



United States Department of Agriculture

Colorado Snow Surveys

Water Availability Task Force Meeting

May 25th, 2023

NRCS Snow Survey and Water Supply Forecasting Program

Karl Wetlaufer

Hydrologist

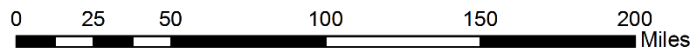
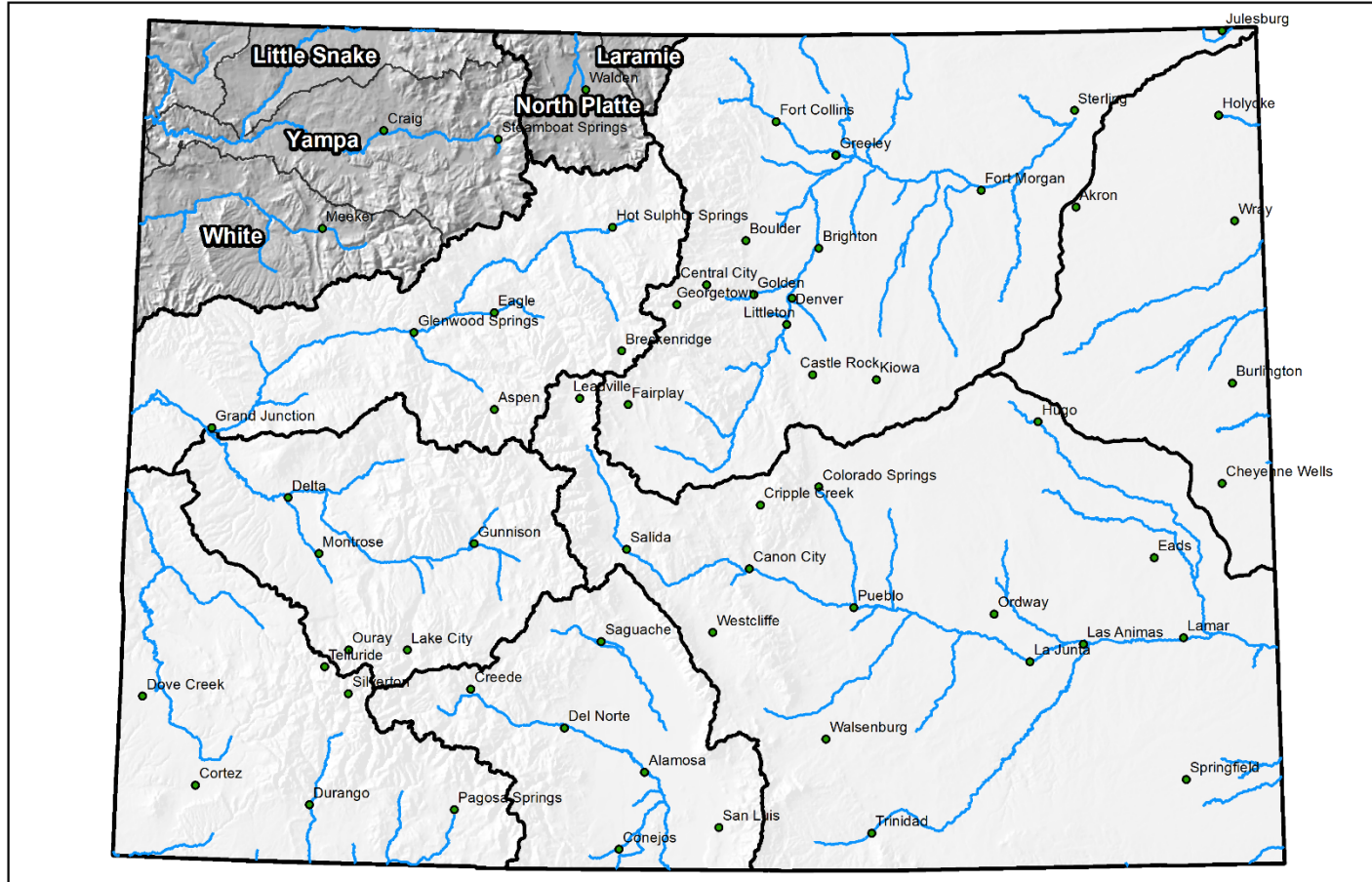
Karl.Wetlaufer@usda.gov

720-544-2853

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

Major Basin Summary

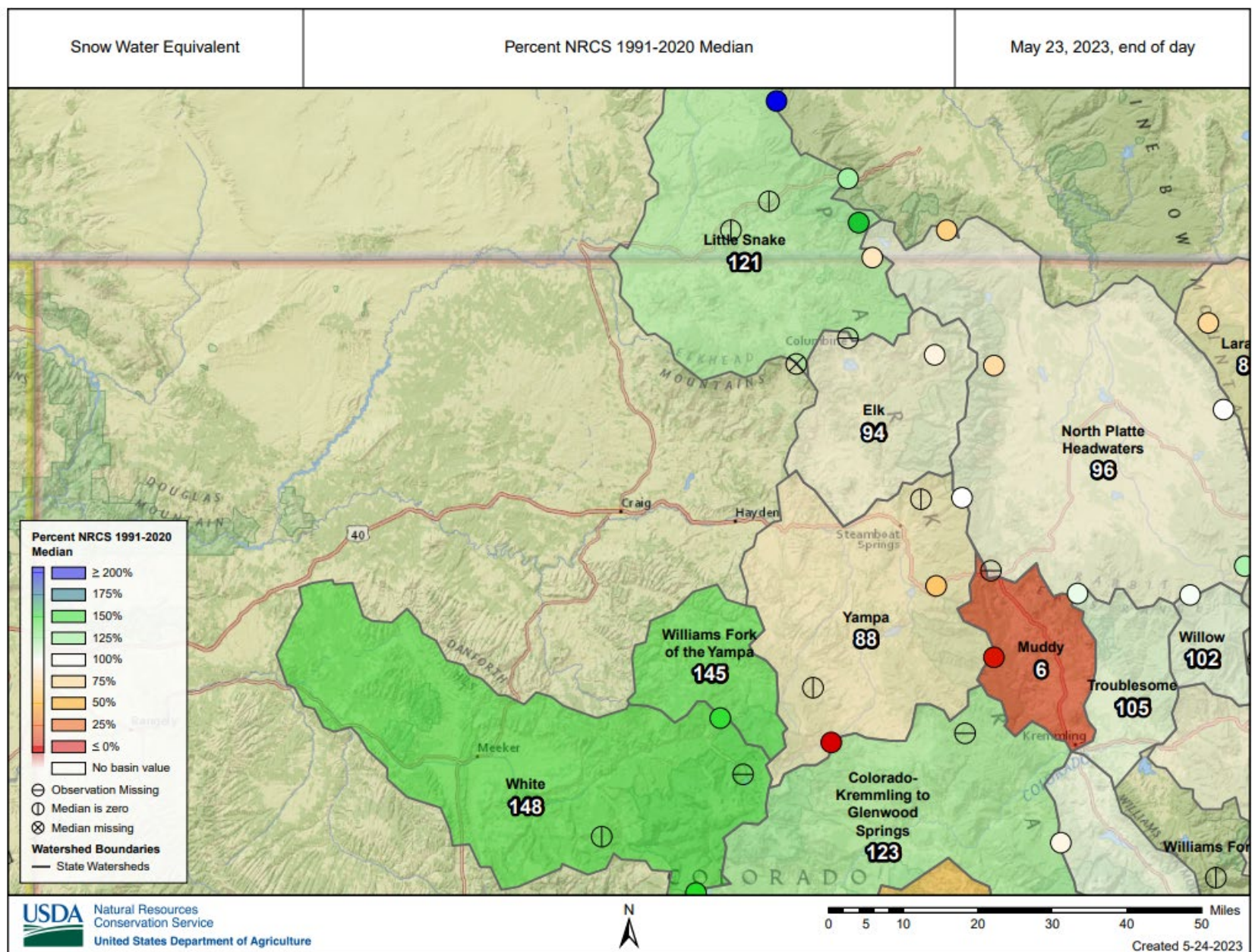
Yampa, White, and North Platte River Basins





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Colorado Snow Surveys





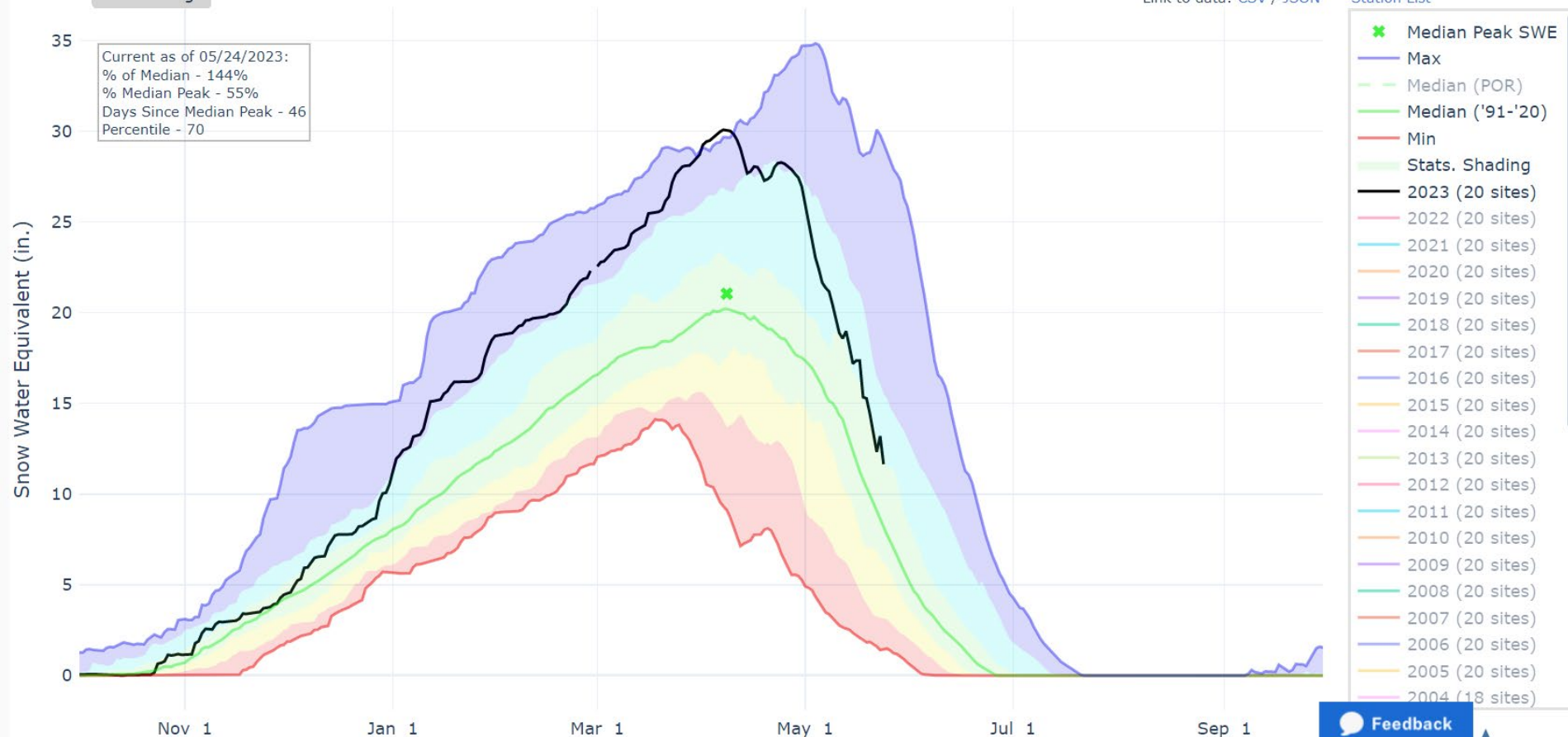
SNOW WATER EQUIVALENT IN YAMPA-WHITE-LITTLE SNAKE

Reset Range

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

[Station List](#)

Current as of 05/24/2023:
% of Median - 144%
% Median Peak - 55%
Days Since Median Peak - 46
Percentile - 70



[Feedback](#)



Colorado Snow Surveys

SNOW WATER EQUIVALENT IN LARAMIE AND NORTH PLATTE

Reset Range

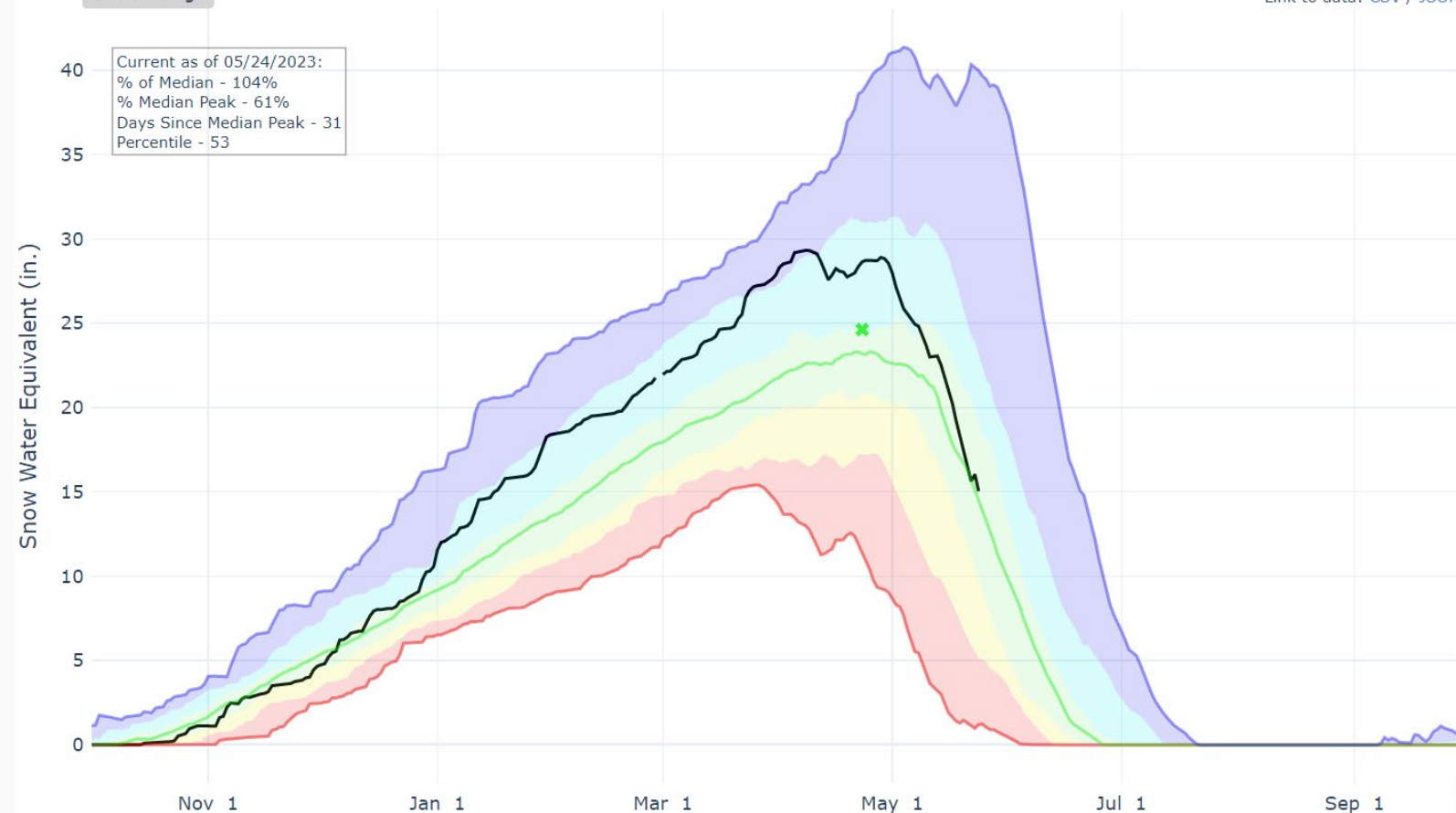
[Link to data: CSV / JSON](#)

[Station List](#)

Current as of 05/24/2023:
% of Median - 104%
% Median Peak - 61%
Days Since Median Peak - 31
Percentile - 53

- ✖ Median Peak SWE
- 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)

[Feedback](#)





Colorado Snow Surveys

PRECIPITATION IN YAMPA-WHITE-LITTLE SNAKE

Reset Range

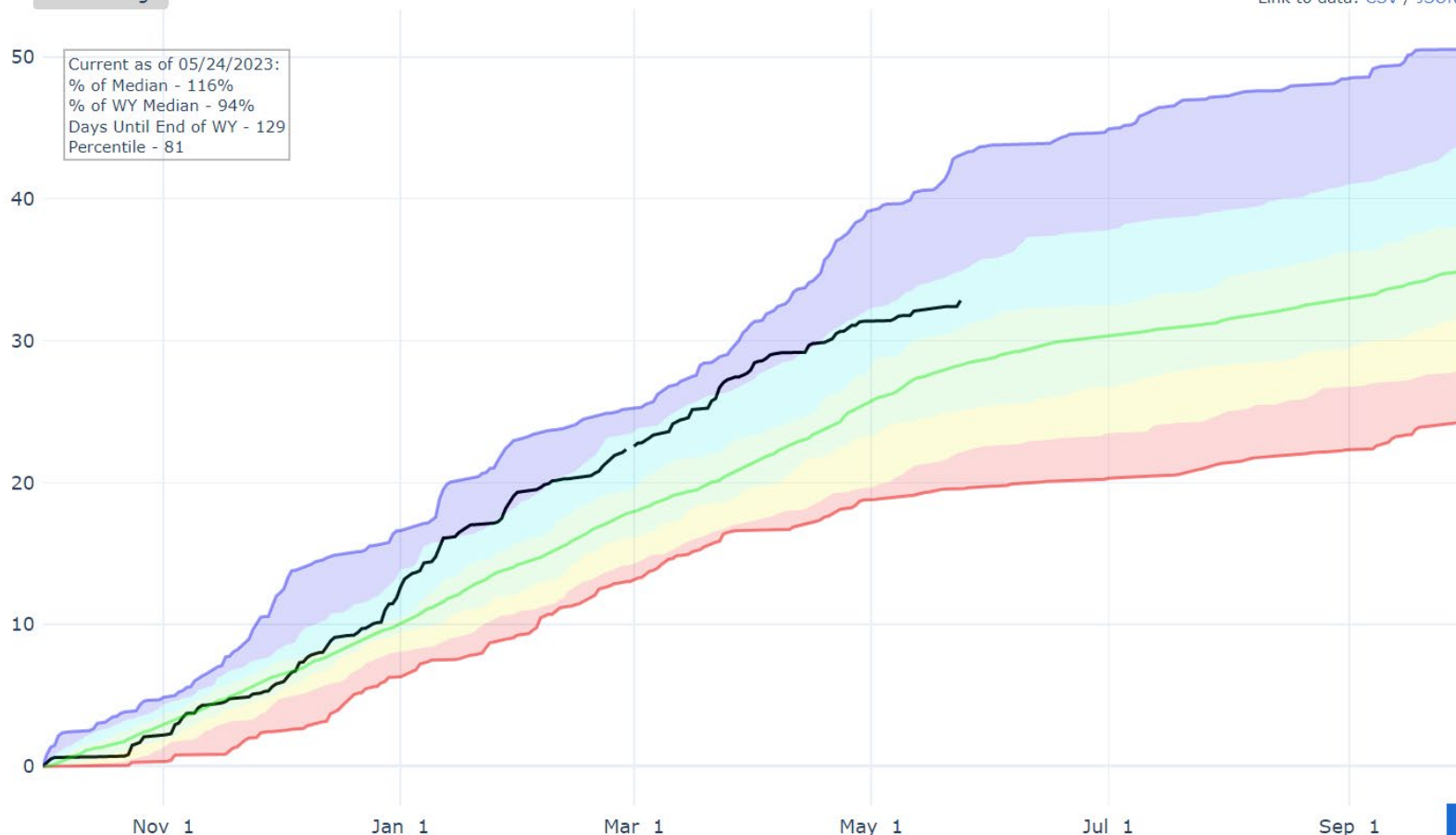
[Link to data: CSV / JSON](#)

[Station List](#)

Current as of 05/24/2023:
% of Median - 116%
% of WY Median - 94%
Days Until End of WY - 129
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)
- 2003 (19 sites)

WY Accumulated Precip. (in.)



[Feedback](#)



Colorado Snow Surveys

PRECIPITATION IN LARAMIE AND NORTH PLATTE

Reset Range

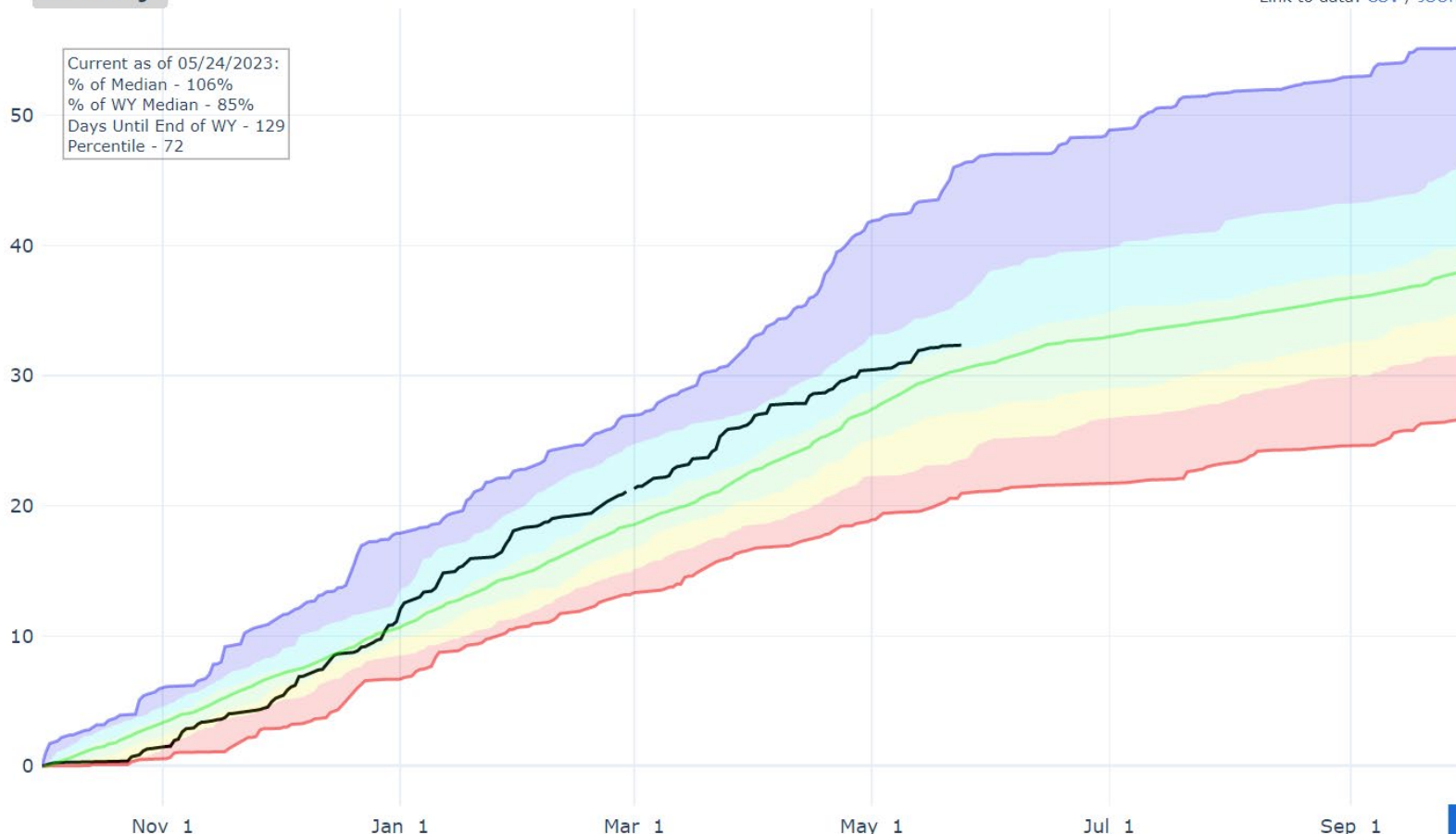
[Link to data: CSV / JSON](#)

[Station List](#)

Current as of 05/24/2023:
% of Median - 106%
% of WY Median - 85%
Days Until End of WY - 129
Percentile - 72

- 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)
- 2003 (11 sites)

WY Accumulated Precip. (in.)

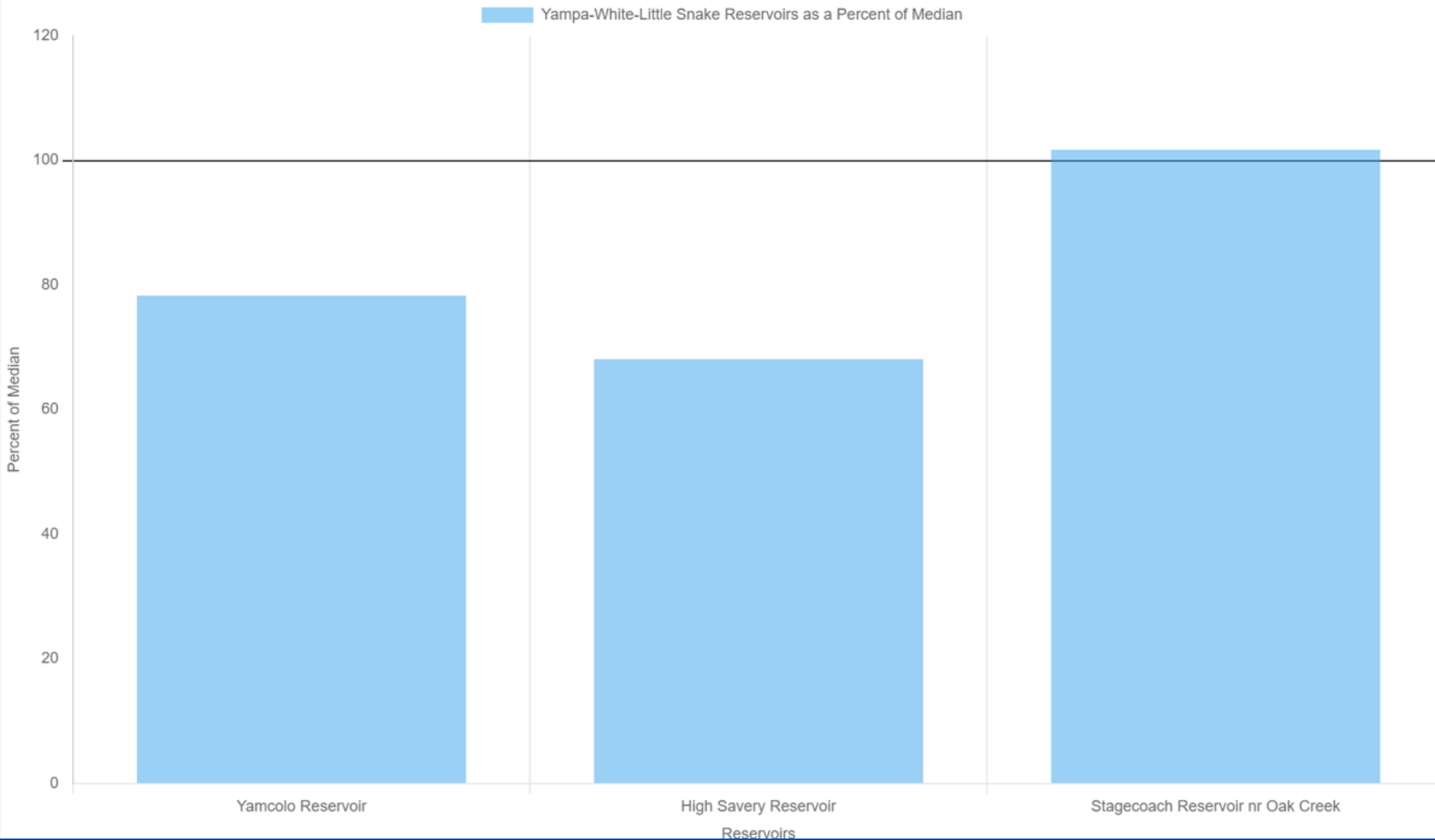


[Feedback](#)



Colorado Snow Surveys

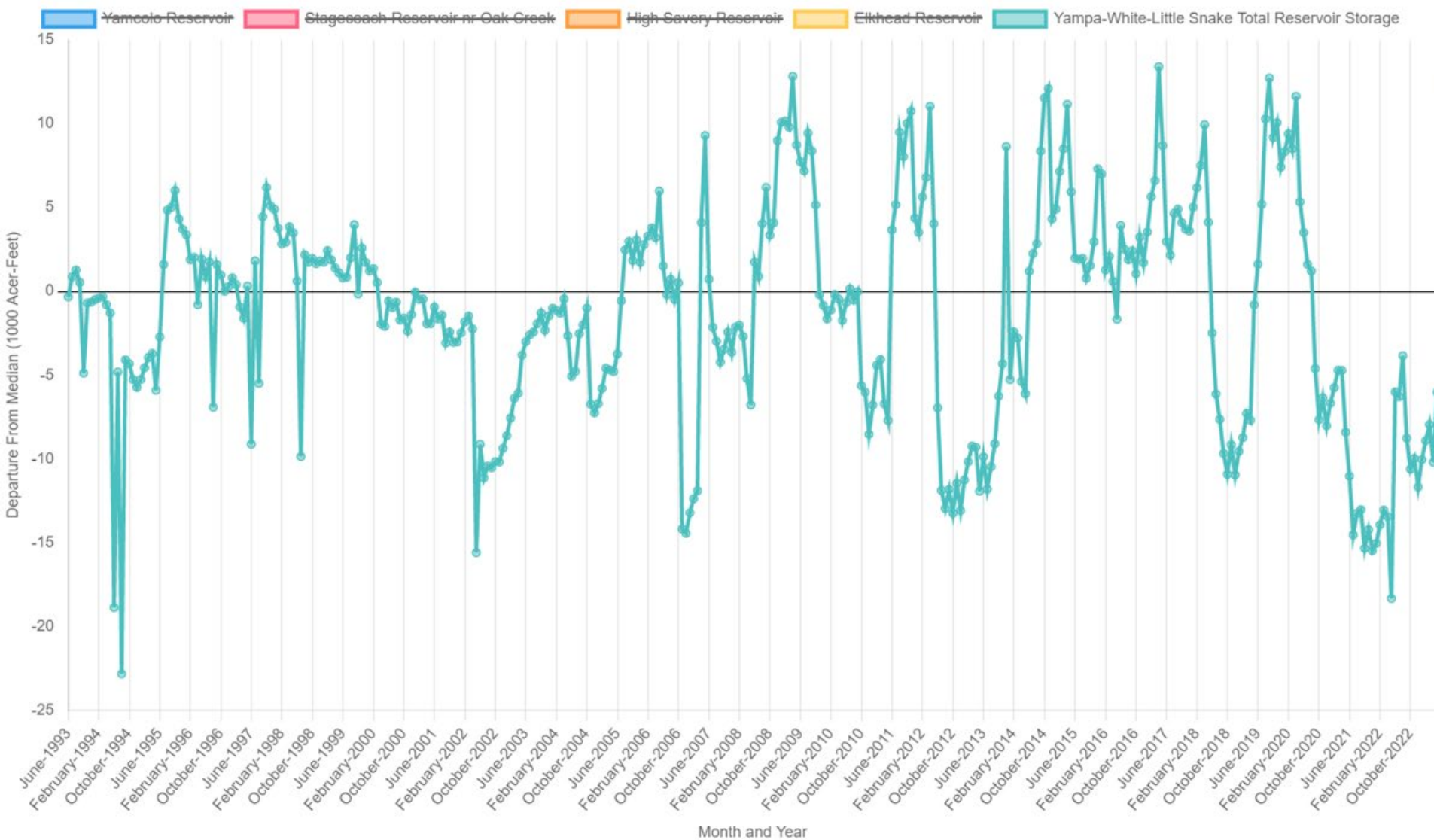
Yampa-White-Little Snake Reservoir Storage Summary for May 1st 2023





