



Drought Information Statement for SE SD, SW MN, NW IA, Far NE Neb

Valid September 7th, 2023

Issued By: WFO Sioux Falls, SD

Contact Information: w-fsd.webmaster@noaa.gov

- This product will be updated September 21, 2023 or sooner if drought conditions change significantly.
- Please see all currently available products at <https://drought.gov/drought-information-statements>.
- Please visit <https://www.weather.gov/fsd/DroughtInformationStatement> for previous statements.





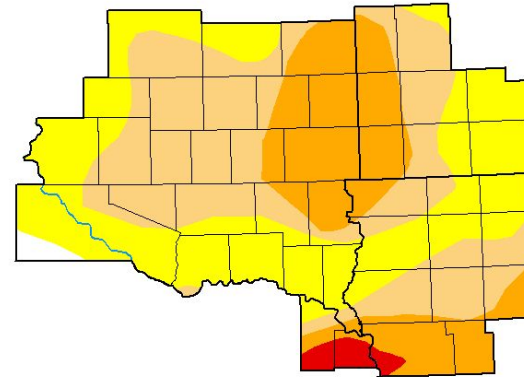
U.S. Drought Monitor

Link to the [latest U.S. Drought Monitor](#) for SE South Dakota, SW Minnesota, NW Iowa, far NE Nebraska

...DROUGHT CONDITIONS BEGIN TO RE-EXPAND AFTER SOME IMPROVEMENT A MONTH AGO...

- Drought intensity and Extent
 - D3 (Extreme Drought): Portions of far northeast Nebraska and extreme western portions of Woodbury county, IA
 - D2 (Severe Drought): Northeast Nebraska into the Hwy 20 corridor in northwest Iowa as well the I-29 corridor in far eastern South Dakota and adjacent portions of southwest Minnesota.
 - D1 (Moderate Drought) and D0: (Abnormally Dry): The remain portions of the region not covered by D2 or D3 delineation.

U.S. Drought Monitor Sioux Falls, SD WFO



September 5, 2023
(Released Thursday, Sep. 7, 2023)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.91	99.09	61.94	25.00	1.78	0.00
Last Week 08-29-2023	3.75	96.25	55.36	21.16	1.67	0.00
3 Months Ago 06-06-2023	8.53	91.47	76.85	26.66	2.21	0.65
Start of Calendar Year 01-03-2023	0.00	100.00	93.62	63.86	20.61	1.98
Start of Water Year 09-27-2022	3.86	96.14	71.66	53.30	20.34	4.59
One Year Ago 09-06-2022	21.00	79.00	56.11	27.79	12.68	1.22

Intensity

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:
Richard Tinker
CPC/NOAA/NWS/NCEP



droughtmonitor.unl.edu

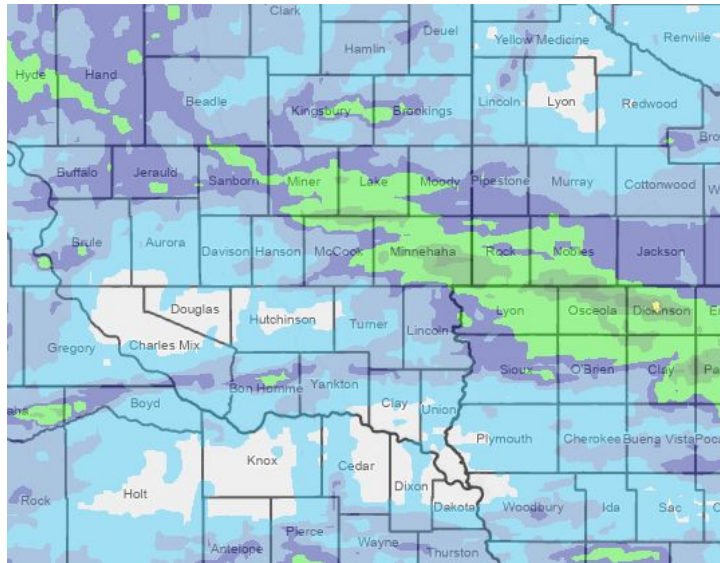
Image Caption: U.S. Drought Monitor valid 8am EDT September 5th.



Precipitation - Past 14 Days

- Rainfall over the past 2 to 3 weeks has been scarce with most locations not having received meaningful rainfall since early August.
- Outside of a narrow stripe of rainfall that occurred around the 24-25th, most locations were 1-2 inches below normal for rainfall during the 14 day period.

