CITY COUNCIL
CITY OF NEW YORK

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TRANSCRIPT OF THE MINUTES

of the

COMMITTEE ON HOUSING AND BUILDINGS

COMMITTEE ON ENVIRONMENTAL PROTECTION

COMMITTEE ON PARKS AND RECREATION

COMMITTEE ON TRANSPORTATION

COMMITTEE ON WATERFRONTS

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June 27, 2013 Start: 10:09am Recess: 2:27pm

HELD AT:

Council Chambers

City Hall

B E F O R E:

ERIC MARTIN DILAN

Chairperson

COUNCIL MEMBERS:

John Doe

Council Member Peter Koo

Council Member Daniel Garodnick

Council Member James Vacca Council Member Letitia James

Council Member Ydanis Rodriguez

Council Member Gale Brewer

Council Member Oliver Koppell Council Member Margaret Chin

Council Member Jessica Lappin Council Member Vincent Gentile

Council Member Jimmy Van Bramer

Council Member Leroy Comrie

Ubiqus 22 Cortlandt Street – Suite 802, New York, NY 10007 Phone: 212-227-7440 * 800-221-7242 * Fax: 212-227-7524

APPEARANCES

COUNCIL MEMBERS:

Council Member Rosie Mendez
Council Member Deborah Rose
Council Member Brad Lander
Council Member Robert Jackson
Council Member Michael Nelson
Council Member James Gennaro
Council Member Elizabeth Crowley
Council Member David Greenfield
Council Member Darlene Mealy
Council Member Melissa MarkViverito

A P P E A R A N C E S (CONTINUED)

Tokumbo Shobowale. Chief Business Operations Officer City of New York

Seth Pinsky, President New York City Economic Development Corporation

John Lee Deputy Director Mayor's office of Long-term Planning and Sustainability

Cecil Scheib Urban Green Council

Dottie Harris. Vice President State and Local Government Relations

Ramon Gilsanz, Structural engineer Gilsanz Murray Steficek

Lance Jay Brown
Professor of architecture and urban design
Spitzer school of architecture at City College

Margaret O'Donoghue Castillo Past President American Institute of Architects

Dottie Harris Vice President, State & Local Government Relations International Code Council

Paul Gallay President Hudson River Keeper

A P P E A R A N C E S (CONTINUED)

Johanna Dyer Attorney Natural Resources Defense Council

Juan Camilo Osorio. Director of research New York City Environmental Justice Alliance

Sanjoy Banerjee Director CUNY Energy Institute

Beryl Thurman Executive Director North Shore Waterfront Conservancy of Staten Island

Kenneth Justice Engineer Portland Cement Association

Celia Tutunjian Representative New York Environmental Law and Justice

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CHAIRPERSON DILAN: Good morning
everyone. My name is Eric Martin Dilan and I'm
the Chairperson of the City Councils Housing and
Buildings Committee. Also been joined by my
colleague and co chair of this hearing Peter Koo,
as well as my colleague from Manhattan Dan
Garodnick. As many of you may be aware last night
the Council passed its annual city budget,
approximately \$70 billion. Many of us were here
till three, 3 AM in the morning, and some of us
out of fear that they would not wake up in the
morning and have a room full of professionals with
nobody to start the hearing actually stay here.
So I want to thank my colleagues who are here on
time, and out of respect to you guys wanted to
make sure that we got these proceedings started on
time.

Today this committee will be joined by the Committees on Transportation chared by my colleague Jimmy Vacca, the Environmental Protection Committee chaired by my colleague James Gennaro, the Parks and Recreation Committee chaired by my colleague Melissa Mark-Viverito, the Committee on Waterfronts chaired by my colleague

2 Peter Koo.

Today all of these committees will hold a joint oversight hearing on the rebuilding after hurricane Sandy and improving the resiliency of the city's infrastructure. We will also consider 20 items, 20 legislative items for initial consideration in this hearing. At the end of this hearing these items will be laid aside, as well as three resolutions that are similar, similar in topic of which most are based on proposals made by the Building Resiliency Task Force and online with many of the suggestions set forth in this special initiative for rebuilding and resiliency.

I sincerely would like to thank Mr. Lee, Mr. Pinsky [phonetic], Mr. Unger and Urban Green and all the professionals who helped with this effort as I did two days ago on the city's building code. Your service to the city is certainly invaluable, and as we learned after hurricane Sandy we're going to have to view our city differently and I am certainly honored that you have decided to take your time so that the cities at the forefront on these efforts.

Shortly after hurricane Sandy Mayor Bloomberg and Speaker Quinn announced the creation of the buildings resiliency task force. The task force organized by urban Green Council was made up of over 200 volunteer experts from a variety of fields, and was called upon to provide the city with concrete proposals for how to better prepare our buildings for severe weather events and extended power failures for the future, which was a problem during hurricane Sandy.

Earlier this month the task force issued its report containing 33 proposals to improve building resiliency in the city of New York, and in 2012, in December 2012 Mayor Bloomberg announced the formation of the special initiative for rebuilding and resiliency.

This special initiatives mission is to present suggestions for how to create a more resilient New York City in the wake of hurricane Sandy with a long-term focus of preparing and protecting against impacts, the impact of climate change. The final SIR report a stronger more resilient New York was also released in June 2013, we are still in June. The report covers a broad

remediation.

2 range of topics including coastal protection,
3 insurance policies, environmental protection and

In addition, the report highlights communities that suffered especially severe damage during the storm and describes the precautions that need to be taken to prepare them for future climate change and risks.

Before I proceed I would like to again thank everyone who participated in the BRTF and the SIR reports, and many of you who volunteered your expertise in a variety of fields over countless number of hours that have put these group of proposals together that will undoubtedly improve the city and resiliency for many years to come.

With that said, at this time some of my co-chairs will be joining, in the efforts of expediency, will forgo their opening statements when they get here, but at this time I do want to acknowledge my colleague and co-chair who is here for an opening statement, Council Member Peter Koo to make an opening statement. Peter, I wanted to conduct this hearing with you.

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COUNCIL MEMBER KOO: Thank you
Chair Dilan. Good morning and welcome to this
joint oversight hearing concerning rebuilding
after super storm Sandy and improving the
resilience of New York City's infrastructure.
Last October super storm Sandy hit New York City
with an intensity that was unparalleled by any
visiting storm. The 14 foot storm surge furthered
much of lower Manhattan as well as parts of New
York City's subway system. The surge also caused
severe damage throughout Staten Island, Coney
Island and the As a result 43 New Yorkers
lost their lives and tens of thousands were
injured or displaced.

In December 2012 Mayor Bloomberg created a special initiative for building resiliency, SIR, to address how to create a more resilient New York City in the wake of hurricane Sandy. More of a long-term focus on preparing and protecting against the impacts of climate change.

The final SIR report was released on June 11 and offers many recommendations to protect the city's waterfronts and infrastructure against further weather events. Also in December

that are before the committee for consideration

today, the first of which is intro, excuse me this

will be a little bit robotic, but it must be done.

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Intro 983, which is in relation to flood resistant 2 construction requirements for health facilities, 3 proposed intro 990 in relation to the adoption of 4 5 the best available flood maps, intro 1085 in relation to emergency plans for residential and 6 commercial buildings and the posting of emergency information in certain residential buildings, 9 intro 1086 in relation to requiring that toilets and faucets be capable of operating without an 10 11 external supply of electrical power, intro 1087 in 12 relation to using cool roof surfaces to reduce 13 summer heat, intro 1088 in relation to water 14 retentive sidewalks and a study on absorptive of 15 street and sidewalk materials and alternative 16 street angulation, intro 1089 in relation to allowing elevation of certain building systems in 17 flood prone areas, intro 1090 in relation to the 18 19 studying of effects of wind on certain buildings, 20 intro 1092 in relation to the installation of 21 external electrical hookups, intro 1093 in 22 relation to removing barriers of usage of 23 temporary flood control and response devices, 24 intro 1094 in relation to requiring residential 25 buildings to provide drinking water to a common

area supplied directly through a pressure in the
public water main, intro 1095 in relation to
creating a manual on flood construction and
protection standards, intro 1096 in relation to
relocating and protecting building systems and
flood prone areas, intro 1097 in relation to
requiring backup power sources for fire, life and
safety communications systems, intro 1098 in
relation to the preventing of back flow of sewage,
intro 1099 in relation to preventing wind damage
to existing buildings. Just a few more I promise.
Intro 1100 in relation to keeping residential
stairwells and hallways lit during blackouts,
intro 1101 in relation to voluntarily installed
emergency power systems and natural gas usage,
intro 1102 in relation to improving hazardous
materials storage pursuant to the New York City
community right to know law, a pre-considered
intro, not yet numbered, in relation to planning
for resiliency to climate change as responsibility
of the office of long-term planning and
sustainability, resolution number 1708, a
resolution calling upon the United States Congress
to enact and for the President to sign, the flood

Τ	COMMITTEE ON HOUSING AND BUILDINGS, ETC. 13
2	victim premium relief act of 2013, resolution 1771
3	a resolution calling upon the New York State
4	legislature to pass, and for the Governor to sign,
5	S 3942 and A 4380 the engineers architect,
6	landscape architects and land purveyors good
7	samaritan act, which would protect from liability
8	professional engineers, architects, landscape
9	architects and the land surveyors who lend the
10	voluntary services at the scene of a natural
11	disaster or a catastrophe, resolution 1808 a
12	resolution calling upon the United States Congress
13	to amend the bigger orders Flood Insurance Reform
14	Act of 2012, and the - are those all the items?
15	All those items are up for - okay, just to correct
16	the pre-considered item, was numbered last night,
17	the pre-considered intro is now intro 1105 for the
18	record. It's no longer pre-considered is that
19	correct?
20	FEMALE VIOCE 1: That's right.
21	CHAIRPERSON DILAN: At this time
22	we've been joined by the Chair of the
23	Transportation Committee James Vacca, and I will
24	call on him to make a brief opening statement.
25	COUNCIL MEMBER VACCA: Thank you

emergency power supplies is to ensure that in the

case of power failure there will be at least a

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minimal amount of power for crucial systems such as fire alarms, sprinklers, emergency lighting, and when relevant, elevators. My bill will allow for backup power systems to be fueled by natural gas, which is a cleaner -

Excuse me a second. I'd like to ask, just as a reminder, if all cell phones could be set to silent or turned off so that we could maintain proper decorum in the chamber so we could allow for the proceedings to go on uninterrupted.

Council Member and Chair Vacca.

COUNCIL MEMBER VACCA:

Thank you.

My bill would allow the backup power systems to be fueled by natural gas, which is a cleaner, less expensive, longer lasting and more reliable fuel then oil to provide emergency relief. In the case that one chooses to utilize natural gas, the minimum amount of time for such a system to become available after a failure power will now be 60 seconds instead of 10. However, systems using this type of fuel are still required to provide power for emergency lighting within 10 seconds, in which case a natural gas system would be supported

COMMITTEE ON HOUSING AND BUILDINGS, ETC. 16 by storage batteries.

In emergency situations it is not only important that backup systems operate immediately, but that they continue to work for the longest amount of time possible following a power outage, especially for our most vulnerable populations.

Also, one of my concerns as Chair of the Transportation Committee was that after Sandy so many of our cities network, our road system, was inundated and flooded out, and they took on so much water I thought it was incumbent upon us to start thinking of ways to reinforce this critical infrastructure. So, intro 1088, sponsored by Council Member Gennaro, is a bill that will require DOT and the Department of Buildings to conduct a study on absorptive street and sidewalk materials in addition to alternative street angulation.

So, I'd like to now turn this over to my co-chairs. Thank you all for coming, and we look forward to your testimony.

CHAIRPERSON DILAN: We've also been joined by the Chairman of the Environmental

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the office of long-term planning and sustainability also include meeting the needs of the city as they pertain to the resiliency of critical infrastructure, the built environment, coastal protection and local communities.

This local also calls for a creation of a resiliency plan to be updated every four years and to include a list of policies, programs and actions that the city will seek to implement or undertake to achieve each goal relating to the resiliency plan.

This local also creates a director of resiliency position within the office of long-term planning and sustainability, who reports to the Director of the office of long-term planning and sustainability.

The other bill, which I am the sponsor, calls for a study of alternative street and sidewalk materials including the possible use of absorptive materials on streets under the departments jurisdiction, as well as their use on private streets. The study's to be completed and posted on the department's website within one year, and a pilot program is to be undertaken in

Ricks [phonetic] is here, he is somewhere. At

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special initiative, and Mark Ricks is the Chief
Operating Officer for the special initiative, and
Seth Pinsky, who is also President of the EDC, was
the Director of the special initiative.

So I wanted to start off discussing the initiative to frame, essentially, the bills because the bills are our portion of the work that special initiative covered.

But first of all I want to thank
you Chair Dromm, Chair Koo, Chair Vocca and Chair
Gennaro for taking the time. I know you guys had
a late night last night and I appreciate that you
made time for this important discussion because
this is something which merits a fulsome
conversation. It's obviously very important for
the future of this city and the so we appreciate
that you're making the time to have a real
informed a conversation about it.

So as you mentioned Chair Dromm, the Mayor announced the special initiative in December, which was following the storm in late October, so the special initiative did not deal with the after action, the immediate emergency response provision of shelter, care and feeding of

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face going forward.

2 folks. All that was covered in the after action -

- , which Deputy Mayors Gibbs and Holloway issued
a while back.

The special initiative was especially designed to answer three questions.

Those three questions first being what happened during super storm Sandy and why, with a real emphasis on the why because as we'll discuss the storm was idiosyncratic in a number of ways. We want to not use it as a point example, but as a indicative of the kinds of threats the city will

Second, and Chair Gennaro spoke about climate change, really what do we expect have happened going forward in the future, and that's really given the wide array of climate change impacts. Not just storms, but heat, wind, rain, etc.

And then third, I think the question which is most pressing to us is what do we do about it. What are the actions that the city should take to prepare ourselves for these kinds of events, for not just this year, next year, but for decades in the future and for our

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future generations? So we'll touch each of these questions in turn.

Just to talk a moment about what the special initiative was, basically we had three dozen full-time professionals of a variety of professional backgrounds from engineers, to lawyers, to environmental folks, business people, but more importantly the initiative of three dozen people who were dedicated full-time, and Mike - - sometimes actually slept in the office given the amount of work we had to do.

There was a whole team of the scores of other professionals who were supporting the team, a number of city agencies, city planning, Department of Transportation, the entire office of long-term compliance and sustainability. Some members were full-time dedicated, but the entire office was very important to the effort. There is a lot of other city employees were involved in this effort.

In addition to a federal task force we coordinated very closely with both FEMA, which is responsible for the flood insurance maps, but also a federal task force under the leadership of

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Secretary Donovan, which has been especially tasked with addressing the after affects of super storm Sandy. So there is a lot of coordination beyond the professionals fully dedicated to the effort.

The other thing I want to point out is that this was not purely a effort driven informed by professionals of a team, there was extensive amount of outreach. Given that there was a short period of time, only five months, we took real pains to reach out to a number of people throughout the communities most heavily affected and across the entire city.

So as you'll see on the chart here a number of elected officials, many council members, state assembly members, community boards, almost all of the community boards were briefed, but also extensive outreach with public outreach workshops. I had 11 of those including more than 1000 citizens of the city, so it was quite an extensive effort to make sure that we learned from the real experiences of people throughout the city.

So, what happened during Sandy and

why? As I mentioned the storm was really recordbreaking in many, many ways. You'll see here,
this is the list of the top 10 high water marks at
the Battery. And so this is all the high water
events between 1900 and the present. A thing
you'll note here is that although it's over 100
years of storm here, although top 10 events were
actually in the last 50 years. You'll note that
actually three of these events are each of the
last three years. So you'll see a trend here
that's quite remarkable.

The other thing that's interesting to note is that not only did Sandy break the record, it smashed the record. So the high water mark was almost 40 percent higher than anything else that happened before hand, so this storm was truly of historic proportions.

The other thing you'll note there is that there is three different colors of bar there. The one in the middle is the part of the storm surge attributable to sea level rise.

You'll already see that there is impacts of climate change included within the search. There is a full foot of sea level rises already occurred

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2 during the past century.

So why did we get this high water during this historic storm? There are a number of idiosyncratic factors. First, the storm was enormous. This shows side-by-side the same scale of Katrina and Sandy, and as devastating as Katrina was you'll see that Sandy was three times as large. So the huge size of the storm led to a large sustained series of wins which pushed water into the harbor leading to the build up of high water on the Battery.

Second, as we all know, the storm took an unusual left hook. So generally what happens is due to the jet stream hurricanes come up the Atlantic coast and are pushed out slowly to the sea. In this case, because of high pressure in the ocean, the storm took a left turn and hit directly New Jersey coast, and although it actually had been downgraded just before it hit the coast, if Sandy hadn't even been a hurricane it would only be the third time in recent history, actually in 100 years, that a hurricane would directly hit the coast of New Jersey.

The impact of this was that it put

New York in the worst quadrant, the North East quadrant of the storm where the effects of the wind are the most extreme. So in some cases it's counterintuitive to have a direct hit, sometimes it's calm her in the center of the storm, but because we were in the northeast quadrant we suffered the worst brunt of the storm's winds.

Third, it was coincide with high tide. So see in this chart that there are three bars. The blue is the normalest title cycle in the harbor, up and down, up and down, up and down. The red is the surge, and then the top bar is the culmination of the tide and the surge. You'll see that the peak of the surge coincided directly with the peak of high tide in the southern part of the harbor. So basically you've got the exact worst timing for the storm to hit the harbor, which led to this historic surge of 14 feet.

The thing that is counterintuitive, however, is that the tide in the city is not the same, so when it's high tide in the southern part of the city, it's low tide in the northern part of the city. So although we got the worst of the storm in Manhattan and the southern Brooklyn and

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2 the south east shores of Staten Island, it was 3 actually relatively subdued in the South Bronx and

4 the northern part of Queens.

So this next chart shows the actual inundation in those parts of the city. You can see La Guardia sort of there in the middle. There was flooding, but it was relatively mild. What we've done actually is that if the storm had arrived nine hours earlier during high tide, the impacts of the storm would have been much, much worse. So this is actually the modeling of the storm if it had hit nine hours earlier during a high tide in the southern part of the city. You'll see that the flooding is much broader and extent and much deeper, so La Guardia for example would have received 14 feet a flooding. Guardia Airport in that part of the city would have been under 14 feet of water.

So this is just to illustrate that although we want to repair from the damage of Sandy and the impacts that it had in the southern part of the city, we shouldn't take away from the fact that there was little damage in the northern part of the city that we don't have to worry about

2 it. In fact the very same storm, just timeslot it

differently, would have had devastating impact on

4 the South Bronx and the northern Queens. So we

5 have two make sure we prepare for, not just Sandy,

6 but other types of storms.

So again, the lessons here is to focus not just on the next Sandy, although it was, we could have no Sandy, it's highly unlikely we would have exactly the same storm, but this is indicative of the kinds of events we will face in the future, so it's a harbinger of change.

So, then moving forward to what do we expect to have happen in the future? As we all know FEMA, the Federal Emergency Management

Agency, is responsible for creating the flood maps that defined the risk of flooding in New York

City.

So they created the first flood map for New York City in 1983. That was the first time they made an official flood insurance rate map, or FIRM. You can see from this map, the areas in blue show the parts of the city that are at risk of flooding. In a 100 year floodplain basically indicates a 1 percent annual chance of a

flood in any given year; you'll see that there is a large section of the city, even in 1983, that was subject to flooding.

It's at that point more than 200,000 residents, 36,000 buildings and almost 400,000,000 ft.2 of developed area in the city, so there is a significant risk even 30 years ago.

As we know though, Sandy went far beyond what we see in this flood map. The areas in red here are the parts of the city that flooded during Sandy that were not within the hundred year floodplain, so fully half of the buildings that were seriously damaged, particularly the red and yellow tagged buildings, which where the buildings that suffered the most significant damage, nearly half of those buildings and half of the residents and half of the residence units impacted were in areas outside of the official FEMA floodplain.

