



RESILIENT PITTSBURGH

PIONEERED BY THE
ROCKEFELLER FOUNDATION

100

RESILIENT CITIES



“In Pittsburgh’s 200th year, we applaud the city’s hard fought urban resurgence and the strong leadership shown from Mayor Bill Peduto and Chief Resilience Officer Grant Ervin. Together with the community they are beginning to approach and tackle some of Pittsburgh’s very real and complex risks. Cities like Pittsburgh can no longer afford to plan and fund stand-alone projects; they will need to plan cooperatively across silos, think in an integrated manner, and consider long-term solutions with multiple benefits. 100 Resilient Cities remains an excited and willing partner with Pittsburgh as they forge a more resilient future.”

– Michael Berkowitz,
President, 100 Resilient Cities

Urban resilience is the capacity of individuals, communities, institutions, and businesses within a city to survive, adapt and grow no matter what kinds of **chronic stresses** and **acute shocks** they experience.

Regional fragmentation

Economic and racial inequity

Aging infrastructure

Mobility and transportation challenges

Environmental degradation

Lack of affordable housing

Food insecurity

Extreme weather events

Infrastructure failure

Hazardous materials incident

Landslide and subsidence

Economic collapse

Disease outbreak and pest infestation



INTRODUCTION

The City of Pittsburgh celebrates its 200th anniversary in 2016 thanks to a history of resilience that has demonstrated the grit and ingenuity of Pittsburghers to recover and rebuild after fires, floods, and financial failure. Today Pittsburgh faces fewer threats than many other cities thanks to our location, geography, and natural resources. However, the Steel City must still overcome certain challenges from its industrial legacy, and will face new pressures with climate change, urbanization and globalization. Pittsburgh will be a resilient city when our entire community shares in the same opportunity and prosperity, and all residents are equally well cared for and well prepared to face potential risks.

Urban resilience is the capacity of individuals, communities, institutions and businesses within a city to survive, adapt and grow no matter what kinds of chronic stresses and acute shocks they experience. Acute shocks are sudden disasters that threaten cities and chronic stresses are slow-burning issues that reduce the success of the city on a daily basis. Based on the research and community input gathered to date, Pittsburgh must prepare for the following shocks and actively mitigate the following stresses.

Figure 1.1 Pittsburgh Shocks and Stresses

Shocks:

- Extreme weather events
 - Rainfall and flooding
 - Winter storms
 - Extreme heat and cold
- Infrastructure failure
 - Transportation
 - Water
 - Energy
 - Ecology
- Hazardous materials incidents
- Landslide and subsidence
- Economic collapse
- Disease outbreak and pest infestation

Stresses:

- Regional fragmentation
- Economic and racial inequality
 - Employment
 - Health
 - Education
 - Crime
- Aging infrastructure
- Mobility and transportation challenges
- Environmental degradation
 - Air quality
 - Water quality
 - Soil health
- Food insecurity
- Lack of affordable housing



A RESILIENCE STRATEGY FOR PITTSBURGH

100 Resilient Cities, pioneered by the Rockefeller Foundation (100RC), is dedicated to helping cities around the world become more resilient to 21st century physical, social, and economic challenges, in the face of globalization, urbanization and climate change. In December 2014, Pittsburgh was selected in the second cohort of these 100 cities working to reduce the risks that threaten our communities and overcome the challenges that make our residents vulnerable.

100RC provides assistance to cities in four main pathways:

1. Financial and logistical guidance to establish an innovative new position in city government: the Chief Resilience Officer (CRO);
2. Expert support for development of a robust resilience strategy;
3. Access to the services of platform partners from the private, public and NGO sectors who can help develop and implement resilience strategies; and
4. Membership in a global network of 100 cities who can learn from and help each other.

On June 5, 2015, Mayor William Peduto appointed Grant Ervin as Chief Resilience Officer (CRO) to lead Pittsburgh's resilience efforts. As Pittsburgh's strategy partner, the RAND Corporation has been integral to developing this assessment and will continue to support the City in crafting a resilience strategy that strengthens our communities, infrastructure and economic systems. Organizations in 100RC's catalog of platform partners are eager to support resilience building in Pittsburgh, and will be connected to local partners to build capacity. Pittsburgh has already formed strong mutually beneficial relationships with cities around the world who face similar challenges.

