

**Downtown Orlando
DRAFT Report**

Content	Page
Introduction	2
Community Description - Grant Writing Background Information	3
Location	3
School and Legislative Districts	5
Orange County Local Mitigation Strategy 2016 Identified Risks	5
Demographics	9
Environmental Health Concerns	10
Brownfield Sites	12
Contaminated Sites	12
Surveying Completed - Community Information for Advocacy	14
Mission Critical Functions Survey	15
Housing and Emergency Shelter Survey	16
Community Organizing Tools	19
Community Forum Report	18
Gaps and Solutions	19
Community Assets and Hot Spots Map	20



Introduction

Information included in this Community Report was gathered in the following ways:

- Formal and informal interviews with Organization Leads located in or serving the community
- Community Forums where:
 - Gaps and proposed solutions were discussed, and
 - Assets, hot spots (areas of concerns), and proposed resilience hubs were mapped
- Mission Critical Function Surveys designed to determine if the community is trending toward resilience or vulnerability:
 - Respondents rated twenty six functions on the following scale:
 - **Most Vulnerable-Collapse-Destroyed:1**
 - **Extremely Vulnerable-Major Damage:2**
 - **Elevated Vulnerability-Minor Damage:3**
 - **Not Affected:4**
 - **Resilient:5**
 - **Highly Resilient:6**
 - **Resilient and Sustainable:7**
- Housing and Emergency Services Surveys where residents described damage to their home as a result of Hurricane Irma, time taken to repair the damage, and funding sources for the repairs. This survey assessed where residents received information during and after Hurricane Irma, and their level of knowledge on disaster preparedness.
- Skills and Equipment Inventory Surveys listing residents who have volunteered either their services, skills, or their property to be used in the community to assist their neighbors in the event of a disaster.

