



United States Department of Agriculture

Colorado Snow Surveys

# Water Availability Task Force Meeting

## November 26<sup>th</sup>, 2019

### NRCS Snow Survey and Water Supply Forecasting Program

Karl Wetlaufer

Hydrologist

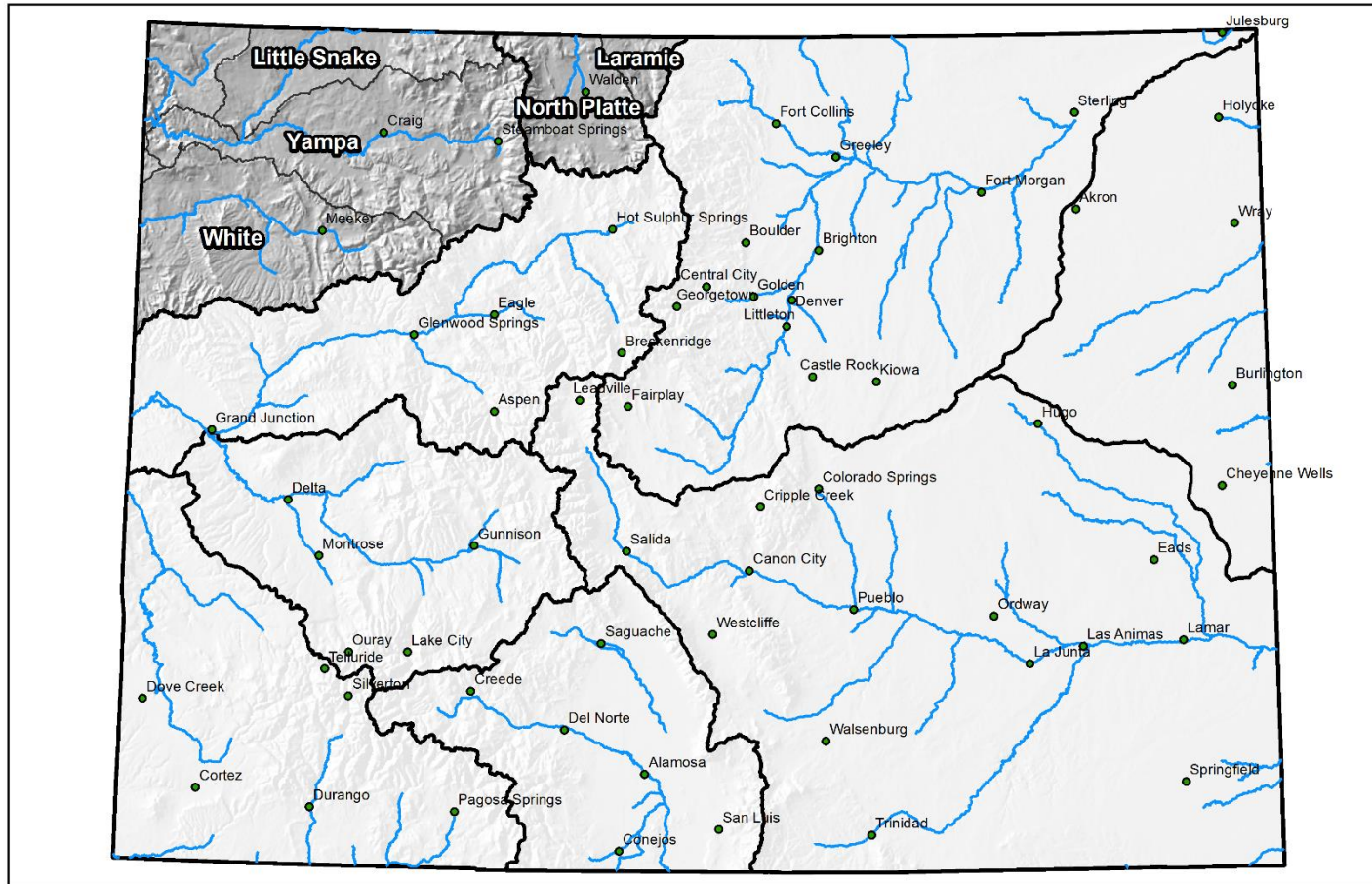
Asst. Snow Survey Supervisor

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

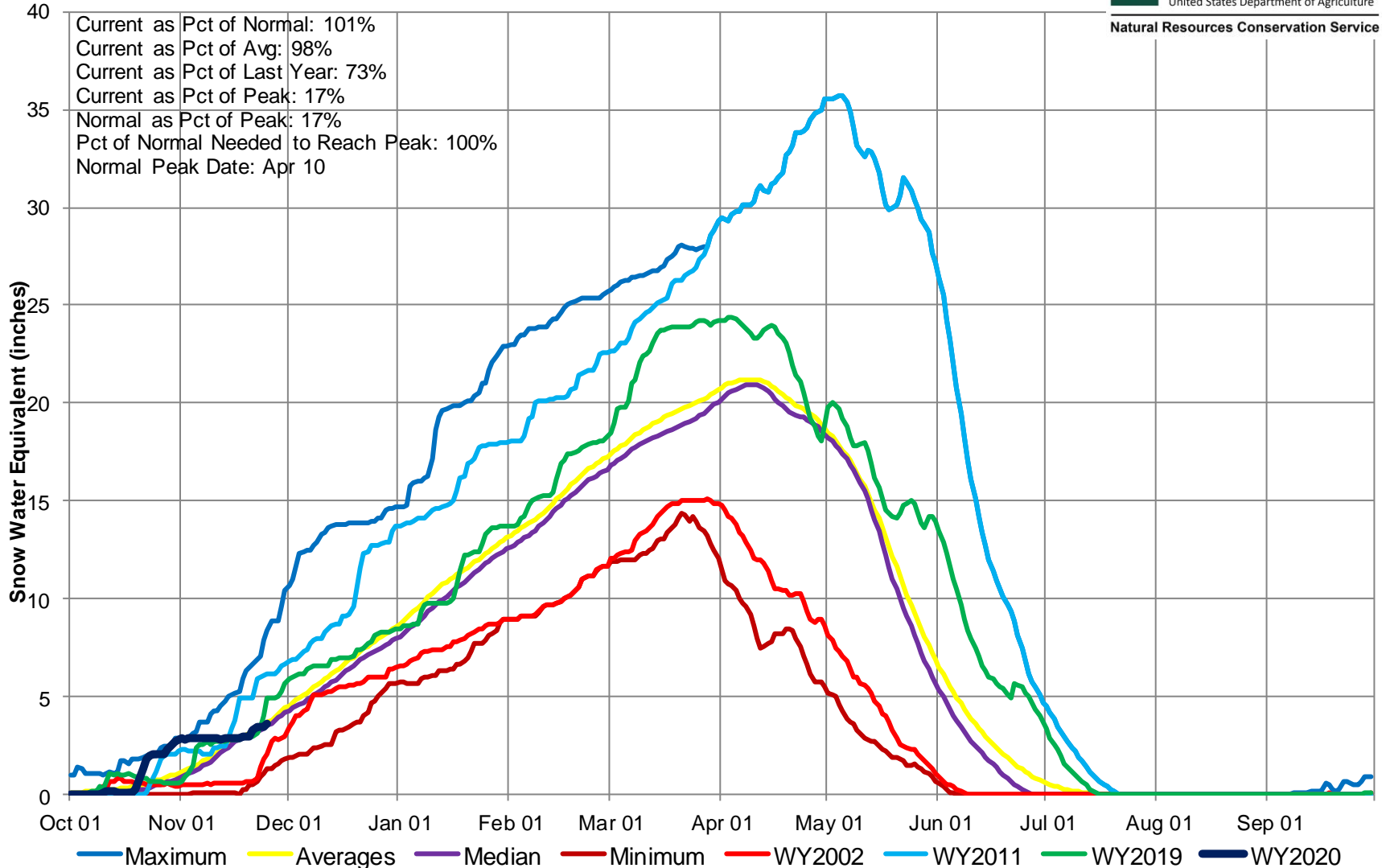
## Yampa and White River Basins High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Nov 25, 2019*



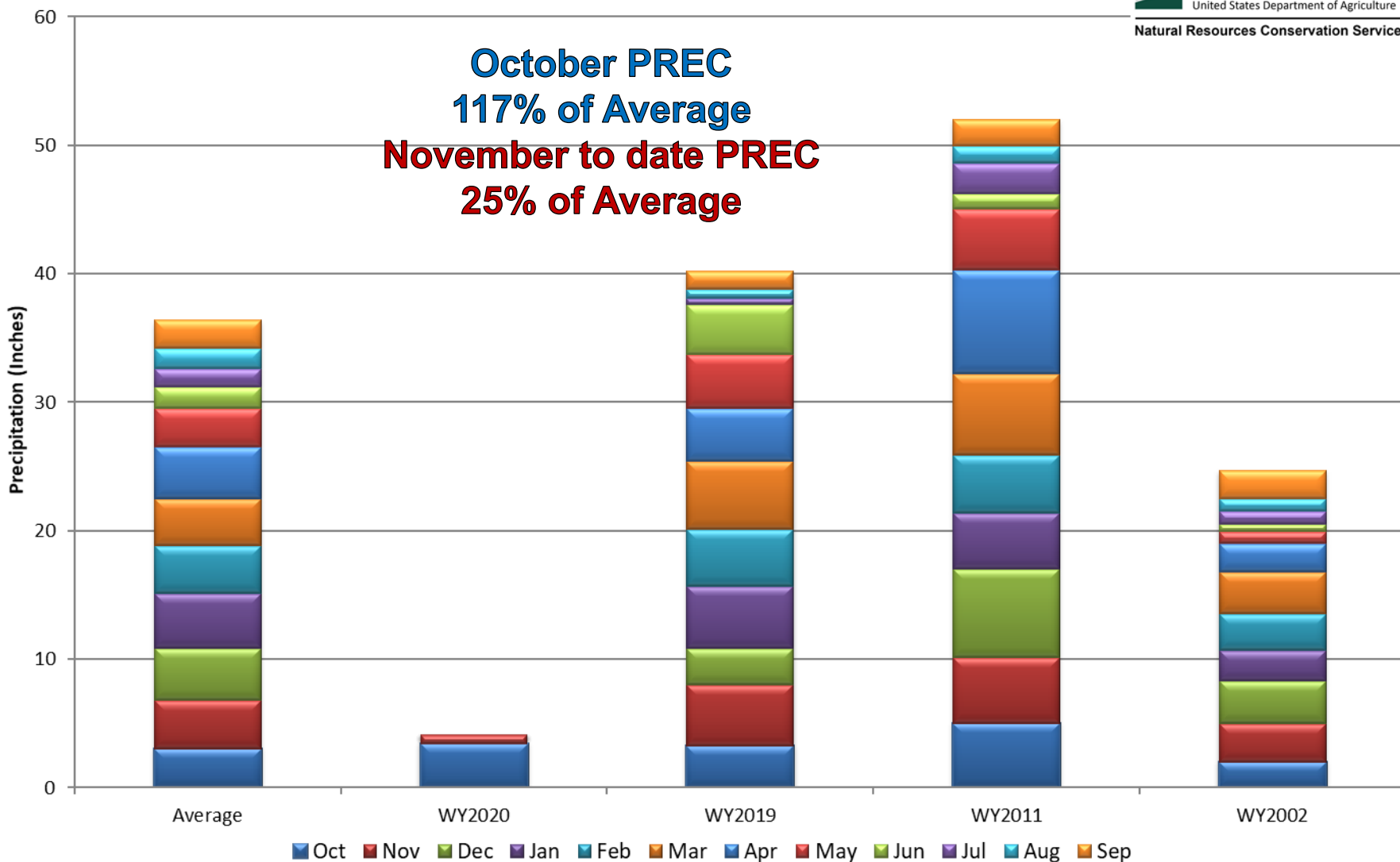
United States Department of Agriculture

Natural Resources Conservation Service

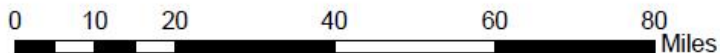
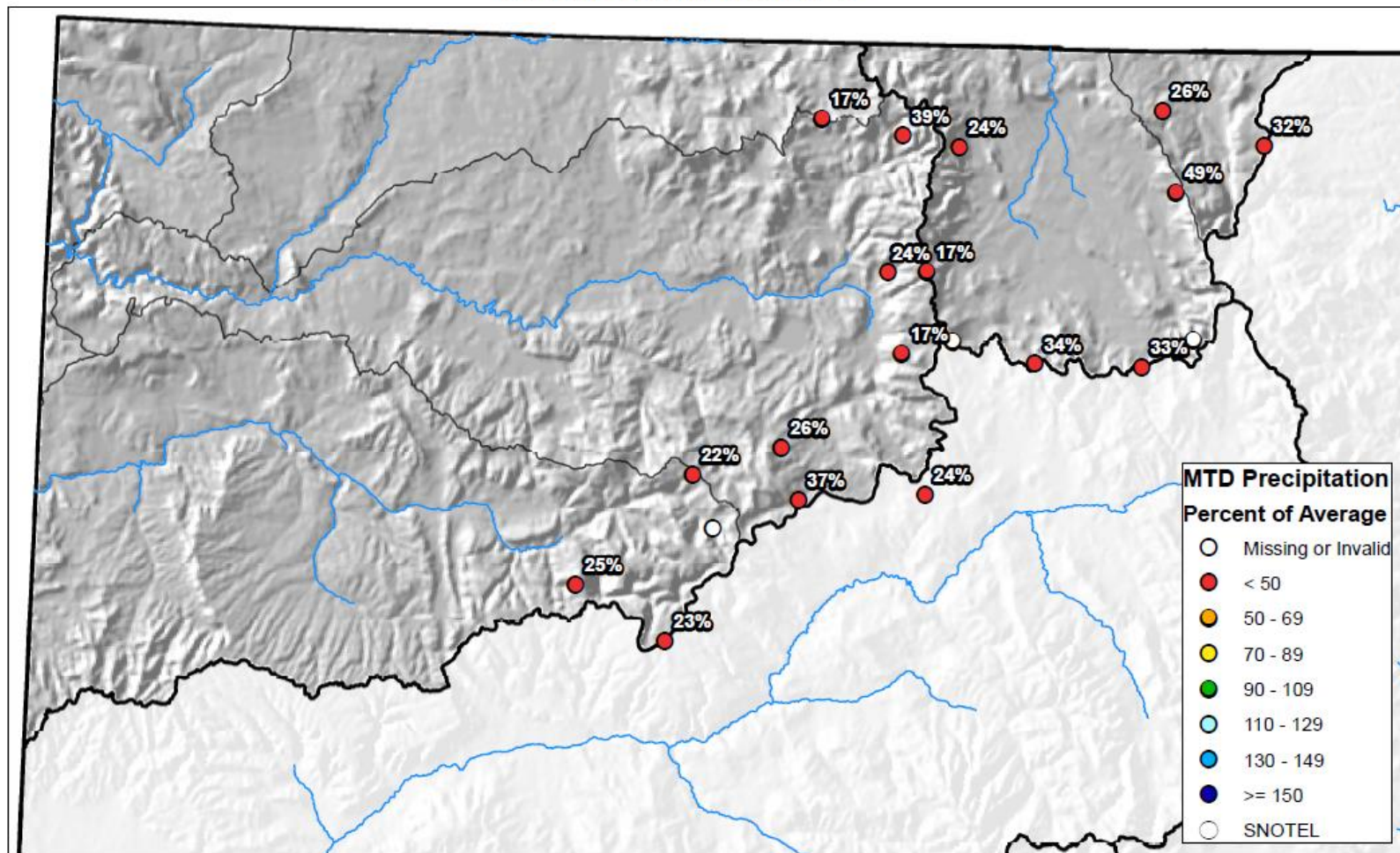


## Yampa and White River Basins High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Nov 25, 2019*



## Yampa, White, and North Platte River Basins Month to Date Precipitation Summary Current as of Nov 25, 2019



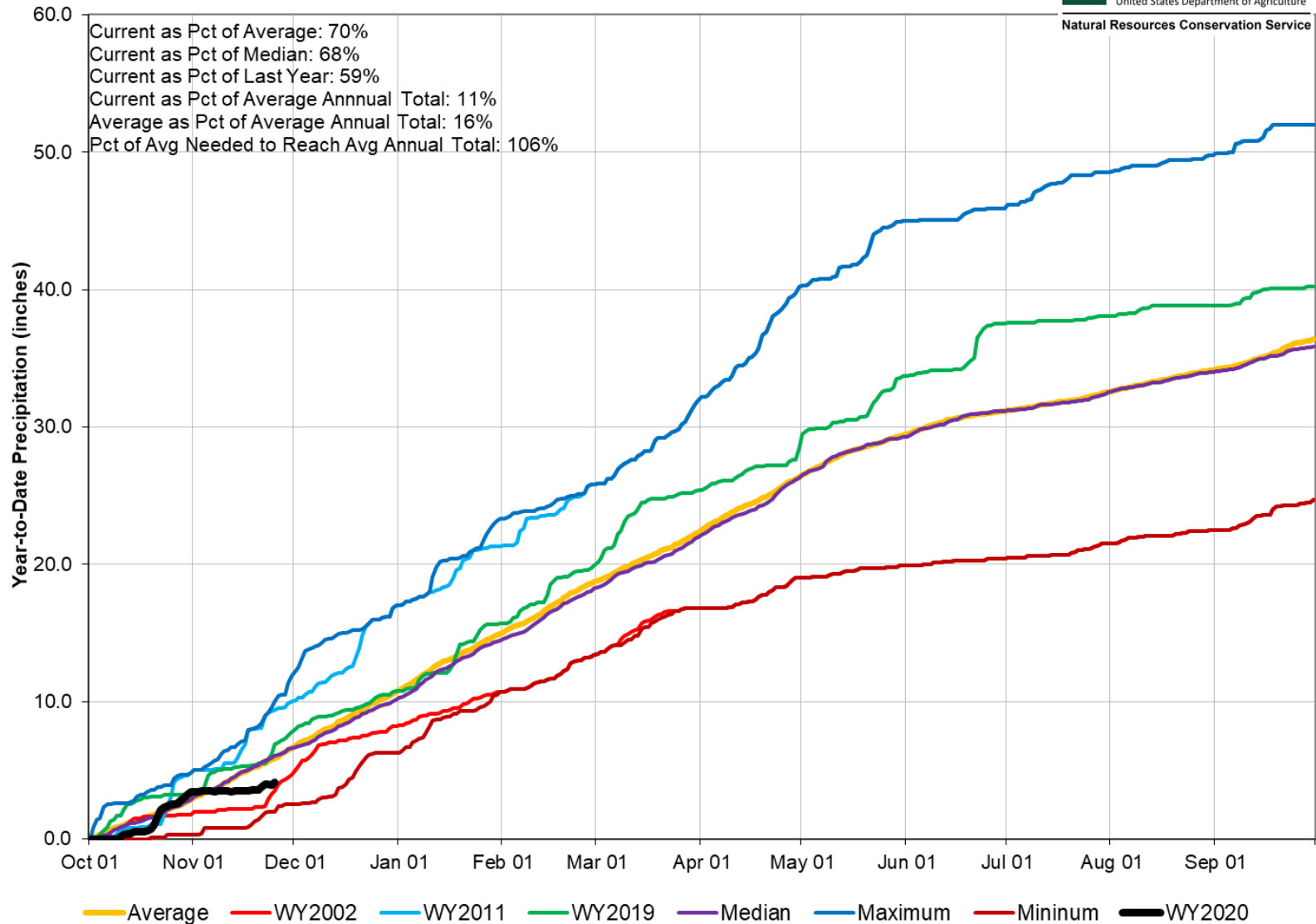
## Yampa and White River Basins High/Low Year-to-Date Precipitation Summary

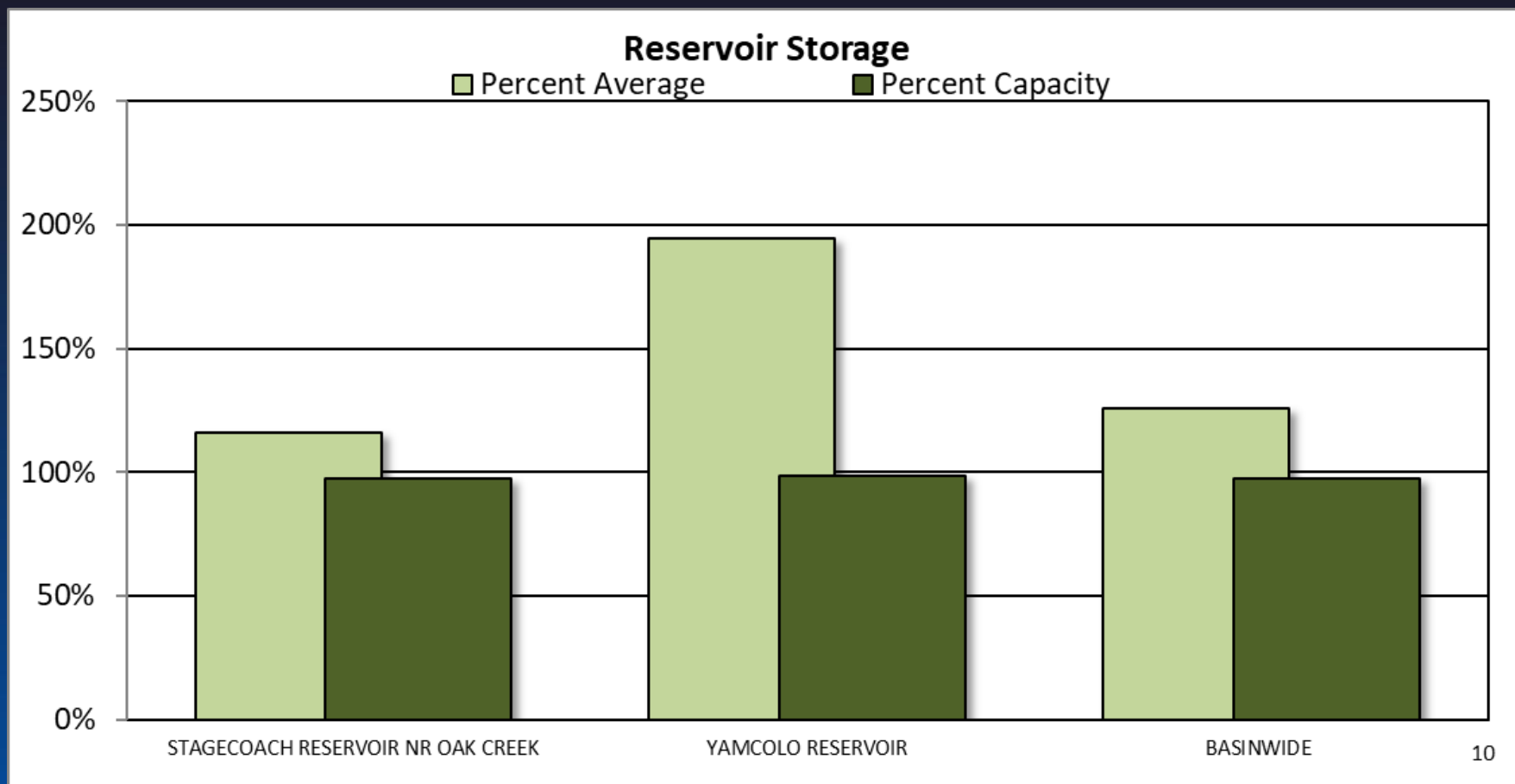
*Based on Provisional SNOTEL data as of Nov 25, 2019*



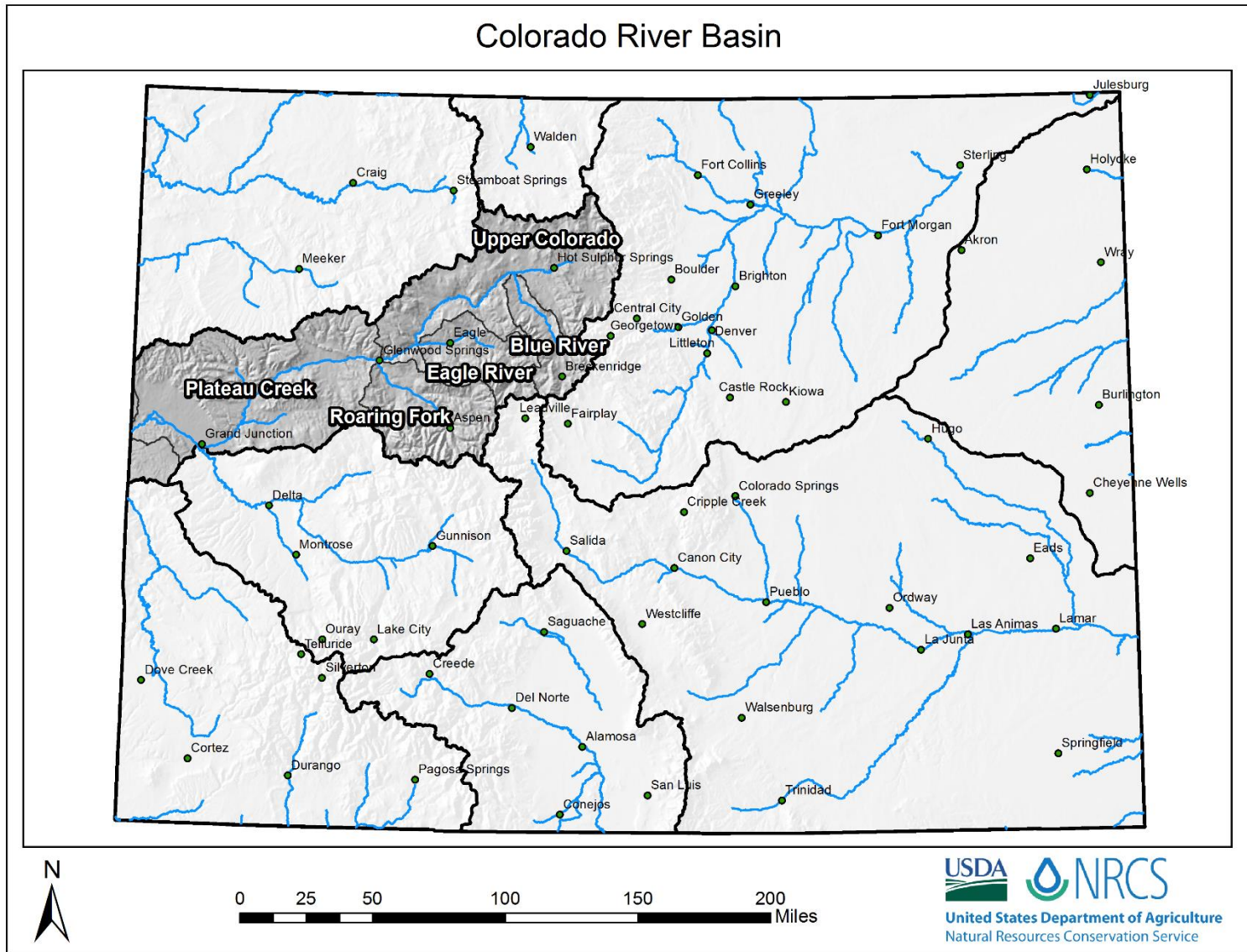
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## Major Basin Summary





