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COMMITTEE ON ENVIRONMENTAL PROTECTION

CITY COUNCIL
CITY OF NEW YORK

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TRANSCRIPT OF THE MINUTES

Of the

COMMITTEE ON ENVIRONMENTAL
PROTECTION JOINTLY WITH THE
COMMITTEE ON RESILIENCY AND
WATERFRONTS

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October 29, 2019
Start: 1:07 p.m.
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HELD AT: 250 Broadway - Committee Rm, 14th
Fl.

B E F O R E: Costa G. Constantinides,
Chairperson of the Committee on
Environmental Protections

Justin Brannan, Chair of the
Committee on Resiliency and
Waterfronts

COUNCIL MEMBERS:

Rafael L. Espinal, Jr.
Stephen T. Levin
Carlos Menchaca
Donovan J. Richards
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COMMITTEE ON ENVIRONMENTAL PROTECTION

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A P P E A R A N C E S

Dr. William Sweet
National Oceanic Atmospheric Administration, NOAA

Jainey Bavishi
Mayor's Director for Resiliency

Michael DeLoach

Rudy Giuliani
Director of Build It Back in Queens

Dr. Cynthia Rosenzweig
Co-Chair of the New York City Panel on Climate
Change

Phillip Orton
New York Panel on Climate Change

Paul Gallay
President of Hudson Riverkeeper

Karen Imas
Senior Program Director at the Waterfront
Alliance

Jessica Roff
Director of Advocacy and Engagement at
Riverkeeper

Jalisa Gilmore
Environmental Justice Alliance

David Shuffler
Youth Ministries for Peace and Justice

Summer Sandoval
UPROSE

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COMMITTEE ON ENVIRONMENTAL PROTECTION

- Emily Walker
Director of Outreach and Programs at New Yorkers
for Parks
- Helen Cheng
- Mike McCann
Nature Conservancy
- Caroline Nagy
Deputy Director for Policy and Research at the
Center of New York Neighborhoods
- Georgie Page
Volunteer for 350 Brooklyn
- Lucy Coteen
Community Activist
- Joel Kupferman
Environmental Justice Initiative

2 CHAIRPERSON CONSTANTINIDES: Hello, are we good?

3 UNIDENTIFIED: Hello, all set?

4 CHAIRPERSON CONSTANTINIDES: Give me a second on
5 your testimony, we're going to do our opening
6 statements here and then we're going to put you on.

7 UNIDENTIFIED: Okay, in the meantime I will mute
8 myself.

9 CHAIRPERSON CONSTANTINIDES: Alrighty. Is
10 Sergeant at Arms ready to go?

11 [GAVEL] Alright, good afternoon. I am Costa
12 Constantinides; Chair of the Environmental Protection
13 Committee. I am glad to be here with my colleague,
14 Chair Justin Brannan whose Chair of the Resiliency
15 and Waterfronts Committee. And today, we will be
16 holding a hearing on the 7th Anniversary of
17 Superstorm Sandy and hearing three bills intended to
18 help address the triple threats of climate change,
19 sea level rise and sunny day flooding, as we take
20 steps to protect our 500 plus mile shoreline and
21 city's 9 million residents.

22 The evidence is clear that there is a time
23 horizon when critical, public, private and commercial
24 systems will be compromised by tidal flooding.
25 Without additional investments in our infrastructure,

2 New York City's coastlines remain vulnerable to the
3 next superstorm.

4 We hope that we will be well prepared if and when
5 it occurs, but we have no guarantee that we will be
6 ready. Superstorm Sandy caused an estimated \$19
7 billion in losses in New York City. Another
8 superstorm could happen tomorrow, and I don't believe
9 we would be ready. Our resiliency preparations need
10 to be better.

11 The IPCC, Intergovernmental Panel on Climate
12 Change released a special report on the impacts of
13 global warming above 1.5 degrees Celsius pre-
14 industrial levels in 2018. According to the report,
15 peak temperature increases beyond 2 degrees Celsius
16 will lead to long-lasting and irreversible changes,
17 such as ecosystem loss.

18 According to the IPCC report, temperatures
19 already between .8 degrees to 1.2 degrees Celsius
20 above pre-industrial levels. A likelihood of keeping
21 temperature increases to 1.5 degrees Celsius above
22 pre-industrial levels diminishes every day. Climate
23 change is expected to continue to exacerbate extreme
24 weather events leading to stronger and more frequent
25 storms like Sandy.

2 Moreover, families are still at risk and it's not
3 only about the next superstorm, it's about the
4 creeping of water on a daily basis. That on a
5 beautiful day outside, communities would vanish
6 before our eyes with sunny day flooding.

7 These are all the futures that we are attempting
8 to stave off and the seriousness of the work that we
9 must do. And we have a very short timeline in which
10 to do this work.

11 Intro. 382 would require the Office of Emergency
12 Management to conduct a mailing upon the final
13 adoption of federal flood insurance rate map,
14 informing members of the public whose properties are
15 in special flood housing areas of flood insurance
16 requirements and other relevant information.

17 This law would take affect immediately. Due to
18 the increasing amount of debris in our shoreline that
19 results from higher tides, we also need to consider
20 the long-term ramifications of plastic, wood and
21 other debris that impacts our coastal communities,
22 surface water and marine animals. Debris is
23 routinely abandoned on New York City's beaches and
24 shorelines. However, where debris is abandoned at
25 the waterfront, New York City spends approximately \$2

2 million annually to cleanup about .33 cents per
3 capita. There is also a state program that performs
4 beach cleanups in New York City in September and
5 October. The vast majority of the debris collected
6 by the New York State Beach Cleanup program are
7 plastics. While the state program is informal and
8 works with volunteers, it is not entirely clear where
9 all the recyclable debris is being recycled. This
10 legislation will ensure that plastic debris is not
11 landfilled when it could be recycled.

12 Intro. 1480 would require the Mayor or such
13 agency as the Mayor to designate to create a program
14 designed to dispose of, recycle, or appropriate reuse
15 marine shoreline debris left on our shorelines and
16 public beaches. This law would take affect
17 immediately. We have too many abandoned boats and
18 abandoned debris in our waterways.

19 Finally, according the Union of Concerned
20 Scientists Study published in 2018, New York State
21 ranks third in the nation for most homes at risk from
22 coastal inundation by the end of the century. In the
23 state of New York, 15,500 homes representing a
24 population of approximately 42,000 people and valued
25 at approximately \$8.5 billion, mostly clustered in

2 Long Island, Queens, chronically risk inundation by
3 2045. In particular, in Queens alone, the 2,700
4 homes at risk by 2045, are largely concentrated in
5 environmental justice communities. Those communities
6 who can ill afford to move who will be on the front
7 line of climate change and are every single day.

8 While robust plans have been developed to address
9 resiliency on Manhattan and the South Bronx, without
10 our entire shoreline to be protected in a connective
11 way, in a holistic way.

12 Intro. 1620 will require the Office of Recovery
13 and Resiliency or such office or agency as the Mayor
14 shall designate to develop that comprehensive five
15 borough plan to protect the entire shoreline of New
16 York City. This Local Law would take effect
17 immediately.

18 While we do not anticipate another superstorm
19 tomorrow, we certainly have no idea when our best
20 preparations will be required. However, we do know
21 that we must act as soon as possible. We have to act
22 yesterday because the seriousness of this matter
23 demands so.

2 So, with that, I look forward to hearing from my
3 colleague and Co-Chair of this hearing, Council
4 Member Justin Brannan.

5 COUNCIL MEMBER BRANNAN: Thank you Chair. Good
6 afternoon, my name is Justin Brannan; I have the
7 privilege of Chairing the Committee on Resiliency and
8 Waterfronts. I want to welcome you all to our
9 hearing today. Seven years to the day since
10 Superstorm Sandy hit our shores here in New York. I
11 also want to extend my thanks to Council Member
12 Constantinides who Chairs the Committee on
13 Environmental Protection for your partnership and
14 joining us today.

15 This hearing will provide our Committees with an
16 opportunity to hear from the Mayor's Office of
17 Resiliency and the Department of Parks and Recreation
18 regarding resiliency measures that have been
19 implemented and the city's plans going forward.

20 Seven years ago today, Superstorm Sandy in New
21 York City inundating parts of the city with sea water
22 left almost 2 million people without power.
23 Destroying approximately 300 homes and causing an
24 estimated \$19 billion in damages and lost economic
25 activity.

2 Thousands of New Yorkers were displaced; either
3 temporarily or permanently. When Superstorm Sandy
4 hit the Battery, the storm tide was over 14 feet.
5 Almost 4 feet higher than the record set by Hurricane
6 Donna back in 1960. The city was not prepared for a
7 storm of this magnitude. Seven years later, we still
8 aren't.

9 It is projected that the likelihood of another
10 Sandy type storm is now a 1 in a 25-year event. Yet
11 seven years after Superstorm Sandy, many of the
12 administrations proposed projects are still in the
13 planning phase and many of them are based in lower
14 Manhattan. Why? The city's Raise Shoreline
15 Initiative, Shoreline Reconstruction projects
16 necessary to provide citywide protection from future
17 flooding because of sea level rise is not expected to
18 be completed until the end of 2022. More than ten
19 years after Sandy hit the city. Why? We need to be
20 much more proactive and on a faster pace to protect
21 the city against a similar future event and we need
22 to make our waterfronts more resilient to be able to
23 withstand flooding after routine rainstorms and high
24 tide events.

1 After almost every rainstorm, the Atlantic Basin
2 area and Red Hook floods. Minor thunderstorms this
3 past summer flooded streets throughout the city.
4 These events are occurring more often because of
5 climate change.

6 In 2013, the city released a stronger, more
7 resilient New York with a comprehensive plan with
8 recommendations to rebuild Sandy impacted communities
9 and increase citywide resiliency. However, seven
10 years later, we are still relying on temporary
11 measures. Hesco barriers and tiger dams which are
12 interim flood protection measures were installed in
13 Red Hook in 2017, five years after Sandy. While OEM
14 designs a more permanent solution, sandbags stretch
15 along lower Manhattan and Astoria.

16 In 2013, the city also announced the Build It
17 Back program to help multifamily and single-family
18 homeowners rebuild after Sandy. More than 20,000
19 homeowners registered for Build It Back. One year
20 later, only about 8,300 applicants were still in the
21 program. Although some applicants who applied were
22 deemed ineligible because the property was not their
23 primary residence or they had not complied with flood
24 insurance requirements, many dropped out of the
25

1
2 program because of issues completing the paperwork
3 and frustrating bureaucratic delays. The Housing
4 Recovery Office did work to improve its customer
5 service to better assist applicants and eventually
6 worked out many of the problems with the programs and
7 we commend HRO on that. However, many eligible
8 homeowners who could have used the assistance did not
9 get it and we look forward to hearing from the
10 administration today on how to better prepare for
11 when the next storm hits.

12 In the seven years since Superstorm Sandy, the
13 city has undertaken a lot of strides, a lot of
14 studies. And most of the big resiliency projects are
15 concentrated in lower Manhattan. Lower Manhattan is
16 an important economic and transit hub and the people
17 who live and work here need protection, but we also
18 must ensure that the millions of people who live and
19 work in each borough are just as protected.

20 Many, many, questions remain, and we hope to
21 address them during today's hearing. What is the
22 administration long term planning strategy for homes
23 and critical infrastructure located in areas subject
24 to repeated flooding? What is the plan for dealing
25 with long term impacts of climate change on the most

2 vulnerable communities along our coastlines? Coney
3 Island, the Rockaways, Midland Beach and other low-
4 lying areas in Brooklyn, Queens and Staten Island
5 already experience flooding events regularly.

6 As sea levels rise and rain events become more
7 and more intense, flooding in coastal neighborhoods
8 will occur more often, in some areas weekly.

9 Intro 1620 Council Member Constantinides and my
10 bill to require the Mayor to develop a comprehensive
11 five borough plan to protect the entire shoreline,
12 all 520 miles of it. From the effects of climate
13 change is the first step. It will include long term
14 strategies to address climate change, sea level rise,
15 and sunny day or nuisance flooding and will help
16 determine where the city should invest its capital
17 resources, but immediate action is needed to help
18 avoid and mitigate against the projected devastating
19 impacts of climate change.

20 While the city has constructed dunes in the
21 Rockaway Peninsula which are effective flood barriers
22 and we commend them on this, we must explore
23 additional alternatives to harden infrastructure,
24 things like living shorelines.

2 We know that such techniques will not be feasible
3 along the entire city shoreline, but many low-lying
4 neighborhoods will benefit from redeveloping and
5 restoring natural features such as wetlands which
6 will help attenuate the impacts of waves and coastal
7 surge.

8 We look forward to hearing the administrations
9 testimony and answering our questions about the
10 measures they have taken and whether their planned
11 projects will help protect the city and the people
12 who live, work and visit the city from inevitable
13 future storms. We also look forward to hearing from
14 experts who study climate change, sea level rise and
15 flooding.

16 Before we begin, I want to thank my Committee
17 Staff, especially Committee Counsel Jessica Steinberg
18 Albin, Policy Analyst Patrick Mulvihill, Financial
19 Analyst Jonathan Seltzer and my Senior Advisor
20 Jonathan Yedin and of course, Council Staff from the
21 Environmental Protection Committee for all their hard
22 work in putting this very, very important hearing
23 together.

2 I also want to recognize, we don't have anybody
3 else here yet, but I will now turn it back over to
4 Chair Constantinides to get started. Thank you.

5 CHAIRPERSON CONSTANTINIDES: Thank you Chair
6 Brannan. At this time, we're going to hear testimony
7 from Dr. William Sweet from the National Oceanic
8 Atmospheric Administration, NOAA. Dr. Sweet, can you
9 hear me?

10 DR. WILLIAM SWEET: Yes, I sure can, thank you.

11 CHAIRPERSON CONSTANTINIDES: Alright, fantastic,
12 we're going to have you begin your testimony.

13 DR. WILLIAM SWEET: Great, great thank you.
14 Okay, well, I will talk about sea level rise and what
15 that means in terms of tidal or high tide flooding
16 along the New York City Harbor Coastline.

17 I come to you today from the group that rates all
18 the tide gauges within NOAA's National Ocean Service.
19 So, we have made longstanding gauges there where we
20 make sense of patterns and trends, as well as project
21 into the future in terms of increased flood risk and
22 try to bury those water levels to actual impacts on
23 the ground. So, it becomes a meaningful metric that
24 I will be referring to today.

25 So, everyone can hear me okay?

2 CHAIRPERSON CONSTANTINIDES: Yes doctor, we hear
3 you.

4 DR. WILLIAM SWEET: Great. So, to put it into
5 context I will use some flood thresholds that are
6 developed locally by your weather forecast office of
7 the National Weather Service. These thresholds are
8 developed upon years of impact monitoring and they
9 relate to levels on our tide gauge. So, for
10 instance, as you can see here, sort of the minor or
11 what we have often times called a nuisance flooding
12 or sunny day flooding or now we're starting to call
13 high tide flooding, more tidal driven less storm
14 driven flooding that is really starting to become
15 noticeable in many low lying flat areas along the
16 coast.

17 I will leave it to you all to really understand
18 and recognize where those impacts more or less tend
19 to recur but one thing for certain, recurrent
20 flooding tends to have recurrent impacts.

21 Moderate and major flooding obviously is a
22 problem. It's more of a life-threatening situation,
23 more storm driven but more of the emphasis will be on
24 sort of the first level of noting the impacts on the
25 monitor flood threshold, which often times equates

2 with the Coastal Flood Advisory from your local
3 weather forecast offices.

4 We recognize that there is more than just
5 rainfall causing impact. Just water level causing
6 impacts, local rainfall as was mentioned is a problem
7 in itself. Especially when sea levels continue to
8 creep up and storm hightides tend to clog the storm
9 water drains, often times going into the streets
10 themselves. The same event that might be causing the
11 waters to be higher, might be causing rain as well.
12 It exacerbates the problem; it diminishes the storm
13 water drainage capacity in many parts of city's
14 municipalities.

15 But I will strictly be talking about it in terms
16 of water level. Our tide gauges tend to not really
17 pick up on localized rain effects. So, we'll just
18 look at this in terms of one process; the ocean and
19 tides and surge associated with that.

20 So, a normal picture of where our tide gauge used
21 to be at the Battery. It's moved since then, but
22 there is just an iconic picture. On the right is the
23 actual measurements, sort of in the whitish color
24 would be the tidal component or the tide prediction
25 of the water level. Whereas the blue is actually

2 what the water level is in addition to the tides. We
3 have weather which will cause you know, water levels
4 to deviate from the tide alone.

5 Shown here would be these sort of minor moderate
6 major flood threshold and most of the discussion
7 today again, will sort of frame somewhere between the
8 minor when moderate flood about two to three feet
9 above the average high tide. Again, not anywhere
10 near the levels of Hurricane Sandy but yet high
11 enough to cause noticeable impacts in your community.

12 So, from this I've actually taken some
13 information from your weather forecast office that
14 gives some description of where impacts tend to occur
15 and on this instance on this particular day when we
16 know water levels were somewhere between two to three
17 feet above high tide. Pictures say a thousand words,
18 so these are some areas in the depths of floods that
19 occur in more or less a wind driven situation here,
20 not so much localized rain on this in particular
21 event.

22 Quite noticeable, it was wintertime obviously,
23 that puts another layer of cold to it, but
24 nonetheless, it's ocean water that we see here in
25 normally dry communities.

1 So, what's changed is the level of the ocean
2
3 itself. The tides and our atmosphere conditions, the
4 storms themselves largely have not changed through
5 time, but if I look at the highest water levels in
6 the day over let's say five-year snapshots, you can
7 see that relative to these thresholds, these
8 elevation thresholds, more and more impactful now are
9 the typical sort of storms and tides.

10 You know, the rare events that happen, the
11 Hurricane Sandy's. You know, hopefully they don't
12 happen often, but they are considered quite rare.
13 It's hard to diagnose whether or not they have a
14 climate change signal to them because they happen so
15 infrequently. However, the things that tend to
16 happen normally, Nor'easter's, Perigean Spring Tides,
17 your King tides. Those things happen every year but
18 with the creep of sea level rise, they start to have
19 higher reach, more impacts.

20 So, in a distribution sense, meaning this area
21 under the curve would more or less represent 365
22 highest water levels in a year on average relative to
23 this zero being a mean high, high water. Your
24 average high-water datum; for instance, it would be
25 the zero on the sea level rise viewer, often times a

1 lot of these mapping tools that sort of – where we
2 would what's normally wet versus what's normally dry.

3 You can see through time, rare events, the
4 probability of rare events have increased, but due to
5 sea level rise, the lesser extremes now are really
6 starting to enter underneath that – if the two-foot
7 flood might be an actual threshold of minor impacts
8 occurring. It's really getting quite close to where
9 there's a very non-linear response on an annual
10 basis. Meaning if I look at the three-foot flood
11 through time, this would be the number of days per
12 year with an exceedance above three feet. I don't
13 really see a pattern yet. They happen maybe every
14 two or three years, maybe a couple in a given year.
15 They may have exceeded three feet but I'm using that
16 as a count threshold.

17 But when I look at the two-foot threshold and say
18 what's reached two feet or exceeded that, you really
19 start to see this very non-linear response occurring.
20 As sea level rise continues to elevate typical storm
21 and wind events and your spring tides, more and more
22 often there crossing this threshold and on an annual
23 basis now, those exceedances are accelerating.
24
25

2 So, it's not a gradual increase. At this point
3 now, on a year to year gain basis, it's fairly rapid
4 uptick in increases.

5 I wouldn't say that New York City is alone in
6 this. It's not unique unfortunately, this is sort of
7 what's occurring along much of the east coast and
8 some of the gulf coast is that minor impacts now are
9 beginning to accelerate in many communities. New
10 York City as the discussion is today, Boston, Ocean
11 City, Atlantic City, Baltimore, Annapolis, Norfolk,
12 Charleston, Miami, you're not in this by yourself but
13 you are being proactive in taking you know, this
14 conversation seriously in saying, now is the time to
15 plan for the future because it's more or less here.
16 Sea level rise impacts are occurring now.

17 So, with that historical look in perspective, you
18 know, what does the future hold. And so, here would
19 be the NOAA sea level scenarios that we put out two
20 years ago that two of which, sort of the not the
21 lowest, but the two second to lowest really sort of
22 form this intermediate or considered the lightly rise
23 to occur this century under a continued high
24 admissions as well as reduced admissions.

1 So, it could be higher, it's likely not going to
2 be lower but in terms of typical risk exposure and
3 the types of decisions, this could be one way of
4 framing likely outcomes. Again, if they're critical
5 infrastructure that can't fail; a very long lived,
6 well then, these higher scenarios are plausible.
7 They are less likely, but they necessarily should not
8 be ruled out.

9 So, with that in mind, this would be the global
10 scenarios of rise projected out to 2,200 with the
11 altimeter observations overlaid on the actual
12 scenario. So, you can get a sense of the trajectory.
13 That we're not too far off the intermediate low right
14 now. And so, this would sort of be that the framing
15 or future under maybe average risk tolerant.

16 When we down scale this for New York City
17 globally, rise is not uniform and there is three
18 reasons why New York City or two primarily, that New
19 York City would be higher than the global would be
20 subsidence. New York City area is sinking to some
21 extent. Partially natural reasons maybe from the end
22 of the last ice age.

23 Also, reduction in golf stream which is projected
24 to occur this century would exacerbate sea level
25

1 rise. As well as additional melt of your large ice
2 sheets. Antarctica in particular will cause
3 additional sea level rise along the east coast United
4 States. Greenland might mitigate some of that but
5 more or less here would be a manifestation of those
6 likely rise for New York City with these other
7 factors built in.
8

9 So, by the end of the century under no scenarios
10 which align closely in the same sort of construct to
11 the New York City scenarios themselves. A lot of the
12 underpinning of similar research, somewhere between
13 two and slightly higher than four feet of rise by the
14 end of the century under these scenarios.

15 And you can see that when we look at observations
16 of relative sea level rise made at the Battery, this
17 is meteorological year, and this is how I diagnose
18 high tide flooding. This could be very similar to
19 calendar year for all extent and purposes.

20 More or less, that sort of seems to be bending
21 the trajectory and inner annual variability, which
22 does affect flood risk. So, you know, to be
23 determined but here is an overlay of trajectory that
24 could be somewhat helpful in near term decision
25 making, maybe over the next decade or two, as well as

1
2 these tracking tools that we're developing and know
3 are intended to help sort of determine trigger
4 points. You know, at what point do you recognize
5 that you need to implement the adaptive strategies
6 that were built in to allow for change when change
7 needed to occur. You know, an economic sort of
8 analogy, you know, what point do you reshuffle your
9 portfolio? You know, you've seen enough, you've
10 observed enough, now is the time for change.

11 A translation of what is the mean, a rise in mean
12 sea level, actually suggests in terms of exceedances
13 above these thresholds. So, the same dots that you
14 saw earlier that were accelerating were those two-
15 foot floods in red at the top here shown in a bar
16 graph. The three foot, which are very hard to
17 distinguish because there is only one or maybe two a
18 year on the left access scale which would be 365 days
19 per year. You can see with a continuation of sea
20 level about that likely range, that very non-linear
21 response becomes quite noticeable.

22 So, you know, what might be occurring let's say
23 ten times a year or so, that two-foot flood by 2050
24 on average. Somewhere between 45 and 125 days per
25

2 year. So, very noticeable jumps with that sea level
3 rise that intended you know, on the likely range.

4 The three-foot flood, which occurs less
5 frequently now, probabilistically it doesn't occur as
6 often. You need more of storm or localized event to
7 really cause it today. In time with continued sea
8 level rise will become more dominated by typical
9 events. It has a slower response but by 2050, you
10 know, that's somewhere between 15 and 25 days on
11 average. It could be higher in any given year but
12 that sort of bending typically sort of the
13 variability that might occur from year to year under
14 those two sea level rise scenarios themselves.

15 So, not trivial by any means. You know, with
16 real consequences for responsive that I'm sure this
17 is what your discussion about is today is with this
18 type of data historically and future projected. You
19 know, how best to situate and recognize change as it
20 is likely to occur, so you can be well positioned to
21 defend against it.

22 The last real slide here is another sea level
23 viewer. Another tool within our NOAA group that
24 shows elevations at or below certain, one, two,
25 three, four feet that you can kind of visualize in a

1 bathtub sense, if it is highly driven. You know,
2 what elevations are at risk of flooding and here
3 shown is that three-foot kind of flood with I think
4 Rachael's Bake Shop I believe, has water up to the
5 door and these are georeferenced kind of images that
6 are based upon elevation at the ground as to what
7 they would look like in a hypothetical sense. Again,
8 historically, I'm sure these have happened through
9 impact catalogs of past events. But this could give
10 you some sense of areas with elevations that are at
11 risk.
12

13 So, with continued sea level rise it's
14 essentially an elevation game. Lower elevations are
15 more at risk than higher elevations as would be
16 assumed with sea level rise.

17 In closing, here are a few of the reports and
18 products that are freely available on our web that go
19 into more depth. We're starting to provide seasonal
20 outlooks for sort of readiness purposes. When does
21 high tide flooding most likely occur. We're starting
22 to provide annual outlooks, so as these events occur
23 more often and reactive responses need to occur, you
24 know, the proper budgeting of that as well as longer
25

1 term scenarios and mapping tools to allow first order
2 sort of assessments for risk and vulnerability.

3
4 So, with that, that concludes my testimony. I am
5 happy to entertain any questions.

6 CHAIRPERSON CONSTANTINIDES: Thank you Dr. Sweet.
7 What are your recommendations for mitigating the
8 tidal flooding, the sunny day flooding that you were
9 just speaking about here in the New York City area?

10 DR. WILLIAM SWEET: That's a great question.
11 Obviously, it's a very localized decision. One thing
12 is for certain when continued sea level rise
13 elevation becomes a very important factor. If you
14 are not able to elevate actual ground level
15 infrastructure and then be cognizant that there will
16 be subsurface submergents going on.

