COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT

CITY COUNCIL

CITY OF NEW YORK

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TRANSCRIPT OF THE MINUTES

Of the

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT

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April 11, 2022 Start: 1:05 p.m. Recess: 3:50 p.m.

HELD AT: REMOTE HEARING - VIRTUAL ROOM 1

B E F O R E: Ari Kagan, Chairperson

COUNCIL MEMBERS:

Joann Ariola
James F. Gennaro
Christopher Marte
Sandy Nurse
Vickie Paladino
David M. Carr

Carmen N. De La Rosa

Robert F. Holden Kevin C. Riley Lynn C. Schulman Kalman Yeger

Carlina Rivera

Public Advocate Jumaane Williams

## APPEARANCES

Kizzy Charles-Guzman, Executive Director of the Mayor's Office of Climate and Environmental Justice Christina Farrell, First Deputy Commissioner of New York City Emergency Management Carrie Grassie, Deputy Director of the Mayor's Office of Climate and Environmental Justice Eric Wilson, Deputy Director of the Mayor's Office of Climate and Environmental Justice Vincent Sapienza, Chief Operations Officer of the Department of Environmental Protection Angela Licata, Deputy Commissioner of the Department of Environmental Protection Shaan Mavani, Chief Asset and Capital Officer of the New York City Housing Authority Joy Sinderbrand, Vice President of Recovery and Resilience of the New York City Housing Authority

1	COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 3
2	SERGEANT LEONARDO: Sergeants, can you
3	please start your recordings?
4	HOST: This meeting is being recorded.
5	SERGEANT SADOWSKY: Recording to the cloud
6	all set.
7	SERGEANT LEONARDO: Good afternoon, and
8	welcome to today's remote New York City Council
9	hearing for the Committee on Resiliency and
10	Waterfronts jointly with the Committee on Fire and
11	Emergency Management.
12	At this time, we ask that Council Members
13	and staff please turn on their videos for
14	verification purposes.
15	To minimize disruptions throughout the
16	hearing, please place cell phones and electronic
17	devices to vibrate or silent.
18	If you have testimony you wish to submit
19	for the record, you may do so via email at
20	testimony@council.nyc.gov. Once again, that is
21	testimony@council.nyc.gov.
22	We thank you for your cooperation. Chair,
23	we are ready to begin.
24	CHAIRPERSON KAGAN: Thank you for joining

our virtual hearing today before the Council's

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 4

2 Committees on Resiliency and Waterfronts and Fire and

3 | Emergency Management. First of all, I would like to

4 acknowledge my co-Chair, Council Member Joann Ariola,

5 | and my other Colleagues who have joined us so far

6 | today, Council Member Schulman, Council Member Marte,

7 Council Member Gennaro, Council Member Riley, Council

8 Member Rivera, Council Member Nurse, Council Member

9 Paladino, Public Advocate Williams, Council Member

10 | Feliz, and Council Member Carr.

Now, I'm going to turn it over to our Committee Counsel, Jessica Steinberg Albin, to go over some procedural items.

JESSICA STEINBERG ALBIN, MODERATOR: Thank you, Chair. I am Jessica Steinberg Albin, Counsel to the Committee on Resiliency and Waterfronts.

Before we begin, I want to remind everyone that you will be on mute until you are called on to testify, when you will be unmuted by the host.

I will be calling on panelists to testify. Please listen for your name to be called. I will be periodically announcing who the next panelist will be.

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COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 5

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The first panelists to give testimony
will be from the administration, Kizzy CharlesGuzman, Executive Director of the Mayor's Office of
Climate and Environmental Justice, and Christina
Farrell, First Deputy Commissioner of New York City
Emergency Management. I will call you when it is your
turn to speak.

For the question and answer period only,
we will also be joined by Carrie Grassie, Deputy
Director of the Mayor's Office of Climate and
Environmental Justice, Eric Wilson, Deputy Director
of the Mayor's Office of Climate and Environmental
Justice, Vincent Sapienza, Chief Operations Officer
of the Department of Environmental Protection, Angela
Likata, Deputy Commissioner of the Department of
Environment Protection, Shaan Mavani, Chief Asset and
Capital Management Officer of the New York City
Housing Authority, and Joy Sinderbrand, Vice
President of Recovery and Resilience of the New York
City Housing Authority.

During the hearing, if Council Members would like to ask a question of the administration or a specific panelist, please use the Zoom raise hand function, and I will call on you in order. We will be

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limiting Council Member questions to 5 minutes, which includes the time it takes to answer your questions.

I will now pass it back to Chair Kagan to give an opening statement. Chair.

CHAIRPERSON KAGAN: Thank you. Good afternoon. My name is Council Member Ari Kagan, and I have the privilege of Chairing the Committee on Resiliency and Waterfronts. I want to welcome you to today's joint hearing with the Committee on Fire and Emergency Management and to thank my co-Chair, Council Member Joann Ariola, for holding this important hearing. Today, we will hear from the Mayor's Office of Climate and Environmental Justice and New York City Emergency Management about their planning for severe weather events, what resiliency projects have been completed and are being developed, and what improvements can and should be made throughout the city to ensure that we are prepared for the next big storm. We also invited to this hearing representatives of New York City Housing Authority, Department of Environmental Protection, and we will listen to some public testimonies.

Coastal flooding and severe storms are becoming more intense and more severe. We have a huge

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT task in front of us, and we must be proactive on how we make our city, our shorelines, and our infrastructure more resilient. We cannot wait for the next storm before we act. Mother Nature will not let us. We must use the lessons that we learned from the past 10 years, lessons from Superstorm Sandy in 2012, Tropical Storm Isaias in 2020, Tropical Storms Elsa, Henri, and Ida in 2021. I have lived in South Brooklyn waterfront areas for most of my life here in America and have seen the damage and destruction from such intense storms and floodings. New York City is not immune to the impacts of climate change, and every borough is affected. The city has 520 miles of coastline and flood plain that covers 48 square miles. By 2050, the number is expected to rise to 72 square miles, an area larger than the size of Brooklyn, and more city residents live now in highrisk flood zone than in any other city in the United States of America.

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Although climate change affects all city residents, communities of color and low-income communities are disproportionately impacted by climate hazards, sea level rise, and flooding. 28 percent of NYCHA developments including all in Coney

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT Island are located in flood plains. Superstorm Sandy cost almost 2 billion dollars in damage to NYCHA developments, knocking out power, heat, and hot water to 10 percent of NYCHA properties, 400 buildings had no power, 386 buildings also had no heat or hot water for weeks and some for months. The city must have clearly communicated evacuation plans in place, especially in low-income communities and also for nursing homes. During Superstorm Sandy, many nursing home residents were trapped on upper floors with no plans for safe evacuations. It is also critical the city continues its outreach and education for residents living in flood zones about what they should do before severe weather events and how to evacuate if necessary. This outreach must be done in many different languages. We live in the capital of the world. I remember that during and after Superstorm Sandy, the residents were confused and frightened because they did not know what to do. Last year, City Council passed Local Law 122, which requires the administration to develop a comprehensive city-wide climate adaptation plan to study the suite of climate hazards and recommend

resiliency and adaptation measures to protect the

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COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 9 city residents, property, and infrastructure from the effects of climate change. This plan is due by September 2022, and I look forward to hearing from the administration on its progress in developing this plan.

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Today, we will hear Intro 76 sponsored by Council Member Brennan and Council Member Gennaro.

This bill would require the DEP to establish a program that provides financial assistance to reduce the cost of purchasing and installing backwater valves.

We will also hear a preconsidered bill sponsored by the Public Advocate Williams and Council Member Rivera. This bill would require Emergency Management to establish a flood emergency evacuation plan for residents of multiple dwellings. I look forward to hearing from the new Mayor's Office of Climate and Environmental Justice and also from New York City Emergency Management. We must work together to plan for the city's future and ensure that we are prepared before the next climate disaster strikes.

Before we begin, I would like to thank my
Committee staff, Committee Counsel Jessica Steinberg
Albin, Senior Policy Analyst Patrick Mulvihill,

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH 1 COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 2 Senior Finance Analyst Jonathan Seltzer, my Legislative and Budget and Policy Director, 3 (INAUDIBLE) as well as the staff for the Fire and 4 5 Emergency Management Committee for all their hard 6 work putting this hearing together. 7 I also would like to acknowledge the other Council Members who joined us, which is Council 8 9 Member De La Rosa and Council Member Holden as well 10 as Council Member Carr. Thank you. Now I would like 11 to turn over to my great co-Chair Joann Ariola to 12 give an opening statement. JESSICA STEINBERG ALBIN, MODERATOR: Chair 13 14 Ariola, can you please unmute yourself. 15 CHAIRPERSON ARIOLA: That would be good, right. 16 17 JESSICA STEINBERG ALBIN, MODERATOR: 18 Thank you. Please begin. CHAIRPERSON ARIOLA: If you give me one 19 2.0 moment. I have to pull it up. One moment. I had it up on the screen. 2.1 22 Good afternoon. My name is Council Member 23 Joann Ariola, Chair of the Fire and Emergency

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Management Committee.

I want to thank co-Chair Kagan for holding this hearing today. I would also like to thank my Colleagues and the public for attending today's hearing.

Management, which I Chair, oversees the Office of Emergency Management also known as NYCEM, which is responsible for coordinating New York City's emergency planning and response for all types and scales of emergencies, including extreme weather emergencies such as coastal storms and flash flooding. We are gathered here today to discuss the important topic of New York City's preparedness for coastal storms and severe weather as well as ensuring that the city has the proper safeguards in place for its citizens during coastal storms.

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Last year, the city experienced several large scale storms, notably Storm Ida in September, where the city faced ongoing issues of extreme flash flooding during periods of heavy rain. These events, which have proven deadly at times, presented challenges to the city's aging infrastructure and our ability to deliver vital emergency services to residents in need.

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Today, the Committee will examine areas related to the city's readiness in addressing severe weather through its multiagency response and potential incidents that may affect public health and safety. We look forward to hearing testimony from the administration about these vital efforts and examine the plans to ensure that all New Yorkers remain safe when facing weather emergencies.

I know that Council Members Gennaro and Rivera as well as Public Advocate Williams have opening statements. We can start with Council Member Gennaro followed by Public Advocate Williams and then Council Member Rivera. Council Member Gennaro, you have the floor.

COUNCIL MEMBER GENNARO: Thank you, Chair Ariola, thank you, Chair Kagan, for having this hearing particularly on Intro 0076 requiring DEP to set up a program to provide financial assistance when purchasing installation of backflow prevention valves. I congratulate Council Member Brennan for his vision in introducing this bill. I'm happy to be a prime cosponsor on this bill. After Hurricane Ida, my District and I'm sure every District in the city were flooded, and, unfortunately, some New Yorkers lost

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT their lives. With this legislation, New Yorkers have the opportunity and financial assistance to install backflow prevention devices to safeguard their properties and stop sewer backups. Intense stormwater overloads the capacity of the sewer and creates sewer backups into people's homes and most businesses, which is most destructive and costly and, as I've just said, can be deadly. There is precedent for the city making the investment to put fixtures in residence and businesses. The city did this 25-someodd years ago with the toilet rebate program when the city had a goal of making sure it reduced its water consumption and now in the era of very intense flooding with no solution on the horizon for these very intense storms that are dropping 2 and 2-1/2 inches and as we saw recently 3 inches per hour. When we have a sewer capacity of 1.75 inches per hour pretty much is the standard, although some parts of the city it's 1.5 inches, and some areas even 1 inch, I think we need the ability to prevent backups of stormwater into businesses, and this bill will be a great first step in protecting our residents. I'll end where I began which is thanking both Chairs. I

look forward to having this important hearing and

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COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 14 thank you for giving me the opportunity to speak on Intro 0076. Thank you.

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CHAIRPERSON KAGAN: Thank you, Council

Member Gennaro. Now I would like to give a chance to

speak to Public Advocate Williams.

 $\label{eq:public_advocate_williams.} \mbox{ Thank you so} \\ \mbox{much. Can you hear me?}$ 

CHAIRPERSON KAGAN: Yes.

PUBLIC ADVOCATE WILLIAMS: Thank you so much. As mentioned, my name is Jumaane Williams,

Public Advocate for the City of New York. Thank you,

Chairs Kagan and Ariola, for holding a hearing today

on storm preparedness that includes consideration of

proposal of Local Law by myself and Council Member

Brennan and Gennaro. Thank you for giving me the

opportunity to speak a little bit today.

In the past decade, New Yorkers have been challenged by the hurricanes and floods that struck the New York City area leading to tragic consequences throughout the 5 boroughs. From the fires in (INAUDIBLE) Queens to the Lower Manhattan blackout to Hurricane Sandy (INAUDIBLE) the death traps created by Hurricane Ida in basement apartments through Queens in 2021, we must do better in protecting and

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT preparing our residents as well as our first responders. While New York City and the rest of the world grapple with the effects of climate change, we can put policies in place to prepare individuals who reside in flood zones. We continue to talk about once in a lifetime and once in a hundred years storm, but we now know that they will be much more frequent, and the horrors I saw when I traveled the city during Hurricane Ida, nothing is worse than losing lives that could've been prevented, and what we saw in the loss of lives in the homes, especially Queens and Southeast Queens, was that we could've prevented these lives from being lost with preemptive intention and communication because we had enough information to let folks know what was going to happen. We also noted areas that continually flooded. Many of these areas have had residents complaining for many, many years without government responding. Council Member Rivera and I are (INAUDIBLE) that we codify a flash flood emergency evacuation plan for basements and first floor apartments and buildings with multiple dwelling units. Additionally, a multiagency outreach plan must be delineated and implemented as well as a report must be provided to the Mayor, City Council,

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COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT and Public Advocate within 2 months after the occurrence. There are many things that individuals and agencies can do in anticipation of the storm or flood. The benefit of codifying that process will ensure that everyone becomes familiar with the process. For individuals and agencies alike, the process will become instinctual. Preparation is the key for maximizing best practice and minimizing tragedies. As mentioned, while everyone was impacted, unfortunately, once again, the most impacted black and brown communities and communities of lower income, communities like NYCHA. I look forward to hearing the testimony of the agencies and working with everyone involved to pass this legislation. Thank you, again, for the time and your consideration on the bill.

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JESSICA STEINBERG ALBIN, MODERATOR: Thank you. Council Member Rivera, you have the floor.

COUNCIL MEMBER RIVERA: Thank you, Chairs
Kagan and Ariola, for the time. Climate change poses
one of the most significant threats to our city. We
knew it when Hurricane Sandy ravaged our communities
in 2012, and we certainly know it now. In the 10
years since, advocates and officials have called for

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT permanent protections from extreme storms, but the tragic events in September 2021 from Hurricane Ida demand urgent action. Thirteen people in New York City lost their lives in a storm that resulted in the wettest hour in New York City history according to the National Weather Service. The event was a first for the 5 boroughs and further exposed the city's weakness in infrastructure and the lack of planning for families living in the most vulnerable areas. The city must take a comprehensive approach, and some initiatives are underway including better maintenance of drains and catch basins, installing more bioswales citywide, and putting forward engineering upgrades and solutions for aging systems, but we also know these types of infrastructure projects take funding a lot of time. New Yorkers desperately need comprehensive emergency response plans that protect them, their families, and their livelihoods not if, but when, we face the next extreme weather disaster. As the storms last fall made all too clear, we don't have much time.

