

Downtown Orlando Community Report Hazards and Risks



Central Florida Florida Disaster Resilience Initiative Phase 1 Stage 2 2019



These materials were developed by Health Initiatives Foundation, Inc. in 2019. Surveys were conducted under the auspices of Health Initiatives Foundation, Inc.'s Florida Disaster Resilience Initiative, with funding from The Miami Foundation.

Orange County Local Mitigation Strategy 2016 Identified Risks

The Local Mitigation Strategy identifies older homes as a vulnerability. Census Block Group **0188002** in the Orlando Central Business District is in the 98th percentile in the nation for the EPA EJSCREEN Lead Paint Indicator, which is the percentage of homes built prior to the 1960s.

Another potential vulnerability is the age of the housing structure. Well over half of all housing structures in Orange County (53.5%) were built prior to the implementation of the Florida Building Code in 1992.... This may mean an increased vulnerability as the standards developed following the devastation of Hurricane Andrew may not exist in many of these homes. There is some likelihood that many of the homes may have been brought up to the code due to renovations or other work to meet compliance. However, if they have not been, then a large number of homes may be more susceptible to many of the natural/severe weather and tropical system hazards to which Orange County is subjected to on an annual basis.¹

The Quick Reference Risk and Vulnerability Assessment Summary (See Table 2) in the Orange County Local Mitigation Strategy 2016 assigns high Risk-Relative Threat to Heat Waves, Tornadoes, Sinkholes/Land-Subsidence, and Tropical Storms.²

The Orange County Local Mitigation strategy also includes a section on Hazardous Materials (Map 2). The following excerpts explain the probability, vulnerability and low risk (29%) rating for Extremely Hazardous Materials Incidents:

Facilities that store chemicals are scattered about the County and those with EHS chemicals are concentrated in the industrial areas. These areas are not as populated, but other facilities are located in more commercial and/or residential areas that may increase the chance of exposure.

Probability: There are over 200 fixed facilities that house extremely hazardous substances in Orange County. The probability of an incident occurring is high as there will continue to be hazardous materials present through the continued use of chemicals at fixed facilities and their transport to, from, through, and within Orange County and its jurisdictions. With Orange County being part of a large metropolitan area and centrally

¹ Orange County Local Mitigation Strategy 2016, p. 25

<<https://orlando.novusagenda.com/AgendaPublic/AttachmentViewer.ashx?AttachmentID=70336&ItemID=41681>>

² Orange County Local Mitigation Strategy 2016, p. 170

<<https://orlando.novusagenda.com/AgendaPublic/AttachmentViewer.ashx?AttachmentID=70336&ItemID=41681>>



located in the State, it is a primary highway and freight passage in the region for goods that are being transported north and south on the Florida peninsula to Jacksonville or Miami, as well as east or west between Daytona Beach/Port Canaveral and Tampa. The likelihood for transportation incidents is amplified due to the number of possible encounters that can occur in a multi-modal setting. The most likely incident that may occur would involve a petroleum product spilling onto a roadway or other impermeable surface that would then require some kind of clean-up.

Other releases at fixed facilities will also continue to happen. While the number of instances will be likely be lower than the transportation incidents, the chemicals involved, such as EHS chemicals like chlorine, ammonia, sulfur dioxide, will be greater in their severity than petroleum products. The degree to which these releases or spills impact the county, either in quantity, severity, or location is an unknown variable. Continued emergency planning, accuracy for inventory reporting, and preparedness training must continue to occur to help reduce the number of occurrences.³

Risk: **Low – 29%**

Even with a high probability of incidents, minor to moderate anticipated or potential impacts, and a moderate vulnerability, the risk of hazardous materials is low. This is a result of the significant amount of mitigation measures that take place in the county to prepare for a release in advance. Training happens on a regular basis throughout the year and an exercise with a HazMat-based scenario is conducted by the Local Emergency Planning Committee (LEPC) on, at least, a bi-annual basis, if not more frequently. The specialized equipment and HazMat teams provide a consistently high level of support for responding the incidents.⁴

