



United States Department of Agriculture

Colorado Snow Surveys

Water Availability Task Force Meeting

February 21st, 2023

NRCS Snow Survey and Water Supply Forecasting Program

Karl Wetlaufer

Hydrologist

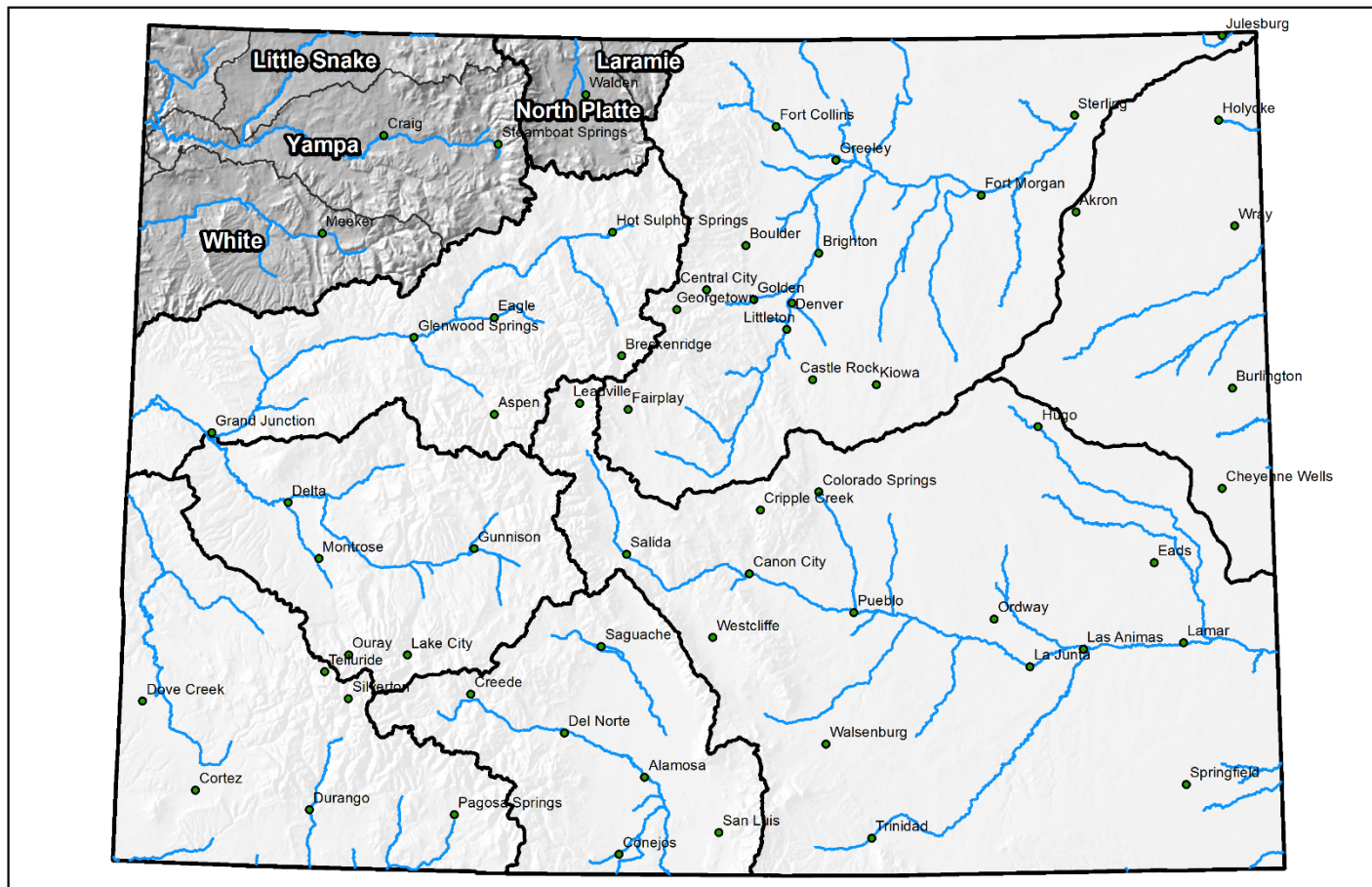
Karl.Wetlaufer@usda.gov

720-544-2853

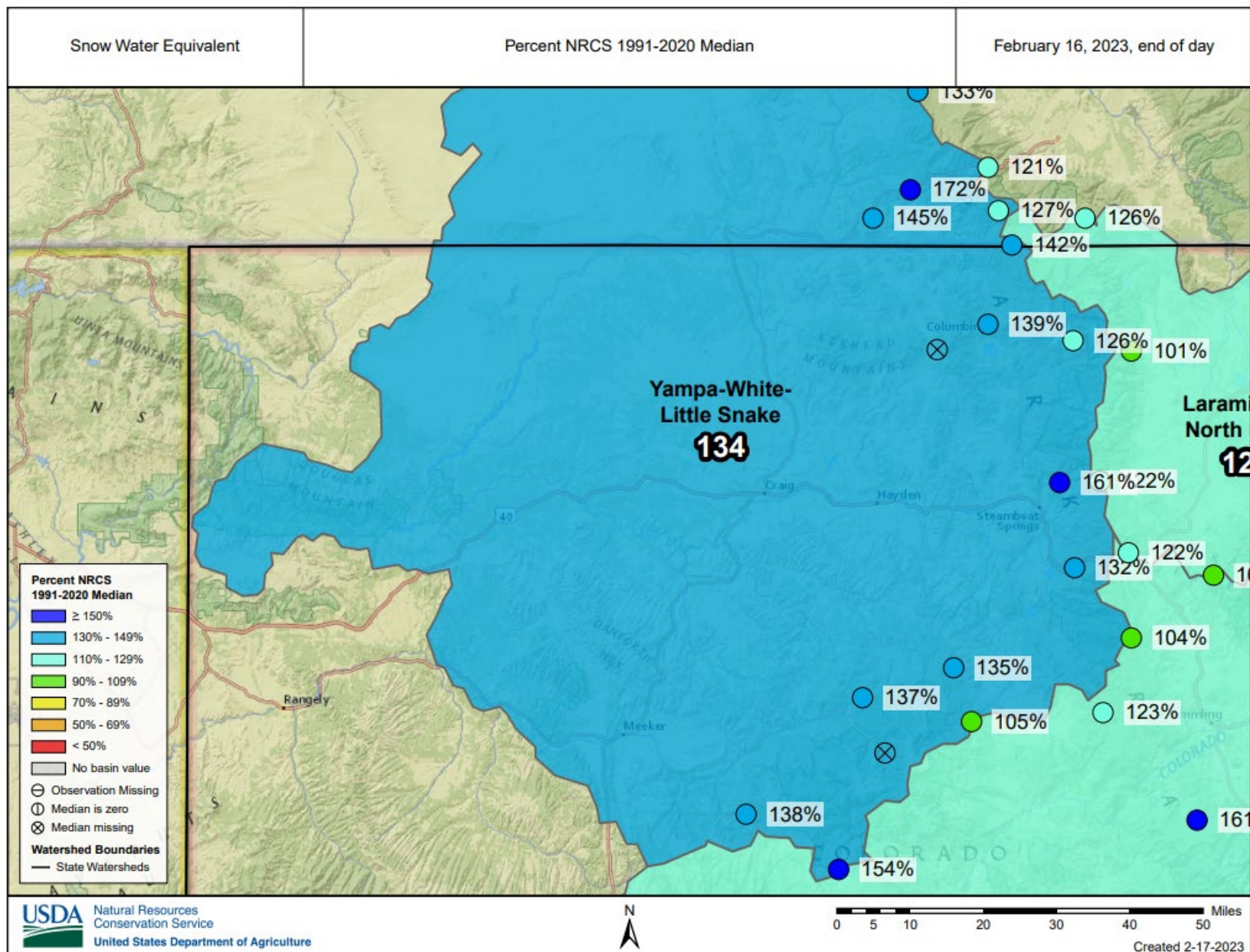
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/co/snow/>

Major Basin Summary

Yampa, White, and North Platte River Basins



0 25 50 100 150 200 Miles





SNOW WATER EQUIVALENT IN YAMPA-WHITE-LITTLE SNAKE

Reset Range

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

[Station List](#)

Current as of 02/17/2023:
% of Median - 134%
% Median Peak - 94%
Days Until Median Peak - 51
Percentile - 92

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





Colorado Snow Surveys

PRECIPITATION IN YAMPA-WHITE-LITTLE SNAKE

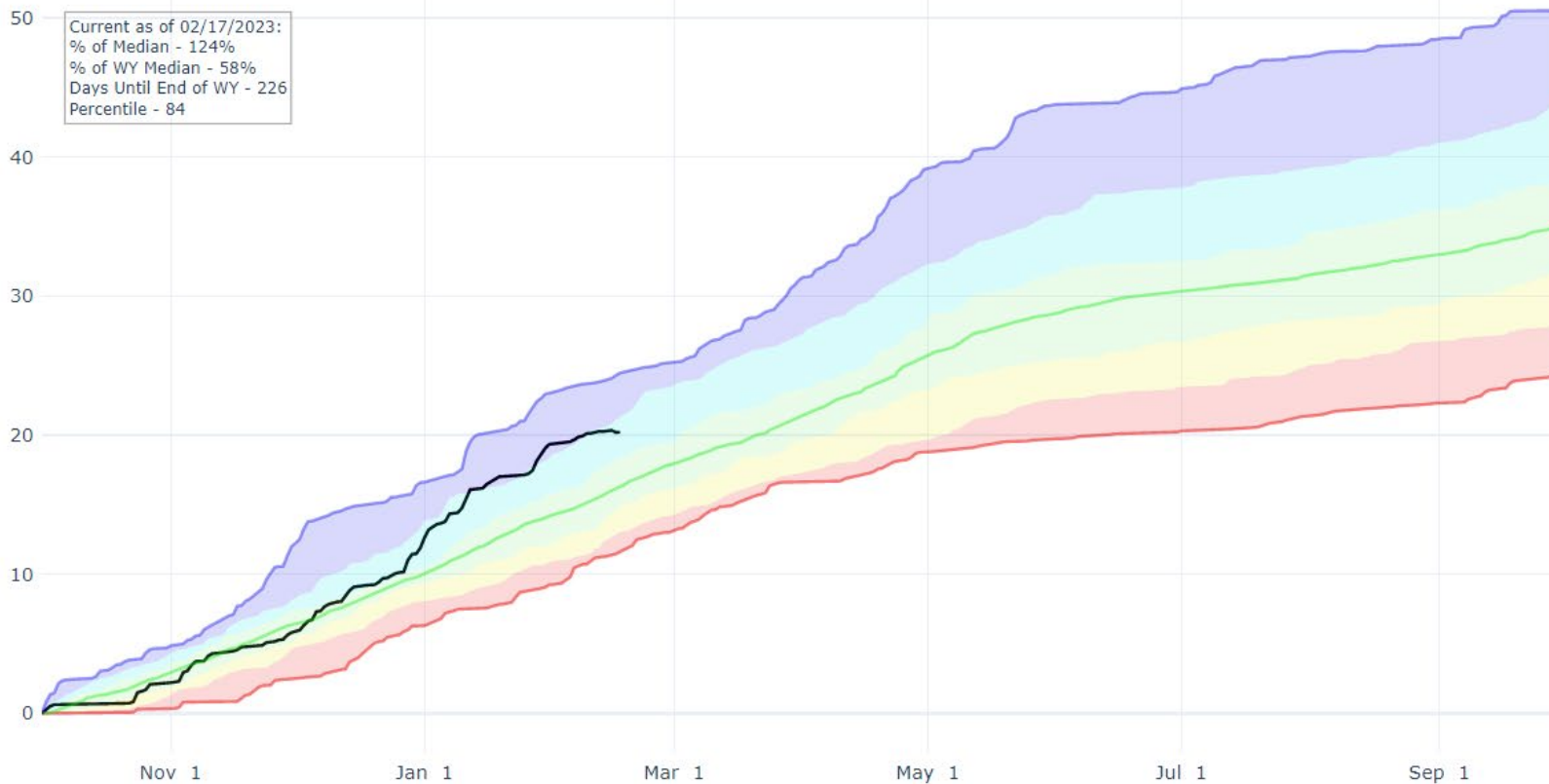
Reset Range

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

[Station List](#)

Current as of 02/17/2023:
% of Median - 124%
% of WY Median - 58%
Days Until End of WY - 226
Percentile - 84

WY Accumulated Precip. (in.)



- 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)



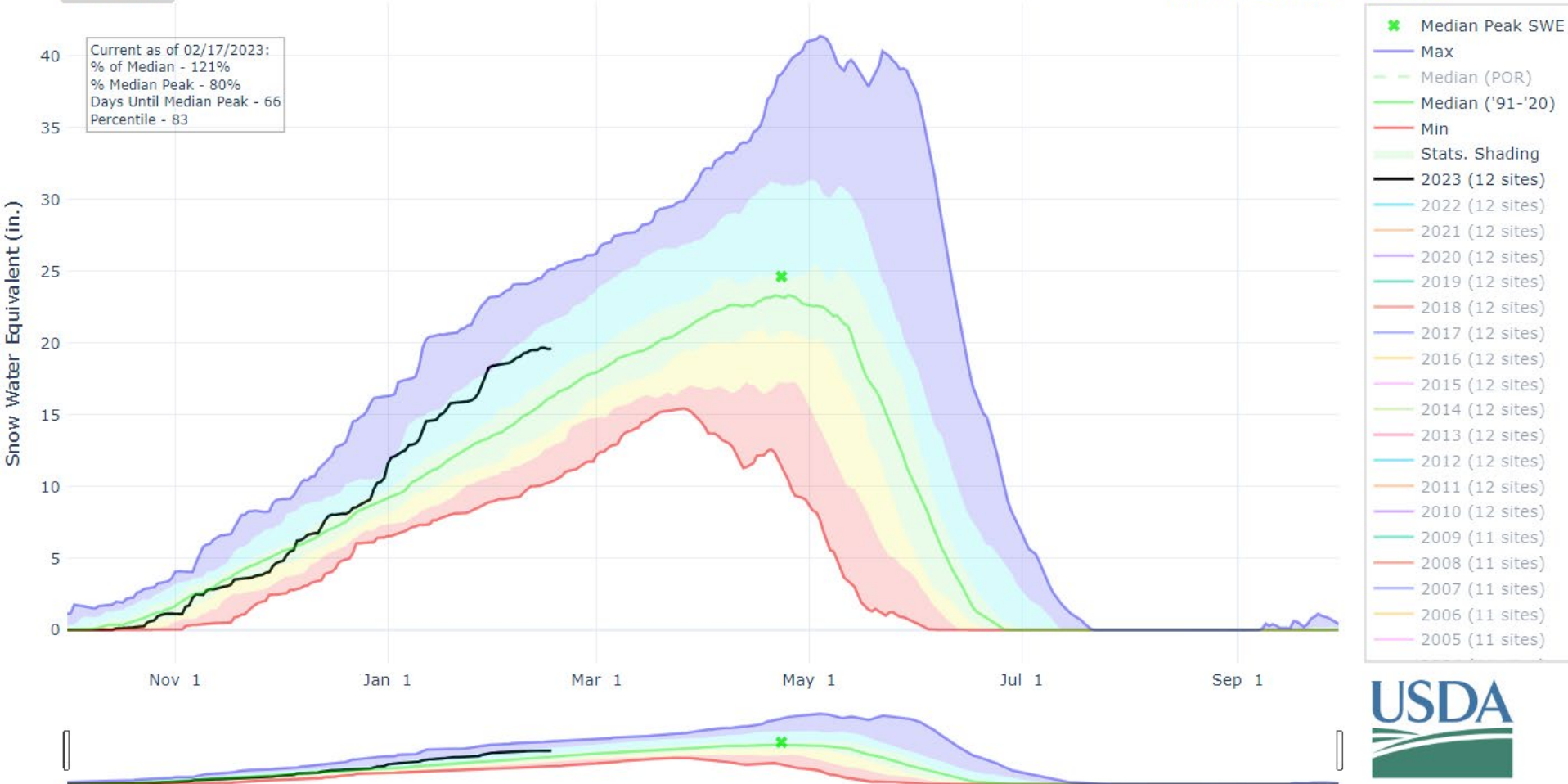


SNOW WATER EQUIVALENT IN LARAMIE AND NORTH PLATTE

Reset Range

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

[Station List](#)





Colorado Snow Surveys

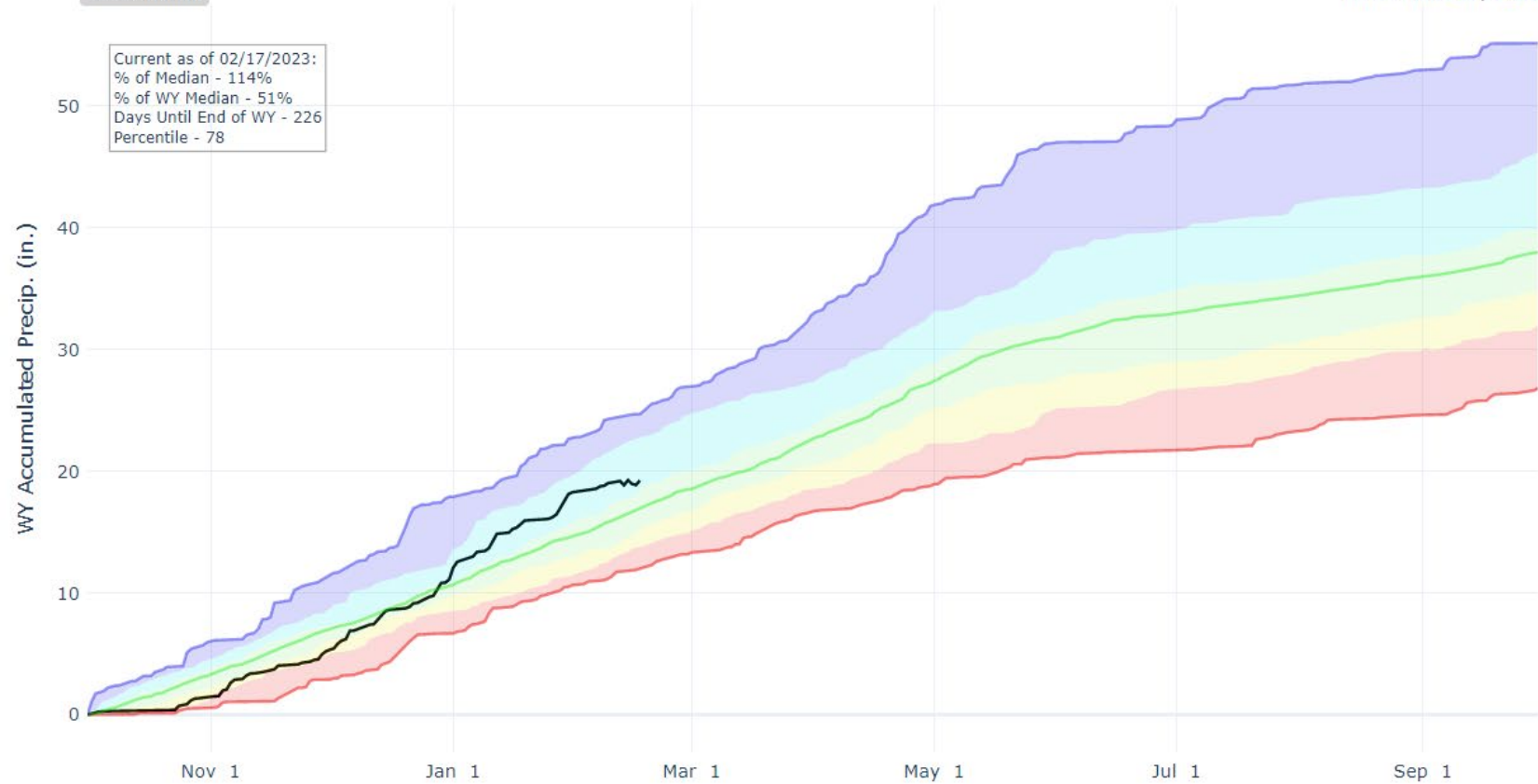
PRECIPITATION IN LARAMIE AND NORTH PLATTE

Reset Range

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

[Station List](#)

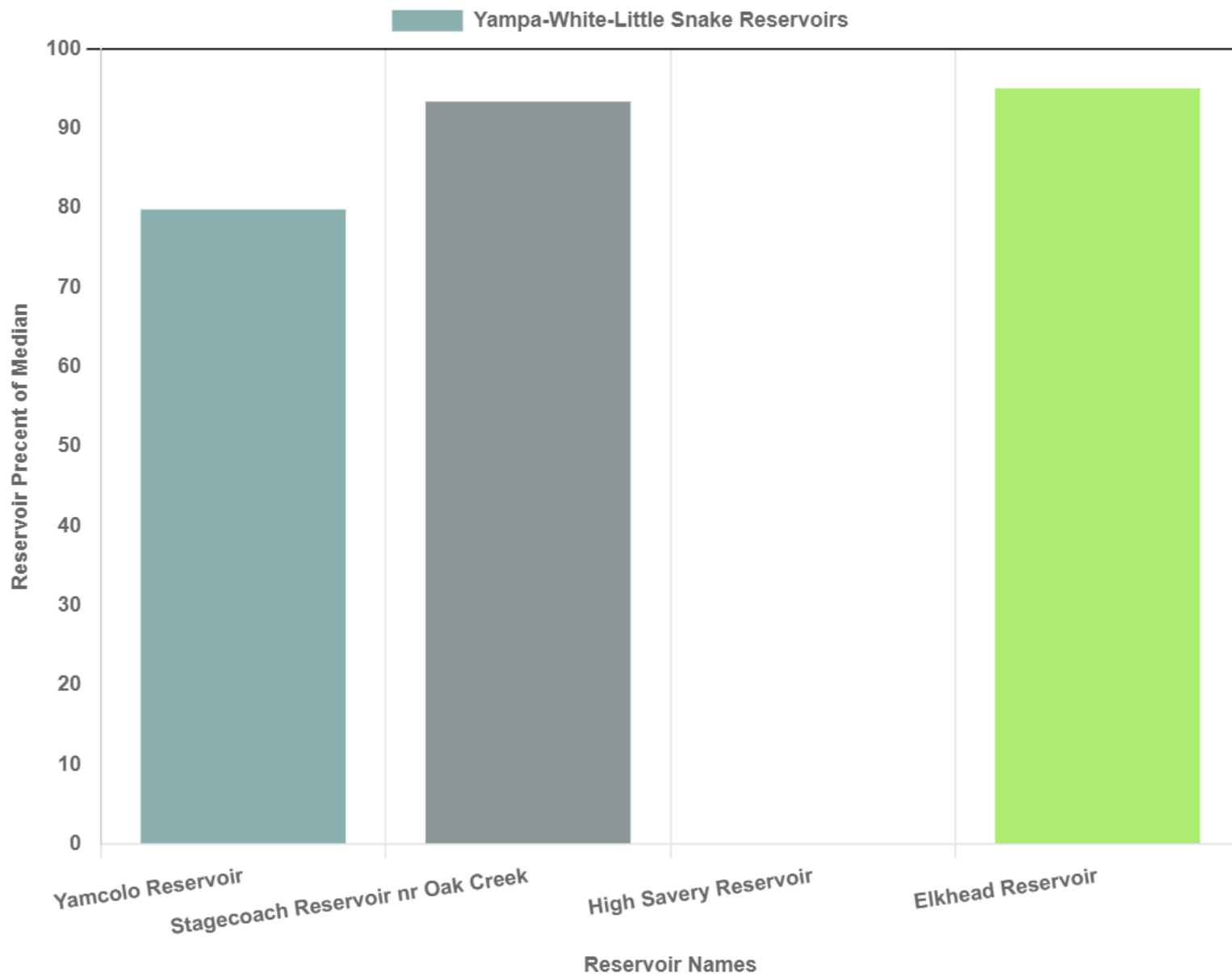
Current as of 02/17/2023:
% of Median - 114%
% of WY Median - 51%
Days Until End of WY - 226
Percentile - 78



- 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)

