



New York City Environmental Justice Alliance NYC Climate Justice Agenda

Strengthening the Mayor's OneNYC Plan

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NYC Environmental Justice Alliance



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EXECUTIVE SUMMARY

On Earth Day 2015, Mayor Bill de Blasio released *One New York: The Plan for a Strong and Just City*, (City of New York 2015) hereafter referred to as *OneNYC*. Past iterations of this report, called *PlaNYC* under the Bloomberg Administration, focused on economic growth, sustainability, and resiliency. *OneNYC* introduces equity as a guiding principle for the first time in one of the City’s sustainability and resiliency blueprints, reflecting Mayor de Blasio’s commitment to incorporate an equity framework across New York City government programs and services.

Fighting long-term inequity, which has been a historic challenge for the City, is a top priority for this Administration. The decision to include equity in the City’s sustainability report has already changed the conversation in numerous other cities, including Boston, Miami, and Los Angeles.

Highlighting equity in *OneNYC* was a critical decision because – although climate change will affect everyone – its impacts will not be felt equally. Low-income communities and communities of color will be hit “first and worst” by climate change impacts, and must therefore play an integral role in planning for transformational change. The purpose of the *NYC Climate Justice Agenda: Strengthening the Mayor’s OneNYC Plan* is to: (a) assess whether



Mayor de Blasio releases *OneNYC* at THE POINT CDC in the South Bronx on Earth Day 2015.

or not efforts from City government, as laid out in the City’s sustainability and resiliency blueprints, can begin to reduce the vulnerabilities of low-income communities and communities of color to climate change impacts; and (b) propose recommendations to broaden and strengthen such protections.

The popular concept of climate “resiliency” refers to the capacity of people to “bounce back” from severe weather events. However, for true climate justice to exist, resiliency cannot rest with “bouncing back” to an inequitable system where people of color and low-income communities are

disproportionately burdened. *OneNYC* defines resiliency as the ability to withstand the impacts of climate change and “emerge stronger” (City of New York 2015, 6). Do the policy initiatives of Mayor de Blasio’s Administration foster climate resiliency that is about “bouncing forward” to a more just, equitable and sustainable future?

To answer this question, NYC-EJA analyzed *OneNYC* using the following five themes: **(1) climate adaptation and mitigation, (2) equity and infrastructure, (3) public health, (4) community preparedness, and (5) community-based planning.** We also looked at major accomplishments and pending goals from Bloomberg’s *Special Initiative for Rebuilding and Resiliency: A Stronger, More Resilient New York (SIRR)* under each of these five themes, as well as the extent of interagency planning and coordination reflected in *OneNYC*. Finally, we highlighted the initiatives that some community-based, environmental justice organizations (i.e., NYC-EJA members and allies) are pursuing to build climate justice in New York City – initiatives that complement and in some cases even exceed *OneNYC*’s goal of building an equitable and resilient city. City government should embrace and support grassroots climate justice initiatives by partnering with these local visionaries.

While *OneNYC* makes great strides in laying out the City’s vision for a more just and sustainable New York, we recommend the plan be strengthened to more expansively and specifically cultivate climate justice in the following ways (for a more detailed and complete list see the Recommendations section):

CLIMATE ADAPTATION AND MITIGATION

- Address the anticipated labor, equity, and enforcement gaps in the 2019 Energy Code update for building retrofits. The City should take all necessary steps to ensure these code changes are fully implemented to achieve greenhouse gas (GHG) emissions reduction goals.
- Invest in coastal protection more equitably for all climate-vulnerable communities. Investments in integrated flood protection systems has been greatest in Manhattan, leaving climate-vulnerable environmental justice communities behind, including five out of six waterfront-based Significant Maritime and Industrial Areas (SMIAs).
- Include efforts to increase the sustainability and resiliency of industrial operations, located primarily in low-income neighborhoods and communities of color, in order to minimize the public health risks associated with potential toxic exposures during extreme weather events.
- Conduct a comprehensive assessment of other climate change impacts, such as extreme heat and high winds, and implement strategies to mitigate these impacts.

EQUITY AND INFRASTRUCTURE

- Prioritize sustainability and resiliency investments in communities that have historically borne disproportionate environmental burdens.
- Partner with community advocates to develop a long-term strategy for improving and implementing local hiring provisions.
- Convene a Code Committee to facilitate adoption of the 2019 Energy Code update by the New York City Council.
- Facilitate community “co-ownership equity stakes” of resilient energy infrastructure.
- Engage New York City Housing Authority (NYCHA) residents in designing and implementing successful recycling programs and make technical and financial commitments to support this process.
- Strengthen local equity in waste management by incentivizing the use of Marine Transfer Stations for commercial waste exports and establishing “fair share” capacity limits for community districts with land-based waste transfer stations.
- Revise selection criteria for the Community Parks Initiative (CPI) to more fairly and effectively increase open space opportunities for low-income communities and communities of color.
- Use a Power Purchase Agreement (PPA) to commit to buy at least 100 megawatts (MW) capacity of offshore wind power off the coast of Long Island, thereby serving the energy needs for 50,000+ households, catalyzing the nascent offshore wind industry for the region, and creating an alternative to existing, dirty peaker plants concentrated in low-income communities and communities of color.

PUBLIC HEALTH

- Fully address public safety issues associated with the environmental impacts of industrial operations and potential hazardous exposures by developing best management practices for active industrial facilities in waterfront areas and floodplains (including operational activities).
- Increase understanding of potential toxic exposure by implementing testing protocols, which include water quality, sediments, and vapor intrusions, particularly in vulnerable industrial waterfront communities.

- Address the needs of existing vulnerable groups, including people with physical, sensory and mental disabilities, by creating specific emergency management and preparedness plans, particularly in low-income areas with high concentrations of seniors, children, or other groups requiring special attention.
- Assess and implement zoned system for commercial waste hauling to maximize public health benefits in environmental justice neighborhoods overburdened by unnecessary truck traffic.
- Prioritize Neighborhood Health Action Centers in neighborhoods with the highest health disparities.
- Modify the NYC Community Air Survey (NYCCAS) to include additional air quality monitors in environmental justice communities, and include provisions to reduce co-pollutants.
- Re-introduce new legislation to amend the buildings codes and require mandatory retrofits of existing hospitals, nursing homes, and adult care facilities in the 500-year floodplain; as proposed by the *SIRR*. Harden primary care and mental health clinics by completing the *SIRR* initiative to provide grants and loans for these facilities to increase their resiliency.

COMMUNITY PREPAREDNESS

- Designate community-specific evacuation routes and appropriate mechanisms to support sensitive populations in the communities that require special assistance.
- Assess the vulnerability of NYC's local food distribution system and identify additional food distribution opportunities.
- Create accessible and reliable mobility and evacuation infrastructure. Complete the "Transportation Playbook" to be followed during emergencies to address disrupted transit services.
- Complete Community Preparedness Toolkit and initiatives related to creating IT tools and online systems for emergency services and notifications.

COMMUNITY-BASED PLANNING

- Create a long-term public participation process to engage community-based organizations in the evaluation and implementation of *OneNYC*. Propose communication channels for long-term relationship-building between communities and City agencies, including the re-engagement of the City’s Sustainability Advisory Board to provide oversight on the implementation of the *OneNYC* initiatives.
- Engage local communities via (a) the creation of innovative Mayor’s Management Report indicators to measure progress of *OneNYC* and (b) policy recommendations and proposals for adaptation and resiliency capital projects and programs in climate-vulnerable and environmentally overburdened low-income neighborhoods and communities of color.
- Provide technical and financial resources to expand community capacity for climate change planning, support and partner with local grassroots stakeholders in all resiliency planning and implementation efforts, and respond to community-defined priorities.

For a more detailed and complete list, see the Recommendations section at the end of this report. The recommendations aim to expand on *OneNYC*’s intent to help safeguard the health and safety of vulnerable communities in the face of the increasing threats posed by climate change.

INTRODUCTION

New York City Environmental Justice Alliance (NYC-EJA)

NYC-EJA is a non-profit citywide network founded in 1991 linking grassroots organizations from low-income neighborhoods and communities of color in their struggle for environmental justice. NYC-EJA members – community-based organizations from New York City’s most environmentally overburdened communities – coalesce around common issues to advocate for improved environmental conditions and against inequitable burdens by coordinating campaigns designed to inform public policies. NYC-EJA has a long track record of championing climate resiliency policy and advocacy. In almost linear fashion – from the Waterfront Justice Project to the *Sandy Regional Assembly Recovery Agenda*, to the historic international People’s Climate March mobilization – NYC-EJA’s timely research, policy analysis and advocacy campaigns helped elevate the unique and disproportionate vulnerabilities of environmentally overburdened communities of color to climate change. To learn more about NYC-EJA community resilience work, please see Appendix A or visit our website (NYC-EJA.org).

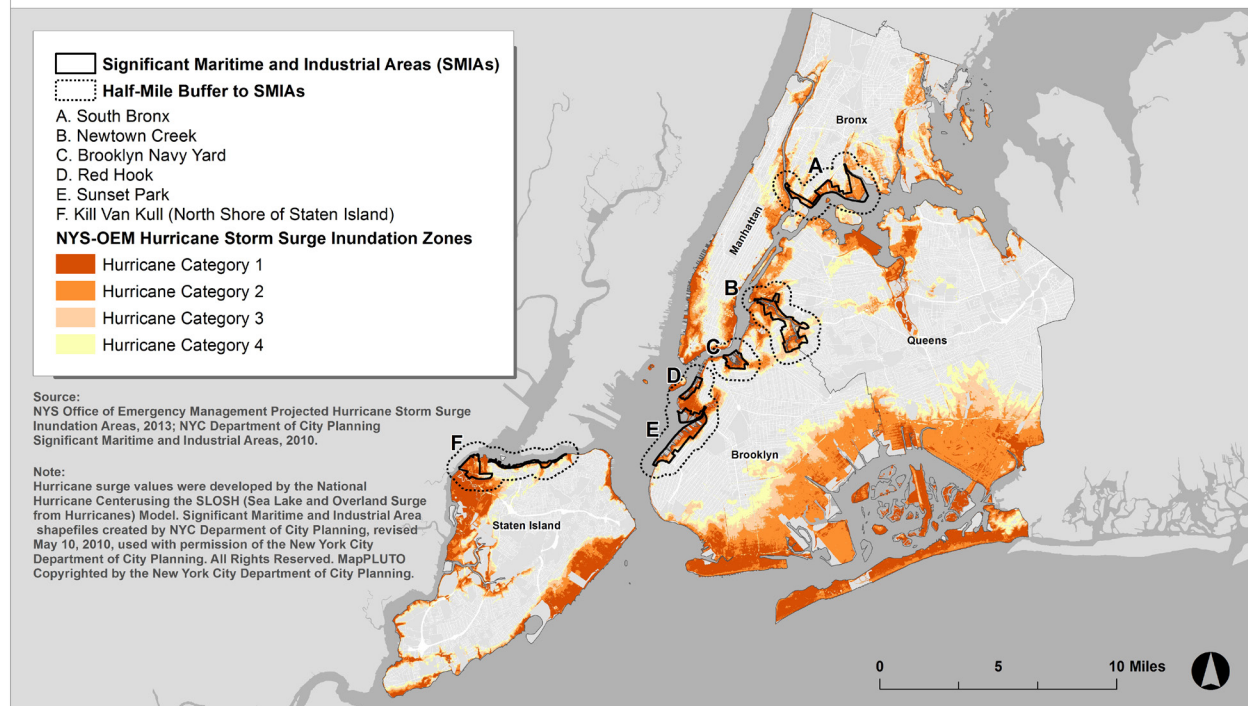


NYC-EJA Member Organizations in 2016

New York City’s Vulnerabilities

Climate change poses an existential threat to coastal cities, and New York City is no exception. Although climate change will have severe and long-term effects on all NYC residents, these impacts will not be felt equally. “Climate justice” is based on the principle that “frontline communities” are most vulnerable to climate change and, therefore, must play an integral role in planning for climate resiliency. These are communities where climate vulnerability intersects with historic patterns of environmental burdens that disproportionately affect low-income communities and communities of color. The New York City Environmental Justice Alliance (NYC-EJA) developed the *NYC Climate Justice Agenda: Strengthening the Mayor’s OneNYC Plan* as a policy framework to analyze *OneNYC* and other City resiliency plans for their “climate justice” impacts – and to recommend further action to help build a healthier, climate-resilient New York City for vulnerable low-income communities and communities of color.

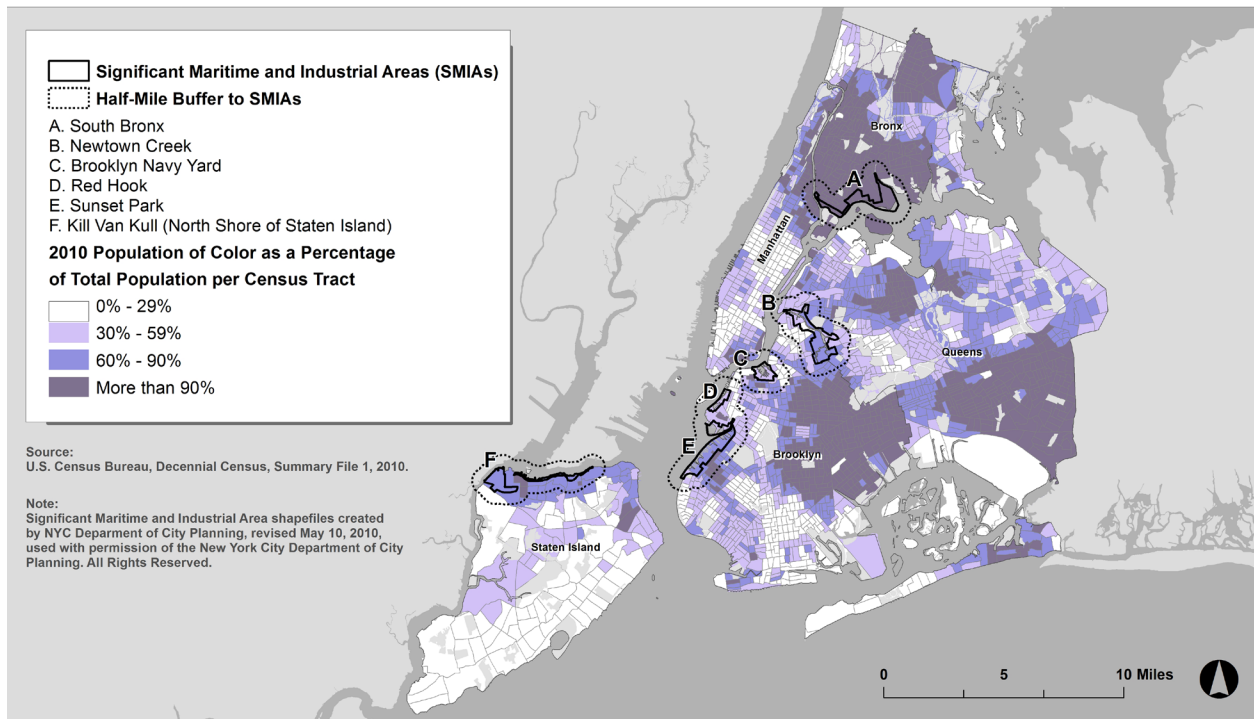
Hurricane Storm Surge Inundation Areas in New York City



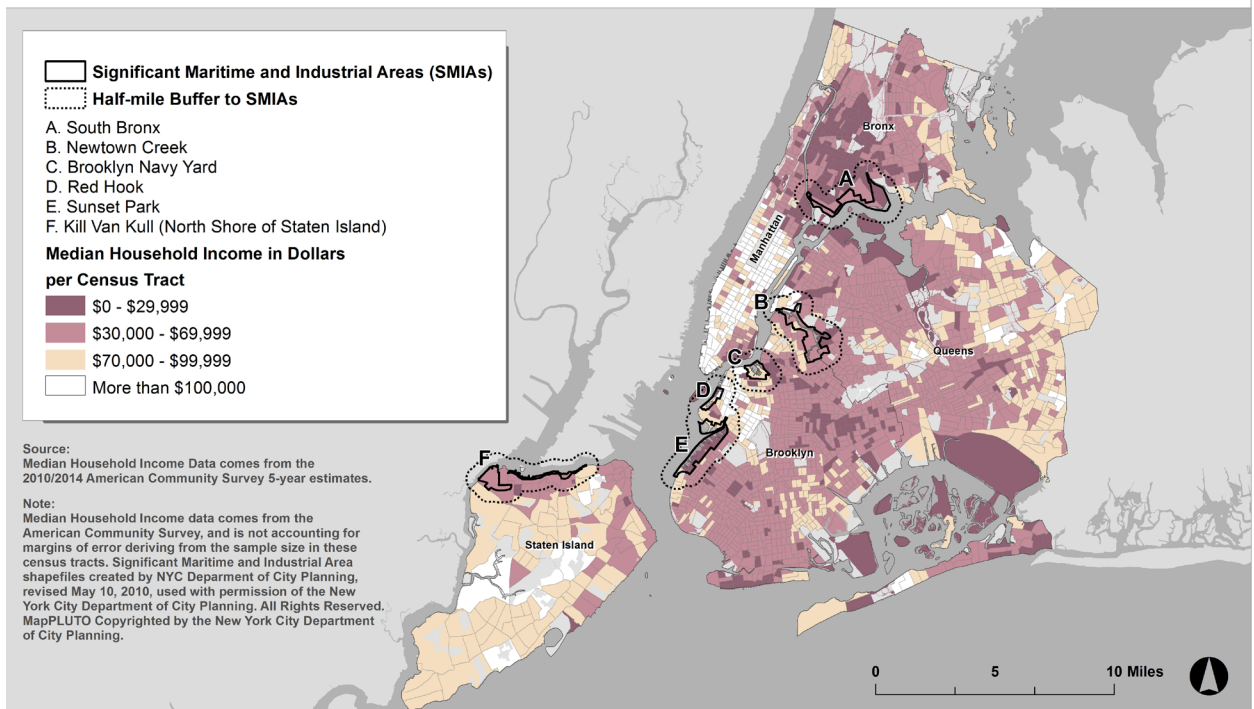
NYC-EJA’s interest in climate resiliency stems from the unique vulnerability our members face from the designation of their waterfront communities as Significant Maritime and Industrial Areas (SMIAs). SMIAs are a NYC Department of City Planning (NYC-DCP) designation, where development applications are treated differently and to a lower review standard than other waterfront areas, thereby facilitating the siting and clustering of potentially noxious, polluting uses and infrastructure (Bautista et al 2015). There are only six SMIAs in the City – the South Bronx, Sunset Park, Red Hook, Newtown Creek, Brooklyn Navy Yard, and Kill Van Kull (North Shore of Staten Island) – all located in predominantly low-income neighborhoods and communities of color. Together, the six SMIAs encompass 4,000 acres of land. All of the SMIAs are vulnerable to storm surge, as projected by the NYS Office of Emergency Management (Bautista et al 2015). The majority of the residents in areas around the SMIAs are people of color. In fact, 430,000 people of color (a number similar to the population of Atlanta) live in Census tracts that are vulnerable to storm surge, and that fall within a half mile of the SMIAs.

