



Drought Information Statement for South Central NE and North Central KS

Valid Feb. 22, 2024

Issued By: NWS Hastings, NE

Contact Information: nws.hastings@noaa.gov

- This product will be updated in March 2024 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.





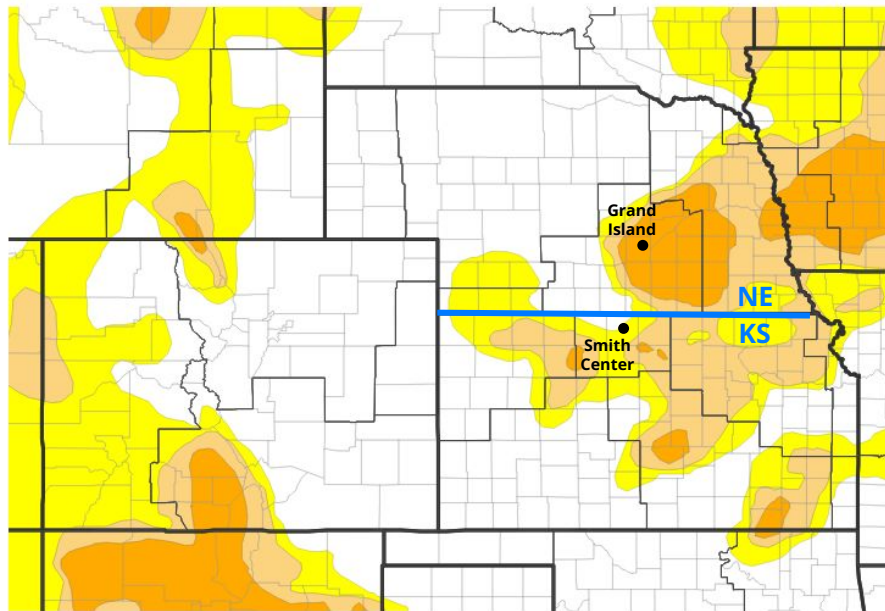
U.S. Drought Monitor

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

Drought Intensity and Extent:

- **D3 Extreme Drought:**
Includes all or part of the following counties:
** Any lingering D3 was removed from the NWS Hastings coverage area as of the Feb. 13th USDM! **
- **D2 Severe Drought:**
Includes all or part of the following counties:
Nance, Howard, Merrick, Polk, Buffalo, Hall, Hamilton, York, Kearney, Adams, Clay, Fillmore, Webster, Nuckolls, Thayer, Rooks, Smith, Osborne, Jewell, Mitchell
- **D1 Moderate Drought:**
Includes all or part of the following counties:
Greeley, Nance, Sherman, Howard, Buffalo, Kearney, Adams, Franklin, Webster, Nuckolls, Thayer, Phillips, Smith, Jewell, Rooks, Osborne, Mitchell
- **D0 Abnormally Dry:**
Includes all or part of the following counties:
Greeley, Sherman, Howard, Buffalo, Kearney, Furnas, Franklin, Webster, Nuckolls, Phillips, Smith, Jewell, Rooks, Osborne, Mitchell

U.S. Drought Monitor



U.S. Drought Monitor



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

Data Valid: 02/20/24



National Oceanic and Atmospheric Administration
U.S. Department of Commerce

National Weather Service
Hastings, Nebraska



Common Drought Impacts By Category

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

D0	Abnormally Dry	Going Into Drought: <ul style="list-style-type: none">• Short-term dryness slowing planting, growth of crops and pastures	Coming Out Of Drought: <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 U.S. Drought Monitor "data week" Feb. 13-19:

(NOTE: any precipitation that fell since 7am TUESDAY "didn't count" for this week's Drought Monitor)

The Feb. 13-19 "Drought Monitor Week" was overall-dry across our coverage area.

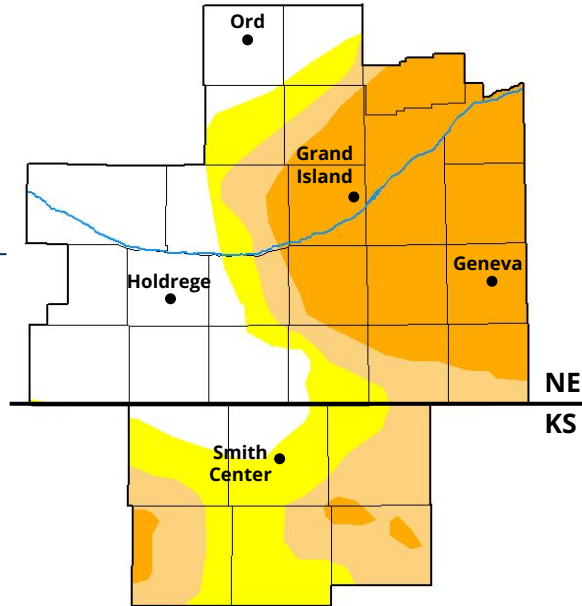
The only precipitation event consisted of a round of light snow mainly during the morning hours of Friday the 16th. Snowfall in most places was 1" or less, and melted liquid precipitation equivalent in most spots only ranged from a Trace up to around 0.10".

- Looking ahead Feb. 23-29:

Our forecast is pretty much "guaranteed" dry through Tues AM (Feb. 27). However, mainly Tues night-Wed daytime (Feb. 27-28) there is a chance for precipitation (likely mainly in the form of snow) across our entire area. At this time, this does not look appear to be a major snow event (currently favors up to a few inches at most).

The latest official WPC precipitation forecast, along with ensemble forecast model data, calls for only 0.05-0.15" of liquid precipitation equivalent across most of our coverage area.

