CITY COUNCIL
CITY OF NEW YORK

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TRANSCRIPT OF THE MINUTES

Of the

COMMITTEE ON RECOVERY AND RESILIENCY JOINTLY WITH COMMITTEE ON PARKS AND RECREATION

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June 15, 2017 Start: 1:40 p.m. Recess: 3:53 p.m.

HELD AT: Committee Room - City Hall

B E F O R E: MARK TREYGER

Chairperson

MARK LEVINE Chairperson

COUNCIL MEMBERS: Margaret S. Chin

Donovan J. Richards

Carlos Menchaca
Eric A. Ulrich
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A P P E A R A N C E S (CONTINUED)

Letitia James NYC Public Advocate

Liam Kavanagh, First Deputy Commissioner NYC Department of Parks and Recreation

Anthony Ciorra, Chief Coastal Restoration Branch U.S. Army Corps of Engineers New York District

Curtis Cravens, Senior Advisor Coastal Resiliency Mayor's Office of Recovery and Resiliency

John Signorelli, Vice President Belle Harbor Property Association

Hank Iori, President Belle Harbor Property Owners Association

Nick Deblasi, Builder

Brett Branco, Brooklyn College Science Resilience Institute, Jamaica Bay

Jose Soegaard Policy Director Waterfront Alliance

[sound check, pause]

3 CHAIRPERSON LEVINE: Let's get started. 4 I'm Mark Levine, Chair of the Committee on Parks and 5 Recreation. I'm pleased to be co-chairing this 6 important hearing with the Chair of the Committee on Recovery and Resiliency, a fellow member of the Marks 8 Brothers Team, Mark Treyger, and I am pleased that we 9 are joined right now by our Minority Leader Steve 10 Matteo, by Parks Committee Member Cabrera, by 11 Majority Leader Jimmy Van Bramer, by our Public 12 Advocate Tish James, by Council Member Bill Perkins, 13 Council Member Andy Cohen, Council Member Carlos 14 Menchaca, Council Member Margaret Chin, and fellow 15 Parks Committee member Council Member Darlene Mealy. 16 I believe that Council Member Antonio Reynoso is 17 here. Maybe he stepped out momentarily. Today, 18 we're going to be exploring the issue of erosion of 19 our beaches. The beaches are an incredibly public 20 resource for the city. We have 14 miles of beaches 21 in four of the five boroughs. They're managed by the Parks Department. They had 16 million visitors last 2.2 23 They are an open, free democratic resource 24 accessible by subway or bus ride that is incredibly 25 important in a city where not everyone can afford a

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trip to the Hamptons or to Florida, but they are threatened. They are threatened in an era of climate change, an era of ever more increasing-ever more frequent severe weather events, which we saw most catastrophically in Superstorm Sandy, a storm from which many parts of our Atlantic beaches are still seeking to recover. The storm itself resulted in the loss of millions of cubic feet of sand on our beaches, a process which has continued despite some attempts to replace that sand. To the point where today in some of these beaches there is very little beach left. I had the chance to visit together with the Public Advocate some beaches in the Rockaways and Belle Harbor and elsewhere where at high tide the waves come up to the Boardwalk. There is not beach left at high tide. The good news is we know how to fix this challenge. We know that by creating barriers of out-to-sea and by using plant life on the beach we can prevent erosion, but this is not cheap, and we need to make this investment with support of the federal government, and we are concerned that this work is not happening rapidly enough. Our hearing today will explore these questions including the role of the Army Corps of Engineers who will be

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our first panel. I'm going to pass it off now to my co-chair, Chair Mark Treyger.

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CHAIRPERSON TREYGER: Thank you, Chair Levine. Again, good afternoon. My name is Mark Treyger and I am the chair of the Committee on Recovery and Resiliency, and I thank Chair Levine of the Committee on Parks and Recreation and for his committee members for partnering with us to hold this important hearing on the serious issue of beach erosion threatening communities from the Rockaways to Coney Island and beyond. The Committee on Recovery and Resiliency held an oversight hearing a little over a week ago on the city's high-risk flood zones, and noted that we have more of these flood zones than any other city in the United States. Therefore, managing beach erosion is of utmost importance to mitigate the flood risk that New Yorkers in coastal communities face. Beach erosion can be a natural consequence of wave action as waves action as waves transport sand closer to the land and bring it back on shore. However, intense storm surges and tides that have been rising unnaturally due to the climate change can cause beaches to erode at an alarming rate undermining the integrity of our natural coastal

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be vigilant.

protection systems. Erosion has already diminished portions of our 520-mile coastline, and our sea level is projected to rise and additional 2-1/2 feet by 2050. During Hurricane Sandy we lost over 3.5 million cubic yards of sand in the Rockaways and over half a million cubic yards of sand in Coney Island. With beach erosion and retreating coastlines, sea water can encroach on the city's infrastructure and people's homes at higher rates. Inevitably, this would also lead to greater economic burdens for the city and our constituents. The city in partnership with the Army Corps have tried to address these concerns through some coastal protection projects in Coney Island, the Rockaways and Staten Island, which the state has identified as coastal erosion hazard areas through a variety of measures such as engineered sea walls, T-groins, artificial reefs and other structures they have attempted to try to address this issue of erosion. In addition, the Army Corps has provided over 90,000 cubic yards of sand after Super Storm Sandy, but I just want to note that a good number—a good amount of that said is already gone from Coney Island and Brighton Beach. We must

The committees are interested in the

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city's short and long-term strategies to protect our shorelines and our communities. For instance, we'd like more information on the sand replenishment that has taken place after-after Sandy particularly since we are now staring down another hurricane season. addition, we'd like insights on any regional funding the city is pursuing to ensure our city's resiliency and wellbeing in the long run. Climate change is not the future. It is now. With Sandy and other weather events, that have been taking place globally, and quite frankly, it doesn't even take a Sandy to create this enormous impact. A Nor'easter can be the storm that could really do a lot of damage as well to a coastal community, and without a doubt we will see more storm surges with the capability of wiping out our shorelines in relatively little time. So, the question is what can we do about this urgent issue? The committees look forward to hearing from the Office of Recovery and Resiliency, the Department of Parks and Recreation, and the Army Corps of Engineers as well as community advocates. Thank you.

CHAIRPERSON LEVINE: Thank you, Mr.

Chair, and I'm not going to ask someone who's been leading on this issue across the city our Public

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2 Advocate Tish James to offer an opening statement.

3 In the meantime, I'll ask Deputy Commissioner Liam

Kavanagh to prepare for the first panel. Thank you.

PUBLIC ADVOCATE JAMES: I want to thank

6 Chairs Levine and Treyger as well as their staffs and

7 their committee staffs for holding this hearing today

8 and inviting me to participate. Nearly five years

9 ago out city experienced one of the worst natural

10 disasters in memory with super store--Super Storm

11 | Sandy made landfall. We will never forget the

12 destruction, the sadness and devastation caused by

13 | the storm, but more importantly, we'll never forget

14 | the unity and strength and resiliency of our city.

15 | Federal funds eventually came in and the City and

16 State dedicated significant resources to recovery.

17 | Much has been done, but there places in the city

18 where serious questions remain. I'm here today

20 Owners Association who I understand are-will be

21 | testifying today, and who continue to sound a clarion

22 | call to guard against whatever is next. They led me

23 \parallel to understand that the FEMA money that helped rebuild

24 | the board--boardwalk was simply not enough, and that

focus on what is most important, safeguarding against

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he next storm has perhaps been lost. The temporary berms-berms put in place by the Army Corps of Engineers are now eroding. Too much beach was washed We risk devastation the next time a storm awav. comes. In this climate we do not know how much we can count on the federal government's aid in preparing for the future and coping with the next great storm, which is why today's hearing is so important. Despite all the work that has been done, there are weak spots throughout particularly in the Rockaways. There remain places where berms and rock jetties and sand replenishment and bulkheads and reefs and sea walls are still desperately needed. It relatively mild storms are threatening would collapse. Are we ready for a hurricane? I say no. We need to know that what-what the agencies are doing, how we can count on them, how they are coordinating and doing what's necessary, and we need to know whether or not there are additional resources we still need, and we need to know what we can do to advocate with and for the residents of the Rockaways as well as Coney Island with our State and Federal partners. Our local residents and local officials

are calling for immediate action fearing that we

Coastal Restoration Branch with the U.S. Army Corps

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2 of Engineers New York District. I'm very pleased to 3 be here today to testify on behalf of the Corps of 4 Engineers. First off, I want to thank Council Member Treyger and the Committee on Recovery and Resiliency and Council Member Levine, and the Committee on Parks 6 and Recreation for the invitation to testify here and 8 the opportunity to provide an update on the status of the Corps of Engineers Post-Sandy coastal recovery efforts in the city of New York. As the Hurricane 10 11 Sandy Program Manager, my responsibility is to lead and manage the execution of the New York district's 12 13 \$3.5 billion Coastal Restoration Program, which includes parts of New York City, Coastal Long Island 14 15 and Northern New Jersey as far south as the Manasquan Inlet. We have confidence that the experience that 16 17 we have—the experiences that we have encountered so 18 far under the Sandy Recovery Program and the lessons 19 learned will lead us to future success as we continue with our recovery efforts. The collaboration between 20 government agencies, stakeholder and the general 21 public and private sector are critical to the 2.2 2.3 continued success of our recovery efforts. This strong interagency intergovernmental teamwork has 24

been crucial to meet the challenges and continues to

1 be critical as we move forward with Post-Sandy 2 3 Coastal Recovery efforts, and I do want to 4 acknowledge the outstanding partnership that we have with the city of New York with the Mayor's Office of 5 Recovery-Recovery and Resiliency and, the New York 6 7 City Parks Department as well as the New York City 8 Department of Environmental Protection. Moving forward with our partners, the Corps has developed and maintained and applied expertise in science and 10 11 engineering to restore and enhance the resilience of 12 the New York City coastline. The primary purpose of 13 our coastal restoration projects is to reduce risk to life and property to vulnerable communities. 14 15 protection and flood risk reduction have always been 16 crucial. Projects such as these have taken on 17 greater significance with the expected climate and 18 sea level change especially now following Hurricane Sandy. Our recovery efforts that the New York 19 20 District has accomplished in New York City since Sandy includes placing millions of cubic yards of 21 sand along the coastline to repair and restore 2.2 2.3 completed coastal storm risk reduction projects that were previously constructed by the Corps of Engineers 24

and are now maintained by New York City.

projects were severely impacted by Sandy, and were 2 3 repaired at 100% federal cost using what we call 4 Flood Control and Coastal Emergencies Funding. Over seven million cubic yards of sand were placed in 5 coastal areas within the state of New York with 6 7 approximately four million of this placed within the 8 city of New York beaches. The majority of that beach replacement approximately 3.4 million cubic yards was placed along Rockaway Beach in Queens. An additional 10 11 600 cubic yards was placed on Coney Island in 12 Brooklyn. The sand placed at both Rockaway and Coney 13 Island was sufficient not only to repair damages to the project resulting from Sandy, but restored these 14 15 beaches to their original design profile. We also 16 repaired a damaged levy and tie gate at Oakwood Beach 17 on Staten Island that was also repaired with Sandy 18 SEC funds at a federal cost of approximately half a million dollars. The sand that was used to replenish 19 20 these beaches was beneficially used by dredging 21 material from the East Rockaway Inlet and Jamaica Bay 2.2 or Rockaway in the federal navigation channels at 2.3 both Rockaway and Coney Island, and used to restore these projects there are authorized design 24 25 conditions. This enabled us to save a significant

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amount of federal dollars in that we were able to clear out federal navigation channels that had shoaled in or as a result of the storm and to use that sand beneficially at the nearby beaches in order to restore them to their pre-project conditions. of our New York City Sandy recovery projects is already physically complete. We have completed construction of the Coney Island T-Groins project back in 2016, and we're happy to say it's functioning as designed. This work was not directly related to the emergency FCC work that I mentioned earlier, but is also being accomplished at 100% federal cost as we call an authorized burn (sic) constructed project that was defined as ongoing construction because it received federal construction appropriations prior to Sandy. This \$33 million projected included the construction of four T-Groins along the beaches of the Seagate Community that are now providing protection to the overall Coney Island public beach by retaining sand on the down drift beaches west of the 37th Street Terminal Groin.

