

Health Initiatives Foundation, Inc.

# Central Florida Disaster Resilience Initiative

Phase I: Serious Games After Action Report  
December 2018

## EXECUTIVE SUMMARY

This After Action Report Short Form provides a brief overview of the essential findings of the first stage of Phase I of the Florida Disaster Resilience Initiative (FL DRI). The Central FL DRI is a community-based disaster preparedness initiative working to build resiliency in sixteen communities in Central Florida.

Stage 1 included kick-off meetings, community forums, and a Serious Game disaster simulation exercise assessing the gaps and assets of the participating communities. Detailed analysis of the gaps and solutions articulated by community representatives from participating communities in Orange, Seminole, and Osceola counties is presented in the After Action Report Long Form.

## FINDINGS

- 1) Although vulnerable communities are often considered incapable of understanding their problems, or of arriving at solutions that effectively address them, sixteen vulnerable communities in Central Florida have identified gaps in mission critical functions in their communities, and potential solutions to resolve those gaps;
- 2) Central Florida's most vulnerable communities of color do not have the needed capacities and resources to fully resolve the mission critical gaps that threaten their residents due to the mounting risks of climate change;
- 3) Sixteen of the most vulnerable communities in Central Florida have begun to work with their county and municipal governments to improve government responsiveness to their needs under mounting climate change threats;
- 4) FL DRI Action Teams have been formed to engage in rapid progress on mission critical gaps, and Community Captains are leading FL DRI efforts within each of the sixteen communities;
- 5) Detailed gaps and solutions have been articulated from each participating FL DRI community.

## BACKGROUND

The hurricane season of 2018, passed without significant impact in Central Florida by named storms. Unfortunately, the State of Florida was again seriously impacted. The damage and costs from fast-moving Category 4 Hurricane Michael have yet to be fully assessed and quantified. The oceans are warming, and that fact makes preparing for stronger hurricanes imperative, because, in the words of [NASA Senior Research Scientist Dr. Tim Hall](#), “Basically warmer seawater is the fuel for hurricanes and that drives stronger hurricanes as the oceans warm.”<sup>1</sup> [FEMA’s 2018 - 2022 Strategic Plan](#) calls for a culture of preparedness in which, “Every segment of our society, from individual to government, industry to philanthropy, must be encouraged and empowered with the information it needs to prepare for the inevitable impacts of future disasters.”<sup>2</sup>

The need to make specific preparedness plans for vulnerable populations was well reflected in Governor Scott’s [Select Committee on Hurricane Response and Preparedness Recommendations](#),<sup>3</sup> prepared after the 2017 hurricane season.

Recommendations included:

- Providing an exemption for information revealing the identity of persons registering for emergency sheltering with a local emergency management agency (p.14);
- Creating a temporary program to provide funding for affordable housing recovery efforts to address the impact of hurricanes Irma and Maria on affordable housing stocks, particularly in the Florida Keys and other severely damaged areas and counties affected by Puerto Rican evacuees from Hurricane Maria (p.20); and
- Identifying ways to lower the cost of affordable housing development and incentivizing more units at affordable rents (p. 20).

These are much needed actions to alleviate the effects of hurricanes on socio-economically vulnerable residents of Florida, however, there was no requirement for any of the recommendations to become law.

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<sup>1</sup> Martinez A. (2018). NASA Scientist Says Wind, Flooding And Rainfall Increase The Intensity Of A Hurricane. Sundial accessed on November 13, 2018 at

<http://www.wlrn.org/post/nasa-scientist-says-wind-flooding-and-rainfall-increase-intensity-hurricane>

<sup>2</sup> Federal Emergency Management Agency. 2018-2022 Strategic Plan. Accessed on November 13, 2018 at

[https://www.fema.gov/media-library-data/1533052524696-b5137201a4614ade5e0129ef01cbf661/strat\\_plan.pdf](https://www.fema.gov/media-library-data/1533052524696-b5137201a4614ade5e0129ef01cbf661/strat_plan.pdf)

<sup>3</sup> House of Representatives Meeting Packet (2018). Select Committee on Hurricane Response and Preparedness. Retrieved on November 13, 2018 at

[https://static-s3.lobbytools.com/bills/2018/event\\_docs/1/CP\\_House\\_SCHRP18\\_2018116\\_9.pdf](https://static-s3.lobbytools.com/bills/2018/event_docs/1/CP_House_SCHRP18_2018116_9.pdf)

Equity in disaster preparedness and response is a moral imperative because human safety and human lives are at stake. Hurricane preparedness supplies cost money, as do the vehicles and fuel that facilitate evacuation. [United Way's ALICE \(Asset Limited, Income Constrained, Employed\) population](#) is comprised of people who work, earn more than the Federal Poverty Level, but can barely cover the basics of housing, child care, food, health care and transportation.<sup>4</sup> The 2017 hurricane season on the Florida peninsula was a wakeup call to Central Florida's most vulnerable communities.

