TESTIMONY OF THE MAYOR'S OFFICE OF RESILIENCY
BEFORE THE NEW YORK CITY COUNCIL
COMMITTEE ON RESILIENCY AND WATERFRONTS

Monday, January 25, 2021

I. INTRODUCTION

Good morning. I am Jainey Bavishi, Director of the Mayor's Office of Resiliency. I would like to thank Chair Brannan and Councilmembers Constantinides, Diaz, Ulrich, and Rose for the opportunity to testify today.

I am pleased to join Council this morning to discuss two important bill introductions, and to share context about the City's ongoing efforts to increase the short-term and long-term resiliency of buildings and infrastructure in the face of growing climate threats.

II. SUMMARY OF PAST AND ONGOING EFFORTS

It is well known that following Hurricane Sandy, the City began developing plans for large-scale coastal resiliency projects. On a parallel track, the City also began embarking on less publicized but equally vital efforts to increase the resiliency of public and private buildings, as well as the infrastructure that serves all New Yorkers.

These efforts began with reforms to strengthen Appendix G of the New York City Building Code in 2014. Driven by a shared desire to make new construction safer and more resilient, the Mayor's Office worked with Council to develop and pass a package of new standards. These standards, which remain in place today, are among the most stringent building codes anywhere in the country.

In the aftermath of Hurricane Sandy, the City also adopted temporary emergency zoning rules that made it easier for New Yorkers to rebuild quickly while increasing their resilience against future flooding and giving homeowners more ways to reduce their flood insurance costs. These temporary rules were popular and effective in Sandy-impacted communities and provide an excellent example of how the City can encourage private-sector resiliency investments. The Department of City Planning is now in the process of updating those rules with lessons learned and making them permanent though a proposal known as "Zoning for Coastal Flood Resiliency." On February 3rd, the City Planning Commission will hold a public hearing on this proposal. Following this hearing, the Council will have an opportunity to hear and vote on the proposal.

As you know, flood mapping is another important component of climate adaptation planning. Like virtually every other city in the United States, New York City currently relies on FEMA's Flood Insurance Rate Maps, or FIRMs, for planning purposes. However, these maps are insurance maps, and although they are currently used for building code and design, they have significant limitations – the most significant being that they only represent present-day risk. This makes sense for setting flood insurance rates, since premiums are determined based on the risks we face today or this year and can be re-calculated on an annual basis. However, as we plan for constructing new buildings, we must consider future threats, since most buildings have a lifespan of many decades. We must consider flood risk across the entire useful life of an asset or building.

To address this problem, my office is working to develop a first-of-its-kind Future Flood Risk Map for New York City that will incorporate climate projections though 2100. We are starting the modeling process now and when these maps are complete, we will work with Council and DOB to find out how best to integrate these maps into Building Code. This would result in codifying higher building elevation requirements that are extremely precise for all floodplain construction in New York City.

Finally, as Council is already aware, my office has developed the Climate Resiliency Design Guidelines which guidance on how to incorporate forward-looking climate change data in the design and construction of City capital projects. First issued in 2017, the Guidelines were developed through a collaborative process with over 20 City agencies and authorities. Due to the participation and feedback of agency partners over the last five years, the City is now prepared to pilot the Guidelines more broadly.

These Guidelines, now in their fourth iteration, are a critical tool for incorporating resiliency across the City's $90 billion capital portfolio. By developing a coordinated Citywide methodology for integrating resilient design in public buildings and infrastructure, we can ensure that our public investments are durable, long-lasting, and serve critical functions for New Yorkers despite the threats posed by extreme weather and chronic climate stresses. No other city in the country has developed such comprehensive multi-hazard design guidelines, and the adoption of the Guidelines by City capital agencies represents an important opportunity for New York City to continue its national leadership on climate adaptation issues.

The Climate Resiliency Design Guidelines address the extreme weather threats and increasing chronic climate stresses that pose the greatest risk to City capital construction. These include hazards caused by storm surge, chronic tidal flooding, increased precipitation, and extreme heat. The Guidelines are essential for protecting the City's facilities from extreme weather damage, and in doing so, will save taxpayers money and improve the City's overall fiscal health.

III. COMMENTS ON INTRODUCTION 2092 AND INTRODUCTION 2198

While I am extremely proud of our work to increase the resiliency of buildings and infrastructure, there is no question that we must do more. As the past year clearly demonstrated, climate change is not letting up. Global temperatures keep rising, and 2020 was the second hottest year on record. The Atlantic hurricane season is also growing more intense and more dangerous, with last year's being the most active on record.

With this in mind, we look forward to working closely with Council on both bill introductions being heard today. We support the intent of Intro 2092, which would mandate a five-year pilot of the Climate Resiliency Design Guidelines for public facilities and create a resiliency scoring system for these facilities. We believe beginning with a five-year pilot is a critical first step that will allow the City to collect necessary information on real-world benefits and costs of implementing the Guidelines, given the wide variety of assets in the City portfolio. These lessons will inform an updated version of the Guidelines, the scoring system, as well as possible future design mandates. Starting with a pilot phase will manage upfront costs during the current fiscal crisis, and we look forward to designing a pilot program that reflects the realities of the City's budget constraints while producing meaningful results.

We also look forward to working closely with Council on Intro 2198. We support the intent of this bill and commend Council for seeking opportunities to continue strengthening requirements for new buildings. That being said, we want to ensure that Intro 2198 is coordinated with the extensive ongoing work I have just described. In particular, we want to ensure any new requirements are consistent with Version 4.0 of the Climate Resiliency Design Guidelines and consider the Department of Buildings' upcoming Code revision proposal which will include increased freeboard requirements in Appendix G. Additionally, any increase in freeboard should be coordinated with our groundbreaking Future Flood Risk Map project. We are eager to provide feedback and recommendations that advance these critical tools that will make New York City stronger and more resilient.

V. CONCLUSION

In conclusion, I would like to thank the Committee on Resiliency and Waterfronts for allowing the Administration to testify here today. I look forward to your questions alongside MOR's Deputy Director for Infrastructure and Energy, Susanne DesRoches, and our colleague Joe Ackroyd, Assistant Commissioner for Technical Affairs and Code Development at the Department of Buildings.

WATERFRONT ALLIANCE

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Testimony of Karen Imas, VP Programs, Waterfront Alliance
City Council Hearing Committee on Resiliency and Waterfronts
January 25, 2021

Thank you Chair Brannan and Council Members.

Today's hearing touches on several important aspects of securing New York City's future in the face of climate change.

