



Water Availability Task Force Meeting

January 18th, 2018

NRCS Snow Survey and Water Supply Forecasting Program

Karl Wetlaufer

Hydrologist

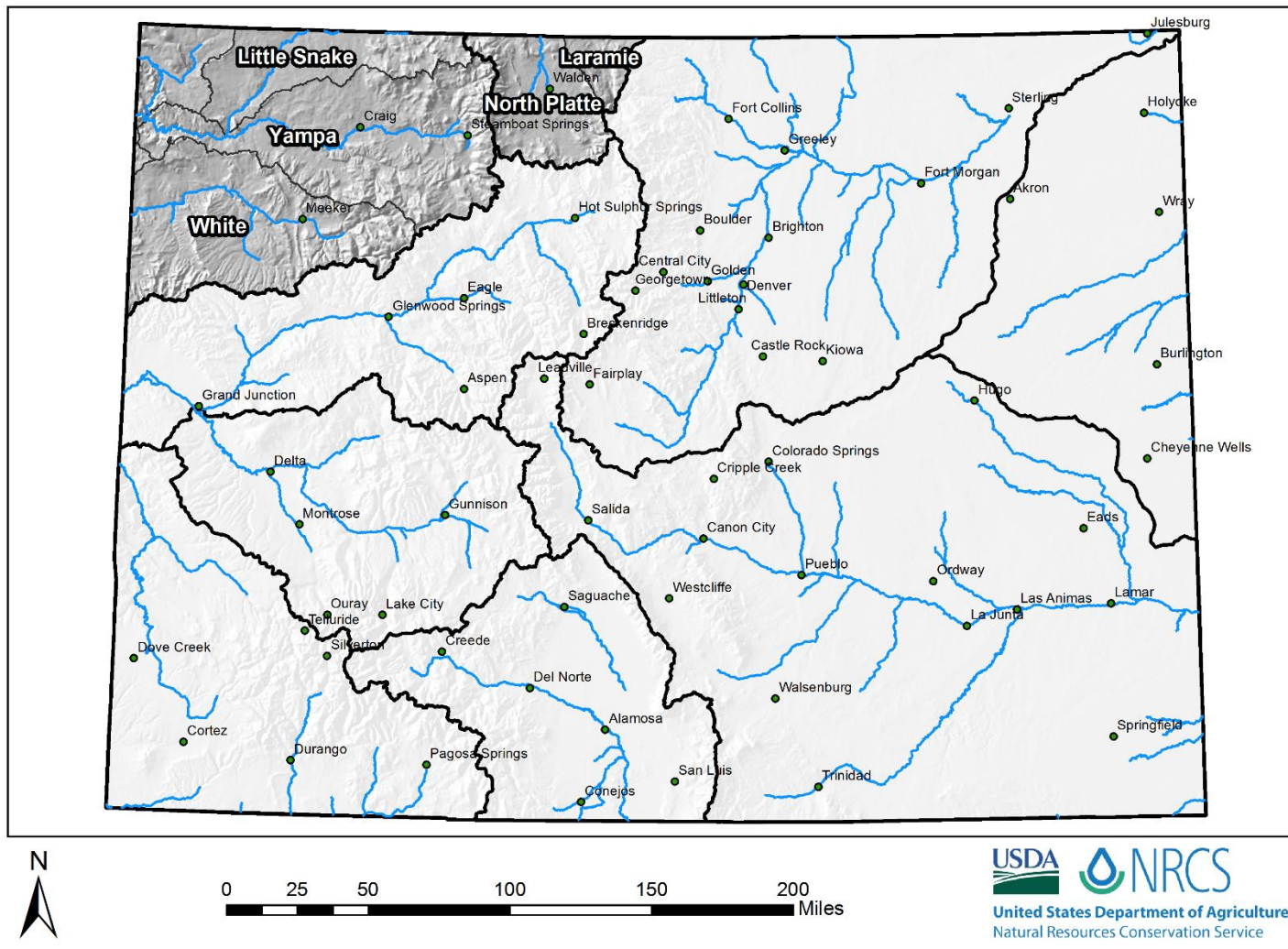
Asst. Snow Survey Supervisor

720-544-2853

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

Major Basin Summary

Yampa, White, and North Platte River Basins





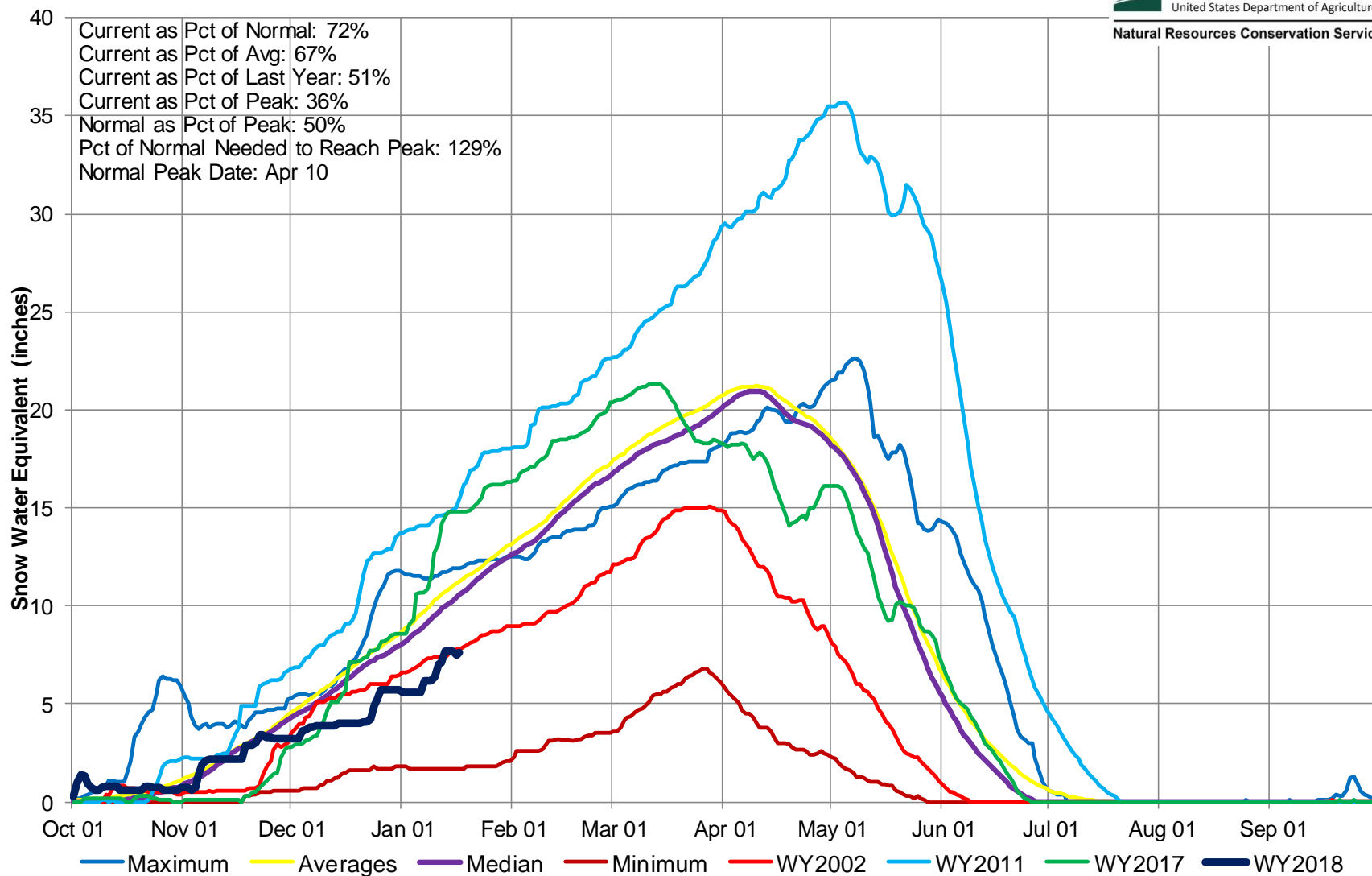
Yampa and White River Basins High/Low Snowpack Summary

Based on Provisional SNOTEL data as of Jan 17, 2018



United States Department of Agriculture

Natural Resources Conservation Service



Yampa and White River Basins High/Low Monthly Precipitation Summary

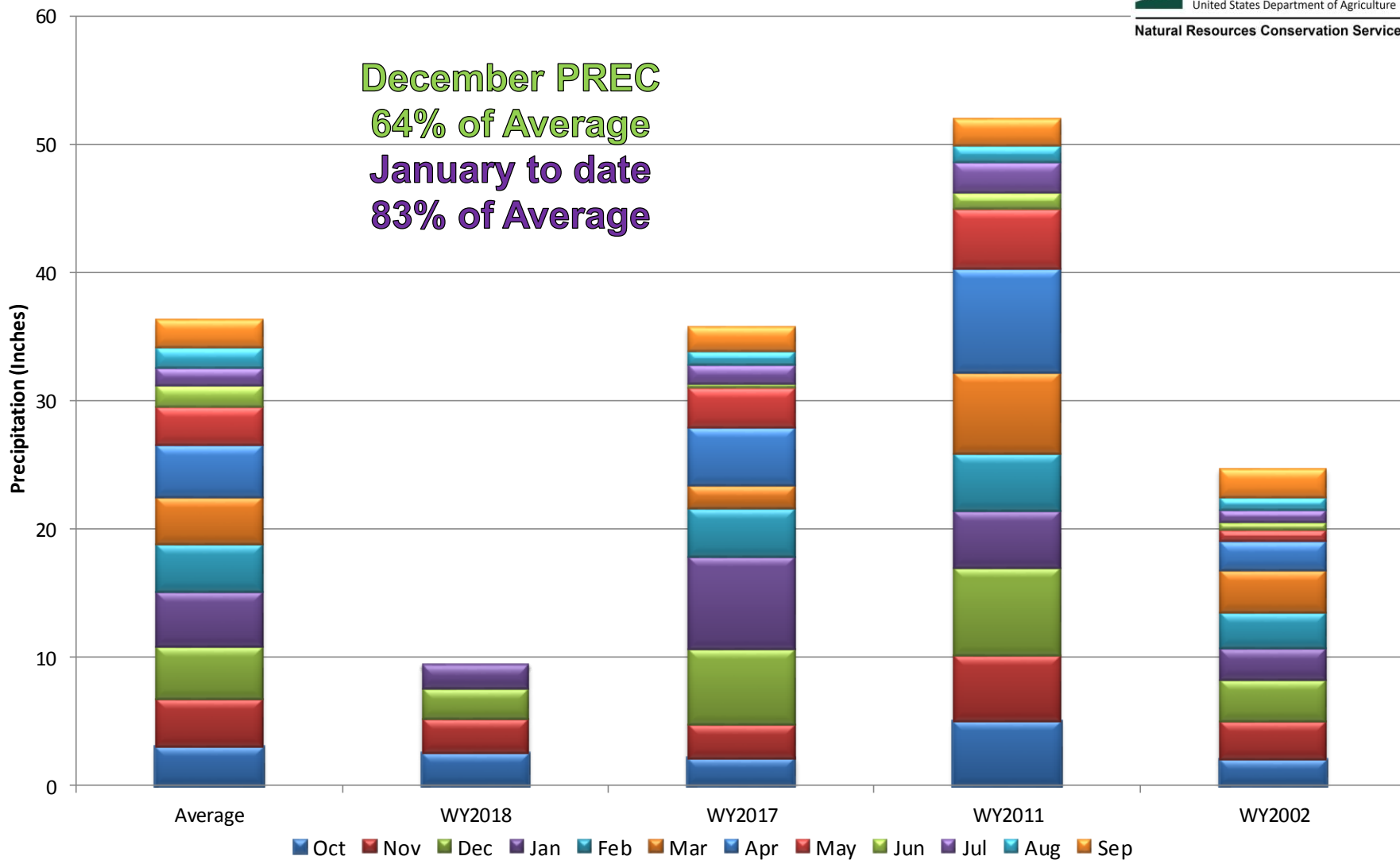
Based on Provisional SNOTEL data as of Jan 17, 2018



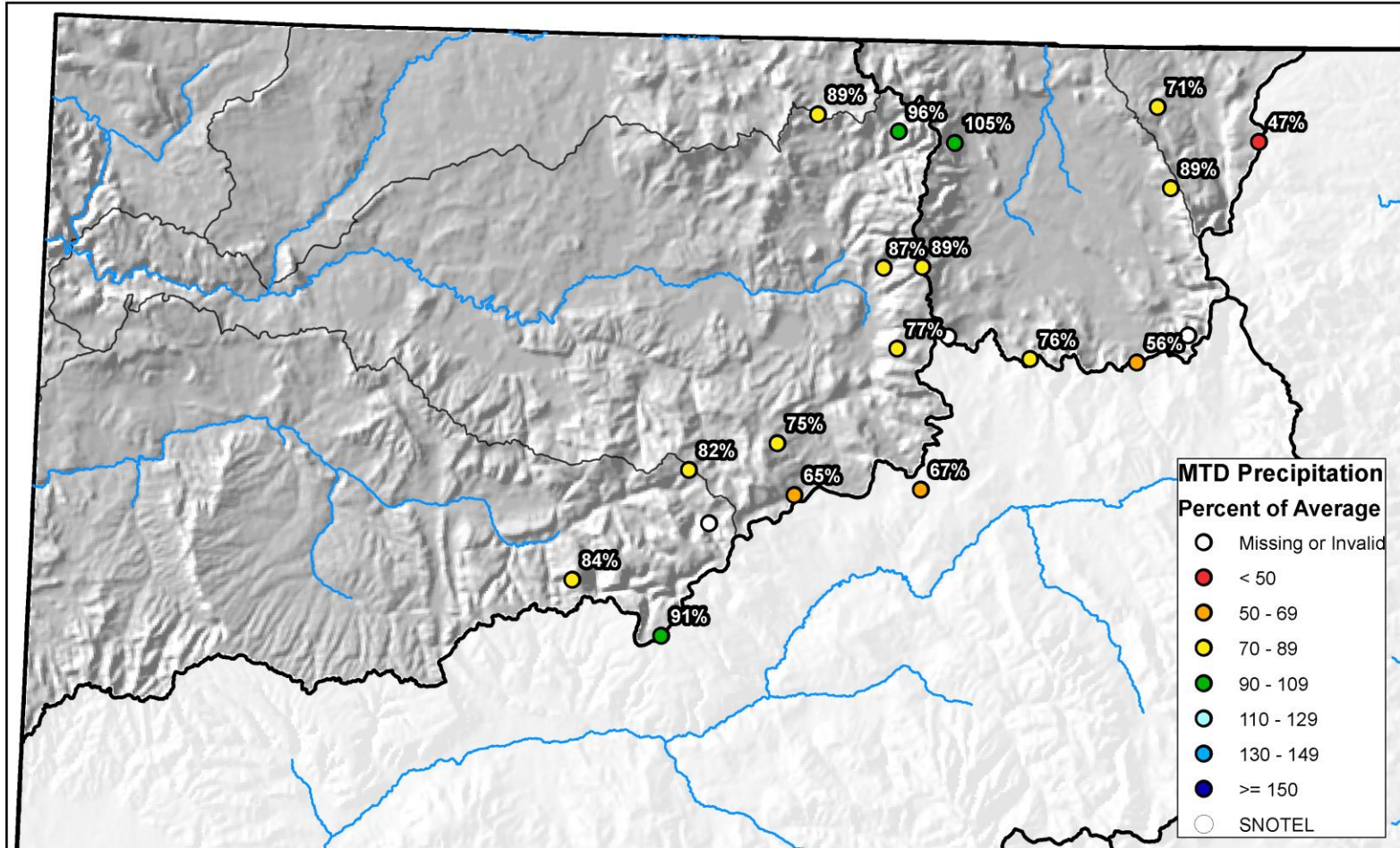
United States Department of Agriculture

Natural Resources Conservation Service

December PREC
64% of Average
January to date
83% of Average



Yampa, White, and North Platte River Basins Month to Date Precipitation Summary Current as of Jan 17, 2018



0 10 20 40 60 80 Miles



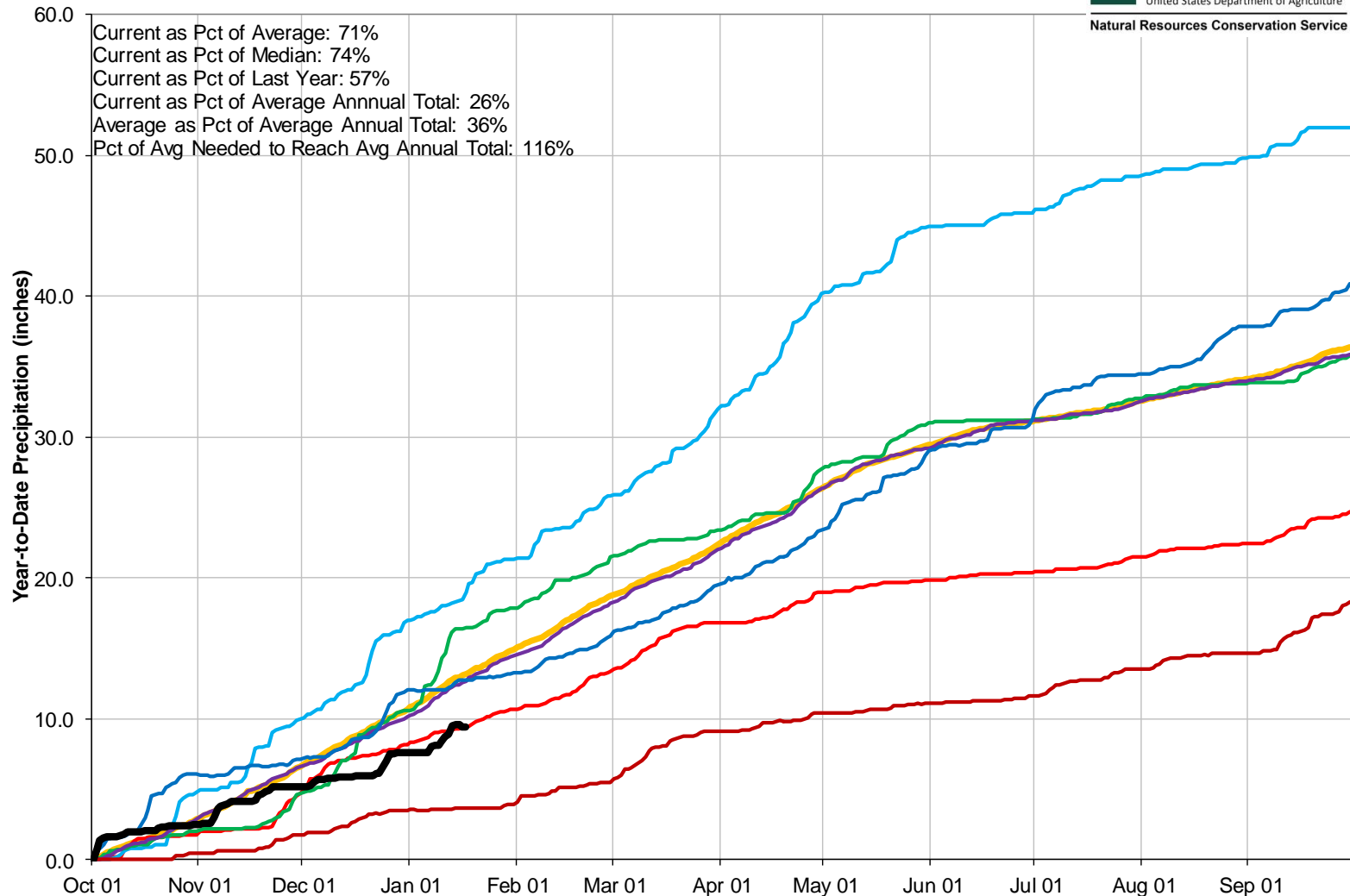
Yampa and White River Basins High/Low Year-to-Date Precipitation Summary

Based on Provisional SNOTEL data as of Jan 17, 2018

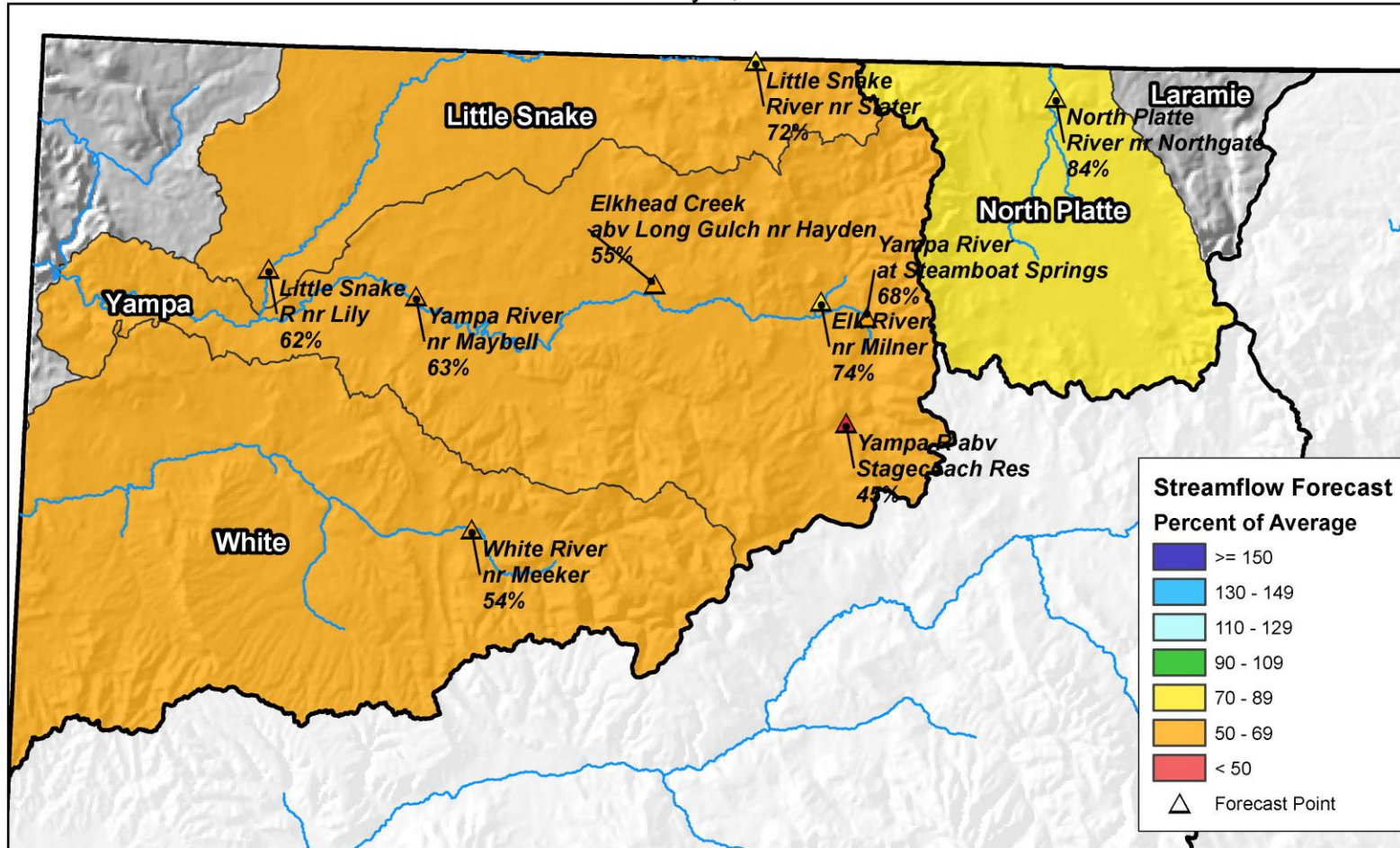


United States Department of Agriculture

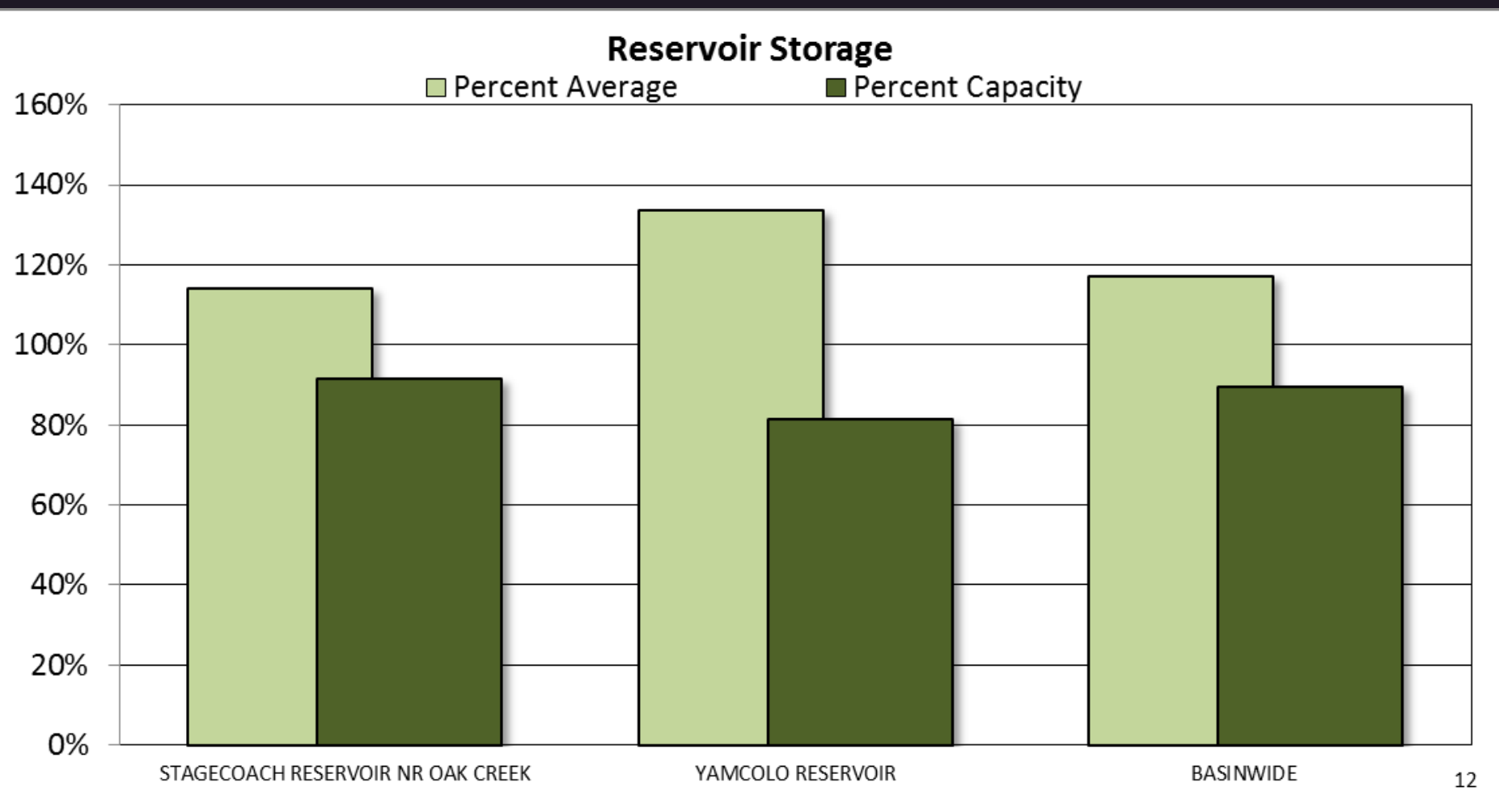
Natural Resources Conservation Service



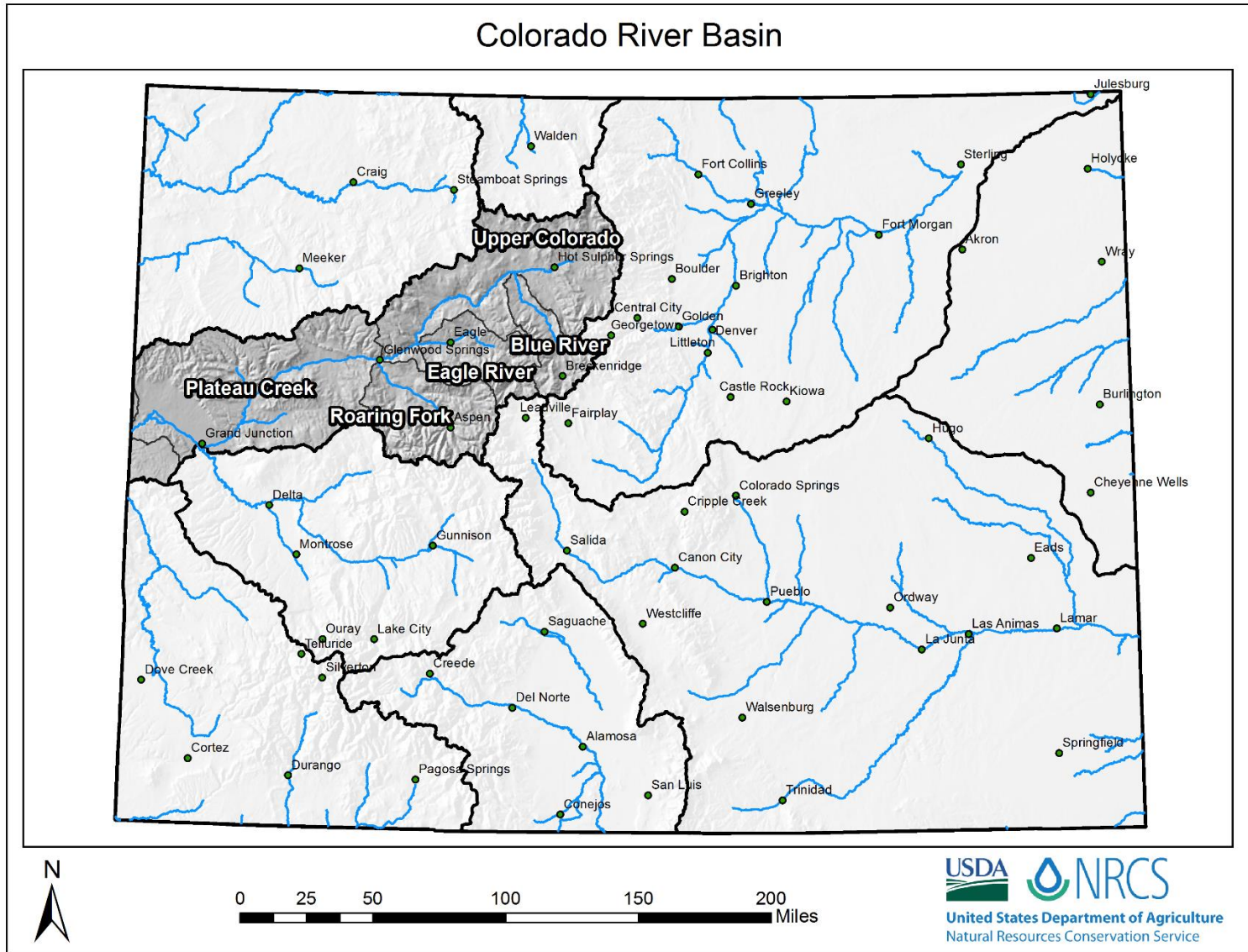
Yampa, White, and North Platte River Basins Streamflow Forecast Summary January 1, 2018