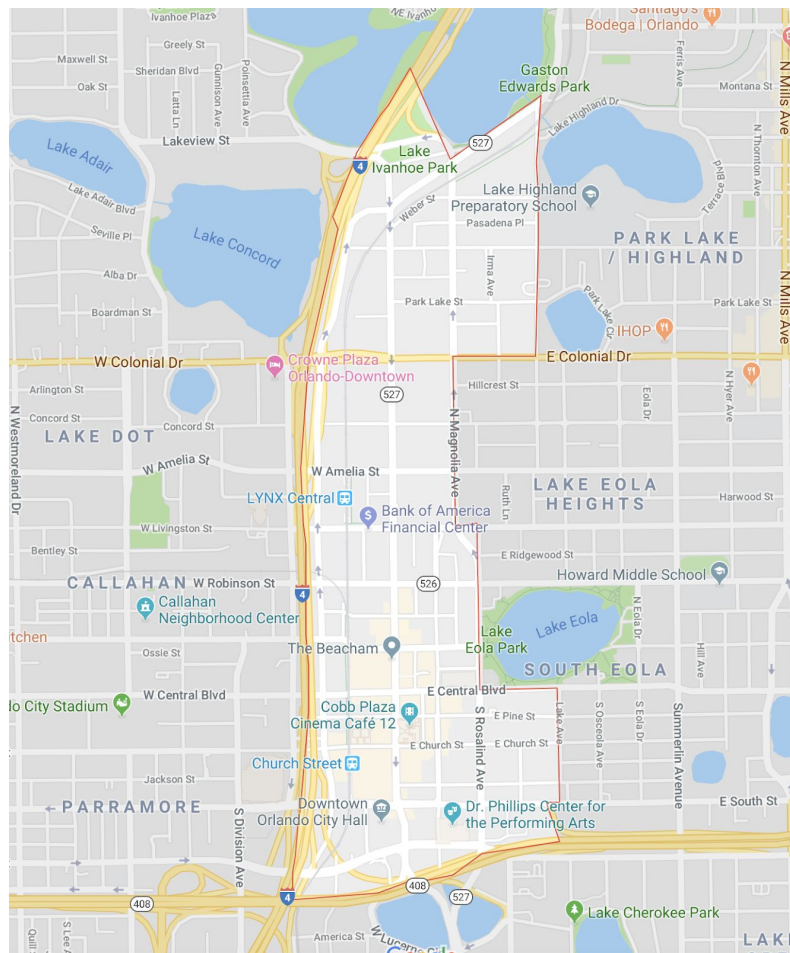


Community Description

Location

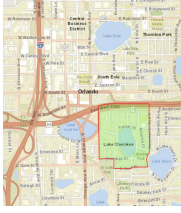

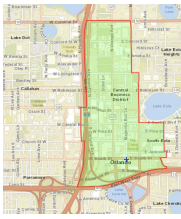
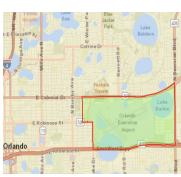
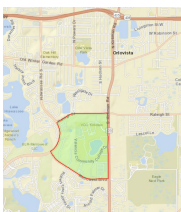
The Orlando Central Business District is a Neighborhood in Orlando that is in the Orlando Metropolitan Area in Orange County, Florida. It is comprised of portions of Census Tracts **018800** and **018900**. The neighboring neighborhoods include: [Callahan](#), [College Park](#), [Holden-Parramore](#), [Lake Cherokee](#), [Lake Dot](#), [Lake Eola Heights](#), [North Orange](#), [Park Lake-Highland](#), [South Division](#), [South Eola](#), and [South Orange](#). These neighboring neighborhoods include portions of Census Tracts **010200**, **010300**, **010400**, **010500**, **011300**, **011600**, **013900**, **014400**, **014502**, **015402**, **012600**, **012701**, **012800**, **015300**, **018500**, **018800**, and **018900**.

Map 1. Orlando Central Business District



Downtown Orlando includes Zip Codes 32801, 32803, 32804, and 32805. The Central Business District has a population of 3,573, with 2,444 households.¹

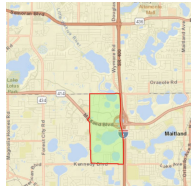
Table 1. Geography of Census Block Groups Surveyed

 <p>120950103002</p>	<p>Population 872</p> <ul style="list-style-type: none"> ➤ East West Hwy to the North ➤ E Gore St to the South ➤ Summerlin Ave S to the East ➤ Delaney Ave to the West
 <p>120950188002</p>	<p>Population 505</p> <ul style="list-style-type: none"> ➤ Virginia Dr to the North ➤ Marks St to the South ➤ Mills Ave N to the East (Rt 17) ➤ Highland Ave and N Orange Ave to the West
 <p>120950189005</p>	<p>Population 3,112</p> <ul style="list-style-type: none"> ➤ W Colonial Dr to the North ➤ East-West Expy to the South ➤ N Magnolia Ave, N Rosalind Ave, and Lake Ave to the East ➤ I-4 to the West
 <p>120950184001</p>	<p>Population 1,162</p> <ul style="list-style-type: none"> ➤ E Colonial Dr to the North ➤ East West Expy to the South ➤ N Semoran Blvd to the East ➤ N Primrose Dr to the West
 <p>120950147031</p>	<p>Population 2,210</p> <ul style="list-style-type: none"> ➤ Raleigh St to the North ➤ Metrowest Blvd to the South ➤ S Kirkman Rd to the East ➤ Hiawasse Rd to the West

¹ US Statistical Atlas

<<https://statisticalatlas.com/neighborhood/Florida/Orlando/Central-Business-District/Overview>>



	<p>Population 1,334</p> <ul style="list-style-type: none"> ➤ Seminole County Line to the North ➤ Kennedy Blvd to the South ➤ I-4 to the East ➤ N Keller Rd and Keller Rd S to the East
<p>120950152011</p>	

School and Legislative Districts

All of the neighborhoods listed are served by the Orange County Unified School District. Portions of Downtown Orlando are in Congressional District [FL-7](#), and others are [FL-10](#). Likewise, State Senate Districts [FL-11](#) and [FL-13](#) and State House Districts [FL-46](#) and [FL-47](#) apply to specific geographies in the Downtown area.²

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.³

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.⁴

² US Statistical Atlas

<<https://statisticalatlas.com/neighborhood/Florida/Orlando/Central-Business-District/Overview>>

³ [Orange County Local Mitigation Strategy 2016](#), p. 25

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

⁴ [Orange County Local Mitigation Strategy 2016](#), p. 170

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



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 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.⁵

