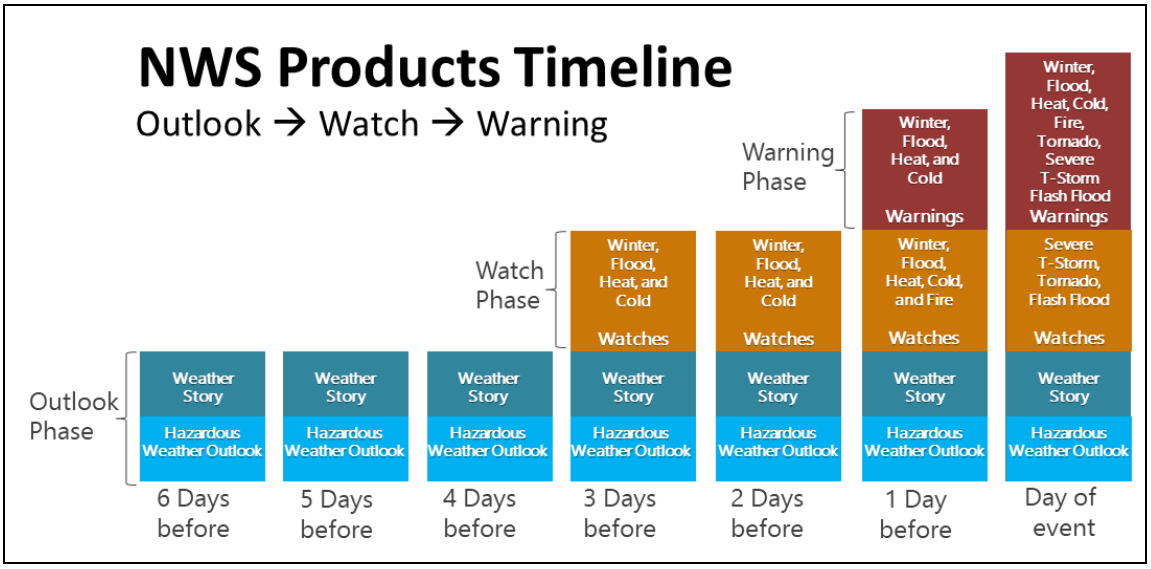
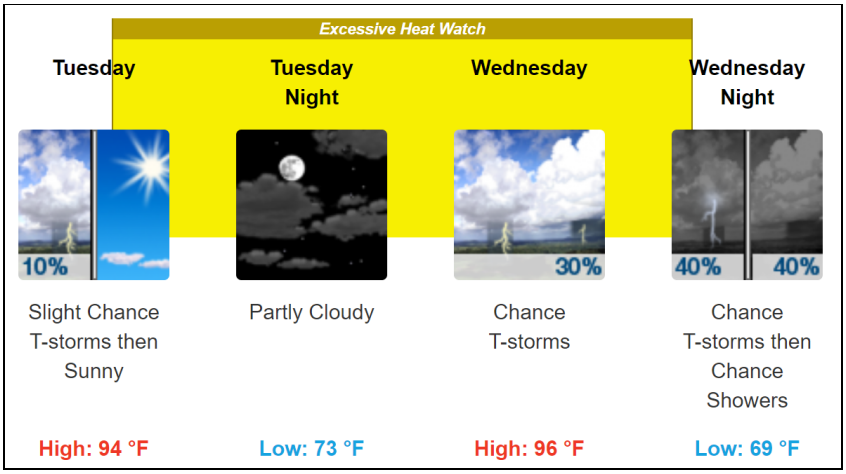
Appendix A: Forecast Products and Examples

The section expands upon the forecast resources available from your local National Weather Service office. The outlook phase is for weather events that have the potential to be impactful. Watches are issued when confidence in weather impacts is likely, but perhaps there is still some uncertainty in timing or location. Warnings are issued when confidence is high in weather impacts. Look at your event planning to decide ahead of time if you need to take action during the Watch or Warning phase.



The 7-Day Forecast is a great place to start monitoring the weather for your outdoor event. This is regularly updated as new data becomes available. You can enter your address and get a forecast specifically for your location. A 5-day forecast will appear at the top, with the full 7-days shown in the text at the bottom of the page. In the example on the next page, there is an "Excessive Heat Watch" in effect.