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Public Advocate Jumaane Williams and I are introducing legislation mandating the city immediately establish a flash flood emergency

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT evacuation plan for multiple dwelling tenants in flood zones to prevent deaths such as those the city suffered as a result of Hurricane Ida. Our bill also includes provisions for culturally appropriate outreach in all designated citywide languages and timely reporting mandates so that the city can address any challenges in implementing this plan in real time. The bill is reflective of the critical action we need to keep our community safe, and I hope we can count on your support. We need to take bold, swift measures to scale our resiliency efforts to combat and prevent the fatal impacts of the climate crises, and I hope that all of us here this afternoon share this urgency. Thank you so much.

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JESSICA STEINBERG ALBIN, MODERATOR: Thank you, Council Member Rivera. I now turn back to Chair Ari Kagan.

CHAIRPERSON KAGAN: Thank you, Counsel.

Thank you, Chairs. Thank you, Council Member Ariola.

I also would like to say that we are joined by

Council Member Yeger, and I would like to Council

Member Rivera for her speech.

Now, I would like to turn it over to our Moderator, Committee Counsel Jessica Steinberg Albin.

1	COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 19
2	JESSICA STEINBERG ALBIN, MODERATOR: Thank
3	you, Chair Kagan, and thank you, Chairs, Council
4	Members, and Public Advocate.
5	We will now call on the administration to
6	testify. Kizzy Charles-Guzman, Executive Director of
7	the Mayor's Office of Climate and Environmental
8	Justice, and Christina Farrell, First Deputy
9	Commissioner of New York City Emergency Management.
10	Before we begin, I will administer the
11	oath. Kizzy Charles-Guzman, Christina Farrell, Carrie
12	Grassie, Eric Wilson, Vincent Sapienza, Angela
13	Licata, Shaan Mavani, and Joy Sinderbrand. I will
14	call on each of you individually for a response.
15	Please raise your right hands.
16	Do you affirm to tell the truth, the
17	whole truth, and nothing but the truth before these
18	Committees and respond honestly to Council Member
19	questions? Executive Director Kizzy Charles-Guzman.
20	EXECUTIVE DIRECTOR CHARLES-GUZMAN: Yes, I
21	do.
22	JESSICA STEINBERG ALBIN, MODERATOR: First
23	Deputy Commissioner Christina Farrell.

FIRST DEPUTY COMMISSIONER FARRELL: I do.

1	COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 20
2	JESSICA STEINBERG ALBIN, MODERATOR:
3	Deputy Director Carrie Grassie.
4	DEPUTY DIRECTOR GRASSIE: Yes.
5	JESSICA STEINBERG ALBIN, MODERATOR:
6	Deputy Director Eric Wilson.
7	DEPUTY DIRECTOR WILSON: Yes.
8	JESSICA STEINBERG ALBIN, MODERATOR: Chief
9	Operations Officer Vincent Sapienza.
10	CHIEF OPERATIONS OFFICER SAPIENZA: I do.
11	JESSICA STEINBERG ALBIN, MODERATOR:
12	Deputy Commissioner Angela Licata.
13	DEPUTY COMMISSIONER LICATA: I do.
14	JESSICA STEINBERG ALBIN, MODERATOR: Chief
15	Asset and Capital Management Officer Shaan Mavani.
16	CHIEF ASSET OFFICER MAVANI: I do.
17	JESSICA STEINBERG ALBIN, MODERATOR: Vice
18	President Joy Sinderbrand.
19	VICE PRESIDENT SINDERBRAND: I do.
20	JESSICA STEINBERG ALBIN, MODERATOR: Thank
21	you. Executive Director Kizzy Charles-Guzman and
22	First Deputy Commissioner Christina Farrell, you may
23	begin when ready.
24	EXECUTIVE DIRECTOR CHARLES-GUZMAN: Good

afternoon, everyone. Again, my name is Kizzy Charles-

Guzman. I'm the Executive Director of the Mayor's

Office of Climate and Environmental Justice. I'm

thrilled to be here. This is my first City Council

hearing in this role, 2 months on the job, really

eager to work with all of you as we prepare the city

to meet the environmental needs of the coming

decades. I just want to take a moment to thank Chairs

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH

decades. I just want to take a moment to thank Chairs
Kagan and Ariola and the Council Members of the
Resiliency and Waterfronts and Fire and Emergency
Management Committees for the opportunity to testify
today.

As you know, we are joined by First

Deputy Commissioner for the Office of Emergency

Management Christina Farrell who will also provide

testimony today. For questions today, I would like to

acknowledge my Colleagues, Deputy Directors Eric

Wilson and Carrie Grassie, also from the Mayor's

Office on Climate and Environmental Justice, and our

Colleagues from the Department of Environmental

Protection, Chief Operating Officer Vinnie Sapienza

and Deputy Commissioner for Sustainability Angela

Licata as well as our Colleagues from NYCHA, Shaan

Mavani, Chief Asset and Capital Management Officer,

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COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 22 and Joy Sinderbrand, Vice President of Recovery and Resliency.

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I'd just like to begin today's testimony by outlining the new configuration of the Mayor's Office of Climate and Environmental Justice for this Council so that you're aware of the scope of this exciting new team. I am now responsible for ensuring that New York City is prepared to withstand and emerge stronger from the impacts of climate change, mitigating its greenhouse gas emissions, and address the remediation and environmental coordination efforts from an equity and public health perspective. MOCEJ, that's our acronym, our role here is to lead the city's strategic direction as it pertains to environmental sustainability and resiliency with a focus on environmental justice and to coordinate with agencies to implement this important work. The city is preparing to adapt to a variety of climate hazards including chronic conditions like heat, tidal flooding, and air pollution as well as acute events such as coastal storm surge, extreme rainfall, and power outages. We call this a multi-hazard approach since it addresses all of the climate threats that impact our city. This work has been in progress for

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 23 more than a decade and includes hundreds of completed projects as well as important policy changes such as reforms to the building code and zoning resolutions. While we are urgently working to address these multiple risks, my testimony today will focus on how we're protecting New Yorkers from intense rainfall from storms like Hurricanes Henri and Ida as well as coastal storms like Hurricane Sandy.

Our climate adaptation strategy also takes what we call a multilayered approach. This means that we're focused on establishing multiple layers of resiliency at various and different scales across the city to respond to these multiple hazards. As we have seen most recently with Hurricane Ida and recent historic storms, all of these layers of support so green infrastructure, (INAUDIBLE) redundancy, coastal protection projects, emergency communication, building code, zoning resolutions, and flood insurance are all critical components of our system. Our work to strengthen our infrastructure and response to climate change was moved forward with urgency, funding, and partnership within all levels of government.

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As we think about a broader vision for resiliency under the Adams' administration, there's several strategic and coordinated plans that we're currently working on that will help New Yorkers make sense of how climate change impacts them and where we go from here. Thanks to the Council's leadership in the last few years, our office will release a citywide climate adaptation plan pursuant to Local Law 122 of 2021. We will use localized climate projections from the New York City Panel on Climate Change and translate that data simply to explain how communities can expect to (INAUDIBLE) experience climate impacts and the ways in which those impacts will be experienced immediately due to historical and current inequities. We will also outline different neighborhood profiles and what types of strategies may be best suited for each of those profiles. For example, an inland neighborhood that experiences extreme precipitation may be best suited to certain types of strategies, certain programs and policies as compared to low-lying coastal neighborhoods at risk of frequent Nor'easters or a neighborhood that's dealing with the impact of extreme heat. Through this analysis that we've been conducting and which we will COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 25 release online, our office will make citywide adaptation information more accessible and transparent as we seek to tackle the next generation of climate-readiness projects, plans, and actions.

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Additionally, our Office is undertaking the city's first comprehensive study of environmental justice, working towards the release of an Environmental Justice for All Report as required by Local Law 60 and 64 of 2017. This work will analyze environmental and climate issues and identify which communities are being disproportionately impacted by environmental burdens and which are not seeing the benefits of green investments made by the city. Taken together, our analysis will inform how the city will address activities that exacerbate environmental justice concerns and set the stage for a set of equitable climate mitigation adaptation actions.

I would now like to turn my attention to the topic of extreme rainfall. In the immediate aftermath of Hurricane Ida, the city outlined short and long-term strategies and actions to protect New Yorkers from future intense precipitation events. The resulting report, The New Normal, committed over 2 billion dollars of new capital funding and 17 million

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 26 dollars in expense funding for fiscal year '22. These funds are critical for mitigating stormwater flooding and supporting programs, science-based tools, and resilience capacity at our agencies.

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In addition, the city has been actively advocating for and tracking additional funds from the state and federal governments to further strengthen this work. While The New Normal was an important start to our Ida response, our administration truly sees it just as a jumping off point. With that said, we are excited to develop and implement key pieces mentioned in the report, specifically innovative cloudburst solutions which are projects designed for heavy downpours that transform open space and streetscapes to absorb water where possible and store excess water safely until the event passes to take pressure off of the sewer system. To select priority neighborhoods for these important projects, the city is developing a data-driven framework, which considers feasibility, indicators of physical risks such as topography, subsurface conditions, land use, and recent complaint and damages data as well as socio-economic factors which include income, demographics, and access to existing green space. The

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 27 result of this work will be to implement cloudburst management projects in 4 neighborhoods. An interagency taskforce has been established to identify neighborhoods where cloudburst projects will be installed, and the city is pursuing state and federal funding to implement additional projects.

In addition to the cloudburst work, we're also expanding NYCHA's green infrastructure program to 7 new sites, adding new green infrastructure in parks, developing 20 new stormwater management playgrounds with the Trust for Public Land, and implementing 3 priority projects in the New York City wetlands management framework in Queens and the Bronx.

We also know that there are areas that face unique risks and require special investments. For example, we know that many areas in Southeast Queens are particularly vulnerable to rain-based flooding. To address this vulnerability, DEP along with DOT and DDC is currently engaged in a massive 2.5 billion buildout of the sewer system there to alleviate flooding and improve the quality of life of residents and businesses.

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The city is also leading the way with best practices, managing the resiliency of our capital assets using the climate resiliency design quidelines. We're really grateful for Council's partnership in incorporating these guidelines into Local Law 41 of 2021, which promotes the use of resilient design methods for new public facilities and infrastructure so they can withstand the more severe flooding we expect to see in the future. We're delighted that 23 city agencies are now participating in a pilot program, and we'll begin designing and constructing dozens of new projects using the New York City climate resiliency design guidelines. Forty pilots were selected through a rigorous process that considered climate exposure, equity, and project scope. Over 40 percent of the projects being advanced under this program will be constructed in environmental justice areas, and we look forward to using the results of this pilot to inform development with a resiliency score metric that will be applied across the entire capital plans starting in 2027. This climate resiliency design guidelines pilot program will help all city agencies identify the most effective but also the most cost-efficient strategies

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 29 to address future climate extremes. We will keep the City Council informed regarding our progress and look forward to your support as these findings emerge.

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Even with these significant investments and policy efforts, we must also recognize that we can never fully eliminate risks. Encouraging New Yorkers to protect their financial health with flood insurance is another important component of our work and our strategy. We are continuing to advocate in Washington for reforms to the National Flood Insurance Program that would implement an affordability framework for low and moderate income households. Our office also continues to partner closely with FEMA to conduct neighborhood outreach and increase flood insurance enrollment and promote risk awareness to our partnership with the Center for New York City Neighborhoods and FloodHelpNY.

My team is also working with agencies trying to identify and develop opportunities to retrofit existing buildings. While our office does not implement or manage capital work, we were recently awarded FEMA funding to conduct a study of where and when backwater valves work best in the city. Our goal is to understand how this tool can

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 30 benefit New Yorkers and how to develop a sustainable program that will reduce flooding in homes and businesses. We are also exploring ways to partner with different levels of government to support building owners and strengthen our existing building stock as it relates to retrofits. We look forward to working with Council as this backwater valve study progresses, and we expect it to be complete by the end of this year or early next.

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I now want to turn my attention to coastal storms. Since Hurricane Sandy, we've made considerable strides in our coastal protection portfolio, partnering with different city, state, and federal agencies to complete several costal resiliency projects. These efforts have included wetland restoration efforts in Queens and Staten Island, the reconstructed Rockaway Boardwalk, the T-groin Project in Seagate, Brooklyn, street raising in Broad Channel, Queens, an emergency management interim flood protection measures program which now covers more than 50 sites across the city. Our achievements also include groundbreaking for the U.S. Army Corps of Engineers, Rockaways Atlantic Shorefront Project, and the city's East Side Coastal

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Resiliency Project. In May 2022, we also anticipate reopening Asser Levy Playground, which is the first completed section of the East Side Coastal Resiliency Project. Capital coastal protection projects, especially those in dense urban environments like ours, take many years of planning, contracting, and development. These are enormous achievements which are providing critical protections to diverse communities that were devastated by Hurricane Sandy.

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Me're also continuing to advocate for many other coastal resiliency projects across the city, from Red Hook to Jamaica Bay to Staten Island. The Army Corps is expected to break ground this year on the Southshore Staten Island Resiliency Project with the construction of the large interior drainage pond that would also serve to mitigate stormwater flooding in the area. Additionally, the city will break ground on the (INAUDIBLE) Raised Shoreline Project and the Brooklyn Bridge to Montgomery Coastal Resiliency Project. Our agency partners are also advancing design work on the rest of the Raised Shoreline Portfolio which includes Coney Island Creek, Motts Basin, Travis Avenue, and Mayberry, and the Red Hook Coastal Resiliency Project.

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Now, as we approach the 10-year anniversary of Sandy, we're also eagerly awaiting a tentatively selected plan from the U.S. Corps of Engineers, New York, New Jersey Harbor and Tributaries feasibility study this summer, which will lay out an approach to coastal resiliency investments for the entire New York Harbor and lay the groundwork for a whole new set of coastal infrastructure projects moving forward. The tentatively selected plan will be followed by a review period where the city and the public will have the chance to comment on the Army Corps' recommendations. Our office will lead the city's effort to review and provide comprehensive comments on the tentatively selected plan. The Corps will then take all the comments followed by further study, evaluation, and design and finalize the recommendation in a final report that will be completed by 2024. The final report will help the city advocate for the next set of significant

I would also like to reiterate that coastal infrastructure projects are just one of many layers of resiliency and really are not a panacea. As we think about our build environment, we must focus

federal resiliency project investments.

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 33 on how and where we build and how we're planning for the future.

