Under the Big Sky e-Letter

February 2022

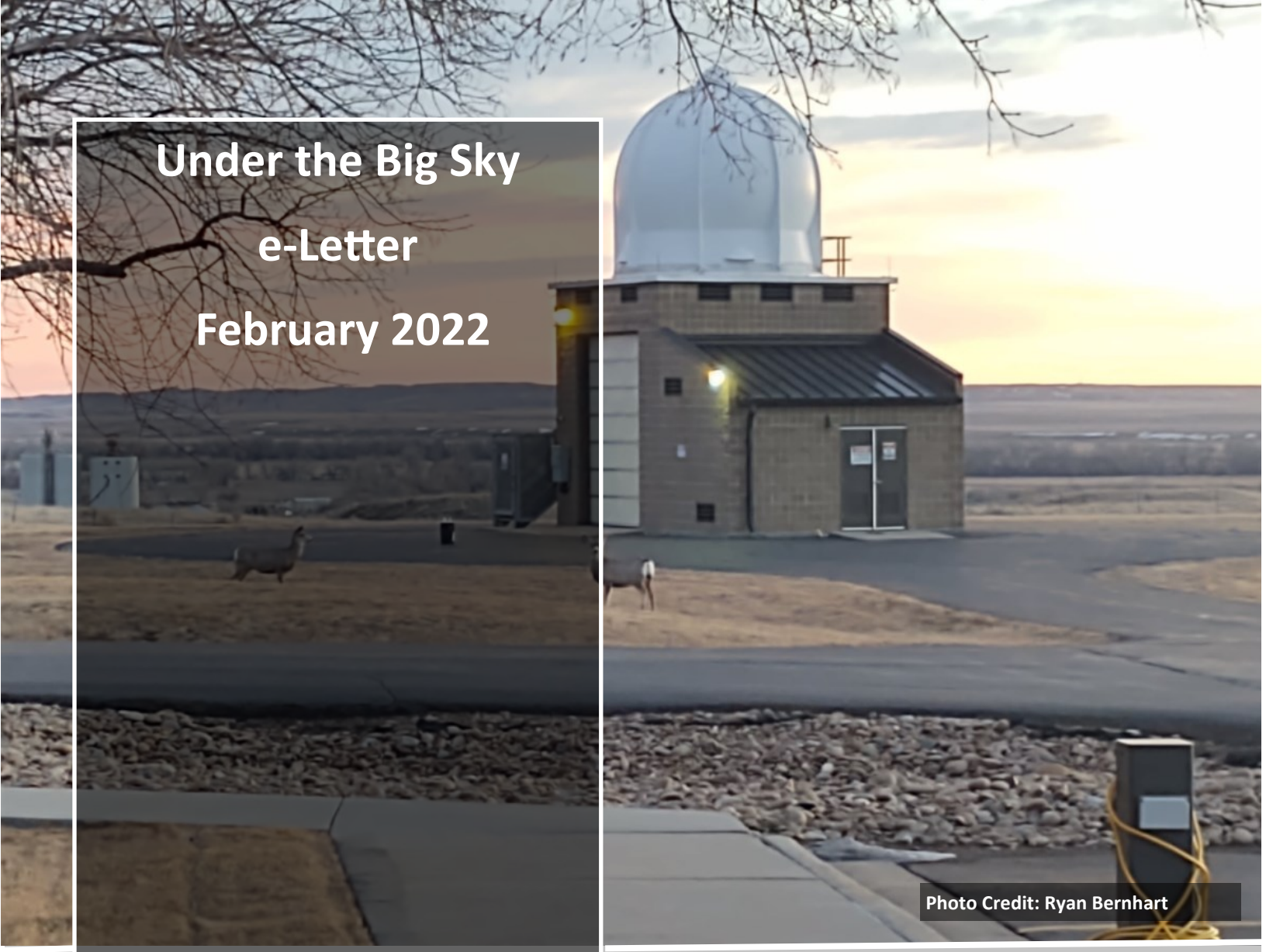

Photo Credit: Ryan Bernhart

National Weather Service

Glasgow, MT

Staff Changes: Mark Avery, Meteorologist at NWS Glasgow has accepted a position as an aviation forecaster at the CWSU in Albuquerque, NM. We are happy that he enjoyed his time in the High Plains and thank him for his service at our office, and we wish him all the best in his future.

