

Colorado State of the River Water Supply Updates and Drought in the Colorado River Basin

James R. Heath, P.E.
Lead Assistant Division Engineer

May 27, 2021



COLORADO
Division of Water Resources
Department of Natural Resources

Agenda

- Division of Water Resources Update
- 2020 Recap
- 2021 So Far
- 2021 Remainder of the Year

Division of Water Resources Update

➤ Alan Martellaro, Division Engineer

- Started 7/15/1981
- Retiring 5/31/2021
- Nearly 40 years all in Div 5
 - 20+ as Division Engineer



Division of Water Resources Update

➤ 2020 Abandonment

- Statements of Objection are due on or before July 1, 2021
- All received Statements of Objection have been processed (5/23/2021)



2020 Recap

2020 Recap

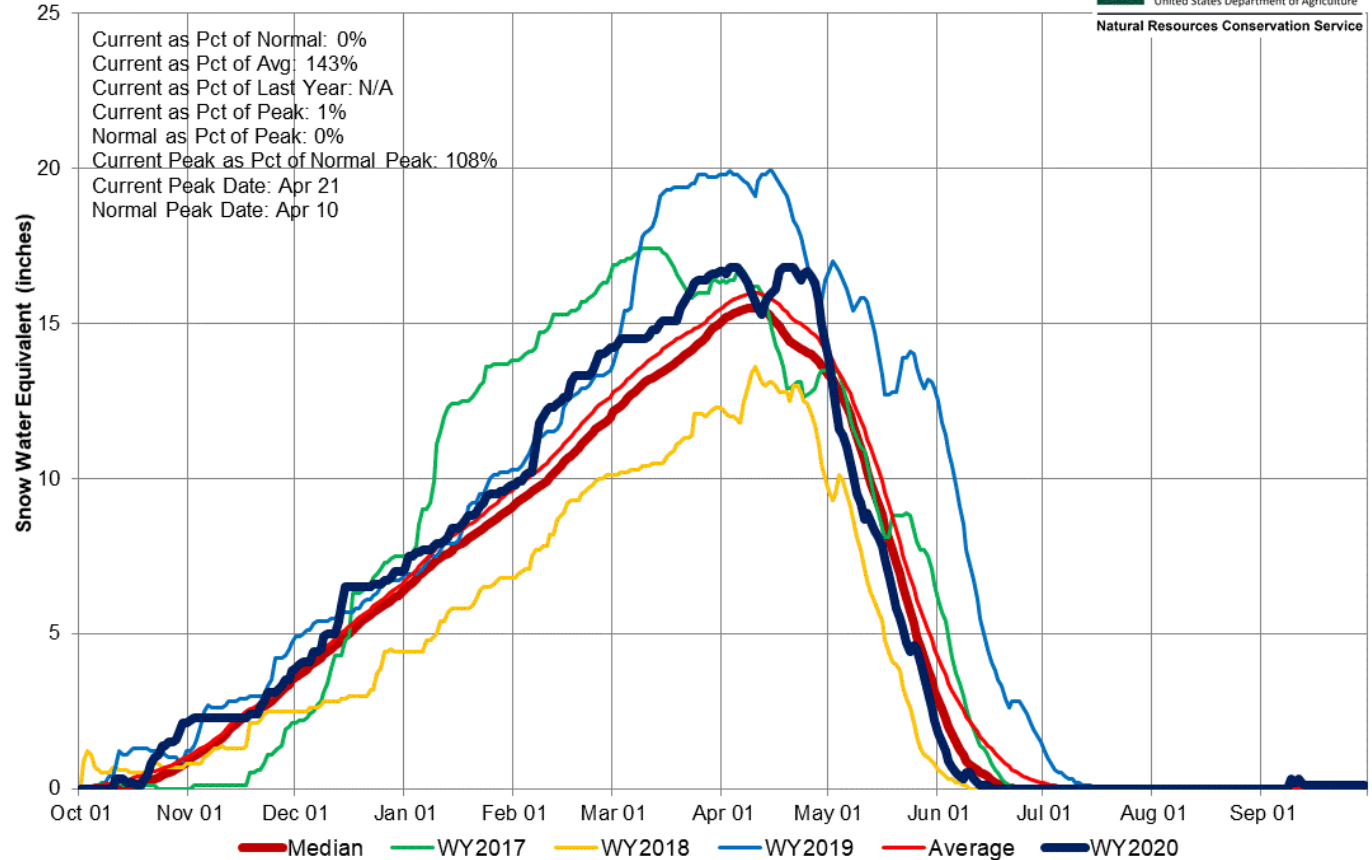
Colorado River Basin Time Series Snowpack Summary

