



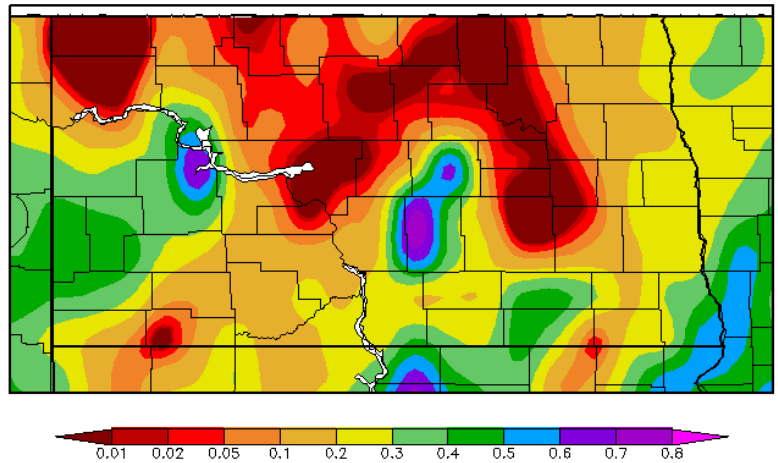
# North Dakota Monthly Climate Summary

**December 2014**

## Precipitation:

December 2014 was dry with many locations in North Dakota recording less than 0.2 inches of precipitation (Figure 1). Using data from the Cooperative Network and CoCoRaHS, the statewide average precipitation for the month was 0.21 inches. That is below the 30 year average of 0.52 inches. December was the fourth consecutive month with below average precipitation in many parts of North Dakota. Because of that recent dryness, the U.S. Drought Monitor now lists 68 % of North Dakota in either Abnormally Dry or Moderate Drought conditions.

Precipitation (in)  
12/1/2014 – 12/31/2014



Generated 1/2/2015 at HPRCC using provisional data.

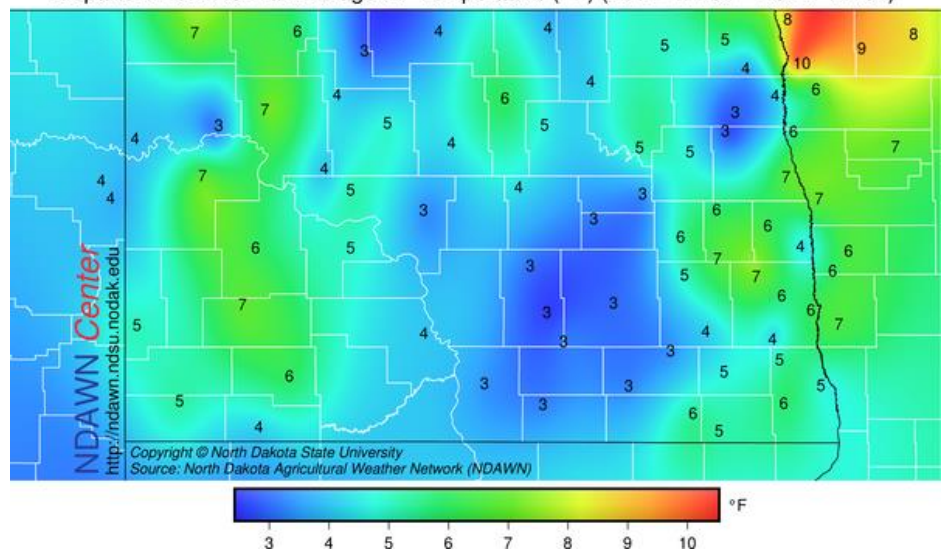
Regional Climate Centers

**Figure 1. Precipitation Percent of Normal in December 2014 for North Dakota (High Plains Regional Climate Center (HPRCC))**

## Temperature:

The year 2014 as a whole was persistently cold with a high percentage of the months finishing with temperatures below average. There were two exceptions to that rule, the first was the month of October that finished above average and the other was December that finished well above average (Figure 2). The NDAWN (North Dakota Agricultural Weather Network) average temperature was 18.5 degrees which is 4.5 degrees above average. That would rank December 2014 as having the highest positive temperature anomaly of any month during the year and only the second December with above average temperatures in the past eight years.