0 10 20 40 60 80 Miles



Major Basin Summary





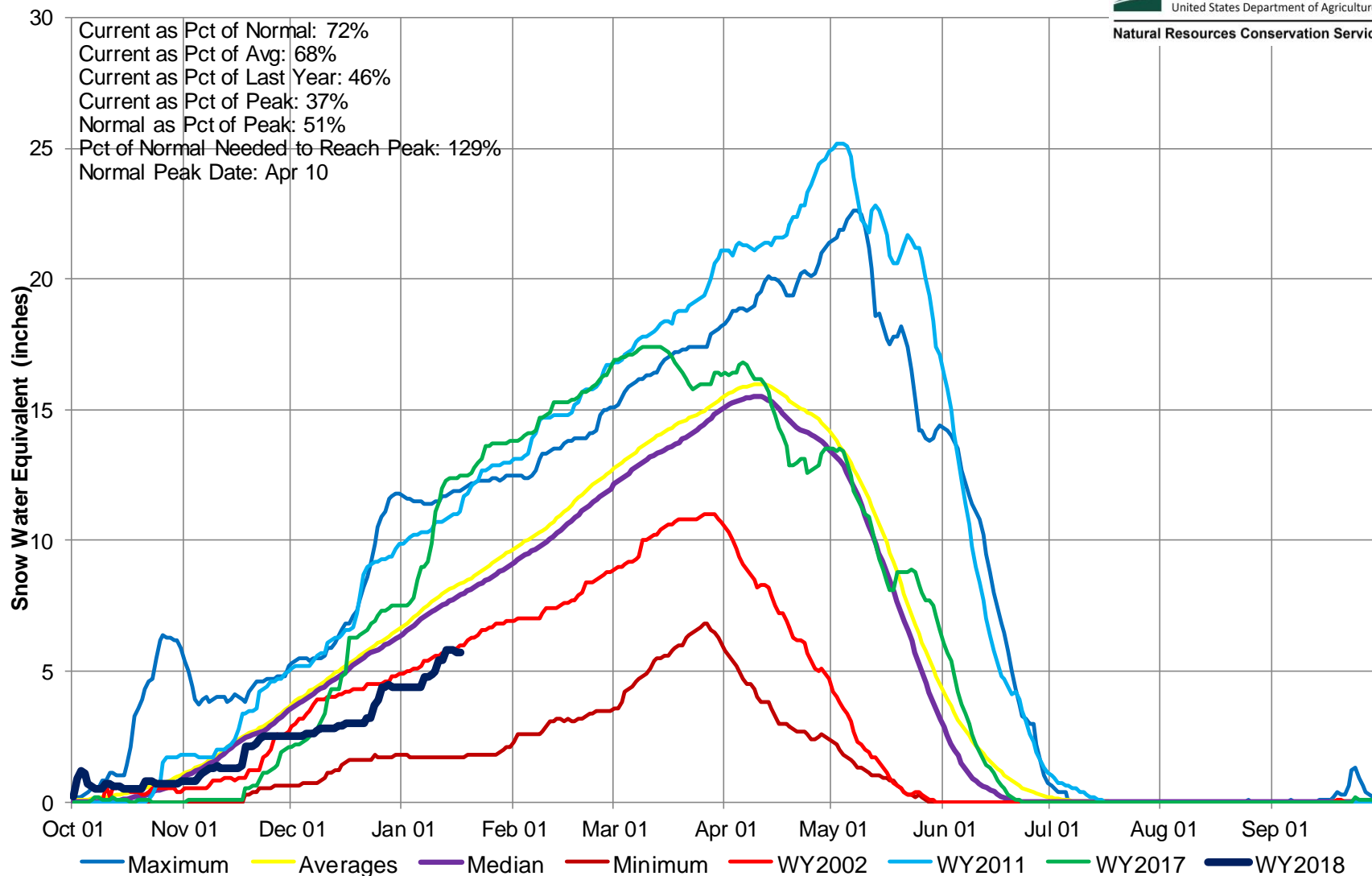
Upper Colorado River Basin High/Low Snowpack Summary

Based on Provisional SNOTEL data as of Jan 17, 2018



United States Department of Agriculture

Natural Resources Conservation Service



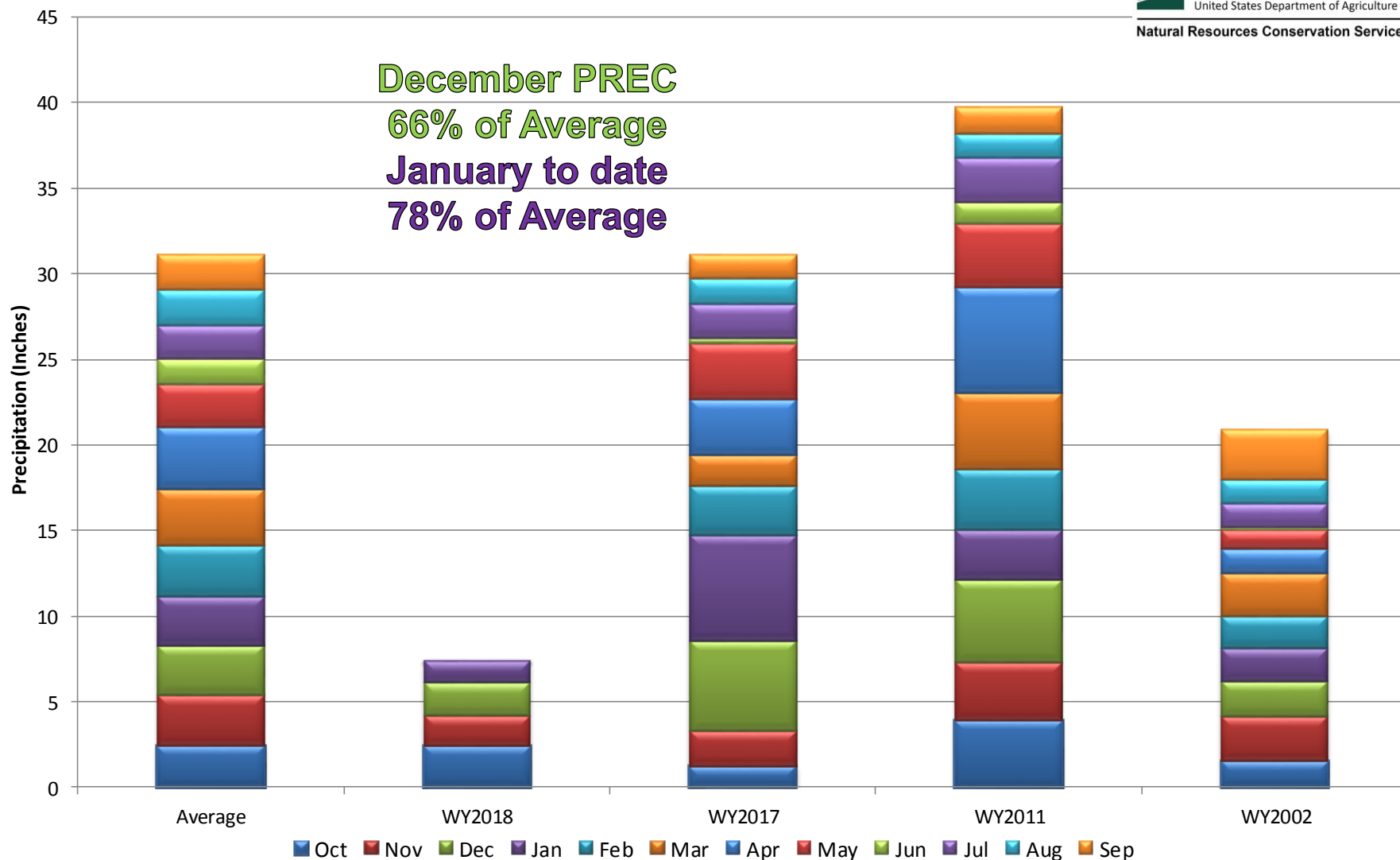
Upper Colorado River Basin High/Low Monthly Precipitation Summary

Based on Provisional SNOTEL data as of Jan 17, 2018



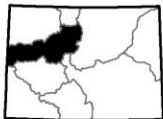
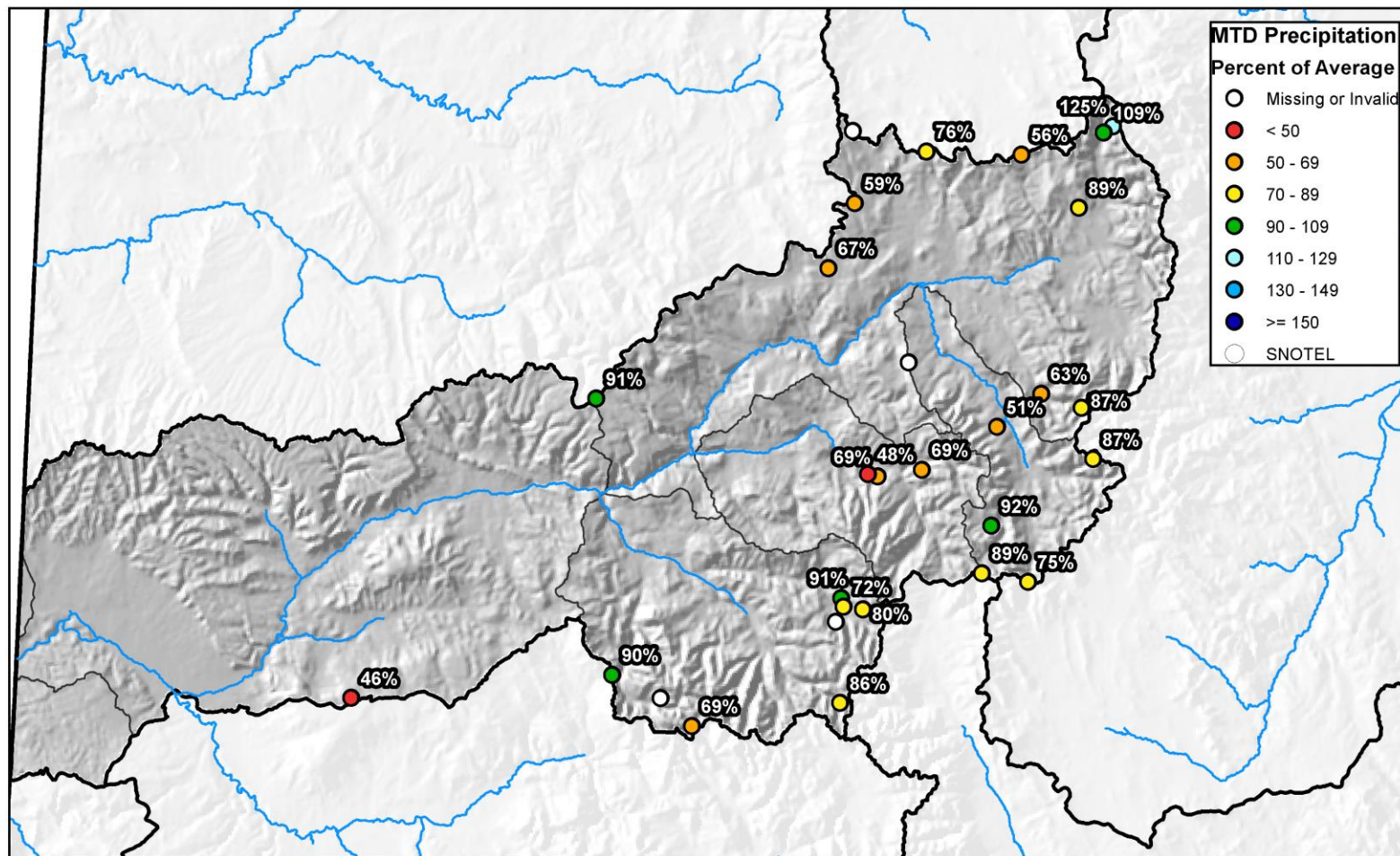
United States Department of Agriculture

Natural Resources Conservation Service



Upper Colorado River Basin Month to Date Precipitation Summary

Current as of Jan 17, 2018



0 10 20 40 60 80 Miles



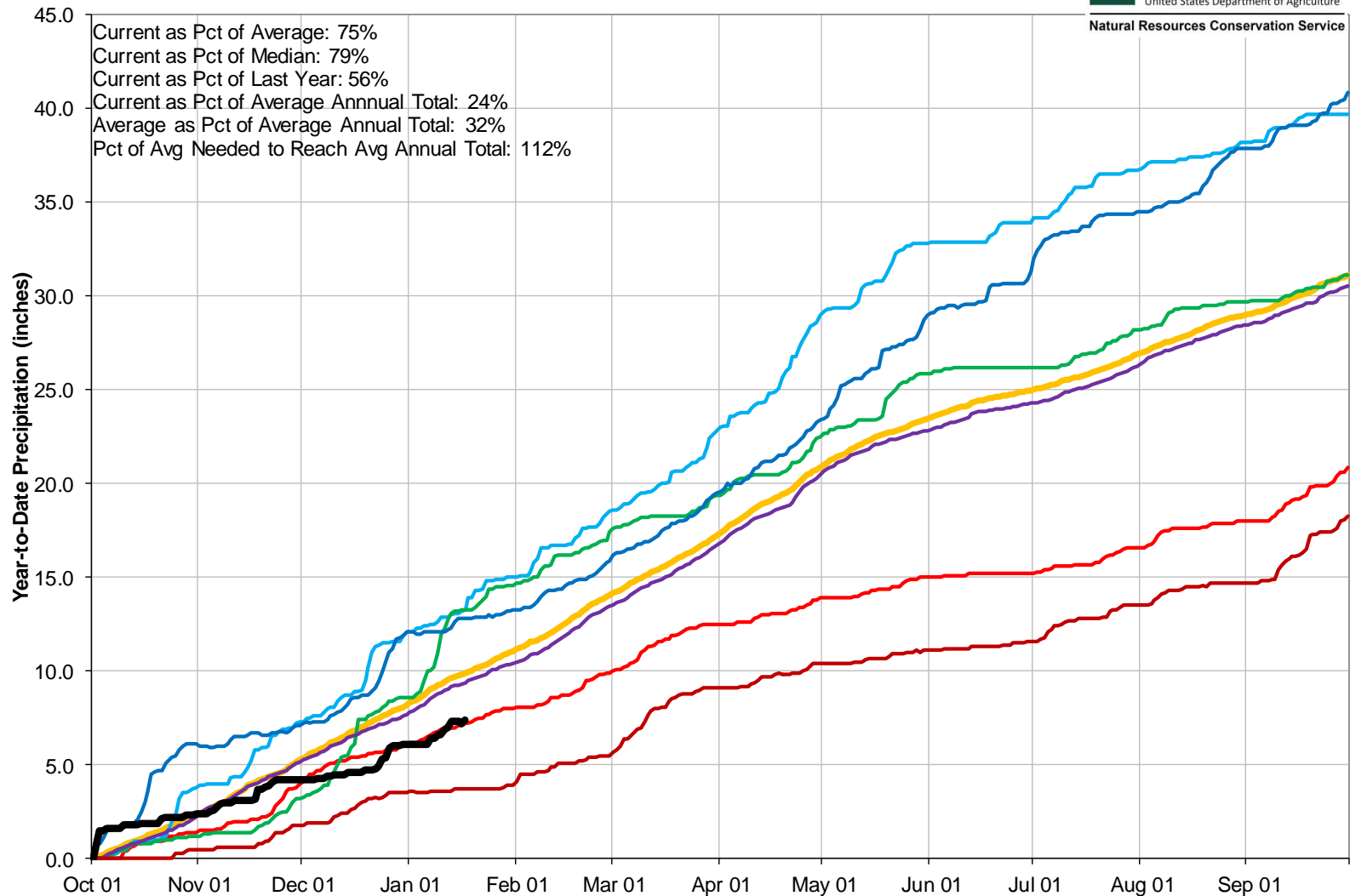
Upper Colorado River Basin High/Low Year-to-Date Precipitation Summary

Based on Provisional SNOTEL data as of Jan 17, 2018



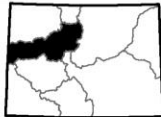
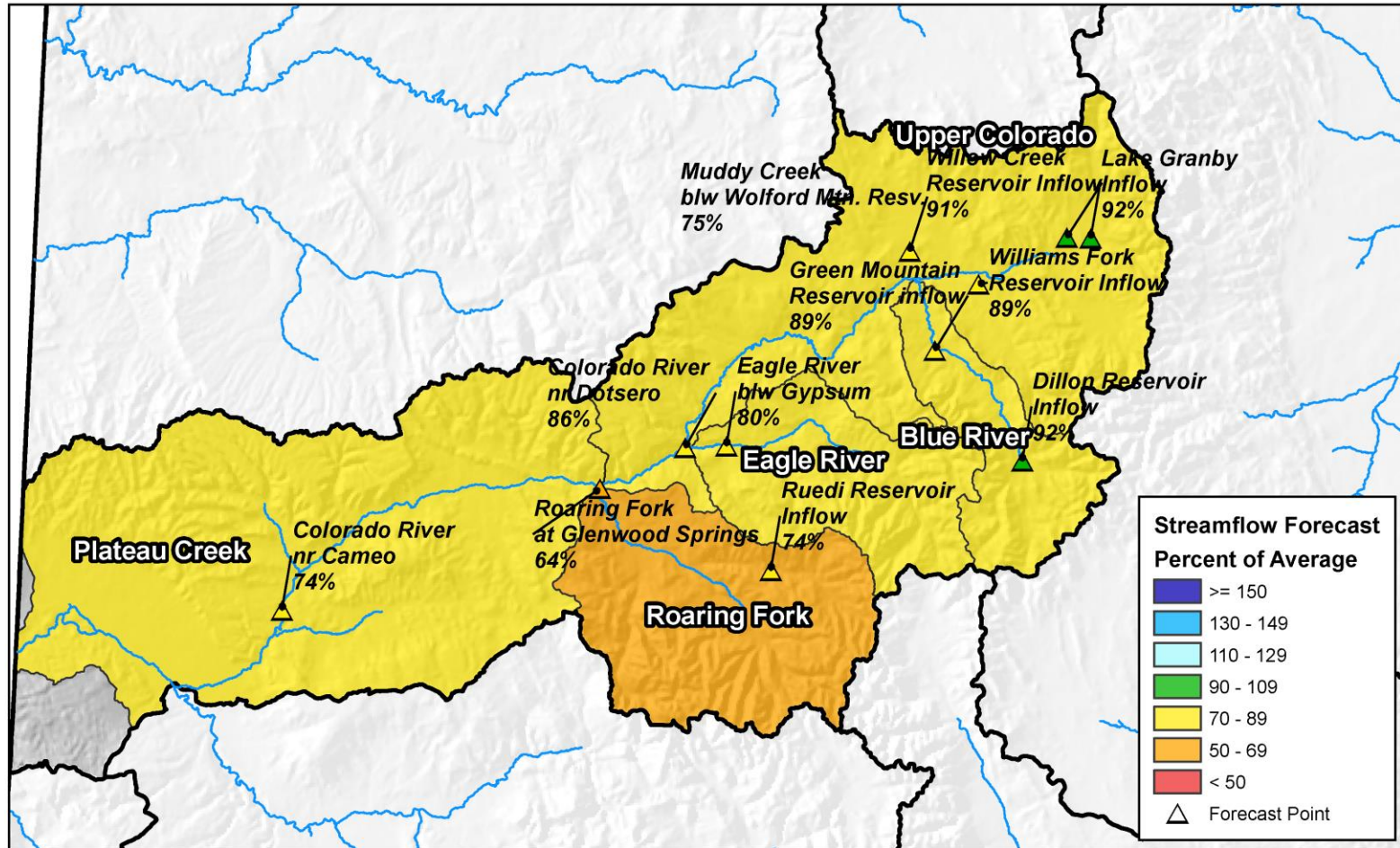
United States Department of Agriculture

Natural Resources Conservation Service



Upper Colorado River Basin Streamflow Forecast Summary

January 1, 2018

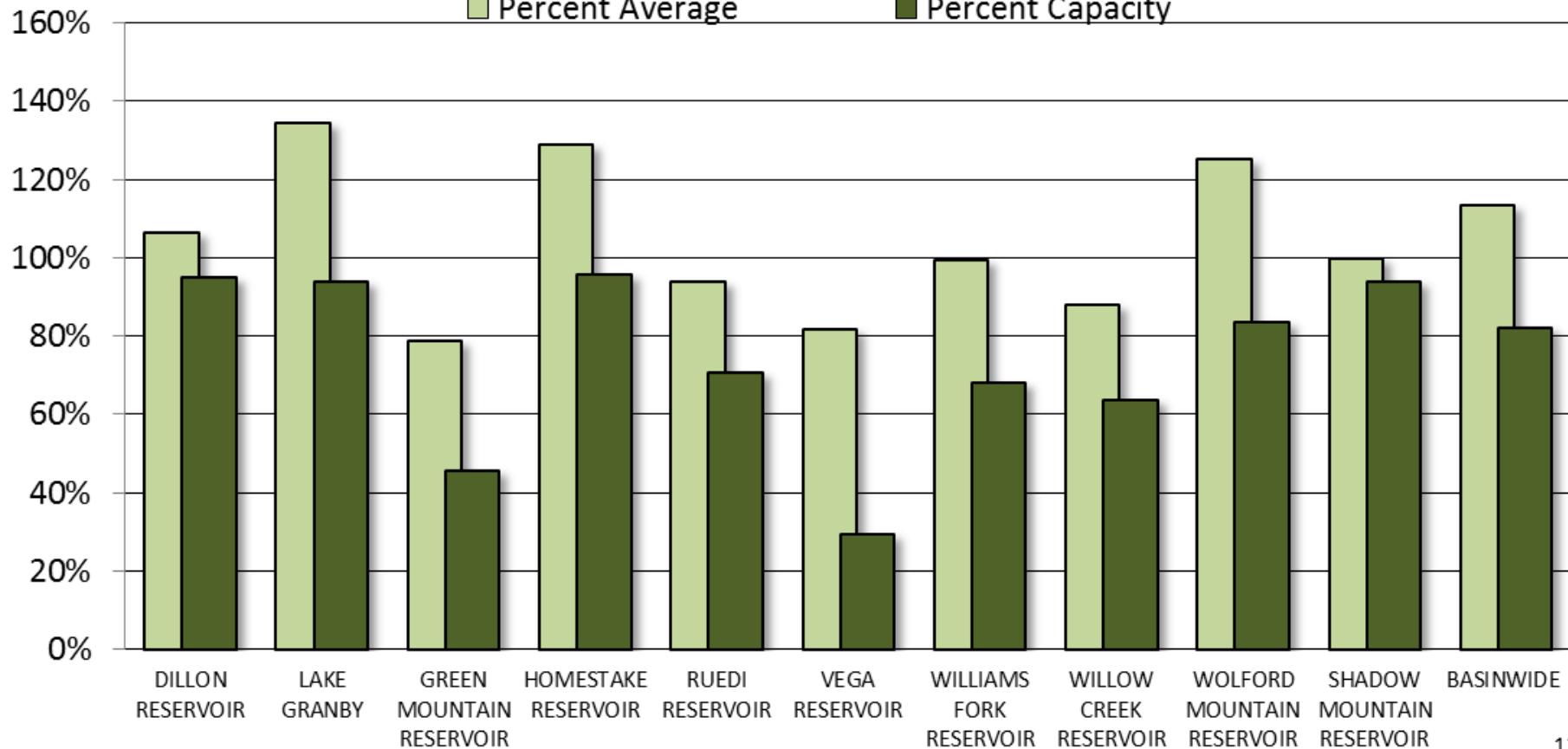


0 10 20 40 60 80 Miles

Reservoir Storage

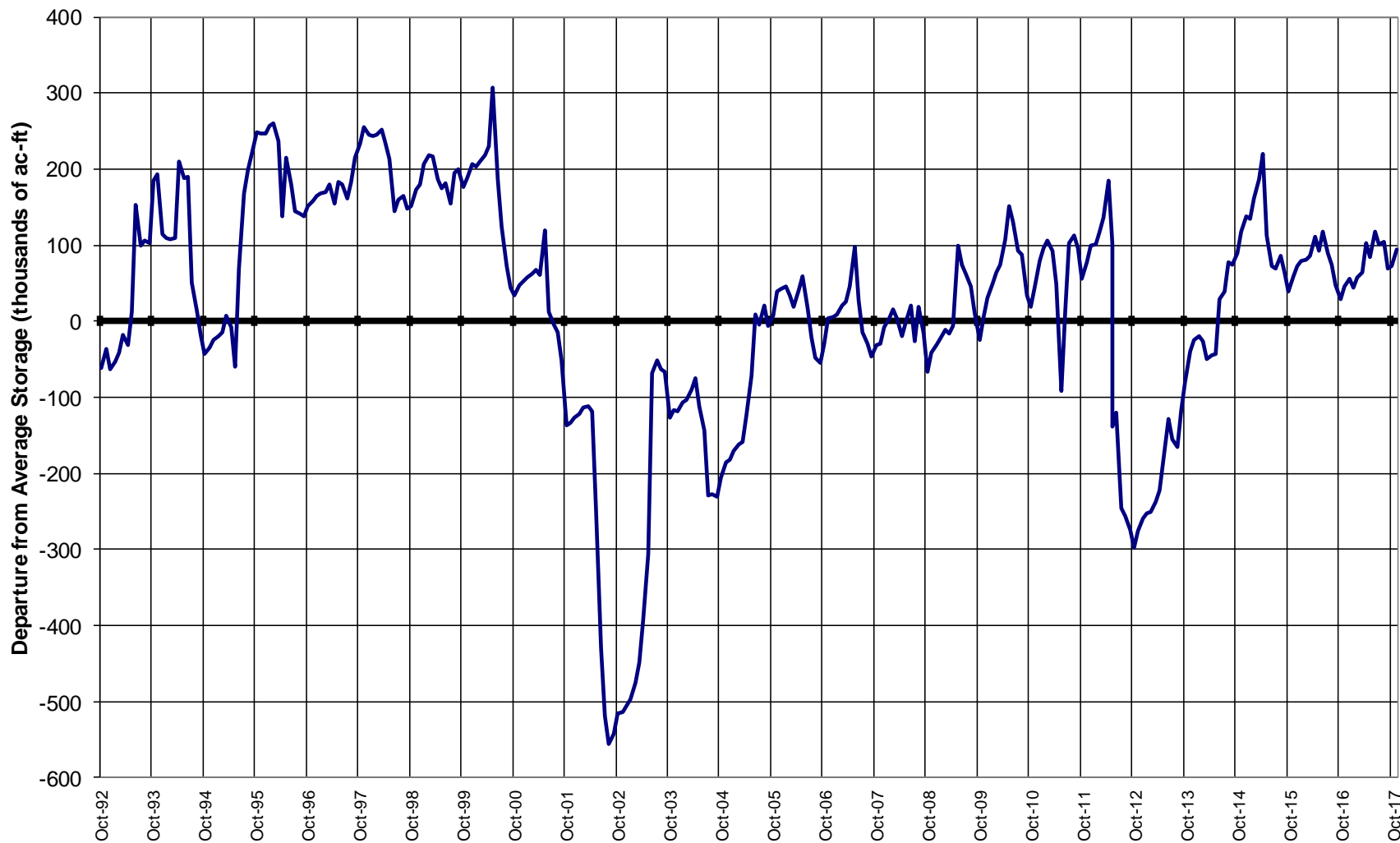
■ Percent Average

■ Percent Capacity



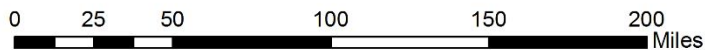
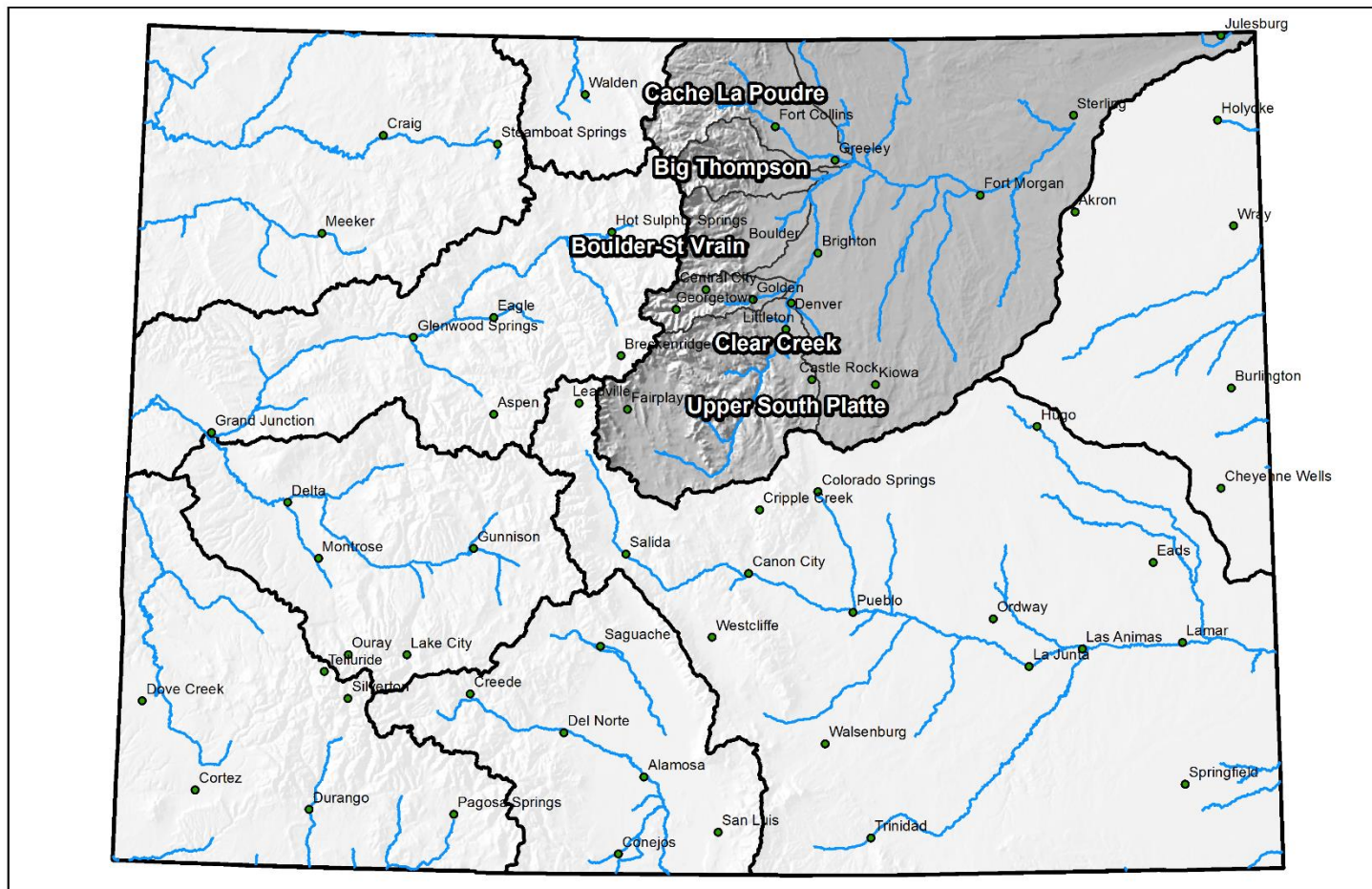


COLORADO RIVER BASIN Reservoir Storage Departure from Average



Major Basin Summary

South Platte River Basin





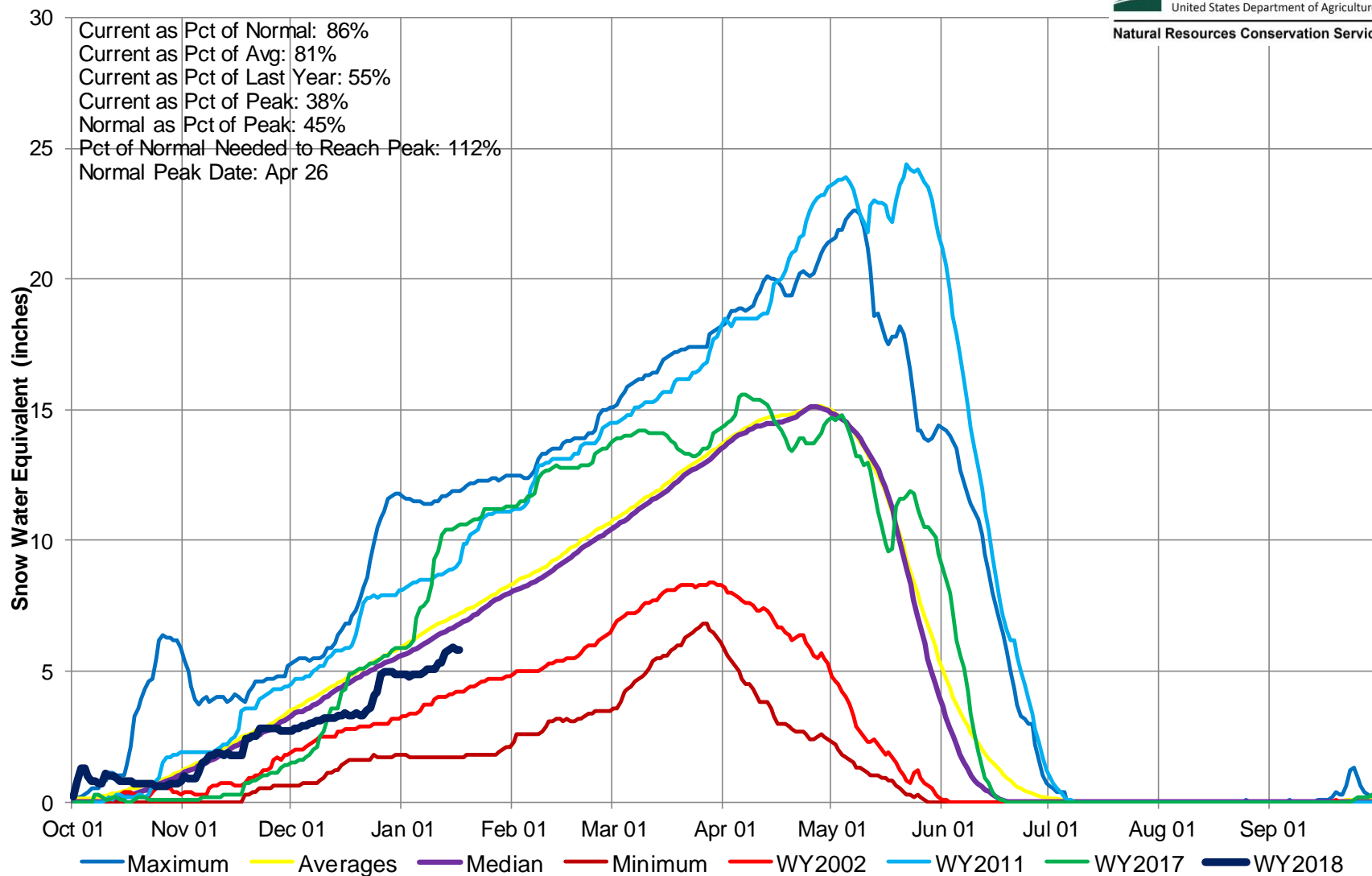
South Platte River Basin High/Low Snowpack Summary

