



Drought Report

July 1, 2021

Legislative Finance Committee Meeting

Ann Schwend, MT DNRC Water Planner

U.S. Drought Monitor Montana

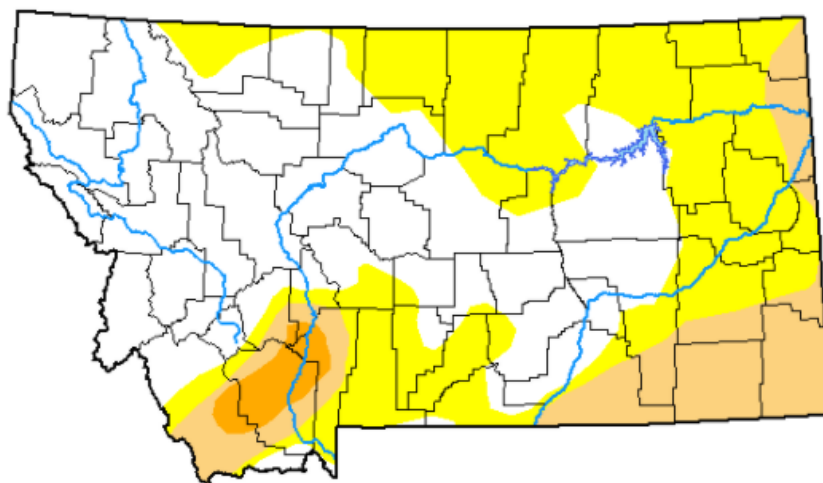
June 30, 2020

(Released Thursday, Jul. 2, 2020)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	49.46	50.54	15.19	2.19	0.00	0.00
Last Week 06-25-2020	47.74	52.26	14.51	1.74	0.00	0.00
3 Months Ago 04-02-2020	88.24	11.76	0.00	0.00	0.00	0.00
Start of Calendar Year 01-02-2020	89.74	10.26	0.07	0.00	0.00	0.00
Start of Water Year 10-03-2019	97.38	2.62	0.09	0.00	0.00	0.00
One Year Ago 07-03-2019	87.72	12.28	3.44	0.46	0.00	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>

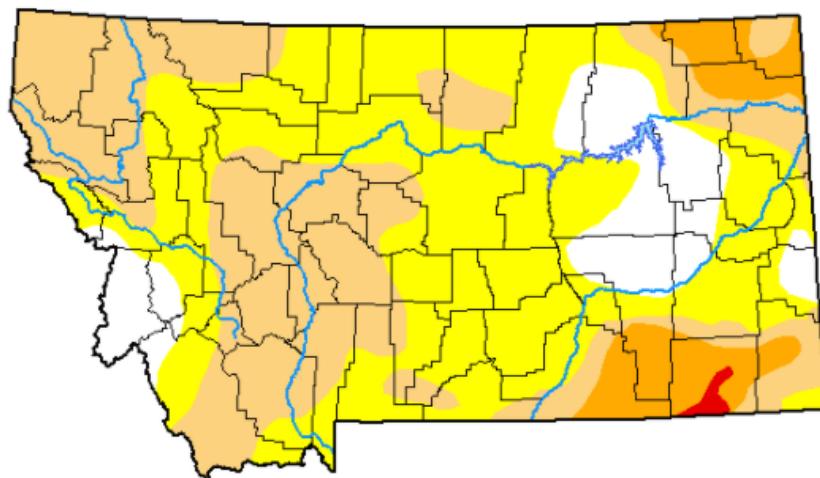
Author:

David Simerai
Western Regional Climate Center



droughtmonitor.unl.edu

U.S. Drought Monitor Montana



October 6, 2020
(Released Thursday, Oct. 8, 2020)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	11.87	88.13	42.28	7.29	0.36	0.00
Last Week 10-01-2020	11.86	88.14	40.59	4.22	0.02	0.00
3 Months Ago 07-09-2020	54.82	45.18	9.10	2.22	0.00	0.00
Start of Calendar Year 01-02-2020	89.74	10.26	0.07	0.00	0.00	0.00
Start of Water Year 10-01-2020	11.86	88.14	40.59	4.22	0.02	0.00
One Year Ago 10-10-2019	99.91	0.09	0.00	0.00	0.00	0.00

Intensity:

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

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Author:

Brian Fuchs
National Drought Mitigation Center



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U.S. Drought Monitor Montana