The population living in and around the SMIAs also represents some of the lowest median household incomes in the city, denoting socioeconomic vulnerability. As the post-Sandy NYU Furman Center analysis revealed, most of Sandy’s victims were low-income New Yorkers. Sandy impacted nearly 20 percent of all NYCHA properties (i.e., 402 buildings with over 35,000 units), and “nearly one-third of owners (29.9 percent) and two-thirds of renters (64.9 percent) directly impacted by Sandy had household incomes of less than \$30,000 per year” (NYC Furman Center 2013).

Population of Color in New York City



Median Household Income in New York City



New York City’s Sustainability and Resiliency Plans

Since Mayor Bloomberg established the Mayor’s Office of Long Term Planning and Sustainability in 2006, the City periodically released sustainability and resiliency blueprints. The first iteration of *PlaNYC*, titled *A Greener, Greater New York*, was released in 2007 and updated in 2011. This report focused on meeting the needs of NYC’s growing population. After Superstorm Sandy hit in 2012, the City built on *PlaNYC* to address issues around resiliency and climate change impacts, and published the report *Special Initiative for Rebuilding and Resiliency: A Stronger, More Resilient New York (SIRR)* in 2013.



The City’s sustainability and resiliency blueprints. From left to right, released in 2007, 2011, 2013, and 2015.

On Earth Day in 2015, Mayor de Blasio launched *OneNYC* (City of New York, 2015), a comprehensive plan articulating the goals and long-term agenda of the administration in four visions: economic growth, equity, sustainability, and resiliency. Adapted from Mayor Bloomberg’s *PlaNYC*, *OneNYC* aims to address the City’s long-term challenges: a growing population, an evolving economy, infrastructure needs, urban environmental conditions and climate change, and growing inequality. *OneNYC* is the next iteration of the City’s resiliency and sustainability planning; hence, initiatives from *SIRR* and *PlaNYC* are enveloped in this plan and future *OneNYC* updates will continue to report on their progress. The Mayor’s Office of Sustainability and the Mayor’s Office of Recovery and Resiliency manage the development, implementation, and progress of *OneNYC*.

NYC Climate Justice Agenda: Strengthening the Mayor’s OneNYC Plan

Low-income communities and communities of color sit at a nexus of physical, political, and economic forces that leaves them most vulnerable to extreme weather events and other climate change impacts. The *NYC Climate Justice Agenda: Strengthening the Mayor’s OneNYC Plan* seeks to identify strategies to address climate change impacts on environmental justice communities, and the disproportionate effects they will have on vulnerable populations. This report contains a systematic analysis of *OneNYC* to identify and evaluate City recommendations addressing the following areas of research:



- 1. Climate Adaptation and Mitigation:**
Climate adaptation and mitigation strategies in low-income neighborhoods and communities of color.



- 2. Equity and Infrastructure:**
Local development initiatives to ensure equal access to local economic benefits associated with adaptation and resiliency infrastructure investments.



- 3. Public Health:**
Specific initiatives addressing public health issues in the context of climate change impacts.



- 4. Community Preparedness:**
Resources assigned to support local community preparedness and emergency management.



- 5. Community-Based Planning:**
Transparency and inclusiveness in the decision-making process to design and implement City resiliency initiatives.

The report also outlines the extent of interagency planning and coordination reflected in *OneNYC*. Following the analysis of *OneNYC*, this report assesses the status of key initiatives in each of these five areas under Bloomberg’s *SIRR*. The report then explores other climate justice initiatives from the City that are not discussed in *OneNYC*. Finally, the report lifts up the climate justice initiatives of grassroots environmental justice groups across the city and lays out policy recommendations to help build healthier, more just and livable, climate-resilient communities.

OneNYC ANALYSIS: STRENGTHS & SHORTCOMINGS

OneNYC is unique because it simultaneously addresses sustainability and resiliency in one report, and introduces equity as a guiding principle for the very first time in one of the City's sustainability blueprints. This major shift represents an acknowledgment on behalf of the City that unsustainable practices and economic injustices are inexorably linked – and must be tackled as a citywide priority. By placing an emphasis on equity, *OneNYC* aims to tackle the root causes of climate vulnerabilities and health disparities head on.

The City has used this platform to put forth several ambitious landmark goals. The two most ambitious sustainability initiatives are 80x50 and Zero Waste, which call for reducing emissions 80 percent below 2005 levels by 2050, and sending zero waste to landfills by 2030, respectively. Both of these goals are consistent with NYC-EJA's campaign work with allies ALIGN NY and the NYC Central Labor Council in "Climate Works for All", a coalition to advocate for innovative sustainability investments that result in living-wage jobs; and "Transform Don't Trash NYC", a partnership with ALIGN NY, New York Lawyers for the Public Interest, and the Teamsters Union to overhaul NYC's commercial waste sector. We are pleased that the major goals of this plan



Photo: Magali Ortiz

Superstorm Sandy Debris near Superfund Site Gowanus and Red Hook, Brooklyn

broadly reflect some of the goals of local grassroots environmental justice campaigns.

OneNYC introduces important new themes not addressed in previous sustainability plans, but the result of this increase in scope is a diminished level of detail when compared with previous sustainability blueprints.

Though the spirit of the goals may be in the right place, without a clear path for implementation, the initiatives often do not transcend from lofty goals to a concrete plan.

Additionally, the implementation of the *OneNYC* goals remains primarily a top-down effort. The report lacks a genuine community engagement

Climate Adaptation and Mitigation



Strengths

- Aims to reduce greenhouse gases by 80 percent by 2050 (80x50)
- Integrated flood protection systems slated for several neighborhoods
- Continued expansion of green infrastructure and smart design for stormwater management

process and clear mechanisms to support on-the-ground efforts to engage local communities in building resiliency – representing significant missed opportunities for NYC.

1. Climate Adaptation and Mitigation

There is global scientific consensus that our climate is rapidly changing as a result of anthropogenic (human) activities (IPCC 2014). NYC is a major greenhouse gas (GHG) emitter and must aim to both mitigate sources of emissions and adapt to protect residents from imminent climate change impacts and hazards. While climate change policy discussions initially focused on mitigation, adaptation is increasingly prominent in policy discussions as the threats posed by

climate change continue to grow. Mitigation and adaptation strategies are interconnected in many ways, and there are synergies to be gained from an integrated policy approach (IPCC 2014). The New York City Panel on Climate Change establishes a “flexible adaptation framework” that encompasses both adaptation and mitigation strategies (NPCC 2015). Integrated climate adaptation and mitigation strategies are needed in NYC’s most climate-vulnerable communities, including: pathways to reduce GHG emissions; interventions to blunt climate change impacts such as flooding, storm surge, sea level rise, extreme heat, and wind; and measures that increase our resiliency, such as the use of green infrastructure, increased energy security,

and reliable evacuation infrastructure.

Strengths

As a waterfront city, New York is particularly vulnerable to the effects of climate change. The World Bank ranks NYC third globally at the greatest risk for costly damages from storm surges and flooding (Duc 2013). *OneNYC*’s landmark 80x50 initiative is an ambitious goal to mitigate the worst of these impacts by reducing the city’s GHG emissions by 80 percent of 2005 levels by 2050 (City of New York 2015). This target positions New York City as a global leader for climate action.

OneNYC proposes a variety of different strategies to address climate change impacts related to coastal protection and stormwater management. The City

Climate Adaptation and Mitigation



Shortcomings

- 80x50 initiatives lack concrete path for implementation
- Stronger commitments should be made for Hunts Point coastal resiliency
- SMIA's not prioritized for green infrastructure
- Threat of other climate change impacts, such as extreme heat and wind, inadequately addressed

has announced \$3.7 billion for comprehensive coastal protection that includes location-based interventions. Projects include integrated flood protection systems (IFPS) for Red Hook and Lower Manhattan neighborhoods including the Lower East Side, an armored levee on the East Shore of Staten Island, the Rockaway Boardwalk Reconstruction Project, and the US Army Corps of Engineers' Rockaway Reformulation in Jamaica Bay and Atlantic Beaches (City of New York 2015, 39, 246). Additionally, the City is moving forward with a Coney Island Tidal Barrier and Wetlands Feasibility Study and green infrastructure improvements in Coney Island (City of New York 2016, 66).

The City will continue to

work on the expansion of NYC Department of Environmental Protection's (NYC-DEP) Green Infrastructure Program on curbs, parks, schoolyards, and public housing, and also increase the number of stormwater retrofits on private property through the Green Infrastructure Grant Program. According to a recent NYC-DEP study, the co-benefits of increased green infrastructure include carbon sequestration, urban heat island (UHI) mitigation, reduced energy demand, improved ecosystem services, improved air quality, increased quality of life, reduced stormwater treatment needs, and green jobs (NYC-DEP 2014, 34). These co-benefits are critical for environmental justice communities, and SMIA's. The quantification of green infrastructure's impacts on the UHI effect

should be folded into the Urban Heat Island Working Group introduced in *OneNYC*.

Shortcomings

Overall, the *SIRR* was more detailed in terms of the policies, tools, and strategies that the City will adopt to address the adverse effects of a changing climate. The *SIRR* dedicated entire chapters to the neighborhoods most in need of climate adaptation, detailing location-based interventions often on a street-by-street basis – in stark contrast to *OneNYC*.

80x50 is a prime example of an ambitious target that lacks clear pathways to achieve the goal to reduce GHG emissions from buildings by 30 percent by 2025, as outlined in *One City*:

Built to Last. The energy used in NYC’s buildings contributes nearly three-quarters of all citywide emissions (City of New York 2014, 7). Buildings over 50,000 square feet make up just 2 percent of the overall building stock, yet account for almost half of the built square footage and 45 percent of total citywide energy use (City of New York 2014, 29). Since the Mayor’s initial announcement of 80x50, the City has created a Buildings Technical Working Group (TWG) to analyze the potential GHG reduction pathways for the buildings sector, including the potential to mandate energy retrofits for existing buildings (City of New York 2015, 174).

Based on committee meetings attended by our Climate Works for All allies at ALIGN NY, it is likely that the 80x50 TWG will recommend both prescriptive and outcome-based code changes; the prescriptive code changes may require improvements to features such as windows and insulation, while the outcome-based code changes may require that

buildings undergoing a major renovation meet energy use reduction goals (Daisy Chung and Josh Kellerman, ALIGN NY, personal communication March 18, 2016). As an appointed TWG member, NYC-EJA is concerned whether the incremental Energy Code update in 2019 will contain provisions to address issues around labor, equity, and enforcement. Even if the TWG makes strong recommendations, there is no guarantee that the recommended code changes will be adopted.

While *OneNYC* expresses a desire on behalf of the City to “establish world class green building and Energy Codes” (City of New York 2015, 174) the language used in the document remains ambiguous in how and whether this will be achieved by the 2025 deadline. (For more, see the Equity and Infrastructure Shortcomings section.)

The City has announced \$3.7 billion for citywide coastal protection. While the City has committed considerable resources to building IFPS in Lower

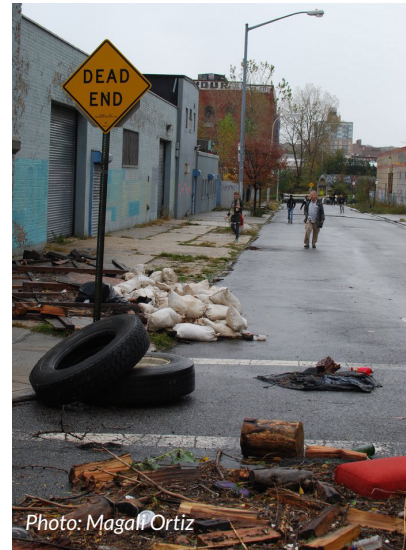


Photo: Magali Ortiz

Debris from Superstorm Sandy near Superfund Site Gowanus, Brooklyn

Manhattan and Red Hook, it lacks similar commitment levels across other vulnerable waterfront communities. This is particularly critical in and around SMIA. Low-income communities and communities of color have been historically disproportionately burdened by various environmental impacts, but have not received anywhere near the same level of resiliency investment. The US Department of Housing and Urban Development (US-HUD) awarded multi-year grants of \$335 million to the East Side Coastal Resiliency Project and \$176 million for the Lower Manhattan Coastal Resiliency Project for IFPSs.

OneNYC reports that significant coastal protection strategies have yet to be funded (City of New York 2015, 250). Though we acknowledge the challenges of limited federal funds, the City has to work towards committing more equitable funding for low-income neighborhoods and communities of color in other areas of the City. For example, the City has so far only slated \$1 million for East Harlem and an undetermined amount towards coastal protection in Hunts Point. Only a small portion of the \$45 million slated for the Hunts Point Resiliency Project is actually going towards coastal protection. The NYC Economic Development Corporation (NYC-EDC) announced in December 2015 that this investment will be prioritized for an energy project, with only a feasibility study for coastal protection. While NYC-EDC has committed to an ongoing community engagement process, community concerns remain regarding how authentic the engagement will be, given the way community concerns regarding coastal protection were minimized.

Flood protection continues to be a top community concern for Hunts Point, which also has regional implications, given that the majority of the City's food passes through the Hunts Point Food Distribution Center, the largest food distribution center in the U.S., and the second largest in the world. Following Sandy, the Mayor's Office acknowledged that had Sandy's landfall coincided with high tide in the Long Island Sound, the Hunts Point food markets would have been impacted, disrupting NYC's food supply for an indeterminate amount of time.

Through the Waterfront Justice Project, NYC-EJA has conducted extensive research on the unique climate vulnerabilities of the SMIA's to climate change. Green infrastructure improves the built environment's capacity to manage water, and therefore should be prioritized in SMIA's due to the public health risks associated with the potential exposure to hazardous materials in the event of severe weather. NYC-DEP's 2014 Green Infrastructure Report identifies 8 priority

water bodies and various neighborhoods as current and planned Priority Combined Sewer Overflow (CSO) Tributary Areas for green infrastructure (NYC-DEP 2014, 11), and OneNYC also identifies Southeast Queens as needing an action plan to alleviate its flooding. Several SMIA's, however, are still not prioritized for green infrastructure in any City plans, including the Brooklyn Navy Yard, Red Hook, Sunset Park, and Kill Van Kull. Furthermore, other City initiatives that encourage the development of green infrastructure projects, like the wetland mitigation banking initiative for wetland restoration (MARSHEs), have created the opportunity to finance ecological restoration exclusively in the Saw Mill Creek Marsh in Staten Island, leaving behind opportunities for similar ecological investments in low-income neighborhoods and communities of color (NYC-EJA 2013a).

Lastly, OneNYC's approach to the threat of high winds is still preliminary. Strong winds, which will accompany increasingly frequent and severe storms driven by climate

Equity and Infrastructure



Strengths

- Zero Waste Initiatives propose reassessment of the commercial waste collection zones
- New recycling bins in all NYCHA developments
- Financing options for building retrofits and resiliency in NYCHA
- Energy Performance Contracts for NYCHA to improve lighting and boilers
- Converting residual heating oil boilers
- Focus investments in parks in neighborhoods that need it the most

change, can fell trees and damage or destroy overhead utility lines, causing power outages, and can irrevocably damage property and homes. The City’s studies of wind impacts have barely exceeded the launch stage (City of New York 2015, 232). This is a major threat that needs to be addressed in tandem with other climate change impacts.

2. Equity and Infrastructure

In using equity as a framework, the City seeks to prioritize vulnerable communities when pursuing sustainability initiatives.

Strengths

Nowhere do the twin goals of equity and sustainability intersect more powerfully for NYC’s environmental justice communities than in the area of solid waste. *OneNYC’s* Zero Waste

initiative builds on the solid waste victories of the landmark 20-year 2006 Solid Waste Management Plan (SWMP). NYC-EJA and our allies have long advocated against the antiquated, inefficient and polluting land-based waste transfer stations. This truck-dependent waste export system disproportionately overburdens low-income neighborhoods and communities of color. Largely due to NYC-EJA’s advocacy with our allies, the SWMP adopted by the Bloomberg Administration and City Council radically transitions NYC towards a more equitable network of marine and rail transfer stations located in all five boroughs. When fully implemented, the SWMP will reduce annual

vehicle miles traveled (VMT) in NYC by 5.5 million miles. The de Blasio Administration continues the SWMP implementation, now in its tenth year; their ambitious introduction of Zero Waste represents the logical next step for NYC.

As part of the Zero Waste initiative, the City will conduct a comprehensive study of commercial waste collection zones (City of New York 2015, 186). As part of the Transform Don’t Trash (TDT) coalition, NYC-EJA and our allies introduced the policy debate in 2013 of overhauling our commercial waste system in order to increase waste management efficiency, environmental and worker standards, and commercial recycling rates, and also

to decrease the reliance on solid waste transfer stations. Additionally, the City is finally committing to rolling out recycling in NYCHA housing developments. This is partly due to the advocacy of NYC-EJA member organization, the Morningside Heights-West Harlem Sanitation Coalition, which launched the first tenant-run recycling program in NYCHA at Grant Houses (Navarro 2009).

Another NYCHA infrastructure benefit from *OneNYC* slates \$3 billion in Federal Emergency Management Agency (FEMA) funds for resiliency programs in thirty-three NYCHA housing developments, including elevation and hardening of building systems, flood-proofing, and upgrading infrastructure (City of New York 2015, 231). Moreover, in continuing implementation of *One City Built to Last*, NYCHA will create a series of Energy Performance Contracts (EPC) valued at over \$100 million, and facilitated by the US-HUD. The first of the contracts will target inefficient lighting and

boilers in some NYCHA buildings, comprising \$40-60 million (City of New York 2015, 175).

Another welcome *OneNYC* proposal with clean air benefits for environmental justice communities are plans to accelerate conversions of residual heating oil boilers in buildings (City of New York 2015, 191). The City will explore additional funding for loans and grants to finance resiliency retrofits for those who cannot participate in existing programs (City of New York 2015, 233).

A long-standing equity imbalance in NYC has been investment in park space. *OneNYC*'s Community Parks Initiative (CPI) is an equity-based approach for park investment for neighborhoods in need. Through this initiative, the NYC Department of Parks and Recreation (NYC Parks) launched major capital investments in parks in areas of high need. The characteristics used to designate eligible zones for the CPI were the federal poverty level, population density, and rate of growth

(City of New York 2015, 208).

Shortcomings

Creating a more resilient city is also an opportunity to create a more just city. Equity is used as a guiding principle throughout *OneNYC*. However, many of the initiatives must be strengthened in order to achieve the Mayor's desired transformational change.