I will now provide an update on the three major coastal storm risk management projects that are located in New York City that remain to be completed.

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That's the East Rockaway leading to Rockaway Inlet and Jamaica Bay Reformulation Study, the South Shore of Staten Island Coastal Storm Risk Management project, and the New York/New Jersey Harbor and Tributaries Focus Area Study. First off, the East Rockaway to Rockaway Inlet and Jamaica Bay Reformulation Study would recommend authorization of a project for coastal storm risk reduction from Gravesend Bay, Brooklyn, to Coney Island, Manhattan Beach, Sheepshead Bay, Garretson Beach and Breezy Point out to Far Rockaway. The project is expected to cost nearly \$4 billion total and a final report is expected to be prepared by March of 2018. This project will include closure gates in Coney Island Creek, Sheepshead Bay, Garretson Greek, and across Rockaway-Rockaway Inlet, and will also include shoreline-and shoreline alternatives including new groins, reinforce dunes, and beach construction thatin the footprint of the existing federal project that runs from approximately Beachline Street to a beach on 149th Street in Rockaway Beach.

Because the total cost of the project exceeds the total available funding available under the Sandy Recovery Program, the U.S. Corps of

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Engineers will seek to implement only those portions of the project that are incrementally justified from an economic standpoint and have separate utility from an environmental standpoint with the available Sandy funding. Elements that are constructed using the Public Law 113-2 or Sandy Disaster Relief

Appropriations Act Funding will be built with the 100% federal funding and the Corps anticipates up to \$400 million available for these efforts. The construction of the earliest elements of the project are currently scheduled to begin late 2019.

The next project the South Shore of Staten Island, also referred to by Staten Island locals as the East Shore Project, will run 5-1/2 miles of coastline from the foot of the Verrazano-Narrows Bridge at Fort Wads-Fort Wadsworth to Oakwood Beach. The design phase is underway. In close partnership with our non-federal sponsors the New York State Department of Environmental Conservation and the city of New York. Additional coordination is also underway with various other federal agencies including the National Park Service and the National Resources Conservation Service and the Federal

Emergency Management Agency.

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The final feasibility port of the Staten Island project and Environmental Impact Statement were formally approved in October of 2016 by the Corps of Engineers headquarters and approved by the Assistant Secretary of Army or Civil Works in December of 2016. The design phase for preparing the plans and specifications for project construction initiated in early 2017. The first major steps in the design phase during the current year include gathering data for overall contract designs, new surveys, utility mapping, geo-tech forums, hazardous material assessments, cultural resource investigations all of which are currently underway or about to start this summer. Coordination is also underway with our partners at the City of New York for the required real estate acquisitions, design layouts that are necessary for construction of the project. We'll also negotiate a project partnership agreement between the Corps of Engineers New York State and City of New York that is necessary before construction can start. This agreement is scheduled to be executed by the end of 2017 with project construction scheduled to begin in early 2019 and continuing through 2022. The total project cost is

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currently estimated to be \$615 million. Costs shared between the Corps, New York State and New York City at a 65% federal and 35% non-federal cost share meaning that the federal share is \$400 million whereas the non-federal share is approximately \$215 million, and I'm pleased to report that all of the required funding both federal and non-federal is now approved and in place.

Finally, I would like to brief on the New York/New Jersey Harbor in Tributaries Focus Areas In response to Hurricane Sandy, in January 2015 the Corps of Engineers completed the North Atlantic Coast Comprehensive Study, which identified nine focus areas between Southern Maine and Northern Virginia that were at high risk to coastal storm damage, but lacked an exiting in-depth coastal storm study or project. One of these focus areas is this New York/New Jersey Harbor and Tributaries Study, which encompasses all of New York City, the six largest cities in northern New Jersey and the tidally influenced Hudson River all the way up to the Troy Lock and Dam near Albany. This is one of the most ambitious studies that the Corps of Engineers is currently involved with.

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The New York District Corps entered into an agreement with both the states of New York and New Jersey in July of 2016 to initiate the study building off other efforts that are presently underway in and around the region. The Feasibility Study will investigate coastal storm risk management problems and solutions. Three overarching efforts will be formed, and we'll assess the studies problems, opportunities and future without project conditions. We will assess the feasibility of implementing multifaceted system wide coastal storm risk management solutions in a watershed context, and if basin wide solutions are not feasible, we will assess the feasibility of implementing site specific solutions such as a combination of structural, non-structural and/or natural or nature based features. The Project Management Plan for the study is now in the process of being finalized. This describes the scope and corresponding costs, which are--all need to be compliant with the Corps of Engineers Plan and Policy and Procedures. This Project Management Plan represents the foundation on which substance and coordination and input from stakeholders in the region and non-federal study partners would occur

1 during the planning phase. This study is currently 2 3 anticipated to require upwards of six years to 4 complete from the date we executed the agreement last July and up to \$20 million of federal and non-federal 5 funds with 50/50 cost sharing is most likely 6 7 necessary to fully complete this study. In closing, I want to stress that the Corps of Engineers has not 8 lost our sense of urgency for completing these projects as soon as possible in order to reduce the 10 11 risk to coastal communities that remain vulnerable 12 from the impact of future storm events. Although we understand the frustration of our stakeholders and 13 the public that our study process requires time due 14 15 to the extremely complex nature of these projects and 16 the environment in which they are located. We are 17 still pushing to move them forward as quickly as 18 possible because we understand that significant risks still exist. Our Sandy Recovery program continues to 19 be a priority for the Corps of Engineers as we 20 approach the fifth anniversary of the storm. 21 2.2 you again for the opportunity to testify here this 2.3 afternoon. This concludes my testimony.

CHAIRPERSON LEVINE: Okay, thank—thank

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CURTIS CRAVENS: Good afternoon. My name is Curtis Cravens. I'm the Senior Advisor for Coastal Resiliency at the Mayor's Office of Recovery and Resiliency, and I want to thank Chair Levine and Chair Treyger as well as members of the Committee on Parks and Recreation and the Committee on Recovery and Resiliency and Public Advocate James for the opportunity to discuss the city's efforts in the issues of beach erosion. I am here today with my colleagues First Deputy Mayor-Commissioner Liam Kavanagh from the Department of Parks and Recreation and I'm pleased we could be here with our federal partner, the Army Corps of Engineers, Anthony Ciorra. Thank you. ORR is pleased to participate in the hearing on beach erosion. It is a topic of importance and concern to residents, members of this committee, these committees and ORR and the Department of Parks and Recreation. I would like to say at outset that the de Blasio Administration understand residents' concerns about coastal erosion in their neighborhood. These concerns are rooted in our fundamental human need to ensure that our

neighborhoods, homes and families are safe. While

there is no easy or quick fix here, Parks and ORR

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2 share residents' sense of urgency as we work to 3 mitigate coastal erosion as part of our larger 4 efforts to secure the resiliency of our city in the face of unprecedented climate change. Erosion is a natural phenomenon that occurs as currents, tides and 6 7 waves interact with the coastline. In New York City much of this erosion occurs in areas that were once 8 wetlands or barrier islands. Dynamic and mutable coastal geographies that naturally eroded and shifted 10 11 over time. Climate change will intensify these 12 naturally occurring dynamics. We know this through our work with climate scientists and because we can 13 see the evidence in stark terms on some of our 14 15 beaches. The importance of well nourished beaches 16 was underscored by Hurricane Sandy. To complement a 17 range of other resiliency measures in just three 18 years we have placed 4.2 million cubic yards of new 19 sand on city beaches in the Rockaways and Coney 20 Islands to a level that we have not seen in decades. 21 Further, we have constructed 8.6 miles of dunes across 9.8 miles of beach in State Island and on the 2.2 2.3 Rockaway Peninsula. These are important steps, but new challenges arise as we in the Rockaways with 24

erosion hotspots in the 90s and 140s where

1 2 recreational beach access is compromised and 3 residents and property owners are more vulnerable. But we also know that erosion is one of several 4 climate change risks that the city must address to 5 ensure a more resilient city. The city is therefore 6 7 advancing a multi-layered approach to resiliency that 8 address numerous climate change risks including sea level rise, increased frequency and intensity of coastal storms, increased rainfall, more frequent 10 11 heat waves and increasing temperatures. Sand is an 12 important component of the city's resiliency 13 strategy, but sand alone will-does not ensure resiliency. The scale and breadth of climate change 14 15 related tasks require the de Blasio Administration to 16 work on multiple time horizons near, medium and long 17 term to protect against the effects of climate 18 change. Examples of long-term coastal resilience projects are tide barriers that have been studied for 19 20 Coney Island Creek, Newtown Creek and the Gowanus 21 Canal. Medium term projects that are funded and 2.2 underway, and we expect to be completed within the 2.3 next five to seven years, including the Army Corp's Levy on Staten Island, Red Hook Integrated Flood 24

protection system, Eastside Coastal Resiliency

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Project, Two Bridges Coastal Resiliency Project and the Rockaways Atlantic shore line. The city's comprehensive resiliency plan does not rely solely on these projects. We must also address near term sea level rise and erosion risks. Four specific initiatives address these risks. First, after a year long study to assess the risk of sea level rise across the city, the design phase of raised shoreline citywide, a \$123 million program to address sea level rise risk is set to begin design on the public ownership sites and that to be soon followed by sites that have a mix of public and private ownership. Highlights of this effort include \$47 million in Coney Island Creek, and \$32 million in the South Shore of Staten Island. Second, to directly mitigate risk immediately while larger more complicated projects are under-are advanced, the First Deputy Mayor directed Emergency Management with the support of ORR to implement flood protection measures to reduce coastal flood risks in the very short time. In the last year, EM and ORR worked with a team of expert coastal engineers and nearly a dozen city agencies to conduct a citywide risk analysis and

produce design interventions that can be constructed

1 a relatively quickly to mitigate coastal flooding. 2 3 Emergency Management will roll out these temporary 4 measures this summer in Hunts Point, Rockaway Park, Red Hook and Long Island City. Third, we are also 5 taking immediate steps to quantify risks from the 6 7 Rockaways because construction of the Army Corps buried seawall and tapered growing field will not 8 begin construction until 2019 or 2020, we must now quantify the extent of erosion that has occurred, and 10 11 identify realist and effect solutions that can be 12 implemented in the near term. The city will 13 undertake survey of erosion hot spots on the Rockaway Peninsula to under-analyze changes in beach profile 14 15 and quantify re-nourishment needs. This analysis will be completed within the next 90 days. Fourth, 16 17 Emergency Management, New York City Parks and ORR 18 have been working with borough President Katz over the past year to engineer sand retention measures 19 20 beneath the Rockaway Boardwalk Concession islands 21 that will mitigate some of the risks caused by 2.2 erosion and help keep sand from being pushed into 2.3 Rockaway neighborhoods. In addition, citywide, the Citywide Waterfront Inspection Program initiated in 24 2016 is capturing the impacts of erosion and 25

deterioration of city-owned waterfront infrastructure 2 3 such as bulkheads, piers and beaches. Baselined 4 surveys of Oakwood Beach and Crescent Beach in Staten Island have just been completed. In partnership with DOITT and Parks, updated LIDAR is being collected and 6 7 processed as we speak, and will help the city understand current flood, coastal flood risks by 8 capturing extremely high resolution topographic information. Finally, the Mayor's Office of 10 11 Environmental Remediation is now implementing a pilot program and a clean-for a clean soil bank for sand 12 13 and soil excavated from the development sites. To be used for resilience efforts in the city. Together, 14 15 these initiatives provide a foundation and concrete 16 and near-term steps to address the risks of beach 17 erosion. As I conclude my testimony, I would like to 18 thank the two committees for providing the 19 administration with the opportunity to discuss this 20 important issue. We understand your concern and 21 frustration. We work on these problems everyday. also know that the solutions cannot come from ORR and 2.2 2.3 Parks alone. A resilient future for New York City demands partnership and collaboration across all 24 25 actors in the city, state and federal level. We look

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forward to working in partnership with the Council as we continue to make progress on protecting our city from the risks of climate change. Thank you.