FEMA had in fact recognized that there flood maps were out of date prior to the storm. They're in the process of updating them, and due to the impacts of the storm they've accelerated that process, and earlier this month they released preliminary work maps showing the

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2 expected revised floodplain maps.

So you'll see these maps actually correspond much more closely to what we saw in Sandy. A much larger swath of the city are within the 100 year floodplain. In fact the number of residents now has increased from approximately 200,000 to nearly 400,000 New York City residents who are within the floodplain. Significantly, we now have almost 70,000 buildings. There's been a tremendous increase in both the number of residents and of the number of buildings which are within the 100 year floodplain.

The issue with these maps however, is they are historical, essentially are a look in the rearview mirror. So FEMA developed these maps based upon historical storm sets. They look back at all the storms that have happened in the past and to say, based upon that, history of storms and of the flooding what do we expect to have happening going forward.

Second, the flood maps are just that, they're only maps of flooding and storms, they don't account for a number of other risks.

So, most significantly this picture on the upper

left here is of, not a hurricane, but just a heavy
rain. This is a period of, I think it was 2009,
we had a heavy downpour in the city, which
subjected to flooding to the city. You have
flooding in the subway systems shut down for a
number of hours, again, not due to a hurricane,

but just due to heavy rain.

Second, although hurricane Sandy was devastating from its impact and 44 New Yorkers lost of their lives, the impact of heat can be much worse. So in the last, the most recent heat wave in Chicago several hundred people lost their lives, and we forget sometimes although it's not as dramatic as a storm, heat can be, if anything, a worse killer and more dramatic in terms of the impact on life and of the quality of life in the city.

Third, although we are now dealing with rain it seems a bit odd to think about dryness. Climate change also comes with irregularities in terms of climate, and you can have drought as well as rain and we forget that we depend upon our reservoirs upstate to supply all of our needs for drinking, bathing, sanitation,

fire protection, etc., so drought is a real risk to the city.

And finally, in addition to storms this picture here there are parts of the city, particularly in South Eastern Queens, broad Channel, Howard Beach, which this picture is not from Sandy, this is just from regular title flooding. So not during storms, but just during the high tides every month parts of the city are subject to flooding, and that's going to become worse with - -.

So this is something, at the risk of climate change, that the mayor and the administration has recognized for some time, and so because of this in 2007 the Mayor announced plan YC, which we all know well, and the city, the Council worked to enact a number of different important legislative changes to memorialize that, but one very significant component of the plan YC was the creation of the New York City panel on climate change. And one of the issues with climate change is when you generally hear statistics about climate change you hear a global average, so global temperatures will increase on

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2 average 4° over a certain period of time.

The problem is that that's not very 3 useful for planning our city, so the Mayor 4 5 appointed this panel on climate change to apply the broader global climate change to the New York б City Metro region, and to develop a set of projections for how climate change would impact 9 New York City specifically. It was staffed, it 10 includes a number of very respected international 11 climatologist, scientists, etc., Who have 12 developed these recommendations.

So as part of this process over the last six months we asked the panel of climate change to renew their recommendation. They had a recommendations previously, excuse me, projections in 2009 based upon most available data, they updated those projections for 2013 and they developed this chart. It's a bit - chart, so I don't expect you to read all of it, but I'm going to point out just a couple of highlights.

First, sea level rise. So in the middle part of the range the panel developed ejections for the 2020s, the 2050s and even longer out beyond that, but for the 2050s, so just

roughly 35 years from now, the middle impact of the range, so essentially they have a high, medium and low projections, the middle projections include one to two feet of sea level rise in New York City. So, all the time the sea will be one to two feet higher, and at the high end of the range two and a half feet higher than it is today.

Second, heat. The number of 90° days that we have every year is projected to double in the middle of the range, or triple at the high level and of the range. So just to put that in perspective, as we double, as they project is kind of the expected change by 2050s, New York City would have climate equivalent to Birmingham Alabama. So the number of heat we've had the last couple of days, those number of 90° days will double. So that will have tremendous impacts not only on human health, but on our power grid, or cooling load, the way we have to keep our buildings cool, etc.

And the final thing to note is because of the sea level rise, that rise on a sustained basis, of one to two feet, will have much more extreme impacts in terms of storm surge.

So based upon these projections from the New York

City - - climate change, the city working with

CUNY and other experts developed forward looking

flood maps. As I mentioned the FEMA maps are

rearward looking. They're based upon historical

projections. So we took those projections layered

on top of them climate change so that you will

have forward looking climate maps.

So this here are the 2020s and 2050s floodplains. The blue is the current floodplain, the orange is the 2020s floodplain and the red is the 2050s floodplain. And what you see is that by 2050 the number of New York City residents in the floodplain doubles. We'll have 800,000 residents in the floodplain by 2050. In a very short period of time we essentially have will be a larger city in the United States would be in the floodplain, just a portion of New York City.

So, this all basically is the argument for why this is an important priority that we need to address. This is kind of the depressing part of the presentation.

I think now we want to move to - there's a little more that I want to point out. I

just mentioned with regard to tidal cycles. I
showed that picture earlier of Howard Beach, which
had regular flooding at just at high tide. The
portions of the city that will be subject to that

kind of flooding on a regular basis will expand

7 dramatically due to sea level rise.

So right now we have certain portions of the city that will increase to a full eight miles, 43 miles of the city, which is eight percent of the city. So again, on just a regular basis, not during coastal storms, but just on a monthly or even weekly basis eight percent in of the city's coastline will be subject to regular flooding, and in some ways this is a more insidious challenge because it's not just something that happens every five or 10 years, it happens monthly or weekly.

Finally, we worked with Swiss Re, which is a reinsurance company. Their entire business is predicated upon understanding and projecting risk, because that's what they basically they provide insurance to insurance companies, and as they modeled the impacts, the economic impacts of storms on the city.

So as we know it, super storm Sandy basically had a cumulative impact of \$19 billion

of damage on lost economic activity in New York

City. And basically that, we expect that super

storm Sandy was roughly a one in 70 chance of happening on an annual basis here in New York City

with today's climate. So, the three lines here,

the yellow line at the bottom is today's climate,

the middle line is the 2020s climate and the blue

line at the top is the climate in 2050.

We expect that going forward what was today a one in 70 percent chance will be a one and 60 chance every year in 2020s, and a one in 50 chance by the 2050s. So a storm like Sandy will become much more frequent, much more likely event, and basically that saying a 40 percent increase in likelihood by the 2050s. So again, although we don't expect exactly a storm like Sandy to happen again, storms like Sandy will be more and more frequent. And of the other thing to note is that if you go up on the graph these storms will be more and more damaging. So a storm like Sandy which today caused approximately \$20 billion in the future could cause 50 or even \$100 billion of

COMMITTEE ON HOUSING AND BUILDINGS, ETC. 40 1 allowing me to testify today. I wanted to talk 2 briefly about the plan that the mayors pull 3 together for -4 5 CHAIRMAN DILAN: [interposing] I just have two stop you. Just for record keep in б 7 - would you identify yourself. MR. PINSKY: Seth Pinsky, President 9 of the New York City Economic Development Corporation, and the director of the Mayor's 10 11 special initiative for rebuilding and resiliency. 12 I wanted to talk a little bit about 13 that plan the Mayors pulled together for dealing 14 with the challenges that Tokumbo just outlined for 15 you, which are obviously very significant 16 challenges. And of the place that we started in 17 developing this plan was coming, settling on four 18 core principles that guided us. 19 The first of these principles at 20 the Mayor's direction was that we seek to be as 21 ambitious as possible, but that we also aim for 22 achievability. The phrase that I like to use is 23 that we want to make sure we're not aiming for the 24 stars and then failing to get off the launching

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pad.

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The second critical principle
guiding us in the development of this plan is the
understanding that we live in an era of limited
resources, but that we have to seek to stretch
these resources as far as possible, and what that
means is that we have to weigh all costs against
their potential benefits. But I think it's
important here to note that when we look at the
benefits of the money that we're spending we are
not just looking at dollar and cent benefits,
we're also looking at protecting vulnerable
populations, we're looking at protecting critical
infrastructure and other factors.

The third of our guiding principles is that we believe that there's not any single silver bullet that's going to address this problem. Instead what we think is the right approach is a multilayered defense. That means that we will certainly start with looking at our coastline, but that we also need to protect what's behind the coastline, buildings, the infrastructure that support the homes and businesses that make New York run.

And finally, with respect to the

impacted areas of the city, the bottom line is that we believe that it's neither practical nor desirable for us to retreat from the shoreline.

Instead we and the administration are committed to fighting for coastal neighborhoods. Rebuilding and, wherever possible, improving them.

So, what all of this allowed us to do is to develop a comprehensive plan that is divided into two parts. The first part focuses on critical citywide systems and infrastructure which you see on the screen. These include buildings, utilities, telecommunications, transportation and more.

End of the second part focuses on the areas of the city that had the greatest lingering physical impact from hurricane Sandy. These areas included the Brooklyn/Queens waterfront, the eastern south shores of Staten Island, South Queens, southern Brooklyn and southern Manhattan. And all of this came together in a 450 page document with over 250 initiatives and I'm going to go through each of them now. No, I'm just kidding. What I want to do is just go through a couple of quick highlights just to give

2 you an idea of how we're approaching this starting

3 first with coastal protection.

Here we have a \$3.7 billion first phase plan, which you can see on this map, that's designed to protect some of the most vulnerable areas of the city through a combination of natural and man-made defenses. I will note that this plan was actually cited a President Obama in his speech just a couple of days ago when he talked about the importance of dealing with climate change.

Building on this we also have a plan to protect the entirety of this city and the idea is that we would be able to move forward beyond the first phase as we secure additional resources.

Meanwhile, with respect to the built environment, I won't go into a lot of detail here because I think this is something that John is going to address, but it's really a two-part plan. One is with respect to new buildings. We want to make sure we're strengthening the city's building codes to increased wind and a flood resiliency. But also with respect to, what is in some ways the bigger challenge that we face, the 68,000 buildings that are currently in our 100

year floodplain, we are proposing a \$1.2 billion retrofit incentive program that will encourage people to protect the critical systems that are necessary for buildings to continue to operate through extreme weather, and in the case of the most vulnerable building stocks, smaller, lighter buildings, we are also working to encourage structural integrity for those buildings.

Another challenge that a lot of people have become aware of is the challenge of the National Flood Insurance Program where there are two plans that we are working on with FEMA right now. One is to help deal with the serious issue of affordability, which is something that actually comes from legislation that was passed by Congress on related to hurricane Sandy, but to help to deal with this we are calling on Sandy to put in place subsidy programs for the lowest income Americans, which we think is very important.

And we are also asking Congress to recognize and provide premium credits for mitigation measures other than elevation, which is the preferred measure of mitigation traditionally

for the federal government. It's simply
impractical and in many cases undesirable in an

4 urban environment like New York.

Meanwhile, to help increase the uptake of flood insurance we're also working with FEMA in the creation of high deductible, low premium policies, the idea being that we want to make sure that people are protected from catastrophic losses in some of these vulnerable neighborhoods.

with respect to our healthcare system we are working to strengthen again the building codes and John will talk about this for new hospitals, nursing homes and adult care facilities in vulnerable areas. We also want to mandate retrofitting to protect key systems for these vulnerable facilities, and here again we are proposing a \$50 million incentive program to try to get nursing homes and adult care facilities to move forward with their retrofits on a quicker timeline.

And finally, when it comes to our utilities we are not only working with our utilities and the regulators to encourage the

hardening of existing assets, which is obviously very important, but we are also working to ensure that our regulations properly account for changes in climate. We are also working to reduce energy demand and increase energy options, and this is just a start. As you can see from this slide there are a number of other chapters and we're happy to answer questions on those.

I also wanted to mention that another area on which we're focused, and this is something that I mentioned a minute or two ago, is on these communities that suffered the greatest lingering physical damage. And here we are not only applying the citywide strategies, but we are also developing initiatives that are specially tailored to the very specific needs of these particular communities, focusing on things like coastal protection, infrastructure and economic development.

Again, I'm not going to go into a lot of detail, but you can see the range of initiatives that we have for an area like the Brooklyn and Queens waterfront. One example is the Newtown Creek surge barrier which we're

proposing that would be open for navigation in normal circumstances, would close in the event of a storm and would prevent a lot of the inland flooding that happened in Brooklyn and Queens during hurricane Sandy.

Meanwhile, on the east and south shores of Staten Island, again, a long list of initiatives. I won't go into them, but one example is a very important project, which is actually contained in the capital budget that I believe will be coming before the council shortly, that is an east shore armored dune that would run from Fort Wadsworth down to Great Kills and would protect many of the most vulnerable neighborhoods in the city from the kind of damage they experienced during Sandy.

In South Queens, which includes not just the Rockaways but also Broad Channel and Howard Beach, in addition to coastal protection we're also focused on economic revitalization concentrating on the boardwalk, sections of Far Rockaway, and as you can see on the screen, Beach 116th Street in Rockaway Park.

In southern Brooklyn, in a less

sort of initiative, is a proposal that we have to

create new wetlands and a tide gate along Coney

Island Creek. Coney Island Creek was the source

of much of the inland flooding that took place,

not just on the Coney Island peninsula, but also

in neighborhoods like Graves End. This plan would

not only significantly lower the risk of flooding,

but could also create new opportunities for open

space and potentially new opportunities for

11 development.

And finally here in southern

Manhattan, again in addition to a large number of other proposals, one that has received a fair amount of attention is a proposal for a study of a multipurpose levee along the east side of lower

Manhattan that we call Seaport City. The levee would not only serve the same role that Battery

Park City did on the West side, which is to block floodwaters, but also to provide development pads for new commercial and residential buildings including potentially affordable housing, it could create new open space and it might even generate surplus revenue, as Battery Park City does today, allowing us to find the funds not only to pay for

this, but also potentially to pay for other resiliency measures.

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So, where I'd like to conclude is a question, that if I were in your shoes I'd be asking, which is sounds like an ambitious plan.

How do you implement it and how do you pay for it?

It's a good question, I'm glad you asked. The answer to that is first of all that this plan is actually largely funded. This is a 19 and a half billion dollar plan. \$10 billion of that is already in hand through a combination of federal

sources and city capital that is in the budget currently.

We believe another \$5 billion or so is reasonably likely to be secured, primarily from federal sources. That leaves a gap of 4 and a half billion dollars. The Mayor has committed to allocating up to another billion dollars from city capital, and again the budget that is coming before you includes \$250 million that would help towards this goal.

And we also think, and I think this is very important, that another potential source, and we have a whole list of sources, but another

potential source that all of us should be working on is going back to Congress. I will remind you that after hurricane Katrina, after a significant allocation of funding, Congress came back later and allocated \$9 billion to the Gulf Coast region to help pay for coastal protection, and there's no reason why New York City shouldn't be treated similarly.

Also, implementation has already begun. We have 60 concrete steps that we are proposing to take by year end 2013 as I'm sure you remember from pages 412 and 413 of our report.

They range from launching studies, designing some of our capital construction projects, beginning construction in some cases, securing additional funding and amending key regulations and laws, which is what we're here to talk to you about today.

And finally we would like to see implementation in - -, which is another thing that we would need to work on with you very closely and that we hope to talk to you about shortly. The Mayor has appointed the city's first Director of Resiliency, someone named Dan

So, I know that that's a very long presentation, but I hope that it gives you a sense as to how we're thinking about this problem. What I would just say, in summation, is that we believe that this is perhaps the threat that our generation is going to need to address with respect to the city of New York. And we are confident that working with the city Council, working with other layers of government, working with the private sector, that this is a threat that can be addressed, but it requires significant action and it requires significant action today. Thank you.

CHAIRMAN DILAN: Mr. Lee you have testimony as well? Okay, you're up.

MR. LEE: Good morning Chair's Dilan, Gennaro, Vacca, Koo and members of the

testify today on 20 introductory bills related to design, construction and operational practices that will make New York City's buildings stronger and safer in the face of extreme weather events.

state of New York. You've heard an opportunity to

First I would like to acknowledge the leadership that each of these committees has demonstrated on issues of sustainability since the release of plan YC in 2007, and the urgent emphasis you have placed on climate resiliency by scheduling today's hearings immediately following the releases of the city's report.

Plan YC in 2007 created an ambitious agenda for New York City to accommodate a growing population, enhance a quality of life for all New Yorkers towards a more sustainable future and to address climate change.

Six years ago climate change was not on the agenda of most municipal governments. While our best scientists reached consensus that the impacts of climate change were potentially

severe and that sea level rise and more frequent

coastal storms could threaten New York City with

its 520 miles of coastline, we had the imprecise

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understanding of what our local risks truly were.
We also knew that as a leading global city, New
York had a responsibility to reduce its impact on
climate change.

In the intervening years, thanks in

part to leadership of the city Council, the experts and scientists that make up our New York City panel on climate change have helped us to develop a much better understanding of our local climate risks. The city's climate adaptation task force analyzed coastal storm surge and addressed the risk in ways that made us better prepared for super storm Sandy. The city created a \$1.2 billion green infrastructure strategy and expanded its networks of blue belts [phonetic] to reduce the impacts of heavy downpours.

The core roofs volunteer program
has painted 4,000,000 square feet of roof tops in
order to stem heat gain, and through our
waterfront development policies major projects
that receive public support must take climate risk

into account in their design and construction.

that while we're on the right track much more needs to be done to protect the city against the risks of climate change and extreme weather. For this reason, even while the city was in the midst of unprecedented storm relief efforts, Mayor Bloomberg convened a special - - for rebuilding a resiliency as you've heard from Seth Pinsky and Tokumbo Shobowale.

SIRR's mission was to analyze the impacts of the storm on buildings infrastructure and communities and to assess our future risks, and to outline an ambitious, comprehensive and achievable strategy for increasing resiliency citywide. The result of this effort, as you've heard, was plan YC, a stronger, more resilient to New York.

Sandy inundated an area that affected over 88,000 buildings, far exceeding the risks that were reflected by the FEMA's - - dating back to 1983. Several weeks ago FEMA released its preliminary work maps for New York City that are based on substantially improved analysis of

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2 coastal flood risks. These maps indicate that an

additional 20 000 buildings will be newly defined

additional 30,000 buildings will be newly defined

4 as a at risk for coastal flooding from a 100 year

5 storm, taking the total amount to 68,000

6 buildings. We know this number will grow

7 significantly as sea levels rise by up to three

8 feet by mid-century.

Coastal flooding is not the only threat brought on by effects of climate change.

Our buildings will be exposed to more heavy downpours, more frequent storms with wind effects, and building inhabitants will have to contend with greater frequency of heat waves.

To address all of these impacts, plan YC, a stronger more resilient New York, set forth initiatives to strengthen new and substantially rebuilt structures to meet the highest resiliency standards moving forward and to retrofit as many buildings as possible so that they will be significantly more resilient than they are today.

To thoroughly address the needs of buildings, Mayor Bloomberg and the Speaker Quinn launched a partnership with the Urban Green

Council to convene the building resiliency task force. The task force was charged with developing proposals on how to change New York City's codes and rules to increase the resilience of buildings in both operational and structural terms.

The building resilience task force brought together over 200 professional leaders in the architecture, engineering, construction and real estate sectors working together with city agencies to develop these proposals. The task force was subdivided by expertise in building types, commercial, residential, critical facilities and homes.

Today I will provide some
observations and recommendations about each of
these bills organized in the main categories of
the task force which are stronger buildings,
backup power, essential safety and better
operational planning.

These introductions could help achieve plan YC's resiliency goals and measurable ways. On behalf of the office of long-term planning and sustainability I'm pleased to testify, in general, support of today's

introductory bills, although our support is tempered by certain comments or suggestions for refinements that would help make the bills more workable, or that would address inconsistencies with local, federal and state requirements.

