

The following concepts were generated by project participants as measures that can protect our environment while reducing socio-economic inequality. Logos indicate potential partnerships, not formal agreements.
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Coastal Protection

Coastal areas, particularly those in the floodplain shown in Figure 1, are in need of green infrastructure that provides ecosystem and flood protections. NYC is currently implementing a coastal protection project worth \$3.7 billion and has released its first-ever comprehensive coastal protection plan, A Stronger, More Resilient New York. The plan seeks to deepen public participation in waterfront restoration and protection by expanding the

Waterfront Management Advisory Board and includes pledges to undertake feasibility studies for construction and restoration of flood-prone areas. DEP has also spent over \$40 million to-date on wetlands restoration and other coastal protections. What remains to be seen is the extent to which developments will encompass community-based plans or be leveraged to gentrify waterfront areas.

Networked technology controls energy usage and monitors environmental conditions.

Community Land Trusts (CLT)
Organizing property ownership through a CLT is one way to preserve affordable housing by removing properties from the speculative market. CLTs also allow participants to collectively use space for local agriculture, energy production, recreation, and even social services such as childcare. Such shared governance structures can help rebuild the commons in terms of how we use space/resources.

Affordable Cooperative Housing

The City plans to create and/or preserve 200,000 units of affordable housing between 2015 and 2025. This will be done by maximizing use of City-owned land, mandating inclusionary zoning, and providing tax incentives to developers, among other things. However, many are skeptical that these efforts will provide the necessary amount of housing at truly affordable prices (particularly for vulnerable populations such as the homeless, criminalized populations, the elderly, etc.). Therefore, new cooperative homeownership mechanisms such as community land trusts must be explored.

Social Hubs

Community meeting spaces are crucial to support ongoing planning efforts, as they are necessary for local organizations to host educational programs, hold meetings, produce materials, use for storage, etc. Having a local hub open for community use can support centralized planning and production activities while remaining grounded in local needs and capacities.

Multipurpose Infrastructure

New design guidelines should be implemented so that waterfronts promote industrial activities while remaining accessible to the public. This can be done through constructing green spaces that both mitigate flood damage and support water-based transportation should be constructed. These spaces are also important for cooling the urban heat island and supporting physical activity, local agriculture, and more.









Local Markets
Manufacturers, farmers, and other "makers" within the hub can sell their goods at local markets, which support non-conventional commerce, including bartering ... networks and alternative currencies.

Ferry Service
The West Harlem Piers (pictured below) is a good location to add ferry services for daily commuters and to create alternate evacuation routes. OneNYC calls for several new ferry routes.

Food from the Hudson Valley

Farms in the Hudson Valley can make use of improved waterfront infrastructures to ship food into NYC, which can strengthen NY state's economy while providing healthier food options for local food deserts. OneNYC plans to invest \$100 million in marine terminals for freight movements.



Cooperatively Owned Microgrids
Both the City and state government have called for an expansion of distributed generation (DG) technology, including wind, solar, and geothermal. This plan supports the implementation of DG in the form of microgrids that are deployed in vulnerable areas and/or are managed by local stakeholders. The City is currently undertaking a microgrid feasibility study and removing policy roadblocks to microgrid construction by working with ConEd and the Public



Service Corps to revise "ConEd's standby tariffs to lessen economic impediments to DG". Microgrids provide multiple benefits, including reliable power when the main grid experiences a blackout, reductions in energy costs, more control for residents over their own energy consumption, and employment opportunities.



Community Bank
Financial services should be provided by local institutions connected with the community. Locally-run finance can shift the focus of banks away from their short-term profit, towards long-term investment in infrastructure, development of small businesses and other much-needed investments in shared resources that will benefit the community.

Places of Worship

Churches, mosques, synagogues, and other religious institutions provide flexible spaces for community planning and emergency services, while conveying important climate-related messages through religious practices. Many churches, urged on by Pope Francis, are joining the struggle for climate justice.

Urban Agriculture
Local agriculture is an integral component of climate resiliency, as it helps build communities' self-reliance while reducing the massive petro-chemical footprint of existing industrialized food systems. The City plans to increase its number of community gardens by partnering with schools, helping gardeners sell their produce at farm stands, and supporting urban farms through

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 FOOD PROJECT

(Cont'd from Urban Agriculture)
the multigenerational Building Healthy Communities Initiative. NYCHA's Gardening and Greening program is also working to expand accessibility to community gardens. Our partners, such as the Corbin Hill Food Project, are deeply engaged with these issues and are mapping out an effective model for a sustainable food system in Northern Manhattan.

Participatory Budgeting

In April 2015, over 51,000 NYC residents voted on how to allocate \$32 million to various locally-developed capital projects across 24 NYC Council Districts. Participatory budgeting is a clear example of how residents can be made to engage directly with governance systems to tailor policy to their needs. Given the level of site specificity essential to effectively address climate change issues, PB should be expanded to encompass more of the City's budget, green projects, and longer-term investments.



