Mercy Drive, Orlando Community Report

Central Florida Florida Disaster Resilience Initiative Phase 1 Stage 2 2019



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Executive Summary

The Florida Disaster Resilience Initiative consists of 5 phases:

- 1: Elevating the Voices of Vulnerable Communities
- 2: Collaborative Systems for Preparedness & Response
- 3: Resolving Mission Critical Gaps
- 4: Establishing Communities of Opportunity with Social Equity
- **5**: Building a Blue-Green Political Economy for Regeneration

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This report details work undertaken in Central Florida in 2019 as part of Phase I. This phase included training for Community Captains, community forums, and surveys conducted within each participating community. This report, and the accompanying online community presence in the <u>Central Florida Resilience System</u> comprise the documentation of these efforts.

Information included in this Community Report was gathered using the following methods:

- Formal and informal interviews with Organization Leads located in or serving the community;
- Community Forums where:
 - o Gaps and proposed solutions were discussed and recorded, and
 - Assets, hot spots (areas of concerns), and proposed resilience hubs were discussed and mapped.
- 26 Household Mission Critical Function Surveys: These surveys are designed to determine if the community is tending toward resilience or vulnerability. Survey respondents rated twenty six critical functions on the following scale:



 31 Household Housing and Emergency Services Surveys: Residents described their residence type, any damage to their home as a result of Hurricane Irma, the time taken to repair the damage, and funding sources for the repairs. This survey also documented where residents received information during and after Hurricane Irma, and their level of knowledge about disaster preparedness.



• Household *Skills and Equipment Inventory Surveys were completed.* These listed residents who have volunteered their services, skills, or property to be used in the community to assist their neighbors in the event of a disaster.

Community Leadership

Wanda Jones served as Community Captain for Mercy Drive. The Community Captain Lead responsible for supervising her was Lawanna Gelzer. The Community Captain was responsible for holding and documenting a Community Forum, and for the completion and submission of community surveys.



Findings

The 26 Household *Mission Critical Function Surveys* determined that the top priority gaps in Mercy Drive were:

- Renewable vs Grid Energy (1.44)
- Shelter and Evacuation Systems (1.81)
- Climate Threat Mitigation & Transformation (1.89)
- Environmental Health & Safety (1.91)
- Energy: Temperature Management (2.08)

In addition to the 38.7% of respondents, who experienced power outage, the top types of damage after Hurricane Irma reported by the 31 respondents to the Household *Housing and Emergency Services Surveys* were:

- Window damage (29.0%)
- Water damage (29.0%)
- Roof damage (25.8%)
- Tree damage (12.9%)

Most repairs needed after Hurricane Irma were completed in less than 6 months. Roof and tree damage sometimes took longer than 6 months to repair. Home insurance was the primary source of funding for repairs. Family and friends, radio and television were the most reported sources of information for residents of Mercy Drive.

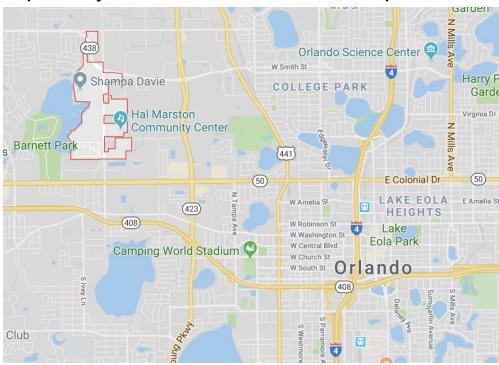
Discussion at the Community Forum revealed that there is an appetite for solar energy, given the loss of power after Hurricane Irma. The community also has a concern that the current development effort that is paving over wetlands adjacent to their homes will cause flooding in their neighborhood. Residents are also interested in raising awareness about the importance of the wetlands, and in creating a Community Emergency Preparedness Plan.



Community Description

Location

Mercy Drive is a neighborhood in the City of Orlando, in the Orlando Metropolitan Area of Orange County, Florida It is bordered by Silver Star Rd. to the North, Arch St. to the South, Lawne Lake to the West, and Mercy Drive together with streets that dead end off of it to the East. It has a population of 3,083, and is comprised of 929 households in the Mercy Drive Zip Code of 32808. Census Block Groups strictly within the Mercy Drive neighborhood as well as within the surrounding neighborhoods that identify as a communty include: 120950124031, 120950187002, 120950187003 120950120001, and 120950149081. (See Table 1, p. 4)



Map 1. Mercy Drive Area Within the Orlando Metropolitan Area

¹ US Statistical Atlas https://statisticalatlas.com/neighborhood/Florida/Orlando/Mercy-Drive/Overview



School and Legislative Districts

Mercy Drive is served by the Orange County Unified School District. It is in Congressional District FL-10, State Senate District FL-11, and State House District FL-46.