We are looking forward to hearing the testimony of today's other witnesses to ensure that we fully understand the issues raised by each of them. In the category of stronger buildings the following introductions will help our buildings manage flood, resist high winds and prevent emergencies.

Intro 983, in relation to flood resistant construction requirements for health facilities, this proposal must be revised in its entirety to address our better understanding of the impending risk that hospitals face, even outside the boundaries of the 100 year floodplain. The current bill will treat hospitals similarly to residences for flood resistant construction standards. In the months since this bill was first introduced we have more closely studied the risks faced by our health facilities. We will work with the Council to revise the standards that

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will serve the needs of our health facilities 2 along our waterfronts. 3

Intro 990A, in relation to the 5 doctrine of us to available flood maps, the office of long-term planning and sustainability urges you б to adopt this proposal with the amendments. effects of super storm Sandy clearly demonstrated

9 inadequacies of the current affect of floodplain

10 maps, and if we are to build stronger going

11 forward we must rely upon the best available data

12 developed in partnership with the federal

13 government.

> Intro 1087, in relation to using cool roof surfaces to reduce summer heat, this proposal will expand the roof reflectivity requirements to sloped roofs and to reduce the internal heat gains during hot summer days, which in turn will also reduce the energy demands on the buildings and help reduce costs over time.

Intro 1088, in relation to water retentive sidewalks and the study on absorptive street and sidewalk materials and alternative street angulation, this proposal would require city agencies to engage in a study to determine

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the potential for permeable surfaces as a water 2

attention strategy. We respectfully request the

Council work with the agencies so that they are

properly identified with the Departments of

Transportation, Environmental Protection and б

7 Buildings, each to their areas of expertise.

> Intro 1089, in relation to allowing elevation of certain building systems in flood prone areas, this proposal is intended to allow for flexibility in design solutions, to protect telecommunication systems and fuel oil supplies. We urge the Council to ensure that this bill not limit the options available to design for flood protection.

> Intro 1090, in relation to studying the effects of wind on certain buildings, this proposal is extremely important in order for us to better assess the risk that our buildings will likely face with increased future storm activity.

> Intro 1093, in relation to removing barriers for usage of temporary flood control and response devices, this proposal, while necessary to address an important means of flood retention, must not compromise the use of the public right of

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way and must not impede the safe - - from the building. We urge the Council to work with the affected departments of transportation and buildings to refine the language that preserves the safety of the building and its occupants.

Intro 1095, in relation to creating a manual on the flight construction of protection standards, this proposal will make information more readily available to effective property owners and we offer our support.

Intro 1096, in relation to relocating and protecting building systems in flood prone areas, this proposal will ensure that the most essential life safety systems are rendered flood resistant. While this proposal clarifies aspects that are generally addressed by the current code, we offer to work with - - to resolve technical issues with this language.

Intro 1097, in relation to requiring backup power sources for life and a safety communication systems, this proposal adds an element of resiliency to an essential life city function. However, some of the technical language needs refinement and proper location with the code

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should be reconsidered.
Intro 1098, in relation to

preventing the back flow of sewage we recommend that further specifications be considered to ensure that the valve types do not inadvertently cause blockages which can undermine the buildings internal sewage system, and that the valve type specifications allow for affordable options.

Intro 1099, in relation to preventing wind damage to existing buildings, this proposal addresses very important protection measures for buildings and will work with Council to resolve some minor technical language issues.

Intro 1102, in relation to improving hazardous material storage pursuant to the New York City community right to know law this proposal's necessary for us to protect our neighborhoods and waterways. However, we ask that Council take special consideration for our wastewater treatment plants and work with us to properly address toxic materials at those sites.

In the category of backup power the following introductions will also allow our buildings to have immediate access to temporary

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power sources, that hallways and stairs are safely illuminated during prolonged power outages and to diversify the fuel sources for emergency power.

Intro 1092, in relation to installation of external electrical hookups, this proposal would provide for a quick connection for rollup temporary generators. And while we are in support of the intent there are technical issues yet to be resolved with the introduction, especially with regard to the degree to which it affects hospitals.

residential stairwells and hallways lit during blackouts. In this proposal careful consideration must be taken for how to define the lighting levels in their applications so that the safety and security of building residents are preserved. We can work with Council to reach proper standards that address all of these concerns.

Intro 1101, in relation to volunteer installed emergency power systems and natural gas usage. This proposal will have significant positive effects on the types of power systems that buildings will use for backup and

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emergency power that can result in cleaner emissions and more flexible uses of voluntary systems. This proposal has much merit, but it's highly technical and we can assist counsel with the proper engineering expertise to refine the language.

In the category of essential safety the following introductions are intended to ensure access to sanitation facilities and potable water in the event of prolonged power loss.

requiring that toilets and faucets be capable of operating without an external supply of electrical power. This proposal is intended to ensure that for those toilets and faucets that rely on electrical power to operate, such as a motion sensor to activate, then that within the given facility at least one faucet and one toilet are able to operate without the electrical sensor.

The language of the bill implies that the requirement would include fixtures in buildings where an electrically powered pump is necessary to fill a tank or deliver pressure, and that is not the intent of this bill. We can work

2 with Council to refine the language that

3 specifically addresses the electrically operated

4 valves that may fail in a prolonged power loss.

requiring residential buildings to provide drinking water is to common areas supplied directly through pressure in the public water main. For many large multifamily buildings this proposal would be very easy to solve. However, we urgently request that smaller buildings are provided with additional considerations as a cost or more on risk absorbed by fewer residents.

In the category of better operation paneling, the following introduction will help reduce the impacts of an emergency and allow for rapid recovery.

Intro 1085, in relation to emergency plans for residential and commercial buildings in the posting of emergency information in certain residential buildings, this proposal names city agencies that help develop the guidelines for emergency planning and it should clearly convey the responsibility of proper planning and information distribution to the

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building occupants ultimately resides with the property owner.

In addition to these 19 proposals the report from the special initiative for rebuilding resiliency has been brought forth for your consideration and introduction to institutionalize resiliency policy into the core function of the office of long-term planning and sustainability. This introduction T20136556 intends to establish resiliency as a core function of the office of long-term planning and sustainability and establishes a director of resiliency within the office.

While our office has slayed the risk brought on by climate change for quite some time it is now time to take the necessary steps to rebuild resiliency to confront the effects of climate change. Resiliency is a fundamental component of sustainability. We will ensure that our city continues to grow in a sustainable method while also protecting our assets towards a stronger and more resilient future.

By incorporating resiliency into responsibilities of office of long-term planning

and sustainability the city will build upon the
foundation established in plan YC to ensure that
resiliency planning is informed by clear metrics

and transparent reporting, rigorous policy

6 analysis, the best available science and extensive

7 stakeholder involvement.

We will ensure that this vital work to the city is sustained and held accountable beyond the one marrow [phonetic] administration.

The office of long-term planning and sustainability generally supports all of these proposals with suggestions for mild technical revisions to some. And other more substantive suggestions that are intended to protect against inadvertent consequences.

We look forward to working with Council in the coming weeks to formulate legislation that will best serve the needs of New Yorkers. Thank you for giving me the opportunity to testify on this important legislation and I am happy to answer any questions that you may have at this time.

CHAIRMAN DILAN: And I want to thank all of you gentlemen for your testimony.

Much of it was very informative, and thank you for all the research and the study that you've done along with your partners to prepare the city for the future. The hope is that none of the projections for climate change come true because

we actually take proactive steps to prevent it,

8 but in light of the information that we have it's

9 prudent to be prepared and I want to thank you for

10 that.

Just a little bit of housekeeping.

We've had some members come in and out and it's,
clearly as I said at the outset, then a pretty
crazy time for us in terms of the hours, but
during the proceedings we've been, at one point or
another, joined by Council Members James, Ydanis
Rodriguez who was here, Council Member Gale Brewer
was still with us, Council Member Oliver Koppell
who just left, Council Member Margaret Chin,
Council Member Jessica Lappin who joined us,
Council Member Vincent Gentile, Council Member
Jimmy Van Bramer, Council Member Leroy Comrie was
still with us, Council Member Mendez, Rosie Mendez
as well as Council Member Deborah Rose.

MALE VOICE 1: Say that again.

CHAIRMAN DILAN: As well as - I thought I said it, but just in case, Council member Brad Lander. If I missed it I'm sorry about that. As well as Council member Levin who has just joined us.

So what I would like to just, and for my colleagues, and I know we're all pretty tired, I'm sure there's going to be a lot of questions to the extent possible if we could just get right to the question and have a shorter lead in to the actual question, it would be best for all the chairs who have to stay here until the hearings over.

So I want to start out and I will be followed by Chair Vacca for some transportation questions, I'll start out with some general questions for Mr. Pinsky. They're related to flood insurance with the enactment of the bridgewater's, bigger waters federal legislation in 2012. Flood insurance premiums are expected to rise and in some cases very dramatically. We understand that for some homeowners premiums will start to go up now when for others premiums will not go up until the new firms go into effect.

We also understand that some

homeowners receive their increases phased in over a few years while others will get an immediate increase. How can New Yorkers find out what the new premiums will be, and how can they find out

7 when these new premiums will start?

MR. PINSKY: Well, as you know, the national flood insurance program provides the primary source of flood insurance for homeowners and for small businesses, and that's true in New York and the rest of the country. Because of the combination of factors that you describe, the bigger waters act which had nothing to do with Sandy, but through a bad coincidence of timing is coming into effect as we're recovering from Sandy, as well as the new FEMA maps. In fact, the expectation is these rates will rise.

The ultimate source of information about flood insurance is FEMA and the national flood insurance program itself. And certainly we in the city are able to help homeowners to understand, as a general matter, what the implications of these changes will be, but with respect to any given home you really have to go to

2 FEMA or to the insurance company that writes the 3 policy.

addressing those changes that we have.

What I would say though is that
what we are primarily focused on here is in trying
to address the issue of affordability that's been
raised by these changes to the flood insurance
program. And I think it's very important to
understand the thinking behind the change in order
to understand why we made the proposals for

The thinking behind them is that in many places including federally, after significant extreme weather events, the instinct is to subsidize insurance rates. And, though, on the one hand that's a good thing because it helps people to afford insurance, which is important. It also has a detrimental impact which is that it encourages people, or at least it doesn't discourage people, from undertaking a behavior that could be dangerous. We've seen this happen in jurisdictions like Florida and Texas and other places around the country.

We think that, as a general matter, the idea of trying not to subsidize people's

behaviors that could expose them to harm is the right approach, but the problem with the way that the national flood insurance program works is that it actually discourages, or again at least doesn't encourage, New Yorkers to make the kinds of mitigation investments that we think could really be helpful to them.

So, by way of example, under the national flood insurance program, generally speaking the only way you can reduce your flood insurance rates, or the prime way that you can reduce your flood insurance rates is by elevating your home, and in some parts of New York that make sense, but our estimate is that for 40 percent of the 68,000 buildings in New York City that are today within the hundred year floodplain, that elevation is simply infeasible, and in many other cases it's undesirable. I mean do you want neighborhoods where there is no ground floor retail for example.

So, what we're trying to work with FEMA to do is to give credits to homeowners for other mitigation measures that are more practical in an urban environment like New York, and to

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recognize those and are thereby to bring down insurance rates, not by subsidizing those insurance rates, but by actually making people safer.

CHAIRMAN DILAN: Thank you. You actually answered two of my questions at the same time so I won't have two ask the other question. The next is when the new firms come out many property owners that were in the flood zones before are going to find themselves mapped in to the flood zones. Our understanding is that FEMA does not yet know how the flood insurance premiums will be implemented for these newly mapped properties. What is the city doing, if anything, to get an answer from FEMA on this question?

MR. PINSKY: So again, we've been working very closely with FEMA both to understand the changes that are coming down the pike, and obviously since they run the program we won't have answers until they're able to supply us with answers, but we have a pretty good sense. And I think the bottom line is exactly what you said in your question which is that insurance rates will be going up for many New Yorkers and for a large

number of New Yorkers who weren't required to get flood insurance, going forward they are going to

4 be required.

And the so that's why again, what we're really focused on is one, trying to do reduce the risk and thereby lower insurance rates for people who are required to get insurance.

Another problem that we face here in New York City is the fact that many people who were exposed to risk even under the old flood maps, but because they didn't have federally insured mortgages weren't required to get insurance, didn't have insurance and are therefore, when the storm hit, they had no way of paying for repairs. And so we want to make sure that that subset of people also is encouraged to buy insurance.

So another strategy that we put forward is the notion of creating what we call high deductible low premium policies, and what that means is that if you're flooded, and let's say your washing machine is destroyed in the flood, you may not get any coverage. But if you're flooded and your entire home is destroyed, in that case you will get a significant amount of

coverage. The idea being that we want to save
people from catastrophic losses.

MR. LEE: One other thing I would

note is that, as you noted, because of bigger

waters, which was passed a year ago and signed

into law by the President last July, the rates

would be gradually phased in, so the subsidies

will be phased out, but we strongly encourage

people who don't have insurance to buy it now

before the new flood rates map kick in because

into place the new firms, probably in 2015, those

after the new rates kick in and of the new maps go

14 | will be at the unsubsidized rate.

prior to that process will actually be able to be grandfathered in under the old rates. The rates will increase over time, but they won't come in at essentially at immediately at the higher rate. So we definitely encourage folks to learn, assess that they have two speak directly with FEMA, but it's important for people to understand that there are still subsidized rates today so it's better to purchase insurance now than to wait.

CHAIRMAN DILAN: Okay, so actually,

But I guess the advantage that we

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issue.

have is that the challenges that we face here in

New York are the same challenges that people are

facing all across the country. So our hope is

that there will be a common purpose with

representatives from all over the country on this

CHAIRMAN DILAN: Okay. Thank you.

I have some questions for Mr. Lee specifically on the legislative items before us. I'm not going to get into them now; I'll do it at some later point in the hearing because there are many. I want to give my colleagues who are here an opportunity to ask questions at this time and then come back. So next I will go to Council Member and Chairperson of the Transportation Committee Jimmy Vacca, followed by the Chair of the Environmental Protection Committee Jim Gennaro. And again gentlemen I ask if you, we could as much as possible get right to a question.

COUNCIL MEMBER VACCA: Thank you.

Thank you everyone. Thank you Chair Dilan. I was looking at the report, and on page 24 you did talk about the most heavily impacted communities concerning climate change and I'm sure that that

2 alludes to the storm, but I did want to say,
3 representing the East Bronx, that we were spared

4 largely. We had blackouts and trees down, but we

5 were spared the devastation because of the way the

6 storm turned. And I just don't want anyone to

think that we should not be included in these type

of heavily impacted communities because if that

9 storm had turned Throgs Neck, City Island,

10 Edgewater Park, Northern Queens, we would have

11 been in the bull's-eye. We would have been

devastated, so I just wanted your response to

13 that.

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MR. PINSKY: So that is an extremely important point and one that, if we didn't emphasize we should make sure that we do emphasize, which is that this plan is not about planning for the next hurricane Sandy. It is about planning for a type of risk that is much broader than hurricane Sandy, and we certainly recognize the fact that while some neighborhoods got very unlucky during Sandy, other neighborhoods got very lucky and that the next storm or the next extreme weather event could have exactly the opposite characteristics.

And so the plan that we are putting forward is a plan that is meant to address challenges citywide. That's true of our coastal protection measures, that's true of the building resiliency measures that we're putting forward, our transportation measures, our utility measures, all of those are looking citywide.

When we say that we are focusing on the five areas of the city that suffered the greatest lingering physical damage, that's really making sure that as we rebuild these communities that happened to be hit in the storm, that that rebuilding is taking place in a way that is better and stronger and safer than those neighborhoods were before, but it's certainly not to the exclusion of any other neighborhood in the city.

COUNCIL MEMBER VACCA: Let me give you an example: what happens if a person wants to build a senior citizen development, or a nursing home in a zone A, what is the difference for that person today as opposed to a year ago?

MR. PINSKY: So, we are proposing a number of changes to the building code that would require that the critical systems within those

facilities, and it's for regulated facilities, so
nursing homes, adult care facilities and
hospitals, that those systems be better protected
so that either the residence can shelter in place
in certain types of weather events, or if they
have to be evacuated that they can be brought back
to the facility more quickly, and at that the

facility will continue to operate.

So looking at things like electrical systems and boilers and air conditioners, to make sure that those facilities are better able to handle the challenges that we know are coming in the future.

COUNCIL MEMBER VACCA: I do want to talk about one transportation item and that is the sidewalk issue. We have legislation, 1088, and I wanted to talk to you about the cost that a homeowner would incur if this law were to pass. When you make rules do you consider cost, and could you talk about changing standards and whether that would impact all existing homeowners that live in the zone A areas, or would this impact just new construction or people that have had damage. What would be the impact and cost of

COMMITTEE ON HOUSING AND BUILDINGS, ETC. 80 1 that legislation? 2 MR. LEE: First let me clarify that 3 1088 is proposing that we, the departments of 4 5 transportation and building study the issue of absorptive sidewalks, so at this time it is not an б imperative. You're absolutely right to raise 9 the question of cost. There are still some uncertainties not only in the cost of the 10 11 absorptive materials, but also in the regions 12 where you can actually practically implement that 13 kind of material. So, this is definitely 14 something that we recognize as a consideration and 15 will be incorporating it into the study. 16 COUNCIL MEMBER VACCA: Do you have 17 a timetable for those studies are making, your undertakings, is there a timetable? 18 19 MR. LEE: As soon as we can. 20 COUNCIL MEMBER VACCA: That's good, 21 Okay, talk about access a ride. I had a I think. 22 concern about access a ride. Do you think that 23 the access a ride vehicles were appropriately used 24 during the storm? Can we have access a ride 25 vehicles better utilized should there be another

1 COMMITTEE ON HOUSING AND BUILDINGS, ETC. 81 crisis to get people who are physically disabled 2 service and help? 3 4 MR. SHOBOWALE: I will just say 5 that the focus of this report really was, that I mentioned in the beginning, not the after action 6 7 report. So there's the report that Deputy Mayors Holloway and Gibbs had which basically look at the 9 actual actions of emergency response vehicles 10 immediately during and after the response. 11 This report really is more about 12 the long term impacts of climate change and make 13 the city more resilient. So as part of the scope 14 of this study we did not examine the issue that

you raise, which I think is important, but it's not something which is in the scope of this report.

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MR. PINSKY: What I would just add to that is I believe the access a ride program is actually administered by the MTA also and if so we would have to speak to them about what their assessment of the performance was.

But one of the things that we talk about in our transportation section and also in our liquid fuel section is the accordance of make

today. Thank you for your comprehensive

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testimonial of your great work and thank you for focusing on the notion of how we get things institutionalized so as we go forward into the next administration we don't lose any ground.

I just want to kind of go over some of the entities that have been created, and just to create kind of like a scorecard of who's doing what and what we need to do to make sure we have the team on the field come January next year.

So when the Mayor accredited the office of long-term planning and sustainability, which of course led to plan YC, the Council thought it was a good idea to make sure that the office of long-term planning and sustainability was part of the city law so that would live on forever. We did that. That was good. So we got that, so that good.

Then when the Mayor accredited the New York City plan on climate change in the city, climate adaptation task force, the Council thought those were excellent ideas. And last year through local 042 [phonetic] we made them a permanent part of city government also, broadened the scope of the panel and of the task force, so we got that

COMMITTEE ON HOUSING AND BUILDINGS, ETC. 84 1 2 done. And it seems like the next step is 3 to take the director of resiliency recently 4 5 appointed in the wake of Sandy and the Mayor mentioned his - I met him at the speech at the 6 7 Navy Yard. MR. PINSKY: His name is Dan 9 Zarilli. COUNCIL MEMBER GENNARO: 10 Okay. And 11 so he was appointed and we want to make sure that 12 that person or that office and that function is 13 part of a ORLTPS [phonetic] going forward. 14 And is there - because I'm always 15 thinking in terms of making sure we have the 16 proper place on the field in going forward into 17 the next administration. Is there any thing else 18 we need to do in terms of creating in law any 19 other institutions that could help this good work 20 go forward? That's sort of part of my first 21 question, then I'll let you speak to that then 22 I'll finish my question. 23 MR. PINSKY: I think making sure 24 that the proper staffing at the office of long-25 term planning and sustainability, including not

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just the director of resiliency, but staff that supports the director is of critical importance. That individual will then work with the various city agencies that have jurisdiction over the various chapters of this report. In some cases it will be multiple agencies to act as essentially the quarterback to keep the report moving.

