USDA United States Department of Agriculture
Natural Resources Conservation Service

Colorado
Water Supply Outlook Report
June 1st, 2023

Significant dust on snow events from April amplified snowmelt rates this runoff season. This image was captured on May 20th and is of the Headwaters of Brush Creek in the East River watershed and highlights dust on snow layers. These high albedo layers will continue to act as a snowmelt catalyst with the combination of warming spring temperatures.

Photo By: Andrew Briebart

REMINDER: We are soliciting field work photos from the field again this year. Each month we will pick one to grace the cover of this report! Please include information on where, when and of who/what the photo was taken.

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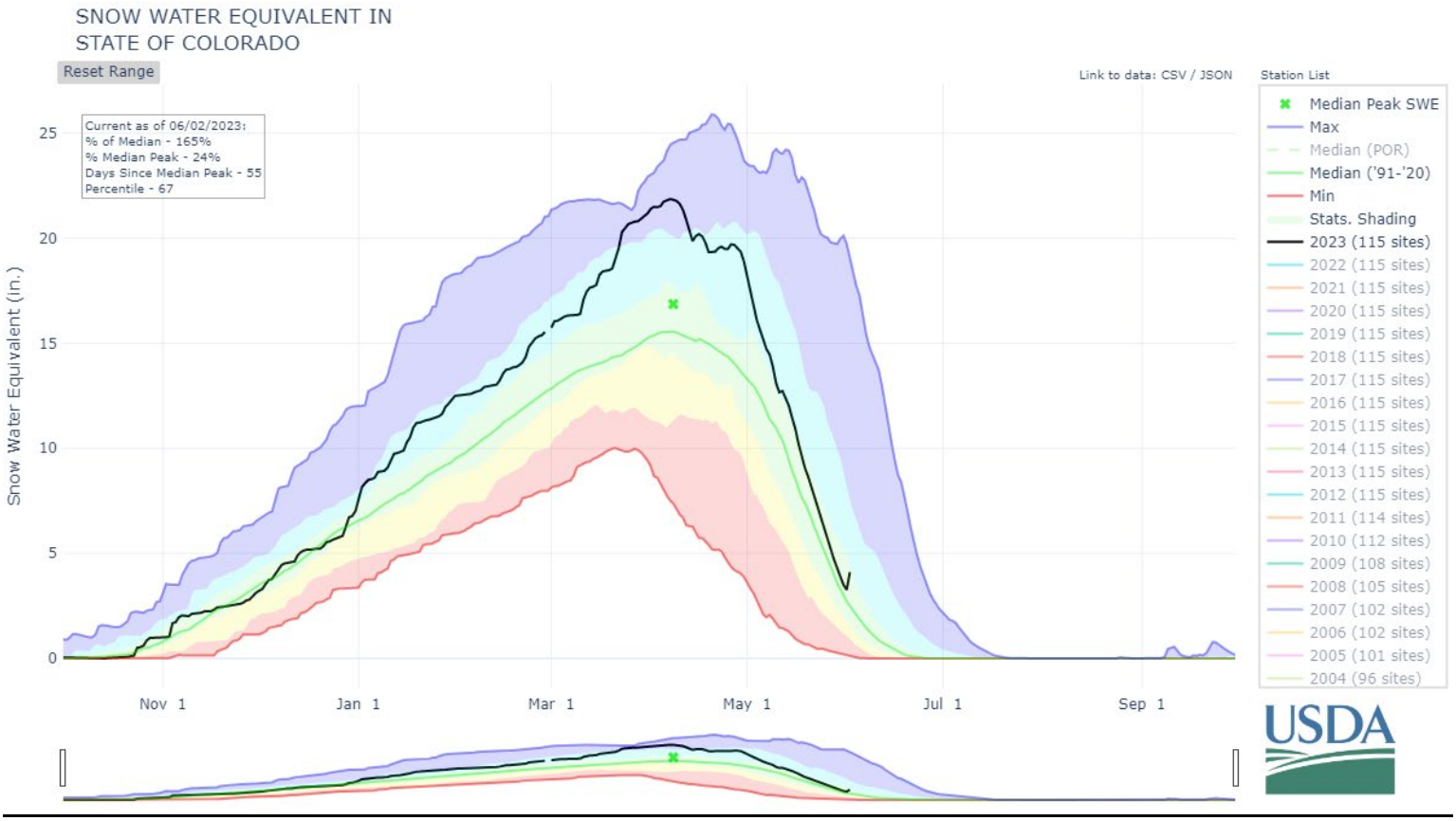
Colorado Statewide Water Supply Conditions for June 1st

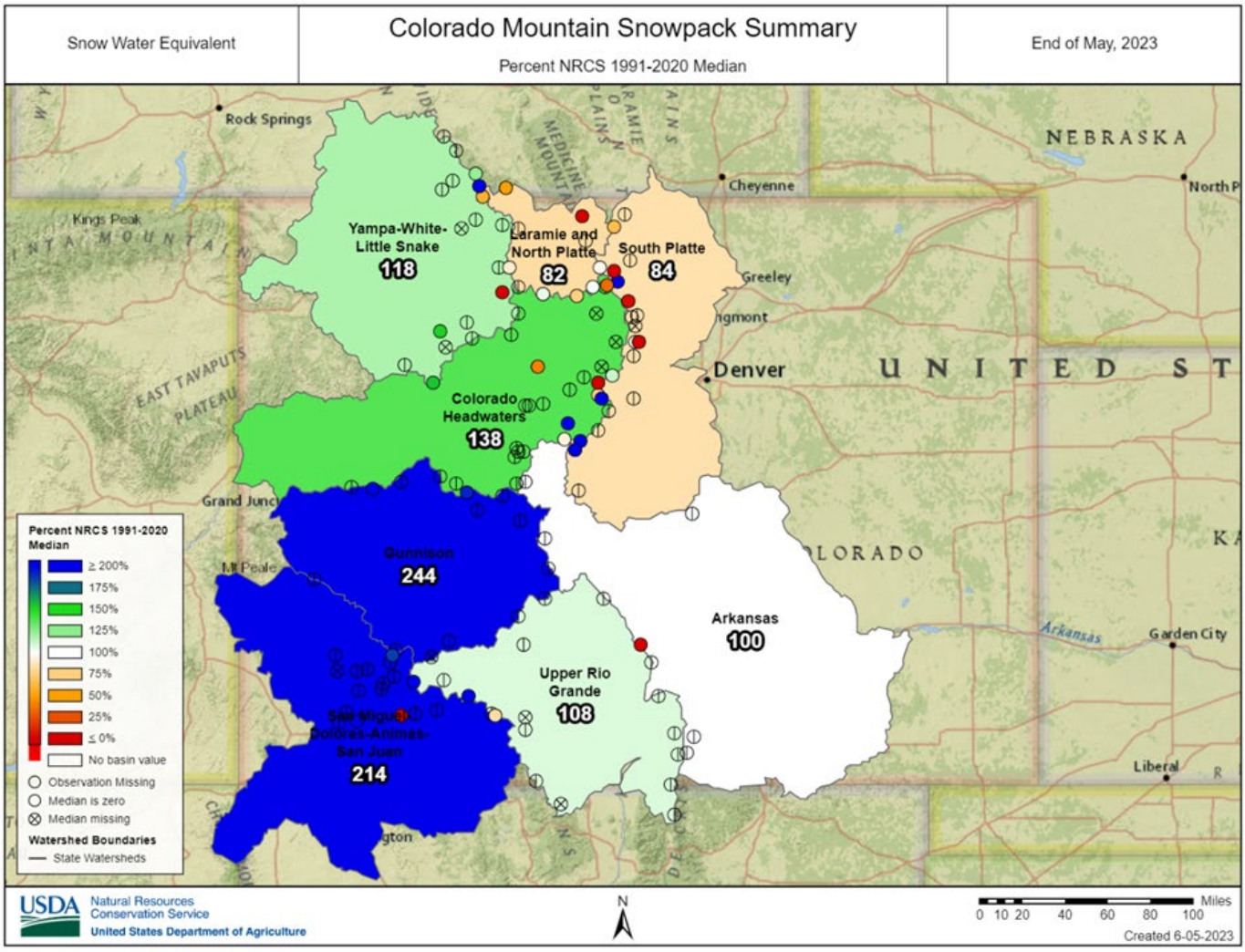
Summary



*For the above graph, snow water equivalent (SWE) values are calculated using daily SNOTEL data only. SWE numbers presented in the text are values from the first of the month and include manual Snow Course measurements along with SNOTEL data.

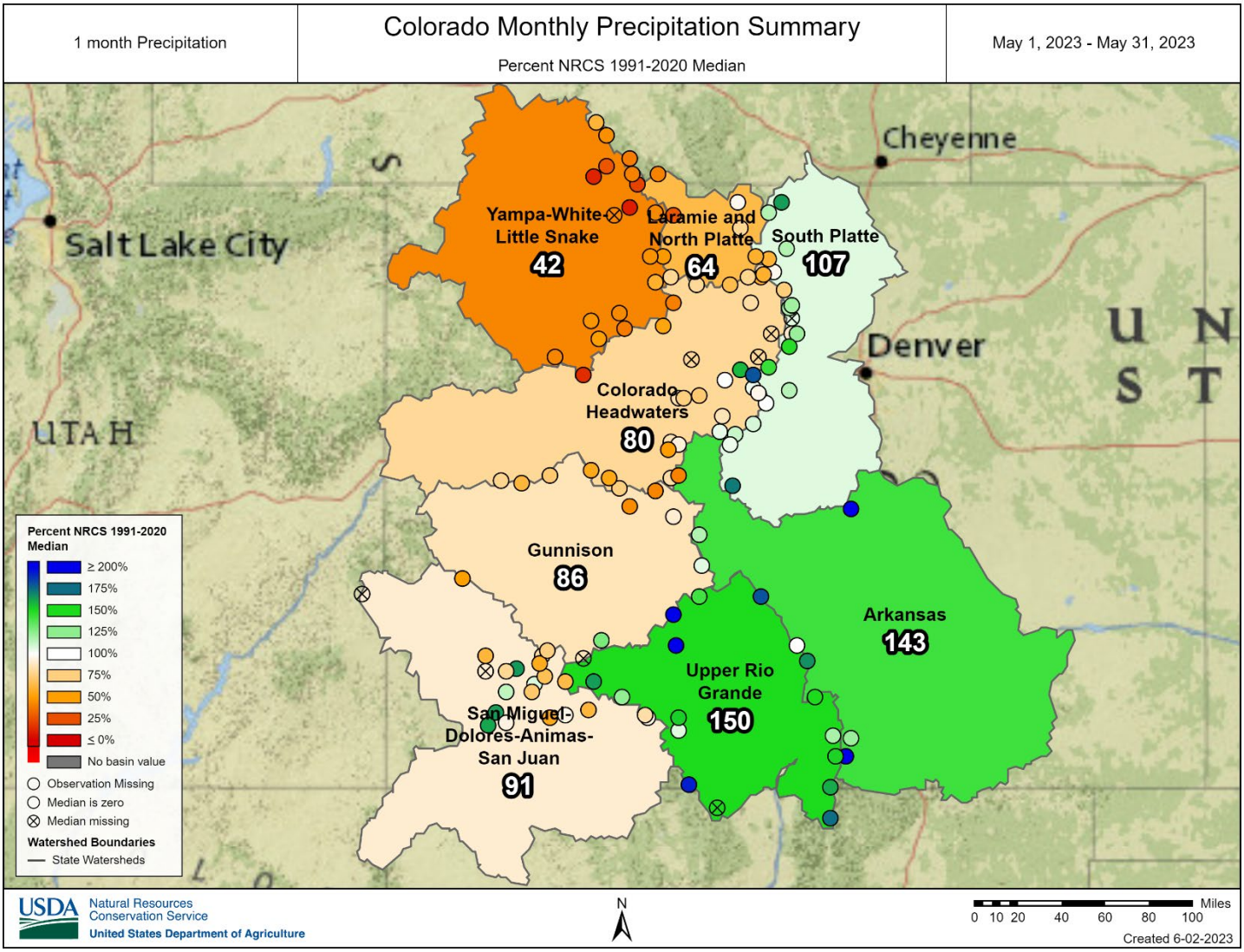
Approximately half of the streamflow forecast points in Colorado measured above the 90th percentile of observed volumetric streamflow in the month of May. Fourteen of these points recorded the highest or second highest streamflow volumes on record for May. These impressive streamflow volumes have helped to boost reservoir storage in some of the basins with the largest deficits bringing statewide reservoir storage back up to normal values for the first time in three years. Precipitation during the month of May strongly favored the Front Range down through the Sangre de Cristo mountains compared to most of Western Colorado. This was a departure from previous trends and helped add more moisture to those areas which had been drier than the Western Slope. Following the statewide well above normal streamflow volumes in May, volumetric forecasts for the June-July period are for a lower percent of normal than the full April-July period. That said, except for the Colorado Headwaters River basin all other major river basins of Western Colorado can anticipate maintaining well above normal streamflow for the next two months. Forecasts are the lowest in the South Platte basin and in particularly along the mainstem headwaters with values increasing in the northern tributaries.

Snowpack



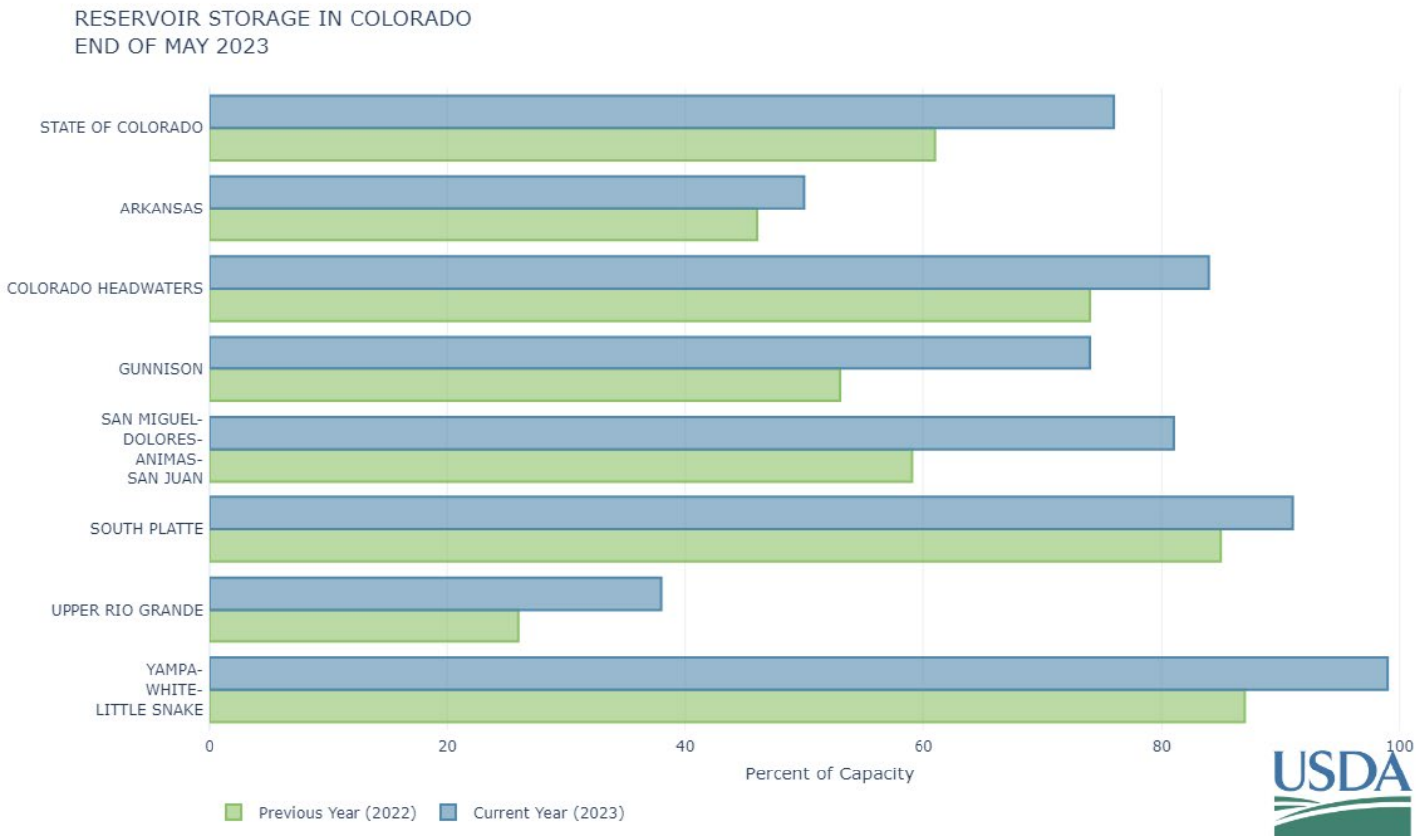
As of June 1st, 67 percent of all SNOTEL stations across Colorado have melted out, and typically only 56 percent of SNOTEL have melted out by this time. Although more SNOTEL sites are melted out than normal, statewide snowpack remains above normal at 122 percent of median; largely benefiting from the remaining deep snowpacks at high elevations on the west slope. As snowmelt-runoff season is in full force, there is a noticeable contrast between river basins east and west of the continental divide. All major river basins on the west slope currently have above normal snowpacks. Peak snowpacks for these basins ranged from a high of 175 percent of median for the combined San Miguel-Dolores-Animas-San Juan River basin to 125 percent of median for the Colorado Headwaters River basin. The major river basins in the western part of the state had the deepest peak snowpacks this winter but also experienced some of the fastest snowmelt rates during May, especially at lower elevations. Above average temperatures and prolific dust-on-snow contributed to these high melt rates for western river basins. Conversely, the major river basins east of the continental divide currently have near to below normal snowpacks, and peak snowpacks for these basins ranged from a high of 113 percent of median for the Upper Rio Grande River basin to 85 percent of median for the Arkansas River basin. During May, consistently active storm patterns brought cooler temperatures and more precipitation to river basins east of the Continental Divide contributing to slower snowmelt rates. Overall, there is still substantial snow at high elevations across much of the state, which will continue to contribute to the runoff season.

Precipitation



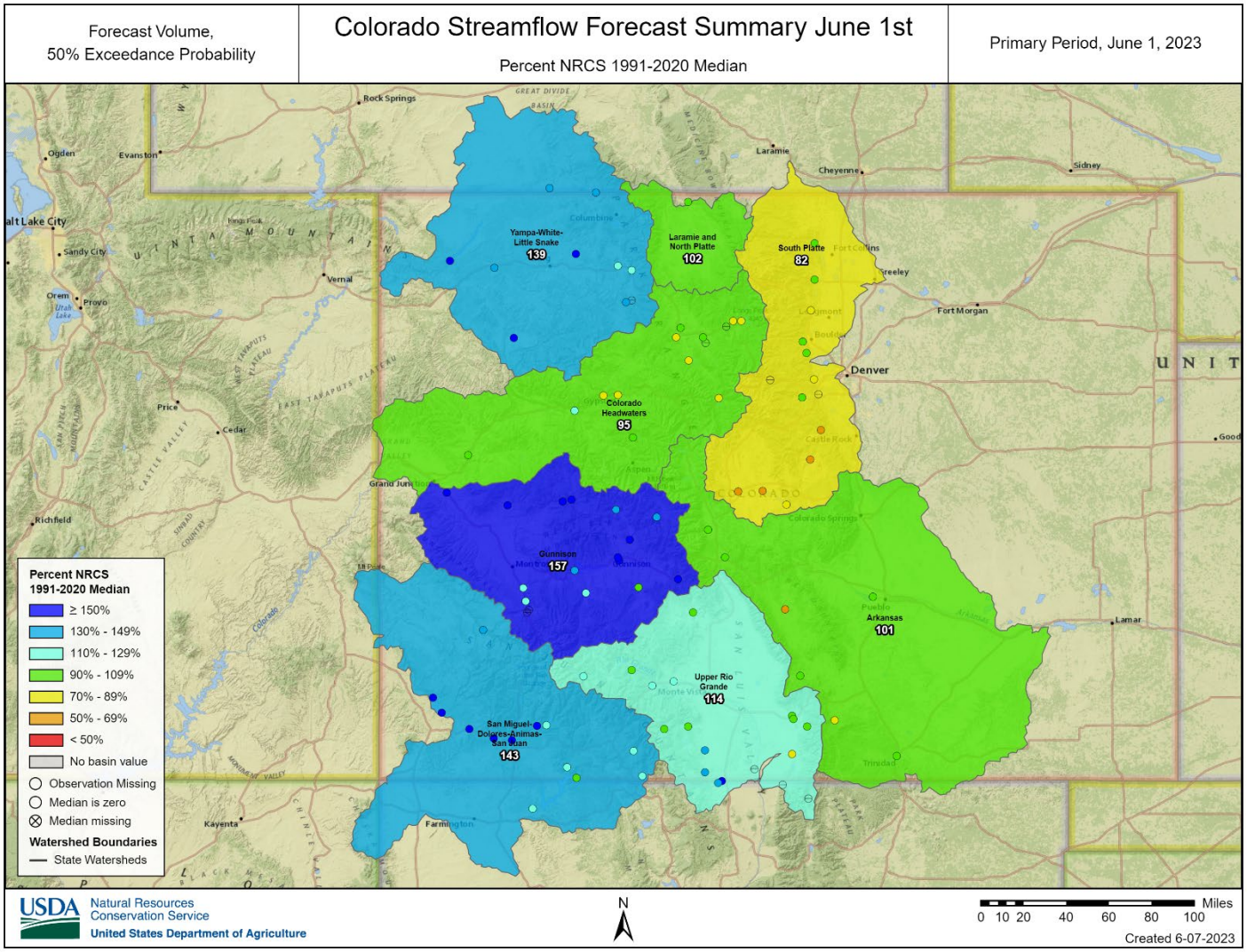
May brought wet conditions to eastern basins with spring storms heavily favoring the South Platte, Arkansas and Upper Rio Grande. Eastern basins received above normal precipitation while western basins were below normal, with the Yampa-White-Little Snake and Laramie-North Platte having received the lowest totals. Statewide precipitation is at 110 percent of median. Water year-to-date, precipitation is above normal for most of the state and almost near normal in the South Platte and Arkansas at 94 percent of median and 95 percent of median, respectively. Due to drier trends carrying into May, ten SNOTELs were at record dry levels in the northwest portion of the state over the last month. Looking at the bigger water picture, water year-to-date precipitation at these same SNOTELs are above normal. Monthly dry patterns in northwest basins may likely improve based on current outlooks. Statewide a below normal temperature outlook and above normal precipitation outlook is expected for June. NOAA has also forecasted "likely above" precipitation in the northwestern portion of the state and may likely increase precipitation in the Yampa-White-Little Snake and Laramie-North Platte basins. Drought conditions are not present for most of the state, and where present, for roughly 6% of the state and generally east of the Divide, drought will likely improve or may be removed with current outlook conditions.

Reservoir Storage



Statewide reservoir storage is at 100 percent of normal compared to 80 percent of normal this time last year. All basin storage readings are above or near normal ranging from 92 percent of median in the combined San Miguel-Dolores-Animas-San Juan River basin to 124 percent of median in the Upper Rio Grande River basin. Month-to-date, the biggest improvements are in the Gunnison River basin currently at 100 percent of normal and in the San Miguel-Dolores-Animas-San Juan basins. A combination of warm temperatures, rain on snow events, and dust on snow layers accelerated runoff rates. However, recent snow events have decreased albedo and decreased runoff rates, particularly in sub-basins above 10,000 ft in the San Juans and Colorado River Basin. “Even with rapid early melt, large snow years can result in much higher percent of normal runoff later in the season, particularly in basins that typically don’t have large runoff volumes in June-July” – Angus Goodbody, Hydrologist, USDA-NRCS National Water and Climate Center. As the still very abundant snowpack continues to melt and with the addition of upcoming precipitation we should see an increase in already above normal storage readings basin wide.