Based on Provisional SNOTEL data as of Sep 30, 2020



United States Department of Agriculture

Natural Resources Conservation Service



COLORADO
Division of Water Resources
Department of Natural Resources

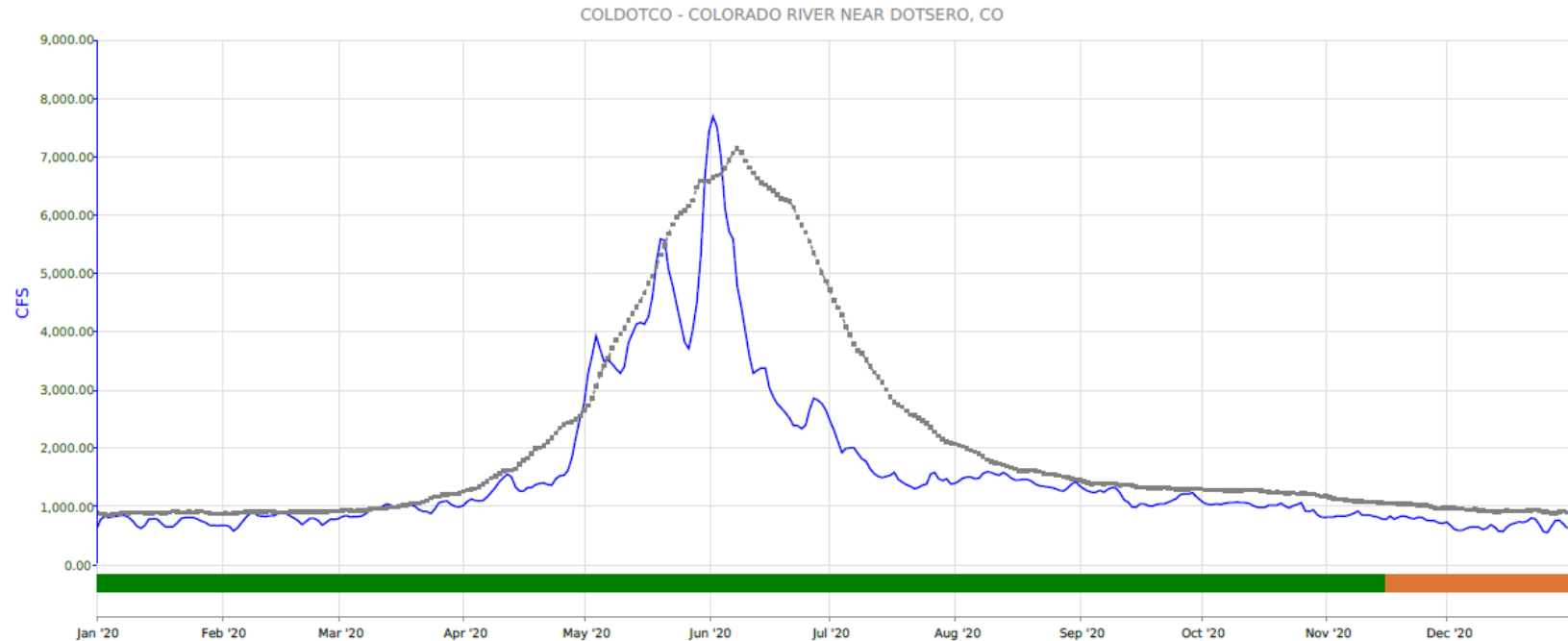
2020 Recap

➤ Reservoir Storage

- Most major reservoirs filled
- Granby, Ruedi, and Vega did not fill



2020 Recap



Legend

— 2020 — Historical Average Discharge

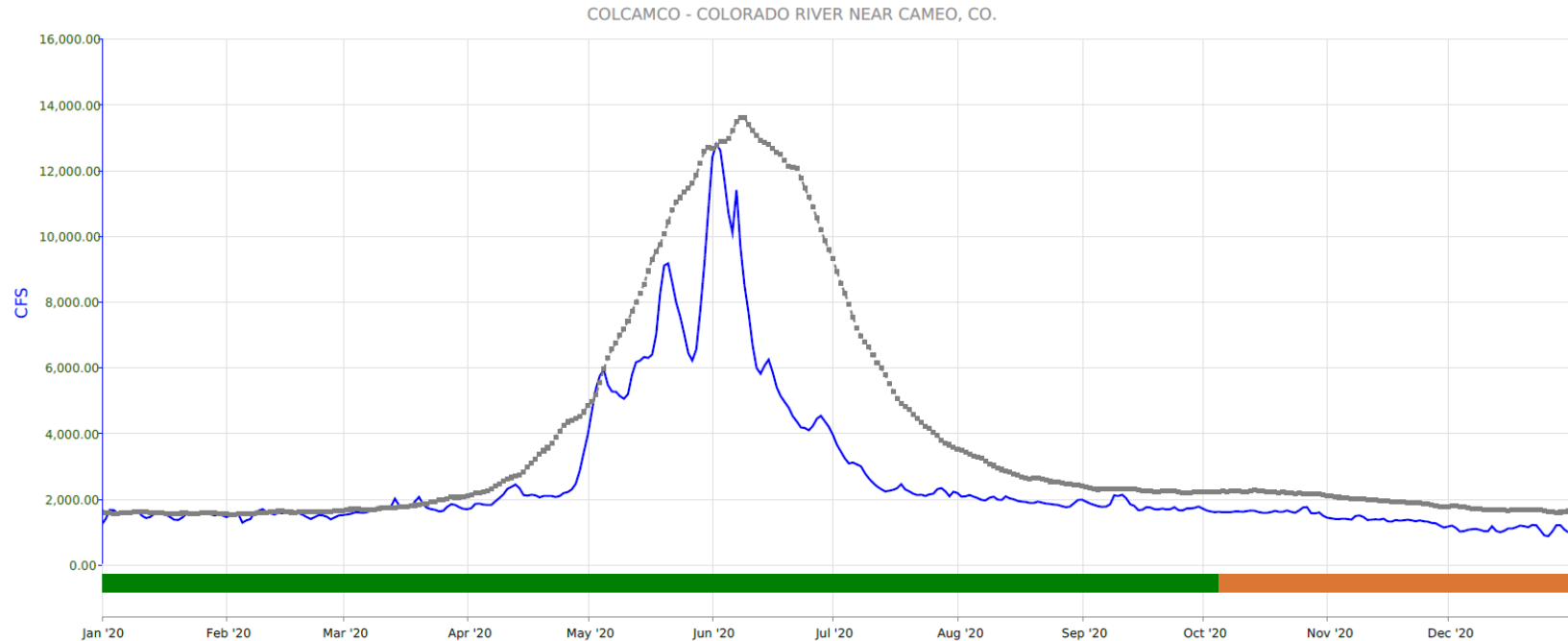
Flags

■ A - Approved - Processing and review completed. ■ P - Provisional data subject to revision. Some review and corrections may have been made to improve data quality but final processing has not been completed.