17 I think in terms of long-term critical
18 infrastructure that's newly planned or going to be
19 sited to take considerations into where you are
20 actually sort of moving it in terms of overall risks
21 and exposure with sea level rise based upon
22 historical exceedance likelihoods of two, three, four
23 feet. That would make prudent type decisions based
24 upon historical observation. You know, coming from a
25 group with no, you know, we don't actually give sort

2 of recommendations out of how to best make your
3 decisions locally but one thing is we want to make
4 sure that you understand and are able to use our data
5 in a way that you understand and really assist in
6 smart decision making.

7 So, you know, pay attention to the projections
8 asked and elevations and you know, locally, that's
9 about my suggestion. You know, collectively there is
10 less submissions equals less heating equals less ice
11 melt and thermal expansion of the ocean equals less
12 overall sea level rise and flood risk.

13 So, collectively, within all the cities and
14 states and countries, there is an alternative future
15 but with that being not really on the discussion
16 table here, it's probably best to position for a
17 future that's largely uncertain.

18 So, don't box yourself into any particular
19 solution but leave an adaptive capacity to whatever
20 decisions you make today because you may revisit them
21 tomorrow.

22 CHAIRPERSON CONSTANTINIDES: And I'm looking at
23 your report now and you're saying by the mid-century,
24 there is a possibility that the two-foot floods or
25 the two-foot tidal, so sunny day tidal flooding,

2 could be about 1/3 of the year, correct? You're
3 talking about between 45 and 125 days where we could
4 be experiencing these types of events. That breaks
5 to like one in every three days we could be having
6 these type events in New York City. Is that correct,
7 is that a fair characterization of your position?

8 DR. WILLIAM SWEET: Yes, that is correct. That
9 is a potential outcome under likely sea level rise
10 scenarios under continued higher admissions. Again,
11 a two-foot flood, I don't think necessarily means two
12 feet over ground in areas throughout the city.
13 There's been enough instances of those two-foot flood
14 that have occurred that you could get a pretty good
15 estimate as to where those impacts are now.

16 Those are sort of your hot spots or your wet
17 spots. So, those areas that water tends to want to
18 pull and come up out of the storm water systems or
19 over top sea walls and are in those communities that
20 just aren't fortunate enough to have larger sea walls
21 or have been elevated through time. Those
22 communities, those assets, yes, very well could be
23 impacted upwards of 1/3 of the year by 2050 on
24 average.

2 CHAIRPERSON CONSTANTINIDES: And those are
3 communities in our neighborhoods that are usually
4 environmental justice communities. Those communities
5 who can ill afford to move and they're going to be
6 the ones who are going to be one out of every three
7 days impacted. I just wanted to make sure I put that
8 back on the record.

9 With that, I will turn it over to my colleague,
10 Council Member and Chair Justin Brannan for any
11 questions he might have to you.

12 CHAIRPERSON BRANNAN: I guess, sort of very
13 broadly, what do you think the city should be doing
14 to address all of this stuff that we're not currently
15 doing?

16 DR. WILLIAM SWEET: Well, I think it's important
17 to recognize that the rare events will happen. They
18 happen frequently, the Hurricane Sandy's hopefully
19 New York City doesn't experience another one of
20 those. But obviously, that's probably not the case
21 moving forward whether it's in the ten years or one
22 hundred years and those are the types of events that
23 communities typically become most concerned and fear,
24 for a good reason.

1 But the lesser extremes, may become a little bit
2 more challenging to defend by. I'm not sure, I'm not
3 a structural engineer or hydraulic engineer by trade
4 to recognize how large storm gates and flood barriers
5 will treat daily tides. You know, eventually this
6 becomes a tidal issue and it's best not to be in the
7 tides way. Holding back the tide where the tide
8 wants to go becomes challenging because it's a
9 frequent event on a daily, weekly, nature that we
10 could be discussing moving forward. Whether or not
11 those types of defense structures will provide that
12 type of protection. It's something that really needs
13 to be thought on about.

14 So, in terms of what would be prudent planning
15 purposes would again be looking to elevations, look
16 at the overall frequency or duration or a probability
17 moving forward to say what are your tolerances of
18 varied systems or assets or public patients for that
19 matter. How often can they stand being wet? Once a
20 year, five times a year, ten times a year, twenty
21 times a year and use the sciences and services that
22 we provide as well as supplementing your local
23 academic institutions and city groups that are pretty
24 advanced around the country in working on this topic.
25

2 But use that information as you are and really think
3 about where you're placing them and to make sure to
4 move the important things out of harms way when
5 chances present themselves.

6 CHAIRPERSON BRANNAN: Thank you Chair.

7 CHAIRPERSON CONSTANTINIDES: Dr. Sweet, I just
8 want to thank you for your testimony today and your
9 insight and all the work that you are doing, and I
10 look forward to continuing our conversation with one
11 another as we are going to continue to monitor and
12 speak with one another on these issues.

13 DR. WILLIAM SWEET: Alright, thank you. I
14 enjoyed being in front of your Committee today.
15 Thank you.

16 CHAIRPERSON CONSTANTINIDES: Thank you doctor.
17 With that, I want to recognize Council Member Eric
18 Ulrich from Queens who is joining us here today.

19 With that, I will call up the first panel for the
20 Mayor's Office. We have Nate Grove Chief of
21 Waterfront and Marine Operation for New York City
22 Parks, Jainey Bavishi. I want to make sure I get it
23 right, with a name like Constantinides, I want to get
24 it right from the Mayor's Office of Resiliency and
25 Recovery. We have someone DOT, Sheila Feinberg from

2 New York City DOT and Michael DeLoach from New York
3 City DEP.

4 COUNCIL CLERK: Could you please raise your right
5 hand. Do you swear or affirm to tell the truth, the
6 whole truth and nothing but the truth today?

7 JAINEY BAVISHI: I do.

8 CHAIRPERSON CONSTANTINIDES: How are you?

9 JAINEY BAVISHI: I'm good, how are you?

10 CHAIRPERSON CONSTANTINIDES: Great, I look
11 forward to hearing your testimony.

12 JAINEY BAVISHI: Okay, great. Good afternoon, I
13 am Jainey Bavishi; the Mayor's Director for
14 Resiliency. I would like to thank Chairperson
15 Constantinides, Chairperson Brannan, and the other
16 members of the Environmental Protection and
17 Resiliency and Waterfront Committees for the
18 opportunity to speak today about the de Blasio
19 Administration work to adapt a climate change which
20 present an existential threat to New York City and
21 the 8.6 million New Yorkers who call the city home.

22 Today, we commemorate the 7th Anniversary of
23 Hurricane Sandy. The deadliest and most destructive
24 natural disaster in New York City's history. The
25 storm left 44 New Yorkers dead, upended entire

1
2 neighborhoods and cost \$19 billion in damages and
3 economic loss. It was a tragedy of an almost
4 unimaginable scale.

5 In the aftermath of Sandy, it was clear that
6 federal assistance would be needed to help New York
7 City recover and rebuild. As a result of
8 appropriations past in 2013, New York City received
9 approximately \$15 billion in federal funding for
10 recovery and resiliency. These funds along with
11 roughly \$5 billion from city capital have enabled us
12 to initiate dozens of programs and large-scale
13 infrastructure projects to guard against climate
14 threats.

15 This \$20 billion is our down payment. An
16 investment to protect the people of New York City
17 from a climate crisis and while we have made
18 significant progress with these funds, we are also
19 facing a dynamic threat that is growing more menacing
20 with each passing day. Because the climate will
21 continue changing, resiliency must be viewed as a
22 process, not an outcome.

23 In this testimony, I will detail this
24 administrations approach to climate change adaptation
25 focusing on the ways in which it improves upon the

1 approach of the Bloomberg Administration. I will
2 then summarize the progress we had made to build
3 resiliency across the five boroughs.
4

5 Finally, I will speak to our next phase of
6 planning and the complexities of addressing a cross
7 cutting and interjurisdictional issue that will
8 continue to evolve for many decades to come.

9 New York City's approach to climate adaptation
10 has its routes in the immediate aftermath of Sandy.
11 In late 2012 and early 2013, the Bloomberg
12 Administration worked at a furious pace to generate
13 ideas for a potential resiliency projects.

14 The long-term aspiration was to defend against
15 another Sandy like storm but a key step along the way
16 would be to convince congress to allocate the
17 absolute maximum amount of federal recovery funds.

18 In service of both of these goals, the Bloomberg
19 Administration convened the special initiative on
20 recovery and rebuilding and released a stronger more
21 resilient New York, also known as the SIRR report.
22 However, this report was released before the
23 complexity of major projects was prelinearized.

24 Engineers and architects had not yet been hired
25 to study individual project areas and communities had

1 not engaged for their feedback. As a result, the
2 timelines that were proposed were aspirational and
3 the projects conceptual in nature.
4

5 When Mayor de Blasio came into office in 2014, he
6 recommitted to the initiatives proposed and served,
7 as part of the 2015 One NYC strategy. The vision
8 laid out in One NYC went beyond the Bloomberg
9 approach in two ways. First, it added an equity and
10 justice lens to our work. And second, it brought in
11 our focus to include all of the threats posed by
12 climate change.

13 The SIRR report focused on storm surge because it
14 was a direct response to Hurricane Sandy. Over time
15 however, it became increasingly clear that that was
16 not enough. We know that extreme heat for example,
17 kills more New Yorkers than any other extreme weather
18 event and temperatures keep rising. Meanwhile, we're
19 seeing more rainfall each year and that rainfall is
20 concentrated in more intense downpours.

21 Finally, we have to content with the long-term
22 challenge of sea level rise, which could remake our
23 streets into rivers even on sunny days and corrode
24 the foundations of our buildings.
25

1 As we plan for all of these threats, we must
2
3 consider several variables including technical
4 feasibility, neighborhood character and quality of
5 life. We have learned that building walls cannot be
6 the only solution. In fact, building massive walls
7 meant to save communities can instead isolate and
8 destroy them.

9 Increasingly, cities around the world are
10 grappling with the reality that concrete and steel
11 cannot protect us completely. The standard of
12 keeping every home and every road dry no matter the
13 condition is an impossible one. We must take a
14 multilayered approach, which is why we have
15 strengthened the city's building and zoning codes and
16 implemented significant programs to promote social
17 resiliency, maximize flood insurance enrollment and
18 educate New Yorkers about risk.

19 Adapting to all of the threats posed by climate
20 change requires action at multiple levels, from the
21 individual household to the entire region. No one
22 entity can do it alone and there is no silver bullet
23 solution. I would now like to give a brief summary
24 of the progress that has been made and the upcoming
25 milestones that lay ahead. It goes without saying

2 that our progress is the product of a massive team
3 effort directed by the Mayor's Office of Resiliency
4 and implemented by nearly every city agency.

5 We're also in constant coordination with state
6 and federal partners as well as dozens of community
7 organizations and private and philanthropic partners.
8 All of which are taking discreet actions to increase
9 the city and the regions overall resiliency.

10 Let me mention just a few accomplishments here.
11 We have completed construction on several shorefront
12 projects including the 5.5-mile-long Rockaway
13 boardwalk. Nearly ten miles of new dunes across
14 Staten Island and the Rockaway peninsula and
15 ecological restorations in Sunset Cove in Queens and
16 Sawmill Creek in Staten Island.

17 The Build it Back program administered by our
18 colleagues and the Mayor's Office of Housing Recovery
19 operations have helped 12,500 families recover from
20 Hurricane Sandy. Each and everyone of these families
21 will be measurably safer the next time a storm hits.

22 We along with our partners have invested more
23 than \$1 billion into hardening and storm proofing the
24 city's infrastructure. We've invested billions of
25 dollars to increase the resiliency of our schools,

2 public housing and hospitals and we've invested more
3 than a \$100 million in grants and loans for small
4 businesses which are the bedrock of so many
5 communities. We have increased insurance policies
6 among New Yorkers by 59 percent since 2012 through a
7 public awareness effort and we've updated the city's
8 emergency protocols including new evacuation maps and
9 response equipment.

10 We also are continuing to move forward with
11 several complex generational projects which require
12 careful planning, extensive community engagement and
13 several layers of engineering and environmental
14 review before shovels can hit the ground.

15 I am pleased to report that next year, four major
16 ground breakings will take place across three
17 boroughs. Construction will begin on the Staten
18 Island Coastal Storm Risk Management project, the
19 Atlantic Side Rockaway Reformulation, the East Side
20 Coastal Resiliency project, and New York States
21 living breakwaters project in Staten Island.

22 Finally, I would like to illustrate the ways the
23 de Blasio Administration is addressing the next
24 generation of climate change throughout two brief
25 examples. To combat extreme heat, we have launched

2 Cool Neighborhoods NYC, \$106 million program designed
3 to keep New Yorkers safe and cool. To combat extreme
4 rainfall and the strain it places on our sewer
5 system, we are doubling the size of New York City's
6 nation leading green infrastructure program by
7 constructing 5,000 brand new curbside rain gardens.

8 This summary is intended to provide the Council
9 with a small sampling of the progress that has been
10 made. My office is available to provide more in-
11 depth information on any of these projects or any of
12 the city's many other resiliency at your request.

13 We have learned many lessons over the past seven
14 years and we're already beginning to put them to use.
15 Before Hurricane Sandy, the complexities of adapting
16 to climate change were largely theoretical. After
17 the storm, we had very little time to grapple with
18 difficult issues including land use, governance,
19 prioritization and an uncertain funding landscape.

20 Our approach focus on addressing the areas hit
21 hardest by Hurricane Sandy and those at greatest risk
22 from climate threats in the future. We moved ahead
23 by advancing construction and implementing programs
24 as soon as federal funds were made available. It
25 quickly became clear that adapting New York City

1 would require coordinating dozens of different
2 entities with different jurisdictions. Including the
3 MTA, the Port Authority, the state, DEC and DOT,
4 utility providers and the private property owners
5 along New York City's waterfront.
6

7 The U.S. Army Corp of Engineers which plans
8 designs and builds dams, canals and flood
9 protections, all across the country was also a major
10 player and remains so today.

11 In 2013, President Obama directed that the U.S.
12 Army Corp of Engineers to study coastal resiliency in
13 the region and the corps subsequently began the New
14 York, New Jersey Harbor and Tributaries or HAT study
15 in 2016. This study had an initial budget of \$3
16 million which has since been increased to \$19.4
17 million after the complexities of the work became
18 more apparent.

19 This study is incredibly important because it
20 will provide the blueprint for the next round of
21 coastal resiliency projects in New York City.
22 Federal engineers, architects and designers are doing
23 a detailed analysis of site conditions in dozens of
24 New York City neighborhoods and 25 counties in New
25 York and New Jersey including elevation analysis,

1
2 feasibility studies and environmental impact
3 assessments. They're also holding community meetings
4 to solicit feedback periodically throughout their
5 process.

6 At present, the corps has identified five
7 different potential approaches. Most of these
8 approaches contain constellations of dozens of
9 individual land based and water-based projects spread
10 across New York City and the region. Including
11 projects, the city has long advocated for, such as
12 land-based protections for Long Island City and in
13 water storm surge barriers in New Town Creek, the
14 Gowanus Canal and Jamaica Bay including a Coney
15 Island tie off.

16 Next summer, the corps will select the best
17 approach and publicly announce their choice. At that
18 point, we will have a new set of urgently needed
19 projects to work toward. We will also need to find
20 funding for these projects which does not currently
21 exist.

22 One of the bills being considered today,
23 Introduction 1620 would direct the city to develop a
24 resiliency plan for New York City's coastal areas.
25 We fully the support the goals of this legislation

1
2 and share the Councils interest in protecting our
3 shoreline. However, we are concerned that advancing
4 a city plan in parallel with the federal plan could
5 create confusion, waste taxpayer resources and result
6 in additional proposed projects that have no clear
7 funding source. Re-envisioning all of New York
8 City's 520 miles of shoreline is a massive endeavor.
9 We have three times more waterfront than the entire
10 country of the Netherlands and it's far more densely
11 populated by residential and industrial uses.

12 As we have learned from Hurricane Sandy,
13 resiliency planning needs a strong foundation of
14 community engagement and input. 38 out of the city's
15 59 community districts are coastal. Simultaneously
16 engaging these communities on all the resiliency
17 tools outlined in this bill, including largely
18 untested approaches like strategic relocation would
19 be akin to conducting dozens of rezoning
20 simultaneously.

21 This effort would be completely unprecedented in
22 New York City's history. We believe the best
23 strategy for future resiliency planning is to
24 continue advocating for the Army Corps to finish
25 their study as quickly as possible. At the same

1
2 time, we will continue our efforts to address the
3 full slate of other climate threats. We're making
4 important progress on that front. The city continues
5 to work with local and regional governmental bodies
6 to assist in identifying the regents at risk
7 infrastructure and the best ways to protect it.
8 We're conducting a storm water study to identify
9 where precipitation base flooding occurs most
10 frequently and how to address it. We also monitored
11 air temperature in 14 neighborhoods throughout New
12 York City over the last two summers to address the
13 drivers of high temperatures in the city.

14 The results of these efforts will continue to
15 guide a response to climate change and help
16 prioritize how we advance future projects.
17 Unfortunately, unlike many European countries, the
18 United States does not have a proactive federal
19 funding strategy for climate change adaptation. Here
20 money flows only after a disaster, which creates
21 significant challenges for long term planning and
22 implementation.

23 I would now like to discuss the two other bills
24 being heard today. Introduction 382 would require
25 the Office of Emergency Management to provide all

2 property owners in the flood plain with information
3 related to FEMA's new flood maps after they go into
4 effect. The Administration supports the intent of
5 this bill. However, since FEMA administers the
6 creation of these maps and sets the rates for flood
7 insurance nationwide, we believe they should issue
8 these notifications. The Mayor's Office of
9 Resiliency will formally request a FEMA along with
10 the recommendation that any such notifications be
11 issued before the maps go into effect, to give New
12 Yorkers time to prepare.

13 We also ask that the Council consider
14 complimenting FEMA notifications with a city sponsor
15 notification through Department of Finance mailings.
16 Such a notification could explain FEMA's authority
17 and direct recipients to floodhealthny.org, a user-
18 friendly New York City specific flood risk and flood
19 education site.

20 Introduction 1480 would create a marine debris
21 disposal office. The administration supports the
22 intent of the bill and looks forward to discussing
23 with Council the ways we can partner in cleaning up
24 our waterways.

1
2 To provide context, the city is the single
3 largest owner of shoreline; handling much of the
4 debris that is not removed by the Army Corps or
5 private property owners.

6 In the wake of Hurricane Sandy, our marine debris
7 removal contract maintained by DCAS, along with FEMA
8 and NOAA grants allow the city to complete millions
9 of dollars' worth of cleanup citywide.

10 To conclude my testimony, I would like to thank
11 both Committees for the opportunity to discuss the
12 city's progress toward climate resiliency and the
13 challenges that still lay ahead of us. We look
14 forward to your questions. Thank you.

15 CHAIRPERSON CONSTANTINIDES: Alright, so if I am
16 reading your testimony correctly, your plan is to
17 allow Donald Trump and his Army Corps of Engineers to
18 issue a plan. We go along with that; we do no other
19 legislation and we just trust everybody this is going
20 to go along fine.

21 JAINEY BAVISHI: We are implementing \$20 billion
22 worth of resiliency projects citywide already that
23 are focused on the most at risk neighborhoods. The
24 Army Corps of Engineers is doing a science based
25 technical analysis of the next round of coastal

2 resiliency projects. This is an incredibly complex
3 interjurisdictional issue that requires – has
4 assistance from the Army Corps to bring together not
5 only the city but with other state and federal
6 agencies.

7 This is a process that has been really to avoid
8 politics actually. It is a science based technical
9 feasibility study and we are at the table with the
10 Army Corps reviewing what is coming out of this
11 study.

12 CHAIRPERSON CONSTANTINIDES: And the Army Corps
13 was here before us and we still have very deep
14 concerns about them not taking sea level rise into
15 account.

16 Let me say this again, rephrase. This is the
17 problem that I have with the administration on a
18 consistent basis. Instead of coming here with
19 constructive feedback on how we can improve
20 legislation, there is a consistent sort of rejection
21 of every piece of legislation and the things you've
22 mentioned here, the participation-based flooding,
23 your conducting that storm – that was a Council bill.
24 Right, that was something that we after the time that
25 we proposed the bill, the administration told us we

2 didn't need that, but we passed it anyway and now you
3 are telling that that's something that you are doing.
4 It's because this Council worked with the
5 administration to get that done.

6 We talked about the air quality. Those are
7 things again that were part of a Council bill that
8 the time that they were heard, we were told that is
9 was not necessary and then we worked in collaboration
10 to pass that legislation and now it's part of
11 something that you are telling me that you are doing.
12 The frustration that I have here, that I shouldn't
13 have today and it's unnecessary is the complete lack
14 of this administration's recognition that there is a
15 whole branch of government that has put forth ideas,
16 that wants to work with you guys and come up with
17 solutions. And instead of giving us feedback in how
18 we can make the legislation better, you consistently
19 and persistently reject these ideas off hand, say how
20 much you want to work with us and then we will go to
21 pass the bills, you taught them as if they were your
22 idea.

23 So, it's a frustration on my part just on
24 process, that we keep ending up — we start in the
25 same dance with one another. I wish we would start

2 from a different place of, here are the things we can
3 actually do to improve this legislation. Let's do
4 that together, instead of saying how much you want to
5 work with me. I want to work with you to. I do and
6 you know that, but I'm frustrated with this
7 consistent testimony from the administration that
8 doesn't change.

9 JAINEY BAVISHI: We certainly appreciate the
10 Council's partnership and leadership. The
11 legislation that is being heard today; Introduction
12 1620 acknowledges the Army Corps study as an
13 important mechanism that is advancing coastal
14 resiliency planning that needs to be coordinated
15 with.

16 We're just acknowledging that that study is
17 underway, and it will not reach its next major
18 milestone until the summer of 2020. At which point
19 we will know which set of land based and in water
20 projects the Army Corps is moving with. That's a
21 really important input into coastal resiliency
22 planning for the city. So, that's simply what I am
23 highlighting here today.

24

25

2 CHAIRPERSON CONSTANTINIDES: Is the city ready
3 for a next superstorm? If we got hit tomorrow, would
4 we be ready?

5 JAINEY BAVISHI: Absolutely. New York City is
6 definitively safer and better protected than it was
7 during Hurricane Sandy seven years ago.

8 As I've said in my testimony, we've completed
9 several coastal protection projects including the
10 reconstructed Rockaway boardwalk, which is now meant
11 to serve as coastal protection for the community and
12 nearly ten miles of dunes across Staten Island and
13 the Rockaway Peninsula. We've increased flood
14 insurance among New Yorkers by 59 percent since 2012,
15 boosting financial resiliency.

16 We've hardened and storm proofed critical
17 infrastructure to minimize disruptions to critical
18 services during an extreme weather event. Over
19 12,500 families have been served through the Build It
20 Back program making them safer and more ready for
21 another storm and we're breaking ground on four major
22 coastal protection projects across three boroughs
23 next year. The East Side Coastal Resiliency project,
24 the Atlantic Side of the Rockaway reformulation, the
25 Southshore Staten Island Levy and the New York States

2 Living Breakwaters Project. There is absolutely more
3 work to do but we are definitively safer than we were
4 seven years ago.

5 CHAIRPERSON CONSTANTINIDES: It doesn't
6 necessarily mean that we're completely ready. So, I
7 have a question about, I mean, how do we look at our
8 plan. Right, is there any connectivity to what we're
9 doing? We're spending a lot of money, we're doing
10 lots of things, which is wonderful, and I acknowledge
11 the work that we've done, absolutely but is there a
12 connectivity to what we're doing? You know, are we
13 thinking about things in connection with all five
14 boroughs.

15 We talk about the Big U in Lower Manhattan, like,
16 are we looking at how the plans that we're doing in
17 the Rockaways are connected to what's going on in
18 Brooklyn, that's going on to Manhattan? Like, what
19 are we doing to connect all of these ideas, that's
20 it's comprehensive? That it's not just, we're doing
21 this here, we're doing this here, we're doing this
22 here. Wouldn't having a plan with connectivity and
23 to more of a holistic plan be more beneficial in the
24 long run, because these projects would feed off one

2 another in combating both sea level rise and storm
3 surge.

4 JAINEY BAVISHI: Thank you for the question. We
5 have learned through our efforts since Hurricane
6 Sandy that every neighborhood is different, and every
7 neighborhood requires a unique annotation solution.
8 Technical feasibility, neighborhood character and
9 quality of life are all important considerations as
10 we advance coastal resiliency solutions.

11 And we absolutely prioritize the outer boroughs
12 in our resiliency planning. We are implementing with
13 the Army Corps of Engineers the Rockaway
14 reformulation in the Rockaways, the Staten Island
15 Levy. We have invested over \$2 billion into
16 protections in Coney Island that are not just shore
17 based but also building based. Our advancing and
18 integrated flood protection system in Red Hook and
19 we're also advancing a Hunts Point food market
20 resiliency project in the Bronx.

21 CHAIRPERSON CONSTANTINIDES: I hear you on the
22 different things that we're doing and again, I'm just
23 asking is there value in having connectivity in
24 thinking - every neighborhood is different, but we're
25 all connected to one another right. Like, we're one

1
2 city, so is there value in us thinking about these
3 things in a connective way? Right, how these
4 communities – how the planning in one community
5 impacts the community right next door?

6 JAINY BAVISHI: We absolutely look at what
7 impacts project in one community might have on
8 another. For example, there has been a question
9 about water displacement. Do any of our projects
10 displace a storm surge and create residual flooding
11 in other communities. Those are impacts that we
12 evaluate, and we would not move forward if there were
13 impacts that we could not mitigate.

14 So, all of the shore-based protections that we
15 are advancing across the entire city do not have that
16 impact.

17 CHAIRPERSON CONSTANTINIDES: And looking at our
18 like critical infrastructure, like waste to treatment
19 plants, which I know there is one of them in my
20 district and you know, during Hurricane Sandy
21 hundreds of millions of gallons of sewage spilled
22 into our waterways. How are we hardening our
23 infrastructure for our waste with a treatment plant
24 and sort of beyond that, right, we know there is this
25 – you know, it's going to rain even more; we have

2 this precipitation study. You know, five billion
3 gallons of sewage alone went into Flushing Bay,
4 Flushing Creek last year.