Streamflow

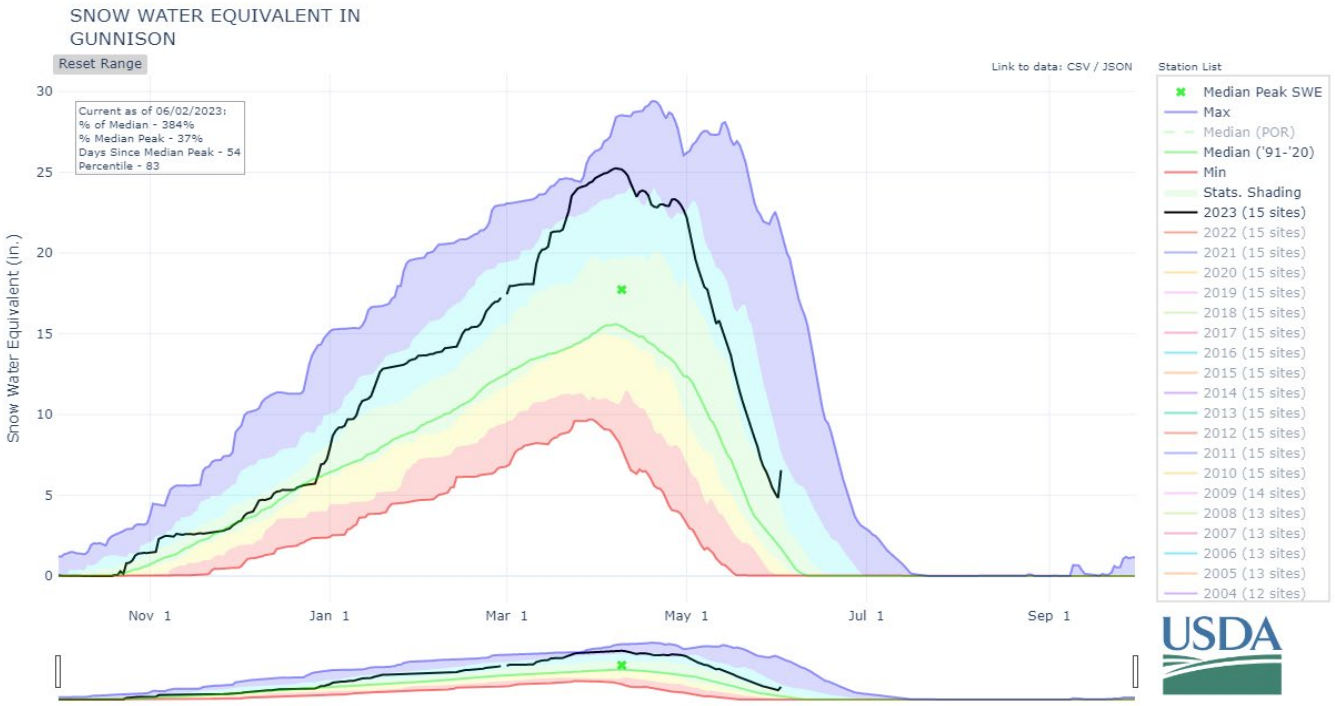


Consistent warm temperatures have started to melt away this seasons deep snowpack, which has allowed for some streamflows to already reach peak discharge. The gage at Yampa River near Maybell recorded peak runoff on May 17th at 15400 cfs. The Gunnison River near Grand Junction peak discharge was at 16900 cfs and the Colorado River near Cameo peaked towards the end of the month around 16700 cfs. Due to a lower seasonal snowpack, forecasts in the South Platte are below normal at 82 percent of median. All other forecasts are near or well above normal ranging from 95 percent of median in the Colorado River Basin to 156 percent of median in the Gunnison. Late spring storms have also bolstered streamflow rates with recent precipitation events favoring eastern basins. The Denver Metro saw upwards of 7” of precipitation ranking May as the fifth highest moisture month on record. Recent storms, particularly in the Colorado River basin and San Juans have temporarily slowed down snowmelt through cooler temperatures and precipitation. As we move into June, warmer temperatures will continue to gradually melt away the remaining snowpack at higher elevations and any additional precipitation events should bolster runoff. No major river flooding is currently expected.

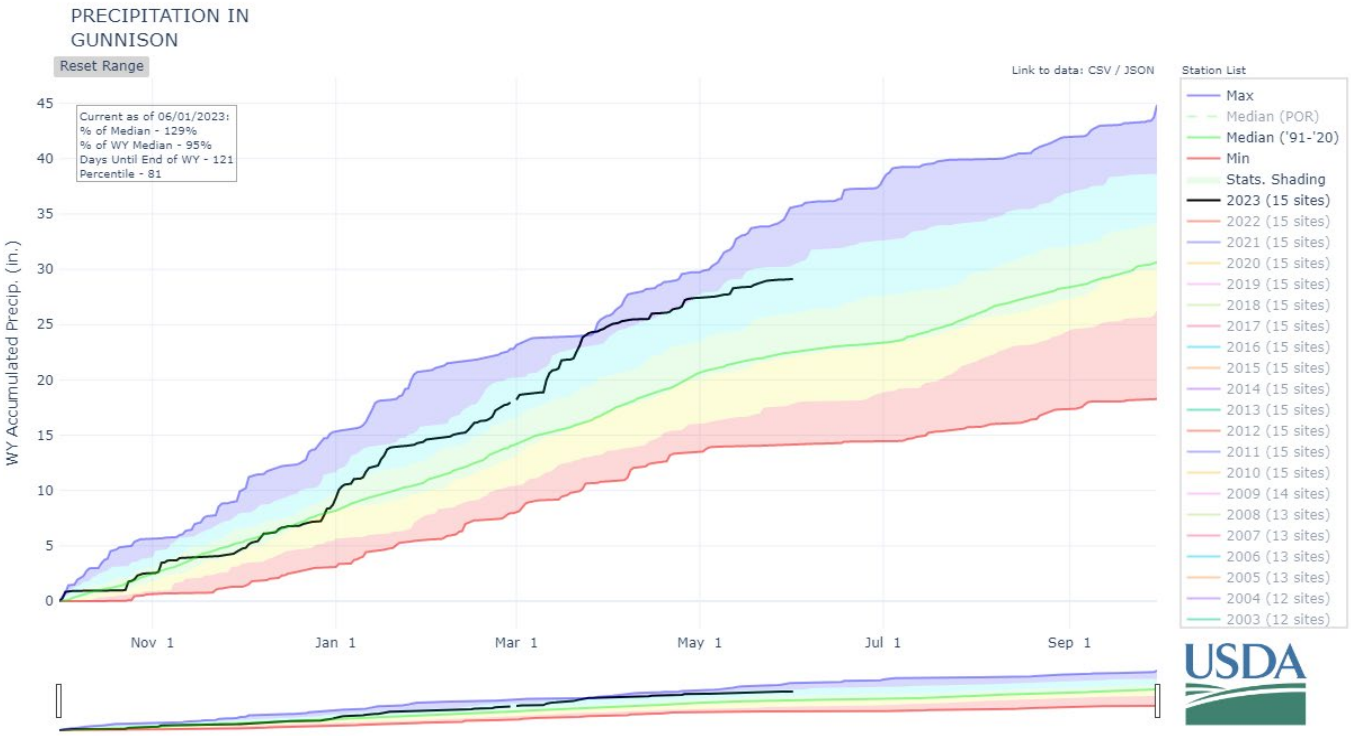
GUNNISON RIVER BASIN

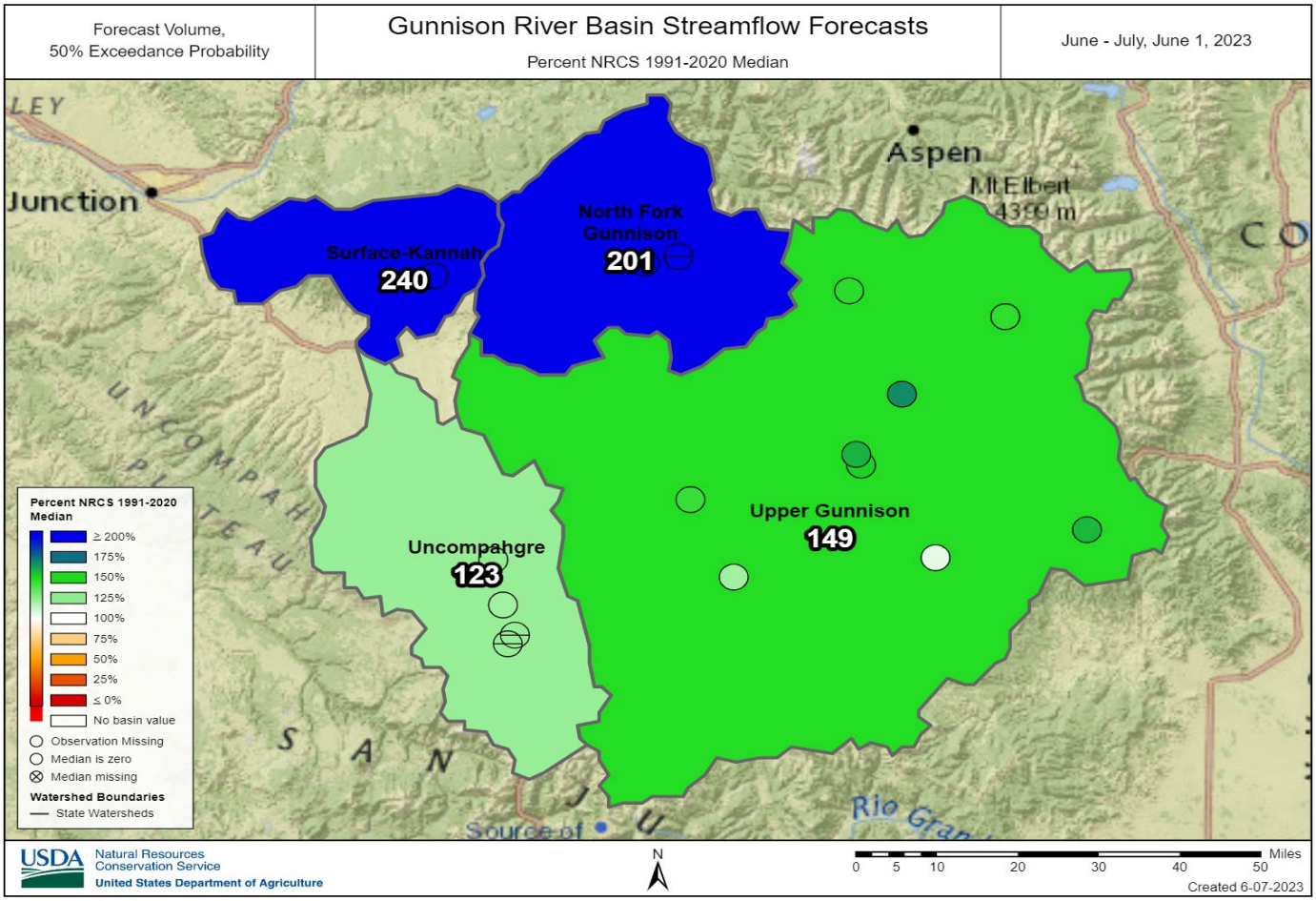
June 1st, 2023

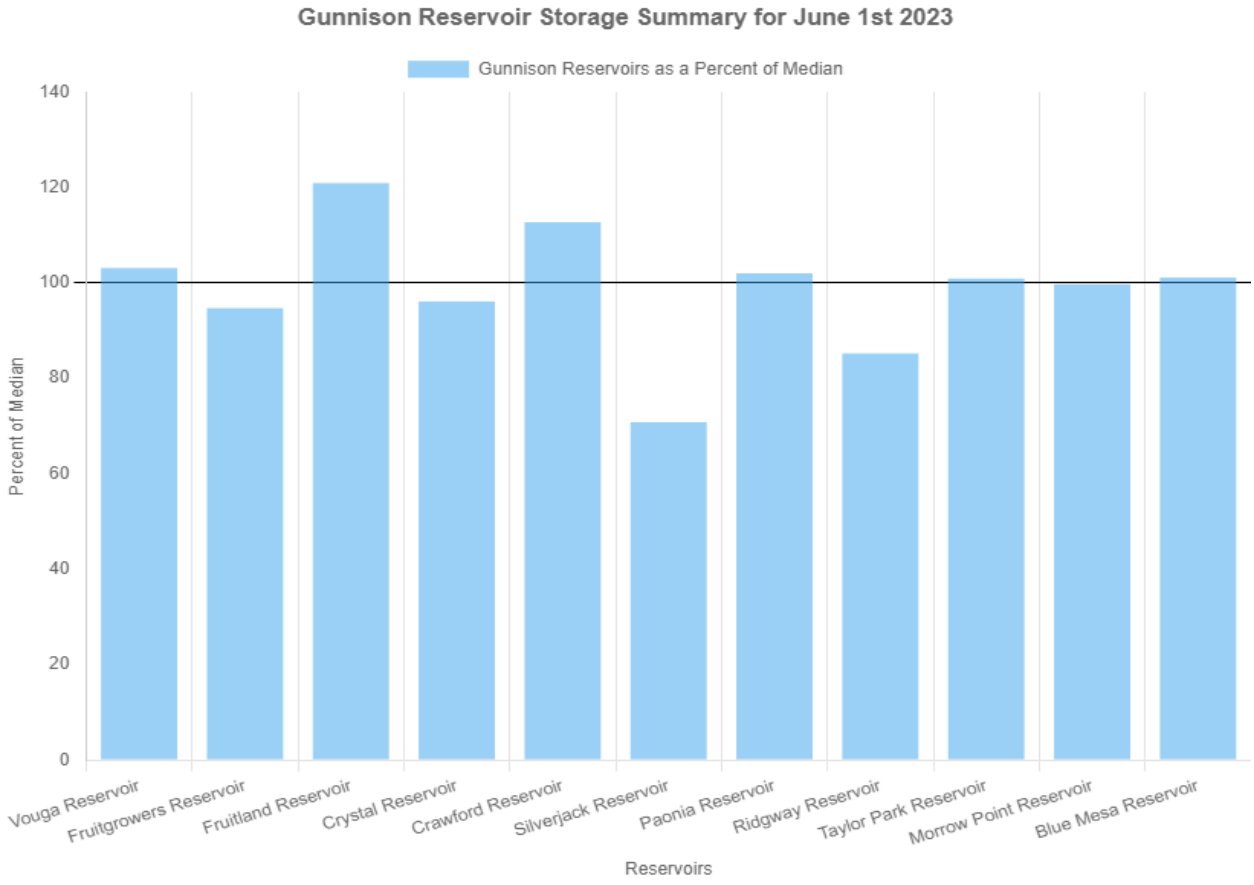
Snowpack in the Gunnison River basin is above normal at 244% of median. Precipitation for May was 86% of median which brings water year-to-date precipitation to 129% of median. Reservoir storage at the end of May was 100% of median compared to 70% last year. Current streamflow forecasts range from 106% of median at Cochetopa Creek below Rock Creek near Parlin to 240% of median at Surface Creek at Cedaredge.



*Snow water equivalent (SWE) values are calculated using daily SNOTEL data only for the above graph. In the paragraph SWE is calculated for the first of the month using both SNOTEL and Snow Course data.




Forecast Volume,
50% Exceedance Probability
Gunnison River Basin Streamflow Forecasts
Percent NRCS 1991-2020 Median
June - July, June 1, 2023
Junction
Aspen
Mt Elbert
4399 m
North Fork
Gunnison
201
Surface-Kannah
240
Uncompahgre
123
Upper Gunnison
149
UNCOMPAHGRE PLATEAU
SAN JUAN
Percent NRCS 1991-2020
Median
≥ 200%
175%
150%
125%
100%
75%
50%
25%
≤ 0%
No basin value
Observation Missing
Median is zero
Median missing
Watershed Boundaries
State Watersheds
USDA
Natural Resources
Conservation Service
United States Department of Agriculture
N
0 5 10 20 30 40 50
Miles
Created 6-07-2023


Gunnison Reservoir Storage Summary for June 1st 2023
Gunnison Reservoirs as a Percent of Median
Percent of Median
0
20
40
60
80
100
120
140
Vouga Reservoir
Fruitgrowers Reservoir
Fruitland Reservoir
Crystal Reservoir
Crawford Reservoir
Silverjack Reservoir
Paonia Reservoir
Ridgway Reservoir
Taylor Park Reservoir
Morrow Point Reservoir
Blue Mesa Reservoir
Reservoirs

Watershed Snowpack Analysis June 1st, 2023

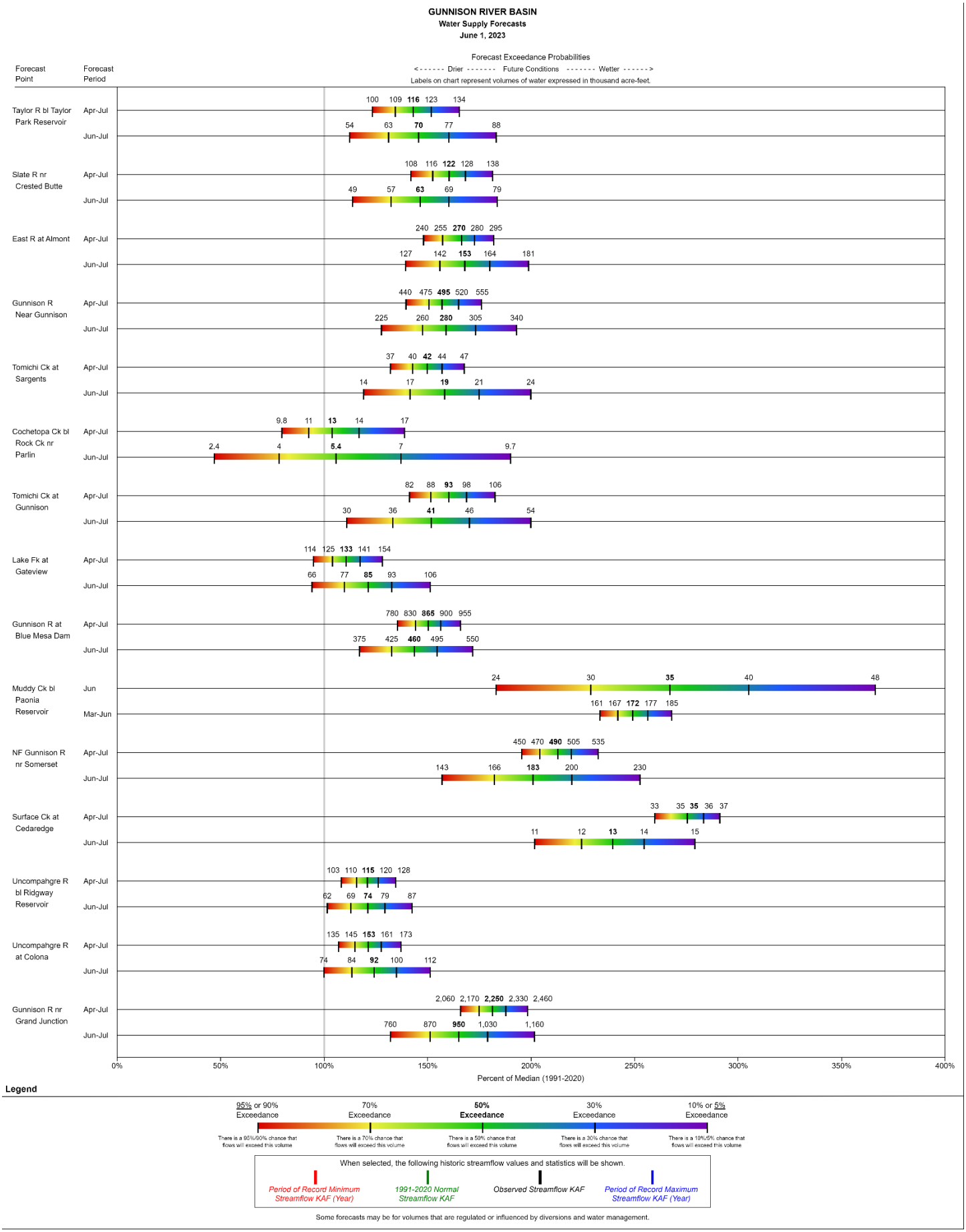
Gunnison Sub-Basin Snow Data

	# of Sites	% Median	Last Year % Median
Upper Gunnison	8.0	204.1	43.4
North Fork Gunnison	3.0	191.8	45.1
Uncompahgre Plateau	1.0	nan	nan
Uncompahgre	2.0	185.9	0.0
Surface-Kannah	2.0	330.8	91.3

Reservoir Storage End of May 2023

Gunnison Reservoir Data

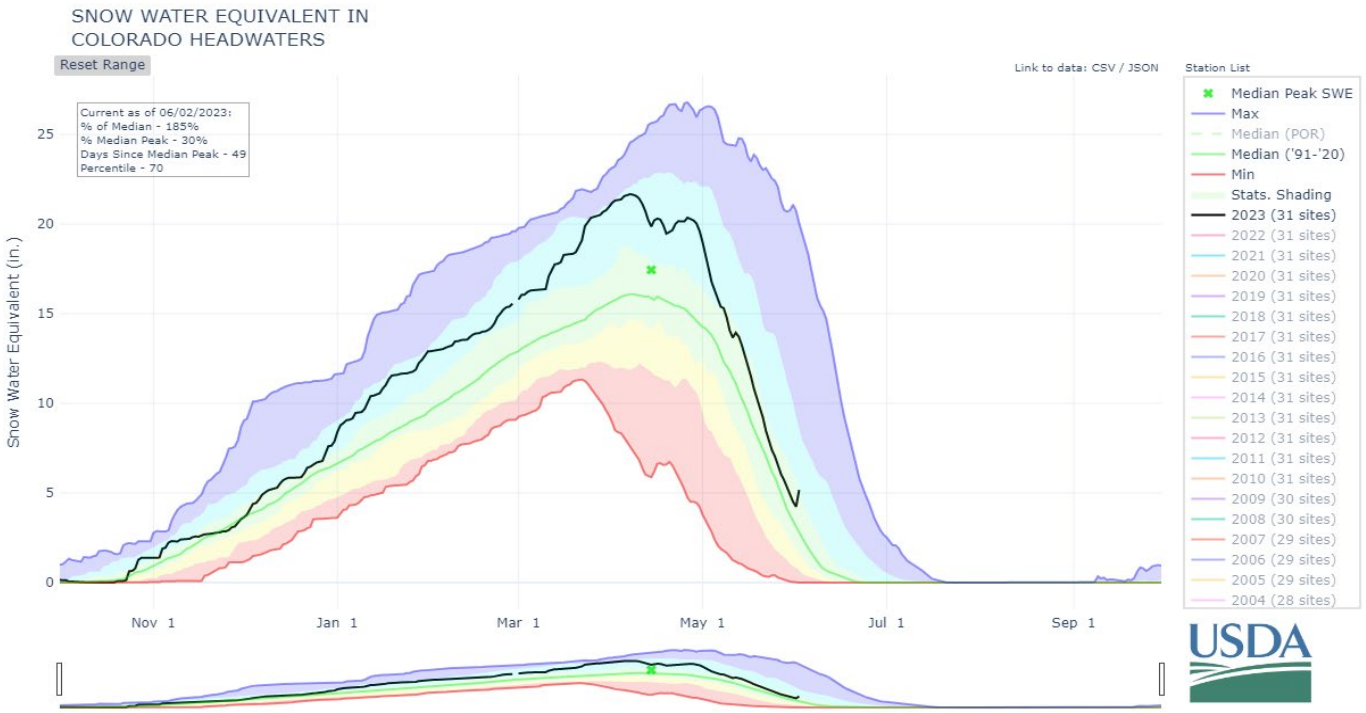
	Current Storage (KAF)	LY Storage (KAF)	Median (KAF)	Percent of Median
Vouga Reservoir	0.94	0.01	0.91	103.3
Silverjack Reservoir	9.28	12.45	13.1	70.8
Fruitgrowers Reservoir	3.6	3.37	3.8	94.7
Blue Mesa Reservoir	588.98	334.92	582.4	101.1
Fruitland Reservoir	8.7	4.6	7.2	120.8
Ridgway Reservoir	59.11	65.8	69.4	85.2
Morrow Point Reservoir	111.99	110.7	112.3	99.7
Crystal Reservoir	8.75	8.79	9.1	96.2
Paonia Reservoir	15.82	15.5	15.5	102.1
Taylor Park Reservoir	80.45	74.02	79.7	100.9
Crawford Reservoir	14.65	7.06	13.0	112.7


GUNNISON RIVER BASIN
Water Supply Forecasts
June 1, 2023
Forecast Exceedance Probabilities
<------ Drier ------- Future Conditions ------- Wetter ------>
Labels on chart represent volumes of water expressed in thousand acre-feet.
Forecast Point
Forecast Period
Taylor R bl Taylor Park Reservoir Apr-Jul 100 109 116 123 134
Jun-Jul 54 63 70 77 88
Slate R nr Crested Butte Apr-Jul 108 116 122 128 138
Jun-Jul 49 57 63 69 79
East R at Almont Apr-Jul 240 255 270 280 295
Jun-Jul 127 142 153 164 181
Gunnison R Near Gunnison Apr-Jul 440 475 495 520 555
Jun-Jul 225 260 280 305 340
Tomichi Ck at Sargents Apr-Jul 37 40 42 44 47
Jun-Jul 14 17 19 21 24
Cochetopa Ck bl Rock Ck nr Parlin Apr-Jul 9.8 11 13 14 17
Jun-Jul 2.4 4 5.4 7 9.7
Tomichi Ck at Gunnison Apr-Jul 82 88 93 98 106
Jun-Jul 30 36 41 46 54
Lake Fk at Gateview Apr-Jul 114 125 133 141 154
Jun-Jul 66 77 85 93 106
Gunnison R at Blue Mesa Dam Apr-Jul 780 830 865 900 955
Jun-Jul 375 425 460 495 550
Muddy Ck bl Paonia Reservoir Jun 24 30 35 40 48
Mar-Jun 161 167 172 177 185
NF Gunnison R nr Somerset Apr-Jul 450 470 490 505 535
Jun-Jul 143 166 183 200 230
Surface Ck at Cedaredge Apr-Jul 33 35 35 36 37
Jun-Jul 11 12 13 14 15
Uncompahgre R bl Ridgway Reservoir Apr-Jul 103 110 115 120 128
Jun-Jul 62 69 74 79 87
Uncompahgre R at Colona Apr-Jul 135 145 153 161 173
Jun-Jul 74 84 92 100 112
Gunnison R nr Grand Junction Apr-Jul 2,060 2,170 2,250 2,330 2,460
Jun-Jul 760 870 950 1,030 1,160
0% 50% 100% 150% 200% 250% 300% 350% 400%
Percent of Median (1991-2020)
Legend
95% or 90% Exceedance
There is a 95%/90% chance that flows will exceed this volume
70% Exceedance
There is a 70% chance that flows will exceed this volume
50% Exceedance
There is a 50% chance that flows will exceed this volume
30% Exceedance
There is a 30% chance that flows will exceed this volume
10% or 5% Exceedance
There is a 10%/5% chance that flows will exceed this volume
When selected, the following historic streamflow values and statistics will be shown.
Period of Record Minimum Streamflow KAF (Year)
1991-2020 Normal Streamflow KAF
Observed Streamflow KAF
Period of Record Maximum Streamflow KAF (Year)
Some forecasts may be for volumes that are regulated or influenced by diversions and water management.

