

Drought Information Statement for South Central NE and North Central KS

Valid Nov. 16, 2023

Issued By: NWS Hastings, NE

Contact Information: nws.hastings@noaa.gov

- This product will be updated in December, 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/gid/DroughtInformationStatement> for previous statements.





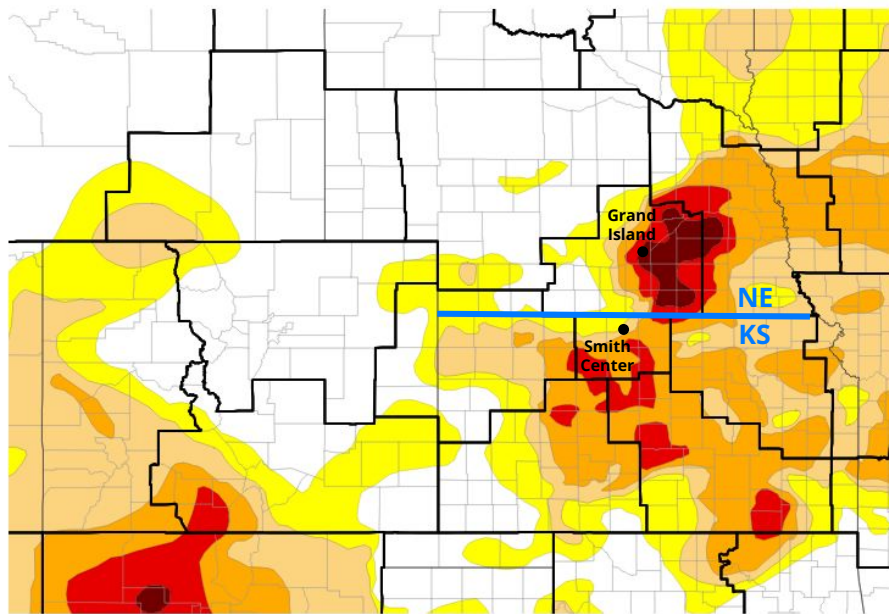
U.S. Drought Monitor

Link to the [latest U.S. Drought Monitor](#) for High Plains Region

Drought Intensity and Extent:

- **D4 Exceptional Drought:**
Includes all or part of the following counties:
Nance, Merrick, Polk, Hall, Hamilton, York, Adams, Clay, Fillmore, Nuckolls, Thayer
- **D3 Extreme Drought:**
Includes all or part of the following counties:
Nance, Howard, Merrick, Polk, Buffalo, Hall, Hamilton, York, Adams, Clay, Fillmore, Webster, Nuckolls, Thayer, Smith, Jewell, Rooks, Osborne, Mitchell
- **D2 Severe Drought:**
Includes all or part of the following counties:
Greeley, Nance, Howard, Buffalo, Hall, Kearney, Adams, Franklin, Webster, Nuckolls, Thayer, Phillips, Smith, Jewell, Rooks, Osborne, Mitchell
- **D1 Moderate Drought:**
Includes all or part of the following counties:
Greeley, Sherman, Howard, Buffalo, Kearney, Franklin, Webster, Phillips, Smith, Jewell
- **D0 Abnormally Dry:**
Includes all or part of the following counties:
Valley, Greeley, Sherman, Howard, Dawson, Buffalo, Gosper, Phelps, Kearney, Furnas, Harlan, Franklin, Webster, Phillips, Smith

U.S. Drought Monitor



U.S. Drought Monitor



Source(s): NDMC, NOAA, USDA; image courtesy of Drought.gov

Data Valid: 11/14/23



National Oceanic and
Atmospheric Administration
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National Weather Service
Hastings, Nebraska



Common Drought Impacts By Category

Link to the [Common Drought Impacts By Category](#)

D0	Abnormally Dry	<u>Going Into Drought:</u> <ul style="list-style-type: none">• Short-term dryness slowing planting, growth of crops and pastures	<u>Coming Out Of Drought:</u> <ul style="list-style-type: none">• Some lingering water deficits• Crops and pastures not fully recovered
D1	Moderate Drought	<ul style="list-style-type: none">• Some damage to crops and pastures• Streams, reservoirs, wells low - some water shortages developing or imminent	
D2	Severe Drought	<ul style="list-style-type: none">• Crop or pasture losses likely• Water shortages common• Water restrictions can be imposed	
D3	Extreme Drought	<ul style="list-style-type: none">• Major crop and pasture losses• Widespread water shortages or restrictions possible	
D4	Exceptional Drought	<ul style="list-style-type: none">• Exceptional and widespread crop and pasture losses• Water shortages in reservoirs, streams, and wells can create water emergencies	





Short-Term Precipitation Recap (the last week) and Forecast (the next week)

Link to the [latest U.S. Drought Monitor](#) for High Plains Region

- Recap of precipitation Nov. 9-15:

(NOTE: any rain that fell since 7am TUESDAY “didn’t count” for this week’s Drought Monitor)

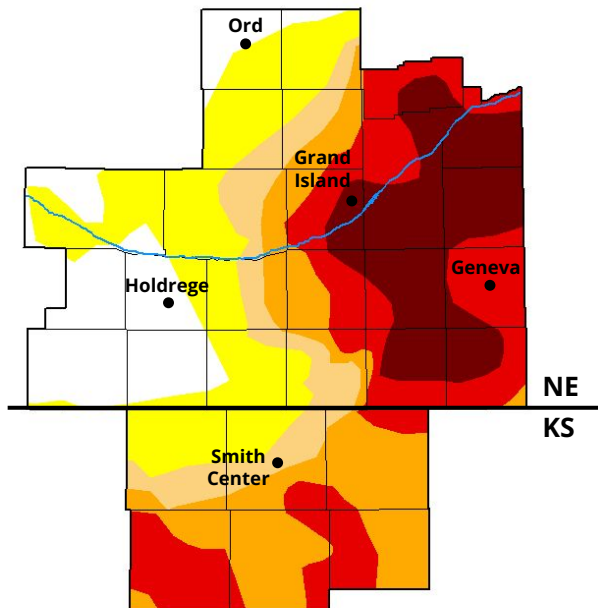
The Nov. 9-15 period featured **ZERO PRECIPITATION** across the vast majority of our coverage area. Only parts of a few southeastern local counties received very meager rain amounts...mainly no more than a few hundredths of an inch.

