



United States Department of Agriculture

Colorado Snow Surveys

Water Availability Task Force Meeting

June 20th, 2023

NRCS Snow Survey and Water Supply Forecasting Program

Karl Wetlaufer

Hydrologist

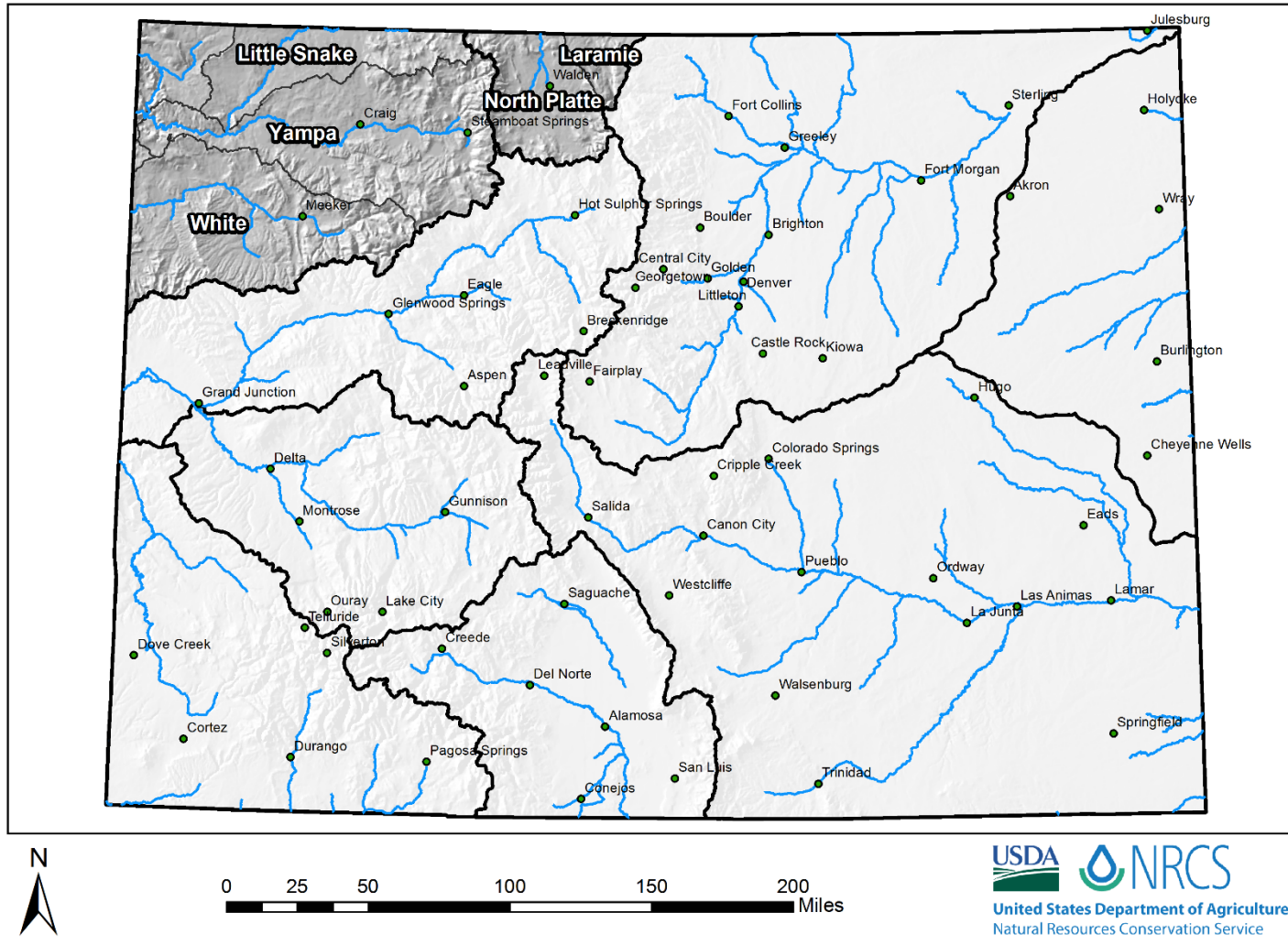
Karl.Wetlaufer@usda.gov

720-544-2853

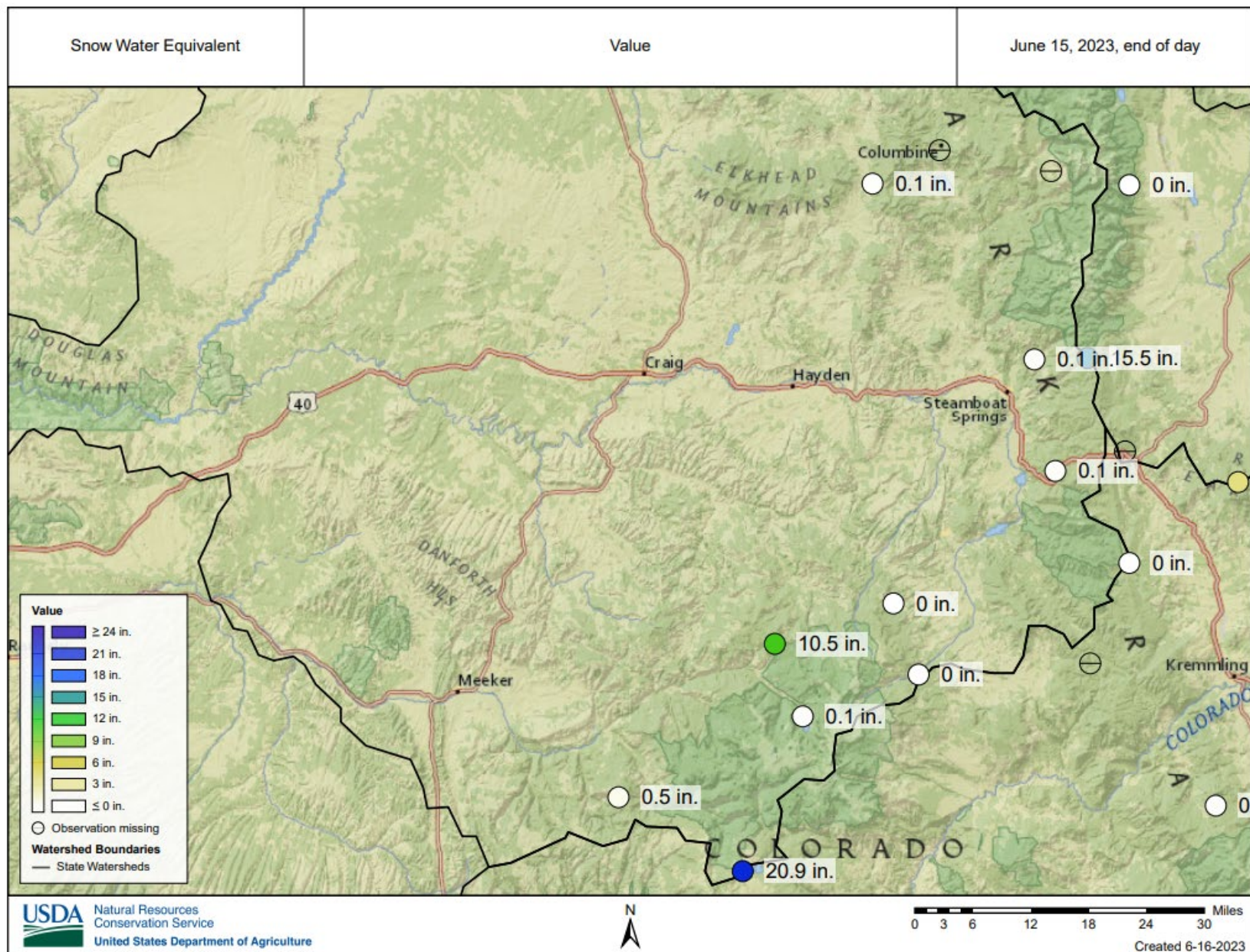
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/co/snow/>

Major Basin Summary

Yampa, White, and North Platte River Basins



Colorado Snow Surveys





Colorado Snow Surveys

PRECIPITATION IN WHITE-YAMPA

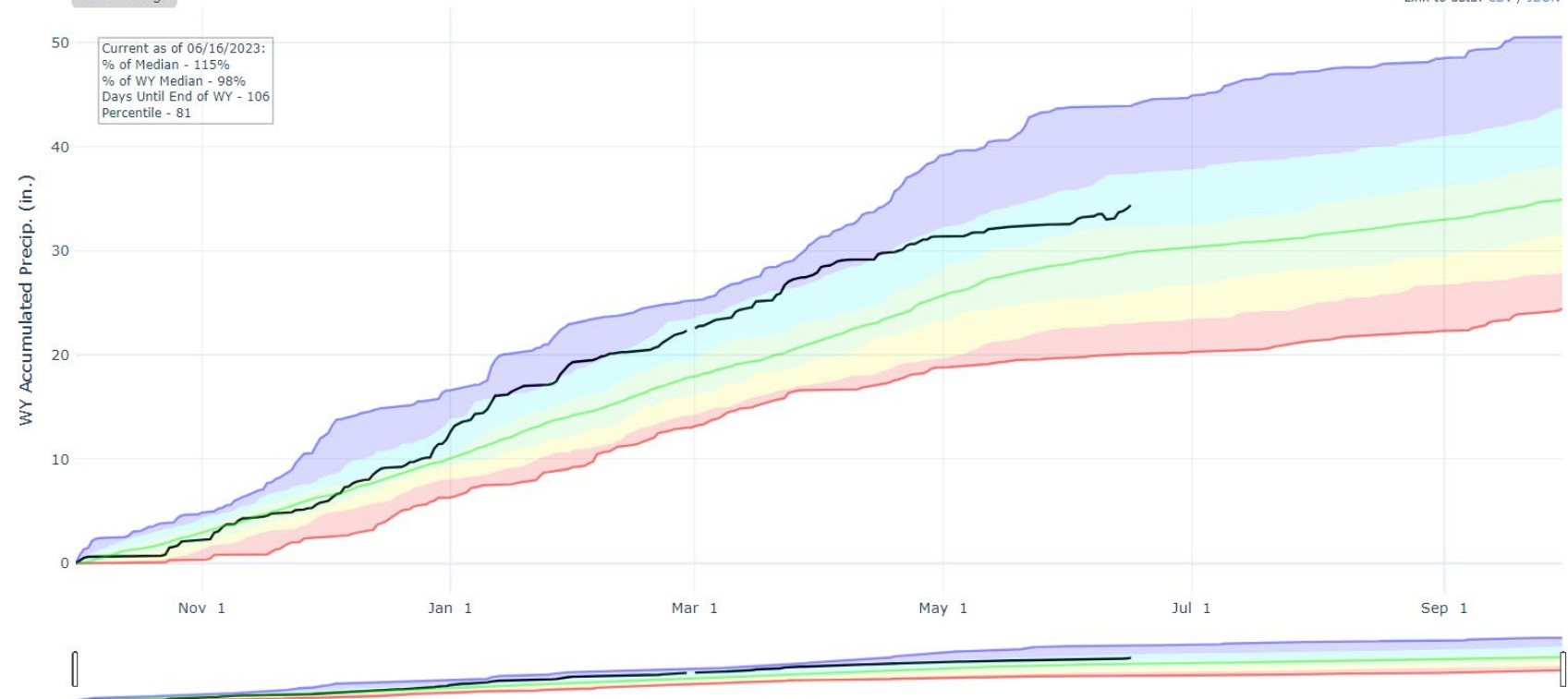
Reset Range

[Link to data: CSV / JSON](#)

Station List

Current as of 06/16/2023:
% of Median - 115%
% of WY Median - 98%
Days Until End of WY - 106
Percentile - 81

- Max
- Median (POR)
- Median ('91-'20)
- Min
- Stats. Shading
- 2023 (21 sites)
- 2022 (21 sites)
- 2021 (21 sites)
- 2020 (21 sites)
- 2019 (21 sites)
- 2018 (21 sites)
- 2017 (21 sites)
- 2016 (21 sites)
- 2015 (21 sites)
- 2014 (21 sites)
- 2013 (21 sites)
- 2012 (21 sites)
- 2011 (21 sites)
- 2010 (21 sites)
- 2009 (21 sites)
- 2008 (21 sites)
- 2007 (21 sites)
- 2006 (21 sites)
- 2005 (21 sites)
- 2004 (19 sites)





Colorado Snow Surveys

PRECIPITATION IN LARAMIE AND NORTH PLATTE

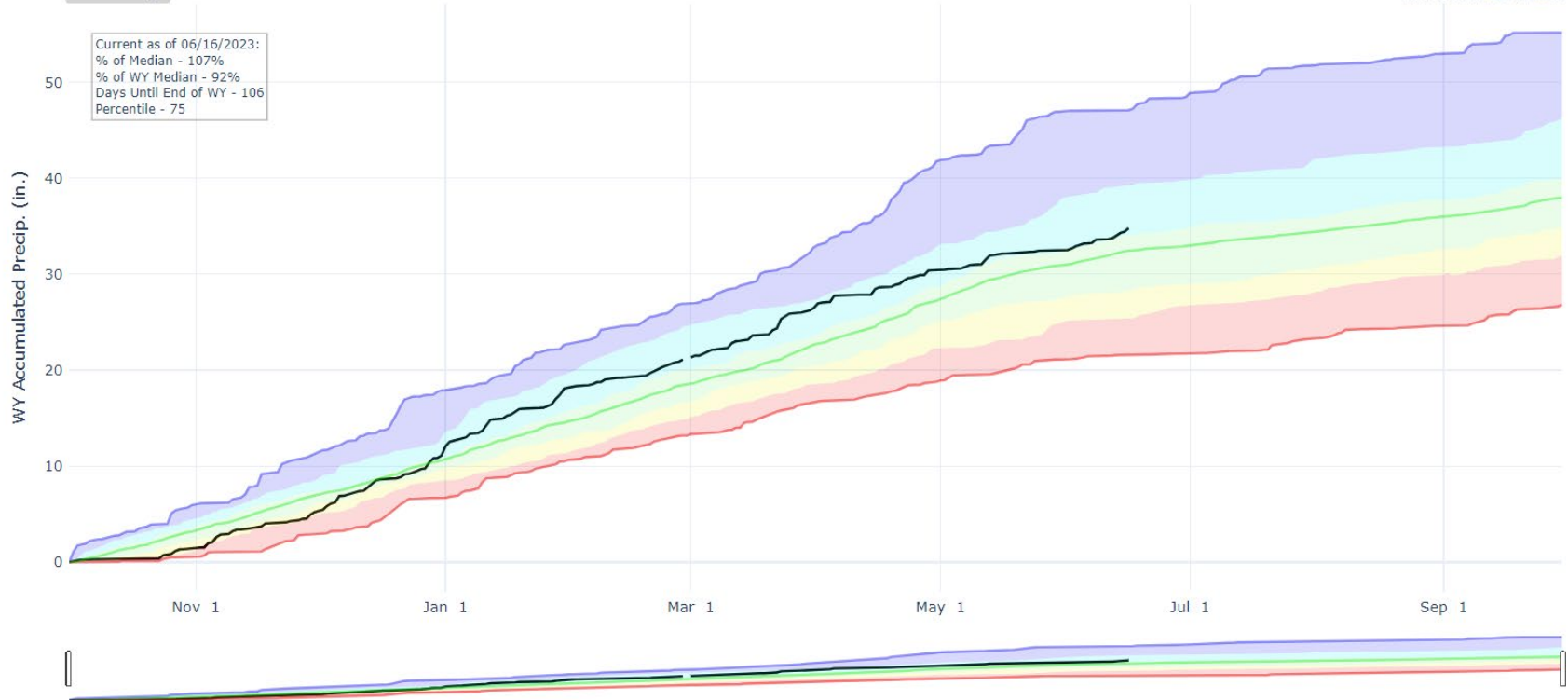
Reset Range

[Link to data: CSV / JSON](#)

Station List

Current as of 06/16/2023:
% of Median - 107%
% of WY Median - 92%
Days Until End of WY - 106
Percentile - 75

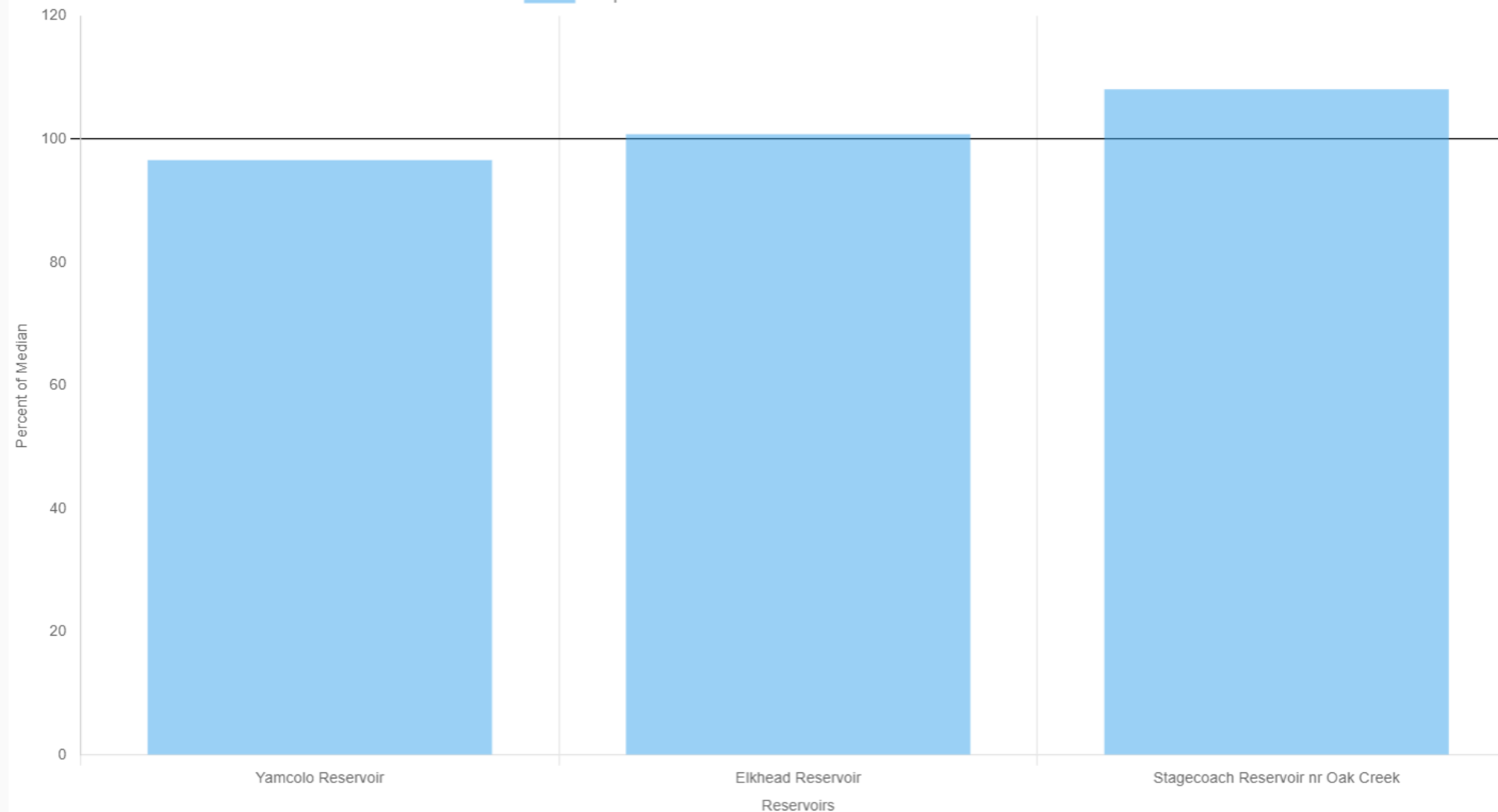
- Max
- Median (POR)
- Median ('91-'20)
- Min
- Stats. Shading
- 2023 (12 sites)
- 2022 (12 sites)
- 2021 (12 sites)
- 2020 (12 sites)
- 2019 (12 sites)
- 2018 (12 sites)
- 2017 (12 sites)
- 2016 (12 sites)
- 2015 (12 sites)
- 2014 (12 sites)
- 2013 (12 sites)
- 2012 (12 sites)
- 2011 (12 sites)
- 2010 (12 sites)
- 2009 (11 sites)
- 2008 (11 sites)
- 2007 (11 sites)
- 2006 (11 sites)
- 2005 (11 sites)
- 2004 (11 sites)