Currently, over 75 percent of the City's entire solid waste stream is processed in a handful of environmental justice communities throughout the City. And while the goal of Zero Waste to landfills is a laudable and overdue goal, *OneNYC* missed several ways to strengthen the shift to a more equitable and sustainable waste management system. First, the City needs to incentivize the use of its marine transfer stations and make them more cost-efficient waste export options for commercial haulers. Second, supporting the Council's Intro 495 would reduce permitted capacity at putrescible and non-putrescible solid

Equity and Infrastructure



waste transfer stations in certain overburdened environmental justice communities in New York City, while instituting a first-ever cap for every community district of no more than 5 percent of the city’s entire waste stream – thereby ensuring that every borough in the city handles its fair share of the waste burden, and no community is unfairly overburdened ever again. And finally, *OneNYC*’s proposed study of the commercial waste sector must rise to the challenge of its own Zero Waste branding and embrace comprehensive commercial waste collection zones as Los Angeles recently did – to protect our communities, workers, and small businesses (for more, see the Public Health Shortcomings section).

While it is welcome news that NYCHA is finally coming into compliance

Shortcomings

- Strengthen local equity in waste management by incentivizing the use of marine stations for commercial waste exports, establishing community district waste transfer station capacity limits and scoping a comprehensive commercial waste sector study that adequately examines commercial waste zones
- Engage NYCHA residents in designing and implementing successful recycling programs
- Energy Code update should require provisions for equity and labor
- Missed opportunity to create community benefits associated with infrastructure investments
- Need to upgrade New York City’s energy distribution systems by investing in microgrids
- Lack of clear pathway to increase share of wind energy which can create an alternative to dirty peaker plants
- Lack of local hiring provisions tied to resiliency investments
- NYCHA boiler rooms remain severely understaffed
- Revise selection criteria for the CPI to more fairly and effectively increase open space opportunities for low-income neighborhoods and communities of color

with the 1989 recycling law, the design and implementation of recycling at NYCHA has been a top-down, not bottom-up, approach. Physical infrastructure, such as new bins, may bring NYCHA into technical compliance of the law, but this does not ensure a successful recycling program. Residents need to be educated, engaged, and motivated to increase

participation in recycling efforts and divert as much material away from landfills as possible. Additionally, as discussed with NYC-EJA member organization Morningside Heights-West Harlem Sanitation Coalition and the Natural Resources Defense Council (NRDC), we understand that there is only one NYC staff person working full-time to educate NYCHA residents about the ‘expanded’

recycling operations at NYCHA facilities (Eric Goldstein, NRDC; and Joan Levine, Morningside Heights-West Harlem Sanitation Coalition, personal communications March 28, 2016). NYCHA should expand their public education efforts by committing additional technical and financial resources to support this process.

OneNYC's top 80x50 goal – developing a plan for reducing building emissions which constitute 70 percent of NYC's GHG emissions – will most likely be addressed in the upcoming Energy Code overhaul anticipated for 2019. However, *OneNYC* fails to anticipate the labor, equity, and enforcement concerns that might be overlooked in the upcoming Energy Code update. The 2019 Energy Code time-frame will probably be articulated in the recommendations from the 80x50 Buildings Technical Working Group (TWG), but the final recommendations have yet to be released. The TWG recommendations are unlikely to articulate specific investment and job

creation goals with regards to the proposed large building improvements, nor will it likely identify mechanisms to protect rent-regulated tenants (who are mostly New Yorkers of color) from major capital improvement rent increases. This is one of the few ways landlords can increase the rent of rent-regulated units, a problem that is likely to ensue from building retrofits. The City should affirmatively and pro-actively identify mitigation strategies for these sorts of labor and tenant-protection issues that will likely be left unaddressed by the TWG. (Daisy Chung and Josh Kellerman, ALIGN NY, personal communication, March 18, 2016).

OneNYC misses a big opportunity to take leadership in the “just transition” to a renewable energy economy, in which communities and workers benefit from, and are not penalized by, transitioning our current energy system to one that is clean and sustainable. One strategy to do this is to identify and cultivate community co-ownership

of energy infrastructure opportunities. This would enable residents and the economies of local communities to capture some of the revenue expected to be generated by new renewable and distributed generation systems. This model is critical in NYC because the majority of people are renters. Therefore, traditional incentives for renewable energy must be adapted so that community residents can truly capture the economic benefits produced by new energy infrastructure.

By investing \$400 million over the next three years, NYC can pilot two microgrids powered by energy-efficient combined heat and power (CHP) systems or by solar or geothermal energy, generating 104 Megawatts (MW) of electricity in key neighborhoods (Climate Works for All Coalition 2014). The City should prioritize this type of technology when negotiating EPCs, particularly as it relates to publicly-owned buildings. This investment would create 5,000 jobs and reduce GHG emissions by

more than 543,000 metric tons of carbon dioxide equivalent (CO₂e) per year (Climate Works for All Coalition 2014). These microgrids would also help to prevent widespread blackouts like the one following Superstorm Sandy, and would promote energy self-reliance in climate-vulnerable communities.

In January 2016, Mayor de Blasio signed a geothermal bill into law, requiring new City-owned buildings to install geothermal systems when a forthcoming online screening tool deems them cost-effective (New York City Council 2016). This bill is an important achievement, and we commend the inclusion of the social cost of carbon in the screening tool. However, such mechanisms need to be developed for other sources of renewable energy. Additionally, as an environmental justice priority, renewable energy needs to be pursued even when it may not be deemed financially cost-effective. Another opportunity to increase energy efficiency is incorporating Solar Hot Water (SHW) technologies,



Photo: Magali Ortiz

Flooding from Superstorm Sandy near Superfund Site Gowanus and Red Hook, Brooklyn

or “solar thermal systems”, to heat water in mid-size multifamily buildings. As noted in the 2013 City University of New York (CUNY) Report, “New York City Solar Water Heating Road-map”, solar hot water technologies have the potential to reduce GHGs while also reducing air quality impacts of dirty heating oil (Veilleux and Rickerson 2014). One to twelve story buildings with south facing roofs are considered good candidates for SHW – including significant clusters in the Bronx and Northern Manhattan. However, while the local solar photo-voltaic market has increased, there is a striking lack of solar thermal installations

in New York City. SHW initiatives in NYC should prioritize NYCHA and rent-subsidized buildings in low-income areas with poor air quality where asthma and other respiratory illnesses are prevalent, using tax credits, abatements, or other incentives to catalyze markets for these technologies.

To address the 80x50 initiative to increase the City’s share of renewable energy, in July 2015, the City issued a Request for Information (RFI) designed to identify sources of new renewable energy generation (as opposed to existing projects), seeking responses from industry as part of efforts

to reduce GHG emissions from City government operations 35 percent by 2025 (Office of the Mayor 2015). In its original press release, the City disclosed that it currently spends between \$600 million and \$650 million annually on electricity, and: “[by] leveraging that purchasing power, the City could catalyze the development of new sources of renewable power, reduce greenhouse gas emissions, and chart a path to receive 100 percent of electricity from renewable sources of energy. This will further the City’s commitment to reduce greenhouse gas emissions 80 percent by the year 2050” (Office of the Mayor 2015). A new opportunity for the City to leverage its power and help achieve utility-scale renewable energy has recently emerged. The US Department of the Interior’s Bureau of Ocean Energy Management and Secretary of the Interior, Sally Jewell, have issued a lease auction for an offshore wind farm covering 127 square miles off the coast of Long Island (Bureau of Ocean Energy Management 2016).

Soon to be available for competitive bidding, the site could support 194 turbines and generate 700 MW, enough to power 300,000 homes.

According to DeepWater Wind, the City could issue a Request for Proposals (RFP) for a Power Purchase Agreement (PPA) to buy at least 100 MW of offshore wind, which could supply the energy needs for 50,000+ households, or 8-10 percent of the municipal load (DeepWater Wind 2016). This PPA would not only catalyze large-scale wind production for the New York region, but could also help address a major environmental injustice issue. This offshore wind farm could create an alternative to the existing, dirty “peaker plants”, which are generators that function as a backup power source on the hottest days of the year, when the power grid is approaching capacity. These highly polluting, sometimes diesel-powered generators, are concentrated in low-income neighborhoods and communities of color. The energy resilience the peakers are supposed to provide is self-defeating

if it is powered by highly polluting fossil fuels in neighborhoods suffering from high rates of asthma. Previous administrations have successfully used PPAs to re-power dirty power plants. This same authority can be used to increase the City’s share of wind, reduce GHG emissions, displace the need for this highly polluting infrastructure, and improve air quality for the most vulnerable New Yorkers.

Wind energy is considered a variable energy source. Thus, as the industry begins to take off, customers may be subject to fluctuations in price, which would be most acutely felt by low and middle income customers who pay a disproportionately higher amount of their income on energy (Rocky Mountain Institute 2015). To mitigate the potential impact of price fluctuations, the City can champion a strategy called time-variant pricing (TVP). Rather than charging residential customers a flat rate for energy regardless of the season or time of day it is used and masking the true variable cost of electricity, TVP allows

customers to take greater control over their energy use and electricity bills by changing their behavior to take advantage of times when energy is cheap. In addition to lowering electricity costs for consumers, TVP has the potential to reduce air pollution and optimize use of renewable energy (Rory Christian, Environmental Defense Fund, personal communication, March 29, 2016).

Achieving utility-scale renewable energy requires support from all levels of government. New York State could also play a role in supporting offshore wind power through its new Clean Energy Standard, a regulatory filing mandating that 50 percent of electricity generated in New York result from renewable energy by 2030 (NYS-DPS 2016). New York State could be the first to specifically designate a carve-out for offshore wind as part of this renewable energy goal (Patrick Robbins, Sane Energy Project, personal communication, March 30, 2016).

As part of a “just transition”, environmental justice groups and our labor allies advocate for good, local jobs that are tied to resiliency investments. On the surface, *OneNYC* seems to advocate for this as well, stating: “the City will ensure all investments that strengthen the city’s resiliency will create job opportunities for residents and low-income applicants” (City of New York 2015, 227). However, a closer read reveals that contractors are only required to “report on efforts and outcomes related to local hiring and training” (City of New York 2015, 227). There are no explicit provisions requiring local hiring. Therefore, the City should partner with environmental, economic and labor justice advocates to develop a long-term strategy for improving and implementing stronger and more targeted local hiring and training provisions, which should also enable the City to expand local hiring where applicable.

To effectively address energy efficiency of NYCHA’s boilers, the City should expand the

workforce to address the severely understaffed boiler rooms. In the past decade, the number of workers staffing boiler rooms went from 1,000 to about 400 today. NYCHA has plans to invest in building upgrades through EPCs. These investments allow a third party to finance and conduct energy efficiency upgrades, resulting in lower utility costs. A portion of these EPCs should be used to fund additional job training and employment opportunities for NYCHA residents.

Another initiative that can conceivably combine infrastructure, equity, and job creation is the Community Parks Initiative (CPI). However, while on the surface CPI seems like a benign attempt to improve parks in low-income neighborhoods, it may have unanticipated adverse effects because of the selection criteria used in determining the CPI zones. One of the City’s requirements in selecting these communities is that the population must currently be growing; this reliance on “growth” as

a criterion could mean that park investments under this program would reward rapidly gentrifying communities with increased park investments, thereby creating a wicked loop where gentrifying communities attract a disproportionate share of park investments, which in turn spurs even more displacement. It is also unclear whether CPI relies at all on the traditional metric of inequitable park access (i.e., the minimal standard of at least 2.5 acres of open space per thousand residents) or whether the de Blasio Administration has abandoned *PlaNYC*'s original goal of ensuring that all New Yorkers live within a 10-minute walk of open space. Finally, instead of relying on federal poverty levels, NYC Parks

should have used the NYC Center for Economic Opportunity poverty threshold, which is adjusted to reflect what NYC families spend on basic necessities, such as food, clothing, shelter, and utilities (Office of the Mayor 2015, 3). The CPI Zones identified in the report *NYC Parks: a Framework for an Equitable Future* exclude a number of low-income neighborhoods

and communities of color, including Brownsville, East New York, Red Hook, and Southeast Queens, as well as environmental justice communities served by NYC-EJA members, including Sunset Park and Soundview.

Public Health



Strengths

- Air quality improvements through reduction of emissions from the City fleet, fewer waste collection vehicle trips, the enforcement of vehicle idling laws, and the Retrofit Accelerator Program
- Interventions to address the root causes of mold in NYCHA housing developments
- Access to fresh food retail and community gardens will be prioritized for traditionally underserved neighborhoods
- Neighborhood Health Action Centers will foster cross-sector work to address root causes of health disparities
- Zero waste initiatives will improve air quality and mitigate impacts of severe weather on land-based waste transfer stations
- Leverage FEMA funding to retrofit 4 public hospitals
- Strengthen cleanup standards for brownfields on the waterfront
- Creation of the Urban Heat Island Working Group

3. Public Health

Disruptions to our natural and built environments fueled by climate change will impact human health in a myriad of ways, including, but not limited to, impacts from increased extreme weather events and decreased air quality. In assessing *OneNYC*'s public health initiatives, we focused on those which specifically had a climate change component. In NYC, the public health impacts from increased extreme weather events include potential toxic exposures from accidental chemical release, the proliferation of mold, disruptions to food distribution, the flooding of land-based waste transfer stations, heat related morbidity, and more. Public health co-benefits associated with climate mitigation and adaptation measures include improved air quality and increased access to green spaces.

Strengths

OneNYC takes a holistic view of public health, aiming to address the sources of health disparities at their root.

This is a sharp distinction from the *SIRR*, where the emphasis was placed on addressing the resiliency of healthcare infrastructure. This approach is exemplified in the creation of new Neighborhood Health Action Centers, which will co-locate clinical health, mental health, and social services together in community spaces. The driving idea behind these new Neighborhood Health Action Centers is to “foster cross-sector work that addresses the root causes of health inequities – such as violence, low-income, and low educational attainment” (City of New York 2015, 128).

Poor air quality and the respiratory diseases that come with it are a big concern to environmental justice communities, and one of *OneNYC*'s goals is for NYC to have the cleanest air of any big city in the United States. Air quality will see improvements through the reduction of emissions from the City fleet, fewer waste collection vehicle trips, the enforcement of vehicle idling laws, the Retrofit Accelerator Program, and more.

Compounding the connection between poor air quality and respiratory diseases is the fact that the prevalence of housing-related asthma triggers is strongly correlated with low-income households (See graph in City of New York 2015, 139). The City will work to reduce these triggers by creating incentives for building owners to use integrated pest management, especially in neighborhoods at highest risk for asthma, and funding interventions that address the root causes of mold in public housing developments (City of New York 2015, 139).

OneNYC acknowledges that many New Yorkers are systematically denied access to healthy food, which is fundamental for good health (City of New York 2015, 132). The plan puts forth an initiative aimed at increasing access to high quality food for New Yorkers in traditionally underserved neighborhoods by attracting new supermarkets, improving the nutritional quality of food in school lunches, grocery stores, restaurants,

and corner stores, and supporting community gardens and urban farms.

Part of *OneNYC*'s infrastructure proposal includes leveraging resources to retrofit critical buildings, specifically \$1.7b from FEMA to execute a comprehensive resiliency program across four public hospitals (City of New York 2015, 102).

OneNYC's Zero Waste initiative will trigger a cascade of public health improvements. By decreasing the need for truck-related waste hauling through low-income communities, and increasing the diversion of commercial waste from landfills, the City can improve air quality and stave off the potential impacts of severe weather on land-based waste transfer stations located in areas vulnerable to flooding and storm surge. In addition, the Zero Waste goal of achieving 90 percent recycling by 2030 will result in significant reductions of GHG emissions, mitigating the worst impacts of climate change and reducing the risk of public health crises in the coming decades.

OneNYC also included an initiative to assess the potential for a zoned commercial waste system, in which private carters compete for waste zones based on environmental and worker safety performance. Multiple benefits will accrue, ranging from significant reductions of VMTs to greater transparency of service benefits for small businesses. According to the Transform Don't Trash (TDT) coalition, which introduced the concept of commercial waste collection zones into the policy debate in 2013, this shift could significantly improve air quality by reducing the unnecessarily long and complicated routes of the current commercial waste system. The NYC Department of Sanitation (DSNY) is slated to release their study of the potential for commercial waste zones in late Spring 2016.

Currently, extreme summer heat kills over 100 New Yorkers on average every year (City of New York 2015, 228). Heat-related deaths are more likely to occur in low-income neighborhoods and

communities of color, areas with residents receiving public assistance, and in areas with less green space, where the urban heat island (UHI) effect will only worsen with climate change (Madrigano et. al, 2015). To mitigate this risk, the City has created an Urban Heat Island Working Group to identify adaptation and mitigation strategies. The Nature Conservancy will collect data related to the UHI effect in NYC, and the City will advocate for expanding access to cooling centers for vulnerable populations and explore establishing maximum allowable temperatures in residential facilities and supportive housing for vulnerable communities (City of New York 2015, 228). These measures will improve scientific understanding of the UHI effect in NYC and identify strategies to mitigate its potentially deadly effects. The City's Urban Heat Island Working Group should include modeling that informs design guidelines to increase the resiliency of the built environment to extreme heat, particularly in low-income communities and communities of color with

Public Health



a high heat vulnerability index.

As documented in the map on page 30, overlaying Madrigano et al.'s research findings on the heat vulnerability index per NYC Census tracts onto Con Edison's Brooklyn-Queens Demand Management (BQDM) Program catchment area in Brooklyn. The Brownsville 2.0 substation, which serves over a dozen neighborhoods in Brooklyn and Queens, is currently over capacity. This prompted Con Edison and the NY Public Service Commission to negotiate the BQDM Program to reduce demand by 52 Megawatts. The map shows that communities most vulnerable to heat are the same communities with limited energy infrastructure capacity, which will be exacerbated by increased energy

Shortcomings

- Toxic exposures from active industrial sites not addressed
- Need to create additional air quality monitors in environmental justice communities
- Address lead contamination in community gardens
- Need to expand air quality monitoring to include co-pollutants
- City should implement zoned system for commercial waste hauling
- Health Hubs should be located in neighborhoods with the highest health disparities

demand due to the need for cooling during heat waves. Finally, the City passed new regulations to strengthen standards for cleanup of industrial properties on the waterfront (City of New York 2015, 199). By reducing the levels of contamination from these sites, coastal industrial communities have added protection against the potential toxic exposure spread by future storm surges.