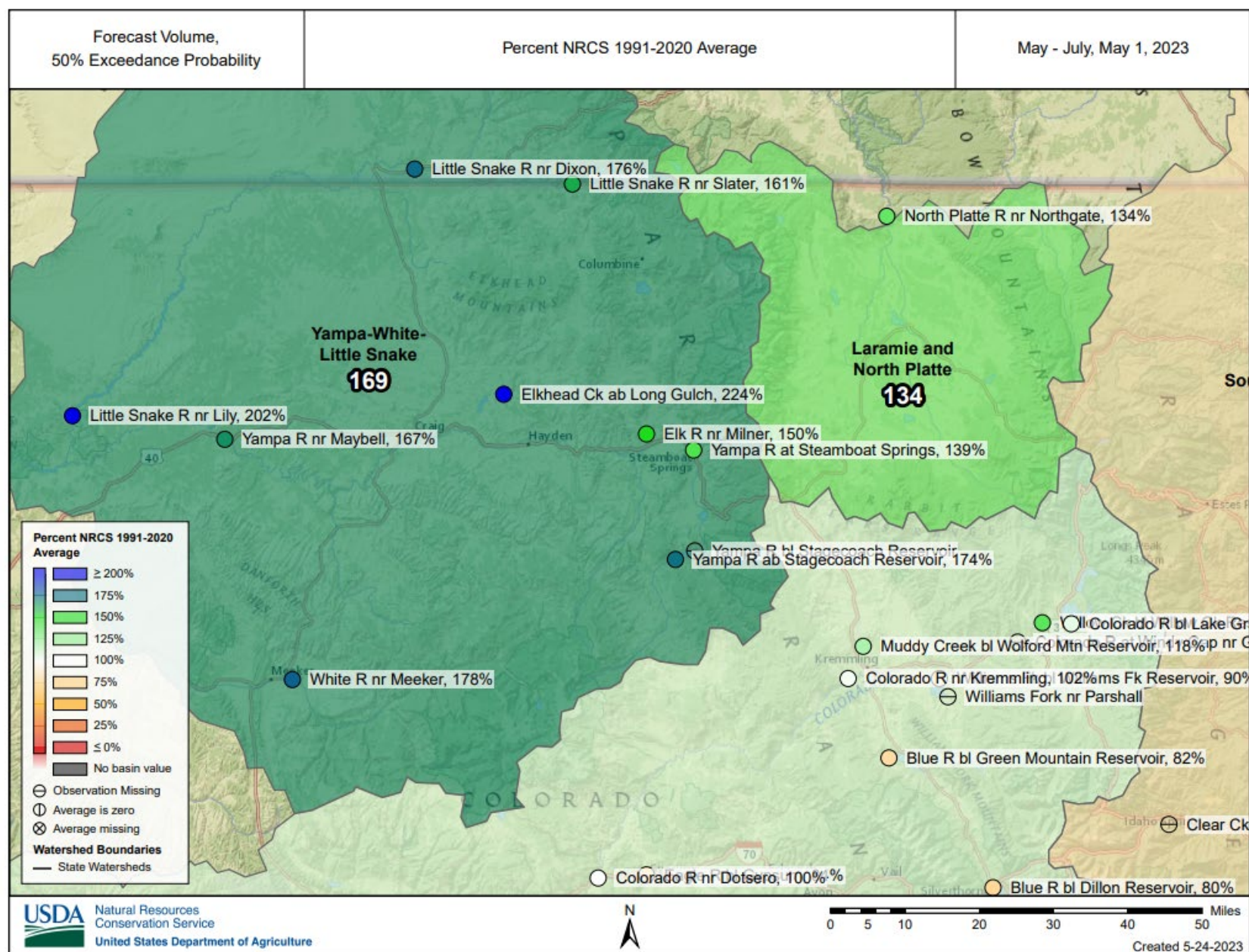
Colorado Snow Surveys

Yampa-White-Little Snake Departure From Median Timeseries Plot

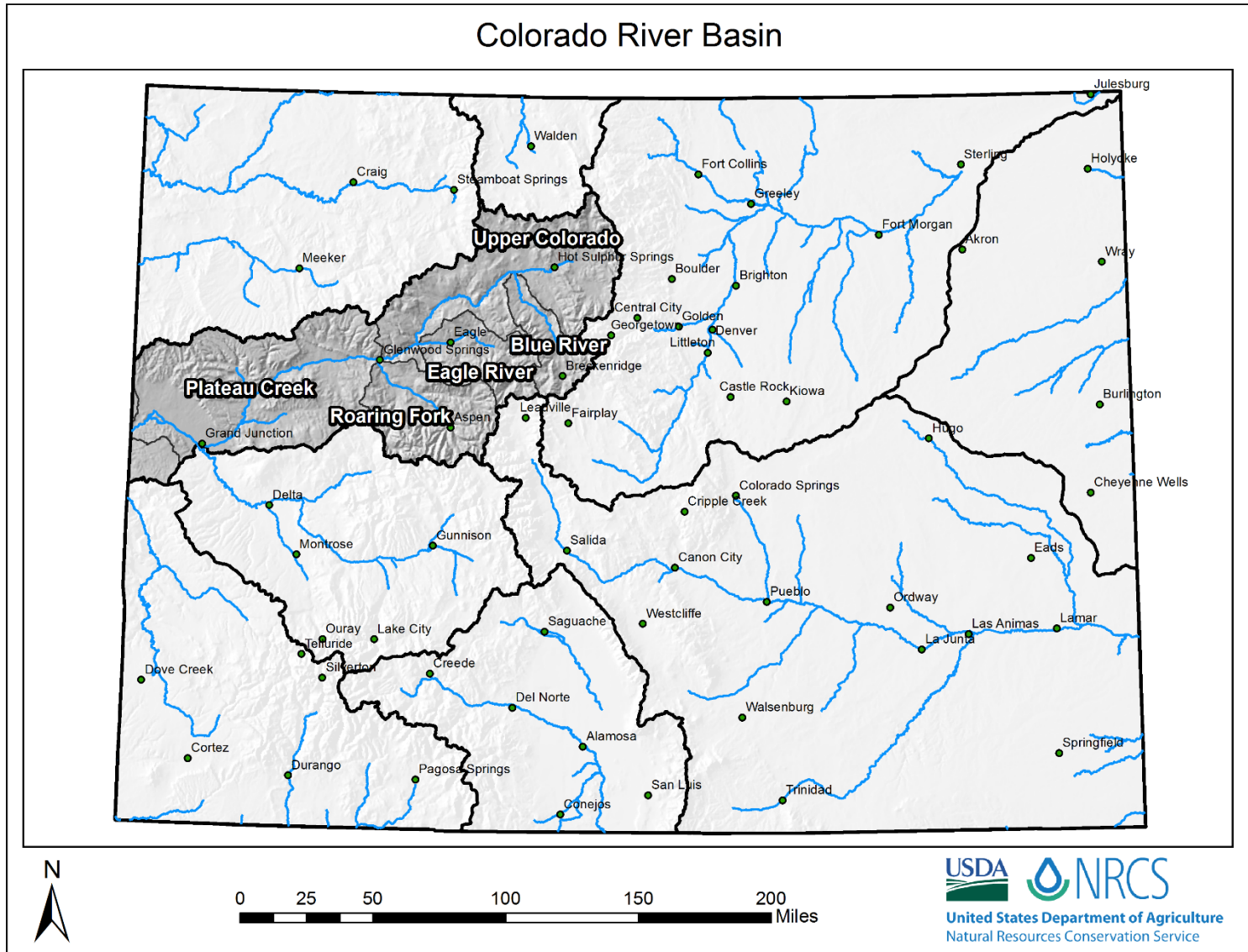




Colorado Snow Surveys



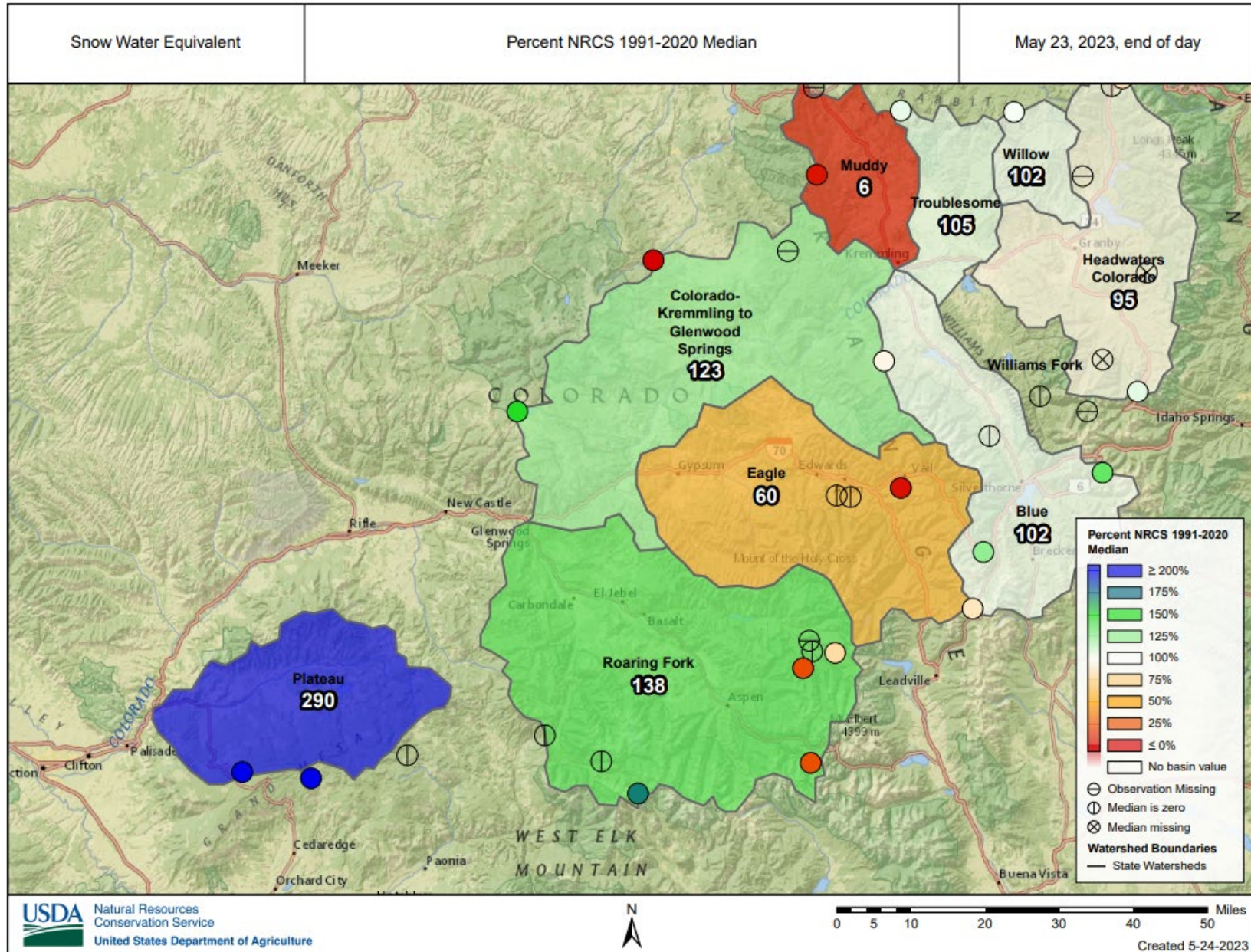
Major Basin Summary





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Colorado Snow Surveys





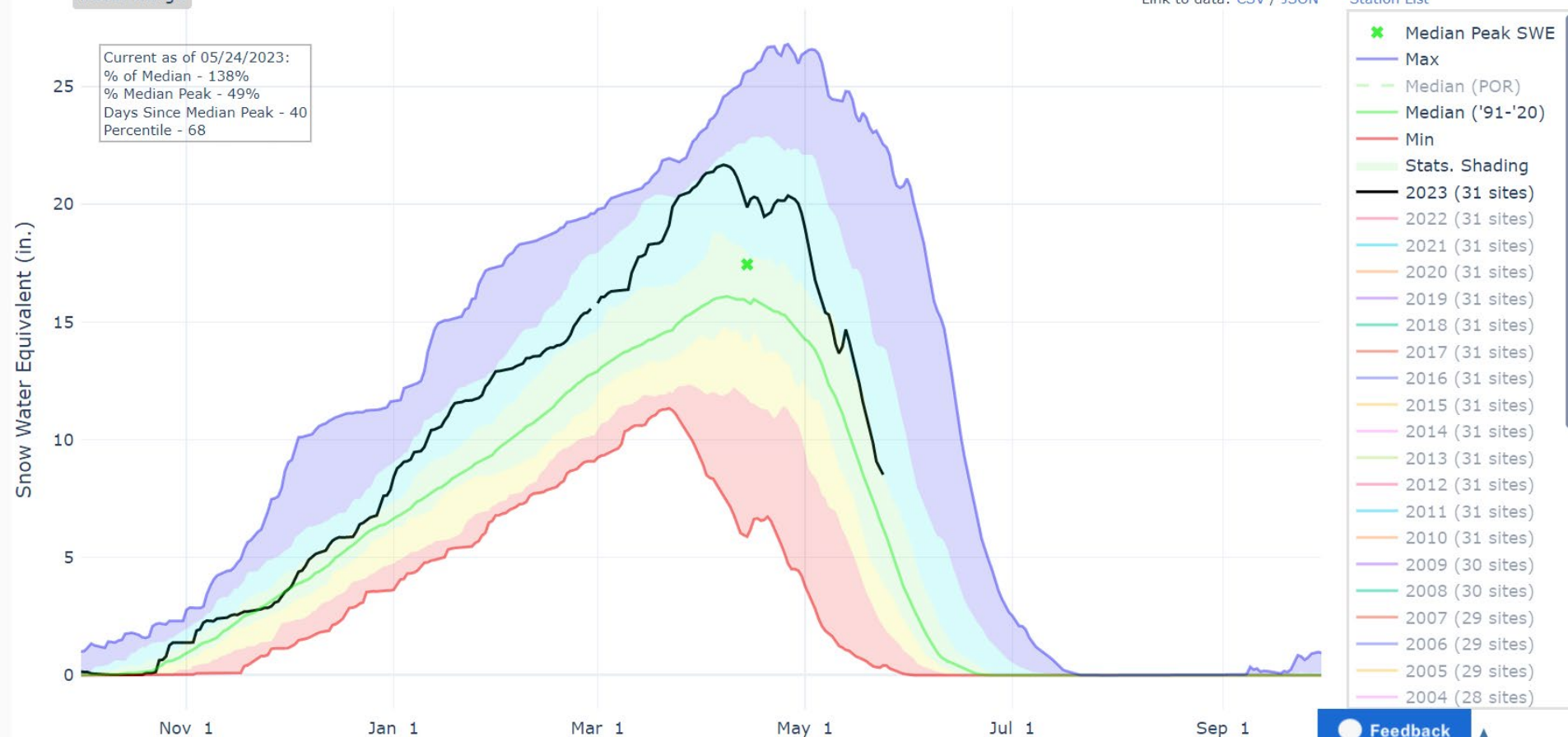
SNOW WATER EQUIVALENT IN COLORADO HEADWATERS

Reset Range

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

[Station List](#)

Current as of 05/24/2023:
% of Median - 138%
% Median Peak - 49%
Days Since Median Peak - 40
Percentile - 68





Colorado Snow Surveys

PRECIPITATION IN COLORADO HEADWATERS

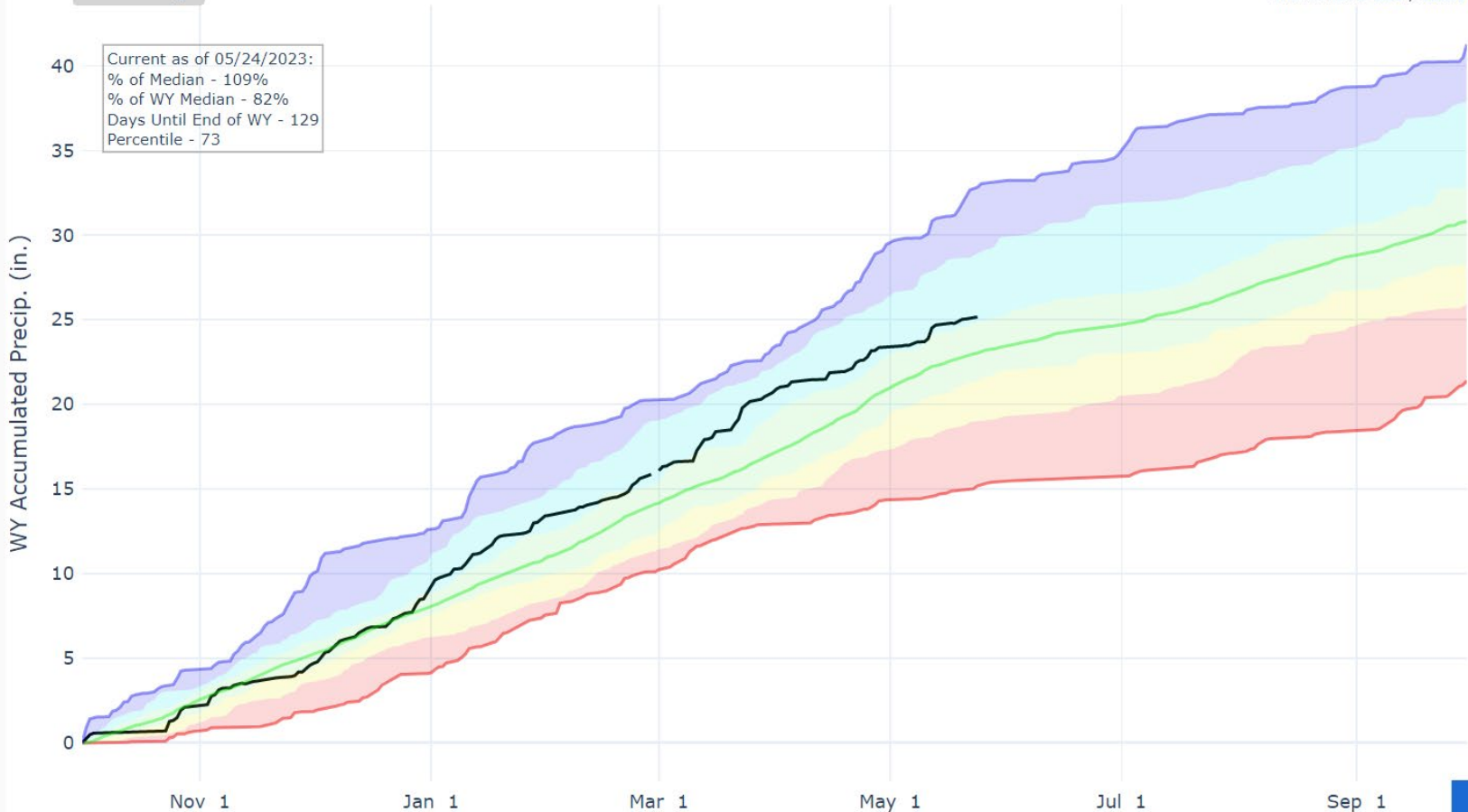
Reset Range

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

[Station List](#)

Current as of 05/24/2023:
% of Median - 109%
% of WY Median - 82%
Days Until End of WY - 129
Percentile - 73

- 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)
- 2003 (28 sites)

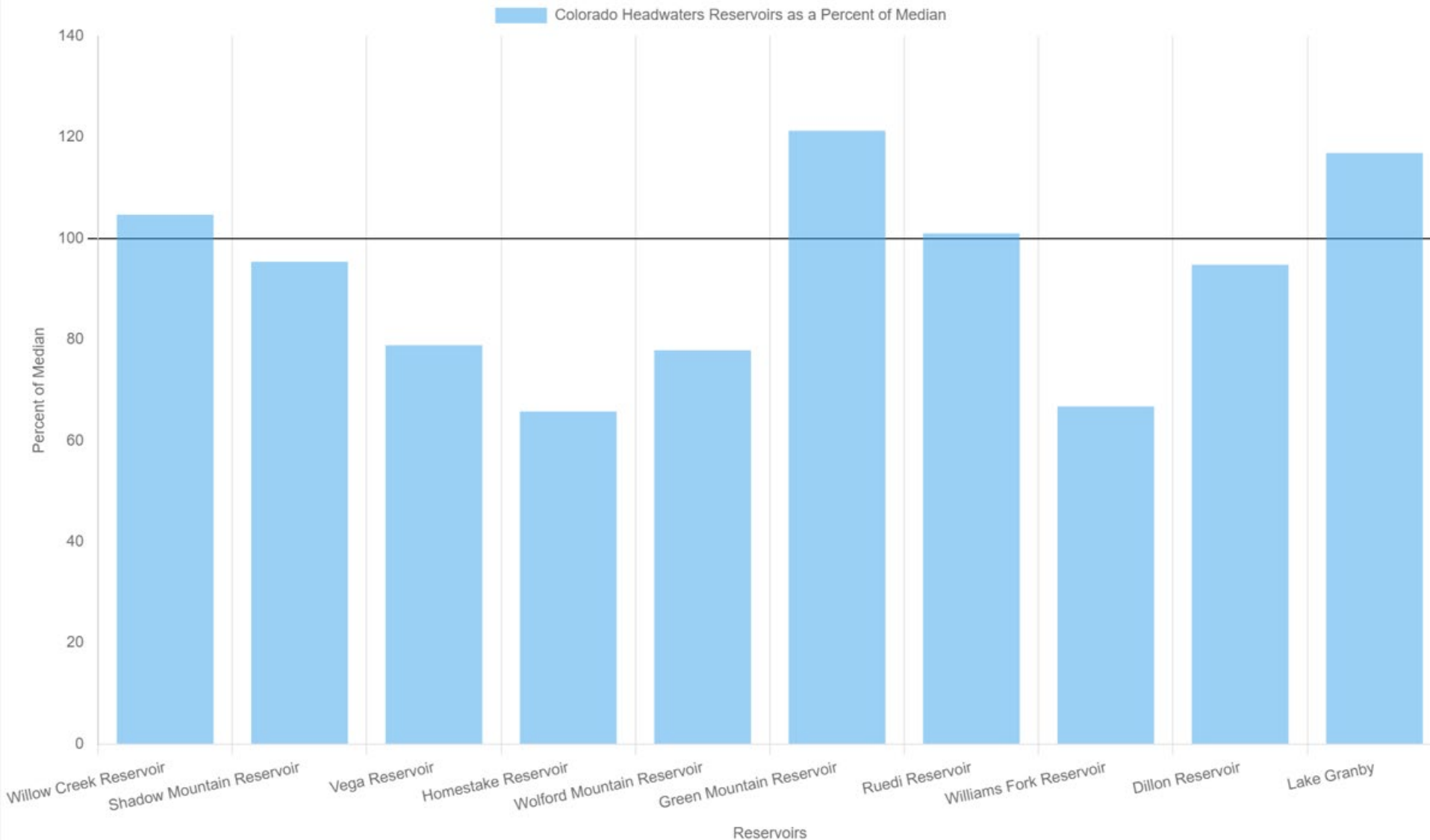


[Feedback](#)



Colorado Snow Surveys

Colorado Headwaters Reservoir Storage Summary for May 1st 2023

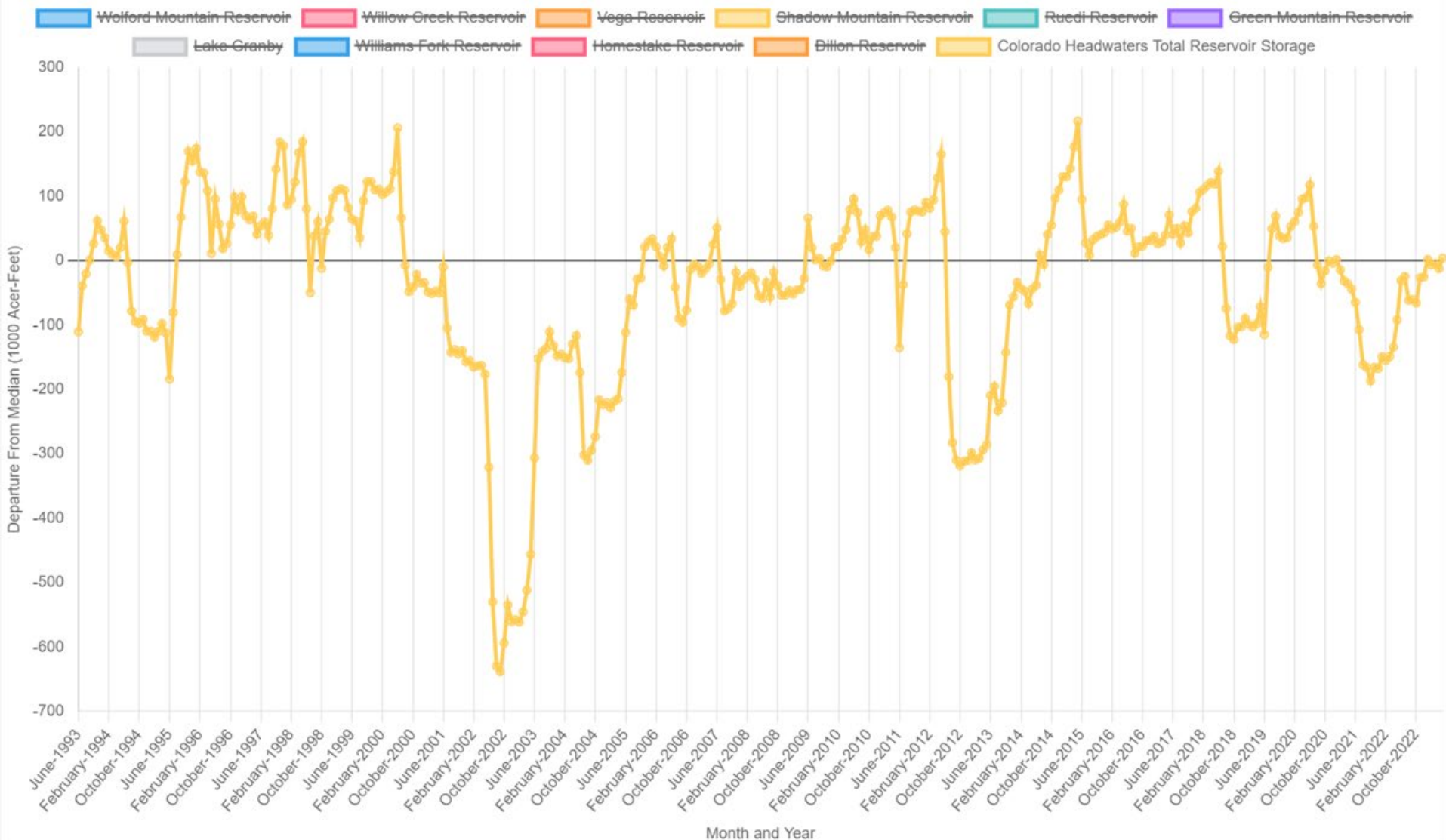




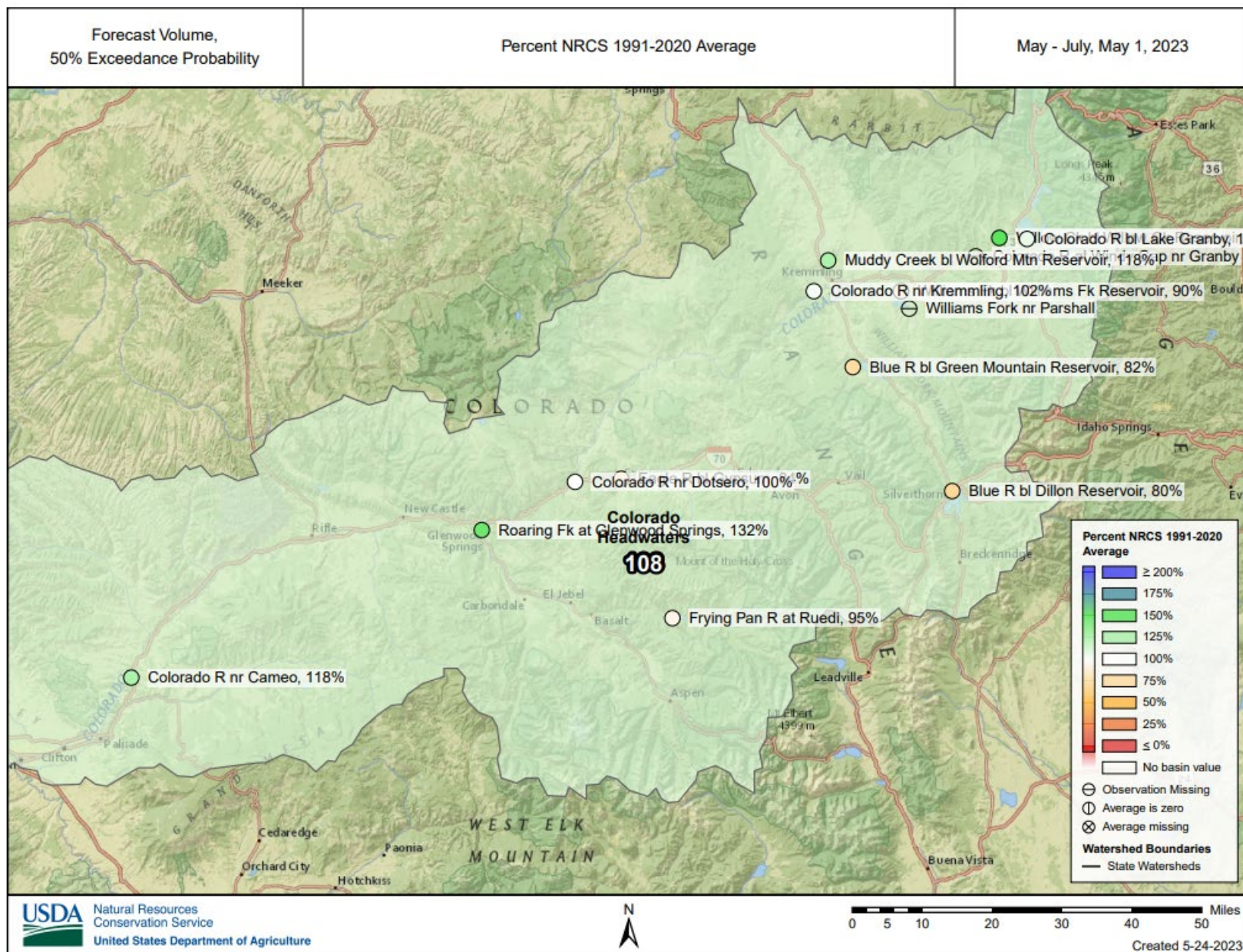
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Colorado Headwaters Departure From Median Timeseries Plot