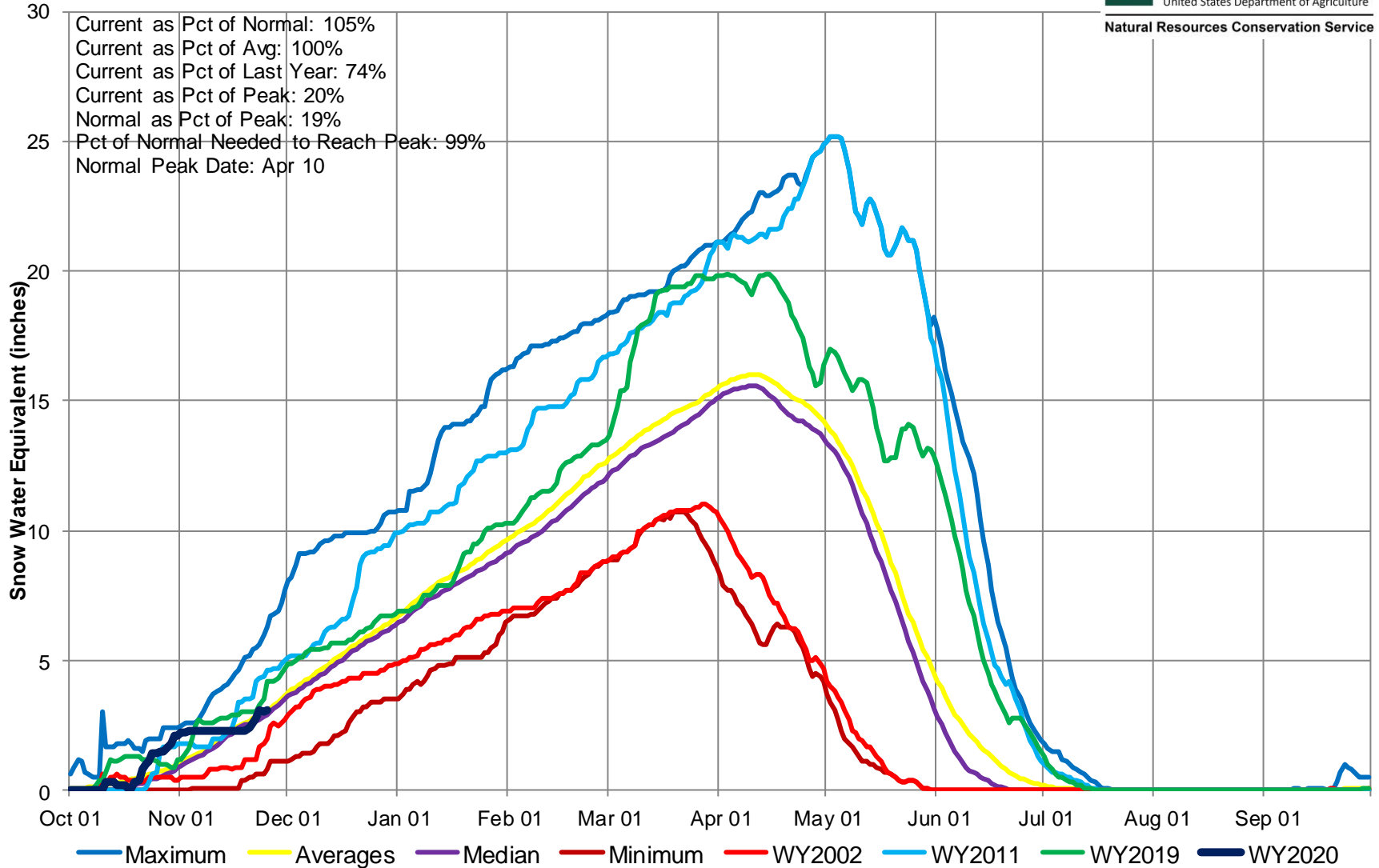
## Upper Colorado River Basin High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Nov 25, 2019*



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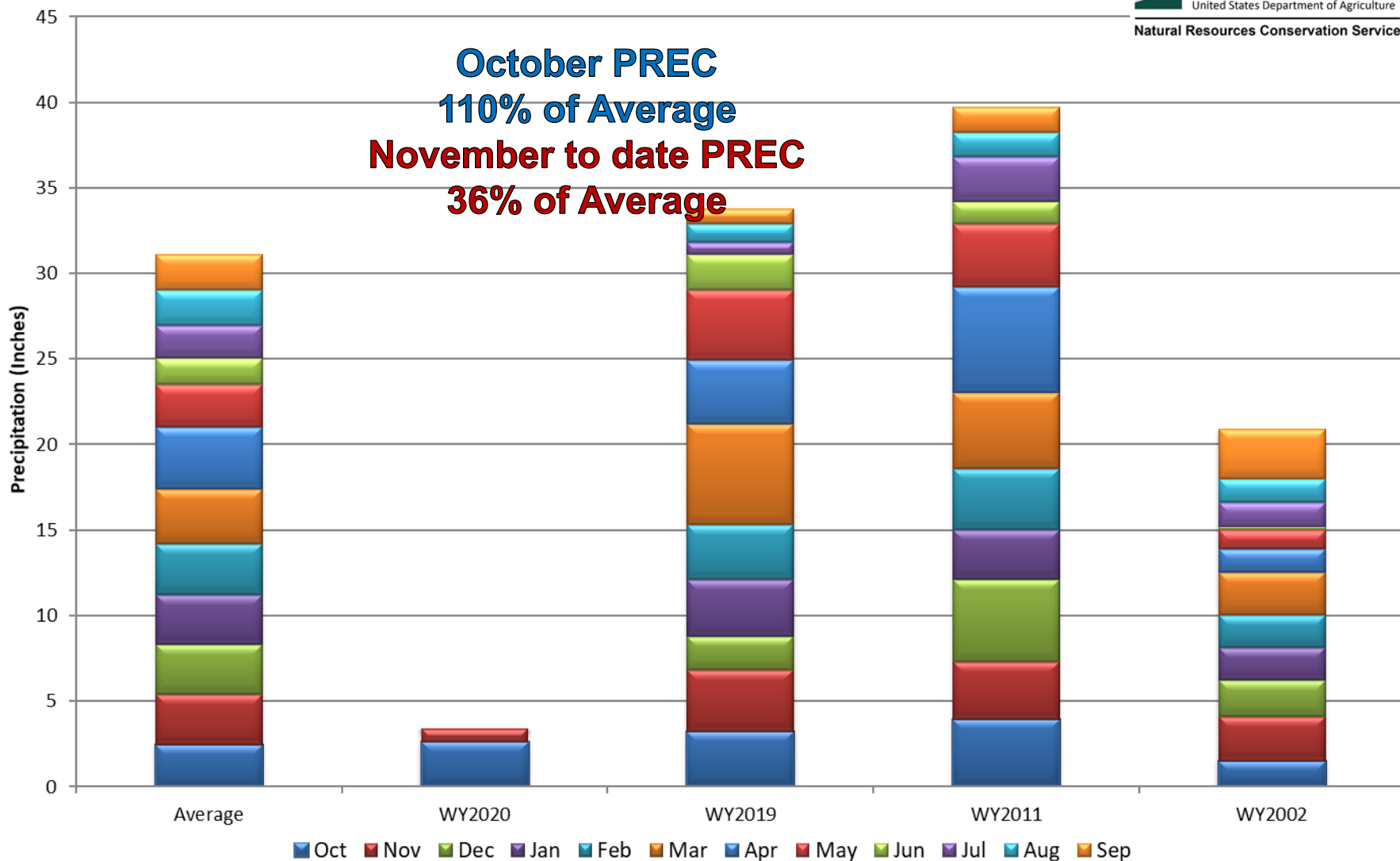
## Upper Colorado River Basin High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Nov 25, 2019*



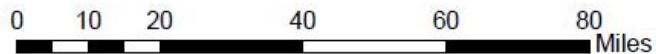
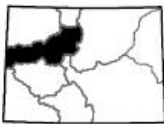
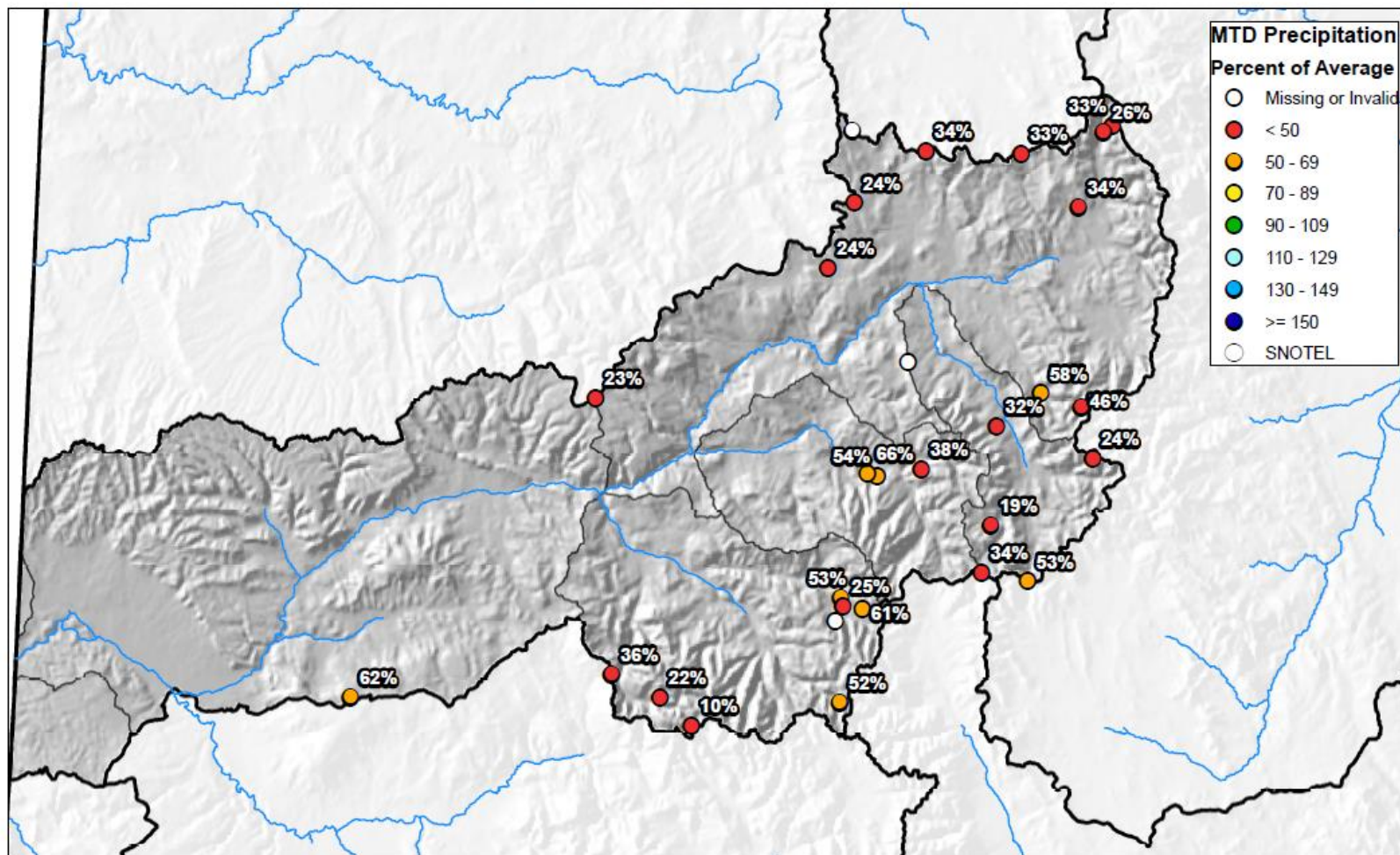
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## Upper Colorado River Basin Month to Date Precipitation Summary

Current as of Nov 25, 2019



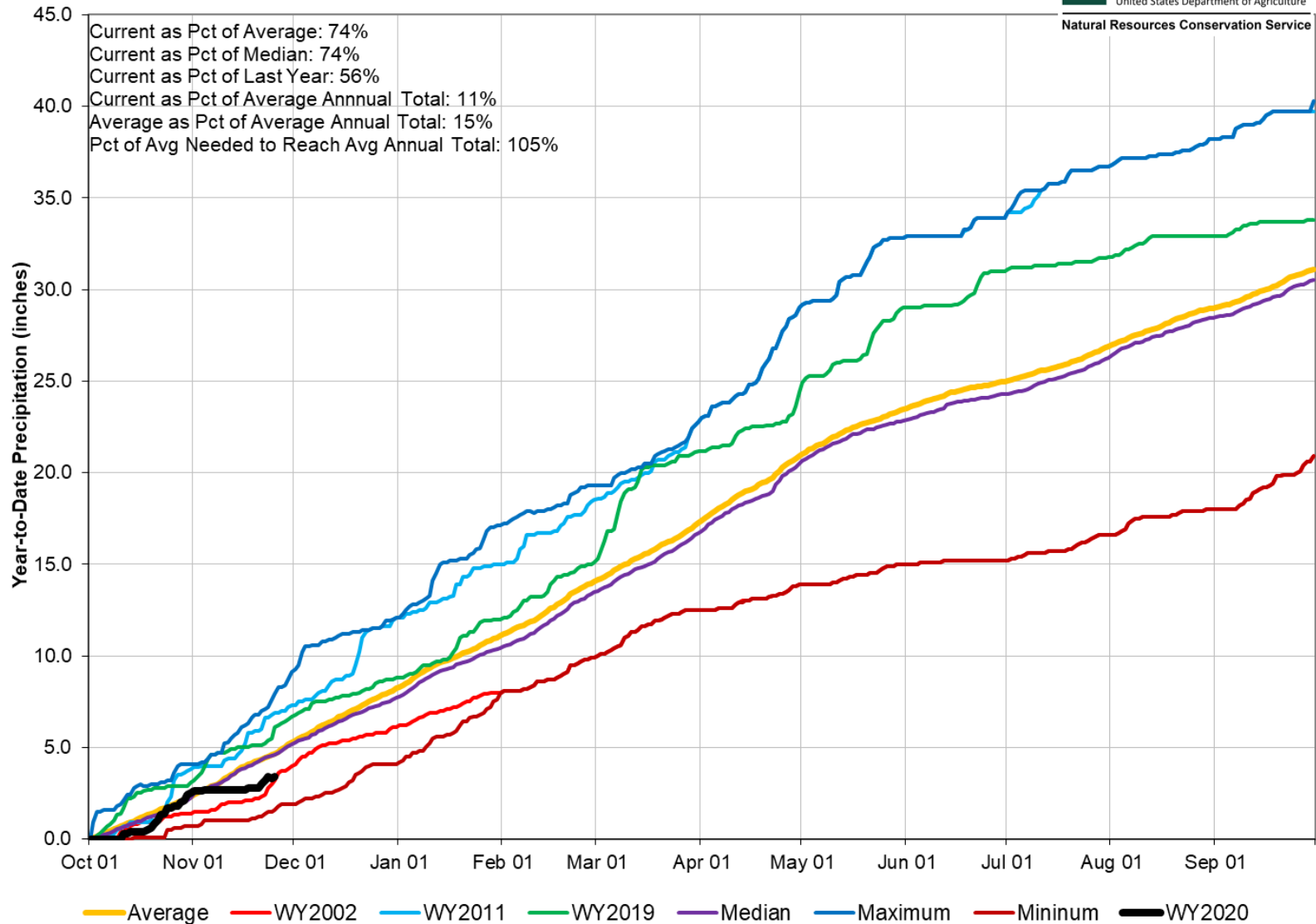
United States Department of Agriculture

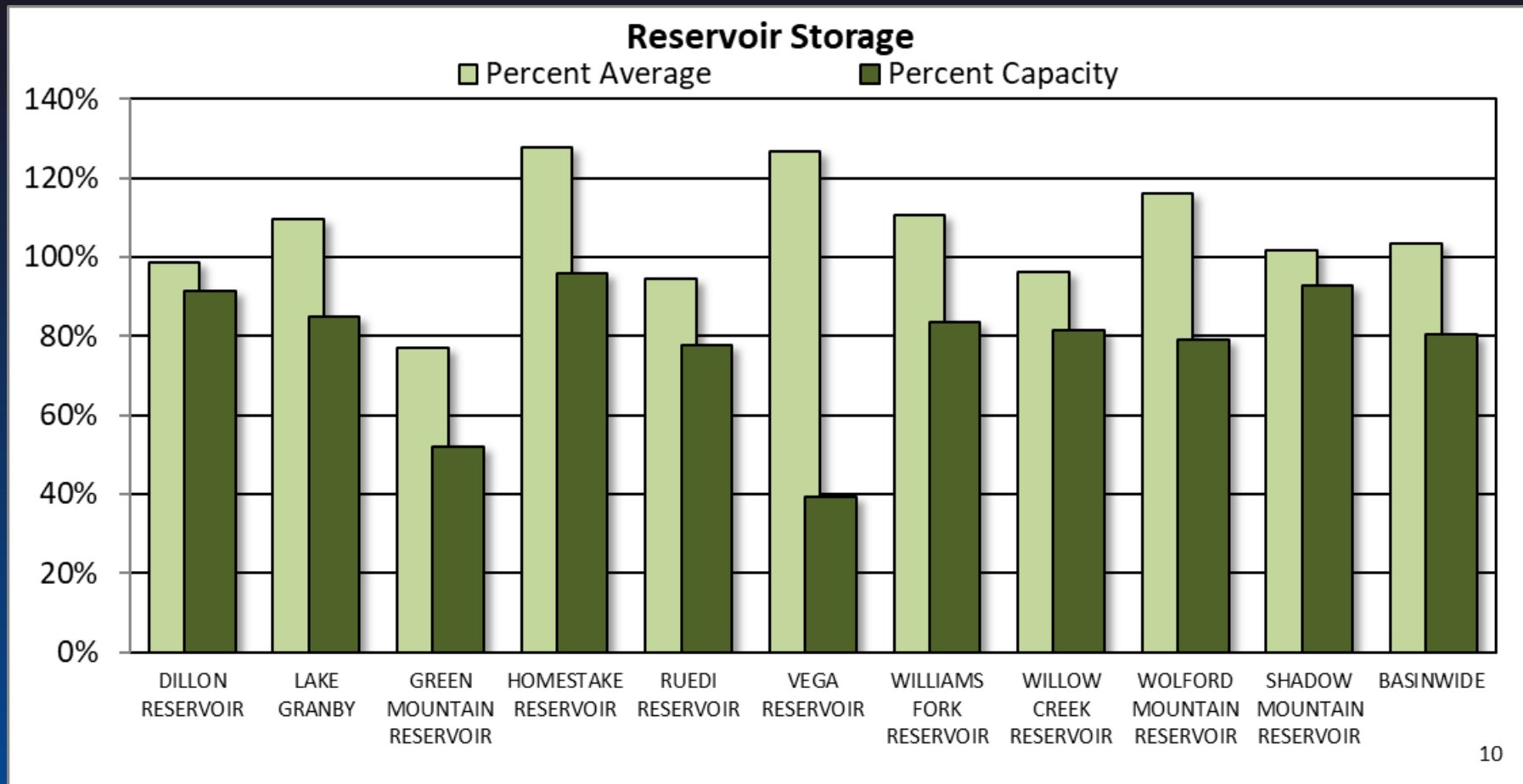
Natural Resources Conservation Service

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

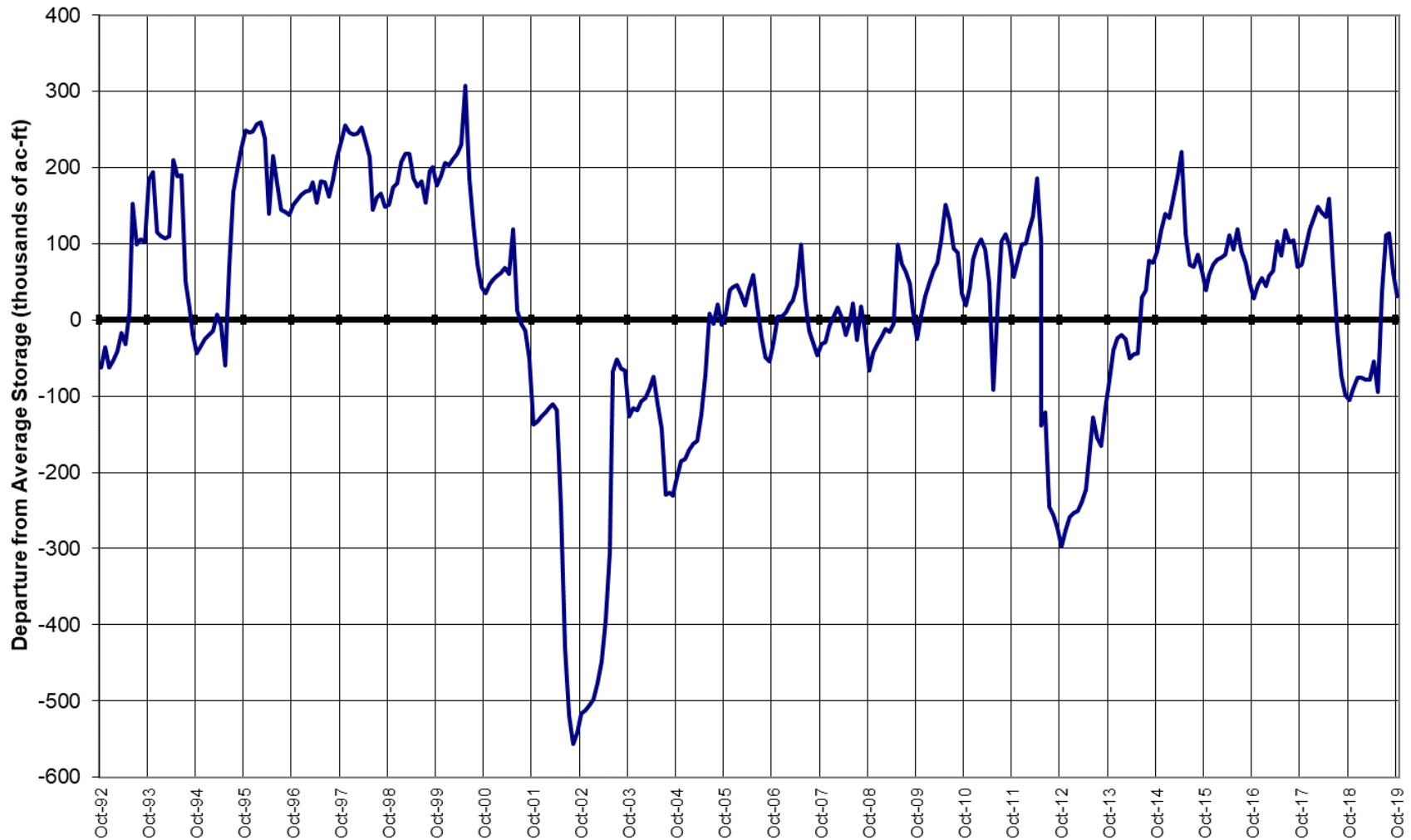
*Based on Provisional SNOTEL data as of Nov 25, 2019*

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## COLORADO RIVER BASIN Reservoir Storage Departure from Average



A map of Colorado showing major river basins and cities. The basins are labeled in bold black text: Cache La Poudre, Big Thompson, Boulder-St Vrain, Clear Creek, and Upper South Platte. The map includes numerous cities marked with green dots, such as Fort Collins, Greeley, Fort Morgan, Boulder, Brighton, Central City, Golden, Denver, Littleton, Broomfield, Castle Rock, Kiowa, Hugo, Colorado Springs, Cripple Creek, Canon City, Pueblo, Ordway, Las Animas, Lamar, La Junta, Walsenburg, Trinidad, San Luis, Conejos, Alamosa, Del Norte, Creede, Silverton, Telluride, Lake City, Ouray, Montrose, Gunnison, Salida, Westcliffe, Saguache, Durango, Pagosa Springs, Cortez, Dove Creek, Grand Junction, Delta, Meeker, Eagle, Glenwood Springs, Aspen, Leadville, Fairplay, Breckenridge, Hot Sulphur Springs, Steamboat Springs, Craig, Walden, Sterling, Holyoke, Wray, Burlington, Cheyenne Wells, Eads, and Springfield. The map also shows county boundaries and a network of blue lines representing rivers and streams.



A horizontal scale bar with markings at 0, 25, 50, 100, 150, and 200 miles. The bar is black with white markings and the word "Miles" is written at the right end.

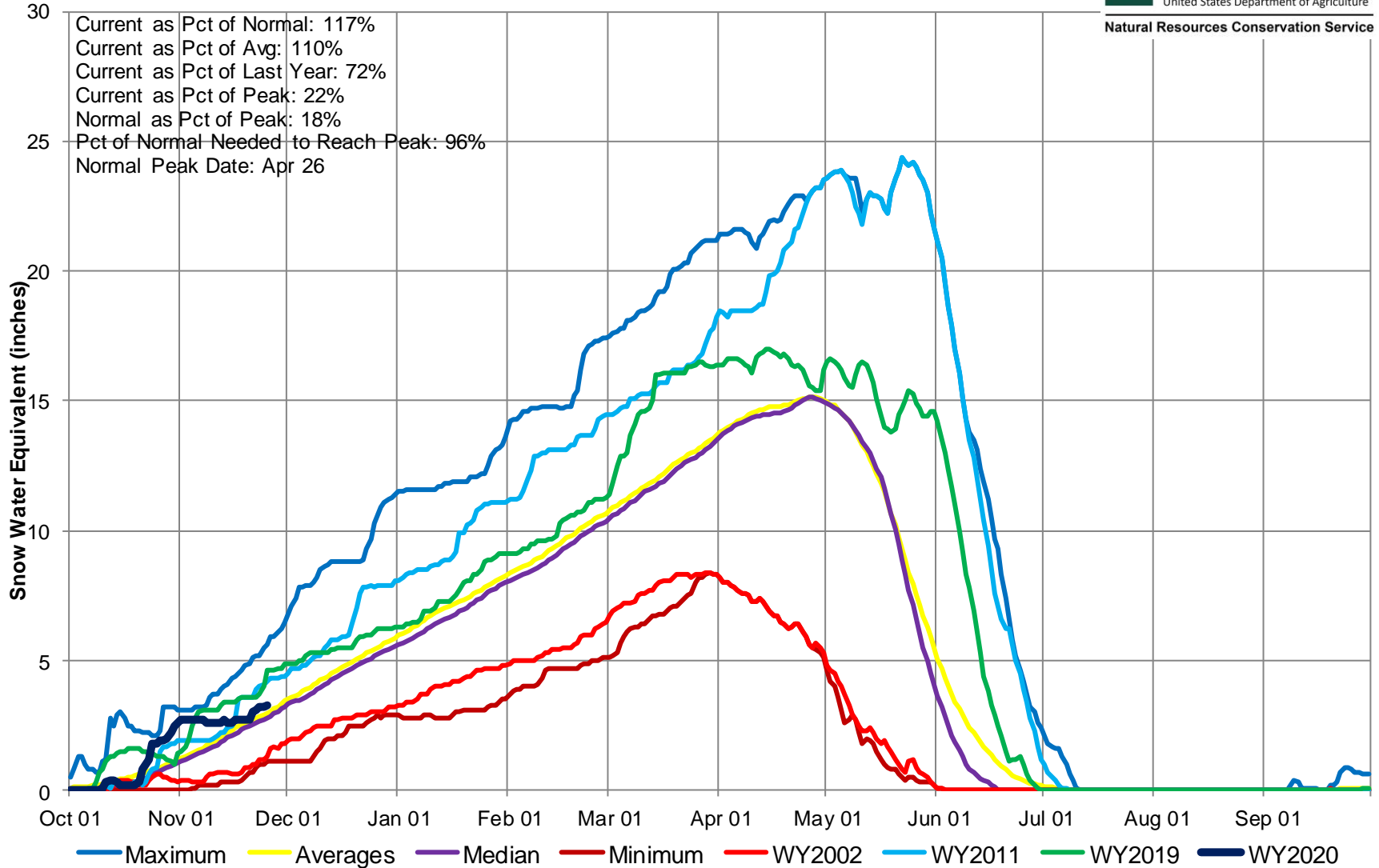
## South Platte River Basin High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Nov 25, 2019*



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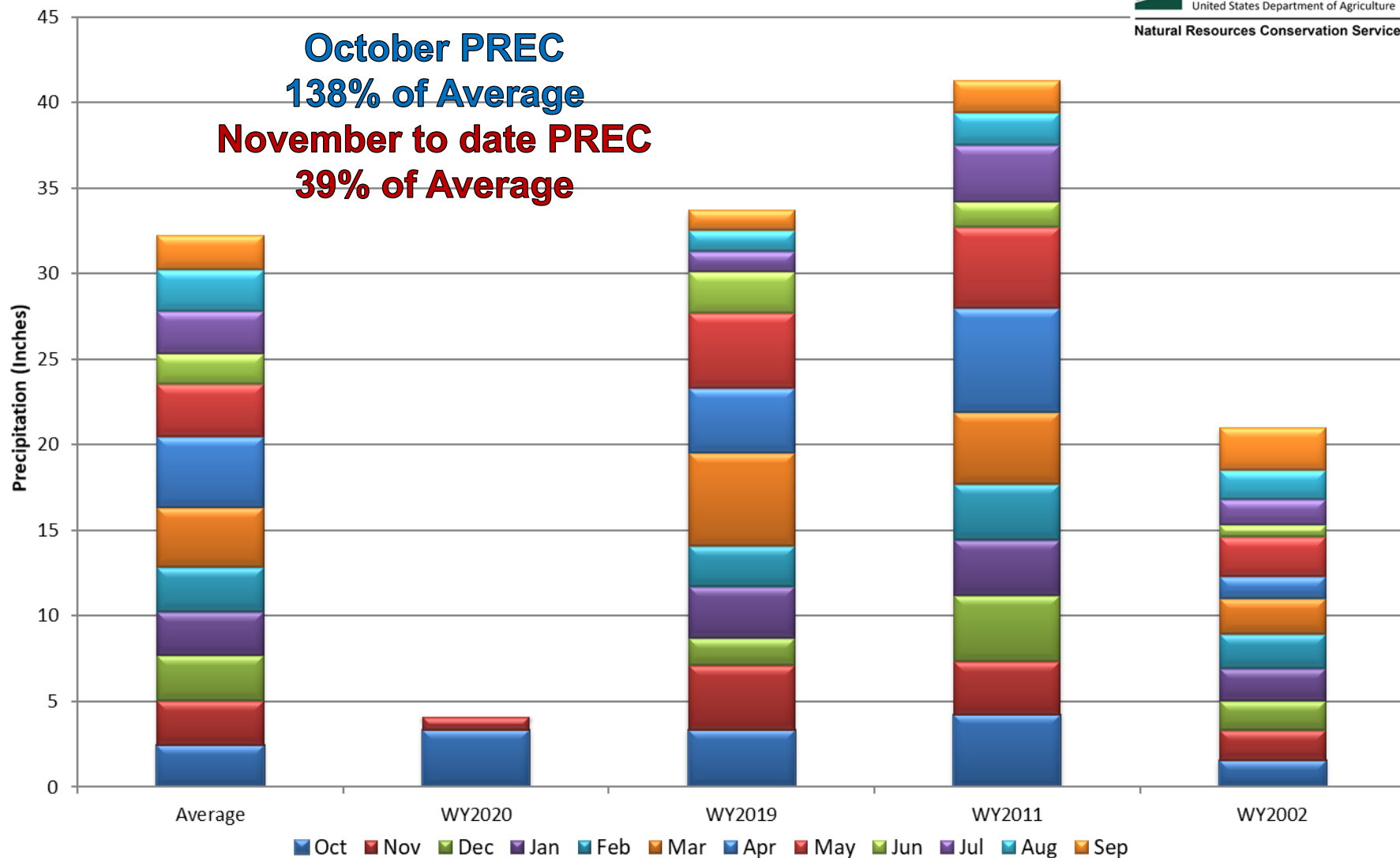
## South Platte River Basin High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Nov 25, 2019*