Neither the State of Florida nor Central Florida's local governments have sufficiently articulated what vulnerable communities and neighborhoods can do to engage the essential capacities and resources needed to preserve their health, human security, and sustainability during and after disasters. Recommendations, goals, and reports are neither policy nor law. They remain unfunded aspirations until they are acted upon. There is, as of yet, no plan as to how climate refugees can be made whole again in a way that assures them a stable future for their families and their communities.

The direct experience of risks and gaps in the vulnerable communities of Central Florida during and after Hurricane Irma, and the certainty that Black and Brown communities know their own needs best, led New Florida Majority to seek funding from the Community Foundation of Miami to support a participatory planning process in sixteen communities in Central Florida, with technical assistance and guidance from Health Initiatives Foundation, Inc. The first phase of this Central Florida Disaster Resilience Initiative has laid the groundwork for a planning process that will highlight the baseline of the gaps and assets of these most vulnerable communities in Central Florida and their residents as they transform to adapt to climate change and escalating climate gentrification.

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<sup>4</sup> Heart of Florida United Way. ALICE: Asset Limited, Income Constrained, Employed. Retrieved on November 13, 2018 at <https://www.hfuw.org/meetalice/>

## OVERVIEW

### FLORIDA DISASTER RESILIENCE INITIATIVE

#### STEPS TOWARD COMMUNITY RESILIENCE

##### With an Emphasis on Central Florida's Most Vulnerable Communities

The Florida Disaster Resilience Initiative (FL DRI) has been designed to be implemented in eight initial layers through five initial phases over a five-year period across six regions of Florida that represent different biomes with different types of risks and capacities under climate change. This approach has enabled the FL DRI to begin its Phase I in South Florida and Central Florida in 2018 with modest resources from the Miami Foundation focused on deepening preparedness planning and resilience-oriented community organizing and interventions. In this first year of FL DRI Serious Game exercises and community-generated budgetary plans, following six years of exploratory Resilience System development in Central Florida, Layer 1 community engagement, network expansion, capacity-building and resource development are being activated for Florida's most vulnerable communities under the influences of exponential global changes, including but not limited to climate change.

The central 2018 goals of the FL DRI's Phase I, Layer 1 activities are to elevate the voices of Central Florida's most vulnerable LatinX, African American, and Caribbean communities regarding the gaps in their preparedness and response capacities and to establish what their baseline conditions are. With a clear understanding of these gaps in hand, community-articulated solutions based in hyper-local knowledge can drive positive changes measured specifically in terms of improvements in health, human security, resilience, and sustainability within their own neighborhoods. Initial assessment data has been collected from 16 communities addressing 26 parameters that determine whether their community is trending toward extreme vulnerability and collapse under climate change or toward resilience and sustainability. (See Appendix A for a list of the 26 mission critical function parameters being measured).

The FL DRI has eight layers (see Appendix B) designed to improve and maintain high levels of health, human security, resilience, and sustainability of all Florida communities during what the International Panel on Climate Change explains will be a century of increasing temperatures and intensifying negative impacts on ecosystems, biodiversity, human health and Florida's communities. Unless societal greenhouse gas emissions into the atmosphere are kept below levels that would increase average global temperatures of 1.5 degrees Celsius above pre-industrial levels, the consequences look dire for the vulnerable communities participating in the FL DRI, even with strong adaptation measures engaged. If not significantly curbed by 2030, current uses of atmosphere-polluting hydrocarbons (from the use of fossil fuels and petrochemicals) are expected to have severe impacts on the Florida peninsula as one of the most vulnerable

areas in the world to climate change. Climate science is indicating that under escalating climate change, more frequent and intense storm damage, and sea level rise, Florida's compromised mission critical functions, such as access to clean water, safe housing, food security, health, economic well-being, will lead to life-threatening compromises in the human condition as much of Florida becomes an archipelago — a series of islands continually threatened by a rising ocean and adverse weather.