Yampa-White-Little Snake Reservoir Storage Summary for June 1st 2023

Yampa-White-Little Snake Reservoirs as a Percent of Median

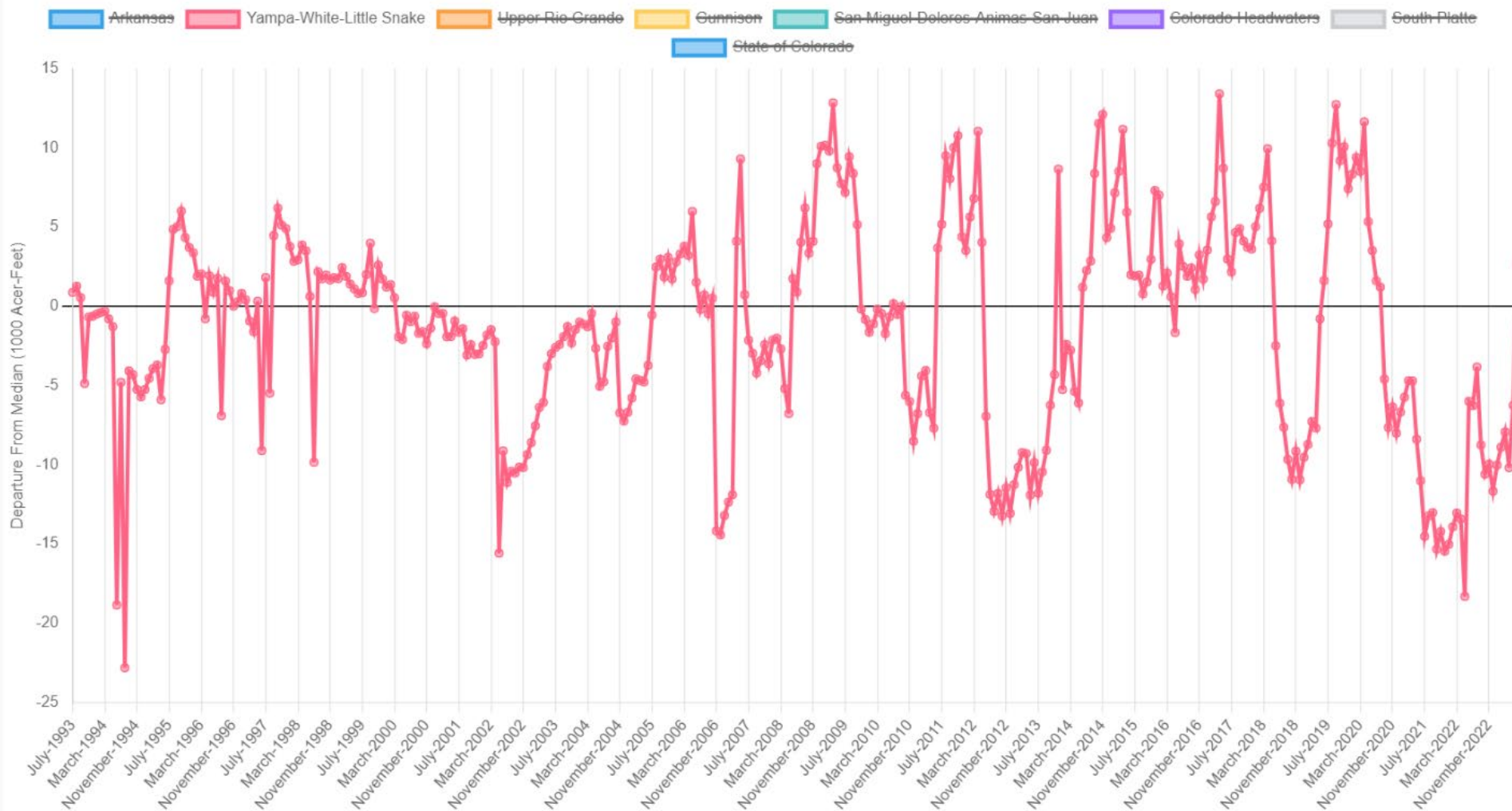


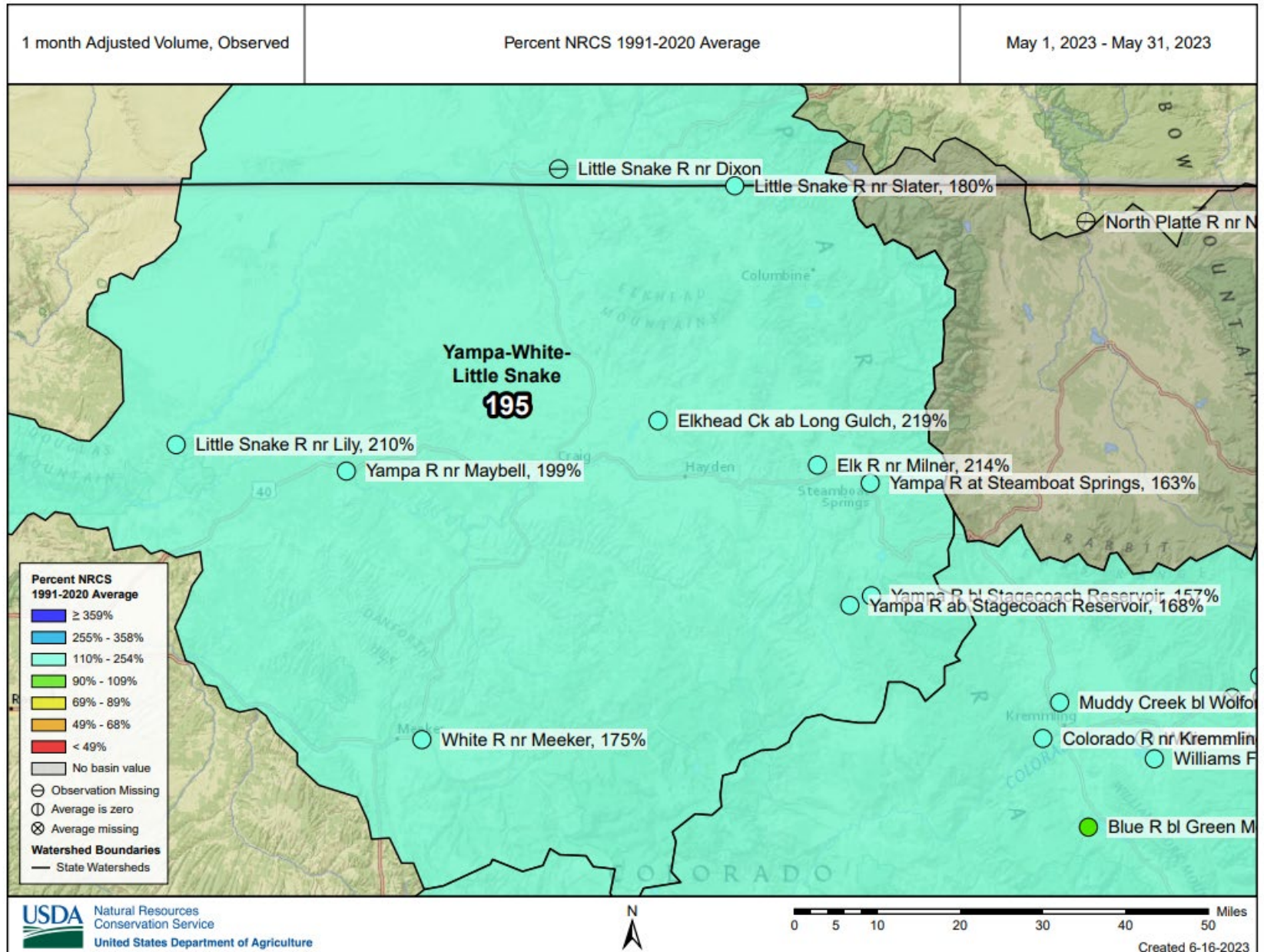


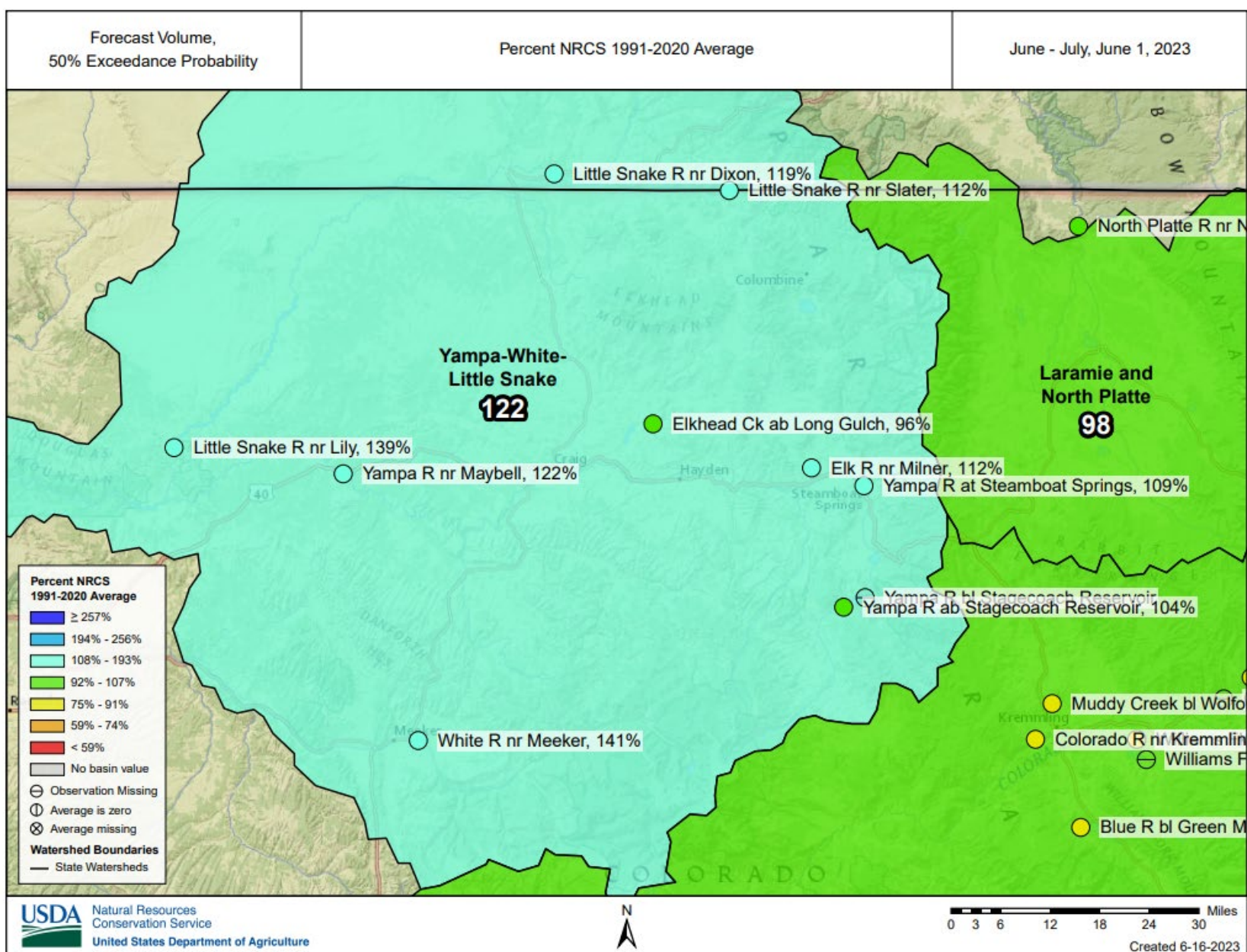
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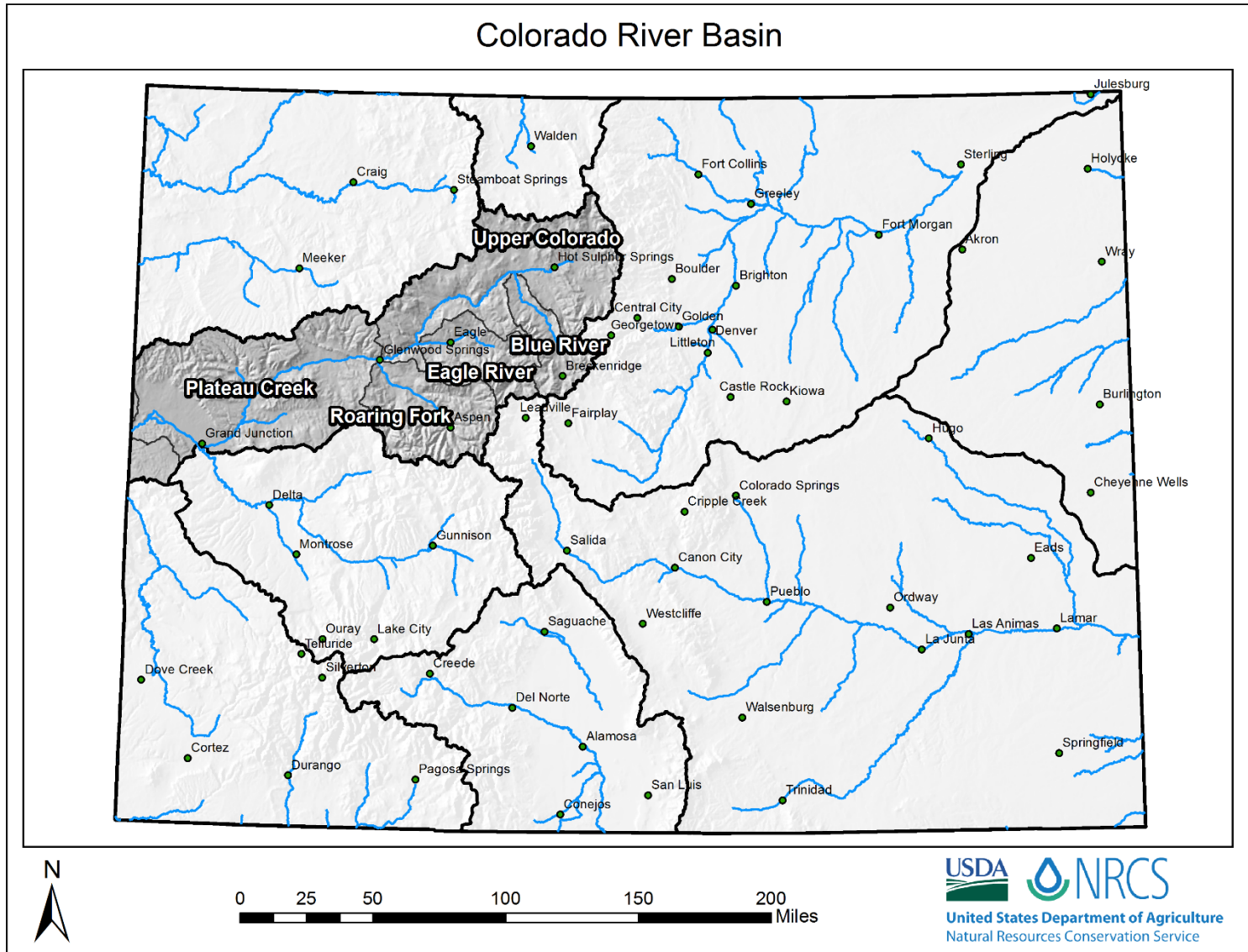
Colorado Departure From Median Timeseries Plot





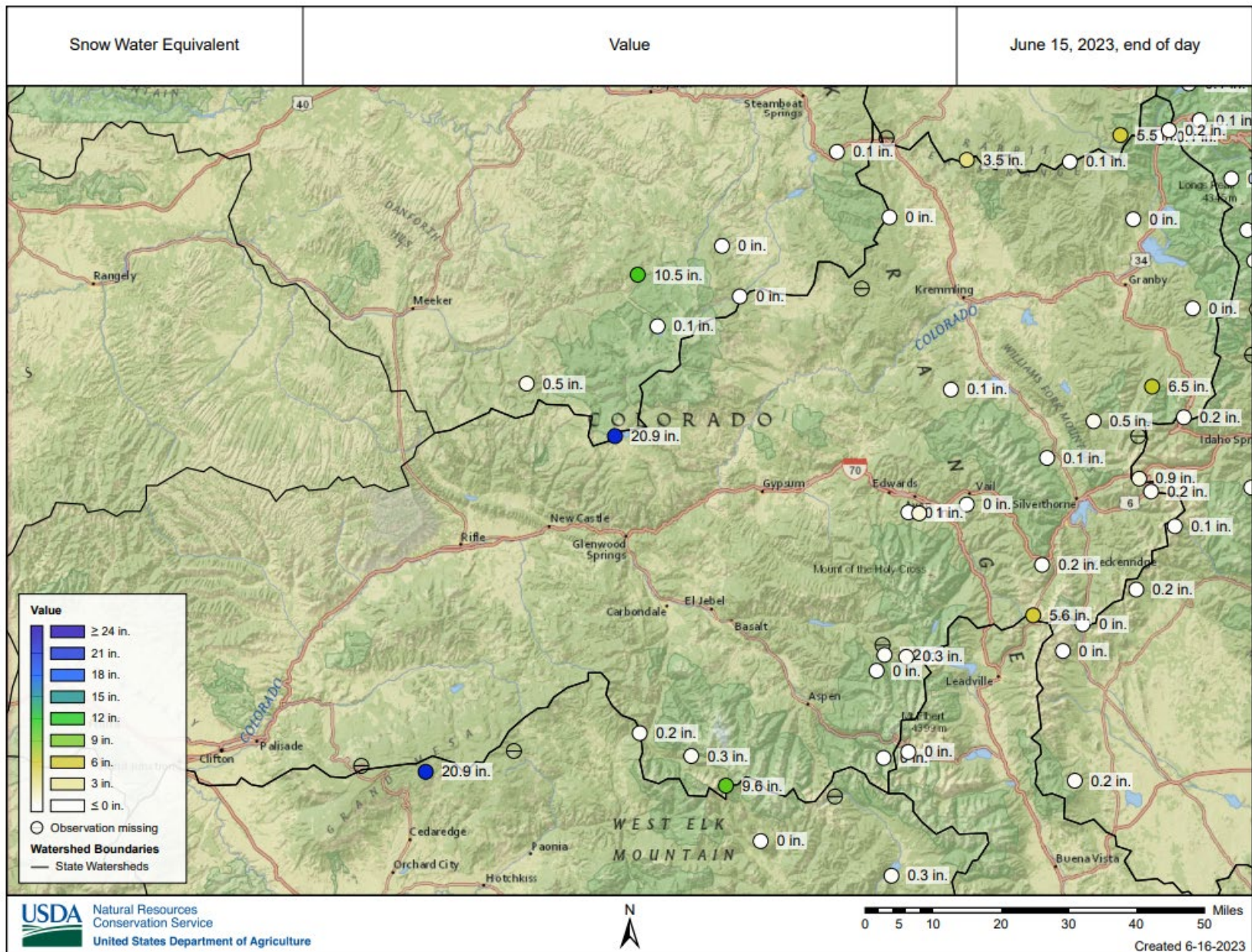


Major Basin Summary





Colorado Snow Surveys





Colorado Snow Surveys

PRECIPITATION IN COLORADO HEADWATERS

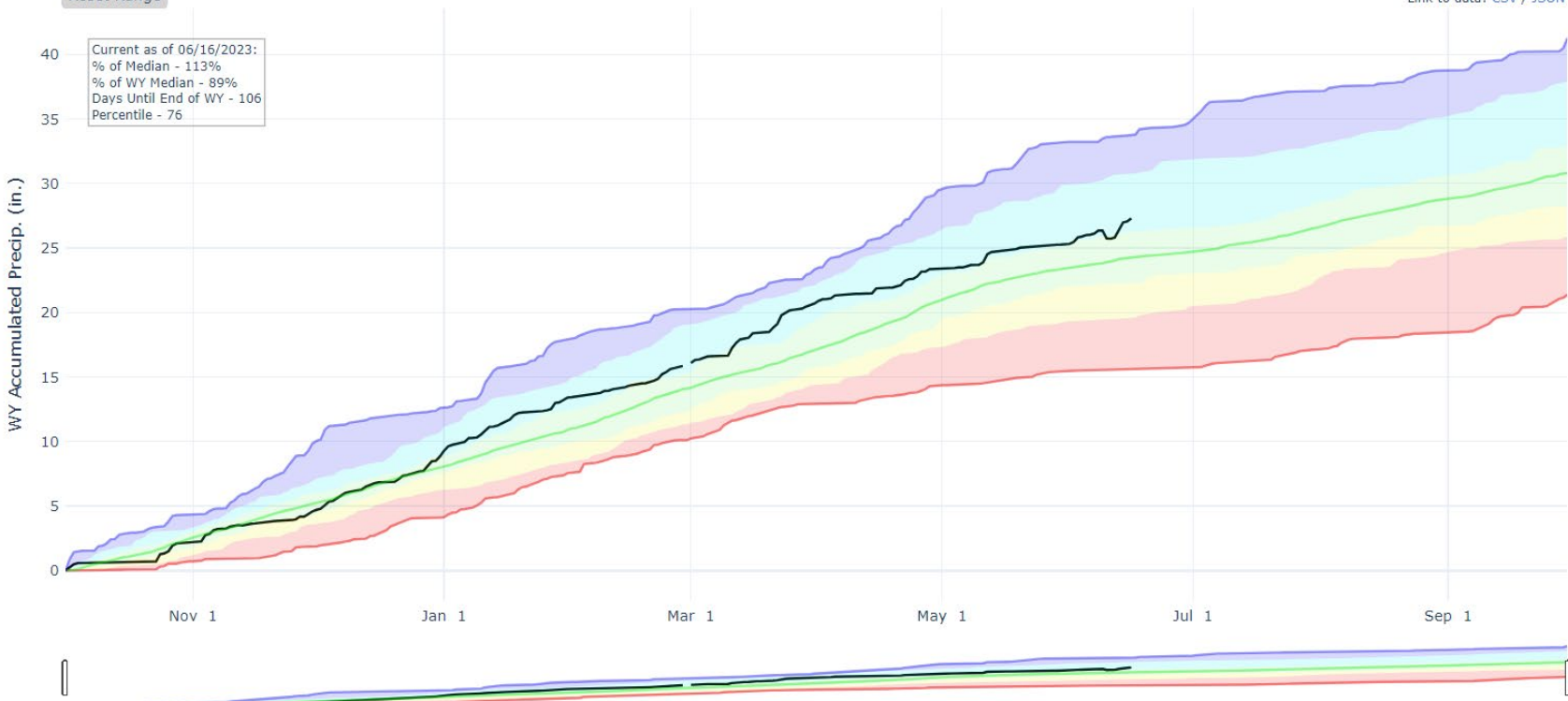
Reset Range

[Link to data: CSV / JSON](#)

[Station List](#)

Current as of 06/16/2023:
% of Median - 113%
% of WY Median - 89%
Days Until End of WY - 106
Percentile - 76

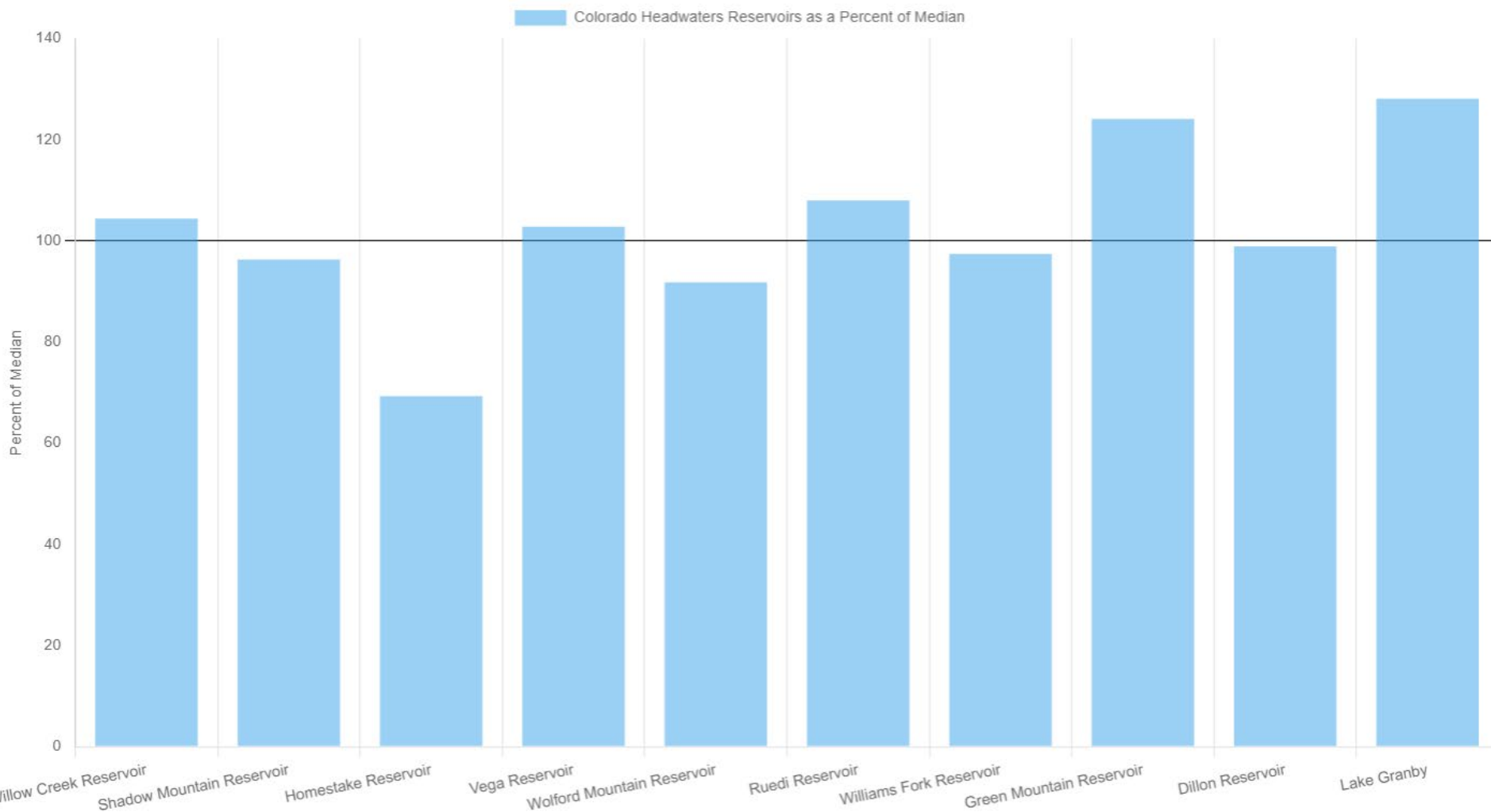
- Max
- Median (POR)
- Median ('91-'20)
- Min
- Stats. Shading
- 2023 (31 sites)
- 2022 (31 sites)
- 2021 (31 sites)
- 2020 (31 sites)
- 2019 (31 sites)
- 2018 (31 sites)
- 2017 (31 sites)
- 2016 (31 sites)
- 2015 (31 sites)
- 2014 (31 sites)
- 2013 (31 sites)
- 2012 (31 sites)
- 2011 (31 sites)
- 2010 (31 sites)
- 2009 (31 sites)
- 2008 (31 sites)
- 2007 (30 sites)
- 2006 (30 sites)
- 2005 (30 sites)
- 2004 (29 sites)





Colorado Snow Surveys

Colorado Headwaters Reservoir Storage Summary for June 1st 2023

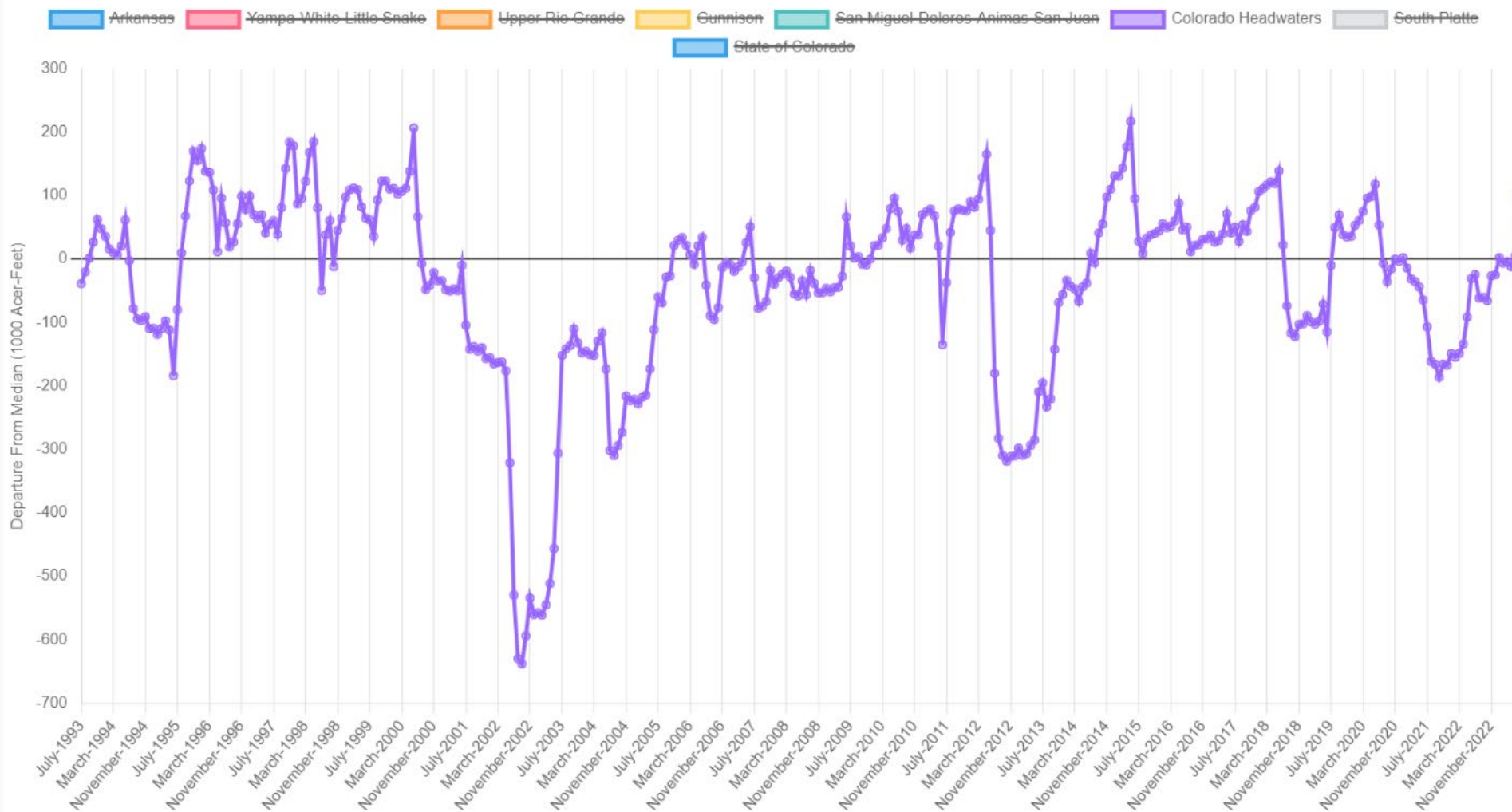


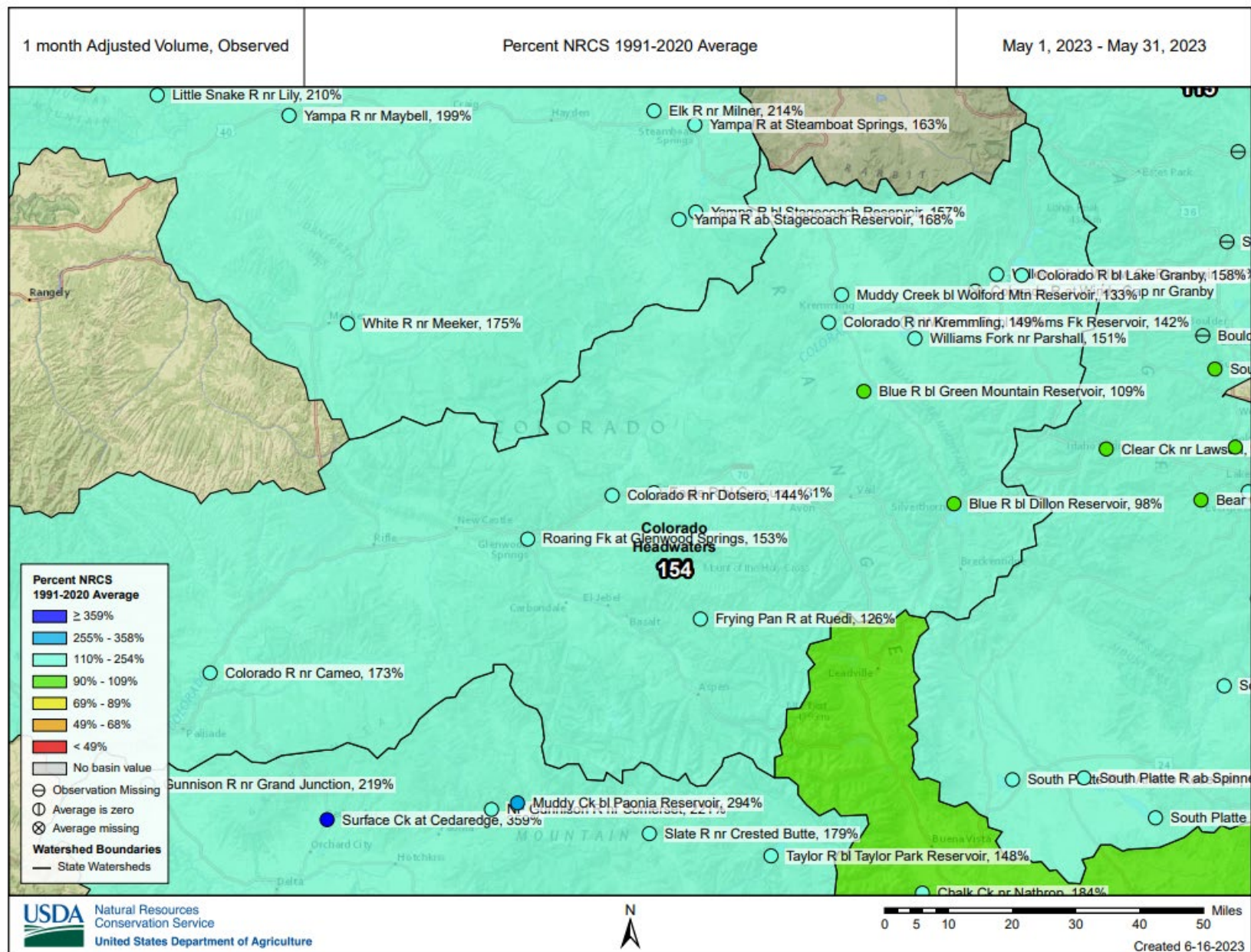


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Colorado Snow Surveys

Colorado Departure From Median Timeseries Plot

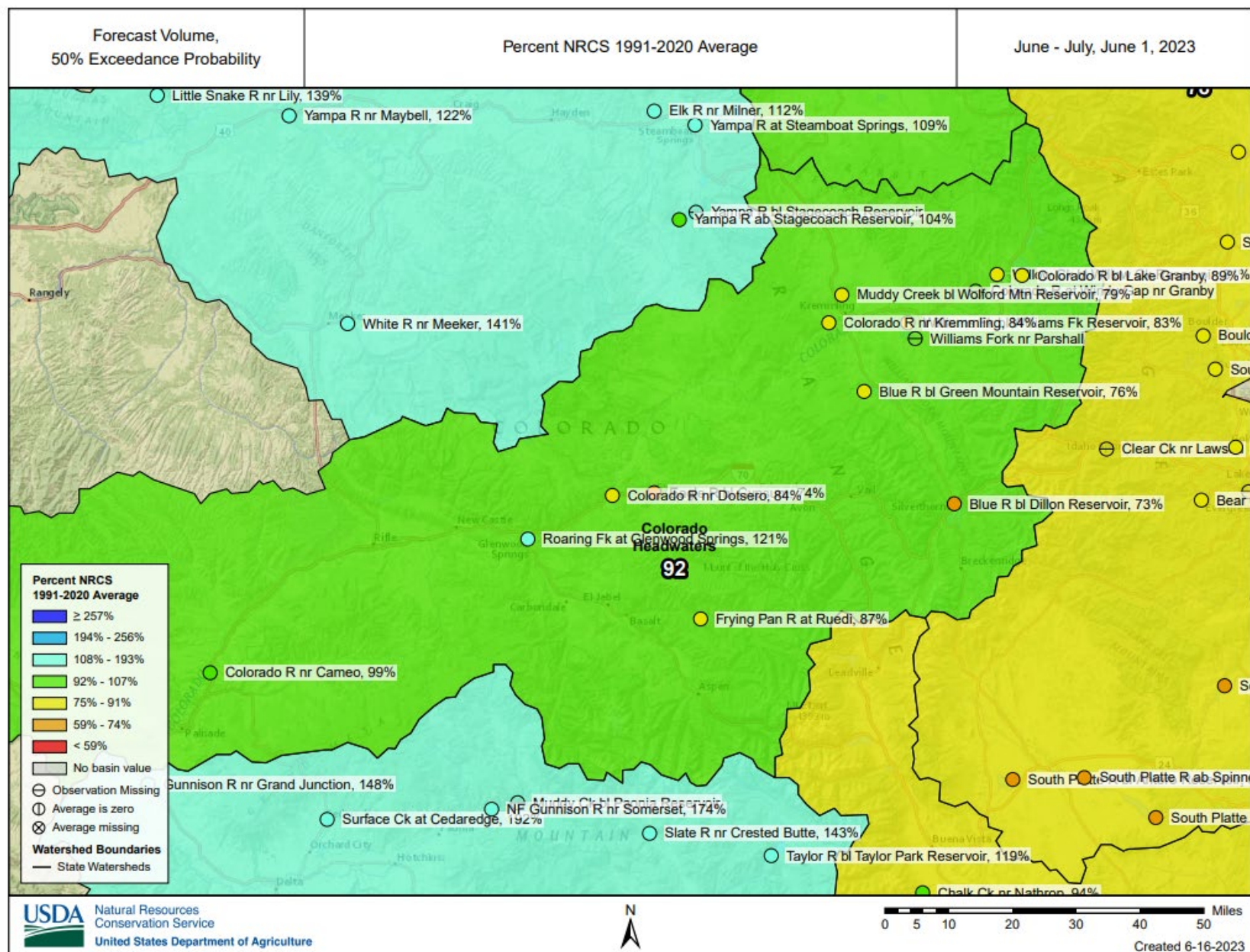






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Colorado Snow Surveys



A map of Colorado illustrating the major river basins and their associated 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 shows the state's boundaries, major rivers in blue, and numerous cities marked with green dots. The terrain is depicted with light gray shading to represent mountainous regions. The cities shown include Julesburg, Holyoke, Wray, Burlington, Cheyenne Wells, Eads, Las Animas, Lamar, La Junta, Ordway, Pueblo, Canon City, Cripple Creek, Colorado Springs, Hugo, Castle Rock, Kiowa, Littleton, Denver, Golden, Boulder, Brighton, Fort Morgan, Akron, Sterling, Greeley, Fort Collins, Walden, Steamboat Springs, Craig, Meeker, Eagle, Glenwood Springs, Aspen, Leadville, Fairplay, Grand Junction, Delta, Montrose, Gunnison, Salida, Saguache, Westcliffe, Del Norte, Alamosa, San Luis, Trinidad, Pagosa Springs, Durango, Cortez, Dove Creek, Silverton, Telluride, Lake City, and Oury.

