



North Dakota Monthly Climate Summary

April 2018

Volume: 12, No: 4

Precipitation

North Dakota State Climate Office: Your Resource for Climate Information

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Based on the National Centers for Environmental Information (NCEI), the statewide total April precipitation was 0.49 inch, which was 0.88 inch less than last month, 0.48 inch less than in April 2017 and also 0.73 inch less than the 1981-2010 average, making it the 14th driest April in the 124-year period of record. It was the driest April since 1988. Well-below-average precipitation was observed commonly in all parts of the state except for the southwest, where above-average conditions were observed (Figure 1). The greatest monthly precipitation accumulation was 2.1 inches, recorded in Bowman, Bowman County. The greatest 24-hour precipitation was 0.53 inch, recorded in Ashley, Dickey County, on April 3. The greatest monthly snowfall accumulation was 20.1 inches, recorded in Fullerton, Dickey County. The greatest 24-hour snowfall was 18 inches, also recorded in Fullerton, Dickey County, on April 8. Based on historical records, statewide April precipitation showed a slight positive long-term trend trend of 0.01 inch per century since 1895. The highest and lowest April precipitation for the state ranged from 3.71 inches in 1986 to 0.11 inch the following year in 1987 (Figure 2).

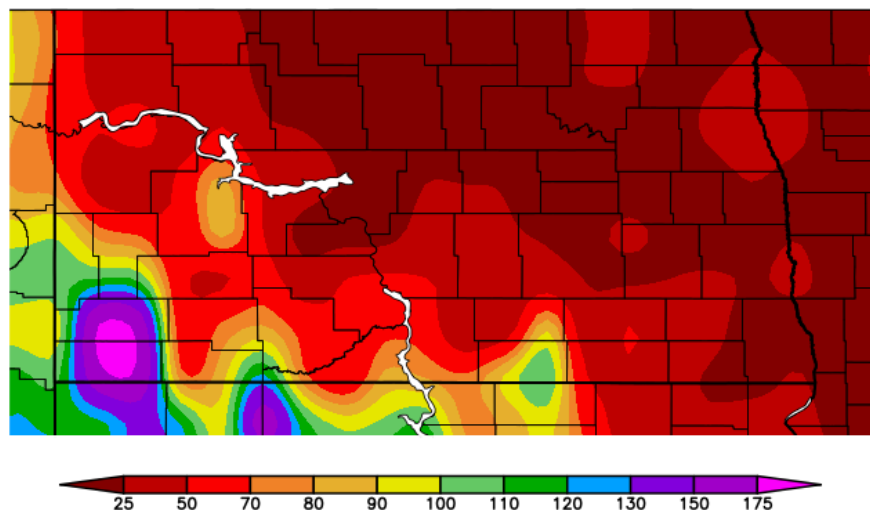


Figure 1. April 2018 precipitation percent of normal for North Dakota. (High Plains Regional Climate Center, NOAA)