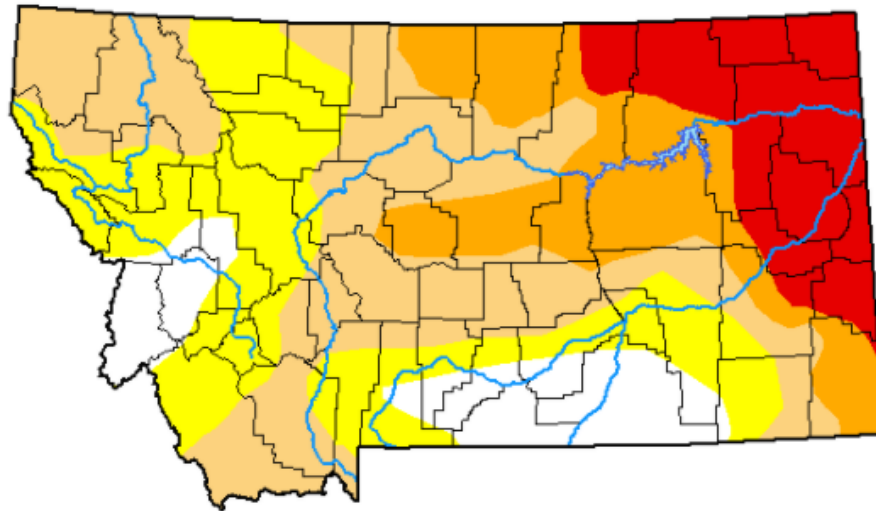
April 27, 2021

(Released Thursday, Apr. 29, 2021)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	10.94	89.06	63.46	31.37	14.25	0.00
Last Week 04-20-2021	11.78	88.22	62.27	28.11	10.91	0.00
3 Months Ago 01-26-2021	14.45	85.55	48.24	16.20	0.36	0.00
Start of Calendar Year 12-29-2020	36.37	63.63	34.41	8.27	0.36	0.00
Start of Water Year 09-29-2020	11.86	88.14	40.59	4.22	0.02	0.00
One Year Ago 04-28-2020	90.31	9.69	0.00	0.00	0.00	0.00



Intensity:

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

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Author:

Richard Heim
NCEI/NOAA



U.S. Drought Monitor Montana

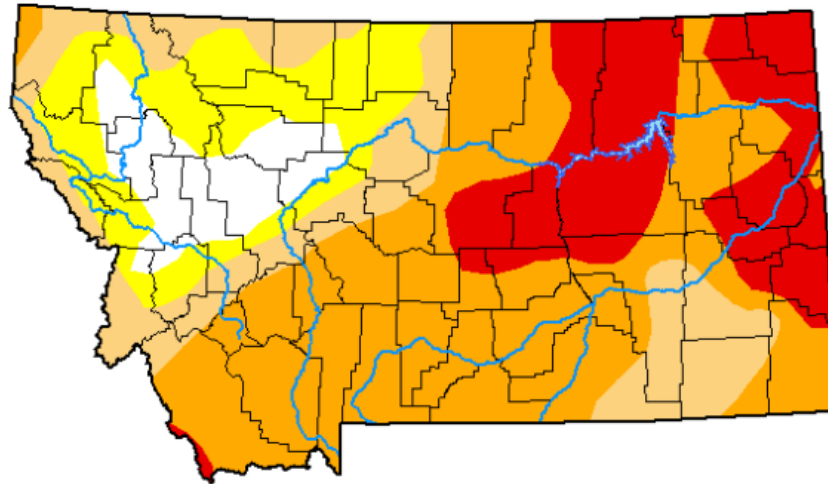
June 29, 2021

(Released Thursday, Jul. 1, 2021)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	7.49	92.51	78.41	60.96	19.94	0.00
Last Week 06-22-2021	8.77	91.23	68.60	47.84	14.25	0.00
3 Months Ago 03-30-2021	16.61	83.39	41.97	17.16	0.44	0.00
Start of Calendar Year 12-29-2020	36.37	63.63	34.41	8.27	0.36	0.00
Start of Water Year 09-29-2020	11.86	88.14	40.59	4.22	0.02	0.00
One Year Ago 06-30-2020	49.45	50.55	15.19	2.19	0.00	0.00



Intensity:

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

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Author:

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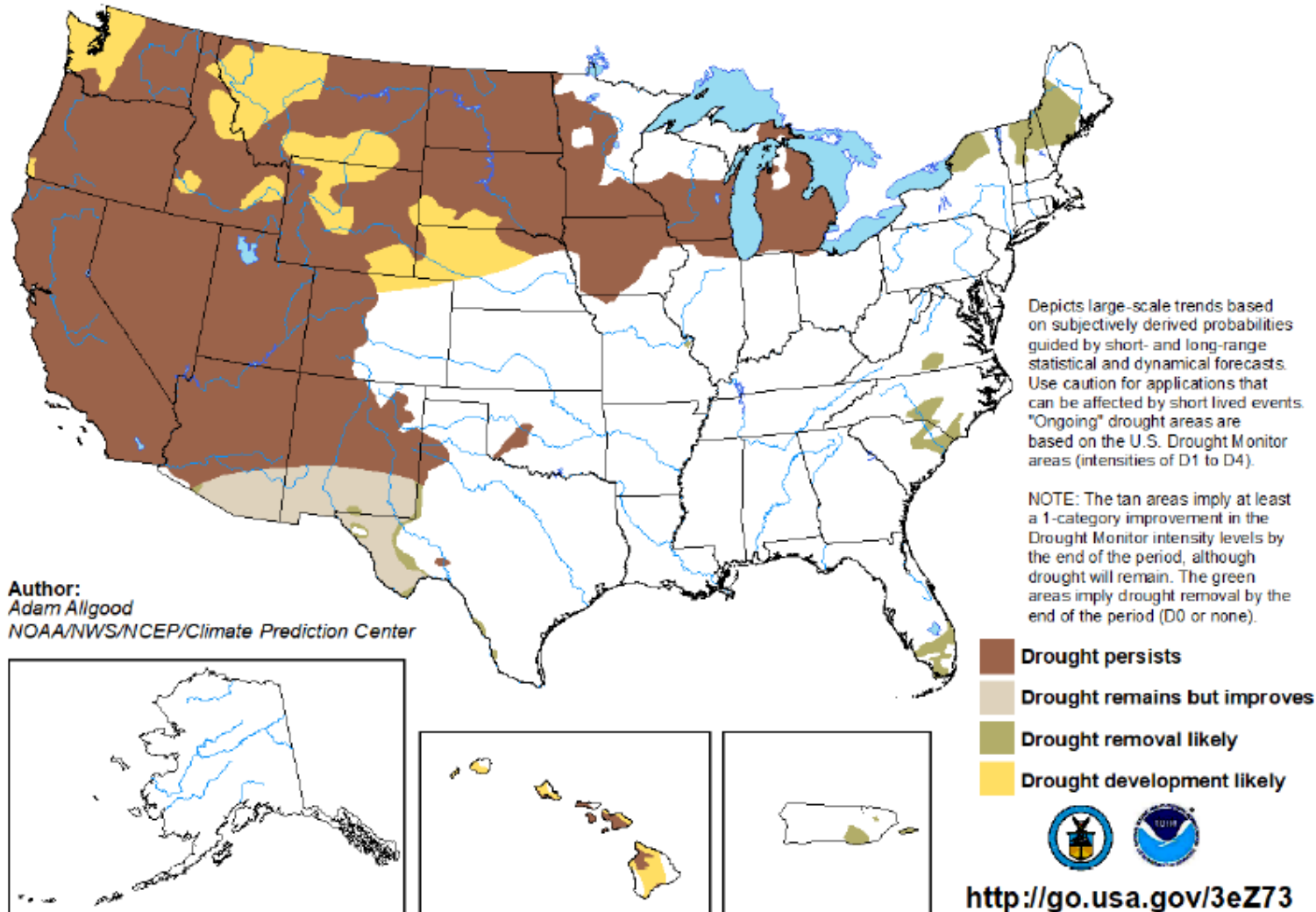