Cory Mottice, a recent Lead Forecaster at NWS Glasgow, was promoted and has just started as WCM (Warning Coordination Meteorologist) in Billings, MT. We are glad that he will be remaining in Big Sky Country as he begins his next chapter!

A Peak Inside:

- CoCoRaHS/30 Day Summary...Page 1
- Hydro Summary...Page 2-3
- CPC Outlook/Drought Monitor...Page 4-5
- Climate Highlights...Page 6
- Winter Safety...Page 7
- Monthly COOP Precipitation...Pages 8-9
- Monthly Trivia...Page 10

Join CoCoRaHS Today!

CoCoRaHS is a grassroots organization with a network of highly committed observers who report daily precipitation such as rain, hail, or snow from all across the country. The data are used by meteorologists, insurance adjusters, mosquito control, and even by those in academia.

Participating in the CoCoRaHS program is a great way to make a difference in your community. Check out the CoCoRaHS main page to learn more! We are still accepting new observers so feel free to join through the main CoCoRaHS website today. All you'll need is a ruler and a rain gage to get started!

Check out our Winter season virtual training for 2022 here! Stay alert for updates on our Spring CoCoRaHS Training over the next couple of months where we will focus on warm season precipitation.

Percent of Normal Precipitation (Montana)

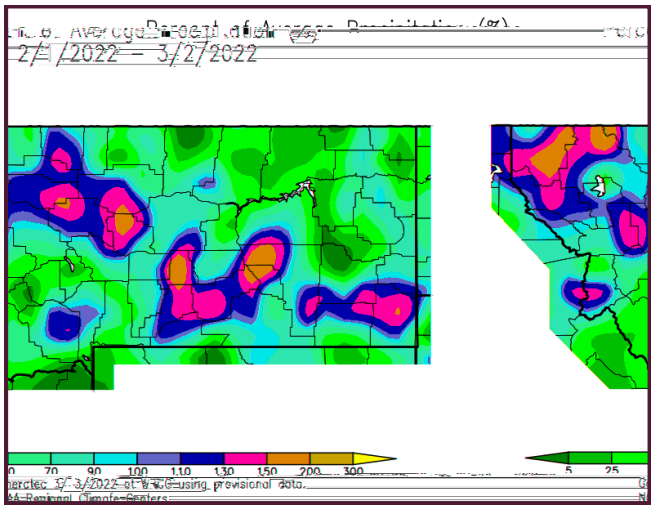

Figure 1: 30-day percent of normal precipitation across Montana.

Avg. Temp Departure from Normal (Montana)

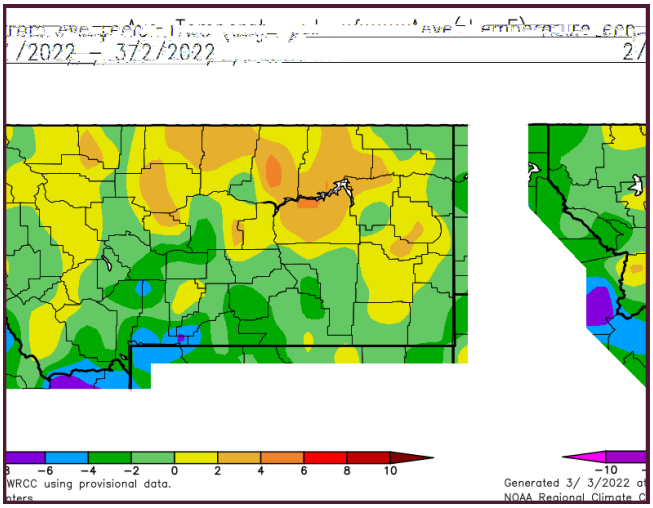

Figure 2: 30-day temperature anomalies across Montana.

Summary: The recent 30 day history across most of eastern and north central Montana has trended toward drier than normal. This is also the case across southern parts of the state. There are some locations in northwestern, central, and southeastern Montana that were near or above normal for precipitation. Meanwhile, temperatures across the state were near to a few degrees above normal.

