Planning Regional Resilience

Initiative Summary Statement:

Work across jurisdictions and sectors to establish post-disaster research priorities and real time data sharing supporting ongoing Plan implementation.

Initiative Description:

Objective: **This initiative establishes priority areas for a shared research and data-gathering agenda for the region, promoting analyses that can guide Long-term Recovery and Resilience Plan implementation.** The Initiatives in this Plan demonstrate a focus on key areas in which continually updated data would be useful as local leaders design, prioritize and refine specific solutions. Some key efforts to gather data are already planned or underway. These efforts should be identified, and the results shared broadly. In some cases, existing data could be leveraged to create maps and visualizations to better understand current or developing challenges. A region-wide discussion to prioritize data needs would identify key knowledge gaps, promote new partnerships in developing analyses, and help communities understand the challenges they face.

Need: **Housing, employment, and transportation trends can all shift in the months and years following a storm, as residents adapt to a new environment.** Additionally, the identification of new gaps and risks and how they interact with community stressors like homelessness and attainable housing shortages, can impact post-storm policy decisions. The job of identifying and communicating community changes that can be reflected in research and data analysis, and/or updating risk assessments is not owned by any single office, government, or authority – it is shared by all.

Regional Approach: **In a region with many community differences and diversity, developing a mutual understanding of challenges and trends can be important for building resilience.**

In the plan development process, stakeholders identified these key areas where reviewing, developing or refining data or data analyses, and considering public engagement around findings, is important. Plan implementers should work with local and County planning teams to conduct this work.

Emergency Logistical Resources and Supply Chain Routes: Review, develop and refine data analyses that can assist planners in identifying gaps in current emergency resource distribution – how the movement of emergency supplies, food, gas and medical supplies reach key distribution centers across the region and whether those routes are vulnerable.

The understanding of distribution center location and purpose should be informed by each jurisdiction. This is particularly important as the Hurricane Ian experience of ocean surge is making more stakeholders aware of transportation route risks.

Communication Capabilities: Work across public and private sectors to develop new and updated data analyses that identify gaps in communication capabilities in immediate post-disaster operations. Using the experiences of Hurricane Irma and Ian to refine understanding of how gaps in the current communication networks impacted operations in different areas. For example, did the inability of residents to communicate with family members in some areas lead to an increase in first responder calls in those areas? What areas should be targeted for prioritized improvements?

Transportation and Mobility Options: As the region updates data showing future transportation needs, researchers should consider potential changes in community population and disaster risk. This work should be used to Inform community stakeholders of existing transportation situations, consider projected future needs, and provide a well sourced, unified resource for all planning efforts involving transportation.

Guide and Inform Hydrological and Ecological Direct Actions and Regulatory Actions: Develop and conduct community engagement around data analyses that demonstrate where post-storm housing development patterns or plans may impact natural habitats, protected species, green infrastructure, and stormwater infrastructure. Additionally, Lee County plans to produce a Comprehensive Vulnerability Assessment that will generate surge, rainfall, and compound flood projections to 2070. While it is designed to specifically evaluate vulnerabilities of public critical assets, the modelling can inform additional efforts related to resilience and should be promoted to stakeholders and the public.

Mapping Access to Essential Services to Identify and Prevent Future Disaster Impacts: The essential services that allow community life to continue after a storm are important to supporting short- and medium-term recovery. For example, when residents cannot access capital because a local bank is closed, those residents may choose to relocate or develop emergency needs. This plan identifies the need to work across jurisdictions to map these essential services and identify vulnerabilities. This information should help develop a region-wide understanding of the distribution of these services and where disruption is more likely. This understanding can promote design, relocation, and utility redundancy considerations.

Supporting Community Resilience: Initiatives in this plan promoting increased capabilities for mobile health response in post-disaster environments and the establishment of community-based "Resilience Hubs" would both benefit from improved understanding of

the relative position of communities at increased risk to known hazards and healthcare-supporting assets. As the region develops new support for communities, planners should identify the priority areas that need additional access.

Promoting Attainable Housing Through "Mixed-Use" Zoning and Other Policy Approaches: Developing a cross-jurisdictional data analysis that demonstrates the region-wide approach to zoning policy – where homes and businesses can legally be developed - could help promote a unified understanding of how the County anticipates smart growth over the course of the long-term recovery. Data analyses that inform community stakeholders of key existing characteristics including changing demographics, public amenities and infrastructure while also providing damage and risk assessment information in a well-sourced, unified resource for all master regional planning. Additionally, data on employment trends and commuting patterns have been demonstrated in past disaster-impacted communities to be vulnerable to change, as industries recover and reposition.

Community Contingency Planning: Threat Hazard Identification and Risk Assessment for the County and each municipality. Each municipality within Lee County has unique threats and hazards specific to them as well as those that span the County. It would be beneficial for each municipality to have an understanding of the threats and hazards at the hyper local level so they can focus in on and more accurately mitigate their specific potential hazards.

Impact: **Focused data analysis in key areas can promote informed policymaking**. Additionally, by developing data products that are recovery relevant, post-disaster research can help the region identify trends and outcomes that may inform future response and recovery efforts.

Key Considerations:
- The development of "Story Maps" or special community engagement tools to bring data findings to life for stakeholders and the public is a best practice for developing regional shared understanding of challenges.
- Community engagement to help define understandings of what constitutes a community "asset" or an "essential service" is important as new research is considered.
- The pace at which current data sets on community characteristics may be too slow to support dynamic recovery actions. Some cities and counties take a specialized approach to updating data or identifying key indicators that can inform efforts in between federal or state reporting schedules.
- In the Lee County area, universities have played an essential role in answering research questions related to economic, housing, and environmental issues. Further formalizing

relationships to produce more cross-sector work and analysis focused on recovery may allow the region to produce even more beneficial models and data products.

Co-Sponsoring Branches:

Planning & Capacity, Health & Social Services, Infrastructure, Housing, Economic Recovery, Education & Workforce, Cultural Resources, and Natural Resources

Stakeholders:

- County planning and public safety departments.
- Municipal planning and public safety departments.
- Regional universities
- Health and mental healthcare providers
- Housing Development Community

Potential Funding Sources:

- Federal Emergency Management Agency
- United States Department of Transportation
- National Oceanic and Atmospheric Administration
- Florida Division of Emergency Management
- Florida Department of Environmental Protection
- Florida Department of Transportation