I think what's also important is to make sure that, like with plan YC, that the plan is regularly updated as conditions change and information changes.

COUNCIL MEMBER GENNARO: Which is part of what we did when we made the office of long-term planning a part of city government, and when we made permanent the panel on climate change and the city climate and the adaptation task force, they're mandated know on an ongoing basis to continue their good work.

MR. PINSKY: yes, and that I think has been - that's a very good policy to have adopted and I think was very helpful in allowing us to do the work that we did, the fact that people have not just held the report and had it frozen in time, but that it's an evolving

2 document.

that kind of leads me to my next question. Are the various entities that have been created in the wake of Sandy and how they're all working together? So you've got the office of long-term planning, you've got the panel and of the task force to use shorthand here and call them the climate change, climate change task force, and of that we have the SIRR, the special initiative for rebuilding and resiliency, and the partnership between the Mayor's speaker and Urban Green to do the building resiliency task force.

So you've got like the SIRR folks, the building resiliency task force, the climate change panel, the climate change adaptation task force. How do they all kind of work in synergy? Are they - I just want to get sort of like a scorecard of - you've got SIRR here, you've got the building resiliency task force here, you've got the panel and task force, and, you know, what is the, what does the organizational chart kind of look like?

MR. PINSKY: Yeah, it's an

[Interposing] Page 410 of the - oh, the big book, okay.

MR. LEE: Yeah. You asked for an

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1	COMMITTEE ON HOUSING AND BUILDINGS, ETC. 88
2	organizational chart on how all of the things
3	relate, so this is kind of an overall, a high
4	level description.
5	COUNCIL MEMBER GENNARO: What page
6	is that on?
7	MR. LEE: 410.
8	COUNCIL MEMBER GENNARO: Well I
9	didn't get to page 410 yet, you know, I mean I
10	just got the book. I'm not I'm working my
11	way through it.
12	MR. PINSKY: If I may add to that
13	too, the building resilience task force is also is
14	closed in terms of issuing a report. However, we
15	do have a -
16	COUNCIL MEMBER GENNARO:
17	[Interposing] What page is that again?
18	MR. LEE: 410.
19	MR. PINSKY: Despite the special
20	initiative group and the building resilience task
21	force, having been sort of expired in a sense, you
22	know, the work must continue. And Chair, you do
23	speak to a very important point that there is
24	massive coronation not only with city and
25	agencies, but also other offices that have been

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created as a result of Sandy, such as the Mayor's office for housing recovery operations.

Therefore, going back to your first question, in addition to the director of resilience there is a great need for staffing in order to support that director and all the activities, between coordinating activities, and also implementing the 200 plus recommendations that came out of the special initiative report.

When the Council did local 042, like two months before Sandy, we thought that that would be a great way to plan for climate change, plan for sea level rise, to get all the brain waves of the top scientists and filter those down to an operational task force, and do the long-range planning and financing necessary to come up with the best ideas and make them all happen.

COUNCIL MEMBER GENNARO: Thank you.

Then, of course Sandy happened, and we had a, really jump in with both feet very quickly and I'm curious on what your perspective is on the long-range mission of the climate change panel and a task force, because like the idea, the concept that they would do the science and help

the operational task force through the long-range planning, but then we had SIRR come along. So is that going to devolve back to the climate, to the

5 panel and the task force under the OLTPS. I'm

just trying to figure out how that's going to

7 work.

We had the whole thing figured out and then Sandy happened and we had to scramble and do good work real fast. And so, you know, post Sandy, you know, how does that work? We get back to sort of regular course of doing business, and how we plan over the long-term to do these things. Did that make sense?

MR. PINSKY: Yes, it makes a lot of sense, and again, I think that we should all be very proud of the work that we, as administration, working with the City Council did before hurricane Sandy since plan YC to put all of these institutions and structures in place because we were definitely better prepared for the storm than we would have been had we not had the information, had we not begun to make changes to our building codes, etc., etc., etc.

When Sandy hit, what we learned as

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Tokumbo showed in the presentation that he did, was that in fact the vulnerability was even greater than we had expected, and so we were forced to go back and reevaluate all of our assumptions and redouble our efforts. And that's what this report does, and what this report intends to do then is to transfer responsibility back to the existing structures, including the panel on climate change, including the Mayor's office of long-term planning and sustainability, but just to make sure that there are additional elements to their responsibility that cover this greater vulnerability going forward.

But the panel on climate change was absolutely essential to the work that we did and will continue to be absolutely essential. There are very few places in the world, especially on the scale of municipality instead of a country, where people are thinking about what these impacts will be with so much specificity and looking so far into the future, and we have to keep doing that.

And by the way, the science keeps evolving, so it's not like we can get a report and

1	COMMITTEE ON HOUSING AND BUILDINGS, ETC. 92
2	say okay, we know what's going to happen let's go.
3	We've got to keep getting that updated.
4	COUNCIL MEMBER GENNARO: Great.
5	And when people ask me why the city was able to
6	respond, I indicated the Bloomberg administration
7	had gotten into the climate change adaptation
8	business through the creation of the panel and of
9	the task force years ago. So we've been doing
10	this for a long time and we are able to jump when
11	we had to jump.
12	MR SHOBOWALE: I just would add one
13	thing.
14	COUNCIL MEMBER GENNARO: Sure.
15	MR SHOBOWALE: I think specifically
16	one of the things that John's work very closely on
17	is that part of the recommendations with regard to
18	_
19	CHAIRMAN DILAN: If you could speak
20	right into the microphone.
21	MR SHOBOWALE: One of the changes
22	recommended with regard to the building code is
23	that we have to update our projections regarding
24	sea level rise because that impacts the level of
25	which our buildings should be built.

And so part of the work of the New York City panel on climate change will be coordinated with our normal refreshing of our building code, the normal cycles for that, so that if there are indeed tracking a higher levels projections for sea level rise, if those will be incorporated proactively into the building code.

So it's suggested these structures that are in place were very, very valuable and now the process is basically melding those with the new information we have, making sure that going forward, those processes work as efficiently as possible to inform our future policymaking.

COUNCIL MEMBER GENNARO: Thank you.

I was talking to Serigei [phonetic] recently I'm

going to be going to that office to pay a visit to

get - really wrap my head around everything that's

going on in that office and I'll talk to him and

get more in-depth knowledge of everything that's

going on there because I'm - I just feel I should

do that.

And one of the things is that I'll be carrying the bill to make the director of resiliency, you know, the Mayors bill, I'll be

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Chairman, if I could, before I turn it over to others who have questions with regard - I'm going to Mr. Lee's statement on intro 1088 on the bottom of page five, with regard to water retentive sidewalks.

Just two quick questions Mr.

Your statement talks about the proposal and I'm reading it now that you request that the Council work with you so that agencies are properly identified between departments, you know, various departments each in the area of expertise. I'm wondering if, because that's my bill as well, I'm wondering if you could just expand on that critique of intro 1088. It's kind of oblique what you say here.

MR. LEE: It's simply a matter of semantics and the way that the bill has dropped that - there are certain territorial boundaries between our respective agencies, particularly when it comes to the right-of-way. And so we just need to make clear that those responsibilities, that are assigned with specific agencies, are called out, are and in fact within their jurisdictional

COMMITTEE ON HOUSING AND BUILDINGS, ETC. 95 1 boundaries. 2 COUNCIL MEMBER GENNARO: 3 4 Well that certainly makes sense. And with that 5 said and in this spirit, Mr. Chairman, of keeping things brief, we just left here a couple hours 6 7 ago, and I think that's where I'll leave it for now. Thank you for your terrific work and this is 9 a great service to the people of the city, and I commend you on a job that is well done. There is 10 11 still much to do and it's really a pleasure 12 working with you. 13 MR. PINSKY: Thank you Counselor. 14 CHAIRMAN DILAN: Thank you Chair 15 Gennaro. We'll go next to Chair Koo followed by 16 Council Member Gale Brewer. Chair Koo. 17 COUNCIL MEMBER KOO: Thank you. 18 Let me begin by thanking the three other gentlemen 19 who are working very hard for our government in 20 our city. 21 My question is every time we have a 22 storm some houses that suffer damages, and then 23 other houses they, it's better for them to 24 demolish than rebuild. So has the state or the 25 city has offered them money to purchase their

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houses, so I want to know how many owners took up that offer.

So, there are two 4 MR. PINSKY: 5 programs that involve potential acquisitions of 6 homes that were damaged during Sandy and this, the cities program is really administered by the Mayors housing recovery office, so I would suggest 9 that you talk to them to get more detail about 10 this. But the first program is a program that was 11 proposed by the governor, which involves acquiring 12 properties that were damaged, demolishing the 13 structures and then leaving the land empty as a

buffer for the future.

We think that in a limited number of instances that may make sense as long as a number of criteria, which I won't go into detail on, are met, and we've been working with the governor on that. To date, there is really only one area in the city where that program has been active and that's in Oakwood Beach Staten Island. Our expectation is that it's not going to be widely applicable across the city.

The second program is a program of acquisition for redevelopment, and that involves

1	COMMITTEE ON HOUSING AND BUILDINGS, ETC. 97
2	people whose homes were substantially damaged,
3	where the city is part of its efforts to help
4	those homeowners, would acquire their properties
5	and then sell the properties back to developers or
6	people in the private sector who could then
7	rebuild in a more resilient way if the particular
8	homeowner doesn't want to stay in the location for
9	whatever reason.
LO	Again, this will have somewhat
11	limited applicability, but in order for homeowners
L2	to find out whether that program applies to them
L3	they can contact the Mayors housing recovery
L4	office if they called 311, or go to the cities
L5	website. There is a portal that takes you into
L6	the various programs that they have available.
L7	COUNCIL MEMBER KOO: Thank you. My
L8	next question is, what is the timeframe for
L9	rebuilding boardwalks, the damage during Sandy,
20	and will the cost be allocated by the federal
21	government?
22	MR. PINSKY: The timeframe for
23	rebuilding?
24	COUNCIL MEMBER KOO: The
25	boardwalks.

MR. PINSKY: Oh, the boardwalks.

The Department of Parks, again, is responsible for that and the so to get a detailed schedule I would recommend speaking with them and we can certainly get you that information.

But they, for this summer their priority was to make sure, first of all that all of the city's beaches reopen, which they've done. They also are working very actively with the Army Corps of Engineers, and in some places on their own, to ensure that the beaches are, the technical term is re-nourished, that means that they're widened again because they perform a very important safety feature. They are a very important safety feature for many coastal communities. And they also have been working to put temporary structures in place such as bathroom facilities, and - - facilities, which again they've done.

They are now in the process of engaging with local communities on the long-term rebuilding of these boardwalks. It's certainly a priority for the parks department, they just want to make sure that one, the designs that are put in

place our designs that won't make those boardwalks
susceptible to the same kind of damage that they
were during the storm. Two, potentially, if
possible to allow those boardwalks to serve as

6 another bulwark against coastal storms in the

future. And three to make sure that the designs

are designs that are acceptable to local

9 communities.

So that's a process that they are now actively engaged in. And as far as the funding is concerned, certainly if what's involved is replacing damaged facilities as they existed before the storm, that should be largely compensable, though not entirely, but largely compensable by FEMA and federal funding.

If what the parks department is looking to do is to make them more resilient, there are federal programs that are available and we are certainly trying to secure as much federal funding as possible for that work.

COUNCIL MEMBER KOO: So, we also lost a lot of trees during the hurricane, is there a goal regarding how many lost trees will be replaced?

MR. PINSKY: Again, that's really a
question for the parks department. It was
thousands of trees that were downed. The parks
department is actively managing the natural
environment for which it has responsibility, which
includes street trees.

I know their goal certainly is to continue to make our natural environment more robust, and over time I think that they believe that replace those natural features is not only an aesthetic consideration, which it is, but it's also a safety consideration. The more green that we have the more that we are able to absorb heat during heat waves. The more green that we have the more that we are able to allow the land to act as that defensive feature against things like coastal storms.

So I can't tell you exactly what the schedule is or the numbers, but I know that that is a priority for the parks department.

COUNCIL MEMBER KOO: I have no more questions for you.

CHAIRMAN DILAN: Thank you Chairman Koo. Council Member Brewer followed by Council

COMMITTEE ON HOUSING AND BUILDINGS, ETC 101 1 2 Member Lander. COUNCIL MEMBER BREWER: 3 Thank you. It is very impressive. We all walk around with 4 5 this heavy book and it's incredibly impressive, 6 and congratulations. A couple of questions. The low 8 hanging fruit, is there like a - I mean I think of 9 the rainwater as one, are you thinking along those terms? In other words what are the 10 things that 10 11 as a city out of any kind of a zone could be 12 focused on so that New Yorkers can engage and be 13 part of the solution? 14 MR. PINSKY: Well, I don't know if 15 I would describe anything as low hanging fruit, 16 but there certainly are things that we think we 17 should move forward with as quickly as possible. The legislation that's before you I think is of 18 19 critical importance. A lot of people when they 20 think about resiliency think of things that are 21 tangible like walls and the levees, and of those 22 are important to you, but certainly our 23 regulations played a critical role. 24 One thing that we found is that if

you look at the difference between buildings in

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the city that were built before the modern

building codes were put in place, and buildings

that were built after the modern building codes

were put in place, there is a dramatic difference

in the performance of those buildings. So those

codes are essential, and that's one thing that I

8 would list as a very high priority.

I also think, on the tangible side, that there are a number of things that we can do along the coastline that are very important. I mentioned a minute ago the re-nourishment of our beaches. That is important, it's not just - it's an economic matter. It's important for many of these beach communities to have their beaches back to draw people to the area and create economic activity, but as I said they also serve a defensive role.

And then one project that I would highlight in particular, not to the exclusion of any others, but because I think it's so important is another one that I mentioned during my testimony, which is this armored dune along the east shore of Staten Island. These are neighborhoods that have experienced significant

COMMITTEE ON HOUSING AND BUILDINGS, ETC 103 1 flooding four years, even during relatively small 2 coastal storms. 3 Sandy was of a different order of 4 5 magnitude and caused significant loss of life in б these areas. This is a plan that the Army Corps of Engineers has been studying since the 1990s. 7 COUNCIL MEMBER BREWER: 9 around in the 1990s. 10 MR. PINSKY: And there is now money 11 in the Army Corps's budget to complete that plan. 12 There is money in the Army Corps's budget to build 13 that wall, and if the budget is passed shortly by the city Council, as we expect it will be, there 14 15 will be money - or it's been passed, sorry. 16 Congratulations on that. With that passage the city now has the money that it needs for the 17 matching fund, and the only piece that will be 18 19 left will be a state matching piece, which we 20 certainly hope that the state government will move 21 on. 22 COUNCIL MEMBER BREWER: 23 appreciate all that. What I was asking is 24 something even larger, which is in the testimony

and in this legislation that talks about the white

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roofs and of the catching the rainwater and all - I guess that's what I call somewhat low hanging fruit. It doesn't cost a lot, but it does take input and buy-in from residents.

So I'm just wondering A does that help in terms of the overall plan, I think it does, and B how do you go about, what do you think about going about - how do you think about going - getting people to do it? I mean one suggestion I would have would be to take a program like the urban advantage, which is a middle school science, you know it well with all the institutions, and make every middle school student participate in some kind of resiliency project.

In other words, how do you get everybody to say as a city we are really invested in this? Because, to be honest with you if you're not in one of the floodplains unfortunately you don't think it's ever going to happen to you and you don't say this is important. I'm just wondering if that's part of the discussion kind of how you do the outreach in terms of all the great work you've done. How do you make it happen?

MR. PINSKY: And I think that it's

a couple things. First of all answering your first question, and thank you for the clarification, I do think that everything is important. And if you look at what the city has done, again, and very close partnership with the city Council over the last several years in terms of reducing our carbon footprint, it really is extraordinary. And if the rest of the world were following New York's example we would have a future that would look very different from the one that instead we believe that we are facing.

undertake these measures, I think part of it is putting the right incentives in place, and certainly that an important part of our plan.

Part of it is changing the laws, so that over time people are simply required to do what's right.

And part of it is through education, and I think that another important responsibility of this director of resiliency is going to be doing what the Mayor's office of long-term planning and sustainability has done on the resilience side, resiliency side, but particularly effectively on the sustainability side with respect to

difference.

resiliency, and making sure that that is a

priority that people understand the challenges

that we face, and they understand, in your words,

that there is in fact low hanging fruit that all

of us can pick, and that can make a real

COUNCIL MEMBER BREWER: Okay. I don't want to belabor the point. I'm good at low hanging fruit, that's what I'm good at. So I'm just saying is that I think it could benefit from more discussion about how to get it done.

And then just finally this whole issue of, I don't know, I call it - I'm so up to hear with gentrification in a different kind of way and the housing situation, but is that something that you have to kind of at least put in the report along the waterfront, because to me, and I might be wrong, but our waterfronts are particularly fabulous because they have a whole group of working middle on come, some wealthy, but it's a mixture on our waterfronts and I'm worried we're going to lose it if it costs a fortune to put it on stilts and hang things from it and, you know, what are all you have to do to make it

COMMITTEE ON HOUSING AND BUILDINGS, ETC 107 1 compliant. Is that something that's at least 2 discussed? 3 4 MR. PINSKY: Yes. 5 COUNCIL MEMBER BREWER: I worry б about it. I worry about it all of the time. 7 MR. PINSKY: We worry about exactly 8 the same thing. And here again, what I think to many people seems like a really esoteric subject, 9 10 the flood insurance program. The effect of the 11 changes that are coming in flood insurance could 12 be to force exactly the people that you're 13 describing who have lived along the waterfront, 14 who are not wealthy. 15 COUNCIL MEMBER BREWER: The 16 firefighters, the police officers and the - - . 17 MR. PINSKY: Absolutely, for 18 generations could force many of those people out 19 of their homes, and that is not a good outcome for 20 the city. 21 In reality the bigger challenge 22 that we've faced historically in our waterfront is 23 not that there is too much wealth along the 24 waterfront, but in fact that there is too much 25 concentration of poverty on our waterfront, and

unfortunately over the decades the city has put many vulnerable people in vulnerable places, and we certainly want to address that and in our plan to address that, but we also want to make sure that the reverse doesn't happen now. And so yes, that's a critical part of the plan that we have.

thinking about how to approach it would be like a different group of people perhaps to sit down and try to strategize on that, because it's not so much a structural issue as it is an economic issue and it's really does take a different approach in my opinion. You might want to even involve some of the pensions and of the unions, and the guess who lives - I mean I worked in Far Rockaway for two years with James Sanders and the 1990s.

Remember those years? So I am very familiar with - - etc., etc. Whatever the hell you call it now.

So I'm just saying is it really needs to be thought of and it never comes up except in those of us who have experienced it and the land side of things.