Based on Provisional SNOTEL data as of Jan 17, 2018



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Natural Resources Conservation Service



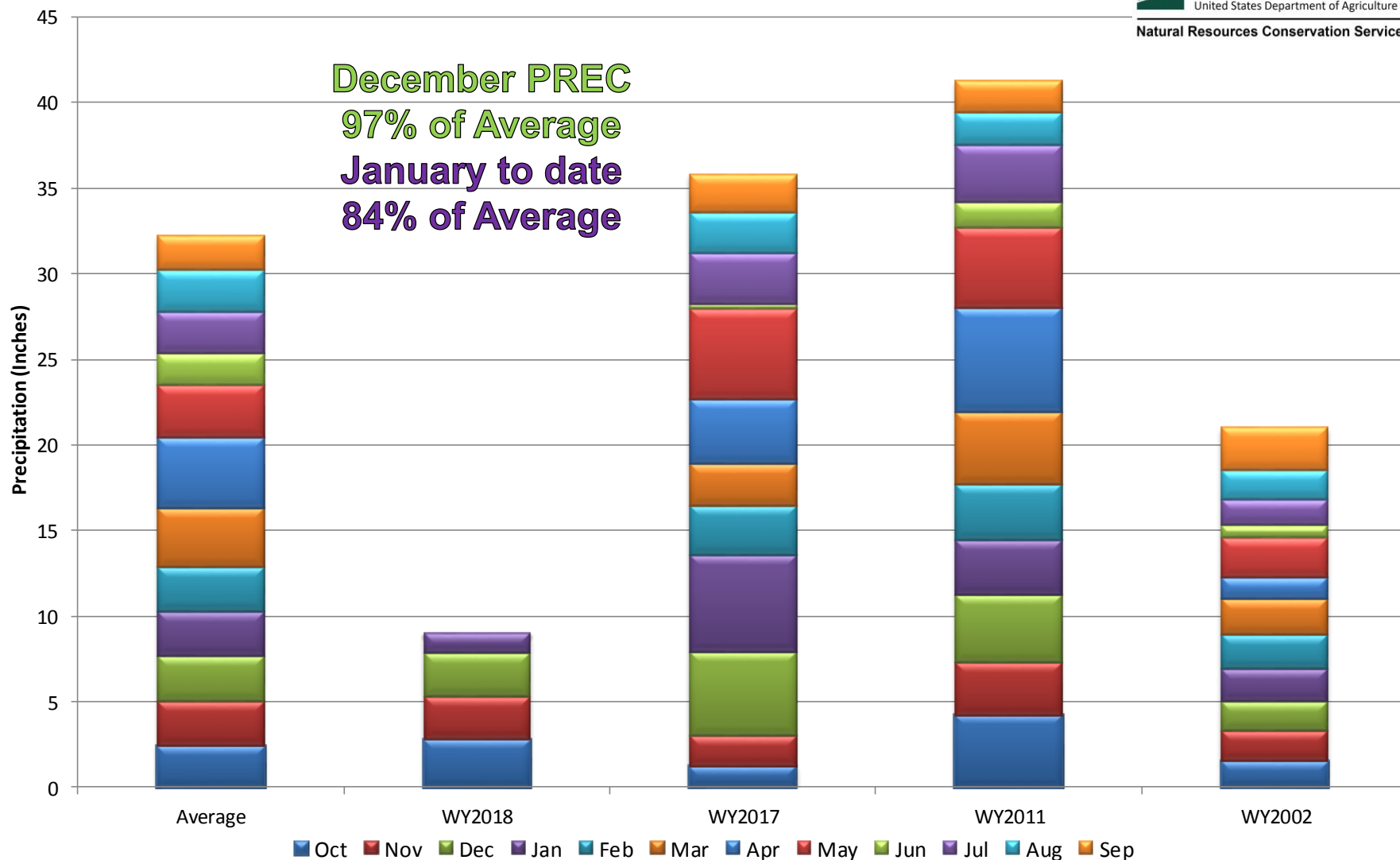
South Platte River Basin High/Low Monthly Precipitation Summary

Based on Provisional SNOTEL data as of Jan 17, 2018



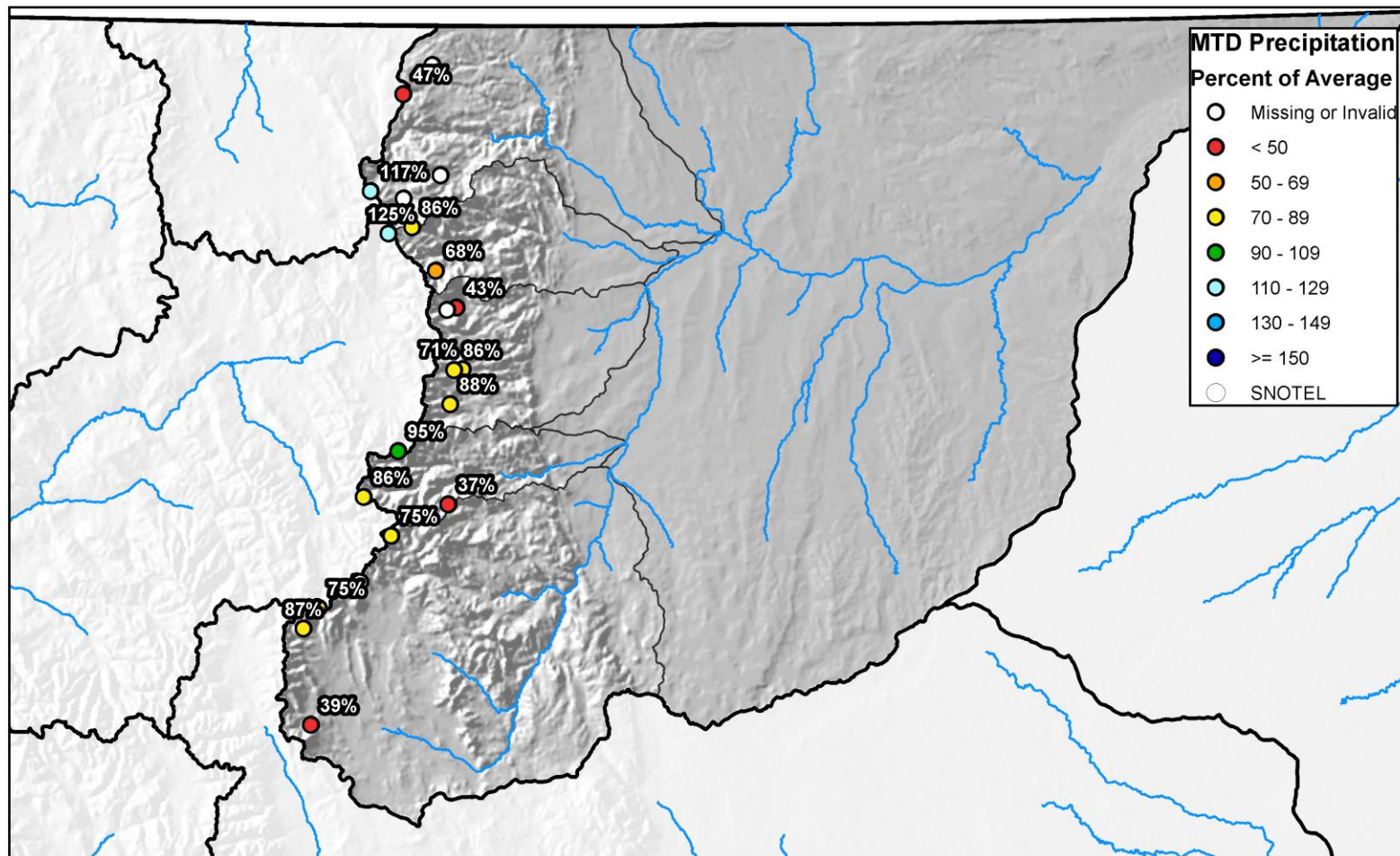
United States Department of Agriculture

Natural Resources Conservation Service



South Platte River Basin Month to Date Precipitation Summary

Current as of Jan 17, 2018



0 10 20 40 60 80 Miles



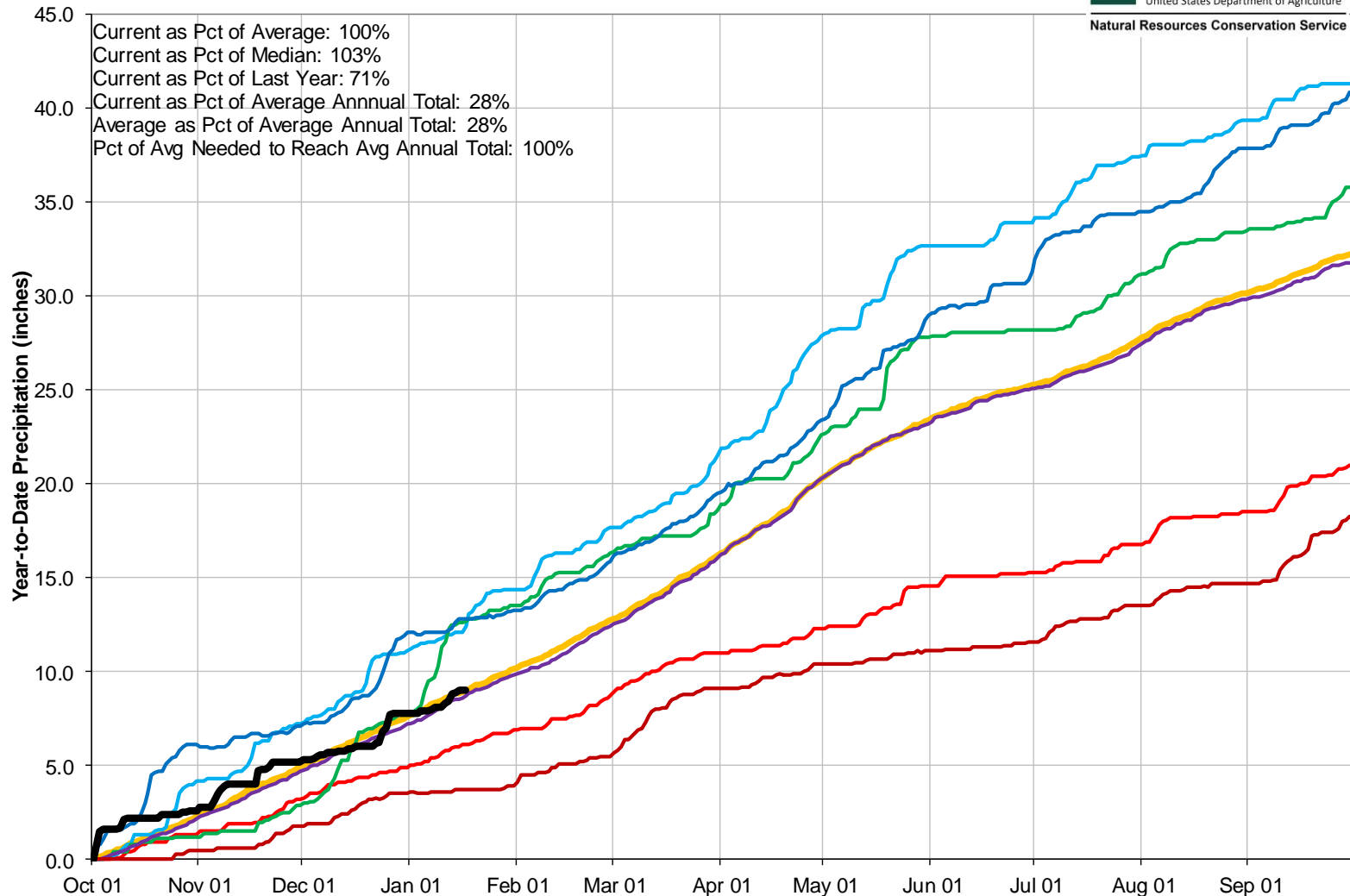
South Platte River Basin High/Low Year-to-Date Precipitation Summary

Based on Provisional SNOTEL data as of Jan 17, 2018



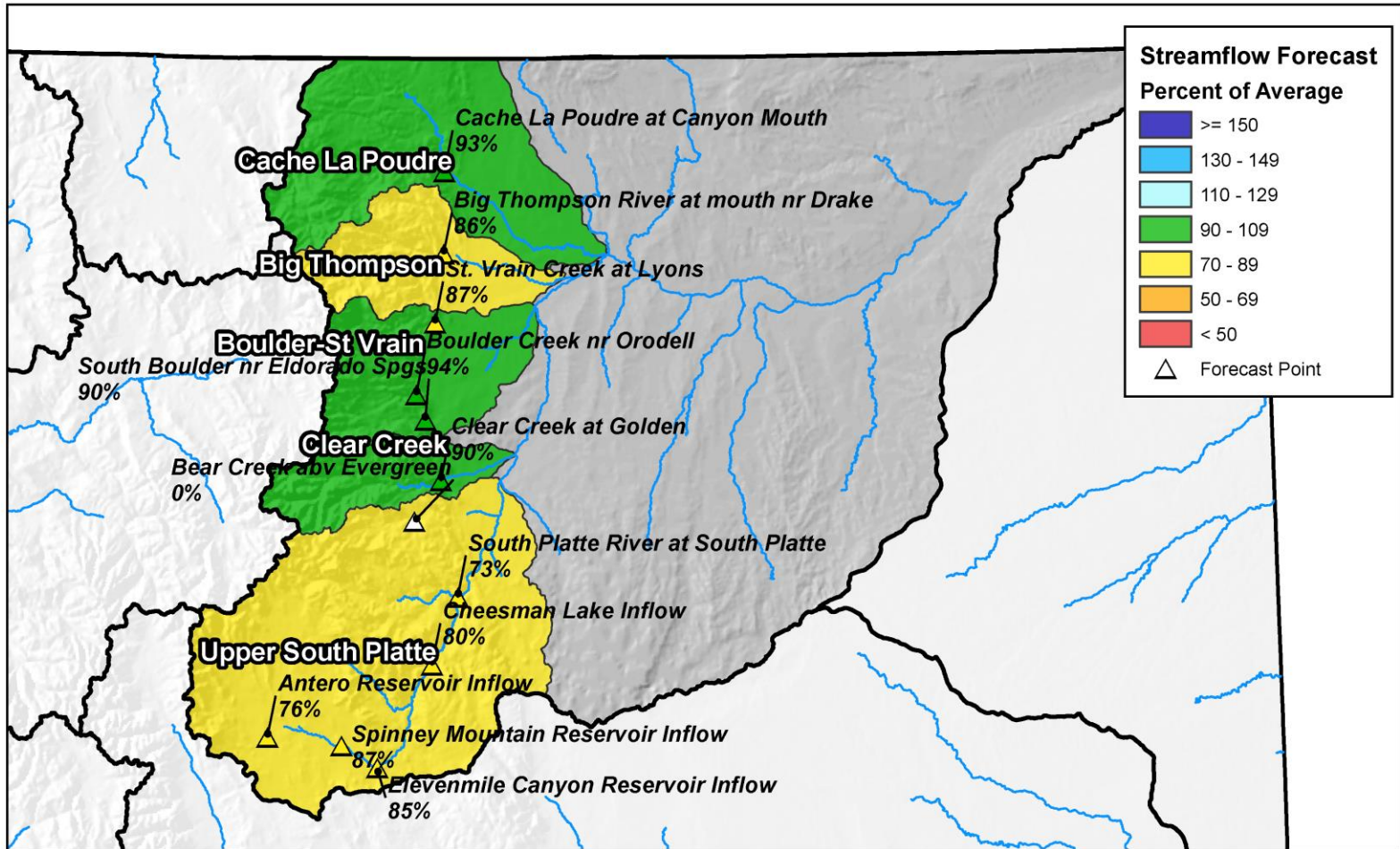
United States Department of Agriculture

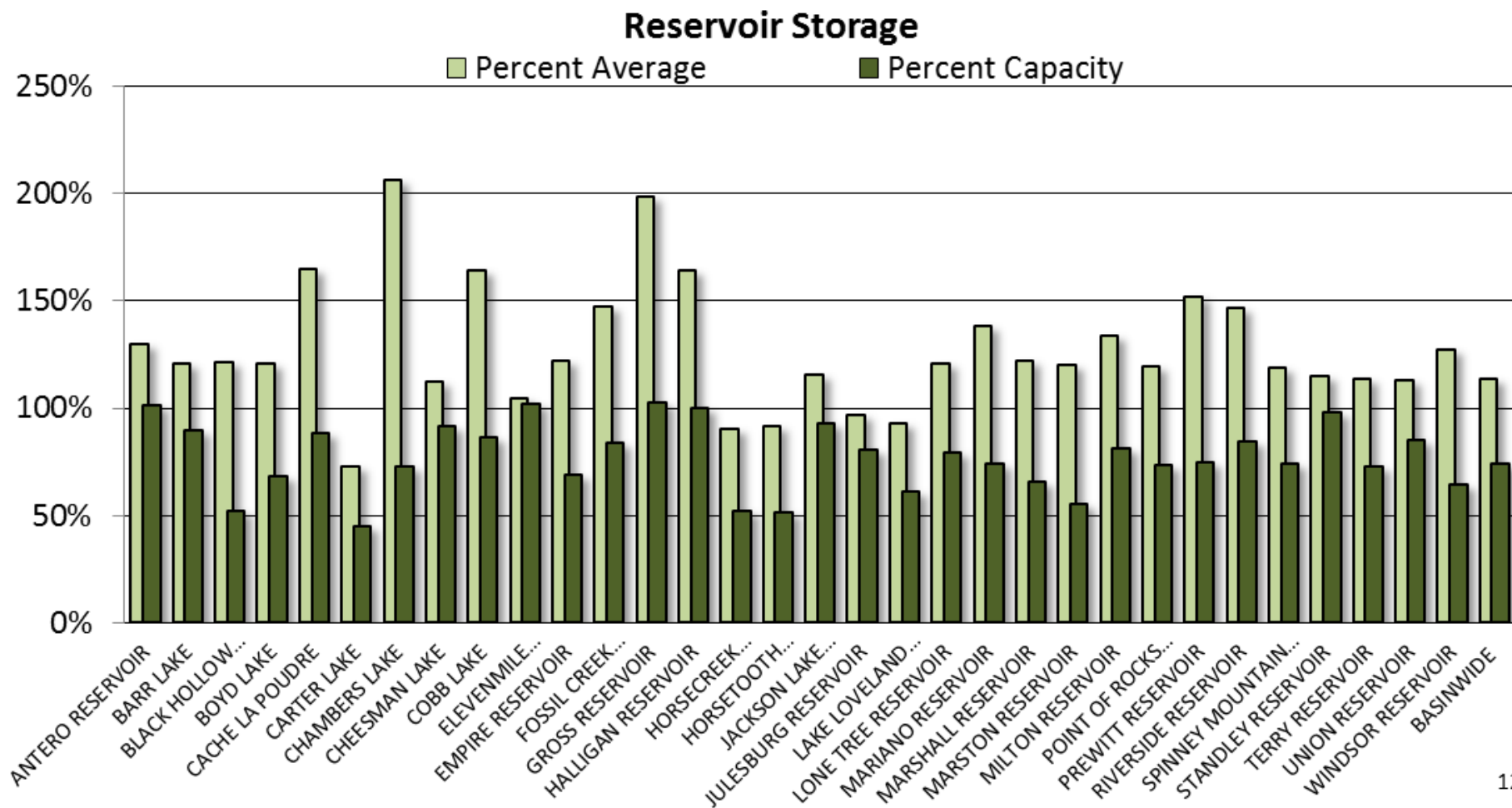
Natural Resources Conservation Service



South Platte River Basin Streamflow Forecast Summary

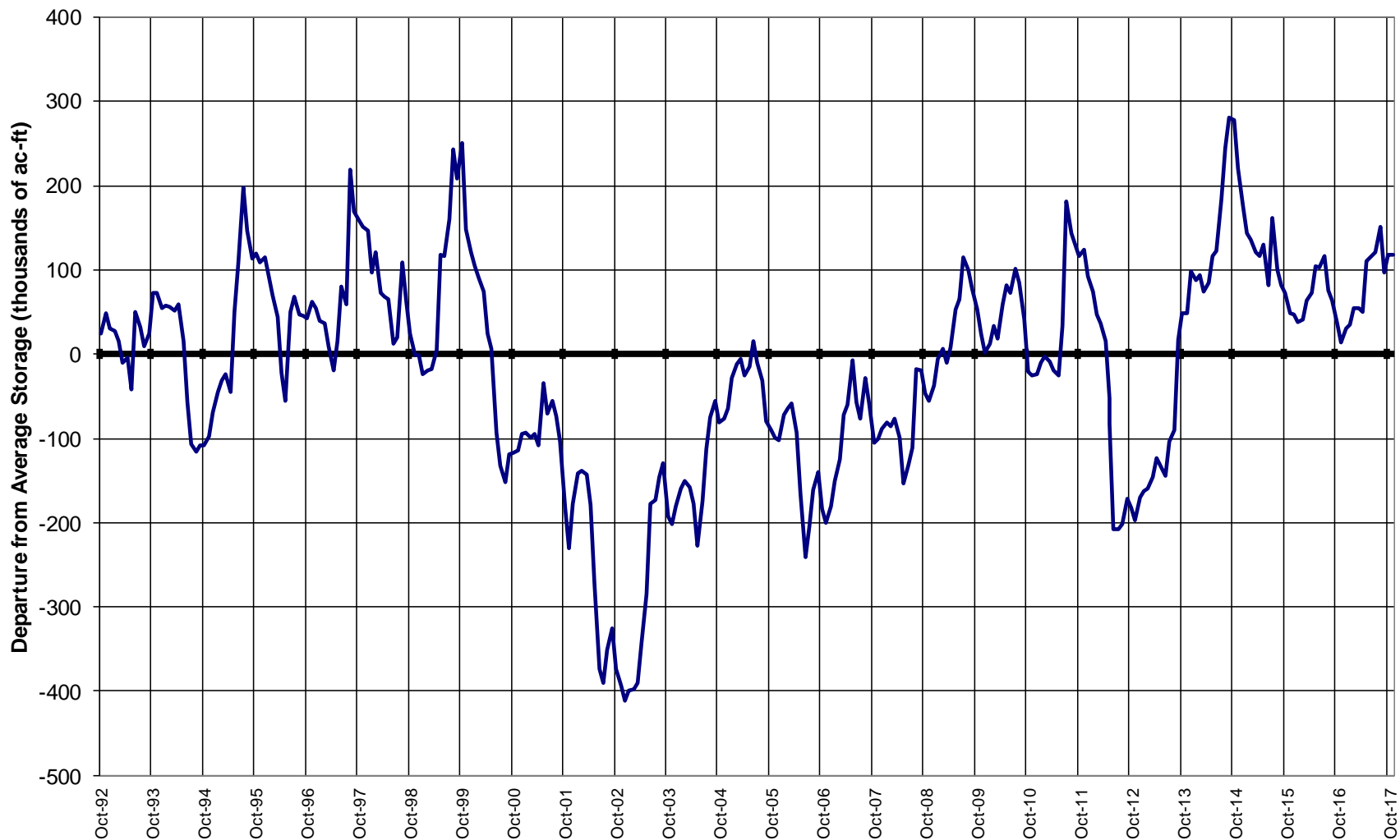
January 1, 2018





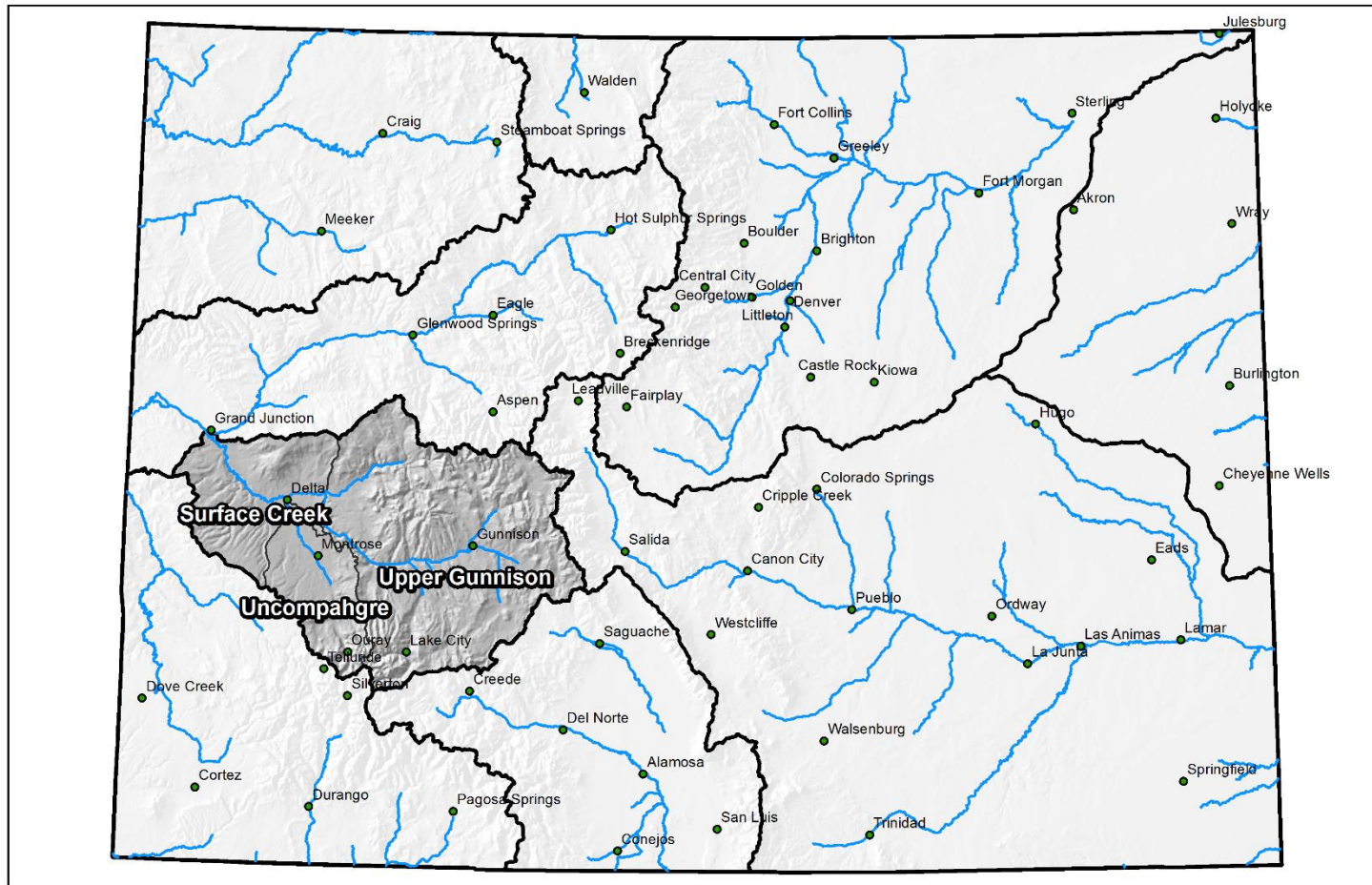


SOUTH PLATTE RIVER BASIN Reservoir Storage Departure from Average



Major Basin Summary

Gunnison River Basin





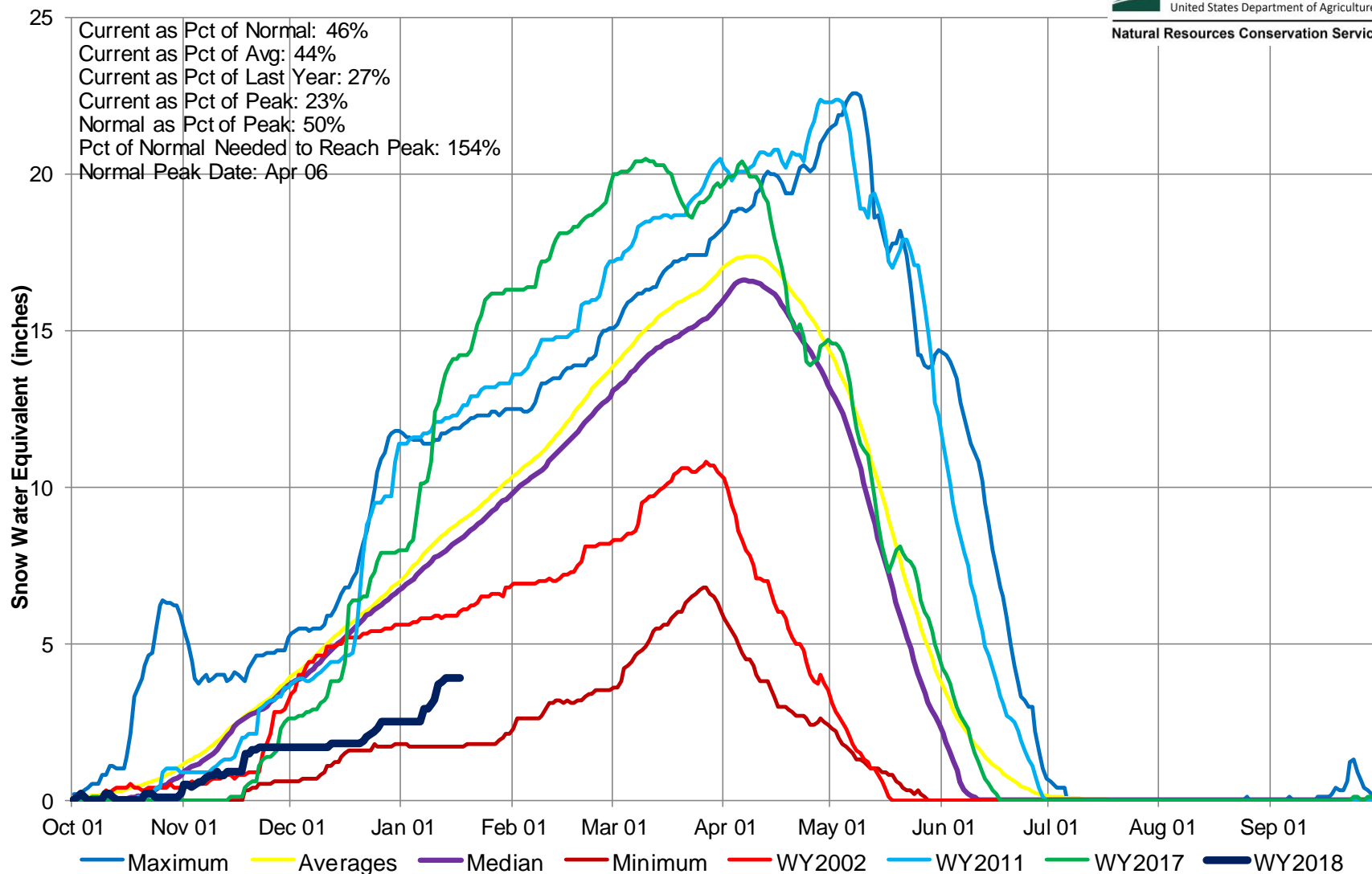
Gunnison River Basin High/Low Snowpack Summary