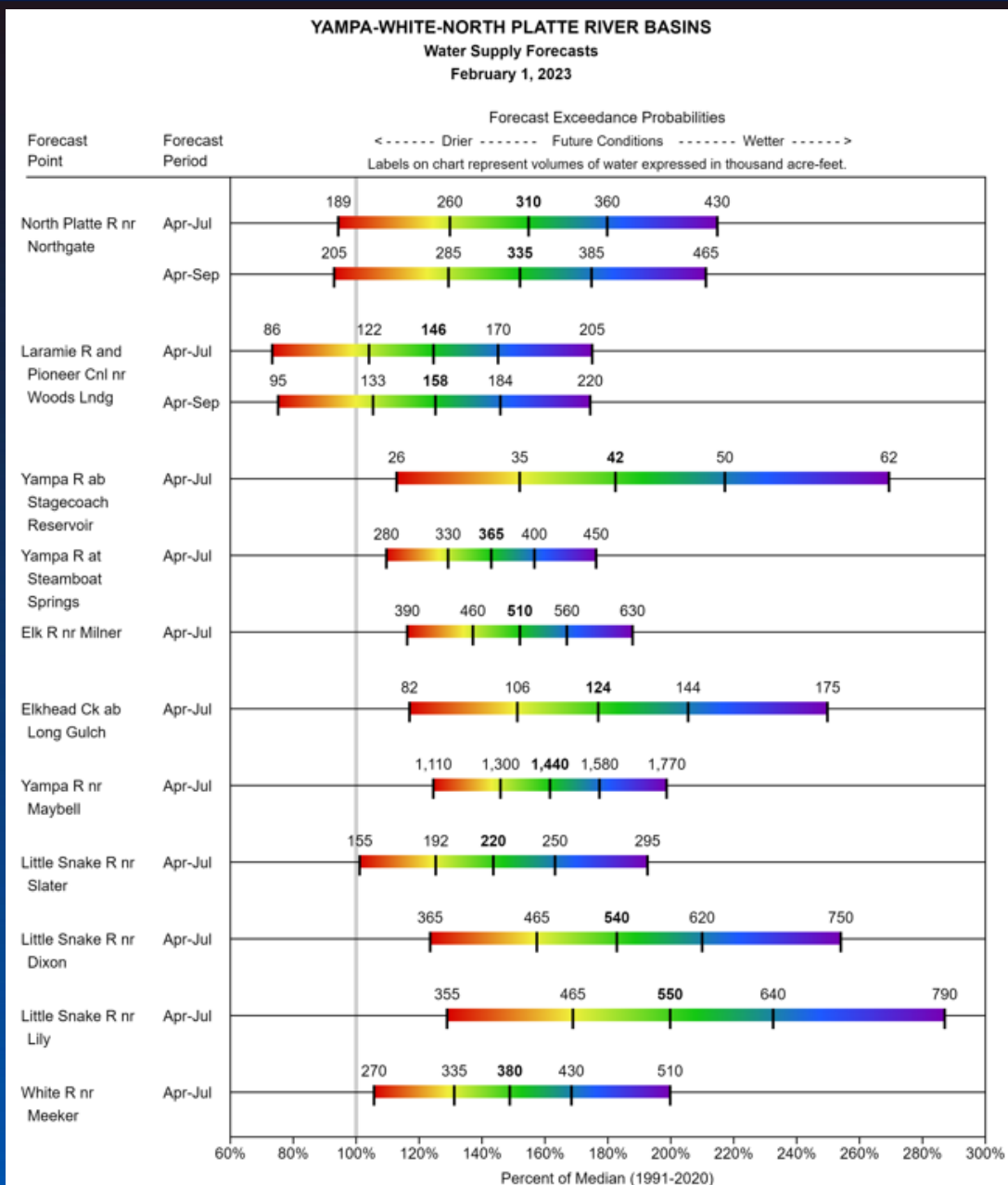


Reservoir Conditions for Yampa-White-Little Snake on February 1st 2023



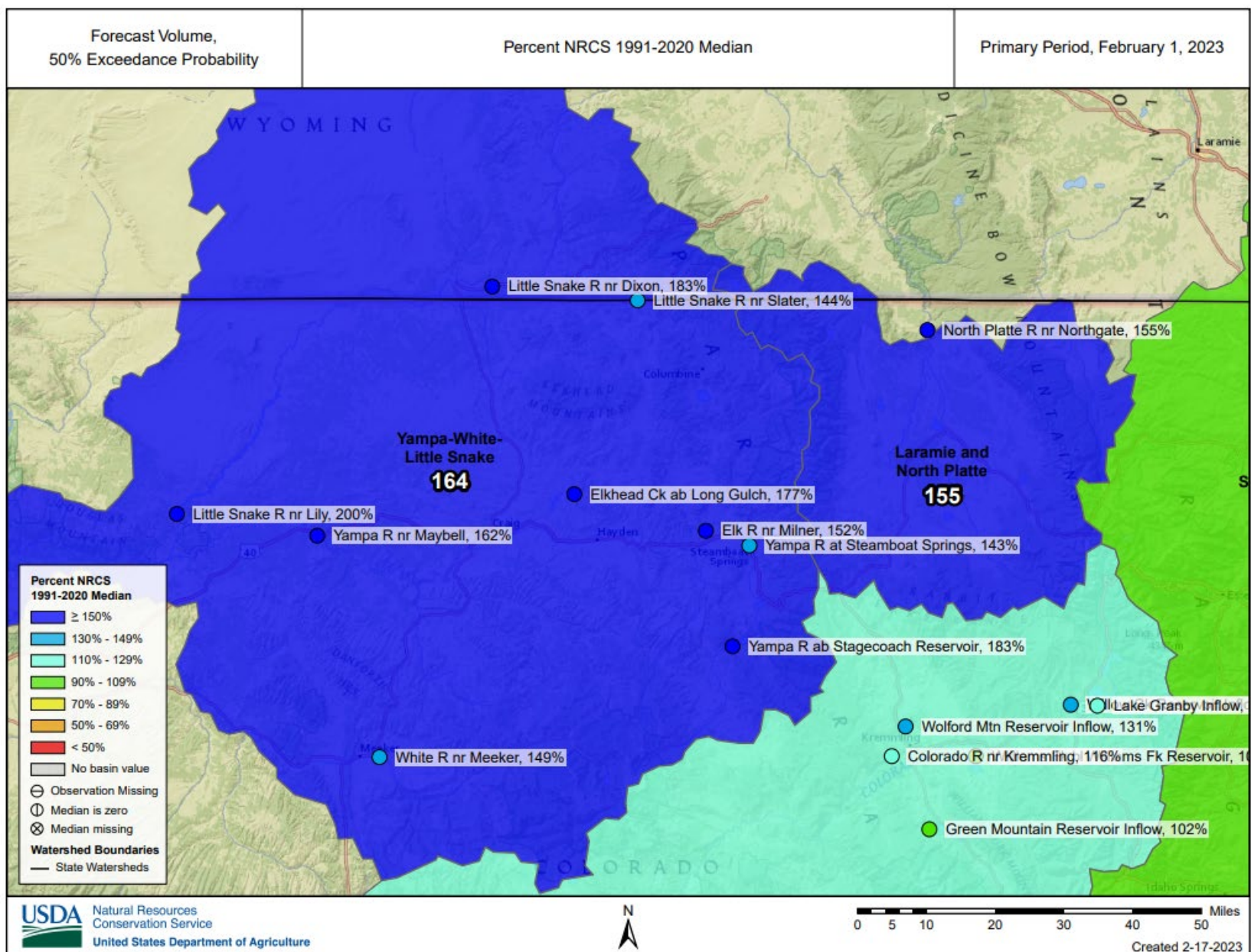


Colorado Snow Surveys

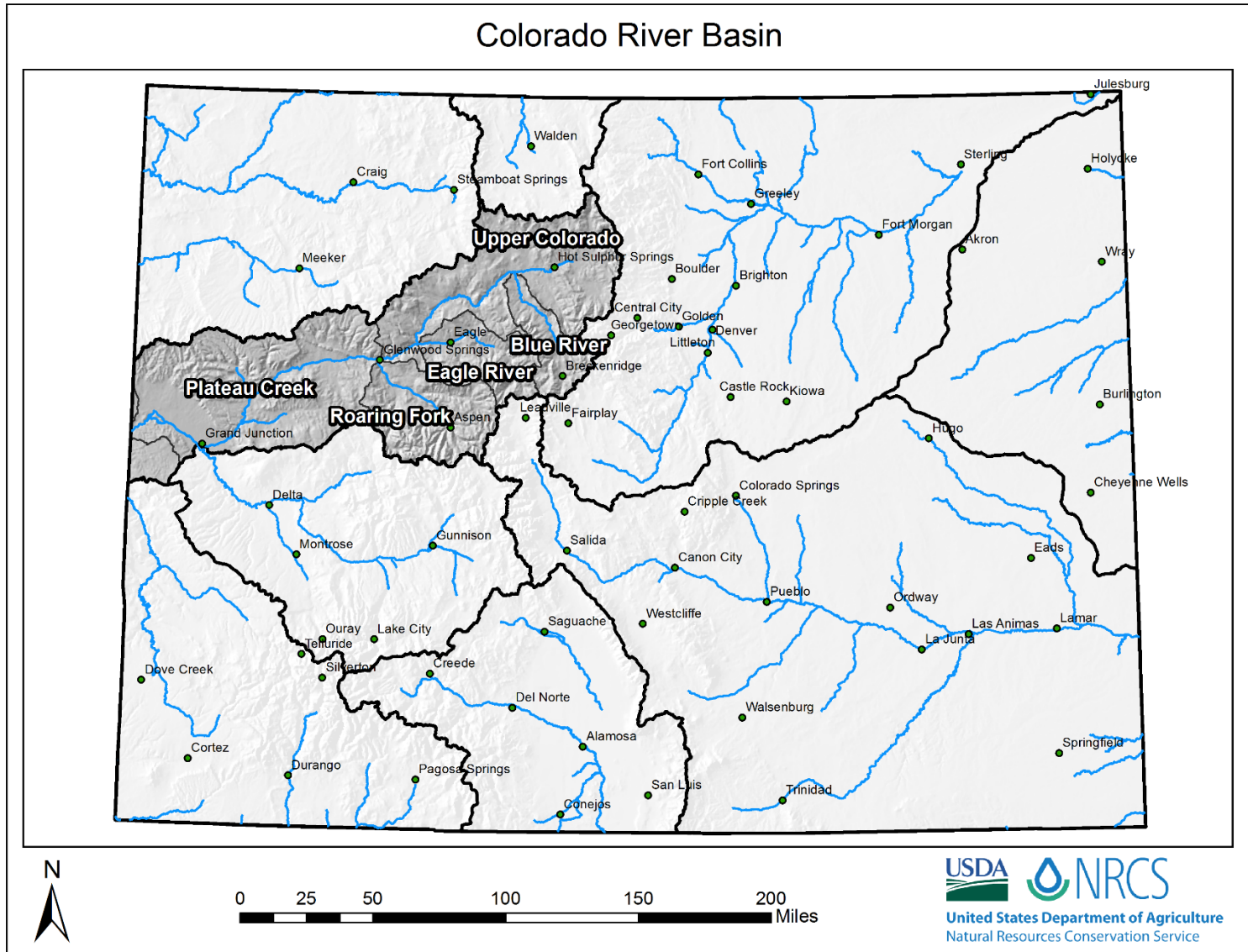


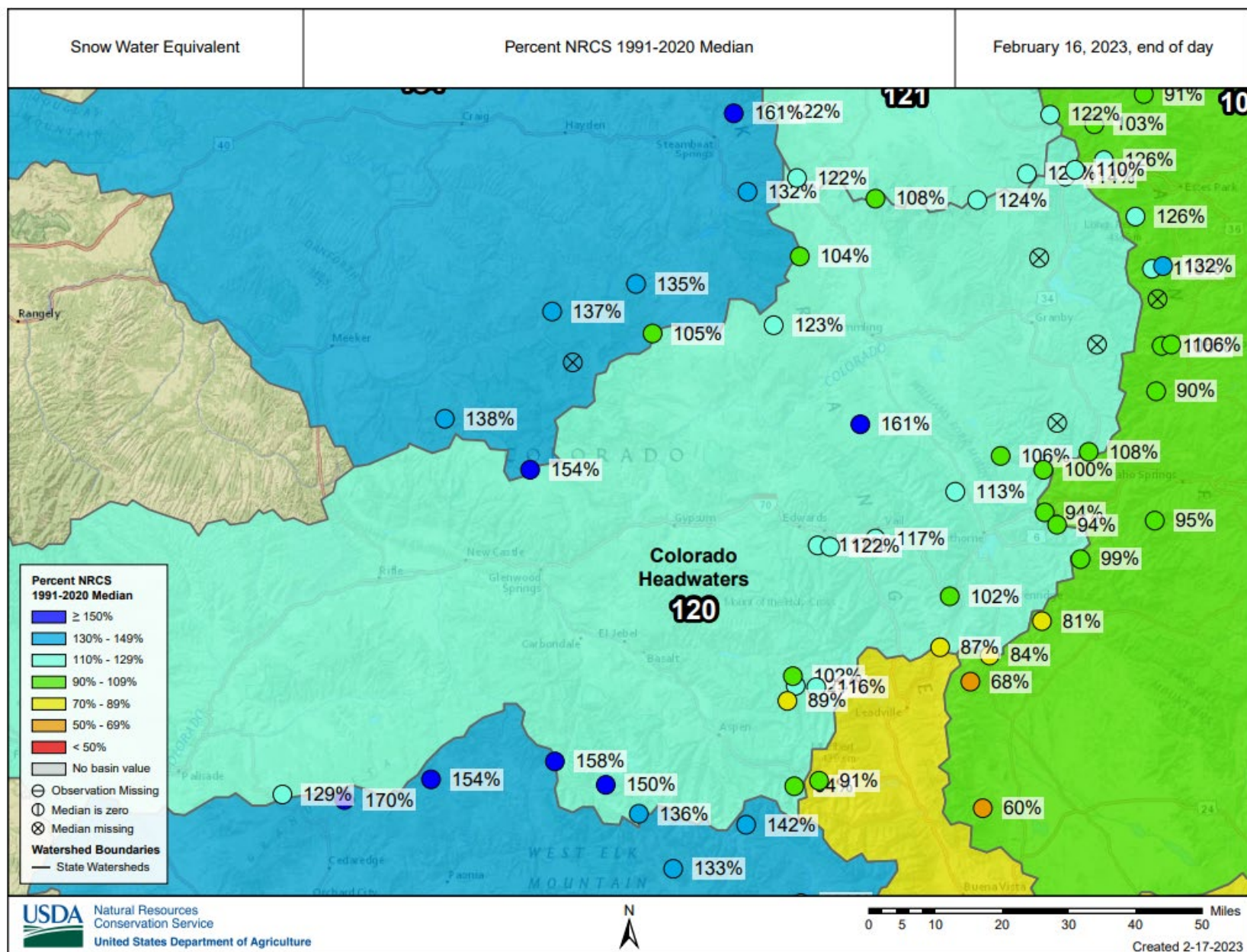


Colorado Snow Surveys



Major Basin Summary







Colorado Snow Surveys

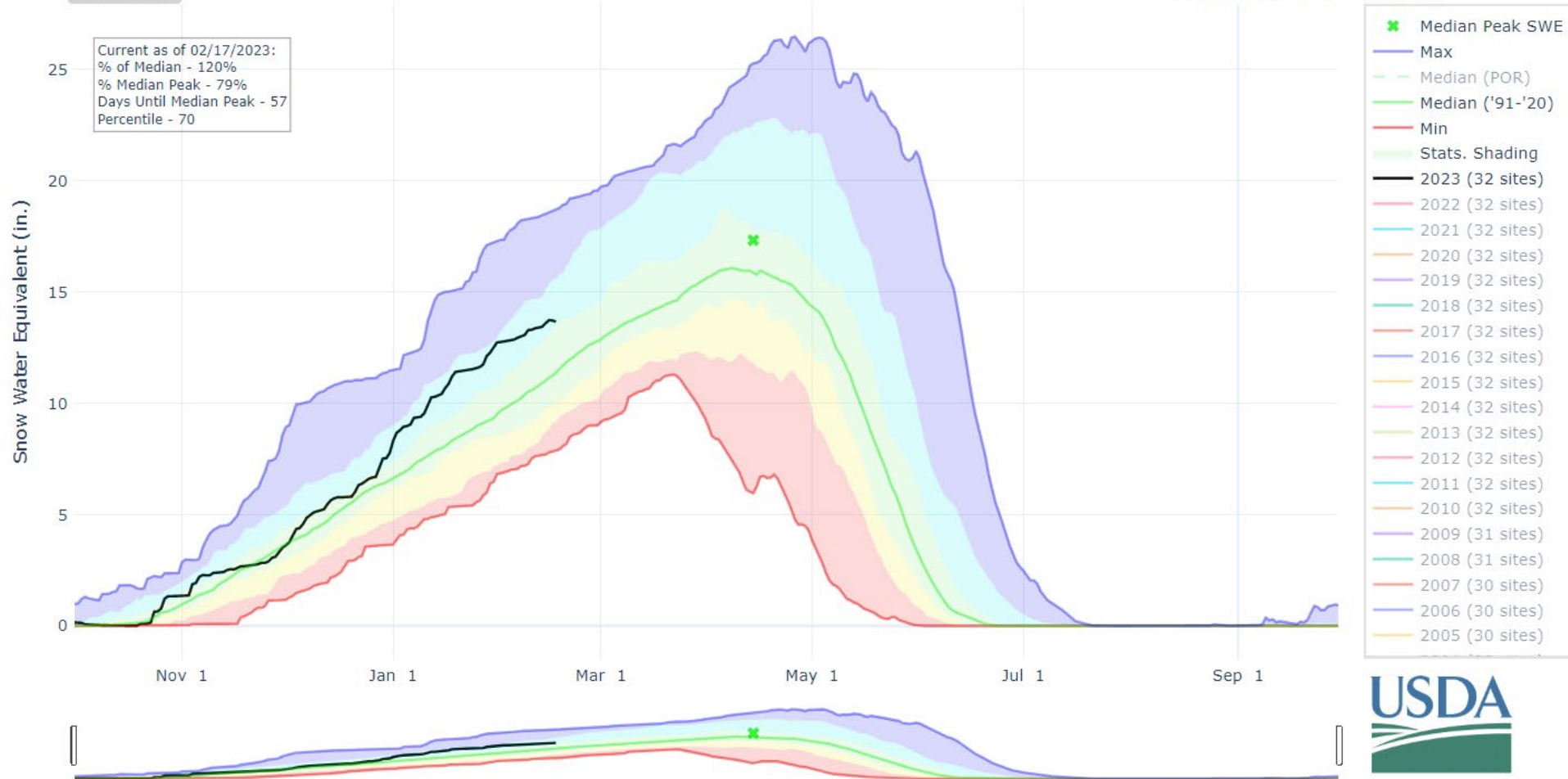
SNOW WATER EQUIVALENT IN COLORADO HEADWATERS

Reset Range

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

[Station List](#)

Current as of 02/17/2023:
% of Median - 120%
% Median Peak - 79%
Days Until Median Peak - 57
Percentile - 70





Colorado Snow Surveys

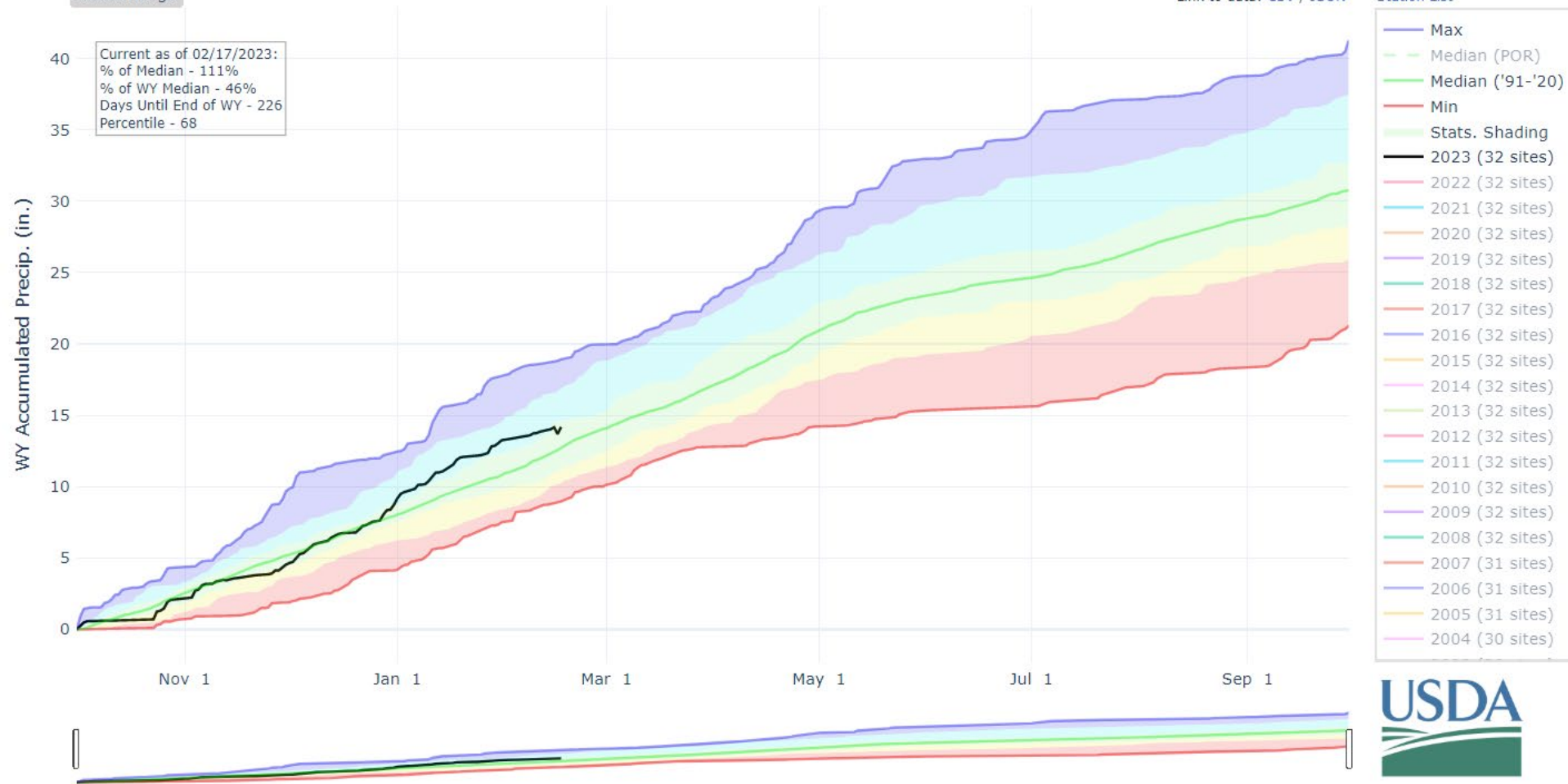
PRECIPITATION IN COLORADO HEADWATERS

Reset Range

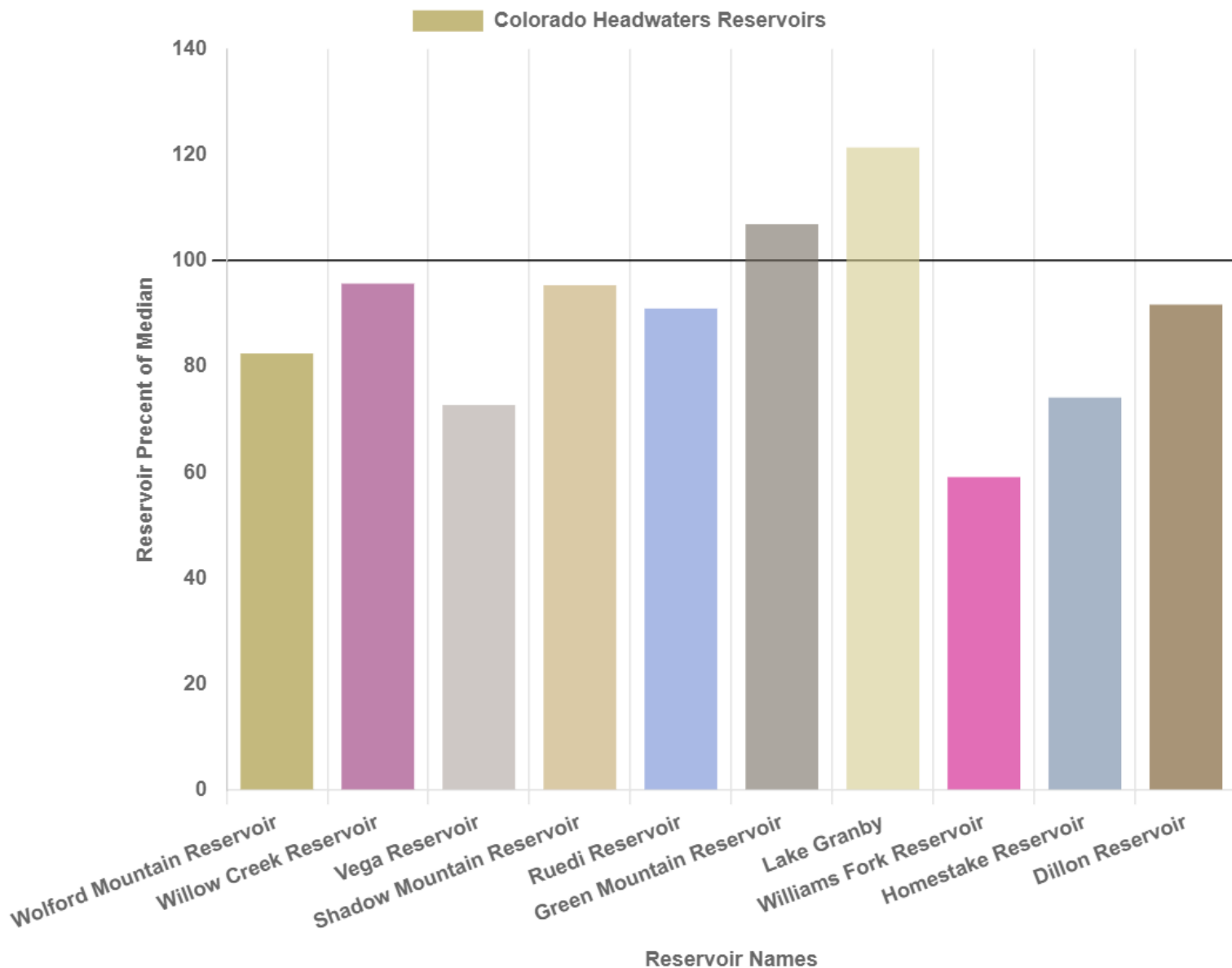
[Link to data: CSV / JSON](#)

[Station List](#)

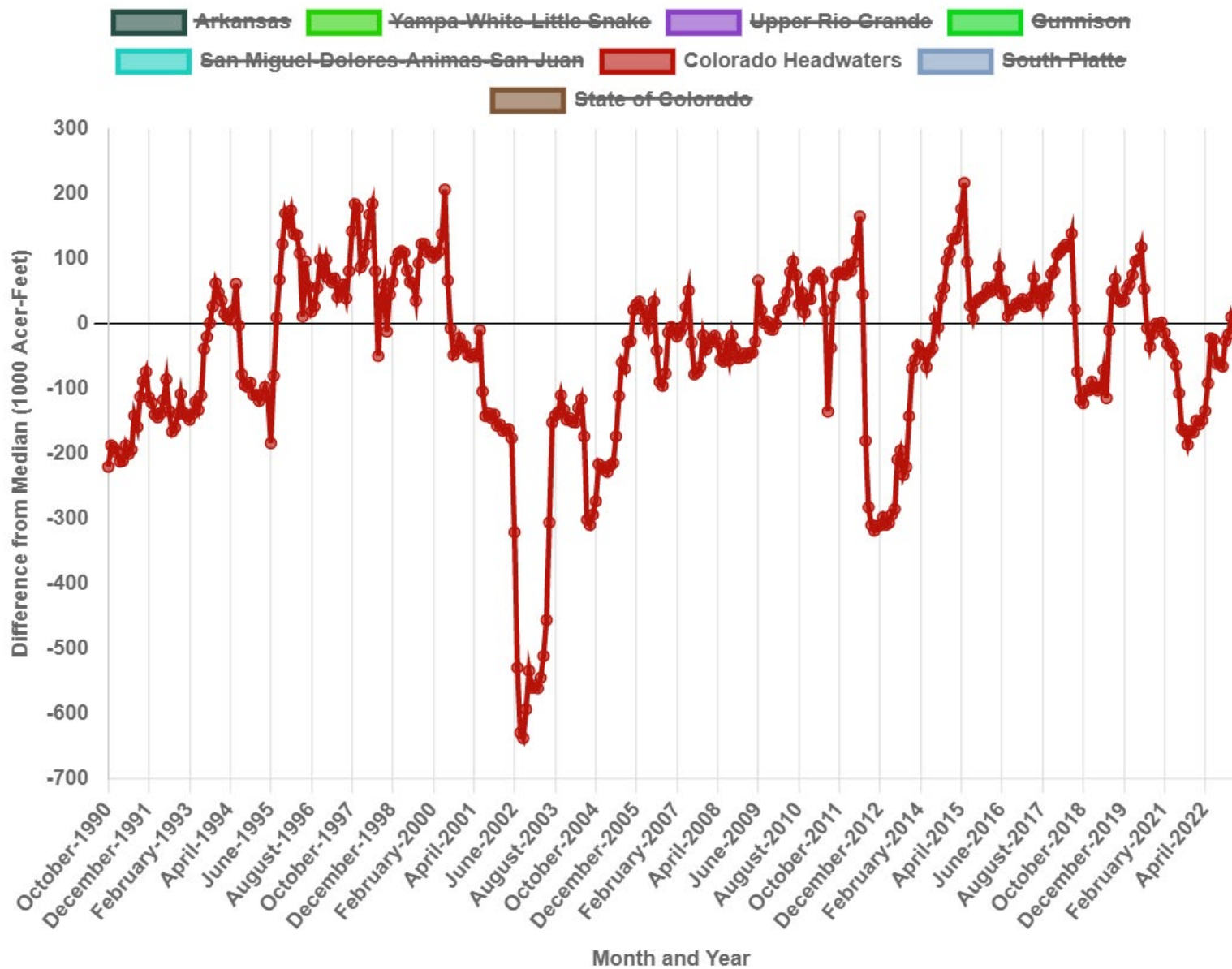
Current as of 02/17/2023:
% of Median - 111%
% of WY Median - 46%
Days Until End of WY - 226
Percentile - 68



Reservoir Conditions for Colorado Headwaters on February 1st 2023

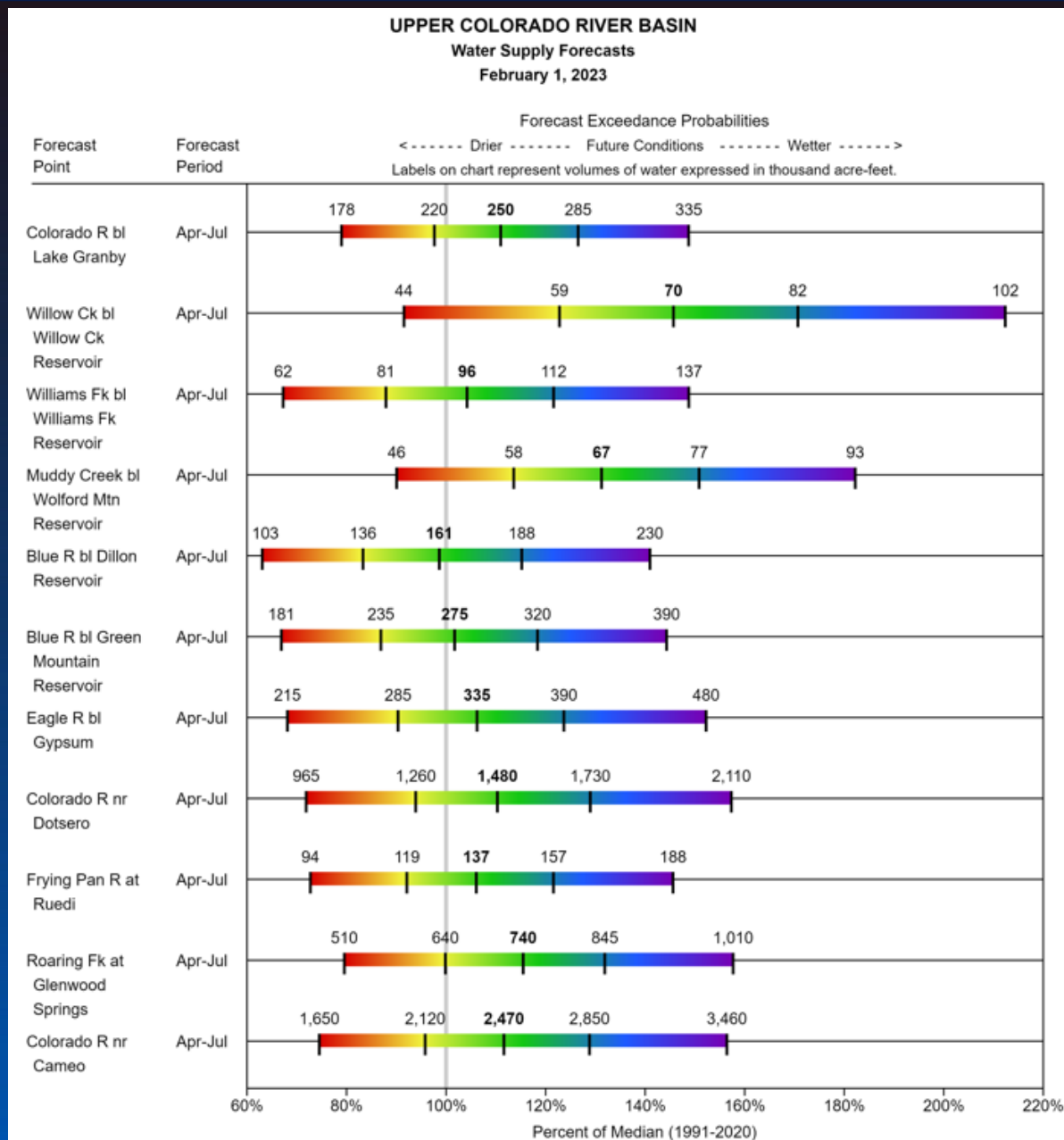


Departure from Median





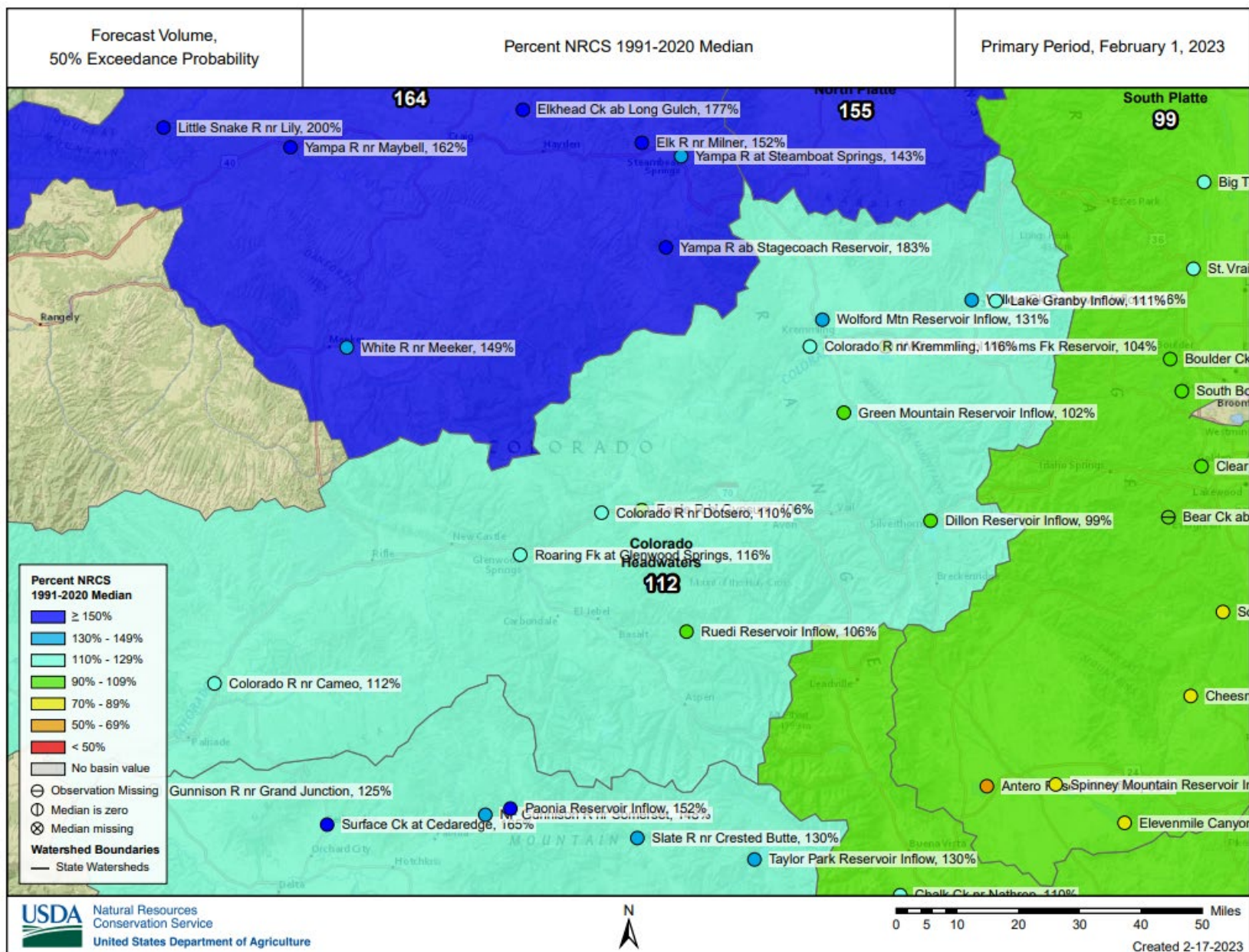
Colorado Snow Surveys





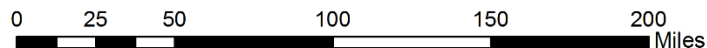
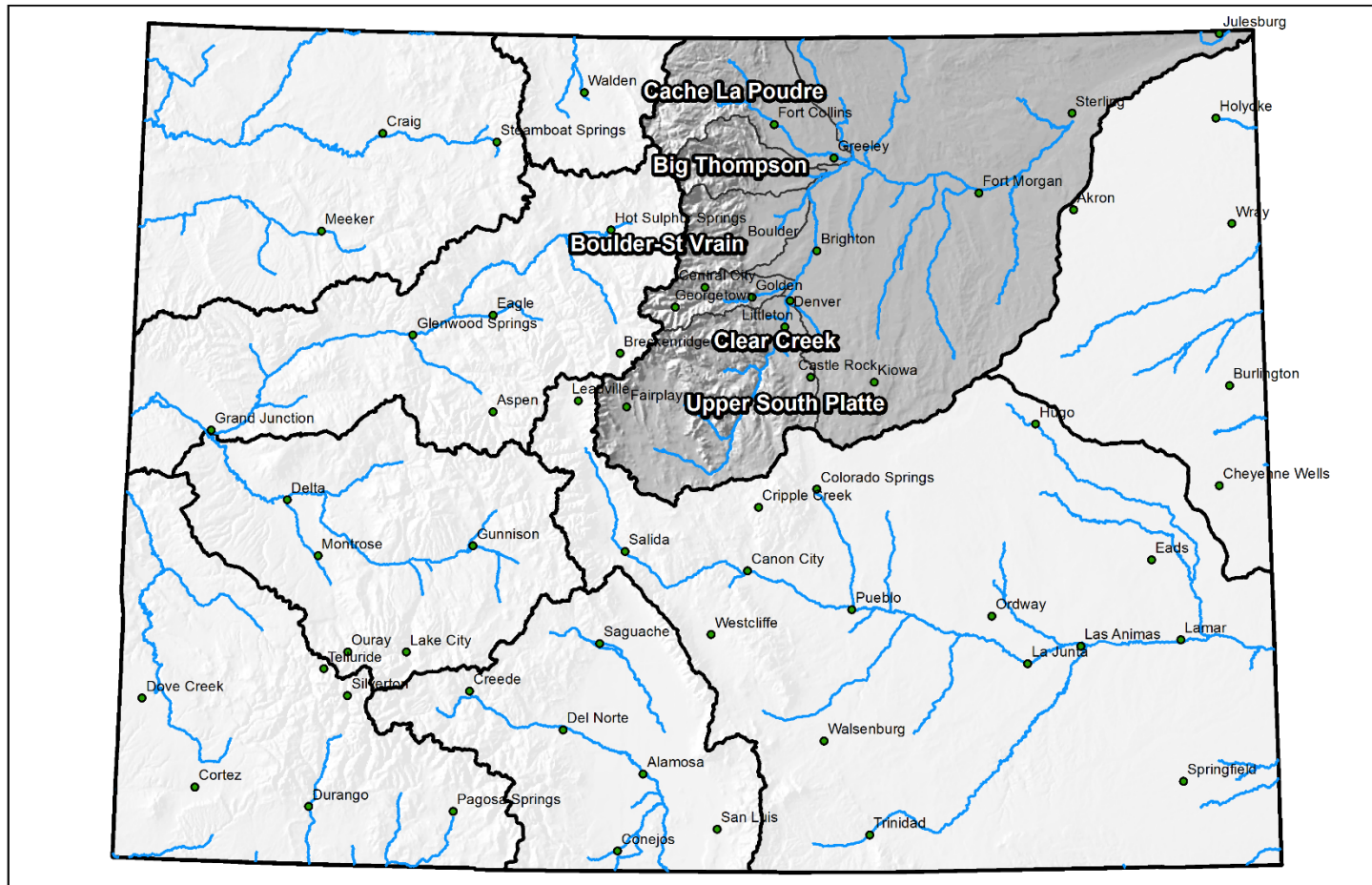
United States Department of Agriculture