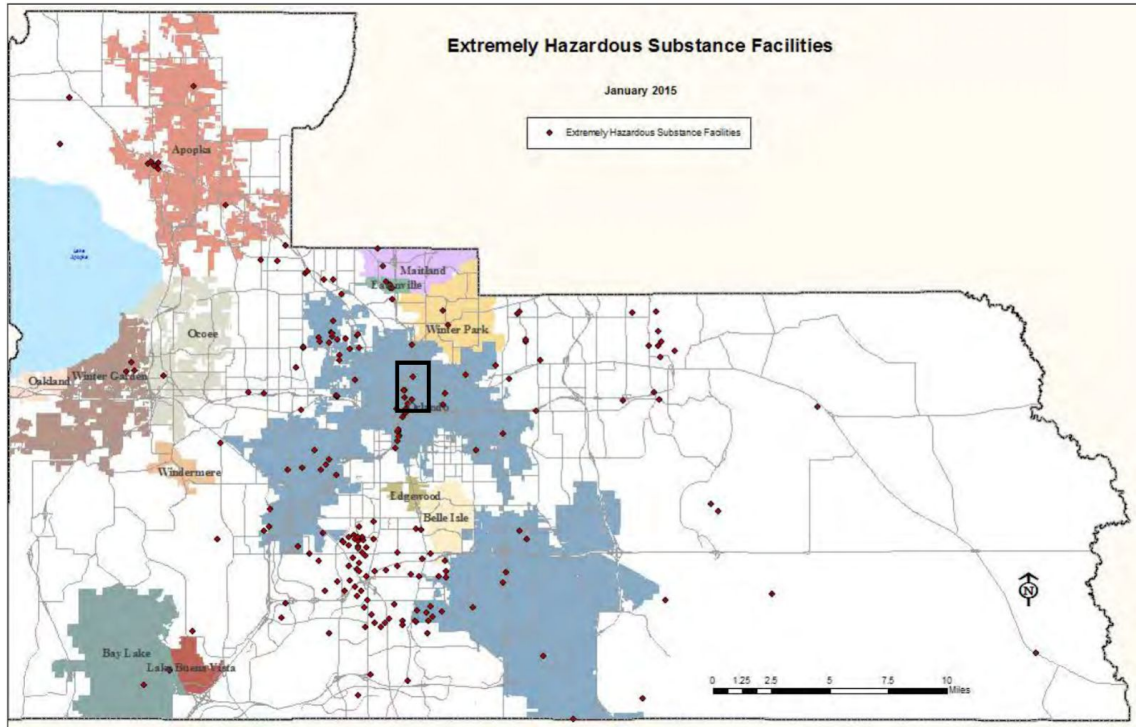
³ Orange County Local Mitigation Strategy 2016, p. 83

⁴ Orange County Local Mitigation Strategy 2016, p. 86



Map 1. Orange County Local Mitigation Strategy 2016 Map of Extremely Hazardous Facilities in Orange County, FL⁵

Black rectangle surrounds the Downtown Orlando area.



Source: E-Plan – Emergency Response Information System, 2013 Chemical Inventories

⁵ Orange County Local Mitigation Strategy 2016, p. 91

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Table 1. 2016 Quick Reference Risk and Vulnerability Assessment Summary for Orlando

Risk and Vulnerability Assessment Summary					
Hazard Name	People	Property	Environment	Program Operations	Risk – Relative Threat
Diseases and Pandemic	Low	High	Moderate	High	Moderate 48%
<i>Animal</i>	Low	High	Moderate	High	Moderate 44%
<i>Human</i>	Moderate	Moderate	Low	High	Moderate 43%
<i>Plant/Agriculture</i>	Low	High	Moderate	High	Moderate 51%
Extreme Temperatures	Low	Low	Moderate	Moderate	Moderate 54%
<i>Drought</i>	None	Low	Moderate	High	Moderate 57%
<i>Freezes/Winter Storms</i>	Low	Low	Moderate	Moderate	Moderate 41%
<i>Heat Waves</i>	Low	Low	Moderate	Low	High 62%
Floods	Low	Moderate	Moderate	Moderate	Moderate 43%
Severe Thunderstorms	Low	Moderate	Low	Moderate	Moderate 59%
<i>Hail</i>	None	Moderate	Low	Low	Moderate 52%
<i>Lightning</i>	Low	Moderate	Low	Low	Moderate 52%
<i>Tornados</i>	High	High	Moderate	High	High 71%
Sinkholes/Land-subsidence	Low	High	Low	Moderate	High 62%
Hazardous Materials	Moderate	Low	Low	Moderate	Low 29%
Terrorism/CBRNE	High	High	Low	High	Moderate 32%
Tropical Systems	High	High	High	High	High 67%
Wildfires	Low	High	Low	High	Moderate 52%



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