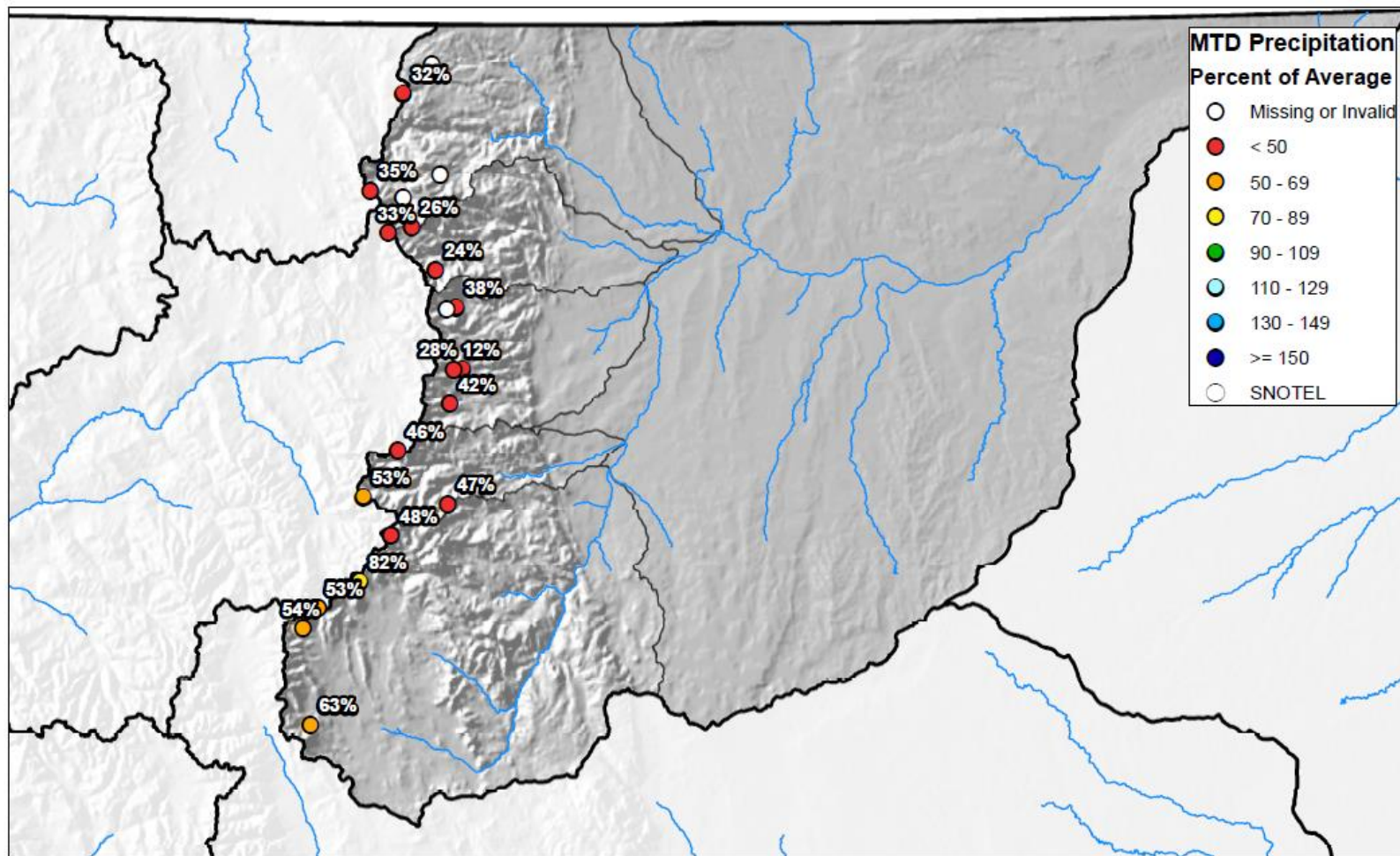
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## South Platte River Basin Month to Date Precipitation Summary

Current as of Nov 25, 2019

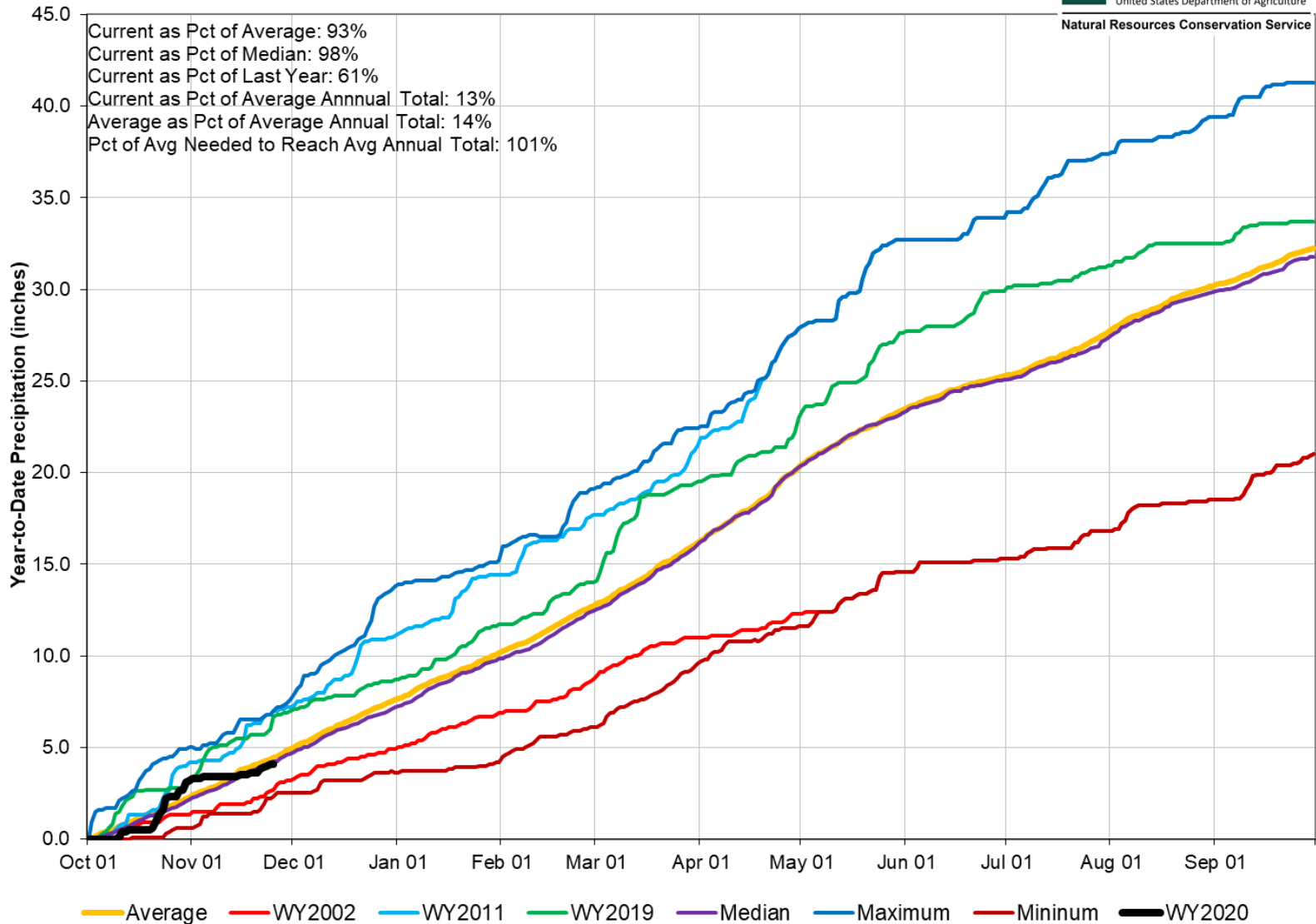


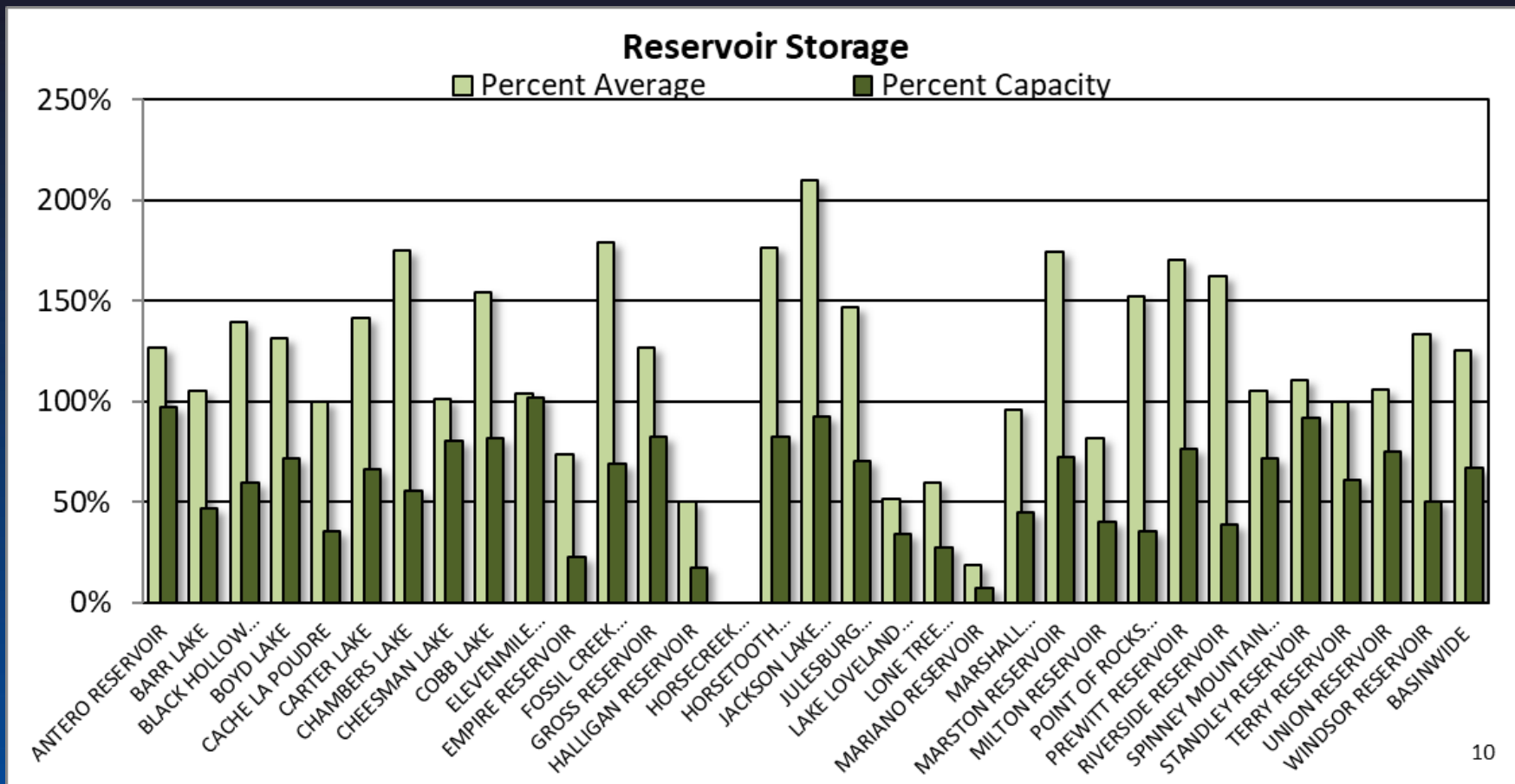
0 10 20 40 60 80 Miles

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

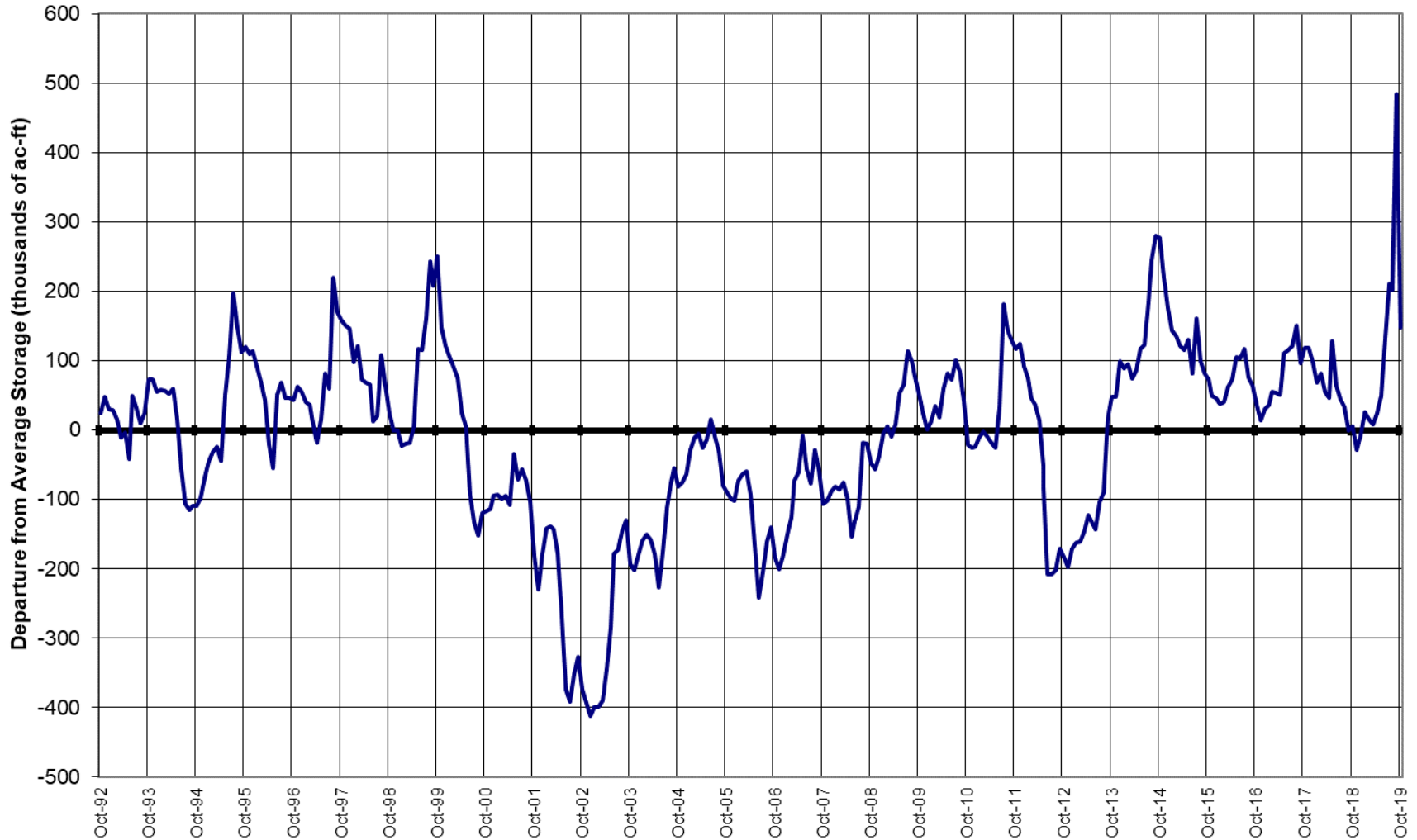
*Based on Provisional SNOTEL data as of Nov 25, 2019*

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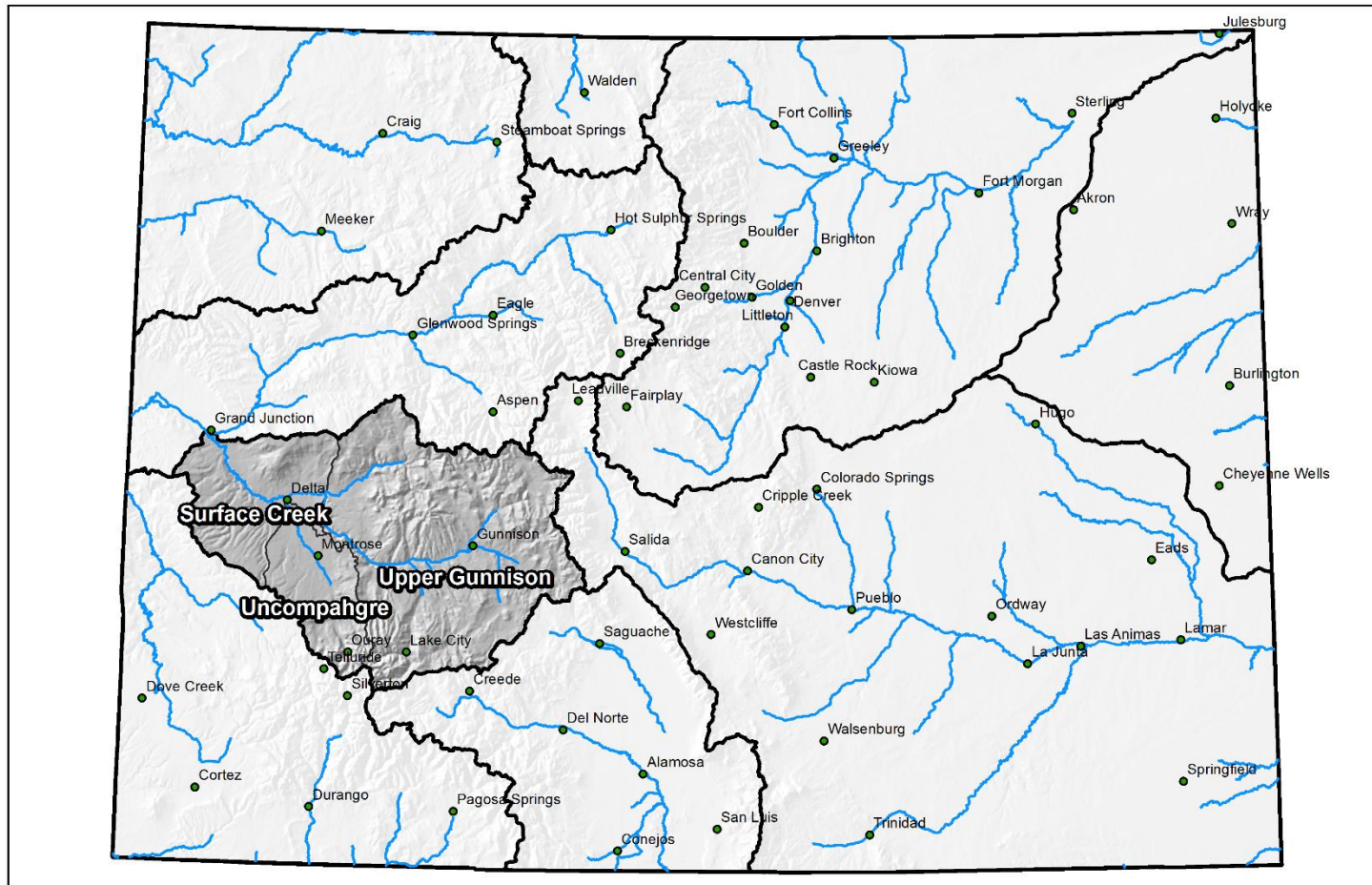


## SOUTH PLATTE RIVER BASIN Reservoir Storage Departure from Average



## Major Basin Summary

Gunnison River Basin



0 25 50 100 150 200 Miles



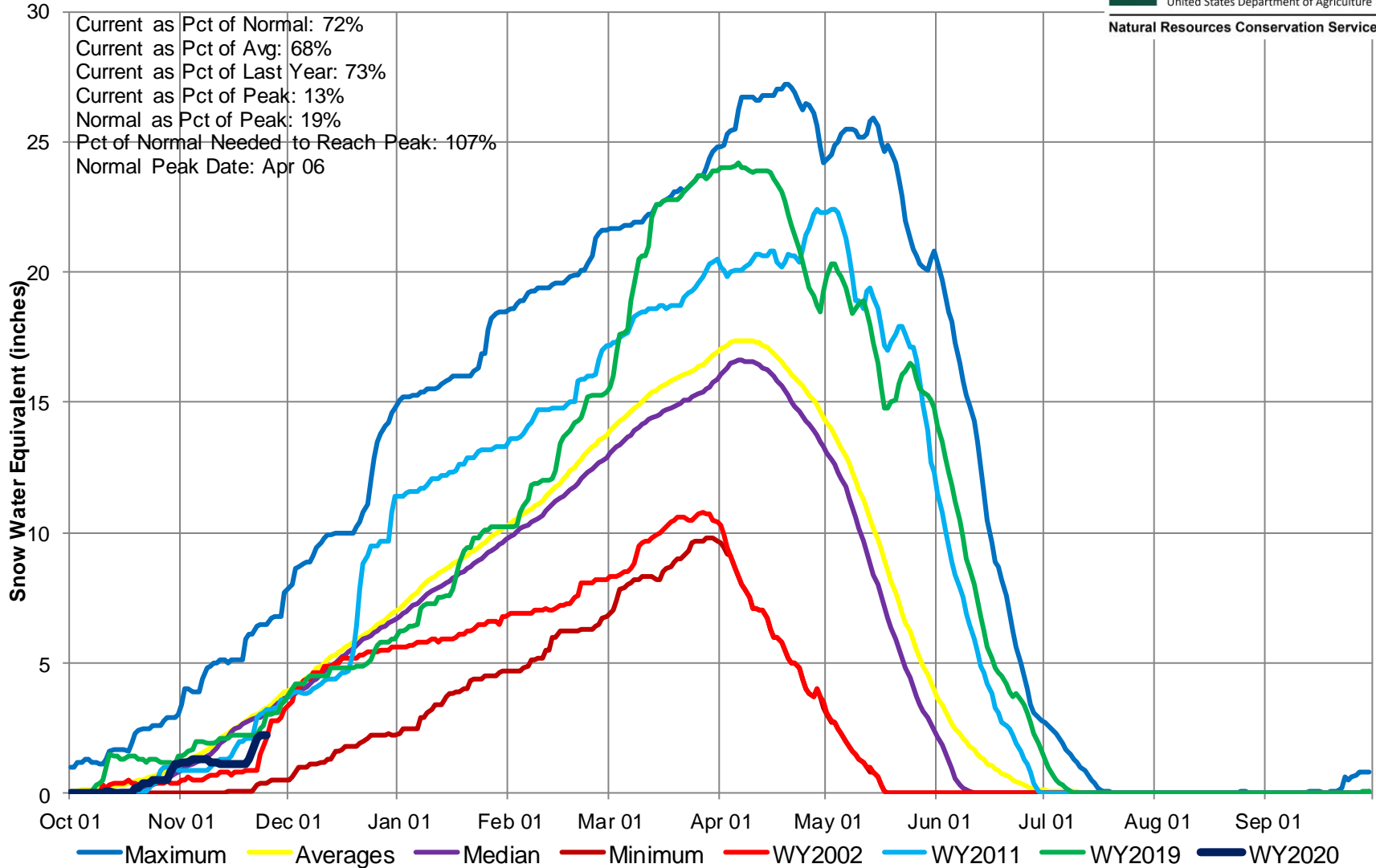
## Gunnison River Basin High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Nov 25, 2019*



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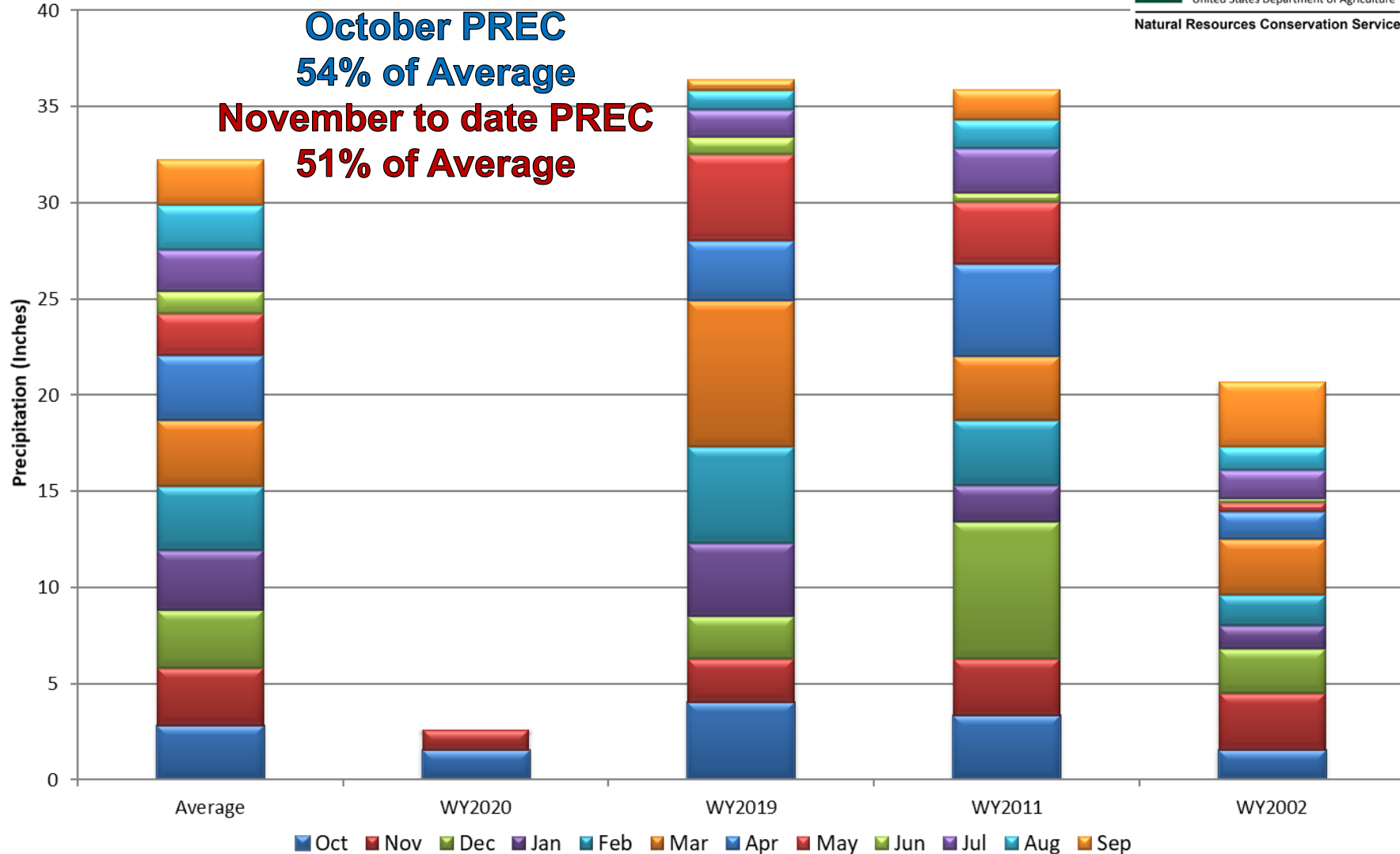
## Gunnison River Basin High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Nov 25, 2019*



