



**A Case for the Budget Office as Local Government Lead for Disaster Recovery**  
LESSONS FROM NYC AFTER HURRICANE SANDY

BY JOHN GRATHWOL

Local governments, take notice: You are increasingly responsible for disaster recovery.

Two factors contribute to this growing reality. First, climate change has increased the frequency and severity of natural disasters. Second, the federal government has begun to push recovery responsibilities down, with the Federal Emergency Management Agency (FEMA) insisting that disaster recovery should be “federally supported, state managed, and locally executed.”<sup>1</sup>

Natural disasters over the last two years make the new reality clear. In 2017, three hurricanes alone — Harvey, Irma, and Maria — caused a combined \$265 billion<sup>2</sup> in damage, mostly to locally owned infrastructure and housing. This is in addition to a severe 2018 hurricane season, which included hurricanes Florence and Michael, and a growing risk of wildfires in the west. In addition, the federal government continues to emphasize the need for state and local governments to take on an increasing share of responsibility for response and recovery. FEMA’s 2018-2022 Strategic Plan emphasizes that successful disaster recovery is “federally supported, state managed, and locally executed” — a message FEMA reinforces in practice and policy. In short, local officials must prepare and be ready to respond.

The City of New York, New York, knows firsthand the challenge local governments face after a major disaster. Hurricane Sandy — which made landfall on October 29, 2012 — was the most devastating storm in the city’s history, temporarily knocking out portions of the public transit system, electric and power service, schools, wastewater treatment, and roads, and damaging thousands of homes. In total, Sandy caused at least \$19 billion in damages, the costliest storm in NYC history. 70,000 housing units claimed property damages, and 23,000 businesses were affected.<sup>3</sup> The city’s greatest loss, however, was the death of 43 New Yorkers.

NYC has made one of the most successful recoveries from a major catastrophic disaster in recent history, in part because the city centralized recovery management with the NYC Mayor’s Office of Management and Budget (OMB). NYC has focused on three recovery strategies: 1) centralized public budgeting recovery management; 2) strong internal

systems and controls; and 3) advocacy for policy innovation. These three strategies guided NYC’s decision to establish a centralized project management cell within the OMB to help facilitate its recovery from Hurricane Sandy. As a result, infrastructure recovery projects are better coordinated across multiple agencies, all of which are administered consistently with the city’s internal controls and core vision of building a more resilient future.

Central budget offices normally determine how public money will be spent, making them the ideal focal point for managing long-term infrastructure recoveries. NYC’s experience to date is instructive and may help guide local governments as they prepare to take on an ever-increasing burden for disaster recovery.

## SANDY’S IMPACT ON NYC INFRASTRUCTURE

Sandy struck NYC on October 29, 2012, during high tide and a full moon. Approximately 17 percent of the city’s landmass — 51 square miles — flooded, along with 88,700 buildings and 23,400 businesses. Nearly 850,000 people lived in the inundation zone — 10 percent of the city’s population — and 2 million lost power. Total damages, including lost economic activity, were estimated near \$20 billion.

Public infrastructure was hit especially hard: FEMA Public Assistance funding for NYC’s infrastructure recovery alone will total nearly \$8 billion, in addition to over \$2 billion more in non-infrastructure recovery work like debris removal, emergency sheltering, temporary generators and boilers, and much more. The U.S. Office of Housing and Urban Development (HUD) will provide another almost \$900 million to match the local share of FEMA Public Assistance grants for public housing and infrastructure recovery projects and to fund specific resiliency investments from its Community Development Block Grant Disaster Recovery (CDBG-DR) program. This funding will be used to restore schools, roads, hospitals, wastewater treatment plants, parks, beaches, firehouses, police precincts, libraries, and many more public facilities — and to mitigate future disaster damage. This kind of federal government support is the only way most communities are able to recover adequately. But using these funds correctly requires capacity and sophistication

The number and intensity of disasters has increased and more responsibility is being placed on local governments to drive recovery.



that isn't typically available in individual local governments or state agencies.

NYC had little experience managing federal disaster recovery grant portfolios of this size and scale. The 9/11 terrorist attack, which was significant and historic in its own right, differed dramatically from Sandy; it was unprecedented and devastating, but also mostly confined to lower Manhattan. Further, the federal government responded to the national tragedy of 9/11 by passing special legislation to ensure that disaster needs were met, more or less overriding the normal, burdensome eligibility rules. Even with the special legislation, the scale of the damage to NYC only necessitated about \$2 billion in FEMA Public Assistance funds. Immediately following Sandy, the city estimated that it would receive at least twice that much federal funding — with none of the special dispensations and relaxed rules that came after 9/11. In reality, federal funding for Sandy recovery eventually reached nearly \$15 billion.

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After the OMB was designated as the lead agency for its Hurricane Sandy infrastructure recovery program, it worked closely with 54 agencies, including the Mayor's Office of Resiliency (MOR), the Mayor's Office of Housing Recovery Operations (HRO), the New York City Emergency Management Department, as well as other key agencies responsible for infrastructure recovery like the Department of Design and Construction (DDC). These entities — with a central OMB role in managing federal funding — came together to steer NYC's recovery from Sandy.