Hydrologic Summary for January 2022, By Greg Forrester, Lead Forecaster at NWS Glasgow:

It was a dry month across Northeast Montana. The wet spots for the month were Carlyle 13 NW with 0.92 inch, Lindsay with 0.32 inch, and Zortman with 0.31 inch. The dry spots were Savage and Sidney 2S with 0.01 inch, Scobey 4NW with 0.02 inch, and Malta and Wolf Point with 0.03 inch. Glasgow received 0.26 inch which was 59 percent of normal. Temperatures varied from 1 to 4 degrees above normal across the region. Glasgow averaged 16.9 degrees which was 2.3 degrees above normal.

The dry weather allowed the severe to exceptional drought to continue across the area.

The Milk, Poplar, Yellowstone, and Missouri Rivers were all frozen during the month. Streamflow was not available for the month.

The Fort Peck Reservoir elevation fell to 2223.7 feet during the month. The reservoir was at 69 percent of capacity and 86 percent of the mean pool.

Hydrologic Summary for February 2022, By Greg Forrester, Lead Forecaster at NWS Glasgow:

It was a dry month for Northeast Montana. The wet spots for the month were Zortman with 0.68 inch, Hinsdale 4SW with 0.31 inch, and Port of Morgan with 0.30 inch. The dry spots were Brockway with 0.01 inch, Medicine Lake with 0.02 inch, and Malta 7E and Fort Peck with 0.03 inch. Glasgow received 0.11 inch which was 31 percent of normal. Temperatures varied from 1 to 6 degrees above normal across the region. Glasgow averaged 22.7 degrees which was 4.0 degrees above normal.

The dry weather allowed the severe to exceptional drought to continue across the area.

The Milk, Poplar, Yellowstone, and Missouri Rivers were all frozen during the month. Streamflow was not available for the month.

The Fort Peck Reservoir elevation fell to 2222.7 feet during the month. The reservoir was at 68 percent of capacity and 85 percent of the mean pool.

CPC Three Month Outlook:

The Climate Prediction Center released its latest three month outlook on February 17, 2022 for the months of March through May 2022.

The outlook suggests that northwestern and North Central Montana have greater odds of seeing below normal temperatures. Eastern and southern Montana are favored to see equal chances for below normal, normal, or above normal temperatures. Meanwhile, above normal precipitation is favored across the Pacific Northwest, extending into far northwestern Montana. The rest of the state has equal chances for above normal, normal, or below normal precipitation over the three month period.

The latest outlook is always available here. In addition, you can check out the Climate Prediction Center Interactive site! You can zoom in on our area, and navigate to see the climate outlook for your specific location.