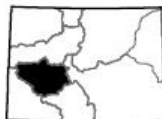
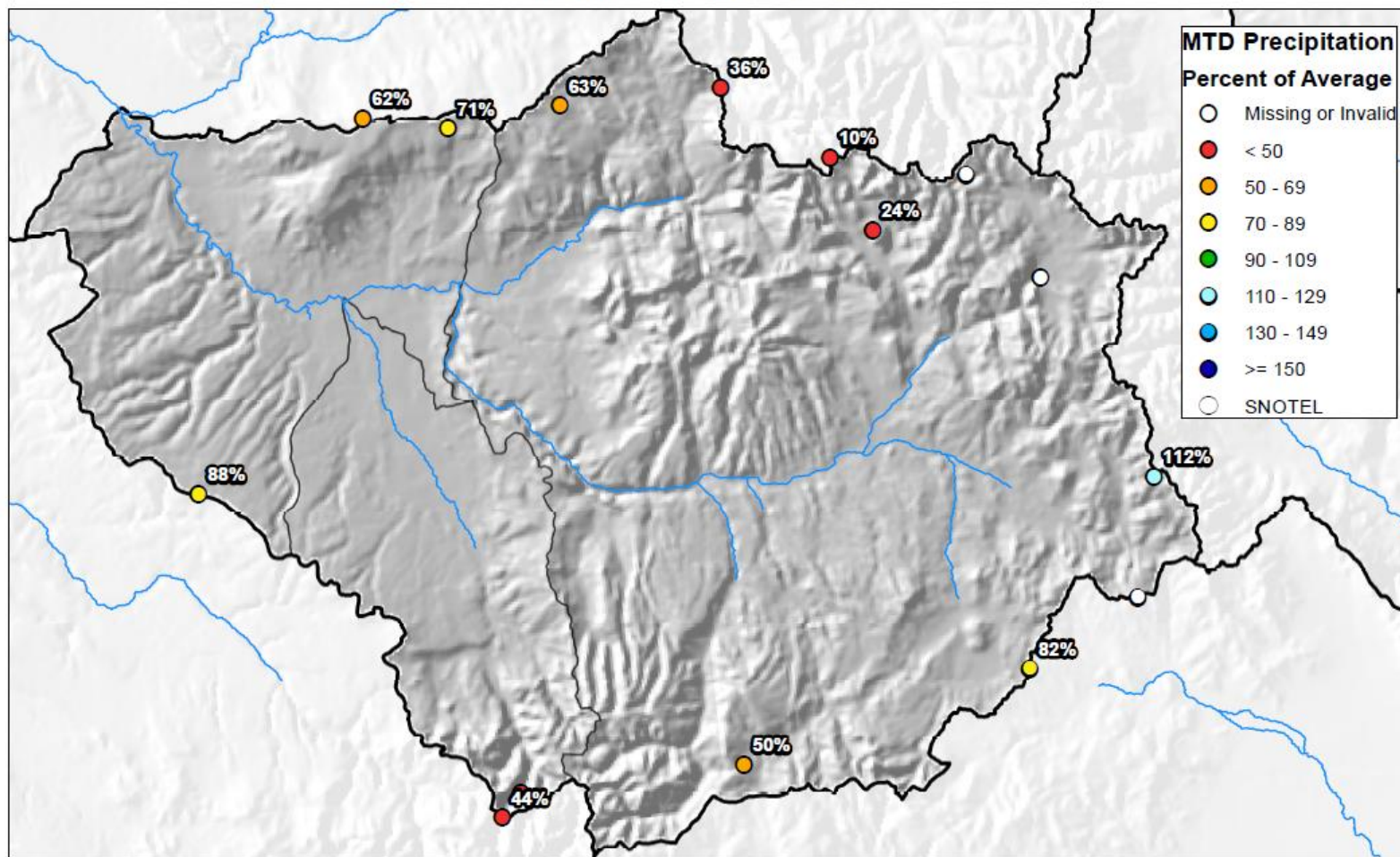
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## Gunnison River Basin Month to Date Precipitation Summary

Current as of Nov 25, 2019



0 5 10 20 30 40 Miles



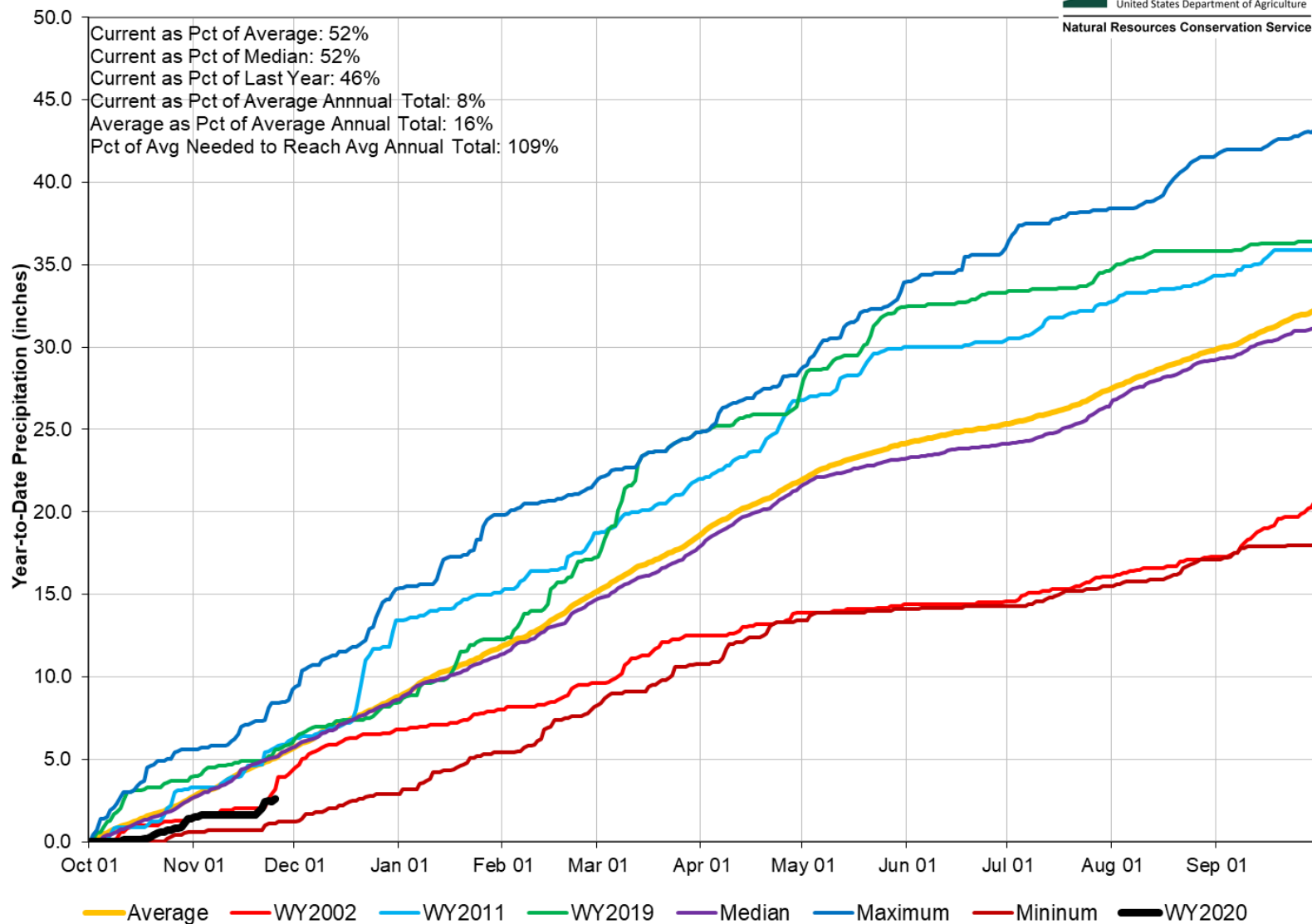
United States Department of Agriculture

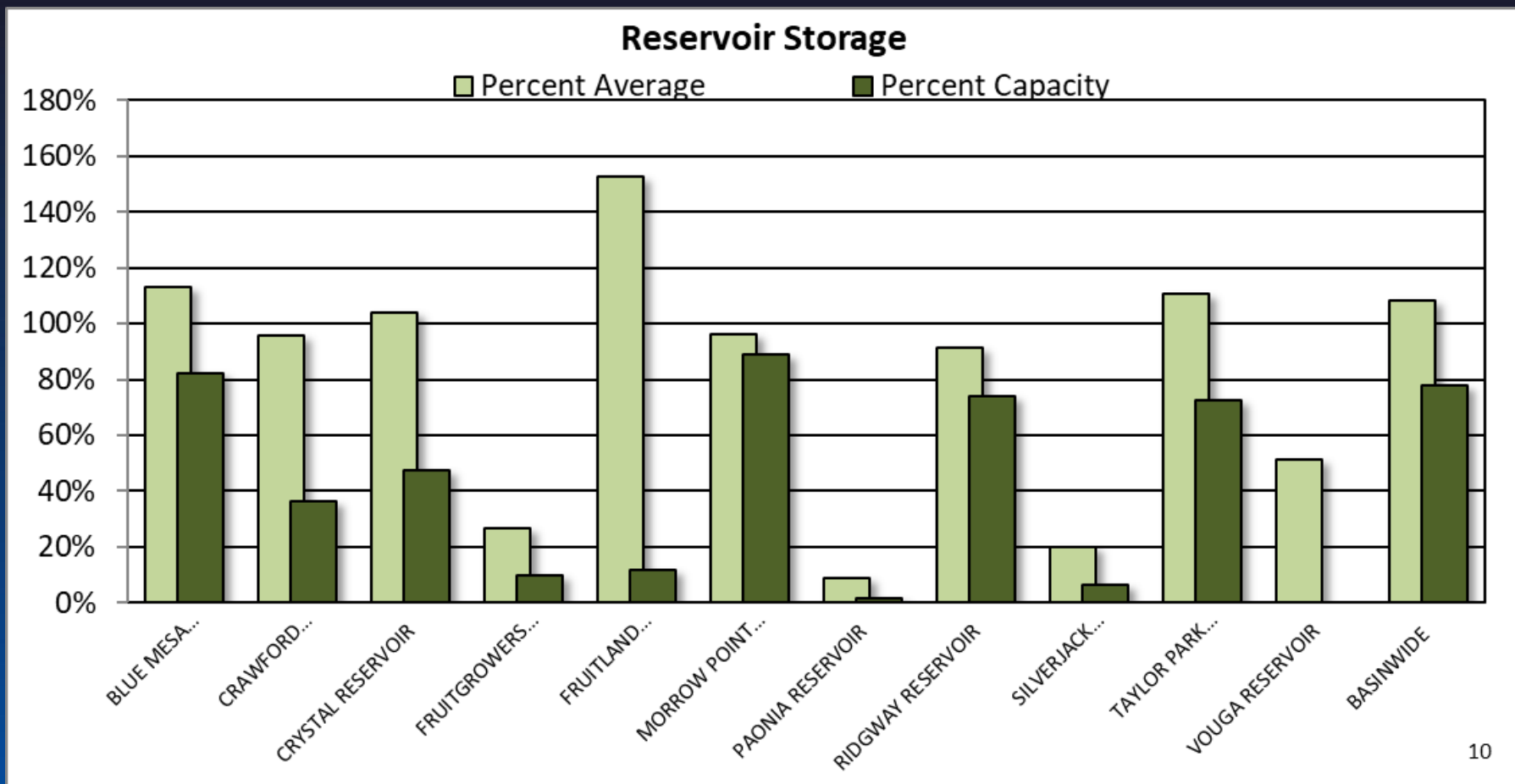
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## Gunnison River Basin High/Low Year-to-Date Precipitation Summary

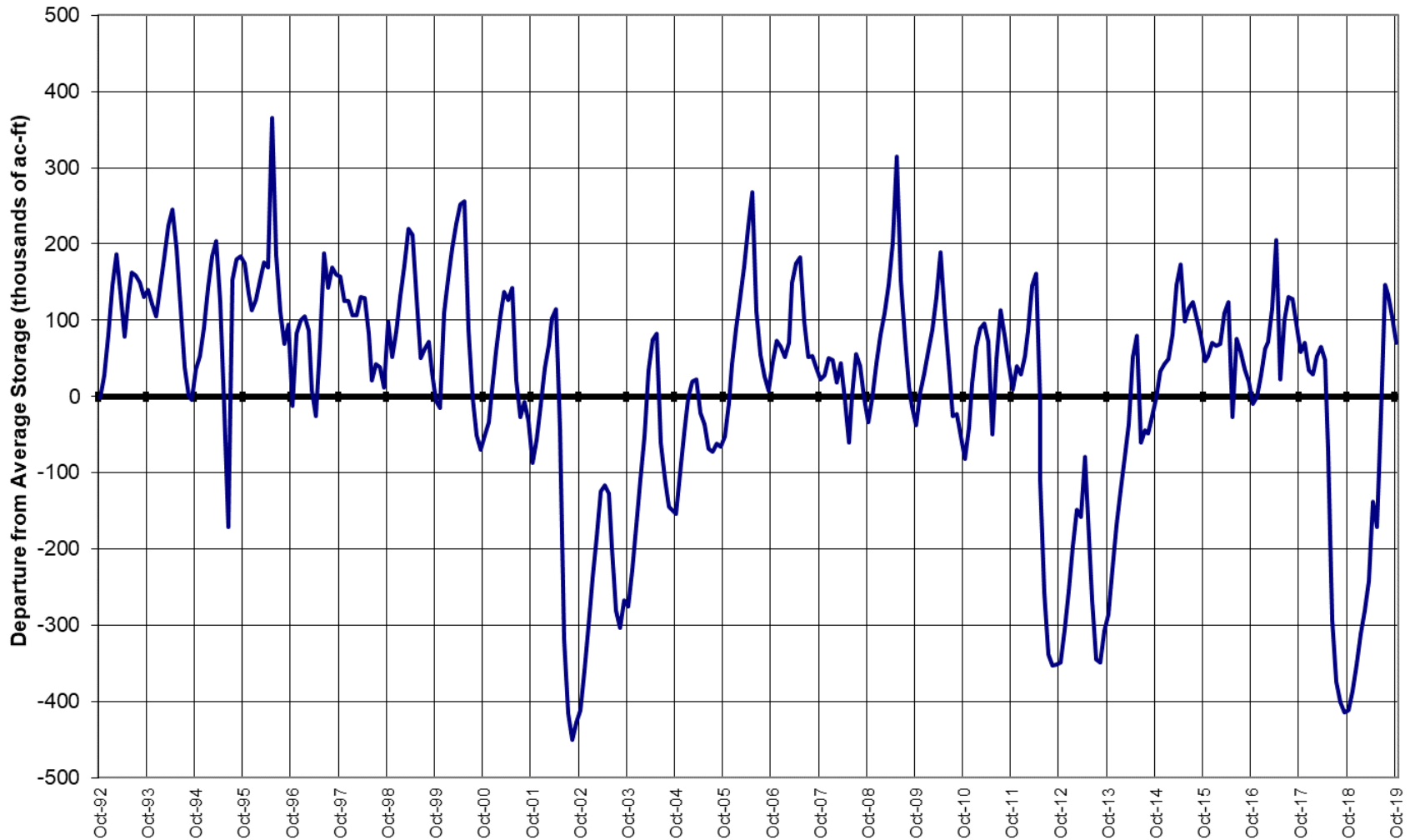
*Based on Provisional SNOTEL data as of Nov 25, 2019*





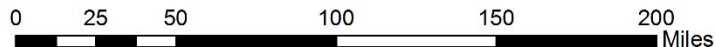
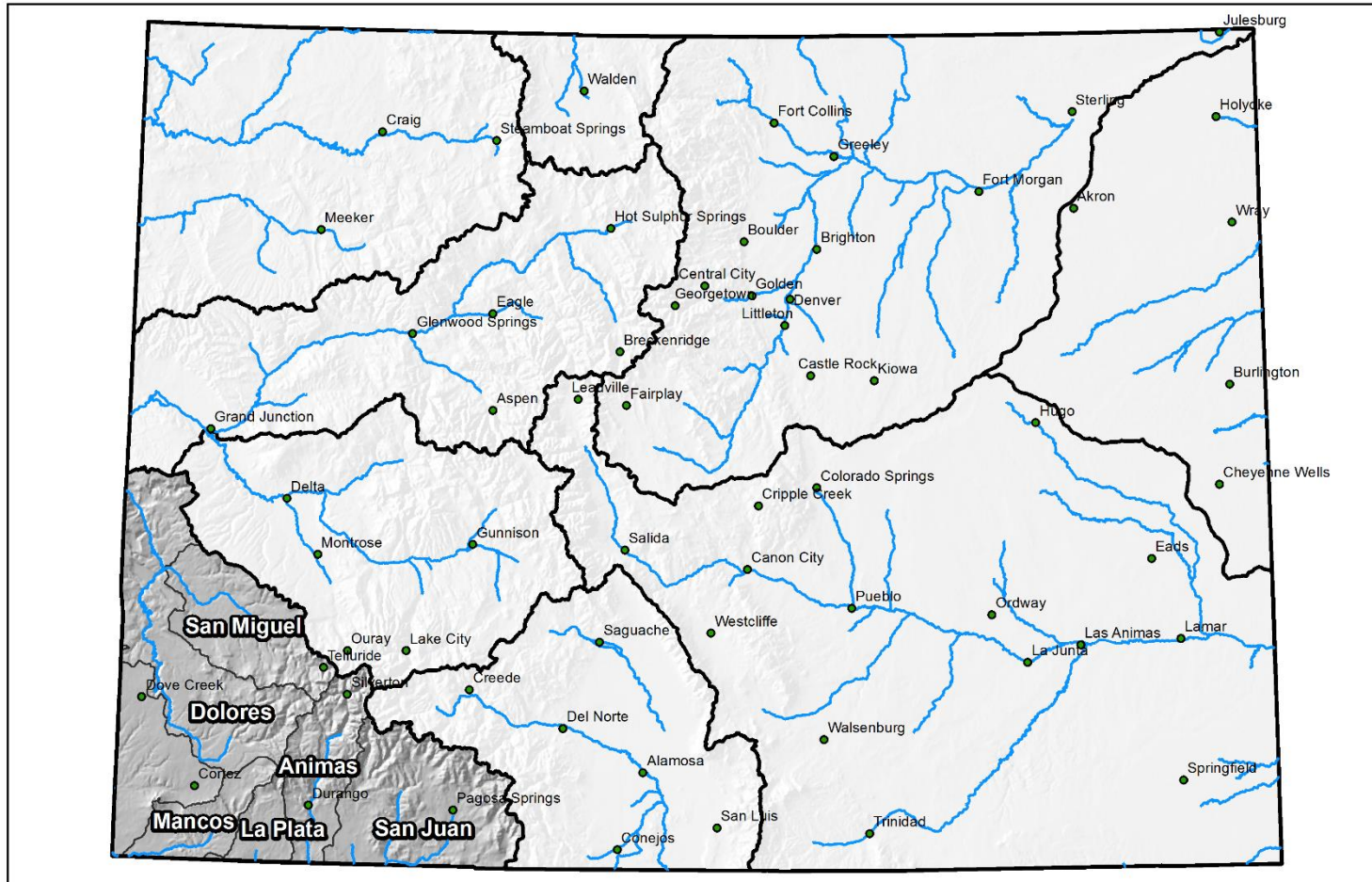


## GUNNISON RIVER BASIN Reservoir Storage Departure from Average



## Major Basin Summary

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





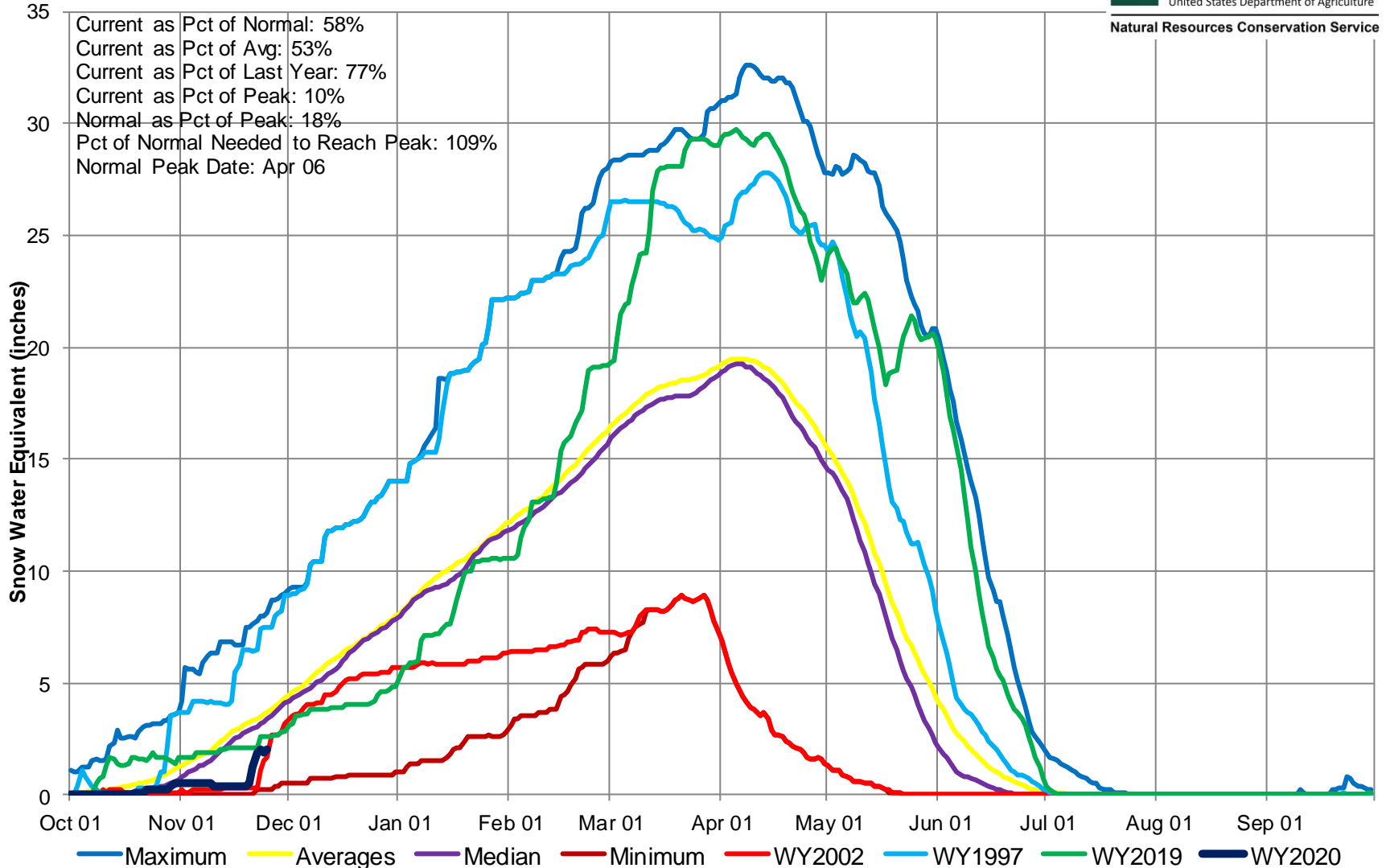
## San Miguel, Dolores, Animas and San Juan River Basins High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Nov 25, 2019*



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

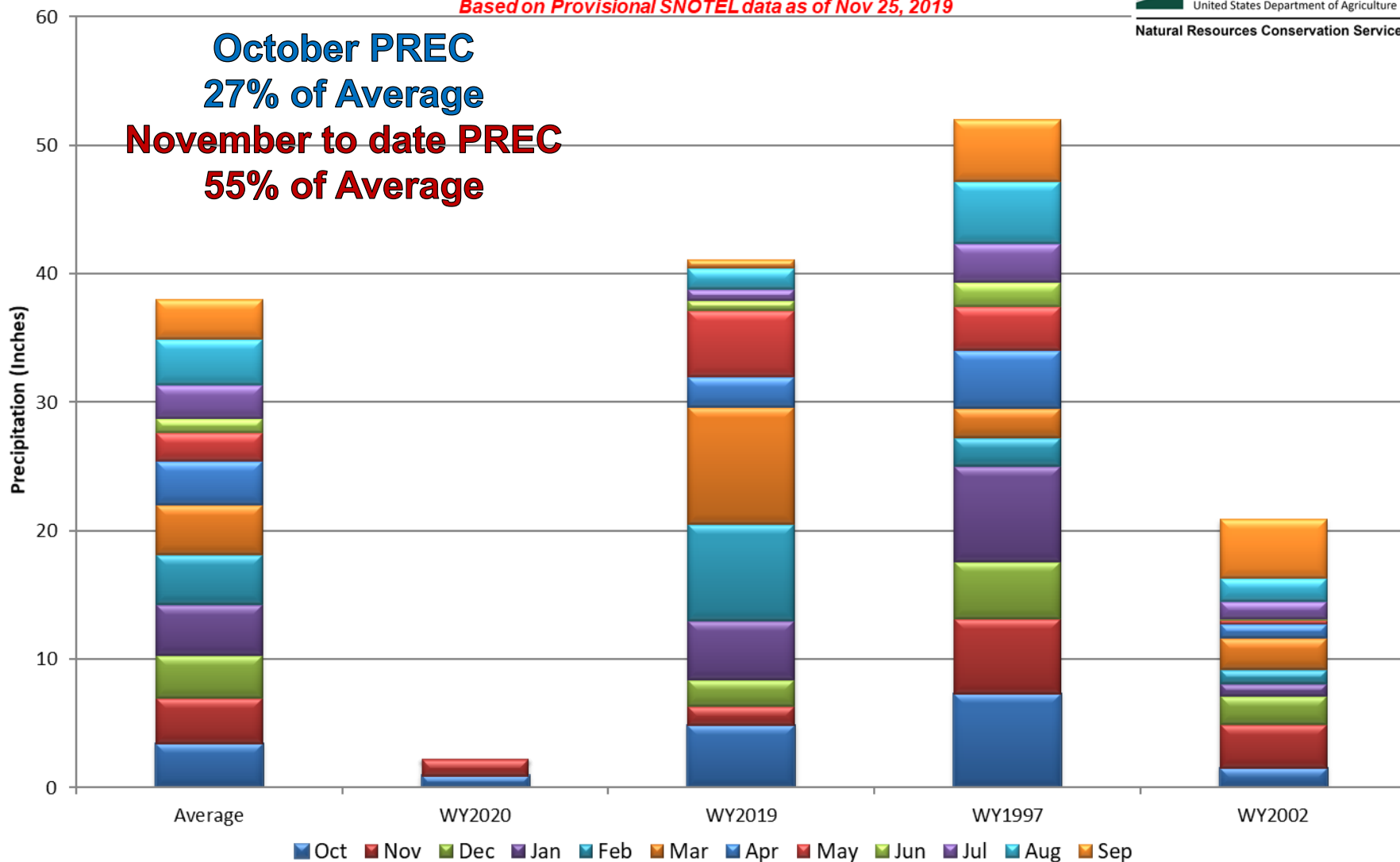
### High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Nov 25, 2019*



