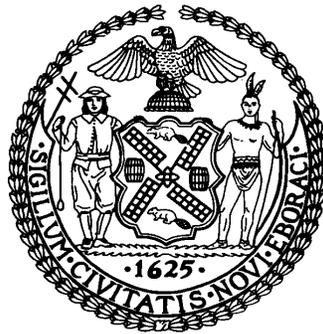


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THE COUNCIL OF THE CITY OF NEW YORK

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**COMMITTEE REPORT OF THE INFRASTRUCTURE AND GOVERNMENTAL
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Hon. Justin Brannan, Chairperson

COMMITTEE ON ECONOMIC DEVELOPMENT

Hon. Paul A. Vallone, Chairperson

April 23, 2021

OVERSIGHT: PORT SAFETY AND RESILIENCY IN ALL FIVE BOROUGHS

PROPOSED INT. NO. 1679-A:

By Council Member Vallone

TITLE:

A Local Law in relation to evaluating shoreline protection structures throughout the city of New York

I. INTRODUCTION

On April 23, 2021, the Committee on Resiliency and Waterfronts, chaired by Council Member Justin Brannan, jointly with the Committee on Economic Development, chaired by Council Member Paul A. Vallone, will hold an oversight hearing entitled “Port Safety and Resiliency in All Five Boroughs.” The Committees will also consider the following bill, sponsored by Council Member Vallone: Proposed Int. No. 1679-A, in relation to evaluating shoreline protection structures throughout the city of New York. The Committee expects to hear testimony from the New York City Economic Development Corporation (“NYCEDC”), the Mayor’s Office of Resiliency (“MOR”), and interested members of the public.

II. BACKGROUND

A. New York City’s flood and storm risk

New York City (City), which is surrounded by 520 miles of waterfront, “has more residents living in high-risk flood zones than any other city” in the United States (U.S.).¹ The City’s floodplain covers more than 48 square miles, and the area is expected to grow to 72 square miles by 2050.² Today, more than 70,000 structures are located within the floodplain.³ As climate change worsens and the floodplain expands landward, even more structures, property and infrastructure will be at risk. Due to its coastal exposure, the City is particularly vulnerable to the

¹Devin Gannon, “New York to be first major city with flood maps based on climate change factors,” 6sqft, January 8, 2018, available at: <https://www.6sqft.com/new-york-to-be-first-major-city-with-flood-maps-based-on-climate-change-factors/#:~:text=With%20hundreds%20of%20miles%20of,to%20the%20New%20York%20Times.>

² NYC MOR presentation, “Designing for Flooding in NYC’s Built Environment,” May 22, 2020.

³ NYC MOR presentation, “Designing for Flooding in NYC’s Built Environment,” May 22, 2020.

impacts of sea level rise, storm surge, and high-tide or sunny-day flooding.⁴ According to a Union of Concerned Scientists study published in 2018, New York State ranks third in the nation for most homes at risk of coastal inundation by the end of the century.⁵ The East and Gulf Coasts of the U.S. are undergoing some of the fastest rates of sea level rise.⁶ Scientists for the National Center for Atmospheric Research modeled sea level rise for 20 cities around the world and found that New York City will likely experience an increase in sea level rise twice the global average.⁷ Nationally, more than 300,000 homes with a collective value of \$117.5 billion, and 14,000 commercial properties valued at \$18.5 billion, are at risk of chronic flooding within the next 30 years.⁸

Climate change is expected to continue exacerbating extreme weather events, leading to stronger and more frequent storms like Superstorm Sandy,⁹ which severely damaged the City's coastal areas in 2012. At a City Council hearing in April 2018, the Director of the Mayor's Office for Recovery and Resiliency testified that by 2050, the City's annual precipitation is "projected to increase between 4 and 11 percent" and that sea levels are "projected to rise between 11 inches and 21 inches, on top of a foot of sea level rise that we have already witnessed

⁴ Sunny day flooding, also known as tidal flooding, is the temporary inundation of low lying areas due to exceptionally high tide events.

⁵ New Study Finds 143,000 New York Homes Worth \$98 Billion will be at Risk from Tidal Flooding. <https://www.ucsusa.org/press/2018/new-study-finds-143000-new-york-homes-at-risk-from-tidal-flooding> (last accessed 10/21/2019)

⁶ Dahl, K.A. et al., Effective inundation of continental United States communities with 21st century sea level rise. *Elem Sci Anth*, 5, p.37. 2017 DOI: <http://doi.org/10.1525/elementa.234> (last accessed 10/21/2019). *See also* "Sea level rise accelerating along US coastline, scientists warn," *The Guardian* (Feb. 3, 2020), available at: <https://www.theguardian.com/environment/2020/feb/03/sea-level-rise-accelerating-us-coastline-scientists-warn>.

⁷ Jim Morrison, Yale360, Flooding Hot Spots: Why Seas are Rising Faster on the U.S. East Coast, available at: <https://e360.yale.edu/features/flooding-hot-spots-why-seas-are-rising-faster-on-the-u.s.-east-coast> (April 24, 2018).

⁸ New Study Finds 143,000 New York Homes Worth \$98 Billion will be at Risk from Tidal Flooding. <https://www.ucsusa.org/press/2018/new-study-finds-143000-new-york-homes-at-risk-from-tidal-flooding> (last accessed 10/21/2019)

⁹ Union of Concerned Scientists. *The Science Connecting Extreme Weather to Climate Change*. <https://www.ucsusa.org/sites/default/files/attach/2018/06/The-Science-Connecting-Extreme-Weather-to-Climate-Change.pdf>

since 1900.”¹⁰ For New York City’s waterfront communities, this is a life- and property-threatening reality. Future extreme weather events could cost \$90 billion in damages in 2050, compared to the \$19 billion caused by Superstorm Sandy.¹¹

B. New York City’s ports and freight distribution systems

Surrounded by water on all sides, and with 520 miles of shoreline, New York City has, since its inception, been a strategic port city and major commercial hub. The City is the largest consumer market in the United States, and nearly 200 million tons of freight passed through the City in 2016.¹² The City’s freight distribution system moves nearly \$720 billion in goods through the region annually,¹³ and total freight volumes are expected to increase by 68 percent between 2012 and 2045.¹⁴

The City’s freight network includes over 90 miles of rail freight lines, nine rail yards, 1,300 miles of truck highway routes, the JFK air cargo hub, over 170 million square-feet of warehouse and distribution space, as well as three marine terminals.¹⁵

¹⁰ Testimony of Jainey Bavishi, “New York City Council Hearing of the Environmental Protection Committee,” (April 12, 2018), <http://legistar.council.nyc.gov/LegislationDetail.aspx?ID=3427962&GUID=850E9004-2D8A-41C6-A453-873D06F8D594&Options=&Search=>

¹¹ Id.

