



ADDITIONAL FEEDBACK

[Bit.ly/RainproofPostMay1](https://bit.ly/RainproofPostMay1)

TOWARD A
RAINPROOF
NEW YORK CITY

WELCOME

Johanna Lawton, Rebuild by Design



Rebuild by Design is a process that harnesses and cultivates strong stakeholder support and government leadership by bringing together global and local expertise, regional leadership, and local vision to tackle multidimensional problems.

REBUILD BY DESIGN

Lead Supporter
The Rockefeller Foundation

Additional Supporters
Deutsche Bank
Hearst Foundation
The JPB Foundation
Sardis Foundation
The New Jersey Recovery Fund

In collaboration with
the Institute for Public Knowledge at New York University
Municipal Art Society of New York
Regional Plan Association
Van Alen Institute

Design Teams

BIG Team
BIG

HR&A Advisors w/ Cooper, Robertson & Partners
The Commercial Corridor Resiliency Project

Interboro Team
Living with the Bay: a Comprehensive Regional Resiliency Plan for Nassau County's South Shore

MIT CAU + ZUS + URBANISTEN
New Meadowlands: Productive City + Regional Park

OMA
Resist, Delay, Store, Discharge: a comprehensive strategy for Hoboken

PennDesign / OLIN
Hunts Point Lifelines

Sasaki / Rutgers / Arup
Resilience - The Beach

SCAPE / Landscape Architecture
LIVING BREAKWATERS

WB unbridged with Yale ARCADIS
Resilient Bridgeport

WXY / WEST 8
Blue Dunes - The Future of Coastal Resiliency

Build by Design
Transforming the region and its future

Collaboration by Design
Form coalitions to innovate

Talent by Design

Because of the urgency of this challenge, the Rebuild by Design process was developed to find better ways of implementing designs and infrastructure.

Bringing together interdisciplinary teams of internationally renowned designers, scientists, economists, and other experts with a diverse range of thousands of stakeholders, Rebuild by Design has developed innovative, replicable solutions that better connect designers' and future citizens' visions, while strengthening everyday resilience within communities.

This graphic provides an overview of the Rebuild by Design process, from its June 2012 launch to the unveiling of final design proposals in April 2014 and beyond, as well as key themes and strategies. The following exhibit includes detailed descriptions and images representing the design proposals.

Sandy exposed vulnerabilities throughout the Northeast region that have existed for a long time: neglected infrastructures, fragile economic systems, and at-risk populations. The Design Teams researched these vulnerabilities - analyzing data, meeting with stakeholders, and learning through site visits, workshops, and conversations - and identified opportunities for design interventions.

"We never thought we were going to be tackling our projects in our community against climate change... we will do whatever it takes. Learn what we need to learn so we can be the support we need to be for our community."

The final projects will be selected based on four key components: length of the research and analysis; demonstration of a participatory design process and stakeholder coalition; design innovation and excellence; and impact of the proposed design solution, as well as its implementation strategy.

Rebuild by Design is one of CNN's top ten most innovative ideas of 2013



WELCOME

Anne Canty,

**American Museum
of Natural History**



AGENDA

- I. Welcome
- I. Rainproof NYC
- II. Rainproof Principles
- III. Theme 1: Managing Increased Rain
- IV. Interactive Session 1
- V. Theme 2: Housing Mobility
- VI. Interactive Session 2
- VII. Theme 3: Everyone Has a Role to Play
- VIII. Wrap-Up + Closing Remarks





MENTIMETER

Code: 55 85 36 0

[Bit.ly/May1Menti](https://bit.ly/May1Menti)

Rainproof NYC May 1st Public Collaboration Session Documents



[Bit.ly/4bgxsK0](https://bit.ly/4bgxsK0)

TODAY'S GOALS

- To authentically hear feedback and ideas from NY individuals and organizations that are affected by increased heavy rain.
- To widen the Rainproof NYC family
- To build momentum and ownership of the challenge for after June.
- To hold ourselves accountable in transparency and equity of our draft recommendations
- Build a deeper understanding of how communities perceive the challenge and solutions.



BACKGROUND ON RAINPROOF NYC

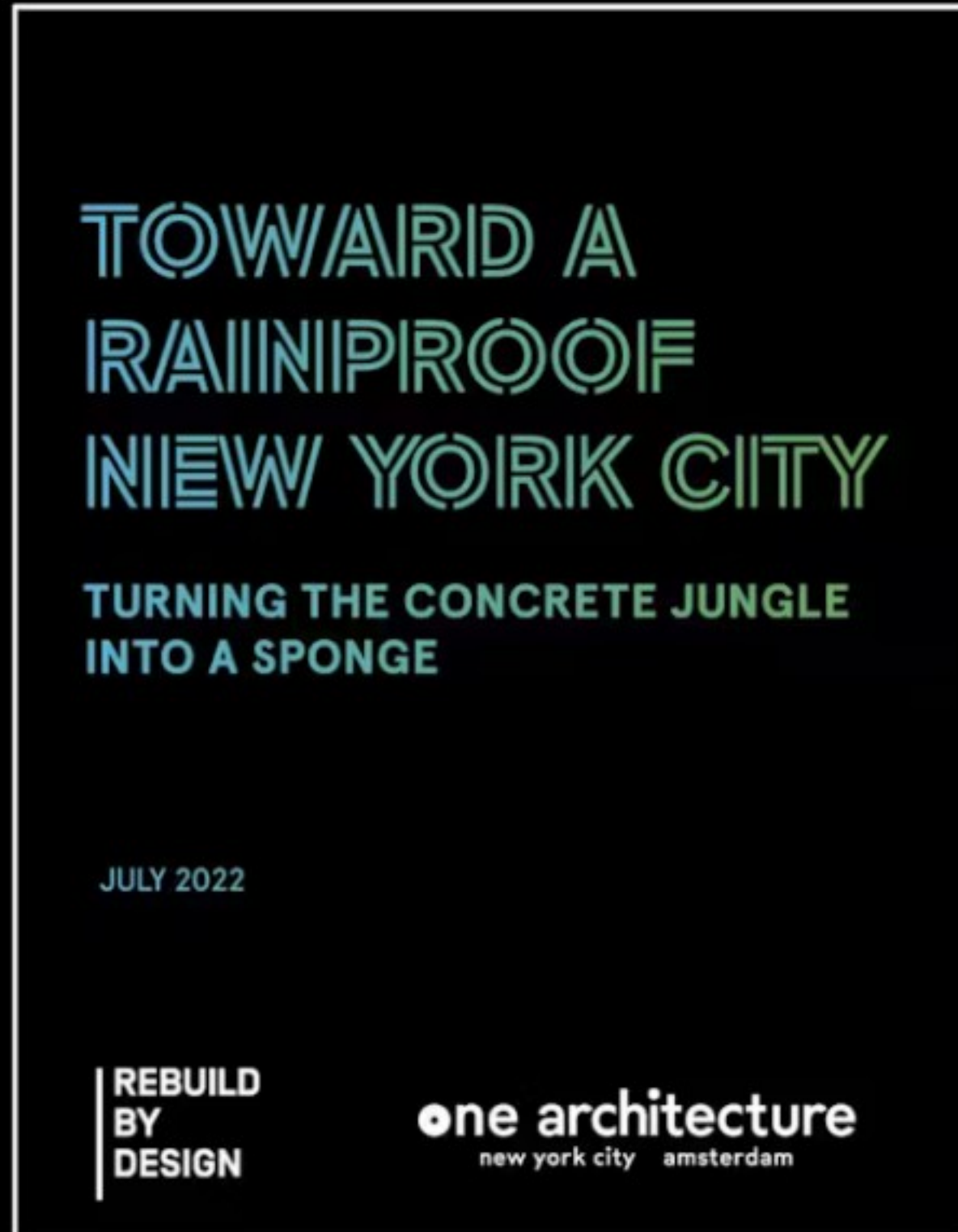
Rifal Imam, Rebuild by Design



A night-time photograph of a multi-lane highway that is severely flooded. The water is dark and reflects the overhead streetlights and the green highway signs. The scene is illuminated by several tall streetlights, creating a somber and hazardous atmosphere. In the background, a highway interchange with green directional signs is visible. A large, bold, white text overlay is centered across the middle of the image, set against a black background.

**WE ARE EXPERIENCING
INCREASED FLOODING FROM RAIN**

HOW DID WE GET HERE: RAINPROOF NYC: TRANSFORMING THE CONCRETE JUNGLE INTO A SPONGE



1

START WITH THE MOST
SOCIALY AND PHYSICALLY
VULNERABLE COMMUNITIES.

2

CREATE A MASSIVE INVESTMENT
IN MULTIBENEFIT "GREEN" AND
"BLUE" SOLUTIONS.

3

WHERE WE CANNOT GO
FULLY GREEN, PRIORITIZE
CO-BENEFIT SOLUTIONS.





REBUILD
BY
DESIGN



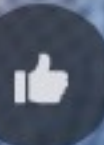
THE CHALLENGES

- **CHALLENGE 1:** How can we shift NYC's policies and priorities to create a comprehensive plan to prepare for increasing rainfall?
- **CHALLENGE 2:** What does an equitable buyout program look like for New York City?
- **CHALLENGE 3:** How can we build capacity among communities, the private sector, and CBO's to share responsibility of managing increased heavy rainfall? Every drop counts.



PROCESS DEVELOPMENT

- Call out for public participants
- 315 applications
- Scoring a process with 14 city and non city reviews
 - 52 people selected
 - 49 people accepted
 - Representative of all 5 boroughs
 - 12 neighborhood organizations
 - 21 city, state, or national nonprofits
 - 14 city agencies, 1 state and 1 federal had a separate process to join
 - 10 + academic, private or philanthropy



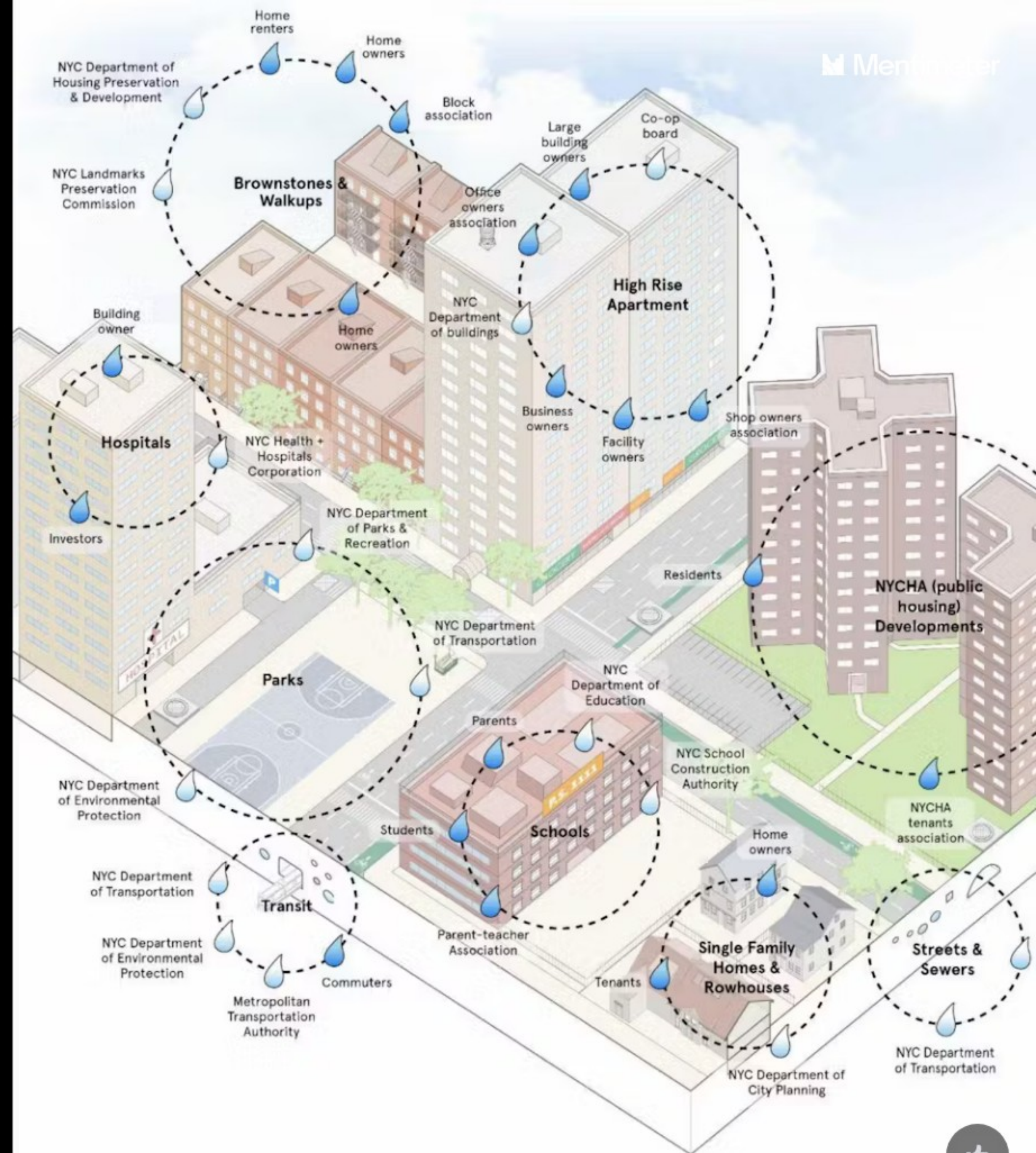
PROCESS OVERVIEW

- One working group per topic area
- Transparent and collaborative
 - Each co-facilitated by NYC and NGO
 - Decisions pertaining to working groups are made together
- Timebound: set timelines and goals
- Interdisciplinary: Comprised of multiple agencies and multiple stakeholders
- Overall coordination by Rebuild/ONE/NYC though co-facilitators run their own groups in coordination with one another