- Looking ahead November 17-23:

Fortunately for ongoing drought concerns, there appears to be a **GOOD CHANCE OF MEASURABLE RAIN** across our entire coverage area mainly on Sunday-Monday, Nov. 19-20, with dry weather likely to prevail prior to this (Nov. 17-18) and also after this (Nov. 21-23)

Officially, cumulative precipitation for the Nov. 17-23 time frame from the very latest WPC forecast is forecast to range from 0.50-1.00” across most of our coverage area.

U.S. Drought Monitor Hastings, NE WFO



November 14, 2023

(Released Thursday, Nov. 16, 2023)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	14.71	85.29	63.71	54.61	36.43	15.81
Last Week 11-07-2023	14.71	85.29	63.71	54.61	36.43	15.81
3 Months Ago 08-15-2023	0.00	100.00	92.38	66.42	38.73	5.24
Start of Calendar Year 01-03-2023	0.00	100.00	95.33	63.60	9.55	0.00
Start of Water Year 09-26-2022	5.23	94.77	78.86	63.84	36.89	15.81
One Year Ago 11-15-2022	0.00	100.00	95.30	57.48	17.53	0.00

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>

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droughtmonitor.unl.edu



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Hastings, Nebraska



Latest Regional Drought Monitor Map + October Precip Extremes For NWS Hastings Area

Link to the [latest U.S. Drought Monitor](#) for High Plains Region

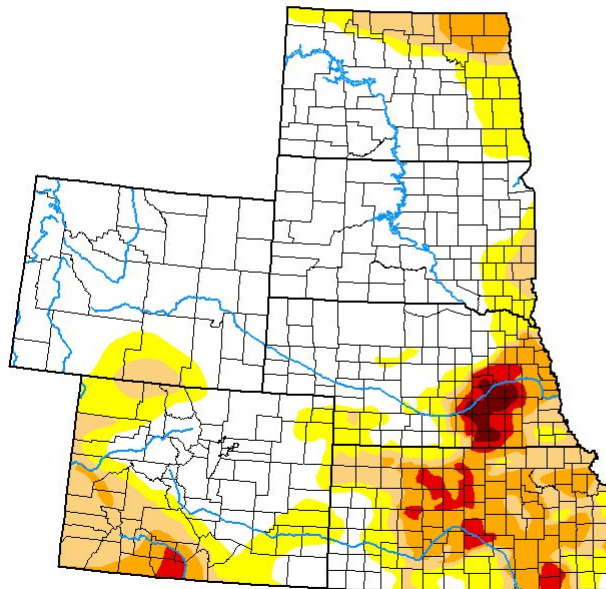
October 2023 Local Precipitation Extremes:
Most Areas At Least Slightly Below Normal...BUT
Pockets of Above Normal Mainly North and
Well-Below Normal Mainly South

OCT. 2023 Highest Precipitation <i>Some of our WETTEST stations (NWS/CoCoRaHS/NeRAIN)</i>	OCT. 2023 Lowest Precipitation <i>Some of our DRIEST stations (NWS/CoCoRaHS/NeRAIN)</i>
9NW Ord (NeRAIN): 4.54"	4WNW Plainville KS (NWS observer): 0.12"
4E Scotia (NeRAIN): 4.43"	1NNW Damar KS (CoCoRaHS) 0.24"
Ord (NeRAIN): 4.19"	10WNW Stockton KS (CoCoRaHS): 0.30"
8NNE Scotia (NeRAIN): 4.15"	6WSW Beloit KS (KS Mesonet): 0.40"
Greeley (NWS observer): 4.14"	4S Burr Oak KS (NWS observer): 0.50"
Spalding (NeRAIN): 4.12"	Phillipsburg KS (NWS observer): 0.57"
8SSW Spalding (NeRAIN): 4.07"	Glen Elder KS (NWS observer): 0.60"

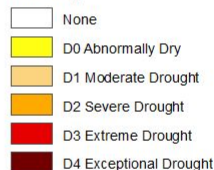
FOR REFERENCE: "normal" October precipitation across
MOST of our coverage area ranges from 1.80-2.20"
(generally lowest west/highest east)

U.S. Drought Monitor High Plains Climate Region

November 14, 2023
(Released Thursday, Nov. 16, 2023)
Valid 7 a.m. EST



Intensity:



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>

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Hastings, Nebraska**

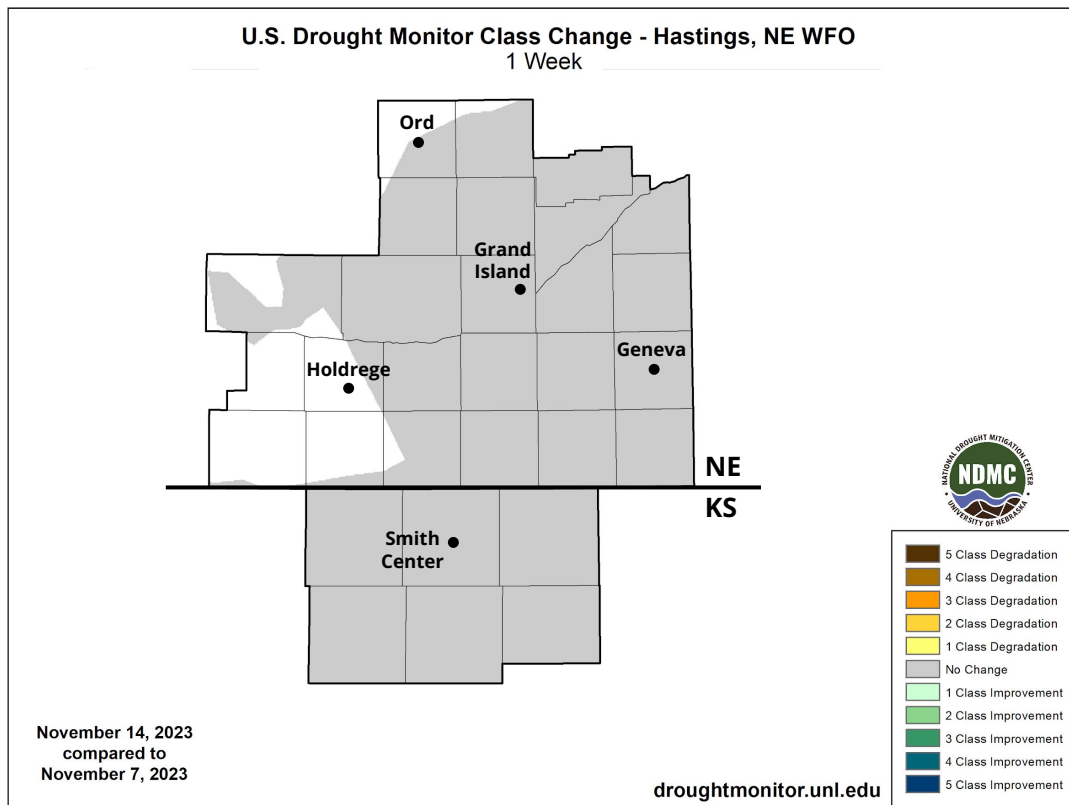


Recent Change in Drought Intensity - 1 Week Change

NWS Hastings [1-Week Drought Class Change](#)...Nov. 14 vs. Nov. 7

- **One Week Drought Monitor Class Change:**

- **Drought Worsened:**
NO AREAS of degradation this week
- **No Change:**
The ENTIRE NWS Hastings coverage area featured NO CHANGE this week
- **Drought Improved:**
NO AREAS of improvement this week



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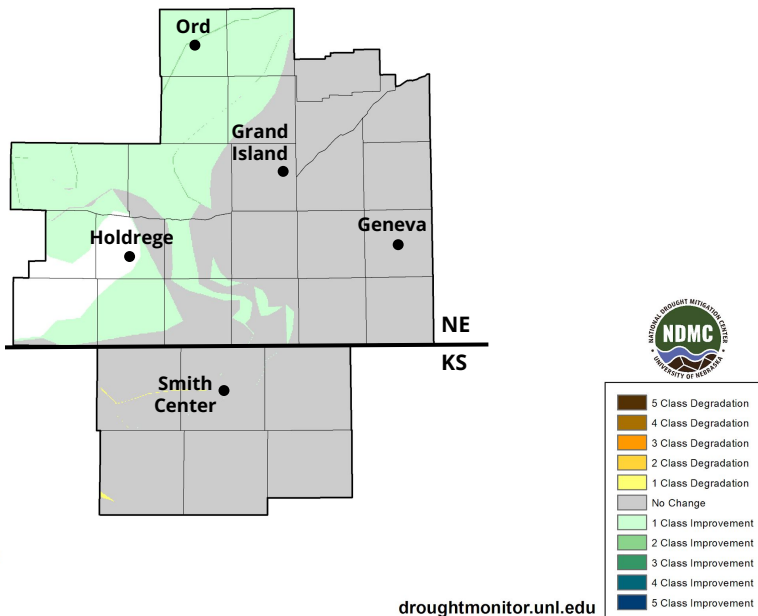
Recent Change in Drought Intensity - 4 and 12 Week Change

NWS Hastings 4-week & 12-week Drought Class Changes...vs. current Nov. 14 maps

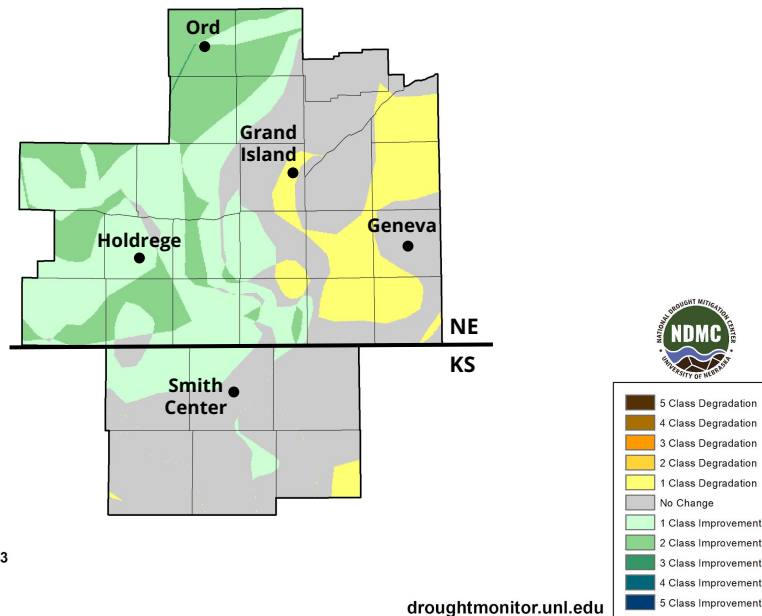
4-WEEK CHANGE MAIN TAKEAWAYS: 1-category improvement common especially north and west (no degradation)

12-WEEK CHANGE MAIN TAKEAWAYS: 1-2 category improvement in much of the west half...1-category degradation various pockets in east half

