Hazards/Threats
Hurricanes/Tropical Storms

The entire County is at risk to hurricanes and tropical storms. According to Volusia County, property owners at risk of the County’s jurisdiction and at risk of wind and flood damage. Most areas of the county are at risk to the negative effects of hurricanes. Repeated damage to homes, loss of electricity, and loss of property has occurred.

According to NOAA, Volusia County faces an average of 10 hurricanes and 5 tropical storms in its 100-year floodplain. The county is located in a hurricane-prone area, and the risk of damage to homes and businesses is significant. The county has experienced severe hurricane damage, and the loss of property and lives has been significant. The county has implemented a number of measures to reduce the risk of damage to homes and businesses.

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Floods

All of Volusia County is at risk to flooding. According to FEMA, flooding is the most costly natural disaster in the U.S. and causes serious economic and psychological effects. According to the National Flood Insurance Program, all of Volusia County is at risk to flooding. Floods are potentially dangerous because they can quickly sweep cars off roadway, removing trees and shrubs, and leading to detours. The county has experienced severe flooding damage, and the loss of property and lives has been significant. The county has implemented a number of measures to reduce the risk of damage to homes and businesses.

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Threats

Severe thunderstorms are a common occurrence in Volusia County throughout the year. There are dangerous events capable of producing high winds, hail, tornadoes, and lightning. All cities in Volusia County are at risk to the negative effects of thunderstorms. Repeated damage to homes, loss of electricity, and loss of property has occurred.

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Tornados

Tornadoes pose a great risk to people and structures throughout the County. While Volusia County is not located in the top tornado-prone area, it is in the second range of tornado occurrence. According to the National Oceanic and Atmospheric Administration, there have been 12 tornadoes in Volusia County since 1950. This figure is probably higher in some tornado-prone areas but it is not detected by the National Weather Service. Additionally, there have been 23 tornadoes in Volusia County since 1950. This figure is probably lower in some tornado-prone areas but it is not detected by the National Weather Service.

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Wildfire

Wildfires are one of the most common hazards in Volusia County. People and their property are at risk to the impacts of a wildfire. Wildfires burn down houses, vegetation, and livestock. Smoke from wildfires can be detrimental to the health of cities, towns, and rural areas. Wildfires can cause extensive damage to homes and businesses, and the loss of property and lives has been significant. The county has implemented a number of measures to reduce the risk of damage to homes and businesses.

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Drought/Extreme Heat

People are directly impacted by the drought. Drought negatively affects agriculture and biomass, which impacts the food people eat. Farmers are the most directly impacted by the impacts of drought. Extreme heat is one of the leading causes of national death in the United States (International Journal of Health Geographics).

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</tr>
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<td>Thunderstorms</td>
<td>The public may face extreme consequences from a thunderstorm. Thunderstorms have the potential to injure and kill people, damage residences and businesses, and cause widespread power outages and other service disruptions. Recovery from a severe thunderstorm may take days or weeks.</td>
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<td>Wildfires are one of the most common hazard events in Volusia County. Between 2000-2006, the average number of wildfires per year was 137 (Table 5.1.b). People and their property are at risk to the impacts of a wildfire. Wildfires can burn down trees, vegetation, homes, and businesses. Smoke from wildfires can be detrimental to the health of citizens living in close proximity to the fire. Smoke and ash from wildfires can obscure vision and cause extended road closures.</td>
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<td>Consequences of drought and extreme heat on the public are not always direct. Agriculture will be the most directly impacted by drought. The public’s food supply may be impacted. If water restrictions are implemented by government, residential, and commercial users, gardens will be impacted.</td>
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<td>Consequences of heat on the public include possible injuries and, in extreme cases, death. In extreme cases, heat can cause heat stroke, exhaustion, dehydration, and other health problems.</td>
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**HAZARD/NHA**

**Natural**

**All of the property in Volusia County is at risk to the impacts of a wildfire. Wildfires can burn down trees, vegetation, homes, and businesses. Smoke from wildfires can be detrimental to the health of citizens living in close proximity to the fire. Smoke and ash from wildfires can obscure vision and cause extended road closures.**