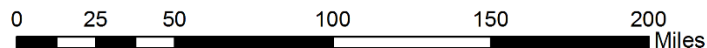
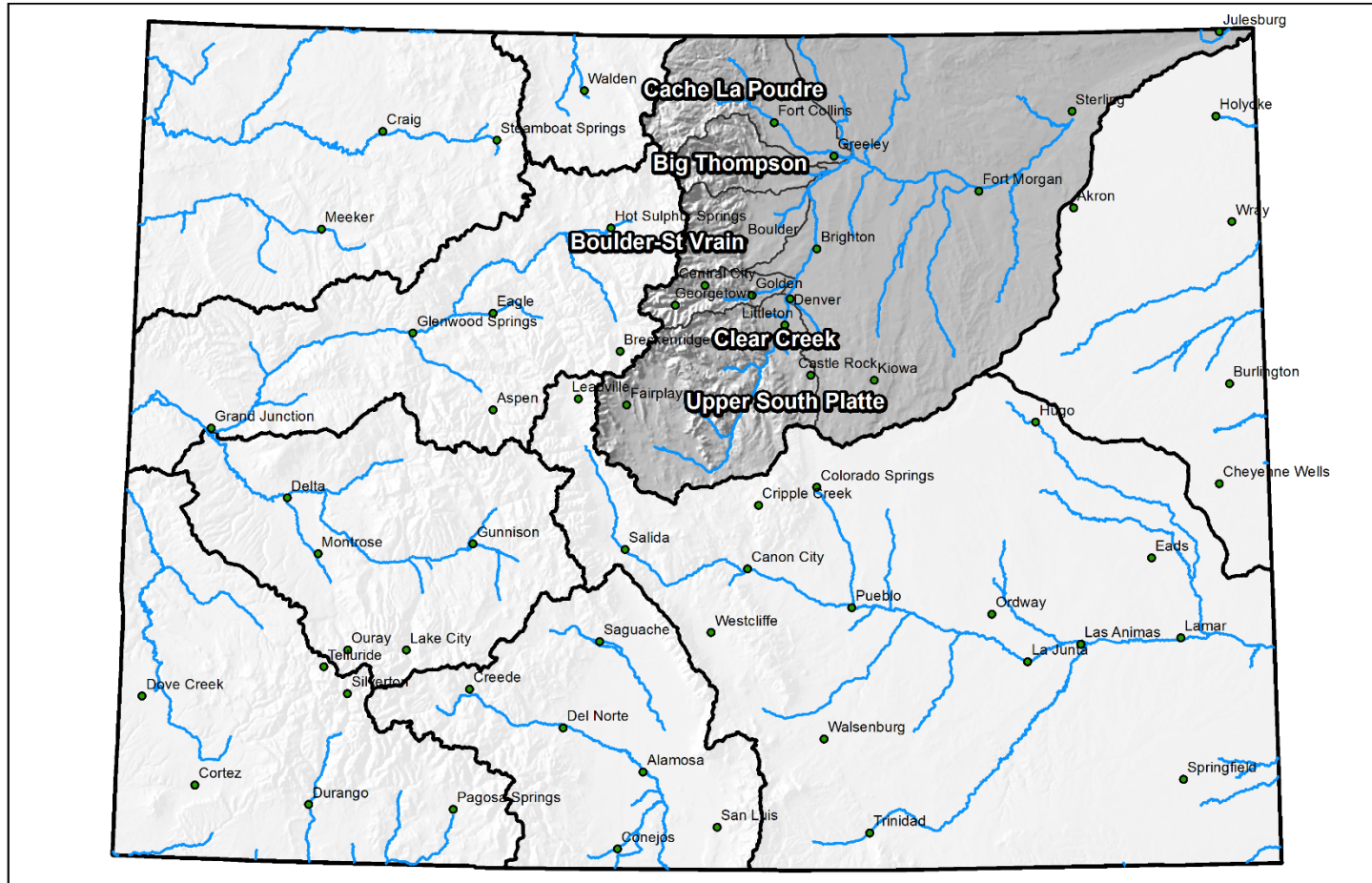


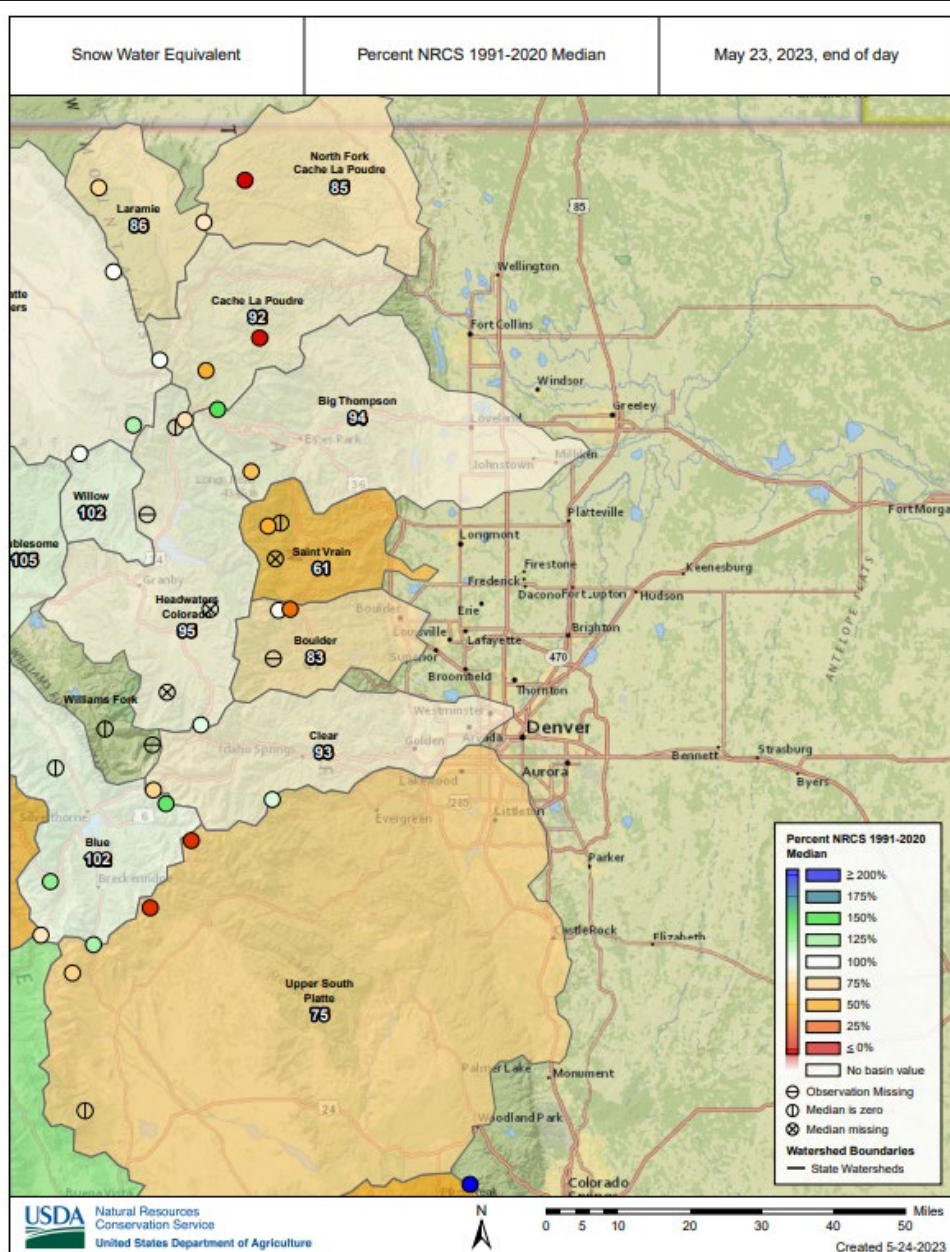
Colorado Snow Surveys



Major Basin Summary

South Platte River Basin







SNOW WATER EQUIVALENT IN SOUTH PLATTE

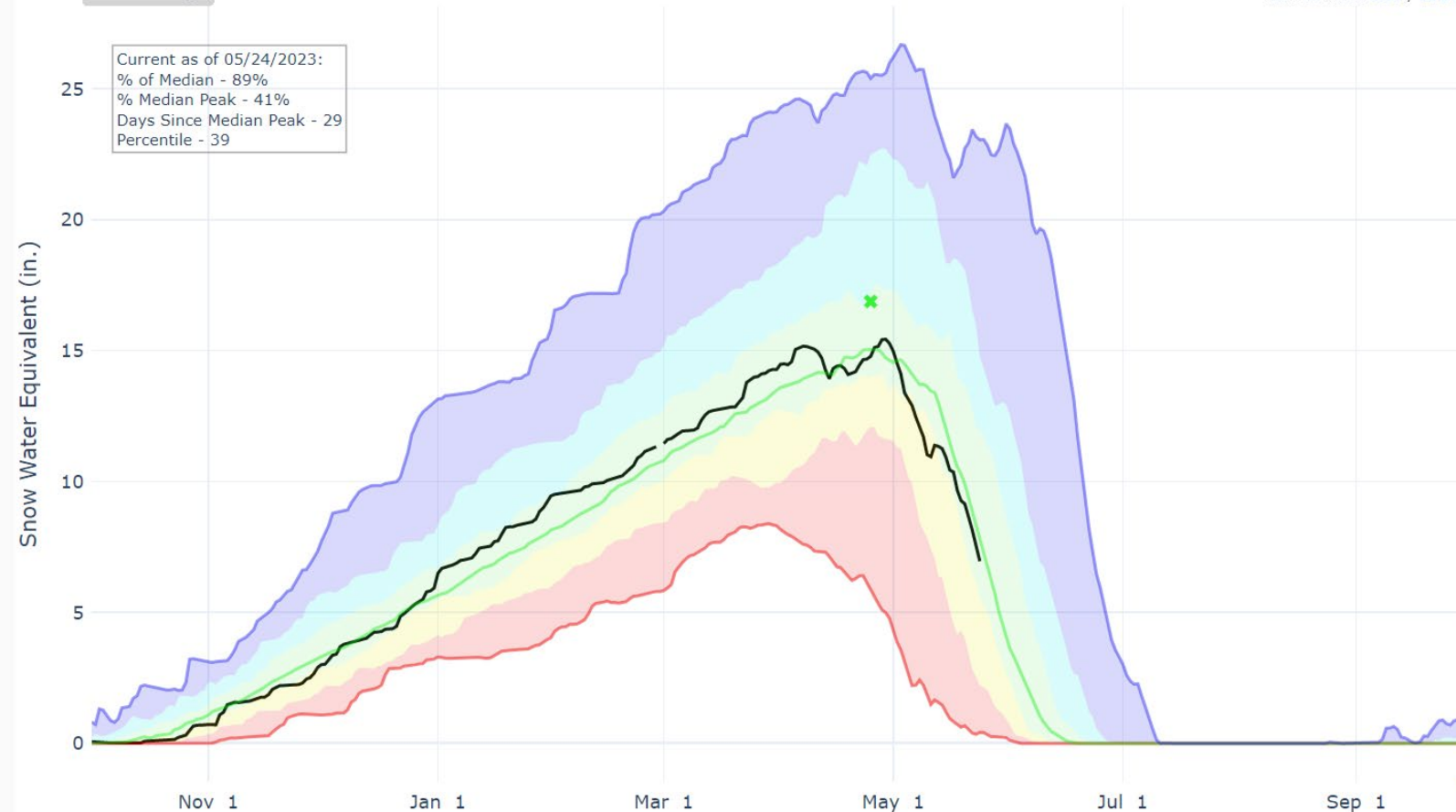
Reset Range

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

[Station List](#)

Current as of 05/24/2023:
% of Median - 89%
% Median Peak - 41%
Days Since Median Peak - 29
Percentile - 39

- ✕ 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)
- 2004 (17 sites)



[Feedback](#)



Colorado Snow Surveys

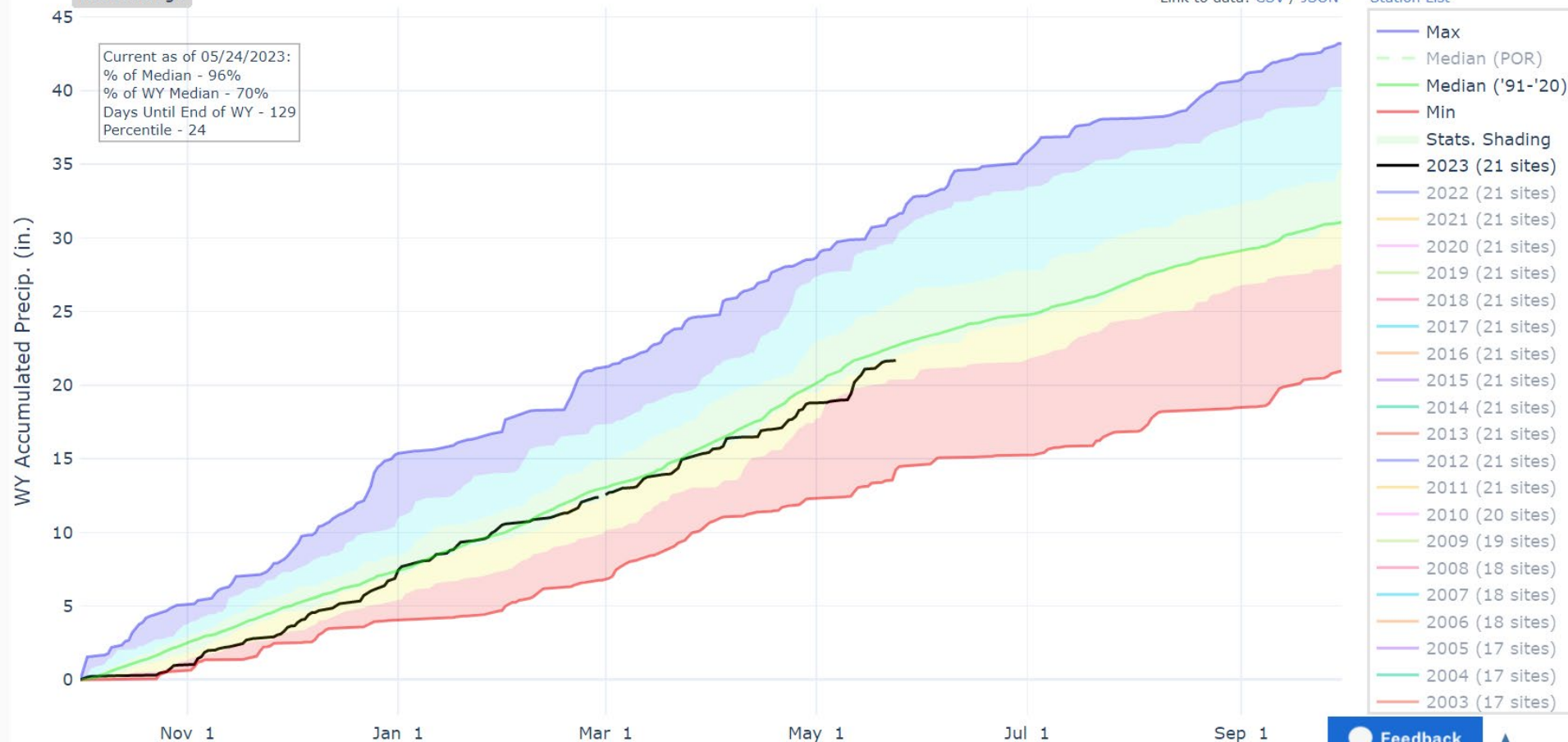
PRECIPITATION IN SOUTH PLATTE

Reset Range

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

[Station List](#)

Current as of 05/24/2023:
% of Median - 96%
% of WY Median - 70%
Days Until End of WY - 129
Percentile - 24

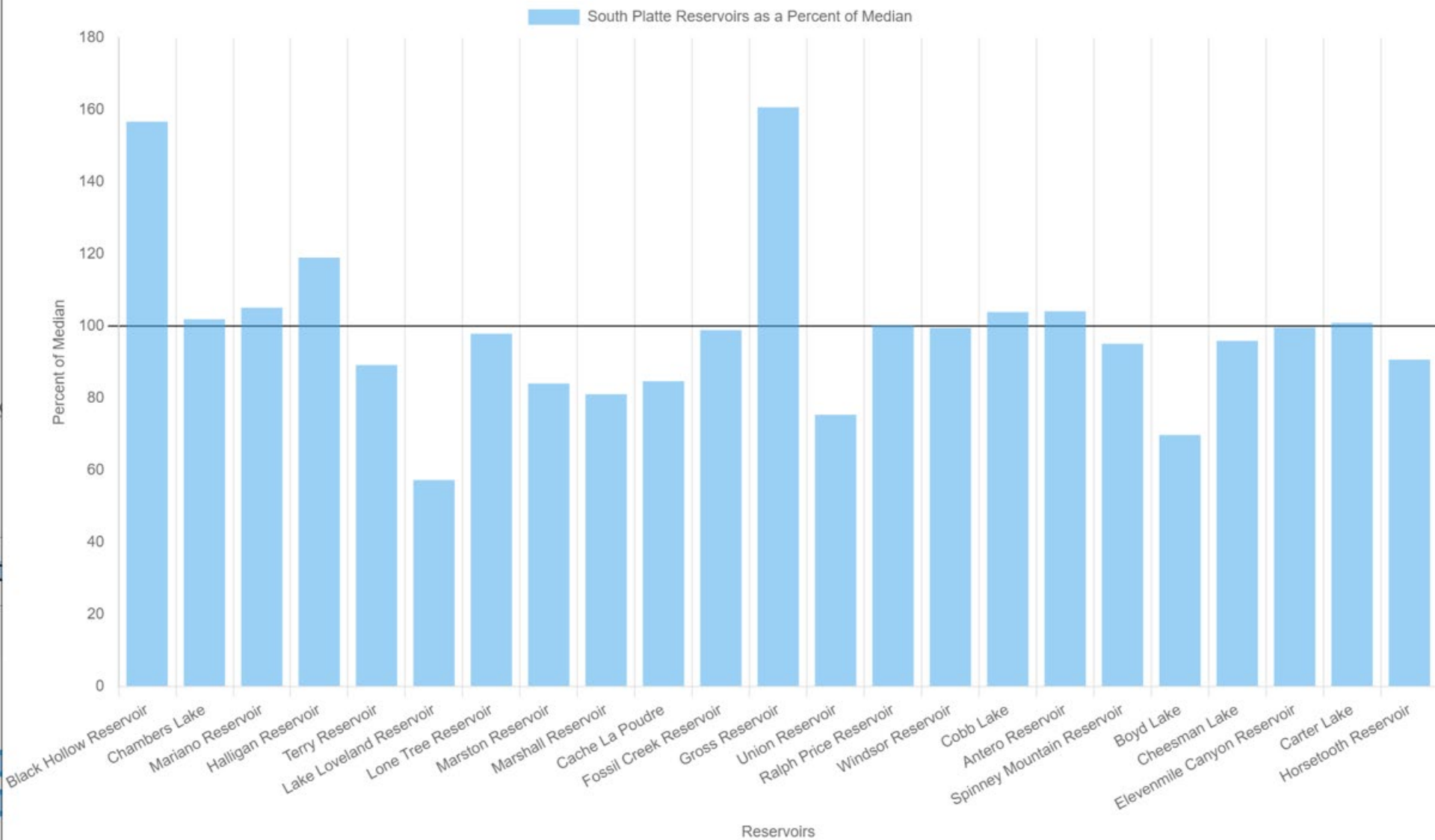


[Feedback](#)



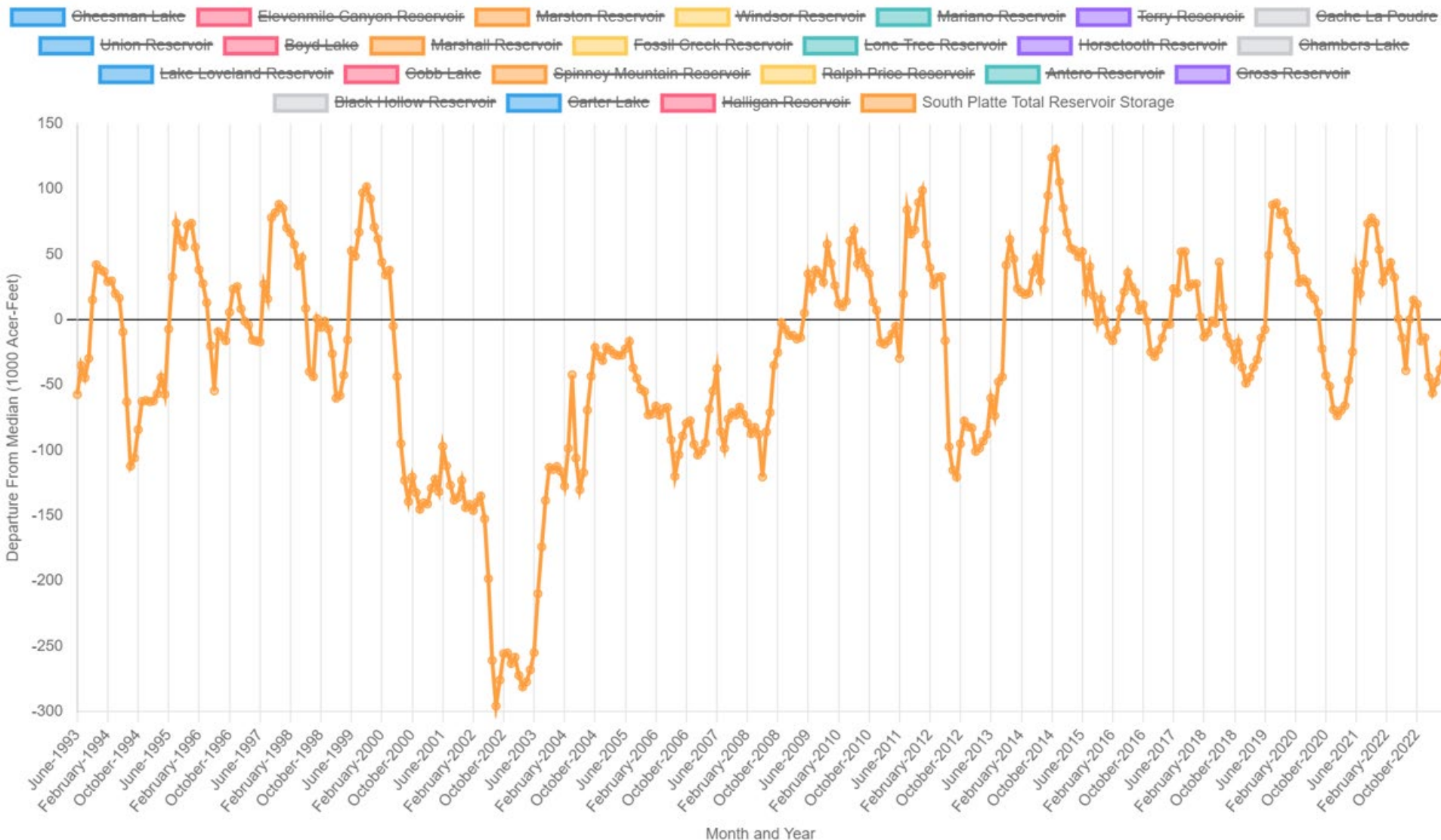
Colorado Snow Surveys

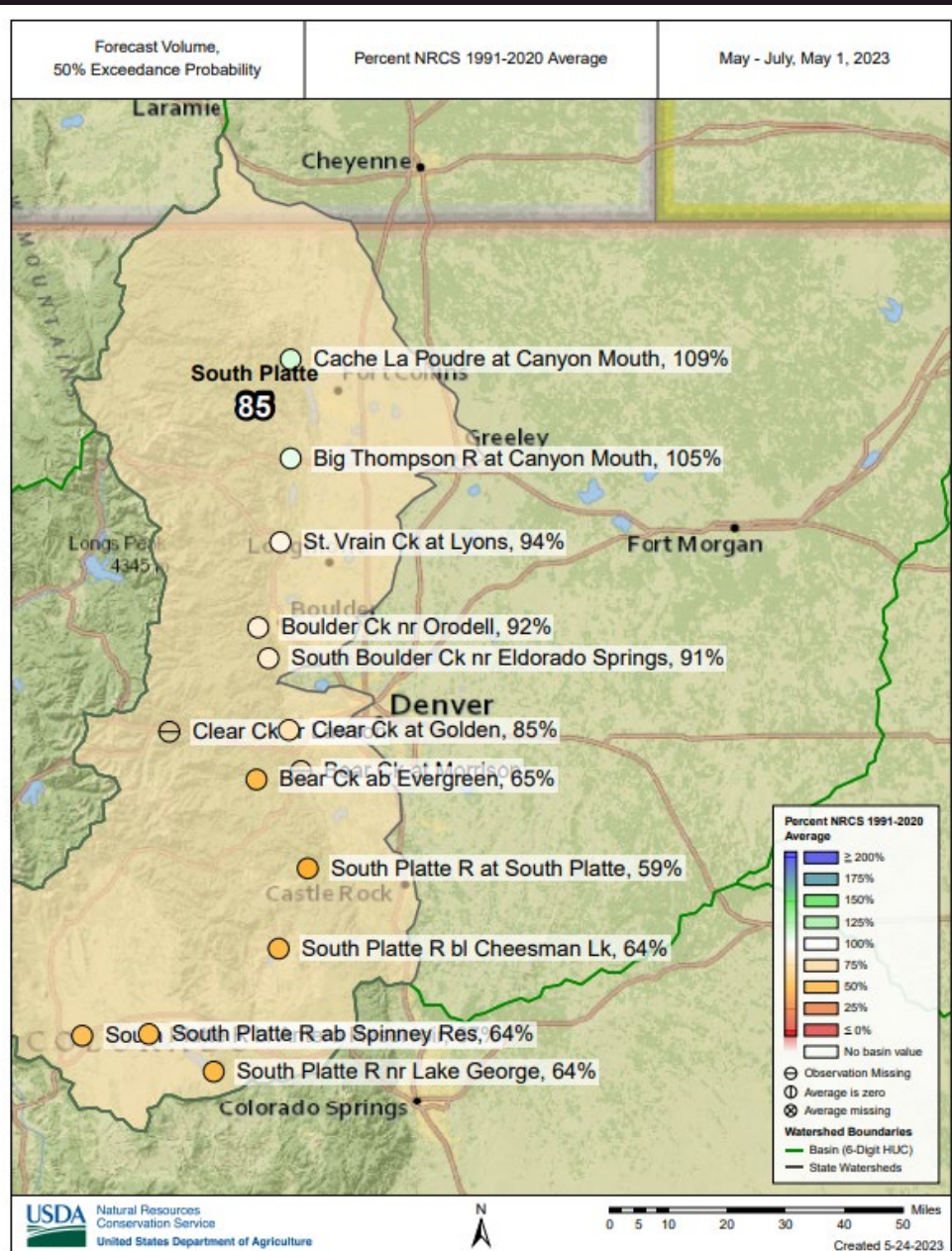
South Platte Reservoir Storage Summary for May 1st 2023





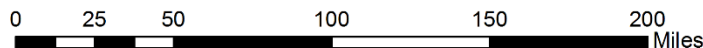
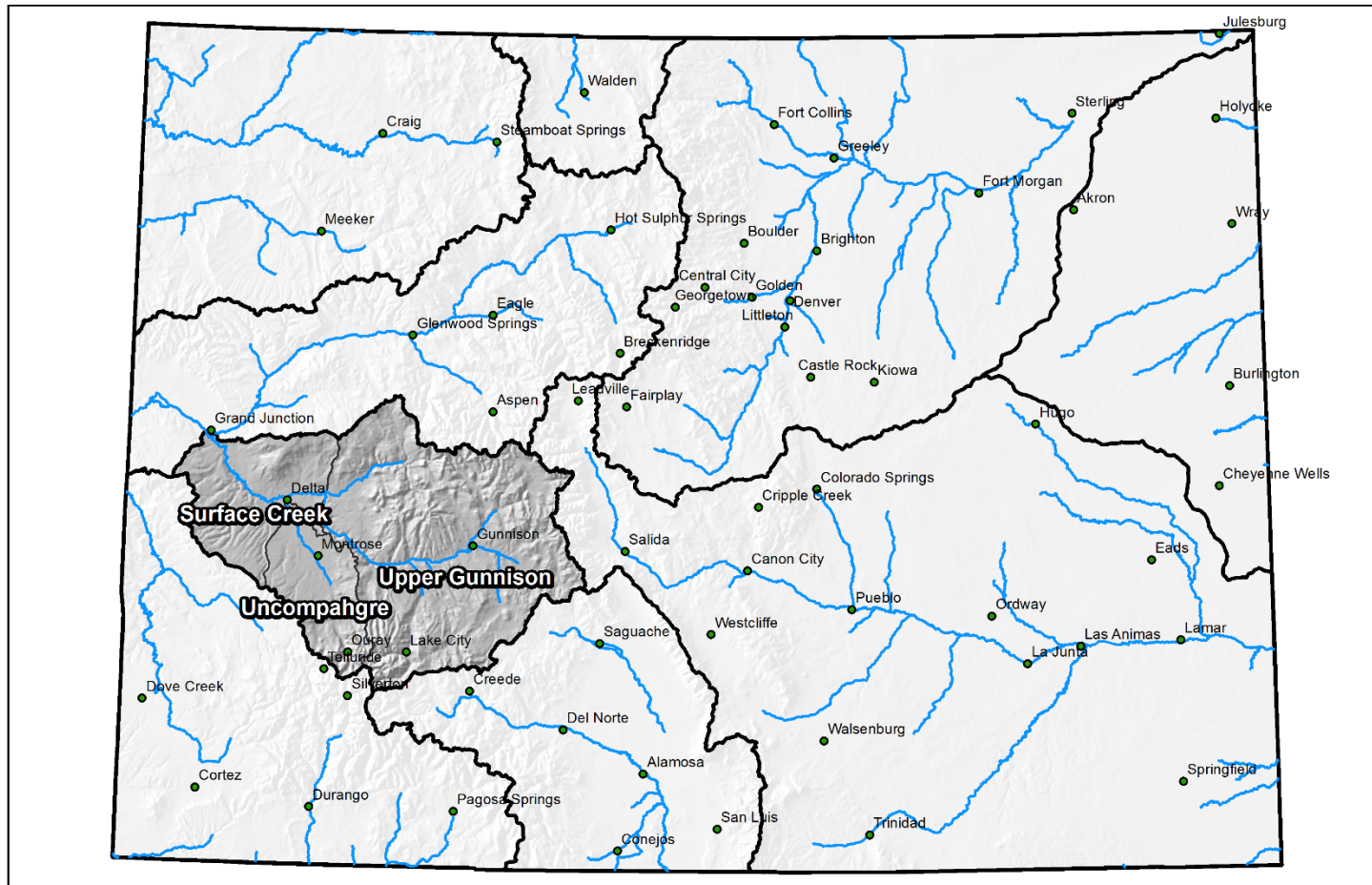
South Platte Departure From Median Timeseries Plot