With respect to the how, one important tool in our toolbox is the building code. Last year, the Department of Buildings updated Appendix G of the building code establishing stringent standards for the construction of all new and substantially rehabilitated structures in the flood plain. We will need to go even further to account for rapidly changing conditions that will lead to flooding that is both more frequent and that extends outside of the current flood plain. To this end, our office is partnering with FEMA to develop future flood risk maps that go beyond the FEMA Flood Insurance Rate maps which are based only on historic flood risk information. Once finalized, these future flood risk maps will provide property-specific information about flood risks that incorporate sea level rise. Now, because buildings are constructed to last generations, we do hope to see these future flood risk maps replace the use of the static Flood Insurance Rate maps in the building code. We look forward to working with Council when you review

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COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 34 future building code updates to ensure the city's

building stock accounts for future flood conditions.

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The where also matters tremendously, especially as we think about climate change. In 2017, the Department of City Planning developed a designation of special coast risk districts in the zoning resolution. After extensive community engagement, these districts were created for neighborhoods that flood regularly from high tides and that are projected to face daily tidal inundation. This zoning designation limits the density of future development to limit further growth of the residential population in those areas while allowing the many residents that are currently there to make investments in their existing homes to make them safer so Broad Channel, Hamilton Beach Queens, and sections of the East Shore of Staten Island, and a portion of Gerritsen Beach, Brooklyn are all examples of these districts. Building on this work, just this past December, the Department of City Planning released its comprehensive waterfront plan and laid out a framework firmly centered on equity to help communities access and maintain stable housing given future climate risks. This framework is

designed to help policymakers make informed decisions about where and why to densify, maintain density, and where we may ultimately need to de-densify. The city envisions supporting communities with a comprehensive toolkit that could include options of voluntary buyouts, resiliency audits, retrofit programs, financial counseling for homeowners and renters, all of that to ensure housing stability as climate risks increase. We are currently awaiting federal funding guidance to understand how we can prioritize these types of services for low and moderate income residents.

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I also want to acknowledge Intro 76
regarding the backwater valves. We are pleased that
Council has taken interest in this issue. As I
mentioned earlier, our Office is currently working
with DEP, Emergency Management, and HPD to conduct a
FEMA-funded backwater valve study to determine
exactly where backwater valves will be most
effective. These valves may be a low-cost retrofit
that would benefit many New Yorkers, and, in some
cases, they're already required by the plumbing code.
The results of our study will inform decisions
related to whether such a program would be sensible

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 36 and, if so, the scale of the program, areas of prioritization, and direct community outreach by clearly delineating what types of buildings and locations would most benefit from backwater valves. It will also consider which agency may be the best implementation partner for this work.

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To wrap up, while the city has made great investments and great strides towards a multi-hazard and, again, multilayered approach to resiliency, we know there's still a lot of work to be done, and much of it can only be accomplished through the collaboration, partnership, and funding from our federal and state partners. I am optimistic about our ability to meet these challenges rapidly and equitably for all New Yorkers. We are coordinating closely with the Office of Management and Budget as well as other agencies to take full advantage of federal funds from the infrastructure bill and Ida relief bills and COVID-19 supplemental funds. The New York state Environmental Bond Act, if approved this November, could also provide critical funding for green infrastructure projects, stormwater management, coastal protection and rehabilitation, waterfront revitalization, and heat mitigation strategies.

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I would just like to thank the Committees on Resilience and Waterfronts and Fire and Emergency Management for allowing me to testify here today. I look forward to your questions following my Colleague's testimony, and I yield the floor now to my Colleague, First Deputy Commissioner Christina Farrell. Thank you.

FIRST DEPUTY COMMISSIONER FARRELL: Thank you, Kizzy. Good afternoon, all, Chairs Kagan and Ariola, Public Advocate Williams, and Members of the 2 Committees. I'm Christina Farrell, First Deputy Commissioner here at New York City Emergency Management, and I'm here today to discuss storm preparedness from a citywide planning and public information perspective.

First, I want to briefly explain our role in city government and emergency response. New York City Emergency Management helps New Yorkers before, during, and after emergencies through preparedness, education, and response. Our agency is responsible for coordinating citywide emergency planning and response for all types and sizes of emergencies.

We're staffed by nearly 270 dedicated professionals with diverse backgrounds in areas of expertise,

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT including individuals assigned from other city agencies. As the coordinating agency for the city of New York, Emergency Management functions as a general facilitator when it comes to emergency response, ensuring that resources are available for our sister agencies to complete their core competencies and serving New Yorkers in what can be their worst days with compassion and cultural sensitivity. As we all know, every emergency can create new and unforeseen conditions. Emergency Management coordinates interagency planning efforts and is responsible for the development, maintenance, and oversight of about 150 planning documents for citywide response including hazard-specific plans such as the New York City Coastal Storm Plan and the Flash Flood Emergency Plan, or we also plan for specific facets of an emergency such as fuel management, restoring power, and feeding affected residents. These plans include citywide objectives for managing the incident, logistical resource needs and operations, templates for interagency coordination calls, and checklists for key tasks and actions among other aspects. These plans include coordinated roles and responsibilities of key stakeholders, primarily city agencies but also

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COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT utilities, nonprofits, and other levels of government agencies for these events. Roles are formalized under the Citywide Incident Management System, or CIMS, which assigns responsibilities to agencies based on their respective core competencies. In addition to working with our city agency partners, we remain in constant contact with the appropriate state and federal partners based on the emergency and have the ability to bring them in to our emergency planning calls and into the city's emergency operation center, or EOC. The EOC is the central nervous system of a citywide emergency. This is where various groups of partners can meet, discuss issues, and troubleshoot problems.

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While some of the actions the city takes are the same for both the Coastal Storm Plan and the Flash Flood Emergency Plan, they are very different events. Coastal storms can be tracked and assessed for multiple days, allowing for a longer time to make decisions and, if necessary, implement an evacuation order while it is still safe to be outside and traveling. Flash flooding creates a logistical challenge to this kind of advanced action as the forecasting technology does not provide enough time

to warn of serious inundation nor does it allow for neighborhood-specific forecasting. With this being said, Emergency Management has learned a lot since Hurricane Ida and other recent storms. I want to speak briefly about the actions we've taken since

Hurricane Ida struck and what we continue to work on.

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Emergency Management continues to partner with the National Weather Service, and we have also contracted with a private forecasting service to get further insight into developing weather conditions and to make informed decisions based on these consultations. Whenever the forecast indicates considerable or even catastrophic flash flooding may impact New York City, Emergency Management works with the Mayor's Office to determine whether a declaration of a state of emergency is necessary and to issue preparedness recommendations promptly including quidance on preparing for heavy rain and possible power outages and moving to higher ground when possible. Travel bans may also be issued based on the predicted severity of a storm. The public is alerted to these emergency orders and city actions through Mayoral press conferences, press releases, and amplification to local media sources, social media,

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Notify NYC which is the city's free, official emergency communications program, and also through partner agencies, elected officials, community-based organization, private sector organizations, our advanced warning system which messages out to service providers serving those with disabilities, access and functional needs, and, in some cases, through the Wireless Emergency Alert System.

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New York City Emergency Management also has enhanced its communications with more aggressive, earlier warnings that include increased public messaging about hazards that may affect our city. This messaging is scaled to storm severity. Many of the messages are tailored for residents living in a basement or at ground level. Messaging begins with notifications that urge residents to prepare and increase in intensity based on the threat level. Messaging and actions are tied to both National Weather Service products and existing plan triggers. New York City Emergency Management has dedicated staff in our external affairs and our community engagement bureaus who work tirelessly to engage the public, elected officials, the private sector, community groups, the media, and others and to

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT educate them on emergency preparedness. Prior to the COVID-19 pandemic, the agency regularly conducted more than 1,000 presentations and outreach events each year. As we slowly return to that level of engagement, it is more important than ever that we reach your constituents. This is where we're asking for your help. As trusted messengers in your communities, we ask that you help us promote emergency preparedness and the Notify NYC program and its ability to provide free emergency alerts and updates in New Yorkers' preferred language and format. In fact, Notify NYC recently surpassed 1 million subscribers, which is a fantastic achievement. However, we know it's not enough until all households in New York City are signed up for Notify NYC and receive these critical updates, especially in households with vulnerable communities and those who are non-English-speakers. You can help us amplify that message and save lives. We welcome the opportunity to speak with your communities and provide you with the resources to keep them safe and prepared.

With that, I want to discuss

preconsidered Introduction 534-2022. As we discussed,

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Emergency Management is in the process of adapting our plans for flash flood emergencies thoughtfully and comprehensively. We are working diligently with our partners to adapt lessons learned from Hurricane Ida into our citywide planning efforts. The development and implementation of evacuation plans required by this legislation would be extremely challenging as the forecasting technology to predict extreme flooding at a neighborhood level with enough time to evacuate in a flash flood does not presently exist. We are still taking the necessary time to analyze every detail of this bill, but we will continue to review and work with the Council productively on this legislation.

Thank you for inviting me to testify today. I am happy to answer your questions.

JESSICA STEINBERG ALBIN, MODERATOR: Thank you very much for your testimony. I will now turn it over to questions from Chair Kagan. For these questions, we will also be joined by Carrie Grassie, Eric Wilson, Vincent Sapienza, Angela Licata, Shaan Mavani, and Joy Sinderbrand.

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CHAIRPERSON KAGAN: Thank you, Jessica. I

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Panelists, please stay unmuted if possible during this question and answer period. Thank you. Chair Kagan, please begin.

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would like to thank the representatives of the city administration for their testimony. I have a few questions to elaborate. My question for the Office of Climate and Environmental Justice particularly about this study that was mentioned that studied the New York, New Jersey Harbor and Tributary Study. It was reauthorized by Congress in 2021 after federal funding had been paused by the Trump administration, and the U.S. Army Corps is now evaluating alternatives to address coastal storm and flood risk among the coast from New Jersey to New York. My question is what would the administration like to see in the Army Corps of Engineer's final product? I thought that you said it's going to be finished by 2024 so what the administration would like to see as an Army Corps final product?

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EXECUTIVE DIRECTOR CHARLES-GUZMAN: Thank you so much for the question, Chair Kagan. We are very happy that the study has been restarted. We think it's an essential step in defining future

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT resiliency investments for the city. This summer, again, the Corps will release their draft report for public review and comment. It will include a recommended approach which is that tentatively selected plan and a high-level environmental analysis. Again, when that is released, it will be followed by a community-engagement process led by the Army Corps, and I think that this is a critical process to hear feedback from the entire city to help steer the long-term direction of future coastal infrastructure investments throughout the city. We simply cannot construct these unprecedented largescale projects without our federal partners so we're excited that this study will lay the groundwork for future potential infrastructure projects. As for the administration involvement, we are in regular communication with the Corps about the study milestones, both at the staff and leadership level, and we're going to continue to be engaged on this, but, as you know, we're just one of several critical partners. The New York state and the state of New Jersey are non-federal sponsors, and they contribute to the cost share for the study whereas New York City

is a non-federal partner but we're a partner due to

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COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT the impact that the investments will have in the city, but we do not at this time contribute to the cost share. As to our preferred deliverable, because we have not yet seen that tentatively selected plan nor the full analysis behind it and the Corps still needs to undergo community engagement on this draft this summer, it's just too premature for us to comment on the city's desired outcome. That said, for us, for our team, a comprehensive coastal protection plan includes several important factors. We are looking for approaches that provide protection to the most vulnerable neighborhoods of the city, but we also think it's important that these approaches minimize environmental harms and impacts. We want them to be implementable and maintainable, and we want them to provide social, economic, and ecological co-benefits to the communities that they serve. Again, just wanting to reiterate that for us resiliency is a process and our approach is layered. There will be many solutions regarding the citywide Resiliency Now Adaptation plan which, again, is due to you guys this September, but, for us, we're looking at the integrated ways that these provide

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benefits to all New Yorkers.

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CHAIRPERSON KAGAN: Thank you. One more question about spending federal money for resiliency projects. I would say it's 2 questions here. One is the online Sandy funding tracker indicates that 17 billion dollars of federal funding has been earmarked for projects in New York City so how much of this was spent, on what kind of projects, and do we still have some money left?

EXECUTIVE DIRECTOR CHARLES-GUZMAN: Sure, sure. Thank you, again, for that question. Today, I'm going to provide you with these high-level numbers, and, if you need more specifics, we can take your questions back to OMB, but here's where we are. Our total FEMA Sandy grant amount is about 10 billion dollars, so 9.9 billion. Of that, we've spent 6.4 billion dollars, and we've been reimbursed for 4.5 billion of that. Other Sandy grants, so Federal Highway, Federal Transit, it's about 709 million dollars. Of that, we've spent about 446 million. Our total HUD CDBG-DR, our community development grants, the amount is 4.2 billion, and, of that, we've spent about 3.9 billion. The total NDR grant amount is 176 million, and, of that, only a negligible amount has been spent because the project hasn't yet gone into

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT construction, and that's when most of the spend out would happen. These will all be reflected in the upcoming update to the tracker which is scheduled for the end of the month. I just also want to say that grants that are administered by the federal government amount to an additional 2.4 billion. Of that, 840 million of that is Army Corps, 595 million of that is for FEMA for individual assistance, 413 million is for small business administration, 356 million from the Department of Interior, and 207 million from the VA, but we don't have a more specific breakdown than this. The rest of the dollars to be spent will continue to restore assets to their predecessor condition or restore them in an alternative fashion that better suits the city needs. Some of the funding will also go to increasing resiliency through restorations and upgrades of critical equipment at the impacted sites.

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CHAIRPERSON KAGAN: Thank you. Similar question related to my previous question. Could you discuss the status of other coastal resiliency projects throughout the city? The state published a feasibility study for resiliency projects in areas of Brighton Beach, Coney Island, Manhattan Beach, and

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Sea Gate in 2014. Have any of these resiliency projects been developed for these areas? If no, why not? Also, you know I'm co-Chair with Council Member Joann Ariola, please say if any of those projects are

available for Howard Beach.

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EXECUTIVE DIRECTOR CHARLES-GUZMAN:

Council Member, I'm going to tag team this question with Deputy Director Carrie Grassie, but, again, I'll just remind us all that because resiliency is so broad, for the purposes of this hearing we're going to just continue to focus on Sandy FEMA dollars and our CDBG-DR Funding as per the Mayor's preliminary budget for FY-22, but that is not all-inclusive of all the resiliency dollars or all the ways that our city agencies help New Yorkers to be more resilient to a changing climate. Carrie, if you can jump in here and provide some specific examples, that'll be great.

DEPUTY DIRECTOR GRASSIE: Sure, sure. To just sort of speak generally about all of the coastal resiliency projects across the city, we're continuing to advance many of them from Red Hook to Jamaica Bay to Staten Island. As Kizzy mentioned in her testimony, the Army Corps did break ground this year

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT on the Southshore Staten Island Resiliency Project. ESCR is construction as is the Army Corps' Rockaway project on the Atlantic Shorefront, and the city will break ground on the Howard Beach Raised Shoreline project and the Brooklyn Bridge to Montgomery Coastal Resiliency this year. You asked specifically about Howard Beach so in Howard Beach EDC, our partner at the Economic Development Corporation, is working on the Howard Beach Raised Shoreline project. This project entails building bulkheads or sort of low walls at 2 low-lying street ends that are the entry points for coastal flooding due to high tides from sea level rise so we're very excited about that project finally breaking ground.