U.S. Drought Monitor Hastings, NE WFO



February 20, 2024
(Released Thursday, Feb. 22, 2024)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	31.36	68.64	50.44	31.03	0.00	0.00
Last Week 02-13-2024	31.36	68.64	50.44	31.03	0.00	0.00
3 Months Ago 11-21-2023	14.71	85.29	63.71	54.61	36.43	12.05
Start of Calendar Year 01-03-2024	16.14	83.86	62.04	46.34	25.12	0.00
Start of Water Year 09-26-2023	5.23	94.77	78.96	63.84	36.89	15.81
One Year Ago 02-21-2023	0.00	100.00	95.33	63.66	9.59	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme 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 Heim
NCEI/NOAA



droughtmonitor.unl.edu



Latest Regional Drought Monitor Map + Jan. 2024 Precip Extremes For NWS Hastings Area

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

January 2024 Local Precipitation Extremes:

Most of Our Area Totaled Between 0.45-1.45" (80-260% of normal), BUT A Big Difference Between Driest Far West and Wettest Central+East

JAN. 2024 <u>Highest</u> Precipitation	JAN. 2024 <u>Lowest</u> Precipitation
<i>Some of our WETTEST stations (NWS/CoCoRaHS/NeRAIN)</i>	<i>Some of our DRIEST stations (NWS/CoCoRaHS/NeRAIN)</i>
2WSW Tobias NE (NeRAIN): 2.32"	5SW Beaver City NE (NeRAIN): 0.20"
3NE Chester NE (NeRAIN): 1.96"	6SSE Lexington NE (NWS): 0.22"
3W Benedict NE (NeRAIN): 1.92"	8S Elwood NE (NWS): 0.32"
7W Osceola NE (NeRAIN): 1.84"	Edison NE (NeRAIN): 0.33"
7NNE Natoma KS (CoCoRaHS): 1.78"	Harlan County Lake NE (NWS): 0.39"
6ESE Clay Center NE (NWS): 1.78"	Cambridge NE (NWS): 0.40"
9NE Palmer NE (NeRAIN): 1.75"	5SW Arapahoe NE (NeRAIN): 0.44"

FOR REFERENCE: "normal" January precipitation across MOST of our coverage area ranges from 0.40-0.70" (generally lowest west/highest east)

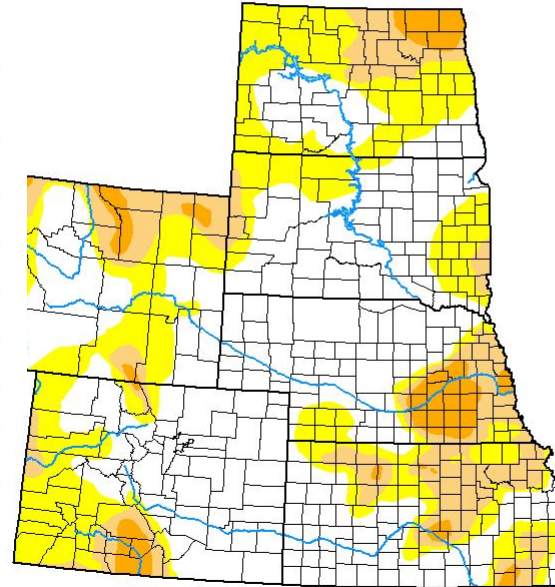
U.S. Drought Monitor

High Plains Climate Region

February 20, 2024

(Released Thursday, Feb. 22, 2024)

Valid 7 a.m. EST



Intensity:

- None
- D0 Abnormally Dry
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National Oceanic and Atmospheric Administration
U.S. Department of Commerce

National Weather Service
Hastings, Nebraska

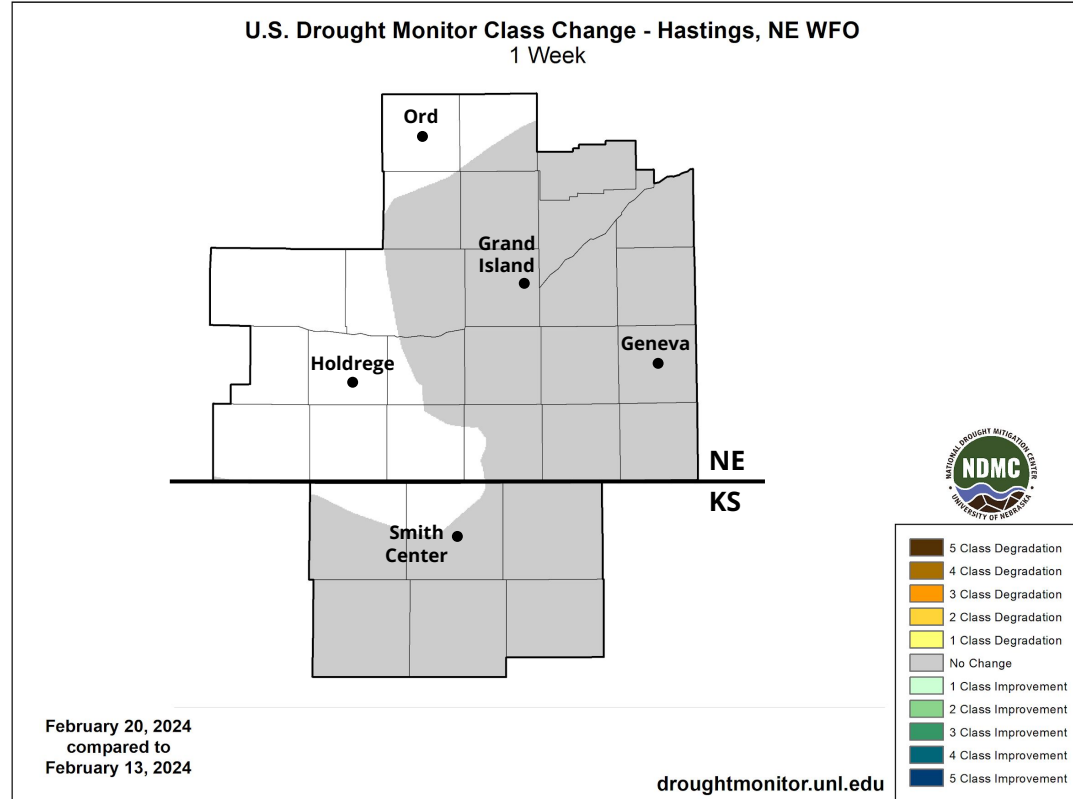


Recent Change in Drought Intensity - 1 Week Change

NWS Hastings [1-Week Drought Class Change...](#)Feb. 20 vs. Feb. 13

One Week Drought Monitor Class Change:

- **Drought Worsened:**
NO AREAS of degradation this week
- **No Change:**
There was NO CHANGE in drought categories within the entire NWS Hastings coverage area this week
- **Drought Improved:**
NO AREAS of improvement this week



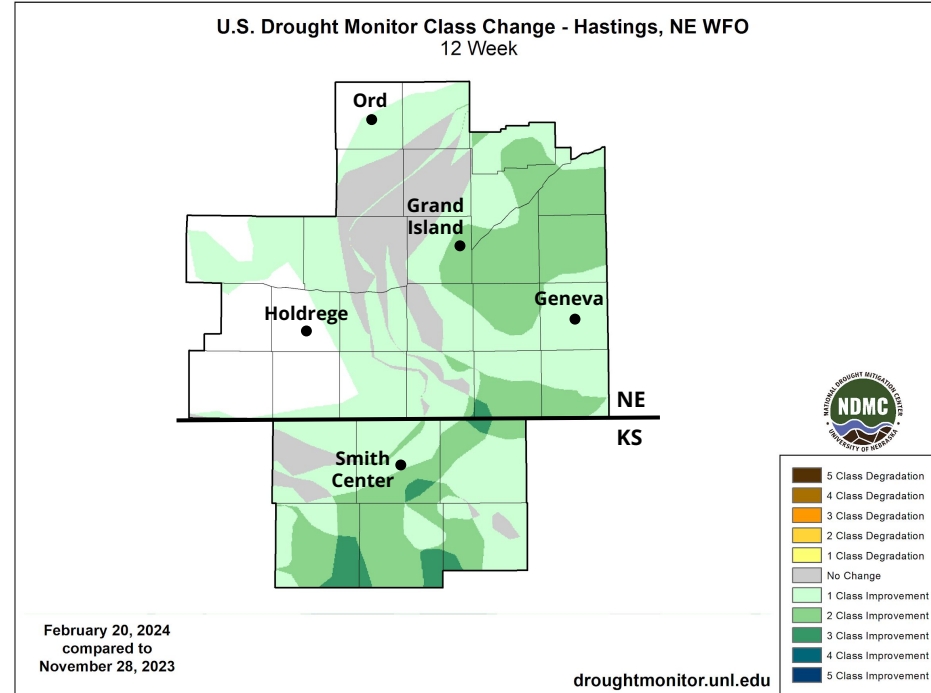
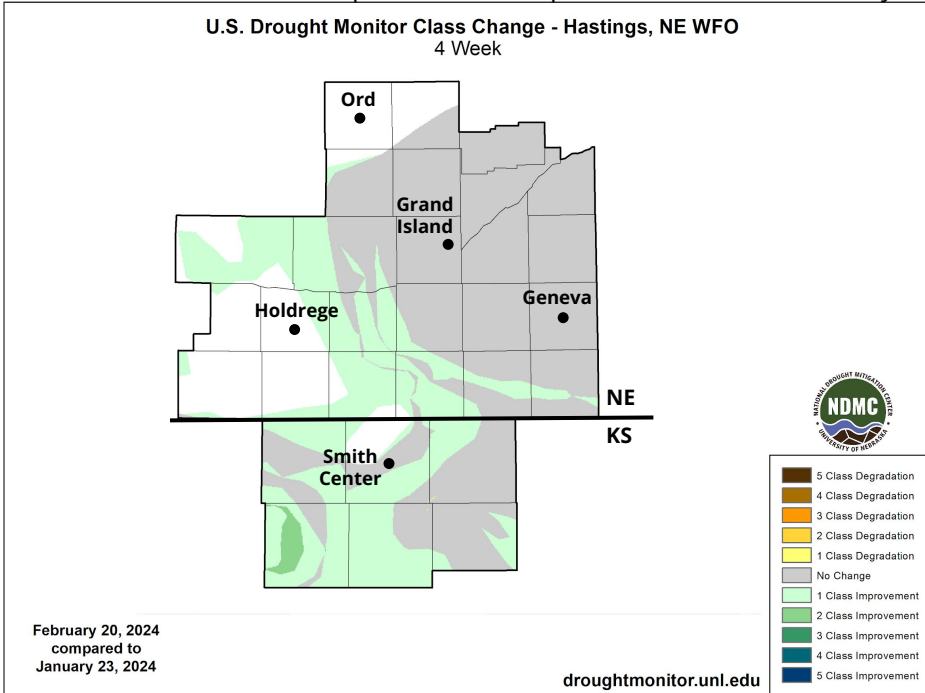


Recent Change in Drought Intensity - 4 and 12 Week Change

NWS Hastings [4-week](#) & [12-week](#) Drought Class Changes...vs. current Feb. 20 maps

4-WEEK CHANGE MAIN TAKEAWAYS: 1-category improvement various southern/western counties places...2-cat improvement in Rooks County

12-WEEK CHANGE MAIN TAKEAWAYS: *widespread* 1-2 category improvement...isolated **THREE-CATEGORY** improvement especially in KS!





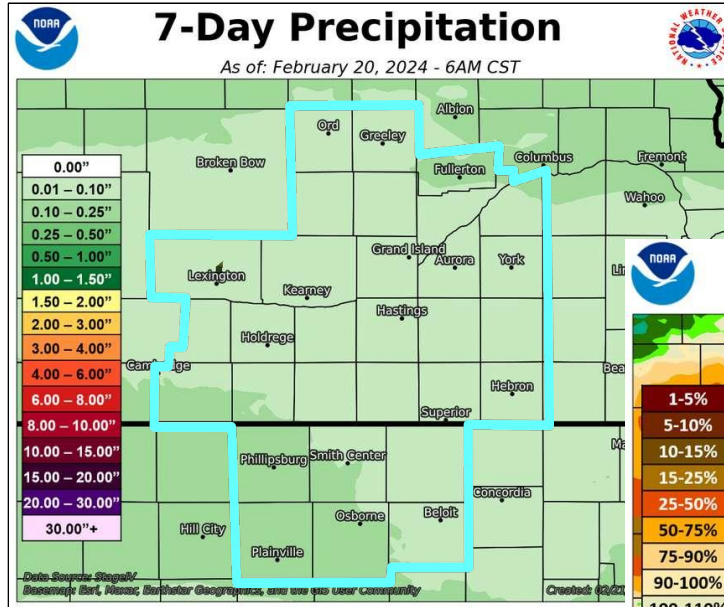
Precipitation (Last 7-Day Drought Monitor Period)

