



Drought Information Statement for South Central NE and North Central KS

Valid March 21, 2024

Issued By: NWS Hastings, NE

Contact Information: nws.hastings@noaa.gov

- This product will be updated in April 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.





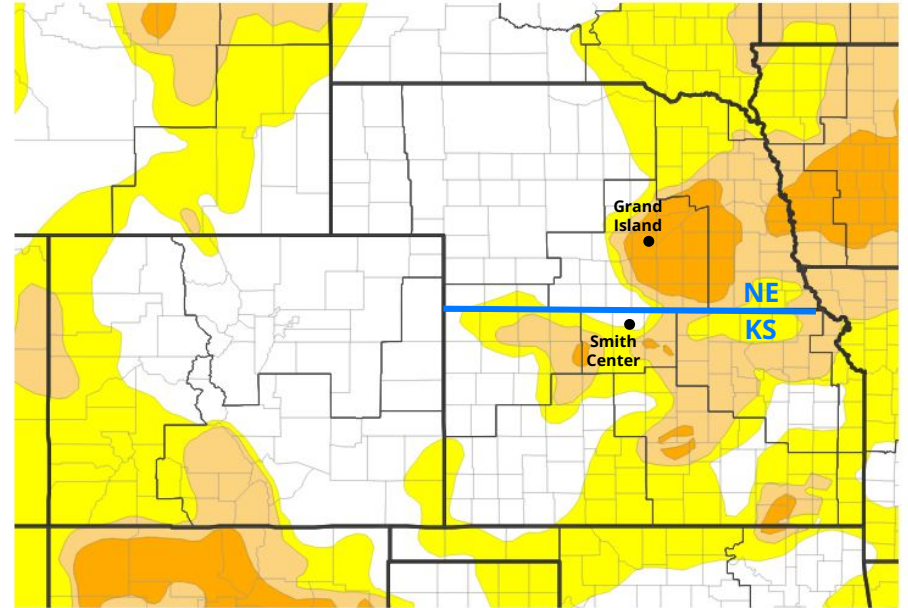
U.S. Drought Monitor

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

Drought Intensity and Extent:

- **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: 03/19/24





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" March 12-18:

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

The March 12-18 "Drought Monitor Week" was a "mixed bag" across our coverage area.

Fortunately, the majority of our area received at least *some* precip during rounds of mainly lighter rain (and also a few heavier showers/storms) on the 13th-14th, but amounts varied considerably.

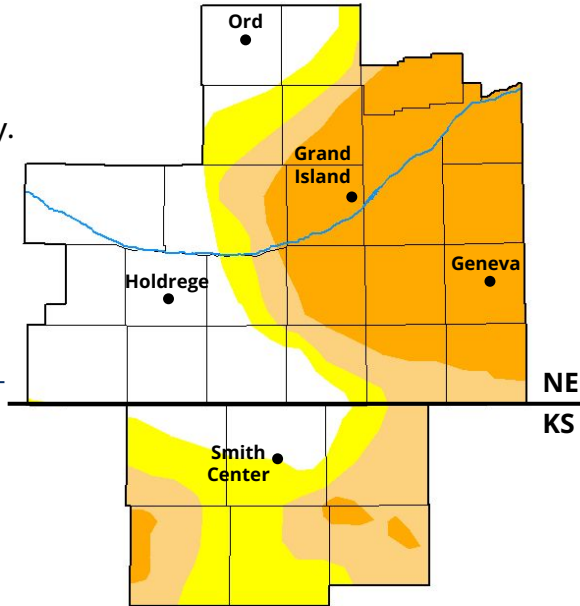
Most of our area measured somewhere between 0.15-0.60". However, pockets of several counties along/south of the NE/KS border received at least 1" (where thunderstorms were more common). In contrast, large parts of several far northern/western local counties (especially north of I-80 and west of Highway 183) picked up less than 0.10".

- Looking ahead March 22-28:

Particularly the Sunday-Monday time frame (March 24-25) looks to feature fairly widespread precipitation across our coverage area...initially in the form of rain/thunderstorms and eventually transitioning to at least a modest amount of snow.

The latest official WPC precipitation forecast, along with ensemble forecast model data, calls for widespread amounts of 0.50-1.25" across our area...generally lowest in KS and highest north of I-80.

U.S. Drought Monitor Hastings, NE WFO



March 19, 2024
(Released Thursday, Mar. 21, 2024)
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	32.87	67.13	49.81	31.03	0.00	0.00
Last Week 03-12-2024	31.17	68.83	50.44	31.03	0.00	0.00
3 Months Ago 12-19-2023	16.06	83.94	62.04	46.34	32.37	7.65
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 03-21-2023	0.00	100.00	98.61	66.43	6.83	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>

Author:
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U.S. Department of Agriculture



droughtmonitor.unl.edu



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

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

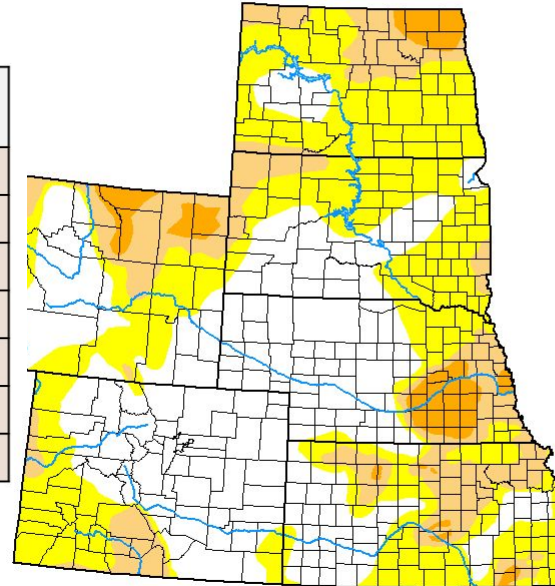
February 2024 Local Precipitation Extremes:

Most of Our Area Totaled Between 0.60-1.40" (80-185% of normal), BUT Overall-Wettest South-Southwest and Driest North-Northeast

FEB 2024 <u>Highest</u> Precipitation	FEB 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>
1NNW Damar KS (CoCoRaHS): 2.58"	3NE Shelby NE (NWS observer): 0.20"
Natoma KS (NWS observer): 2.05"	3WSW Genoa NE (NeRAIN): 0.30"
8SSW Hildreth NE (NeRAIN): 1.82"	Ord NE airport (NWS ASOS): 0.47"
4WNW Plainville KS (NWS): 1.71"	Osceola NE (NeRAIN): 0.52"
6SW Lexington NE (CoCoRaHS): 1.67"	Spalding NE (NeRAIN): 0.55"
Bloomington NE (NeRAIN): 1.63"	Stromsburg NE (NeRAIN): 0.56"
Smith Center KS (NWS): 1.60"	2W Arcadia NE (NWS): 0.59"

U.S. Drought Monitor High Plains Climate Region

March 19, 2024
(Released Thursday, Mar. 21, 2024)
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Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
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U.S. Department of Agriculture



droughtmonitor.unl.edu



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...March 19 vs. March 12](#)

One Week Drought Monitor Class Change:

Drought Worsened:

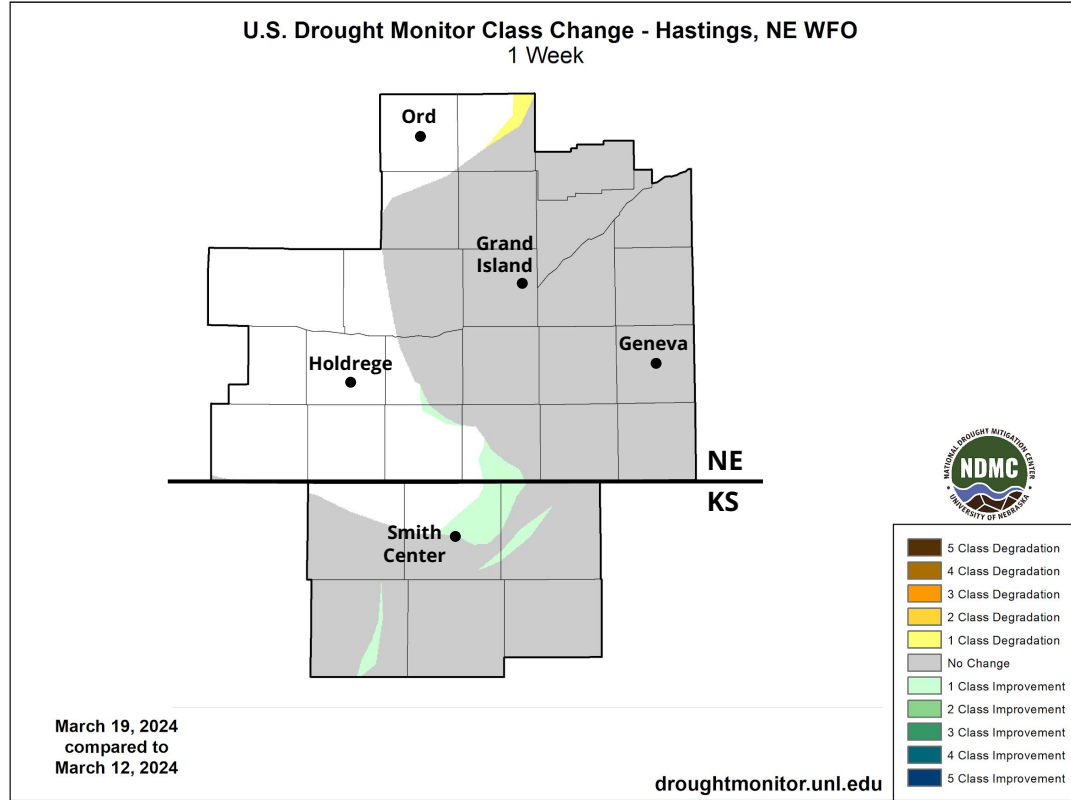
A small sliver of Greeley County degraded by 1-class from D-nothing to D0

No Change:

There was NO CHANGE in drought categories across the vast majority of the NWS Hastings coverage area

Drought Improved:

Several small portions of counties along/south of the NE/KS border saw 1-class improvement (including D0 > D-nothing and D1 > D0)





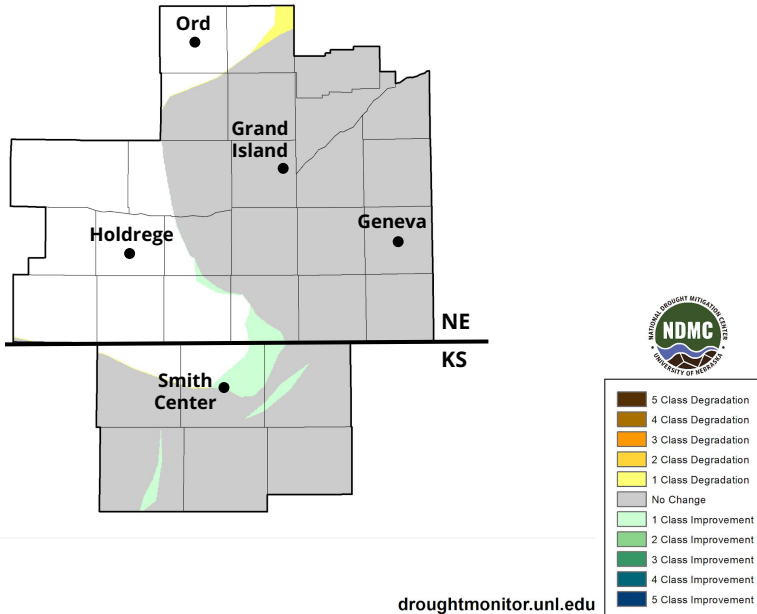
Recent Change in Drought Intensity - 4 and 12 Week Change