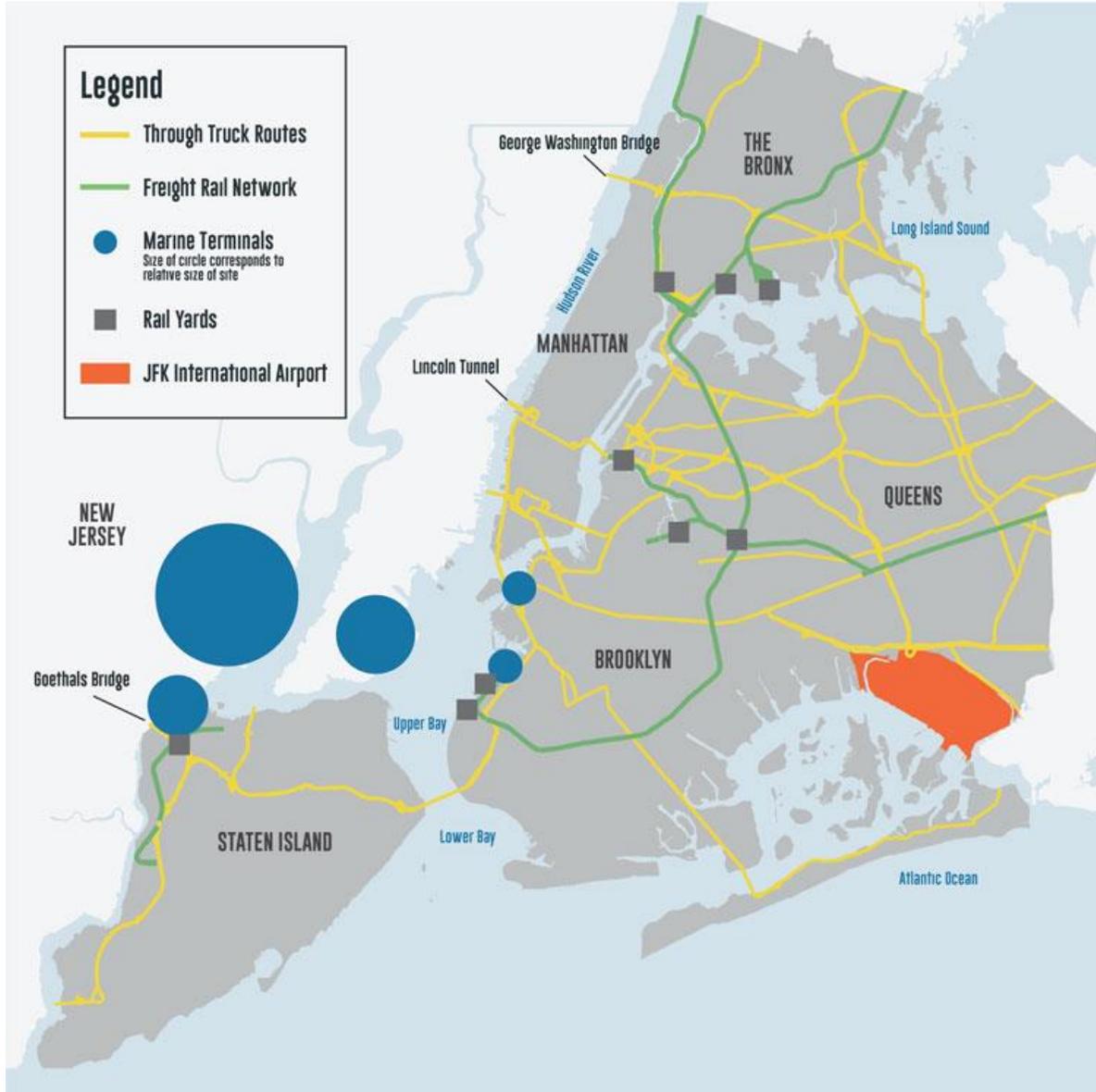
¹² New York City Economic Development Corporation, *Freight NYC: Goods for the Good of the City* (July 2018) at 3, https://www.nycedc.com/sites/default/files/filemanager/Programs/FreightNYC_book_DIGITAL.pdf. Hereafter NYCEDC, *Freight NYC*.

¹³ Mayor Bill de Blasio, *New York Works: Creating Good Jobs* (June 2017) at 56, <https://newyorkworks.cityofnewyork.us/> Hereafter Mayor de Blasio, *New York Works*.

¹⁴ NYCEDC, *Freight NYC* at 12.

¹⁵ NYCEDC, *Freight NYC*.

Figure 1: NYC Freight Network¹⁶



Source: NYCEDC, *Freight NYC*. Figure 1 depicts New York City’s freight network, including rail freight lines, rail yards, truck routes, marine terminals, and an air cargo hub.

Two of these marine terminals – the Red Hook Container Terminal in Red Hook, Brooklyn, and the Global Container Terminal (“GCT”) in Staten Island – are active container shipping

¹⁶ NYCEDC, *Freight NYC* at 4.

terminals, both part of the Port of New York & New Jersey network of ports.¹⁷ The Red Hook Terminal is a major hub for food and beverage imports to New York, and in 2018 employed over 400 people.¹⁸ GCT is a major international freight hub and also serves as a barge-to-rail transfer site for approximately half of the City’s volume of solid waste.¹⁹ In 2018, GCT employed 360 people.²⁰ The City’s third port, the City-owned South Brooklyn Marine Terminal (“SBMT”) in Sunset Park, is not yet fully operational as a port, but NYCEDC began reactivating the site as a working port in 2018.²¹ Like the City’s waterfront communities and commercial areas, the City’s ports are also at risk from rising seas and storms, and resiliency is an urgent concern. The President of the Red Hook Terminal has said that the Terminal is not prepared for another storm like Superstorm Sandy, and still has work to do to protect the Terminal against flooding and sea level rise issues.²²

Another significant site in the City’s freight distribution network is the Hunts Point Food Distribution Center (“FDC”), a cluster of over 155 food wholesalers, distributors, and manufacturers, situated on approximately 329 acres of the Hunts Point Peninsula in the South Bronx.²³ It is comprised of three large cooperative markets – the Hunts Point Terminal Produce Market (“Produce Market”), the Hunts Point Cooperative Meat Market (“Meat Market”), and the New Fulton Fish Market (“Fish Market”) – and food distribution businesses including Baldor,

¹⁷ The Port Authority of New York and New Jersey, Container Terminals, <https://www.panynj.gov/port/en/our-port/container-terminals.html>.

