

Rainproof NYC May 14th Public Collaboration Session

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TODAY'S EVENT



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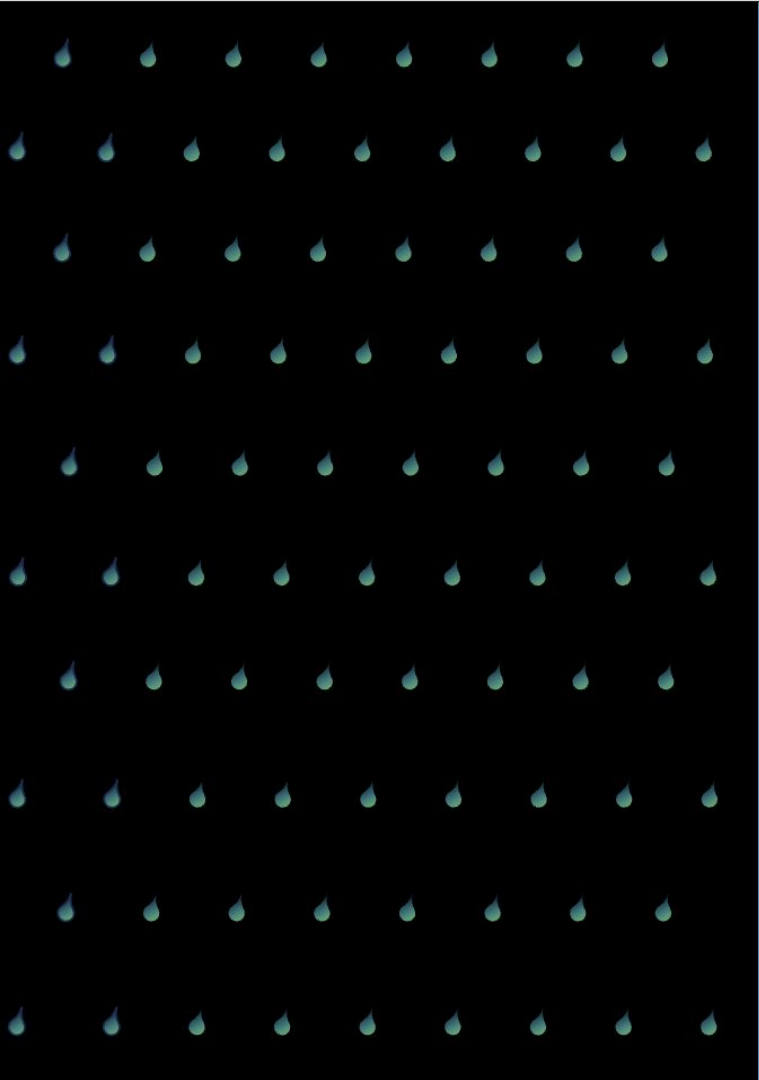


TOWARD A
RAINPROOF
NEW YORK CITY



COMMUNITY NORMS

- **Center Respect.** Challenge ideas, not the individual.
- **Engage Constructively.** Share your ideas and opinions thoughtfully while being open to different viewpoints.
- **Tech Etiquette.** Please keep yourself muted at all times when you are not speaking.
- **Share the Air.** Be mindful of the amount of time you are speaking and give space for others to participate.
- **Be Mindful of Language.** Explain acronyms and professional lingo.



WELCOME

Paul Lozito,

**Mayor's Office of Climate
& Environmental Justice
(MOCEJ)**

AGENDA

- I. Background on Rainproof NYC
- II. Rainproof NYC Principles
- III. Topic: Everyone Has a Role to Play
- IV. Break
- V. Topic: Housing Mobility
- VI. Break
- VII. Topic: Managing Increased Rain
- VIII. Wrap-Up + Closing Remarks



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TODAY'S GOALS

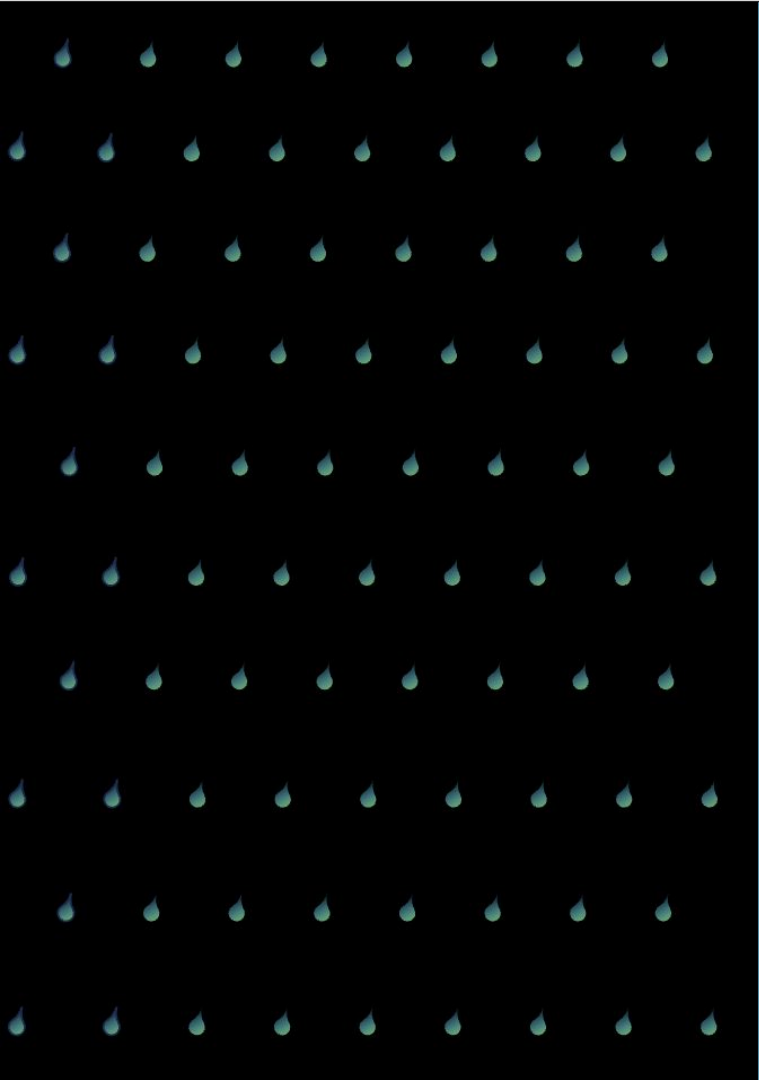
- To authentically hear feedback and ideas from NY individuals and organizations that are affected by increased heavy rain.
- To widen the Rainproof NYC family
- To build momentum and ownership of the challenge for after June.
- To hold ourselves accountable in transparency and equity of our draft recommendations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



**What brings
you to this
event
today?**

Put it in the chat!



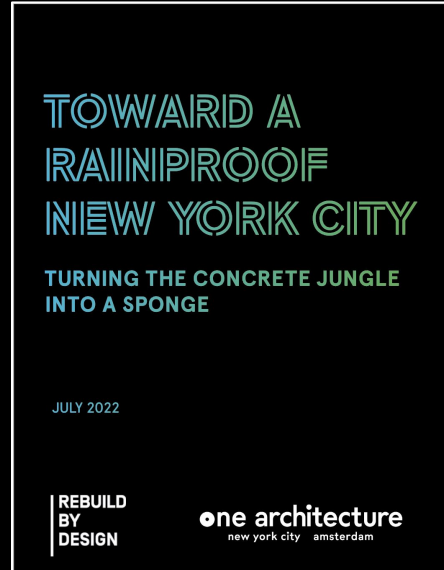


BACKGROUND ON RAINPROOF NYC

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 signs of an overpass. The scene is dimly lit, with the primary light sources being the streetlights and the illuminated signs. A large, bold, white text overlay is centered across the middle of the image, set against a black rectangular background. The text reads: "WE ARE EXPERIENCING INCREASED FLOODING FROM RAIN".

**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



one architecture
new york city amsterdam

NYC Mayor's Office of Climate &
Environmental Justice

RAINPROOF NYC

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?



PROCESS DEVELOPMENT

- Call out for public participants
- 315 applications
- A selection process with 14 city and non city reviewers
 - 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



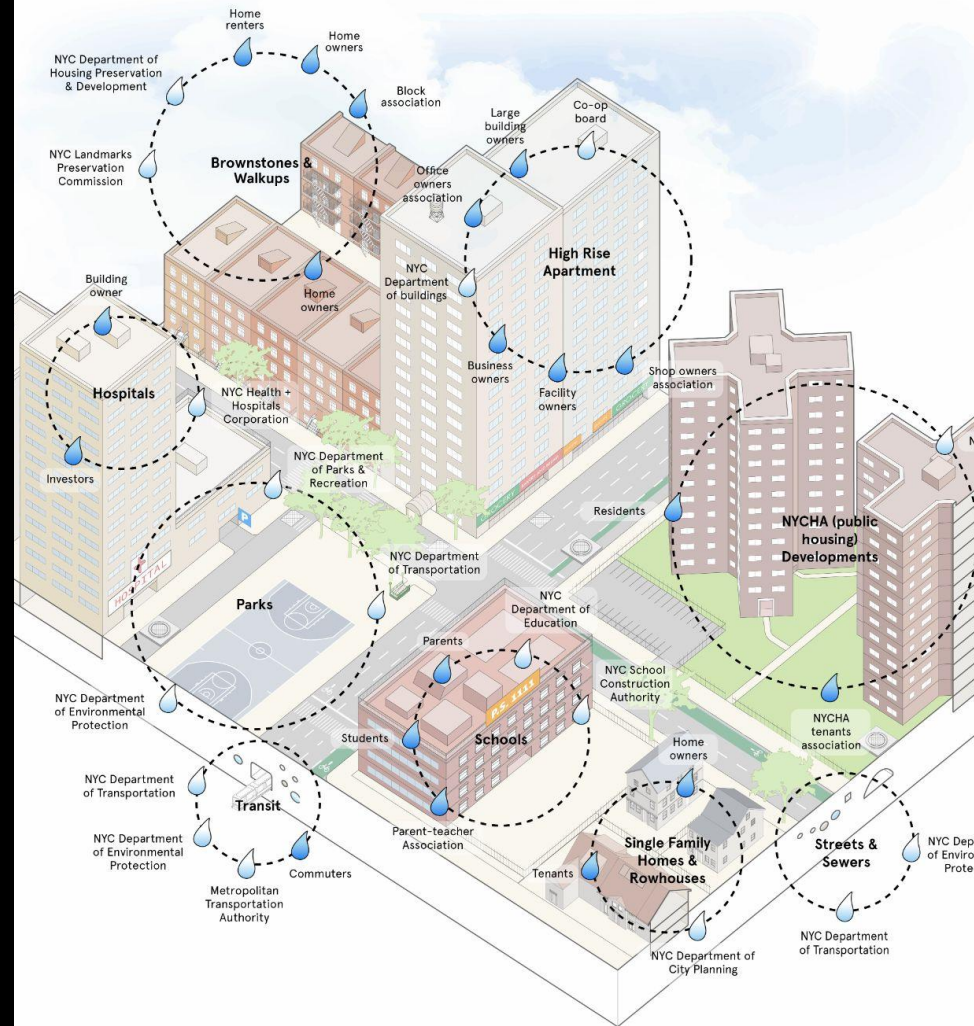
PROCESS OVERVIEW

- One working group per topic area
- Transparent and collaborative
 - Each co-facilitated by NYC and nonprofit
 - 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