U.S. Drought Monitor Class Change - Hastings, NE WFO
4 Week



U.S. Drought Monitor Class Change - Hastings, NE WFO
12 Week





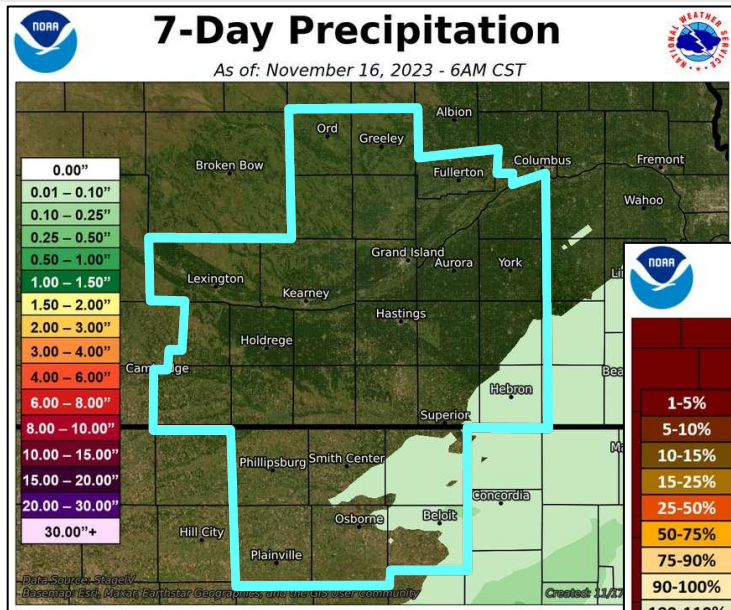
Precipitation (Last 7 Days)

7-Day Precipitation/Percent-of-Normal (Nov. 9-15)...Map Links [HERE](#)

Main Takeaways:

The Nov. 9-15 period featured **ZERO PRECIPITATION** across the vast majority of our coverage area.

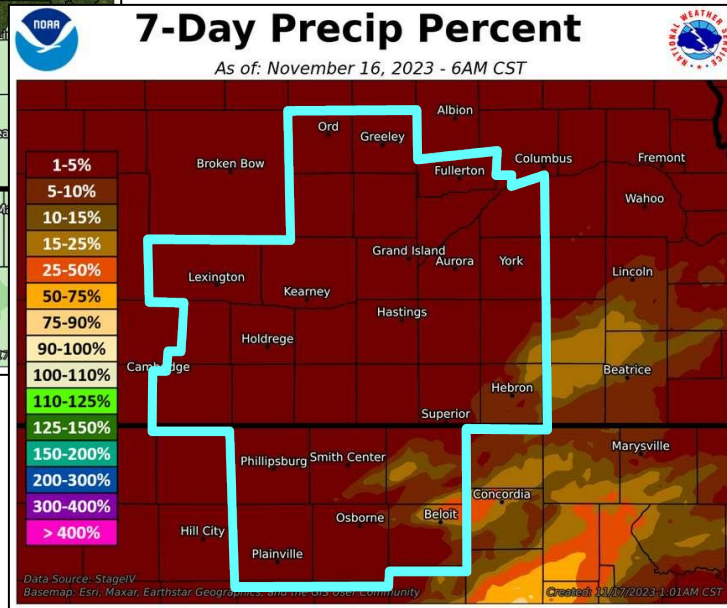
Only parts of a few southeastern local counties received very meager rain amounts...mainly no more than a few hundredths of an inch.



NWS Hastings area outlined in light blue
(24 NE counties, 6 KS counties)

PLEASE NOTE:

Any precipitation that fell AFTER 7am Tuesday, Nov. 14 is not reflected here as it fell after the weekly Drought Monitor "data cutoff".



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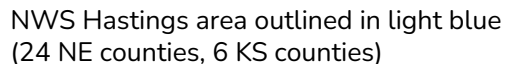


Main Takeaways:

The latest 30-day period featured **MUCH BELOW NORMAL** precipitation across the vast majority of our coverage area. The MAJORITY of our area received somewhere between 0.10-0.75" (generally 5-45% of normal) .

The very-driest locations were mainly concentrated within our KS coverage area along with counties along the Highway 81 corridor in Nebraska (*highest concentration of totals under 0.25"*).

On the fortunate/wetter side of things, there were very limited areas of near-to-above normal precipitation primarily within parts of Greeley and Gosper counties (*highest concentration of totals around or slightly over 1.50"*).



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Precipitation (Last 90 Days)

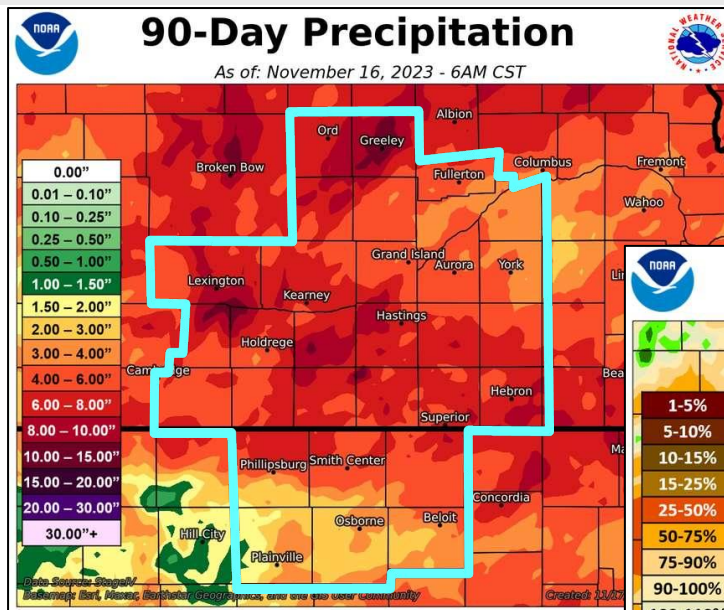
90-Day Precipitation/Percent-of-Normal (Aug. 19-Nov. 15)...Map Links [HERE](#)