First, we thank Council Members Brannan, Chin, Constantinides, and Rosenthal for calling on reinstatement of funding for finalization of the New York-New Jersey Harbor and Tributaries Study (HATS). Waterfront Alliance, through the Rise to Resilience coalition, successfully secured reforms to this study and potential funding for resilience projects through the Water Resources Development Act and appropriations bills included in the recently passed 2020 omnibus. The Corps is now authorized to better address sea level rise, climate change, and engage with community members affected by the project.

The funding for HATS, however, remains uncertain. Waterfront Alliance and the Rise to Resilience Coalition join you in calling on our congressional representatives as well as the Biden Administration to ensure that the study is included in the Army Corps' work plan for this year. The completion of this study will bring jobs, coastal risk reduction, and nature's benefits to the metropolitan region at a time when a resilient recovery is needed more than ever.

With respect to Intro 2092, we enthusiastically support the efforts to codify the city's Climate Resiliency Design Guidelines, as well as Intro 2198 to require that structures located in the floodplain be elevated an additional one-to-two feet.

The City's Climate Design Guidelines are an effort to incorporate forward-looking climate change data in the design of all City capital projects and we commend the Mayor's Office of Resiliency for the guidelines that were updated as recently as 2020. We fully support codifying these guidelines into law, as they can help promote both hard and soft resilience strategies; nature-based solutions; address multiple climate hazards with single interventions; and reduce climate change risk in concert with other goals such as energy efficiency.

Piloting and codifying the City's climate design guidelines will make communities safer and save taxpayer dollars on a return of 6:1. Simply put, building resilient means building better.

Resiliency scoring is an important part of the bill and we are pleased to see efforts that create transparency and accountability, and we would support a letter grades approach.

As part of the city's landmark Green New Deal that passed in 2019, certain building owners are required to display an energy efficiency score and corresponding letter grade near the public entrances of their properties. A similar system for resilience scoring would be welcome and is an important driver for changing consumer and development patterns.

The Waterfront Edge Design Guidelines (WEDG), developed at Waterfront Alliance, could work in tandem with the City's design guidelines as a way to score and verify projects that show not only resilience, but also access, ecology, and innovation at the water's edge. WEDG criteria for resiliency aligns with the City's guidelines as well as New York City Panel on Climate Change projections for future risks.

Also, codifying incentives for WEDG verification – much like LEED incentives have been codified across municipalities – would result in better outcomes and faster adoption for waterfront projects.

For private development, this could include the use of direct subsidies; free and expedited permitting; and tax incentives-- all of which could speed up resilient design and construction, as well as Covid-19 recovery. We encourage deploying an incentive package for WEDG verification for private development in the near term.

Ultimately, we support mandating climate design guidelines for all development and redevelopment projects – public and private - in both the current and future 100-year floodplains. Such a mandate should entail regulatory, legislative, and incentive-based pathways for meeting these resiliency standards.

Importantly, the codifying of guidelines for City projects is but one piece of a broader climate resilience legislative strategy needed.

To that end, we support a Rise to Resilience Act bill package that would include this bill, as well as legislation to create a suite of climate indicators to inform land use decision-making and capital budgeting, as well as a five-borough coastal resilience plan.

Finally, there is a tremendous opportunity for real institutional change through a much-needed comprehensive climate planning and decision-

making framework which impacts how the City designs, maintains, monitors, and replaces assets and infrastructure.

Such a framework is a concept backed by the Rise to Resilience coalition, and would ensure that all City land use and infrastructure decision-making related is evidence-based and community-driven. We hope that this is a subsequent step in the City's climate resilience strategy.

Thank you for the opportunity to testify today.

ACEC New York

American Council of Engineering Companies of New York

Intro. 2092 – Resiliency Design Guidelines
Intro. – Elevation of Structures in Floodplain
Reso. 1389 – Harbor and Tributaries Focus Area Feasibility Study

Testimony Submitted to the City Council
Committee on Resiliency and Waterfronts
January 25, 2021

The American Council of Engineering Companies of New York (ACEC New York) represents close to 300 consulting engineering and affiliate firms throughout New York, with a concentrated presence in New York City. Our member firms plan and design the structural, mechanical, electrical, plumbing, civil, environmental, fire protection and technology systems for New York City's infrastructure and buildings.

We thank the Committee for this opportunity to submit comments regarding Intro. 2092, in relation to resiliency design guidelines for capital projects; Intro. __ , in relation to the elevation of structures in the floodplain; and Reso. 1289 calling on the United States Congress to restore funding to the United States Army Corps of Engineers' (USACE) New York-New Jersey Harbor and Tributaries Focus Area Feasibility Study (HATS Study), and the States of New York and New Jersey to advance their shares of the next phase of funding to revive the study until it is fully restored by Congress.

ACEC New York's Public Policy, Structural Code, Army Corps. and Energy Code Committees reviewed this legislation. The Committees, which are comprised of licensed professional engineers and design professionals, offer the following comments and recommendations regarding the two bills and resolution.

Intro 2092 (Resiliency design guidelines for capital projects)

- *ACEC New York supports this bill in principle, with recommended amendments.*
- First, it is critically important that a licensed professional engineer be included among the listed members of the public and climate resiliency experts to be consulted by the Director of the Office of Long-Term Planning in Sustainability during the development of the guidelines and the resiliency score metric. This is to bring necessary expertise to the process, and to identify areas where the City's current energy or construction codes are in conflict with what is being proposed. The process of engaging this body of experts and the public, including at least one licensed P.E., should be robust.
- There is a lot of knowledge, good-thinking, and information which has already been developed with respect to the evaluation of climate-resiliency of infrastructure. We note, for example, that the American Society of Civil Engineers (ASCE) published a *Manual of Practice (MOP) 140, Climate-Resilient Infrastructure*.
- The bill references "useful life". It will be important to consider the useful life of project components separately rather than combined to identify opportunities for future climate adaptation and to prioritize project budgets (i.e. a building's structure will have a longer useful life than its HVAC equipment).

- The bill includes a list of resilient solutions that would contribute to the project's "resiliency score" (i.e. floodproofing, heat mitigation, green infrastructure, etc.), however there is no mention of an Emergency Action Plan or Operations and Maintenance considerations -- items critical to managing, monitoring and improving resilience over time.
- It would be helpful to first have a risk assessment and a risk score before going into the evaluation of project resilience. Risk score could depend on project location and lifespan, project type and operation, as well as cost for construction and maintenance. The risk assessment and score can be used to prioritize budgets.
- Resilience scoring should place emphasis on providing nature-based solutions and those that optimize co-benefits.

Intro __ (Elevation of Structures in Floodplain)

- *ACEC New York opposes this bill in its current form.*
- It is not clear whether the bill is intended to replace current construction code requirements and industry best practices.
- Without full analysis of the projected sea level rise and storm projections, which vary at any given point along the waterfront and in floodplains, it is likely that such specific additional elevation will either be insufficient or in some cases unnecessary.
- Finally, we recommend any such effort be closely coordinated with the waterfront regulations of the NYC Zoning Resolution, which itself has certain resiliency requirements and take into account raising development sites in areas with height limits.