7-Day Precipitation/Percent-of-Normal (Feb. 13-19)...Map Links [HERE](#)

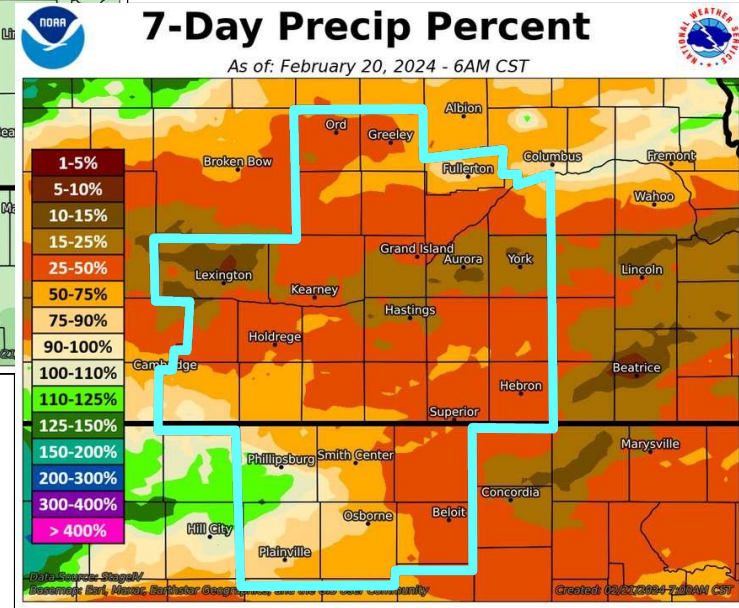
Main Takeaways:

The Feb. 13-19 "Drought Monitor Week" was **overall-dry** across our coverage area.

The only precipitation event consisted of a round of light snow mainly during the morning hours of Friday the 16th. Snowfall in *most* places was 1" or less, and melted liquid precipitation equivalent in most spots only ranged from a Trace up to around 0.10".



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



PLEASE NOTE:

Any precipitation that fell AFTER 7am Tuesday, Feb. 20 is not reflected here as it fell after the weekly Drought Monitor "data cutoff".





Precipitation (Last 30-Day Drought Monitor Period)

30-Day Precipitation/Percent-of-Normal (Jan. 22 - Feb. 20)...Map Links [HERE](#)

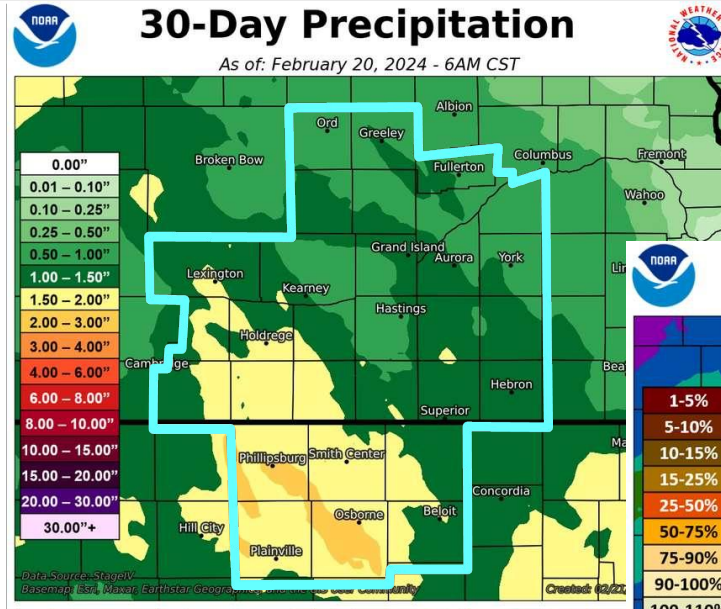
Main Takeaways:

The latest 30-day period featured **ABOVE NORMAL** precipitation across the majority (*but not quite all*) of our coverage area.

The majority of our area received between 0.50-1.50" of total liquid equivalent...or roughly 70-215% of normal. The vast majority of this precipitation fell during a rare, early-February ALL RAIN event between Feb. 2nd-4th.

The overall-wettest counties (greatest concentration of totals in excess of 1.25") focused in KS along with Nebraska counties southwest of the Tri Cities.

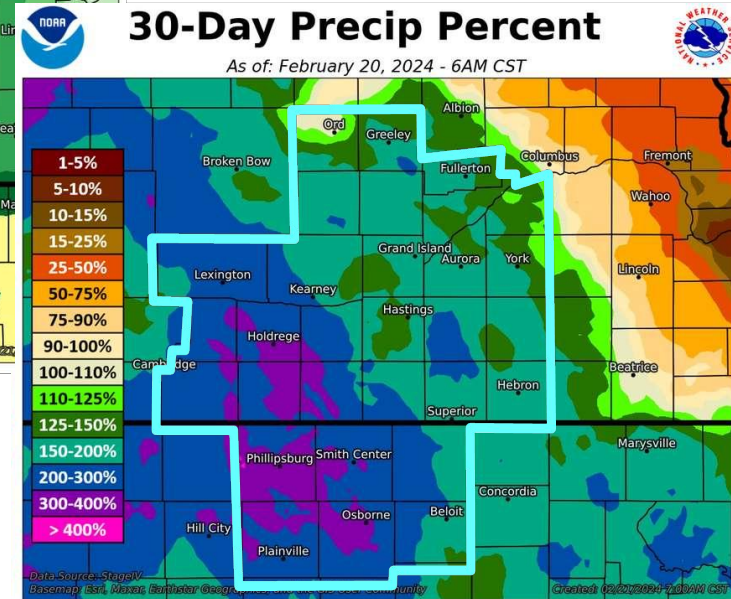
The overall-driest areas (greatest concentration of totals only around 0.50" or less) focused in parts of far north/northeast east counties such as: Valley, Greeley and Polk.



