

**BEFORE THE BOARD OF COMMISSIONERS  
FOR MORROW COUNTY, OREGON**

IN THE MATTER OF DECLARING            )  
A STATE OF DROUGHT                    )       RESOLUTION NO. R-2022-4  
EMERGENCY IN MORROW COUNTY        )

**THIS MATTER COMING BEFORE** the Morrow County Board of Commissioners sitting as the County governing body on March 2, 2022, at a regularly scheduled meeting; and

**WHEREAS**, information has been provided to the Morrow County Board of Commissioners that a drought is occurring in Morrow County and that protective actions may be, or are, required to protect the citizens of Morrow County; and

**WHEREAS**, the U.S. Secretary of Agriculture has designated Morrow County as a contiguous disaster county due to drought, enabling producers in the County eligible for emergency aid, with a moderate drought monitor condition; and

**WHEREAS**, the National Drought Mitigation Center has listed a large portion of Morrow County as “Extreme Drought” with smaller portions listed as “Severe Drought” as of February 17, 2022. See Attachment A attached hereto and herein incorporated by this reference; and

**WHEREAS**, unless weather conditions improve substantially to above normal conditions, water users who rely on stored water will have a shortened water use season, and depending upon the priority date of their water right, water users who rely on stream flows will have substantially less water available and a shortened water use season; and

**WHEREAS**, the above conditions will result in severe economic hardship to Morrow County, including shortages of livestock forage, loss of agricultural interests, and increased chance of wildfire;

**NOW THEREFORE**, the Board of Commissioners resolves that:

1. A state of emergency exists in Morrow County due to drought conditions.
2. Due to the state of emergency, the Morrow County Board of Commissioners does hereby request and entreat the Honorable Kate Brown, Governor of the State of Oregon, to:
  - A. Declare a “State of Emergency,” a drought, to exist in Morrow County, Oregon under ORS 536;

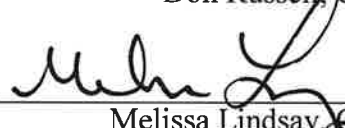
- B. Direct the Oregon Water Resources Department to provide all available means of assistance to Morrow County agricultural producers.
- C. Direct Office of Emergency Management to coordinate and assist as needed, to address current and projected conditions in Morrow County.
- D. Direct all other state agencies to coordinate with the above agencies and to provide appropriate state resources as determined necessary to assist those affected in Morrow County.

Dated this 2<sup>nd</sup> day of March 2022.

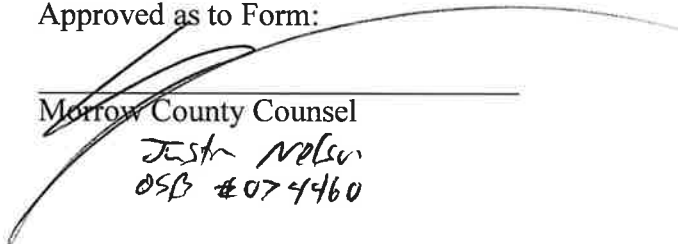
**BOARD OF COMMISSIONERS FOR  
MORROW COUNTY, OREGON**

  
Jim Doherty, Chair

  
Don Russell, Commissioner

  
Melissa Lindsay, Commissioner

Approved as to Form:

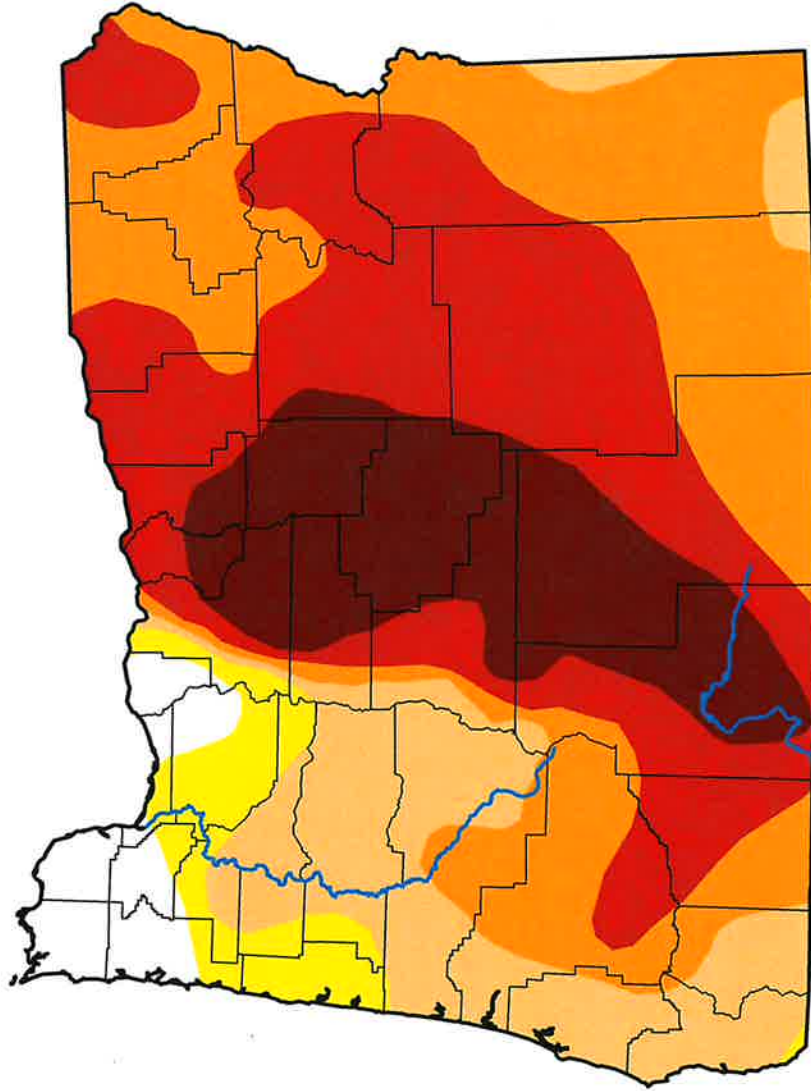
  
Morrow County Counsel

Justin Nelson  
OSB #074460

# U.S. Drought Monitor Oregon

Attachment A - 1

**February 15, 2022**  
(Released Thursday, Feb. 17, 2022)  
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	4.27	95.73	90.59	75.03	45.61	16.22
<b>Last Week</b> 02-08-2022	4.27	95.73	88.12	74.73	42.05	16.22
<b>3 Months Ago</b> 11-16-2021	1.34	98.66	98.27	91.97	67.91	23.25
<b>Start of Calendar Year</b> 01-04-2022	4.16	95.84	89.75	75.37	50.84	17.27
<b>Start of Water Year</b> 09-28-2021	0.00	100.00	100.00	96.47	72.10	26.59
<b>One Year Ago</b> 02-16-2021	12.02	87.98	73.84	54.56	19.39	0.00

**Intensity:**

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme 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:**

Brad Pugh  
CPC/NOAA



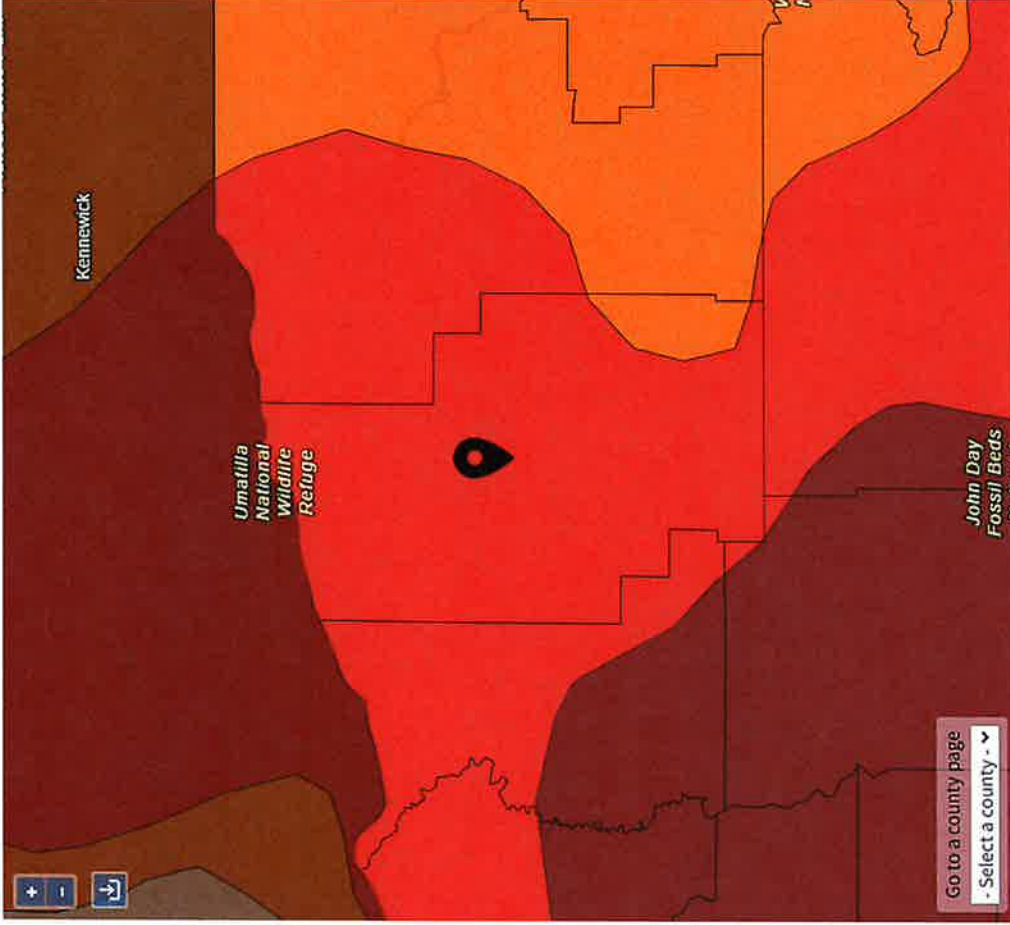
# Attachment A - 2

## Attachment A-2

### U.S. Drought Monitor Temperature (30-Day Departure from Normal) Precipitation (30-Day % of Normal)

The U.S. Drought Monitor (USDM) is updated each Thursday to show the location and intensity of drought across the country using a five-category system, from Abnormally Dry (D0) conditions to Exceptional Drought (D4). The USDM is a joint effort of the National Drought Mitigation Center, USDA, and NOAA. [Learn more.](#)

 <p><b>D0 - Abnormally Dry</b></p> <ul style="list-style-type: none"> <li>Ski season is impacted</li> </ul>	<p><b>100.00%</b> of Morrow County (D0-D4)</p>
 <p><b>D1 - Moderate Drought</b></p> <ul style="list-style-type: none"> <li>Some fields are left fallow</li> <li>Water levels begin to decline; recreation and other uses are impacted</li> </ul>	<p><b>100.00%</b> of Morrow County (D1-D4)</p>
 <p><b>D2 - Severe Drought</b></p> <ul style="list-style-type: none"> <li>Pastures are brown; hay yields are down, and prices are up; producers are selling cattle</li> <li>Fire risk increases</li> <li>Marshes are drying up, little water is available for waterfowl and wildlife; bears are moving into urban areas</li> </ul>	<p><b>100.00%</b> of Morrow County (D2-D4)</p>
 <p><b>D3 - Extreme Drought</b></p> <ul style="list-style-type: none"> <li>Planting is delayed</li> <li>Wildfire activity is high</li> <li>Reservoirs and lakes are very low compared to normal; irrigation water is scarce</li> </ul>	<p><b>94.11%</b> of Morrow County (D3-D4)</p>
 <p><b>D4 - Exceptional Drought</b></p> <ul style="list-style-type: none"> <li>Power generation is reduced</li> </ul>	<p><b>0.00%</b> of Morrow County (D4)</p>

