

# REBUILD BY DESIGN

## Rainproof Symposium Breakout Responses

Summary Notes and Key Takeaways - March 20, 2023

In March 2023, Rebuild by Design and the NYC DEP, with One Architecture, convened 100 stakeholders, including 16 government agencies to actively problem-solve three identified impediments to successfully adapt to a climate with increasing heavy rainfall. The program featured local, national and international government agencies and experts to share their expertise on Rainproofing NYC. The afternoon used an active collaboration strategy to elevate over 240 challenges that need to be worked through to implement successful policies to address the above challenges.

The messages from the Symposium were clear:

1. Agencies need more opportunities to work together.
2. These are tough questions that will take some time to work through.
3. No agency owns these challenges.
4. Where there are preliminary conversations, there are some agencies that are not involved, and should be.
5. There is excitement about addressing the challenges.
6. There are sectors who are eager to solve these issues together.

## CHALLENGE 1 - MANAGING 100% OF RAINFALL

How can we address the gaps with current infrastructure and capacity issues to manage 100 percent of the projected increase from heavy rain events so New Yorkers can continue with their daily lives?

### KEY TAKEAWAYS

- Interagency coordination is seen as a challenge. To make progress, there needs to be strong political will and leadership from all agencies.
- There are concerns about who will take ownership of this process, especially with regards to maintenance. A governance structure, prioritization process, and agreed upon metrics will be critical.
- There are concerns about competing uses in limited space.
- Maintenance requires funding and adequate resources.

- Effective public outreach and communication is critical.

**SYMPOSIUM NOTES:**

I. Design/Engineering

A. What are the barriers?

- Competing uses and prioritization
  - Participants responded that it was challenging to incorporate infrastructure in a dense urban environment, especially when there is a perception that the infrastructure is meant to protect against infrequent risks that would hamper everyday use
  - Participants also responded that it was hard to prioritize long-term solutions with long construction timelines over immediate needs and it can be challenging to convince leaders to prioritize this issue
- Engagement and coordination
  - Participants responded that involving the many different types of stakeholders who should be involved is challenging (i.e., academics should be involved)
  - They also expressed concern over the time it takes to meaningfully engage in communities
  - Managing rainfall also requires interdisciplinary teams that can be difficult to coordinate across
- Expertise and availability of information
  - Another repeating theme included the lack of data and information on groundwater and storage capacity, and understanding where and when flooding will happen

B. What do we need to do to address this issue?

- Improve coordination with shared vision/goals and assigned roles and responsibilities for each agency
- Expand the toolbox for rainfall and implement more efficient solutions such as design-build and make sure specific tools are assigned to specific agencies
- Conduct outreach about risks and possible solutions, including messaging that we have only started to adapt to climate change and can improve the public realm through climate change adaptation planning

C. Who should be responsible and what stakeholders need to be at the table?

- Developers and property owners
  - They are already responsible for new construction but should receive additional guidelines and stronger regulations
  - Explore whether they can “bank” or offset off site such as at NYCHA campuses near their properties
- EDC should manage land banking

- Ecologists and hydrologists from Parks/DEP should be involved

## II. Funding

### A. What are the barriers?

- Funding for operations and maintenance costs
- Acquiring additional funding that can provide co-benefits or additional amenities in addition to the primary function of managing rainfall
- Lack of stormwater fee and difficulty in acquiring funding from PSC rate hike
- Distributing costs amongst agencies
- Traditional benefit-cost analysis process poses challenges to acquiring funding for projects in vulnerable lower income areas and environmental justice areas.

### B. What do we need to do to address this issue?

- The City should make a long-term maintenance funding commitment
- City could create an “adopt-a-garden” program
- Give developers stormwater FAR bonus
- Create a stormwater mitigation banking program
- Provide technical assistance to smaller entities to access federal funding and partner with NGO/non-profits to access funding
- Utilize Design-Build-Operate-Maintain model to build projects

### C. Who should be responsible and what stakeholders need to be at the table?

- To create stormwater FAR bonus, DCP would be responsible
- To develop stormwater mitigation banking program, DEP would be responsible
- Private landowners or an organization that represents them
- Tenant representatives
- An overall representative entity that oversees flood protection

## III. Permitting/Governance

### A. What are the barriers?

- Interagency coordination, dispersed responsibility among agencies, and differing priorities
  - Lack of a streamlined process for projects involving multiple agencies
  - Lack of institutional capacity
  - Long timeframes for even “simpler” projects
- Lack of political will or politics governing decision-making rather than data
  - Utilization of rights of way for storage requires political will
  - Prevention is not “flashy”
- Complexity of FEMA funding
  - Green infrastructure does not always have capital eligibility
- Lack of incentives for individuals to take action

