

Flood Safety Awareness Week Day 5: Tropical Cyclone Risk

The National Weather Service has declared March 15 through 19 Flood Safety Awareness Week. The National Weather Service in Caribou will feature a different educational topic each day during the week. Today's topic: Tropical Cyclone Flooding Risk.

When it comes to tropical cyclones wind speeds don't tell the whole story. Intense rainfall, not directly related to the wind speed, often causes more damage. Since the 1970s inland flooding has been responsible for more than half of the deaths associated with the tropical cyclones in the United States. Typically, greater rainfall amounts and flooding are associated with tropical cyclones that have a slow forward speed or stall over an area.

What do I need to know about inland flooding from tropical cyclones? Inland freshwater floods accounted for more than half of tropical cyclone deaths in the United States over the past 30 years.

What types of inland flooding are caused by tropical cyclones? Flash flooding occurs in creeks, streams and urban areas within a few minutes or hours of excessive rainfall. Rapidly rising water can reach heights of 30 feet or more. Streets can become swift moving rivers and underpasses can become death traps.

River flooding occurs from heavy rains associated with decaying hurricanes or tropical storms, and in extreme cases, river floods can last a week or more.

How do I know how severe a flood will be?

Within flood warning products the NWS conveys the magnitude of observed or forecast flooding using flood severity categories. These flood severity categories include minor flooding, moderate flooding and major flooding. Each category has a definition based on property damage and public threat.

Minor flooding: Minimal or no property damage, but possibly some public threat or inconvenience.

Moderate flooding: Some inundation of structures and roads near streams. Some evacuations of people and/or transfer of property to higher elevations are necessary.

Major flooding: Extensive inundation of structures and roads and significant evacuations of people and/or transfer of property to higher elevations are necessary.

The impacts of floods vary locally. For each NWS river forecast location flood stage and the stage associated with each of the NWS flood severity categories are established in cooperation with local public officials. Increasing river levels above flood stage constitute minor, moderate, and major flooding. Impacts vary from one river location to another because a certain river stage in one location may have an entirely different impact than the same level above flood stage somewhere else.