### WHY PUT THE BUDGET OFFICE IN CHARGE?

City and state governments prepare for disasters a number of ways. The United States has a robust history of integrated emergency response at the federal, state, and local levels, supported by the private sector and volunteers. First responders predominate in this response phase. Many city and state governments have a separate emergency management department, state police department, or cadre of first responders that fit into this multilevel integration of emergency response. Preparing for disasters and responding in a strategic, rapid emergency response saves lives, which is the top priority for government officials. But the emergency period is relatively short-lived. It lasts weeks or months, fairly quick in the context of major disaster long-term infrastructure recovery that can last many years, or, in the case of catastrophic disasters, more than a decade.

Even during the "blue sky days" before a disaster strikes, state and local governments often contend with a capacity-challenging pipeline of construction work to maintain and expand needed public infrastructure. The organizations

that are responsible for this infrastructure, such as schools, mass transit, roads, wastewater treatment, parks, and hospitals, are plenty busy with capital construction during peacetime, let alone after a disaster. Once a disaster hits, agencies can't usually easily absorb the extra work required to restore infrastructure, making the additional administrative burden even more difficult to bear.

NYC commits more than \$9 billion a year for capital construction projects in the Mayor's Executive Budget

Capital Plan. Adding billions of dollars more in recovery projects with specific federal rules strains agency capacity, which is already stretched to complete the regularly planned infrastructure work.

Managing long-term, complex infrastructure recovery requires centralized coordination, the ability to navigate complex administrative requirements and communicate these requirements to a multitude of agencies and partners, and the ability to negotiate with federal authorities to maximize recovery funds. NYC has found that its OMB is the agency best suited to carry out these tasks as the focal point for infrastructure recovery.

## FEDERAL PROGRAMS AND INFRASTRUCTURE REPAIRS

Federal funding for disaster infrastructure projects comes from various agencies. Across these programs, NYC is managing approximately \$15 billion in federal recovery funding. The federal programs that best support infrastructure repairs are:

- **FEMA's Public Assistance (PA) Program.** FEMA PA provides mostly at-cost funding that is directly tied to restoring and mitigating specific damaged infrastructure. Recent policy allows for capped funding based on project estimates — called Section 428 or Public Assistance Alternative Procedures (PAAP). NYC is the largest participant in Section 428, with more than \$6 billion for major infrastructure recovery projects across 16 agencies. The city anticipates approximately \$10 billion in total FEMA PA funding, including \$7.5 billion for infrastructure projects.
- **HUD's Community Development Block Grant Disaster Recovery Program.** HUD CDBG-DR is a flexible block grant that can be used for infrastructure, housing, economic development, or resiliency projects. Compliance requirements differ slightly from FEMA PA. NYC is allocated \$4.2 billion in HUD CDBG-DR funding, including approximately \$900 million for infrastructure projects.

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## ■ Federal Transit Administration and Federal Highway Administration Disaster Relief.

This funding is used to restore damaged roads, highways, and public transportation facilities — such as NYC ferries. NYC was awarded a total of more than \$600 million from these programs.

NYC is fortunate to be receiving ample federal assistance, but securing this funding required significant effort and capacity. NYC's current challenge is to ensure that the money is managed properly across hundreds of projects and five boroughs. OMB's goal is to obtain and retain all eligible funding

for these federally funded infrastructure projects — a tall order because of the complexity and cost of complying with federal funding rules, but a role that is ideally suited to the budget office.

## IMPLEMENTING NYC'S RECOVERY STRATEGY

The lessons NYC has learned over the course of its recovery from Hurricane Sandy should help other cities and states understand what works and what doesn't work after a major disaster. This section provides several short case studies to demonstrate OMB's approach, framed by the three recovery strategies discussed above.





**Centralized Recovery Management.** The FEMA Public Assistance program is administratively complex and costly to manage. FEMA does reimburse recovering communities for administrative costs, but it is challenging to meet the documentation and other requirements to justify these eligible costs. As a result, recovering communities typically receive less than 1 percent of direct administrative costs reimbursement for all of their eligible Public Assistance projects. To remedy this, NYC's OMB successfully negotiated an agreement for a flat 4 percent direct administrative costs allocation, which benefits all agencies, regardless of their capacity for tracking administrative time spent to formulate and execute Public Assistance-funded infrastructure projects.

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City entities that benefit from OMB's central Sandy recovery management include both Mayor's Office line agencies and separate component units. Component units, such as NYC's Economic Development Corporation, have a separate legal status but are still under the city's control: NYC has a significant financial relationship with these entities, all of which provide government services, and the mayor appoints members of their boards. But NYC had to develop separate legal arguments so it could include certain component units under its FEMA Public Assistance application. This was important because if FEMA were to classify these units as independent non-profits, as initially proposed, they would receive less from Public Assistance than they would as government entities. Because NYC was able to include these units in its centralized and coordinated recovery, they benefited from all the city's policy victories and greater access to recovery expertise.