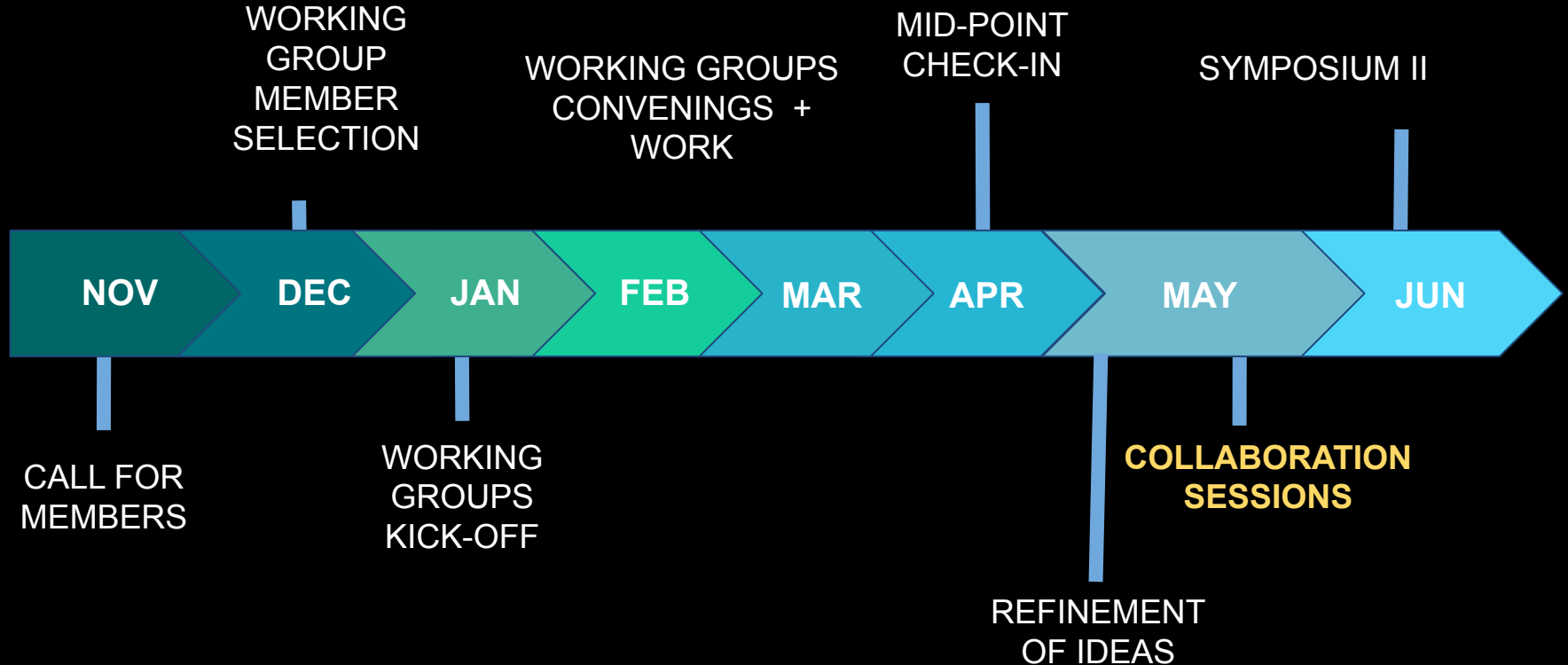


PROCESS GOALS

- Adapt to living with water through a collaborative process.
- Create a deeper understanding of intersectionality.
- Learn from and 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 Library

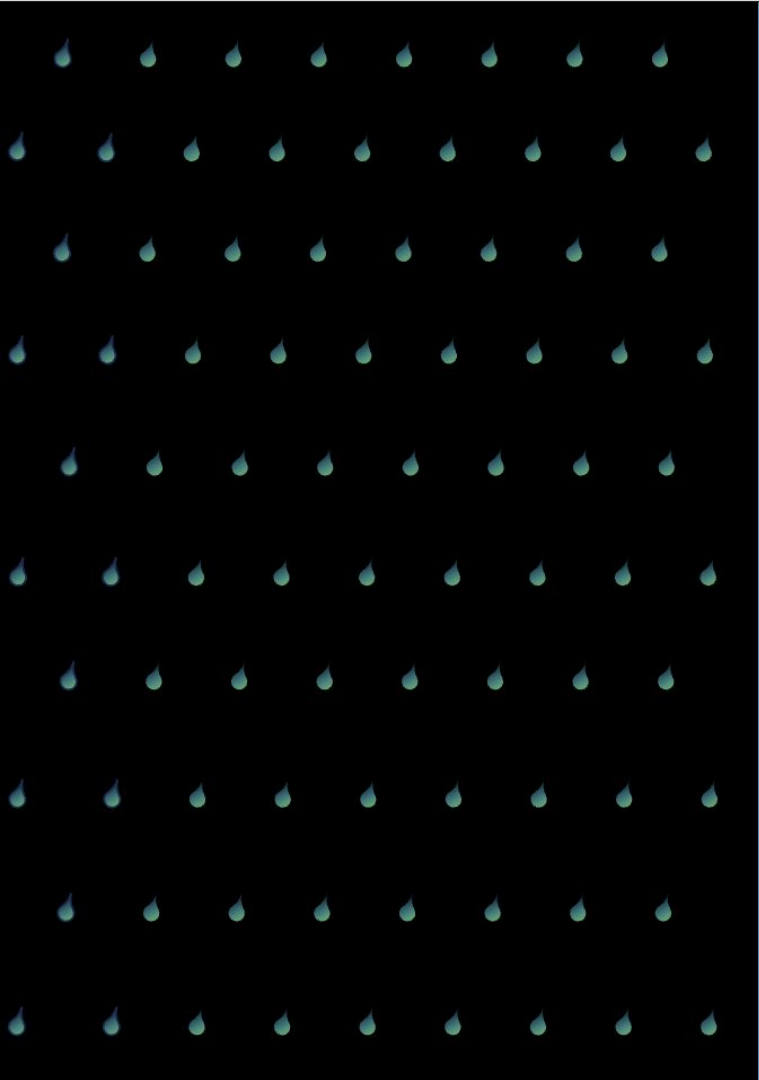
- **Deadline:** May 15, 2024
- Call for resources & recommendations

Rainproof Calendar of Events

- Catch up on past events with our recordings

June 11th Final Symposium

- Location TBD



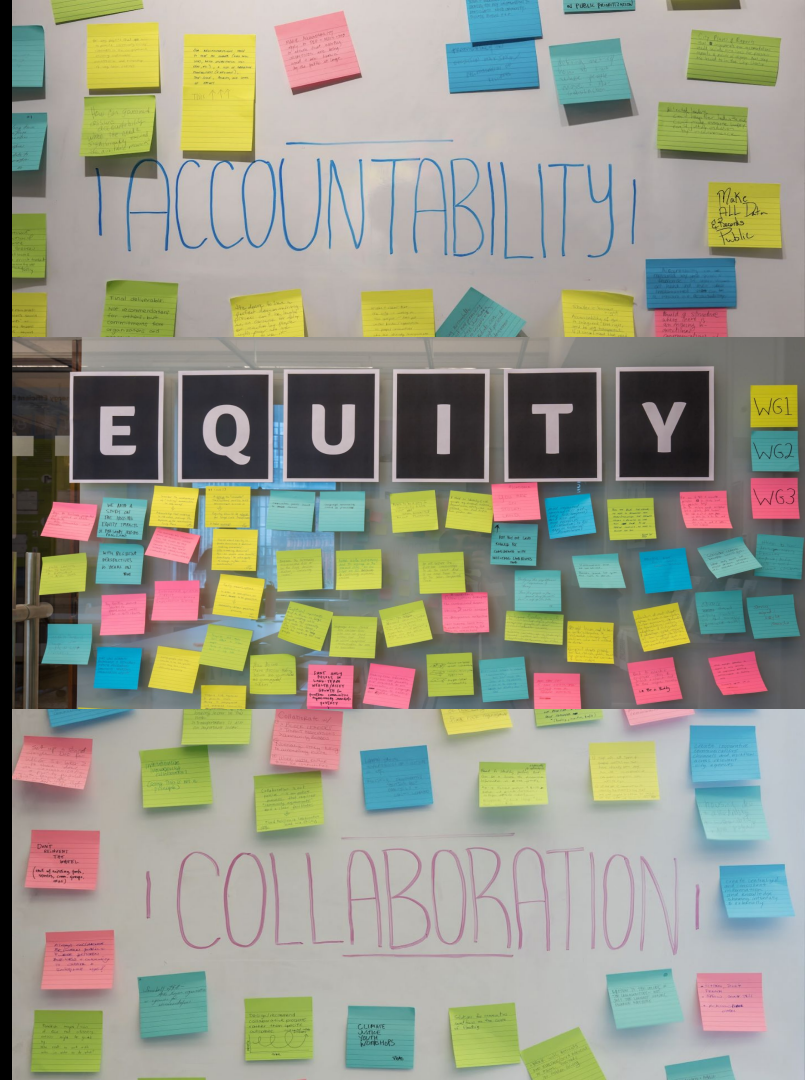
RAINPROOF PRINCIPLES

RAINPROOF PRINCIPLES

STEP 1: 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**

STEP 2: We asked the public to add to these five categories through their perspective as a New Yorker





RAINPROOF PRINCIPLES

Recognize & Prioritize Equity & Accessibility

Center Community-Centered Approaches

Prioritize & Institutionalize Collaboration

Build Ownership Across Stakeholders

Ensure Accountability and Transparency

Prioritize Nature-Forward Approaches & Solutions

Build Aspirational Visions and Large-Scale Transformation

Build Sustainable Maintenance and Stewardship

Adapt a Multi-benefit/ Holistic Approach

Prioritize Equitable & Accessible Financing

Headline Long-Term Planning

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!