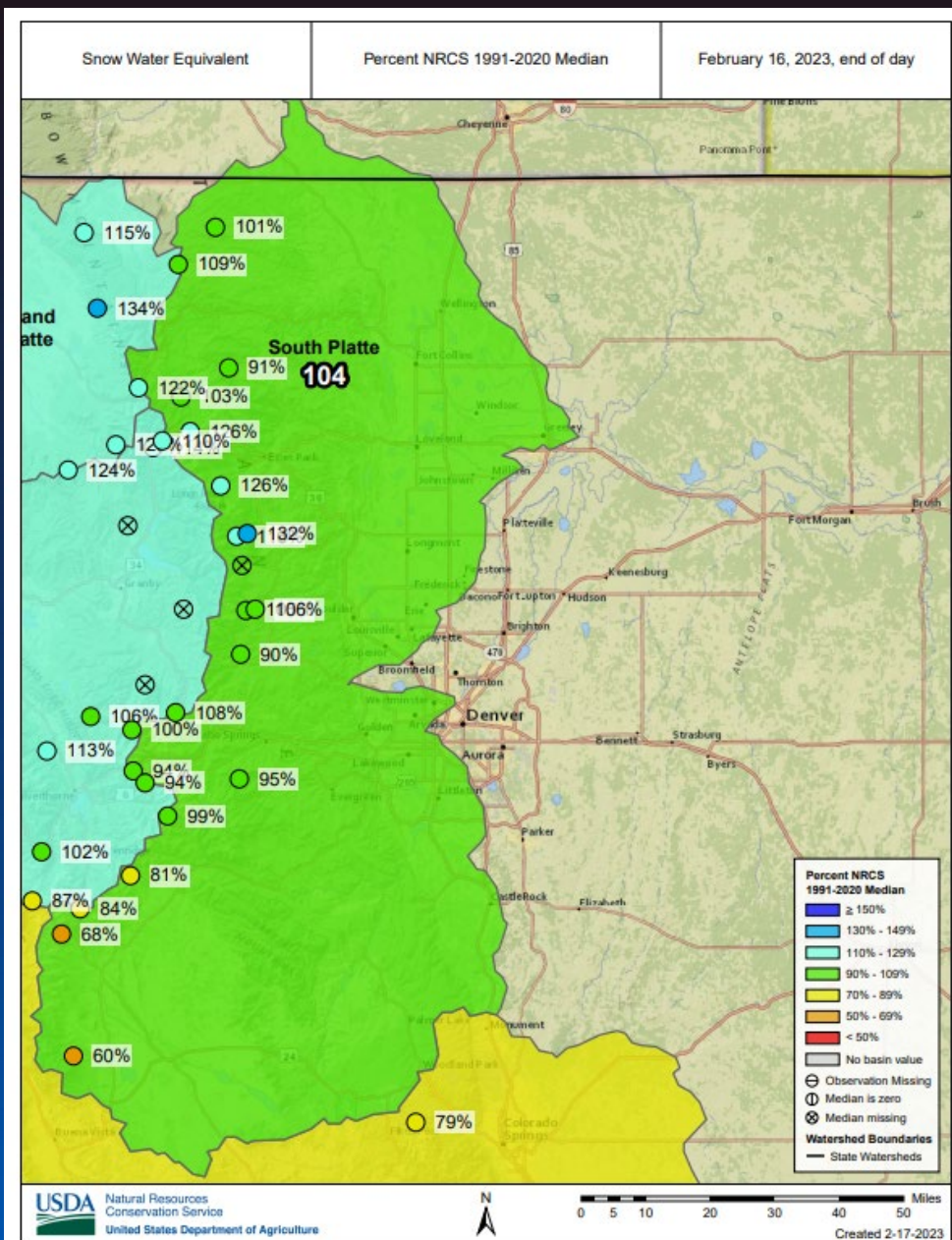
Colorado Snow Surveys



Major Basin Summary

South Platte River Basin







Colorado Snow Surveys

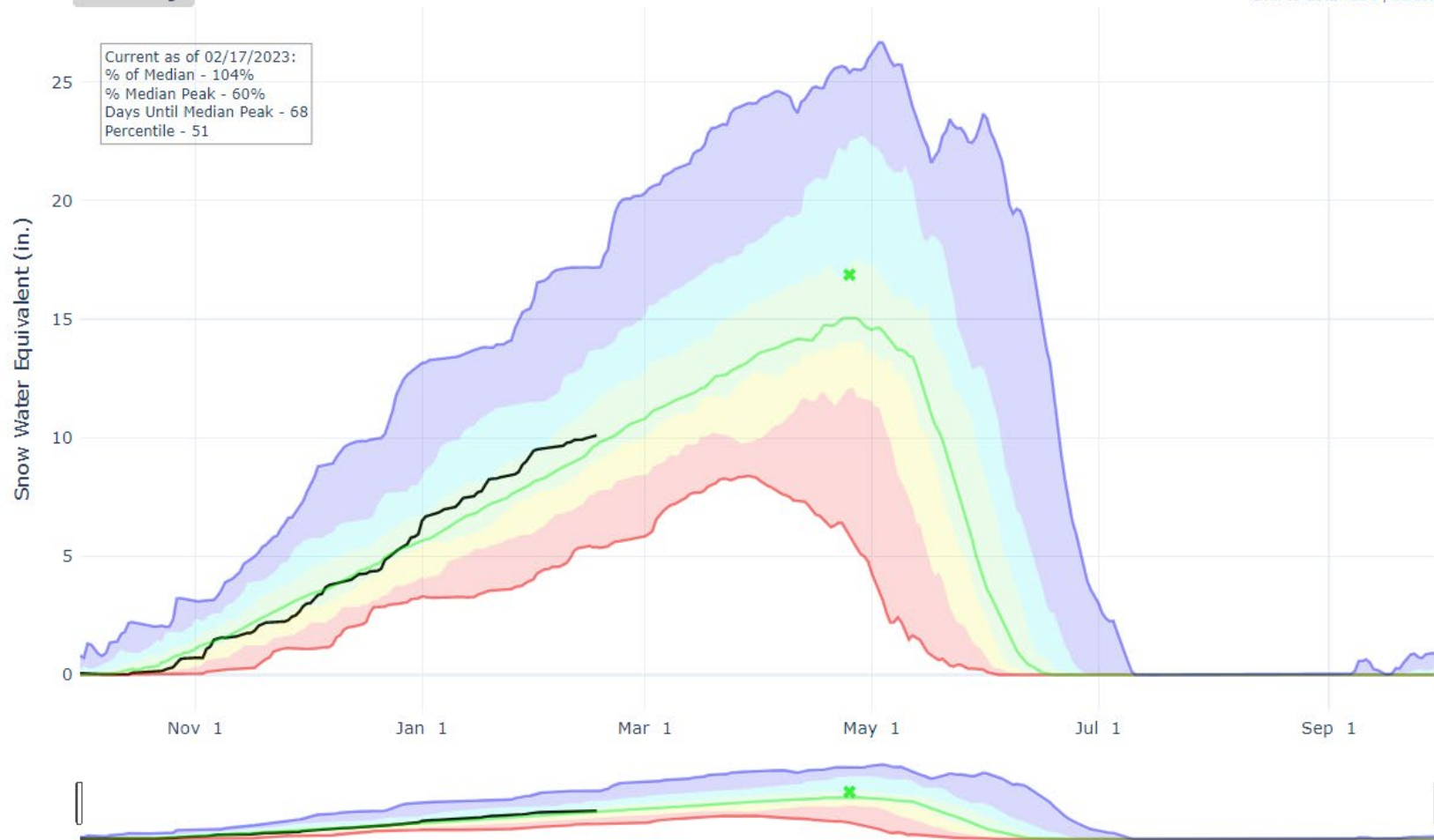
SNOW WATER EQUIVALENT IN SOUTH PLATTE

Reset Range

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

[Station List](#)

Current as of 02/17/2023:
% of Median - 104%
% Median Peak - 60%
Days Until Median Peak - 68
Percentile - 51



- ✕ Median Peak SWE
- 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)





Colorado Snow Surveys

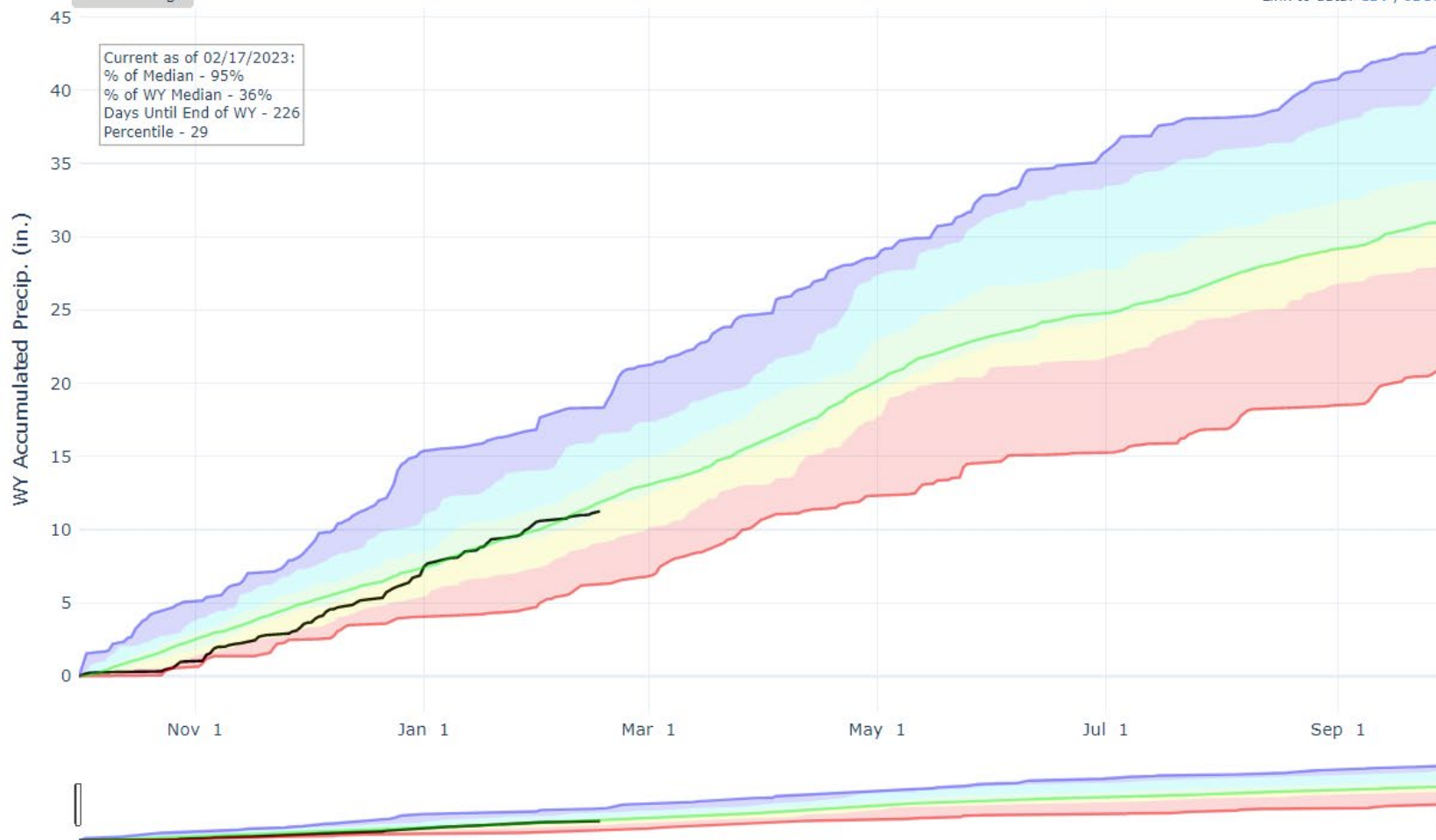
PRECIPITATION IN SOUTH PLATTE

Reset Range

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

[Station List](#)

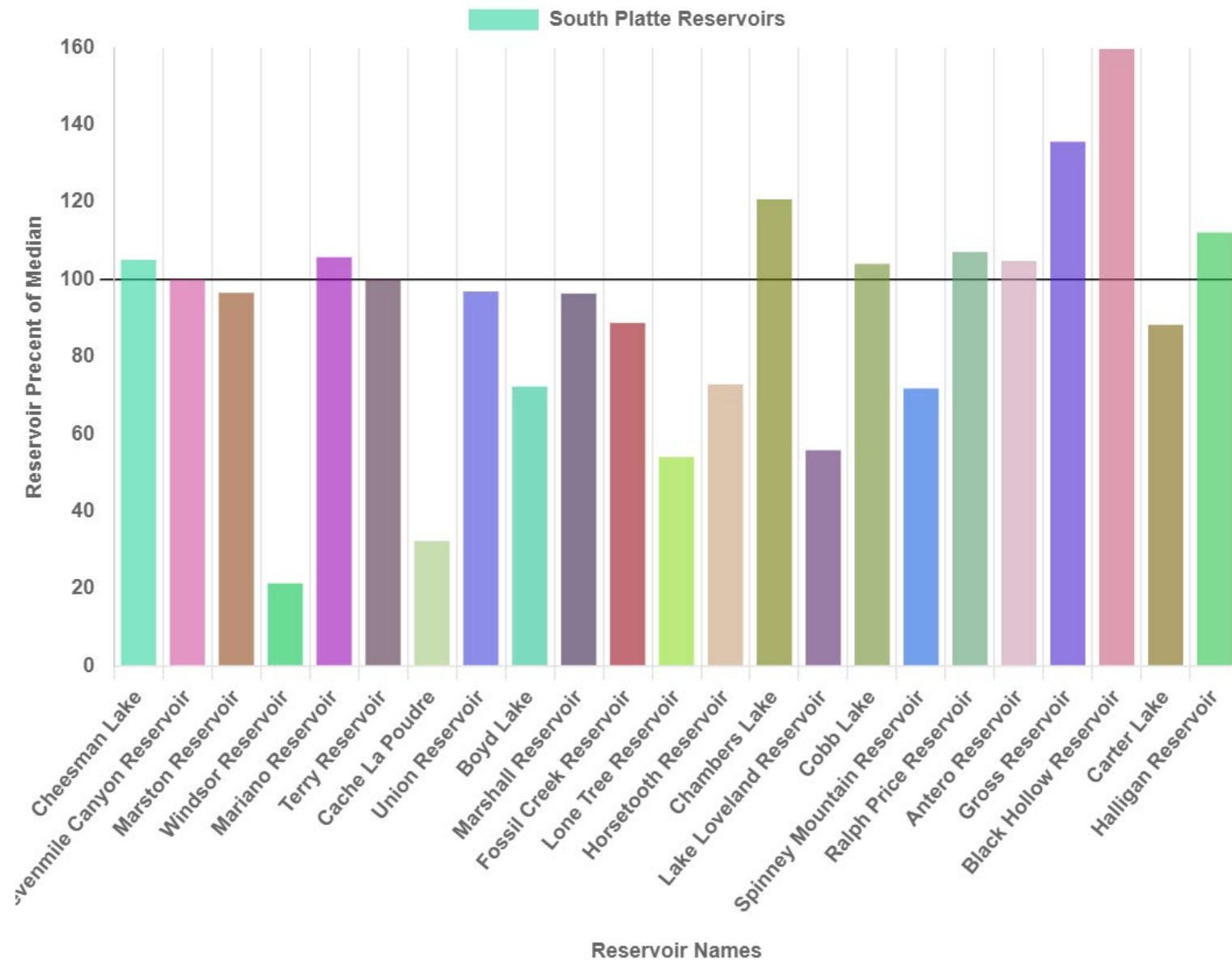
Current as of 02/17/2023:
% of Median - 95%
% of WY Median - 36%
Days Until End of WY - 226
Percentile - 29

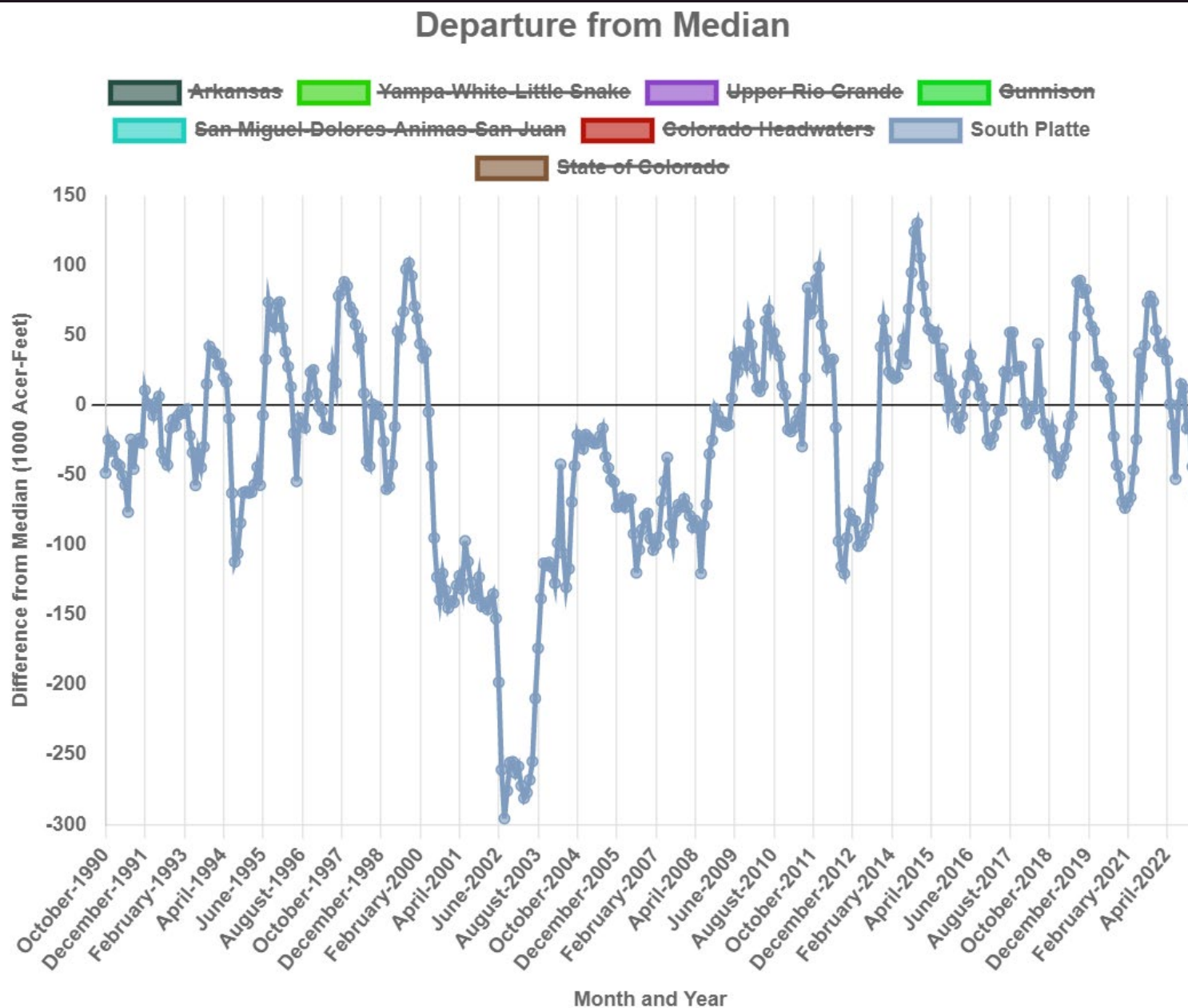


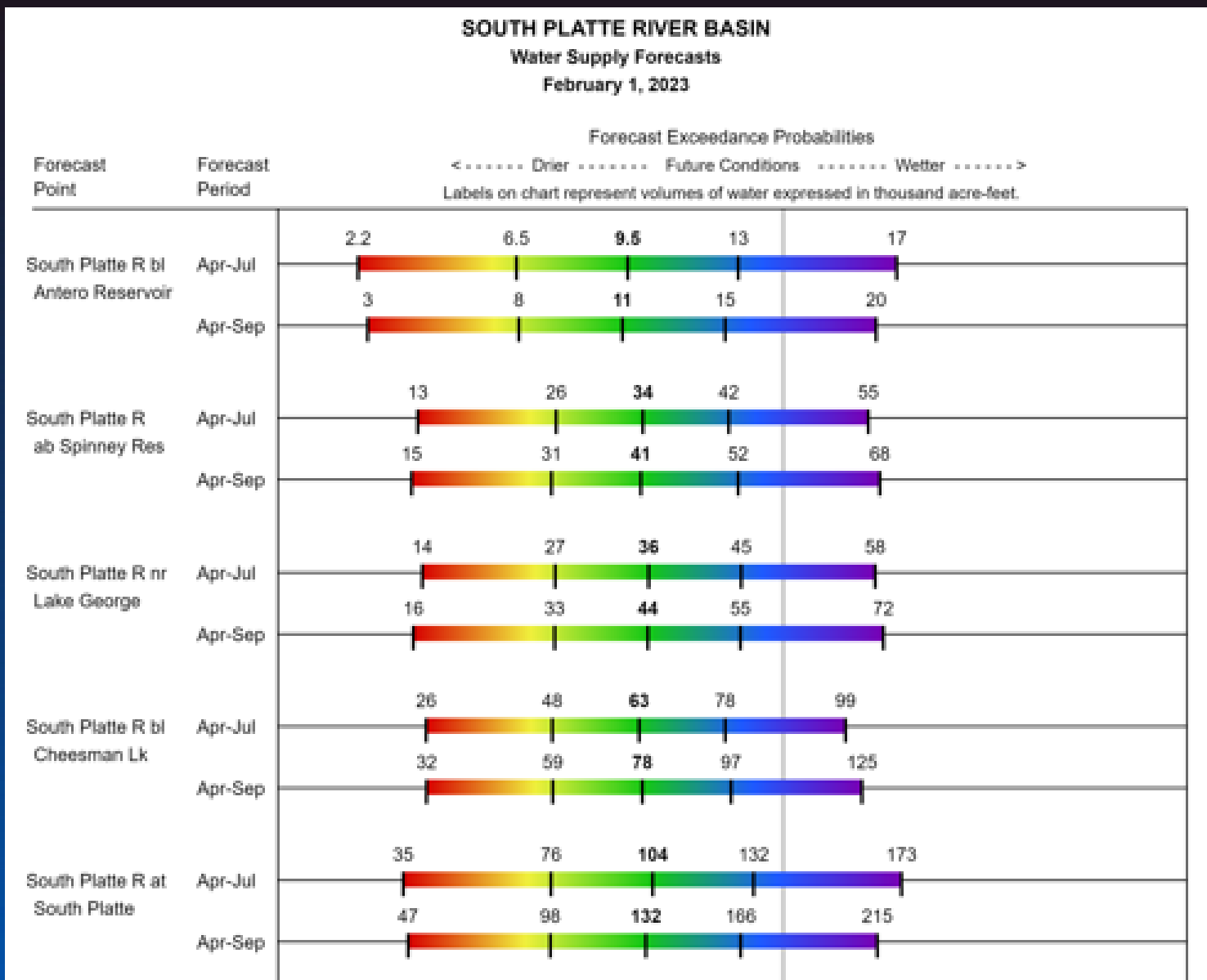
- Max
- Median (POR)
- Median ('91-'20)
- Min
- Stats. Shading
- 2023 (21 sites)
- 2022 (21 sites)
- 2021 (21 sites)
- 2020 (21 sites)
- 2019 (21 sites)
- 2018 (21 sites)
- 2017 (21 sites)
- 2016 (21 sites)
- 2015 (21 sites)
- 2014 (21 sites)
- 2013 (21 sites)
- 2012 (21 sites)
- 2011 (21 sites)
- 2010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



