Drought Information Statement for Tri-State Area

Valid April, 04, 2024

Issued By: NWS Goodland, Kansas

Contact Information: nws.goodland@noaa.gov

- This product will be updated by the 5th of each month 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/GLD/DroughtInformationStatement for previous statements.
- Please visit https://www.drought.gov/drought-status-updates for regional drought status updates.

- Drought has improved across the east from March snow and rain.
- Regions average last freeze date is approaching
- Transition to La Nina this Summer

U.S. Drought Monitor

Link to the latest U.S. Drought Monitor for High Plains

- Drought intensity and Extent

  D2 (Severe Drought): Graham

  D1 (Moderate Drought): Rawlins, Decatur, Norton

  D0: (Abnormally Dry): Dundy, Hitchcock, Red Willow, Thomas, Sheridan, Gove

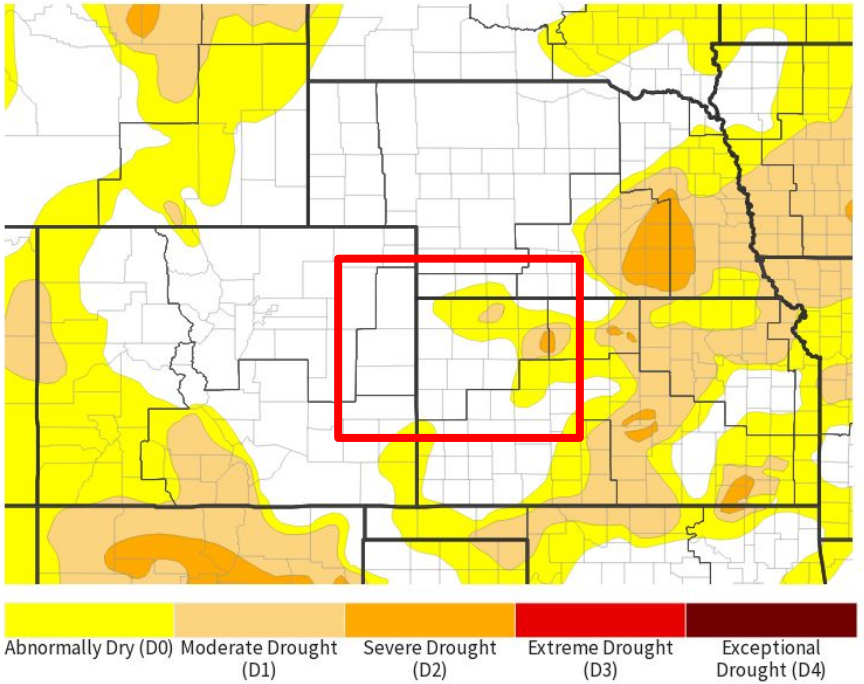


Image Caption: Goodland County Warning Area Drought Monitor. Valid **6am MDT Apr 03, 2024**

Recent Change in Drought Intensity

Link to the latest 4-week change map for CONUS

- 4 Week Drought Monitor Class Change.

Drought Improved: Dundy, Hitchcock, Red Willow, Norton, Decatur, Rawlins, Thomas, Sheridan, Graham, Gove, Cheyenne (KS).