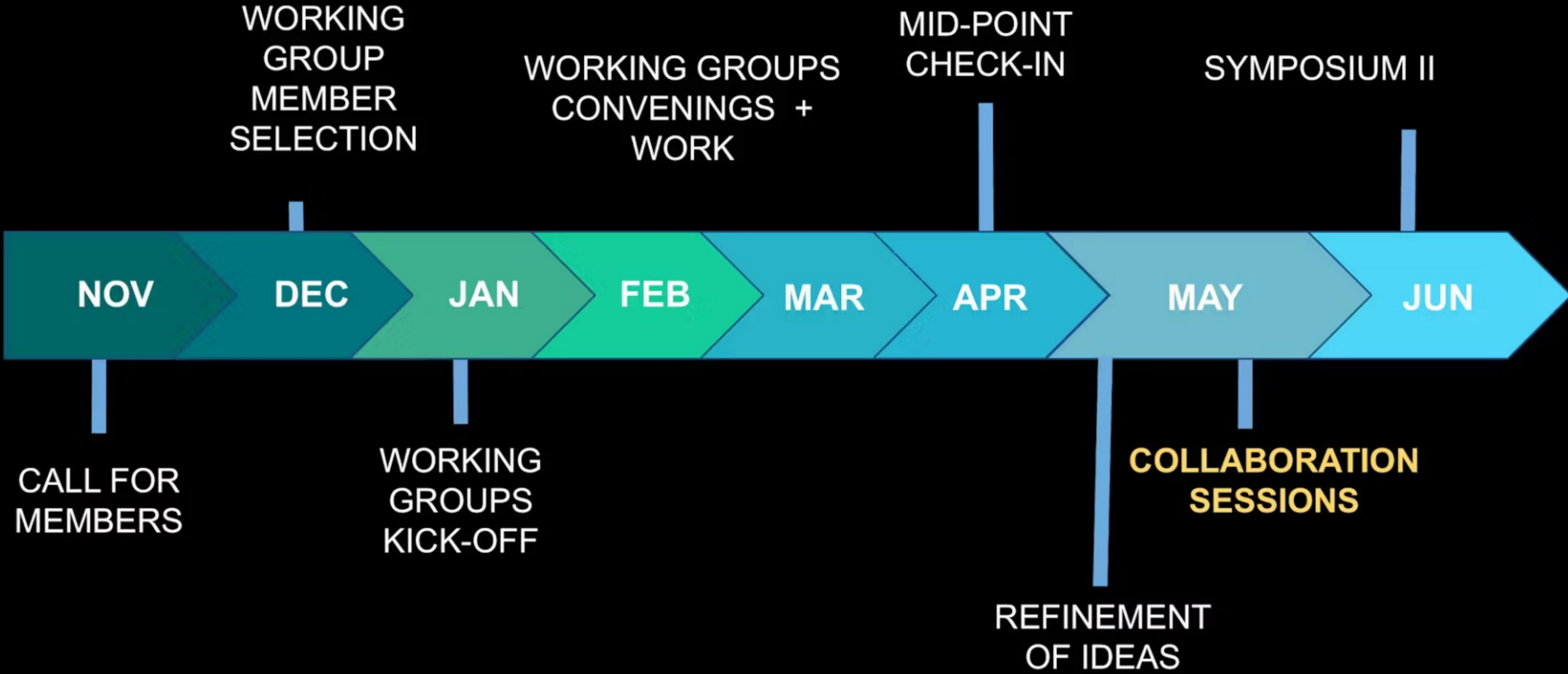


PROCESS GOALS

- Adapt to living with water through a collaborative process.
- Create a deeper understanding of intersectionality.
- Utilize stakeholder input.
- Create a replicable model of community and government collaboration in policy design.
- Shared ownership with stakeholders and agencies.



HIGH-LEVEL TIMELINE



STAY INVOLVED WITH RAINPROOF NYC



RAINPROOF UPCOMING EVENTS + CALL FOR RESOURCES & RECOMMENDATIONS

Reimagining the Concrete Jungle: Embracing the Resurgence of Blue Zones

- **Date:** May 2, 2024
- **Time:** 4 - 6 pm
- **Where:** New York Botanical Garden & Virtual
- **Speakers:** Eric Sanderson, NYBG; Nathan Kensinger; Christian Murphy, Bronx River Alliance



COLLABORATION SESSION 2:

- **Date:** May 14, 2024
- **Time:** 5 - 8 p.m.
- **RSVP:** [Bit.ly/RainproofCollab](https://bit.ly/RainproofCollab)

Rainproof Library:

- **Deadline:** May 15, 2024
- **What:** Call for resources & recommendations

RAINPROOF PRINCIPLES

Johanna Lawton, Rebuild by
Design



RAINPROOF PRINCIPLES

We asked the Rainproof NYC

Working Group participants to:

- Craft Rainproof NYC principles, through the lens of their working groups' theme, in these 5 categories:
 - **Equity**
 - **Collaboration**
 - **Infrastructure & Land Use**
 - **Accountability**
 - **Additions/Other**

We heard many themes emerge:

1. Transportation Equity & Accessibility
2. Inclusive Communication & Access
3. Equity in Decision Making & Accountability
4. Community Collaboration & Empowerment
5. Green Infrastructure & Resilience
6. Equity in Housing & Land Use
7. Equity in Resource Allocation & Decision-Making

RAINPROOF PRINCIPLES

Recognize that equity looks different to different people.
Equity at neighborhood vs equity at city scale.

Be creative - ask the difficult questions to spark the need/want for change.

We need to match the scale of the challenge. Small actions can only take us so far. Aim for large scale transformation courage + vision for a nature-forward approach.

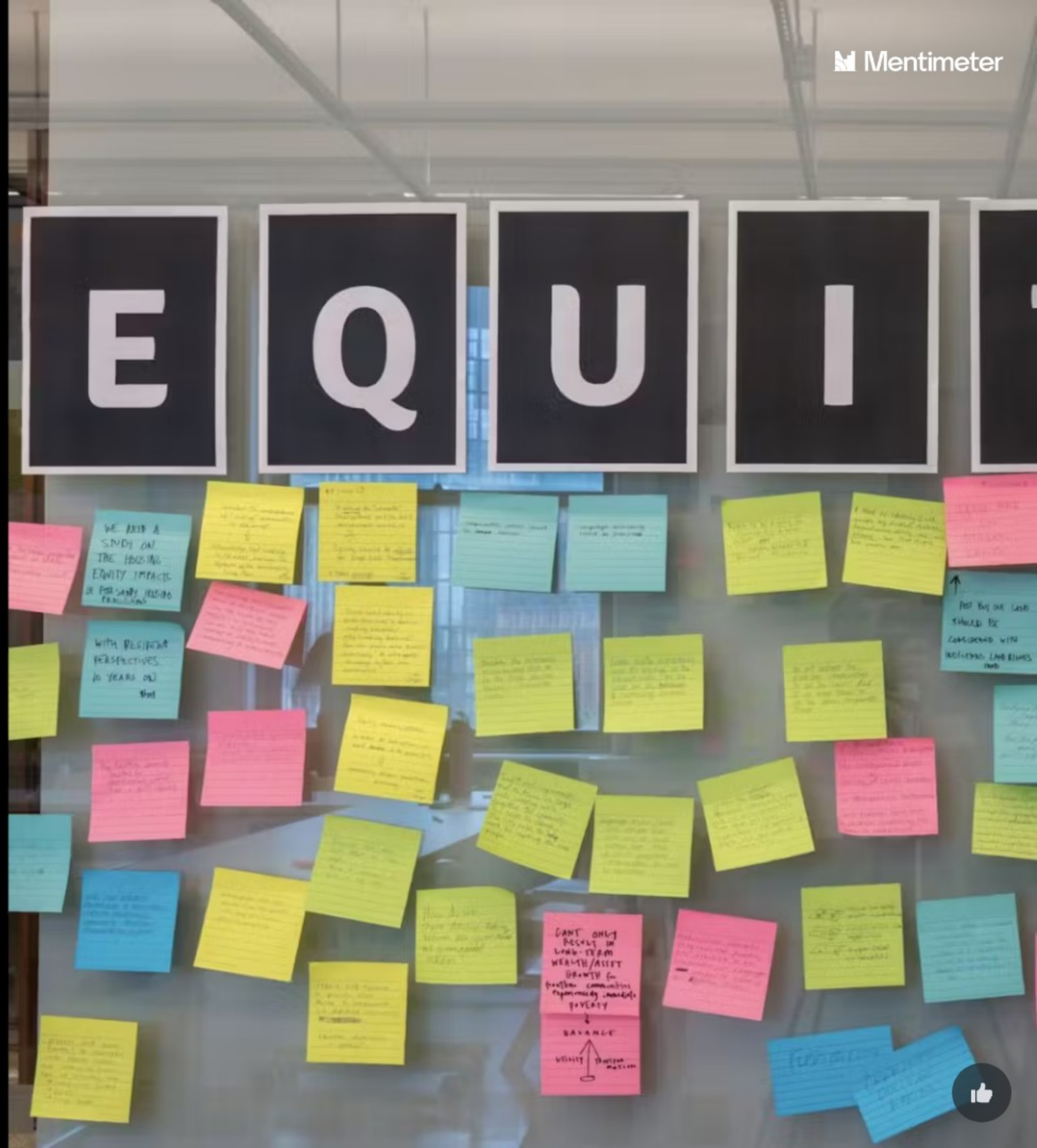
Listen, don't preach.
Show, don't tell.

Always collaborate between public and private, between businesses and community to create a rainproof nyc!

RAINPROOF PRINCIPLES

We are now asking you to think through these 5 categories as New Yorkers...

- Equity
- Collaboration
- Infrastructure & Land Use
- Accountability
- Additions/Other



WORKING GROUPS PRESENTATIONS: *MENTIMETER*

Code: 55 85 36 0

[Bit.ly/May1Menti](https://bit.ly/May1Menti)



Managing Increasing Heavy Rainfall

Co-Facilitators:

Alan Cohn, NYC DEP

Rob Freudenberg, Regional Plan
Association

Today's Co-Presenters:

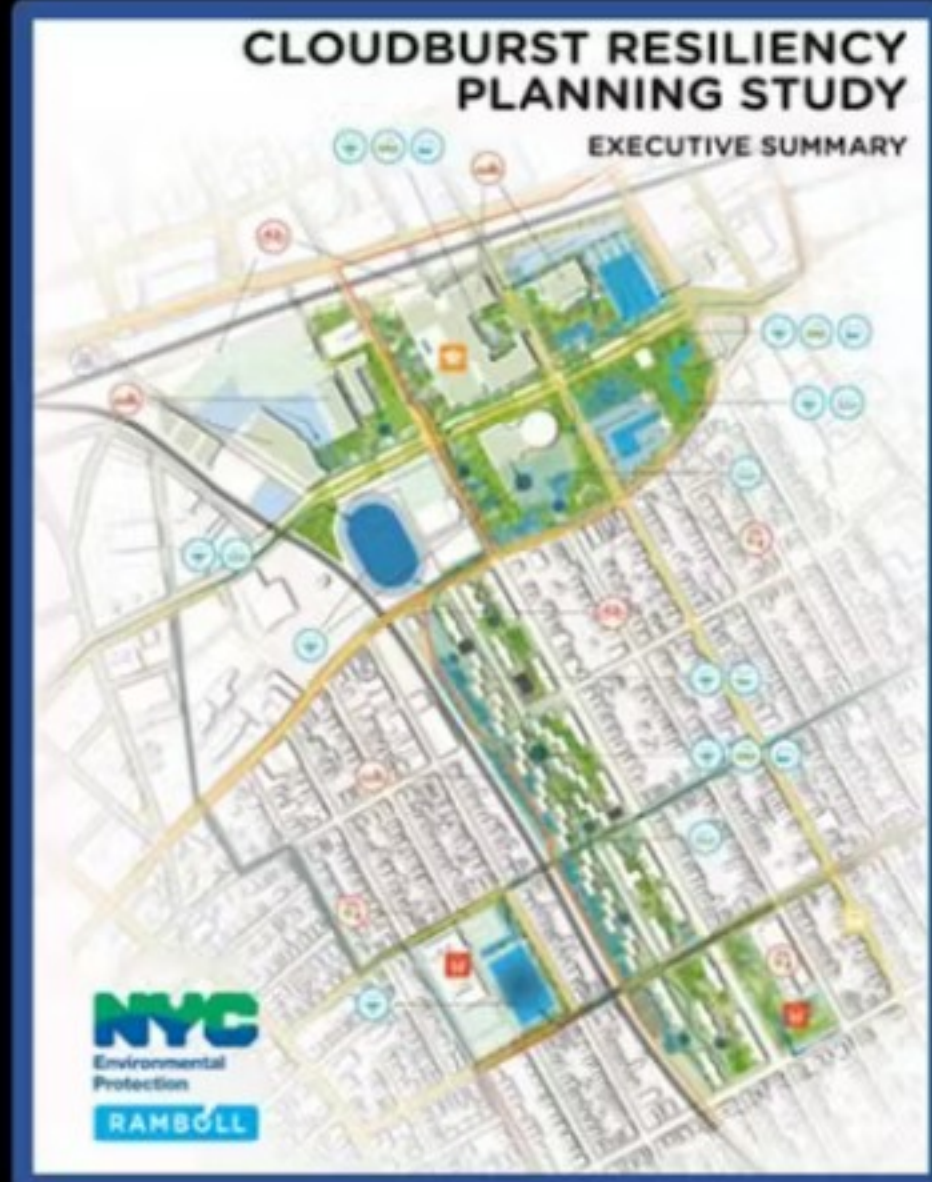
Franco Montalto, Drexel University

Amy Motzny, NYC DEP

Akemi Sato, Design Trust for Public Space

Vincent Lee, Arup

Innovative and Adaptive Stormwater Management in NYC

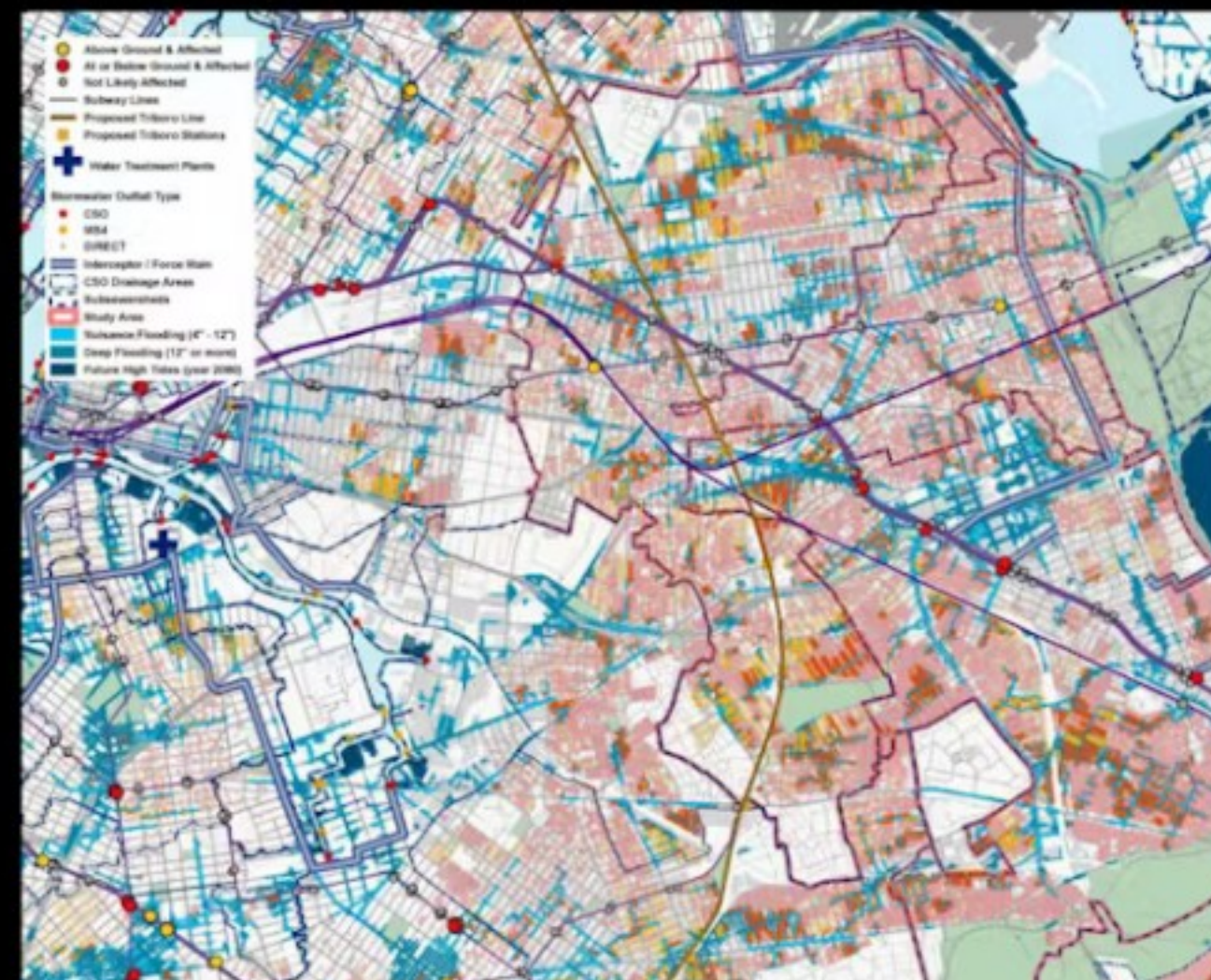


Planning and implementation is an ongoing and iterative process.