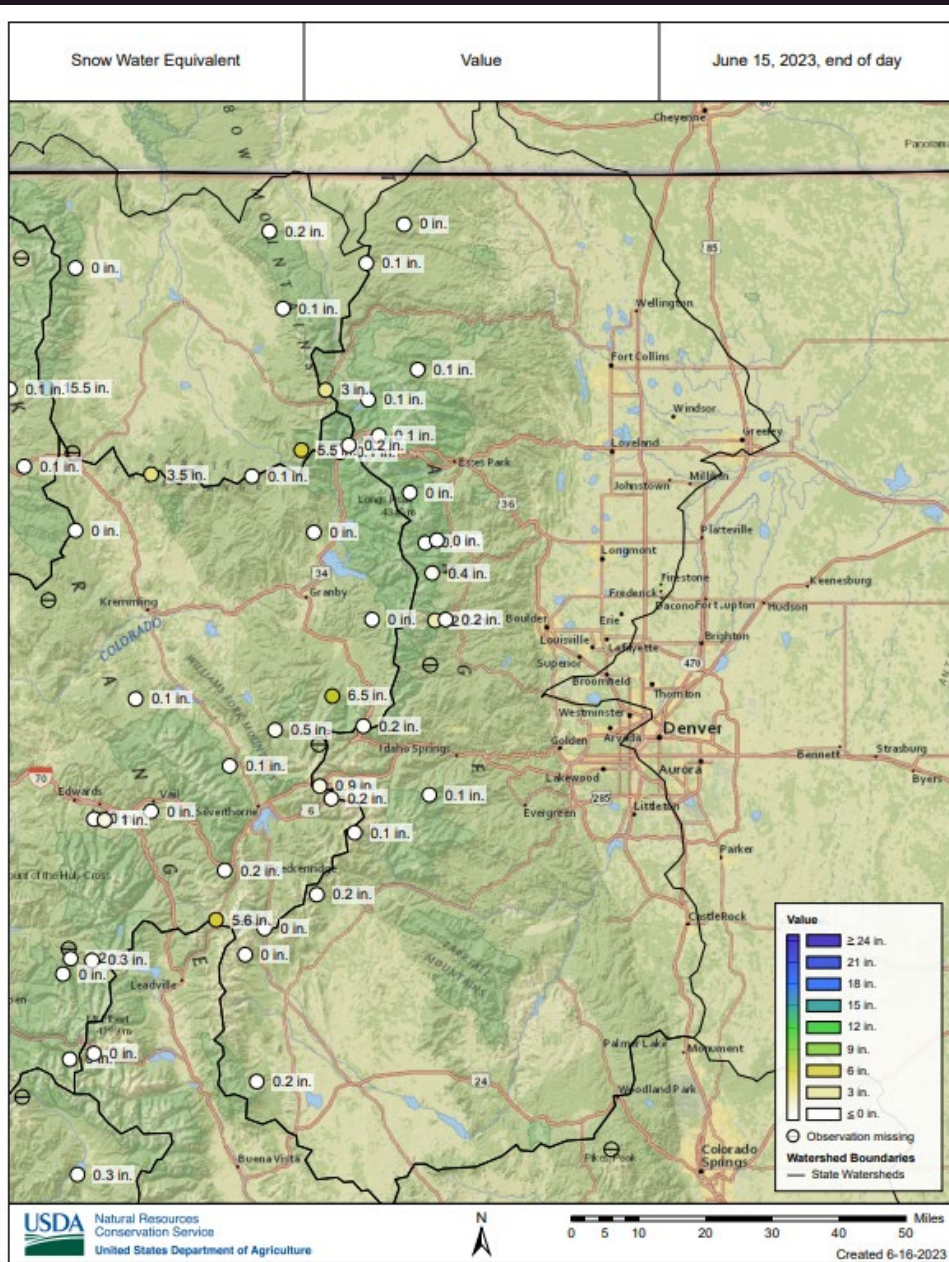


0 25 50 100 150 200 Miles



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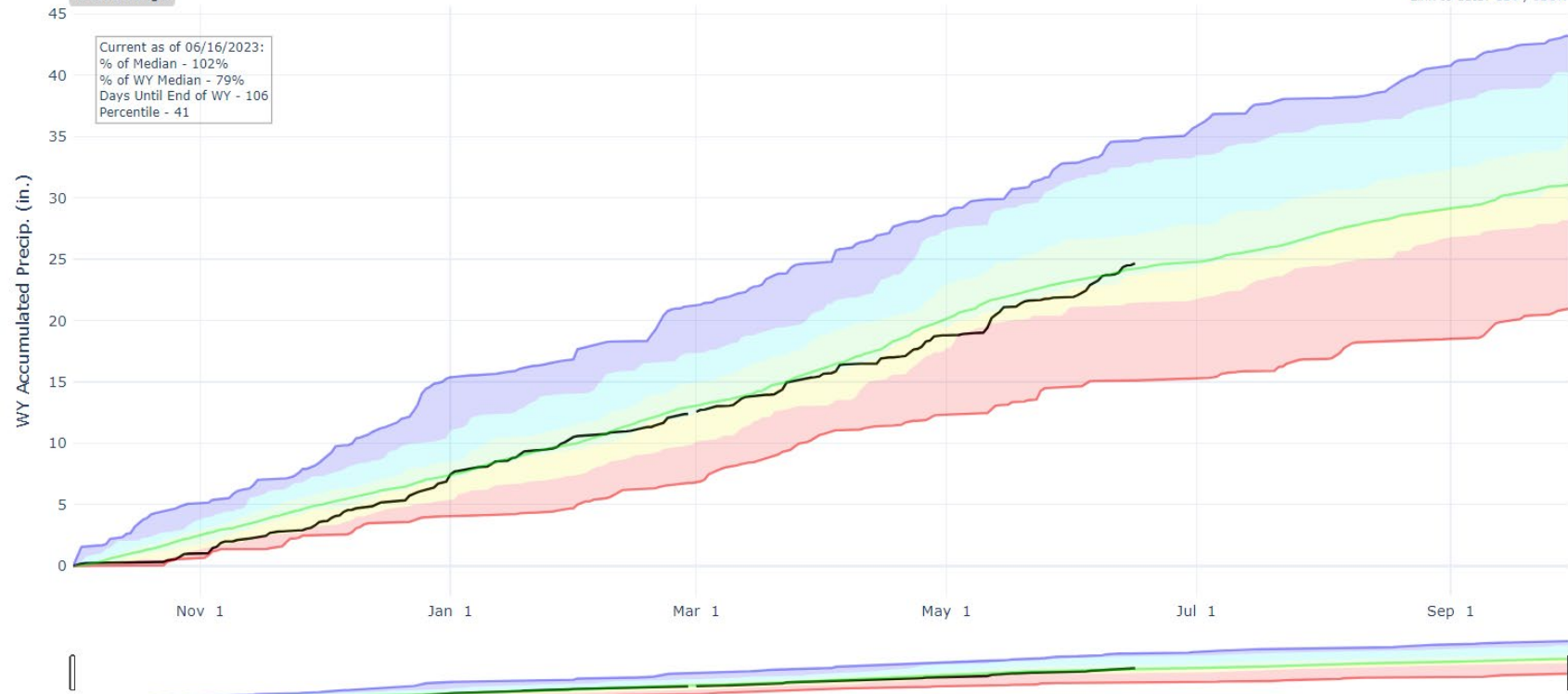
PRECIPITATION IN SOUTH PLATTE

Reset Range

[Link to data: CSV / JSON](#)

[Station List](#)

Current as of 06/16/2023:
% of Median - 102%
% of WY Median - 79%
Days Until End of WY - 106
Percentile - 41



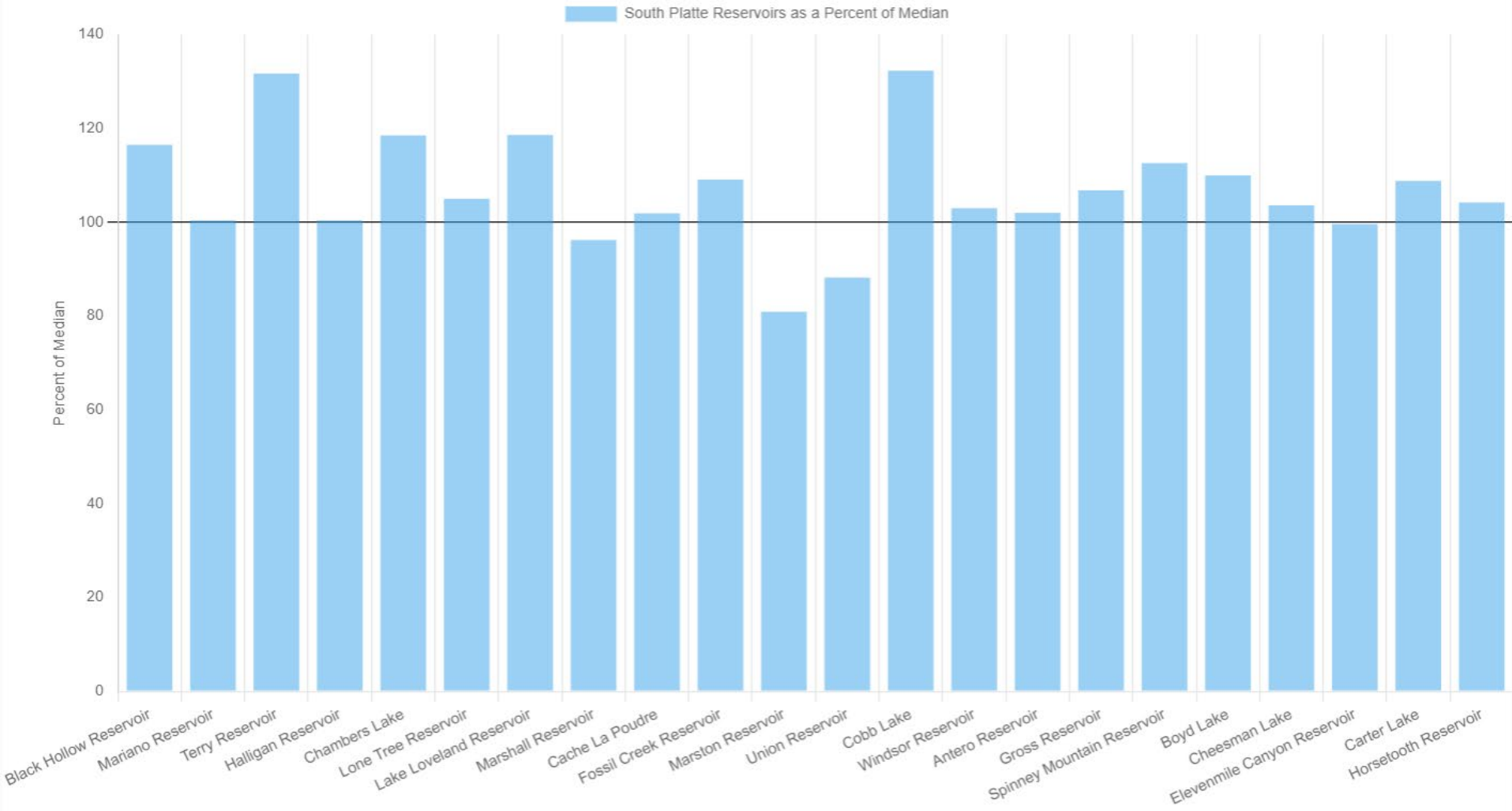
- Max
- Median (POR)
- Median ('91-'20)
- Min
- Stats. Shading
- 2023 (21 sites)
- 2022 (21 sites)
- 2021 (21 sites)
- 2020 (21 sites)
- 2019 (21 sites)
- 2018 (21 sites)
- 2017 (21 sites)
- 2016 (21 sites)
- 2015 (21 sites)
- 2014 (21 sites)
- 2013 (21 sites)
- 2012 (21 sites)
- 2011 (21 sites)
- 2010 (20 sites)
- 2009 (19 sites)
- 2008 (18 sites)
- 2007 (18 sites)
- 2006 (18 sites)
- 2005 (17 sites)
- 2004 (17 sites)





Colorado Snow Surveys

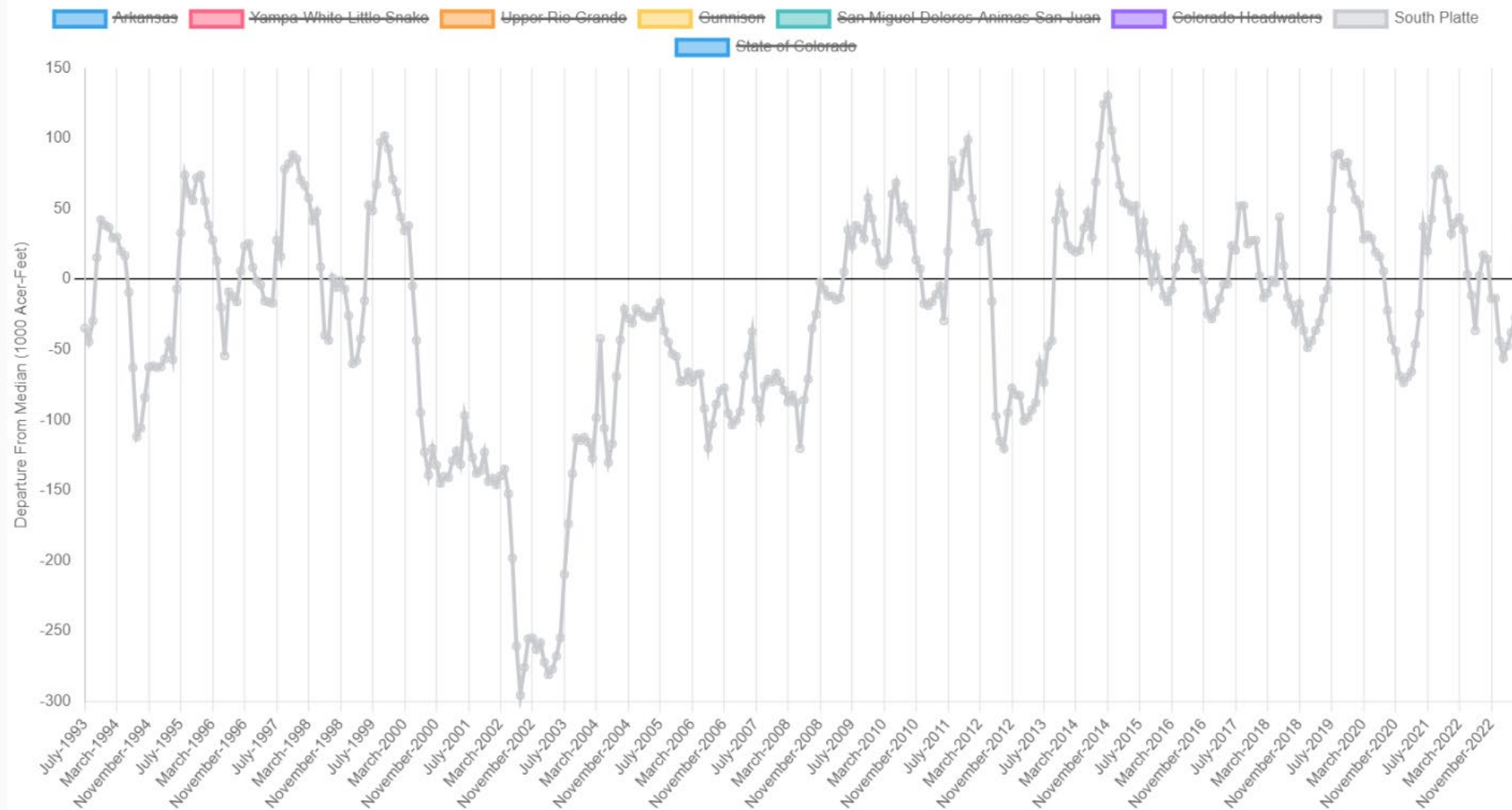
South Platte Reservoir Storage Summary for June 1st 2023



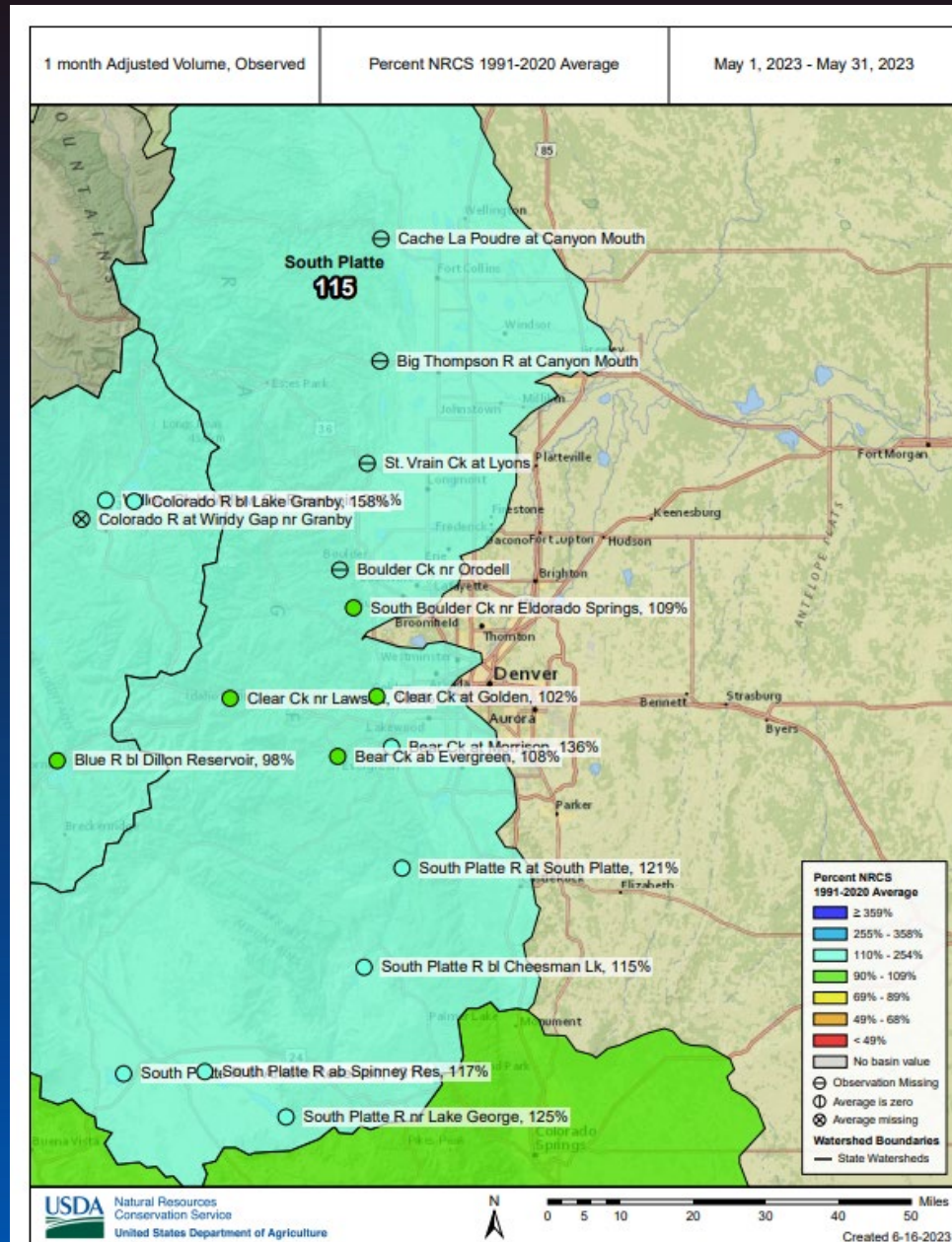


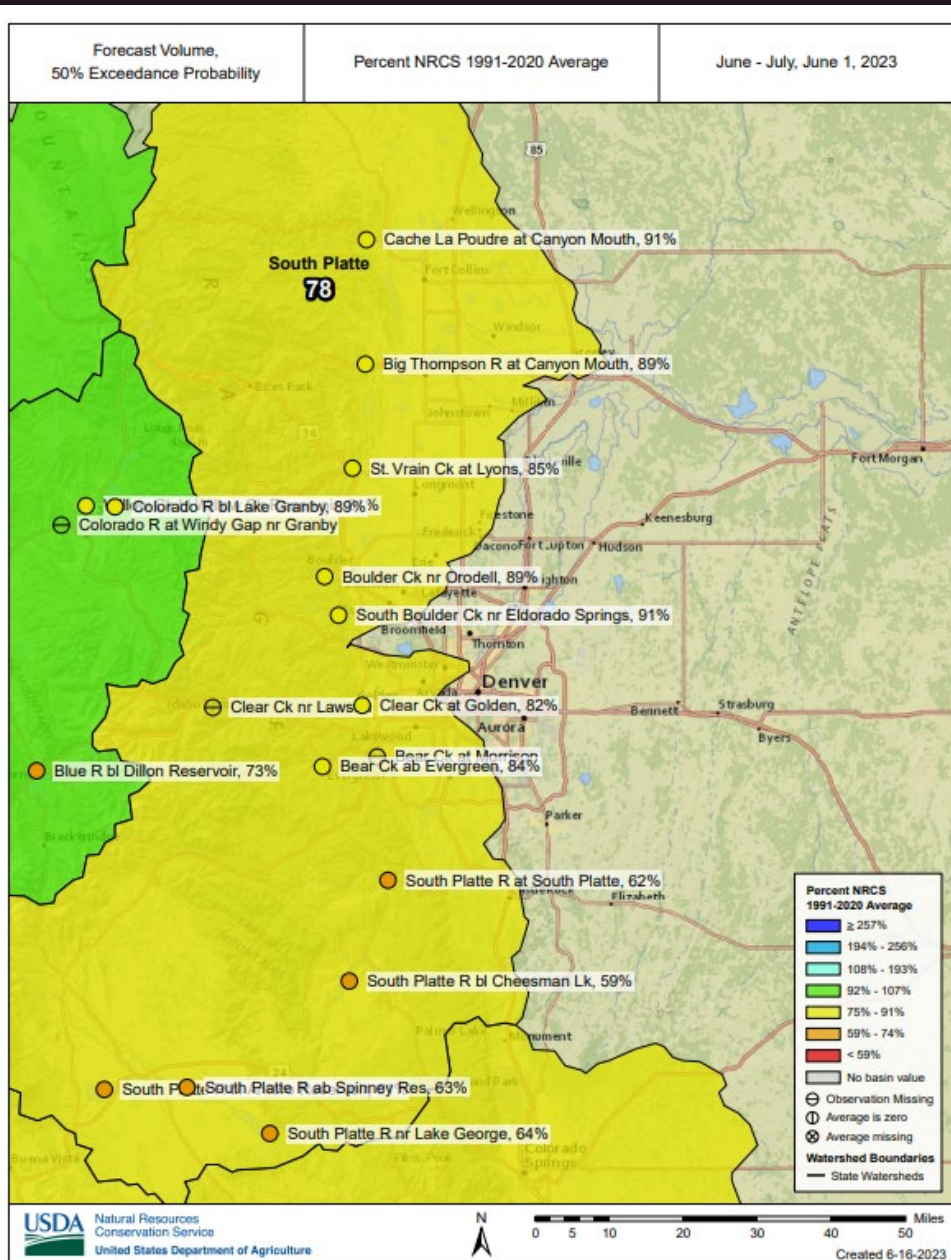
Colorado Snow Surveys

Colorado Departure From Median Timeseries Plot



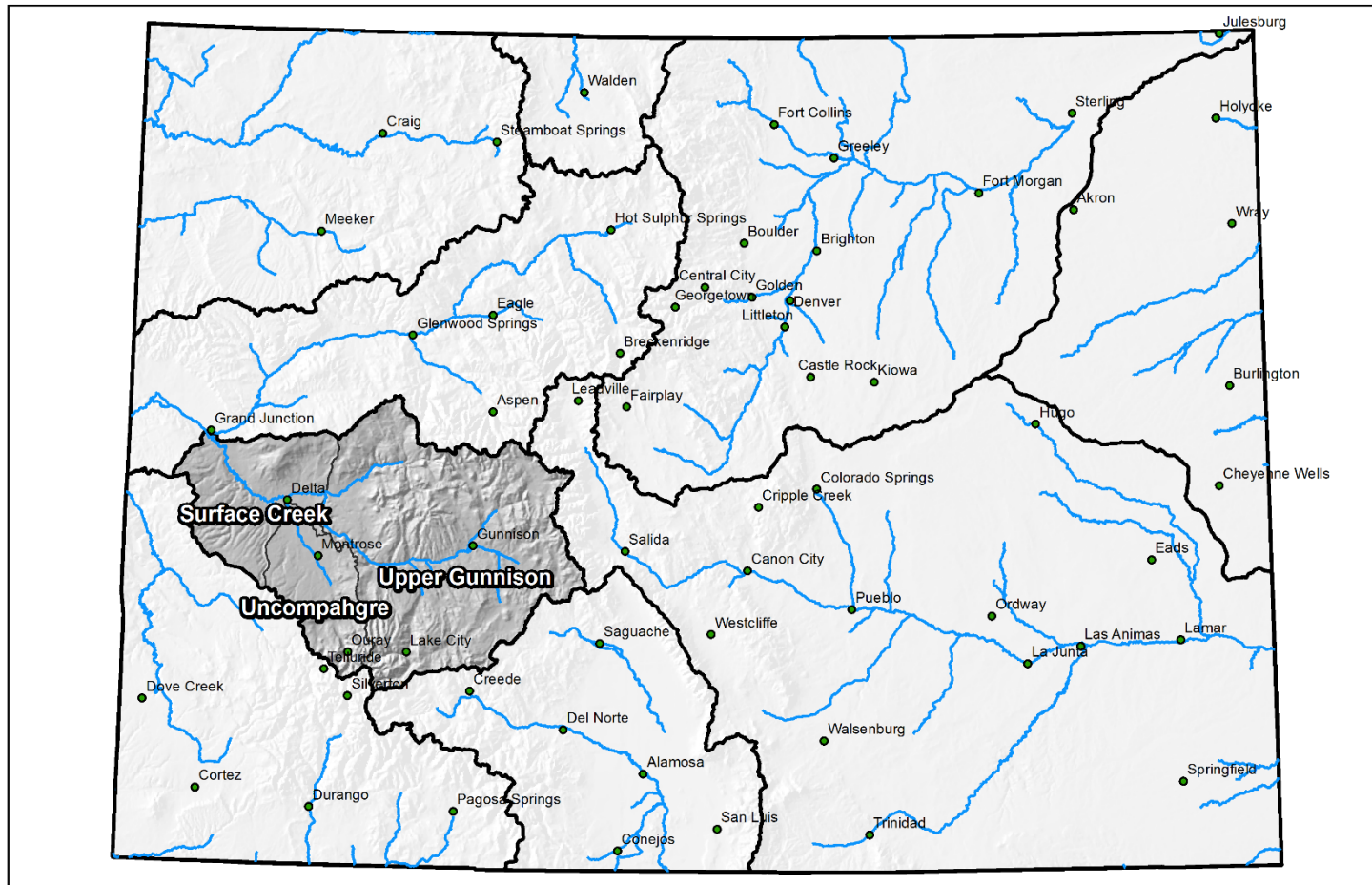
Observed Streamflow





Major Basin Summary

Gunnison River Basin



0 25 50 100 150 200 Miles





Colorado Snow Surveys

PRECIPITATION IN GUNNISON

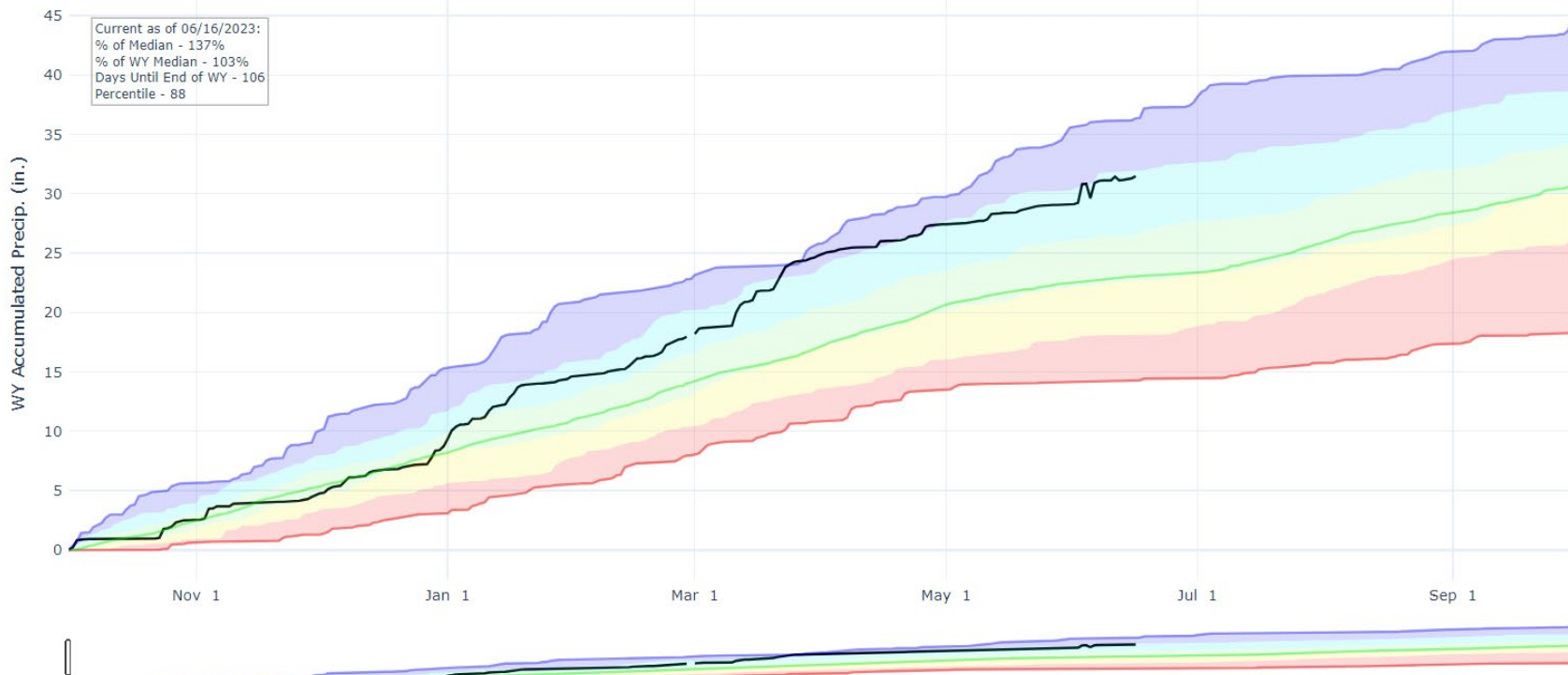
Reset Range

[Link to data: CSV / JSON](#)