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You also asked about the New York Rising program, particularly for the Brighton Beach, Coney Island area. This is the New York State's New York Rising Community Reconstruction program. They produced a set of conceptual plans, not only for this neighborhood but for neighborhoods all over the city to be implemented with the State's CDBG-DR funding. As the state sort of pursued those projects, not all of the projects were deemed to be feasible and then not all of the projects were to be implemented by the

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT city. The state ended up implementing some of them so for the particular community that you've asked about, some of the funding that went to the city in particular went towards upgrades to the Manhattan Beach Promenade, a project that I believe has just opened. It includes new ADA-compliant ramps, steps, an entryway along with new landscaping and seating, and all of the components of the project were built resiliently to withstand storm conditions, wave impacts, and saltwater inundations. Additional funding from this particular community actually went to a larger program, the Department of Small Business Services Business Prep Risk Assessment and Grant Service. This program was available to small businesses in multiple Sandy-impacted communities across the city to help them better prepare for flooding and business interruptions. For a complete status on projects funded by the state, I would suggest reaching out to the Governor's Office of Storm Recovery because, again, they are responsible for implementing and reporting on their CDBG-DR funding.

CHAIRPERSON KAGAN: I would like to ask

one more time are we aware of any, I emphasize any,

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COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 52 storm-resiliency projects in Coney Island, Sea Gate area, any of them funded by federal or state government?

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DEPUTY DIRECTOR GRASSIE: For Coney Island, there actually have been quite a few investments so the city and its partners have invested over, I think, about 2 billion dollars to make Coney Island stronger and more resilient over the past year since Sandy so these investments include protecting the MTA Coney Island Railyard Complex against flooding. This includes flood walls, gates, drainage, and pump stations. I believe that's currently in construction. Repairing and increasing the resiliency of Coney Island Hospital including locating all critical patient services above the 500 year flood elevation, increasing the resiliency of the NYCHA Coney Island houses, and then collaborating with the U.S. Army Corps of Engineers to build new T-Groins and (INAUDIBLE) the beaches with new sand in Sea Gate.

CHAIRPERSON KAGAN: A question related to Urban flooding. After Ida storm, it became even more increasingly obvious that we need to do much more. That's probably a question to DEP or whoever wants to

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 53 answer this question. What are the city's views on constructing homes and businesses in areas that regularly flood now, and do you agree that the city continues to build homes in the areas of high flood risk, is it an issue for you or you think everything is okay?

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CHIEF OPERATING OFFICER SAPIENZA: Mr.

Chair, I think that's probably maybe for MOCEJ. DEP hasn't made (INAUDIBLE).

CHAIRPERSON KAGAN: Okay.

EXECUTIVE DIRECTOR CHARLES-GUZMAN: Eric, go ahead.

DEPUTY DIRECTOR WILSON: Yeah, so I could start off with MOCEJ. I would also invite our partners from DEP to talk a little bit about the unified stormwater rule, which could also apply here in an inland flooding context. Just to get us started, thank you, Chair, for that question. Again, my name's Eric Wilson. I'm the Deputy Director for Land Use and Buildings with the Office of Climate and Environmental Justice. As Kizzy mentioned in her opening testimony, there's a comprehensive waterfront plan that we worked with the Department of City Planning to release last December. In this document,

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT there's a land use framework that we present for areas that are exposed to flooding now and will be exposed to flooding in the future. The comprehensive waterfront plan includes this framework in detail, but, in summary, the concept is that areas where flood risks can be practically managed and that are well-connected by transportation and other kinds of infrastructure, these are areas where it is reasonable to consider new developments and to consider to promote development at existing density. In contrast, there are parts of the city that are exposed to chronic flooding and there are areas where we may need to cap existing developments, and, in fact, there are places where the city has designated as special coastal risk districts, you can find these in the zoning resolution right now, where new residential development capacities are capped. These are areas exposed to chronic flooding, as I said, now and also less connected than other areas. In a nutshell, Chair, there's no one-size-fits-all answer to your question in coastal contexts. There's a lot of differences across our extent of waterfronts, and the land use framework is intended to be flexible to

address some of those localized conditions. That's

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COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 55

the context of coastal flooding communities. I'll pass it off to my Colleague, Deputy Commissioner

Licata, to talk about stormwater areas.

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DEPUTY COMMISSIONER LICATA: Thank you, Eric. I'd be pleased to give you a little briefing on the Unified Stormwater Rule. This was just passed this last February 15th, and this is a very unique new requirement in the city of New York. I was actually pleased to see this weekend that one of the major environmental law firms did a nice blog about it. That was sort of gratifying to see. What this does is when a property is subject to redevelopment, it requires that that property look at the maximum extent to which the stormwater can be managed on site, and we refer to that as source control. In this case, we are not saying that we will take the stormwater that the fronting sewer cannot accept, but, instead, we will maximize the stormwater management that you can do on your property, and this will apply to sites that are 20,000 square feet or greater and will also require that any 5,000 square feet of new impervious surfaces would also be subject to these requirements. Before a development could even get a permit from the Buildings Department to

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 56 start construction activity, they have to start with the Department of Environmental Protection. That's how important this rule is to the city of New York. The site plans really will create significant changes in the way that stormwater is managed. We will require green infrastructure as a first form of defense and then we will gradually move to slower and lower detention rates as the properties prove that they cannot do the highest level of control so we look forward to that. If there are any questions, let me know.

CHAIRPERSON KAGAN: Thank you very much. I have a question for DEP again. How many catch basins are in the city and how often are they inspected and maintained and how does the city identify what areas need catch basins, like last year Storm Ida took a lot of folks by total surprise, like some pictures and videos from Storm Ida were like surprising and outrageous, like people couldn't cross the street and I'm not even mentioning MTA subway stations so the question is like even in normal circumstances, any kind of strong rain creates a lot of problems for ordinary New Yorkers so do you know how many catch

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basins we have in New York City and how often they're inspected and maintained?

CHIEF OPERATING OFFICER SAPIENZA: Okay,

Mr. Chair, let's start with the number of catch basins in the city. There are about 150,000 catch basins, and those are on street corners, on roadways, highways, parks. DEP does regular inspections and cleaning when necessary. We have a cycle that's slightly different for whether it's on a commercial strip where there may be more street trash and debris that gets into the basins versus a residential street that may be a bit cleaner. We target about 93,000 catch basins a year to do an inspection, basically twice a year on the commercial strips and then less often in residential areas, and then cleaning as necessary. I should point out because there always seems to be a confusion about cleaning a catch basin versus clearing a catch basin, and we make the distinction as you clean a catch basin when the box beneath the street is full of debris, and we have a special truck that comes in, the grate of the catch basin is removed, and then all the material inside the box is dug out and taken out on the back of a truck. That's called cleaning. Clearing a catch basin

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT is often, you may see trash or leaves on top of the grate, and that can cause problems too because runoff from the street can't get into the catch basin because it's blocked up by leaves and debris so we ask everyone to help us out with clearing catch basins from that issue. I want to point out during that you mentioned Ida and obviously there was a lot of flooding. That was not a catch basin issue really, Mr. Chair. The sewer system itself was just full. All of the sewers had reached capacity. Whether we had more catch basins or not, it wouldn't have really mattered because no more water could go down the drains so at that point during that evening during Ida with the sewers full and the catch basins at capacity, water was just running down the street so it wasn't really a catch basin issue. It was more of a sewer capacity situation.

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CHAIRPERSON KAGAN: What could be done for future storms like Ida in terms of clearing both catch basins and the sewer systems?

CHIEF OPERATING OFFICER SAPIENZA: That's what we're really looking at now. The last administration came out with what they called the New Normal Report, and Mayor Adams is coming out with

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT another report to use that New Normal Report as a foundation or a jumping off point as Kizzy said earlier, but it's going to have to be a hybrid approach. In some parts of the city, there's opportunities to build bigger sewers, but in a lot of parts of the city you're really at the maximum size that you can install under the street. We're installing new storm sewers in Southeast Queens, and, if you go out there and look at some of the projects, the sewers, and they're basically boxes, are from corner to corner. You can't really fit more on the street so the hybrid approach is looking at things like green infrastructure, the cloudburst initiatives that you heard about a little bit earlier, Bluebelts like we've done on Staten Island so we've got to look at all ways of making our streets less permeable so that there's less of an impact on the sewer system. CHAIRPERSON KAGAN: Okay. Thank you. I would like to switch to Office of Emergency Management. Thank you, Commissioner, I thank you. My question is to Office of Emergency Management about preparedness for future emergencies related to hurricanes, storms. I lived during Superstorm Sandy,

and I remember vividly people were not notified

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COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT properly. People, if they were notified, they were notified only in English. Especially seniors and immigrant communities were totally confused very often, and many people were stuck on the upper floors. They were not evacuated. Even later on, after Sandy struck, for several months, there was a lot of confusion, what to do, how to communicate with anybody. It also affected not just the people who lived in buildings and in private homes but also patients in nursing homes, patients in hospitals so are we prepared for a similar situation in the future, how are we going to communicate, and any kind of trainings maybe by the Office of Emergency Management in different communities? FIRST DEPUTY COMMISSIONER FARRELL: Sure. Thank you. We're coming up, I think as everyone knows, on the 10th anniversary of Sandy, and Emergency Management and all of our partners, we have many new partners, we have been working every coastal storm season on this and then in the 6 months that isn't coastal storm season we're working on improvements. Ten years ago, things have progressed a

lot, obviously technology is at a different place,

Notify NYC is in a very different place. As I noted

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COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT before, we now have a million subscribers to Notify NYC. That's not enough. We want 3, 4 million, however many cellphones, how ever many land lines and email addresses and everything that in the city, but we also back in 2012, the system as you noted was English only. We have worked very hard to translate all of our messages into 13 different languages, and those are available across the city. I will say that the vast majority of people that have subscribed to Notify NYC have done so in English and so our big push now is to get these messages out to get subscribers in these different languages. We're doing a large ad campaign. People probably know we're coming up on coastal storm season. It starts June 1st, and New York City is most at risk August 1st, so we have ads going out in dozens of different languages and ethnic media and other. We're happy to share those ads with you. If you can share them in your newsletters with your constituents, and we have all 13 languages on Twitter, but we understand that a lot of populations may not use Twitter the way English speakers do so we're looking at other ways to get the message out, other apps or other formats that people use, and then, as we noted during COVID,

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COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT obviously person-to-person outreach was very difficult. We have been ramping that up as quickly as can. We were in Chairperson Ariola's district last week doing outreach alongside her on the weekend. We're happy to come out to everyone's district on whatever day, whatever time, whatever languages you need, and to prepare your residents, and we want to hear your ideas. Like I said, if there are other ways that we can get the word out to people, we start with young children. We have a Ready Superhero, Ready Girl. We go out. We start with people with nursery school, and we go all the way up to senior centers, and we hit houses of worship, civic groups, whatever way we can get the word out to help people to prepare, and it's an ongoing situation. We all remember Hurricane Sandy. It was 10 years ago. There are a lot of people have moved into the city. People may have been basically children and now they are young adults, and it's an ongoing process so we appreciate your focus on this and we will continue to work, and we welcome your ideas and feedback on how we can improve our outreach.

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CHAIRPERSON KAGAN: Thank you, First

Deputy Commissioner. I would like to emphasize that I

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT am by trade an ethnic journalist myself. I worked for ethnic newspaper, radio, and TV most of my adult life here in New York City, and I can tell you that an outreach to ethnic and immigrant community media is crucial. Maybe that's the main reason why Mayor Eric Adams established the Office of Ethnic and Community Media, and I will encourage you to work together with this office to put more information, more press conferences in various languages and in various communities that are sometimes hard to reach and ignored and sometimes have very limited information. That's very, very important, especially when we talk about the preparedness for storms, hurricanes, and any kind of emergencies.

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FIRST DEPUTY COMMISSIONER FARRELL: I agree.

CHAIRPERSON KAGAN: It is crucial. Thank

you. I wanted to ask at the very least 2 questions to

NYCHA. We have representatives of NYCHA today, and I

would like to ask these questions. First question to

NYCHA representatives, what specific evacuation plans

do you have in place for residents of NYCHA

buildings, how have these plans been communicated to

residents, and in what languages all over again. Do

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 64

you have any plans on how residents will be evacuated in case of any kind of severe floods and storms because I recall also what happened in Coney Island specifically after Superstorm Sandy. A lot of people, especially seniors, were stuck on upper floors because elevators didn't work, flooding was severe, and there was a lot of confusion and almost zero communication. That's my first question to NYCHA.

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VICE PRESIDENT SINDERBRAND: Thank you for the question. We are excited to partnering with your office to continue to invest almost 700 million dollars at the NYCHA campuses in Coney Island. A lot of that capital improvement work, both the repairs from Sandy and the resilience work is well underway and completed many developments. Your specific question is really a collaboration between NYCHA and the city's Emergency Management Office. Really, we yield to them. They take the lead on all the planning for residential around New York City and then NYCHA works to amplify that messaging. If you're looking for some more specific examples of that message amplification, I have to circle back with you to the Office of Communications to give you copies of what those assets might look like.

CHAIRPERSON KAGAN: Second question, what protections are now in place to protect NYCHA residents and infrastructure located in the flood zone, to protect them against future storms and floodings?

VICE PRESIDENT SINDERBRAND: On Coney Island, we have a number of developments that are substantially complete, Coney Island 1B, Coney Island Sites 4-5, Coney Island Houses, and (INAUDIBLE) Houses, which is over 97 percent complete, which have protection from future storm surge events. This is raised critical infrastructure, new heat and hot water systems that are protected against flooding, taking into account sea level rise and wave action. We also put full backup power generators at these buildings so that that issue you talked about, those elevator outages, not just for hurricane season but the peak of hot summer or if there's any other issue with the electrical grid, these buildings will be protected from outages, and that will protect not just the elevators but also the drinking water, the lighting in the common areas and the lighting and all the electrical units within the residents' apartment.

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CHAIRPERSON KAGAN: I would like just to comment that even without any flooding, any superstorms, any storms, elevators in most of the NYCHA buildings I've visited very often are in terrible conditions even in peaceful times I would say. It's like almost a weekly occurrence in NYCHA buildings that one of the elevators, sometimes both elevators, do not work so in case of emergency, in case of another superstorm or flooding, it could be even bigger issue, especially for seniors and people with disabilities.

VICE PRESIDENT SINDERBRAND: Understood.

CHAIRPERSON KAGAN: So do you have any plans to change this situation?

VICE PRESIDENT SINDERBRAND: I would have to circle back to you about the scope of work in the 5-year capital plan for elevators in Coney Island. That was outside of the scope of the recovery and resilience work.

CHAIRPERSON KAGAN: Okay. I would like more information about it because elevators are a big issue, even in peaceful time when everything is dry, no storms and no floodings. I would like to give a

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COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 67 chance to my co-Chair Ariola to ask her questions to the administration.