NWS Hastings [4-week](#) & [12-week](#) Drought Class Changes...vs. current March 19 maps

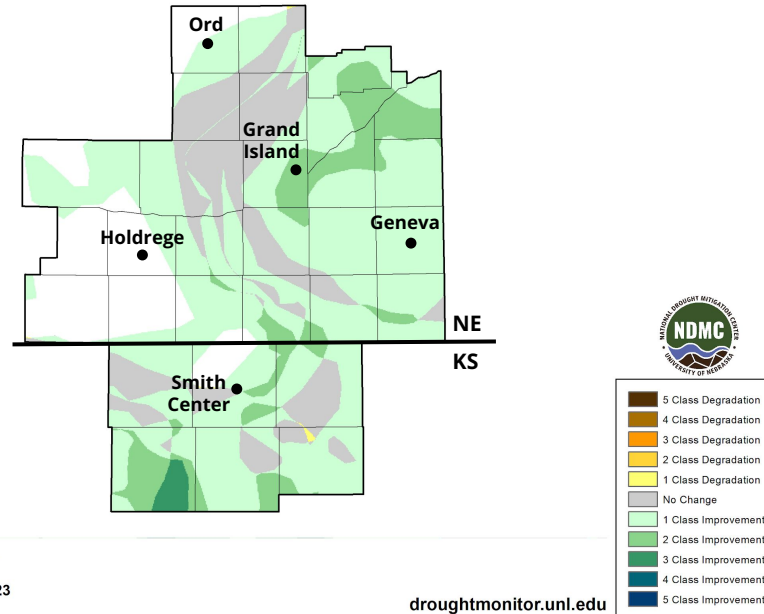
4-WEEK CHANGE MAIN TAKEAWAYS: 1-class improvement parts of various southern counties...isolated 1-class degradation in Greeley County

12-WEEK CHANGE MAIN TAKEAWAYS: *widespread* 1-2 class improvement...isolated 3-CLASS improvement in Rooks County KS!

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-Day Drought Monitor Period)

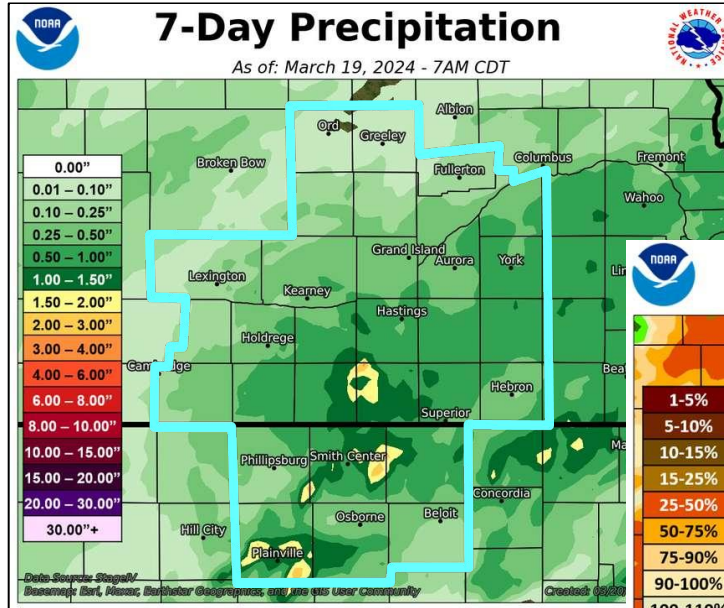
7-Day Precipitation/Percent-of-Normal (March 12-18)...Map Links [HERE](#)

Main Takeaways:

The March 12-18 "Drought Monitor Week" was a "mixed bag" across our coverage area.

Fortunately, the majority of our area received at least *some* precip during rounds of mainly lighter rain (and also a few heavier showers/storms) on the 13th-14th, but amounts varied considerably

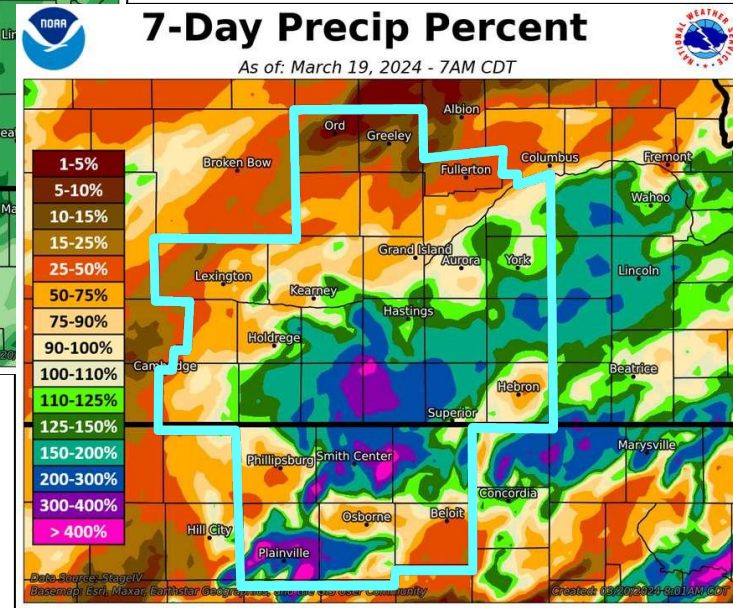
Most of our area measured somewhere between 0.15-0.60". However, pockets of several counties along/south of the NE/KS border received at least 1" (where thunderstorms were more common). In contrast, large parts of several far northern/western local counties (especially north of I-80 and west of Highway 183) picked up less than 0.10".