Observed Precipitation



Departure of Normal Precipitation

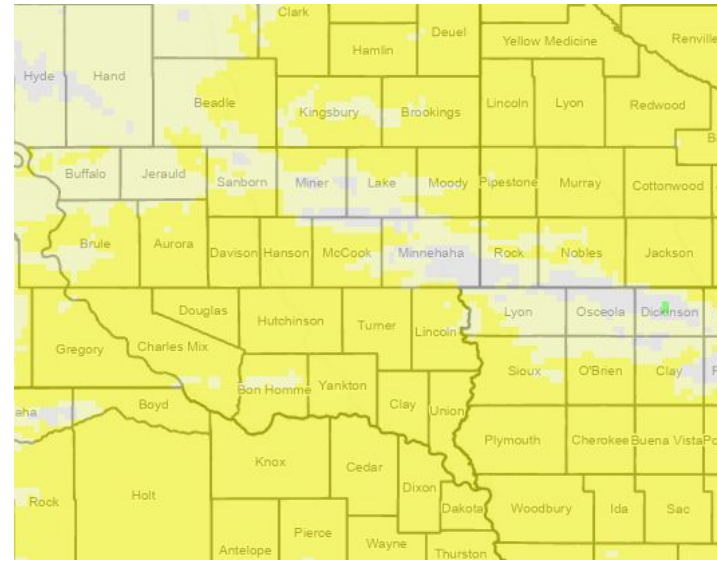


Image Captions:
 Left - Precipitation Amount
 Right - Departure of Normal Precipitation

Data Courtesy [AHPS Precipitation Analysis](#)
 Data over the past 14 days ending Sep 6, 2023

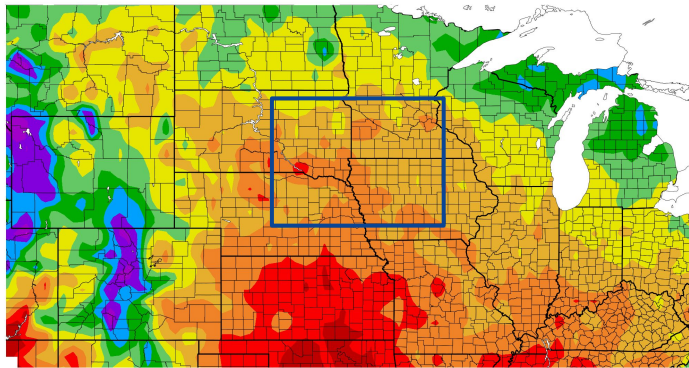




Temperature - Past 14 Days

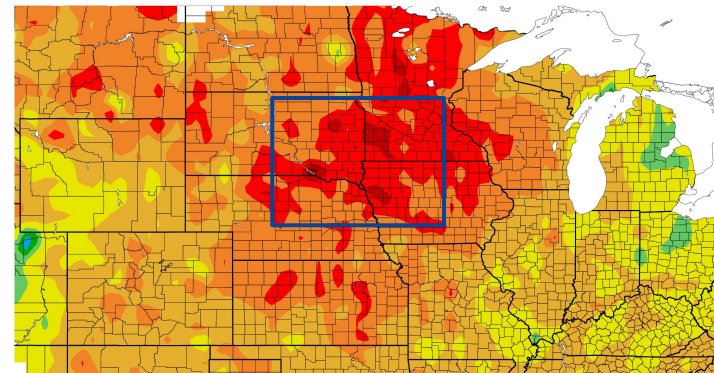
- Temperatures were well above normal during the past 14 days with a general 4 to 8 degree departure from normal toward the warm side.
- Two different heat waves drove this trend with the first in mid to late August featuring more humid conditions while the late August/early September wave was much drier.

Temperature (F)
8/24/2023 - 9/6/2023



54 57 60 63 66 69 72 75 78 81 84
Generated 9/7/2023 at HPRCC using provisional data. NOAA Regional Climate Center

Departure from Normal Temperature (F)
8/24/2023 - 9/6/2023



-10 -8 -6 -4 -2 0 2 4 6 8 10
Generated 9/7/2023 at HPRCC using provisional data. NOAA Regional Climate Center

Image Captions:
Left - Average Temperature
Right - Departure from Normal Temperature

Data Courtesy [High Plains Regional Climate Center](https://www.hprcc.noaa.gov/).
Data over the past 14 days ending Sep 6, 2023





Summary of Impacts

Links: See/submit [Condition Monitoring Observer Reports \(CMOR\)](#) and view the [Drought Impacts Reporter](#)

Hydrologic Impacts

- Several streams and rivers have fallen below normal streamflow (at or below the 25th percentile). This is most prevalent through the Big Sioux Basin and basins east into SW MN and NW IA.