RPA

RPA is a non-profit research, planning, and advocacy organization.

We are dedicated to improving the New York metropolitan region's economic health, environmental sustainability, and quality of life.



YOUR EXPERIENCE WITH HEAVY RAINFALL & RAINPROOF

What brings you to Rainproof today? What is your experience with heavy rainfall? How does flooding impact your daily life and your community?

lived through Sandy as a NYC employee and staffed the NYC Restore centers. Saw/supported families through the trauma of homes, schools and jobs being flooded.

Overhead risks- tree limbs fall during and after heavy rain and are danger to people, cars, buildings.

Heavy rainfall affects my job, my commute my home and my neighborhood. It's effects have increased in the last few years.

The recent flooding in the city terrifies me

rainfall?

My street and neighborhood has flooded

I live in NYC and work to provide real time sensing solutions to understand flooding and mitigate impacts

Having lived in NYC since 2005, rainfall is notably heavier. I think we are not well tuned into dangers of heavy rainfall (as we are for excess heat or snowfall) and underestimate its immediate danger

My street floods, my basement floods in heavy rain.

YOUR EXPERIENCE WITH HEAVY RAINFALL & RAINPROOF

What brings you to Rainproof today? What is your experience with heavy rainfall? How does flooding impact your daily life and your community?

I am here to think about the intersection of this work with our parks and natural areas. Personally, heavy rainfall has caused damage to my home and routinely flooded sections of my local park.

I'm interested in growing storm water infrastructure, tree canopy, and public transportation accessibility! My work place has been flooded and when it floods really bad it severely affects my commute

Gowanus Canal area flooding is getting worse due to changes in bulkhead infrastructure and increased development

I'm an educator that develops climate change and sustainability curriculum for k-12 schools. Being trapped on a subway back in September. Flooding impacts my community due to poor infrastructure.

To bring the rainproof NYC program to East New York

I work with young NYC children on environmental advocacy. I wanted to learn more about this issue to better instruct them.

Dual concern for inland flooding and impact to water quality from CSO overflows due to increasing rainfall. What is rainproof doing to address CSO overflows as a key part of stormwater management?

I attempt to promote and analyze NYC's flood risk datasets and communicate them to the general public.

YOUR EXPERIENCE WITH HEAVY RAINFALL & RAINPROOF

What brings you to Rainproof today? What is your experience with heavy rainfall? How does flooding impact your daily life and your community?

Hasn't personally affected me

I'm a designer - looking for innovative solutions to account for extreme rainfall

I want to take action to keep my home livable for a long time. I'm hoping to contribute to Rainproof NYC's efforts through my work

As as a public servant who works in resiliency, this topic is extremely important to my waterfront projects

rainfall?

How does flooding

Recently worked on an Earth Day webinar: The Power of Urban Gardens: Agents of Environmental Resilience. It sparked my interest in the ways NYC infrastructure has handled and will handle flooding.

want to see the City make better investments in infrastructure for the changing climate

My neighborhood (Gowanus, BK) was impacted heavily by flooding last year.

To learn more about how different agencies, organizations, and community groups are addressing the heavy rainfall problem in NYC

YOUR EXPERIENCE WITH HEAVY RAINFALL & RAINPROOF

What brings you to Rainproof today? What is your experience with heavy rainfall? How does flooding impact your daily life and your community?

I want community wisdom about water in our neighborhoods to be part of planning processes

Researcher working with local communities about climate resiliency. Also live in NYC and have specifically chosen location less likely to flood after experiencing regular flooding in lower Manhattan

Heavy rainfall has directly impacted my neighborhood of Gowanus, Brooklyn. My area consistently floods during heavy rain, preventing transportation and causing CSO overflow in the canal.

One of my neighbors who experienced repetitive flooding has finally put in green Infrastructure and a French drain.

rainfall?

- How does flooding

Concerned about the future of our neighborhoods and whether owners and renters can tackle upgrading buildings to reduce damages

can't commute to work because subways are flooded

I'm president of the South Street Seaport Coalition. We are working to make a holistic plan for the East River waterfront neighborhoods south of 14th street to the Battery.

A professional and personal interest in the thematic and in the initiative. My experience is mainly through climate studies. My daily life is not directly impacted by floods.

YOUR EXPERIENCE WITH HEAVY RAINFALL & RAINPROOF

What brings you to Rainproof today? What is your experience with heavy rainfall? How does flooding impact your daily life and your community?

I work as a community planner in East New York and we've seen terrible impacts of heavy rainfall- basement apartment flooding, stagnant, polluted water in the Jewel Streets, and sewer backups

city needs shovel ready plans for green infrastructure to match the flood of federal money available

How is Rainproof addressing the Army Corps HATS plan and building that into their work?

The need to upgrade stormwater management infrastructure has been a major concern of mine as a planner and a NYC resident. Recent rain events and interior flooding shows how far we need to go.

● How does flooding

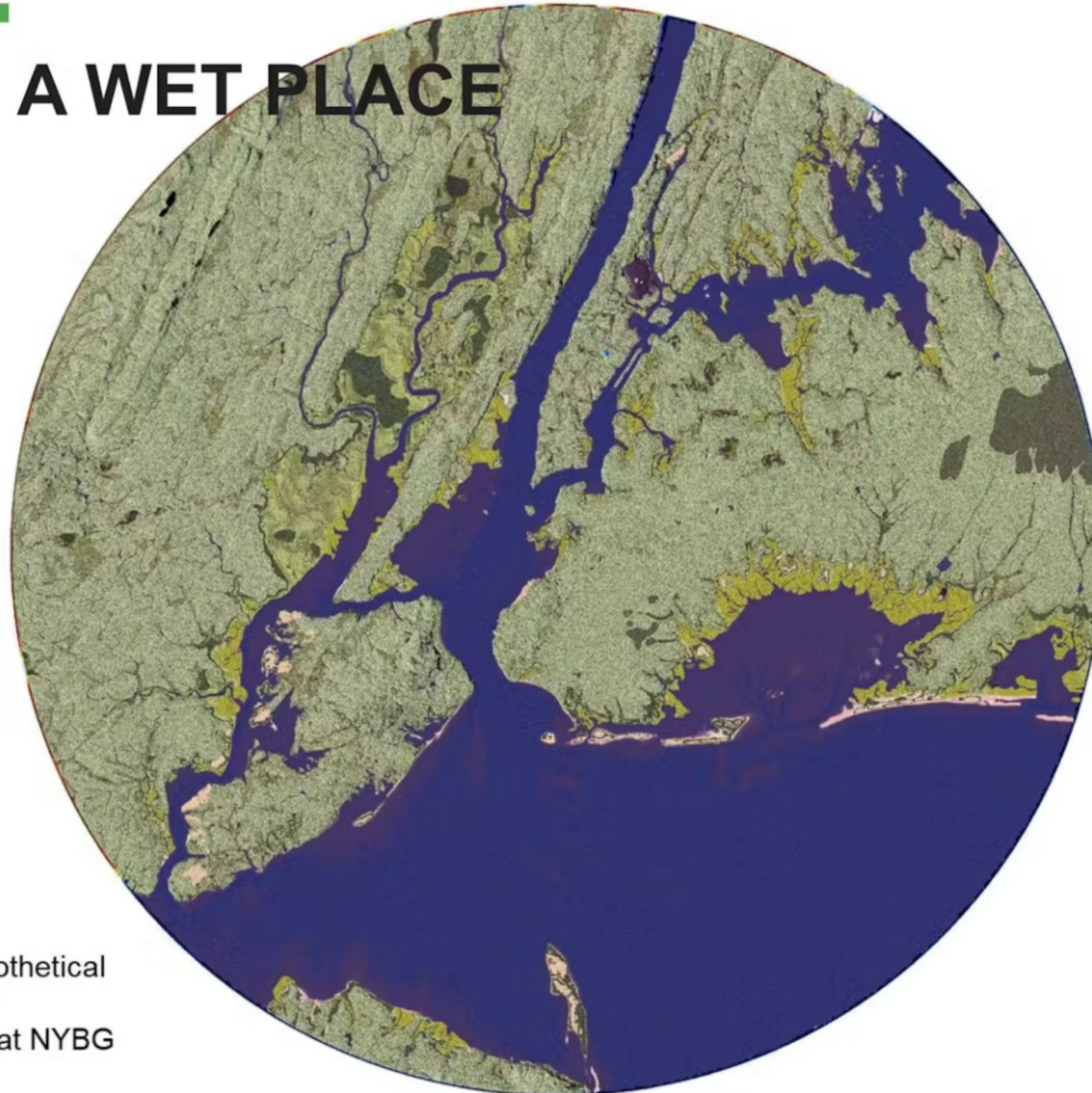
Let's talk about how we can get various NYC agencies to link pluvial flood mitigation projects to be more efficient in using funding/budget and approach pluvial flood risk holistically

In The Jewel Streets it doesn't take heavy rain to flood the streets and homes - there are not enough rain drainage (catch basins) in The Jewel Streets

Homeowners have dealt with constant flooding for over 50 years and they want out - they want there land returned back to nature

Want to understand what resources are avail for local flood resilience... And how do the hyper local needs integrate or dovetail with city wide and regional efforts?

WE LIVE IN A WET PLACE



Rendering by Eric Mehl, Hypothetical Inc. based on data from Eric Sanderson's Welikia Project at NYBG