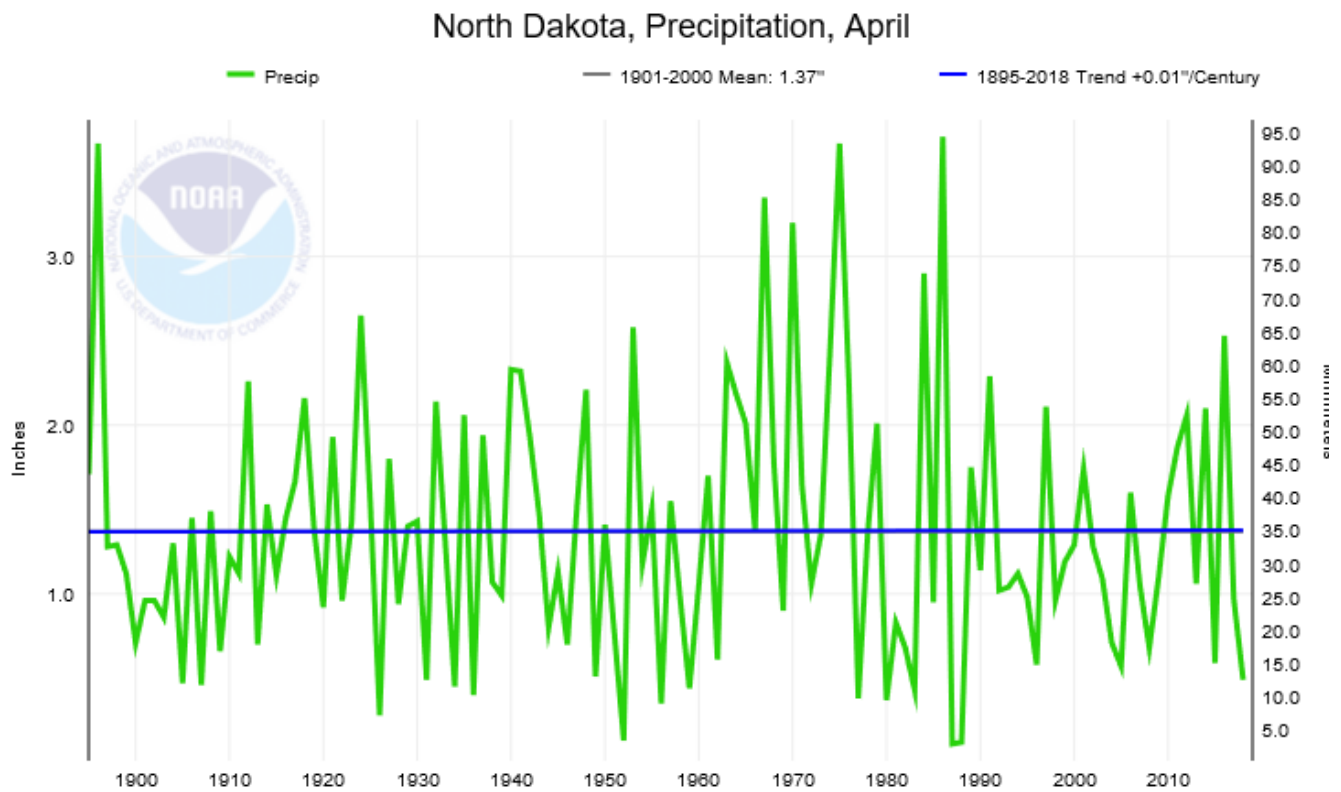
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April Precipitation Statistics

Record high value: 3.71 inches in 1986

Record low value: 0.11 inch in 1987

Trend: 0.01 inch per century

April 2018 value: 0.49 inch

1981-2010 average: 1.22 inches

Monthly ranking: 14th driest

Record length: 124 years

Figure 2. Historical April precipitation time series for North Dakota.