Agricultural Impacts

- Corn and soybean crops are yellowing and drying down earlier than typical. Degraded soybean yields and degraded silage quality reported. Some apple orchards reporting lack of apples for fall picking.

Fire Hazard Impacts

- Rural fire districts becoming increasingly concerned for fall fire season as drying continues.

Crops Rated 'Poor' or 'Very Poor'

Nebraska - As of Sep 3

Corn: 25%
 Soybean: 26%
 Sorghum: 14%
 Pasture: 25%

South Dakota - As of Sep 3

Corn: 20%
 Soybean: 17%
 Sorghum: 11%
 Pasture: 22%

Iowa - As of Sep 3

Corn: 16%
 Soybean: 15%
 Pasture: 46%

Minnesota - As of Sep 3

Corn: 25%
 Soybean: 18%
 Pasture: 63%





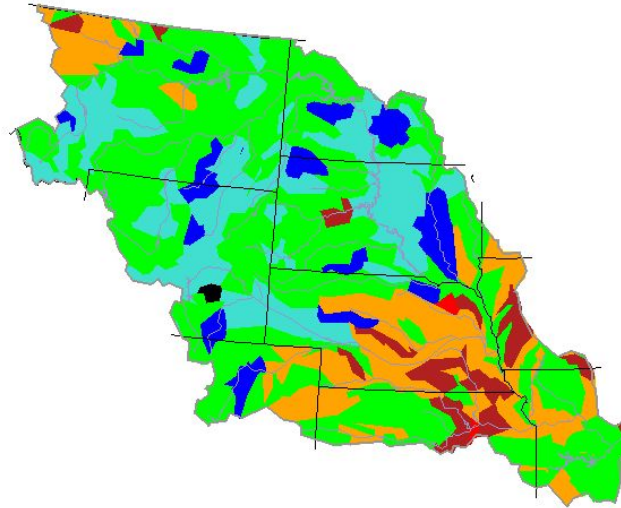
Hydrologic Conditions and Impacts

- Several area streams across eastern SD into southwest MN and northwest IA have fallen below to much below normal.
- Groundwater well data across the region continues to show falling values.

USGS Streamflow Data:
[National Water Dashboard](#)

Groundwater Wells Data:
[Renner, SD](#)
[Near Huron, SD](#)
[Windom, MN](#)

Wednesday, September 06, 2023



Explanation - Percentile classes							
Low	<10	10-24	25-75	76-90	>90	High	No Data
	Much below normal	Below normal	Normal	Above normal	Much above normal		

Image Caption: USGS 7 day average streamflow HUC map valid 09/06/2023

Renner GW Well NO.2 Near Renner, SD - 433726096444501

May 1, 2021 - September 7, 2023

Depth to water level, feet below land surface

11.62 ft - Sep 05, 2023 08:00:00 PM CDT

12.54 ft - Dec 14, 2022 09:01:00 AM CST

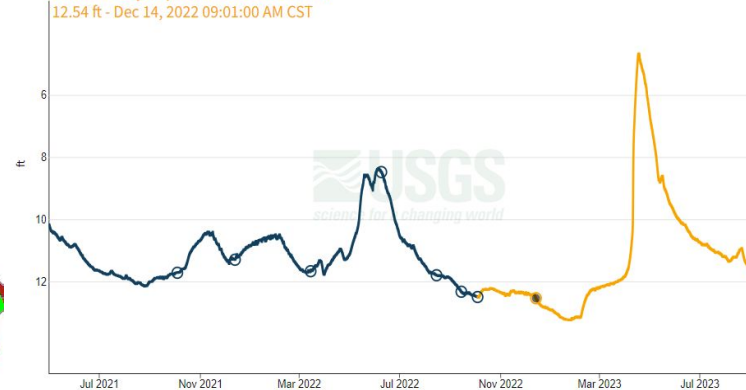


Image Caption: USGS Groundwater Well near Renner, SD





Agricultural and Soil Moisture Impacts

SD

As of Sep 3rd	Very Short Moisture	Short Moisture	Adequate Moisture	Moisture Surplus
Topsoil	14%	35%	48%	3%
Subsoil	14%	38%	45%	3%