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.⁶

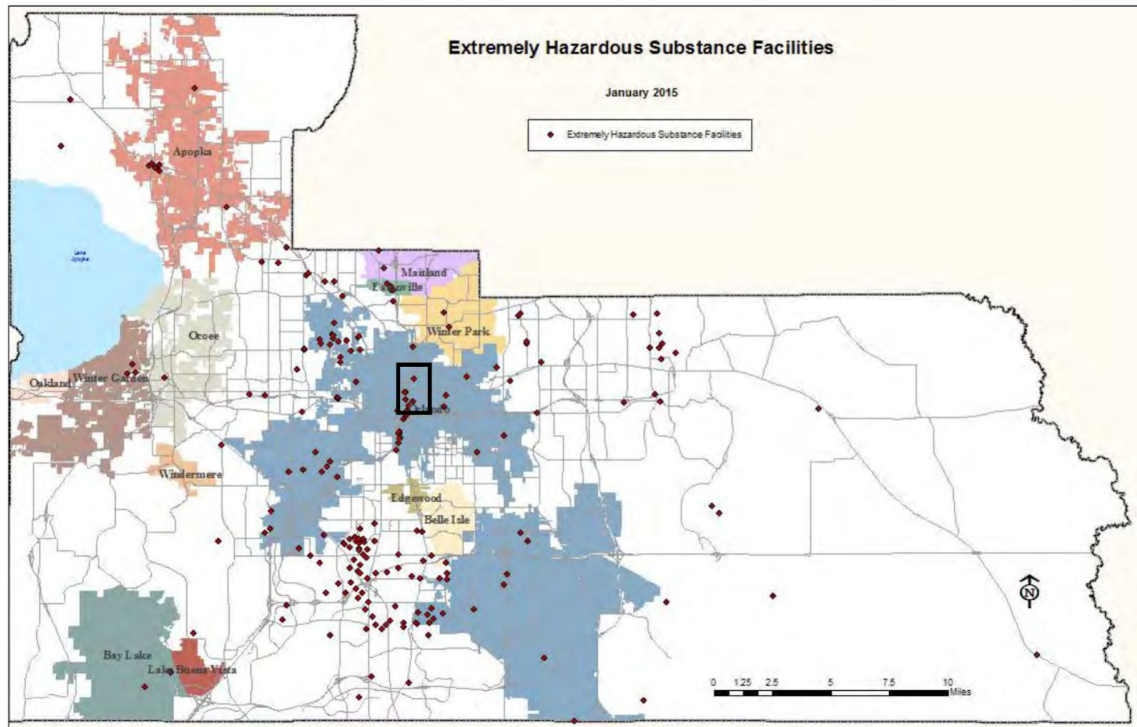
⁵ Orange County Local Mitigation Strategy 2016, p. 83

⁶ Orange County Local Mitigation Strategy 2016, p. 86



Map 2. Orange County Local Mitigation Strategy 2016 Map of Extremely Hazardous Facilities in Orange County, FL⁷

Black rectangle surrounds the Downtown Orlando area.



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

⁷ Orange County Local Mitigation Strategy 2016, p. 91
<<https://orlando.novusagenda.com/AgendaPublic/AttachmentViewer.ashx?AttachmentID=70336&ItemID=41681>>



Table 2. 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%



Demographics

The very young and the elderly are vulnerable populations. Within the three Census Block Groups in the Central Business District, there is a high concentration of elderly in Census Block Group 0103002 (35%, which is in the 97th percentile in the US) and Census Block Group 0189005 (24%, which is in the 89th percentile in the US). The highest concentration of the population under age 5 is in Census Block Group **0188002** (13%, which is in the 94th percentile in the US). The Minority Populations ranged from 15% of the population in Census Block Group **0188002** in the Central Business District to 94% in Census Block **0152011** farther north toward the Seminole County line. The Census Block Groups in the Central Business District had overall lower Minority Populations and Low income Populations than the neighboring Census Block Groups. The highest percentage of Linguistically Isolated Population overall was in Census Block Group **0184001**, at 18% , which is in the 91st percentile in the US.. In the Orlando Central Business District alone, the highest ranking for Linguistically Isolated Population was in Census Block Group **0103002**, at 11%. Across all Census Block Groups, the percent of the Population with Less Than a High School Education ranged from 4% to 13%.⁸

Table 3. Percent of Population for Demographic Indicators

Census Block Groups highlighted in blue are within the Orlando Central Business District. The additional Census Blocks are neighboring communities from which residents responded to the survey.