DEPUTY COMMISSIONER KAVANAGH: Thank you. Good afternoon, Chair Levine, Chair Treyger and members of the Parks and Recreation Committee and the Committee on Recovery and Resiliency and Public Advocate James. I am Liam Kavanagh, First Deputy Commissioner of the New York City Parks Department. Thank you for inviting us to testify today regarding New York City's beaches, and we welcome the opportunity to talk about some of the measures we have taken since Hurricane Sandy to protect our beaches, operate them for recreational purposes, and also to-to help shape the-the future of coastal resiliency in New York City. As Curtis said, it is a multi-faceted effort that involves agencies at the federal, state and local level. We participate with many of the initiatives that Curtis mentioned in his testimony and as-as well as well as working closely with the Army Corps of Engineers, the State Department of Environmental Conservation and local communities in shaping the future of our beaches. New York City Parks is the steward of 14 miles of

1 beaches, which are open for swimming from Memorial 2 Day Weekend through September 10th this year. 3 you to the Council. Our recreational beaches include 4 Orchard Beach in the Bronx, Coney Island, Brighton 5 and Manhattan Beaches of Brooklyn, Rockaway Beach in 6 7 Queens and in Staten Island South Midland, Wolf's Pond and Cedar Row (sic) Beaches. As our city's 8 beaches attract millions of visitors every year and serve an important recreational outlet for New York, 10 11 the care and maintenance of these beaches is a 12 priority for the Parks Department. Although beaches 13 are a dynamic natural environments and to some degree shoreline change is to be expected. Beach erosion is 14 15 a natural process that changes the coastline and redistributes sand at our beaches with each season. 16 17 There are both natural means of erosion including 18 waves, winds and storm events as well as manmade 19 influences that can accelerate the erosion cycle. 20 Since coastal erosion can have a significant impact 21 on our shorelines, it is in our best interest to 2.2 prevent, minimize and repair the impact of erosion as 2.3 it occurs. It's also important to address the-to-to look at our beaches in terms of the protection that 24

they provide to the adjoining communities.

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example, while recreational beaches protect adjacent communities and wetlands, they serve as a buffer to inland areas during coastal storms and flooding. New York City Parks and our agency partners are continually collaborating to enhance these protections and to make our coastlines even more resilient. Internally as a general practice, we periodically regrade sand that has moved or it's reunited in certain areas of the shoreline properties during the winter season particularly after coastal storms that are more likely to occur during the winter season. But it is not feasible for the Parks Department alone to undertake large scale replenishment projects of our beaches. Beach replenishment is a complicated and expensive endeavor requiring federal permits and state approval, and shoreline protection in New York City is truly a partnership. The city has had a long and successful history of coordinating with the United States Army Corps of Engineers and the New York State Department of Environmental Conservation. We're the primary regulatory entities tasked with the oversight of our shore—of our shores. These partnerships are

essential to the long-term planning, coordination and

1 sustainability of funding for projects targeted at 2 3 combatting beach erosion, developing effective beach 4 protecting-protection and continuing sand replenishment efforts. Prior to Hurricane Sandy, the 5 Army Corps completed shoreline protection projects at 6 7 Coney Island, Orchard Beach, Plumb Beach and Rockaway Beach. Following Sandy the Corp as both Anthony and 8 Curtis noted, we nourished Coney Island adding 600 cubic yards of sand and completed the needed work at 10 11 the Seagate portion of Coney Island. New York City 12 Parks responded followed Hurricane Sandy with an 13 array of both short-term and-and longer term shoreline protection and erosion control measures 14 15 including geo-textile sandbags, baffle walls, sand 16 replenishment, and retraining walls, and I will note 17 that just a few weeks ago we completed construction 18 of a new boardwalk in Rockaway running from Beach 19th Street to Beach 126th Street. It is taller 19 taking into account expected sea level rise. It is 20 21 stronger to withstand more-more better the force of 2.2 the ocean. It is designed to-as a-as part of a 2.3 multi-layered system of protection that will work in consort with the project-with the projects that the 24

Army Corps has proposed for the Atlantic shoreline to

1 provide a level of protection on Rockaway Beach that 2 3 we've never had before. However, it will not prevent 4 erosion form occurring at Rockaway Beach. Erosion with continue, the Army Corps project will 5 substantially reduce the rate of erosion, but they 6 7 specifically in their-in their plan identified the need of periodic replenishments on a four-year cycle 8 in order to maintain the width of the beach at the level to which it is designed, and that is-and this a 10 11 really crucial point for people to understand. 12 years we have experienced erosion on Rockaway Beach. 13 We did not have in place the federal authorization or appropriation to restore those beaches, and it was an 14 15 enormous challenge to get both the congressional authority and the funding needed to do the periodic 16 17 restorations that are needed to maintain the beach at 18 a design level that provides both recreational beaches and protection to the public. And I can't 19 stress enough how important it is for all of us in 20 21 New York City to keep that in mind as we plan for the 2.2 future of our shoreline that we do need ongoing 2.3 federal support to make sure that that the beaches that we're rebuilding now will last for the full 50-24

year period intended in the Army Corps' design. We

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are aware that beach was-beach erosion has been an issue in the Rockaways particularly this season, as we've experienced higher tides than normal. recently completed Rockaway Boardwalk provides significant protection against coastal flooding in the area, and it sets a global standard for resilient shoreline design while providing the Rockaway community with a beautiful functional beach front recreational amenity. The boardwalk is being integrated into a multi-level system across the protection that will exist in future events, and account for the long-term effects of climate change. Earlier this year the Army Corps continued its beach re-nourishment efforts in the area dredging the East Rockaway Inlet and placing clean sand at-on Rockaway Beach from Beach 27th Street to Beach 38th Street. This is a periodic maintenance dredging that occurs in East Rockaway Inlet. The Beach 30s are—are one of the hot spots in Rockaway, which traditionally erodes more quickly than other parts of the beach, and we were very fortunate that the Corps was able to direct that sand onto the beach at no cost to the city. was an enormous help to us, and we will continue to work with the Corps to identify opportunities to

1 address hot spots as they emerge on Rockaway and in 2 3 other places, and we will also be working with the 4 Clean Soil Bank that Curtis mentioned in his testimony to look for opportunities to bring clean 5 sand, appropriate sand onto the beach to address hot 6 7 spots as they emerge while we await for the Army 8 Corp's project to-to rebuild the shoreline in the Rockaways. On the South Shore of Staten Island, the Tottenville Shoreline Protection Project that aims to 10 11 reduce wave action and coast erosion through an investment in beach re-nourishment. A team effort 12 13 that is co-led by the Parks Department, the Mayor's Office of Recovery and Resiliency and the Gover's-14 15 Governor's Office of Storm Recovery. This work will 16 address and complement the city's own Raised 17 Shoreline Erosion Control Proposal at Tottenville. 18 The city and state are working towards an agreement 19 to jointly fund a project that addresses our shared 20 priorities. The city has committed \$14.4 million to 21 supplement the State's \$9.3 million contribution, and 2.2 New York City Parks is the lead agency managing this 2.3 project working closely with the Governor's Office, the Office of Recovery and Resiliency and the Design 24 Consultant. The Associated Offshore Living

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2 Breakwaters Project is intended to-to control the 3 enlargement over the long term. New York City Parks 4 does not have a direct role in that project, but does participate in joint briefings with the other agency 5 partners. Working along side the Mayor's Office of 6 7 Recovery and Resiliency that would address long-term resiliency issues that are facing New York City, 8 Parks will continue to work with the Corps of Engineers and the State Department of Environmental 10 11 Conservation regarding the-the-the possibility of 12 bringing more sand to replenish the beaches of Coney-13 of Rockaway an other beaches and New York City Parks will continue to administer and invest in 14 miles of 14 15 beaches working with our state, city and federal 16 partners to maintain and enhance these wonderful 17 settings for outdoor recreation and to the benefit of 18 local residents and visitors who come to our-flock to our beaches every year. Thank you for allowing us to 19 20 testify before you today, and for all of the great advocacy you do on behalf of Parks, and we'll be now 21 2.2 happy to answer any questions you may have.

CHAIRPERSON LEVINE: I want to thank you gentlemen for that very thorough presentation. I have a couple of quick questions before we pass it

24 ANTHONY CIORRA: Based on the analysis
25 we've done to date, we are very confident that they

phases-phases don't produce-prove to be fruitful?

even go forward with the whole project if the early

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Atlantic shorefront component of the project is economically justified.

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CHAIRPERSON LEVINE: So, the message to the people who live along that waterfront, and there are people who live there, it's a residential neighborhood right up to the water as I'm sure you know, is that-that while the money is not in place yet, you are confident that the Corps will proceed with the project as funds become available?

ANTHONY CIORRA: Yes.

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CHAIRPERSON LEVINE: And what is the

timeline for that?

ANTHONY CIORRA: The current schedule is to complete the report by 2018. Then it goes through higher headquarters approval process. Ultimately, it has to go to the Secretary in the Army's Office, the Assistant Secretary in the Army for Civil Works need to approve the recommended plan, and under the Sandy legislation Bill 115-2, we do not have to go back to Congress for authorization for those features of the project that are being constructed with the appropriate Sandy funding. So once the Secretary and the Army approves, we anticipate that be in early 2019, we immediately proceed onto the detailed

engineering design work, which we also have money for at full federal expense, and we anticipate that by the end of 2019, subject to us signing the Project Partnership Agreement with the State of New York, and—and the State in turn signing an agreement with the City of New York. We anticipate that we'll be in a position to award the first construction contract.

CHAIRPERSON LEVINE: Okay. So, the beach is already largely eroded. As I mentioned, at high tide at least in Belle Harbor the waves hit the Boardwalk. So, when I'm hearing from you is that there will be no remediation to that for what—if design will be conducted in 2019, the construction begins thereafter. So, when—when will this each be restored to its rightful condition?

ANTHONY CIORRA: Well, the full project will take a couple of years to complete. So, it could be—by the time we're finished construction, we're probably closer to '20, '21, and '23, too.

CHAIRPERSON LEVINE: Okay so-

ANTHONY CIORRA: [interposing] This is a large project.

2	ANTHONY CIORRA: It's not really that we
3	prioritize one project over the other. There were-
4	there was five-over \$5 billion in Sandy recovery
5	funds that were provided under the Disaster Relief
6	package. Really, it had to do with which projects
7	were closer to construction. So, for instance, we
8	have a large \$200 million project in the city of Long
9	Beach in Nassau County. That project was authorized
10	for construction by Congress in 1996, and was
11	basically on the shelf for a long time.

CHAIRPERSON LEVINE: [interposing] So—so the time—you said \$5 billion total allocated for the region?

ANTHONY CIORRA: For the entire Northeast.

CHAIRPERSON LEVINE: And how much of that is allocated to New York City?

ANTHONY CIORRA: Well, Rockaway would beprobably \$1.2 or \$1.3 billion total.

CHAIRPERSON LEVINE: Okay. So, a quarter roughly.

ANTHONY CIORRA: Yeah.

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CHAIRPERSON LEVINE: It seems like we representing more than a quarter of the people affected by this weather incident.

ANTHONY CIORRA: I understand that. but what really-what we're constrained to existing projects. What-what the Sandy Recovery Bill for the Corps of Engineers unlike other agencies only funded ongoing projects. The New York/New Jersey Harbor and Tributary Study that I mentioned at the completion of my testimony, that is a study that came out of Hurricane Sandy. That was not an ongoing effort--

CHAIRPERSON LEVINE: [interposing] Right.