¹⁸ NYCEDC, *Freight NYC* at 17.

¹⁹ NYCEDC, *Freight NYC* at 19.

²⁰ *Id.*

²¹ NYCEDC, “New York Works: NYCEDC Announces Transformation of South Brooklyn Maritime Shipping Hub, Creating over 250 Jobs in the Near-Term,” [Press Release], May 8, 2018, <https://edc.nyc.gov/press-release/new-york-works-nycedc-announces-transformation-south-brooklyn-maritime-shipping-hub>.

²² Michael Stamatis, President of Red Hook Terminals, “Resilience on the Waterways” Webinar, *Waterfront Alliance*, April 15, 2020, available at https://zoom.us/rec/play/upYldOn9qz43EtLBuASDV_J4W43pf62s2yBP_PFemBvkAnIBNQXzZbRAYOaduikR6JwtVqOKfbOw0r-0?continueMode=true.

²³ NYCEDC, *Hunts Point Peninsula*, <https://edc.nyc.gov/project/hunts-point-peninsula> (last visited Apr. 6, 2021).

Anheuser-Busch, Krasdale Foods and Dairyland. The FDC is the largest geographic food distribution hub in the City by volume, with over 4.5 billion pounds of food distributed through the FDC annually.²⁴ Of that amount, roughly 50 percent goes to New York City and 50 percent goes outside the City.²⁵ 25 percent of produce, 35 percent of meat, and 45 percent of fish distributed to the City comes through the FDC.²⁶ The FDC generates over \$3 billion in annual sales.²⁷

Situated on a peninsula, Hunts Point is accessible by barge and has the potential to host another marine terminal in the City. Food distributors at the FDC currently rely mostly on trucking to move their goods, but the City is working to develop a marine terminal that would help shift some freight movement to barge shipping, as discussed further below.

While historically, the City's geography made it well-suited for maritime shipping, most of its existing maritime and freight rail infrastructure dates to the early 20th Century, and thus cannot fully support modern rail and maritime freight distribution needs.²⁸ Today, the vast majority of freight moves through New York City via truck. Nearly 90 percent of freight enters and passes through the City via truck, followed by maritime (8 percent), rail (2 percent), and air (1 percent).²⁹

This heavy reliance on truck transport creates a host of problems, including pollution and traffic congestion,³⁰ especially in disadvantaged neighborhoods located near distribution and industrial hubs like Hunts Point and Sunset Park in Brooklyn. According to the City's 2018

²⁴ NYCEDC, *Five Borough Food Flow: 2016 New York City Food Distribution & Resiliency Study Results* at 9, available at

https://edc.nyc/sites/default/files/filemanager/Projects/Hunts_Point_Peninsula/Five_Borough_Food_Flow.pdf.

²⁵ *Id.*

²⁶ *Id.*

²⁷ NYCEDC, *Hunts Point Peninsula*, *supra* note 23.

²⁸ NYCEDC, *Freight NYC* at 13.

²⁹ NYCEDC, *Freight NYC* at 12.

³⁰ *Id.*

Community Health Profile for Hunts Point, air pollution levels in this area were higher than levels for both the Bronx and New York City as a whole; levels of the most harmful air pollutant, fine particulate matter, were 8.5 micrograms per cubic meter in Hunts Point, compared to 7.8 in the Bronx and 7.5 in the City as a whole.³¹ According to the same 2018 Community Health Profiles, Sunset Park also had the same high level of pollutant, 8.5 micrograms per cubic meter of fine particulate matter, compared to 7.8 in Brooklyn and 7.5 in the City as a whole.³²

III. FREIGHT NYC

Freight NYC is NYCEDC's \$100 million initiative to modernize New York City's freight system and shift a significant portion of freight movement from trucking to maritime and rail distribution. When it was announced in July of 2018, NYCEDC outlined four main goals for the initiative:

- 1) **Create nearly 5,000 good-paying jobs over ten years.** These jobs would come from investments in maritime and rail freight infrastructure and modern distribution centers. NYCEDC estimated that maritime freight investments would create 400 new jobs, including longshore workers, marine terminal operators, and maritime distribution workers. Expanded rail freight would create 500 new jobs, including engineers, yardmasters, and rail distribution workers. Modern freight distribution hubs would create 4,000 jobs, including material handlers, warehouse associates, logistics coordinators, and Class A truck drivers.³³

³¹ Bronx Community District 2, Hunts Point and Longwood, *available at* <https://www1.nyc.gov/assets/doh/downloads/pdf/data/2018chp-bx2.pdf>.

³² Brooklyn Community District 7, Sunset Park, *available at* <https://www1.nyc.gov/assets/doh/downloads/pdf/data/2018chp-bk7.pdf>.

³³ NYCEDC, *Freight NYC* at 16, 21, 24.

2) **Transform how freight enters New York City by investing in maritime and rail solutions.** These included developing barge terminals at SBMT and Hunts Point, constructing new rail transloading facilities in Brooklyn and Queens, and expanding existing freight tracks to allow for more rail traffic.³⁴

In May 2018, the City selected the operator of Red Hook Terminals to reactivate the SBMT site, with a long-term lease through 2054.³⁵ In March 2019, NYCEDC issued an RFP for an operator to develop a marine terminal in Hunts Point that would serve the FDC and reduce truck traffic and pollution.³⁶ Planning for the new marine terminal was included in the 18-month community engagement process to guide future investments in the Hunts Point neighborhood, kicked off by NYCEDC in February 2020.³⁷

In September 2018, NYCEDC and the Port Authority announced the creation of the North Atlantic Marine Highway Alliance, an advisory body of public and private partners that will help develop a regional barge network, including the Hunts Point and SBMT barge terminals. The U.S. Department of Transportation, through its America's Marine Highway Program, supported this effort with a \$300,000 grant to NYCEDC, which was intended to be matched by the City and potentially other advisory group members.³⁸

³⁴ *Id* at 16-22.