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CHAIRPERSON ARIOLA: Thank you, Chair Kagan, and thank you to everyone from the agencies who have come today to testify and answer questions. I'd like to start with Director Charles-Guzman. I want to thank you for mentioning the projects that are happening within my district on the Boardwalk, the street raisings in Broad Channel, the soon-to-be street raising in Howard Beach so I just want to stay there for a moment because I do have a question about an Army Corps of Engineer project that was to be conducted to determine what measures should be taken to protect communities around Jamaica Bay including areas I represent such as Rockaway, Broad Channel, Howard Beach, and Hamilton Beach. These areas saw devastating floods during Superstorm Sandy with 7 feet of water in the streets. The Corps moved that study into a much larger New York Harbor study that will take years to go through the process of review and take even longer than that to come to fruition. In the meantime, the communities remain just as vulnerable now as they were in 2012 to storm surge. Is there a way that we can expedite this study or

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launch one of our own so that we can get the district the storm surge protection it deserves?

EXECUTIVE DIRECTOR CHARLES-GUZMAN: Thank you so much for that question, Chair Ariola. Let me just reassure that, again, while we are waiting on the Army Corps Harbor and Tributary study which is examining the variety of projects that can protect across the Harbor, that does not mean that we're not engaging and doing the work that we need to do in communities now to understand what other measures can help keep them safe so just to give you a very quick example as part of that New Normal report following Hurricane Ida, we are working on expanding local flood sensors throughout the city and we have deployed 4 sensors and (INAUDIBLE) in Hamilton Beach via FloodNet. These sensors provide real-time street level flood information to New York City agencies and local residents, emergency response teams, and researchers. The data can inform potential road closures or travel bans, they can alert communities to the need for emergency preparedness and response. Roger Gendron and the Hamilton Beach Civic Association have all been integral in identifying

local locations at risk of flooding for the sensor

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT deployment so that's just one example of the kind of activity that we're continuing to implement in neighborhoods across New York City. We really are not going to put all our eggs in the big coastal protection basket, right, in that one place. Again, as I mentioned for us, this is about a multi-hazard, multi-layered approach, and I think that day-to-day, green infrastructure, community engagement, flood insurance, education, and outreach, all of those things are pieces that come to place as we continue to plan for communities. I will also add before handing it over to Carrie to add more detail if she can, again, we do owe you, the City Council, an adaptation plan for the city, which we plan to release later this year, and, again, what we're trying to do there is just think about that neighborhood, bottom-up engagement needs to happen so that we can identify the set of strategies that neighbors want to see, right, so, again, we're not going to just rely on engineered solutions that the Army Corps is going to propose. We're going to launch a process that can truly engage residents in the kind of work that they want to see in their neighborhoods.

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CHAIRPERSON ARIOLA: I look forward to working with you on that. Thank you.

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EXECUTIVE DIRECTOR CHARLES-GUZMAN: Of course. Absolutely, absolutely.

CHAIRPERSON ARIOLA: I didn't know if it you were kicking it over to Carrie, but...

DEPUTY DIRECTOR GRASSIE: I can add a little. I just wanted to sort of, I know you mentioned the HAT study, and I know it's been frustrating that it's taken so long to sort of get the Jamaica Bay Barrier was sort of, as you mentioned, kicked into the HAT study, but we are very close to the next milestone. Again, as Kizzy mentioned in her testimony, this summer we will see that tentatively selected plan and so not only is that critical to laying out the investments needed by the federal government, it also gives us an opportunity to have something to react to and so it's really critical that we work together to make sure that folks in your community are reviewing that proposal, are commenting on that proposal to really bring the local perspective to the Corps so that we can advance a plan, a project that makes sense for those communities. We really do look forward with

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 71 continuing to work with your office on coordination with the Corps.

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CHAIRPERSON ARIOLA: Thank you so much, and we do have such engaged civic associations. You mentioned Roger Gendron. We have Dan Mundy in Broad Channel and our partners on the Rockaway Peninsula so they were all very much engaged. We've been doing a lot of talking about projects that are funded so what types of resiliency projects do we have that are currently unfunded or underfunded?

take this. Chair Ariola, this is a hard question to answer for sure because, again, resiliency for us is a broad set of initiatives and projects so it spans many agencies and layers of government so what I can say is that all of our coastal resiliency projects are funded and we have a variety of ongoing efforts to find additional funding for our important stormwater, heat mitigation, and coastal resiliency goals. Funding is consistently our greatest limitation so we're always looking to identify new federal and state resources that can help us unlock initiatives that New Yorkers want to see related to staying safe from climate hazards. Think of it this

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 72 way, for us, a tree is a resiliency measure, right, and so is a bioswale and so is that backwater valve and so is the overall coastal resiliency project and so each of those things shows up in a very different budget and a very different agency, and it might not be earmarked resiliency, but what we know is that environmental amenities actually do keep us safe.

They keep us safe from storms, from rain, from heat, and, again, we do take that multi-hazard approach so we will continue to always try to identify funding to make sure that New Yorkers get the environmental quality of life they deserve today.

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in your testimony, you spoke about climate readiness programs and in my district we're very excited and proud to have a living shoreline. Living shorelines and natural and nature-based features help protect coastal communities against flooding and erosion. How are natural resources such as wetlands and living shorelines incorporated into the city's resiliency and development projects?

EXECUTIVE DIRECTOR CHARLES-GUZMAN: Thank you for that question. Wetlands and nature-based solutions are an incredibly important tool in our

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 73 toolkit, and I love them in particular, mosquito-ey as they are, because they provide so many neighborhood co-benefits beyond storm protection, recreation, sustainability benefits, biodiversity benefits so they are central to our approach. We don't only want engineered solutions. We want to incorporate nature-based features as much as we can to help with flooding and erosion, but I want to be fair and see if Carrie has anything to add, if she can provide more specific examples on the location of these projects in your district.

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DEPUTY DIRECTOR GRASSIE: Sure, and maybe

I can just take a moment to also talk about some of
the frameworks and approaches that the city is
taking. It's a great question. The city is absolutely
committed to maintaining and restoring the
waterfronts' natural habitats and ecological
diversity for all the reasons that Kizzy mentioned in
addition to what you mentioned in terms of helping to
slow storm surges and mitigate flooding by trapping
and slowly releasing precipitation and, of course,
helping to slow erosion. From 2013 to 2017, the Parks
Department and the Natural Areas Conservancy actually
assessed the condition of more than 1,300 acres of

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT tidal and freshwater wetlands and 26 miles of streams so they put out the Wetlands Management Framework, which was released last year. It summarizes these indicators of ecological health and really lays a path forward for wetland management in New York City which is so critical. In addition, another sort of tool or approach that has been taken is through the Department of City Planning's Zoning for Coastal Flood Resiliency, or ZCFR, adopted in 2021, and this provides important design tools that enable waterfront sites to support resilient shorelines and healthy coastal ecosystems. Some examples of wetlands and nature-based solutions around the city. One that you might be very familiar with, our partnership again with the Corps, on the restoration of the Jamaica Bay complex of Marsh Islands, which provide wave reduction benefits from storms to all of the Jamaica Bay communities, the new Waterfront Park at Hunter's Point South in Queens that includes a 1-acre tidal wetland and habitat creation, things like the Sawmill Creek Wetland Mitigation Bank, and we could go on, many, many across the city.

CHAIRPERSON ARIOLA: Good. Very good to

know. Thank you. After the devastation caused by

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Tropical Storm Ida, the administration formed an interagency cloudburst taskforce led by the DEP and then Mayor's Office of Climate Resiliency to bring cloudburst management projects into neighborhoods vulnerable to flooding from heavy rain. Feasibility studies were to be conducted with a pub process also to occur in 2022. What is the status of that feasibility study?

DEPUTY COMMISSIONER LICATA: I can take that, Chair. I will start by saying that we are well on our way with this cloudburst study, and we're, again, very excited to really look at the potential here in New York City. We've been studying what was accomplished in Rotterdam, Netherlands and in Copenhagen, Denmark where they were able to utilize both above-ground and below-ground structures that they created that would co-exist within the community for stormwater management, and they have built them to scale. I have seen them myself, and I'm very excited, again, about the possibilities of translating some of that to our communities. What we have done so far is we're looking at those highly vulnerable neighborhoods, and we are also not only looking at them from the environmental perspective or

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT to complement our drainage system, but also looking at them from the social risks and the economic risks that may exist in some of these communities, so really looking to prioritize those neighborhoods that have an aggregation of factors. What we will do is we will start with the engineering work that can be accomplished in those neighborhoods. Normally, that is about where are the locations, where is it possible to site structures, are the soils suitable at those locations, can we network the stormwater management so that we can combine various elements and, again, really exponentially create a system that is really looking to improve the stormwater management in an area. We're very excited about these projects, and we hope to have a very robust public participation process that will begin just as soon as we highlight some of the priority neighborhoods. Then, I would also like just to close by saying we do have some pilots. They're at a smaller scale than what we hope to eventually accomplish, but South Jamaica Houses, which is a NYCHA development, is one of the first where we'll be utilizing a grassy area, also a basketball court to enable us to store and manage stormwater, again the grassy area would just

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COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 77
be allowed to infiltrate, the basketball court would
have below-ground storage so there are some projects

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH

that we are ready to roll out in construction 2023
and 2024 that will start to prove these concepts. I

6 hope I answered your question.

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CHAIRPERSON ARIOLA: Yes, very much so. I really do appreciate the work that you're doing, and I look forward to working with you into the future to make sure that communities like mine and like Chair Kagan's and other inland communities throughout the entire city are storm resilient.

I'm not going to ask questions of New
York City Emergency Management or the DEP because, as
Deputy Commissioner Farrell mentioned, she came out
to the district, met with me, and so did our Chief
Operating Officer Vincent Sapienza of the DEP, so any
question would be redundant. Therefore, I will yield
my time to my Colleagues who have been so patient in
having their hands up.

JESSICA STEINBERG ALBIN, MODERATOR: Thank you very much, Chair Ariola, and thank you, Chair Kagan. I will now call on Council Members in the order that they have used the Zoom raise hand function. If you would like to ask a question and

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 78

have not yet used the Zoom raise hand function,

3 please raise it now.

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Council Members, please keep your questions to 5 minutes. The Sergeant-at-Arms will keep a timer, and I will let you know when your time is up. You should begin once I have called on you and the Sergeant has announced that you may begin before delivering your testimony.

First, we will hear from Council Member

Gennaro followed by Council Member Holden followed by

Council Member Marte. Council Member Gennaro, please

begin.

SERGEANT SADOWSKY: Starting time.

Moderator, and thank you to both of the Chairs and to the great witnesses that we have here from the administration. Kizzy and I go back a long time. I was present when Kizzy got the EPA Lifetime

Achievement Award in 2013 so not only has she been laboring in the vineyard to do good things for the city. It's a pleasure to see you back in this administration. Kizzy, I'd like to thank you for speaking about Intro 76, about the backflow prevention devices and the FEMA-funded study. That is

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 79 certainly good news, but the study is not going to be done until, this is what you said in your testimony, it won't be done until the end of this year or early next year, and it's very difficult for Council Members to go back to their districts and even go to civic associations to indicate that a study is coming in a year or maybe a little less than a year and then we won't move forward until then. The Council may be inclined to pass this bill before then so I think we have to move up the timetable somehow. Otherwise, we're just going to act. If you could speak to that, that'll be great.

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EXECUTIVE DIRECTOR CHARLES-GUZMAN: Sure,

Council Member. I'll start and ask Eric for his

support if he has more specifics on the study to add.

Here's the thing. Again, thank you for your vision

and leadership, and we do think that this is an

important resiliency tool, and it is widely available

to homeowners today. Part of this is, for us, the

study is the way in which we are assessing where it

makes sense to target outreach, what types of

buildings it makes sense to, this will be more cost

effective and more impactful retrofit for, but in the

meantime any homeowner, any business owner that is

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 80 able that wants to put in a backwater valve, they can.

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COUNCIL MEMBER GENNARO: We're certainly aware of that, and, if people could spend thousands of dollars, we're looking for a city infrastructure solution here so please continue. I heard your testimony the first time. I'm just trying to drill down a little bit.

## EXECUTIVE DIRECTOR CHARLES-GUZMAN:

Totally. I get it, and part of it is that for this legislation we are obviously are (INAUDIBLE) There are some restrictions with how we spend city dollars on private property, and this is not something that we normally do. That said, there are programs that already do support low-income and moderate-income homeowners that want to do this type of retrofit, but as it relates to this particular legislation, this is something that our (INAUDIBLE) still very much needs to take a look at to understand the legality of us standing up this program in this way so part of what we're saying is the study is allowing us to also say which agency and who's our best implementation partner, whether it be the state...

COUNCIL MEMBER GENNARO: Right, yeah.

## EXECUTIVE DIRECTOR CHARLES-GUZMAN:

Dollars on behalf of homeowners that need the subsidy, that need the support. We agree with you that subsidizing resiliency investments and sustainability retrofits are critical. The question of what the source is for that is part of what we're working really hard to understand.

COUNCIL MEMBER GENNARO: Okay. I want to roll to my next question. I only got a little more than a minute left. Thank you for that answer. I appreciate working with you again certainly. This is probably a question for Angela from (INAUDIBLE) I would think. You mentioned (INAUDIBLE) Local Law 122 (INAUDIBLE) climate change adaptation plan which is due in September. I passed essentially an identical law 10 years ago, in 2012, Local Law 42 of 2012. It was about climate change and adaptation. That bill was passed 6 weeks before Sandy, and I'm wondering whatever happened to Local Law 42 of 2012. I think that's probably an Angela question.

DEPUTY COMMISSIONER LICATA: Yeah, I believe that you're referring to the Stormwater Management Plan that we developed.

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COUNCIL MEMBER GENNARO: No, no, no. This is not the Stormwater Management. Again, I'll just make a note as I run out of time here for the Committee Counsel to take a look at the fate of Local Law 42 of 2012. The purpose of it was to plan and figure out how to fund and how we partner with people on climate change adaptation. It was basically identical to Local Law 122, and this is one of the frustrations when we're doing 10 years later that which we did 10 years ago and no one knows what happened to it. I'll just make a note for the Committee Counsel. We'll talk more offline and we can follow up, and, with that, I would like to thank both Chairs and the Members of the administration and my Colleagues for being with us today, and thank you all very much.

JESSICA STEINBERG ALBIN, MODERATOR: Thank you, Council Member. We will now hear from Council Member Holden followed by Council Member Marte followed by Public Advocate Williams. Council Member Holden.

SERGEANT SADOWSKY: Starting time.

COUNCIL MEMBER HOLDEN: Thank you, Chairs,

and thank you to the administration for your

COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT testimony. Let's talk about lessons learned and the hybrid approach to deal with flooding. Of the 13 people known to have died in the city from the remnants of Hurricane Ida, 11 were living in basement apartments including a 2-year-old boy who died with his parents in a basement apartment, and I believe 9 or more were from Queens alone and many were close in my district so given this horrible data, has the administration stepped up enforcement of the illegal apartments or have notified them because we're getting into the spring and then, of course, into storm season. Especially in flood-prone areas, are there plans to address the basement apartments considering the deaths we suffered under Tropical Storm Ida? Anyone?