South, Central and West Florida will be particularly impacted as sea levels rise and salt water incursion ruins fresh water supplies for coastal cities and agricultural lands lose their productivity. Many areas of Central Florida are expected to flood, while being damaged by more frequent and severe storms and intense heat in areas in which a centralized electrical grid dependent upon fossil fuels and nuclear energy will become increasingly more expensive and unreliable. New laws and rapid changes in behavior, infrastructure, social process and social structure will be essential for millions of Floridians to survive. Millions will be forced to move out of high risk areas in order to seek new places in which their families can thrive in emerging communities of opportunity on higher ground with the carrying capacities to absorb larger numbers of new residents while maintaining sustainability. Without adequate planning and political economic realignment, the communities receiving millions of climate refugees, such as in Central Florida will struggle with gentrification, over-burdened services (such as in schools and social services), intense exponential change, and densification of population - particularly in communities of color.

Below are 20 key points that describe the drivers and central activities of the Phase I Florida Disaster Resilience Initiative (FL DRI) to help Central Florida's communities begin the process of ensuring their residents can reduce their vulnerabilities and engage in a type of transformative resilience that will allow their children and future generations to live stable, happy, healthy, and productive lives in the face of climate change.

## **1. Actions Needed to Protect Vulnerable Communities Under Climate Change**

It is broadly recognized that Central Florida has an extreme and increasing vulnerability under climate change. Yet many levels of Florida's government have yet to fully acknowledge and take appropriate action to address the rising challenges that will allow climate resilience activities in the most vulnerable communities to meet these challenges. For example, despite the decades of scientific consensus and warnings of the International Panel on Climate Change and the direct immediate evidence within Florida, Rick Scott has denied the existence of human-induced climate change for most of his tenure as Florida's governor. At the federal level, FEMA's flood maps have not been updated to describe and acknowledge new homeowner risks under climate change, leaving 70% of the homes in Mexico Beach destroyed and an additional 10% severely damaged by a reported 19 foot surge during

Hurricane Michael this year. FEMA's surge maps did not consider these homes to be in a flood zone.<sup>5</sup>

## **2. Improving Resilience Through the Central Florida Disaster Resilience Initiative**

Sixteen African American, LatinX, and Caribbean communities have been identified by their residents and experts as being most at risk in Orange, Osceola, and Seminole counties. These communities are seeking to improve their resilience through the Florida Disaster Resilience Initiative (FL DRI).

## **3. Identifying Mission Critical Function Status**

Under the FL DRI, these communities have begun to identify their mission-critical functions that are most threatening to their residents and to their communities as a whole under probable emerging 21st-century disaster conditions, with an emphasis on climate change.

## **4. Plans to Reduce High Vulnerabilities**

Hurricane Irma demonstrated the high and escalating levels of vulnerability these sixteen communities face during the early to mid-21st century unless they develop plans to build resilience against long-lasting, catastrophic damage under many scenarios and hazards.

## **5. Community-Centric Collaborations to Improve Resilience**

As a result of actions taken during and after Hurricane Irma, the Miami Foundation and its Post-Irma Recovery Fund chose the New Florida Majority as the fiscal agent, and Organize Florida, with technical assistance from Health Initiatives Foundation, Inc., to develop a unity of effort with the Islamic Society of Orlando, Latino Justice, Guang Ming Temple, Hope Community Center, Farmworkers Association, Faith in Florida, Florida Immigration Coalition, QLatinx, Jobs with Justice, Let Your Voice Be Heard Inc., SEIU, Episcopal Office of Latino Assistance, Sunrise Movement, Passionate Heart Ministry, Orlando Democratic Socialist of America, and other community groups committed to climate resilience and social justice in Orange, Osceola, and Seminole counties.

Together, they are all acting to maximize the resilience of Central Florida's most vulnerable communities in this fleeting teachable moment during the 2018 hurricane season just following Hurricane Michael's impact in North Florida and Hurricane Irma's glancing impact in 2017. Under the Florida Disaster Resilience Initiative, this powerful community-centric collaboration is preparing and empowering these 16 communities in

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[https://insideclimatenews.org/news/01112018/fema-flood-map-climate-change-hurricane-mexico-beach-florida-sea-level-rise?utm\\_source=InsideClimate+News&utm\\_campaign=0e263ea855-&utm\\_medium=email&utm\\_term=0\\_29c928ffb5-0e263ea855-327500765](https://insideclimatenews.org/news/01112018/fema-flood-map-climate-change-hurricane-mexico-beach-florida-sea-level-rise?utm_source=InsideClimate+News&utm_campaign=0e263ea855-&utm_medium=email&utm_term=0_29c928ffb5-0e263ea855-327500765)

order that they can maintain and improve their health, human security, quality of life, functional life-capacity, and readiness under rapid local, regional, and global changes — including but not limited to climate change.

## **6. FL DRI Kick-off Convened Key Organizers**

The Florida Disaster Resilience Initiative began with a convening of many of the key community-centric actors in Central Florida on June 27, 2018. In this initial kick-off meeting, the problems, gaps, assets, and opportunities for organizing efforts to improve climate resilience were mapped and discussed following recollections of the challenges posed by Hurricane Irma.