HunterCollege
Welikia
RGB
Red: Band_1
Green: Band_2
Blue: Band_3



NYC METRO 2024

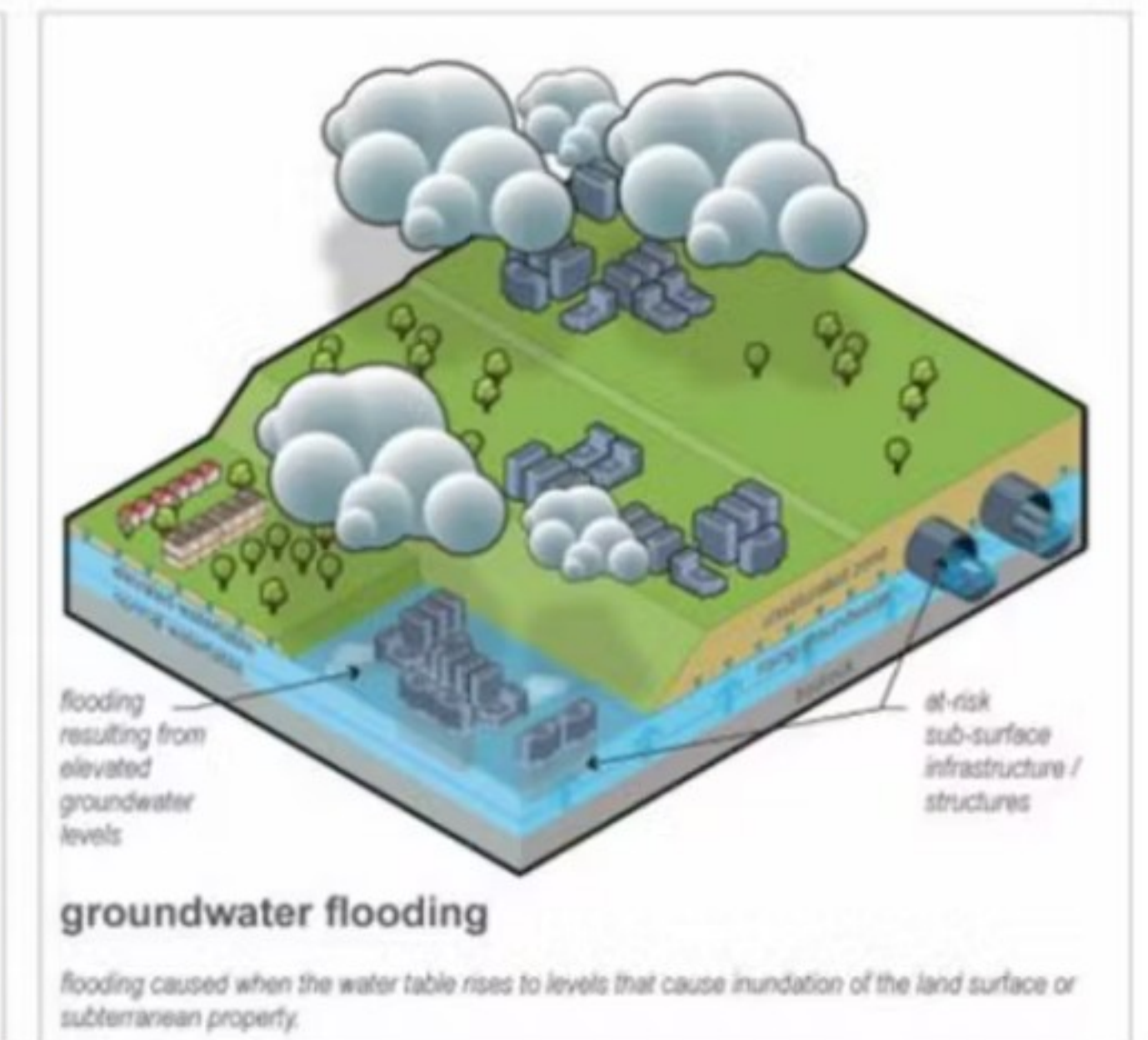
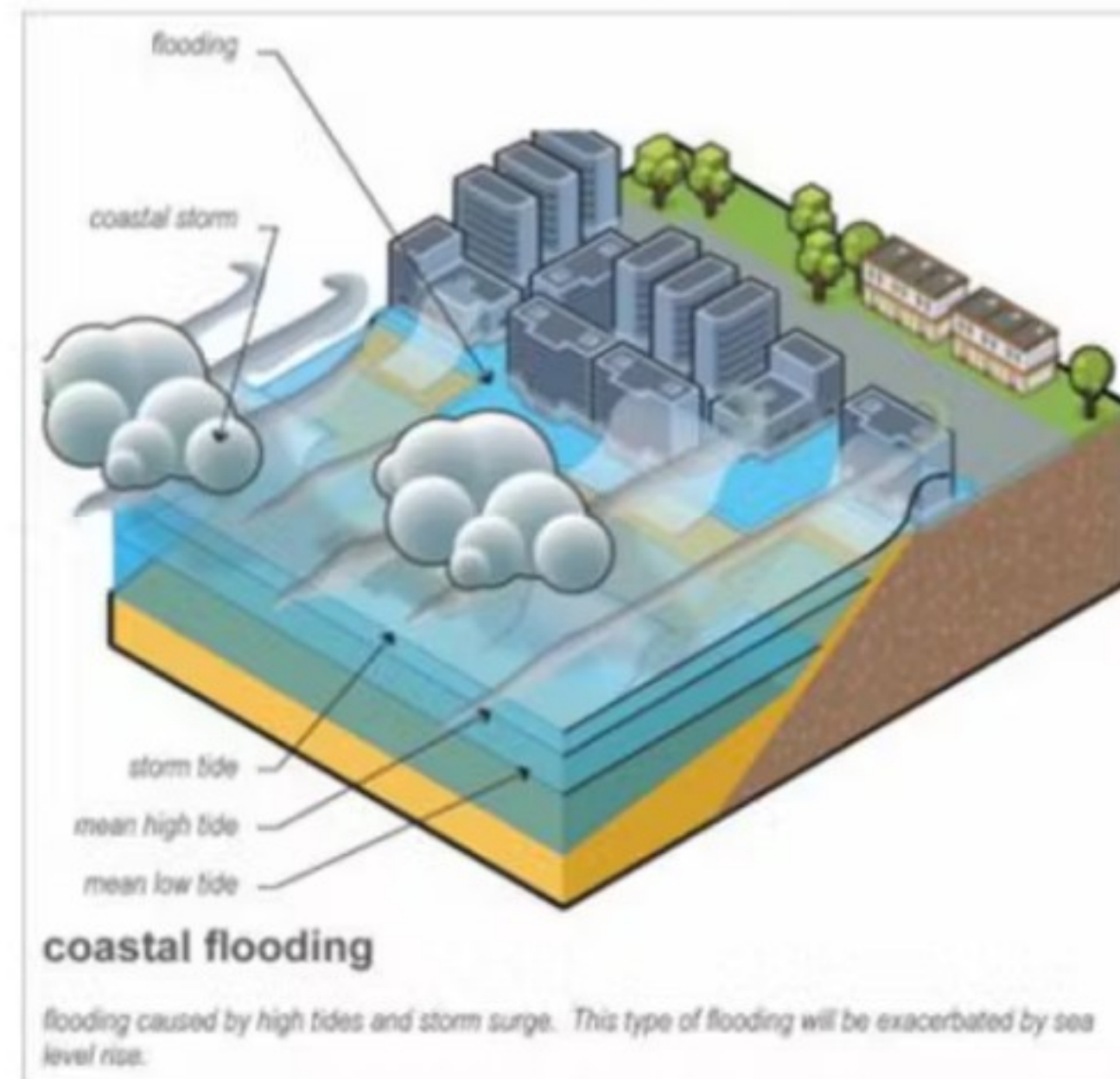
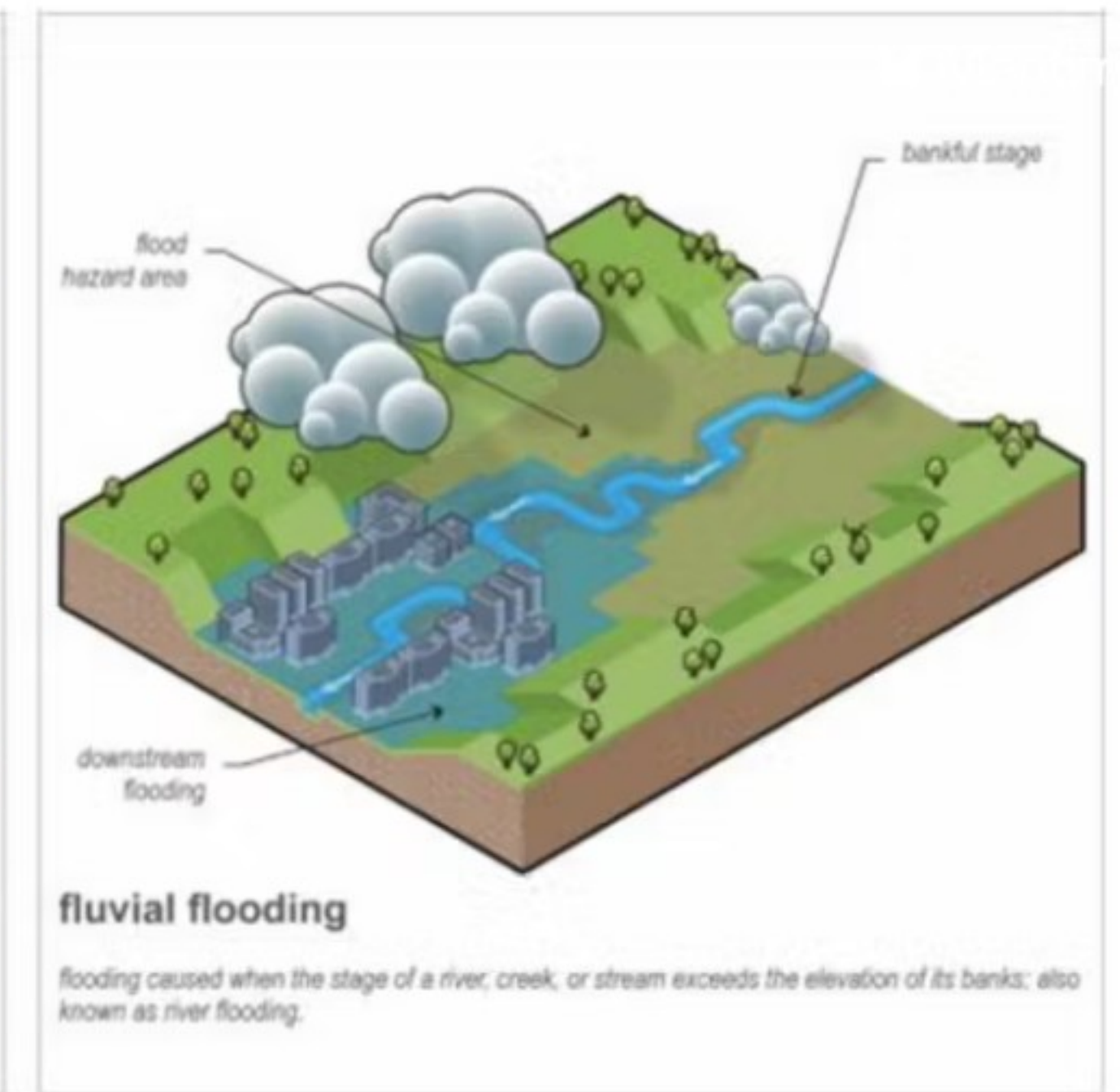
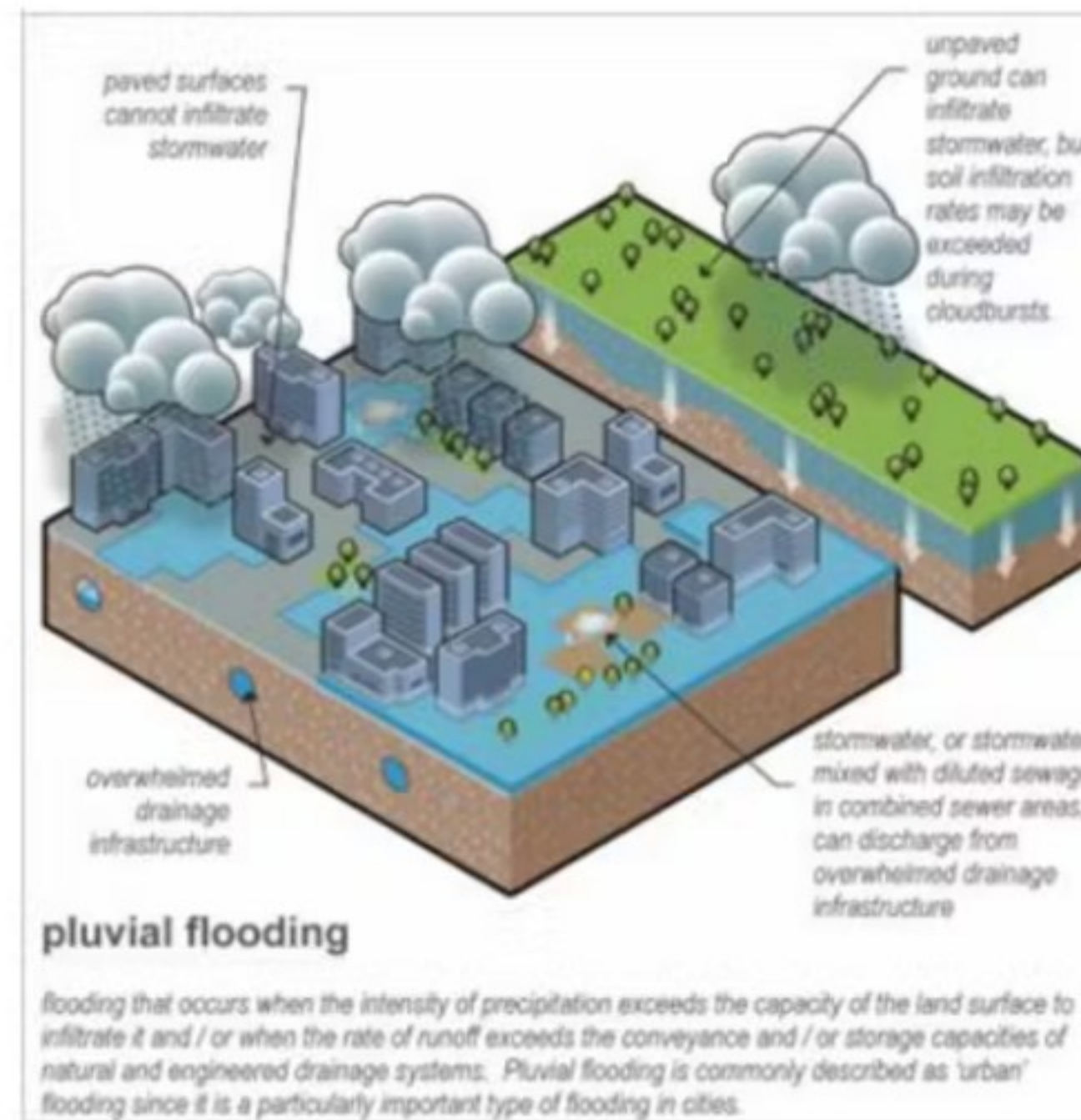


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HunterCollege



THE PROBLEM

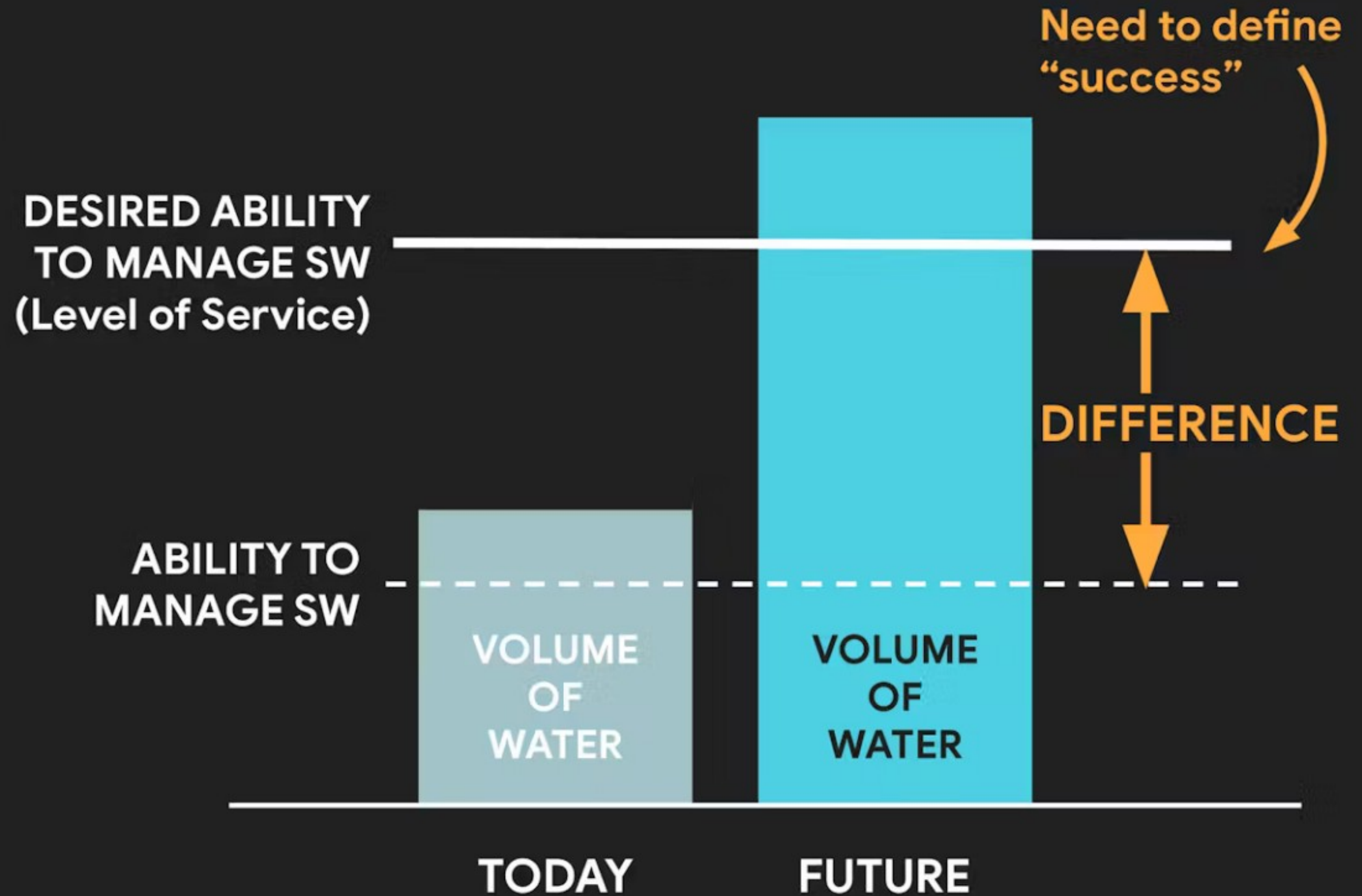
- Our existing stormwater management systems are not able to manage all our water.
- In the future, significantly more stormwater will need to be managed.
- New York's unique geography makes pluvial flooding challenges intrinsically connected to other flood types.
- Our systems are not easily adaptable to these changes.



