



HURRICANE IRMA REPORT & RECOMMENDATIONS

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Introduction

Days before Hurricane Irma made landfall in the Florida Keys on September 7, 2017, millions in Miami-Dade County began preparation for one of the most powerful storms in modern history. Residents across the County put up hurricane shutters, purchased additional provisions such as a water and non-perishable items, and filled their cars with gas. Thousands took to the roads to evacuate to points north, and thousands sought refuge in one of the hurricane shelters operated by the County.

The hurricane lashed Miami-Dade County with sustained winds of more than 60 miles per hour. The wind and rain associated with the storm caused inland flooding, brought down countless trees and powerlines, and caused widespread power outages throughout the region. After the storm passed and residents emerged from their homes and shelters, we all breathed a collective sigh of relief that the damage – though widespread – was not catastrophic.

As the County Commissioner for District 8, I worked before, during and after the storm to inform residents about the emergency services available to them and where they could get help. My office also worked with community based organizations to deliver ice and food to those most in need, and we partnered with local businesses to clear debris from homes and parks in South Dade. During my pre-storm and post-storm work, I was inspired by the determination of the residents to restore normalcy, and the good spirit of neighbors helping neighbors. I was also heartened by the thousands of first responders and County employees who left their own families to help their fellow residents prepare for and recover from Hurricane Irma.

While Miami-Dade County was spared the worst of the storm, the disruption that this storm caused to our community highlighted the need to redouble our collective efforts to create a more resilient County. Resilience is all about preparation, response, and recovery from outside “shocks and stresses.” Like all natural disasters, Hurricane Irma presents our community with an opportunity to reassess the County’s disaster management plan and learn from those areas where things did not go quite as planned.

Building a resilient community is not the government’s responsibility alone. All sectors of our community should play a role in our resiliency efforts—individuals, families, businesses, faith-based and community groups, and schools. Individuals can play a role not only by accessing hurricane information, but by putting that information to use by creating a family emergency plan prior to a storm. Our public and private schools could also incorporate hurricane preparedness into their curricula. Likewise, businesses could inform their employees about the importance of having personal emergency plans. Working together we can create a culture of preparedness that will strengthen our community’s response to natural disasters.

This after-action report details some of the most common issues that residents in South Dade encountered before, during and after Hurricane Irma. This report details a number of recommendations to improve the County’s future disaster response. Many of the

concerns and recommendations were obtained during a telephonic town hall meeting hosted by my office; it is my hope that these recommendations are incorporated into the County's future emergency management planning.

Pre-Storm Issues

Evacuation

As Hurricane Irma barreled towards Florida, County officials acted quickly to respond to a rapidly developing situation. County officials had excellent access to officials from the National Oceanic and Atmospheric Administration (NOAA) for regular updates which were immediately translated into local emergency management decisions, and excellent access to elected state and national levels for quick responses. When it became clear that Miami-Dade County would likely experience dangerous storm surge in low-lying areas, County Mayor Carlos Gimenez ordered the largest evacuation in the County's history. More than 660,000 residents were ordered to find safe shelter on higher ground.

As the evacuation was based on storm surge zones, many residents logged onto the County's website to find out if they were required to evacuate. Some residents found that the County website was slow to load due to the number of people logging onto the site. Others did not have internet access or were unaware of the need to evacuate.

Those residents who took to the roads to evacuate experienced slow traffic on major northbound thoroughfares. The heavy traffic was likely due to the number of people evacuating from Monroe and Miami-Dade Counties. Long lines for gas formed immediately, and many stations quickly ran out of supply.

Special needs evacuees also encountered challenges. Approximately 2,200 residents are pre-registered for the County's Emergency & Evacuation Assistance Program (EEAP), which provides emergency transportation services, sheltering assistance, medical monitoring, and wellness checks to eligible residents. After evacuation orders were issued, approximately 2,200 additional residents called to enroll in the EEAP. It is likely that there were even more residents who qualified for the program but were not aware of its existence.

Recommendations

1. The County should do a better job coordinating evacuation efforts with the State of Florida.
2. The State should consider alternative strategies such as reverse traffic on southbound traffic lanes or the use of shoulders during a mandatory evacuation that impacts Monroe and Miami-Dade County.
3. The County should increase its community outreach and utilize County portals such as MDTV, Website and social media to better explain the storm surge zones and evacuation zones.