³⁵ NYCEDC, “New York Works: NYCEDC Announces Transformation of South Brooklyn Maritime Shipping Hub, Creating over 250 Jobs in the Near-Term” [Press Release], May 8, 2018, <https://edc.nyc/press-release/new-york-works-nycedc-announces-transformation-south-brooklyn-maritime-shipping-hub>,

³⁶ NYCEDC, “NYCEDC Seeks Operator to Develop New Marine Terminal on the Hunts Point Peninsula” [Press Release], March 22, 2019, <https://edc.nyc/press-release/nycedc-seeks-operator-develop-new-marine-terminal-hunts-point-peninsula>.

³⁷ NYCEDC, “NYCEDC Kicks Off Community Engagement Process in Hunts Point” [Press Release], February 10, 2020, <https://edc.nyc/press-release/nycedc-kicks-community-engagement-process-hunts-point>.

³⁸ NYCEDC, “Port Authority and NYCEDC To Create Advisory Group To Implement A Regional Barge Network” [Press Release], September 28, 2018, <https://www.nycedc.com/press-release/port-authority-and-nycedc-create-advisory-group-implement-regional-barge-network>; NYCEDC, *Freight NYC* at 16; U.S. Department of

In November 2019, the City’s DockNYC program, a program created in 2013 to activate underused City-owned piers and marinas, issued an RFEI for maritime companies to activate 14 new dock sites, in addition to the 11 existing DockNYC sites.³⁹ DockNYC and the activation of these additional sites is intended to support Freight NYC’s goal of shifting more freight movement to maritime modes of transportation, and decrease the City’s overreliance on shipping via truck.⁴⁰

3) Modernize and develop new distribution facilities. NYCEDC planned to develop geographically dispersed modern freight hubs in Brooklyn (Brooklyn Army Terminal), the Bronx (Bathgate, Hunts Point), Queens (Maspeth, JFK area), and Staten Island (West Shore and North Shore) and improve the rail infrastructure that connects these hubs.⁴¹

4) Improve air quality by supporting an environmentally sustainable resilient supply chain network. NYCEDC intended to support clean fuel infrastructure at freight hubs and the expansion of New York City Department of Transportation’s Hunts Point Clean Trucks Program to other truck hubs and industrial business zones. It also planned to pilot initiatives for tenants in City-owned properties to green their own supply chains.⁴²

In total, NYCEDC expected Freight NYC to create 5,000 jobs and eliminate 40 million truck miles, 71,500 metric tons of greenhouse gas emissions, and 30,000 pounds of particulate matter annually.⁴³

Transportation Maritime Administration, America’s Marine Highway Program, <https://www.marad.dot.gov/ships-and-shipping/dot-maritime-administration-americas-marine-highway-program/>.

³⁹ NYCEDC PortNYC Team, “New DockNYC Sites to Support Innovation in Distribution, Logistics, and Other Maritime Uses,” *Waterfront Alliance*, December 3, 2020, <https://waterfrontalliance.org/2020/12/03/new-docknyc-sites-to-support-innovation-in-distribution-logistics-and-other-maritime-uses/>.

⁴⁰ *See id.*

⁴¹ NYCEDC, *Freight NYC* at 24.

⁴² NYCEDC, *Freight NYC* at 28.

⁴³ NYCEDC, *Freight NYC* at 28-30.

IV. IMPACT OF COVID-19 PANDEMIC

A. Increase in freight volume

The COVID-19 pandemic devastated New York City, killing over 25,000 City residents and counting,⁴⁴ and bringing many sectors of the City's economy to a standstill. However, during 2020, as people confined to their homes purchased more household goods, the movement of household cargo in particular skyrocketed.⁴⁵ The Port of New York and New Jersey reported that it moved 755,437 standard cargo containers in October 2020, the busiest month in the port's roughly 60-year history.⁴⁶ Volume of freight at the port was up by 23 percent from August to December 2020, compared to the same period in 2019, and continued to outpace 2019 levels into 2021.⁴⁷ While post-pandemic consumer trends are hard to predict, this sustained increase in freight movement points to the continuing need to ensure that the City's ports are being utilized fully, that they are resilient, and that they continue to serve as a commercially viable alternative to trucking, which will help reduce pollution.

B. Hunts Point FDC

As a vital food distribution hub for the City, it was essential that the Hunts Point FDC remain fully operational during the height of the pandemic, so as not to jeopardize the City's food supply. During the first wave of the virus in April 2020, recognizing that truckers delivering food were reluctant to enter the City for fear of contracting COVID-19 and/or having to quarantine for two weeks, NYCEDC worked with then-Department of Sanitation Commissioner Kathryn Garcia, appointed as the City's "COVID-19 food czar," to set up truck layover stops

⁴⁴ NYC DOHMH, COVID-19: DATA, <https://www1.nyc.gov/site/doh/covid/covid-19-data-totals.page> (last visited April 6, 2021).

⁴⁵ Hu, Winnie. "Americans Are on a Shopping Spree. These Workers are Overwhelmed," *New York Times*, March 31, 2021, <https://www.nytimes.com/2021/03/31/nyregion/ny-nj-ports-pandemic.html>.

⁴⁶ *Id.*

⁴⁷ *Id.*

outside the City where they could more safely off-load food.⁴⁸ It also worked with Commissioner Garcia to provide facilities the City could use to store and distribute emergency food to vulnerable populations.⁴⁹ NYCEDC and Commissioner Garcia also said that they were following government and health authority guidelines for social distancing and mask-wearing to ensure workers at Hunts Point could stay as safe as possible while doing their jobs.⁵⁰

The impact of the pandemic on wholesalers at the markets was uneven, but severe for many. Fifty percent of Hunts Point customers were restaurants, who were forced to shut down or severely limit their businesses during the pandemic.⁵¹ Hunts Point businesses that supplied restaurants were forced to quickly pivot to find new customers and revenue streams.⁵² Some were affected by out-of-town suppliers who had to temporarily shut down operations due to COVID-19 outbreaks at their facilities.⁵³ In April 2020, NYCEDC reported that it was working with many of the markets at Hunts Point on rent deferral agreements to ensure the markets were financially stable during the crisis and able to continue supplying food.⁵⁴

In January 2021, workers at the Produce Market went on strike for nearly a week, after negotiations broke down over a proposed wage increase.⁵⁵ The workers and management

⁴⁸ See Lela Nargi, “NYC Food Czar Kathryn Garcia is Overseeing a Massive Supply Chain and Feeding the Hungry,” *Civil Eats*, Apr. 7, 2020, <https://civileats.com/2020/04/07/nyc-food-czar-kathryn-garcia-is-overseeing-a-massive-supply-chain-and-feeding-the-hungry/>; See also NYCEDC April 16, 2020 webinar (*on file with committee staff*).