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

PLEASE NOTE:

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Precipitation (Last 90-Day Drought Monitor Period)

90-Day Precipitation/Percent-of-Normal (Nov. 23 - Feb. 20)...Map Links [HERE](#)

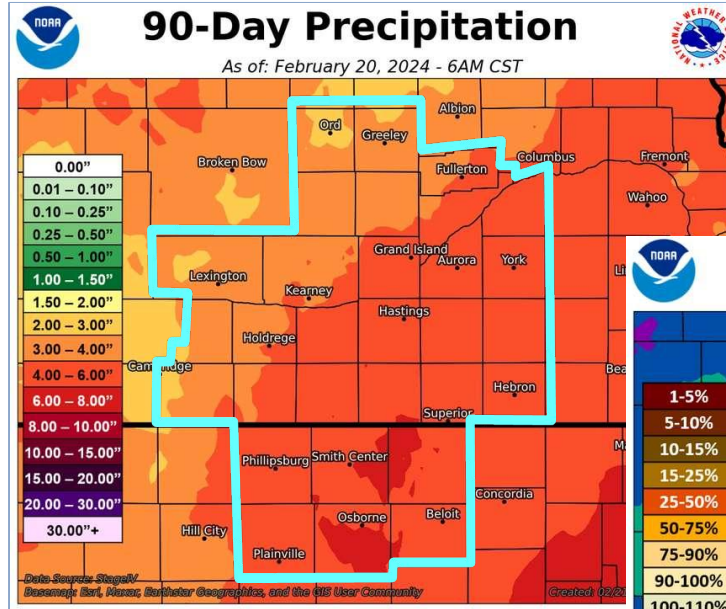
Main Takeaways:

The latest 90-day period featured **ABOVE NORMAL** precipitation across the vast majority (*but not quite all*) of our coverage area.

The majority of our area received between 2.00-4.50" of total liquid equivalent...or roughly 95-215% of normal. "Meteorological winter" 2023-24 has provided widespread, beneficial precipitation, much of which fell in the form of RAIN.

Some of the very-wettest counties (including some totals at least 4.50-5.50") focused within the southeast 1/2 to 2/3 of our area.

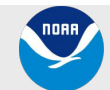
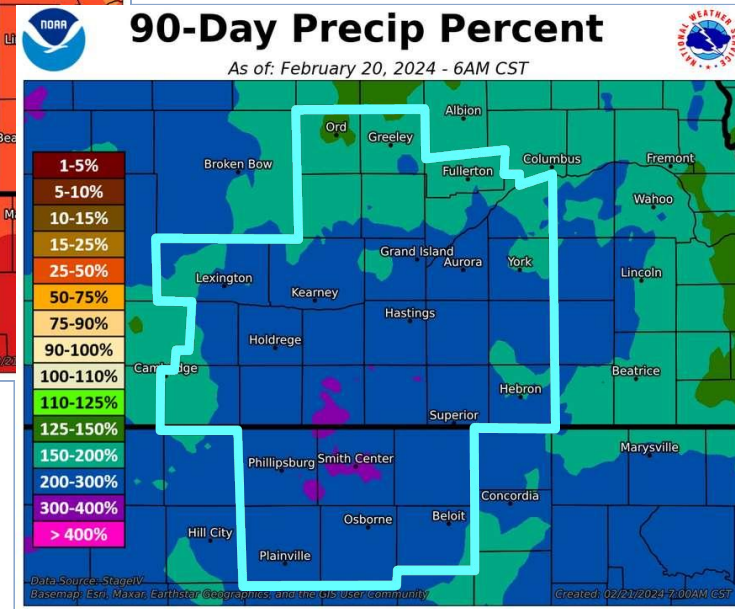
The overall-driest counties (greatest concentration of around 2.50" or less) focused within the northwest 1/3 of our area (especially counties such as Furnas/Gosper/Dawson).



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Temperature Trends (Last 7 and 30 Days)

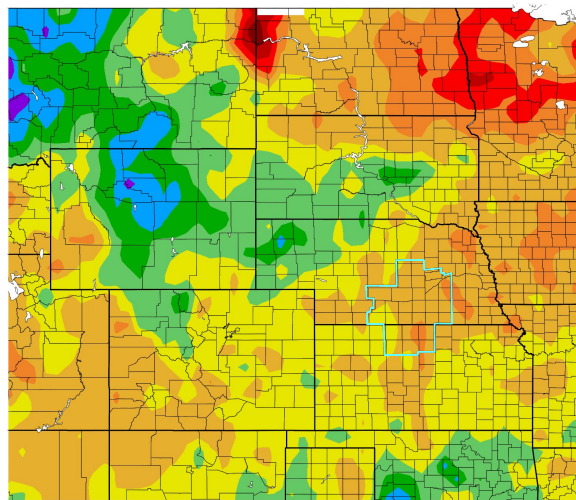
High Plains Regional Climate Center [7-Day](#) & [30-Day](#) Temperature Departures From Normal

Main Takeaways (Last 7 Days):

The last week has been **OVERALL-WARM** across our entire coverage area, with most places averaging 4-6° above normal, as one of the warmest months of February on record continued.

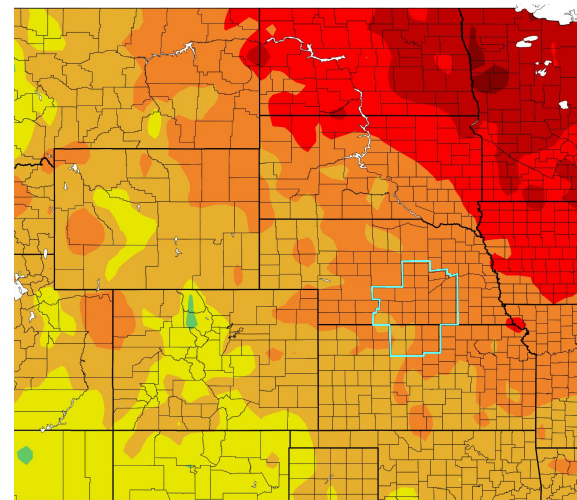
In fact, over the last 30 days (right image), most of the area has averaged at least 6-9° above normal.