Reservoir Conditions for South Platte on February 1st 2023

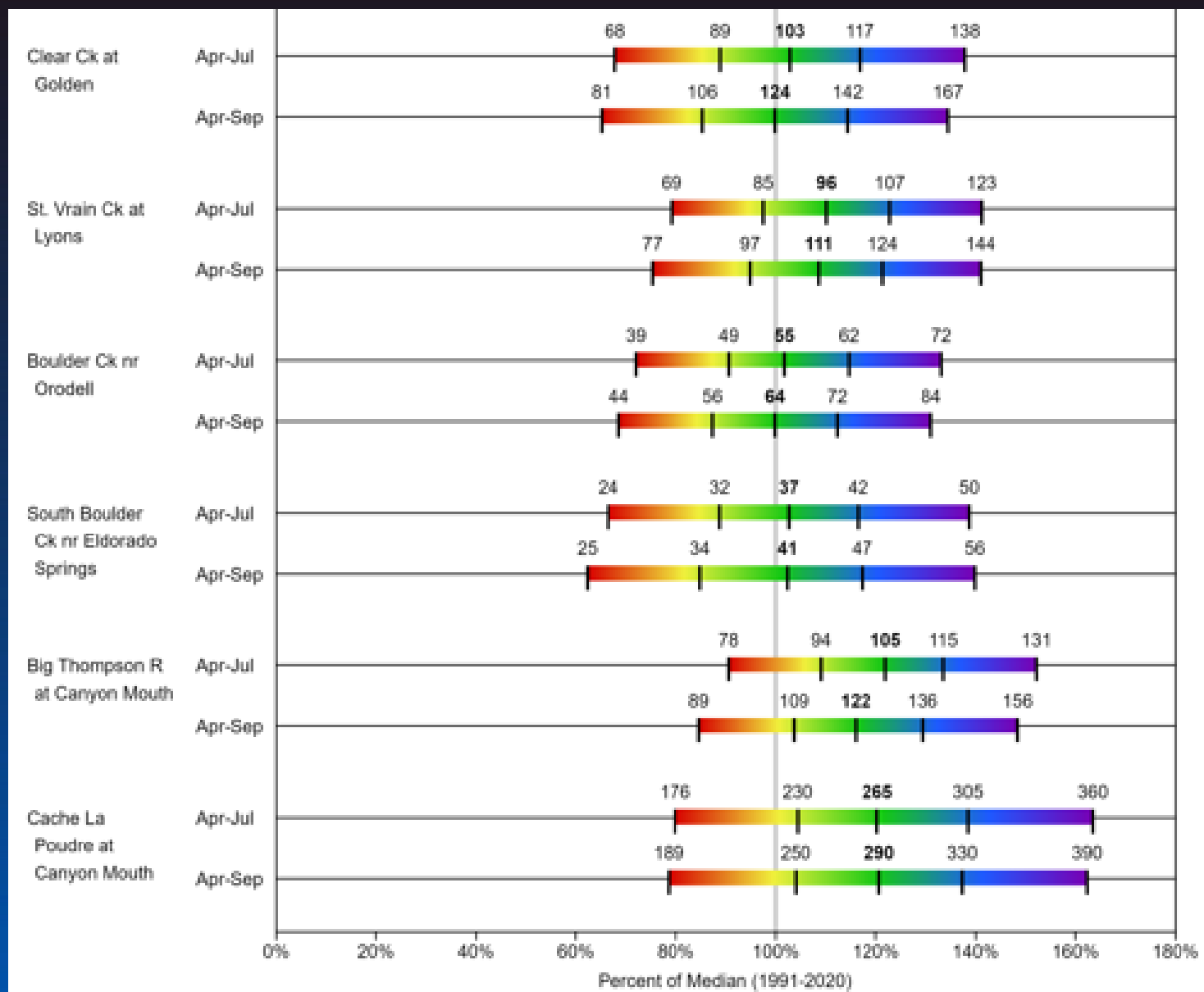


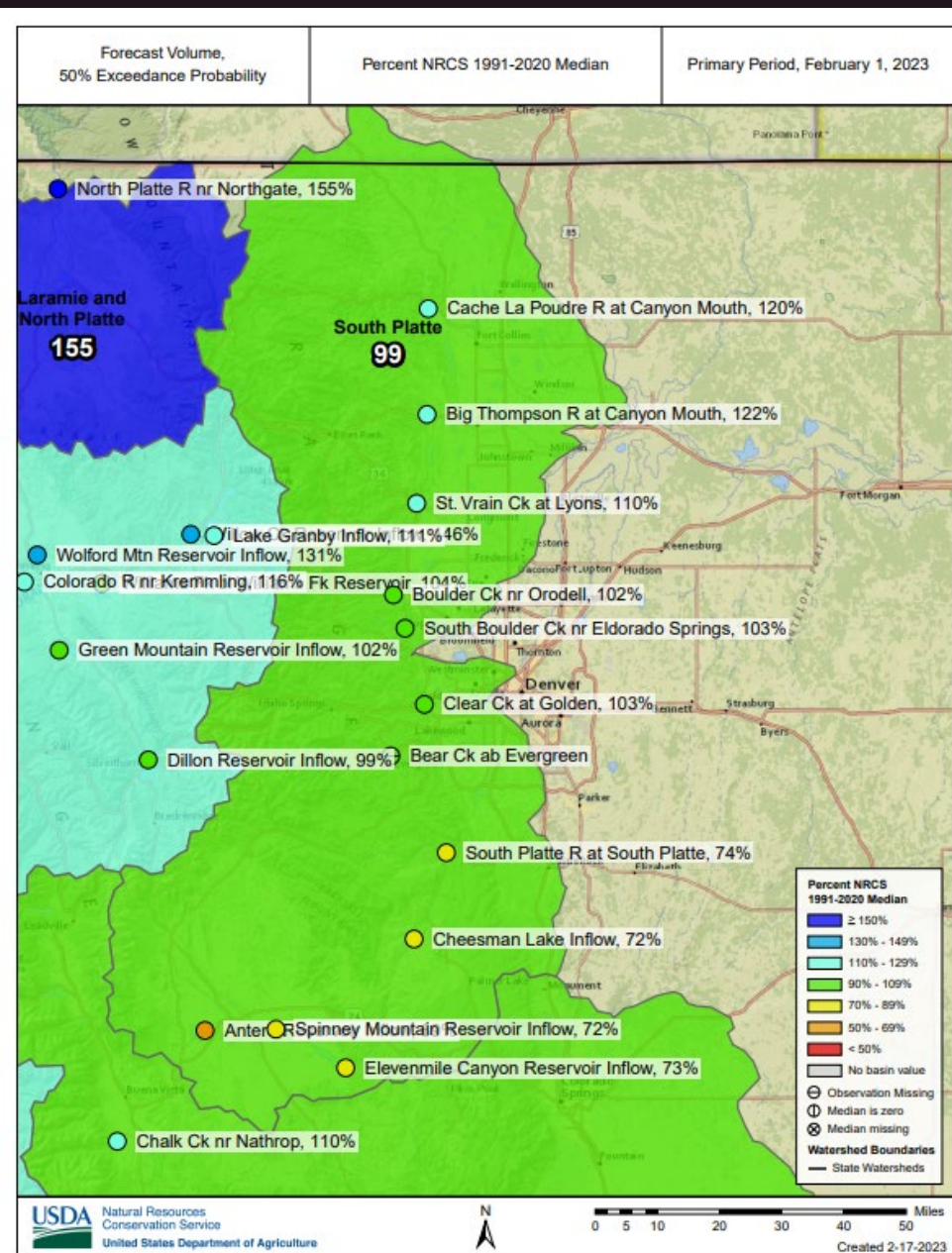






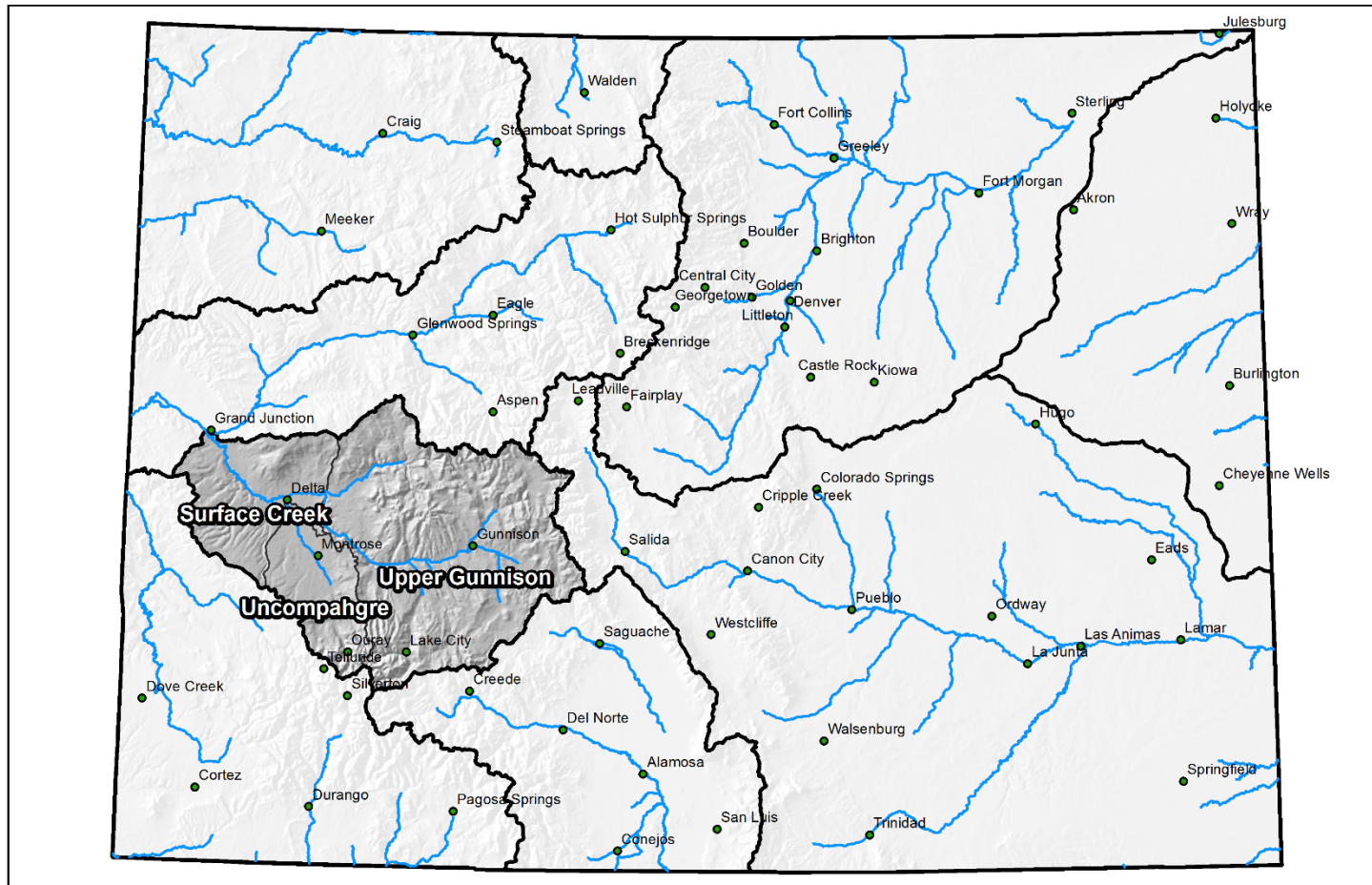
Colorado Snow Surveys





Major Basin Summary

Gunnison River Basin

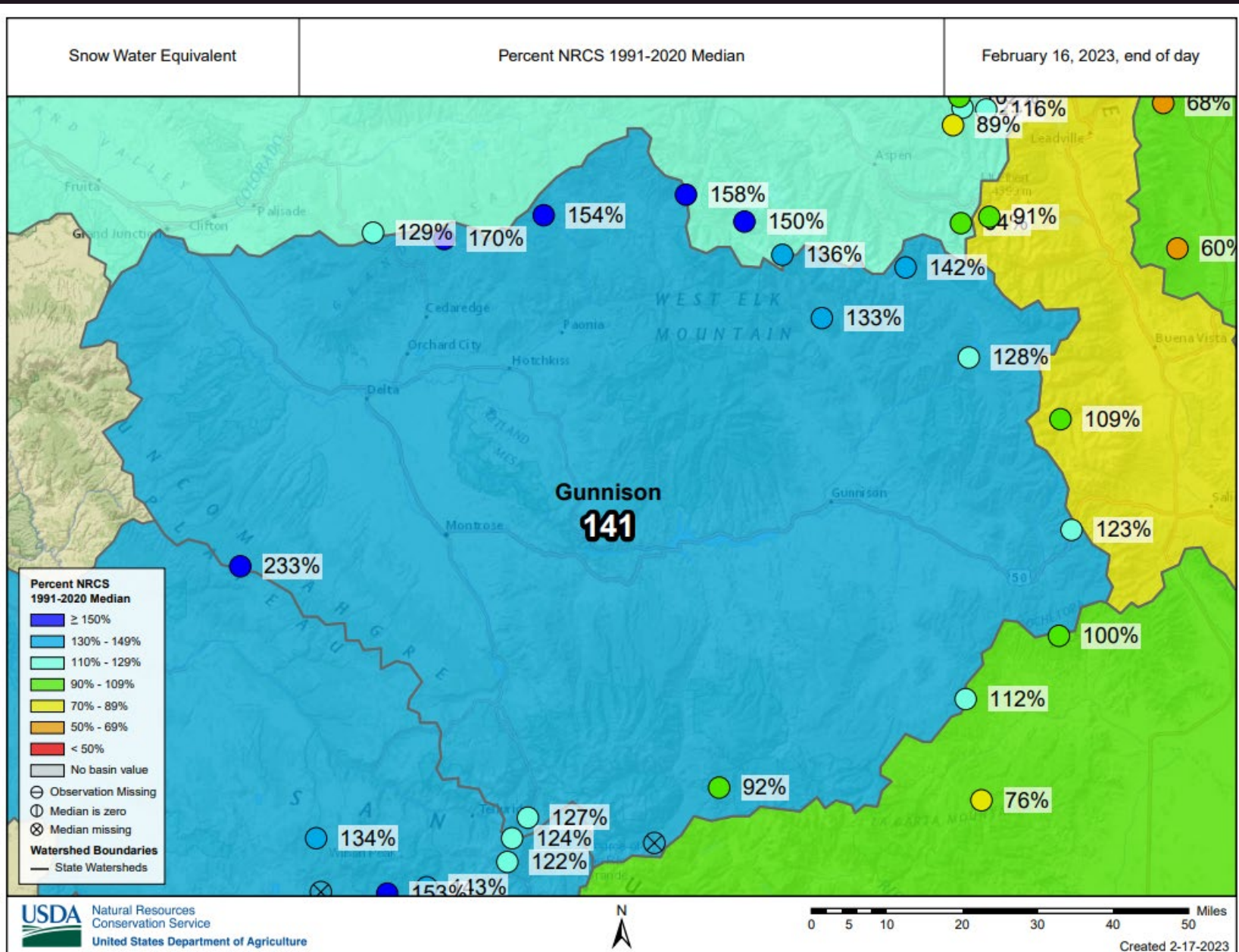


0 25 50 100 150 200 Miles



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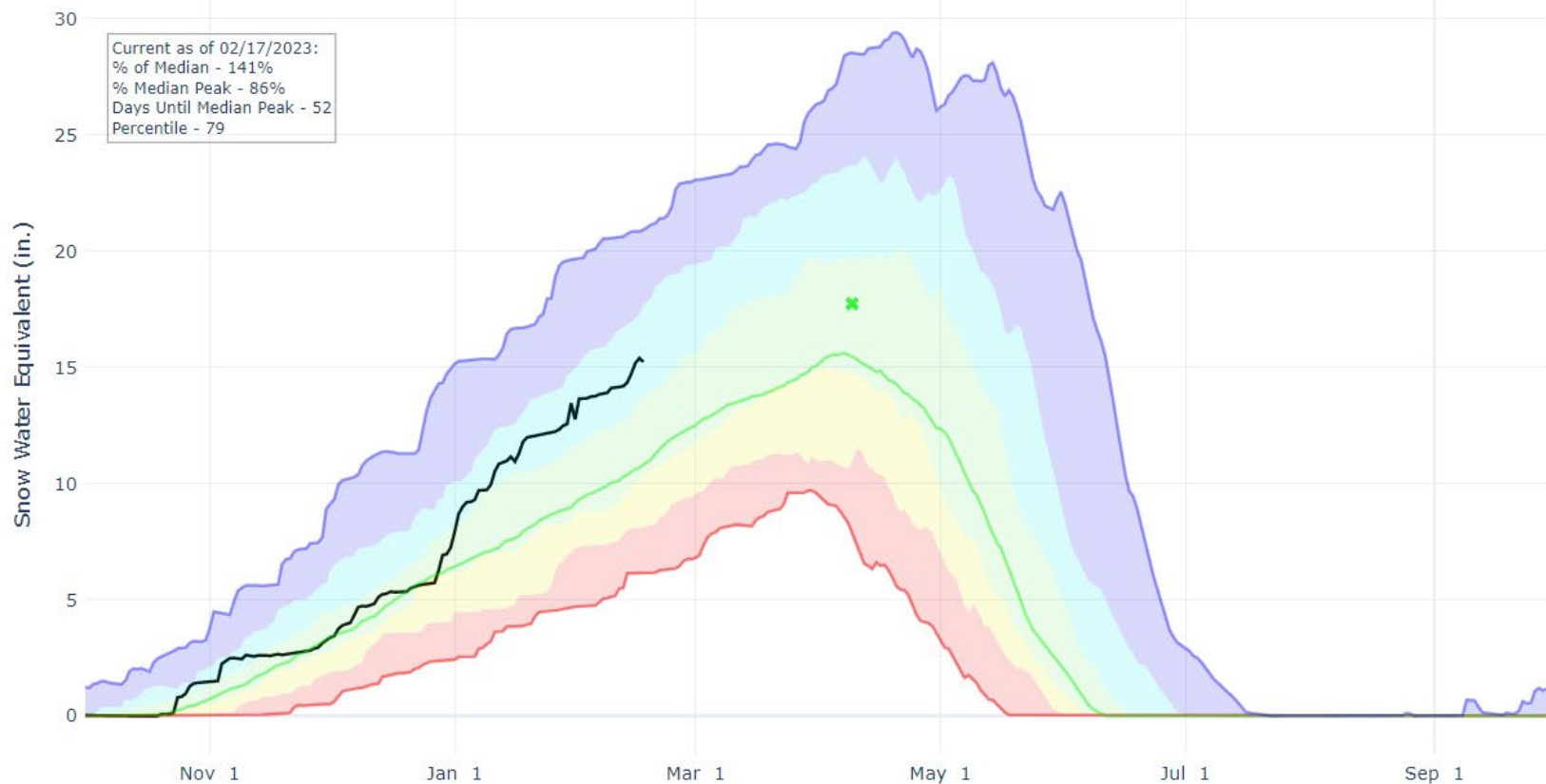
SNOW WATER EQUIVALENT IN GUNNISON

Reset Range

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

[Station List](#)

Current as of 02/17/2023:
% of Median - 141%
% Median Peak - 86%
Days Until Median Peak - 52
Percentile - 79



- ✖ Median Peak SWE
- 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)





Colorado Snow Surveys

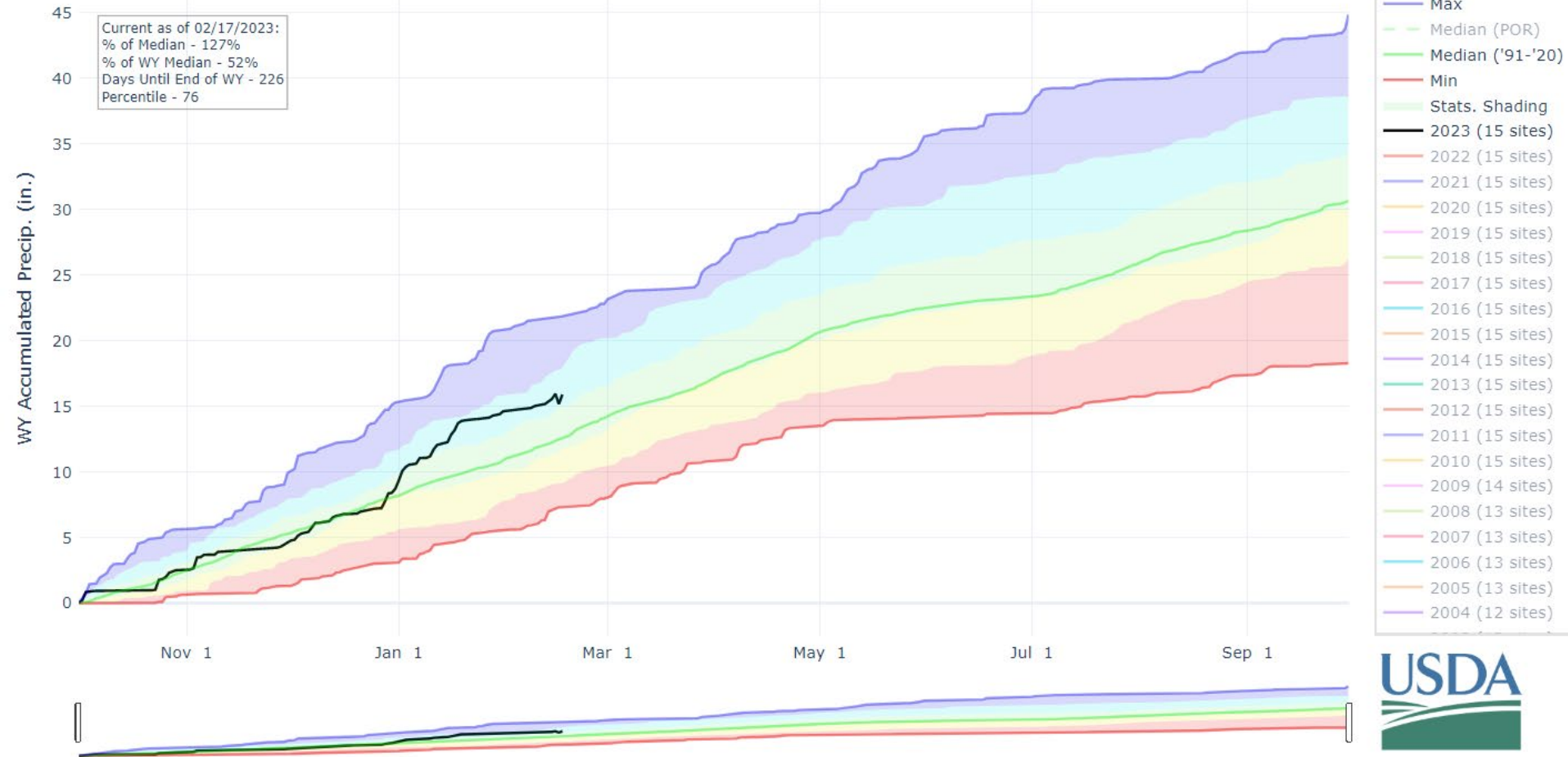
PRECIPITATION IN GUNNISON

Reset Range

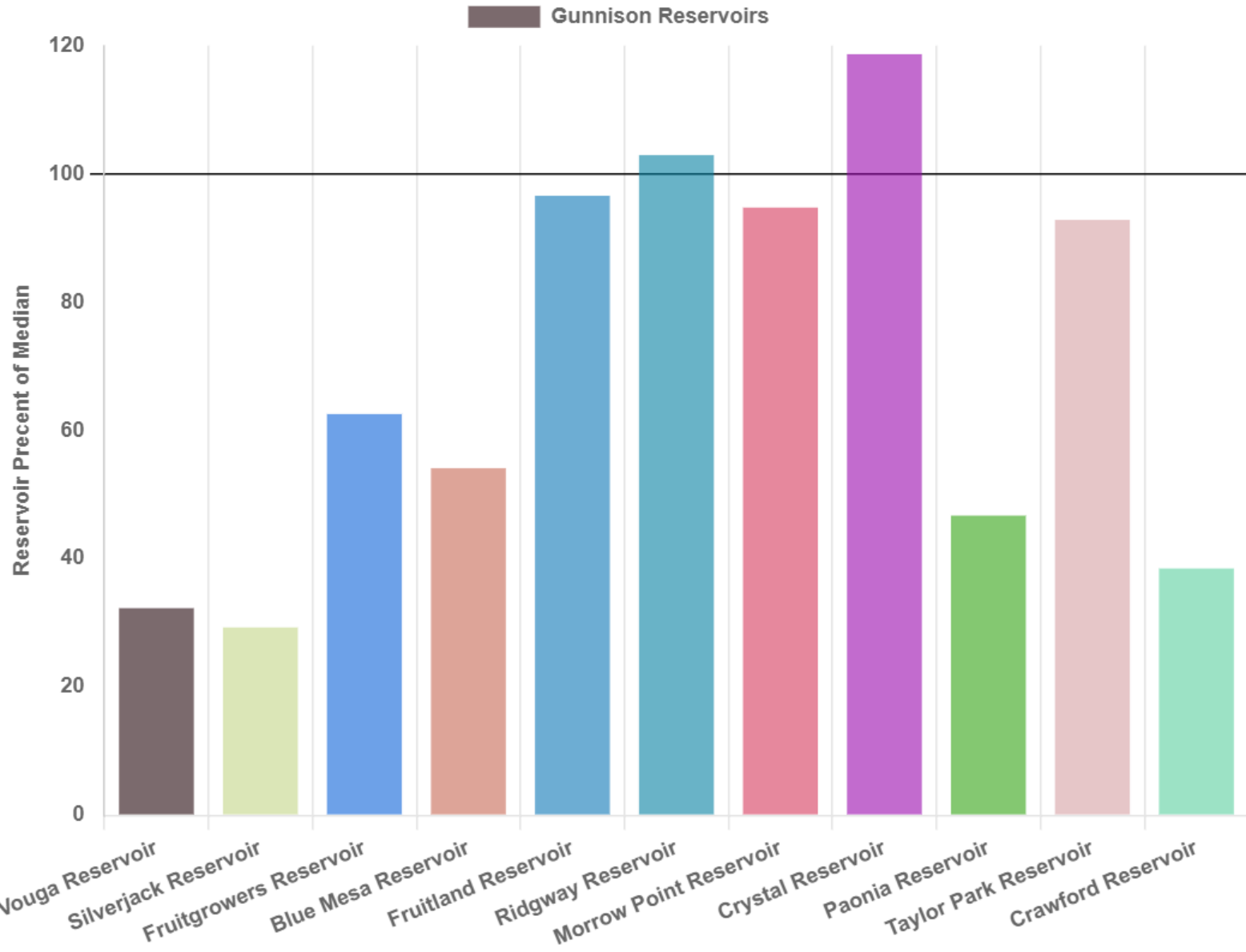
[Link to data: CSV / JSON](#)

[Station List](#)

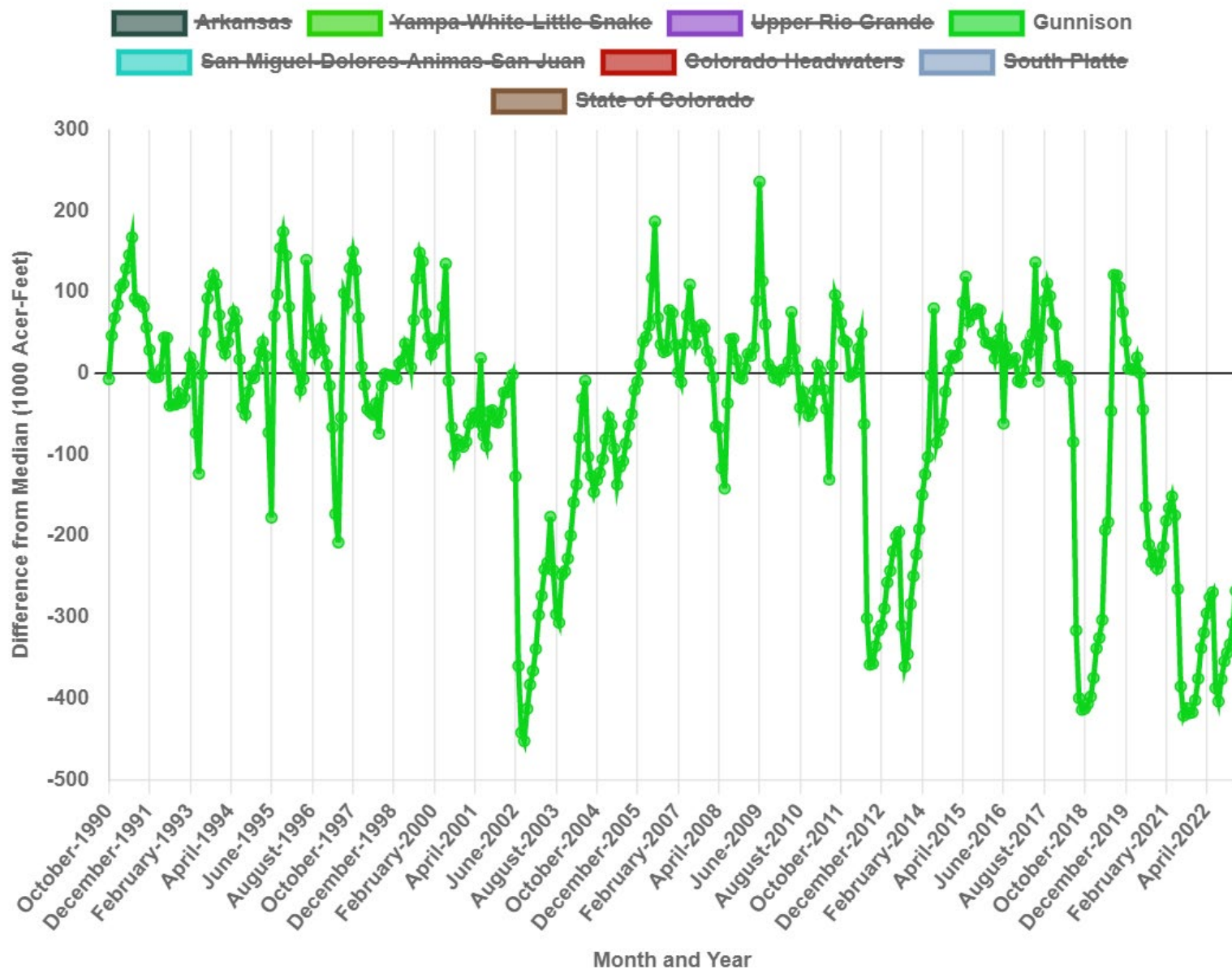
Current as of 02/17/2023:
% of Median - 127%
% of WY Median - 52%
Days Until End of WY - 226
Percentile - 76

