



# Severe Weather

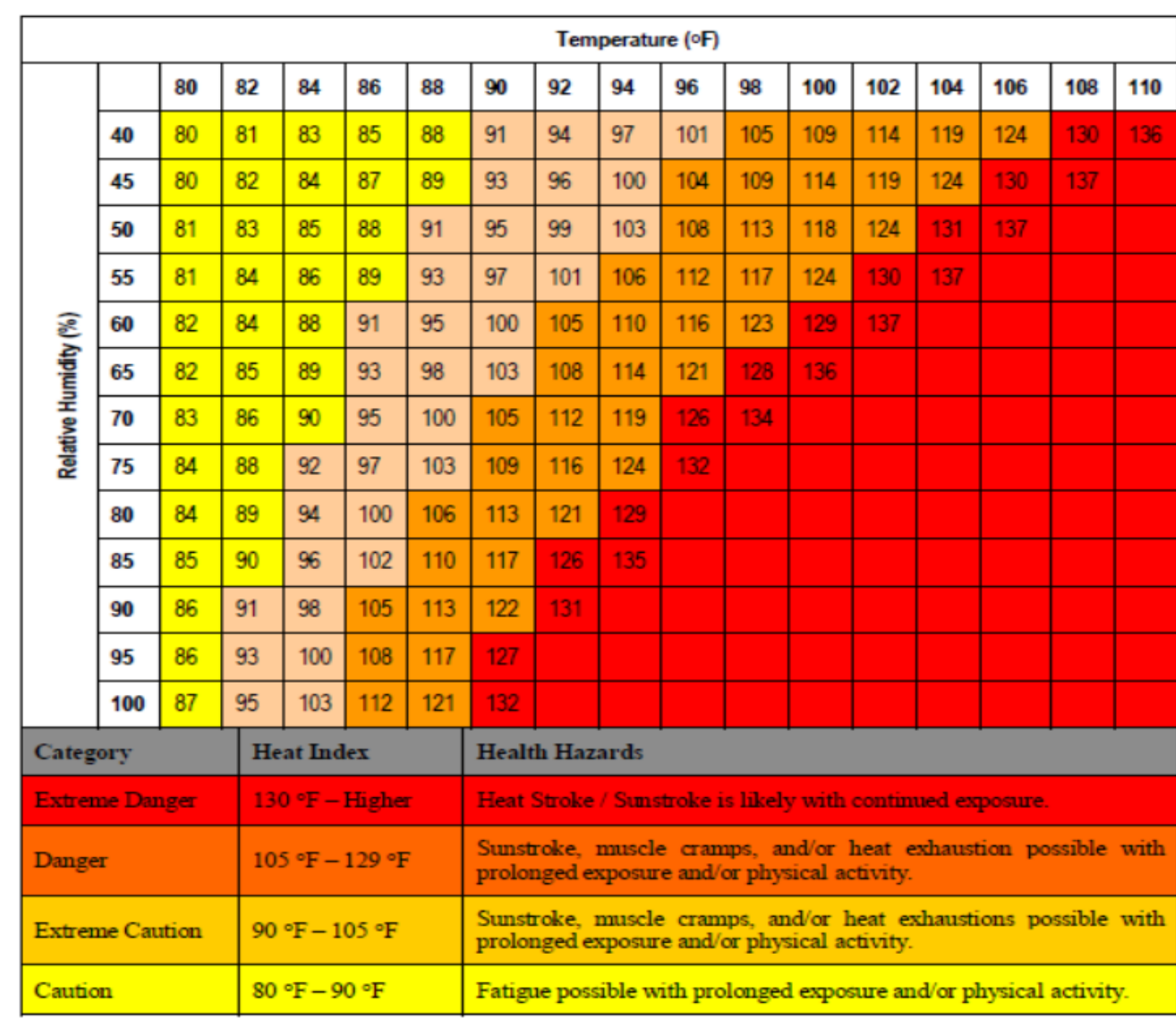
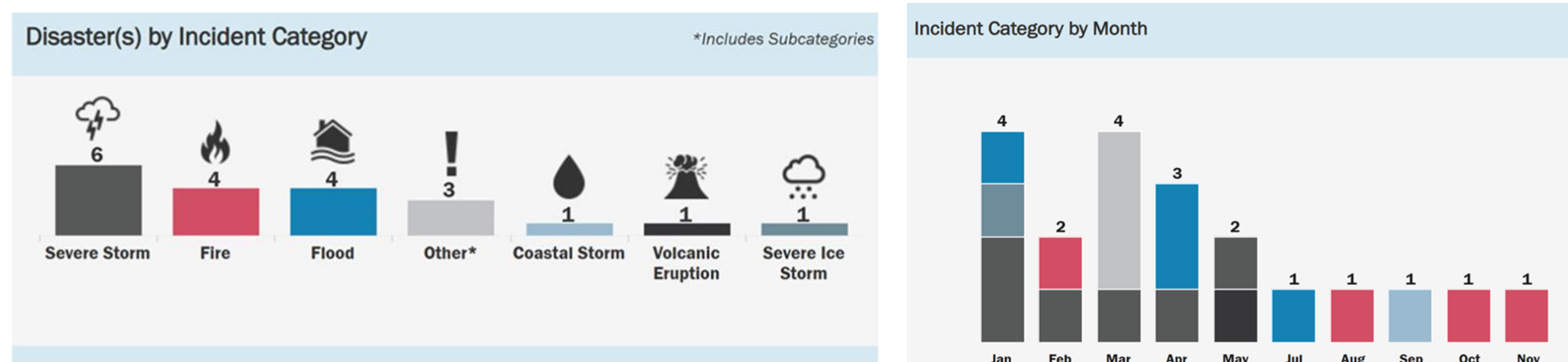