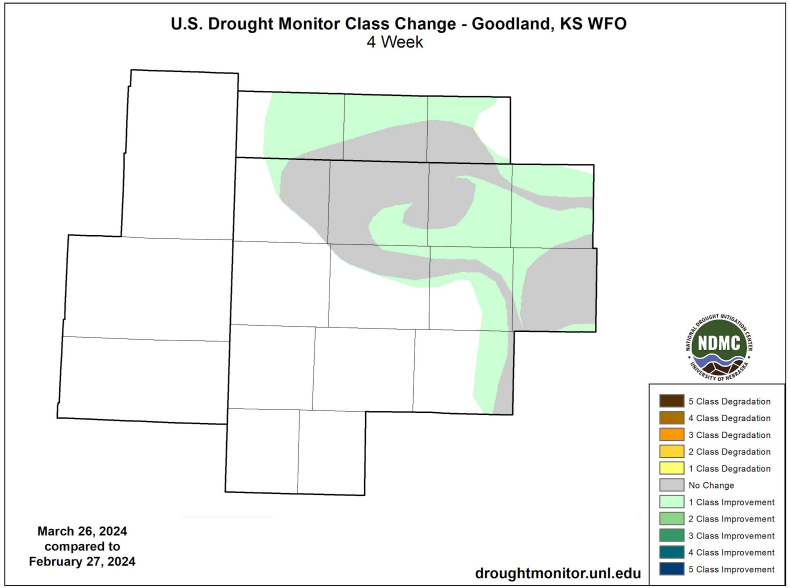
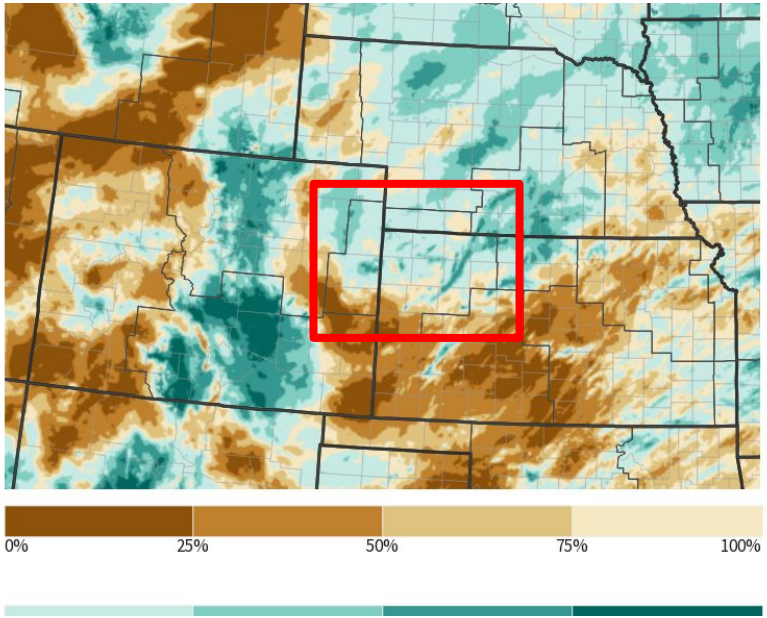


Image Caption: U.S. Drought Monitor 4-week change map valid **6am MDT Apr 03, 2024**

Precipitation

- Above normal precipitation fell across the month of March mainly for locales along and north of I-70 in the form of rain and snow.
- Perhaps the largest contributor to this was the severe weather event on March 24th where a large Mesoscale Convective System developed which brought much needed rainfall especially to the eastern portion of the area.