Tabular Forecast data allows you to see multiple weather parameters at once. This is very useful for if you have different weather thresholds for your event.

www.weather.gov/forecastpoints

Weekly Summary	Mon Jul 26	Tue Jul 27	Wed Jul 28	Thu Jul 29	Fri Jul 30	Sat Jul 31	Sun Aug 1
Max Temp, °F	93	94	96	85	84	87	82
Max Heat Index, °F	93	99	105	83	84	84	80
Min Temp, °F	70	70	72	69	64	66	63
Max Wind, mph	14	7	10	9	8	9	8
Min Wind, mph	9	5	5	5	2	5	2
Max Wind Gust, mph	22	12	23	16	14	16	14
Max Cloud Cover, %	63	57	58	30	49	29	21
Min Cloud Cover, %	27	17	24	14	28	9	7
Max Prob. of Precip., %	38	35	46	19	10	14	7
Max Prob. of Thunder, %	38	35	33	15	10	17	0

The Hazardous Weather Outlook (HWO) is a short text product that includes detailed information about hazards for the current day and general information for the next seven days. This provides a quick overview of the weather that could impact your outdoor event. The example below mentions heat.

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Dangerous levels of heat and humidity are expected Tuesday and
Wednesday across the entire coverage area. Afternoon heat
indices near 100 are expected over Minnesota on Tuesday, with
values near 105 in Minnesota and 100 in western Wisconsin on
Wednesday.
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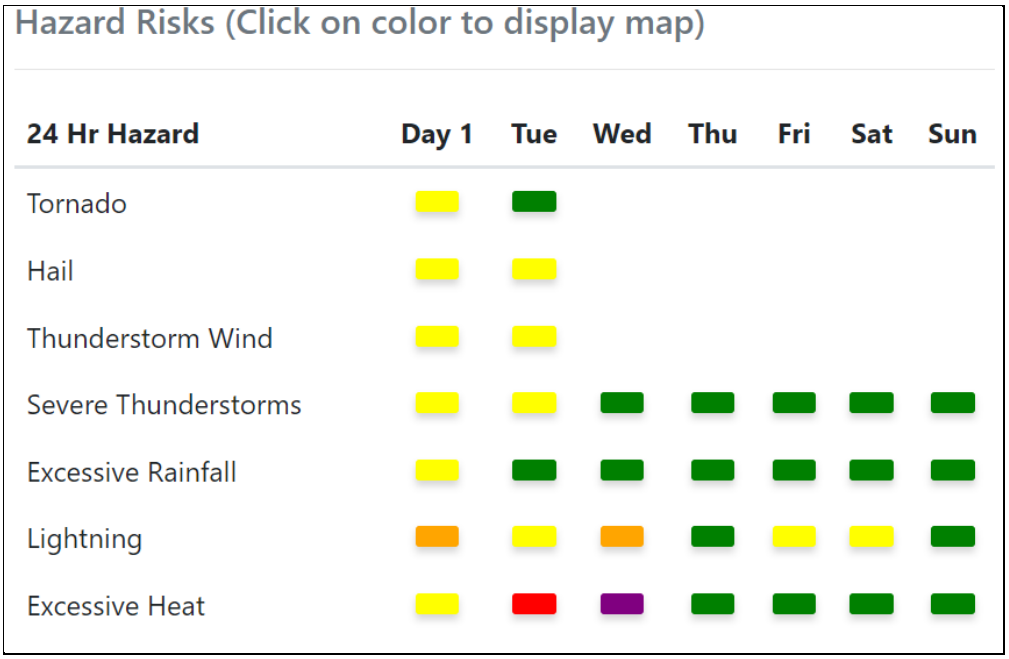
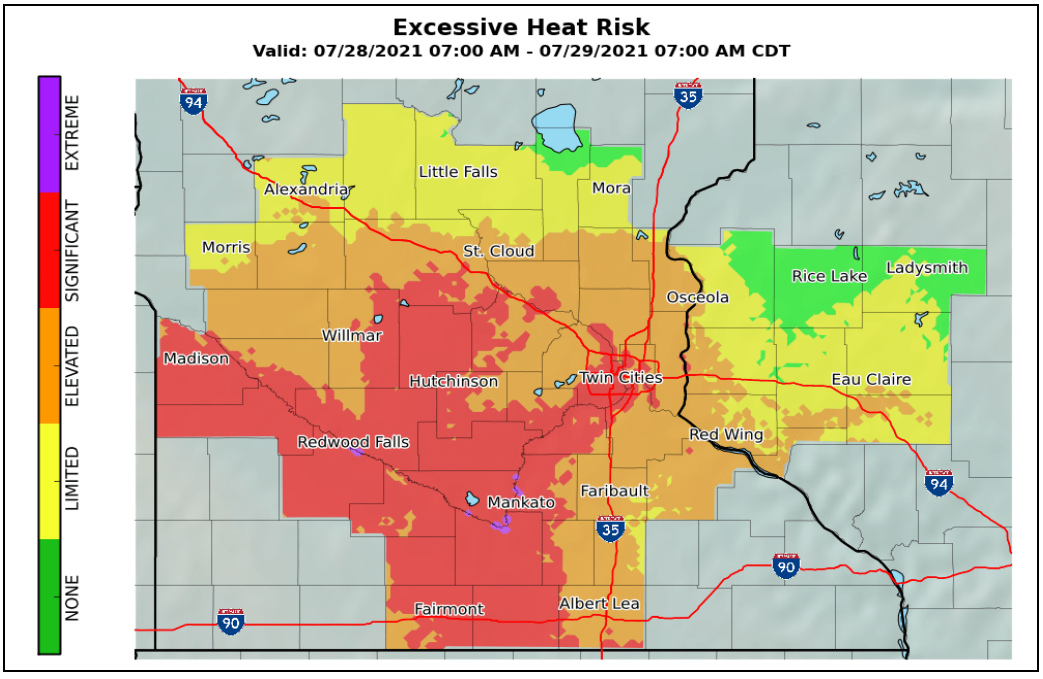
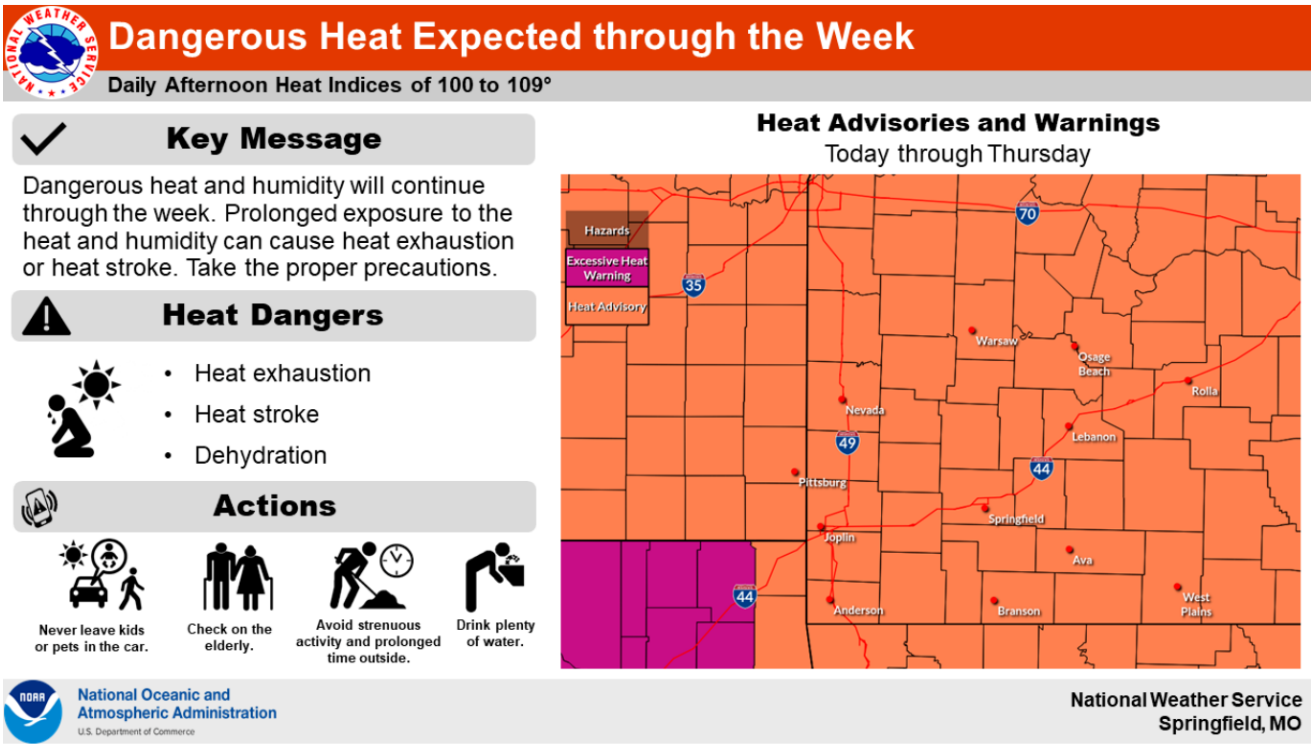
The Graphical Hazardous Weather Outlook (GHWO) provides a color-coded, tabular overview of potential hazards. The colors in the table indicate when a hazard is possible. Green indicates no risk, then it progresses to yellow, orange, red, and purple as the risk increases. (Please note that the exact definition will change for each weather element.) In the example on the next page, Excessive Heat is color-coded purple for Wednesday.