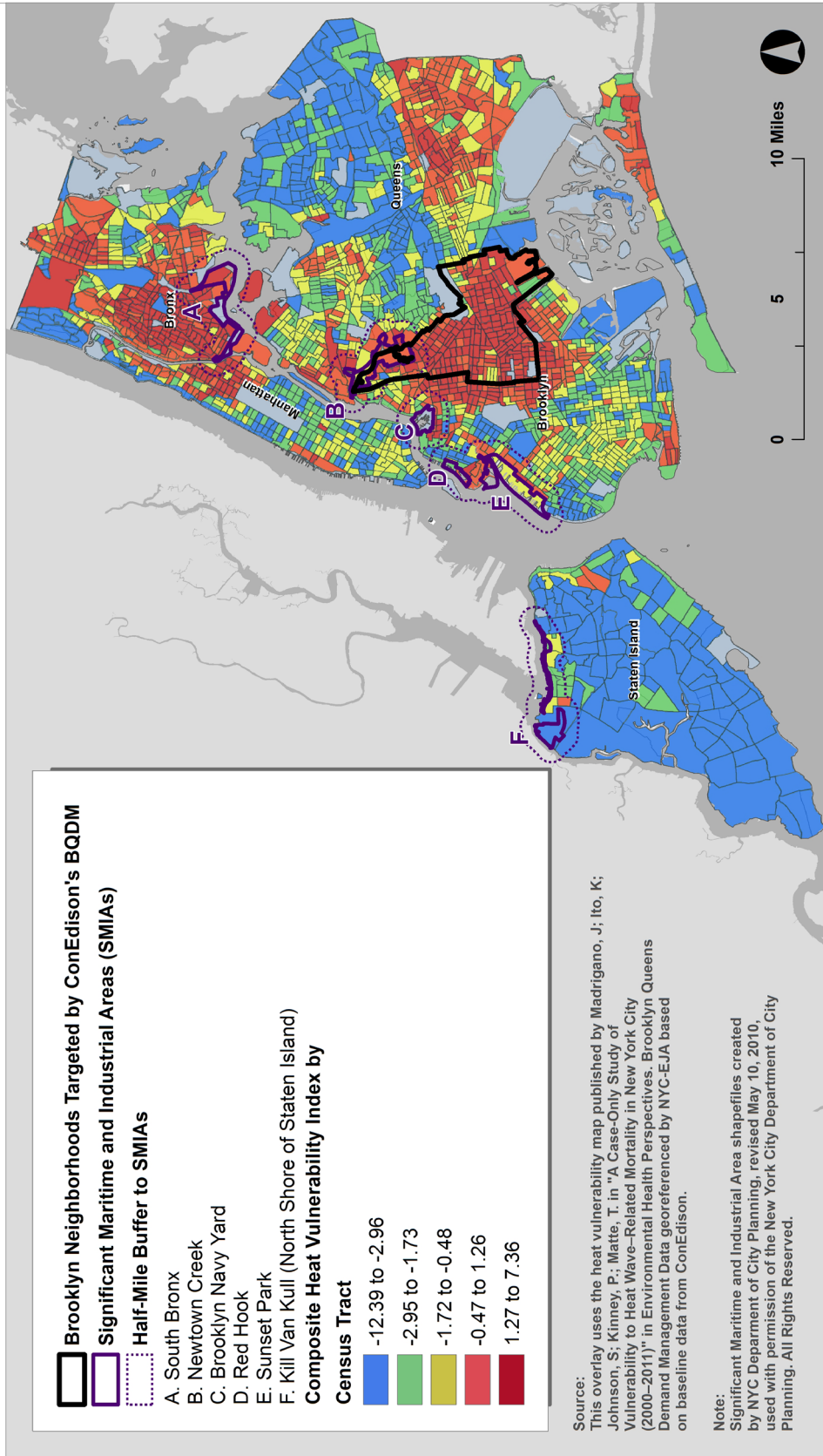
Shortcomings

OneNYC overlooks NYC-EJA's research, referenced by the NYC Panel on Climate Change's 2015 report, into the negative public health impacts that stem from exposure to environmental toxins,

especially in industrial waterfront neighborhoods. While cleanup standards for contaminated brownfields in the waterfront have been strengthened, *OneNYC* does not recognize the potential for disproportionately high exposures in communities that exist in close proximity to active industrial sites. Better and more stringent operational best management practices should be considered within the context of public health concerns before, during, and after extreme weather events. (For more, please see the Community Preparedness Shortcomings section.)

Additionally, several environmental justice priorities to improve citywide air quality remain

NYC Heat Vulnerability Index and Brooklyn Neighborhoods Targeted by the Brooklyn-Queens Demand Management (BQDM) Program



unaddressed. To the City's credit, the NYC Community Air Survey (NYCCAS) was codified into law in November of 2015. However, the NYCCAS must be modified to include additional air quality monitors in environmental justice communities. Additionally, co-pollutants disproportionately impact low-income neighborhoods and communities of color. There is no strategy to reduce co-pollutants as part of the City's 80x50 initiative.

OneNYC is also completely silent on the issue of lead, a traditional public health issue for environmental justice communities. In a March 2016 press release responding to news that federal prosecutors are investigating elevated blood levels in public housing and homeless shelters, Congresswoman Nydia Velázquez stated: "These allegations are disturbing. There is no greater priority than protecting the health of our neighbors, public housing residents and, especially, our children. The suggestion that City agencies may have filed false claims with the federal government is

also troubling" (Velázquez 2016). A recent study from the New York State Department of Health has found that more than half of the eggs tested from chickens raised in public neighborhood gardens in NYC contain detectable levels of lead (New York State Department of Health 2015). A similar study found at least one soil sample exceeding health-based guidance values for lead in 70 percent of the fifty-four tested community gardens in New York City (Mitchell et. al 2015). Lead can be harmful to humans even in small quantities, and with the increased risk of flooding from climate change, the potential for lead to contaminate community gardens needs to be addressed.

While the City's support for community gardens and urban farming sounds promising, we are troubled by recent news that several community gardens in Brooklyn and Manhattan will be offered up for the development of affordable housing. Community gardens are a much needed piece of green infrastructure to mitigate climate change,

and a valuable asset for vulnerable communities.

While *OneNYC* commits to conduct a comprehensive study of commercial waste collection zones (City of New York 2015, 186), it is unclear what recommendations will come from the DSNY study. The City could propose minimal pilots or a full commitment to a zoned system. Full implementation of a citywide zoned system provides the clearest path to addressing all of the environmental, public health, and labor injustice impacts of the current commercial hauling system. An exclusive zoned collection system would increase City revenue by almost \$10 million, increase waste diversion rates, create more than 15,000 jobs over the next decade, and reduce GHG emissions by nearly one million metric tons per year (Climate Works for All, 2014). It would also improve quality of life for low-income communities and communities of color who are disproportionately impacted by truck and waste facility pollution under the current waste hauling system. Moreover,

NYC-EJA and our allies at TDT have pushed the City to consult community and labor stakeholders, and to consider the potential reduction in vehicle miles traveled, improvements in worker safety, diversion rates and equity outcomes.

Finally, while the Neighborhood Health Action Centers are a promising model for improving community health, these centers should be prioritized in neighborhoods with the highest health disparities. Currently, the seven proposed sites were selected largely based on where the New York City Department of Health and Mental Hygiene (NYC-DOHMH) owns property, not public health priorities.

4. Community Preparedness

Community preparedness refers to a neighborhood’s capacity to respond to an emergency, which requires strong social and physical networks. Communities with greater degrees of social cohesion have proven more resilient in responding to emergencies. However, physical infrastructure, such as evacuation routes, shelters, and emergency food distribution systems, also need to be in place. Resources must be assigned to support local community preparedness and emergency management.

Strengths

OneNYC’s initiative to strengthen community-based organizations (CBOs) has an explicit goal of bolstering

neighborhood resiliency by “strengthening community-based organizations’ services, information capacity, and ability to conduct community-level emergency and resiliency planning” (City of New York 2015, 224). Under this same initiative, the City created a Hurricane Sandy Task Force tasked with exploring ways of increasing the participation of CBOs in local emergency planning and resiliency efforts (City of New York 2015, 224).

The NYC Office of Emergency Management (NYC-EM) is working to increase public education efforts to better prepare citizens for extreme weather events. As part of these efforts, NYC-EM has published various preparedness resources. Examples of these resources include a

Community Preparedness



Strengths

- Establishes a Hurricane Sandy Task Force to make recommendations on expanding the participation of local groups in emergency planning and resiliency efforts
- Improves emergency preparedness and planning
- Increases shelter accommodations for the disabled
- Provides existing resources for preparedness planning for individuals, households, and businesses

Community Preparedness



Community Preparedness Toolkit (forthcoming), the NYC’s Community Emergency Response Teams (CERT), My Plan, and Ready NY, while businesses can access resources such as My Plan, Partners in Preparedness, and Ready NY. These resources provide step-by-step guidelines to allow continuity of operations for businesses.

The City will also create emergency shelter sites with the combined capacity to accommodate 120,000 New Yorkers with disabilities – increasing the current capacity over ten times (City of New York 2015, 225).

Shortcomings

To be prepared for an emergency, there is a critical need for accessible and reliable mobility and evacuation infrastructure. *OneNYC’s*

Shortcomings

- Need for additional technical and financial resources to support community-led emergency preparedness planning – including direct technical assistance from City agencies to grassroots groups
- Limited technical and financial assistance for business emergency preparedness – without technical resources to address the needs of industrial businesses vulnerable to climate change impacts
- No evacuation routes, nor public information on safe mobility options, before/during emergencies
- Excluding resiliency upgrades to the Hunts Point Food Distribution Center, there is no mechanism to increase the resiliency or redundancy of food supply and distribution networks
- Measures to increase resiliency of transportation infrastructure are missing, and contradictory in cases such as the proposed Brooklyn Queens street car

proposal to improve the resiliency of transportation infrastructure is vague, stating: “the City will call on regional infrastructure providers and operators... to make critical resiliency investments in their systems”, without explaining what these investments would entail (City of New York 2015, 242). In fact, the one major transportation infrastructure (aside from expanding ferry service) announced by the Mayor was the Brooklyn Queens street car – a developer-driven, tax-increment financed proposal that

relies on gentrification to pay for it – all in a flood zone (Yeampierre and Chavez 2016).

Of tremendous concern is the lack of both specified community evacuation routes and public information on safe mobility options, before and during emergencies. According to NYC-EM, there is some evacuation signage in Queens and the Bronx. However, there are no community-level evacuation plans. In many cases, people need to travel considerable distances

between evacuation zones and the corresponding shelters, without any information on how to get there.

While *OneNYC* says the City will continue to integrate climate resiliency plans into the Hazards Mitigation Plan (City of New York 2015, 226), NYC-EM's report *NYC's Risk Landscape: A Guide to Hazard Mitigation* failed to include information on critical unaddressed risks. This includes potential hazardous exposure in industrial waterfront communities during severe weather events (Bautista et al 2015), highlighted by the NPCC as a critical yet unaddressed climate change impact (NPCC 2013). As documented by the *SIRR*, there were 18 reported spills from industrial facilities regulated by the Community Right-to-Know program during Sandy. Of these spills, 11 were cleaned up before the arrival of NYC-DEP's inspection, and the rest were washed out by the storm (City of New York 2013, 201). However, besides a very preliminary pamphlet developed as part

of the NYC Community Right-to-Know Program, the NYC-DEP has not developed any additional resources to support businesses in preventing similar spills during the next storm, nor has the City developed a testing protocol to monitor these spills.

Even though the Community Right-To-Know laws and regulations were amended by the City Council in 2013 to address the climate vulnerability of industrial businesses (New York City Environmental Justice Alliance 2013b), the NYC-DEP has not updated its guidelines to support such businesses. These changes include additional reporting requirements for facilities located in NYC-EM coastal surge and hurricane evacuation zones; requirements for a certification of compliance with other applicable federal, state, and local laws; a description of how the storage of hazardous substances takes into account potential flooding and other extreme weather events; and consideration of safety issues that include power outages and high winds.

Though NYC-EM has produced preparedness plans for businesses, these generic materials do not respond to the needs of particular industry sectors. This is especially problematic for industrial businesses who have very specific needs and limited capacity to implement climate adaptation, emergency management, and pollution prevention strategies. Therefore, it is critical for current initiatives, such as the NYC Department of Small Business Services's (NYC-SBS) Business Preparedness and Resiliency Program (Business PREP), to partner with CBOs in structuring technical and financial assistance resources for industrial businesses. These programs must respond to on-the-ground community priorities, and build on existing community-based strategies to increase the resiliency of industrial waterfront areas, while protecting and enhancing local and living wage jobs.

Another concern during emergencies is the ability to access food locally. *SIRR* proposed launching a study of the food distribution system to identify

prospective vulnerabilities, but the City has yet to procure a consultant to undertake this study (City of New York 2015, 336). Other than this study and the proposed resiliency upgrades to the Hunts Point Food Distribution Center, there are no mechanisms to increase the resiliency of local food distribution infrastructure – nor to identify and develop potential proposals to create redundancy in the City’s food distribution system beyond the Hunts Point food markets.

While the City is collecting information on vulnerable populations using data from the Census, voluntary surveys from NYCHA, and voluntary data from Con Edison regarding life support, it has not formulated this information as a resource for community response. An inventory or database of vulnerable residents would

help CERT teams in their emergency response.

5. Community-Based Planning

Community-based planning must enable low-income communities and communities of color to engage directly with decision-making and planning. The City must include measures for community oversight, respond to community-defined priorities, and provide technical and financial resources to expand community capacity for climate change planning.

Strengths

Community-based planning is a critical tool to ensure transparency and inclusiveness in the decision-making process around City policy. *OneNYC* explicitly delineates efforts to include community-led improvements in a few

initiatives, most notably in the cases of brownfield redevelopment and the implementation of Vision Zero.

In the case of brownfield redevelopment, the Mayor’s Office of Environmental Remediation (NYC-OER) will designate twenty new neighborhoods as place-based community brownfield planning areas and develop incentives to help the community “better identify strategic brownfield properties and implement community development projects” (City of New York 2015, 197). NYC-OER has a long track record of responding to community-defined priorities around brownfield remediation and redevelopment.

To achieve Mayor de Blasio’s Vision Zero goal, the NYC Department of Transportation (NYC-DOT) will use Borough Pedestrian

Community-Based Planning



Strengths

- NYC-OER will designate twenty new neighborhoods as place-based community brownfield planning areas
- Uses Borough Pedestrian Safety Action Plans developed by communities to guide implementation of Vision Zero

Community-Based Planning



Safety Action Plans to guide the creation of their engineering projects. These plans were developed through a comprehensive and participatory community outreach process (City of New York 2015, 158).

Shortcomings

- Should reach out to known organizations involved in environmental justice advocacy to develop community engagement recommendations
- Should reference existing community-based plans and other local initiatives and include measures for community oversight
- Should allocate technical and financial resources to expand community capacity for climate change planning
- Engage local communities via the creation of innovative Mayor’s Management Report indicators to measure progress of *OneNYC* and policy recommendations and proposals for capital projects and programs in climate-vulnerable and environmentally overburdened low-income neighborhoods and communities of color

Shortcomings

Without either a robust community engagement process in the development and implementation of *OneNYC*, or a clear mechanism to support on-the-ground efforts to engage local communities in building resiliency, *OneNYC* remains primarily a top-down effort. *OneNYC* should have emphasized the importance of the planning process and ensured responsiveness to community-defined priorities, by referencing existing community-based plans and other local initiatives, and including

measures for community oversight.

As we have seen through our engagement in prior City projects, a simple public participation process is not enough to cultivate true community engagement. Constituents must be engaged in the decision-making process from the beginning to truly have an effect on the outcome. Additionally, the City should provide technical and financial resources, and consider them investments to expand community capacity for climate change planning.

To create a community engagement process in the implementation of *OneNYC*, the City should engage local communities via (a) the creation of innovative Mayor’s Management Report indicators to measure progress of *OneNYC* and (b) policy recommendations and proposals for capital projects and programs in climate-vulnerable and environmentally overburdened low-income neighborhoods and communities of color.

SIRR: ACCOMPLISHMENTS & PENDING ITEMS

In 2013, shortly after Superstorm Sandy, the City released a report titled *Special Initiative for Rebuilding and Resiliency: A Stronger, More Resilient New York (SIRR)*. Responding to the vulnerabilities exposed by Superstorm Sandy, the *SIRR* report focused on protecting the City’s coastlines, buildings, infrastructure, and communities from the threats posed by extreme weather events. Notably, the report dedicates entire chapters to individual Sandy-impacted neighborhoods, and many of the initiatives laid out are place-specific.

SIRR was reactionary to the place and time in which it was produced, namely, a few months after Superstorm Sandy devastated NYC’s waterfront communities. It is critical to note that Superstorm Sandy did not create the vulnerabilities of environmental justice communities, but rather exposed and exacerbated existing vulnerabilities. A long-term resiliency strategy should be less reactionary to one specific event, and work towards reducing vulnerabilities by empowering communities to increase their ability to engage in long term resiliency planning. Additionally, the City must ensure that all the needs of climate-vulnerable communities are addressed, not just those who were impacted by Sandy.




Photo: Kate Zidar

Superfund Site Newtown Creek in Greenpoint, Brooklyn, during Superstorm Sandy

1. Climate Adaptation and Mitigation

Superstorm Sandy showed that climate change, once thought of as an abstract and distant risk, is an immediate threat with discernible impacts. The urgency felt to rise to this challenge is palpable in the pages of the *SIRR* report. To its credit, the report proposes a wide

variety of location-specific interventions to address climate change impacts, establishing that the City is looking beyond a one-size-fits all approach. The range of proposals for coastal protection strategies include beach nourishment, dune construction, shoreline stabilization, bulkhead repairs, emergency floodgate repairs, storm surge zone

<p>Climate Adaption and Mitigation</p> 	<p>Accomplishments</p>	<p>Pending Items and Concerns</p>
	<ul style="list-style-type: none"> • Large variety of location-specific climate adaptation interventions • Released study quantifying co-benefits of green infrastructure 	<ul style="list-style-type: none"> • Harden key electric transmissions and distribution infrastructure • Initiatives focusing on addressing heat and wind impacts continue to roll over • Proposed integrated flood protection systems for Hospital Row, East Harlem, and Hunts Point are uncertain

barriers, living shorelines, floating breakwaters, and more. The proposed interventions are place-specific and are always detailed on a neighborhood level, and often at the street-level.

Green infrastructure simultaneously mitigates the risk of flooding and improves the environmental quality of our waterways, while achieving a host of other known co-benefits. The NYC-DEP completed the green infrastructure co-benefits study (NYC-DEP 2014, 34), which quantified benefits specifically with regards to “air pollution, storm water capture, flood

control, the urban heat island effect, public health, and biodiversity” (City of New York 2013, 200). This study is critical to understanding the extent to which green infrastructure is a valuable climate adaptation strategy.