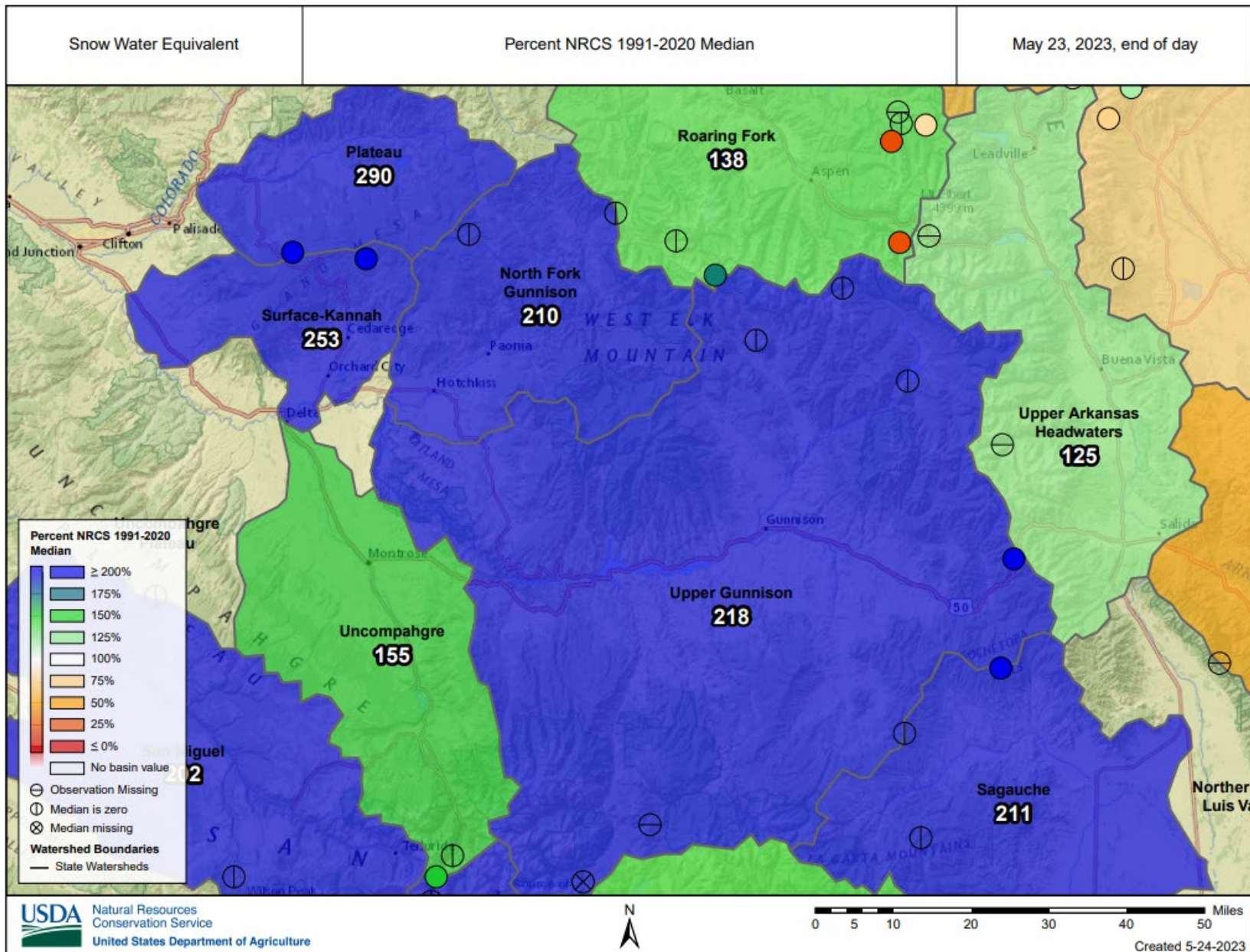




Major Basin Summary

Gunnison River Basin







SNOW WATER EQUIVALENT IN GUNNISON

Reset Range

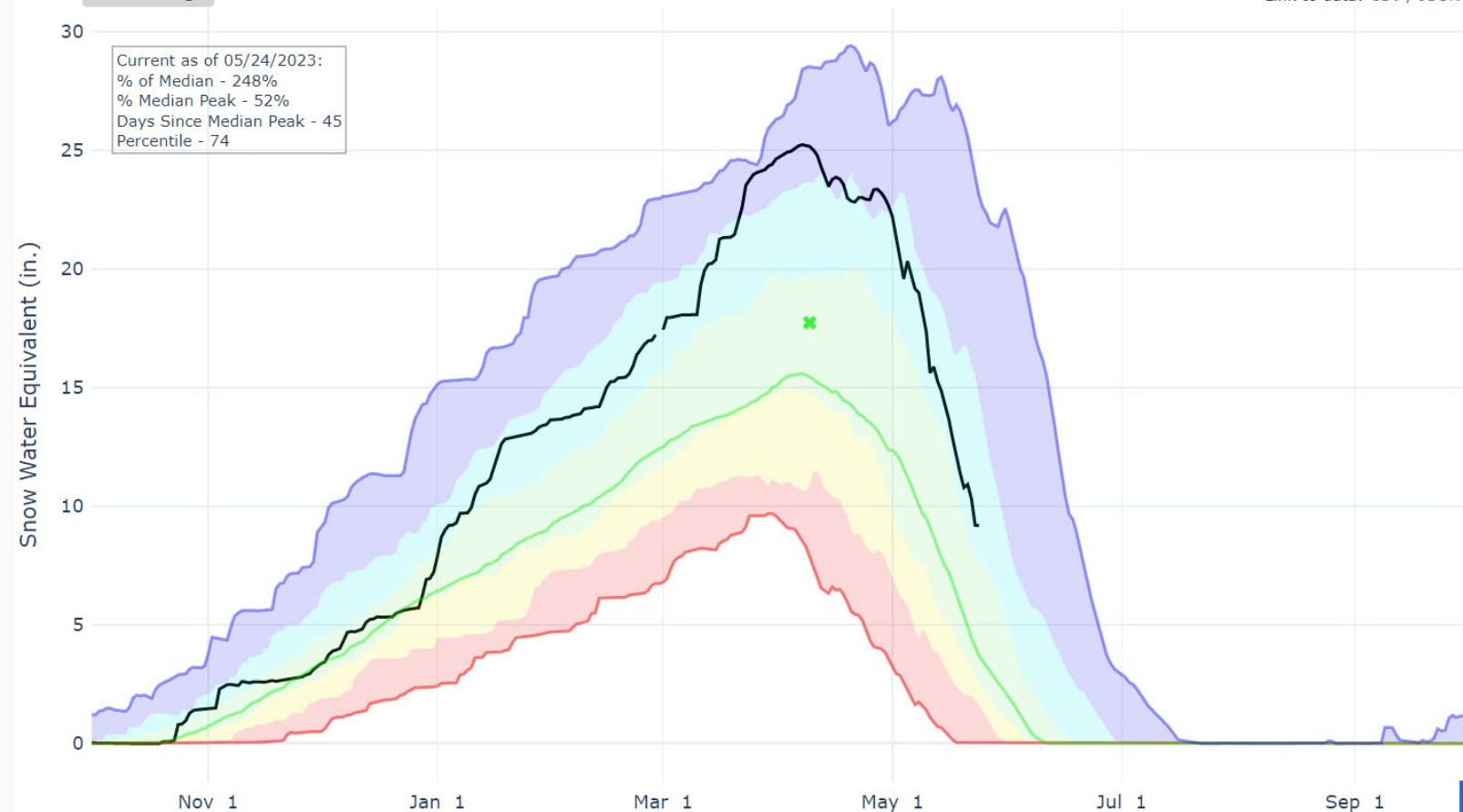
[Link to data: CSV / JSON](#)

[Station List](#)

Current as of 05/24/2023:
% of Median - 248%
% Median Peak - 52%
Days Since Median Peak - 45
Percentile - 74

- ✱ 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)
- 2004 (12 sites)

[Feedback](#)





Colorado Snow Surveys

PRECIPITATION IN GUNNISON

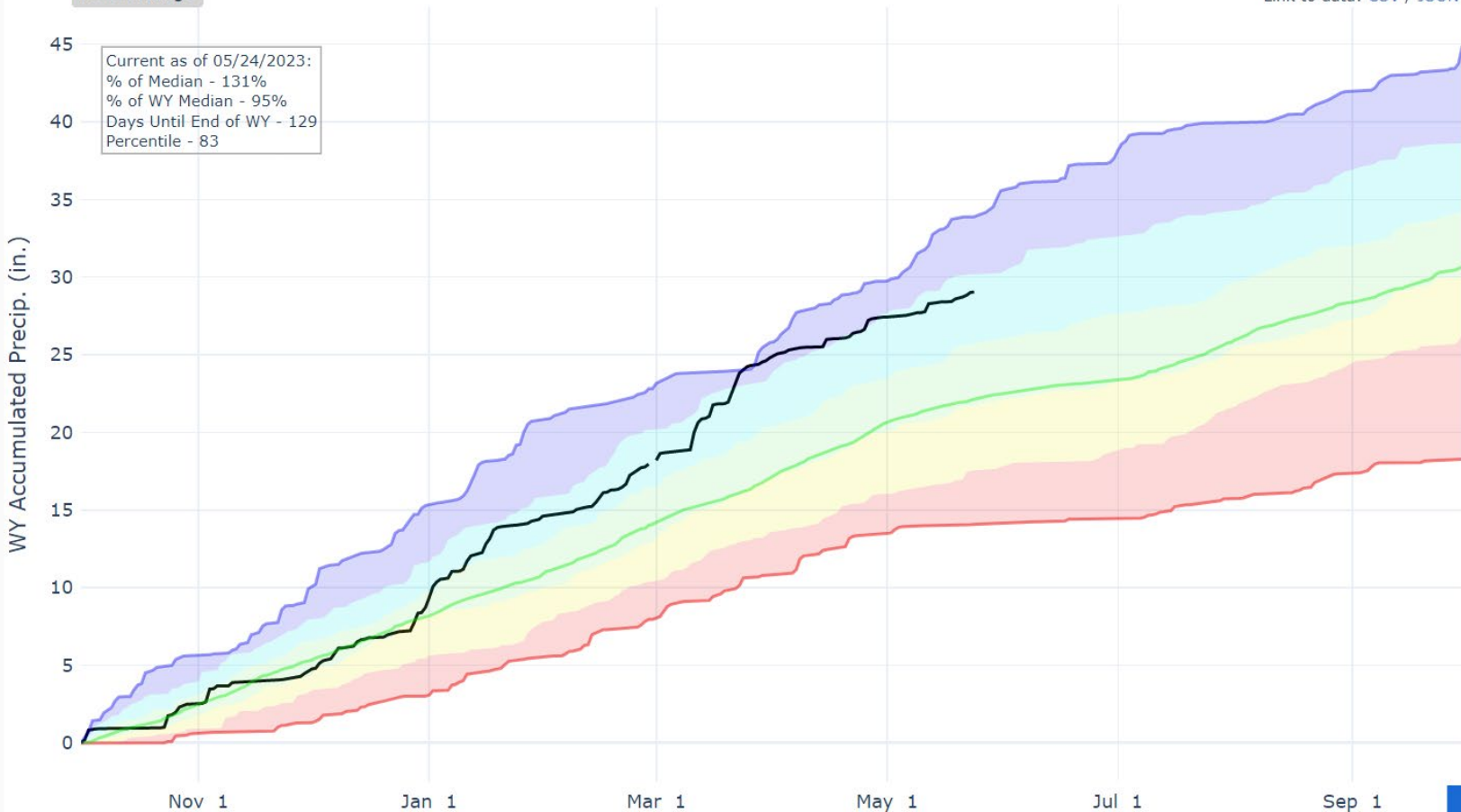
Reset Range

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

[Station List](#)

Current as of 05/24/2023:
% of Median - 131%
% of WY Median - 95%
Days Until End of WY - 129
Percentile - 83

- 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)
- 2003 (12 sites)

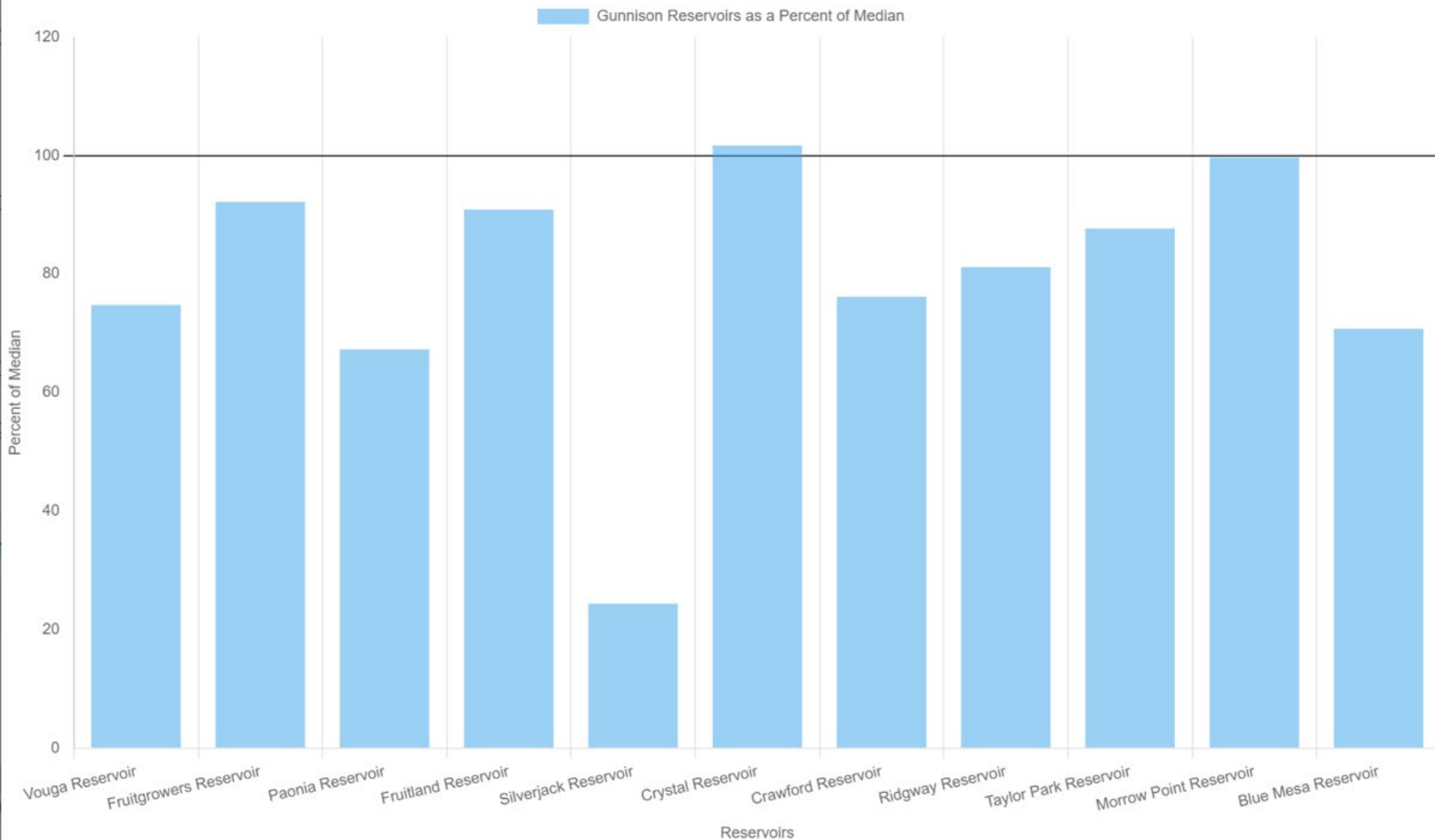


[Feedback](#)



Colorado Snow Surveys

Gunnison Reservoir Storage Summary for May 1st 2023

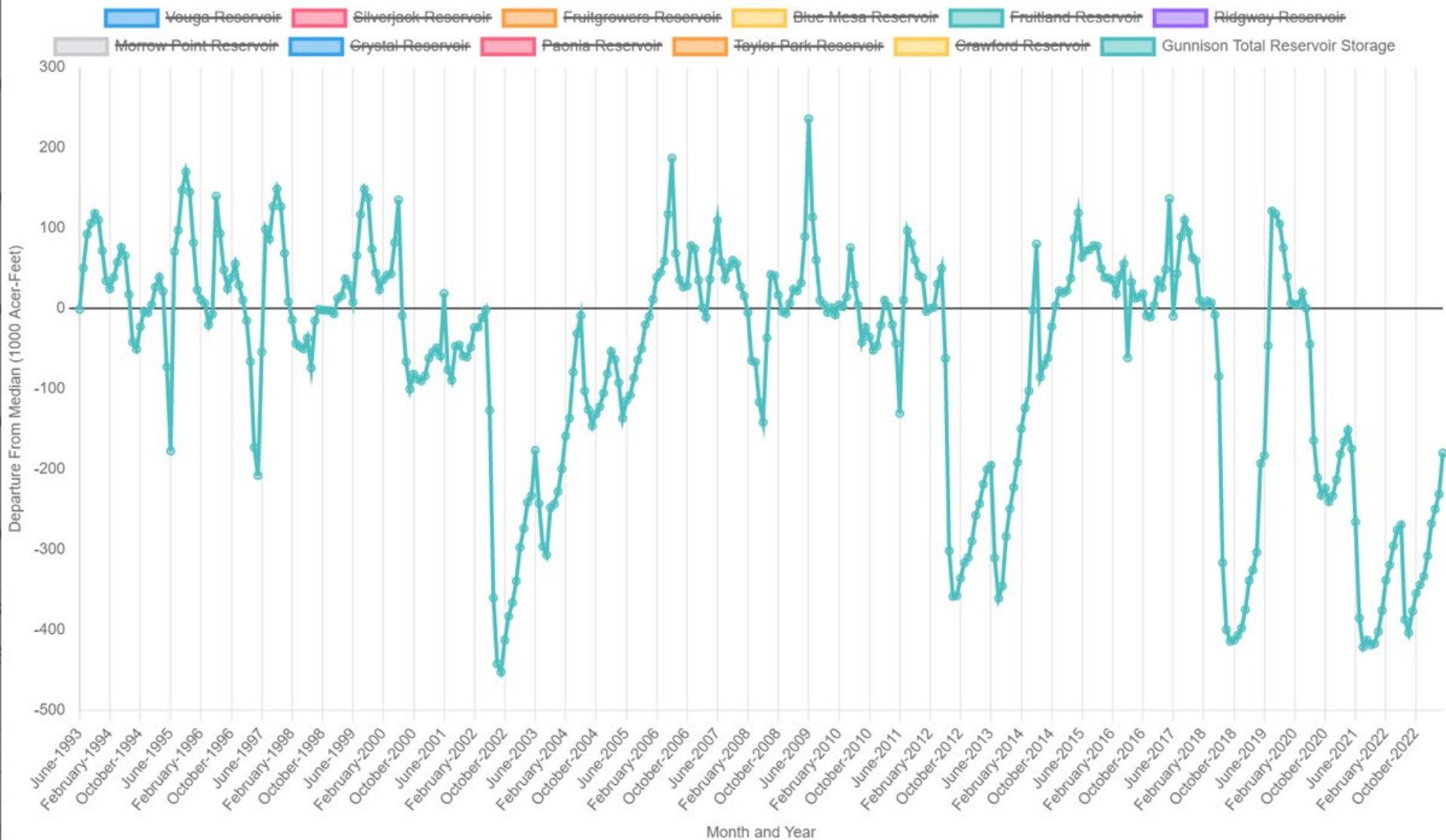


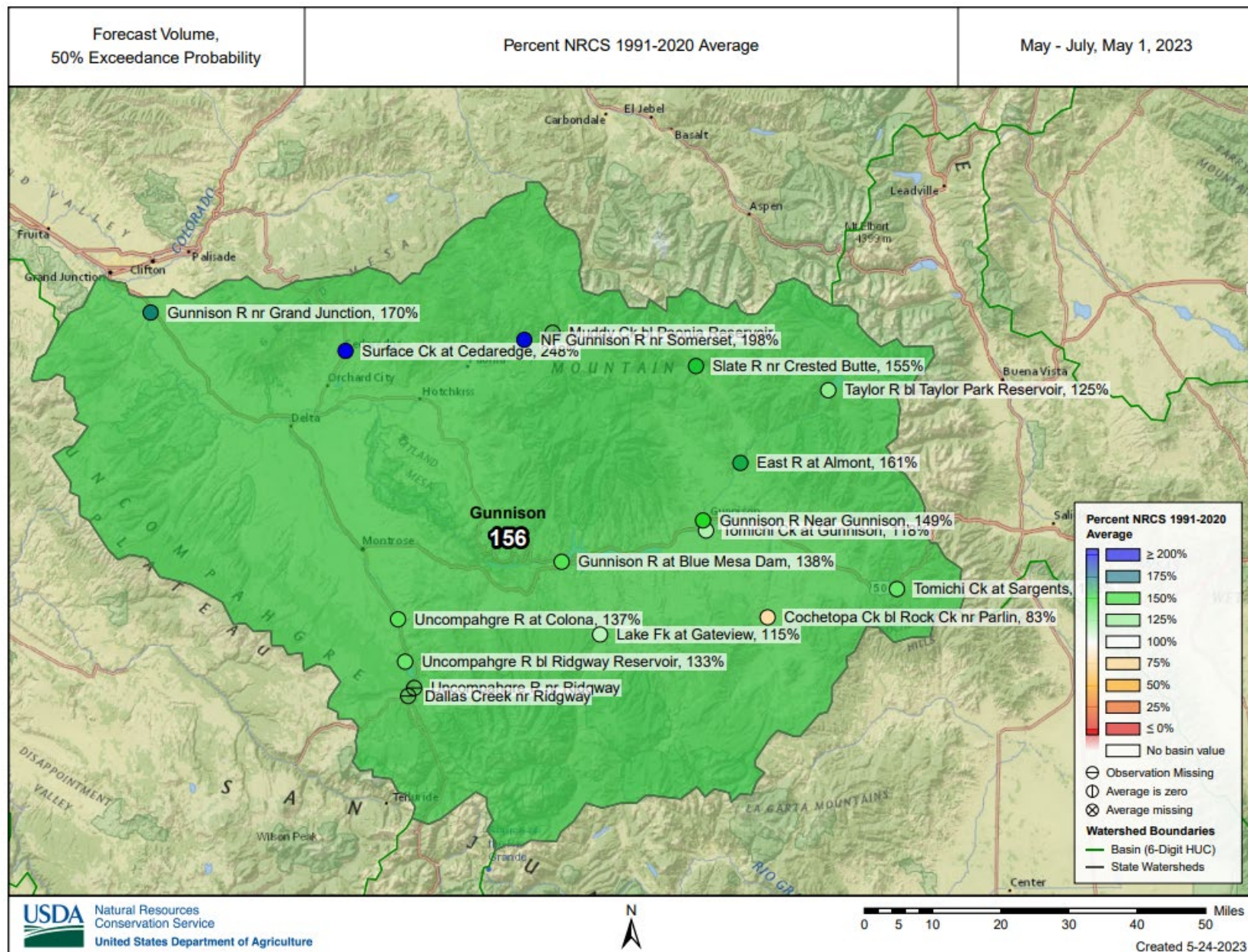


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Colorado Snow Surveys

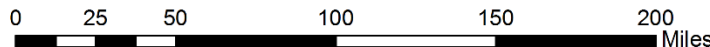
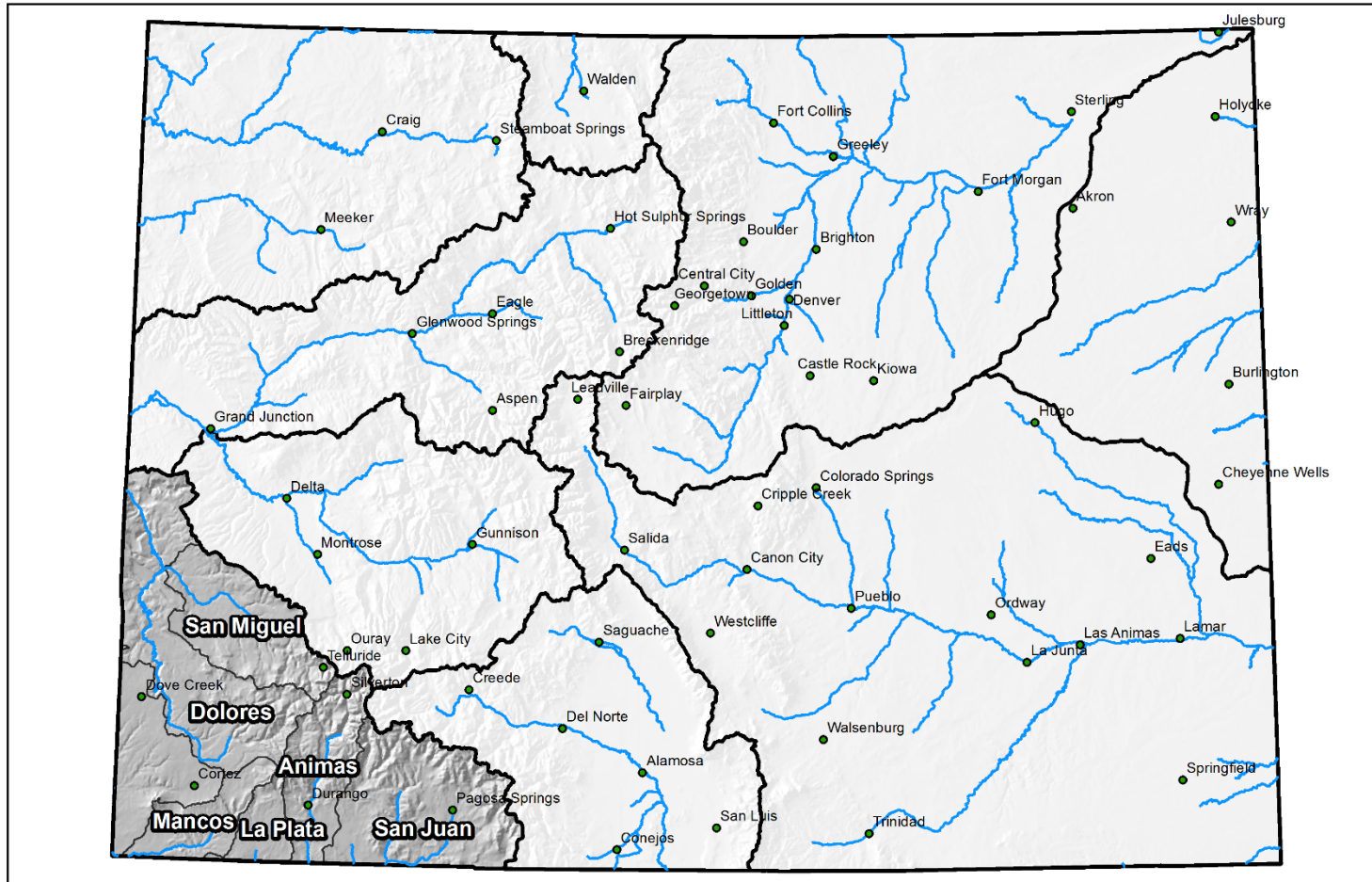
Gunnison Departure From Median Timeseries Plot





Major Basin Summary

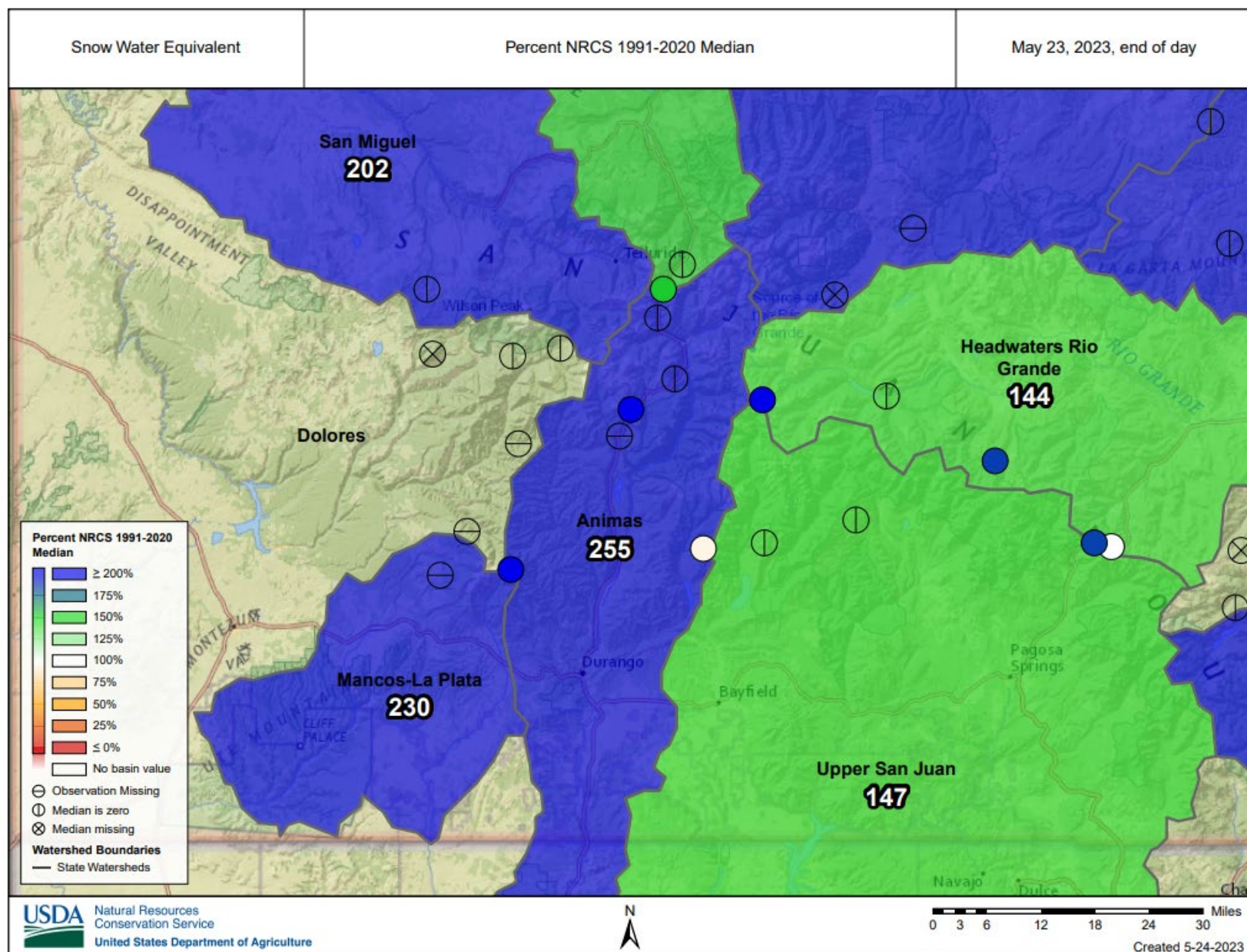
San Miguel, Dolores, Animas, and San Juan River Basins





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Colorado Snow Surveys





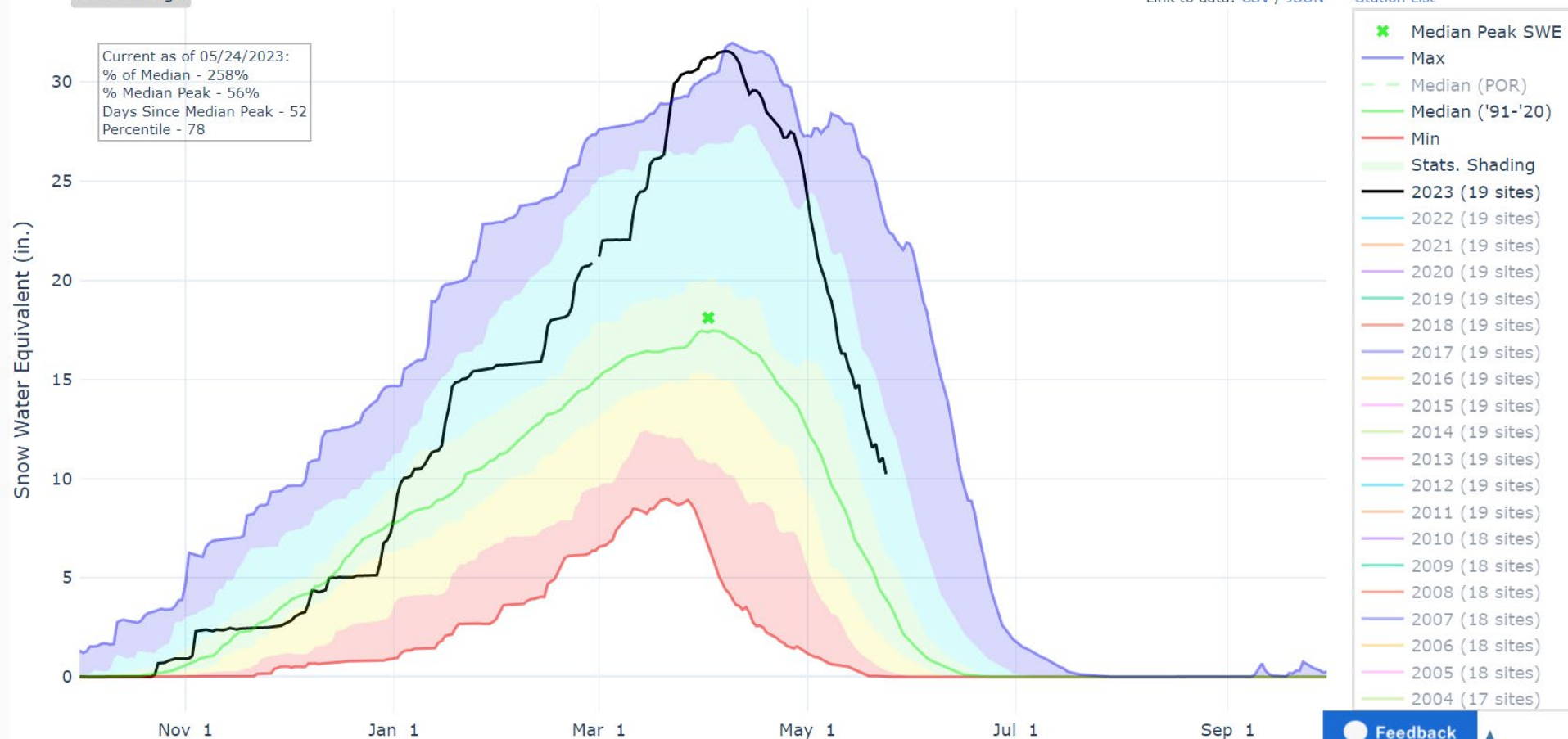
SNOW WATER EQUIVALENT IN SAN MIGUEL-DOLORES-ANIMAS-SAN JUAN

Reset Range

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

[Station List](#)

