

2023 State of the River Meetings Mesa County Hydrology & Water Outlook

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Division Engineer

April 13, 2023



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Division of Water Resources
Department of Natural Resources

2023 State of the River Meetings Mesa County Hydrology & Water Outlook

Brian Sewell
Lower River Lead Water Commissioner

April 13, 2023



Agenda

- Colorado River Basin Snowpack
- Distribution of Winter Precipitation
- Subbasin Snowpack
- Soil Moisture Conditions
- April 1st CBRFC Water Supply Forecasts
- Current Reservoir Conditions
- Peak Flow Forecasts
- Similar Year Call Scenarios at Shoshone and Cameo
- Seasonal Precipitation Outlook



Colorado River Basin Snowpack

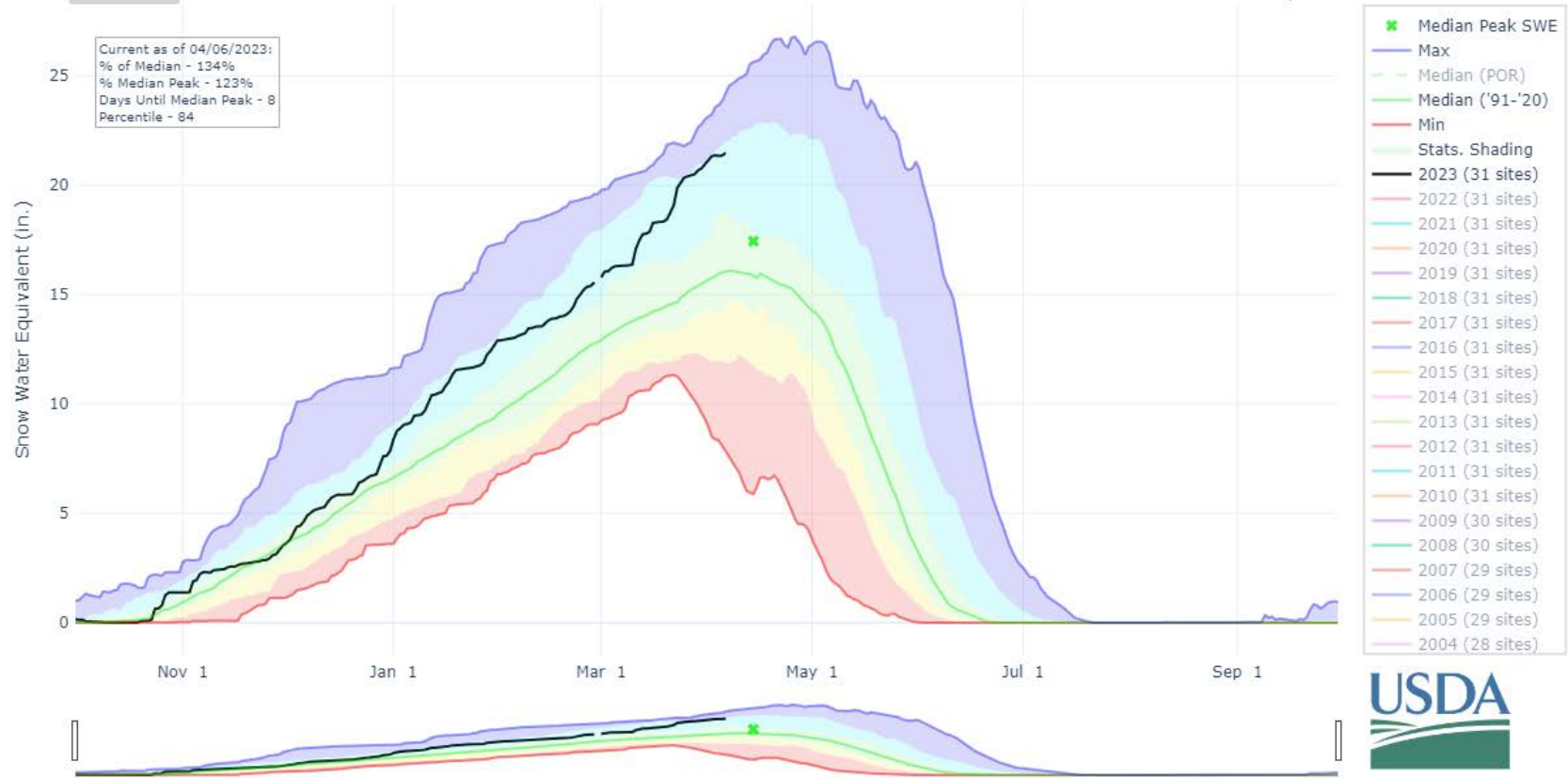


SNOW WATER EQUIVALENT IN COLORADO HEADWATERS

Reset Range

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

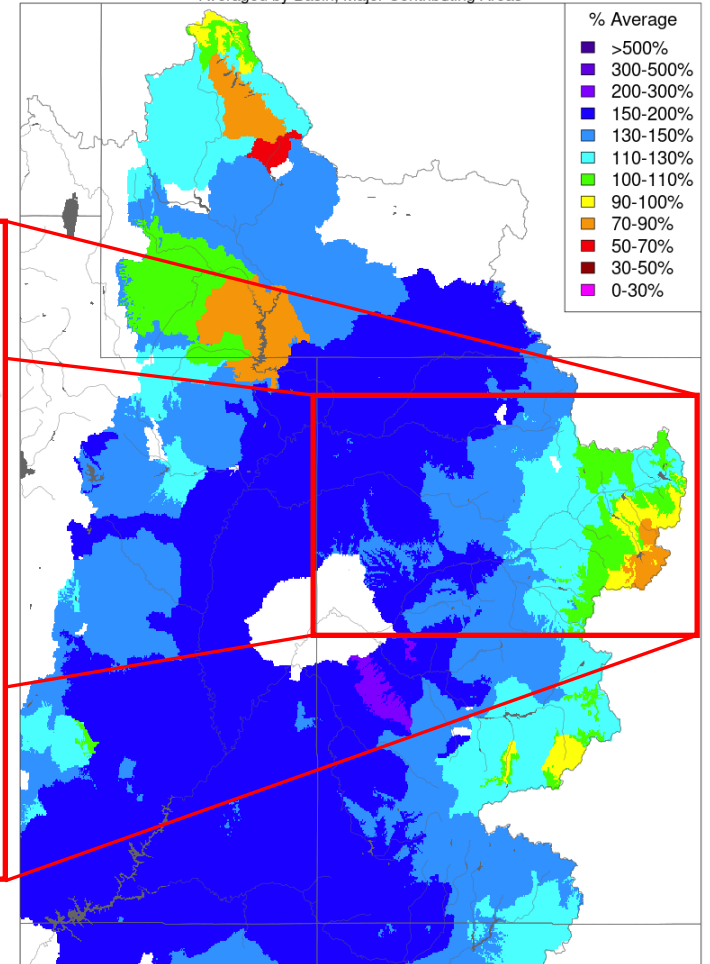
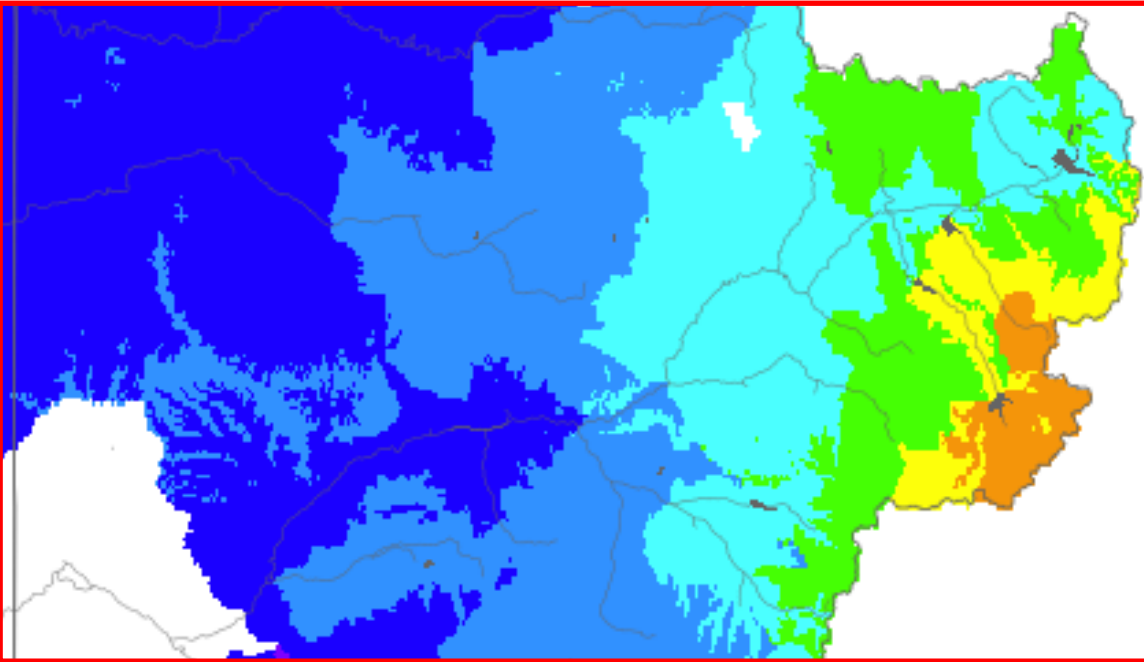
Station List