5 So, what are we doing around our critical
6 infrastructure around our waterways to one, make sure
7 that infrastructure is in good repair and in good
8 place. Two, like how are we improving our sewer
9 system you know, not to see more CSO's, not to see
10 more run off into our water bodies which are only
11 going to make quality of life in New York City worse?

12 JAINEY BAVISHI: I'm going to start responding to
13 this question and then defer to my colleague from
14 DEP.

15 We are absolutely taking a proactive approach in
16 hardening our wastewater treatment plants and storm
17 proofing our wastewater treatment plants. And in
18 fact, DEP has been incredibly progressive about this
19 and have started using our climate resiliency design
20 guidelines which take our future projections for a
21 range of climate hazards and provide guidance to
22 designers and engineers about how to incorporate
23 those hazards into the design and construction of
24 capital projects.

2 But I will defer to my colleague Michal DeLoach
3 to add any other information.

4 CHAIRPERSON CONSTANTINIDES: Can we just get the
5 DEP folks, the Parks folks and the who's the other
6 person that's here from the Mayor? Just have you all
7 get sworn in at once, so I'm not swearing people in
8 in intermediate stages please, thank you.

9 COUNCIL CLERK: Please raise your right hand. Do
10 you swear or affirm to tell the truth, the whole
11 truth and nothing but the truth today?

12 MICHAEL DELOACH: So, in terms of protecting our
13 fourteen wastewater resource recovery facilities, we
14 currently are managing \$400 million worth of projects
15 to better safeguard the vital equipment. Whether
16 that's elevating the equipment, flood proofing the
17 equipment, installing flood barriers, sealing
18 buildings, there's extensive work going on to make
19 sure. We did a review after Sandy of all of our
20 facilities to identify what the needs were and we're
21 happy to say we're working on those. The majority
22 should be complete by next year.

23 CHAIRPERSON CONSTANTINIDES: By next year and how
24 about the issues around additional rain going into
25 our - I mean last year was a more than average rain

1 year and that's going to become more of the norm.
2 What are we doing around additional CSO's and to
3 mitigating those?
4

5 MICHAEL DELOACH: Sure, so, in the past ten
6 years, we've spend \$3.6 billion to update and expand
7 our vital infrastructure. We've created 10,000 acres
8 of blue belts. We've spent an unprecedented \$2
9 billion in southeast Queens to add new infrastructure
10 in sewers. We're constructing new high-level storm
11 sewers that capture the additional storm water and
12 take it out of our sewer system. There is a ton of
13 work going on across the city to continue to update
14 and expand the capacity of our system.

15 CHAIRPERSON CONSTANTINIDES: And what sort of
16 anticipation are we having on – you know, there's a
17 lot of questions, I'm going to come back to you Mike
18 on my second round, okay.

19 Lastly, I just want to and I'm going to pass – I
20 don't want to monopolize this hearing, but I do want
21 to ask, how are we balancing the need for resiliency
22 measures and sustainability measures? Right, because
23 there is only a certain amount of roof space. We
24 have to move critical infrastructure to the roof for
25 resiliency measures, but at the same token, we need

1
2 to make sure we are doing things like green roofs and
3 solar panels on the sustainability side. So, how are
4 we making that balance, making those choices to
5 ensure that we're making buildings both resilient and
6 sustainable in the long run that reducing admissions
7 by doing solar and green roofs but also bringing
8 critical infrastructure you know, out of the
9 basements and into places where they won't flood?

10 JAINY BAVISHI: Yeah, thank you for the
11 question, this is such an important point. We
12 coordinate very closely with our Mayor's Office of
13 Sustainability, which is our sister office, to make
14 sure that we're not only adapting to the impacts of
15 climate change that are locked in and that we cannot
16 avoid, but also mitigating our carbon footprint.

17 You know, I think there are some innovative
18 solutions in this regard. For example, our corps
19 roofs program is a great example of how we are
20 coating rooftops with special white reflective paint
21 to keep buildings and neighborhoods cool in the base
22 of extreme heat but also lower energy use, so that we
23 are mitigating our carbon impact from these buildings
24 during extremely hot days.

2 I think that we absolutely need to continue to
3 look for more solutions like this, that can both
4 serve adaptation and sustainability purposes.

5 CHAIRPERSON CONSTANTINIDES: And are we getting
6 together with agencies on a consistent basis to make
7 sure that both of these ideas are being thought about
8 whenever we're constructing a new school, a new
9 library? Are we making sure that these - I know that
10 there are guidelines right, but they are guidelines,
11 which means that they are not mandatory.

12 So, how do we make sure that these types of ideas
13 are being brought into every construction project
14 that we have in the city of New York?

15 JAINEY BAVISHI: We released the third version of
16 our guidelines earlier this year and agencies are
17 already starting to use them. And I think that's
18 great progress and we need to continue moving down
19 that line, so that we start building a culture a
20 culture of resiliency and a practice of incorporating
21 these projections into the design and construction of
22 our buildings and infrastructure projects, as well as
23 incorporating sustainability.

24 CHAIRPERSON CONSTANTINIDES: And the less thing I
25 will say is what if we're not happy with the Army

2 Corps plan? Right, what if it's a plan that creates
3 water displacement? What if it's a plan that we're
4 not comfortable with as a city of New York? I know
5 that we're at the table, I know that they are doing
6 good work but if we are unhappy with that plan?
7 Where does that leave us in us not developing our own
8 plan?

9 JAINEY BAVISHI: Well, I think that we will push
10 the Army Corps to develop a plan that we are happy
11 with and that is why we're at the table and reviewing
12 interim milestones along the way. It's premature to
13 anticipate where they'll lead but we are very closely
14 monitoring their progress.

15 CHAIRPERSON CONSTANTINIDES: Alright, I am going
16 to come back for a second round, but I will pass it
17 at this time to Chair Brannan for questions. Thank
18 you.

19 CHAIRPERSON BRANNAN: Thank you Chair. I want to
20 acknowledge we've been joined by Council Members
21 Treyger, Levin and Richards and Councilman Espinal is
22 here as well.

23 You know, I don't think any members of this
24 Committee, certainly not the Chair and I take any
25 satisfaction in when we ask the question if the City

2 is prepared if Sandy were to hit again today like it
3 did seven years ago. I don't think we take any
4 satisfaction in knowing that we're right in that we
5 don't think the city is ready. You know, I don't
6 think we take any pleasure in that.

7 But there are certain things that – what I'd like
8 to know is aside – I hear a lot about studies and
9 sandbags, I'd like to know what – I'm not talking
10 about shovels in the ground next year. I'm talking
11 about as we stand today, October 29, 2019, what
12 projects have been completed, finished?

13 JAINEY BAVISHI: We've completed several coastal
14 projects including the reconstruction of Rockaway
15 Boardwalk. We've installed ten miles of new dunes
16 across Staten Island and the Rockaway Peninsula. We
17 have completed a tea growing and sand nourishment
18 project and sea gate in Brooklyn. We work with the
19 Army Corps to re-nourish the area between Beach 92nd
20 and Beach 103rd Street. We have restored Sunset Cove
21 and Broad Channel. This was an ecological
22 restoration project to mitigate flood waters and
23 improve the health of Jamaica Bay. We restored 54
24 acres of the wetlands in the west shore of Staten
25 Island and we have installed temporary flood

2 protection barriers through the Interim Flood
3 Protection Measures Program at 50 plus sites across
4 the city. And this does not include of course the
5 great work that the Office of Housing Recovery
6 Operation system to serve 12,500 families with the
7 Build It Back program.

8 CHAIRPERSON BRANNAN: The Rockaway Beach Dune
9 project is finished? I thought it was set to begin
10 the end of this year.

11 JAINEY BAVISHI: There are a couple rounds of
12 Rockaway dune projects, so we have installed 5.5
13 miles of - we've installed 10 miles of dunes across
14 Rockaway and Staten Island just after Sandy. We put
15 more sand on the beach earlier this year and then
16 there will be even more sand going on the beach when
17 the Army Corps advances the Rockaway Reformulation
18 project, which is set to start next year.

19 CHAIRPERSON BRANNAN: Something like the - like,
20 we took a tour of the Atlantic Basin in Red Hook and
21 we saw some of the stuff that's been done. But
22 something like Hesco barriers these super, super
23 temporary protective measures. Why do they take so
24 long?

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2 JAINEY BAVISHI: The Hesco barriers, the Interim
3 Flood Protection Measures program was actually a
4 program that was funded several years after Sandy. I
5 am sorry, I don't have the exact year in front of me.
6 It was funded with city expense dollars and it was
7 meant for facilities. It was meant for critical
8 infrastructure and facilities. And as we advanced
9 the work in Red Hook, we realized how complicated a
10 permanent flood protection system was going to be and
11 it took a bit longer to figure out what the exact
12 solution would look like then we originally
13 envisioned. Because of technical feasibility and
14 making sure that we weren't destroying the character
15 of the neighborhood. It's a neighborhood with a
16 working waterfront and we simply didn't want to build
17 you know, 15-foot walls around three sides of the
18 community, which is what it would have taken to
19 protect the community from 100-year storm.

20 So, we were working with the community to figure
21 out a solution that works in that particular
22 neighborhood. And as we were doing that, we realized
23 that we had this other tool that could provide some
24 protection immediately and we wanted to deploy that
25 protection. That in itself required some feasibility

2 analysis but Emergency Management moved very, very
3 quickly in order to provide that protection in the
4 Hurricane season 2017, before the Hurricane season
5 2017.

6 CHAIRPERSON BRANNAN: Why do you think so many
7 projects are still in the study phase?

8 JAINEY BAVISHI: These are extremely complex
9 generational projects. And I would say - I would
10 actually say that while there are many projects in
11 the study phase, there are actually many, many
12 projects that are much further along than the study
13 phase.

14 They are in design and many of them are in the
15 final stages of design and are moving towards
16 construction.

17 CHAIRPERSON BRANNAN: I mean, do you think the
18 city is moving as fast as the city can move?

19 JAINEY BAVISHI: I think the city is moving with
20 the upmost urgency.

21 CHAIRPERSON BRANNAN: What is the city doing to
22 address flooding issues? Like, in low lying areas of
23 the city; what types of green infrastructure
24 techniques are being used aside from the rain
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gardens? You know, how long do these things typically take to be installed?

JAINEY BAVISHI: So, I just want -

CHAIRPERSON BRANNAN: I'm sorry, when we were in Red Hook, we were taking a look at th Hesco barriers and stuff and then the street basically that we were on, you know, residents were saying that it floods after a regular rainstorm and that we're not doing anything about that.

JAINEY BAVISHI: So, we are doing something about that, but before I address that, let me just differentiate the two types of flooding you are talking about. So, the interim flood protection barriers, like the Hesco barriers or Tiger dams, they are meant to protect from coastal flooding. So, the flooding that comes from over our coastal edge. From the East River, from the Atlantic Ocean etc.

The flooding that you are talking about that's precipitation-based flooding is obviously rain flooding that comes from the sky. Right, so, we have to just - it's important to make sure that we're thinking about where the flooding comes from because it requires two different kinds of solutions to

2 protect our communities from these various different
3 kinds of flooding.

4 So, in terms of addressing precipitation-based
5 flooding, DEP actually just announced that they are
6 doubling the size of a nation leading infrastructure
7 program. So, this is a program that will create
8 curbside rain gardens, 5,000 curbside rain gardens in
9 Brooklyn, in Queens and in the Bronx. And we're
10 actively working with coastal communities to install
11 other kinds of flood risk reduction measures.

12 So, for example, the Rockaway Reformulation that
13 we've been talking about on the Bayside of the
14 Rockaways, we're actually going to be working with
15 the Army Corps to construct high risk – sorry, high
16 frequency flood risk reduction measures.

17 So, these are the kinds of measures you talked
18 about in your opening remarks, to protect against the
19 more frequent but lower level storms.

20 CHAIRPERSON BRANNAN: The work on the dunes, was
21 that work part of regular dune replenishment or was
22 that specifically post Sandy?

23 JAINEY BAVISHI: I believe that was a post Sandy
24 investment from the Army Corps of Engineers to
25 replenish the dunes.

2 CHAIRPERSON BRANNAN: Okay, could you talk a
3 little bit about the challenges we face due to
4 climate change that sort of intersect with other
5 challenges faced by low income communities and
6 communities of color. You know, affordable housing,
7 you know, sea level rise, urban heat. Has the city
8 analyzed the cross section of these issues to really
9 understand these risks as you know, nothing happens
10 in silo?

11 JAINEY BAVISHI: Absolutely, a great example of
12 this is our heat vulnerability index. So, we're
13 working to figure out which neighborhoods in the city
14 are most vulnerable to the impacts of extreme heat.
15 We took the physical indicators of risk into account.
16 These are things like density and limited vegetation
17 and the presence of dark impervious surfaces. But we
18 also took the social indicators of risk into account.

19 So, we know that the oldest residents of our
20 communities, those who are chronically ill or
21 disabled, those who have poor housing quality or
22 those who live in poverty, are more vulnerable to the
23 risks of extreme heat.

24 So, we took all those factors into account,
25 created a heat vulnerability index and now we're

2 using that index to actually prioritize where we make
3 investments to protect neighborhoods from extreme
4 heat.

5 And so, the neighborhoods that we're prioritizing
6 are the South Bronx, Northern Manhattan and Central
7 Brooklyn.

8 CHAIRPERSON BRANNAN: I guess, the Cool Roofs
9 that we saw at Red Hook house, other than that, what
10 other investments are being made?

11 JAINEY BAVISHI: So, about the Cool Roofs
12 program, just very quickly because it's a great
13 program. We coated 10 million square feet of roof
14 tops all across the city and we are now focusing our
15 roof coatings in the most heat vulnerable
16 neighborhoods and have a target of putting 1 million
17 square feet of roof tops every year for the next ten
18 years.

19 We are also investing in planting street trees in
20 the most heat vulnerable neighborhoods because we
21 know that vegetation is a really important driver in
22 bringing down ambient temperatures.

23 We're also investing in programs to improve
24 social cohesion. This is based on the basic tenant
25 of neighbors helping neighbors. But there's a lot of

2 research that shows that communities with greater
3 connectivity in their neighbors, greater social
4 cohesion are more likely to fair better in an extreme
5 heat wave.

6 So, we have launched a program called Be A Buddy
7 that connects vulnerable residents with volunteers,
8 so that they can build relationships when there is
9 not a heat wave but then activate those relationships
10 during heat waves.

11 Heat is often known as a silent killer. It
12 mostly impacts vulnerable residents inside their
13 homes. So, we want to make sure that these
14 volunteers are checking on people inside their homes,
15 because they either do not leave their home to go to
16 a cool space, even though it's getting dangerously
17 hot or cannot.

18 Similarly, we have trained home health aids on
19 detecting early signs of heat illness, so when
20 they're making their rounds and seeing their
21 patients, they can help either facilitate access to
22 cool space or detect signs of dehydration, heat
23 stroke or heat exhaustion.

24 CHAIRPERSON BRANNAN: Which borough do you think
25 is the most vulnerable right now?

2 JAINEY BAVISHI: I think that we are actively
3 working to build a resiliency of all five boroughs.

4 CHAIRPERSON BRANNAN: See, I mean, do you think
5 Staten Island is as fortified as lower Manhattan?

6 JAINEY BAVISHI: I think there are major projects
7 that are going to be going into construction in both
8 Staten Island and in lower Manhattan. At the same
9 time, we have done a lot of work citywide to harden
10 critical infrastructure to increase flood insurance
11 enrollment to improve social cohesion and to improve
12 emergency evacuation and response plans, so that
13 citywide we're prepared for another disaster.

14 CHAIRPERSON BRANNAN: I mean it sounds great, I
15 just don't know that anybody in the outer boroughs
16 really believe it and that's just based on the summer
17 that we had. You know, I mean, one or two days of
18 biblical rain and we get flashbacks to seven years
19 ago and that's why we don't feel that we're ready. I
20 mean, and again, I take no joy in knowing that I'm
21 right. It's just a real concern.

22 JAINEY BAVISHI: I am the first to acknowledge
23 that there is a lot more work to do. Chairperson
24 Constantinides mentioned that there is a triple
25 threat that we are facing, I would say that it's more

1
2 than a triple threat. We are facing the impacts of
3 coastal storms, sea level rise, which leads to tidal
4 flooding, sunny day flooding and ground water table
5 rise, extreme heat and extreme precipitation and we
6 are actively working to address the city's
7 preparedness on all of those fronts.

8 CHAIRPERSON BRANNAN: Yeah, I mean, I wouldn't
9 wish your job on my worst enemy. I mean, it's not
10 easy. It's not easy but I don't know that we should
11 be taking victory laps about breaking ground on
12 projects you know, eight years after Hurricane Sandy
13 and I don't know who you're going to find to take a
14 victory lap on that.

15 If Sandy happened again tomorrow, do you think
16 the city would create another Build It Back program?

17 JAINEY BAVISHI: I am not the right person to
18 answer that question. I think I will - the Mayor has
19 repeatedly said that we would not create another
20 Build It Back program.

21 CHAIRPERSON BRANNAN: Okay. One more and then I
22 want to hand it over to some of my coastal
23 colleagues.

24 There is a report, I believe it's at the
25 Comptrollers Office that the city has only spent

1 about 54 percent of nearly \$15 billion in federal
2 Sandy funding and according to OMB, this funding
3 first became available back in May of 2013, which is
4 about seven months after Sandy hit. What's taking so
5 long to spend that money?
6

7 JAINEY BAVISHI: So, actually much of the money,
8 the federal money was not made available to the city
9 until 2015 and we are spending the money at a faster
10 rate than the national average. So, you know, again,
11 these are incredibly complex projects and we are
12 working with a great deal of urgency to implement
13 these projects as quickly as possible.

14 CHAIRPERSON BRANNAN: Alright, so I have here,
15 and this is from a call we did with OMB. May 2013,
16 the city gets access to its first allocation.
17 September 2013, the city signs an agreement with HUD,
18 start drawing down money for eligible expenses.
19 September 2014, the city receives its second
20 allocation of money. You're saying you didn't get
21 the money until 2015.

22 JAINEY BAVISHI: I'm saying that the majority of
23 that money didn't come until 2015. I'm happy to talk
24 with you just to make sure that we can – I am happy
25 to follow up with your office, just so we can make

2 sure that we are working from the same data and we
3 can bring OMB into that.

4 CHAIRPERSON BRANNAN: Yeah, again, this is from a
5 call we did with OMB. They are telling us January
6 2013; the city was allocated \$4.4 billion in three
7 different grants of money. By April 2015, you had -

8 JAINEY BAVISHI: Yeah, allocated doesn't
9 necessarily mean that it was available to us. So, I
10 think we just need to check in on those details.

11 CHAIRPERSON BRANNAN: Okay, May 2013, OMB says
12 you had access the first allocation.

13 JAINEY BAVISHI: Okay.

14 CHAIRPERSON BRANNAN: It was in the checking
15 account.

16 JAINEY BAVISHI: Okay, my colleague just reminded
17 me that what you are talking about is the HUD
18 dollars, but the FEMA dollars took a much longer time
19 for us to be able to access and there is quite a bit
20 of FEMA money that makes up that \$15 billion. We
21 have 10 of the \$15 billion comes from FEMA.

22 CHAIRPERSON BRANNAN: But the FEMA money comes -
23 is based on individual projects, right?

24 JAINEY BAVISHI: Some programs are, there are
25 different FEMA grant streams and they work

1
2 differently. Like I said, we are happy to follow up
3 with your office and go through all of those details.

4 CHAIRPERSON BRANNAN: Okay. And do you expect
5 the HUD funding will be spent before it expires the
6 end of 2022?

7 JAINEY BAVISHI: We expect that we can meet the
8 federal spending deadline.

9 CHAIRPERSON BRANNAN: Okay, alright, I'm going to
10 turn it back to Chair Constantinides and let my
11 colleagues have some time.

12 CHAIRPERSON CONSTANTINIDES: Alright, quickly,
13 the city created a citywide mapping of wetlands
14 across all five boroughs via natural areas
15 conservancy in New York City Parks. How do you plan
16 to incorporate the use of natural resources such as
17 wetlands and how does the migration of wetlands due
18 to sea level rise figure into resiliency planning?
19 Because I'll speak from experience, you know, the
20 Ferry in Western Queens got put in very quickly. The
21 resiliency, you know, sort of the cleanup of the
22 wetlands and the environmental dock that was supposed
23 to be placed are now in like year five.

2 So, I mean, what are we doing to sort of make
3 sure that we're doing wetland restoration in a more
4 quick basis here?

5 JAINEY BAVISHI: I appreciate the questions. I
6 had the great pleasure of actually being at a ribbon
7 cutting earlier, a couple months ago in Broad Channel
8 to celebrate the completion of the Sunset Cove
9 Wetland Restoration project.

10 This is a project that's going to restore the
11 ecological health of that area, serve as a buffer
12 from wave action and also serve as an important
13 ecological education site for students across the
14 city.

15 You know, we are working very closely with the
16 Parks Department to explore other projects like this
17 that can serve that purpose of restoring ecological
18 health while also providing flood protection.

19 Another example actually, right off the top of my
20 head is Sawmill Creek in Staten Island where we
21 recently completed ecological restoration there.

22 CHAIRPERSON CONSTANTINIDES: I mean, how are we,
23 I heard you all talk about trees, but I know that
24 right now we have an issue with trees being planted
25 to save New York based on price. So, at the same

1
2 juncture where your touting that we're planting more
3 trees, we're not. Right, we're actually at one of
4 our lower points for tree planting in a long time.
5 So, there's a little bit of a disconnect there from
6 what you were touting to like the reality on the
7 ground where we're not getting trees planted as
8 quickly as we need to be based on pricing factors and
9 other issues and I met with the Commissioner about
10 this.

11 So, like, where is the disconnect there that
12 we're doing. A few projects you talked about like,
13 what's our sort of overall plan for restoration of
14 wetlands for planting trees when we're actually
15 struggling and doing so. Like, how are we going to
16 get our green infrastructure up? Because you talked
17 about that in your testimony as well but by, when
18 right? What is our timeline to be doing many of
19 these different projects.

20 JAINEY BAVISHI: I can't speak to the overall
21 tree plantings in the city. I'd be happy to follow
22 up with you in your office to have that conversation.

23 CHAIRPERSON CONSTANTINIDES: Someone from Parks
24 is, here aren't they?

2 JAINEY BAVISHI: We will come back to you with
3 the right representatives from the Parks Department
4 to have the conversation about trees and wetlands.

5 What I can say is that these are important tools
6 in the resiliency toolbox and as for tree plantings,
7 the tree plantings I mentioned earlier in response to
8 the question about extreme heat. Those tree
9 plantings are happening, and they are being
10 prioritized in the most heat vulnerable neighborhoods
11 and that's an important resiliency measure.

12 CHAIRPERSON CONSTANTINIDES: Well, we're planting
13 much less trees. So, how many trees are actually
14 going in in those communities that they actually need
15 it?

16 JAINEY BAVISHI: Right, what I can't speak to is
17 the relationship between the trees we're planting in
18 the most heat vulnerable neighborhoods and the
19 overall tree plantings in the city. That's a
20 question for the Parks Department and we'll come back
21 to you on that.

22 CHAIRPERSON CONSTANTINIDES: Great, with that,
23 I'll turn it over to first Council Member Ulrich.

24 COUNCIL MEMBER ULRICH: Thank you Mr. Chair, both
25 Chairs actually. Thank you for having this joint

1 oversight hearing. A very important topic; I
2 represent the Rockaways along with my good friend and
3 colleague Council Member Richards.
4

5 Our respective communities as you know,
6 Commissioner, we're absolutely devastated by
7 Hurricane Sandy and so many homeowners and businesses
8 are still struggling to recover and are waiting to be
9 made whole again.

10 I have a question with respect of two of the
11 bills that we have the hearing on today. The first
12 is mine, Intro. 382. You said that the
13 administration supports the intent of the bill but
14 that basically you want the federal government to pay
15 for any type of notification or mailing. Is that a
16 correct summarization of the administrations
17 position?

18 JAINEY BAVISHI: No, we suggested that FEMA issue
19 the first notification just because FEMA issues the
20 maps and sets the flood insurance rates. They're
21 responsible for that and so, we believe that it's
22 appropriate for the first notification to come from
23 FEMA. But what we also suggested is that we consider
24 a complimentary notification from the Department of
25 Finance in their regular mailings to property owners.

2 COUNCIL MEMBER ULRICH: So, you're suggesting
3 that on the January notice of property value for
4 instance, just to use an example, that that could
5 also be used to put a flyer or some sort of brochure
6 or something. Is that what you're suggesting is a
7 better use of the city's resources?

8 JAINEY BAVISHI: Exactly, something along those
9 lines that would be possible.

10 COUNCIL MEMBER ULRICH: Okay, you know, there are
11 so many people who are not currently in a flood zone
12 that will be placed in a flood zone and they're in
13 for a very rude awakening when they find out that if
14 they don't buy flood insurance that they can lose
15 their mortgage and many people have to pay their
16 mortgages to stay in their homes.

17 So, this is an additional financial burden on
18 homeowners in coastal communities, not only in the
19 Rockaways and in Queens, but also in Brooklyn and
20 Staten Island in particular where people are already
21 struggling to afford to stay in their own homes.

22 So, I think that the city really needs to be a
23 lot more proactive with respect to reaching out to
24 affected homeowners, especially those who are not
25 currently in a flood zone but who will be placed in a

2 flood zone when the final flood insurance rate maps
3 are adopted.

4 By the way, on that note, do we have an updated
5 timeline? I know that the city also was in the
6 process of negotiating the firm maps with FEMA; we
7 were going back and forth. What is the anticipated
8 timeline for the public review process? When do you
9 think that will actually start?