## **7. Stage 1 Community Forums**

During Stage 1, Community Forums were held leading up to the Climate-Resilient Central Florida Serious Game exercise on October 6, 2018. A total of 130 community members participated in discussions of their gaps and needs when going into a hurricane season. Their communities' hotspots, supporting organizations, and assets were mapped, including potential neighborhood Resilience Hub sites.

## **8. Action Teams Organizing Intellectual Capacities Responding On Key Issues**

Action Teams were organized through the support of the Miami Foundation to engage some of the most knowledgeable working groups focused on mission-critical functions, such as food security, medical, clean water, energy, communication, community justice, collaborative environment, and other key factors vital to the resilience of the participating FL DRI communities. It is proposed that the FL DRI Action Teams, administered under Organize Florida, be expanded and made more robust as resources and institutional capacity make this feasible.

## **9. Central Florida Serious Game**

The first Climate-resilient Central Florida Serious Game exercise was held on October 6, 2018 to elevate the voices of the most vulnerable communities in Central Florida. The exercise brought together all of the FL DRI communities to experience a simulated set of disasters to reveal the current baseline state of decision-making and simulated actions taken by community members to address collective vulnerabilities using current assets available to them within their communities. Clear lists of mission-critical gaps were developed from each community discussion table at the Serious Game. In the afternoon, all communities addressed the three priority gaps that they face across all three counties of Central Florida followed by solution sets to those three gaps. The priority gaps and corresponding solution sets were then presented to a Response Panel comprised of elected officials, commissioners, other government representatives (e.g., Department of Emergency Management) and other technical experts. Organize

Florida's Campaigns Director facilitated the Response Panel. The day closed with a session focused on the development of a unity of effort amongst all participants.

## **10. Stage 2 Community Forums - Building Social Cohesion**

In each yearly phase of the FL DRI over a five-phase, five-year process, it is proposed that Stage 2 FL DRI community forums will focus on building social cohesion. The purpose of these Stage 2 forums are to look deeply into the community-identified mission-critical gaps down to the neighborhood level followed by reaching a consensus on prioritizing these mission-critical gaps. Solution sets are then developed by the community to address the high priority mission-critical down to the census block (Resilience Capacity Zone) level in their neighborhoods. The series of Stage 2 community forums lead to the establishment of detailed operational tasks and sub-tasks, each with champions, budgets, and deadlines within each participating community. These outputs can then be translated into community-generated budgeting and a task server for managing best outcomes.

## **11. Community-Engaged Resource Allocations**

It has been proposed that over a five-year period, the FL DRI develop mechanisms for funding a community-based participatory budgeting process with community-engaged resource allocations. In Phase I, Organize Florida, decided to focus first on identifying resources for a community-engaged resource allocation. Upon securing resources, communities would generate resource lists draft into proposals and plans for funds enabling improvements in distribution of key hurricane preparedness resources in Phase I, Stage 2. This approach is to have in place a structure to increase the budget for preparedness resources in future years as the process of participatory budgeting and community-engaged resource allocations are refined and made more robust with increasing institutional capacities and resources within the communities.

## **12. FL DRI Mid-Term Evaluation**

A mid-term evaluation took place with The Miami Foundation in mid- August 2018 to review what had been accomplished in Stage 1 of the FL DRI and during the Climate Resilient Serious Game exercise. Discussions also focused on how Stage 2 activities could be optimized in both South Florida and Central Florida, given limited resources available during Phase I.

## **13. Mission Critical Function Assessments**

An initial set of Mission-Critical Function Assessment data (covering 26 parameters) were gathered during Stage 1 (Appendix A). A second mobile device-based



assessment data gathering process will be activated in Stage 2. The goal of the Stage 2 extension of the cellphone-based Mission-Critical Function Assessment tool (supplementing paper assessments) is to expand the reach of this structured data collection mechanism down into the hyperlocal concerns within the most vulnerable neighborhoods. This data will be mapped, along with crowd-sourced unstructured data as resources become available for the heat-mapping of the 26 parameters that determine vulnerability and resilience by neighborhood. Initial experiments of this heat-mapping process have been executed in the North Florida Resilience System during the post-Hurricane Michael response and relief phase, using the Fulcrum app. Given limited resources for executing the Mission-Critical Function assessments through NewFM, the FDRI engaged HIFI volunteers and resources independent of Miami Foundation funds to implement the initial test surveys in the North Florida disaster areas. These cellphone-based FL DRI Mission-Critical Function assessments tools and methods will be made available to the Central Florida DRI as soon as community organizing resources are garnered to fund the staffing, training and implementation of the hyperlocal execution of the FL DRI surveys as well as the mapping of the data.