COLORADO
Division of Water Resources
Department of Natural Resources

2020 Recap



Legend

— 2020 — Historical Average Discharge

Flags

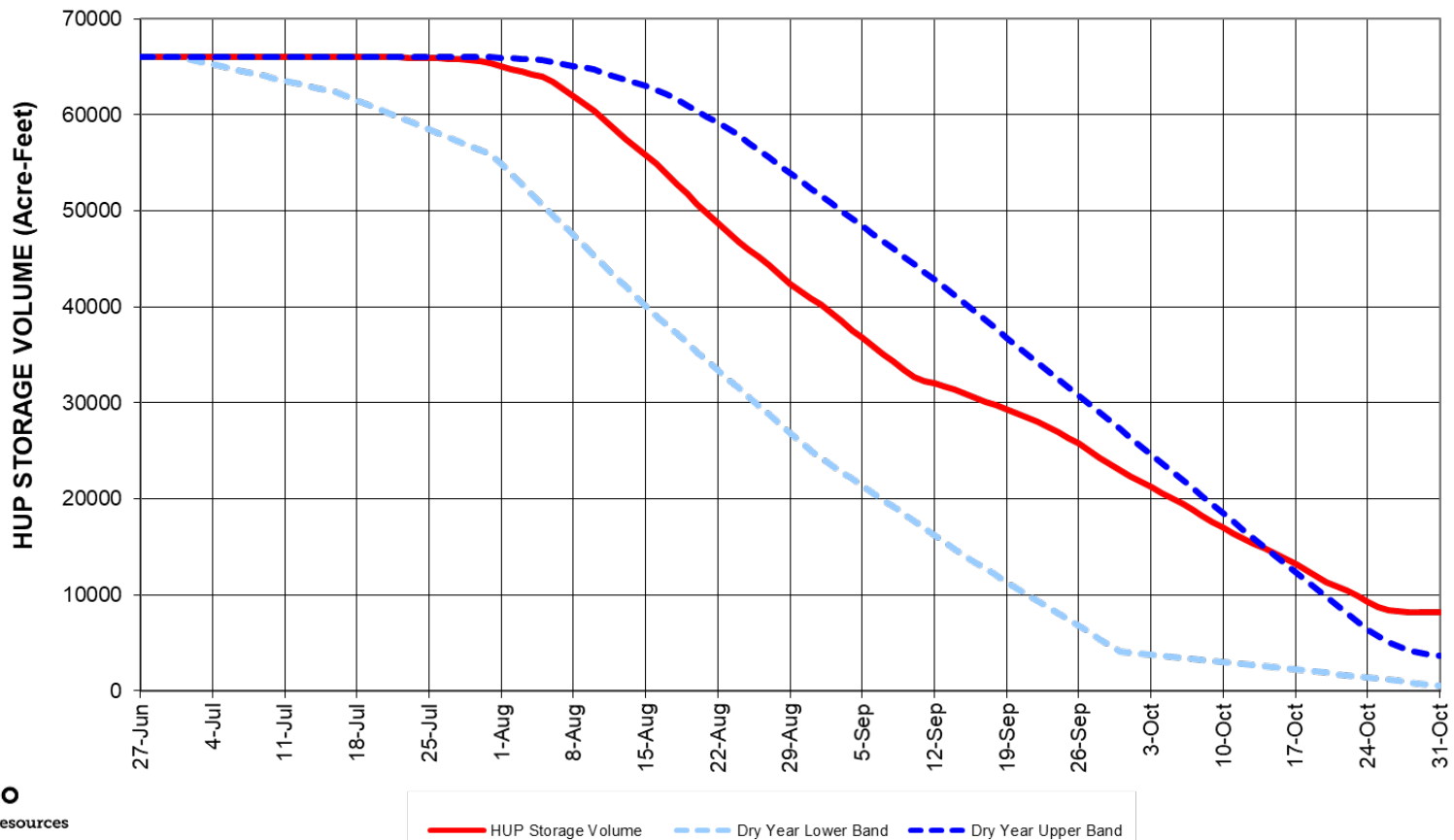
■ A - Approved - Processing and review completed. ■ P - Provisional data subject to revision. Some review and corrections may have been made to improve data quality but final processing has not been completed.



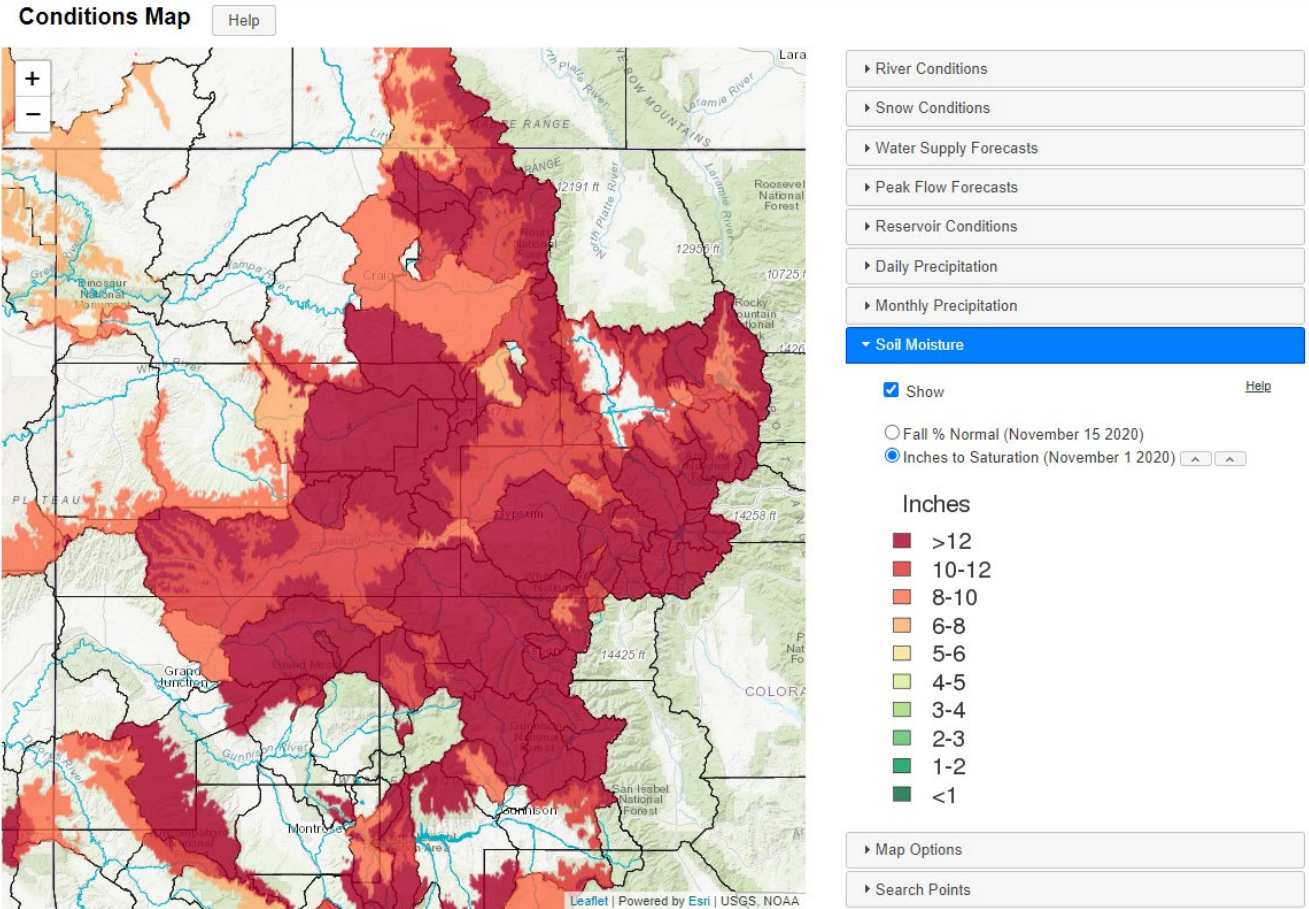
COLORADO
Division of Water Resources
Department of Natural Resources

