Drought Impacts and Climate Outlook

Wyoming — Climate Overview

Highlights for the State

Temperatures in the western portions of the state were generally below normal while those in the eastern plains were above normal.

Precipitation in parts of the far northeast and far northwest was a little above normal while most of the rest of the state was well below normal with a large number of stations receiving less than 25% of their normal July precipitation.

Drought conditions are worsening throughout much of the state except for the far western parts where Teton County remains the only one with no level of drought in it all.

Numerous fires have ignited across the state, especially, but not limited to, the central and northcentral parts as a consequence of winds and temperature making for very dry fuels. Fire restrictions are in place in many parts of Wyoming.

Temperature and Precipitation

 \mathbf{W} yoming experienced its 42nd warmest July of the last 126 years. Climate Division (CD) 8 had the warmest ranking in the state coming in as

the 19th warmest July for that area. CD 10 came in second having its 29th warmest July. CD 2 had the coldest ranking being at its 86th warmest (41st coolest) since 1895.

Wyoming had its 19th driest July of the last 126 years. CD 10 in the south central part of the state was ranked as its 7th driest with CD 3 and 8 having their 13th and 15th driest July respectively. On the wetter end of the scale, CD 6 ranked as having its 93rd Driest (34th wettest) July.



The month of August (thru the 6th) has had well below-normal precipitation across all of the state except for a few spots in the north central parts and a few other isolated stations. Temperatures have been above normal for the western two-thirds of the state and both these conditions are going to contribute to drought conditions continuing or worsening.



Wyoming — Current Drought Conditions



Winds, warm temperatures, and below average precipitation have worsened drought conditions in Wyoming to the point where the last two weeks of July saw the first D3 (Extreme Drought) in the state since the 9th of October 2018.

Big Horn, Johnson, Natrona, Washakie, and Hot Springs Counties all have some D3 within their borders. Fremont, Sweetwater, Carbon, Albany, Platte, Goshen, Converse, Niobrara, Campbell, and Fremont Counties as well as the Wind River Reservation all have varying amounts of D2 (Severe Drought) within them. Pockets of D0 (Abnormally Dry) continue to linger in other counties.

Lincoln, Park, Teton, Fremont, and Sublette Counties are the only ones remaining that have a portion of the county drought free.

Temperatures are expected to be above normal for the next week while precipitation for the next few weeks is expected to be below normal. Evaporative demand is high in the south -central part of the state which could worsen conditions

The U.S. Drought Monitor, is a weekly map of drought conditions 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

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Wyoming — Drought Indicators

Evaporative Demand

The Evaporative Demand Drought Index (EDDI) is showing normal to lowdemand conditions across the northern and much of the western quarter of Wyoming. South-central Wyoming is having high and extremely high demand.

Looking at the two-week index, most of Wyoming is showing normal deman with a few areas in the north and far west actually having less than normal demand. At the four-week timescale, southern, especially south central and southwest, Wyoming is having a higher evaporative demand.

 $\label{eq:additional products can be found at: http://www.wrds.uwyo.edu/products_and_data.html$

Do you have drought impacts to report? We need your on-the-ground reports and you can input them here: http://droughtreporter.unl.edu/submitreport/



Wyoming — Outlook

Water Resources

Most of the larger reservoirs in Wyoming are at about 70% capacity with many being at 80% or more. Pathfinder and Glendo are in the 60% to 70% category.

Reservoir conditions may be viewed online at: http://www.wrds.uwvo.edu/surface_water/teacups.html

Streamflows in Wyoming are mixed. Many gauges are above normal although some in Carbon, Fremont, Lincoln, Uinta, Teton, and Sublette Counties are below normal.

The map below shows streamflow conditions in Wyoming as of July 31.



Climate Outlook

The three-month temperature outlook for the August to October period is for above normal

Three-Month Outlook Valid Sep, Oct, Nov



bok for the August to October period is for above normal temperatures across the entire state. The chances for above normal conditions increases from north to south. There is more uncertainty for precipitation although the northeast has better chances for above normal precipitation while the southwestern part has the greatest chances for below normal precipitation.

For the three-month period of September thru November, much the same expectations can be had for temperature and precipitation although during this time period, the northeast part of the state goes from the possibility of above normal precipitation to just equal chances of above, below, or normal precipitation.

With above normal temperatures predicted for Wyoming in the coming months as well as below normal precipitation in some areas, we can expect drought conditions to continue or even expand both in area and intensity across Wyoming.

Need

Need a Forecast?

Visit your local National Weather Service Weather Forecast Office for the most up-to-date forecast at: http://www.weather.gov

Stay Tuned and In Touch

You can help us

We are continually looking for precipitation observers and will

equip Wyoming volunteers with a 4" rain gauge. To sign up,

select "Join CoCoRaHS" at https://cocorahs.org

The next Wyoming Drought Impacts and Climate Summary will be released in September. If you need information in the meantime, please reach out to any of the partners listed to the right or contact Tony Bergantino directly at Antonius@uwyo.edu

The Wind River Indian Reservation and Surrounding Area Conditions may be found here: https://hprcc.unl.edu/windriver.php

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Heard Around the State

Hot Springs Co., Jul 30: "NO grass growth, we have dried grass from last year in our pastures, just about our only feed for stock and wildlife."

Johnson Co., Jul 20: "Feeding the llama hay; observed wildfires in the distance. worried about the well."

Niobrara Co., Jul 19: "Windy, but no rain at all this week. Grasshoppers denuding the pastures and fields. Rills forming in the uncovered soil."

Sweetwater Co., Jul 12: "Water well is now running 7 hours a day, where we usually only water 5 hours to keep the trees, shrubs and lawn from dying."

Partners

Wyoming State Climate Office

www.wrds.uwyo.edu National Integrated Drought Information System

www.drought.gov

National Weather Service

Riverton Weather Forecast Office www.weather.gov/riw/

Cheyenne Weather Forecast Office www.weather.gov/cys/

High Plains Regional Climate Center www.hprcc.unl.edu

National Drought Mitigation Center www.drought.unl.edu

USDA Northern Plains Climate Hub and University

of Wyoming Extension

www.climatehubs.oce.usda.gov/northernplains/ Western Water Assessment wwa.colorado.edu

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