Indicator	Census Block Group					
	0103002	0188002	0189005	0184001	0147031	0152011
Minority Population	29%	15%	27%	81%	78%	94%
Low Income Population	35%	19%	25%	41%	46%	79%
Linguistically Isolated Population	11%	0%	5%	18%	6%	0%
Population with Less Than High School Education	12%	9%	6%	27%	4%	13%
Population under Age 5	2%	13%	3%	9%	9%	9%
Population over Age 64	35%	8%	24%	7%	2%	7%

⁸ EPA EJSCREEN: Environmental Justice Screening and Mapping Tool <<https://www.epa.gov/ejscreen>>



Environmental Health Concerns

Within the three Census Block Groups that comprise the Orlando Central Business District, EPA air quality indicators for NATA Diesel Particulate Matter, NATA Air Toxics Cancer Risk and NATA Respiratory Index are ranked among the highest in the nation: between the 80th and 100th percentile in the nation. All Census Block Groups, with the exception of **0147031**, which is farther to the West, have high Traffic Proximity and Volume, measured as Daily Traffic Count divided by the distance to the road from the residences. The three Census Block Groups in the Orlando Central Business District were in the 98th, 85th, and 97th percentiles in the country. Census Block Group **0184001**, with the Orlando Municipal Airport, is within the 80th to 90th percentile in the US. Across Census Block Groups surveyed, the proximity to Superfund sites, measured by Superfund Site count divided by the distance to the sites in kilometers. Percentile rankings of proximity to facilities that are required to file Risk Management Plans range from the 84th to the 98th percentile in the US, whereas the percentile rankings for proximity to Hazardous Waste sites are much lower, from the 38th percentile to the 65th percentile in the US.



Table 4. Percentile in the US for Environmental Indicators

Indicator	Census Block Groups					
	0103002	0188002	0189005	0184001	0147031	0152011
NATA Diesel Particulate Matter (ug/m3)	80-90th Percentile in US	90-95th Percentile in US	95-100th Percentile in US	70-80th Percentile in US	70-80th Percentile in US	70-80th Percentile in US
NATA Air Toxics Cancer Risk (risk per MM)	90-95th Percentile in US	90-95th Percentile in US	95-100th Percentile in US	80-90th Percentile in US	70-80th Percentile in US	70-80th Percentile in US
NATA Respiratory Hazard Index	90-95th Percentile in US	90-95th Percentile in US	90-95th Percentile in US	80-90th Percentile in US	80-90th Percentile in US	70-80th Percentile in US
Traffic Proximity and Volume (daily traffic count/distance to road)	98th Percentile in US	85th Percentile in US	97th Percentile in US	93rd Percentile in US	57th Percentile in US	92nd Percentile in US
Lead Paint Indicator (% pre-1960s housing)	67th Percentile in US	98th Percentile in US	19th Percentile in US	73rd Percentile in US	20th Percentile in US	61st Percentile in US
Superfund Proximity (site count/km distance)	83rd Percentile in US	87th Percentile in US	85th Percentile in US	82nd Percentile in US	76th Percentile in US	85th Percentile in US
Proximity to facilities w Required Risk Management Plans (facility count/km distance)	93rd Percentile in US	98th Percentile in US	92nd Percentile in US	84th Percentile in US	87th Percentile in US	95th Percentile in US
Hazardous Waste Proximity (facility count/km distance)	65th Percentile in US	63rd Percentile in US	62nd Percentile in US	37th Percentile in US	47th Percentile in US	38th Percentile in US

*The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: <https://www.epa.gov/national-air-toxics-assessment>.



Brownfield Sites

There are two Brownfield Sites in the Downtown Area of Orlando that are on the Florida Department of Environmental Protection Contamination Locator Map, although one of them (the Dr. Phillips Orlando Performing Arts Center) has received its rehabilitation completion notice.

Table 5. Brownfield Sites in the Downtown Area of Orlando

Area ID	Area Name	Site ID	Site Name
BF480401000	DEEDS Orlando Expanded	BF480401004	Future Dr. P. Phillips Orlando Performing Arts Center
		BF480401001	Orlando Events Center

Contaminated Sites

In addition to the 2 Brownfields, there are 4 Cleanup Sites in Downtown Orlando: 1 Active Petroleum Cleanup Site, 1 Pending Petroleum Cleanup Site, and 2 Active Other Cleanup Sites as listed below with links to their documentation.