Current as of 05/24/2023:
% of Median - 258%
% Median Peak - 56%
Days Since Median Peak - 52
Percentile - 78



[Feedback](#)



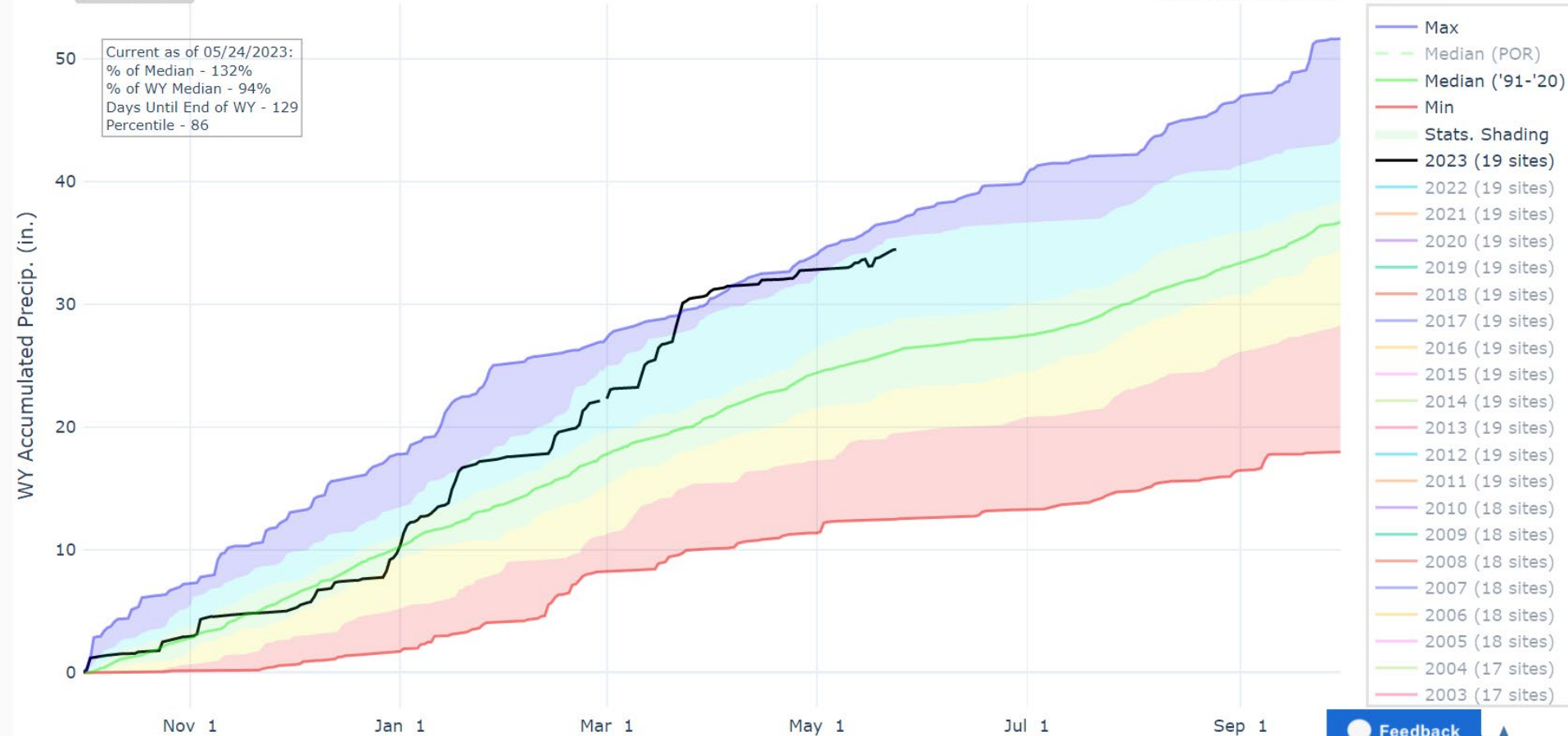
PRECIPITATION IN SAN MIGUEL-DOLORES-ANIMAS-SAN JUAN

Reset Range

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

[Station List](#)

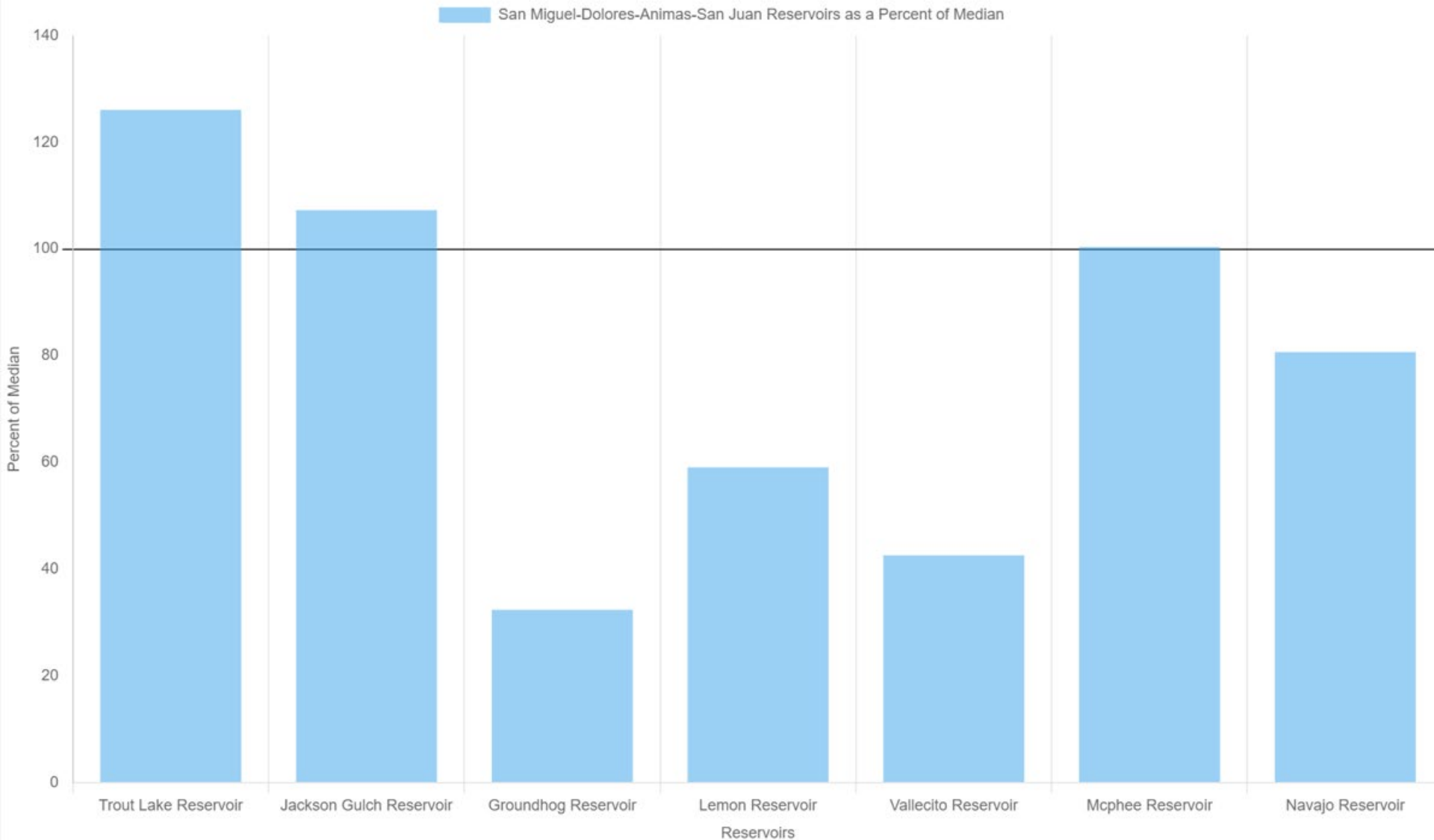
Current as of 05/24/2023:
% of Median - 132%
% of WY Median - 94%
Days Until End of WY - 129
Percentile - 86





Colorado Snow Surveys

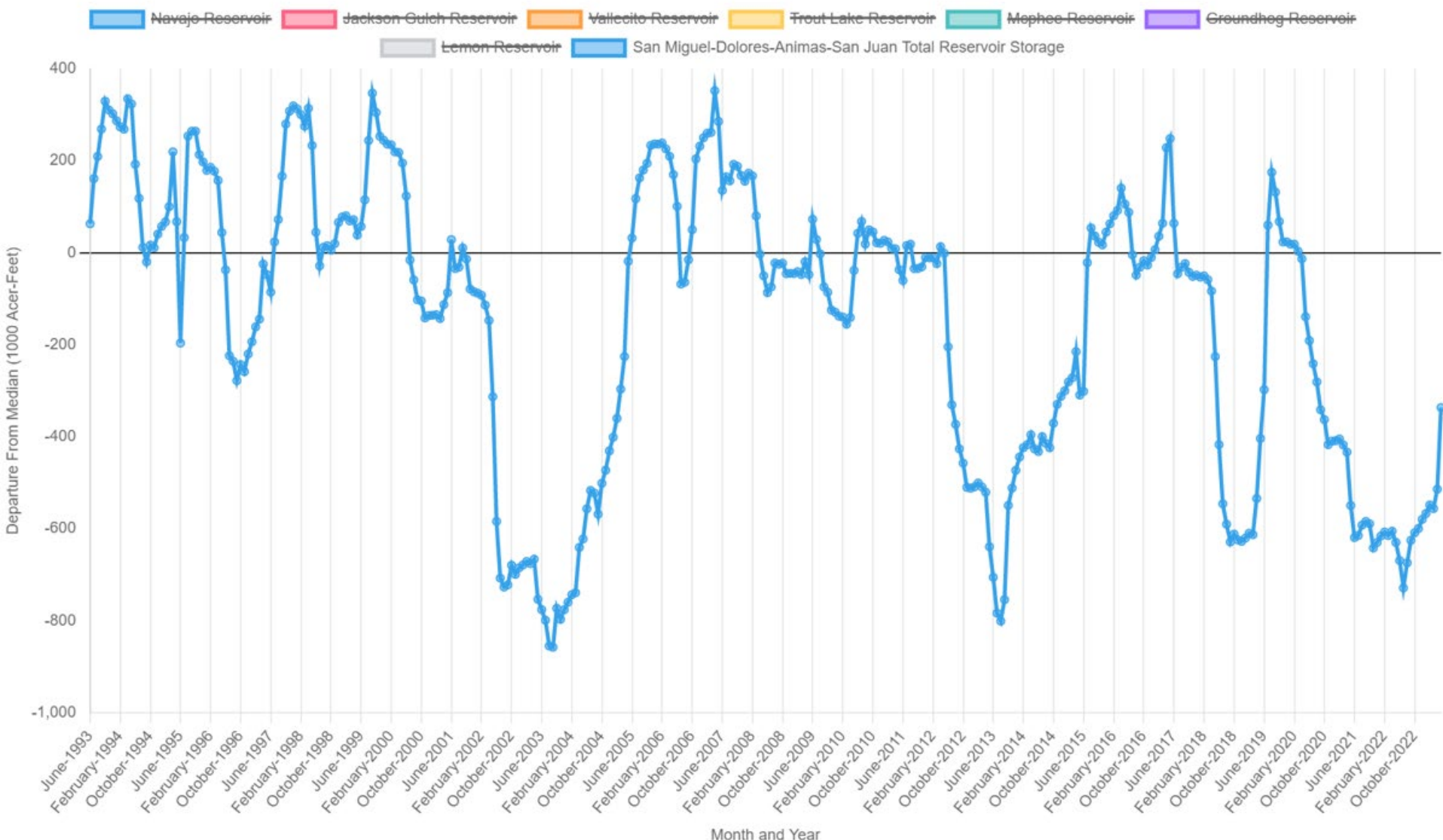
San Miguel-Dolores-Animas-San Juan Reservoir Storage Summary for May 1st 2023





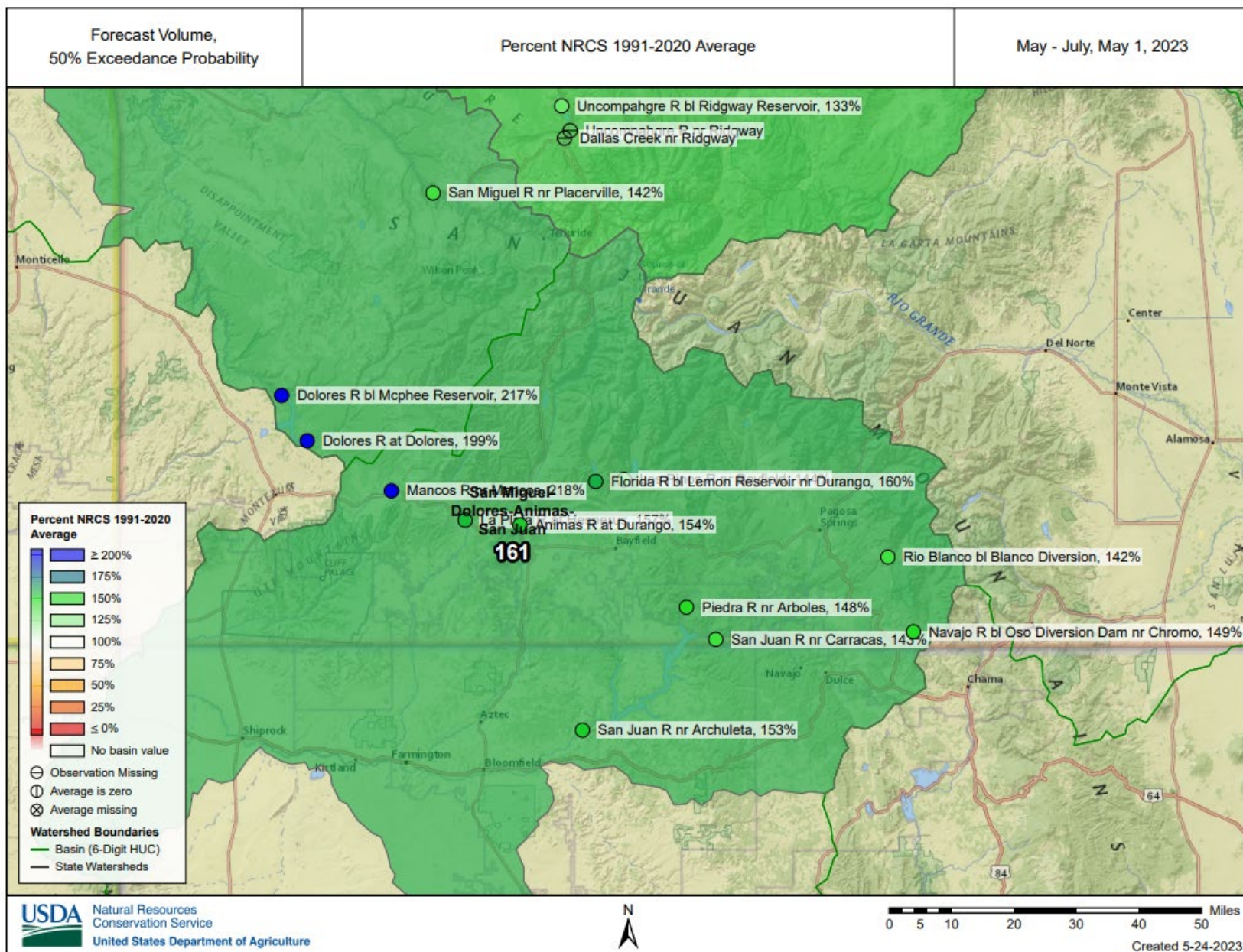
Colorado Snow Surveys

San Miguel-Dolores-Animas-San Juan Departure From Median Timeseries Plot



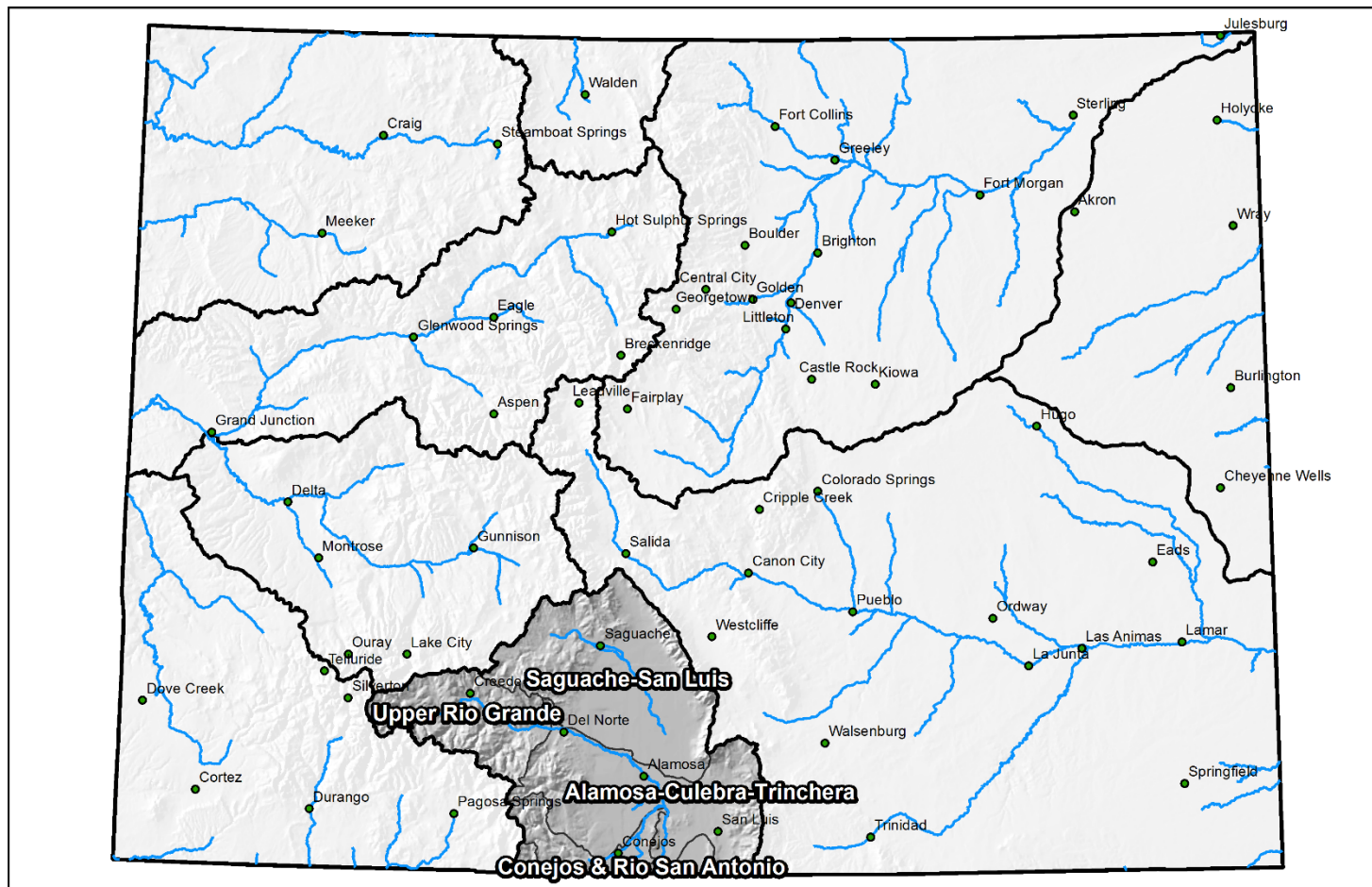


Colorado Snow Surveys



Major Basin Summary

Upper Rio Grande River Basin

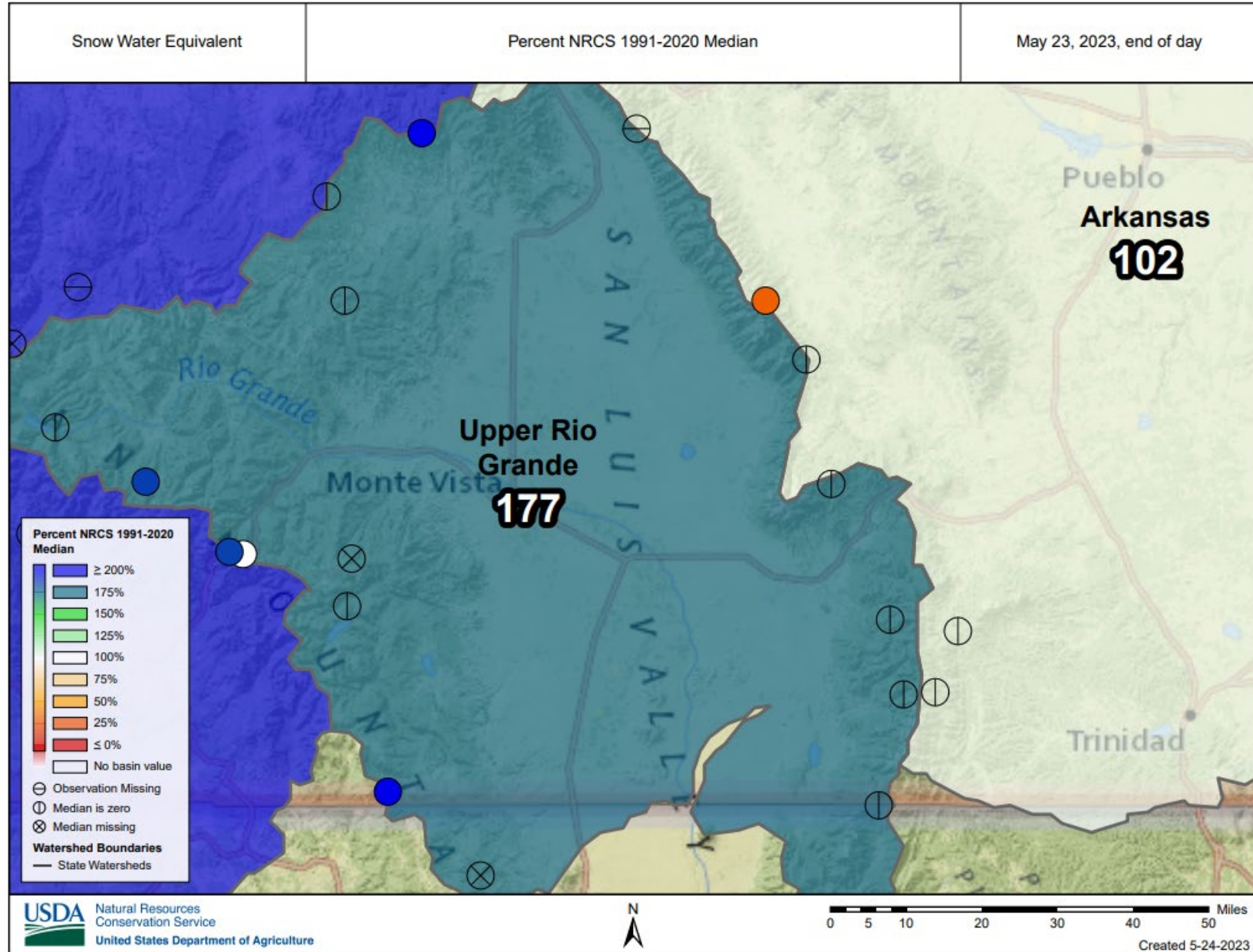


0 25 50 100 150 200 Miles



United States Department of Agriculture

Colorado Snow Surveys





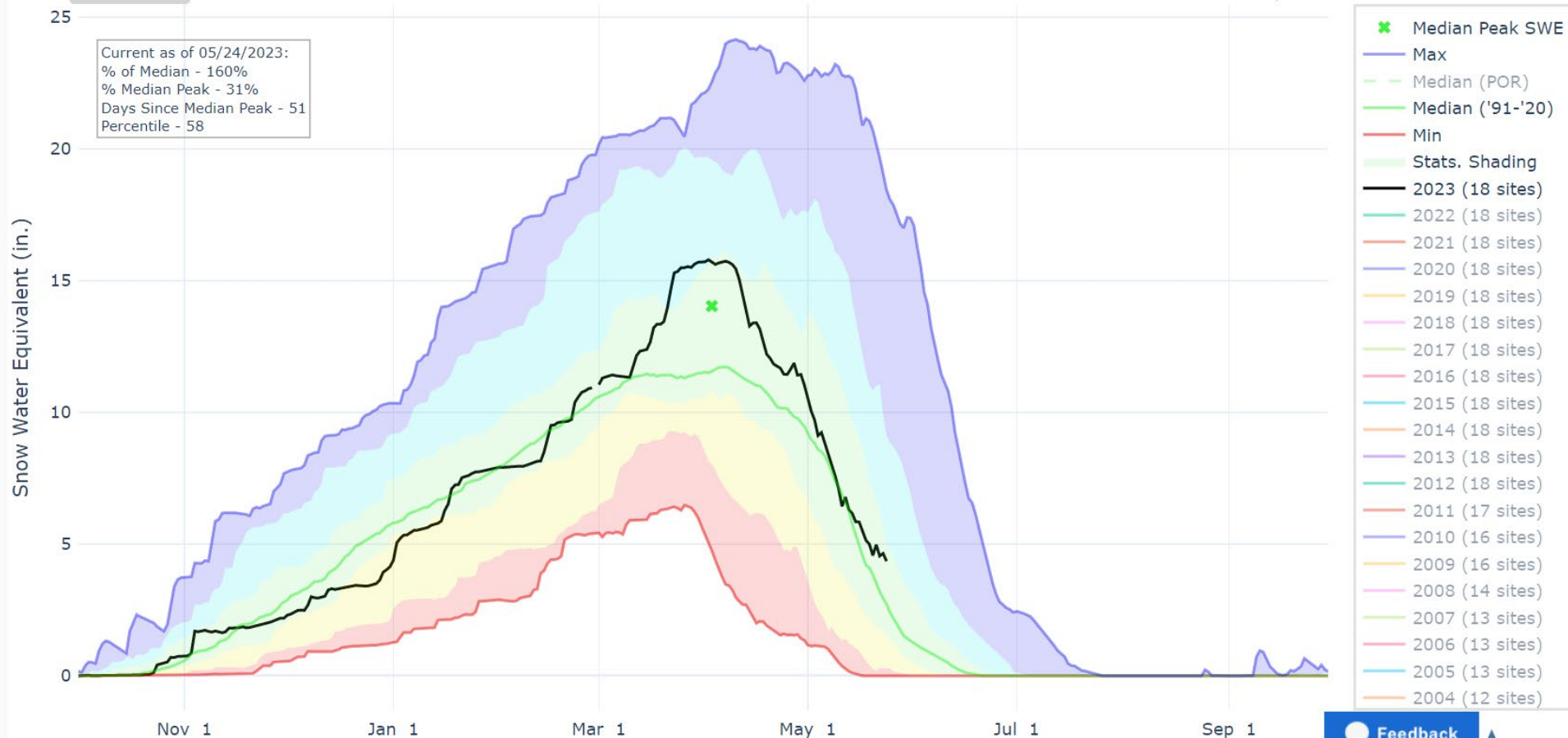
SNOW WATER EQUIVALENT IN UPPER RIO GRANDE

Reset Range

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

[Station List](#)

Current as of 05/24/2023:
% of Median - 160%
% Median Peak - 31%
Days Since Median Peak - 51
Percentile - 58