Based on Provisional SNOTEL data as of Jan 17, 2018



United States Department of Agriculture

Natural Resources Conservation Service



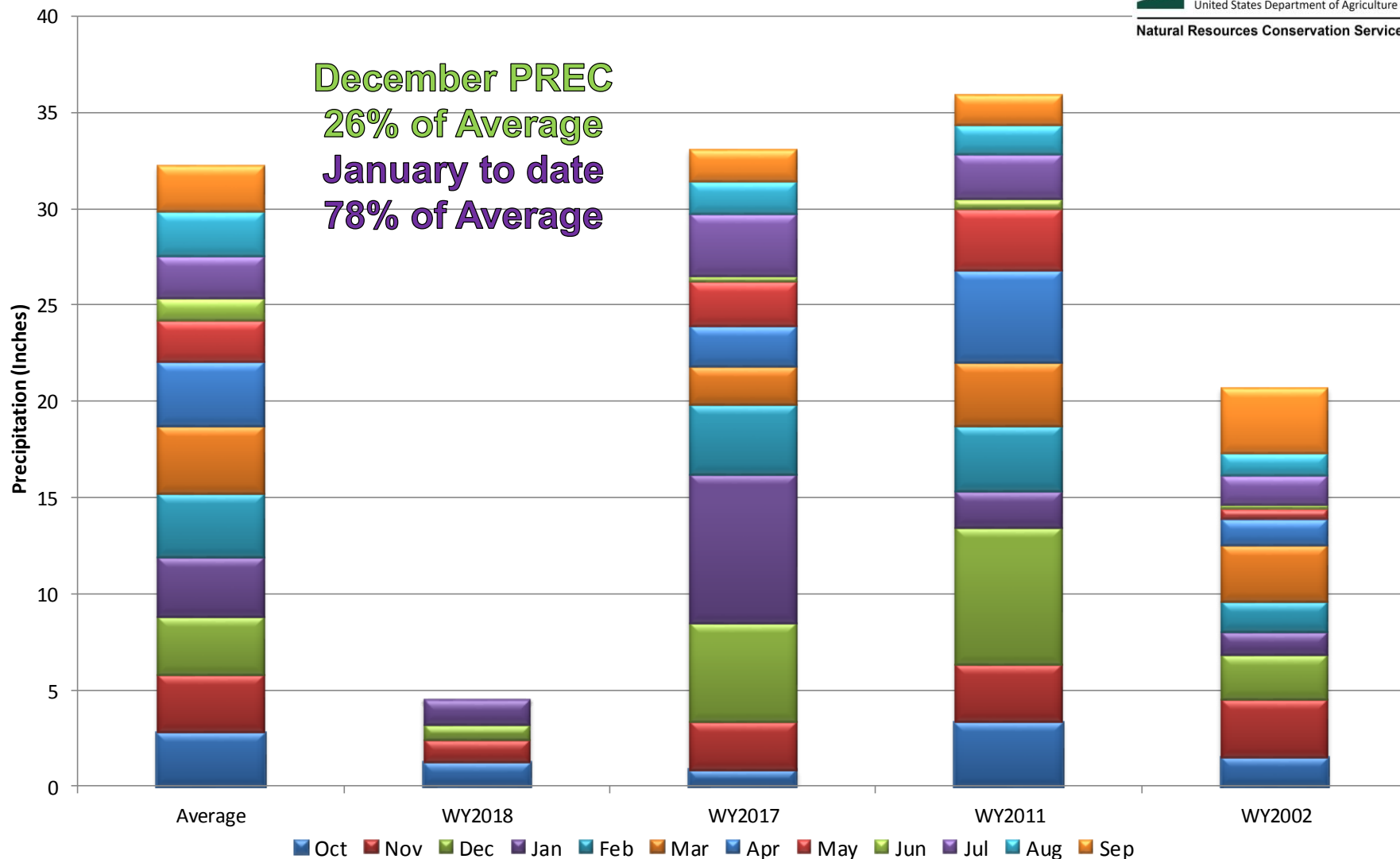
Gunnison River Basin High/Low Monthly Precipitation Summary

Based on Provisional SNOTEL data as of Jan 17, 2018



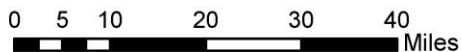
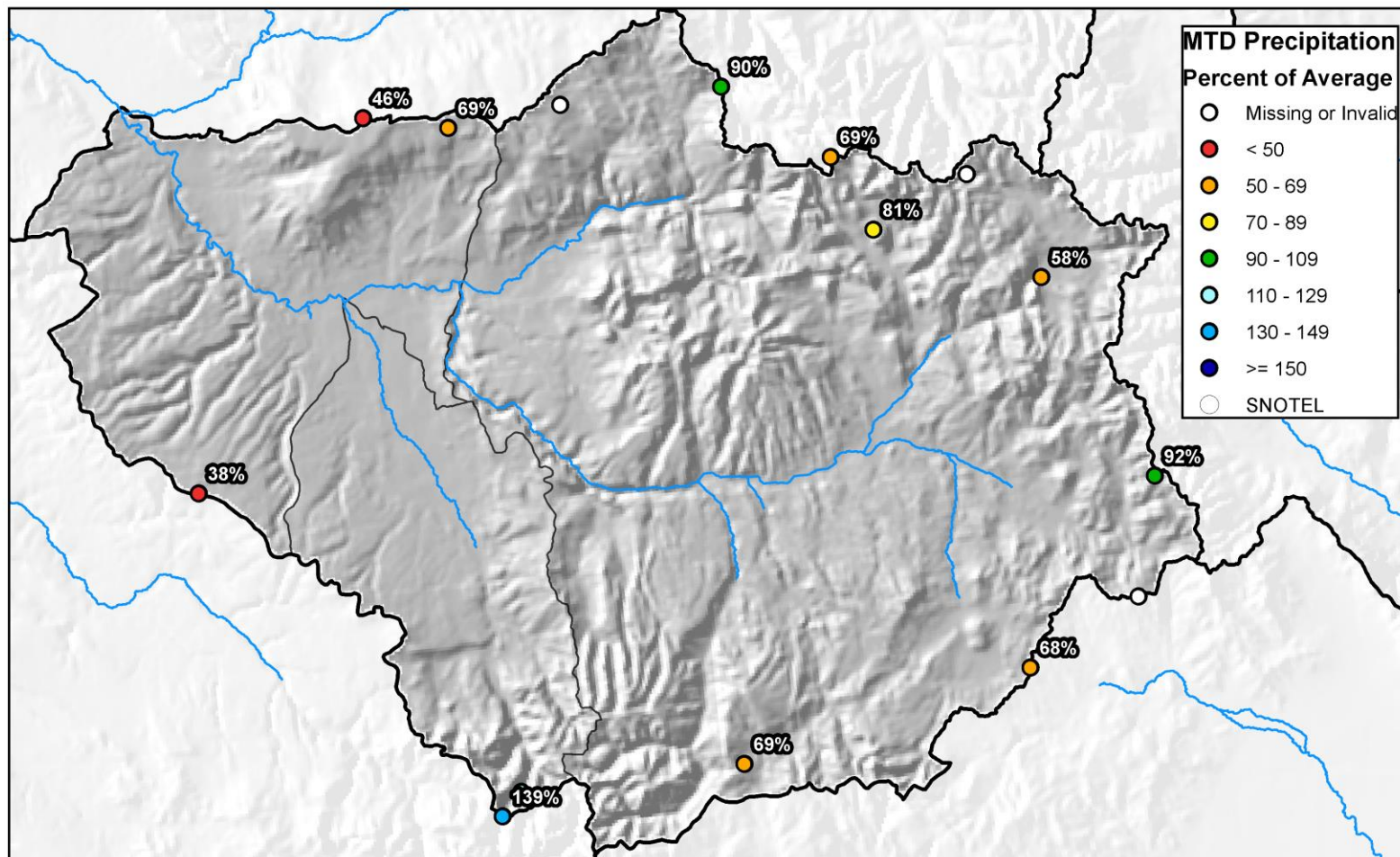
United States Department of Agriculture

Natural Resources Conservation Service



Gunnison River Basin Month to Date Precipitation Summary

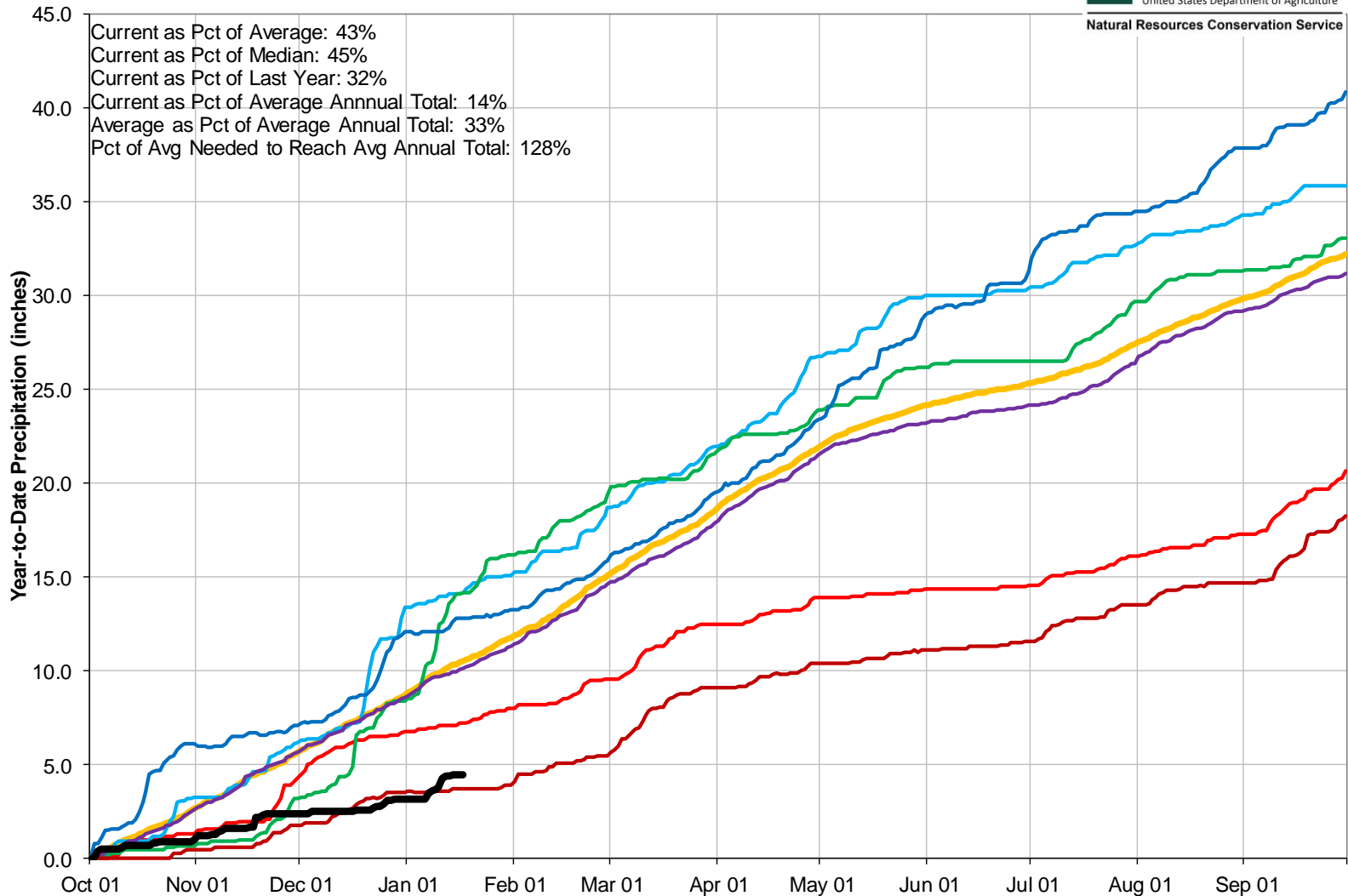
Current as of Jan 17, 2018



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

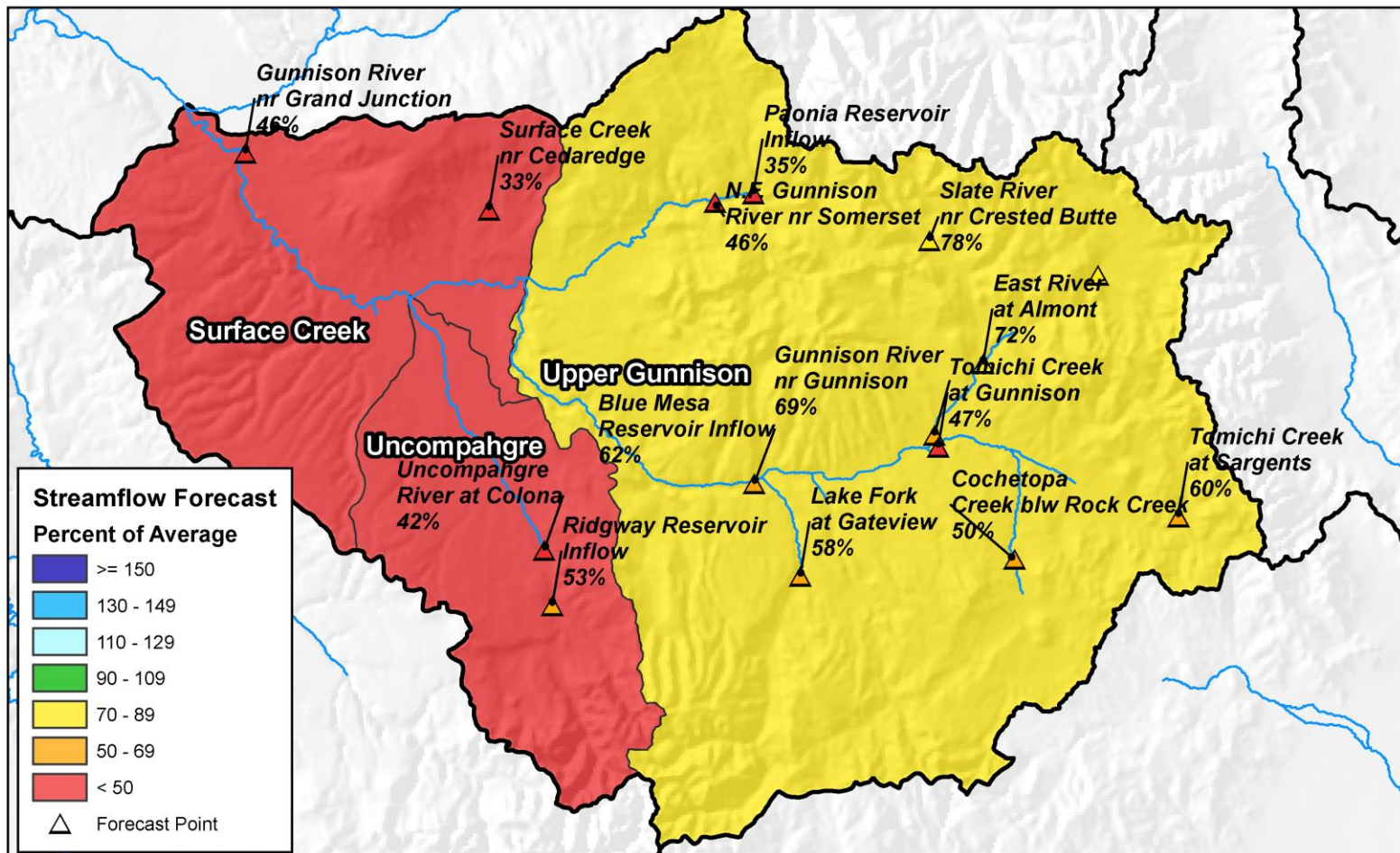
Based on Provisional SNOTEL data as of Jan 17, 2018

USDA
United States Department of Agriculture
Natural Resources Conservation Service

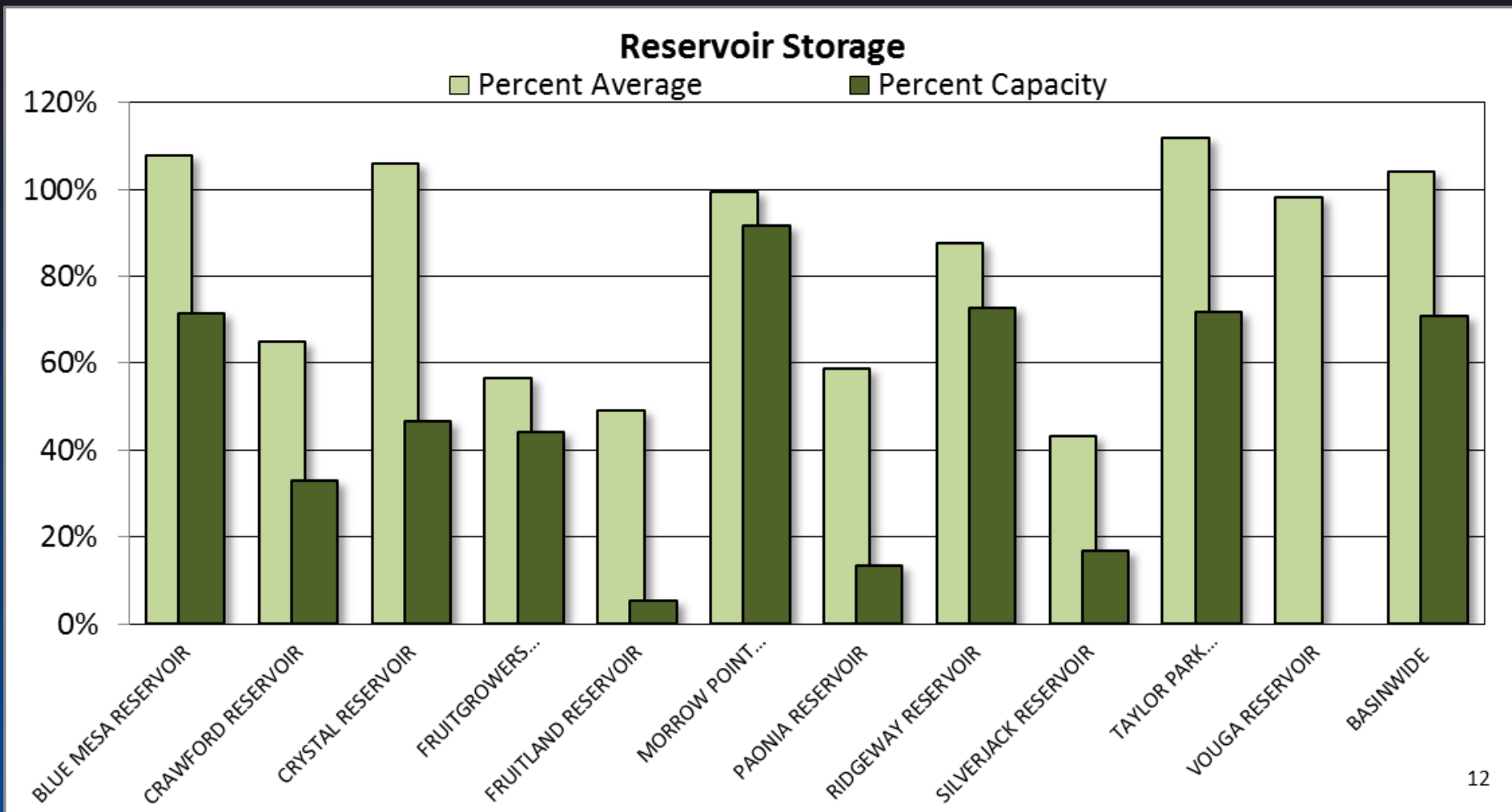


Gunnison River Basin Water Supply Forecast Summary

January 1, 2018



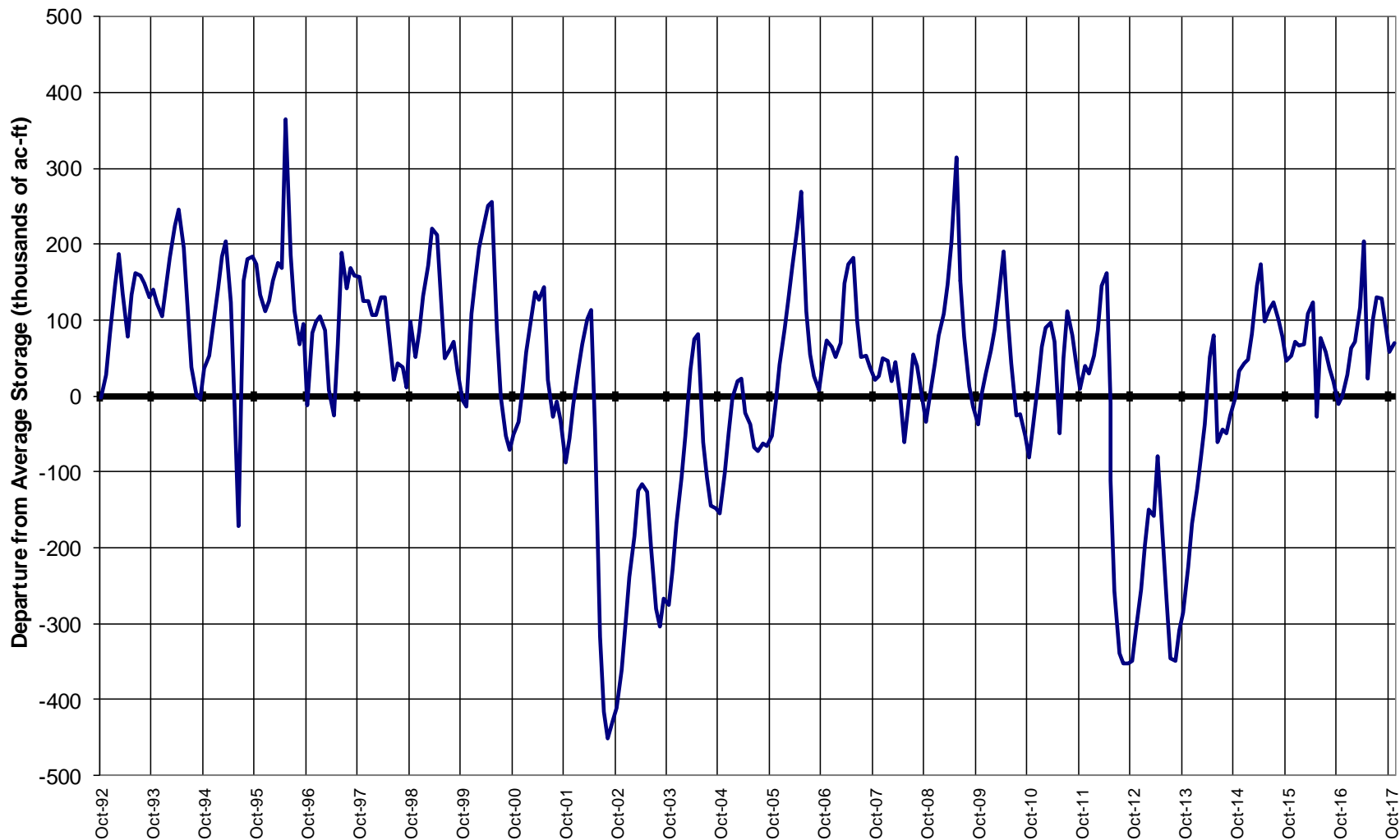
0 5 10 20 30 40 Miles





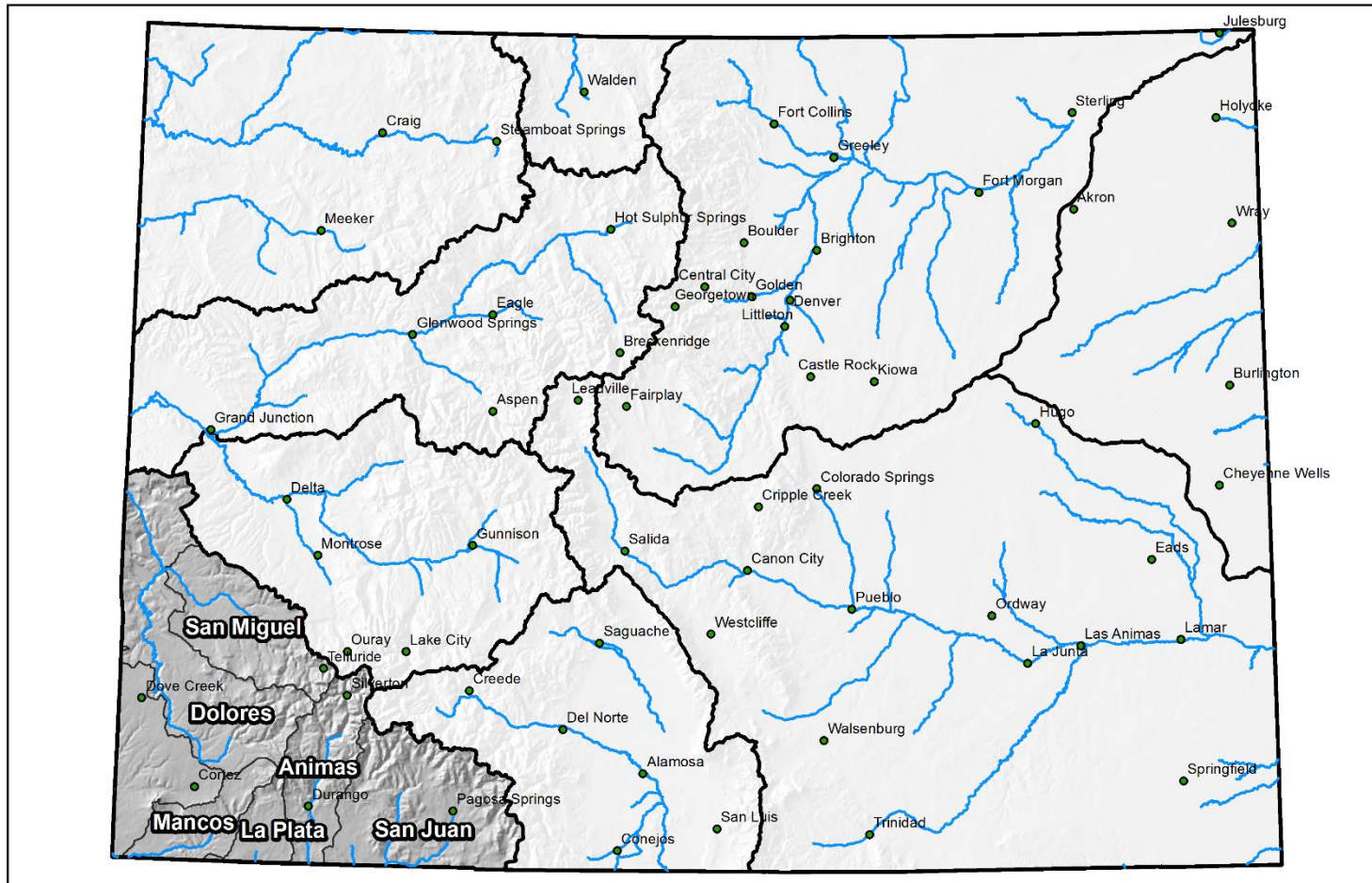
GUNNISON RIVER BASIN

Reservoir Storage
Departure from Average



Major Basin Summary

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



0 25 50 100 150 200 Miles



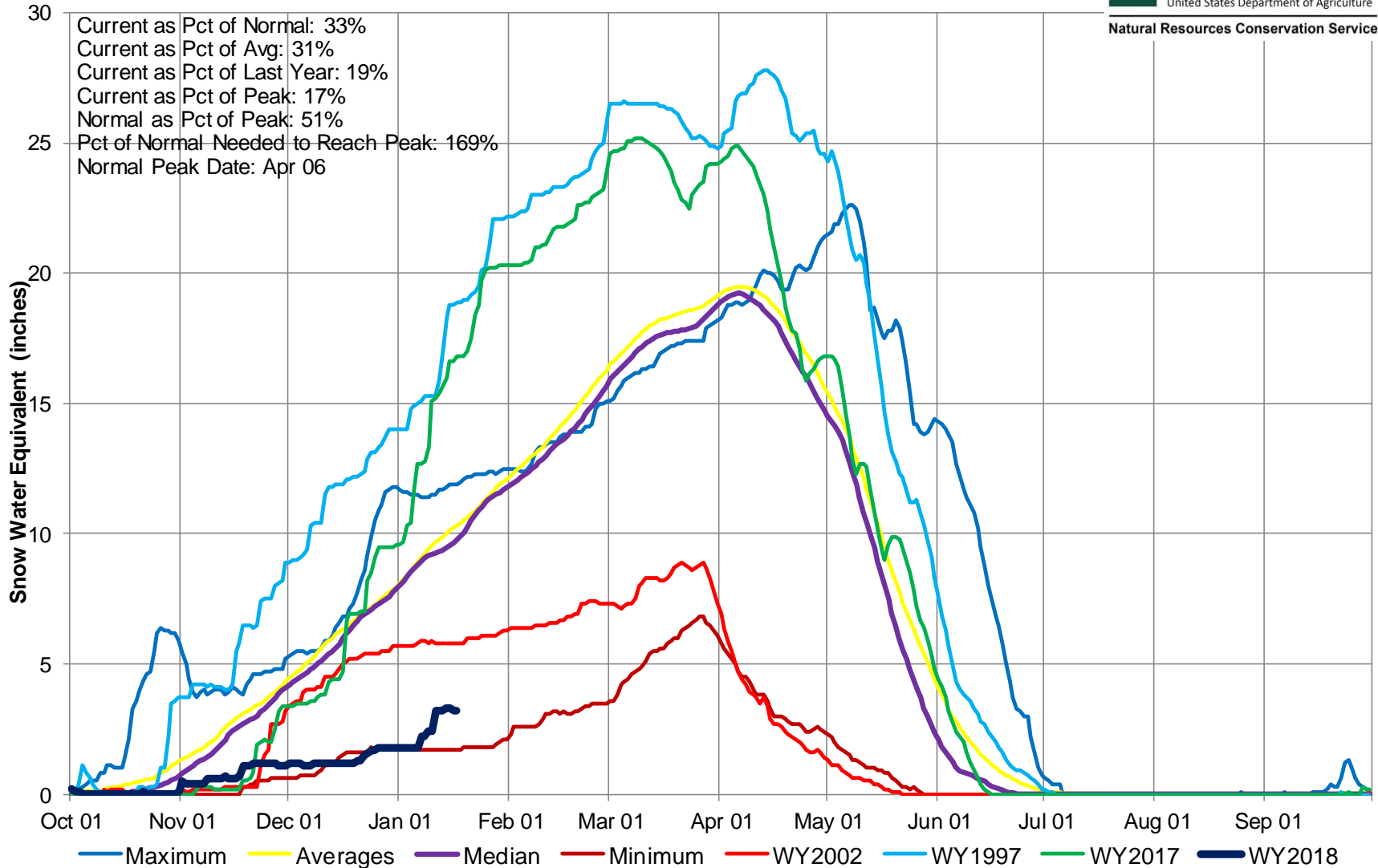
San Miguel, Dolores, Animas and San Juan River Basins High/Low Snowpack Summary

Based on Provisional SNOTEL data as of Jan 17, 2018



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Natural Resources Conservation Service



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

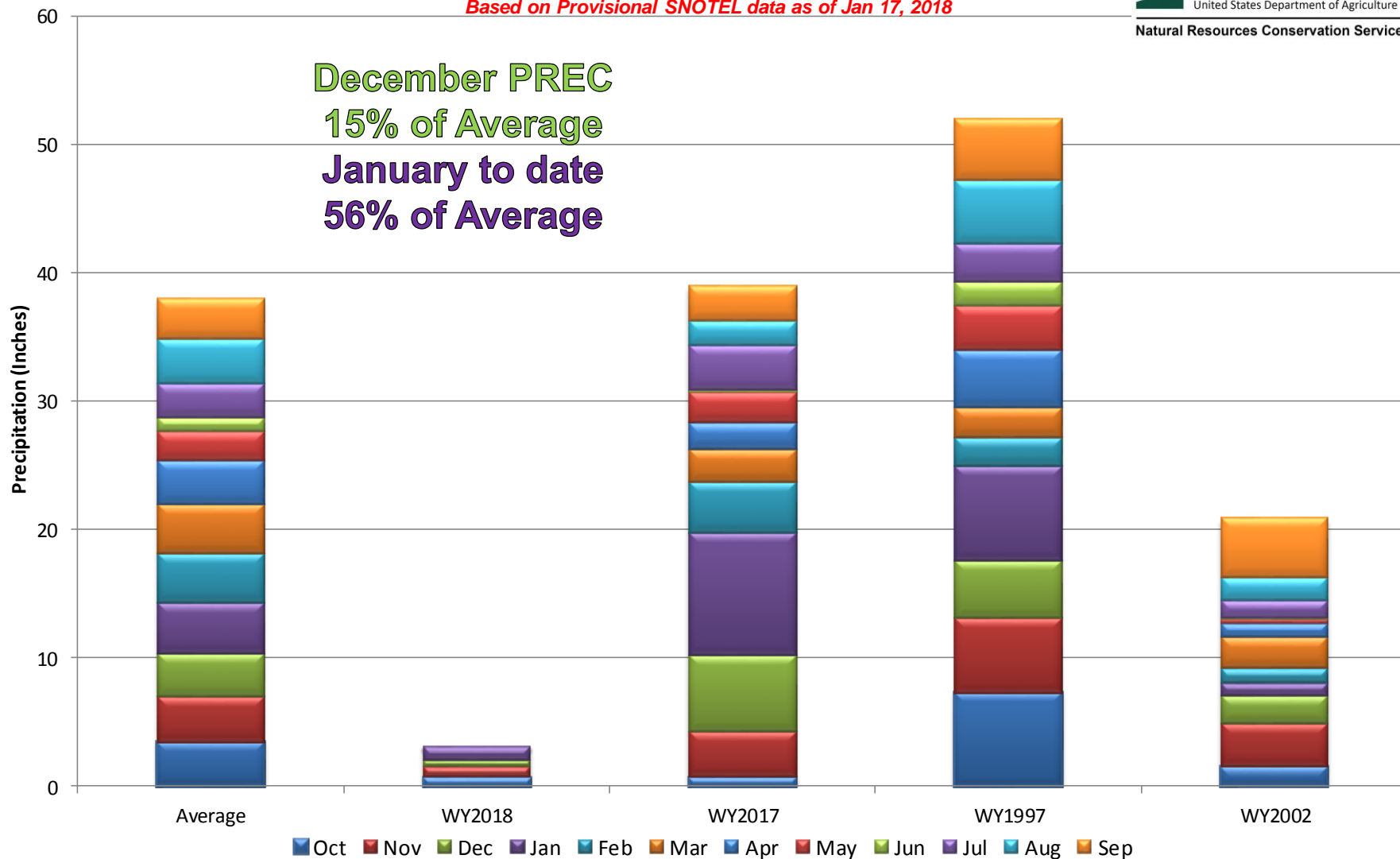
Based on Provisional SNOTEL data as of Jan 17, 2018