Resolution 1389 (Harbor and Tributaries Focus Area Feasibility Study)

- *ACEC New York supports Reso. 1389* calling on Congress to restore funding for the HATS feasibility study. The beneficiary states, NY and NJ, should also be called upon to commit their share to the federal study as determined in the applicable legislation that initiated HATS and to which the states committed to in writing with the USACE NY District.
- Preservation of the economic value of the vulnerable NYC Metro Region makes a flood resilience solution a high national priority.
- The only entity that can properly study and eventually fund a NYC Metro Area regional flood resilience project is the federal government.
- The Army Corps has the right national expertise to study a number of alternatives - not favoring a single option - to determine which one has the highest benefit to cost ratio to move forward as the National Economic Development (NED) solution. By law, these alternatives will represent a variety of solutions and will be guided by sound water resources policies that have long served our country well.
- The HATS study was postponed by the executive branch due to a perceived partiality towards a surge barrier option. However, no such bias existed. The study had not reached any formal recommendations as to a NED solution.

If you have any questions or if our committees can be of assistance to you, we are happy to coordinate.

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Chairman, Members and Staff of the City Council Committee on Resiliency and Waterfronts, please accept the following testimony in support of Int 2092 which would mandate the use of Climate Resiliency Design Guidelines in all City capital projects.

The International Code Council is a non-governmental organization, driven by the engagement of 65,000 members, that is dedicated to helping communities and the building industry provide safe, resilient, and sustainable construction through the development and use of model codes (International Codes or I-Codes) and standards used in design, construction, and compliance processes. All 50 states, federal agencies, and many global markets choose the I-Codes to set the standards for regulating construction and major renovations, plumbing and sanitation, fire prevention, and energy conservation in the built environment.

The I-Codes are regularly revised and updated by a national consensus process that strikes a balance between the latest technology and new building products, economics and cost while providing for an acceptable level of public and first responder safety. It is an open, inclusive process that encourages input from all individuals and groups and allows those governmental members that are public safety officials to determine the final code provisions. I am pleased that several New York City Department Staff participated in the 2018 and the 2021 ICC Code Hearings. The expertise of New York City Mayor's Office, Building Department, design professionals, builders, contractors, labor representatives and all disciplines interested in building safety and energy conservation are vital to your adoption efforts as well as ours.

We commend the City for its ongoing leadership in assuring that its building stock addresses the risks of today and those anticipated into the future. Buildings are a cornerstone of communities providing shelter for residents, facilitating to conduct of business and providing essential community services like healthcare, education, and social services. Municipal buildings reflect the values of the City and must continue to support the needs of the community to assure that the City continues to thrive.

Investments in public buildings today will impact both the financial and physical stability of the City for years to come. A deliberative approach to assure those investments are cost effective across the lifetime of individual structures is essential. Resilience investments up front have been proven highly cost effective. Where practical, incorporating resilience measures into the initial design can reduce the need to retrofit later (this is particularly impactful when city buildings are expected to last 50 to 100 years).

The Congressionally established National Institute of Building Sciences (NIBS) conducted an extensive benefit cost analysis on various mitigation measures. NIBS found that, at a national level, investments in pre-disaster mitigation can provide up to $11 of savings for each $1 invested (with local or hazard-specific benefits potentially reaching $32 or more).[1] These savings go beyond physical damage to

[1] Multi-Hazard Mitigation Council (2019). Natural Hazard Mitigation Saves: 2019 Report. Principal Investigator Porter, K.; Co-Principal Investigators Dash, N., Huyck, C., Santos, J., Scawthorn, C.; Investigators: Eguchi, M., Eguchi, R., Ghosh., S., Isteita, M., Mickey, K., Rashed, T., Reeder, A.; Schneider, P.; and Yuan, J., Directors, MMC. Investigator Intern: Cohen-Porter, A. National Institute of Building Sciences. Washington, DC. www.nibs.org/mitigationsaves.

include business interruption costs, injuries, and loss of life. The study also recognizes (although does not quantify monetarily) that mitigation measures support key social priorities including the needs of vulnerable populations, impacts on educational progress in school children, and historic preservation. As you'll note in Figure 1, the mitigation measures identified include the retrofit of lifeline infrastructure.

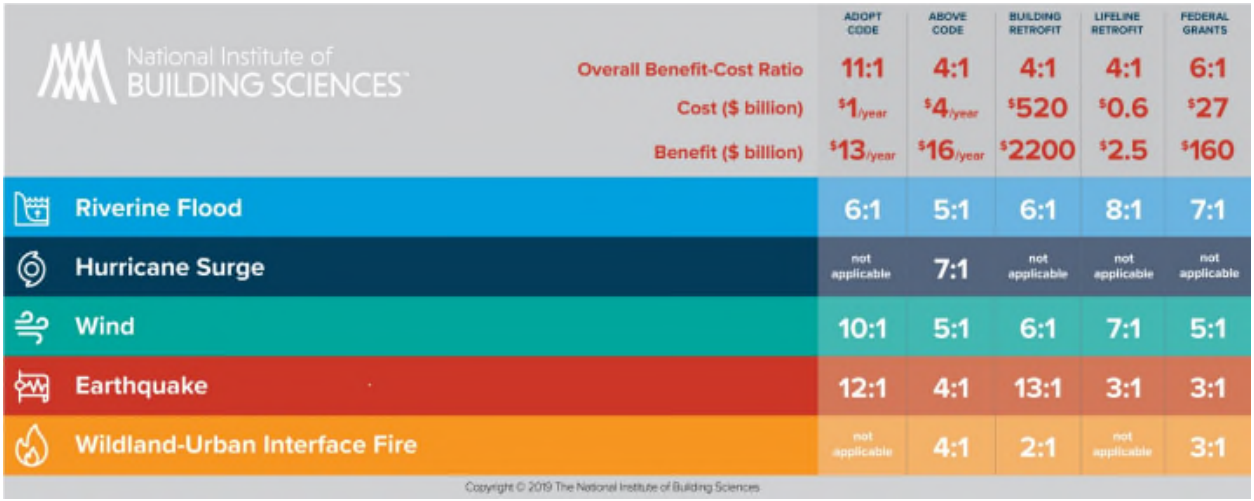

Figure 1. Benefit Cost Ratio for Various Hazard Mitigation Measures

Like the City, the International Code Council has recognized that climate change is altering what it means to provide safety moving forward. Design and construction requirements will need to change to address evolving risks. While we work at a national and international scale to identify and implement necessary changes to address these changing risks within a model code process, we look to leading communities to forge the path forward. New York City has been a leader in recognizing and responding to the challenges ahead.