Table 1. Census Blocks with Survey Participation

Census Block	Description		
Silver Star Red (1) Diny Hills 120950120001	Population: 5,002 ➤ Silver Star Rd to the North ➤ W Colonial Dr to the South ➤ Lawne Lake to the East ➤ N Pine Hills Rd to the West		
Training Point Training William Farrance William William Farrance William Farrance William William Farrance William Wi	Population: 4,613 ➤ Lake Orlando to the North		
Tand Book To the Company of the Comp	Population: 7,006 ➤ Silver Star Rd to the North ➤ Balboa Dr to the South ➤ Hiawassee Dr to the East ➤ Apopka Vineland Rd N to the West		
Banety Park Park Pline Hills 120950187002	Population: 2,098 ➤ Silver Star Rd to the North ➤ W Colonial Dr to the South ➤ N John Young Pkwy to the East ➤ Mercy Dr to the West		
Barnett Fork Pin Hills W. Colonial Dr 9	Population: 2,178 ➤ Silver Star Rd to the North ➤ W Colonial Dr to the South ➤ Lawne Lake to the West ➤ Mercy Drive to the East		



Orange County Local Mitigation Strategy 2016 Identified Risks
The Local Mitigation Strategy identifies older homes as a vulnerability:

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.²

The Quick Reference Risk and Vulnerability Assessment Summary (See Table 1) in the Orange County Local Mitigation Strategy 2016 assigns high Risk-Relative Threat to Heat Waves, Tornadoes, Sinkholes/Land-Subsidence, and Tropical Storms.³

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



² Orange County Local Mitigation Strategy 2016, p. 25

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

³ Orange County Local Mitigation Strategy 2016, p. 170

Table 2. Quick Reference Orange County Risk and Vulnerability Assessment 2016 Summary

Risk and Vulnerability Assessment Summary					
Hazard Name	People	Property	Environment	Program Operations	Risk – Relative Threat
Diseases and Pandemic	Low	High	Moderate	High	Moderate 48%
Animal	Low	High	Moderate	High	Moderate 44%
Human	Moderate	Moderate	Low	High	Moderate 43%
Plant/Agriculture	Low	High	Moderate	High	Moderate 51%
Extreme Temperatures	Low	Low	Moderate	Moderate	Moderate 54%
Drought	None	Low	Moderate	High	Moderate 57%
Freezes/Winter Storms	Low	Low	Moderate	Moderate	Moderate 41%
Heat Waves	Low	Low	Moderate	Low	High 62%
Floods	Low	Moderate	Moderate	Moderate	Moderate 43%
Severe Thunderstorms	Low	Moderate	Low	Moderate	Moderate 59%
Hail	None	Moderate	Low	Low	Moderate 52%
Lightning	Low	Moderate	Low	Low	Moderate 52%
Tornados	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%



The Orange County Local Mitigation strategy includes a section on Hazardous Materials. 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.⁴

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.⁵

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



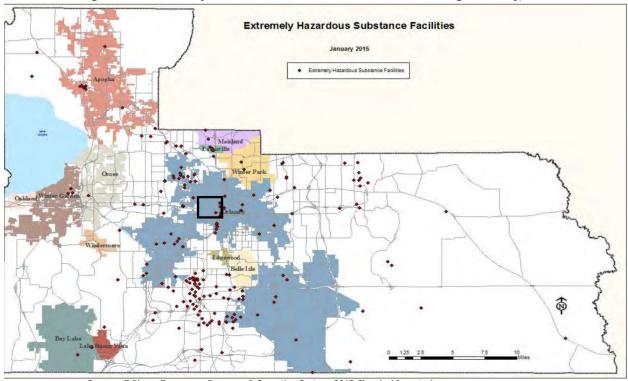
⁴ Orange County Local Mitigation Strategy 2016, p. 83

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

⁵ Orange County Local Mitigation Strategy 2016, p. 86

Map 2. Orange County Local Mitigation Strategy 2016 Map of Extremely Hazardous Facilities in Orange County, FL. ⁶