The *SIRR* proposed several measures to make our energy system more resilient; however, all of these initiatives are still pending in one way or another. Con Edison has approved a \$1 billion program that will “harden key electric transmission and distribution infrastructure” against flooding, but these

measures have yet to be fully implemented (City of New York 2015, 344). The City is continuing to work with Con Edison and the New York Public Service Commission to develop a long-term resiliency plan for the electric distribution system through the “Reforming the Energy Vision” (REV) process, the State’s effort to incentivize renewable energy (City of New York 2013, 126; City of New York 2015, 327).

Unfortunately, while the *SIRR* includes strategies for coastal protection, relatively little attention is paid to other climate change impacts, such as

extreme heat and high winds. Only one initiative in *SIRR* explicitly focused on addressing wind. This initiative called for amending the Building Code and completing studies to strengthen wind resiliency for new and improved buildings (City of New York 2013, 258). While the Building Code has been amended, the new study was just launched in 2015.

SIRR also called for launching a pilot program to identify and test strategies that address extreme heat. It seems that this pilot program’s mandate will be fulfilled through the newly created Urban Heat Island Working Group introduced in *OneNYC*. The potentially deadly impacts of wind and heat have not received the level of attention and urgency that they deserve. These initiatives cannot continue to roll over – particularly in light of 2015 being the hottest year on record (Gillis 2016), and the last decade also being the hottest, with greater heat impacts projected for the coming years. (For more on heat, see the Department of Health and Mental Hygiene

section under Other City Initiatives)


The *SIRR* had called for integrated flood protection systems (IFPS) in Red Hook, the Lower East Side, Hunts Point, East Harlem, and Hospital Row. The City has stopped pursuing an IFPS in Hospital Row, and has only allocated \$1 million to an IFPS study in East Harlem so far (City of New York 2015, 321). In reporting the status of the initiative to install an IFPS in Hunts Point, *OneNYC* refers to the combined \$45 million awarded to Hunts Point through HUD’s Rebuild by Design program and the City (City of New York 2015, 321). In December 2015, the New York City Economic Development Corporation (NYC-EDC) announced that they would be prioritizing a pilot project in the resiliency energy category over the flood risk protection category for most of the \$45 million. The City raised funds for additional coastal protection funding through a FEMA Hazard Mitigation Grant Program for Red Hook and Breezy Point, but not the South Bronx.

2. Equity and Infrastructure

Unlike *OneNYC*, increasing equity is not a stated goal of the *SIRR*. Though the *SIRR* did not set out to create the kind of transformational change needed to achieve equity for climate-vulnerable communities, in terms of local economic development or targeted infrastructure investments, its focus on rebuilding and revitalizing Sandy-impacted communities did produce some local economic benefits.

There were a few *SIRR* initiatives with an equity angle that were successfully completed. For example, the City has now ensured the automatic mass replacement of Supplemental Nutrition Assistance Program (SNAP) benefits in the event of a large-scale power disruption (City of New York 2013, 228). Previously, populations dependent on SNAP benefits for food were particularly vulnerable during power outages.

NYCHA residents are another vulnerable


<p>Equity and Infrastructure</p> 	<p>Accomplishments</p>	<p>Pending Items and Concerns</p>
	<ul style="list-style-type: none"> • Mass replacement of SNAP benefits in the event of a large scale power disruption • \$3 billion secured for NYCHA housing developments for Sandy repairs and long-term resiliency planning 	<ul style="list-style-type: none"> • Only businesses currently located in Superstorm Sandy inundation and power outage zones are eligible for PREP

group, as many NYCHA housing developments were severely impacted by Superstorm Sandy. *SIRR* pledged to repair 28 buildings containing nearly 3,000 units and undertake a planning process to identify measures to increase resiliency in all public housing developments that are vulnerable to climate events, including ones which were not directly impacted by Sandy (City of New York 2013, 259). To this end, NYCHA has secured over \$3 billion in FEMA funds and has begun design for over 30 developments, and launched planning efforts for undamaged but vulnerable buildings (City of New York 2015, 324).

SIRR laid out several initiatives to jumpstart economic recovery in Sandy-impacted neighborhoods. Many of these initiatives are being restructured and folded into a new \$3 million Business Preparedness and Resiliency Program (Business PREP). This program will enable small businesses to increase the resiliency of their operations and plan for future disruptive events (City of New York 2015, 228). Unfortunately, to apply for a micro-grant through the Business PREP program, a store must have been and currently be located within the Superstorm Sandy inundation or power outage zone (NYC Small Business

Services 2016). This should be expanded to include NYS Emergency Management projected hurricane storm surge zones. While we acknowledge that there are restrictions on eligible uses for federal funds, and that government resources are not unlimited, the City needs to identify a sustainable, long-term way to address existing vulnerabilities.

Sandy is neither the first nor last case of climate change disrupting the lives of low-income neighborhoods and communities of color in NYC. There are small businesses that are vulnerable to future disruptions but were not directly impacted by Sandy. The City should

Public Health	Accomplishments	Pending Items and Concerns
	<ul style="list-style-type: none"> • Amended construction codes to increase resiliency of new healthcare infrastructure • FRESH program to incentivize new supermarkets in underserved neighborhoods • Strengthened regulations for brownfield cleanups • Completed draft of Open Industrial Uses Study 	<ul style="list-style-type: none"> • Requiring retrofits of existing health care infrastructure still pending • Providing grants/loans to increase resiliency of primary care and mental health clinics still pending • All initiatives related to extreme heat still pending • Develop best practices for industrial businesses

take a proactive rather than reactive approach to providing resources to increase resiliency and preparedness, and include an equity framework when planning for economic recovery.

3. Public Health

True public health policies seek to encourage the prevention of disease as much as possible. The healthcare chapter of the *SIRR* is extremely limited in its vision,

focusing exclusively on the resiliency of health care infrastructure. There are a few other initiatives scattered throughout the report which also contribute to a healthier population, such as increasing access to fresh produce, protecting vulnerable populations from extreme heat, and reducing contamination along the waterfront.

Increasing the resiliency of health care infrastructure is a major goal in the *SIRR*.

The City has successfully amended the construction codes to improve the design and construction of new hospitals, nursing homes, and adult care facilities in the floodplain (City of New York 2013, 153-154). Unfortunately, the *SIRR* goals of requiring mandatory retrofits of existing hospitals, nursing homes, and adult care facilities in the 100-year flood plain have yet to be completed, and the City needs to re-introduce the legislation to do so


(City of New York 2015, 330). This is critical to ensure continued service in existing facilities during an emergency. The *SIRR* also included an initiative to provide grants and loans to primary care and mental health clinics to take measures such as installing emergency power systems and flood proofing facilities (City of New York 2013, 156). The status of this initiative is listed as “not started”, with no funds identified to pursue this initiative as of yet (City of New York 2015, 330).

Other *SIRR* public health initiatives include increasing access to fresh produce in underserved communities and protecting vulnerable communities from extreme heat. The City launched the Food Retail Expansion to Support Health (FRESH) program to incentivize new supermarkets to open in underserved neighborhoods through a series of zoning changes. After Superstorm Sandy, the FRESH program strengthened its efforts in Sandy-impacted neighborhoods, and the City continues to support the program. As

for addressing extreme heat, the *SIRR* laid out a pilot program that was to be completed by 2015. Programmatic elements included working in two high-risk neighborhoods to “identify vulnerable populations, residential facilities, walking and transit routes, existing and potential locations of UHI mitigation measures, and air conditioned spaces that could be made accessible as cooling shelters” and working with “community stakeholders and City agencies to develop and implement enhanced Heat-Health Warning Systems, targeted UHI mitigation measures, and expanded access to air conditioned spaces during heat waves” (City of New York 2013, 32). While the City has created a new Urban Heat Island Working Group in place of this pilot program, they must be held accountable to implement the programmatic elements laid out by the *SIRR*.

Finally, through our Waterfront Justice Project, NYC-EJA has long called attention to the public health risks posed by potential toxic exposure

from active and former industrial uses along the waterfront. To the City’s credit, soil cleanup standards for waterfront brownfields have been strengthened (City of New York 2015, 201). Additionally, the NYC-OER has accelerated brownfield cleanup by expanding the NYC Brownfield Incentive Grant Program (City of New York 2015, 335). The NYC Department of City Planning (NYC-DCP) also completed draft recommendations for the Open Industrial Uses Study (OIUS) in 2014, identifying cost-effective strategies to safeguard exposed hazardous substances in the floodplain (City of New York 2013, 203). However, enclosed hazardous substances continue to threaten waterfront communities. The *SIRR* called for the development of a catalogue of best practices for these vulnerable communities to increase their resiliency. The outcomes of this initiative, which is currently being pursued through the NYC-DCP’s OIUS and Resilient Industry studies, are still pending.

Community Preparedness	Accomplishments	Pending Items and Concerns
	<ul style="list-style-type: none"> Community Emergency Response Teams (CERT) programs expanded and CERT curriculum updated 	<ul style="list-style-type: none"> “Transportation Playbook” is pending Community needs assessment for one community not completed Strengthen emergency preparedness IT tools Assess the vulnerability of NYC’s local food distribution system and identify additional food distribution opportunities

4. Community Preparedness

All of the initiatives intended to increase community preparedness in the *SIRR* report are either partially or completely under the provision of NYC-EM. The bulk of these initiatives have yet to be completed.

In terms of addressing disrupted transit services, the *SIRR* suggests a host of emergency traffic management solutions such as implementing ferry services, dedicating

separate lanes for buses, and increasing access to commuter rail (City of New York 2013, 186). To this end, the NYC-DOT has been working with NYC-EM to draft a “Transportation Playbook” to be followed in emergencies, but this document has not been finalized yet. The *SIRR* also committed to implementing an “ongoing series of detailed and multi-disciplinary resiliency planning exercises” to identify critical transportation network elements and improve transportation responses to

extreme disturbances, but only one planning exercise has been held thus far (City of New York 2013, 186; City of New York 2015, 333).

The *SIRR* puts forth four initiatives to improve the ability of communities to prepare for and respond to disasters. First, the City planned to conduct a pilot community needs assessment for one community. After a detailed gap identification process, the selected community would develop and implement a plan to

address their identified needs. *OneNYC* does not report on the status of this pilot assessment, nor does it state which community was selected (City of New York 2015, 331). Second, NYC-EM was tasked with expanding the CERT program in neighborhoods that are underrepresented or lack CERT teams entirely. These programs have been expanded and CERT curriculum has been updated to include lessons learned from Sandy (City of New York 2015, 331). The third and fourth initiatives to increase community preparedness focused on improving communications by strengthening the Worker Connect information technology tool, creating a new emergency services portal, and creating a new online Emergency Notification Contact System. Neither of these initiatives have been started (City of New York 2015, 331).

Lastly, the ability to distribute food locally is severely impacted during extreme weather events. *SIRR* put forth an initiative to study the food

distribution system in order to increase food-related disaster preparedness at the community level. The study would enable the City to “create a comprehensive plan to identify and integrate City resources, alternative food providers, community-based organizations, and other providers into its emergency feeding response plans” (City of New York 2013, 227). Unfortunately, the City has not yet procured a consultant to assist in the food system resiliency study or identified additional food distribution opportunities to build critical redundancy in the City’s food supply system (City of New York 2015 p. 336)

5. Community-Based Planning

The *SIRR* is relatively weak in supporting community-based planning. While many initiatives include provisions to consult with local stakeholders and foster public engagement throughout the implementation processes, this is not the same as

supporting comprehensive, community-based plans. Supporting community-based plans taps into the experience and expertise of frontline communities. The *SIRR* does also contain an initiative to establish Community Design Centers, which is a valuable step towards connecting residents with technical resources to promote increased resiliency through better design.

The City established Community Design Centers comprised of professional and volunteer designers who can assist local residents with reconstruction and resiliency efforts. The Center’s staff serve as liaisons connecting community members with City programs that can help them with repairs and increasing future resiliency (City of New York 2013, 84). The Centers were launched in targeted neighborhoods and have held a series of events in collaboration with the Pratt Center for Community Development and other local partners (City of New York 2015, 321).

Community-Based Planning 	Accomplishments	Pending Items and Concerns
	<ul style="list-style-type: none"> • Community Design Centers launched in targeted neighborhoods • Stakeholders used to identify crucial elements of the transportation network 	<ul style="list-style-type: none"> • Traditional public engagement mechanisms are not sufficient to truly influence outcomes • No technical and financial support of community-based plans

Many initiatives throughout the *SIRR* contain some measures for public engagement, but some appear to be superficial. For example, an initiative to implement zoning changes in the 100-year floodplain to encourage retrofits of existing buildings and the construction of new resilient buildings will be “undertaken in close consultation with local residents, elected officials, and other community stakeholders” (City of New York 2013, 81). It is unclear whether these floodplain zoning change “consultations” refer to the usual ULURP public review process (which the City is legally bound to execute) or something more. In another

example, local stakeholders have been consulted to identify critical elements of the transportation network as part of Vision Zero (City of New York 2013, 359). Yet, when the Mayor announced plans for the Brooklyn-Queens streetcar, the most ambitious transportation plan yet unveiled by the de Blasio Administration, impacted community boards and environmental justice groups, like UPROSE, were not consulted.

While fostering public engagement in City plans and projects is critical, it cannot be substituted for supporting comprehensive community-based plans. The City should

acknowledge that many communities already have plans, particularly the communities where NYC-EJA members work and have spearheaded community resiliency, adaptation, and mitigation strategies.

OTHER CITY INITIATIVES

Many of the City’s various agencies and departments are pursuing important sustainability and resiliency efforts which were not substantially covered in *OneNYC*. Two notable examples include the NYC Department of City Planning (NYC-DCP), which is pursuing the Resilient Industry Study to research and address the vulnerability of industrial facilities to climate change impacts, and the NYC Department of Health and Mental Hygiene (NYC-DOHMH), whose researchers in the Climate and Health Program conduct cutting-edge scientific research on the public health risks posed by climate change. Below is an analysis of other City initiatives which should be incorporated into the *OneNYC* framework and recommendations for how these efforts can be strengthened.

Department of City Planning

Since 2011, the NYC-DCP has launched a series of planning initiatives that have resulted in the recognition from the City that industrial uses represent an important source of employment – and given their vulnerability to potential climate change impacts, that special attention is required in order to prevent potential hazardous exposures from affecting workers and residents in industrial waterfront communities. We commend the NYC-DCP for creating various initiatives that will help address community vulnerability for those who live and work in proximity to the SMIA’s. We encourage the City to reflect these findings in the

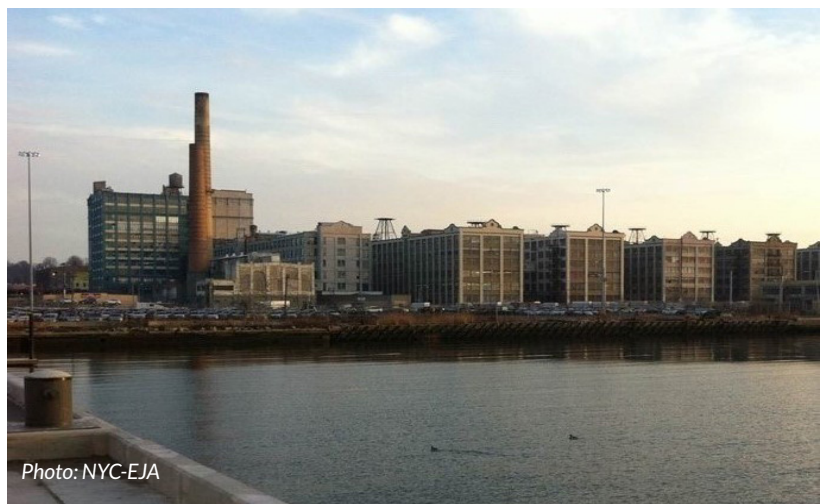


Photo: NYC-EJA

Sunset Park Waterfront, Brooklyn

citywide industrial policy.

A. Open Industrial Uses Study (OIUS)

The OIUS draft report recommendations represent a significant first step towards a coordinated approach to build sustainable and resilient industrial waterfronts. In particular, we are pleased to see the document address many of the issues raised

by members of NYC-EJA through the OIUS External Advisory Committee. The draft report recognizes the economic importance of open industrial uses, while addressing important shortcomings in the current regulation – including the need for further provisions to prevent the accidental exposure of hazardous substances in the event of severe weather.

However, there are several areas where the OIUS recommendations should be expanded and clarified. Any reforms to open industrial uses need to delineate a concrete framework to address (a) the lack of updated performance standards in the Zoning Resolution, which have not been updated since 1961, and (b) the need for a coordinated and comprehensive environmental regulatory framework, reflecting the potential impacts of climate change. To do so, the OIUS report should: delineate the necessary next steps to address the lack of a coordinating body to oversee existing environmental regulations and supervise their enforcement; update the Zoning Resolution's performance standards to reflect the evolution of other agencies' environmental regulation since the 1970's and the new risks posed by climate change; and respond to the increasing technical and financial needs of local industrial businesses.

NYC-EJA supports the recommendations presented by the OIUS

draft report, predicated on the assumption that the following suggestions will be incorporated in the final draft, and reflected in the upcoming zoning text and building code amendments, among other future phases of this important project.

1. Establish a framework to coordinate existing and future environmental regulation affecting open industrial uses.

- The OIUS should clarify how to coordinate the interaction of proposed design-based zoning requirements with other agencies' performance-based standards and regulations. A coordinating body could support inter-agency work to create effective policies and increase the enforcement of environmental regulation.
- This framework should identify strategies to support local industrial operators in identifying all requirements that apply to their location and operation, while providing direct technical and financial assistance to comply with the proposed regulation. Roles and responsibilities should be clearly articulated and broken down by agency.

If a specific agency (like the NYC Department of Buildings) is expected to oversee enforcement, the OIUS report should explain how and when this oversight will take place.

- The OIUS should delineate what type of mayoral-level involvement would be required to oversee and coordinate municipal interagency strategies for increasing climate adaptation and resiliency in NYC's industrial waterfront – including steps required to address the needs of enclosed industrial facilities, among other recommendations of the SIRR.

2. Address the vulnerability of coastal areas within the 500-year floodplain and delineate a comprehensive response to climate change impacts.

- Proposed amendments should apply to areas within the FEMA Flood Insurance Rate (FIRM) Maps' 500-year flood plain – and must be periodically updated to include additional vulnerable areas according to the latest scientific projections documenting climate change impacts such as

sea level rise, storm surge, and high winds. Current OIUS recommendations applicable to open storage of hazardous substances are restricted to the FEMA-FIRM 100-year floodplain, leaving out other areas that can be vulnerable to additional climate change impacts.

- Delineate a comprehensive response to climate change impacts, beyond the current, almost exclusive focus on flooding, to include sea level rise, storm surge, high winds, heat, and other potential climate change impacts.

3. Provide strong technical and financial support to local industrial businesses to facilitate the implementation of climate adaptation and pollution prevention strategies, and encourage the voluntary implementation of best practices for the enhancement of environmental performance.