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH

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speak, Emergency Management is not enforcement. I think we will have to probably talk to the Department of Buildings and get back to you on that, but, as I noted, the most important thing to us is preparing all New Yorkers and having them understand what the risks are. By and large, the areas that were flooded and the tragedies that happened during Ida, those were not coastal areas so it's really different

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT areas, but the bottom line is everyone needs to be prepared. As we're in the 21st century, as we keep facing all different types of emergencies, and so we have stepped up our messaging. There were some storms in the fall, October, luckily nothing like Ida obviously, but it let us try out some of our enhanced messaging. We're not afraid to use the Wireless Emergency Alerts, which are the things that intentionally disrupt your phone and people don't have to sign up for those. Those hit everyone's phone. Those are organized through the federal government. They're in English and Spanish so obviously an opportunity for the whole country is to work with the federal government to get those warnings into more languages. We are in the process of going through some federal recommendations and putting in our comments. It was the advocacy of New York City and other large cities across the country that got the messages in Spanish, but they obviously need to go out in many more. While we work on that, we need people to sign up for Notify or we need to figure out the best way to reach them and to understand if an emergency comes, you're either going

to evacuate or you're going to shelter in place.

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Those are pretty much your 2 options, and so different situations call for different action so that is what we do as we get into coastal storm season and, as you noted, spring flooding to work with all of our partners to make sure that we can reach people where they are and have them understand how to become prepared.

COUNCIL MEMBER HOLDEN: DEP doesn't want to comment because, so essentially nothing was done in cracking down or at least addressing basement apartments that are very vulnerable. There are certain low-lying areas of my district and the districts around especially Queens because most of the people living in basements died so it looks like nothing was done. It looks like nothing was addressed so we're just waiting again, and this could happen again, and this is what I'm a little upset about because I knew the answer to this. I knew that nothing's been done so that's alarming. This is something we can address right away. The Department of Buildings gets together with DEP. My second question is does DEP or the administration have plans to use geographic information systems or geospatial technology to kind of predict, if there's a big storm COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 86 coming and it's got a lot of water in it then we need to know the low-lying areas, the areas with a lot of basement apartments which you can ask the Council Members, so we can get this data out to the public to alarm, some kind of alarm system. To lose 9 people in Queens to a storm trapped in a basement. It's a horrible death, by the way, drowning like that in a basement, trapped, in a flash flood, and especially to lose so many, you would think that we would have some kind of emergency steps involved here but apparently not and that's alarming.

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CHIEF OPERATING OFFICER SAPIENZA: Just on geographic information systems and mapping, Council Member, we've heard your concern about that before, and we actually are moving forward. I'll ask Deputy Commissioner Licata to just alk about some of the work we're doing to put some maps together.

DEPUTY COMMISSIONER LICATA: Thank you,
Vinnie. We have been working really hard to present
various scenarios in maps using modeling, and they
are very useful tools for us to show what areas may
be at risk and may be vulnerable based on different
outcomes that we have been plugging into these
models. For instance, we can indicate what might

happen in a rainfall event of a 10-year return frequency, what would happen if that storm occurred during mean high water. We could take another look at a set of scenarios that look at what things might look like if they exacerbate and worsen with climate change predictions. We're able to utilize those tools to now help us with the planning and investments on

the city side with respect to our infrastructure, and

we are now just beginning to look at how we can use

those as a notification tool to the very point that

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH

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you're making.

COUNCIL MEMBER HOLDEN: Okay, so, Deputy

Commissioner, can we work with DOB to address some of
these apartments that we know could flood and we know
that people could be trapped in? Can we warn them in
advance and work with DOB and work with the Council

Members or the Community Boards to kind of address
this in a real program, not just, yeah, we're going
to supply the information but here comes the
hurricane season in June, right, hurricane season is
upon us, and we could get hit with a very similar
storm that, if we don't do anything between now and
then, shame on us.

SERGEANT HOPE: Time expired.

COUNCIL MEMBER HOLDEN: Thank you.

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DEPUTY COMMISSIONER LICATA: We can and we should.

COUNCIL MEMBER HOLDEN: Thank you.

JESSICA STEINBERG ALBIN, MODERATOR: Thank you, Council Member. We will now hear from Council Member Marte followed by Public Advocate Williams followed by Council Member Nurse. Council Member Marte.

SERGEANT SADOWSKY: Starting time.

thank the Chairs and the administration for a really informative hearing. As many of you know, I represent Lower Manhattan, which was seriously affected by Hurricane Sandy, and now 10 years later there are many still questions that community members have. The one question I have today is what is the current strategy or plan for doing geotechnical engineering analysis on buildings after a superstorm to make sure that the integrity of the structure or the foundation is still intact, and, if you do that, is that analysis and information publicly available? This question is mostly for buildings in the Two Bridges neighborhood that some of them experienced almost 10

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 89

feet of flooding and so we know that some of these

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buildings were affected seriously, and we want to make sure that the city either has done that work or will do that work to make sure that the people will remain safe in their buildings as development happens on the waterfront.

## EXECUTIVE DIRECTOR CHARLES-GUZMAN:

Council Member, I do not have an answer to your question today, but I can absolutely circle back with you. I'm wondering if my Deputy Director Wilson has any thoughts, but this is not something I'm aware of. My apologies.

DEPUTY DIRECTOR WILSON: That's correct,
Kizzy. Council Member, the Department of Buildings
conducts damage assessments immediately after events.

I'm not sure to what extent they conduct Geotech
analyses on existing buildings, but they do conduct
thorough evaluations of buildings and the structural
integrity after an event. I'm not familiar with
specific plans in the area that you suggested, and
that's something that we could check on and get back
to you.

COUNCIL MEMBER MARTE: I guess, if you can also find out where this information is being held,

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH 1 COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 2 if it's public if they have it, to make sure that the residents have access to it. 3 DEPUTY DIRECTOR WILSON: Okay, we can 4 5 check on that. 6 COUNCIL MEMBER MARTE: Thank you. 7 JESSICA STEINBERG ALBIN, MODERATOR: Thank you, Council Member. We will now call on Public 8 9 Advocate Williams followed by Council Member Nurse followed by Council Member Paladino. Public Advocate. 10 11 SERGEANT SADOWSKY: Starting time. PUBLIC ADVOCATE WILLIAMS: Thank you. Can 12 13 you hear me? 14 JESSICA STEINBERG ALBIN, MODERATOR: Yes, 15 we can hear you. PUBLIC ADVOCATE WILLIAMS: Thank you so 16 17 much. I just wanted to be clear with my bill, 0534. I 18 think I heard that there wouldn't be support because 19 of logistically not being able to get information. I 2.0 just want to clarify what it was I heard. Before you answer, also, I just want to, it's okay, you can 21 22 answer that question first. Anyone? FIRST DEPUTY COMMISSIONER FARRELL: I 23 didn't say that we don't support it because of 24

logistical concerns. What I said is that coastal

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT storms, the way they come up the coast, we have 3, 4, 5 days notice. There are 400 evacuation shelters and centers in the city. All but one of them are public schools so if we are going to call an evacuation, which the last time we did that was 10 years ago for Hurricane Sandy, it's not a small endeavor by any means. We have to activate a large stockpile so we can keep people safe and fed and housed and everything else, give them a place to sleep. We have to close all the schools. We have to bring in all the people to staff the shelters. We need security. We need transportation to get them there. We need to publicize it as has been noted in culturally competent ways and language so people understand what we are asking them to do and that these shelters are available. Then we need to get them there. We need to do this all before the storm starts so we can ensure people's safety. The nature of a flash flood is that it's forecast, obviously, the way the weather is forecast, it's coming up, and it doesn't, a lot of times, flash flood, if you look at the different warnings and the products that come out, it's not clear that we're going to be in a catastrophic event

like Ida until that event is on top of us, it's

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COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT literally raining, and so it is very difficult, first of all, we don't want to send anyone into danger, especially as been noted people with children, with access and functional needs, and then figuring out a large scale evacuation, we have been looking, we have been thinking about this a lot and looking at how people could safely be evacuated, most likely by first responders who will be putting themselves in danger in those situations and they would need to go to places, many of our evacuation centers that we have for coastal storms, they actually flooded during Ida because they're out of the coastal storm evacuation zone but they were at risk for flooding for that so it's a complicated situation. We want to figure out if people need to leave their basement apartment or their first floor apartment, we can work with them to build that plan. We encourage people to go to family and friends. We have other resources, just like we have someone after a fire or after some type of other emergency...

PUBLIC ADVOCATE WILLIAMS: I'm sorry. My time...

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## FIRST DEPUTY COMMISSIONER FARRELL:

Working. It's just it's not the same as setting up a shelter system for coastal storms. That was my point.

PUBLIC ADVOCATE WILLIAMS: Thank you. I understand what you're saying. I think there has to be maybe some in between because I understand what you're saying (INAUDIBLE) a full evacuation, just making sure that folks have information so, as you mentioned, they might be able to take some measures in their own hands if they understand what could possibly happen so if a full evacuation (INAUDIBLE) may have a couple of texts before that where people can assess but I think doing nothing is a problem (INAUDIBLE) this will be on us if it happens again because this happened too many times, and there are areas in particular that we may want to focus on even if we can't focus on everywhere just to get the information out. I've represented districts on the Council (INAUDIBLE) culturally competent ways (INAUDIBLE) to get information timely, and we have to do the same here. I think it's really important so (INAUDIBLE) do something (INAUDIBLE) also to what Council Member Holden was saying, we do have to do something about basement apartments. I have

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH 1 COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 2 (INAUDIBLE) Council Member Holden is, but we definitely can't act like it's going to happen but we 3 also can't act like (INAUDIBLE) because we have an 4 5 affordable housing crisis so we have been pushing to try to get some money to folks, some information to 6 7 folks to try to (INAUDIBLE) better than it is now. I know that's not all (INAUDIBLE) on this call. In 8 9 addition, (INAUDIBLE) Southeast Queens, my 10 understanding is they still haven't gotten all of the services they needed and some folks still haven't 11 moved back in so we're moving very slowly. That's not 12 13 a question, just a statement (INAUDIBLE) Thank you so 14 much. 15 JESSICA STEINBERG ALBIN, MODERATOR: Thank you, Public Advocate. We will now hear from Council 16 17 Member Nurse followed by Council Member Paladino 18 followed by Council Member Carr. Council Member 19 Nurse. 2.0 SERGEANT SADOWSKY: Starting time. 2.1 COUNCIL MEMBER NURSE: Hi. Thank you, and 22 thank you, Chairs Kagan and Ariola, for hosting this

25 similar to Council Member Holden. I represent the

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important hearing. I have a similar question although

I won't go down the rabbit hole, but my question is

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 37th, and we also had a basement death in Cypress Hills of an elder as well as severe damage along Knickerbocker to businesses and households so just listening in, this is very informative, I'm learning so much, getting a lot of wrinkles in my brain, but I understand that these 2 options of go to family and friends or shelter in place are kind of where we're at for these pluvial flooding or cloudburst, I'm trying to incorporate the language, but I can understand that in these situations we're learning, but I guess I'm just curious for this upcoming season, is there a timeline for an outreach program that we think we could have and, if not, can you provide the Council Members who have high-risk areas for this kind of rain flooding, like a list of targeted blocks? Our team, we're willing to go spend some time, we're willing to do workshops in the community. I think we just need a little bit more of the technical information of where to go specifically in lieu of a clear timeline of when we might see more robust outreach program for the city so that's my question.

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FIRST DEPUTY COMMISSIONER FARRELL: I can start and then if anyone else may have some things.

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT Like I mentioned, Emergency Management, our staff, we also have fabulous volunteers, community emergency response team volunteers, CERT, and there's actually many more of them than there are of Emergency Management staff. They're happy and we're happy to come out with you to do the work with you at different events, and really everyone at the city is at risk for different emergencies so we can look at what was hit during Ida and Isaias and other things, but everyone needs to be prepared. I will also say that as some of the work looking at COVID and the impacts on emergencies on different populations, we started a project at Emergency Management last year called Strengthening Communities, and that gives us money that then we fund community groups. We did a pilot with 9 last year across the boroughs. We've added 7 a couple weeks ago and then we're really ramping up to dozens of more groups in 2023, starting in July, and the idea behind that is we're not going to ask community groups that already get asked to do so much to do another unfunded project just because it's important. We're able to give them funding, and they can work with us to really understand the planning process for their district, to be with us in

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COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 97 the emergency operations center during an event to help with the messaging and to get information back, and then during the recovery process. Like I said, we have 17 right now, and we're building more, and that's definitely a great partnership where we can get electeds and others involved so we can follow up more specifically on the work that we're doing on that side, but this is very labor-intensive work, working building by building, household by household, but we're there and we want to do that with you.

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COUNCIL MEMBER NURSE: I just have a question, my last question with the time, can you just share a little bit more about those response teams, the CERT team? Does each community district have one? Are they all trained and resourced the same way or is it mostly held like kind of a central space?

FIRST DEPUTY COMMISSIONER FARRELL: Yeah, no problem. CERT has been around across the country since the '80s. It was started on the west coast to help with forest fire fighting, and it came to New York City, to Emergency Management, in 2003 after 9/11. It is centralized through Emergency Management through our community preparedness, but it's all

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH 1 COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 2 volunteers. They are trained by police officers, 3 firefighters, EMTs, and Emergency Management in different types of emergency preparedness and 4 response and then they're divided into divisions, and 5 we constantly do training, we do drills, and then 6 they go out. They were great helping us with the Bronx fire. They did a lot of work after Hurricane 8 9 Ida. They do a lot of preparedness work so if you're not familiar with CERT and who the CERT leaders in 10 your community are, our Intergov team will definitely 11 12 follow up with you, and we just started a training 13 cycle a couple weeks ago so we can also let you know 14 the process for your residents. You just have to be 15 18 years old is pretty much the requirement and live or work in the city, but we can certainly get you 16 17 more information on that. 18 COUNCIL MEMBER NURSE: Thank you. 19 JESSICA STEINBERG ALBIN, MODERATOR: Thank 2.0 you, Council Member. We will now hear from Council Member Paladino followed by Council Member Carr. 2.1 22 Council Member Paladino.

COUNCIL MEMBER PALADINO: Good afternoon, everybody, and this was a terrific meeting. Thank you

SERGEANT SADOWSKY: Starting time.

