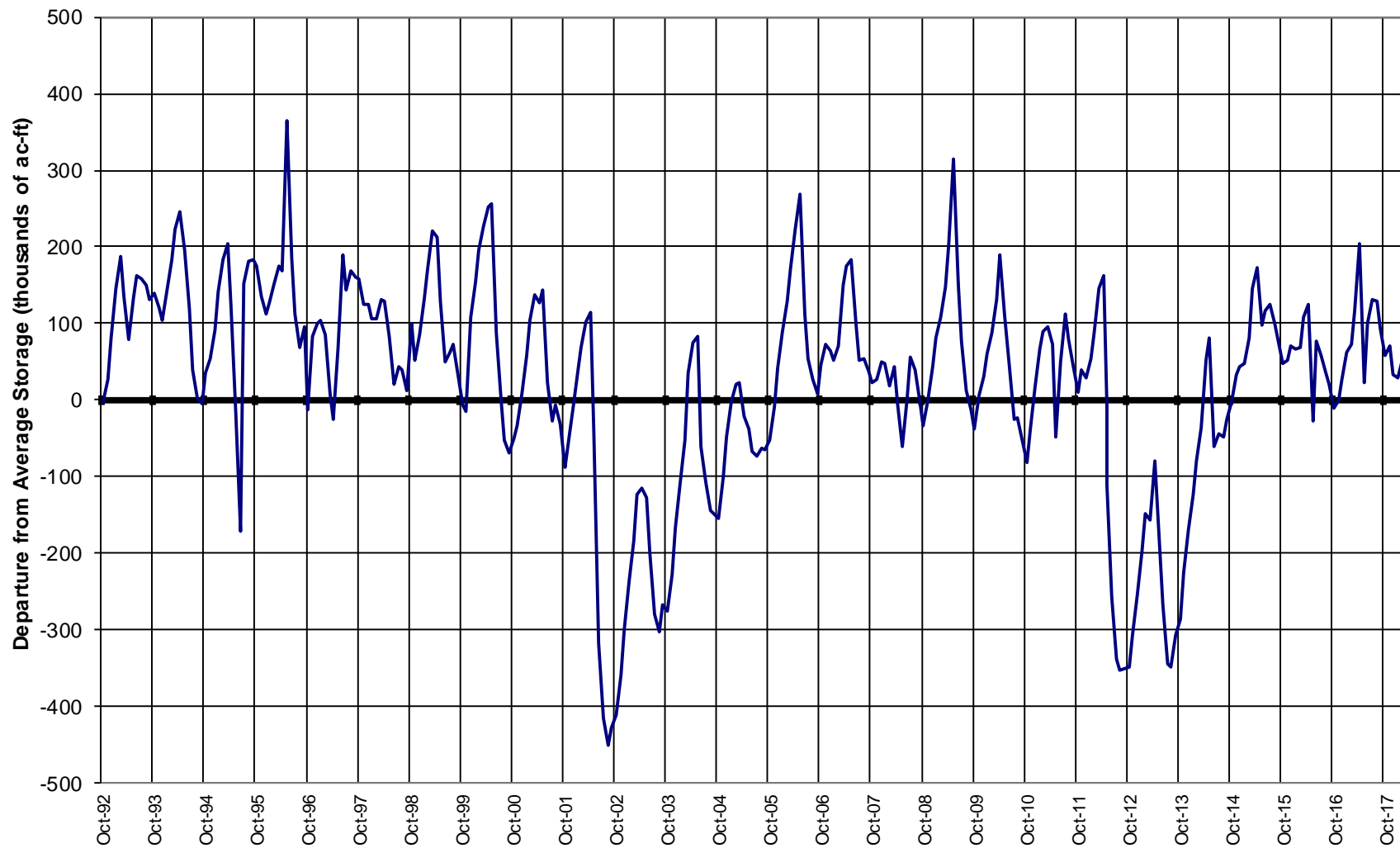


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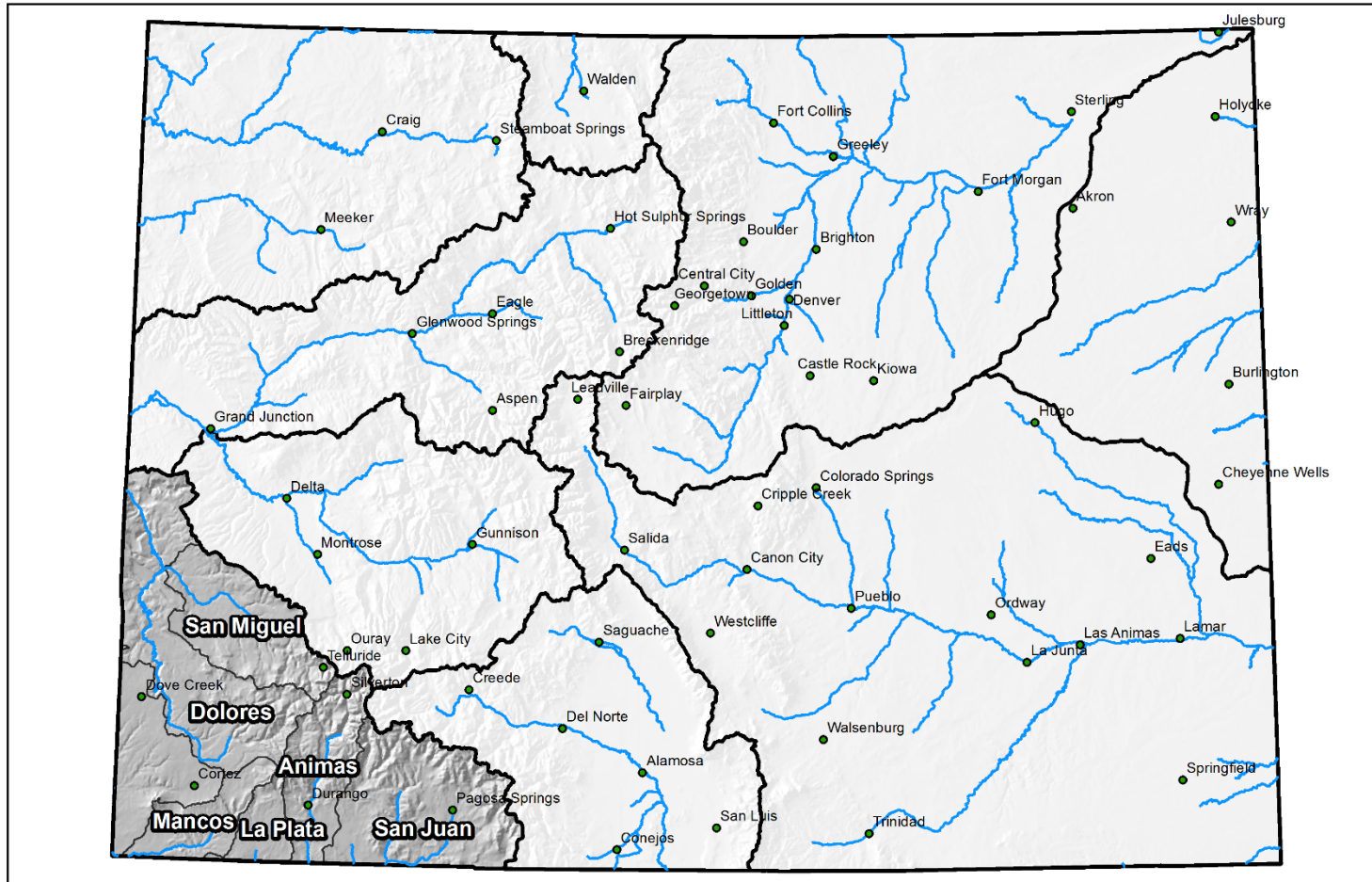
## GUNNISON RIVER BASIN Reservoir Storage Departure from Average





## Major Basin Summary

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

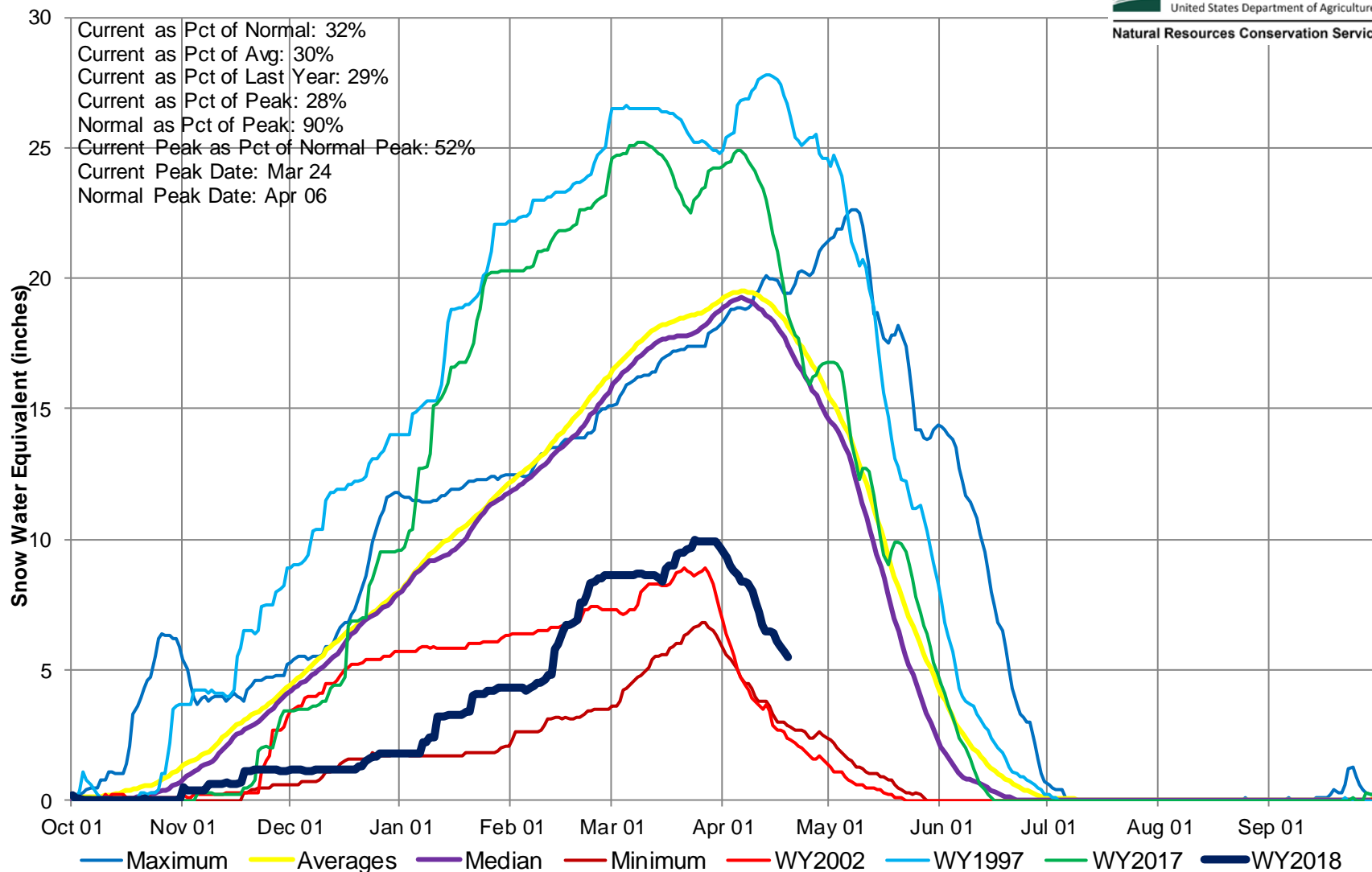


0 25 50 100 150 200 Miles



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

*Based on Provisional SNOTEL data as of Apr 19, 2018*





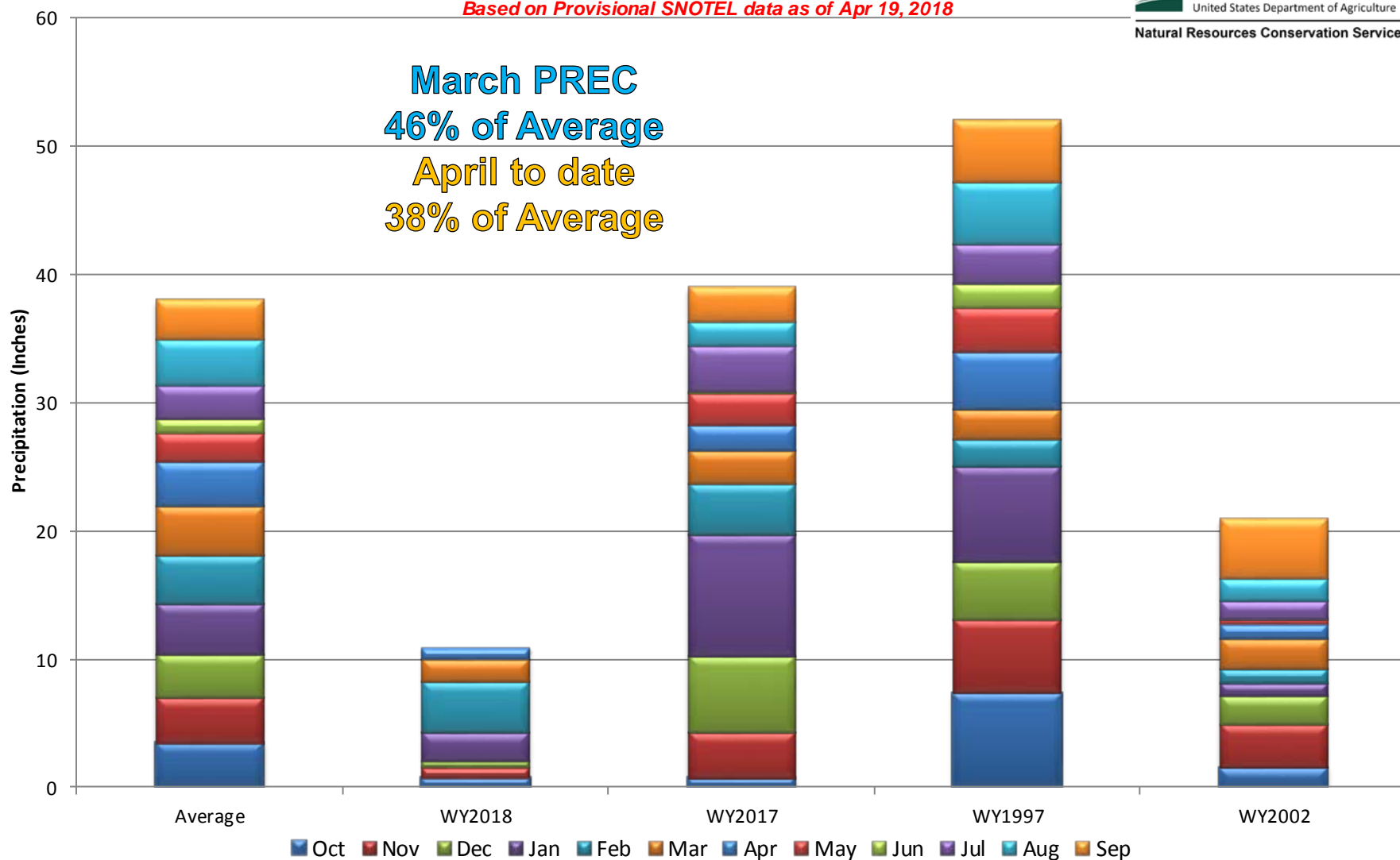
## San Miguel, Dolores, Animas and San Juan River Basins High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Apr 19, 2018*



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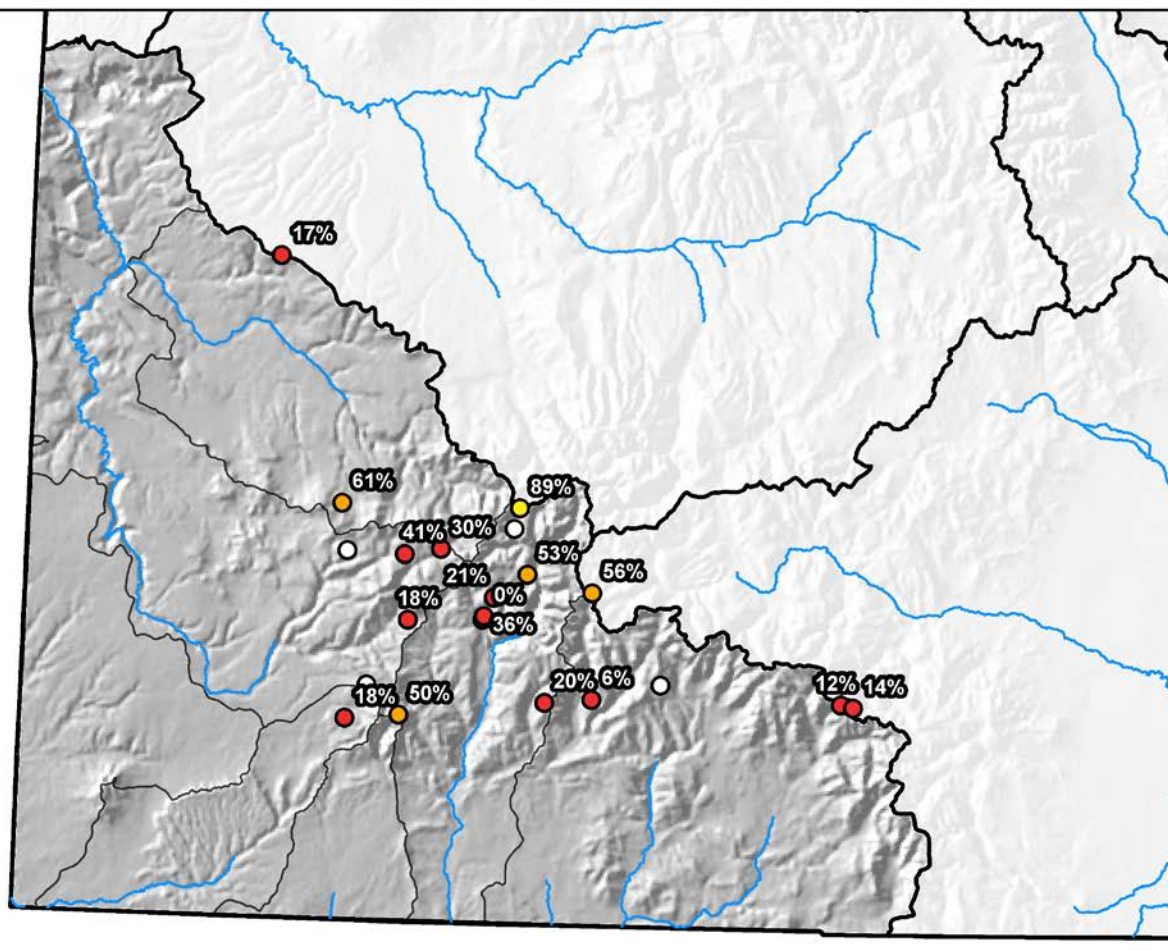


