

Weather Hazards

North Texas faces a variety of weather hazards that can prove damaging to the Town of Addison. It is important for residents and businesses in the city to understand the threats that we face so that we can better prepare for them. Use the information and resources on this page to better understand the various weather threats. Then put that knowledge to work by monitoring weather conditions that affect the region and the city.

Understanding Weather Terms

You will often hear various terms being used to describe predicted weather conditions. For example, a meteorologist on your local news channel may say that a "severe thunderstorm watch" has been issued. Or your local radio announcer may say that a "flood warning" has been issued. It is important to understand what the terms watch, warning, and others mean because they are all different. Use the following chart to learn the weather terms and their definitions.

WARNING

A warning is issued when a hazardous weather or hydrologic event is **occurring, imminent or likely**. A warning means weather conditions pose a threat to life or property. People in the path of the storm need to **take protective action**.

WATCH

A watch is used when the **risk of a hazardous weather or hydrologic event has increased significantly**, but its occurrence, location or timing is **still uncertain**. A watch means that hazardous weather is possible. People should **have a plan of action** in case a storm threatens and they should listen for later information and possible warnings especially when planning travel or outdoor activities.

ADVISORY

An advisory is issued when a hazardous weather or hydrologic event is **occurring, imminent or likely**. Advisories are for **less serious conditions than warnings**, that cause significant inconvenience and if caution is not exercised, could lead to situations that may threaten life or property.






OUTLOOK

An outlook is issued when a hazardous weather or hydrologic event is **possible** in the next week. Outlooks are intended to **raise awareness** of the potential for significant weather that could lead to situations that may threaten life or property.

Severe Weather Overview

Severe weather occurs frequently in the DFW metroplex. Whether it is thunderstorms, lightning, extreme heat, or winter weather, residents need to be prepared for all of these hazards.

Understanding Severe Weather Hazards

Tornado 	Tornadoes are violently rotating columns of air that can destroy buildings and cause significant injury or death <u>ACTION:</u> Take shelter immediately in a sturdy structure
Large Hail 	Hail can damage vehicles, crops, buildings, and cause injuries <u>ACTION:</u> Move indoors away from windows
Strong Wind 	Strong wind can knock over trees and damage buildings <u>ACTION:</u> Move indoors away from windows
Heavy Rain 	Heavy rain can cause flash flooding <u>ACTION:</u> Avoid rising creeks and water-covered roads
Lightning 	Lightning strikes can cause significant injury or death <u>ACTION:</u> Move indoors if you hear thunder



Weather-Ready Nation

National Oceanic and Atmospheric Administration

National Weather Service

weather.gov/tornado

Tornado

A tornado can occur at any time of the year, but spring and summer are considered tornado season in North Texas. While tornadoes can happen at any time of day, they are more likely to occur between 3-9pm. In addition to the damaging spinning funnel of a tornado, the wind associated with a tornado is also very damaging. See the Fujita Scale below to see the wind speeds typically associated with the 6 tornado sizes.

Enhanced Fujita Scale for Tornadoes

The Enhanced Fujita Scale (EF), introduced in 2007, provides estimates of tornado strength based on damage surveys. The original scale was developed by Dr. Theodore Fujita and implemented in 1971.

Wind Speed	EF Scale	Typical Damage
65-85 mph	0	Peels surface off some roofs, some damage to gutters or siding
86-110 mph	1	Roof severely stripped, mobile homes overturned or badly damaged, loss of exterior doors, windows and other glass broken
111-135 mph	2	Roofs torn off well-constructed homes; foundations of frame homes shifted; mobile homes completely destroyed
136-165 mph	3	Entire stories of well-constructed homes destroyed; severe damage to large buildings such as shopping malls
166-200 mph	4	Well-constructed houses and whole-frame homes completely leveled
200+ mph	5	Strong frame houses leveled off foundations and swept away; high-rise buildings have significant structural deformation

Source: Weather Underground (www.wunderground.com/resources/severe/fujita_scale.asp)

Flooding

Did you know there is a difference between flash flooding and flooding?

Flash flooding occurs during heavy rain events and happens very quickly and ends just as quickly.

Flooding occurs as the result of a prolonged rain event or lake/creek overflow. It is more gradual and more predictable.

Dam/Levee failure may result in flash flooding or flooding.

Hail

Hail is formed when water droplets are carried in updrafts within a storm to a height in the sky where freezing occurs. These ice particles continue to grow as they may be dropped and picked up again, adding another layer of ice. Eventually, the hail becomes too heavy and falls to the ground.

A diameter of .75 inch or greater is considered to be severe.

Hail size estimates

- Pea = 1/4 inch diameter
- Marble/Mothball = 1/2 inch diameter
- Dime/Penny = 3/4 inch
- Nickel = 7/8 inch
- Quarter = 1 inch
- Ping pong ball = 1 1/2 inches
- Golf ball = 1 3/4 inches
- Tennis Ball = 2 1/2 inches
- Baseball = 2 3/4 inches
- Tea cup = 3 inches
- Grapefruit = 4 inches
- Softball = 4 1/2 inches