Distribution of Winter Precipitation

Averaged by Basin, Major Contributing Areas

Precipitation Since 10/1/2022



Subbasin Snowpack



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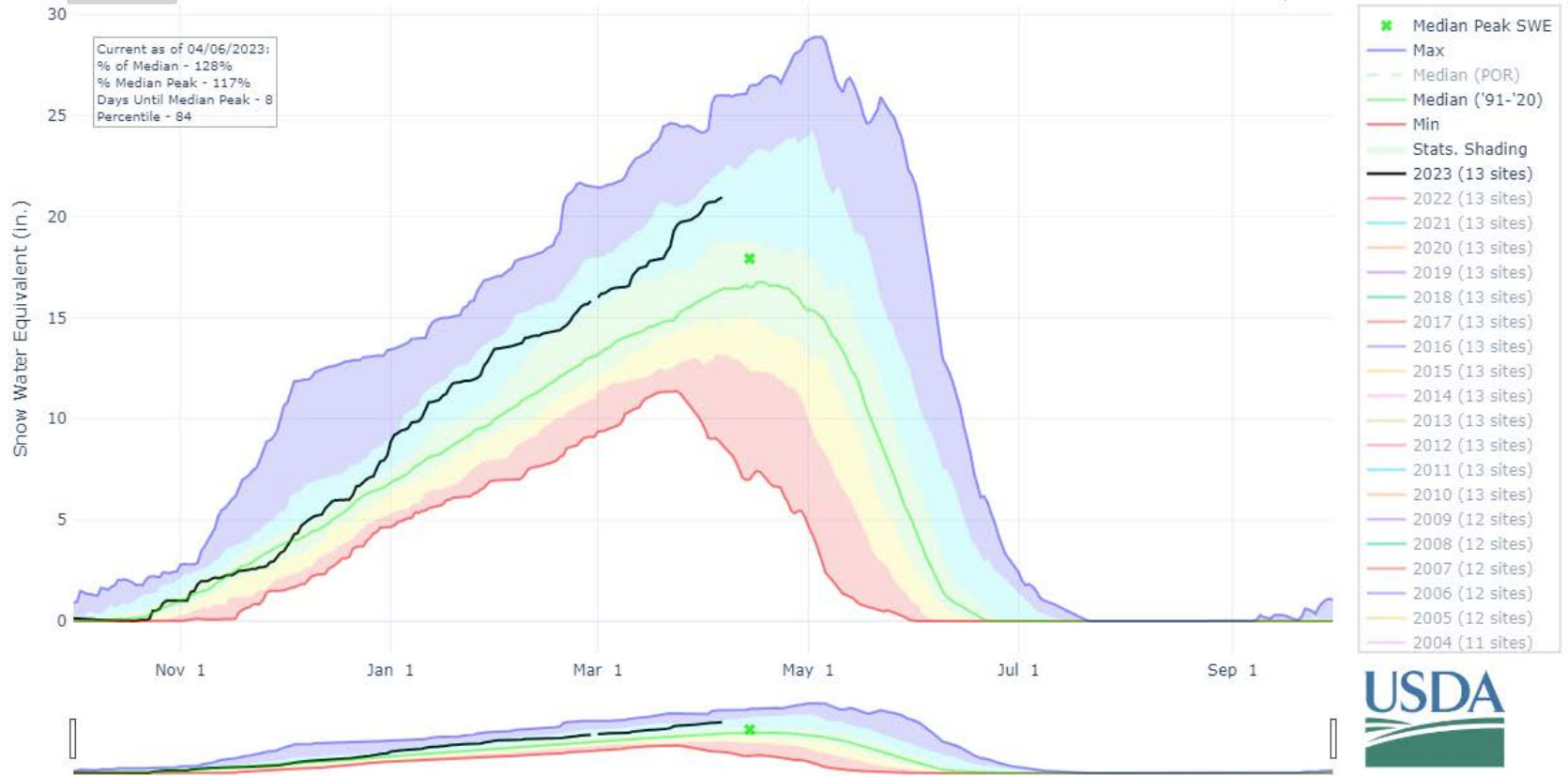
SNOW WATER EQUIVALENT IN COLORADO HEADWATERS

Reset Range

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

Station List

Current as of 04/06/2023:
 % of Median - 128%
 % Median Peak - 117%
 Days Until Median Peak - 8
 Percentile - 84



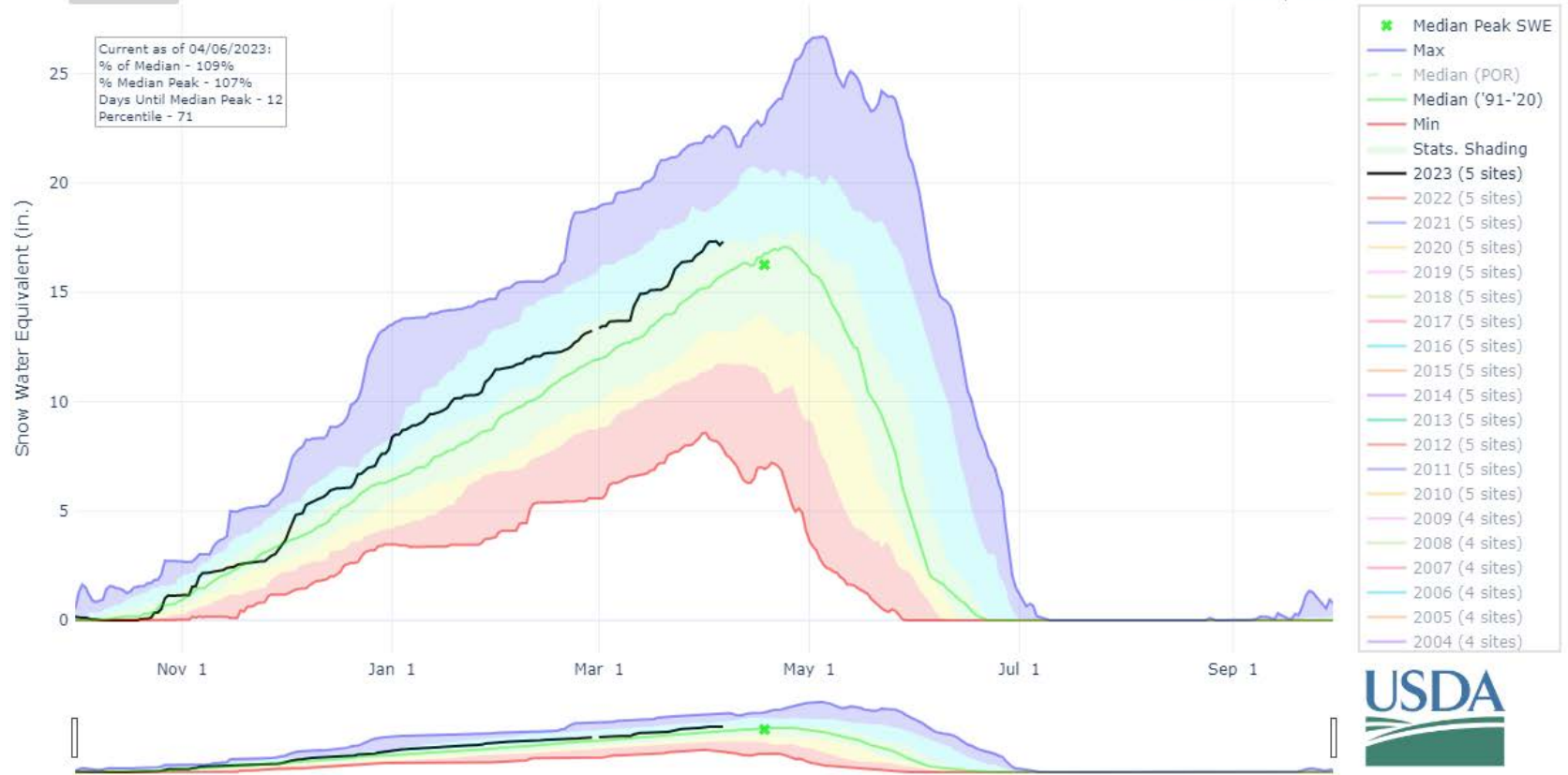
SNOW WATER EQUIVALENT IN BLUE

Reset Range

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

Station List

Current as of 04/06/2023:
% of Median - 109%
% Median Peak - 107%
Days Until Median Peak - 12
Percentile - 71



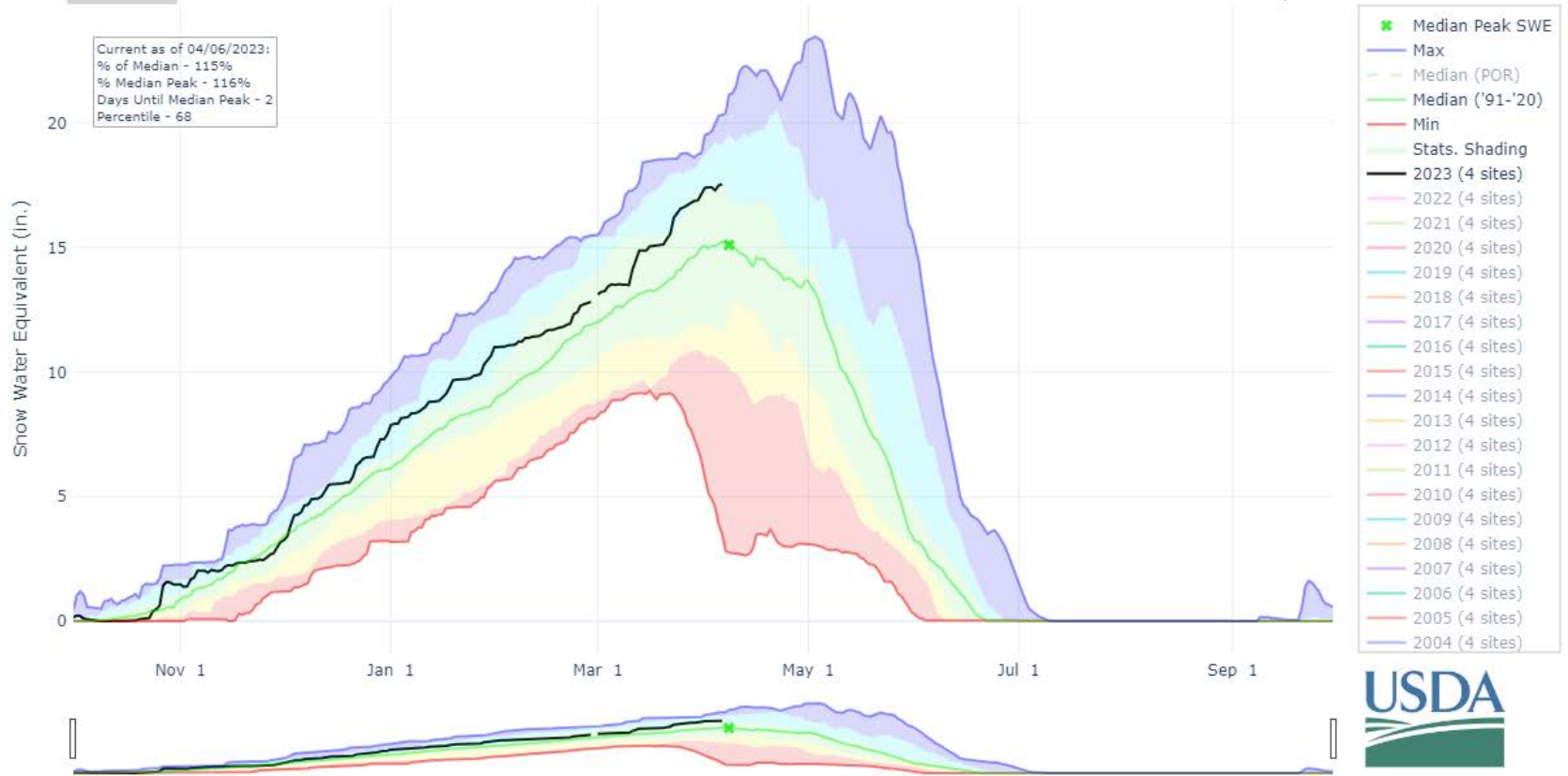
SNOW WATER EQUIVALENT IN EAGLE

Reset Range

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

Station List

Current as of 04/06/2023:
 % of Median - 115%
 % Median Peak - 116%
 Days Until Median Peak - 2
 Percentile - 68