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Natural Resources Conservation Service

December PREC
15% of Average
January to date
56% of Average

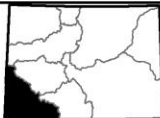
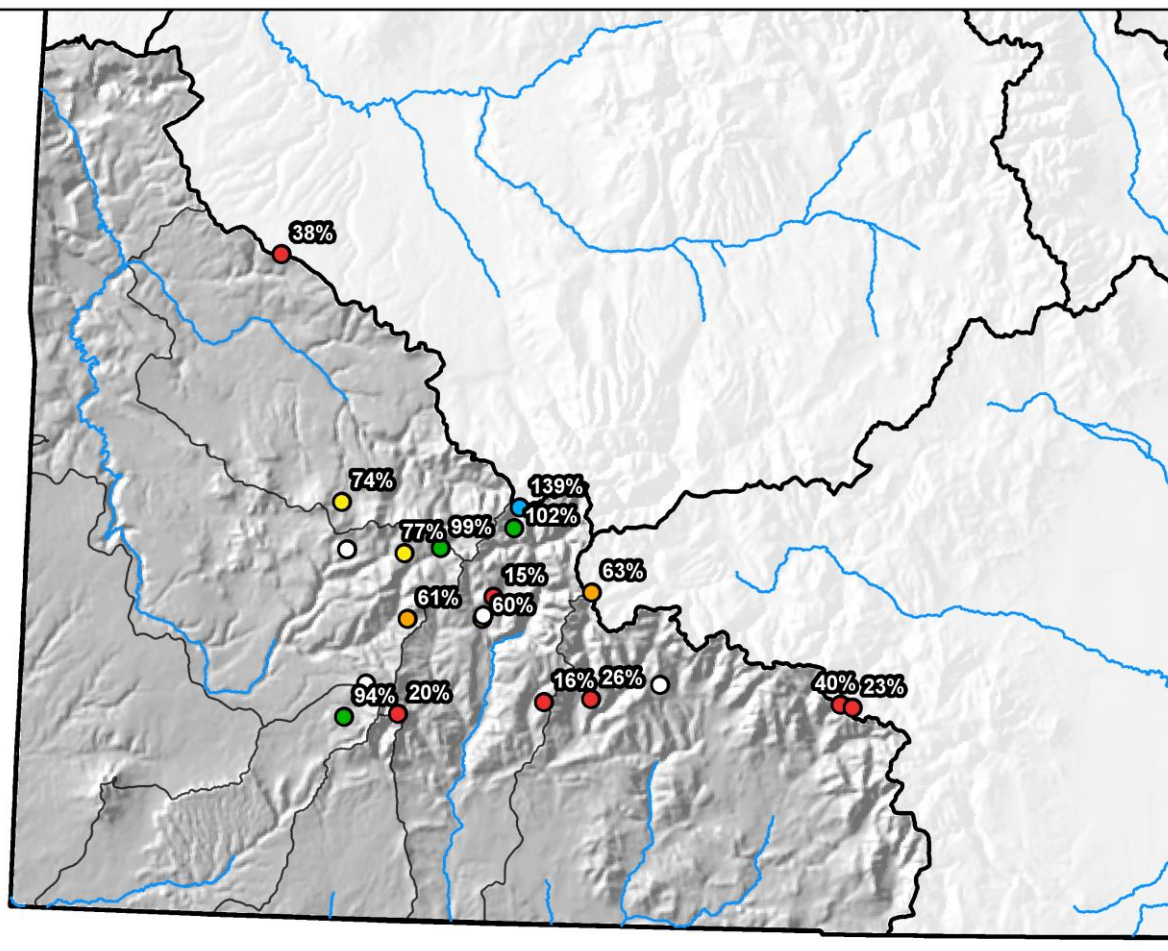


San Miguel, Dolores, Animas, and San Juan River Basins Month to Date Precipitation Summary

Current as of Jan 17, 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



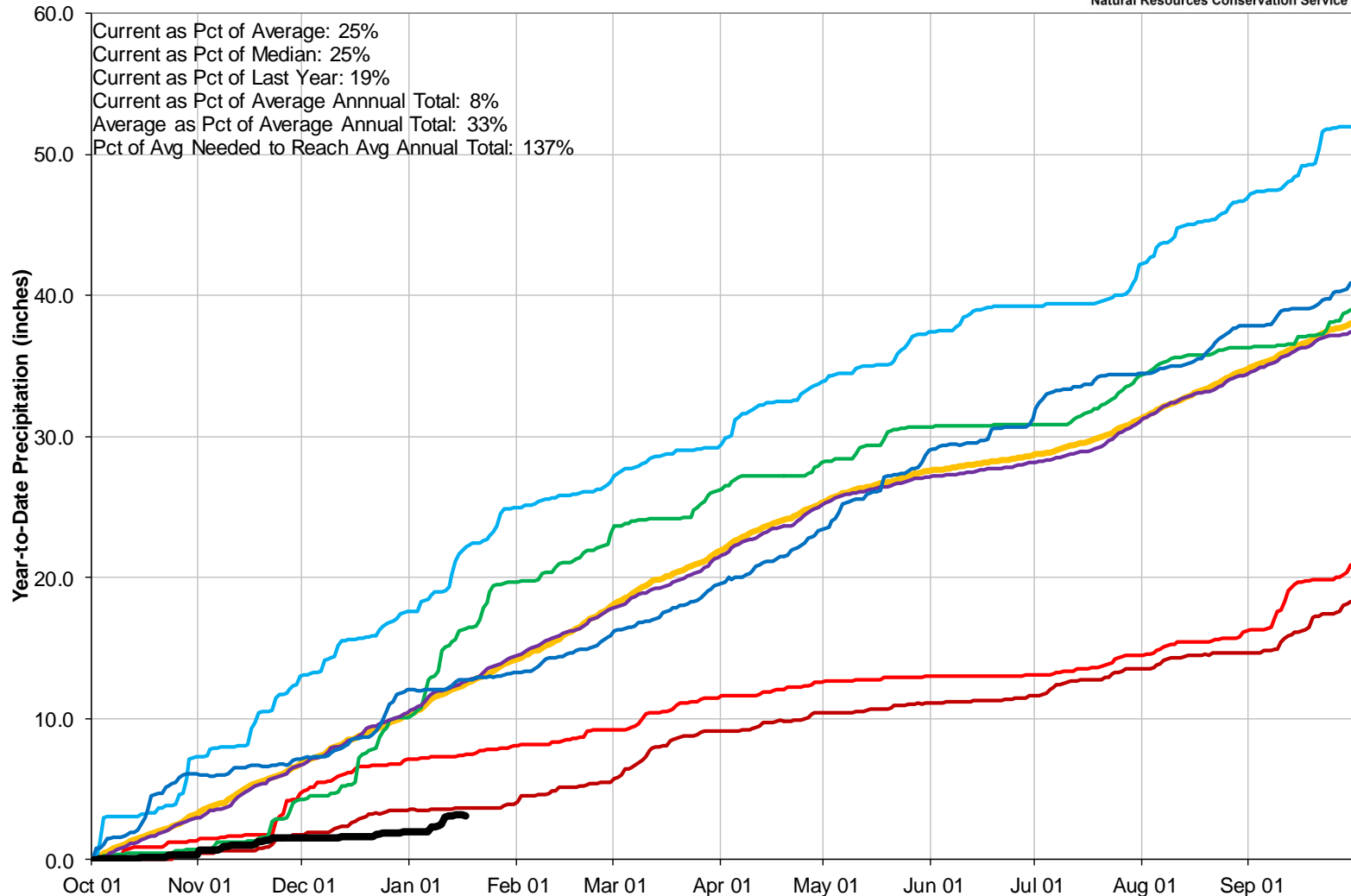
San Miguel, Dolores, Animas and San Juan River Basins High/Low Year-to-Date Precipitation Summary

Based on Provisional SNOTEL data as of Jan 17, 2018



United States Department of Agriculture

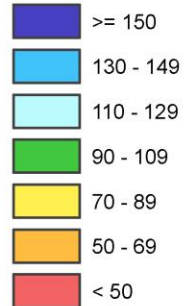
Natural Resources Conservation Service



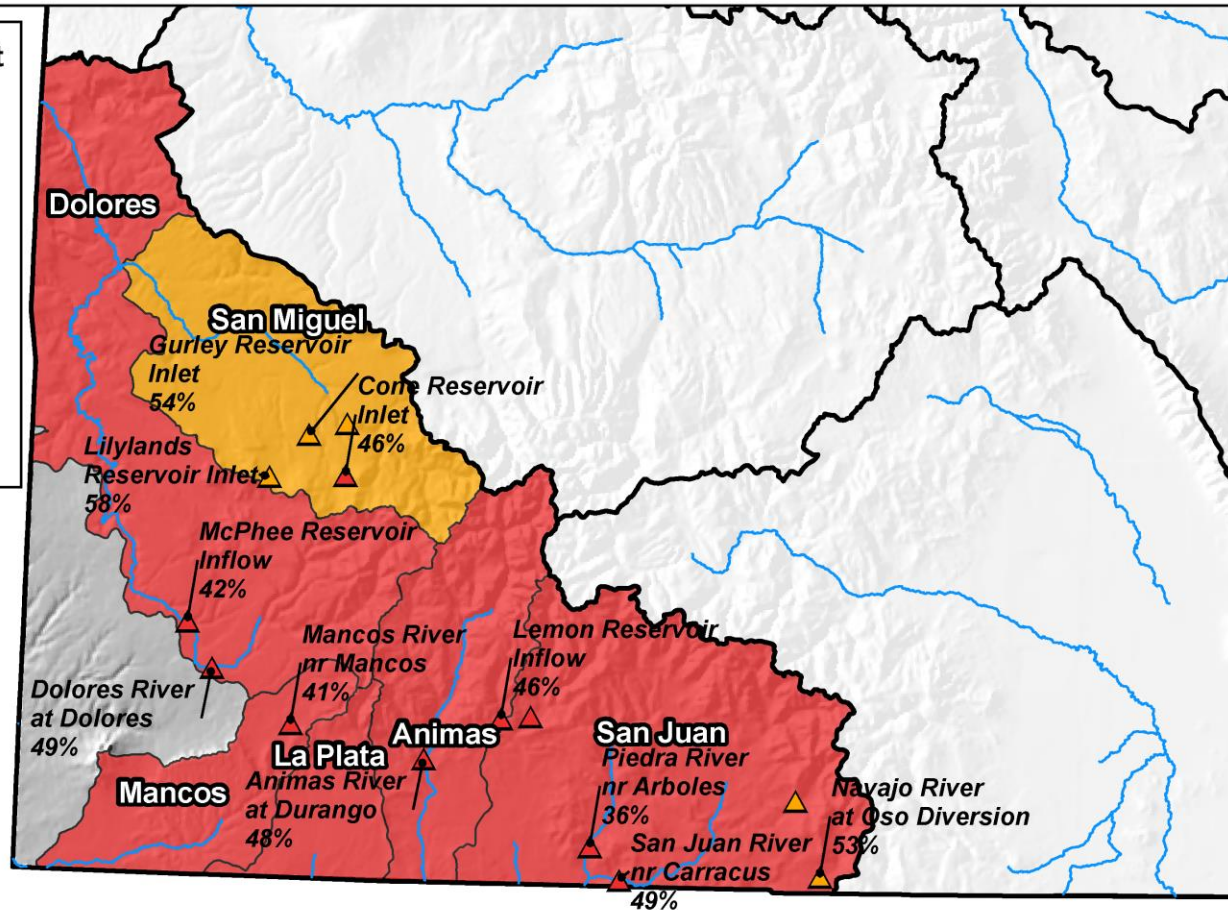
San Miguel, Dolores, Animas, and San Juan River Basins Streamflow Forecast Summary

January 1, 2018

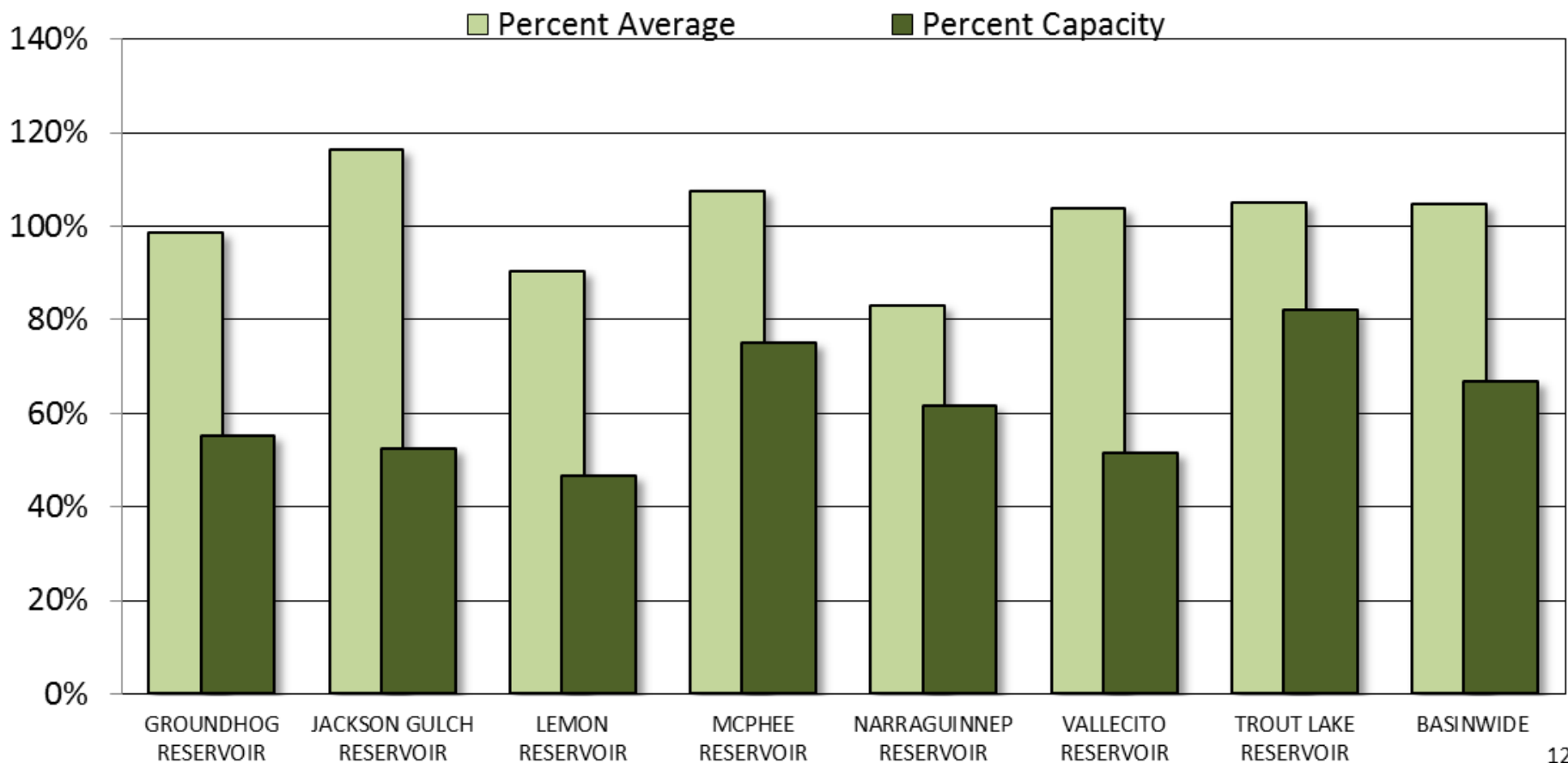
Streamflow Forecast Percent of Average



△ Forecast Point



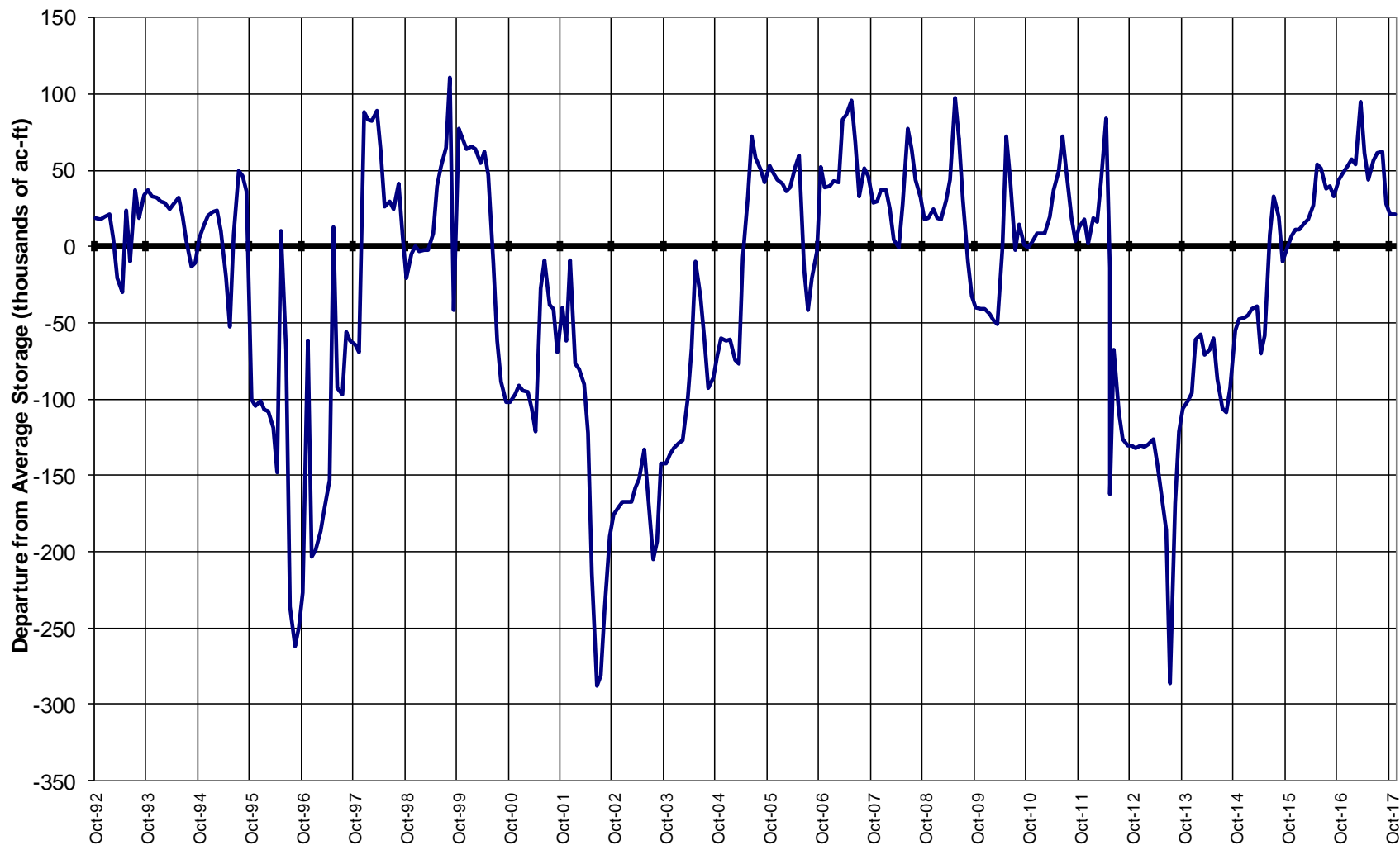
Reservoir Storage





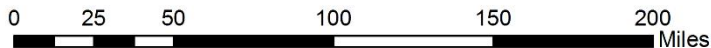
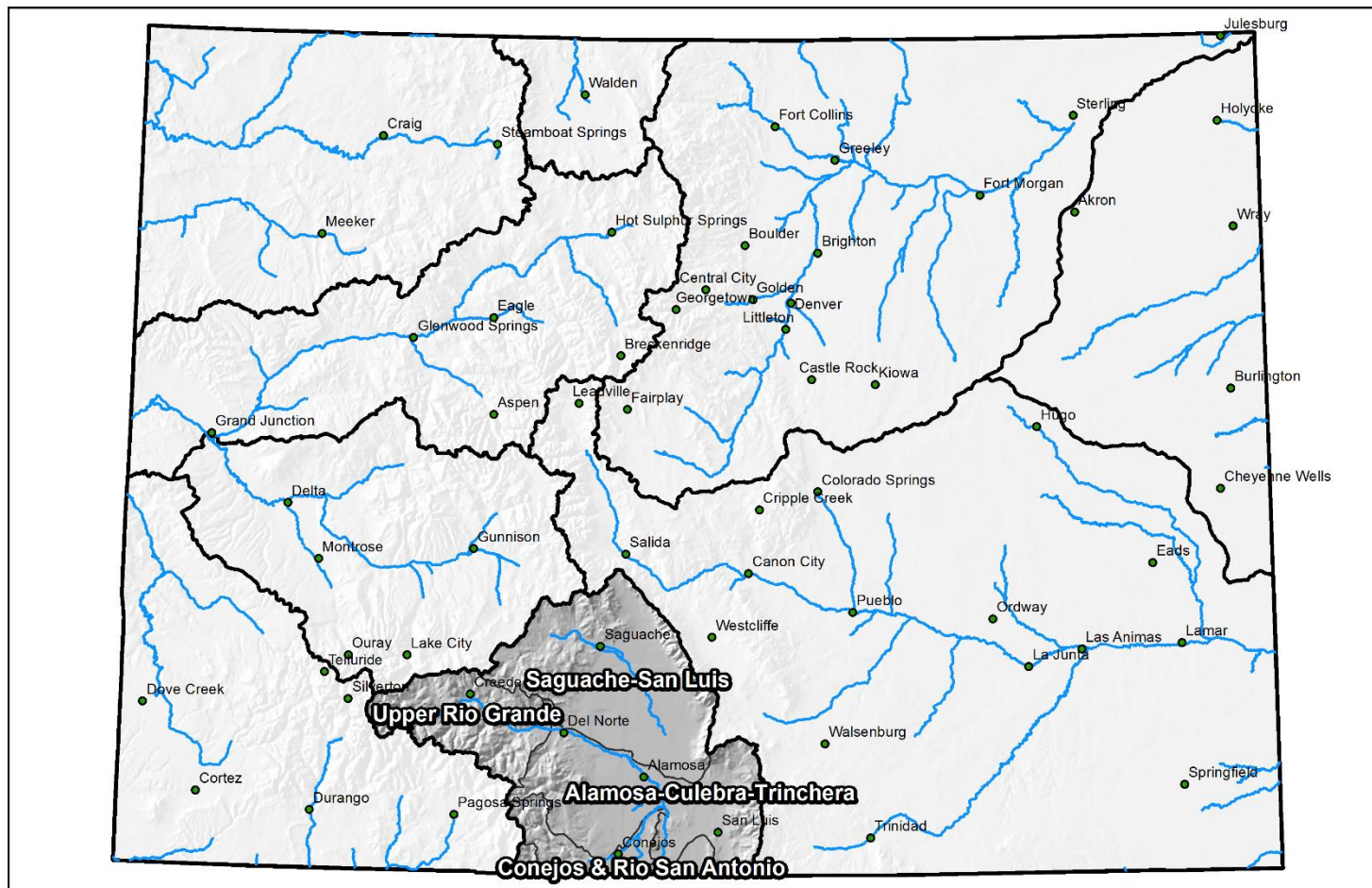
SAN MIGUEL, DOLORES, ANIMAS AND SAN JUAN RIVER BASINS

Reservoir Storage
Departure from Average



Major Basin Summary

Upper Rio Grande River Basin



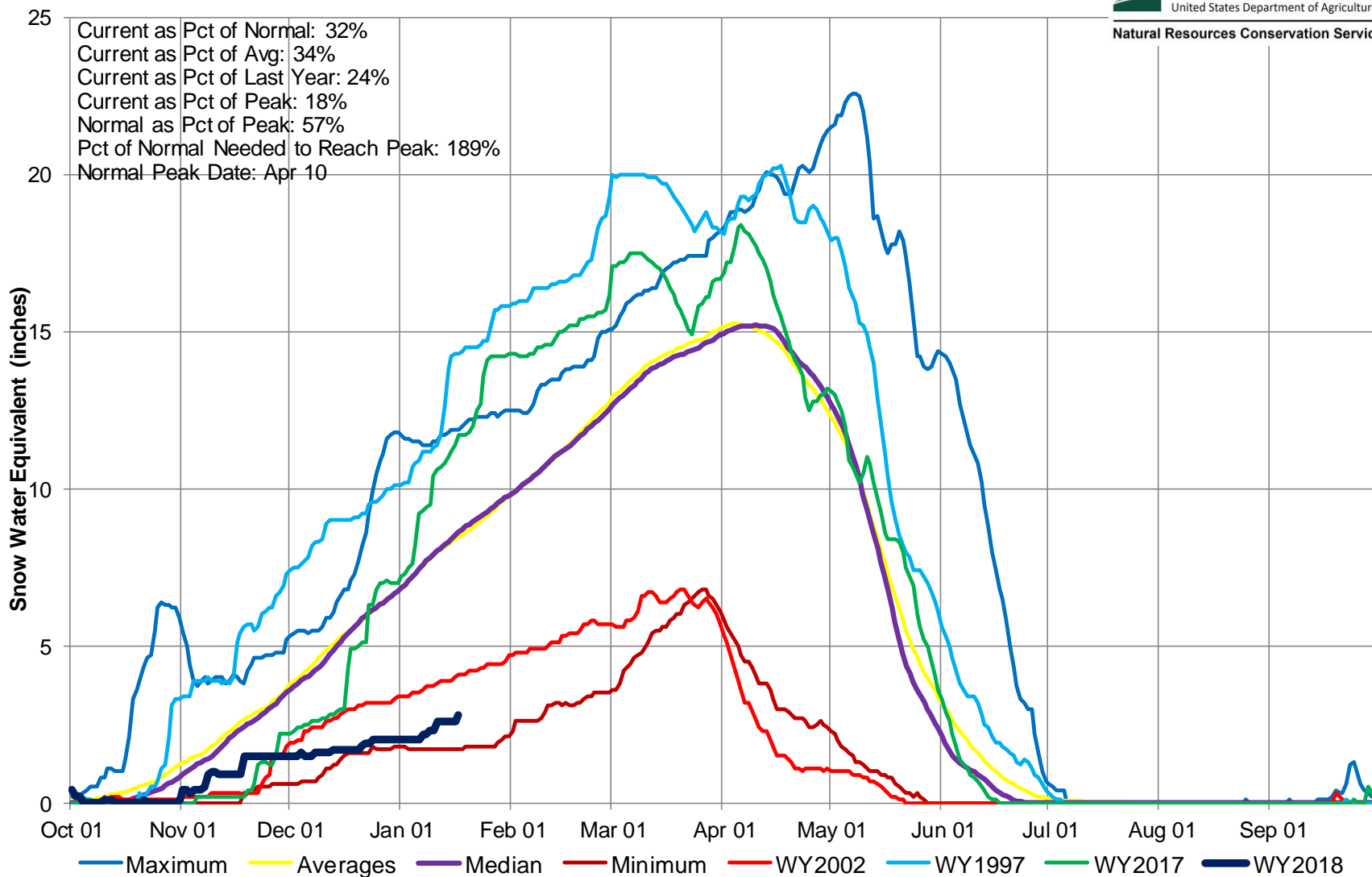
Upper Rio Grande Basin High/Low Snowpack Summary

Based on Provisional SNOTEL data as of Jan 17, 2018



United States Department of Agriculture

Natural Resources Conservation Service



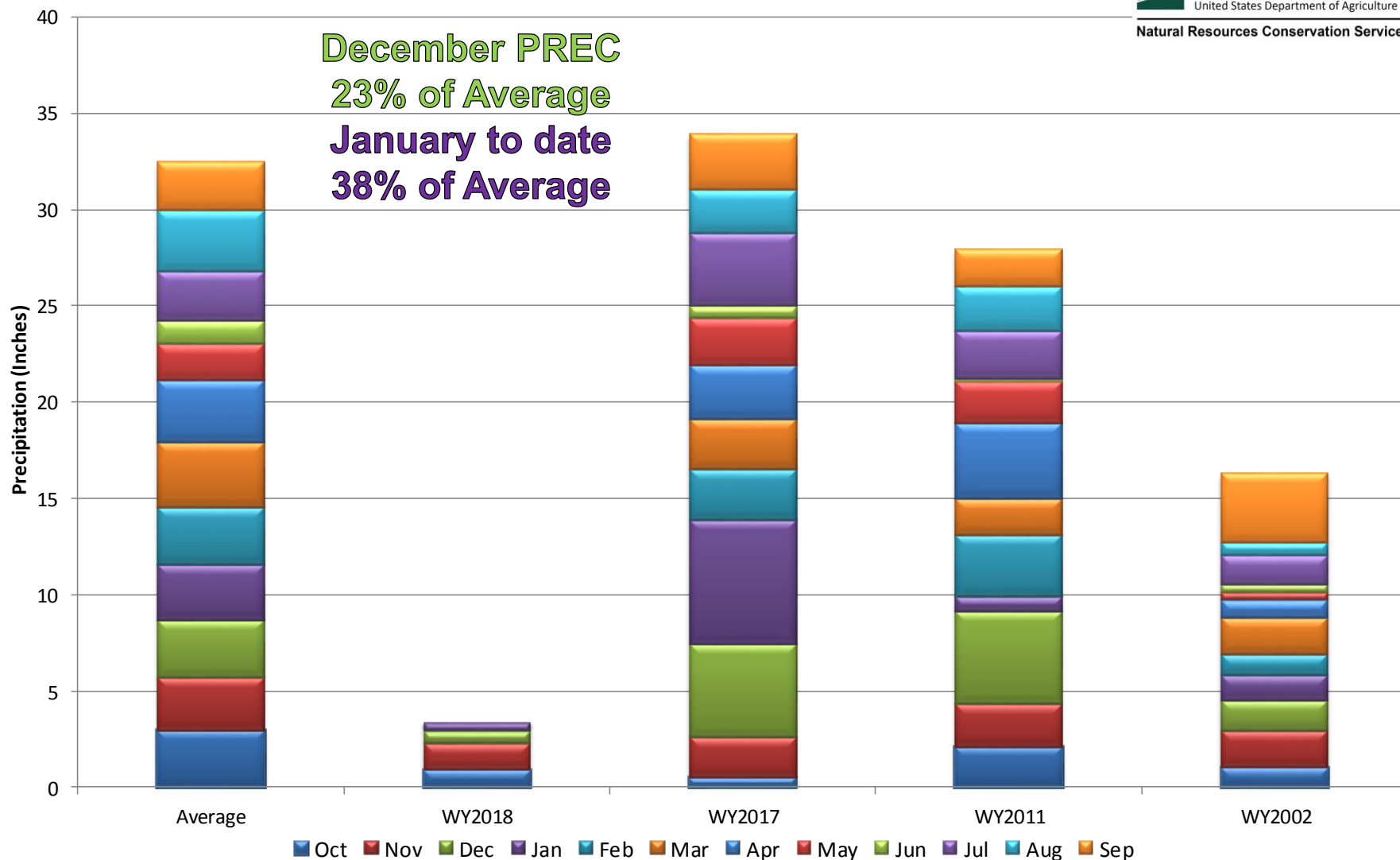
Upper Rio Grande River Basin High/Low Monthly Precipitation Summary