10 JAINEY BAVISHI: I wouldn't frame it as a
11 negotiating. We appealed the maps that came out
12 after Sandy based on a scientific error. FEMA agreed
13 that that error existed and is doing the modeling
14 again to issue a new and accurate flood maps. FEMA
15 is in that process; we expect preliminary flood
16 insurance rate maps to be released in 2022 and be
17 finalized in 2024.

18 But absolutely to your point about the concern of
19 affordability of flood insurance, one of the
20 suggestions that we're making about the legislation
21 is that these notifications go out before the flood
22 maps go into effect, so that homeowners can prepare
23 for any changes in flood insurance rates.

24

25

2 And also, I should add that the city is
3 absolutely advocating for affordability of flood
4 insurance rates in Washington.

5 We are actually one of the leading voices pushing
6 congress to really engage in real flood insurance
7 reform including pushing them to come up with a means
8 tested voucher. Meaning that we base flood insurance
9 rates on peoples ability to pay. This is absolutely
10 coming from a concern about flood insurance
11 affordability.

12 COUNCIL MEMBER ULRICH: I mean this is a real
13 concern for not only my constituents but again,
14 people in Southern Brooklyn and parts of Staten
15 Island. They will be in for a rude awakening.
16 Congress has basically kicked the can down the road
17 by just hitting the pause button or delaying the full
18 implementation of the Waters Act that is really just
19 kicking the can down the road. I don't think that we
20 can as a city responsibly rely on the federal
21 government to do the right thing in the year 2022 or
22 2024, depending on when the maps are finally adopted.
23 Because depending on who is in Washington at the
24 time, that will determine whether or not they are
25 fair to New Yorkers and to other people who are going

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2 to be effected by the fact that they are going to
3 find themselves in a flood zone and if we don't do
4 our due diligence and put our money where our mouth
5 is, quite frankly, I think we're doing a disservice
6 to New Yorkers who are going to be definitely
7 effected by this. So many of whom do have mortgages
8 and they will be mandated and required by law to buy
9 flood insurance.

10 The cost of flood insurance by the way, in my
11 district, since Hurricane Sandy despite initial
12 attempts to stabilize those costs, it's skyrocketing.
13 Especially for commercial property owners. Small
14 businesses in particular in Broad Channel, in the
15 Rockaways, in Howard Beach, they have seen their
16 rents increase as a result of the fact that the flood
17 insurance rates have skyrocketed over the past couple
18 of years.

19 So, the protections that are in place for
20 homeowners and residential property owners are not
21 necessarily applied to commercial property owners and
22 that is going to have a devastating impact on small
23 businesses in coastal communities, in the flood zones
24 and also, in the future flood zones.

2 And so, I would like to put that on the city's
3 radar. I know that the administration is aware of
4 this, but I just think that we have to do more to
5 prepare for what can, we can't just say oh, we'll
6 worry about it in 2024 when the maps are adopted. We
7 won't be here. Mayor de Blasio will be term limited,
8 we will most of us be term limited and I think it's
9 really unfair for us not to do our due diligence.

10 JAINEY BAVISHI: We're absolutely doing our due
11 diligence and let me assure you, we're not waiting
12 until the maps come out. We have launched a massive
13 consumer education campaign on flood insurance
14 called, Flood Help NY which I know you are aware of.
15 It offers flood insurance counseling as well as
16 resiliency audits to property owners, so that we can
17 provide guidance on how to potentially reduce
18 premiums but also just make your home safer and we
19 are also at the table with FEMA making sure that
20 we're doing independent technical analysis of the
21 maps as they do their modeling, so that we're in a
22 place where we have their maps at the end of this
23 current study that they're -

24 COUNCIL MEMBER ULRICH: Lastly Commissioner and I
25 want to turn it back over to the Chairs; I know my

2 colleagues have other question. With respect to
3 Build It Back program, you know, it's been sticking
4 in my claw for a number of years to put it mildly. I
5 would just like to know as of today, seven years
6 after Hurricane Sandy, all of the CDBG funding that
7 we've gotten, how many homeowners are still not back
8 in their homes as of today?

9 JAINEY BAVISHI: I will defer to my colleague
10 from HRO to answer that question?

11 COUNCIL CLERK: Please raise your right hand. Do
12 you swear or affirm to tell the truth, the whole
13 truth and nothing but the truth today?

14 RUDY GIULIANI: Yes.

15 COUNCIL MEMBER ULRICH: You could swear in Mr.
16 Giuliani, I used to swear at Mr. Giuliani when he was
17 my Chief of Staff. So, he is now the Director of the
18 Build It Back Program for Queens, but he's heard it
19 many times.

20 RUDY GIULIANI: There's about 63 homes left in
21 construction.

22 COUNCIL MEMBER ULRICH: So, 63?

23 RUDY GIULIANI: Yeah, most of those are very
24 complicated projects including 40 in Sheepshead Bay,
25

2 Brooklyn were we did all the court systems with the
3 new infrastructure and utilities.

4 COUNCIL MEMBER ULRICH: Okay, so there's 63 total
5 in the city of New York?

6 RUDY GIULIANI: Yes.

7 COUNCIL MEMBER ULRICH: Okay, and how many in
8 Community Board 14, in the Rockaways Broad Channel?
9 Well, how many in Queens? I mean that would
10 encompass both our districts. How many in Queens?

11 RUDY GIULIANI: I don't have it separated by
12 borough but there is about 20 in Brooklyn and it's
13 single digits in Staten Island.

14 COUNCIL MEMBER ULRICH: That's fine and when will
15 those people be able to move back into their homes?

16 RUDY GIULIANI: Before the end of the year.

17 COUNCIL MEMBER ULRICH: This year?

18 RUDY GIULIANI: Yeah.

19 COUNCIL MEMBER ULRICH: Because we kept setting
20 deadlines and dates as you know, and we couldn't meet
21 those deadlines and dates. But we fully anticipate
22 that for those 63 homeowners, families, that they
23 will be able to move back in their homes before the
24 end of this calendar year?

25 RUDY GIULIANI: Yes.

2 COUNCIL MEMBER ULRICH: Okay, you heard it here
3 first on the record. So, I want to turn it back over
4 to my colleagues. I want to thank the Chairs in
5 particular for their advocacy, especially the Chair
6 of the Environmental Protection Committee, Costa
7 Constantinides. He has worked very closely with me
8 on the marine debris issue in Jamaica Bay along with
9 Donovan Richards. Especially after Sandy, so many
10 boats and other things that were just literally
11 abandoned in the bay.

12 The city has worked very closely with the
13 Department of Sanitation and DEP and we've got to
14 come up with a larger plan now, but I want to thank
15 Costa for his strong advocacy on this issue. It's an
16 issue that affects our environment and all of our
17 families. So, thank you Mr. Chair and also Chair
18 Brannan. Thank you very much.

19 CHAIRPERSON CONSTANTINIDES: Thank you Council
20 Member Ulrich, I appreciate that. Thank you. Next
21 up we have the Council Member Mark Treyger from
22 Brooklyn for questions.

23 COUNCIL MEMBER TREYGER: It's good to be back.
24 Thank you to the Chairs, to my colleagues. Welcome,
25 I think many familiar faces here. In the testimony I

2 heard earlier, if you could just refresh my memory.
3 You mentioned that the summer of 2020 will be a key
4 turning point in terms of a study. Which study are
5 you referring to?

6 JAINEY BAVISHI: It's the Army Corps New York New
7 Jersey Harbor and Tributary study or HATS.

8 COUNCIL MEMBER TREYGER: Because at the meeting
9 that I convened in this building, which I think you
10 were at, the Army Corps did not say 2020. The Army
11 Corps informed me that they are waiting for the
12 completion of the New York New Jersey Harbor and
13 Tributary study in the year 2022.

14 JAINEY BAVISHI: The milestone I'm referring to
15 is when the Army Corps will chose their tentatively
16 selected plan. There are currently five alternatives
17 that are being considered as part of the study. Each
18 alternative includes dozens of projects, in water
19 projects and land-based projections for not only New
20 York City but the entire region and the Army Corps
21 will select one of those alternatives in the summer
22 of 2020. Which will provide a lot more clarity as to
23 how the study will progress moving forward.

24 COUNCIL MEMBER TREYGER: But to be clear, the
25 summer of 2020 will not really have news that

2 pertains to southern Brooklyn as I heard clearly at
3 that meeting.

4 JAINEY BAVISHI: No, it may. Actually, I would
5 revise my answer and say it definitely will, because
6 the protections that the Army Corps is considering is
7 part of the New York New Jersey Harbor and
8 Tributaries study are protection that will include
9 all different parts of the city.

10 I think Council Member what you are thinking
11 about is the Rockaway reformulation which is a
12 different process.

13 COUNCIL MEMBER TREYGER: Which we were kicked out
14 of because I had learned earlier this year that
15 because there is not enough federal money to
16 actualize the Jamaica Bay reformulations task force
17 task study, southern Brooklyn and parts of Queens was
18 moved out of that study, is that correct?

19 JAINEY BAVISHI: So, the element that was moved
20 out of the study was the Jamaica Bay barrier and
21 storm surge barrier for Jamaica Bay including the
22 Coney Island tie off and the city has long been
23 advocating for the implementation of this barrier.
24 We've been pushing the Corps; we actually did our own
25 study. The Coney Island Creek raised shoreline study

2 that evaluated that tie off and provided it to the
3 Army Corps.

4 COUNCIL MEMBER TREYGER: Correct.

5 JAINEY BAVISHI: To accelerate their analysis.

6 COUNCIL MEMBER TREYGER: But those are studies,
7 those are studies.

8 JAINEY BAVISHI: Those are studies.

9 COUNCIL MEMBER TREYGER: Those are not funded
10 studies, is that correct?

11 JAINEY BAVISHI: Those studies are funded.

12 COUNCIL MEMBER TREYGER: No, to implement the
13 studies findings.

14 JAINEY BAVISHI: No, there is currently no
15 funding to implement those projects.

16 COUNCIL MEMBER TREYGER: Right.

17 JAINEY BAVISHI: But we were working to do since
18 these are such complex projects, was to basically
19 accelerate the analysis that the Army Corp of
20 Engineers -

21 COUNCIL MEMBER TREYGER: You see, it's important
22 for the public to get and my colleagues and the
23 Chairs, because the meeting I had was very sobering.
24 I want to bring it to the public attention. There is
25 not enough money in the Sandy appropriations bill to

1
2 adequately protect southern Brooklyn and parts of
3 Queens and Staten Island, other boroughs. We were
4 moved out, first of all, let me back up. When I took
5 office, southern Brooklyn was not in any study,
6 nothing. Staten Island, to the credit of Staten
7 Island officials, had studies sitting on shelves
8 since the 1950's that were waiting for an
9 appropriations bill from congress to come down and
10 Sandy unfortunately happened. But to the benefit of
11 Staten Island folks, they pulled those studies off
12 the shelves and had money behind it to begin to
13 implement resiliency work.

14 Southern Brooklyn didn't have anything and other
15 parts of the city as well. So, to the credit of the
16 administration and my colleagues, we were able to get
17 into something. It was initially the Jamaica Bay
18 study but didn't have enough money for that. They
19 only had money for shuttle ready projects out of
20 Nassau County and parts of Long Island. So, they
21 moved us out of that and put us into the New York New
22 Jersey Harbor and Tributaries study, which we learned
23 at the meeting I convened, there is not enough money
24 for that.

1
2 So, I guess the frustration for my colleagues and
3 from folks is that, there are a whole bunch of
4 studies, there are a whole bunch of power point
5 presentations that are very fancy, but there is no
6 money to implement any of this. That's why when I -
7 remember I Chaired the Resiliency Committee when
8 forks referred to the Big U project. I called it the
9 half of J because there is not enough money to even
10 implement, I think the dock for the J. Okay, it's
11 just there is not much going on.

12 This is a major problem because I want to just
13 note for the record, what the Army Corps also told me
14 and Chairs, it's very important that we get this on
15 the record. What the Army Corps also told me was
16 that the two boroughs even though of course, all of
17 New York City is in the flood danger zone. But the
18 two boroughs that they caution the city and they
19 caution folks about being the most vulnerable,
20 Brooklyn and Queens and the two boroughs that have
21 absolutely zero in terms of funding to implement all
22 these key studies.

23 So, when you say there's more work to do, there
24 is a lot of money that we need obtain from the
25 federal government and from Albany and from the city

1 dollars to begin to implement this work, because
2 quite frankly, I am tired of study after study after
3 study after study. We are in my view, not better
4 prepared, we're better informed but we're not better
5 prepared.
6

7 On the issue of flood insurance, I do appreciate
8 the recognition of the home resiliency audits. FEMA,
9 to the credit of the City of New York, they did
10 contest FEMA's initial findings which delayed the
11 maps. My colleagues are right, that is going to be a
12 significant issue. It might not be a weather storm
13 that will drive people off the coast. It could be a
14 financial storm in the name of flood insurance cost.

15 We pushed in this body to get a free elevation
16 certificates for property owners to obtain as a
17 result of these home resiliency studies which they
18 then can go to their insurer and say, hey, why am I
19 overpaying? Because that document gives you your
20 flood elevation level, which we found according to
21 research over 80 percent of flood insurance policy
22 holders are overpaying.

23 And so, we need to contest that as we're
24 continuing to contest these FEMA flood insurance
25 maps. And also, folks, there are some folks with

1
2 Build It Back program, if they were eligible, they
3 were able to elevate their homes. If they met the
4 criteria, but there is a certain equity here, an
5 equity issue. If you have the resources and you are
6 wealthy, you could take steps now to elevate your
7 home and to reduce, mitigate flood insurance costs
8 and to protect your property.

9 But if you are in the poor working-class folks,
10 what program is there to help you? Nothing, nothing.
11 Now, do you believe that there is a way to protect
12 every single part of the city from climate change and
13 rising sea level? Do you think that every inch of
14 New York City can be better protected? I mean, what
15 is your professional view on that?

16 JAINEY BAVISHI: I think that we are working with
17 incredible urgency to prepare all communities across
18 New York City for the impacts of climate change.
19 Yes, absolutely. We are and to your earlier point
20 about flood insurance, one of the other things that
21 we are advocating for in Washington is partial
22 mitigation credits, one of the only ways you can
23 decrease your premium right now is through elevating
24 your home and in a dense urban environment like New
25 York City, it's not always possible to do that.

1
2 So, we want to make sure that other less
3 expensive retrofits that you can make to your home to
4 make your home safer can be recognized as
5 interventions that could reduce your premium.

6 COUNCIL MEMBER TREYGER: So, I just have a few
7 more questions and I will turn it back over to the
8 Chairs. But the reason why I am challenging this, is
9 because if New York City knows that there are certain
10 areas that are just so significantly prone to
11 flooding in coastal storms and emergencies, we need
12 to have a land use policy that reflects that.
13 Because when there are zoning changes that add
14 significant density in flood zone areas, we're
15 exacerbating the problem. If we know that certain
16 areas flood more than others, why are we advancing
17 policies that are going to significantly add density
18 and make it even more problematic if we couldn't even
19 evacuate those folks that we had now?

20 JAINEY BAVISHI: Can I respond to that Council
21 Member?

22 COUNCIL MEMBER TREYGER: Please, yes.

23 JAINEY BAVISHI: Yeah, I'm glad that you raised
24 the point and you know, we have the dual challenge in
25 the city of having a growing city that is also facing

2 the risk of climate change. So, we want to make sure
3 that we're balancing our resiliency and our
4 affordable housing poles and we have a couple of
5 tools to do this.

6 First the Department of City Planning has created
7 a new zoning designation called Special Coastal risk
8 districts that limits density in the most at risk
9 neighborhoods and this is important because it is a
10 land use like you are talking about, but we've also
11 incorporated the latest understanding of our risk
12 into Appendix G of the building code. So, any new
13 building permits for new construction or substantial
14 in rehab takes the post Sandy, FEMA flood max into
15 account in the design of that building.

16 So, how we build is also as important as where we
17 go.

18 COUNCIL MEMBER TREYGER: But one of the elements
19 of the city's program for Build It Back was a buy out
20 program. Which by the way, I can go all day about
21 the issues with Build It Back, but that was one of
22 the options that was supposed to be made available.
23 Does the City of New York still have a buy out
24 program for those properties that are significantly
25 in flood zone areas that are really problematic to

2 rebuild in case of future storms. Is that still on
3 the table for people?

4 JAINEY BAVISHI: So, we know that many cities
5 around the world are increasingly looking at buyouts
6 as a tool for adaptation. And this is a tool that
7 can be incredibly disruptive to families and
8 communities. So, we want to acknowledge that as we
9 think about it.

10 The city implemented as you mentioned along with
11 the state, some targeted buyout programs in the wake
12 of Sandy. We currently do not have a financing
13 mechanism for continued buyouts; however, we are
14 evaluating the lessons learned from those buyout
15 programs after Sandy.

16 COUNCIL MEMBER TREYGER: Well, one of the lessons
17 learned is to make it available, that it was actually
18 on the table for people because I sat through many
19 power points in my neighborhood in Coney Island for
20 Build It Back and not once did, I see that the option
21 was even available for my residents. I heard about
22 partial rebuild. I heard about reimbursement and I
23 heard about full rebuild elevation. I never saw an
24 option for a buyout and that was probably because of
25 the roll out of Build it Back which does predate the

1
2 de Blasio administration and I will say that over on
3 the record. That Mayor Bloomberg failed; he failed
4 in terms of the recovery process in many different
5 ways.

6 The last thing I will say just with build it back
7 and for resiliency work. Build It Back has a whole
8 host of issues. One of the issues that the Chair
9 asked a questions, would you redo it all over again?
10 One of the things that the city needs to take into
11 account is that there are groups like habitat for
12 humanity and other nonprofits that were ready,
13 willing and able to take on housing cases from the
14 city to rebuild faster and sooner but the contracting
15 rules that we set up with HUD was prohibited. Have
16 you heard that before from other folks?

17 JAINEY BAVISHI: I'm not familiar with that but
18 I'm not involved in implementing Build It Back.

19 COUNCIL MEMBER TREYGER: Right, because as we're
20 talking about funding for resiliency work and studies
21 and all that, we need to look at our own bureaucratic
22 structures that are prohibitive to expediting a
23 thorough and responsible recovery.

24 Other parts of New York State frontloaded
25 resources immediately. We kind of front loaded the

2 bureaucracy, which there's arguments for and against
3 that but precious time was lost and wasted and there
4 were nonprofits like Habitat for Humanity that said,
5 we could take on cases from Build It Back, but their
6 contract structure was prohibited.

7 So, that was one of the lessons learned from
8 that. And the last thing also, FEMA we heard that
9 before, as you mentioned, you are in talks with FEMA.
10 When FEMA decides to reimburse impacted residents in
11 terms of damages to their properties, are you aware
12 that they use national standards in terms of pricing
13 for reimbursement for items?

14 So, if someone has a boiler damaged in their
15 property in New York City, FEMA says, well, what's
16 the price of a boiler in Idaho or in Iowa. That
17 could be very different in New York. As a matter of
18 fact, I think we're the most expensive city probably
19 in the world right.

20 So, have you talked to them about using pricing
21 reimbursement structures that actually align with New
22 York pricing? Has that been a part of the
23 conversation?
24
25

2 JAINEY BAVISHI: We're working with a number of
3 fronts to make sure that their policies work for New
4 York City.

5 COUNCIL MEMBER TREYGER: Okay, and do we have
6 design build for resiliency work?

7 JAINEY BAVISHI: I believe we now have design
8 build. Can I get back to you on that question
9 please?

10 COUNCIL MEMBER TREYGER: Please.

11 JAINEY BAVISHI: Okay.

12 COUNCIL MEMBER TREYGER: Because we should not -
13 it takes right now, like, eight years to build a
14 bathroom in a park. It should not take this time for
15 a design. Thank you Chairs for your time.

16 CHAIRPERSON CONSTANTINIDES: Thank you Council
17 Member Treyger. Very quickly, how do we look at land
18 use and Council Member Treyger, just we talked a
19 little bit about that, and we sort of have a plot on
20 the waterfront that a supermarket just built, a 725-
21 car parking lot, fully paved. In the era of dealing
22 with what we know, how did we allow that to happen?
23 How do we sort of think about you know, sort of land
24 use on our waterfronts that a concreted 725 space
25 parking lot was allowed to built on the waterfront

2 when we have so many needs for resiliency measures to
3 be there?

4 JAINEY BAVISHI: I'm not familiar with the exact
5 project that you are talking about Council Member.

6 CHAIRPERSON CONSTANTINIDES: The Wegmans.

7 JAINEY BAVISHI: Oh, okay. So, in general, like
8 I said, it's not just about where we build but it's
9 also about how we build, and our building code
10 reflects the highest resiliency standards and we're
11 continuing to push the needle on this front. So, for
12 example, as part of our work with FEMA on the flood
13 maps, we also came to an agreement to develop a new
14 future looking flood risk product that we're in the
15 process of developing and we hope to incorporate into
16 building code and zoning code moving forward.

17 CHAIRPERSON CONSTANTINIDES: And allowing for 725
18 space parking lot on the waterfront, I mean, just on
19 so many levels, right. Not breaking car culture,
20 increased admissions, not permeable, like, there are
21 so many sort of checks there that we missed. How are
22 we making sure something like that doesn't happen
23 again and then I'm going to pass it over to Council
24 Member Rose.

2 JAINEY BAVISHI: We need to create a culture of
3 resiliency. We need to start bringing the lens of
4 resiliency into all city actions and investments and
5 I think we have some important tools that already
6 help us do that and there is more work to do.

7 CHAIRPERSON CONSTANTINIDES: Thank you. Council
8 Member Rose followed by Council Member Richards.

9 COUNCIL MEMBER ROSE: Thank you Chair and I'm
10 going to be brief because I know how excited you are
11 to get back in you know, in the fray.

12 So, I think Council Member Treyger at least for
13 me, like sort of took us to church. So, I just
14 wanted to say an amen to his remarks. And so, I want
15 to start by saying, you know, I acknowledge, and I
16 thank folks for what they are doing with the Staten
17 Island Sea Wall project. You know, and our Wetlands
18 Resiliency project. I represent the north shore and
19 the north shore, and the northwestern portion of my
20 district were severely impacted by storm surge and
21 Hurricane Sandy. It resulted in hundreds of millions
22 of dollars in damage, yet it was really acknowledged
23 or given much attention. What is in the plan to
24 safeguard these areas of Staten Island which we've
25 seen an extensive amount of erosion our shoreline in

1 fact has been so severely impacted that the north
2 shore railroad lines are – and much of that area is
3 now under water.
4

5 So, what in the plan, what is the plan to
6 safeguard the north shore and the northwestern shore
7 of Staten Island?

8 JAINEY BAVISHI: Thank you Council Member for the
9 question. So, the north shore of Staten Island is an
10 area that is integrally part of the New York New
11 Jersey Harbor and Tributaries study. So, we're
12 looking at comprehensive solutions through that study
13 that will protect that area.

14 The north shore of Staten Island is also very
15 vulnerable to the impacts of heavy precipitation.
16 And so, we're also focusing on that particular area
17 as part of the storm water resiliency study that we
18 have ongoing now that will be completed by the end of
19 next year.

20 COUNCIL MEMBER ROSE: So, when can we see
21 something? I haven't heard of any plans for the
22 north shore and we are impacted by the Blue Belt. We
23 have you know; the Wetlands project is in pretty much
24 the western portion of Staten Island, but I have not
25

2 heard or even been a part of any conversation about
3 resiliency or protecting the north shore.

4 JAINEY BAVISHI: Well, we're very happy to come
5 and brief you and I was really hoping that we would
6 have a chance to talk before this hearing Council
7 Member Rose. And I would be happy to come bring to
8 your office on the work that we are doing with the
9 Army Corps of Engineers and the Storm Water
10 Resiliency study.

11 The Army Corps of Engineers and New York New
12 Jersey Harbor and Tributaries study will reach an
13 important milestone in this election of a tentatively
14 selected plan by next summer. At that point, we'll
15 have a better sense of what project the north shore
16 that are part of that study.

17 COUNCIL MEMBER ROSE: And are you addressing sea
18 rise and storm surge concurrently?

19 JAINEY BAVISHI: That's right. The Army Corps
20 were but they are accounting for in their solutions
21 that address storm surge, they are accounting for
22 future sea level rise but there are also land based
23 protections that are included in their analysis that
24 would protect coastal communities from sea level
25 rise.

2 COUNCIL MEMBER ROSE: And just to echo my
3 colleagues, I have gotten a lot of feedback about the
4 flood maps and my constituents ability to afford
5 flood insurance.

6 So, I hope that we're also looking at some way or
7 some provisions on which we can help subsidize or
8 some type of provisions for those who really are
9 going to be economically impacted, negatively
10 economically impacted by the increase in flood
11 insurance.

12 JAINEY BAVISHI: So, as you know, FEMA runs the
13 national flood insurance program and we have been
14 advocating aggressively with both sides of the isle
15 and in both chambers of congress to reform the
16 national flood insurance program and include means
17 tested vouchers. Meaning setting rates based on
18 peoples ability to pay because we are so concerned
19 about affordability of flood insurance and will
20 continue to do that and certainly invite you or any
21 of the other council members partnership in pushing
22 FEMA in congress to take on this important issue.

23 COUNCIL MEMBER ROSE: If we can't get FEMA or the
24 federal government to do it, what is New York City
25

1
2 doing? Is there anything that New York City is doing
3 to help in terms of maybe helping to subsidize or?

4 JAINEY BAVISHI: This is a federal issue.

5 COUNCIL MEMBER ROSE: I know it's a federal
6 issue, but it impacts our local constituencies. So,
7 given that we don't have a lot of control over what
8 happens on the federal level, is there any
9 contingency plan or is there any plan to try to
10 augment whatever comes out of the federal government?

11 JAINEY BAVISHI: We'd be happy to discuss ideas
12 with you in your office.

13 COUNCIL MEMBER ROSE: Thank you.

14 CHAIRPERSON CONSTANTINIDES: Thank you Council
15 Member Rose. Council Member Richards.

16 COUNCIL MEMBER RICHARDS: Thank you Chairs for
17 this important hearing and let me first start off by
18 thanking the administration for - I want to start off
19 saying nice things and then we'll roll back.