From your perspective – as residents, businesses, organizations, agencies, and institutions - do these principles resonate with you?

Are there any other principles?



Code: 19 92 88 1
menti.com



Everyone Has a Role to Play

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

Tonya Gayle, Green City Force



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:

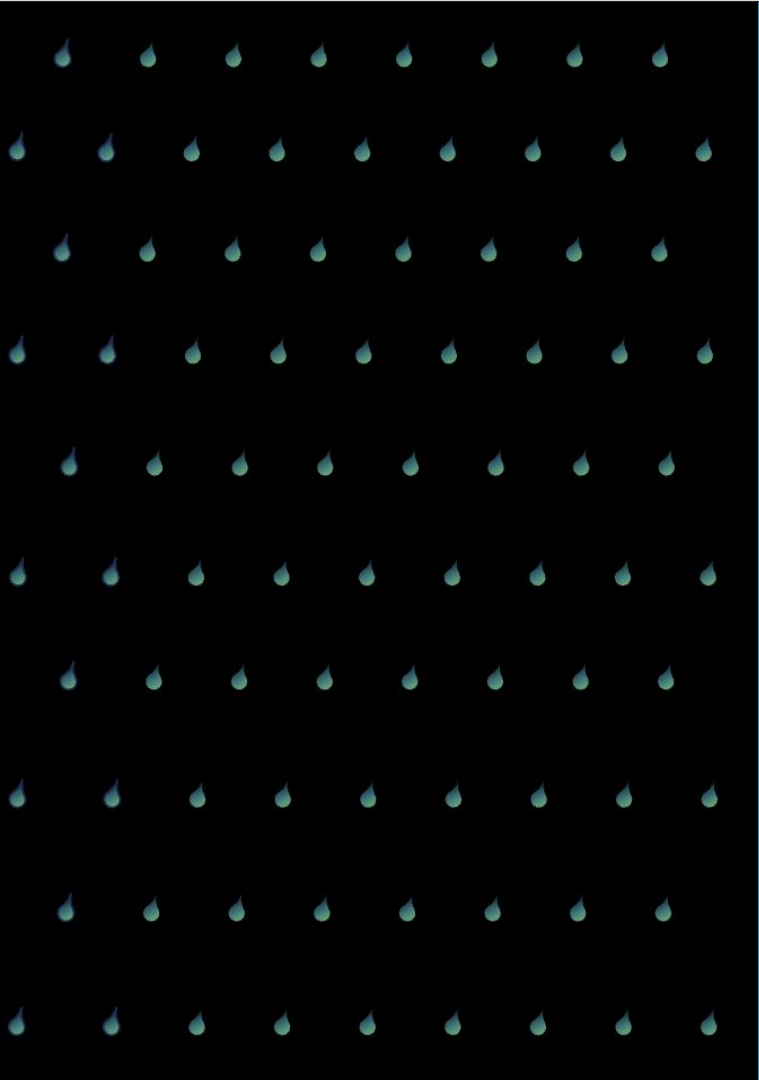
What do New Yorkers need as tools and support to become rainproof?

- 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?

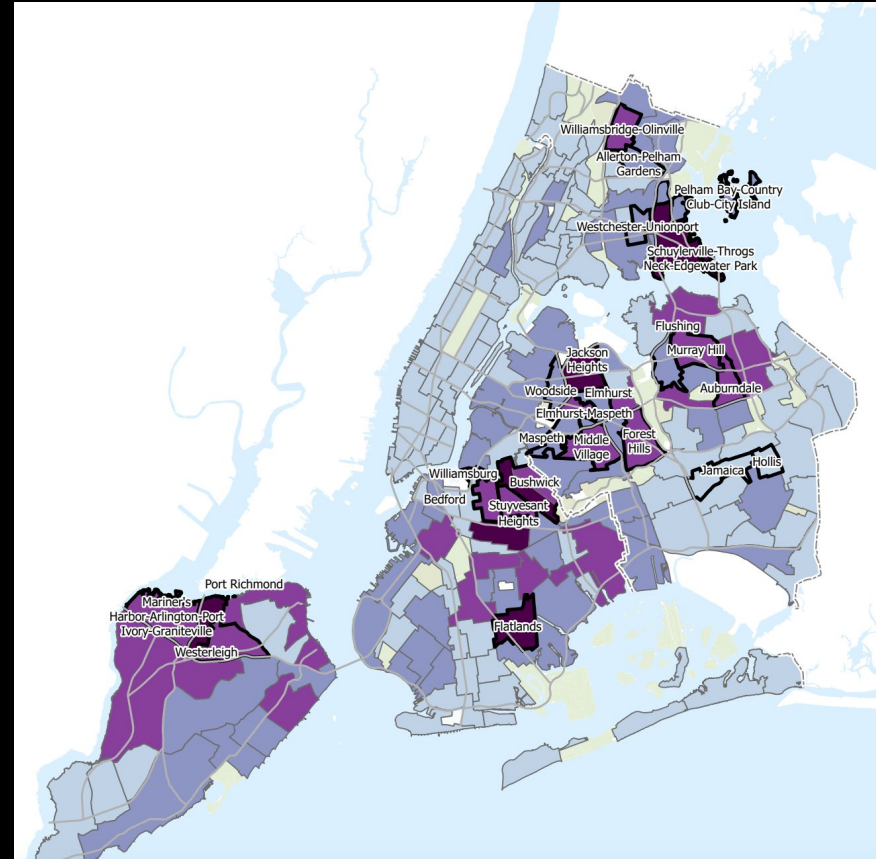
- Stakeholder Mapping
 - Target groups for the 6 months and after
- Education & Communication
 - Stakeholder Engagement: Private sector, Agency engagement, volunteering programs
- Tools & Resources
 - Rebranding/Revitalizing Tools & Resources



**For breakout
groups:**

(1) 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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Fix errors highlighted red in the data table. [Open data table](#) [Dismiss](#)

 Non-Profit (11)

 Public (8)

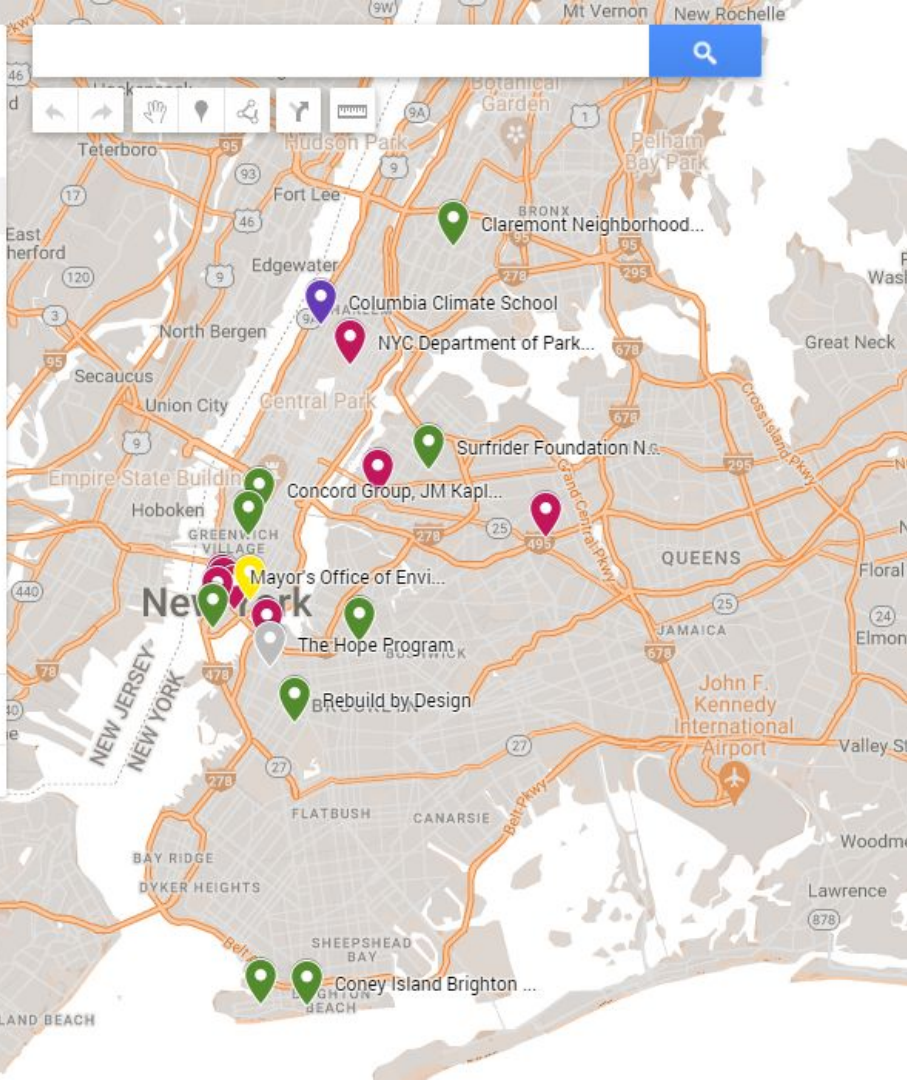
 Private (1)