## San Miguel, Dolores, Animas, and San Juan River Basins Month to Date Precipitation Summary

Current as of Apr 19, 2018

### 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





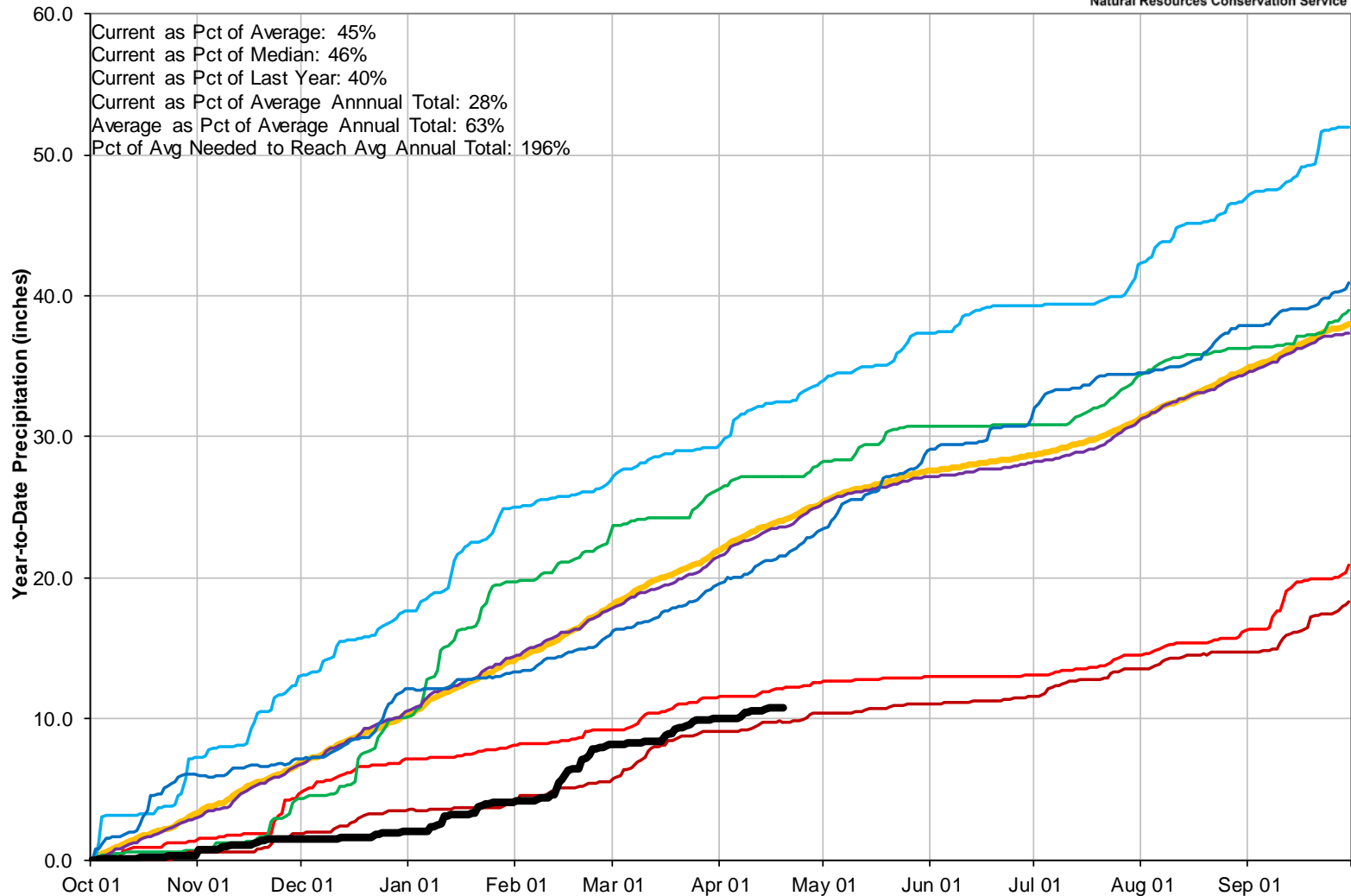
## San Miguel, Dolores, Animas and San Juan River Basins High/Low Year-to-Date Precipitation Summary

*Based on Provisional SNOTEL data as of Apr 19, 2018*



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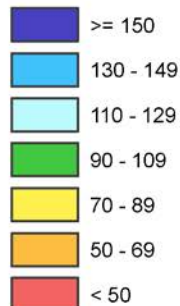


## San Miguel, Dolores, Animas, and San Juan River Basins Streamflow Forecast Summary

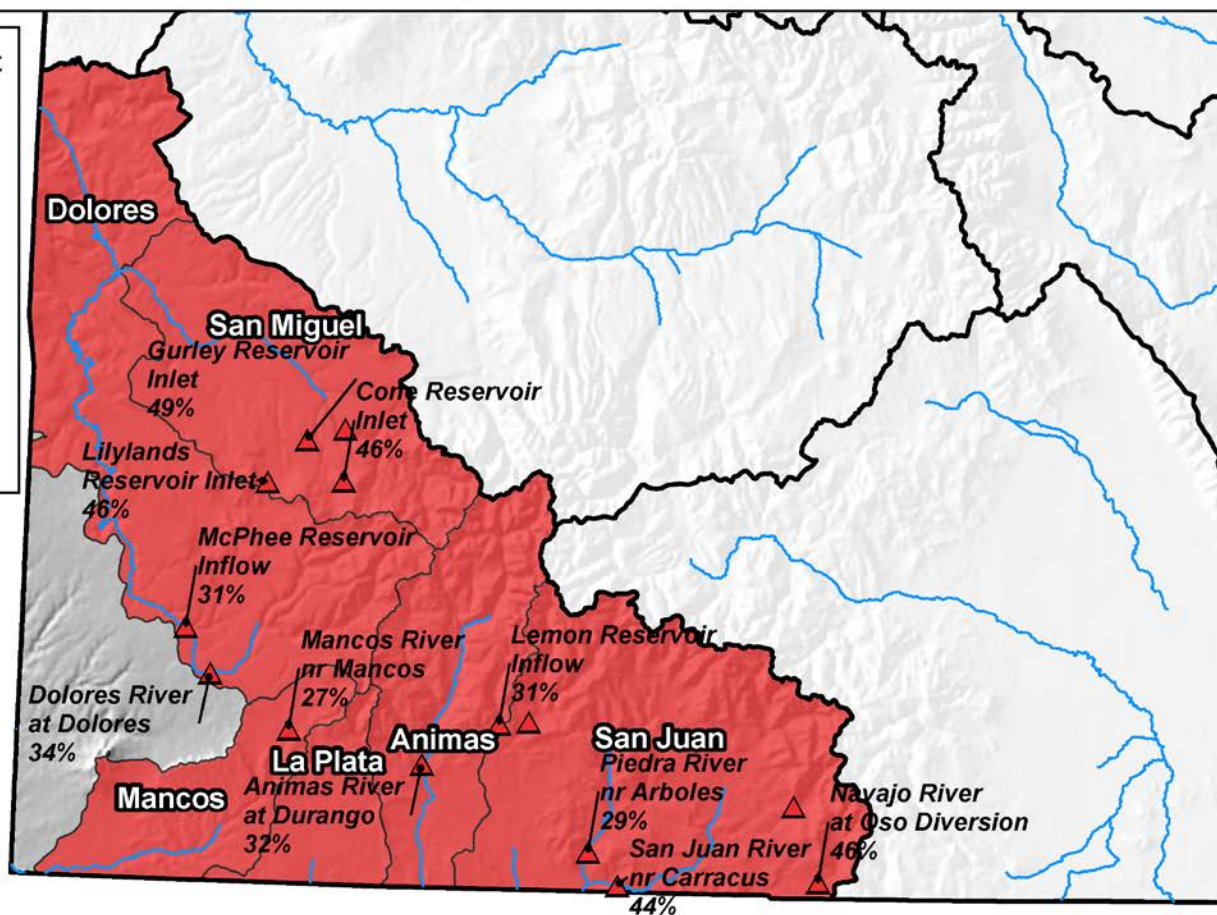
April 1, 2018

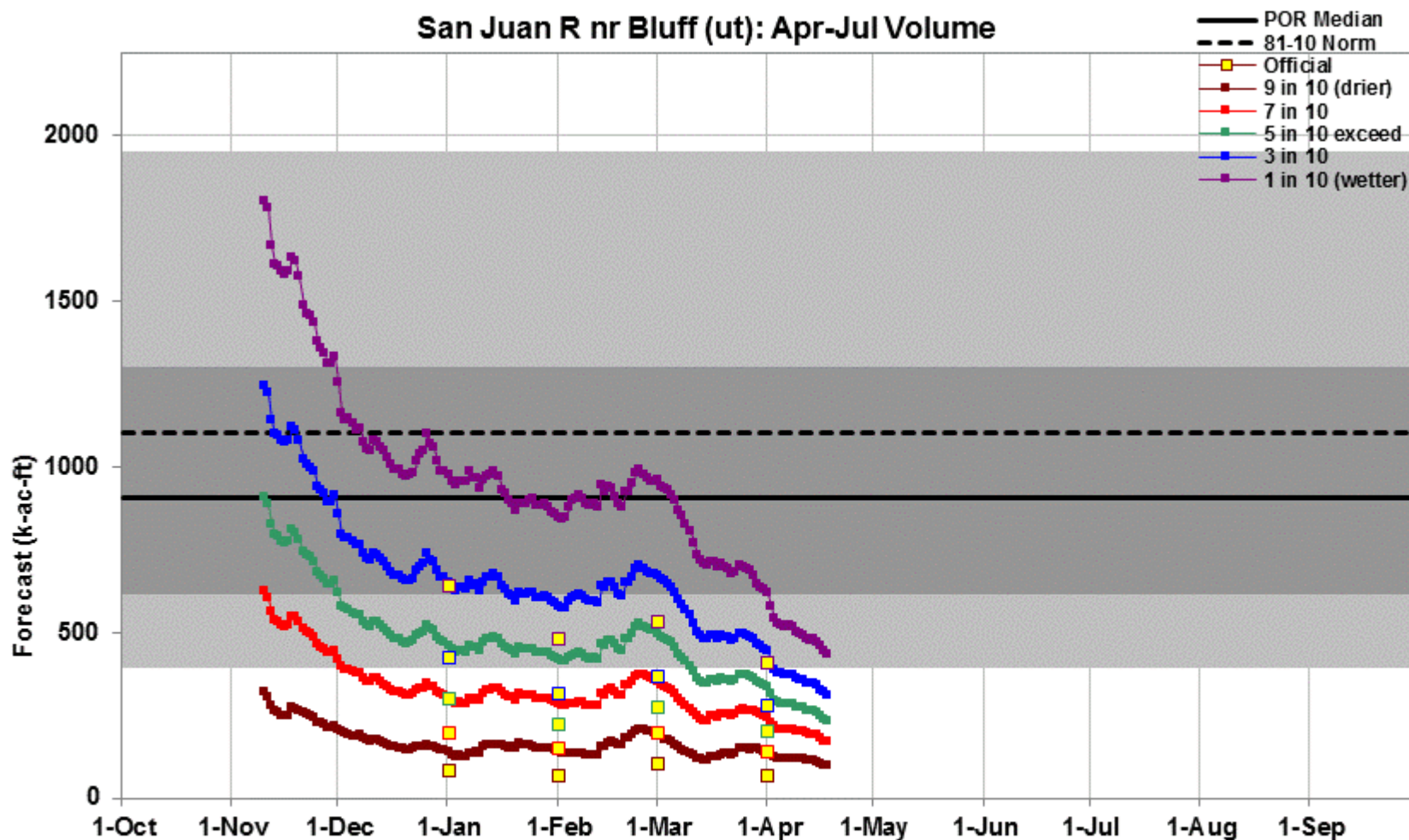
### Streamflow Forecast

#### Percent of Average



Forecast Point

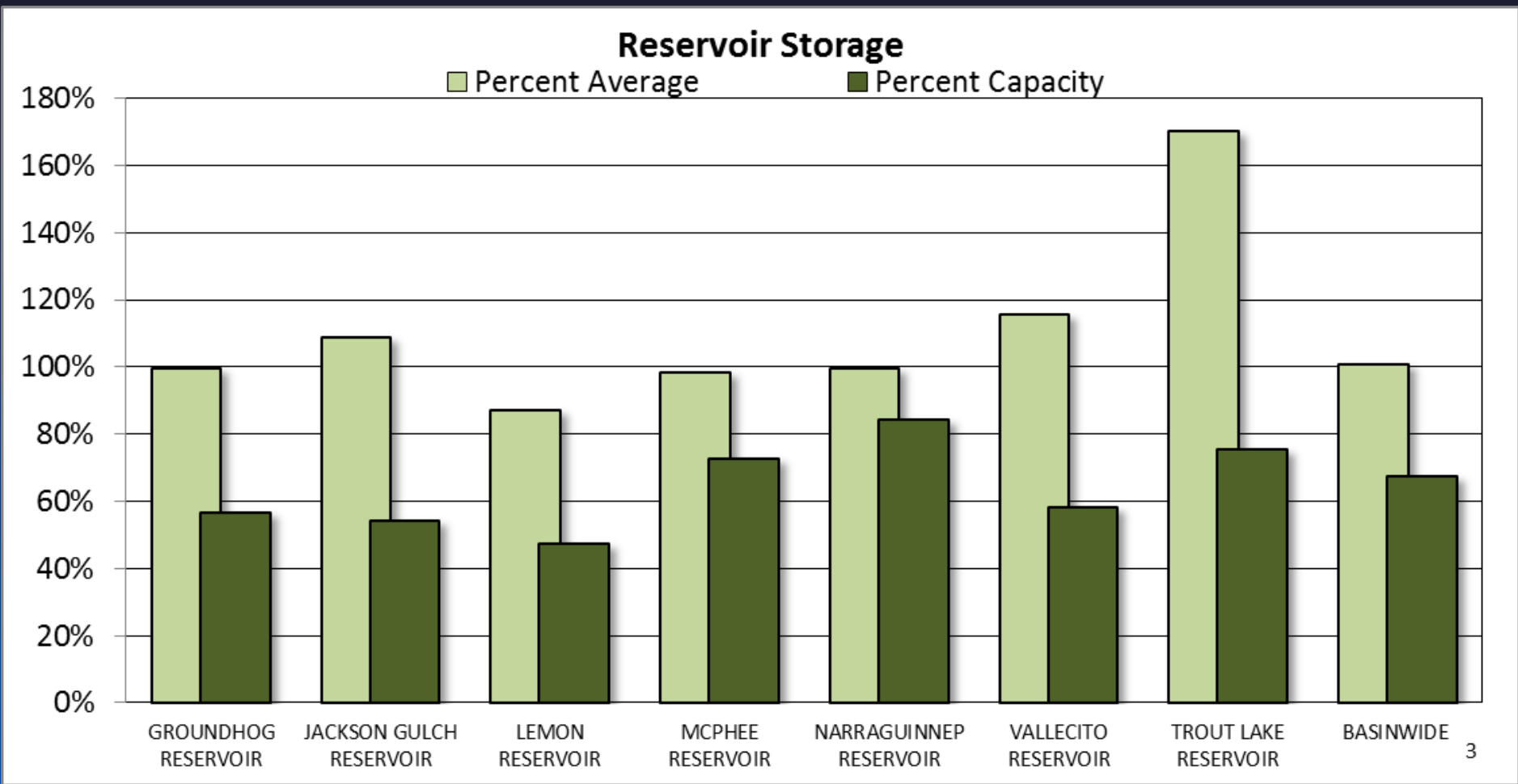




Created 8:16 Apr 18 2018



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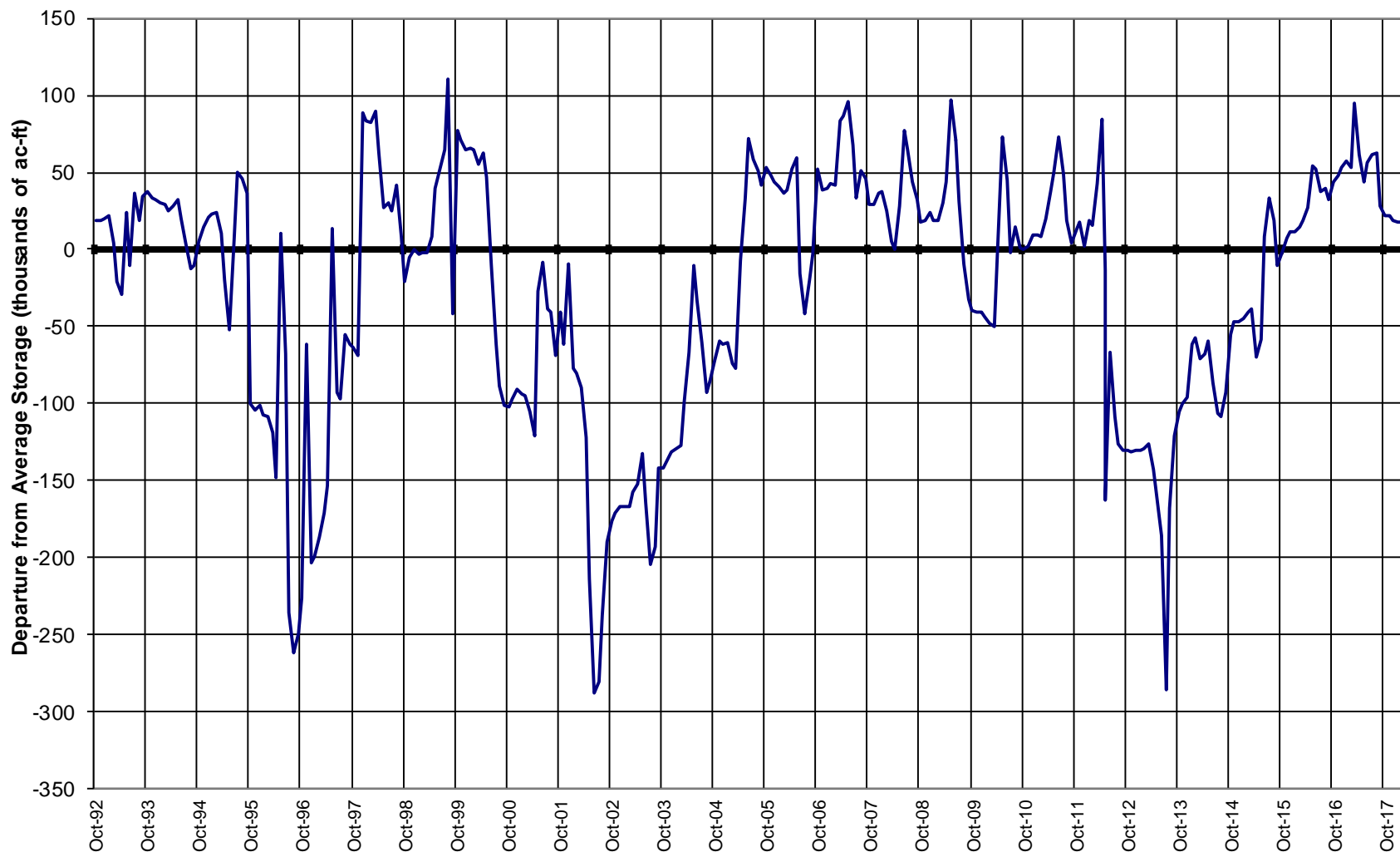






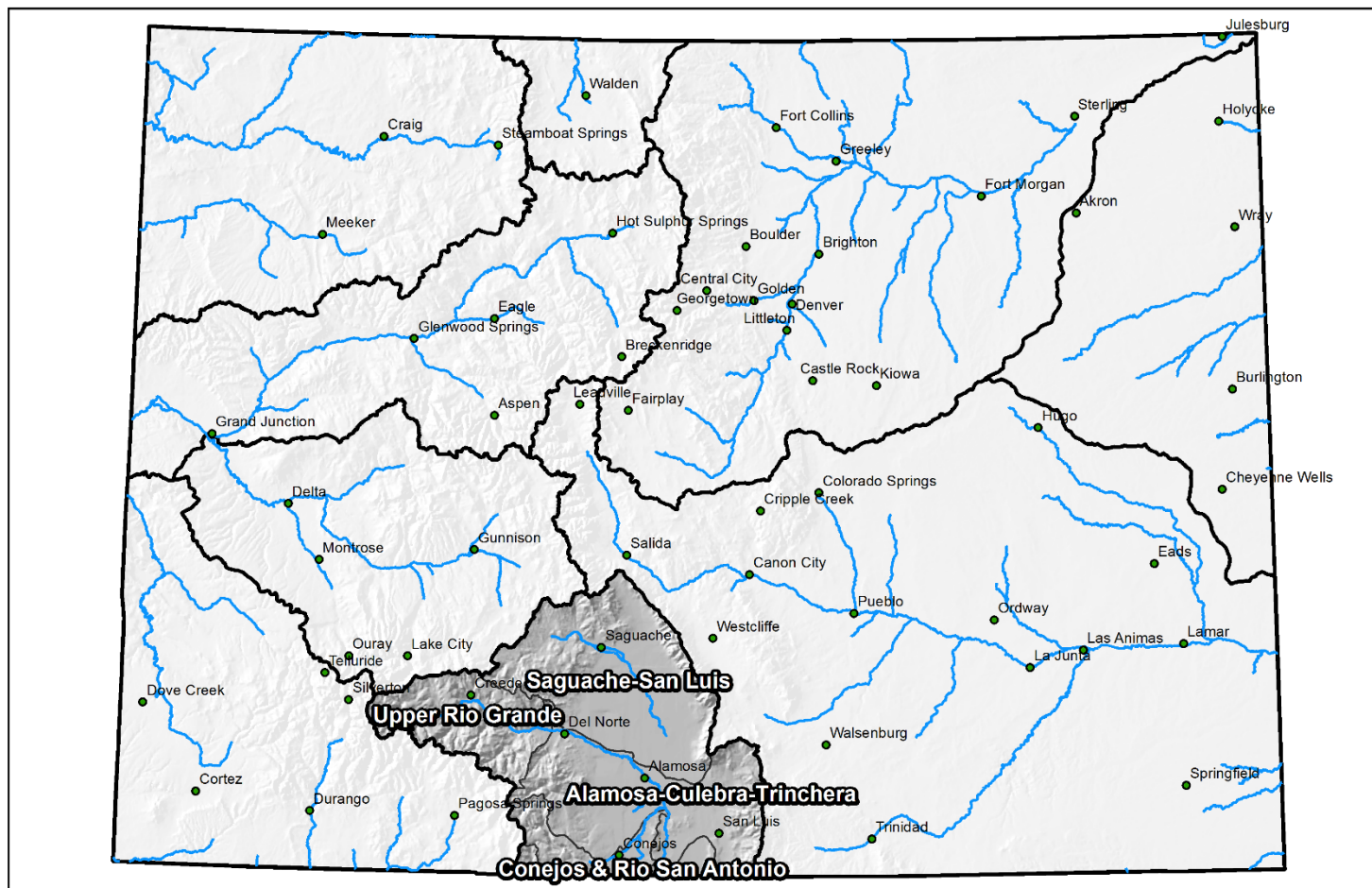
## SAN MIGUEL, DOLORES, ANIMAS AND SAN JUAN RIVER BASINS