Based on Provisional SNOTEL data as of Jan 17, 2018



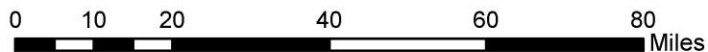
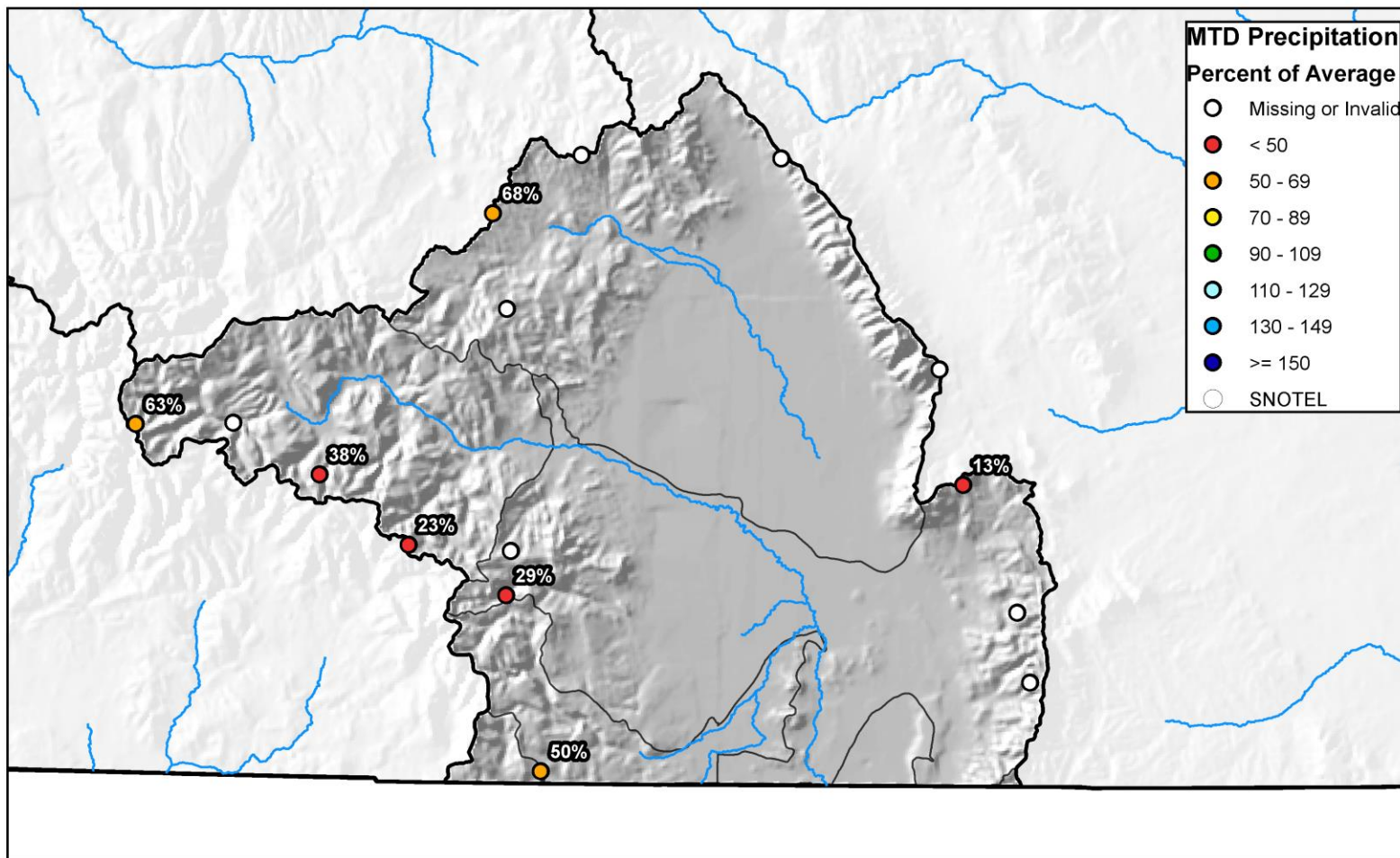
United States Department of Agriculture

Natural Resources Conservation Service



Upper Rio Grande River Basin Month to Date Precipitation Summary

Current as of Jan 17, 2018





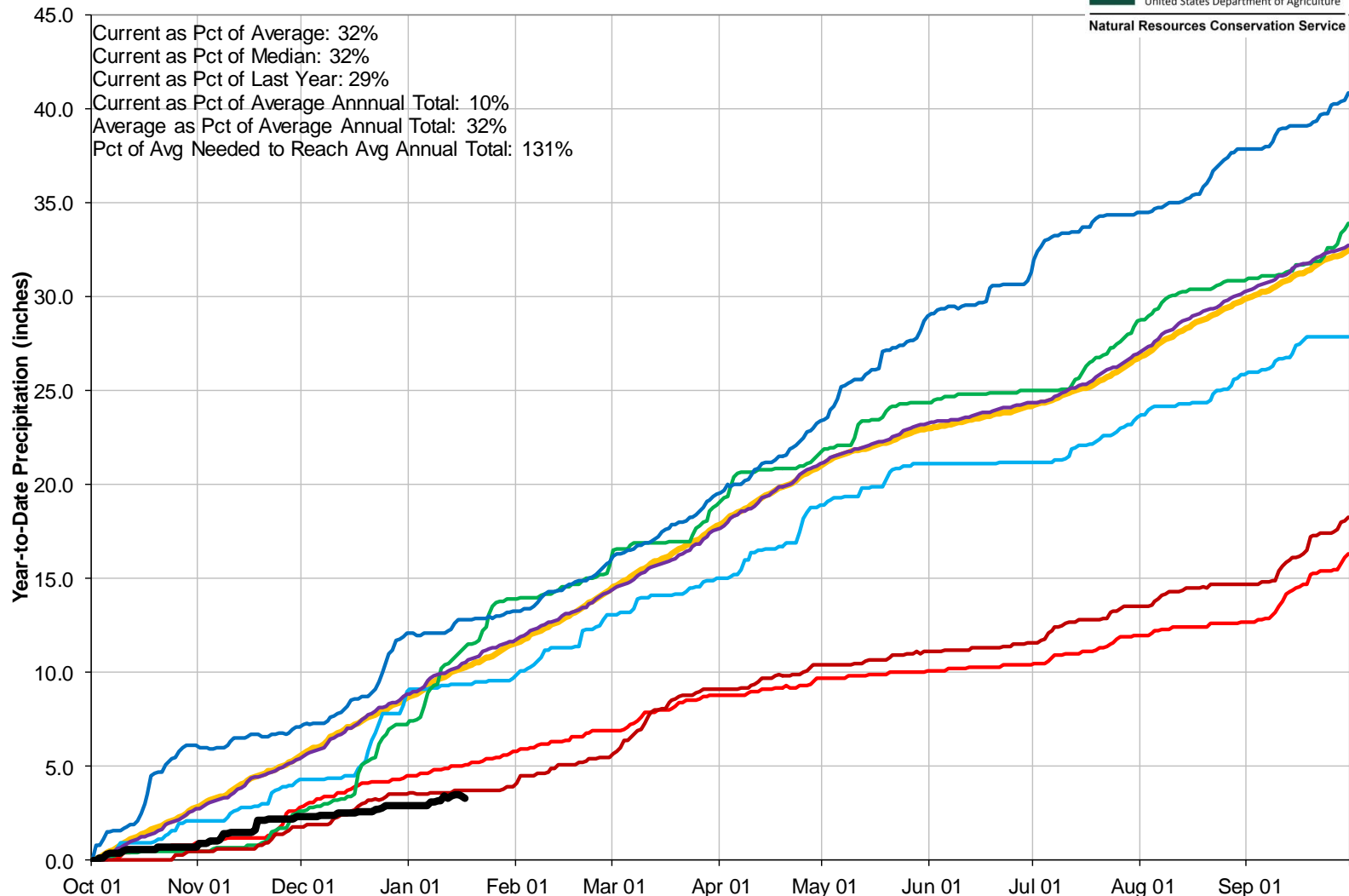
Upper Rio Grande River Basin High/Low Year-to-Date Precipitation Summary

Based on Provisional SNOTEL data as of Jan 17, 2018



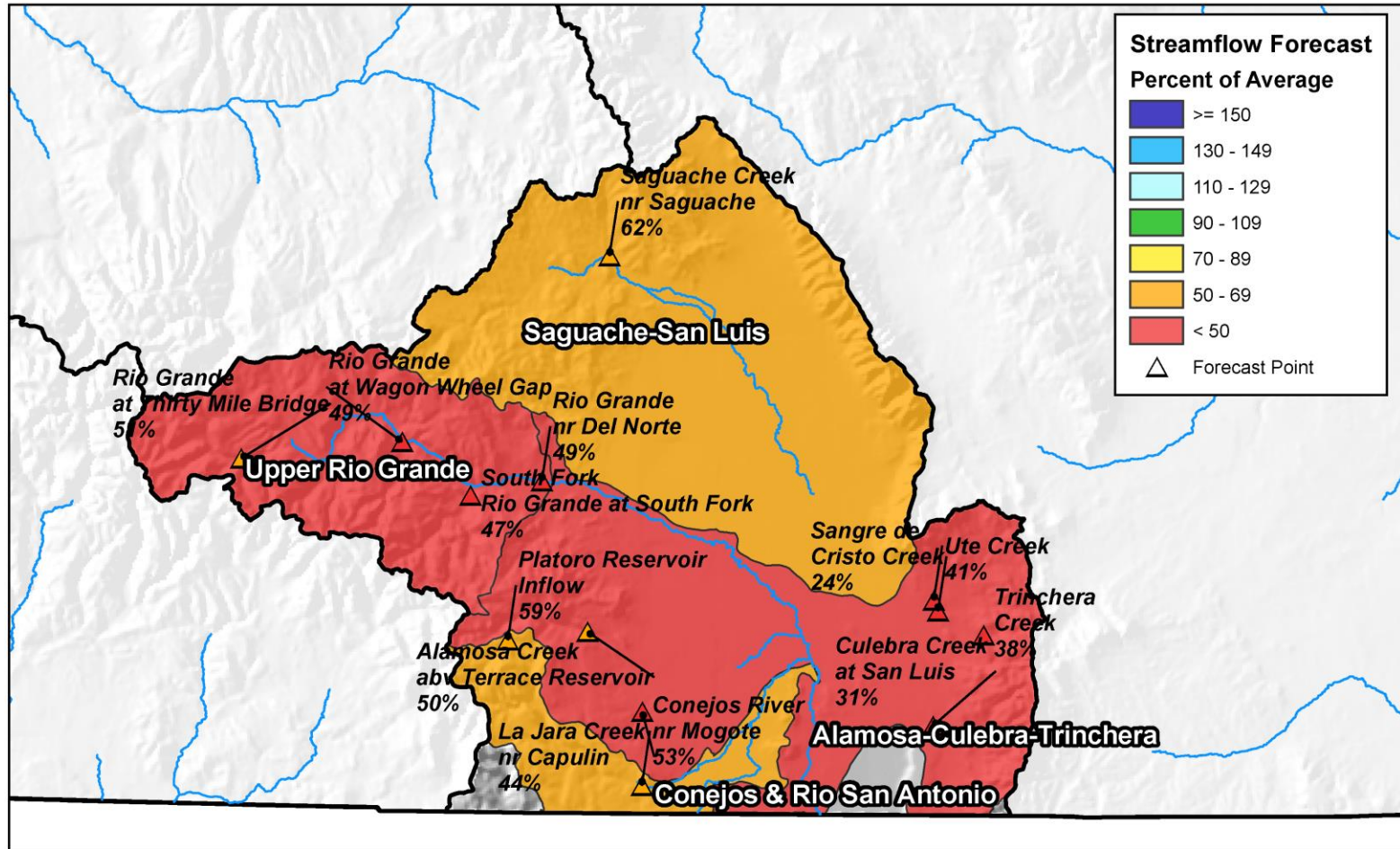
United States Department of Agriculture

Natural Resources Conservation Service

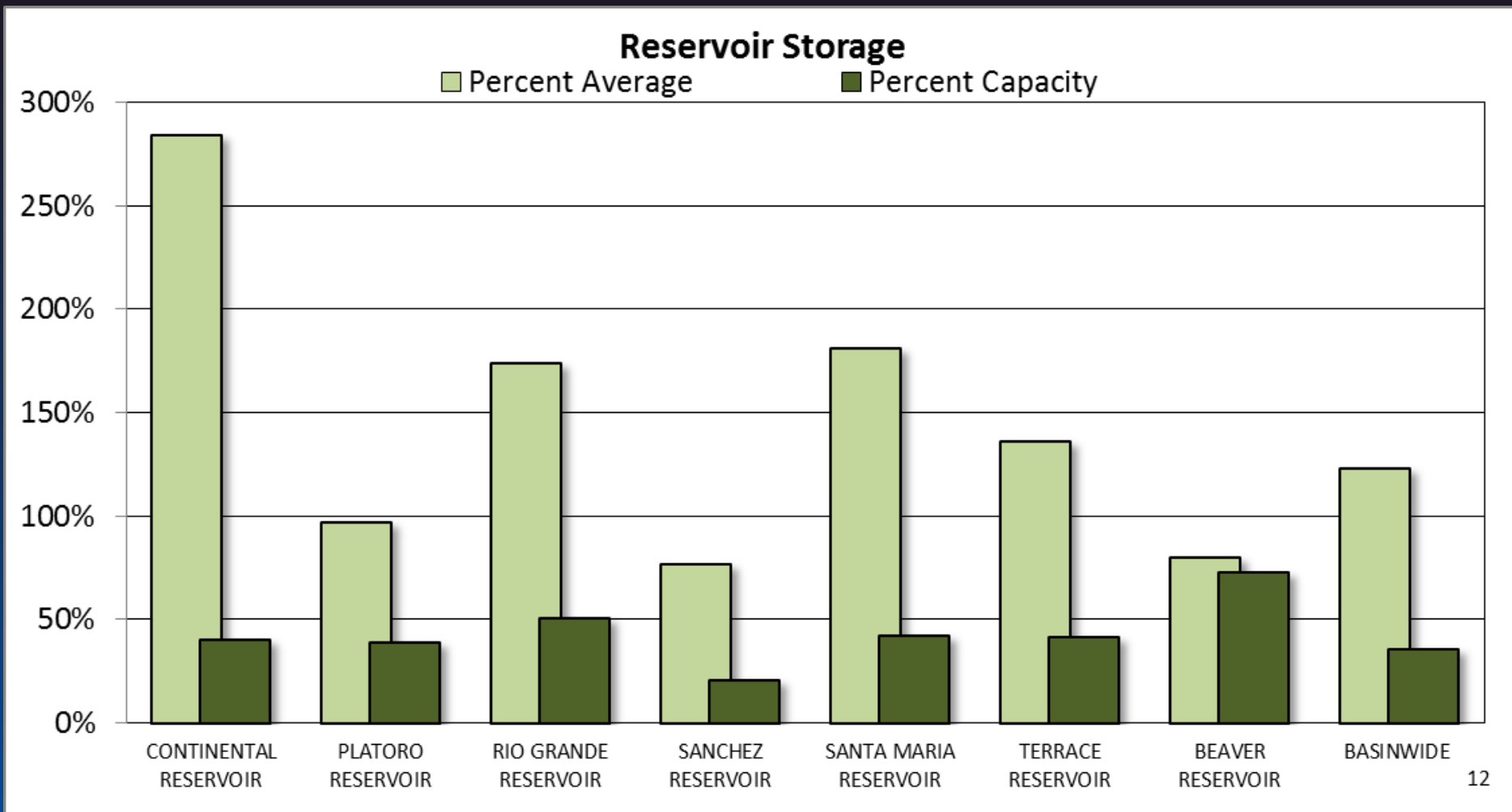


Upper Rio Grande River Basin Streamflow Forecast Summary

January 1, 2018

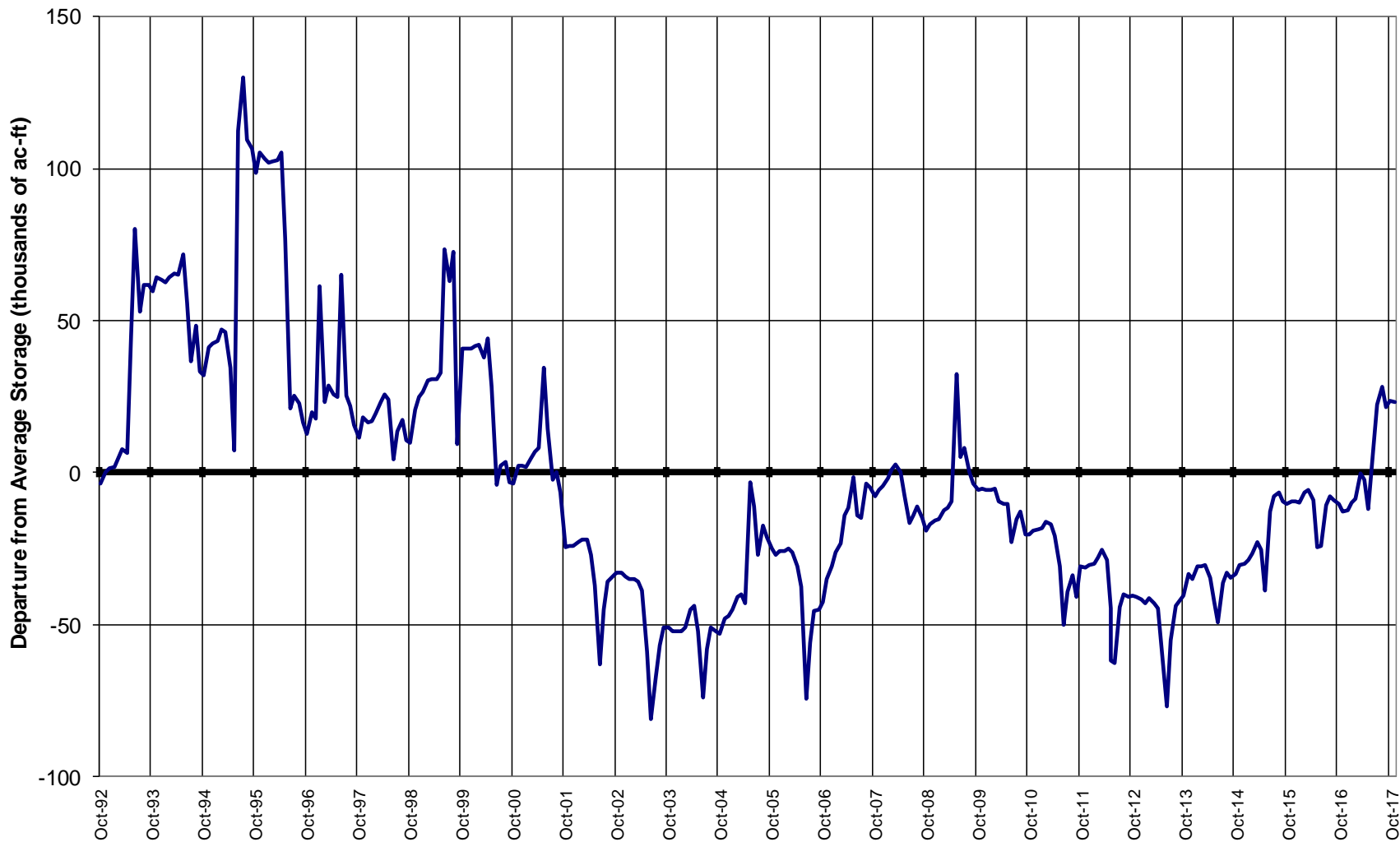


0 10 20 40 60 80 Miles



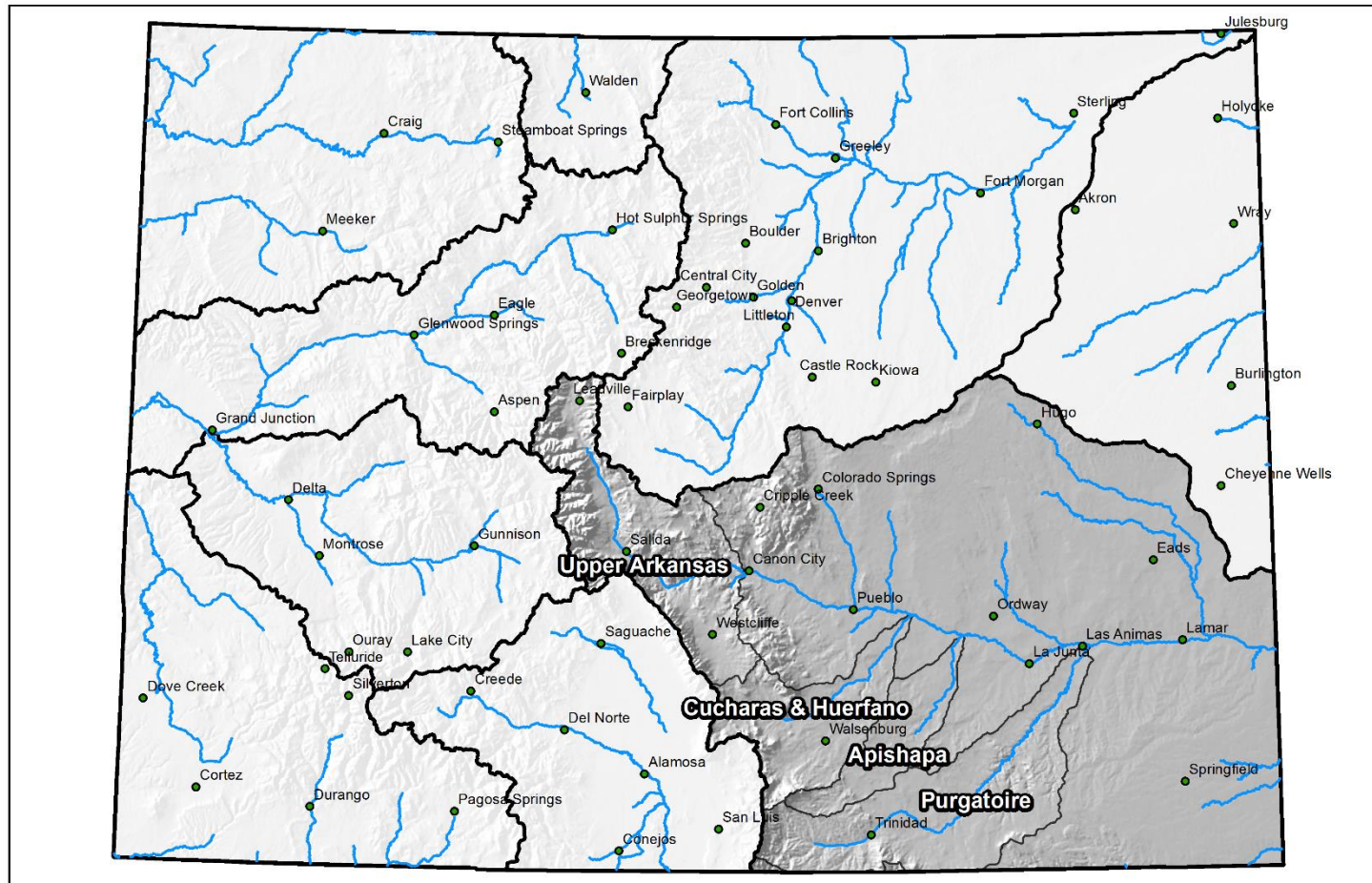


UPPER RIO GRANDE BASIN Reservoir Storage Departure from Average



Major Basin Summary

Arkansas River Basin



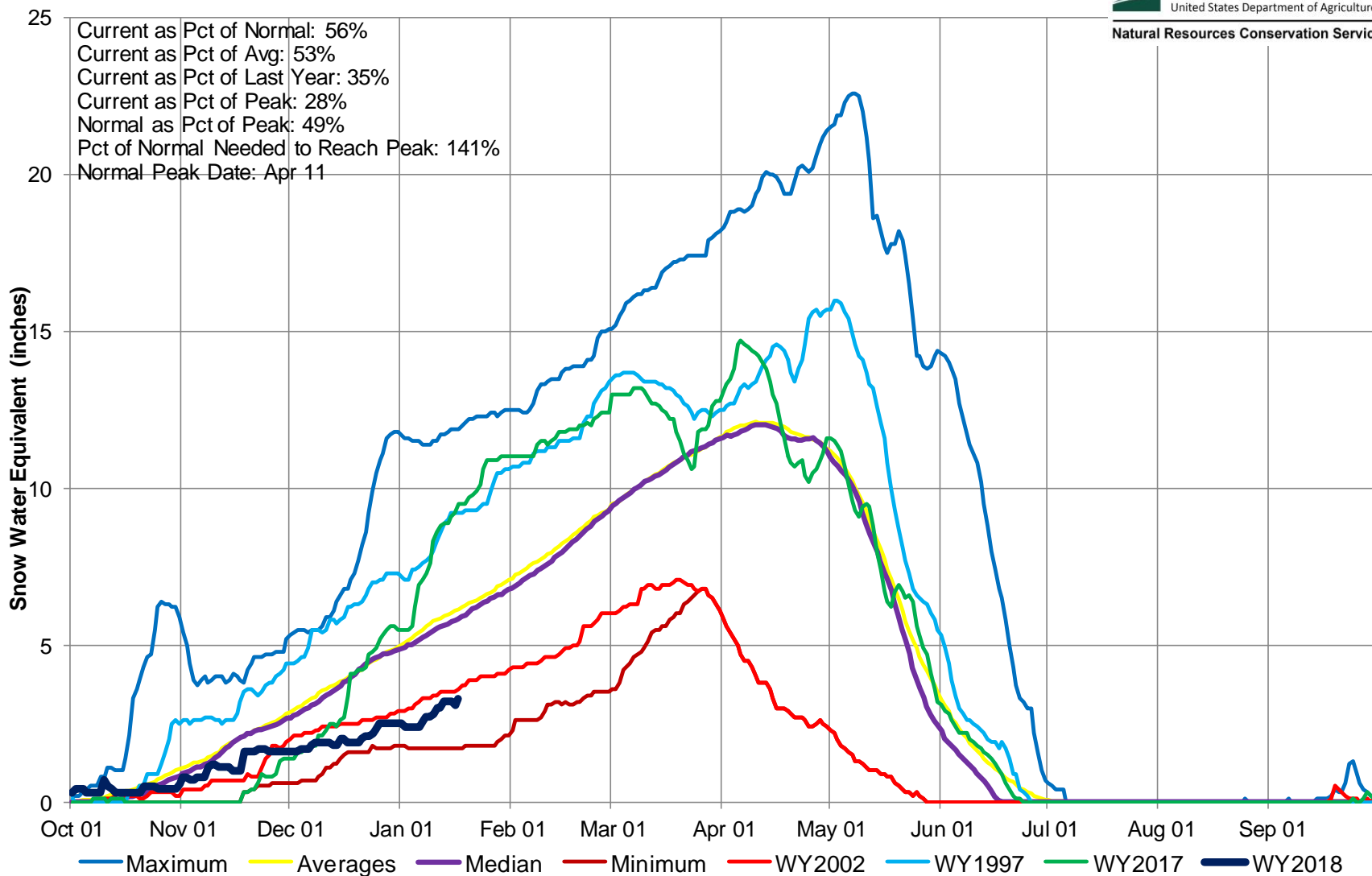
0 25 50 100 150 200 Miles



Arkansas River Basin High/Low Snowpack Summary

Based on Provisional SNOTEL data as of Jan 17, 2018

USDA
United States Department of Agriculture
Natural Resources Conservation Service



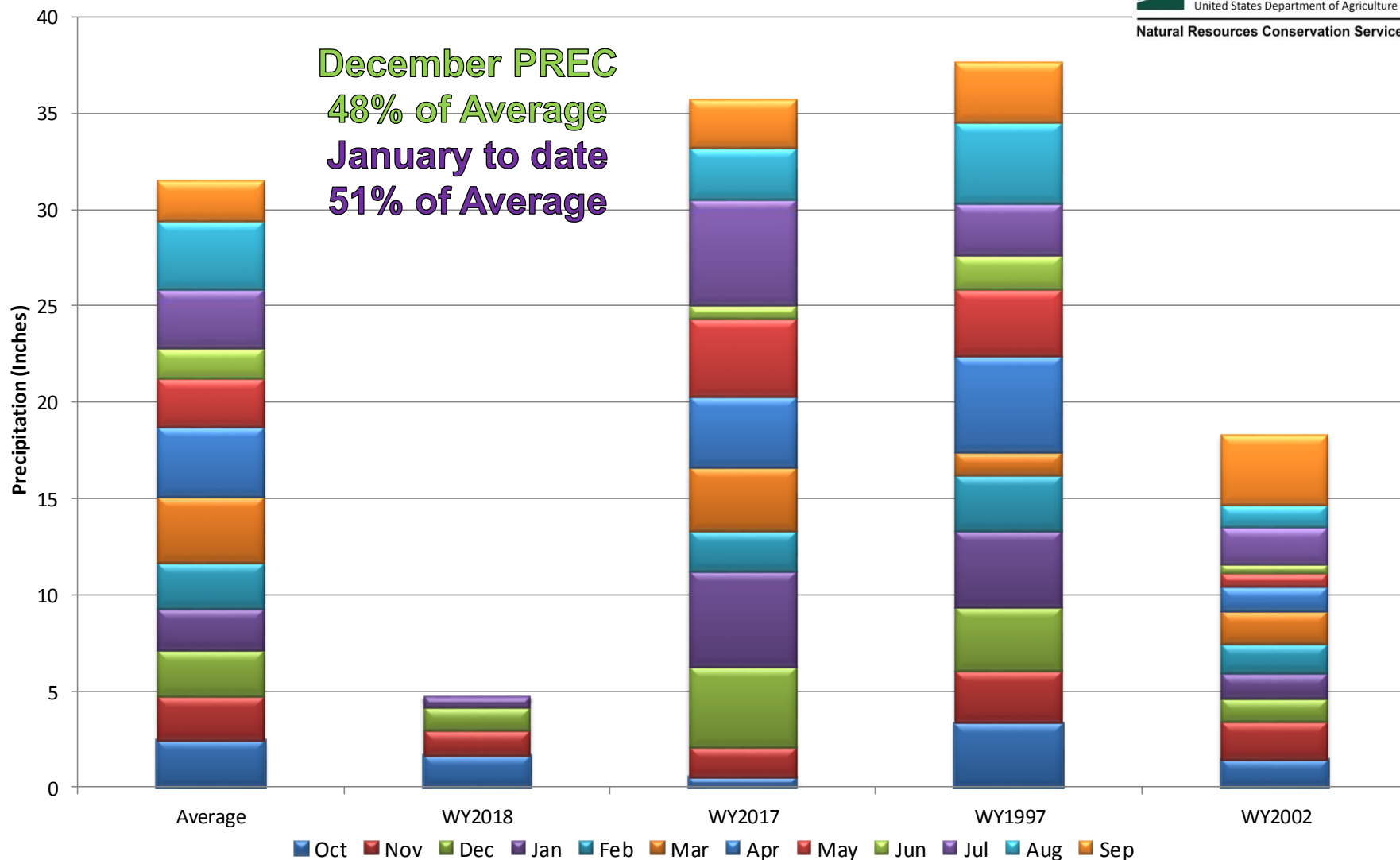
Arkansas River Basin High/Low Monthly Precipitation Summary