IA

As of Sep 3rd	Very Short Moisture	Short Moisture	Adequate Moisture	Moisture Surplus
Topsoil	33%	42%	25%	0%
Subsoil	31%	44%	24%	1%

MN

As of Sep 3rd	Very Short Moisture	Short Moisture	Adequate Moisture	Moisture Surplus
Topsoil	28%	43%	29%	0%
Subsoil	24%	48%	28%	0%

USDA Crop Progress and Condition Reports

[South Dakota](#)

[Minnesota](#)

[Iowa](#)

[Nebraska](#)

Calculated Soil Moisture Anomaly (mm)
SEP 05, 2023

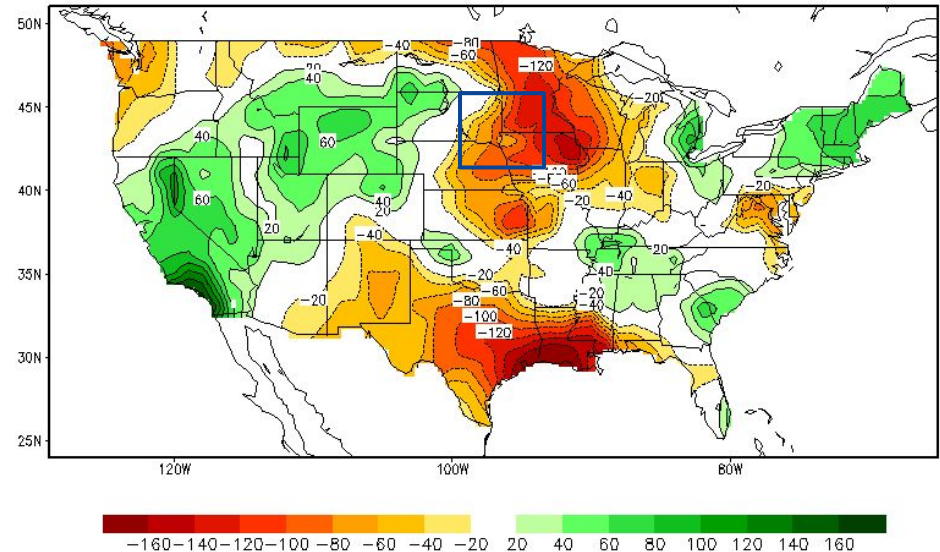


Image Captions:

CPC Calculated [Soil Moisture Anomaly \(mm\)](#) valid Sep 5, 2023





Medium and Long-Range Outlooks

The latest medium range and seasonal outlooks can be found on the [CPC homepage](#)

Short Term Outlook

- Temperatures are expected to be near to below normal over the next week thru September 14th.
- Precipitation chances over the next week largely focus around the September 9th period although amounts don't appear significant at this time.

Medium Range Outlook

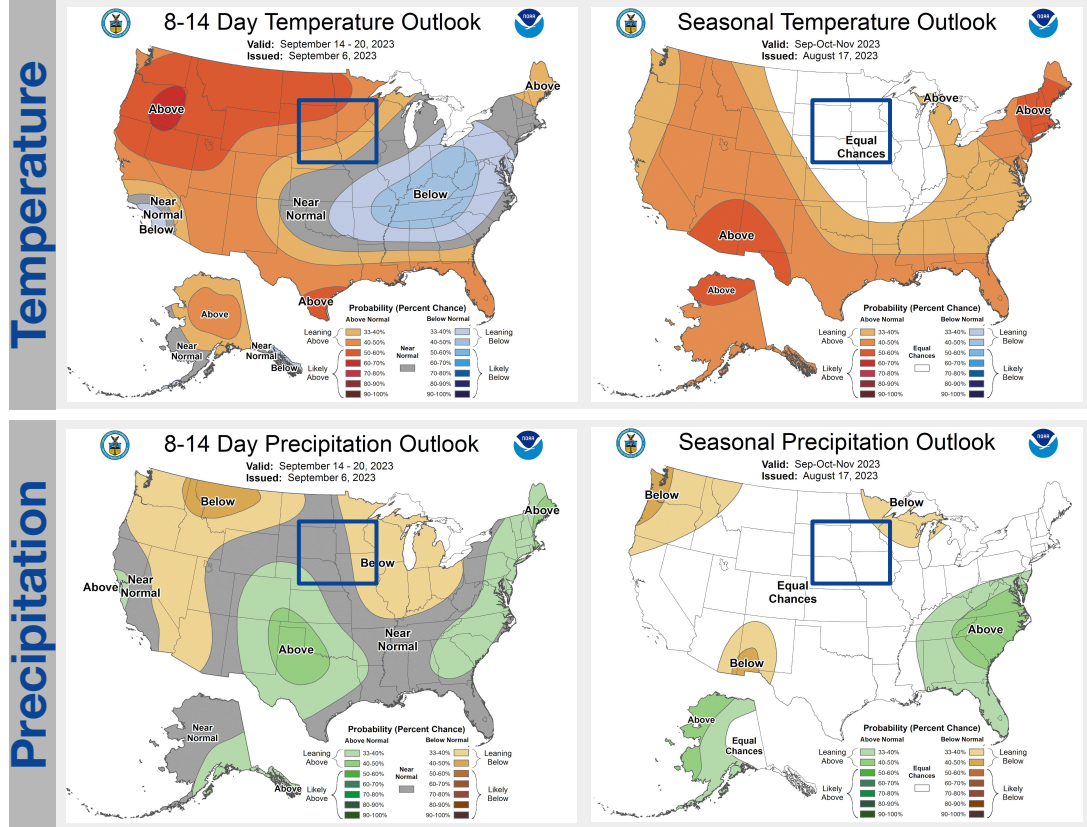
- Temperatures may rise near to above normal for the middle of September
- No clear signal exists for precipitation trends for the middle of the month.