PLEASE NOTE:

Any precipitation that fell AFTER 7am Tuesday, March 19 is not reflected here as it fell after the weekly Drought Monitor "data cutoff".

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





Precipitation (Last 30-Day Drought Monitor Period)

30-Day Precipitation/Percent-of-Normal (Feb. 19 - March 18)...Map Links [HERE](#)

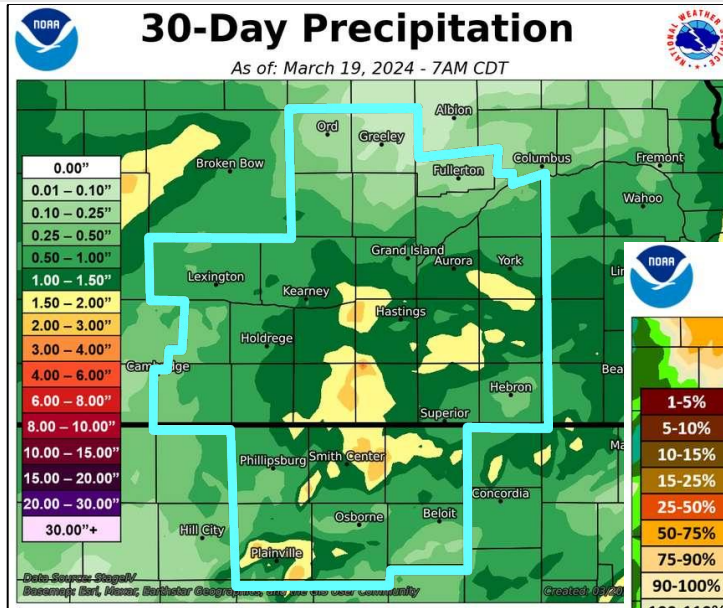
Main Takeaways:

Unfortunately, the latest 30-day period has trended toward featured **BELOW NORMAL** precipitation across the majority (*but not all*) of our coverage area.

The majority of our area received only between 0.20-0.75" of total liquid equivalent...or roughly 20-70% of normal.

The overall-wettest areas (greatest concentration of totals of 1" or more) focused within portions of several counties mainly along and south of Highway 6 and southward into KS.

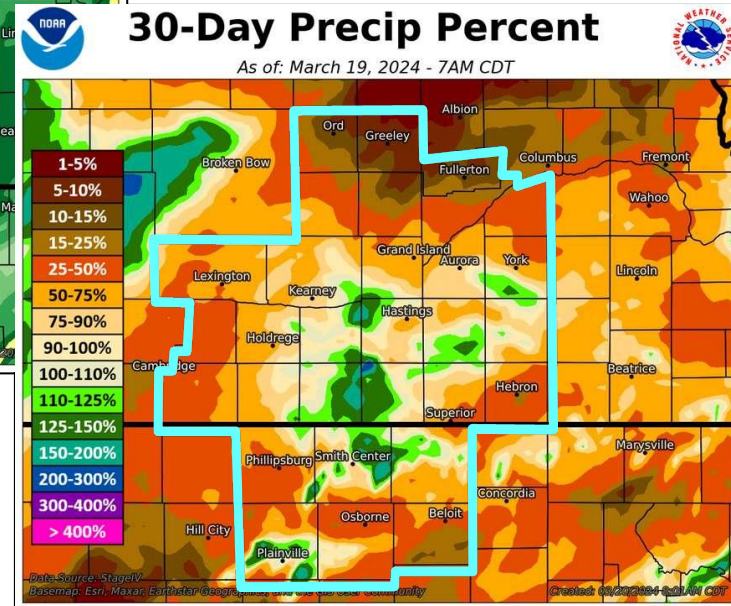
The overall-driest areas (greatest concentration of totals 0.20" or less) focused within several counties mainly north of I-80, along with the southern Mitchell County KS area.



PLEASE NOTE:

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





Precipitation (Last 90-Day Drought Monitor Period)

90-Day Precipitation/Percent-of-Normal (Dec. 21 - March 18)...Map Links [HERE](#)

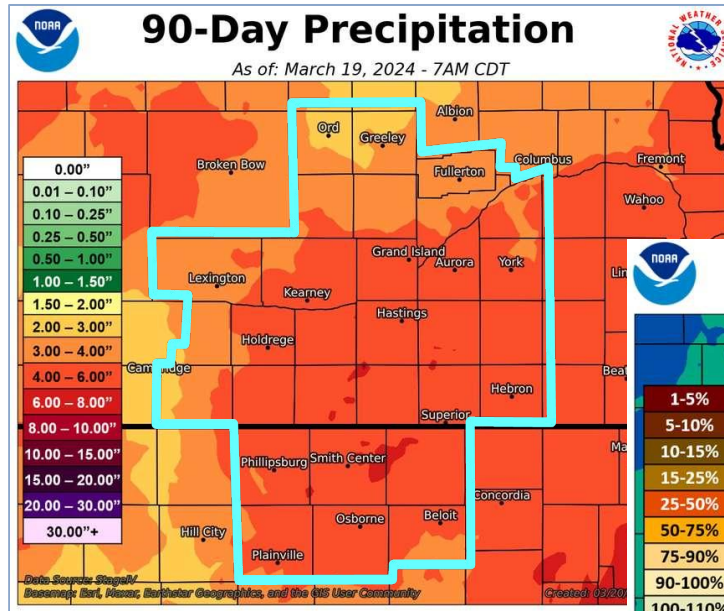
Main Takeaways:

Despite more recent prevailing dryness, the latest 90-day period still featured at least slightly **ABOVE NORMAL** precipitation across the vast majority (*but not quite all*) of our area.