Source: NPCC4 Flooding Chapter

THE PROBLEM

- This increases the existing risk to stormwater flooding and extends that risk to new areas.
- This risk is incredibly destructive, resulting in the loss of life and disruption of livelihoods.
- Needs and expectations will need to be understood and discussed.



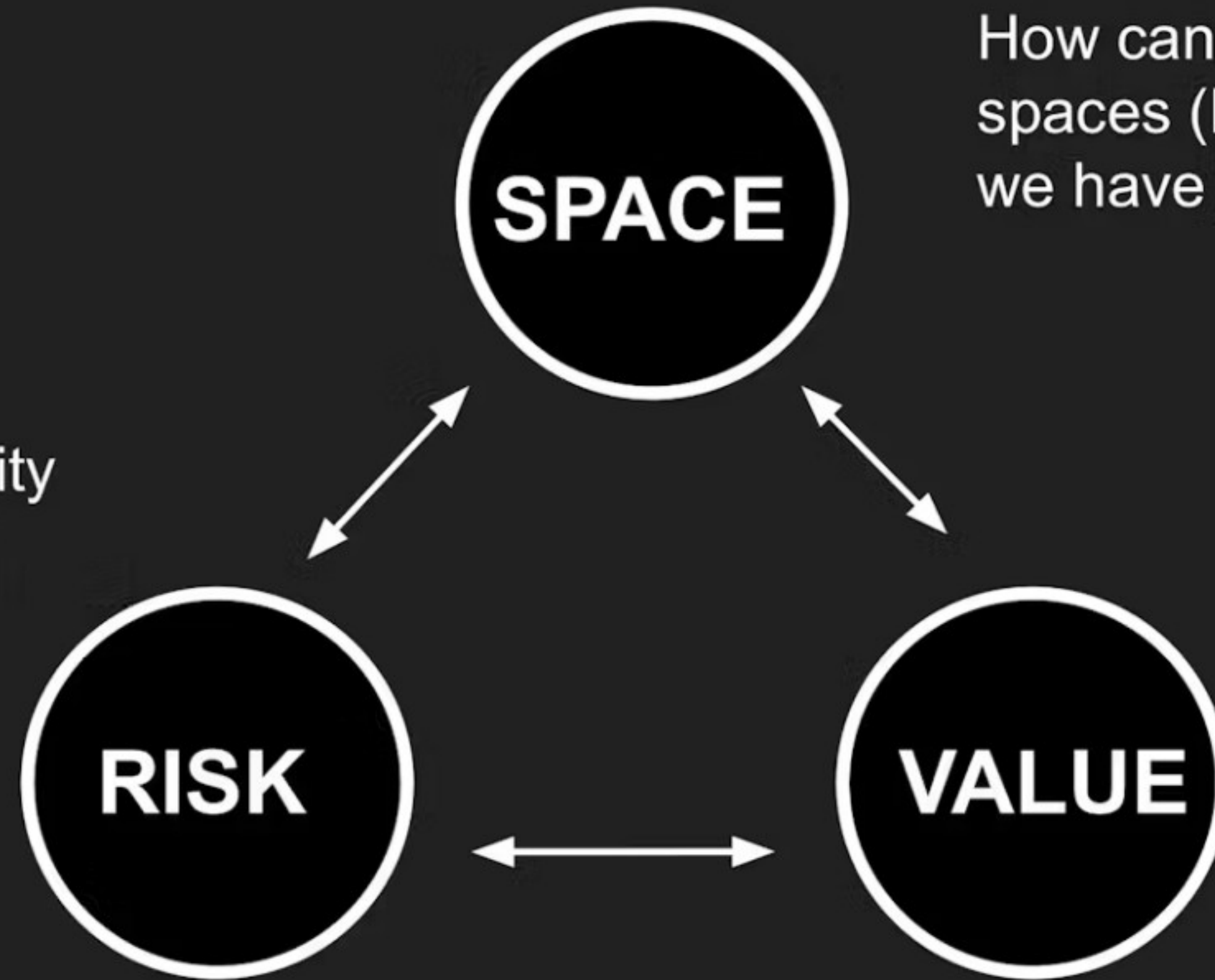
WG1: AUDIENCE COLLABORATION SESSION #2

PROBLEM & CHALLENGES

- How comprehensively are we assessing the problem?
- How do the identified challenges resonate with your understanding of the problem?
- Do the dimensions of **value**, **risk**, and **space** provide a useful framework? If not, what else should be considered?
- How can we better integrate **equity** as part of this assessment?
- Are there additional challenges being overlooked in this summary? What is missing overall?

HOW WE ORGANIZED

How can we effectively understand risk in ways that prioritize equity and vulnerability in balance with the realities of limits and constraints?



How can we successfully reimagine the spaces (land and everything under/on it) we have to manage rainwater?

How can we achieve the greatest value for the city (residents, ecosystems, and economy) in managing stormwater, and capture that value to make investments possible?

SHARED CHALLENGES - EXISTING SEWER SYSTEM

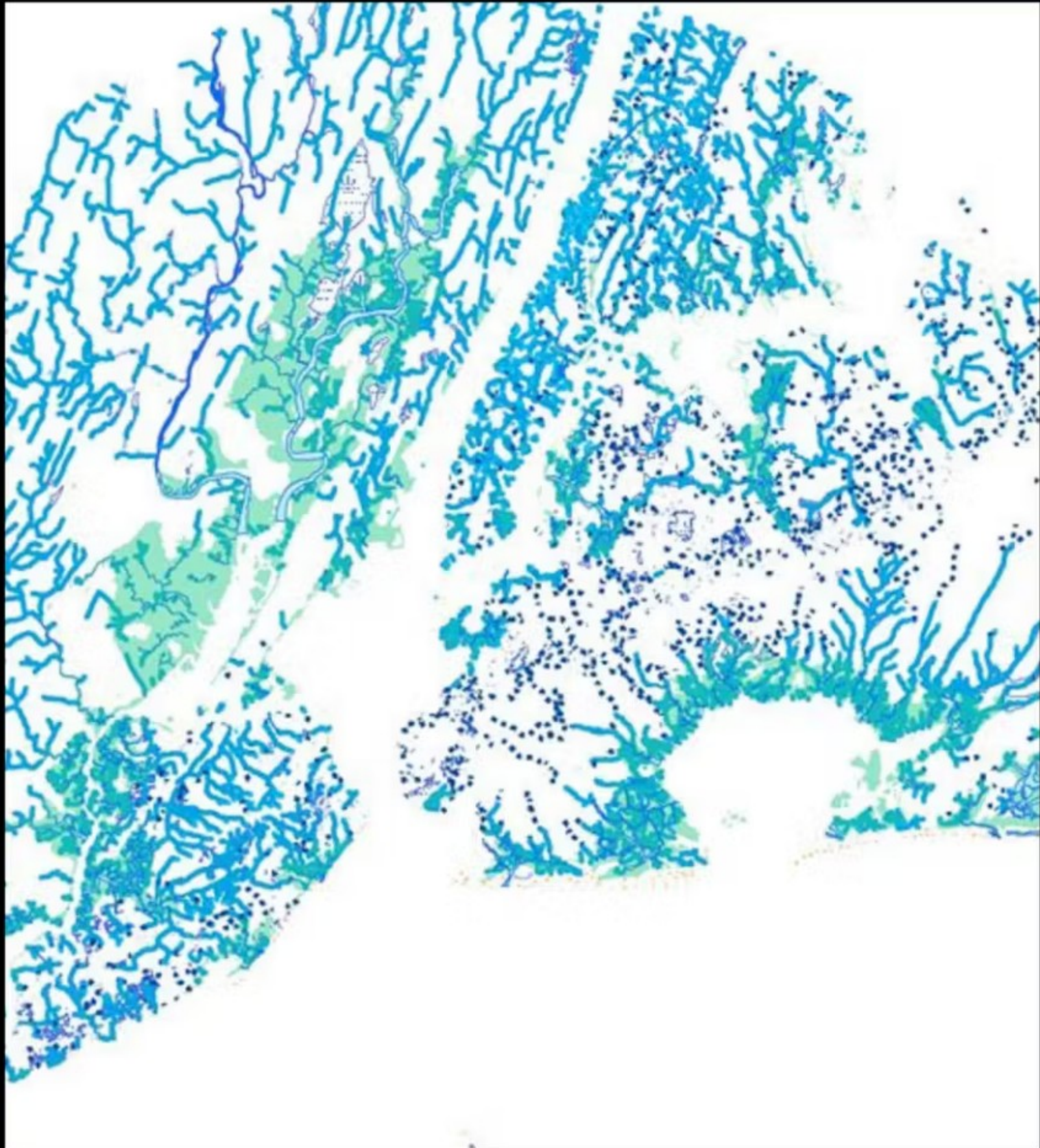
CHALLENGE 1: Our city infrastructure and sewer systems are built according to a climate that has already changed

- **Varied levels of service** throughout the city
- **Capacity limitations** for managing water below ground
- **Vulnerable people, property, and infrastructure**

SHARED CHALLENGES - LAND USE

CHALLENGE 2: We have two conceptually separate ways of managing stormwater: through the sewer system and through ecosystems.

- **The city is too impervious**
- Plants **slow and reroute runoff** into ground and back to atmosphere
- **Water does not see ownership boundaries**
- **Flooding is variable**, making it difficult to design a single solution to reduce risk



SHARED CHALLENGES - DISPROPORTIONATE RISK

CHALLENGE 3: Not everyone will experience flood risk the same way; focus on equity

- NYC is home to a significant number of **historically underfunded communities**
- Too many people in NYC live in **at-risk, sub-optimal homes**
- There is an **under-awareness of risk** that is exacerbated by language barriers

INITIAL FINDINGS



FINDINGS | RISK

- There is a need to define risk in an understandable way
- Heavy rainfall impacts NYers in numerous ways, but disproportionately hurts some more than others
- There are certain unacceptable outcomes we seek to avoid:
 - Illness/hospitalization/death
 - Property damage that makes for uninhabitable conditions (electric panel, heating, water etc.)
 - Houselessness/displacement
 - Extendeds period of loss of essential infrastructure
 - Missed school days
 - Job loss
 - Missed meals
 - Loss of services (emergency/medical/shelter)

FINDINGS | SPACE

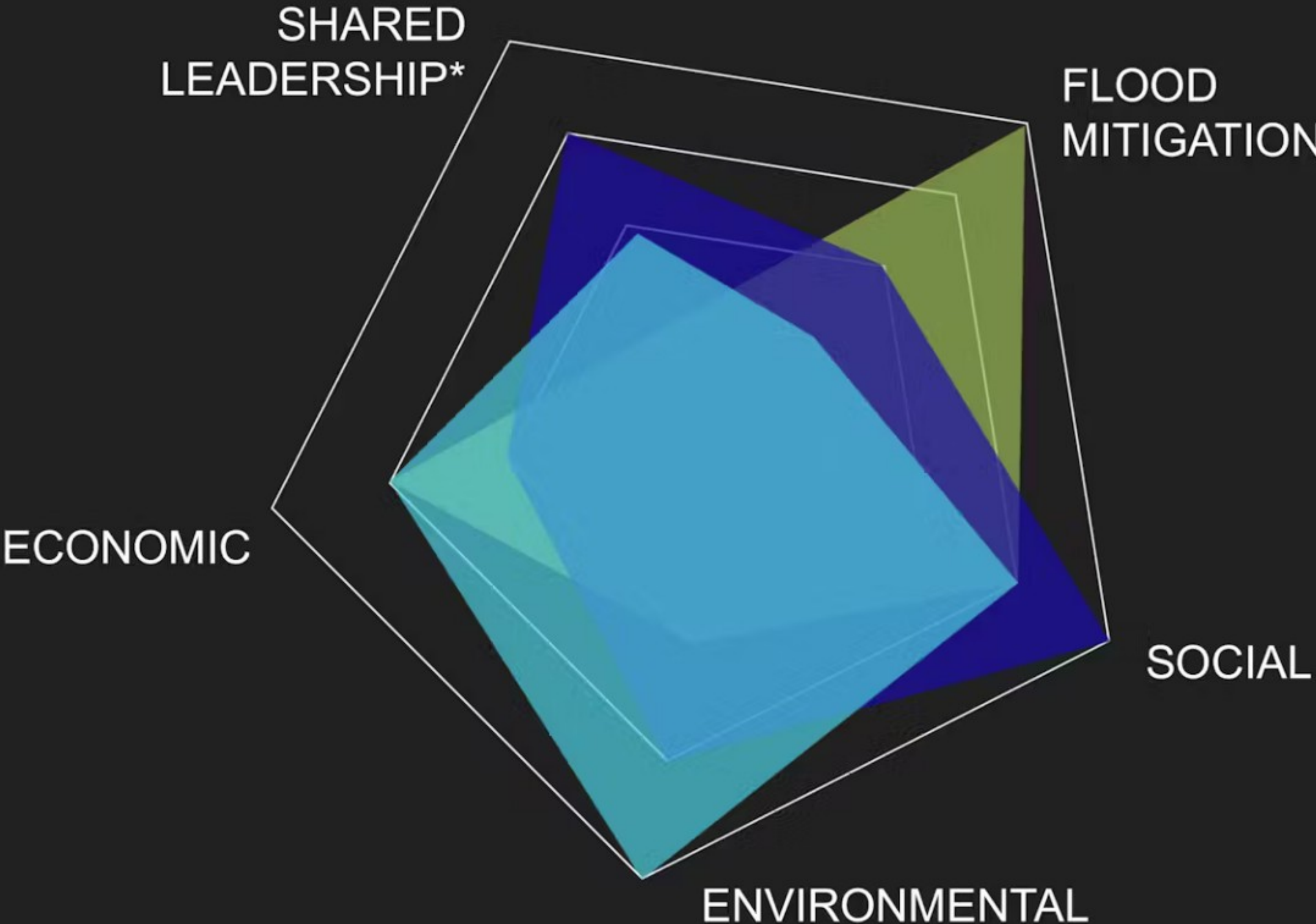
- Although the sewer system does the heavy lifting for stormwater management, there is a limit to what we can manage with the sewer system
- We have undervalued what natural systems can do to minimize risk
- The future of stormwater management in the city will require a layered approach rather than a linear solution
- We would need to combine incremental change with transformative change through a long-term vision and large landscape moves.
- We should look for ways to adapt citylife to more flooding... in ways that extend beyond flood-prone areas

FINDINGS | VALUE

- Community-driven, multi-sector processes take a long time. We need to develop high-impact solutions in parallel with more scalable, faster community benefit projects.
- We need better metrics for success for resiliency projects, including social benefits.
- Issues that are important to community but not directly related to stormwater management will come up in the process.
- There are many roadblocks and lack of incentives to integrated public and private space planning for resiliency.
- Research and tools are available to address green gentrification; incorporating this concept early on in the planning process will minimize green gentrification.