⁴⁹ See April 16, 2020 webinar, *id.*

⁵⁰ Elstein, Aaron, “Covid-19 strikes fear in the heart of the city’s food supply,” *Crain’s New York Business*, Apr. 21, 2020, <https://www.craigslist.com/food/covid-19-strikes-fear-heart-citys-food-supply>.

⁵¹ *Id.*

⁵² *Id.*

⁵³ *Id.*

⁵⁴ See April 16, 2020 webinar, *supra* note 48.

⁵⁵ Aponte, Claudia Irizarry, “Hunts Point Produce Market Workers End Strike with a Raise,” *The City*, Jan. 23, 2021, <https://www.thecity.nyc/2021/1/22/22245520/hunts-point-produce-market-strike-tentative-settlement-bronx>.

eventually came to an agreement for a three-year contract that includes a modest wage increase.⁵⁶

V. RESILIENCY MEASURES ACROSS THE FIVE BOROUGHS

A. Resiliency measures at the Hunts Point Food Distribution Center

In 2016, NYCEDC issued the Five Borough Food Flow study which, in part, found that because the City’s food distribution system is highly fragmented, the City’s food supply is unlikely to be significantly impacted by a major disruption (severe weather event or otherwise) to a single distributor.⁵⁷ However, it did find that there are still infrastructure and localized risks, including issues relating to potential flood for the Hunts Point FDC.⁵⁸ The FDC rests on a low-lying peninsula that is vulnerable to storm surge and power outages and it only narrowly escaped damage in Superstorm Sandy in 2012, due to the storm’s arrival at low tide. Had the storm arrived during high tide, the area where the FDC is located could have been severely impacted. In the aftermath of Sandy, there was increased public commitment to fortifying the area against future storms and coastal flooding.⁵⁹

In 2013, the federal Department of Housing and Urban Development (“HUD”) launched a competition for ideas to improve coastal resiliency in Sandy-affected areas, and the City’s “Hunts Point Lifelines”⁶⁰ was a winning proposal, and awarded \$20 million in Community

⁵⁶ *Id.*

⁵⁷ See NYCEDC, *Five Borough Food Flow: 2016 New York City Food Distribution & Resiliency Study Results* at 9, available at

https://edc.nyc/sites/default/files/filemanager/Projects/Hunts_Point_Peninsula/Five_Borough_Food_Flow.pdf.

⁵⁸ *See id.*

⁵⁹ *See id.*

⁶⁰ *See id.*

Development Block Grant Disaster Recovery (“CDBG-DR”) funding.⁶¹ The City further allocated \$25 million in additional CDBG-DR funding, bringing the total investment to \$45 million.⁶² In 2015, NYCEDC and MOR convened an Advisory Working Group of Hunts Point stakeholders to develop priorities and make recommendations for Hunts Point resiliency improvements.⁶³ The Working Group is composed of NYCEDC, MOR, various City agencies,⁶⁴ representatives from local elected officials, non-profit community groups, and various businesses.⁶⁵ The Working Group recommended that the City pursue a project that focuses on energy resiliency and flood risk reduction by meeting the following goals:⁶⁶

- Addressing critical vulnerabilities of both community and industry;
- Protecting important citywide infrastructure during emergencies, such as major floods;
- Protecting existing and future industrial businesses and jobs;
- Supporting the community’s social, economic, and environmental assets; and
- Using sustainable, ecologically sensitive infrastructure.

The Working Group produced the Hunts Point Resiliency Feasibility Study, which found that the low lying industrial areas of Hunts Point, where the FDC is located, face risks from both storm surge and power outages.⁶⁷ Though the study indicated that industrial buildings in the area are already elevated and face limited vulnerability from a storm surge, various critical facilities

⁶¹ See Hunts Point Resiliency Implementation Advisory Working Group, Letter to Senior Advisor to the Mayor for Recovery Resiliency and Infrastructure (Sep. 30, 2015) available at https://edc.nyc/sites/default/files/filemanager/Hunts_Point_Resiliency_Working_Group_Recommendations_FINAL.pdf

⁶² See *id.*

⁶³ See *id.*

⁶⁴ Agencies participating in the working group included the Departments of Environmental Protection, Transportation, Parks and Recreation, City Planning, Small Business Services and Health and Mental Hygiene.

⁶⁵ See *id.*

⁶⁶ See *id.*

⁶⁷ See Hunts Point Resiliency Feasibility Study, NYCEDC and Mayor’s Office of Resiliency, 2016-2019, p 8, <https://edc.nyc/sites/default/files/2020-05/NYCEDC-Hunts-Point-Resiliency-Study-05-2020.pdf>.

in the FDC were found to be vulnerable to coastal flooding, including 355, 400 and 600 Food Center Drive.⁶⁸ The facilities most vulnerable to power outages were 100, 355, and 800 Food Center Drive.⁶⁹ Facilities that were not within the FDC, such as the Hunts Point Wastewater Treatment Plant and Hunts Point Railyard, were found to be more vulnerable to storm surge, while the Vernon C. Bain Correctional Facility and certain roads and electrical infrastructure, were found to be vulnerable to both storm surge and power outages.⁷⁰

The Working Group recommended two categories that the City should focus on to achieve its stated goals: power/energy and coastal protection.⁷¹ The power/energy category would include projects such as elevation and protection of mechanical systems, back-up power generation, a micro-grid for independent district-wide energy generations, a nano-grid for independent building-scale energy generation, and cleaner energy production.⁷² The coastal protection category would include projects to install shoreline/edge protection, such as multi-purpose levees, bulkheads and/or seawalls, wetlands, green infrastructure-based storm water management, green seawalls, deployable flood walls, and integrated storm water management, and building-level protection, such as building and/or site flood barriers, wet flood-proofing, and building elevation.⁷³ Despite NYCEDC having conducted the feasibility study, a lack of sufficient funding has thus far only allowed it to pursue a pilot project for the power/energy

⁶⁸ *See id.*

⁶⁹ *See id.*

⁷⁰ *See id.*

⁷¹ *See* Hunts Point Resiliency Implementation Advisory Working Group, Letter to Senior Advisor to the Mayor for Recovery Resiliency and Infrastructure (Sep. 30, 2015) *available at* https://edc.nyc/sites/default/files/filemanager/Hunts_Point_Resiliency_Working_Group_Recommendations_FINAL.pdf.