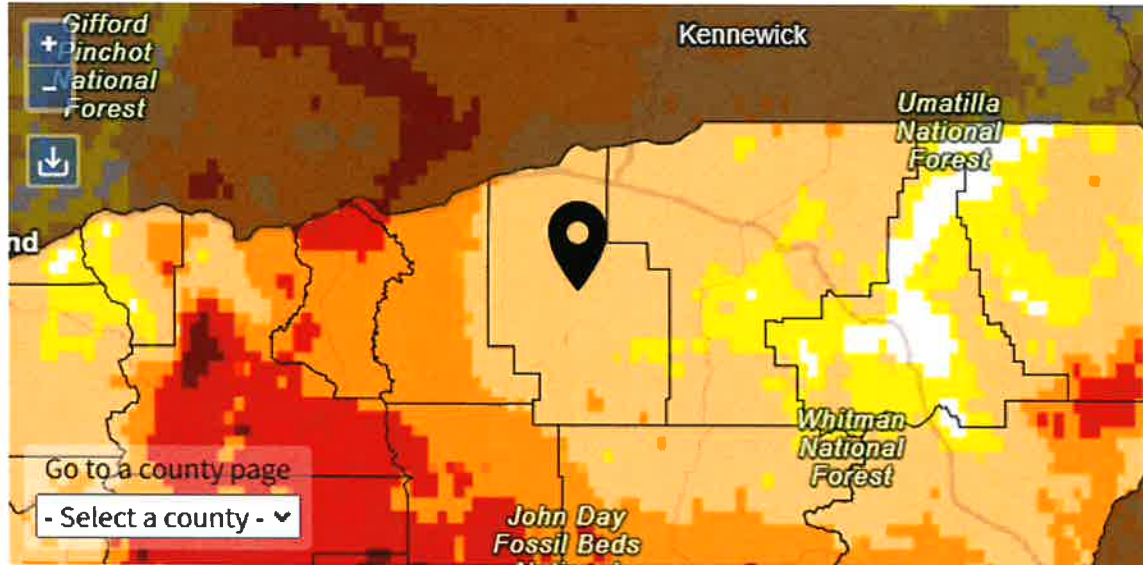


Source(s): NDMC, NOAA, USDA

Updates Weekly - 02/15/22

### Short-Term Drought Indicator Blend

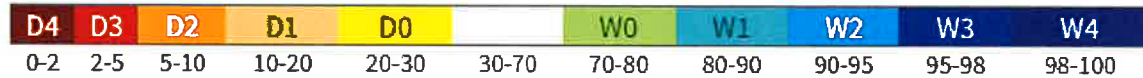
#### Short Term



These experimental drought blends integrate several key drought monitoring products and indices into a single short-term or long-term product, based on the methodology developed at the NOAA Climate Prediction Center. The blends are created using the Climate Engine tool, and apply the CPC weighting ratios to the high-resolution gridMET gridded research dataset. The data is updated daily, with a delay of 2 to 3 days to allow for data collection and quality control.

The long-term blend combines PDSI, Z-Index, and 6-month, 1-year, 2-year, and 5-year SPI to estimate the overall long-term drought. Please refer to the [product documentation](#) for more information. This product is an example of current [NIDIS-funded research](#).

This data is updated every 5 days, with a delay of 4 to 5 days to allow for data collection and quality control.



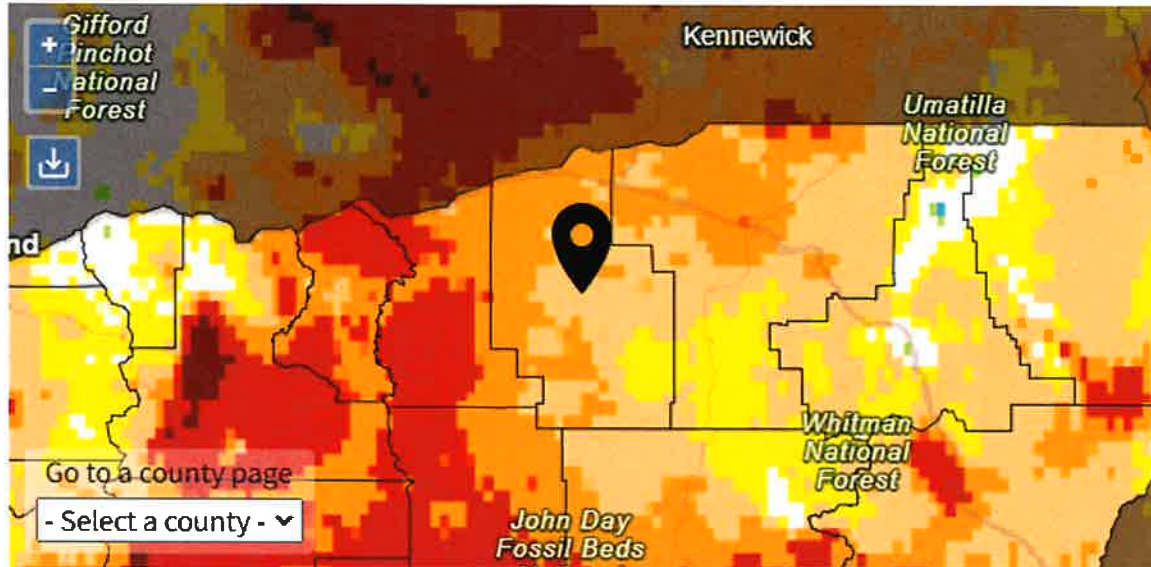
[Click here for more information about this legend](#)

Source(s): [UC Merced](#), [Climate Engine](#)

Last Updated - 02/14/22

**Long-Term Drought Indicator Blend**

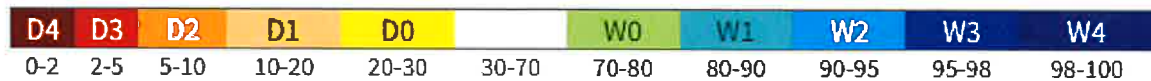
[Long Term](#)



These experimental drought blends integrate several key drought monitoring products and indices into a single short-term or long-term product, based on the methodology developed at the NOAA Climate Prediction Center. The blends are created using the Climate Engine tool, and apply the CPC weighting ratios to the high-resolution gridMET gridded research dataset. The data is updated daily, with a delay of 2 to 3 days to allow for data collection and quality control.