Active Petroleum Cleanup Sites

1. **HUGHEY AVE & SOUTH ST** at ROADWAY AT HUGHEY & SOUTH; Facility Id: 9810753 [Watch This Site](#) [Documents](#)

Pending Petroleum Cleanup Sites

1. **AMOCO-DOWNTOWN** at 261 S MAGNOLIA AVE; Facility Id: 8512655
[Watch This Site](#) [Documents](#)

Active Other Cleanup Sites

1. **DOWNTOWN EVENTS CENTER/ CITY OF ORLANDO (BF)** at 3 BLOCK AREA FROM JACKSON TO HUGHEY PL; Facility Id: COM_273675
[Watch This Site](#) [Documents](#)
2. **STREAMLINE CLEANERS I-4/SOUTH STREET CONTAMINATION PLUME** NEAR SOUTH STREET AND GARLAND AVE; Facility Id: COM_299503







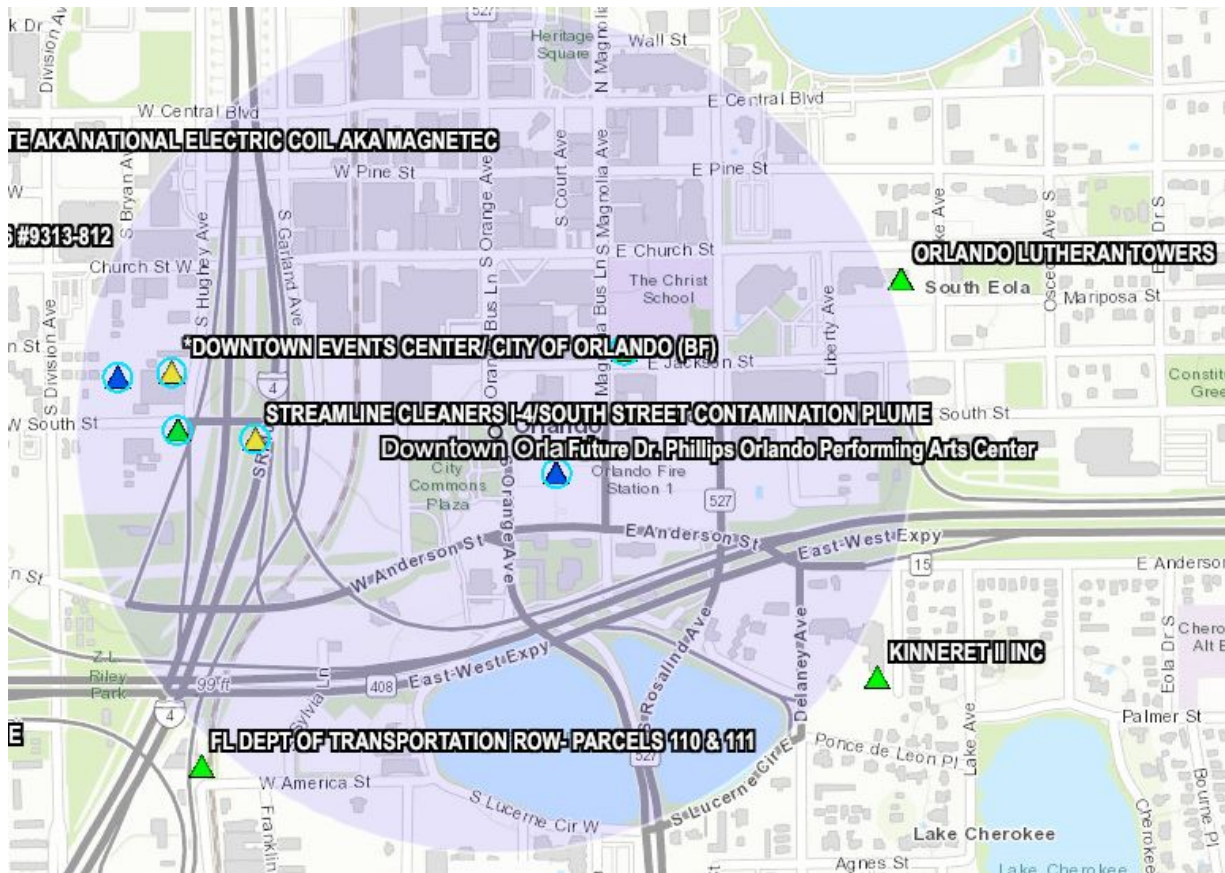
[Watch This Site](#)

[Documents](#)



Map 1. Contamination Locator Map Downtown Orlando⁹

Cleanup types:  Brownfields  Petroleum  Superfund  Other Waste Cleanup



⁹ Florida Department of Environmental Protection Contamination Locator Map
<<http://prodenv.dep.state.fl.us/DepCInup/viewmap.do>>



Surveying Completed

Survey Tools used in the Downtown Orlando area appear in the Appendices. Many Survey respondents in Downtown Orlando did not divulge their addresses. However, they did report the neighborhoods in which they live. All of these neighborhoods are located in the Orlando Metropolitan Area in Orange County, Florida.