COLORADO HEADWATERS RIVER BASIN

June 1st, 2023

Snowpack in the Colorado River basin is above normal at 138% of the median. Precipitation for May was 80% of median which brings water year-to-date precipitation to 108% of median. Reservoir storage at the end of May was 110% of median compared to 97% last year. Current streamflow forecasts range from 81% of median at Eagle River below Gypsum to 118% of median at Roaring Fork at Glenwood Springs.



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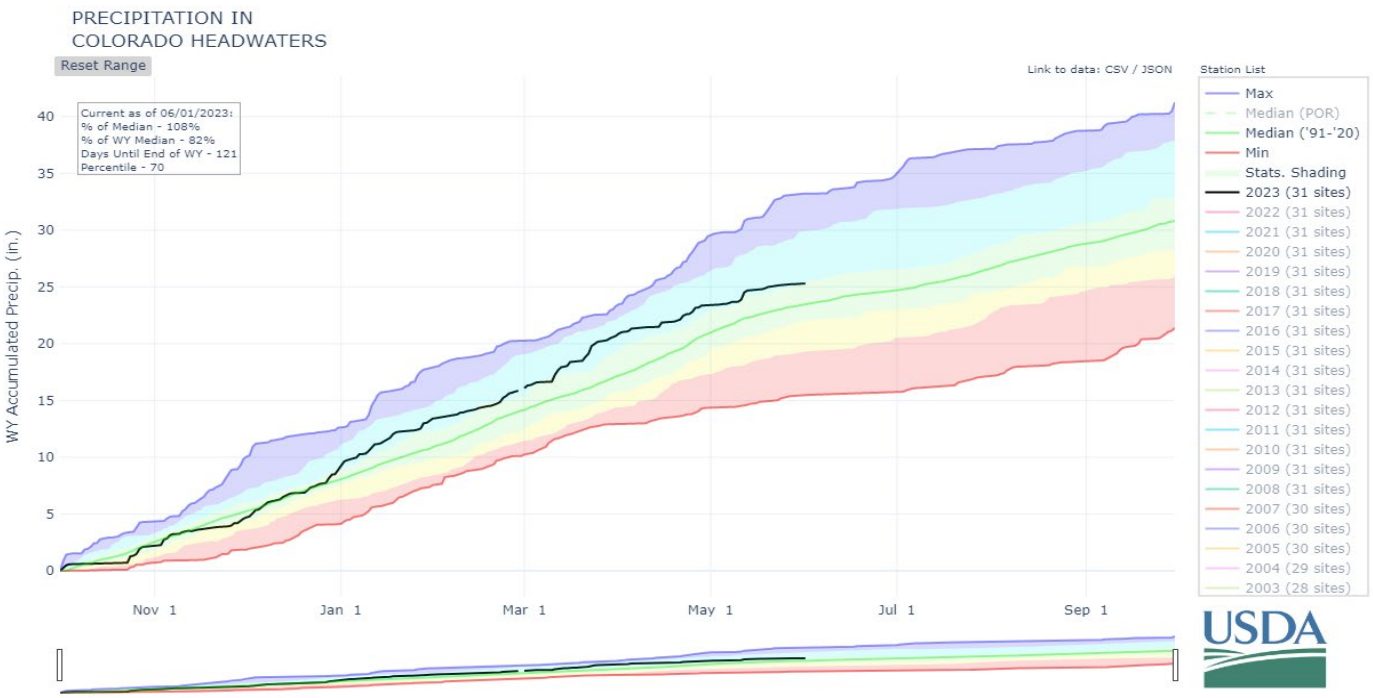
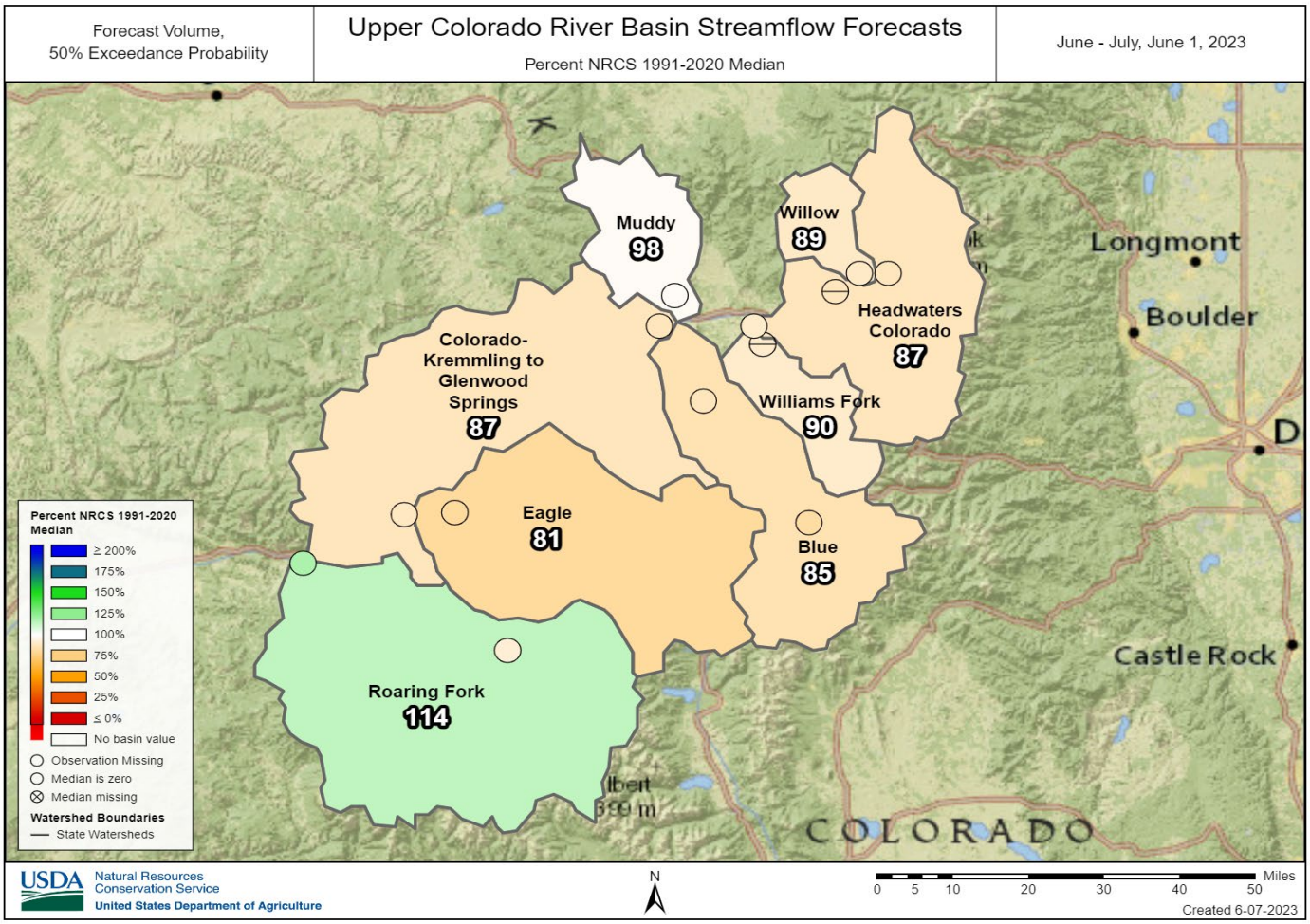
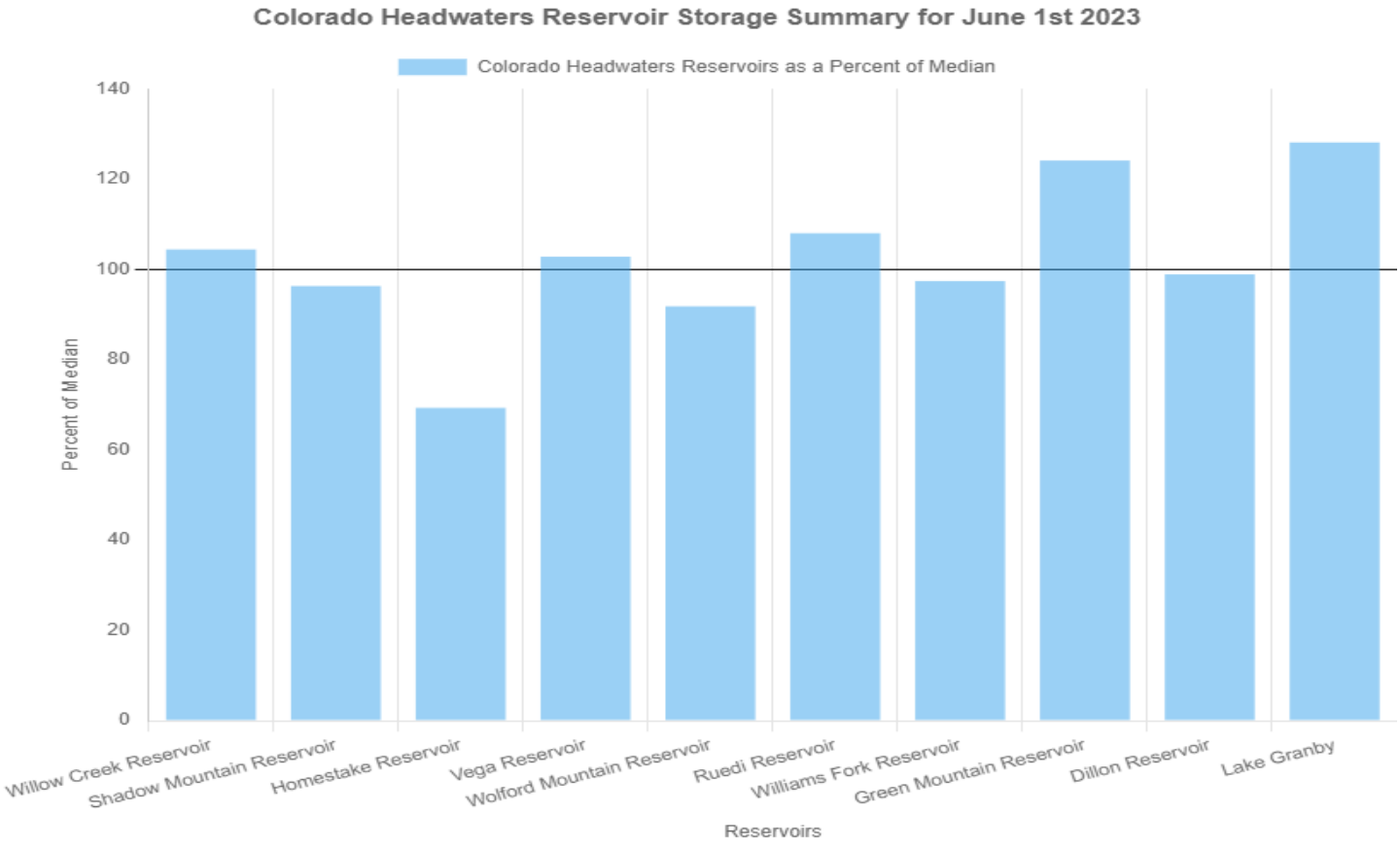



Forecast Volume,
50% Exceedance Probability
Upper Colorado River Basin Streamflow Forecasts
Percent NRCS 1991-2020 Median
June - July, June 1, 2023
Muddy
98
Willow
89
Headwaters
Colorado
87
Colorado-
Kremmling to
Glenwood
Springs
87
Williams Fork
90
Eagle
81
Blue
85
Roaring Fork
114
Longmont
Boulder
Castle Rock
COLORADO
Percent NRCS 1991-2020
Median
≥ 200%
175%
150%
125%
100%
75%
50%
25%
≤ 0%
No basin value
Observation Missing
Median is zero
Median missing
Watershed Boundaries
State Watersheds
USDA
Natural Resources
Conservation Service
United States Department of Agriculture
N
0 5 10 20 30 40 50
Miles
Created 6-07-2023


Colorado Headwaters Reservoir Storage Summary for June 1st 2023
Colorado Headwaters Reservoirs as a Percent of Median
Percent of Median
0
20
40
60
80
100
120
140
Willow Creek Reservoir
Shadow Mountain Reservoir
Homestake Reservoir
Vega Reservoir
Wolford Mountain Reservoir
Ruedi Reservoir
Williams Fork Reservoir
Green Mountain Reservoir
Dillon Reservoir
Lake Granby
Reservoirs

Watershed Snowpack Analysis June 1st, 2023

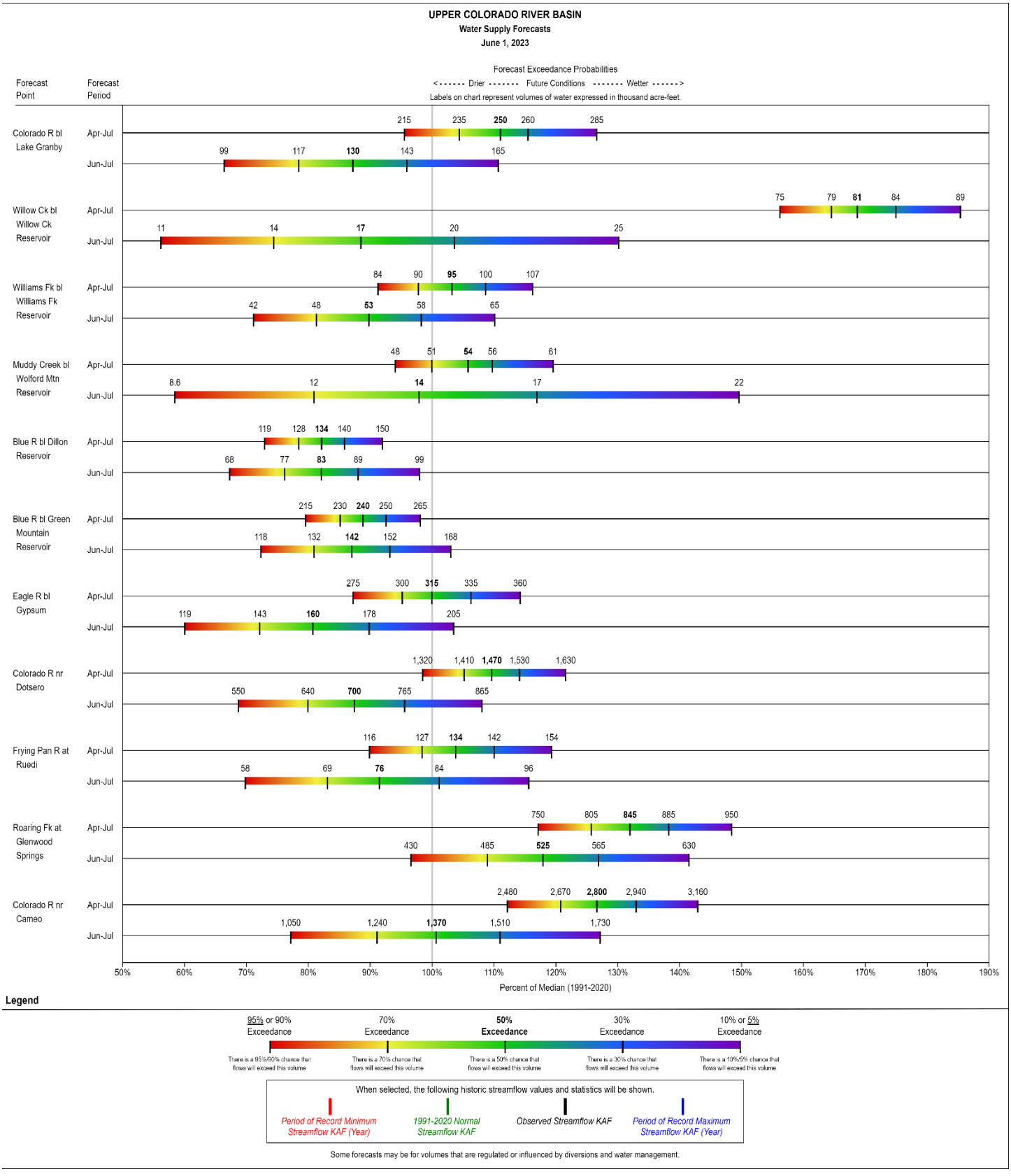
Colorado Headwaters Sub-Basin Snow Data

	# of Sites	% Median	Last Year % Median
Headwaters Colorado	3.0	69.3	91.5
Roaring Fork	8.0	191.8	47.5
Colorado-Kremmling to Glenwood Springs	4.0	124.8	61.6
Eagle	4.0	93.0	100.0
Blue	6.0	115.3	130.6
Plateau	3.0	330.8	91.3
Williams Fork	2.0	0.0	2.6
Muddy	2.0	nan	nan
Willow	1.0	75.0	137.5
Troublesome	1.0	105.4	86.6

Reservoir Storage End of May 2023

Colorado Headwaters Reservoir Data

	Current Storage (KAF)	LY Storage (KAF)	Median (KAF)	Percent of Median
Wolford Mountain Reservoir	61.17	49.11	66.6	91.8
Willow Creek Reservoir	7.72	5.6	7.4	104.3
Vega Reservoir	33.72	25.42	32.8	102.8
Shadow Mountain Reservoir	16.27	16.24	16.9	96.3
Ruedi Reservoir	84.32	74.66	78.1	108.0
Green Mountain Reservoir	108.58	72.44	87.5	124.1
Lake Granby	402.36	350.24	314.2	128.1
Williams Fork Reservoir	79.28	88.16	81.4	97.4
Homestake Reservoir	17.18	15.15	24.8	69.3
Dillon Reservoir	226.16	210.77	228.7	98.9


UPPER COLORADO RIVER BASIN
Water Supply Forecasts
June 1, 2023
Forecast Exceedance Probabilities
<------ Drier ------- Future Conditions ------- Wetter ------>
Labels on chart represent volumes of water expressed in thousand acre-feet.
Forecast Point
Forecast Period
Colorado R bl Lake Granby
Apr-Jul 215 235 250 260 285
Jun-Jul 99 117 130 143 165
Willow Ck bl Willow Ck Reservoir
Apr-Jul 75 79 81 84 89
Jun-Jul 11 14 17 20 25
Williams Fk bl Williams Fk Reservoir
Apr-Jul 84 90 95 100 107
Jun-Jul 42 48 53 58 65
Muddy Creek bl Wolford Mtn Reservoir
Apr-Jul 48 51 54 56 61
Jun-Jul 8.6 12 14 17 22
Blue R bl Dillon Reservoir
Apr-Jul 119 128 134 140 150
Jun-Jul 68 77 83 89 99
Blue R bl Green Mountain Reservoir
Apr-Jul 215 230 240 250 265
Jun-Jul 118 132 142 152 168
Eagle R bl Gypsum
Apr-Jul 275 300 315 335 360
Jun-Jul 119 143 160 178 205
Colorado R nr Dotsero
Apr-Jul 1,320 1,410 1,470 1,530 1,630
Jun-Jul 550 640 700 765 865
Frying Pan R at Ruedi
Apr-Jul 116 127 134 142 154
Jun-Jul 58 69 76 84 96
Roaring Fk at Glenwood Springs
Apr-Jul 750 805 845 885 950
Jun-Jul 430 485 525 565 630
Colorado R nr Cameo
Apr-Jul 2,480 2,670 2,800 2,940 3,160
Jun-Jul 1,050 1,240 1,370 1,510 1,730
50% 60% 70% 80% 90% 100% 110% 120% 130% 140% 150% 160% 170% 180% 190%
Percent of Median (1991-2020)
Legend
95% or 90% Exceedance
There is a 95%/90% chance that flows will exceed this volume
70% Exceedance
There is a 70% chance that flows will exceed this volume
50% Exceedance
There is a 50% chance that flows will exceed this volume
30% Exceedance
There is a 30% chance that flows will exceed this volume
10% or 5% Exceedance
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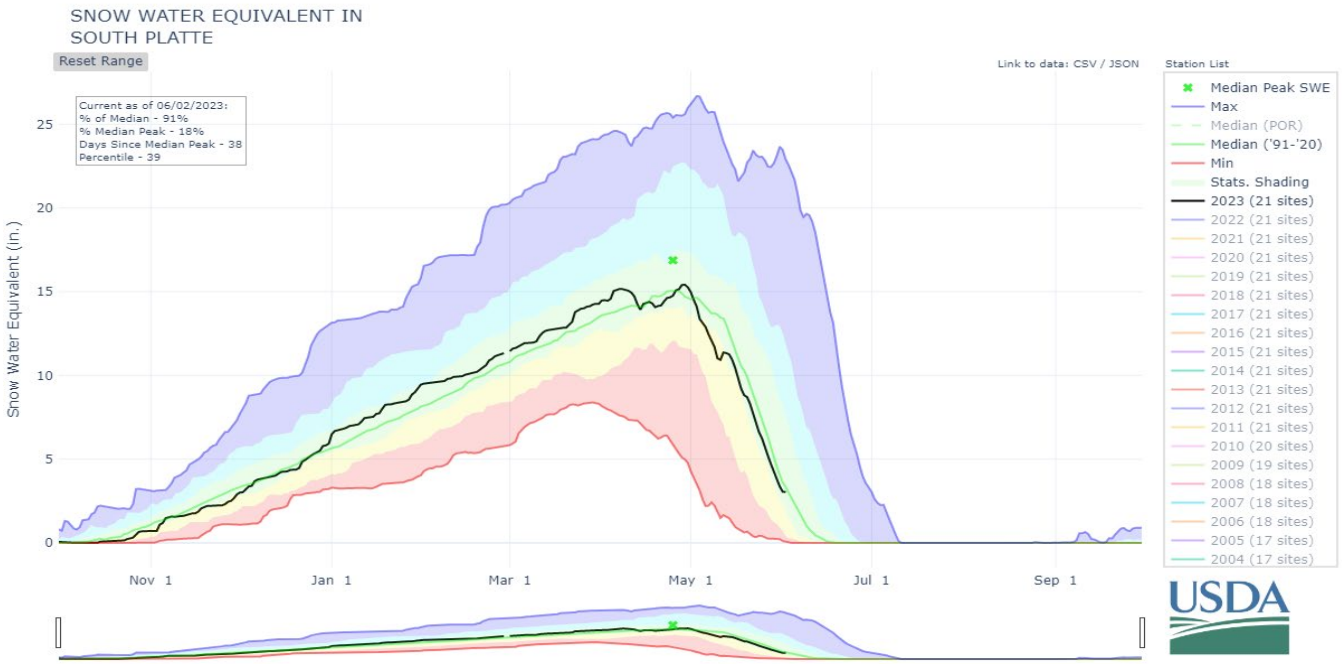
Observed Streamflow KAF
Period of Record Maximum Streamflow KAF (Year)
Some forecasts may be for volumes that are regulated or influenced by diversions and water management.