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[Click here for more information about this legend](#)

Source(s): [UC Merced](#), [Climate Engine](#)

Last Updated - 02/14/22

## Agriculture in Morrow County

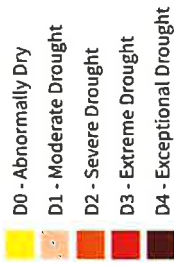
[Wheat](#) [Hay](#) [Corn](#) [Cattle](#) [Sheep](#)

The USDA's National Agricultural Statistics Service (NASS) conducts hundreds of surveys every year and prepares reports covering virtually every aspect of U.S. agriculture, including agricultural commodities statistics for crops and livestock. This map displays crops and livestock by county alongside the current U.S. Drought Monitor. The size of each dot represents the total acres (crops) or total inventory (livestock) per county. [Learn more.](#)

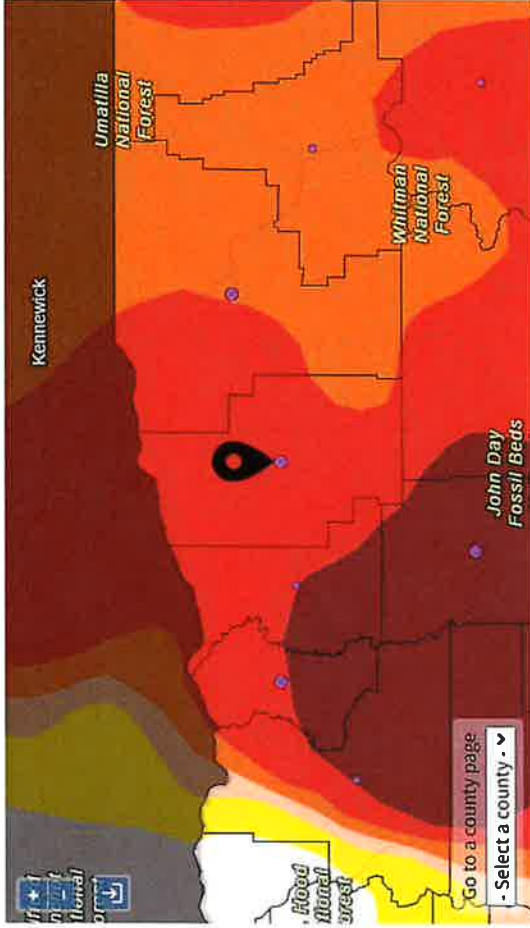
### Crop Production (Acres)



### U.S. Drought Monitor



Source(s): USDA NASS



USDAM Updates Weekly - 02/15/22

**165,386**

acres of wheat in Morrow County

**28,892**

acres of hay in Morrow County

**19,338**

acres of corn in Morrow County

**59,339**

number of cattle in Morrow County

**2,877**

number of sheep in Morrow County

### Water Supply in Morrow County

**Streamflow** [1-Month Precipitation Outlooks](#)

The U.S. Geological Survey (USGS) produces maps of real-time streamflow conditions compared to historical conditions. The map depicts streamflow conditions as computed at USGS streamgages. The colors represent real-time streamflow compared to percentiles of historical daily streamflow for the day of the year. Click on a streamgage to view more data for that location. [Learn more.](#)

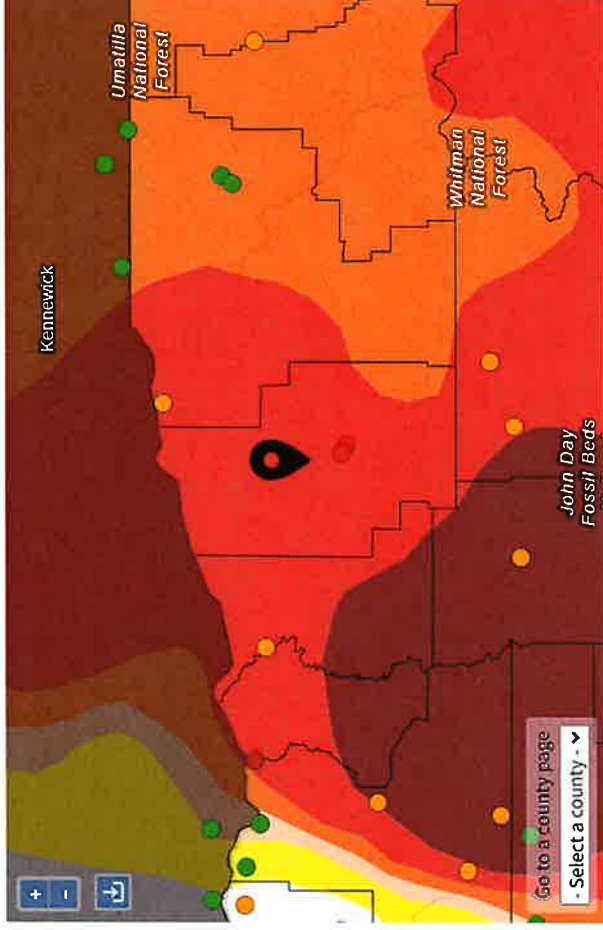
**Streamflow Conditions**

- Low
- Much Below Normal
- Below Normal
- Normal
- Above Normal
- Much Above Normal
- High
- Not Ranked

**U.S. Drought Monitor**



Source(s): [USGS](#)



Updates Daily - 02/23/22

**68**

percent of streamflow sites that are below normal in Oregon

**1**

percent of streamflow sites that are above normal in Oregon

**0**

percent area of Oregon with above normal precipitation probability

**0**

percent area of Oregon with below normal precipitation probability



## Public Health in Morrow County

[Social Vulnerability Index](#) [Heat Warnings](#)