Table 6. Census Block Groups Surveyed

Blue indicates Census Block Groups in the Central Business District of Orlando or Neighboring Neighborhoods.

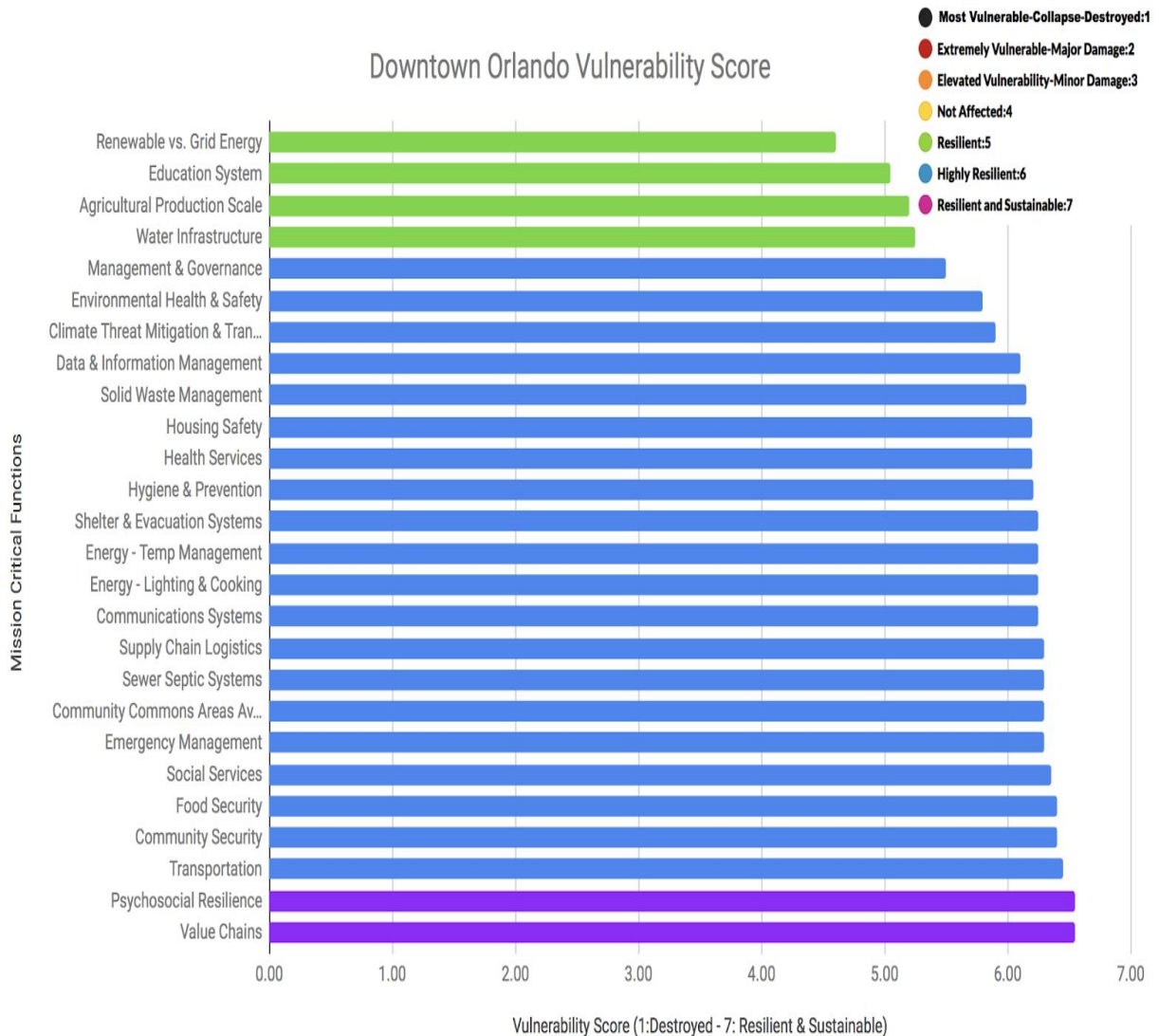
Census Block Group	MCF	Housing & Emergency Shelter Surveys
120950103002	2	0
120950188002	1	0
120950189005	16	4
120950104001	0	1
120950147031	1	0
120950152011	0	1
Other	0	3
Total	20	9