Main Takeaways:

The latest 90-day period featured **BELOW NORMAL** precipitation across the majority of our coverage area, but amounts were also highly variable. The MAJORITY of our area received somewhere between 3-7" (generally 45-110% of normal)

The overall-driest counties were Rooks/Osborne/Mitchell in our Kansas coverage area, and York/Polk in our Nebraska coverage area (*highest concentration of totals under 3"*)

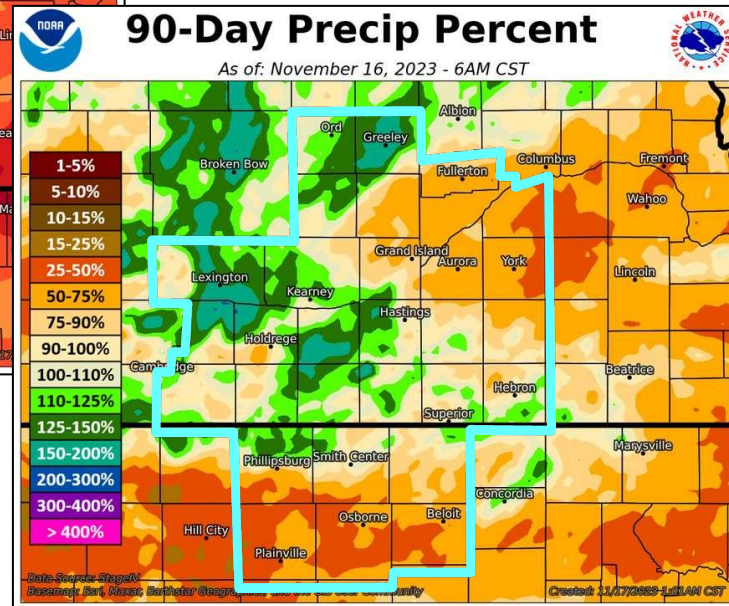
On the fortunate/wetter side of things, there were various pockets of slightly above normal precipitation (totals mainly 6.50-8.50") dotted throughout several counties mainly along/west of the Highway 281 corridor (including parts of Greeley, Dawson, Gosper, Kearney and northern Phillips)



PLEASE NOTE:

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NWS Hastings area outlined in light blue
(24 NE counties, 6 KS counties)



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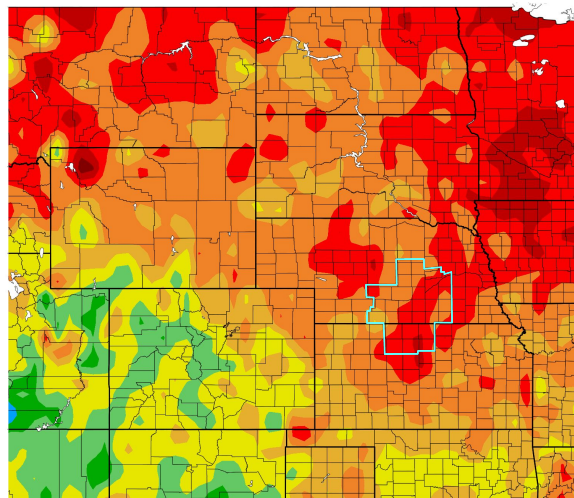
Temperature Trends (Last 7 and 30 Days)

High Plains Regional Climate Center [7-Day](#) & [30-Day](#) Temperature Departures From Normal

Main Takeaways (Last 7 Days):

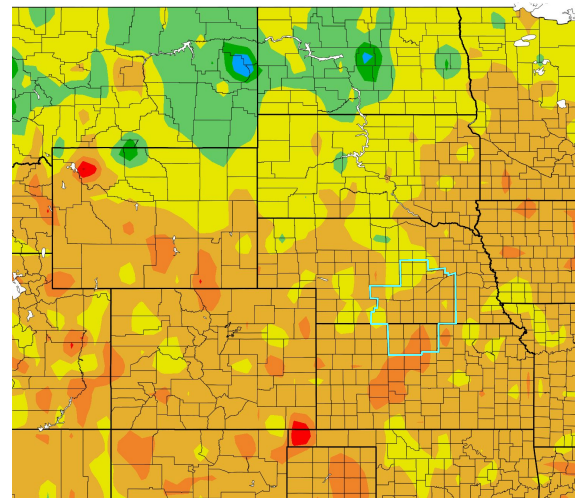
Temperatures over the 7-day period Nov. 9-15 averaged out as significantly ABOVE-NORMAL across our entire coverage area, with most places between 6-8° above normal.

Departure from Normal Temperature (F)
11/9/2023 – 11/15/2023



NWS Hastings area outlined in light blue

Departure from Normal Temperature (F)
10/17/2023 – 11/15/2023



NWS Hastings area outlined in light blue





Summary of Impacts

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

Hydrologic Impacts:

- Of all river basins in our coverage area, the Little Blue and Big Blue basins in south central/eastern portions of our Nebraska coverage area currently exhibit the lowest streamflows (versus normal) and are considered to be in severe to extreme hydrologic drought.

Agricultural Impacts:

- USDA Nebraska Crop Progress and Condition Reports can be found [here](#)
- USDA Kansas Crop Progress and Condition Reports can be found [here](#)

Fire Hazard Impacts:

- There are no known significant impacts at this time, but given that most vegetation is dry/dormant and given ongoing drought conditions, any afternoons with low relative humidity (especially 20% or lower) and strong winds (especially gusts of 25+ MPH) will feature potentially critical fire danger and possible Red Flag Warnings

Other Impacts:

- There are no known impacts at this time

Mitigation Actions:

- Please refer to your municipality and/or water provider for mitigation information.