This map shows the Center for Disease Control and Prevention's (CDC's) Social Vulnerability Index alongside current U.S. Drought Monitor drought designations. CDC's Social Vulnerability Index uses 15 U.S. census variables at tract level (including poverty, lack of vehicle access, and crowded housing) to help local officials identify communities that may need support in preparing for or recovering from hazards, like drought. [Learn more.](#)

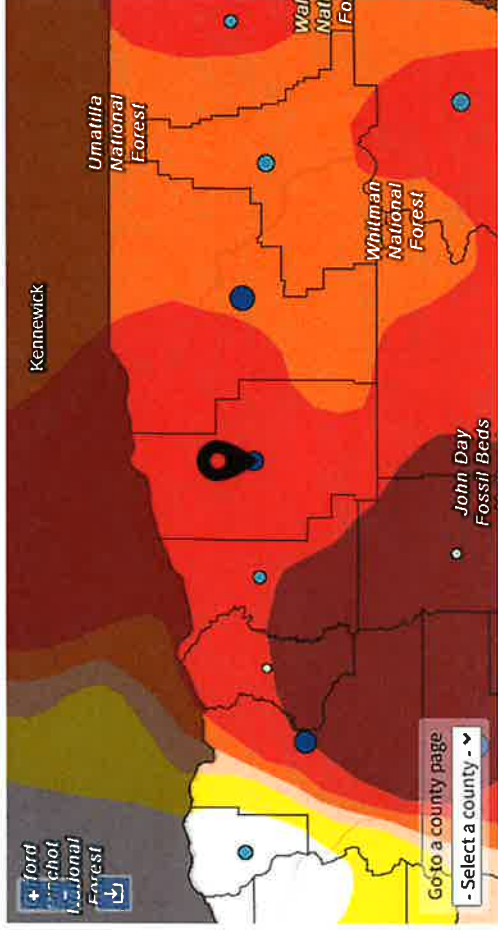
### Social Vulnerability Index (SVI)

- 0.7501 - 1 | Highest Vulnerability
- 0.5001 - 0.75
- 0.2501 - 0.5
- 0 - 0.25 | Lowest Vulnerability
- Data Unavailable

### U.S. Drought Monitor



Source(s): CDC



USDM Updates Weekly - 02/15/22

**0.76**

Social Vulnerability Index Score

**No**

Heat Warning issued by the National Weather Service

**No**

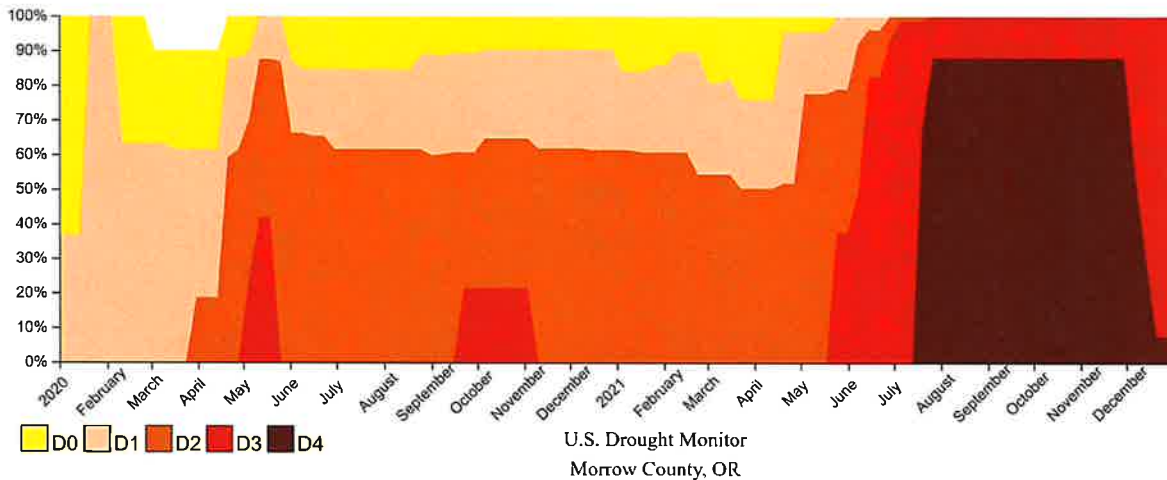
Air Quality Warning issued by the National Weather Service