The majority of our area received between 2-4" of total liquid equivalent...or roughly 75-150% of normal. "Meteorological winter" 2023-24 as a whole provided widespread, beneficial precipitation.

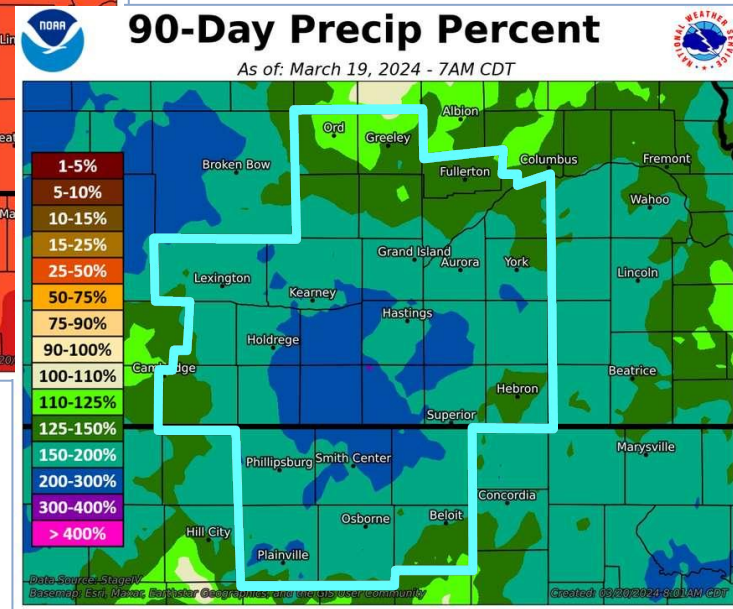
Some of the very-wettest areas in the last 90 days (including some totals at least 4.00-4.50") focused within parts of several counties mainly from Highway 6 southward into KS.

The overall-driest counties (greatest concentration of 1.50-2.00" at most) focused within parts of several far northern/western counties such as Greeley/Furnas.

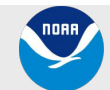


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NWS Hastings area outlined in light blue (24 NE counties, 6 KS counties)





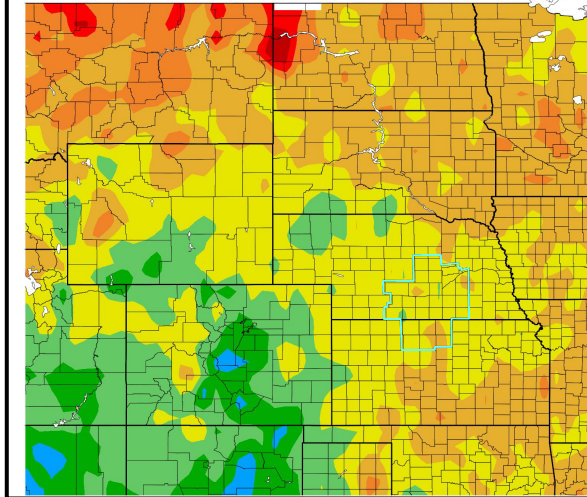
Temperature Trends (Last 7 and 30 Days)

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

Main Takeaways (Last 7 Days):

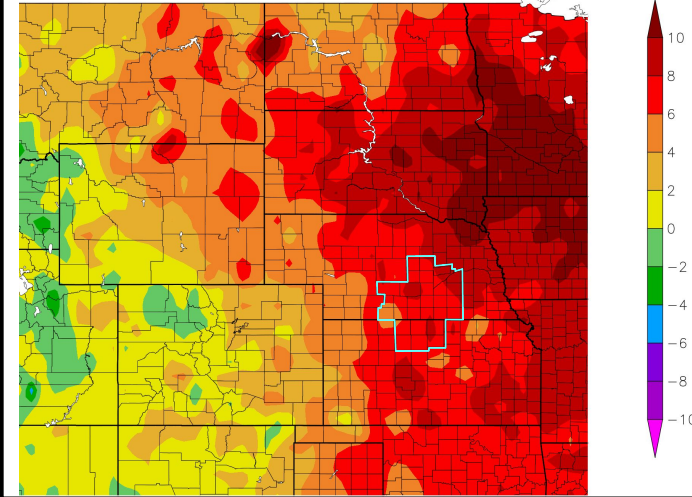
Despite a bit of a “roller-coaster” during the last week with daily highs a varied mix of mainly 40s/50s/60s, the last week as a whole has averaged **SLIGHTLY WARMER THAN NORMAL** across our area, with most places averaging 0-2° above normal.

Departure from Normal Temperature (F)
3/14/2024 – 3/20/2024

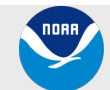


NWS Hastings area outlined in light blue

Departure from Normal Temperature (F)
2/20/2024 – 3/20/2024



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:

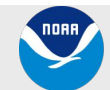
- There are no known significant impacts/threats at this time (especially with a cooler/wetter weather pattern coming up). That being said, occasional, mainly minor (low acreage) wildfires have occurred within our area on some recent afternoons that had at least “near-critical” fire weather conditions...meaning a combination of low relative humidity (especially 25% or lower) and breezy wind gusts (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.