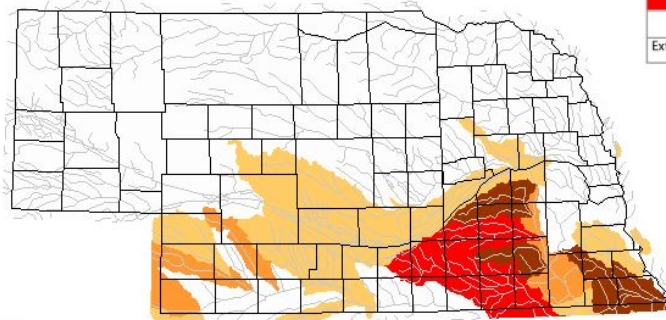
Hydrologic Conditions and Impacts

[USGS Streamflow Information](#)...Maps Shaded Only For Areas With BELOW NORMAL Flows

Main Takeaways:

- Of all river basins in our coverage area, the Little Blue and Big Blue basins in south central/eastern portions of our Nebraska coverage area currently exhibit the lowest streamflows (versus normal) and are considered to be in severe to extreme hydrologic drought.

Wednesday, November 15, 2023



Explanation - Percentile classes			
Low	<=5	6-9	10-24
Extreme hydrologic drought	Severe hydrologic drought	Moderate hydrologic drought	Below normal



Wednesday, November 15, 2023

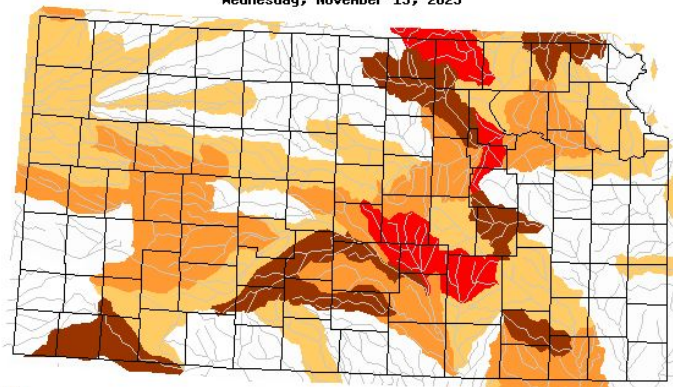


Image Captions:

Top - [Nebraska Below Normal 7-Day Average Streamflow Compared To Historical Streamflow For The Day Of The Year](#) , from USGS, valid Nov. 15

Bottom - [Kansas Below Normal 7-Day Average Streamflow Compared To Historical Streamflow For The Day Of The Year](#) , from USGS, valid Nov. 15



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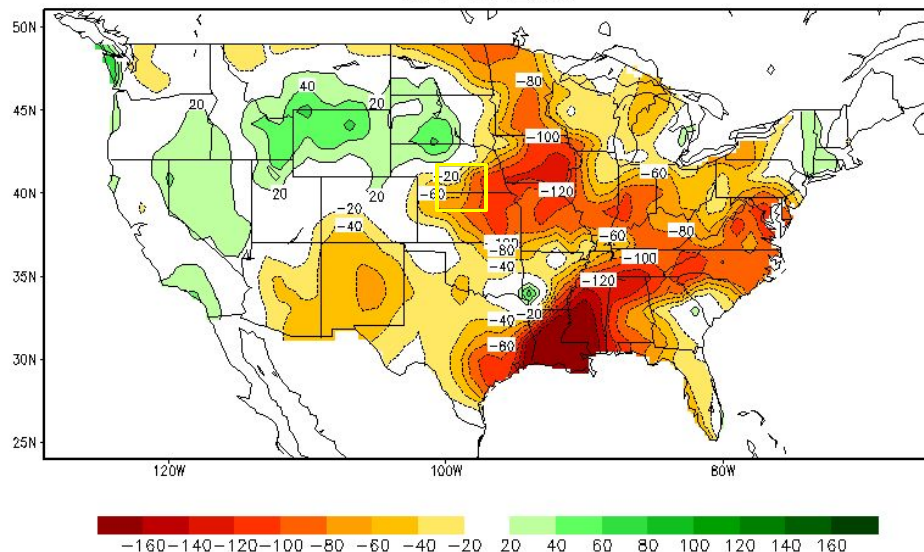


Agricultural Impacts / Soil Moisture

Climate Prediction Center (CPC) [Soil Moisture Status](#)

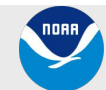
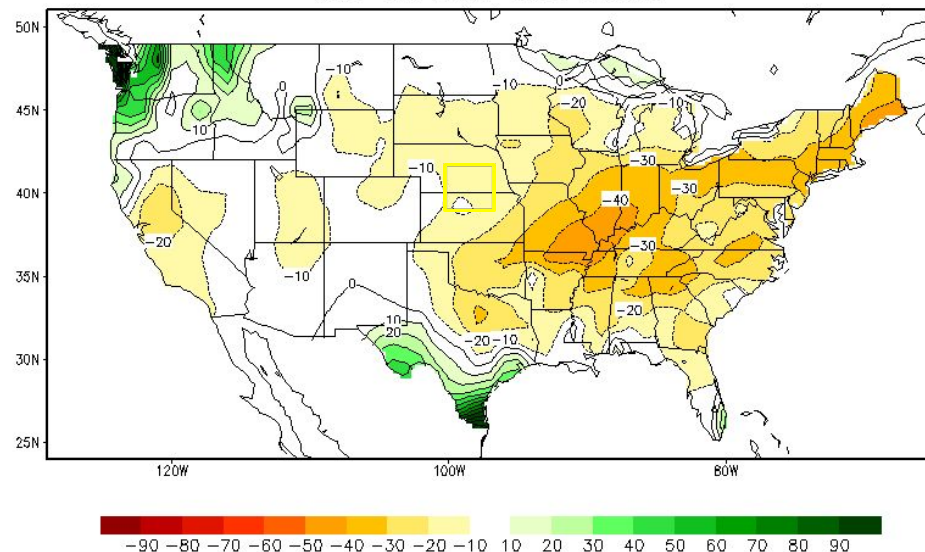
Soil Moisture Departure From Normal (mm)