droughtmonitor.unl.edu

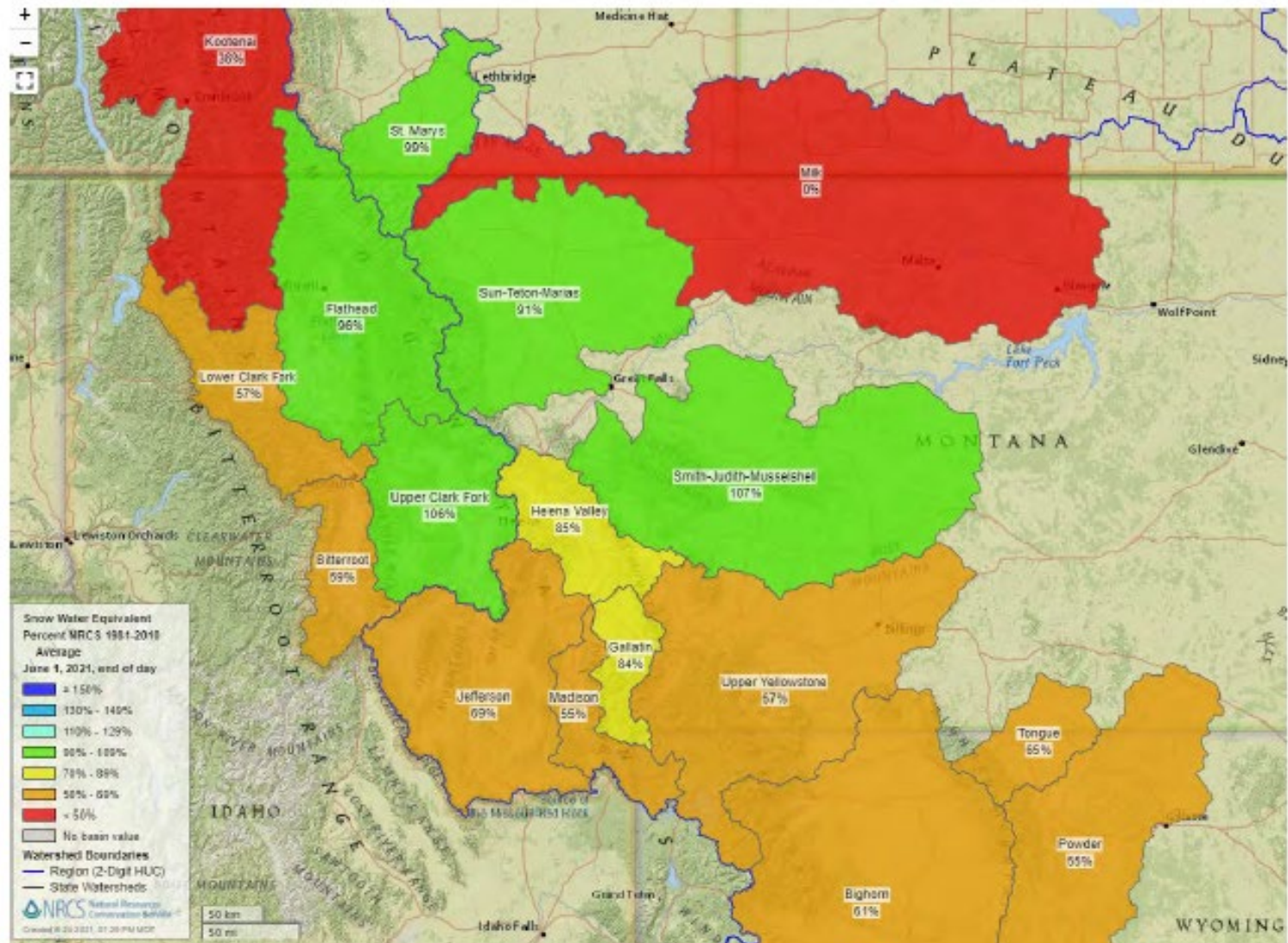
U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