FINDINGS | VALUE



LEVELS OF IMPACT

- Individual
- Community
- City

*SHARED LEADERSHIP refers to Interagency Collaboration + Community-Based Design

WORKING TOWARD SOLUTIONS

How can we effectively utilize space in NYC to equitably reduce the risk from heavy rain and add value to communities?

PROBLEM & CHALLENGES

How comprehensively are we assessing the problem? How do the identified challenges resonate with your understanding of the problem?

How comprehensively are we

consider porous concrete so water dissipates into the earth below us, instead of running off

Projection seems comprehensive. Keep up the good work in making mitigated solutions.

Applaud trying to be holistic, but aim to be actionable first with no-regret action recommendations

How to contend with developers against green infrastructure / look beyond dollars when considering value

and space provide a useful

A 1% increase in flood insurance in a community can reduce post catastrophe spending by 22%. How have you engaged with the insurance sector? What do you feel their role is?

It's a great start. Would like to see how these dimensions can be expressed within the hyper local multi-lingual and cultural landscape of NYC.

POTENTIAL RECOMMENDATION THEMES

1. **Protect and expand natural areas**
2. **Improve and integrate green & gray infrastructure**
3. **Expand and improve funding**
4. **Improve communication and collaboration**
5. **Improve mapping and data**
6. **Develop decision-making criteria**
7. **Advance planning tools**

RECOMMENDATIONS

What can Rainproof do to advance these and other objectives?

consider porous concrete so water dissipates into the earth below us, instead of running off

Can we talk more about HEALTH and not just "risk?"

Produce open data. All of it.

Nothing about us without us

is it possible to decombine the city's storm water and sewer systems?

Streamline the path to implementation

Allocate funding for natural areas management - they provide a high level of beneficial ecosystem services and flood protection, but are vastly underfunded relative to other green spaces.

Incentives for homeowners to manage and detain storm water

What can Rainproof do to advance these and other objectives?

Utilize programs being developed in other cities:
<https://www.sfdph.org/dph/hc/HCCommPublHlth/Agendas/2012/June%2019/non%20potable%20h2o%20fact%20sheet.pdf>

Where is EDC and the Mayor's office in this effort?

Build retention basins wherever feasible Develop buy-outs for most at-risk properties

Improve coordination among permitting agencies to implement new infrastructure faster

Fund green jobs that care for green spaces, make these desirable jobs to have. If it is essential that these green spaces be maintained, the maintainers need to be paid a thriving wage

Work with property owners. Lobby for more regulation on sw management on individual lot.

Agency commitment to transparency of information, dedication to a vision, clarity of areas where no action will be taken, honesty around residual risk

How to not just incentivize but put pressure on the especially on the largest private property owner in NYC

RECOMMENDATIONS

What can Rainproof do to advance these and other objectives?

How will Rainproof address the intersection of coastal flooding and rain induced flooding? Are you engaging with the Army Corps HATS plan?

Find new uses for landfill on large projects à la battery park city

Work with existing non profits that may not be specific to flooding but is doing work that helps

How to create water boulevards to restore pathways that natural streams used to take? Interconnection of green infrastructure practices and other nature-based solutions to develop a comprehensive plan

INTERACTIVE SESSION 1



TURN TO YOUR NEIGHBOR!

Imagine that you are a child you know who is currently between 0 and 15 years old: From the perspective of this child, what does rainproofing in NYC look like in the year 2050, and what needs to happen to get us there?

MENTIMETER

Code: 55 85 36 0

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Housing Mobility

Liz Greenstein, NYC Mayor's
Office of Housing Recovery
Operations

Christie Peale, Center for NYC
Neighborhoods

Working Group #2 - Housing Mobility

Overall Goal / Deliverable:

→ Create a set of Principles that will inform/guide/underpin a future Housing Mobility Program for the City of New York

Three work streams to help develop the Principles:

- Principles & Process
- People & Communities
- Impact & Place



Oakwood Beach, Staten Island

Housing Mobility - Definitions

What is housing mobility in the context of climate adaptation?

- “The ability of residents to find and secure a home that improves their housing or neighborhood conditions” p. 76, [NYC Waterfront Plan](#), 2021

What is a voluntary buyout program?

- “A property buyout for flood mitigation refers to the process in which a local government buys properties which are vulnerable to flooding from willing owners. This process often occurs after natural disasters, such as hurricanes, wherein federal agencies like FEMA allocate money to states who have recently experienced a natural disaster.” ([buy-in.org](#))

Working Group #2 - Housing Mobility

Whereas...

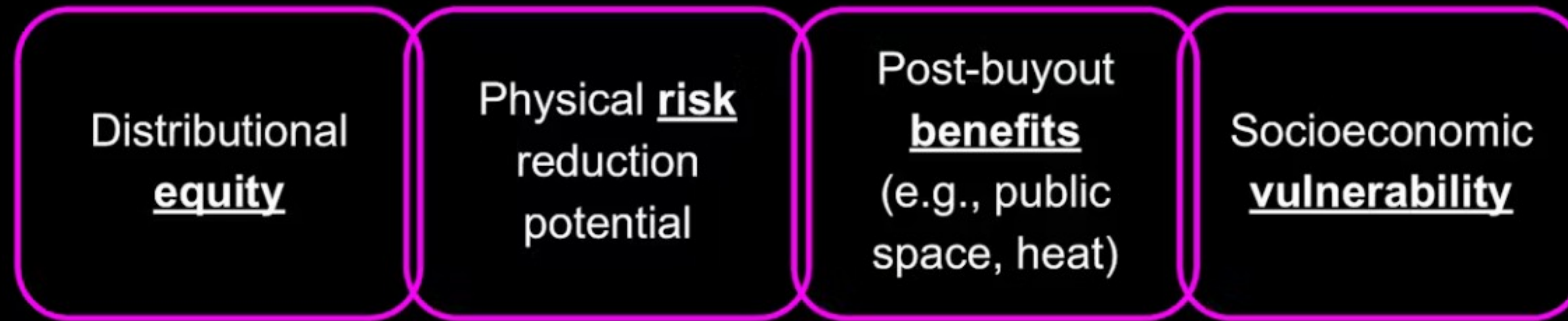
- NYC's neighborhoods – coastal and inland – are regularly flooded as a result of both disasters like hurricanes and increased rainfall.
- There is a housing crisis in NYC with few vacant units and even fewer vacant affordable ones.
- Buyouts are only one of many tools available to address flood risk.
- Most buyout programs have been implemented with inequitable outcomes, further exacerbating already existing inequities in Black and Brown homeownership.
- The program being designed at this time will be limited to 1-4 family structures; multifamily buildings and businesses will be addressed in future programs.

Activity Update: Subteam 1 (Principles & Process)



Subgroup #1 - PRINCIPLES & PROCESS - SUMMARY

Develop conceptual **prioritization framework** for buyouts considering:



Framing

Decision questions to determine if buyout is one of a neighborhood's suitable solutions
Social prioritization criteria to include, as well as process considerations
Consideration for ignored groups (renters) and how buyouts lock in/worsen vulnerability

PRINCIPLES & learn from you:

Limit new construction in flood plains for consistent policy.

When there have been multiple closings in an area over time

Hard to define the "right" choice. Social and upward mobility would be a large consideration.

I think buyout should be an absolute last resort and ideally community led in some way

Areas with repetitive loss incidents

Target low-density neighborhoods in buyouts to gain more land from buyouts for infrastructure

losses from repeat or extreme flooding.

Communications about buyouts as part of broader discussions about adaptation and resilience, rather than stand alone discussions. (Like what we are doing here today!)

communities during the rollout process - how, when, how often, what form?

PRINCIPLES & learn from you:

When my neighborhood is experiencing flooding and I know (or I think) that no significant action is taken by the city to reduce risk. We need to know if there are plans for improvement or not.

Prohibit building in a flood zone!

Working directly with community groups and community boards to communicate buyout programs

When an area is truly doomed to flooding long term, and where engineering solutions are limited or extremely costly.

water-management

Buyout is best choice when the land/topography of the impact area will be irreversibly inhabitable and redeemed by natural forces

When repeated flood impacts make rehabilitation of structural or health issues impossible

After being flooded often enough that the homeowners are ready to move away (don't call it "retreat" - a red flag word. Have social workers involved in discussions with the community.

From an insurance perspective- flood insurance is an annual contract -lack of long term insurability of a buyout property is an item that should be highlighted to a potential buyout candidate.

form?

PRINCIPLES & learn from you:

Solve at an ecosystem level instead of only focusing on emergency areas only. How the city has been developed/paved over has created those areas and forced people with access/affordability

water-management techniques?

- How can a buyout program successfully communicate with communities during the rollout process - how, when, how often, what form?

Activity Update: Subteam 2 (People & Communities)



Subgroup #2 - PEOPLE & COMMUNITIES - SUMMARY

- We have been meeting with community-based organizations, residents, and trusted community voices to identify cross-cutting questions and concerns.
- Our goal is to create a list of FAQs which the City would address in its buyout program.



PEOPLE & COMMUNITIES

We would love to learn from you:

Depends on if my whole community is literally underwater. In which case I'm ready to move out. Ideally others in my community can move with me

I would only trust a well-known community organizer

I would trust community boards

Very important to stay in community if you have developed a base there, I'd trust local community leaders the most to tell the truth

Trust- long time residents and folks active in their coop boards or Community boards

Staying in the same community limits choices for a buy out. Money talks.

Very important to stay close. I only trust a few people on/ near my block.

If my neighborhood had chronic flooding I wouldn't want to stay there!! I would trust someone I knew

in your community if

you took a

you

t it

te

you the truth about

government flood protection and buyout plans?

PEOPLE & COMMUNITIES

We would love to learn from you:

City council member, community board

I wouldn't trust anyone about a buyout program

I would want to move to a nearby flood proof area. I would trust established local nonprofits the most.

I care about my neighbors and our shared amenities. I don't want any of us to experience long term risk. I'd love for us to all decide together where to go. I trust agencies too as long as we're real.

in your community if you took a

Trust other residents and community groups/leaders

Staying in the community would mean keeping kids in the same schools, keeping local doctors/jobs, but it would depend on how far you'd need to go to be safe from flooding

Depends on my attachment to the community. Would trust community organizers, city councilman, community board.

School Principals

government flood protection and buyout plans?

PEOPLE & COMMUNITIES

We would love to learn from you:

Very important to stay in my community. I trust my neighbors and community members.

I would trust information coming from libraries, community board members, parks department (eg rec centers)

It would be fairly important. I have community networks, friends and family locally

As I get older I'm more flexible about where I live.

in your community

Very important to stay in my neighborhood. I trust my building leaders and community representatives.

I trust local non-profits and organizations that have already proved themselves through consistent good work.

I think an important factor for long term residents receiving a buyout is are my resources/networks moving with me OR can I access them where I relocate to

you the truth about government flood protection and buyout plans?

Activity Update: Subteam 3 (Impact & Place)



Subgroup #3 - IMPACT AND PLACE - SUMMARY

Lessons Learned from Post-Sandy and Other Buyout Programs

- Community-led processes have better success
- Long-term plans are needed for infrastructure and ecological restoration
- Buyout programs can exacerbate housing inequality (households with less resources have fewer options)



Oakwood Beach, Staten Island

IMPACT & PLACEMENT Learn from you:

Turn it into a natural area

Natural spaces

Wildlife preservation

Most areas with severe flooding exist in areas that historically naturally flood- these areas should be returned to nature as natural flood mitigation

property? What activities

Community gardens and parks.

Where possible, land should be converted to natural areas or green infrastructure. Funding for maintenance is ESSENTIAL.

Give it to Parks or Nature Conservancy.

Nature based hazard mitigation, like restore coastal marshes or allow water flow

incentives for community relocation? What about identifying receiving sites? Funding for new housing?

IMPACT & PLACELearn from you:

Land use assessment for each property depending on the hazards experienced in the area

Once an ecosystem is established stewardship and maintenance costs are low. There should be parks that include effective green infrastructure

Should be converted to pervious spaces People should be relocated out of flood zones

Land should be public and used for green infrastructure or reverted back to marshland it probably once was.

property? What activities

Green infrastructure to reduce risk in other areas

Complicated if some people stay and some people leave. Will water/electric infrastructure be maintained for those who stay?

Ideally homes knocked down and replaced by environment that soaks up water. But at a minimum knocking it down and zoning for no new development

It should go back to nature- a salt marsh in many places. We are losing our marshes to SLR and this would make space for them

incentives for communi relocation? What about identifying receiving sites? Funding for new housing?

IMPACT & PLACE Learn from you:

Turn the land into a community amenity. People should be relocated to a similar or improved quality of life.

How can relocation be framed as an opportunity and not just a burden

Green infrastructure that doubles as open space/natural habitat. Put billions of dollars into new affordable housing in flood safe areas

It's a place full of memories, that's now going to be more wet, that should remain accessible to all community members. Move homes close by, and keep floodable uses back, so we can go back and forth

property? What activities are allowed on the land?

Consider returning the land to nature, also consider ways the new landscape can keep people engaged who used to live there, is there art that can reflect the community's identity? Chances to garden?

There would need to be resources to assist with relocation and and assurance that the price received for buy-out allows somebody to buy again within X number of miles

Restore the land or convert it to be used for flood protection up and down-stream

Land should be turned back to nature

sites? Funding for new housing?

IMPACT & PLACELearn from you:

I've read about places where buyouts are offered early enough that the government can rent the home back to tenants over a short term to recoup costs. Seems interesting but complicated.

There should be new statewide designation of "climate reclaimed zones" which are designed for mitigation yet attached to government funding as "climate preserve" alike to nature preserves

The land should not be developed, but conserved in perpetuity for nature based solutions, tidal parks, renewable energy. The city should provide options, and resources for receiving communities

City agencies should ask buyout residents for the neighborhood amenities they need to help match people to receiving communities

What services remain for those who stay?

- **Where do people go?**
Should there be incentives for community relocation? What about identifying receiving sites? Funding for new housing?

What are we missing? What concerns you from your different perspective?

What about renters??

How to introduce new members of a community to an established community

How to address renters in basement apartments

Partnership with local orgs who have gained trust over time and proved themselves through consistent good work and intentions.

- What concerns you

Taxes for people who keep vacant apartments for the tax break.

Ensure fair compensation and prevent bureaucratic delays

Help with the moving process

Produce new affordable housing tailored for retreating communities.

Future New Yorker?

What are we missing? What concerns you from your different perspective?

How can we support people to live OUT of nyc? Perhaps upstate/further off the coast?

Identify options for buyout recipients for relocation.

Does the whole community relocate to another place? How to ensure people aren't moving to another place exposed to flooding?

Encouraging neighborhoods to welcome people who are moving in

- What concerns you

Keep the real estate developers out of the equation. Real homes in safe areas for real people. We're all getting priced out.

Consider at what point a buyout program would shift from being voluntary to mandatory, if ever

Time to get serious and advocate up to FEMA, to rethink flood insurance, proactive climate adaptation.