Based on Provisional SNOTEL data as of Jan 17, 2018



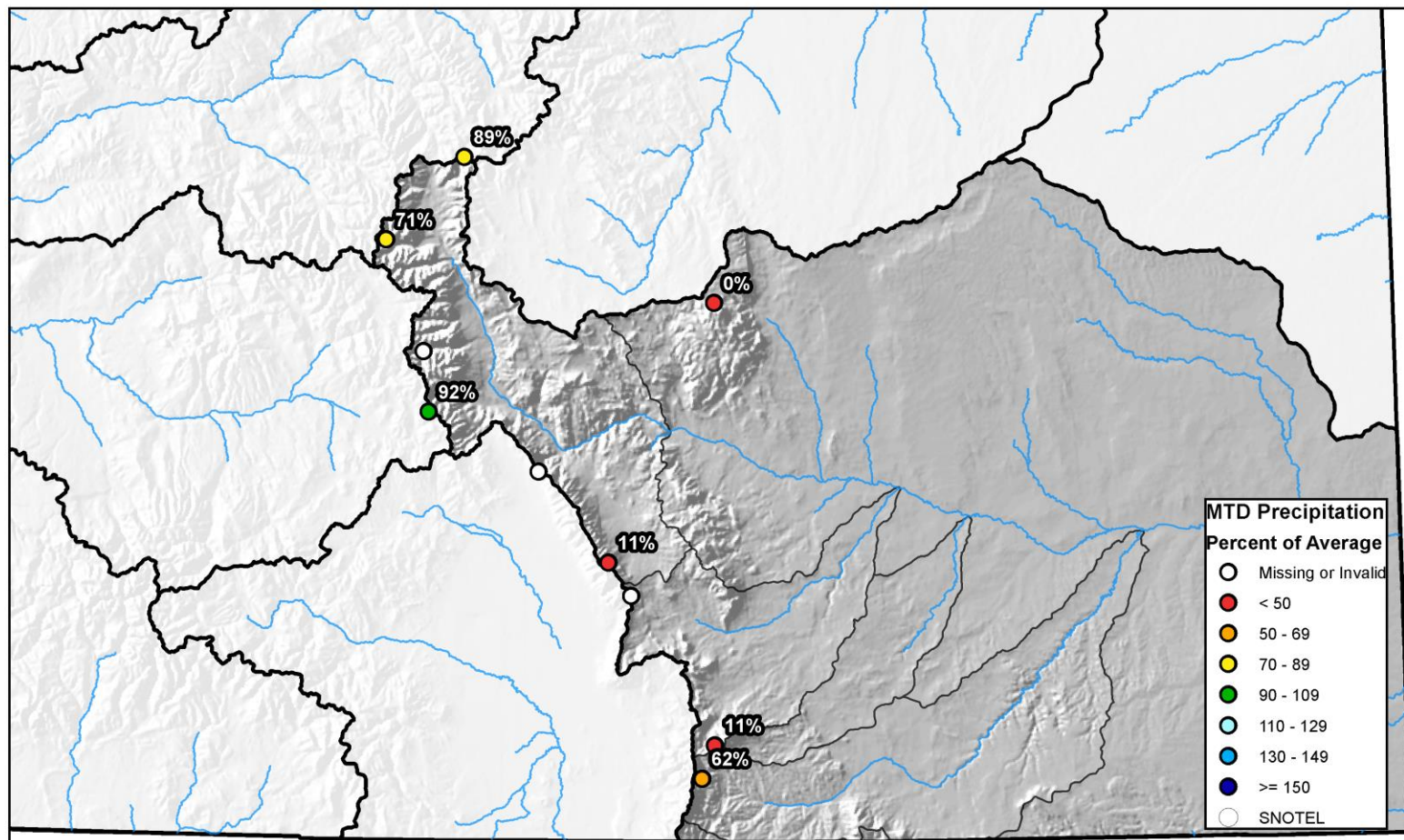
United States Department of Agriculture

Natural Resources Conservation Service



Arkansas River Basin Month to Date Precipitation Summary

Current as of Jan 17, 2018



0 10 20 40 60 80 Miles



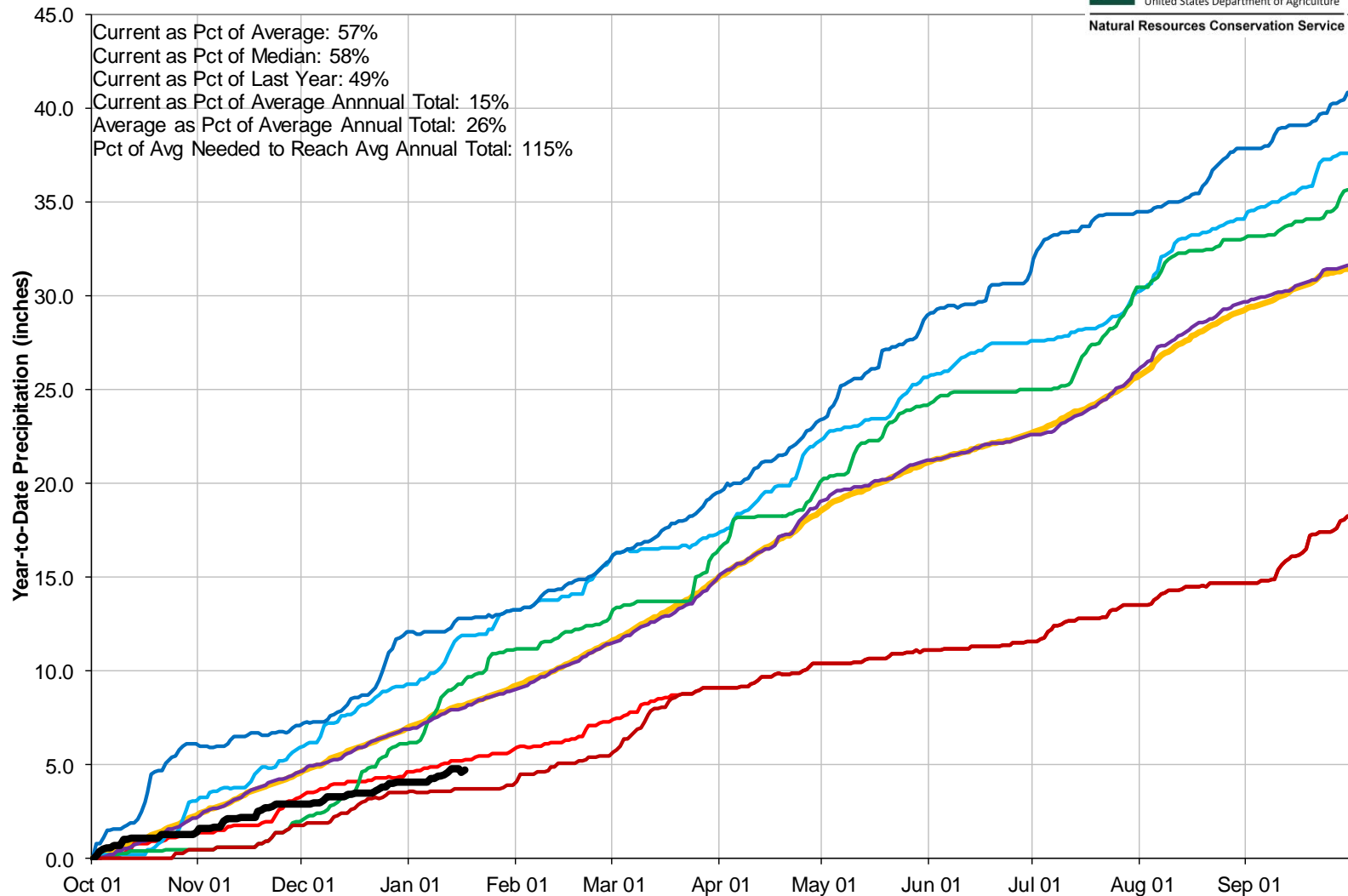
Arkansas River Basin High/Low Year-to-Date Precipitation Summary

Based on Provisional SNOTEL data as of Jan 17, 2018



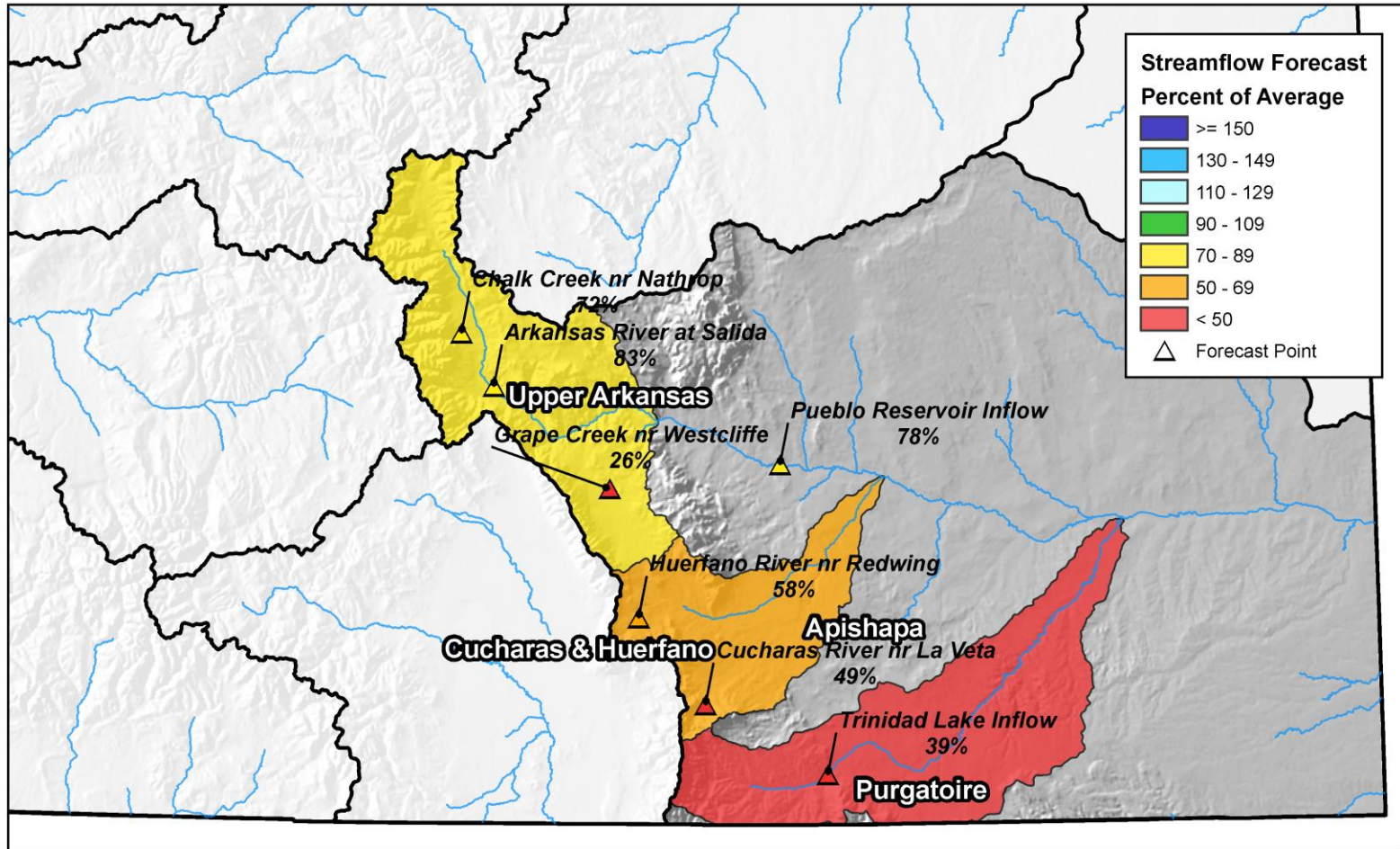
United States Department of Agriculture

Natural Resources Conservation Service

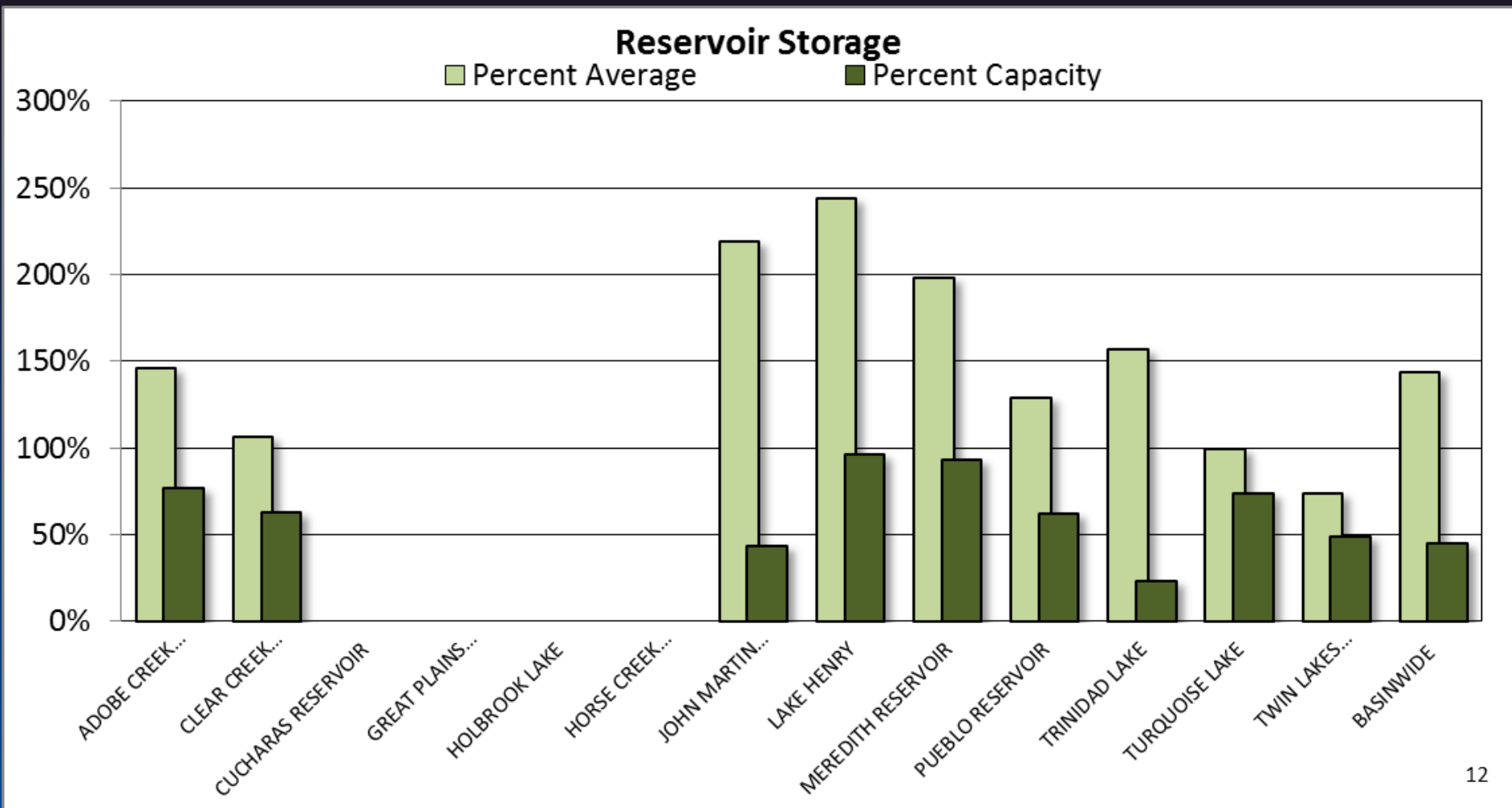


Arkansas River Basin Streamflow Forecast Summary

January 1, 2018



0 10 20 40 60 80 Miles

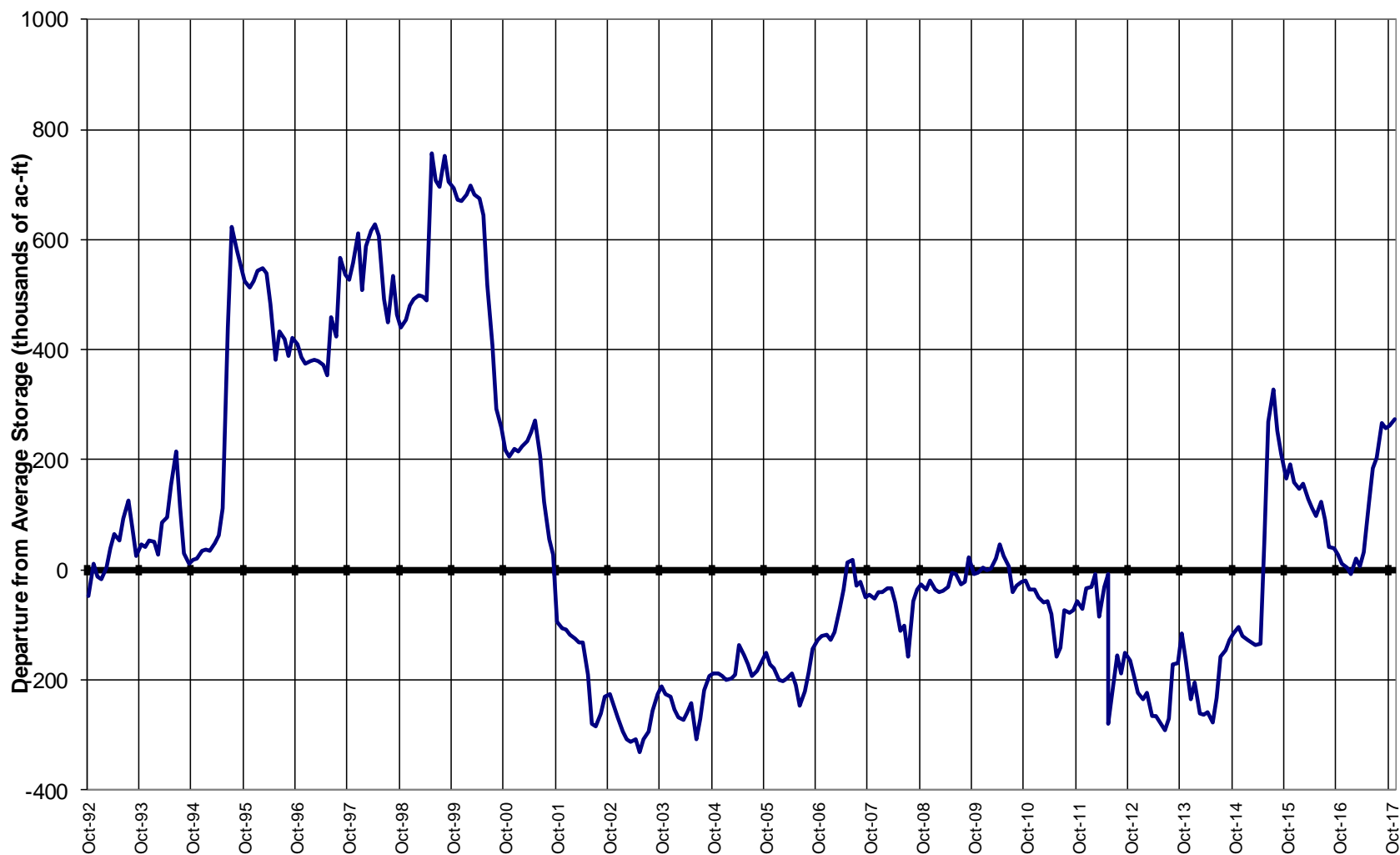




ARKANSAS RIVER BASIN

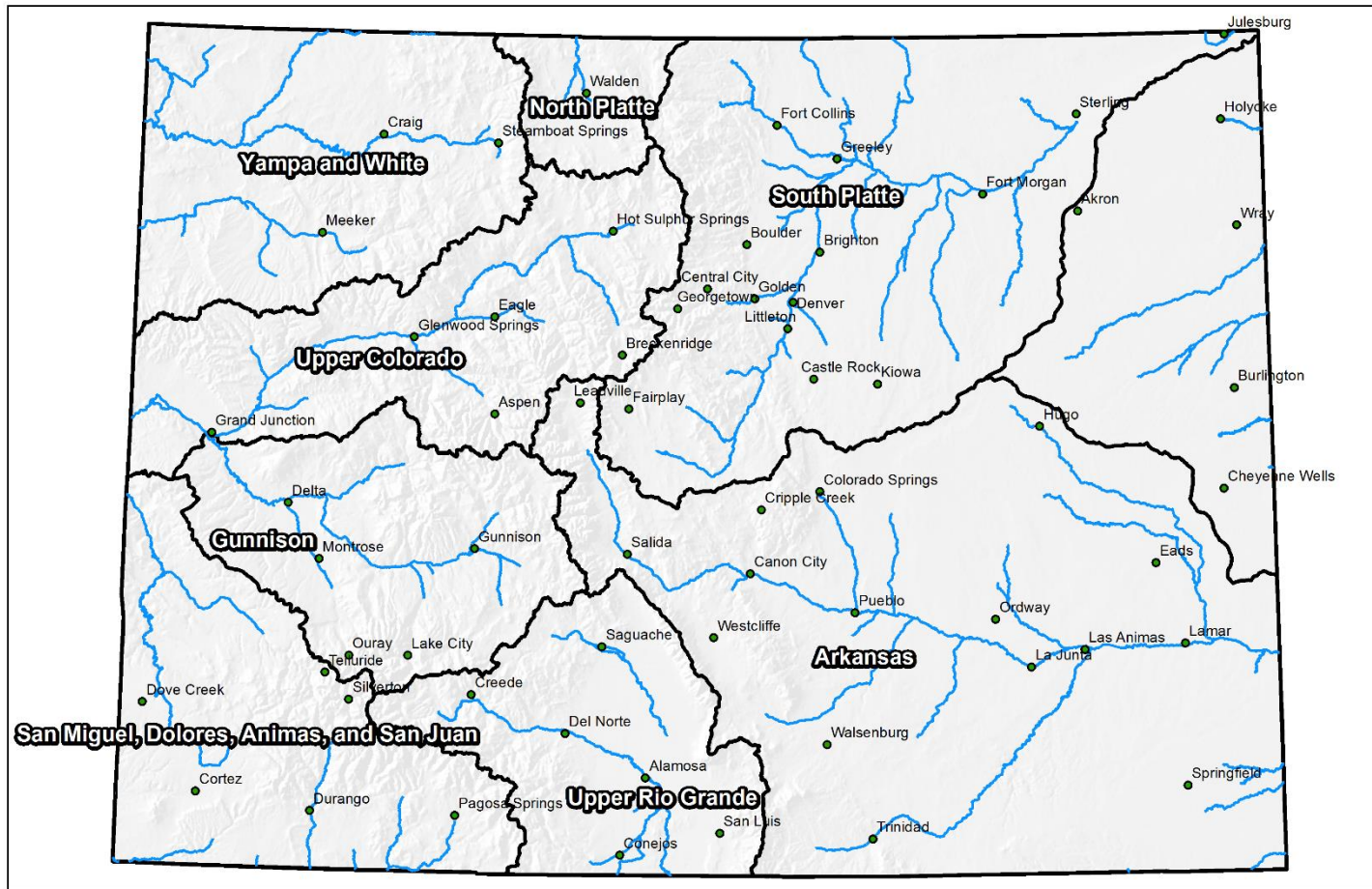
Reservoir Storage

Departure from Average



Colorado Statewide Summary

Colorado Major Basins



0 25 50 100 150 200 Miles

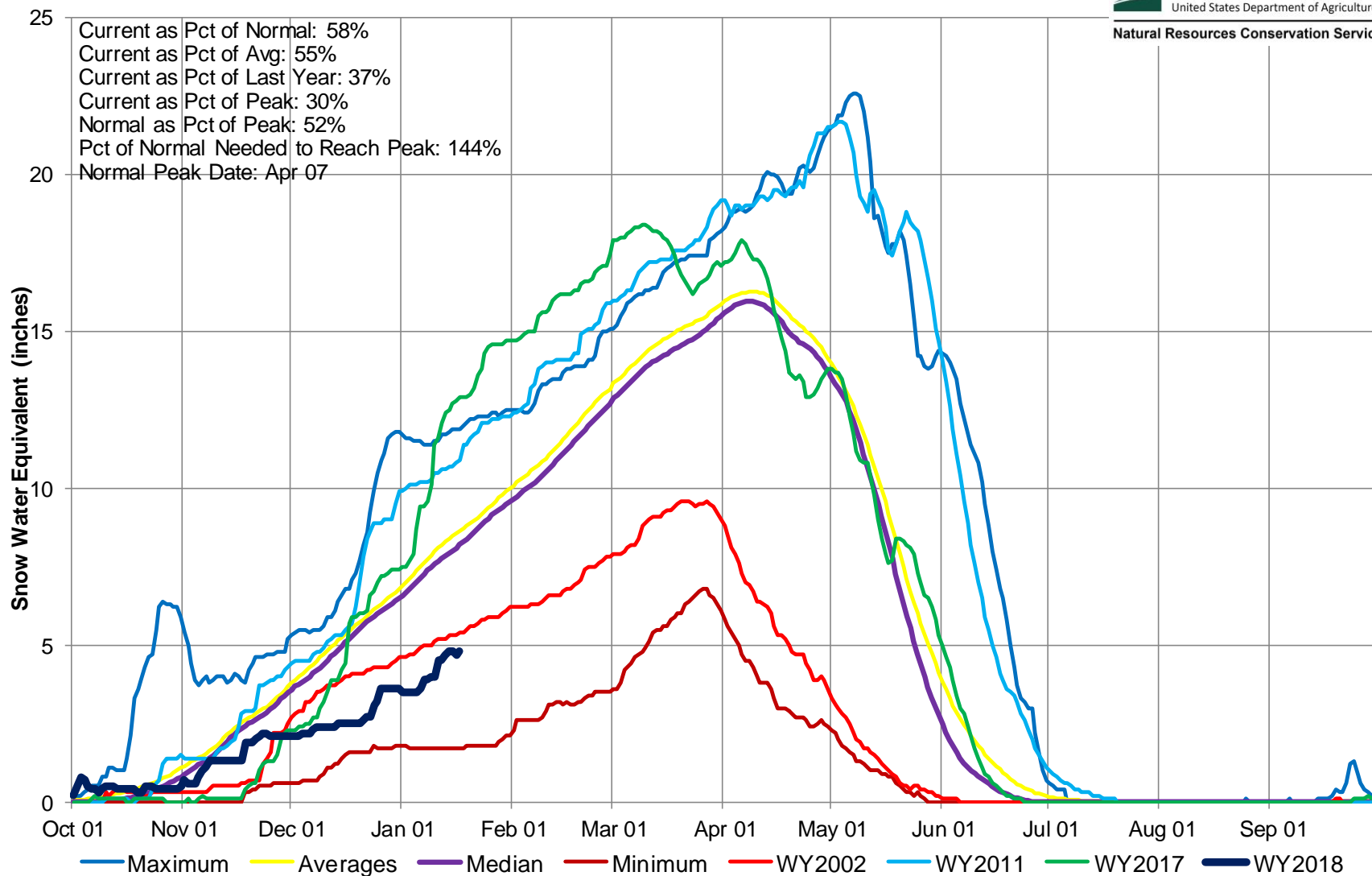
Colorado Statewide High/Low Snowpack Summary

Based on Provisional SNOTEL data as of Jan 17, 2018



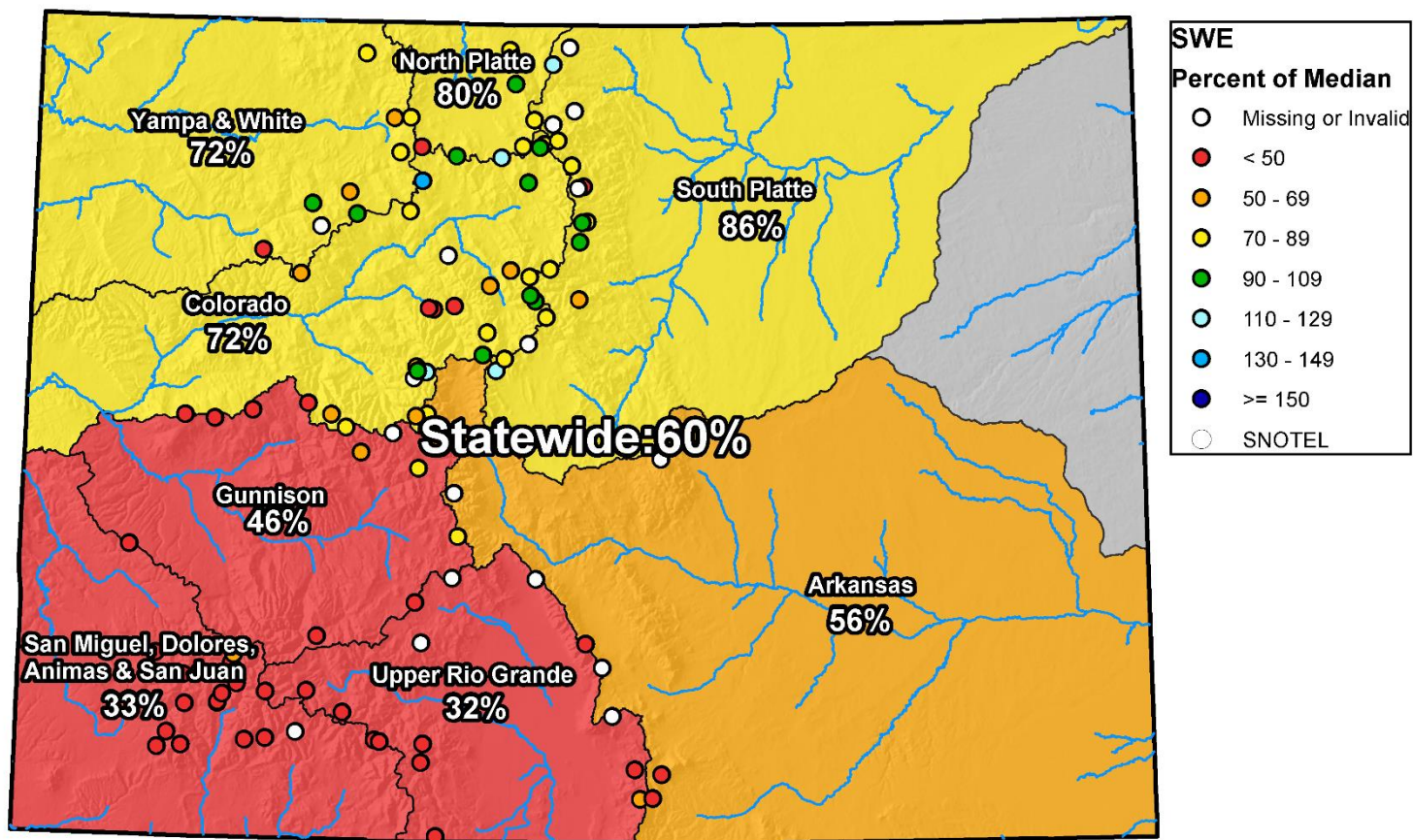
United States Department of Agriculture

Natural Resources Conservation Service



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

Current as of Jan 17, 2018



0 25 50 100 150 200 Miles

Colorado Statewide High/Low Monthly Precipitation Summary

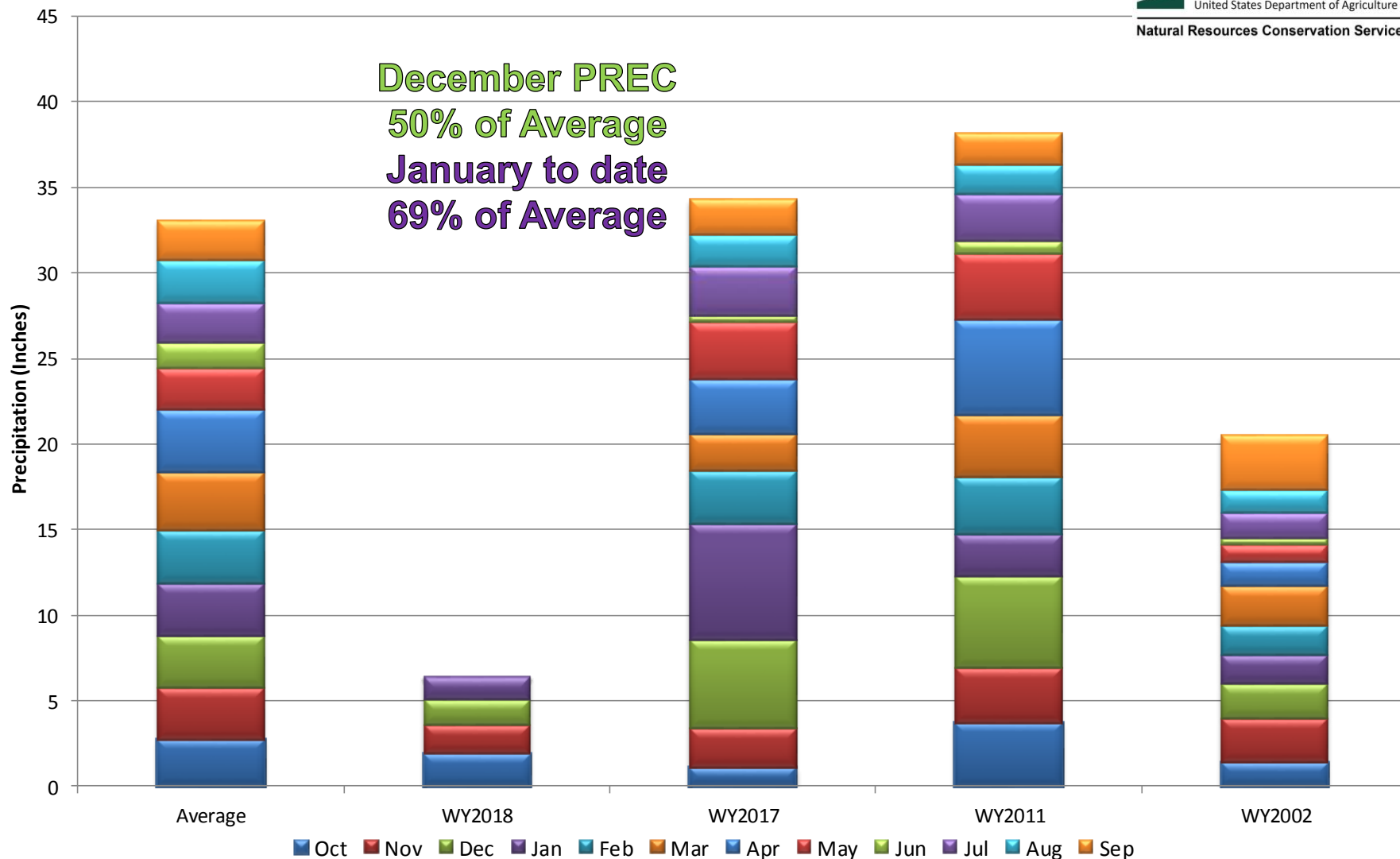
Based on Provisional SNOTEL data as of Jan 17, 2018