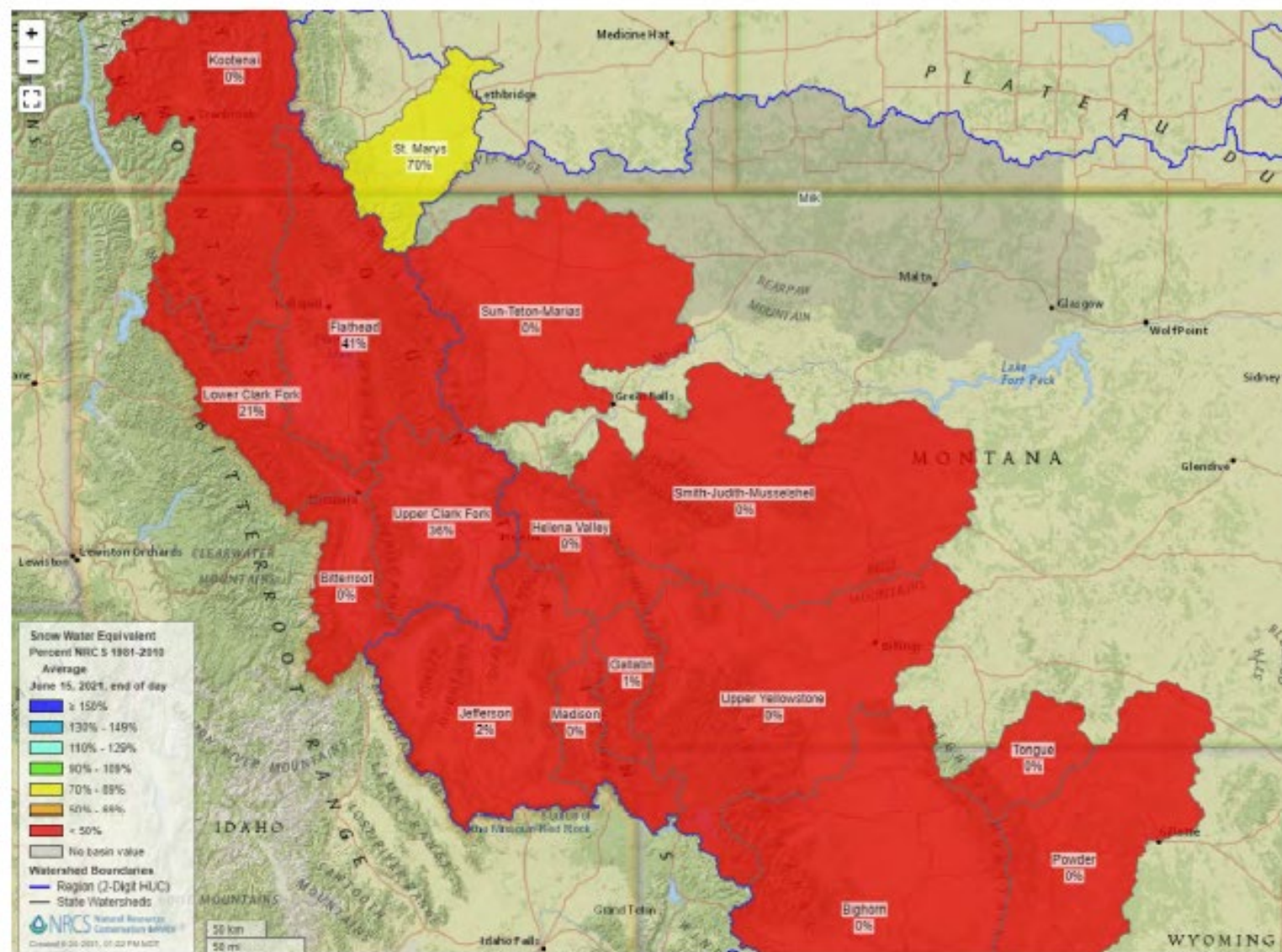
Valid for June 17 - September 30, 2021
Released June 17