Station List

Current as of 06/16/2023:
% of Median - 137%
% of WY Median - 103%
Days Until End of WY - 106
Percentile - 88

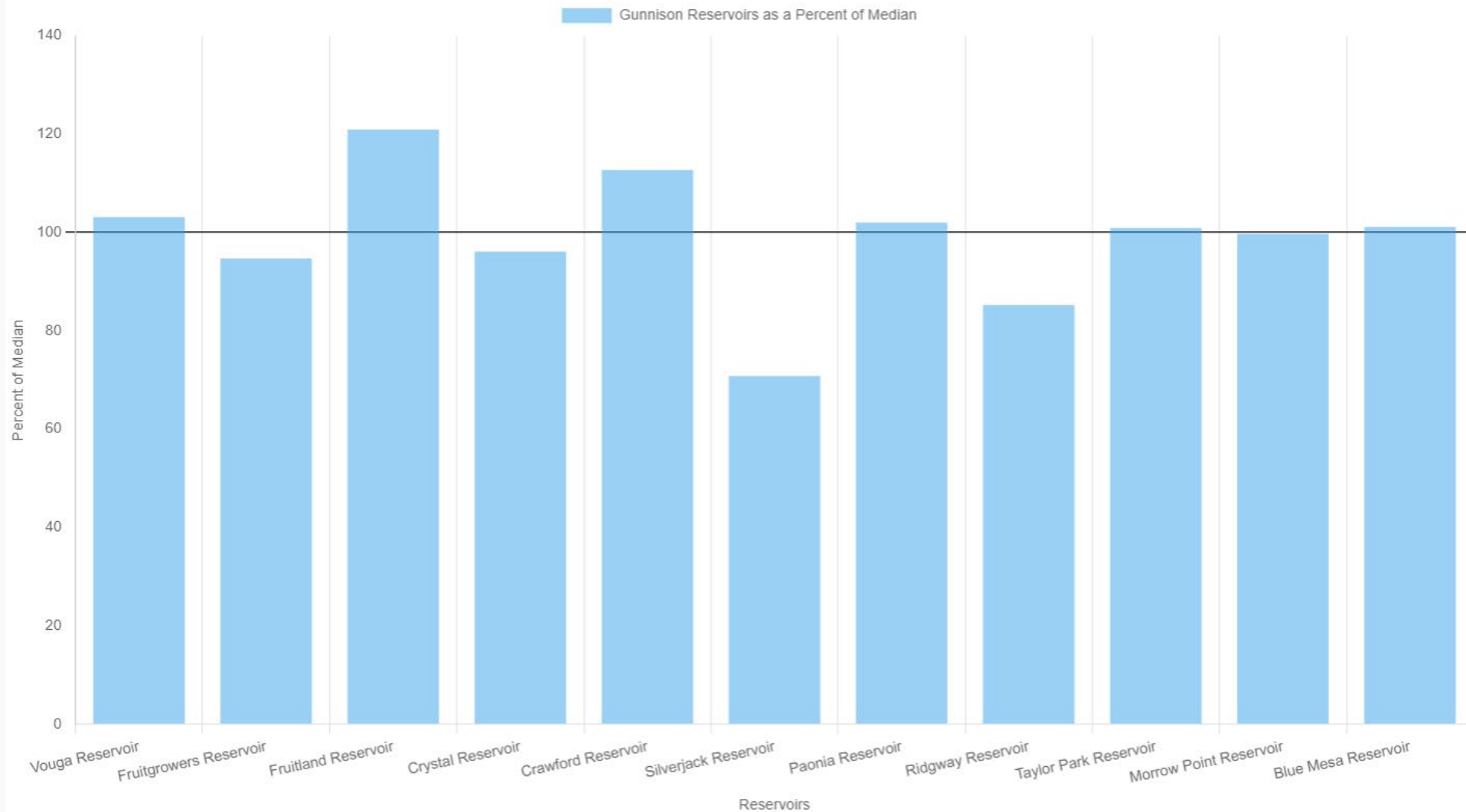
- Max
- Median (POR)
- Median ('91-'20)
- Min
- Stats. Shading
- 2023 (15 sites)
- 2022 (15 sites)
- 2021 (15 sites)
- 2020 (15 sites)
- 2019 (15 sites)
- 2018 (15 sites)
- 2017 (15 sites)
- 2016 (15 sites)
- 2015 (15 sites)
- 2014 (15 sites)
- 2013 (15 sites)
- 2012 (15 sites)
- 2011 (15 sites)
- 2010 (15 sites)
- 2009 (14 sites)
- 2008 (13 sites)
- 2007 (13 sites)
- 2006 (13 sites)
- 2005 (13 sites)
- 2004 (12 sites)





Colorado Snow Surveys

Gunnison Reservoir Storage Summary for June 1st 2023

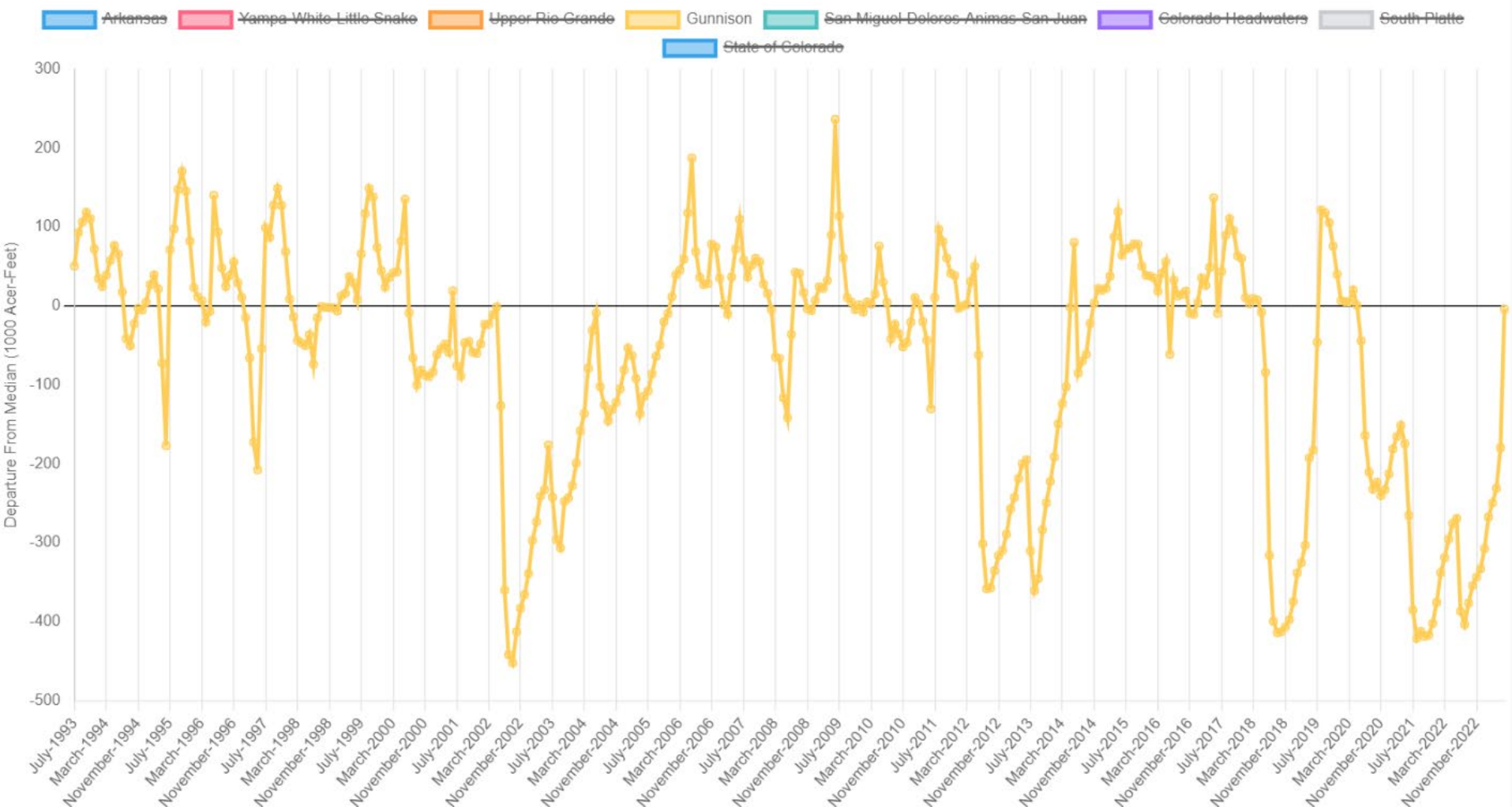


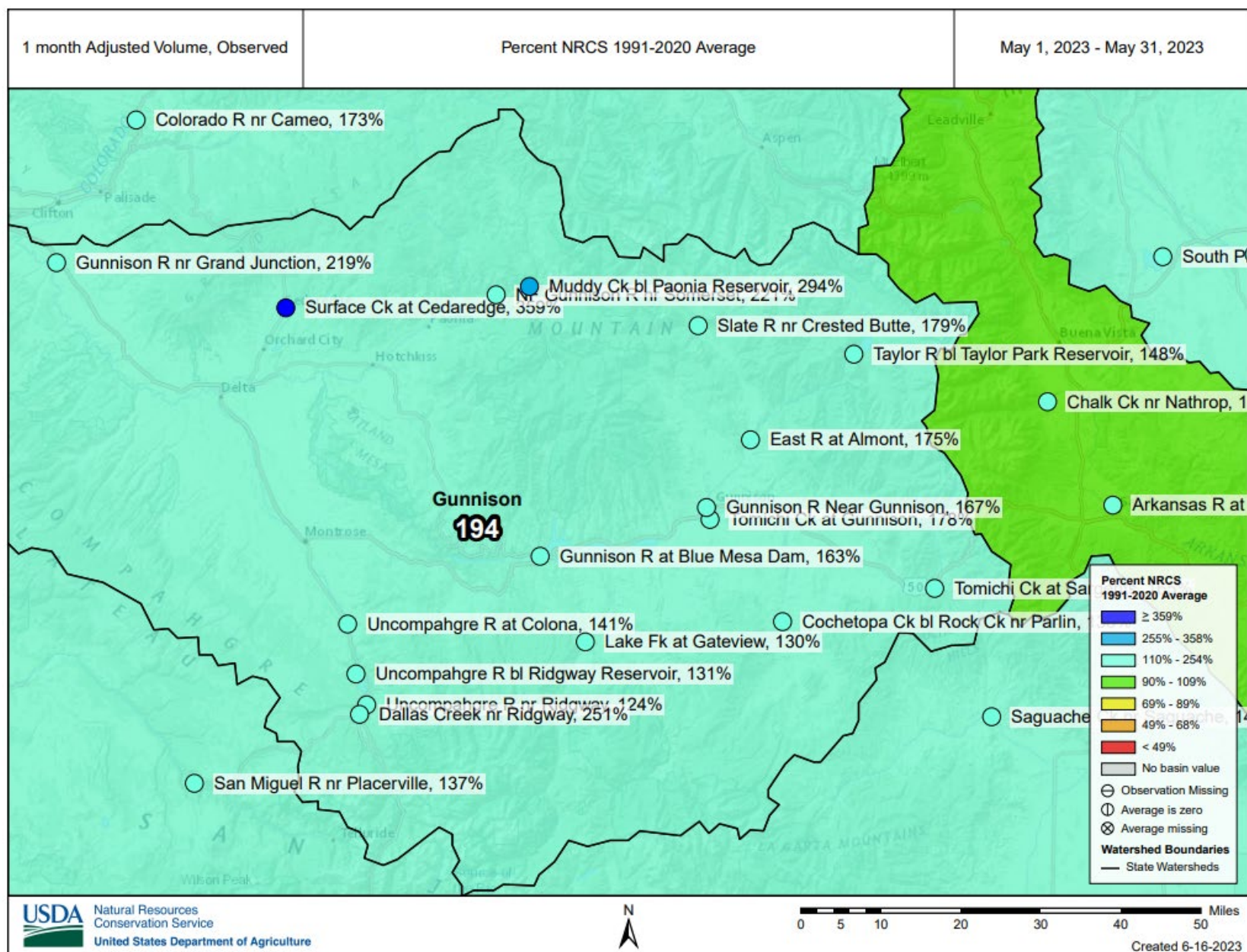


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Colorado Snow Surveys

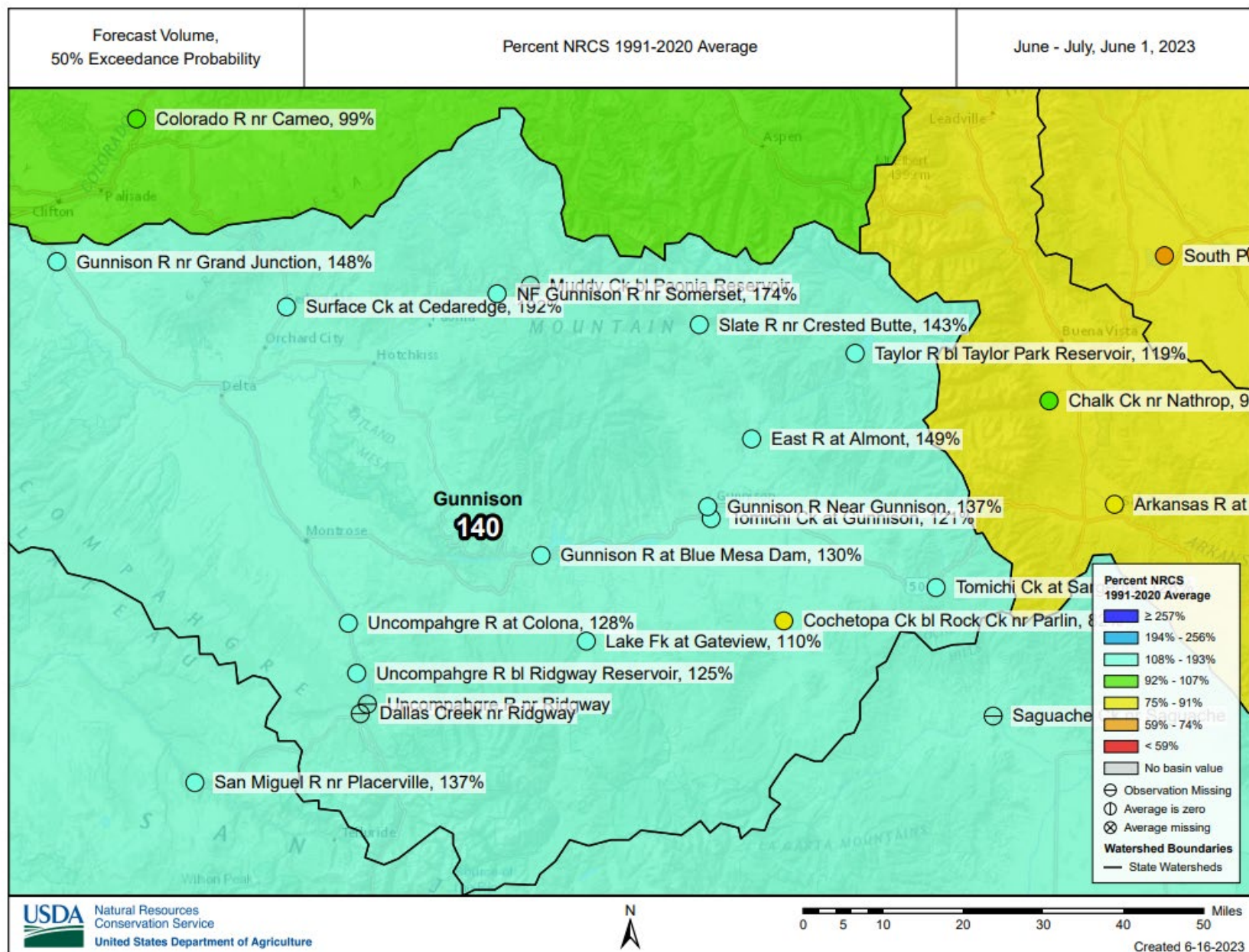
Colorado Departure From Median Timeseries Plot





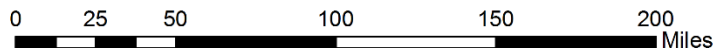
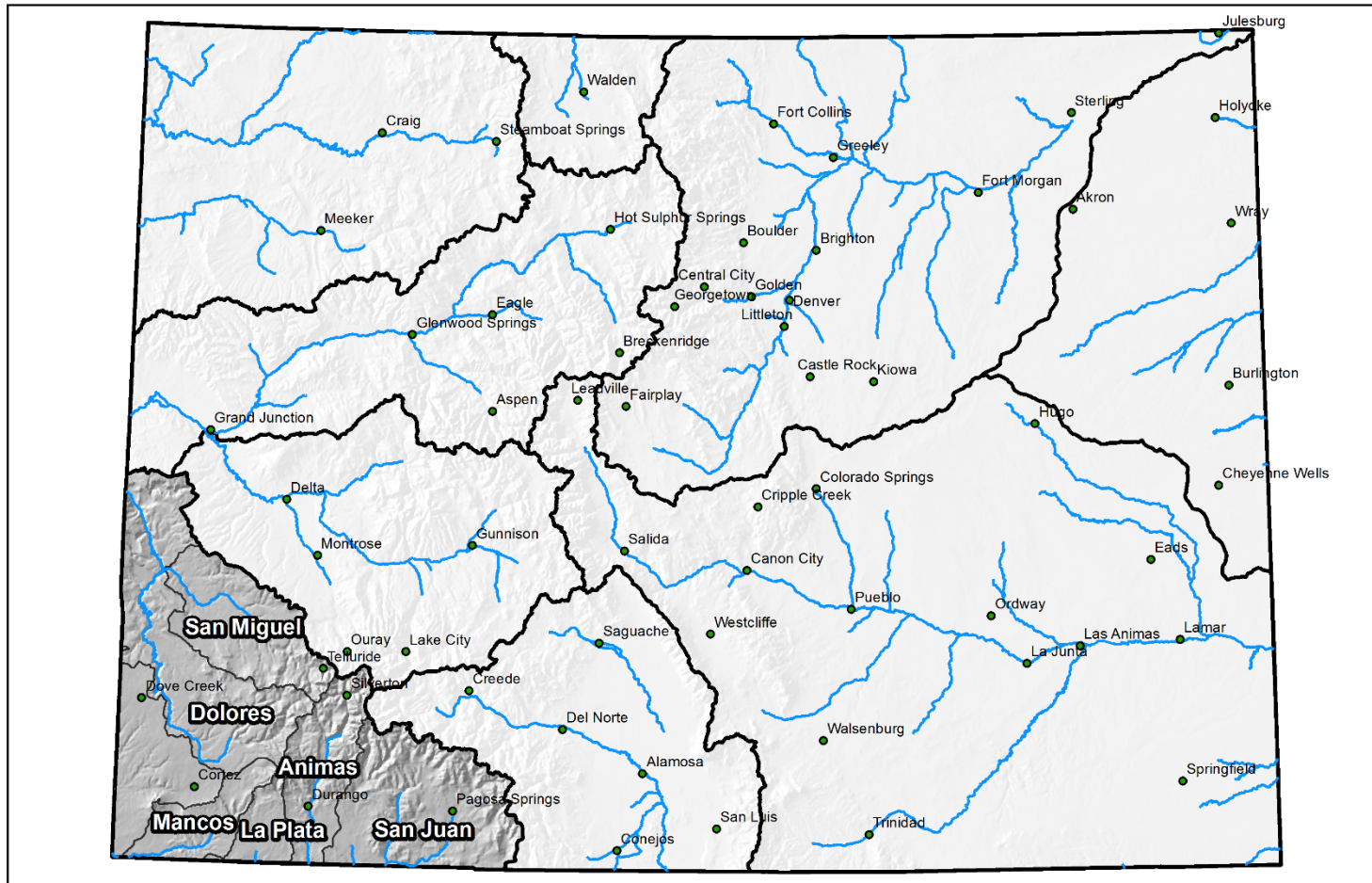


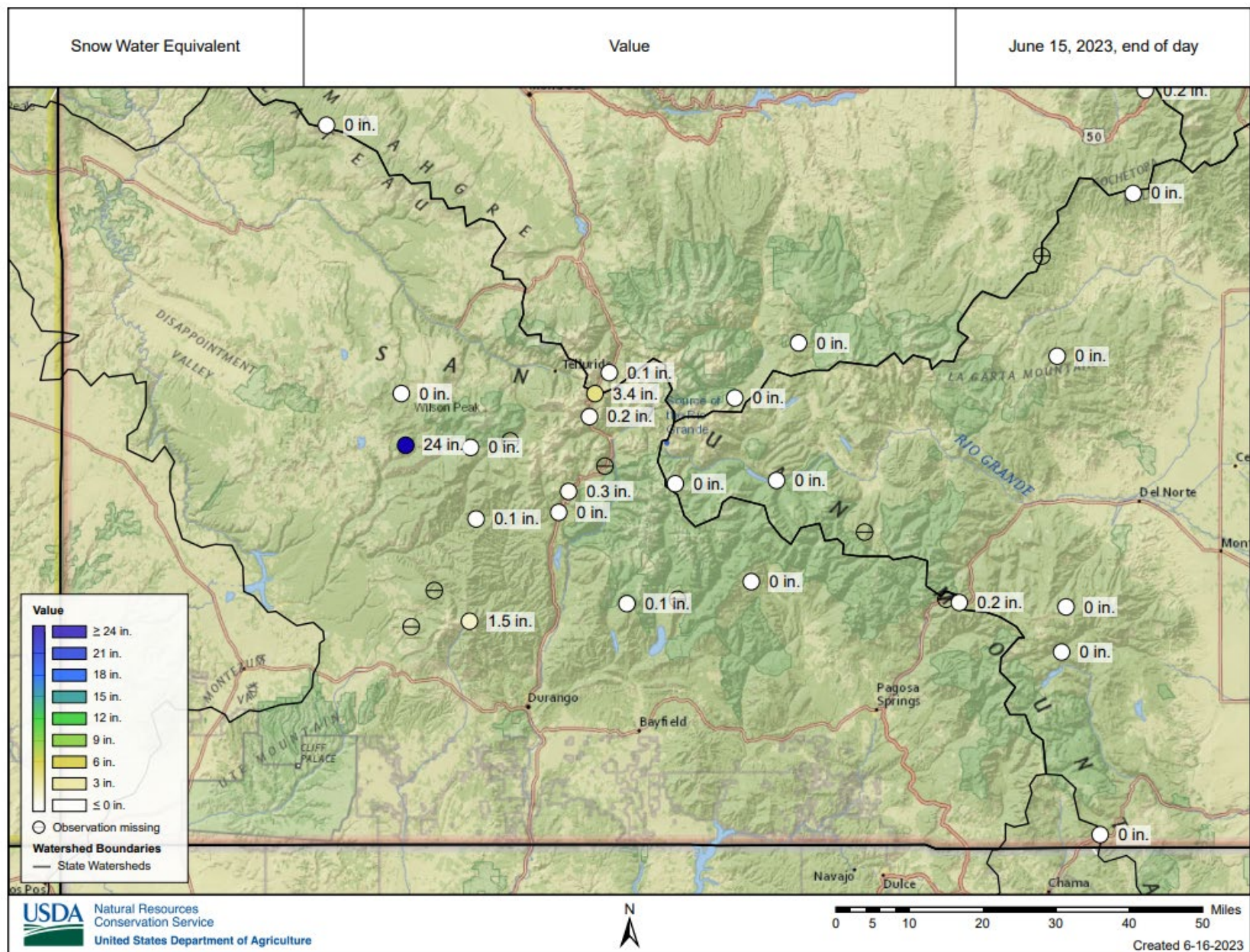
Colorado Snow Surveys



Major Basin Summary

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







Colorado Snow Surveys

PRECIPITATION IN SAN MIGUEL-DOLORES-ANIMAS-SAN JUAN

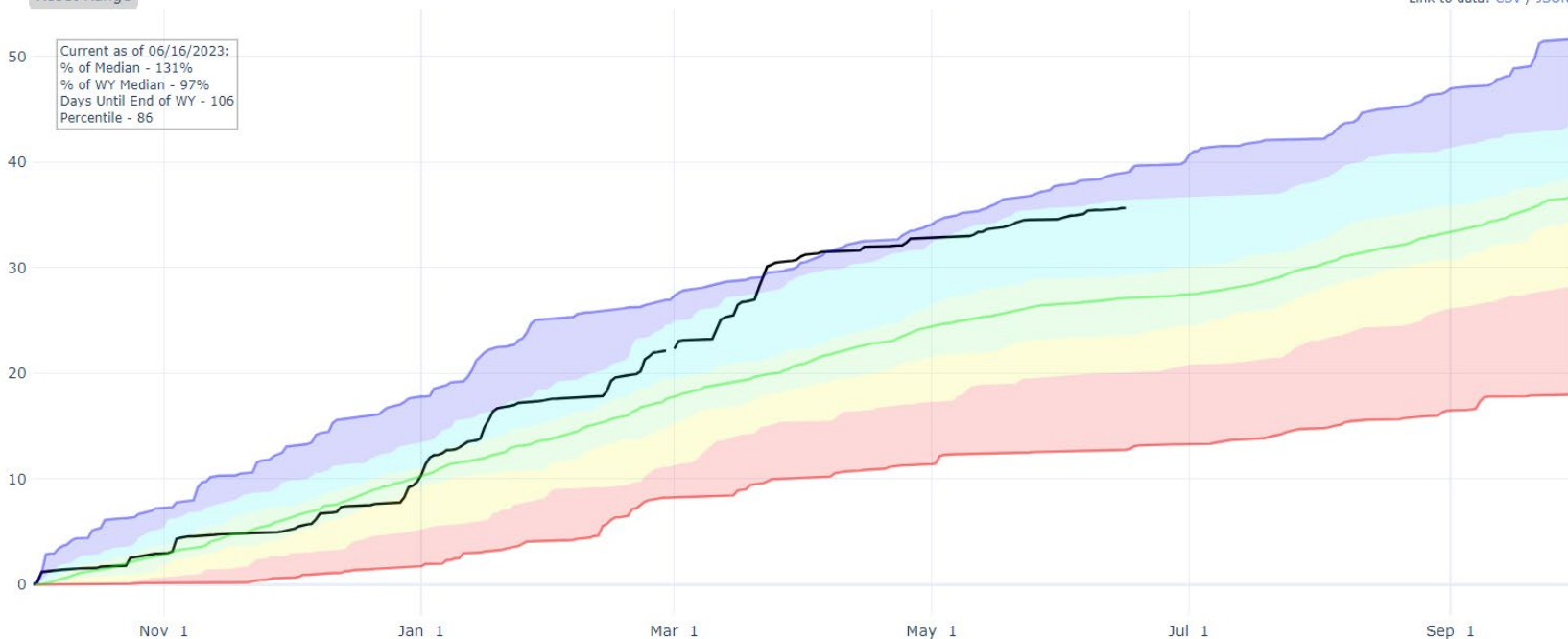
Reset Range

[Link to data: CSV / JSON](#)

[Station List](#)

Current as of 06/16/2023:
% of Median - 131%
% of WY Median - 97%
Days Until End of WY - 106
Percentile - 86

WY Accumulated Precip. (in.)