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Temperature

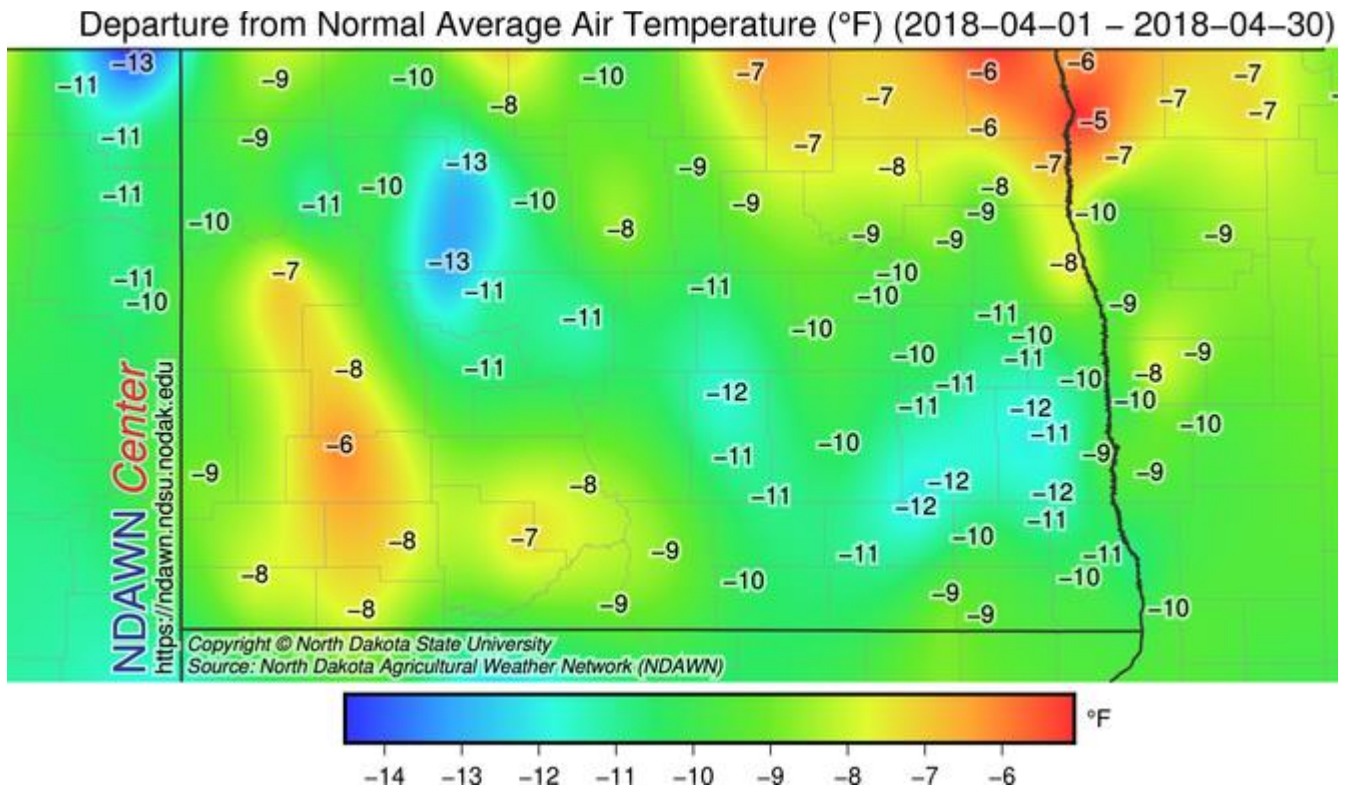


Figure 3. April 2018 temperature departure from normal for North Dakota. (NDAWN)

The official state average April temperature was 32.8 F, only 7.7 F warmer than last month but 10 F colder than in April 2017 and 9.6 F colder than the 1981-2010 average, making it the fifth coldest April in the 124-year period of record. It was the coldest April since 2013. Below-average temperatures were observed commonly in the state, with the highest departure from the average in the northwestern part of the state (Figure 3). The state's highest and lowest daily temperatures ranged from 84 F on April 29 in Dickinson, Stark County, to minus 10 F on April 6 and 7 in Max, McLean County, and at Lake Metigoshe, Bottineau County, on April 3. Based on the historical records, the state average April temperature showed no trend since 1895. The highest and the lowest monthly state April average temperatures ranged from 40.6 F in 2012 to 7 F in 1899 (Figure 4).