#### **14. Communication & Computing Environmental Scan & Landscape Analysis**

Communication, computing resources, and collaborative environments are critically important to prepare for, respond to, recover from, and mitigate the negative effects of climate change. Funds were not available to execute the robust development of the FL DRI communication, computing, and collaboration capacities and infrastructures in Phase I within Central Florida. However, funding was made available to identify the common means of communicating, computing, and collaborating in the FL DRI participating communities today within an environmental scan. Problems and opportunities are being identified during Phase I to improve communication, computing, and collaborative environments for emergency management and resilience work in the FL DRI communities. With this information in hand, along with observations of these capacities during the Hurricane Michael disaster response in North Florida, a landscape analysis is being performed to assess how better tools and methods can be engaged in Central Florida's most vulnerable communities to increase their health, human security, resilience, and sustainability.

#### **15. Policy Meetings Round 1**

During the fall of 2018, initial preliminary findings from the Serious Game exercise and other Central Florida DRI meetings have been organized and discussed with elected officials and other influential government officials, such as Orlando counties Emergency Management Department staff, Commissioners. For example, discussions have taken place regarding the development of a community hub in Altamonte Springs to enable a central location for community members for access to

resources and information dissemination. Additional discussions are taking place with government officials and other influentials regarding the need for capacities and infrastructures essential to communications, computing, and collaborative environments that will link Central Florida's most vulnerable communities to their own internal resources (e.g., Resilience Hubs), as well as to county and municipal elected officials and agencies during extreme events and social crises, in association with the FL DRI-related Community EOCs and Resilience Hubs within FL DRI participating communities.

## **16. After Action Report and Hot Wash**

A draft version of the After Action Report called the Central Florida Disaster Resilience Initiative will be released to the partner organizations, community captains, and participants of the Serious Game exercise for their feedback. A "Hot Wash" session will be held to ensure that the ideas expressed in the After Action Report represents the views conveyed by community members and response panels in the Serious Game exercise. With input from the Hot Wash process, a final 2018 Central Florida Disaster Resilience Initiative will be published the beginning of the year 2019.

## **17. Report to the Miami Foundation**

In early November, a Florida Disaster Resilience Initiative report is being delivered to the Miami Foundation, as the principal financial sponsor of the Phase I FL DRI activities in 2018.

## **18. Distribution of the Central Florida Disaster Preparedness Plan (After Action Report)**

Starting in January 2019, the Central Florida Disaster Resilience Initiative Report will be published and distributed widely within the participating communities and to parties interested in raising the level of resilience in Central Florida's most vulnerable communities. This plan will lay the foundations for discussions with policy makers, donors, and other influentials, as well as community members regarding how the next four phases of the FL DRI should be executed along with a detailed plan for the execution of Phase II activities in 2019 to build upon the FL DRI's baseline data and institutional foundations built during Phase I in 2018.

## **19. Policy Meetings Round 2**

In early 2019, press conferences and further meetings with government officials, donors, and other influentials will be engaged to advance policies to address essential

improvements to the participating communities in the Florida Disaster Resilience Initiative within Central Florida.

## **20. Final Initiative Review and Evaluation**

A final review and evaluation of Phase I, Layer 1 of the Florida Disaster Resilience Initiative and its 2018 Florida Disaster Preparedness Plan will take place around December xx, 2018. This meeting will also kickstart a process of Phase II planning to prepare for the 2019 hurricane season and other probable future disasters threatening the most vulnerable populations in South Florida.

## **KEY FINDINGS**

1. Sixteen (16) Communities from Central Florida Participated in Community Forums and Serious Game Exercise
2. One Hundred Thirty (130) Community Representatives Participated in Phase I, Stage 1 Community Forums
3. One Hundred Fifty (150) Community Representatives Participated in the Serious Game Exercise (including organizers)
4. Thirty Eight Percent (38%) of Respondents Stated that Their Community is Extremely Vulnerable to Climate Threats
5. Sixty Percent (60%) Felt Their Community was Extremely or Somewhat Vulnerable to Climate Threats
6. Over Fifty Seven Percent (57%) of the Respondents Rated All 26 Mission Critical Functions as Vulnerable in Their Communities
7. The Vast Majority of the Communities Participating in the Serious Game Exercise Were Able to Provide Strong Evidence-based Depictions of Their Gaps and Solutions
8. Top Five Mission Critical Gaps
  - 8.1. Food and Water Security
  - 8.2. Housing
  - 8.3. Medical Services
  - 8.4. Communication/Access to Information

