Exceptional drought continues across a few parts of North Dakota, with some improvement of drought conditions across the state over the past couple of weeks.

Drought is expected to persist through the fall across all of North Dakota, although further improvement is possible in the central and eastern parts of the state.
Since October 1st, 2020, North Dakota has been warmer and much drier than average. The summer season in particular saw well above average temperatures across the state. Some locations have fared well with rainfall over the past few weeks which led to improvement in drought conditions.
Most of the state received beneficial rains over the past 14 days, except for parts of the west. Drought conditions improved in a few areas, with soil moisture percentiles very low across the west but near normal in the far southeast.
Climate
September has been slightly warmer than normal so far, with above normal temperatures favored through the end of the month. Precipitation has been near normal, with below average precipitation favored through the end of September. Beneficial rains from the past few weeks led to improvement of drought conditions across parts of the state. The trend towards above average temperatures weakens for the fall season, with below average precipitation still favored during this time. Confidence continues to increase that La Niña will develop during the late fall and early winter. This would favor colder than average temperatures during the winter and early spring, but does not provide any tilting of the odds towards above, below, or near normal for winter precipitation.

Hydrology
Despite the brief respite recent rains have provided, overall the region is still within a longer term drought. Nonetheless, recent rains and cooler weather have combined to provide some relief and that has been reflected with some improvement on the USDM map. This improvement is generally limited to a greening of the countryside as lakes, rivers, and wetlands have not yet rebounded to near normal levels, nor has there been significant production of forage for livestock. Some of this is season dependent as native grasses generally go dormant by the end of September due to the average first frost across the state being roughly the third week of September. Once vegetation dies or becomes dormant comes the best opportunity to start improving soil moisture for the next growing season. Lower temperatures and lack of vegetative transpiration allows any moisture received a better opportunity to infiltrate soils and be stored for our next growing season.

Fire Weather
Recent widespread rain has resulted in new grass growth over much of the area. The exception is some parts of western North Dakota where the rains missed. With that said, taller and denser cured grass can still readily carry fire. In addition, dead wood fuels remain very dry and readily burn, especially over many parts of western North Dakota. Therefore, fire concerns continue.
Streamflow levels are near normal in most locations. Only a few isolated locations show much below or much above normal levels.
Drought Briefing

CPC 8-14 Day Outlook for September 17-23

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

Valid for September 2021
Released August 31, 2021

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).

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http://go.usa.gov/3eZGd
Drought Briefing

Summary

• Drought is expected to persist through the fall, with some improvement of drought conditions recently due to widespread rain.
• Warm and dry weather is favored for the rest of September, with a weak tilt towards a warm and dry fall across the state.
• Although recent rains are resulting in new grass growth, taller and denser cured grass can still readily carry fire. Also, dead wood fuels continue to readily burn, especially over many parts of western North Dakota. Therefore, fire concerns continue.

Partners

National Drought Mitigation Center - https://drought.unl.edu/
USDA Climate Hubs - https://www.climatehubs.usda.gov/hubs/northern-plains
US Forest Service - https://www.wfas.net/
Midwestern Regional Climate Center - https://mrcc.illinois.edu/
High Plains Regional Climate Center - https://hprcc.unl.edu/
Report Drought Conditions: https://droughtreporter.unl.edu/submitreport/
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