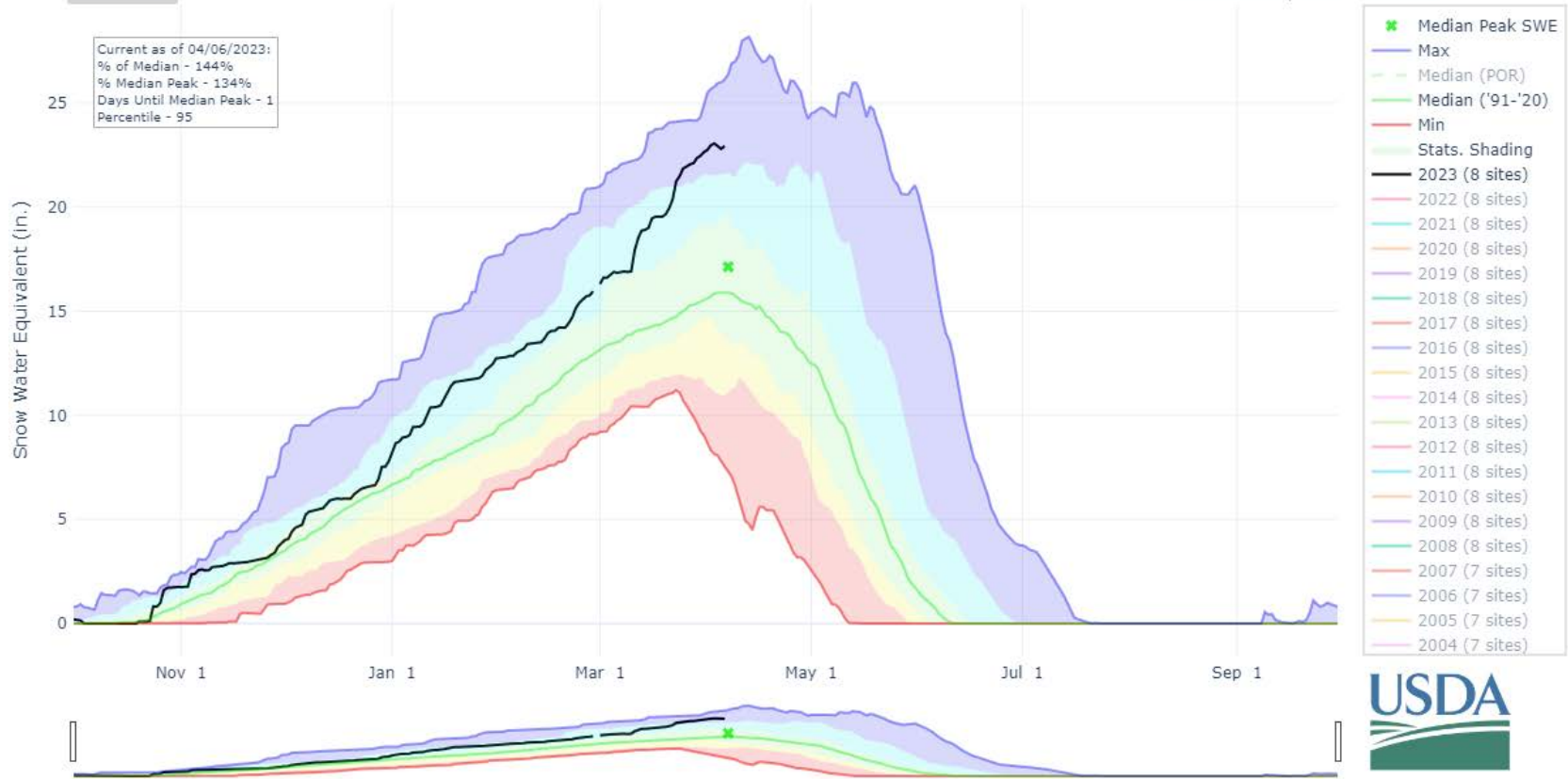
SNOW WATER EQUIVALENT IN ROARING FORK

Reset Range

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

Station List

Current as of 04/06/2023:
 % of Median - 144%
 % Median Peak - 134%
 Days Until Median Peak - 1
 Percentile - 95

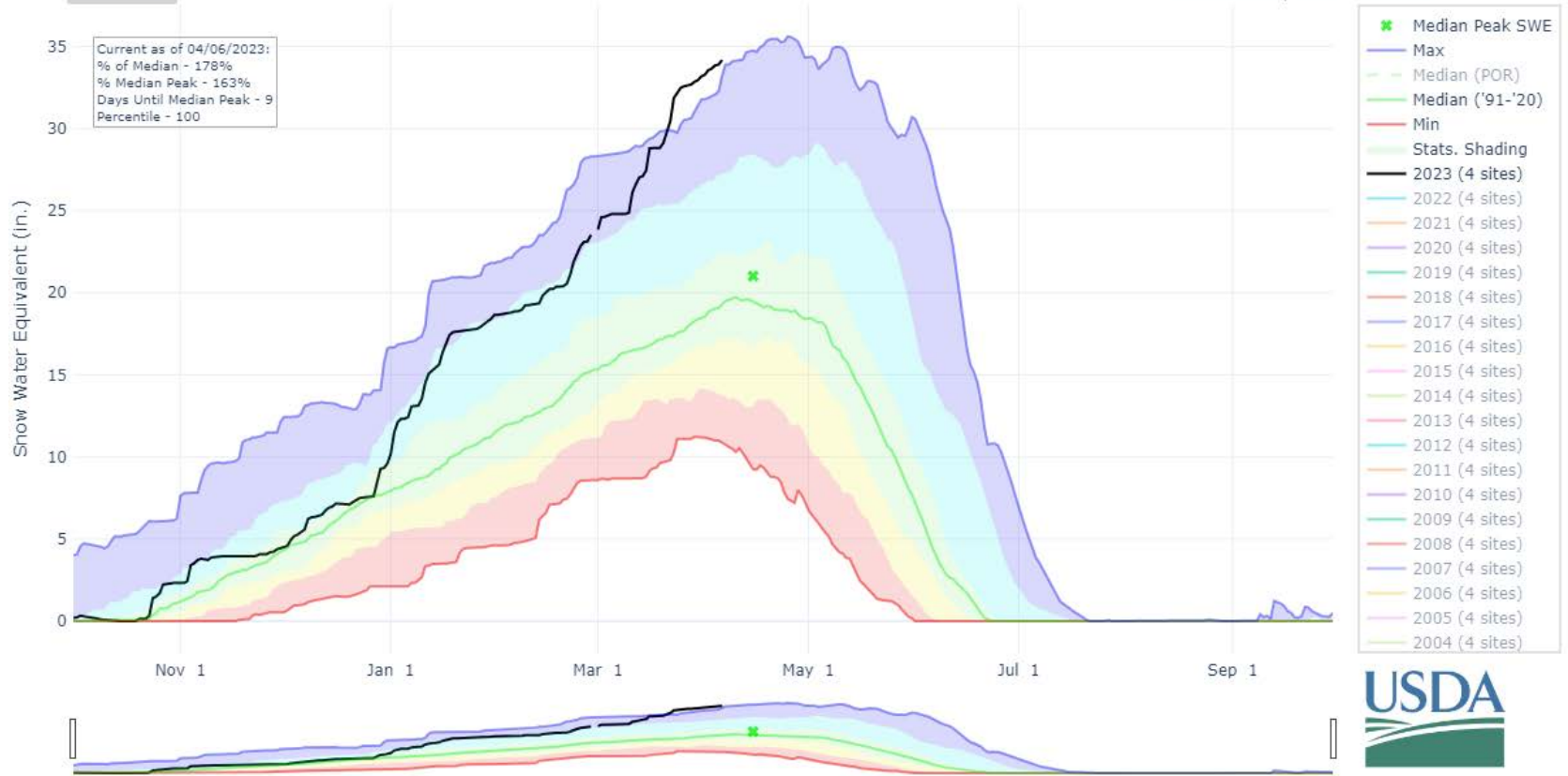


SNOW WATER EQUIVALENT IN COLORADO HEADWATERS-PLATEAU

Reset Range

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

Station List

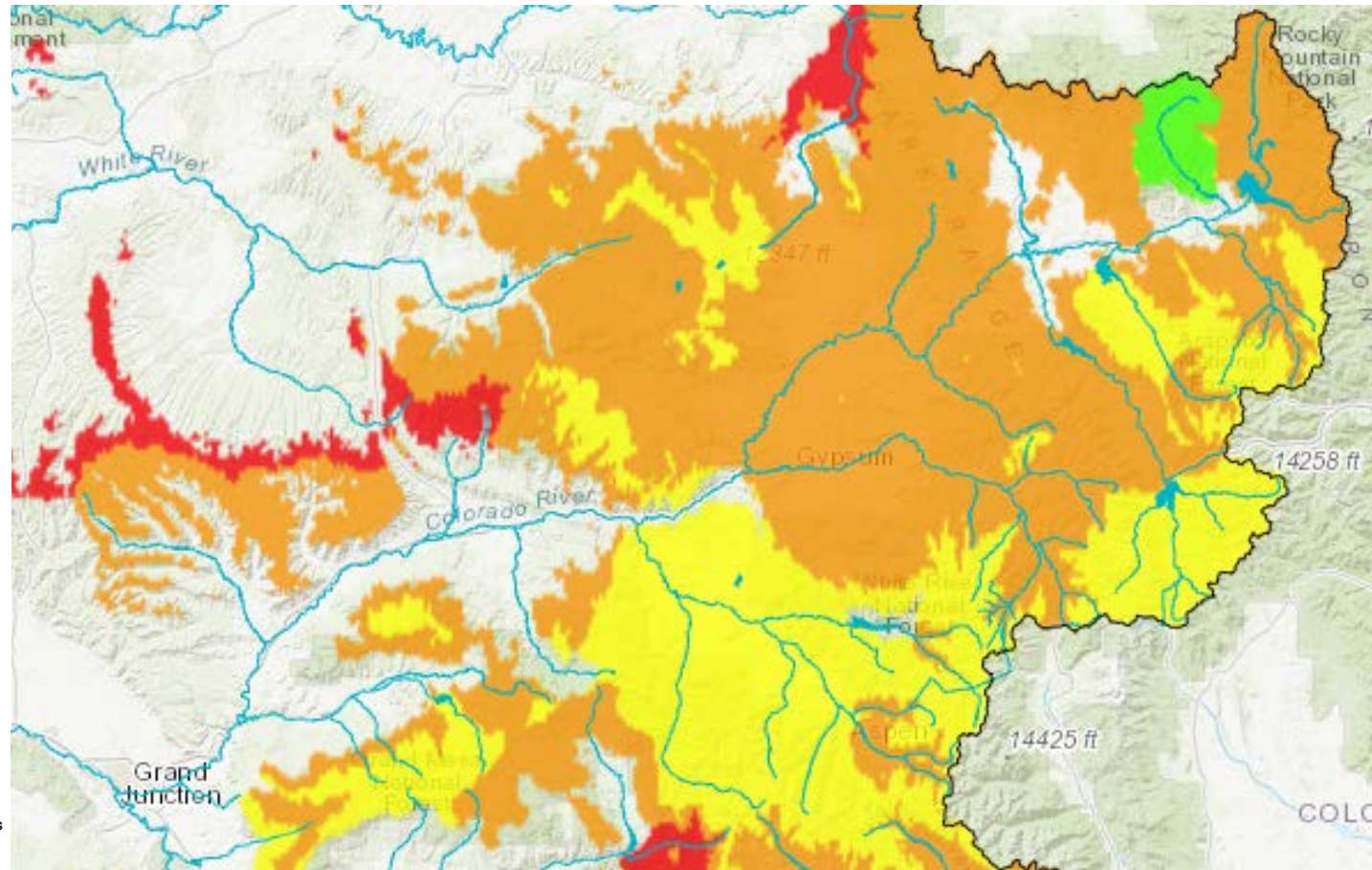
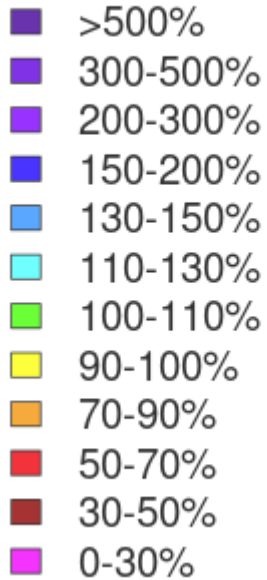