20 The work that they have done on the Boardwalk and
21 obviously, a lot of the strategic investment we've
22 seen in southeast Queens when it comes to flooding.
23 I want to thank DEP for over \$2 billion in
24 infrastructure money.

1
2 So, the question was raised are we closer to
3 being ready in the event of another storm earlier and
4 I would argue no. We're technically not out of the
5 woods on this and I'll say I think at least for the
6 Rockaways, there has been a lot of great work done on
7 the side but we're still vulnerable, we're just as
8 vulnerable as we were when Sandy hit seven years ago
9 today.

10 So, I know you spoke of progress on the Edgemere
11 Plan and I just wanted to hear a little bit more
12 about where are we in the process of moving that with
13 the EMC project forward on the bayside and let me
14 just remind everyone that 70 percent of the
15 population of the Rockaways is in my portion of the
16 Rockaways, not to say we all are not in it together
17 but I say that to say when you talk about the
18 questions of affordability, as we talk about flood
19 insurance, my community probably one of the most
20 vulnerable communities in the city. Because in the
21 event of a storm, they can't build it back.

22 You know, so, I just want to hear a little bit
23 more about where are we with the feds on that
24 project.

2 JAINEY BAVISHI: Thank you Council Member. So,
3 we, the city, did a comprehensive resiliency plan for
4 Edgemere as you know. It is led by HPD and we looked
5 at not only the regular tidal flooding and ponding
6 issues that the community faces but also other
7 challenges the community faces such as lack of
8 affordable housing. Just the need for it to
9 revitalize commercial corridors and other related
10 issues.

11 One of the projects that we hope to advance
12 through that plan was a raised shoreline for Edgemere
13 to protect the neighborhood from high frequency
14 floods and that project is now being advanced by the
15 Army Corps of Engineers as part of the Rockaway
16 reformulation.

17 So, we're working with them to first design the
18 project and then move it forward into construction.

19 COUNCIL MEMBER RICHARDS: And when do we
20 anticipate that project to start?

21 JAINEY BAVISHI: I don't have those dates in
22 front of me now because the Army Corps is still
23 designing the project, but I can come back to you as
24 soon as we have more information.

2 COUNCIL MEMBER RICHARDS: So, that means I'm
3 going to have more grey hair by the time it starts.
4 I have 13 grey hairs here, counting 13. Thank you.

5 So, that answered to me and I think anyway it
6 leaves our communities much more vulnerable in the
7 event of a storm I think, and I know the Army Corps
8 is supposedly advanced in their project, but we've
9 been here a long time and we were supposed to have
10 advances 20 years ago as well.

11 Let me go to NYCHA quick. So, I know the city
12 had a report this morning at Superstorm Sandy damaged
13 35 NYCHA development and as of August this year, work
14 at only 2 of these developments are complete. Can
15 you just speak to why are we still delayed, and I
16 appreciate the work that we're seeing in the
17 Rockaways amongst all of the development, even though
18 I am very unhappy with the jobs portion of it. I
19 still don't see a lot of NYCHA residents working on
20 these projects across the borough but across the city
21 and I think the city needs to do a better job at
22 ensuring that local people who live in these
23 communities, who have billions of dollar in the
24 developments have an opportunity to have upward
25 mobility.

2 So, I just want to throw that out there again.

3 But can you speak to where are we at with NYCHA
4 developments? Why are only 2 developments done and
5 when do we anticipate all 35 developments to be
6 completed?

7 JAINEY BAVISHI: The city is investing \$3 billion
8 into NYCHA recovery resiliency projects citywide.
9 NYCHA is managing that entire portfolio of
10 construction projects and unfortunately, they are not
11 here today, so we will follow up with you to give you
12 a full update on the NYCHA recovery and designs.

13 COUNCIL MEMBER RICHARDS: So, are you aware of
14 any NYCHA's projects?

15 JAINEY BAVISHI: I don't want to speak for NYCHA
16 since they're managing their own construction. So,
17 we will follow up with you.

18 COUNCIL MEMBER RICHARDS: NYCHA was invited but
19 didn't see fit to come today. Not a good job new
20 Chairman.

21 Let's just go to south Queens for a second, so
22 we're still dealing with a big water table issue
23 there and I know some individuals have called for
24 ground water. The ground water issue to be
25

1 addressed. So, can DEP speak to where we're at with
2 addressing ground water.
3

4 MICHAEL DELOACH: Sure, we had been doing a study
5 to see if there was some shorter-term fixes that we
6 could do to help reduce the ground water table. It
7 looks like they're really not feasible and very
8 costly and so, unfortunately, we're sort of
9 continuing to figure out what we can do to help
10 alleviate the issues that your residents are
11 experiencing and we again reiterate our call to give
12 us specific examples of where it's taking place, so
13 that we can do sort of a direct fix for property
14 owners that are dealing with the problem. Because
15 we're not finding sort of a wholesale solution that's
16 going to work and so, we really want to zero in on
17 the ones that are dealing with it the most.

18 COUNCIL MEMBER RICHARDS: Is buyouts on the table
19 because today, I'm sure, these individuals basements
20 are swimming in water, or they could swim in their
21 basements.

22 So, has there been any conversations with the
23 state with some of these low-lying areas to perhaps
24 do a buyout program if we can't address the water
25 table issue?

2 MICHAEL DELOACH: Not to my knowledge, but I
3 think you know, if there is the desire to have that
4 conversation, I know a lot of people are not looking
5 to sell but if there is that conversation to be had,
6 I'm sure we're happy to have it.

7 COUNCIL MEMBER RICHARDS: Just getting back to
8 the affordability issue around flood insurance and I
9 didn't hear a direct answer to that question yet from
10 that administration and I have no faith in the
11 federal government on climate change.

12 So, I heard you speak of perhaps these vouchers,
13 but I'm concerned that's never going to happen. I
14 think we are living in fantasy land if we think the
15 Trump Administration is going to provide vouchers,
16 especially to the needy. That's just my opinion.

17 So, is the city looking at any program and I know
18 the New York City neighborhoods has done a lot of
19 great work with us in terms of the flood NY program
20 and I obviously sit on the board, so I will say that.
21 But is there any plans for the city to provide direct
22 subsidy to people who live in the most vulnerable
23 communities? Have there been any more of a thought
24 or are we going to just going to be punting it to the
25

2 federal government knowing that that's never going to
3 happen?

4 JAINEY BAVISHI: Well, this is a federal program
5 and there is no precedent for municipal governments
6 to provide subsidies around flood insurance. It's a
7 program that's managed by FEMA. We have been showing
8 a tremendous amount of leadership and our
9 recommendations for both means tested vouchers as
10 well as partial mitigation credits have been well
11 received like I said, in both chambers of congress on
12 both sides of the isle and the research that we have
13 done on flood insurance affordability serves as the
14 bases for the debates that are happening in congress
15 on flood insurance affordability serves as the basis
16 for the debates that are happening in congress on
17 flood insurance.

18 So, we are leading the way in that front and as
19 you mentioned, we got Flood Health NY which is a
20 program to make people aware of their flood risk,
21 provide flood insurance counseling to help navigate
22 this very complex program and provide resiliency on
23 it.

24 COUNCIL MEMBER RICHARDS: Counseling is not going
25 to help you when you got to pay. And I'm not saying

1
2 that we don't need it, but I'm more interested in
3 setting a new precedent just because no one else has
4 done it doesn't mean that we shouldn't entertain here
5 in New York City offering a program that can offer
6 subsidy or some sort of grant to homeowners under
7 certain income guidelines right here in our city.

8 So, I don't think we should necessarily punt on
9 this issue. New York City has been a leader on a lot
10 of issues, UPK, I mean, we could go down the list of
11 things that we are trying to lead on and I think here
12 is an opportunity for us to show even a little bit
13 more leadership and lead the way in figuring out ways
14 to help those who can lose their homes.

15 You know, this is reality. Those who will be
16 pushed out of waterfront communities as new
17 development and speculation happens, right. And I am
18 not one who says we need to retreat from the
19 shoreline, I'm all in because I think communities
20 like mine has been disinvested in for a long time,
21 but there has to be a way for us to figure a medium
22 on how to make sure those who have stayed in these
23 communities, seven years later rebuilt everything.
24 There has to be a way that the city focusing on
25

2 ensuring that they can stay there for the remainder
3 or how ever long they feel they need to stay there.

4 JAINEY BAVISHI: Well, we'd be happy to talk to
5 your office about ideas that you have to make flood
6 insurance more affordable.

7 COUNCIL MEMBER RICHARDS: I just need money. We
8 don't need a conversation; we just need it in the
9 budget. Alrighty, thank you so much.

10 CHAIRPERSON CONSTANTINIDES: Thank you Council
11 Member Richards. Council Member Rivera followed by
12 Council Member Levin.

13 COUNCIL MEMBER RIVERA: Thank you so much for
14 allowing me to join you and have a couple minutes to
15 ask questions. I agree with Council Member Richards
16 about precedent. We have unprecedented rises in sea
17 level. We have unprecedented changes that are
18 happening to our communities and we have to start
19 with a short term and a long-term vision and
20 implement that right away. And you know, Council
21 Member Richards also mentioned NYCHA resiliency work
22 and I have one of those developments Jacob Rees
23 Houses that has had a very long delay. Something
24 that was supposed to have started years ago and is
25

2 really just now kicking off and I have actually
3 called for an audit of NYCHA resiliency work.

4 So, how is the city partnering with NYCHA to
5 ensure that the work is done safely because on the
6 same development that I mentioned, we had a partial
7 crane collapse and I'm afraid that some of the
8 conditions on these developments, they're dangers and
9 some of the work is being done so quickly and rushed
10 that it's being done haphazardly. So, how is the
11 coordination?

12 JAINEY BAVISHI: Thanks for the question Council
13 Member Rivera. I'm not able to speak to NYCHA work
14 right now, but we will follow up with you about the
15 concerns that you have with NYCHA in the room.

16 COUNCIL MEMBER RIVERA: We ask you because the
17 Mayor appoints the Chair and oversees this entity.
18 So, we were hoping for a little bit more information.

19 So, I have over 100,000 people that live in the
20 flood plain, 10,000 families, of those individuals
21 are living in NYCHA. All of my waterfront is public
22 housing and we saw places with up to eight feet of
23 water.

24 The good news is that we are getting an
25 investment from the city to build, to really create

1
2 and build the first coastal resiliency project in all
3 of New York City. I want to support my colleagues
4 here and say, we need to bring that same investment
5 to the outer boroughs right away. Manhattan is the
6 best borough, it's the greatest but we are nothing
7 without the other four and so, as someone who loves
8 her community, but understands that Red Hood, Far
9 Rockaway, all of these communities also need that
10 same investment.

11 I want to ask you about the community engagement
12 process because the East Side Coastal Resiliency
13 project has actually been very challenging in an
14 uphill battle for us. I think it's been
15 unnecessarily challenging because of the community
16 outreach issues that we have had.

17 And recently we announced phase in construction
18 for this five-year project. Air quality monitoring
19 for the dirt that is being brought in to raise the
20 park and submitting the project to envision to
21 confirm that the environmental standards are actually
22 met and that our community feels good about what's
23 going down. But none of that would have happened
24 without the communities input and so, I want to ask
25 you going forward since this is the first one and

1 we're happy to be kind of this incubator of
2 innovation and the first of many, how have you
3 learned from those community outreach challenges and
4 what are you going to do differently to make sure
5 that people feel included in the process?

6
7 JAINEY BAVISHI: Well, first of all as an outer
8 borough resident myself, let me just assure you that
9 there are major coastal resiliency projects happening
10 in the outer boroughs as well on actually the same
11 timeline as you said coastal resiliency projects.

12 So, next year we'll break ground on four major
13 coastal resiliency projects across the city. Two in
14 Staten Island, one in Queens and one in Manhattan.
15 But in terms of community engagement, I'm really glad
16 that you raised this.

17 Community engagement is absolutely critical to
18 the design and conceptualization of these coastal
19 resiliency projects. What we're talking about here
20 is actually transforming our waterfronts and
21 integrating flood protection into the waterfront,
22 along with the many other things that we rely on the
23 waterfront for.

24 And we take community engagement incredibly
25 seriously and want to make sure that we're creating

2 ample opportunities for the community to really work
3 with us, provide their input and also tell us what
4 won't work in a certain community and are really
5 taking that to heart as we implement these projects
6 citywide.

7 COUNCIL MEMBER RIVERA: Well, I agree with you.
8 I just want you to make sure - we did a lot of work
9 on this project and we have to make sure that we're
10 honoring the communities vision and that we're moving
11 forward as quickly as possible. Because we have no
12 time to wait and I just want it to be done. I want
13 us to learn from this project and do everything a
14 little bit better, smarter, more efficiently and
15 hopefully the most cost effective as possible.

16 And as for NYCHA not being here and being
17 invited, you still have the Office of Emergency
18 Management, you still have the Department of
19 Buildings, you still have the Department of Parks and
20 Recreation. All of these agencies are involved in
21 some of these larger projects throughout the city.

22 And so, that's why we're looking for more answers
23 from you when it comes to interagency coordination.
24 So, I hope that in the future, you can have a bit
25 more detail for us on that, but I thank you for your

2 testimony and for being here and I thank the Chairs
3 for being so gracious with their time.

4 CHAIRPERSON CONSTANTINIDES: Thank you Council
5 Member Rivera. Council Member Levin.

6 COUNCIL MEMBER LEVIN: Thank you Chair. Thank
7 you very much for being here and testifying. I just
8 wanted to add my voice to the concerns raised by
9 Council Member Richards and Council Member Rivera
10 around NYCHA. And in my district Gowanus Houses was
11 a Sandy rehab project. I believe it was something
12 like \$50 million in capital funds from FEMA was spent
13 there and you know, there were a handful of residents
14 that had the opportunity to work on that site.

15 And it was immensely frustrating; my office put
16 in a fair amount of time working with NYCHA to try to
17 get into the pathways to apprenticeship program and
18 then into apprenticeships and it was an immensely
19 frustrating process and maybe three or four residents
20 got a change to work on a \$50 million capital
21 project. So, that's very disappointing because we
22 had the opportunity to really make an impact and use
23 that type of program to employ people in the
24 communities.

2 So, you know, it's an ongoing issue and I hope
3 that if you know, God for bid this happens in the
4 future where we have another storm like this, that we
5 don't make the same mistakes but really actually take
6 this on as a real issue because that's a community
7 that suffered as a result of the storm and then was
8 not able to participate in that recovery.

9 I wanted to ask just about with Build It Back. I
10 saw the article in the Staten Island Advance this
11 week around, it was Assembly Member Melia Tulkus[SP?]
12 talked to me about with homeowners saying that the
13 issues around the workmanship at a lot of the -
14 amongst the contractors in the Build It Back program.

15 So, while realizing that 99.9 percent of the
16 repairs have been done, I think that the questions
17 that they raised are around the quality of the work
18 and can you speak to that exactly and how is the
19 administration dealing then with claims of poor
20 workmanship in the Build It Back program?

21 RUDY GIULIANI: So, every house that we work on
22 has a one-year warranty. So, any concern that the
23 homeowner may have, there is a warranty process that
24 they go through and basically the city holds the
25 contractor accountable for the whole year.

2 COUNCIL MEMBER LEVIN: How many claims have there
3 been on those warranties?

4 RUDY GIULIANI: I don't have that in front of me,
5 I mean, we're constantly getting warranty claims and
6 closing them out. It's an ongoing thing, you know,
7 as we finish houses then that kicks in the warranty
8 process.

9 COUNCIL MEMBER LEVIN: Is it a widespread issue?

10 RUDY GIULIANI: I mean it could be any number of
11 issues. Most are very minor, and some are larger
12 issues when winter comes with frozen pipes and so
13 forth. Usually there just small typical repairs,
14 sometimes it might be a more something to be
15 redesigned and so forth but one way or the other
16 within the year, anything that the city did is
17 guaranteed.

18 COUNCIL MEMBER LEVIN: Right, do you have any
19 concerns around any of the contractors that were part
20 of Build It Back?

21 RUDY GIULIANI: So, from the press conference,
22 the contractors you know were at the end of the
23 program. They're going through their final payment
24 stages and the city has an audit process like any
25 other city project. And you know, they're going to

2 have to go through that audit process. They have
3 plenty of avenues to dispute the process through
4 commissioners determinations and the Comptroller and
5 they're going to have to do that. Some of them have
6 decided they want that press conferences and do leans
7 but you know, the city has a very established process
8 to audit and you know, they handle their disputes.

9 COUNCIL MEMBER LEVIN: And the findings from -
10 you mean the audit for all of the contractors or
11 audit per repair?

12 RUDY GIULIANI: It's usually per contract.
13 Right, so every job is a specific contract.

14 COUNCIL MEMBER LEVIN: Okay and so the audits
15 that have - are those audits public?

16 RUDY GIULIANI: I'm not sure. It's like the
17 typical engineering audit that you know, it would
18 happen on any other city projects.

19 COUNCIL MEMBER LEVIN: Is there a broader review
20 of that issue with the Build It Back program for all
21 1,900 Build it Back projects, homes? Is there a kind
22 of overall audit for the entire program?

23 RUDY GIULIANI: I'm not sure exactly.

24 COUNCIL MEMBER LEVIN: Is there a public facing
25 review of -

2 RUDY GIULIANI: So, HUD requires a constant
3 reasonableness. Those audits have been done
4 throughout the program.

5 COUNCIL MEMBER LEVIN: I mean in the sense you
6 know; we have an MMR for a lot of metrics on city
7 programs. Are there accountability metrics in Build
8 it Back that are publicly facing?

9 RUDY GIULIANI: Yeah, I mean, it's a construction
10 contract, everything has to be verified by the audit,
11 by the special inspectors, by the city. So,
12 everything is verified in person.

13 COUNCIL MEMBER LEVIN: Okay, but I'm just saying
14 is that public - in another words can my office or
15 any New Yorker go online and kind of judge for
16 themselves the effectiveness of the Build It Back
17 program?

18 RUDY GIULIANI: I'm not sure that it's online.

19 COUNCIL MEMBER LEVIN: Okay, alright, something
20 just to think about. You know, seven years out now
21 and just making sure that we're - you know, that
22 there are going to be lessons learned and that we
23 know what those lessons are, so that we don't repeat
24 any issues that may have come up in the future.

25 Thanks.

2 CHAIRPERSON CONSTANTINIDES: Thank you Council
3 Member Levin. The last question that I have is
4 relating to NYCHA as well.

5 How is our coordination with the federal
6 government relating to funding for – I'm going to use
7 an example, Astoria Houses in my district. Eight
8 buildings were flooded and damaged, the other
9 buildings on the property were not but all those
10 properties still remain in a flood zone. And yet the
11 only FEMA funding that is sort of being accessed is
12 to repair and move systems you know, make them more
13 resilient and the eight buildings that were damaged.
14 But the buildings that are still sitting in a flood
15 zone that are sitting next to those buildings are not
16 getting the same treatment.

17 Is there any movement with the federal
18 government? Like, how are we reconciling this
19 because we shouldn't have to wait for the next storm
20 to harden infrastructure around NYCHA and make sure
21 that all of the buildings in these flood zones are
22 being dealt with in the same manner and right now,
23 because of the way the federal government has
24 structured the FEMA dollars, we can't access them
25 only for those buildings that were damaged and that's

1 sort of a bad model. It sets us up to be in a bad
2 place were there to be another storm.

3
4 JAINEY BAVISHI: I couldn't agree with you more
5 Council Member and I think that this is not just an
6 issue that pertains to public housing but it's an
7 issue that pertains to all of our resiliency
8 investments citywide.

9 Unfortunately, we have a system where most
10 adaptation and resiliency dollars were from the
11 federal government reactively after a disaster. But
12 these are problems that we need to address
13 proactively, and we absolutely need funding streams
14 from the federal government that enable us to take
15 proactive action.

16 CHAIRPERSON CONSTANTINIDES: What role does the
17 state government play in any funding sources to any
18 of these resiliency projects? Is there a need for us
19 to go to Albany and ask them for dollars that the
20 federal government is not providing?

21 JAINEY BAVISHI: There is always room to ask for
22 more dollars.

23 CHAIRPERSON CONSTANTINIDES: Okay, well, that's
24 going to be on the checklist, and I thank you for
25 your time. I know you've been on the stand for quite

1 a long time. I appreciate you doing that. The only
2 thing I will ask is that I definitely don't want to
3 see this entire side of the room walk out of the room
4 now that your testimony is done. If you guys could
5 leave people behind to hear all of the experts that
6 are here in this room, that would be very much
7 appreciated.

8
9 JAINEY BAVISHI: Thank you Council Member.

10 CHAIRPERSON CONSTANTINIDES: Thank you. Next up,
11 we have Adriana Espinoza from New York League of
12 Conservation Voters. Had to leave, okay. Paul
13 Gallay, Jessica Roff, Mike from River Keeper, any of
14 you still here? Karen Imas from the Waterfront
15 Alliance, are you still here Karen? There you are.
16 How many people are still here? We're doing the best
17 that we can.

18 And Cynthia Rosenzweig from Nasa as well and
19 Phillip Orton as well. Alright, we got them all on
20 the table.

21 Alright, so, we are going to use a five-minute
22 clock per testimony because we are running way
23 behind. So, we are going to try to do this in an
24 orderly fashion. So, I will put a five-minute clock
25 on everyone. If you need to go over, I'm not going

2 to go crazy about it, but we are going to encourage
3 to stick to the five minutes. Thank you.

4 Start again and make sure you are on the record.

5 CYNTHIA ROSENZWEIG: Okay, I'm Dr. Cynthia
6 Rosenzweig; I've been the Co-Chair of the New York
7 City Panel on Climate Change since it was founded in
8 2008.

9 Thank you to the Committee Chairs and the
10 Committee for inviting the NPCC and my colleague
11 also, Dr. Phillip Orton from the NPCC is going to
12 tell you more about the science after this.

13 On the occasion of the 7th Anniversary of
14 Hurricane Sandy, it is really I think - I think it's
15 important to recognize that it really was the tipping
16 point here for New York City and its response to
17 climate change.

18 Even though it's very hard to attribute any one
19 storm still to climate change, in terms of awareness
20 and response, the city had been working on climate
21 change ahead of hurricane Sandy but what the NPCC
22 often says is it was in lower gear and then after
23 Hurricane Sandy, that tipping point, it really went
24 into high gear in terms of responses.

1 So many of the impacts of Hurricane Sandy did
2 involve the topics that are germane to the bills in
3 front of the Council this afternoon. Because of the
4 coastal water, the coastal flooding that caused so
5 much damage.
6

7 New York City Panel on Climate Change is a panel
8 of experts, not just in climate science but social
9 science, health, and risk management. It was formed
10 in 2008, so we actually celebrated the 10th
11 anniversary of the NPCC earlier this year.

12 It provides regular climate risk information
13 updates to the City of New York under Local Law 42
14 and I want to point out that Local Law 42, a law of
15 the City Council was passed in August of 2012 before
16 Hurricane Sandy. And what I'm going to share with
17 you very quickly in my probably now three minutes, is
18 some of the findings from the latest NPCC report. And
19 then, as I said, Dr. Orton is going to drill down in
20 particular about the coastal flooding.

21 So, what the New York City Panel on Climate
22 Change, now known as the NPCC, provides is it looks
23 at the observations and then gives the projections
24 drilled down, what we called downscaled or right
25 scaled for New York City. And what these are showing

1
2 is the observations in temperature precipitation and
3 sea level rise and the projections that we make
4 through time and while it's very hard again to say
5 because of the short time frame and the very fine
6 spatial scales, you can see that the observations are
7 trending in the projections that have been made since
8 the first set was made in 2010.

9 And the 2015, are the projections that are used
10 by New York City in their programs that were just
11 described by Director Bavishi and others. Very, very
12 quickly, I'm not going to give you all these numbers
13 or give you a test at the end of this but because
14 extreme events are so important and remember also,
15 it's important to remember, it is not just sea level
16 rise and coastal flooding. Things that we care about
17 like days over 90 degrees Fahrenheit now around 10
18 degrees in our current climate could go up to almost
19 60 at the highest end of the projections in the
20 2050's.

21 Heavy rainfall also was discussed in the previous
22 panel and here, just the number of days of rainfall
23 greater than one inch, now about 13 at the highest
24 and it is for many more days of those heavy
25

1
2 rainfalls, which cause the inland flooding that was
3 contrasted.

4 On the sea level rise, the New York City Panel
5 this time felt it was very important not only to show
6 the ones that were similar to what our NOAA colleague
7 showed at the very beginning of the hearing, but also
8 to say we did extra work looking at the Atlantic
9 rapid ice melt and that for the awareness of long
10 term risk, there's the potential in 2100 of almost
11 ten feet of sea level rise.

12 What we do then, is make our own maps for New
13 York City. I'm almost done, I'm almost done, and
14 this is what Phillip will be sharing much more
15 information about what those projected coastal
16 flooding will be.

17 We also look — this was great, highly discussed
18 frequently in our last panel on the community-based
19 adaptation and the vulnerability across the differing
20 neighborhoods in geographies of New York.

21 Finally, indicators in monitoring so important to
22 really create that integrative understanding of
23 climate change as it goes forward. These are the
24 design guidelines that our NPCC projection's went
25

1 into these. Director Bavishi described those as well
2 in her testimony.
3

4 Finally, these were the overall NPCC three
5 recommendations. The first was that the city should
6 establish the pilot climate indicators and monitoring
7 system. No other city in the whole world has this
8 and this will very much help the citizens of New York
9 understand what is going on about climate change.

10 It's also important to conduct integrated climate
11 assessments for the New York metropolitan region, not
12 only the five boroughs. We need to connect to our
13 region as well.

14 We need to and as we always do, incorporate
15 updated methods and analysis and finally, we had the
16 idea, this is in part to speaking to some of the
17 think that the Council people were saying, is that by
18 hosting a climate summit periodically, we can bring
19 all of these together. Get the connectivity really
20 going and really communicate with all the players
21 involved. Thank you very much and now Phillip.