 Private/Non-Profit (1)

 Other / No value (1)

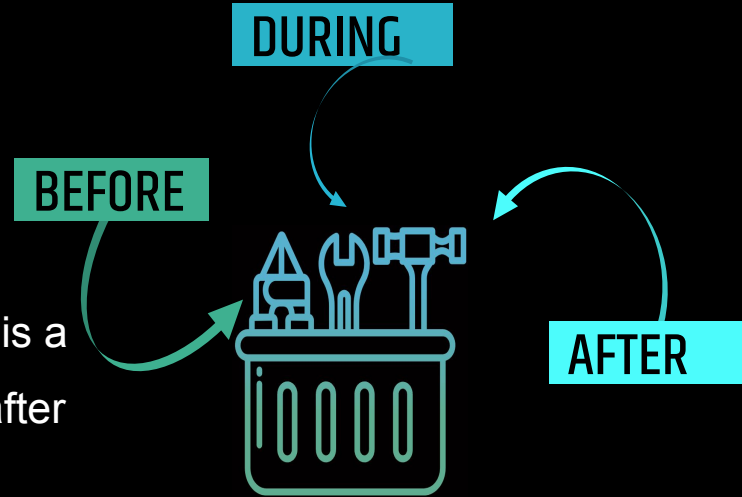
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Base map



(2) 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



	A	D	F	G	H	I	J	K	L	M
1	Before, During, After	Program Name	National Resource?	Borough	Neighborhood	Population served	Resource Type (event, training, community engagement, or financial)	Resource Type	Gov?	Notes
24	B E F O R E	Climate Fossil	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.
25		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. Eustace
26		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
27		City Institute of Ecology								

	A	D	F	G	H	I	J	K	L	M
27	D U R I N G	Before, During, After	Program Name	National Resource?	Borough	Neighborhood	Population served	Resource Type (event, training, community engagement, or financial)		
28		Greenest Block in Brooklyn		Brooklyn		Brooklyn		Helps communities to have more resilient blocks through green infrastructure and builds community ownership and opportunities to work		
29		Ready, Green, Go								
30		Harbor Project								
31	A F T E R	Before, During, After	Program Name	National Resource?	Borough	Neighborhood	Population served	Resource Type (event, training, community engagement, or financial)		
32		Alert Media						Multifamily building operators	Emergency contact staff/residents	
33		Business		No					preparedness	
34		Notify NY							Events, workshops, resources for residents from home to also provide/deliver mulch for community activities.	
35		Adopt a E	NYC Compost Project			All boroughs	NYC all		NYC Parks Staff help with forest restoration, plant street trees, help propagating native plants, monitoring local resources are	

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 →



floodhelpnyc.org

- Know your flood risk with **FloodHelpNYC**
- 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





(3) 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



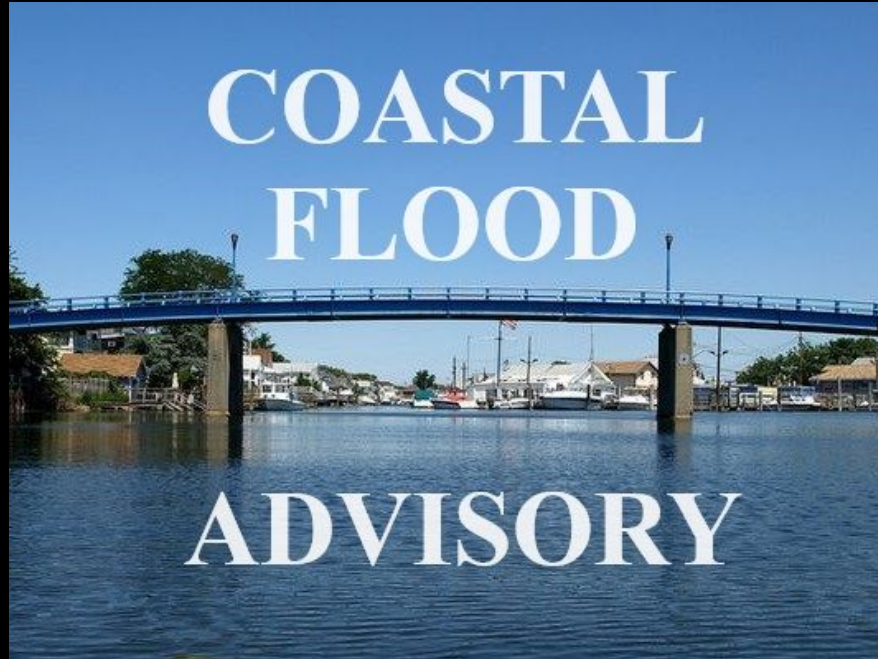
Informed Capacity Building, Advocacy, and Support



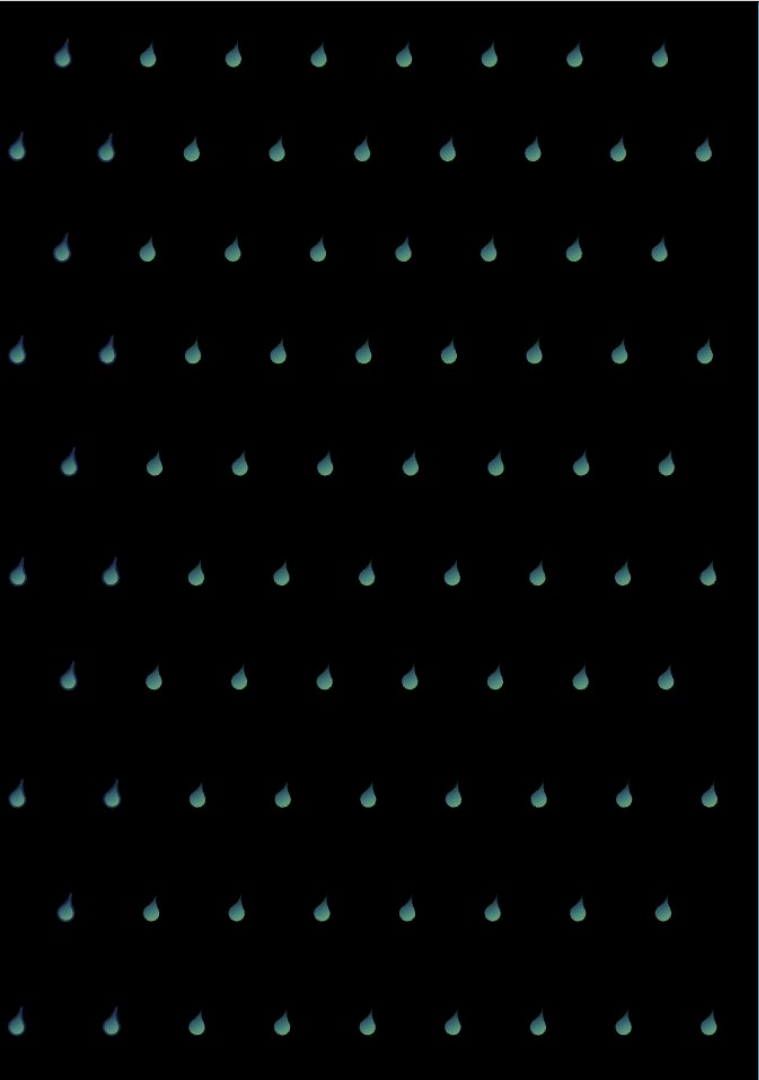
Engagement of the Family as a Whole

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?



POTENTIAL RECOMMENDATIONS

This process is just the beginning...

Before JUNE

Actionable tasks we have completed or are 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" Develop messaging strategies that communicate risk and resources in a contextually-appropriate way		
YOUR HOME	Create a cohort of professional liaisons who package flood data for specific communities.	Establish relationships with private highly trafficked community based sites for local alerts, i.e. Citizen, NextDoor, Surflin	
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



RECAP OF MAY 1ST FEEDBACK

- There are many existing “risk translators” and groups involved in this work who we can tap into
- Need to continue making connections, finding partnerships with local organizations
- Supporting response and emergency preparedness
- Need to clarify funding sources
- Generate more effective collaboration amongst agencies

THANK YOU!

Tonya Gayle,
tonya@greencityforce.org

Hayley Elszasz,
helszasz@cityhall.nyc.gov



Zoom How To

Joining Breakout Rooms



View



Shino (she/her)

Shino (she/her)

Shino (she/her)



Unmute



Start Video



Share Screen



Summary



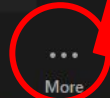
AI Companion



Apps



Whiteboards



More

Leave



View



Shino (she/her)

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- Participants Alt+U
- Invite... Alt+I
- Copy Invite Link Alt+Shift+I
- Chat Alt+H
- ✓ Show Chat Previews
- Request permission to record on this computer Alt+R
- Request host to start cloud recording
- Captions...
- Join Breakout Room**
- Notes
- Reactions
 - Play chime for raised hands
 - Recognize hand gestures 🙌 👍



Unmute



Start Video



Share Screen



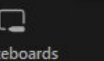
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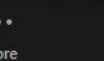
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Apps



Whiteboards

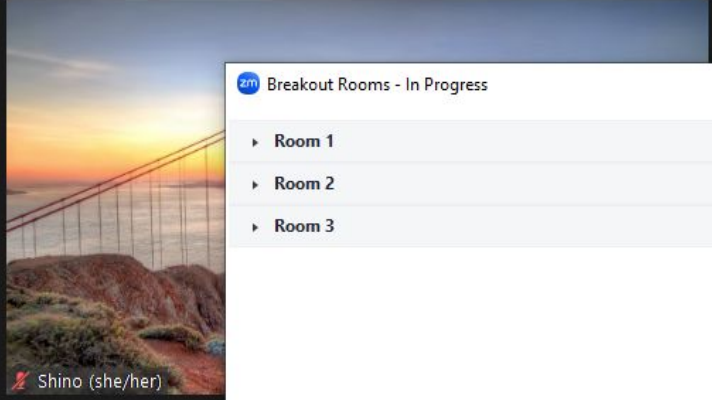


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Breakout Rooms - In Progress

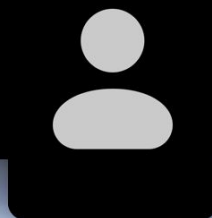
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▶ Room 3	0	Join

Collapse all Expand all





Join breakout room



Room 1 ✓

Room 2

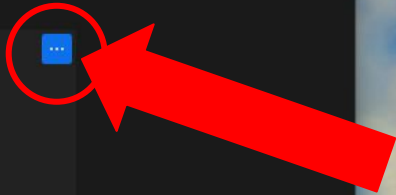
Room 3

Join

Renaming Yourself



View



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Shino (she/her)



Mute



Start Video



Security



Share Screen



Start Summary



AI Companion



Apps



More

End



Shino (she/her)

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Shino (she/her)



- Ask to Start Video
- Chat
- Pin
- Hide Non-video Participants
- Make Host
- Make Co-host
- Rename**
- Put in Waiting Room
- Remove
- Report...