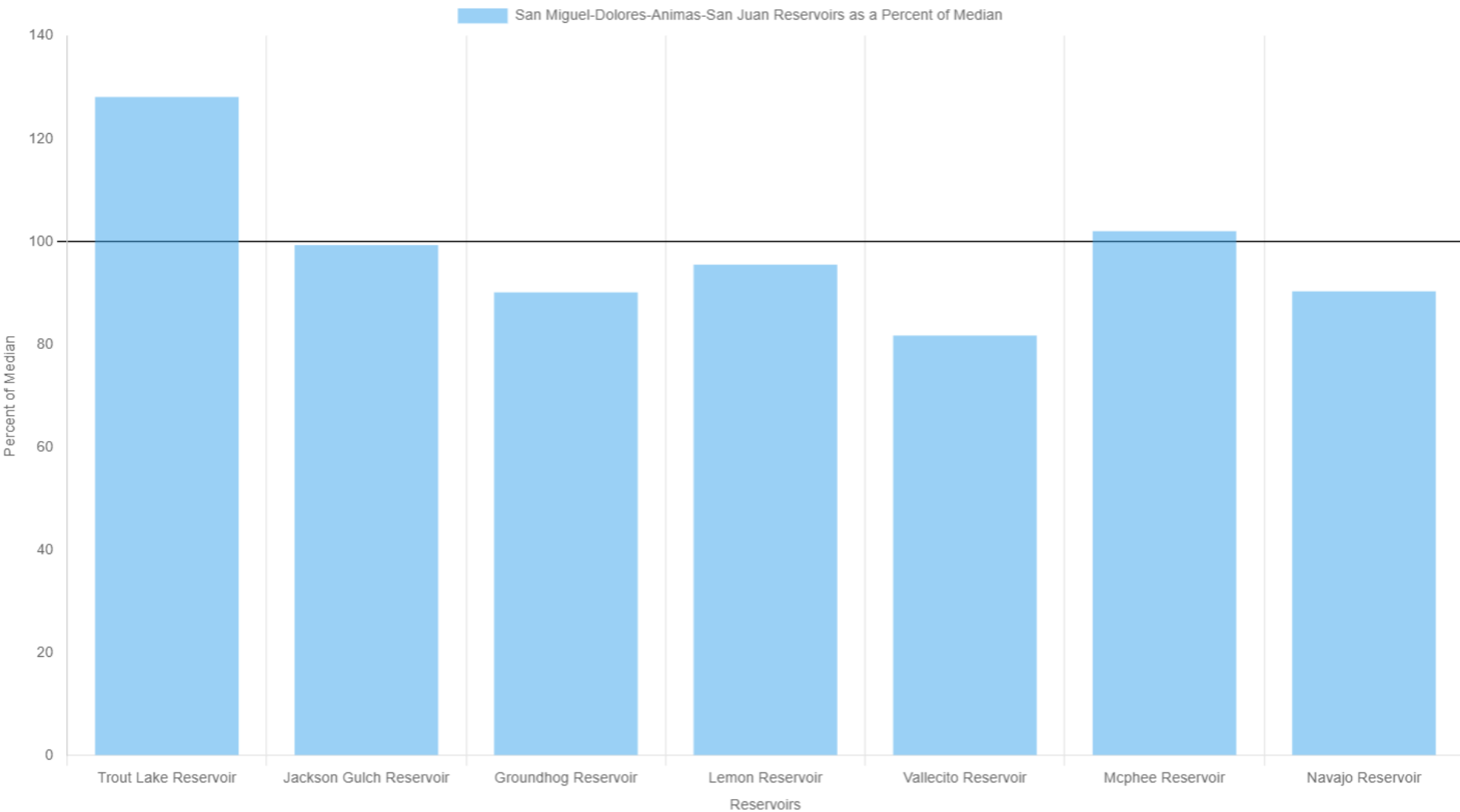


- Max
- Median (POR)
- Median ('91-'20)
- Min
- Stats. Shading
- 2023 (19 sites)
- 2022 (19 sites)
- 2021 (19 sites)
- 2020 (19 sites)
- 2019 (19 sites)
- 2018 (19 sites)
- 2017 (19 sites)
- 2016 (19 sites)
- 2015 (19 sites)
- 2014 (19 sites)
- 2013 (19 sites)
- 2012 (19 sites)
- 2011 (19 sites)
- 2010 (18 sites)
- 2009 (18 sites)
- 2008 (18 sites)
- 2007 (18 sites)
- 2006 (18 sites)
- 2005 (18 sites)
- 2004 (17 sites)





San Miguel-Dolores-Animas-San Juan Reservoir Storage Summary for June 1st 2023

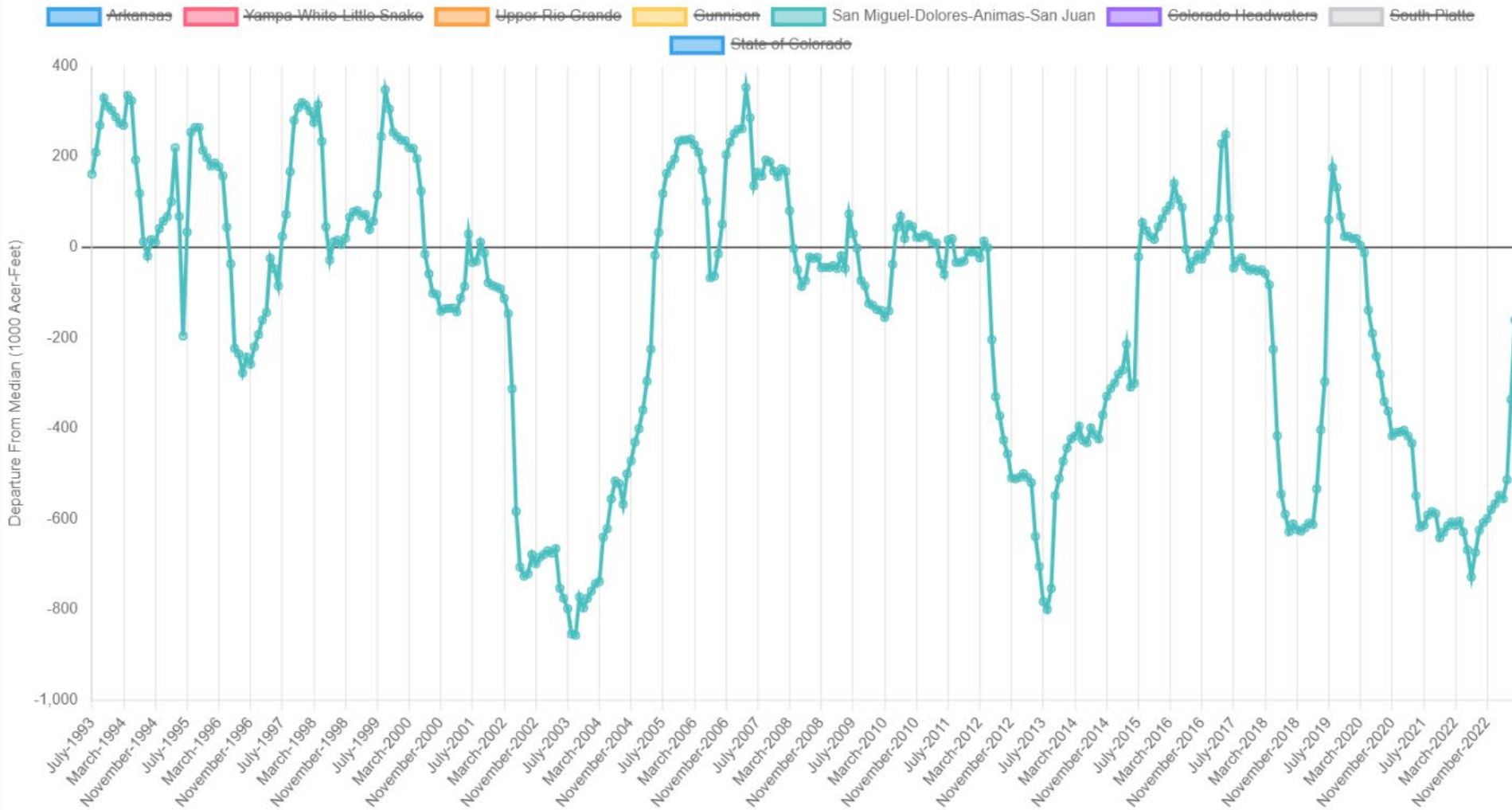




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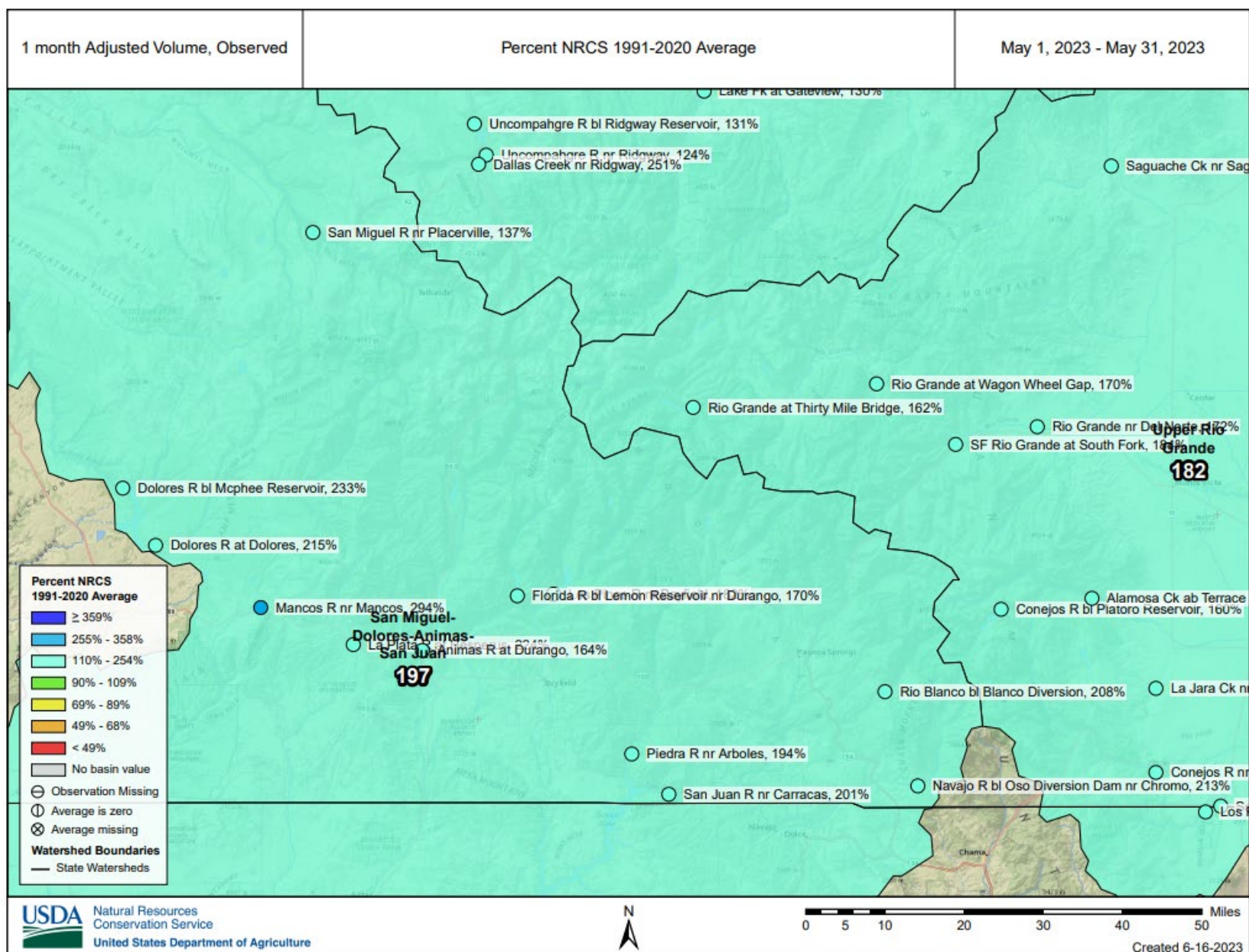
Colorado Snow Surveys

Colorado Departure From Median Timeseries Plot



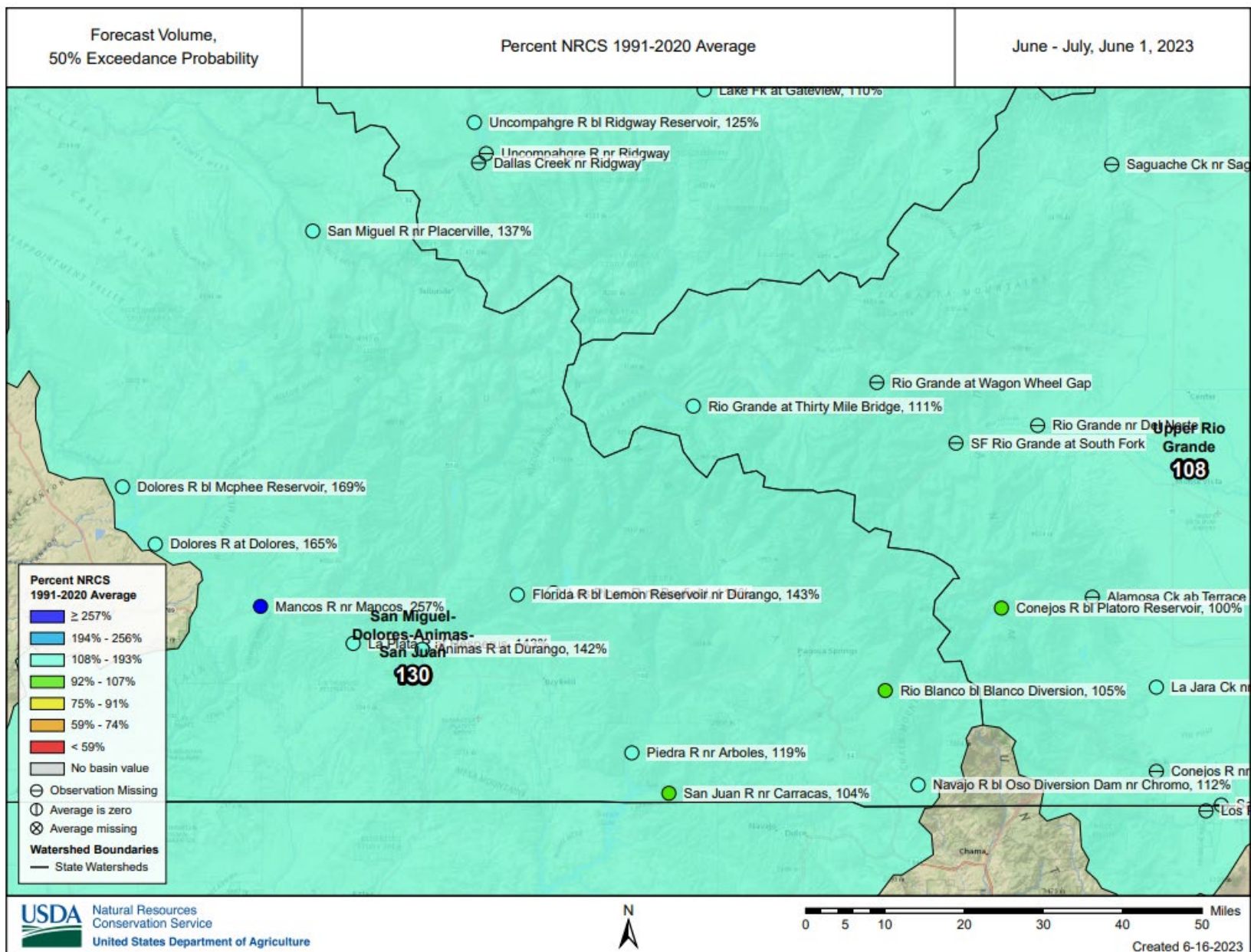


Observed Streamflow





Colorado Snow Surveys



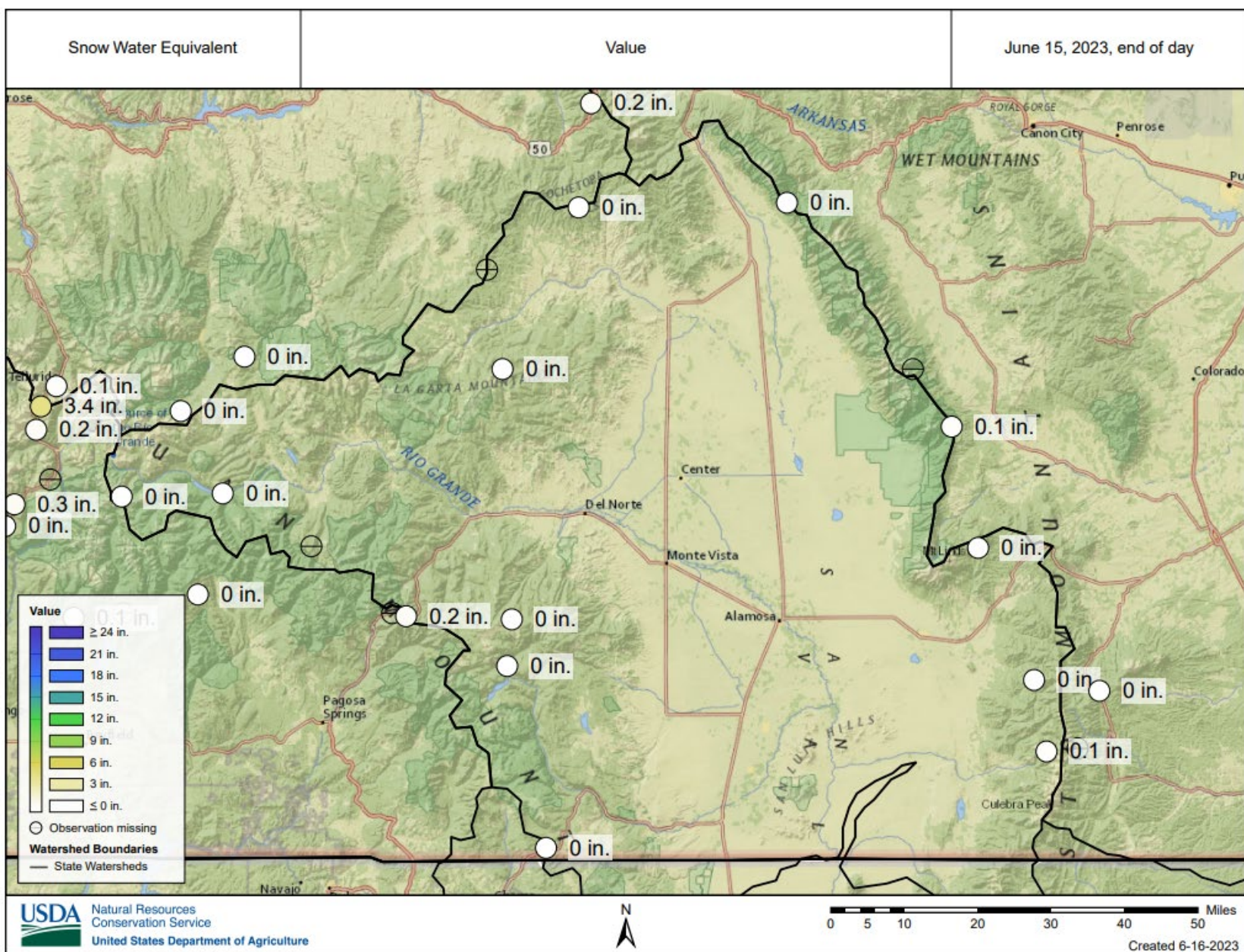
[illegible]

0 25 50 100 150 200 Miles



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Colorado Snow Surveys





Colorado Snow Surveys

PRECIPITATION IN UPPER RIO GRANDE

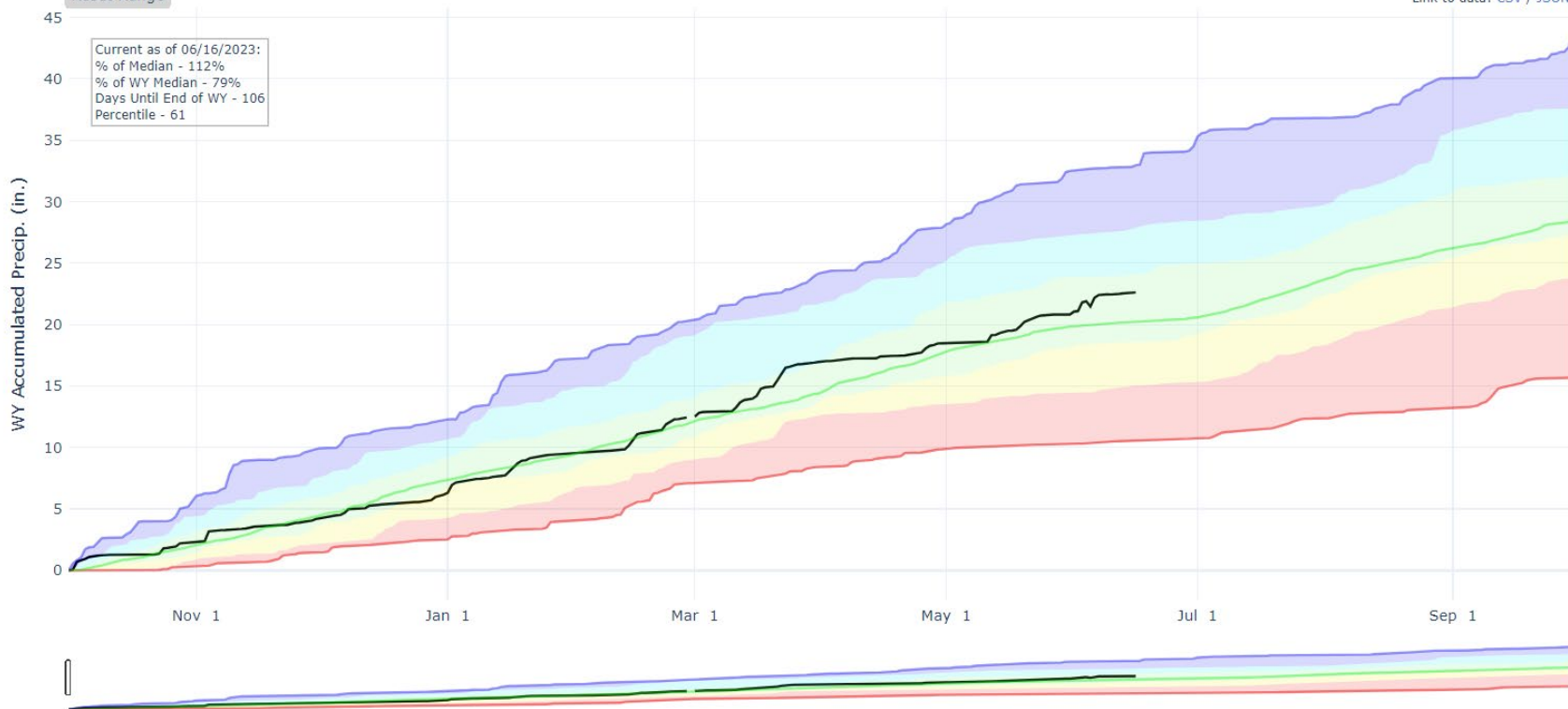
Reset Range

[Link to data: CSV / JSON](#)

Current as of 06/16/2023:
% of Median - 112%
% of WY Median - 79%
Days Until End of WY - 106
Percentile - 61

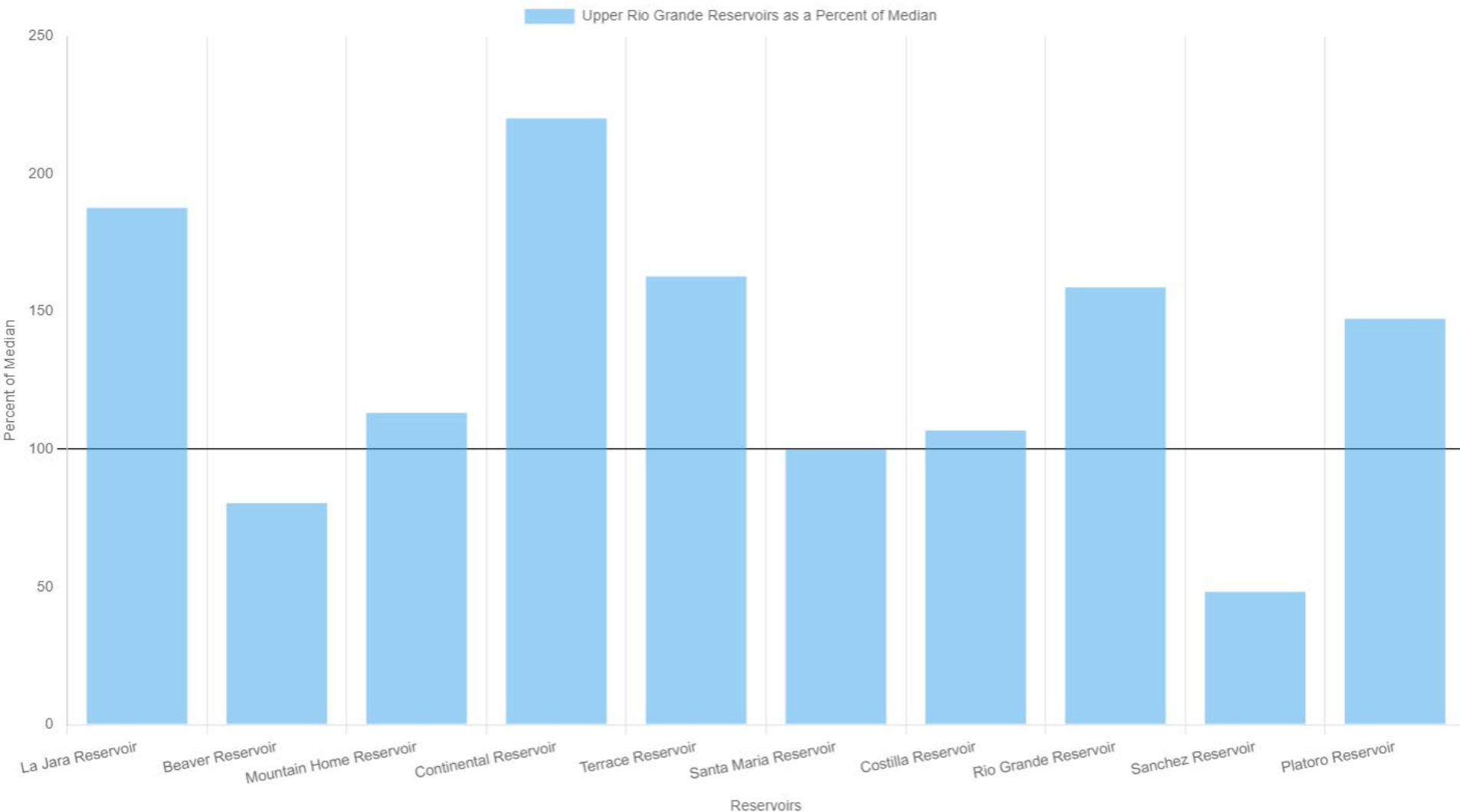
Station List

- Max
- Median (POR)
- Median ('91-'20)
- Min
- Stats. Shading
- 2023 (18 sites)
- 2022 (18 sites)
- 2021 (18 sites)
- 2020 (18 sites)
- 2019 (18 sites)
- 2018 (18 sites)
- 2017 (18 sites)
- 2016 (18 sites)
- 2015 (18 sites)
- 2014 (18 sites)
- 2013 (18 sites)
- 2012 (18 sites)
- 2011 (18 sites)
- 2010 (17 sites)
- 2009 (17 sites)
- 2008 (15 sites)
- 2007 (14 sites)
- 2006 (14 sites)
- 2005 (14 sites)
- 2004 (12 sites)





