Strategies for Multifamily Building Resilience

June 28, 2023

Enterprise
Building Resilient Futures

The challenges are bigger than any one of us can solve alone.

That’s why we’re leading the way to protect people and protect their homes. And why we’re working with all our partners to create solutions that leave no one behind.

We believe resilience isn’t just about being able to bounce back or rebuild after a disaster – it’s about drawing from the inherent strength in communities and helping everyone prepare for and move forward in the face of our new climate future. And when we build more resilient communities, we build a better future for everyone.
Key Challenges

• Due to its age, physical conditions, and maintenance needs, most of the country’s affordable housing stock cannot withstand our changing climate.

• According to IPCC consensus, we must decarbonize by 2050 to avoid irreversible loss of ecosystems and crisis for vulnerable people.

• The pace, and expense, of disasters has increased dramatically in the U.S. and across the globe.

• Post-disaster government assistance is well-intentioned, but slow and inequitable; resources lack coordination.

• As temperatures and sea levels rise, so do the number of low-income households that are at risk.

• BIPOC and low-income communities are at higher risk of climate-related health impacts including asthma, cardiovascular disease, and increased rates of mortality.
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**Resources & Innovations**
Strategies for Multifamily Building Resilience

**Protection**
Strategies to reduce a building's vulnerability to extreme weather

1. Wet Floodproofing
2. Dry Floodproofing
3. Site Perimeter Floodproofing
4. Resilient Elevators
5. Backwater Valves
6. Sump Pumps

**Adaptation**
Strategies that improve a facility's ability to adapt to changing climate conditions

7. Envelope Efficiency
8. Elevated Equipment
9. Elevated Living Space
10. Surface Stormwater Management
11. Window Shading
12. Distributed Heating and Cooling

**Backup**
Strategies that provide critical needs for when a facility loses power or other services

13. Maintaining Backup Power to Critical Systems
14. Emergency Lighting
15. Access to Potable Water

**Community**
Strategies that encourage behavior which enhances resilience

16. Building Community Ties
17. Creating Community Resilience Spaces
19. Organizing for Community Resilience
Are your affordable housing properties at damage risk from natural hazards or climate events?

Find out with Enterprise Portfolio Protect

Or enter multiple addresses by clicking here

Download full resources guide

<table>
<thead>
<tr>
<th>Action</th>
<th>Address</th>
<th>Risk Score</th>
<th># High Risks</th>
<th>Range for USA</th>
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<td>3500 Pan American Dr, Miami, FL 33133, USA</td>
<td>12</td>
<td>1</td>
<td>0-30</td>
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</tbody>
</table>

**Social Vulnerability Index**

- **Social Vulnerability (SVI) Risk Level: N/A**

**Hazards**

- **Flood Risk Level: 4 / 5**
- **Sea Level Rise Risk Level: 1 / 5**
- **Hurricanes Risk Level: 2 / 5**
- **Wildfire Risk Level: 0 / 5**
- **Heat Wave Risk Level: 0 / 5**
- **Cold Wave Risk Level: 1 / 5**
- **Strong Winds Risk Level: 1 / 5**
- **Tornado Risk Level: 2 / 5**
- **Landslide Risk Level: N/A**
- **Earthquake Risk Level: 1 / 5**
- **Tsunami Risk Level: N/A**
Business Continuity

Business Continuity Toolkit for Affordable Housing Organizations

 ARE YOU READY TO RESPOND? 

Disaster can strike at any time, and a poorly managed response can put property and lives at risk.

This Toolkit equips multifamily affordable building owners & managers with a plan to address crisis.

An Overview of the Disaster Staffing Toolkit

Watch the video or scroll down to learn more.

Do you know the risks of climate on your housing portfolio?

Why is having a Business Continuity Plan essential?

Create Your Business Continuity Plan

1. Identity & Orient Your Team Leader

2. Build Your Team

3. Practice Your Response

YOUR TEAM

Orient Your Team Leader

Job Description

The Team Leader is given the title of Emergency Preparedness Coordinator (EPC). They develop the Disaster Staffing Plan, prepare staff for their disaster response roles, and oversee ongoing maintenance.

Responsibilities include:

- Establishing a chain of command
- Providing clear information
- Ensuring staff information is up-to-date
- Providing regular updates on progress
- Securing staff roles in the plan
- Communicating incident updates

This Staffing Chart shows the recommended Disaster Response Roles to be filled by staff in your organization. The Staffing Chart is based on a chain of command led by the Incident Commander.

INCIDENT COMMANDER

COMMAND LEVEL ADMINISTRATOR

LOGISTICS CHIEF

HOUSING CHIEF

EXTERNAL COMMUNICATIONS/SOCIAL MEDIA LIGHTEN

Enter Name Here

Enter Name Here

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Enter Name Here
Resources & Innovations

READY TO RESPOND

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Disaster Preparedness for Affordable Housing Organizations

Enterprise Green Communities®
Resources & Innovations

READY TO RESPOND

Strategies for Multifamily Building Resilience

Community
Strategies that encourage behavior which enhances resilience.

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Disaster Preparedness for Affordable Housing Organizations
Protection
Strategies to reduce a building’s vulnerability to extreme weather.

Background
During Superstorm Sandy, Hoboken, NJ suffered heavy damage to its buildings and infrastructure, including this six unit multifamily building, 132 Jackson St., located in the AE flood zone. After the storm, the property faced escalating insurance costs.

Strategy
To mitigate future risk and reduce insurance premiums, the owner chose a wet floodproofing strategy, which added nine Smart Vents on the first floor and used 9 inches of gravel and concrete fill to raise the floor to ground level. To minimize heat loss during cold weather, the owner chose insulated Smart Vents.

Images: www.yourfloodrisk.com
Protection

Strategies to reduce a building’s vulnerability to extreme weather.

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<td>Backwater Valves</td>
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<tr>
<td>6</td>
<td>Sump Pumps</td>
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Cost

Total cost of the renovation, including installation of Smart Vents and the first floor fill, was $25,000. The one-panel Smart Vents cost $200 to $250 each. the retrofit, the building experienced an 83 percent reduction in the cost of its flood insurance policy. Originally, the owner paid $12,000 for $300,000 worth of coverage; after the retrofit, their premium fell to $2,000 and coverage rose to $820,000. The owner experienced a return on investment in just two and a half years.

LOCATION

132 Jackson St., Hoboken, NJ

SCALE

6 Units

COST

$25,000
Adaptation
Strategies that improve a facility’s ability to adapt to changing climate conditions.

10 Surface Stormwater Management

Stormwater is a major cause of urban flooding, especially in cities with combined sewer and stormwater systems. Many combined municipal water treatment systems are working at maximum capacity and can’t handle additional volume during a large storm. Infiltrating water into the ground on-site reduces the need for large infrastructure projects and can ease flooding, speed recovery after a storm and reduce sewer backups.
# Resources & Innovations

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