**No Wildfire**

in Morrow

## Historical Conditions for Morrow County

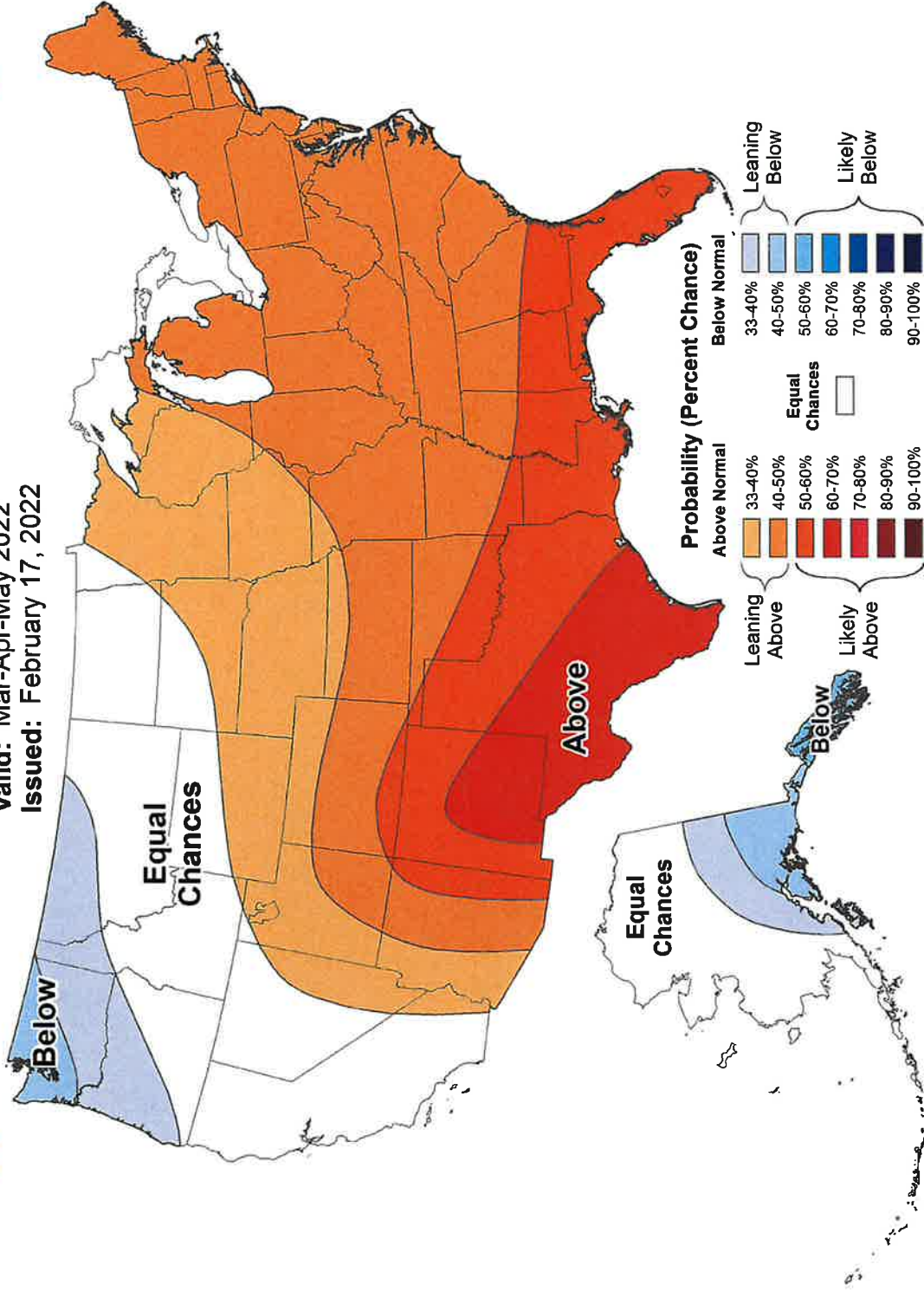
The U.S. Drought Monitor (USDM) is a national map released every Thursday, showing parts of the U.S. that are in drought. The USDM relies on drought experts to synthesize the best available data and work with local observers to interpret the information. The USDM also incorporates ground truthing and information about how drought is affecting people, via a network of more than 450 observers across the country, including state climatologists, National Weather Service staff, Extension agents, and hydrologists.