4. The County should make its decisions about shelter openings more transparent, and inform residents in a timely manner about which shelters will be opened.
5. There must be better coordination between federal, state and local officials to get gas down to South Florida prior to a hurricane and after a storm.
6. The County should work with nonprofits, faith and community groups to pre-identify those residents who are most at risk. These community groups should assist at-risk residents in enrolling into the County's "Emergency & Evacuation Assistance Program." This work should be done prior to the start of hurricane season. When the EEAP is activated, these groups should contact residents enrolled in the program to ensure they are aware of the activation. After the storm has passed, the community groups should perform a follow-up assessment with at-risk residents.

Shelters

Due to the unprecedented evacuation order and the looming threat of the storm, many residents sought refuge in one of the hurricane evacuation centers operated by the County. The County opened 42 evacuation centers in partnership with the American Red Cross, the Florida National Guard, and Miami-Dade County Public Schools.

Residents turned again to the County website to obtain a list of evacuation centers, also known as hurricane shelters. The information that residents found was not up-to-date, which led some residents to go to evacuation centers that had not been opened.

On the day before the storm made landfall, dozens of residents began queuing at Robert Morgan Senior High School and South Dade High School in anticipation that the school would open as an evacuation center. However, the County had not officially approved the activation of these schools as evacuation centers. Due to the lack of up-to-date information on the County website, many residents called 3-1-1 for information. Unfortunately, the 3-1-1 system was also overwhelmed with calls and many residents could not get answers. Some residents called their local churches and community nonprofits for information about evacuation centers, but these groups had not been prepared to serve as resource or information centers.

Some residents were reluctant to evacuate due to the lack of pet-friendly shelters. And other residents did not receive adequate information about where they could catch County buses which would transport them to an evacuation center. Also, residents did not know what to bring to the shelters (i.e. bedding, cots or mats). Some assumed that bedding would be provided.

At a recent South Dade Housing and Social Services meeting, my staff learned that the 330 homeless individuals residing at Chapman Partnership South were not adequately responded to in a timely fashion to be transported to an emergency shelter. There was confusion as to which shelter to evacuate to, and there were no County buses to transport Chapman Partnership residents. Ultimately, Chapman staff loaded residents into

Chapman's 12-passenger vans and made numerous trips back and forth to South Dade High School.

Recommendations

7. The County must update its website with real-time information regarding evacuation centers.
8. The County should create a smartphone "app" which displays real-time emergency management information, including the list of open evacuation centers and those which are pet-friendly.
9. Some jurisdictions have turned all of their evacuation centers into pet-friendly shelters. Miami-Dade County should work to make all of its hurricane shelters pet-friendly.
10. 3-1-1 should provide expanded hours prior to a storm.

Legislation

- I am working on a resolution which directs the Mayor to create an emergency preparedness mobile phone application.

Post-storm

Vulnerable Populations

Even without the disruption of a hurricane, many families in Miami-Dade County are struggling to make ends meet. Six out of 10 residents in the County have a hard time paying for basic needs like food, housing, childcare, and healthcare, according to a 2017 study conducted by the United Way. The Asset Limited, Income Constrained, Employed ([ALICE](#)) Report details the economic realities facing families in our community. Of the County's 858,000 families, 21% live below the poverty level and another 37% are struggling to make ends meet, according to the report.

Many people live paycheck to paycheck and we cannot forget that many others live day to day. Many in our community are dependent on the kinds of work that pay on an hourly or daily basis, and for many, their jobs blew away in the hurricane. Just at a time when our residents had to make unexpected purchases to prepare for the storm, they were losing out on their vital income. This includes daycare workers, restaurant workers, domestic workers, retail workers, and many part-time employees.

It was not anticipated that so many would not have adequate cash after the hurricane to purchase food or supplies, even those on public assistance, while phone and electricity were not functioning. Everyone in our community suffered, but for some, a lack of food was a temporary inconvenience that could be remedied with money and access to credit. For those that did not have resources, the shock of Hurricane Irma severely disrupted their lives and livelihoods.

Recommendation

11. Similar to Recommendation #6, the County should coordinate and partner with community and faith-based organizations to identify vulnerable populations prior to a storm and follow-up with identified residents after a storm to connect residents with needed services.
12. The County should expeditiously activate emergency food distribution sites within impacted areas. Access to food after a storm event can be a life or death situation for many families.

Nursing Homes

We all watched in horror as numerous elderly patients in Hollywood lost their lives after Hurricane Irma due to a loss in power and air conditioning. This was a tragedy and it could have been prevented.

I am heartened that many state elected officials are seeking to pass legislation to enhance protections at nursing homes and assisted living facilities (ALFs), such as to require adequate back-up power to support air conditioning in the event of an emergency. While the state regulates these facilities, I believe we also must do everything we can at the local level to ensure the safety of our seniors and elderly.