Soil Moisture Conditions



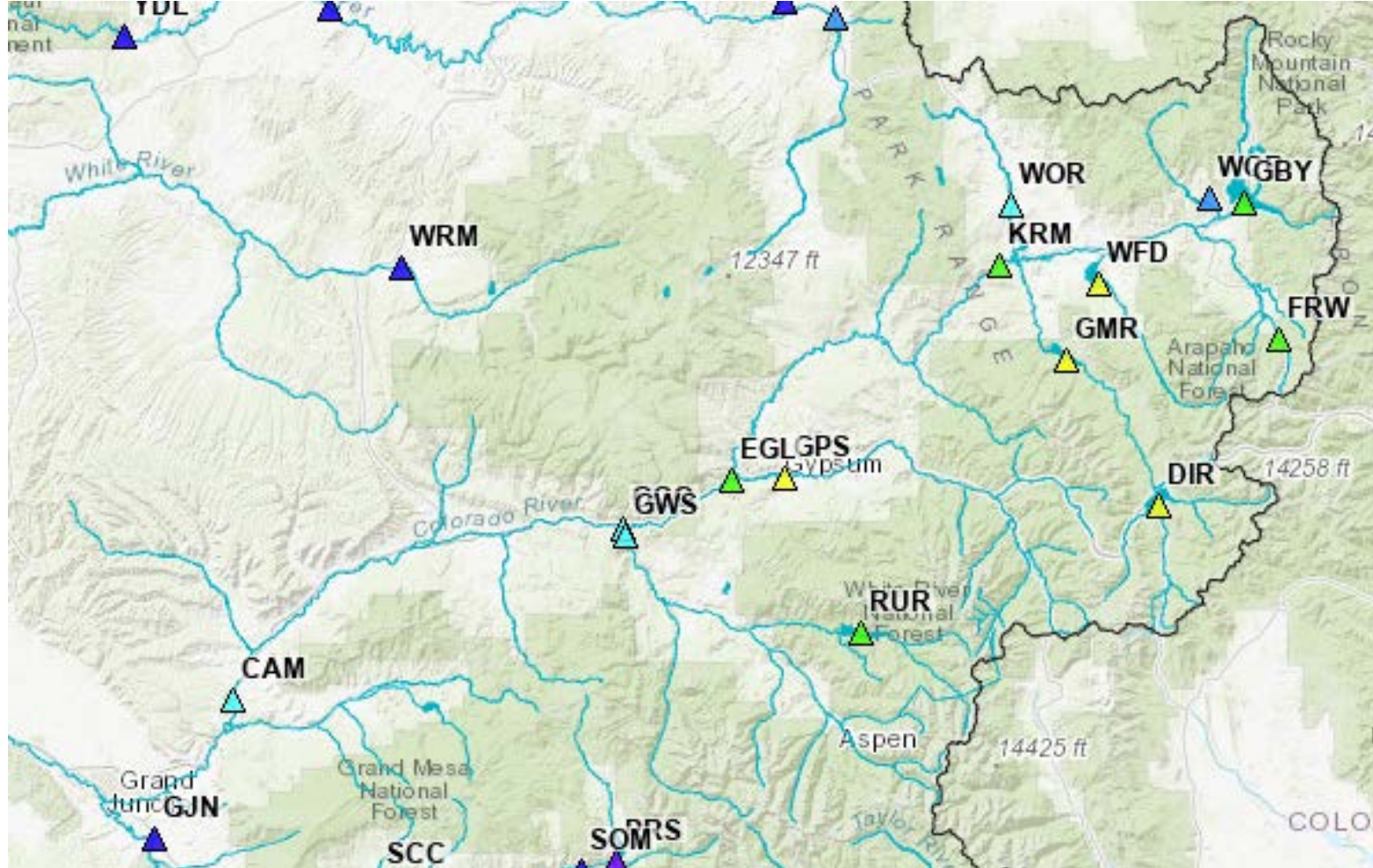
11/2/2022 CBRFC Modeled Soil Moisture Conditions

% Average



April 1st CBRFC Water Supply Forecasts

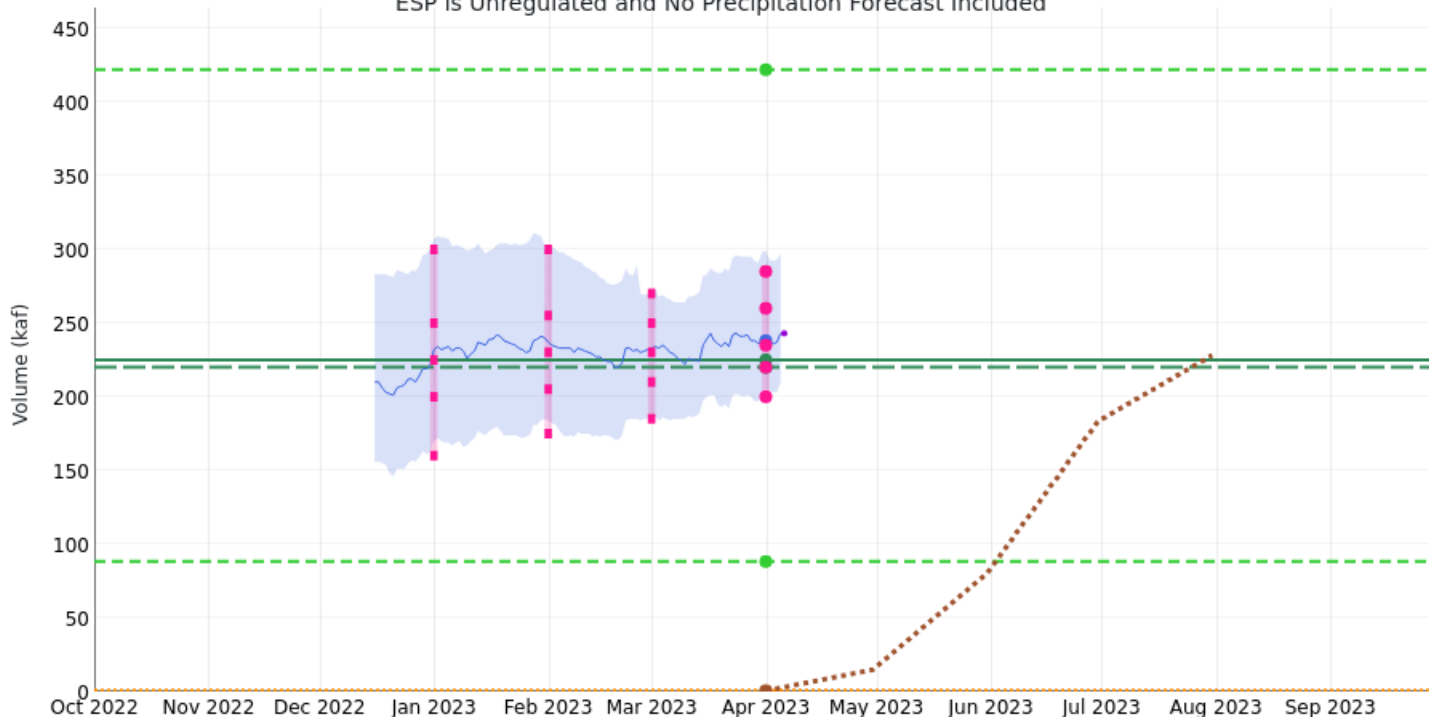




Colorado - Lake Granby, Granby, Nr (GBYC2)

Period: Apr-Jul, Official 50% Forecast (2023-04-01): 235 kaf (104% Average, 107% Median)

ESP is Unregulated and No Precipitation Forecast Included



2023/04/01:

Max 2011: 421.85

Min 2002: 88.2

Average: 225

Median: 220

Observed Total: 0.29

Normal Accumulation: 0.49

ESP: 238

Official 10: 285

Official 30: 260

Official 50: 235

Official 70: 220

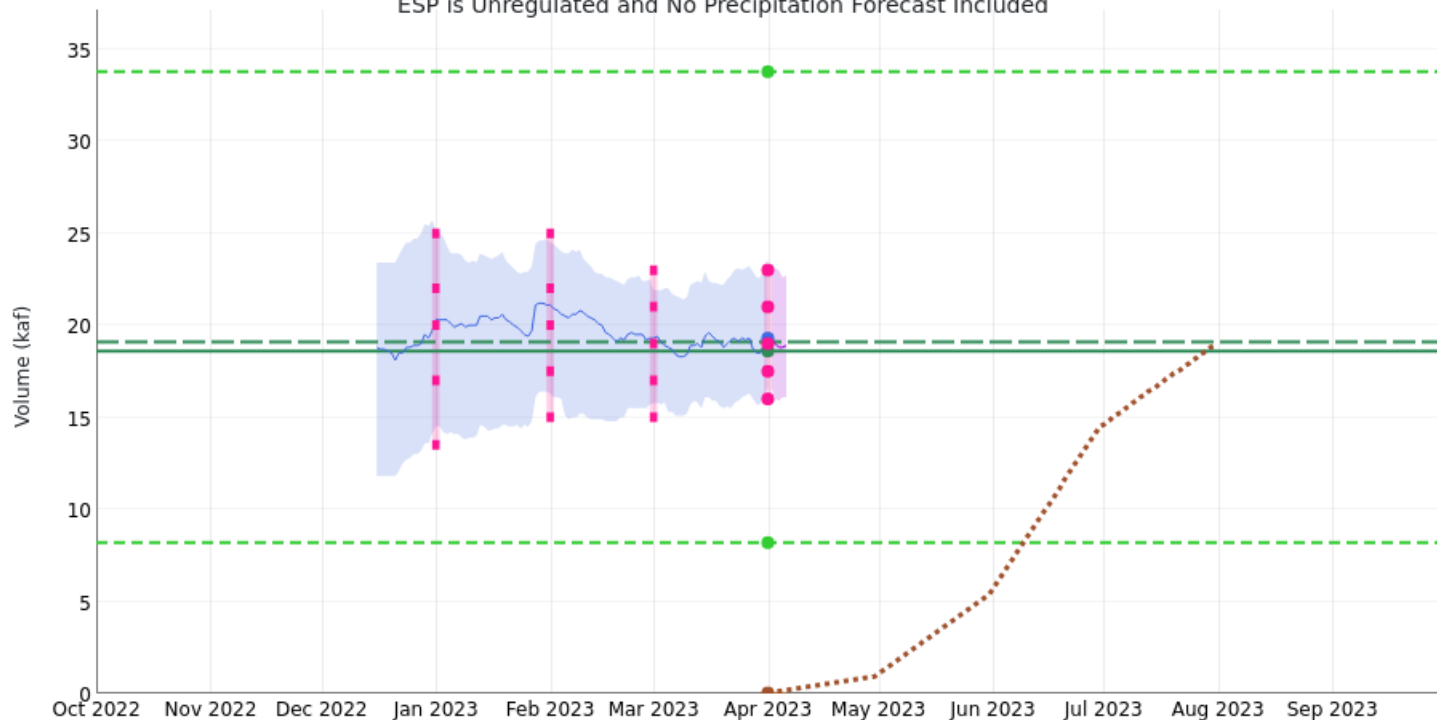
Official 90: 200



Fraser - Winter Park (FRWC2)