United States Department of Agriculture

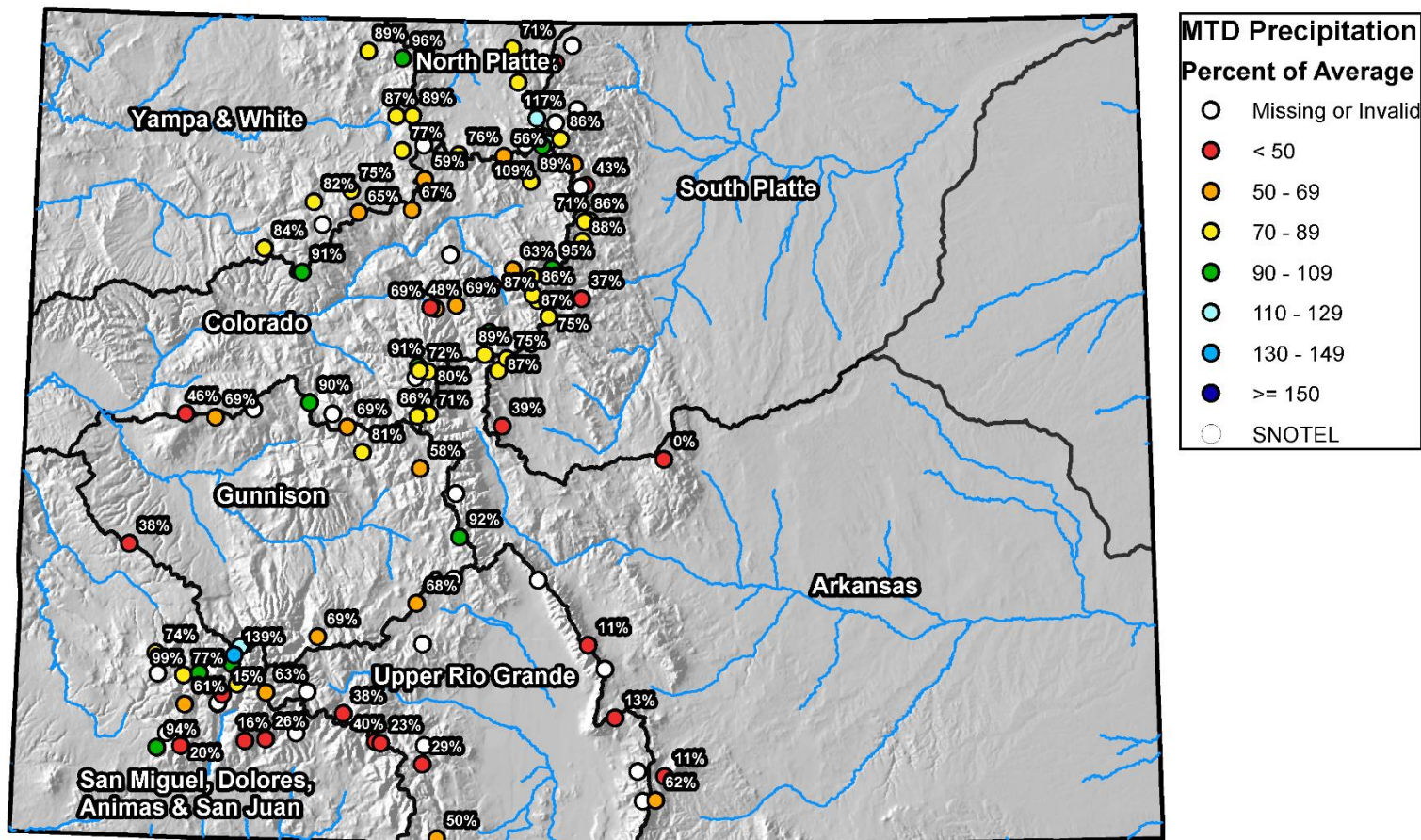
Natural Resources Conservation Service

December PREC
50% of Average
January to date
69% of Average



Colorado SNOTEL Month-to-Date Precipitation

Current as of Jan 17, 2018



0 25 50 100 150 200 Miles

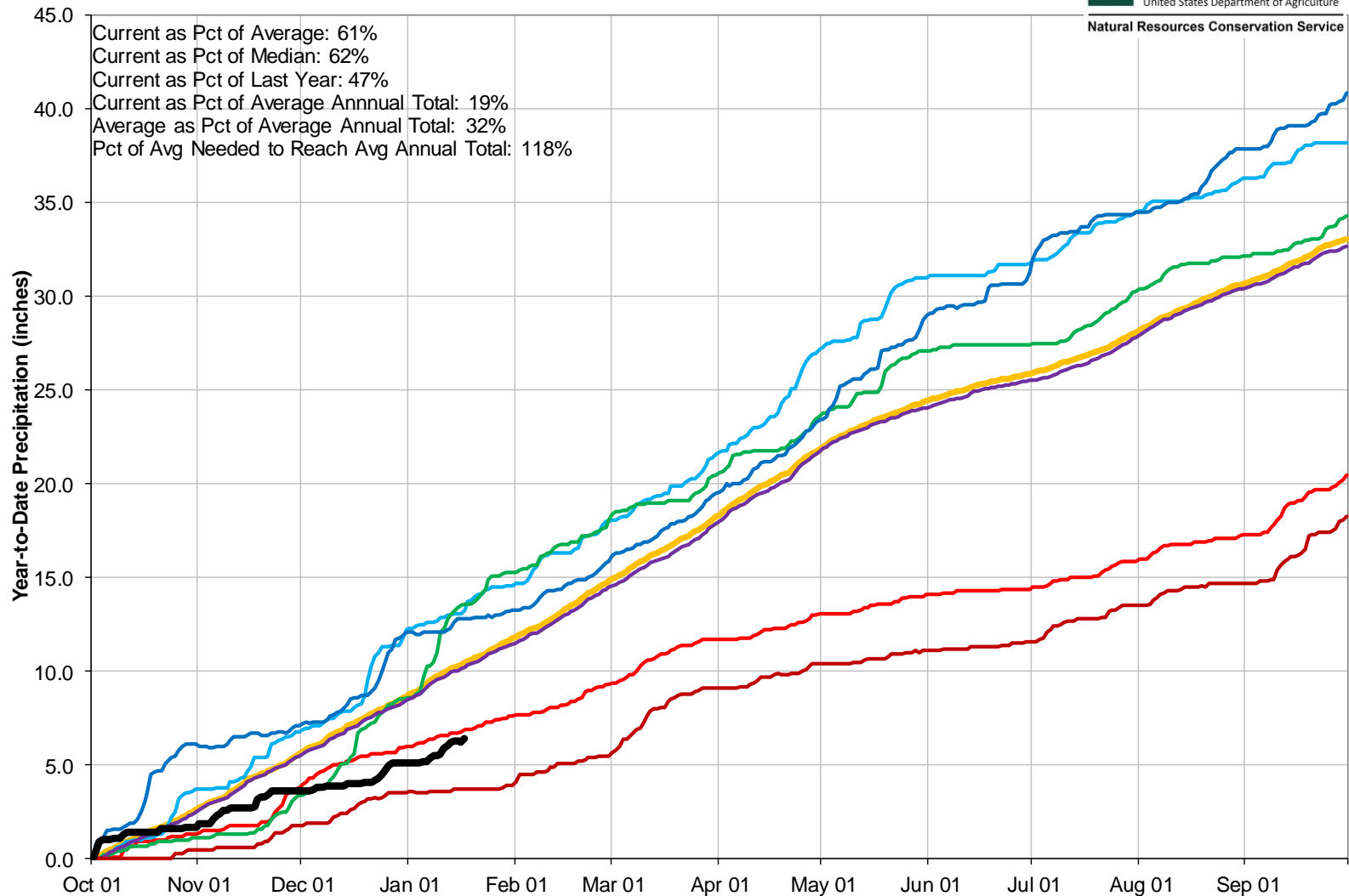
Colorado Statewide High/Low Year-to-Date Precipitation Summary

Based on Provisional SNOTEL data as of Jan 17, 2018



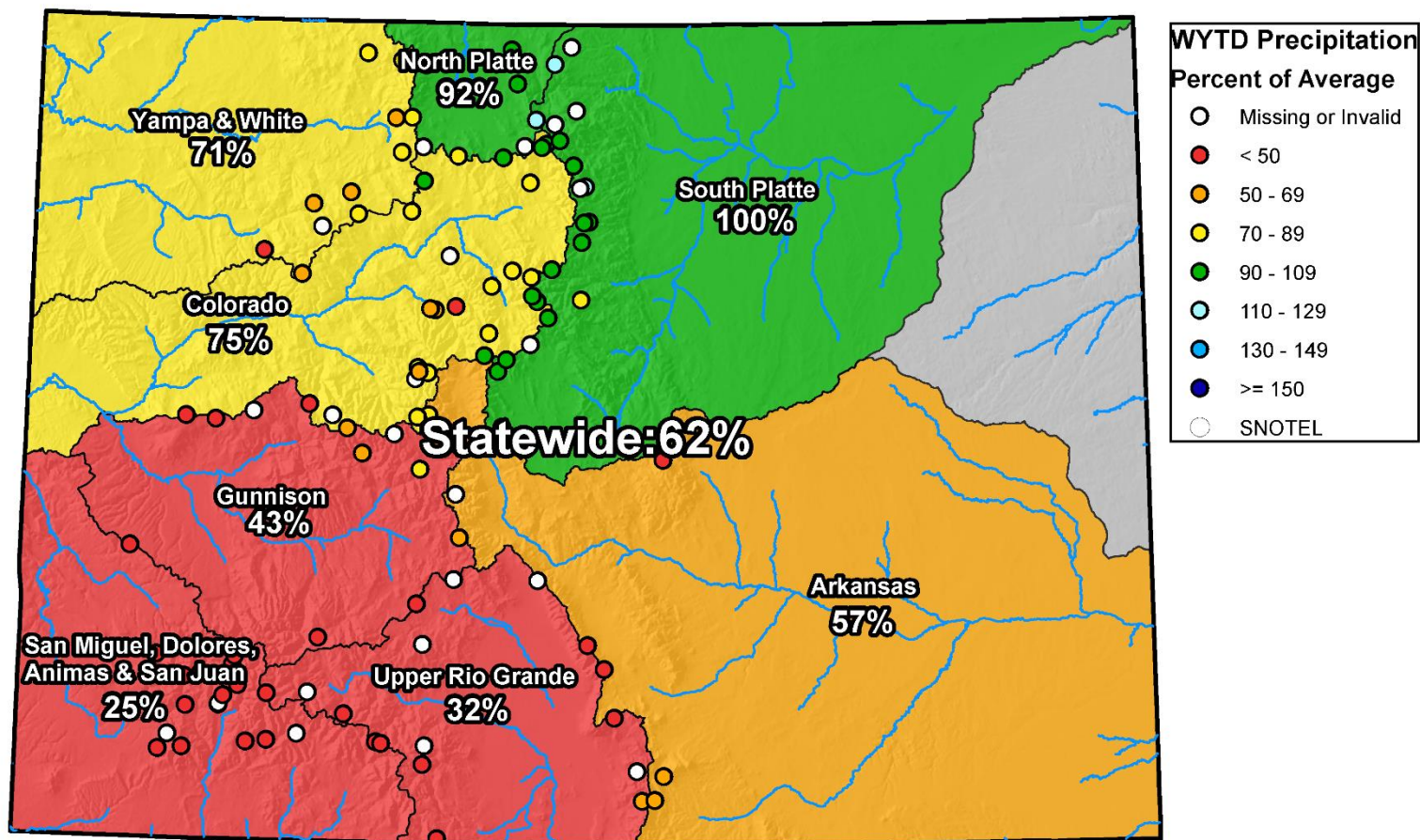
United States Department of Agriculture

Natural Resources Conservation Service



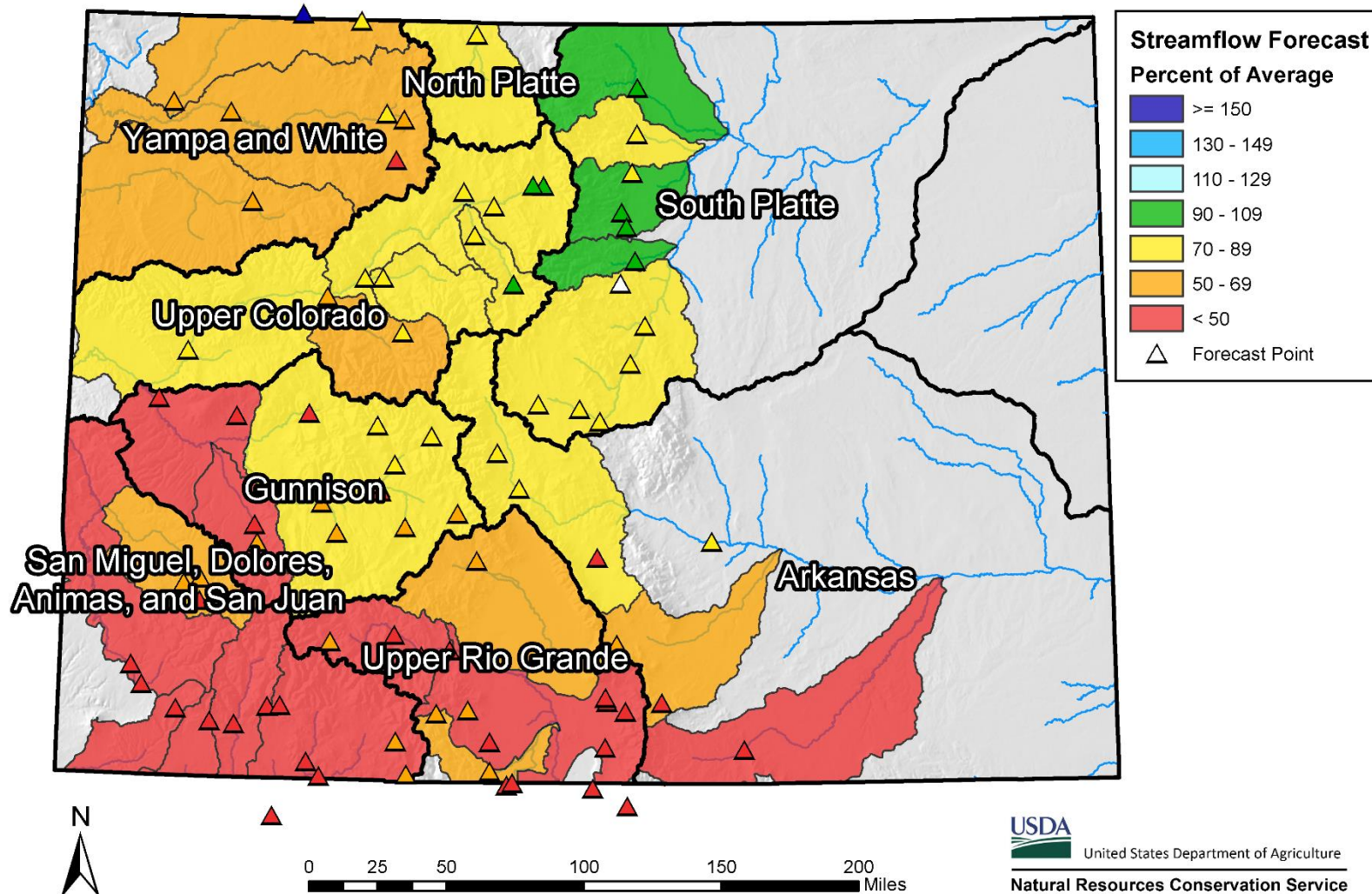
Colorado SNOTEL Water Year to Date Precipitation

Current as of Jan 17, 2018



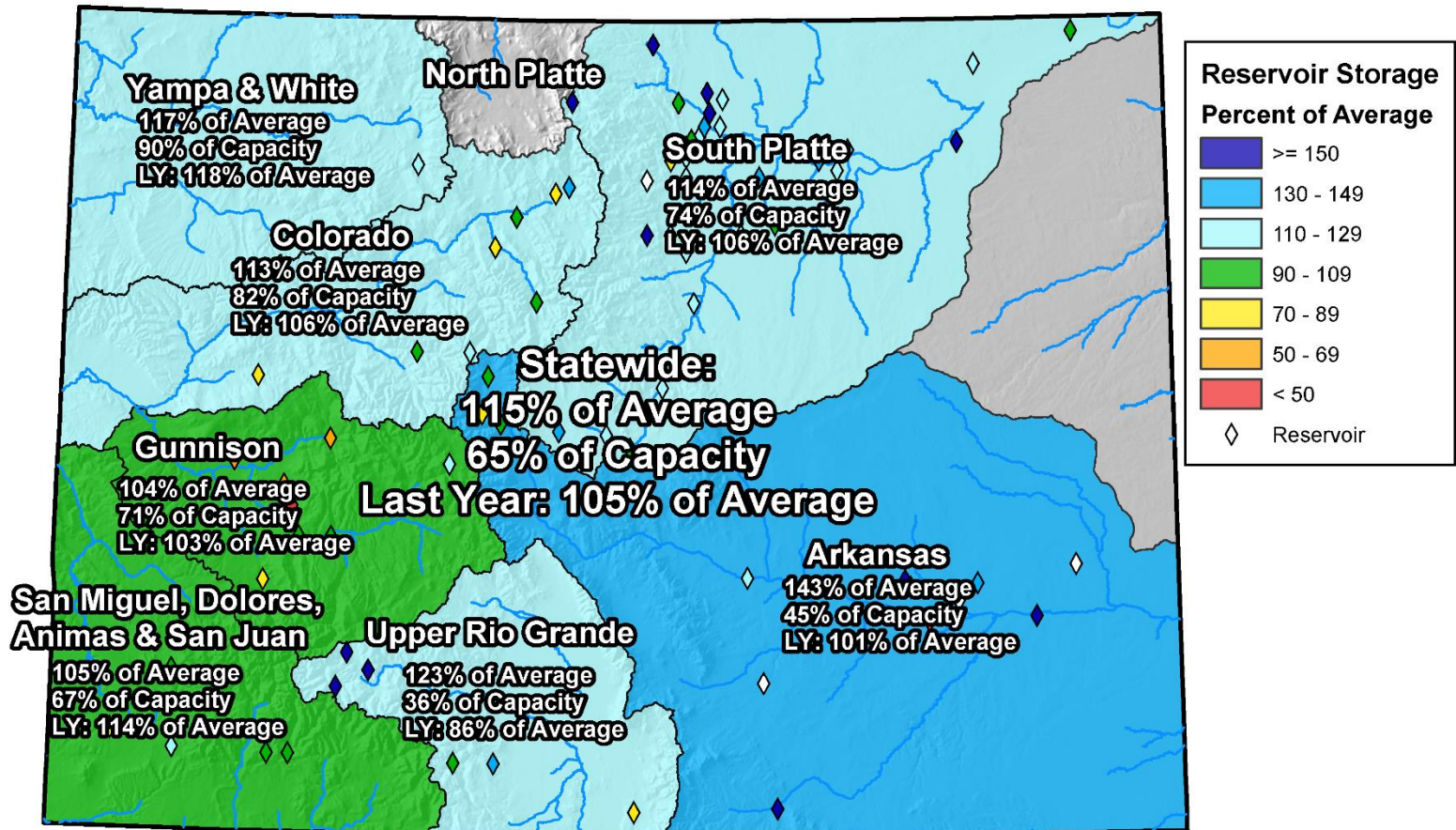
0 25 50 100 150 200 Miles

Colorado Streamflow Forecasts Summary January 1, 2018

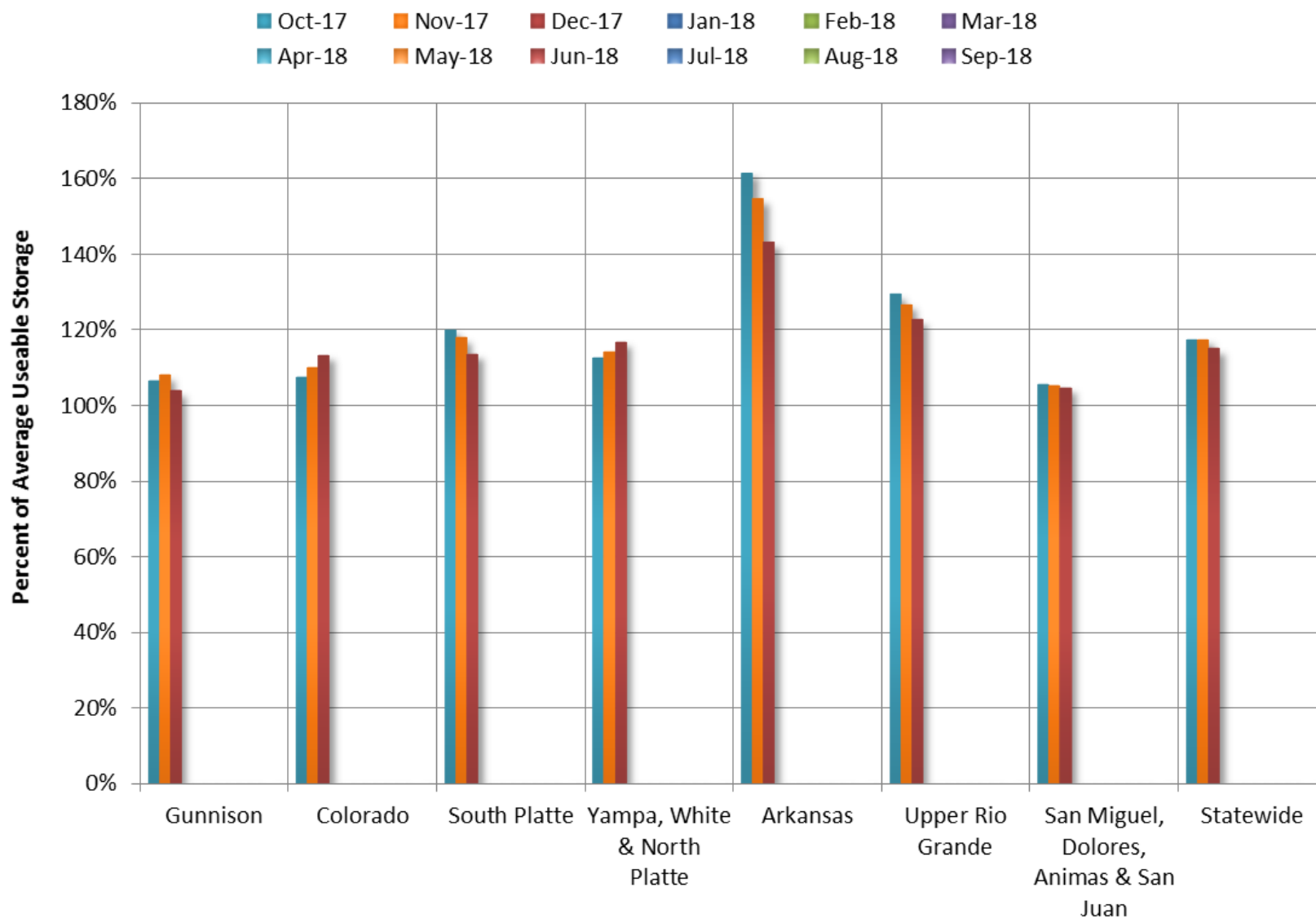


Colorado Monthly Reservoir Storage Summary

End of December 2017

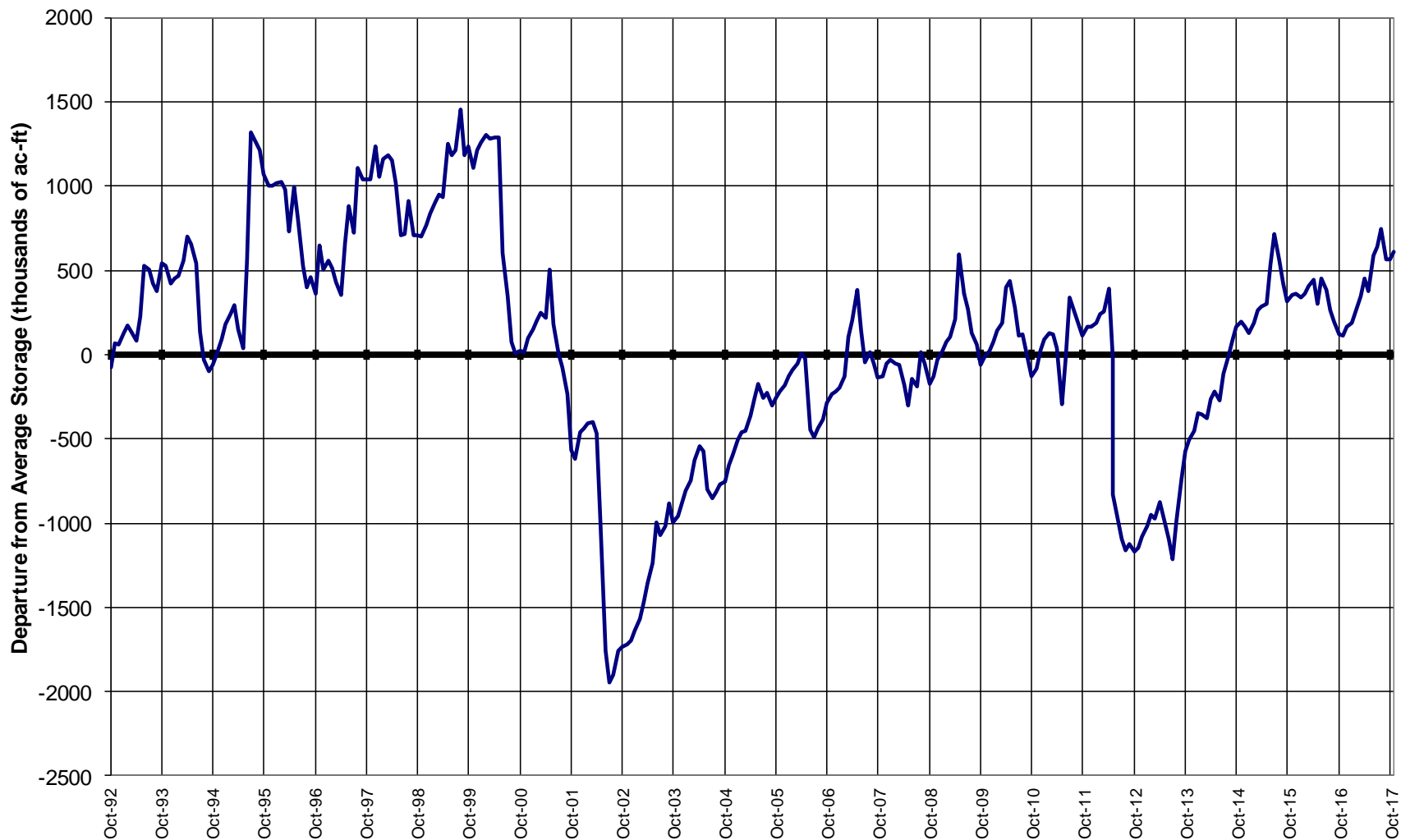


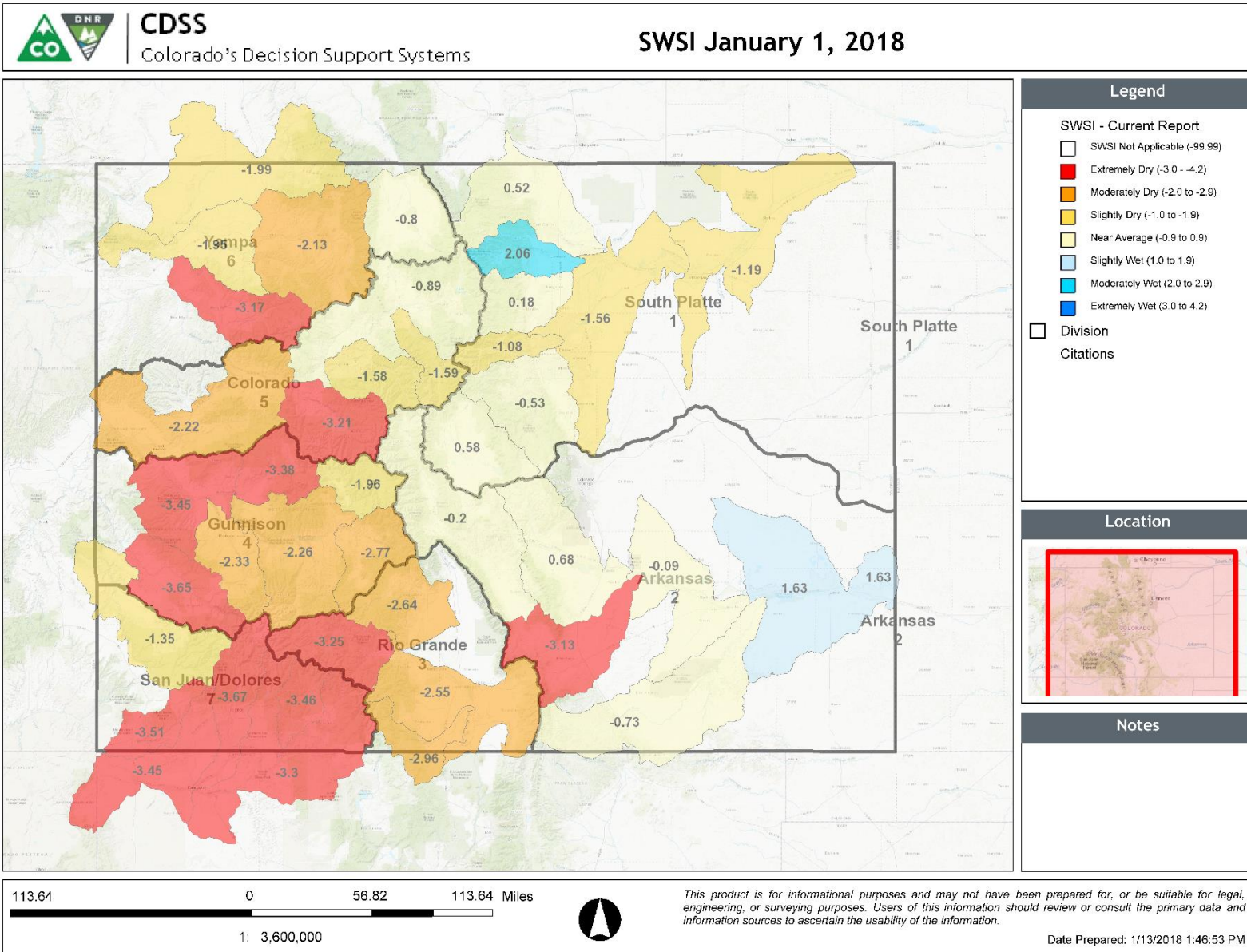
0 25 50 100 150 200 Miles





COLORADO STATEWIDE Reservoir Storage Departure from Average





Summary

- **Current statewide snowpack is one of the lowest since 1980**
 - Currently only 1981 and 2000 (barely) were lower
 - Stark contrast between the northern and southern parts of Colorado with the north receiving notably more precipitation
- **Streamflow forecasts largely mirror the spatial pattern of precipitation and snow accumulation**
 - As of January 1st there were no streamflow forecast points in the state forecasted to have above average April-July flows (at the 50% chance of exceedance level)
- **Reservoir storage is still above average in all major basins in the state**
- **To achieve a normal peak SWE (averaged statewide) a gain of 11.7” SWE would be needed over the next three months. A gain exceeding this magnitude has been observed in 3 out of the last 37 years.**



United States Department of Agriculture

Colorado Snow Surveys

Water Availability Task Force Meeting

January 18th, 2018

NRCS Snow Survey and Water Supply Forecasting Program

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