Image Captions:

Left - [Climate Prediction Center 8-14 Day Outlooks](#)

Right - [Climate Prediction Center Seasonal Outlooks](#)

Valid 09 2023



Temperature

Precipitation





Drought Outlook

The latest monthly and seasonal outlooks can be found on the [CPC homepage](#)

- Current temperature and precipitation outlooks favor the continuation of drought conditions across the region with potential for further drought development and/or degradation.
- While precipitation chances exist over the next 7 days, widespread significant precipitation is not expected and thus widespread drought relief is also not expected, although cooler temperatures should help temper further degradation.

Acknowledgements

The drought monitor is a multi-agency effort involving NOAA's National Weather Service and National Climatic Data Center, the USDA, state and regional center climatologists and the National Drought Mitigation Center. Information for this statement has been gathered from NWS and FAA observation sites, cooperative and volunteer observations, USDAFS, the USDA and USGS.

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

Valid for September 1 - November 30, 2023
Released August 31, 2023

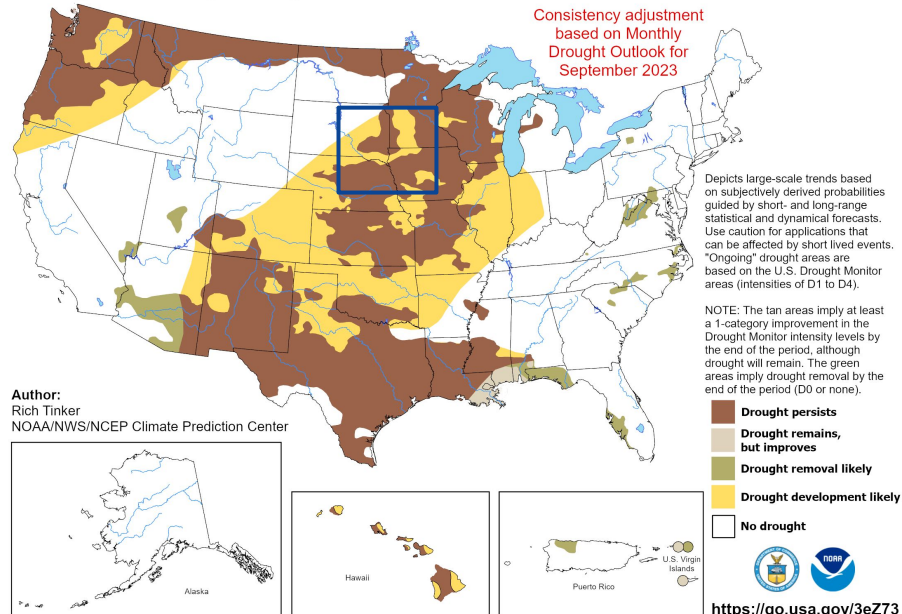


Image Caption:
Climate Prediction Center Monthly Drought Outlook Released 08/31/2023 valid for Sep-Nov 2023