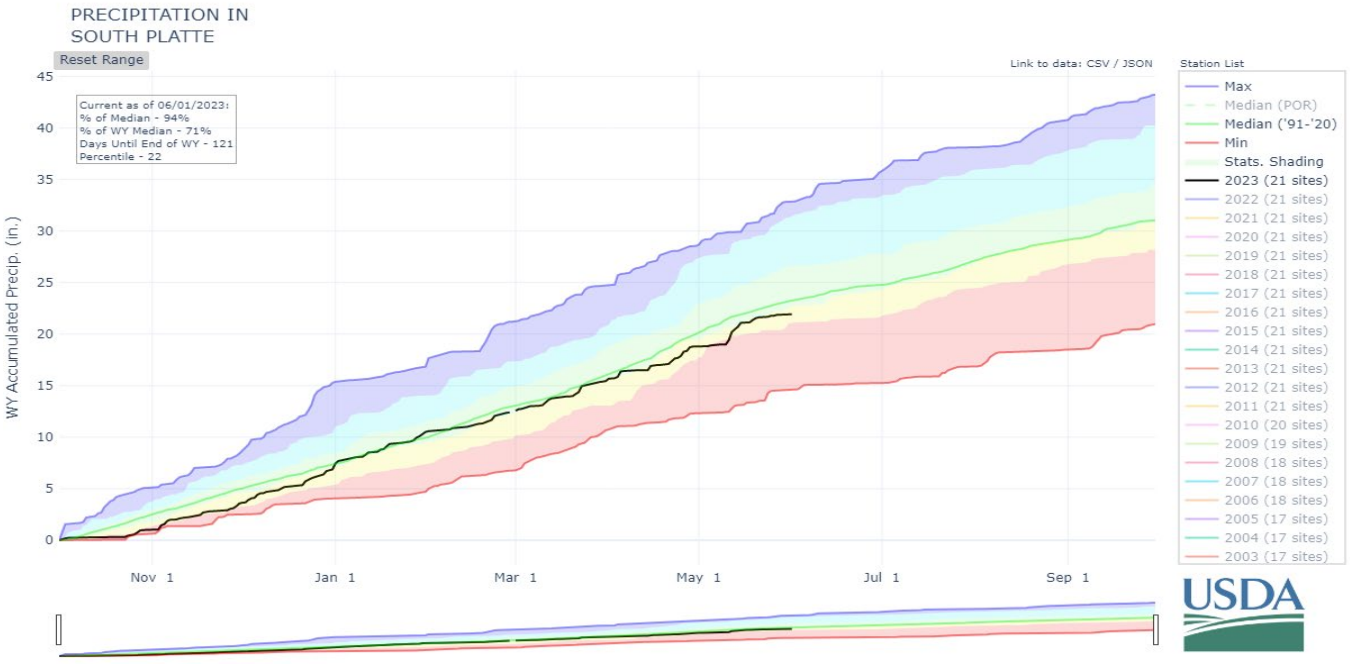
SOUTH PLATTE RIVER BASIN

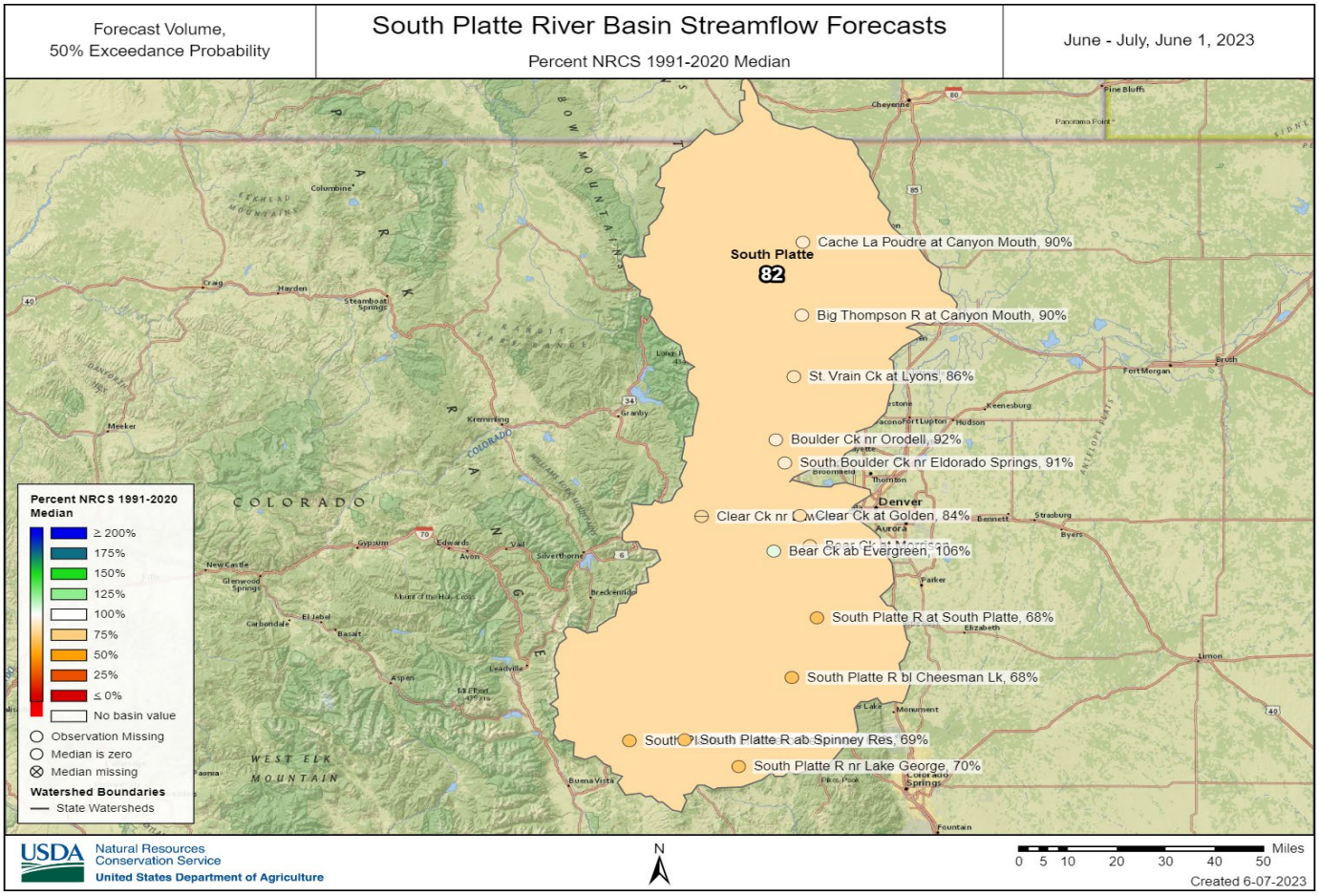
June 1st, 2023

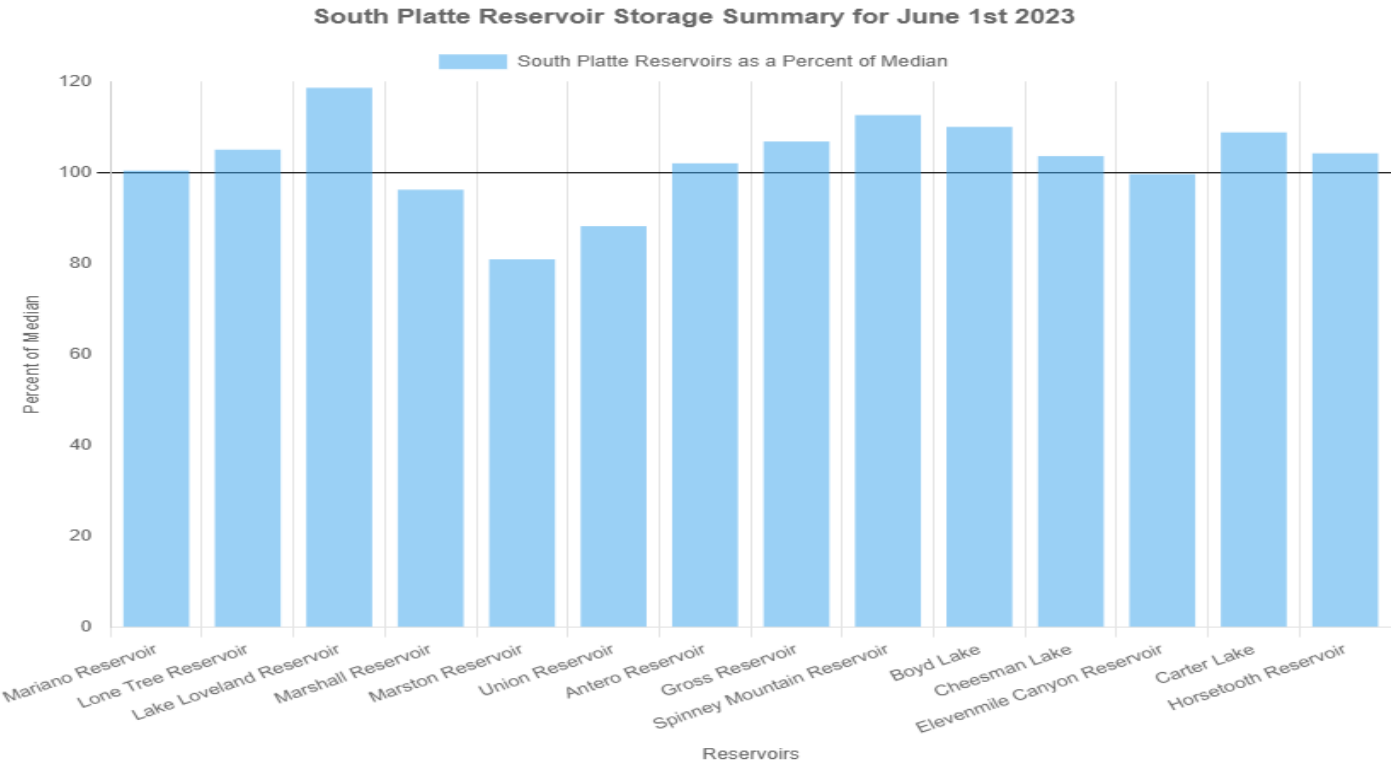
Snowpack in the South Platte River basin is below normal at 84% of median. Precipitation for May was 107% of median which brings water year-to-date precipitation to 94% of median. Reservoir storage at the end of May was 106% of median compared to 92% last year. Current streamflow forecasts are at 82 percent of median and range from 68% of median at South Platte River below Antero Reservoir to 106% of median at Bear Creek above Evergreen.



*Snow water equivalent (SWE) values are calculated using daily SNOTEL data only for the above graph. In the paragraph SWE is calculated for the first of the month using both SNOTEL and Snow Course data.







* As of this publication we are still missing data from several reservoirs. Please see website for updates.

Watershed Snowpack Analysis June 1st, 2023

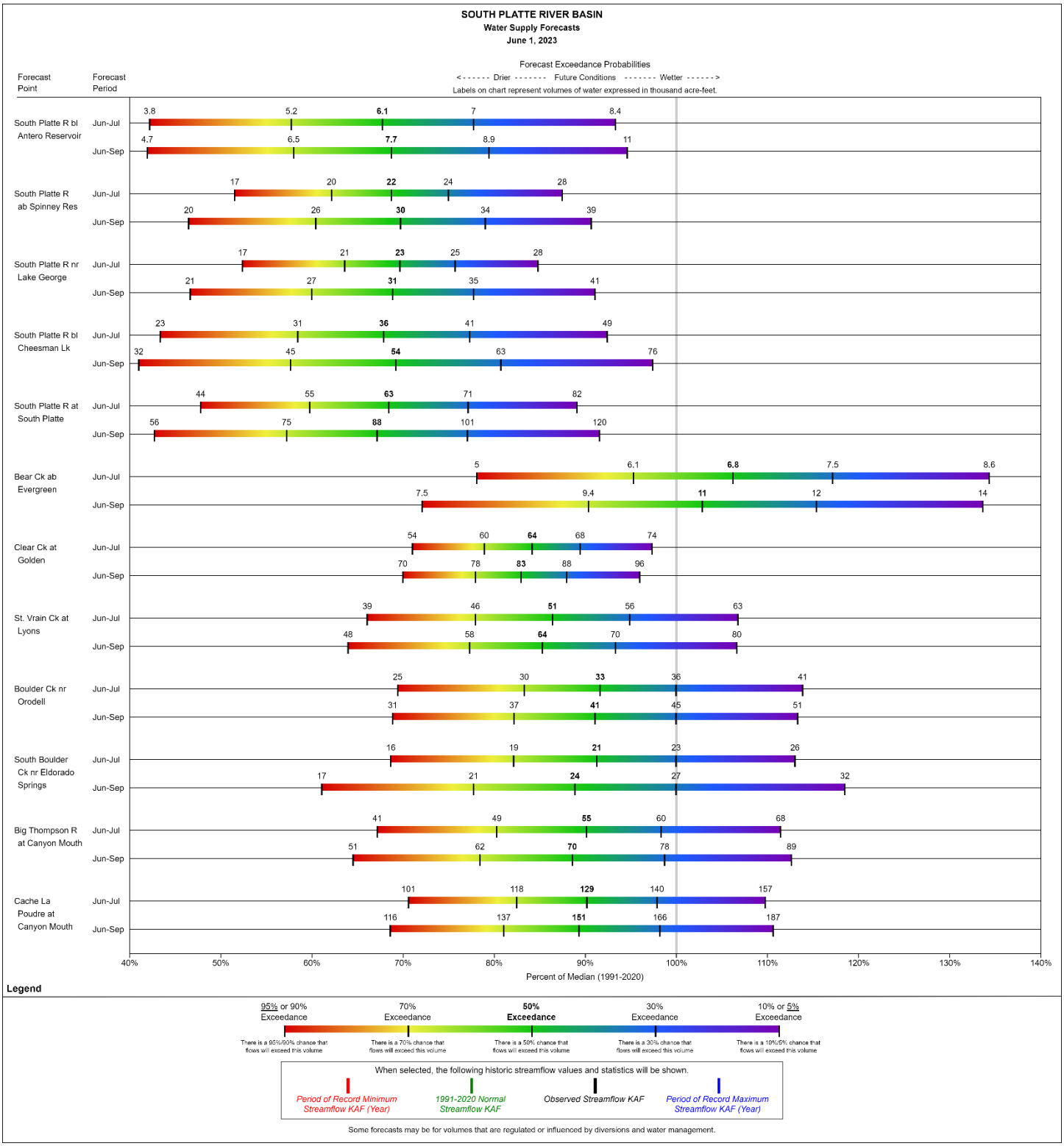
South Platte Sub-Basin Snow Data

	# of Sites	% Median	Last Year % Median
Upper South Platte	6.0	292.6	377.8
North Fork Cache La Poudre	2.0	65.0	98.8
Cache La Poudre	5.0	74.6	162.1
Big Thompson	3.0	67.7	180.5
Clear	3.0	97.9	84.6
Boulder	3.0	102.1	163.2
Saint Vrain	2.0	nan	inf

Reservoir Storage End of May 2023

South Platte Reservoir Data

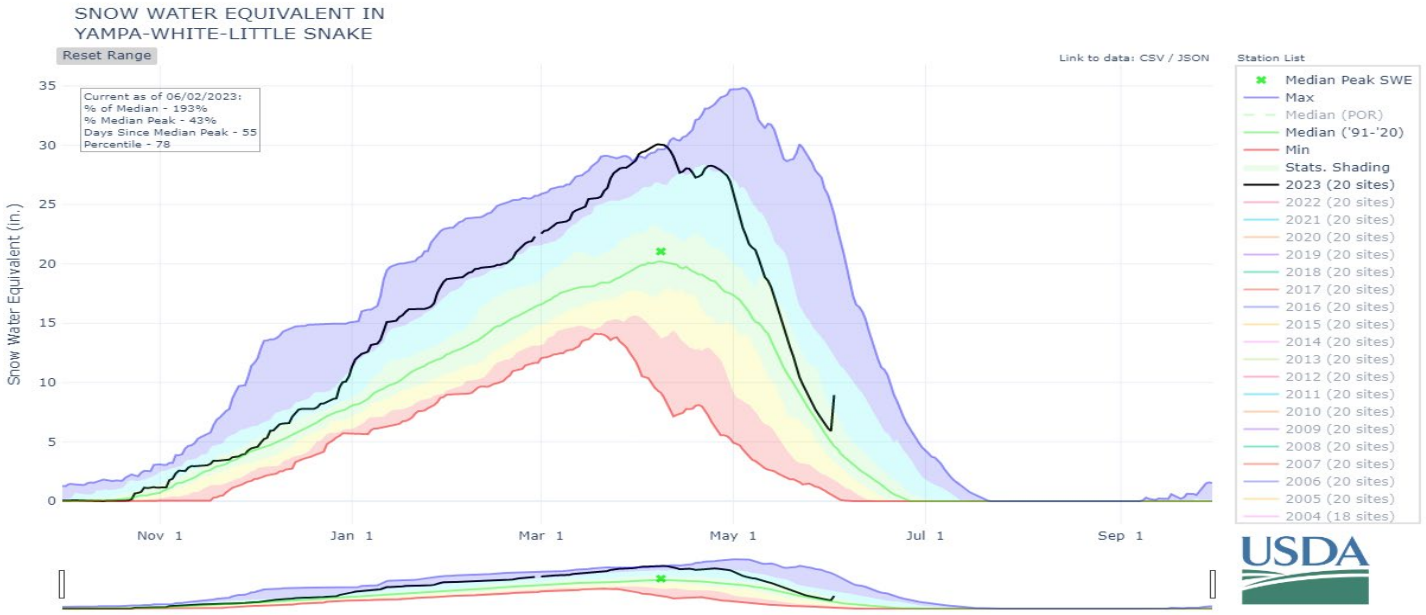
	Current Storage (KAF)	LY Storage (KAF)	Median (KAF)	Percent of Median
Cheesman Lake	75.29	63.41	72.7	103.6
Elevenmile Canyon Reservoir	99.11	100.76	99.5	99.6
Marston Reservoir	8.26	7.1	10.2	81.0
Windsor Reservoir	nan	13.6	16.3	nan
Mariano Reservoir	5.12	4.89	5.1	100.4
Terry Reservoir	nan	7.6	5.8	nan
Cache La Poudre	nan	10.4	9.7	nan
Union Reservoir	11.02	10.69	12.5	88.2
Boyd Lake	38.49	24.35	35.0	110.0
Marshall Reservoir	9.23	6.1	9.6	96.1
Fossil Creek Reservoir	nan	8.7	9.8	nan
Lone Tree Reservoir	8.72	8.22	8.3	105.1
Horsetooth Reservoir	130.63	137.88	125.4	104.2
Chambers Lake	nan	8.0	6.7	nan
Lake Loveland Reservoir	11.03	8.88	9.3	118.6
Cobb Lake	nan	17.6	14.8	nan
Spinney Mountain Reservoir	39.08	35.86	34.7	112.6
Ralph Price Reservoir	nan	13.17	14.9	nan
Antero Reservoir	20.1	20.69	19.7	102.0
Gross Reservoir	24.13	16.3	22.6	106.8
Black Hollow Reservoir	nan	4.6	3.9	nan
Carter Lake	108.28	103.28	99.5	108.8
Halligan Reservoir	nan	6.4	6.4	nan


SOUTH PLATTE RIVER BASIN
Water Supply Forecasts
June 1, 2023
Forecast Exceedance Probabilities
<------ Drier ------- Future Conditions ------- Wetter ------>
Labels on chart represent volumes of water expressed in thousand acre-feet.
Forecast Point
Forecast Period
South Platte R bl Antero Reservoir
Jun-Jul 3.8 5.2 6.1 7 8.4
Jun-Sep 4.7 6.5 7.7 8.9 11
South Platte R ab Spinney Res
Jun-Jul 17 20 22 24 28
Jun-Sep 20 26 30 34 39
South Platte R nr Lake George
Jun-Jul 17 21 23 25 28
Jun-Sep 21 27 31 35 41
South Platte R bl Cheesman Lk
Jun-Jul 23 31 36 41 49
Jun-Sep 32 45 54 63 76
South Platte R at South Platte
Jun-Jul 44 55 63 71 82
Jun-Sep 56 75 88 101 120
Bear Ck ab Evergreen
Jun-Jul 5 6.1 6.8 7.5 8.6
Jun-Sep 7.5 9.4 11 12 14
Clear Ck at Golden
Jun-Jul 54 60 64 68 74
Jun-Sep 70 78 83 88 96
St. Vrain Ck at Lyons
Jun-Jul 39 46 51 56 63
Jun-Sep 48 58 64 70 80
Boulder Ck nr Orodell
Jun-Jul 25 30 33 36 41
Jun-Sep 31 37 41 45 51
South Boulder Ck nr Eldorado Springs
Jun-Jul 16 19 21 23 26
Jun-Sep 17 21 24 27 32
Big Thompson R at Canyon Mouth
Jun-Jul 41 49 55 60 68
Jun-Sep 51 62 70 78 89
Cache La Poudre at Canyon Mouth
Jun-Jul 101 118 129 140 157
Jun-Sep 116 137 151 166 187
40% 50% 60% 70% 80% 90% 100% 110% 120% 130% 140%
Percent of Median (1991-2020)
Legend
95% or 90% Exceedance
There is a 95%/90% chance that flows will exceed this volume
70% Exceedance
There is a 70% chance that flows will exceed this volume
50% Exceedance
There is a 50% chance that flows will exceed this volume
30% Exceedance
There is a 30% chance that flows will exceed this volume
10% or 5% Exceedance
There is a 10%/5% chance that flows will exceed this volume
When selected, the following historic streamflow values and statistics will be shown.
Period of Record Minimum Streamflow KAF (Year)
1991-2020 Normal Streamflow KAF
Observed Streamflow KAF
Period of Record Maximum Streamflow KAF (Year)
Some forecasts may be for volumes that are regulated or influenced by diversions and water management.

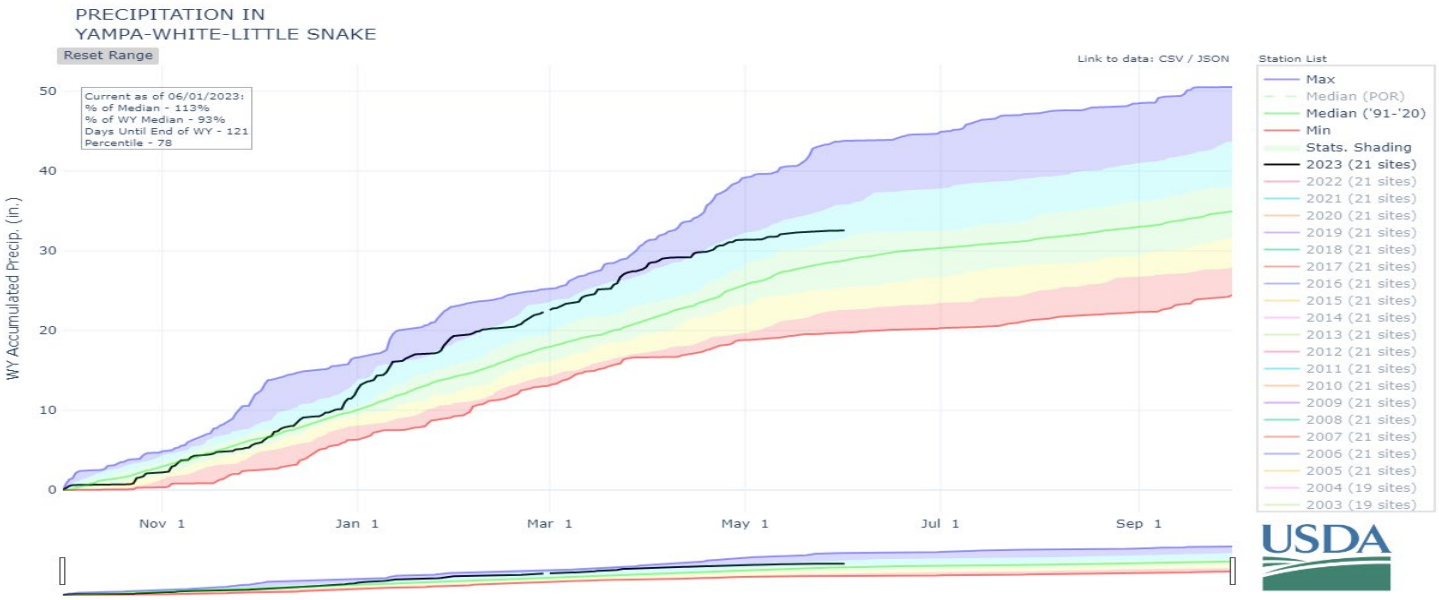
YAMPA-WHITE-LITTLE SNAKE AND LARAMIE-NORTH PLATTE RIVER BASINS

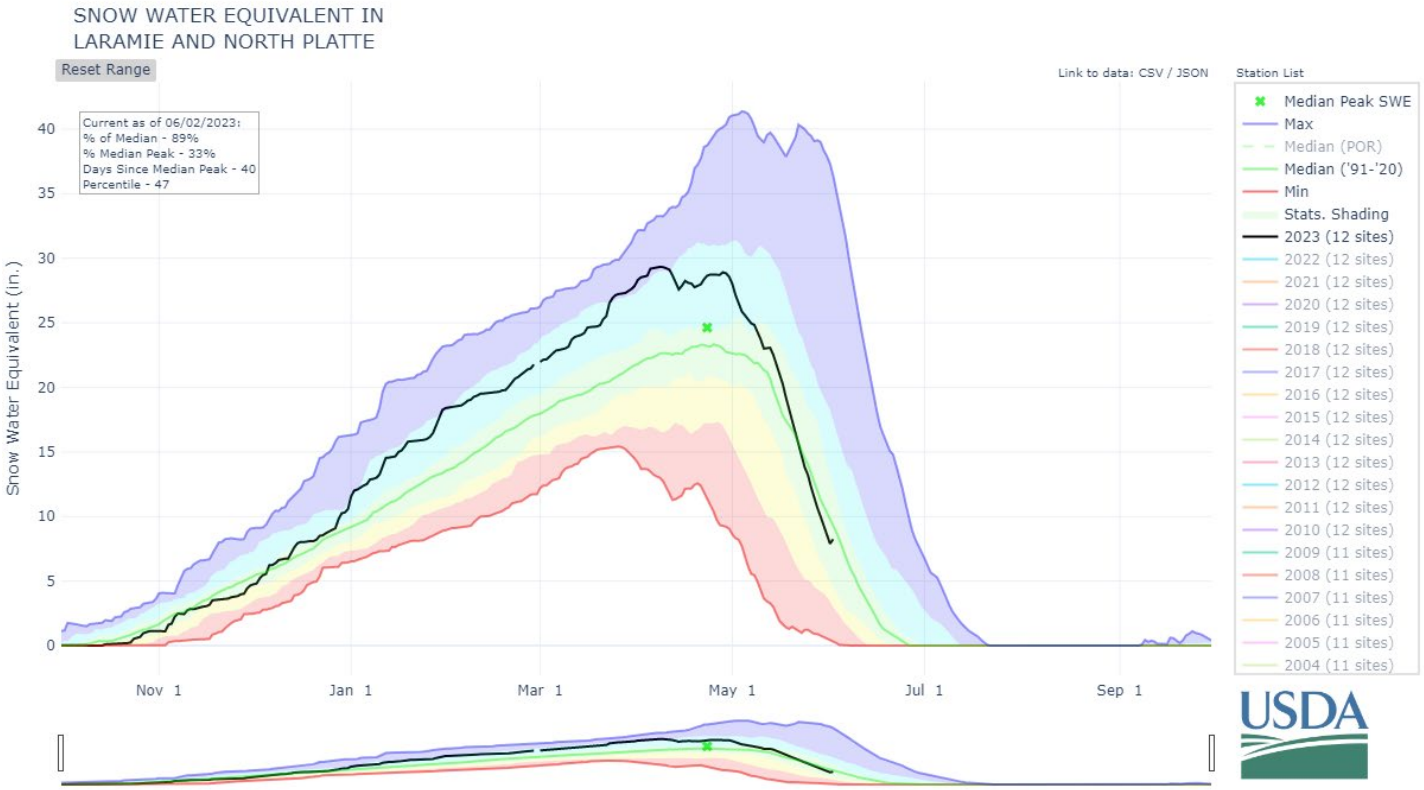
June 1st, 2023

Snowpack in the Yampa-White-Little Snake and the Laramie-North Platte River basins are above normal at 118% and 82% of the median. Precipitation for May was 42% and 64% of median and water year-to-date precipitation is 113% and 105% of median, respectively. Reservoir storage at the end of May for the Yampa-White-Little Snake was 104% of median compared to 91% last year. Current streamflow forecasts range from 102% of median at North Platte River near Northgate to 190% of median at Little Snake River near Lily.