⁷² *See id.*

⁷³ *See id.*

component.⁷⁴ The resulting Hunts Point Resilient Energy Project aims to improve energy resiliency in three ways: implementing a tri-generation micro grid at the FDC to provide it with year-round energy independent of the surrounding area, installing solar + storage at two NYC public schools that will provide year-round and backup energy, and installing mobile diesel generators to provide FDC businesses with backup energy in emergency situations.⁷⁵ According to NYCEDC, this project now has \$71 million in funding -- \$20 million from the CDBG-DR grant and \$51 million from the City.⁷⁶

On the coastal resiliency front, in 2019, NYCEDC committed to flood-proofing, or “hardening” the most vulnerable buildings at the FDC: the Meat Market, the Krasdale facility, and 600 Food Center Drive.⁷⁷ Hardening includes strengthening electrical systems to withstand floodwaters and preventing floodwater from entering buildings or equipment.⁷⁸ However, stakeholders and advocates claim that building hardening is the bare minimum measure that could be taken to improve coastal resiliency, and there is too little investment in that important category.⁷⁹ NYCEDC’s position is that building hardening is sufficient, because the FDC lies in a non-residential area and would have time to prepare for a major storm event.⁸⁰

⁷⁴ See Yoav Gonen, *No Coastal Flooding Protections in Store for City’s Largest Food Hub*, THE CITY (Nov. 8, 2019) <https://thecity.nyc/2019/11/no-flooding-protections-in-store-for-citys-largest-food-hub.html>.

⁷⁵ See NYCEDC, *Hunts Point Resiliency*, <https://edc.nyc/project/hunts-point-resiliency> (last visited April 7, 2021).

⁷⁶ See *id.*

⁷⁷ See NYCEDC, Public Meeting Agenda, *Hunts Point Resiliency* (Jun. 18, 2019).

<https://www.documentcloud.org/documents/6541940-HP-Resiliency-PPT-2019-6-18-FINAL.html>

⁷⁸ See *id.*

⁷⁹ See Gonen, *supra* note 74.

⁸⁰ See *id.*

B. South Brooklyn Marine Terminal (“SBMT”) Off-Shore Wind

In January 2021, Governor Andrew Cuomo announced plans to develop two new offshore wind farms twenty miles off the shore of Long Island.⁸¹ The two offshore wind farms will produce 2,490 megawatts of carbon-free energy and create approximately 5,200 jobs.⁸² The plan also includes transforming the SBMT into a large scale offshore wind staging and assembling facility.⁸³ Equinor, an energy company and international offshore wind operator, was contracted by the State to provide offshore wind power in one of the largest renewable energy procurements in the United States.⁸⁴ The SBMT will serve as the operations and maintenance base for Equinor, as well as future project developers.⁸⁵

Approximately 73 acres, SBMT will become one of the largest dedicated offshore wind port facilities in the United States and will be able to accommodate wind turbine generator staging and assembly activities at the scale required by component manufacturers.⁸⁶ Originally constructed in the 1960’s, SBMT served as an active container terminal, break-bulk and general cargo facility until it closed in the 1980’s.⁸⁷ Over 25 years later, NYCEDC invested \$115 million in terminal infrastructure improvements and site preparation in order to reactivate the terminal.⁸⁸

⁸¹ See, Sydney Pereira, *NY Expands Offshore Wind Projects, Bringing Wind Hub To Brooklyn*, *The Gothamist*, (January 17, 2021), <https://gothamist.com/news/ny-expands-offshore-wind-projects-bringing-wind-hub-brooklyn>

⁸² See, Dan McCue, *Equinor Selected for NY Offshore Wind Project*, *Renewable Energy Magazine*, (January 15, 2021), <https://www.renewableenergymagazine.com/wind/equinor-selected-for-ny-offshore-wind-project-20210115#:~:text=SBMT%20will%20be%20one%20of, scale%20required%20by%20component%20manufacturers>

⁸³ See, *id.*

⁸⁴ See, Equinor Website: <https://www.equinor.com/en/news/202101-us-offshore-wind.html>

⁸⁵ See, Dan McCue, *Equinor Selected for NY Offshore Wind Project*, *Renewable Energy Magazine*, (January 15, 2021), <https://www.renewableenergymagazine.com/wind/equinor-selected-for-ny-offshore-wind-project-20210115#:~:text=SBMT%20will%20be%20one%20of, scale%20required%20by%20component%20manufacturers>

⁸⁶ See *id.*

⁸⁷ See, <https://www.sunymaritime.edu/sites/default/files/2019-10/12%20South%20Brooklyn%20Marine%20Terminal%20Mike%20Stamatis%20SUNY%20Maritime%20190926.pdf>

⁸⁸ See *id.*

Currently, the SBMT will receive \$200 million in infrastructure upgrades from the State and \$200 million in private funding for renovations of the facility space.⁸⁹

C. Staten Island Seawall

The South Shore of Staten Island Coastal Storm Risk Management Project (“Staten Island Seawall”) was designed to reduce flooding and damage from severe weather in areas such as Midland Beach, New Dorp Beach and Arrochar, among others.⁹⁰ The project includes a 5.3-mile long seawall between Fort Wadsworth and Oakwood Beach.⁹¹ The seawall will include a public promenade on top, one mile of levees and floodwalls and over 180 acres of stormwater detention ponds.⁹² The seawall is intended to protect the coast from a storm surge approximately two feet higher than the peak seawater levels during Superstorm Sandy and encompasses an area with over 30,000 residents and 7,300 structures.⁹³ Additionally, once the seawall project is half-built, flood insurance premiums for East Shore homeowners will decrease.⁹⁴

There have been several delays with construction due to funding issues and arguments between the City and State of who is responsible for removing hazardous waste materials.⁹⁵ The U.S. Army Corps of Engineers (“USACE”) is leading the \$615 million project and, originally

⁸⁹ See, *BP Completes Stake Acquisition in Offshore Wind Farms From Equinor*, Sunset Park Reports, (February 1, 2021), <https://sunsetparkreports.wordpress.com/tag/south-brooklyn-marine-terminal/>.