Late in 2019, the International Code Council convened a group of code development and research organizations from Canada, Australia and New Zealand to share information and collaborate on identifying a path forward. Following that initial meeting we launched the Global Resiliency Dialogue (www.globalresiliency.org) and released *Findings on Changing Risk and Building Codes*.[2] This effort will culminate in development of an International Resilience Guideline and a joint research plan. Again, we will look to leading communities like New York City to identify what is possible and what works. At the same time, we hope to share insight from our international colleagues and other progressive communities across the country to advance resilience.

As you know, the City's resilience initiatives are not limited to buildings and infrastructure. Social and organizational resilience are also necessary. The Alliance for National & Community Resilience (ANCR), a member of the ICC Family of Solutions, was established to recognize the importance of a holistic resilience strategy across the many functions that make communities great places to live and work (www.resilientalliance.org). ANCR is developing Community Resilience Benchmarks across 19 community functions to support communities in determining their current resilience and identifying policies and programs that can help them improve. We were pleased to have a representative from the New York City Department of Buildings on our founding ANCR Board of Directors and have benefited

[2] https://www.iccsafe.org/wp-content/uploads/Findings_ChangingRisk_BldgCodes.pdf

from the participation of resilience leaders from both the public and private sector in the City in the benchmark development process. We look forward to continuing to glean lessons learned and best practices from the City as work to enhance community resilience nationwide.

New York City is recognized as a leader in the area of building resiliency and energy conservation. The International Code Council is honored to work with the City on its efforts to enhance the resilience and sustainability of its residents. As you may be aware, legislation to update the NYC Construction Codes will be introduced soon and will be heard by the Housing and Buildings Committee. I am hopeful that Int. 2092 will complement the NYC Construction Code legislation. Thank you for the opportunity to present testimony to you today in support of Int. No.2092.

Thank you for the opportunity to submit testimony. Please do not hesitate to contact either of us if you need any additional information.

Sincerely,

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Chairman, Members and Staff of the City Council Committee on Resiliency and Waterfronts, please accept the following testimony in support of Int 2198 - in relation to amending the New York city building code, in relation to additional freeboard for structures in the floodplain.

The International Code Council is a non-governmental organization, driven by the engagement of 65,000 members, that is dedicated to helping communities and the building industry provide safe, resilient, and sustainable construction through the development and use of model codes (International Codes or I-Codes) and standards used in design, construction, and compliance processes. All 50 states, federal agencies, and many global markets choose the I-Codes to set the standards for regulating construction and major renovations, plumbing and sanitation, fire prevention, and energy conservation in the built environment.

The I-Codes are regularly revised and updated by a national consensus process that strikes a balance between the latest technology and new building products, economics and cost while providing for an acceptable level of public and first responder safety. It is an open, inclusive process that encourages input from all individuals and groups and allows those governmental members that are public safety officials to determine the final code provisions. I am pleased that several New York City Department Staff participated in the 2018 and the 2021 ICC Code Hearings. The expertise of New York City Mayor's Office, Building Department, design professionals, builders, contractors, labor representatives and all disciplines interested in building safety and energy conservation are vital to your adoption efforts as well as ours.

The content of the I-Codes are a minimum standard. Many jurisdictions, like New York City, choose to adopt more restrictive standards which reflect their unique geographical conditions. Int 2198 is an example of such a local law which reflects enhanced requirements of the freeboard provisions in the International Building and Residential Codes to improve building resiliency in New York City. Since the New York City Department of Buildings is working to revise the New York City Construction Codes, including Appendix G of the Building Code, which addresses freeboard, I would recommend that this proposal be coordinated with ongoing Construction Code revision efforts.

Thank you for the opportunity to submit testimony. Please do not hesitate to contact me if you need any additional information.

Sincerely,

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New York City Council
Committee on Resiliency and Waterfronts
Remote Hearing on Res. 1389
January 25, 2021

Good afternoon Mr. Chairman, Councilmembers, my name is Lauren Cosgrove and I am here to provide testimony on behalf of the National Parks Conservation Association (NPCA), a 102-year old national parks advocacy organization that works to protect and enhance our national parks throughout the country. With over 1.4 million members and supporters nationwide, and 72,000 here in New York, NPCA is committed to protecting national parks and communities from the causes and detrimental effects of climate change. From the halls of Congress to the courtroom, NPCA fights to ensure our nation's bedrock environmental laws are strong, holding polluters and the government accountable to those safeguards. This is what brings me here today, to stand up for climate action by expressing our support for Res. 1389 and advocating for place-based climate solutions that value the needs of the National Parks of NY Harbor and surrounding vulnerable communities who are too often on the front lines of climate change.

Hurricane Sandy exposed the vulnerability in New York City's critical infrastructure as climate change produces stronger and more frequent storms. Subway systems and electrical substations were paralyzed, hospitals and roads flooded, and sewage systems massively failed. Nearly 50% of the volume of sewage overflow during Sandy occurred in New York. Climate Central reported that the entire city had six sewage spills larger than 100 million gallons and that same report states that they, and I quote, "didn't even try to estimate how much raw sewage poured into Jamaica Bay [in Gateway National

Recreation Area] from the city's antiquated sewer system – which is known to overflow even in heavy rain."[1]

Climate threats to New York City's infrastructure will not come from hurricanes alone. Portions of Brooklyn and Queens already experience regular nuisance flooding from rain and king tide events, only projected to get worse over time and further threaten critical infrastructure and NYC's vulnerable communities. Astonishingly, the New York City Comptroller's Office found that over 400,000 New Yorkers reside in high-risk flood zones and over $129 billion of property lies within the 100-year floodplain[2]. Future projections show that an additional 230,000 people could be at risk by 2050[3].

Moreover, the structural, historical, natural, and cultural integrity of National Park sites along New York City's coast; such as Gateway National Recreation Area, Governors Island National Monument, Castle Clinton National Monument and the Statue of Liberty and Ellis Island National Monument are all at risk of being compromised by climate change – specifically from sea level rise, coastal flooding and erosion. And while these special places provide urban residents with much needed respite, especially in the last 10 months during the Coronavirus pandemic, they are in many cases NYC's first line of defense. The National Parks of NY Harbor, offering countless opportunities for outdoor exploration, recreation, and education, deserve the highest level of protections so that future generations can continue to visit, learn and love the places that celebrate our country's shared natural and cultural heritage.