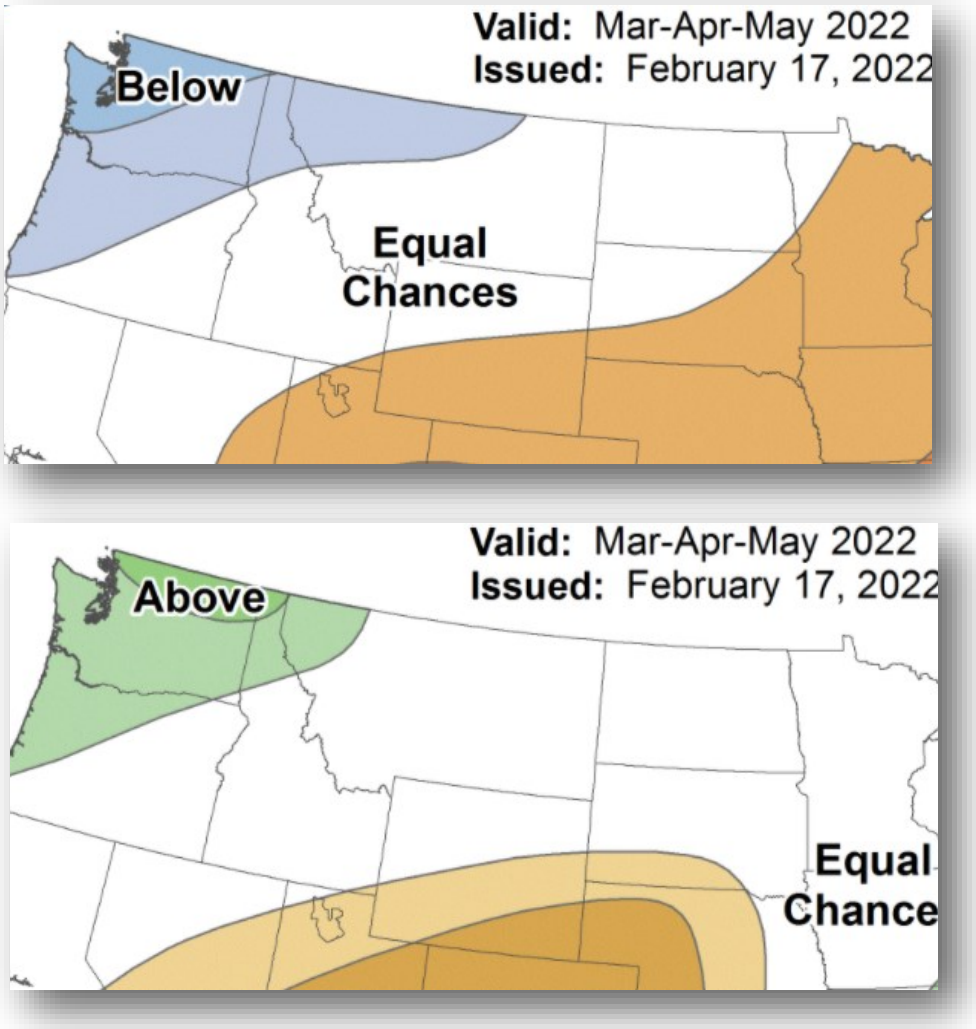

Figure 3: Climate Prediction Center three month temperature (top) and precipitation (bottom) outlook for March through May 2022.

U.S. Drought Monitor:

The latest U.S. Drought Monitor was released on Thursday March 10, 2022. Severe to extreme drought continues across much of Montana with a few areas of exceptional drought across central portions of the state. Only far NW parts of the state are void of any drought conditions at this time. This outlook is updated each Thursday. Please feel free to check out the latest **here.**