Period: Apr-Jul, Official 50% Forecast (2023-04-01): 19 kaf (102% Average, 99% Median)

ESP is Unregulated and No Precipitation Forecast Included



2023/04/01:

Max 1984: 33.77

Min 2012: 8.19

Average: 18.6

Median: 19.1

Normal Accumulation: 0.03

ESP: 19.3

Official 10: 23

Official 30: 21

Official 50: 19

Official 70: 17.5

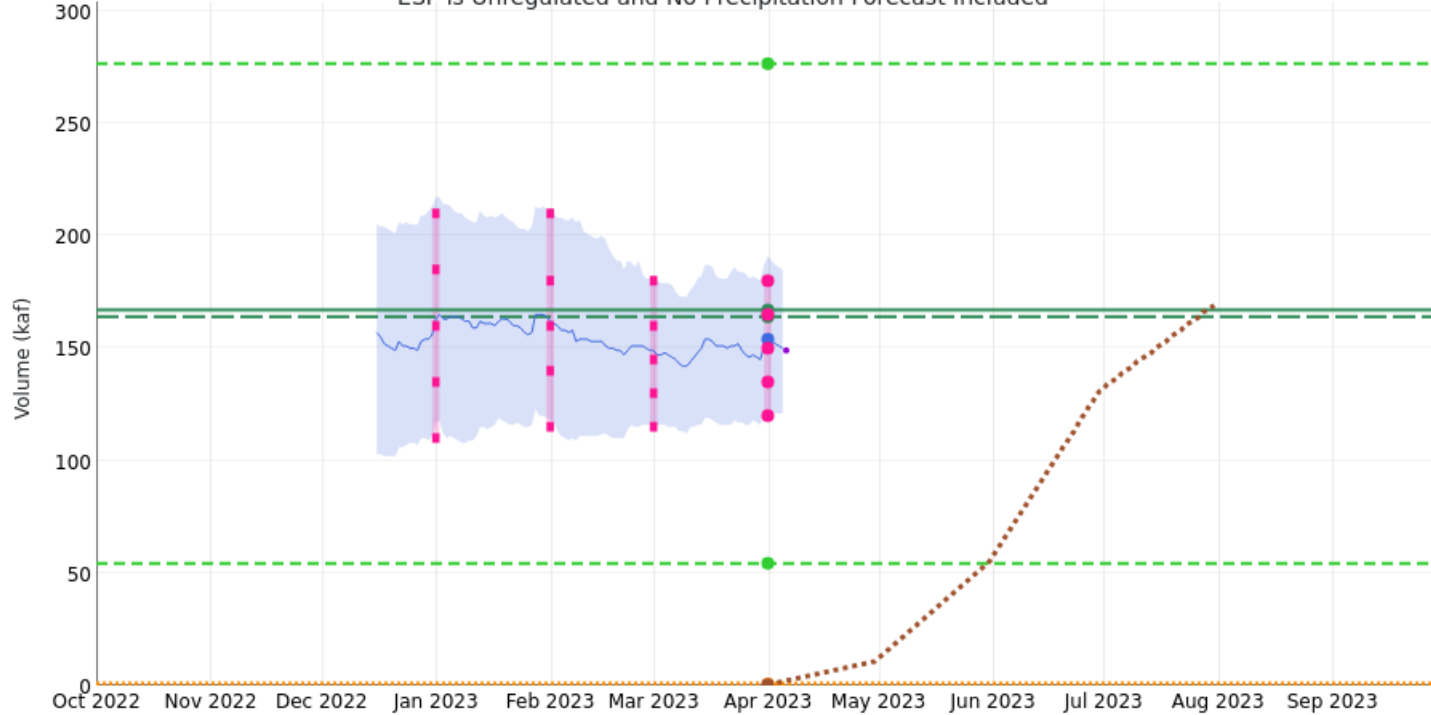
Official 90: 16



Blue - Dillon Reservoir (DIRC2)

Period: Apr-Jul, Official 50% Forecast (2023-04-01): 150 kaf (90% Average, 91% Median)

ESP is Unregulated and No Precipitation Forecast Included



2023/04/01:

Max 1984: 276.51

Min 2002: 54.36

Average: 167

Median: 164

Observed Total: 0.67

Normal Accumulation: 0.36

ESP: 154

Official 10: 180

Official 30: 165

Official 50: 150

Official 70: 135

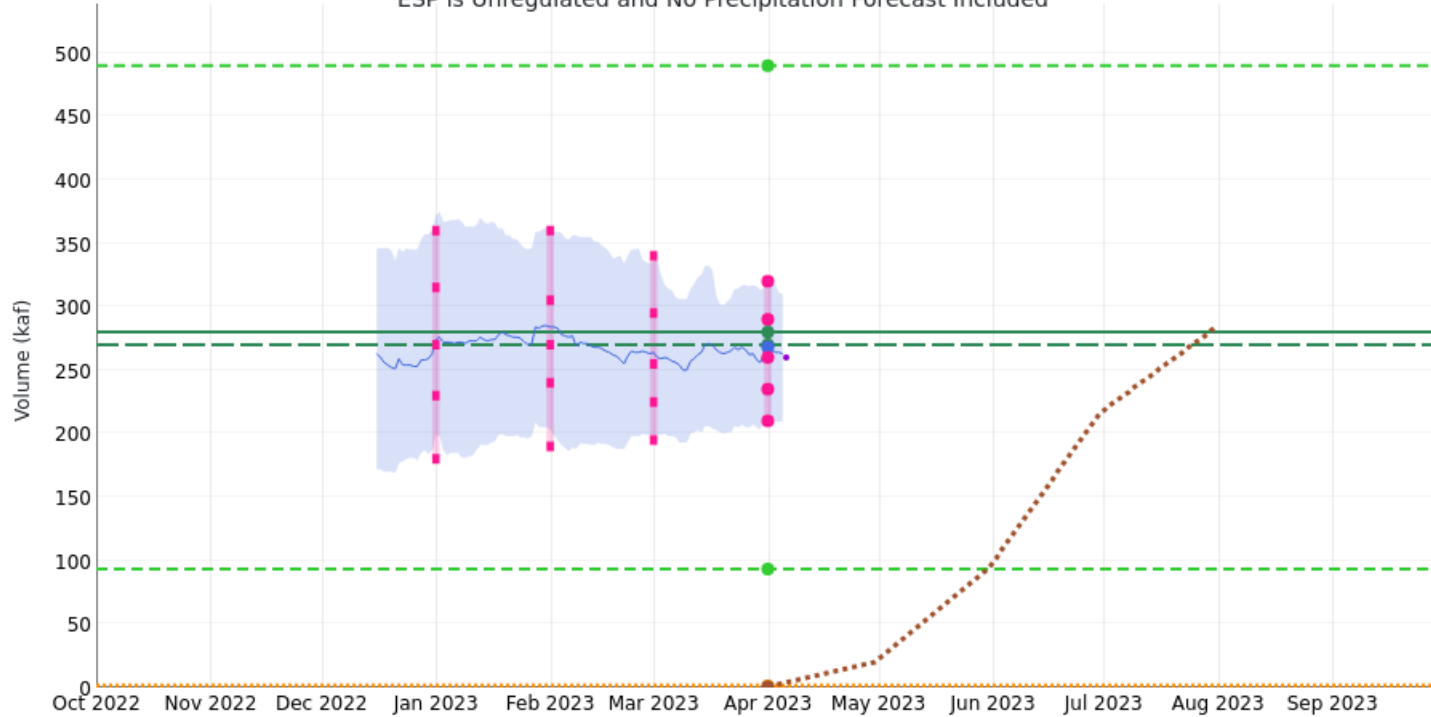
Official 90: 120



Blue - Green Mtn Reservoir (GMRC2)

Period: Apr-Jul, Official 50% Forecast (2023-04-01): 260 kaf (93% Average, 96% Median)

ESP is Unregulated and No Precipitation Forecast Included



2023/04/01:

Max 1984: 489.79

Min 2002: 93.36

Average: 280

Median: 270

Observed Total: 1.25

Normal Accumulation: 0.67

ESP: 268

Official 10: 320

Official 30: 290

Official 50: 260

Official 70: 235

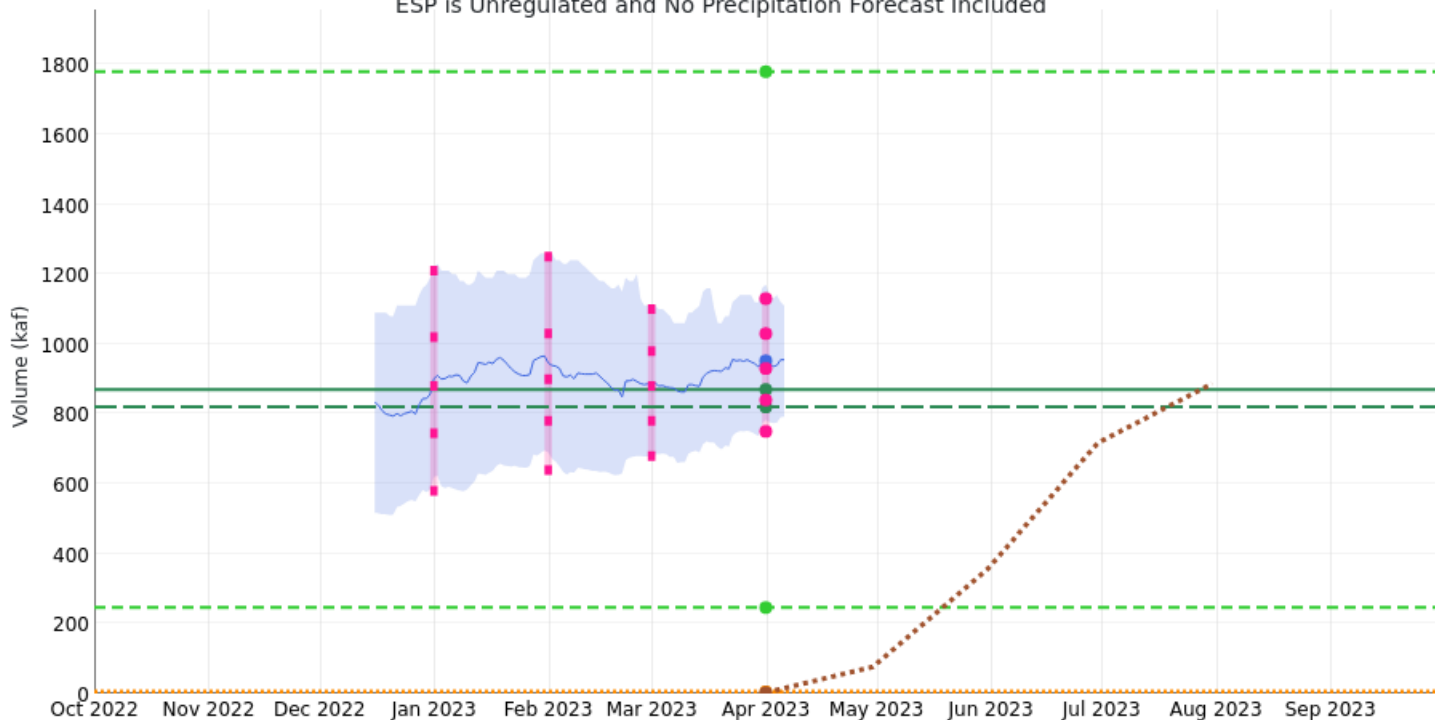
Official 90: 210



Colorado - Kremmling, Nr (KRM2)