Resilient Housing

True resilience in the climate struggle is not simply based on the preservation of physical conditions, but also on the achievement of lasting security for communities that are now under threat of displacement. Therefore, affordable housing should be a priority for climate advocates, just as it is for the Mayor's office and many NYers. Supporting NYCHA by reinvesting in its infrastructure is a necessary first step, but we must also ensure that further price hikes do not happen and that NYCHA property leased to private developers does not cause further gentrification. Simultaneously, alternative models for transitional housing, such as the Sugarhill development by Broadway Housing Communities should be explored.

It is particularly important to ensure that homes are cool enough for the elderly. Between 2000 and 2011, 85% of those who died from heat in NYC died in their own homes.

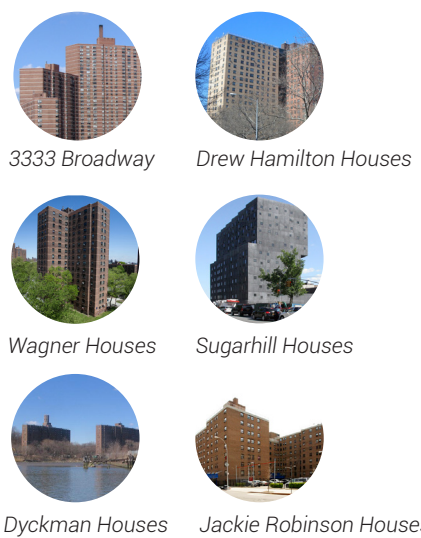
"NYCHA has an important role to play in reducing this city's carbon footprint and I look forward to [making] our public housing more efficient and resilient"

-Council Member Ritchie Torres



Healthcare

Healthcare services should not only be expanded to provide aid to more people; they must also be made resilient enough to continue to function during the next superstorm, heatwave or other crisis. Post-Sandy healthcare resilience efforts include installing infrastructure to protect against flooding, building distributed generation systems (and microgrids), and connecting precarious demographic groups with health services. Healthcare providers should establish connections with local emergency response systems so that people who need special health services during a crisis can be reached and treated quickly.



Design for Pedestrians + Bicyclists
OneNYC calls for a bike lanes in areas with "limited bike infrastructure". This includes bike lanes on the Harlem River bridges and auto-oriented streets. The City's private bikeshare service, CitiBike, should be expanded to encompass Uptown areas, while the new bike lanes should be more public nature. For example, equipment should be manufactured locally.

**VISION
ZERO** ROADS TO ZERO

 Lower East Side
Ecology Center



WHEELS

ORD UP

THE PUBLIC SCHOOL

Tech Incubator

By working with universities, public agencies, community organizations and members of the “maker” community, a tech incubator can be built to help local activists and entrepreneurs develop socially responsible products, such as improved software for running green technologies. OneNYC plans to support “Clean Tech” industries by creating an Advanced Manufacturing Network that will provide affordable workspaces, business support services and workforce training programs. NYCEDC has also funded several business incubators, including one that focuses on renewable energy

Space for Social Services

Flexible space within residential buildings can be used for social services such as childcare and healthcare, as a meeting space for local groups, and for other activities that can build social cohesion while allowing more freedom for working class people to pursue employment and engage in other forms of social reproduction.

Local Brewery
A local brewery district can build identity and culture while supporting the food industry.

Manufacturing Facilities
Northern Manhattan's coastal and interior areas provide many opportunities for light industrial activities (manufacturing of consumer goods), which can both provide jobs for low-income residents and produce tools for local climate resilience. Public and private financial institutions, municipal labor and

Live/Work Spaces
One of the most effective (yet currently underutilized) tools for communication in relation to climate change is the arts. However, it is difficult for young artists to secure live/work spaces in NYC, forcing them to leave NYC for other cities. As a result, OneNYC pledges to develop 1,500 live/work spaces, including 500 affordable units, by 2024.

135th Street Marine Waste Transfer Station

For several decades, the Marine Waste Transfer Station at 135th Street polluted the Hudson River alongside West Harlem, the neighborhood of Hamilton Heights, and other nearby areas with a 24-hour stream of garbage trucks and barges. The now-abandoned facility represents an exciting opportunity to create a permanent climate resilience center that can support local organizations, educational/cultural programs, freight movement, citizen science, and other climate-related efforts. Several City Council members, Manhattan's Borough President, the Parks Commissioner, local Community Board representatives and others have formally stated that they are in support of such a project.

Information Kiosks
After Hurricane Sandy, locally-produced signage played an important role in connecting people with networks and resources that supported recovery efforts. Public signs and stands should be created across the City to provide information on cooling center locations, evacuation zones, and other important resources

Flooding Barriers

The thirteen-plus miles of coastline in Northern Manhattan are home to thousands of residents, small businesses, manufacturing spaces and important pieces of municipal infrastructure. Many of these, particularly in East Harlem, are located within the Hurricane Evacuation Zone and should therefore be hardened against flooding. Flood protections should be planned using design guidelines that prioritize the creation of public space, access to the waterfront and bicycle route connectivity.

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