## What Constitutes Severe Weather in Pend Oreille County?

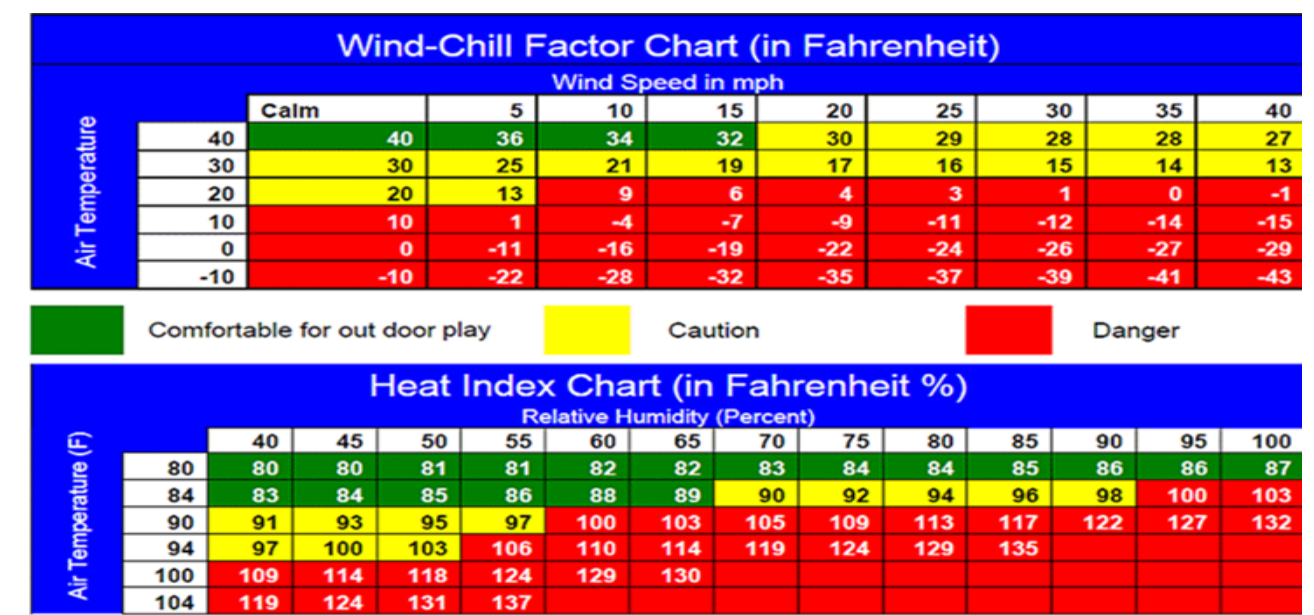