Ensuring that the buyout program is not a one-size fits all program. It needs to be tailored for the different impacted neighborhoods

What are we missing? What concerns you from your different perspective?

How do we address language access and cultural?. Some folks are distrustful of government sponsored initiatives.

As a renter in a multi unit building, none of these programs offer me security if my building takes or, perhaps worse, doesn't take a buyout

Think of this as an opportunity to create integrated neighborhoods.

1) A way to determine market value/ provide a fair price for a seller's home when location is inherently detracting from the value
2) Concerned with having funds to stay in NYC, esp with mortgage rates

• What concerns you from your perspective as a Homeowner?

How to slow the pattern off massive housing often unaffordable being built in flood prone areas today, we are creating more climate refugees that will need to relocate at some point

Public housing has a lot of building stock w leaky roofs. Maybe that's a constituency for more rainproof initiatives / retrofits that benefit lower income residents AND help address mold/ indoor AQ

More information about alternative places to live. Maybe someone has only lived in one neighborhood. Some don't know where to go to feel comfortable and part of another community.

Engage insurance sector (who is retreating from repetitive loss areas) to help educate that long term insurability is in question when they issue annual policies.

What are we missing? What concerns you from your different perspective?

I am a renter. If buyouts remove housing stock, how do we increase housing stock elsewhere to not exacerbate the existing housing demand. There should be options to move to already established.

Where is the Renter assistance or protections during these buyouts

Buyouts in Staten Island are now in a housing trust

When single family homeowners accept a buy out can they maintain ownership if they accept housing in a different building typology?

as a: Homeowner?
Renter? Community leader? Nonprofit leader? Policymaker? Current New Yorker? Future New Yorker?

INTERACTIVE SESSION 2: PRINCIPLES

Interactive Session 2: Crafting Rainproof NYC Principles + Additional Feedback

Think through these principles:

- **Equity**
 - Location:
- **Collaboration**
 - Location:
- **Infrastructure & Land Use**
 - Location:
- **Accountability**
 - Location:
- **Additions/Other**
 - Location:

If you have additional feedback/questions for the research themes of today:

- **Theme 1: Managing Increased Rain**
 - Location:
- **Theme 2: Housing Mobility**
 - Location:
- **Theme 3: Everyone Has a Role to Play**
 - Location:

MENTIMETER

Code: 55 85 36 0

[Bit.ly/May1Menti](https://bit.ly/May1Menti)



Everyone Has a Role to Play

Hayley Elszasz, NYC Mayor's Office of Climate & Environmental Justice

Tonya Gayle, Green City Force

RESEARCH PROCESS UPDATE

- We finalized three research questions and created tasks under those that small groups worked on in and outside the WG meetings, focusing on: **tools & resources, communications, and stakeholders**
- We analysed the quick wins and started to work on those to show results and test outcomes at a Flatbush community event

Research Question 1:

How do we activate [identified stakeholders and resources] to create, adopt, and own initiatives that will transform New York from a concrete jungle into a sponge?

- a. How do we communicate this challenge to all New Yorkers, with an understanding that we face different amounts and types of risk and possibility for action?**
- b. What are our highest priority target audiences that we are seeking to serve?**
- c. What existing groups can we engage and tap into?**

Research Question 2:

How do we help create agency and a cultural shift towards collective actions and support?

- a. **How can we promote shared responsibilities between communities, agencies, and the private sector, while ensuring the protection of our most vulnerable New Yorkers?**
- b. **What [separate or integrated] workstreams and communications strategies need to be leveraged to engage and incentivize these different actors?**

Research Question 3:

What do New Yorkers need as tools and support to become rainproof?

- a. How do we make working on rainfall meaningful? What is the reward for doing this work (immediate, long-term; financial, social, cultural rewards)?**
- b. What specific tools and resources do the prioritized stakeholders need?**
- c. How can we make stakeholder-specific resources and citywide resources available and known?**

SMALL TASK GROUPS

What is the infrastructure to achieve these tasks?

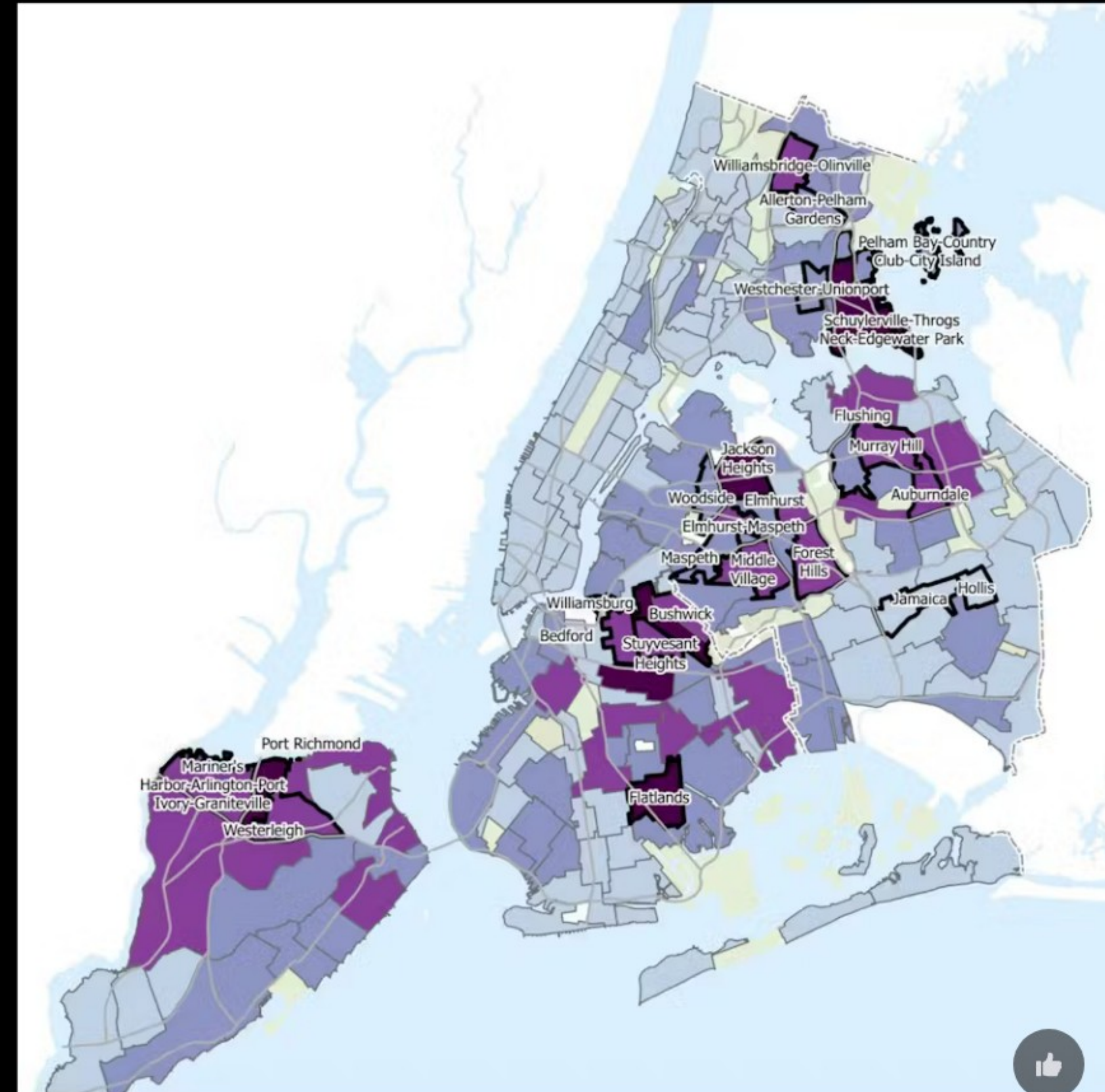
- Stakeholder Mapping
 - Target groups for the 6 months and after
- Education & Communication
 - Stakeholder Engagement: Private sector, Agency engagement, volunteering programs
- Tools & Resources
 - Rebranding/Revitalizing Tools & Resources

CURRENT STATUS



CURRENT STATUS TASK GROUPS - STAKEHOLDERS

- Rainproofing is a local problem that can be helped with local stakeholders city-wide organizations and government resources
- Analyzing stakeholders using 311 flooding event data
- Started mapping stakeholders in a google my map using health, neighborhood, city or before, during, after....
- Looking at more data to start prioritizing specific stakeholders



Rainproof NYC - Stakeholders

18 views
Last edit was 4 days ago

Add layer Share Preview

Working Group 3 Affiliations

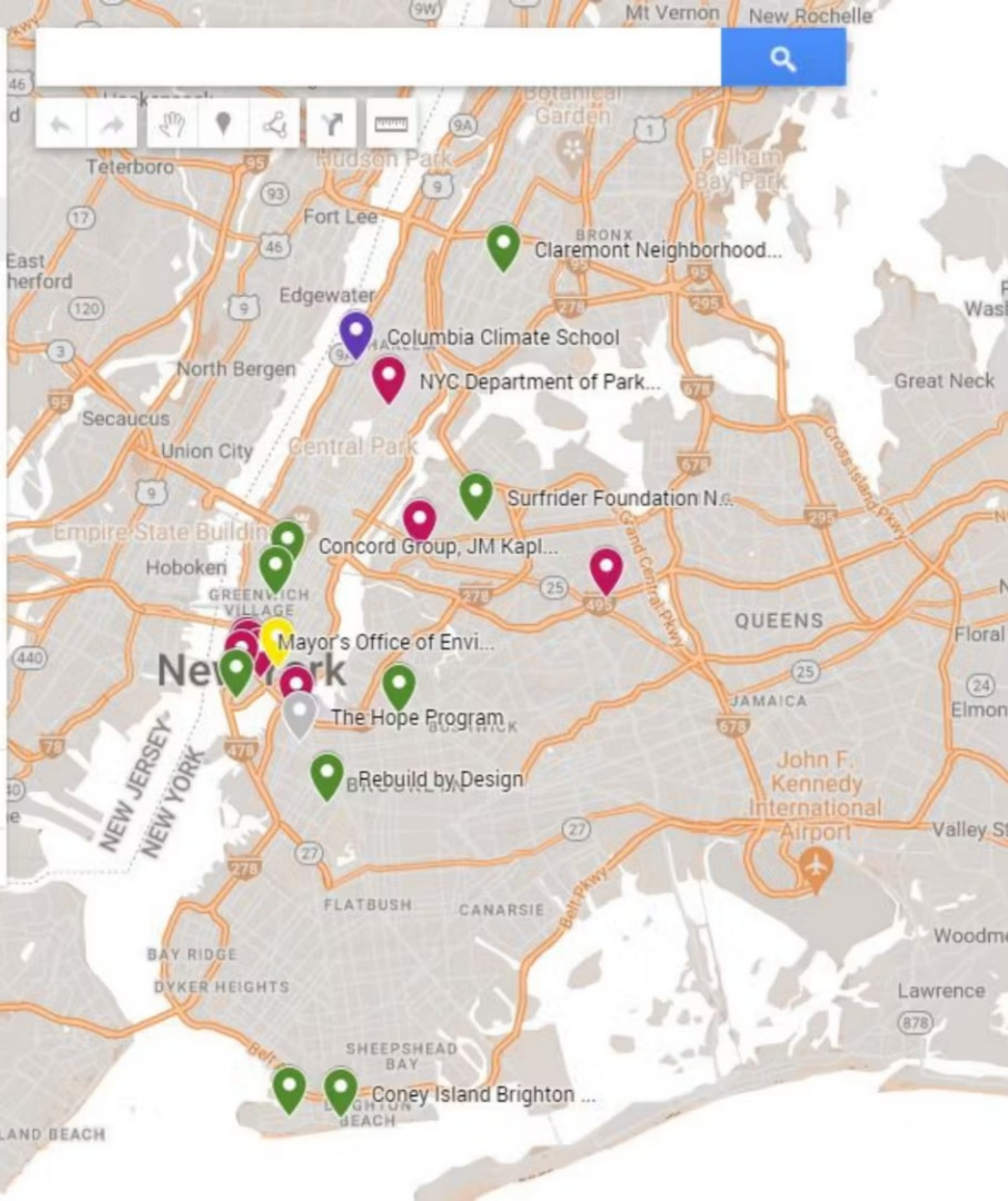
Styled by Public/Private/Non-Profit

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- Non-Profit (11)
- Public (8)
- Private (1)
- Private/Non-Profit (1)
- Other / No value (1)

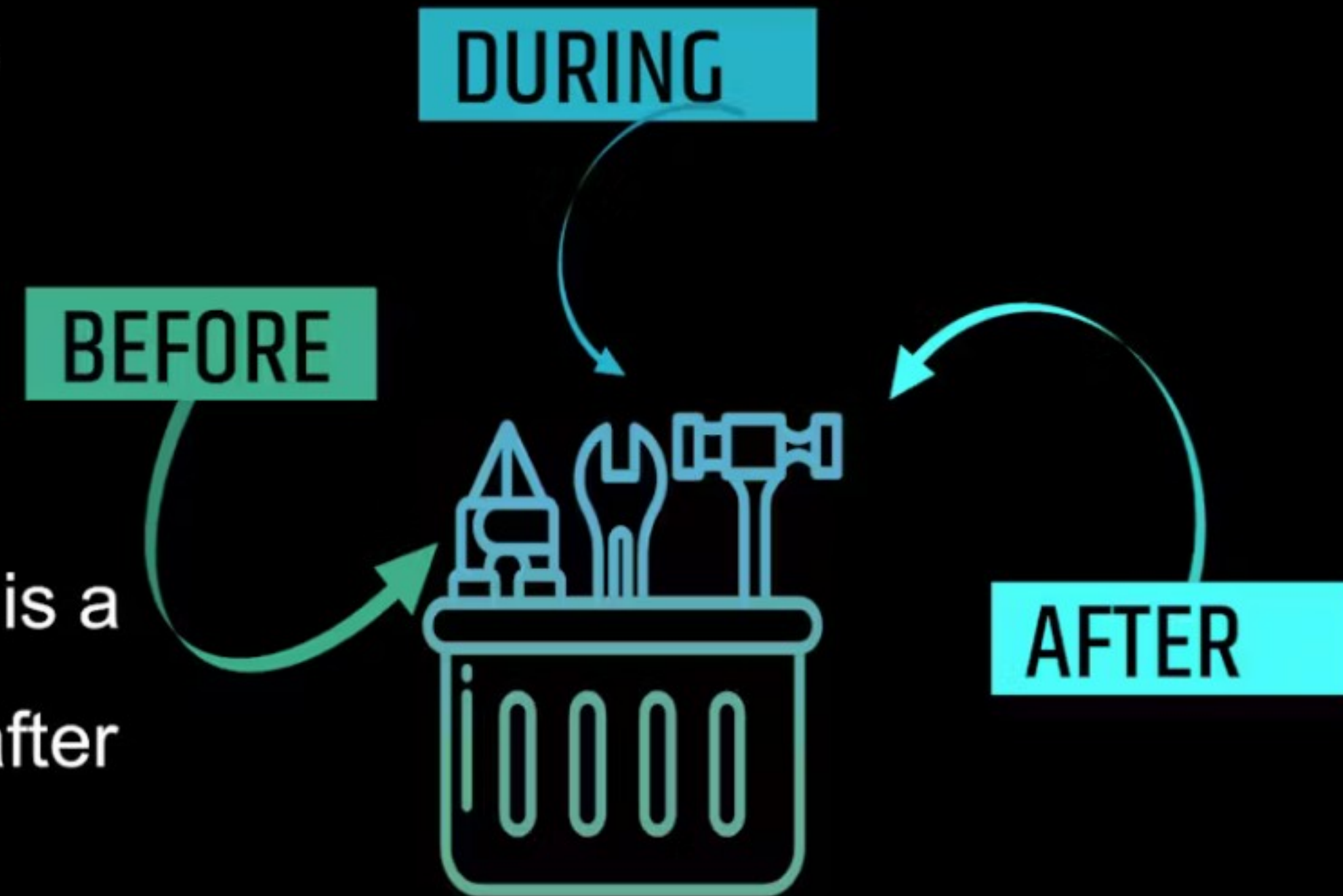
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Base map