ANTHONY CIORRA: --prior to the storm event, and the funding that's being used for that study and ultimately for a project that's constructed will not be Sandy Recovery funds. That would go through our normal federal appropriations process. So, the Sandy Recovery funds that we're using for the projects that were exiting prior to Sandy, it-it didn't go by population. It really, you know, Long Island might have had six projects and New York City might have only had three and, you know, that's how it was determined.

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CHAIRPERSON LEVINE: I'm going to pass it off to my co-chair, but it seems to me that when New York City was dead center of the target of the storm, you look at the scale of the damage, the people affected, the people who live nearby, the number of people who use these beaches, that if we're only getting a quarter of the money, that doesn't seem fair to me. So, I think we'd like to pursue that question. I'm going to pass it off to my chair, co-chair.

CHAIRPERSON TREYGER: Thank you, Chair

Levine and—and I would just go a step further to say
that even within the City of New York no one could
claim that there's pure equity about how we're
spending resiliency dollars either, and—and I'm going
to go into this issue now. I—I—in your testimony and
with me again on this Mr. Ciorra, I appreciate you
being here again, but—but again I'm going to raise
some issues. I raised a few last time, and I—and I
just look forward to hearing your—your thoughts on
this. Again, we—we hear that in Southern Brooklyn,
in Coney Island we got 600,000 cubic yards of—of sand
that was lost after Super Storm Sandy. When is the

COMMITTEE ON RECOVERY AND RESILIENCY JOINTLY WITH COMMITTEE ON PARKS AND RECREATION 42 1 last time you've been down to Brighton Beach or Coney 2 3 Island? 4 ANTHONY CIORRA: Personally? CHAIRPERSON TREYGER: ANTHONY CIORRA: About six months ago. 6 7 CHAIRPERSON TREYGER: Six months ago 8 ANTHONY CIORRA: Yeah. 9 CHAIRPERSON TREYGER: Have you notice the erosion at the beaches? 10 11 ANTHONY CIORRA: When I was there six 12 months ago, I didn't notice any significant erosion. 13 No, sir. 14 CHAIRPERSON TREYGER: Has the Parks 15 Department noticed erosion at our beaches? 16 DEPUTY COMMISSIONER KAVANAGH: We--we 17 have not seen significant erosion at Coney Island or 18 Brighton Beach. 19 Right, well, CHAIRPERSON TREYGER: 20 Commissioner, we have residents that live there all 21 year round. I obviously live in the community. 2.2 There is a lot of erosion happening as well, and—and 2.3 again I credit also my friends from the Rockaways who have shared their photographs of what they're dealing 24

with in their community, too. There is a lot of

Sandy?

originally Southern Brooklyn was not even included in 2 3 the study, and that includes my colleague Councilman 4 Maisel from Canarsie. They didn't include Canarsie either. They didn't include Sheepshead Bay. didn't include Brighton Beach. They didn't include 6 Garretson Beach. They didn't include Coney Island, 7 Seagate, Gravesend Bay, Dyker Bay Ridge. It did not 8 include these neighborhoods. So, we-so when you mentioned that you had studies on the shelf from '96 10 11 and towns in Long Island, we weren't even on the 12 shelf. We were not even a piece of furniture 13 anywhere near a shelf. We were completely forgotten about. That's why we call ourselves the outer-outer 14 15 forgotten borough, but fortunately we through 16 advocacy and some partnerships we were included as 17 part of the study. So, we're-we're at step one when 18 others are already at-at advanced steps. Now, what I'm not hearing from anybody so far is what are the 19 short-term measures. We know that first of all you 20 only have a fraction of what's needed to implement 21 2.2 what these studies will-will ultimately recommend, 2.3 but what are the-what are we doing in the short-term? Because we keep hearing well, we'll try to see if we 24 25 could patch up some sand, but the sand keeps eroding

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and the and keeps blowing away. I haven't heard anyone talk about beach rests or the types of measures to retain sand from leaving. Has there been any discussion on that?

DEPUTY COMMISSIONER KAVANAGH: I'm sorry,
Council Member, I missed part of what you said.

the short-term measures in between waiting fro these funds, which I'm going to get to also, what is the city's plan to get federal funding because we only have a fraction of what's needed, and we haven't heard any of our efforts to get funding from Congress, but what are the short term measures? What are the short-term goals to bolster our resiliency?

short-term goal in Coney Island specifically is to retain the beach berm that we have in place now, and in fairness to the Army Corps, they did rebuild the Coney Island Beach in the mid-90s. They raised it to the level of 13 feet, which completely changed the—the sort of complexion of the Boardwalk and the facilities that support it, and the city made a—a very large investment to—to keep the boardwalk and the beach functioning in the way it traditionally

has. The berm that the Army Corps built in the mid-		
90s has—has—has performed remarkably well as a		
barrier. Yes, Super Storm Sandy overtopped it. No		
question about it. I don't know what could have been		
done to prevent a storm of the magnitude from-from		
overtopping a beach like Coney Island, but the Corps		
restored the beach very quickly after the-after		
storm. In our estimation, the beach is stable. We		
do periodic measurements and we have not seen		
significant loss of beach since then. We completely		
agree that there needs to be a long-term solution		
for-that includes Coney Island, Brighton Beach, and		
all those other communities that you mentioned, and		
we were very glad when the Corps included them in		
their Reformulation Study for the entire coastline of		
Brooklyn and Queens. However, as I said earlier, it		
is critically important that Congress authorizes the		
work that the Corps need to do, and appropriates		
money to support the projects that are going to be		
needed to provide long-term protection to those		
communities.		

CHAIRPERSON TREYGER: But, Commissioner, if you follow my logic--

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CHAIRPERSON TREYGER: --if in the '90s they replenished the beaches in Southern Brooklyn and

4 Coney Island to 13 feet elevation, and I guess there

5 were studies saying that that would be sufficient.

6 Obviously, you're saying the studies were wrong.

DEPUTY COMMISSIONER KAVANAGH: I-I think for the, you know, Super Storm Sandy was an event the city has never experienced, and we hope will never experience again, but over a 20-year period the beach did stand up to the types of coastal storms that we typically experience in New York including some that were fairly significant. There was one in 2010 that did a tremendous amount of damage at Plumb Beach just to the east of-of Coney Island and Brighton Beach, and fortunately the Corps was able to develop a project fairly quickly to restore that beach and it was restored just in time for Super Storm Sandy and, in fact, the--the Belle Parkway we think was protected because of the work that the Corps did there. We don't disagree that we need to look at those beaches and include them in a comprehensive plan. Right, now the beach is slated--

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CHAIRPERSON TREYGER: I say this

Commissioner, they were not included originally in the comprehensive plan--

DEPUTY COMMISSIONER KAVANAGH:

[interposing] Yes, yes, I agree.

CHAIRPERSON TREYGER: -- and that's wrong and we are so behind. As other areas are on the verge of breaking ground or having the money in place, and I don't begrudge my colleagues. Whether you're in Staten Island or-or parts of Queens where you have money in place already, I don't begrudge them. Good for them. They deserve it, but my community is very much left behind. We are waiting from-we're at square one and others are already at-at third base. That's what really pisses me off, and so yes, I'm glad that we're now a part of the study, but we just hear study and study and study, and my community is facing another, as others here, a significant hurricane season, which we're hearing a projection of increased storm activity, and what do we tell them? Help is on the way when? We don't even have the money in place to help them right now, and I'm not hearing any short-term planning or shortterm goals in between. I'm not hearing any of that.

know that they want to do something there, but

there's not 100% clarity in what exactly will be there. So, when you say a final report, I just want to make sure the public still has a chance to weigh in on what exactly will be happening.

ANTHONY CIORRA: Yes, we're working on some of those details now as we approach the final report, but yeah, the—the draft plan did include a tidal gate across Coney Island Creek. That was in the plan.

Quick questions and I'll turn it over to my colleagues. I know that they've been very patient.

With regards to what are our efforts, and I—and I mean this that, you know, Sandy was an unprecedented storm, and I fully understand that, but it's going to require an unprecedented amount of cooperation between local, state and federal government to respond t it, and to prepare for future storms. What are our efforts now underway in Congress with our, you know, Congress members, our senators to secure funding to actualize these studies, because obviously we don't have enough money? Can anyone speak to that?

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ANTHONY CIORRA: Well, speaking for the
Corps of Engineers, until we complete the report and
submit it to Congress, they cannot take action
because right now we don't have the authorization for
construction. That's the first step. We need the
authorization from Congress and then followed by the
federal appropriations and then, of course, the
remainder of the projects being that they will not be
constructed under the Sandy Recovery Program, most
likely will require the normal cautionary, which is
65% federal and 35% non-federal.

CHAIRPERSON TREYGER: Right, but you said you have an estimate of \$4 billion to complete thethis entire East Rockaway to Jamaica Bay, right?

ANTHONY CIORRA: That will be the entire plan, yes sir.

CHAIRPERSON TREYGER: The entire plan, right.

ANTHONY CIORRA: Yes.

CHAIRPERSON TREYGER: So, when we speak to our senators and our congress members we want to ask them to help secure funding to actualize the plan?

ANTHONY CIORRA: Yes.

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CHAIRPERSON TREYGER: So, we are short based on your math, what—what you're telling us about

4 \$3.6 billion, is that correct?

ANTHONY CIORRA: Approximately, yes.

need to know. You know, that's when we go to them and say we need—we need help, but I want to hear from the highest levels of government from City Hall and from the Parks Department what are we doing? Are working with our federal partners? Are we—is this—is this a priority because there's an infrastructure package that's taking shape in Congress right now. Are we working to get it—a piece of it for—for these projects?

CURTIS CRAVENS: Yes, we are in very close contact with the delegation. We are—we are in regular communication on short-term. We've been very concerned with all respect to the district who we work closely with that the—on the Atlantic side has not separated out from the Jamaica Bayside, and to—to really advocate strongly that the Atlantic side proceed without being delayed by the study of a tide barrier. But also on the larger unfunded \$3.6 billion that you referenced, yes we are in constant

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communication with the delegation to look for opportunities on infrastructure funding for which we can position the city for coastal resiliency projects.

CHAIRPERSON TREYGER: And just so you're

aware, I plan to be meeting with City Hall, and I appreciate their participation with Congress members Hakeem Jeffries and Senator Schumer's Office and also Council Member Dan Donovan as well to discuss the much needed funding. The last question I have and I'll turn it over to my colleagues is I also have not heard about discussions with FEMA to make sure that these projects will at—at least align with their flood insurance mitigation standards because obviously we want to protect life and property. There's no doubt about that, but we're also very much aware of FEMA's reconfiguration of their flood zone maps of New York City, which I do appreciate the city took a real-Dan Zirilli deserves a lot of credit on making sure that FEMA get-trying to get it right, but that's still a looming issue. Thousands of, if not more, will be impacted by these new flood maps, and these projects have the potential to mitigate flood insurance costs for many New Yorkers. So, is there

discussions to make sure that they are aligning with
the FEMA standards to mitigate and offset flood

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CURTIS CRAVENS: So, before answering that, I just want to say that the meeting I believe that we're having that you're convening on June 28th I exactly the kind of leadership and partnership that brings the city and the state and our representatives to together. So, I appreciate that, and that's exactly what we need at this moment of time is that consistent advocacy and-and pressure. So, thank you for that. Regarding FEMA, before turning it over to Anthony, we absolutely see coordination between the Army Corps project on Staten Island and FEMA to impute for the flood plain, and insurance purposes. FEMA doesn't like to hear us refer to it for insurance benefit, but we know that that's a practical outcome of it. We are in conversations now actively regarding that project now that it's going into design, and that's the perfect time to do it. We're also doing it on East Side coastal Resiliency with HUD and FEMA so that as projects get to the point where we have with the design at a level of design and planning that it's ready to do that

coordination for the certification that is-that is

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absolutely underway. Anthony, do you have comments?