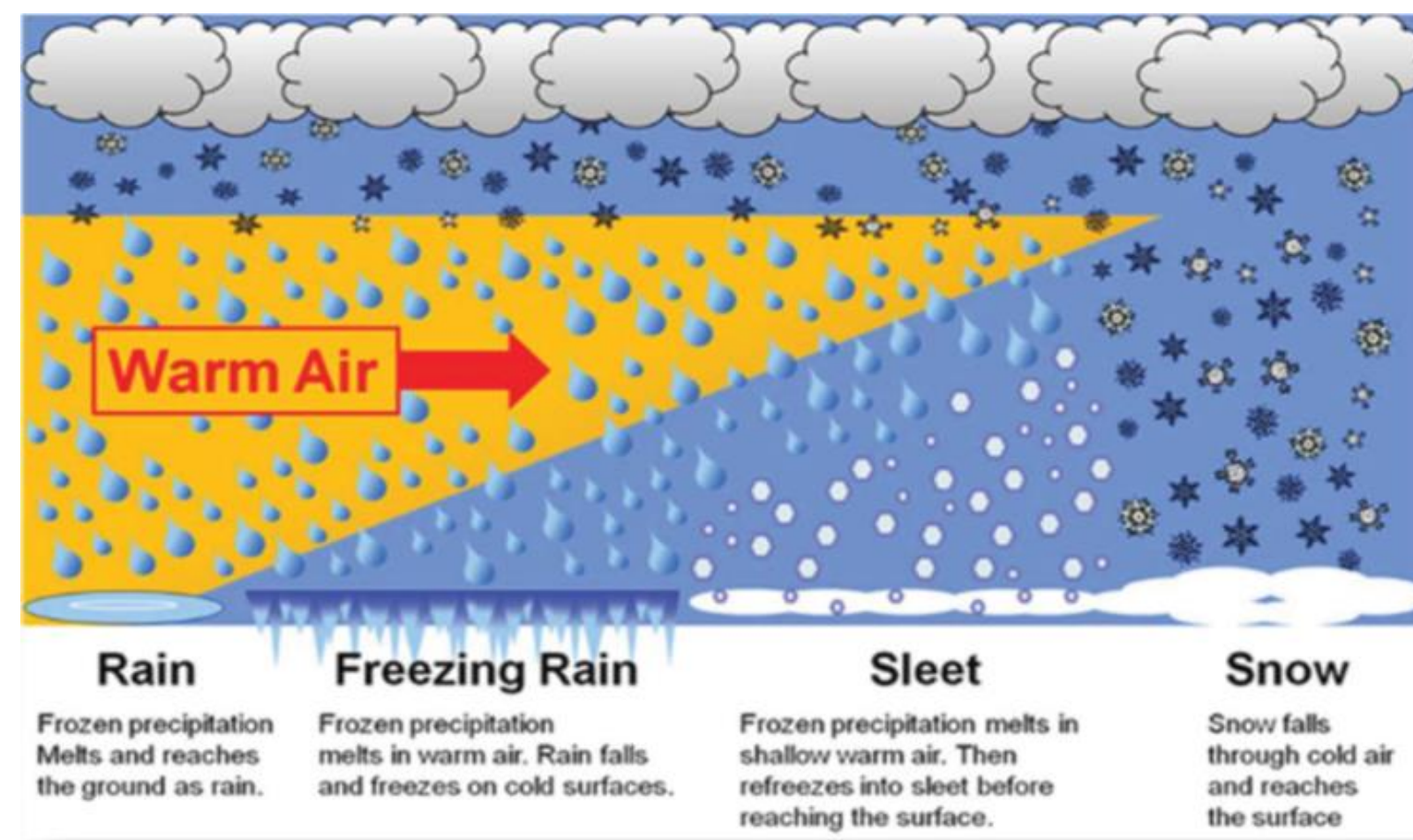
### Hazard Description