- The OIUS relies on a traditional cost-benefit analysis that fails to capture benefits to public health and the environment. When discussing “cost effectiveness,” the OIUS should acknowledge that certain strategies may

appear to be less cost-effective in the short-term but will result in long-term savings, and emphasize the importance of creating innovative incentives to help businesses implement them. For instance, the US Environmental Protection Agency’s (US-EPA) Best Management Practices to Mitigate Toxics and Implement a Greening Program for Small Manufacturing Businesses helps industrial businesses incorporate safer products to address public health and environmental concerns, alongside strategies to save energy and water, and reduce waste management costs.

- Moreover, the OIUS should address the need for additional financial incentives, engaging local businesses and community-based planning organizations directly, in assessing the local capacity for implementation and the need for grants to help cover capital investments, not just tax-breaks or low-interest loans.

B. Resilient Industry (RI)

The City has also launched another similar initiative called Resilient Industry

(RI). While the OIUS is limited to unenclosed sites, RI addresses one of NYC-EJA’s Waterfront Justice Project’s most prominent recommendations: the creation of a comprehensive study to research and address the vulnerability of enclosed industrial facilities to climate change impacts. NYC-EJA and three member organizations (UPROSE, THE POINT CDC, and El Puente) were invited by the NYC-DCP and have joined the study’s Technical Advisory Committee.

The RI Technical Advisory Committee has only met twice since the project launched in early 2015, although there have been other communications. At both meetings, NYC-EJA and the NYC-EJA members have highlighted the importance of having this study recognize the contribution of industrial businesses to the economy, and the need for special attention to support these companies’ capacity to adapt to climate change. Many of the recommendations articulated for the OIUS also apply for the RI. But in particular, NYC-EJA has

also explored opportunities with NYC-DCP to implement the following recommendations:

- Develop a comprehensive assessment of climate change impacts – including strong winds and extreme heat, not just flooding and storm surge.
- Analyze “operational strategies” and the impacts of industrial operations on nearby communities – including the identification and securement of hazardous substances as part of training materials, and developing plans and best practices for pollution prevention.
- Fully address public safety issues associated with the environmental impacts of industrial operations and potential hazardous exposures. This includes coordination with other agencies, particularly with NYC-EM and the NYC-SBS on emergency preparedness and response, and NYC-DOHMH on public health and safety.

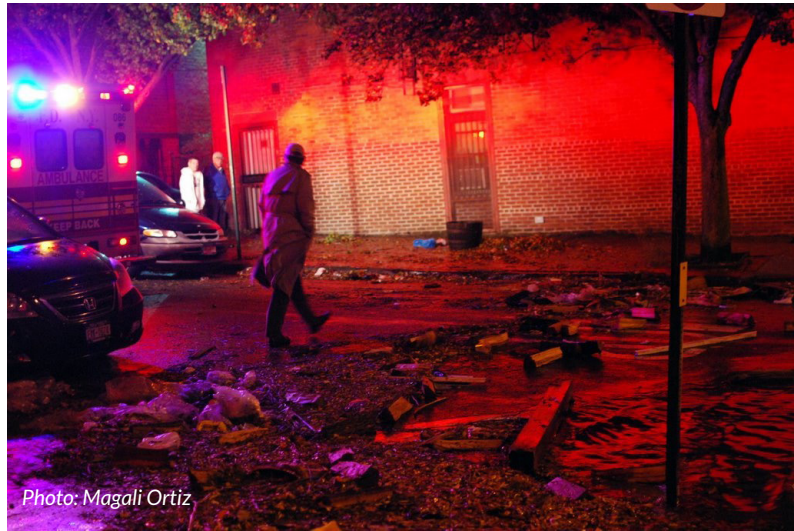


Photo: Magali Ortiz

Debris near Superfund Site Gowanus and Red Hook, Brooklyn

Department of Health and Mental Hygiene: Climate and Health Program

NYC-DOHMH’s Program on Climate Change and Public Health conducts cutting-edge scientific research on the public health risks posed by climate change. In NYC, these risks include heat waves and rising average summer temperatures, gastrointestinal illness related to the increased turbidity of source drinking water, and increased flooding from coastal storms. While the research coming out of NYC-DOHMH’s Program on Climate and Health should

inform the City’s climate policy, this research has not been programmatically incorporated into the initiatives laid out in *SIRR* and *OneNYC*.

Annual temperatures in NYC are projected to increase by 4°F to 5.5°F (NPCC 2013), and the NYC-DOHMH has extensively published on the health consequences of extreme heat. In a study on heat wave-related mortality published in 2015, the Department found that deaths during heat waves were most likely for black (non-Hispanic) individuals, at home, and in Census tracts receiving public assistance. Deaths during heat waves were also more

likely in areas with higher relative daytime summer surface temperature and less likely in areas with green space (Madrigano et al. 2015). In 2013, the program published the results of a telephone survey, which found that although most respondents were aware of the City’s heat warnings, 38 percent of respondents who did not always use AC’s during heat waves, cited “cost” as the reason. While the City provides access to cooling centers, 49 percent of respondents stayed home during extreme heat events, which shows that the warnings are not resonating with many New Yorkers (Lane et al. 2013a). These findings must inform the City’s efforts to mitigate

the UHI effect and protect vulnerable populations from the effects of extreme heat.

A 2013 study on the health effects of coastal storms and flooding provided a comprehensive review of potential health effects, ranging from injuries, power outages, foodborne disease risk, compromised toxic waste sites, crowded shelters, depression, anxiety, and poor physical health. After assessing the multiple pathways through which health outcomes occur, the researchers concluded that emergency preparedness must consider both short and long-term needs of the most vulnerable populations, especially physical and mental health care and access to other essential services (Lane et al. 2013b). *OneNYC*, however, is completely silent on the mental health risks posed to survivors of extreme weather events, such as PTSD, anxiety, and mood disorders. Additionally, more attention needs to be paid to the health and safety of first responders and recovery workers. The Program on Climate and Health has also

published a study which found small but significant associations between the turbidity of source drinking water and emergency department visits for diarrhea, strongest among those aged 0-4 years old. The increased precipitation expected as a result of climate change will impact the turbidity of source drinking water. While the NYC-DEP is working on this issue, it is not mentioned in *OneNYC*, which should serve to centralize the city’s efforts around climate change impacts.

For more information on NYC-DOHMH’s initiatives, see Public Health subsections in the *OneNYC* and *SIRR* sections of this report.



Photo: Magali Ortiz

Flooding near Superfund Site Gowanus and Red Hook, Brooklyn

INTERAGENCY PLANNING & COORDINATION

Climate injustice is fueled by various social, political, and physical causes. As such, creating a more sustainable, resilient, and equitable City requires a multifaceted approach that can only be achieved by fostering robust interagency collaboration.

During his tenure as mayor, Bloomberg established the Office of Long Term Planning and Sustainability to foster interagency collaboration on sustainability issues and to track *PlaNYC*'s progress. In his first year in office, Mayor de Blasio merged the Mayor's Office of Long-Term Planning and Sustainability and the Mayor's Office of Environmental Coordination into one new Mayor's Office of Sustainability – which works in close partnership with the newly created Mayor's Office of Recovery and Resiliency to develop plans for the City to mitigate and adapt to climate change.

NYC-EJA has conducted a thorough analysis of the different offices and departments that are given mandates in *OneNYC* and *SIRR*. Notably, there are several departments that originally did not receive mandates for sustainability and resiliency planning in the *SIRR*, but were later given mandates through *OneNYC* – including the following:

- **Chief Service Officer (NYC Service):** *SIRR* missed an opportunity to use the NYC Service platform to mobilize volunteers for emergency response and recovery efforts.
- **NYC School Construction Authority:** Public schools provide an opportunity to test and showcase cutting-edge climate adaptation and mitigation features.
- **NYC Department of Youth and Community Development (DYCD):** Youth development and engagement are critical for fostering socially resilient communities. NYC-EJA members UPROSE, THE POINT CDC, Youth Ministries for Peace and Justice, and El Puente can attest to this; in fact, UPROSE has not only presented to DYCD on climate resiliency, but also sponsors the semi-annual *NYC Climate Justice Youth Summit* with other youth leadership groups, making it the largest gathering of young people of color to discuss climate change and resiliency in the nation.
- **Mayor's Office for People with Disabilities:** New Yorkers with disabilities face acute risks during emergencies, and it is critical to plan for transportation services and shelters to accommodate them.

- **NYC Department of Homeless Services:** The homeless population, and those at risk of becoming homeless, are very vulnerable to environmental disasters. NYC-DHS and NYC-EM should better integrate their efforts around notification systems and the provision of short and long term shelter during and immediately after catastrophes.

Unfortunately, there were a number of departments missing from *OneNYC* that should have been included in developing and implementing the City's sustainability and resiliency policies, most notably:

- **NYC Department for the Aging:** Because they serve such a vulnerable population, the Department of the Aging should be consulted on NYC-EM's efforts to improve emergency preparedness and planning.
- **NYC Office of Food Policy:** Given *OneNYC*'s initiatives to improve access to fresh food, the absence of this office in the report is surprising.
- **NYC Center for Innovation through Data Intelligence:** The Center conducts interagency research to promote changes in public policy, but it does not currently look at climate change.
- **Mayor's Office of Immigrant Affairs:** This Office could have been directly engaged in several resiliency initiatives, such as the Business PREP program which is geared towards increasing the resiliency of small businesses.
- **NYC Department of Correction:** Some critical facilities, such as Riker's Island and the Vernon C. Bain prison barge in Hunts Point, are vulnerable to climate change impacts such as flooding and extreme heat.

Within the citywide sustainability and resiliency planning framework, the City needs a strong strategy for interagency coordination that involves all agencies with a relevant mandate. This is the only way to ensure the effort will be comprehensive enough to meet the needs of all New Yorkers. In addition, there are agencies, such as NYC DOHMH and NYC-EM, that should be further engaged in citywide sustainability and resiliency planning discussions to contribute their respective expertise (see the Public Health and Community Preparedness sections of this report).

The agencies listed above are initial examples that derive from NYC-EJA's agency analysis. For the full findings, see Tables 1 and 2 in the Appendix.

COMMUNITY-BASED INITIATIVES

In addition to analyzing the City’s efforts around climate justice, this report highlights locally-led, grassroots initiatives. The following section is a compilation of the climate justice initiatives being pursued by NYC-EJA’s member organizations and its allies which deserve special attention and acknowledgement from the City. Though there may be other relevant community-based initiatives throughout the City, this non-exhaustive compilation serves to highlight models for advancing climate justice. See map of Community Initiatives on page 63.



The Brooklyn Movement Center (BMC)

“The Brooklyn Movement Center is a membership-led, direct-action, community organizing body based in Central Brooklyn (Bedford-Stuyvesant, Crown Heights and the surrounding area). We bring together residents to develop local leadership, identify important issues in their lives, win concrete improvements in the community, and build power. BMC is staffed by local organizers, supported by members, governed by a community-based board of directors, and guided by campaign working groups made up of organizational leaders.” <http://brooklynmovementcenter.org/>

- **Brooklyn Alliance for Sustainable Energy (BASE) is coalition of community-based planning organizations advocating for cleaner sources of energy and resilient energy infrastructure in the context of the ConEdison Brooklyn-Queens Demand Management program (BQDM).** The Brownsville 2.0 substation, which serves over a dozen neighborhoods in Brooklyn and Queens, is currently over capacity. This prompted Con Edison and the NY Public Service Commission to negotiate the BQDM Program to reduce demand by 52 Megawatts through both customer-side and utility-side approaches. In 2015, as the details of the BQDM program became public, BMC worked with NYC-EJA to convene, host and organize a coalition of community-based organizations in the BQDM footprint. BASE advocates for the BQDM to be executed according to the following principles: (a) transparent decision-making and implementation process, (b) strong provisions to control the environmental justice impacts of projects on vulnerable communities, (c) a diverse, equitable energy market in compliance, and (d) the realization of local economic development initiatives, including replicable opportunities and models for community co-ownership equity stakes in new emerging resilient infrastructure options such as microgrids. To that end, BASE partnered with energy start-up Bloc Power to win a NY Prize grant to study the feasibility of installing solar panels on some local NYCHA housing developments

within BQDM. This project could have the twin benefits of: (a) developing a resilient energy system to prevent energy disruption, while simultaneously (b) generating revenues to help NYCHA residents direct needed repairs in their developments.

- **The Central Brooklyn Community Solar Development Project is an effort to promote solar energy development for Central Brooklyn residents.** Funded by a microgrant from New York State Energy Research and Development Authority (NYSERDA), BMC will identify and encourage residents of Central Brooklyn to install solar panels on their roofs by publicizing the economic incentives and connecting individuals to achieve lower prices by applying collectively.



El Puente

“El Puente is a community human rights institution that promotes leadership for peace and justice through the engagement of members (youth and adult) in the arts, education, scientific research, wellness and environmental action. Founded in 1982 by Luis Garden Acosta, El Puente currently integrates the diverse activities and community campaigns of its Center for Arts and Culture and its Green Light District and Community

Wellness Program within its four neighborhood Leadership Centers, and its nationally recognized public high school, the El Puente Academy for Peace and Justice. Organizing in North Brooklyn and beyond, El Puente remains at the forefront of community/youth learning and development issues and as such, initiates and impacts social policy both locally and nationally.” <http://elpuente.us/>

- **El Puente’s Green Light District project is conducting outreach to residential, non-profit, and small commercial building owners throughout Brooklyn to participate in the Green Jobs – Green New York (GJGNY) free and reduced-cost energy audit program, and to complete retrofit work on their buildings.** As a Constituency-Based Organization (CBO) under the GJGNY program, El Puente is working with certified contractors, Pratt Center for Community Development, and NYSERDA to promote the Home Performance with Energy Star and the EmPower program.
- **The Green Light District Health and Wellness Program’s Healing Circle empowers community members to take their health in their own hands, showing them the benefits of healthier eating (fresh produce) and wellness (physical activities in open spaces).**

- **El Puente is developing an EPA Facilitation Training on Climate Change.** This includes the design and production of a technical booklet on climate change and its challenges, so facilitators can run future workshops on this subject. The booklet covers Williamsburg’s main environmental and climate change challenges, and suggests ways to get involved and organizations to reach out to.
- **El Puente is working with community gardeners throughout the Williamsburg south side.**
- **El Puente is advocating for climate change awareness and community preparedness with other non-profit organizations.** This includes working with Mothers Out Front to start their Brooklyn-based chapter.



Morningside Heights-West Harlem Sanitation Coalition

“The Coalition is an organization raising awareness about the impact of climate change on waterfront communities, and is also committed to enacting an effective recycling and waste management program that does not negatively impact any of our Environmental Justice communities. Almost 20 years ago groups from two complexes, Grant Houses with 1,940 units and Morningside Gardens with almost 1,000 apartments, formed the coalition in order to work on quality of life issues in our neighborhood together along with various neighborhood groups and block associations.” <http://www.sanitationcoalition.org/>

- **The Coalition is researching the Safe Storage of Toxic Materials, uncovering whether toxic chemicals to be used in Columbia’s new Manhattanville Campus biotech labs will be stored safely.** This is of concern because the new labs were built at or below sea level and close to the Hudson River.
- **The Coalition leads recycling and composting workshops, with an emphasis on sustainability.** Located at at the Morningside Gardens Co-op in conjunction with their Green Committee, or at NYCHA’s Grant Houses, volunteers educate residents, neighbors, and local community members in proper recycling through games and activities.
- **The Coalition conducts textile recycling collections 3 times a year and electronic recycling once a year to divert these materials from landfills.**



THE POINT CDC

“THE POINT Community Development Corporation is a non-profit 501 (c)(3) dedicated to youth development and the cultural and economic revitalization of the Hunts Point section of the South Bronx. We work with our neighbors to celebrate the life and art of our community, an area traditionally defined solely in terms of its poverty, crime rate, poor schools and substandard housing. We believe the area’s residents, their talents and aspirations are THE POINT’s greatest assets.

THE POINT offers a multi-faceted approach to asset-based community development. Programming falls within three main headings - Youth Development, Arts and Culture and Community Development - all aimed at the comprehensive revitalization of Hunts Point.”

<http://www.thepoint.org/>

- **The South Bronx Community Resiliency Agenda (SBCRA) is a cutting-edge adaptation, mitigation, and community revitalization vision which is grounded in community-led planning and organizing.** This is a community-led effort to build the long-term capacity to impact climate resiliency planning in the South Bronx SMIA, using resiliency investments to make all South Bronx communities safe, sustainable, just, and equitable. In order to achieve this vision, THE POINT CDC and NYC-EJA will work with our partners on the SBCRA Planning Board to:
 1. Galvanize support for our long-term vision of a resilient, sustainable, healthy, more equitable and environmentally just SMIA;
 2. Work toward full funding and implementation of our agenda, including Hunts Point Lifelines and resiliency plans for the entire SMIA;
 3. Create long-term community engagement structures to realize environmental justice and equity concerns; and
 4. Increase preparedness, education and cohesion among residents.
- **The Hunts Point Resilient Mesh Wireless initiative is a suite of local wireless networks and training programs, bringing wireless broadband connectivity and resilience initiatives to local small businesses and residents.** The upcoming project is designed to address the interrelated impacts of climate change and the limited opportunities faced by underserved communities by setting up Wi-Fi coverage in the community through organizing, outreach and neighborhood trainings. A digital mesh network in the South Bronx would mitigate the effects of technological disparities by providing the Hunts Point community with equal access to wireless service and hyper-local information sharing through the network.

- THE POINT CDC is currently seeking funding and the support of a technical advisor to build a community approach to community energy planning that leverages existing community assets and resources, maps out and prioritizes the community's energy needs, enables clean energy solutions, and coordinates available funding sources to increase access to clean energy options, affordability, and efficiency.** As an outcome of the Rebuild By Design Competition, the City has added \$25 million to HUD's \$20 million award for Hunts Point Lifelines and has issued a Request for Proposals (RFP) for an energy pilot project for the Hunts Point Peninsula. NYSERDA has also awarded \$100,000 to the engineering firm of the PennDesign/Olin Lifelines team to conduct a technical feasibility study to build a microgrid through the NY-Prize Competition. Energy projects represent an important economic development opportunity to train the local workforce and businesses to participate in the construction, installation and maintenance of the new infrastructure. However, there are no guarantees that the microgrid would result in local jobs, that the new energy infrastructure would not exclusively serve the needs of the Hunts Point Food Distribution Center, or that it would be fueled by clean and renewable energy sources. Furthermore, although the proposed microgrid system would be an important solution to protect critical infrastructure from the threat of future climate events, it does little to address the day-to-day burden that low-income renters and homeowners face in Hunts Point. With sufficient funding and technical support, THE POINT is uniquely positioned to guide a resilient community energy project that addresses the needs of the community.