Today, NPCA applauds the NYC Council, specifically Council Members Brannan, Chin, Constantinides and Rosenthal, for proposing **Res. 1389 as an important and necessary step toward a more resilient and just future for NYC's national parks and waterfront communities.** The Army Corps

[1] Climate Central, *Hurricane Sandy's Untold Filthy Legacy: Sewage*. April 30th, 2013.
[2] Office of the New York City Comptroller, Scott M. Stringer, Bureau of Policy and Research, *On the Frontlines: $129 Billion in Property at Risk from Flood Waters*. October 2014.
[3] ICF and Climate Central: States at Risk, *New York Coastal Flooding. 2015.*

of Engineer's NY District was charged with proposing alternatives that mange future potential coastal storm risks for the NY-NJ region, through the authorization of the New York-New Jersey Harbor and Tributaries Focus Area Feasibility Study (HATS). However, in April 2020, we learned that the Corp was forced to stop working on the study because funding was not included in the Corps' FY2020 workplan. With NYC's working waterfront being a vital economic engine for the region, generating over $50 billion in revenue and providing nearly 300,000 jobs[4], this is a fiscally irresponsible decision and the incoming Biden administration, as well as the Office of Management and Budget, must restore funding so that the Corps can continue what they set out to accomplish.

NYC deserves a comprehensive plan for managing future potential coastal storm risks and with the recent federal policy revisions included in the Water Resources Development Act that NPCA and others advocated for, the HATS has tremendous potential. With Res. 1389, the NYC Council takes a bold step to fund climate action. Restored federal, state and city funding for HATS can promote nature-based green infrastructure solutions such as the creation of natural buffer zones that restore native plants, improve wildlife habitat and protect NYC's waterfront communities from short- and long-term impacts of climate change.

On behalf of the National Parks Conservation Association, we thank the New York City Council for proposing Res. 1389 to restore funding to the United States Army Corps of Engineers' New York-New Jersey Harbor and Tributaries Focus Area Feasibility Study and to encourage NYC, New York State and New Jersey to finance their portions of the study. We cannot afford to waste any more time. NYC needs climate action now, and Res. 1389 a bold step toward a safer City in the wake of climate chaos. In

[4] New York Shipping Association, Inc., *The Economic Impact of the New York-New Jersey Port/Maritime Industry*. October 2011.

closing, NPCA would like to thank the City Council's Committee on Resiliency and Waterfronts for hosting this hearing, and we especially appreciate Council Members Brannan, Chin, Constantinides, and Rosenthal efforts and all of the City Council members here today in support of Resolution 13898.

NYC Council Committee on Resiliency and Waterfronts Hearing
January 25, 2021

My name is Sarah Charlop-Powers and I am the Executive Director of the Natural Areas Conservancy (NAC). Started in 2012, the Natural Areas Conservancy (NAC) is a non-profit organization devoted to restoring and conserving New York City's 20,000 acres of forests and coastal areas. The NAC is the first park conservancy dedicated exclusively to New York City's natural areas, which comprise one third of the city's park system. The NAC works in more than 50 parks across the five boroughs and takes a science-based approach to conserving the city's nature, improving coastal resilience, and ensuring healthy forests. We believe that natural areas are vital to sustaining air quality, improving public health, providing New Yorkers with access to nature, and strengthening our communities.

Thank you for the opportunity to submit testimony in support of Intro 2092. Together with our partners from the Waterfront Alliance and Rise to Resilience Coalition, we believed that this local law would benefit New York City.

• Piloting and codifying the City's climate resilience design guidelines will make communities safer and save taxpayer dollars on a return of 6:1. Building resilient means building better.

• Ensuring that the City's infrastructure meets a climate standard is one part of a larger legislative strategy. We support a Rise to Resilience Act bill package that would include this bill as well as a comprehensive climate resilience framework and suite of indicators to inform land use decision-making and capital budgeting.

• We see this as a critical next step to ensuring that all land use and infrastructure decisions incorporate climate resilience and equity.

NEW YORK BUILDING CONGRESS 100 YEARS

January 25, 2021

New York City Council
Committee on Resiliency and Waterfronts
City Hall
New York, NY 10007

Chair Brannan and Committee Members Constantinides, Diaz, Rose and Ulrich, thank you for the opportunity to provide testimony regarding Intro 2092, climate resiliency design guidelines and resiliency scoring, and Intro 2198, additional freeboard for structures in the floodplain.

The New York Building Congress commends the City's efforts to create a more resilient and greener built environment. If implemented appropriately, the bills being discussed today will ensure New York City remains a leader in climate policy and construction.

The Building Congress has, for a hundred years, advocated for investment in infrastructure, pursued job creation and promoted preservation and growth in the New York City area. Our association is made up of over 550 organizations comprised of more than 250,000 professionals. Through our members, events and various committees, we seek to address the critical issues of the building industry and promote the economic and social advancement of our city and its constituents.

As climate change continues to exacerbate the frequency and intensity of disruptive events like storms and severe flooding, we must prepare our communities for the challenges ahead by proactively investing in resilient infrastructure. In our *2021 Policy Agenda* and *Building the Future of New York: Resiliency* reports, the Building Congress advocates for smart, sustainable design and construction methods.

Aligned with that goal, the Building Congress supports the intent of the proposed climate resiliency scoring system and increased freeboard requirements. However, it must be ensured that any new regulations are consistent with best practices and will not add time or cost to projects, especially the City's critical public works. For Intro 2092, we hope to see positive results from the pilot project, and for Intro 2198, coordination between the Council and the Department of Buildings is essential.

In closing, the Building Congress looks forward to a continued partnership with the Council to help deliver transformative legislation that will improve the safety and resiliency of our city's buildings and infrastructure. Together, we will build a better New York for all.

Very truly yours,

Carlo A. Scissura, Esq.
President & CEO
New York Building Congress

The North Shore Waterfront Conservancy of Staten Island, Inc.
54 Port Richmond Avenue
Staten Island, New York 10302

January 25, 2021

To: Justin Brannan, Chair and to Council members Ruben Diaz., Sr., Costa Constantinides, Eric A. Ulrich, Deborah Rose of the NYC Resiliency & Waterfronts Committee

Reference: Int. No. 2092 and Res. No 1389.

On behalf of the North Shore Waterfront Conservancy of Staten Island, Inc., and the Waterfront and Environmental Justice Communities on Staten Island's North Shore that we advocate on behalf of. We would like to thank you for the invitation to submit our testimony in favor of Int. No. 2092 and Res. No 1389.

As mentioned above we are in favor of Int. No. 2092 to amend the administrative code for City Buildings and to come up with a resiliency building guideline and score, basically a metric. The only problem is a guideline in government talk means a suggestion which can be followed, or not depending on the discretion of who is in charge. If what is being proposed is of sound reasoning, then it needs to be a law and regulation so that it will be followed and not a guideline.