## 8.5. Environmental Safety Concerns

### 9. Top Five Solutions

9.1. Establish Networks for Improving Communication, Computing, and Collaboration

9.2. Establish Health and Social Services Within Neighborhood Resilience Hubs

9.3. Establish a Community Notification System to Inform About Environmental Hazards and Mitigation

9.4. Establish Logistics and Distribution Warehouse to Store and Distribute Food, Water, and Other Essentials Under Emergency Conditions

9.5. Establish disaster plans for high risk communities and put in place high occupancy shelters in each community

### 10. Resources Most Requested for Hurricane Preparedness

- Non-Perishable Foods and Water
- Solar Powered Appliances (generator, flashlight, cooler)
- Community Disaster Preparedness and Response Training
- Community Hubs (warehouses, gathering and distribution sites)

### 11. Mission Critical Function Most Vulnerable in Central Florida: Shelter In Place and Evacuation System

## KEY RECOMMENDATIONS

1. Improve Understanding of the Role of Culture in Vulnerability and Resilience
2. Promote Social Cohesion Within FL DRI Communities
3. Promote Social Cohesion Between the FL DRI Communities and Government
4. Provide Mechanisms for Improving Social Connectedness for the Most Vulnerable
5. Better Communication Between Government, the Private Sector, and the Most Vulnerable Communities
6. Establish Effective System of Participatory Budgeting in the Most Vulnerable Communities

7. Establish Resilience Hubs in Every Neighborhood
8. Develop Network Connections Between the County EOC, Community EOCs, Emergency Warehouses, Emergency Shelters and Neighborhood Resilience Hubs
9. Better Unity of Effort within Communities and Between Communities and Government
10. Extend the FL DRI Infrastructures to Other Regions of Florida as Needed, such as in the Parts of Northwest Florida Impacted by Hurricane Michael in October 2018

## APPENDICES (FULL LIST AVAILABLE IN FULL REPORT)

### Appendix H - Neighborhood Resilience Hubs

Resilience Hubs are multi-purpose community centers which act to improve the resilience of community members. Some Resilience Hubs are only pop-up centers that are only available under emergency conditions. Other more formal Resilience Hubs are being developed to be available in normal conditions and in emergencies. The formal Resilience Hubs may be involved in preparing for as well as providing special services during emergencies in which residents are suffering from lapses in mission critical functions within the neighborhood. Community captains, Action Team members and other staff within the Resilience Hubs are often actively engaged in crowd-sourcing information about problems emerging within the neighborhood. They are also engaged in communicating these challenges to teams in their Community Emergency Operations Center (CEOC) and to the Community Chair representative in the County EOC. Central Florida Resilience System and Resilience Network nodes within the Resilience Hubs play a key role in the Central Florida ALADIN (Adaptive Logistics and Distribution Intelligent Network) as far forward storage and distribution of vital goods, such as food, water, clothing, hygiene materials, first aid.

Central Florida DRI participants defined their understanding of Hubs as: “A meeting place, A place where resources is funneled into. Connections to resources, services, and people happen in the Hub. This is where you’d go to get your water, your medicines, place where people can get what they need.”

The following locations have been identified as potential pop-up Resilience Hubs during a disaster.

The following organizations would potentially be involved in standing up Resilience Hubs or offering services in Resilience Hubs, given their involvement in previous hurricane disaster responses.

Community	Resilience Hubs
Altamonte Springs	<ul style="list-style-type: none"> <li>• Boys and Girls Club</li> <li>• New Bethel St John</li> <li>• Babaloo (local restaurant with existing cohesion within the community)</li> <li>• Christian Help</li> <li>• Harvest International</li> <li>• Some Vacant Properties and/or spaces               <ul style="list-style-type: none"> <li>• Club 436</li> <li>• Pep Boys</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• Warehouse off Anchor</li> <li>• Churches</li> <li>• On 436 across Erins Furniture</li> </ul>
Azalea Park	<ul style="list-style-type: none"> <li>• Christ the King Episcopal Church</li> </ul>
Conway	<ul style="list-style-type: none"> <li>• Guang Ming Temple</li> </ul>
Holden Heights	<ul style="list-style-type: none"> <li>• To place “pods” for storage in vacant parking lots within 2 mile radius of each community. Such distance will make it possible for community members to reach the site by car/bike/foot</li> </ul>
Kissimmee	<ul style="list-style-type: none"> <li>• Casa de Generacion</li> <li>• Buenaventura Lakes Community Center (Government owned)</li> <li>• Robert Guivera Community Center</li> <li>• Silver Spurrs Rodeo Arena on 192 &amp; Wyne Street</li> </ul>
Meadow Woods	<ul style="list-style-type: none"> <li>• Amazon Warehouse on Boggy Creek</li> <li>• Schools</li> <li>• L.A. Fitness on South Chase</li> <li>• Self-Storage</li> <li>• Fire Station</li> </ul>
Parramore	<ul style="list-style-type: none"> <li>• Greater Refuge Memorial Church</li> <li>• Industrial Park</li> <li>• Shelters: <ul style="list-style-type: none"> <li>• Callahan Neighborhood Center</li> <li>• Bithlo Community Center</li> <li>• Barnett Park</li> <li>• Ft. Gatlin Recreation Center</li> </ul> </li> <li>• Orlo Vista Park</li> </ul>