Departure from Normal Temperature (F)
2/15/2024 - 2/21/2024

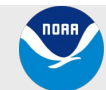


NWS Hastings area outlined in light blue

Departure from Normal Temperature (F)
1/23/2024 - 2/21/2024



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:

- There are no known impacts at this time

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:

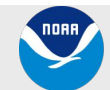
- There are no known significant impacts at this time. That being said, prevailing dry and warmer-than-normal weather over the last few weeks has prompted a gradual increase in at least “near-critical” fire weather conditions on any upcoming afternoons with low relative humidity (especially 25% or lower) and breezy wind gusts (especially 20+ MPH).

Other Impacts:

- There are no known impacts at this time

Mitigation Actions:

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





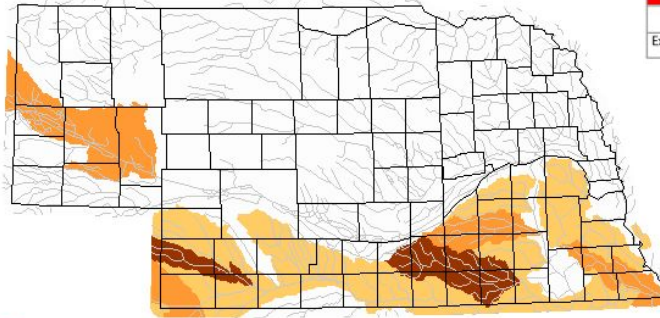
Hydrologic Conditions and Impacts

USGS Streamflow Information...Maps Shaded Only For Areas With BELOW NORMAL Flows

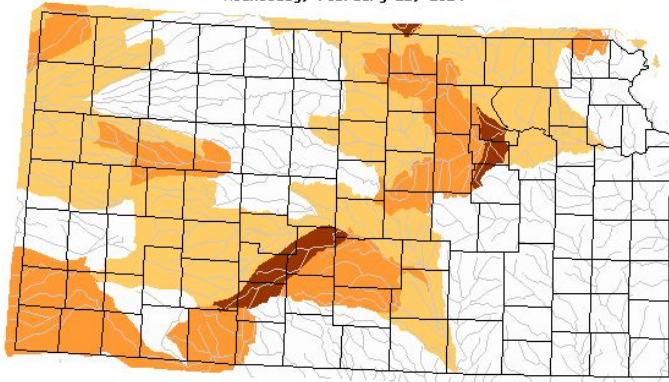
Main Takeaways:

- Any substantial ice coverage from earlier this winter has since “flushed out” of our area rivers.
- Near-normal to even above normal streamflows prevail within the Loup/Platte River basins in our central/northern NE coverage area
- Unfortunately, below normal flows (including pockets of moderate to severe hydrologic drought) are indicated within the southern half of our coverage area, with the overall-lowest streamflows focused along the Little Blue/Big Blue basins in south central/southeast portions of our Nebraska coverage area.

Hednesday, February 21, 2024



Hednesday, February 21, 2024



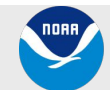
Explanation - Percentile classes

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

Image Captions:

Top - [Nebraska Below Normal 7-Day Average Streamflow Compared To Historical Streamflow For The Day Of The Year](#) , from USGS, valid Feb. 21

Bottom - [Kansas Below Normal 7-Day Average Streamflow Compared To Historical Streamflow For The Day Of The Year](#) , from USGS, valid Feb. 21



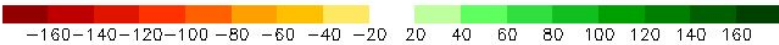
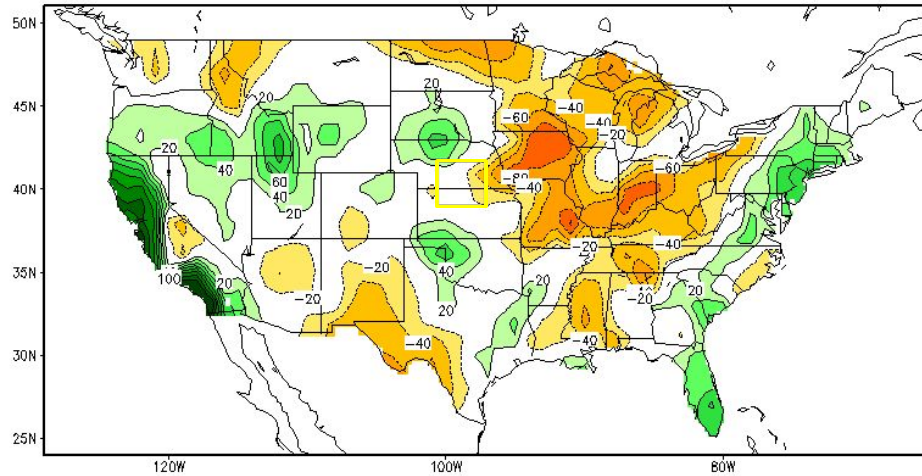


Agricultural Impacts / Soil Moisture

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

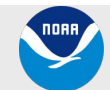
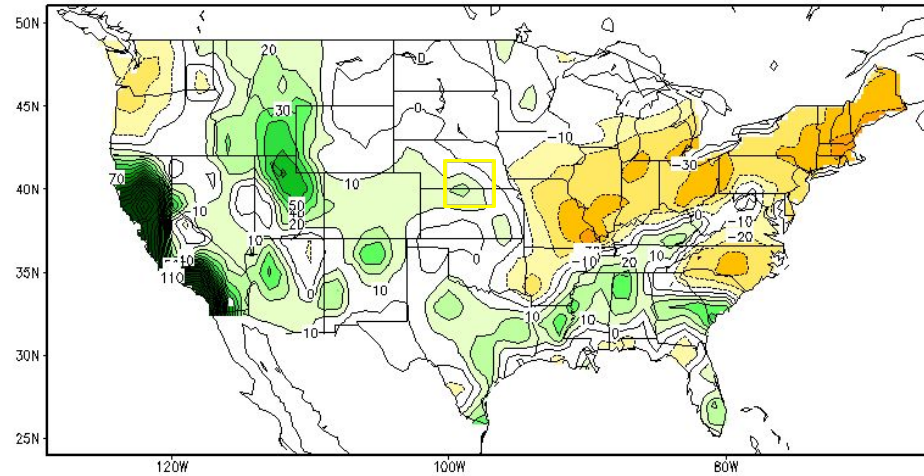
Soil Moisture Departure From Normal (mm)