Period: Apr-Jul, Official 50% Forecast (2023-04-01): 930 kaf (107% Average, 113% Median)

ESP is Unregulated and No Precipitation Forecast Included



2023/04/01:

Max 2011: 1779.44

Min 2002: 246.03

Average: 870

Median: 820

Observed Total: 5.14

Normal Accumulation: 2.54

ESP: 952

Official 10: 1130

Official 30: 1030

Official 50: 930

Official 70: 840

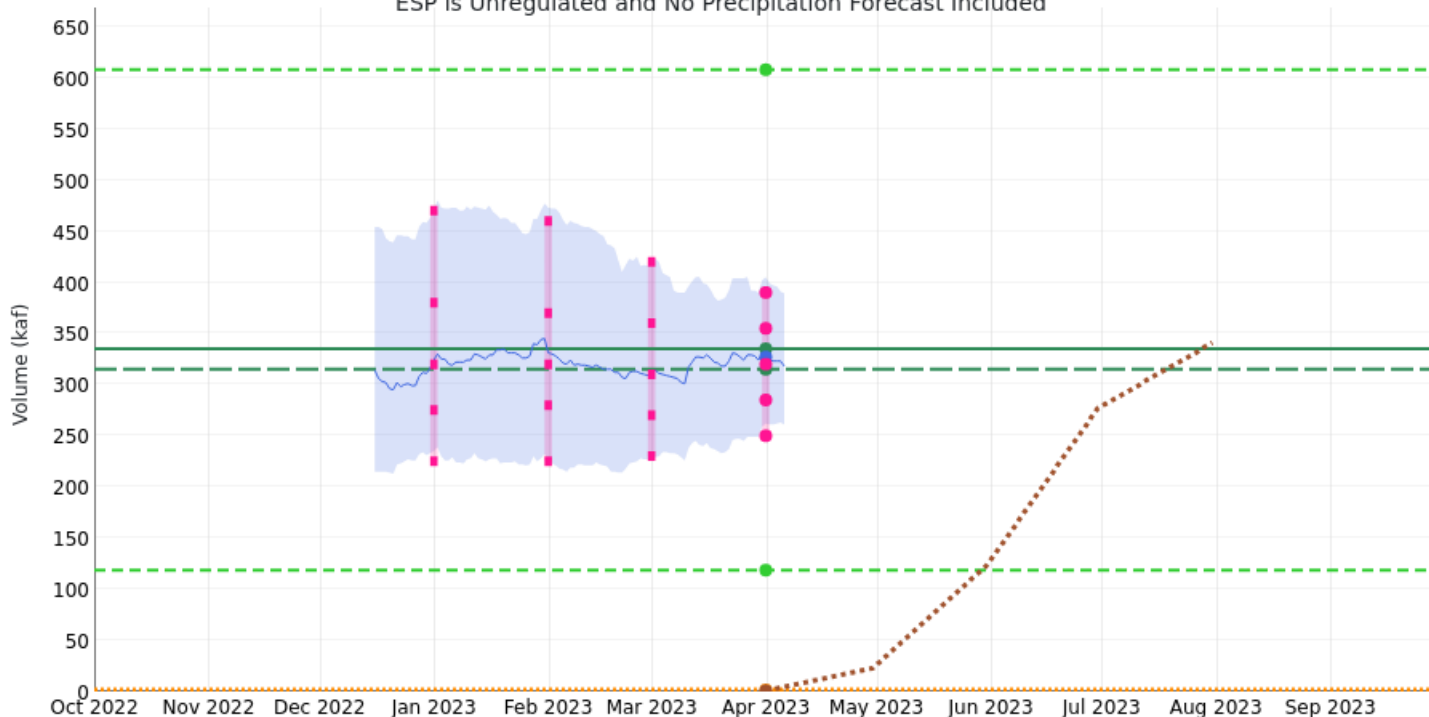
Official 90: 750



Eagle - Gypsum, Blo (GPSC2)

Period: Apr-Jul, Official 50% Forecast (2023-04-01): 320 kaf (96% Average, 102% Median)

ESP is Unregulated and No Precipitation Forecast Included



2023/04/01:

Max 1984: 607.8

Min 2002: 118.63

Average: 335

Median: 315

Observed Total: 1.5

Normal Accumulation: 0.76

ESP: 327

Official 10: 390

Official 30: 355

Official 50: 320

Official 70: 285

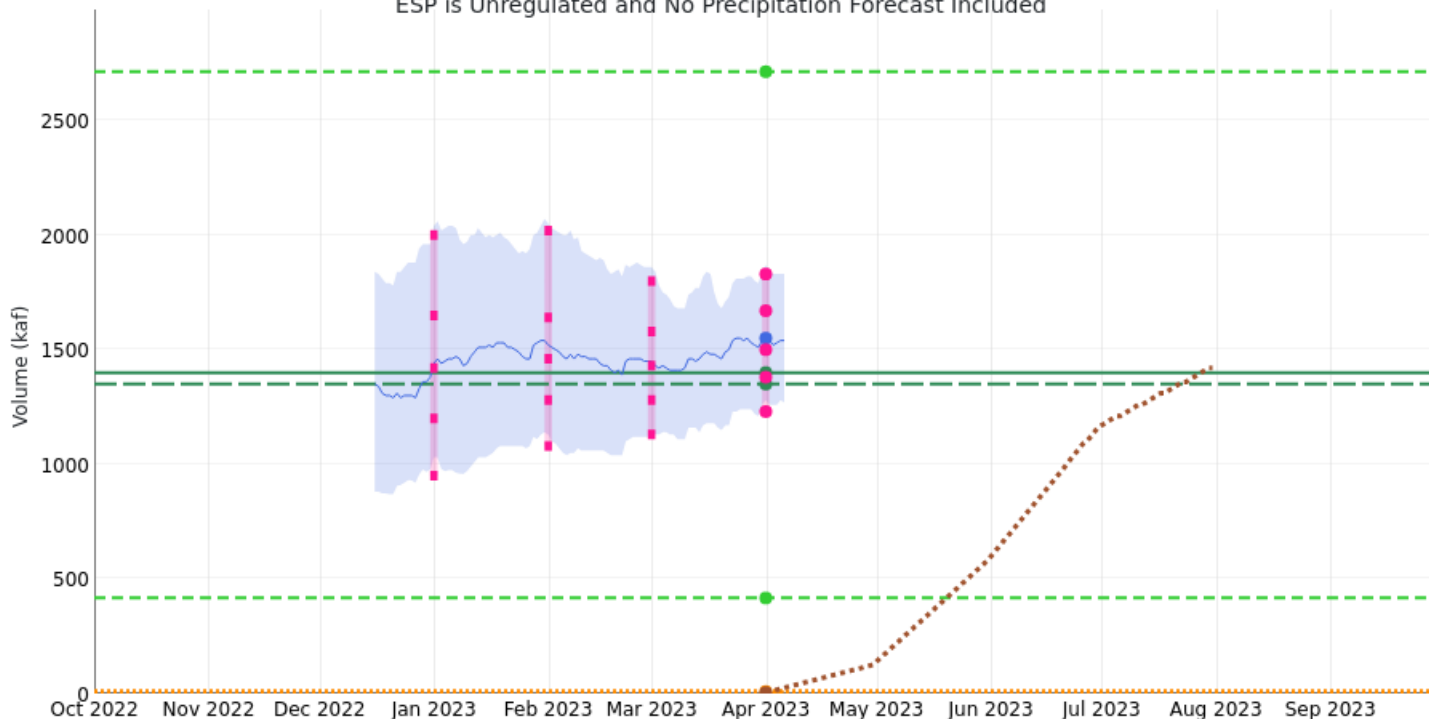
Official 90: 250



Colorado - Dotsero, Nr (EGLC2)

Period: Apr-Jul, Official 50% Forecast (2023-04-01): 1500 kaf (107% Average, 111% Median)

ESP is Unregulated and No Precipitation Forecast Included



2023/04/01:

Max 2011: 2712.61

Min 2002: 416.7

Average: 1400

Median: 1350

Observed Total: 8.74

Normal Accumulation: 4.16

ESP: 1550

Official 10: 1830

Official 30: 1670

Official 50: 1500

Official 70: 1380

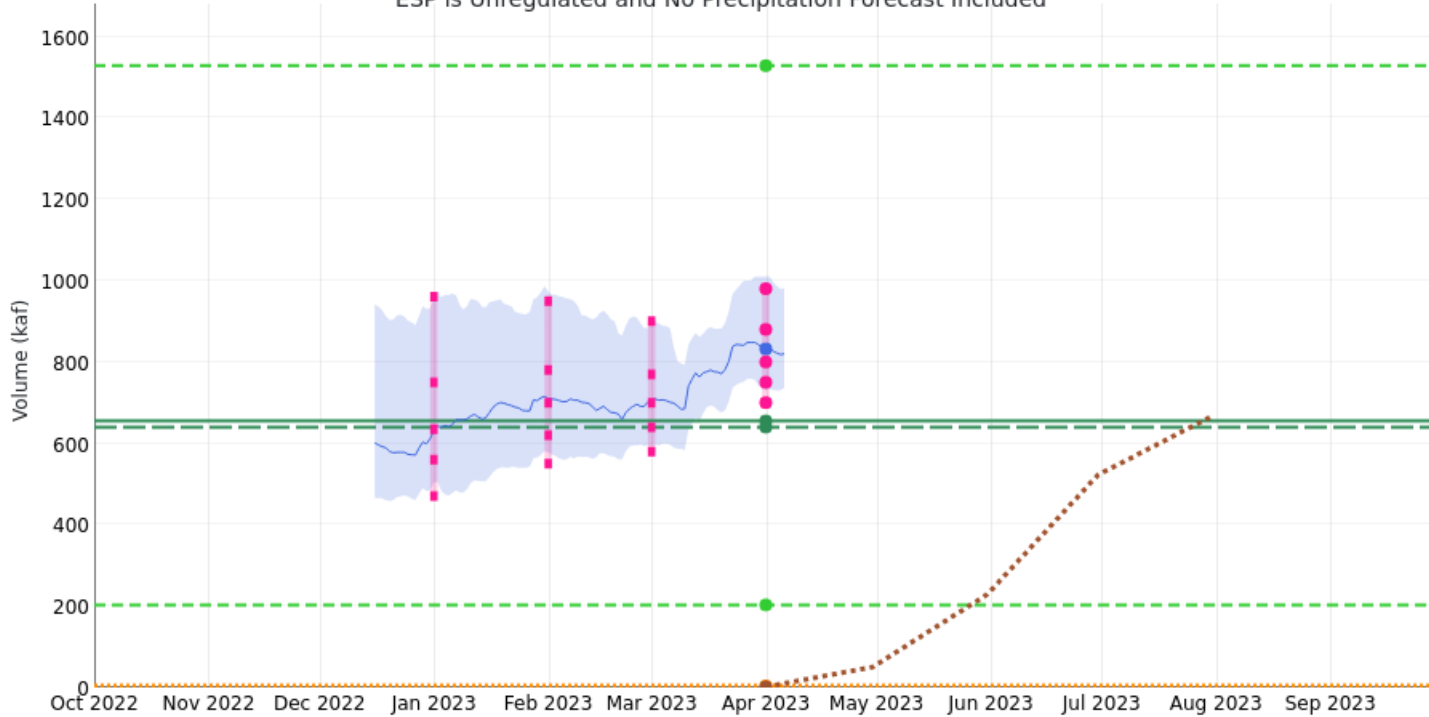
Official 90: 1230



Roaring Fork - Glenwood Springs (GWSC2)

Period: Apr-Jul, Official 50% Forecast (2023-04-01): 800 kaf (122% Average, 125% Median)

ESP is Unregulated and No Precipitation Forecast Included



2023/04/01:

Max 1914: 1527.97

Min 1977: 203.04

Average: 655

Median: 640

Observed Total: 3.9

Normal Accumulation: 1.68

ESP: 832

Official 10: 980

Official 30: 880

Official 50: 800

Official 70: 750

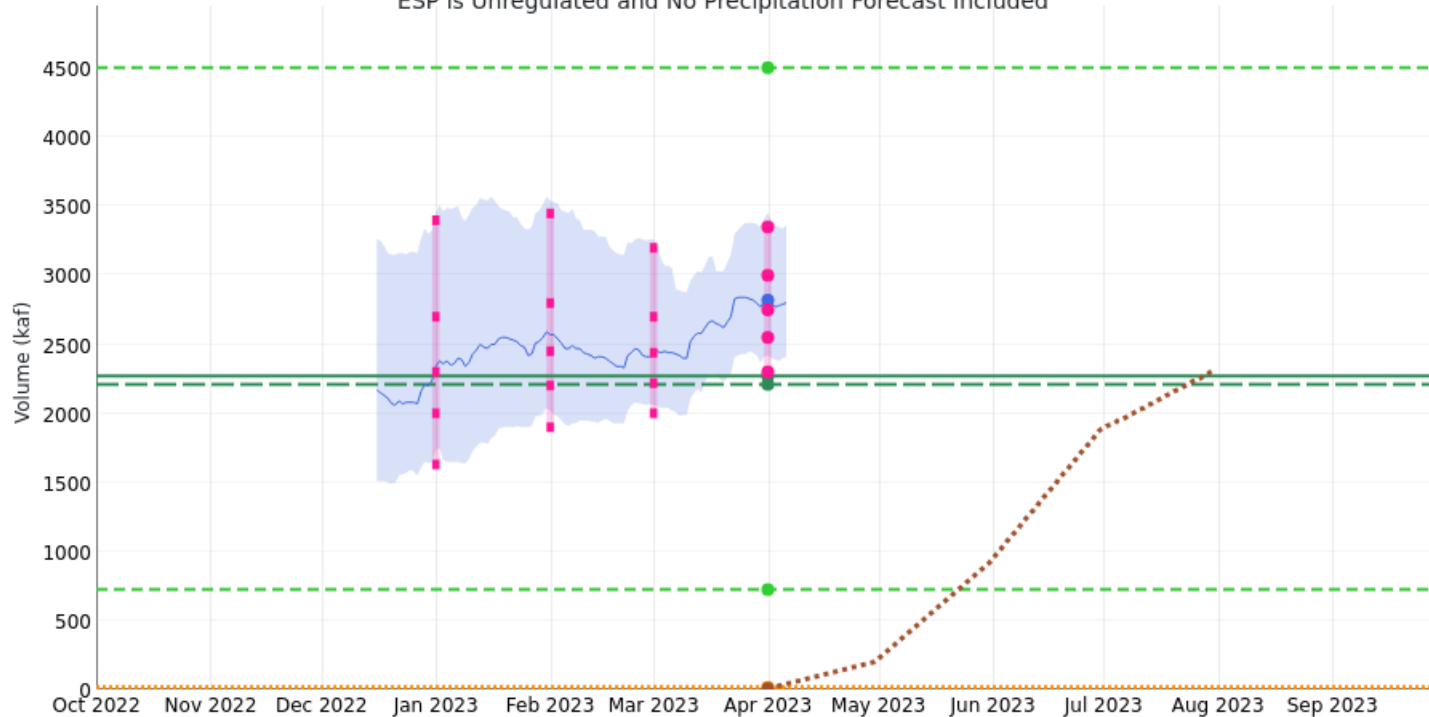
Official 90: 700



Colorado - Cameo, Nr (CAMC2)

Period: Apr-Jul, Official 50% Forecast (2023-04-01): 2750 kaf (121% Average, 124% Median)

ESP is Unregulated and No Precipitation Forecast Included



2023/04/01:

Max 1984: 4503.5

Min 2002: 723.88

Average: 2270

Median: 2210

Observed Total: 15.7

Normal Accumulation: 6.69

ESP: 2820

Official 10: 3350

Official 30: 3000

Official 50: 2750

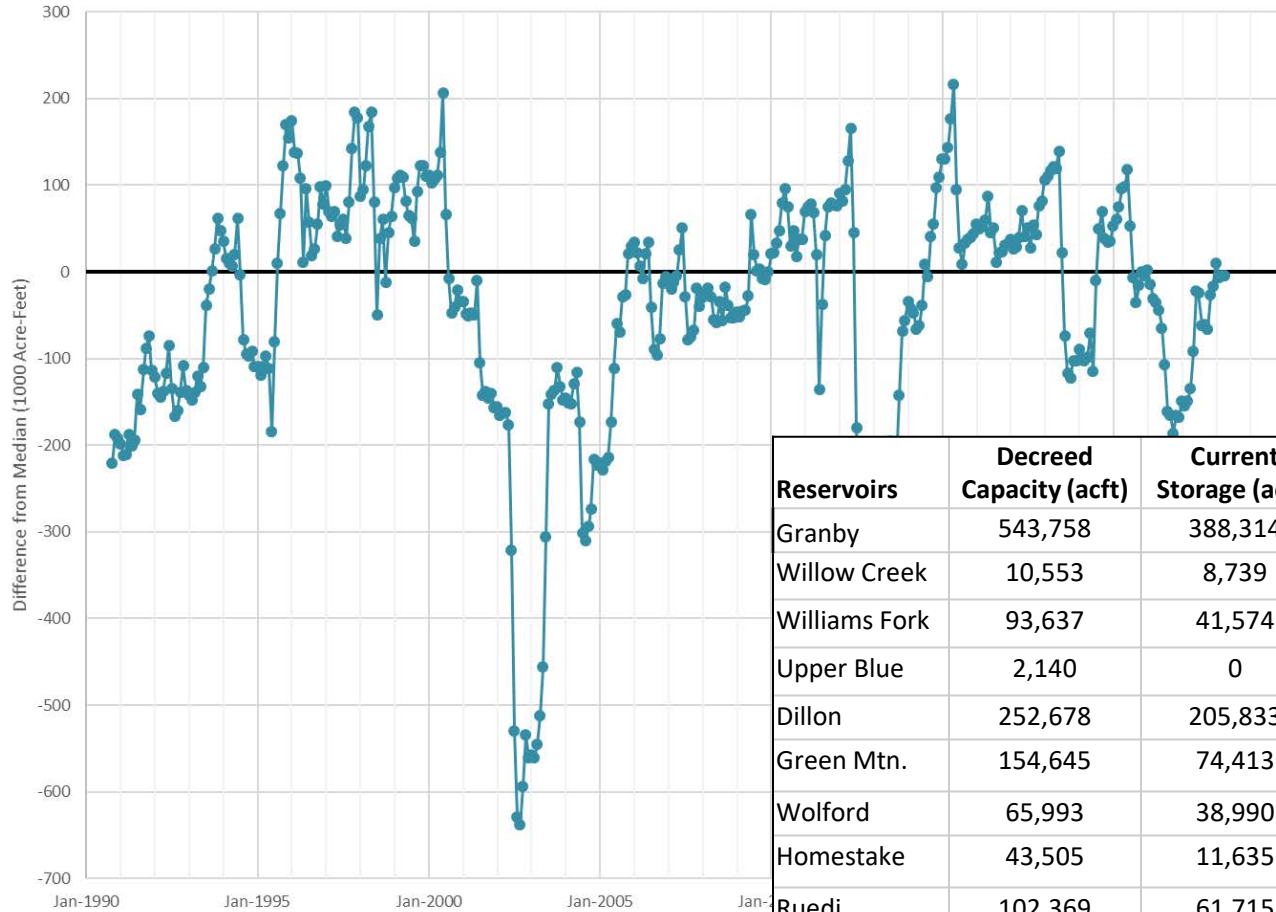
Official 70: 2550

Official 90: 2300



Current Reservoir Conditions

Departure from Median



Reservoirs	Decreed Capacity (acft)	Current Storage (acft)	Available Capacity (acft)	Percent Full
Granby	543,758	388,314	155,444	71.41%
Willow Creek	10,553	8,739	1,814	82.81%
Williams Fork	93,637	41,574	52,063	44.40%
Upper Blue	2,140	0	2,140	0.00%
Dillon	252,678	205,833	46,845	81.46%
Green Mtn.	154,645	74,413	80,232	48.12%
Wolford	65,993	38,990	27,003	59.08%
Homestake	43,505	11,635	31,870	26.74%
Ruedi	102,369	61,715	40,654	60.29%
Vega	33,500	11,450	22,050	34.18%
Total	1,302,778	842,663	460,115	64.68%