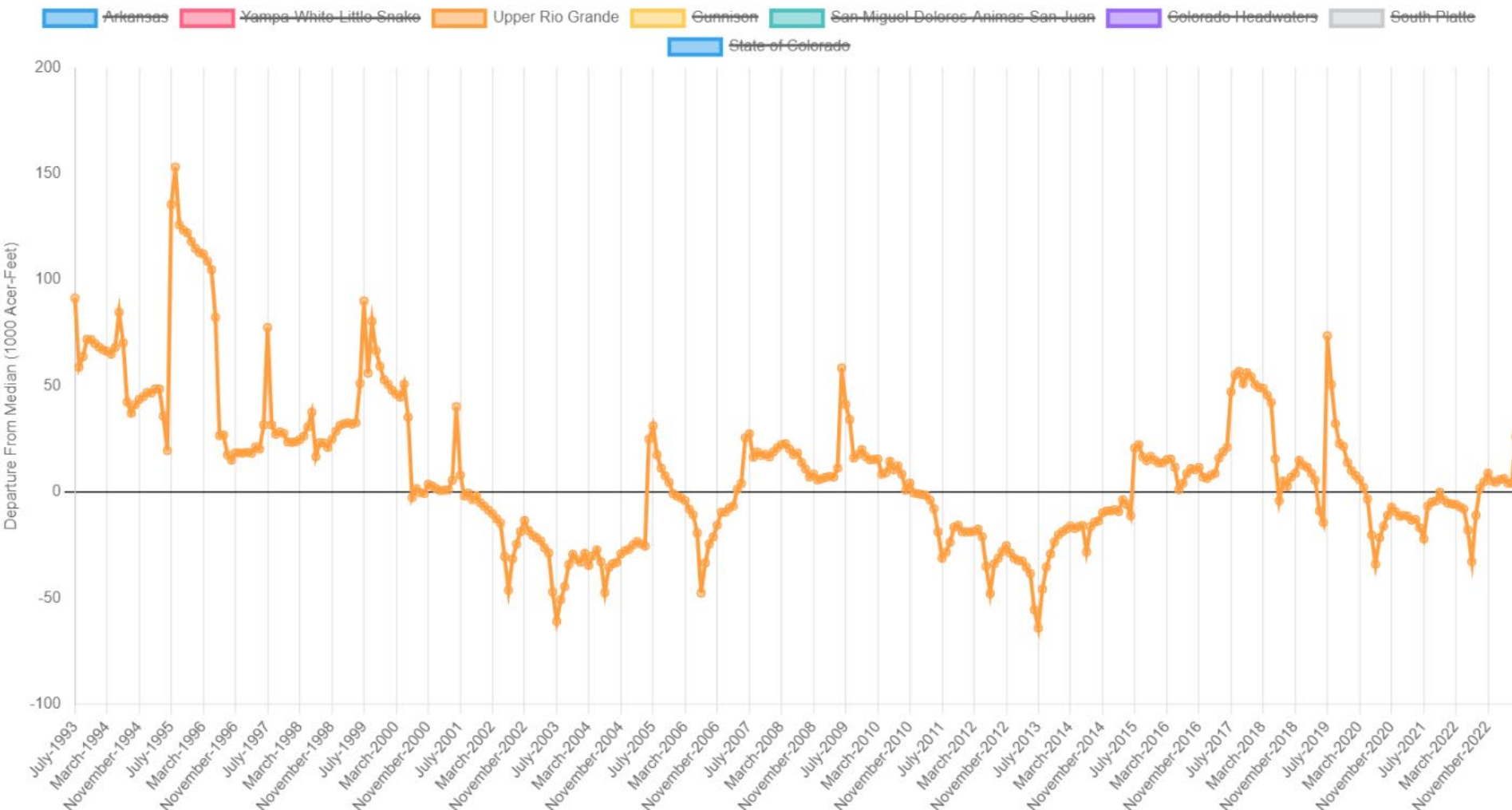
Upper Rio Grande Reservoir Storage Summary for June 1st 2023

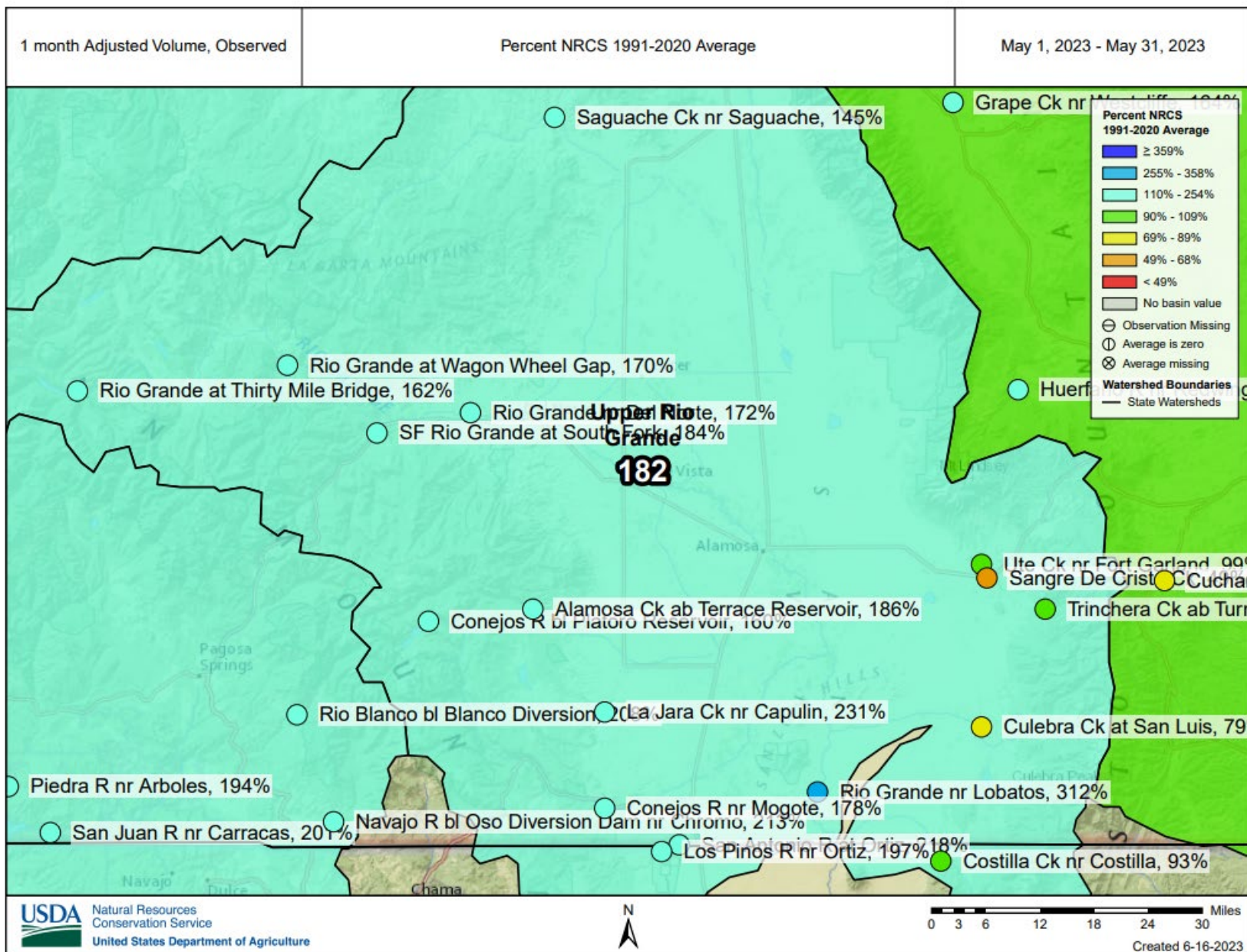




Colorado Snow Surveys

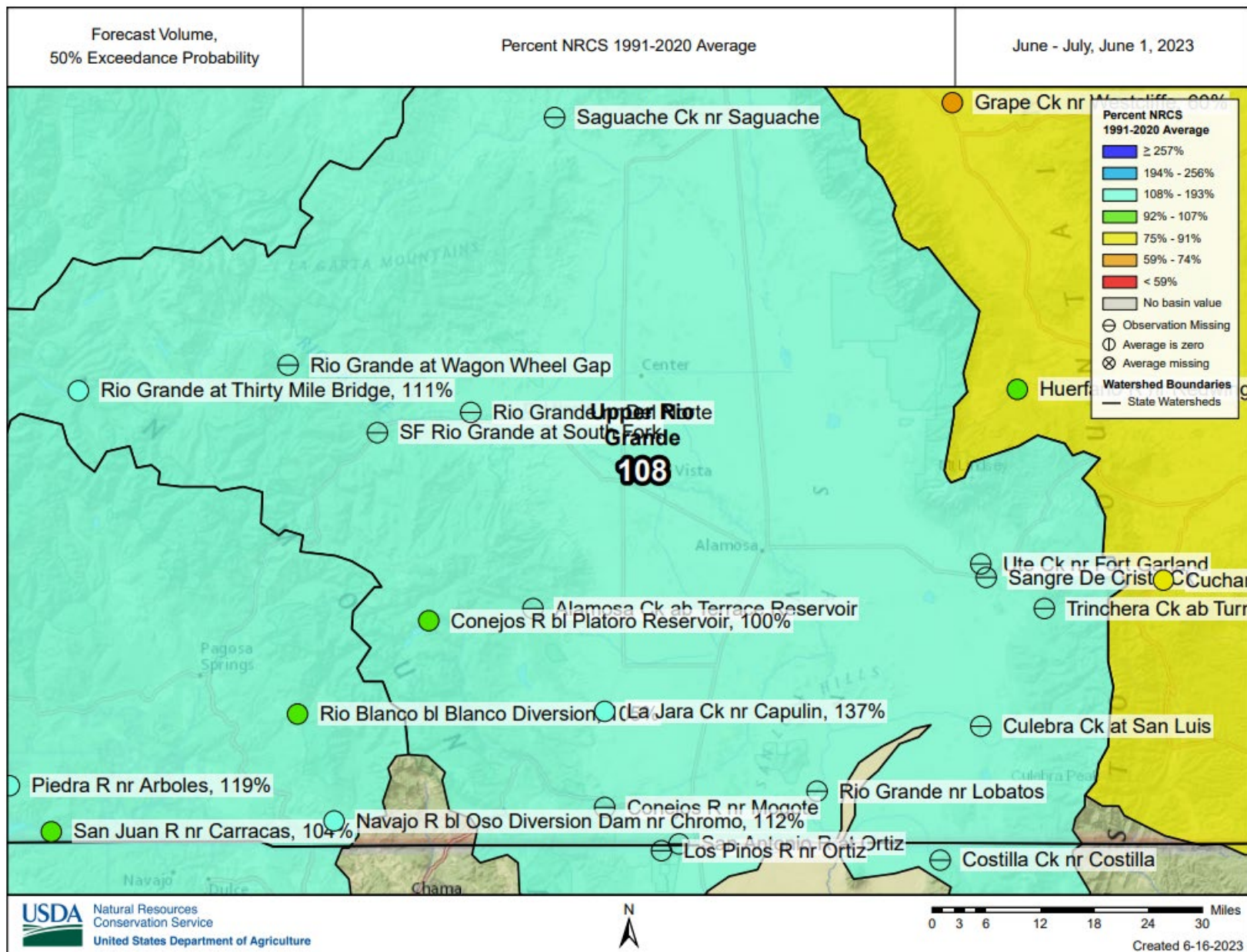
Colorado Departure From Median Timeseries Plot





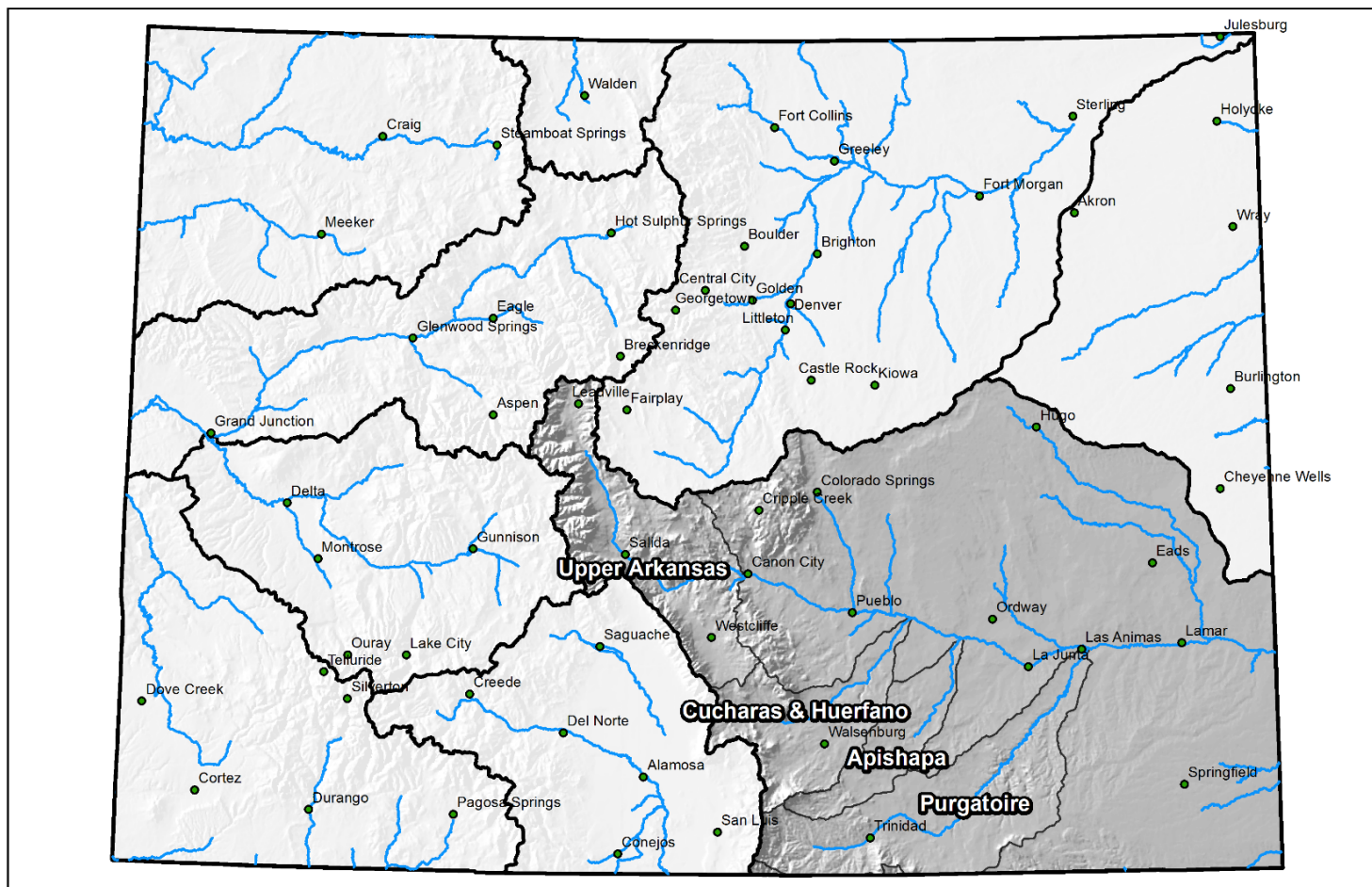


Colorado Snow Surveys



Major Basin Summary

Arkansas River Basin

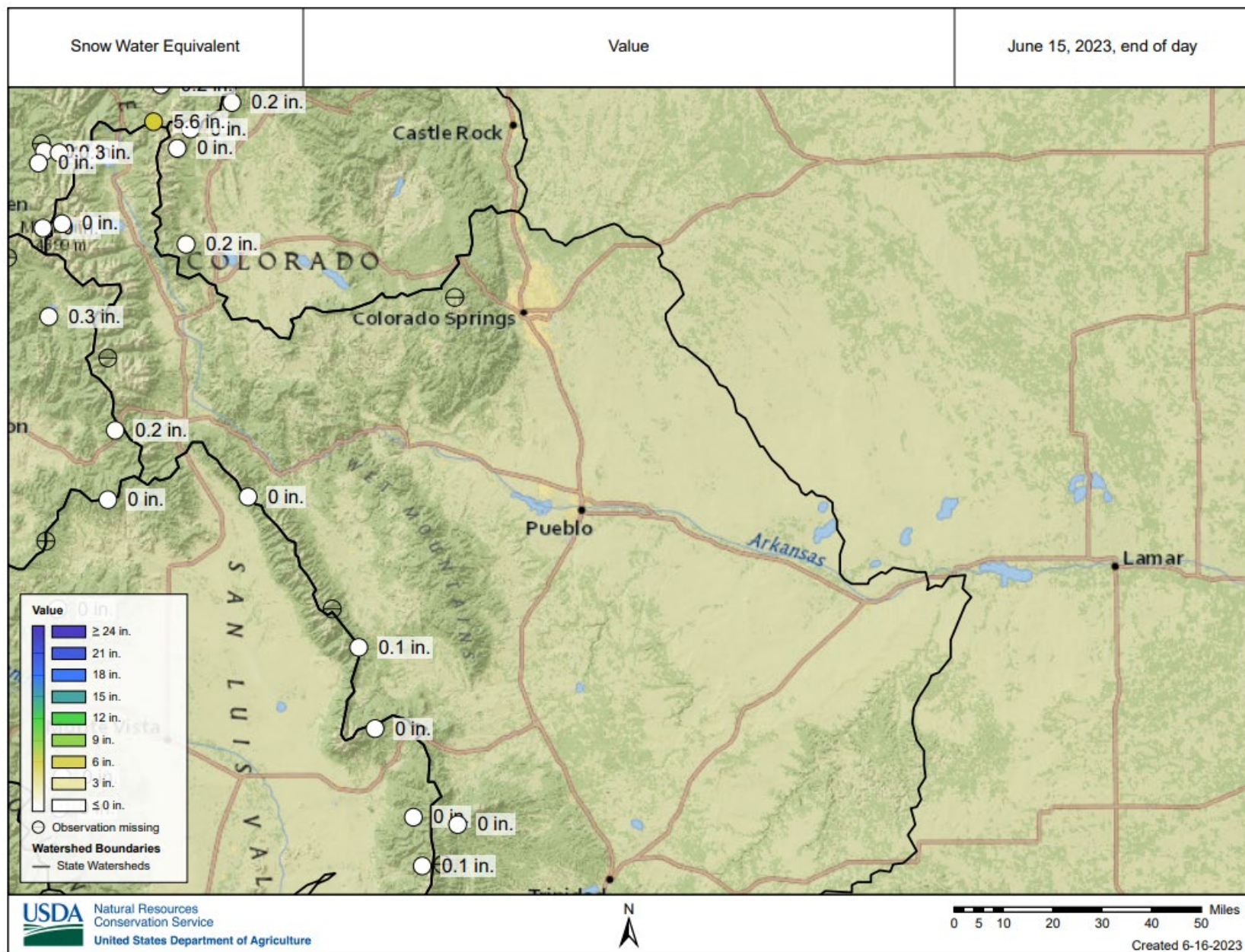


0 25 50 100 150 200 Miles



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Colorado Snow Surveys





Colorado Snow Surveys

PRECIPITATION IN ARKANSAS

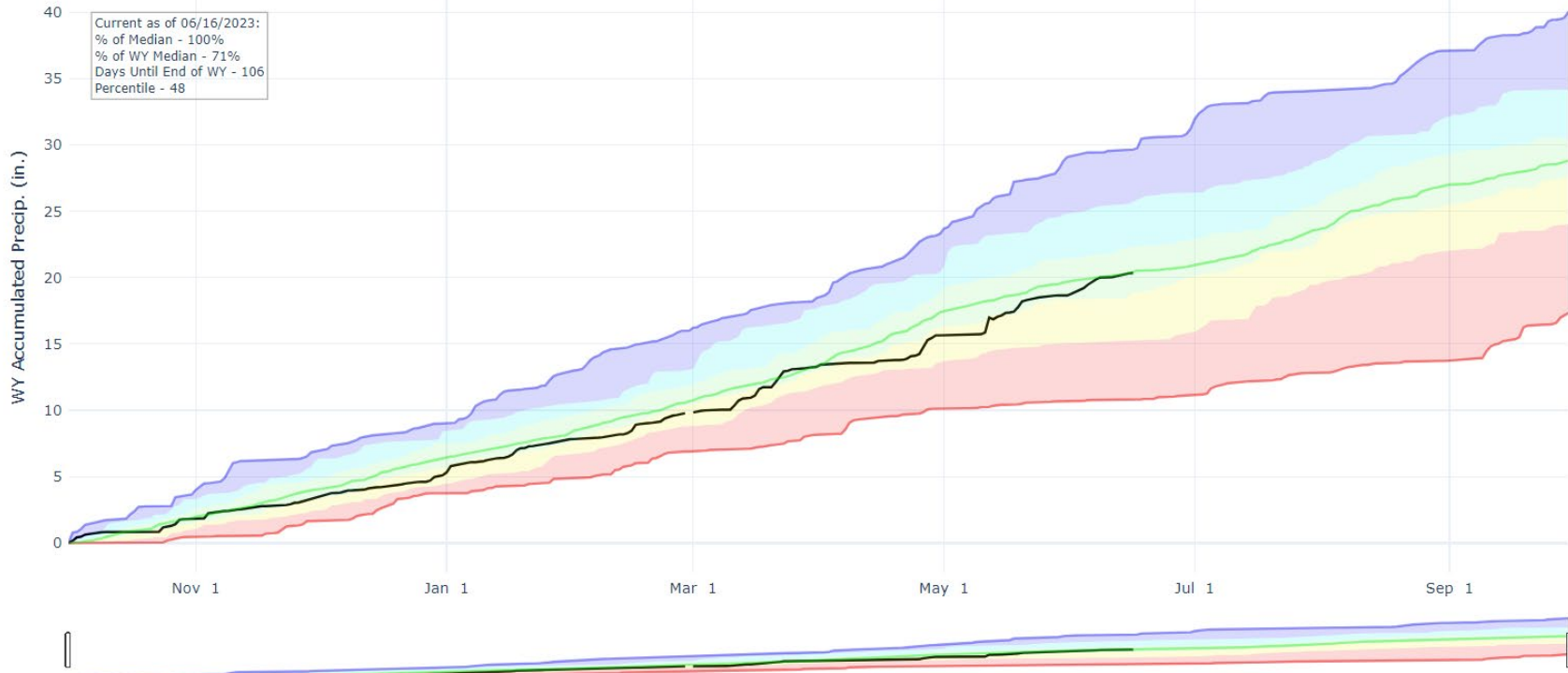
Reset Range

[Link to data: CSV / JSON](#)

[Station List](#)

Current as of 06/16/2023:
% of Median - 100%
% of WY Median - 71%
Days Until End of WY - 106
Percentile - 48

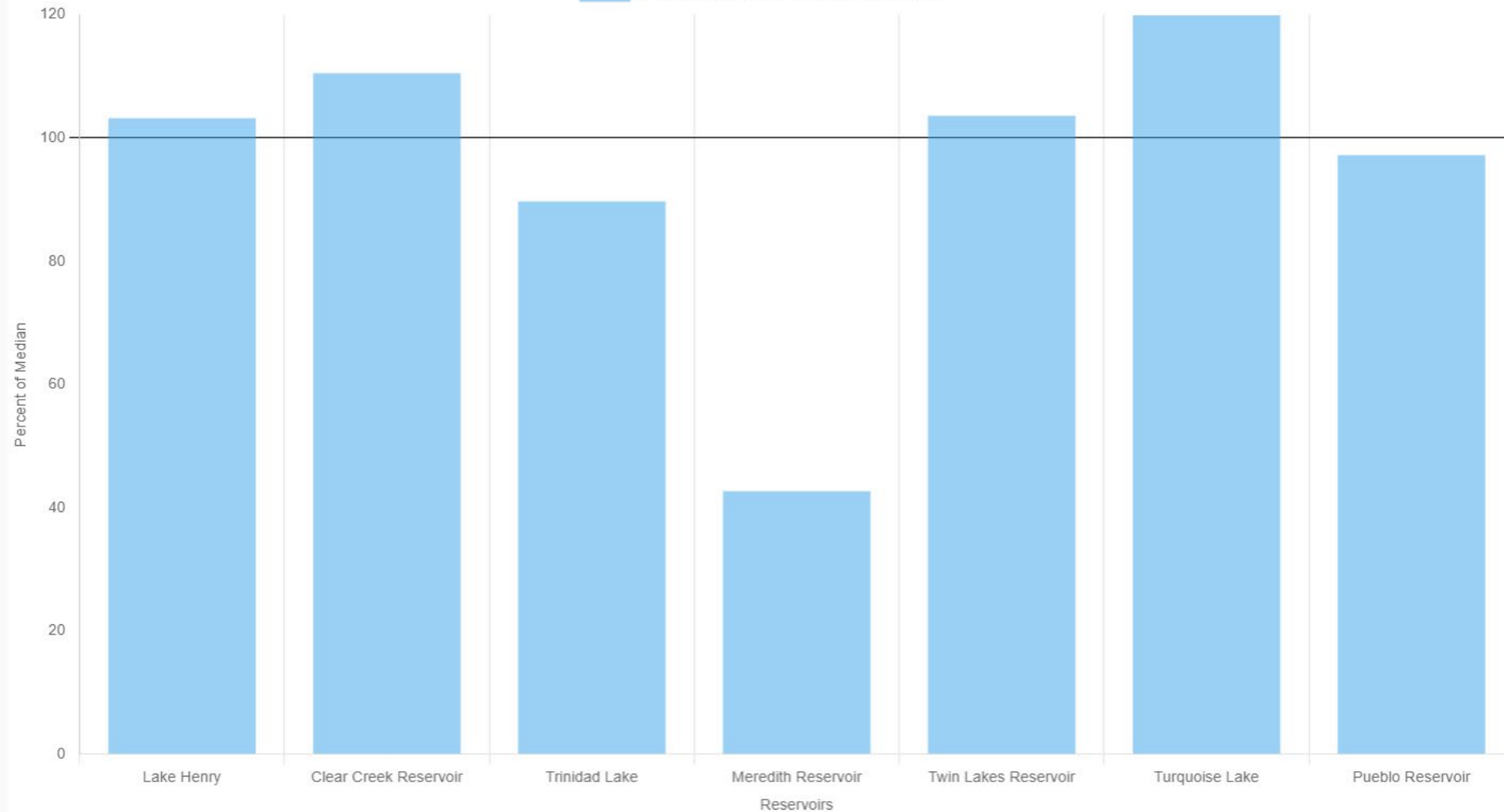
- Max
- Median (POR)
- Median ('91-'20)
- Min
- Stats. Shading
- 2023 (11 sites)
- 2022 (11 sites)
- 2021 (11 sites)
- 2020 (11 sites)
- 2019 (11 sites)
- 2018 (11 sites)
- 2017 (11 sites)
- 2016 (11 sites)
- 2015 (11 sites)
- 2014 (11 sites)
- 2013 (11 sites)
- 2012 (11 sites)
- 2011 (11 sites)
- 2010 (11 sites)
- 2009 (11 sites)
- 2008 (11 sites)
- 2007 (9 sites)
- 2006 (9 sites)
- 2005 (9 sites)
- 2004 (8 sites)





Arkansas Reservoir Storage Summary for June 1st 2023

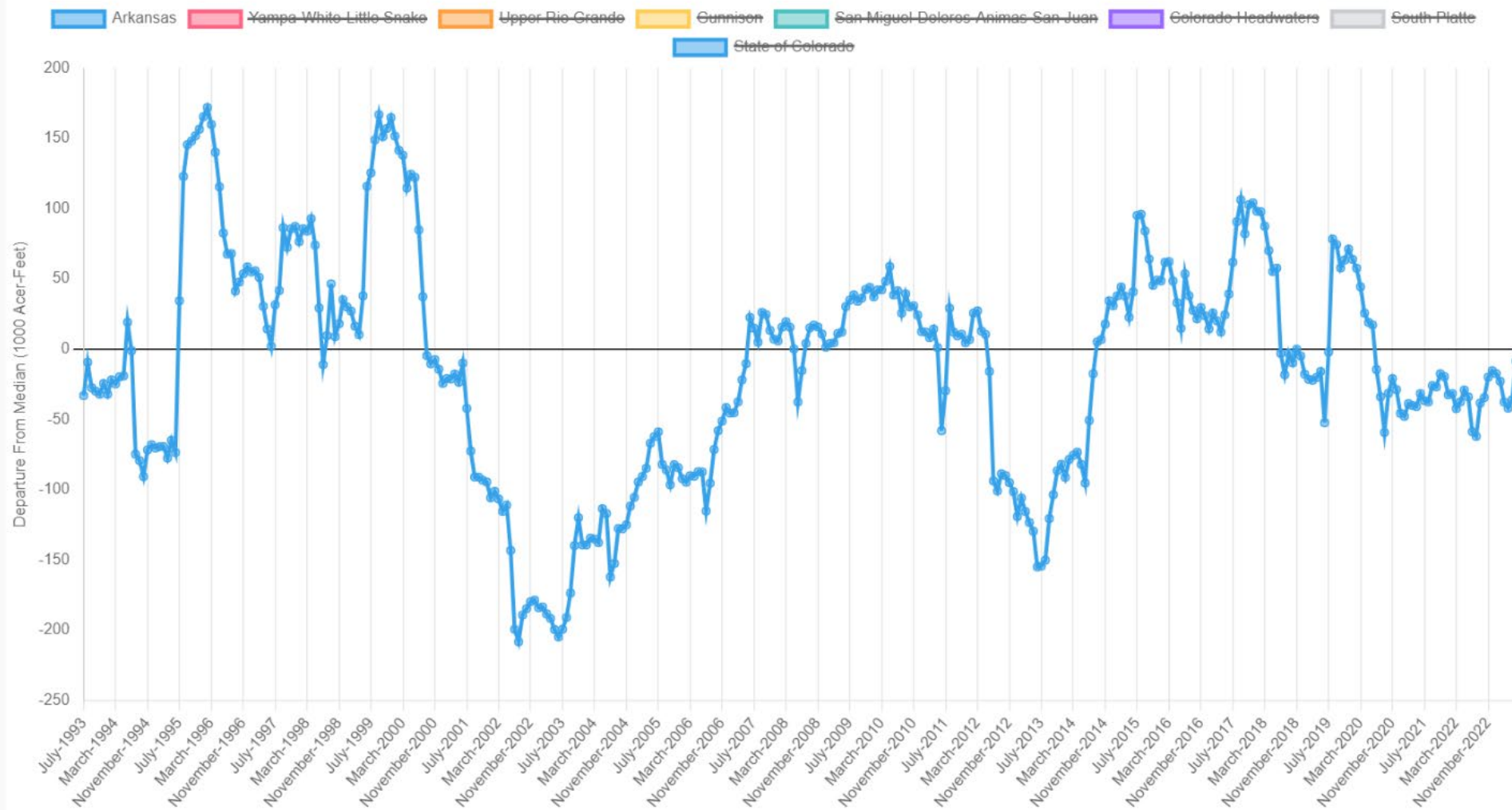
Arkansas Reservoirs as a Percent of Median