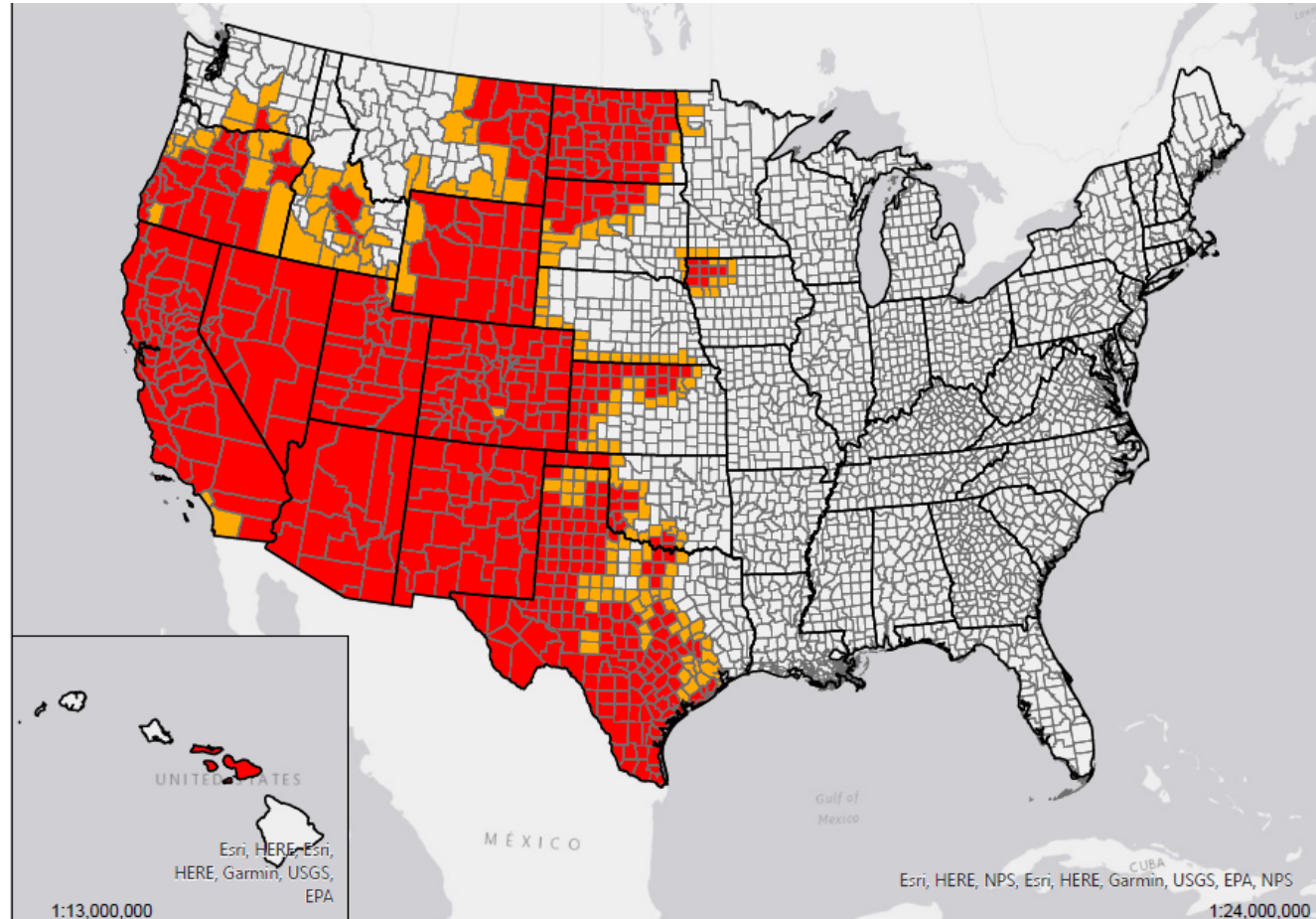


Snow Water Equivalent as a percentage of average, June 1, 2021



Snow Water Equivalent as a percentage of average, June 15, 2021





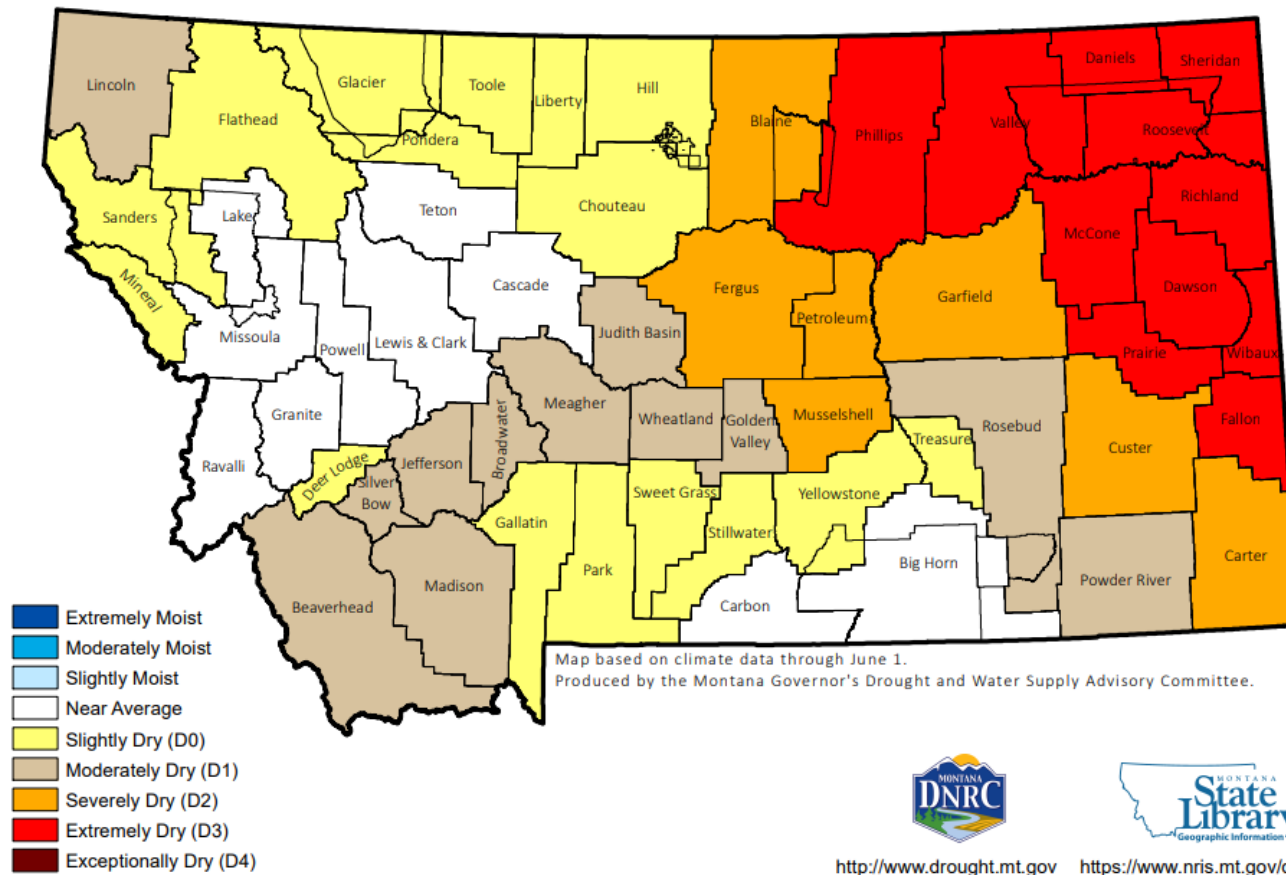
United States Department of Agriculture
Farm Service Agency
Program Delivery/Safety Net Division
May 12, 2021