2020 Recap

2020 GREEN MOUNTAIN RESERVOIR HUP OPERATIONS



2020 Recap



COLORADO
Division of Water Resources
Department of Natural Resources

2021 So Far



COLORADO
Division of Water Resources
Department of Natural Resources

2021 So Far

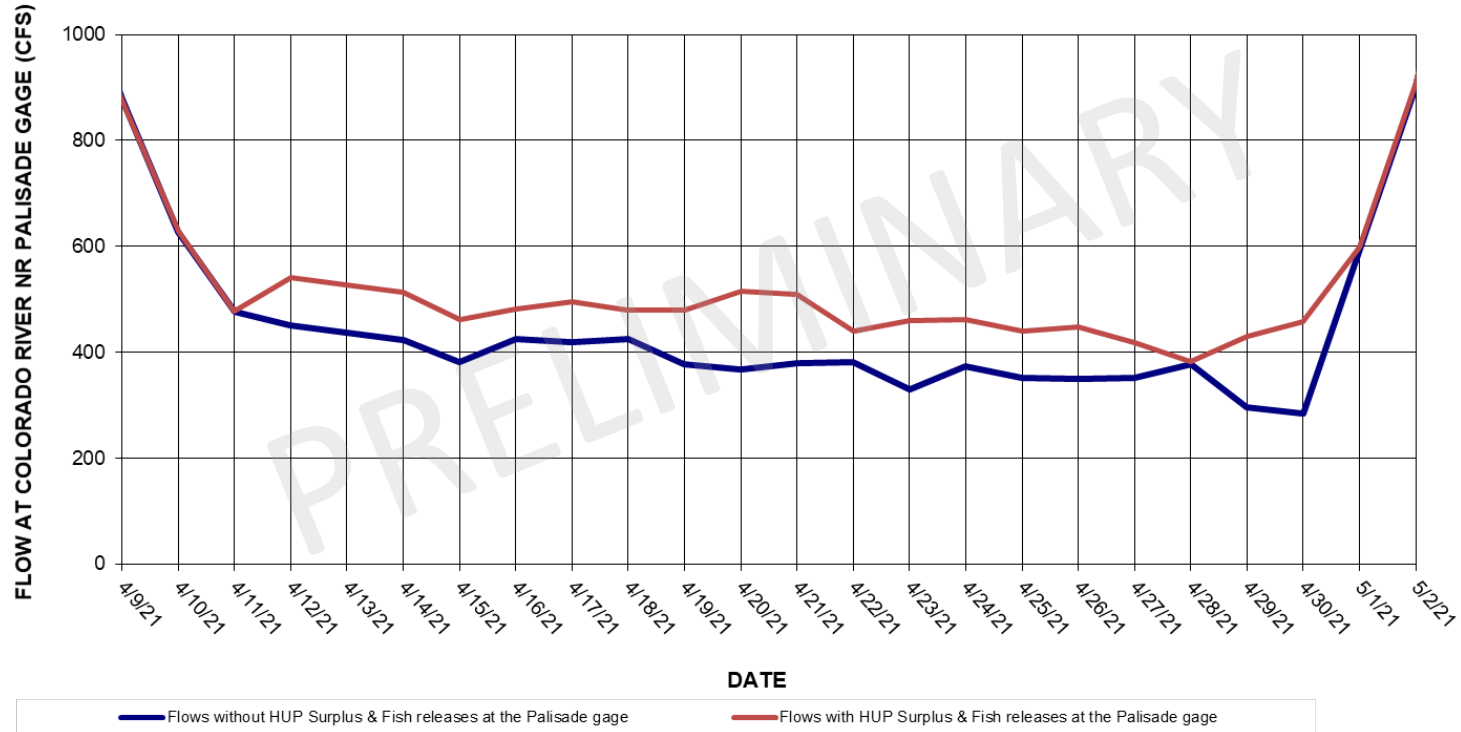
➤ Winter flows continued to be below average

- Shoshone Power Plant Call was on all winter
 - Shoshone Outage Protocol implemented on 4/5/2021
- Cameo Call placed on 4/14/2021 to 4/30/2021
 - Unusual and substantially longer than past April Cameo Calls



2021 So Far

IMPACT OF EARLY SEASON HUP SURPLUS & FISH RELEASES IN THE GRAND VALLEY (As Measured at the Colorado River near Palisade Gage) 2021 April Hole Operations



2021 So Far

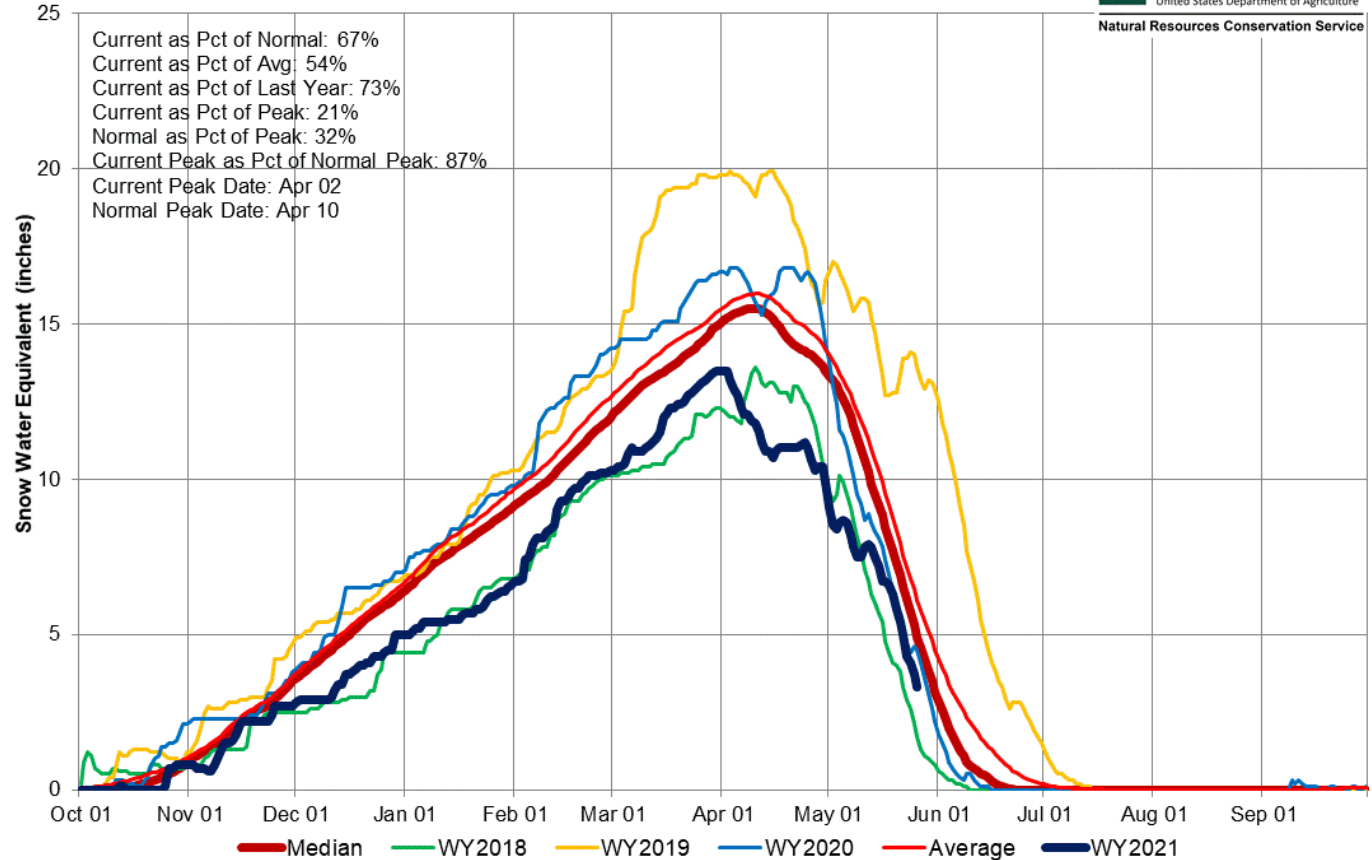
Colorado River Basin Time Series Snowpack Summary