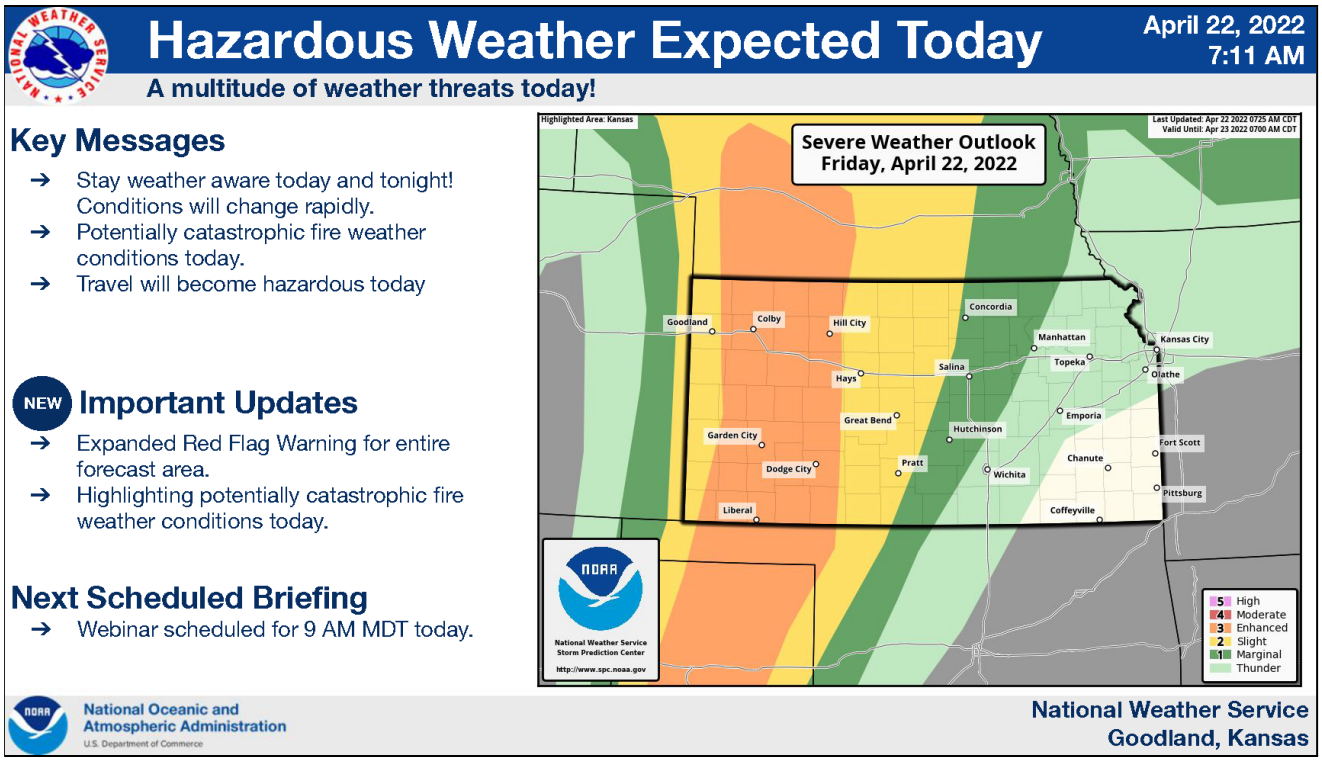
Clicking on the Excessive Heat purple box for Wednesday will show the map (below), so you can see how the risk for that hazard varies across the area.