22 CHAIRPERSON CONSTANTINIDES: Thank you, before
23 Phillip, is there someone here who still works for
24 the Administration? Okay, great because a lot of
25

2 people cleared out, which I asked that not to happen
3 but you're here. Good. Sorry about that Phillip.

4 PHILLIP ORTON: So, thanks for the invitation. I
5 don't remember being told I only had five minutes.
6 So, I'm going to show out of my 13 or slides, I'll
7 just show about 6 and then I won't have to rush so
8 much.

9 So, I'm going to reflect on some consensus
10 science for a few slides and then talk about some
11 input on these bills.

12 The consensus science shows that you know, from
13 NPCC which you've already heard about and which I am
14 a member, shows the projections of sea level rise
15 from the minuses are 10 percentile, the pluses are
16 90th percentile. So, it's an 80 percent level. I
17 mean the first thing I would say seeing this is these
18 are huge uncertainties.

19 So, going out to 2100, so as that's been
20 mentioned earlier today, there is a lot of
21 uncertainty. It's good to plan and build in some
22 ability to adapt your plans in the future.

23 Okay, and so, what we mapped in 2015 was the 100-
24 year flood from the FEMA preliminary 100-year flood

1 map, not being used for insurance purposes because of
2 the [INAUDIBLE 3:02:07].

3
4 But that's being used for planning and that was
5 mapped with additional sea level rise. And this
6 looks very alarming, it shows huge slots of south
7 Queens and south Brooklyn and somebody noted earlier,
8 particularly large areas that are vulnerable to 100-
9 year floods which are only going to get worse with
10 accelerating sea level rise.

11 What we did in the past, we noted, you know, the
12 City noted, and I noted that looking at how high
13 tides are going to increase with flooding is a common
14 thing but really what's really hitting some
15 neighborhoods already is monthly high tides. So,
16 spring tide or king tide and so, we map that for the
17 latest; and this is the part of Hamilton Beach. And
18 so, we mapped the monthly tidal flooding which is an
19 innovative new metric of flood mapping.

20 So, that's shown in the latest report and that
21 shows - this is again, though 90th percentile sea
22 level rise. The city wants to see a high-end sea-
23 level rise estimate just to be safe and
24 conservatively planned. So, it's not guaranteed to
25 happen this way, but you see the colors on the top

1 center, the solid colors are the 90th percentiles.

2 The hatched areas that cover JFK and some other areas
3 even further inland are an extreme Antarctic rapid
4 ice melts scenario that has a very, very low
5 probability of happening in this century, but we
6 still map that on our report.
7

8 So, even some areas like Rockaway Peninsula are
9 likely by mid-century are going to have a lot of
10 monthly flooding, certainly by the 2080's and there
11 are some neighborhoods that already have it. Such as
12 Hamilton Beach that I showed and some areas where
13 water bubbles up through the sewer system which isn't
14 working properly. Which the city is actually
15 addressing some of those cases.

16 So, I think it's good that you are planning and
17 thinking about you know, supplementing what the de
18 Blasio's office is doing looking at adaptation and
19 it's already been mentioned, so I will be really
20 brief here. I agree based on my scientific expertise
21 that the next set of flood maps likely will be more
22 like the preliminary maps that we're seeing, that
23 double the size of the flood plains.

24 I think that's what I'm seeing coming down the
25 pipe too. It's hard to know exactly what but I know

1
2 that based on a lot of my scientific knowledge of the
3 topic. And it's mainly because Hurricane Sandy is
4 now in their data sets. It wasn't when that last
5 study's data sets were cut off in 2009.

6 In terms of number 1620, the five-borough plan to
7 protect the shoreline, I think one simple thing is
8 you could not use the word protection. That's
9 something that Corps of Engineers is trying not to
10 use. It's just good to have it in peoples minds that
11 you're just reducing risk, but there's always a
12 bigger hurricane that won't be prepared for under
13 those protection plans.

14 And then the other thing that I think is coming
15 up, is you know, it says in that bill that you can't
16 contradict the Corps of Harbor and Tributaries study,
17 so that's confusing to me. So, I'm not sure why you
18 do it if you can't contradict it. I think you need
19 to just fine tune that. I mean, in ten years, there
20 will need to be more studies.

21 So, if this is every ten years going forward,
22 then that will be agent history in ten years, and
23 we'll know so much more about sea level rise in ten
24 years or twenty years.

1 So, but I think that's confusing because at first
2 when I wrote this, I said, well, the new thing about
3 your bill is that it addresses sea level rise and
4 maybe the HATS study doesn't. But when you look at
5 it closely, they do address sea level rise and people
6 get confused about that and I'm still a little
7 confused about that. But they are accounting for sea
8 level rise and they are costing out building walls on
9 the waterfront that would adapt to sea level rise.
10 Where there cost benefit, benefit to cost ratio comes
11 out.

12 If the city is going to do something different
13 and not go by benefit to cost ratios, then maybe the
14 city will have a different perspective on this but
15 I'm not sure what's different about what the city
16 would do you know, if the city can't contradict the
17 Corps study and that's what it said in the bill. So,
18 that confuses me.

19 I liked how it mentions strategic relocations, so
20 buyouts and I think it's nice to hear other people,
21 community members talking about buyouts. It's just
22 something that should be there. A good deal for
23 someone or a community as a group to move. Give them
24 a good deal if they're in harms way and if there's a
25

2 bad storm and have it ready the day after the storm
3 and not a year later or two years later.

4 And I think, one more, and this is where I was
5 commenting on the possibility of nonstructural
6 measures. I recommend that be kept in there even
7 though sometimes politics makes that a harder topic.

8 And then my recommendation on the special flood
9 housing area notification and Vivien Gornitz
10 submitted comments which pointed this out and I agree
11 with her. I don't recommend that you just notify
12 people in the 100-year flood zone. The special flood
13 hazard areas, I think if OEM is doing any
14 notifications, they should be for anyone. They
15 shouldn't cut the line off.

16 You know, remember Hurricane Sandy with the zone
17 A or 100-year flood zones back in 2012, a lot of
18 people got flooded who aren't in that zone. It went
19 way beyond that zone. So, you want to notify
20 everyone if you're going to use OEM.

21 So, I think you just have to be careful. The
22 flood zones don't delineate the end of risk. There
23 is a couple suggestions there you might notify people
24 in areas that go beyond the 100-year flood zone.

2 And that's it, thank you very much. I'm happy to
3 answer questions if you have time.

4 CHAIRPERSON CONSTANTINIDES: Thank you. We're
5 going to keep going and I'll ask everybody questions.

6 PAUL GALLAY: Moving down the line. I'm Paul
7 Gallay; I'm the President of Hudson Riverkeeper. I'm
8 joined by Jessica Roff and I would like to seed half
9 of my time if I have five together with Jessica. You
10 tell me whether you want me to take five or two and a
11 half.

12 CHAIRPERSON CONSTANTINIDES: Five each.

13 PAUL GALLAY: Okay, thank you for that. I'm also
14 joined by Mike Dulong who can help answer questions
15 about some of the bills; all of which we are very
16 firmly in support of.

17 First, I want to recognize the suffering and the
18 loss that so many people experienced seven years ago
19 and since and in some cases continue to do. And I
20 know everybody feels that way and I'm just fortunate
21 to be the first to say it on behalf of everybody in
22 the room.

23 But second, I want to say that the barriers plan
24 for large water barriers that has been put forward in
25 discussions so far, the flaws are extraordinarily

1 significant. The first and most fundamental of which
2 is that while Dr. Orton is correct, and Ms. Bavishi
3 is correct that sea level rise is factored into the
4 storm surge barrier plan. It's only factored in in
5 so far as the storm surge barrier plan is seeking to
6 solve for storm surge. It's not meant to deal with
7 plain old every day sunny day sea level rise that
8 we're going to experience to I think one of the
9 figures given was two to four feet by the end of the
10 century, 20 inches by 2050.

12 This solves a portion of the problem while
13 completely failing to solve the larger everyday
14 problem. That's unfortunately not the only or
15 possibly even the largest problem with the barriers
16 plan. They are prohibitively expensive; they are a
17 shiny object that's being held out as a way to solve
18 our problem all in one fell swoop that will almost
19 certainly never get funded if you look at the efforts
20 to fund the Cross-Harbor tunnel which I think is \$5
21 billion to \$10 billion. It's being laughed at in
22 Washington, it's getting no traction.

23 Some of these barriers are costed out at \$68
24 billion. There has been commentary in local
25 newspapers that we might not even know whether these

1 barriers would work until after they were built.

2 Now, that may sound absurd but unfortunately, there
3 is an article in Scientific American talking about
4 the barriers in New Orleans that says that they are
5 sinking, and they are expected to protect New Orleans
6 for about four years at a cost of \$15 billion.

7 That's just the headline of the story. Boston
8 has assessed whether to build large in water barriers
9 and found that it is a bad idea. Other communities
10 like Venus, they have taken their shot at barriers.
11 The Venus barriers are late, they are experiencing
12 engineering and operational difficulties. Even the
13 ones in the Netherlands, the folks who are working on
14 the Netherlands now as Jessica Roff will talk about
15 in detail in a moment.

16 Are saying you know; we have to practice wiser
17 ways deal with the oncoming model. Just today, the
18 New York Times literally while we're sitting here,
19 put up a story entitled, Rising Seas Will Erase More
20 Cities by 2050, with research showing that perhaps we
21 have underestimated the damage that will be caused by
22 rising seas by a factor of two. And so, we are in
23 the soup and we have got to solve our problems
24 comprehensively. We have got to solve them
25

1 principally at the local level and we've got to solve
2 them in a manner that doesn't just focus on one
3 aspect of climate related difficulty.
4

5 Fortunately, New York City has some projects that
6 it's already working on that are locally sourced and
7 very heavily dependent upon local action. As much as
8 this pains me to say, we have the Boston model that
9 we can pay very close attention to. Climate Ready
10 Boston, which shows how to do this right. A
11 combination of better building code, shoreline
12 defenses like dunes in living shorelines, elevating
13 and hardening public structures and services creating
14 salt marshes and other places for water to go.
15 Constructional green infrastructure to store water
16 and generally adapting an architecture of
17 accommodation.

18 Under five principles for Climate Ready Boston
19 are every project should generate multiple benefits.
20 It should incorporate local involvement in decision
21 making and design and we should create layers of
22 protection by working at multiple scales.

23 Now, I spent ten years working for the New York
24 State DEC in the 90's. I understand the challenges
25 of effective community participation, but I also

2 understand that you can't get it right in government
3 if you're not going to go there.

4 And so, we are very sobered by the challenge we
5 have in front of us and we are absolutely committed
6 to being part of an effort to use Intro. 1620 to
7 engage communities to put those closest to the
8 challenge, closest to the design and implementation
9 of the solution, which I think will also get you
10 better opportunities for funding because you will
11 have more advocates standing up for the funding we so
12 desperately need.

13 Thank you very much for giving me this chance to
14 testify.

15 CHAIRPERSON CONSTANTINIDES: Thank you.

16 KAREN IMAS: Thank you Council Members. My name
17 is Karen Imas; I'm the Senior Program Director at the
18 Waterfront Alliance. We're a civic organization and
19 coalition of more than 1,100 community,
20 environmental, recreational groups, educational
21 institutions and other stakeholders and our mission
22 is to inspire and enable resilient revitalized and
23 accessible coastlines for all communities.

24 Earlier this year, we convened a regional
25 resilience task force comprised of more than 300

1 stakeholders from the public and private sectors
2 ranging from grassroots community groups, engineers
3 and financial services, government agencies charged
4 with building consensus and informing a 2020 campaign
5 to adapt New York and New Jersey to sea level rise
6 and coastal storms.
7

8 And these are some of the things that we're
9 hearing. As we face climate change and increasing
10 flood risk, we are simultaneously in midst in
11 affordable housing crisis and increased demand for
12 space in our city. Much of our infrastructure is
13 under stress and under funded and as we've heard
14 today, significant portions of areas like Coney
15 Island, the Rockaways, Red Hook, Howard Beach, East
16 Harlem, Port Morris, Throgs Neck. Many of which are
17 predominantly low to moderate income communities and
18 communities of color are projected to be under water
19 on a regular basis before the end of the century and
20 they face disproportionate risk and social
21 vulnerability.

22 Couple with that, we know the current value of
23 properties within the flood plain is projected to
24 rise to a staggering \$101 billion in fiscal year
25 2020, which is an increase of 73 percent from fiscal

1
2 year 2010. So, clearly, the demands that we're
3 facing in New York's waterfront communities today are
4 drastically different from ten years ago or twenty
5 years ago.

6 And that's why a comprehensive lens like Intro.
7 1620 has never been more important. While some areas
8 of New York City currently have adaptation or
9 resiliency plans and have held extensive public
10 processes, others are greatly lacking in that regard
11 and we urge support for Intro. 1620. We recently
12 circulated a memo supports signed by 15 partner
13 organizations advocating for more robust and
14 equitable climate adaptation.

15 With respect to Intro. 1620, we encourage a
16 fuller understanding in a conversation about the
17 tradeoffs involved in resiliency planning and a
18 robust community engagement process and we really
19 think this bill could serve a hugely important role
20 in that regard.

21 And here are a couple of just recommendations to
22 consider in including one thinking about this
23 legislation that is obviously informed by the New
24 York City Panel on Climate Change findings and this
25 new projections and plans are developed. That we

1
2 look at clarifying the agencies responsible for key
3 functions of resiliency governance, which is a
4 tremendous challenge in this particular area.

5 That this kind of planning is adequately funded
6 in the budget and that we recognize that it will take
7 resources to ensure a sound community-based
8 engagement process. That we prioritize low income
9 communities and communities of color in an equitable
10 planning process and investment strategy. That we
11 build off existing community based and citywide plans
12 that have done some work in this regard. That we're
13 clear upfront about the limitations and possibilities
14 for resiliency in different areas, recognizing where
15 green infrastructure might make more sense. Where
16 relocation might make more sense.

17 Importantly, that we look at a more comprehensive
18 approach to rezoning based on the multiple challenges
19 and opportunities facing the city. That this kind of
20 plan can better position the city to prepare for and
21 respond quickly to federal funding opportunities as
22 they arise.

23 Also, importantly, that this plan can help
24 identify opportunities to incorporate resiliency into
25 more general maintenance in capital projects, such as

2 road replacement or bulkhead repair. And that we
3 develop clear accessible and equitable targets for
4 risk reduction. The number of people at risk of
5 flooding, the number of people with low adaptive
6 capacity living in the flood plain.

7 So, as we work to reduce greenhouse gases and
8 mitigate climate change in partnership with and in
9 support of the State of New York's Historic Climate
10 Change legislation, we must ensure that our coastal
11 communities are wisely and resolutely prepared for
12 the reality of sea level rise and the big storm and
13 strongly encourage the passage of this legislation.
14 Thank you.

15 CHAIRPERSON CONSTANTINIDES: Thank you. How are
16 you?

17 JESSICA ROFF: Good, how are you? Good to see
18 you again. Thanks for having us here. As Paul
19 mentioned, I am Jessica Roff; I am the Director of
20 Advocacy and Engagement at Riverkeeper. And we
21 really appreciate the Council's efforts on these
22 bills in particular but as our ongoing partners in
23 this work. We've had great relationships working on
24 a lot of really important things.

2 As Paul sort of left off, you know, we think that
3 community representation and participation -

4 So, as I was saying hi, Jessica Roff; Director of
5 Advocacy and Engagement at Riverkeeper. We really
6 think that the community representation and
7 engagement in this process is super important. It
8 has to be transparent and ongoing and it has to
9 prioritize the voices of frontline, low lying and
10 communities of color. And we really want to make
11 sure that whatever happens moving forward, that that
12 process fully incorporates those voices and that's
13 one of the things that we really appreciate about the
14 opportunity to have a comprehensive package of issues
15 being addressed is like you are doing in 1620.

16 It also has to involve the community resilience
17 work and support that is ongoing which brings me to
18 the comments that Director Bavishi made. This is off
19 script; this is different from what you have in front
20 of you but what she said just really require a
21 response.

22 The idea that we're waiting for the New York New
23 Jersey HATS study to come out is horrifying on so
24 many different levels. I say that as an individual
25 who lives off the Gowanus Canal and who spent a lot

1
2 of time doing response work after Sandy and having
3 seen a lot of this you know, firsthand. But
4 organizationally, we have an enormous amount of
5 problems with the process which does not do any of
6 the things that I mentioned before which are
7 incorporating in really voices of the people that
8 matter. The outreach and engagement of the Corps has
9 been atrocious. They are slowly building from their
10 high point when they told me they had 740 emails they
11 sent out and they were very proud of it.

12 So, there you go. Aside from that, as we
13 discussed a little bit here before, they are not
14 fully incorporating in sea level rise. They talk
15 about this issue over and over and over again. For
16 anyone who is unaware though, this study is being
17 done through the authorization of statute that came
18 out in the 50's. When we were not actually talking
19 about sea level rise and climate change.

20 So, it is inherently flawed from the beginning
21 and the way that it's being incorporated by building
22 in bigger foundations to barriers and things like
23 that, does not actually get to the core issue of
24 ongoing actual sea level rise and sunny day flooding
25 and what is going to become a requirement to keep

1
2 those gates closed all the time if we're going to be
3 protected from sea level rise.

4 So, we really appreciate again, the comprehensive
5 nature of 1620 and looking at all of these pieces
6 from community perspectives and in a whole entity of
7 the city and the region. We also – and to do it in a
8 thorough and mindful way, which is really important.
9 We all understand and feel the urgency of this but
10 the fact that the administration is actually
11 advocating for accelerating the HATS study when big
12 problems involved in it already are a lack of real
13 scientific study, although the administration again
14 cited that as a truth to this study.

15 The scientific studies are currently being done,
16 they're not actually currently being done, they are
17 currently reading and studying studies that exist.
18 Once they have already eliminated all of there
19 choices and are only down to one, then they will
20 actually do onsite scientific studies.

21 Which is why it fails to incorporate in real
22 impacts to ecosystem services or any of the
23 environmental impacts in a way that will be
24 comprehensive and really address the reality of also
25 the living functionality of the Hudson River and the

1 rest of the water system around us and how it plays
2 into our other issues of green infrastructure and
3 water surfaces and our sewage system and toxins and
4 all those other issues.
5

6 So, there's a number of reasons why this is
7 incredibly problematic. Instead, we really
8 appreciate 1620. We like what you guys are doing.
9 We think it's really important to figure out what the
10 ways to move forward are that are adaptive and have
11 multiple benefits.

12 We look, as Paul mentioned earlier, to what has
13 happened as a transition among the Dutch when they
14 began building. There is an early series of dams and
15 barriers. In 1953, they had very strict you know,
16 very set ways that they were going about things and
17 they went to go and do an upgrade about five years
18 ago and the manager of the program [INAUDIBLE
19 3:25:34] said that before they're reviewing water is
20 a problem and they focused on how to prevent it from
21 coming in and New York City had been focusing on
22 evacuation and how to get people out of the way and
23 the key is to figure out what's in between those two
24 places and how do we actually work with the water and
25 live with the water.

2 Mitch Waxman who is an historian for the Newtown
3 Creek Alliance has talked about creating ocean side
4 topography that breaks up wave action. Doing thing
5 like capturing the energy of the storm and actually
6 being able to then use that moving forward as opposed
7 to building giant walls to block things.

8 I'm going to go really quickly through a couple
9 more things. One of the ways that we can do that is
10 offshore wind, which is actually something that we're
11 in the process of and we need to be moving that to be
12 part of the conversation around what is resiliency
13 and adaptation in our five-borough plan as well.

14 For folks who are unaware, offshore wind, based
15 on studies from the University of Delaware can
16 actually provide up to 30 percent reduction in
17 precipitation, decreased storm surge by up to 79
18 percent and reduce wind speeds by up to 92 miles per
19 hour and that can happen in just nine years and a \$15
20 billion price tag. Not the full amount, those are
21 the highest levels based on numbers of turbines that
22 are coming.

23 But these are real things that we need to be
24 looking at because this is also then stopping a
25 reliance on fossil fuels, cutting down on carbon

1 admissions. So, we're actually dealing with the
2 problem of what is creating climate change and
3 throwing adaptation at the process and creating
4 energy.

5
6 So, these are the kinds of things that we have
7 this opportunity to do with 1620, to look at how we
8 can answer lots of different questions at once when
9 everyone is in the conversation at the right way.

10 So, I just want to close by saying that we really
11 appreciate again the opportunity to be here. This
12 Intro., we also really support 1480 and 382, right.
13 382, sorry there's a lot of numbers and would love to
14 have obviously ongoing conversations. If you have
15 questions and look forward to working with you all in
16 partnership moving forward.

17 CHAIRPERSON CONSTANTINIDES: So, I guess the
18 question I will ask you - everyone at the panel here,
19 it's the same question that I asked the
20 administration before that I led off with after I got
21 upset about them not having constructive criticism of
22 the bills.

23 Do you believe that we're ready if a storm were
24 to hit tomorrow, do you believe that New York City is
25

2 ready to deal with the impacts of another storm on
3 the level of Sandy?

4 CYNTHIA ROSENZWEIG: We are more ready than we
5 were before Hurricane Sandy absolutely for sure that
6 is the case. As has been pointed out by Phillip and
7 others, complete protection is impossible. We need
8 to but we are working absolutely concertedly to
9 improve. And that's what we have to keep doing for
10 decades. Thank you.

11 PHILLIP ORTON: Yeah, I wouldn't say anything
12 that deviates a lot from that, just a little more
13 detail and I anticipated this question, so I thought
14 about it before.

15 In terms of infrastructure, critical
16 infrastructure, a lot is going to be protected. It
17 might be less than 50 percent, I don't know, I can't
18 tell you an exact number but a lot more has obviously
19 been protected, right. MDA, Con Ed, things that
20 Jaaney spoke of earlier.

21 When it comes to neighborhoods, it's a much lower
22 than 50 percent number right and it's a much larger
23 scale problem where you need to spend tens of
24 billions of dollars if you were going to protect
25 neighborhoods from the next Sandy.

2 So, that's it, you know, there's a lot of things
3 happening, a lot of things have been done but it
4 would be a great deal more to do to protect peoples
5 individual homes. Not much has been done to protect
6 them.

7 PAUL GALLAY: We weren't ready to protect fourth
8 avenue in Brooklyn two plus months ago. We're not
9 ready to protect the city from another Sandy. This
10 is the issue that as seriously as you take it, you
11 need to take it twice as seriously or three times as
12 seriously.

13 And so, we are just starting to get our arms
14 around just how much more needs to be done just to be
15 ready to deal neighborhood by neighborhood let alone
16 on a citywide basis.

17 KAREN IMAS: And to add to what folks are saying,
18 I will also say that after Sandy, there was a really
19 big push for like, for community you know, door to
20 door engagement, know your neighbors. Like, making
21 more like task forces and things like that and for
22 the most part, that's all gone away.

23 And quite frankly, you know, again, like I said,
24 I was actually out in Rockaway like two days after
25 Sandy eight days before Department of Health you

1 know, knocking on doors to work on providing health
2 needs to people. And that is I think also a piece of
3 this that needs to be included in this legislation.
4 Is the building infrastructure and having resources
5 for the people power that is required to bolster the
6 hardware that we're building. Since I'm certainly
7 not a hardware expert on this.

9 PHILLIP ORTON: I have one more follow up point
10 and that is I heard, and I often hear that Sandy now,
11 because media oversimplifies and misquotes scientific
12 articles in the scariest way possible a lot of the
13 time.

14 Somebody said that it was a 1- and 25-year flood
15 for Sandy and NPCC, one of our conclusions is that we
16 don't know, we've seen no evidence, no strong
17 evidence that Sandy was caused by climate change.

18 We know that the sea level rise contributed to it
19 being about 16 percent more damp and that's a
20 publication that we're hoping to come out with and
21 about 100,000 people were flooded because of the sea
22 level rise depth but it wasn't a climate change event
23 that we know of. You know, in terms of that left
24 turn, etc., and you know, there is an asterisk after
25 everything I say.

1 We don't know that — we can't prove that it's
2 not. That it didn't make its left turn because of
3 climate change but there hasn't been evidence showing
4 this. So, and any quote that says it's a 25-year
5 return period, I would disagree with. It was the
6 biggest flood in the city's history and FEMA and the
7 Corps of Engineers latest studies said it's about a
8 once in a 100-year flood.

9 So, I mean that may be a little optimism there.
10 It's not quite so likely to happen again in the near
11 future.

12 KAREN IMAS: Could I just add one more thing,
13 which is to say the new work that was happening
14 around that after Sandy has largely gone by the
15 wayside, but there is a lot of that work happening
16 organically and has been happening for decades in
17 communities. That work needs to be supported by the
18 government and by other organizations and it needs to
19 be increased in the places where it was not happening
20 or where there was like a brief splash in the thing
21 in there and then it went away.

22 JESSICA ROFF: Yeah, I would echo the sentiments.
23 I mean some progress has been made but obviously in
24 addition to physical gaps, there's still big
25

1
2 governance gaps and decision-making processes that
3 even years after Sandy are still influx just as one
4 example on the land use and zoning side, Department
5 of City Planning is going to put it's zoning for
6 coastal resiliency through ULURP probably in 2020.

7 This is a key mechanism by which and just take a
8 step back, I mean over these several years, zoning
9 changes have been put in place or different measures
10 have been put place, but nothing has been codified in
11 the way. So, it's been seven years on and now here
12 is the time where DCP is going to look to do zoning
13 for coastal resiliency and so, here is a huge
14 mechanism where many things like wetlands and living
15 shorelines and how public access lives with coastal
16 resiliency. Here is a huge opportunity to look at
17 that and so, clearly, yes, we're better prepared but
18 there are these opportunities like this right in
19 front of us, and I would just add one more thing
20 about the land use zoning pieces. That a lot of
21 waterfront property is not public property, it's
22 privately owned.