UPROSE

“Founded in 1966, UPROSE is Brooklyn’s oldest Latino CBO. Intergenerational, multi-racial, and nationally-recognized, UPROSE promotes sustainability and resiliency in the Sunset Park neighborhood through community organizing, education, indigenous and youth leadership development, and cultural/ artistic expression. Central to their work is advocacy to ensure meaningful community engagement, participatory community planning practices, and sustainable development with justice and governmental accountability. Further, as forefront advocates of climate justice, UPROSE views the intersectionality of sound urban policy – ranging from transportation to open space – as the heart of adaptation and community resilience.” <http://www.uprose.org/>

- **The Climate Justice and Community Resiliency Center was launched in the aftermath of Superstorm Sandy and is the City’s first grassroots community-led resiliency center.** The Center aims to engage Sunset Park community members in leadership development and in a block-by-block, building-by-building assessment, mapping, and relationship-building process to create, implement, and manage a truly grassroots-led climate adaptation and community resiliency plan; and mobilize this new network for engagement in UPROSE’s wider urban sustainability agenda.
- **UPROSE is partnering with the Department of Transportation on the Upland Connectors Project, a two-year planning process to identify and revise the design of several potential corridors between the residential core of Sunset Park and its industrial waterfront.** This project was conceived as a multi-tiered initiative to address a series of community needs, including resiliency, economic development, and green infrastructure.
- **UPROSE has led the development of a shared community solar array proposal for Sunset Park.** The solar facility would allow a number of low-income local renters to subscribe to the array and receive credits on their electricity bills, thereby reducing their energy burden. The project proposal is highly innovative for its emphasis on low-income residents in an environmental justice community in a dense urban neighborhood.
- **UPROSE has partnered with the NYC-EJA, the RAND Corporation, and The Lifeline Group in working with local auto shops on the Sunset Park waterfront to increase resilience in cases of extreme weather events.** This partnership, called Grassroots Research to Action in Sunset Park (GRASP), is helping these small industrial businesses prevent the risk of chemical releases due to climate disasters. This project will strengthen the public health of the community, and the economic resilience of blue-collar industries. Supported by the National Institute of Environmental Health Sciences, this is a model which can be replicated for other SMIA’s.
- **Protect Our Working Waterfront Alliance (POWWA), is a campaign spearheaded by UPROSE to protect the Sunset Park industrial waterfront, the largest in New York City, which is currently being threatened by land speculation, dramatic rezoning proposals, and high-end commercialization inconsistent with blue-collar manufacturing.** New York State estimates that repairs to damage caused by Sandy in the region will require nearly \$42 billion of construction costs. Building for climate resilience and adaptation is of critical urgency and provides tremendous opportunity for economic development and quality job creation in frontline industrial communities like Sunset Park.

- **The semi-annual Climate Justice Youth Summit brings together hundreds of young people of color from across NYC to learn about climate change, organizing, and local solutions ensuring Climate Justice and Just Transitions.** The principal goals of the Climate Justice Youth Summit – the largest in the country for young people of color – are to build leadership of color in frontline communities and to discuss and develop action plans for climate adaptation and community resiliency for environmental justice communities.



Nos Quedamos

“Nos Quedamos is a coalition of residents and business persons who have remained part of the Melrose Commons community and become equal partners with the City of New York in the area’s redevelopment. It is our intention to guide the process of change, progress, and implementation of the housing and urban development goals we defined in the Melrose Commons Urban Renewal Plan. Nos Quedamos views the urban renewal process

as not only encompassing physical regeneration, but also addressing socio-economic and environmental conditions in the area. Our goal is to develop an economically productive, sustainable, and healthy community. This vision is one that respects, supports and involves the existing community in the formulation of plans and policies that address the issues of housing, open space, community renewal and its sustainability. This is vital for the continued growth of Melrose Commons, the Bronx and its role in the regional economy which fosters cohesion, growth, and responsibility. We believe that current members of the community must be afforded the opportunity not only to remain in the neighborhood as it undergoes renewal, but also to play an active and integral role in determining the very process of development.” <http://www.nosquedamos.org/>

- **The Environmental Justice, Resiliency, and Planning Center will serve as an assembly space to support public engagement around climate change impacts, community preparedness, and resiliency planning.** It will provide the space and resources required to train volunteers and local Community Emergency Response (CERT) teams, to help support both preparedness and emergency response activities. The space will also serve both as a shelter during emergencies, and/or as a distribution hub for emergency supplies and other direct assistance for impacted populations during and after emergencies.

- **The Community Garden Coalition in Melrose Commons is a cohesive system of open spaces that serve community-building and organizing.** Melrose Commons is a low-income community of color that encompasses 35 blocks, located in the South Bronx. There are 12 community gardens within the Melrose Commons area and 9 gardens adjacent to the neighborhood. These gardens increase access to green and open space, mitigate pollution, heal decades of hazardous development, improve green infrastructure, increase awareness and education around nutrition and healthy living, and strengthen environmental health and sustainability.
- **Nos Quedamos is leading the neighborhood Open Space Resiliency Masterplan for Melrose Commons, developed at three scales: the neighborhood, the community garden network, and the individual community garden.** An understanding of these three interrelated planning scales will provide a foundation for leveraging the existing garden sites into a community-wide system of productive open spaces for farming, recreation, social gatherings, respite, horticulture, and resiliency. This framework builds on efforts led by Nos Quedamos over the past two decades to increase economic opportunity and quality of life for the residents and business owners of the South Bronx. The plan will seek ways to leverage these spaces into multi-functional assets that contribute to the everyday well-being of its citizens and overall socio-ecological health. In addition, such spaces have the potential to serve as easily accessible, critically important community beacons and assistance centers in extreme circumstances, helping to address the immediate needs of neighbors undergoing stress that may result from severe weather or other harsh events.



Youth Ministries for Peace and Justice

“Guided by a prophetic faith, YMPJ’s purpose is to transform both the people and the physical infrastructure of blighted South Bronx neighborhoods and change the systems that negatively impact them. Founded in 1994, the mission of Youth Ministries for Peace and Justice (YMPJ) is to rebuild the neighborhoods of Bronx River and Soundview/Bruckner in the South Bronx by preparing young people to become prophetic voices for peace and justice. We accomplish this through political education, spiritual formation, and youth and community development and organizing.” <http://www.ympj.org/>

- **YMPJ’s Campaign to Decrease Combined Sewer Overflows (CSO) campaign is a long-term project that aims to decrease the amount of sewage and wastewater that pours into the Bronx River just North of YMPJ’s service area.** This campaign acknowledges the intersection of race, ethnicity and class that makes the Soundview and Bronx River

neighborhoods vulnerable to environmental burdens, including CSOs. The Bronx River CSO Long Term Control Plan is an important achievement; it outlines the movement's progress as of 2015, and describes the large amount of work still needed.

- **YMPJ is seeking staff support to designate emergency evacuation centers, supply storage centers, and evacuation routes.** A fall 2015 graduate planning studio at Pratt Institute centered around YMPJ and the South Bronx recommends conducting community planning sessions to create official evacuation centers, storage centers and routes, and then identify these areas with signage and conduct educational workshops.
- **As part of a two-year study of three Brownfield Opportunity Areas (BOA) in the South Bronx, YMPJ is conducting community visioning sessions to create community plans that fulfill community needs and revitalize the BOAs.** YMPJ has partnered with SoBro and NYC's Department of City Planning in this EPA-funded study. Following the study's timeline, YMPJ conducted a community information session before the winter holidays and began visioning sessions in late March.
- **YMPJ is a part of the South Bronx River Watershed Alliance (SBWRA), a coalition of local and city-wide nonprofits that are working to decommission the Sheridan Expressway.** This campaign aims to replace the Expressway with a Boulevard in order to reduce truck traffic, and increase neighborhood connectivity, waterfront access, open space, commercial and retail uses that will fulfill community needs. In addition to decommissioning the Sheridan, the campaign aims to build two new ramps off the Bruckner Expressway to provide more direct access to the Hunts Point Market. These ramps will replace the truck route that currently involves the Sheridan Expressway and will direct truck routes away from residential neighborhoods and open spaces.
- **The Summer Youth Summit educates youth on the Sheridan and provides the opportunity for youth to become more politically active.** Planning for the summit engages youth activists and organizers throughout the late fall and spring and enables these youth to strengthen bonds amongst each other and with their nonprofit organizations. It further enables these youth to build a variety of skills and gain professional experience.

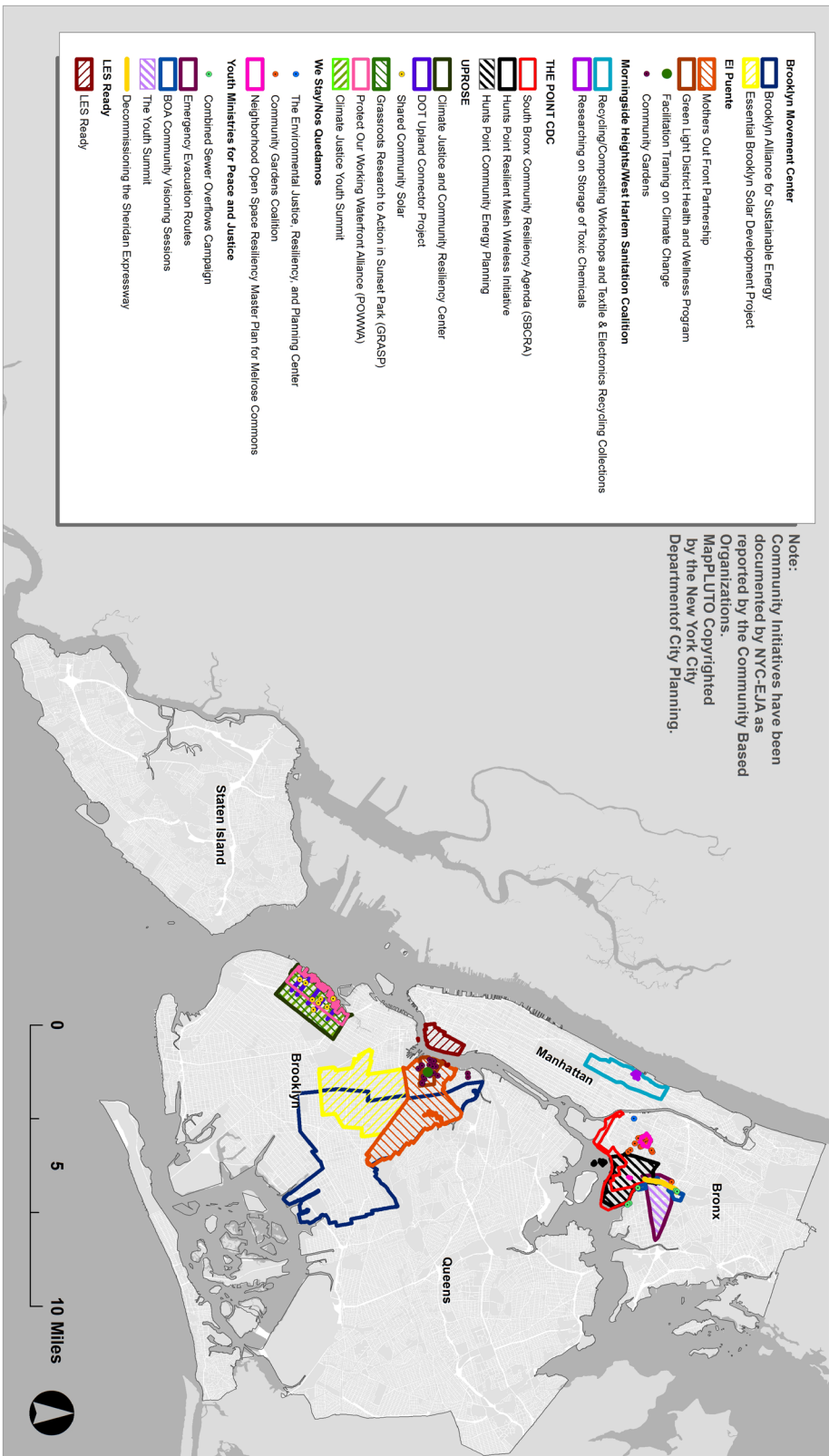


LES Ready

“The Lower East Side Long Term Recovery Group (the LES LTRG) is a coalition of community groups and institutions that will cooperatively coordinate response, resources, preparedness planning and training in response to Superstorm Sandy and in the event of future disasters. Our work will focus on Manhattan’s Community Board 3 area and the immediately adjacent neighborhoods that our groups may serve. Future disasters may be events that disrupt/dislocate residents, disrupt power, communications, transportation, cause shortages in basic goods and services, threaten life and/or the community’s built environment.” <http://www.lesready.org>

- **After Superstorm Sandy, the group released a report which documented the ways in which the neighborhood mobilized to fill in the gaps to aid those in need until the government mobilized.** The report made critical suggestions to the City government for how to improve community preparedness. Some of the work led by L.E.S. Ready will be used to inform NYC-EM’s forthcoming Community Preparedness Toolkit.

Community-Based Planning Initiatives in New York City



RECOMMENDATIONS

In order to achieve a truly equitable and resilient New York City, Mayor de Blasio should ensure that climate and environmental justice are fully addressed in all efforts to reduce the City’s vulnerability to potential climate change impacts. While City efforts need to articulate robust citywide initiatives, these efforts need to build on, nurture and connect with local priorities – as articulated by the frontline communities that are most impacted by climate change. The following section provides a short list of recommendations, where NYC-EJA urges the de Blasio Administration to consider additional policies, partnerships and direct investments in the following areas of work.



GHG Reductions and Energy:

- Ensure that the 2019 Energy Code update includes provisions to address issues around labor, equity, and enforcement.
 - Create a Code Committee to draft legislative language around the Buildings TWG prescriptive and outcome-based code changes, to facilitate approval by City Council.
 - Continue to work with Con Edison and the NY Public Service Commission to create clean energy resources and increase the resiliency of the distribution systems, and complete the initiatives to improve the resiliency of NYC’s energy system proposed in *SIRR* that are still pending.
- Support the Brooklyn Alliance for Sustainable Energy’s advocacy around the Con Edison BQDM, specifically: that the process and implementation of the BQDM be transparent and environmentally just; that the BQDM results in a diverse, equitable energy market in compliance; and that local economic development initiatives are realized, including replicable opportunities and models for “community co-ownership equity stakes” in new emerging resilient infrastructure options such as microgrids.

Coastal Protection:

- Invest in coastal protection more equitably for other vulnerable communities. So far, investments in integrated flood protection systems have been greatest in Manhattan, leaving climate-vulnerable SMIA’s behind. The City should identify available funding for the full implementation of the Rebuild by Design Hunts Point Lifelines proposal and address the coastal protection needs and priorities of the other SMIA’s, such as Newtown Creek and Sunset Park. Prioritize green infrastructure improvements in SMIA’s – and expand the City’s Wetlands Mitigation Banking to all SMIA’s beyond just Staten Island.
- Protect the health and safety of critical community facilities, such as Riker’s Island and the Vernon C. Bain prison barge in Hunts Point, against climate change impacts, such as flooding, storm surge, high winds, and heat.

Potential Toxic Exposure:

- Mitigate the public health risks associated with potential toxic exposures during extreme weather events. While the City has initiated studies to research the needs and capacities of waterfront industrial businesses (like the NYC-DCP’s OIUS and RI studies), efforts have focused on site design and building characteristics, leaving behind the need to increase the sustainability and resiliency of the industrial operations, innovative strategies for implementation, and a detailed public health intervention to protect the health and safety of workers and nearby residents.
- Increase access to the Business Preparedness and Resiliency Program (Business PREP) for more vulnerable stores – not just those who are in a Sandy inundation or power outage zone. Analyze their operational strategies and impacts on nearby communities – including the identification and securement of hazardous materials and the implementation of best practices for building adaptation, emergency management, and pollution prevention.

Other Climate Change Risks:

- Conduct a comprehensive assessment of other climate change impacts, such as high winds and extreme heat affecting industrial waterfront neighborhoods and other vulnerable environmental justice communities, and implement strategies to mitigate these impacts. The City has not addressed the impacts of high winds associated with severe weather. This is particularly important in neighborhoods like the South Bronx and Sunset Park SMIA that did not experience as much flooding or storm surge during Superstorm Sandy, but were affected by high winds.



Photo: FDNY Incidents

Flooding in Red Hook, Brooklyn, caused by Superstorm Sandy



- Prioritize communities that have historically borne disproportionate environmental burdens for sustainability and resiliency investments.
- Partner with community advocates to develop a long-term strategy for improving, strengthening and implementing local hiring provisions; and require local training and hiring provisions tied to resiliency investments where applicable. The City, in cooperation with the Law Department and the Mayor’s Office of Contract Services, must go beyond just requiring contractors and consultants to report on efforts and outcomes related to local hiring and training, and actually include language requiring local hiring in all investments that strengthen the city’s resiliency, where applicable.
- Facilitate community “co-ownership equity stakes” of energy infrastructure by partnering with community-based coalitions like BASE or NYC-EJA to build on their current efforts in this regard.
- Engage NYCHA tenants in designing and implementing successful recycling programs and make technical and financial commitments to support this process.
- Strengthen local equity in waste management by incentivizing the use of marine transfer stations for commercial waste exports, overhaul the commercial waste sector to establish commercial waste collection zones and support community district waste transfer station capacity limits.
- Revise selection criteria for the Community Parks Initiative to more fairly and effectively increase open space opportunities for low-income neighborhoods and communities of color.
- Issue an RFP for a PPA for 100 MW capacity for offshore wind power off the coast of Long Island. The City could use its purchasing power to supply around 400,000 MWh/year – enough to serve the energy needs for 50,000+ households (Deepwater Wind 2015, 21) and to create an alternative to existing, dirty peaker plants concentrated in low-income communities and communities of color.



Photo: NYC-EJA/
Organization of
Waterfront
Neighborhoods
(OWN)



Potential Toxic Exposure:

- Monitor potential toxic exposure in industrial waterfront neighborhoods before and after severe weather events by implementing testing protocols which include water quality, sediments and vapor intrusions – particularly, in vulnerable industrial waterfront communities. Partner with GRASP (Grassroots Research to Action in Sunset Park) to develop and implement these testing protocols.
- Improve community access to public information included in the NYC “Community Right-To-Know” program to inform businesses and adjacent communities on the current use and potential exposures of hazardous substances in industrial communities. Implement climate adaptation emergency management and pollution prevention strategies to protect the health and safety of residents and workers.

Vulnerable Groups:

- Address the needs of existing vulnerable groups, including people with physical, sensory and mental disabilities, by creating specific emergency management and preparedness plans – particularly in low-income areas with concentrations of seniors, children, or other groups requiring special attention.
- Prioritize Neighborhood Health Action Centers in neighborhoods with the highest health disparities.

Air Quality:

- Modify the NYC Community Air Survey to include additional air quality monitors in environmental justice communities, and include provisions to reduce co-pollutants.



