Drought Impacts and Climate Outlook

Wyoming — Climate Overview

Highlights for the State

Temperatures for September were mostly within $2^{\circ}F$ of normal with some stations in the northern half of the state being as much as $3^{\circ}F$ below normal.

Precipitation for September was well above normal throughout much of Wyoming. Some stations in the state, mostly in the east, had precipitation amounts 50% to 90% of normal.

Since the last Outlook, drought conditions have both improved or degraded depending upon what part of the state you look at. There were improvements in the northwest part of Wyoming but, In the northeast, although areas of D2 (Severe) Drought have improved, D0 (Abnormally Dry) conditions have expanded in area. Drought intensity in the south has remained the same at D0 while the area impacted has expanded.

The fire season is winding down with only the Pole Creek fire in the west being considered active. This 3600-acre fire is at 96% containment and activity is minimal.

Temperature and Precipitation

September temperatures were about average for most of Wyoming. The state, as a whole, ranked as the 55th warmest since 1894. The individual Climate Divisions (CD) ranged from the 45th

warmest (CDs 1 and 8) to the 69th warmest (CD 9).

October temperatures to date (through the 24th) are running below normal across most of the state with the western quarter having some of the coolest temperatures relative to normal.



September precipitation for Wyoming was above normal with the eastern part of the state being a bit drier, but sill above normal. The

state, itself, had the 12th wettest September since 1894. CD 1 was the wettest, ranking 2nd wettest of the last 123 years. CD 2 was close behind, ranking as the 3rd wettest.

October precipitation has been below normal for most of the state. Only a few stations in central and southeast Wyoming have precipitation totals for October that are above normal.



Wyoming — Current Drought Conditions



Drought levels have improved some in much of the state compared to what they were at the time of the last report. D0 (Abnormally Dry) conditions in Park County have been removed.

In the northeast, the areas of D2 (Severe Drought) in northern Campbell and Crook counties has been upgraded to D1 (Moderate Drought). Some areas of D0 in central Campbell County have improved.

In the south, D0 has expanded eastward to cover more of Carbon County.

In the east, an area in northeastern Niobrara and southeast Weston counties has had some D0 conditions develop.

Drought conditions in the northeast are expected to continue over the next few months while some improvements will likely take place throughout the rest of Wyoming.

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) over the 2-Week period ending 21 October is starting to show high-demand conditions across Wyoming. High-demand conditions indicate that the atmosphere is "thirsty" and is pulling moisture from the soil and vegetation in greater amounts, leading to a drying effect at the surface.

Looking at conditions over the last four weeks, the EDDI is showing low-demand conditions for the entire state. This outlook will be the last to consider EDDI until spring.

Additional products can be found at: http://www.wrds.uwyo.edu/products and data.html

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



Wyoming — Short- and Long-term Outlooks

Weather and Climate Outlooks

For the next two weeks, Wyoming looks to have better chances for below-normal temperatures for the first part. For the second week, the outlook is uncertain in the eastern third of the state. In the western two-thirds, there are better chances for abovenormal temperatures. Precipitation for the 6- to 10-day timeframe is more likely to be below-normal. The signal in the second week is uncertain with the exception of the southeast, which shows better chances for below-normal amounts.

Looking ahead to the three-month period of November through January there are



increased chances for above-normal temperature statewide. Those chances are a bit higher for the southern half of the state. Precipitation amounts during this period of time are expected to be above normal. Moving forward to December through February, there are, again, good chances for abovenormal temperatures in the southern half of Wyoming. The northern half is still uncertain. Precipitation signals show better chances for above-normal precipitation across the state with the greater chances being in the northern parts.

Drought conditions are expected to continue in northeast Wyoming. No new areas of drought are expected to develop in the next few months.

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

The next Wyoming Drought Impacts and Climate Outlook will be released in late November. 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 Climate and Drought Summary at: WindRiverRes-Climate-Drought-Summary-Mar2017.html



Water Resources

Reservoirs in Wyoming are still quite full with most being at 80% full or better.

Reservoir conditions may be viewed online at: http://www.wrds.uwyo.edu/surface water/ teacups.html

Streamflows in Wyoming are running at normal or above normal. Currently only two stations (in Uinta and Converse counties) have below normal flows.

The map below shows stream conditions in Wyoming as of November 02.



Heard Around the State

Carbon Co., Oct 2: We have been so dry that trying to keep up with watering planted trees, shrubs, grass has been a chore so now that were getting some fall moisture the pressure for supplementary watering has lessened.

Sheridan Co., Oct 14: I have completed all gardening and did well with the garden this year. Noticed some commercial hay growers are getting a fourth cut on fields. Most good years they are happy to have three cuts.

Washakie Co., Oct 15: Pastures, trees and shrubs going into dormancy with plenty of moisture, should last the winter with little to no damage.

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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