23 And so, while the city and the state and the
24 federal government can take on the big infrastructure
25 project, we still have you know, waterfront

2 developments or waterfront projects that are private
3 that have to put certain resiliency measure into
4 place based on land use requirements, but what are
5 those requirements, right. Are they sufficient?
6 What does the community, to your point, have to say
7 about what that waterfront is going to look like in
8 their community.

9 So, again, progress has been made, certainly on
10 the land use and zoning side. There are
11 opportunities to do a lot more.

12 PAUL GALLAY: And if I could just speak for one
13 community that doesn't have a traditional voice.
14 We've had a lot of improvements in the water quality
15 in our area since the Clean water Act 45 years ago
16 and this idea for the barriers would place many of
17 them at risk by trapping pollutants inside the
18 barriers. But shockingly and disappointingly, while
19 water quality has improved, 11 of our 13 key species
20 of fish in the Hudson are in deep decline and have
21 not been brought into better health by this improved
22 water quality.

23 These gates would reduce tidal flow. They would
24 reduce the range of the tide, the intensity of the
25 tide. They would change the exchange of sediments

1 and they would put at risk our efforts to maintain a
2 viable and a more and more healthy ecosystem and
3 that's the sort of research that my colleague Jessica
4 Roff, I think was in part referring to when she said
5 that we don't have the information that we need to
6 have on the ecological effects these barriers would
7 have.
8

9 CHAIRPERSON CONSTANTINIDES: Well, that was my
10 next question to the panel about storm barriers.
11 Right, it's like there seems to be lots of different
12 challenges relating to CSO discharge mixing
13 oxygenation, you know, ecosystems. I mean, what
14 would the storm barriers mean for all of those and
15 what else can we do? Like, if in place of these
16 storm barriers, what are the types of projects that
17 we need to be thinking about in the long term that to
18 deal with storm surge and sea level rise equally and
19 I'll call - 100 percent protect communities but more
20 protection than you know, 100 percent protection.

21 PAUL GALLAY: So, this reminds me of when in the
22 90's, New York City was facing a mandate from the EPA
23 that's it spent \$10 billion on filtration for its
24 drinking water supply upstate. And rather than spend
25 \$10 billion on this massive one size fits all

1 solution, the city and EPA, Riverkeeper, the Upstate
2 communities, all arranged for a multilevel approach.
3 Some of it was protecting land around the reservoir.
4 Some of it was improving infrastructure in these
5 communities. Someone's trying to create some green
6 jobs for these people in the communities upstate
7 could have viable economic opportunities. And they
8 avoided the need to do filtration and save billions
9 and they took this multipronged approach and by doing
10 so, and I alluded to many of things that Climate
11 Ready Boston is talking about. Better building
12 codes, shoreline defenses like berms and living
13 shorelines, elevating and hardening public
14 structures, creating salt marshes and other places
15 for the water to go, green infrastructure.

17 And as Ms. Roff also alluded to, if you focus on
18 making your buildings more resilient, at the same
19 time, you can focus on making them more energy
20 efficient and deriving the energy from distributed
21 renewables and achieve synergies there.

22 So, you could conceivably use this terrible need
23 as an opportunity as well to solve some of our
24 mitigation challenges.

2 CYNTHIA ROSENZWEIG: There's probably been more
3 in the NPCC meetings. There is probably more heated
4 discussion on the barriers than anything else.

5 And as what you can find even starting with the
6 first NPCC report, the NPCC calls for considerable
7 further study because of the issues that have been
8 raised here on the panel.

9 First of all, on the science issues, just the
10 actual and Phillip has a list of just on the tidal
11 aspects. The wave action, all of that, that's just
12 on the physical part but because of the issues
13 related first to the social aspects about protecting
14 - which neighborhoods will be protected, which will
15 not, and the ecology, the ecological aspects, those -
16 what NPCC has repeatedly come out with in its report,
17 in its consensus report is absolute more study on it.

18 Just to say that the portfolio - what the NPCC
19 does bring forward is very much the need as I think
20 we can see in the discussion this afternoon of a
21 portfolio approach to resilience. There's never just
22 one silver bullet that's going to save everything.
23 And that's really what I believe we - the entire New
24 York City community is really bringing forward.

1 So, the regulations, the insurance is one; the
2 program, programmatically. The second is social
3 programs like the cohesion, building whatever we can
4 do to build the neighborhoods and get ready with a
5 buddy system for example, etc. Then ecological with
6 the green infrastructure and then finally
7 engineering. Engineering of course plays a role, but
8 it is the biggest ticket item in terms of potential
9 engineering resilience projects and in order to
10 embark on that, with it's considerable costs, what
11 the NPCC recommends is more studies on it before its
12 undertaken.
13

14 KAREN IMAS: Also, I would just say that, I mean,
15 we clearly established our opposition to these giant
16 water barriers, but I mean it really concerns me that
17 the way that the Corps is talking about the secondary
18 measures and the onshore things, is sort of an
19 afterthought. Sort of to the point they were just
20 thinking about the silver bullet, of the one big
21 answer. Like, what are the small stop gap measures
22 that they are talking about when they're really
23 viewing their big barriers as the primary solution
24 and they're not.
25

1
2 There has been very little discussion of it, in
3 fact, real discussion around onshore measures being
4 supplemental to the in-water barriers has only
5 happened in the last two to three meeting that
6 they've had and trust me, I have been to like ten of
7 their meetings, like almost all of them.

8 And it's only been in the most recent past that
9 they've even started talking about it quite frankly,
10 in response to us challenging them over and over and
11 over again that they are not dealing with sea level
12 rise.

13 You know, I mean Brice almost jumped out of his
14 skin last time when I was sitting next to him up
15 here. So, I mean, those are real concerns that – and
16 because of the fact that they are doing such a poor
17 job at the community engagement level to be looking
18 at localized solutions to local problems. That's not
19 what they do, right. Like, that just not how they
20 operate and so, I think that's really where the City
21 Council strength come in. Is being you know,
22 represented, a representative of and connected to the
23 communities that you all actually live in and are
24 representing and then have the power to you know work
25 with.

1 So, you know, I've had numerous conversations
2 with them where I have said things like, you need to
3 be having those conversations around you know, where
4 is the place that floods when it's not pouring.
5 Because people know that answer and that should
6 affect your — you know, I live on that corner, around
7 the corner from that flooding video that we all
8 watched on 4th Avenue a few months ago. Like, I can
9 tell you that and that didn't happen during Sandy
10 actually, we were dry during Sandy. But that's
11 happened three or four times since I have lived
12 there, and I know that.

14 I'm not an architect, I'm not an engineer, I'm
15 not a scientist, like, but I know those things and
16 there's lots of people that know that everywhere and
17 that's the key to building the really proper and
18 resilient measures to fulfil all of those. To fit as
19 many of those gaps that we need to fill.

20 PHILLIP ORTON: I'll be brief. I'm actually
21 doing research alongside the Corps of Engineers
22 study, so I won't say too many things contentious
23 things about the Corps of Engineers in their study,
24 but they are welcoming us to do additional science
25 and evaluate how the flushing of the [INAUDIBLE]

1
2 3:45:37] would change etc., mainly looking at the
3 Hudson.

4 But one thing I'll say is I think you know, there
5 is several Council Members who want to see the
6 Jamaica Bay surge barrier built and so, you know,
7 just coming back to that, you know, that's something
8 that I anticipate is going to come out as one of the
9 things they recommend. I anticipate they won't come
10 out recommending something across the harbor and
11 across the Hudson. You know, interfering with the
12 Hudson River.

13 So, what's really going to be contentious will be
14 and I think supported by lots of people in Jamaica
15 Bay for better or worse is building a barrier, a
16 gated surge barrier across the entrance to Jamaica
17 Bay and it will not stop sea level rise, it will stop
18 storm surges. Sea level rise and tidal flooding will
19 gradually increase and it will also have to do the
20 costs and benefits of raising sea walls around
21 various neighborhoods and some of them are very
22 intricately woven with canals and things and so, that
23 will be where I think the stuff hits the fan in the
24 coming few years is with Jamaica Bay and a few other
25 [INAUDIBLE 3:46:49].

1 That's my hunch but I will let them speak for the
2 Hudson, the question about the Hudson which is still
3 on the table.

4
5 CHAIRPERSON CONSTANTINIDES: I want to be mindful
6 of future panels but just I guess to wrap up, is
7 there any one bureau as far as vulnerabilities, is
8 there any one borough you feel is more vulnerable
9 than the others? Or are they all equally vulnerable?

10 PHILLIP ORTON: Well, you saw our maps, it's
11 Queens and Brooklyn are definitely much more
12 vulnerable because there is a lot more area of former
13 wetland that had landfill to where neighborhoods
14 exist now. So, definitely those are two
15 neighborhoods and in terms of area, probably also
16 population.

17 PAUL GALLAY: I do want to make an observation
18 that I think at the Army Corps, there is a tremendous
19 willingness to problem solve. I'm sure that's baked
20 into who they are. Their authorization is
21 insufficient, I think they would welcome the
22 authorization to be broadened to truly include this
23 non-storm surge related sea level rise and I think
24 they also appreciate the validity of a multipronged
25 approach that's community by community and I've even

2 seen really thoughtful comments by some of the folks
3 who have been mentioned already in the newspaper
4 saying if you design for each community, you may not
5 get all of them right but you're not dependent upon
6 one project succeeding and if it fails, everybody
7 loses.

8 So, I think the Corps has capacity that they
9 would like to bring to the table. I do agree with Ms.
10 Roff as a former government official at DEC for ten
11 years. It's very hard for agencies to do community
12 engagement well.

13 You look at the article about the lower east side
14 coastal resiliency program and all of those great
15 community assets, like Solar One saying, well, they
16 haven't talked to us or we don't know what's going to
17 happen, or we're just trying to guess. That's just
18 not acceptable.

19 So, we'll try to help with the community
20 engagement, let's harness the power that the Corps
21 and the other agencies could bring to this, but one
22 size does not fit all here.

23 CHAIRPERSON CONSTANTINIDES: Alright guys, thank
24 you very, very much.

2 Okay, our next panel is Jalisa Gilmore from
3 Environmental Justice Alliance, David Shuffler from
4 Youth Ministries for Peace and Justice, Summer
5 Sandoval from UPROSE, Emily Walker, Helen Cheng, and
6 that's it.

7 So, Jalisa Gilmore, you are here. David
8 Shuffler, are you still in the room?

9 UNIDENTIFIED: No, he's not here.

10 CHAIRPERSON CONSTANTINIDES: Alright, Summer, you
11 are here, okay. Emily, yeah, Helen Cheng are you
12 still in the room? No, so I'm going to call then
13 Michael McMahan are you still in the room and Shawn
14 Slevin[SP?].

15 So, we can make sure we have a full panel up
16 there and we can get everyone moving as quickly as we
17 can.

18 And again, I apologize but we do have to keep the
19 five-minute clock because we are trying to get as
20 many people as we can and its been a long hearing.
21 Thank you.

22 Okay, so who ever wants to start. You can start
23 from left to the right, whatever you want.

24 JALISA GILMORE: I'll start.

25 CHAIRPERSON CONSTANTINIDES: Sure.

2 JALISA GILMORE: Good afternoon. I'm Jalisa
3 Gilmore and I'm here to testify in support of Intro.
4 1620, the five-borough resiliency plan on behalf of
5 the New York City Environmental Justice Alliance.

6 EJA and our member organizations coalesce around
7 specific common issues that threaten the ability of
8 low-income communities of color to thrive and
9 coordinate campaigns designed to affect city and
10 state policies including addressing climate change
11 threats to the resilience of waterfront communities.

12 EJA member organizations represent environmental
13 justice communities overburdened by flood hazards,
14 proximity to waterfront industrial zones, lack of
15 green and open spaces, air condition caused by dirty
16 industry clustered in their neighborhoods and extreme
17 heat events.

18 Therefore, we understand firsthand the urgency of
19 the climate crisis and the need for innovative
20 climate adaptation strategies that can be
21 incorporated into the five-borough resiliency plan.

22 As EJA's Executive Director Eddie Bautista and
23 Council Member Brannan highlighted in today's
24 [INAUDIBLE 3:52:59]. New York City isn't remotely
25 ready for the next superstorm. There has not been

2 nearly enough investment in low-income communities of
3 color in the outer boroughs where the most vulnerable
4 populations are.

5 We would like to thank Council Member
6 Constantinides and Brannan for introducing a plan
7 that aims to protect all of New York City's boroughs
8 from climate change, sea level rise and sunny day
9 flooding. There are few considerations that we would
10 like the City Council and the Mayor's Office of
11 Resiliency to take into account as the plan moves
12 forward.

13 EJA has long advocated for climate adaptation
14 measures in New York City's industrial waterfront.
15 In 2010 EJA launched the Waterfront Justice project
16 and discovered the significant maritime in industrial
17 areas for clusters of heavy industry along the
18 waterfront are all in storm surge zones and in
19 environmental justice communities.

20 When considering how to protect New York City
21 shoreline, the five-borough resiliency plan should
22 consider measures that also protect communities from
23 the cumulative contamination exposure risk associated
24 with clusters of heavy industry uses in vulnerable
25 locations.

2 According to the New York City Panel on Climate
3 Change, New York City is predicted to experience
4 anywhere from 8 to 30 inches of sea level rise by the
5 2050's.

6 The plan should consider both sea level rise and
7 storm surge zones and storm surge alongside the FEMA
8 flood insurance rate maps when determining the
9 community districts that should be evaluated for
10 climate change, resiliency adaptation measures.

11 Several waterfront communities were involved in
12 post Sandy community planning efforts and have not
13 seen these plans fully implemented.

14 The five-borough resiliency plan should make sure
15 to incorporate the research and community input
16 resulting from processes such as the Hunts Point
17 Resiliency, East Side Coastal Resiliency and East
18 Harlem Resiliency.

19 The plan should ensure that there is extensive
20 community engagement with the communities that
21 develop these plans. Additionally, we are
22 disappointed in the inequitable investments to date
23 and climate adaptation and resiliency.

24 For example, during the Hunts Points Resiliency
25 process, the Hunts Point Food Distribution Center

2 only received a few million for a feasibility study,
3 yet Mayor de Blasio has committed \$10 billion for
4 protecting lower Manhattan.

5 The community and local stakeholders explicitly
6 ask for coastal resiliency and while the Mayor's
7 Office of Resiliency and NYC-EDC made promises, there
8 have been no real commitments.

9 New York City government has not committed to
10 equitably protecting waterfront communities from
11 climate change and we believe the five-borough
12 resiliency plan is an opportunity to remedy the
13 shortfall.

14 EJA would like to thank the New York City Council
15 for holding this oversight hearing on the 7th
16 Anniversary of Superstorm Sandy and the opportunity
17 to testify. Thank you.

18 SUMMER SANDOVAL: Hello, good afternoon, my name
19 is Summer Sandoval and I am the Energy of Democracy
20 Coordinator at UPROSE. Thanks for the opportunity to
21 testify here on the 7th Anniversary of Superstorm
22 Sandy.

23 On behalf of UPROSE, we're hear to express our
24 support for Intro. 1620; the five-borough resiliency
25 plan.

2 So, in 1966, UPROSE is Brooklyn's oldest, as you
3 know, community-based organization. We are an
4 intergenerational and multiracial and nationally
5 recognized organization that works on resiliency
6 sustainability in Sunset Park Brooklyn.

7 We focus all our work on climate justice and all
8 of our work is rooted on the just transition model as
9 in our leadership with developing the first community
10 owned solar project in New York.

11 So, as we've heard today many of us, Superstorm
12 Sandy was a wakeup call for New York City to really
13 focus on climate change, but it seems too soon after
14 the fact that the post of devastation concern has
15 dwindled to a secondary thought. And as recognized
16 today, that there is still so much to be done with
17 engagement and with investment, intentional
18 investment to really address coastal resiliency and
19 equity in the city.

20 So, as mentioned by Jalisa, Sunset Park is New
21 York City's largest significant maritime industrial
22 area. It has 14 million square feet of industrial
23 space. And you know, for many New Yorkers, climate
24 change is still a really scary reality, so it's time
25 that we utilize that industrial space and with the

2 political support, we can finally use this space to
3 build for climate adaptation mitigation and
4 resilience.

5 Earlier this year, UPROSE partnered with the
6 Collective Community Culture and Environment to
7 develop a community informed proposal for Sunset Park
8 called the Green Resilient Industrial District or the
9 GRID.

10 And the GRID is a holistic vision that plans for
11 both existing and long-term climate impacts for
12 Sunset Park. The GRID outlines the process of how we
13 are going to move from the extractive economy
14 dependent on fossil fuels to a green industrial
15 economy that trains local residence for renewable
16 energy, green retrofit and climate jobs all while
17 promoting equity.

18 The GRID is aligned with and operationalizes
19 plans such as the Sunset Park ground field
20 opportunity area, New York City Climate Mobilization
21 Act and the Climate Leadership and Community
22 Protection Act.

23 A Sunset Park GRID has the opportunity catalyze
24 not only local but regional climate engagement and
25 eco industrial jobs green ports, sustainable

1
2 manufacturing and food security, which would create a
3 truly climate adaptation economy. But some of the
4 challenges that not only Sunset Park but other
5 significant maritime industrial areas in New York
6 City faces, is gentrification.

7 And so, contrary to the GRID, developers such as
8 Jamestown Properties have invaded Sunset Parks
9 industrial waterfront with luxury commercial and
10 retail uses in the form of industry city. Industry
11 city's rezoning proposals not only disrupting social
12 cohesion and eliminating well paid working class
13 jobs, but also prevents us from moving forward with
14 utilizing the industrial waterfront spaces to prepare
15 and build for the risk of climate change.

16 UPROSE as steering committee members of New York
17 Renews work hard at passing the monumental climate
18 and legislation to CLCPA earlier this year. That
19 really lays the groundwork for addressing climate
20 change and climate justice issues.

21 The GRID is a vision for climate jobs and coastal
22 resiliency that can be realized by funding through
23 the CLCPA and in the future by the Green New Deal.
24 The GRID is a perfect example of how frontline
25

2 communities have the climate solutions that meet all
3 of their needs.

4 It is both the proposal and process that honors
5 community-based planning and should be used as a
6 model.

7 Two, also answers the question that was posed
8 many times today is, are we ready for another Sandy
9 if it hit tomorrow? And the answer is absolutely
10 not. We are not because the city is only as strong
11 as the most vulnerable communities and if a Sandy hit
12 tomorrow, still thousands of people would be
13 displaced. Many people might die and actually, I am
14 even bold enough to say that we are worse off than we
15 were pre-Sandy not diminishing any of the work and
16 investment that has gone to resiliency.

17 But one, climate impacts have worsened at a rate
18 faster than investments have gone into resiliency
19 especially into frontline communities.

20 And Two, as mentioned today, we are still dealing
21 with post-Sandy recovery seven years later.

22 So, with that said, I just want to thank the
23 Council for holding this hearing and for more
24 information, please see our full testimony.

2 EMILY WALKER: Good afternoon. My name is Emily
3 Walker and I am the Director of Outreach and Programs
4 at New Yorkers for Parks.

5 I would like to thank the City Council Committees
6 on Resiliency and Waterfronts and Environmental
7 Protection for holding this important hearing today.

8 On this day, the 7th Anniversary of Superstorm
9 Sandy, we believe the conversation about a citywide
10 resiliency plan is of urgent importance.

11 Additionally, with multiple resiliency projects in
12 the pipeline now, we see a need for the city to plan
13 for a comprehensive approach to protect the
14 vulnerable coastline and waterfronts of the five
15 boroughs.

16 We therefore support the proposed Intro. 1620,
17 which would require a semiregular citywide
18 comprehensive planning process or our entire
19 shoreline. As evidenced by Sandy, water impacted all
20 five boroughs of this city. We acknowledge that the
21 city has had to move forward with some expediency to
22 initiate vitally needed resiliency projects in lower
23 Manhattan, but we also know water doesn't
24 discriminate and that the other stretches of our
25

2 waterfront will require similar projects in the not
3 to distant future.

4 We are concerned that the current resiliency
5 plans moving forward in lower Manhattan are being
6 done with a piece mill approach. This will mean that
7 significant stretches of the waterfront will be
8 closed for renovation and reconstruction at
9 overlapping intervals.

10 But the variety of city agencies overseeing these
11 disparate projects, while those in the know, are
12 perhaps aware of these jurisdictional boundaries of
13 these spaces, to the average New Yorker, they are
14 simply waterfront parks and esplanades that will soon
15 be taken offline for a number of years.

16 We do not feel there has been sufficient
17 interagency coordination of these projects so far and
18 we really hope that Into. 1620 would help address
19 this issue moving forward or all resiliency projects.

20 Making our waterfront and coastline more
21 resilient will also require a process to allow the
22 public to provide input on any projects that move
23 forward. Many of our waterfront neighborhoods are
24 also frontline communities that are most vulnerable
25 to climate change and long-term environmental justice

2 issues. Engaging these New Yorkers early and often
3 in any citywide resiliency planning will be key to
4 getting it done right.

5 We suggest that the city create a task force with
6 five borough representation to help ensure that any
7 future citywide resiliency planning is done in
8 coordination with the New Yorkers who represent these
9 communities which stand to be most impacted by
10 climate change.

11 We would also ask the Council to consider the
12 funding needed to truly implement a citywide
13 resiliency plan for our waterfront. The cost of the
14 important East Side Coastal Resiliency project alone
15 is projected to be over \$1.4 billion. This is a
16 tremendous amount of funding for just one small piece
17 of our waterfront and we have questions. Will OMB
18 fund these efforts in a five-borough strategy, or
19 will specific agencies be responsible for the funding
20 needed to implement these projects moving forward?

21 We believe this is an issue with equity and
22 significant funding must be allocated for the
23 citywide resiliency projects that we know will be
24 necessary to protect our coastal communities.

2 New Yorkers for Parks and the Municipal Art
3 Society recently co-authored a report called, Bright
4 Ideas in which we call for New York City to create a
5 position for a director of the public realm. Having
6 this type role, carved out to ensure that citywide
7 development and planning happens in a thoughtful,
8 equitable way would go a long way toward improving
9 the efficacy of a proposal such as the one we are
10 discussing today.

11 A five-borough resiliency plan will require a
12 truly comprehensive strategy and we suggest that the
13 city take seriously to the suggestion to create a
14 role for this.

15 Finally, one of New Yorkers for Parks widest
16 concerns is always relating to public open space and
17 parks will be the question of long-term maintenance.
18 For too long, New York City has failed to dedicate
19 permanent and meaningful funding for baseline year
20 around maintenance and operation staff lines. While
21 we were encouraged by the investments made by the
22 city in the FY 2020 budget, we know many of those
23 positions are still not permanent and will not meet
24 the sum of tremendous needs of our park system.

2 As we contemplate a citywide resiliency plan for
3 our waterfront and coastline spaces, we must also
4 plan for the baseline maintenance positions that will
5 be needed to keep them to the highest standard of
6 care.

7 Simply put, maintenance is a matter of protecting
8 our capital investments and we think any conversation
9 about what will be billions of dollars in
10 construction is a nonstarter without a permanent
11 commitment to more full-time maintenance and
12 operations staff to help maintain these important
13 public spaces. We also want to note that these would
14 be permanent green jobs.

15 Thank you very much for the opportunity to speak.
16 I welcome any questions you may have.

17 HELEN CHENG: Good afternoon. I'd like to
18 address something that hasn't been brought to the
19 attention of the Council thus far and it relates to
20 perhaps our most important assets here in the city,
21 that's our families.

22 So, I'd like to bring that to you in the realm of
23 the importance of dry side water safety training.
24 Did you know that every seconds a person dies due to
25 drowning and that for every death five more people

2 are suffering life altering brain and spinal cord
3 injuries changing the direction of their lives
4 forever.

5 Drownings and water-based accidents are a global
6 epidemic. And while those statistics are so
7 disturbing, perhaps the most shocking of all is that
8 95 percent of those tragedies absolutely never had to
9 happen. They were totally preventable.

10 Here in New York City our waterfronts are being
11 developed as never before in our lifetimes. Opening
12 up the water access dramatically. This open access
13 is fabulous for that person who understands that
14 environment and has the skills to successfully
15 navigate it.

16 But for every one of those people there are
17 hundreds of thousands more that do not know the
18 environment and don't have those skills.

19 So, as a result, our drownings and water-based
20 accidents will skyrocket. In addition, we are being
21 dramatically impacted as we've all discussed here
22 this afternoon, by our water levels which are rising
23 on average an inch per year. So, in 30 years' time,
24 we will have a Sandy event, every day at high tide.

2 Our superstorms are getting more super, not less.
3 So, how do we address this? Certainly, city
4 government is addressing our hard assets, our land
5 and our building issues but nothing is done thus far
6 to protect our most important assets, our families.

7 Our families need to understand that water safety
8 and swimming skills are as important as buckling up
9 your seatbelt when you get into an automobile. That
10 indeed, it's not one solution but a multilayered
11 solution that's needed to bring New York City family
12 IQ up to a level of safety.

13 Some of those solutions are quite simple. Better
14 signage at access points to the water, use of
15 technology to push water conditions to our cell
16 phones, lifeguards on the beaches longer, media
17 campaigns on public transportation and social media,
18 billboards around the city, helping to make swimming
19 lessons more accessible and affordable. But what I
20 want to address here today specifically is education
21 through dry side water safety training.

22 On a practical basis, we understand, not
23 everybody is going to be able to learn to swim.
24 However, everyone can learn about the dangers that
25 water represents to us inside our own homes and

1 everywhere that we meet it in the great out of doors.

2 And I also want you to understand that water safety
3 is not just a summer conversation. Here we are in
4 the middle of fall, hurricane season. We lost three
5 of our youth just this month alone. Two in the
6 Rockaways, one in the Hudson. Why? Because the
7 water temperatures are still warm and air condition
8 is still warm as well. Attracting people to open
9 water settings and sometimes as we just seen the
10 terrible results.
11

12 So, water safety training will absolutely help
13 people understand the different environments that
14 they are meeting water in and therefore they will be
15 able to make decisions that keep them safe in and
16 around the water.