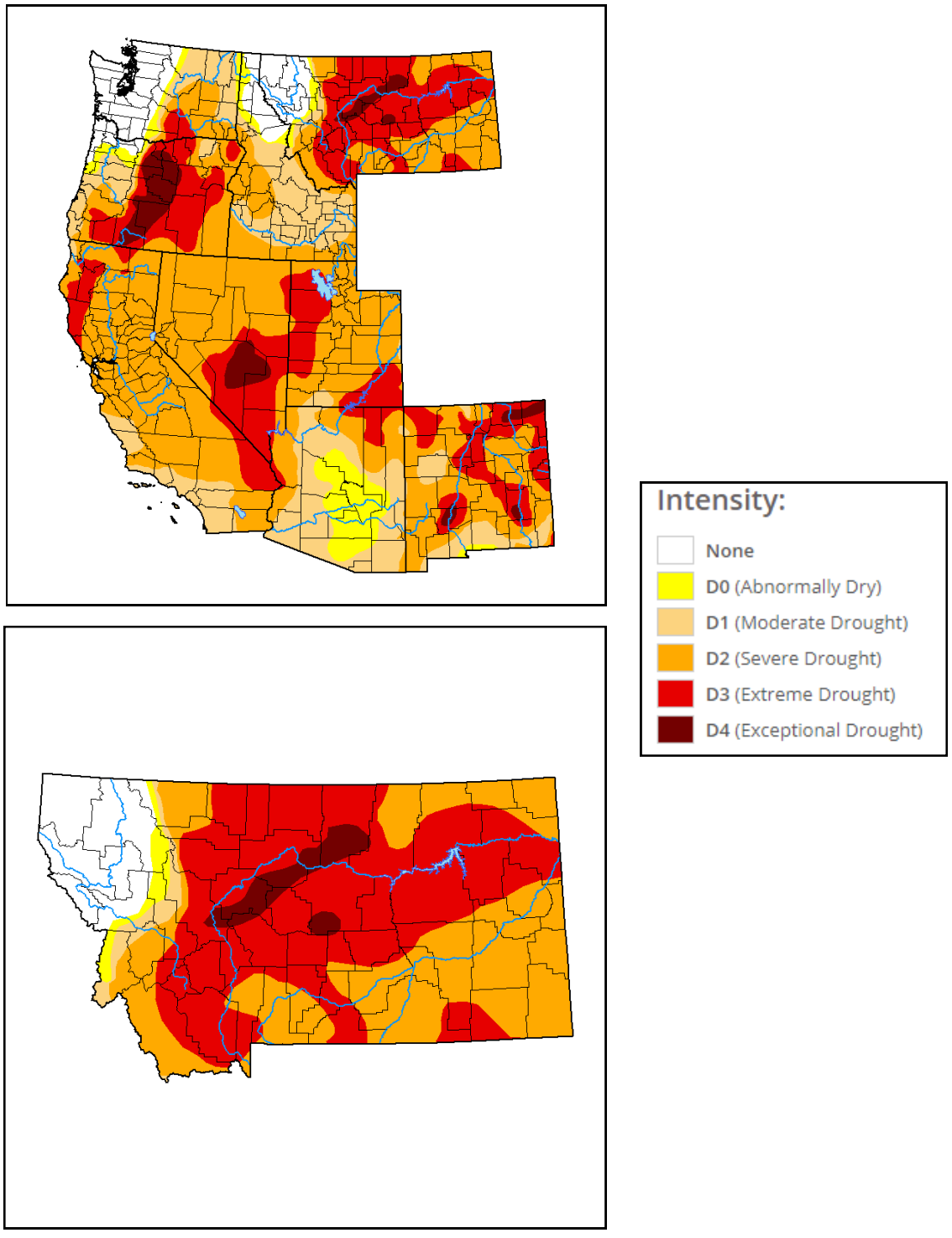

Figure 4: U.S. Drought Monitor updated March 10, 2022.

U.S. & Global Climate Highlights (January): The U.S. & Global climate highlights for January 2022 have been released, the latest month for which data was available. A few points for you to take home are provided below.