Black rectangle surrounds the Mercy Drive Area



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

⁶ Orange County Local Mitigation Strategy 2016, p. 91 https://orlando.novusagenda.com/AgendaPublic/AttachmentViewer.ashx?AttachmentID=70336&ItemID=41681



Demographics

Indicator

Population over Age 64

8%

Mercy Drive and the surrounding areas that function in community with it have among the highest community concentrations in the nation of minorities. Four of the 5 Census Block Groups surveyed in the in Mercy Drive surrounding area have from 91% to 96% minority populations. This places them at or over the 90th Percentile in the US for concentration of minority residents. Three of the five Census Block Groups are at or above the 95th percentile in the US for Low Income Population, with 73%, 81% and 86% of the population in the low income category. The very young (Population under age 5) are concentrated into Census Block Groups 1295**018700**3 (99th percentile in the US) and 12905**018700**2 (84th percentile in the US).

------ Census Block Group-

Table 3. Percentile in the US for Demographic Indicators

12095**012403**1 12095**014908**1 12095**018700**2 12095**018700**3 12095**012000**1 Minority Population 78% 92% 94% 91% 96% Low Income Population 73% 43% 86% 81% 56% Linguistically Isolated 7% 5% 3% 10% 0% Population Population with Less Than High 28% School 24% 26% 26% 32% Education Population under Age 5 7% 7% 10% 5% 21%

12%



15%

14%

16%

⁷ EPA EJSCREEN: Environmental Justice Screening and Mapping Tool https://www.epa.gov/ejscreen

Environmental Health Concerns

Mercy Drive and surrounding Census Block Groups: 12095**012000**1, 12095**012403**1, 12095**018700**2, and 12095**018700**3 are all at or above the 91st percentile in the country for proximity to a Superfund site. All Census Block Groups have air quality indicators in the 70th to 80th percentile in the US. These Air Quality Indicators: NATA Diesel Particulate Matter, NATA Air Toxics Cancer Risk, and NATA Respiratory Hazard Index are described on the EPA <u>Environmental Indicators</u> webpage.⁸ In addition, there are some homes constructed prior to the 1960's, which would appear in the table below as the lead paint indicator.⁹ The Census Block Groups surveyed were in the 10th to 52nd percentile in the country for lead paint indicator.

Table 4. Percentile in the US for Environmental Indicators

Indicator I------ Census Block Group ------

	12095 012000 1	12095 012403 1	12095 014908 1	12095 018700 2	12095 018700 3
NATA Diesel Particulate Matter (ug/m3)	70-80th Percentile in US	70-80th Percentile in US	80-90th Percentile in US	70-80th Percentile in US	70-80th Percentile in US
NATA Air Toxics Cancer Risk (risk per MM)	70-80th Percentile in US	70-80th Percentile in US	60-70th Percentile in US	70-80th Percentile in US	70-80th Percentile in US
NATA Respiratory Hazard Index	70-80th Percentile in US	70-80th Percentile in US	70-80th Percentile in US	70-80th Percentile in US	70-80th Percentile in US
Traffic Proximity and Volume (daily traffic count/distance to road)	42nd Percentile in US	58th Percentile in US	30th Percentile in US	71st Percentile in US	48th Percentile in US
Lead Paint Indicator (% pre-1960s housing)	42nd Percentile in US	30th Percentile in US	10th Percentile in US	46th Percentile in US	52nd Percentile in US
Superfund Proximity (site count/km distance)	91st Percentile in US	92nd Percentile in US	79th Percentile in US	93rd Percentile in US	92nd Percentile in US

⁸ EPA EJSCREEN Environmental Indicators

⁹ EPA EJSCREEN: Environmental Justice Screening and Mapping Tool https://www.epa.gov/ejscreen



https://www.epa.gov/ejscreen/overview-environmental-indicators-ejscreen>

Proximity to facilities w Required Risk Management Plans (facility count/km distance)	89th Percentile in US	92nd Percentile in US	78th Percentile in US	81st Percentile in US	82nd Percentile in US
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^{*}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.