17 For example, drowning is the leading cause of
18 death for children ages 5 and younger and most of
19 those children are dying in their own homes. The
20 first thing that may come to your mind is, oh, that's
21 outdoor, your backyard swimming pool, it's not
22 properly secured. Well, yes, that's one reason but
23 inside our own homes, bathtubs clearly are a
24 significant risk. It's actually our distracted
25 parents that are the risk.

1
2 But who has thought about the fact that our
3 toilet bowls are such attraction to our young
4 toddlers? Who knew it could be so much fun to throw
5 your toy in the toilet and then go in and retrieve
6 it.

7 A toddlers head is the heaviest part of their
8 body. If they are upended and no one sees them two
9 inches, two minutes, that's all it takes for any of
10 us to drown. So, clearly, we need to be able to
11 waterproof our homes and that concept has to be
12 brought out into the outdoors as well.

13 I'll finish up very quickly. Drowning
14 disproportionately impacts children of color. The
15 statistics show that drowning is the second leading
16 cause of death for children 14 and younger with
17 children of color drowning five times more frequently
18 in swimming pools, three times more frequently in
19 open water settings than their Caucasian peers.

20 And it's not just a problem with young children.
21 Drowning is the second leading cause - I'm sorry,
22 drowning is the leading cause of death for children
23 on the spectrum and drowning affects males 80 percent
24 to females 20 percent from mid-teens into mid-30's.

25 So, the teaching of water safety in all schools -

2 CHAIRPERSON CONSTANTINIDES: Could you please
3 wrap up. Thank you.

4 HELEN CHENG: Is one of the best layers of
5 protection that we can provide to our families. And
6 therefore, I am asking that you please do consider,
7 not just the hard asset infrastructure here in New
8 York City, but also the protection of our families
9 through teaching the awareness of water safety and
10 the importance of it.

11 Thank you very much for allowing me to testify.

12 MIKE MCCANN: Good afternoon. My name is Mike
13 McCann; I am from the Nature Conservancy. So, thank
14 you Chairperson Brannan, Chairperson Constantinides
15 for this opportunity to offer some testimony.

16 I am offering testimony on behalf of the Nature
17 Conservancy. We're the largest conservation
18 organization; we have over 600 scientists. We work
19 in all 50 states and over 70 different countries
20 across the globe.

21 So, I'm going to try to condense my testimony,
22 since we've all been here a while. I'm going to cut
23 to the chase, because I think we all agree that you
24 know, we have to figure out as a city how we're going
25 to adapt to a future with more water.

2 So, I'm offering my testimony today in support of
3 Intro. 1620 which calls for a comprehensive five
4 borough resiliency plan.

5 We encourage the committees to advance
6 legislation that adapts to a future with more water,
7 with an array of approaches including strategic
8 relocation, nonstructural measures and solutions.

9 Plans to adapt our built environment must also be
10 complimented by efforts to increase community
11 resiliency through enhanced social cohesion and
12 disaster preparedness to an array of hazards.

13 There's no one size fits all approach for how
14 communities will adapt to a changing climate and this
15 is true for New York City shoreline neighborhoods.

16 We are encouraged to see that the legislation will
17 require a plan to consider an array of approaches.

18 Hardening our shorelines with sea walls and break
19 waters only bides us time to adapt our ways of life.

20 Built defenses will eventually be overtopped by
21 rising seas and larger storms. Therefore, we must
22 limit new development in our flood plains where
23 possible.

24 We believe that for some of the most low-lying
25 areas where sunny day flooding is already a problem,

1 the long-term solution is for communities to make the
2 voluntary decision to relocate to higher, safer
3 ground and to allow nature to return to act as a
4 buffer between water in our communities.
5

6 Strategic relocation or managed retreat is
7 complicated and will not be easy but is better than
8 an unmanaged retreat from our coast, where people
9 leave their communities and leave their homes without
10 a plan and without support.

11 Measures must be put in place to ensure that the
12 proposed solutions do not lead to unintended
13 consequences such as the inequitable displacement of
14 environmental justice communities, low income,
15 elderly, recent immigrant and other vulnerable
16 populations.

17 In cases where built structures, the hard and
18 soft stabilization methods, where they're the chosen
19 approach, a hybrid design that combines both green
20 and grey elements can be a cost-effective means to
21 deliver flood protection. For example, we can
22 combine marshes and muscle beds along with sea walls
23 and flood gates.

24 The Nature Conservancy's urban coastal resilience
25 report demonstrated that a hybrid system in the

2 community of Howard Beach, Queens, could mitigate
3 nearly a quarter billion dollars of damages for a
4 100-year storm event.

5 So, we support Intro. 1620 and we would like to
6 offer ways to improve the legislation. A
7 comprehensive plan for the future of our shorelines
8 will impact the lives of people and must be shaped by
9 community voices.

10 Meaningful stakeholder engagement efforts must be
11 a part of these planning efforts. And a new
12 comprehensive plan must respect the communities
13 planning that has already occurred in communities
14 such as Hunts Point, the Lower East Side and
15 elsewhere.

16 Second, bill elements, whether they are green,
17 grey or hybrid, such as beach nourishment, sea walls,
18 living shorelines, and salt marshes are only one
19 component of climate adaptation. A truly
20 comprehensive plan will enhance social cohesion and
21 improve governance to create community resilience and
22 disaster preparedness.

23 Third, the planning efforts should extend beyond
24 the current special flood hazard area and they must
25

2 consider the future flood plains as predicted by the
3 New York City Panel on Climate Change.

4 As we've seen from our experts today, we must
5 plan for the range of possibilities and that
6 uncertainty when it comes to the storms and sea level
7 rise that we might expect in 2050 or 2100.

8 Regarding the scope of the legislation, it is
9 unclear why only residential buildings, not more than
10 three stories in height, are considered. This is a
11 question that we have about this legislation because
12 residential buildings of all sizes, commercial and
13 industrial use buildings are all obviously
14 vulnerable.

15 Next, a comprehensive plan to adapt a flooding
16 will also consider the effects of more frequent heavy
17 rains as has been brought up a number of times in
18 today's hearing. And how these flood events can
19 impact the inland neighborhoods, not just our
20 shoreline community districts and how this can
21 exacerbate the storm surges in the coastal areas.

22 And finally, living with more water is only one
23 reality of a changing climate, a multi-hazard
24 approach will benefit the efficacy of these planning
25 efforts and efforts to adapt our shoreline to

2 flooding should integrate with effort to manage heat,
3 winter storms and other hazards.

4 So, to wrap up, climate change is a dire threat.
5 I think we all recognize that, but in some ways,
6 this is also an opportunity. It is a chance for our
7 New Yorkers. These are some of the brightest minds
8 in the country, in the world, to really envision a
9 brighter future. It's an opportunities for
10 communities to create safe neighborhoods, build
11 social cohesion and create inequitable future and
12 it's an opportunity to build a city where people and
13 nature can thrive.

14 So, the Nature Conservancy would like to offer
15 our support and collaboration in advancing those
16 efforts. Thank you.

17 CHAIRPERSON CONSTANTINIDES: Thank you. Okay, I
18 think we have one more panel. Whoever is still here,
19 please come up. Hunter Armstrong, Caroline Nagy,
20 Georgie Page Smith, Joel Kupferman, Lucy Coteen[SP?].
21 That's it, okay.

22 Yeah, you can start whenever you are ready.

23 CAROLINE NAGY: Alright, good afternoon. My name
24 is Caroline Nagy and I am Deputy Director for Policy
25 and Research at the Center of New York Neighborhoods.

2 I'd like to thank the Chair's and members and
3 staff of the Environmental Protection and Resiliency
4 and Waterfront Committee for holding today's hearing.

5 I'm not going to read my testimony. I will say
6 the Center for New York City Neighborhoods works to
7 promote and protect affordable homeownership in New
8 York City, so that middle- and working-class families
9 are able to live in strong, thriving communities.

10 And I would like to just basically summarize our
11 work. We have been working with homeowners impacted
12 specifically low-moderate income homeowners since you
13 know, Sandy first struck, and we've partnered with
14 New York City government and City Council since the
15 beginning.

16 So, I want to talk a bit about what we have to
17 offer for homeowners in flood prone areas today.
18 Floodhelpny.org is a first of its kind web platform
19 that engages and informs homeowners on how they can
20 protect their homes from rising sea levels and how to
21 lower their flood insurance rates.

22 Through that platform, we also offer home
23 resiliency counseling and home resiliency audits.
24 Some of which can save homeowners money immediately
25 because many homeowners receiving so-called

2 subsidized flood insurance rates are actually paying
3 more than they would if they paid their flood
4 insurance rate based on their actual elevation.

5 So, it's a very important resource and you know,
6 City Council Members have been really wonderful
7 partners along with the de Blasio administration in
8 getting the word out about that. We are also about
9 to begin installing back water valves in basements,
10 in flood prone areas to prevent sewer backflow during
11 a flood or heavy rain events and as always, we offer
12 foreclosure prevention and homeowner stabilization
13 services for homeowners at risk of displacement due
14 to foreclosure, tax liens or other issues.

15 So, on Intro. 382, we you know, support sending
16 outreach to homeowners. Everyone should know about
17 flood insurance. One letter is simply insufficient
18 for really getting the word out there. What we found
19 through our experience working with homeowners is
20 it's not even just one touch. Because if you are
21 telling people that they need to make really dramatic
22 changes to their homes, to their financing for their
23 future, you know, that's really more than a letter.
24 You know, this kind of a broad community education
25

1 outreach and organizing effort, including
2
3 individualized services like resiliency counseling.

4 So, in addition to sending a letter to everyone
5 in the new special flood hazard area, we'd also
6 recommend contacting everyone who's in the newly
7 designated moderate risk zone or x zone and also, why
8 stop at once the maps are adopted? Because actually
9 people need to lock themselves into lower rates
10 before the new maps are adopted to take advantage of
11 longer-term subsidies that will make their housing
12 situation more affordable in the intermediate term.

13 We're also very interested and have been active
14 in NFIP Advocacy at the federal level. And then the
15 other bill that I wanted to just comment on very
16 briefly is 1620. Of course, we need a comprehensive
17 five borough plan to combat climate change sea level
18 rise and sunny day flooding. We just urge the City
19 to involve community members and organizations in
20 disaster response planning and recovery efforts,
21 giving particular attention to the linguistic and
22 cultural needs of community members, as well as the
23 needs of seniors and people with disabilities.

24 Finally, I want to point out that while we are
25 able to make really good recommendations to

1
2 homeowners looking at their – based on their
3 individual situations, the one piece of the puzzle
4 that's missing as far as we're concerned is
5 affordable financing for home resiliency retrofits.

6 We've been looking at a lot of different
7 alternatives. Pace loans are intriguing but have
8 some very serious consumer protection risks that
9 really need to be taken into account before they are
10 adopted for residential lending in New York City and
11 this is a major need and something that we look
12 forward to working with City Council on.

13 So, thank you very much for the opportunity to
14 testify today.

15 GEORGIE PAGE: Hello, thank you for holding this
16 hearing today. My name is Georgie Page; I'm a
17 volunteer for 350 Brooklyn.

18 We work to counter climate change through local
19 action. We promote sustainable energy, we oppose
20 fossil fuel, the fossil fuel industry and we educate
21 and activate our community. We are a local affiliate
22 of 350.org and we support Intro. 1620.

23 I am new to environmental advocacy. My
24 background is as a producer in marketing and
25

2 communications executive, who has done a lot of
3 volunteering.

4 As I prepared for today, I recalled volunteering
5 in the Rockaways after Sandy and witnessing an almost
6 apocalyptic scene, completely unworthy of our city.

7 The federal act planning alone is not enough. We
8 cannot afford to rely solely on federal plans and
9 timelines. The Office of Resiliency Director herself
10 said, that providing a city plan to the Army Corps of
11 Engineers did not necessarily gain us money, but it
12 did accelerate the timelines, and that's what we
13 need.

14 And I would hope and imagine that a comprehensive
15 plan would help to raise the visibility and
16 accountability of the future federal plan. And
17 especially with the establishment of metrics.

18 Specifically, for 350 Brooklyn, we are thrilled for
19 the introduction of a comprehensive plan and hope the
20 city will consider future legislation that looks
21 holistically at other issues, including energy and
22 urban heat island effects.

23 We hope that the action plan for each borough
24 takes into account city and area wide impacts as each

1
2 borough is not a stand-alone system, nor is New York
3 City.

4 From an environmental justice perspective, we
5 encourage the Office of Resiliency to look at how the
6 plans will effect surrounding areas, including our
7 neighboring counties and states in terms of sea level
8 rise, flood and impact on habitat, including the
9 Hudson River.

10 We encourage the consideration of elevation for
11 future rezoning's and recommend that for the safety
12 of the citizens of New York and the future of the
13 city, large scale rezoning's not be implemented in
14 flood zone 8 areas, such as Gowanus. We encourage
15 further wetlands restoration, which can absorb water
16 over sea walls which displace water to another
17 location.

18 And finally, something I just added, we need to
19 look beyond painting roofs. I attended a panel
20 convened by Representative Clark at the Brooklyn
21 Public Library that was called, Climate Resilient
22 Smart Cities. She convened an amazing panel, there
23 were some great takeaways and one of them was that
24 one of the huge gaps in what we're lacking is
25 distributed energy generation, including solar.

2 People need energy for their CPAP machines, for
3 example, when a flood event does happen. Other
4 cities have been affected in engaging their citizens
5 in these kinds of programs.

6 Lastly, I want to call out the renewable Rikers
7 plan as a piece of the puzzle. With its increased
8 renewable energy generation and potential to increase
9 sewage treatment capacity.

10 Thank you very much.

11 LUCY COTEEN: Hi, good evening almost. My name
12 is Lucy Coteen; I'm neither an expert nor a
13 professional. I'm just your everyday community
14 activist.

15 So, I may be somewhat off topic at times, but I
16 was looking at the proposed Local Law requires that
17 the Office of Recovery and Resiliency with such
18 agencies shall develop a comprehensive five borough
19 plan to protect the entire shoreline of New York
20 City.

21 So, we know that we must adapt to climate change
22 and because of that the exists policies on resiliency
23 and a resiliency and recovery agency and the City
24 Council recently declared a climate emergency. Yet
25 we see the opposite put into place in every borough

1 of the city despite numerous science articles
2 speaking about the reduction in the urban forest
3 across the country and at the same time articles
4 telling us about the necessity of mature trees as
5 part of the solution in absorbing carbon and excess
6 water. We're seeing large tree removal and earth
7 removal throughout the city and these natural
8 conditions replaced with concrete and asphalt.

9
10 The climate emergency declared by the City
11 Council would have meaning if there were legislation
12 accompany it that demanded that every project both
13 land and building projects had to attach a study that
14 showed how it would be in compliance with the
15 resiliency policy. A project must show how it will
16 benefit animals, birds and insects. Because to do
17 so, is to benefit humans and EIS must be mandatory
18 and not an option. If it finds that an impact cannot
19 be mitigated, as they often do, then the project has
20 to be adjusted until it shows a positive result or
21 withdrawn all together.

22 We know that humans will have to migrate away
23 from coasts to live, yet we see the Department of
24 City Planning approving projects such as the two
25 bridges project. A project that will create a wall

2 along the East River blocking light, air views,
3 generate heat and be filled with many empty
4 apartments and in the end, we can expect the
5 taxpayers will have to bail out this riverside
6 development when it flooded.

7 There is no doubt that it will flood, as will the
8 southern part of Manhattan. We should have passed a
9 moratorium on building by the water and in the water
10 years ago. We are no different than Houston Texas
11 that replaced the earth and trees with concrete and
12 suffered the consequences of severe flooding twice in
13 two years.

14 Any comprehensive plan must include retreat from
15 the shoreline, strategic relocation, call it what you
16 want, but we have to stop building by the shore. The
17 way to protect the shoreline is with a natural
18 environment to act as a sponge for water and wind
19 absorption. There is no shame in outlawing the
20 building of new structures by the water. Somehow the
21 city seems like this would be embarrassing to say you
22 have to stop building concrete structures by the
23 water.

24 The number one protector against climate change
25 are large trees yet all over New York City, large

2 trees are being removed from the parks and the
3 shorelines and street trees are not protected from
4 the rapacious developers that rule the city.

5 Throughout the city, a massive number of large
6 trees are being cut down and the natural environment
7 is being paved over. There's a wide pattern of abuse
8 of the natural world in contradiction to city policy
9 to increase resiliency and no agency or politician is
10 doing anything to stop it or refer to the resiliency
11 guidelines and that the goal of the city to reduce
12 tree canopy 30 percent by 2030.

13 And just a few thoughts of how the Council can
14 promote environmental stewardship. Hold a hearing
15 that addresses the discrepancy between the stated
16 policies and goals of the city and the actual
17 projects that are put into place. Enact legislation
18 that demands that any project that alters the
19 environment must go through the EIS process and be in
20 compliance with [inaudible 4:38:34] and show that the
21 project will do no harm to the environment and in
22 fact will conform with the stated policies of the
23 city.

24 They can no longer state that a problem cannot be
25 mitigated. They must find a solution or alter the

2 project, enact legislation and create an agency that
3 will protect the trees and the natural environment
4 that will act like a warden for the environment. If
5 someone see damaging being done to a street tree or
6 park, then the agency can be contacted, and they will
7 immediately send out a tree protector to stop the
8 damage. Tree damage is commonly seen in development
9 areas and in parks. And then enact legislation that
10 requires that any study or report undertaken by any
11 agency must be placed on the website of that agency.

12 There must be full transparency in the way that
13 taxpayer money is used by agencies. We shouldn't
14 have to sue an agency to get a report.

15 If parks forestry is removing trees it should
16 only occur if a tree risk assessment has been
17 performed and that tree is an imminent risk of
18 injuring people or damage property and utilities.

19 And just, have any of you read New York 2140 by
20 Kim Stanley Robinson and would know about it?

21 UNIDENTIFIED: Excuse me Chairman. I just want
22 to say, I represent two NYCHA tenant associations. 1
23 in 14 people in New York City live in NYCHA housing.
24 I understand, but it's a really important point.

2 CHAIRPERSON CONSTANTINIDES: We're going to give
3 you time. The hearing is not over, he just has to
4 step out to something.

5 UNIDENTIFIED: Okay, I just wanted to make sure.

6 CHAIRPERSON CONSTANTINIDES: Okay.

7 LUCY COTEEN: And he is the last speaker. So,
8 anyway, real quick, New York 2140 talks about New
9 York City in 2140 when all of lower Manhattan is
10 flooded. I think it's a probably pretty accurate
11 picture of what we have to look forward to or not
12 look forward to actually. People getting around in
13 like canals in rafts.

14 Anyway, I think just what's being discussed and
15 looked at is so short sided. We've got to look much
16 bigger before we heard nine and a half feet by 2100.
17 2100 is right around the corner folks.

18 So, we got to look much bigger then we are
19 looking. Thank you.

20 CHAIRPERSON CONTANTINIDES: Thank you Lucy.

21 JOEL KUPFERMAN: Sorry for speaking out of turn.

22 CHAIRPERSON CONSTANTINIDES: It's okay.

23 JOEL KUPFERMAN: I am Joel Kupferman;
24 Environmental Justice Initiative and the National
25 Lawyers Environmental Justice Committee.

1
2 First thing maybe, I think is in order, is just
3 reciting our mind, is a good law without enforcement
4 is worse than no law and we take exceptions to these
5 three bills in that there is a lot of language that
6 ambiguous and should be expanded in terms of even
7 referring to which federal law is applicable and we
8 also believe that this new agency for flood control,
9 might require City Charter change. So, I think it's
10 important that you look into that.

11 But as I said, a few times that 1 in 14 people
12 live in NYCHA housing. I represent 2 tenant
13 associations right now. Smith Houses which is in
14 eyesight of this building. It's undergoing a \$56
15 million rebuild from Hurricane Sandy. Besides
16 Hurricane Sandy, it was hit by 9-1-1, so we have get
17 the soils there. Over and over again, we've
18 contacted the city, the state and the feds that the
19 contractor hired to rebuild that structure has cut
20 the roots and done everything wrong in terms of the
21 tree protection and uncovered the soil.

22 So, we have a tree loss there with \$56 million
23 contract. In Baruch, they cut down over 200 trees on
24 the grounds being told that there is a blight on
25 those trees. That has not been proven. There is

1
2 another half a billion dollars coming through for
3 just the developments in Manhattan.

4 We're having a tree loss at NYCHA and elsewhere
5 as indicated here. So, I think it's really important
6 that these people be protected in terms of not just
7 the resources but the natural resources that are
8 there.

9 When those people call 3-1-1 for help, partly out
10 of that Sandy Revitalization Plan because they are
11 exposed to the soil that had up to 240 quarts of
12 arsenic, the Health Department told them that we're
13 not in your jurisdiction. So, I think it's really
14 important to look at all the health effects of every
15 rebuild action that's there.

16 We talked about the East River Park, of how much
17 soil that's going to be there, that's not being
18 contained and that basically shows from after 9-1-1
19 that is the dust alone, the particulate matter that's
20 going to hurt everyone that's there.

21 Also, in East River Park and elsewhere, we can't
22 believe that the city is using artificial turf as a
23 means of ground cover. In their own Parks Department
24 Resiliency Plans they said, this is a no, no. Why
25 are we allowing this to be used there at Smith with

2 all these problems, they want to rebuild a ball field
3 and yet they're still putting in artificial turf.

4 If it comes up to 130 degrees in the summer, so
5 it's a definitely Environmental Justice problem, that
6 the kids can't play on that you know, in the summer
7 and also PFOE is another - particulates or in toxics
8 are being admitted from those fields.

9 Then we have a problem with resiliency building.
10 At Smith, they're putting up concrete barriers that
11 would be put into place when the water is coming.
12 They built a rescue stair, and we pointed out over
13 and over again that those stairs and that barrier is
14 going to lock the people in wheelchairs in the
15 building and they can't get out during that flood.

16 So, basically NYCHA and the city is telling these
17 people that you are stuck here, we're not going to
18 get you out. NYCHA lied in terms of that they said
19 they confirmed with OEM and the Fire Department, that
20 hasn't been happening.

21 New York City, the only fire drills that take
22 place, and I think this has to do with evacuation
23 planning, only takes place is required in commercial
24 buildings, not residential. We learned from
25 Hurricane Sandy, when they evacuated people from old

1
2 aged homes, they took them, and they dropped them off
3 in front of motels that had steps. They were left
4 out in the rain for several hours before they were
5 taken back. It is a major problem of leaving people
6 out. People in NYCHA, people with disabilities and
7 also there's a problem with notification. The people
8 with disabilities need special notification.

9 It's not just getting an email you know, or some
10 type of text that there's a problem, we have to look
11 into that.

12 You know, so I also suggest that I also represent
13 the New York City Community Gardens Coalition. There
14 is a new licensing agreement that they are trying to
15 push through. Rather than helping and bolstering all
16 these volunteers out of 530 locations, they're making
17 it harder and basically pushing community gardens
18 which are for a lot of ground cover off their lands.

19 Putnam Park, Putnam Trial in the Bronx were being
20 told that Parks Department has to use asphalt, not an
21 excuse me, they are using impervious materials.
22 There told that after studying it, it's basically
23 this push of money.

24 So, for a few thousands dollars or whatever,
25 we're using asphalt to cover a fragile area in the

2 Bronx. It's one of the largest parks and we're being
3 told it's a budgetary consideration. That should be
4 looked into.

5 I talked about East River Park, but also the City
6 Council alone, you should hire more people for
7 yourself in terms of environmental assessors. We had
8 problems where we sue the city over the Community
9 Garden in the Boardwalk in Brooklyn. The city kept
10 on saying that the concrete Amphitheater was better,
11 and we said, no it's not. You are taking away all of
12 that vegetation problems, but the City Council
13 basically went along, had to depend on New York City
14 Planning.

15 I think it's important that every land use major
16 involvement, that your involved in, that you have
17 your own staff to give you a little more.

18 CHAIRPERSON CONSTANTINIDES: Okay, could you wrap
19 up.

20 JOEL KUPFERMAN: Okay. The other regulation that
21 has to change is that we got to stop this building of
22 a right. A large 80 story building, 60 story
23 buildings on the grounds that there is no impact. We
24 know there is major impact you know, and that, I
25 think that's one of the first laws that we have to

2 change but also, part of the problem is that we go to
3 court, we represent a lot of groups dealing with the
4 Extell Building and other buildings. We're told by
5 even City Lawyer Department; I don't think listens to
6 any of these hearings here whatever, that every
7 action is just no impact. And I think that's one of
8 the most important bits. And the Extell building,
9 when they build it, it wasn't even the building it
10 was the excavation that caused the two buildings on
11 either side to bend over and the people couldn't even
12 close their windows.

13 So, we have a major problem here about no impact
14 you know being false.

15 CHAIRPERSON CONSTANTINIDES: Okay.

16 JOEL KUPFERMAN: So, one of the things I want to
17 say is that -

18 CHAIRPERSON CONSTANTINIDES: Yeah, this is it.

19 JOEL KUPFERMAN: Okay, to add strength that there
20 shouldn't just be one overseer in terms of
21 resiliency. That each department should have a sort
22 of inspector general but also there should be an
23 [inaudible 4:49:32] appointed.

24 So, it's not just up to these community groups
25 that have to foil and wait three months or six months

2 to do it, within each agency, there is someone they
3 can go to that's a whistle blower or protects the
4 whistle blowers that can actually represent the City
5 Council and all these laws and be there from the
6 planning stage up from the beginning. Not after
7 thought and not post hack rationalization. Thank
8 you.

9 CHAIRPERSON CONSTANTINIDES: Okay, thank you very
10 much. Okay, I think we are done. I want to thank
11 again Samara Swanston, Ricky Chawla, Nadia Johnson,
12 Jonathan Seltzer and of course Jessica Alban for this
13 hearing today and all of you guys for coming out.

14 And with that, we are adjourned. [GAVEL]

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C E R T I F I C A T E

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



Date April 1, 2018