



Wind River Indian Reservation Climate and Drought Summary

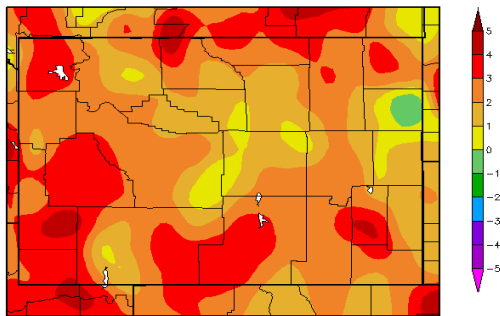


Early Spring Events & Early Summer Outlook 2015

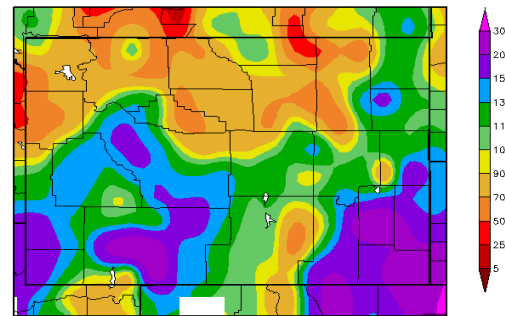
Above Normal Temperatures and Variable Precipitation During Early Spring

The main story regarding climate conditions during the past couple of months in the Wind River Region is a continuance of above normal temperatures. Since mid-March, temperatures have been running about 2-3°F above normal for most of the reservation and 3-4°F above normal to the south and west of the reservation (see map below left). Temperatures have been above normal for this region since last fall, which continued into March and April as every station listed in the table at the top of page 2 reported above normal temperatures. In fact, combined March and April average temperatures ranked 6th warmest at Diversion Dam, 7th warmest at Lander, and 8th warmest at Riverton. The first half of May, however, has been running a bit cooler than normal in the Wind River Region. Precipitation during the past two months has varied across the area, as it has been wetter to the south and west and drier to the north and east (see map below right). During the months of March and April, precipitation was mostly near normal for stations in the region with the exception of Boysen Dam, which only received 66 percent of normal precipitation and ranked as the 15th driest for this period (see data table at the top of page 2).

Departure from Normal Temperature (F)
3/17/2015 – 5/15/2015



Percent of Normal Precipitation (%)
3/17/2015 – 5/15/2015

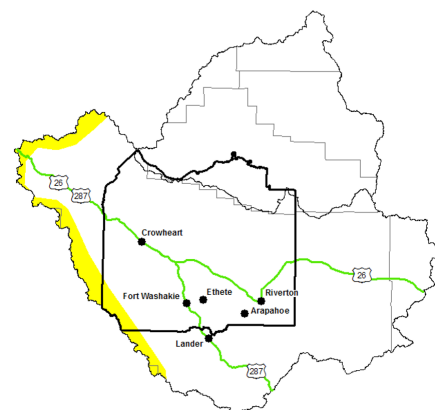
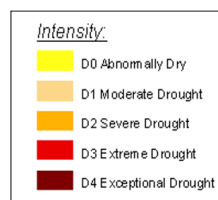
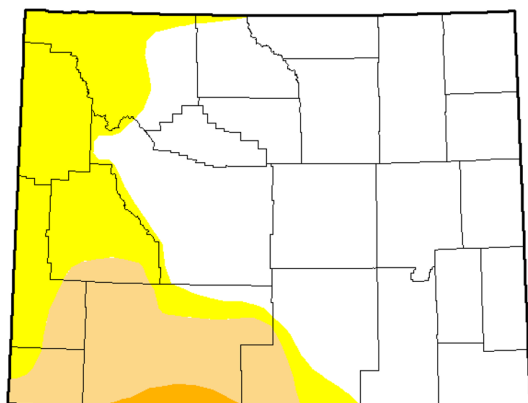


Maps produced by High Plains Regional Climate Center: <http://www.hprcc.unl.edu/maps/current/>

Abnormally Dry Conditions Noted In Parts Of The Wind River Region

The Wind River Region has been wet enough to stave off drought conditions during the past year, but growing precipitation deficits and long-term above normal temperatures to the south of the area have allowed drought to develop in southwestern Wyoming (see map below left). Moderate drought (D1) has been present in that area since mid-February, and a small pocket of severe drought (D2) was introduced by the Drought Monitor during late March. Dryness has expanded northward and eastward to include parts of the northern and western Wind River Basin and the southwest corner of the reservation, which are now in the abnormally dry (D0) Drought Monitor category (see map below right).

U.S. Drought Monitor of Wyoming (left) and the Wind River Indian Reservation and Surrounding Area (right) - May 12, 2015
Released May 14, 2015 Valid 8 a.m. EDT



The U.S. Drought Monitor is jointly produced by the National Drought Mitigation Center at the University of Nebraska-Lincoln, the United States Department of Agriculture, and the National Oceanic and Atmospheric Administration. Map courtesy of NDMC-UNL.