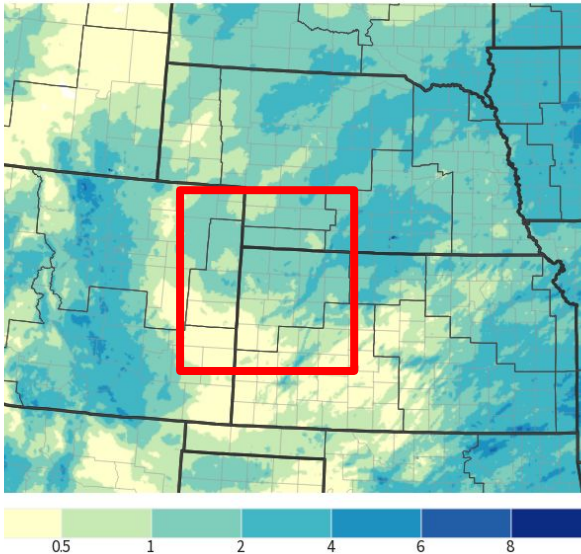


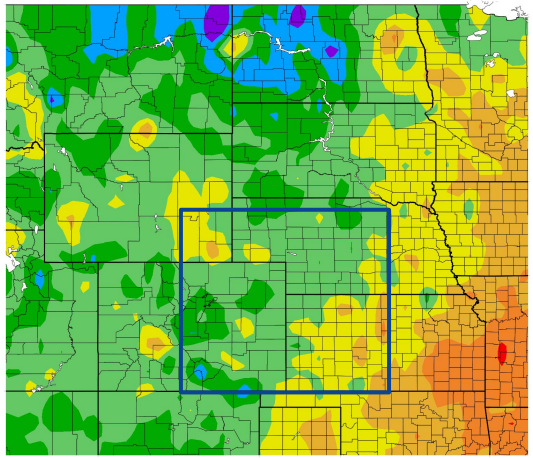
Image Captions:
Right - Monthly Precipitation Amount for Tri-State Area
Left - Percent of Normal Monthly Precipitation for Tri-State Area
Data Courtesy of MRMS. Date Valid:

Apr 03 2024

Temperature

- Much of the area saw above normal to near normal temperatures for March with the relative warmest out to the east.
- Despite the above normal temperatures, precipitation has been just enough to help keep drought from expanding.

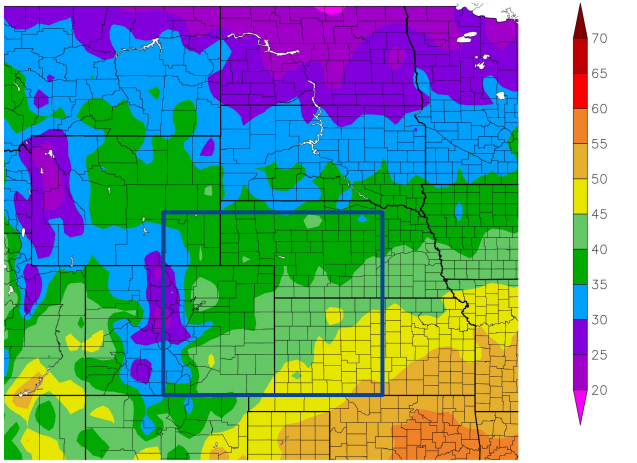
Departure from Normal Temperature (F)
3/4/2024 – 4/2/2024



Generated 4/3/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Temperature (F)
3/4/2024 – 4/2/2024



24 at HPRCC using provisional data.

NOAA Regional Climate Centers

Image Captions:
Right - Average Temperature
Left - Departure from Normal Temperature
Data Courtesy High Plains Regional Climate Center. Date Valid:
Apr 03 2024

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

- Continued vegetation dormancy will continue to lead to some fire risk (especially on hot/dry/windy days) as the average last freeze date is still around a month away. Some burn bans do continue across portions of the region as well.

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

- Average streamflow across the region; specifically the Tri-State area remains below normal to much below normal.