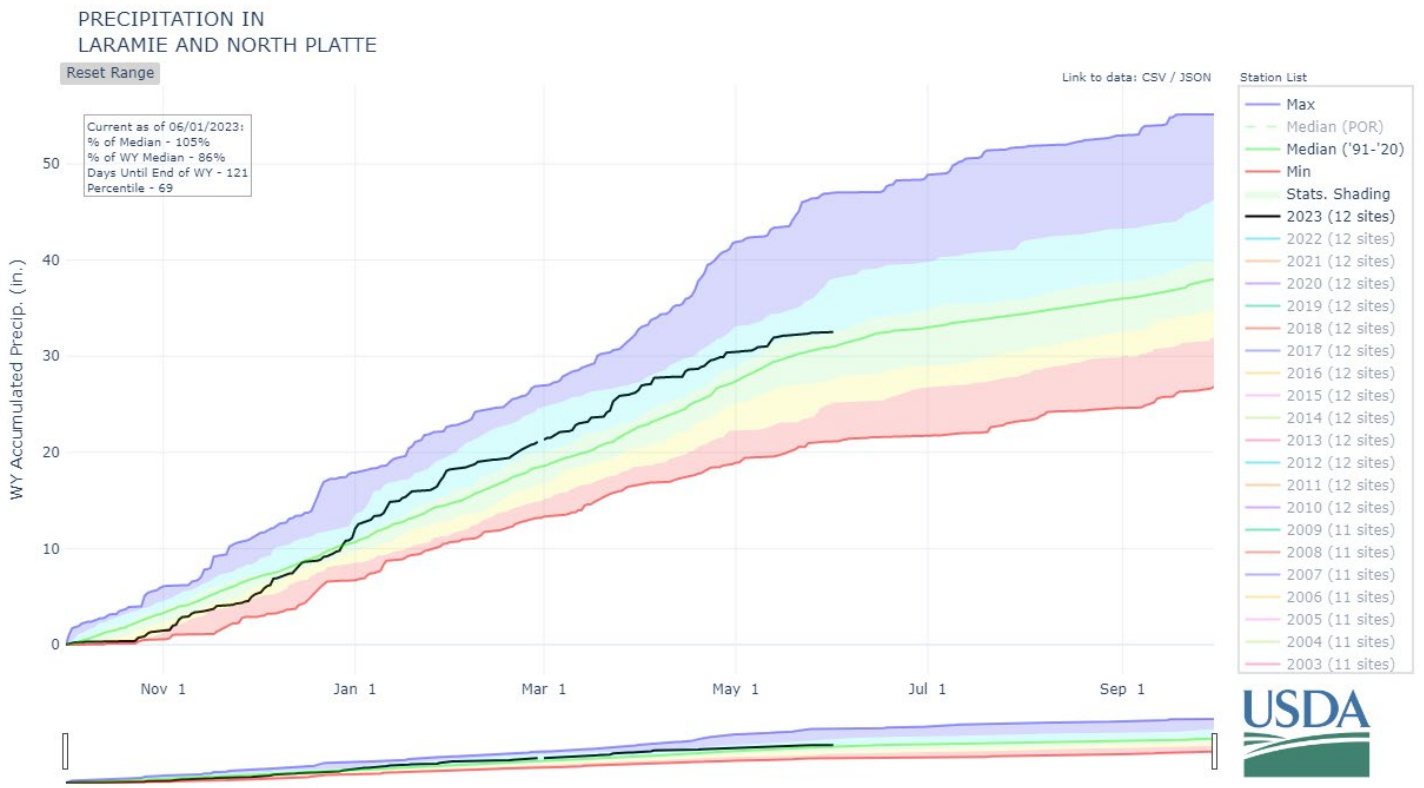


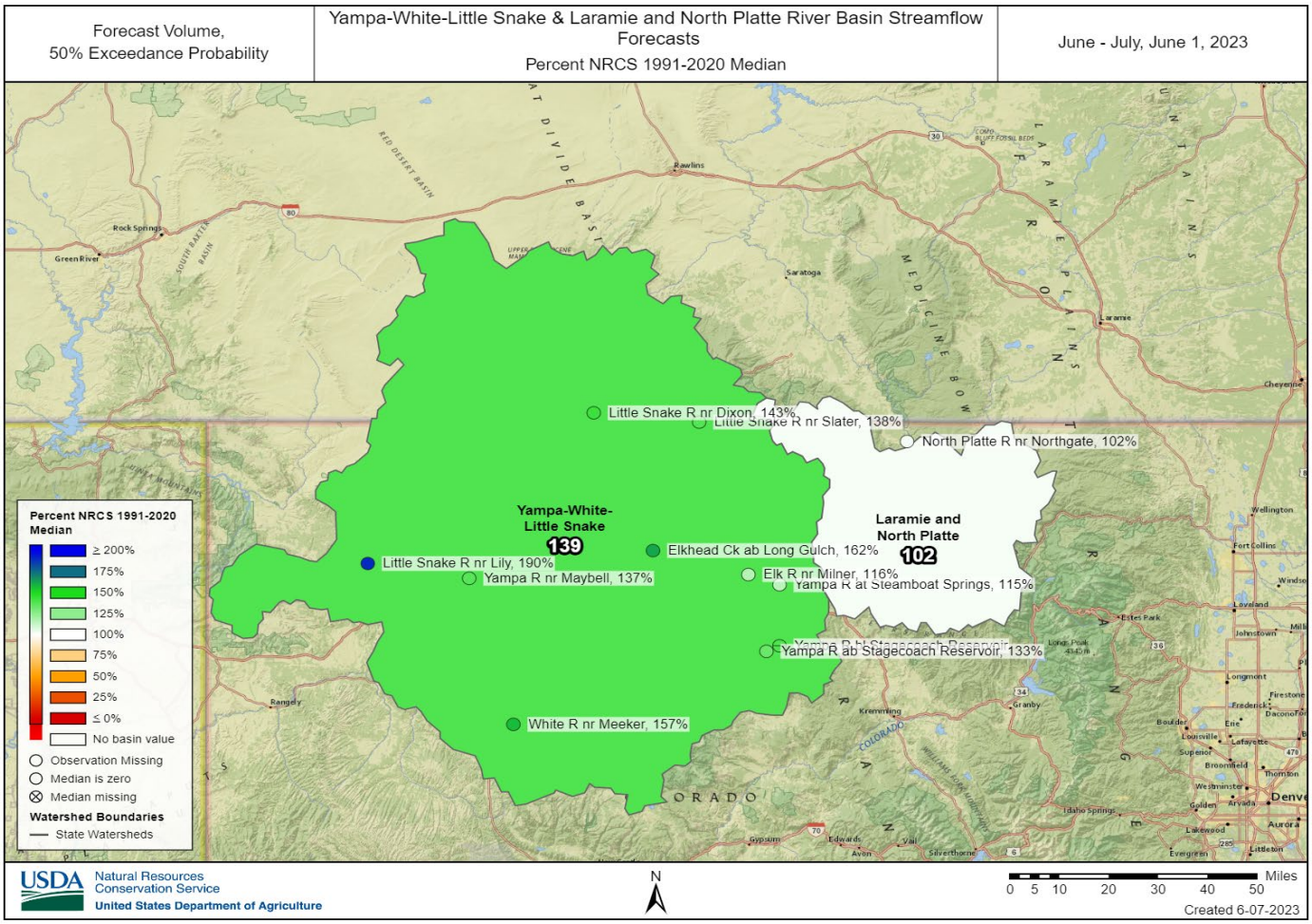
*SWE values calculated using daily SNOTEL data only

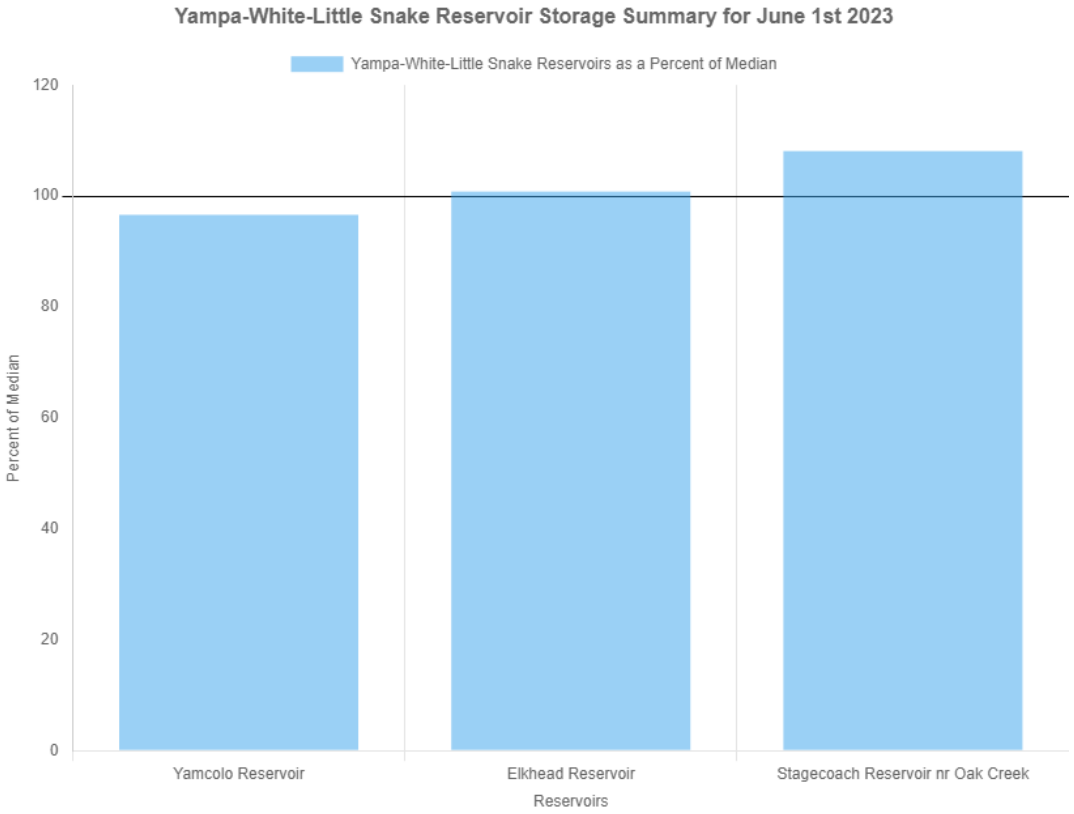




*Snow water equivalent (SWE) values are calculated using daily SNOTEL data only. In the paragraph SWE is calculated for the first of the month using both SNOTEL and Snow Course data.







*No reservoirs are currently monitored in the Laramie-North Platte combined basin. We are waiting on reservoir conditions data to be received from our cooperators. For current conditions data can be accessed through the NRCS Snow Survey webpage

Watershed Snowpack Analysis June 1st, 2023

Laramie and North Platte Sub-Basin Snow Data

	# of Sites	% Median	Last Year % Median
North Platte Headwaters	10.0	83.6	99.3
Laramie	3.0	57.1	96.7

Yampa-White-Little Snake Sub-Basin Snow Data

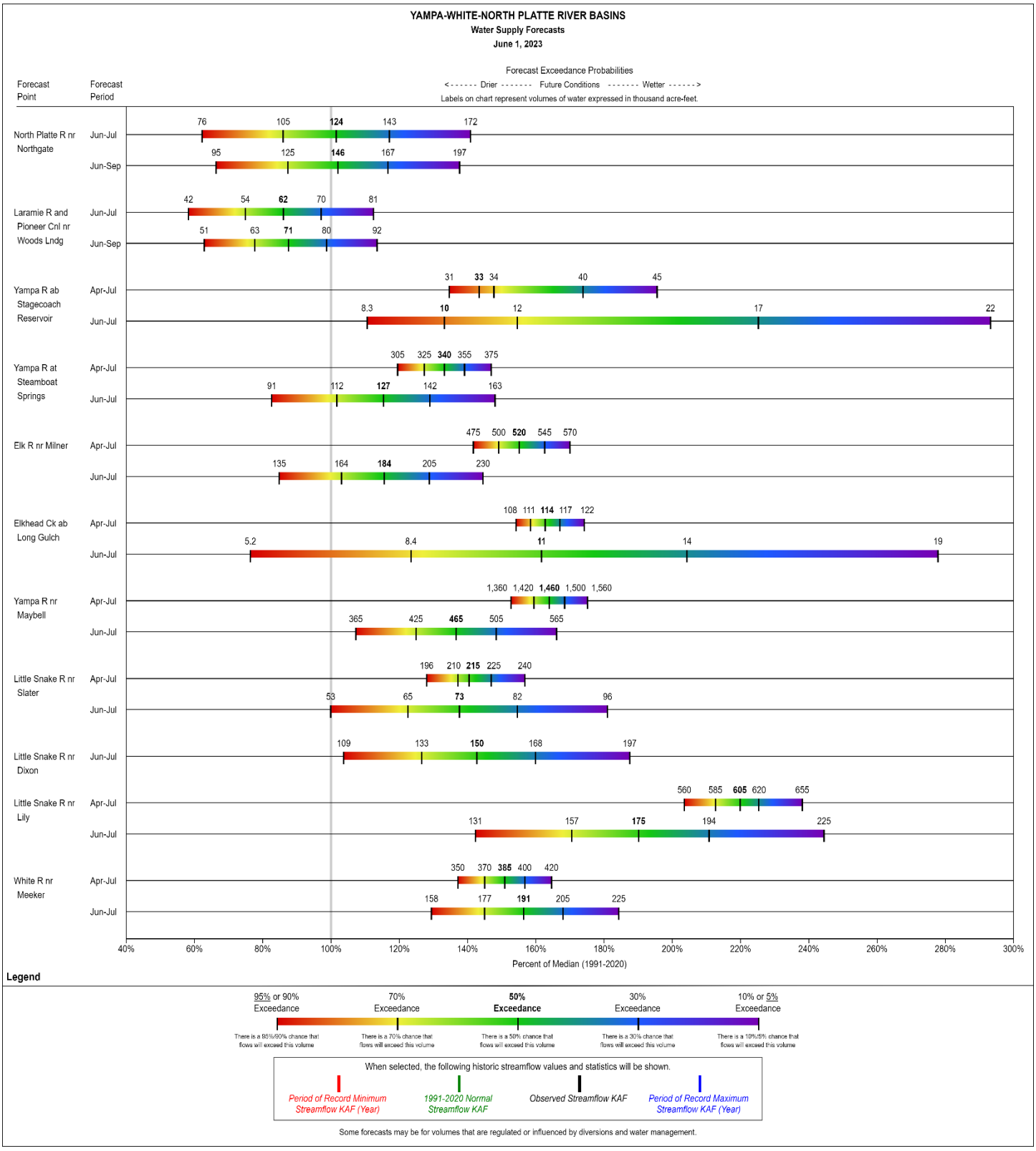
	# of Sites	% Median	Last Year % Median
Yampa	8.0	85.8	113.1
Little Snake	8.0	121.3	100.3
White	3.0	153.8	64.6
Williams Fork of the Yampa	1.0	152.5	82.5
Elk	2.0	nan	inf

Reservoir Storage End of May 2023

Yampa-White-Little Snake Reservoir Data

	Current Storage (KAF)	LY Storage (KAF)	Median (KAF)	Percent of Median
Yamcolo Reservoir	8.5	5.33	8.8	96.6
Stagecoach Reservoir nr Oak Creek	36.44	31.0	33.7	108.1
High Savery Reservoir	nan	nan	21.3	nan
Elkhead Reservoir	25.0	24.97	24.8	100.8

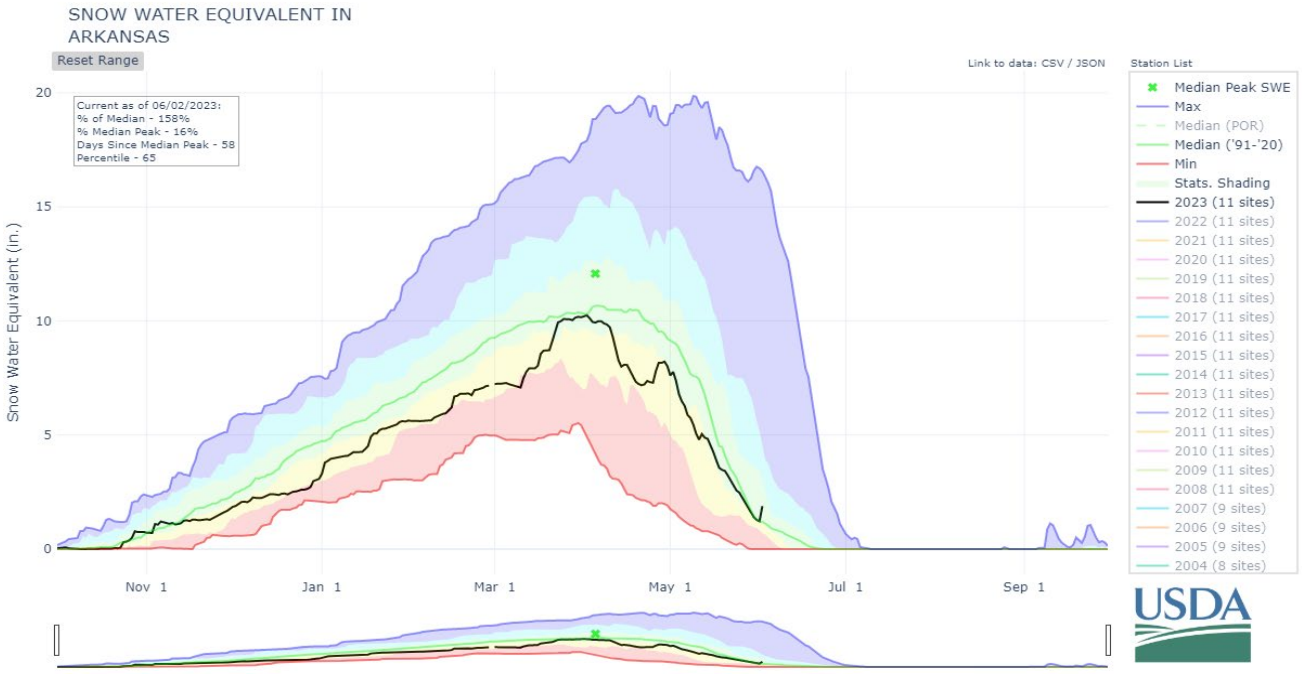
*No reservoirs are currently monitored in our database for the Laramie-North Platte combined basin.


YAMPA-WHITE-NORTH PLATTE RIVER BASINS
Water Supply Forecasts
June 1, 2023
Forecast Exceedance Probabilities
<------ Drier ------- Future Conditions ------- Wetter ------>
Labels on chart represent volumes of water expressed in thousand acre-feet.
Forecast Point
Forecast Period
North Platte R nr Northgate
Jun-Jul 76 105 124 143 172
Jun-Sep 95 125 146 167 197
Laramie R and Pioneer Cnl nr Woods Lndg
Jun-Jul 42 54 62 70 81
Jun-Sep 51 63 71 80 92
Yampa R ab Stagecoach Reservoir
Apr-Jul 31 33 34 40 45
Jun-Jul 8.3 10 12 17 22
Yampa R at Steamboat Springs
Apr-Jul 305 325 340 355 375
Jun-Jul 91 112 127 142 163
Elk R nr Milner
Apr-Jul 475 500 520 545 570
Jun-Jul 135 164 184 205 230
Elkhead Ck ab Long Gulch
Apr-Jul 108 111 114 117 122
Jun-Jul 5.2 8.4 11 14 19
Yampa R nr Maybell
Apr-Jul 1,360 1,420 1,460 1,500 1,560
Jun-Jul 365 425 465 505 565
Little Snake R nr Slater
Apr-Jul 196 210 215 225 240
Jun-Jul 53 65 73 82 96
Little Snake R nr Dixon
Jun-Jul 109 133 150 168 197
Little Snake R nr Lily
Apr-Jul 560 585 605 620 655
Jun-Jul 131 157 175 194 225
White R nr Meeker
Apr-Jul 350 370 385 400 420
Jun-Jul 158 177 191 205 225
40% 60% 80% 100% 120% 140% 160% 180% 200% 220% 240% 260% 280% 300%
Percent of Median (1991-2020)
Legend
95% or 90% Exceedance
There is a 95%/90% chance that flows will exceed this volume
70% Exceedance
There is a 70% chance that flows will exceed this volume
50% Exceedance
There is a 50% chance that flows will exceed this volume
30% Exceedance
There is a 30% chance that flows will exceed this volume
10% or 5% Exceedance
There is a 10%/5% chance that flows will exceed this volume
When selected, the following historic streamflow values and statistics will be shown.
Period of Record Minimum Streamflow KAF (Year)
1991-2020 Normal Streamflow KAF
Observed Streamflow KAF
Period of Record Maximum Streamflow KAF (Year)
Some forecasts may be for volumes that are regulated or influenced by diversions and water management.