Reservoir Storage  
Departure from Average



## Major Basin Summary

### Upper Rio Grande River Basin



0 25 50 100 150 200 Miles



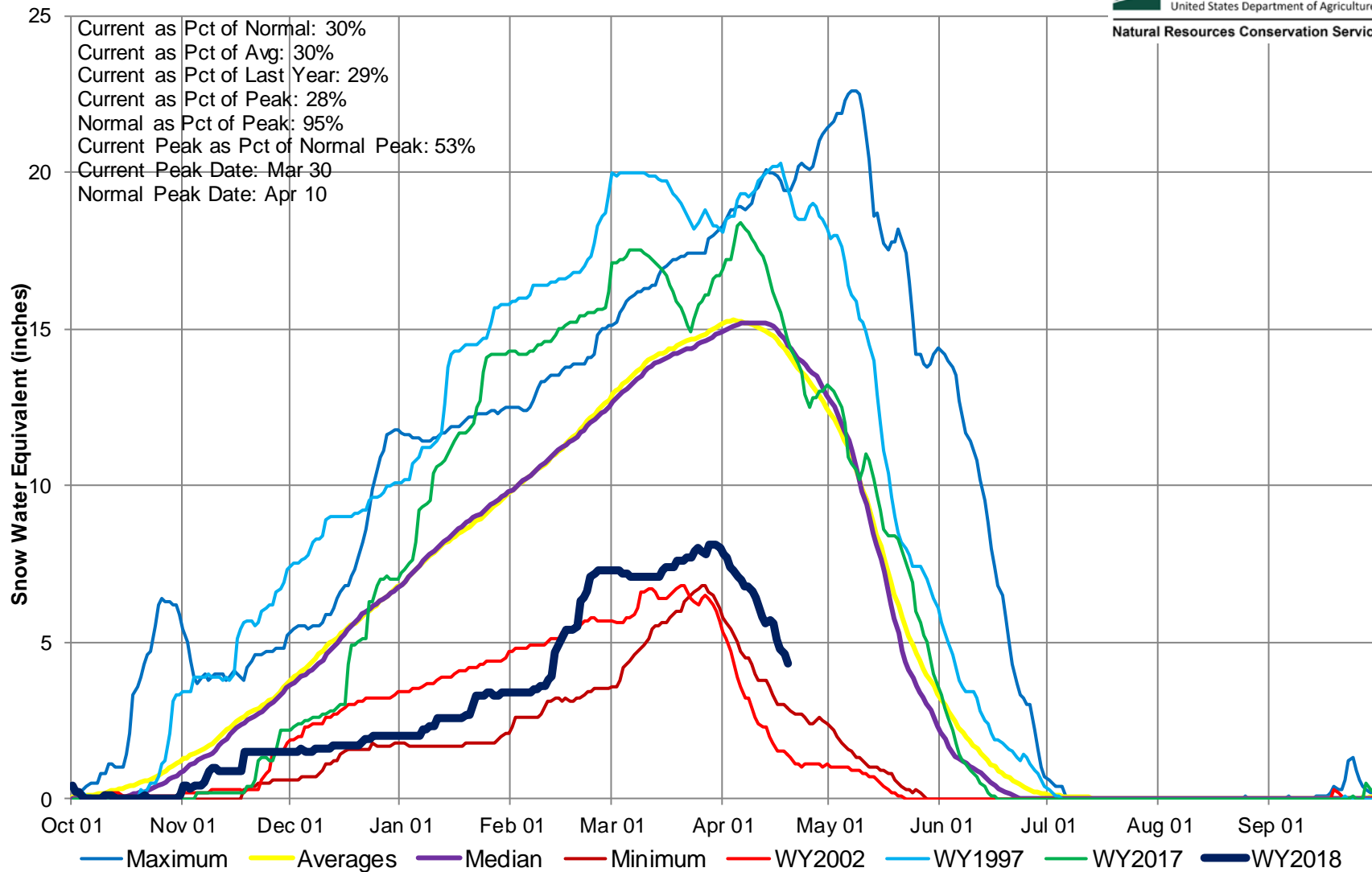
## Upper Rio Grande Basin High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Apr 19, 2018*



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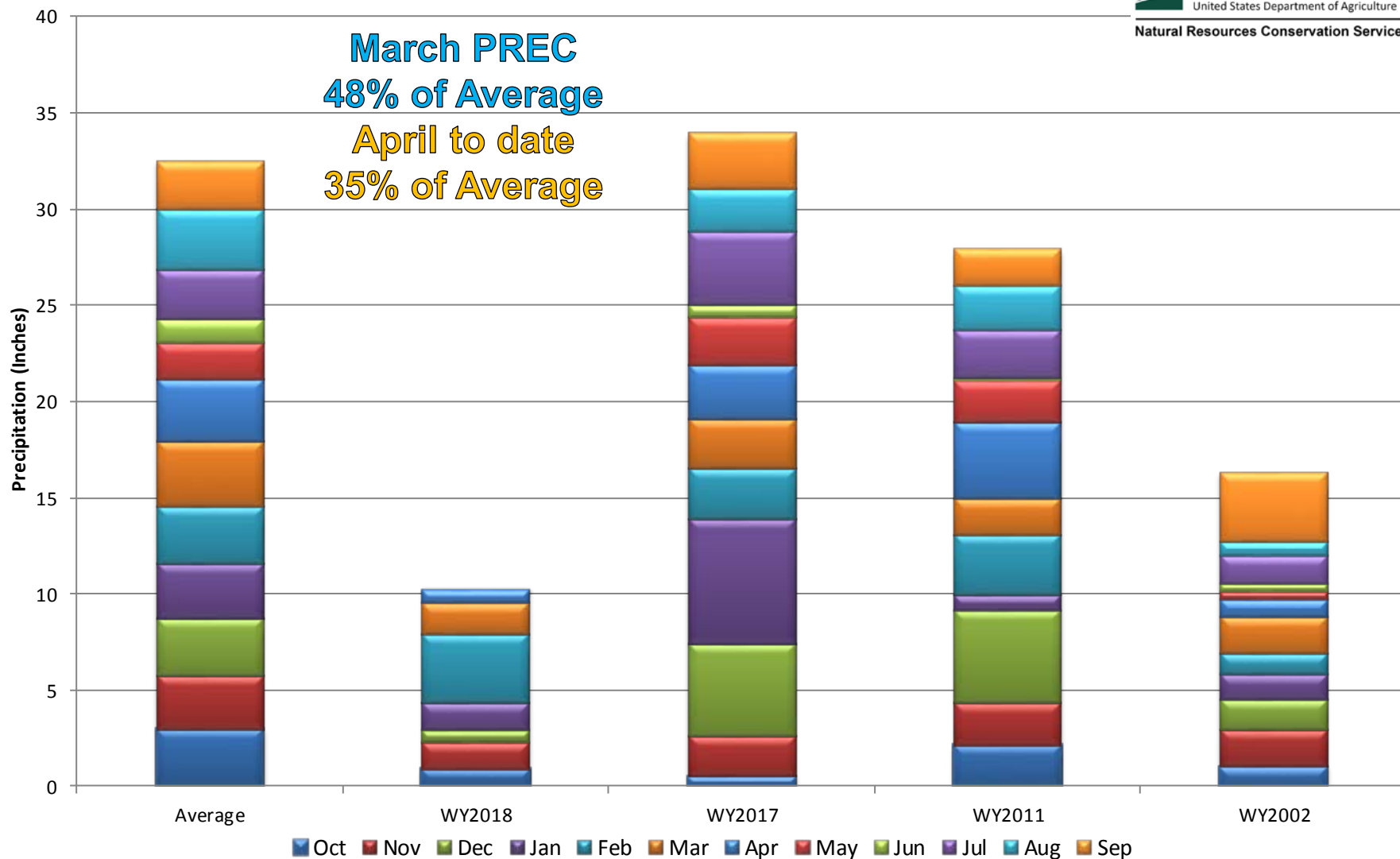
## Upper Rio Grande River Basin High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Apr 19, 2018*



United States Department of Agriculture

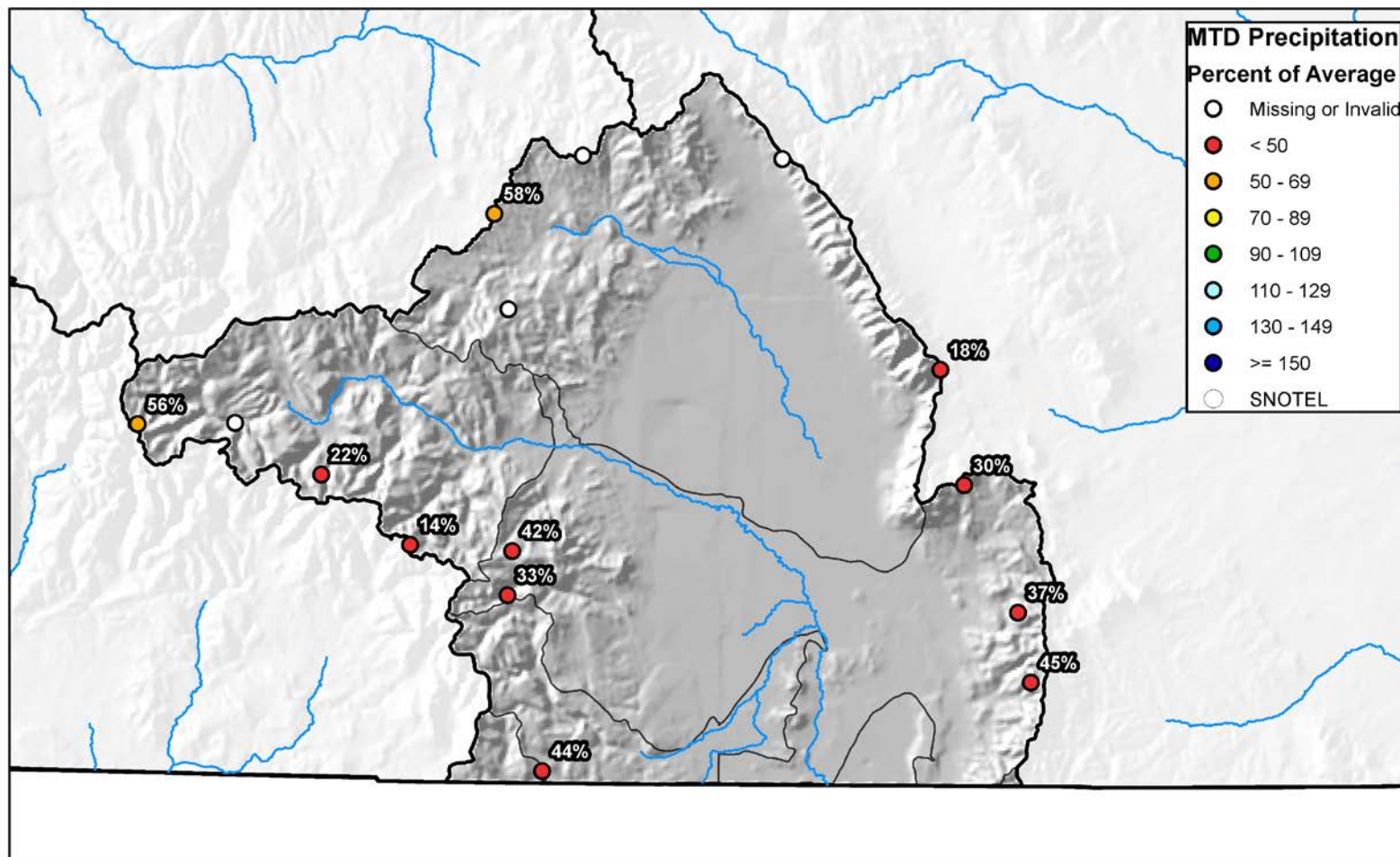
Natural Resources Conservation Service





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

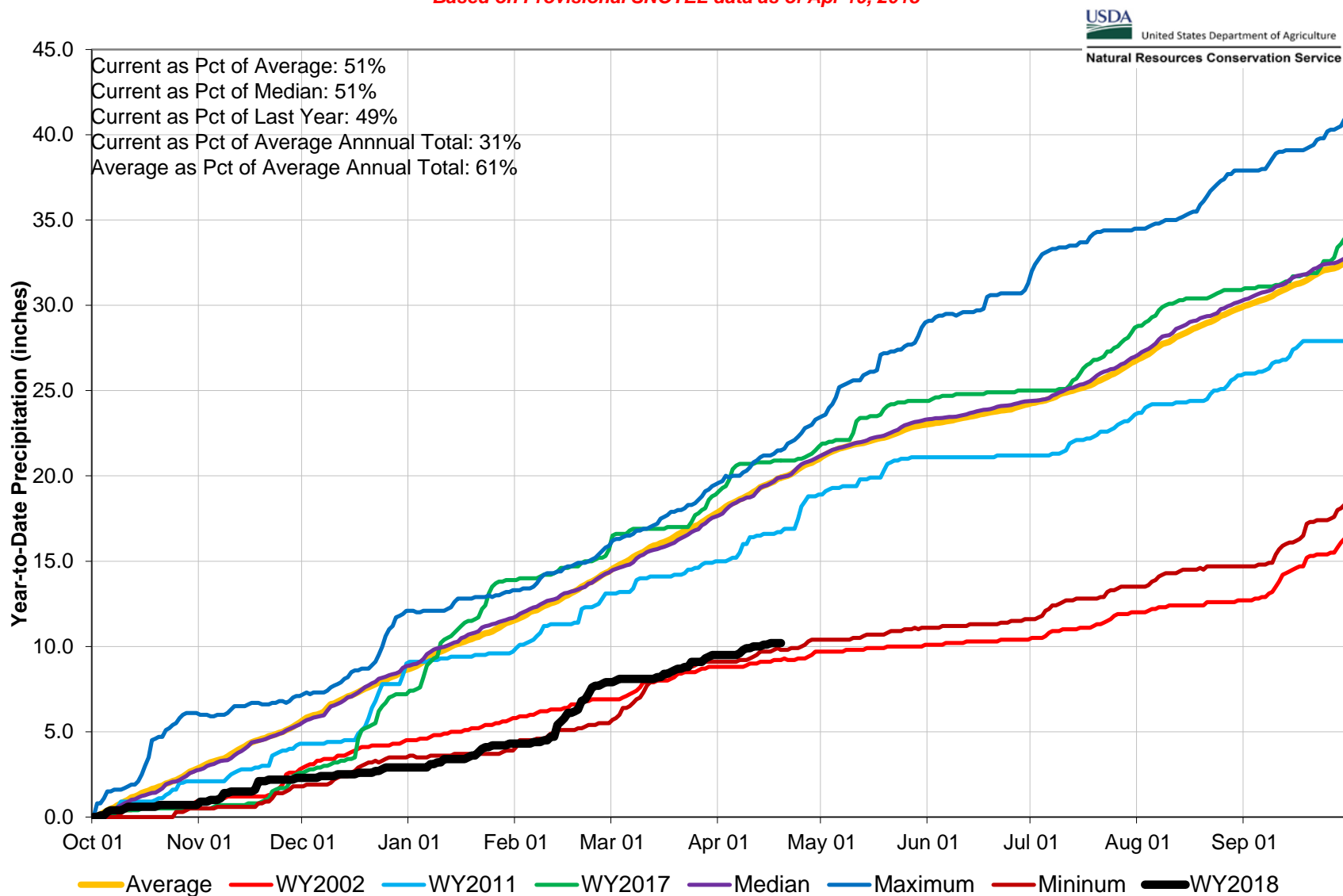
Current as of Apr 19, 2018





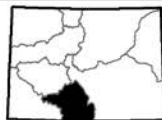
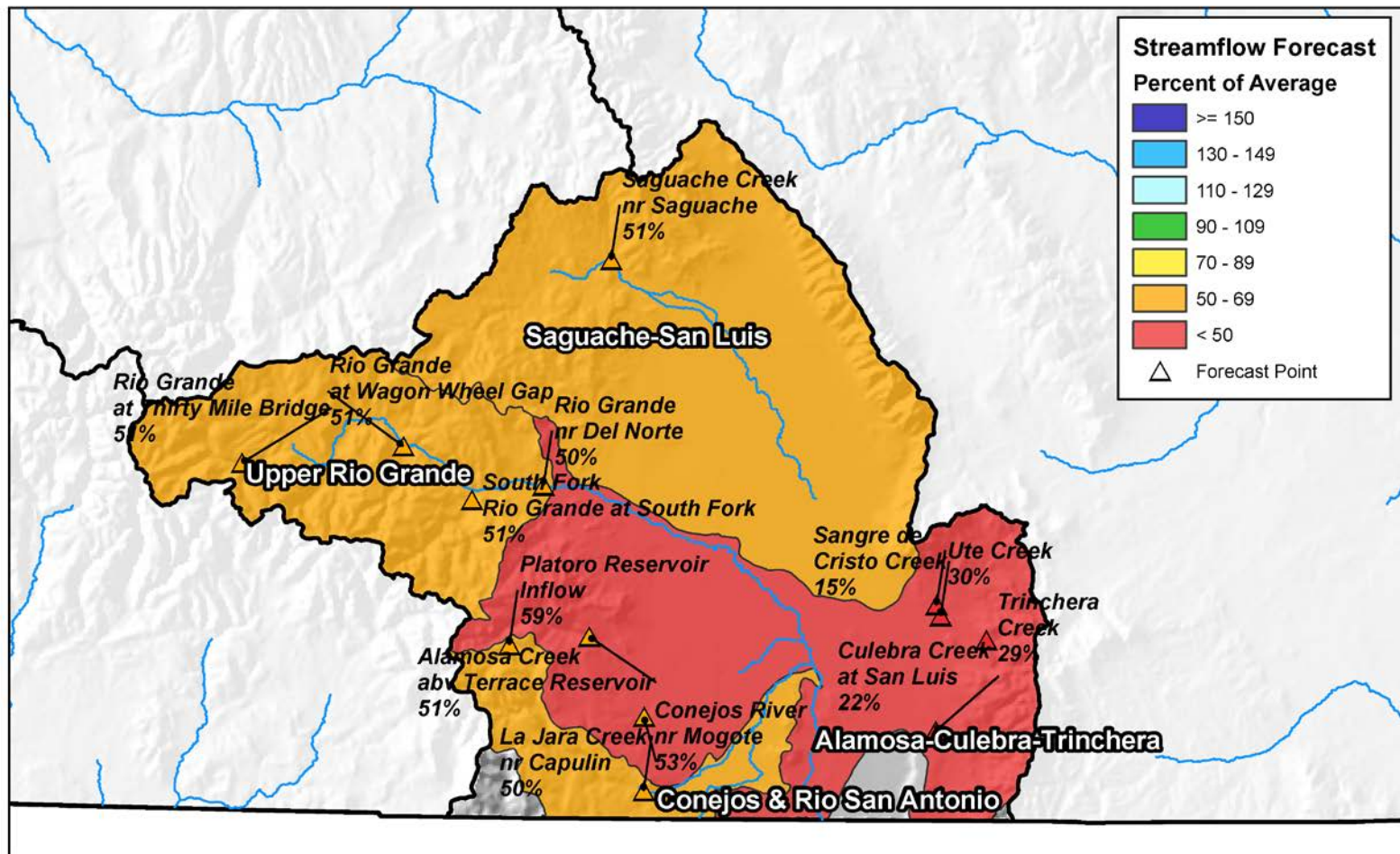
## Upper Rio Grande River Basin High/Low Year-to-Date Precipitation Summary