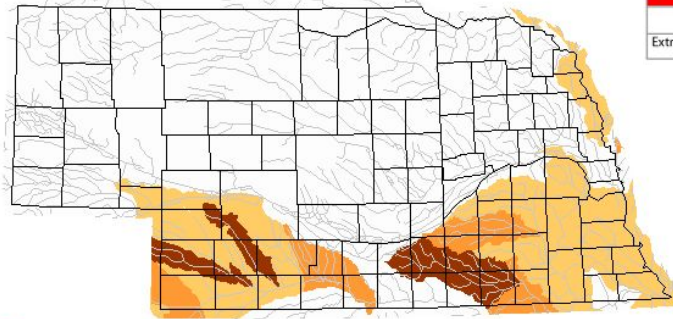
Hydrologic Conditions and Impacts

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

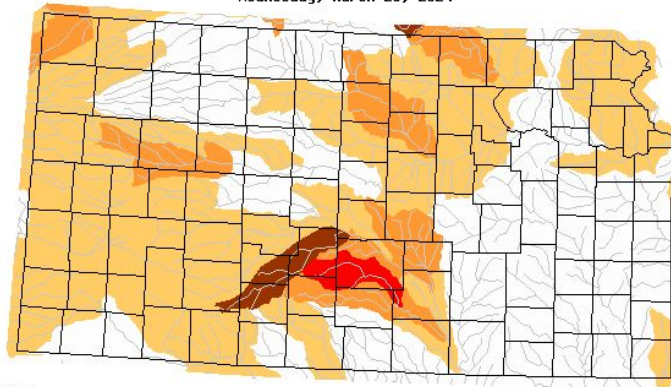
Main Takeaways:

- Near-normal to even slightly above normal streamflow currently prevails mainly within the Loup/Platte River basins in central/northern parts of our Nebraska coverage area.
- Unfortunately, below normal flows (including pockets of moderate to severe hydrologic drought) have persisted within parts of the southern half of our coverage area. This is especially evident within the Little Blue/Big Blue basins in south central/southeast portions of our Nebraska coverage area, along with the Solomon River basin particularly within Mitchell County KS.

Wednesday, March 20, 2024



Wednesday, March 20, 2024



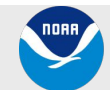
Explanation - Percentile classes

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 March 20

Bottom - [Kansas Below Normal 7-Day Average Streamflow Compared To Historical Streamflow For The Day Of The Year](#) , from USGS, valid March 20



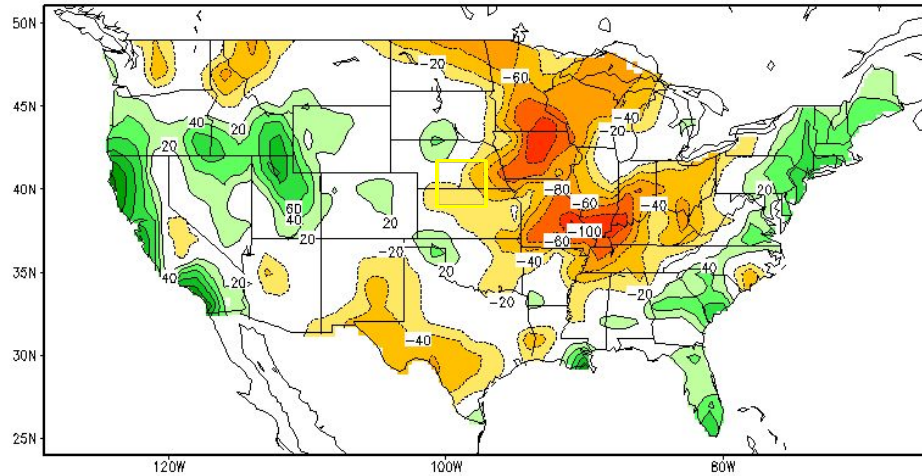


Agricultural Impacts / Soil Moisture

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

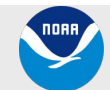
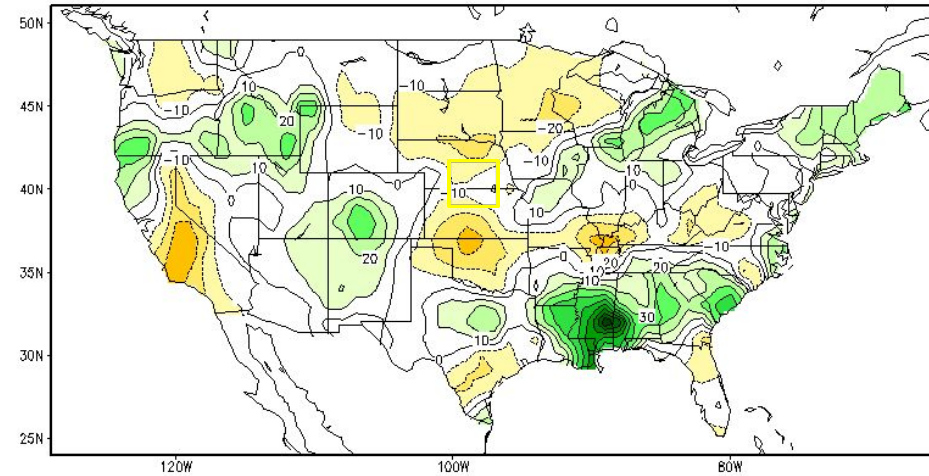
Soil Moisture Departure From Normal (mm)

Calculated Soil Moisture Anomaly (mm)
MAR 20, 2024



Soil Moisture Change Since End Of Previous Month (mm)