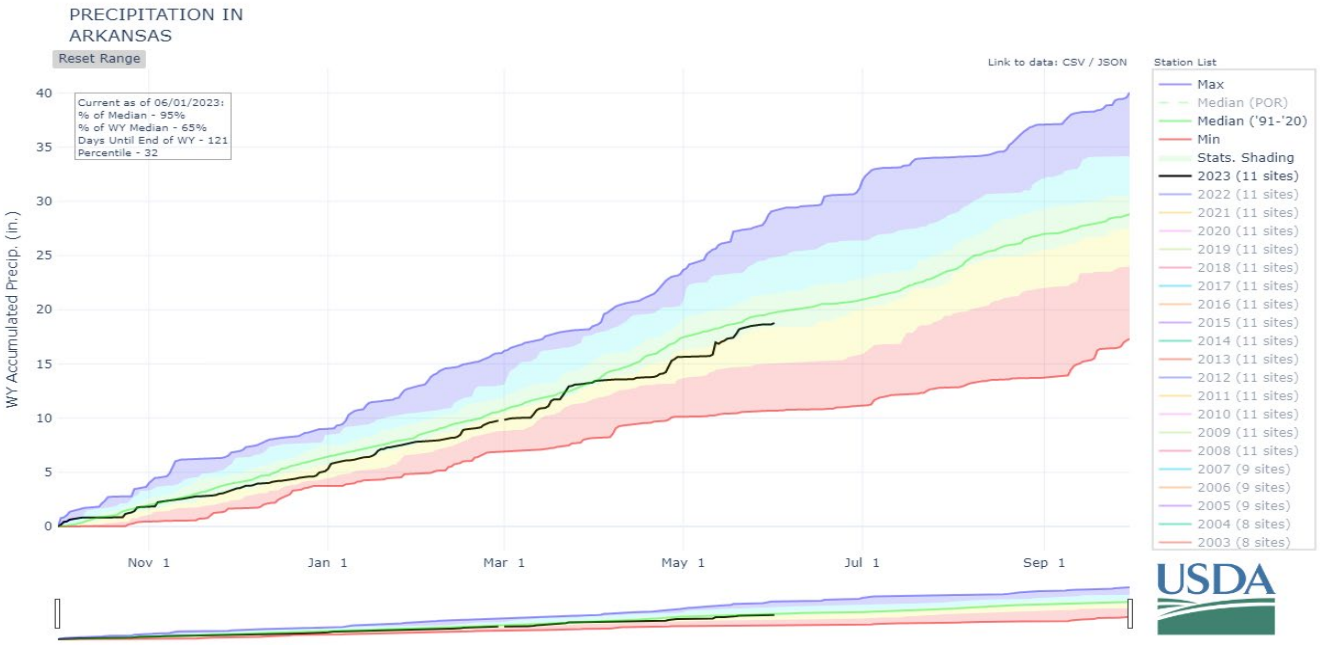
ARKANSAS RIVER BASIN

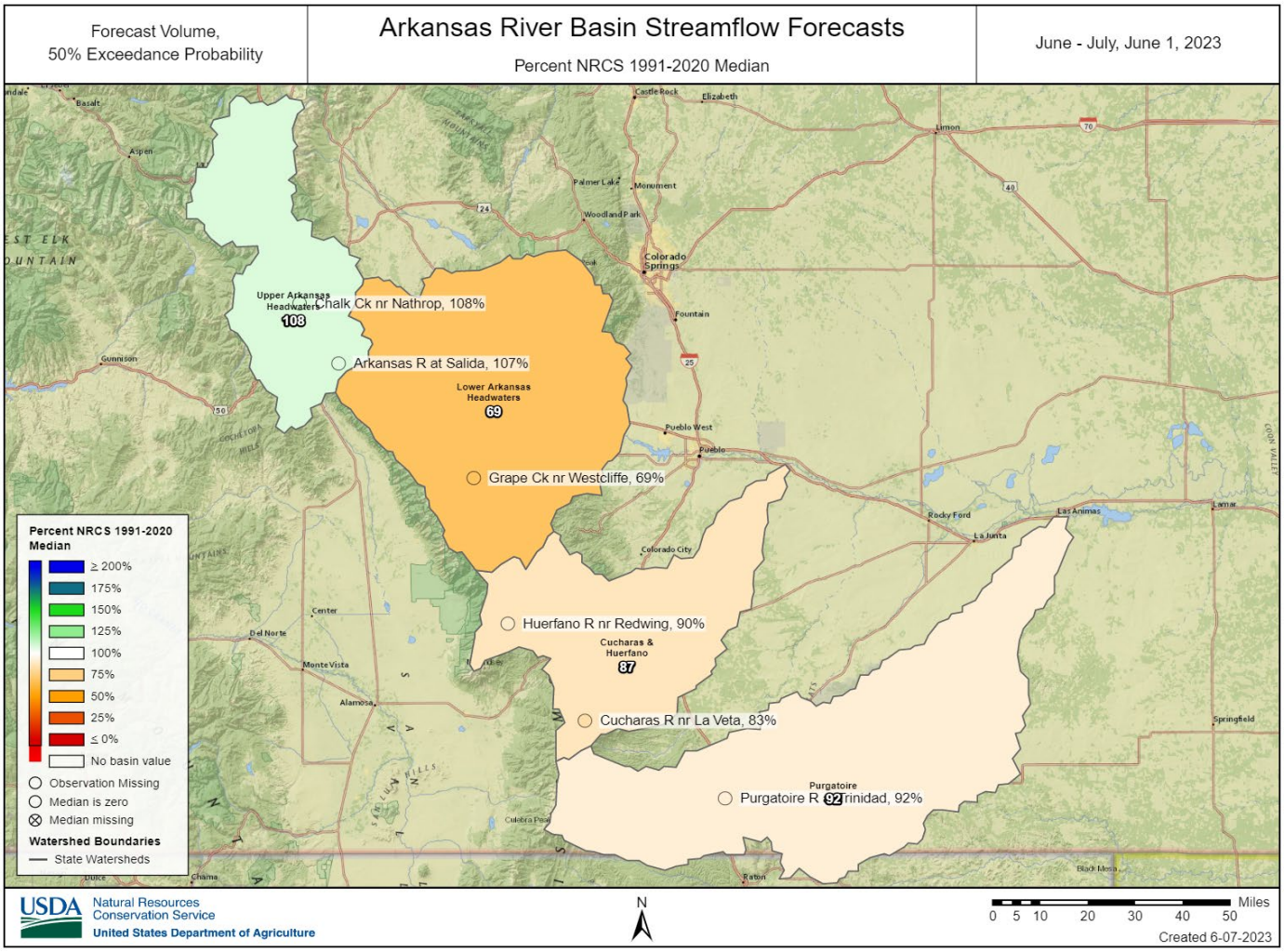
June 1st, 2023

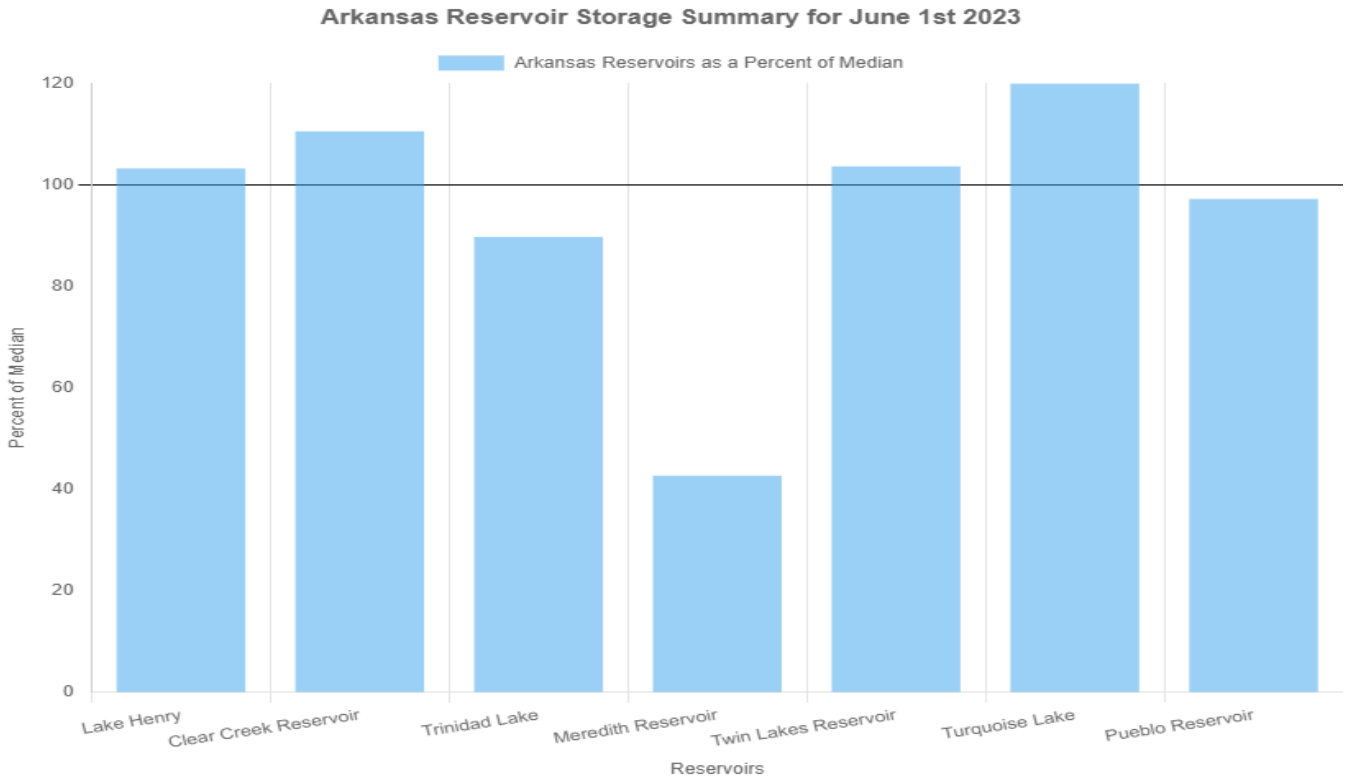
Snowpack in the Arkansas River basin is normal at 100% of median. Precipitation for May was 143% of median which brings water year-to-date precipitation to 95% of median. Reservoir storage at the end of May was 77% of median compared to 72% last year. Current streamflow forecasts range from 69% of median at Grape Creek near Westcliffe to 108% of median at Chalk Creek near Nathrop.



*Snow water equivalent (SWE) values are calculated using daily SNOTEL data only for the above graph. In the paragraph SWE is calculated for the first of the month using both SNOTEL and Snow Course data.




Forecast Volume,
50% Exceedance Probability
Arkansas River Basin Streamflow Forecasts
Percent NRCS 1991-2020 Median
June - July, June 1, 2023
Chalk Ck nr Nathrop, 108%
Upper Arkansas Headwaters
108
Arkansas R at Salida, 107%
Lower Arkansas Headwaters
69
Grape Ck nr Westcliffe, 69%
Huerfano R nr Redwing, 90%
Cucharas & Huerfano
87
Cucharas R nr La Veta, 83%
Purgatoire R nr Trinidad, 92%
Purgatoire
92
Percent NRCS 1991-2020 Median
≥ 200%
175%
150%
125%
100%
75%
50%
25%
≤ 0%
No basin value
Observation Missing
Median is zero
Median missing
Watershed Boundaries
State Watersheds
USDA Natural Resources Conservation Service
United States Department of Agriculture
N
Miles
0 5 10 20 30 40 50
Created 6-07-2023


Arkansas Reservoir Storage Summary for June 1st 2023
Arkansas Reservoirs as a Percent of Median
Percent of Median
120
100
80
60
40
20
0
Lake Henry
Clear Creek Reservoir
Trinidad Lake
Meredith Reservoir
Twin Lakes Reservoir
Turquoise Lake
Pueblo Reservoir
Reservoirs

Watershed Snowpack Analysis June 1st, 2023

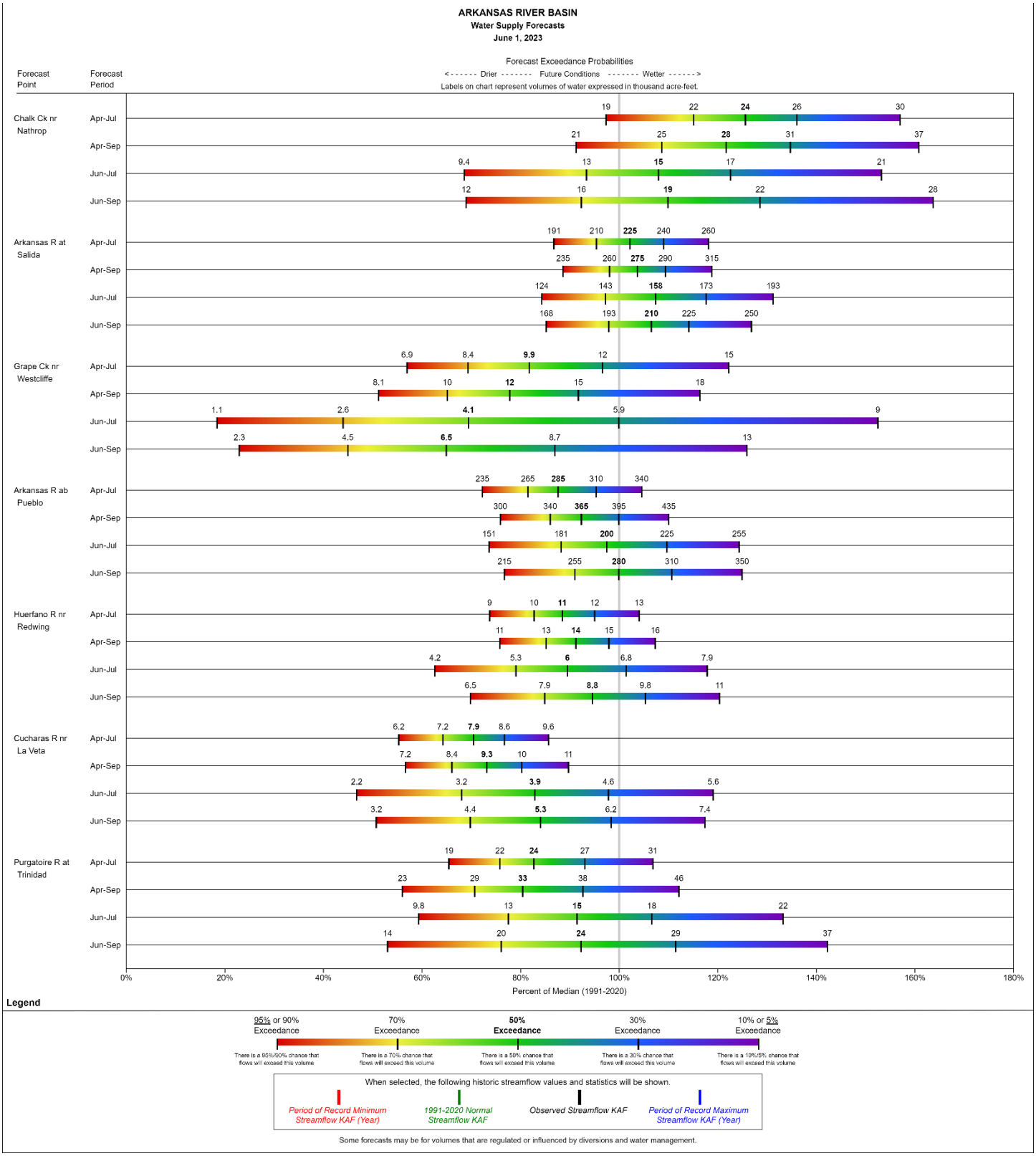
Arkansas Sub-Basin Snow Data

	# of Sites	% Median	Last Year % Median
Cucharas & Huerfano	3.0	nan	nan
Upper Arkansas Headwaters	4.0	104.7	96.9
Lower Arkansas Headwaters	3.0	0.0	150.0
Purgatoire	2.0	nan	inf
Apishapa	1.0	nan	nan

Reservoir Storage End of May 2023

Arkansas Reservoir Data

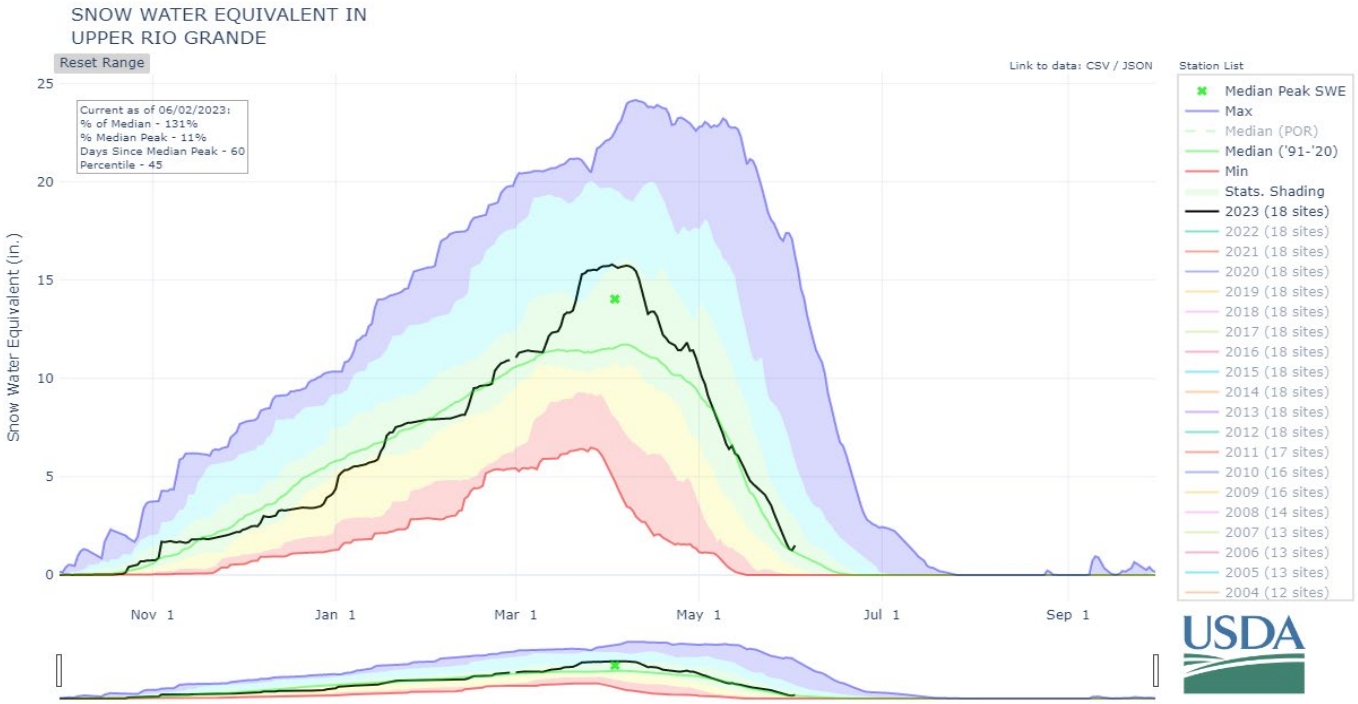
	Current Storage (KAF)	LY Storage (KAF)	Median (KAF)	Percent of Median
Meredith Reservoir	13.53	10.6	31.7	42.7
Twin Lakes Reservoir	46.64	44.6	45.0	103.6
Clear Creek Reservoir	8.51	7.36	7.7	110.5
Lake Henry	7.64	6.26	7.4	103.2
Trinidad Lake	21.97	23.07	24.5	89.7
Pueblo Reservoir	205.34	203.7	211.2	97.2
Turquoise Lake	92.21	74.78	76.9	119.9


ARKANSAS RIVER BASIN
Water Supply Forecasts
June 1, 2023
Forecast Exceedance Probabilities
<------ Drier ------- Future Conditions ------- Wetter ------>
Labels on chart represent volumes of water expressed in thousand acre-feet.
Forecast Point
Forecast Period
Chalk Ck nr Nathrop
Apr-Jul 19 22 24 26 30
Apr-Sep 21 25 28 31 37
Jun-Jul 9.4 13 15 17 21
Jun-Sep 12 16 19 22 28
Arkansas R at Salida
Apr-Jul 191 210 225 240 260
Apr-Sep 235 260 275 290 315
Jun-Jul 124 143 158 173 193
Jun-Sep 168 193 210 225 250
Grape Ck nr Westcliffe
Apr-Jul 6.9 8.4 9.9 12 15
Apr-Sep 8.1 10 12 15 18
Jun-Jul 1.1 2.6 4.1 5.9 9
Jun-Sep 2.3 4.5 6.5 8.7 13
Arkansas R ab Pueblo
Apr-Jul 235 265 285 310 340
Apr-Sep 300 340 365 395 435
Jun-Jul 151 181 200 225 255
Jun-Sep 215 255 280 310 350
Huerfano R nr Redwing
Apr-Jul 9 10 11 12 13
Apr-Sep 11 13 14 15 16
Jun-Jul 4.2 5.3 6 6.8 7.9
Jun-Sep 6.5 7.9 8.8 9.8 11
Cucharas R nr La Veta
Apr-Jul 6.2 7.2 7.9 8.6 9.6
Apr-Sep 7.2 8.4 9.3 10 11
Jun-Jul 2.2 3.2 3.9 4.6 5.6
Jun-Sep 3.2 4.4 5.3 6.2 7.4
Purgatoire R at Trinidad
Apr-Jul 19 22 24 27 31
Apr-Sep 23 29 33 38 46
Jun-Jul 9.8 13 15 18 22
Jun-Sep 14 20 24 29 37
0% 20% 40% 60% 80% 100% 120% 140% 160% 180%
Percent of Median (1991-2020)
Legend
95% or 90% Exceedance
There is a 95%/90% chance that flows will exceed this volume
70% Exceedance
There is a 70% chance that flows will exceed this volume
50% Exceedance
There is a 50% chance that flows will exceed this volume
30% Exceedance
There is a 30% chance that flows will exceed this volume
10% or 5% Exceedance
There is a 10%/5% chance that flows will exceed this volume
When selected, the following historic streamflow values and statistics will be shown.
Period of Record Minimum Streamflow KAF (Year)
1991-2020 Normal Streamflow KAF
Observed Streamflow KAF
Period of Record Maximum Streamflow KAF (Year)
Some forecasts may be for volumes that are regulated or influenced by diversions and water management.