ANTHONY CIORRA: Right, and Curtis is

exactly right that we—we do engage with FEMA at the appropriate point in the process when we have an approved plan and have some more details in terms of the design to have those discussions, and we would continue those same discussions or initiate those same discussions con—con—discussions for the Rockaway project when we get to that point, the Rockaway Jamaica Bay project.

CHAIRPERSON TREYGER: Thank you very much. I'll turn it over to my colleagues now.

CHAIRPERSON LEVINE: Okay, we're going to hear from Council Member Ulrich whose district covers many of the affected beaches.

COUNCIL MEMBER ULRICH: Thank you, Mr.

Chairman, Mark and Mark, both committees for holding this hearing. I represent the district that was perhaps the most severely affected by Hurricane

Sandy, and the Coastal erosion that has happened since. I have not heard from anybody at City Hall for the past year. I have not heard from anybody in the Mayor's Office. I have not heard from anybody

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other than my friends in the Parks Department like Deputy Commissioner Kavanagh and-and also Dottie Lewandowski about what the Mayor's Office plans to do to come back. The fact that my district is now more at risk today than they were prior to Hurricane Sandy and so, I would like to ask a few questions, but I also want to send a message to City Hall, and I want you to take this back to your higher ups and the people that can do something about this. When Mayor de Blasio comes to Queens to bring City Hall to your borough because he's done it in the Bronx and Staten Island, he better be bringing a few cubic yards of sand with him, and better be reforming Build-it-Back because when he comes to Rockaway in my district he will not be welcome in that part of Queens County, and he still has to be a Mayor for my constituents whether or not they like him, they vote for him, they agree with him, the ocean is eating up the sand and the beach in my district, and the homeowners many of whom are still not in their homes are at more risk today than they were the day before Hurricane Sandy. And so, please relay that message. I would like a phone call from the Deputy Mayor or from the Mayor himself. I'll be very nice to him. I promise, but I

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have not heard a damn thing from anybody on the other 2 3 side of City Hall about what they are going to do to speed up sand replenishment, bringing rock jetties or 4 groins or some long-term measure to curtail the 5 erosion that's happening out there. I believe that 6 7 they are allowing my district to disappear. I think that there is a map of the city in the Mayor's 8 Office, and the legend for the map is over the Rockaways. It's almost like we don't exist, and so 10 11 we hear about studies and funding and hearings, and 12 all of these testimonies that we hear. What are we 13 doing? We have this 90-day report. Is it going to be made available to t he public? Are the elected 14 15 officials going to be briefed? By the way, it's not 16 for me to speak for my fellow elected officials in 17 part of Queens, but when I talk to them and I talk to 18 them on a very regular basis, my assembly person, my 19 state senator. They have not heard anything from the Mayor's Office. So, I'm glad that the Mayor's Office 20 came here today to announce that, you know, they're 21 2.2 going to be working with the Parks Department and the 2.3 Army Corps, and going to come up with short-term, long-term a 90-day study. This is all news to me. 24

So, I want to know what we're going to do after those

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hope he has a good announcement. I'll praise him.

I'll thank him. I'm not going to support him. I'm

not going voting for the guy, but I will give credit

when credit is due. Right, now if I had the grade

the city's response to the beach erosion and

Hurricane Sandy recovery: F, zero, terrible job.

[applause] No, that's not for applause. It's—it just happens to be. Let me ask a few questions. This 90-day study or assess—

Absolutely disgraceful. That is my assessment and I

don't need 90 days to do a study to give you that.

DEPUTY COMMISSIONER KAVANAGH: Survey.

COUNCIL MEMBER ULRICH: Survey. Thank you, survey. What takes you 90 days I could do in 90 minutes. I could take you to Rockaway right now. It

CURTIS CRAVENS: No.

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COUNCIL MEMBER ULRICH: Alright, well, you're going to hire a consultant. I'd like to find out who that consultant is, but that's another story. You're going to hire a consultant to do a 90-day survey. When do we anticipate that 90-day starting, or that 90-day period? When-how long will it take you to hire the consultant?

CURTIS CRAVENS: We believe we can complete the surveying, and then the analysis of the surveyed data in 90 days.

COUNCIL MEMBER ULRICH: [interposing]
Okay, but that is--

CURTIS CRAVENS: That is our commitment.

COUNCIL MEMBER ULRICH: But give me a date. Tell me September 1st the survey starts,

August 1st, October 1st. Tell me when I can expect the survey to start and when can I expect it to finish. That's what I would like to know.

CURTIS CRAVENS: I can tell you we will completed it in 90 days. I cannot tell you the day we will be on the beach with the surveyors.

COUNCIL MEMBER ULRICH: Okay, can—can you tell me the month when you're going to start the survey? Can you tell me the—the—the season of the

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DEPUTY COMMISSIONER KAVANAGH: It's important that we quantify the amount that has been lost since the beach was restored by the Army Corps. We have the as-built drawings. We've just completed another analysis, a Lidar analysis, as Curtis mentioned. That all goes into assessing how much has been lost and where we need to invest whatever we can find to restore those—those beaches.

COUNCIL MEMBER ULRICH: And—and thank
you, Commissioner, and thank God for people like you,
like Dottie like Portia because if it wasn't for them
I wouldn't know anything. Thank God I come to these
hearings and actually read the reports because I
wouldn't know about work the city wants to do in my
district otherwise. So, when we have this—this
survey completed— Thank you for that answer. It's
honest and I appreciate it. When it is completed
after 90 days, are they going to proposed
recommendations for action? Are they going to
identify sources of funding to do those things? What
do we hope to get? What is our hypothesis for this
survey? What are we trying to study, and what do we
want to get from this study?

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DEPUTY COMMISSIONER KAVANAGH: We—we are going to be studying the loss of sand in specific areas, how much is lost and how much is needed to restore it and prevent more erosion into the dunes that were created by the Army Corps after the storm.

COUNCIL MEMBER ULRICH: Okay.

DEPUTY COMMISSIONER KAVANAGH: And we—we will prioritize areas based on the results of—of that analysis, and as I said, we are going to be looking for opportunities to bring more sand to the beach.

COUNCIL MEMBER ULRICH: Great.

the—the Clean Soil Bank, which we—which we know we'll be generating sand whether it is beach quality, and—and—and how—how—how difficult it is to get there.

That's one of the potential sources. If other dredges occur within the harbor that can be directed to the beaches in Rockaway, we'll be doing that as well. We've done it before with the Army Corps on several occasions. It's been very—very—very helpful to us to have that, but I can't specifically say we have a dredge lined up for this period to—to deliver that much sand to the beach—

COUNCIL MEMBER ULRICH:

Right.

COMMITTEE ON RECOVERY AND RESILIENCY JOINTLY WITH COMMITTEE ON PARKS AND RECREATION 67 1 microphone back to the Chairs. I want to thank you 2 3 for your indulgence. This is a very important 4 hearing. CHAIRPERSON LEVINE: Yes. COUNCIL MEMBER ULRICH: I know it 6 7 doesn't-this issue doesn't affect everyday district in the city, but it absolutely affects mine and I 8 know Council Member Richards' district is also severely affected by beach erosion, and I'm very 10 11 passionate because I'm here to fight for my 12 constituents like everybody else, and I don't 13 appreciate it when I'm ignored or when the Mayor's 14 Office comes to City Council and tells us that 15 they've got a great grand master plan, and they don't keep anybody in the loop. Very disrespectful, 16 17 unappreciated. 18 CURTIS CRAVENS: We take total exception 19 to that. We've in the Queens and in your district 20 constantly. 21 COUNCIL MEMBER ULRICH: Really? 2.2 CURTIS CRAVENS: We were at CB14--23 COUNCIL MEMBER ULRICH: Where?

forward with this Resiliency Program because

know, there are some-some very serious erosion issues

2 in Rockaway. However, the entire beach is not 3 eroding substantially. When the Corps rebuilt the 4 beach after Hurricane Sandy, they established a-an elevation on the beach through a series of dunes that was almost twice as high as the traditional elevation 6 7 of the beach. That dune system is largely in tact throughout most of Rockaway except in some very 8 specific areas where we see very serious erosion and we-we're out there everyday. We see it ourselves. 10 11 We talk to the people on the beach. We know the 12 concerns around that area. We want to focus on those 13 areas, develop some short-term mitigation strategies for those specific places because we do expect that 14 15 he project that the Army Corps will build, and we're very confident that's toing to happen will in the 16 17 long term provide a level of protection for Rockaway 18 Beach that we've never seen before.

PUBLIC ADVOCATE JAMES: And can you justjust define or explain what those mitigation efforts are exactly?

DEPUTY COMMISSIONER KAVANAGH: Primarily the mitigation efforts are going to be bringing more sand to specific areas to try to rebuild the profile

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beach.

my office to find out where Southern Brooklyn stands

1	COMMITTEE ON RECOVERY AND RESILIENCY JOINTLY WITH COMMITTEE ON PARKS AND RECREATION 75
2	in all this equation because we were completely left
3	behind as I noted in my earlier testimony. So, I
4	just finding out if making sure that this is-we're o
5	the radar, but the funding that we're fighting for
6	includes the \$4 billion for the entire Jamaica Bay
7	Study. So it's beyond Southern Brooklyn and it
8	extends through a big portion of the state of New
9	York.
10	PUBLIC ADVOCATE JAMES: Thank you,
11	Council Member.
12	CHAIRPERSON TREYGER: Sure.
13	CURTIS CRAVENS: Public Advocate-
14	CHAIRPERSON TREYGER: [interposing] And
15	your officer is certainly
16	CURTIS CRAVENS: [interposing] I'm sorry
17	CHAIRPERSON TREYGER:welcome to
18	attend.
19	PUBLIC ADVOCATE JAMES: Thank you.
20	CURTIS CRAVENS: If I could amplify.
21	PUBLIC ADVOCATE JAMES: Yes.
22	CURTIS CRAVENS: I believe also we have
23	been in touch with the delegation, and Anthony,
24	perhaps you can confirm this, but the Delegation
25	specifically has requested a meeting with the Army

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CHAIRPERSON LEVINE: Thank you, Madam
Public Advocate and now we'll go to Council Member
Cohen flowed by Council Member Richards.

COUNCIL MEMBER COHEN: Thank you, Chairs.

As the Council Member representing the highest

natural point in the city of New York, I will defer

to Council Member Richards, and then we'll come back

to me.

COUNCIL MEMBER RICHARDS: [laughter] How kind of you.

CHAIRPERSON LEVINE: Generous of you.

always has a taskforce for the Rockaways. We love you out in Rockaway. Thank you so much, Chairs, for holding this hearing. Just a few questions and I want to thank the Administration because you have at least with my office done a layman's job in really communication with us, and we—we truly appreciate it. We know there's still a lot more work that needs to be done to make sure. Especially I think in light of the reports that we've seen over the last few weeks that it's going to be a very busy hurricane season around the world, and in one sense it's even more imperative that this conversation is happening now,

to this today, some leftover boardwalk money as well,

done, and so we do have an underrun of \$120 million

amenity and resiliency?

ANTHONY CIORRA: Council Member, I think one of your questions was directed to the Army Corps so in regards—

are related to amenities.

COUNCIL MEMBER RICHARDS: [interposing]
Sorry. I know how—(sic)

ANTHONY CIORRA: [interposing] The timing. So, we will be working closely obviously with our partners at the state and city on the sites that we're going to be considering around the bay, and again, that's not just along the Rockaway Peninsula Bay Shore, but as well as the Mainland of Queen and Brooklyn as well as Howard Beach, Canarsie, those communities. But the timeline is the same as the—the remainder of—

COUNCIL MEMBER RICHARDS: [interposing]
So, 2019?

ANTHONY CIORRA: 2019, yes. The report would be finalized in '18. We'd go through our approval process by Early 2019, and then you'd move into detail design.

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COUNCIL MEMBER RICHARDS: So, when will see shoves in the ground for this.