Calculated Soil Moisture Anomaly (mm)
NOV 15, 2023



Soil Moisture Change Since End Of Previous Month (mm)

Calculated Soil Moisture Anomaly Change
NOV 15, 2023 from OCT.31





7-Day Precipitation Forecast

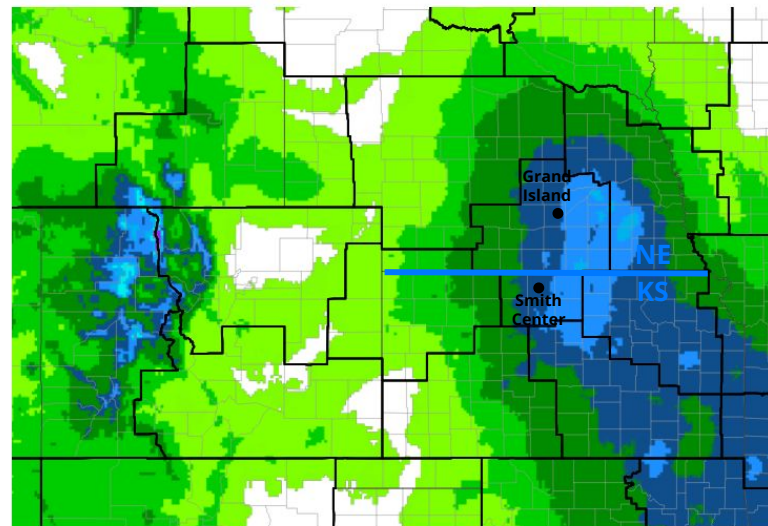
From [Weather Prediction Center \(WPC\)](#)...Valid Nov. 17-23

Main Takeaways:

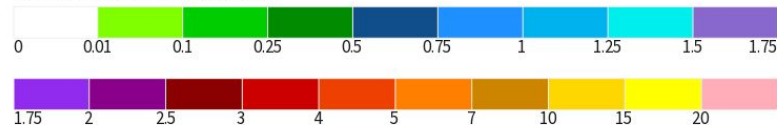
Fortunately for ongoing drought concerns, there appears to be a *GOOD CHANCE OF MEASURABLE RAIN* across our entire coverage area mainly on Sunday-Monday, Nov. 19-20, with dry weather likely to prevail prior to this (Nov. 17-18) and also after this (Nov. 21-23)

Officially, cumulative precipitation for the Nov. 17-23 time frame from the very latest WPC forecast (*unfortunately not shown here*) is forecast to range from 0.50-1.00" across most of our coverage area.

7-Day Quantitative Precipitation Forecast



Predicted Inches of Precipitation



Source(s): National Weather Service Weather Prediction Center; image courtesy of Drought.gov

Data Valid: 11/16/23



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8-14 Day Outlooks - Climate Prediction Center (CPC)

CPC [Temperature and Precipitation Outlooks](#)...Valid November 24-30

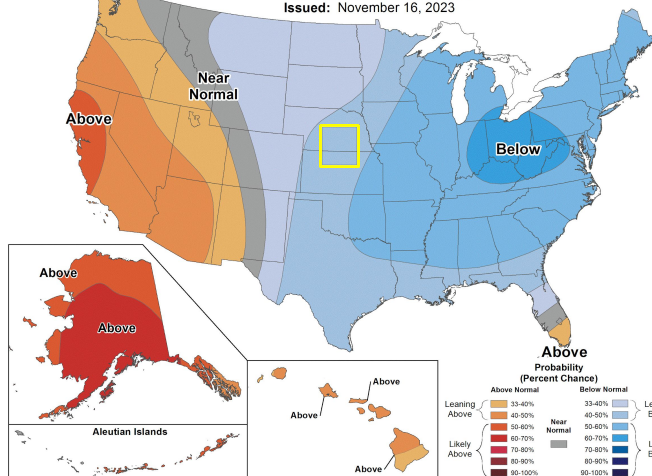
Main Takeaways:

- **Temperatures:** Our entire coverage area features a lean toward below normal temperatures (*long-range ensemble model data calls for high temps mainly in the 30s-40s/lows mainly in the 20s*).
- **Precipitation:** Most of our coverage area is favored for “near normal” precipitation, with some northern/eastern counties assigned a *slight lean* toward below normal precipitation.