It is out the necessity that we require a fully functional Sewer Treatment Plant on the North Shore of Staten Island that has the capabilities of doing a better job of treating the water that is being released into the Kill Van Kull, Lower Newark Bay and the Arthur Kill, so that they are fishable and swimmable. We believe that Int. No. 2092 speaks directly to this issue. We also believe that what the City of Portland, Oregon has done with its Sewer Treatment Plants and rivers should be used as a model for the Port Richmond Sewer Treatment Plant. I visited their Columbia Blvd Waste Treatment Plant and I saw firsthand one of their waterbodies that is clean enough for residents to safely fish from. Surely, we can do this for Staten Island's North Shore rivers and Bay.
https://www.portlandoregon.gov/bes/article/40669

If we are ever going to move through process smoother it is extremely necessary that the Commissioner of Environmental Protection and the Commissioner of Parks work together starting NOW to identify Fresh Water Wetlands that are unmapped in the City of New York. Fresh water wetlands that have a connection to tidal wetlands and place a Moratorium on any development of these wetlands until such time as their usefulness has

been evaluated for the purposes of storm water retention and flood resiliency options for nearby EJ communities in particular and other communities that also are flood prone. We are giving the example of the Graniteville Tree Swamp on the North western corner of Staten Island. We believe that certain measures must be taken to make a difference in saving these vital wetlands such as **a Special Budget should be put in place for the purchase of such freshwater wetlands with EJ communities being a priority in receiving this help as EJ communities are the most vulnerable and at risk of Climate Change's effects.**

We would also like to bring to your attention that the ACOE at one time had jurisdiction over freshwater wetlands until they were taking to court and were beaten by a property owner that wanted to develop his property in Texas. From that time until this I do not think any Federal Agency has jurisdiction over freshwater wetlands not even the EPA. That needs to change because there always needs to be checks and balances at every level of the government so that our properties and citizens are protected.

We believe that Into. No 2092, page 5, numbers 5, 6, 7, 8, 11 and 12 relate to our situation.

Once again, we are in favor of Res. No. 1389 as it has to do with the Federal Government restoring funding to the ACOE so that they can resume their study of the NY/NJ Harbor estuaries and a study to manage future potential coastal storm risks including sea level rise and to come up with a means of preventing the loss of human lives and property damage. We continue to be deeply concerned and troubled that the North Shore of Staten Island from East to West is extremely vulnerable to the Climate Change events as our communities sit next to an eroded shoreline with no protections. Unfortunately, for us the ACOE have yet to come up with a plan for shoreline erosion and Climate Change.

From East to West on Staten Island's North Shore it is designated as Environmental Justice Communities. We literally have nothing but need some of everything to better our environment. And just to tie in what is being proposed on the Federal Level with the Army Corps of Engineers' NY/NJ Harbor Widening Improvement Project to what is being discussed with Res. No. 1389. No project the size of the ACOE's Blasting and Dredging Project should be taking place without the adjacent EJ communities receiving mitigations in the form of direct environmental and monetary benefits that help to improve our environmental situation which is dire. And this also applies to the Port Authority as they are ones who are pushing for these deepenings and widenings to get to New Jersey's Ports.
https://www.nan.usace.army.mil/Missions/Navigation/New-York-New-Jersey-Harbor/NY-NJ-HDCI/

All mitigations must take place in the communities where these projects are taking place so that these communities receive such benefits and not elsewhere!

Below are few projects that should take place in terms of meaningful mitigations that would help our environment and our Environmental Justice Communities on Staten Island's North Shore.

- The Port Authority needs to transfer their 17 acres of Arlington Marsh and Cove over to NYS Parks so that it can be joined with NYC Parks in protecting this tidal wetland and cove.
- And the Port Authority needs to purchase the privately owned portion of the Graniteville Tree Swamp and Forest and gift it to NYC Parks & Recreation.
- The ACOE needs to come up with a way of protecting all of Arlington Marsh and its Cove from wakes and tides.
- And provide residents, businesses, churches, and schools with restitution for past damages from their Blasting and Dredging Projects and reimbursement along with transparent guidelines that the above mentioned can use to receive reimbursements for future damages.
- The ACOE will pay for or reimburse those who are affected to hire Structural Engineers to do pre-evaluations and evaluations of homes, businesses, schools, and churches that are in the impacted areas, many of which are also flood prone.

We feel that it is best that you know about the issues now as well as see what it is, we feel would be a start in making adequate mitigations for our Environmental Justice Communities with current events as examples.

Thank you for your time and consideration.

Sincerely,

Beryl A. Thurman

Beryl A. Thurman, Executive Director/President
NSWCSI
Creating Livable Communities

Cc: Interested parties

The North Shore Waterfront Conservancy of Staten Island, Inc.
54 Port Richmond Avenue
Staten Island, New York. 10302

January 14, 2021

To: Ms. Karen Baumert, Study Planner
Mr. Jesse Miller, Project Biologist
New York District, U.S. Army Corps of Engineers
C/o PSC Mail Center
25 Federal Plaza
New York, New York. 10278-0090

Reference: NSWCSI's Comments for the U.S. Army Corps of Engineers' Draft Finding of No Significant Impact (FONSI and the Draft Integrated Feasibility Report and Environmental Assessment (Draft FR/EA) for the New York New Jersey Harbor Deepening Channel Improvements Navigation Study (HDCI) **involving the Environmental Justice, Waterfront Communities of Staten Island's North Shore.**

On behalf of the North Shore Waterfront Conservancy of Staten Island, Inc., and Staten Island's North Shore Waterfront Environmental Justice Communities that we advocate on behalf of.

We would like to begin by stating that we have no idea how the writers of the above-mentioned document can possibly think that they are able to Gaslight us. How can you draft a document of this size and not once mention that the waterfront communities that are adjacent to what will be by its completion a 34-year-old harbor deepening and widening project, are in fact Environmental Justice Communities? Low-income communities and communities of color. How can you omit this fact from this document?

There are so many omissions in this document that we have no choice but to demand that the ACOE abandon this FONSI, FR and EA and do a complete Environmental Impact Statement.

We find using the terminology of "Finding of No Significant Impact" in relationship to the Environmental Justice Communities and People of Staten Island's North Shore extremely subjective on the parts of the ACOE and highly offensive.