*Based on Provisional SNOTEL data as of Apr 19, 2018*



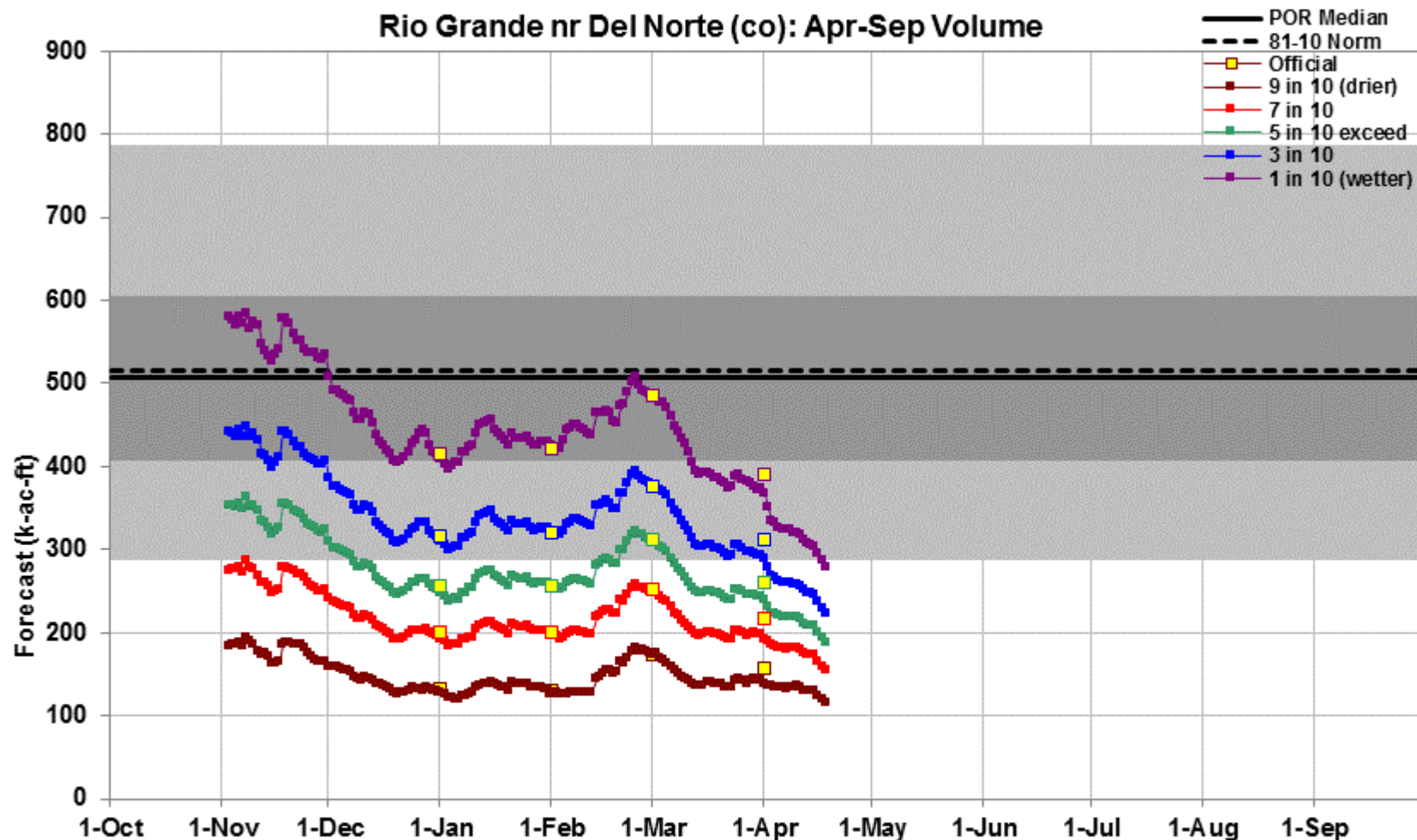
## Upper Rio Grande River Basin Streamflow Forecast Summary

April 1, 2018



0 10 20 40 60 80 Miles



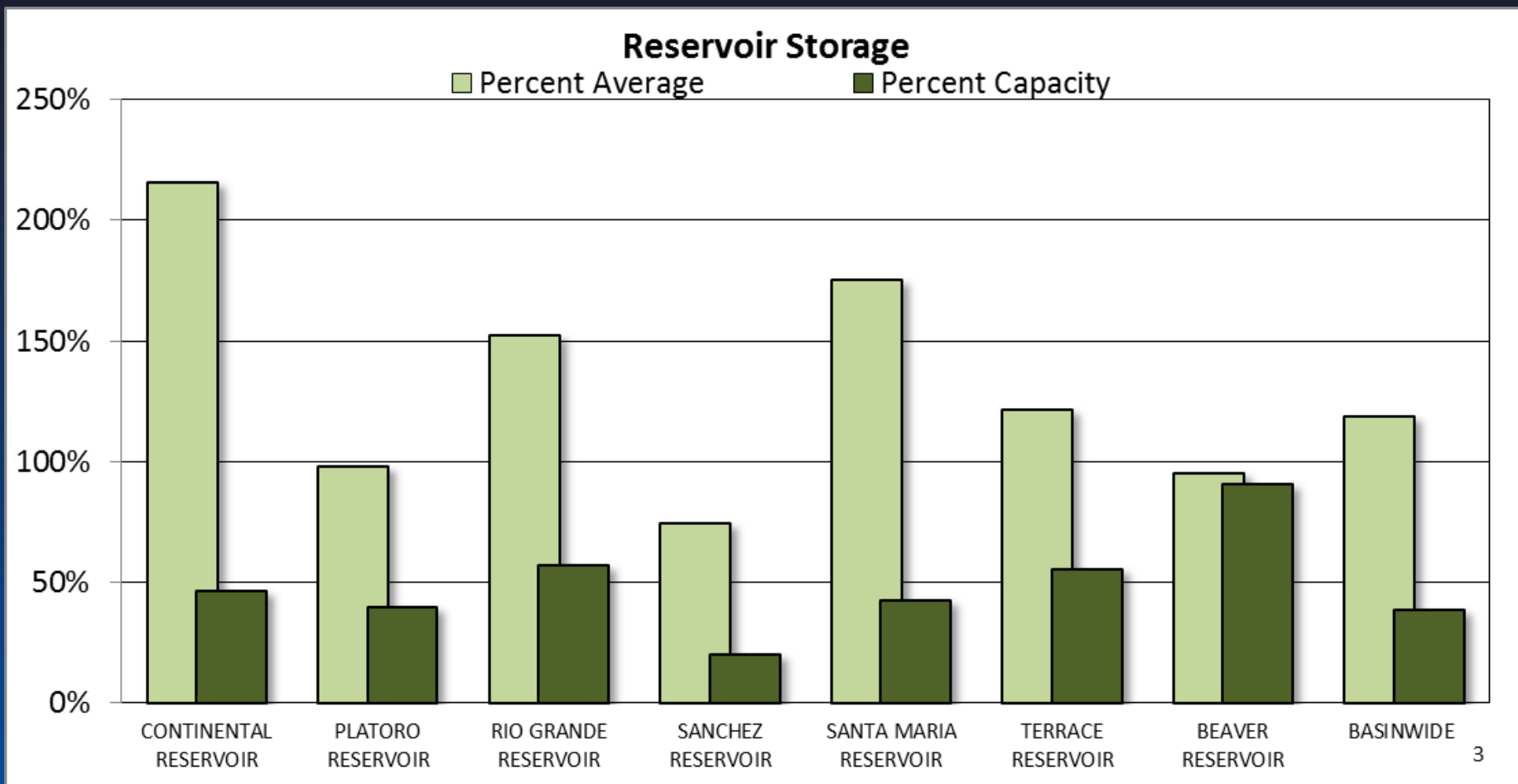


Created 7:12 Apr 18 2018



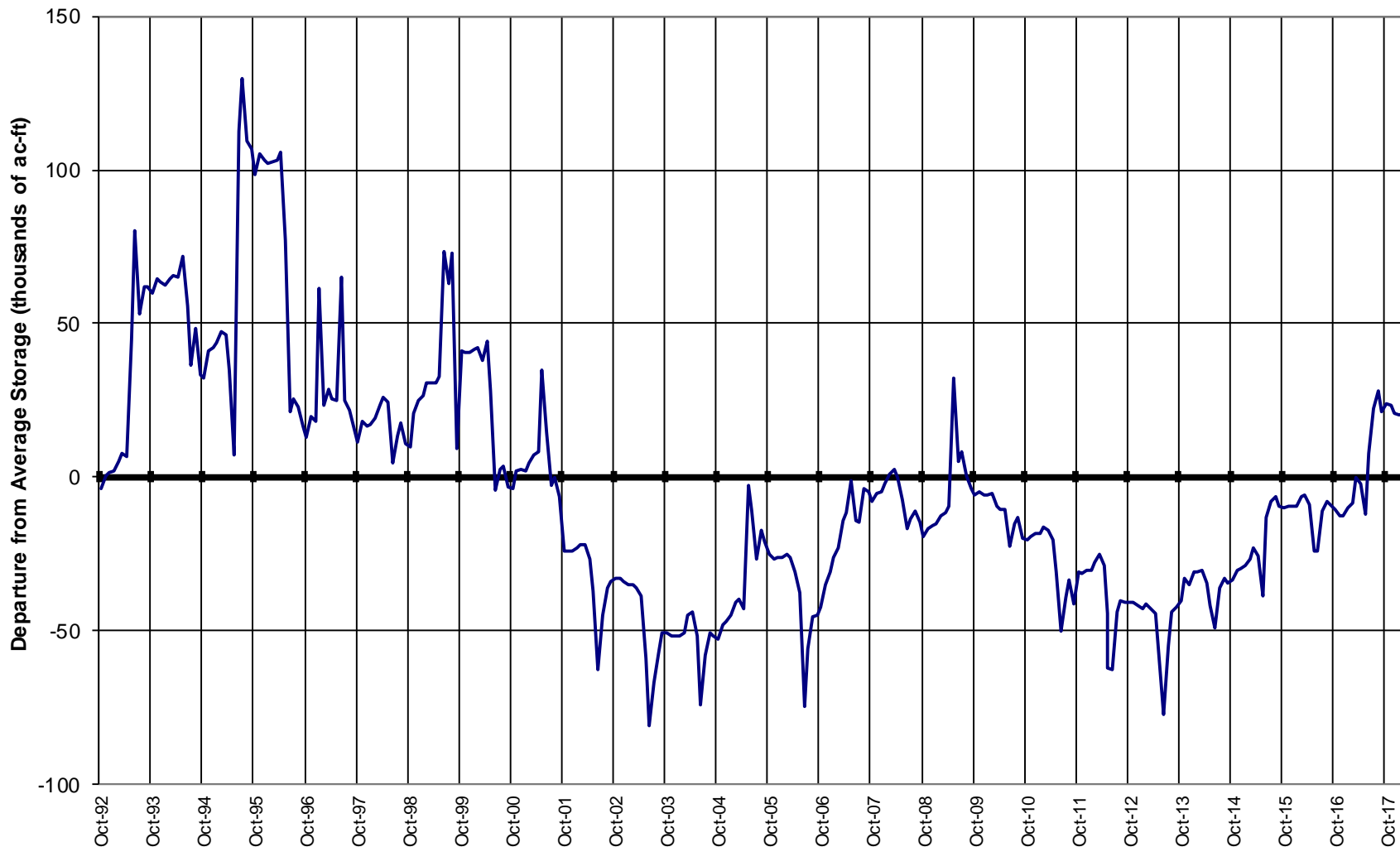
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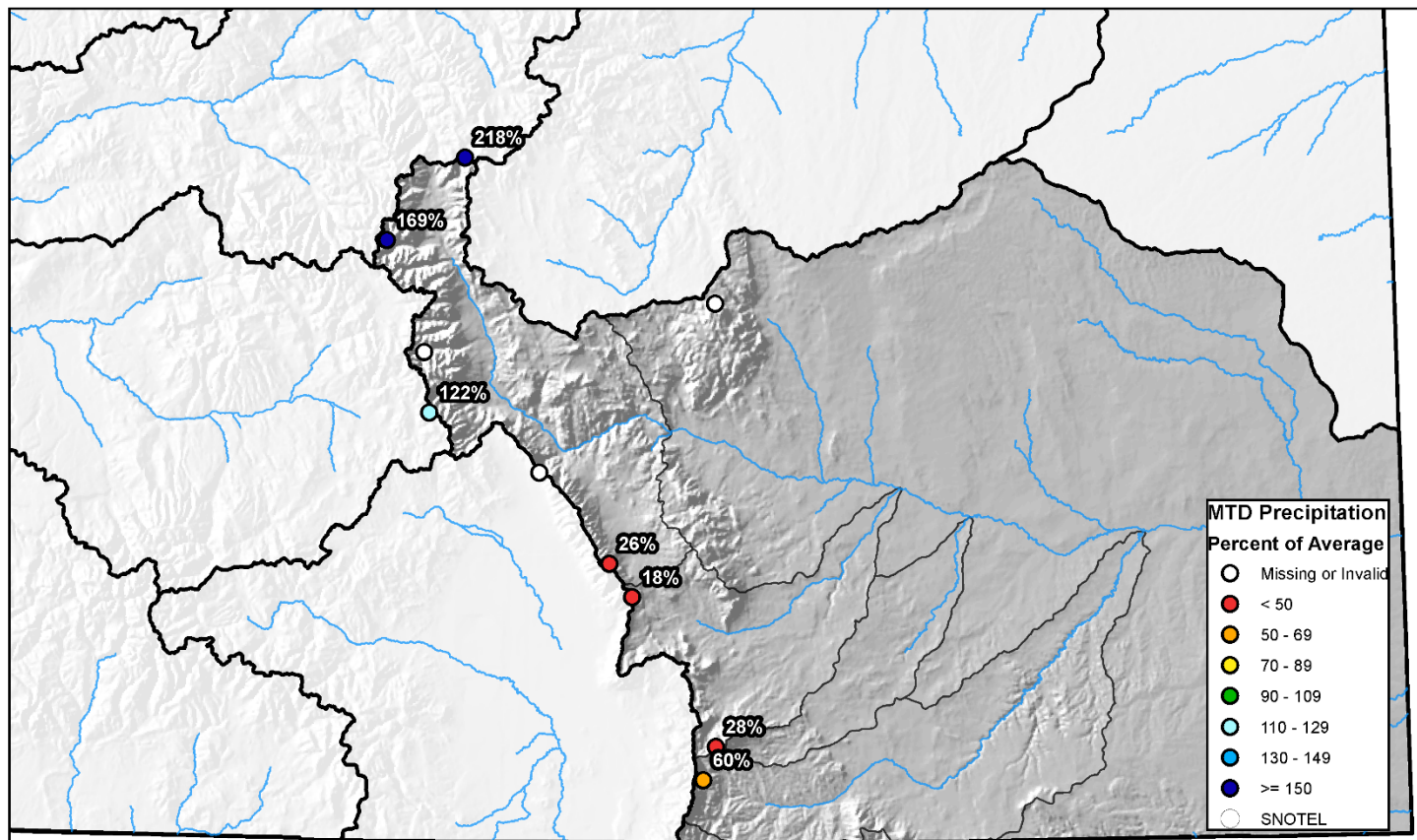
## UPPER RIO GRANDE BASIN Reservoir Storage Departure from Average



## Major Basin Summary

### Arkansas River Basin Month to Date Precipitation Summary

Current as of Apr 19, 2018



0 10 20 40 60 80 Miles



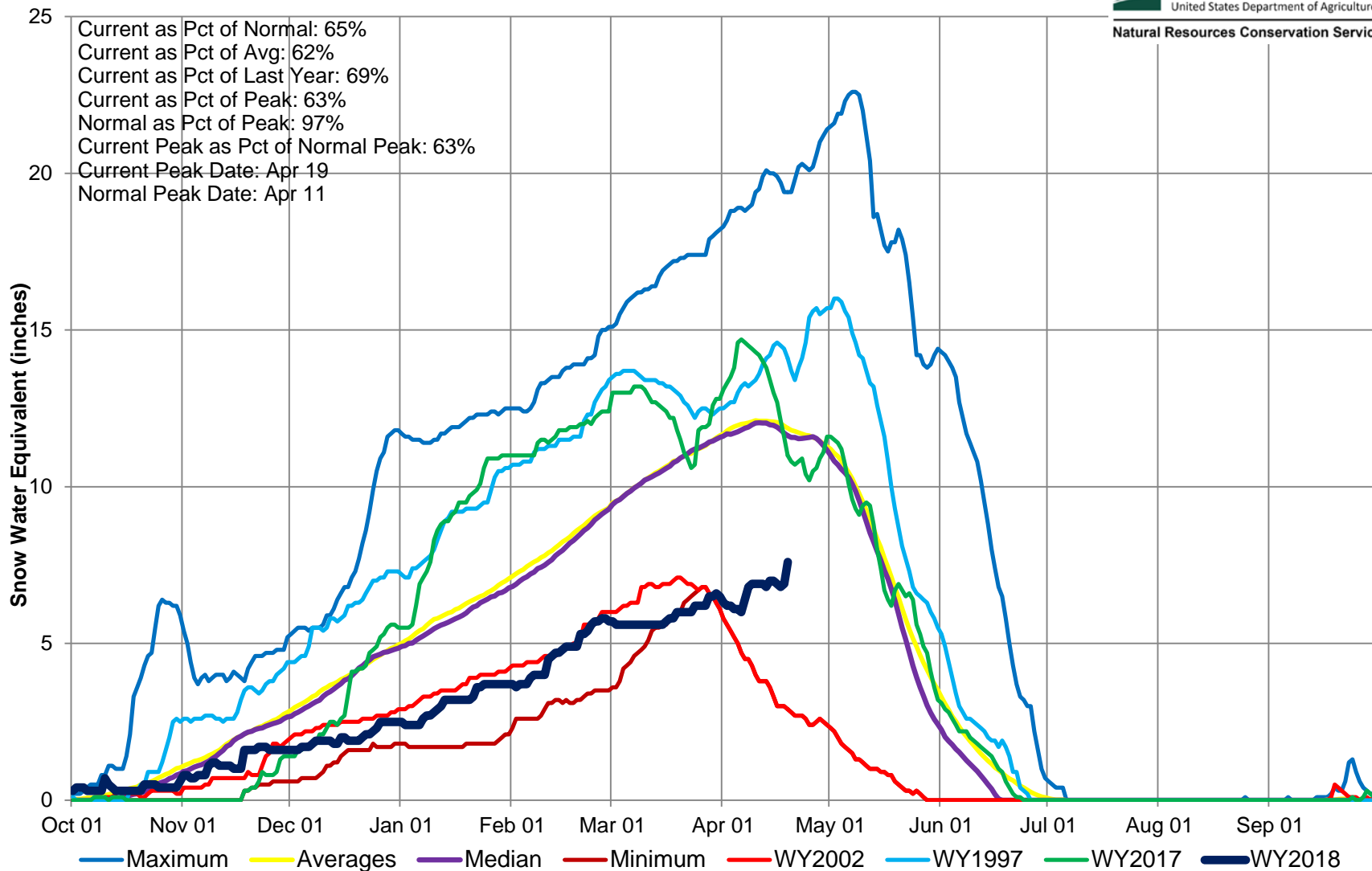
## Arkansas River Basin High/Low Snowpack Summary