ANTHONY CIORRA: [interposing] What--what we haven't determined yet, sir, is where we're going to start. Obviously, we want to be underway as soon as possible, but it is possible depending on, you know, permits, approvals or real estate acquisition that we could start at our Bayside site or, you know, may-maybe the design is simpler there. We're going to try to start as soon as possible, and-and it's not going to be sequential. We're going to-we're going to work concurrently because he oceanfront project should not be impacted by what we're doing on the Bayside. Different type of work, different contractors. So, maybe it could be late '19 early 2020 that we're starting both on the Bayside and the ocean front, or maybe it is that we're starting on the Bayside first. We haven't gotten to those discussions, to those details yet, but we will in the next year or so with the report and the timing.

COUNCIL MEMBER RICHARDS: [interposing]
Okay, and I'll just put this out as a close out
because we've obviously had a lot of conversation
around this.

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ANTHONY CIORRA: [interposing] But understand, though, sir, that you approve—it's one approval for the overall—

COUNCIL MEMBER RICHARDS: [interposing] For the overall project. Okay. So, just in terms of and I represent 70% of the Rockaways, and I truly do believe that all of the Rockaways should be serviced in an equitable fashion, and want to make sure that, you know, I put out there, you know, you know, the Rockaways is a very long stretch a lot of milesmileage-mile lanes of beach and bay. And, I just want to make sure that I'm clear with the Army Corps that we are truly looking at—and—and I don't know if there's way to work through this, but to make sure that, you know protective features are being distributed in timelines for both sides in an equitable fashion because, you know, in all honesty I represent 70% of the Rockaways. You know, 75% of the residents through my area are low-are-are, you know, middle-income, low-income New Yorkers who really do not have the means in the event of a storm and none of us do. And so I don't-I want to get past that, but I just want to make sure that I put it on the record that, you know, we're going to be looking

Thank you, sir.

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CHAIRPERSON LEVINE: Alright, now Council Member Cohen.

COUNCIL MEMBER COHEN: Thank you, Chairs. From the time I was an infant until I went to college I lived in the Rockaways. So, I-I do have a-and I go out there regularly now. So, I-I care about the community greatly, and I-I'm a little concerned and while I can't say it with the same flare that my colleague who represents the area said it. It sounds like the Parks Department is acknowledging that there are pocks of serious erosion, which I-which I-I've seen, and that we don't-and whereas we're not entering hurricane season, there's really no plan to do anything in the interim for the next, at last the next six months and at the rate the city operates, it may be as long as a year. There's noting to do in the interim to try to protect those-those areas where there is really significant erosion where, you know, you built dunes and now the tide is up to the dunes. So, all that work is going to be lost if we don't do something in the interim to protect them. So, I'm curious, Liam, if I'm understanding your testimony correctly.

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Member, I—I—I can't commit to taking any interim measures right now that will restore the beach in the most severely eroded area, but I do need to point out that the beach is very different than it was prior to Hurricane Sandy. The elevated dune that was created after the storm thanks to the Army Corps' work is a substantial layer of protection that is largely intact. It is protected except for the access points by snow fencing. It's planted with dune grass. It is—

COUNCIL MEMBER COHEN: [interposing]

Commissioner, the—the fencing is completely gone as far as I could tell. I'm—I'm not sure that the Parks Department is making, you know—it's got to maintain these—maintain the work that's been done. Otherwise, and like I said, I witnessed where the—the—the tide is right up to the—to the base of the dunes.

DEPUTY COMMISSIONER KAVANAGH: And, but in addition in the most severely eroded area we do have the new boardwalk, which has a substantial amount of sand underneath it and has a sand retaining wall behind it, which wasn't there before the storm. So, while I absolutely understand the concern about

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the erosion that people are seeing, we are in better shape that we were prior to Hurricane Sandy.

COUNCIL MEMBER COHEN: I-I-I-I would readily concede that. I think that the work-that the boardwalk is incredible and no one has mentioned it but the-the-the barrier wall between the beach and the neighborhood is—is incredibly impressive, and I've observed that the gates are being used, and so I don't think that anybody can take that away from you. But there are some people who are going to be-you know, who are, you know, in the-as you pointed out in the 130s and the 140s where there really is significant erosion. I mean those people are very vulnerable to flooding again from I think a storm significantly less than Sandy just because there's so little beach. And like I said, I see the dune eroding, you know, right before my eyes, and-and the Parks Department has played a significant amount to upgrade these dunes, but I do think that there is a requirement in maintenance of the dunes. I did point that out. I don't believe there is any fencing left at least from the boardwalk to 140th. I don't think there's a stick of things left protecting those dunes any more, and the beaches are so heavily used if

protection plan is developed, finalized and funded.

No flood protection—system no matter how carefully 2 3 designed is infallible, but any flood protection is 4 better than no flood protection at all. The beaches of Southern Brooklyn are the only protection against 5 flooding that we currently have, and they are being 6 neglected to the point that even a category 1 7 hurricane will flood local streets. A small sand 8 replenishment that was done after has been lost to erosion. Jetties that were buried in a major beach 10 11 replenishment project in the '90s are now exposed. 12 High tides and a full moon or new moon used to end 13 about halfway up the jetties. Now, they frequently extend 75 feet or more past them. One of the 14 15 Nor'easters we had this past winter brought the ocean 16 more than halfway up the beach. With all of the 17 erosion that we have had these past few years, it 18 won't take much longer for a storm surge to go over 19 the boardwalk and flood our communities again. 20 difficult to stop shoreline erosion, but in 21 Brooklyn's Brighton Beach and Coney Island, beaches 2.2 are eroding even on the street facing borders. 2.3 unbelievable that this is allowed to continue every year. And every year the wind blows tons of sand off 24 the beach and onto the boardwalk. 25 The boardwalk sand

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2 piles can become several inches high before the wind 3 scatters the sand onto local streets or the rain 4 washes the sand into storm drains. As a result, the 5 beach profile becomes lower every year, and the likelihood that a storm surge will come over the 6 7 beach and local streets increases. Again, the only 8 thing we have is the beach. The most infur-and this is the last part I'll read. The most infuriating things is that it won't take rocket science to keep 10 11 sand from eroding over the boardwalk. Vegetation, 12 beach grass will not only minimize sand migration 13 onto the boardwalk, but it would also provide attenuation of storm surge waves especially if there 14 15 were dunes. Vegetated sand dunes are a proven a 16 easily constructed cost-effective way to provide some 17 shoreline protection. New Jersey towns that had high 18 sand dunes with vegetation survived Sandy relatively 19 unscathed. Communities without them were 20 obliterates, but there are no vegetative sand dunes 21 on Brooklyn's public beaches. Every year some beach 2.2 grass begins to grow, but instead of allowing it to 2.3 grow and hold the sand in placed the Parks Department digs it right up. No distinction is made between 24

beach grass and weeds, and so they go onto-go on

about the importance of—of—of this beach grass. Are there efforts underway because we keep hearing about dunes that have not been maintained? The wind blows them away. We—we also saw in cases in Staten Island where some folks decided to take their four—wheelers and play games on them. Are we looking at beach grass in—in New York City for beaches as a short-term measure before these studies and funds come in place?

DEPUTY COMMISSIONER KAVANAGH: Yes, we have used beach grass extensively on Staten Island beaches on the Rockaway beaches, and we could look at adding beach grass to Coney Island and Brighton Beach.

CHAIRPERSON TREYGER: Right and so do you agree that if beach grass is planted in addition and coupled with these dunes or berms that they minimize—

I'm not saying they perfectly prevents erosion or prevents full disappearance of the sand, but does it minimize to some extent the impacts of the wind blowing the sand away.

DEPUTY COMMISSIONER KAVANAGH: It does stabilize the sand. It doesn't prevent it, of course, you know, blowing and things like that, but

that we operate.

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CHAIRPERSON TREYGER: Even in the case of the Rockaways I don't-I'm not sure if they would-again, I-I-forgive me. I have not been there in a while and I have to pay a visit there, but it-yes, hopefully I have my-

COUNCIL MEMBER RICHARDS: [interposing]

[off mic] You got it there. (sic) [laughter]

CHAIRPERSON TREYGER: --the best beach

COUNCIL MEMBER RICHARDS: [interposing]
[off mic] East of Coney Island.

Island yes. [laughter, background comments] But just as a—as a short-term measure before everything else takes shape, and hopefully as the Public Advocate rightly points out, we might not get this federal money, which would be devastating, devastating. And I have—I have—I have a message for our federal partners beyond our delegation: Whether you live in the Rockaways or Coney Island or whether you live in New Orleans or Miami, we're—we're all facing the same rising threat.

DEPUTY COMMISSIONER KAVANAGH: Uh-huh.

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CHAIRPERSON TREYGER: So, this should not be a partisan issue. This should not be a Democrat or Republican issue. We're all Americans facing the same enormous growing threat, and so I really hope that Congress does not politicize this very urgent issue that affects blue states and red states, all states. But why isn't it being considered as just a short-term measure if you're saying it's not expensive and it is available.

DEPUTY COMMISSIONER KAVANAGH: I—I think it has to do with the—the traditional nature of the beach at Coney Island. It has intense use that goes from the boardwalk right down to the shoreline, and one of the things you have to do to make the grass be effective is to prevent people from walking on it, through it or having any contact with it. I—I—there are probably some areas that in Coney Island where we could install the grass and expect it to survive, but there are other areas where I think it could be effective, and we will definitely look at that and let you know what our plans are.

CHAIRPERSON TREYGER: And that—that applies to the Rockaways as well?

DEPUTY COMMISSIONER KAVANAGH: Yes.

obviously see now in your packet that I gave out the

96 1 erosion, and it's a topic of discussion. 2 It's pretty 3 evident that storm lines from the Beach 30s down to 4 the 80s in the Rockaway Peninsula was very level. The sand after the Army Corps replenishment was along this line. This is how much we've lost and this is 6 7 just kind of a before and after image of one beach 92nd Street, the beach I live on, and this an after 8 picture of how much sand loss we have, and this is where thousands and thousands of people just like 10 11 Coney Island, Mark, sit on the beach and are stuck 12 blanket to blanket really not having a great time. 13 The big issue right now is obviously they planted a dune. The dune is failing. You can see it on the 14 15 third page or fourth page. To this gentleman Cohen or 16 Councilmember Cohen you've pointed out about the 17 failing dune. It's-it's sand. It's not stone. 18 need stone groins to keep the sand in place to keeptypically protect our homes. Right now especially 19 with the idea of-of stone groins only going to 122nd 20 Street, they need to go well beyond into the whole 21 2.2 residential area. The Army Corps knows this. It's 2.3 just a matter of funding. We need to really get this pushed. You guys are doing a great job. Let me just 24

talk about one things really fast. Beach grass.

1 do not want beach grass. Councilman Richard's 2 3 district has lost one mile of usable beach. No one 4 can go on it because once you plant beach grass, the beach Amaranth a plant will grow. 5 That is an endangered species. It's a plant itself. Then the 6 7 Pipling Plover lands. You will lose all that beach. 8 That happens in Breezy Point. It happens a lot on the Jersey Shore. A very important thing. careful what you wish for, Mark. It's very, very 10 11 serious. But the most important thing we really got 12 to consider is the short-term obviously it's great, 13 but hopefully we will come up with this great plan and put sand on the hot spots in the Beach 30s, in 14 15 the Beach 90s, but it's very critical that whoever 16 pays for it, stone groins work. You know, beach 17 dunes do not work anywhere. They're sort of along 18 the Jersey Shore, you-you pointed that out. The 19 problem with that is everywhere you look that have 20 these great success stories, of preventing sand and 21 sort of ways from coming into communities like the 2.2 Christmas train dunes in the Jersey Shore, if you 2.3 look at Google Earth everyone of them in Long Beach they all had stone groins. That is the end-all be-24

all on the Long Island seashore as far as protecting-

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you.