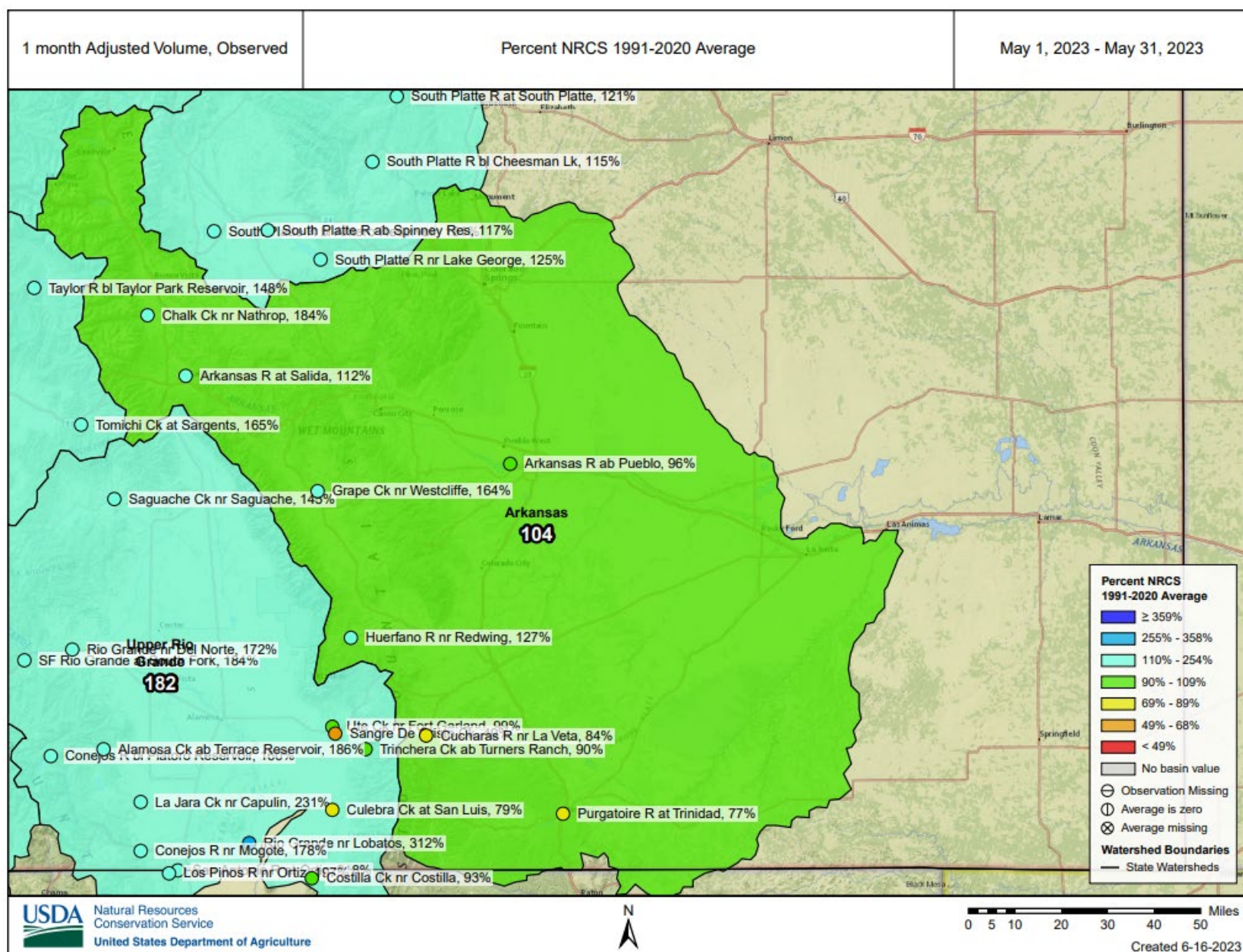




Colorado Snow Surveys

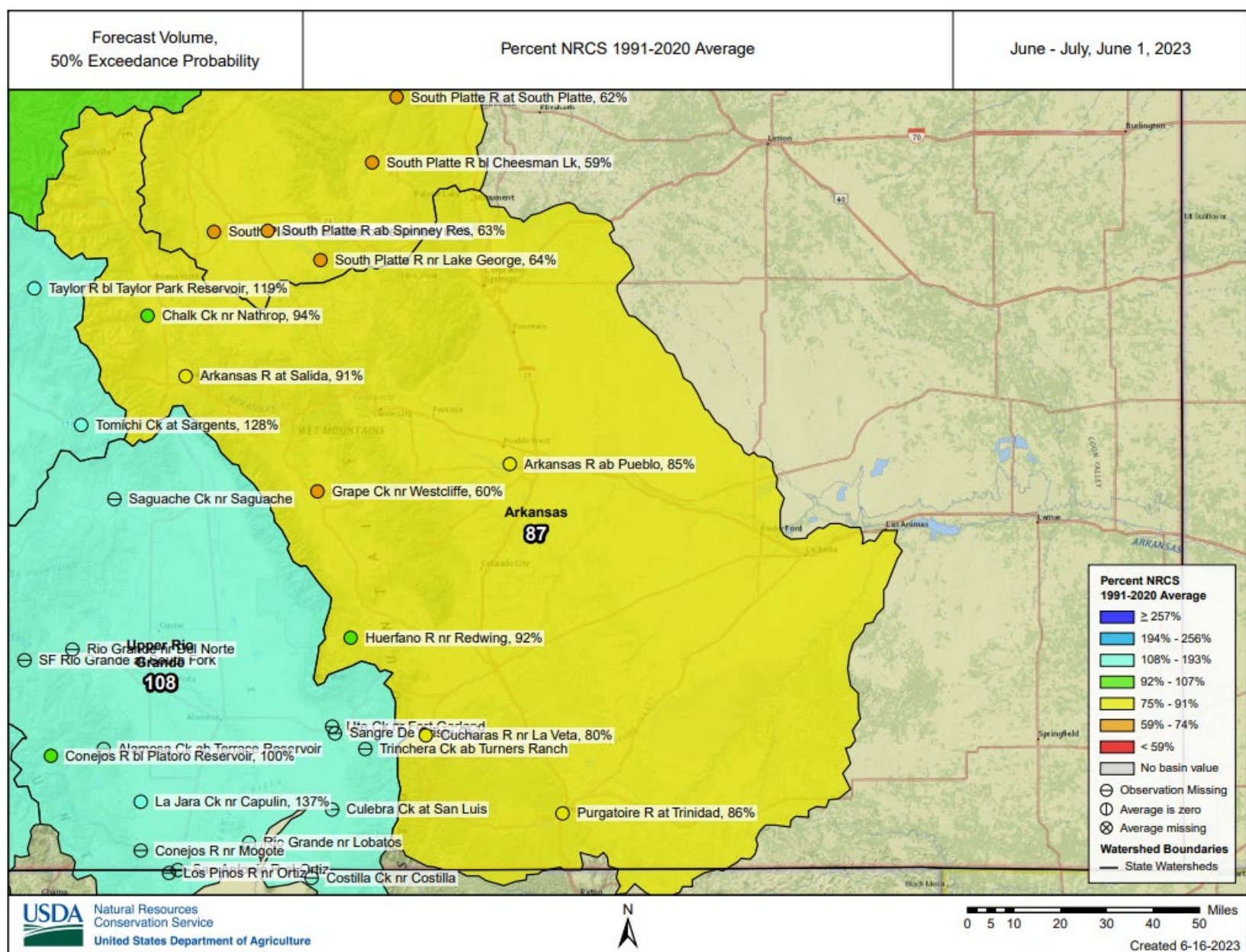
Colorado Departure From Median Timeseries Plot





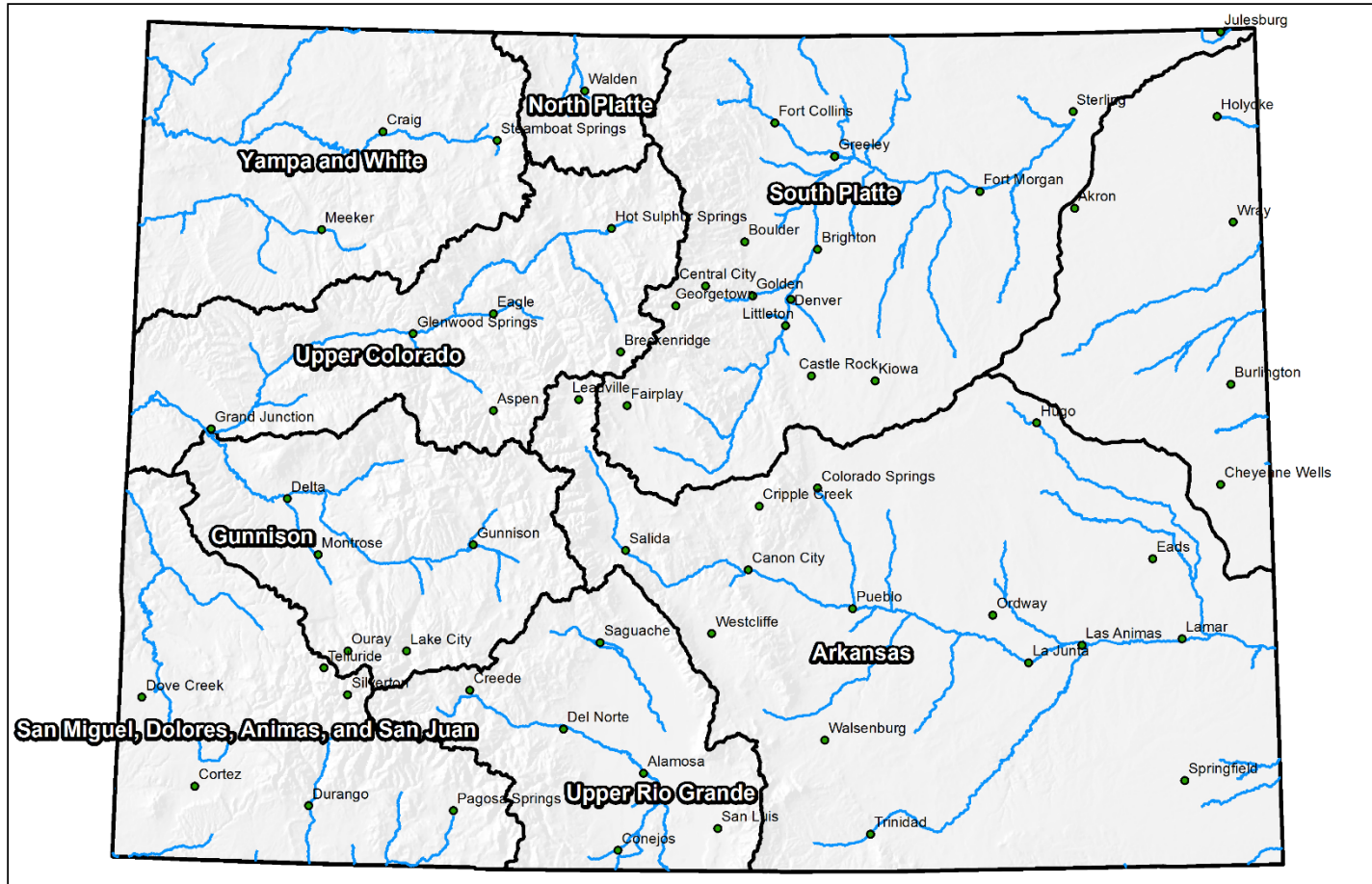


Colorado Snow Surveys



Colorado Statewide Summary

Colorado Major Basins



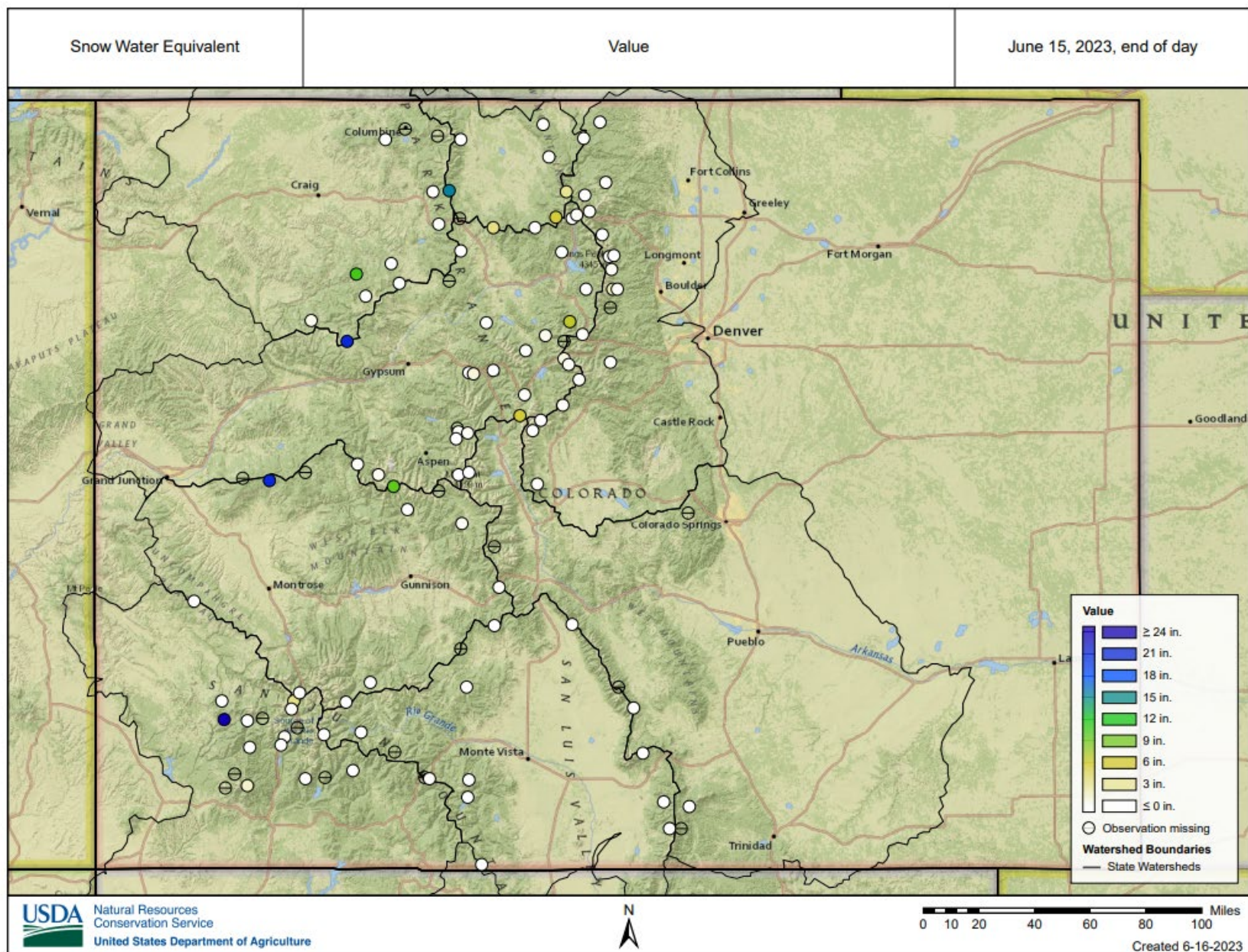
0 25 50 100 150 200 Miles



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Colorado Snow Surveys

Snowpack





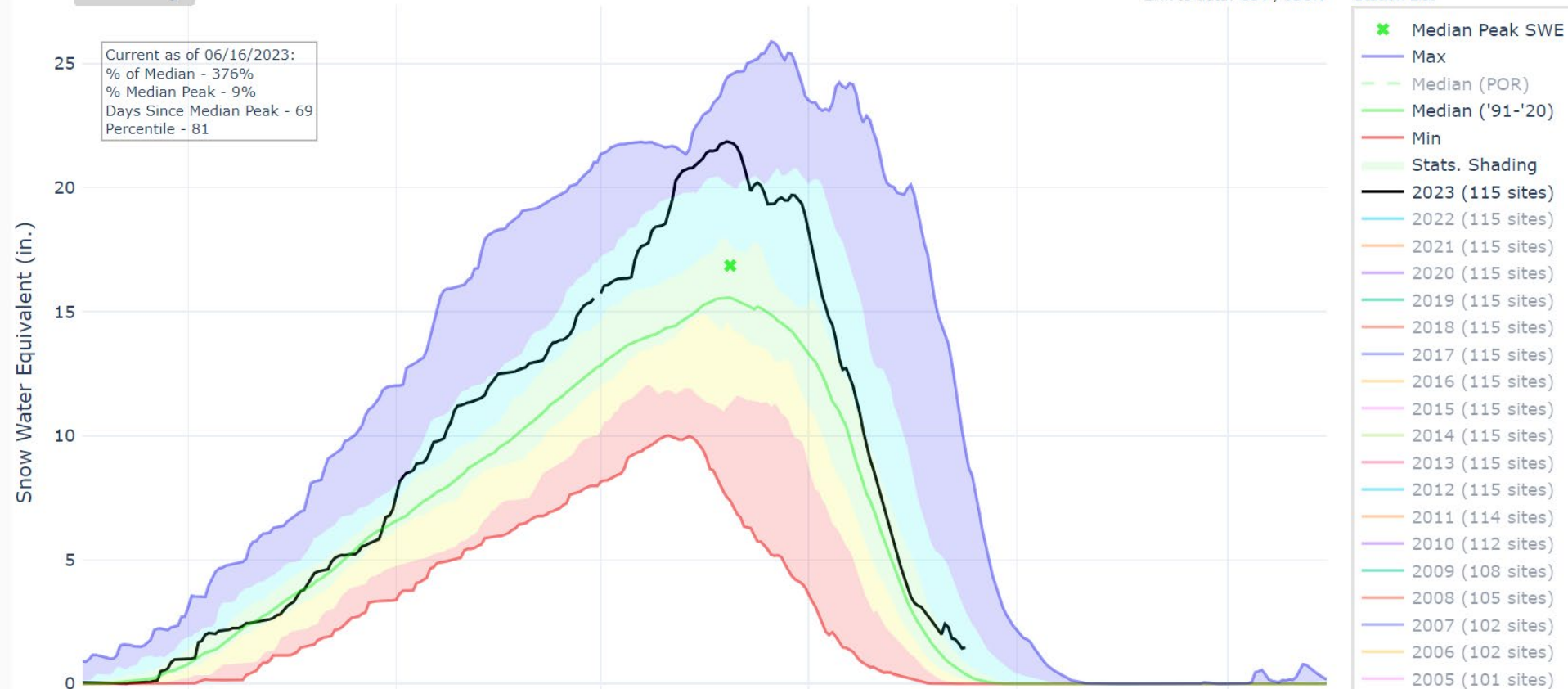
SNOW WATER EQUIVALENT IN STATE OF COLORADO

Reset Range

[Link to data: CSV / JSON](#)

[Station List](#)

Current as of 06/16/2023:
% of Median - 376%
% Median Peak - 9%
Days Since Median Peak - 69
Percentile - 81

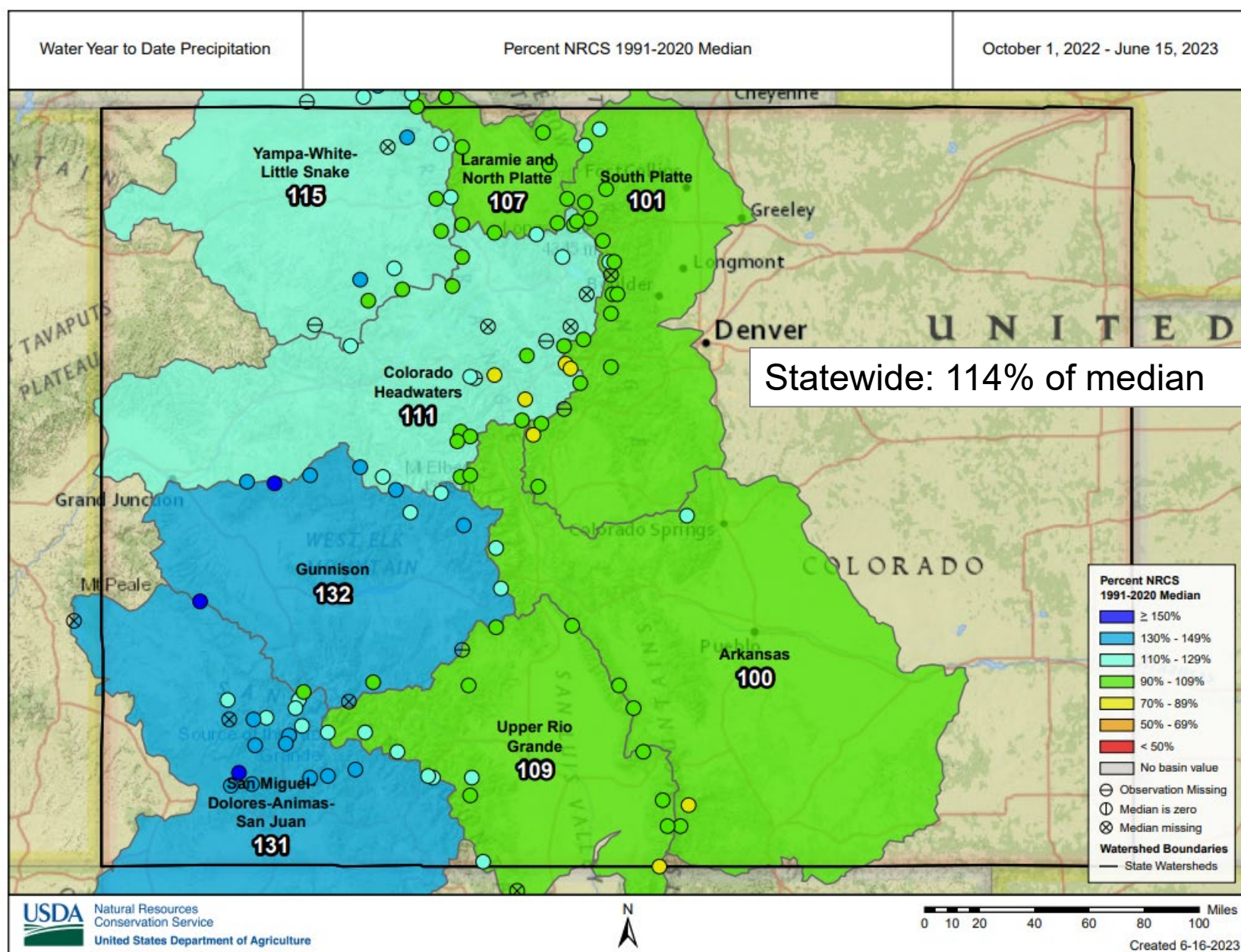




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Colorado Snow Surveys

WY Precipitation

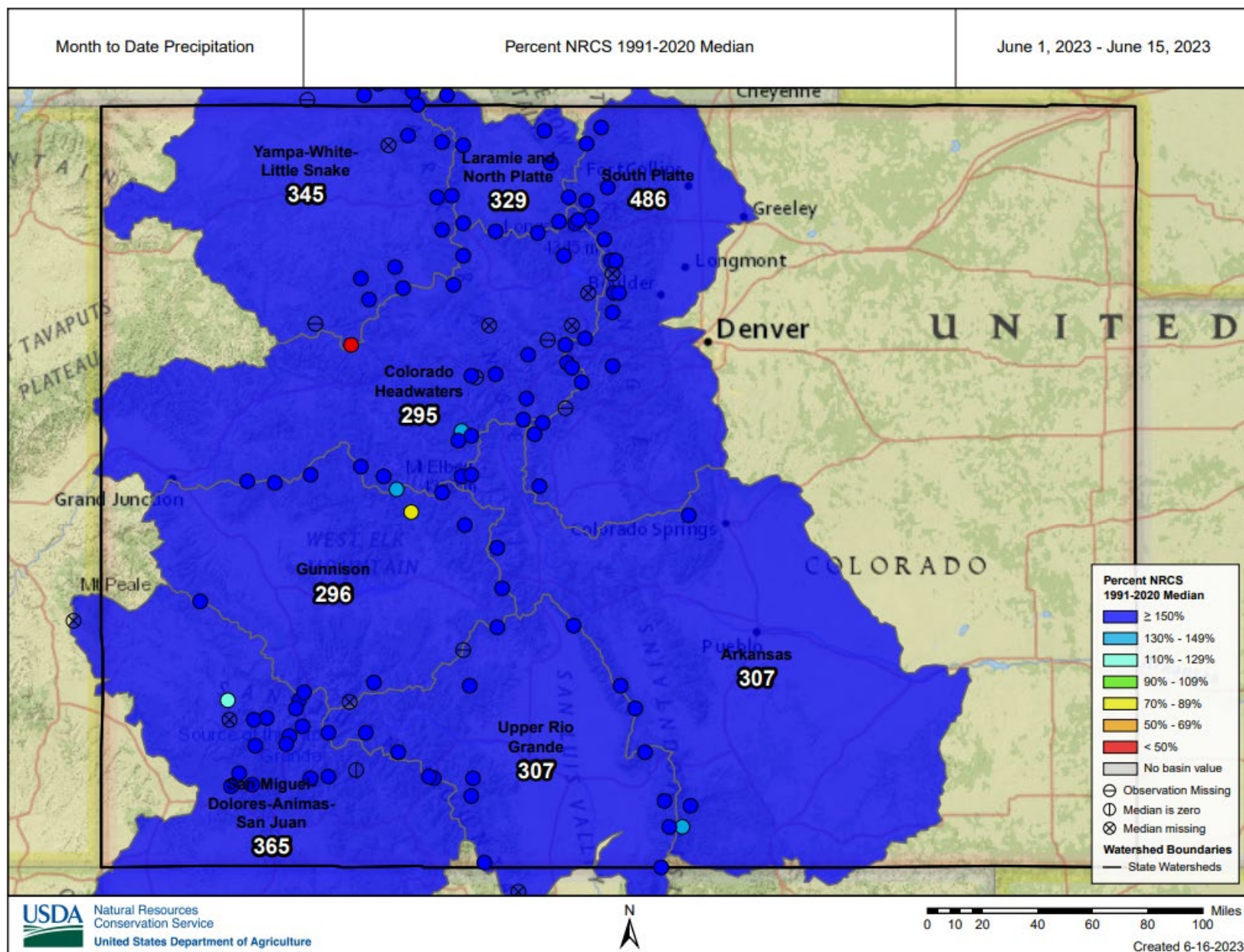




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Colorado Snow Surveys

MTD Precipitation





Colorado Snow Surveys

PRECIPITATION IN STATE OF COLORADO

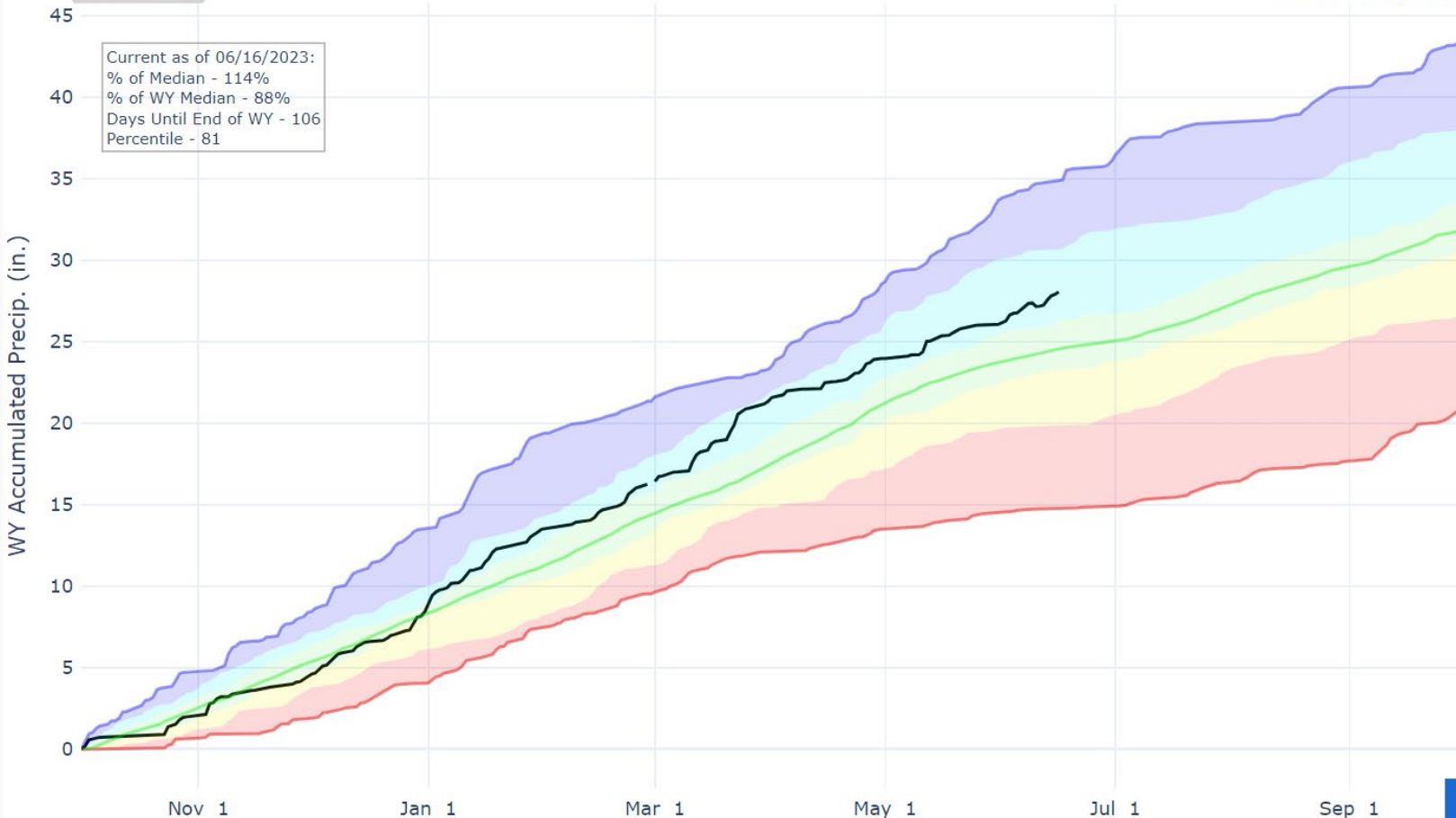
Reset Range

Link to data: [CSV](#) / [JSON](#)