Calculated Soil Moisture Anomaly (mm)
FEB 21, 2024



Soil Moisture Change Since End Of Previous Month (mm)

Calculated Soil Moisture Anomaly Change
FEB 21, 2024 from JAN.31





7-Day Precipitation Forecast

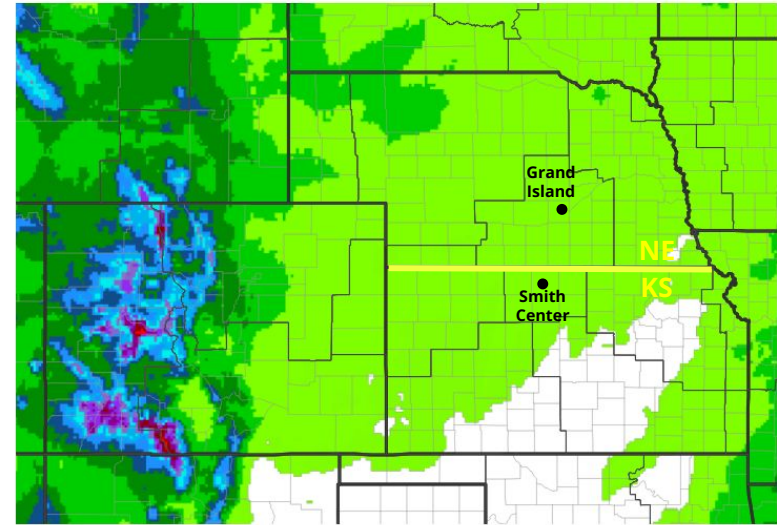
From [Weather Prediction Center \(WPC\)](#)...Valid Feb. 23-29

Main Takeaways:

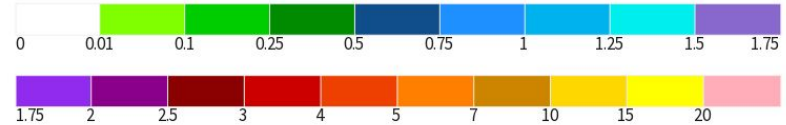
Our forecast is pretty much “guaranteed” dry through at least Tues AM (Feb. 27). However, mainly Tues night-Wed daytime (Feb. 27-28) there is a chance for precipitation (likely mainly in the form of snow) across our entire area. At this time, this does not look appear to be a major snow event (currently favors up to a few inches at most).

The latest official WPC precipitation forecast, along with ensemble forecast model data, calls for only 0.05-0.15” of liquid precipitation equivalent across most of our coverage area.

7-Day Quantitative Precipitation Forecast

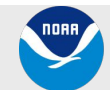


Predicted Inches of Precipitation



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

Data Valid: 02/22/24



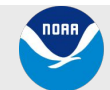
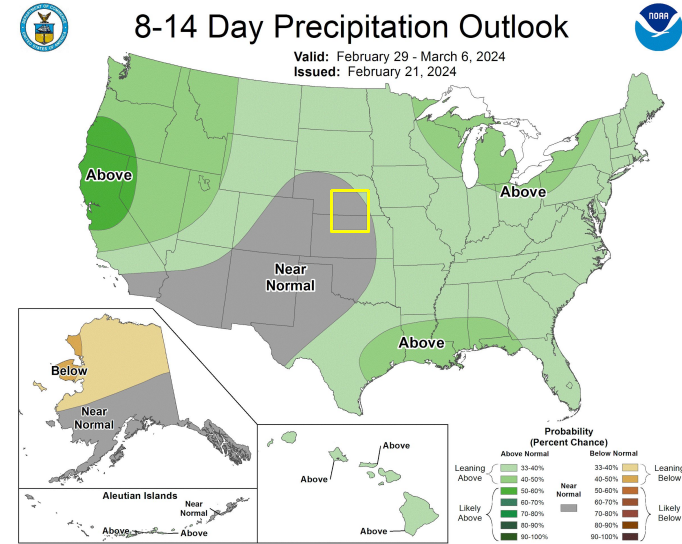
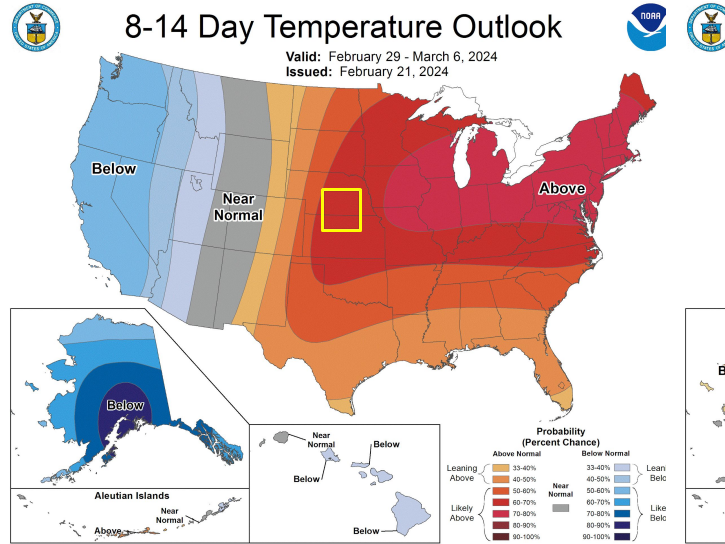


8-14 Day Outlooks - Climate Prediction Center (CPC)

CPC [Temperature and Precipitation Outlooks](#)...Valid Feb. 29 - March 6

Main Takeaways:

- Temperatures:**
 Our entire coverage area features a likely lean toward above normal temperatures. Daily highs look to mainly fluctuate between the 40s-60s.
- Precipitation:**
 Most of our coverage area favors near-normal weekly precipitation, although a slight lean toward above normal precipitation technically brushes our extreme northeast counties.