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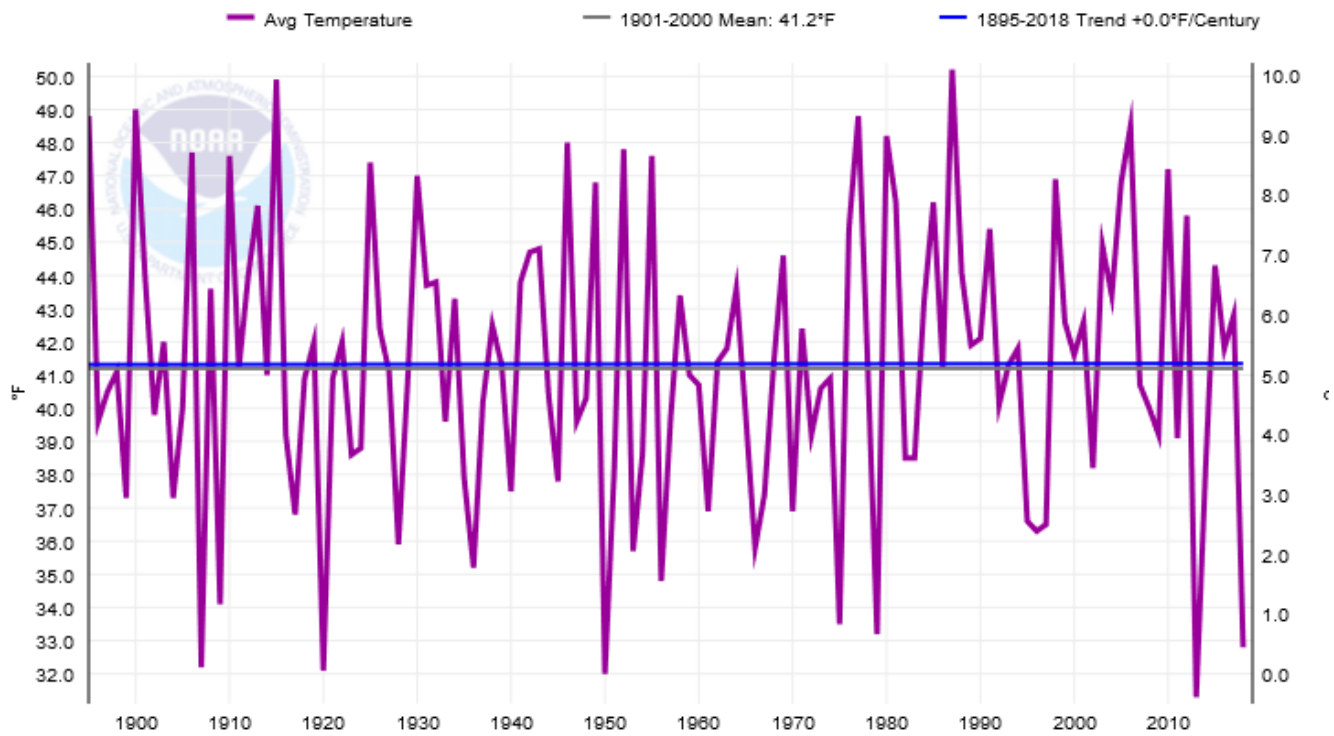


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North Dakota, Average Temperature, April



April Temperature Statistics
Record high value: 50.2 F in 1987
Record low value: 31.3 F in 2013
Trend: 0 F per decade

April 2018 value: 32.8 F
1981-2010 average: 42.4 F
Monthly ranking: 5th coldest
Record length: 124 years

Figure 4. Historical April temperature time series for North Dakota.



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Notable Impacts

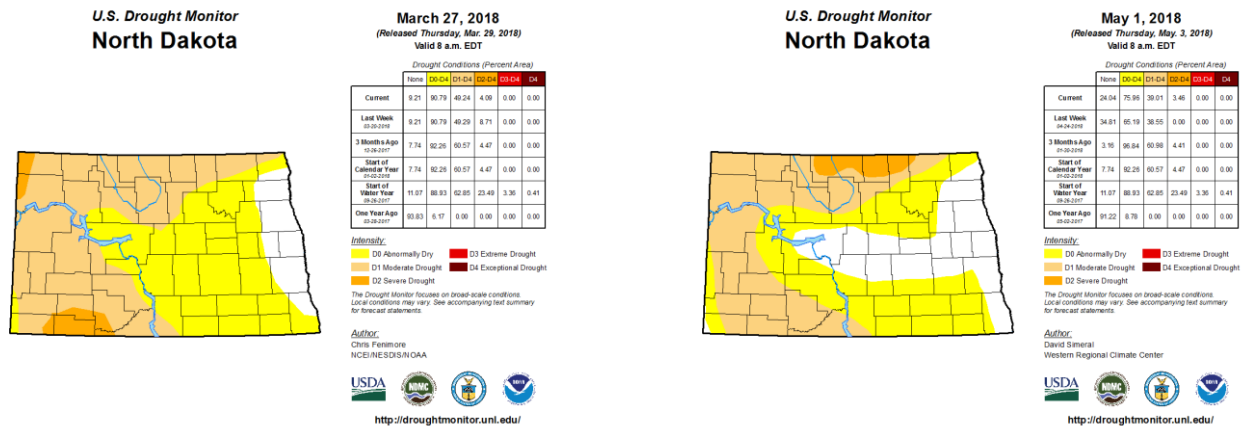


Figure 5. Drought Monitor map comparison for North Dakota in the beginning (on the left) and at the end (on the right) of April 2018.