2 keeping the beach in place because when you have 3 storms want to eat something. They want to eat your 4 homes, your boardwalks. Let them eat the sand first. The waves break on the sand and they come in a gentle 5 slide into the dune. It obviously works and the core 6 7 is obviously suggestive of that for a very small 8 portion of the Rockaway Peninsula. They need to go into-but these gentlemen are from Belle Harbor, which is an area from like 122nd to 149th Street. It is 10 11 very important that-that-that as the city pushes the 12 Army Corps to put stone groins all the way through-13 all the way through to Reese Park, all the way through the most eastern or western part of Coney 14 15 Island, Mark. I mean it's very important.

me. My name is John Signorelli. I'm the VP of the
Belle Harbor Property Association. I just want to
make one comment I heard often was replenishment with
sand. I don't take that personally as a mitigation
effort. Mitigation is to prevent the sand from
removed—being removed or disappearing. So, there's a
distinction here on how to use the word mitigation.
I want to talk about accessibility. The City of New

York Parks and Recreation proposed a Phase 6 Plan to 2 3 building a five-Americans with Disabilities Act ramps 4 and two vehicle ramps within Rockaway Park, Belle Harbor and the Neponsit communities. It did not go forward on November 25, 2015. We reasons given were 6 7 rejected by the city proposal was the need to soon 8 revisit the berm issue with the Army Corps of Engineers for their major berm reconstruction designed and improved to mix with beach property, 10 11 walkway design objections and waste-a potential waste 12 of tax dollars due to the Army Corps berm rebuild in 13 the near future. The Belle Harbor Property Owners Association's new comprehensive ideas for safety, 14 15 mobility and visual excellence is by this design that was submitted to the Army Corps and to the Parks and 16 17 others for ADA accessibility ramps. I'd like to 18 submit this into the membership. The shore and 19 multifunction design uses the highest aesthetic 20 standards and seamless approach to the Army Corps 21 review. It is believe the Rockaway communities and 2.2 government representatives can find the conceptual 2.3 plan acceptable. It is very important that the Army Corps have adequate dimension incorporated in their 24 future berm design proposal for considering the ADA 25

ramp accessibility for the 23 streets in the

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Rockaways. As show in the typical new street and sidewalk design having bollas and greenway incorporated by—by the Department of Transportation and the Department of Design and Construction. It

has been mentioned that the bollas were purchased by

Congressman's Ulrich's (sic) Office and not the City

MALE SPEAKER: [off mic] Councilman.

JOHN SIGNORELLI: Councilman. This is a photograph of what we're trying to propose as the entrance the 23 streets where we have Moby Max and there's the beach wall, and internal—inside the beach wall entranceway that has just been-initially completed. The re-the re-concreting of that walkway. The Parks and Recreation has related the past correspondence to beach communities with the following information: For the 2016 season, Parks will be providing Moby Max for each beach and 127th Street to 149th Street in Belle Harbor and the Neponsit neighborhoods. This will be the same configuration for the Moby Max installed in this past beach season, which was met with a lot of positive feedback from the community. I just want to report

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that there is possibly about 20 to 25 Moby Max missing in this area of [bell] of Rockaway. I don't where they disappeared from, and I do request the Parks Department to re-visit this and supply Moby Max for entrances to the beach area so people pulling their—their carts and people with handicaps can have a better footing in getting up and down the berms. Thank you.

HANK IORI: Hank Iori.

FEMALE SPEAKER: [off mic] Push the button.

HANK IORI: Push the button. Okay, Hank
Iori. I'm the President of the Belle Harbor Property
Owners Association, and I'm also on Board 14. I'm
here to discuss the resiliency concerns in our
community of Belle Harbor and Neponsit Rockaway Park
and, of course, the Rockaway Peninsula. Since our
experience with Hurricane Sandy, the number one
priority has been protection for the community. I
was glad to see that Army Corps person came out and
said the same thing. That said, it's where you put
your money, and where the action is. I'm certain it
is true that all communities impacted—impacted on
Hurricane Sandy. I've heard from you. I could wave

to you, and I'm in the Bayside because I know you're 2 3 there and you're concerned. We will. That will be 4 nice. In the Rockaways, the ocean side Belle Harbor and Neponsit and a section of Rockaway need reinforced berms or dunes whatever you want to call 6 them to specifications of the Army Corps of 7 Engineers, rock jetties, which is questionable if 8 they're given to us because we had-when they had their stints-their-their meetings with communities, 10 we said we don't want you to stop on 123rd Street. 11 We want to go all the way to 149th Street. So, 12 13 that's something we want the Army Corps to reconsider and do. Sand replenishment they'll do and we're even 14 15 thinking reefs wouldn't be a bad idea to deal with these surges so that they never quite make it to 16 shore and—and do the kind of destruction they're 17 18 doing. The Rock-and so, in-let's see. Okay, Rockaway Park certainly in their situation and John 19 has done a very good job of pointing out they need 20 21 the rock jetties and they need the sand. We're all 2.2 one Rockaway, and that's kind of the way I view it. 2.3 On the Bayside, sea walls bulk heads are needed in certain sections. Two months ago I did a spread-I 24 25 did a Power Point just by taking maps off Google and

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you can see for yourself the areas where there's a heavy population. Our-our area consists of 2,000 homes. Auburn has a lot of homes on the Bayside that do get flooded. So, it's easy. You know the community well, Andrew, and you don't-you don't have to be a rocket scientist to see what you see. Okay, I had the opportunity to read the Subcommittee's oversight write-up. On page 1 I noticed that the-the Parks Department says that you've got 14 miles of beaches that they deal with. We're about 38% of all of them in the Rockaways, 2.2 miles not taking into consideration what goes on Reese Park, which that's another story in dealing with the federal government and seeing that they do the right thing by us, and going all the way to Breezy Point. So there's a lot of beach there [bell] that has to be looked at and really dealt with. Because of the-is that for me? MALE SPEAKER: Yes, you have three

20 minutes.

HANK IORI: You get three minutes. Oh, my God, I didn't know. I'm so sorry. I'll try to speed it up. Okay, so also going into the oversight, because of the climate change rates—this is in your own report that I read—because of climate change,

1 rates of beach erosion are expected to double or 2 triple by the Year 2020. I'd like to clue you in 3 4 it's happening already. It's not by 2020. We can see it right now. It's obvious. The Army Corps was 5 authorized by the federal government \$26 million 6 7 through for 2036--that's speed, 26 by 2036 okay--on 8 Coney Island and \$10 million for-and 2000 (sic) for 9 Rockaways. Too little too late. Okay, shoreline armory, and they do point out jetties and groins and 10 11 sea walls but it's-let's get the meaning. Let's not 12 talk about them. Eight recent works in-eight recent 13 work in Coney Island. Okay for that. Engaging in the limited coastal management practices. Projects 14 15 are primarily managed by the Army Corps. The city 16 and the state need to take greater responsibility 17 considering the lack of vision and action in 18 Washington. We turn on our TVs everyday and we know what's going on in Washington, and it is so confusing 19 that we doubt that anything is going to happen of any 20 great substance. So, you know, we came over with the 21 2.2 ferry, we walked down Court Street or Wall Street, we 2.3 went to Trinity Church and we said hello, and our best wishes to Alexander Hamilton and his wife. 24

Because this is a great city, and it has such roots,

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strong roots in people who really care. We all very much care. It's not just people from the different—and we do great things. So, we need to tackle it and that's where we look for the money to come from.

Quite honestly, it's the City and the State at the very least because the federal government we're just not going to get it. What the Army Corps says and what the Army Corps does they've got tons of reports that are—have never really seen the light of day and, in fact, hard—hard things are happening.

CHAIRPERSON LEVINE: If you can just try and wrap up, Mr. Iori.

HANK IORI: Sure, sure. I liked what you honor said about the—what happened with us with the—putting in the—the—the—Parks was willing to spend a lot of money on putting in these things to go in—go over the berm and whatever, ADA compliant ramps. We said no, and they backed off because we said the Parks, the Army Corps keeps saying they're going to do it, and why put something up that gets hand—torn out in a few years. Then it came to us that they hard \$120 million left over. Now, they would have spend some of that money I suppose on those ramps, but when we asked to what John showed as far as bike

Nick Deblasi. I live at 133rd Street on the

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beachfront, and when Sandy hit, it destroyed my 2 3 house. It ripped it in half. It made it look like a 4 doll house. The reason why I came is because I'm a builder, and when I see the city spend money foolish it just shocks. Now, the beach had six-foot baffle 6 7 walls. I want to call them baffle walls. It had sixfoot baffle walls with footings. Sandy came along and 8 knocked them right down, and the reason why it knocked them down because whoever installed the 10 11 footings installed the footings like it was a home. 12 In other words, they only put an 18-inch foundation, 13 you know, the footing and then they put the wall up. Now, when we do walls and say for instance that was 14 15 going to have a pool inside of it, instead of putting 16 a foundation in the middle, we put an L foundation, 17 and depending on the size of the wall, is the 18 determination of how far out you come with the foundation. So, this way the weight of the water has 19 a harder time slamming against it and pulling it. 20 So, when they started building the baffle walls, they 21 2.2 came and they dropped off steel I-beams. Then when 2.3 they took the steel I-beams, they-they pound them into sand. The-the steel I-beams were 20 feet long. 24

They-they put them into the sand, and they left four

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feet sticking out of the ground. Okay. So, now what 2 3 they did was they came along and they put concrete 4 walls four foot high and they slid in-into thebetween the I-beams and then they slid the second one on top of it. So, I says to Hank, I says, Hank the 6 7 found-the-the steel beams are in the sand. They have 8 no foundation, okay. The walls that they put in, we had six-foot high walls. Now, we only got 4-foot high walls. Okay, and the walls are inside between 10 11 the-the two steel beams. I said as soon as the water 12 just touches, the wall is going to come down. 13 he was having work done on his block, and they have a small Bobcat a small bobcat, and the bobcat went to 14 15 turn around and hit this wall and the wall went 16 sliding fling right into the beach. Now, I don't 17 know what the Army Corps does and how they analyze 18 what they build and how they do it, but I don't build that way, and whatever I built- When Sandy hit my 19 house and destroyed my whole side of my foundation, 20 21 what I did on my foundation the foundation is usually 2.2 18 inches, I did them four feet. They're usually 2.3 only one foot deep. I did them three foot deep. The walls as you pull them up are usually 12 inches. 24

did them eight 18 inches and then every 10 feet I

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message right?

went three feet with a steel I-beam in it with rebar running all the way across it that if the ocean comes and my house goes down, there is no Rockaway. [laughter] And then I took the-the sidewalk, and I put rebar and I drilled it into all the foundation and on 6-inch frames. [bell] I bolted them together. When they put the pad-one moment, one second? When they put the pad, they put a pad in between the walls when you walk into the beach. the first one they put in I said why ain't you putting rebar in it to lock the pad into those two walls? They says no they wanted that if the ocean come up, it takes it away. So, if they take [laughs] they actually put wood around the floor and then poured the concrete. Now, imagine you doing your side walk you put wood around the thing and then pour the concrete. They made it self-standing. ocean comes up that-that stuff is going to ride right down the block. It doesn't make sense the way they

CHAIRPERSON TREYGER: I think—I think
Build-it-Back should consider hiring you, sir. They—

do things. I really, you know, that's it. I got my

PUBLIC ADVOCATE JAMES: Okay.

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JOHN COREY: That extra money came to replace shorefront parkway. Now, there's big money grab to put parks all over the place, and that money is for finishing (sic) up the parkway and there's something wrong. To this date, those parks are not back. To this date. Twenty-seven handball courts, raised flower beds, 150 park benches. Imagine if you had district where the parks weren't back by now? So, no one is talking about it.

PUBLIC ADVOCATE JAMES: So, it is—so will that money be used to replace parks?

JOHN COREY: Very, very little. Very little like two playgrounds, two playgrounds of it.

PUBLIC ADVOCATE JAMES: And are those resiliency projects or amenity projects?

JOHN COREY: Well, under 428-A--

PUBLIC ADVOCATE JAMES: Yes.

JOHN COREY: --one of the projects

counted as-as resiliency and one didn't but 428,

because it was parks damaged by Hurricane Sandy. Part

of the—the project now Parks is picking parks that

are perfectly in good shape now and they're looking

to replace them, renovate parks. It's very unusual,

but that's what's going on.