Mute



Start Video



Security



Share Screen



Start Summary



AI Companion



Apps



More

End



View

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zm Rename ×

Enter a new name below:

Change Cancel



Shino (she/her)



Mute



Start Video



Security



Share Screen



Start Summary



AI Companion

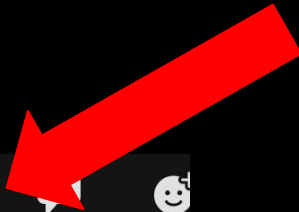
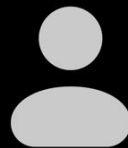
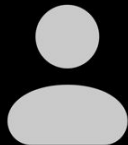


Apps



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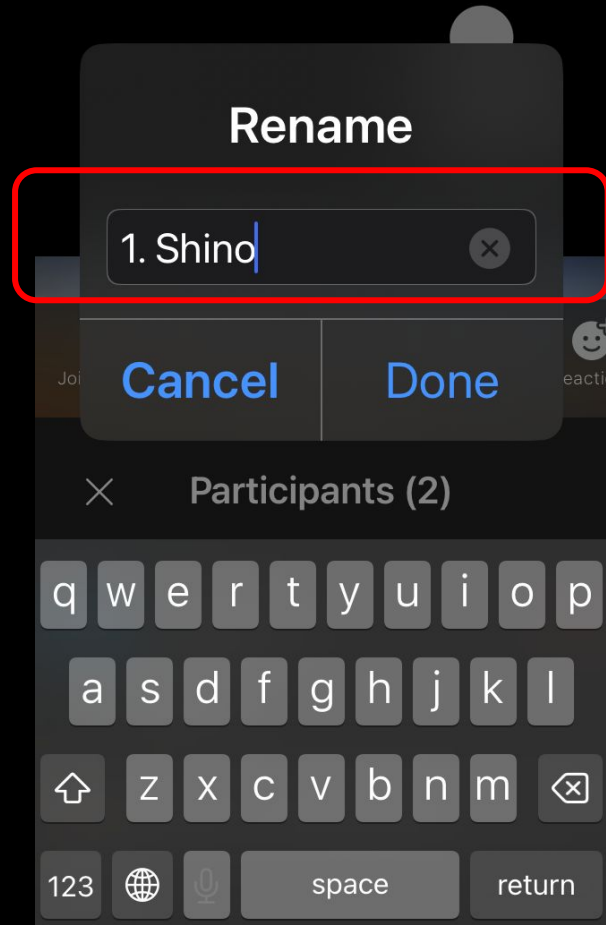
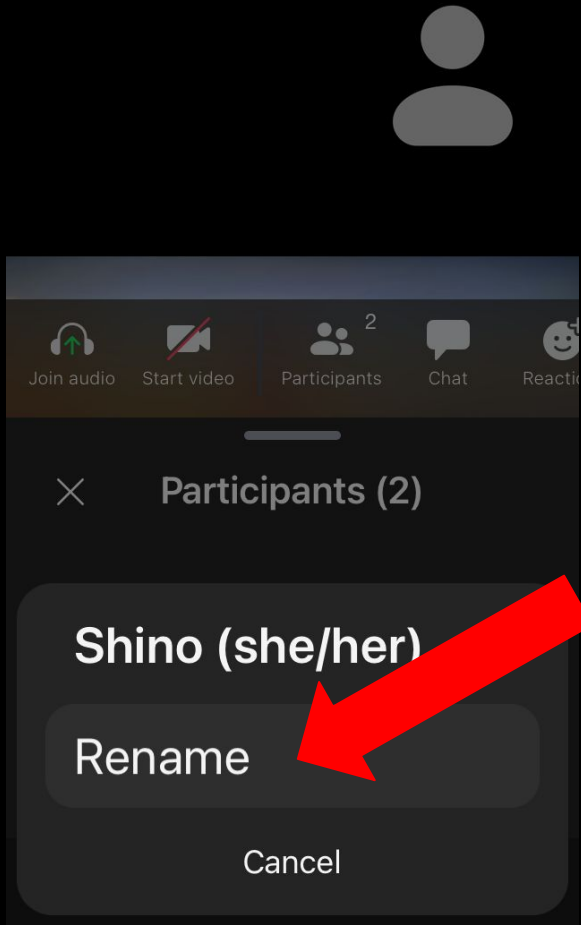
Join audio Start video Participants 2 Chat Reactions

× Participants (2)

Shino (she/her) (me)

Shino (she/her)

Invite



BREAKOUT ROOMS

Breakout Room #1 - Stakeholders

Facilitators: Shivali & Rona

Notetaker: Inger

Breakout Room #2 - Communications

Facilitators: Kat

Notetaker: Pamela

Breakout Room #3 - Tools & Resources

Facilitators: Nikki & Abby

Notetaker: Andy

BREAK

SCAN HERE FOR ALL
IMPORTANT LINKS FOR
TODAY'S EVENT



[Bit.ly/RainproofNYCMay14](https://bit.ly/RainproofNYCMay14)



Housing Mobility

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

Christie Peale, Center for NYC
Neighborhoods

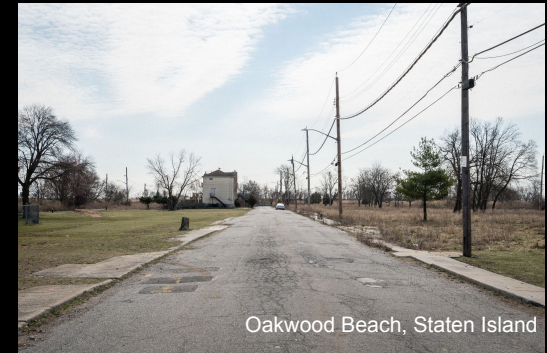
Working Group #2 - Housing Mobility

Overall Goal / Deliverable:

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

Three work streams to help develop the Principles:

- Values & Process
- People & Communities
- Impact & Place



Working Group #2 - Housing Mobility

Background

Working Group 2 of the Rainproof NYC project was tasked with determining the parameters and best practices for an equitable and voluntary program buyout program for one- to four-family residences flood-prone areas in New York City.

Following Hurricane Sandy there were two buyout programs implemented in the City of New York: one run by NY State and limited to homes in specific Staten Island neighborhoods, and the second run by NY City that was open citywide to eligible Sandy-impacted homeowners.

At this time, NYC has funding from US HUD to hire a consultant to develop a buyout program to be deployed after future disasters and when other funding is available. Through the Rainproof NYC process, a working group including private citizens, nonprofit and community leaders, academics and government representatives has come together to study the issue and make recommendations to the City.



Working Group #2 - 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](#))

Housing Mobility - RESEARCH PROCESS

Background research and case studies: learning from experience

Decision tree to guide evaluation of sites and suitable flooding solutions

Meetings with community organizations and residents

List of Frequently Asked Questions to address in buyout program

Framework for what happens to the land after buyouts

Working Group #2 - Housing Mobility

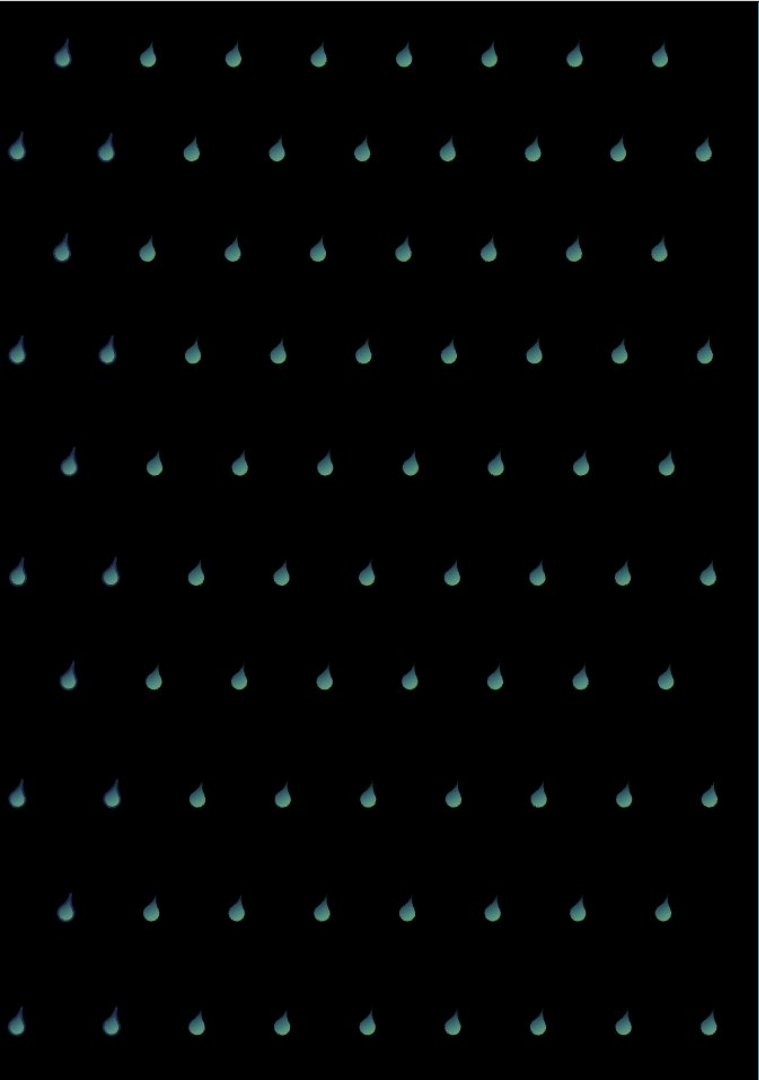
Whereas...