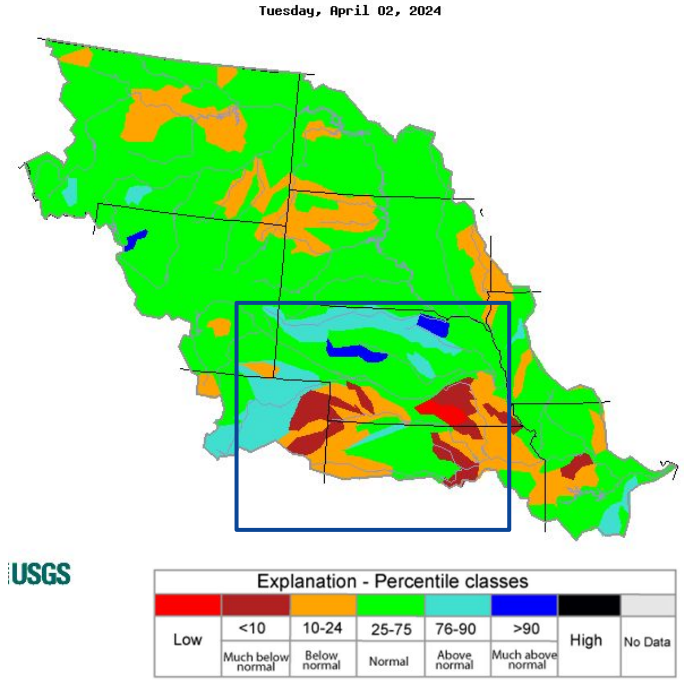
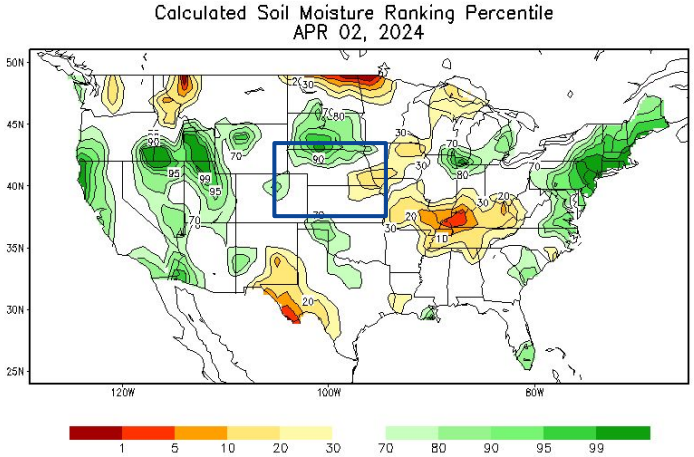


Image Caption: USGS 7 day average streamflow HUC map valid Apr 03 2024

Agricultural Impacts

- Soil moisture is neither favored to be dry or wet across the Tri-State area.



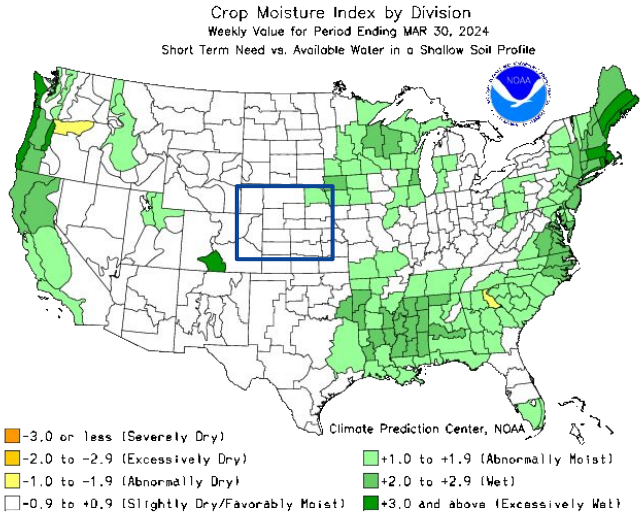


Image Captions:
Left: CPC Calculated Soil Moisture Ranking Percentile valid Apr 03 2024
Right: Crop Moisture Index by Division. Weekly value for period ending March 30th, 2024

Fire Hazard Impacts

Link to [Wildfire Potential Outlooks from the National Interagency Coordination Center.]

- Wildland Fire Potential looks to be above normal as most vegetation currently remains in winter dormancy; although some budding on trees, etc has been seen.

- Relative highest fire potential as of this issuance does look to lie across eastern Colorado where the Energy Release Component (ERC) lies in the 30-40th percentile and lessens further to the east.

