

Wind River Indian Reservation Climate and Drought Summary

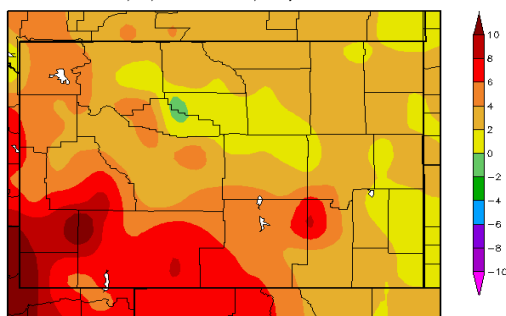
Winter Events & Spring Outlook 2015



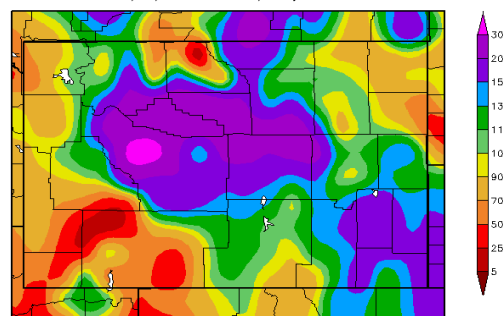
Warm And Wet This Winter

Winter conditions across the Wind River Region were warm and very wet. Temperatures were above normal during all three winter months (December, January, and February). The average temperature for the winter season was about 2-4°F above normal region-wide. Four locations in the region experienced a top ten warmest winter on record: Burris (4th warmest), Boysen Dam (5th warmest), Riverton (6th warmest), and Diversion Dam (8th warmest). Statewide, Wyoming had its 3rd warmest winter on record. The Wind River Region was also very wet this winter with record-breaking precipitation. Over 300% of normal precipitation fell in this region, which was one of the wettest areas in the state this winter. In winter, precipitation is a combination of rain that fell and the liquid content of snow. Even though December and February were very wet, January was very dry, as the region only received about 25% of normal precipitation for the month. Despite January's dryness, wet conditions in December and February caused winter precipitation to be above normal. Diversion Dam and Lander had their wettest winters on record, and Burris, Riverton, and Thermopolis had their 2nd wettest winters on record. Most of the precipitation fell as snow, as Burris and Boysen Dam had their 2nd snowiest winters on record, and Thermopolis had its 3rd snowiest winter on record. It is worth noting that just to the southwest of the Wind River Region in southwestern Wyoming, the winter was very dry, so a stark contrast in winter moisture occurred over a relatively small area.

Departure from Normal Temperature (°F)
12/1/2014 - 2/28/2015



Percent of Normal Precipitation (%)
12/1/2014 - 2/28/2015



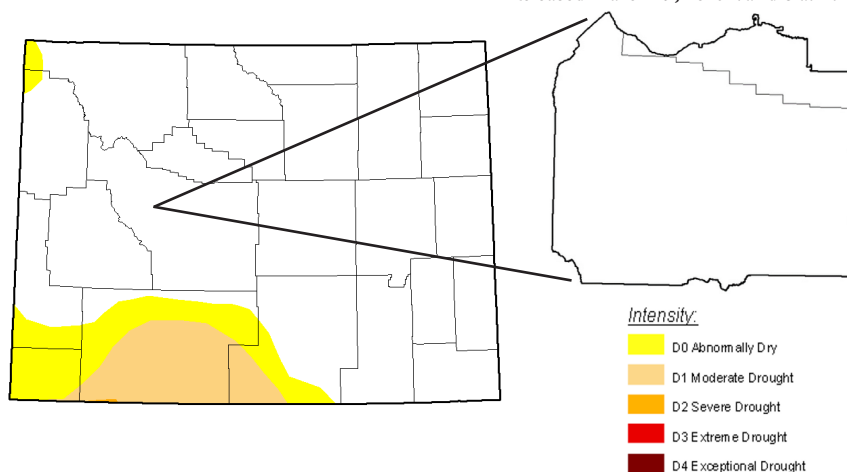
Maps produced by High Plains Regional Climate Center: <http://www.hprcc.unl.edu/maps/current/>

Wind River Region Drought-Free During Winter, But Drought Has Developed To The South

Despite the above normal temperatures experienced across the Wind River Region this winter, the extremely wet conditions kept the region out of drought. To the south of the Wind River Region in southwestern Wyoming, however, the dry winter conditions have allowed for the development of moderate drought conditions. This area of drought is part of a larger region, including western Colorado and eastern Utah, that experienced a very dry winter. This developing drought to the south of the region should be closely monitored over the coming spring season in the event that drier conditions develop over the Wind River Region.

U.S. Drought Monitor of the Wind River Indian Reservation and the State of Wyoming - March 17, 2015

Released March 19, 2015 Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	100.00	0.00	0.00	0.00	0.00	0.00
Last Week 3/10/2015	100.00	0.00	0.00	0.00	0.00	0.00
3 Months Ago 12/16/2014	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year 12/31/2014	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year 9/30/2014	100.00	0.00	0.00	0.00	0.00	0.00
One Year Ago 3/18/2014	100.00	0.00	0.00	0.00	0.00	0.00

(Data in the table are for the reservation boundaries, including the Bureau of Reclamation area.)