Superfund Site

The Active Superfund Site that impacts the Superfund Proximity Indicator in Table 4 is the **Chevron Chemical Co - Ortho Division** at 3100 N Orange Blossom Trl - Hwy 441 Orlando, FL 32955 (Facility Id: ERIC_3882). The public record about this site is available in these <u>Documents</u>, and on the EPA Superfund Site.¹⁰

Brownfield Area

Table 5. Brownfield Area and Site in the Vicinity of Mercy Drive¹¹

Property located at 501 and 571 Mercy Drive, 3569 Old Winter Garden Rd, and 518 & 516 N Ferguson Rd, which is <3 miles East of the Easternmost edge of the Mercy Drive Neighborhood.

Area ID	Area Name	Site ID	Site Name
BF480601000	Hughes Supply Mega Center Brownfield Area		

https://floridadep.gov/waste/waste-cleanup/content/florida-brownfields-area-and-site-documentation



¹⁰ EPA Superfund Site: Chevron Chemical Company (Ortho Division) site

https://cumulis.epa.gov/supercpad/CurSites/csitinfo.cfm?id=0400520&msspp=med

11 Florida Department of Environmental Protection Brownfield Area and Site Documentation

Contaminated Sites

The current Florida Department of Environmental Protection Contamination Locator Map¹² for Mercy Drive and the surrounding neighborhoods shows 1 Superfund Site, at least 19 Active Petroleum Cleanup sites, 8 Pending Petroleum Cleanup Sites, and 6 Active Other Waste Cleanup Sites. The "Other Waste Cleanup Site" category includes:

<u>Drycleaning:</u> Sites contaminated with drycleaning solvents that are eligible to be cleaned up by the DEP

Responsible Party: Sites that will be cleaned up by the party responsible for the contamination or by a party that did not cause the contamination but has accepted responsibility for cleanup

<u>State Funded</u>: Sites that will be cleaned up by the DEP because there is no party identified that is responsible for the contamination or able to clean it up

<u>State-Owned Lands Cleanup</u>: Sites on state properties (such as state parks or state-owned buildings) that will be cleaned up by the DEP

<u>Hazardous Waste</u>: Sites at regulated hazardous waste facilities that will be cleaned up by the facility owner or operator in accordance with the federal hazardous waste program.

These are the Active and Pending Cleanup Sites that are listed on the Florida Department of Environmental Protection's Contamination Locator Map on May14, 2019 in the approximate geography of the Census Blocks Surveyed, with most of the contaminated sites on the periphery of the geography. Documentation of site status can be accessed by clicking through the active links.

Active Petroleum Cleanup Site

- > 7-ELEVEN FOOD STORE #27502 at 4255 W COLONIAL DR, ORLANDO, FL 32808; Facility Id: 8512941 Watch This Site Documents
- > AAMCO at 5527 W COLONIAL DR., ORLANDO, FL 32808; Facility Id: 9803041 Watch This Site Documents
- > ALLIED TIRE STORE #13 at 6224 SILVER STAR RD, ORLANDO, FL 32808; Facility Id: 8513071 Watch This Site Documents

¹³ Florida Department of Environmental Protection Contamination Locator Map http://prodenv.dep.state.fl.us/DepClnup/welcome.do



¹² Florida Department of Environmental Protection Contamination Locator Map http://prodenv.dep.state.fl.us/DepClnup/welcome.do

- ➤ AMERICAN SERVICE CONTROL-MARKETING CTR at 2825 MERCY DR, ORLANDO, FL 32808; Facility Id: 8944878 Watch This Site Documents
- ➤ AMOCO #6182-PINE HILLS at 5001 W COLONIAL DR, ORLANDO, FL 32808; Facility Id: 8513274 Watch This Site Documents
- > BP #00385302 at 5047 W COLONIAL DR, ORLANDO, FL 32808; Facility Id: 8512983 Watch This Site Documents
- ➤ CHEVRON #107 SILVER STAR at 5419 SILVER STAR RD, ORLANDO, FL 32808; Facility Id: 8513483 Watch This Site Documents
- ➤ CHEVRON WEST COLONIAL at 4708 W COLONIAL DR, ORLANDO, FL 32808; Facility Id: 8521426 Watch This Site Documents
- ➤ GATOR FREIGHTWAYS INC at 2506 EUNICE AVE, ORLANDO, FL 32808; Facility Id: 8512733 Watch This Site Documents
- ➤ **DICK BENNETT MOTORS INC** at 4200 W COLONIAL AVE, ORLANDO, FL 32808; Facility Id: 9101979 Watch This Site Documents
- ➤ LP COMMERCIAL FUELS at 2920 SILVER STAR RD, ORLANDO, FL 32808; Facility Id: 9103586 Watch This Site Documents
- LUCERNE CITGO INC at 817 MAIN LANE, ORLANDO, FL 32806; Facility Id: 8512659 Watch This Site Documents
- ➤ ORANGE BUICK-GMC TRUCK CO at 3883 W COLONIAL DR, ORLANDO, FL 32808; Facility Id: 8627927 Watch This Site Documents
- > ORLANDO AUTO SALES at 3905 EL REY RD, ORLANDO, FL 32808; Facility Id: 9102062 Watch This Site Documents
- > PANTRY #1261 DBA/LIL CHAMP #1261 at 2986 SILVER STAR RD, ORLANDO, FL 32808; Facility Id: 8944535 Watch This Site Documents
- ➤ PINE HILLS AUTO CENTER at 4885 W COLONIAL DR, ORLANDO, FL 32808; Facility Id: 8625311 Watch This Site Documents
- ➤ SILVER STAR & FAIRVILLA FUEL CO at 2986 SILVER STAR RD, ORLANDO, FL 32808; Facility Id: 8942571 Watch This Site Documents
- ➤ SILVER STAR FOOD MART at 3965 SILVER STAR RD, ORLANDO, FL 32808; Facility Id: 8513123 Watch This Site Documents
- > SUN STATE FORD INC at 3535 W COLONIAL DR, ORLANDO, FL 32808; Facility Id: 8627713 Watch This Site Documents