The Pittsburgh Resilience Strategy will do three things:

1. **Catalyze resilience in the city and region** by establishing a shared set of goals, identifying areas for collaboration, and implementing cooperative resilience-building actions;
2. **Activate and concentrate funding and resources** by advocating for local needs and priorities, integrating complementary projects, and creating beneficial partnerships;
3. **Establish a resilience practice** by incorporating the resilience lens into decision-making and by sharing knowledge both locally and throughout the 100RC network.

Figure 1.2 Resilience Strategy Process



phase
01

FALL/WINTER 2016

Objective:
Evaluate state of resilience and city capacity, and generate broad support and engagement in focus areas

Process:
Data collection
Stakeholder engagement

Outcome:
Preliminary Resilience Assessment (PRA)



phase
02

SPRING/SUMMER 2016

Objective:
Deep, rapid expert analysis, and generation of solutions through a resilience lens. Practical action, and multiple benefit decisions made

Process:
Focused analysis
Generate solutions
Prioritization

Outcome:
Pittsburgh Resilience Strategy

IMPLEMENTATION

This Preliminary Resilience Assessment (PRA) contains the knowledge gathered from over six months of research and stakeholder and community engagement by the Resilient Pittsburgh team: Chief Resilience Officer Grant Ervin’s team in the Department of Innovation & Performance and strategy partner the RAND Corporation, with guidance from 100 Resilient Cities. The PRA looks at the likelihood and severity of potential shocks and stresses; documents the existing activities in the City that improve resilience; and summarizes how City stakeholders view what is working well and where improvements are needed. All of this information led to the Discovery Areas. These Areas will guide the development of the upcoming Pittsburgh Resilience Strategy.

The Resilience Strategy will ultimately help the city prepare for, adapt to, and quickly rebound from shocks and stresses. Pittsburgh has already overcome a massive economic shock in recent decades, but like many cities, confronts “slow burning” issues that can potentially lead to catastrophic outcomes. Conversations in Pittsburgh emphasize the need to address a range of chronic stresses, from combined sewer overflows to poor air quality to racial inequity and lack of access to transit. The challenges that the City faces today will evolve in the face of climate change, demographic change and population growth.

A community-defined vision of Pittsburgh’s future will guide the resilience strategy and implementation. In Phase I Pittsburghers envisioned the following:

Pittsburgh will be an inclusive city of innovation. All residents will have their basic needs met. Pittsburgh’s ninety unique neighborhoods will retain their culture while also building social cohesion with all communities across the city. Proactive development of built infrastructure and thoughtful restoration of natural infrastructure will improve urban life and environmental health. Economic diversification and entrepreneurship will provide opportunities for all residents to prosper. Successful actions and best practices pioneered in Pittsburgh will be shared to help the entire region become more resilient.

In order to achieve this vision, stakeholders and community members identified the following strengths, weaknesses and areas for improvement.

Figure 1.3 Key Strengths, Areas of Improvement and Weaknesses



The Discovery Areas and diagnostic questions will guide the development of the resilience strategy in Phase II.

Figure 1.4 Resilient Pittsburgh Discovery Areas and Cross-Cutting Themes



Discovery Areas:

1. People
 - 1a. Basic needs

How do we ensure that the basic needs of city residents are met, both in times of calm and catastrophe?
 - 1b. Opportunity

How do we ensure that all city residents have access to economic opportunity and prosperity?
2. Place
 - 2a. Infrastructure

How do we protect, maintain, and improve the city’s critical natural and physical infrastructure systems?
 - 2b. Land use

How do we optimize land use to better support affordable housing, economic growth, community development, and stormwater management?

There are three cross-cutting themes that will guide the actions taken in each of the four Discovery Areas in Phase II:

- Equity: How can we ensure each resilience action accounts for equity issues, ensuring fair access for all city residents to economic, educational, and environmental opportunities and amenities?
- Planet: How can we use resilience to protect our local environment and be responsible, proactive global citizens?
- Performance: How can we integrate activities, improve collaboration, and evaluate progress?

Next steps in the resilience strategy process

Phase I of the resilience strategy established a preliminary understanding of the challenges and opportunities for building resilience in Pittsburgh. In Phase II, diverse, inclusive working groups will conduct in-depth research and community outreach in each Discovery Area to answer the diagnostic questions and brainstorm initiatives and projects to implement in the resilience strategy. The final strategy will integrate ongoing activities, align future planning efforts and funding, and implement key actions to create a more resilient Pittsburgh.





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100 Resilient Cities: 100resilientcities.org

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