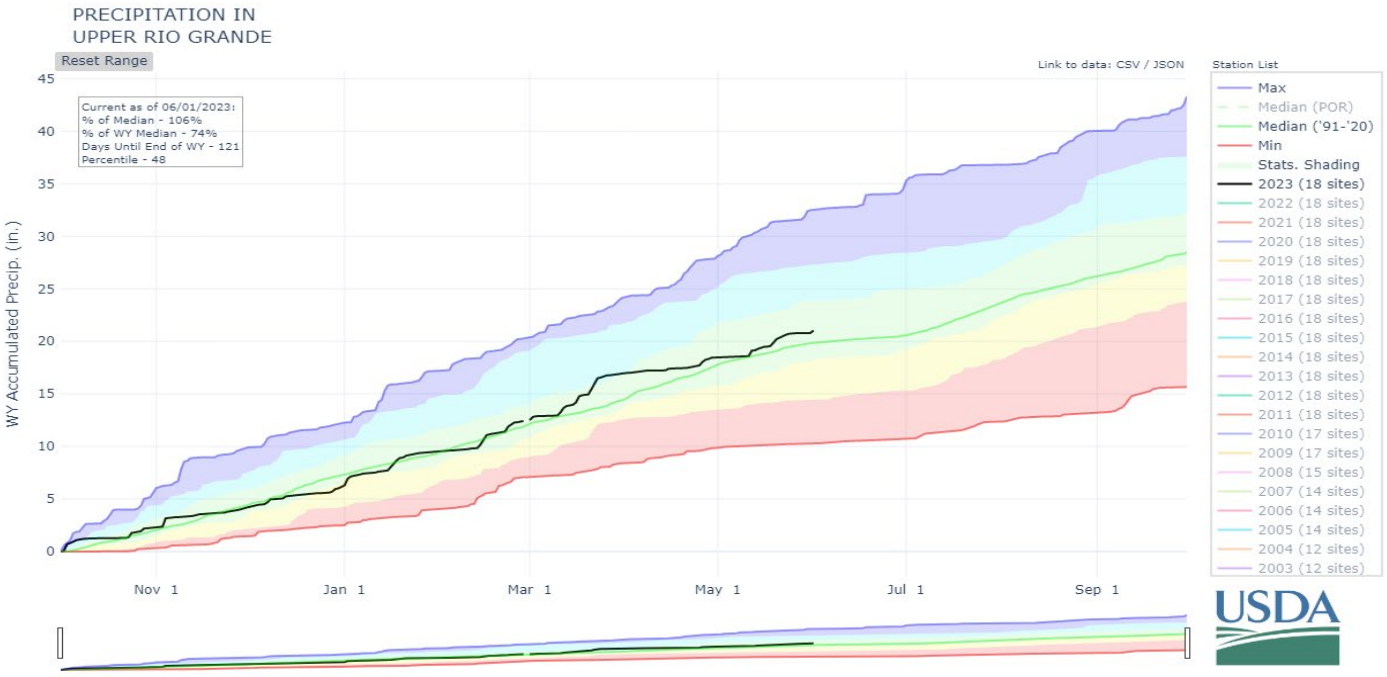
UPPER RIO GRANDE RIVER BASIN

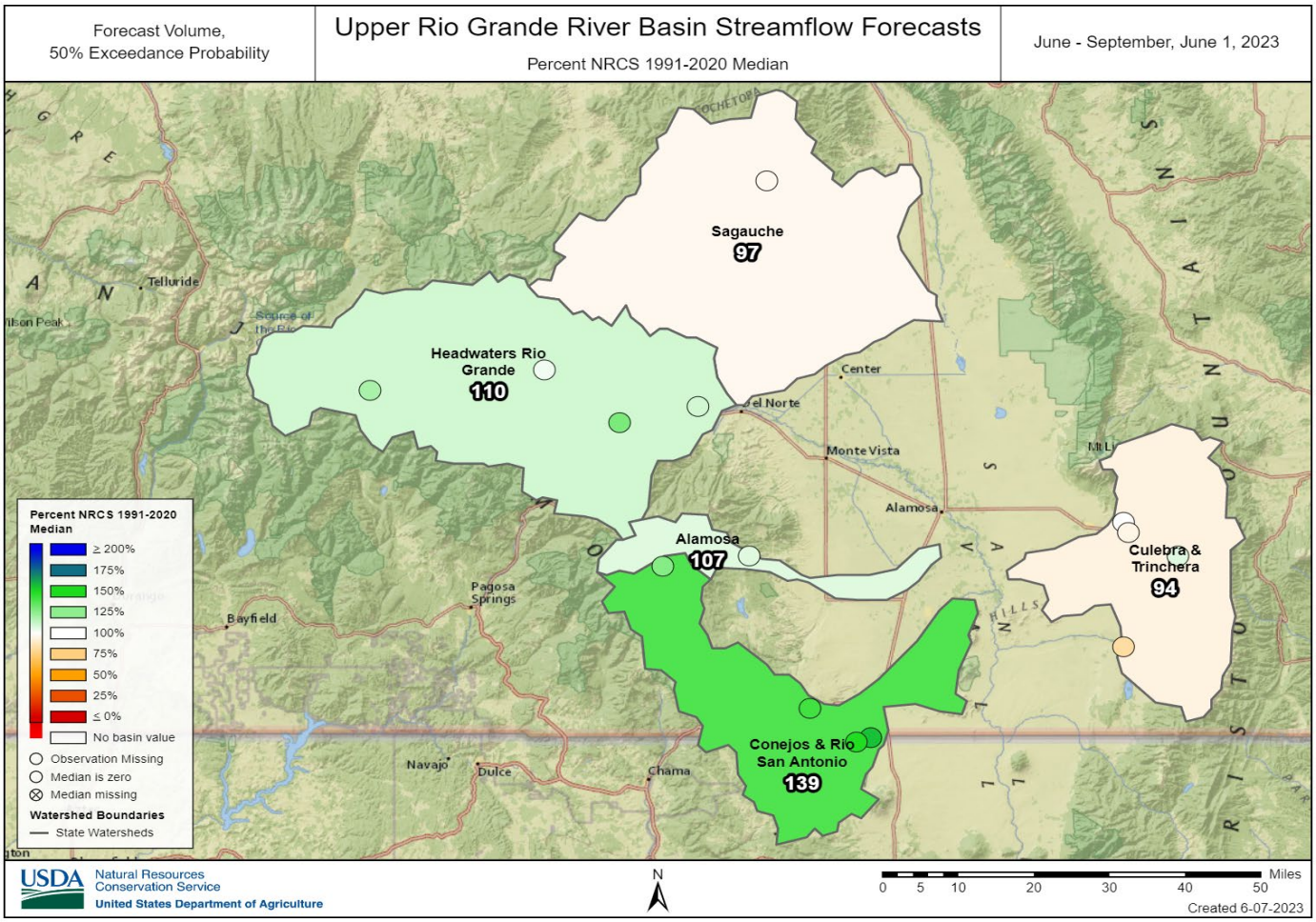
June 1st, 2023

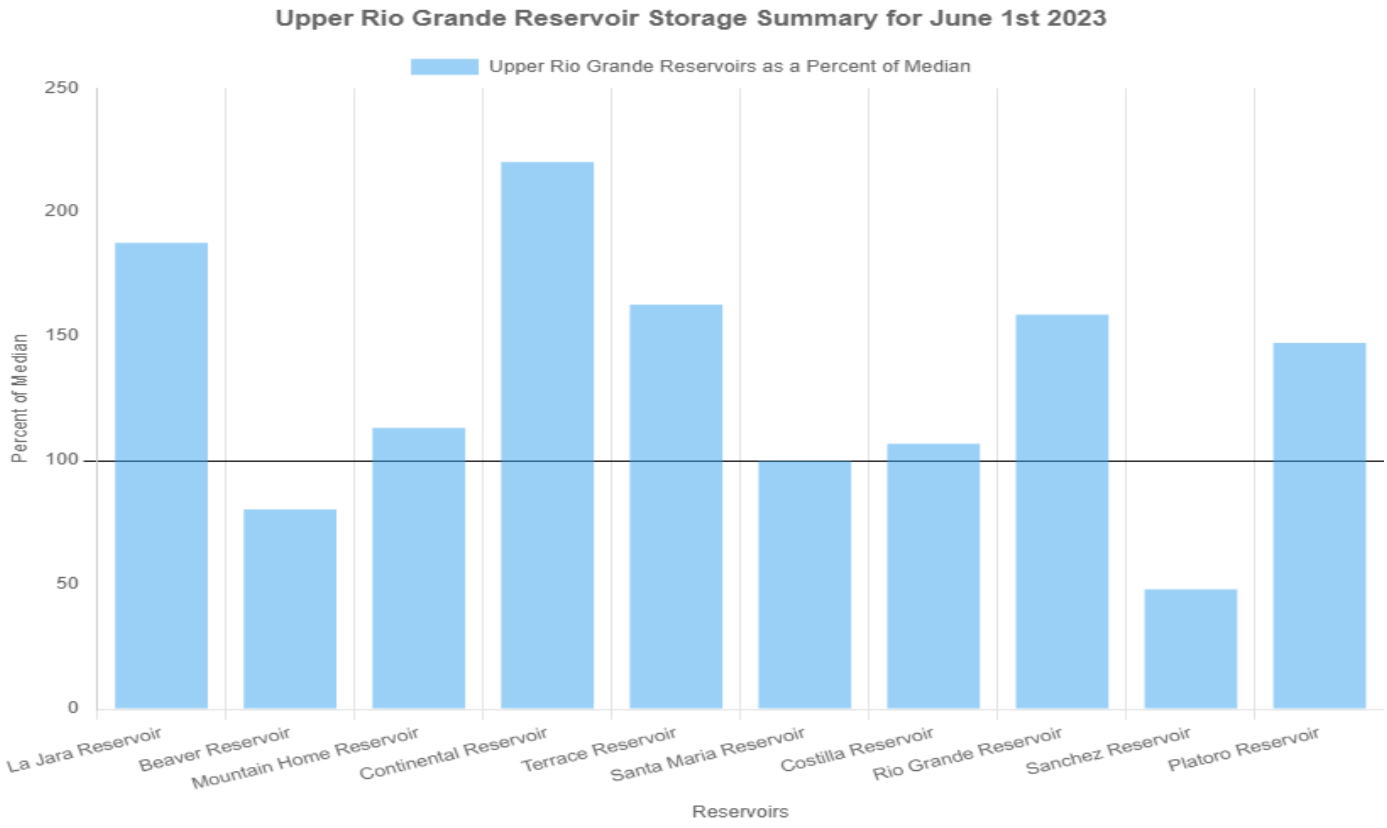
Snowpack in the Upper Rio Grande River basin is above normal at 108% of median. Precipitation for May was 150% of median which brings water year-to-date precipitation to 106% of median. Reservoir storage at the end of May was 124% of median compared to 83% last year. Current streamflow forecasts range from 82% of median at Culebra Creek at San Luis to 156% of median at San Antonio River at Ortiz.



*Snow water equivalent (SWE) values are calculated using daily SNOTEL data only for the above graph. In the paragraph SWE is calculated for the first of the month using both SNOTEL and Snow Course data.




Forecast Volume,
50% Exceedance Probability
Upper Rio Grande River Basin Streamflow Forecasts
Percent NRCS 1991-2020 Median
June - September, June 1, 2023
Sagauche
97
Headwaters Rio Grande
110
Alamosa
107
Conejos & Rio San Antonio
139
Culebra & Trinchera
94
Telluride
Center
Del Norte
Monte Vista
Alamosa
Pagosa Springs
Bayfield
Navajo
Dulce
Chama
Percent NRCS 1991-2020 Median
≥ 200%
175%
150%
125%
100%
75%
50%
25%
≤ 0%
No basin value
Observation Missing
Median is zero
Median missing
Watershed Boundaries
State Watersheds
USDA
Natural Resources Conservation Service
United States Department of Agriculture
N
0 5 10 20 30 40 50
Miles
Created 6-07-2023


Upper Rio Grande Reservoir Storage Summary for June 1st 2023
Upper Rio Grande Reservoirs as a Percent of Median
250
200
150
100
50
0
Percent of Median
La Jara Reservoir
Beaver Reservoir
Mountain Home Reservoir
Continental Reservoir
Terrace Reservoir
Santa Maria Reservoir
Costilla Reservoir
Rio Grande Reservoir
Sanchez Reservoir
Platoro Reservoir
Reservoirs

Watershed Snowpack Analysis June 1st, 2023

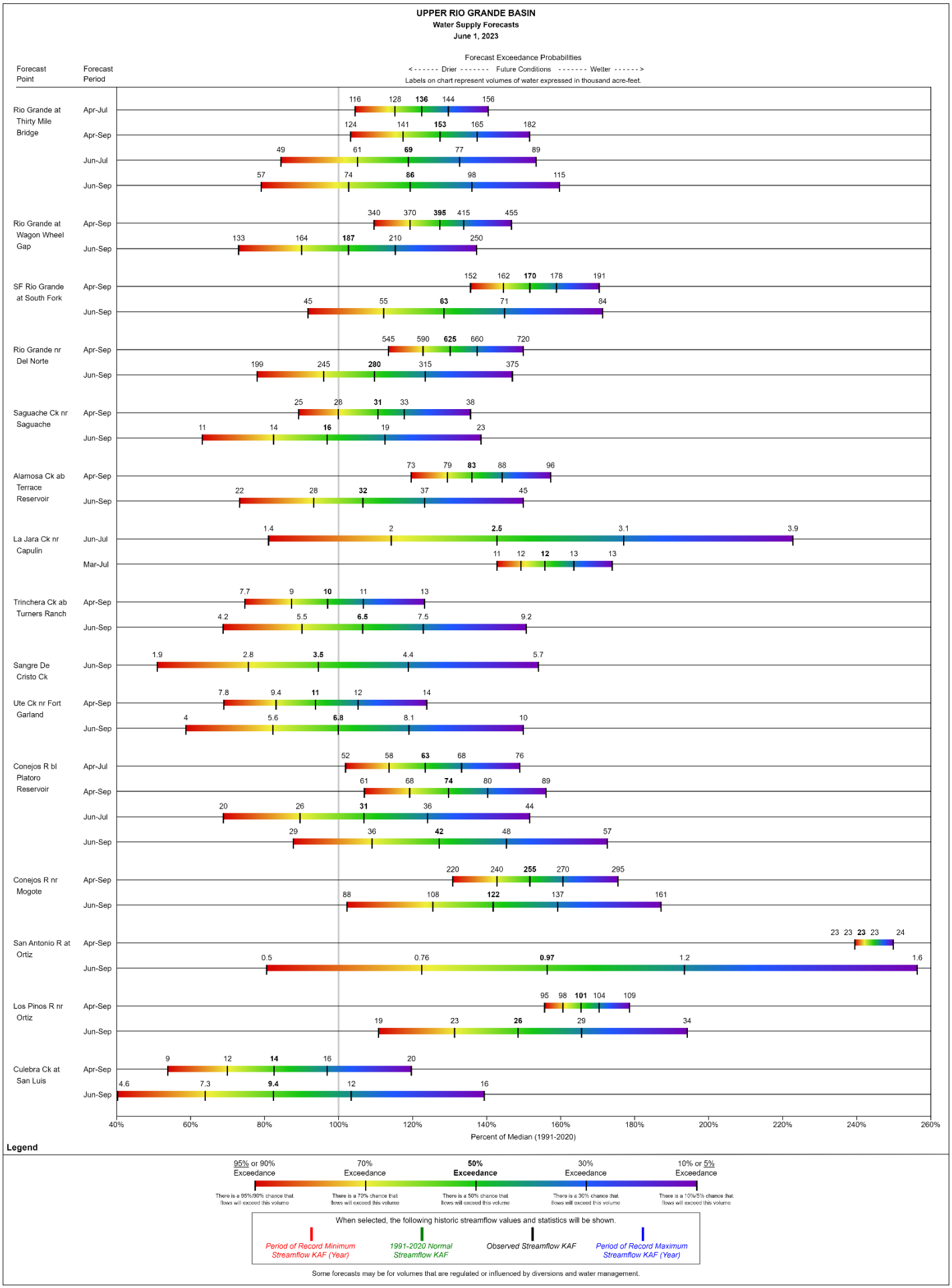
Upper Rio Grande Sub-Basin Snow Data

	# of Sites	% Median	Last Year % Median
Sagauche	3.0	nan	nan
Costilla	2.0	nan	nan
Headwaters Rio Grande	5.0	107.7	0.0
Northern San Luis Valley	2.0	nan	inf
Conejos & Rio San Antonio	2.0	inf	nan
Culebra & Trinchera	3.0	nan	nan
Alamosa	1.0	nan	nan

Reservoir Storage End of May 2023

Upper Rio Grande Reservoir Data

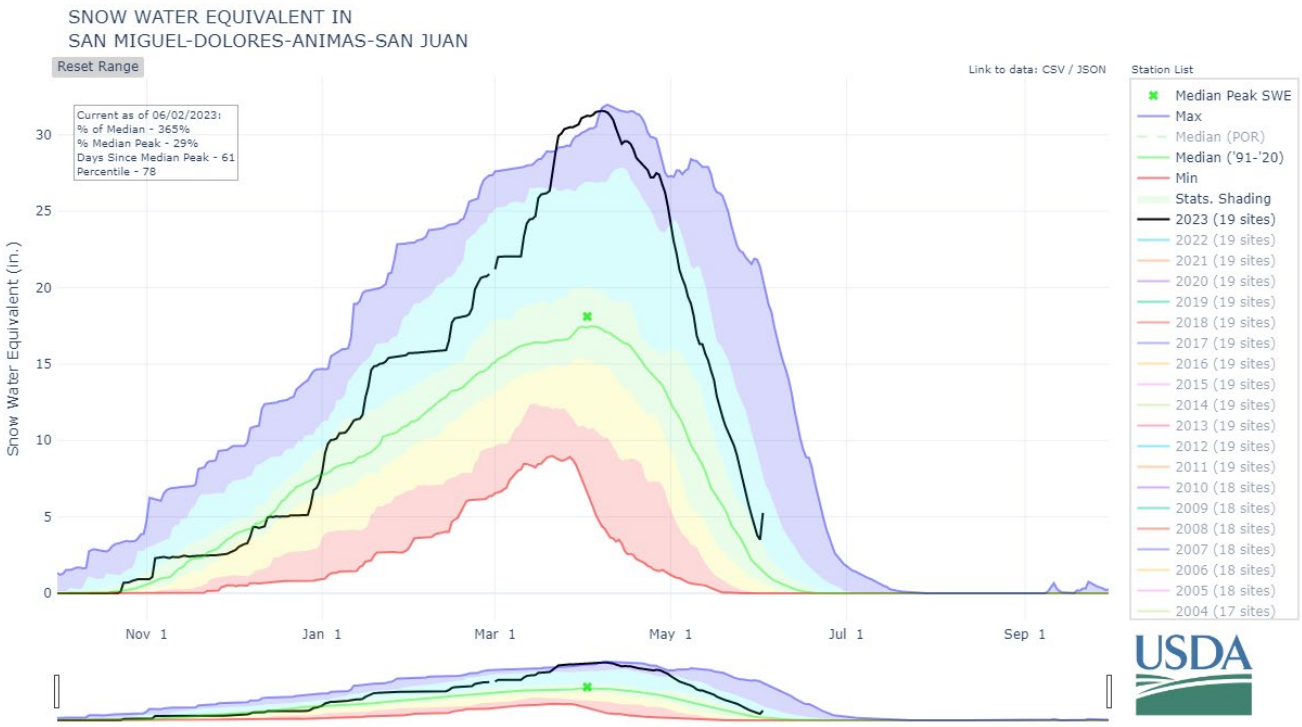
	Current Storage (KAF)	LY Storage (KAF)	Median (KAF)	Percent of Median
La Jara Reservoir	4.32	1.58	2.3	187.8
Costilla Reservoir	11.11	4.74	10.4	106.8
Platoro Reservoir	31.53	26.18	21.4	147.3
Beaver Reservoir	3.38	3.94	4.2	80.5
Rio Grande Reservoir	28.43	16.37	17.9	158.8
Terrace Reservoir	13.67	6.83	8.4	162.7
Mountain Home Reservoir	6.34	4.54	5.6	113.2
Continental Reservoir	15.41	9.9	7.0	220.1
Sanchez Reservoir	10.17	5.12	21.1	48.2
Santa Maria Reservoir	8.59	9.74	8.6	99.9


UPPER RIO GRANDE BASIN
Water Supply Forecasts
June 1, 2023
Forecast Exceedance Probabilities
< ------ Drier ------- Future Conditions ------- Wetter ------ >
Labels on chart represent volumes of water expressed in thousand acre-feet.
Forecast Point
Forecast Period
Rio Grande at Thirty Mile Bridge
Apr-Jul 116 128 136 144 156
Apr-Sep 124 141 153 165 182
Jun-Jul 49 61 69 77 89
Jun-Sep 57 74 86 98 115
Rio Grande at Wagon Wheel Gap
Apr-Sep 340 370 395 415 455
Jun-Sep 133 164 187 210 250
SF Rio Grande at South Fork
Apr-Sep 152 162 170 178 191
Jun-Sep 45 55 63 71 84
Rio Grande nr Del Norte
Apr-Sep 545 590 625 660 720
Jun-Sep 199 245 280 315 375
Saguache Ck nr Saguache
Apr-Sep 25 28 31 33 38
Jun-Sep 11 14 16 19 23
Alamosa Ck ab Terrace Reservoir
Apr-Sep 73 79 83 88 96
Jun-Sep 22 28 32 37 45
La Jara Ck nr Capulin
Jun-Jul 1.4 2 2.5 3.1 3.9
Mar-Jul 11 12 12 13 13
Trinchera Ck ab Turners Ranch
Apr-Sep 7.7 9 10 11 13
Jun-Sep 4.2 5.5 6.5 7.5 9.2
Sangre De Cristo Ck
Jun-Sep 1.9 2.8 3.5 4.4 5.7
Ute Ck nr Fort Garland
Apr-Sep 7.8 9.4 11 12 14
Jun-Sep 4 5.6 6.8 8.1 10
Conejos R bl Platoro Reservoir
Apr-Jul 52 58 63 68 76
Apr-Sep 61 68 74 80 89
Jun-Jul 20 26 31 36 44
Jun-Sep 29 36 42 48 57
Conejos R nr Mogote
Apr-Sep 220 240 255 270 295
Jun-Sep 88 108 122 137 161
San Antonio R at Ortiz
Apr-Sep 23 23 23 23 24
Jun-Sep 0.5 0.76 0.97 1.2 1.6
Los Pinos R nr Ortiz
Apr-Sep 95 98 101 104 109
Jun-Sep 19 23 26 29 34
Culebra Ck at San Luis
Apr-Sep 9 12 14 16 20
Jun-Sep 4.6 7.3 9.4 12 16
40% 60% 80% 100% 120% 140% 160% 180% 200% 220% 240% 260%
Percent of Median (1991-2020)
Legend
95% or 90% Exceedance
There is a 95%/90% chance that flows will exceed this volume
70% Exceedance
There is a 70% chance that flows will exceed this volume
50% Exceedance
There is a 50% chance that flows will exceed this volume
30% Exceedance
There is a 30% chance that flows will exceed this volume
10% or 5% Exceedance
There is a 10%/5% chance that flows will exceed this volume
When selected, the following historic streamflow values and statistics will be shown.
Period of Record Minimum Streamflow KAF (Year)
1991-2020 Normal Streamflow KAF
Observed Streamflow KAF
Period of Record Maximum Streamflow KAF (Year)
Some forecasts may be for volumes that are regulated or influenced by diversions and water management.

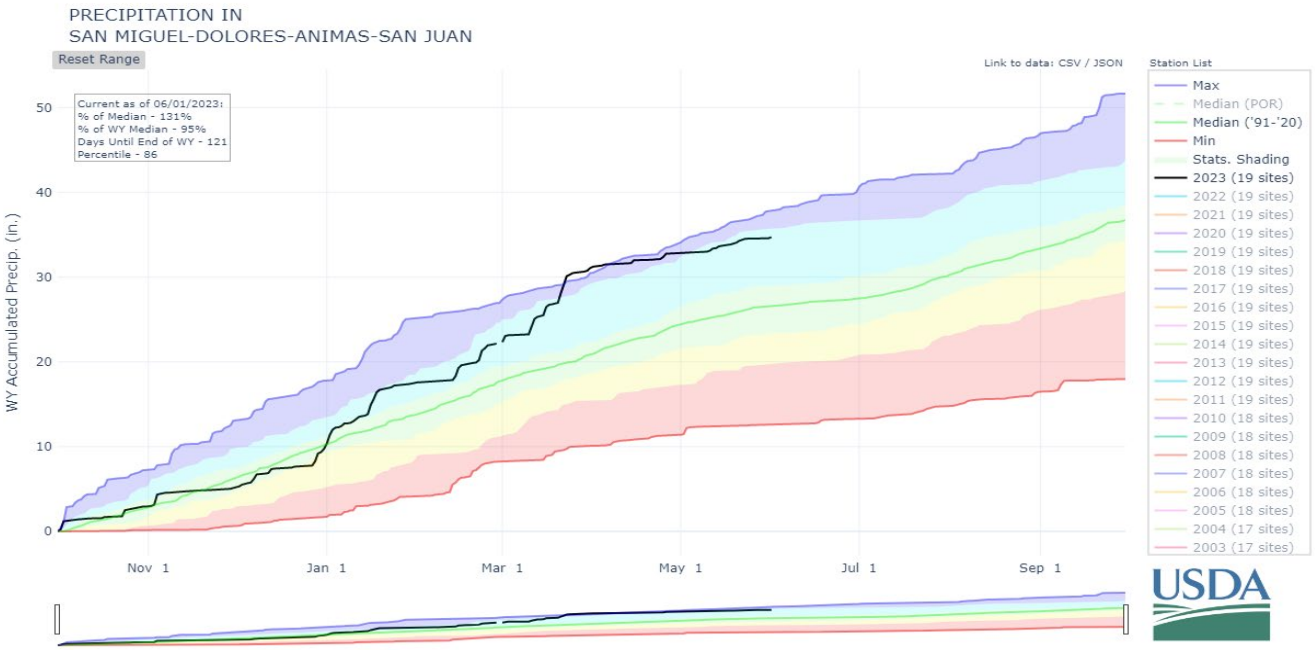
SAN MIGUEL-DOLORES-ANIMAS-SAN JUAN COMBINED RIVER BASIN

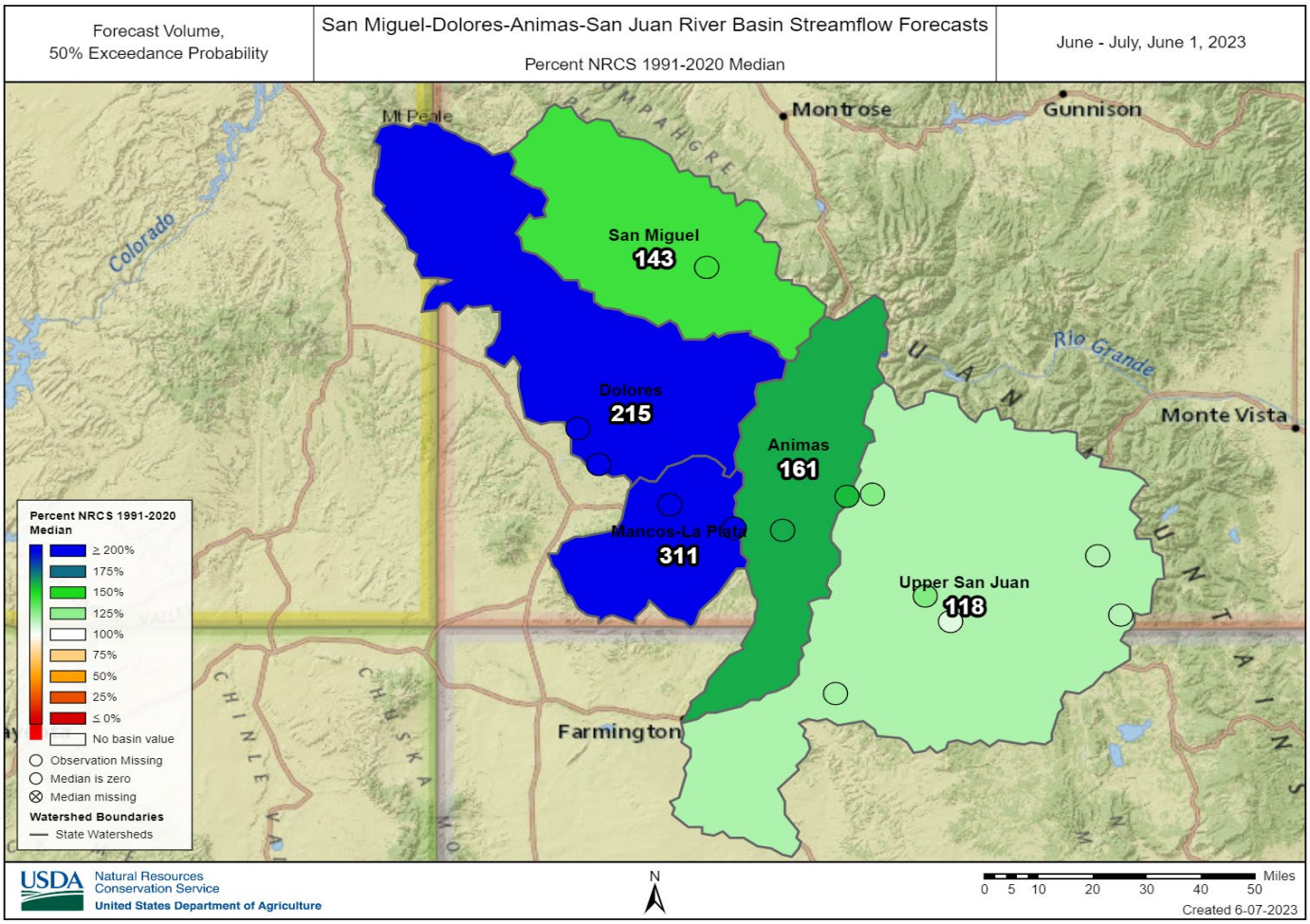
June 1st, 2023

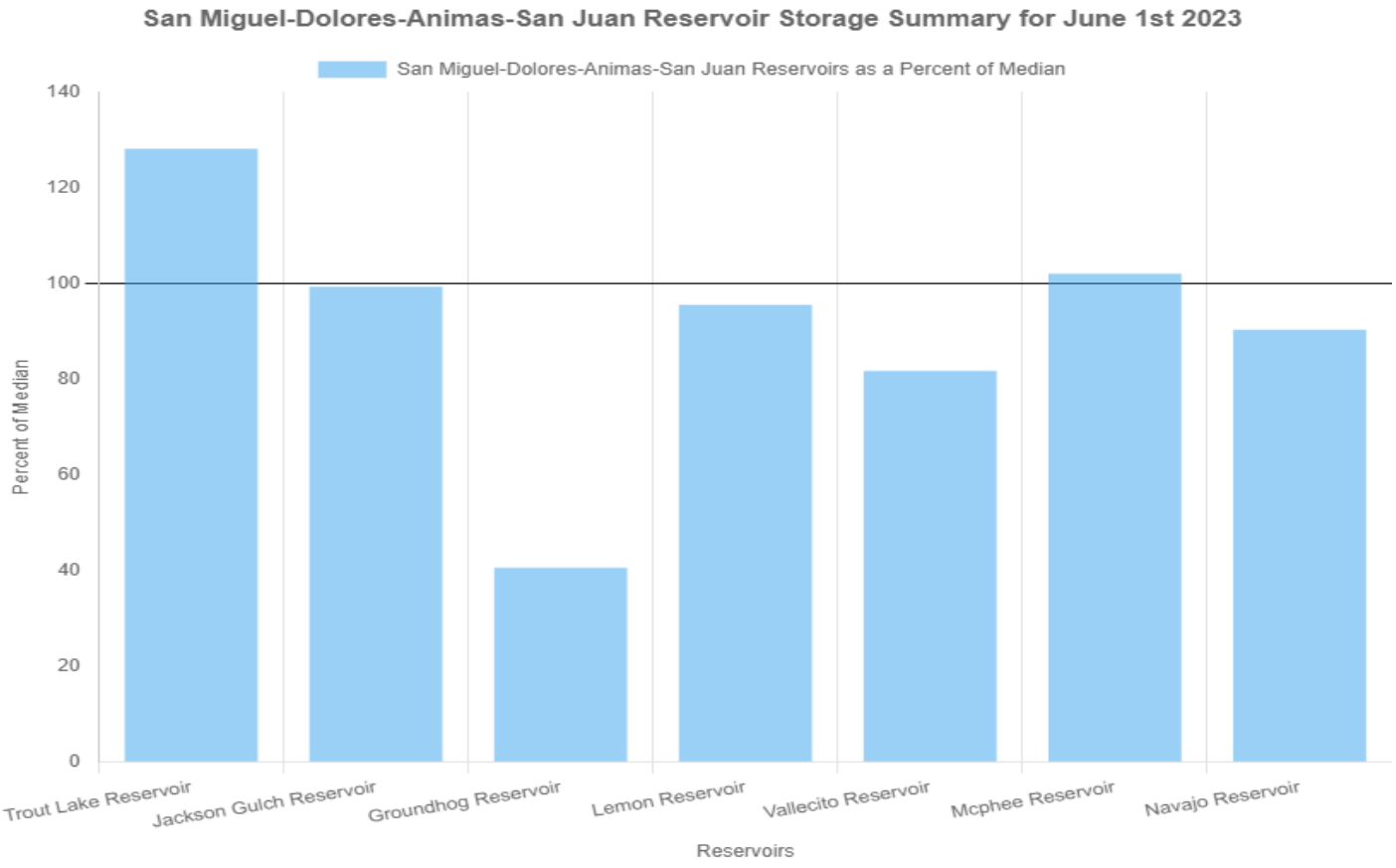
Snowpack in the combined southwest river basins is above normal at 214% of median. Precipitation for May was 91% of median which brings water year-to-date precipitation to 131% of median. Reservoir storage at the end of May was 92% of median compared to 67% last year. Current streamflow forecasts range from 107% of median at San Juan River near Carracas to 864% of median at Mancos River near Mancos.