6-foot wall with a foundation, and now we got a 4-

CHAIRPERSON LEVINE: Chair Treyger.

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CHAIRPERSON TREYGER: Yeah, I was just going to reference this that our-our futures and our security are tied together regardless if I represent Coney Island or Seagate, the exact same concerns you've shared are the same concerns I hear in my-in my community as well, and the study--that this Jamaica Study actually includes all of our neighborhoods in one group. So, when-we'll be meeting with our congressional partners, I am fighting for you just like I'm fighting for South Brooklyn because we are tied together. looking to just to help my district. This is a citywide issue, and the photographs are powerful. John thank your for-for producing because it-it is frightening and it is—it is frightening. It really is and—and I could show you images in Seagate as well where it's-where it's frightening too, and so, we-and that's why I asked Army Corps if you heard my question that there will still be opportunities for public input because they need to hear this. need to hear from you. You live there. You know this better, and that's, by the way, one of the criticisms that happened in New Orleans with Katrina and-and their levy systems is that they were faulted

COMMITTEE ON RECOVERY AND RESILIENCY JOINTLY WITH COMMITTEE ON PARKS AND RECREATION 115 1 for a lack of community input, a lack of-of 2 3 engagement, and so you need to be at the front lines of this-of this discussion, but first we have to make 4 sure that we secure these funds. The type of funds that they're talking about I believe we will need 6 7 some federal assistance, but I agree with you, the state and city have to chip in. In Staten Island 8 9 that's what they're doing, and we have to do the same thing across all five boroughs. 10 11 JOHN SIGNORELLI: [interposing] Mark 12 we're definitely-you see we're having this big rally on-on June 25th at-at 87th Street and we're trying to 13 get Senator Schumer down and senator and Congressman 14 15 Meeks, Congressman Jeffries to all come down and try 16 to make sure that they all bring us to \$4 billion, 17 and it's very important. We're with you 100%. Thank 18 you. 19 CHAIRPERSON TREYGER: Thank you. 20 CHAIRPERSON LEVINE: Thank you panel. 21 HANK IORI: [off mic] 22 CHAIRPERSON LEVINE: Your microphone, 23 Hank.

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HANK IORI: I like the fact that you brought up the whole thing about flood insurance. That's a train coming down the tracks.

CHAIRPERSON LEVINE: Yes, yes.

HANK IORI: And if we don't join together and we had meeting on Tuesday where we had the city's Office of Resiliency. We had a representative there, and we brought up the point to her well, the boardwalk on 90th Street at the very least if we had a Hurricane Sandy the water wouldn't go over the—it would be defeated by that boardwalk. It would stop the flooding. So, would that allow us to start fighting for the flood insurance to be reduced because eventually it's going to go \$400, \$500 to \$3 or \$4,000—

CHAIRPERSON TREYGER: Right.

HANK IORI: --on homes, and she said no and they basically said it's the whole city we have to protect before they'll be able to consider that. So, the-the flood insurance issue is a terrible situation that we have to fight on the federal level. The Stafford Act is a mess.

CHAIRPERSON TREYGER: Agreed.

HANK IORI: It's a total mess.

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CHAIRPERSON TREYGER: Agreed.

HANK IORI: It's—it's illogical what
they've done there. We have to ask them to sit down
and rethink it and come up with a plan that makes
some sense so the people don't get burned in
situations like Hurricane Sandy.

CHAIRPERSON TREYGER: Agreed 100%.

NICK DEBLASI: [off mic] Can I just talk about flood insurance to help you?

CHAIRPERSON LEVINE: Quickly, sir because we have another panel waiting to speak.

NICK DEBLASI: My flood insurance was \$700. It went to \$5,000. I called up and I wanted to know why it went to \$5,000. They said because of the sea level and so forth. I says my house is eight feet higher than the street level. They says, well, we don't know that. You have to prove it. So, I had to get an elevation certificate. I did all that and they reduced it back \$700.

CHAIRPERSON TREYGER: How much did it cost you to get it?

NICK DEBLASI: \$400.

CHAIRPERSON TREYGER: See, I-

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NICK DEBLASI: No, no but the point that—why I—I took this few minutes to tell you is that they told me that they're sending everyone a bill like their house is below sea level and then it's your job to prove that it's no. So there's going to be a lot of people that live in Seagate wherever it is when they get the bill, they're just going to pay it.

CHAIRPERSON TREYGER: So, I have—I have a bill that's in the process of drafting to address this head-on because I'm hearing more and more cases about this, and also quite frankly the city of New York should be helping you pay for that certificate. You should not have to prove about sea level on your property.

NICK DEBLASI: [interposing] The \$400 in your pocket is just--

CHAIRPERSON TREYGER: Well, \$400 to you but in--in parts of my district that's-that's a lot of money as well. Thank you, Mark.

NICK DEBLASI: No, but it's not because of that it's because—the only point that I was trying to bring out is that if you don't pick up the phone and say my house is not under sea level—

well intended interventions in one location will have

adverse consequences in other locations because the 2 3 beaches of New York City are part of a regional sand 4 conveyor belt that encompasses all of the South Shore of Long Island, including the Rockaways, Coney Island, and Jamaica Bay. For example, from 1844 to 6 7 1907, the Rockaway Peninsula grew to the west at a 8 rate of 250 feet per year due to a steady supply of sand from Southern Long Island. The United States Geological Survey data reveals that 60% of the 10 11 shoreline along all of Southern Long Island has 12 eroded over the last century. The construction of 13 groins on the Rockaway Peninsula have had a cascading effect on the sand movement building up sand on one 14 15 side and averting it on the down current side. 16 Moreover, while hard structures with trapped sand 17 coming from Long Island to the Rockaways shorelines 18 in Jamaica Bay have been isolated from the supply. So, for example, National Park Service monitoring 19 20 data collected by Rutgers University shows that 21 erosion at Plumb Beach is exacerbated by less sand 2.2 coming from the sand conveyor and the dredging of 2.3 Sheepshead Bay Channel. So, looking ahead the options available today to address beach erosion may 24 not be available in 50 years, and we should think 25

2 about short and long-term strategies in parallel.

3 Future generations may have less sand, and they will

4 certainly face higher seas. There is a finite limit

5 on the available sand that can be used for continued

6 beach nourishment. If the Army Corps of Engineers

7 plan to stabilize the erosion on the Rockaway

8 Peninsula, it assumes that the city or that the

9 beaches will be re-nourished every three to four

10 | years to make up for the inevitable sand losses.

11 | While the identified sources of sand are sufficient

12 | for the next 50 years, there is a possibility that

13 | new sources may be difficult to find or prohibitively

14 expensive to utilize due to the regional trends in

15 | erosion. Over the same periods sea level in New York

16 City will likely rise over one foot, and possibly

17 close to three feet. Beaches will be squeezed

18 | between developed land and encroaching seas. From

19 | just 2015 and 2016 there were 18 storms that

20 submerged regional beaches ranging from roughly half

21 \parallel a foot to three feet of storm surge. Any amount of

22 | sea level rise will submerge the beaches more

23 | frequently, and with an established pattern of

24 \parallel erosion, the impacts will increase in magnitude.

Communities must be engaged in thinking about the

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long-term strategies that balance land use policy and infrastructure on the one hand with an evolving sense of place on the other. [bell] Communities have helped restore wetlands and maintain beaches at lower cost when they are engaged meaningfully in an ongoing two-way dialogue. The Science and Resilience Institute at Jamaica Bay is a place based initiative built on partnership and on process. We urge you to provide support to all or four partners for a creative, diverse and fun series of dialogues on how to help our coastal communities thrive. Thank you.

CHAIRPERSON LEVINE: Thank you.

JOE SOEGAARD: Good afternoon. I am Jose Soegaard, the Policy Director for Waterfront Alliance, a non-profit civic organization committed to restoring and revitalizing New York harbors and waterways. I'll read a brief summary of our written statement provided to you. Thank you for the opportunity to testify this afternoon. New York City is a city of water with our waterways serving as a vital resource for commerce, transportation, education and recreation. Among our most popular waterfront recreation sites our, of course, our bathing beaches. With the exception of Manhattan,

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every borough enjoys a large stretch of beach front for swimming, sun bathing and summer time recreation for Midland Beach in Staten Island, to Orchard Beach in the Bronx, to Coney Island Beach in Brooklyn and Rockaway Beach in Queens. Hurricane Sandy's storm surge and wave action wrought substantial damages on our city's beaches to a loss as much as three million cubic yards of sand citywide with the Rockaways accounting for roughly half that loss. And as we've heard today, the beach replenishment is an important tool to restore recreational use and access as well as wildlife habitats is not a cure-all for beach erosion, as well as major storm events while significant risks to coastal infrastructure are not the only contributing factor to beach erosion. beaches are the first line of defense against the accelerating threat of sea level rise, which will continue to claim natural sediment on our beaches and elsewhere redrawing our coastal maps and displacing coastal residents if we are not prepared because beaches are dynamic and sea level rise will continue to push our beaches and dunes further upland. Groins can prevent a portion of beach sediment from moving seaward, and they-and they can function well when

125 COMMITTEE ON PARKS AND RECREATION 1 combined with soft shore measures like beach 2 nourishment. For example a private destabilized 3 4 Coney Island Seagate beach with four large T-groin structures was completed last year. As we've heard earlier today, a plan is in place to build groins on 6 7 rockaway beach largely the result of significant 8 pressure from community members and other stakeholders. The construction has now begun despite the fact that according to some reports much of the 10 11 sand that has been replenished has been lost to 12 erosion. Long Beach groins are under construction 13 now with the Hamptons like to happen next. The Long Island was likely—was likewise devastated by 14 15 Hurricane Sandy and faces similar risks of future 16 The potential impacts to residents are greater here in New York City. This year we launched 17 18 a new initiative called the Harbor Score Card, a 19 district by district dashboard for coastal flood 20 risks, water quality and public access to the 21 waterways. Using data from Climate Central a 2.2 research institution studying risk when taking into 2.3 account moderate to high level, sea level rise projections, we found that more than 408,000 New 24

Yorkers live in areas with a 50% cumulative chance of

experience a major-experiencing a major storm event
in the next few decades by 2016. That's roughly the
population of all of Miami where a significant beach
nourishment project was launched last summer. That
total includes roughly 75,000 people in the
Rockaways, 81,000 in Coney Island [bell], 37,000 in
Sheepshead Bay. Together exceeding the equivalent
risk for Nassau County at 160,000 people of Suffolk
County at 65,000 people, an equivalent scenario. We
look forward to working with the Council and other
stakeholders to ensure that New York City residents
are adequately and expeditiously protected from
increasing threats posed by climate change, Strong
and stable coastlines for generations to come. Thank
you for the opportunity to present this testimony.

CHAIRPERSON LEVINE: Thank you, Mr.

Soegaard. I just want to get those numbers right. So
you're comparing how much is being spent on Long
Island to New York City is that correct and the
relative size of the population and user base?

JOE SOEGAARD: These are estimates of populations living within land below particular elevations facing a particular percentage cumulative

2 risk of a major storm event over the next say 35
3 years.

CHAIRPERSON LEVINE: So, if we look regionally as the Corps told us about a quarter of the money allocated so far is earmarked for New York City. We are far, far more than a quarter of the population that's at risk, correct?

JOE SOEGAARD: These figures just account for New York City and geographic Long Island. I believe their scope includes New Jersey as well, but I believe it's—it's safe to say that New York City accounts for more than a quarter of—of—of the population at risk of significant flooding. (sic)

CHAIRPERSON LEVINE: [interposing] It's just a—it's an important reminder that there's an equity angle here, and we have to make sure that New York City doesn't get less than its fair share of resources.

JOE SOEGAARD: I think it's safe to say that.

CHAIRPERSON LEVINE: Okay. Thank you very much, panel. Thank you all for this great hearing. This concludes our hearing. [gavel]

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



Date July 10, 2017