TASK GROUPS OVERVIEW - TOOLS & RESOURCES

- We mapped existing resources and identified gaps
- We identified two sets of resource categories:
 - Before, during, after
 - For your health, your home, your city
- Most tools seem to be preventative (before); there is a need for more clarity on resources for during and after
- Digital Literacy/Access: most tools are web-based
- Language Literacy/Access, cultural/regional considerations



Before, During, After	Program Name	National Resource?	Borough	Neighborhood	Population served	Resource Type (event, training, community engagement, or financial)	Resource Type	Gov?	Notes
B E F O R E	Climate Fresh	No (international)	Global; all NYC		Children and adult learners	Collaborative workshop; "serious game"	community-engagement, research	N	Three-hour participatory workshop which introduces participants to the work of the IPCC and encourages them to use systems to place a series of cards in relationship to each other. Extensive rainfall events are linked to the physical and anthropogenic processes which cause them. There is a group delivering workshops in NYC.
	The Climate Museum	No	Manhattan			Events; education; arts	community-engagement, educational	N	NYC-based museum which also includes various events/programming on climate themes. See, for example City as Commons: Planning Urban Climate Justice with St. Foster
	New York Restoration Project	No	All NYC		Community (general), community gardeners, youth		community-engagement, educational	N	Environmental justice nonprofit and citywide nature conservation preserving community gardens and other green spaces. Projects have included schools, community centers, assisted living houses of worship, GreenThumb gardens, New York City Authority properties

Before, During, After	Program Name	National Resource?	Borough	Neighborhood	Population served	Resource Type (event, training, community engagement, or financial)
D U R I N G	Greenest Block in Brooklyn		Brooklyn		Brooklyn	Helps communities to have more resilient blocks through green infrastructure and builds community ownership and opportunities to work

Before, During, After	Program Name	National Resource?	Borough	Neighborhood	Population served	Resource Type (event, training, community engagement, or financial)
A F T E R	Alert Media				Multifamily building operators	Emergency communication staff/residents
	Riverkeeper	No				
	Stevens Flood Advisory System					preparedness
	NYC Compost Project		All boroughs		NYC all	Events, workshops, resources for residents from home to work; also provide/deliver mulch for community activities.



TOOLS & RESOURCES

Stay Informed, Stay Flood Safe...



For Your Health →



on.nyc.gov/3VUXheZ

- Stay informed with Notify NYC
- Make an emergency plan
- Keep out of flood water, install carbon monoxide detectors, don't drive in floods



For Your Home →



floodhelpny.org

- Know your flood risk with FloodHelpNY
- Insure your home with Floodsmart.gov
- Install rain barrels and green space



For Your City →



portal.311.nyc.gov

- Report flood damage to 311
- Limit water use during storms
- Keep grease and debris out of drains, streets, tree beds and sewers



TASK GROUPS OVERVIEW - COMMUNICATION + EDUCATION

- Promote existing resources as Rainproof NYC info sources
 - 311 (911 is only for life-threatening emergencies)
 - Notify NYC
- Hyperlocal education and communication campaigns
 - **Risk translators**
 - Reaching different versions of literacy
 - Holistic approach to communication: Before, During, After

TASK GROUPS OVERVIEW - RISK TRANSLATORS

“Before” Model: NYC Emergency Management-Strengthening Communities-South Bronx Emergency Network

- Community emergency planning
- Focuses on plans specific to their communities
 - Needs Assessment
 - Community Resource Maps & Directories
 - Communications- before, during, and after emergencies



TASK GROUPS OVERVIEW - RISK TRANSLATORS

“Before” Model: NYC Emergency Management Strengthening Communities
Queens Project New Yorker

- Participant in Strengthening Communities
- Leaders apply Notify NYC to Community Emergency Plans in a way that's appropriate for their community
 - Outreach about Notify NYC on Extreme Heat & Rainfall
 - Equip with equipment such as hydro-barriers and flood alarms



TASK GROUPS OVERVIEW - RISK TRANSLATORS

“During” Model: NYC Department of Health & Mental Hygiene:
Bronx Neighborhood Health Action Center

- Improve Health Equity and reduce disparities by providing access to health resources
- Community Health Workers held 206 conversations in Spanish, English, and Bengali regarding last June’s air quality event
- Empowers lower-resourced, diverse New Yorkers with information to advocate for their families and communities



Contact: Anita Reyes, areyes@health.nyc.gov

TASK GROUPS OVERVIEW - RISK TRANSLATORS

“After” Model: Queens Neighborhood Health Team- Sports for Family Health in Queens

- Community Health Workers engage with community members and families regularly at resource and health fairs, trainings
- **Intergenerational, holistic approach** empowers lower-resourced, diverse New Yorkers with information to advocate for their families and communities
- Contact: Dr. Marta Hernandez
qnhp@health.nyc.gov



Strategic Partnerships



Tailored Communication and Education



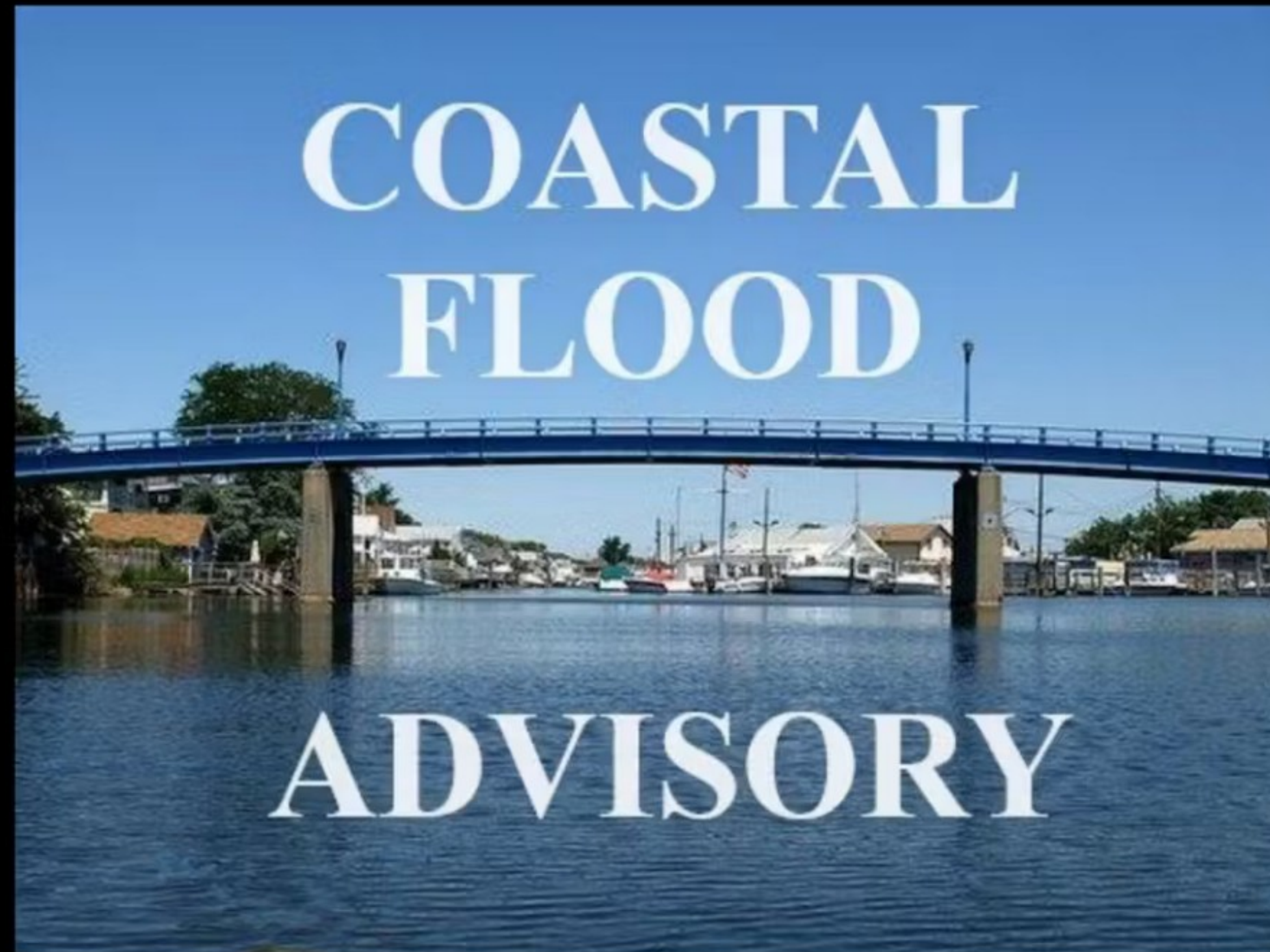
Informed Capacity Building, Advocacy, and Support



Engagement of the Family as a Whole

TASK GROUPS OVERVIEW - RISK TRANSLATORS

“Before”-“During”-“After” Model: Jamaica Bay Community Flood Fellows



Who is your 'Roger'? Who are they in your neighborhood? How do we connect?

Who is your 'Roger'? Who are they in your neighborhood? How do we connect?

There is a group called the Bedford Mosholu Community Association in my neighborhood in the Bronx. Barbara Stronczer is President. Contact via Bedfordmosholu@verizon.net. She runs monthly meetings.

Elizabeth Quaranta who works as Exec Dir of Friends of Mosholu Parkland in the Bronx

TASK GROUPS OVERVIEW - VOLUNTEERING PROGRAMS & EVENTS

- Volunteerism as a way into this work
- Utilize existing volunteer mechanisms such as NYC Service: www.nycservice.org
- Work with current community volunteer groups and/or programs serving communities ex. Green City Force, NY Cares, etc.
- Connect with target audiences by meeting folks where they are
- Join events which are already engaging community i.e. NYCHA Family Days, Community Health Fairs, etc.

The screenshot displays the NYC Service website interface. At the top, there is a language selection dropdown menu and a 'LOG IN' button. The main navigation bar includes links for 'About Us', 'Serve', 'Organizations', 'Businesses', and 'More'. Below the navigation, there are two primary call-to-action sections: 'Find Volunteer Opportunities' with a 'REGISTER AS A VOLUNTEER' button, and 'Recruit Volunteers' with a 'REGISTER AS AN ORGANIZATION' button. The lower portion of the page features three promotional cards: 'Mayoral Service Recognition Awards' (with a 'Learn More' button), 'Join a Youth Leadership Council (YLC)' (with a 'Learn More' button), and 'Serve a Year in AmeriCorps' (with a 'Learn More' button').

POTENTIAL RECOMMENDATIONS



This process is just the beginning...

Before JUNE

Actionable tasks we have completed or are working on:

- Collecting resources for distribution
- Creating interactive stakeholder mapping tool.
- Hosting events
- Producing visual aids
- Developing contextually appropriate messaging

After JUNE

What are the short/long term recommendations that we want to propose for after JUNE?

- Develop citywide strategy for engaging stakeholders
- Develop tools for connecting stakeholders with resources
- Develop educational resources and marketing campaigns around rainproofing.
- Develop a kit of parts that everyone can use to help in rainproofing their community.

Possible recommendation structures

	BEFORE	DURING	AFTER
YOUR HEALTH	"Risk Translators" communicate resources and messaging strategies in a contextually-appropriate way that require alternative or additional services during an extreme weather event.		
YOUR HOME	Develop an employment opportunity of a official paid positions for packaging flood data for specific communities	Establish relationships with private highly trafficked community based sites for local alerts, i.e. Citizen, NextDoor, Surfline	
YOUR CITY	Develop a citywide team responsible for engaging the community on topics related to rainproofing and linking stakeholders with tools & resources	Establish relationships with private highly-trafficked local social media accounts for alerts such as @whatisnewyork, @subwaysurfers, etc.	Promote success stories featuring community, business leaders/advocates & showcase social, health, environmental and economic values created/achieved to create momentum/inspire others to take action



NEXT STEPS



NEXT STEPS

- Formalize the smaller task groups to be able to produce outcomes
- Start with “quick wins,” e.g. 311 work, flyers for community events
- Develop recommendations for delegating and carrying on the “longer term” goals
- Sharpen concept recommendations around communication, training and required organizational strategies for longer term durability

Share your ideas!

How does this fit into New York State planning and helping people to move out of nyc?

Who is funding this effort?

Pay the community liaisons. Defund NYPD, otherwise the city has no material support for the recommendations from all of rainproof

Not strategy but ongoing program so local organizations can continuously be that link between government, privates, and local communities.

campaign? A citywide

can we get the Climate Corps working on these efforts

Programs like mulch fest that help people create more greenspace/ rain gardens on their property

Grants to community organizations for outreach efforts that share existing toolkits

Partnerships for Parks and GreenThumb are great resources for connecting with NYers involved in local green space stewardship. Local block associations are also an important player! (CCNYC)

create to support city-wide actions?

Share your ideas!

What stakeholders should

East River Park Action.

Engage with the insurance sector who has a role to play in education protection and resilience in communities.

Don't delegate the work of the government to volunteers. Volunteerism is great but the government should be responsible and accountable

We should step back and see this as a REGIONAL problem - water flows down from higher elevation areas, what can those areas do to mitigate THEIR unintended impact?

campaign? A citywide

Create different ways for communities to engage into design process outside of public meetings. Add health and mold education as flooding and standing water increases.

EPA's Thriving Communities Technical Assistance Center for NYC: WE Act for Environmental Justice

Products should include emergency gadgets like mini solar pack, mini water filter and interactive (kid friendly) activities to support recovery

THANK YOU!

Tonya Gayle,
tonya@greencityforce.org

Hayley Elszasz,
helszasz@cityhall.nyc.gov



WRAP-UP



**What has been
your biggest
takeaway today?**





ADDITIONAL FEEDBACK

[Bit.ly/RainproofPostMay1](https://bit.ly/RainproofPostMay1)

THANK YOU!

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