

Northern Plains - Current Drought Conditions

Highlights for the Region

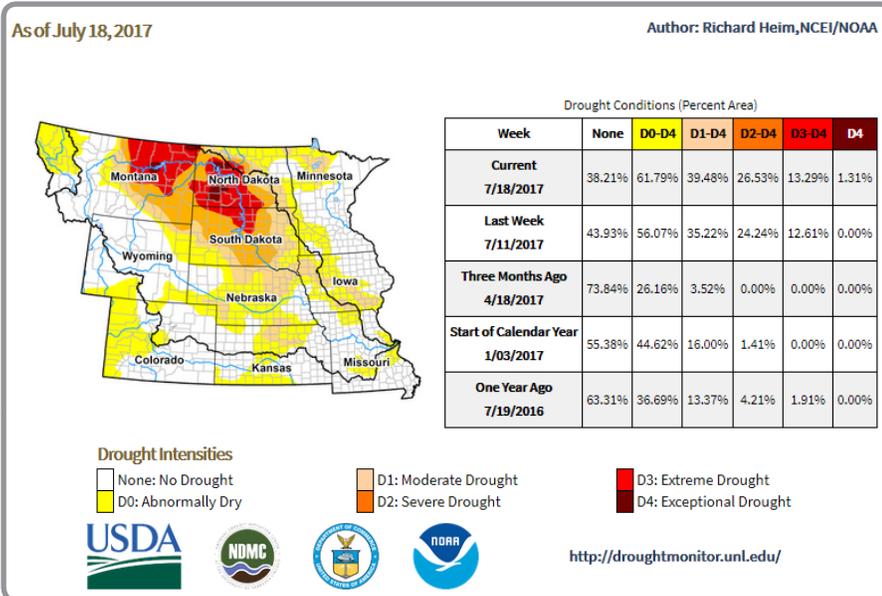
Over the past month, drought conditions have rapidly spread and intensified across the Northern Plains. According to the latest release of the U.S. Drought Monitor on July 18th, approximately 40% of the Missouri River Basin is now in drought. This impacts over a million people.

The USDA recently approved emergency haying of CRP acres, while the hardest hit states all have ways to connect ranchers in need of hay with those who have hay to sell.

Montana: The Montana Department of Agriculture offers a Hay Hotline for producers looking to buy or sell hay. The site may be accessed here: <http://agr.mt.gov/Hay-Hotline>.

North Dakota: The North Dakota Department of Agriculture offers an interactive map for producers to help them locate hay. This map may be accessed here: <http://arcg.is/2t6sl1Z>.

South Dakota: South Dakota State University Extension provides a Feed & Forage Finder, which is available via Facebook group. Simply click the "Join Group" button to join in the conversation: www.facebook.com/groups/560422267324542/.



The U.S. Drought Monitor, established in 1999, is a weekly map of drought conditions that is produced jointly by the National Oceanic and Atmospheric Administration, the U.S. Department of Agriculture, and the National Drought Mitigation Center (NDMC) at the University of Nebraska-Lincoln. The U.S. Drought Monitor website is hosted and maintained by the NDMC. <http://droughtmonitor.unl.edu>

Northern Plains - Climate Overview for Last 30 Days

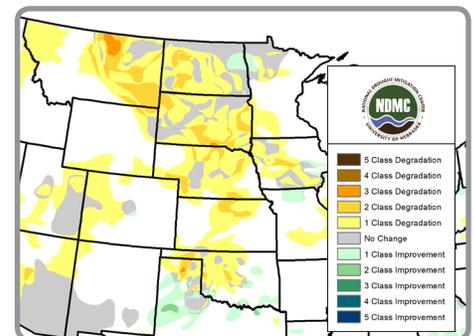
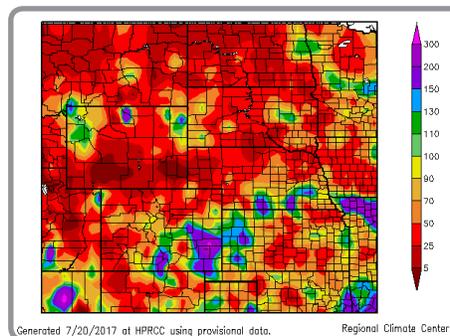
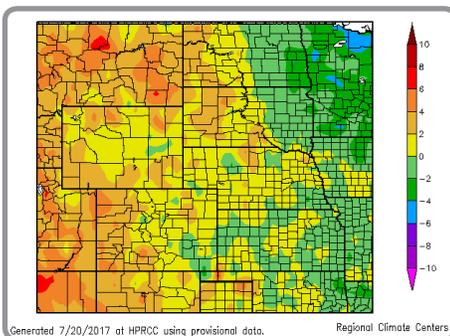
Temperature and Precipitation Anomalies

Departure from Normal Temperature (°F)
June 20 - July 19, 2017

Percent of Normal Precipitation (%)
June 20 - July 19, 2017

Drought Expansion

U.S. Drought Monitor Class Change
1 Month: June 20 - July 18, 2017



Generally, temperatures since late June have been above normal for the much of the Northern Plains, with several areas having departures of at least 2-4°F above normal. After a brief cooldown at the end of June, July has been exceptionally warm, with month-to-date temperature departures of 6-10°F across portions of Montana and the Dakotas. Interestingly, during this time, several locations set new record lows with temperatures only in the 40°Fs, while new record highs were set due to widespread temperatures above 100°F.

Precipitation continued to be much below normal over the past month, with the majority of the Northern Plains receiving less than 50% of normal precipitation. Year-to-date precipitation totals indicate widespread deficits of 3-6 inches across eastern Montana and the Dakotas, with some isolated pockets of 6-9 inches below normal. Heavy rains in some locations, like south-central Nebraska, have eliminated short-term dryness, but areas in drought largely missed out on potentially beneficial rains.