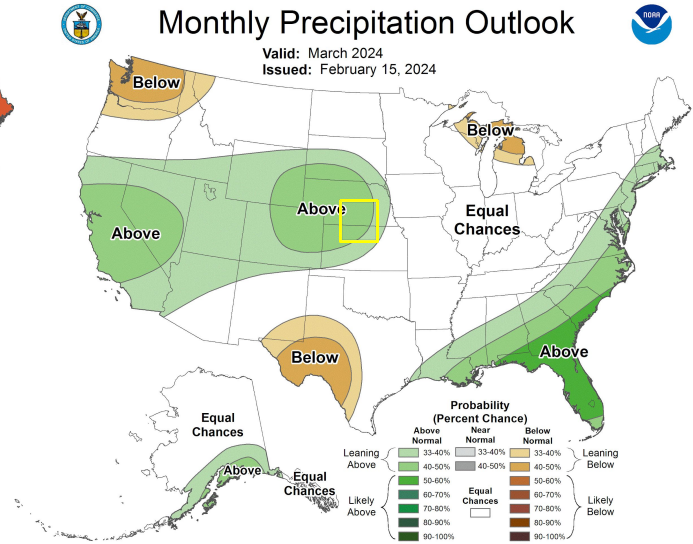
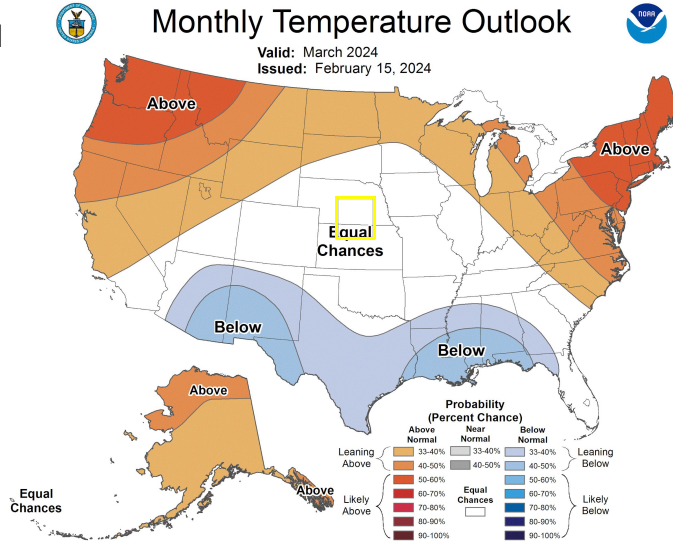


Monthly Outlooks - Climate Prediction Center (CPC)

CPC [Monthly Temperature and Precipitation Outlooks](#)...Valid For MARCH 2024

Main Takeaways:

- Temperatures:**
 Our entire coverage area (and well beyond in all directions) is indicated to have "equal chances" of having above, below or near-normal precipitation
- Precipitation:**
 Our entire coverage area features at least a slight lean toward above normal March precipitation.



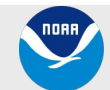
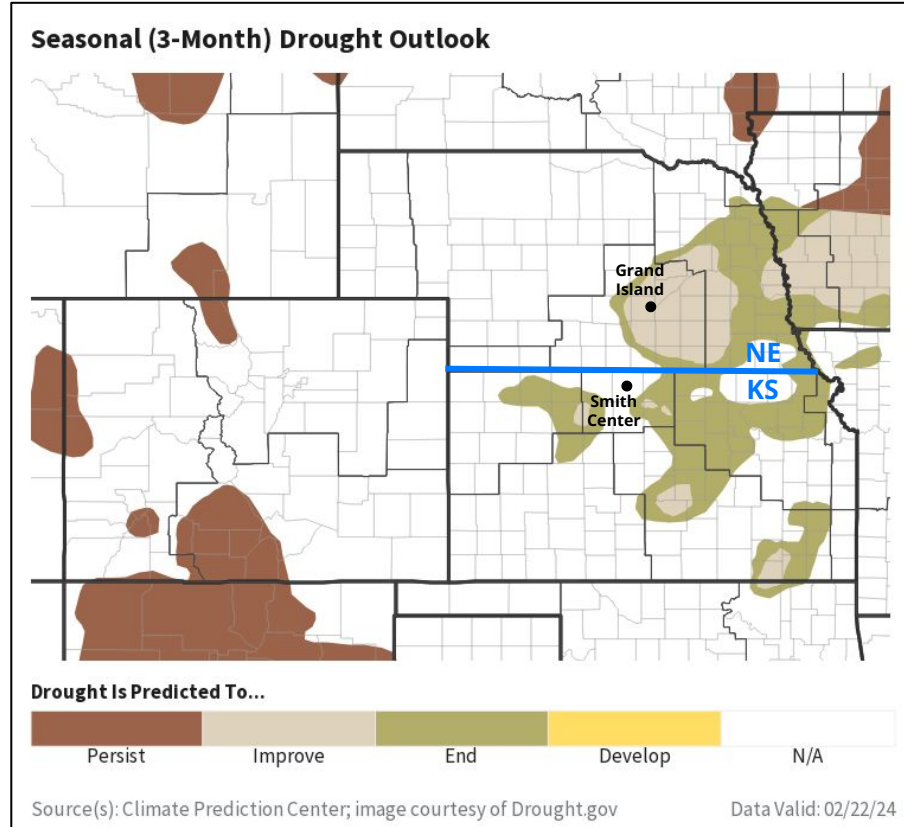


Drought Outlook (Seasonal)

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

Main Takeaways:

- Going hand in hand with an expected slight lean toward above normal precipitation this spring, this outlook indicates that those parts of our coverage area currently assigned any drought category are expected to either observe some degree of improvement or perhaps have drought removed altogether.





Contact Information & References

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

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Other contacts for NE/KS drought input:

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(402) 617-4190
- Kansas State University
Assistant State Climatologist
Matthew Sittel
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(785) 532-1087

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!