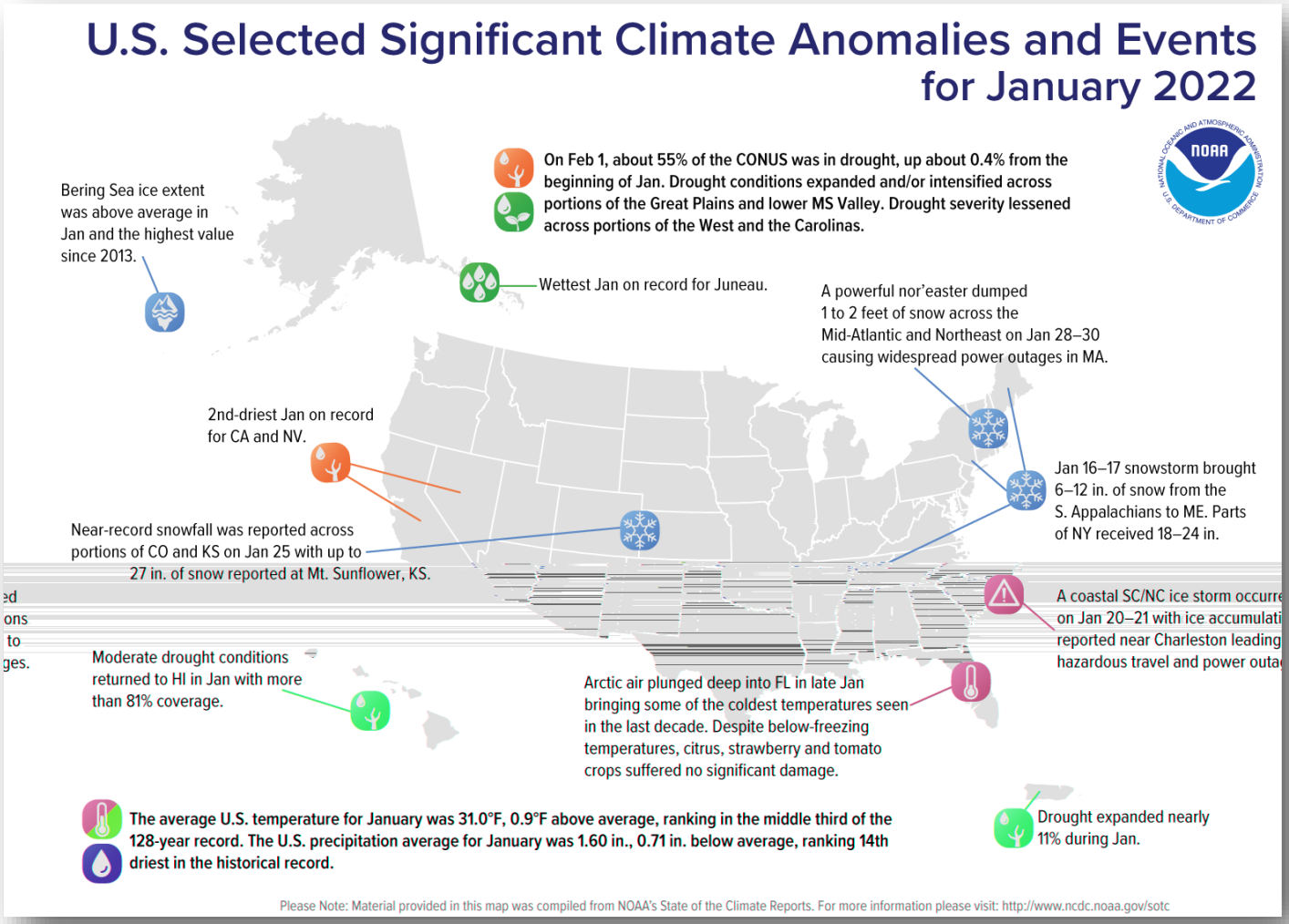

Figure 5: Significant Climate anomalies and events in January 2022

U.S. Highlights for January 2022

1) The contiguous U.S. average temperature for January 2022 was 31.0 °F, ranking in the middle third on record.
2) The average January precipitation total for the contiguous U.S. came in at 21.60 inches, 14th driest on record and the driest dating back to 2014.

Global Highlights for January 2022

1) The January 2022 global surface temperature tied with the sixth highest for January on record.
2) The last 8 Januarys rank within the top warmest Januarys on record.
3) Precipitation anomalies varied considerably around the world in January 2022, which is fairly typical.

Winter Safety: Shoveling Snow

- The calendar says March but plenty of winter weather can still occur this time of year across NE Montana. In the milder late winter/spring months, more mixed precipitation can take place and snow that falls may have more liquid water content. It's important to keep safety front and center when you go about snow removal at your location. Here are some tips to keep in mind:

Figure 6: Safety graphic on staying safe while shoveling snow.

Links You May Like:

ENSO Update

U.S. Local Sea Level Changes

The IPCC Climate Change 2022 Impacts Report

Atmospheric Rivers

How NOAA Responds to Disaster

COOP 2021 Precipitation Totals for January 2022 (Preliminary)

Station	Precipitation	Location
BAYM8	0.31	Baylor
BRDM8	0.07	Bredette
BTNM8	M	Brockton 17 N
BKNM8	0.08	Brockton 20 S
BKYM8	0.05	Brockway 3 WSW
BRSM8	0.08	Brusette
CLLM8	0.92	Carlyle 13 NW
CIRM8	0.11	Circle
CHNM8	0.11	Cohagen
COM8	0.22	Cohagen 22 SE
CNTM8	0.13	Content 3 SSE
CULM8	0.07	Culbertson
DSNM8	0.04	Dodson 11 N
FLTM8	0.20	Flatwillow 4 ENE
FPKM8	0.26	Fort Peck PP
GLAM8	0.11	Glasgow 14 NW
GGWM8	0.26	Glasgow WFO
GGSM8	0.16	Glasgow 46 SW
GNDM8	0.17	Glendive WTP
HRBM8	M	Harb
HINM8	0.20	Hinsdale 4 SW
HNSM8	0.10	Hinsdale 21 SW
HOMM8	0.10	Homestead 5 SE
HOYM8	0.05	Hoyt
JORM8	M	Jordan
LNDM8	0.32	Lindsay
MLAM8	0.03	Malta
MLTM8	0.12	Malta 7 E
MTAM8	M	Malta 35 S