Post landfall, Miami-Dade County called each nursing home and ALF in the County following the storm for an assessment. We should do more than just call these facilities in the wake of a major storm. Like Broward County did prior to the storm, every facility in Miami-Dade County should be visited to assess readiness. Post-storm visits—not calls—are needed to assure safety and evacuation when necessary.

Recommendations

13. The County should send staff to visit every ALF and nursing home in the County to perform a needs assessment before and after a storm, or partner with CBOs to perform this crucial work.
14. The County should ensure that all local nursing homes and ALFs are listed on the County's priority infrastructure list which is maintained by the Division of Emergency Management.

Legislation

- I am working on a resolution to strengthen the regulations regarding nursing home registration with the Office of Emergency Management.

Electric, Cell Phone and Cable Utilities

As a result of Hurricane Irma's sustained wind and rain, trees were uprooted and powerlines were downed. This led to a loss of power to hundreds of thousands of homes over many days. The loss of power was a source of great frustration for residents, and the lack of accurate information about when power would be restored was an additional stressor. Similarly, cell towers around the County were inoperable due to the lack of power. The lack of cell phone coverage caused great frustration and safety concerns for many.

Recommendations

15. FPL should aggressively pursue placing overhead powerlines underground.
16. In the event of a wide-scale power outage, residents should be given more information about how FPL prioritizes the service restoration.
17. Residents on well water have requested to be placed on the priority power restoration list because wells need electricity to power the pumps that provide access to clean water.
18. FPL had secured its substations with its "hardening" funds, but have not maintained lines clear of trees. FPL should coordinate with residents, municipalities and the County prior to a storm regarding who is responsible for tree encroaching on FPL lines.
19. Cell phone service providers should be better integrated into the County's disaster preparedness and response planning with similar notifications to customers, and cell phone service carriers should actively participate in emergency management briefings before, during and following a storm.
20. Cell phone and cable carriers should install emergency generators at cell phone towers to provide service following a storm.

Legislation

- The Board adopted my resolution ([R-931-17](#)) urging the Congress and the Federal Communications Commission to require all cell phone providers to activate the FM chip which are pre-installed in all smartphones. If activated, these chips would allow cell phone users to receive important emergency information when wireless data networks are unavailable or overwhelmed.
- I am working on legislation to analyze various funding structures that could be used to bury utility lines underground throughout the County.
- My office is also working on resolutions requiring backup power for cell phone towers located in the County.

Legislation (cont.)

- I am working on legislation directing the Mayor to study the feasibility of installing on-site power supplies for County traffic signals.

Canals

Residents who live near canals watched with anxiety as the water level in the canals rose. Some residents reported that canals topped their banks and flooded their yards and homes. My office received several calls and complaints about the C-100 Canal in South Miami-Dade. Canals are managed by the South Florida Water Management District (SFWMD), a governmental entity which is separate and distinct from Miami-Dade County.

Recommendations

21. SFWMD should invest in the infrastructure of the primary canal system so that canals can better accommodate potential heavy rainfall and flooding and prevent, as much as possible, expected storm surge flooding.
22. SFWMD should address the issue of eroded banks of the primary canal system, inadequate conveyance capacity, and overflow protections as well as investing in emergency power for all flood gates.
23. Miami-Dade County should work more collaboratively with SFWMD to address issues of canal maintenance.

Legislation

- I am working on a resolution which asks the State for funding assistance to repair damage and restore capacity in our canal system and other infrastructure impacted by Hurricane Irma. Some identified improvements would help us mitigate the impact of future storms.

Debris

Hurricane Irma created tons of vegetative debris which blocked roads, sidewalks, and filled yards. Hours after the storm passed the County, diligent workers from Miami-Dade Department of Transportation and Public Works began pushing debris from major roads and Department of Solid Waste for clearing debris. I applaud our County employees for their hard work and dedication. Their debris clearing work will continue into January 2018. A few weeks after the storm, the County unveiled an on-line tool which allows residents to track the debris removal process.

The County has several post hurricane systems in place that were not communicated to the public, such as who would be responsible for debris removal (the County, County contractors, or municipalities), how the public could assist, and the timeline for removal.

Recommendations

24. Prior to a storm, the County should do a better job communicating to residents about how storm debris will be removed and priorities.
25. The on-line debris tracking tool should be activated as soon as possible after a storm.
26. The County should better communicate whether bulky waste pick-ups will be impacted by the debris removal process.
27. The County should use television, radio, and Internet to communicate its debris removal procedures after a hurricane.
28. The County should better communicate how the public could assist in propping up those trees in swales after the storm.
29. The County should implement the mulching of clean vegetative debris.
30. There must be a comprehensive debris management plan for the agricultural area and those outside of the Urban Development Boundary.