*Snow water equivalent (SWE) values are calculated using daily SNOTEL data only for the above graph. In the paragraph SWE is calculated for the first of the month using both SNOTEL and Snow Course data.




Forecast Volume,
50% Exceedance Probability
San Miguel-Dolores-Animas-San Juan River Basin Streamflow Forecasts
Percent NRCS 1991-2020 Median
June - July, June 1, 2023
Mt Peale
Montrose
Gunnison
Colorado
Rio Grande
San Miguel
143
Dolores
215
Animas
161
Mancos-La Plata
311
Upper San Juan
118
Monte Vista
Farmington
Percent NRCS 1991-2020 Median
≥ 200%
175%
150%
125%
100%
75%
50%
25%
≤ 0%
No basin value
Observation Missing
Median is zero
Median missing
Watershed Boundaries
State Watersheds
USDA Natural Resources Conservation Service
United States Department of Agriculture
N
0 5 10 20 30 40 50 Miles
Created 6-07-2023


San Miguel-Dolores-Animas-San Juan Reservoir Storage Summary for June 1st 2023
San Miguel-Dolores-Animas-San Juan Reservoirs as a Percent of Median
Percent of Median
140
120
100
80
60
40
20
0
Trout Lake Reservoir
Jackson Gulch Reservoir
Groundhog Reservoir
Lemon Reservoir
Vallecito Reservoir
Mcphee Reservoir
Navajo Reservoir
Reservoirs

Watershed Snowpack Analysis June 1st, 2023

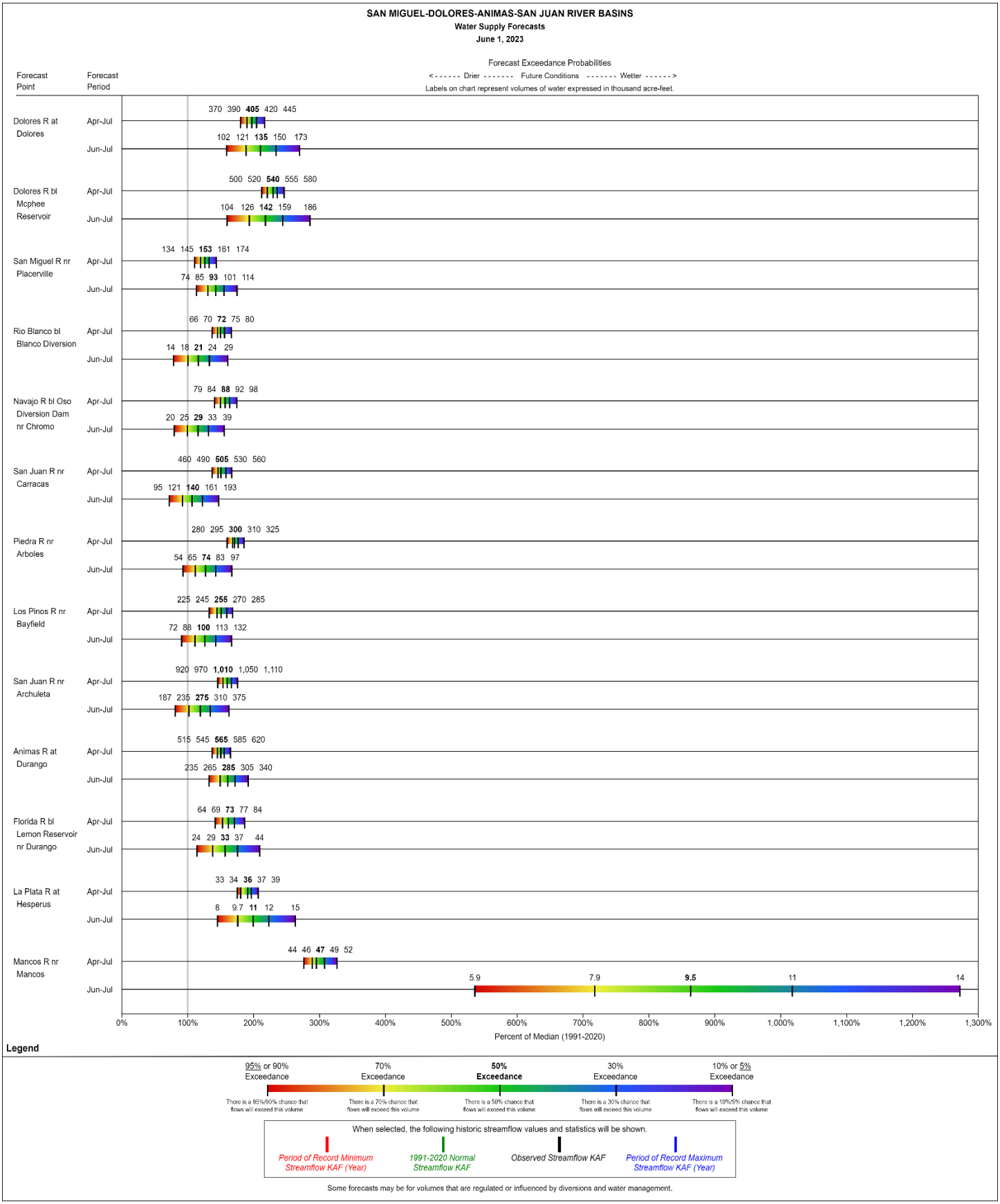
San Miguel-Dolores-Animas-San Juan Sub-Basin Snow Data

	# of Sites	% Median	Last Year % Median
Animas	8.0	368.5	0.0
Upper San Juan	6.0	83.8	0.0
San Miguel	4.0	185.9	0.0
Dolores	4.0	inf	nan
Mancos-La Plata	3.0	4380.0	0.0

Reservoir Storage End of May 2023

San Miguel-Dolores-Animas-San Juan Reservoir Data

	Current Storage (KAF)	LY Storage (KAF)	Median (KAF)	Percent of Median
Navajo Reservoir	1340.27	953.62	1485.0	90.3
Jackson Gulch Reservoir	9.93	9.49	10.0	99.3
Vallecito Reservoir	90.72	92.06	111.0	81.7
Trout Lake Reservoir	2.95	3.1	2.3	128.3
Mcphee Reservoir	366.24	257.33	359.2	102.0
Groundhog Reservoir	8.21	10.8	20.2	40.6
Lemon Reservoir	32.18	26.26	33.7	95.5


SAN MIGUEL-DOLORES-ANIMAS-SAN JUAN RIVER BASINS
Water Supply Forecasts
June 1, 2023
Forecast Exceedance Probabilities
< ------ Drier ------- Future Conditions ------- Wetter ------ >
Labels on chart represent volumes of water expressed in thousand acre-feet.
Forecast Point
Forecast Period
Dolores R at Dolores
Apr-Jul 370 390 405 420 445
Jun-Jul 102 121 135 150 173
Dolores R bl Mcphee Reservoir
Apr-Jul 500 520 540 555 580
Jun-Jul 104 126 142 159 186
San Miguel R nr Placerville
Apr-Jul 134 145 153 161 174
Jun-Jul 74 85 93 101 114
Rio Blanco bl Blanco Diversion
Apr-Jul 66 70 72 75 80
Jun-Jul 14 18 21 24 29
Navajo R bl Oso Diversion Dam nr Chromo
Apr-Jul 79 84 88 92 98
Jun-Jul 20 25 29 33 39
San Juan R nr Carracas
Apr-Jul 460 490 505 530 560
Jun-Jul 95 121 140 161 193
Piedra R nr Arboles
Apr-Jul 280 295 300 310 325
Jun-Jul 54 65 74 83 97
Los Pinos R nr Bayfield
Apr-Jul 225 245 255 270 285
Jun-Jul 72 88 100 113 132
San Juan R nr Archuleta
Apr-Jul 920 970 1,010 1,050 1,110
Jun-Jul 187 235 275 310 375
Animas R at Durango
Apr-Jul 515 545 565 585 620
Jun-Jul 235 265 285 305 340
Florida R bl Lemon Reservoir nr Durango
Apr-Jul 64 69 73 77 84
Jun-Jul 24 29 33 37 44
La Plata R at Hesperus
Apr-Jul 33 34 36 37 39
Jun-Jul 8 9.7 11 12 15
Mancos R nr Mancos
Apr-Jul 44 46 47 49 52
Jun-Jul 5.9 7.9 9.5 11 14
0% 100% 200% 300% 400% 500% 600% 700% 800% 900% 1,000% 1,100% 1,200% 1,300%
Percent of Median (1991-2020)
Legend
95% or 90% Exceedance
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When selected, the following historic streamflow values and statistics will be shown.
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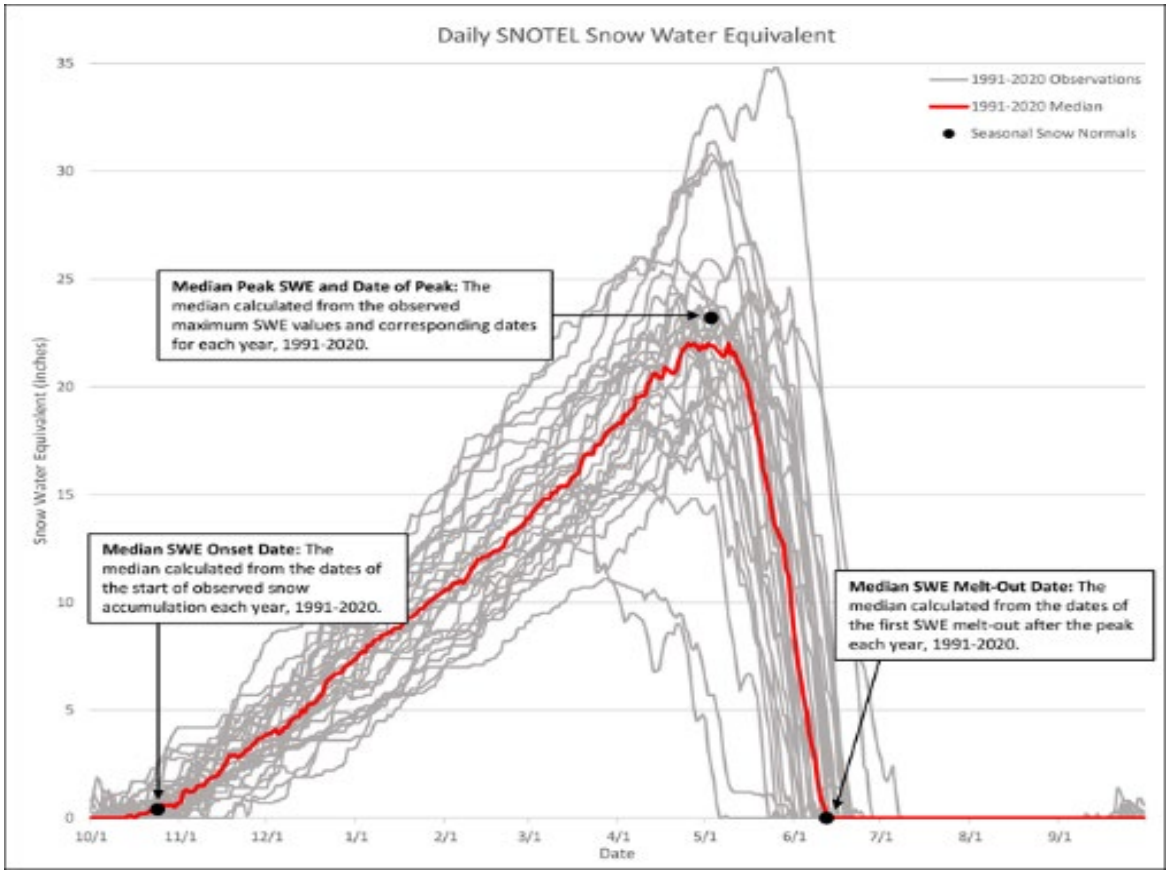
1991-2020 Normal Streamflow KAF
Observed Streamflow KAF
Period of Record Maximum Streamflow KAF (Year)
Some forecasts may be for volumes that are regulated or influenced by diversions and water management.

New 1991-2020 Statistical Normals

The NRCS Snow Survey and Water Supply Forecasting (SSWSF) Program recently published new statistical normals (medians or averages) to describe the central tendency of a data record over a 30-year period. Data normals are key in helping water users compare current conditions to past conditions using the metric "% of normal." Every 10 years, the SSWSF Program updates the 30-year normals reference period to stay consistent with World Meteorological Organization standards that account for changing climatic conditions over time. As such, this year the SSWSF Program transitioned from using 1981-2010 data normals to using 1991-2020 data normals.

For the 1991-2020 reference period, the median is the official NRCS normal when conveying information about current snowpack, precipitation, and water supply conditions. The median was previously used as the official 1981-2010 normal for SWE and some streamflow forecast points, but the average was used for other data types. Setting the official normal to the median provides consistency across data types and stations. Viewing the 30-year average December be preferable over the median in some instances, therefore, both the average and the median are available in most NRCS reports and products. See Median vs. Average for more information about the median.

A new suite of statistics for automated snow monitoring stations are available to provide information about normal seasonal snowpack characteristics. These new seasonal statistics include medians and averages for the SWE onset date and melt-out date, as well as the median and average maximum seasonal SWE value (Peak SWE) and date of Peak SWE. More detailed information on the updated normals can be found on the Water and Climate Center's 30-year normals page.



How to Read Snowpack Graphs

The graphs show snow water equivalent (SWE) (in inches), using daily SNOTEL data. for the October 1 through September 30 water year. Basin "observed" SWE values are computed using SNOTEL sites which are characteristic of the snowpack of the particular basin.

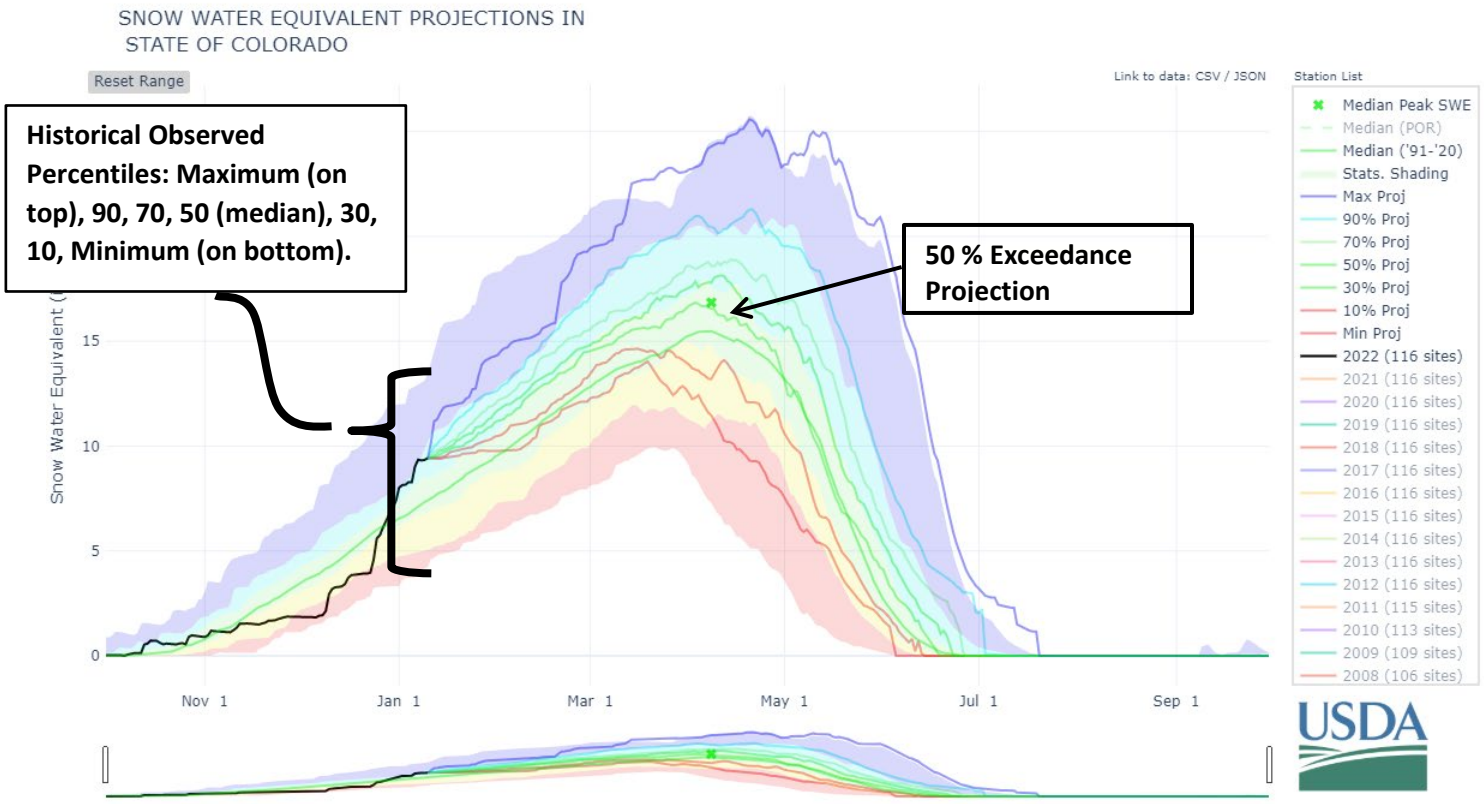
Current water year is represented by the heavy red line terminating on the last day the graphic was updated.

Historical observed percentile range is shown as a gray background area on the graph. Shades of gray indicate maximum, 90 percentile, 70 percentile, 50 percentile (solid black line), 30 percentile, 10 percentile, and minimum for the period of record.

50 % Exceedance Projection: The most probabilistic snowpack projection, based on the median snowpack is projected forward from the end of the current period to the end of the current water year.

For more detailed information on these graphs visit:

http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_062291.pdf



How Forecasts Are Made

For more water supply and resource management information, contact:

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Snow Survey Supervisor
USDA, Natural Resources Conservation Service
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Denver, CO 80225-0426
Phone (720) 544-2852
Website: http://www.nrcs.usda.gov/wps/portal/nrcs/main/co/snow/

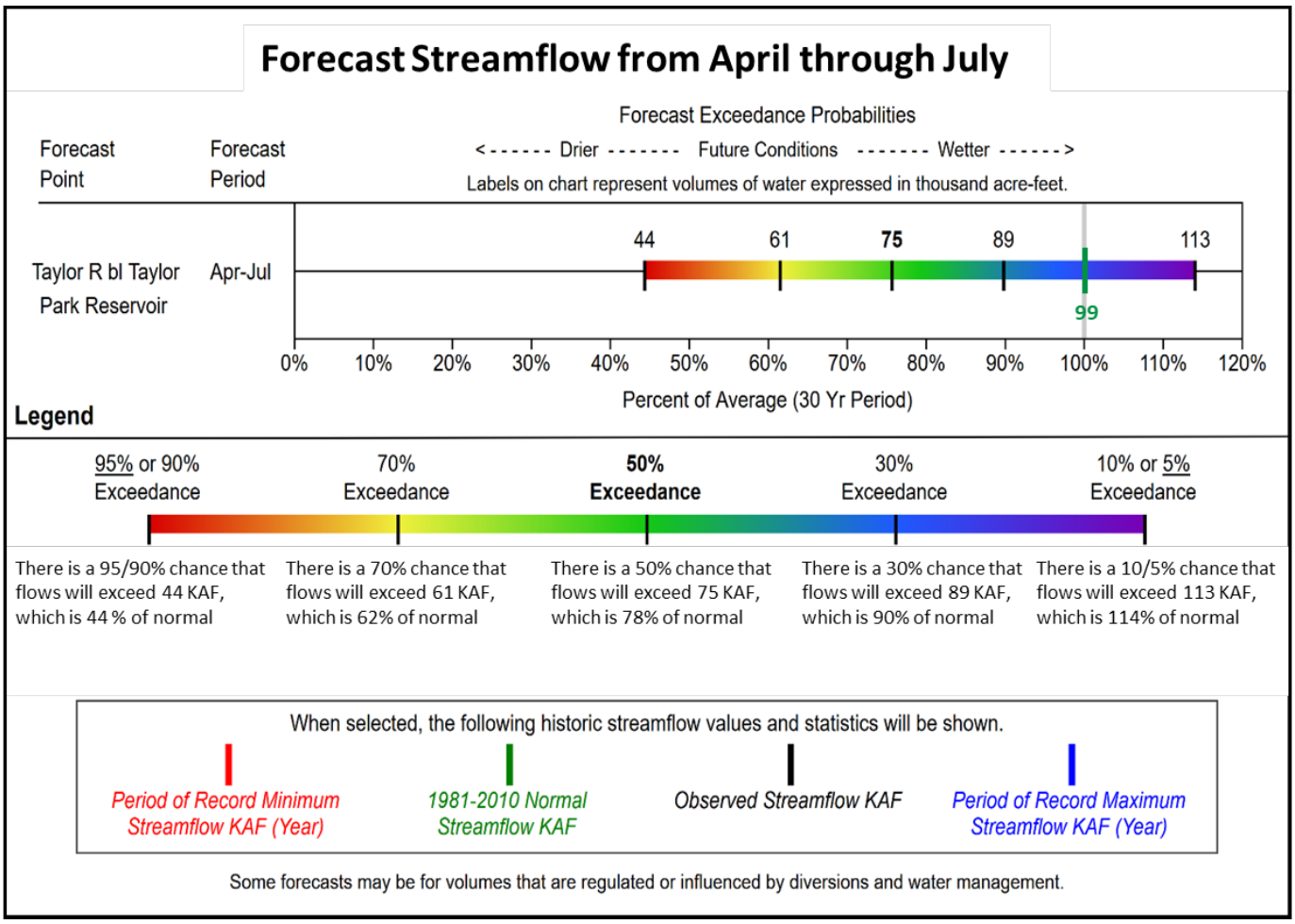
Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they December want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they December want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

Interpreting the Forecast Graphics

These graphics provide a new way to visualize the range of streamflows represented by the forecast exceedance probabilities for each forecast period. The colors in the bar for each forecast point indicate the exceedance probability of the forecasts and the vertical lines on the bar signify the five published forecast exceedance probabilities. The numbers displayed above the color scale represent the actual forecasted streamflow volume (in KAF) for the given exceedance probability. The horizontal axis provides the percent of median represented by each forecast and the gray line centered above 100% represents the 1981-2010 historical median streamflow. The position of the gray line relative to the color scale provides a benchmark for considering future streamflows. If the majority of the forecast range is to the right of the gray line, there is a higher likelihood of above median streamflow volumes during the provided forecast period. Conversely, if the majority of the color bar is to the left of the median mark, below median volumes are more likely. The horizontal span of the forecasts offers an indication of the uncertainty in a given forecast: when the bar spans a large horizontal range, the forecast skill is low and uncertainty is high; when the bar is narrow in width, the forecast skill is higher and uncertainty lower.



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Denver, CO 80225-0426

In addition to the water supply outlook reports, water supply forecast information for the Western United States is available from the Natural Resources Conservation Service and the National Weather Service monthly, February through June. The information December be obtained from the Natural Resources Conservation Service web page at
http://www.wcc.nrcs.usda.gov/wsf/westwide.html

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State Conservationist
Natural Resources Conservation Service
Lakewood, Colorado

Colorado
Water Supply Outlook Report
Natural Resources Conservation Service
Lakewood, CO