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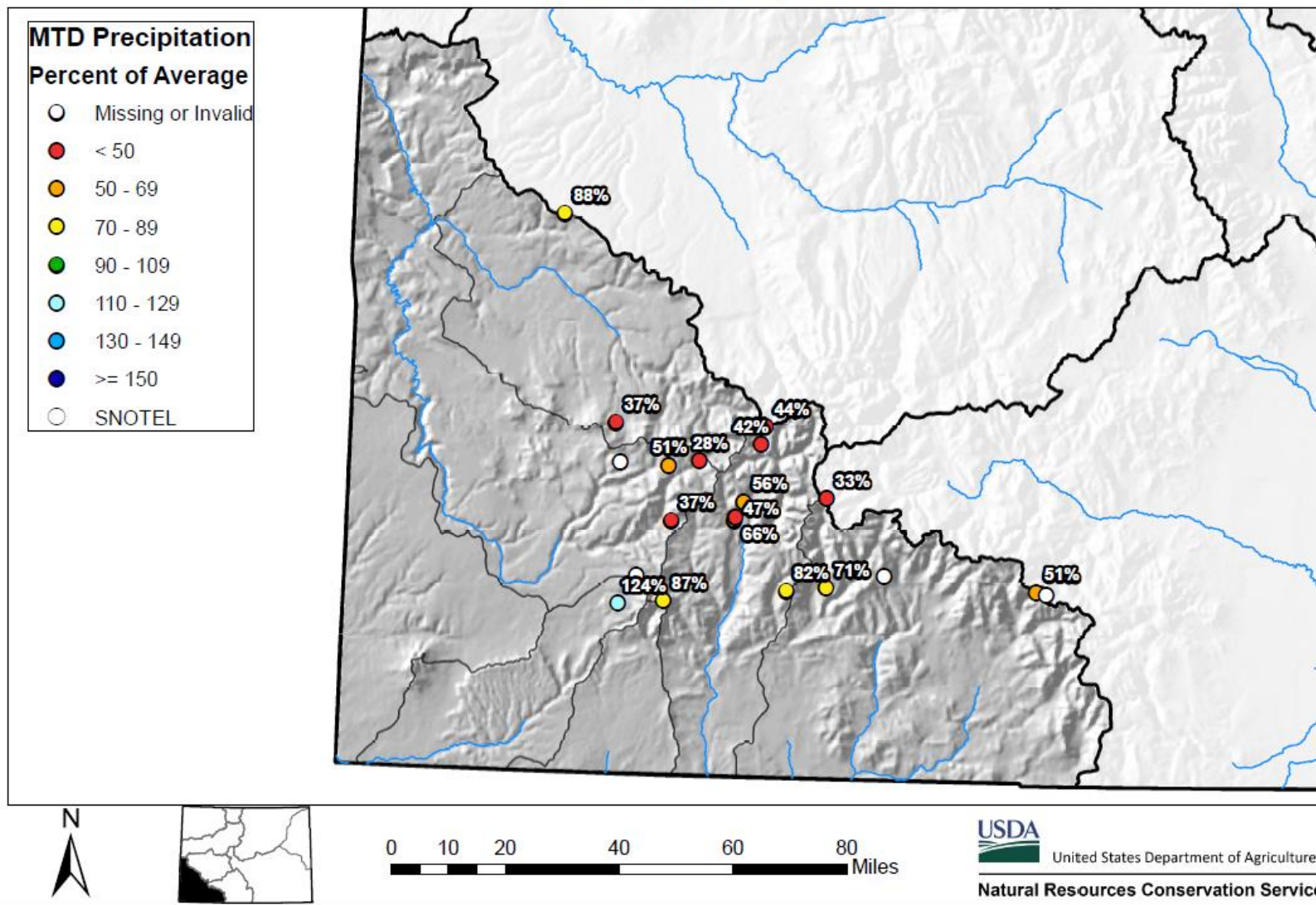
Natural Resources Conservation Service



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

### Month to Date Precipitation Summary

Current as of Nov 25, 2019



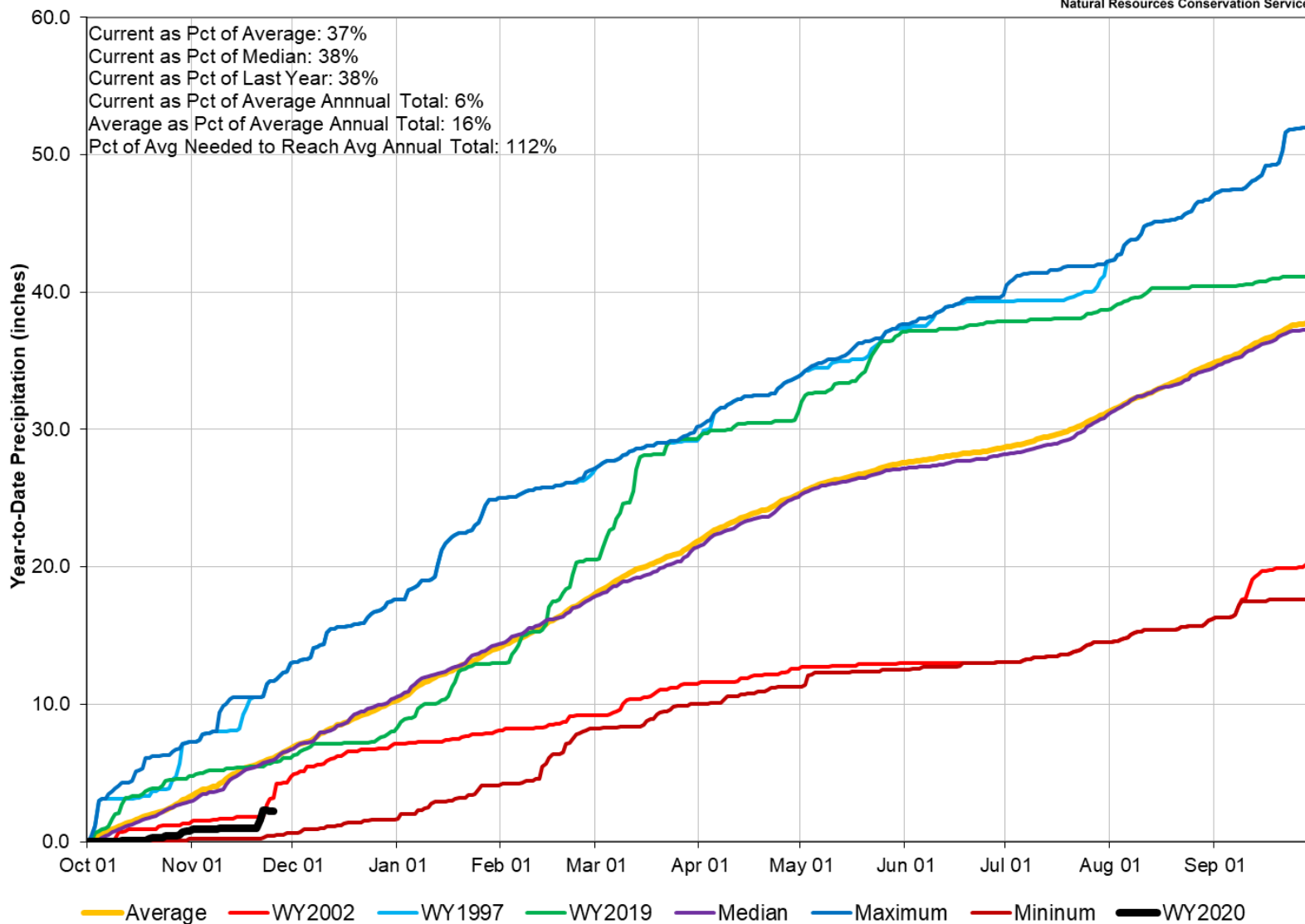
## San Miguel, Dolores, Animas and San Juan River Basins High/Low Year-to-Date Precipitation Summary

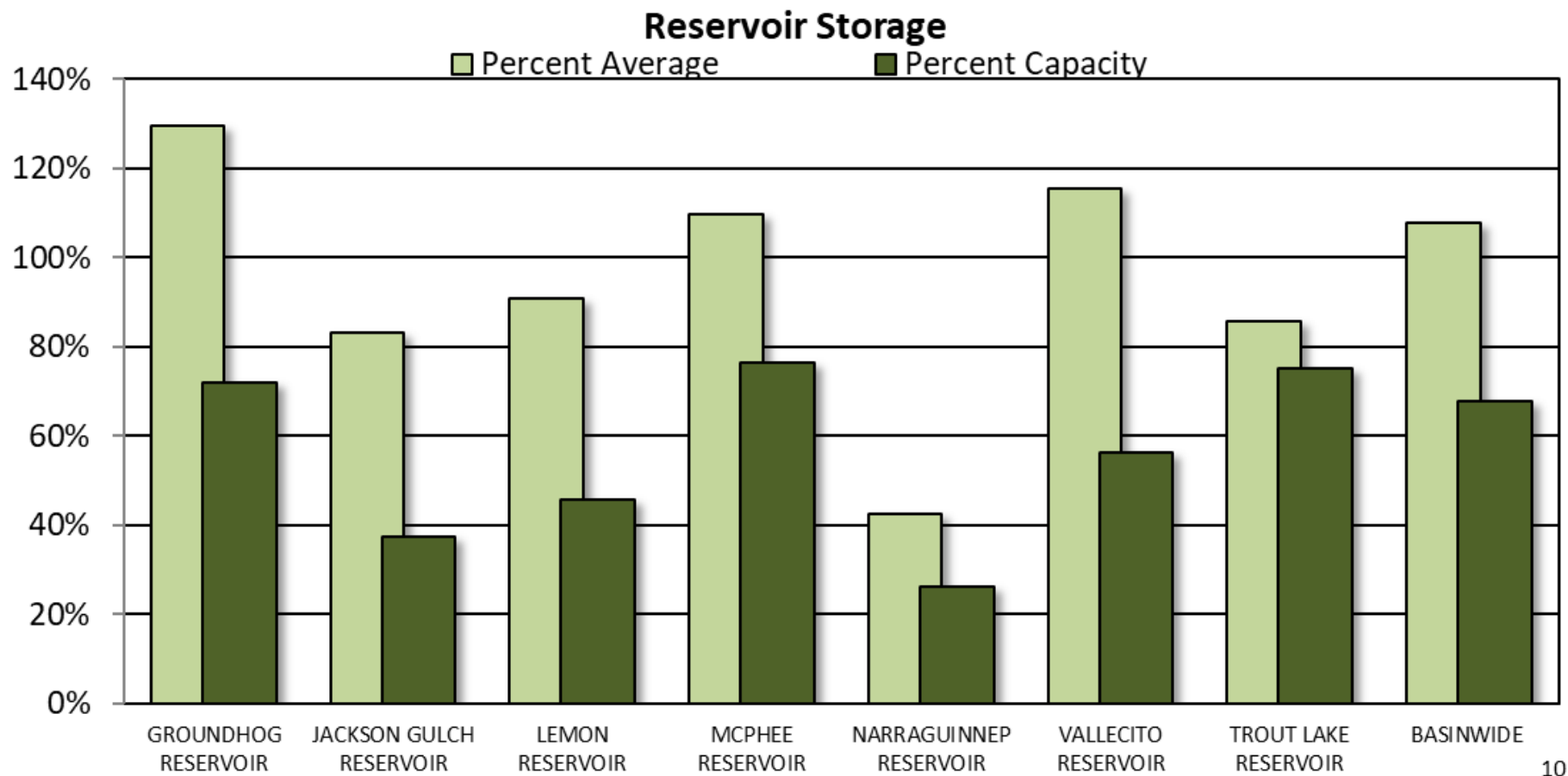
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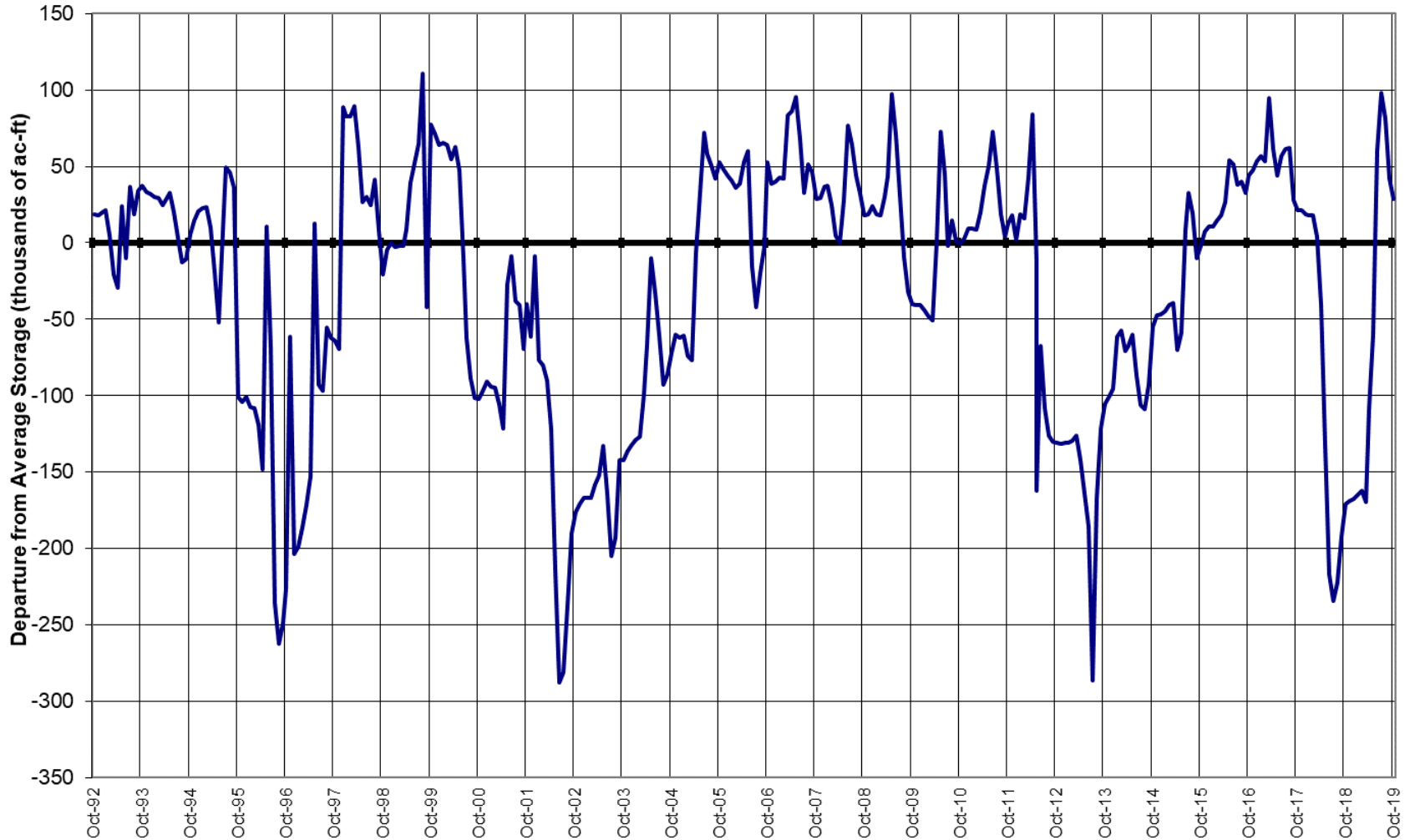
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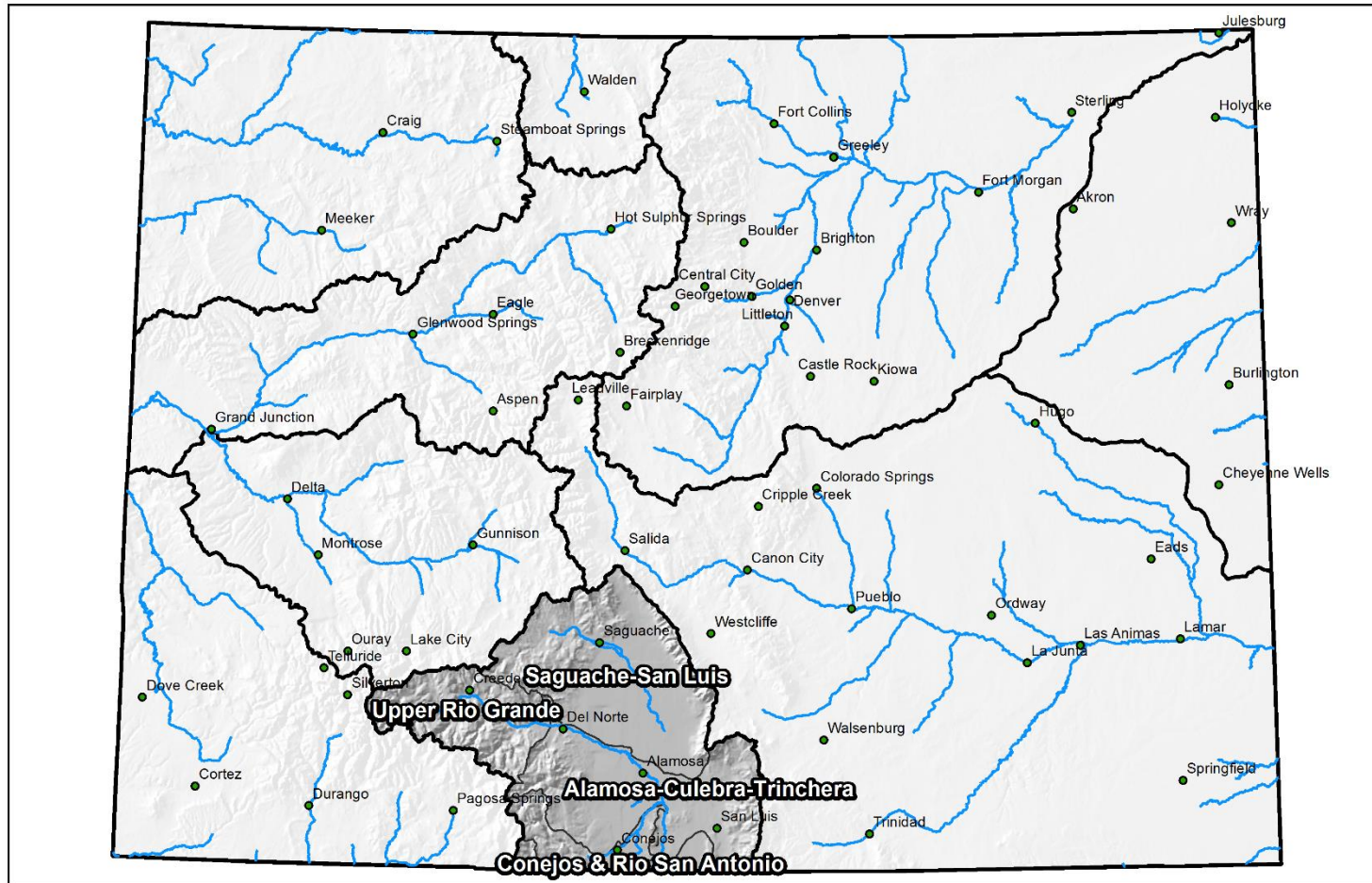
## SAN MIGUEL, DOLORES, ANIMAS AND SAN JUAN RIVER BASINS

Reservoir Storage  
Departure from Average



## Major Basin Summary

### Upper Rio Grande River Basin



0 25 50 100 150 200 Miles

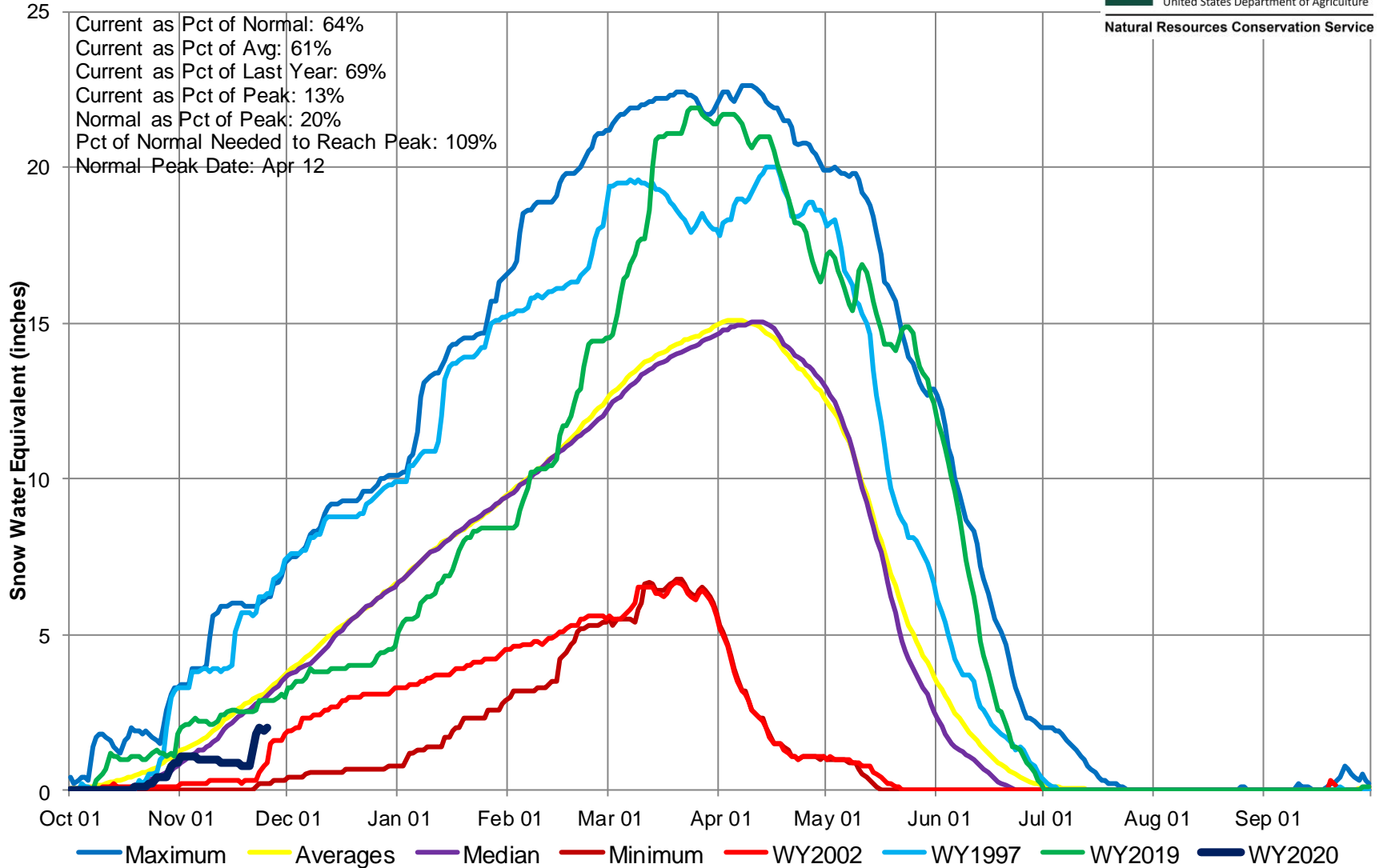
## Upper Rio Grande Basin High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Nov 25, 2019*



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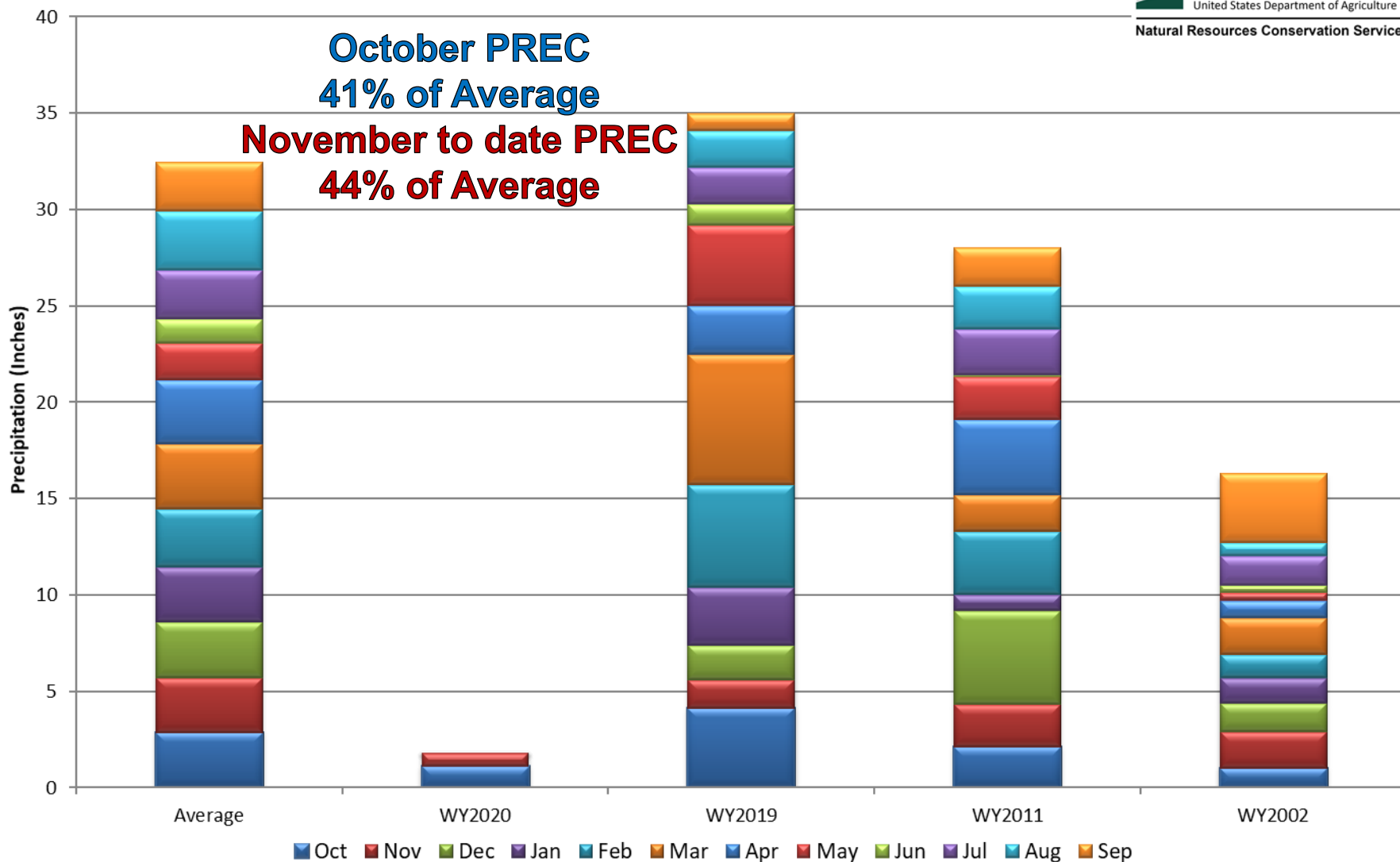
## Upper Rio Grande River Basin High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Nov 25, 2019*



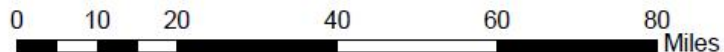
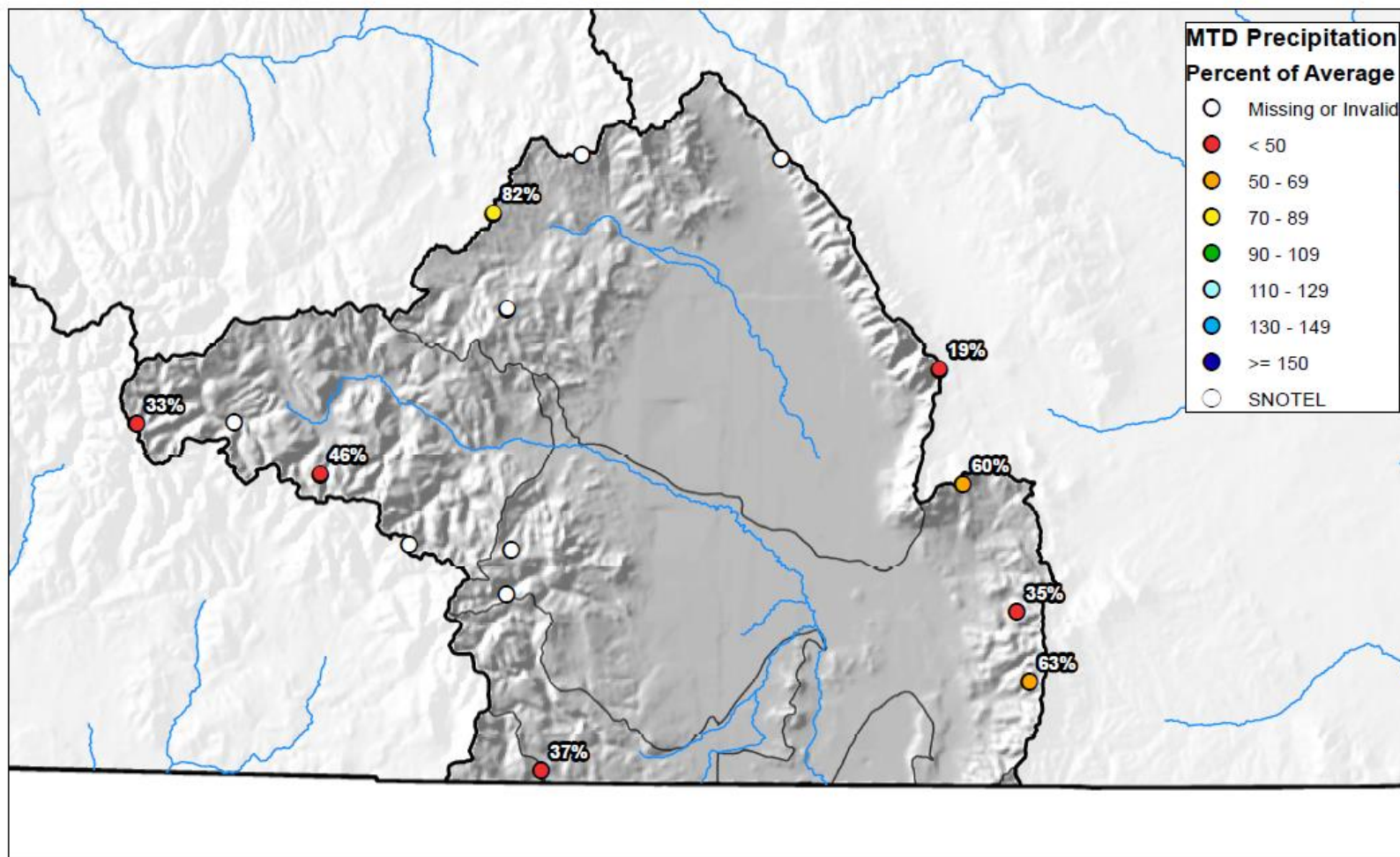
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## Upper Rio Grande River Basin Month to Date Precipitation Summary