Colorado Snow Surveys

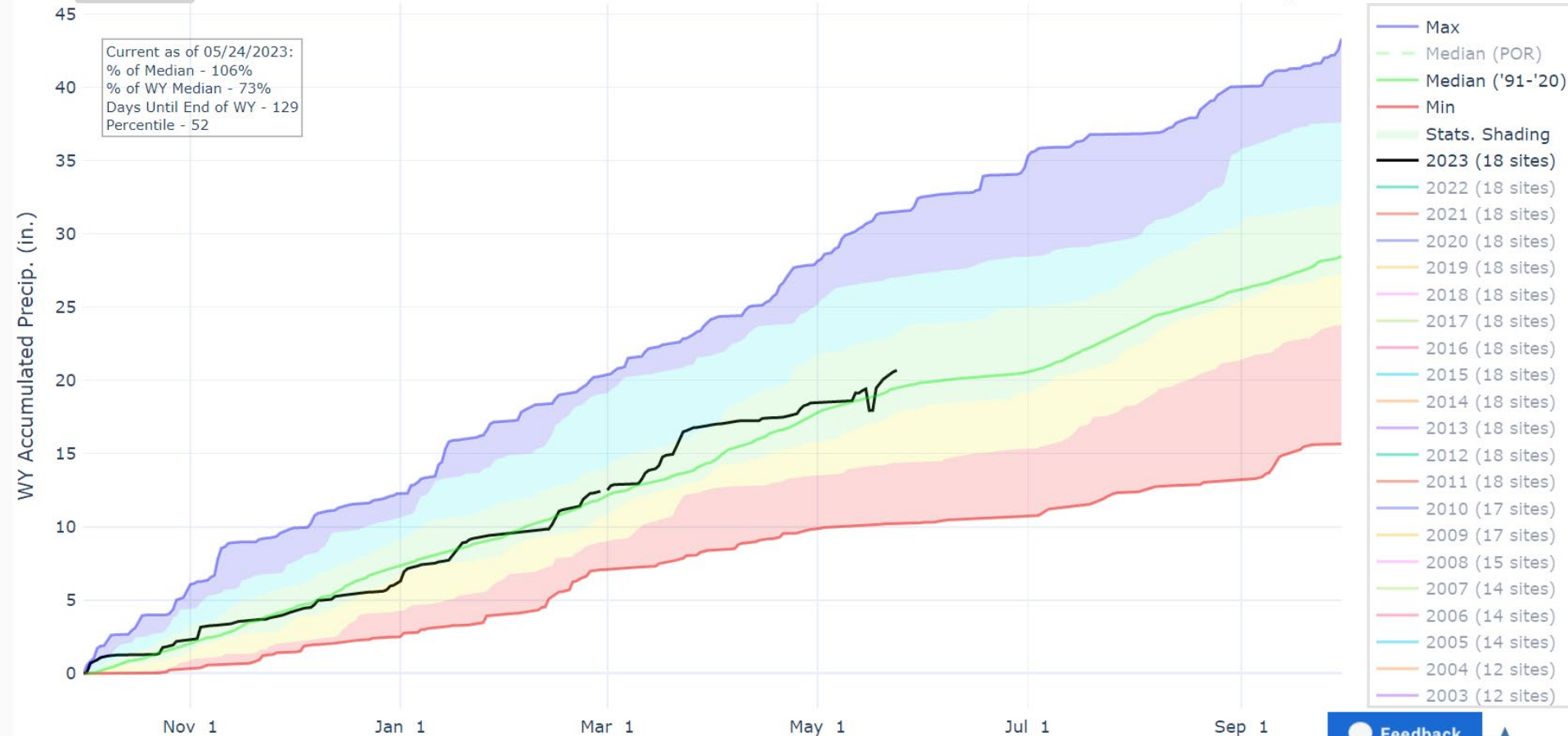
PRECIPITATION IN UPPER RIO GRANDE

Reset Range

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

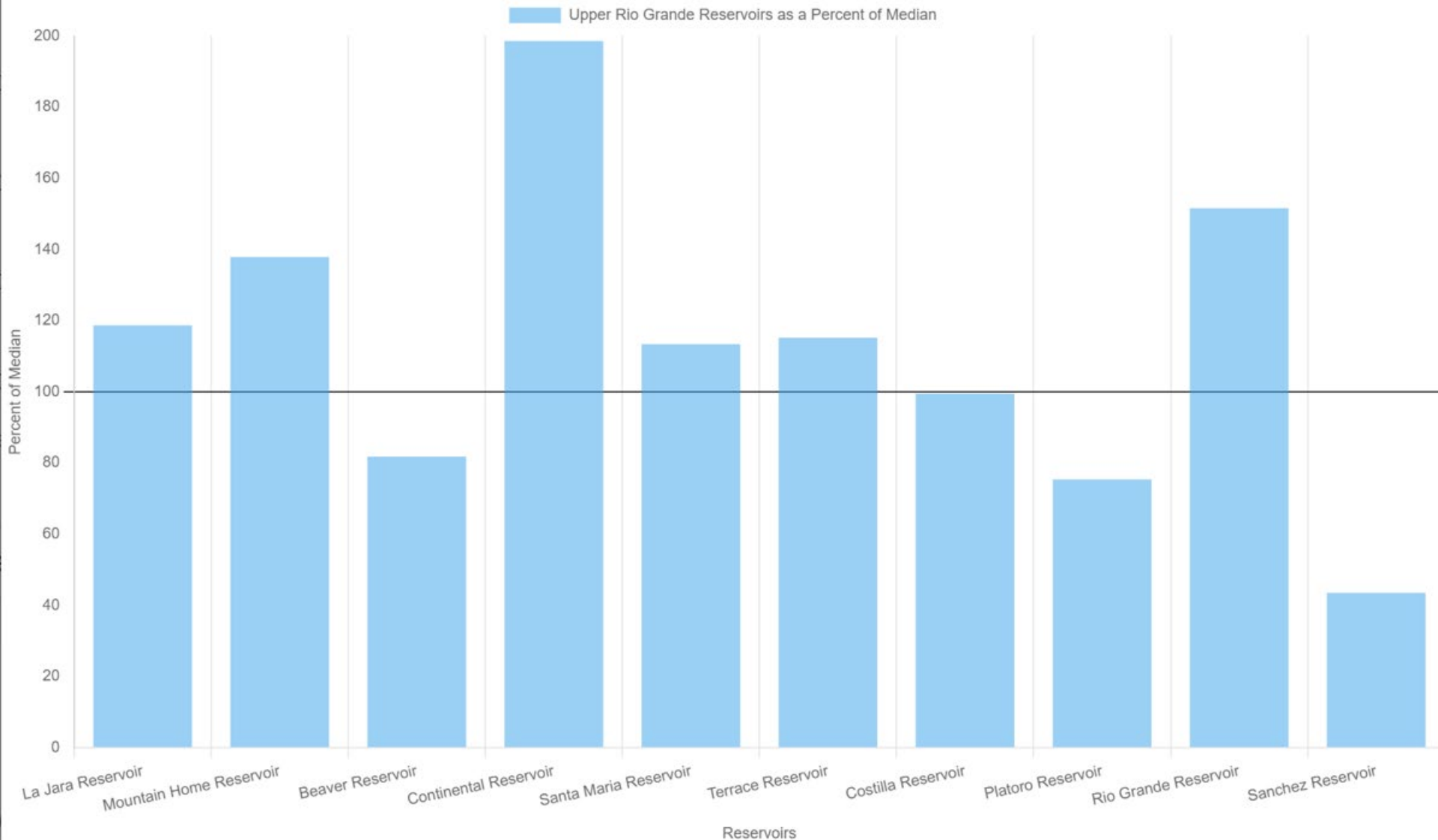
[Station List](#)

Current as of 05/24/2023:
% of Median - 106%
% of WY Median - 73%
Days Until End of WY - 129
Percentile - 52





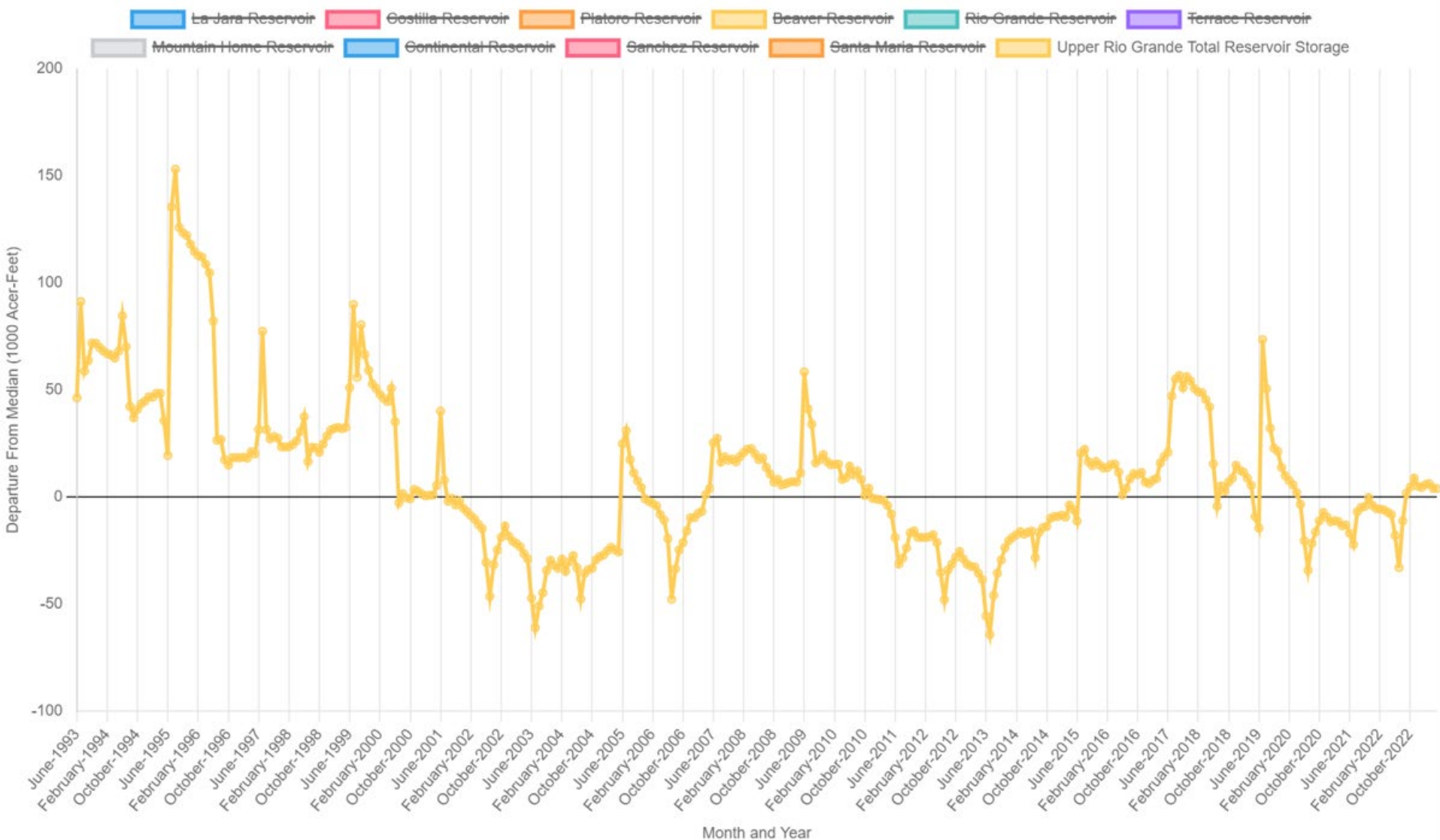
Upper Rio Grande Reservoir Storage Summary for May 1st 2023





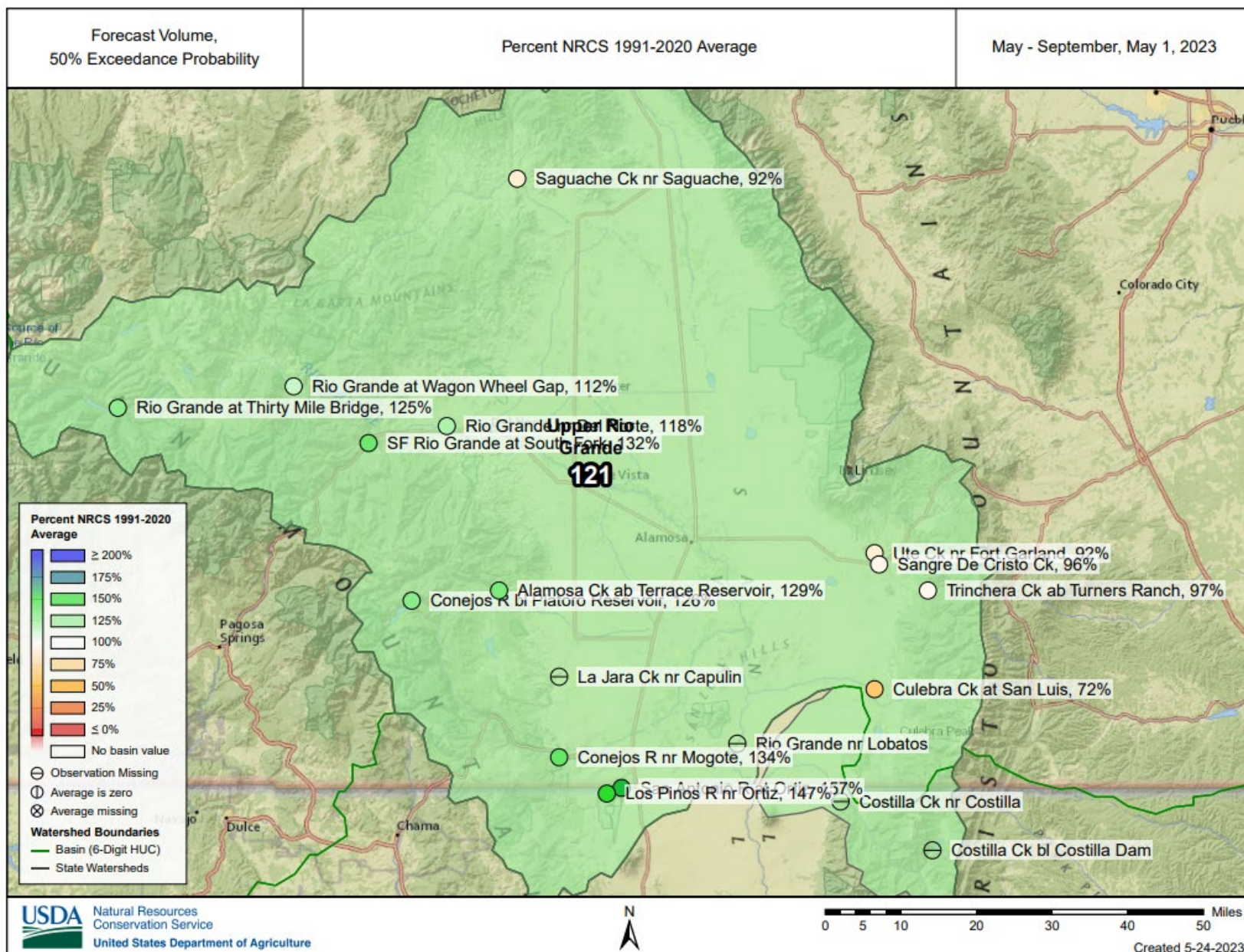
Colorado Snow Surveys

Upper Rio Grande Departure From Median Timeseries Plot



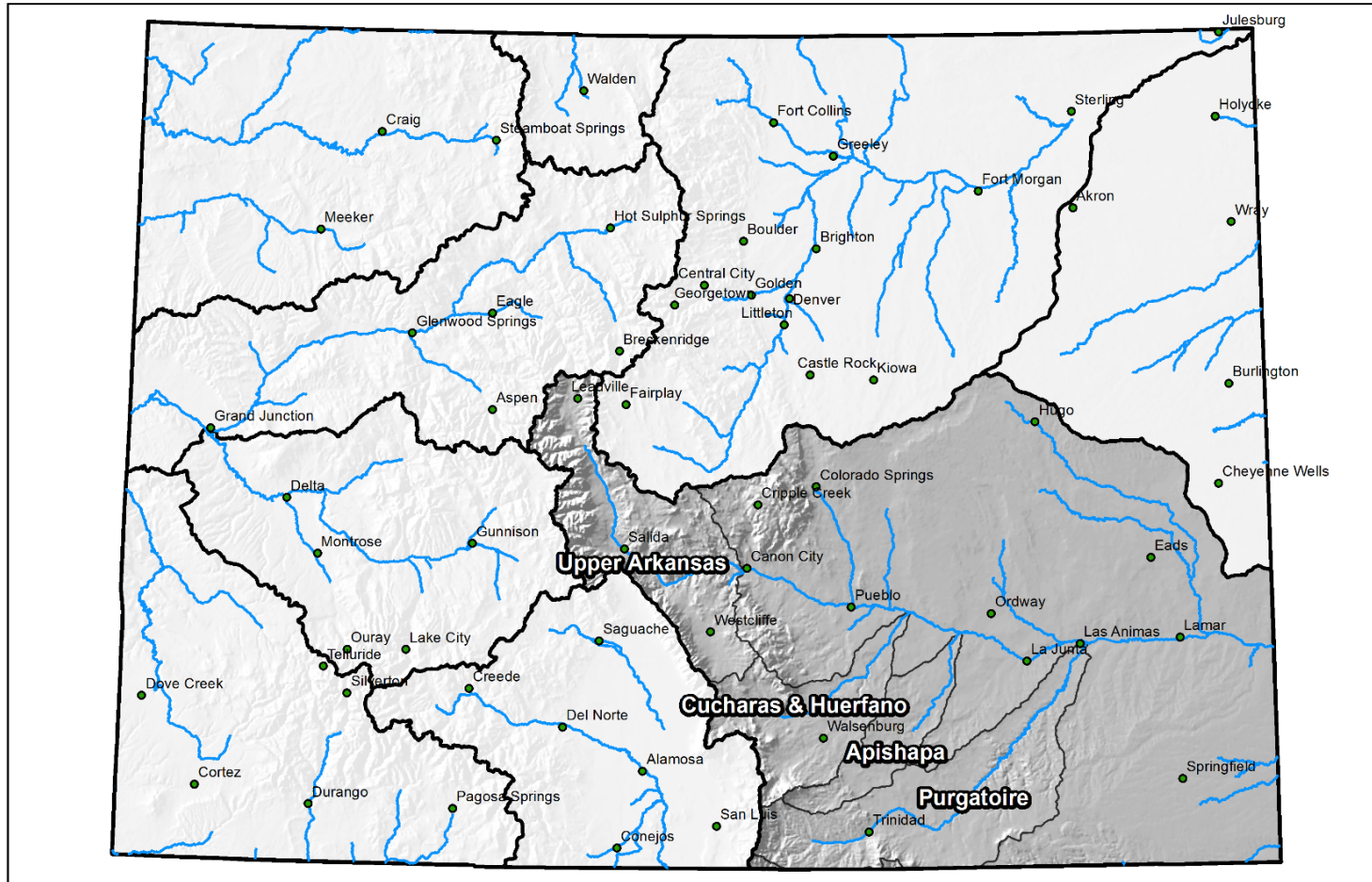


Colorado Snow Surveys



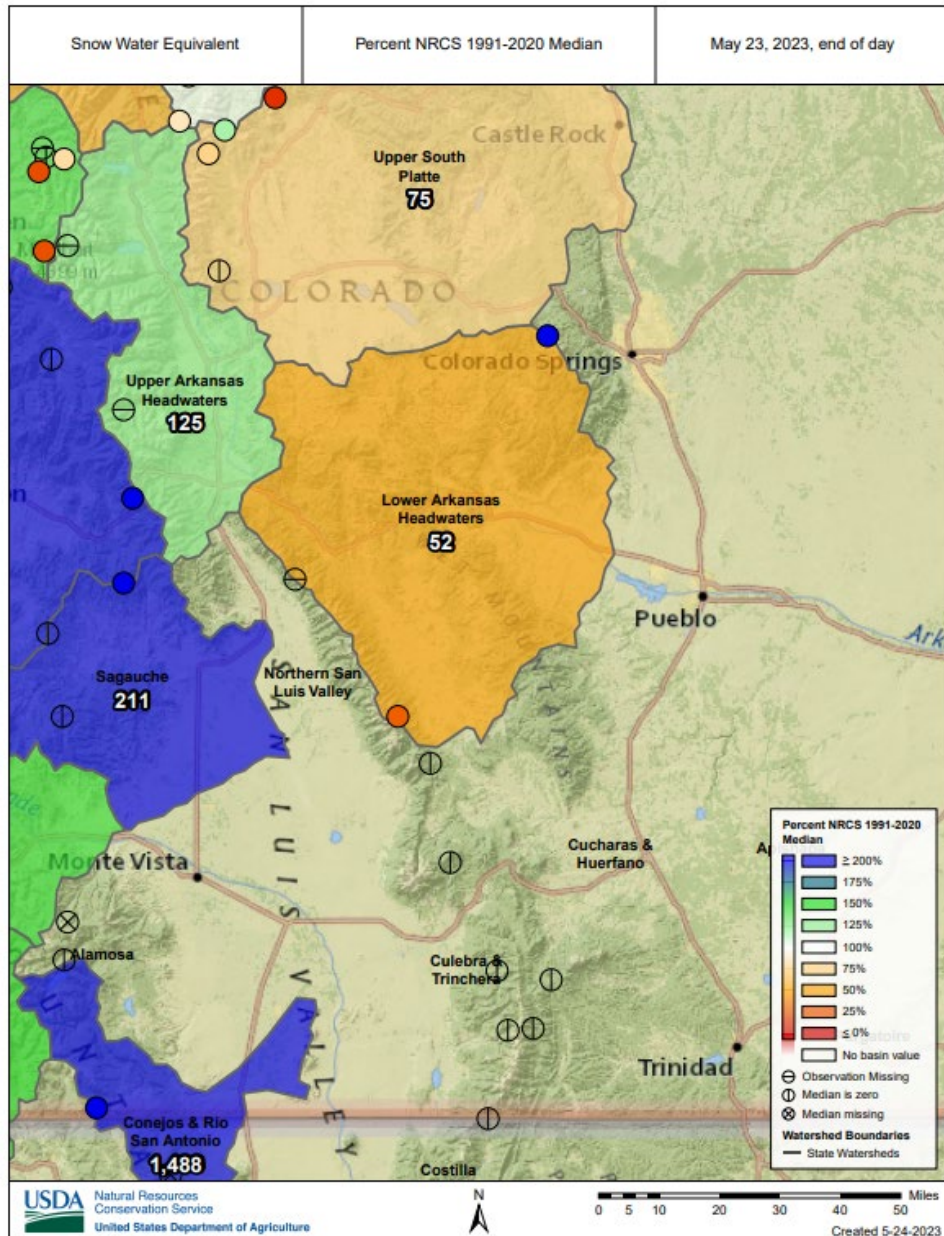
Major Basin Summary

Arkansas River Basin



0 25 50 100 150 200 Miles

Colorado Snow Surveys





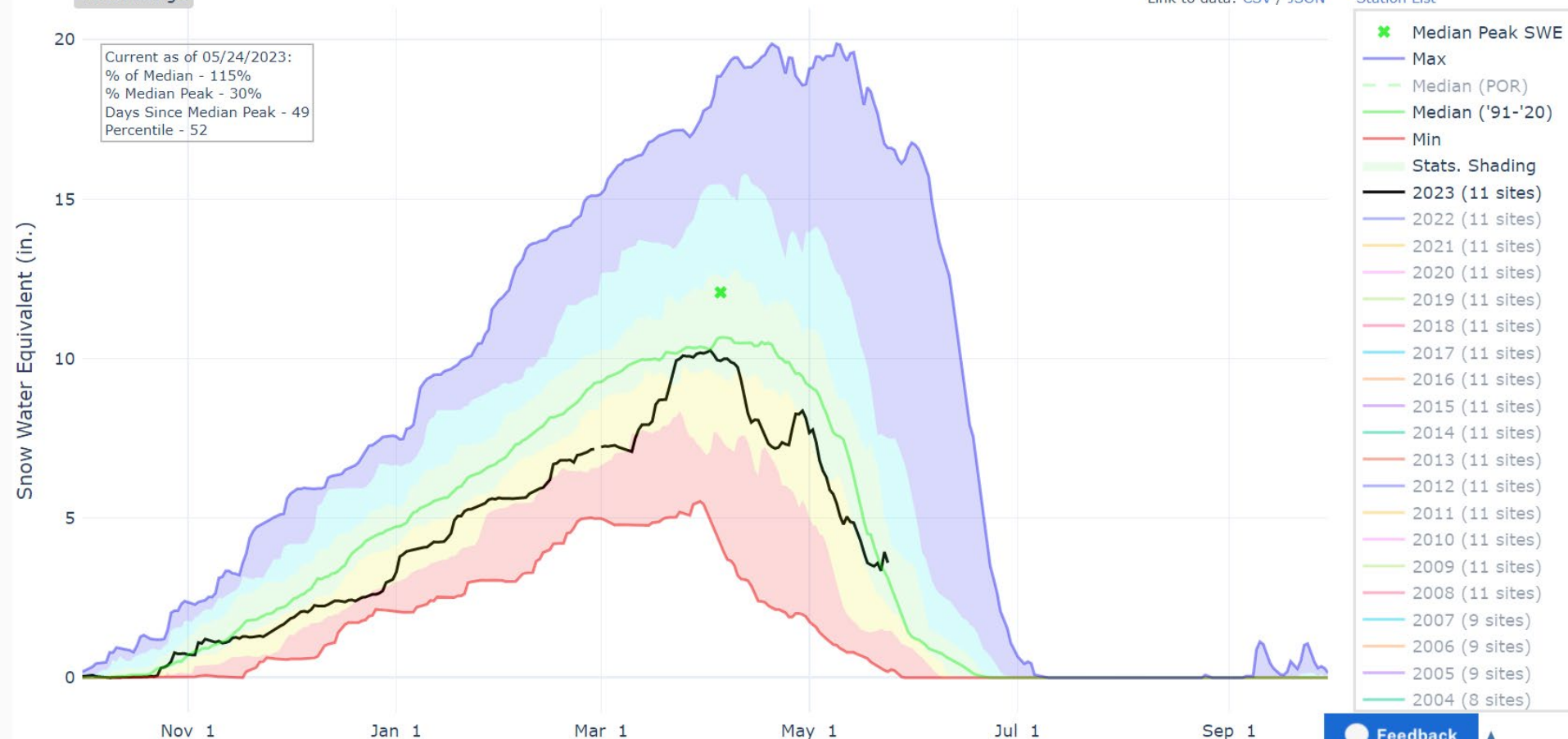
SNOW WATER EQUIVALENT IN ARKANSAS

Reset Range

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

[Station List](#)

Current as of 05/24/2023:
% of Median - 115%
% Median Peak - 30%
Days Since Median Peak - 49
Percentile - 52



[Feedback](#)



Colorado Snow Surveys

PRECIPITATION IN ARKANSAS

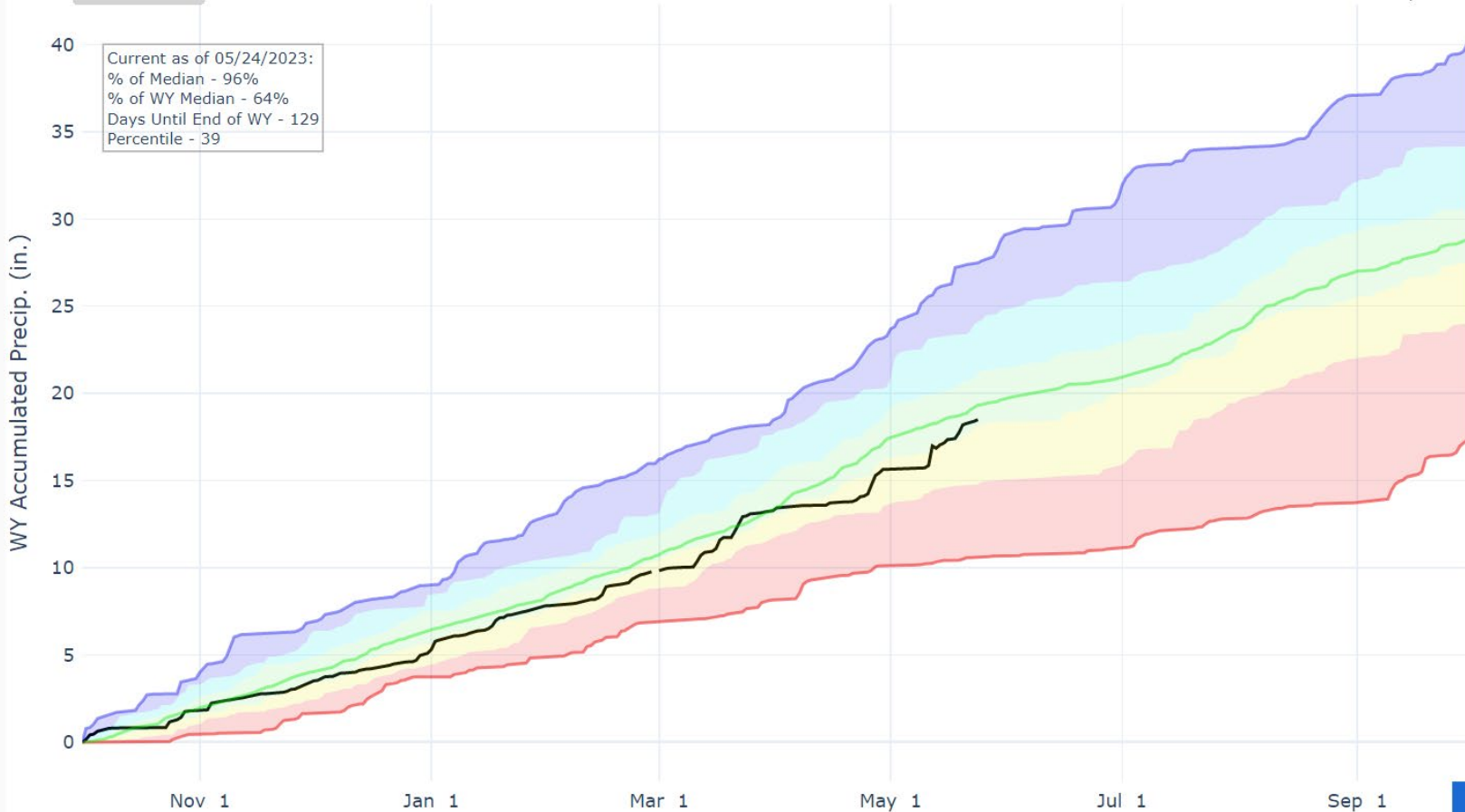
Reset Range

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

[Station List](#)

Current as of 05/24/2023:
% of Median - 96%
% of WY Median - 64%
Days Until End of WY - 129
Percentile - 39

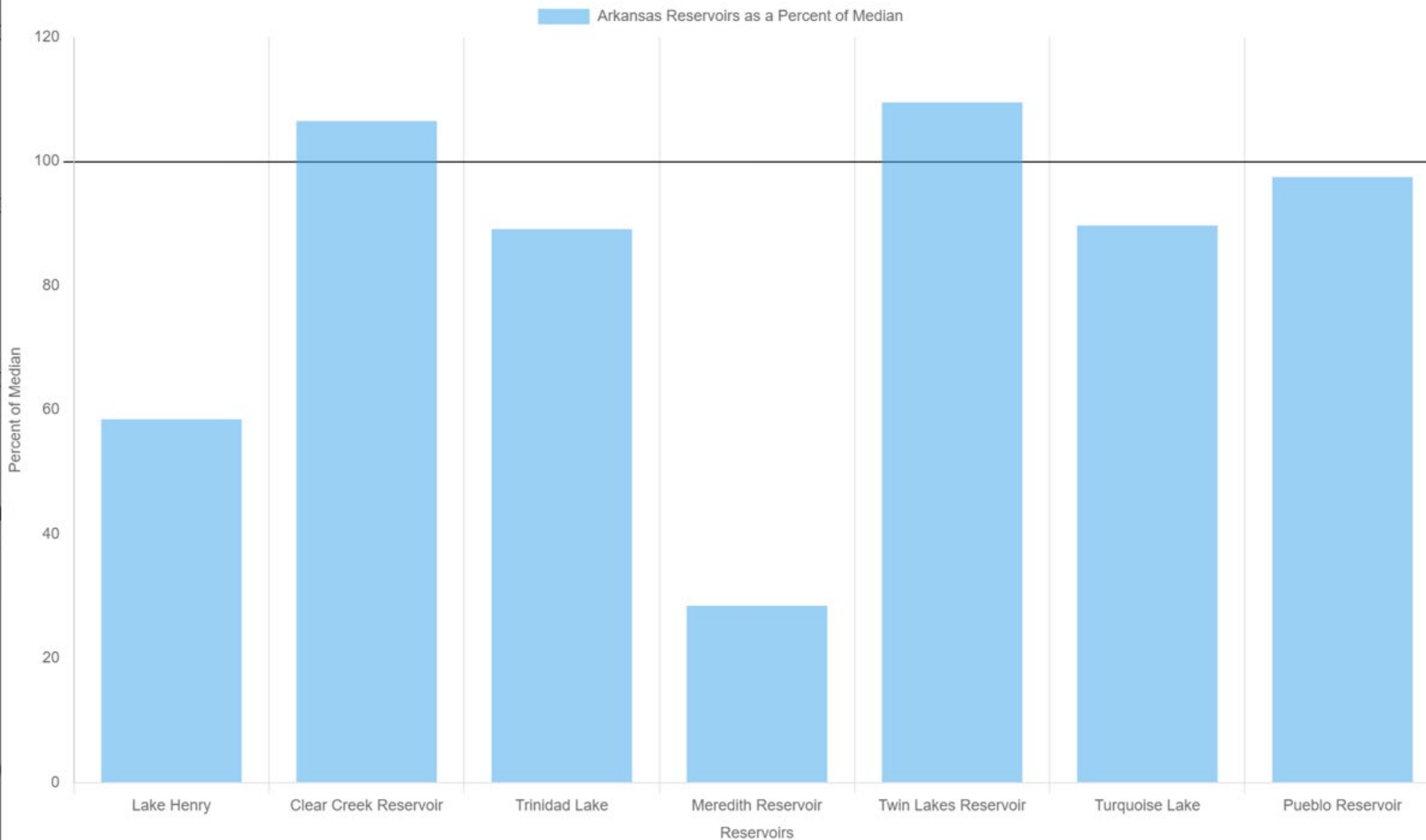
- Max
- Median (POR)
- Median ('91-'20)
- Min
- Stats. Shading
- 2023 (11 sites)
- 2022 (11 sites)
- 2021 (11 sites)
- 2020 (11 sites)
- 2019 (11 sites)
- 2018 (11 sites)
- 2017 (11 sites)
- 2016 (11 sites)
- 2015 (11 sites)
- 2014 (11 sites)
- 2013 (11 sites)
- 2012 (11 sites)
- 2011 (11 sites)
- 2010 (11 sites)
- 2009 (11 sites)
- 2008 (11 sites)
- 2007 (9 sites)
- 2006 (9 sites)
- 2005 (9 sites)
- 2004 (8 sites)
- 2003 (8 sites)



