

# THE ATMOSPHERIC RESERVOIR

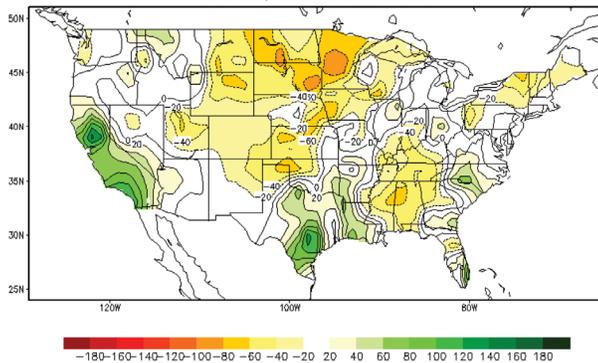
Examining the Atmosphere and Atmospheric Resource Management

## WET FALL, DRY SPRING

By Mark D. Schneider

After last Fall's record precipitation, many North Dakotans were wishing for a dry winter and spring. Flood potential, especially in the James and Red River Valleys, continued to increase through the 2019-20 winter, as near average snowfalls accumulated in the central and eastern parts of our state on top of already saturated soils. Drier conditions in spring have allowed farmers to harvest some of last season's leftover crops and seed new crops for this growing season. In fact, North Dakota saw its fifth driest February through April on record!

Calculated Soil Moisture Anomaly Change  
MAY 28, 2020 from FEB.28

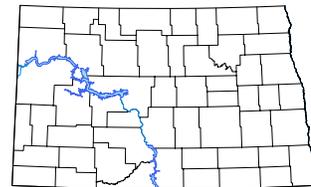


The soil moisture anomaly map from the Climate Prediction Center (CPC) shows the significant change that occurred between winter and late spring: soils really dried out across most of the northern plains. This is further depicted by comparing the U.S. Drought Monitor maps from September 24, 2019 and May 26, 2020. The May drought monitor indicated D1 (Moderate Drought) conditions already occurring in parts of southwest North Dakota. These returning drought conditions are easily understood when looking at precipitation for Bismarck and Hettinger on each end of this region. According to National Weather Service precipitation records, Bismarck finished May 1.79 inches below normal, while Hettinger was 2.19 inches below normal for May.

### U.S. Drought Monitor North Dakota

September 24, 2019  
(Released Thursday, Sep. 26, 2019)  
Valid 6 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0	D1	D2	D3	D4
Current	100.00	0.00	0.00	0.00	0.00	0.00
Last Week	100.00	0.00	0.00	0.00	0.00	0.00
3 Months Ago	58.32	41.68	14.55	3.77	0.00	0.00
Start of Calendar Year	62.21	33.79	15.48	0.00	0.00	0.00
Start of Water Year	16.36	83.64	44.37	16.78	1.29	0.00
One Year Ago	16.36	83.64	44.37	16.78	1.29	0.00



**Intensity:**  
 None (White)      D2 Severe Drought (Orange)  
 D0 Abnormally Dry (Yellow)      D3 Extreme Drought (Red)  
 D1 Moderate Drought (Light Orange)      D4 Exceptional Drought (Dark Red)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:  
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U.S. Department of Agriculture



droughtmonitor.unl.edu

### U.S. Drought Monitor North Dakota

May 26, 2020  
(Released Thursday, May 28, 2020)  
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0	D1	D2	D3	D4
Current	43.25	56.75	16.20	0.00	0.00	0.00
Last Week	43.25	56.75	16.20	0.00	0.00	0.00
3 Months Ago	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year	100.00	0.00	0.00	0.00	0.00	0.00
One Year Ago	75.95	24.05	0.00	0.00	0.00	0.00



**Intensity:**  
 None (White)      D2 Severe Drought (Orange)  
 D0 Abnormally Dry (Yellow)      D3 Extreme Drought (Red)  
 D1 Moderate Drought (Light Orange)      D4 Exceptional Drought (Dark Red)

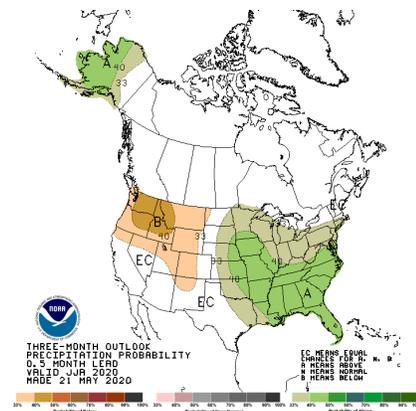
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

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The CPC was forecasting near normal precipitation for North Dakota during the June through August period with slight indications of drier conditions over the far west and wetter conditions over the southeastern part of our state. Here's hoping for a good growing season.



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