Current as of Nov 25, 2019





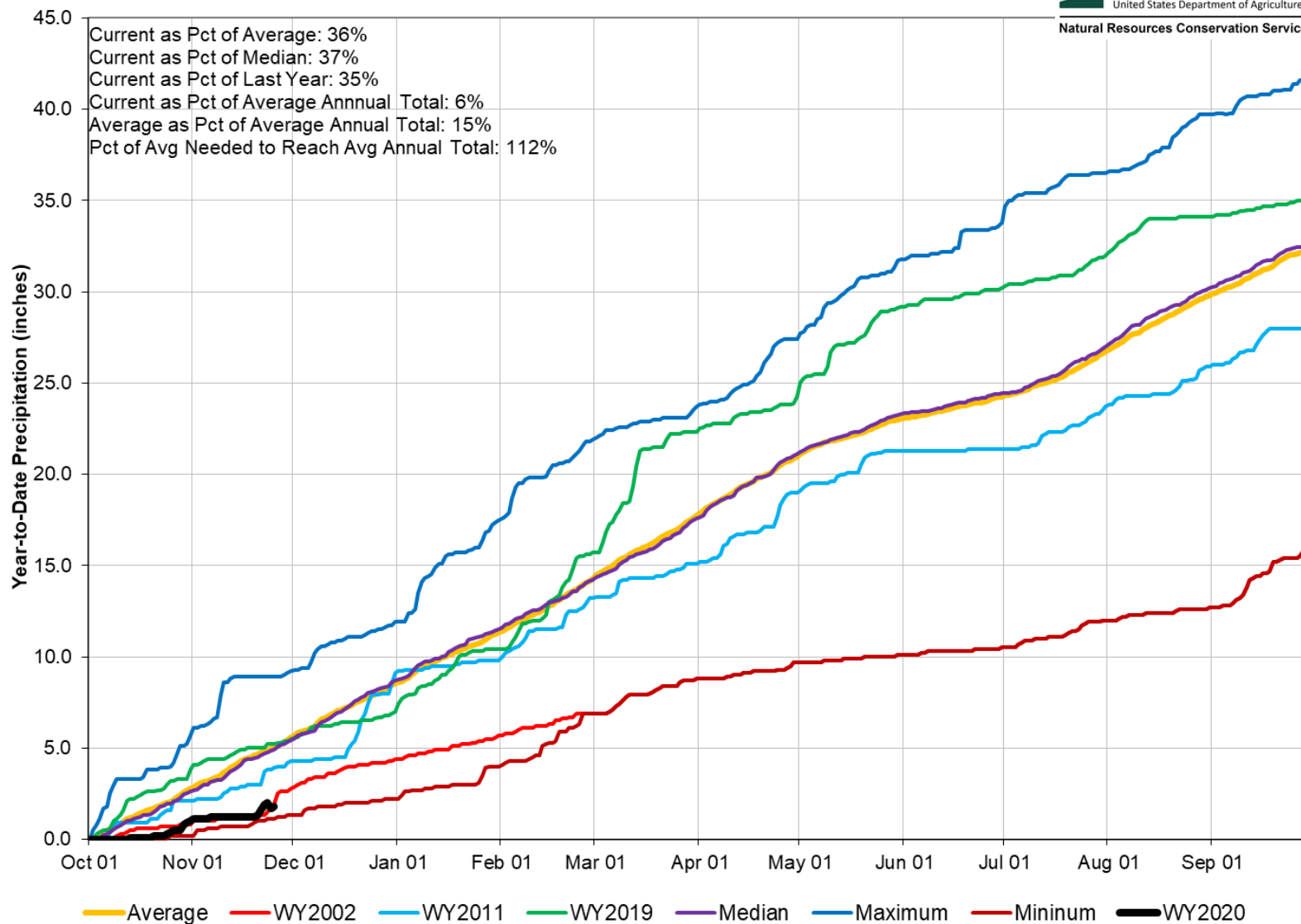
## Upper Rio Grande River Basin High/Low Year-to-Date Precipitation Summary

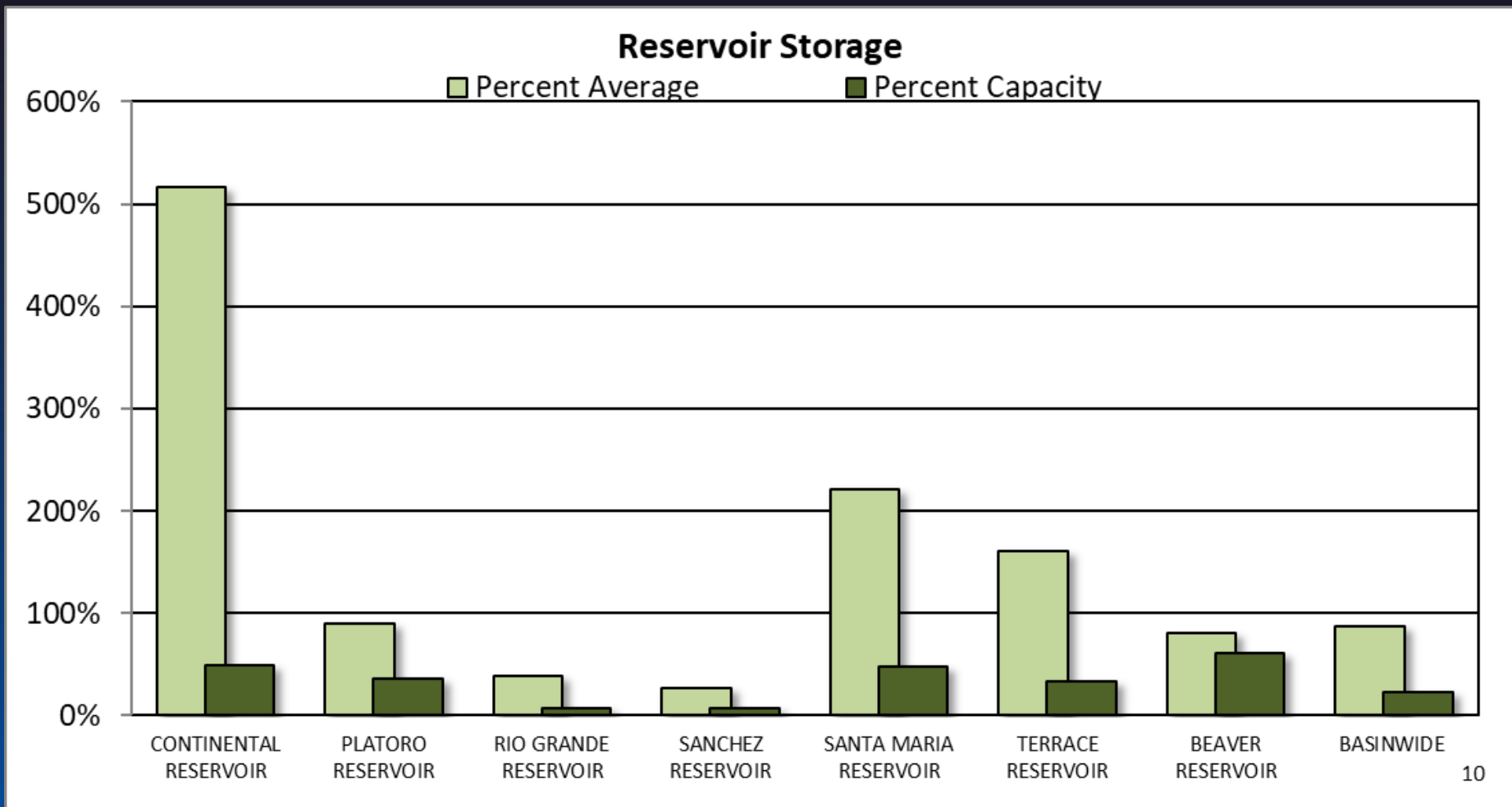
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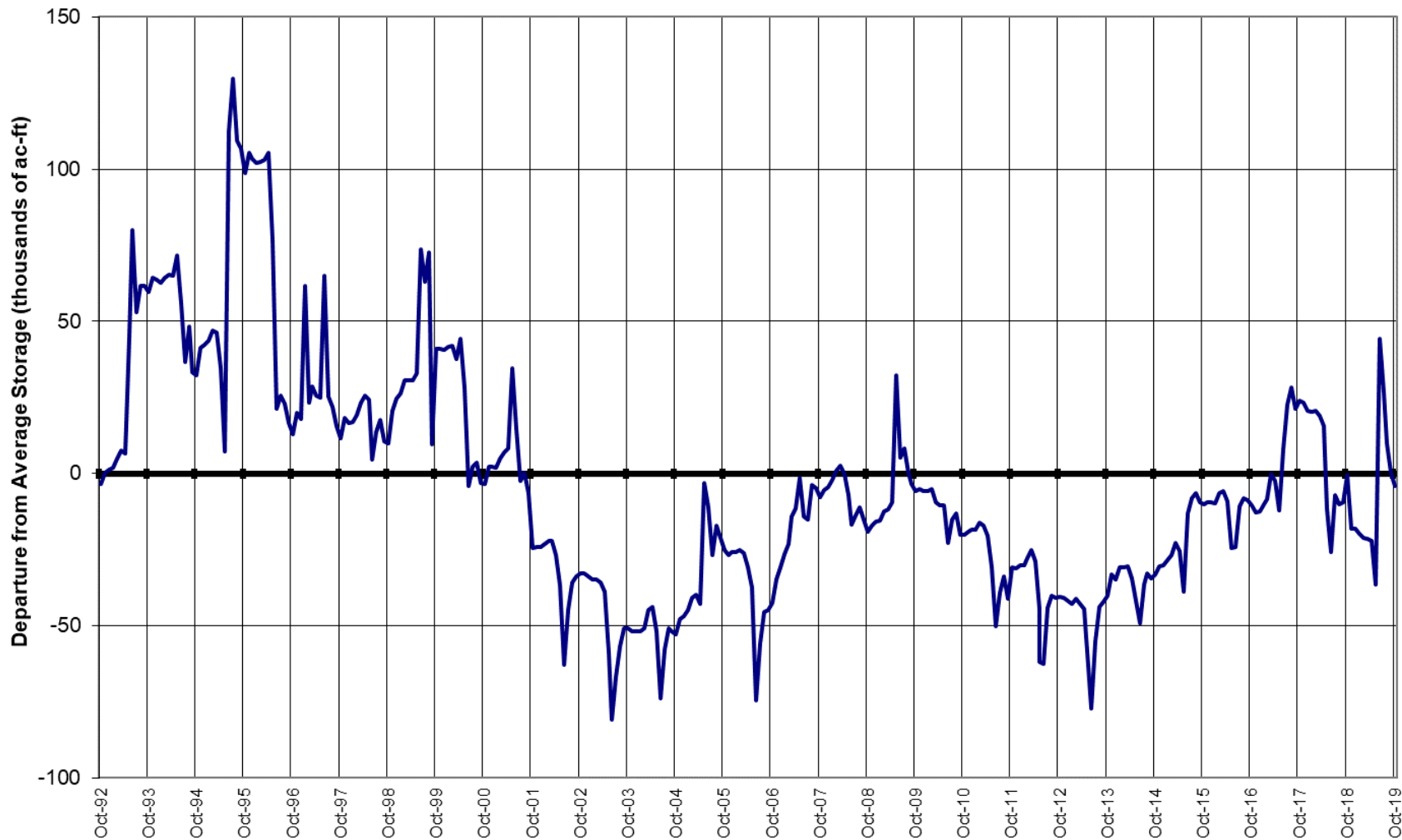
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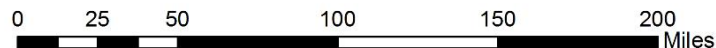
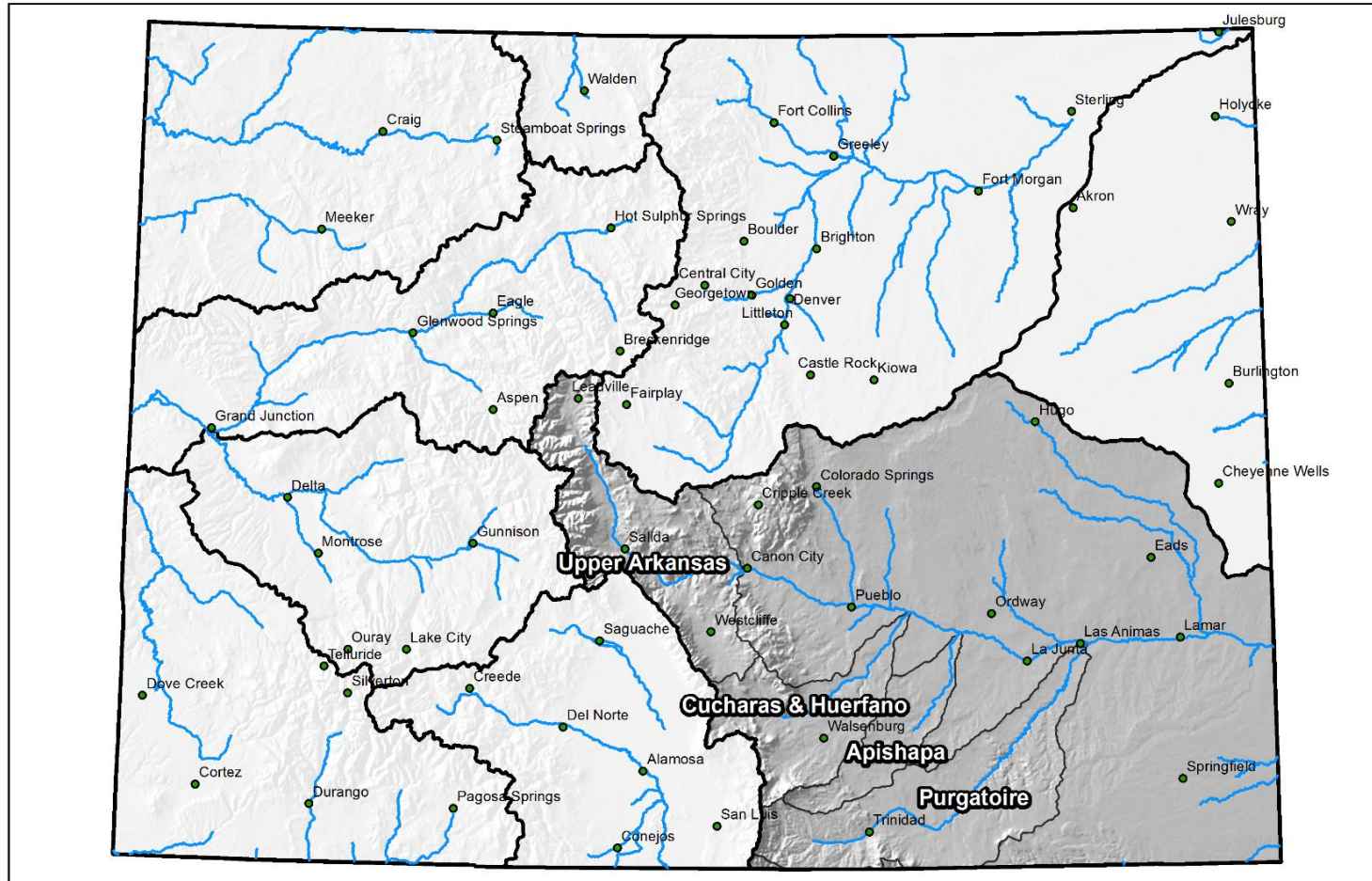


## UPPER RIO GRANDE BASIN Reservoir Storage Departure from Average



## Major Basin Summary

### Arkansas River Basin





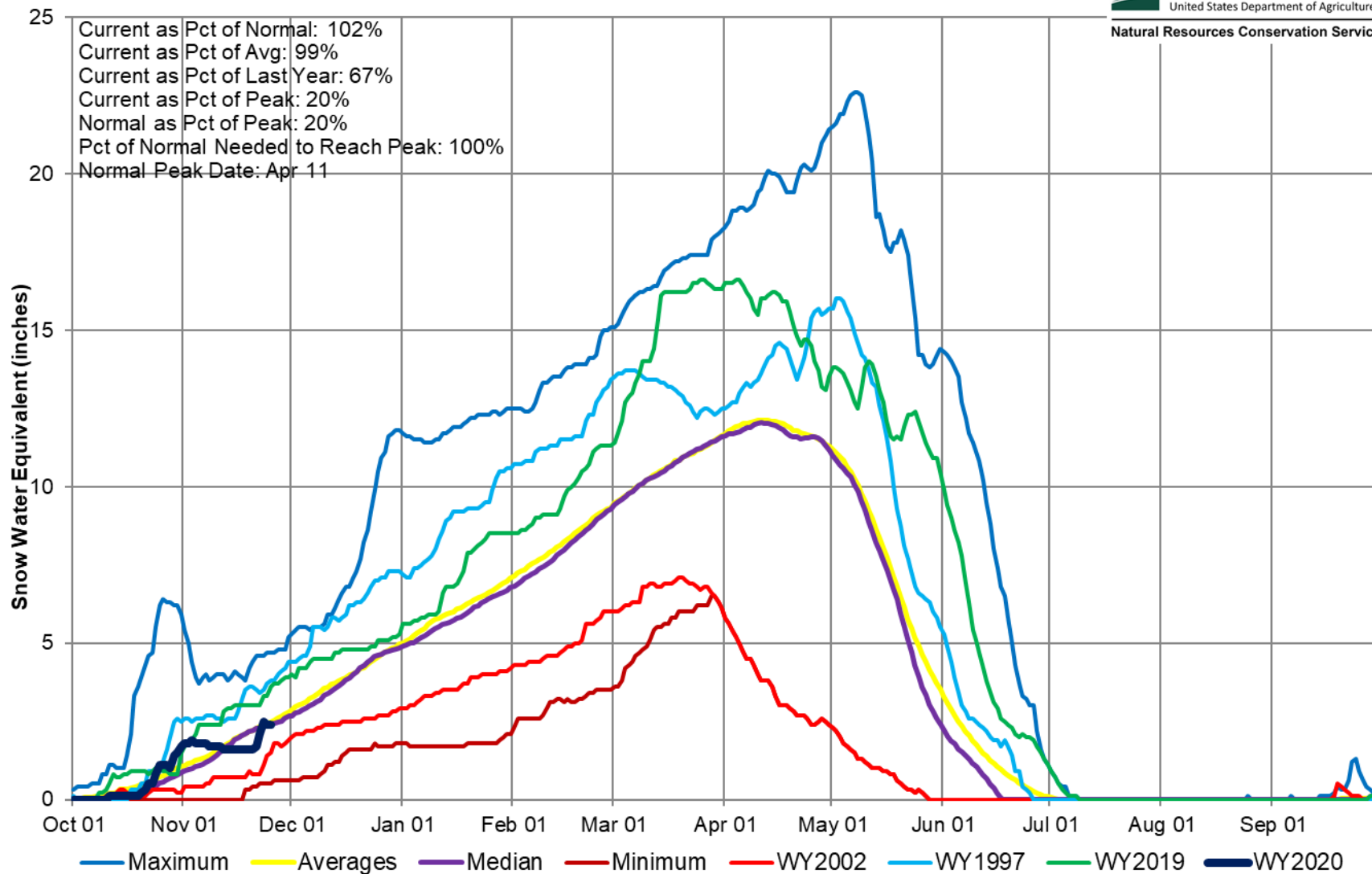
## Arkansas River Basin High/Low Snowpack Summary

Based on Provisional SNOTEL data as of Nov 25, 2019



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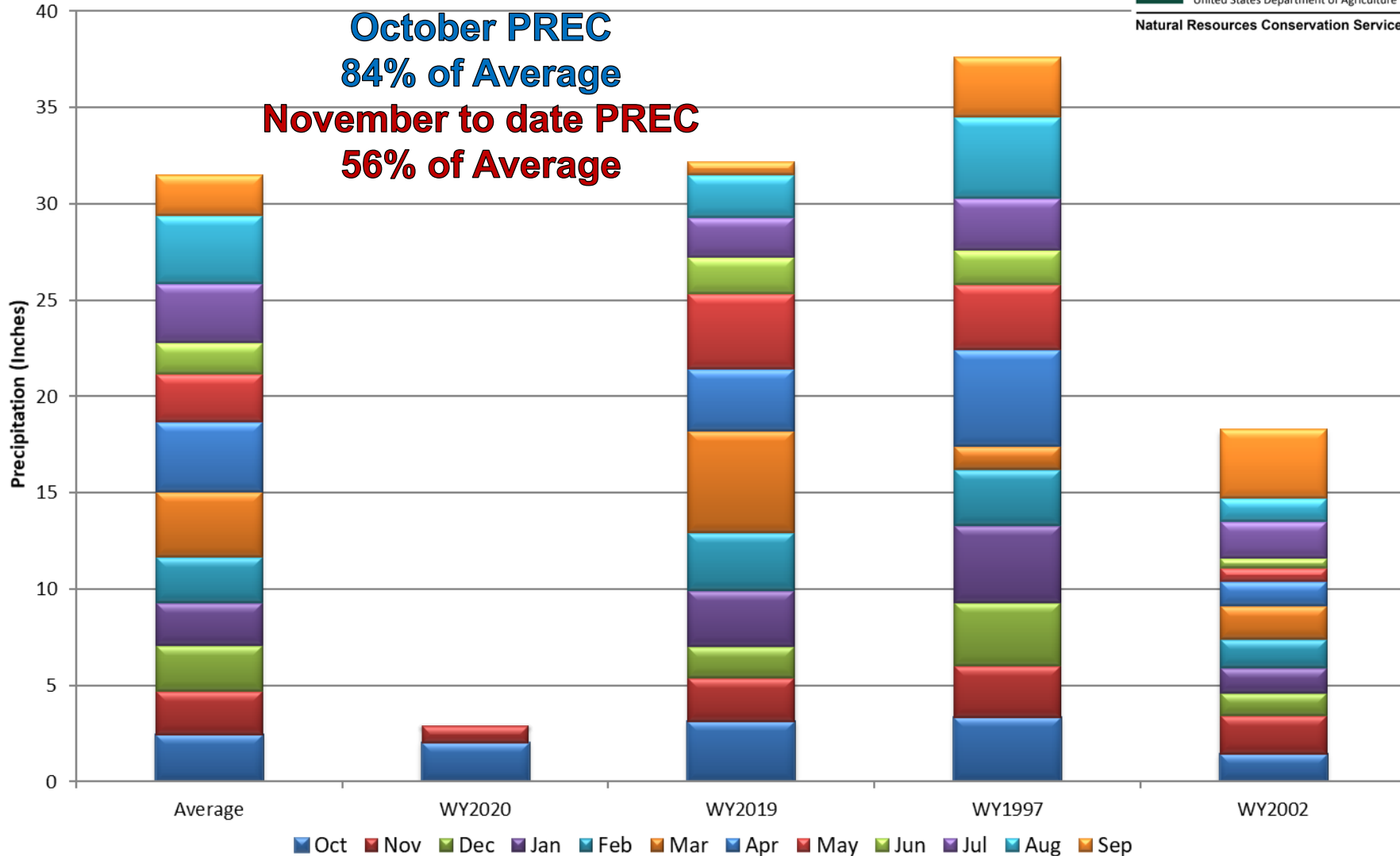
## Arkansas River Basin High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Nov 25, 2019*



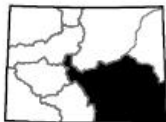
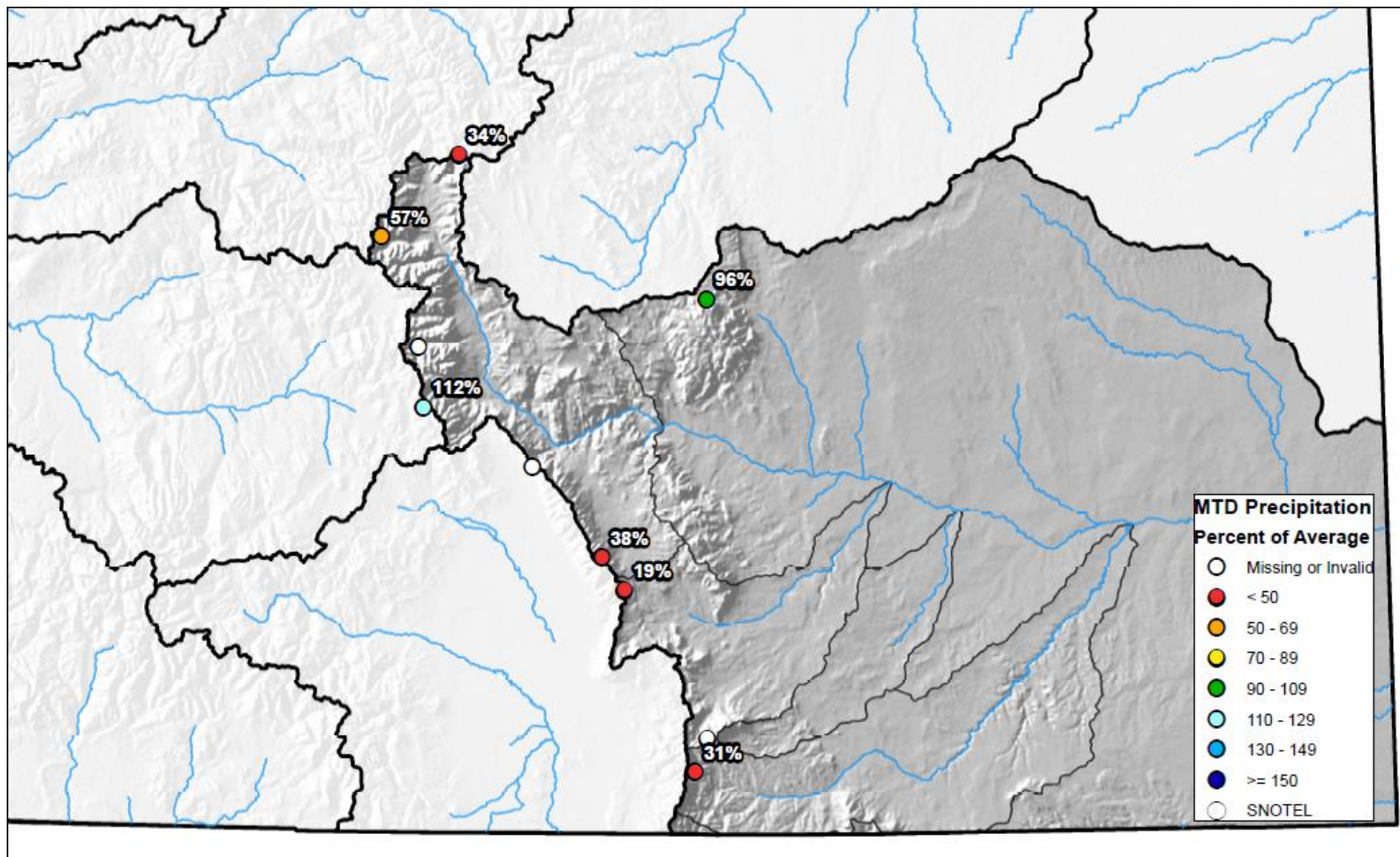
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## Arkansas River Basin Month to Date Precipitation Summary