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COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT to Council Member Kagan and Ariola. A very, very, very informative meeting, very important meeting. Here in District 19, we are surrounded by water. I am a coastal district on the Long Island Sound. We go from College Point to Little Neck, Douglaston, but, however, this is not about my coast. We're doing very well here. Our flooding is not due to our coastal shorelines. Our flooding, especially during Ida, we took a big hit in this neighborhood, huge hit in this district, and so my questions are going to be more for Emergency Management and DEP. We had a lot of people lose major portions of their homes, their cars, 2 people almost died in a basement apartment if it wasn't for a neighborhood, another hysterical neighbor, they actually broke down the basement door with an axe because the water was up to 8 feet high, he and his son. These are normal neighborhoods that have never had this happen before ever, and my question is this. How many trucks does the DEP have going around that actually clean out the storm catch basins? That's my first question. I have another question. Earlier in the meeting here, somebody said, I believe it was you, Commissioner Vincent, about the sewer systems, that it's not so much the catch

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COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT basins, you're doing what's necessary with the catch basins, but you said it was the sewer systems so like a homeowner, every once in a while we have to snake out the drains so the same thing holds true for sewer systems so I'm just wondering how often is this work done. A few decades, I remember that these trucks used to go around, it amazed us as younger people, it amazed us when we got older, but they were cleaned at least once or twice a year. They would go down with the big dowels and they would pick up the debris and you know how the population has grown and it's really, we're overpopulated and that's added to it but how do I answer my constituents as they're washing machines, I mean you're talking about refrigerators, washing machines, cars floating in the street, in Whitestone, in Little Neck, in Douglaston, unheard of, absolutely unheard of, how could you help me answer a constituent with these questions as their homes are floating but most important of all too how do they answer their insurance companies?

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CHIEF OPERATIONS OFFICER SAPIENZA: All great questions, Council Member Paladino. I'll just start, we'll talk about the cleaning and maintenance that we do at DEP. As you noted, you said when you

COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT were younger you saw those devices. We still have those. We call them clamshells on a crane, and we continue to do good maintenance on cleaning catch basins, we clean sewers, we flush sewers. In Ida, unfortunately, the amount of rainfall that fell was just beyond the capacity of the catch basins and sewers. Generally, our sewers are built to hand about 1.75 inches of rain per hour. Ida was more than 3 inches per hour. Catch basins and sewers were just full, and what happens there is then water can't get down the drain, it runs off down the street and where does it run to, the low point. So if you live in a hilly community and you're at a lower point, water's going to come downhill towards you and, unfortunately, that's what happened in some parts of your district and we heard from ...

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH

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absolutely unbelievable because we've never got hit before. Thank God, Sandy didn't hit us, we've had a few little patches of tornadoes that come through in a minute or two and they're done with, but never has my community seen, and I've been living here 68 years, never have I seen anything quite like Ida. It ripped off the tops of, you know how the gas stations

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 102 have those canopies over the, those came down. I know that it's, but everybody says they never see their catch basins get cleaned anymore and what happened too also was when DEP trucks, how many DEP trucks are assigned to the borough of Queens and particularly to my district and how often do the catch basins get cleaned and, if you can't answer me now, that's perfectly fine, but I need to give back. I need to have answers, and that's when I was campaigning back in September and I was being taken from pillar to post but I'd like you to answer that for me quickly if you could.

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CHIEF OPERATIONS OFFICER SAPIENZA: Sure, yeah, yeah, sure.

SERGEANT SADOWSKY: Time expired.

CHIEF OPERATIONS OFFICER SAPIENZA: I don't have the number of trucks, but the catch basins, we have a crew of 28 people who deal with the inspections and they get cleaned when they need to be, but you mentioned you've never seen anything like Ida before, none of us have, it was the highest rainfall in an hour that New York City has ever experienced, but our concern is going forward there's going to be more Idas because climate is changing and

we're going to see heavier storms and we have to prepare for that.

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COUNCIL MEMBER PALADINO: All right. We'll be in touch. Thank you so very much for your time. Thank you. Thank you.

JESSICA STEINBERG ALBIN, MODERATOR: Thank you, Council Member. We will now hear from Council Member Carr.

SERGEANT SADOWSKY: Starting time.

Thank you to Chairs Kagan and Ariola for presiding over this really critical hearing. My district was very badly hit during Sandy and in Hurricane Irene the year before so we learned the dangers of tidal surge and then last year we learned the challenges we face with respect to rain and neighborhoods that are not anywhere near the waterfront being particularly vulnerable. In spite of maybe being the beneficiaries of recent sewer upgrades, particularly storm sewer upgrades, and it's sort of begging the question and Chief Sapienza, it's always good to see you, what are we doing in terms of reevaluating coming capital projects to upgrade our sewer infrastructure that are

maybe going to be designed to handle more than that

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 104

1.75 inches of rain per hour, more than that 5-year

3 storm that our storm sewers typically are engineered

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CHIEF OPERATIONS OFFICER SAPIENZA: It's good to see you too, and thanks for the question. You're right. That 1.75 inches per hour has been our traditional design strategy, but we know going forward more intense storms, we're going to have to look to see how we optimize that, where we can put in larger sewers going forward we will. Again, in certain smaller residential streets, it's tough to build bigger sewers so we want to look at what other options we have, particularly in Staten Island, the Bluebelt solution seems to work well and we want to continue certainly to do more of that where we're building detention ponds to help with those intense storms. We have to look at, again, a variety of tools. It's not just building bigger pipes.

COUNCIL MEMBER CARR: No, I agree with you. The Bluebelt has been a success, and it'll be even more so when more of them come online and I appreciate the work that DEP and then in the future the Army Corps are going to be doing on that, but in terms of, you making points about retention ponds, we

do have naturally occurring lakes and ponds in my district. We have Brady's Pond and Cameron Lake over in Grasmere. We have the Willowbrook Pond Park which is city parkland. We've heard for years from residents and from some folks in government that we could really use some dredging in these areas, and is that something that DEP can look at in terms of coordinating, whether it's with a private owner like the Cameron Club or City Parks about seeing what we can do to really help get more drainage and more volume in those ponds by dredging?

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH

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CHIEF OPERATIONS OFFICER SAPIENZA:

Another good point. We'll follow up with you on that.

We have been talking to the Parks Department about

leveraging some of their ponds and lakes that they

have so we'll circle back on that one.

COUNCIL MEMBER CARR: Okay. I appreciate that. Couple of more questions. My predecessor, Steve Matteo, financed pump trucks because we have really severe ponding locations that have been recurring for a long period of time and as you know these below the boulevard neighborhoods haven't been able to have traditional sewers and so as a bridge to ultimate Bluebelt activation, he funded these trucks to come

COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 106
and pump really severe ponding locations. Is DEP
looking at maybe getting more of those vehicles

because we already have too many sites for them to go

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH

5 to with the 2 I think that we have in the borough.

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CHIEF OPERATIONS OFFICER SAPIENZA:

Another good issue that you've raised. Certainly, we've been looking going forward when there are significant storms to preposition some of the pump trucks we have and potentially look at getting more. One thing I wanted to raise to you is Lake Grimsby, hopefully it won't be a lake anymore. We've done some work there. Last couple of rainstorms that we've had, it looks pretty good so we'll stay on top of that location as well.

That's the most infamous example, and I look forward to that being just a memory in the minds of residents. I guess my last question is a lot of the flooding that took place in the storms last year was in Westerly. I know DEP and DDC just announced a Forest Avenue project, and I look forward to our walkthrough in the neighborhood coming up, but I just wanted to kind of put on your radar and if you could go into a little bit about what we think we can do in

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 107 terms of catch basins and coordinating better with DOT about really pitching streets when they do their resurfacing to make sure that water is actually flowing to these basins that DEP installs or might already have in the area and what DEP does in terms of talking to DOT when a paving happens to make sure that that engineering aspect is being taken into

account when the work gets done.

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(INAUDIBLE) We certainly need to all do a better job,
DEP, DOT, and the Department of Design and
Construction just to make sure that when we're
delivering these big projects that we do it right,
and we'll continue to make sure that we have boots on
the ground. When roadways are resurfaced or new
roadways constructed, that the crowns and the pitches
are all right to get water to catch basins.

SERGEANT SADOWSKY: Time expired.

COUNCIL MEMBER CARR: I appreciate that. I thank the Chairs for their time, and I just want to take this opportunity, Chief Sapienza, just to thank your team, Mario Bruno, Steve (INAUDIBLE), Jeff Jay, and the other guys in operations in the borough. They always do phenomenal work, and I thank you.

2 CHIEF OPERATIONS OFFICER SAPIENZA: Thank

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JESSICA STEINBERG ALBIN, MODERATOR: Thank you, Council Member. I will now turn it back to Chair Kagan for additional questions.

CHAIRPERSON KAGAN: Thank you, Jessica. Before we go to public testimony, I'd like to ask 2 more questions to Office of Climate and Environmental Justice, and they're related. One is any central location, maybe on internet, website where the public can view information about all of these resiliency studies, all of these federal studies? They're very important. Is there any kind of central location where the public can view all of these locations and studies? That's first question. Second, everybody's new (INAUDIBLE) a new Council Member, even the office itself of Climate and Environmental Justice is new, but do you see any kind of gaps 10 years from Superstorm Sandy that we still have work to do in terms of improving our resiliency and preparedness for future storms and hurricanes?

EXECUTIVE DIRECTOR CHARLES-GUZMAN: Thank you for that question. Let me reiterate something I mentioned earlier briefly, which is that again for

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT us, we take a multi-approach, it's like a multilayered approach to resiliency so we don't maintain a list of resiliency projects all in one place so to us the tree planting that we do as part of Cool Neighborhoods NYC, for example, that's a resiliency project. However, we don't maintain that list, but our portfolio expands to so many different agencies that we are trying to look at ways that New Yorkers can access this information in a more transparent way and also an easier way so I think that especially as we do the adaptation plan that we owe you later this year, we're thinking about how to communicate this information to New Yorkers in the simplest format and making changes to our website to make sure that we can really talk about our projects in ways that make more sense to the neighborhoods that we're serving, but, sadly, we don't have a big repository. That said, the Emergency Management has their Mitigation Action Plan and then there's the Office of Management and Budget's Sandy Funding Tracker so there are a couple of sites that do direct us to the federal funding that we have received and so we can share that with the Chair and the rest of the Council if

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they're interested.

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CHAIRPERSON KAGAN: And my second question was about do you see some kinds of still major gaps that should be filled. Again, it's the 10-year anniversary this year from Superstorm Sandy, and do you see some gaps that we are still not ready for major superstorm if it hits, God forbid, tomorrow so what do you see the priority like, what do you see the gaps that still exist in terms of storm preparedness.

EXECUTIVE DIRECTOR CHARLES-GUZMAN: I'll take this as an opinion and let my Colleagues jump in from their perspective. Again, I think that we have done a tremendous job in the last 10 years trying to get us ready for that next large-scale event, but, at the same time, one thing that I think we are really thinking about more is flood insurance so there have been so many questions today about catch basins and all of that, I think we all are thinking really about the big project that is going to keep the water out. I think ultimately we also need to ensure that New Yorkers have the tools to be able to bounce back and to have their investments protected and sometimes flood insurance can help that, and I think that there's a lot of misconception about flood insurance,

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that it's only for areas in the coastal plain, but it's really for anyone, and it does cost something, but I think it is the first step. That is one of the reasons why our office has put in so much effort to doing targeted outreach and expanding our marketing, social media, trainings, community events, really trying to get homeowners educated on this issue, the importance of having flood insurance. We absolutely value and really appreciate the Council's partnership on this because we need the way that we are accessing your constituents and making them aware that flood insurance is the way that they can try to protect themselves when this is happening because we do expect extreme weather events to get more common in the coming years. So to me, I see that as a gap but also thinking about as residents, how do we bring them more into the fold of the protective actions that we need to take to keep each other safe and creating those networks of support, strengthening the social resiliency for our neighborhoods.

CHAIRPERSON KAGAN: Okay. I thought more like building sea walls, something like this. Flood insurance is very, very, very important, of course, and I recall there was an issue in some areas that

people, homeowners, couldn't even obtain flood insurance in the first place and it was an issue in 2012 as well, but I thought you would talk something about like building some protective measures, sea walls or something like this, that's what I thought.

## EXECUTIVE DIRECTOR CHARLES-GUZMAN:

Everybody wants a sea wall. Again, we are excited to see what the Army Corps is going to propose this summer. Again, it is not the end-all, be-all. We are thinking about adaptation planning in a more comprehensive way. Again, I think that there is a way that we think that these large infrastructure projects are the only solution, these large engineering solutions are the only thing that will keep us safe. We're trying both things, right, so bottom-up, neighborhood engagement, neighborhood planning, engagement with your local leaders and with you guys, the Council Members, to ensure that we're also bringing in benefits today so that we're not just waiting for this wall that will take 25 years to be constructed so when the Army Corps comes out with their proposal, we'll comment on it. We will absolutely welcome your partnership to ensure that we

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have a robust showing as a city to provide comments on their proposals, and we'll take it from there.

CHAIRPERSON KAGAN: Okay. Thank you very much. Of course, we will need to come back to this issue maybe later this year because work is ongoing so I would like to turn now again to Committee Counsel Jessica Steinberg Albin for public testimony.

JESSICA STEINBERG ALBIN, MODERATOR: Thank you very much, Chair, and thank you to the administration.

We will now turn to public testimony. I would like to remind everyone that unlike our typical hearings we will be calling individuals one-by-one to testify. Each panelist will be given 5 minutes to speak. Please begin once the Sergeant has started the timer.

Council Members who have questions for a particular panelist should use the raise hand function in Zoom, and I will call on you after the panelist has completed their testimony.

For panelists, once your name is called a member of our staff will unmute you, and the Sergeant-at-Arms will give you the go ahead upon setting the timer. Please wait for the Sergeant to

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 114 announce that you may begin before delivering your

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testimony.

We will first hear from Tyler Taba of the Waterfront Alliance followed by Michael Silverman of Amalgamated Warbasse Houses. Tyler Taba, you may begin when the Sergeant calls time.

SERGEANT SADOWSKY: Starting time.

TYLER TABA: Thank you. My name is Tyler

Taba, Senior Manager for Climate Policy at Waterfront

Alliance, an alliance of more than 1,100

organizations, businesses, and individuals.

Waterfront Alliance is a leader in waterfront

revitalization, climate resilience, and advocacy for

the New York, New Jersey Harbor region. We're

committed to sustainability and to mitigating the

effects of climate change across the regions hundreds

of miles of waterfront. We spearhead the Rise 2

Resilience Coalition of 100+ groups advocating for

policy related to climate resilience and we also run

the Waterfront Edge Design Guidelines program for

promoting innovation in climate design.

Thank you for the opportunity to testify at today's hearing regarding storm preparedness. I'd like to address the need for adequate funding levels

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 115 in New York City's budget that reflect the commitment to overall climate preparedness. A climate-resilient budget lays the foundation for storm preparedness by making long-term investments in community engagement, green infrastructure, green infrastructure upgrades, and climate adaptation. These pre-storm investments are extremely important when we talk about preparedness.

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New York City's preliminary budget
proposal urges fiscal responsibility for New York
City, but, without proper investments to fund
resilience and adaptation, we will spend billions of
dollars in recovery efforts following storms that
frankly we're unprepared for, like Sandy, Ida, and
Henri. Store preparedness means investing in
protection upfront.