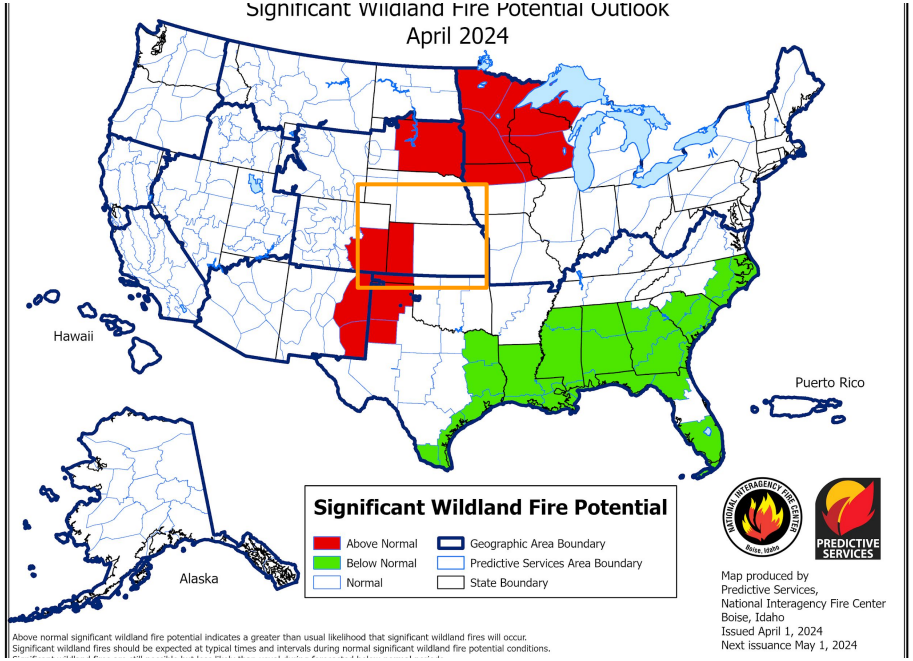


Image Caption: [Significant Wildland Fire Potential Monthly Outlook] for April 2024

Seven Day Precipitation Forecast

- A strong low pressure system looks to develop this weekend with the potential for some light rainfall; further east is the potential for some severe weather given the higher forecasted precipitation forecast.

- Dependent on the track of the low the heaviest precipitation axis may shift further east or may shift back west in coming days.

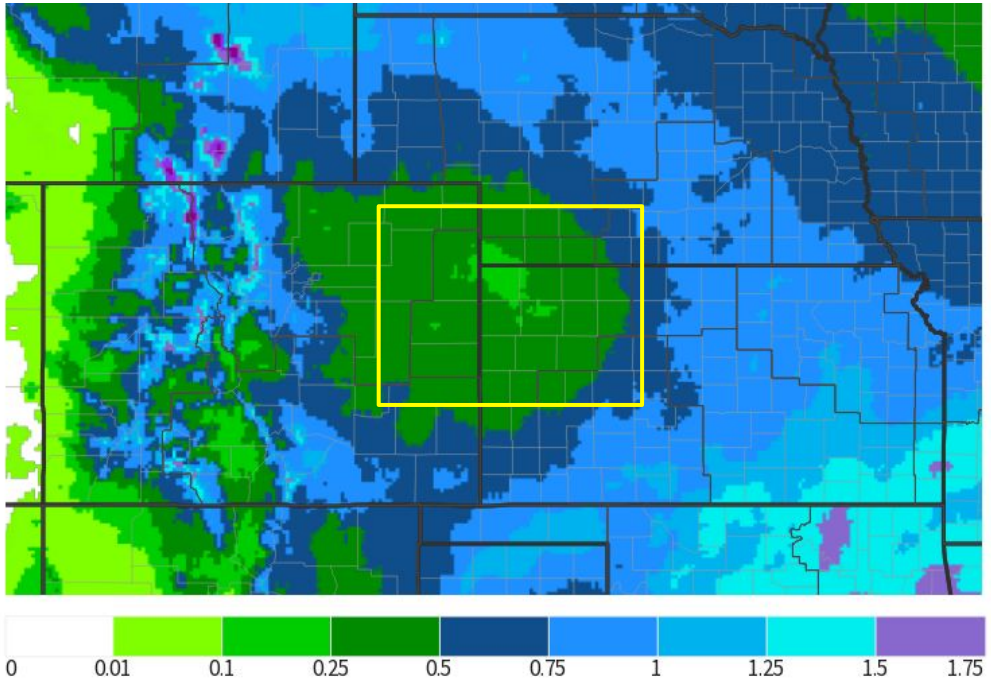


Image Caption: Weather Prediction Center 7-day precipitation forecast valid Thursday April 4 to Thursday April 11

Rapid Onset Drought Outlook

Links to the latest Climate Prediction Center 8 to 14 day Temperature Outlook and Precipitation Outlook.