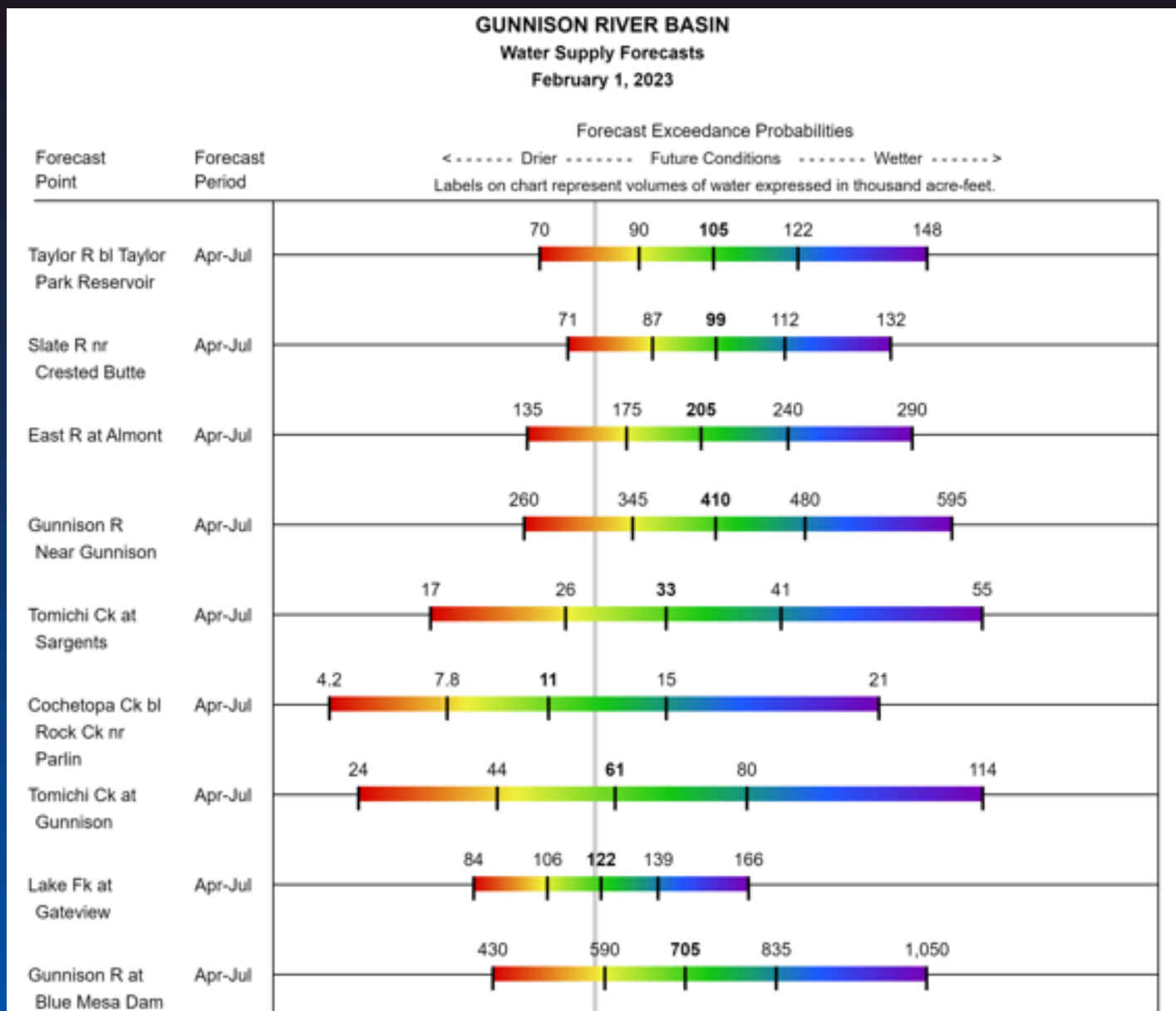


Reservoir Conditions for Gunnison on February 1st 2023

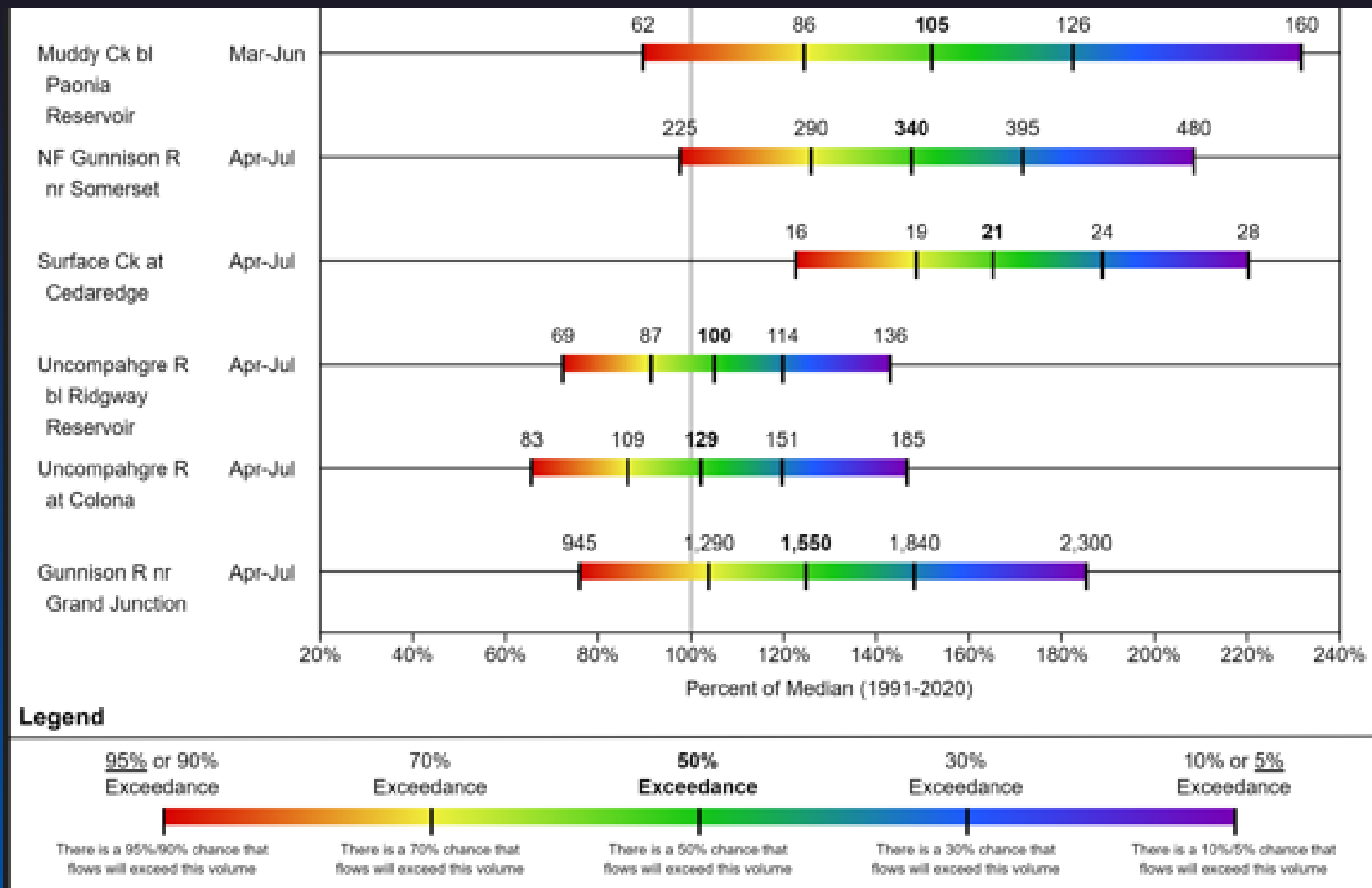


Departure from Median

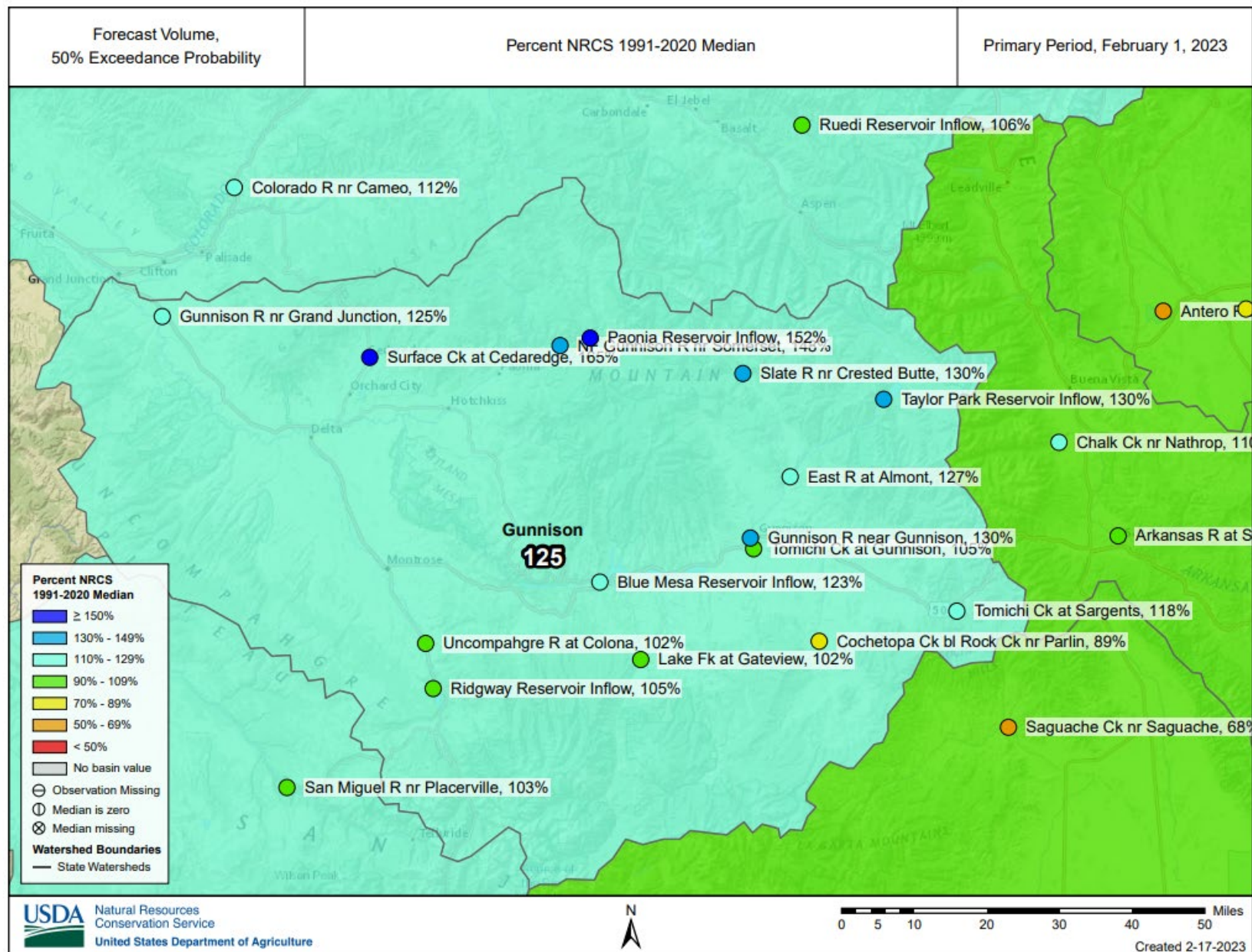




Colorado Snow Surveys

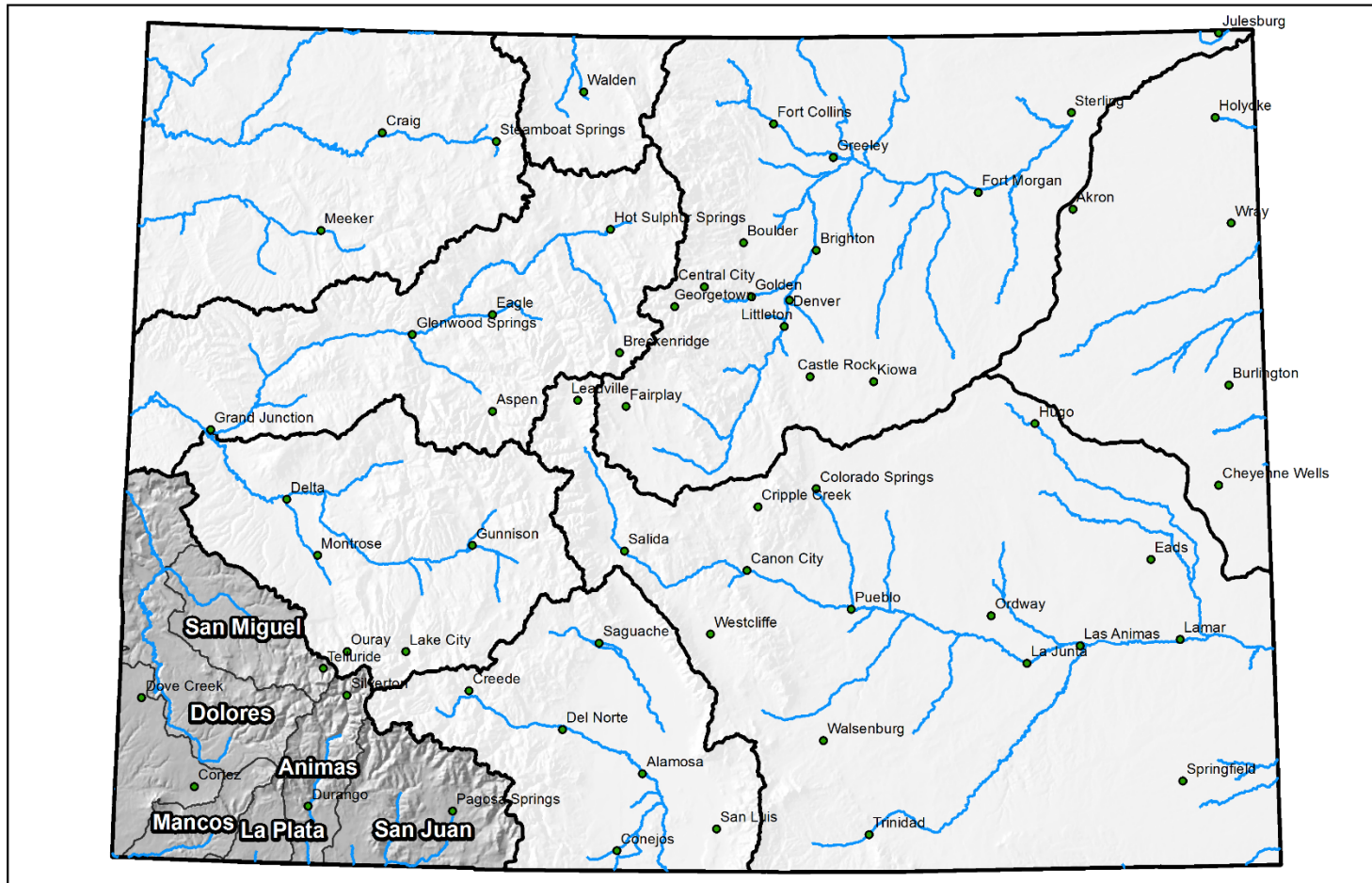


Colorado Snow Surveys



Major Basin Summary

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



0 25 50 100 150 200 Miles



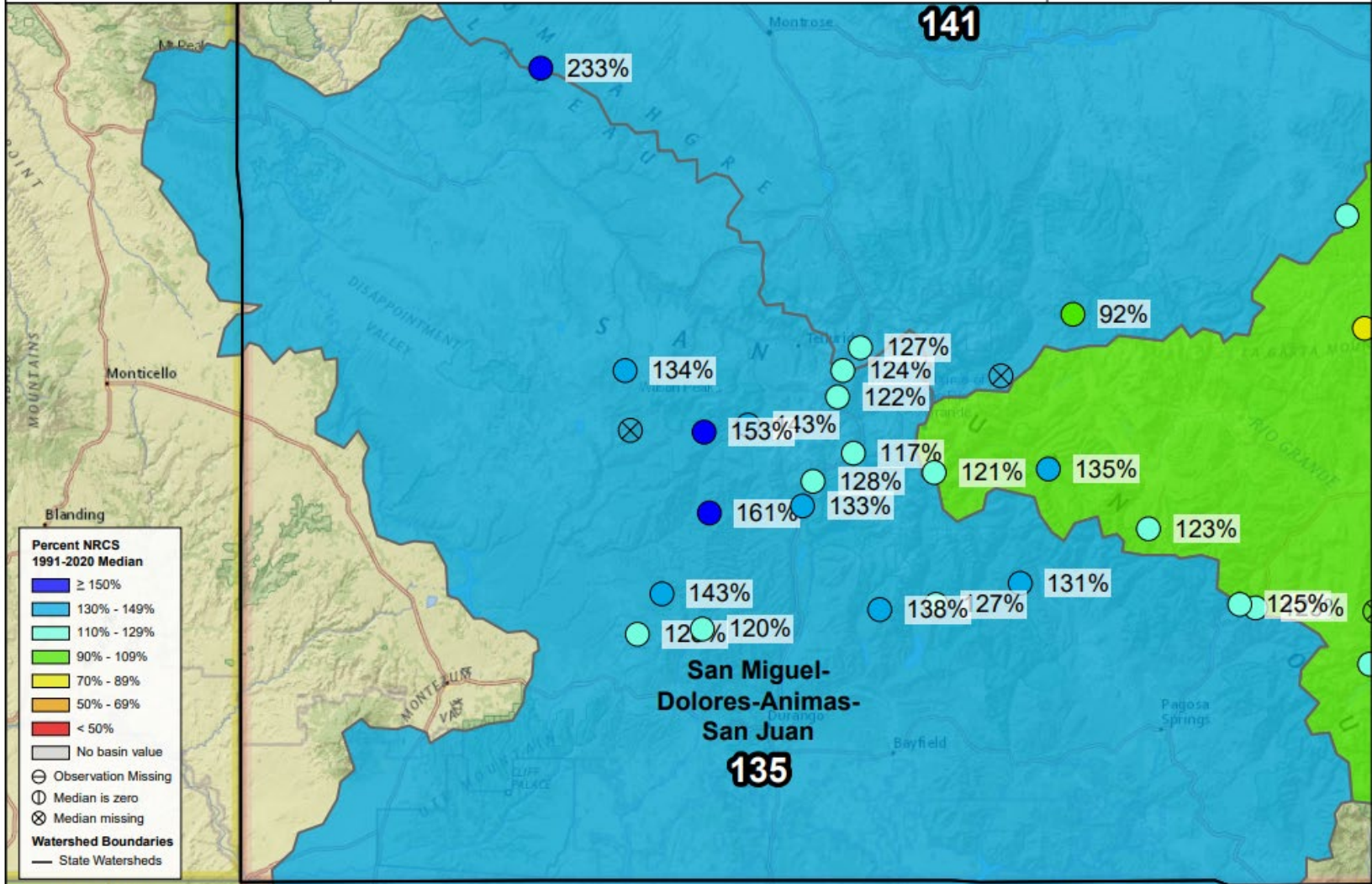
United States Department of Agriculture

Colorado Snow Surveys

Snow Water Equivalent

Percent NRCS 1991-2020 Median

February 16, 2023, end of day





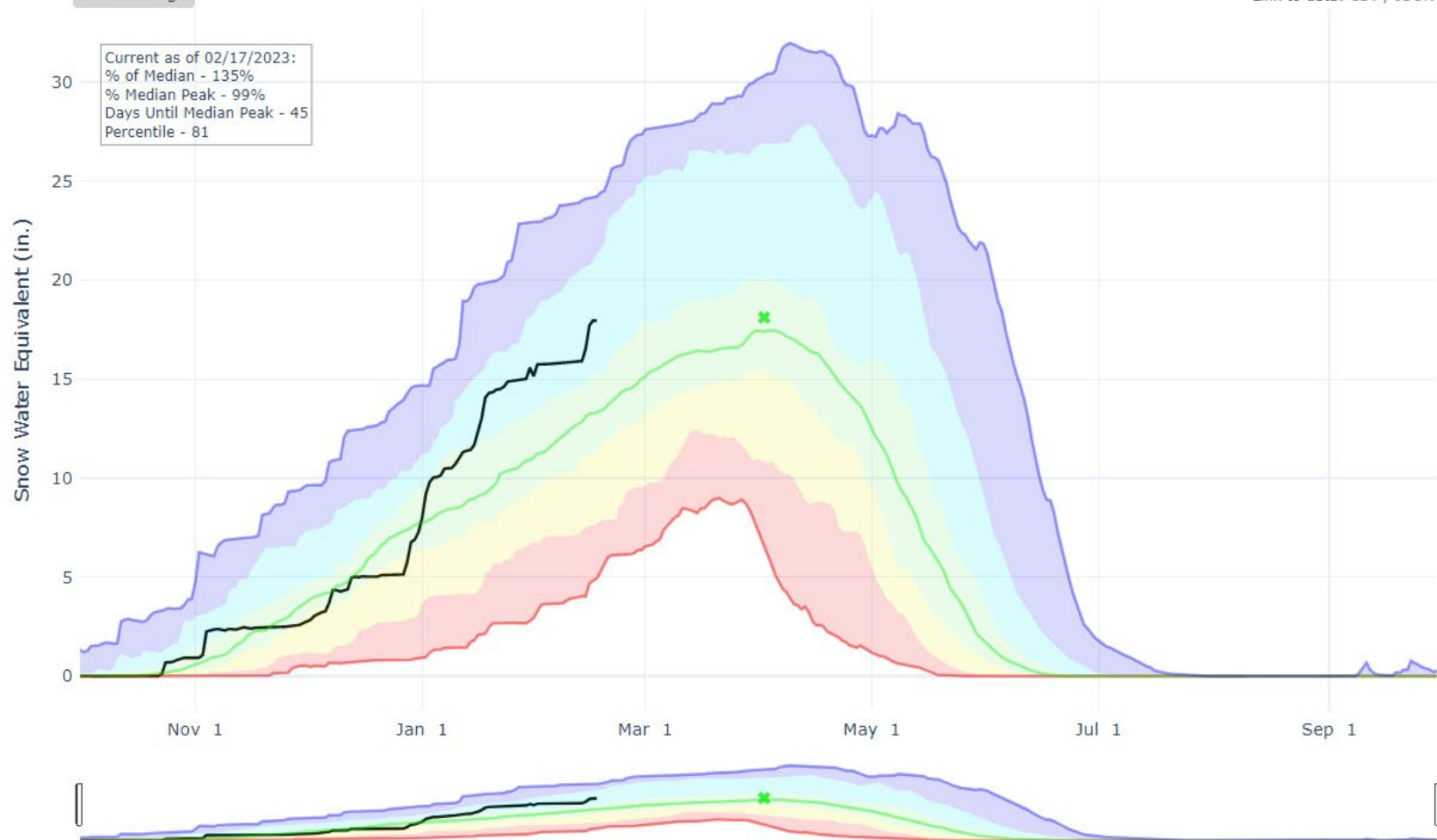
SNOW WATER EQUIVALENT IN SAN MIGUEL-DOLORES-ANIMAS-SAN JUAN

Reset Range

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

[Station List](#)

Current as of 02/17/2023:
% of Median - 135%
% Median Peak - 99%
Days Until Median Peak - 45
Percentile - 81



- ✖ Median Peak SWE
- 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)





Colorado Snow Surveys

PRECIPITATION IN SAN MIGUEL-DOLORES-ANIMAS-SAN JUAN

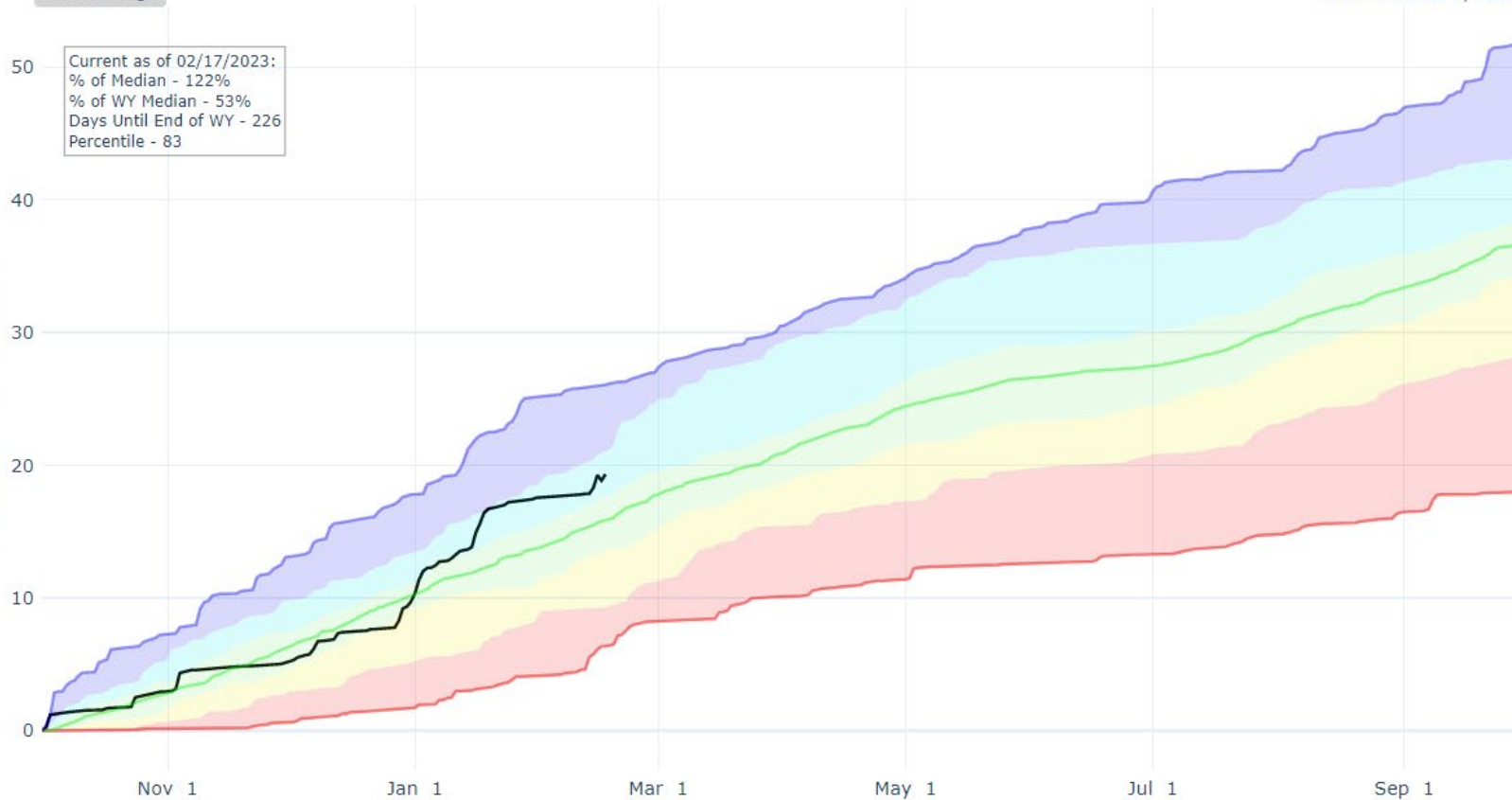
Reset Range

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

[Station List](#)

Current as of 02/17/2023:
% of Median - 122%
% of WY Median - 53%
Days Until End of WY - 226
Percentile - 83

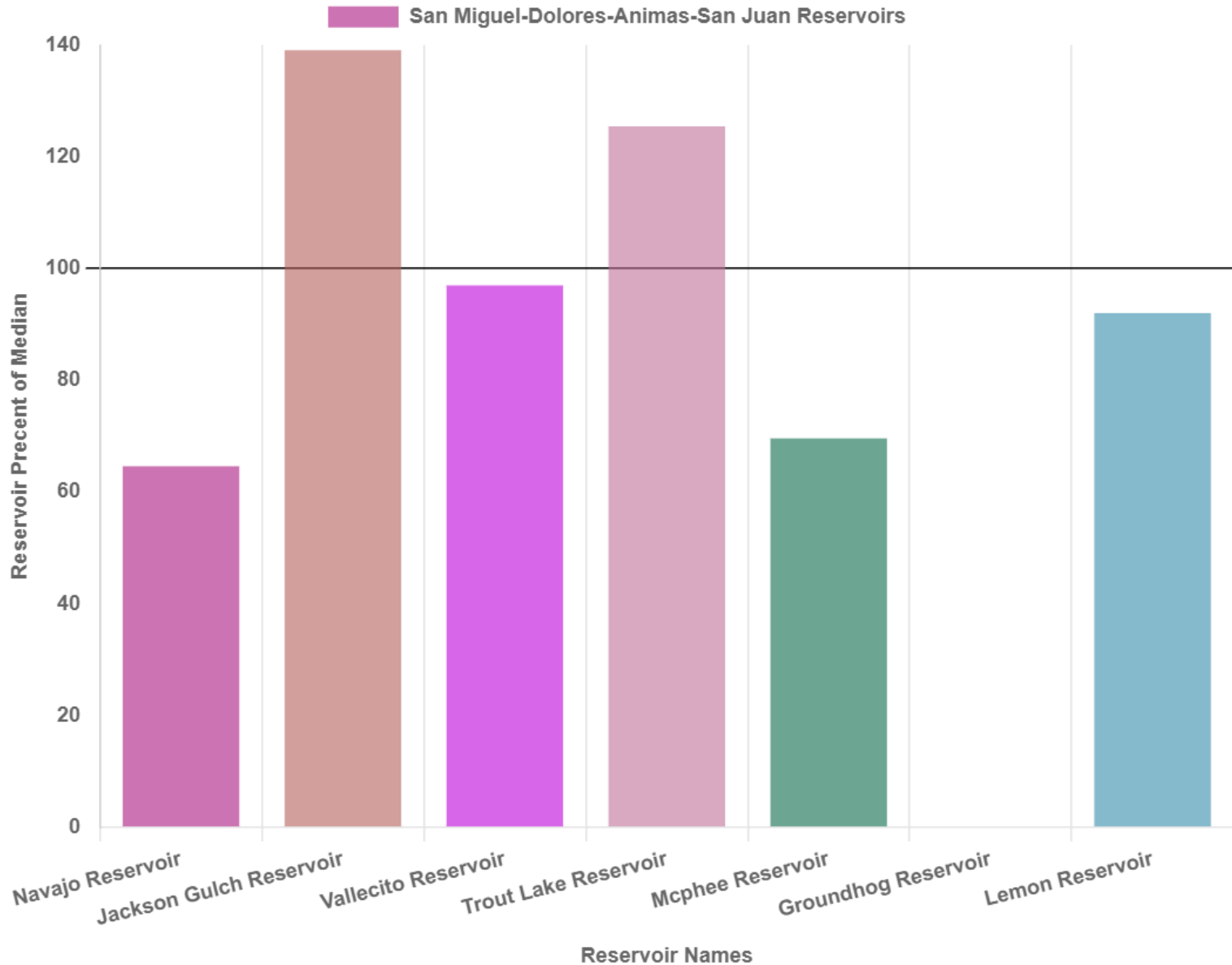
WY Accumulated Precip. (in.)

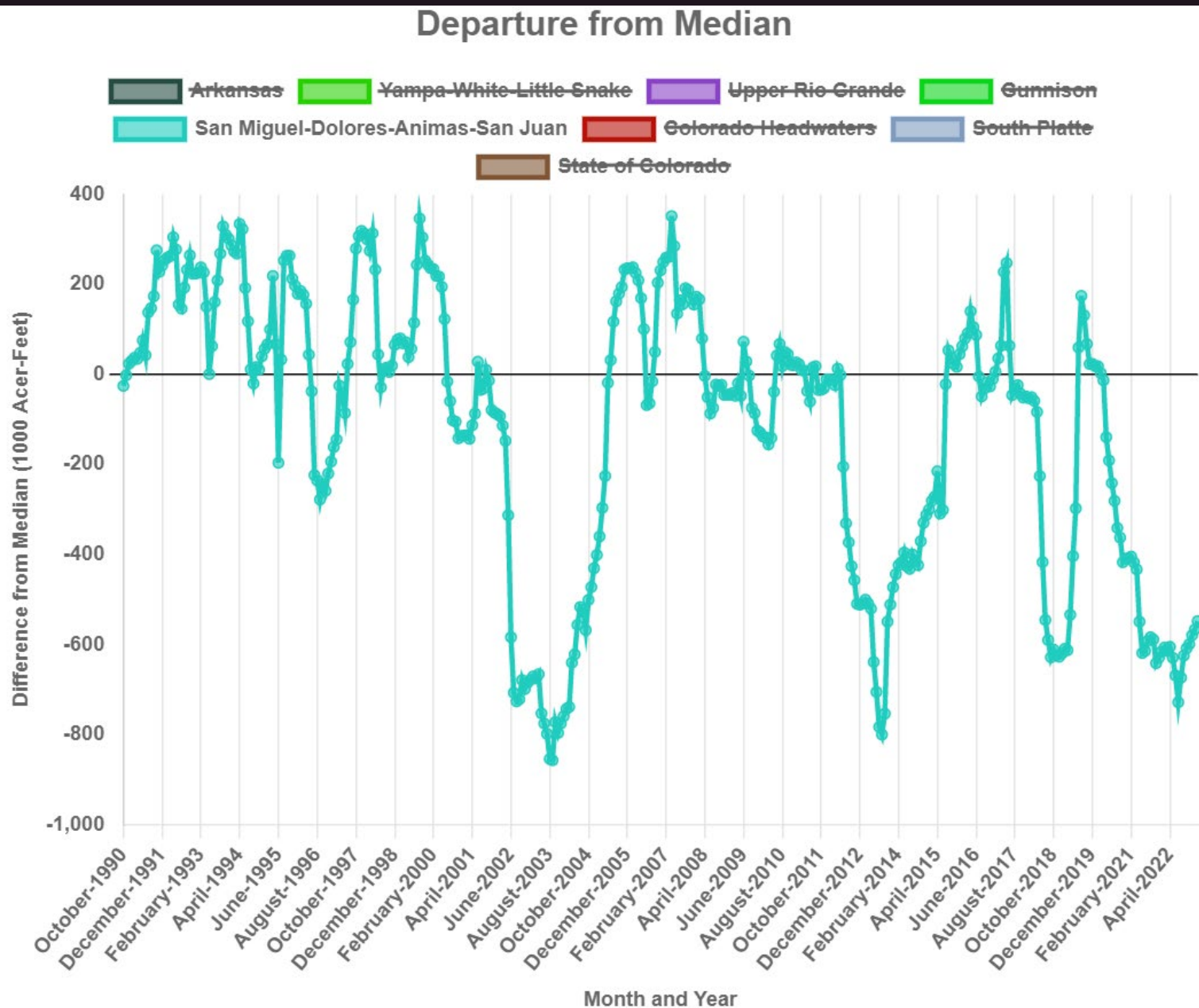


- Max
- Median (POR)
- Median ('91-'20)
- Min
- Stats. Shading
- 2023 (19 sites)
- 2022 (19 sites)
- 2021 (19 sites)
- 2020 (19 sites)
- 2019 (19 sites)
- 2018 (19 sites)
- 2017 (19 sites)
- 2016 (19 sites)
- 2015 (19 sites)
- 2014 (19 sites)
- 2013 (19 sites)
- 2012 (19 sites)
- 2011 (19 sites)
- 2010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



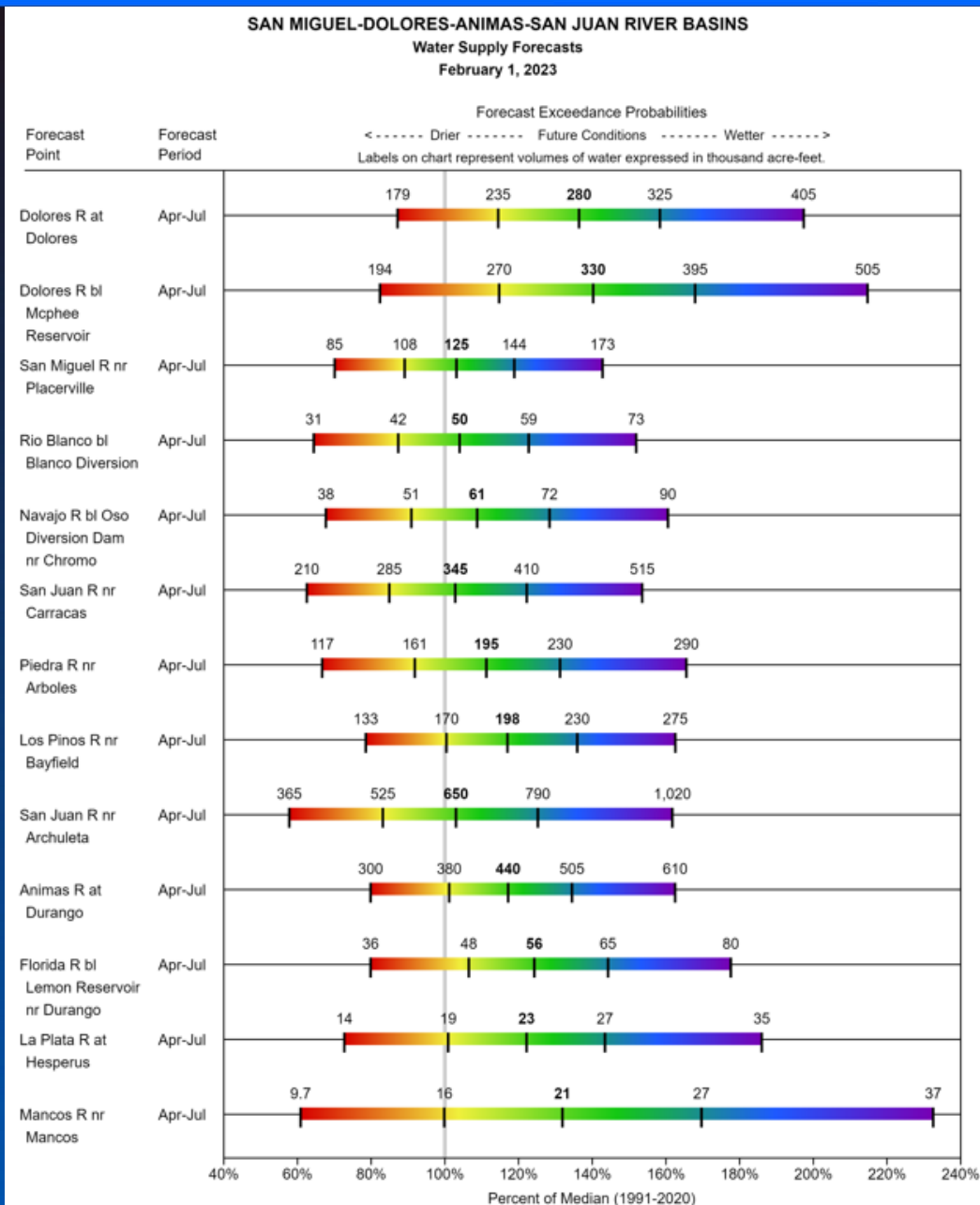
Reservoir Conditions for San Miguel-Dolores-Animas-San Juan on February 1st 2023