Secretarial Drought Designations for 2021

Disaster Incidences as of May 12, 2021

- Primary Counties: 524
- Contiguous Counties: 190

Montana Drought Status by County - June 3, 2021

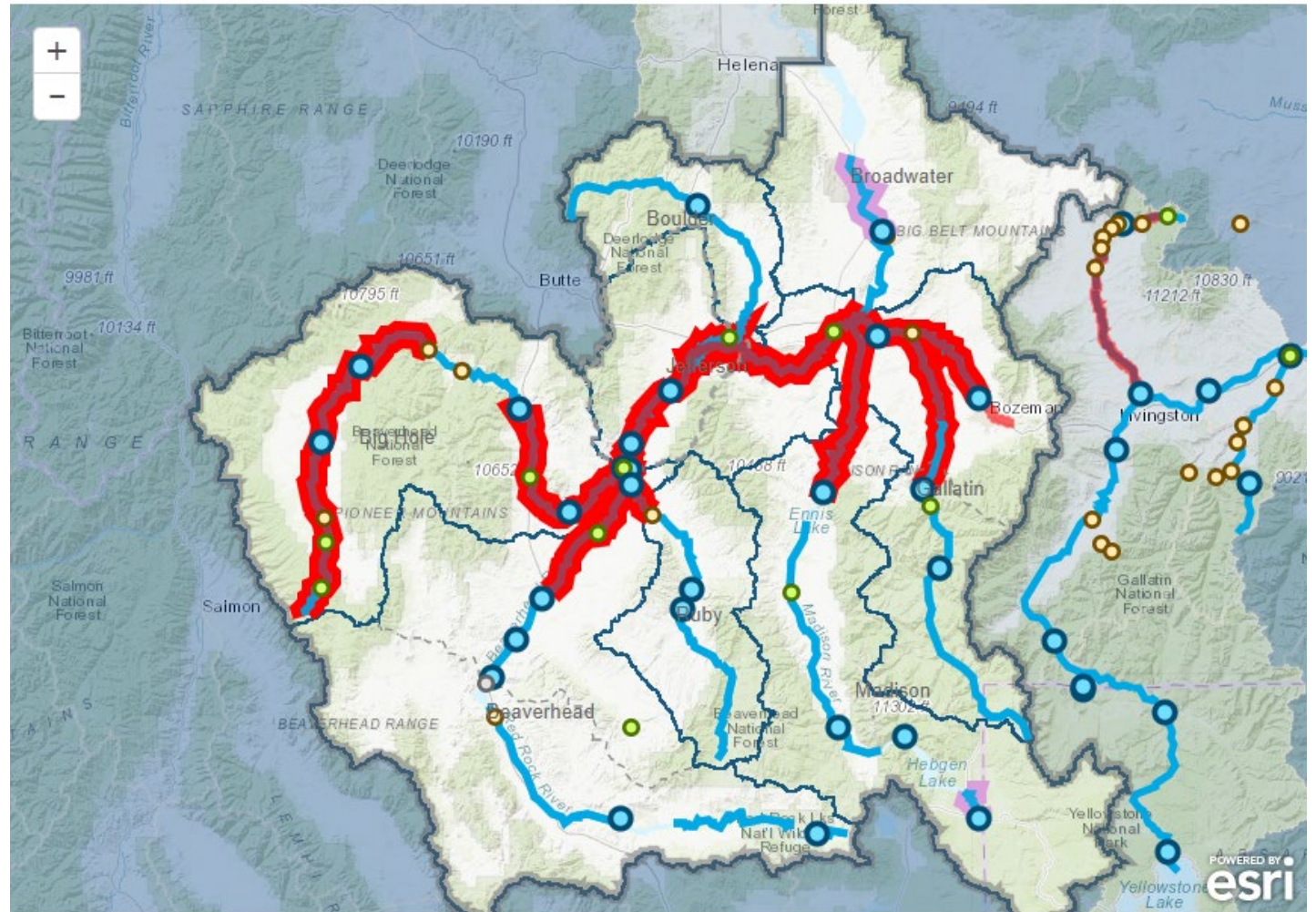


<http://www.drought.mt.gov>

<https://www.nris.mt.gov/drought>

Category	Historically observed impacts
D0	Soil moisture is low, dryland crop germination is poor, pastures are dry
	Fire danger increases
	Streamflow is low, affecting recreation fishing
D1	Producers feed livestock supplemental hay; crops are stressed and growth is poor
	Fire restrictions are implemented
D2	Hay and crop yields are low; hay quality is poor; subsoil moisture is nonexistent
	Fire count and danger are high; air quality is poor, with dust and smoke
	Trees and landscaping show signs of stress and lose leaves
	Livestock ponds are low or dry; water quality is monitored; wells are stressed
D3	Crops are not harvestable; winter pasture is opened for grazing; producers are hauling water and buying expensive supplemental feed, culling cattle and selling early; soil has large cracks; fields are bare
	Fire restrictions increase
	Agriculture and local business face economic loss
	Cattle have very little water; water quality is toxic
D4	Pasture loss is widespread; crops are destroyed
	Property is closed for hunting
	Drought hotlines are in place
	Fire risk is extremely high; fires are widespread

Streams in the Upper Missouri Under Hoot Owl Fishing Restrictions



Montana Drought Impacts (Water Year 2021)



Overview Primary Sector Positive Reports Crop/Range Condition Crop Production Livestock Production Planting/Harvest Status Water Supply Habitat Recreation Industry Health Fire Notes/Photos Additional Functionality

How Dry or Wet is It?