- Not Applicable at this time.

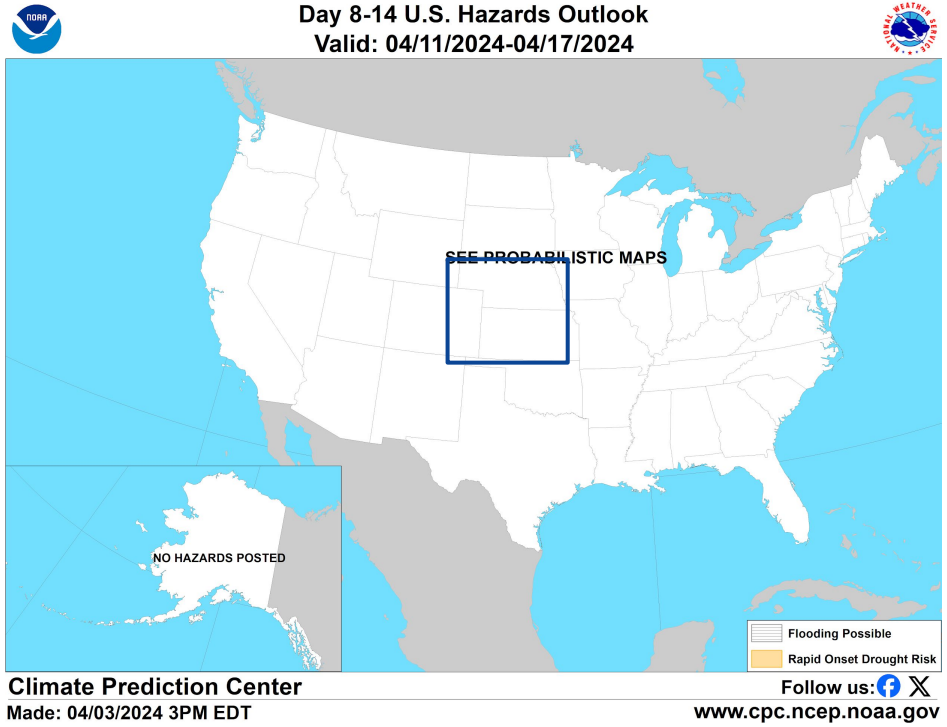


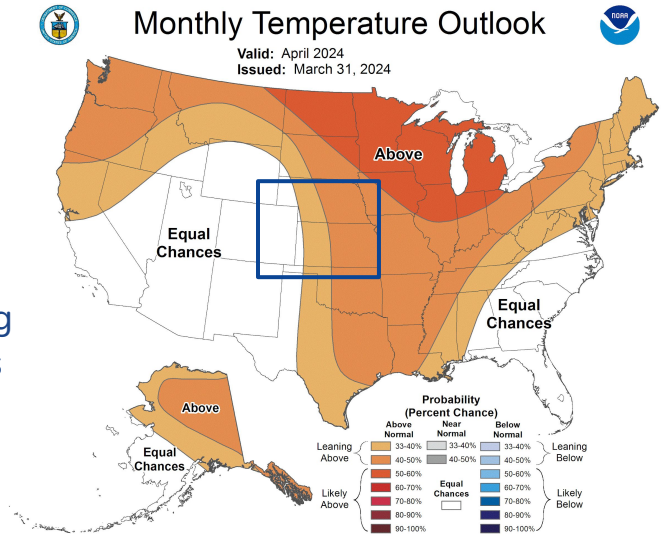
Image Caption:
Days 8 to 14 U.S. Hazards Outlook Valid Month DD to DD.

