

Kissimmee Community Report Hazards and Risks



Central Florida Florida Disaster Resilience Initiative Phase 1 Stage 2 2019



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Osceola County Identified Hazards

The Osceola County Department of Emergency Management has identified the top 10 hazards for the county¹:

Tropical Cyclones - According to the National Hurricane Center, a tropical cyclone is an organized rotating system of thunderstorms originating over tropical or subtropical waters with a closed low-level circulation and a warm core. The strength of the tropical cyclone results in the various classifications, including tropical depressions, tropical storms and hurricanes. Tropical cyclones involve both atmospheric and hydrologic characteristics, such as severe winds, storm surge, flooding, high waves, erosion, extreme rainfall, thunderstorms, lightning, and in many cases, tornadoes.

Flooding - A flood occurs when typically dry areas experience a temporary overflow of water, which exceeds the volume capacity, thereby threatening damage or harm to the community. Flooding can occur at any time of the year, with peak times occurring during early spring through the fall. The Federal Emergency Management Agency (FEMA) provides an official Flood Insurance Rate Map delineating the geography-based level of flood risk to the County every ten years. These map revisions contain areas of high-risk flood potential known as Special Flood Hazard Areas.

Tornado - A tornado is a violent and destructive rotating column of air usually exhibited as a funnel-shaped downward extension of a cumulonimbus cloud in contact with the ground. Tornadoes vary in shape and size, but are often visualized as a condensation funnel where the narrow end touches the earth and is frequently encircled by a debris cloud. According to the National Weather Service, most Florida tornadoes have wind speeds between 40 mph and 110 mph, are approximately 250 feet across, and travel a short distance before dissipating. Some tornadoes can attain 300 mph winds, a mile in diameter, and stay on the ground for dozens of miles. The average duration of a tornado in the state of Florida is eight to fifteen minutes.

Wildfire - A wildfire is an uncontrolled, rapidly spreading fire in grasslands, brush-lands, or forested areas. Wildfires occur as a result of either natural phenomenon such as climate, vegetation, lightning or human activities. Wildfires are more prone to occur between November and April, when cool cold fronts are prominent, bringing in cold dry air. Eighty percent of Osceola County's landscape is rural, undeveloped and covered by natural vegetation. Wildfires are increasingly more dangerous over recent years.

¹ Osceola County of Emergency Management.
<<https://www.osceola.org/agencies-departments/emergency-management/>>



Terrorism - Terrorism is defined as any violent or destructive acts committed by individuals or groups aimed at intimidating a population, people or government to accept or met their demands. The purpose of a terror event is to create fear while promoting an ideological goal. The Central Florida region recognizes that terrorism is both foreign and domestic. Certain domestic ideological groups exist in Osceola County as well the region. Each poses a threat to the County as well as the region. The consequences of any terror incident are significant and every method of mitigation should be employed to reduce the effects.

Severe Thunderstorm - Severe thunderstorms are a common occurrence in Osceola County. The National Weather Service defines severe thunderstorms as occurring as a single storm, in clusters or lines, consisting of heavy rain and lighting, and producing large hail, 1-inch in diameter (quarter size) or greater, strong wind gusts of 58 mph or greater, or tornadoes. Lightning is a phenomenon present in all thunderstorms and is sometimes characterized as a separate hazard. Florida is the lightning capital of North America and is generally attributed to the subtropical climate.

Pandemic - Pandemic is the widespread propagation of a contagious disease in the human population. Further, it means extending beyond regional boundaries including across continents. Generally, a pandemic is an epidemic spreading to the far reaches of the globe. In considering pandemic, many diseases are capable of reaching this threshold. Most notable are the influenza viruses because they mutate so rapidly and are easily spread amongst humans. A simple sneeze can spread the influenza virus resulting in contamination for more than one person.

Agricultural/ Livestock Disease - From livestock to citrus to honeybees, Osceola County farms a wide variety of agricultural products. According to the 2012 Census of Agriculture, Osceola has over 547,058 acres of land in farm production, nearly 60% of the County's land area, including cattle, sod, citrus, peach, blueberry, vegetable and bee farming. There are currently over 365 operational farms in Osceola County, 233 of which (64%) manage livestock operations, the remainder produce crops.

Hazmat Release - A hazardous material (HAZMAT) is any item or agent (biological, chemical, and physical) which has the potential to cause harm to humans, animals, or the environment, by itself or through interaction with other factors. Chemical manufacturers are one source of hazardous materials, but there are others, including service stations, hospitals, and hazardous materials waste sites. Hazardous materials come in the form of explosives, flammable and combustible substances, poisons, and radioactive materials. These substances are most often released from transportation accidents or because of chemical plant accidents. There is a recent phenomenon known as chemical suicide



whereby the subject mixes two household chemicals together in an enclosed space, such as a vehicle. These incidents have rapid effective results and pose a threat to responders.

Sinkhole - Sinkholes are natural depressions in the surface of the earth caused by the removal of soil or bedrock, often both, by water. Sinkholes vary in diameter, volume and composition from less than a few feet to hundreds, even thousands of feet. The size may vary in diameter and depth, including sidewall consistency ranging from smooth soil-lined bowls to bedrock-edged chasms.

Osceola County participates in the National Flood Insurance Program and the FEMA Floodplain management program. This program notifies homebuyers if a property is in a flood hazard area, and requires regulated or insured financial institutions to require flood insurance for homes or mobile homes located in the special flood hazard zones. Osceola County also participates in FEMA’s Community Rating System (CRS). This program grants flood insurance premium reductions based on the floodplain management activities required by the National Flood Insurance Program. “Osceola County began participation in the CRS in 1994 and currently has earned enough CRS points to be awarded a class 6 rating. This class 6 means that the citizens of Osceola County who have flood insurance are receiving a 20% discount on a flood insurance policy for Special Flood Hazard Areas (SFHA) and a 5% discount for Non-Special Flood Hazard areas (Non-SFHA).” ²

² Department of Emergency Management
<<https://www.osceola.org/agencies-departments/stormwater/fema-floodplain-program/>>