- NYC neighborhoods can flood both along the coast and inland
- NYC regularly floods from both disasters like hurricanes and chronic events such as increased rainfall
- There is housing crisis in NYC with few vacant affordable units
- Buyouts are only one of many tools to address flood risk
- Most buyout programs yield inequitable outcomes, exacerbating 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

DEVELOPING A LIST OF PRINCIPLES – *working draft*

1. **Voluntary and Informed**
2. **Equitable**
3. **Accessible, Flexible and Community-based**
4. **Housing-centered / Wealth-building**
5. **Human-centered and Holistic**
6. **Environmentally Restorative**
7. **Permanent and Accountable**





AUDIENCE COLLABORATION SESSION



Principles

You will be placed in a breakout room. Each breakout room will discuss 2-3 of the draft principles. We will reconvene as a group afterwards to discuss everyone's feedback.

DEVELOPING A LIST OF PRINCIPLES

Breakout Room #1 - Principles 1 & 2

Facilitators: Aisha & Mallory

Notetaker: Daira

Breakout Room #2 - Principles 3 & 4

Facilitators: Lucy & Desiree

Notetaker: Britney

Breakout Room #3 - Principles 5, 6 & 7

Facilitators: Thad & Dmitri

Notetaker: Jessica



DEVELOPING A LIST OF PRINCIPLES

Prompts for breakout groups

- Before we get going, please introduce yourselves. What brings you to this conversation?
- Does this principle resonate with you? What about with your neighbors/communities/colleagues?
- What concerns you from your perspective as a: Homeowner? Renter? Community leader? Nonprofit leader? Policymaker? Businessperson? Current New Yorker? Future New Yorker?
- What are we missing? Are there things that should be added or changed?



Breakout Room #1

1. Voluntary and Informed

The program must be voluntary and services should only be offered in areas where flood risk is significant. Eligible residents must be provided sufficient information to make informed decisions about their options, including why a buyout is being offered, what alternative resources are available, and the tradeoffs of different options for mitigating current and future risks. Residents should be presented with clear avenues to communicate their interest in participating in the buyout program with program coordinators. Participants should also be able to withdraw their participation from the program at any stage in the process.

2. Equitable

Buyout programs have historically targeted overburdened and underserved neighborhoods where histories of disinvestment have contributed to higher rates of vulnerability. The program should recognize these historic injustices and endeavor to provide residents with fair compensation as well as options to reinvest in homeownership and other wealth-building strategies to overcome legacy challenges.



Breakout Room #2

3. Accessible, Flexible and Community-Based

While at the end of the day a buyout program serves individual households, buyout programs can change neighborhood fabric, meaning a community-driven process is critical to ensuring the buyout program truly improves quality of life for all involved. Because every neighborhood is different, the program should be flexible enough to account for the diverse needs of participating communities but have a clear process and procedure for doing so. To accomplish this, the City should build on/consider/develop/ invest in partnerships with the ecosystem of social service nonprofits, community groups, and social networks within participating neighborhoods to collaborate on outreach, communication, implementation, and strategies for land reuse and stewardship when possible.

4. Housing-centered / Wealth-building

The program must recognize the intersections between buyouts and housing, and promote access to safe, affordable housing for all through fair compensation and additional financial resources. The program should strive to ensure that homeowners have an opportunity to purchase another home in order to retain intergenerational wealth and equity, without taking on a new mortgage or losing equity in their most cherished asset. Program should seek to rehouse participants in a safe, secure home of their choosing.

Breakout Room #3

5. Human-centered and Holistic

The program should be human-centered and strive to prioritize assistance to New Yorkers who need the most help. The program should endeavor to provide holistic wrap-around services including housing counseling, financial counseling, and mental health support services with a trauma-informed response. These resources should be included before, during, and after the buyout process and should be available to both homeowners as well as renters.

Recognizing that the majority of New Yorkers are renters with significantly less agency and resources in times of emergency, the program needs to provide adequate/realistic/sufficient resources to equitably support the relocation of renters. Relocation opportunities should be in climate resilient communities while taking into account economic opportunities and social cohesion available to the renters. The City should utilize all available tools to develop affordable housing for rental and ownership during blue skies to enable renters to have this housing mobility option before disaster strikes.



Breakout Room #3 - *continued*

6. Environmentally Restorative

The program should require that the land be preserved in perpetuity, with no further residential, commercial, or industrial development on buyout parcels. To the extent possible, the City should use parcels to expand access to recreational amenities like blueways and greenways that increase access to nature and open space especially in neighborhoods that currently lack these amenities. Likewise, the buyout program should strive to restore natural floodplain function to maximize climate co-benefits such as reduced heat island effect, improved water quality, and habitat restoration.

7. Permanent and Accountable

In recognition of the forecasted increase in climate impacts, the City should design a program which operates year-round and can improve and expand as needed in the decades to come. The City should strive to conduct outreach and education regarding the Housing Mobility Program as much as possible before the next disaster happens and be prepared to scale up and provide rapid relief for affected households in a post-disaster setting.

As a permanent program, the public should be informed about program design, implementation, and outcomes. The City should develop an accessible public-facing data portal and website, and develop avenues for continuous feedback from New Yorkers on how to improve program procedures and outcomes to build trust and accountability.



BREAKOUT ROOMS - RECONVENE & RECAP

Welcome back! In your breakout rooms, you went deep into 2 or 3 of our proposed Principles.

- Report back from each of the three working groups**
- What do you think about what we're proposing? What are we missing?**
- What are your deepest concerns about a voluntary 1-4 family home buyout program for NYC?**

Thank you for sharing your thoughts on this topic with us!

BREAK: Return at 7pm

**SCAN HERE FOR ALL
IMPORTANT LINKS FOR
TODAY'S EVENT**



Bit.ly/RainproofNYCMay14



Managing Increasing Heavy Rainfall

Alan Cohn, NYC Department of
Environmental Protection

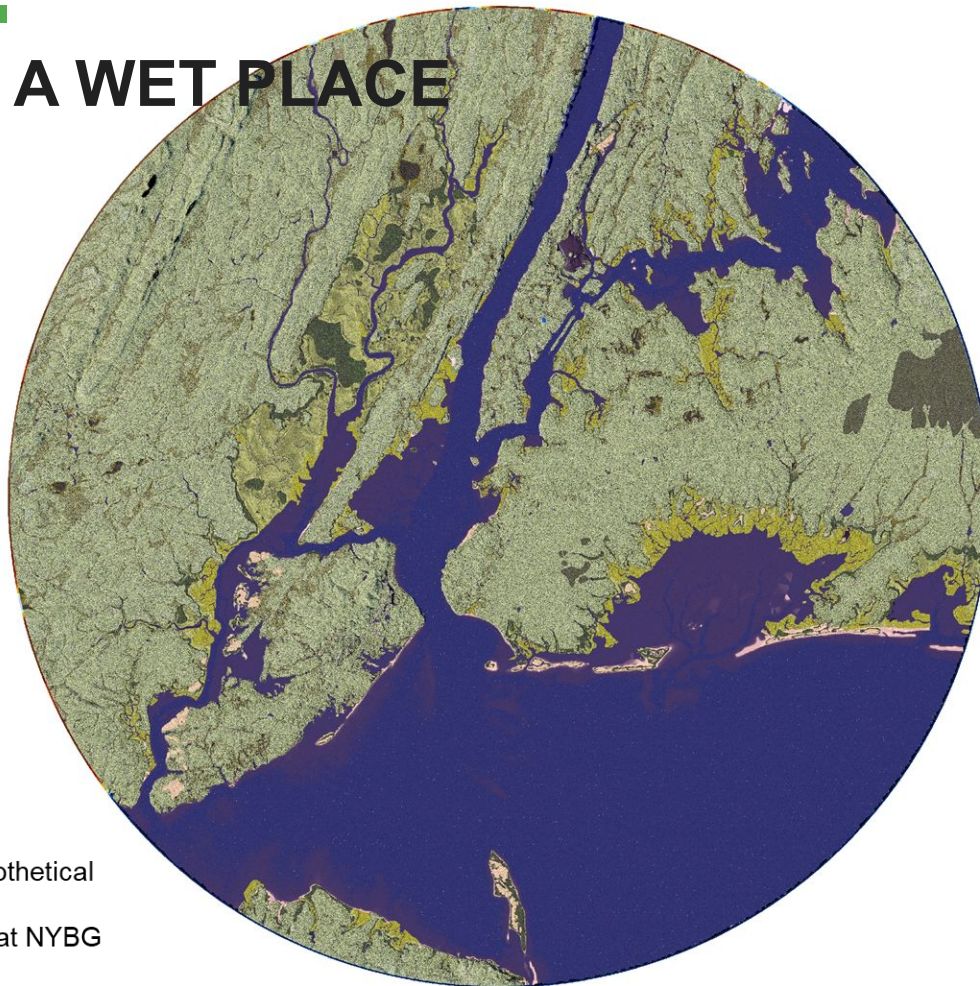
Rob Freudenberg, Regional
Plan Association