Long-Range Outlooks

The latest monthly and seasonal outlooks can be found on the CPC homepage

- Continued signal for equal chances to above normal temperatures and precipitation for the Tri-State area.

- A continued “active” pattern looks to continue with periods of troughing over the west transitioning to periods of ridging leads to the relative no clear signal for a favored above or below temperature/precipitation signal.



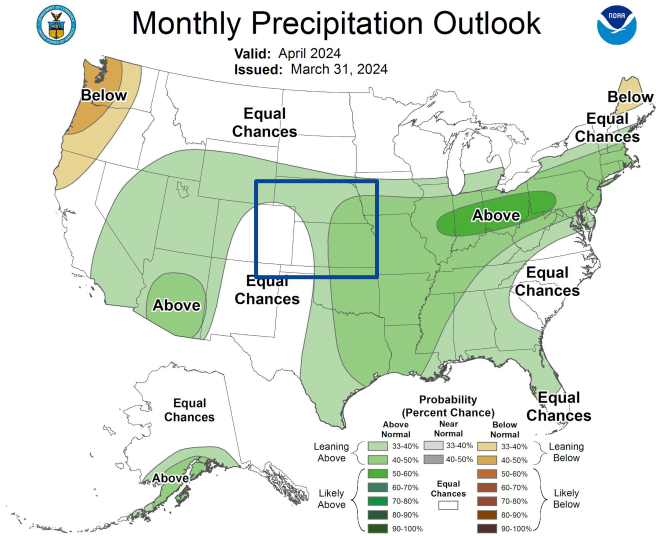


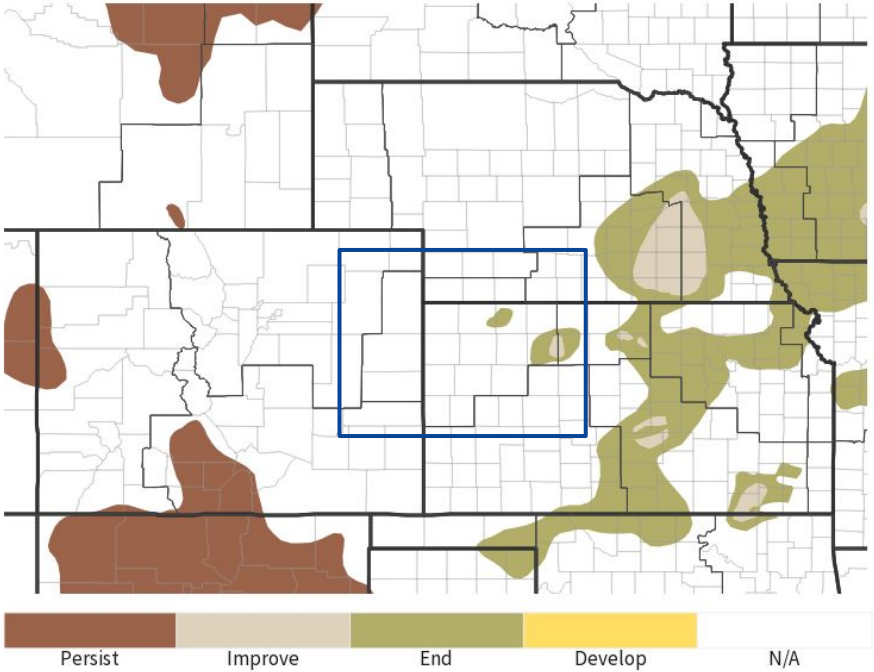
Image Captions:
Left - Climate Prediction Center Monthly Temperature Outlook.
Right - Climate Prediction Center Monthly Precipitation Outlook.
Valid April 2024

Drought Outlook

The latest monthly and seasonal outlooks can be found on the CPC homepage

- Drought is forecasted to come to an end and/or improve.
- As we continue enter spring time the risk for thunderstorms/heavy rainfall will help areas of continued drought.