- Environmental impacts
  - Building green infrastructure may have negative effects as habitat and biodiversity in some cases
  - Fear of a protracted environmental review for green infrastructure projects
- B. What do we need to do to address this issue?
  - The City needs to develop a governance structure, prioritization process, and identify metrics that agencies agree on
  - Improve communication through storytelling to ensure shared understanding of the need, vision, and mission of GI projects
  - More diverse design teams
  - Right of first refusal for climate issues on public land
  - Coordinated five borough plan that garners public interest
- C. Who should be responsible?
  - City leadership including Mayor, Deputy Mayor, Commissioners, Mayor’s Office of Climate and Environmental Justice
  - Cross agency steering group with high level city officials
- D. What stakeholders need to be at the table?
  - Private sector that can make the vision come to life
  - Press offices and communications professionals
  - High level city officials from each agency
- IV. Operations/Maintenance
  - A. What are the barriers?
    - Determining who will be responsible for maintenance and whether others can be involved (i.e. volunteers) or other innovative approaches can be taken
    - Need expertise for maintenance and poor understanding of maintenance requirements
    - Pests and litter
  - B. What do we need to do to address this issue?
    - Design projects with low cost maintenance
    - Create zones of projects for maintenance purposes
    - Identify dedicated funding streams, share costs across agencies, and ensure agencies are staffed for assisting with O&M
    - Conduct true cost-benefit analyses with externalized costs
    - See O&M as a workforce development opportunity
  - C. Who should be responsible?
    - Nature based project “conservancy” or business district model for potential funding infusion and responsible for operations and maintenance
    - Centralized city entity for maintenance

- Borough presidents
- Council members

D. What stakeholders need to be at the table?

- Local community members who can help with maintenance and provide motivation and political will to politicians
- Politicians
- Labor
- Horticulturists

V. Other

A. What are the barriers?

- Challenges in interagency coordination and creating a shared vision
  - Lack of proactive planning and vision
  - Buy in from all agencies to address stormwater management
- Educating and engaging communities
  - Resident/stakeholder opposition to neighborhood change
  - More pressing immediate concerns of residents and politicians
- Competing uses
  - Competition for using roofs as green roofs or solar farms
  - Be open to use spaces other than existing Parks properties
- Inequity and racial justice

B. What do we need to do to address this issue?

- Champion success stories
- Identify trade offs and conflicts to better communicate about these realities
- Understand misconceptions, address them, and communicate how projects will improve life in New York City
- Amplify the work of community based organizations such as South Bronx Unite

## CHALLENGE 2 - HOUSING MOBILITY

How can we create a citywide housing migration program for the areas that are having or will have repetitive flood damage, informed by the most impacted communities?

### KEY TAKEAWAYS

- A critical step is to create an equitable incentive structure that considers the diversity of the neighborhoods and all populations impacted, such as renters or undocumented residents. Clearly defined risk thresholds are also necessary.
- The City needs to simultaneously address the housing crisis to ensure there is available housing in non-vulnerable areas.
- There are concerns about maintenance, use, and management of vacant parcels. Explore creative options for land management that involves community input and community ownership where possible.
- It is important to design a program that is aligned across agencies and levels of government.
- Many different types of stakeholders need to be involved in all steps of the process, including program design.
- Concerns about neighborhood change and moving to new neighborhoods is seen as a challenge. It is important to promote integrated, cohesive, welcoming neighborhoods as people being relocated will have many concerns about new schools, commutes, communities, etc.

### SYMPOSIUM NOTES:

#### I. Design/Engineering

##### A. What are the barriers?

- Employment, incentives, and equity
  - How can we employ residents who have experience in this program?
  - Are there incentives for all participants?
  - What is fair compensation and how do you find the money?
  - Who provides case management services for renters?
  - How do you prioritize buildings equitably?
- Neighborhood change and housing availability
  - How are buyout areas decided and how is that communicated
  - Testimony from the community about the best use of space that brings value to their community should drive decision making
  - How do you address displacement if these new uses bring new amenities post buyouts?
  - There is climate migration into the City and we already have a housing crisis, how do you manage that?
- Planning timeline and implementation post buyout
  - How long do we plan for?

- What happens after the buyouts?