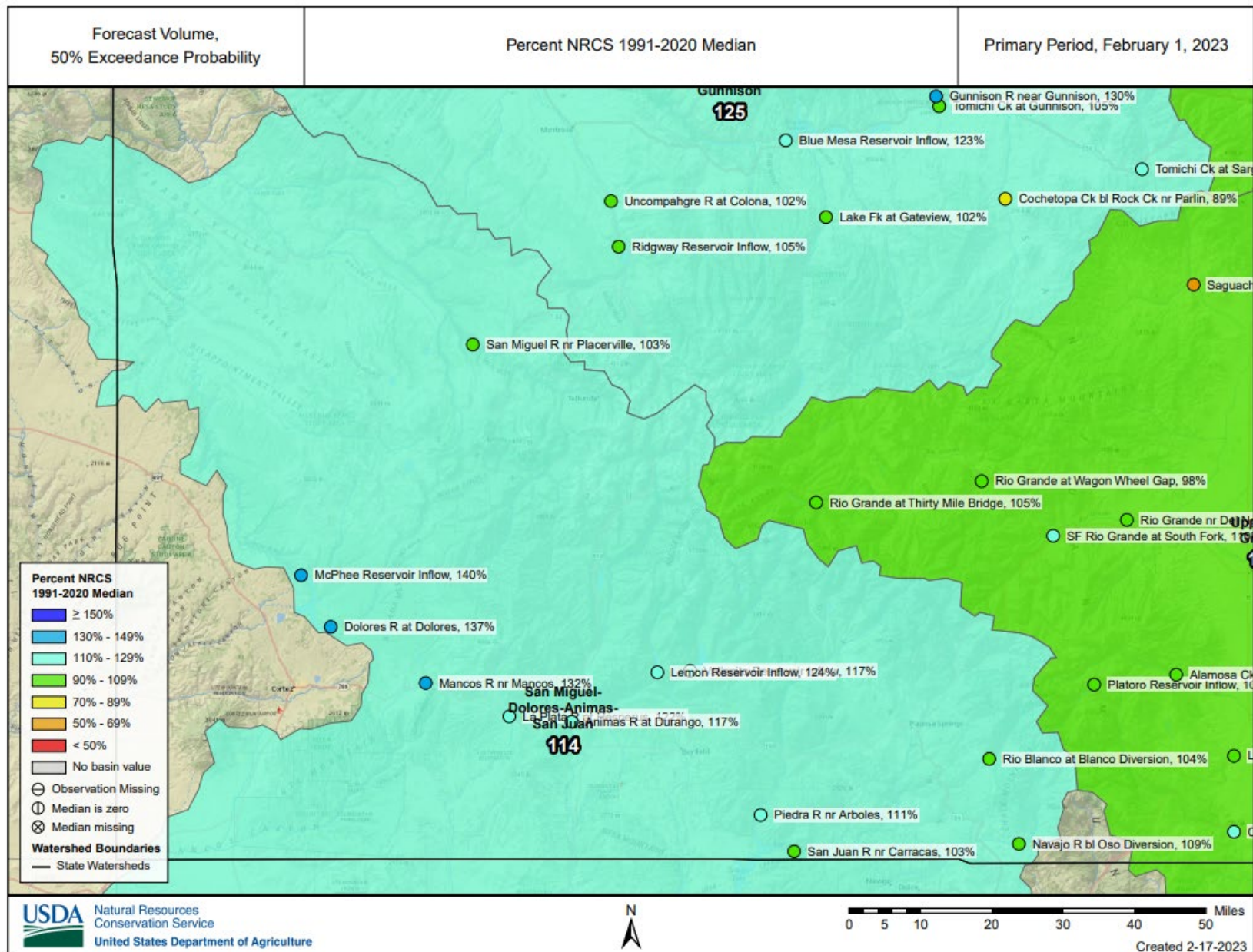


Colorado Snow Surveys



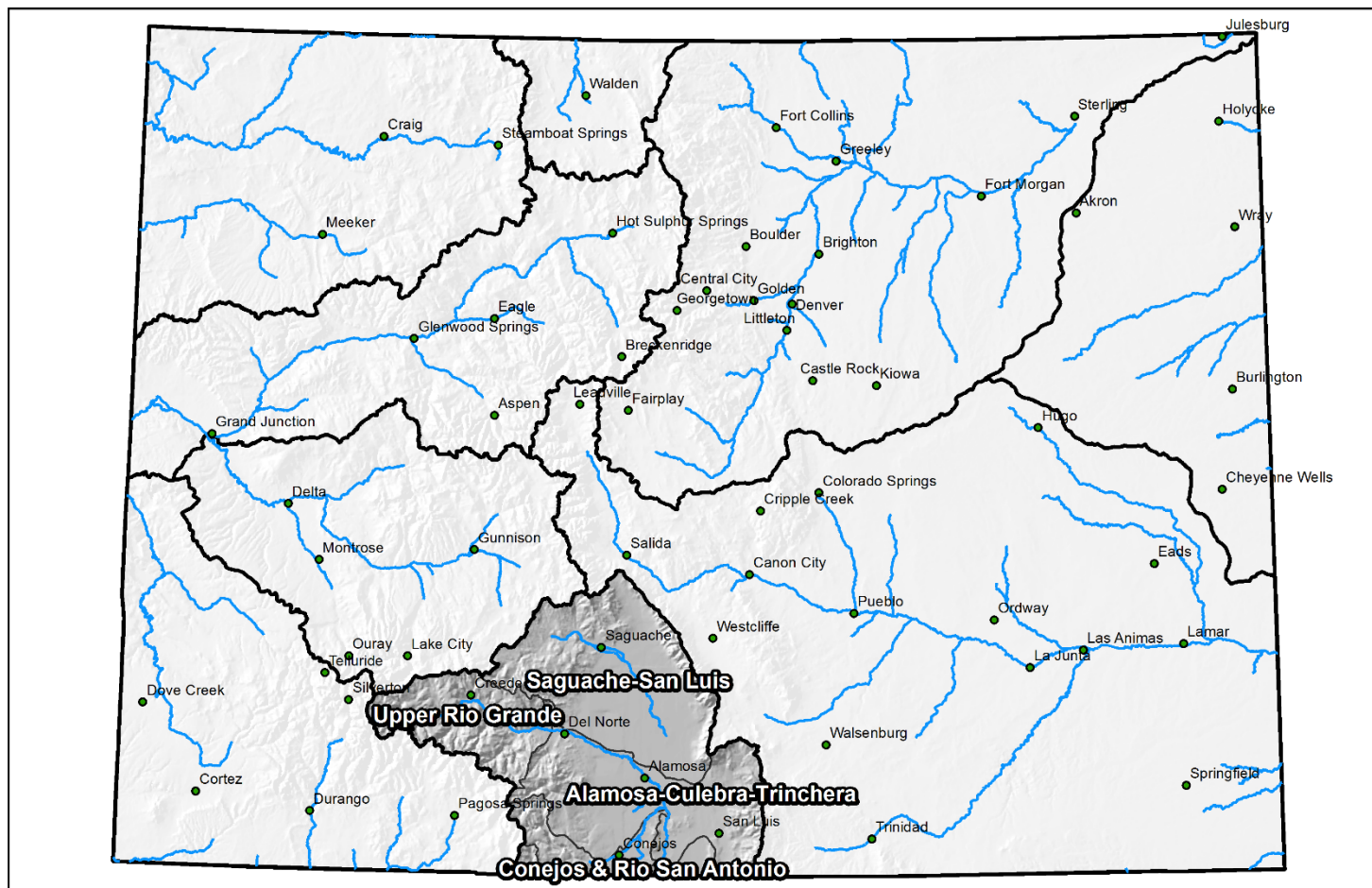


Colorado Snow Surveys



Major Basin Summary

Upper Rio Grande River Basin

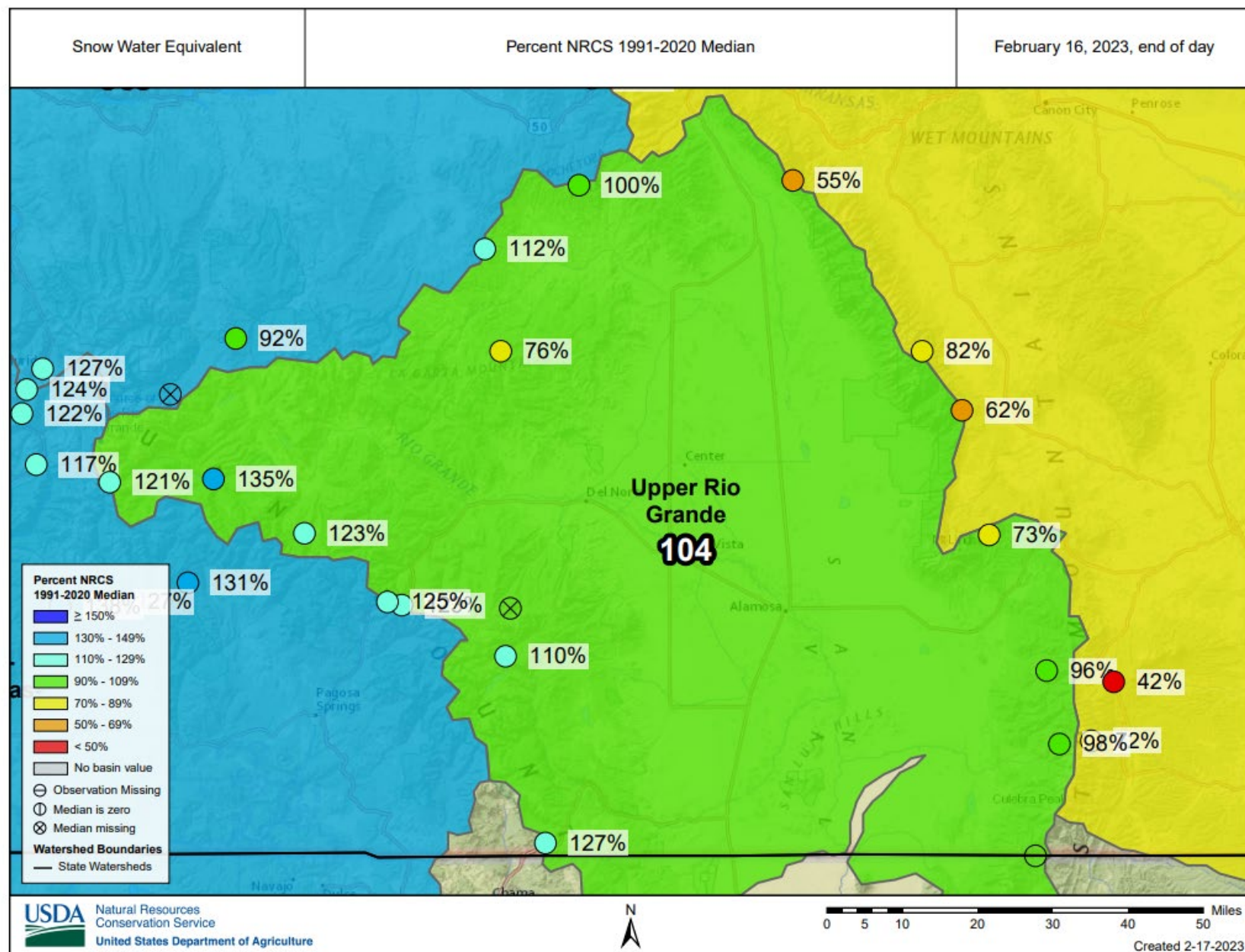


0 25 50 100 150 200 Miles



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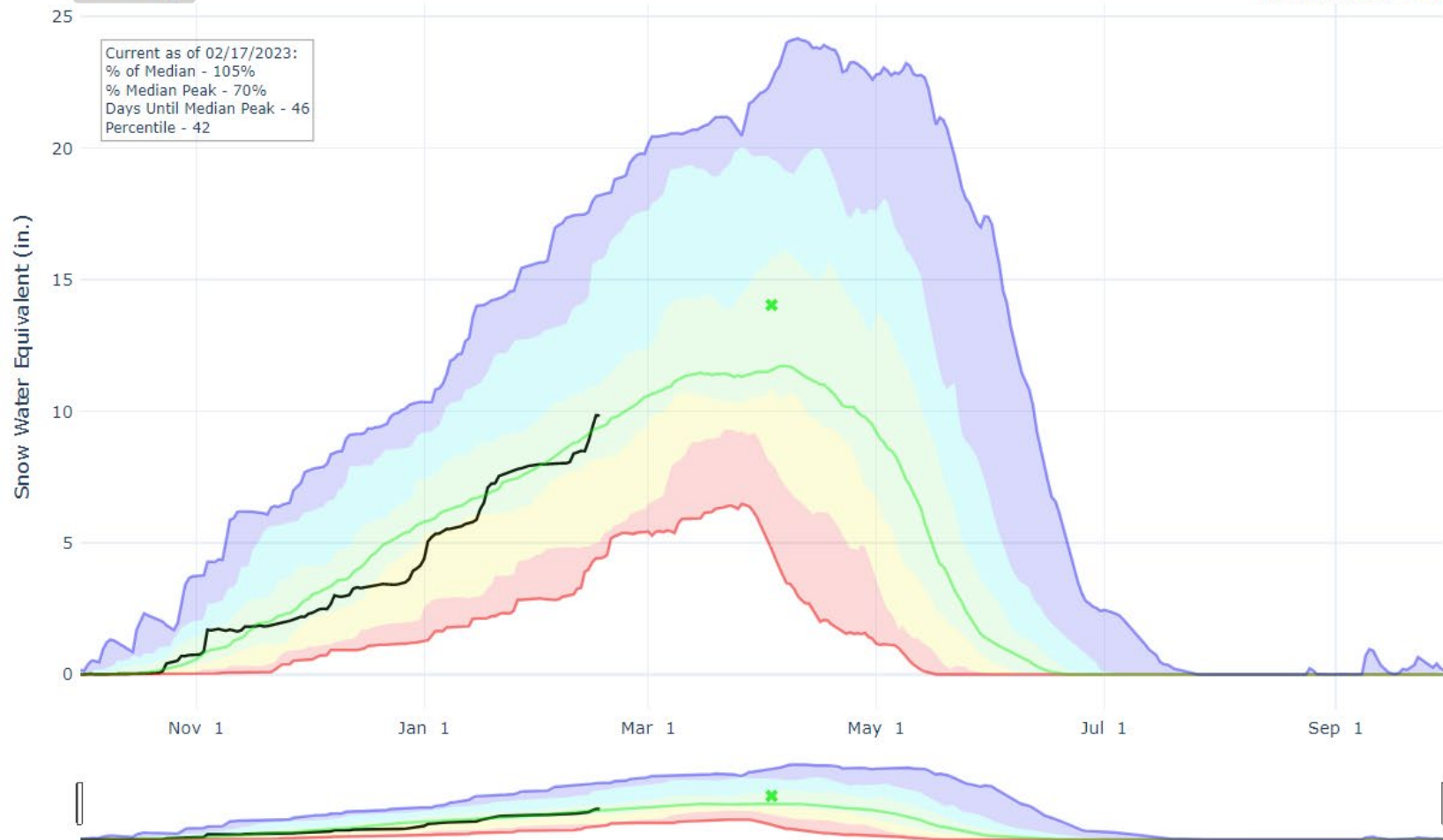
SNOW WATER EQUIVALENT IN UPPER RIO GRANDE

Reset Range

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

[Station List](#)

Current as of 02/17/2023:
% of Median - 105%
% Median Peak - 70%
Days Until Median Peak - 46
Percentile - 42





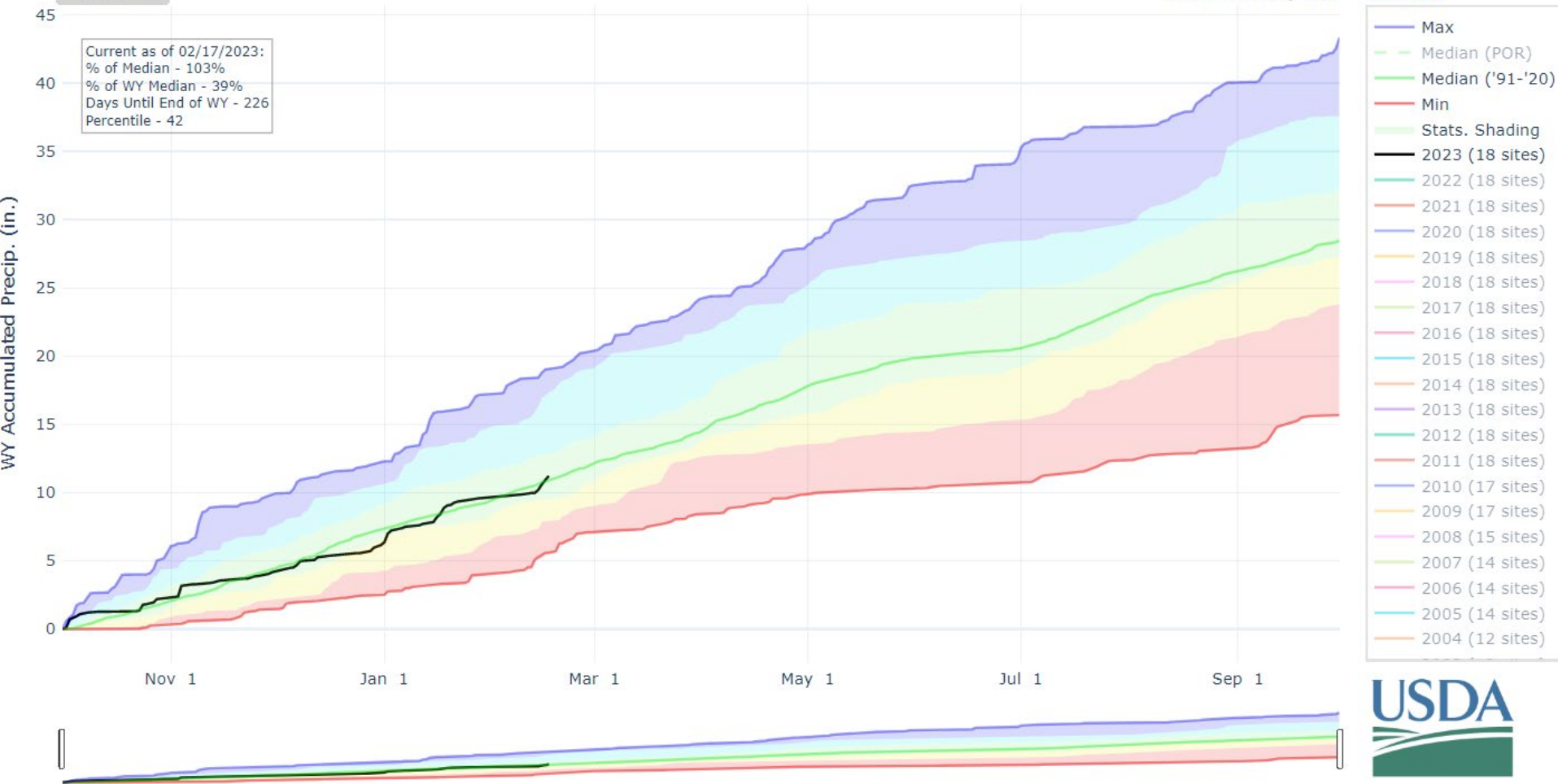
Colorado Snow Surveys

PRECIPITATION IN UPPER RIO GRANDE

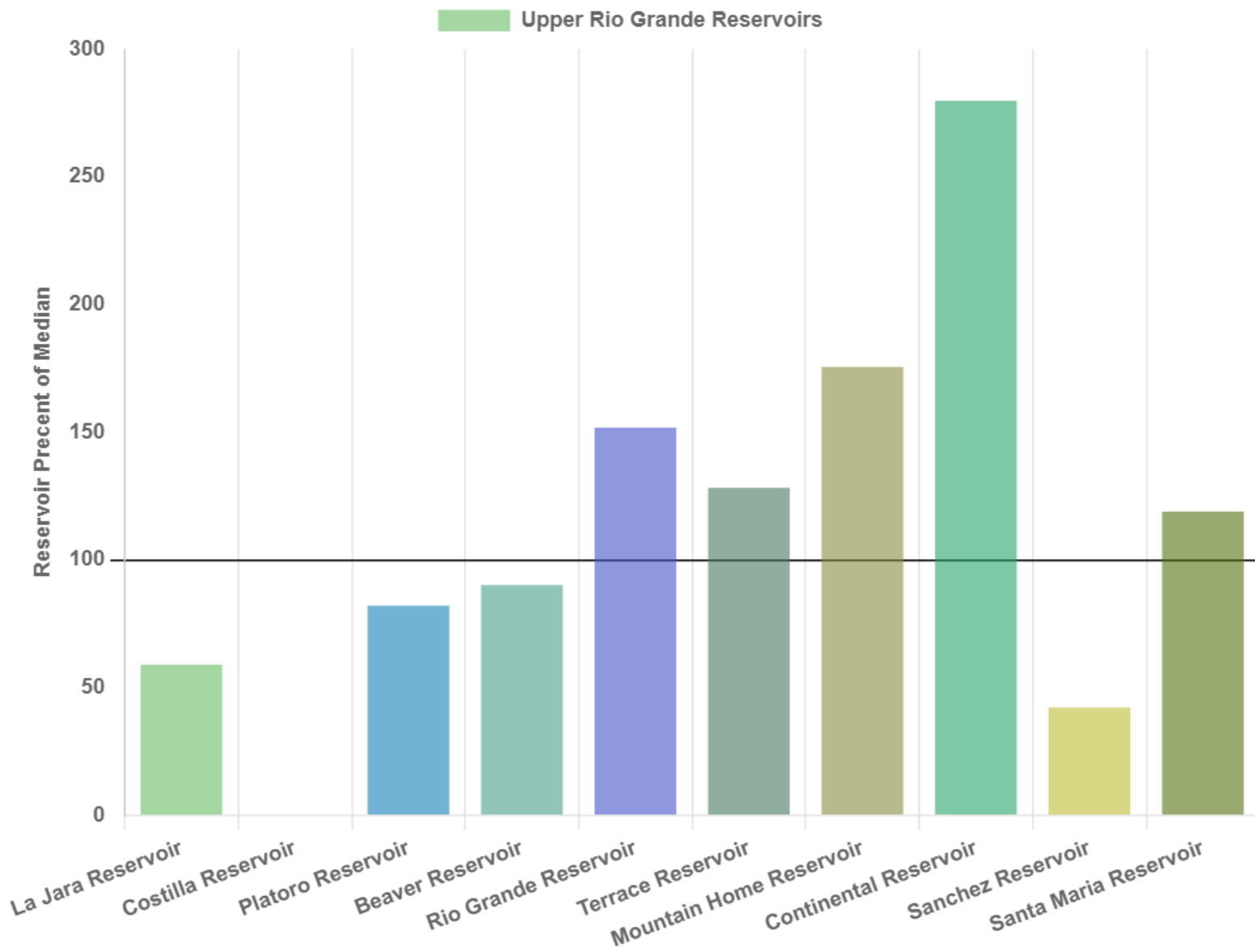
Reset Range

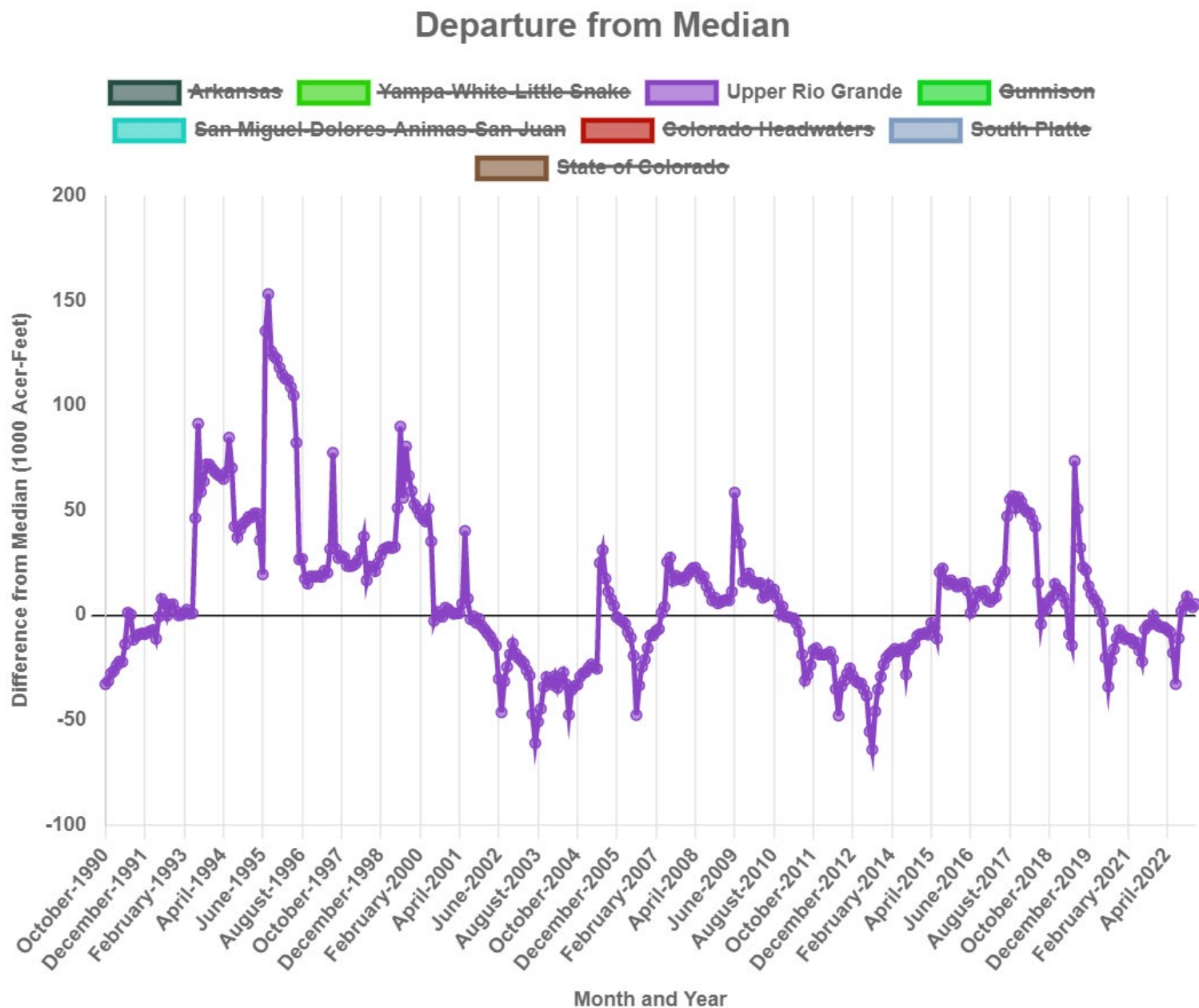
[Link to data: CSV / JSON](#)

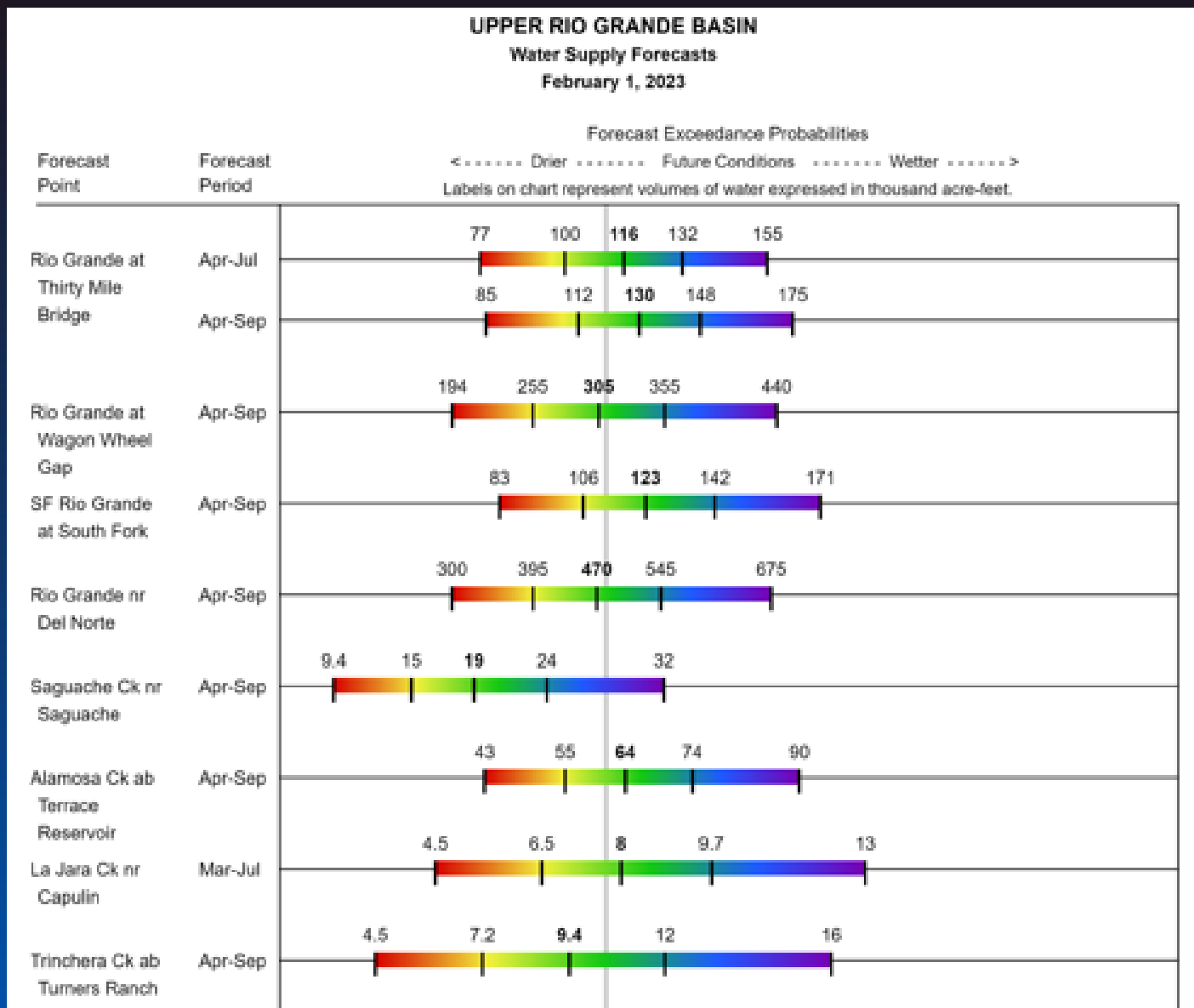
[Station List](#)



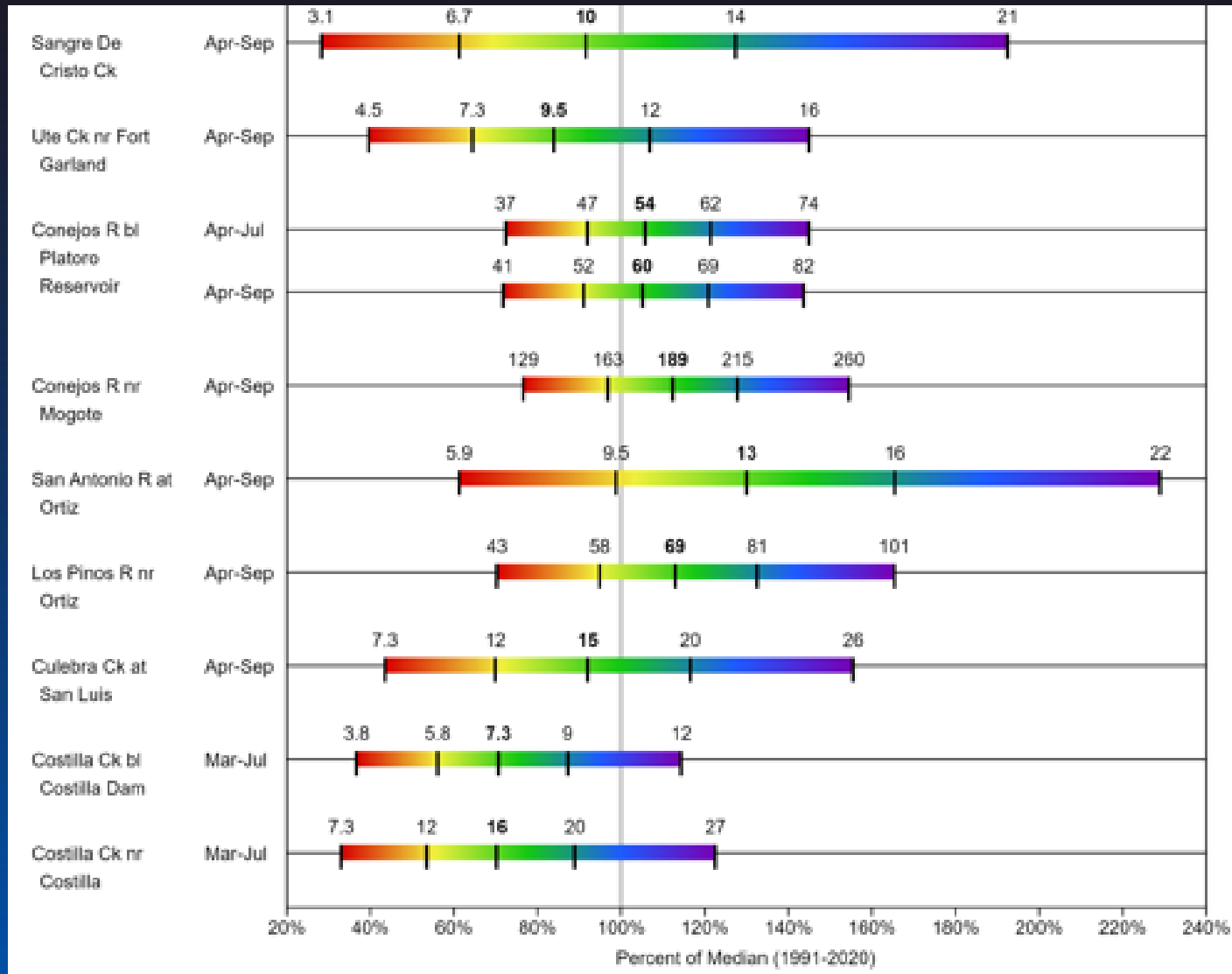
Reservoir Conditions for Upper Rio Grande on February 1st 2023