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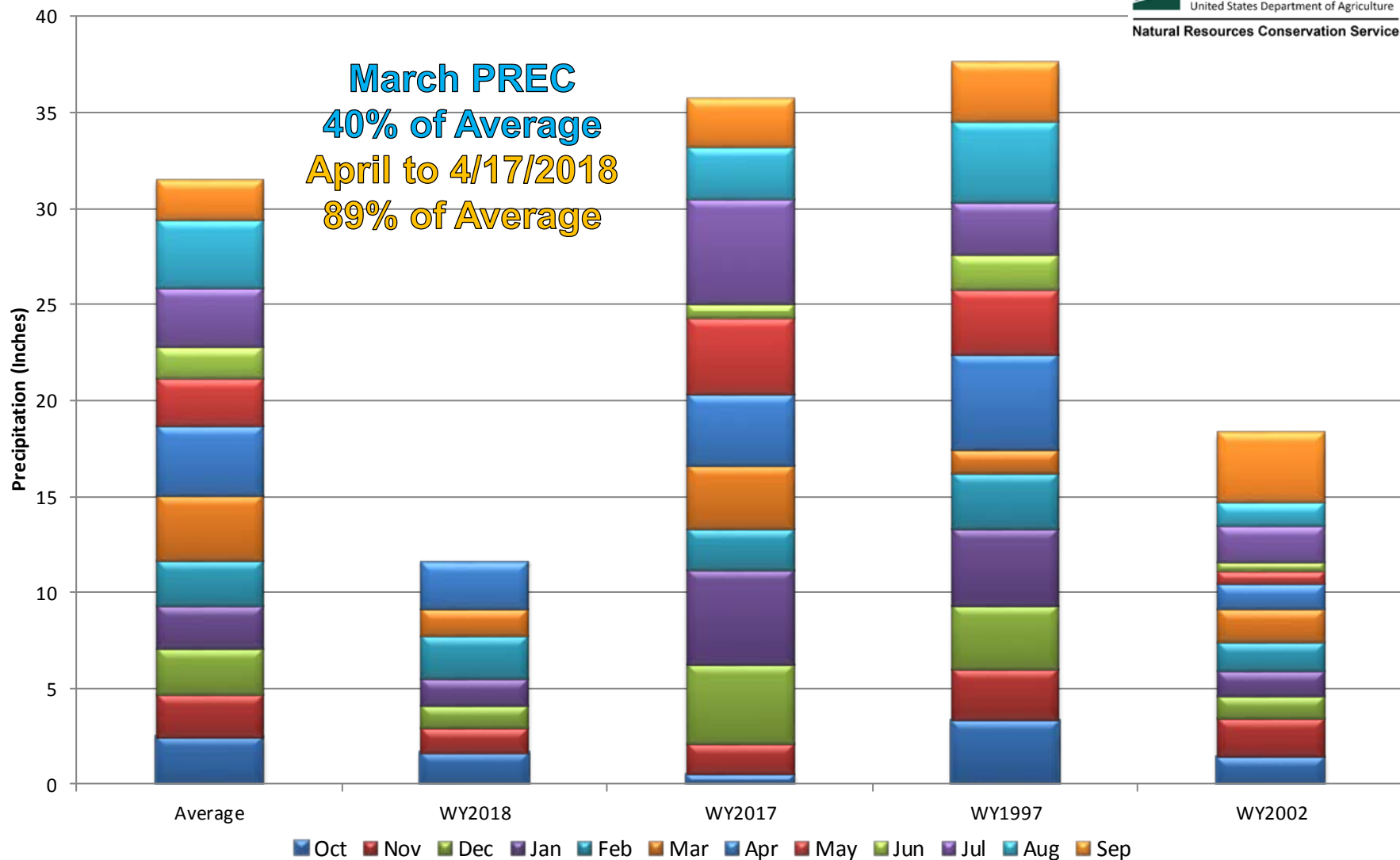
## Arkansas River Basin High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Apr 19, 2018*



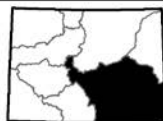
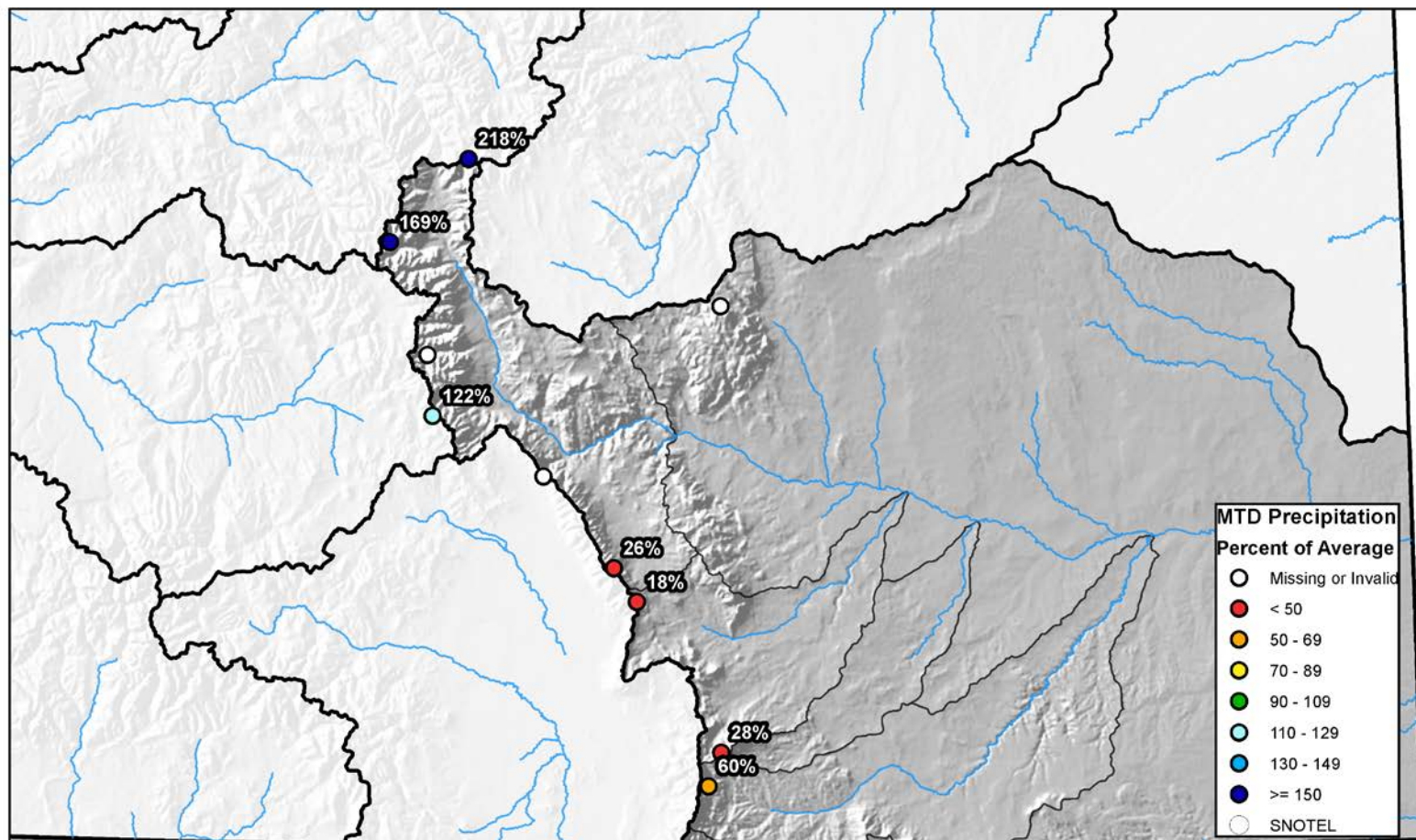
United States Department of Agriculture

Natural Resources Conservation Service



## Arkansas River Basin Month to Date Precipitation Summary

Current as of Apr 19, 2018



0 10 20 40 60 80 Miles



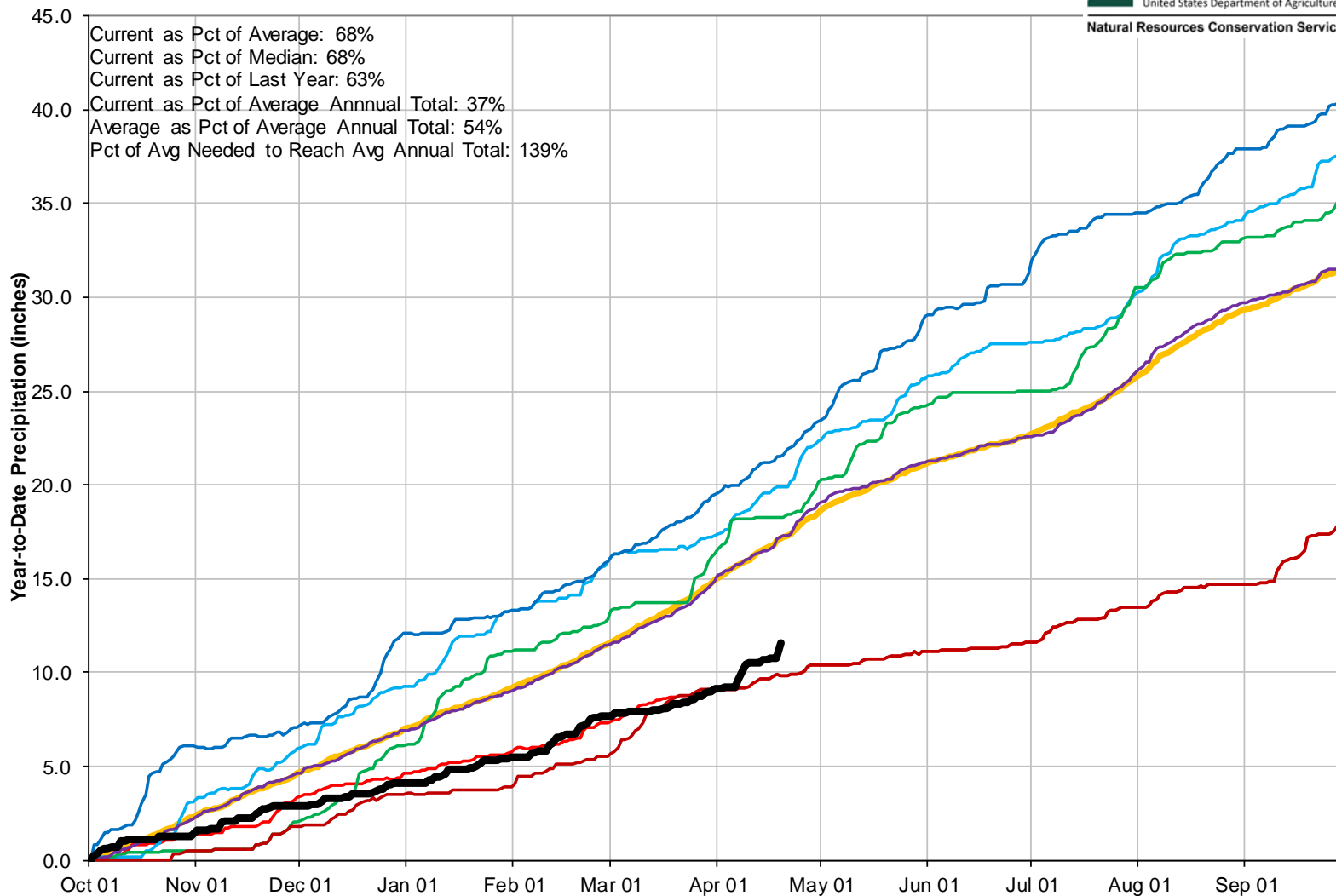
## Arkansas River Basin High/Low Year-to-Date Precipitation Summary

*Based on Provisional SNOTEL data as of Apr 19, 2018*



United States Department of Agriculture

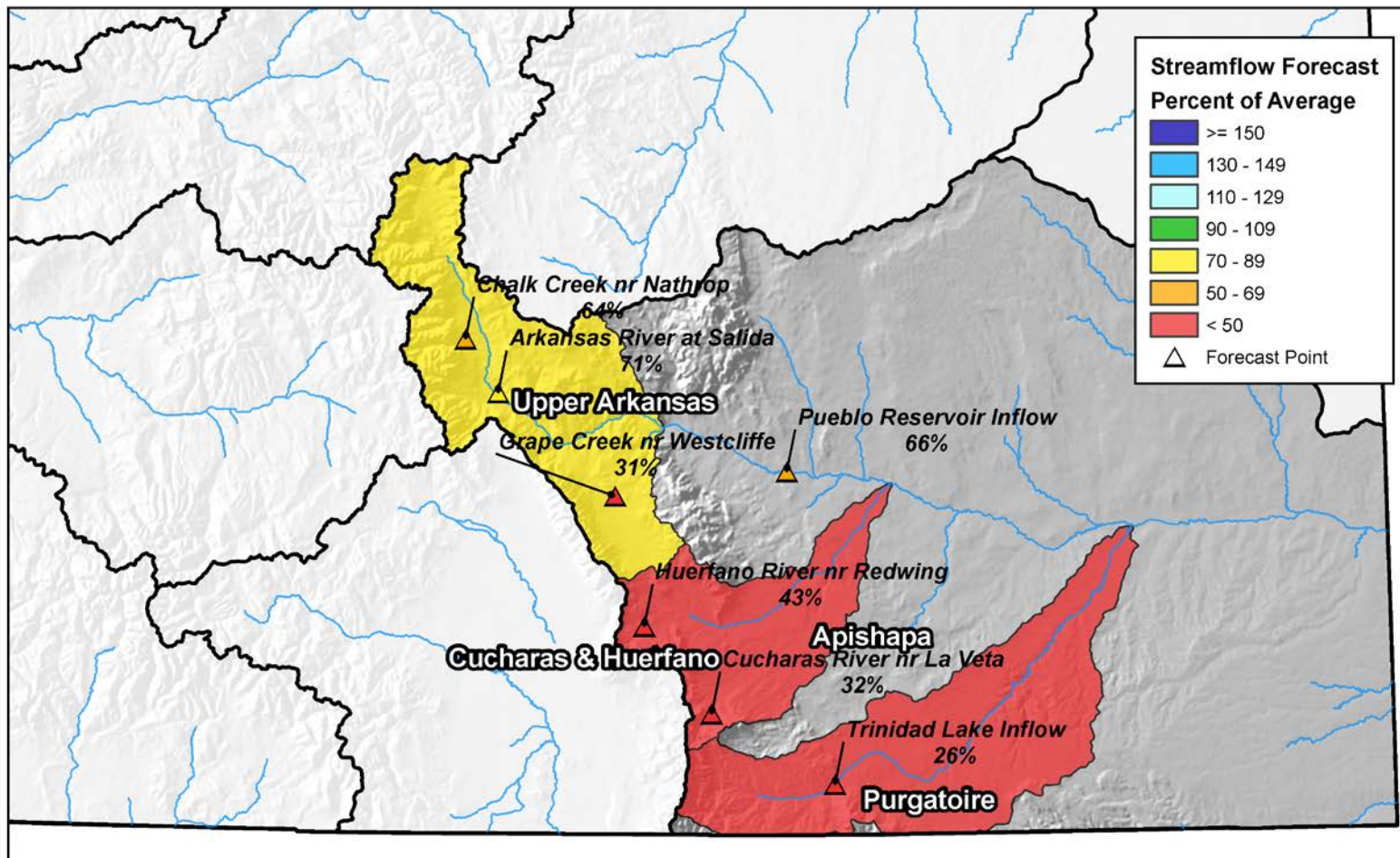
Natural Resources Conservation Service





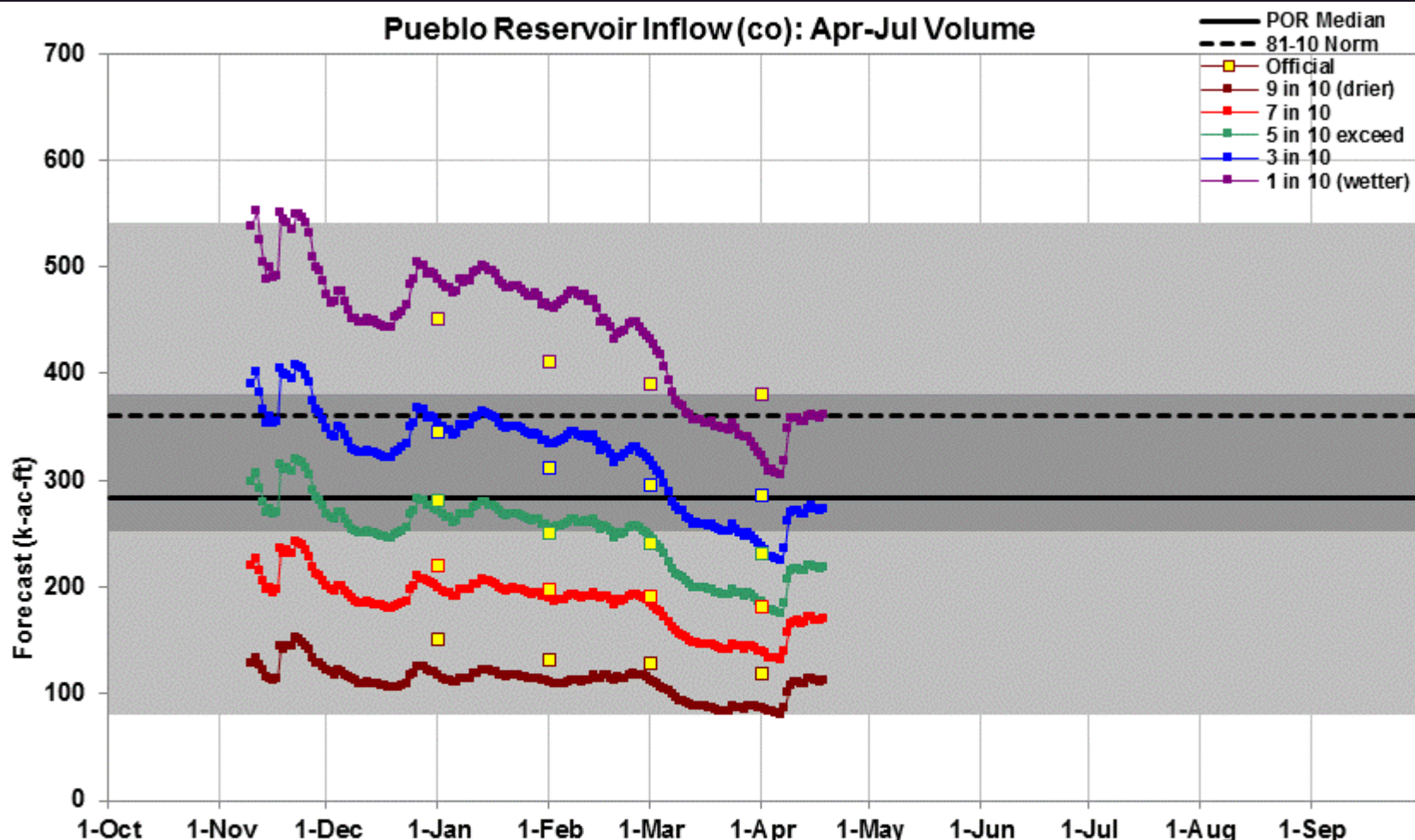
## Arkansas River Basin Streamflow Forecast Summary