Severe weather refers to any dangerous meteorological phenomena with the potential to cause damage, social disruption, or loss of human life. Severe weather differs from extreme weather, which refers to unusual weather events at the extremes of the historical distribution such as the extreme heat dome that settled over Washington in June 2021.

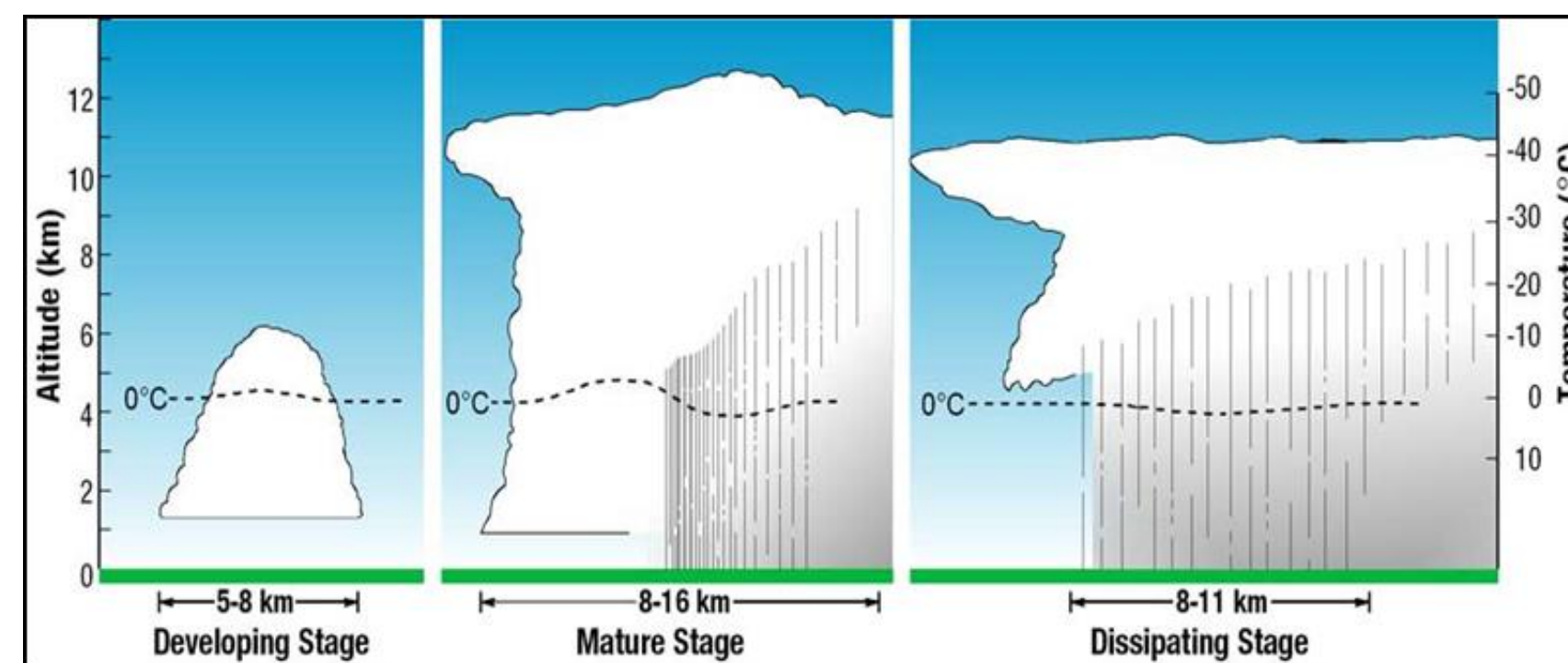
General severe weather covers wide geographic areas; localized severe weather affects more limited areas. The severe weather events that most typically impact the planning area are damaging windstorms, and winter weather in the form of snow and ice. The entire County is susceptible to severe weather events. Since 1953, the County has been declared six (6) times for severe weather events, and one (1) time for a severe ice storm (1996). Most events occur in January or March. FEMA identifies Severe Storms as Pend Oreille County's number one hazard.