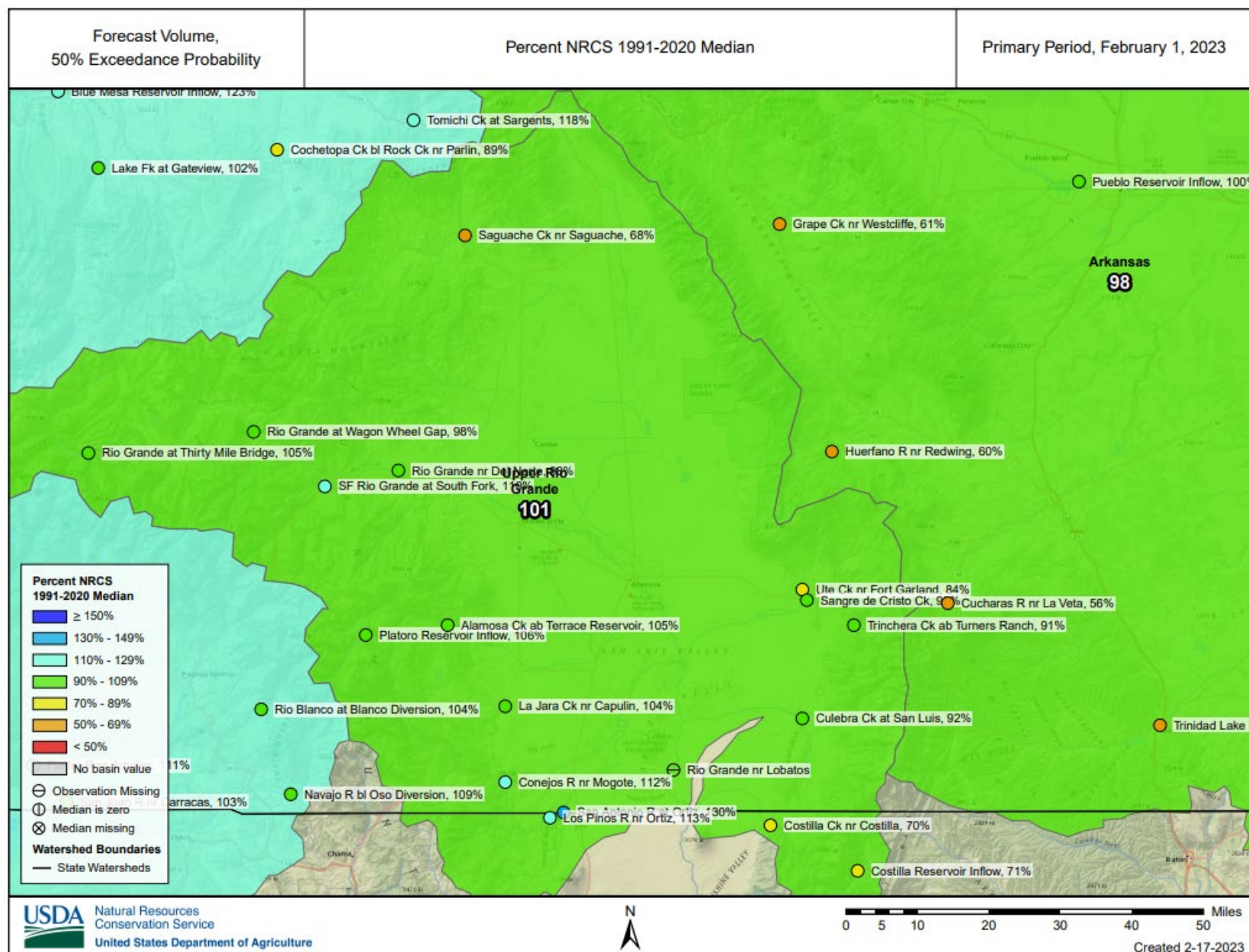


Colorado Snow Surveys



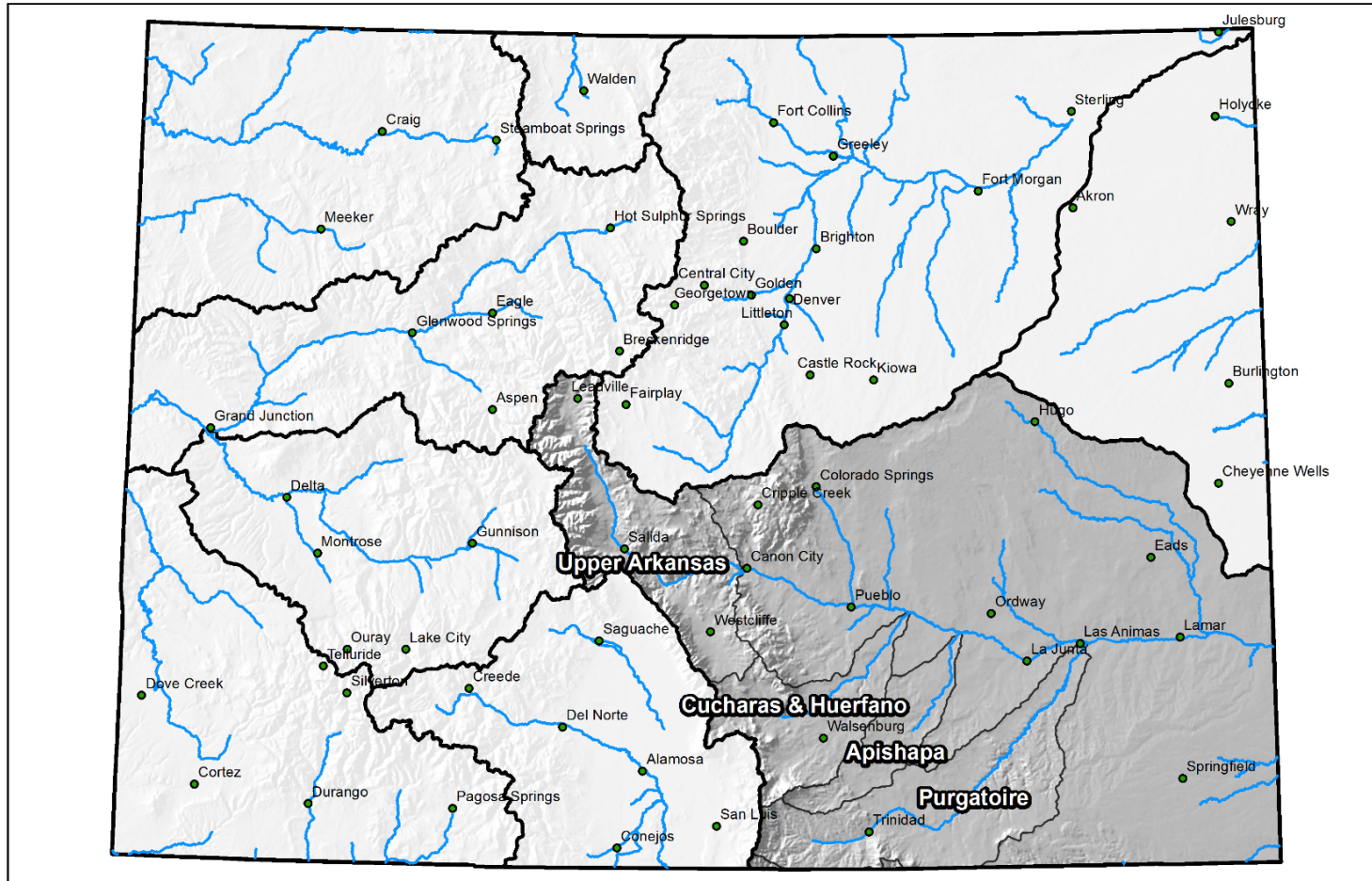


Colorado Snow Surveys



Major Basin Summary

Arkansas River Basin

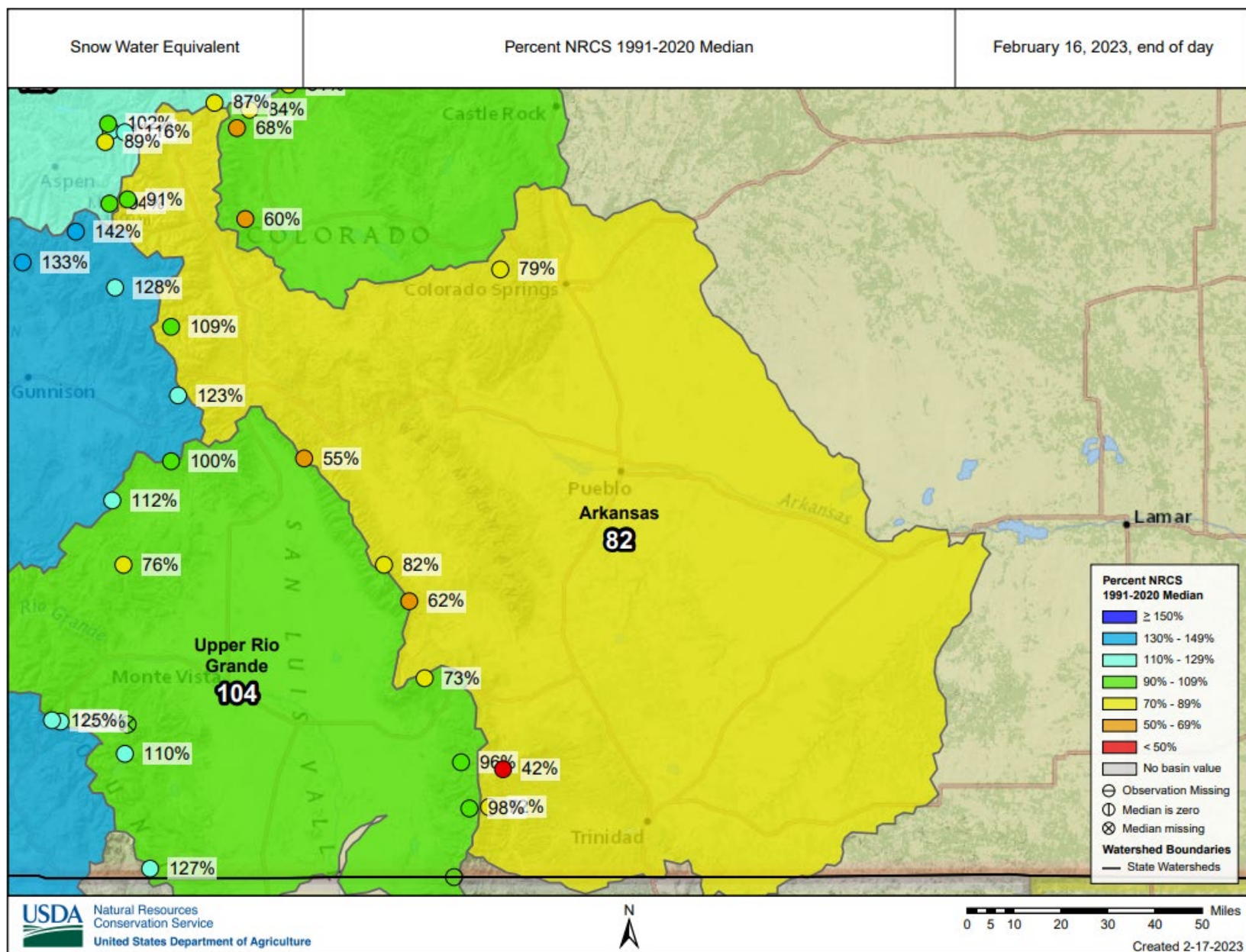


0 25 50 100 150 200 Miles



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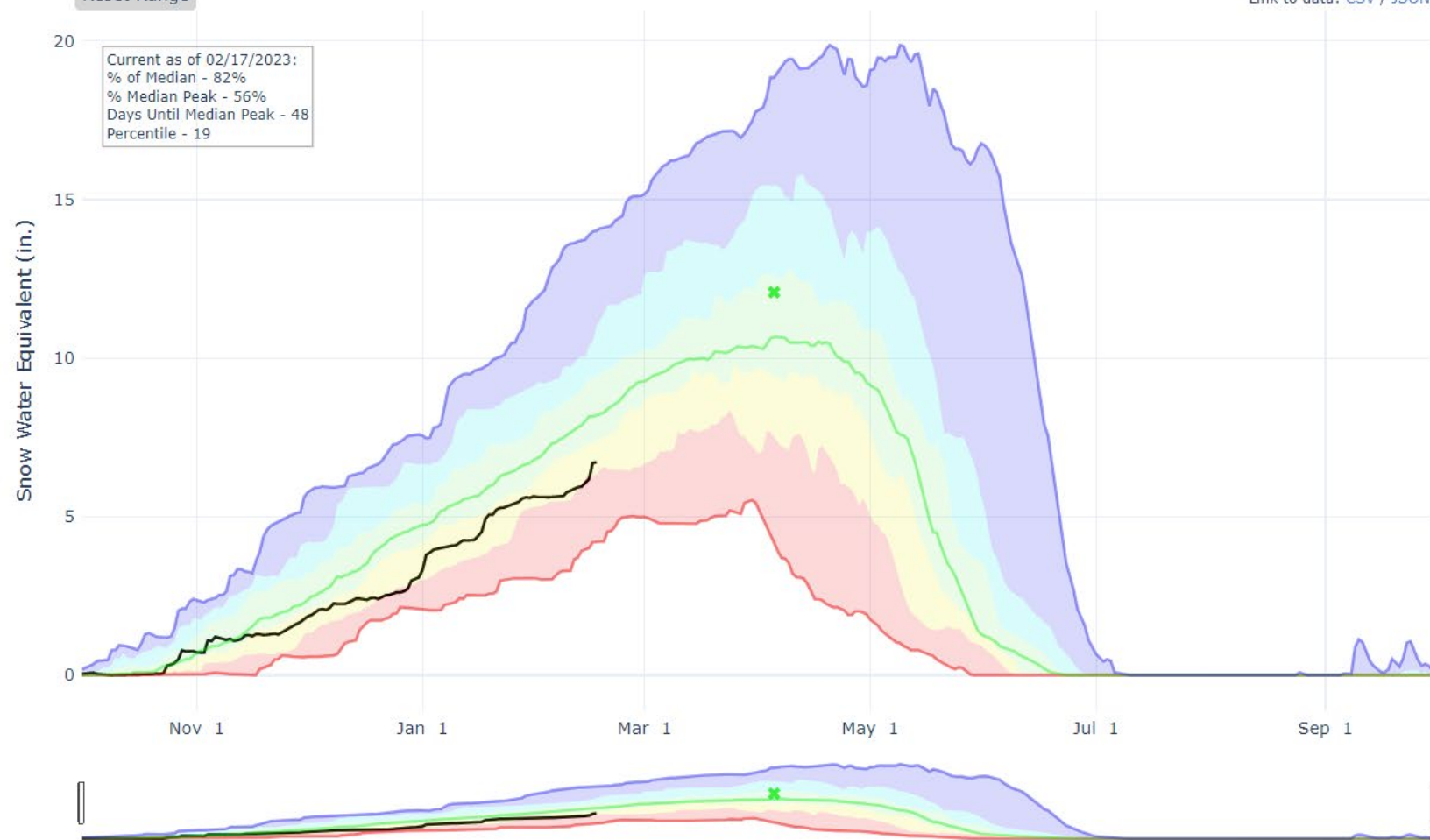
SNOW WATER EQUIVALENT IN ARKANSAS

Reset Range

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

[Station List](#)

Current as of 02/17/2023:
% of Median - 82%
% Median Peak - 56%
Days Until Median Peak - 48
Percentile - 19





Colorado Snow Surveys

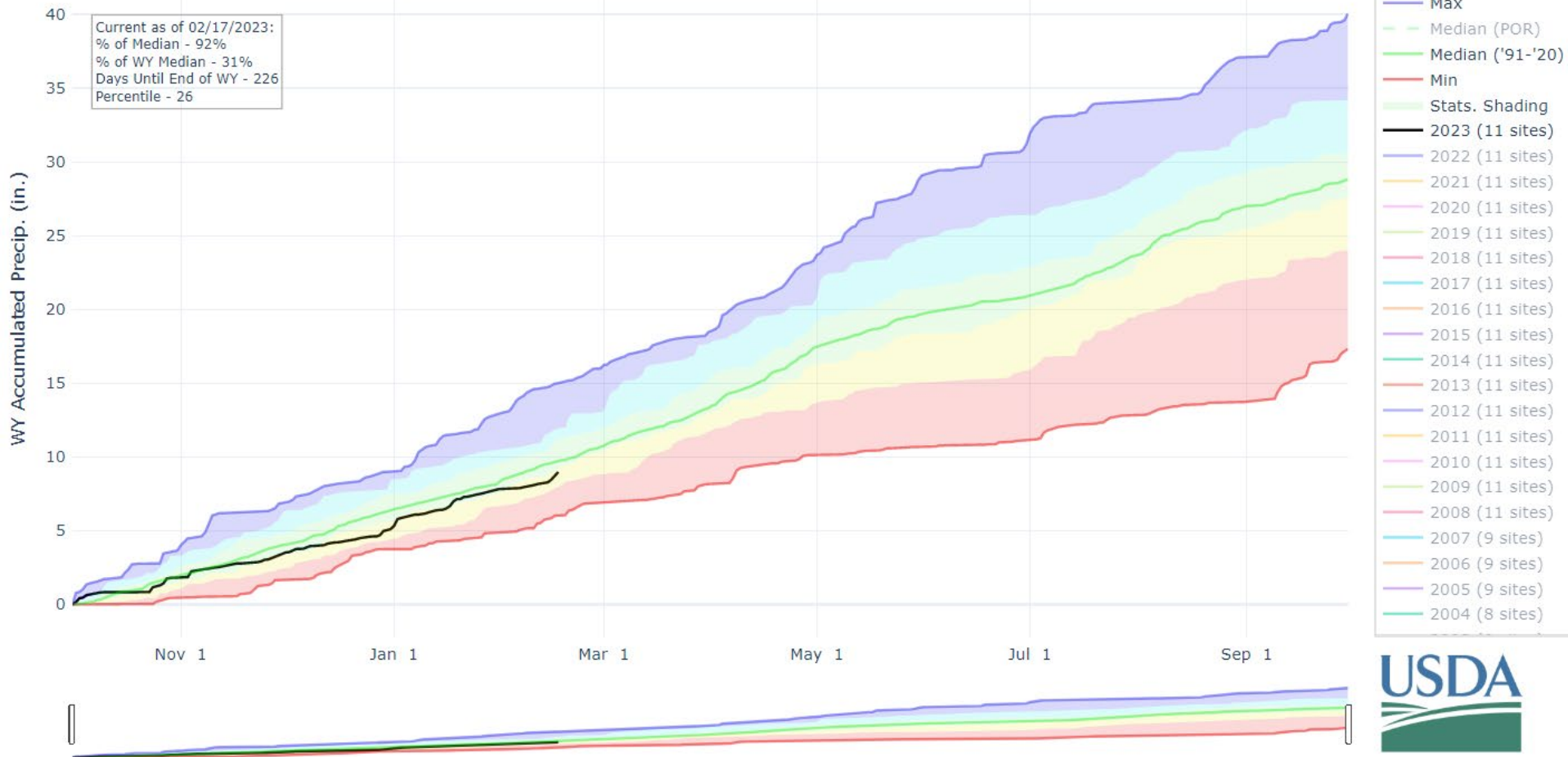
PRECIPITATION IN ARKANSAS

Reset Range

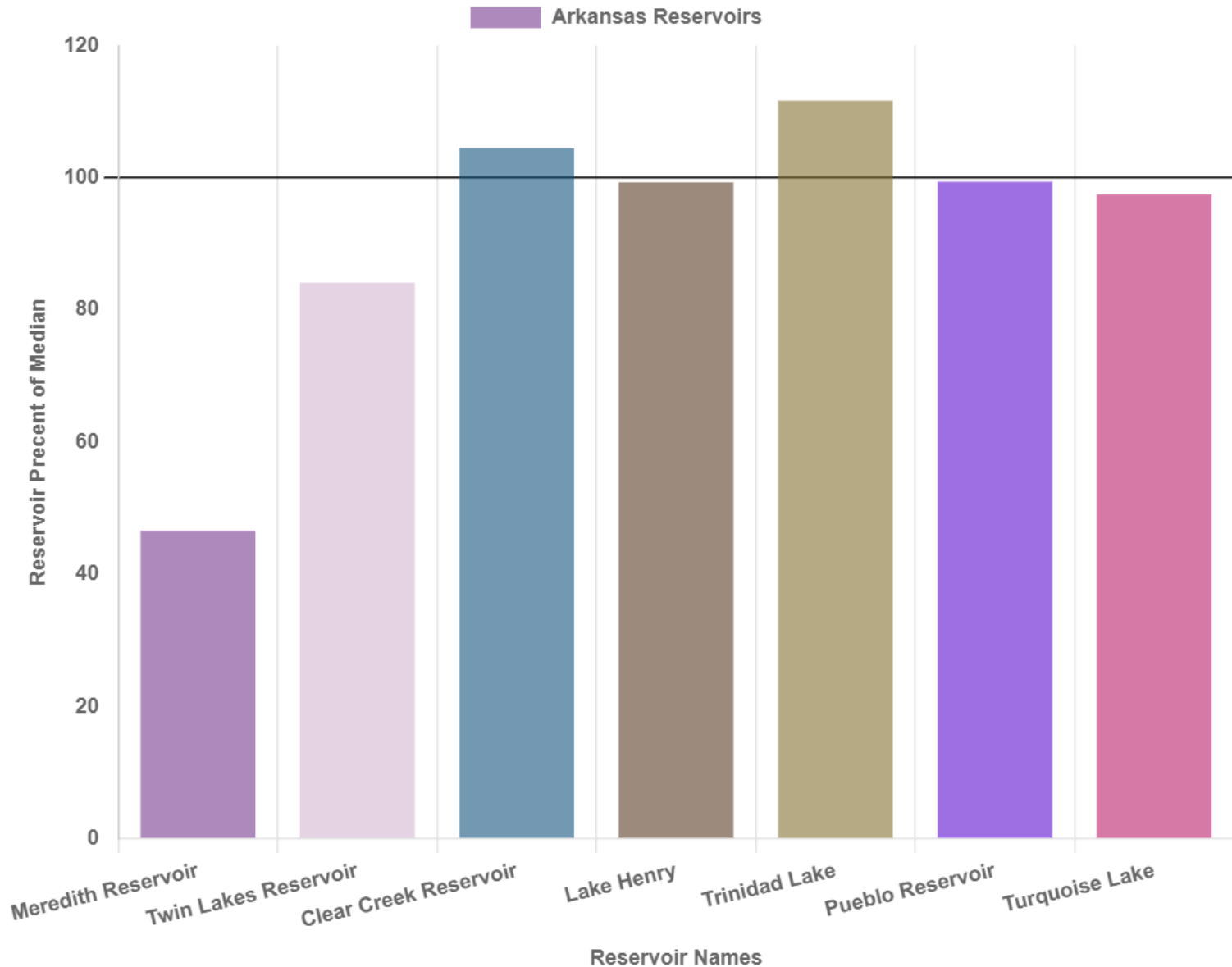
[Link to data: CSV / JSON](#)

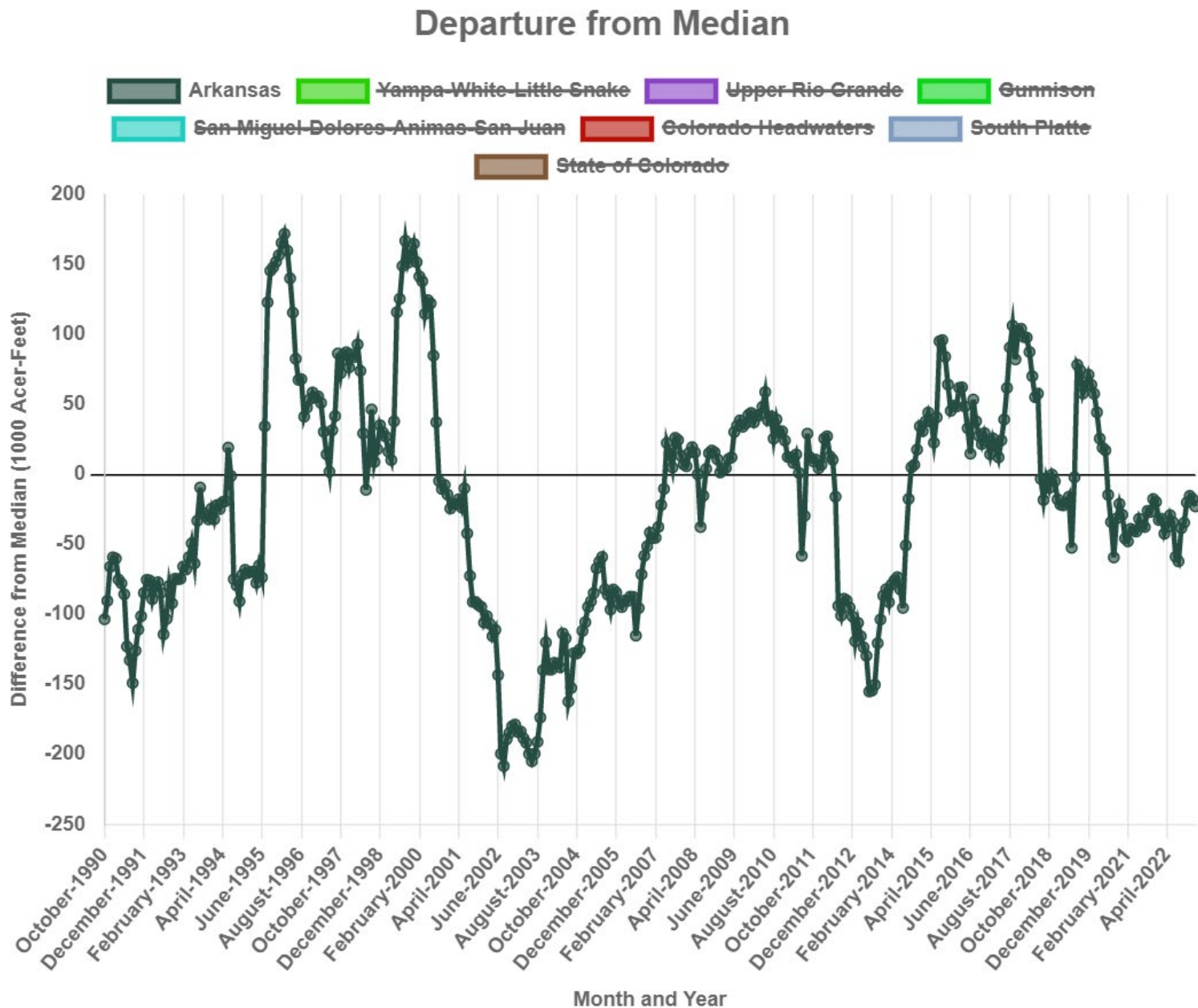
[Station List](#)

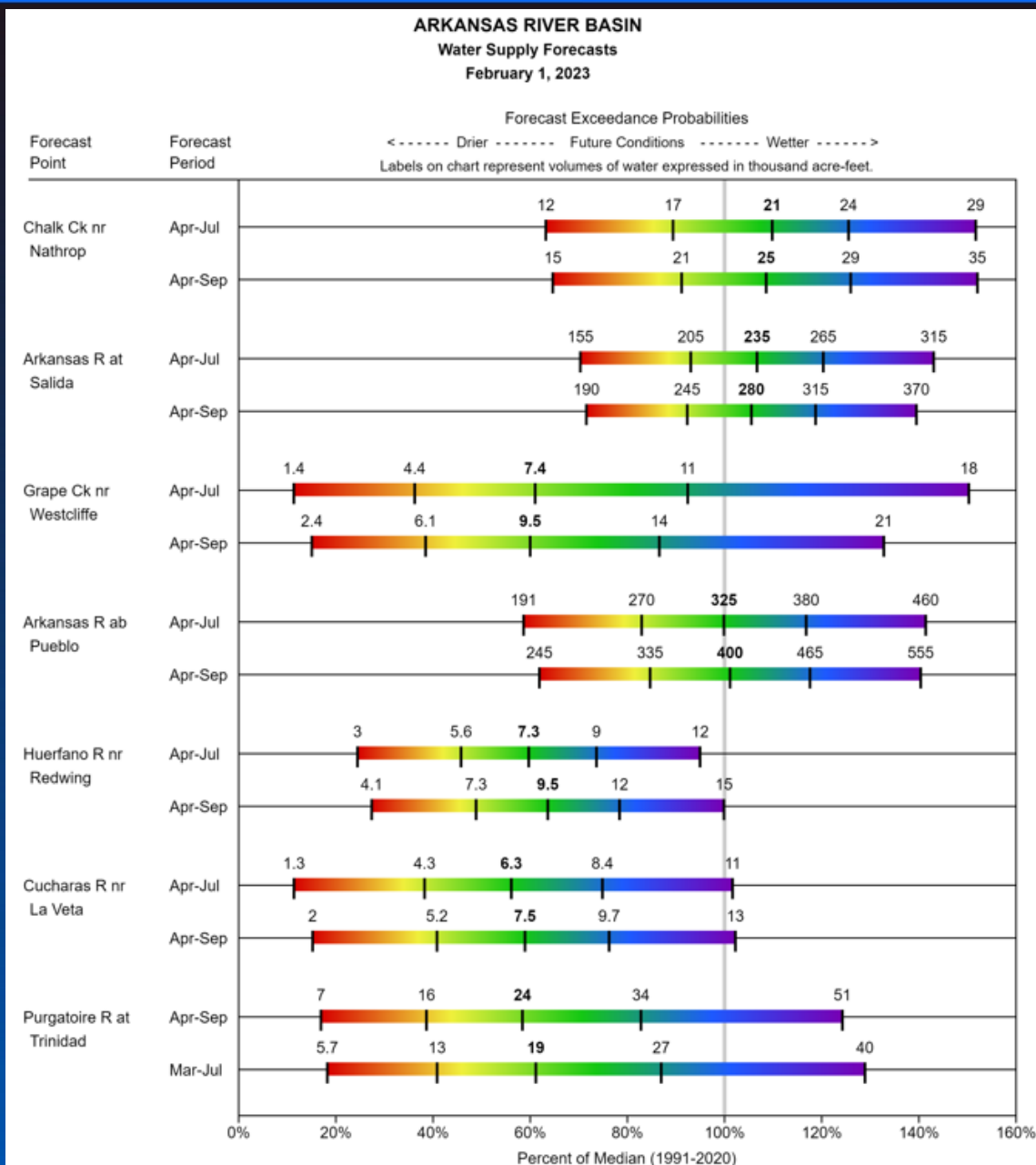
Current as of 02/17/2023:
% of Median - 92%
% of WY Median - 31%
Days Until End of WY - 226
Percentile - 26