Pending Petroleum Cleanup Site

- > 7-ELEVEN FOOD STORE #26329 at 2605 SILVER STAR RD, ORLANDO, FL 32810; Facility Id: 8521811 Watch This Site Documents
- ➤ AUTONATION CHEVROLET WEST COLONIAL at 3707 W COLONIAL DR,
 ORLANDO, FL 32808; Facility Id: 8737252 Watch This Site Documents



- ➤ **EUNICE AVENUE OFFICE-WAREHOUSE** at 2701 EUNICE AVE,ORLANDO, FL 32808; Facility Id: 9101315 Watch This Site Documents
- FRITO-LAY INC at 2800 SILVER STAR RD, ORLANDO, FL 32808; Facility Id: 8521603
 Watch This Site
 Documents
- MOBIL #10523 at 2800 W COLONIAL DR, ORLANDO, FL 32808; Facility Id: 8512972

 Watch This Site

 Documents
- > ORLANDO DODGE at 4101 W COLONIAL DR, ORLANDO, FL 32808; Facility Id: 8629380
 - Watch This Site Documents
- ➤ PRECISION COLLISION INC at 4001 W SILVER STAR RD, ORLANDO, FL 32808; Facility Id: 9102306 Watch This Site Documents
- > TCS COMMUNICATIONS at 3161 CLEMSON RD, ORLANDO, FL 32808; Facility Id: 9046099 Watch This Site Documents

Active Other Cleanup Site

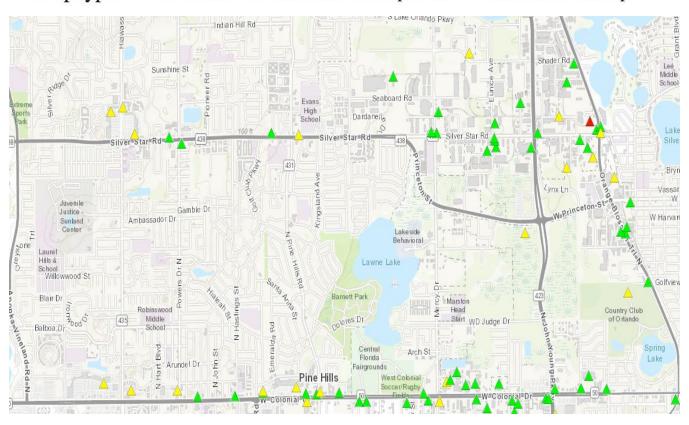
- Weavers Cleaners at 711 N Pine Hills Rd, Orlando, FL 32808; Facility Id: ERIC_5008
 Watch This Site
 Documents
- ➤ Total Valet & Wardrobe Services at 5036 W Colonial Dr, Orlando, FL 32808; Facility Id: ERIC 5025 Watch This Site Documents
- ➤ FORMER NORTRAX DEALERSHIP FLORIDA at 4333 NORTH JOHN YOUNG PARKWAY, ORLANDO, FL; Facility Id: COM_373872