Drought can affect wildfire, agriculture production, tourism, wildlife and many other areas important to Montana. The Montana Governor's Drought and Water Supply Advisory Committee provides the [Drought Impact Reporter - a live, ongoing questionnaire for reporting local drought impacts](#).

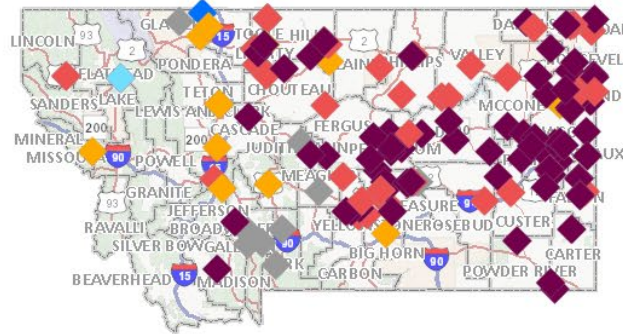
Explore the results of the Montana Drought Impact Reporter for the current water year (Oct. 1 to Sept. 30) by navigating through the various tabs. A map of all the results is located in the Primary Impact Type tab. There are also tabs with maps for each primary impact type and for crop and range conditions. A map with more functionality and a link to download a spreadsheet of the data is available under the last tab ("Additional Functionality").

Maps are updated daily. When a new report is received through the questionnaire it is automatically added to the maps.

For more information visit [Montana Department of Natural Resources & Conservation Drought Management](#) or Montana State Library [Drought Status Maps](#).

How dry or wet is it?

- Severely Dry
- Moderately Dry
- Mildly Dry
- Near Normal
- Mildly Wet
- Moderately Wet
- Severely Wet



Montana State Library

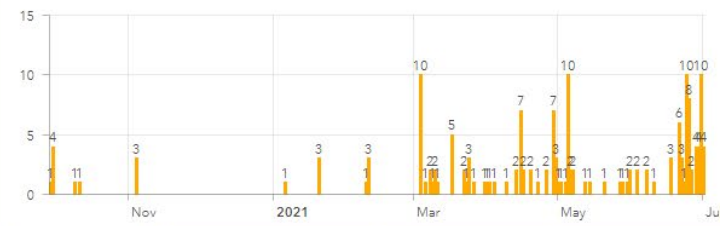
Overview Photos

Number of Reports
Since 10/1/2020

163

Total Reports

Number of Reports by Date

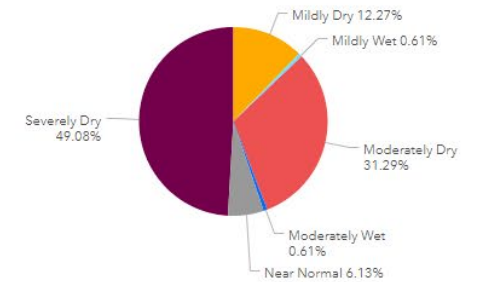


Reports by Date

Reports by Primary Sector

Reports by County

How Wet or Dry is it?



How Wet or Dry is it?

Crop Conditions

Range Conditions

1 of 18

6/30/2021, 11:00 AM - Musselshell County



I am a producer of livestock, alfalfa and corn. This is worst drought I have been through. Less than an inch of moisture all year. Even irrigated crops are struggling. No dryland hay and the pasture grass never even greened up. Pivot corners of the fields are dead.

6/21/2021, 12:00 PM - Phillips County



This photo was take 6-20-21 north and west of Malta. No cattle have been in the pasture, this reservoir will be dry by July 2021.

6/29/2021, 12:00 PM - Broadwater County



6/17/2021, 12:00 PM - Petroleum County



We raise beef cattle. We have a good water line system and cattle have enough water because of pipelines and troughs. All reservoirs and dams are dry or nearly dry. Hot days with lots of wind has cured everything already. Peak green was around May 30. We report for the weather service and at the end of May we were 30% of normal for the water year.

6/30/2021, 11:00 AM - Musselshell County



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6/21/2021, 12:00 PM - Phillips County



This phot was taken 6-20-21 north and east of Malta. Grasshoppers are eating the wheat.

3/23/2021, 12:00 PM - Richland County



Drought conditions are continuing.



Governor's Drought Emergency Declaration