Graph 1. Average Mission Critical Function Ratings for Each Function

The 26 Mission Critical Functions are listed to the left of the bar graph

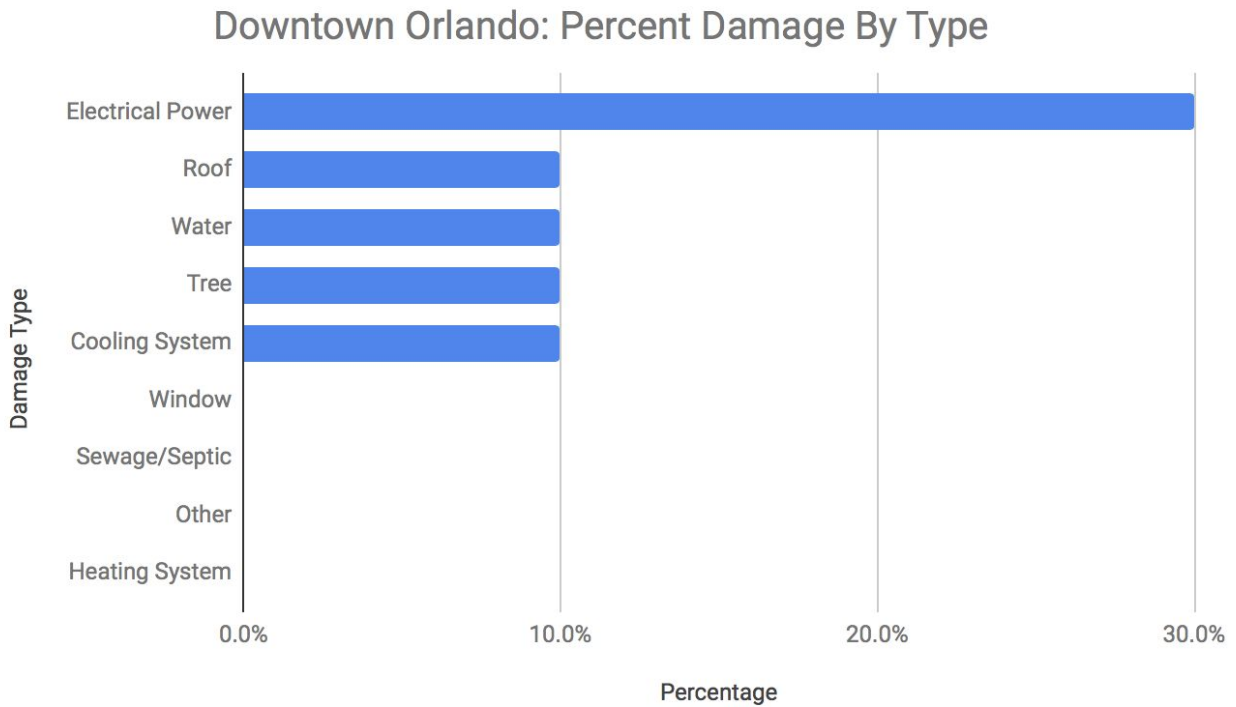
The categories with the lowest average ratings were in the “Resilient” range; considered to be the most vulnerable functions by the respondents. Renewable vs Grid Energy received the lowest ranking, followed by the Education System, Agricultural Production Scale, and Water Infrastructure. The two functions ranked “Resilient and Sustainable” were Psychosocial Resilience and Value Chains. Value Chains provide resilience through local jobs and adequate banking and financial structure.



Housing and Emergency Shelter Survey

Thirty percent of survey respondents reported loss of electrical power. Only 10 percent of respondents reported roof damage, water damage, tree damage or cooling system damage. All respondents to the Downtown Orlando Surveys completed repairs in less than 6 months.