April 1, 2018



0 10 20 40 60 80 Miles

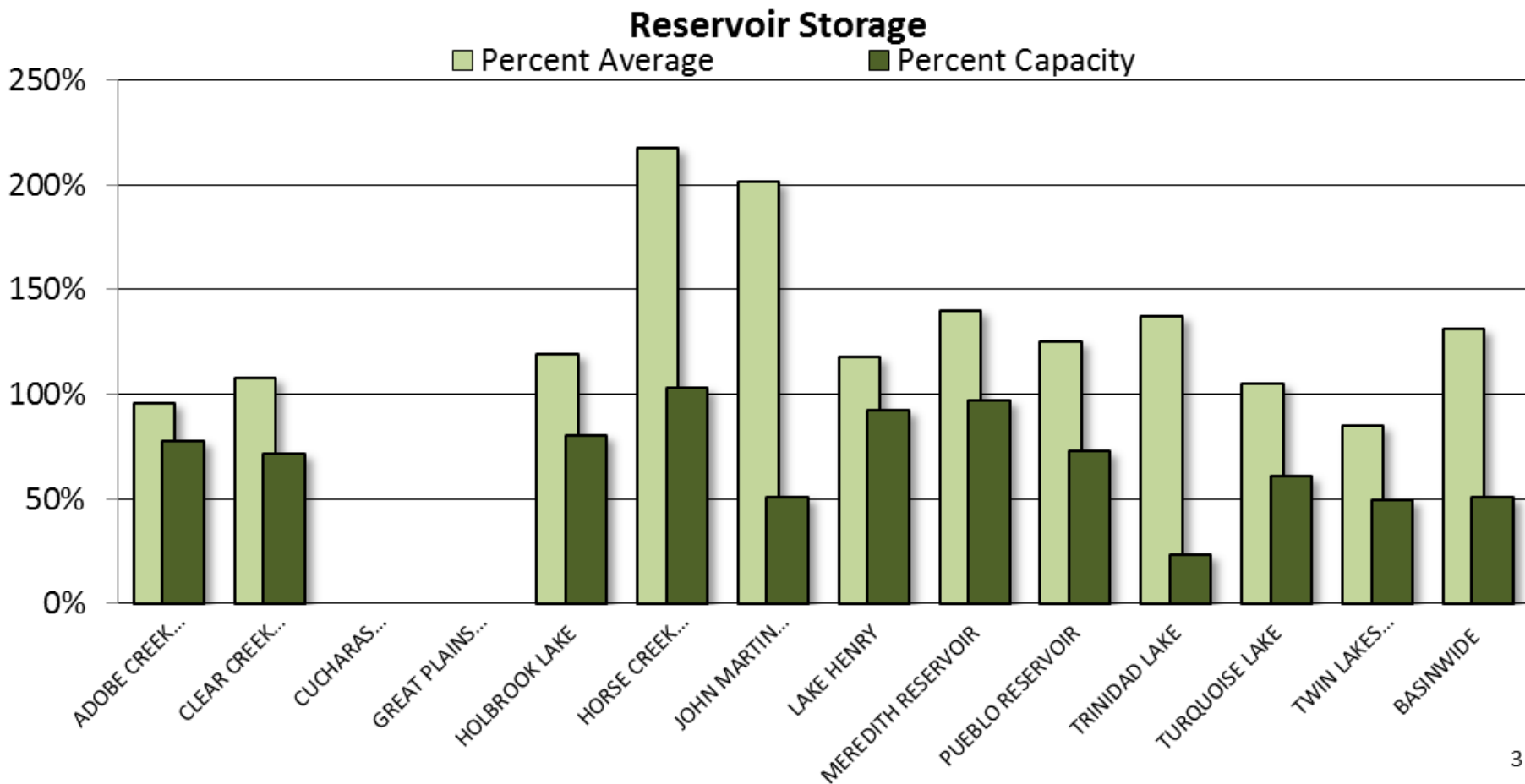




Created 7:08 Apr 18 2018



This is an automated product based solely on SNOTEL data, provisional data are subject to change. This product is a statistically based guidance forecast combining indices of snowpack and precipitation. **Yellow squares** are the official outlooks. **Gray background** is the historical period of record variability. This product does not consider climate information such as El Nino or short range weather forecasts, or a variety of other factors considered in the official forecasts. This product is not meant to replace or supersede the official forecasts produced in coordination with the National Weather Service. Science Contact: [Cara.s.McCarthy@por.usda.gov](mailto:Cara.s.McCarthy@por.usda.gov) [www.wcc.nrcs.usda.gov/ws/daily\\_forecasts.html](http://www.wcc.nrcs.usda.gov/ws/daily_forecasts.html)



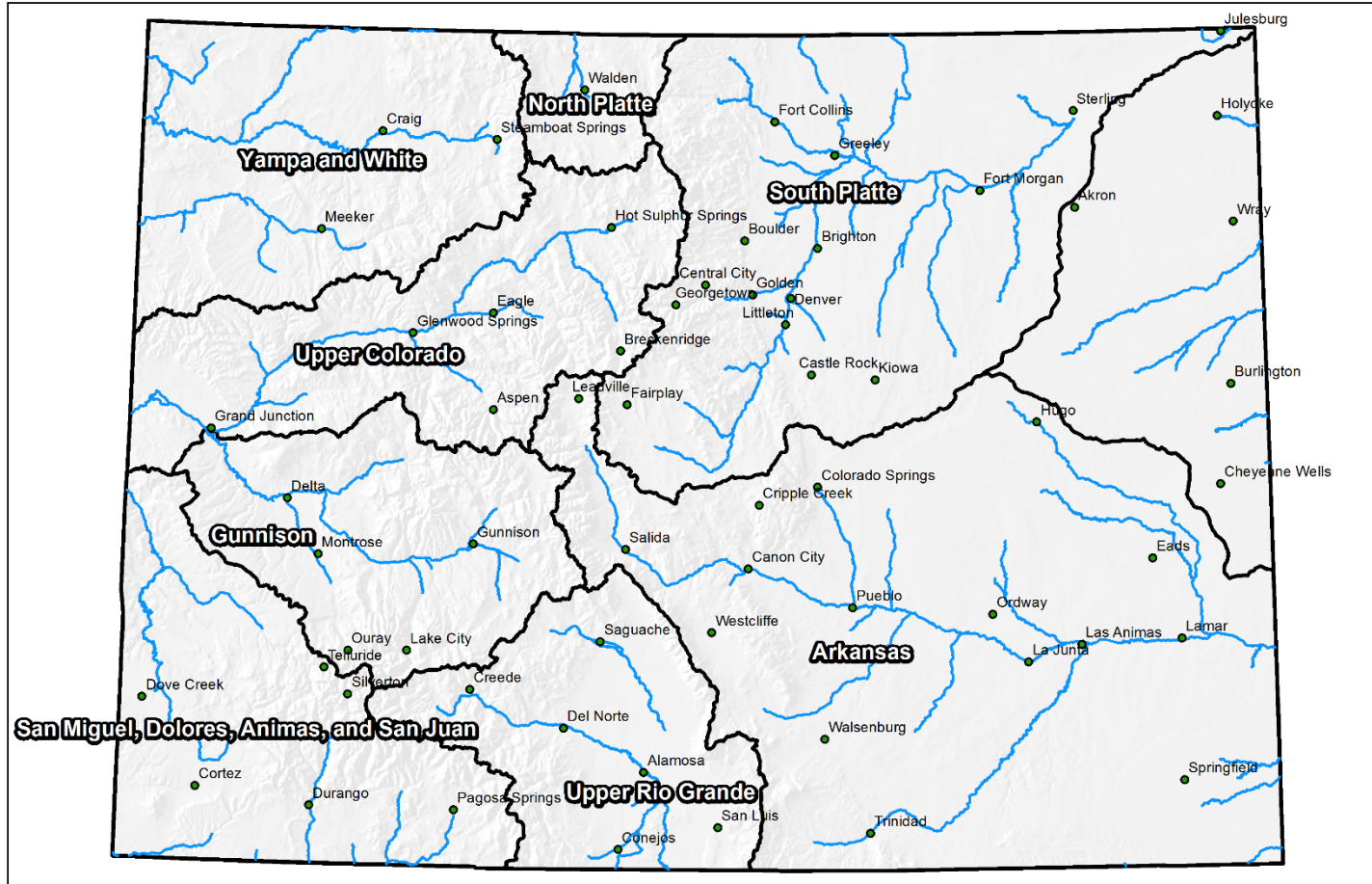


## ARKANSAS RIVER BASIN Reservoir Storage Departure from Average



## Colorado Statewide Summary

Colorado Major Basins



0 25 50 100 150 200 Miles





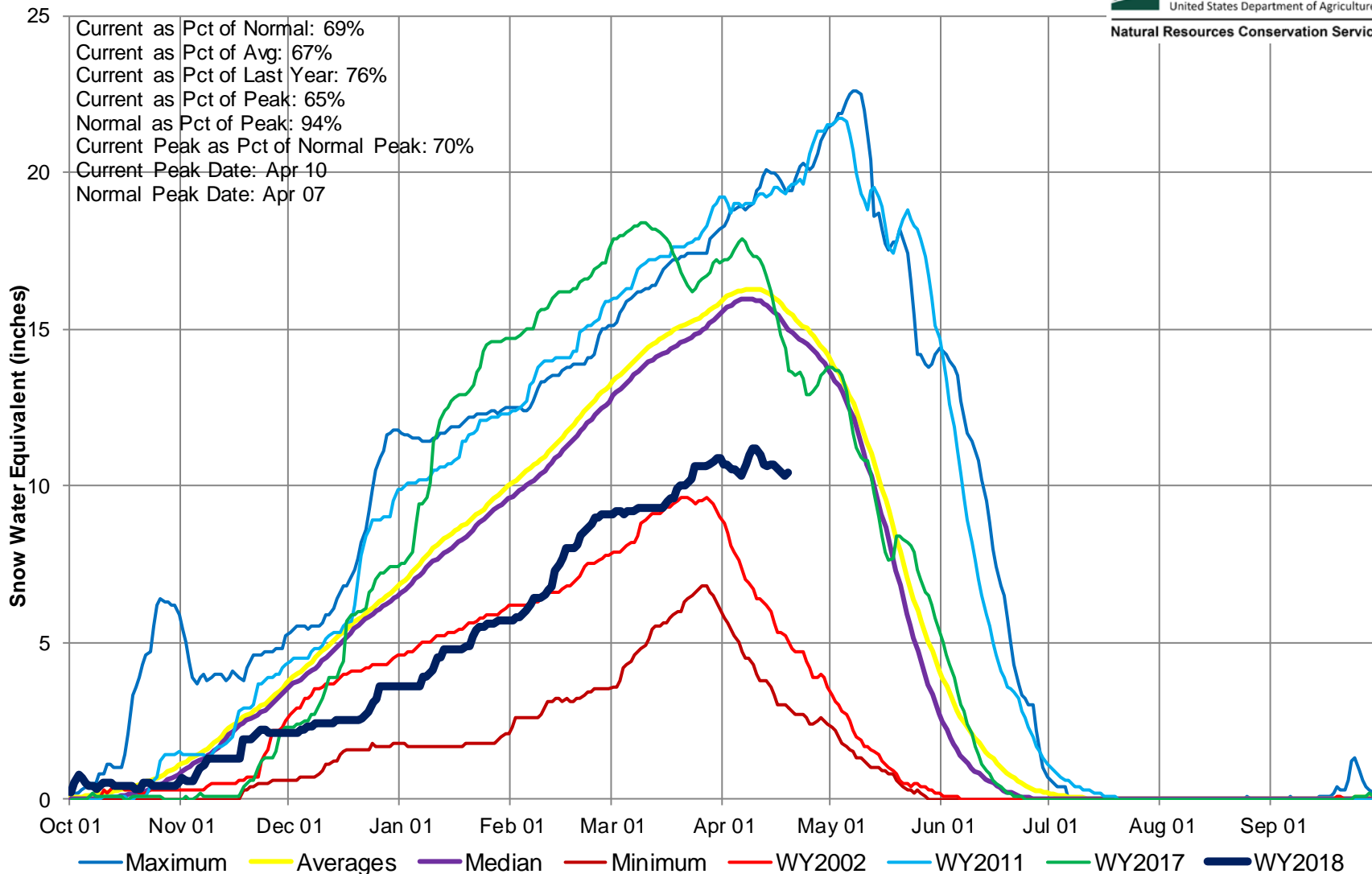
## Colorado Statewide High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Apr 19, 2018*



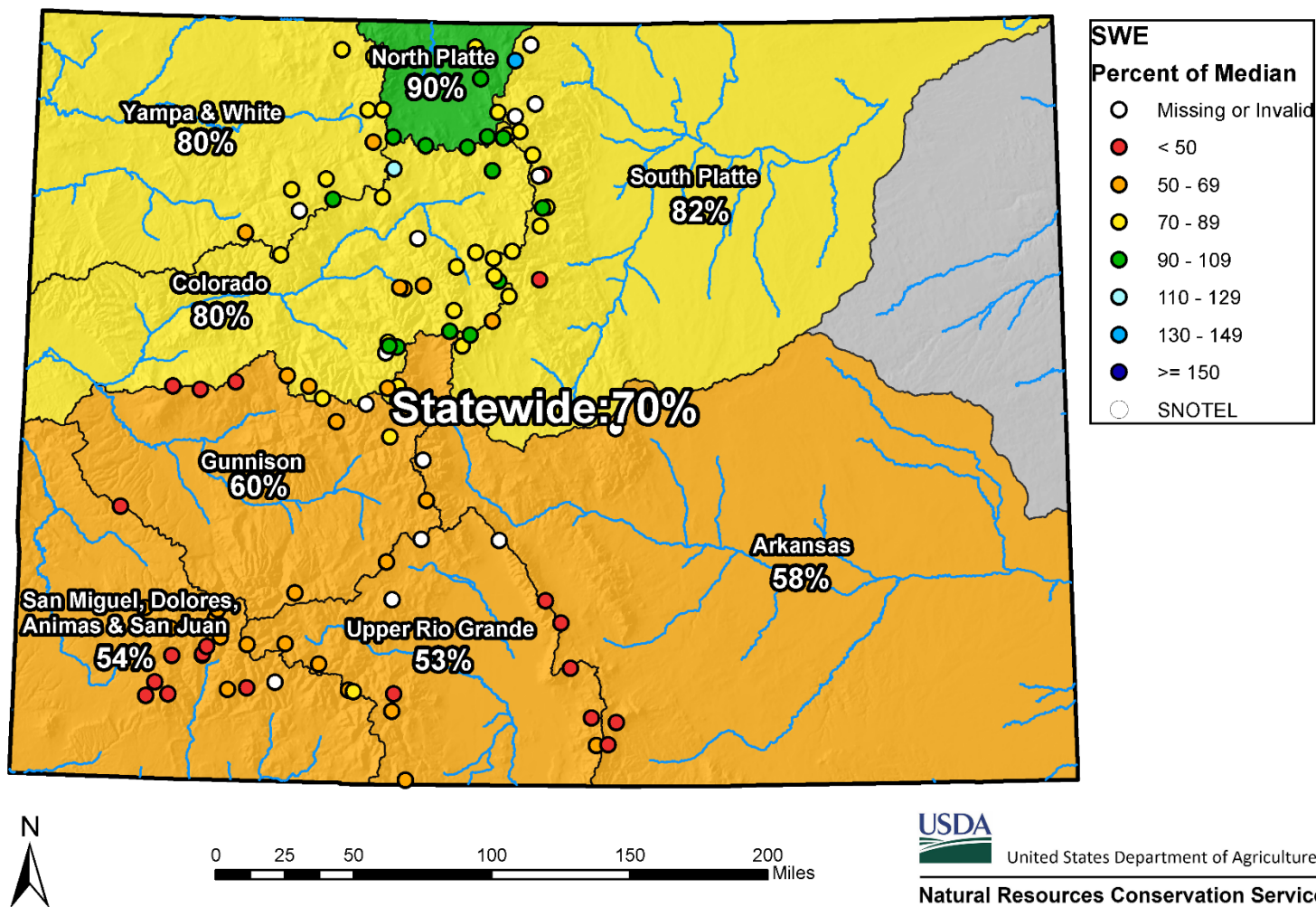
United States Department of Agriculture

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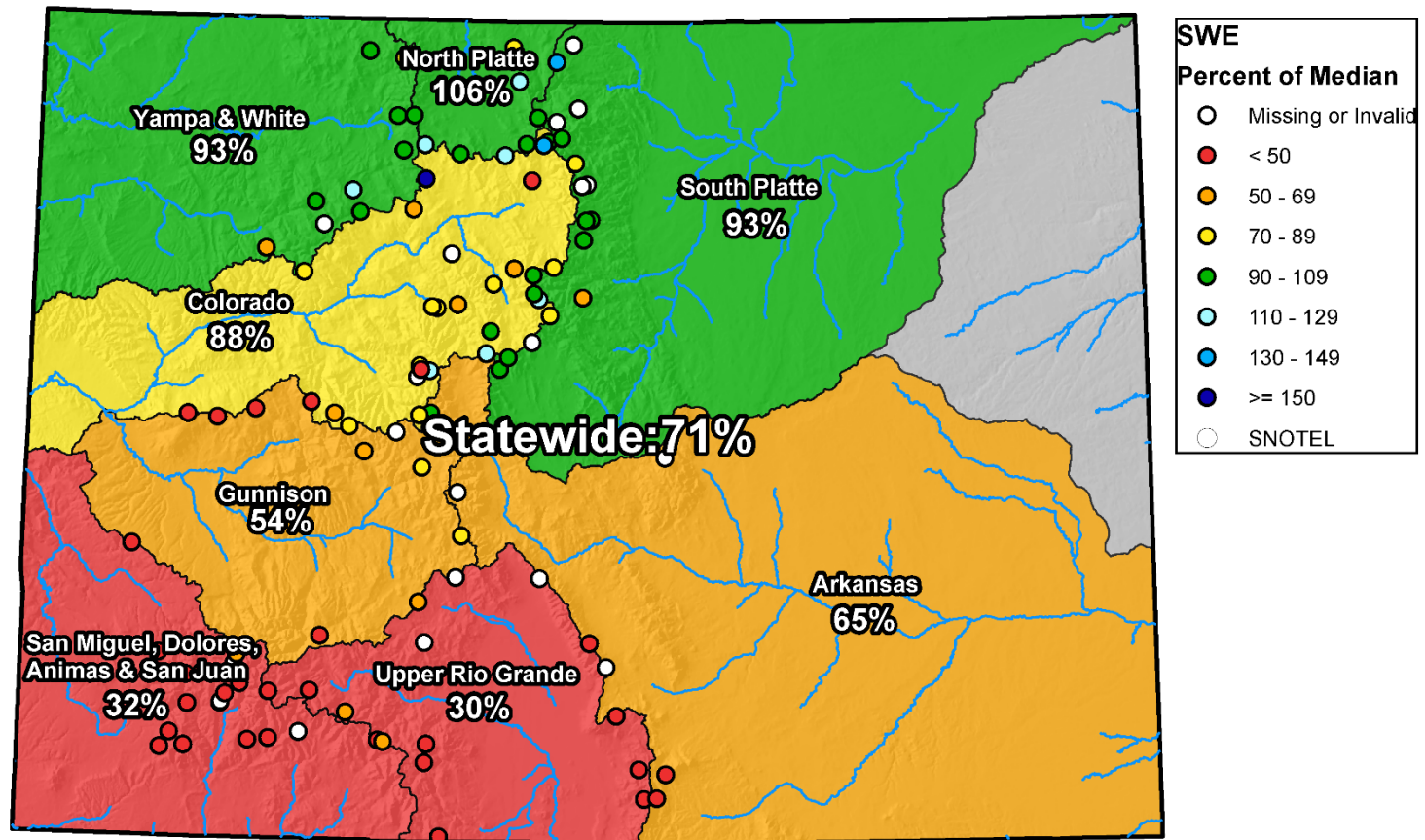
## Colorado SNOTEL Snow Water Equivalent (SWE) Update Map with Site Data