WORKING GROUP OBJECTIVE

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

WE LIVE IN A WET PLACE



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



NYC METRO 2024



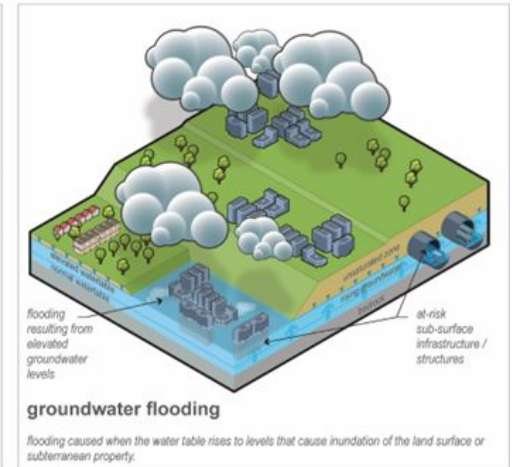
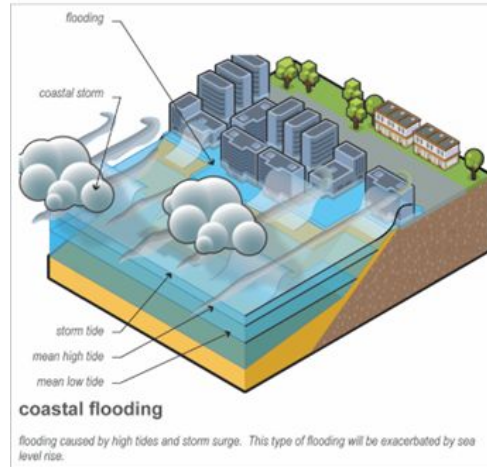
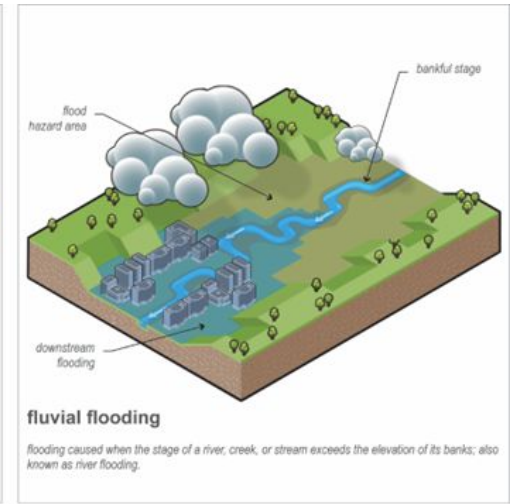
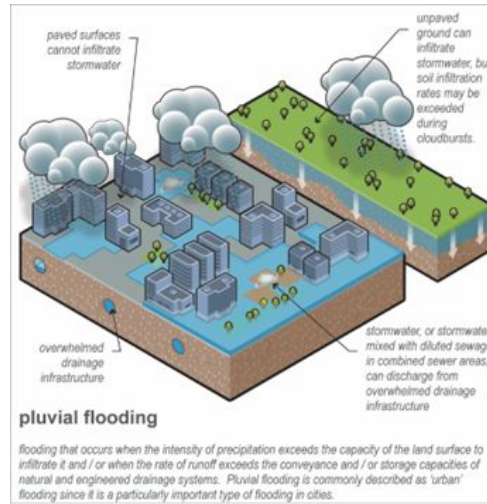
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HunterCollege



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

THE PROBLEM

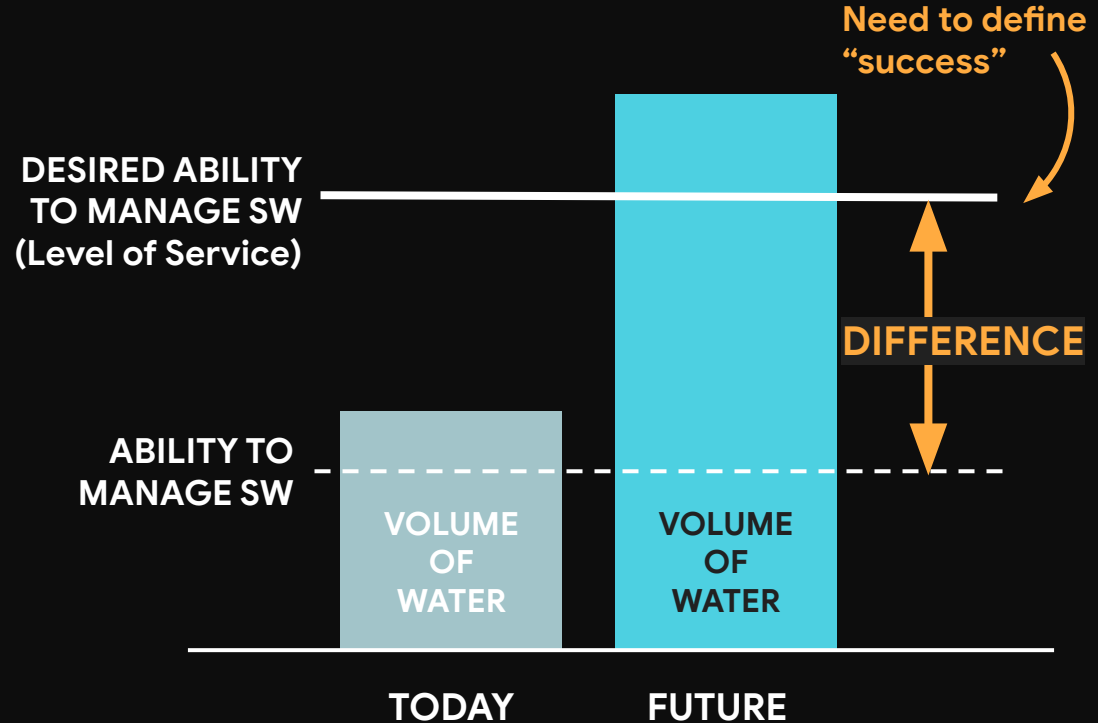
- Our existing stormwater management systems are not able to manage all our water.
- In the future, significantly more stormwater will need to be managed.
- New York's unique geography makes pluvial flooding challenges intrinsically connected to other flood types.
- Our systems are not easily adaptable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



Source: NPCC4 Flooding Chapter

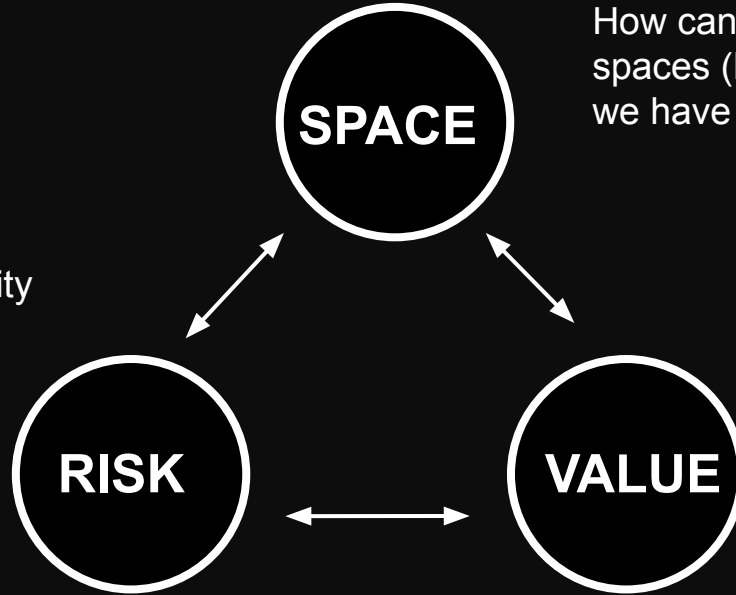
THE PROBLEM

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



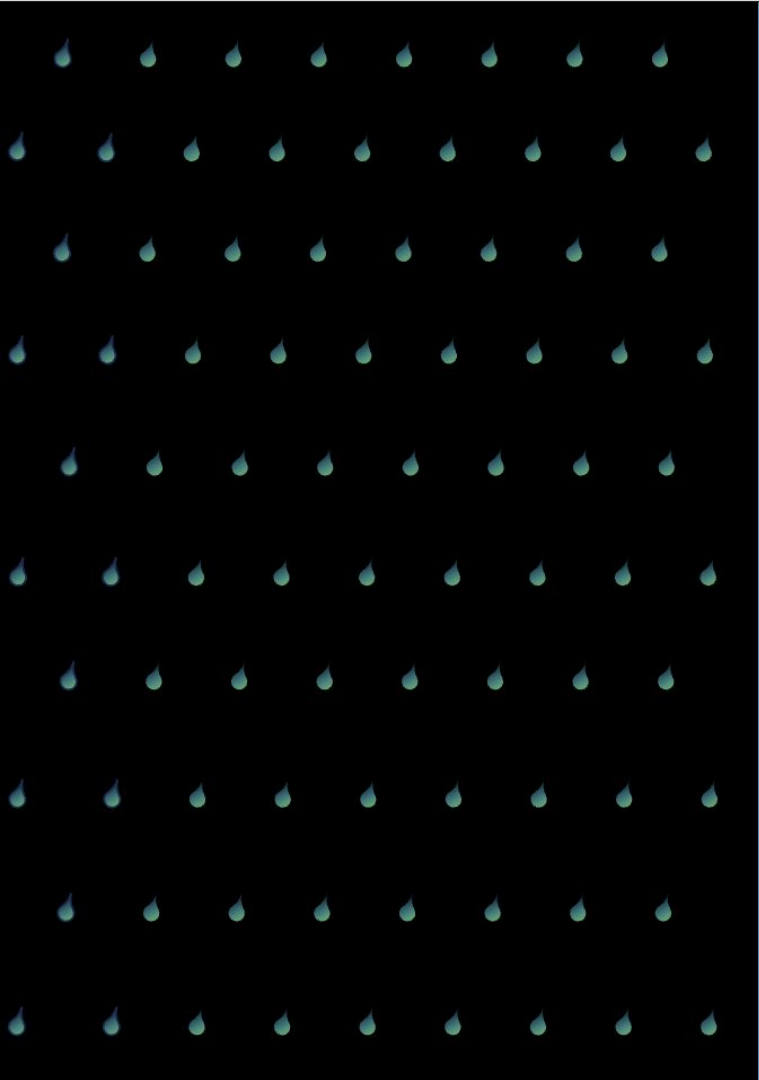
HOW WE ORGANIZED

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?