Graphical Weather Story uses images to highlight potential weather hazards over the next seven days. The example below is the weather story from the same heat event. This is one of the better ways to communicate weather forecast and preparedness information with the general public. Feel free to share these weather stories with those associated with your event. A **Graphical Nowcast** is a weather story that is issued to highlight concerns within the next 24 hours.



Decision Support Briefing Packets (DSS Packets) are PDFs that provide significant details about potential high impact weather events. These packets are typically emailed out to core partners before and during an event. They use images and descriptions to convey uncertainty, timing, and potential impacts for weather or water related hazards. The benefit is these can easily be shared with event organizers, but the downfall is the information can become outdated after it is issued. The example below shows the first page of a packet covering multiple weather hazards.



Hazardous Weather Expected Today

April 22, 2022
7:11 AM

A multitude of weather threats today!

Key Messages

- Stay weather aware today and tonight! Conditions will change rapidly.
- Potentially catastrophic fire weather conditions today.
- Travel will become hazardous today

NEW Important Updates

- Expanded Red Flag Warning for entire forecast area.
- Highlighting potentially catastrophic fire weather conditions today.

Next Scheduled Briefing

- Webinar scheduled for 9 AM MDT today.

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

National Weather Service
Goodland, Kansas

Detailed information and graphics can also be emailed out to weather liaisons before a planned event. There are several different sources of weather information provided by the National Weather Service to meet the needs of various partners. We encourage you to reach out to your local office when planning for your event if you have any questions regarding forecast information. Your local office can assist with providing simulated weather information for table top exercises as well.

The Area Forecast Discussion is a free form text product that gives insight into the confidence, timing, potential outcomes, etc of the forecast. It is geared toward the meteorological savvy user. In the example below, the reasoning behind the "Excessive Heat Watch" is given.

Tuesday is the beginning of our two days of higher risk for heat related concerns, with an Excessive Heat Watch beginning at 1pm. Tuesday afternoon and lasting through Wednesday evening. Heat index values on Tuesday will be skirting our warning criteria for the Twin Cities metro with indices in the upper 90s as high temperatures reach the mid 90s. Even though this typically would call for an advisory rather than an excessive heat warning, temperatures overnight Tuesday will only fall into the mid 70s with even warmer conditions for Wednesday, thus the lack of recovery overnight could lead to two days of warning headlines. Expect more detail this afternoon relating to the heat as the forecast continues to be refined heading into Tuesday.

Wednesday continues the potential excessive heat, with heat index values in the 100s for western MN through the Twin Cities metro, falling back into the mid 90s in western WI. Wednesday could end up being the hottest day of the year for us, with some areas of western MN in the upper 90s and possible low 100s. Wednesday has a decent shot at severe weather as well, with plenty of instability to work with thanks to the heat, with forcing in the form of a cold front working its way southeast from Canada, with the best timing for storms arriving in eastern MN and western WI by Wednesday afternoon.

Weather Liaison Checklist

Before the Event

Days Leading Up To Event:

____ Event Request Support Submitted?

____ Hazardous Weather Outlook (HWO)

____ Graphical Hazardous Weather Outlook (GHWO)

____ Weather Story Graphic

____ Decision Support Briefing Packet (if available)

____ SPC Outlooks

____ WPC Excessive Rainfall Outlooks

____ Detailed Forecast and Hourly Weather Graph (enter location)

Day of Event:

____ Coordination/Communication with the local NWS office

____ Hazardous Weather Outlook (HWO)

____ Graphical Hazardous Weather Outlook (GHWO)

____ Weather Story Graphic

____ Decision Support Briefing Packet (if available)

____ SPC Day 1 Outlook

____ WPC Day 1 Excessive Rainfall Outlook

____ Detailed Forecast and Hourly Weather Graph (enter location)

____ Area Forecast Discussion

____ NWS conference call or briefing slides (if available)

During Event

____ Coordination/Communication with the local NWS office

____ Radar (various sources)

____ Graphical NOWcasts

____ Watches and Warnings (enter location)

____ Detailed Forecast and Hourly Weather Graph (enter location)

____ NWSChat