# Seasonal Temperature Outlook

Valid: Mar-Apr-May 2022  
Issued: February 17, 2022

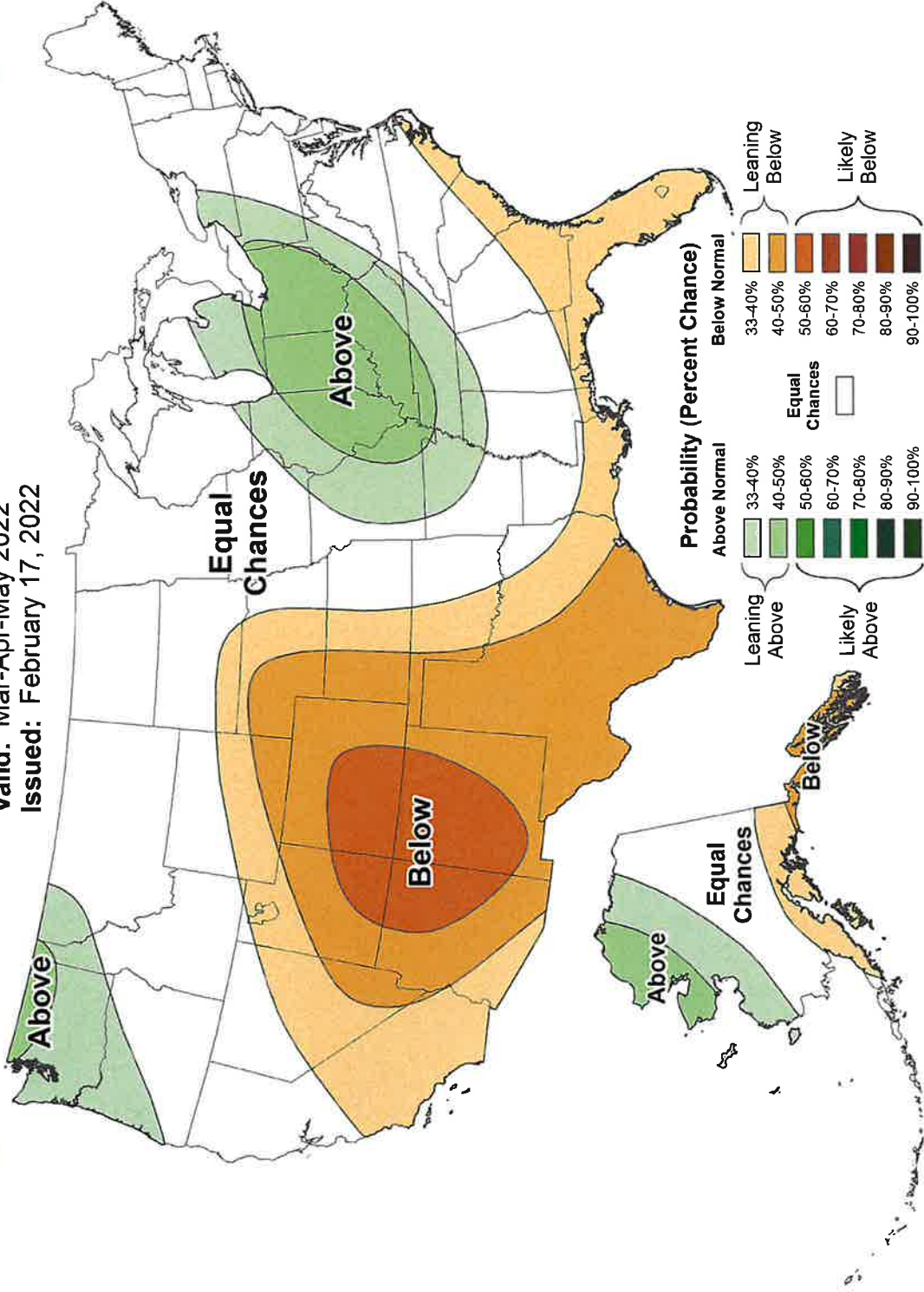




# Seasonal Precipitation Outlook



Valid: Mar-Apr-May 2022  
Issued: February 17, 2022

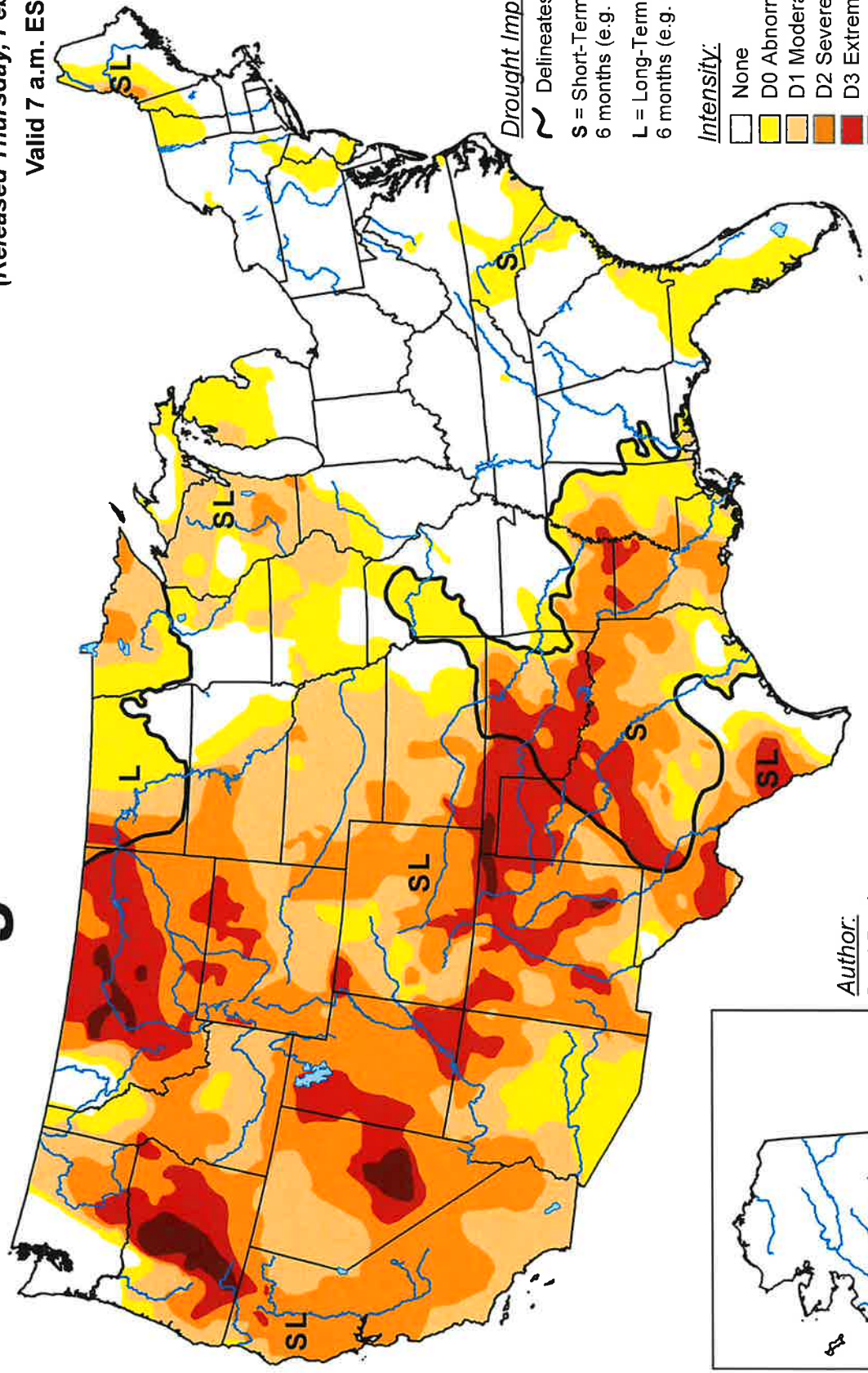


# U.S. Drought Monitor

Attachment A - 11

**February 15, 2022**  
 (Released Thursday, Feb. 17, 2022)

Valid 7 a.m. EST



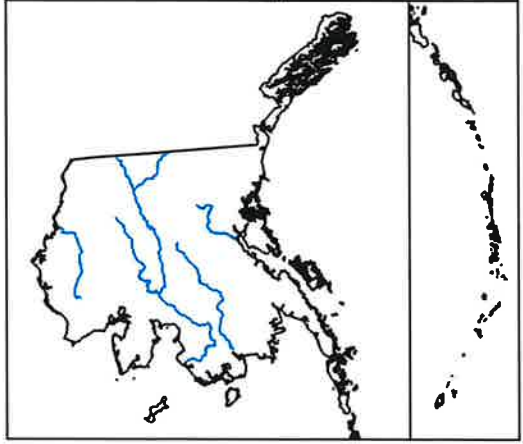
**Drought Impact Types:**

- ~ Delineates dominant impacts
- S** = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
- L** = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