Drought Monitor (DM): Drought conditions improved toward the middle of the month, compared with the beginning of the month. However, the rainy momentum from March reversed in April. Toward the end of April, a severe drought was spotted in the north-central part of the state as seen in the Drought Monitor map published on May 1. By the end of the month, 39 percent of the state was experiencing drought, 3 percent of which was in the severe category. Figure 5 shows a comparison of the drought conditions across the state from the beginning to the end of the month. Figure 6 on the right shows the statewide drought coverage in percentage and intensity (D0, D1 and D2) in a time scale representing the state from the beginning to the end of the month, with a one-week resolution.

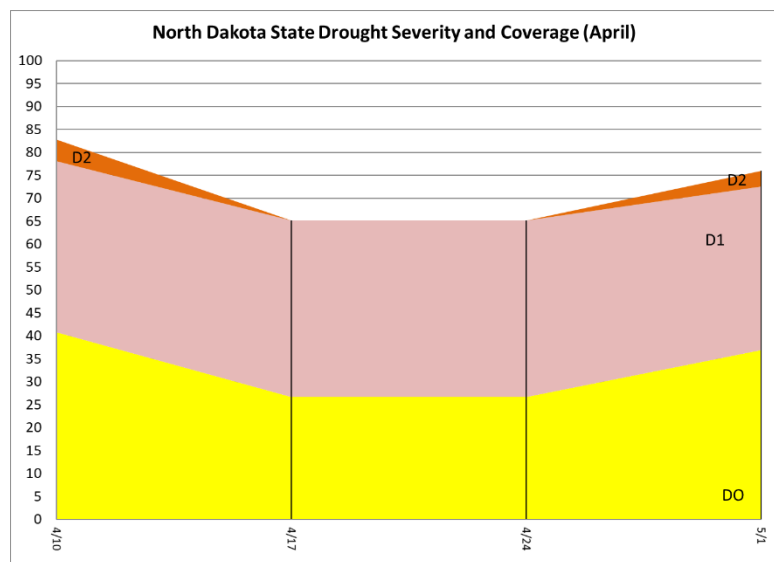
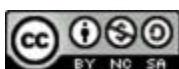


Figure 6. North Dakota drought severity and coverage for April 2018.

Storm Reports: NDAWN's highest peak gust in April was 48 mph, recorded at the Edgeley weather station in LaMoure County on April 23, 2018.



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The NOAA Storm Report reported no significant storm events in April.

Daily Record Event in April: Across the observation network of weather stations with at least 30 years of history, a total of 126 daily low-temperature-related records were set or tied. A total of 13 highest daily precipitation-related records were set or tied. Details of the records are in Table 1 below.

Table 1. Summary of daily April records broken or set in North Dakota in April. (NCEI Daily Weather Records)

<i>Category</i>	Number of Records
<i>Highest daily max. temp.</i>	0
<i>Highest daily min. temp.</i>	0
<i>Lowest daily max. temp.</i>	61
<i>Lowest daily min. temp.</i>	65
<i>Highest daily precipitation</i>	1
<i>Highest daily snowfall</i>	12
Total	139

*Highlight of the Month**

*A lowest daily minimum temperature record of minus 10 degrees was set in **Max** on **April 6 and 7**, breaking the previous record for those dates by 6 degrees and 9 degrees, which were set in 1979 and 1936, respectively (years on record: 89).*

**The records in this box may be different than the record on Pages 1 and 3 due to the fact that this page only include records for stations with at least 30 years of history.*