MR. PINSKY: Well, and Tokumbo in his presentation talked about the outreach that we

1	COMMITTEE ON HOUSING AND BUILDINGS, ETC 109
2	did.
3	COUNCIL MEMBER BREWER: Yes.
4	MR. PINSKY: And that outreach,
5	very purposely, was designed not just to be our
6	talking to people and saying here are our ideas
7	what do you think about them, but we spent a lot
8	of time listening to people. And we very
9	deliberately went to many different communities,
10	we didn't just go to one location and say everyone
11	come and meet us here. And in fact we learned
12	from those discussions exactly the types of
13	concerns that you're outlining here and that's why
14	our plan contains concrete steps to try to address
15	that.
16	COUNCIL MEMBER BREWER: I'm just
17	saying it's a very challenging topic having
18	experienced it myself and knowing exactly how it
19	develops, and it's not like it's going to creep up
20	on you. You won't even know it's there.
21	MR. PINSKY: Yup, I agree.
22	COUNCIL MEMBER BREWER: Thank you
23	very much.
24	CHAIRMAN DILAN: Okay, thank you.
25	We're going to go to, Council Member Lander had to

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2 step out for a second, we're going to go to 3 Council Member Chin.

COUNCIL MEMBER CHIN: 4 Thank you. 5 One question I was looking at is - I mean during Sandy, but also during blackout, all the traffic б light goes out and the street light goes out. And people are out in the street and it's really 9 dangerous trying to navigate, and I think in the 10 SIRR report you just talk about in story 500 NYPD 11 vehicle that our inverters, whatever, but I guess 12 did we think about other alternative technology 13 like solar technology that can actually, you know, 14 we have so much to really capture all the power of 15 the sun that any time, not just during the storm, 16 but any time we have a blackout that we will

quarantee that we have traffic lights and

streetlights in the city.

MR. PINSKY: We've been working with the department of transportation and have been seeking recommendations from them for the best way to ensure that our traffic signals continue to function. One of the things that we're doing, that's actually a low hanging fruit literally, is to try to elevate some of the

systems that are in the traffic signal so that there just out of the floodplain, so if water comes through the signals don't get knocked out by the storm. The proposals for the inverters and the NYPD vehicles are another way.

But we were always looking at new technologies and new approaches and one of the things that we've been talking about as part of this plan, that the Department of transportation and others have responded positively to, is the notion of trying to make sure that we're regularly going through drills. Where we look at different types of extreme events and we say, well, what will the impacts be and how are we going to react to those, and making sure that we have plans in place for addressing those. And I don't know, Tokumbo if you have anything to add to that.

MR. SHOBOWALE: I'm just going to add one thing. One of the advantages of the inverters is that obviously there are thousands and thousands of streetlights and - - in the city, so retrofitting all of them is very costly. One of the advantages of the inverters is that the cars themselves will be mobile. So, to assess the

MR. PINSKY: Yeah, but just - I

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agree, and none of this is to dispute that, but I think underlining a point that Tokumbo made is that when we think about how to make the city safer in an era where we have limited resources, one approach would be to try to pay to put solar panels on all of the traffic lights and thereby ensure that no matter which traffic light goes out that we have a backup.

expensive because we have so many different traffic signals. Whereas if you can put together a relatively small mobile fleet, no matter where the problem is you can bring a solution to the problem. So that's the philosophy behind the approach. Again, it's not to disagree with anything that you're saying and it's certainly something that will continue to explore, but just so you understand the philosophy.

COUNCIL MEMBER CHIN: Oh yeah,
yeah. I mean as technology advances there's
probably many ways to do that. I have just one
question about the bill that I'm introducing, the
one that, that talking about really having
buildings, you know, residential buildings and

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commercial building, posting information about emergency preparedness, and I know that in the testimony of Mr. Lee talked about ultimately it relies on the property owner, but the city should

really help develop those kinds of plans.

The thing that comes to my mind is that in a residential building we all have to post a flyer on our door that says in case of a fire this is what you need to do. So, I mean during super storm Sandy a lot of residents in my district, and lower Manhattan, didn't know where to go or they couldn't, once they left the building they had no way of contacting or getting information when they could move back.

So it just seems like there needs to be a plan developed and posted to let people know exactly what they need to do if they don't vacate the building. So it's somehow is, yes, ultimately is the property owner, they have two posted or give it out to the resident, but ultimately the city, they have some responsibility to work with them to develop the plan, but at the same time make sure they do get the information out to the resident and to the businesses that

2 rent the commercial buildings.

MR. LEE: You are absolutely right, and the city does bear a large part of the responsibility to help to develop the guidelines for each buildings specific plan.

A word of caution that I present the testimony is that the city cannot be held before each and every individual buildings specific survey of those conditions within the buildings. We as a city can provide the general guidelines, and much like you said, in terms of the buyer evacuation plans the city does certainly provide the guidelines.

But ultimately the private property owner is the one that hires the architects and engineers to do the survey of their specific buildings to develop, again, the buildings specific plans, and then the owner, again, with the assistance of the city's guidelines then is the one that boasts those plans, again, conforming to the city guidelines, but it is specific to their buildings. The city itself cannot be held responsible for going into every single building to develop those specific plans.

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COUNCIL MEMBER CHIN: Yeah, they
develop the plan, but the city does have a
responsibility to make sure that they do get the
information out.

MR. LEE: Oh yes, absolutely. So the enforcement is on the city side and also to provide the general guidelines, but ultimately then the responsibility is held against of the owner.

COUNCIL MEMBER CHIN: Okay, thank you. Thank you Chair.

CHAIRMEN DILAN: Council Member Lander.

very much Mr. Chairman for being here bright and early this morning after our late night. I don't know if the folks from the Parks Department are still here, but on the day the pools open, I just wanted to announce how glad I am that the Red Hook pool is open this morning. When I went by after the hurricane I thought it would be closed for years. So, credit to the folks who got it open for the summer season.

And a big credit to you guys on

2 this document which is essential, ambitious,

3 realistic, long-range and would have been easy not

4 to do at this level of seriousness. And while

5 last night in this chamber we had some strong

6 disagreements with the Bloomberg administration,

7 this is a great credit to it and I want to say

8 thank you.

And as one of the members who, knock on wood, will be here coming back in the next term, I also want to pledge that we are going to be committed, I am going to be committed, I think the rest of us will be committed to making sure that this body can also act as a steward of this plan. Whoever is on the other side of City Hall, because it is important and so we are grateful for the ways you've worked with us and want to commit to make sure we can organize ourselves to do that as well.

In that spirit a few thoughts, and maybe let me just put them in one thing in the interest of time because it's a longer-range process. Mostly I think it is a extraordinarily good document, and especially that the costbenefit analysis and the kind of thinking about a

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set of risk factors and how we evaluate 2 investments makes a lot of sense. 3

document really understands.

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But a few thoughts on how we can sort of dig even deeper. Some of them build on what Council Member Brewer was saying. I was very pleased that there is some things in here on what I call social resiliency, pages 157 to 161, and it's a credit that this document in some ways is better on that than the after action report, which speaks to some of those things, but that this

And you mentioned the Chicago heat wave, I know you read Eric Kleininberg's [phonetic] work on how essential, to prevent people from dying, social capital was. And I'm glad to see it in here, but I think we need an even more robust dialogue about it, both because it's essential to Council Member Brewer's point about getting people to do what's necessary and recognize the change because it saves people's lives in the case of climate change in a way the government can't always reach.

And it builds on that moment, that spirit after the hurricane that I think is

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necessary, both to get us organized for the next a disaster and before the action needed to make the city more resilient. So I'm glad to see it, but would like to do more of it.

That's related to these issues of community planning and how, it's in here, relates to how we plan for communities. I have the - - especially in mind where we are going to make a whole new land-use plan with this in mind, but I think, I'm not sure we have the framework in place to integrate what the Resiliency Directors going to be doing and thinking on the infrastructure investments with our city planning infrastructure.

So I think that's going to be an important, and I know not every place is up for a big rezoning as well, but that also is important for us to figure out how to get right. That relates to the issues Council Member Brewer talked about, equity and opportunity and how we enfranchise people, in the neighborhoods, in decision-making and coming up with the protections and getting jobs and climate resilience and change.

And then finally I want to think a

little more, I mentioned this to you President Pinsky when we sat down about it, about the relationship between this and our capital planning and the capital budgeting process, which is not a very strong one for a comprehensive and coordinated planning and priority setting. that's charter set so it precedes the, this is of course not the Bloomberg administration, but historically every agency does their own capital planning and the budget director makes sure it all gets in a book together.

But, and so you guys here recognize the need to prioritize and use data and information, but it's not happening anywhere else in the capital budget, and we've got a lot of other infrastructure issues to address. And so I also think we need to think about what process is going to connect this with our capital budget and planning processes so we can make those decisions both sides of City Hall looking forward.

So, I mean I'm happy to hear whatever you have to say on any of those things.

That's a lot and there really long-term work together and I think they all are set up well from

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2 this document, but I wanted to take this

opportunity to -

[Interposing] Thank MR. PINSKY: you. And I'll just respond very briefly. On the capital budgeting, I think that's a longer discussion and we're certainly more than happy to talk to you about how we can improve the process, there's always room for improvement for sure. Although, I think that one of the things that was particularly noteworthy about this effort was our ability, working with the office of management and budget and the various agencies as well as the leadership coming from the Mayor and the Deputy Mayors, how we were able to think about the city's investment priorities across a wide range of agencies and to make sure that we were thinking about this comprehensively. And I'd like to think that we do that generally with the capital budget, but again if there are suggestions we are always happy to discuss them.

In terms of resiliency and of the city planning process I would just make two remarks. One is that city planning actually was very heavily integrated with the creation of this

plan, and has been doing some groundbreaking work on the question of resiliency, which I think they have been in fact integrating into the rezoning's that they've been doing. And I know going forward with the additional information that we've developed in this plan, there planning on doing even more in the future.

They also, as part of this plan, are in a number of different places undertaking studies of very specific communities that were either impacted by Sandy or are vulnerable to future extreme weather events.

either discourages or doesn't appropriately encourage people to take climate change and the effects of climate change may have, into account. In the coming out of that the goal is to create actual changes to the cities zoning regime either in specific neighborhoods or citywide to address those challenges.

So this is something that they definitely are thinking about and the director of resiliency will certainly be working with them on that.

And then finally with respect to your first point, which I'll refer to with a shorthand, of social planning and community planning. I appreciate your noting that it was a part of the report, and it's actually something that we heard from a lot of people as we went out and spoke to them, was critical for the recovery of their communities.

And the thing we were struggling with, and that I continue to struggle with in my own head, is given that a lot of these structures for them to function best they need to be created from the grassroots up. What role should government to properly play in helping to create these networks?

It's not to say that there is not our role, it's just tricky because the more involved government is the less grassroots they are.

COUNCIL MEMBER LANDER: Just two final thoughts on that. First, what you're describing to me in many ways is the challenge that the city met in an extraordinary way at the birth of community development for New York City.

There were grassroots organizations in abandoned neighborhoods that grew up from the grassroots, but they were met in public policy and they did extraordinary work to rebuild the city.

You're right, it's a complicated balance and you can get too far in one direction or the other, but to me it's something on this scale of what happened at the birth of the community development movement, and community development actors should be included and that it will take, as that did, an array of forms, but that we should be ambitious about it.

And I like the pilot programs that are in here, but think we have to think about what that will look like at some scale and how we pay for that and integrated with our existing community development infrastructure.

And then just finally, I just want to say the words comprehensive planning. This is a comprehensive plan for resiliency. City planning has not - has done a lot of good things of the kind you're talking about, integrating regulatory and programmatic focus, but I think what we'll need is an integration of the

comprehensive planning impulse in here into our land use planning and infrastructure investment framework if we want to make those decisions in a way that bring - you can do this every so often.

Like, you know, you had a burning platform to be able to put together, a coordinated and integrated set of investments, it's hard to sustain over time.

So I don't want to - that's - it's work to do to make sure we can keep that moving forward as we make both other infrastructure and land use planning decisions.

MR. PINSKY: And again, we recognize that there is always room for improvement in every process and is certainly acknowledged that.

I do think though that with respect to specifically to city planning, I wasn't aware before this of how much work they had been doing and how integrated it was into their land use actions it was. And I think that through this process some of that work that's been happening internally and behind the scenes has now gotten greater exposure.

And I also think that there were
several studies that they were undertaking that
were actually nearing completion, just by
coincidence, that will be released in the coming
months that I think will give the public a better
understanding of everything that they have done.

COUNCIL MEMBER LANDER: Just to be clear. My last comment, I don't think of this as criticism or even asking for something to be better than it was, the magnitude of the challenge that we face is immense. This is a great piece of work to help us get there and there is more we're going to need to be doing.

MR. PINSKY: Appreciate it.

COUNCIL MEMBER LANDER: Thank you.

Thank you Mister Chairman.

CHAIRMAN DILAN: Thank you. We've been joined by Council Member Jackson of Manhattan, and then we'll go to Council Member Debbie Rose from Staten Island.

COUNCIL MEMBER ROSE: Thank you.

Good morning. I was approached by a constituent who felt that the story in terms of fuel distribution hadn't been adequately told, so she

25 So I want to know how the city plan

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deliveries.

prioritizes the distribution of fuel reserves, or will do so in the future? And according to your report you have said that you will call on the federal government to convene a regional working group to develop a fuel infrastructure hardening strategy. Has this, have conversations actually happened? Have you spoken with other stakeholders, and what is the likelihood that this working group will ever get off the ground?

MR. PINSKY: So those are excellent questions and I appreciate your asking them. It's hard for me to comment on the specific case that you provided.

COUNCIL MEMBER ROSE: I didn't want you to do that.

MR. PINSKY: And I understand that and obviously my condolences to the family of that gentleman. You know, what happened with the fuel supply I think is illustrative of why it's necessary for us to do the kind of analysis that we undertook at the direction of the Mayor before putting together a plan. Because I think people's reaction shortly after the storm was that the reason why our fuel supply was interrupted was

vehicles I'll call them, have adequate fuel supply

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so that the city can actually get back on its

feet. Those include certainly vehicles like

ambulances, police cars, fire engines, but they

also include things like the utility services,

which you need fuel in order to get their workers

to the right place to repair the utility system.

They include, for example, food delivery trucks

which have to get through to make sure that

supermarkets are stocked.

And there is a plan that Dee Cass [phonetic] has put forward to create an emergency fuel supply that can be accessed by the city that would then be made available to those kinds of recovery vehicles.

The second thing -

COUNCIL MEMBER ROSE: [Interposing]
Where would you stockpile that large number of,
that large amount of fuel in the inner-city?

MR. PINSKY: that's something that
Dee Cass is going to look at and they want to make
sure that there doing it as cost-effectively as
possible, but it doesn't have to necessarily be a
strategic reserve that the city itself maintains,
it could be on-call contracts that we have with

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suppliers from around the region who will guarantee us, by contract, that in the event that the fuel supplies interrupted, from their supplies they'll make sure that they prioritize us. That could be an example.

A second part of the strategy is taking sure that we have, kind of sitting on the shelf, the kind of regulatory changes that ultimately were put in place that had a very significant impact I'm getting supply and demand in balance, like for example the odd/even rationing that was eventually put in place, or some of the waivers of federal, state and city rules that were keeping fuel companies from delivering emergency supplies to the areas. So we want to make sure that we have those ready to go in the event of a future event.

And then the third is what you were referring to, which is that even if we did all of those things much of the supply chain is outside of the control of city government. And so we have to make sure that we are coordinating with the rest of the state of New York, with the state of New Jersey and in some cases the state of

2 Pennsylvania, local jurisdictions.

And we've actually engaged with Secretary Donovan on this. I think he is very interested in working with us. We've spoken to some of the other jurisdictions in the region; I think they are interested in working with us on this as well. So I'm pretty optimistic that we're going to be able to get that moving fairly soon.

COUNCIL MEMBER ROSE: And are we looking at the use of solar power or panels as an alternate source to provide our four like streetlights, for the gas pumps, for traffic control devices, for elevators.

MR. PINSKY: Yeah. In the utility section of the report, in addition to the various strategies that we have to harden assets, change the regulations, we are also looking at trying to increase the diversity of energy sources that we are tapping including solar, distributed generation and other potential sources, because the best way to ensure robustness of our utility and energy system is to ensure that there are as many different options as possible, and that we're keeping our energy consumption as low as possible

so that we can deal with peaks in demand as occur

when you have, for example, higher weather.

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COUNCIL MEMBER ROSE: And Seth, as you very well know, Staten Island has our waterfront on the North Shore and the East shore,

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has a proliferation of industrial and maritime $% \left(t\right) =\left(t\right) +\left(t\right) +\left($

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businesses. So I am really concerned about what

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address the displacement of toxic and industrial

remediation efforts are being put in place to

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chemicals and waste in our flood zones.

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sector along our waterfronts is a priority for us

MR. PINSKY: So, the industrial

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as well. It's a priority in two ways, one is we

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want to make sure that we are preserving the

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economic activity, the jobs and all of the other

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benefits that come from that activity, and the so

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we have a number of different programs that are

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designed to help those kinds of businesses which

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have very special needs to make the investments

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that they need to make, to make themselves more

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resilient.

On the flipside we have another

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concern, which is the one you mentioned, which is

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the fact that in many of these places there are

hazardous substances that are either stored or
used as part of the industrial process. We have
in here as some of our initiatives the completion
of the open industrial uses study that's been
going on out of which will come recommendations
for better monitoring of those kinds of

substances, and also making sure that they're

stored in a more resilient and safer way.

We are also talking in here about beginning a study for closed industrial uses as well. So that is definitely - those are our issues that we are very well aware of, that we understand that with a greater number of weather events like Sandy likely to occur in the future, we need to think about, even more than we have in the past, and that is part of our plan.

COUNCIL MEMBER ROSE: And so what did we do about the fact that those substances have already been washed ashore into our communities and there was nothing done. There was no cleanup effort, there was no effort to alert the community as to the possible and potential hazards, and along Richmond Terrace we had homeowners where because of the storm surge those

2 substances were washed into their homes.

MR. PINSKY: So again, I can't 3 speak to specific instances, but what I can say 4 5 citywide is that DEP, which is the city agency that's responsible for monitoring toxic 6 substances, and the EPA the federal agency that's responsible for monitoring toxic substances, did a 9 substantial amount of testing around the city at locations where there were known to be either 10 11 toxic substances stored, or in the case of the 12 EPA, superfund sites like the Qantas [phonetic] 13 Canal and in Newtown Creek, and the results of 14 those analyses were that as a general matter, and 15 again I can't speak specifically to the instance 16 that you cited, but as a general matter there was 17 not a significant contamination that occurred. 18 Not because the substances weren't spilled or 19 weren't washed away by the flood waters, in many 20 cases they were, but what happened, I quess, which 21 is a small silver lining in an otherwise great 22 cloud of the storm, was that the volumes of water 23 that came through many of these locations were so 24 great that the toxic substances were largely diluted, and therefore didn't have significant 25

2 impacts.

But that is something that DEP I know is very much concerned about and did an extensive amount of testing, and I'm sure that they could come back and speak to you in more detail about the specific location that you are referring.

really like that because we still have, on the streets, the soil that was washed, that was washed in land, and there hasn't even been an effort, as much as sanitation to come, and clean it up. And so I really would like someone to address the north shore waterfront, especially that particular core door because there is some residual soil and it no one made an effort to come and deal with that. Thank you. Thank you, Mr. Chair.

CHAIRMAN DILAN: Thank you. We were also briefly joined by Council Member Michael Nelson of Brooklyn. I just have a few, and I'll be brief, wrap up questions and the legislative items before us for Mr. Lee. A lot of them surround around the resiliency of buildings. We understand that there is more than one way to

that, you know, for example a boiler, it's not

just a - - itself, it also has the fuel lines and

the exhaust lines that also have to be considered

in where you locate those, and of the potential

for using what would be otherwise usable, rentable

square footage elsewhere in the building.

not there is a better protection that comes from elevation versus actual flood waterproofing of equipment or the spaces that house the equipment.

On the one hand elevation would appear to be better in that you get it out of the flood, what's called a base flood elevation, but as Sandy demonstrated our current regulations as to what that elevation is proved an adequate.

So even, there weren't as many cases, but there were proven instances where even though it was built and elevated to what was the current regulated standard, it still suffered inundation because the flood insurance rate notes were inadequate in describing that elevation.