Current as of Nov 25, 2019

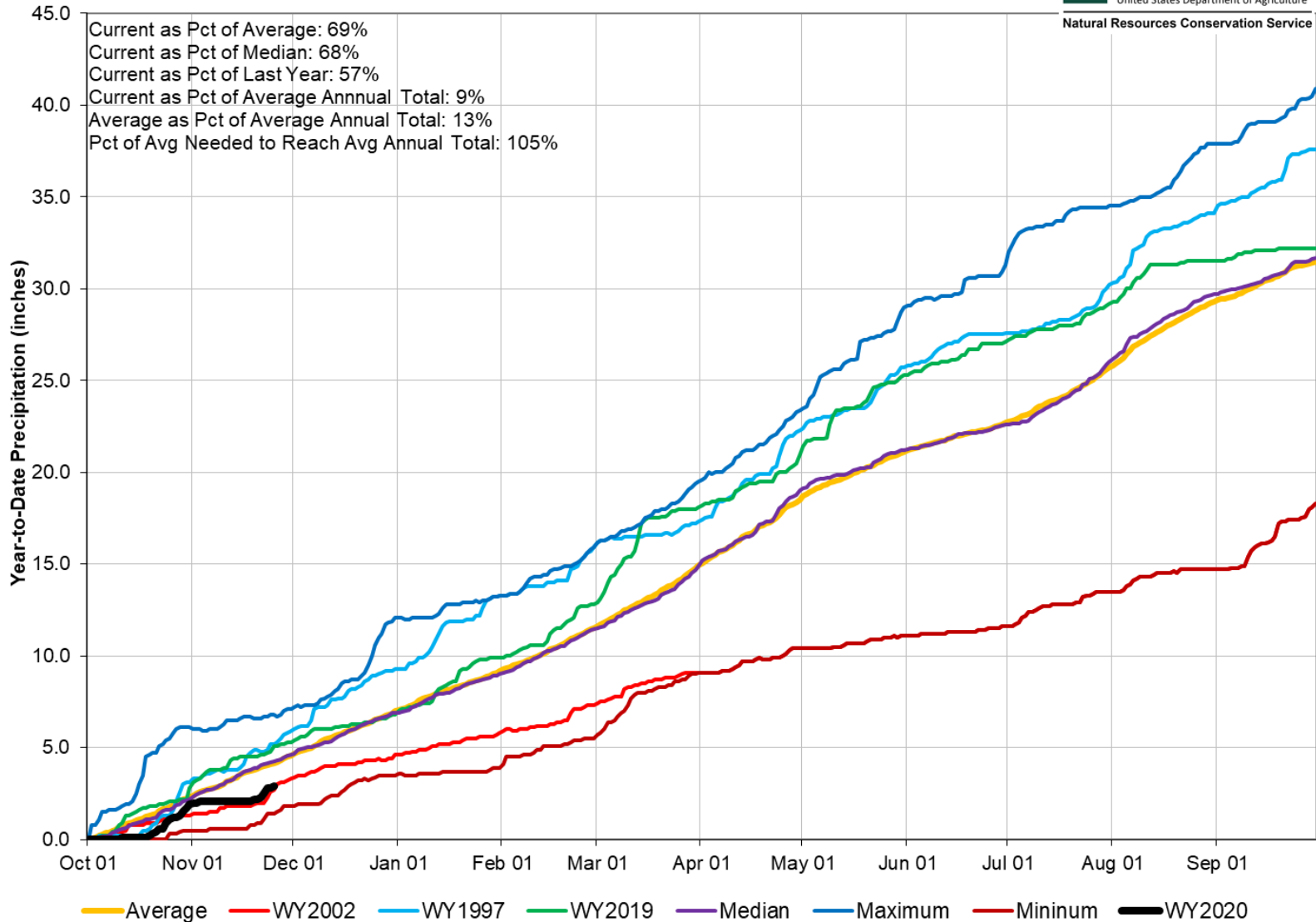


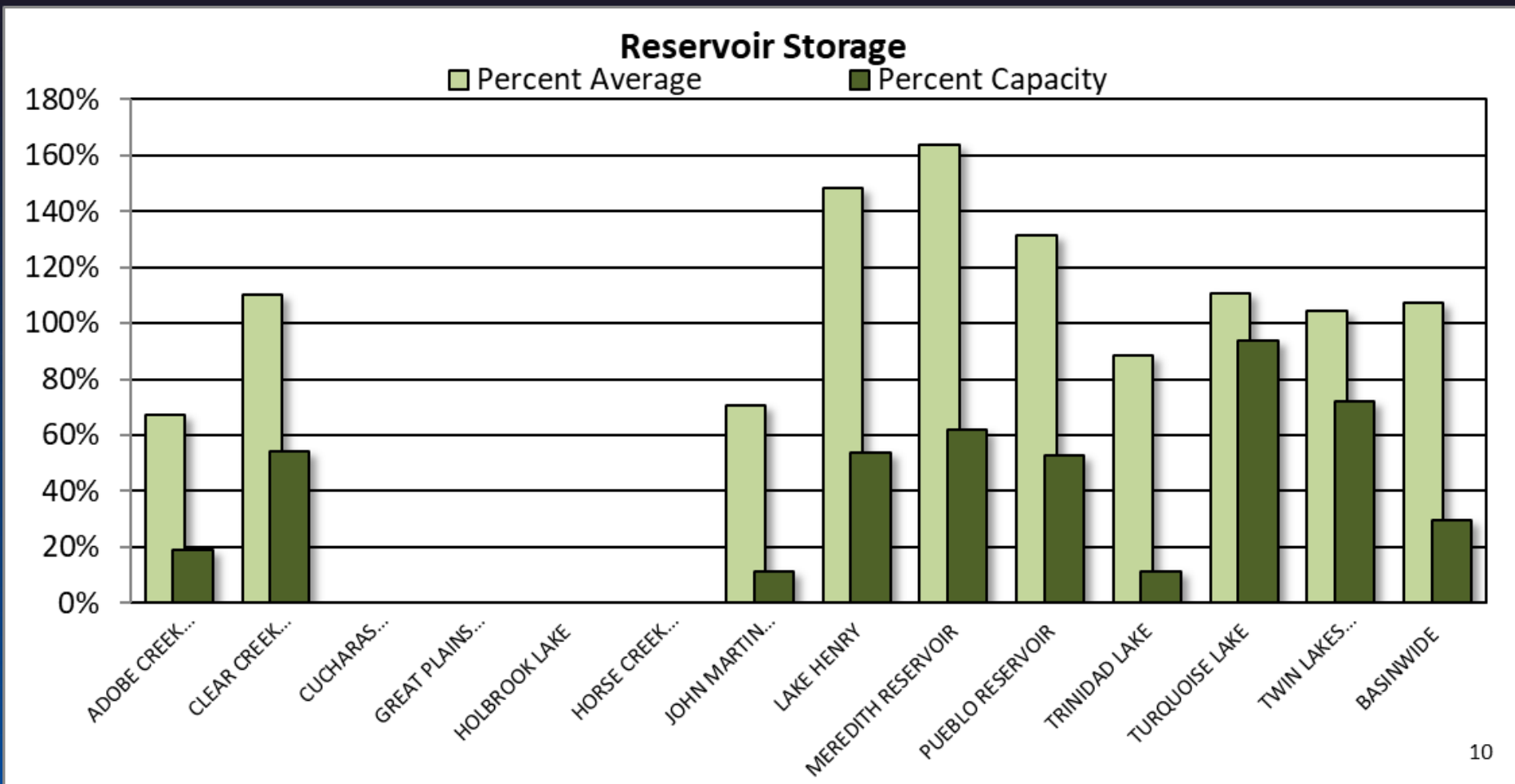
0 10 20 40 60 80 Miles

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

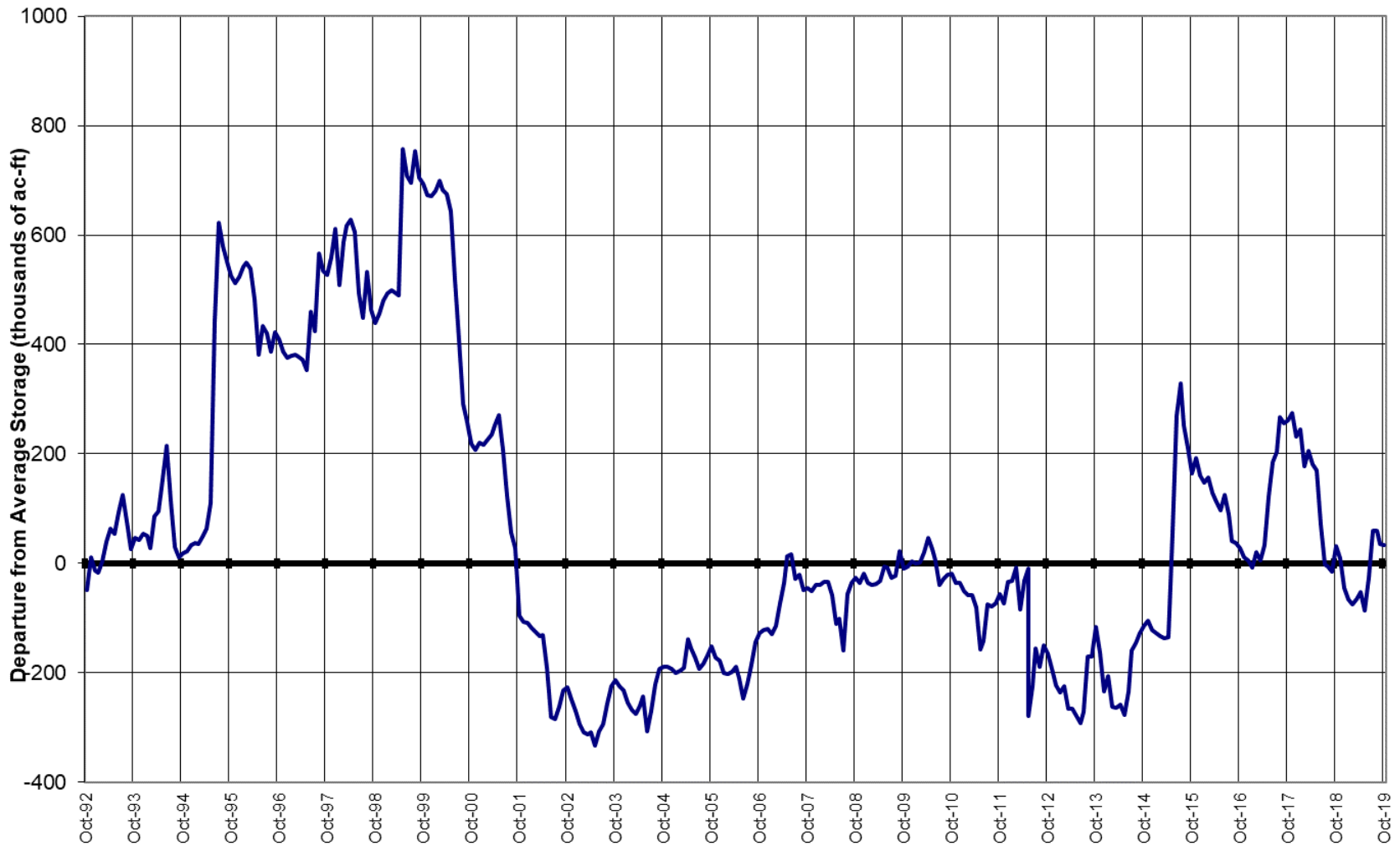
*Based on Provisional SNOTEL data as of Nov 25, 2019*

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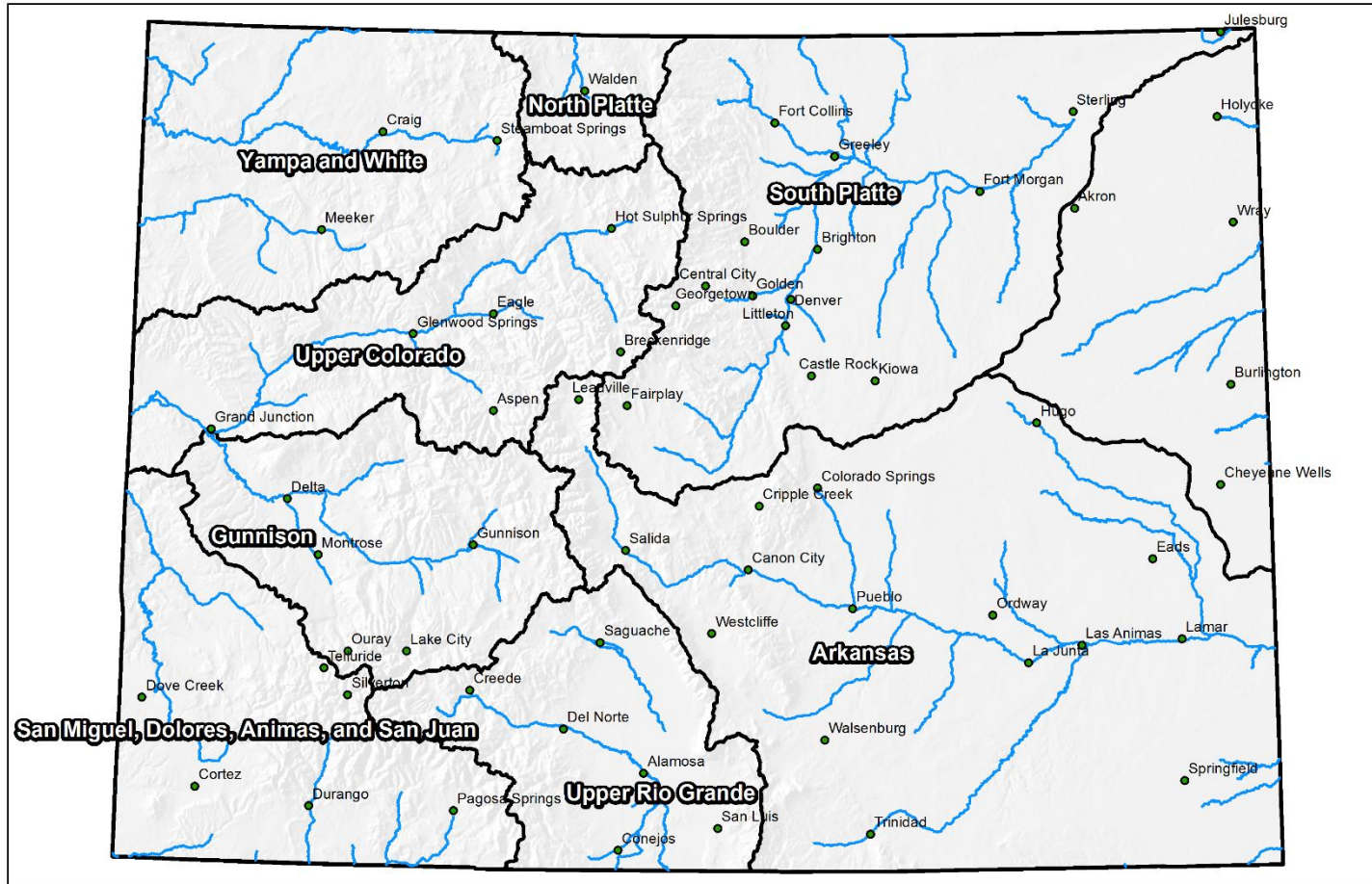


## ARKANSAS RIVER BASIN Reservoir Storage Departure from Average



## Colorado Statewide Summary

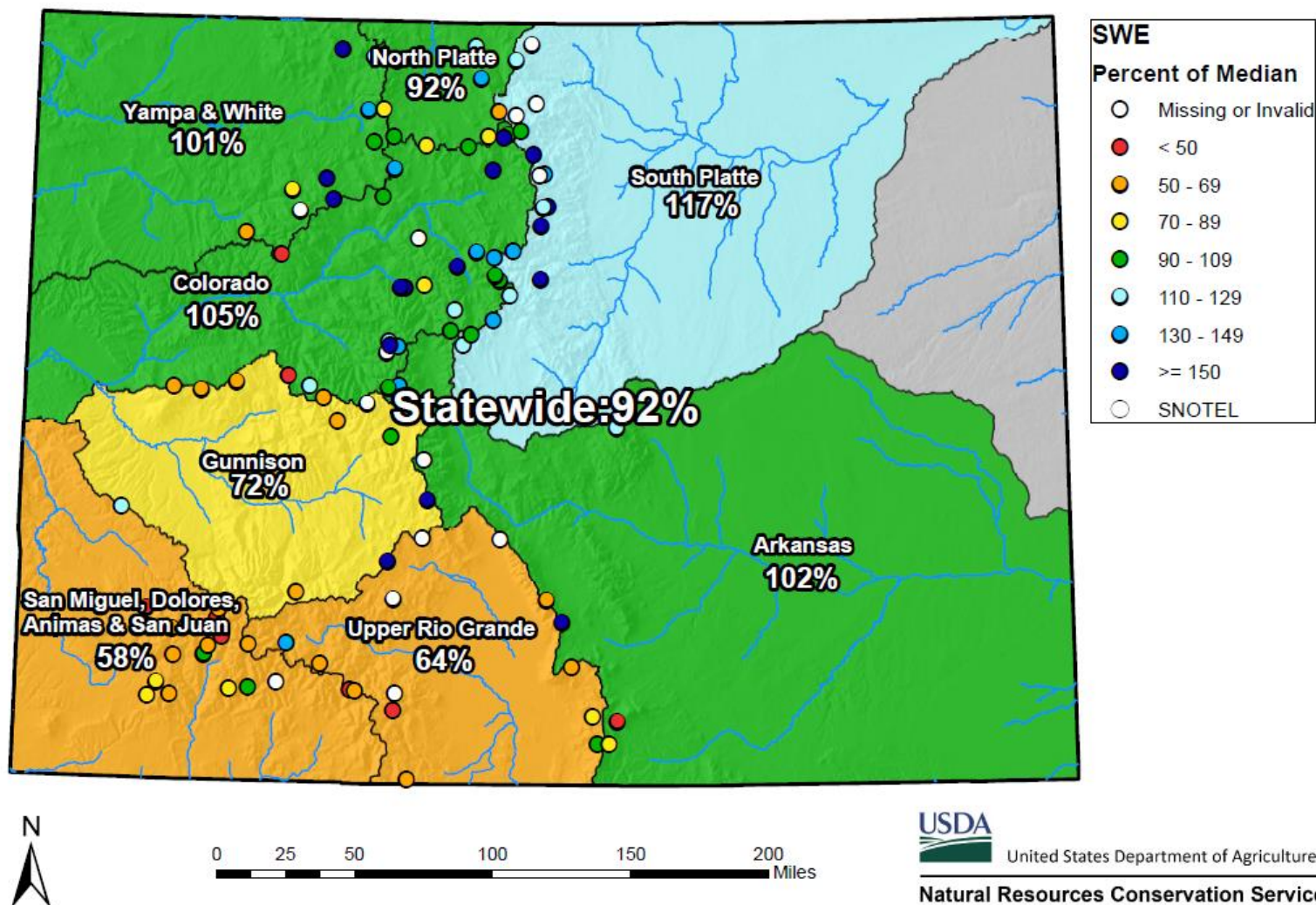
Colorado Major Basins



0 25 50 100 150 200 Miles

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

Current as of Nov 25, 2019





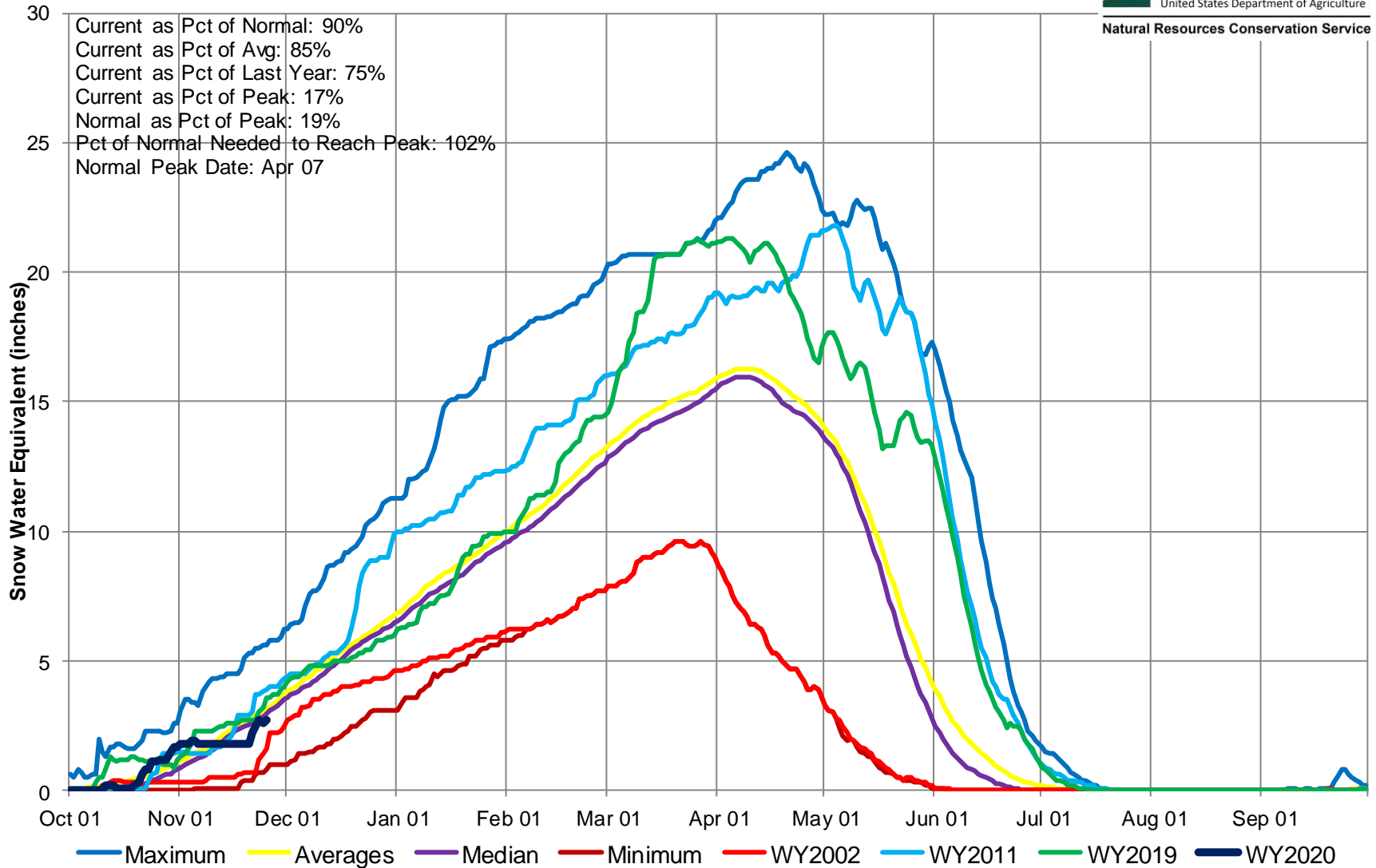
## Colorado Statewide High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Nov 25, 2019*



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Natural Resources Conservation Service



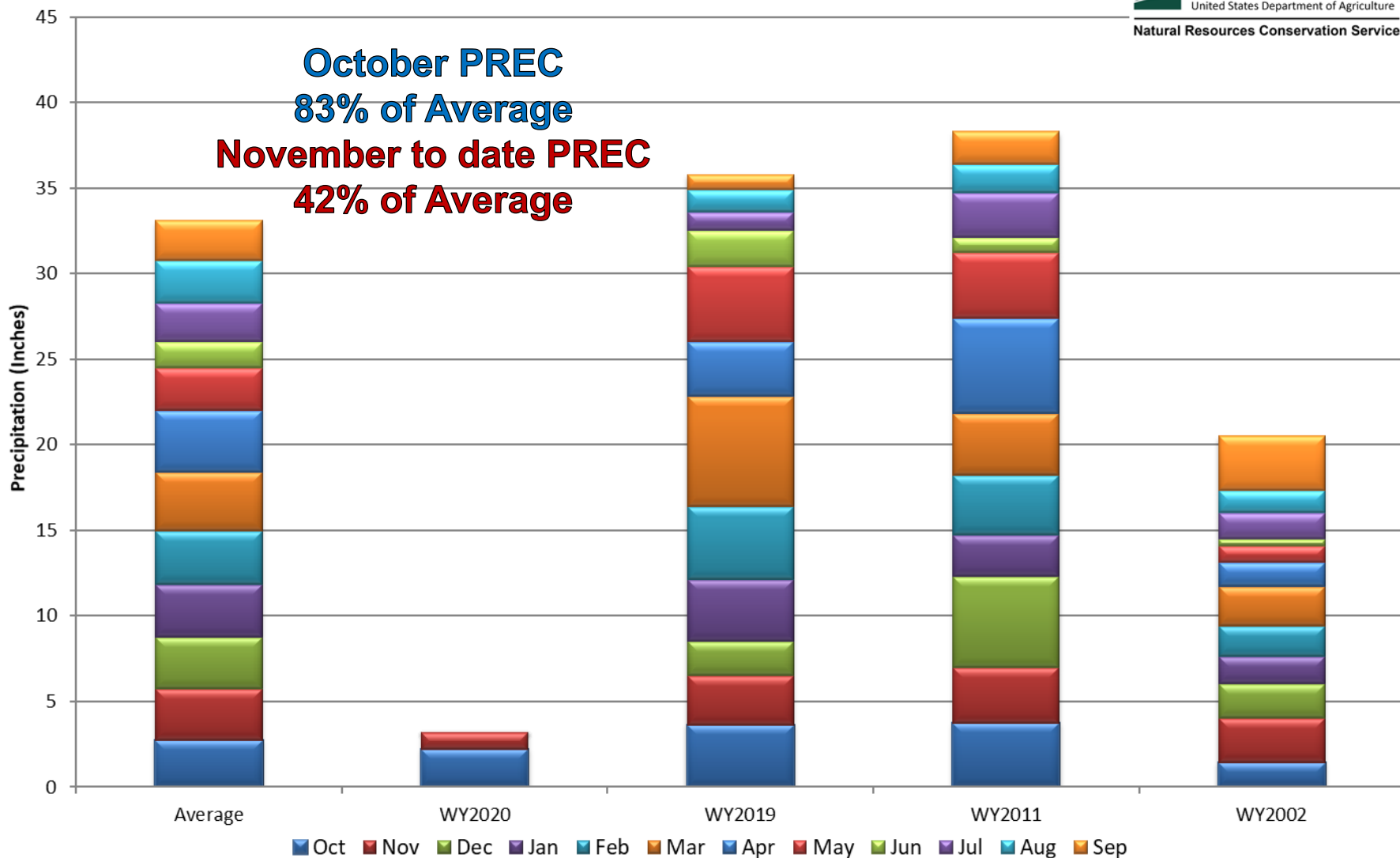
## Colorado Statewide High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Nov 25, 2019*



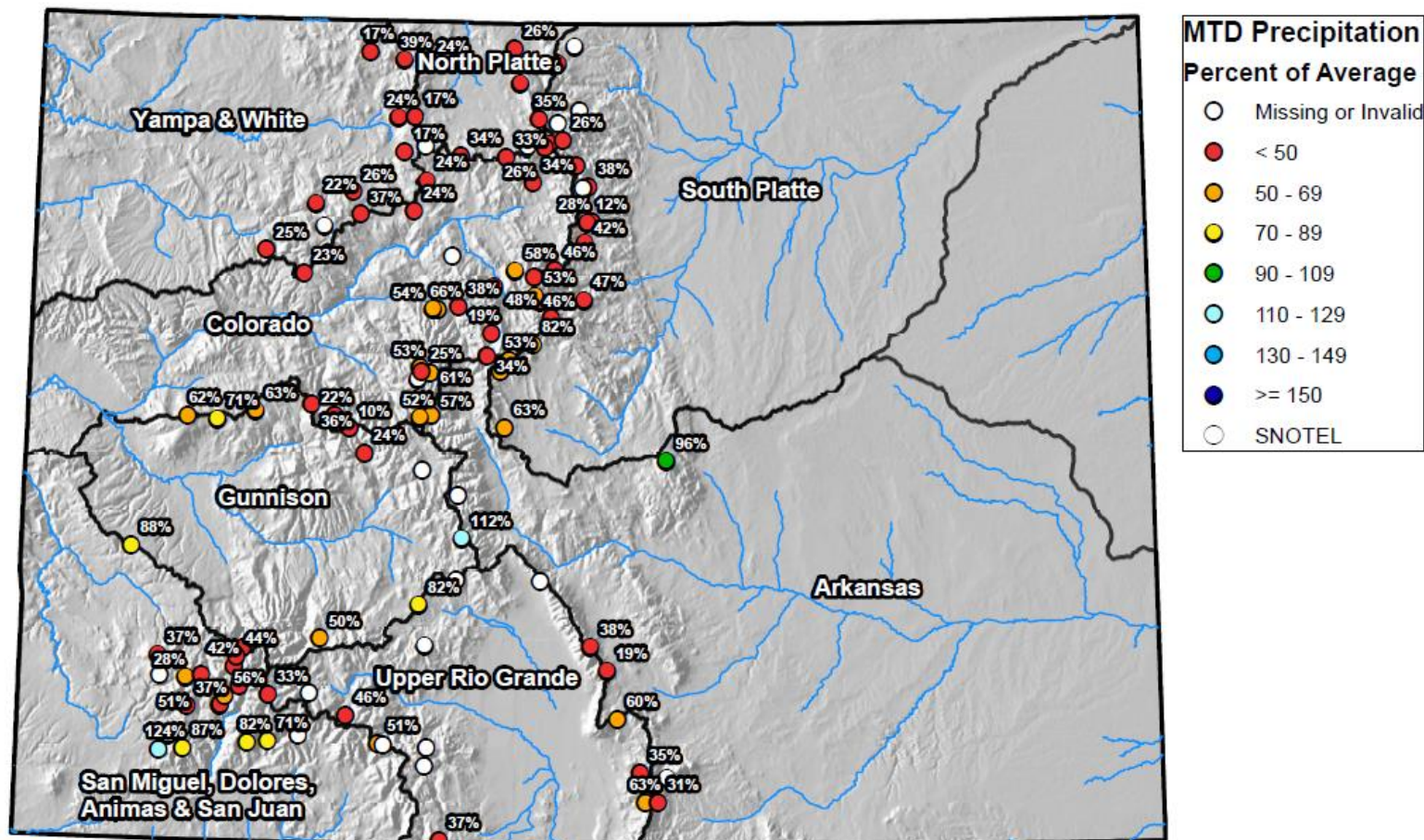
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## Colorado SNOTEL Month-to-Date Precipitation