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## Appendix I - Serious Game Community Table Discussion Findings

Community & Critical Sectors	Gaps	Solutions
<b>Buena Vista Lake</b> <ul style="list-style-type: none"> <li>● Housing</li> <li>● Transportation</li> <li>● Resources</li> </ul>	<ul style="list-style-type: none"> <li>● Resources: not enough centers to help neighborhoods</li> <li>● Transportation: poor transportation system for those who need it</li> <li>● Housing: houses are not equipped to face hurricanes and are unaffordable</li> </ul>	<ul style="list-style-type: none"> <li>● Use community schools for emergency shelters</li> <li>● Ensure that there are enough supplies including food for the community</li> <li>● Work with local organizations such as Help on Wheels to supplement governmental relief effort</li> </ul>
<b>South Apopka</b> <ul style="list-style-type: none"> <li>● Communication</li> <li>● Resources</li> <li>● Legal Services</li> <li>● Housing</li> <li>● Energy</li> <li>● Food Security</li> </ul>	<ul style="list-style-type: none"> <li>● Cultural and language barrier</li> <li>● Rural communities overlooked</li> <li>● Fear of immigration authorities</li> <li>● Vulnerable housing and infrastructure</li> <li>● Distrust</li> </ul>	<ul style="list-style-type: none"> <li>● Robust construction regulations</li> <li>● Have cooling centers in the community</li> <li>● Have solar energy in the community</li> <li>● Have a community hub for water and food</li> <li>● Have security in shelters (free of guns, and not requiring documentation from individuals for proof of residence)</li> <li>● Have access to medical services during a disaster</li> <li>● Form and train a team responsible for communication in the community</li> <li>● Form response team in the community</li> </ul>
<b>Meadow Woods</b> <ul style="list-style-type: none"> <li>● Housing</li> <li>● Medical Services</li> <li>● Energy</li> <li>● Communication</li> </ul>	<ul style="list-style-type: none"> <li>● No shelters</li> <li>● No hospitals</li> <li>● No alternative energy</li> <li>● Lack of communication for information dissemination</li> </ul>	<ul style="list-style-type: none"> <li>● Launch awareness campaign</li> <li>● Have solar energy in the community</li> <li>● Have a central hub in each community</li> <li>● Provide community training</li> <li>● Put in place a</li> </ul>



		<p>communication (internet, computer, wifi access) hub in the community</p> <ul style="list-style-type: none"> <li>• Create disaster simulation education for kids</li> <li>• Create groups of volunteers in the communities</li> <li>• Establish partnership between community hubs and organizations</li> </ul>
<p><b>Oakridge/Holden Heights</b></p> <ul style="list-style-type: none"> <li>• Planning</li> <li>• Communication</li> <li>• Housing</li> <li>• Transportation</li> <li>• Water</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of pre-planning within organizations</li> <li>• Failing infrastructure for access to clean water</li> </ul>	<ul style="list-style-type: none"> <li>• Prioritize information for public education</li> <li>• Implement communication needs assessment in the community</li> <li>• Put in place safe space for community members</li> <li>• Provide access to clean water</li> <li>• Provide reliable transportation and resources to community members</li> </ul>
<p><b>Azalea Park/Conway</b></p> <ul style="list-style-type: none"> <li>• Resources</li> <li>• Medical Services</li> <li>• Preparedness</li> <li>• Public Safety</li> </ul>	<ul style="list-style-type: none"> <li>• Issues with stagnant water</li> <li>• Lack of childcare or senior services</li> <li>• Discrimination in shelters</li> <li>• Lack of emergency preparedness</li> </ul>	<ul style="list-style-type: none"> <li>• Community emergency manual and training</li> <li>• Inclusion of amateur radio operators in communications strategy</li> <li>• Identification and collaboration with political leaders to address community issues</li> <li>• Placement of emergency shelters for the community</li> <li>• Placement of cooling centers for vulnerable population and refrigeration for medication</li> <li>• Placement of solar powered mobile units</li> </ul>
<p><b>Kissimmee</b></p> <ul style="list-style-type: none"> <li>• Flooding</li> <li>• Medical Services</li> </ul>	<ul style="list-style-type: none"> <li>• Flooding zones</li> <li>• High costs and/or lack of medical services</li> </ul>	<ul style="list-style-type: none"> <li>• Affordable solar energy</li> <li>• Have portable solar batteries</li> </ul>