Graph 2. Housing and Emergency Shelter Survey Results

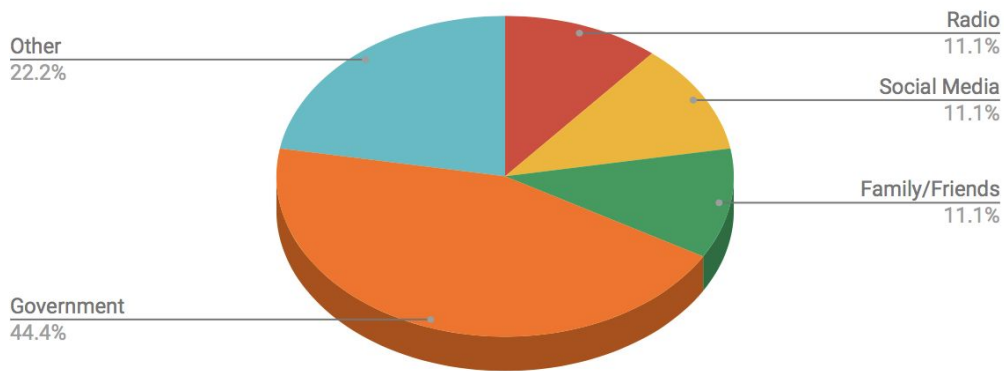


Sources of Information: Of those having looked for funding sources, 44.4% indicated that they obtained their information from government sources. Unspecified “Other” sources provided information for another 22.22% of respondents. Radio, Social Media, and Family/Friends were sources of information for 11.1% of respondents each.

Graph 5. Sources of Information

Downtown: Source of Information During Hurricane Irma Recovery

(N=18)



Community Organization Tools

Community Forum Report

Downtown Orlando

Magnolia Towers, February 5, 2019

Community Captain: Luz Fernandez

Turn Out: 11 (based off forum video)

The forum was in a building that was a shelter. They felt well informed and prepared. But surveys with people elsewhere in Downtown Orlando were not prepared.

Map Report

GREEN Proposed Resilience Hubs

BLUE Proposed Storage Locations

YELLOW Community Assets

RED Hot Spots (problem areas-like flooding or infrastructure problems)

Color	Location
GREEN	Magnolia Tower
GREEN	E. Robinson St
YELLOW	E. Robinson St
YELLOW	N. Mills Ave
YELLOW	W. Church St
YELLOW	S. Parramore Ave
YELLOW	W. Livingston St
YELLOW	Highland Ave
YELLOW	1002 W. Carter St
YELLOW	W. Central Boulevard
YELLOW	South Eola Drive
GREEN	Callahan Drive
YELLOW	W. Church St #200
BLUE	1515 Long St



Gaps and Solutions

Residents from part of the Downtown Orlando area reported not being prepared for hurricanes and shared the top two priority issues and proposed solutions:

Gaps

Communication and Access to Information

Housing and Environmental Safety: trees and emergency shelters during hurricanes have been reported to be an issue.

Solutions

Use outlets such as social media and printed materials.

Have shelters available, easily accessible, and known by the community

Priority Gaps and Solutions

Training Call #6 engaged Community Leaders in Gap Prioritization beginning with a selection of the top two priorities from among the top 5 Gaps identified in the Phase 1 Stage 1 CFL After Action Report. Community Captain Luz Fernandez provided this detail on the top two priority gaps:

Downtown Orlando - Luz Fernandez- First Baptist of Orlando

Priority #1: Communication/Access to information

Possible solution: Social media posts, and flyers

Resources Needed: Technical resources in designing interesting ads for posts on social media

Potential Champions: Luz Fernandez

Priority #2: Housing/Environmental Safety (Trees are an issue)

Possible solution: Having shelters available and easily accessible as well as known by the community

Resources Needed: Technical resources and a designed informational post for social media would do good to inform the community on shelters in place.

Potential Champions:

- Luz Fernandez



- First Baptist of Orlando

Community Forum Map

[Collaborators' Link to the Community Map](#)

Community Forum Map Interface:

- Map Title:** Downtown Orlando
- Actions:** Open in My Maps
- Proposed Resilience Hubs:**
 - Magnolia Towers
- Potential Storage Locations:**
 - 1515 Long St
 - 1038 Arlington St
- Community Assets:**
 - Howard Middle School
 - North Mills Avenue
 - Greater St Paul Church
 - West Church Street
 - 7 MORE
- Community Hot Spots-Problem Areas:**