When it comes to flood protection we have an element of hubris where we believe we can engineer our way out of anything. We can put

but nothing is ever foolproof.

CHAIRMAN DILAN: Okay, thank you.

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I want to ask a question specifically towards
intro 1089 before us today that will allow for
more fuel storage on the floor immediately above
expected flood levels. The purpose of this would
be to make sure that there's enough fuel for
emergency power generators and that the fuel is
protected from flooding. Is it safe to increase
this fuel storage limit?

MR. LEE: Is it safe are you asking?

CHAIRMAN DILAN: Yes.

MR. LEE: Yes, we believe that it is safe. The current code as the preference for placing the fuel storage on the, what's called, the lowest level. And this works especially well for real estate interest where we, where builders do not have to use what would be otherwise rentable floor area, but as Sandy proved that there are clear advantages to having the fuel sources above that flood elevation.

As I said before, you can have it below the flood elevation and you can protect it to the extent that's possible, but this affords much more flexibility in the design of buildings.

fuel oil in a tank below that there's the

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potential, especially if the tank is only halffull, that the tank he comes buoyant when the room
becomes flooded, and this provision adds for the
structural reinforcement of those tanks.

CHAIRMAN DILAN: Very good. Intro

1101 would allow for emergency power systems to

use natural gas as a power source. What are the

advantages and drawbacks of using natural gas? Is

it cost or any other factors?

MR. LEE: First and foremost natural gas is a much cleaner burning fuel, as compared to diesel which is very common for emergency generators. Also many buildings are putting in what's called cogeneration systems, which allow the use of natural gas to not only generate electricity, but also to generate heat for the building.

And in the aftermath of Sandy, many of these cogeneration systems still had operational capacity despite the utility grid going down, and they proved to be a very reliable source of power and heat. However, because of the given regulations now those systems cannot be used for emergency power and the so building owners,

The bill that is before us today

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would amend that to allow for a 60 second lag time between the loss of power before the emergency generator kicks in. And that sort of configuration is more ideally suited for these natural gas type systems.

The longer the lag time, while in some may be perceived as having a greater risk, there is also mitigated within this bill by affording that some battery backup is picking up that lag time of that 50 seconds in the interim - at 60.

intro 990 would have the city use FEMA's newer preliminary work maps as its floodplain map rather than the old firms. Obviously the preliminary work maps is based on newer science and newer data. Is there any reason why using the older map would be preferable, and is there any reason why it might be better to wait for the new firms to be finalized rather than using the preliminary maps in the interim?

MR. LEE: The reasons for why we use the older maps is truly procedural. It has to do with amendments and the ability for an

faces in the audience at these hearings and I went

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up and had a chat with a young woman from the 2 North Shore Conservancy, she will be testing later

on, her name is Beryl Thurman [phonetic]. 4

> And the Council did a wetlands transfer bill several years ago to look at wetlands properties that were owned by city government agencies, or city government corporations like EDC that were - basically all the wetlands that were not owned by the Parks Department therefore under the permanent protection of the Parks Department, and the bill saw it to make an inventory of all those wetlands that really should be transferred to the Parks Department for permanent protection.

> And there was kind of a big - with regard to Arlington Marsh Cove on Staten Island. And because it was thought well, do we need it for the possible growth of the port or do we keep it preserved. The Department of Sanitation was involved because they had a particular interest in it.

And after going back and forth for a long time then deputy Mayor Dr. Roth [phonetic], he and I went out there like on a fire boat, took

a look at the place, walked around it and it was, it was a fun day. But he ultimately relented and that was meant to be transferred to the Parks

Department. I just got some information that some of it was transferred I think, but there was 16 acres that have not yet been transferred, and it's I think fair to say that those, that amount of acreage, had that been developed, that would have led to catastrophic consequences to people who live behind of the marsh, and you know the marsh well served the people that lived behind there, but by giving protection from the storm surge.

And so what I'd like to give to you guys to take back is whether or not we should make a move to get that 16 acres under permanent protection so that we could have that - yeah, I'm just - so that's what I'd ask you to look at. You can have a conversation with Ms. Thurman who's sitting over there on the way out.

It was a whole big thing. I was under the impression that the full thing had been transferred. And my thinking at the time was this would provide great protection for some kind of storm surge, and it did.

today.

And so I just want you to take a			
look at that. It seems very consistent with what			
we're doing. And if so we should have a post			
Sandy look at that remaining 16 acres, so if you			
could talk to Ms. Thurman about that and the let			
me know what happens with that that would be			
great.			

9 MR. PINSKY: Sure, thank you.

CHAIRMAN DILAN: Thank you Mr.

Chairman. Again I'd like to thank you all for your time and the testimony and your work on behalf of the city that you've undertaken for the past several months. Thank you all for coming

MR. PINSKY: Thank you Chairman.

CHAIRMAN DILAN: She's right over

18 there. So we'll call up - - Jim you call it up?

COUNCIL MEMBER GENNARO: Sure. The next panel that we'll hear, we have Cecil Scheib from the Buildings Resiliency Task Force, also is part of the Urban Green Council. We have Lance Jay-Brown and Margaret Castillo, I hope I'm pronouncing that right, from the architects.

Ramon Gilsanz [phonetic], I hope I'm saying that

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2	COUNCIL MEMBER GENNARO: If you
3	give that to the, if you like the to have
4	copies of your written statement, perhaps - the
5	sergeants giving that out now. And anyone else
6	that has written statements can provide them to
7	the Sergeant and then we could -
8	MR. SCHEIB: Well good afternoon
9	Chair and thank you very much for having me.
10	COUNCIL MEMBER GENNARO: Okay, I
11	just want to make, I also want you to speak into
12	the microphone. I just also would like to get
13	your statement. You have a written statement in
14	addition to that?
15	MR. SCHEIB: That is in the hands
16	of the Sergeant at arms.
17	COUNCIL MEMBER GENNARO: Okay,
18	there you go. Now I know what I'm doing here.
19	Mr. Scheib if you could just state your name for
20	the record and proceed with your good testimony.
21	Nice to see you again.
22	MR. SCHEIB: Thank you very much.
23	My name is Cecil Scheib. I'm from the Urban Green

Council and I was the Managing Director of the

Building Resiliency Task Force, I'm from the Urban

COMMITTEE ON HOUSING AND BUILDINGS, ETC 151 1 2 Green Council. I'm actually only going to state a 3 shortened version of our testimony because most of 4 it has already been spoken. 5 б COUNCIL MEMBER GENNARO: God bless 7 you. 8 MR. SCHEIB: And as you all are 9 looking forward to a well-deserved nap. So as you know the task force was brought together shortly 10 11 after Sandy by a joint effort of the Mayor and the 12 Speaker. We convened over 200 of the city's top 13 experts from all aspects of the building and real 14 estate industry including architects, engineers, 15 hospitals, NICHA [phonetic], the building trade 16 owners, city officials, so basically the full breadth of the industry. 17 We met for five months; we had 45 18 19 meetings, about 5000 hours of donated volunteer time by our members, which we estimate is worth 20 21 about \$1.1 million. So this is a major effort in 22 behalf of the city. 23 As you've heard the SIRR effort was 24 a very broad look at the citywide infrastructure. Our effort on the task force was a deep dive into 25

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future challenges.

buildings. So we looked at the details, mostly of the building code, a few other places and made various proposals to strengthen our city against

As was earlier stated we look forward to working with the Council over the summer to straighten out any minor issues, or its everything's been happening very fast, but this is probably not the time to go into great detail about those items.

As you'll see in the report, which the Sergeant has handed out, we looked at basically four different aspects of building resiliency, stronger buildings, making our buildings more ready for future events and also trying to stop those events from being so extreme if possible. Backup power, so looking at the chance of having extended blackouts and power outages. Essential safety, seems very crucial that our buildings residents are safe if we lose power, and even the backup power goes out we still need to be safe and our buildings. Have indoor temperatures be habitable, have lights in the stairways and of course have water in our

COMMITTEE ON HOUSING AND BUILDINGS, ETC 153

2 buildings.

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And finally better planning, need to think about the human elements. All the equipment in the world won't help if people aren't trained to use it properly and know what to do an advance of an event.

The task force did look very carefully at costs. We had members representing all of building sectors, both market rate and also housing as affordable. We looked at commercial buildings, we looked at residential buildings, we looked at the homes, we looked at hospitals, and tried to balance very carefully the needs of the different building sectors against the costs of the things that were being proposed.

Obviously in some cases the need for our buildings to be protected is very strong, but we have to keep in mind the actual ability of owners to bear the costs of making them better.

We found that our current building code was in general very good, and so overtime, as buildings fall under the building code as they undergo substantial renovations, we do expect the city's building code - the city's building stock

no problem.

COMMITTEE ON HOUSING AND BUILDINGS, ETC 155
COUNCIL MEMBER GENNARO: And I
also want Ms. Harris to - do you have a statement
here?
MS. HARRIS: Yes. I think you
should have it.
COUNCIL MEMBER GENNARO: The ICC
right?
MS. HARRIS: That's it. Yes,
that's correct.
COUNCIL MEMBER GENNARO: Oh, and
really really nice small font. Great for an older
guy.
MS. HARRIS: Sorry.
COUNCIL MEMBER GENNARO: It's a
challenge. Good for you.
MS. HARRIS: Well, good afternoon.
COUNCIL MEMBER GENNARO: Please
continue.
MS. HARRIS: Chair Members of the
Committee on Housing and Buildings, Environmental
Protection, Parks and Recreation, Transportation
and Waterfronts. My name is Dottie Harris. I'm
the Vice President of State and Local Government
Relations, and you're really, liaison to the

1	COMMITTEE ON HOUSING AND BUILDINGS, ETC 156
2	International Code Council.
3	The International Code Council, or
4	ICC, is a member -
5	COUNCIL MEMBER GENNARO:
6	[Interposing] Oh I remember you now.
7	MS. HARRIS: Yes you do.
8	COUNCIL MEMBER GENNARO: Okay, I
9	remember you know. Okay fine, sorry.
10	MS. HARRIS: Very important issues.
11	COUNCIL MEMBER GENNARO: Yes.
12	MS. HARRIS: We are a member of
13	Focus Association dedicated to helping the
14	building safety community and in the construction
15	industry. Provide safe and the sustainable
16	construction through the development of codes and
17	standards used in the design and the compliance
18	process. Most US communities and many global
19	markets choose the international codes, and since
20	2008 adoption of the new building and fire codes,
21	New York City also uses the international codes as
22	a basis for the city construction codes.
23	The mission of the ICC is to
24	provide the highest quality code standards,
25	products and services for all concerned with

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safety and performance of the built environment.

I am honored to be here today to 3 discuss rebuilding after Sandy and the 4 5 opportunities for improving the resiliency of the city's infrastructure. Earlier this week I 6 appeared before the Housing and Buildings Committee in support of intro 1056, which will 9 amend the administrative code of the city of New York, the cities building, mechanical, plumbing 10 11 and field gas codes, by updating these New York 12 City codes with the 2009 editions of the model 13 international building, mechanical, field gas and the plumbing codes, along with New York City's 14

specific modifications.

The passage of intro 1056 is critical to any rebuilding following Sandy because it will ensure up-to-date building construction standards including the latest FEMA requirements are in place to ensure safety and resiliency for all new construction.

The international codes are currently adopted in the state or local level in all 50 states, DC, Guam, Puerto Rico, the US Virgin Islands and the Northern Mariana Islands.

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The international codes are revised and updated every three years by national consensus process that strikes a balance between the latest technology and new building products, economics and the cost while providing for the most recent advances in public and first responder safety and installation techniques.

The updated model I codes thereby ensure safety, energy efficiency, sustainability and long term resiliency to the built environment. The I codes are correlated to work together without conflict so that as to eliminate confusion in the building designer and consistent code enforcement among different jurisdictions.

The code development process is an open and closed process that encourages input from all individuals and groups and allows those governmental members, including many representatives from New York City, including other state and local governments to determine the final code provisions.

New York City is one of many jurisdictions that values public and first responder safety and the protection of our built

environment by updating building, fire, plumbing and energy codes every three years. By regularly updating your building construction and safety codes every three years the city provides the safest, most technically advanced and economically balanced climate for its citizens.

Since these updated codes allow for the new construction standards, methods or materials while ensuring safety, sustainability and resilience to natural disasters like Sandy.

Keeping current with the most upto-date model codes and standards is essential to
the mitigation of the many risks posed by natural
or man-made disasters. In fact, benefits of
building to regularly updated codes can improve
safety, reduce construction and maintenance costs,
energy savings and lower insurance premiums.

For instance, every dollar invested in constructing safer and stronger buildings on average reduces losses from high wind damage, floods, earthquakes and other disasters by four dollars according to the report issued by the Multi-hazard Mitigation Council of the National Institute of Building Science.

2 As evidence by various

organizations that participate in the ICC code development process, many of the code change proposals, each code updated cycle deal with hazard mitigation and lessons learned from various natural disasters. For example FEMA and the American Society of Civil Engineers collaborate at the code development hearings to propose and again adoption of numerous disaster resistance provisions for earthquake, wind and flood hazards. Representatives participate in various code and standards committees to lend insight to code related studies.

As a result several improvements have been made over the last few code cycles such as updated flood maps, requirements for flood enclosures or events and improved roof drainage requirements, updated wind maps, updated wind load requirements, design standards for storm shelters just to name a few.

Other requirements help mitigate wind damage by prohibited loose roofing materials and provisions for securing building exterior insulation and finish systems to prevent wind

damage that would expose the building to whether elements or create flying debris that could damage other structures. Seismic requirements have also been updated over the last two cycles of the model IBC.

I was privileged to participate in the activities of the building resiliency task force. The members of the various committees took their roles very seriously, and I would like to commend the Mayor, the Speaker, the City Council and the Urban Green Council who led the BRT [phonetic] efforts outstanding work to ensure safety, health and well-being of its citizens.

You have several bills before you today with specific recommendations. While I am in support of all these bills I would only caution the committees to be sure to coordinate these bills with intro 1056 as outlined above, so that proper administration and enforcement of the new New York City construction codes can occur without any unintended consequences.

Additionally, one of the recommendations outlined in the building resiliency task force report, which is before you

1	COMMITTEE ON HOUSING AND BUILDINGS, ETC 162
2	today, but it will be coming down the road, is for
3	the city to adopt an existing building code based
4	on the international existing building code that
5	addresses alterations, additions and changes of
6	use and already existing buildings or structures.
7	Therefore, the ICC and all of our
8	technical resources stand ready to assist the city
9	as it moves forward with the review adoption and
10	implementation of these additional construction
11	codes in the future. Thank you for the
12	opportunity to testify today.
13	COUNCIL MEMBER GENNARO: Thank you.
14	Thank you very much. We'll have questions for you
15	once the panel is complete. What did I do with
16	the other one? Next will be Ramon Gilsanz. Yeah,
17	I can't make out the affiliation, but you can
18	identify yourself. Thank you.
19	MR. GILSANZ: I'm Ramon.
20	COUNCIL MEMBER GENNARO: Okay,
21	yeah, please. If you could state your name and
22	affiliation for the record.
23	MR. GILSANZ: Good morning
24	community members.
25	COUNCIL MEMBER GENNARO: And I just

1	COMMITTEE ON HOUSING AND BUILDINGS, ETC 16
2	New York City resiliency tax force providing the
3	New York City Department of buildings on call
4	emergency assistance after hurricane Sandy.
5	Participating in the the
6	investigation team of the American Society of
7	civil engineers 24, a task force for flood
8	resistant designs and construction. Assisting the
9	year technical extreme events reconnaissance, GEER
10	[phonetic] Association in there investigation.
11	I'm serving on post-earthquake
12	reconnaissance teams dispatched by the Applied
13	Technology Council and of the American Society of
14	Civil Engineers to Chile in February 2010 and by
15	Earthquake Research Institute to Virginia in
16	August 2011.
17	GMS also played a role in the World
18	Trade Center cleanout effort and contributed to
19	FEMA and the National Institute of Studies of
20	the World Trade Center. I am the lead author of
21	the recently released Americans issue of steel
22	construction, steel design guide for blast
23	resistant structures which has recommendations for
24	making buildings more resilient against collapse.

I recently testified before the CD

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on Tuesday on the subject of intro 1056, and I've seen some of the community members are already familiar with my personal background, hence I will not repeat that information.

As Chair of the structural technical committee for the Department of Building, revision of the New York City building code and participant of the buildings resiliency task force, my testimony today is in support of the work product of the building resiliency task force, which aims to improve the city buildings standards to address emergency situations.

I'm in support of intro 1056, a comprehensive revision of the New York City construction codes which was presented to the city Council earlier this week.

Together this recommendation has helped improve the city's resiliency by filling in the gaps of the city's existing building codes. They're not mutually exclusive and when combined will put New York City at the forefront of innovation, resiliency and safety in construction.

I would like to highlight some critical recommendations of the building

discourages upgrades to improved resiliency.

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Putting an existing building code in place will

help provide clarity to owners, designers and

contractors about the requirements from an

existing building renovation and encourage owners

to improve resiliency.

Adding a

Adding a specific provision to the proposed existing building code which could address the needs of post disaster reconstruction with the aim to remove barriers to improving buildings during this time sensitive recovery periods.

apartment residents and homeowners, support
emergency responder legislation which could
encourage architects and engineers to get involved
during emergency recovered efforts by reducing
liability concerns. These legislation would go
beyond good Samaritan legislation by providing
liability protection not only to short-term
volunteers, but also to architects and engineers
that in her into long-term contracts with the
city.

The legal challenges of architects and engineers involved in the World Trade Center

cleanup effort after 9/11 illustrate the risks that the architectural engineering community currently faces. Following the cleanup GMS along with 20 other engineering firms face lawsuits for over 19,000 plaintiffs regarding health problems arising from their quality at the site. The lawsuits sprang from an area outside of our control and expertise, and it took 10 years to resolve.

Emergency responder legislation would protect against similar and foreseen conditions that could occur in future disasters. Because the recommendations above are important steps in improving New York City's safety and resiliency during emergency situations, we urge the Committee and Council to support and quickly pass the proposals presented before you today.

I've been honored to participate

for the past five months in these building

resiliency efforts, and as a structural engineer I

look forward to seeing the benefits of these

recommendations will yield. I urge your support

and quick approval of today's proposals.

COUNCIL MEMBER GENNARO: Thank you

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very much for your statement, and the like I told the other panelists I'll have comments for the panel when the testimony is concluded. And then next from the AIA Lance Brown and Margaret Castillo, I hope I'm saying that right, and this is your testimony right? And if so Lance and Margaret, whoever wishes to testify or both, you know the floor is yours.

MR. BROWN: My name is Lance Jay
Brown. I'm the 2014 President-elect of the AIA
New York Chapter and the co-chair of the design
for risk and resilience committee with, along with
the Department of City Planning put together to
post Sandy initiatives that I believe you have
before you. I also am a professor of architecture
and urban design at the Spitzer school of
architecture at City College.

I'll read this testimony into the record. On behalf of the New York chapter of the American Institute of Architects and it's nearly 5000 architect and affiliate members based in Manhattan it's our pleasure to appear here today to offer feedback and comment on the oversight topic on the efforts around rebuilding more

resilient post Sandy, and the legislation which been put forth by the administration and the city Council towards the greater resilience of a built environment.

York and the city Council and of the Mayor's office for their preparation before the storm and their ongoing efforts on behalf of those affected by the storm afterwards and I'm going. After reviewing the reports delivered by the special initiative for rebuilding and resiliency Sir, and of the Urban Green Council led building resilience task force, the BRTF, we offer support for and express admiration for the efforts taken toward the assembly of these two benchmark documents.

We applaud the intense and unquestionable dedication of the administration and the teams of professionals and organizing quickly and focusing their expertise to create these documents. And in so supporting the effort and intent of the documents we want to offer comments and suggestions to further these efforts.