[Feedback](#)

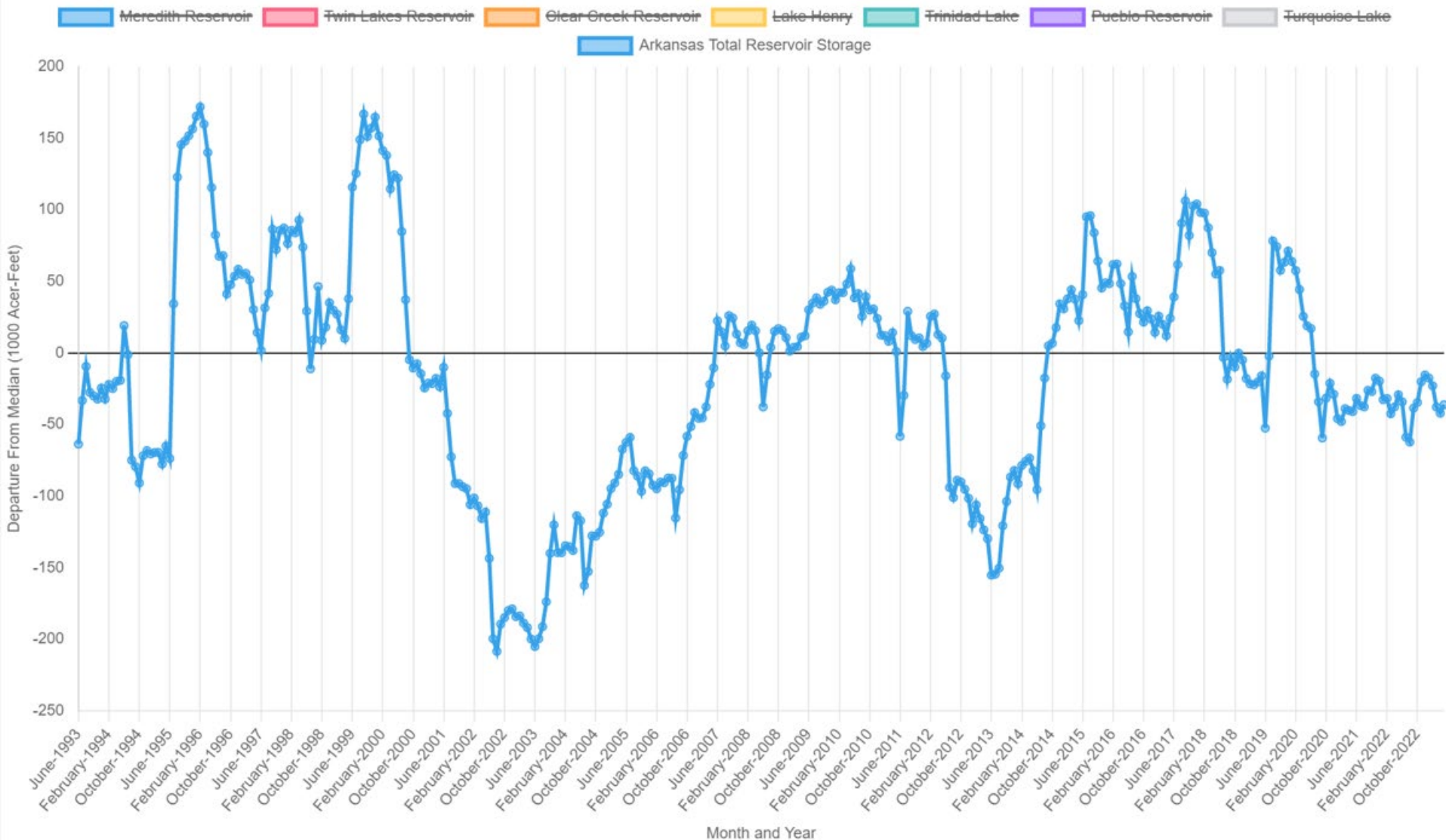


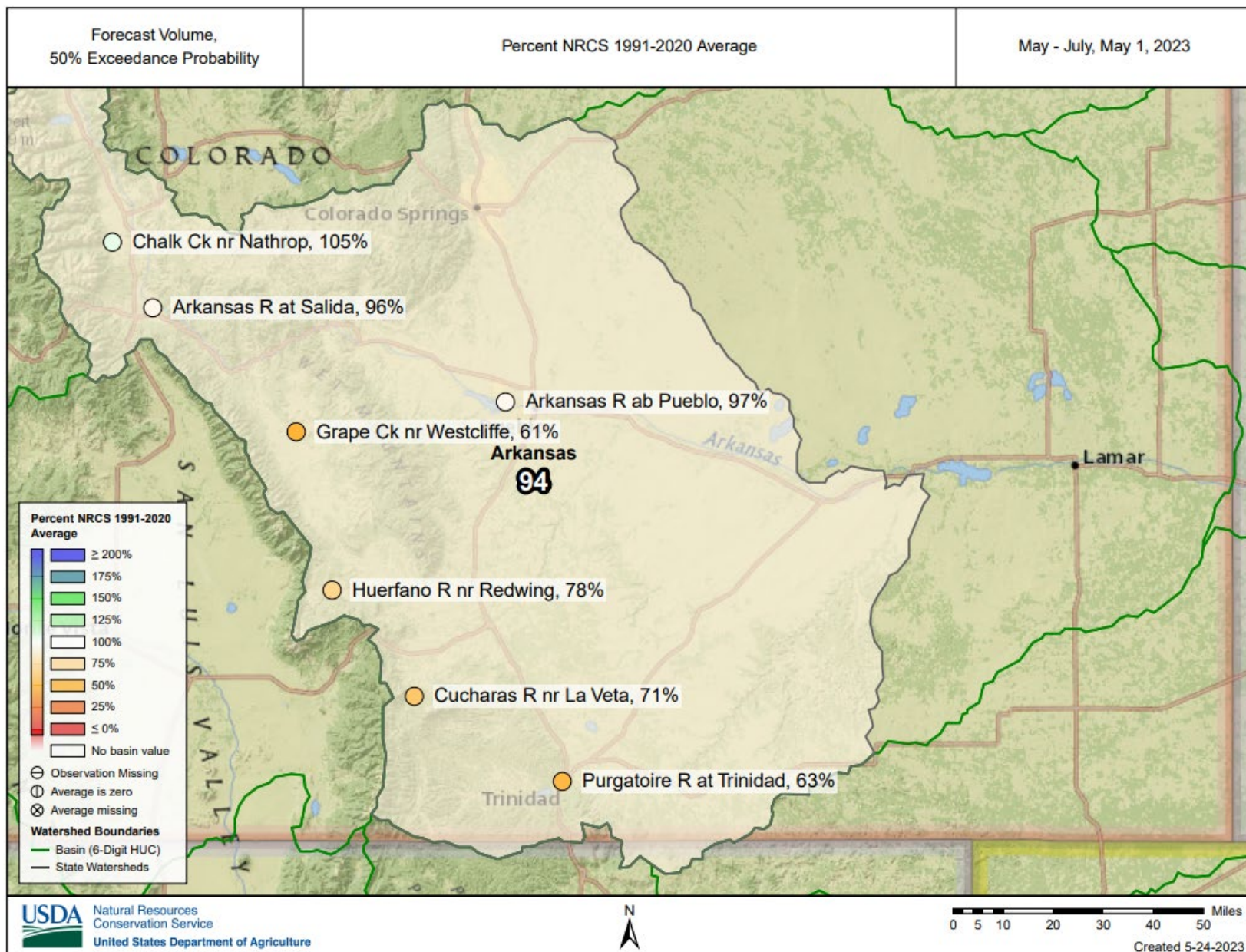
Arkansas Reservoir Storage Summary for May 1st 2023





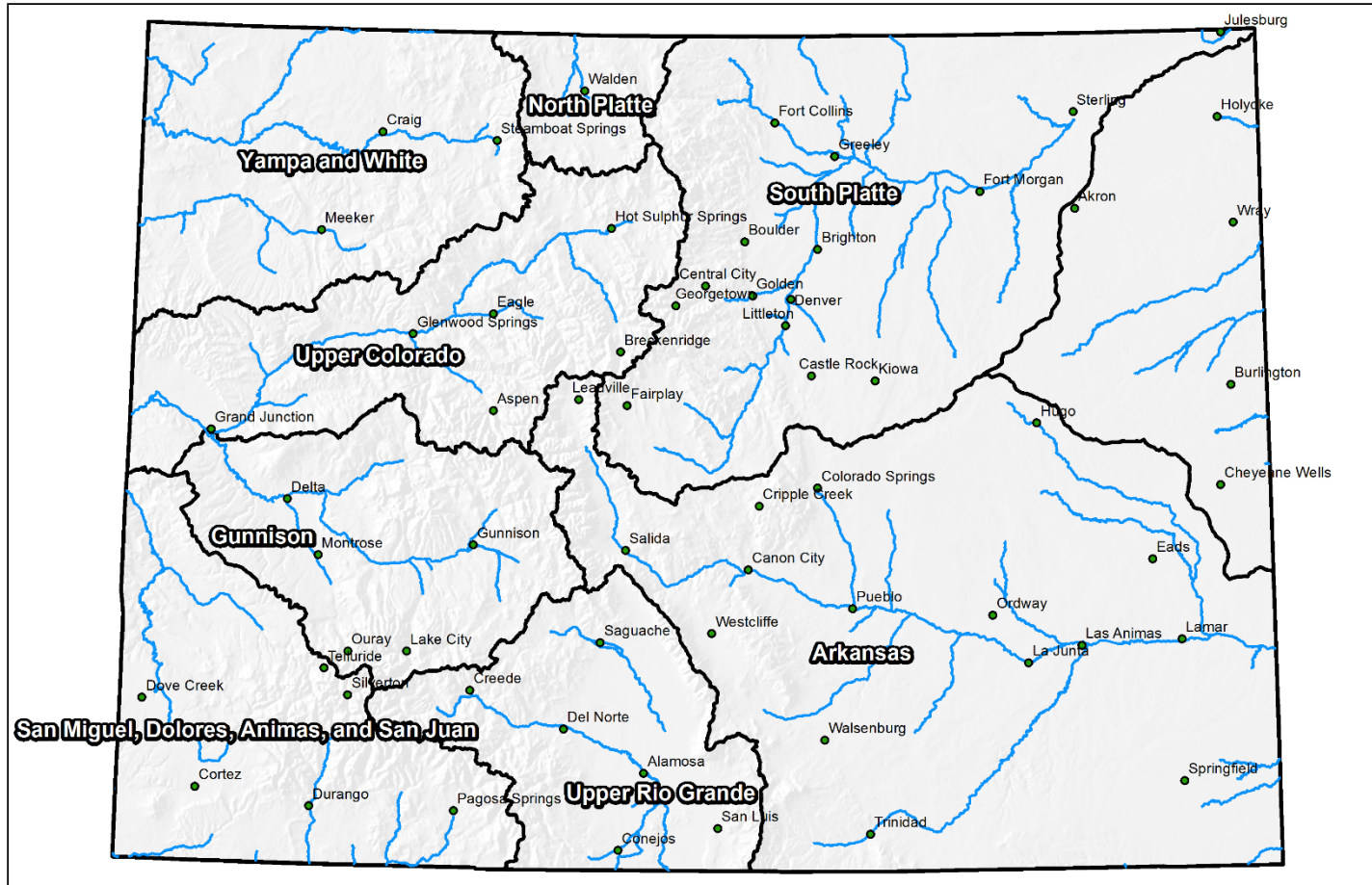
Arkansas Departure From Median Timeseries Plot





Colorado Statewide Summary

Colorado Major Basins



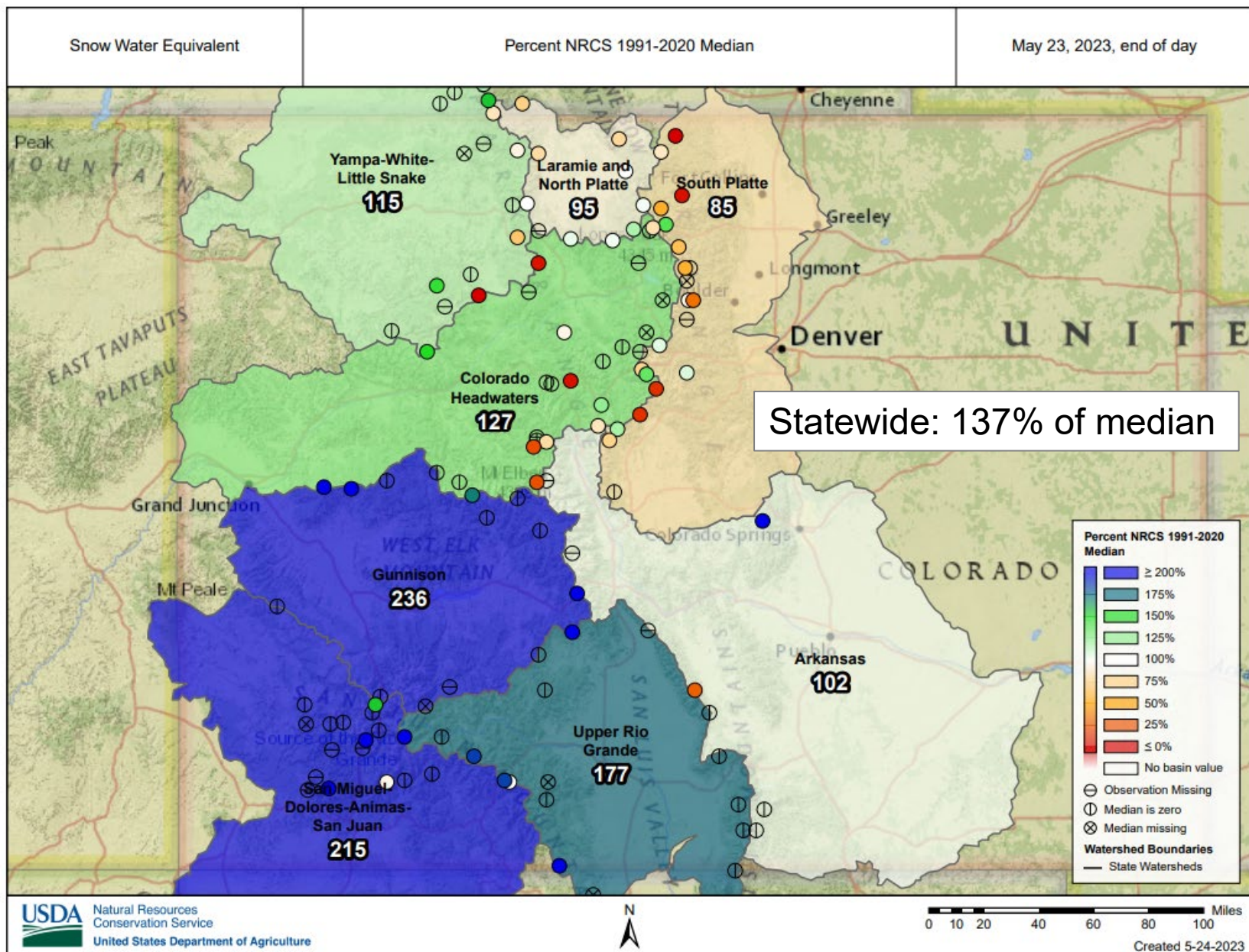
0 25 50 100 150 200 Miles



United States Department of Agriculture

Colorado Snow Surveys

Snowpack

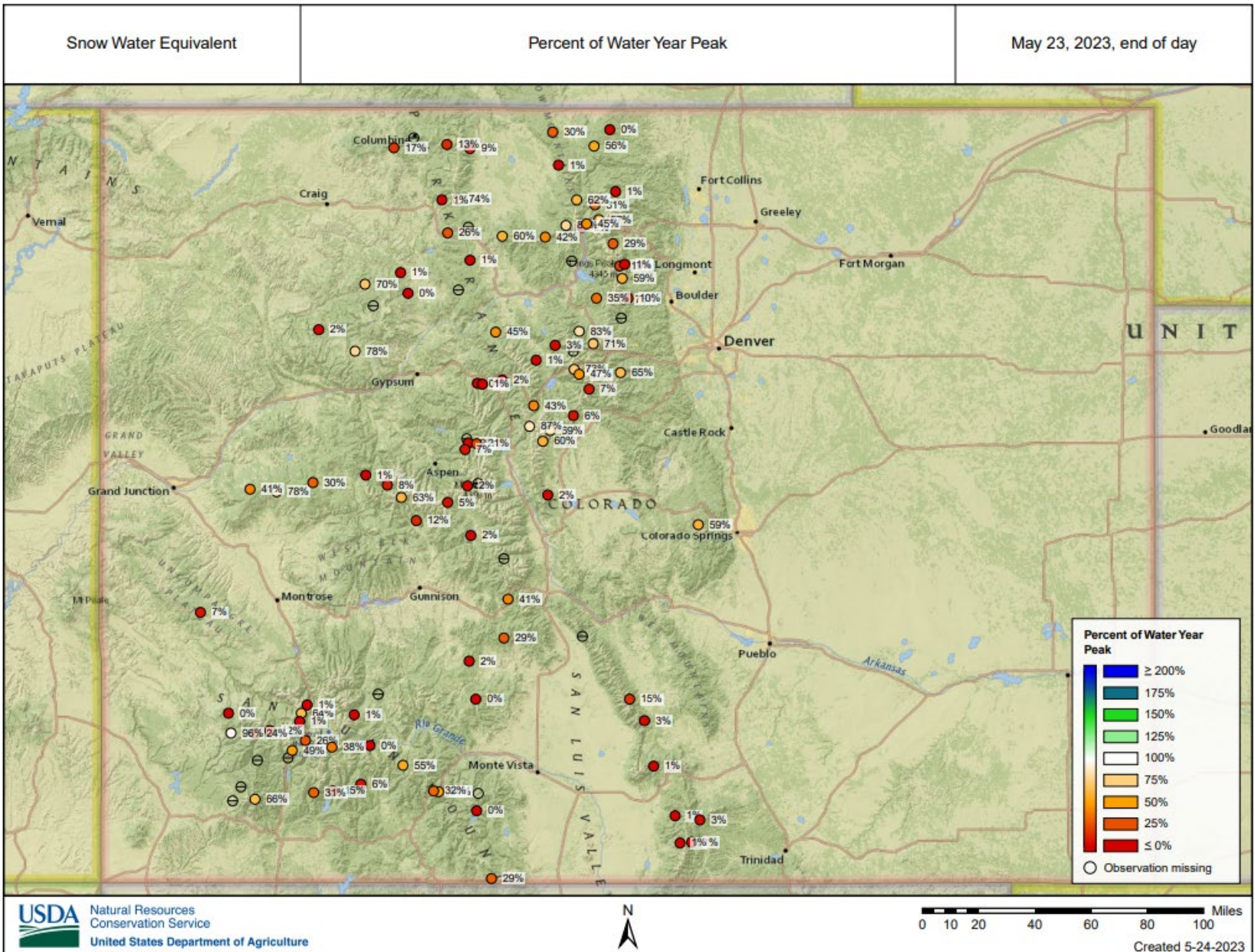




United States Department of Agriculture

Colorado Snow Surveys

Snowpack: Percent of Water Year Peak





SNOW WATER EQUIVALENT IN STATE OF COLORADO

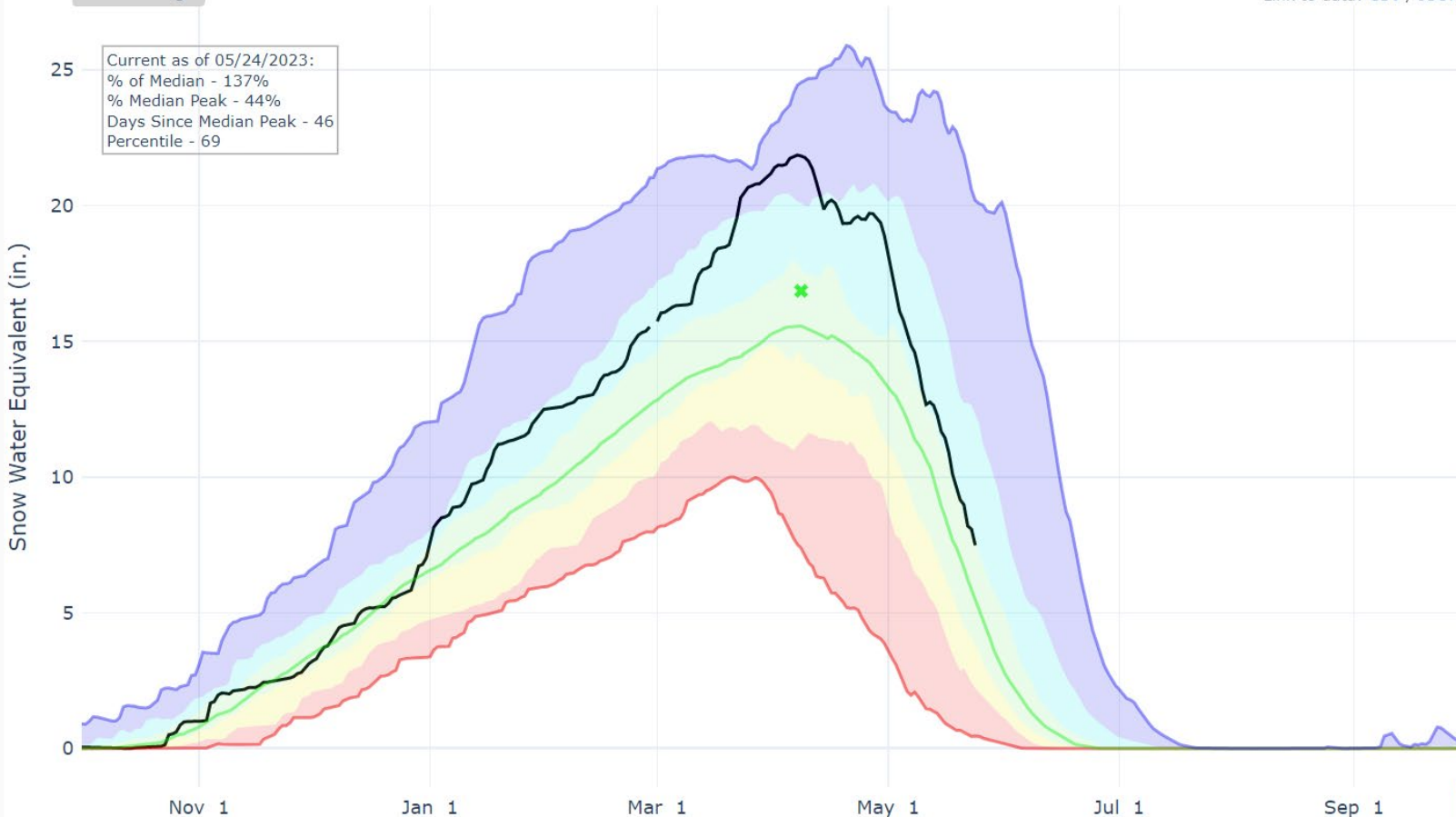
Reset Range

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

[Station List](#)

Current as of 05/24/2023:
% of Median - 137%
% Median Peak - 44%
Days Since Median Peak - 46
Percentile - 69

- ✱ Median Peak SWE
- Max
- Median (POR)
- Median ('91-'20)
- Min
- Stats. Shading
- 2023 (115 sites)
- 2022 (115 sites)
- 2021 (115 sites)
- 2020 (115 sites)
- 2019 (115 sites)
- 2018 (115 sites)
- 2017 (115 sites)
- 2016 (115 sites)
- 2015 (115 sites)
- 2014 (115 sites)
- 2013 (115 sites)
- 2012 (115 sites)
- 2011 (114 sites)
- 2010 (112 sites)
- 2009 (108 sites)
- 2008 (105 sites)
- 2007 (102 sites)
- 2006 (102 sites)
- 2005 (101 sites)
- 2004 (96 sites)



[Feedback](#)