**Intensity:**

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

Author:  
 Brad Pugh  
 CPC/NOAA



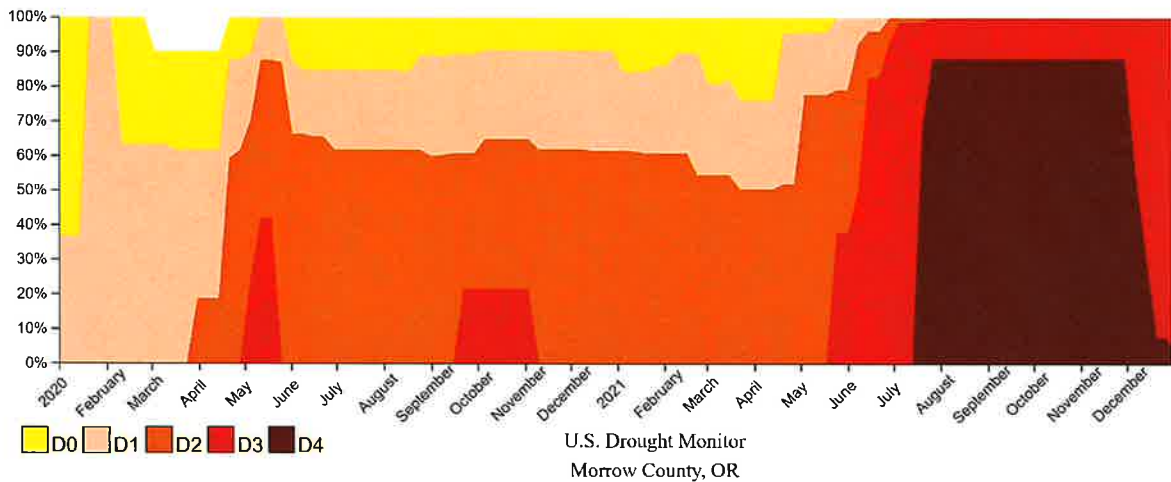
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>



**droughtmonitor.unl.edu**

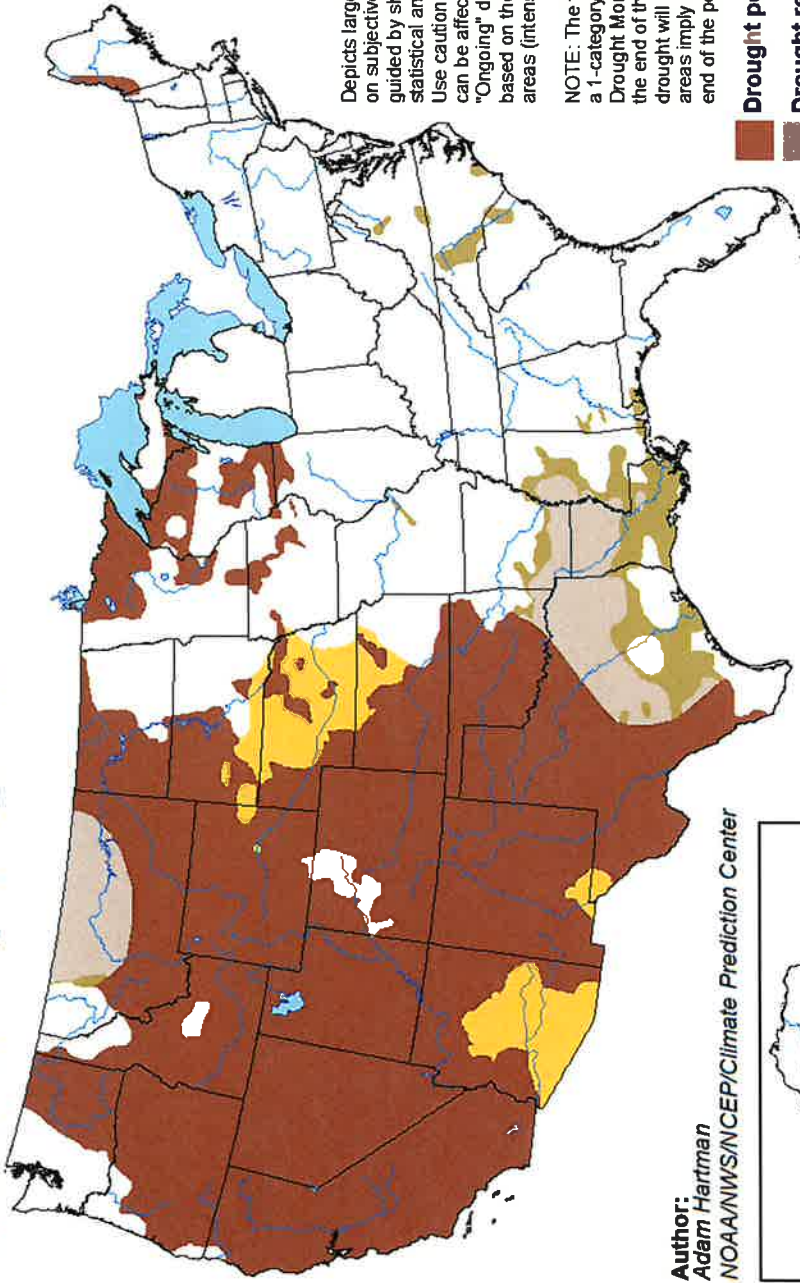
## Historical Conditions for Morrow County

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# U.S. Monthly Drought Outlook Drought Tendency During the Valid Period

Valid for February 2022  
Released January 31, 2022

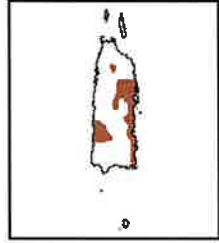
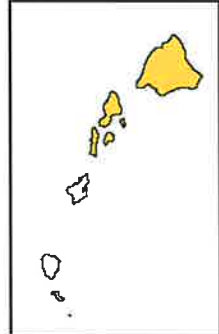


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

- Drought persists
- Drought remains but improves
- Drought removal likely
- Drought development likely

**Author:**  
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NOAA/NWS/NCEP/Climate Prediction Center



<http://go.usa.gov/3eZGd>