**Strong Internal Systems and Controls.** NYC has existing citywide procurement systems and processes, notably its Mayor's Office of Contract Services, Procurement Policy Board, and Vendor Exchange System. However, even these robust controls are not tailored to specific federal procurement requirements. This led OMB to establish a federal Program Conformance Team — staffed with engineers and

architects — to help agencies separate FEMA-eligible scopes of work in construction designs and bids, and to include necessary federal riders in contracts. This has resulted in more federally compliant infrastructure work, which is critical to withstanding audit scrutiny.

NYC received approximately \$15 billion in grants across multiple federal programs. But the existing city financial management system is not designed to manage the complex minutia of each federal grant program. This led OMB to develop a dedicated grants management system for its Sandy recovery. Now, agencies have access to centralized grants information, and OMB can use this platform to further advocate for federal

Sandy recovery funding.

**Advocacy for Policy Innovation.** FEMA Public Assistance includes federal funding to mitigate damaged infrastructure against future disaster damage. But eligible funding is limited to damaged elements of public infrastructure. This means that FEMA would not traditionally fund a flood wall to protect both damaged and undamaged buildings, for example. As a result, it is difficult to fund projects that mitigate damage to systems that have complex infrastructure, such as hospital systems or wastewater treatment plant. To remedy this, OMB successfully argued to FEMA that Public Assistance funding should be eligible to comprehensively protect critical facilities (e.g., hospitals and wastewater infrastructure) on large systems or campuses. For NYC's wastewater treatment plant campuses, this means that FEMA will now fund flood walls to protect both damaged and undamaged elements of the wastewater treatment plants. This comprehensive mitigation approach is more effective than only protecting individual damaged elements, which would still leave critical facility systems vulnerable.

FEMA typically only awards Public Assistance funding for infrastructure damage that is examined and validated on in-person site visits. However, NYC had more than 300 miles of damaged electrical conduit citywide — both underground and encased in concrete duct banks. It was not reasonable

to expect the city to prove that each linear foot of this infrastructure was Sandy-damaged. Initially, FEMA asked NYC to dig up these 300 miles of conduit to prove Sandy damage, a costly and time-consuming prospect. Instead, OMB convinced FEMA to fund the replacement of any NYC-owned electrical conduit that existed within the Sandy inundation zone. According to the National Electrical Manufacturers Association (NEMA), galvanized metal conduit exposed to salt water is damaged by definition. This NEMA rule allowed eligible damaged conduit to be identified using Sandy inundation maps, which benefited the 11 agencies with damaged electrical conduit.

## FURTHER RECOMMENDATIONS

For communities to successfully navigate the continuum of disaster recovery, management and budget must have a central role within the larger emergency management organizational structure — especially as the number and intensity of disasters increase and more responsibility is being placed on local governments to drive recovery. Drawing on the Sandy recovery experience, NYC has identified additional recommendations that local governments may consider to better prepare for and implement a successful disaster recovery.

Local governments, generally led by fire, law enforcement, or emergency management agencies, prepare for disasters by developing response plans, training staff, and conducting exercises and drills. These preparedness activities generally focus on the initial response to a disaster. But preparing for disaster recovery — and financial recovery in particular — is equally critical. Local governments need to convene a planning team to prepare for the financial recovery associated with future federally declared disasters (e.g., develop a disaster cost recovery plan integrated across agencies). This should include an emphasis on advocacy for policy innovation in disaster recovery — which may be most effective if local governments procure consulting expertise to support their efforts.

To respond effectively to disasters, local governments need to procure supplies, equipment, and services —

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sometimes very quickly. Failing to abide by federal procurement rules, however, can result in disallowance of millions in federal funds. Local governments should implement controls and efficiencies within their procurement processes to focus on compliance with local, state, and federal procurement rules before they complete contracts (e.g., prepare agency procurement and contracting officers to comply with federal requirements, and prepare federal contract riders for agencies). Make sure that there is a rapid emergency procurement protocol in place to quickly and more effectively respond to disasters. Where possible, establish standby contracts before a disaster strikes so goods and services can be accessed more quickly and at more favorable prices.

In an ideal world, governments would proactively inventory and geocode public infrastructure assets and centrally retain maintenance records for those assets. Doing so will allow easier damage claims (e.g., documenting the pre-disaster condition and proving that an asset was properly maintained will help establish that damage was caused by the disaster and thus eligible for funding). While this is a tall order for most governments, it is an effective way to ensure that the federal government cannot deny critical infrastructure restoration.

While the budget office of local government may be the best-equipped agency to lead disaster recovery, they must work closely with fire, policy, sanitation, public works, and other departments. Successful recovery requires close department coordination. ■

### Notes

1. 2018 to 2022 Strategic Plan, FEMA.
2. 2017 Hurricane Season FEMA After-Action Report, FEMA, July 12, 2018.
3. “A Stronger, More Resilient New York,” City of New York, June 11, 2013.

**JOHN GRATHWOL** recently retired as deputy director of budget resources, Office of Management and Budget, New York City.