Current as of Nov 25, 2019



0 25 50 100 150 200 Miles



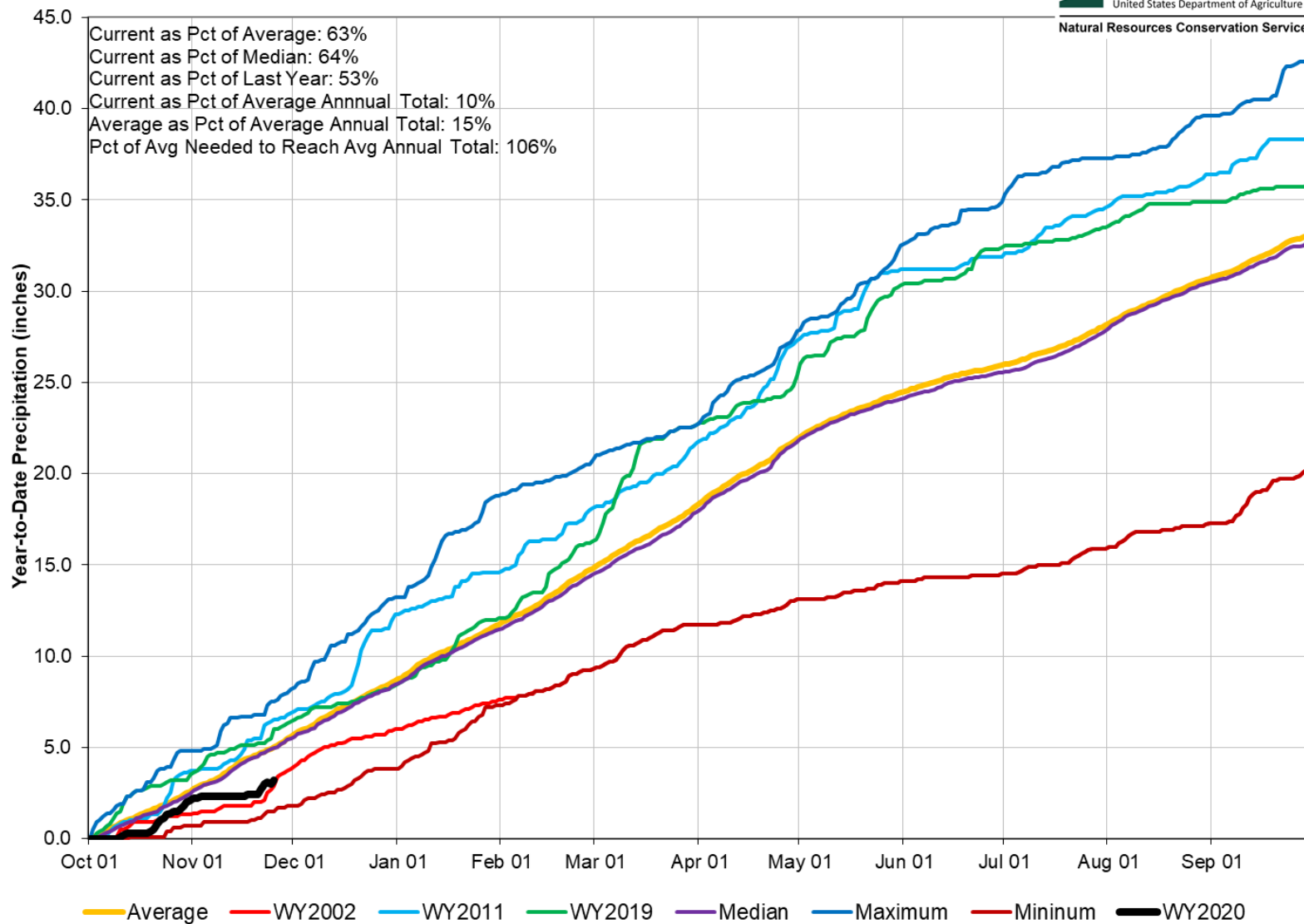
## Colorado Statewide High/Low Year-to-Date Precipitation Summary

*Based on Provisional SNOTEL data as of Nov 25, 2019*



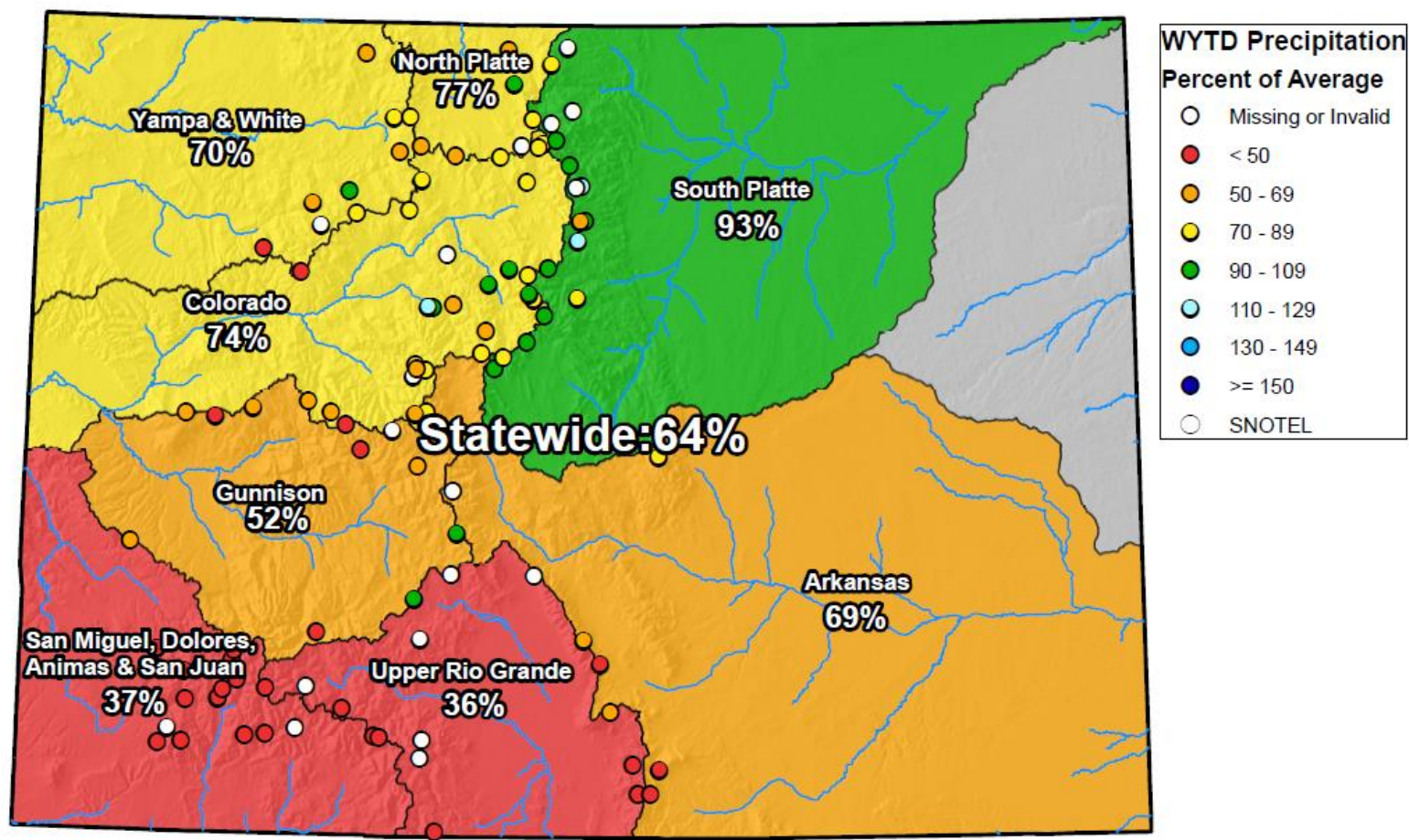
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## Colorado SNOTEL Water Year to Date Precipitation

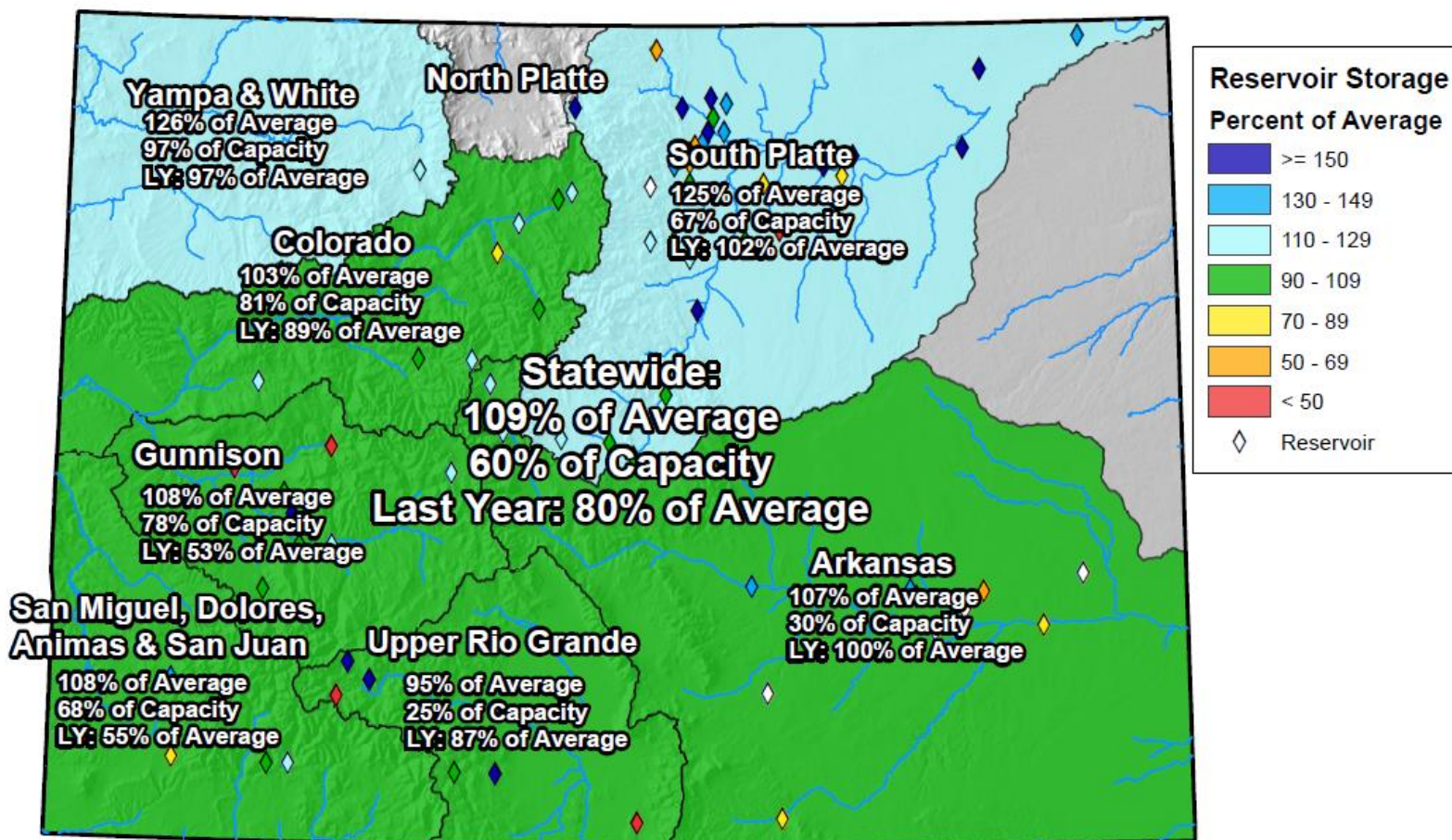
Current as of Nov 25, 2019



0 25 50 100 150 200 Miles

## Colorado Monthly Reservoir Storage Summary

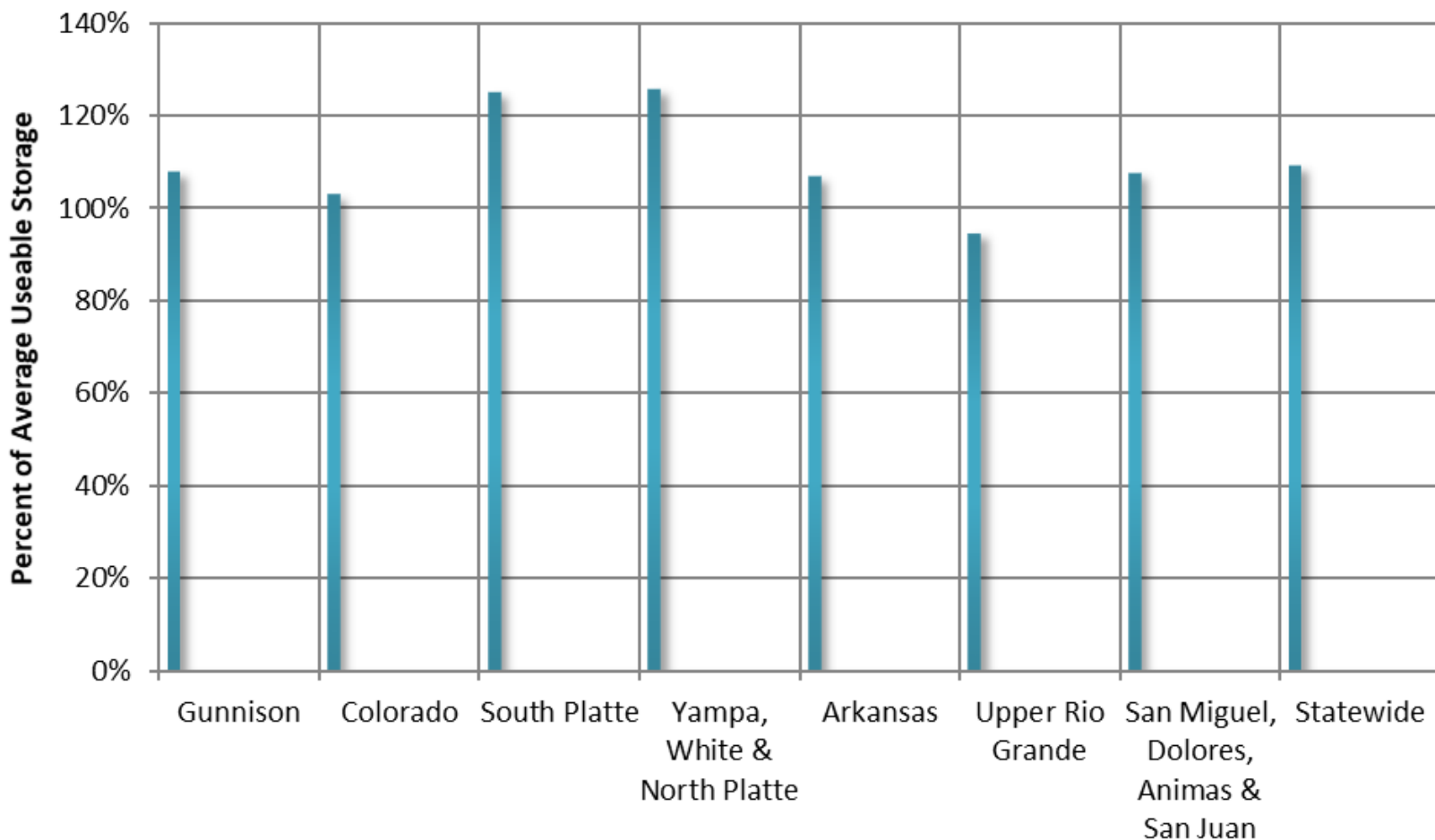
End of October 2019



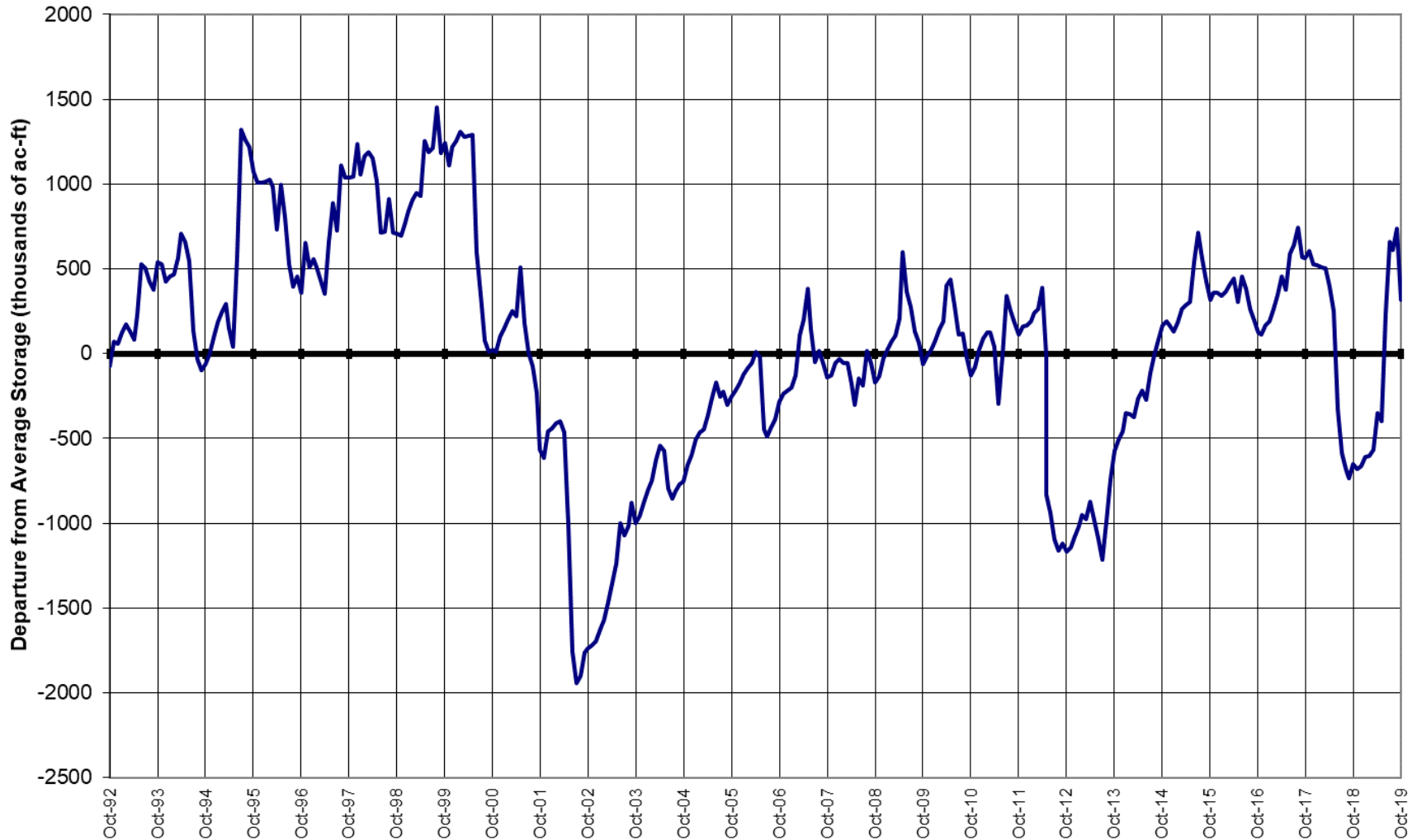
0 25 50 100 150 200 Miles

## Colorado Reservoir Storage

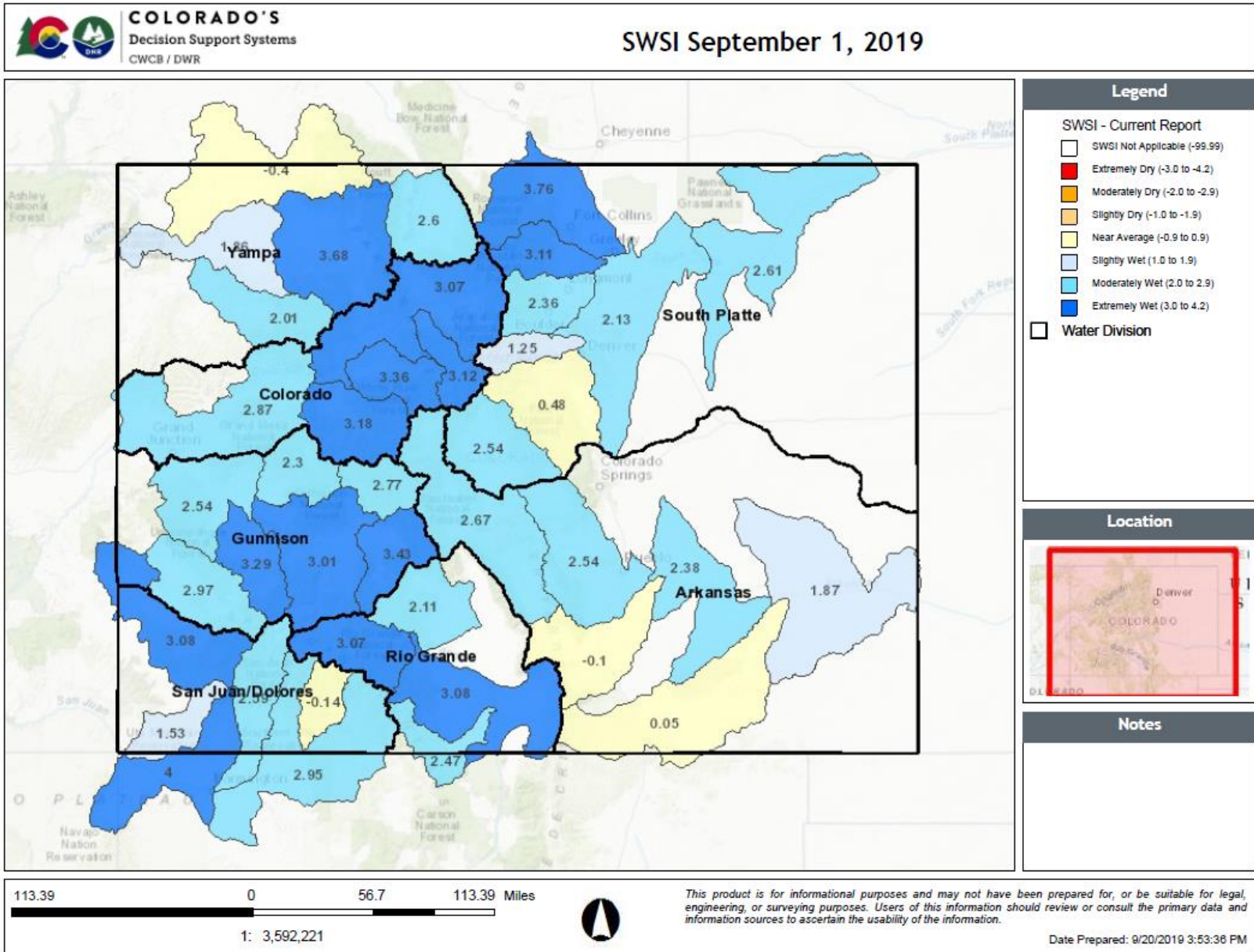
■ Oct-19 ■ Nov-19 ■ Dec-19 ■ Jan-20 ■ Feb-20 ■ Mar-20  
 ■ Apr-20 ■ May-20 ■ Jun-20 ■ Jul-20 ■ Aug-20 ■ Sep-20



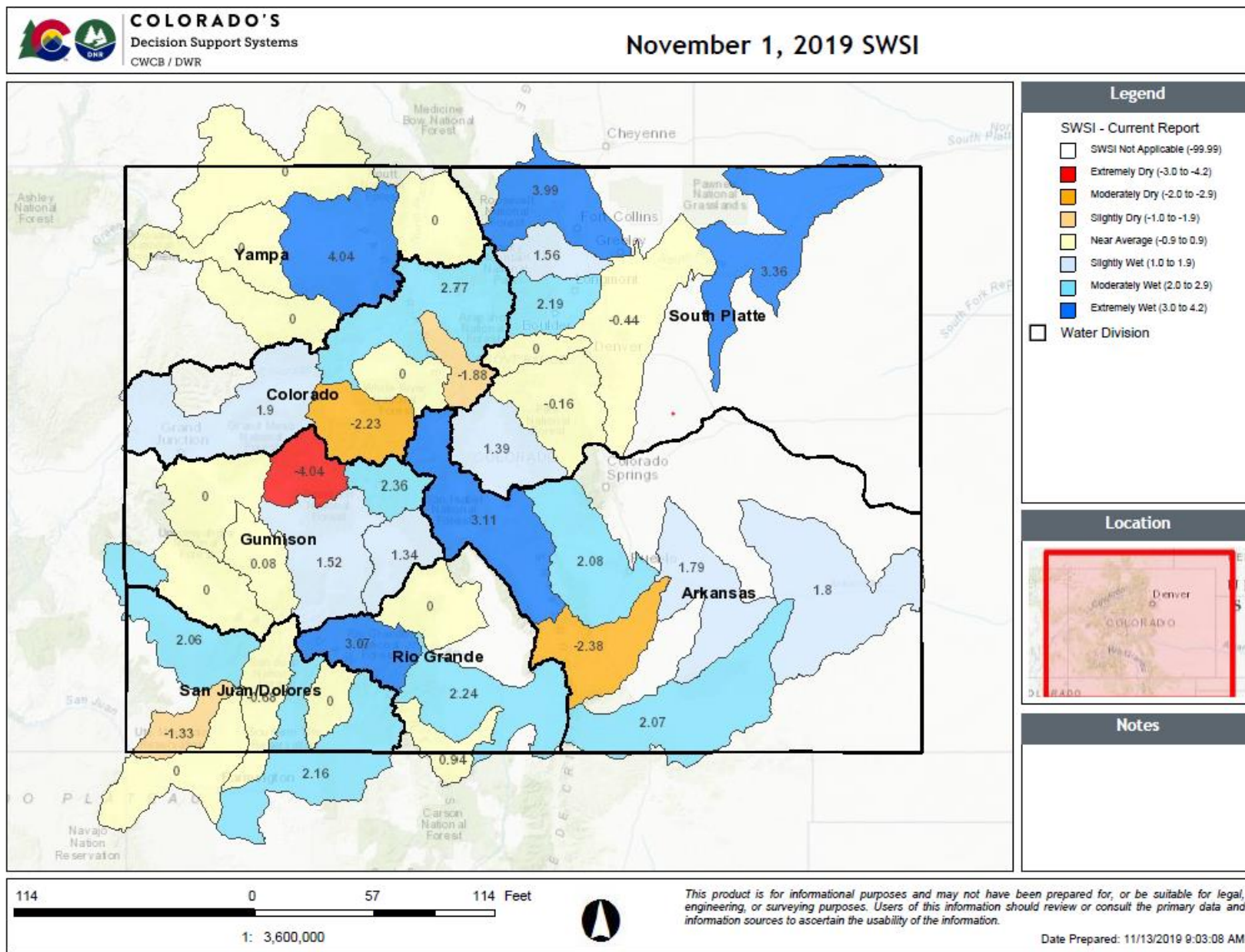
## COLORADO STATEWIDE Reservoir Storage Departure from Average



September 1, 2019 SWSI



November 1, 2019 SWSI



## Summary

### •Precipitation Statewide

- Water year precipitation remains below normal statewide but recent (and current) storms have been helping
- Southern Colorado remains more dry than the northern basins

### •Reservoir storage remains above average in all major basins except for the Rio Grande

- Ranging from 95-126 percent of average storage

### •Statewide snowpack is 90 percent of normal but accumulation patterns have been variable across the state

- We have received 17 percent of the normal peak accumulation statewide
  - 19 percent of peak is normal

### •NRCS is planning on producing streamflow forecasts January through July



United States Department of Agriculture

Colorado Snow Surveys

# Water Availability Task Force Meeting

## November 26<sup>th</sup>, 2019

### NRCS Snow Survey and Water Supply Forecasting Program

Karl Wetlaufer

Hydrologist

Asst. Snow Survey Supervisor

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



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