<ul style="list-style-type: none"> <li>• Energy</li> <li>• Housing</li> <li>• Accountability</li> </ul>	<ul style="list-style-type: none"> <li>• Poor energy infrastructure</li> <li>• No emergency shelters</li> <li>• No support and/or inclusion from the government, leaving most of the work on churches</li> </ul>	<ul style="list-style-type: none"> <li>• Have community captains connecting neighbors to community hubs before, during, and after a disaster</li> <li>• Have collaboration between the governmental and community based organizations to assist the communities</li> </ul>
<p><b>Poinciana</b></p> <ul style="list-style-type: none"> <li>• Mosquitoes</li> <li>• Evacuation</li> <li>• Communication</li> <li>• Community Hubs</li> </ul>	<ul style="list-style-type: none"> <li>• Poor evacuation system (one road in and one road out)</li> <li>• Lack of gathering place</li> <li>• Lack of communication strategy</li> <li>• Lack of shelters</li> </ul>	<ul style="list-style-type: none"> <li>• Have in place list of alternate routes, shelters, and fueling stations</li> <li>• Have an emergency alarm system placed in the community (i.e. phone application)</li> <li>• Have community medical hubs that get activated during an emergency</li> <li>• Have a relocation plan for areas likely to be displaced during a disaster</li> </ul>
<p><b>Pine Hills</b></p> <ul style="list-style-type: none"> <li>• Housing</li> <li>• Safety</li> <li>• Food Security</li> <li>• Communication</li> </ul>	<ul style="list-style-type: none"> <li>• Language barrier</li> <li>• Lack of trust</li> <li>• Lack of services</li> <li>• Economic disparities</li> <li>• Over/under-policing</li> <li>• Poor waste management</li> <li>• Environmental health concerns</li> </ul>	<ul style="list-style-type: none"> <li>• Provide community disaster safety education</li> <li>• Develop social cohesion programs</li> <li>• Launch community gardening</li> <li>• Establish grants for local communities to install solar energy system in homes</li> <li>• Have community hubs and stored supplies</li> <li>• Conduct community needs assessment</li> </ul>
<p><b>Parramore</b></p> <ul style="list-style-type: none"> <li>• Communication</li> <li>• Housing</li> <li>• Training</li> <li>• Environmental Safety</li> </ul>	<ul style="list-style-type: none"> <li>• Poor draining infrastructure</li> <li>• Lack of information sharing with the community</li> <li>• No designated emergency shelter</li> <li>• No emergency transportation available to the community</li> <li>• One rescue station and only</li> </ul>	<ul style="list-style-type: none"> <li>• Provide SERT training</li> <li>• Identify and provide funding for preparedness programs</li> <li>• Communication system for the community on site contamination and remediation</li> </ul>

	<p>serving North side of Parramore</p> <ul style="list-style-type: none"> <li>● Gentrification</li> <li>● No solid waste removal</li> </ul>	<ul style="list-style-type: none"> <li>● Resources (i.e. gift cards, medication, vouchers, etc) for community members during a disaster</li> <li>● Solar generators and batteries</li> <li>● Cooling centers for vulnerable population</li> <li>● Form team of community captains</li> <li>● Have shelter and emergency transportation for senior citizens</li> <li>● Provide free transportation during emergency evacuations</li> <li>● Place shelters in Parramore</li> </ul>
<p><b>Sanford/Altamonte Springs/Hiawassee</b></p> <ul style="list-style-type: none"> <li>● Communication</li> <li>● Mosquitoes</li> <li>● Water</li> <li>● Medical Services</li> <li>● Housing</li> </ul>	<ul style="list-style-type: none"> <li>● Poor communication from local governments to communities, including vulnerable populations</li> <li>● Mosquito problems from standing water and disparity of spraying</li> <li>● Poor access to water, medical supplies and drugs</li> <li>● Lack of shelters for senior citizens and individuals with disabilities</li> </ul>	<ul style="list-style-type: none"> <li>● Create plan for preparedness, response, and recovery of community</li> <li>● Build a community communication network</li> </ul>