 Watch This Site Documents
- King of Cleaners Inc at 5043 Silver Star Rd, Orlando, FL 32808; Facility Id: ERIC_4984
 Watch This Site
 Documents
- ➤ Nickelsens Cleaners & Laundry at 5157 W Colonial Dr, Orlando, FL 32808; Facility Id: ERIC 4988 Watch This Site Documents
- > ORLANDO DODGE at 4101 WEST COLONIAL DRIVE, ORLANDO, FL 32808; Facility Id: COM 178639 Watch This Site Documents



Map 3. Contamination Locator Map¹⁴

Cleanup types: A Brownfields A Petroleum A Superfund A Other Waste Cleanup



¹⁴ Florida Department of Environmental Protection Contamination Locator Map http://prodenv.dep.state.fl.us/DepClnup/viewmap.do



Surveying Completed

Twenty-six Mission Critical Functions Surveys and 31 Housing & Emergency Services Surveys were collected in Mercy Drive and vicinity. The Census Block Groups surveyed, together with the number of respondents in each Census Block Group appear in Table 6 below.

Table 6. Number of Respondents to Surveys by Census Block Group

Census Block Group	MCF Survey	Housing & Emergency Services Surveys
12095 012000 1	3	3
12095 01240 31	3	3
12095 014908 1	1	1
12095 018700 2	4	9
12095 018700 3	15	15
TOTAL	26	31



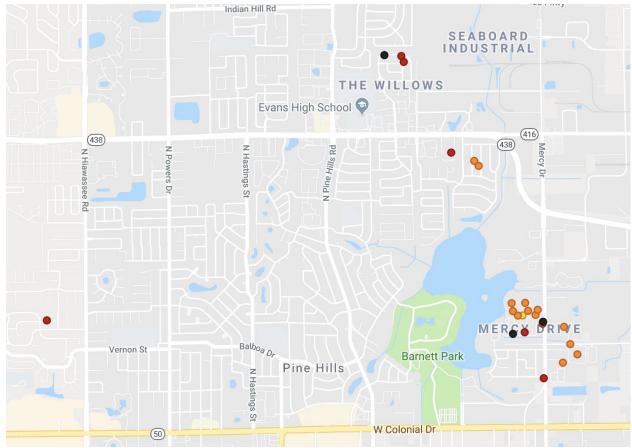
Mission Critical Functions Surveys:

Mission Critical Function Surveys are designed to determine if the community is tending toward resilience or vulnerability. Respondents rated twenty six societal functions on the following scale:

Most Vulnerable
 Extremely Vulnerable
 Elevated Vulnerability
 Not Affected
 Resilient
 Highly Resilient
 Resilient and Sustainable

Map 4. Mercy Drive and Vicinity: Household Vulnerability Scores

Note that the average Household Vulnerability Score, indicated by point color, across the 26 domains was between 1 and 4 for surveyed residents of Mercy Drive and vicinity.



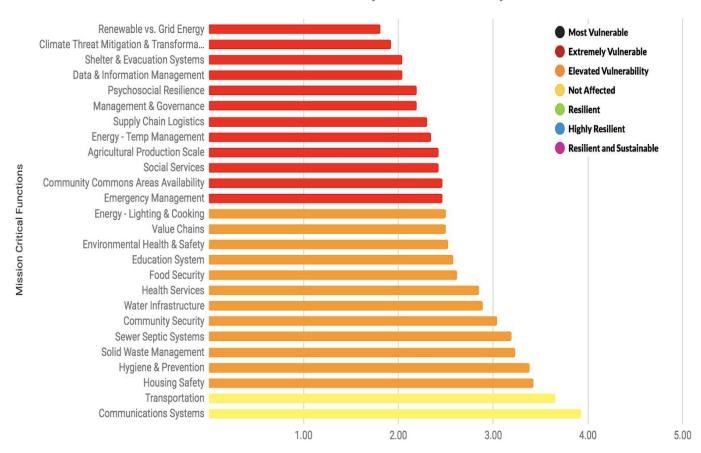


Graph 1. Average of all Recipients' Vulnerability Scores

The functions with Vulnerability Scores that round to 2 appear in red below. These functions were ranked "Extremely Vulnerable": Renewable vs Grid Energy (1.81), Climate Threat Mitigation & Transformation (1.92). Shelter and Evacuation Systems (2.04), Data & Information Management (2.04), Psychosocial Resilience (2.19), Management & Governance (2.19), Supply Chain Logistics (2.31), Energy-Temperature Management (2.35), Agricultural Production Scale (2.42), Social Services (2.42), Community Commons Areas (2.46), and Emergency Management (2.46).