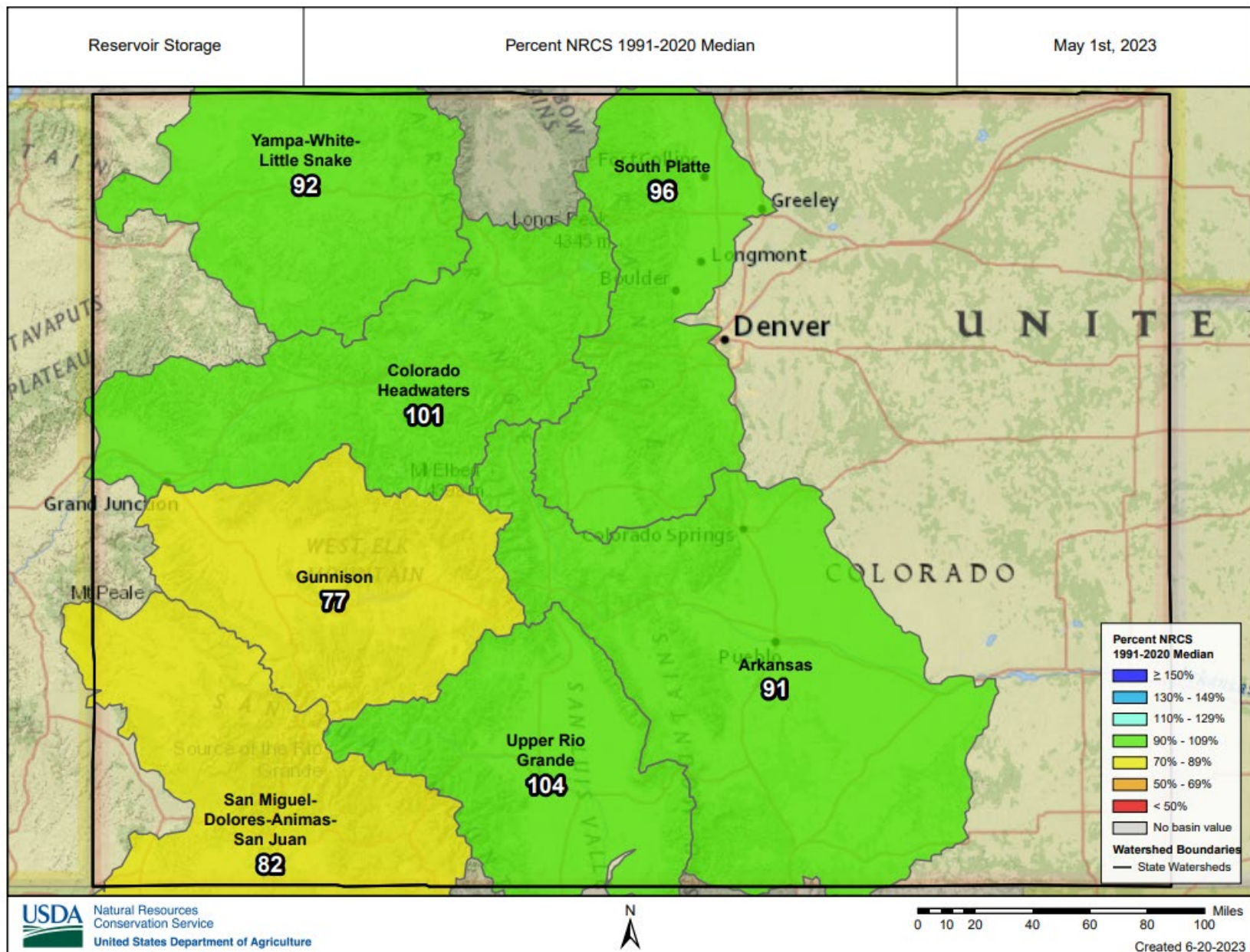
Station List

Current as of 06/16/2023:
% of Median - 114%
% of WY Median - 88%
Days Until End of WY - 106
Percentile - 81

- Max
- Median (POR)
- Median ('91-'20)
- Min
- Stats. Shading
- 2023 (111 sites)
- 2022 (110 sites)
- 2021 (111 sites)
- 2020 (111 sites)
- 2019 (111 sites)
- 2018 (111 sites)
- 2017 (111 sites)
- 2016 (111 sites)
- 2015 (111 sites)
- 2014 (111 sites)
- 2013 (111 sites)
- 2012 (111 sites)
- 2011 (111 sites)
- 2010 (109 sites)
- 2009 (107 sites)
- 2008 (104 sites)
- 2007 (101 sites)
- 2006 (101 sites)
- 2005 (100 sites)
- 2004 (94 sites)
- 2003 (93 sites)



Feedback

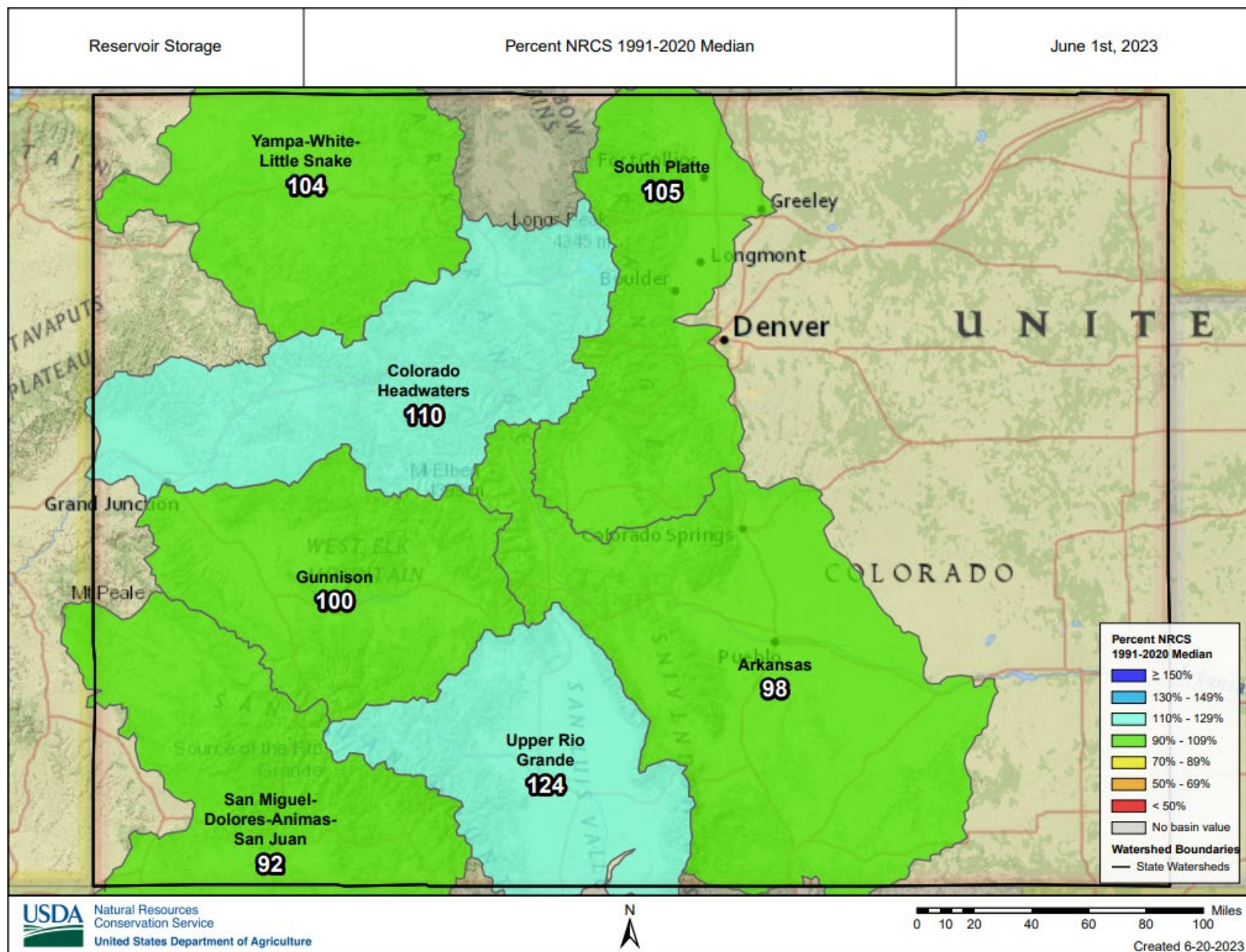




United States Department of Agriculture

Colorado Snow Surveys

Reservoir Storage: June 1st



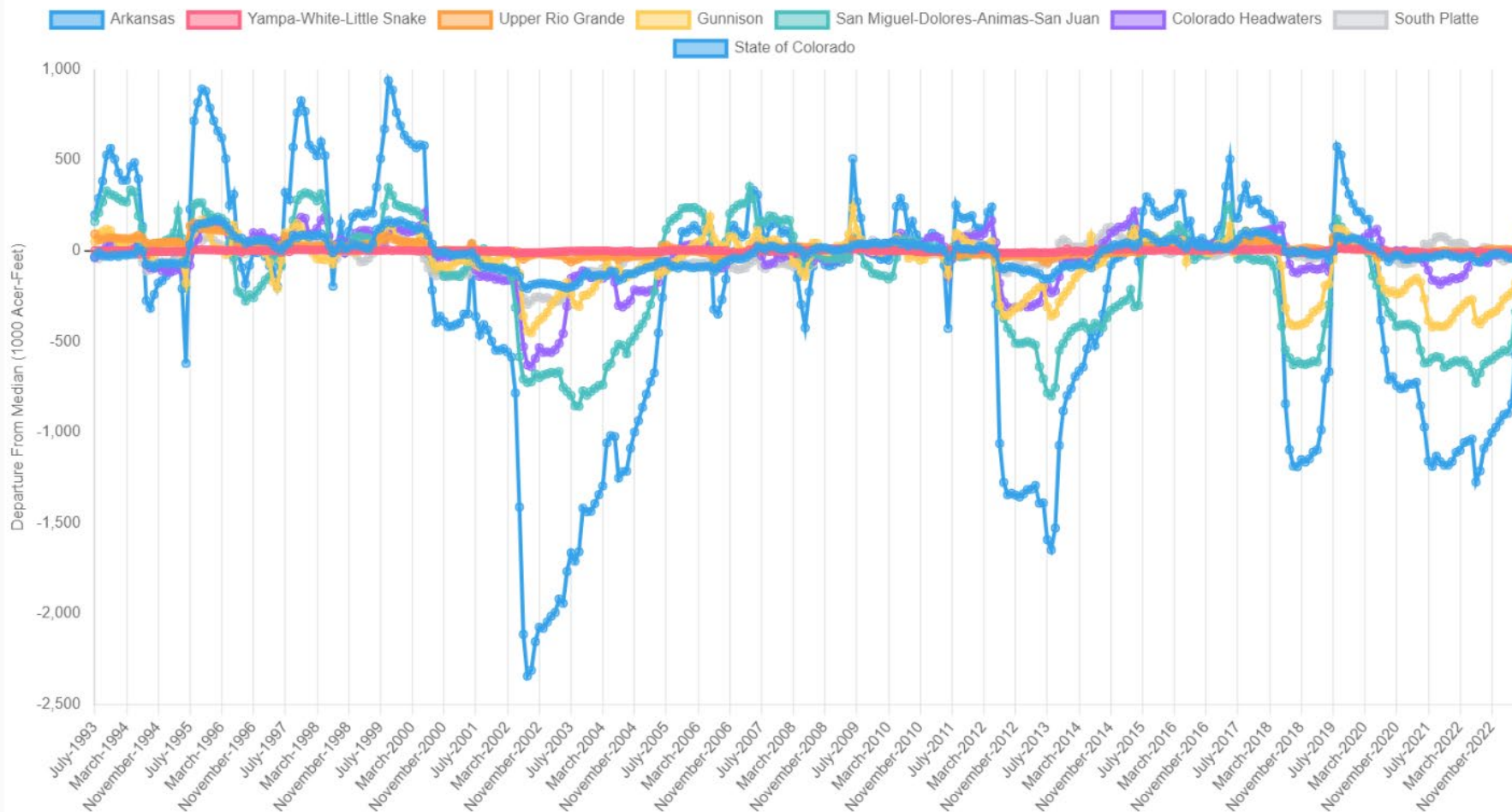


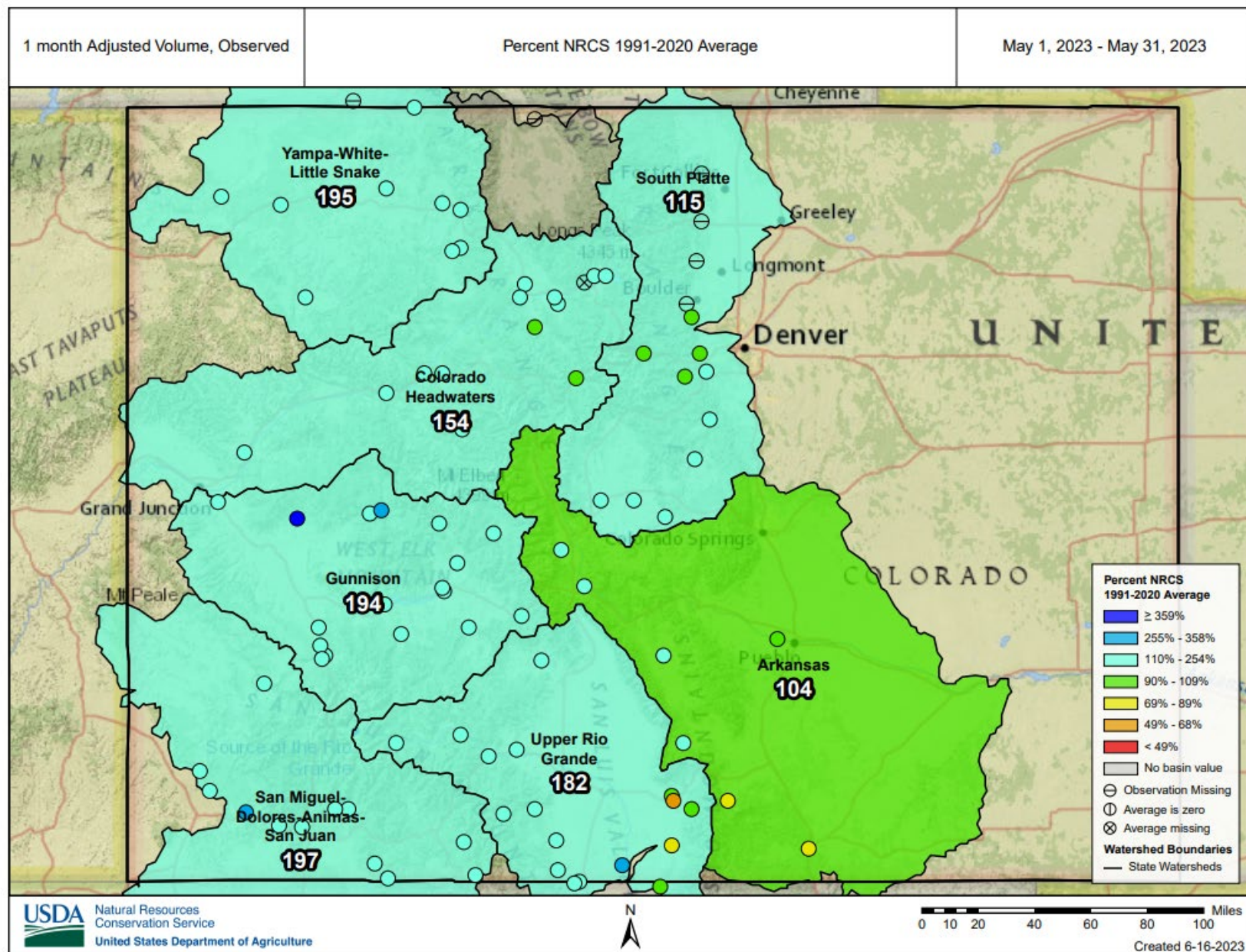
United States Department of Agriculture

Colorado Snow Surveys

Reservoir Storage

Colorado Departure From Median Timeseries Plot



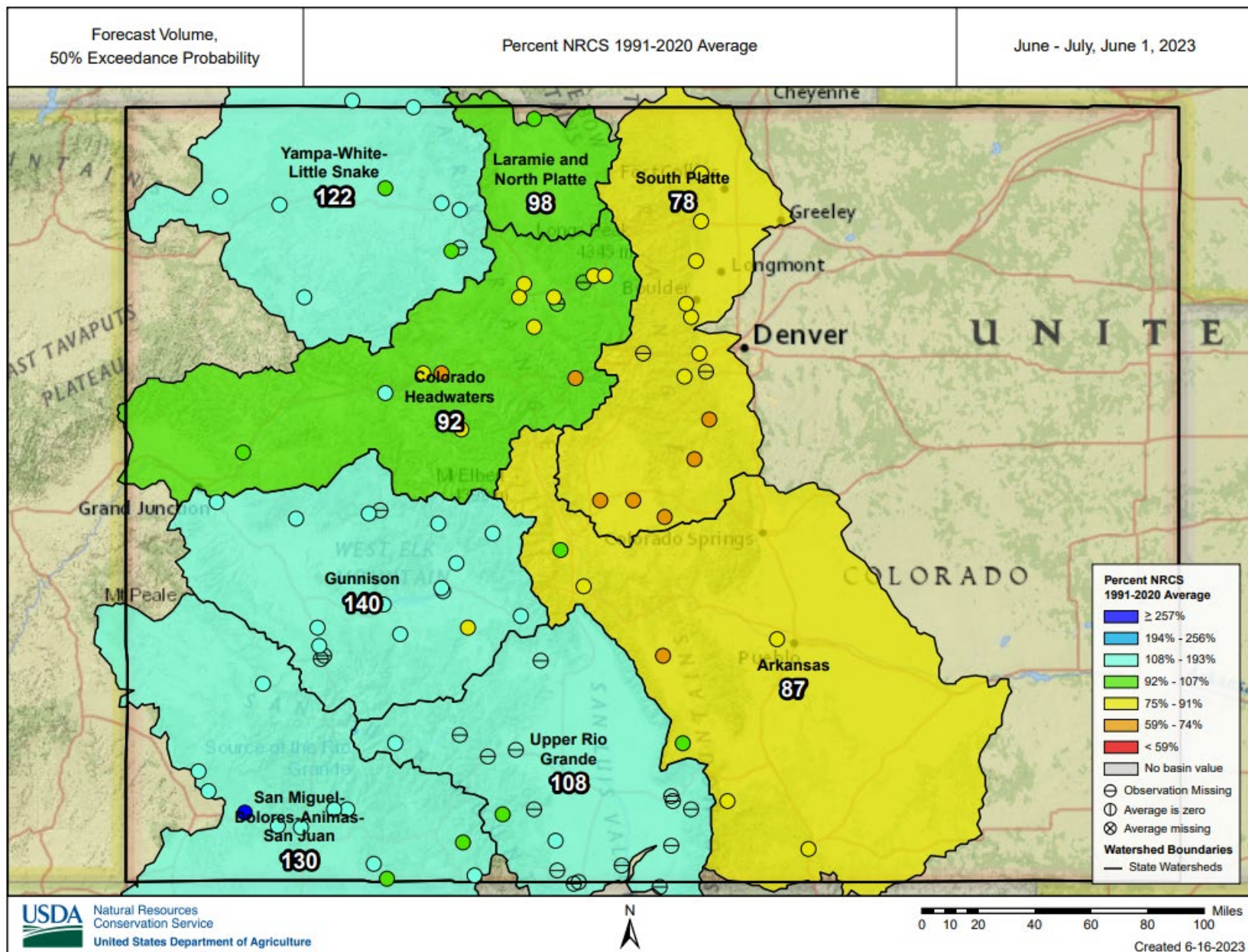




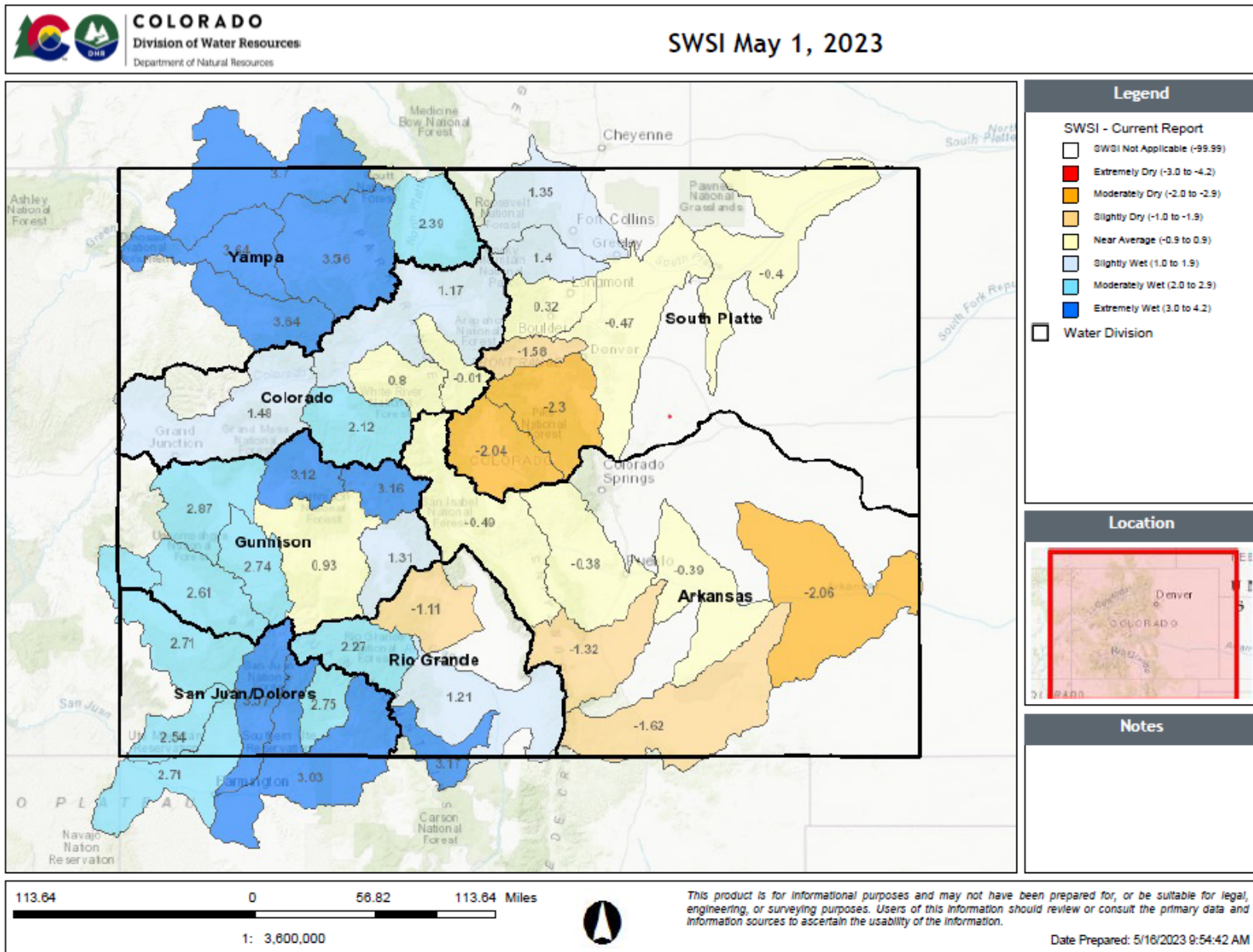
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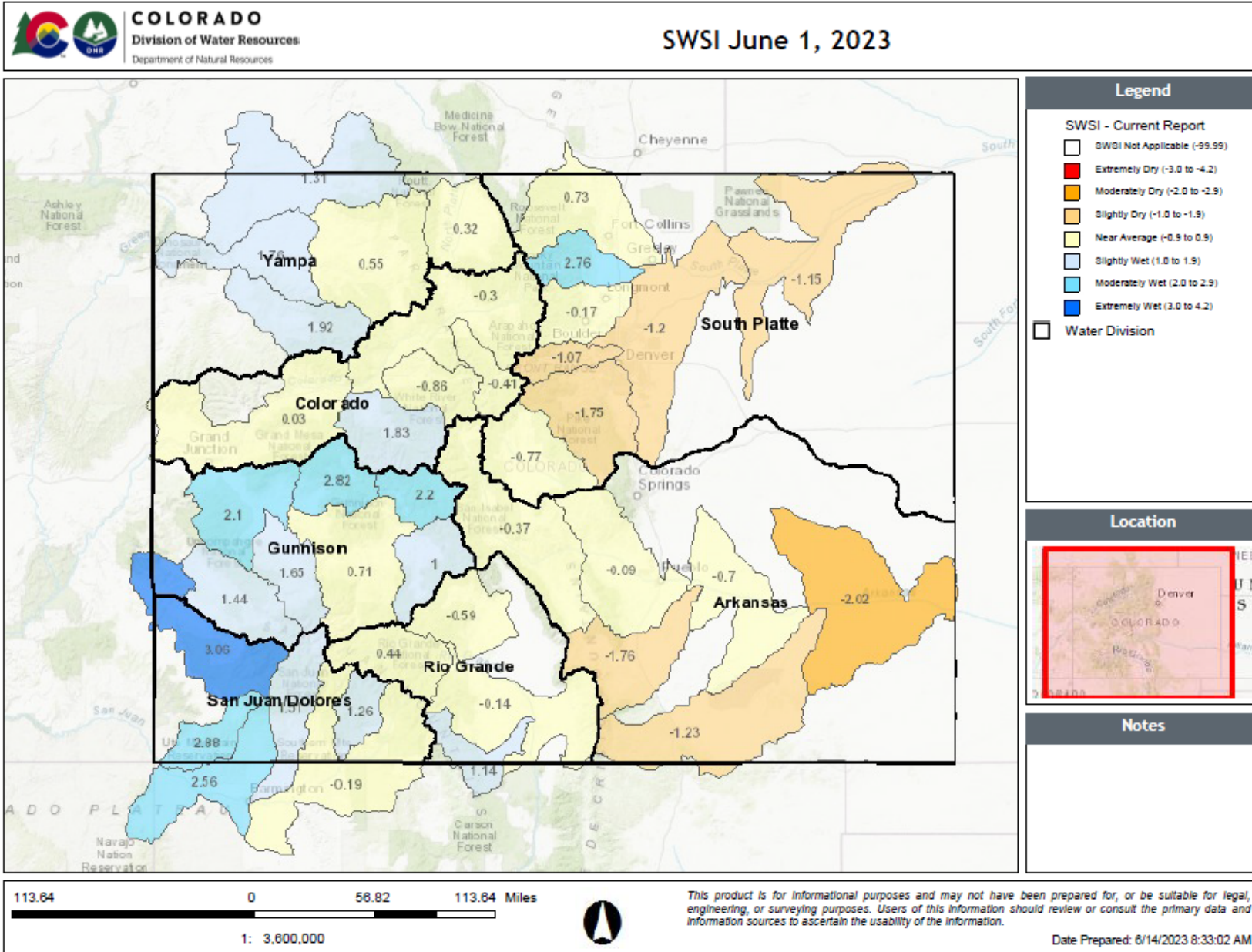
Streamflow Forecasts



May 1, 2023 SWSI



June 1, 2023 SWSI



Summary

- Snowpack has melted out most SNOTEL sites in Colorado.
- Water Year to date precipitation is near to well above normal in all major basins of Colorado.
 - June-to-date precipitation has been well above normal in the mountains of Colorado.
- May observed streamflow volumes were well above normal across the state and nearly twice the normal volumes in much of Western Colorado.
- Following significant runoff in May the streamflow forecasts for the June-July period are lower with respect to normal than the full April-July period.
- Reservoir storage volumes have been swiftly increasing across the Western Slope where they have been the lowest in the state for several years. All major basins are now holding near to well above normal reservoir storage volumes.



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