Photo: UPROSE

UPROSE Climate Justice Community Resiliency Center

Healthcare Infrastructure:

- Re-introduce new legislation to amend the building codes and require mandatory retrofits of existing hospitals, nursing homes, and adult care facilities in the 500-year floodplain, as proposed by the *SIRR*.
- Harden primary care and mental health clinics by completing the *SIRR* initiative to provide grants for these facilities to increase their resiliency.



- Designate community-specific evacuation routes and appropriate mechanisms to support sensitive populations that require special assistance.
- Assess the vulnerability of the local food distribution system by completing the food system resiliency study proposed by the *SIRR*, to help create the City’s comprehensive plan to identify and integrate City resources, alternative food providers, and community-based organizations into its emergency feeding response plans.
- Create accessible and reliable mobility and evacuation infrastructure. NYC-DOT and NYC-EM should complete the resiliency planning exercise associated with the “Transportation Playbook” proposed in the *SIRR* to be followed during emergencies to address disrupted transit services.
- Complete the Community Preparedness Toolkit, and complete initiatives related to creating IT tools and online systems for emergency notifications and services.
- Complete the pilot program to identify and address gaps in community capacity and provide opportunities for direct technical assistance.
- Create an inventory or database of vulnerable residents to help CERT teams in emergency response.



- Create a long-term public participation process to engage community-based organizations in the evaluation and implementation of *OneNYC*. Propose communication channels for long-term relationship-building between communities and City agencies, including the re-engagement of the City’s Sustainability Advisory Board to provide oversight on the implementation of *OneNYC* initiatives.
- Engage local communities via (a) the creation of innovative Mayor’s Management Report Indicators to measure progress of *OneNYC*, and (b) policy recommendations and proposals for capital projects and programs in climate-vulnerable and environmentally overburdened low-income communities and communities of color.
- Provide technical and financial resources to expand community capacity for climate change planning, support and partner with local grassroots stakeholders in resiliency planning and implementation efforts, and respond to community-defined priorities.
- Formally reach out to known organizations involved in environmental justice advocacy to develop adequate strategies for community engagement.

Interagency Planning and Coordination

- Develop citywide interagency coordination for sustainability and resiliency planning. Each agency should develop a climate adaptation plan, which includes both emergency planning and mitigation planning to contribute to the City's GHG emissions reduction goals.
- Ensure that the NYC-DOHMH and NYC-EM are further engaged in citywide emergency planning, not only emergency response. Increase interagency coordination, specifically between NYC-EM and NYC-DOHMH, to fully address public safety issues associated with the lack of community preparedness plans in low-income communities and communities of color – and partner with local community-based organizations to assess local needs and priorities, particularly in and around SMIA.

Conclusion

These recommendations highlight opportunities for collaboration, where community groups in low-income neighborhoods and communities of color can join the City's important work to address climate change through *OneNYC*. We acknowledge that the de Blasio Administration made an unprecedented effort to reframe sustainability and resiliency to reflect equity. However, opportunities abound to have environmental and climate justice more explicitly and robustly addressed. We hope these recommendations can help strengthen the Mayor's efforts to address one of the greatest challenges of our time. Communities of color should be engaged in these discussions and share the responsibility to achieve a more just and sustainable New York City – we look forward to working with Mayor de Blasio's team to that end.

APPENDIX

NYC-EJA's Community Resiliency work

In 2010, NYC-EJA launched the Waterfront Justice Project, New York City's first citywide community resiliency campaign. The Waterfront Justice Project is an ongoing research and advocacy campaign seeking to reform the City's waterfront policies to reduce the cumulative toxic contamination and public health risks posed by climate change. Building off the work of the Waterfront Justice Project, NYC-EJA co-founded and convened the Sandy Regional Assembly in January 2013, working closely with other environmental justice grassroots organizations and allies in the region to advocate for local priorities during the Sandy recovery and NYC resiliency-building process. In collaboration with the other participants, NYC-EJA drafted two publications: (a) the *Sandy Regional Assembly Recovery Agenda* as the first comprehensive set of rebuilding and resiliency recommendations compiled by grassroots organizations; and (b) an analysis of the Bloomberg Administration's *Special Initiative for Rebuilding and Resiliency: A Stronger, More Resilient New York (SIRR)*, which provided recommendations to the federal Hurricane Sandy Rebuilding Task Force.

The culmination of NYC-EJA's climate justice work was perhaps best expressed by the seminal climate action of our time. NYC-EJA was a key partner and co-organizer of the historic People's Climate March. With 400,000 participants, 1,400 organizational sponsors, and over 2,000 solidarity marches and rallies across the globe, the People's Climate March on Sunday, September 21st 2014 became the largest, most diverse and impactful climate march in history. As a co-facilitator of the NY-NJ Host Committee, NYC-EJA helped build this diverse mobilization of labor unions, environmental, economic and social justice organizations, community and faith-based organizations, among many other sectors. From the acknowledgment of the March in remarks by President Obama and U.N. General Secretary Ban Ki-moon at the U.N.'s Global Climate Summit, to Governor Cuomo's announcement to ban fracking in New York State, the People's Climate March provided a much-needed "climate justice" frame for the climate movement, and built political support for advancing climate justice — perhaps nowhere more so than in New York City itself, manifested by Mayor de Blasio's "80x50" pledge to reduce greenhouse gas emissions by 80 percent below 2005 levels by 2050, followed by the NYC Council's codification of 80x50.

NYC-EJA's Coalition & Campaign Work

NYC-EJA continues to build on the momentum gained at the Sandy Regional Assembly and the People's Climate March by pushing for climate justice in our ongoing campaign work, including:

- **Climate Works for All** unites environmental justice, faith, labor, and economic and social justice groups around a just transition agenda for sustainability in NYC. NYC-EJA helped develop the ten-point Climate Works for All agenda in collaboration with ALIGN NY, the NYC Central Labor Council, the BlueGreen Alliance, and the national AFL-CIO. Enacting these proposals will: a) create good quality jobs and career paths for New Yorkers who are exposed to the greatest hazards of climate change and economic unfairness; and b) will help the City reach its ambitious carbon reduction and sustainability goals.
- **Transform Don't Trash (TDT)** is a campaign spearheaded by ALIGN NY, NYC-EJA, New York Lawyers for the Public Interest (NYLPI), and the Teamsters to transform the commercial waste industry in NYC to create good jobs and clean and safe communities for all New Yorkers. TDT marks the first time that a broad-based labor, environmental justice and community coalition has united around recommendations to improve commercial solid waste management in New York City. The coalition has released various research reports detailing the ways in which NYC's commercial waste industry is highly polluting, inefficient, and costly to the City, disproportionately burdensome on low-income communities and communities of color, and dangerous and exploitative for workers.
- **NY Renews** is an unprecedented statewide coalition of community-based organizations, environmental justice groups, labor unions, faith groups, business leaders, and other advocates working together to demand healthy communities, good jobs, 100% clean energy, environmental justice, and worker protection. Throughout Fall 2015, NYC-EJA, ALIGN NY, and Working Families co-convened upstate and downstate meetings to develop consensus around a policy platform. The still-growing coalition now has over 50 groups; over 1,000 people attended launch events in NYC and Buffalo. NY Renews is calling on Albany to broaden New York State's climate commitments, make them legally enforceable, and ensure transparency and accountability.

For more information on NYC-EJA's campaign work, visit www.NYC-EJA.org.

Table 1. Inventory of Agencies Involved in OneNYC.

Head	Offices/Departments Given a Mandate	Offices/Departments Not Mentioned
Deputy Mayor for Health and Human Services	Department of Health and Mental Hygiene, Health and Hospitals Corporation, Human Resources Administration / Department of Social Services, Administration for Children's Services, Department of Homeless Services, Department of Youth and Community Development, Office to Combat Domestic Violence	Department for the Aging, Office of the Chief Medical Examiner, Office of Food Policy, Center for Innovation through Data Intelligence
First Deputy Mayor	Fire Department, Department of Sanitation, Department of Environmental Protection, Office of Emergency Management, Department of Transportation, Department of Cultural Affairs, Department of Design and Construction, Department of Buildings, Taxi and Limousine Commission, Department of Citywide Administrative Services, Office of Criminal Justice, Office of Contract Services, Office for People with Disabilities, Department of Information Technology and Telecommunications, Office of Sustainability, Police Department, Office of Management and Budget, Office of Recovery and Resiliency	Department of Correction, Department of Finance, Department of Probation, Office of Administrative Trials and Hearings, Office of Immigrant Affairs, Office of Labor Relations, Office of Veteran's Affairs, Office of Operations, Department of Records and Information Services, Chief Technology Officer
Deputy Mayor for Housing and Economic Development	Department of City Planning, Department of Housing Preservation and Development, Economic Development Corporation, New York City Housing Authority, Department of Small Business Services, Landmarks Preservation Commission, Department of Parks and Recreation	Housing Recovery Office
Counsel to the Mayor		Mayor's Judiciary Committee, Commission on Women's Issues, Commission on Human Rights

Table 2. Inventory of Agencies Involved in SIRR

Head	Offices/Departments Given a Mandate	Offices/Departments Not Mentioned
Chancellor	Department of Education	School Construction Authority
Deputy Mayor for Health and Human Services	Department of Health and Mental Hygiene, Health and Hospitals Corporation, Human Resources Administration/Department of Social Services, Administration for Children's Services, Department for the Aging	Department of Homeless Services, Department of Youth and Community Development, Office to Combat Domestic Violence, Office of the Chief Medical Examiner, Office of Food Policy, Center for Innovation through Data Intelligence
First Deputy Mayor	Fire Department, Department of Sanitation, Department of Environmental Protection, Office of Emergency Management, Department of Transportation, Department of Parks and Recreation, Department of Cultural Affairs, Department of Design and Construction, Department of Buildings, Department of Finance, Department of Citywide Administrative Services, Office of Immigrant Affairs, Office of Veteran's Affairs, Department of Information Technology and Telecommunications, Chief Technology Officer, Office of Long-Term Planning and Sustainability, Office of Environmental Remediation, Police Department, Office of Management and Budget	Department of Correction, Taxi and Limousine Commission, Department of Probation, Office of Criminal Justice, Office of Administrative Trials and Hearings, Office of Contract Services, Office for People with Disabilities, Office of Labor Relations, Office of Operations, Department of Records and Information Services, Office of Environmental Coordination, Business Integrity Commission
Deputy Mayor for Housing and Economic Development	Department of City Planning, Department of Housing Preservation and Development, Economic Development Corporation, New York City Housing Authority, Department of Small Business Services, Department of Consumer Affairs, Landmarks Preservation Commission, Housing Recovery Office	
Counsel to the Mayor	Police Department, Office of Management and Budget, Mayor's Fund to Advance NYC, Housing Recovery Office	Mayor's Judiciary Committee, Commission on Women's Issues, Commission on Human Rights

REFERENCES

Bautista, Eddie, Eva Hanhardt, Juan Camilo Osorio, and Natasha Dwyer. "New York City Environmental Justice Alliance Waterfront Justice Project." *Local Environment* 20, no. 6 (2015): 664-682.

City of New York, Department of Environmental Protection. *2014 Green Infrastructure Annual Report*. 2014. http://www.nyc.gov/html/dep/pdf/green_infrastructure/gi_annual_report_2015.pdf

City of New York, Department of Health and Mental Hygiene. *New York City Climate and Health Profile*. 2015. <http://www.nyc.gov/html/doh/downloads/pdf/environmental/climate-health-profile-report.pdf>

City of New York, Department of Parks and Recreation. *NYC Parks: Framework for an Equitable Future*. 2014. <http://www.nycgov-parks.org/downloads/nyc-parks-framework.pdf>

City of New York, Department of Small Business Services, "Business Preparedness and Resiliency Program (Business PREP)". 2016. Accessed March 28, 2016. http://www.nyc.gov/html/sbs/nycbiz/html/staying/Business_PREP.shtml

City of New York, Mayor's Office of Housing Recovery Operations. *The City of New York Action Plan Incorporating Amendment 1-11 February 1, 2016: For CDBG-DR Funds Disaster Relief Appropriations Act of 2013*. 2016. http://www.nyc.gov/html/cdbg/downloads/pdf/cdbg-dr_action_plan_incorporating_amendments_1-11.pdf

City of New York, Mayor's Office of Sustainability. *One New York: The Plan for a Strong and Just City*. 2015. <http://www.nyc.gov/html/OneNYC/downloads/pdf/publications/OneNYC.pdf>

City of New York, Mayor's Office of Long-Term Planning and Sustainability. *One City Built to Last*. 2014. <http://www.nyc.gov/html/builttolast/assets/downloads/pdf/OneCity.pdf>

City of New York, Mayor's Office of Long Term Planning and Sustainability. *PlaNYC: A Stronger More Resilient New York*. 2013. http://s-media.nyc.gov/agencies/SIRR/SIRR_singles_Lo_res.pdf

City of New York, Office of the Mayor. "De Blasio Administration Moves to Power 100 Percent of City Government From Renewable Sources of Energy." July 10, 2015. Accessed March 30, 2016.

City of New York, Mayor's Center for Economic Opportunity. *The CEO Poverty Measure, 2005-2013*. 2015. http://www.nyc.gov/html/ceo/downloads/pdf/ceo_poverty_measure_2005_2013.pdf

Climate Works for All Coalition. *Climate Works for All: A Platform for Reducing Emissions, Protecting Our Communities, and Creating Good Jobs for New Yorkers*. 2014. http://www.bluegreenalliance.org/news/publications/document/ClimateWorks_Report_LowerRes.pdf

Congresswomen Nydia M. Velázquez. "Velázquez On Lead in Public Housing." March 17, 2016. <http://velazquez.house.gov/newsroom/2016/pr-03-17-16LeadNYCHA.shtml>

Deepwater Wind. "Offshore Wind: Clean Energy and Good Jobs for New York City." Presentation, UPROSE, March 2016.

Duc, Tran V. "Which Coastal Cities Are at Highest Risk of Damaging Floods? New Study Crunches the Numbers," *The World Bank*, August 13, 2013. <http://www.worldbank.org/en/news/feature/2013/08/19/coastal-cities-at-highest-risk-floods>

Environmental Defense Fund. "Time Variant Electricity Pricing." N.d. Accessed March 30, 2016. <https://www.edf.org/energy/electricity-pricing>

Gillis, Justin. "2015 Was Hottest Year in Historical Record, Scientists Say." *The New York Times* (New York) January 20, 2016. <http://www.nytimes.com/2016/01/21/science/earth/2015-hottest-year-global-warming.html>

- Lane, Kathryn, Katherine Wheeler, Kizzy Charles-Guzman, Munerah Ahmed, Micheline Blum, Katherine Gregory, Nathan Graber, Nancy Clark, and Thomas Matte. "Extreme heat awareness and protective behaviors in New York City." *Journal of Urban Health* 91, no. 3 (2014): 403-414.
- Lane, Kathryn, Kizzy Charles-Guzman, Katherine Wheeler, Zaynah Abid, Nathan Graber, and Thomas Matte. "Health effects of coastal storms and flooding in urban areas: a review and vulnerability assessment." *Journal of Environmental and Public Health* 2013 (2013).
- Madrigano, Jaime, Kazuhiko Ito, Sarah Johnson, Patrick L. Kinney, and Thomas Matte. "A Case-Only Study of Vulnerability to Heat Wave-Related Mortality in New York City (2000-2011)." *Environmental Health Perspectives* 123, no. 7 (2015): 672.
- Melillo, Jerry M., Terese TC Richmond, and G. W. Yohe. "Climate change impacts in the United States." *Third National Climate Assessment* (2014).
- Mitchell, Rebecca G., Henry M. Spliethoff, Lisa N. Ribaud, Donna M. Lopp, Hannah A. Shayler, Lydia G. Marquez-Bravo, Veronique T. Lambert et al. "Lead (Pb) and other metals in New York City community garden soils: Factors influencing contaminant distributions." *Environmental Pollution* 187 (2014): 162-169.
- Navarro, Mireya. "In Public Housing, Talking up the Recycling Bin." *The New York Times* (New York) July 3, 2009. <http://www.nytimes.com/2009/07/04/science/earth/04recycle.html>
- New York City Environmental Justice Alliance. "New York City Environmental Justice Alliance's (NYC-EJA) Testimony to the City Council's Sub-Committee on Zoning and Franchises on Proposed Revisions to the Waterfront Revitalization Program (WRP)". 2013a. http://www.NYC-EJA.org/public/newsroom/NYC-EJA_TestimonyToCityCouncilOnWRPReform_093013.pdf
- New York City Environmental Justice Alliance. "New York City Environmental Justice Alliance recommendations to the New York City Council regarding proposed amendments to the Community Right to Know Local Law." 2013b. http://www.NYC-EJA.org/public/newsroom/NYC-EJA_Recommendations_CRTKLaw_081313.pdf
- New York City Panel on Climate Change. "Climate risk information 2013: Observations, climate change projections, and maps." NPCC2. Prepared for use by the City of New York Special Initiative on Rebuilding and Resiliency, New York, New York (2013). http://www.nyc.gov/html/planyc2030/downloads/pdf/npsc_climate_risk_information_2013_report.pdf
- New York State Department of Health. "Garden-Fresh Doesn't Preclude Hidden Health Hazards; Watch Those City Chickens". 2015. <https://www.health.ny.gov/environmental/outdoors/garden/docs/insider.pdf>
- New York State Department of Public Service. Staff White Paper on Clean Energy Standard. 2016.
- NYU Furman Center for Real Estate and Urban Policy. "Sandy's Effects on Housing in New York City." New York: Furman Center, Moelis Institute (2013). <http://furmancenter.org/files/publications/SandysEffectsOnHousingInNYC.pdf>
- Rocky Mountain Institute. "e-Lab Leap: Initial Workshop Pre-Read." June 9, 2015. Accessed March 30, 2016. http://www.rmi.org/Content/Files/eLab_Leap_Initiative_FactPack.pdf
- The New York City Council. "A Local Law to amend the administrative code of the city of New York, in relation to geothermal systems". January 2016. <http://legistar.council.nyc.gov/LegislationDetail.aspx?ID=2119778andGUID=E-12FA77F-832A-48CC-96B6-0231AB028D1C>
- United States Department of the Interior, Bureau of Ocean Energy Management. "New York Activities." 2016. Accessed March 23, 2016. <http://www.boem.gov/New-York>
- Veilleux, N., and W. Rickerson. "New York City Solar water heating roadmap." New York, NY: The City University of New York, New York City Solar America Partnership (2013).
- Yeampierre, Elizabeth and Ryan Chavez. "Streetcar Leaves More to be Desired." UPROSE (New York) February 16, 2016. <http://myemail.constantcontact.com/UPROSE-responds-to-the-Mayor-s-proposed-streetcar.html?soid=1102736301429andaid=xx-vNePtSqUU>



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