We recognize that many of the recommendations on the table today involved

individual buildings and resiliency of services, with these buildings interface with the current city infrastructure. By adopting these initiatives you will empower building owners and place them on the path more resilient buildings citywide.

These reports confirm our own recommendations included in our post Sandy initiative report released earliest on May first discussing how to build back better and smarter through the recognizing and adapting to climate change and of the risk it presents to the city of New York and the surrounding region.

First, we recommend identifying a framework for recovery, rebuilding and resiliency is a necessity. We applaud and agree with the assessment that changing sea level and global warming weather patterns will require adjusting our response and building practices in the future.

Two, we recommend that scalable solutions be incorporated into phasing and implementation as outlined in the SIR our report, or working from the individual homes to protect and hold districts.

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Three, we recommend a regional recovery conference and a comprehensive regional plan with respect to the hydro-cycle as it will be increasingly critical.

Four, we support and recommended the many proposals that broaden access to insurance for those less able to afford it. We recognize that many of the areas that suffered disastrous effects of inundation now face the further disastrous economic effects of higher insurance and cost of meeting new regulations. These areas are low to moderate income neighborhoods with old building stock that are far from current building code practices and safety measures.

Fifth, we strongly support and advocate for the passage of the Good Samaritan Act and of the state legislature and ask for your support for passage of resolution 1771 sponsored by minority leader James Otto and included in today's agenda. Passage of such legislation would offer protection from liability to professional engineers, architects, landscape architects and land surveyors who render critical voluntary

1 COMMITTEE ON HOUSING AND BUILDINGS, ETC 173 services at the scene of a natural disaster. 2 Sixth, we believe in education of 3 4 the public. Starting in primary school, to take 5 resilient measures and embed awareness of public safety measures into the context of daily life in 6 New York. 7 Seventh, we recommend that all 9 steps be taken to ensure workable and broad communications during catastrophic events. 10 11 Eighth, we believe that continuing 12 the push to make our buildings, our architecture 13 more efficient is one of the most important first 14 steps to effect great change in our city and 15 benefit future generations. 16 Ninth, we agree with, support and 17 recommend all points in reference to water 18 availability, purity and discharge the carefully 19 and completely thought through. 20 Last, we are pleased to provide you 21 with copies of our collaborative post Sandy initiative report assembled by 300 plus volunteers 22 23 and design professionals. 24 In closing we again applaud the city Council for putting forth these pieces of 25

legislation and the administration and the members of the SIR our committees and the members of the building resilience task force who have assembled these reports and we urge passage of the relevant legislation that supports our collective goals.

Thank you for the time.

very much. We're joined by Council Member MarkViverito - - with us and now it's my turn. I

guess I'll work in reverse order. Mr. Brown thank

you for your - I want to thank everyone for their

efforts and I see why the administration was able

to make such a great presentation today because

they're basically putting forward your work. And

so, but they're smart because they knew the right

people to go to, and so I thank you all for that.

One of the benefits of having very comprehensive testimony that's been put forward by all of you, kind of asked the questions that I would have asked. But I do, I guess this is a question for the general panel would be, so we did this work and we have the bills that are on the docket for today and also the resolutions, one of which would be the one that you made reference to

mentioned something about a conference in your

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2 statement. Sounds like the kind of thing that RPA

would do or something, but yes, that is - actually

4 circled it on your statement.

MR. BROWN: Actually if I might, there are two things happening in support of this is an initiative. As you probably know, Sean Donovan is initiated last week a competition, which is a regional competition which makes it somewhat unique, in crossing boundaries looking for solutions. So that's a very very good first step.

There is a fourth state resiliency workshop that's going to take place on July 9TH,

Connecticut, Rhode Island, New York and New Jersey meeting together to discuss their mutual concerns and response to resiliency issues. So there is a slight little groundswell of activity, but as we understand it, crossing borders politically is very very difficult and it's something that I think we can work hard at to affect.

COUNCIL MEMBER GENNARO: It really makes sense to have sort of like a more regional outlook, and what better way to foster that the new these kinds of collaborative conference kind

COMMITTEE ON HOUSING AND BUILDINGS, ETC 178

week, so we're - time is precious. Hang on, don't tell me.

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MS. HARRIS: It's Dotty. I could just add to that as well and I did mention it briefly in the testimony. I think the key is for the city to continue on the path of staying current with building codes. As you know the first update in 2008 was an update from the 1968 building code, so clearly keeping on a three-year schedule would be my greatest recommendation.

And actually, in conjunction with what my other panelist was talking about with regional conference, I just wanted to highlight that the final action hearings of the ICC code development, which will be actually on the residential, the energy codes, the existing building codes that are taking place.

Ironically we did book this several years in advance, but it's going to be in Atlantic City New Jersey in the fall starting in September. Several members from New York City participating in our hearing process from the Department of Buildings, the fire department, so as well as several design professionals are very active in

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Council.

COUNCIL MEMBER GENNARO: Yes, and so we'll try to get through these and get to those as well. And if so, yes, Mr. Brown will have the last word.

MR. BROWN: One of the items on the list that I read had to do with educating the public. I think we feel very strongly about the issue of awareness in all things especially with respect to what my colleague Margaret mentioned about green building and sustainable practice, and we really feel strongly that this has to happen very early in the school system so that the youth of the city grow up understanding and practicing ways in which to make a more resilient future. And that then of course translates into all of the literature and all of the other communications aspects that inform people along the way about how to react, how to prepare for and what to do in case of emergency.

COUNCIL MEMBER GENNARO: I think that makes great sense and I'm going to be seeing the schools Chancellor, not today but soon, and he and I like to talk about all things green. Dennis

Beryl Thurman who I'm sorry I didn't mention with

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9 think I have everyone on this panel.

With that said I'd like to welcome everyone for being here. I really appreciate your willingness to be here and to help us dig out from Sandy and to give us the benefit of your views and your good testimony. I asked my friend Paul to start, so Paul welcome. Please state your name for the record and proceed with your good testimony.

MR. GALLAY: Thank you very much
Chairman Gennaro, Council Members. Paul Gallay,
President of Hudson River Keeper. Good afternoon
to all.

I've handed up written testimony and I'm going to concentrate the time I have on some general observations in the following four areas.

if I could ask my staff Mark Swanson and Bill

Murray to set up with me on the dais and, this is

going to be a great panel. I don't want anyone

to, I don't want my staff to miss anything that's

going to get said here. And so, sorry for the

interruption Paul.

MR. GALLAY: That's all right, thank you. The value of natural systems in terms of fighting the impacts of climate disruption, the issue of storm barriers, infrastructure resiliency and waterfront development.

Generally there is much to like in the SIRR and in these bills and or these specific observations on the bills and our testimony, but there is also a need to sound some cautionary notes, but first a request. At the top of our hierarchy as a community should be the use and enhancement of natural systems to slow, shape and the store the problem of storm water surge.

Dunes, wetlands, strategically placed islands and reefs, other natural barriers, these are the systems that should be prioritized to help us protect. Let nature help. Nature poses the

2 problem; nature can also be part of the solution.

As to storm barriers, now big

barrier projects at the mouth of the harbor, in

the Arthur Kill, in the upper East River would do

more harm than good and we're glad the Mayor has

seen fit to reject them. They would increase the

risk to communities outside the barriers. They

would be astronomically expensive. They would

massively reduce the flow of fresh water into the

Hudson and East River estuary damaging the

environment, souring recreational areas and

trapping pollutants within the areas directly

adjacent to the city.

As to smaller barriers that are under consideration around Newtown Creek, the Gowanus Canal, the Rockaways, there are some of the same risks on projects of that nature, and they need to be very carefully scrutinized to avoid doing more harm than good. The law of unintended consequences is ever present in this whole discussion.

When it comes to existing infrastructure we have a huge challenge on our hands to maintain and protect and enhance energy

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2 infrastructure, transportation, communications.

3 We are working at River Keeper with a program

4 | that's been originated by Harvard University and a

5 private family, the Zofenus [phonetic] family,

6 that has endowed this program to create a lead

7 | type system for rating and ranking infrastructure

8 improvement projects so that we can be assured

9 | that they follow true sustainability principles,

and of the environmental engineering industry is

11 part of this initiative too.

So we're going to be bringing this to the fore with the Council, with the city government, with the Port Authority, with the other entities that are actually doing infrastructure projects because we feel that there need to be criteria that to govern what sustainability means when it comes to maintaining our infrastructure.

Final point is shoreline development. Now I have to be blunt here. The Mayor's office talked about there being 70,000 buildings in our current floodplain constellation, and that by 2050 800,000 residents of the city will be living in floodplains. And they have

properly pointed out that that is the problem, that is a big problem. More and more people will be in harms way because of climate disruption and the sea level rise. Why would we want to create an even bigger problem by continuing to double down on massive development projects such as Seaport City? Let's not make an already bad problem even worse.

We heard the conversation about there is a little bit of hubris in the engineering of storm protection, and of that water will always find a way to get in. Not only will water find a way to get in these new projects, but water will be reflected to other projects that are already on the ground adjacent to this new Seaport City proposal. And you can put up seawalls adjacent and of the water will go around a little further. You cannot wall the entire city in. Do not make the problem worse.

Instead, invest in our existing neighborhoods. There are neighborhoods throughout the five boroughs that can be revitalized, that can be refocused on and can be made the same sort of new drivers of the attractiveness, the growing

attractiveness of the city that we see at work in our boroughs today. So just reinvest in our existing communities please.

Bring community engagement into the dialogue. The best ideas always come from within the communities. We have excellent officials in this administration, I'm sure we'll have excellent officials in the next administration. We'll have great councilmen in the future, not as great as the councilmember today, but we're going to have good public servants, but listen to the constituency, listened to the community.

So in closing we call on the city to be realistic. Make the most of nature's power to protect us, maintain and strengthen communities where you can, don't under estimate the risks to the most vulnerable communities where retreating may be the only answer. We've always tended to underestimate the seriousness of climate disruption, and I'm not just talking about the climate deniers, the people President Obama calls the flat earth society, I'm talking about the people who are truly interested and truly concerned about climate. Scientists have for

1	COMMITTEE ON HOUSING AND BUILDINGS, ETC 188
2	years been making conservative predictions about
3	the impacts of climate change and then we find
4	that the reality on the ground is worse.
5	We've tended to underestimate the
6	problem with climate, future generations will
7	never forgive us if we continue to do so. Thank
8	you.
9	COUNCIL MEMBER GENNARO: Thank you
10	Paul and thank you for this cautionary statement,
11	and I'll get back to you when I hear the rest of
12	the testimonies that we're going to hear. Now,
13	next we'll hear from Ms. Dyer of the Natural
14	Resources Defense Council. And let me just get
15	your statement.
16	MS. DYER: I just want to quickly
17	point out that the statement before you is a
18	little bit different from the statement I'll be
19	making.
20	COUNCIL MEMBER GENNARO: Sorry?
21	MS. DYER: I just want to point out
22	that the statement before you is a bit different
23	from the one I'll actually be making, so I'd like
24	to submit it.
25	COUNCIL MEMBER GENNARO: Yeah, Paul

COMMITTEE ON HOUSING AND BUILDINGS, ETC 189 1 did that too. He tried to fake me out with the, 2 you know, he's reading from that so. 3 4 MS. DYER: I'll be giving you an 5 updated part of it. COUNCIL MEMBER GENNARO: I'm used 6 7 to it. He warmed me up to that. MS. DYER: Great. Good afternoon 9 Council Members and the City Council staff. 10 name is Johanna Dyer and I'm an attorney with the 11 Natural Resources Defense Council also known as 12 NRDC, which as you know has been actively involved 13 with the New York City environmental issues for 14 more than 40 years. 15 My colleagues Eric Goldstein and 16 Donna Deconstanso [phonetic] and I have reviewed 17 the proposed legislation. We appreciate the 18 opportunity to comment on today's proposed package 19 of bills which are intended to help the city to 20 prepare for and respond to future storms. 21 Hurricane Sandy has demonstrated 22 New York City's vulnerability to destructive 23 storms and other extreme weather events, which 24 will only become increasingly frequent and severe 25 due to our changing climate.

As city formulates its response to this event it is critical that we identify ways to strengthen and protect our buildings and other infrastructure, maximize the use of natural barriers and a green infrastructure to enhance our resiliency and take aggressive action to cut greenhouse gas emissions. New York City has been leading the way on addressing climate change implementing a number of groundbreaking policies and initiatives, particularly in the area of increasing energy efficiency in existing buildings.

of course we strongly support the city's continued efforts in this area, as well as the city's work to strengthen and reduce unnecessary damage to our building stock and improve the resiliency of our infrastructure. And it's critical that we do everything necessary to maximize the use of natural infrastructure to absorb storm water, and that critical building systems are strategically located to avoid problems resulting from potential flooding, goals that are addressed by a number of the proposals before you today.

With such considerations in mind we strongly support the legislation related to water retentive streets and sidewalks, which would require the Department of Environmental Protection and of the Department of Buildings to conduct a study of, followed by a pilot program for these absorptive materials on streets. Importantly the bill would also set a uniform standard for water retention in New York City sidewalks.

We do recommend that the bill be revised to require coordination with the Department of Environmental Protection to ensure that the effort is carried out in a way that directly supports the New York City green infrastructure plan. The use of natural infrastructure and permeable surfaces to serve as natural sponges and absorb excess storm water is critical to relieving the city's overburdened sewer system and depending on the materials used may have other environmental and climate change benefits as well.

We'd also like to highlight five other bills briefly that NRDC believes warrant special attention. We support legislation to

reduce the urban heat island effect by expanding
the city's cool roof requirements. The
installation of cool roofs reduces energy use, air
pollution and carbon emissions while increasing

7 heat related impacts.

We also support the safe storage of hazardous materials in special flood hazard areas as outlined in the measure before you today, which would help to prevent water contamination and other public, health and environmental threats in the event of flooding.

comfort for residents and helping to prevent other

And we support the legislation requiring prevention of sewage backflow into homes and special flood hazard areas. For obvious reasons preventing such backflow is an important measure to protect public health and quality of life in vulnerable communities. In addition we endorse the legislation designed to ensure emergency residential drinking water as a way to safeguard New York City's drinking water access and supply.

And finally we are pleased to support the addition of additional resiliency

COMMITTEE ON HOUSING AND BUILDINGS, ETC 194
proceed.
MR. OSORIO: Absolutely. My name
is Juan Camilo Osorio. I'm testifying as Director
of research of the New York City Environmental
Justice Alliance. Thank you very much for the
opportunity to testify today.
COUNCIL MEMBER GENNARO: Oh, and if
you can summarize your statement. Just touch on
some of the main points. This is very
comprehensive.
MR. OSORIO: Absolutely,
absolutely. The New York City Environmental
Justice Alliance, a nonprofit citywide membership
network linking grassroots organizations from low
income neighborhoods and communities of color in
their struggle for environmental justice.
When the city of New York initiated
its overhaul of the comprehensive waterfront plan
in 2010 NEJA began an advocacy campaign to
convince the Bloomberg administration to reform
waterfront zones designated as the significant
maritime and industrial areas.
NEJA discovered that the six SMIA's
are all in storms surge zones and that the city of

New York cannot analyze the cumulative exposure risks associated with clusters of hazardous substances and launch a response, a campaign called the waterfront justice project, to assess these potential hazardous exposures in industrial waterfront neighborhoods.

the Sandy regional assembly, an association of environmental justice organizations, community based groups and our allies from Sandy impacted in vulnerable areas in New York and New Jersey, to restructure, sorry. To structure a recovery agenda, which was released on April 1st, emailed to the city Council and handed to representatives of the Mayor's special initiative for rebuilding and resiliency that month.

Building on all this work, we would like to recommend that as part of your efforts to address building safety and potential hazardous exposures. We urge you to require, number one, a detailed investigation on the health impacts of super storm Sandy including a full report on DEP's post Sandy inspection of facilities in compliance with the New York City right to know law that

COMMITTEE ON HOUSING AND BUILDINGS, ETC 196 1 reports spills of hazardous substances following 2 3 Sandy. Two, require that emergency 4 5 response plans and operations, mandated by the local right to know law, be publicly, should be б public and accessible to neighboring communities living or working in and around industrial 9 waterfront neighborhoods, and be developed in consultation with them. 10 11 Three, address potential public 12 health impacts on vulnerable industrial waterfront 13 neighborhoods by funding an investigation of public health risks associated with potential 14 15 hazardous substances, or toxic chemicals handled, 16 manufactured and transferred, not just toward, in 17 industrial facilities vulnerable to various 18 climate change impacts, not just flooding. 19 And finally that you identify 20 opportunities to mitigate them through a 21 collaborative effort between community, industry 22 and government, securing technical and financial 23 resources required for implementation. 24 As a matter of summarizing the rest

of the testimony I just want to urge you to

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consider additional recommendations in our written testimony related with energy security, where we urge you to require the identification of strategies to decentralize energy infrastructure, to create distributed networks of sustainable energy sources and guarantee community oversight and inclusive decision-making as part of the recovery process.

If I may take a second to explain a little bit on that I do want to first of all commend the administration for being as comprehensive and the long-term as it has been in the SIRR report. However, we do feel that their level of community engagement and public input was not enough, especially when it comes to some of the recommendations in the report that are neighborhood specific. Where communities did not have an opportunity to respond after the report was published, and may possibly won't, have a chance until some of these proposals enter the pipeline where perhaps it will be too late.

Just finally, we commend the committee's for holding this hearing as we think that the city Council plays a critical role in

ensuring that New York City recovers from super storm Sandy, and builds the resiliency required to face the challenges posed by future climate change impacts. Thank you very much.

COUNCIL MEMBER GENNARO: Thank you.

I just want to make an inquiry as to whether or
not does anyone in the room from the Bloomberg
administration, anyone with the office of city
legislative affairs, have anybody here? Going
once, going twice, okay. I just, yeah, I would
have liked somebody from the administration to
hear this testimony, but we got it, we got you, we
got you.

MR. OSORIO: Thank you very much.

COUNCIL MEMBER GENNARO: And I'll come back to you as well, and thanks very much for being here. Say hi to Eddie for me. Eddie and I are old buddies. That is Eddie Bautista [phonetic] for everyone that doesn't know who - Eddie should just go by one name, everyone just knows that he's like Cher, you know, just Eddie. And our last member of the panel Mr. Banerjee, right? Banerjee, okay. Okay, thank you very much for being here and you represent the CUNY Energy

1	COMMITTEE ON HOUSING AND BUILDINGS, ETC 199
2	Institute, and it's a pleasure to have you here.
3	If you could state your name for - please state
4	your name for the record and proceed.
5	MR. BANERJEE: Thank you Mr.
6	Chairman and thank you distinguished members of
7	the committees who are here, to giving us the
8	opportunity to speak. Actually Chair Gennaro,
9	I've presented in your panel once before. I think
10	it was with regard to the role of energy storage
11	in furthering deployment of solar systems.
12	COUNCIL MEMBER GENNARO: Yes, yes.
13	Some time ago.
14	MR. BANERJEE: Pre-Sandy.
15	COUNCIL MEMBER GENNARO: Right,
16	right. A lot has happened since then.
17	MR. BANERJEE: Since then. In any
18	case I'm going to talk a little bit about the
19	resiliency of energy systems in the city and how
20	you store it.
21	COUNCIL MEMBER GENNARO: And also
22	if I could just interrupt. We have been joined by
23	a representative of the Bloomberg administration
24	who, and so, yeah, so we drove someone in the room
25	from the Bloomberg administration, and the so

2 pleasure to have you.

MR. BANERJEE: Thank you. That's wonderful. As you know energy vulnerability becomes very evident in situations like Sandy. In fact I remember that during Sandy I happened to live in a part of Manhattan that still had power, which meant that I had to sort of feed and clothe and have the cell phones and computers charged for many people who were south of 42nd Street and it just came up and used my house sort of as a refugee camp.