The functions with Vulnerability Scores that round to 4 appear in yellow, the highest average vulnerability scores from these respondents. These two functions were Communications (3.92) and Transportation (3.65).

Mercy Drive: Vulnerability Score



Vulnerability Score (1: Destroyed - 7: Resilient & Sustainable)

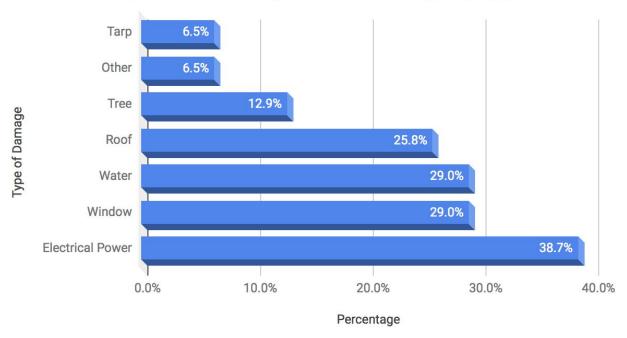


Housing and Emergency Shelter Survey

Type of damage to homes after Hurricane Irma: Of the 31 respondents to the Housing and Emergency Shelter Survey, 38.7% reported electrical power failure. Window and water damage were reported by 29.0% of those surveyed. Although 25.8% of respondents had roof damage, only 6.5% reported that they had tarps on their roofs. Tree damage was reported by 12.9% of respondents.

Graph 2.

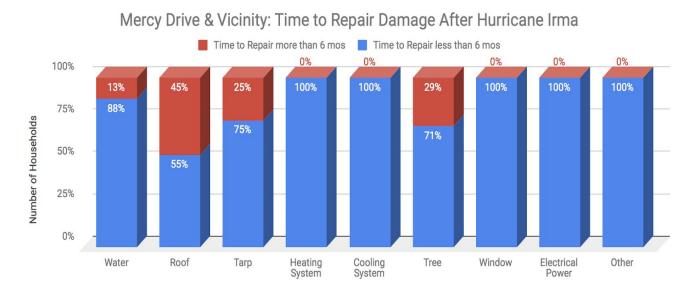






Time to complete repairs after Hurricane Irma: The graph below shows that Electrical Power restoration as well as Window and Heating & Cooling System repairs took place in less than 6 months. All but one of the respondents was able to repair water damage in less than 6 months. Of the households that sustained roof damage, 6 were able to repair their roofs in less than 6 months, but 5 households required longer than 6 months. One household had a tarp on the roof for more than 6 months, wheras the other 3 households with tarps were able to affect repairs in less than 6 months.

Graph 3. Time to Complete Hurricane Irma Repairs



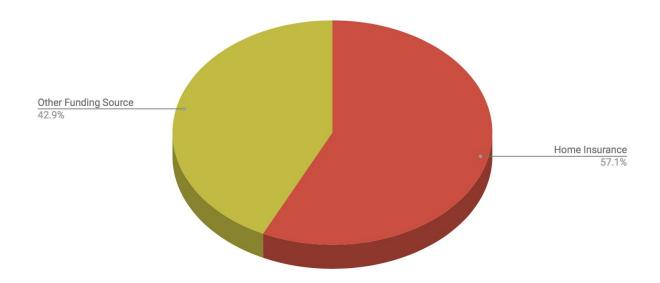
Type of Damage



Funding Repairs: A majority of respondents (57.1%) used Home Insurance to finance their home repairs during Hurricane Irma Recovery. The remaining 42.9% of respondents indicated using unspecified "Other" sources of funds.

Graph 4. Source of Funds to Complete Hurricane Irma Home Repairs

Mercy Drive & Vicinity: Repair Funding Source - Hurricane Irma Recovery

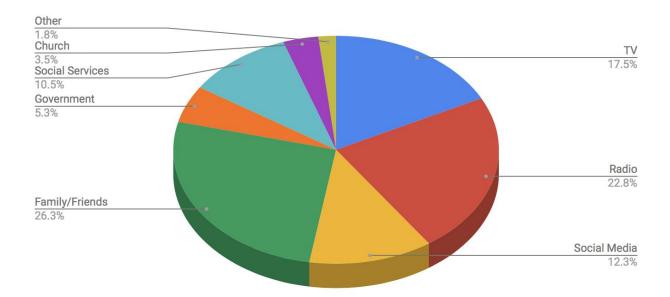




Sources of Information: Of those who looked for funding sources, the largest group (26.3%) indicated that they received information from Family and Friends. Information from radio (22.8%) and television (17.5%) followed. Social Services (10.5%) and Social Media (12.3%) both provided more information to residents than Government sources (5.3%). Churches were a source of information for 3.5% of respondents.