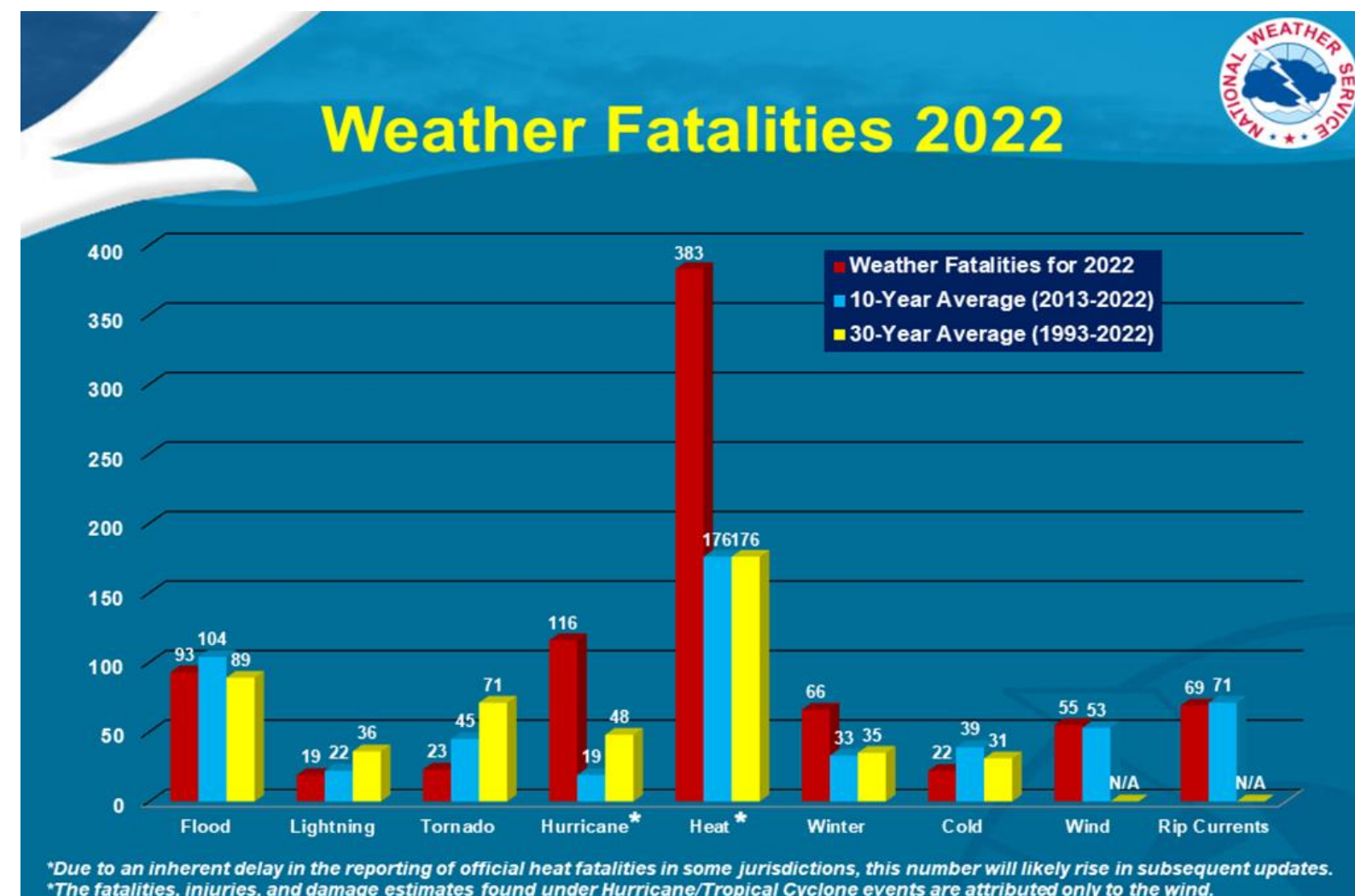
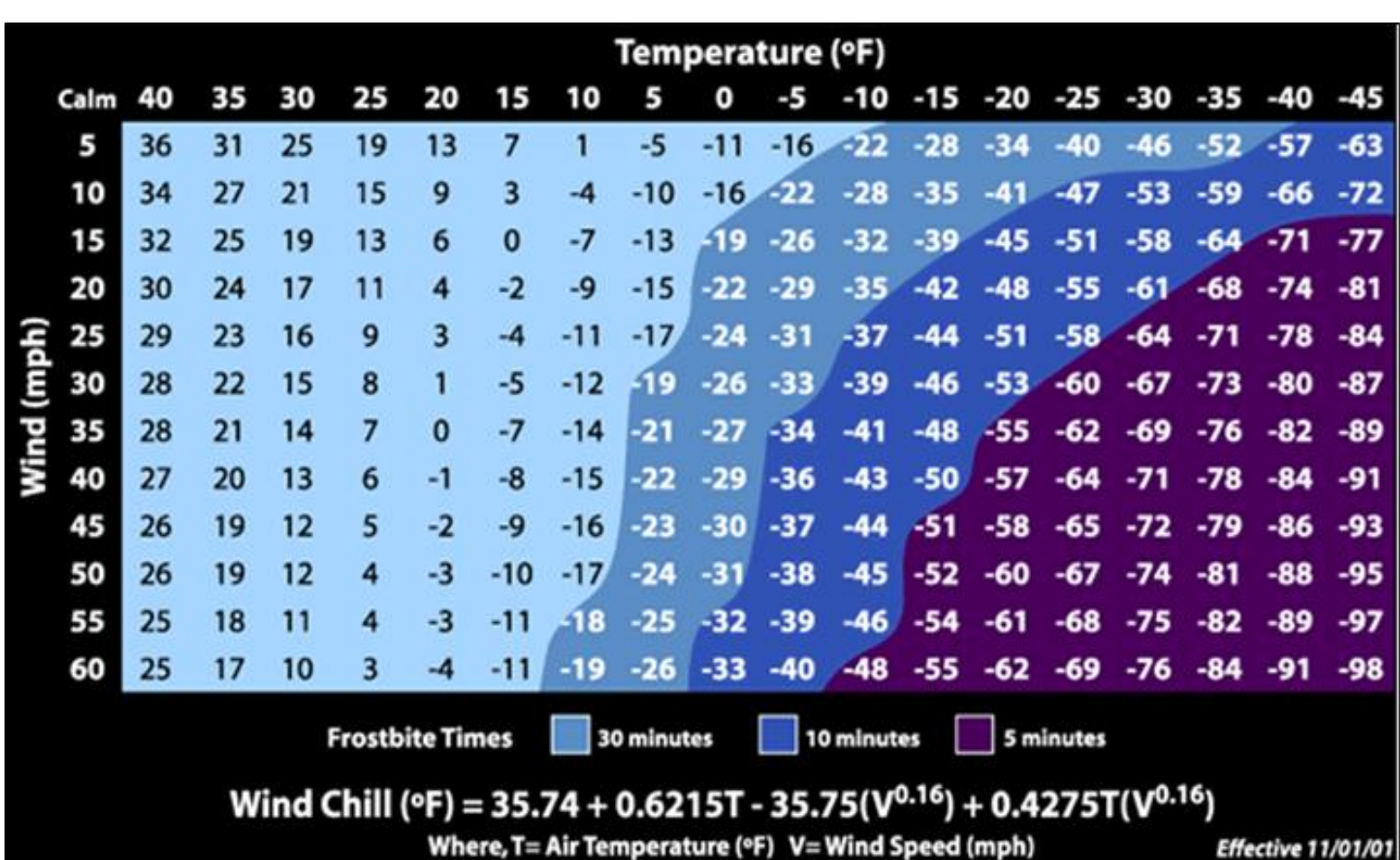
### Types of Precipitation Impacting Pend Oreille