As previously stated, there are so many omissions in this document that anyone reading it, who had never set foot on Staten Island's North Shore would never have an inkling of the many environmental hazards and environmental issues that our communities and people face each day. This FONSI, RF/EA even omits your own proposed remediation of the (ADM) Archer Daniels Midland Company (Richmond Terrace Radioactive Warehouse) Manhattan Project Site.
https://en.wikipedia.org/wiki/Edgar_Sengier
https://disarmament.blogs.pace.edu/nyc-nuclear-archive/nycs-nuclear-geography/nuclear-weapons-devt-sites-ny/former-archer-daniels-midland-company-warehouse-remediation-under-consideration/

In addition, anyone reading the EA would never know of the financial burdens from property damages that your previous harbor deepening and widening projects left behind for residents, churches, schools, and businesses to deal with. Leaving us with no means in terms of resources to rebound with. Because once again these are Environmental Justice Communities which means we are low income and people of color. **Resources are not something that we have access to! And as we have stated before insurance companies to do not pay out on damage claims that are caused by harbor blasting, dredging, deepening, and widening projects from nearby navigational waterways.**

Clearly this project which was designed and written for the benefit of the NY/NJ Port Authority and for Regional Planning and has never had any intentions of being fair in its treatment to the adjacent Environmental Justice Communities. From the beginning the NY/NJ Port Authority, (your partners) objective was getting our officials to sign onto this project with false promises of jobs for Staten Islanders. This trickery was nothing more than steps in pushing this project through. As those **good paying, skilled labor, union jobs never materialized for the people that live in the Environmental Justice Communities where these projects are taking place.**

As for the Public Comment Period that you are trying to rush through it is just another sham because based on past Public Comments where we stated our Environmental Justice issues and concerns. And to which you ignored by saying they were not relevant to these projects. Which left us mystified because how could they not be relevant? As everything in our environment has a negative impact on us including your harbor deepening and widening projects and the emissions from the dredging equipment as well as the enormous vessels that you are so in favor of that belch out emissions into our already polluted air that we breath? Cumulative Impacts is yet another omission in this document.

It is a matter of common sense that in order for there to be environmental improvements and benefits, then all mitigations need to take place in the Environmental Justice Communities where these projects are taking place and not elsewhere.

The ACOE has had 20 years to do mitigations for our Environmental Justice Communities and our environment. There were a thousand and one things that you could have done that would have provided direct benefits to us during this project. But instead, you have chosen to do nothing.

We would say that in your actions towards Staten Island's North Shore Environmental Justice Communities and people, that you have missed your mark in terms of your Mission. https://www.usace.army.mil/Missions/

Lastly, an Environmental Assessment does not have to be extremely wordy, but it does need to be accurate and forthcoming in the information that is in it. Once again, an Environmental Impact Statement is necessary for this project.

Thank you for your time.

Sincerely,

Beryl A. Thurman, Executive Director/President
NSWCSI
Creating Livable Communities
www.sinorthshoreresilience.org

References: NSWC's "Staten Island's Gold Coast: 5.2 miles from St. George to Arlington", NSWCSI's "Shore Up Community Resilience Adaptation Project for The North Shore of Staten Island". https://www.energy.gov/sites/prod/files/2020/05/f74/FUSRAPFactSheet.pdf, https://fopnews.wordpress.com/2010/09/14/staten-islands-tainted-edge-geologic-city-report-3/ https://www1.nyc.gov/assets/statenislandcb1/downloads/pdf/jwl_removal_action_polrep_1.pdf https://www.atsdr.cdc.gov/HAC/pha/MarinersMarshPark/MarinersMarsh_HC_09130.pdf https://cfpub.epa.gov/bf_factsheets/gfs/index.cfm?xpg_id=2102&display_type=HTML https://www.gothamgazette.com/environment/227-staten-islands-toxic-stew#:~:text=This%20spring%2C%20residents%20of%20Staten,George%20ferry%20terminal. https://www.silive.com/news/2019/06/asthma-hot-spots-on-staten-island-who-is-most-at-risk.html https://newyork.cbslocal.com/2018/04/18/worst-air-quality-in-ny-found-on-staten-island/#:~:text=NEW%20YORK%20(CBSNewYork)%20%E2%80%94%20Staten,cause%20asthma%20and%20lung%20disease.

Cc: U.S. ACOE: Joseph Seebode, Clifford Jones, Allen Roos, U.S. EPA: Walter Mugdan, Patrick Evangelista, Lingard Knutson, NYS DEC: Steve Zahn, Rosa Mendez, Sean Mahar, Senator Diane Savino, Assemblyman Charles Fall, NYC City Council: Costa Constantinides, Debi Rose, Samara Swanson, NY/NJ Baykeeper, CWA, NRPA, NRDC, WEACT and any other interested parties.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

January 14, 2021

Ms. Karen Baumert, Study Planner
New York District, U.S. Army Corps of Engineers
c/o PSC Mail Center
26 Federal Plaza
New York, NY 10278-0090

Re: New York-New Jersey Harbor Deepening Channel Improvements Navigation Study
Draft Integrated Feasibility Report and Environmental Assessment

Dear Ms. Baumert:

The U.S. Environmental Protection Agency (EPA) has reviewed the U.S. Army Corps of Engineers' (USACE) New York-New Jersey Harbor Deepening Channel Improvements Navigation Study Draft Integrated Feasibility Report and Environmental Assessment (NYNJHDCI) dated October 2020. The NYNJHDCI study's purpose is to determine if there is a technically feasible, economically justified, and environmentally acceptable recommendation for federal participation in a navigation improvements project in the New York and New Jersey Harbor. The preliminary analysis presented in this report identifies deepening the pathways from sea to Elizabeth – Port Authority Marine Terminal and Port Jersey – Port Authority Marine Terminal by four feet to a maintained depth of -54 feet MLLW as the national economic development plan because it maximizes net benefits.

EPA has several concerns about the information presented in the environmental assessment (EA) and analysis of environmental impacts. The EA does not fully discuss the impacts of port improvements at the Port Authority Elizabeth Marine Terminal to meet the new proposed depths. This impact assessment is required by the new Council of Environmental Quality National Environmental Policy Act regulations. The EA requires a more detailed environmental justice analysis and should incorporate thoughtful dialogue with the environmental justice community prior to the release of the EA. EPA is aware of several sites on the north shore of Staten Island with environmental considerations that require discussion and evaluation regarding any sediment removal outside of the existing channel footprint, and consideration of hydrological changes that may be caused by the deepening project. Because of these and other issues, EPA cannot concur with a finding of no significant impact for the project.

Attached to this letter are EPA's technical comments on the EA. Should you have any questions, please contact Mark Austin of my staff at (212) 637-3954. Thank you for the opportunity to comment.

Sincerely,

David W. Kluesner

David Kluesner, Director
Strategic Programs Office

EPA Technical Comments on the NYNJHDCI October 2020
Attachment to EPA Comment Letter of January 14, 2021

Executive Summary

Page 8 and Page 89. Please note that EPA was not included in any interagency meetings after the November 19, 2019 initial interagency meeting.