For starters, we must ensure that New
York City understands where vulnerabilities exist at
a hyper-local, community level through data
collection, analysis, and neighborhood planning and
engagement. This process is taking place in some
neighborhoods already, but a coordinated fully funded
plan for citywide adaptation and resilience that can
be completed within a reasonable timeframe does not

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT exist. Last year, the City Council passed Intro 1620 which is now Local Law 122, that establishes a 5borough climate adaptation plan to be led by the Mayor's Office of Climate and Environmental Justice that gets exactly to this point. Local Law 122 has the potential to be the backbone for climate resiliency in New York City but only if adequately funded, sustained, and prioritized. More specifically, we strongly recommend the neighborhood planning component of this plan remain at the forefront of the city's holistic approach to advancing solutions that will allow New York City to solve overlapping environmental, social, and economic challenges simultaneously. Again, I want to emphasize that this will be a long-term ongoing process that has to be funded and sustained at the city level. Along the same lines, New York City must

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Along the same lines, New York City must be prepared to leverage historic levels of federal funding that are being made available for resiliency and adaptation projects. There is no single solution for climate change, especially along 520 miles of diverse coastlines in our city. Part of the process of leveraging federal funding is outlining clear and well thought out projects. For this reason, we

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 117 encourage stronger collaboration among city agencies, lawmakers, and communities to plan and secure funding for innovative projects that protect areas most unprepared for the impacts of climate change.

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In the near-term, the city must prepare to respond to the upcoming release of the proposed designs of the New York, New Jersey Harbor and Tributary study and what it means for our region. In May, the Army Corps is set to release their tentatively selected plan for this massive infrastructure project, and as the region is facing a confluence of heavier precipitation, sea level rise, and storm surge, multi-layered solutions will be needed in this plan. About 2 years ago, the Corps proposed as a part of several alternatives a massive storm surge barrier as a part of this HAT plan. The goal for this project is to "investigate measures to manage future flood risks in ways that support longterm resilience and sustainability of the coastal ecosystem and surrounding communities and reduce the economic costs and risks associated with flood and storm events." Waterfront Alliance does not support a storm surge barrier alone for the Army Corps' response to this goal. Based on the timeline that

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 118 we've seen, we're calling for an extension of the Corps' public engagement process, and we also encourage the City Council to call the Army Corps for a hearing once the HAT proposal is introduced. New York City should coordinate strongly with the Corps to ensure that the New York, New Jersey HAT works in tandem with and is complementary to the efforts the city will undertake to develop and implement multiple climate hazard resilience projects in the most vulnerable communities.

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Regarding Intro 76, Waterfront Alliance supports the establishment of a program to provide financial assistance for purchasing and installing backwater valves. Affordable solutions for climate retrofits like the one being proposed in that bill are necessary to protect flood-vulnerable communities.

As I mentioned earlier, there is no single solution to tackling climate change. We are supportive of increasing resilience and adaptation retrofits that address sea level rise and flooding concerns. This includes the installation of green infrastructure, basement filling, home elevation, raising mechanicals, flood vents, and backwater

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 119 valves. Not only do these retrofits protect residents but they also save money by reducing damages during flood events, and they can also save money for residents through reduction in their insurance rates.

I encourage the City Council to consider outreach to communities, especially environmental justice communities, when rolling out these programs. Information should be shared in multiple languages to ensure that residents understand how these retrofits are helpful.

In summary, New York City must view climate solutions through a holistic, comprehensive lens. City agencies and lawmakers need to speak with New Yorkers before disasters to discuss how they can be prepared for storms. Being physically out in the community is still the most effective way to...

SERGEANT SADOWSKY: Time expired.

TYLER TABA: Support residents, understand their needs, and work together to find solutions.

When there's a way for homeowners and residents to be more resilient to climate change, an incentive or technical assistance program should follow. Climate solutions will include planning, funding, natural,

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COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 120 and hard infrastructure. Like our coastlines, they

have to be unique and diverse.

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Thank you for the opportunity to present on these topics, and I look forward to having a conversation with you.

JESSICA STEINBERG ALBIN, MODERATOR: Thank you for your testimony. We will now call on Michael Silverman. Michael Silverman, you may begin when the Sergeant calls time.

SERGEANT SADOWSKY: Starting time.

and Chair Ariola, and to the entire Committee for allowing me a few minutes at today's hearing. My name is Michael Silverman, and I am President of the Board of Directors at Amalgamated Warbasse Houses, a Mitchell-Lama co-op located in Southern Brooklyn, Coney Island. Warbasse is situated on 26 acres, is five 24-story buildings with almost 2,600 apartments and approximately 8,000 residents plus professional spaces and our own shopping center. We are also a NORC community, naturally occurring retirement community, with largely senior population. We are also completely off the grid as we provide our own hot water heating, cooling, and energy from our own

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT steam turbine power plant. We do not have a hookup to Con Edison. Our power plant provides all of our energy. The steam turbines generate the 4,160 watts to each building's electrical substation which then converts it to normal current and sends the power into each apartment and common area. Since today's hearing is at least partly about resiliency and waterfronts, let me take you back to October 2012. This is the day that we were hit by a huge storm combined with raised sea levels. Superstorm Sandy had laid waste to most of the eastern seaboard, but Warbasse, being only 2 blocks from the ocean, was absolutely devastated. Back in the '60s when Warbasse came online, no one thought twice about placing these substations below ground level. As you can imagine, each transformer was wiped out by the seawater. By that time, Coney Island Creek had risen to extreme levels and began to flood the lower level of our power plant which was only about 100 yards away. Quick thinking by our power plant staff immediately shut down the power plant, thus preventing a catastrophe both there and with our substations. However, this plunged our residents into darkness, no

lights, no heat, no elevators, and no water to drink

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COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT or even to flush the toilets. You see, while the ocean had flooded our buildings and elevator shafts, it was the rising levels of the creek that forced us to shut down the power plant. With residents stranded both downstairs and within their apartments, our emergency plans were immediately put into effect. We had residents that required oxygen, seniors that needed food and water, residents stuck in elevators and in their apartments, and pets that needed walking. There is nothing darker than a high-rise hallway without lights after the backup batteries have gone dead. Immediately that night we went out to try to secure 6 diesel generators, one for each building and one for the shopping center. Of course, everyone else was too. We called out to all of our elected officials at the time, both here and in Washington, but there were none to be found. In the meantime, our security and maintenance personnel were helping people climb the stairs and reassuring those stuck in their apartments, offering what little help they could give at the time. After a day or two, our local Councilman was able to deliver some fresh water, some food, and badly needed volunteers to

deliver the water and assistance. A few days or so

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COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT later, a plumbing company was able to get us 4 diesel generators, and a resident who happened to work for the city made us aware that there were generators at the site of the New York City Marathon and was able to secure one through OEM after the race was cancelled. So long story short, we were basically forced to fend for ourselves and residents. We were able to get partial power to the buildings, allowing for limited elevator service and started the water flowing as well as the heat. Ultimately, we were reimbursed by our insurance company for the rental fees of the generators. At this point, we needed to raise and build our substations 8 feet above ground plane and replace the underground feeder cables from our power plant to each building, which by now was swimming in salty seawater. Since insurance would only cover rebuilding as like, we were stuck with a huge bill of 500,000 dollars for each substation, of which we needed 5, which forced us to get a bridge loan from the AFL-CIO to pay for it. This was the start of a very long process, both financially and engineering-wise. Today, our substations...

SERGEANT SADOWSKY: Time expired.

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MICHAEL SILVERMAN: Are 8 feet above floodplain, let me just finish this, and, I'm sorry. Today, our flood stations are 8 feet above floodplain, our power plant is more storm-hardened than before Sandy, moving critical-to-the-operation machinery to the second level. We have built our own email, voice, and text blasts with emergency broadcast to our residents notifying them of impending weather issues and updates. However, to be honest, this body must do more to help provide funds and grants to help finance the way to make our neighborhoods more resilient to these events. It's not about passing another Local Law on the backs of people already overburdened with higher costs of insurance, it's not just about the buildings, it's about critical and quick action. It's about outreach. It's about subsidized flood insurance costs. It's about the people that count on this body to help them. Thank you for your time. I yield back to the Chair.

CHAIRPERSON KAGAN: Thank you, Michael Silverman. I have question for you. Besides I see need for investments even now from city, state, and federal governments to continue to rebuild all of

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT these issues that you mentioned 10 years ago, but, right now, we have on virtual hearing Christina Farrell, she's the First Deputy Commissioner of Office of Emergency Management, and what you just described in the first few days after Superstorm Sandy, do you think in terms of notification, in times of like coordination between agencies, anything could be done differently today to prepare for possible evacuation, any kind of measures that will mitigate, that will make it less chaotic next time if anything like Mother Nature gives us happens? MICHAEL SILVERMAN: Well, certainly in my opinion, anything is better than what happened then because there was no coordination. We were left alone. We did not even see the National Guard here. If it wasn't for the local Councilman bringing in some people to help us, to help our seniors, to help our residents, we did not hear from any city agency at all except when it came to OEM getting us that additional diesel that was so important.

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CHAIRPERSON KAGAN: That was my question, and you basically answered my question. Much better coordination is needed, much better notification needed. Thank you for your testimony, but my next

1	COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 126
2	question, like followup, I would like with Christina
3	Farrell because I hope she's still with us. Is she
4	still with us? Christina Farrell from the Department
5	of Emergency Management, are you still with us? Did
6	she leave? It looks like she left, yes.
7	CHAIRPERSON ARIOLA: She may have just
8	stepped away from the computer. We'll give her a
9	moment.
L <sub>0</sub>	CHAIRPERSON KAGAN: Okay. We can let
11	Michael, thank you so much for your testimony, and i
12	was very educational I would say for many folks
L3	CHAIRPERSON ARIOLA: Chair Kagan, she's
L 4	back.
L5	CHAIRPERSON KAGAN: Grandiose plans. She's
16	back. Good.
L7	FIRST DEPUTY COMMISSIONER FARRELL: Sorry
L8	about that. I had to take a call.
L 9	CHAIRPERSON KAGAN: Did you hear testimony
20	by Michael Silverman.
21	FIRST DEPUTY COMMISSIONER FARRELL: I
22	heard a little bit of it. I had to take a call in the
23	middle. Do you have a question for me? I'm sorry.
24	CHAIRPERSON KAGAN: To summarize, Michael

Silverman is Board President of Amalgamated Warbasse

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH 1 COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 2 Houses a few blocks from the water I would say. He described... 3 FIRST DEPUTY COMMISSIONER FARRELL: I know 4 5 Warbasse. 6 CHAIRPERSON KAGAN: (INAUDIBLE) in the 7 first few days after Sandy, and I asked him what could be done differently now in terms of 8 9 coordination between city agencies, in terms of 10 notification of residents, in terms of any notification, and I want you also to comment on this. 11 12 FIRST DEPUTY COMMISSIONER FARRELL: For 13 sure. One of our main CERT members lives in Warbasse, 14 and so we've done different work with them, but 15 there's always more to be done so maybe the best thing, Michael, is if I get your information and you 16 17 and I talk about different ways that we can 18 collaborate and some preparedness or events we can do 19 to help the development. 2.0 MICHAEL SILVERMAN: Certainly. FIRST DEPUTY COMMISSIONER FARRELL: I'll 21 22 get your information from Councilman Kagan, and we 23 can get in touch and work together. 24 CHAIRPERSON KAGAN: Thank you, Mr.

Silverman. Thank you very much for your testimony.

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MICHAEL SILVERMAN: Thank you.

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CHAIRPERSON KAGAN: That's all. I believe

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we don't have any more public testimony.

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JESSICA STEINBERG ALBIN, MODERATOR: Yeah.

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I just have to do one announcement, Chair Kagan,

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before turning it back to you. Thank you. Thank you

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for your testimony.

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If we have inadvertently missed anyone

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that is registered to testify today and yet to have

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been called, please use the Zoom raise hand function,

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and you will be called in the order that your hand

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has been raised.

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Chair Kagan and Chair Ariola for closing remarks.

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6 Chair Kagan.

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CHAIRPERSON KAGAN: Thank you very much,

Seeing none, I will now turn it over to

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Jessica. I would like to say first of all again thank

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you to Committee Counsel Jessica Steinberg Albin,

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Senior Policy Analyst Patrick Mulvihill, Senior

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Finance Analyst Jonathan Seltzer, and my Legislative

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Budget Policy Director  $\underline{\text{(INAUDIBLE)}}$  as well as to the

23

staff of the Fire and Emergency Management Committee

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and, of course, my co-Chair of this hearing, Council

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Member Joann Ariola, and all Council Members who

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 129 participated, Council Member Schulman, Council Member Marte, Council Member Gennaro, Council Member Riley, Council Member Rivera, Council Member Nurse, Paladino, Public Advocate Williams, Council Member Feliz, Carr, De La Rosa, Holden, and Yeger.

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Today's hearing was very important. It was the first step in this discussion, and, of course, we have a lot of new Commissioners and even newly created Mayor's Office of Climate and Environmental Justice, but New Yorkers still cannot wait. Mother Nature is not waiting for us. We're still facing a lot climate changes and a lot of problems and a lot of major natural disasters so we cannot wait for 20 years or 30 years until we come up with a plan to prepare for future problems. I believe today's testimony, today's questions, and today's hearing was the first step in working together with the administration, community leaders, and everyone who believes that we need to do more to prepare New York City for future storms and natural disasters. I would like to thank each participant, and we will do even more on Council side and we will work closely with all agencies. Thank you for your attention. We will come back to this topic definitely by the end of

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 130 this year because a lot of work to be done on every level of government. We need assistance, clearly assistance from state and federal government as well.

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Thank you so much.

I would like now to yield to my great co-Chair, Council Member Ariola.

CHAIRPERSON ARIOLA: Thank you, Chair Kagan, and thank you for really pushing hard to make sure that we had this joint Committee hearing. It was an extremely informative hearing. We had so many of the agencies on, and I want to thank the agency heads for coming on and being prepared with real answers to real questions from this body. I think that we've really learned so much in that what has happened in the 10 years, where we needed to fill gaps, where we needed to implement resiliency projects, how we needed to do outreach for emergency preparedness, and how we can work together as a Council, as a civic, as a Community Board, as an agency, work together to make sure that we never see the devastation that we saw during Hurricane Sandy and most recently Ida. What I think is most important that came out of this meeting today is that we are now aware of the

nontraditional flood zones, and we have to really put

COMMITTEE ON RESILIENCY AND WATERFRONTS JOINTLY WITH COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT 131 that as part of our package for outreach and for mitigation to make sure that areas like my Colleague who represents Forest Hills, Lynn Schulman, has who was devastated through Storm Ida that these inland flood zones like Bob Holden's area, like a great portion of my District, we really have to work with the Department of Buildings and perhaps at our next hearing, Chair Kagan, our next joint hearing we have Department of Buildings present so that we can address the areas where lives were lost. I want to thank all of you. I want to thank Council staff, our Sergeant-at-Arms, and everyone from the public who came on to make this a worthwhile and informative

CHAIRPERSON KAGAN: Thank you, Council
Member Ariola. Thank you for your leadership, and I
would like to conclude this hearing. It is the first
step. It is the first hearing on this topic, not the
last one, and thank you, again, to all attendees. At
this point, I would like to adjourn this hearing.
[GAVEL]

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hearing.

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World Wide Dictation certifies that the foregoing transcript is a true and accurate record of the proceedings. We further certify that there is no relation to any of the parties to this action by blood or marriage, and that there is interest in the outcome of this matter.



Date June 2, 2022