Calculated Soil Moisture Anomaly Change
MAR 20, 2024 from FEB.28





7-Day Precipitation Forecast

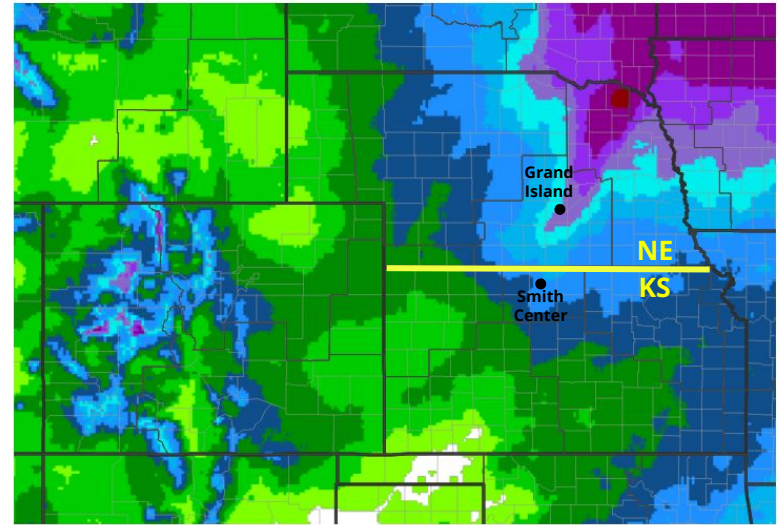
From [Weather Prediction Center \(WPC\)](#)...Valid March 23-28

Main Takeaways:

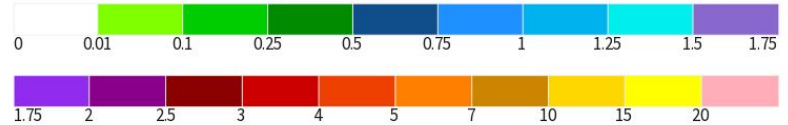
Particularly the Sunday-Monday time frame (March 24-25) looks to feature fairly widespread precipitation across our coverage area...initially in the form of rain/thunderstorms and eventually transitioning to at least a modest amount of snow.

The latest official WPC precipitation forecast, along with ensemble forecast model data, calls for widespread amounts of at least 0.50-1.25" across our area...generally lowest in KS and highest north of I-80.

7-Day Quantitative Precipitation Forecast



Predicted Inches of Precipitation



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

Data Valid: 03/21/24



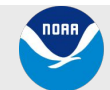
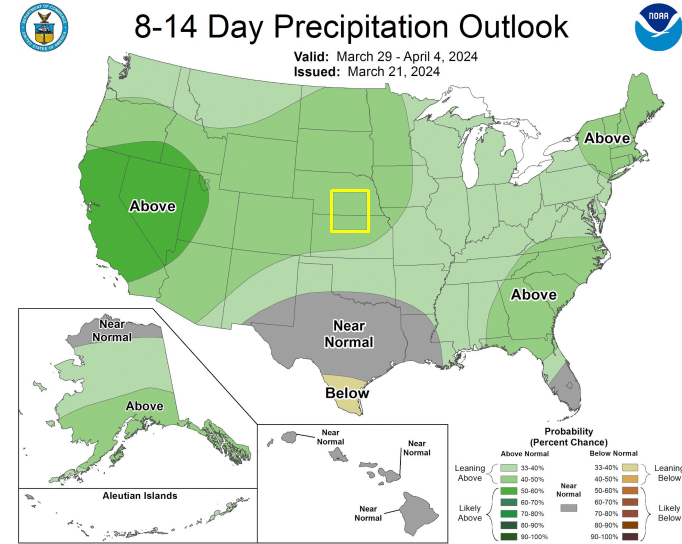
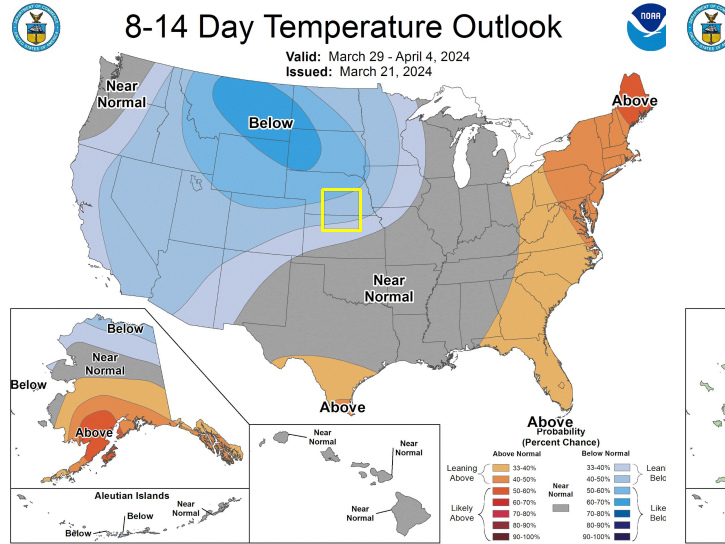


8-14 Day Outlooks - Climate Prediction Center (CPC)

CPC [Temperature and Precipitation Outlooks](#)...Valid March 29 - April 4

Main Takeaways:

- Temperatures:**
 Our entire coverage area features at least a slight lean toward below normal temperatures. Daily highs look to mainly prevail in the 40s/50s.
- Precipitation:**
 Our coverage area features a slight lean toward above normal precipitation, as an overall-active weather pattern is expected to prevail.



