Resilient Food Systems, Resilient Cities: Recommendations for the City of Boston

Executive Summary

Recent severe storms have compelled Boston's civic leaders to prioritize disaster recovery and resilience planning. A critical component of resilience planning is ensuring that the city's food system is able to withstand and recover from disruption. As part of this effort, the City of Boston's Office of Food Initiatives, Office of Emergency Management, Office of Environment, Energy and Open Space, and the Transportation Department commissioned research on the vulnerabilities of Boston's food system. With this report, Boston becomes the first city of its size to study how a natural disaster could impact its food supply.

"In the fall of 2012, Hurricane Sandy struck New York and New Jersey, causing devastating damages to infrastructure and severely limiting both food availability and access. Boston was lucky to avoid the worst of Sandy, but with climate change we can expect a rise in sea levels and more extreme weather events in the future. We must better prepare our food system to be resilient after disruptions like hurricanes, floods, blizzards and other natural disasters." -Martin J. Walsh, Mayor of Boston

Our research finds that food availability and food access could be significantly compromised in the event of a natural disaster in Boston. Some highlights include findings that:

- A storm surge of the same size as that created by Hurricane Sandy (7.5 foot) could flood nine grocery stores and 59 corner stores, disproportionately impacting food availability in the Dorchester, East Boston and Roxbury neighborhoods.
- A seven and a half foot storm surge could flood 45 percent of food wholesalers in Boston, Chelsea and Everett, significantly impacting fresh food supply in Boston.
- Ninety-four percent of Boston's food arrives by truck. A seven and a half foot storm surge could flood most of I-93 in Boston, the critical North-South interstate that includes the Central Artery tunnel system, and create bottlenecks affecting the transportation of food into the city.
- A blizzard could obstruct the distribution of food within the city and impede The Greater Boston Food Bank's ability to supply food pantries.
- A hurricane could disrupt milk production at the 12 processing plants within 75 miles of Boston that supply the majority of Boston's milk.
- Expanding local food manufacturing and urban agriculture raises questions about how best to mitigate risks associated with climate change impacts at national, regional and local levels.

Strengthening Boston's food system, to ensure that it would be able to return to normal operations after a natural disaster in a relatively short timeframe, will require:

- 1. Greater public-private food system coordination, within Boston and the region,
- 2. Investment in critical food system infrastructure, including buildings and roads,
- 3. More national chain grocery stores in low-income neighborhoods,
- 4. Robust resilience plans for small grocery stores and corner stores, and
- 5. Expanded capacity and increased efficiency of Boston's food safety net.

Proactive planning and implementation of these recommendations can help the City of Boston to overcome its current vulnerabilities and ensure that its food system is resilient enough to withstand a natural disaster.