Current as of Mar 22, 2018



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

Current as of Apr 19, 2018

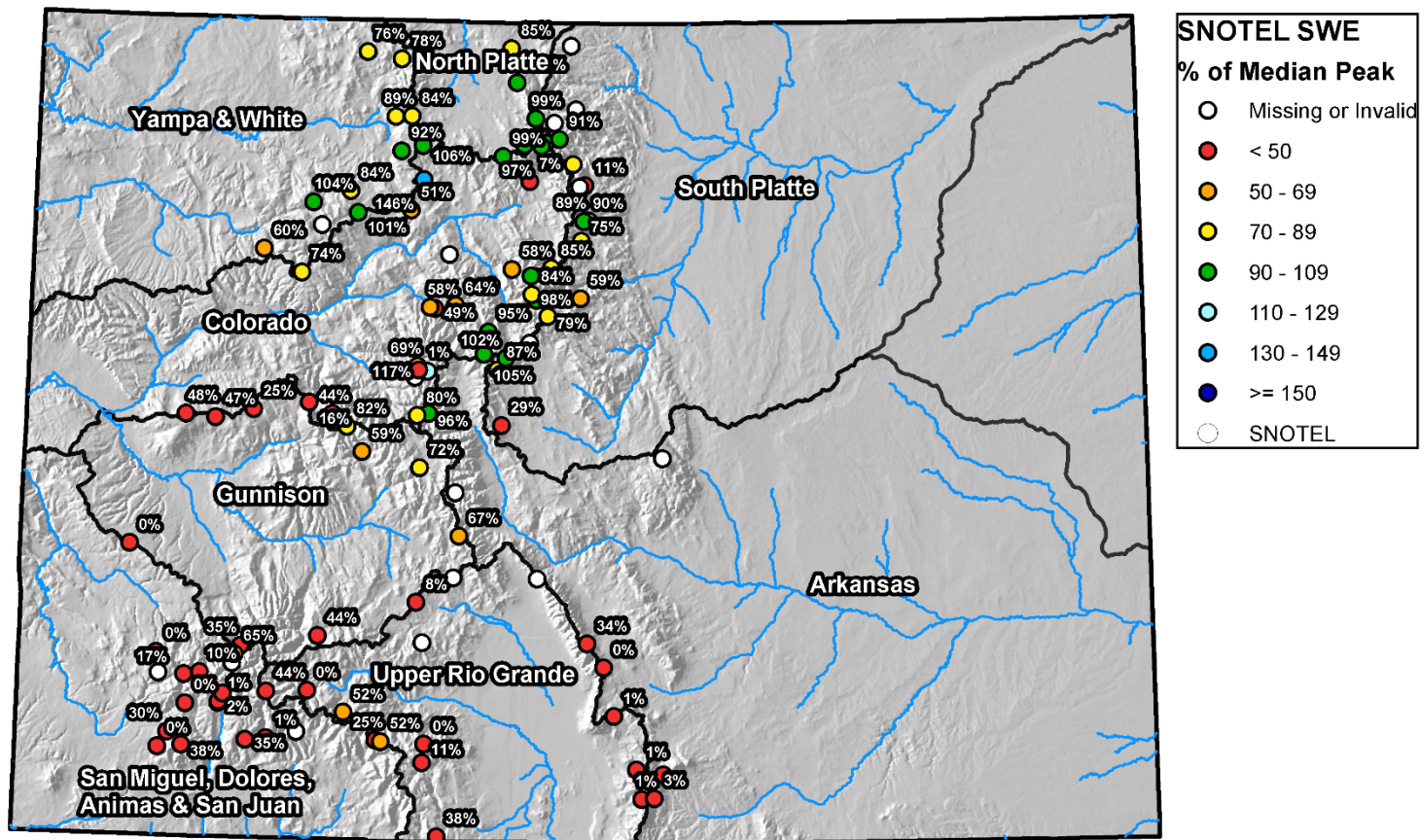


0 25 50 100 150 200 Miles



## Colorado SNOTEL Snow Water Equivalent Percent of Median Peak

Current as of Apr 19, 2018



0 25 50 100 150 200 Miles





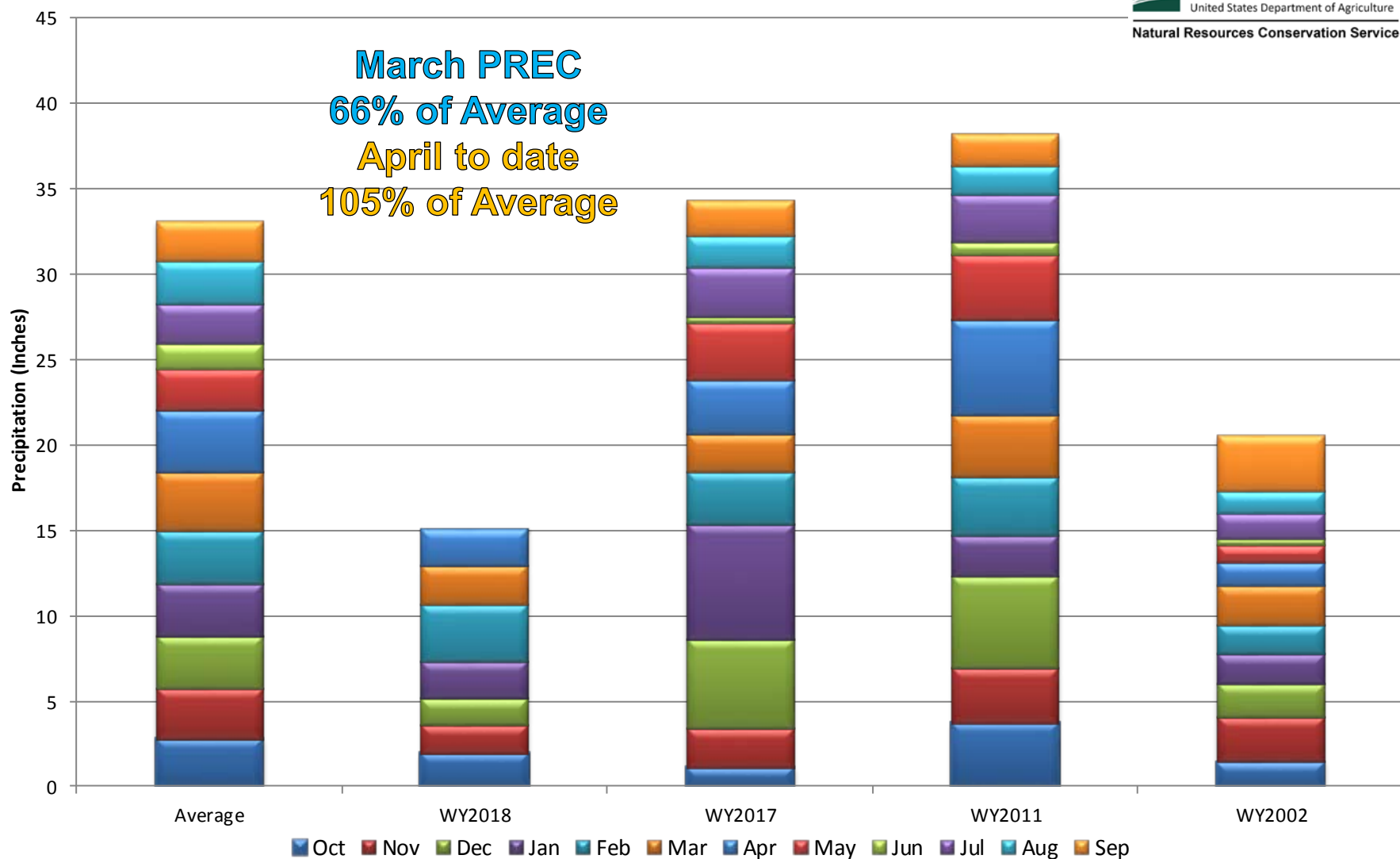
## Colorado Statewide High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Apr 19, 2018*



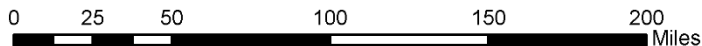
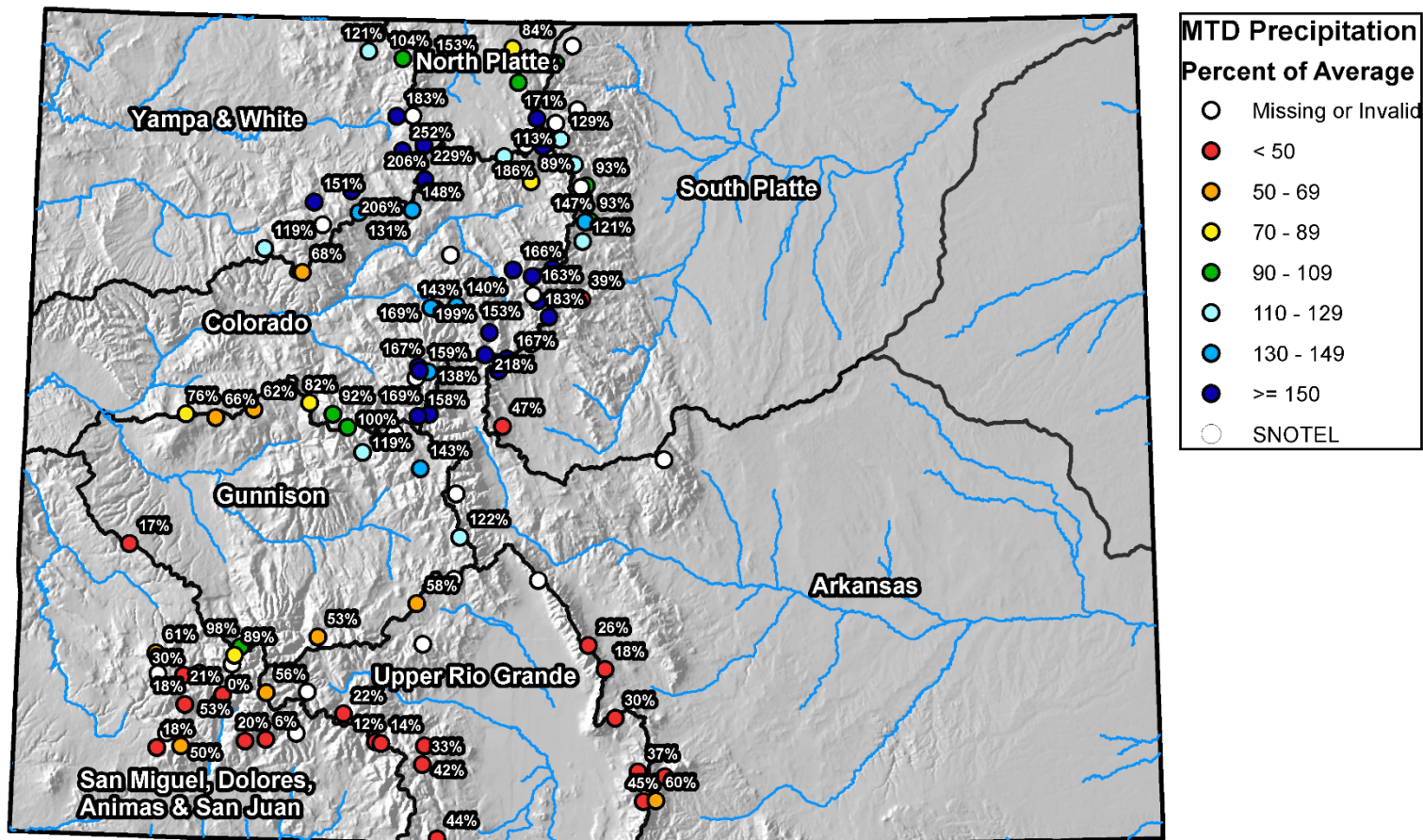
United States Department of Agriculture

Natural Resources Conservation Service



## Colorado SNOTEL Month-to-Date Precipitation

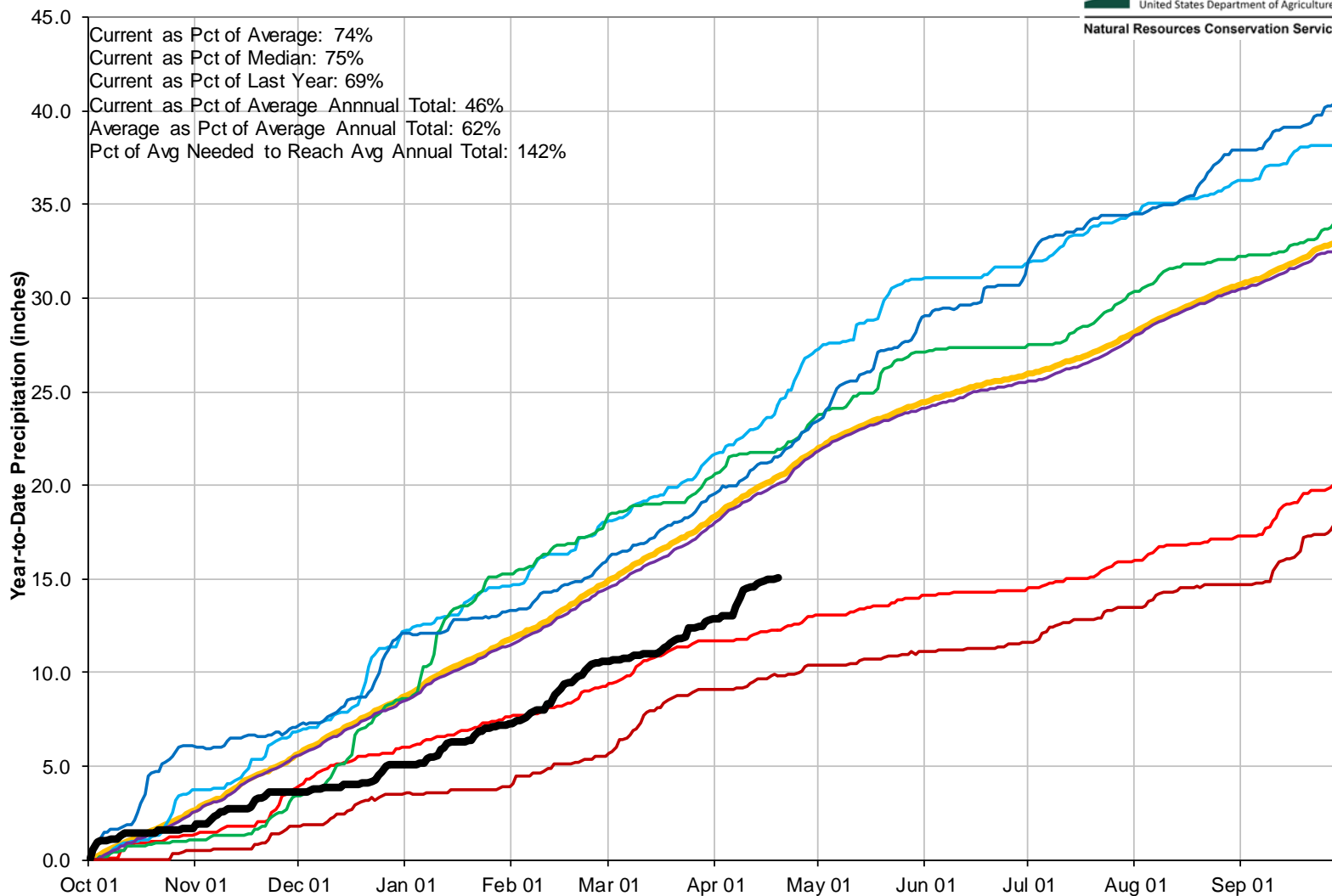
Current as of Apr 19, 2018





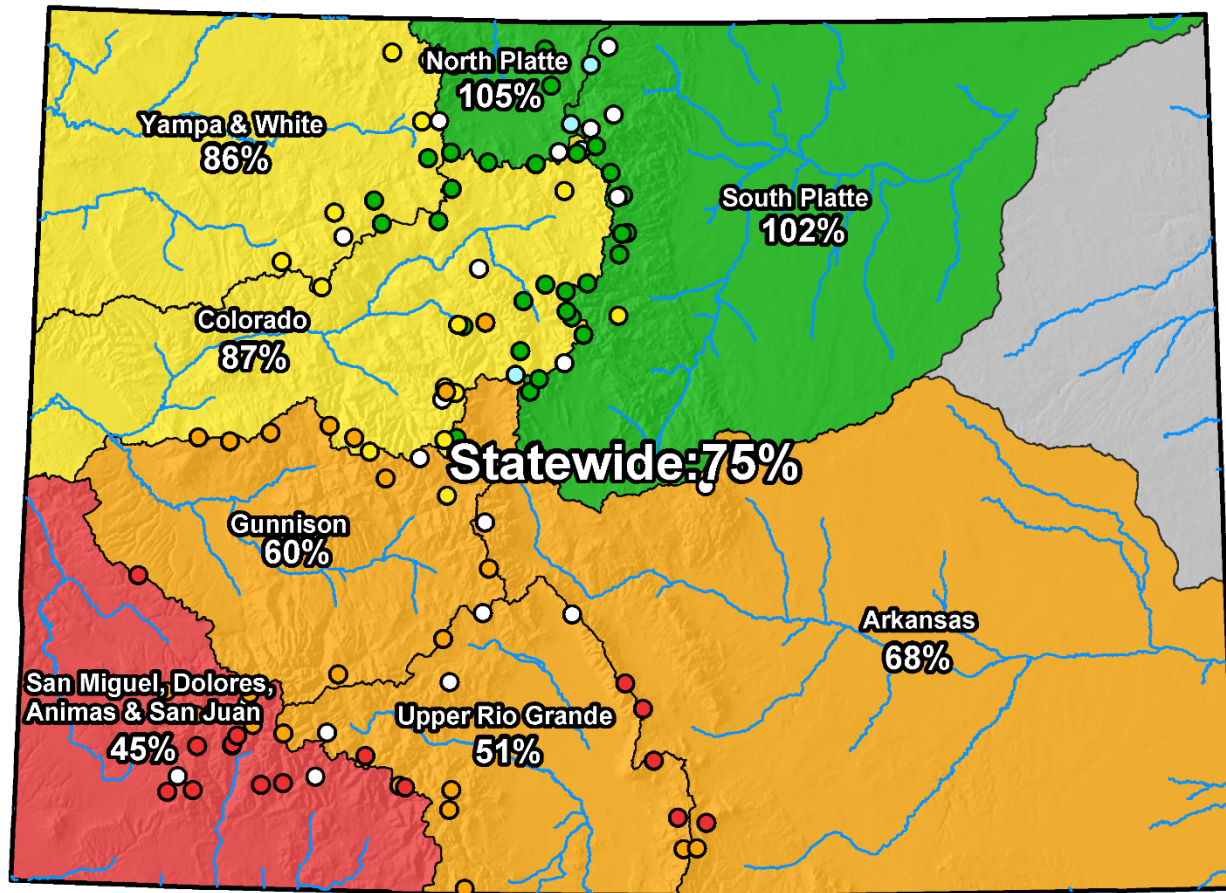
## Colorado Statewide High/Low Year-to-Date Precipitation Summary