### Life-cycle of Thunderstorm



Did you know that heat impacts the young and elderly differently? These two heat indices identify potential risk. The top chart is for adults. The one beneath is for children.



### Nationwide Fatalities for Weather Events

Wind Chill – Do you know what wind speed and temperature can cause frost bite? A temperature of 5° (F) and a wind speed of 30 mph equals a wind chill of -19, producing frostbite in 30 minutes.

### Types of Severe Weather in Pend Oreille County

**Freezing Rain**—The result of rain occurring when the temperature is below the freezing point. The rain freezes on impact, resulting in a layer of glaze ice up to an inch thick. In a severe ice storm, an evergreen tree 60 feet high and 30 feet wide can be burdened with up to six tons of ice, creating a threat to power and telephone lines and transportation routes.

**Hail Storm**—Any thunderstorm which produces hail that reaches the ground is known as a hailstorm. Hail has a diameter of 0.20 inches or more. Hail is composed of transparent ice or alternating layers of transparent and translucent ice at least 0.04 inches thick. Although the diameter of hail is varied, in the United States, the average observation of damaging hail is between 1 inch and golf ball-sized 1.75 inches. Stones larger than 0.75 inches are usually large enough to cause damage.

**Severe Local Storm**—“Microscale” atmospheric systems, including tornadoes, thunderstorms, windstorms, ice storms and snowstorms. These storms may cause a great deal of destruction and even death, but their impact is generally confined to a small area. Typical impacts are on transportation infrastructure and utilities.

**Thunderstorm**—A storm featuring heavy rains, strong winds, thunder and lightning, typically about 15 miles in diameter and lasting about 30 minutes. Hail and tornadoes are also dangers associated with thunderstorms. Lightning is a serious threat to human life. Heavy rains over a small area in a short time can lead to flash flooding.

**Tornado**— Most tornadoes have wind speeds less than 110 miles per hour are about 250 feet across, and travel a few miles before dissipating. The most extreme tornadoes can attain wind speeds of more than 300 miles per hour, stretch more than two miles across, and stay on the ground for dozens of miles. They are measured using the Enhanced Fujita Scale, ranging from EF0 to EF5.

**Windstorm**—A storm featuring violent winds. Southwesterly winds are associated with strong storms moving onto the coast from the Pacific Ocean. Southern winds parallel to the coastal mountains are the strongest and most destructive winds. Windstorms tend to damage ridgelines that face into the winds. See illustrations below of previous wind events to impact the area.

**Winter Storm**—A storm having significant snowfall, ice, and/or freezing rain; the quantity of precipitation varies by elevation.

### Storm Disaster History by Month, Recurrence, and Probability of Occurrence (1974-2023)

Hazard Type	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total	Years of Occurrence	FEMA Rank	Recurrence / Years (No Order of Magnitude)	Probability/ (Percent risk that an event may occur)
Flood	1	0	0	2	0	0	1	0	0	0	0	0	4	74, 97(x2), 17	2	12.3	8.16
Severe Storm and Ice Storm	3	1	1	1	1	0	0	0	0	0	0	0	7	74, 97(x2), 06, 07, 16, 21	1	7	14.29
TOTAL	4	1	1	3	1	0	1	0	0	0	0	0	11				

Based on FEMA designation and dates (1974\*-2023)

\*=First recorded incident in the County