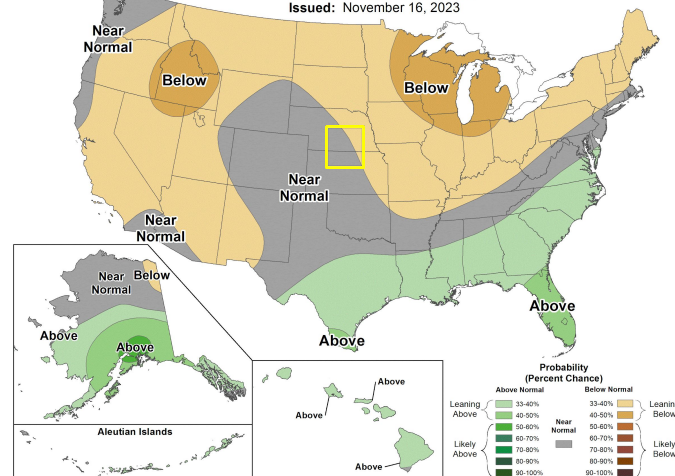
8-14 Day Temperature Outlook

Valid: November 24 - 30, 2023
Issued: November 16, 2023



8-14 Day Precipitation Outlook

Valid: November 24 - 30, 2023
Issued: November 16, 2023



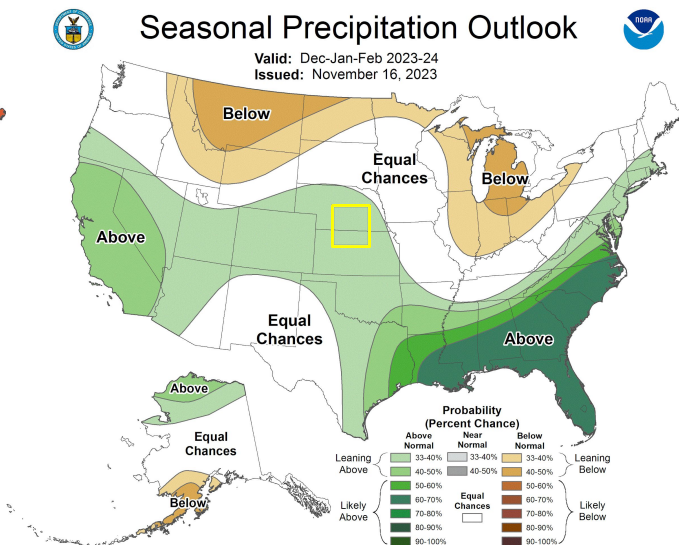
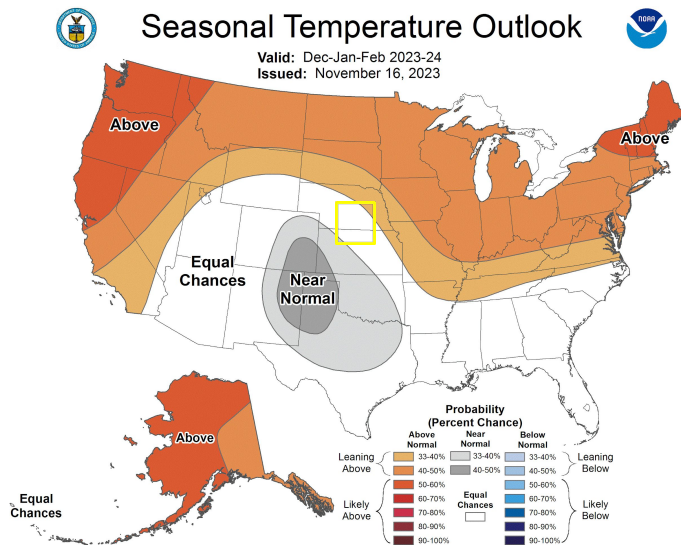


Long-Range (3 Month) Outlooks - CPC

CPC 3-Month Temperature and Precipitation Outlook...Valid For DECEMBER-JANUARY-FEBRUARY

Main Takeaways:

- **Temperatures:** The vast majority of our coverage area is indicated to have “equal chances” of having above, below or near-normal temperatures.
- **Precipitation:** Our entire coverage area is indicated to have a *slight lean* toward above normal precipitation.



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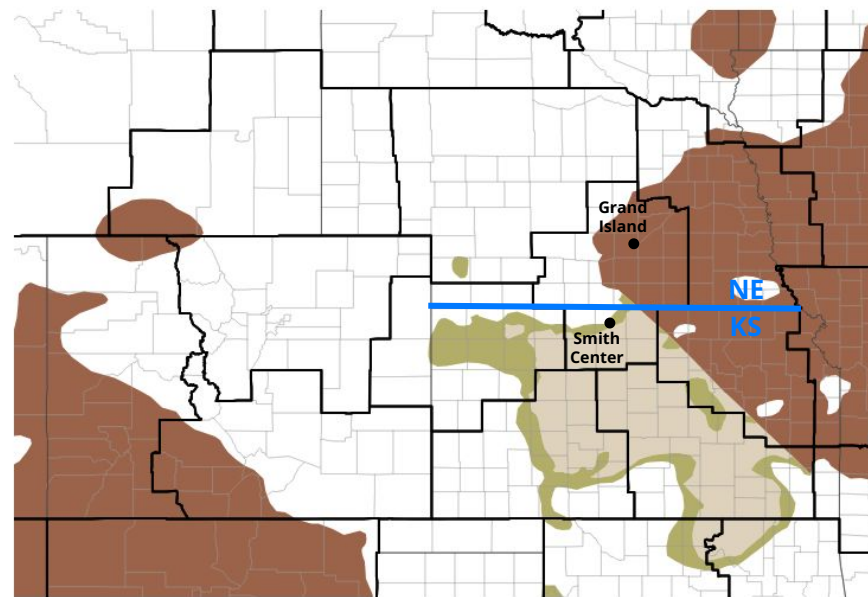
Drought Outlook (Seasonal)

CPC [Seasonal Drought Outlook](#)...Valid Through FEBRUARY 2024

Main Takeaways:

- Based on current longer-range forecasts, our coverage area is a “mixed bag” regarding drought trends through February 2024.
- Drought is currently forecast to persist in most of our central/eastern Nebraska coverage area.
- Drought is currently forecast to improve across much of our north central KS coverage area.

Seasonal (3-Month) Drought Outlook



Drought Is Predicted To...



Source(s): Climate Prediction Center; image courtesy of Drought.gov

Data Valid: 11/16/23





Contact Information & References

For feedback, comments, questions specific to THIS INFO PACKET:

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Assistant State Climatologist
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The U.S. Drought Monitor is produced through a partnership between the National Drought Mitigation Center at the University of Nebraska-Lincoln, the United States Department of Agriculture and the National Oceanic and Atmospheric Administration.

Additional Information Sources:

- [U.S. Drought Monitor](#)
- [National Integrated Drought Information System](#)
- [High Plains Regional Climate Center](#)
- [USGS River Information](#)
- [NWS River Stages & Forecasts](#)
- [NWS Hastings LOCAL Temperature & Precipitation Data](#)

Monitor our webpage for forecast information out to 7 days [HERE](#)

Social media: Follow us on **Facebook (US National Weather Service Hastings)** and **X (@NWSHastings)** for more information!