Departure from Normal Average Air Temperature (°F) (2014-12-01 – 2014-12-31)



**Figure 2. Temperature Departure from Normal in December 2014 for North Dakota (North Dakota Agricultural Weather Network, NDAWN)**

## Notable Weather:

The warmer than average temperatures in December were directly related to a persistent stratus cloud deck that remained trapped under a strong temperature inversion that plagued the region off and on from December 7 through December 25. That tenacity of low clouds and fog made for small diurnal changes from low to high temperatures. Because the overnight temperatures were only in many cases a few degrees cooler than the previous day maximums, several records were broken during the month for high minimums. Examples of some of these record high minimums are presented in Figure 3. Fargo Hector International Airport recorded five straight record high minimums from December 20 through December 24. Grand Forks managed four straight record high minimums from December 11 through December 14. Other parts of the region also recorded such records making the numerous warm minimums the most notable weather feature of the month.

### Highest Min Temperature - December 22 for North Dakota

[Click column heading to sort ascending, click again to sort descending.](#)

| Name                 | Station Type | Record | Year | Valid Date Range         |
|----------------------|--------------|--------|------|--------------------------|
| FARGO HECTOR INTL AP | WBAN         | 34     | 2014 | 1891-05-27 to 2014-12-22 |
| MC LEOD 3 E          | COOP         | 29     | 2014 | 1912-04-01 to 2014-12-22 |
| GRAND FORKS UNIV     | COOP         | 33     | 2014 | 1893-01-01 to 2014-12-22 |
| DEVILS LAKE MUNI AP  | WBAN         | 30     | 2014 | 1963-07-01 to 2014-12-22 |
| GRAND FORKS INTL AP  | WBAN         | 33     | 2014 | 1965-03-31 to 2014-12-22 |
| PEMBINA              | WBAN         | 28     | 2014 | 1898-05-01 to 2014-12-22 |

### Highest Min Temperature - December 23 for North Dakota

[Click column heading to sort ascending, click again to sort descending.](#)

| Name                 | Station Type | Record | Year | Valid Date Range         |
|----------------------|--------------|--------|------|--------------------------|
| FARGO HECTOR INTL AP | WBAN         | 31     | 2014 | 1891-05-27 to 2014-12-23 |
| OAKES 2 S            | COOP         | 32     | 2014 | 1922-09-19 to 2014-12-23 |
| MC LEOD 3 E          | COOP         | 31     | 2014 | 1912-04-01 to 2014-12-23 |
| JAMESTOWN STATE HOSP | COOP         | 31     | 2014 | 1881-06-21 to 2014-12-23 |
| MAYVILLE             | COOP         | 32     | 2014 | 1893-01-01 to 2014-12-23 |
| GRAND FORKS UNIV     | COOP         | 30     | 2014 | 1893-01-01 to 2014-12-23 |
| DEVILS LAKE MUNI AP  | WBAN         | 25     | 2014 | 1963-07-01 to 2014-12-23 |
| WILLOW CITY          | COOP         | 28     | 2014 | 1893-01-01 to 2014-12-23 |
| CAVALIER 7NW         | COOP         | 29     | 2014 | 1934-08-01 to 2014-12-23 |
| BOTTINEAU            | COOP         | 27     | 2014 | 1893-01-01 to 2014-12-23 |
| STREETER 7 NW        | COOP         | 28     | 2014 | 1987-08-01 to 2014-12-23 |
| GRAND FORKS INTL AP  | WBAN         | 30     | 2014 | 1965-03-31 to 2014-12-23 |
| PEMBINA              | WBAN         | 32     | 2014 | 1898-05-01 to 2014-12-23 |

**Figure 3. Record High Minimum Temperatures on December 22 and 23, 2014**