United States Department of Agriculture

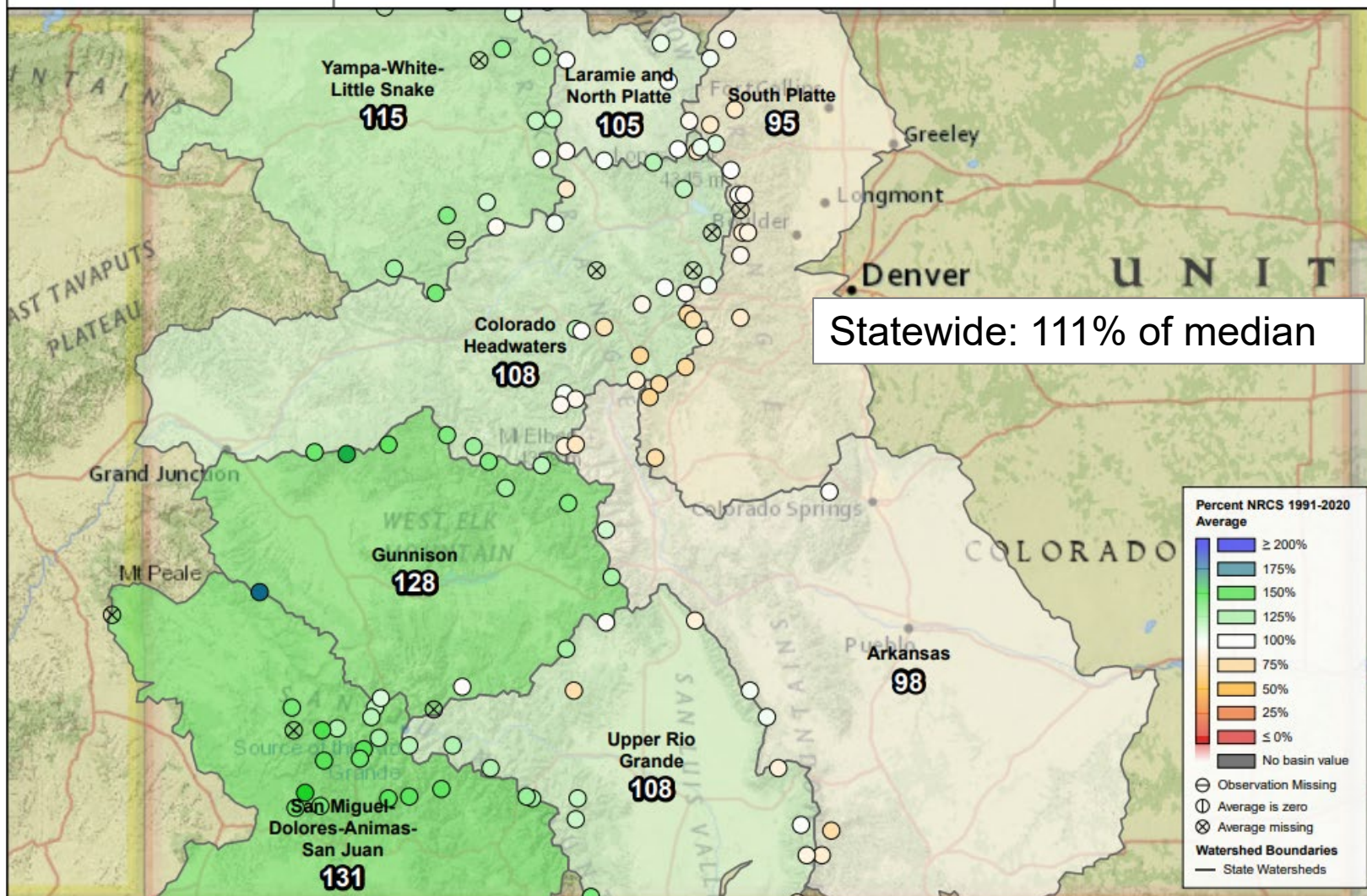
Colorado Snow Surveys

WY Precipitation

Water Year to Date Precipitation

Percent NRCS 1991-2020 Average

October 1, 2022 - May 23, 2023



Natural Resources
Conservation Service
United States Department of Agriculture



0 10 20 40 60 80 100 Miles

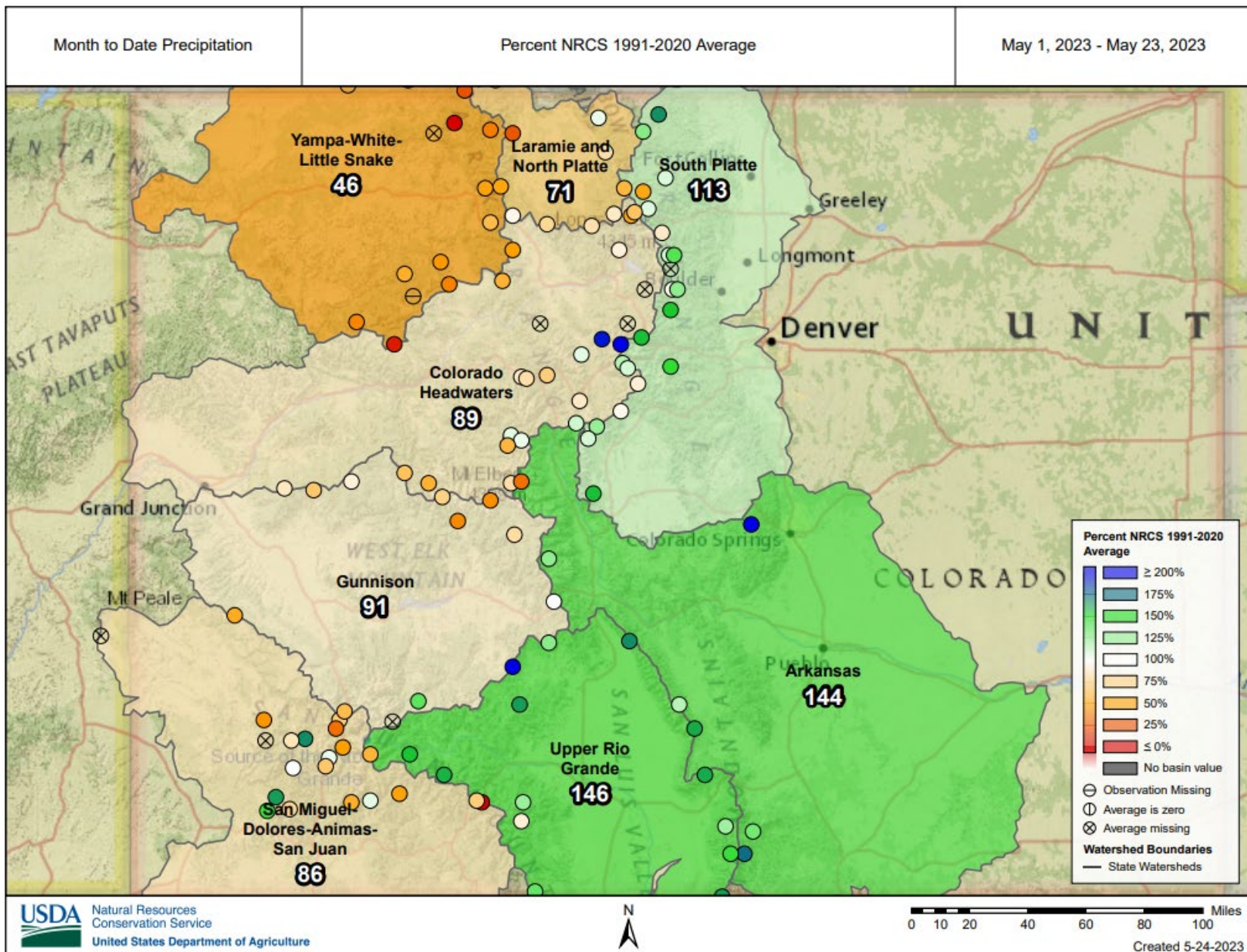
Created 5-24-2023



United States Department of Agriculture

Colorado Snow Surveys

MTD Precipitation





Colorado Snow Surveys

PRECIPITATION IN STATE OF COLORADO

Reset Range

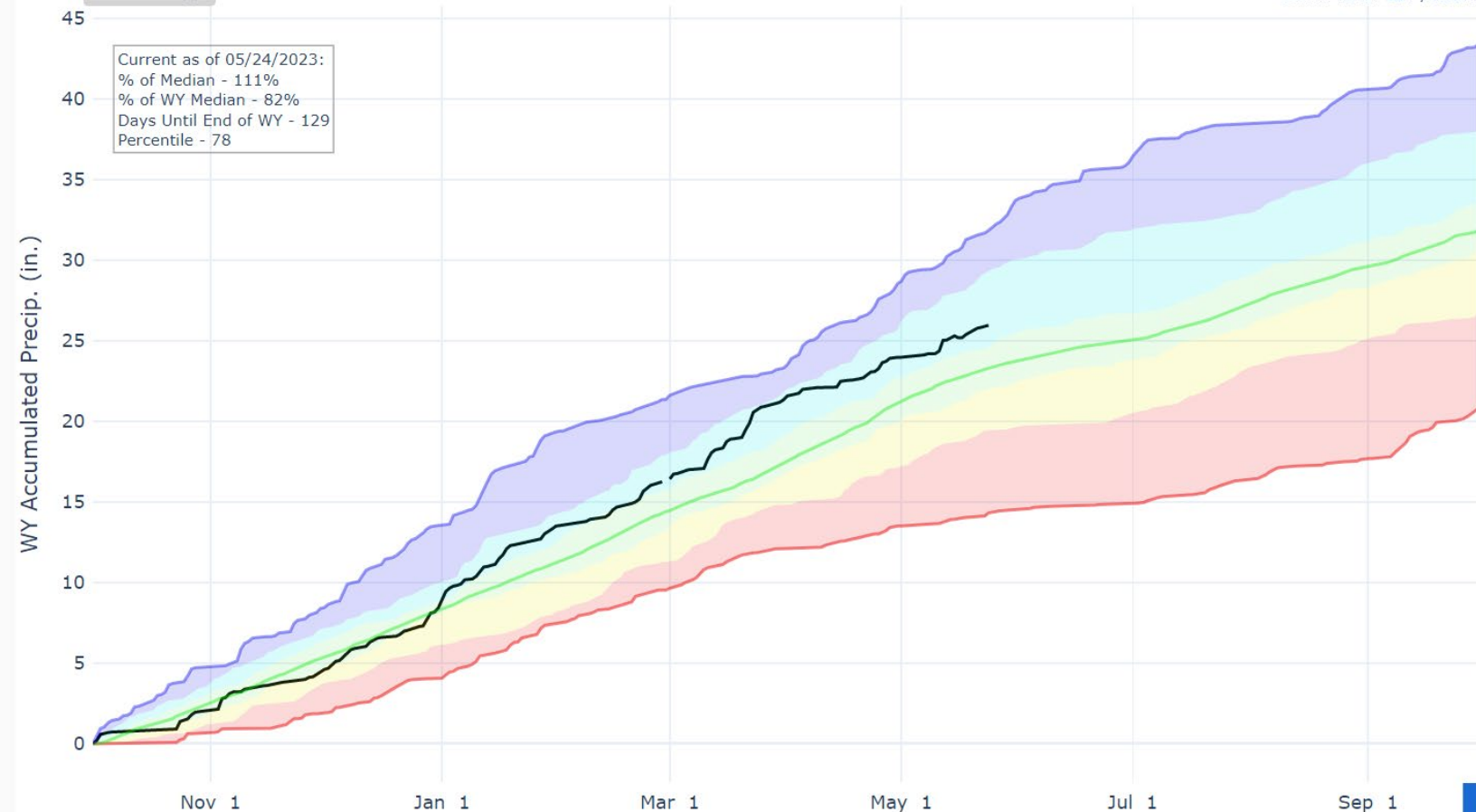
Link to data: CSV / JSON

Station List

Current as of 05/24/2023:
% of Median - 111%
% of WY Median - 82%
Days Until End of WY - 129
Percentile - 78

- 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

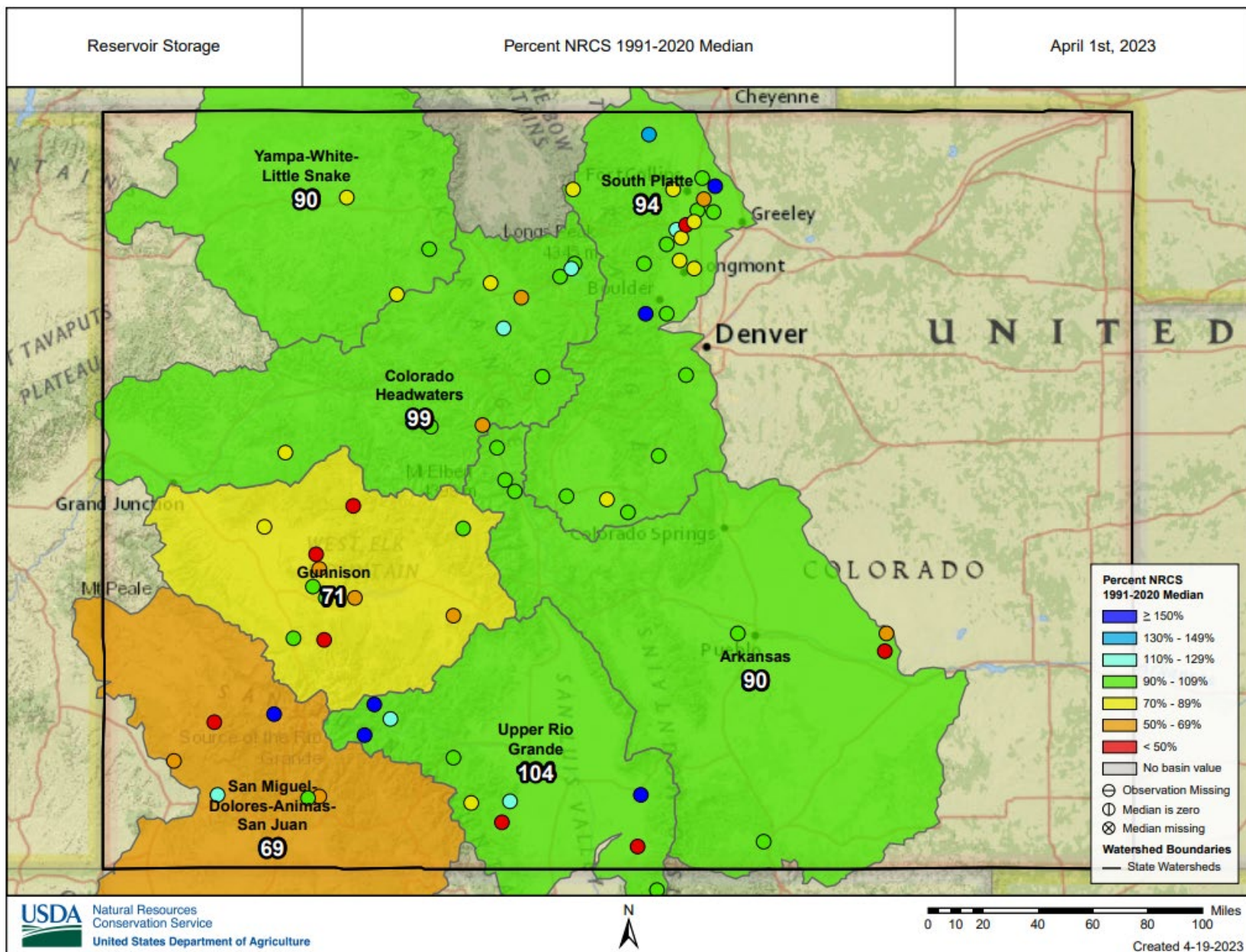


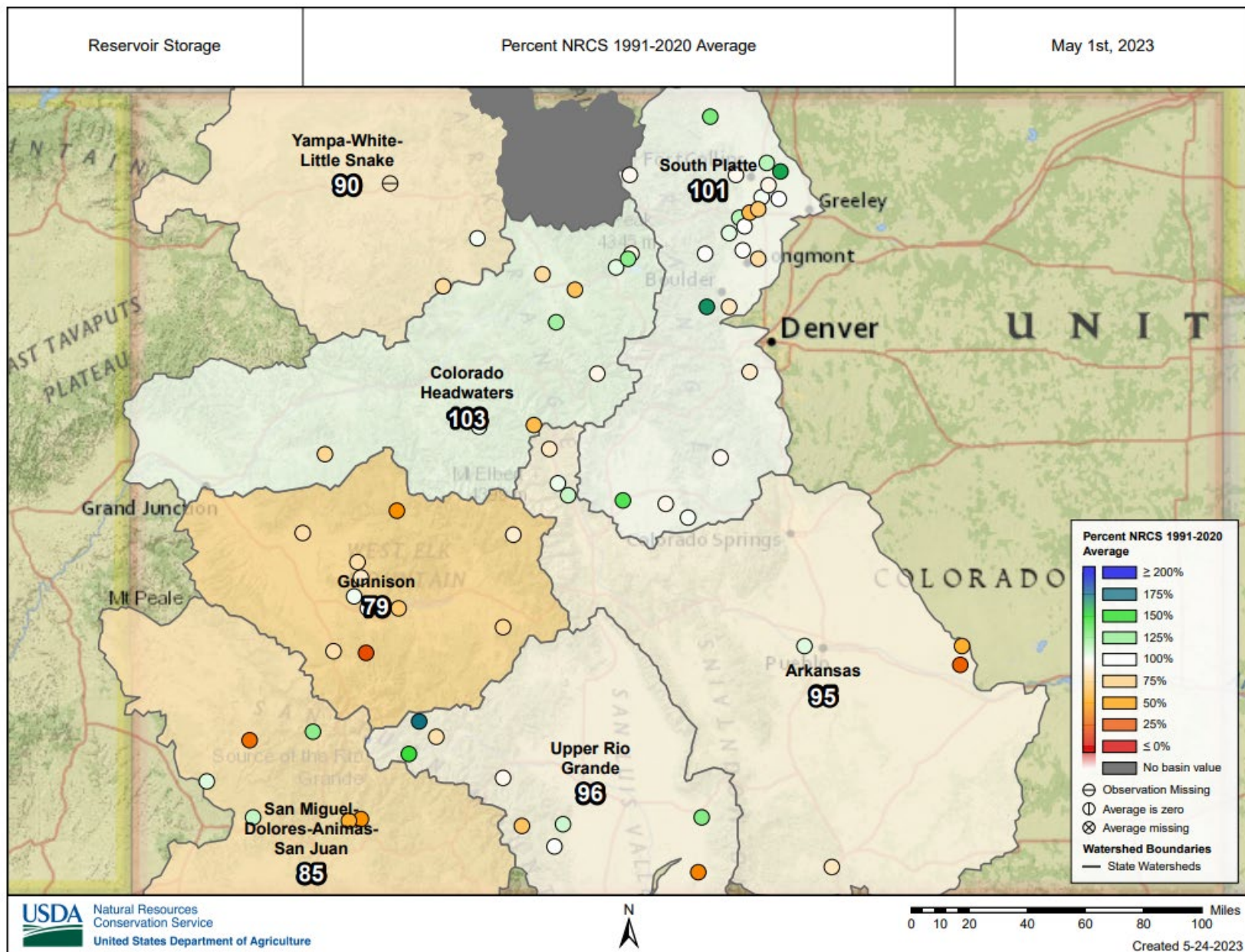


United States Department of Agriculture

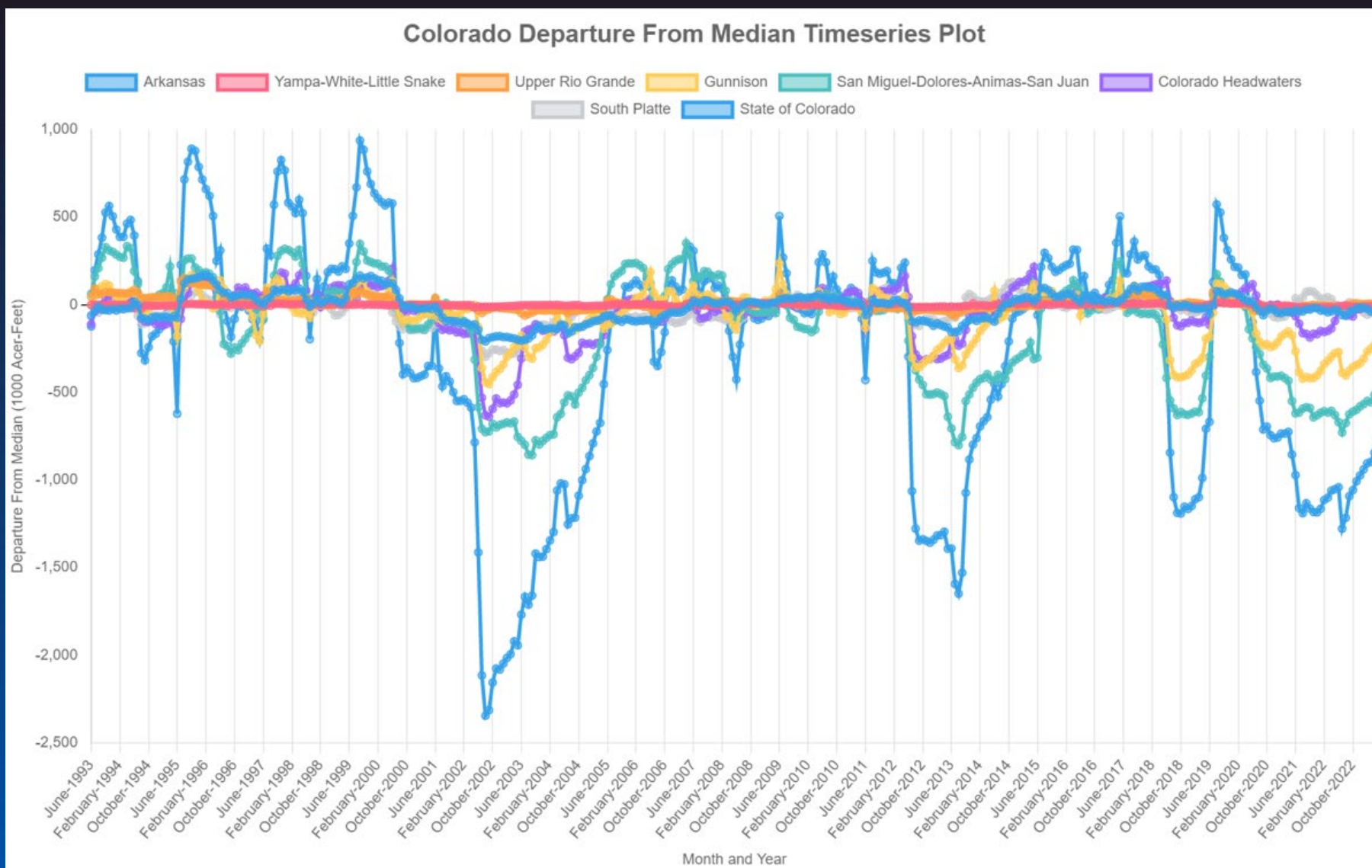
Colorado Snow Surveys

Reservoir Storage: April 1st





Reservoir Storage

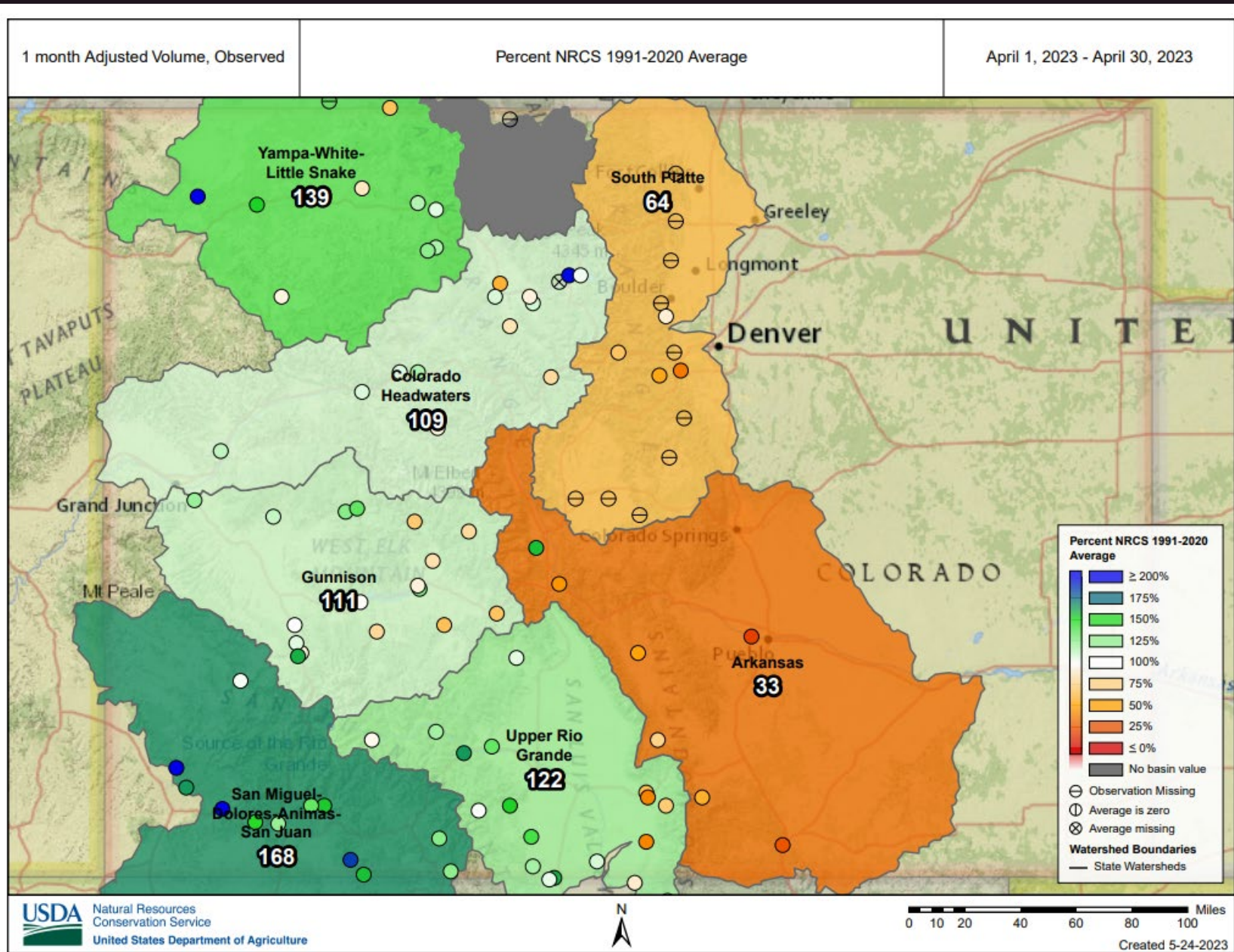




United States Department of Agriculture

Colorado Snow Surveys

April Observed Streamflow

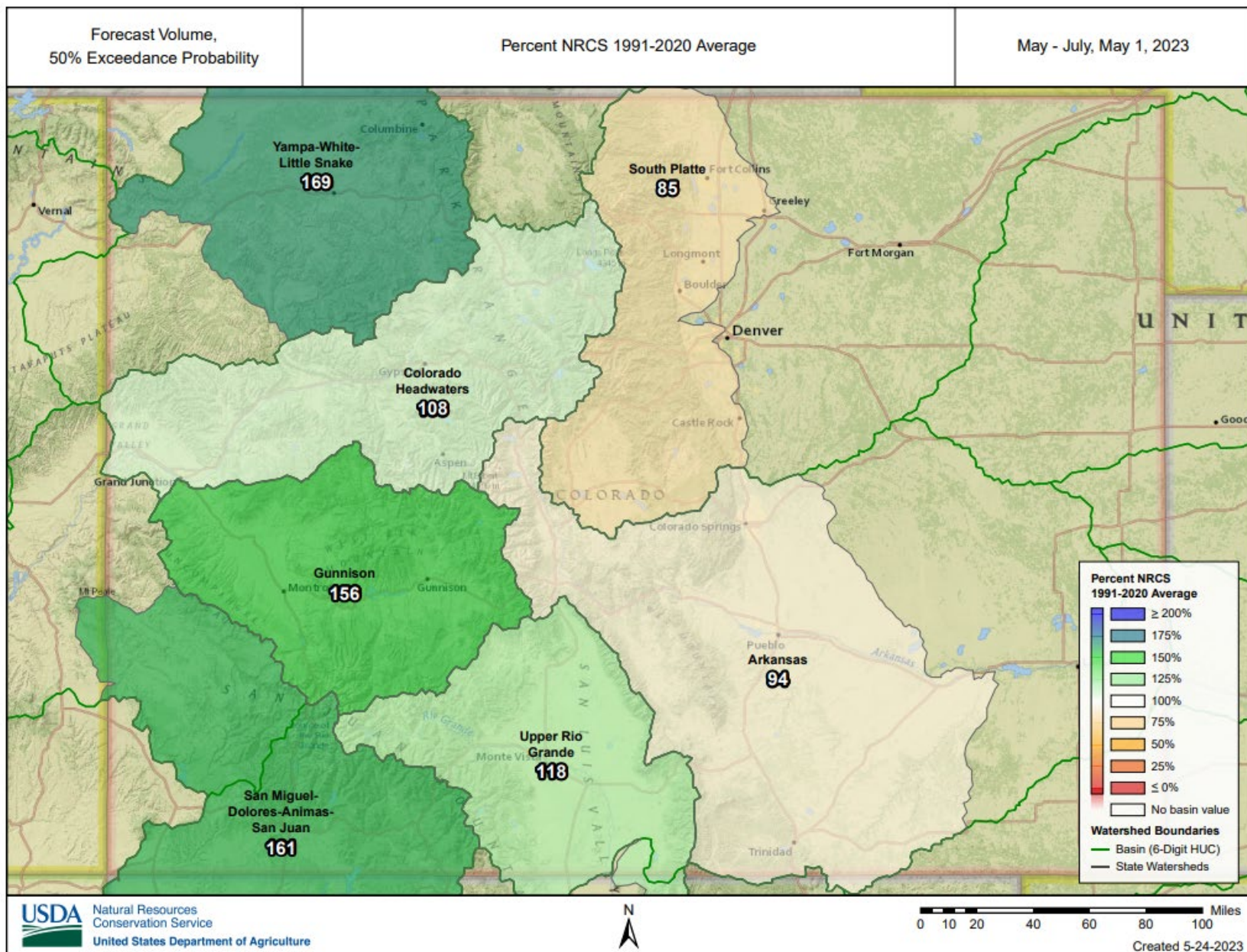




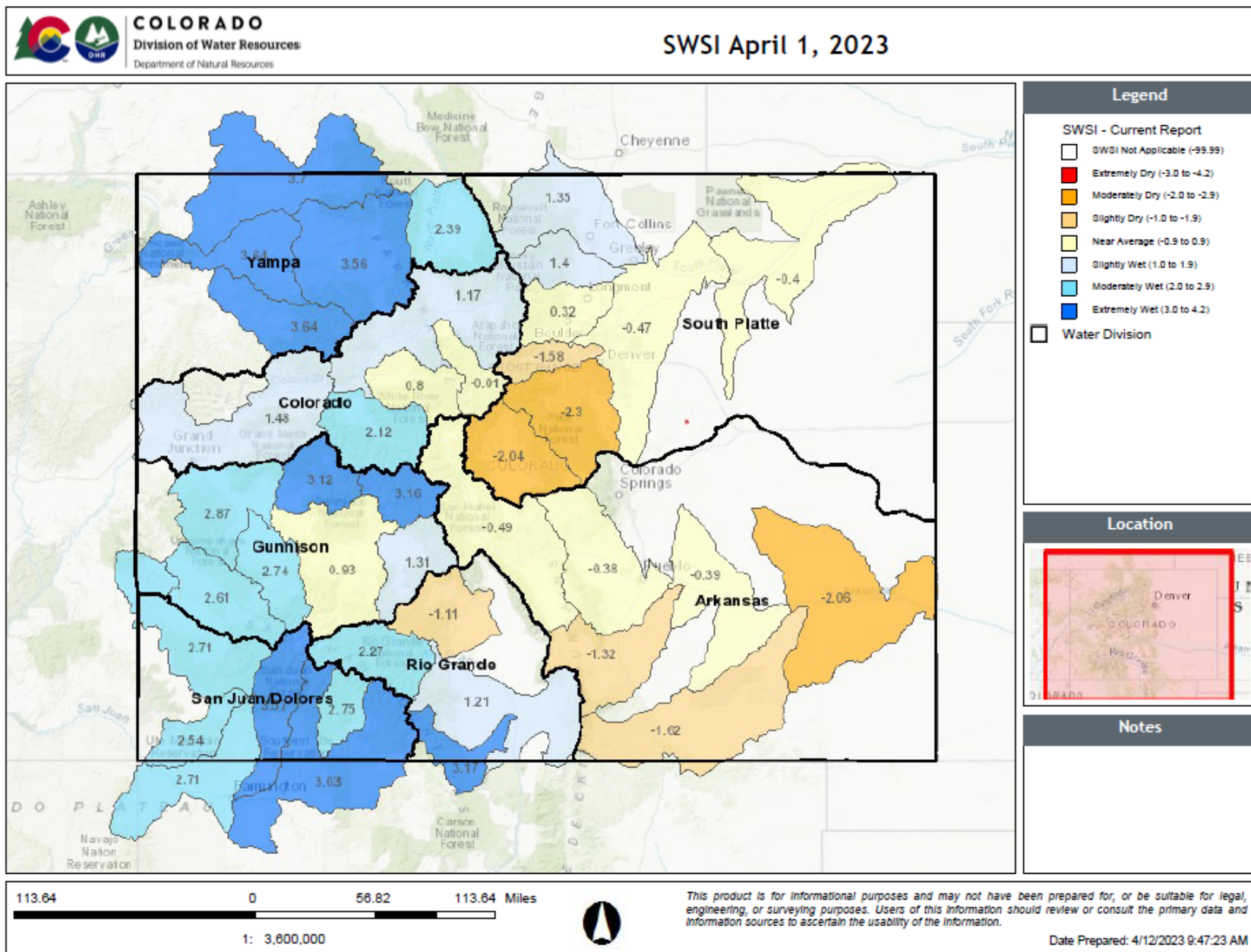
United States Department of Agriculture

Colorado Snow Surveys

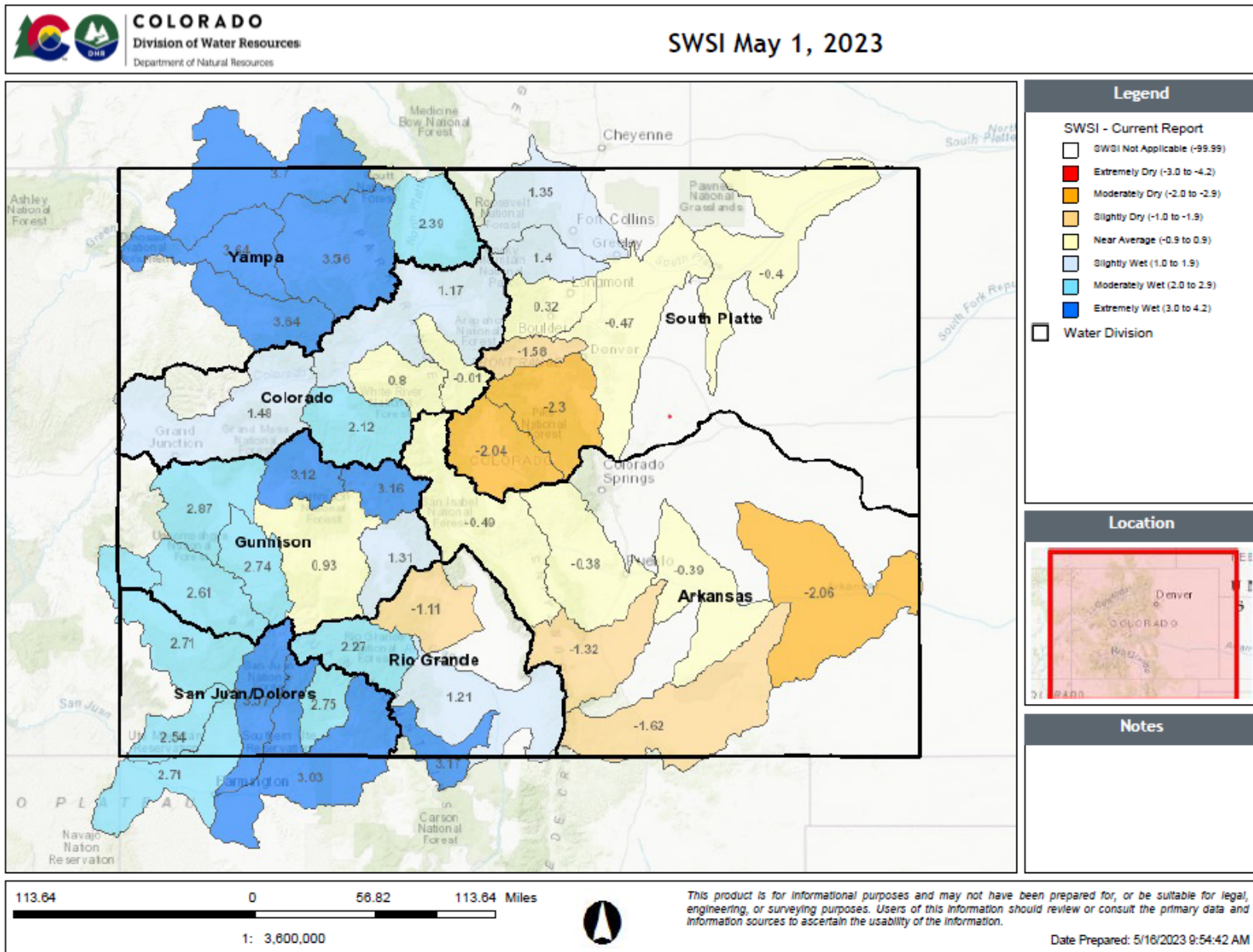
Streamflow Forecasts



April 1, 2023 SWSI



May 1, 2023 SWSI



Summary

- Snowmelt is progressing quickly across the state. On average snowpack at Colorado SNOTEL sites is down to about 25 percent of their respective peak values.
- Water Year to date precipitation is near to well above normal in all major basins of Colorado.
 - May to date precipitation has favored basins east of the Continental Divide
- April observed streamflow volumes were well above normal across the Western Slope and the Rio Grande. This pattern is forecast to persist for the coming months as well.
- Reservoir storage volumes are swiftly increasing across the Western Slope where they have been the lowest in the state. June 1st values are anticipated to show considerable increases over the previous month.



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