- This does seem reasonable as the transition from El Nino to ENSO neutral continues this spring which typically does favor a more active period of thunderstorms, especially for the east.



Links to the latest:
Climate Prediction Center Monthly Drought Outlook
Climate Prediction Center Seasonal Drought Outlook

Image Caption:
Climate Prediction Center Monthly Drought Outlook Released **Mar 31, 2024**
Valid: April 2024

Average Last Freeze Dates

Goodland Forecast Area ASOS Sites Only

- The region is rapidly approaching the climatological average last freeze date with locales across the east occurring towards the end of this month.
- Some budding on trees has been evident over the past week or so which may lead to an increase risk in some impacts occurring leading up to these dates; especially if another strong cold front where to impact the region.

Goodland: May 5th

McCook: May 2nd

Burlington: May 6th

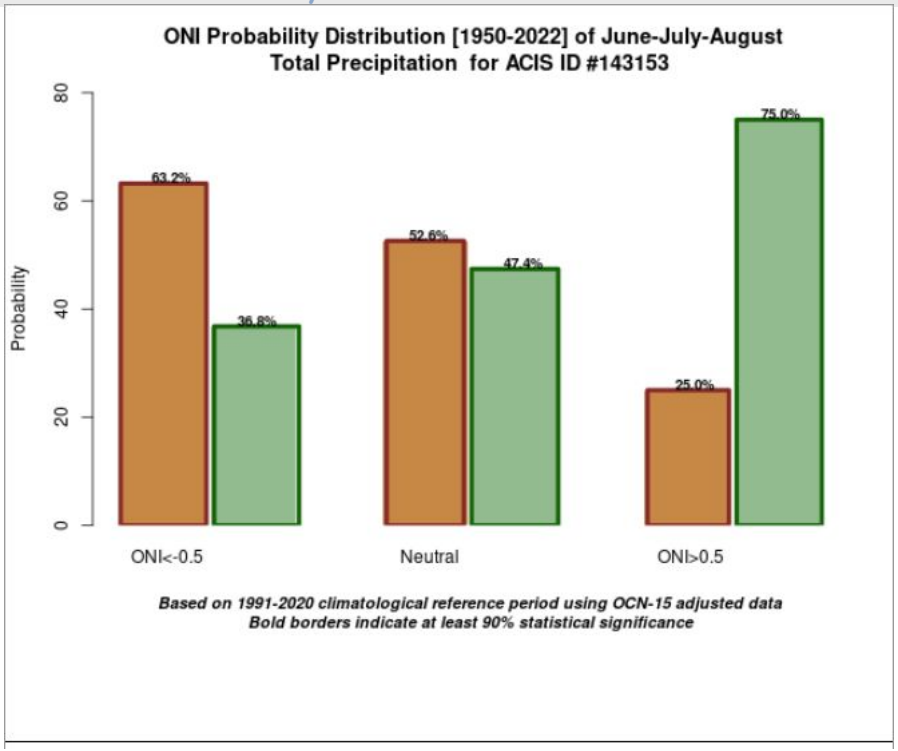
Hill City: April 28th

La Nina Returning This Summer

Goodland Forecast Area ASOS Sites Only

- As of March 14th, a La Nina Watch has been issued by the Climate Prediction Center with ~60% chance of La Nina returning during the June, July, August timeframe.

- Will need to keep a close eye on precipitation this spring as La Nina typically does favor above normal temperatures and below normal precipitation.
  - A drier than anticipated spring may bring the return of widespread drought/flash drought potential this summer.



ONI < -0.5 is La Nina ONI > 0.5 is El Nino

Contact Information

For feedback, comments, questions specific to the Drought Information Statement please reach out to: nws.goodland@noaa.gov or tyler.trigg@noaa.gov