B. What do we need to do to address this issue?

- NYC needs to work to push FEMA and HUD to ensure a program can work for the City. Items suggested included:
  - Universal relocation assistance from the federal government
  - Disclosure laws
  - Landlord liability
  - Rent back and life estates
- Clearly define risk
  - One person suggested letting people define their risk trigger
- Build more housing in non-vulnerable areas

C. Who should be responsible?

- State and federal legislators
- City planners
- One agency needs to own the issue and housing agencies need to do case management
- Insurance industry
- Natural area managers and hydrologists

II. Funding

A. What are the barriers?

- Funding sources
  - How do we diversify funding sources?
  - Can we use Environmental Bond Act funding or SW FEPS?
  - Programs/funding for renters?
  - Existing or new funding sources to get outside the box of fair market value
- Administrative burden
  - Can city staff guide people through this housing transition?
  - Build grant management expertise
- Home values
  - How is the amount for buyouts decided?
  - Can we afford to give homes pre-storm value?
  - Properties may be at risk but are not damaged post storm
  - Fair market value does not include the cost to relocate
  - Compare equity holders to SUB uninsured depositors
- Community involvement
  - Need to develop willing sellers - there could be a premium to facilitate voluntary sales

- Community members need to understand the cost of insurance and drop or loss of home equity
- Need Long Island involved

B. What do we need to do to address this issue?

- Secure diverse funding sources and align timing
- Ensure appropriate incentive programs
- Design programs for renters
- Create pricing policies
- Implement tax structures to match annual insurance ranges in neighborhoods

C. Who should be responsible?

- homeowners, developers, and insurers should be responsible.

D. What stakeholders need to be at the table?

- OMB
- FEMA
- Congress satellite local authorities
- Insurance industry

III. Operations/Maintenance

A. What are the barriers?

- Maintenance, use, and management of vacant parcels
  - Maintaining scattered sites and preventing illegal use of vacant property
  - Prioritizing plans for recently vacated properties
  - Patchwork neighborhoods left behind
  - What is the City's capacity to manage newly acquired property? Who has the skills? Which agency is best equipped to take ownership? Is there signage at the property?

B. What do we need to do to address this issue?

- Determine use for the properties
  - Stormwater management systems on buyout land
  - Community organizations visioning about the use of the space
  - Determine public accessibility
  - BGI had maximize ecological value of land
- Enforcement and inspection
  - Conduct inspections on the property to discourage dumping
  - Designate buyout coordinator or enforcer

C. Who should be responsible?

- City agencies



- Inspectors
- 311
- DEP (Stormwater management)
- CLTs

D. What stakeholders need to be at the table?

- DEP/DPR
- CBOs
- Army Corps

#### IV. Permitting/Governance

E. What are the barriers?

- Agency leadership/ownership
  - Who “owns” the program?
  - Aligning priorities across agencies
  - Are social service agencies sufficiently involved yet?
  - Who is responsible for program design?
  - Legal land purchasing/holding entity
  - How do we maintain institutional knowledge?
  - Do Army Corps projects preempt serious conversations about buyouts?
- Future of buyout land
- Preventing further development in floodplain

F. What do we need to do to address this issue?

- Establish thresholds of risk for offering buyouts
  - Clarity on floodplain development and land use decisions
- Align local/state/federal efforts
- Ensure equity
  - Communities whose infrastructure has failed them historically should have an equitable chance of getting more efficient infrastructure
  - Make sure undocumented people can be involved
- Wetland mitigation banking

G. Who should be responsible?

- Partner group or conservancy
- Homeowners association or homeowners
- State entity (ex. Blue Acres program)
- City-managed or create an independent authority
- City/state partnership

H. What stakeholders need to be at the table?

- CBOs

- Community boards
- Elected officials
- DEP
- DPR
- City Hall

V. Other

A. What are the barriers?

- Concerns about moving to new neighborhoods
  - In moving, how do we preserve social bonds and community power especially for low income communities and communities of color?
  - Moving schools for children
  - Concerns about racism and lack of community cohesion in new neighborhoods
  - Keeping families in NYC
  - New commutes
- Incentives
  - Do we need to incentivize homeownership?
  - How do we provide relocation options?
  - Can buyouts be used to build wealth in communities?
  - Will any resources be provided to those who refused to be bought out?

B. What do we need to do to address this issue?

- Promoting integrated, inclusive, and cohesive communities
  - Cultivate social and cultural ties that bind communities together
  - Identify welcoming communities
  - Identify nearest destinations available to minimize impact for movers
  - Actively engage with residents when choosing potential receiving communities to establish connection between where people move from and where they move to
- Look to other models for outreach techniques for displacement
  - Adapt UN policies for internal displacement
  - Empathetic sensitive engagement
  - Language coordinators
  - Community sponsorship models

C. Who should be responsible?

- Planning/housing entity
- New government agency
- Educators and others - knowledge brokers

- Individual residents/households should have agency
- Local community board

D. What stakeholders need to be at the table?

- NYC City Council
- Legal Aid and other community legal providers
- Real estate agents/experts/advocates
- Communications professionals
- FEMA
- CBOs not only focused on disaster
- Positive examples - people from other buyouts that serve as examples and encouragers

## CHALLENGE 3 - EVERYONE HAS A ROLE TO PLAY

How can we work together to build the capacities of communities, the private Sector, NGOs, and other agencies to do their part in managing increased heavy rainfall?