⁹⁰ See, Nathan Kensinger, *On Staten Island, A Massive Barrier Will Rise to Protect Against Climate Change*, Curbed New York, (April 25, 2019), <https://ny.curbed.com/2019/4/25/18515213/staten-island-usace-seawall-climate-change-photo-essay>

⁹¹ See *id.*

⁹² See *id.*

⁹³ See, Nathan Kensinger, *On Staten Island, A Massive Barrier Will Rise to Protect Against Climate Change*, Curbed New York, (April 25, 2019), <https://ny.curbed.com/2019/4/25/18515213/staten-island-usace-seawall-climate-change-photo-essay>

⁹⁴ See, Clifford Michel, *A Five-mile Seawall Was Supposed to Protect Staten Island by 2021. A Fight Over Radiation Cleanup Stands in the Way*, The City, (February 15, 2021), <https://www.thecity.nyc/2021/2/15/22283181/staten-island-radiation-seawall-sandy-climate>

⁹⁵ See, Clifford Michel, *A Five-mile Seawall Was Supposed to Protect Staten Island by 2021. A Fight Over Radiation Cleanup Stands in the Way*, The City, (February 15, 2021), <https://www.thecity.nyc/2021/2/15/22283181/staten-island-radiation-seawall-sandy-climate>

was expected to complete the seawall in 2021.⁹⁶ However, in 2020 that deadline was moved to the end of 2025,⁹⁷ and because radiation from a 1940s landfill was discovered underneath the planned 5.3 mile path, construction may now not be completed until 2026.⁹⁸

D. East Side Coastal Resiliency Project

The East Side Coastal Resiliency (“ESCR”) Project is a coastal protection initiative aimed at reducing flood risk due to severe weather and sea level rise on Manhattan's East Side from East 25th Street to Montgomery Street.⁹⁹ The project is funded by the City and federal government and aims to integrate flood protection for the surrounding areas and improve waterfront open spaces and access.¹⁰⁰ An integrated flood protection system is being constructed across a 2.4-mile span, which includes waterfront open spaces, sections of the FDR Drive, urban streets, residences, businesses, schools and other vital infrastructure, including a pump station and electrical substation.¹⁰¹ Several floodwalls will be constructed, including along the FDR Drive from Montgomery Street to the southern end of the existing amphitheater and a floodwall will connect to the north of the Con Edison Generating station at 15th Street between the edge of Con Edison’s parking lot and the FDR Drive to Murphy Brothers Playground.¹⁰² Several public parks will also be reconstructed as part of the project.¹⁰³ Work in Project Area One, around Asser

⁹⁶ *See id.*

⁹⁷ Clifford Michel, *Army’s Five-Mile Seawall to Protect Staten Island Hits Another Delay*, The City, (July 14, 2020).

⁹⁸ *See*, Clifford Michel, *A Five-mile Seawall Was Supposed to Protect Staten Island by 2021. A Fight Over Radiation Cleanup Stands in the Way*, The City, (February 15, 2021),

<https://www.thecity.nyc/2021/2/15/22283181/staten-island-radiation-seawall-sandy-climate>

⁹⁹ *See*, NYC The East Side Coastal Resiliency Project, <https://www1.nyc.gov/site/escr/index.page>

¹⁰⁰ *See id.*

¹⁰¹ *See*, NYC The East Side Coastal Resiliency Project, <https://www1.nyc.gov/site/escr/about/resiliency-and-flood-protection.page>

¹⁰² *See id.*

¹⁰³ *See*, NYC The East Side Coastal Resiliency Project, <https://www1.nyc.gov/site/escr/about/parks-and-recreation.page>

Levy Playground near East 23rd Street and the Solar One facility near Stuyvesant Cove Park north began in November 2020¹⁰⁴ and is expected to continue through 2025.¹⁰⁵

On April 15, 2021, Mayor de Blasio announced that construction crews would begin installing an underground wall of structural sheeting in Stuyvesant Cove Park and pile driving would begin soon. These are the first steps necessary for constructing the above-ground floodwall that will form an integrated flood protection system for the entire East River Park and surrounding neighborhoods.¹⁰⁶ Work in East River Park is expected to begin late 2021.¹⁰⁷

However, the ESCR Project has been the subject of lawsuits. East River Park Action, comprised of residents from the Lower East Side and other neighborhoods in the City,¹⁰⁸ argue that the City's original plan, which would have built a flood wall along the FDR Drive, allowing the park to flood during severe coastal storms and storm surge events, is preferable to the selected plan, which will raise East River Park.¹⁰⁹ The group also argues that the City has not been transparent regarding their rationale for selecting the chosen construction alternative.¹¹⁰

¹⁰⁴ See, NYC The East Side Coastal Resiliency Project, Project Updates, <https://www1.nyc.gov/site/escr/project-updates/project-updates.page>

¹⁰⁵ See, NYC The East Side Coastal Resiliency Project, <https://www1.nyc.gov/site/escr/index.page>

¹⁰⁶ Press Release, *A Recovery for All of Us: Mayor de Blasio Celebrates Construction for East Side Coastal Resiliency Project*, (April 15, 2021), <https://www1.nyc.gov/office-of-the-mayor/news/269-21/recovery-all-us-mayor-de-blasio-celebrates-construction-east-side-coastal-resiliency>

¹⁰⁷ Press Release, *A Recovery for All of Us: Mayor de Blasio Celebrates Construction for East Side Coastal Resiliency Project*, (April 15, 2021), <https://www1.nyc.gov/office-of-the-mayor/news/269-21/recovery-all-us-mayor-de-blasio-celebrates-construction-east-side-coastal-resiliency>

¹⁰⁸ East River Park Action, *Who we Are*, <https://eastriverparkaction.org/about/>

¹⁰⁹ Sydney Pereira, *Opponents of City's East River Park Resiliency Project Sue for More Transparency* Gothamist, April 11, 2021, https://gothamist.com/news/opponents-citys-east-river-park-resiliency-project-sue-more-transparency?mc_cid=0ccdb4d377&mc_eid=8dd499739f

¹¹⁰ Sydney Pereira, *Opponents of City's East River Park Resiliency Project Sue for More Transparency* Gothamist, April 11, 2021, https://gothamist.com/news/opponents-citys-east-river-park-resiliency-project-sue-more-transparency?mc_cid=0ccdb4d377&mc_eid=8dd499739f