Since the June 20th release of the U.S. Drought Monitor, drought conditions have continued to expand and intensify across the region. Some of the largest gains occurred in South Dakota where drought now encompasses 82% of the state, which is a 25% increase in coverage since the end of last month. Recent storms brought rainfall to some areas; however this was not enough to provide relief to drought conditions. Exceptional Drought (D4) was introduced to areas of eastern Montana and western North Dakota just this week.

Northern Plains - Drought Impacts

Agriculture

Impacts to agriculture continue to mount with numerous crops impacted. Currently, about 50% of the nation's spring wheat production is within drought and the percentage of the crop in poor to very poor condition increased significantly since June. Spring wheat futures have also spiked in response to the ongoing drought and outlooks. Stunted growth in corn and soybeans continues to be an issue. In some areas, producers have begun to cut corn for silage.

Cattle producers continue to cull herds as feed shortages persist. Additionally, there have been scattered reports of poor water quality in stock ponds, which has resulted in cattle deaths.



Above: (Left) Drought-impacted corn in South Dakota, photo courtesy Tom Young via Twitter, and (Right) Dead cow due to poor water quality in South Dakota, photo courtesy Eva Nyquist via the Drought Impact Reporter.

Water Resources

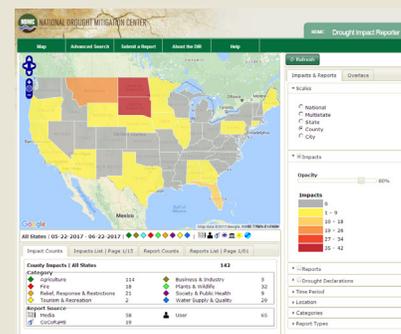
At the beginning of the summer, drought impacts were primarily confined to the agricultural sector; however, water resources are starting to be stressed. Widespread water restrictions have not gone into effect, but some communities and producers have been impacted by isolated restrictions. For instance, in north-central Montana, the Rocky Boy's Indian Reservation is facing water shortages for its 3,000 residents.

Streamflows in the Dakotas have recently declined, with many locations reporting below normal to much below normal flows. The main stem of the Missouri River has not shown any impacts to drought due to ample snowfall last winter and spring.



Report Your Impacts

Are you experiencing drought impacts in your area? Please report them to the National Drought Mitigation Center's Drought Impact Reporter. Started in 2005, this database is used by the U.S. Drought Monitor authors to better understand the conditions on the ground.

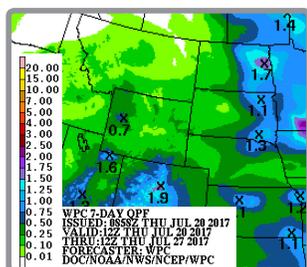


<http://droughtreporter.unl.edu/map/>

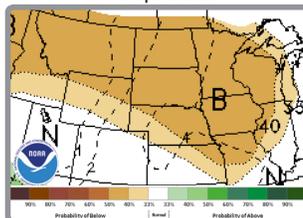
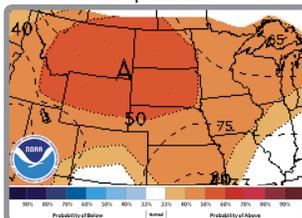


Northern Plains - Short- and Long-term Outlooks

Weather, Climate, and Wildfire Outlooks



8-14 Day Outlooks valid for July 28 - August 3, 2017



Neither the short- nor long-term outlooks offer much drought relief. The Quantitative Precipitation Forecast map in the upper left depicts the amount of precipitation expected over the next 7-day period. For the Northern Plains, small amounts are expected to the west, while heavier amounts are expected in the east. Through the beginning of August, the 8-14 day temperature and precipitation outlooks (center and right, respectively), indicate the potential for continued hot and dry conditions across the Northern Plains. In the longer-term, the NOAA Climate Prediction Center extended outlooks indicate enhanced odds for warmer conditions across the entire region in August.

According to the National Interagency Fire Center, there is an above normal risk for significant wildland fires for eastern Montana, western portions of the Dakotas, and northeast Wyoming in July. Burn bans have already gone into effect in several communities, and firework bans were common for 4th of July festivities. Looking ahead, eastern Montana and western North Dakota are at an above normal risk for significant wildland fires through October.

Stay Tuned and In Touch

If you need more drought information, please reach out to any of the partners listed to the right or contact your local State Climatologist directly:

Montana: Kelsey Jencso, state.climatologist@umontana.edu

North Dakota: Adnan Akyuz, adnan.akyuz@ndsu.edu

South Dakota: Laura Edwards, laura.edwards@sdstate.edu

Partners

High Plains Regional Climate Center
<https://hprcc.unl.edu>

National Drought Mitigation Center
www.drought.unl.edu

National Integrated Drought Information System
www.drought.gov
www.drought.gov/drought/dews/missouri-river-basin

National Centers for Environmental Information
www.ncdc.noaa.gov

National Weather Service
<http://www.weather.gov>

Montana Department of Natural Resources & Conservation
<http://dnrc.mt.gov/>

Montana State Climate Office
<http://climate.umt.edu/>

North Dakota State Climate Office
<https://www.ndsu.edu/ndsc/>

South Dakota State Climate Office
<https://climate.sdstate.edu/>

South Dakota State University Extension
<http://igrow.org/>

USDA Northern Plains Regional Climate Hub and University of Wyoming Extension
www.climatehubs.oce.usda.gov/northernplains