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.

March 2015

Summary of Station Data (December 2014-February 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	24.9	4.6	5th warmest	1.27	0.39	144	7th wettest	1948-present
Burris	27.6	3.2	4th warmest	1.49	0.81	219	2nd wettest	1963-present
Diversion Dam	24.7	2.3	8th warmest	2.22	1.75	472	WETTEST	1920-present
Lander Hunt Fld. AP	25.1	2.6	15th warmest	3.38	1.81	215	WETTEST	1946-present
Riverton	23.2	3.1	6th warmest	1.87	1.02	220	2nd wettest	1907-present
Thermopolis	27.5	0.2	-	3.10	1.84	246	2nd wettest	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

Snowpack and Reservoir Information

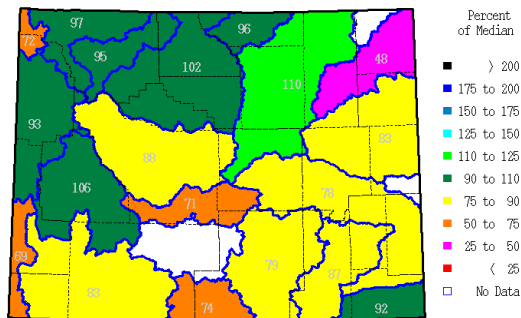
Snowpack in the river basins of western Wyoming has been near average this winter, including the Wind River Basin. Despite a warm winter, the Wind River Basin received ample precipitation to keep the snow water equivalent (SWE) near average. Abnormally warm and dry conditions over the past couple of weeks, however, have caused a decrease in snowpack so that SWE has dropped to 88% of median in the Wind River Basin, which is slightly below average. Individual SNOTEL sites listed below indicate both below average and above average SWE across the region.

Snow Water Equivalent 3/16/2015

SNOTEL Site	SWE (% of median)
Cold Springs	110
Deer Park	75
Hobbs Park	73
Owl Creek	102
St. Lawrence ALT	68

This table lists SWE by SNOTEL site in and around the Wind River Reservation. On the map to the right, median is based on all reporting SNOTEL sites in the Wind River Basin. Reference period for average comparison is 1981-2010.

SWE % of Median as of Monday, 16 March 2015



Produced by the Wyoming Water Resources Data System: <http://www.wrds.uwyo.edu>

Reservoir Data 3/15/2015-3/16/2015

Reservoir Name	Reservoir Elevation (feet)	Reservoir Storage (acre-feet)	Reservoir % Full
Anchor*	6,368.71	833	no data
Boysen	4,721.0	665,341.0	89.7
Bull Lake	5,789.2	105,706.0	69.3
Dinwoody	no data	no data	no data
Pilot Butte	5,452.0	26,884.0	79.7
Ray Lake	5,522.18	no data	no data
Washakie	6,340.16	no data	no data

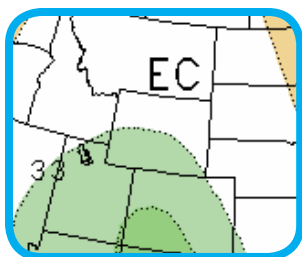
(Data: Bureau of Indian Affairs, Bureau of Reclamation)

*Last known data for Anchor are from 10/21/2014

Warmer And Wetter Conditions Expected This Spring, Drought Persistence To The South

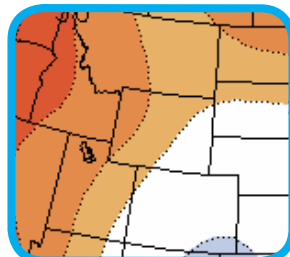
The Climate Prediction Center's spring temperature outlook calls for an increased chance of above normal temperatures across the Wind River Region, continuing the trend of above normal temperatures experienced during winter. The precipitation outlook indicates an increased chance of above normal precipitation across the southern half of Wyoming, encompassing the southern part of the Wind River Region. While the region remained drought-free during winter, drought developed to the south in southwestern Wyoming due to very warm and dry winter conditions. Drought is expected to persist across that region through the spring. The National Oceanic and Atmospheric Administration (NOAA) spring flood outlook does not indicate a flood risk for the Wind River Region during spring. NOAA's water supply outlook for Wyoming indicates that Wind River water supply will be 86-100% of average April-July.

3-Month Precipitation Outlook Valid April-June 2015

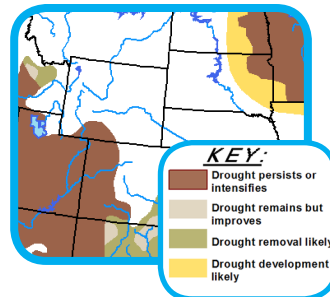


EC: Equal chances of above, near, or below normal
A: Above normal B: Below normal

3-Month Temperature Outlook Valid April-June 2015



U.S. Seasonal Drought Outlook Valid March 19-June 30, 2015



Collaborators and Partners:



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.

March 2015