E. East Harlem Resiliency

Although East Harlem was not hit hard by Superstorm Sandy, the low-lying neighborhood is susceptible to flooding from storm surge and sea level rise. Hence, in 2017, the Department of Parks and Recreation (“DPR”), with MOR, hired consultants to study how best to protect East Harlem from the future effects of climate change.¹¹¹ The East Harlem Resiliency Study (the Study) was a part of the various neighborhood planning efforts that the City conducted after Superstorm Sandy to look at how to make low-lying neighborhoods more resilient to the future effects of climate change.¹¹² The Study looked at sea level rise, storm surge, extreme heat and extreme precipitation and identified a set of future recommendations, grouped into three categories: managing stormwater, creating resilient open spaces, and adapting the waterfront.¹¹³

In December 2019, DPR and MOR released “A Vision Plan for a Resilient East Harlem,” which was informed by the Study.¹¹⁴ The plan includes increasing tree planting, developing and renovating public spaces to be resilient through updated site designs using light colored materials and drainage improvements, increasing the elevation of low-lying sections of the waterfront for flood protection and increasing public programming and design that promotes a more diverse and multi-generational use of open spaces.¹¹⁵ The plan encompasses areas between East 92nd

¹¹¹ Rachel Holliday Smith, *De Blasio’s \$1 Million Flood Plan Shelved and Hidden from High Risk East Harlem*, The City, (Jan. 25, 2021), <https://www.thecity.nyc/2021/1/25/22245050/de-blasio-hides-flood-climate-plan-from-east-harlem-resiliency>

¹¹² NYC DPR and NYC MOR, Vision Plan for a Resilient East Harlem, 2019, https://www.nycgovparks.org/pagefiles/145/east-harlem-resiliency-study-vision-plan_5e0118fed163a.pdf

¹¹³ NYC DPR and NYC MOR, Vision Plan for a Resilient East Harlem, 2019, https://www.nycgovparks.org/pagefiles/145/east-harlem-resiliency-study-vision-plan_5e0118fed163a.pdf

¹¹⁴ See, DPR Website, <https://www.nycgovparks.org/planning-and-building/planning/neighborhood-development/east-harlem-resiliency>

¹¹⁵ See, *Vision Plan for a Resilient East Harlem*, https://www.nycgovparks.org/pagefiles/145/east-harlem-resiliency-study-vision-plan_5e0118fed163a.pdf

Street and East 154th Street.¹¹⁶ The City found that “given the density of population, buildings, businesses, critical infrastructure, community facilities, transportation assets and parks in East Harlem, the potential cost of inaction in the face of climate change events over the next 50 years is approximately \$3.2 billion.”¹¹⁷ Further, the Study found that because of the neighborhood’s low-lying topography, stormwater and drainage issues were the most acute flood threats.¹¹⁸

VI. LEGISLATIVE ANALYSIS: PROPOSED INT. NO. 1679-A

Below is a brief summary of the legislation being heard by the Committees at this hearing. This summary is intended for informational purposes only and does not substitute for legal counsel. For more detailed information, you should review the full text of the bill, which is attached below.

Proposed Int. 1679-2019, A Local Law in relation to evaluating shoreline protection structures throughout the city of New York

This bill would require the Mayor to designate an agency to conduct a study of the shoreline and all shoreline protection structures in New York City. The agency would prepare recommendations for maintaining shoreline protection structures that are functional, for replacing those structures that are deteriorating, and for adding shoreline protection structures where they do not exist. Such recommendations would include using living shoreline techniques or environmentally-responsible alternatives to traditional concrete material where feasible. The designated agency would submit a report to the Mayor and Council and make its recommendations publicly available on its website.

¹¹⁶ *See id.*

¹¹⁷ *See, Vision Plan for a Resilient East Harlem*, https://www.nycgovparks.org/pagefiles/145/east-harlem-resiliency-study-vision-plan_5e0118fed163a.pdf

¹¹⁸ *See, Vision Plan for a Resilient East Harlem*, https://www.nycgovparks.org/pagefiles/145/east-harlem-resiliency-study-vision-plan_5e0118fed163a.pdf

This local law would take effect immediately and expire and be deemed repealed upon final submission of the required report.

VII. CONCLUSION

The Committees look forward to hearing testimony from representatives from NYCEDC, MOR, and other stakeholders on how New York City can ensure that its vital ports are utilized to their full potential, and that its ports, shorelines, and food distribution centers are resilient in the face of rising seas and increasing storm threats in decades to come.

Proposed Int. No. 1679-A

By Council Members Vallone and Yeger

A Local Law in relation to evaluating shoreline protection structures throughout the city of New York

Be it enacted by the Council as follows:

Section 1. Shoreline protection structures study. a. Definitions. For purposes of this local law the following terms have the following meanings:

Environmental concrete. The term “environmental concrete” means material that is used for shoreline protection, as an alternative to traditional concrete material, can enhance or encourage the growth of flora or fauna when placed in a marine environment, and results in the production of fewer greenhouse gas emissions than traditional concrete material. Environmental concrete may include recycled materials, such as recycled or reclaimed concrete material.

Living shoreline technique. The term “living shoreline technique” means a coastal infrastructure design that incorporates natural living features such as plants, soil or other naturally occurring elements, alone or in combination with structural components such as rock, fiber rolls, bagged shell or similar materials, that functions to protect the coast from erosion and flooding while maintaining upland and water habitats.

Shoreline protection structure. The term “shoreline protection structure” means a coastal infrastructure design made of durable materials, such as rock and reinforced concrete, including seawalls, bulkheads, rip rap, groins, revetments, breakwaters and similar shoreline stabilization methods, built to protect the coast from erosion and flooding.

b. The mayor shall designate an agency to conduct a study of the entire shoreline of the city of New York. The study shall examine, at minimum:

1. Whether any existing shoreline protection structures are intact, degrading or deteriorated;

2. Any maintenance needed to an existing shoreline protection structure or whether such shoreline protection structure should be replaced;

3. Where such shoreline protection structure should be replaced, whether a living shoreline technique would be a feasible replacement, or if a living shoreline technique is not a feasible replacement, whether environmental concrete would be feasible;

4. Where no shoreline protection structure is present, whether a shoreline protection structure is necessary, and, if so, whether a living shoreline technique or environmental concrete would be feasible.

c. No later than one year after the effective date of this local law, the designated agency shall post on its website and submit to the mayor and speaker of the council a report that contains its findings and recommendations based on the study pursuant to subdivision b of this section.

§ 2. This local law takes effect immediately, and expires and is deemed repealed upon final submission of the report as required by section one of this local law.

JSA
LS #11009
4/7/2021