Station	Precipitation	Location
MDCM8	0.12	Medicine Lake 3 SE
MLDM8	0.11	Mildred 5 N
MSBM8	0.09	Mosby 4 ENE
OPNM8	0.04	Opheim 10 N
OPMM8	0.08	Opheim 12 SSE
PTYM8	0.34	Plentywood
PTWM8	0.27	Plentywood 1 NE
POGM8	0.17	Port of Morgan
RAYM8	0.18	Raymond Border Station
SAOM8	0.27	Saco 1 NNW
SMIM8	0.10	St. Marie
SAVM8	M	Savage
SCOM8	0.02	Scobey 4 NW
SDYM8	0.09	Sidney
SIDM8	0.01	Sidney 2S
TERM8	0.04	Terry
TYNM8	M	Terry 21 NNW
VIDM8	M	Vida 6 NE
WSBM8	0.14	Westby
WTRM8	0.35	Whitewater
WHIM8	M	Whitewater 18 NE
WBXM8	M	Wibaux 2 E
WTTM8	0.23	Winnett
WNEM8	0.02	Winnett 6 NNE
WNTM8	0.24	Winnett 8 ESE
WITM8	0.11	Winnett 12 SW
WLFM8	0.03	Wolf Point
ZRTM8	0.31	Zortman

COOP 2021 Precipitation Totals for February 2022 (Preliminary)

Station	Precipitation	Location
BAYM8	M	Baylor
BRDM8	0.20	Bredette
BTNM8	M	Brockton 17 N
BKNM8	0.36	Brockton 20 S
BKYM8	0.01	Brockway 3 WSW
BRSM8	0.20	Brusette
CLLM8	0.27	Carlyle 13 NW
CIRM8	0.34	Circle
CHNM8	0.10	Cohagen
COM8	0.07	Cohagen 22 SE
CNTM8	M	Content 3 SSE
CULM8	0.06	Culbertson
DSNM8	M	Dodson 11 N
FLTM8	0.20	Flatwillow 4 ENE
FPKM8	0.03	Fort Peck PP
GLAM8	0.05	Glasgow 14 NW
GGWM8	0.11	Glasgow WFO
GGSM8	0.28	Glasgow 46 SW
GNDM8	0.27	Glendive WTP
HRBM8	M	Harb
HINM8	0.09	Hinsdale 4 SW
HNSM8	0.10	Hinsdale 21 SW
HOMM8	0.12	Homestead 5 SE
HOYM8	0.08	Hoyt
JORM8	M	Jordan
LNDM8	0.20	Lindsay
MLAM8	0.06	Malta
MLTM8	0.03	Malta 7 E
MTAM8	M	Malta 35 S

Station	Precipitation	Location
MDCM8	0.02	Medicine Lake 3 SE
MLDM8	0.11	Mildred 5 N
MSBM8	M	Mosby 4 ENE
OPNM8	M	Opheim 10 N
OPMM8	0.12	Opheim 12 SSE
PTYM8	0.26	Plentywood
PTWM8	0.07	Plentywood 1 NE
POGM8	0.30	Port of Morgan
RAYM8	0.06	Raymond Border Station
SAOM8	0.11	Saco 1 NNW
SMIM8	0.03	St. Marie
SAVM8	M	Savage
SCOM8	0.04	Scobey 4 NW
SDYM8	0.21	Sidney
SIDM8	0.20	Sidney 2S
TERM8	0.03	Terry
TYNM8	M	Terry 21 NNW
VIDM8	M	Vida 6 NE
WSBM8	M	Westby
WTRM8	M	Whitewater
WHIM8	M	Whitewater 18 NE
WBXM8	M	Wibaux 2 E
WTTM8	M	Winnett
WNEM8	0.18	Winnett 6 NNE
WNTM8	M	Winnett 8 ESE
WITM8	M	Winnett 12 SW
WLFM8	0.06	Wolf Point
ZRTM8	0.68	Zortman

Monthly Trivia:

Last time we asked…

What is the Cold Advisory for Newborn Livestock (CANL)?

Answer: The CANL system, based on research and feedback from the ranching community, illustrates the level of impacts expected due to a combination of hazardous weather elements that increase risk of stress to newborn livestock. These elements include wind chill, rain or wet snow, high humidity, sunshine vs. cloudy days, or any combination of these elements. The latest CANL forecast is available here.