Based on Provisional SNOTEL data as of May 26, 2021



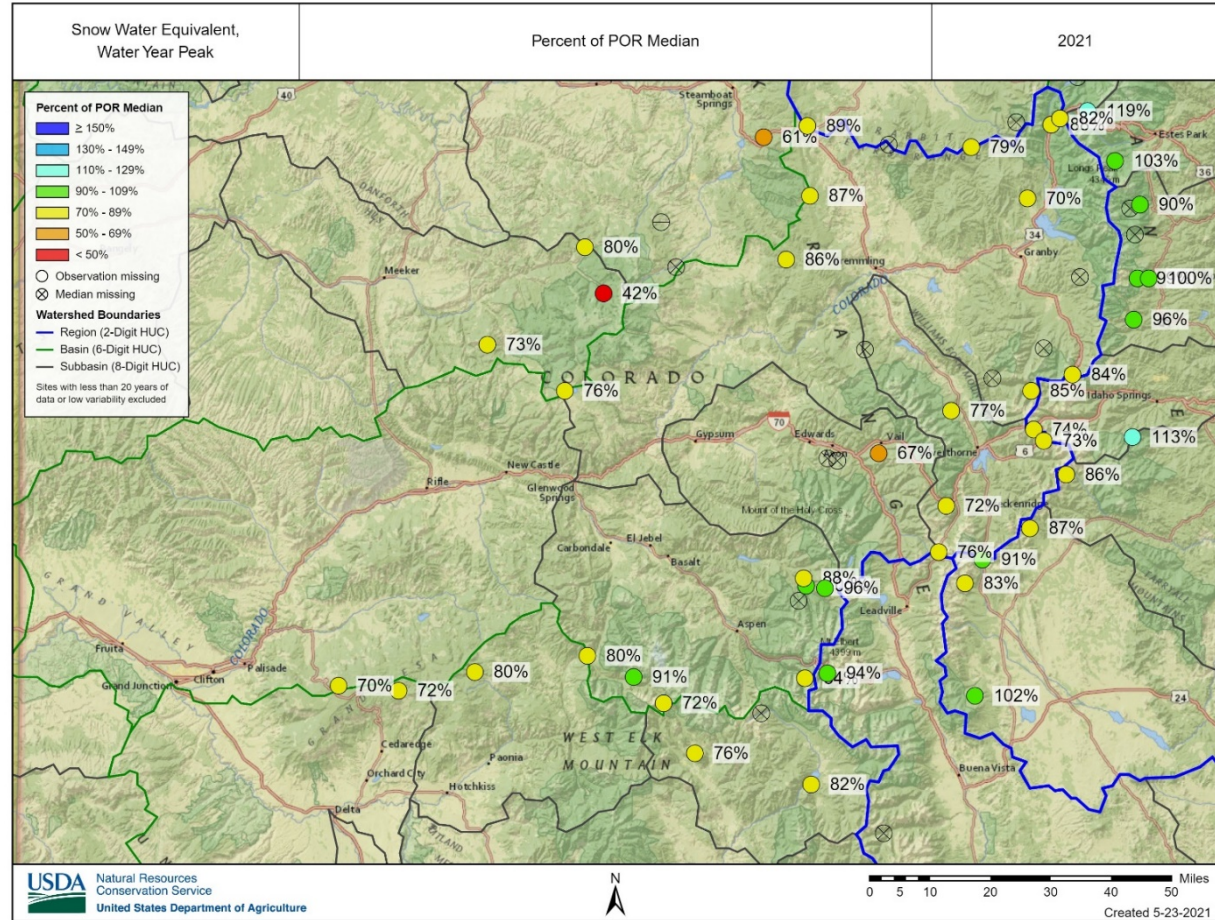
United States Department of Agriculture

Natural Resources Conservation Service



COLORADO
Division of Water Resources
Department of Natural Resources