Reservoir Conditions for Arkansas on February 1st 2023

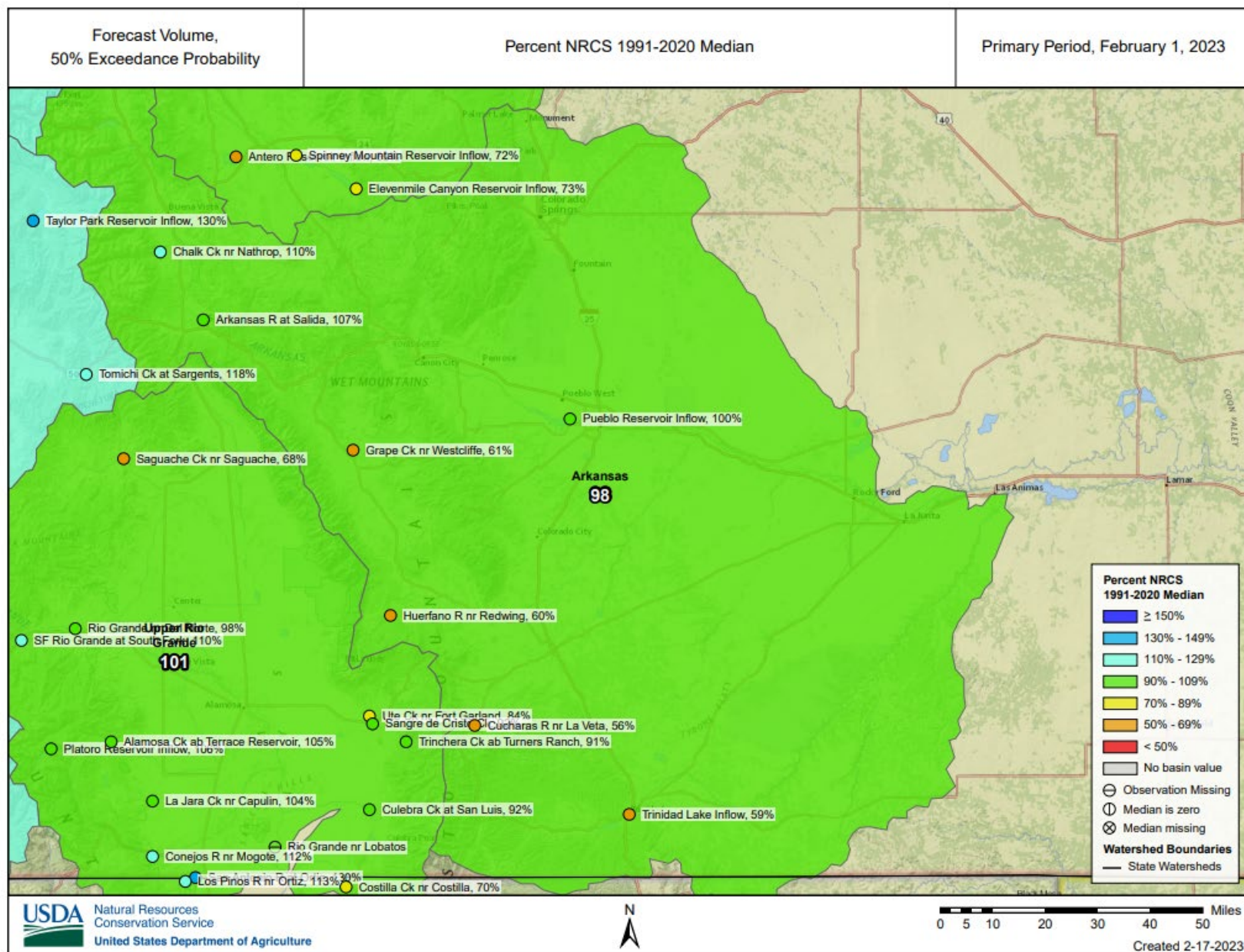






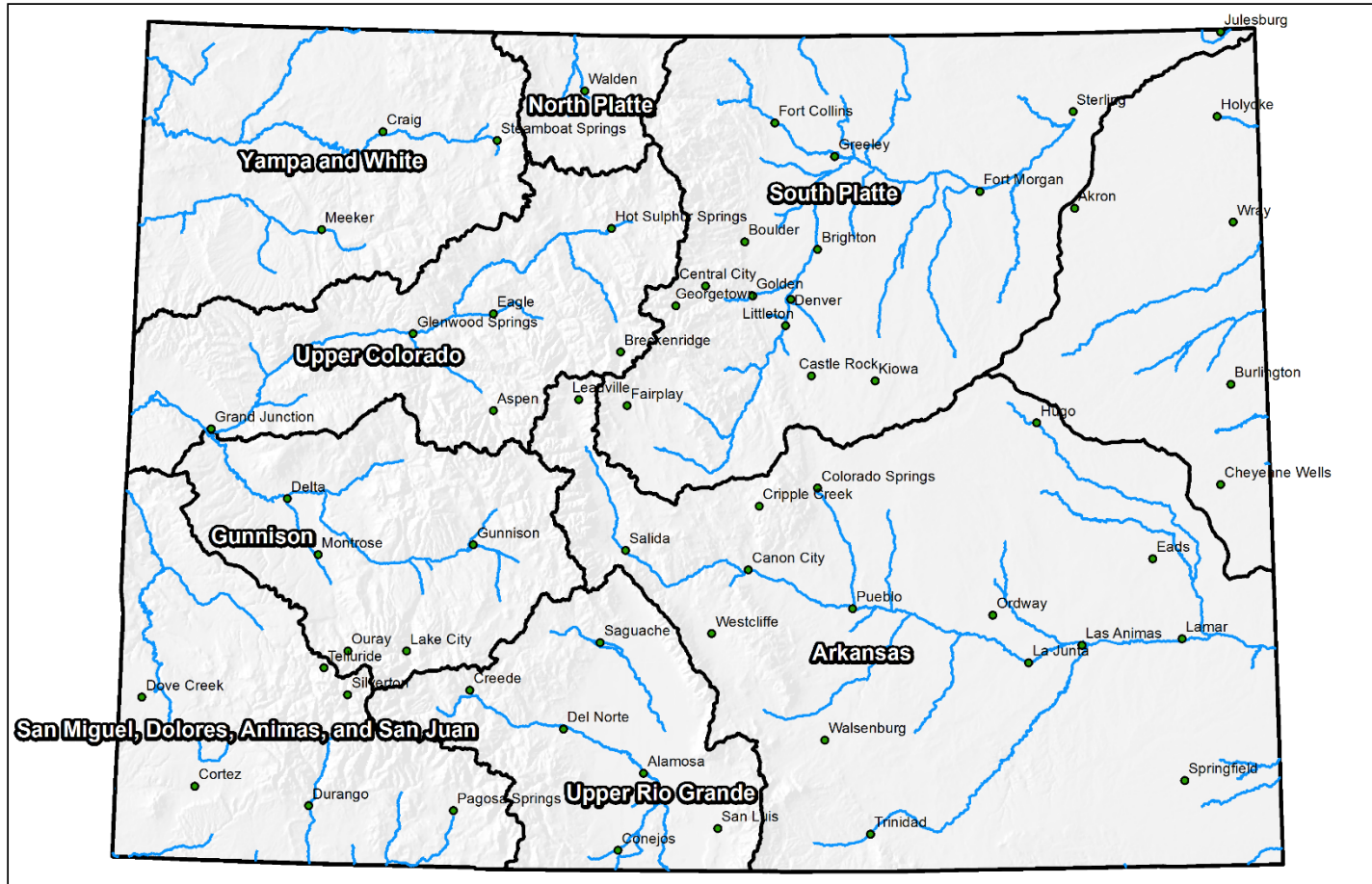


Colorado Snow Surveys



Colorado Statewide Summary

Colorado Major Basins



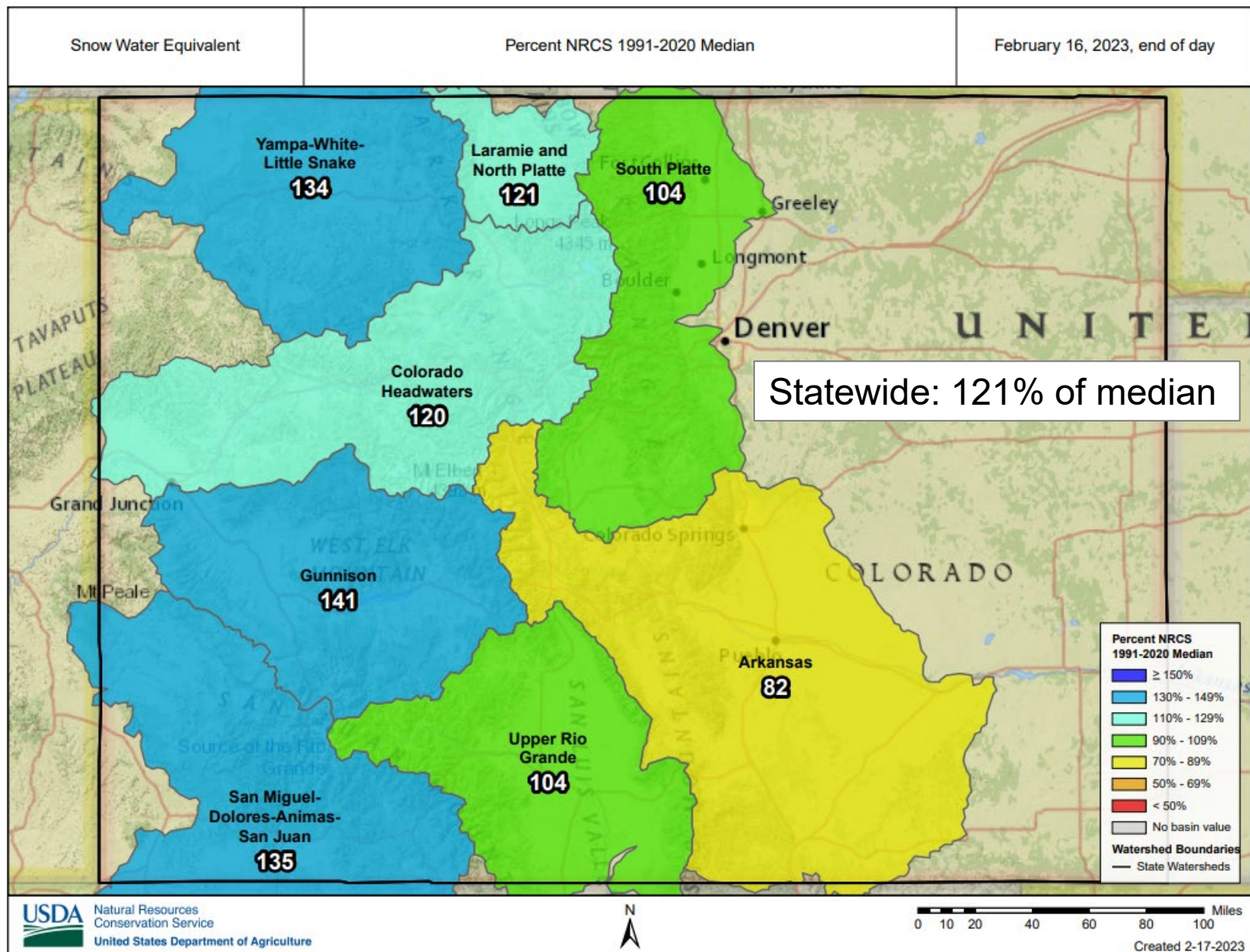
0 25 50 100 150 200 Miles



United States Department of Agriculture

Colorado Snow Surveys

Snowpack





Colorado Snow Surveys

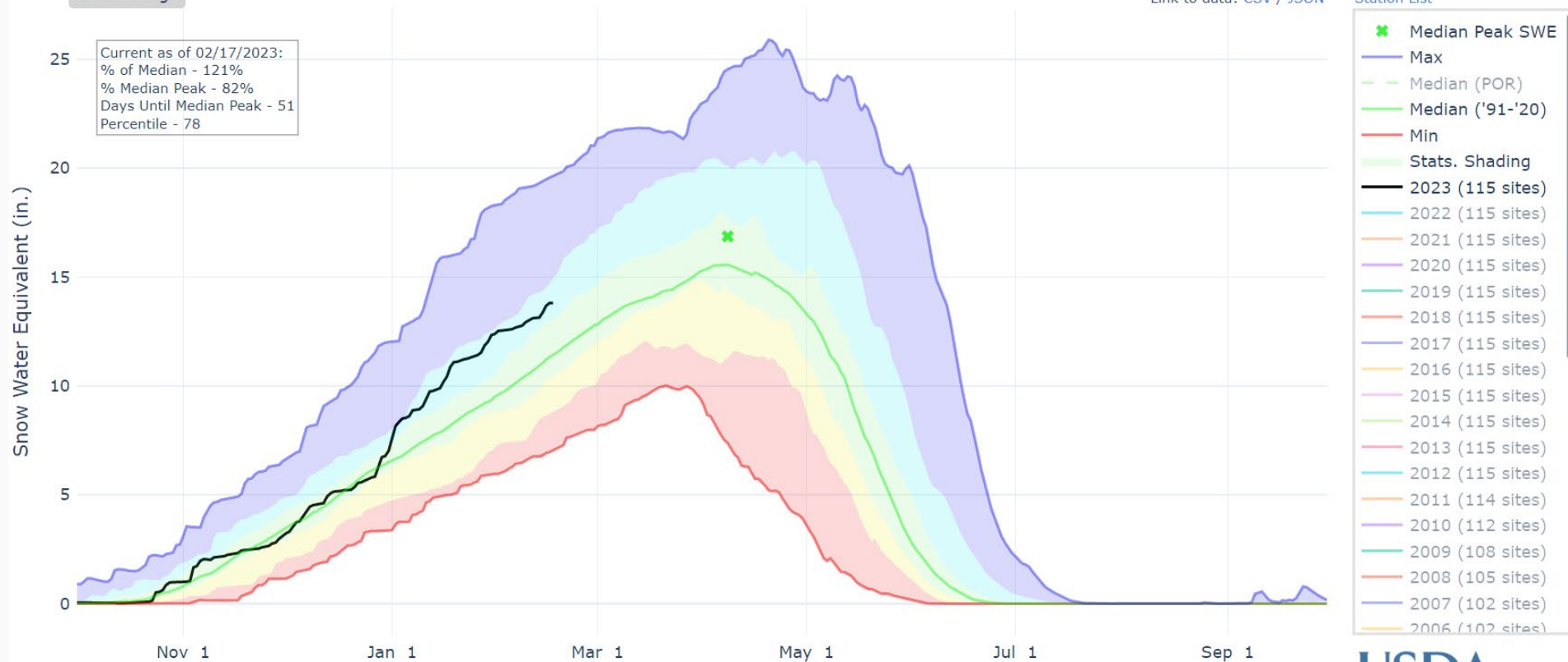
SNOW WATER EQUIVALENT IN STATE OF COLORADO

Reset Range

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

[Station List](#)

Current as of 02/17/2023:
% of Median - 121%
% Median Peak - 82%
Days Until Median Peak - 51
Percentile - 78

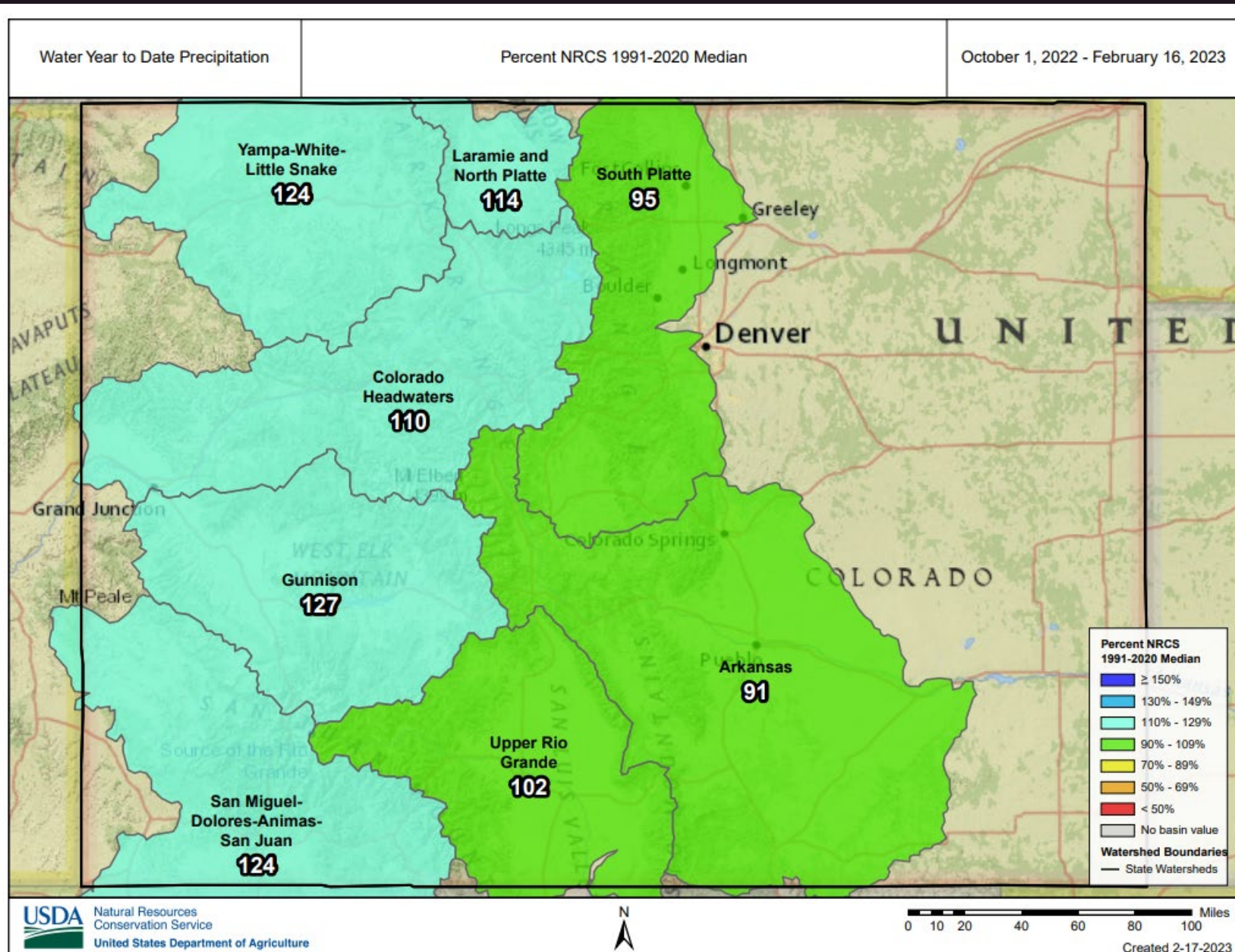




United States Department of Agriculture

Colorado Snow Surveys

WY Precipitation

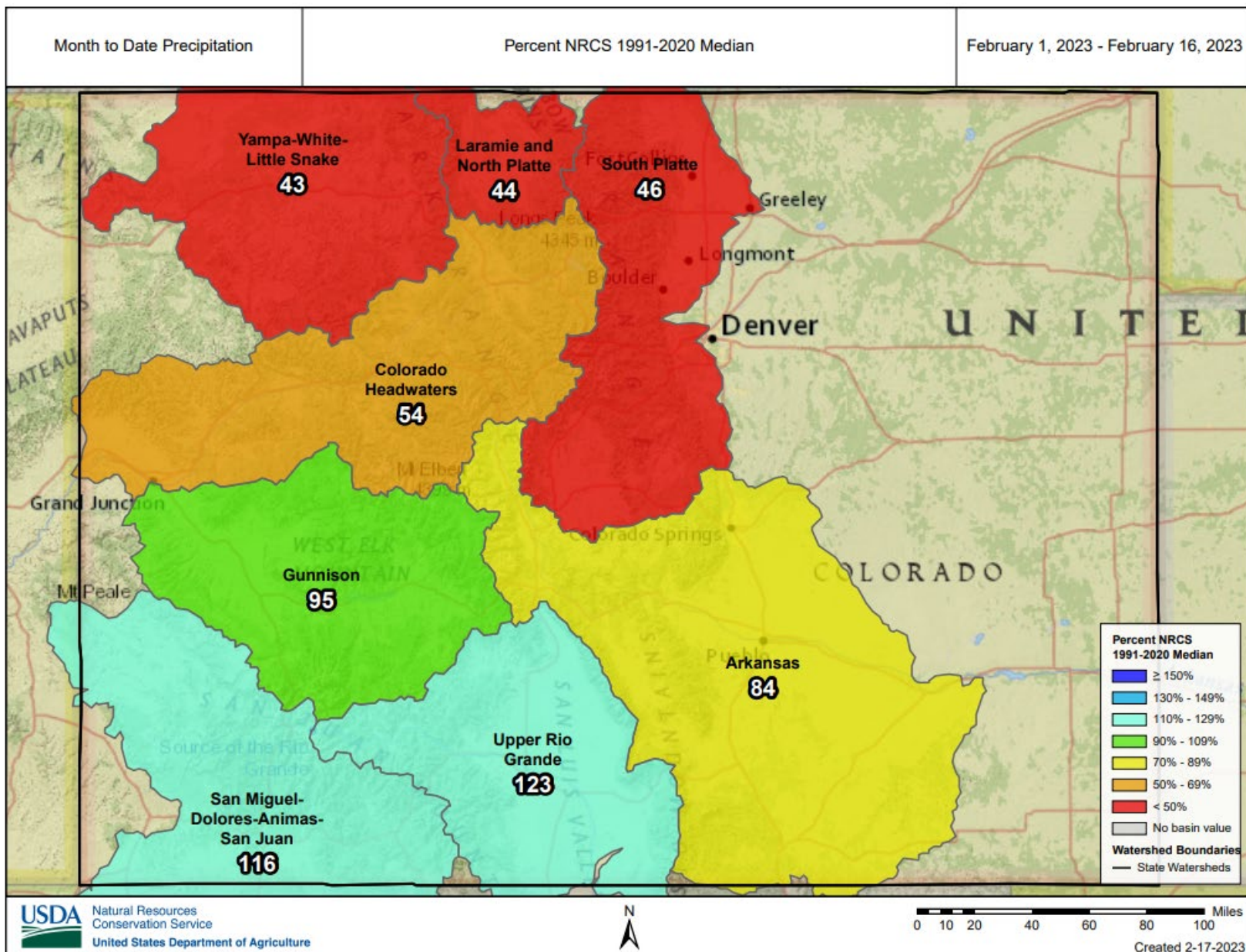




United States Department of Agriculture

Colorado Snow Surveys

MTD Precipitation





Colorado Snow Surveys

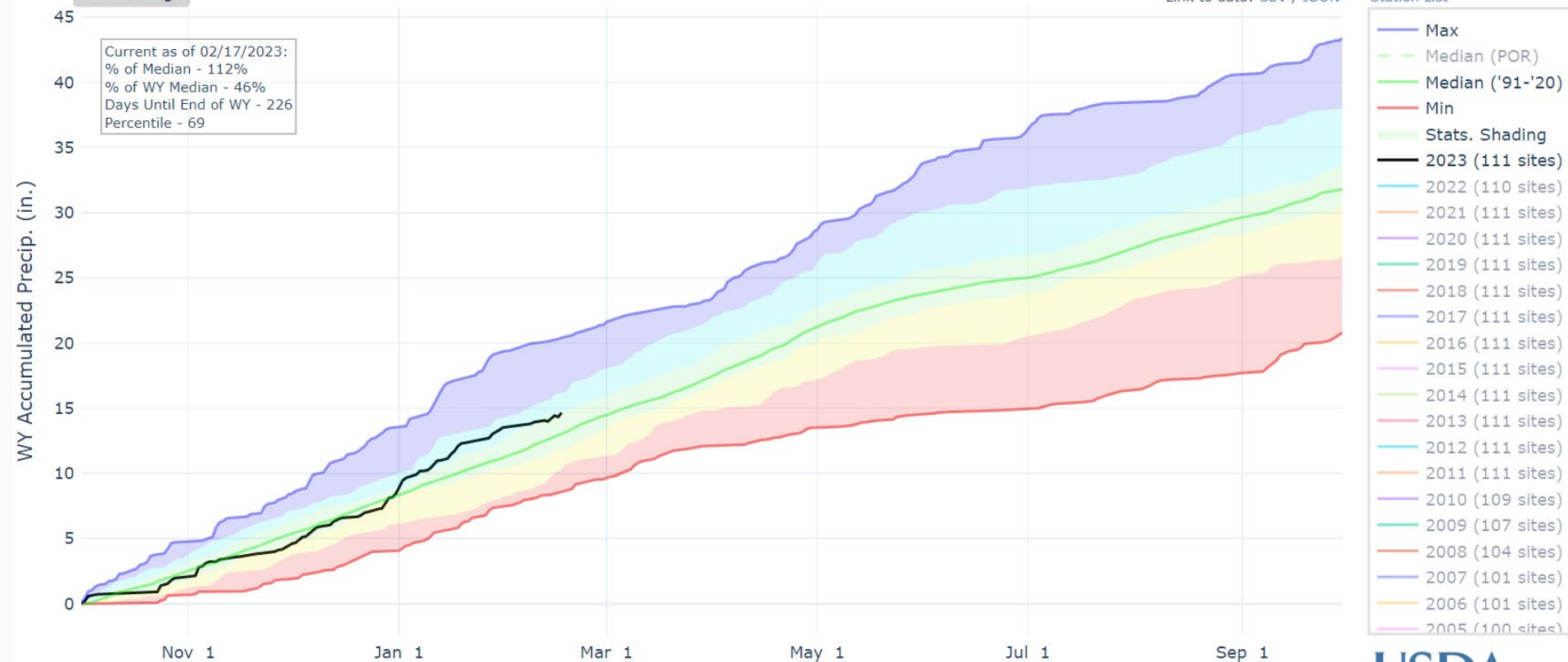
PRECIPITATION IN STATE OF COLORADO

Reset Range

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

[Station List](#)

Current as of 02/17/2023:
% of Median - 112%
% of WY Median - 46%
Days Until End of WY - 226
Percentile - 69

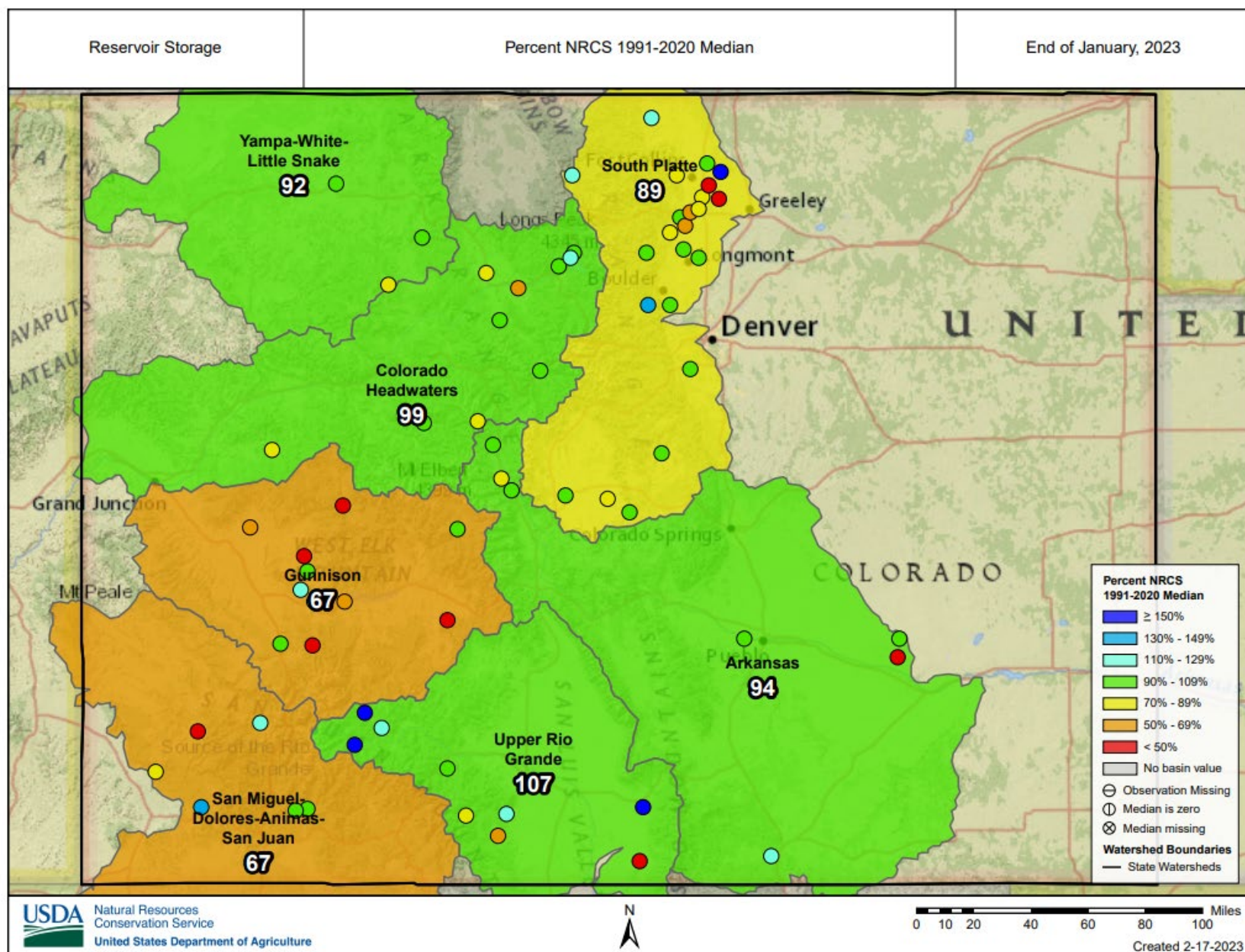


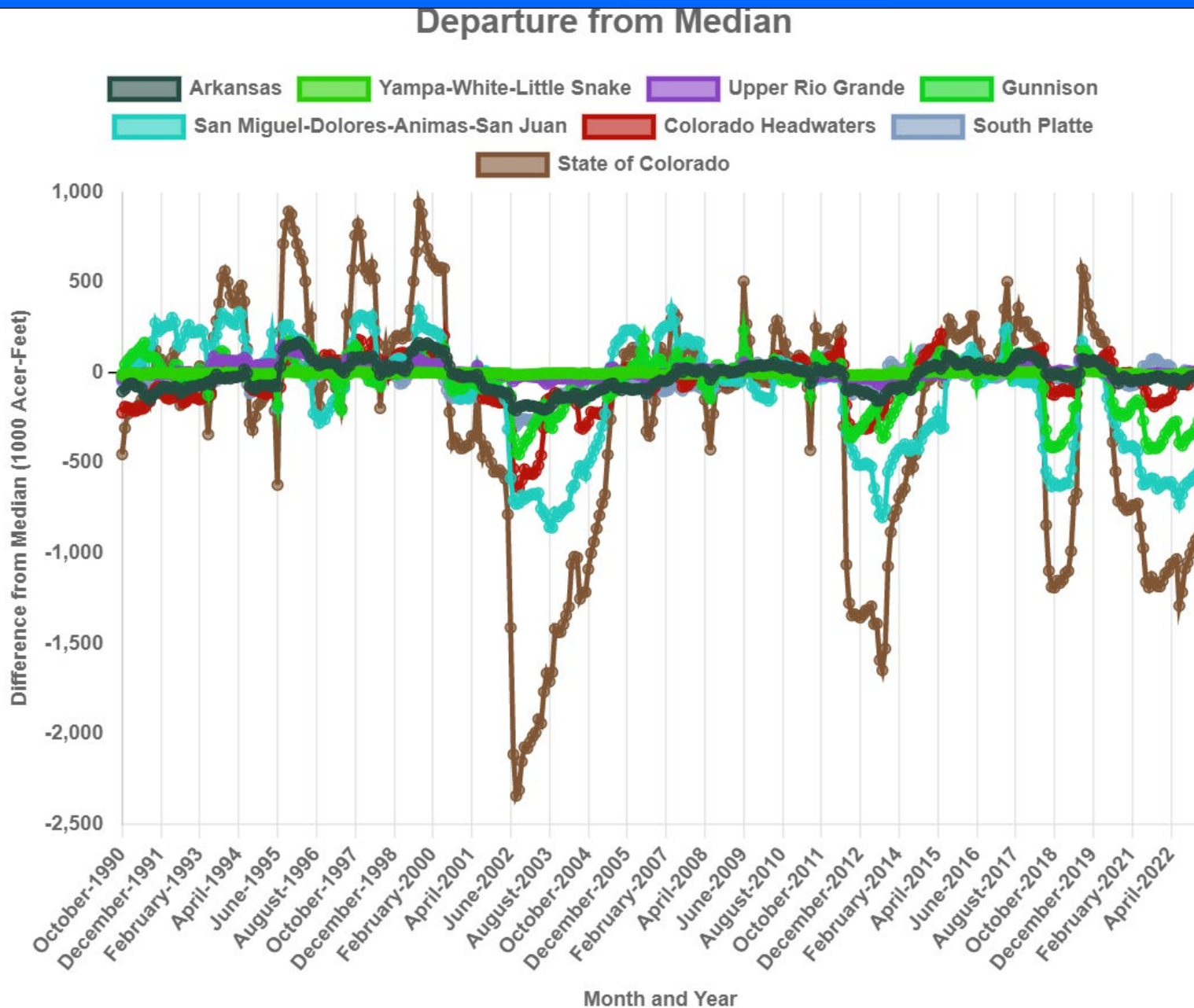


United States Department of Agriculture

Colorado Snow Surveys

Reservoir Storage



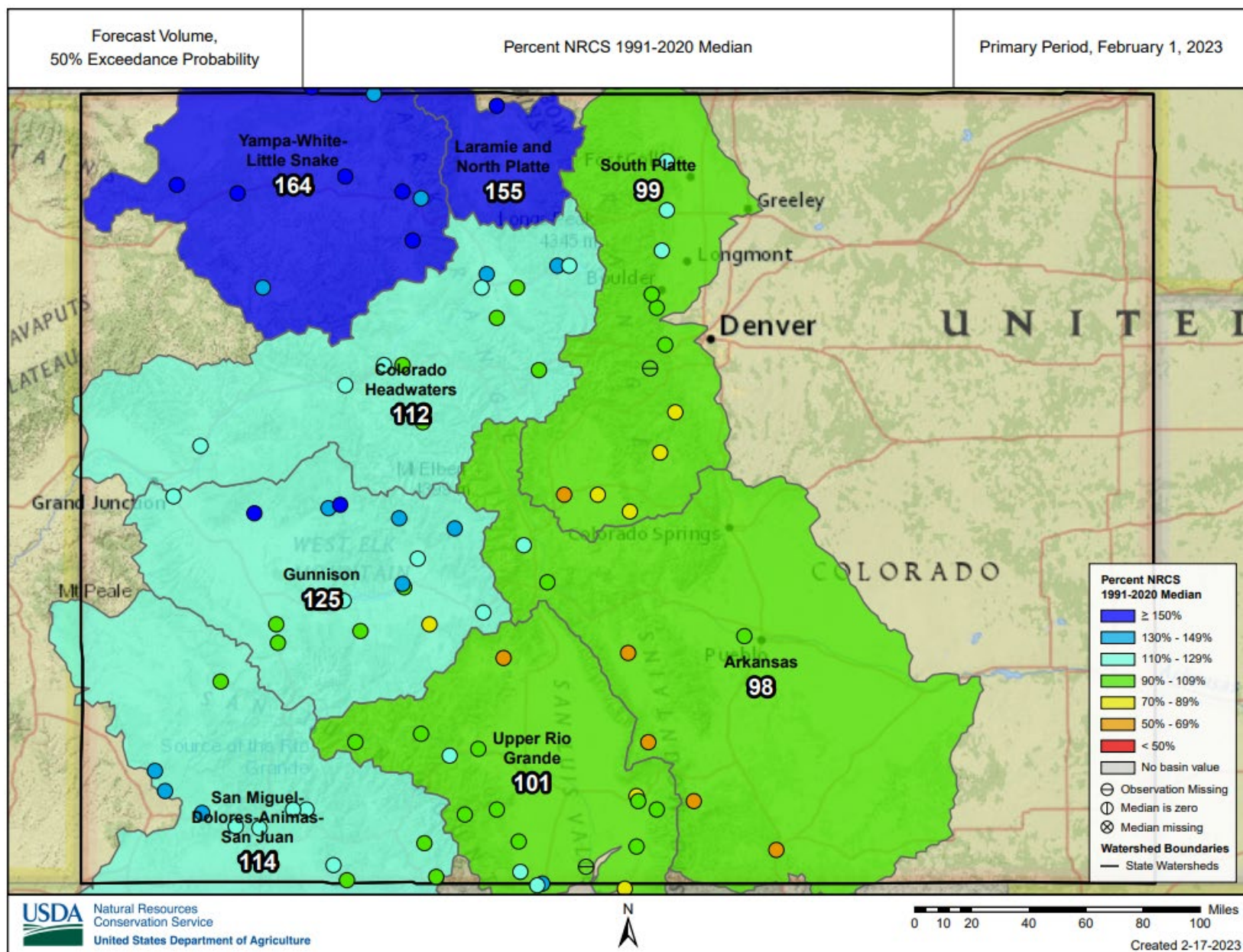




United States Department of Agriculture

Colorado Snow Surveys

Streamflow Forecasts



Summary

- All major basins in Colorado are holding above normal snowpack with the exception of the Arkansas.
 - Localized lower snowpacks in the Sangre de Cristo mountains and surrounding South Park may also have a greater local impact on water supply than the basin-wide numbers indicate.
- February-to-date precipitation has been much lower than January and has largely favored Southwest Colorado.
- February 1st streamflow forecasts range from slightly below normal to well above across the major basins but many individual forecasts remain well below normal.
- Reservoir storage remains highly variable across Colorado with the Gunnison and combined Southwest Basins holding substantially less water than any other basins.
- Statewide snowpack has reached 82 percent of the median peak value with about a month and a half remaining in what is commonly the primary snowpack accumulation season. Bearing in mind that spring weather can always have a substantial impact on resulting water supply.



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