Storage as of 4/7/2023

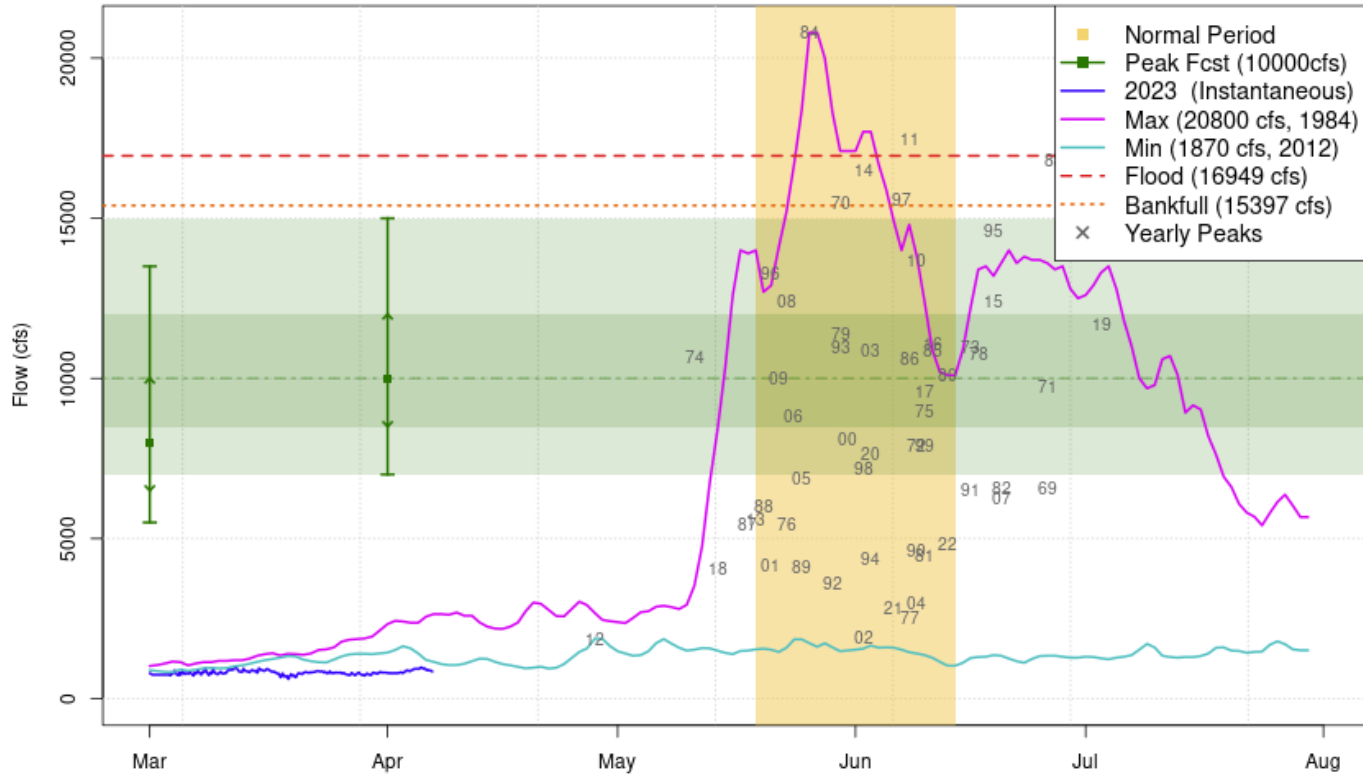


Peak Flow Forecasts



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2023 Mean Daily Peak Flow Forecast Colorado - Dotsero- Nr (EGLC2)



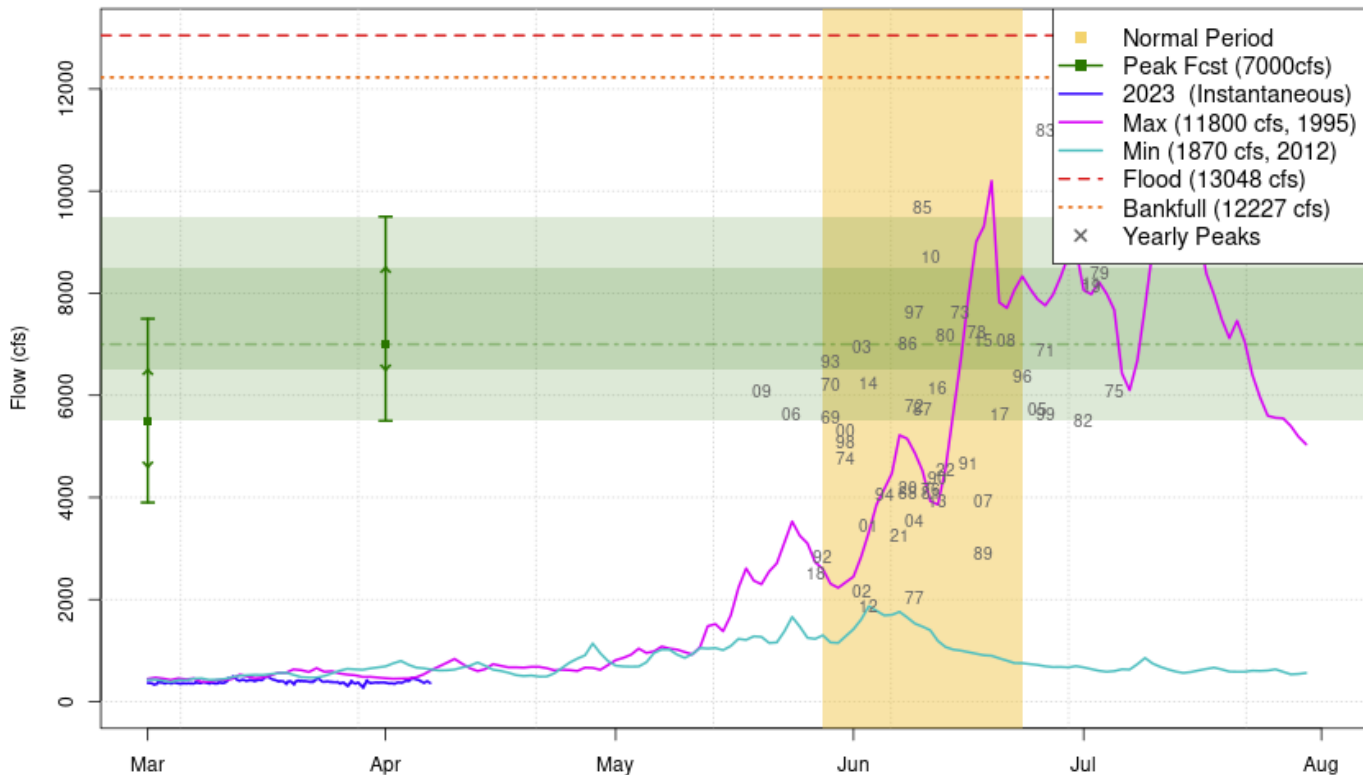
These graphics are updated approximately every two weeks between 3/1 and 5/1

Plot Created 2023-04-06 20:23:03

CBRFC / NWS / NOAA



2023 Mean Daily Peak Flow Forecast Roaring Fork - Glenwood Springs (GWSC2)



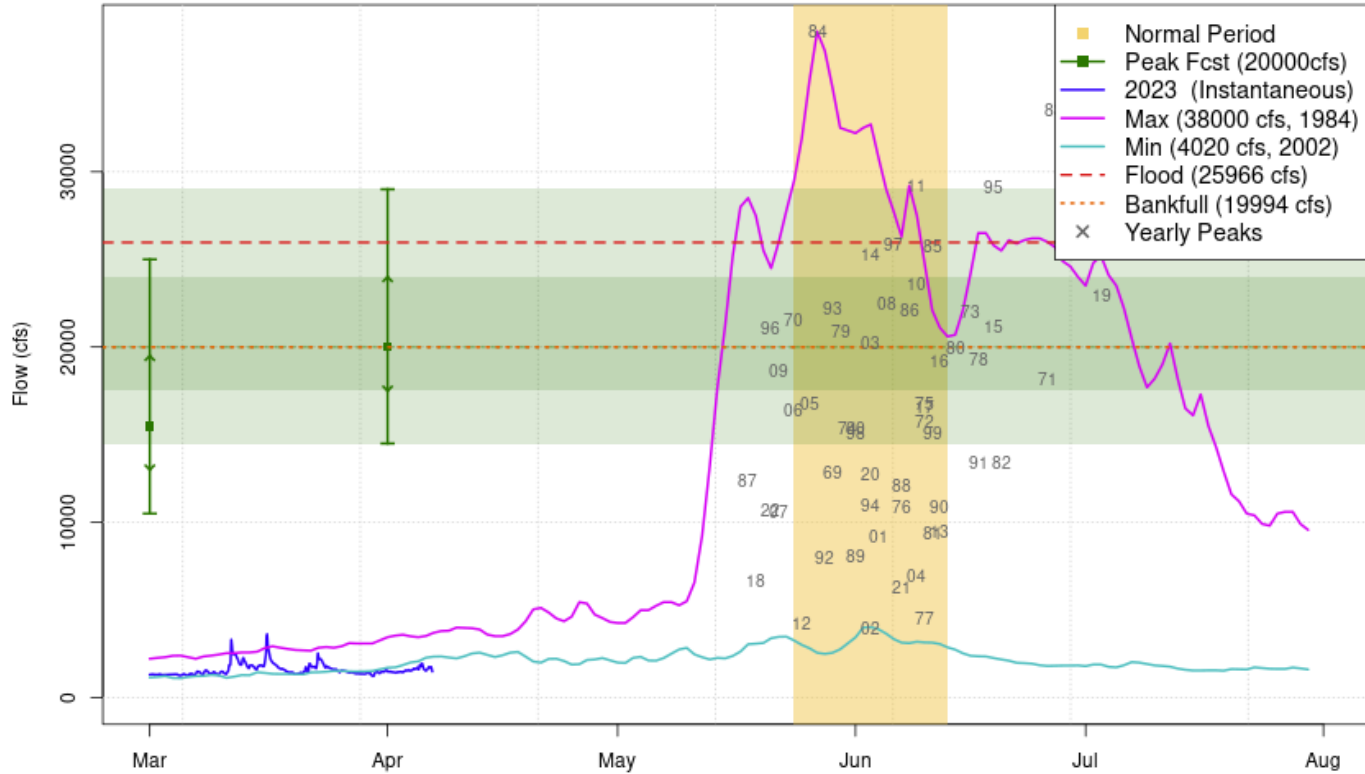
These graphics are updated approximately every two weeks between 3/1 and 5/1

Plot Created 2023-04-06 20:23:10

CBRFC / NWS / NOAA



2023 Mean Daily Peak Flow Forecast Colorado - Cameo- Nr (CAMC2)



These graphics are updated approximately every two weeks between 3/1 and 5/1

Plot Created 2023-04-06 20:23:13

CBRFC / NWS / NOAA



Similar Year Call Scenarios at Shoshone and Cameo

Similar Year Call Scenarios at Shoshone and Cameo

- Similar recent years for water supply and peak forecasts:
 - 2015
 - 2017
 - 2019

- Shoshone Call – Mid to late August
- Cameo Call – Late August to early September

Seasonal Precipitation Outlook

Questions?



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Colorado River at State Line