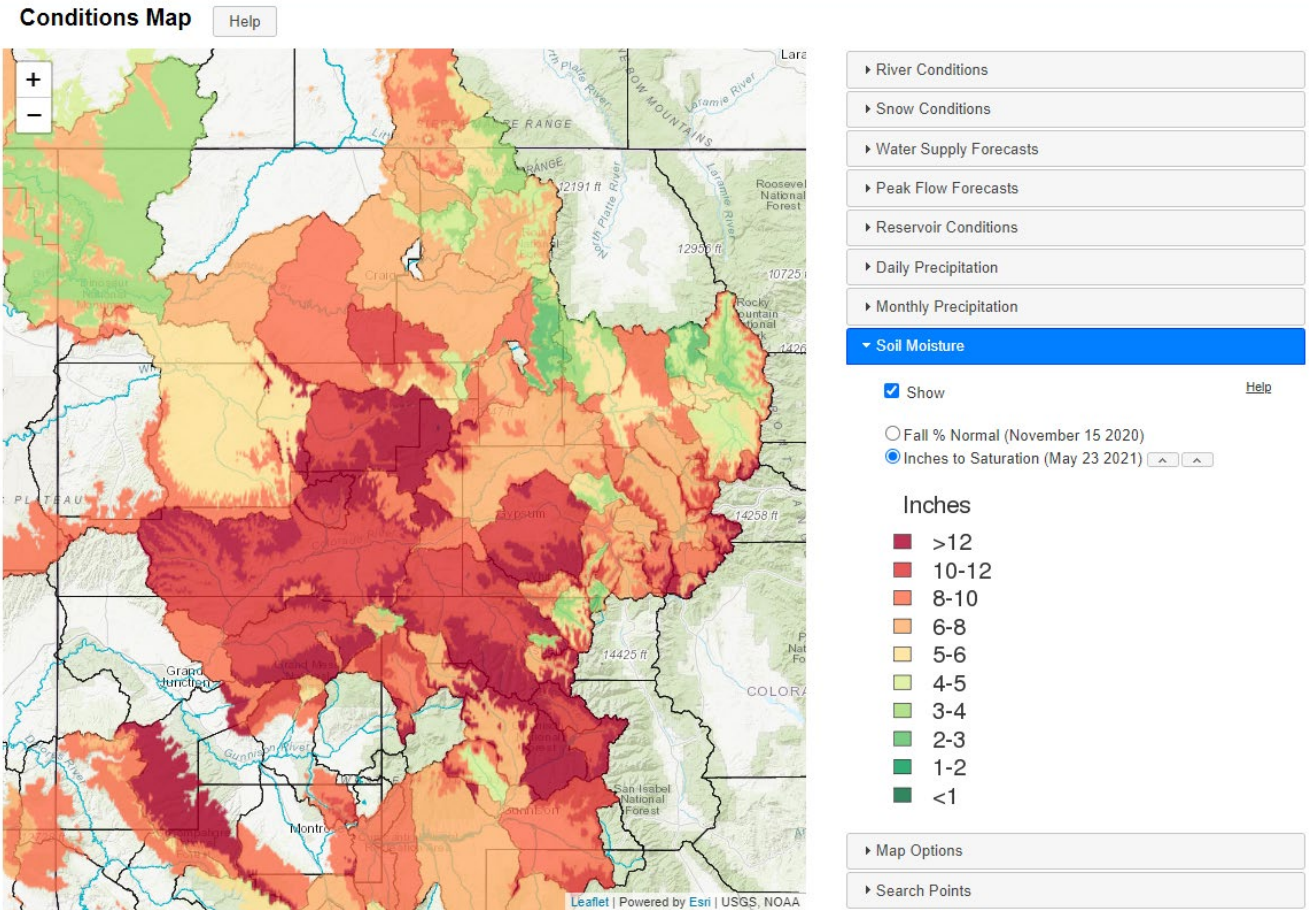
2021 So Far



COLORADO
Division of Water Resources
Department of Natural Resources

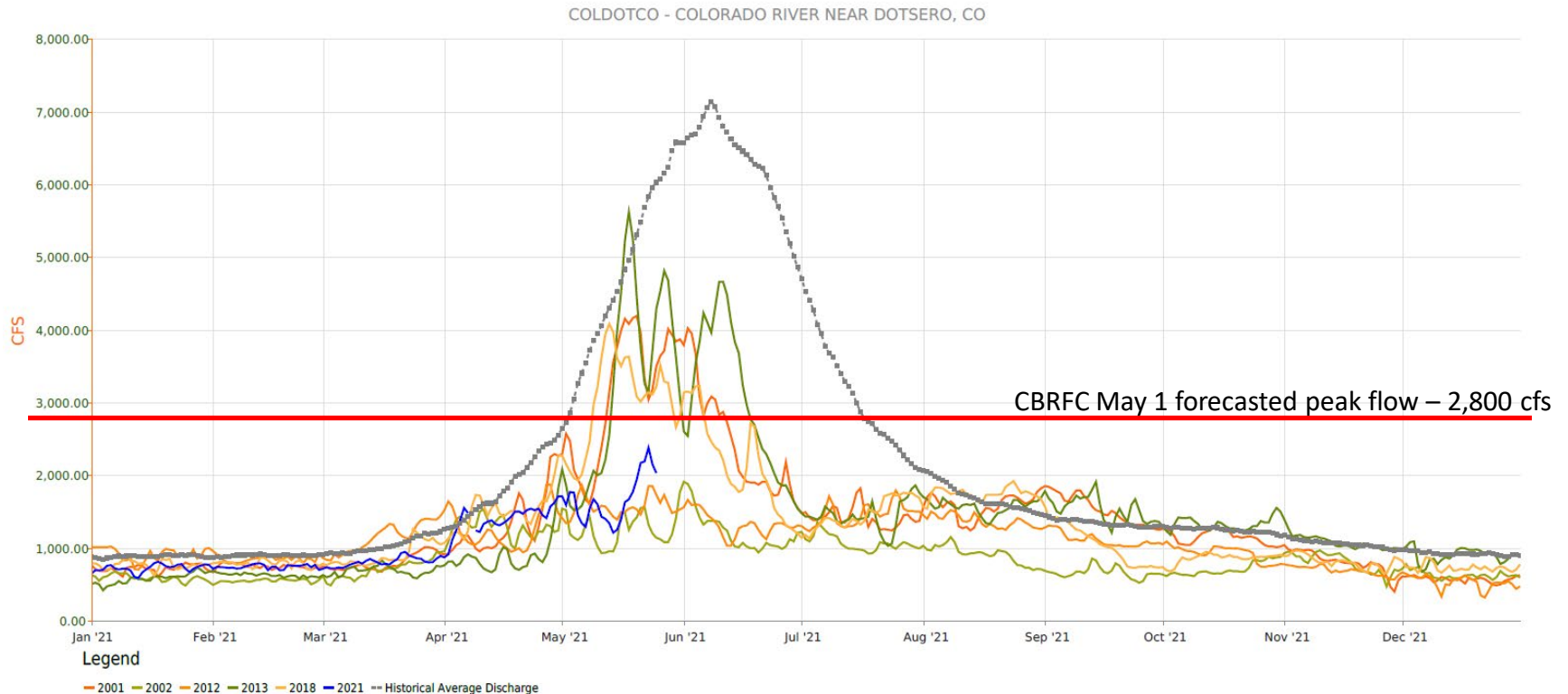
USDA Natural Resources
Conservation Service
United States Department of Agriculture

