



Bayshore Boulevard in Tampa experienced some flooding during Hurricane Michael in October, despite being more than 300 miles from landfall in Florida's Panhandle.

## Putting a Resiliency Plan in Place

**R**ECENT EXTREME WEATHER EVENTS have alerted planning commissioners all over the U.S.—and the world—to the need for resilience, a term that is becoming a key element of the planning vocabulary. In the wake of Hurricane Michael, the state of Florida is particularly sensitive to the threat of hazards. Hillsborough County, where I am the executive director of the city-county planning commission, is continually taking steps toward greater resiliency.

### What is resilience?

The U.N.'s Intergovernmental Panel on Climate Change defines resilience as "the capacity of social, economic, and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity, and structure, while also maintaining the capacity for adaptation, learning, and transformation."

Although the types of hazardous events in the U.S. vary, the planning required to overcome them generally remains the same. It includes cooperation and coordination by governments at all levels. That means involvement by public agencies within a planner's jurisdiction and in neighboring ones.

Taking measures to lessen the impact of known hazards is the first step toward preserving communities. The next step

is to identify vulnerable locations and to adapt social, economic, and environmental systems to respond to catastrophes. The ultimate goal is to minimize the long-term impacts of extreme events.

### What can governments do?

Every community should have plans in place to prepare for hazardous events that affect public safety. The general population should be informed about evacuation processes or the resources required to weather the storm, and the aid they can expect from local, state, and national governments. Particularly vulnerable groups, such as the elderly and the disabled, may require additional care and preparation. Populations with limited English skills may need additional guidance.

Resiliency planning addresses more than the potential loss of life and property that results from a disaster. It calls on

communities to reevaluate the existing infrastructure, land-use patterns, and public facilities that could be affected by a catastrophic event, particularly a repeat event.

An important factor for local, state, and regional governments to consider is a disaster's economic impact on a community. The faster an area recovers from the damage, the sooner businesses can reopen and begin the recovery period. Frequent disruptions in economic activity stemming from recurring events may indicate the need for a careful study of the area's vulnerabilities.

### The commissioner's role

Commissioners have multiple tools at their disposal to aid in resiliency planning. These tools range from local mitigation strategies, which can reduce or even eliminate risks, to capital improvement plans that can identify needed projects and options for financing them.

Perhaps the most important tools are comprehensive plans and long-range transportation plans. In 2015, the state of Florida enacted the Peril of Flood Act, which imposed new requirements for local governments to prevent flooding—including floods caused by sea-level rise.

The city of Tampa was one of the first local governments in the state to respond. Its location along Tampa Bay and the Hillsborough River makes it particularly vulnerable to sea-level rise even though much of the riverfront is given over to yards and public parks.

The local planning effort was aided by a vulnerability assessment based on sea-level rise projections for the area calculated by the Tampa Bay Climate Science Advisory Panel. The Hillsborough County City-County Planning Commission, serving as project manager, worked with city staff and the Tampa Bay Regional Planning Council to complete the assessment.

In 2017, the Tampa planning commission approved new comprehensive plan policies to bring the city into compliance with state law. It is now updating its

land-use codes and stormwater infrastructure plans.

Another useful resiliency planning tool for commissioners is a long-range transportation plan. Transportation systems are the backbone of a community. They facilitate the daily flow of jobs, commerce, education, and recreation. They are also key to maintaining security and emergency services in extreme weather conditions. Long-range transportation plans can direct federal and state infrastructure funding 20 years into the future.

An example of using an LRTP for resiliency planning is the transportation vulnerability assessment funded by the Federal Highway Administration in Hillsborough County. As part of the project, the county's Metropolitan Planning Organization included a performance measure in its long-range transportation plan. The measure calls for reducing the hurricane vulnerability of county roads to minimize economic loss.

Let's say, for example, that a Category Three hurricane hits Tampa Bay and disrupts major road networks, causing a huge loss in productivity and wages. With adequate planning to protect against flooding, the road recovery time could be shortened from eight weeks to three. According to the LRTP analysis, investing in mitigation measures could reduce the economic losses in Hillsborough County from \$266 million to \$119 million. Additional community savings are possible if mitigation projects are included with scheduled infrastructure upgrades.

### Takeaway

Resilience can be achieved through a combination of effective tools and agency collaboration. By identifying vulnerabilities and adapting systems to respond to unpredictable hazards, the impacts on a community can be reduced. Most important, communities will be better suited to adapt to a changing climate and other hazards in the future.

—Melissa E. Zornitta, AICP

Zornitta is the executive director of the Hillsborough County City-County Planning Commission.

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\*ERIE, PENNSYLVANIA 1922" BY R.C. MAXWELL COMPANY, WIKIMEDIA (CC BY-SA 3.0)

## HISTORY MAKING AN INDUSTRIAL CITY WALKABLE

In 1792, Pennsylvania acquired the Erie Triangle—a 300-square-mile tract bordering Lake Erie—with the aim of giving the commonwealth, and especially Philadelphia, a connection to Great Lakes commerce. Surveyor Andrew Ellicott laid out a fine street grid that would become the framework of the future city.

Today, the question facing Erie (and many other industrial cities) is how to adopt that grid to today's fierce challenges. The factories are mostly gone, and the city's population has shrunk from 138,000 in 1960 to about 98,000. State Street, the spine of the downtown retail district, is far less active than when I was growing up just beyond the city line in the 1960s.

Erie still possesses strengths. Charles Buki, principal of CZB planning consultants in Alexandria, Virginia, identified the city's best qualities in 2015 when he devised a revitalization strategy called *Erie Refocused*. The city's core, he wrote, reminded him of Savannah, and he started to think about inserting small parks into the grid east and west of State Street.

Today, Kathy Wyrosdick, AICP, the city's first planning director in decades, is looking for ways to carry out Buki's ideas, from narrowing traffic lanes downtown (notably on State Street) to restoring eroded sidewalks on the East Side. Her mandate is to take the Erie Refocused plan and "move the action forward."

Erie business and civic leaders formed the nonprofit Erie Downtown Development Corporation. After raising \$27 million through an equity fund, the corporation recently purchased a series of contiguous, mostly three-story buildings—including some on State Street.

The upper stories will be redeveloped as apartments, says John Persinger, the organization's CEO. Ground-level spaces will get an upgraded set of commercial, restaurant, and retail occupants.

Recently, controversy has raged over whether the city should demolish or refurbish the McBride Viaduct, an overpass that for decades carried traffic over railroad tracks that divided the East Side in two. The deteriorated viaduct has been closed to vehicular traffic since 2010.

Erie's mayor, Joe Schember, has proposed demolition. But various citizen groups (aware of the success of New York's High Line) argue for rehabbing the structure for use by pedestrians, cyclists, and skateboarders. As of this writing, the viaduct's fate is being debated in federal court.

—Philip Langdon

Langdon is a writer in New Haven, Connecticut. He is the author of *Within Walking Distance: Creating Livable Communities for All* (Island Press, 2017).



The intersection of State and 9th Streets in downtown Erie, Pennsylvania, in 1922. The main retail district is much less active today.