**Thunderstorms**

**The public may face some minor consequences from a thunderstorm. Thunderstorms have the potential to injure and/or kill people, damage residences and businesses, and cause widespread power outages and other service disruptions. Recovery from a severe thunderstorm may take days.**

**Tornadoes**

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**Heat Wave**

**Consequences of heat on the public include possible injuries and, in extreme cases, death. In extreme cases, heat can cause heat stroke, exhaustion, dehydration, and other health problems.**

**The public may face extreme difficulties when responding to a hurricane or tropical storm event. Trees may be down, blocking critical roadways and access points. Power lines may be down in roadways or on private property creating a dangerous situation. Localized flooding may make some roads impassable.**

**Property in low-lying areas or Special Flood Hazard Areas (100 year floodplain) are susceptible to damage from flooding (FloodSmart.gov). Floods can destroy homes and businesses, erode property along creeks and rivers, and washout roads and bridges. In some cases, flooding is a secondary hazard from a hurricane event. Volusia County has experienced ten major flood events since 1994 resulting in over $35,000,000 in insured flood losses. (USAM section V)**

**The EOC is not located in a SHU; however, many access roads may be impacted by flooding. In an extreme flood event, there may be an instance when access to the EOC is difficult, as the surrounding area is in a 200 year floodplain. If something like this should occur, EOC personnel may be transported by VCSO’s helicopter assets or all terrain vehicles. Most likely they will stay onsite until the flood waters recede.**

**VCSO does not anticipate any issues maintaining operations and the delivery of services following a thunderstorm. In a catastrophic event, VCSO has a COOP Plan in place that could be activated and implemented at any time.**

**Property, facilities, and infrastructure from thunderstorms are minimal. Downed trees and power lines are typical consequences from thunderstorms. Restrooms and windows of homes and businesses may be damaged. Power service to residences and critical facilities may be impacted in the short-term.**

**VCSO does not anticipate any issues maintaining operations and the delivery of services following a wildfire. In a catastrophic event, VCSO has a COOP Plan in place that could be activated and implemented at any time.**

**Property, facilities, and infrastructure in the wildfire zone may be significantly impacted. Homes and businesses may be destroyed in a fire, a utility service could be interrupted, and access to roadways may be limited. We have been fortunate in Volusia County to have lost only a handful of residential structures during a wildfire.**

**Consequences of drought and extreme heat on the public are not always direct. Agriculture will be the most directly impacted by drought. The public’s food supply may be impacted. If water restrictions are implemented by government, residential, and commercial users, gardens will be impacted.**

**Consequences of hail on the public include possible injuries and, in extreme cases, death. Hail may occasionally cause public injury if it results in automobile accidents.**

**There are numerous potential consequences that may result from a hurricane or tropical storm. Property along the coast and Island surge areas may be severely impacted or destroyed. Community facilities along the coast and Island surge zones have been identified. Critical infrastructure such as utilities, roadways, bridges, hospitals, EOCs, Police/fire/EMS stations may be damaged or destroyed in an event. The City Island Library and Administration Building in downtown Daytona Beach experienced lethal flooding during Hurricane Irma. The Adaixon Facility will have to be demolished and rebuilt.**

**All property in Volusia County is at risk to tornadoes. The consequences to property, facilities, and infrastructure from a tornado may be catastrophic. Depending on the size of the tornado, damage could be minimal or catastrophic. Historically, Volusia County’s greatest magnitude tornado was on 8/3/1972. This EF3 tornado caused over $1 billion in damage.**

**VCSO has not had any issues continuing operations and delivering services during droughts or extreme heat events.**

**Homes, businesses, critical facilities and infrastructure should not be significantly impacted by drought and extreme heat. In some drought situations, rivers may be reduced and impact hydrologic processes such as irrigation, cities, and tourism. In extreme situations, rivers may be reduced and impact hydrologic processes such as irrigation, cities, and tourism.**

**VCSO will have any issues continuing operations and delivering services during hail events. Haiti events in Volusia County have been historically very brief.**

**Hail has the potential to damage property, facilities, and infrastructure. Large hail can puncture roof tops, windshields, windows, vehicles, and other outdoor structures.**