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 to address gentrification should be incorporated in planning.



PUBLIC FEEDBACK

Question: What can Rainproof do to advance these and other objectives?

- **Infrastructure and Planning:**
 - Consider porous concrete to allow water to dissipate into the earth.
 - Explore the possibility of de-combining stormwater and sewer systems.
 - Build retention basins and develop buyouts for at-risk properties.
 - Develop water boulevards to restore natural stream pathways.
 - Streamline the path to implementation and improve coordination among permitting agencies.
- **Data and Transparency:**
 - Produce open data and ensure agency commitment to transparency.
 - Work with existing nonprofits to utilize data and information effectively.
- **Funding and Incentives:**
 - Allocate funding for natural areas management.
 - Provide incentives for homeowners to manage stormwater.
 - Fund green jobs and make them desirable to maintain green spaces.



PUBLIC FEEDBACK

Question: What can Rainproof do to advance these and other objectives?

- **Collaboration and Engagement:**
 - Utilize programs developed in other cities.
 - Engage with relevant stakeholders such as property owners, nonprofits, and government agencies.
 - Work with the largest private property owners in NYC and collaborate with the Mayor's office and relevant organizations.
- **Adaptation and Innovation:**
 - Address the intersection of coastal and rain-induced flooding.
 - Find new solutions and utilize nature-based approaches for comprehensive planning.



POTENTIAL RECOMMENDATION THEMES

1. **Protect and expand natural areas**



POTENTIAL RECOMMENDATION THEMES

1. Protect and expand natural areas
2. **Improve maintenance and stewardship**



POTENTIAL RECOMMENDATION THEMES

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2. Improve maintenance and stewardship
3. **Improve and integrate gray and green infrastructure**



POTENTIAL RECOMMENDATION THEMES

1. Protect and expand natural areas
2. Improve maintenance and stewardship
3. Improve and integrate gray and green infrastructure
4. **Expand and improve funding**



POTENTIAL RECOMMENDATION THEMES

1. Protect and expand natural areas
2. Improve maintenance and stewardship
3. Improve and integrate gray and green infrastructure
4. Expand and improve funding
5. **Improve communication and collaboration**
 - a. **Establish principles of “living with water”**
 - b. **Develop collaborative decision-making criteria**
 - c. **Communicate tradeoffs**



POTENTIAL RECOMMENDATION THEMES

1. Protect and expand natural areas
2. Improve maintenance and stewardship
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 - a. Establish principles of “living with water”
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 - c. Communicate tradeoffs
6. **Develop community- and science-based targets**
 - a. **Improve mapping and data**
 - b. **Advance planning tools**



POTENTIAL RECOMMENDATION THEMES

1. **Protect and expand natural areas**
2. **Maintenance and stewardship**
3. **Improve and integrate green & gray infrastructure**
4. **Expand and improve funding**
5. **Improve communication and collaboration**
 - a. **Establish principles of “living with water”**
 - b. **Develop collaborative decision-making criteria**
 - c. **Communicate tradeoffs**
6. **Develop community- and science-based targets**
 - a. **Improve mapping and data**
 - b. **Advance planning tools**



BREAKOUT ROOMS

1. Living with Water

It is not possible to eliminate all flooding and we need to come to terms with the fact that we will be flooded from time to time and that we need to figure out a way to function as a city with minimal disruption after a flood event.

Facilitators: Rob Freudenberg & John Brock

2. Gray/Green Infrastructure

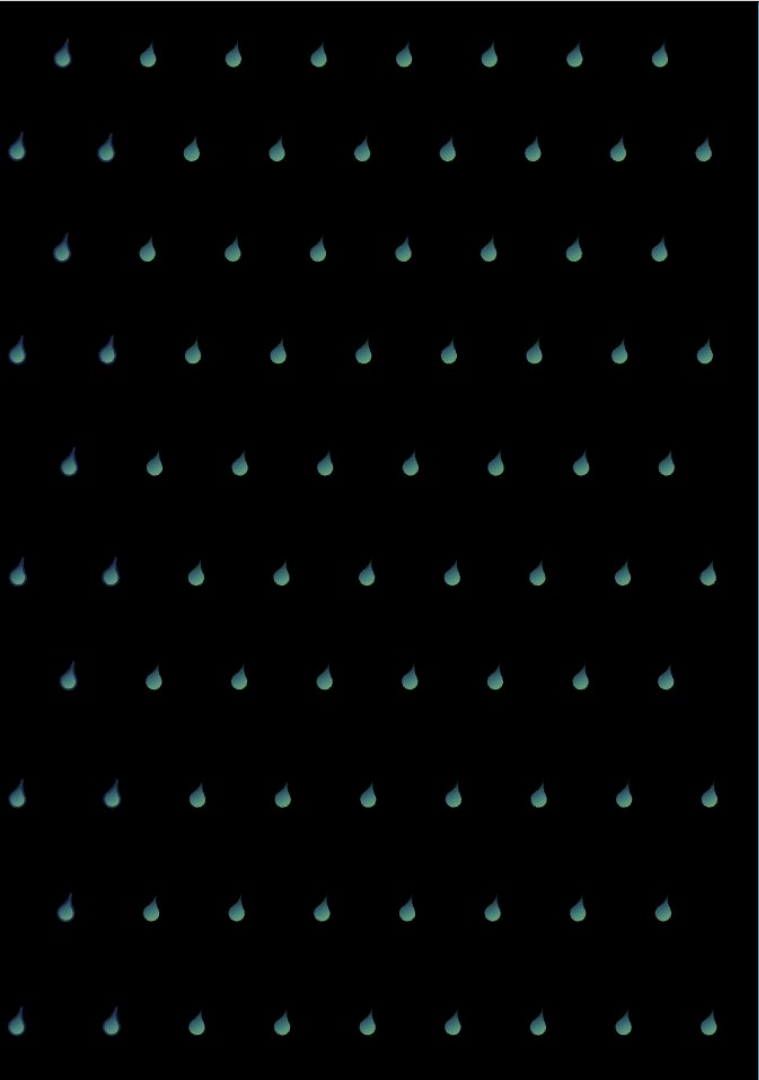
The City's stormwater infrastructure is not able to manage the worst heavy rain events, So, we will need to invest in both gray and green infrastructure to capture as much stormwater as possible. However, space and funding are both limited and trade-offs are inevitable.

Facilitators: Alan Cohn & Shino Tanikawa

3. Natural Systems

Natural systems - urban forests, streams, and wetlands - as well as natural spaces such as parks, street trees, and community gardens, provide a great deal of ecosystem services but have either been damaged or lost to development, are limited in extent, or are not being effectively used to manage heavy rain.

Facilitators: Eric Sanderson & Amy Motzny



WRAP-UP



RAINPROOF PRINCIPLES

Recognize & Prioritize Equity & Accessibility

Center Community-Centered Approaches

Prioritize & Institutionalize Collaboration

Build Ownership Across Stakeholders

Ensure Accountability and Transparency

Prioritize Nature-Forward Approaches & Solutions

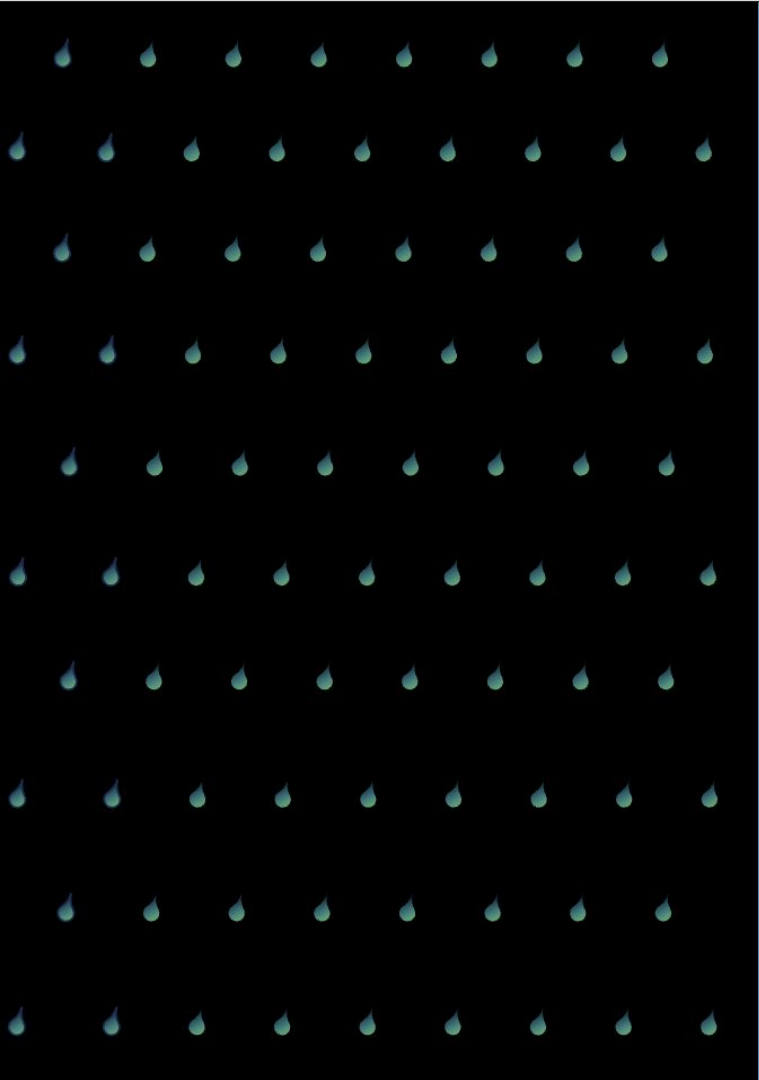
Build Aspirational Visions and Large-Scale Transformation

Build Sustainable Maintenance and Stewardship

Adapt a Multi-benefit/ Holistic Approach

Prioritize Equitable & Accessible Financing

Headline Long-Term Planning



ADDITIONAL FEEDBACK

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

THANK YOU!

If you have any questions,
comments, or suggestions,
please email
info@rebuildbydesign.org