2021 So Far

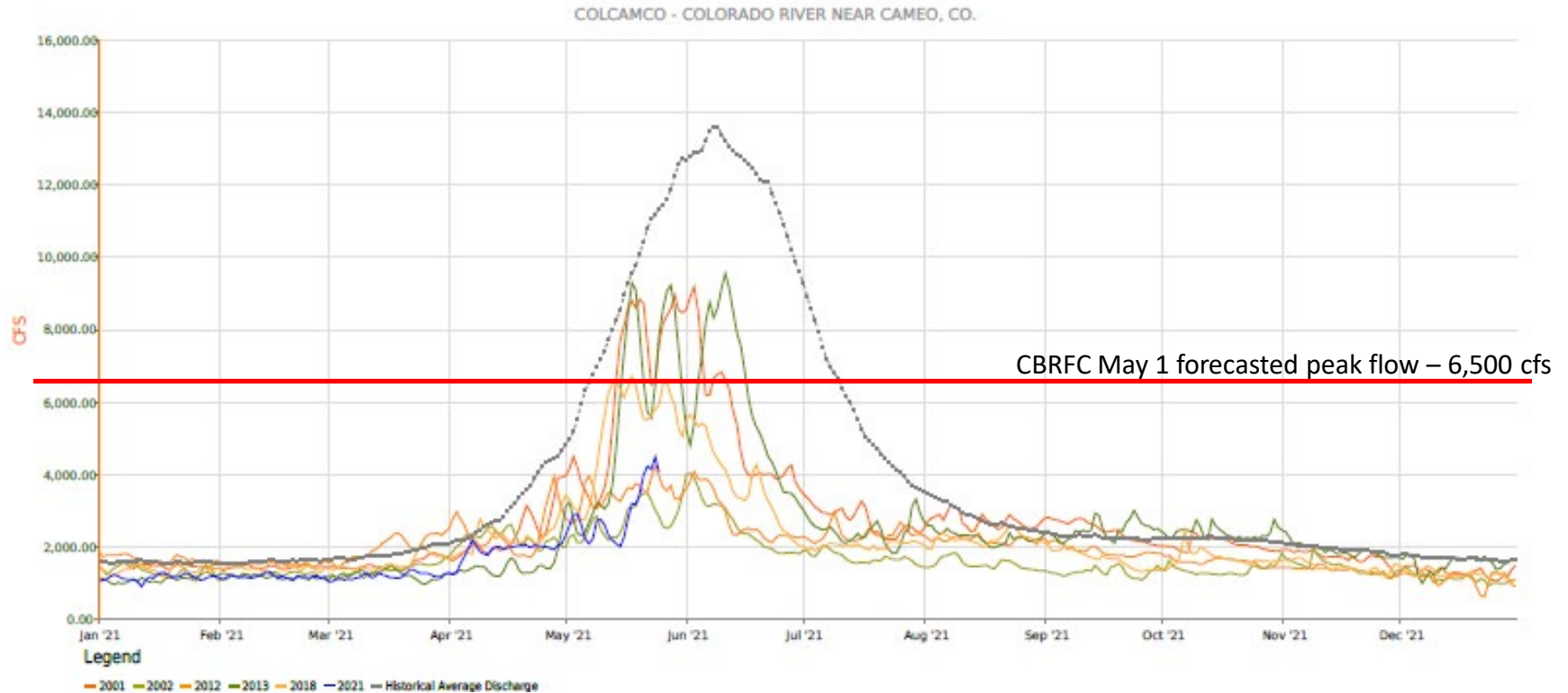


COLORADO
Division of Water Resources
Department of Natural Resources

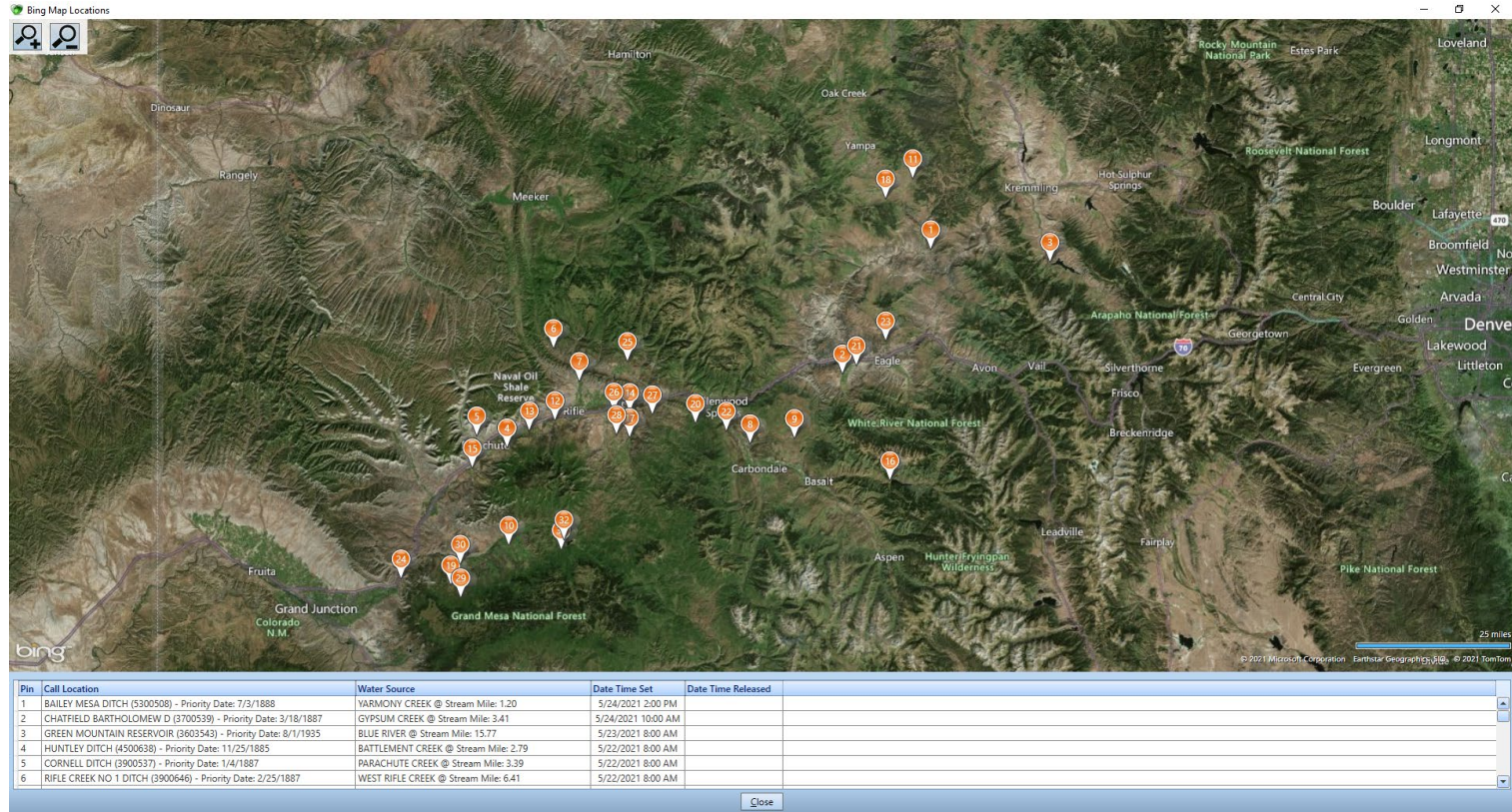
2021 So Far



2021 So Far



2021 So Far



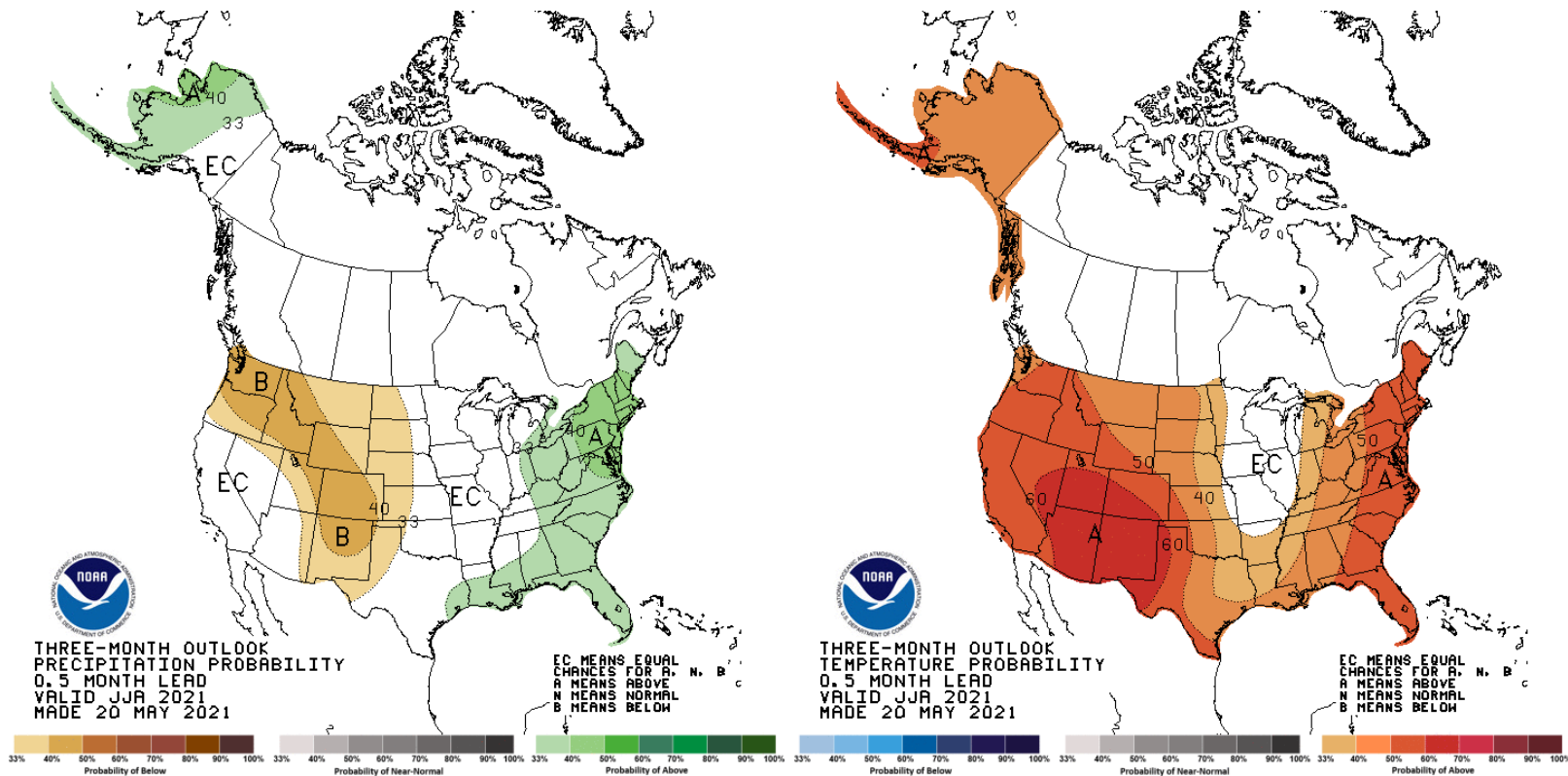
COLORADO
Division of Water Resources
Department of Natural Resources

2021 Remainder of the Year



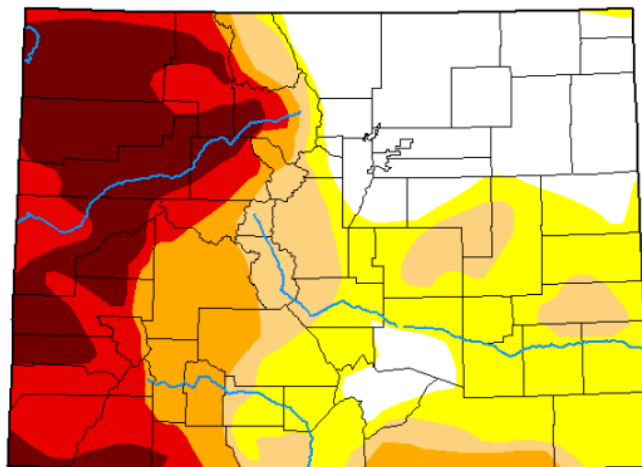
COLORADO
Division of Water Resources
Department of Natural Resources

2021 Remainder of the Year



2021 Remainder of the Year

U.S. Drought Monitor Colorado



May 18, 2021

(Released Thursday, May. 20, 2021)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	23.30	76.70	51.80	39.29	28.96	16.39
Last Week 05-11-2021	13.05	86.95	75.19	43.27	29.45	16.39
3 Months Ago 02-16-2021	0.00	100.00	100.00	90.24	58.91	17.78
Start of Calendar Year 12-29-2020	0.00	100.00	100.00	93.73	76.17	27.60
Start of Water Year 09-29-2020	0.00	100.00	99.29	89.35	52.88	2.64
One Year Ago 05-19-2020	23.22	76.78	65.20	46.31	17.52	0.00

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

Adam Hartman
NOAA/NWS/NCEP/CPC



COLORADO
Division of Water Resources
Department of Natural Resources



droughtmonitor.unl.edu

2021 Remainder of the Year

➤ Reservoir Conditions and Operations