Summary of Station Data (March-April 2015)

Station	Average Temp. (°F)	Dep. from Normal Temp. (°F)	Temp. Rank	Total Precip. (in.)	Dep. from Normal Precip. (in.)	Percent of Normal Precip.	Precip. Rank	Period of Record
Boysen Dam	42.9	2.0	-	0.99	-0.52	66	15th driest	1948-present
Burris	40.5	3.1	-	1.35	-0.07	95	near normal	1963-present
Diversion Dam	40.8	1.9	6th warmest	1.86	0.14	108	near normal	1920-present
Lander Hunt Fld. AP	42.5	2.8	7th warmest	2.86	-0.17	94	near normal	1946-present
Riverton	41.7	1.0	8th warmest	1.57	0.03	102	near normal	1907-present
Thermopolis	45.5	0.8	-	-	-	-	-	1899-present

A dash (-) indicates either missing data or insufficient data for calculation.
 All data are preliminary and subject to change.
 Data were retrieved from the Applied Climate Information System (ACIS): rcc-acis.org

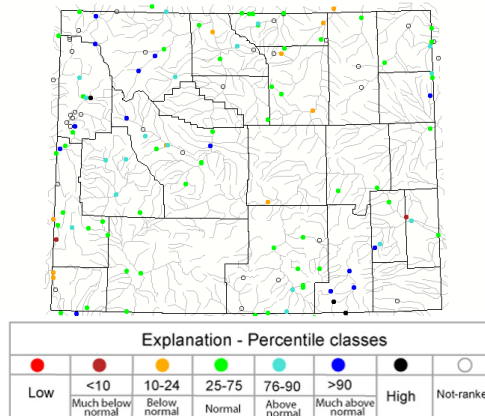
Early Melting Of Snowpack Causing Above Normal Streamflow Conditions

Despite near normal precipitation for the past couple of months, above normal temperatures have caused early snowmelt and a below normal snowpack for this time of year in the Wind River Basin. As of May 11th, snow water equivalent was only 64 percent of median in the basin, although up significantly from the previous week (55 percent of median) due to mountain snowfall. The 28-day average streamflow is running above normal in the basin with the exception of Bull Lake Creek near Lenore (see table below left and map below center) due to early snowmelt.

28-Day Avg. Streamflow 5/15/2015

Stream Gauge	Percentile
Wind River near Dubois	96th
Wind River near Crowheart	88th
Dinwoody Creek near Burris	88th
Bull Lake Creek near Lenore	12th
Bull Lake Cr. above Bull Lake	72nd

A percentile is a value on a scale of one hundred that indicates the percent of a distribution that is equal to or below it. The streamflow data and map shown represent 28-day average streamflow compared to historical streamflow for the day of the year (May 15).



Reservoir Data 5/15/2015

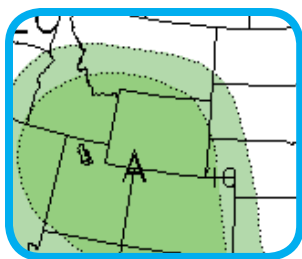
Reservoir Name	Reservoir Elevation (feet)	Reservoir Storage (acre-feet)	Reservoir % Full
Anchor	6,360.7	439.5	2.6
Boysen	4,721.5	676,057	91.2
Bull Lake	5,793.9	118,965	78
Dinwoody	no data	no data	no data
Pilot Butte	5,456.1	30,272	89.8
Ray Lake	5,525.43*	no data	no data
Washakie	6,352.52*	no data	no data

(Data: Bureau of Indian Affairs, Bureau of Reclamation)
 *Data as of 5/13/15

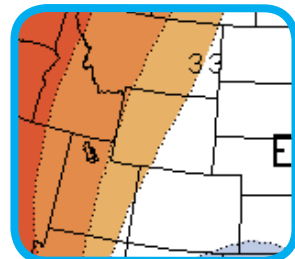
Warmer And Wetter Conditions Expected Into Mid Summer, Drought Removal Likely To The South

The Climate Prediction Center's May-July precipitation outlook (see map at lower left) indicates an increased chance for above normal precipitation through the end of July for the entire state of Wyoming. The May-July temperature outlook (see middle map below) calls for an increased chance of above normal temperatures for the western half of Wyoming, which includes the Wind River Region, for the next three months. The U.S. seasonal drought outlook (see map at lower right) indicates that drought removal is likely to the south of the Wind River Region in southern Wyoming. At this time, drought is not expected to develop in the Wind River Region through the end of July. According to the National Weather Service, flooding is also not expected on the Wind River during this time period.

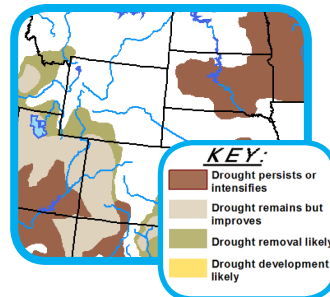
3-Month Precipitation Outlook
Valid May-July 2015



3-Month Temperature Outlook
Valid May-July 2015



U.S. Seasonal Drought Outlook
Valid April 16-July 31, 2015



Collaborators and Partners:



EC: Equal chances of above, near, or below normal
 A: Above normal B: Below normal

For more information on climate in Wyoming and the High Plains, go to: <http://www.hprcc.unl.edu/>

For more information on the U.S. Drought Monitor, go to: <http://droughtmonitor.unl.edu/>

Please direct questions and feedback on this climate summary to Al C'Bearing, Office of the Tribal Water Engineer, 307-332-6464.