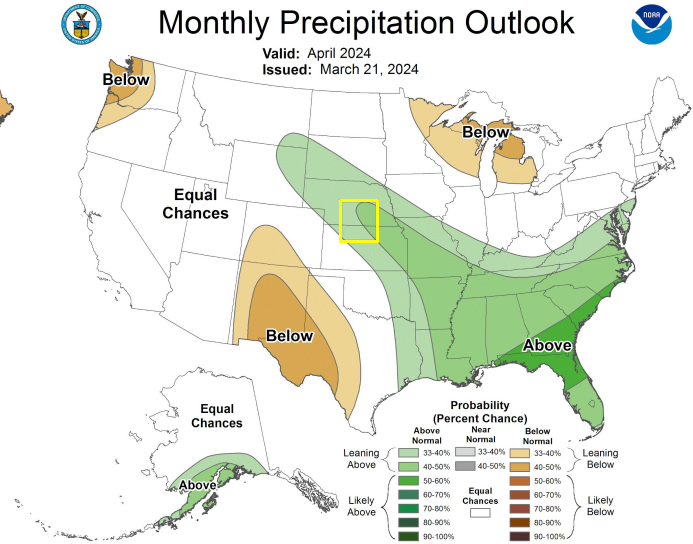
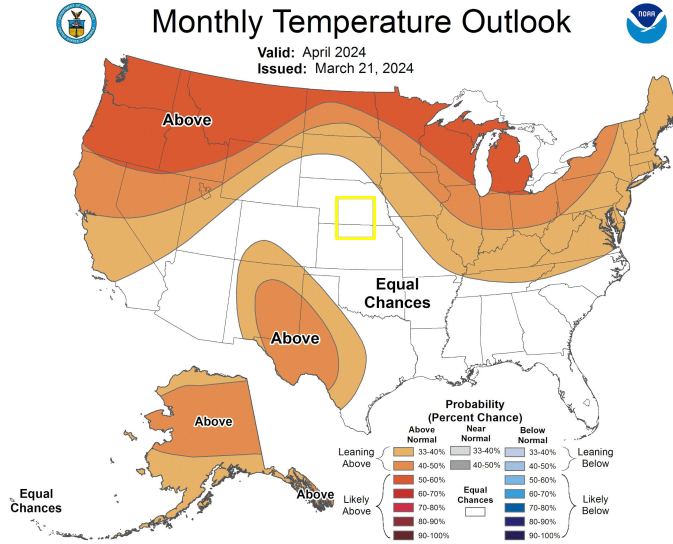


Monthly Outlooks - Climate Prediction Center (CPC)

CPC [Monthly Temperature and Precipitation Outlooks](#)...Valid For APRIL 2024 **(JUST RELEASED)**

Main Takeaways:

- **Temperatures:**
Our entire coverage area is indicated to have "equal chances" of having above, below or near-normal temperatures.
- **Precipitation:**
Our entire coverage area features at least a slight lean toward above normal April precipitation.



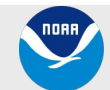
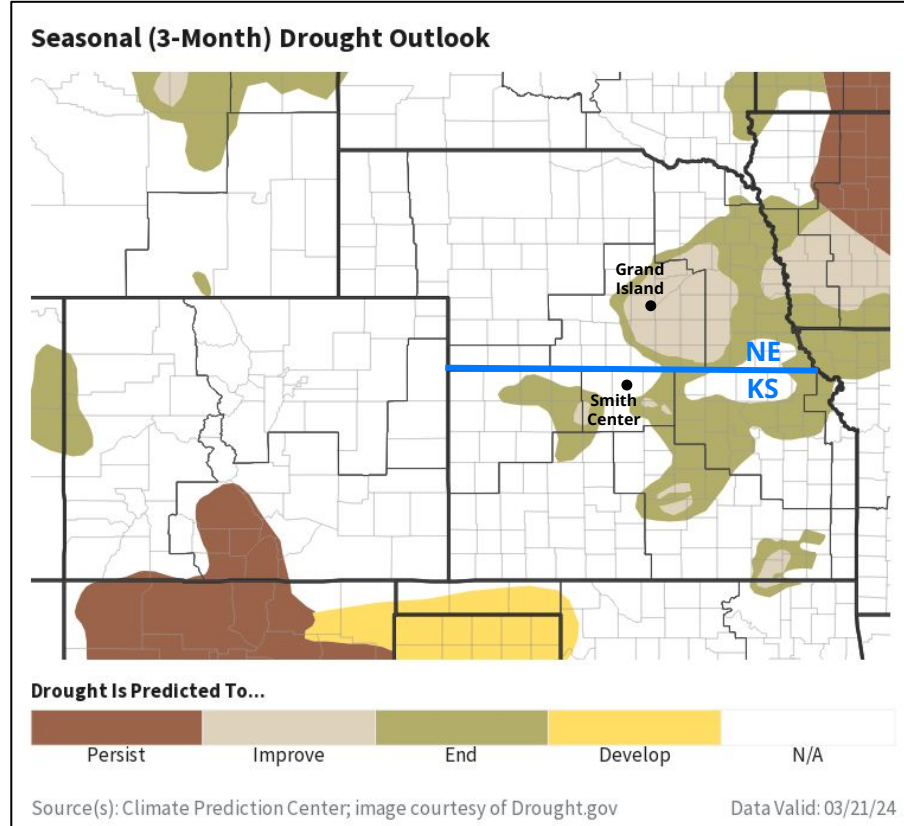


Drought Outlook (Seasonal)

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

Main Takeaways:

- Going hand in hand with an expected slight lean toward above normal precipitation this spring-early summer, 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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(402) 617-4190
- Kansas State University
Assistant State Climatologist
Matthew Sittel
msittel@ksu.edu
(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!