- Only Wolford Reservoir is anticipated to fill
 - Coordinated Reservoir Operations will not occur this year as no spills will occur
- Green Mountain Reservoir Substitution Year
 - 35,000 af – 50,000 af could be owed by the Cities to Green Mountain Reservoir
 - Large substitutions from Wolford and Williams Fork reservoirs
- Windy Gap is pumping and anticipates pumping 25,000 af
- Ruedi Reservoir is not anticipated to fill
 - 4 out of 5 Year 5,000 af Pool will not be available
 - CWCB renewed lease with Ute Water to help support flows in the 15-Mile Reach



2021 Remainder of the Year

- Historical Shoshone Calls

- 2001 – 6/30
- 2002 – 6/13
- 2012 – Cameo Call
- 2013 – 7/1
- 2018 – 6/28

- **2021 – Around 6/25**

- Historical Cameo Calls

- 2001 – 8/28
- 2002 – 6/24
- 2012 – 6/21
- 2013 – 7/22
- 2018 – 7/17

- **2021 – Around 7/10**

2021 Remainder of the Year

➤ East Troublesome Fire Burn Area Water Supply

- Middle Park Water Conservancy District will be applying for an umbrella SWSP to allow for outdoor use of some wells to help revegetate properties.
- MPWCD, Northern Colorado Water Conservancy District, Grand County, Colorado River Water Conservation District, and DWR
- Well Owner Survey - <https://forms.gle/tcJhEbBvhPdUDCjr9>