Graph 5. Sources of Information Reported by Respondents

Mercy Drive & Vicinity: Source of Information - Hurricane Irma Recovery





Community Identified Gaps and Solutions

Gap	Solution
-Wetlands Destruction that can Increase flooding	-Sponsor a Wetlands Restoration Project & Case Study
-Lack of Solar Power to help w Power Outages after storms	-Energy Audits -Get Solar Power
-Awareness about Preparedness	-Community Emergency Preparedness Plan
-Awareness about Environment	-Summer Environmental Awareness Camp for local kids -Wetlands tours for residents -Educational information about Importance of wetlands -Environmental Education Workshop
-Evaluation Center	-



Appendices



Appendix A: Community Forum Report



Friday, February 8, 2019 6:30 PM - 8:30 PM

Disaster Resilience Forum Notes

Members attending the forum express the need for **Community Emergency Preparedness Plan** so the communities can learn about disaster preparedness and safety within the community by using the internet and interviewing local experts. Use the information to create an emergency preparedness plan for the community (see attachment).

Lawanna Gelzer stated that there was real need for Energy Audits of all the Communities, so that the member from the community could learn about the impact of energy use and explore ways in which individuals and organizations can reduce their energy consumption.

Major Community Concern

- Members was concerns about infrastructure failure such as major electricity outage. Also, some members were very concern about what damage that could happen to their community because of all the remove of over 2000 trees from the Wekiva River Wetland and would it put the community increase flooding.
- 2. Sponsor a wetland restoration project and case study



- 3. Dr. Wanda Jones informed the members attending about lack of solar power in their communities.
- 4. Member was very upset to find out that there was NO evaluation center for their community and the closing one could be Evan High School.

Open Disuses members attending express the need for Disaster Resilience and Environmental Education Programs and Training.

- 1. Provide educational information on the value of wetlands.
- 2. Have summer environmental awareness camp for local kids
- 3. Environmental education workshop and provide environmental focused tours.
- 4. Host neighborhood meeting and tour to explains environmental impacts and other issues of environmental significance.

Members attending the forum elected to have another community forum or meeting after the surveys was completed.



Appendix B: Community Forum Handouts



Basic Disaster Supplies Kit

To assemble your kit, store items in airtight plastic bags and put your entire disaster supplies kit in one or two easy-to-carry containers such as plastic bins or a duffel bag.

A basic emergency supply kit could include the following recommended items:

- <u>Water</u> one gallon of water per person per day for at least three days, for drinking and sanitation
- Food at least a three-day supply of non-perishable food
- Battery-powered or hand crank radio and a NOAA Weather Radio with tone alert
- Flashlight
- First aid kit
- Extra batteries
- Whistle to signal for help
- Dust mask to help filter contaminated air and plastic sheeting and duct tape to shelter-

in-place

- Moist towelettes, garbage bags and plastic ties for personal sanitation
- · Wrench or pliers to turn off utilities
- Manual can opener for food
- Local maps
- Cell phone with chargers and a backup battery



Additional Emergency Supplies

Consider adding the following items to your emergency supply kit based on your individual needs:

· Prescription medications

- Non-prescription medications such as pain relievers, anti-diarrhea medication, antacids or laxatives
- Glasses and contact lense solution
- Infant formula, bottles, diapers, wipes, diaper rash cream
- Pet food and extra water for your pet
- · Cash or traveler's checks
- Important family documents such as copies of insurance policies, identification and bank account records saved electronically or in a waterproof, portable container
- · Sleeping bag or warm blanket for each person
- Complete change of clothing appropriate for your climate and sturdy shoes
- Household chlorine bleach and medicine dropper to disinfect water
- Fire extinguisher
- · Matches in a waterproof container
- Feminine supplies and personal hygiene items
- · Mess kits, paper cups, plates, paper towels and plastic utensils
- · Paper and pencil
- · Books, games, puzzles or other activities for children