### KEY TAKEAWAYS

- Interagency coordination is seen as a challenge, especially as there are jurisdictional issues; yet, stormwater does not recognize human drawn boundaries.
- There are concerns about maintenance costs and the complexity of maintenance depending on the type of infrastructure, especially with lack of resources at important agencies like Parks.
- There needs to be flexibility in implementation, contracting, and distributing funds, more efficient design, and streamlining where possible.
- It could be beneficial to engage workforce development agencies, such as the Mayor's Office of Talent and Workforce Development and SBS.
- Effective communication and stakeholder engagement is critical. Communities need to be bought in and the government should empower community voices.

### SYMPOSIUM NOTES:

#### I. Permitting/Governance

##### A. What are the barriers?

- Jurisdictional issues and complexity of the problem
  - Lack of agency coordination
  - Politics and bureaucracy
  - Interdepartmental retrofit integrated plan
- Stormwater/rainfall does not recognize lot boundaries and need multiple property owners involved
- Lack of resources for Parks department

##### B. What do we need to do to address this issue?

- Define roles clearly
- Incentivize collaboration
- Hold agencies accountable
- Comprehensive planning/CEQR Reform Watershed Planning

##### C. Who should be responsible?

- Participants responded that the Mayor should be responsible.

##### D. What stakeholders need to be at the table?

- DCP
- Community Boards
- Developers

- Agencies
- Lawyers who look at how we CAN, not how we CANNOT
- Elected Officials

## II. Funding

### A. What are the barriers?

- With regards to funding, common themes identified by participants included:
  - Concerns about lack of resources, especially in EJ communities and for building and maintaining space
  - Insurance for CBOs
  - Scale of infrastructure to make a difference often needs to be large

### B. What do we need to do to address this issue?

- Participants who answered this question had various ideas about what government and involved organizations need to do:
  - Distribute funds and raise awareness of funding opportunities
    - Build public awareness to build support for new funding streams
    - Figure out how to get money to agencies like Parks, DOE, and NYCHA to build and maintain BGI
    - Educate people about funding opportunities
    - Simplify funding opportunities and prioritize incentives by need/impact
    - Create a single pathway to receive information for all agencies
  - Create systems and programs for maintenance
    - Contract with CBOs to provide maintenance
    - Simplify DEP grant program
    - Offer long-term incentives for maintaining functioning GI on private property

### C. Who should be responsible?

- Participants responded that the DEP should be responsible for paying for retrofits on private property.

D. What stakeholders need to be at the table?

- Community groups
- Community boards
- New stormwater improvement districts
- Private sector
- Philanthropy
- Federal agencies

III. Operations/Maintenance

A. What are the barriers?

- Maintenance costs and complexity of maintenance
  - Need to steward for co-benefits
  - Inequity of implementation and maintenance
  - Maintenance plan/budget needs to be built into the project
  - High ongoing costs especially with active elements
- Missed opportunity to connect with workforce development especially in EJ communities

B. What do we need to do to address this issue?

- Efficient design with less maintenance
- More flexibility and streamlining in implementation
- More flexibility to work with contractors/CBOs
- Improve modeling and communication about sciences
  - Better meteorology and modeling
  - Communicate what it means to live safely with water

C. Who should be responsible?

- State version of Americorps to fund post graduate work
- Mayor's Office of Talent and Workforce Development
- SBS

D. What stakeholders need to be at the table?

- Parks – “Friends Of” groups as a way to reach communities
- Historic Preservation Groups
- Block Associations
- Community boards
- Community groups
- Housing
- Co-Ops
- Nature Preservation Groups
- Academia, K-20
- School boards

IV. Other

A. What are the barriers?

- Communication challenges
  - Information overload
  - Mistrust of government
  - Lack of knowledge and awareness of climate risks
  - Insufficient communication and coordination between entities
  - Poor communication of benefits
- More urgent needs especially in EJ communities

B. What do we need to do to address this issue?

- Tailored communications
  - Communicate what it needs to live safely with water
  - Learn the language of the community and reframe to align with their values
- Create buy-in from community institutions
  - Identify and empower community voices