*Based on Provisional SNOTEL data as of Apr 19, 2018*



## Colorado SNOTEL Water Year to Date Precipitation

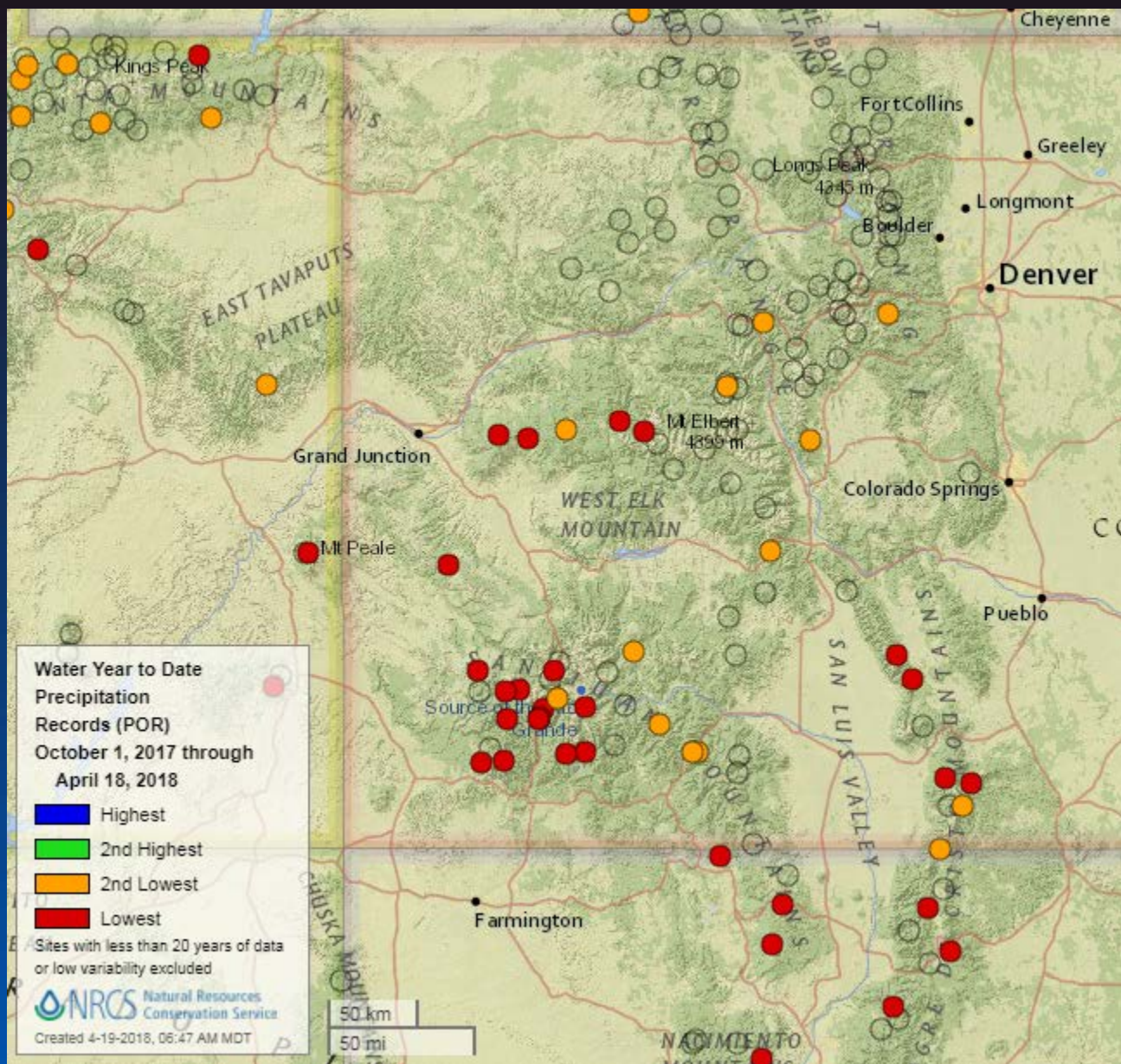
Current as of Apr 19, 2018



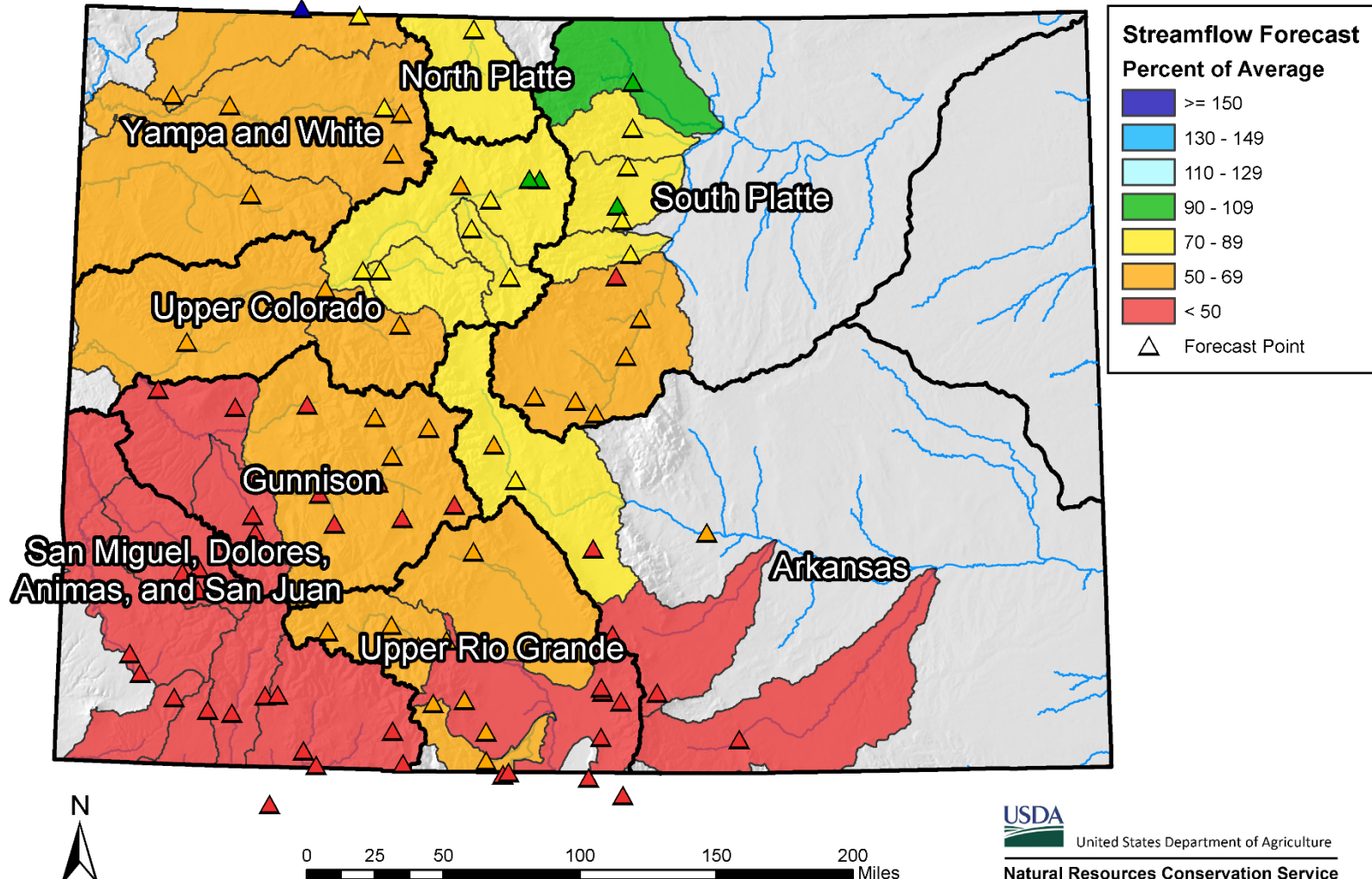
0 25 50 100 150 200 Miles



# Colorado Snow Surveys



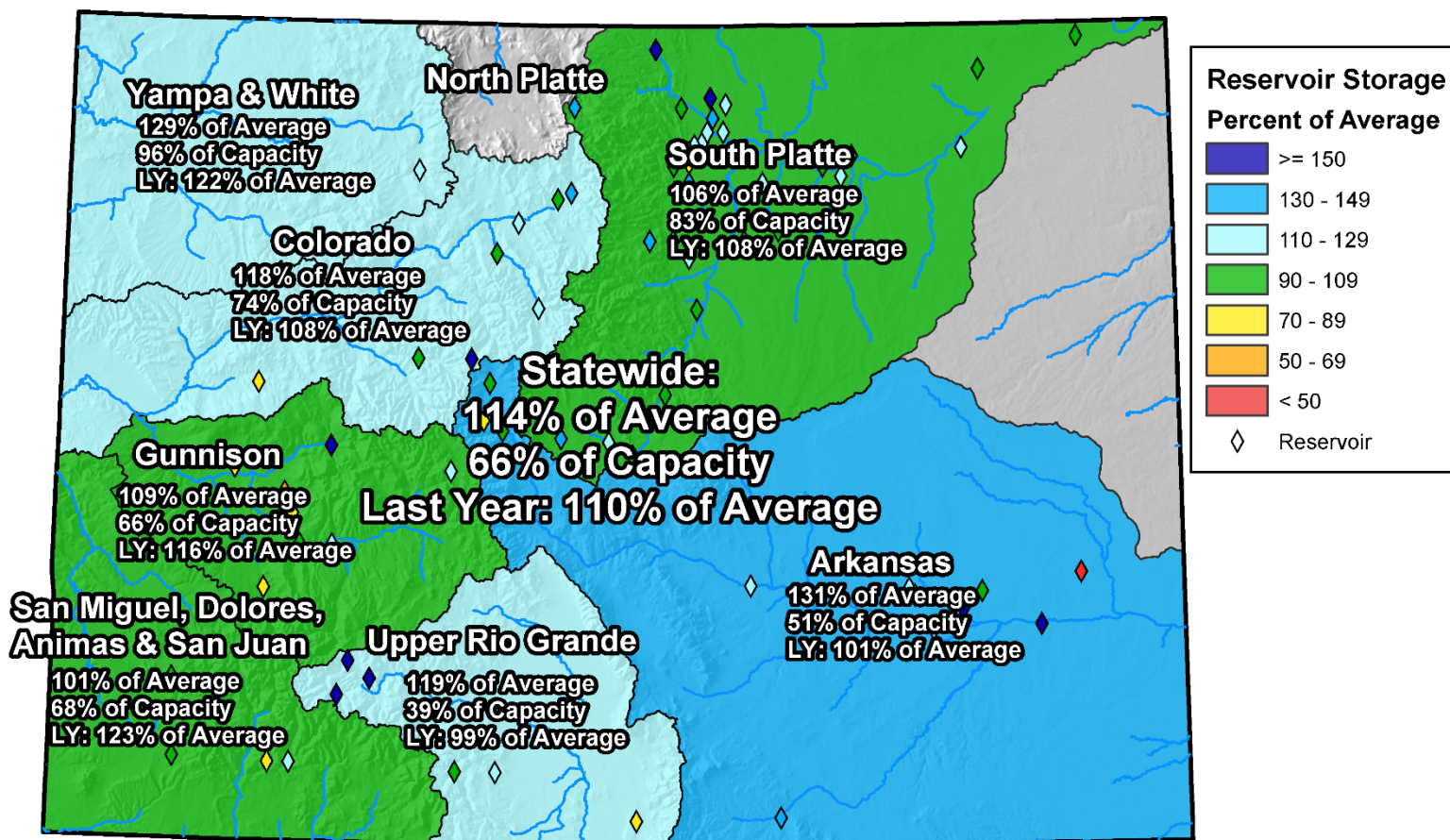
## Colorado Streamflow Forecasts Summary April 1, 2018





## Colorado Monthly Reservoir Storage Summary

End of March 2018

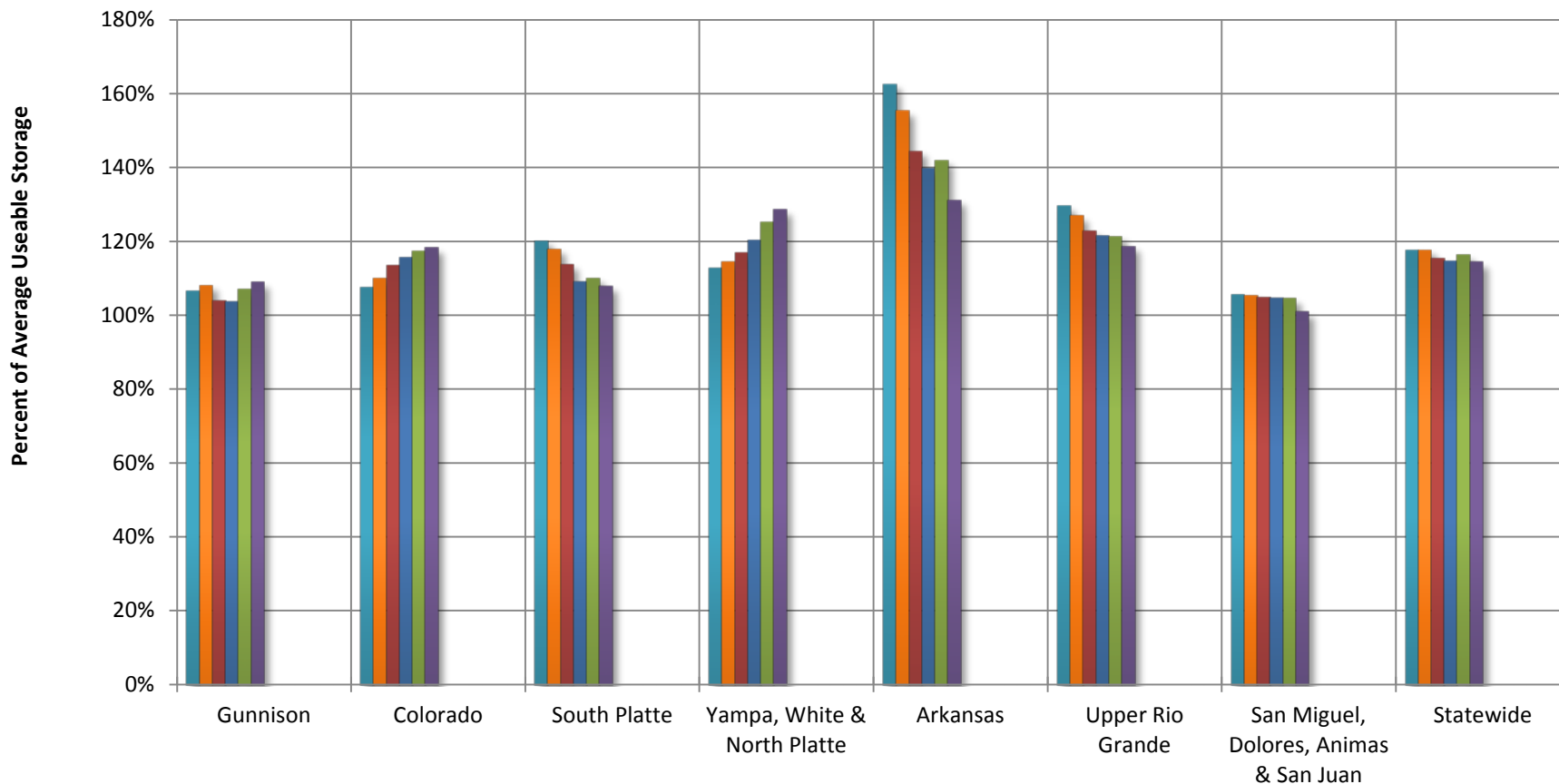


0 25 50 100 150 200 Miles



## Colorado Reservoir Storage

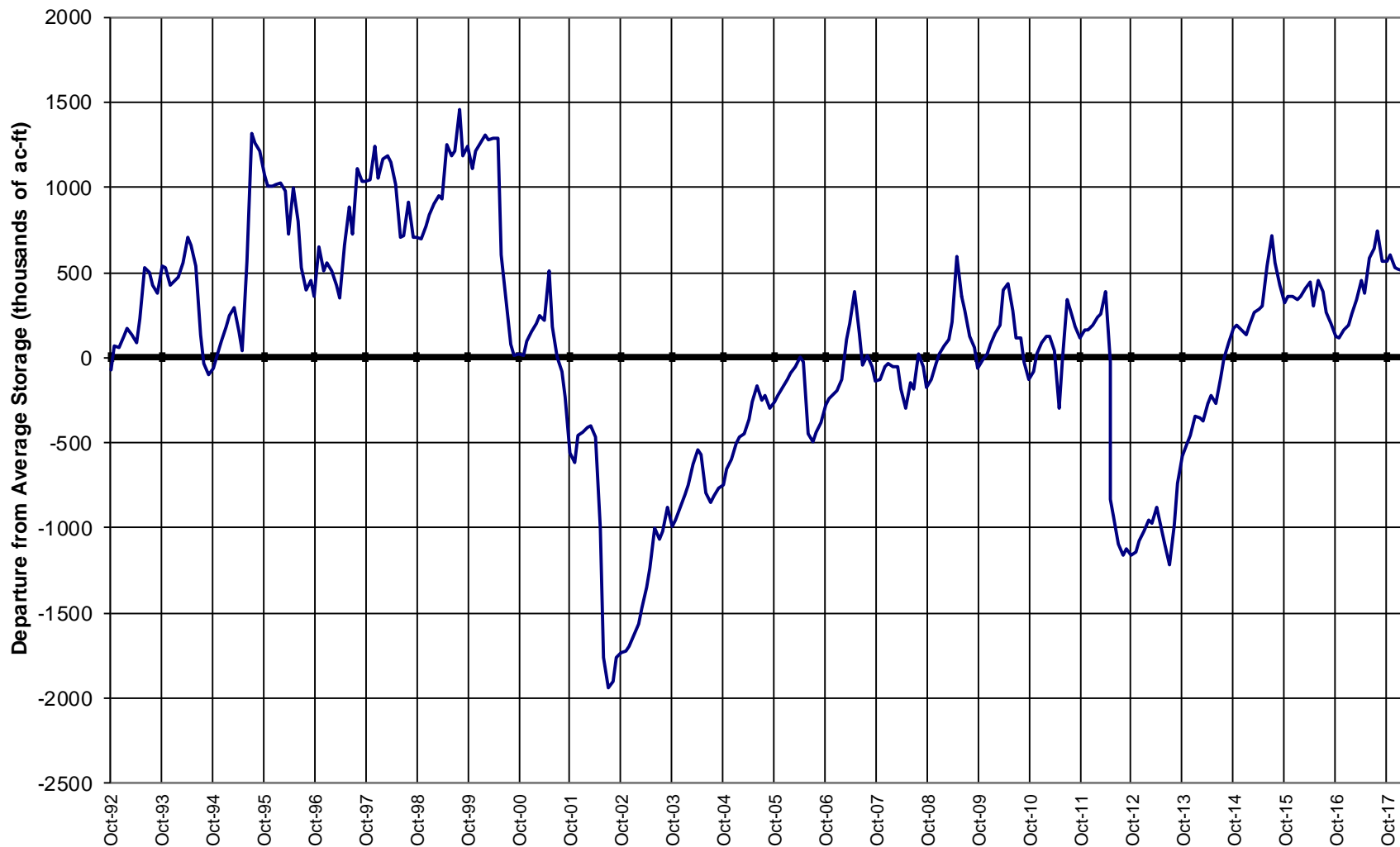
Oct-17 Nov-17 Dec-17 Jan-18 Feb-18 Mar-18  
Apr-18 May-18 Jun-18 Jul-18 Aug-18 Sep-18





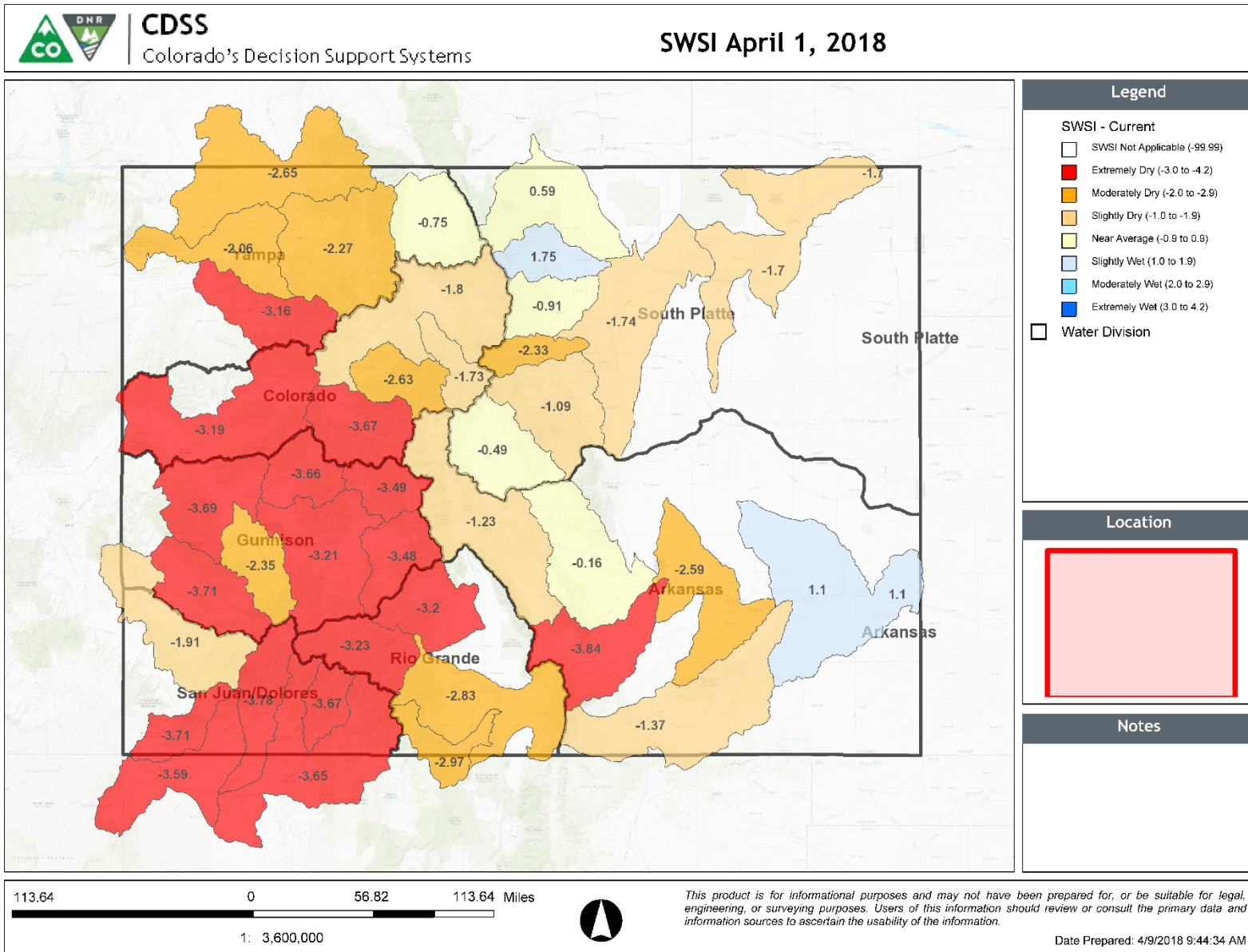


## COLORADO STATEWIDE Reservoir Storage Departure from Average





April 1, 2018 SWSI



## Summary

- **Statewide snowpack remains near 70% of normal. But the specifics paint a different picture:**
  - About 93% of normal Northern half of state
  - About 45% of normal Southern half of state
- **March to date precipitation has benefitted northern portions of state but fallen well short in the south.**
- **Year-to-date precipitation is record low according to SNOTEL POR in many places in the San Juan Mountains**
- **Streamflow forecasts are generally below normal**
  - Near normal in Northern basins
  - To well below normal in Southern basins
- **Reservoir storage is still above average in all major basins in the state**
- **While snowpack has typically peaked at this point in the year there are a number of watersheds that show:**
- **Minimal melt – S. Platte, Yampa, White, N. Platte**
- **Gunnison showing less melt than expected**



United States Department of Agriculture

Colorado Snow Surveys

# Water Availability Task Force Meeting

## April 19<sup>th</sup>, 2018

### NRCS Snow Survey and Water Supply Forecasting Program

Brian Domonkos  
Hydrologist  
Snow Survey Supervisor  
720-544-2852

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