In any case, the importance of power is enormous, and Sandy is just one example. There are many such incidents which can knock out power, and one of the sort of areas where I think people, like us and the energy of Institute, can contribute is really to improving the situation with regard to the availability of power, not just through natural gas or diesel generators or so on, but we're talking about energy storage systems.

These storage systems now have developed to a point where actually we can build, in a six foot cube, enough energy storage so that you can power a large building like this, or maybe

1 COMMITTEE ON HOUSING AND BUILDINGS, ETC 201 even the engineering building where I live, for a 2 couple of days with regard to emergency services. 3 4 COUNCIL MEMBER GENNARO: This would 5 be like a battery system? б MR. BANERJEE: It's a battery 7 system, but a -COUNCIL MEMBER GENNARO: 8 9 [Interposing] I know, I know I said I wasn't going 10 to ask questions until the panel was over, but you 11 got my attention with that one. So it's 12 batteries. 13 MR. BANERJEE: Think of them as 14 rechargeable, gigantic versions of rechargeable 15 Duracell's. They're made of the same materials. 16 So they have no fire hazard, they don't have to be 17 on float, they can be plugged and played, they can be actually plugged into, if you have existing 18 19 solar resources, plugged into that and then 20 charged up and they can go on for some length of 21 time. But even if you don't plug them in they can 22 last for a couple of days running the emergency 23 services of a lot building. You know, this six 24 foot cube. They're pretty economical; they come 25 around \$100 a kilowatt hour. If you want actually

COMMITTEE ON HOUSING AND BUILDINGS, ETC 202 1 to have them plug and play you'd have to pay about 2 \$150 a kilowatt hour. 3 4 These systems actually exist today. 5 I'll invite the Council, I think the last time I did two, to come and visit us at City College and 6 see. We just turned one of these on, which is reconnected. 9 So it's not some fantasy, it's 10 there already. I would urge the Mayor's office, 11 I'm sure we'll invite them, to come and see. This 12 technology has been developed with a loud of 13 federal government help. There is the - - agency, 14 and actually with New York State. 15 There are about twice the energy 16 density of fuel. Cell phone battery, you know, 17 which is a lithium-ion battery. The problem with that is it's flammable and it can have other 18 19 problems, but these are much more benign both 20 environmentally and from the flammability point of 21 view. I think this is sort of new technology, 22 which is coming in, that potentially could affect 23 the resiliency of at least the energy aspects of 24 the resiliency.

So I thought I'd bring in front of

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the city Council this aspect which could be very
important also because I noticed that you're
speaking about natural gas for energy resiliency,
battery backup for that, this could be part of
that system, but it could also be support for

7 solar or stand-alone systems which are deployable,

8 truck deployable.

So there are many ways to use this and I think we should just start a conversation on this with regard to energy resiliency. So with that I'll stop. I know that you're very tired from last night staying late.

very much. I'm going to work backwards through the statements. Mr. Banerjee this is the second time that you come before the committee and I'm going to direct staff of the committee and you can give staff your business card. I would like the office of long-term planning and sustainability to have the benefit of Mr. Banerjee's views, his technology, is that of the City University Energy Institute. We had this good work going on here in New York City and the office of long-term planning and sustainability should certainly have the

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ability to look at this technology and see how it weaves into their plan for better building resiliency, and hopefully this will lead to people not coming to your house every time it rains.

And is so if I can direct staff of the committee to make that connection between Mr. Banerjee and the office of long-term planning and sustainability that would be great.

Thank you Juan for your very comprehensive statement and we also will make sure that the office of long-term planning and sustainability has the benefit of your comprehensive statement here. And I, you know, you know that Eddie and the EJA work very closely with the administration so to the extent that there are, to the extent that we can do better in all of this planning with regard to places in the city that have suffered from environmental injustice. I'm sure the Bloomberg administration would give you a very, you know, there'll be a welcome audience to your statement and we will benefit from it as well, and I want to thank your organization for your very strong stand. behalf of the 91st Street that's really - - , and

forward two steps back. I think this is something

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we should talk about more in sort of like more 2 detail so that we could, you know, because a lot 3 4 of testimonies have been very supportive, this is 5 all great, this is good, and you come forward with 6 something that's very thoughtful and I think has to be explored on a deeper level. And so we should arrange, that is for at least the staff in 9 my committee, to meet with Paul. We can go over this a little more in detail and this will inform 10 11 conversations that I'm going to be having with the 12 office of long-term planning and sustainability. 13 As I mentioned before I'm going to go see those 14 guys and I would like to be better versed on some

of your cautionary statements here.

about the harbor you will be happy to know that the Harbor School received a big discretionary budget allocation from me last night. I was sitting right there when we passed the budget and it was, yeah, it was like a, it was like for a Marine biology like science lab or something. It was a pile of money and I was one to support the good work of that institution.

And I think this also goes to the

MS. THURMAN: Beryl Thurman, North Shore Waterfront Conservancy of Staten Island Inc. I'm the Executive Director and President. I'd like to thank you Chair Gennaro for allowing me to come before you today and the other city Council members, thank you very much.

On behalf of the North Shore
Waterfront Conservancy of Staten Island Inc. and
the environmental justice and waterfront
communities that we advocate on behalf of, we
would like to thank you for allowing us to testify
at this hearing today.

Currently there are approximately nine development projects taking place in Staten Island's North Shore, EJ and waterfront communities. All of these projects will have to

undergo a government permitting process and receive the approval of our officials and the city Council and the city planning commission.

Yet in eight of the nine of these projects, environmental assessments, and/or environmental impact statements, the writers have declared no negative impacts, no significant impacts and therefore no mitigation is required.

Having mitigation as a requirement would have been the most obvious way of correcting the environmental injustices that have long plagued these communities and are destroyed to their quality of life. Yet mitigations were not required not even to shore up the communities holistic - shore up the communities holistically from climate change. Why would any governing body whose purpose is to protect and better the lives of its people pass on this opportunity.

Staten Islands EJ communities need open spaces that are waterfront in our communities that are large enough in size to accommodate our people population. Currently 48 percent of our residential communities are a quarter-mile to the nearest park. Whereas in New York City as a whole

COMMITTEE ON HOUSING AND BUILDINGS, ETC 211

Place of the residents live within a quarter—

mile of a park.

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Having public active recreational spaces at the waterfront that serve dual purpose of not only being there for exercise, but also to protect our waterfront communities from the effects of climate change is critical.

Then perhaps, at long last we can have oyster and muscle gardens along our waterfront to act as filters and buffers and remedying the pollution of the - - , lower Nord phonetic] Bay and of the Arthur Kill rivers that are in violation of the Clean Water Act.

- - has been fighting diligently to educate our people of the importance of the tidal and freshwater wetlands in the EJ communities, and the necessity of it maintaining our harbor estuaries like Arlington Marsh Cove so that it won't be so easy for people to come in and tell us untruths such as these wetlands are insignificant and attempt to take away this vital resource.

We are sure about - what we are sure about is the contradiction and how climate change resiliency and adaptation agenda is being

administered and governed, must be reconciled especially in the EJ communities. The events of Katrina and Sandy have proven that we cannot fight nature, but we can be a better ally. We can also do a much better job at protecting all of our people in this time of uncertainty in terms of policies, procedures, laws, regulations and guidelines, especially in how they are administered and enforced.

New York City Parks role must change, and as Parks responsibilities increase so must its budget. New York City Parks must be given a budget that will allow it to be properly staffed and of the resources to maintain its properties. In turn, Parks budget cannot be used as a default bank account for when some other area of the city cannot make its debt.

New York City's going to have to become EJ resident friendly, and not look for opportunities of dodging its duties to its people while being the first to hold its residents accountable to pay for the misuse of revenue with higher taxes, fees, surcharges and cost of living

expenses while providing very little intangible results that reflect and benefits to our EJ communities. It brings us little comfort that you have known about our vulnerability to climate change for 35 years and have failed to do anything about it.

Our city government is going to have to take responsibility and stop looking for other states and/or the federal government to bail us out because of its poor decisions that are repeatedly made. At this point the people who are being most affected daily are looking for real practical solutions that are sustainable to deal with our very real environmental problems.

In Staten Island's case we only
have four bridges and a ferry that runs every 30
minutes if we are lucky, five emergency shelters
and approximately 400,000 plus people and there
just comes a time when you have to say, just
because we can do certain things doesn't always
mean that we should, especially if you don't have
the infrastructure to support it. Thank you for
your time and for your consideration.

COUNCIL MEMBER GENNARO: Thank you,

reduce summer heat, intro 1088 in relation to

water retentive sidewalk and a study on absorptive

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Street and sidewalk materials and alternate Street angulation. We commend the city Council for taking the next step towards translating a number of task force recommendations into local laws.

With respect to New York City

Council intro 1087 using cool roof surfaces to

reduce summer heat. Remediating the negative

impacts of urban heat island effect by amending

the New York City building code to require the use

of cool roof surfaces is a very prudent approach

which we strongly support.

We believe the city can do much more though to remediate urban heat island. A broadly implemented cool pavement initiative for the city streets and parking lots can further reduce air temperatures, energy demand and related emissions and the smog formation to help offset CO2.

According to researchers at the
Lawrence Berkeley National Laboratory, pavements
account for about 30 to 50 percent of urban
surface area, and about half of that is comprised
of city streets with another 40 percent parking
lots. This is a significant amount of surface

2 area that is not being addressed by the city. A
3 more comprehensive and balanced approach is

4 needed.

Specifically, we would propose either amending intro 1087 or creating a new stand-alone bill utilizing the structure of intro 1088 on pervious pavements to require a study of cool pavements and develop a pilot program under use in New York City.

Further we urge the Council to consider that such a proposed study also addresses how the private sector might be incentivized, I love that word by the way, to incorporate the beneficial use of cool pavements for parking lots on private property. We are available to work with the city to make sure that the streets and parking lots of New York City become a part of the solution to remediate any urban heat island effect instead of being part of the problem.

With respect to intro 1088 to amend the administrative code of the city of New York in relation to water retentive sidewalks, and a study on absorptive Street and sidewalk materials and alternative Street angulation.

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Using absorptive Street and sidewalk materials to help remediate the serious storm water problem facing New York City is a good approach which we also strongly support. Again there is something the city can do to realize a much more significant reduction in storm water runoff. We encourage the Council to expand the proposed intro 1088 to include a study of the pervious pavements for parking lots as well as the streets and sidewalks.

Parking lots, both public and private, are typically impermeable surfaces that make a major contribution to the runoff problem. In addition we encourage the Council to consider that the proposed study also address how to - how the private sector might be incentivized to incorporate the widespread and more beneficial use of pervious pavements for parking lots on their properties.

For example, in New Jersey we have worked with developers to reduce and eliminate costly storm water retention systems that waste valuable land space and replace those with pervious pavements. I've worked with some

jurisdictions which offer grants to developers
and/or streamline the project permitting process
for developers who employ approved storm water
approaches. I'm also working with other cities
that actually impose fines and/or reduce taxes for
those that do not contribute to the combined sewer

and runoff that goes into it.

We are available to work with the city Council on appropriate language to expand intro 1088 to make the parking lots of New York City part of the solution to remediating storm water runoff. We are also available to provide technical and engineering assistance to the Council and any city department to support the proposed study and pilot projects, and by the way we'll do that for free.

Thank you again for giving the

Portland cement Association the opportunity to

provide input on these two important proposed

bills which can improve the air and water quality

in New York City.

COUNCIL MEMBER GENNARO: Thank you Mr. Justice. I'm certainly going to have a lot to say about your testimony, I like it a lot. Thank

you very much for being here. We'll have our last
statement and then I'm going to close, and I've
got a hearing across the street that I'm supposed
to be at and it's going to end very soon. So
we'll hear from our last witness and then we'll
talk to the panel. Celia, Celia, and if you could
state your full name for the record and your
affiliation. I don't want to miss pronounce your

last name so I'm going to let you do it.

MS. TUTUNJIAN: It's Celia

Tutunjian. It's Armenian, it's hard to pronounce.

I'm here on behalf of the New York Environmental

Law and Justice project where I'm an intern. I'm

here to make thorough recommendations regarding

local law number 1088.

Besides addressing the anticipated cost of absorptive materials and the projected durability of such materials, the proposed studies should include a cost-benefit analysis, which highlights the potential estimated cost savings from avoided runoff. These include avoided infrastructure and building damage, avoided thermal and chemical pollution, avoided sedimentation and avoided biotic decline.

In fact, reducing the flow of runoff can decrease the thermal shock to aquatic life in the waterways into which runoff drains.

The study should assess the potential of absorptive materials to provide this benefit. The study should also validate methods of rehabilitation to restore the porosity of water retentive materials and provide an estimate of those costs.

The proposed law number 1088 does not address the need of a thorough site evaluation before the implementation of the pilot program in three different locations in three different boroughs. To reduce the chances of failure of adopting absorptive materials the study should incorporate site evaluation criteria set by the EPA, as well as a survey of a subsoil's, groundwater conditions and drainage characteristics.

The three proposed sites for the installation should look into factors such as infiltration, geotechnical and hotspot conditions, as well as topographic evaluations. The areas selected for the installation of absorptive

payments and streets should not have, should not be areas of moderate to high traffic and significant traffic, truck traffic.

The study should address the problem of potential fuel leaking from vehicles, as well as the leaking of toxic chemicals from asphalt and binder surfaces. Because of voids of water retentive paving risk to be clogged, the site selection of permeable paving should endure to manufacture specifications and maintenance.

The law could also look into the possibility of adopting cool pavements in order to counteract the urban heat island effect. Roads and pavements with higher - reflective materials can store less solar heat and emit less heat which can reduce daytime and overnight temperatures.

Adopting cool pavements could decrease summertime peak energy demand and air-conditioning costs.

This would reduce the emission of air pollutants and greenhouse gas emissions from power plants and the formation of ground-level ozone. Cool pavements can control the temperature of the storm water released into streams and rivers and reduce the likelihood of rapid temperature changes which

2 can cause stress to aquatic ecosystems.

Depending on the technology adopted cool pavements can also provide other benefits such as improved water quality, increased pavement life, reduced noise and enhanced nighttime illumination. The law could also incorporate bio retention systems to reduce runoff and improve water quality. Trees and other types of vegetation can reduce the volumes and velocity of storm water through intercepting rainfall and evapotranspiration. Trees can filter and treat rainwater and can store elements such as nitrogen, phosphorus and defined articulate matter. The shade of trees can also slow the deterioration of street pavement thereby reducing pavement maintenance needs and associated costs.

And finally the selection of trees and plants should promote diverse city and the native noninvasive species. Thank you for allowing me this opportunity to testify.

COUNCIL MEMBER GENNARO: Thank you.

Thank you very much Celia. Everybody's talking about my bill 1088. We have the policy analyst that's still in the room from the transportation

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committee, and I - Pafar [phonetic] right? Pafar, 2

is that his name? Yes, okay, you're here. I just

4 want you to pay close attention to the statement

5 that was given by Celia and also by Mr. Justice.

6 Because even though I'm the prime sponsor of the

bill, it's in the Transportation Committee. I'm

not the Chairman of that committee, I don't even

9 serve in that committee, but I certainly like what

10 you both have to say on how 1088 can be improved

11 and made better.

> It would also be good I think Pafar if after they stepped down from the witness table if you could make an introduction of yourself to them and get their statements and tell Chairman Vacca and of the Council to the transportation committee that I have a real interest in what these two witnesses have to say and how we can make 1088, which is already a good bill a great bill. And so thank you for being here. This is why we have hearings so that we can make good bills even better, so thank you to the both of you and to Ms. Thurman. So, working on Arlington Marsh Cove, we're going to get it, okay.

> > There are a lot of good people in

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the room who are from various environmental 2 justice organizations. We have Celia just two 4 seats over from you, and we have the gentleman from Eddie's organization, I shouldn't call it Eddie's organization, but it's Eddie's organization, and I think there is a lot of common ground here.

With regard to the broader EJ community having an impact on all the resiliency efforts, it just seems to me that if everyone who is an active part of the EJ movement kind of comes together and speaks with one voice to the administration and of the Council, that kind of makes the voice stronger. Yes, you're going to say something. Move the microphone so it's comfortable to you.

MS. THURMAN: The North Shore Waterfront Conservancy is in the Sandy regional assembly, which is, we're part of that coalition, but in terms of what I was saying about the mitigation, the fact that the mitigations are being dismissed. These are large-scale projects. All nine of these projects are in floodplains and of they're all large-scale. And it to have only

1	COMMITTEE ON HOUSING AND BUILDINGS, ETC 227
2	know what? When the hearing is over - I mean it's
3	my presumption that you have a relationship with
4	Debbie right? As Council member for the area
5	right?
6	MS. THURMAN: Right.
7	COUNCIL MEMBER GENNARO: How's that
8	going?
9	MS. THURMAN: Well, it goes okay,
10	but I mean it's only so much that I think she can
11	do by herself in terms of these issues.
12	COUNCIL MEMBER GENNARO: She's
13	pretty formidable.
14	MS. THURMAN: Yeah, but this is
15	something that you have three governors in terms
16	of with three of these projects, that are in favor
17	of these projects and they're not looking at how
18	the impacts, what the impacts are going to be to
19	the EJ community. You have Governor Christie,
20	Governor Cuomo and of the Connecticut Governor who
21	all saying yeah, let's get it done, but nobody's
22	looking at how these cumulative impacts are going
23	to affect these 40,000 people that are living
24	along this area.
25	COUNCIL MEMBER GENNARO: Yeah, but

about it and see, you know, I'll kind of work for

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COUNCIL MEMBER GENNARO: You make a joke and then it ends up not being funny. Like the Manhattan Project?

MS. THURMAN: Yes. The raw uranium ore is what they used to make little boy. So some of that spilled on this property, which is right next to the Bayonne Bridge where there planning on doing the raising, and where directly across the street will be -

GOUNCIL MEMBER GENNARO: Okay, we got lots to talk to Debbie about, that's what we have. We've got lots to talk to Debbie about. I want to thank these other two witnesses for their great input on intro 1088, and you're going to talk to Pefar and that's going to go to to the Council committee and to Jimmy, and I'll talk to Jimmy. He sits right next to me in the Council. We got a lot of business done today.

Not bad for a guy whose half asleep. The reference being that we were here till two something in the morning passing the budget, and then on my way home at 2:30 in the morning, and certainly this there is putting on the record for no good reason, but they do road

construction at night and sometimes they close the roads. And is so I was on the Grand Central Parkway at like 2:30 in the morning and the road was closed because some crane was doing something and he said, oh but it's only going to take us half-an-hour to get it done. So, at 2:30 in the morning I was doing emails in my car as I was sitting with hundreds of other people waiting for the road to open. This is what people talk about on the record when they haven't slept about what happened to them last night.

But this was a great hearing today and I'm very grateful to all the staff that brought this together and of the people who gave up their good time to give us the benefit of their views to make this initiative that were doing even better.

And the so with that said I'm going to - oh, can you hand me the gavel so I can - oh no, no okay we have to for the record we're going to say that we have, we received testimony from the following entities that will be entered into the record versus the Council of New York cooperatives and condominiums, that will be

2	entered into the record. We have testimony from
3	Glenda Bellinger [phonetic] who I believe is
4	representing herself as no other affiliation. We
5	have testimony from the plumbing foundation of the
6	city of New York that will be entered into the
7	record. And testimony from the MWA, which is the
8	Metropolitan Waterfront Alliance. Roland Lewis, a
9	good friend of mine. And the so we know the
10	witnesses are wishing to be heard. The statements
11	will be entered into the record. This hearing is
12	adjourned. Everyone knows what they're doing
13	right? You're going to talk to Samara and you're
14	going to talk to Pefar right? Okay, with that
15	said this hearings adjourned.

I, Daniel Louk, certify that the foregoing transcript is a true and accurate record of the proceedings. I further certify that I am not related to any of the parties to this action by blood or marriage, and that I am in no way interested in the outcome of this matter.

Daille

Signature

Date ____7/12/2013_____