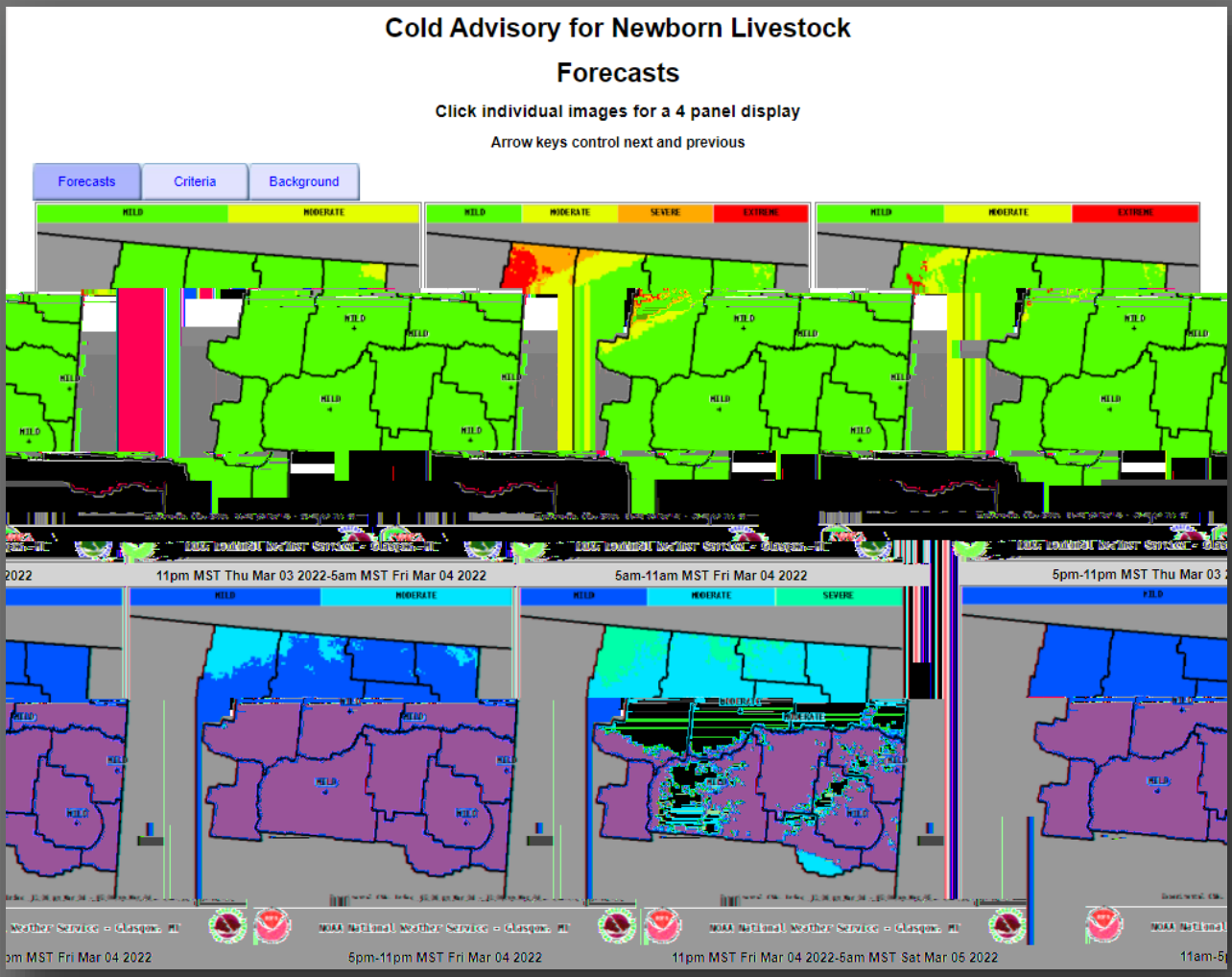

Figure 7: Example of CANL Forecasts on the NWS Glasgow webpage.

New Question: Spring is coming, and that may mean an increased risk of area river flooding due to snowmelt, ice jams, rainfall, or some combination of factors. This month we focus on ice jam awareness, since two-thirds of ice jams in Montana occur in February and March. We ask: How can you best monitor for ice jams using NWS products and services?

Find us on Facebook, Twitter and YouTube! No account needed:

Facebook.com/NWSGlasgow Twitter.com/NWSGlasgow YouTube.com/NWSGlasgow