Figure 2 defines a Very Large Container Carrier as holding 11,000 to 15,000 TEUs, and Ultra Large Container Carriers as holding 18,000 TEUs and above. Page 39 also states that "The Port and industry tend to use the terms "very large container vessel (VLCV)" to describe vessels with TEU capacity between 11,000 and 15,000 TEU and "ultra large container vessel (ULCV)" to describe vessels with TEU capacity of 18,000 to 21,000 TEU." At the same time, page 39 states that ULCV are calling at the Port of New York and New Jersey, using the CMA CGM Theodore Roosevelt, which has a capacity of 14,400 TEUs as an example of a ULCV. Please clarify whether ULCV's are using the Port of New York and New Jersey and clarify vessel size definitions.

Chapter 4: Plan Formulation

While the USACE has determined that hydrologic, salinity, and ecological modeling can be deferred to the Preconstruction Engineering and Design phase, EPA has several concerns. After the original 50' channel deepening, it is EPA's understanding that the Atlantic Salt facility on the Kill Van Kull suffered instability to its wharf. Without modeling of the removal of the shallow sediment in areas of the Kill Van Kull, there may be other facility wharves that may also fail, possibly releasing contaminated industrial soil into the water. This should be discussed and analyzed for public review during the environmental review process.

EPA is also concerned that while the USACE states that erosion of the shoreline will not be increased by the use of ULCVs, the document does not discuss whether the ULCV's will require more tugs to assist, and whether an increase in tugs will cause more shoreline erosion.

Tables 18, 19 and 21 state that "investment costs include the cost of mobilization, demobilization, the berth deepening associated cost…" The Port Authority of New York and New Jersey's Port Master Plan 2050 also describes the enhancement of berths and wharves to meet capacity needs. If the Port Authority of New York and New Jersey is going to reconstruct berths at the Port Authority Elizabeth Marine Terminal to meet the channel deepening requirements, these actions are part of the impacts of the NYNJHDCI project and must be analyzed as part of Environmental Justice. These would be "close and causal" relationship, as per the Council of Environmental Quality National Environmental Policy Act implementing regulations, Section 1508, (g) (2).

Environmental Justice (EJ)

EPA appreciates that a discussion and analysis of EJ was included in the EA. Communities with EJ concerns are often composed of marginalized racial/ethnic, low-income/poor, rural, immigrant/refugee, and indigenous populations who live in areas disproportionately burdened by environmental hazards and stressors, unhealthy land uses, psychosocial stressors, and historical traumas, all of which drive environmental health disparities. However, EPA does not concur with the finding that there will be no disproportional impacts on communities with EJ concerns within the project's action area.

As the EJ analysis conducted in the EA was broader in scope, the findings do not accurately reflect the localized effects of the blasting and drilling to the Staten Island North Shore communities. EPA

recommends focusing the EJ analysis to include those communities directly affected by the blasting and drilling, which are the communities located along Staten Island's North Shore. EPA recommends utilizing EPA's EJ SCREEN https://www.epa.gov/ejscreen to conduct an EJ analysis, the newest version of the American Community Survey (ACS) https://www.census.gov/programs-surveys/acs, and NYC's Environmental and Health Data portal https://www1.nyc.gov/site/doh/data/data-home.page to investigate further into the health concerns of the communities directly affected by the project.

- **Noise and vibration effects on communities with EJ concerns:** Blasting along the action area will impact nearby communities by increasing the noise and vibration levels. As mentioned in the EA, confined blasting has a peak level of 220dB at a range of one meter. The potential for disproportionate adverse effects on EJ populations, including low-income, minority, children and the elderly populations could occur as a result of the blasting. Studies have shown that there are direct links between noise and health. Problems related to noise include stress-related illnesses, high blood pressure, speech interference, hearing loss, sleep disruption, and lost productivity (EPA's Noise Effects Handbook, 1991). We are particularly concerned about the area along the Kill Van Kull Channel, which includes communities in the North Shore of Staten Island and the South Shore of Bayonne. EPA conducted an EJSCREEN analysis of the action area along the Kill Van Kull Channel with a one-mile buffer, which brought us to the following conclusions:

    - The one-mile buffer around the Kill Van Kull channel is at or above the 80th percentile in the nation for seven of the eleven EJ Indexes and at or above the 90th percentile in the nation for three of the EJ Indexes.

    - Specifically, the area is in the 82nd percentile in the nation for the EJ Index for Traffic Proximity and Volume. This is concerning because these communities are already disproportionately affected by noise levels associated with traffic. Conducting a project that increases noise levels for these communities would further compound this issue.

    - This area also contains particularly sensitive buildings such as schools and public housing development buildings. For example, Port Richmond High School within census block group 360850213005 is already in the 86th percentile in the nation for Traffic Proximity and Volume and is less than 0.5 km from the Kill Van Kull Channel where blasting may occur.

    - It is suggested that mitigation measures be instituted to assure that those at-risk populations, as well as all others, are protected from potential impacts. Additionally, there should be robust outreach and communication with the communities and populations in proximity to the project to assure that their concerns and needs are met, and that their interest and well-being are protected. Having an informed and engaged population helps to foster community buy-in.

- **Linguistic Isolation within communities with EJ concerns:** EPA recommends expanding this analysis to include consideration of linguistically isolated populations. Since the analysis did not identify these or others, we recommend that the identification of linguistically isolated populations be incorporated into a plan for meaningful involvement and consideration of communities; this would be done through outreach and consideration of feedback. As no mention of translated documents is contained in the draft EA, EPA recommends that major project documents be translated into the appropriate languages, and public information sessions have translation capabilities, as needed.

EPA can work with the USACE to provide a more detailed EJ analysis for the NYNJHCI project.

Hazardous, Toxic, and Radioactive Wastes
The EA does not include a discussion of, and potential impacts to, several contaminated sites nearby. Changes in depth to nearshore sediments on the Kill Van Kull may affect wharves and docks to these facilities. The New York sites can be found on the DECinfo Locator. New Jersey sites can be found on NJ-GeoWeb.

- The Archer-Daniels Midland Company Staten Island Warehouse site at 2393 Richmond Terrace on Staten Island was used by the Union Mini'ere du Haut-Katanga Company to store high-grade Belgian Congo uranium ore from 1939 to 1942. The Department of Energy is evaluating the site for radiological contamination and cleanup.

- The Jewett White Lead site at 2000-2012 Richmond Terrace is a New York State Superfund site located on the north shore of Staten Island that should be included in the EA analysis. While the on-site remedial actions are complete, residual lead soil contamination should be evaluated.

- The Storage Bins site at 2901 and 2945 Richmond Terrace was under the voluntary cleanup program in New York until 2012. The site contains lead, benzene and other hazardous substances and should be considered.

- EPA also notes that there are chromate-contaminated sites on the Bayonne shore of the Kill Van Kull that should be considered.

Air Quality
While the document does present a general conformity applicability analysis and draft general conformity determination, please note that the final determination will need to be presented to the public for comment separately. EPA also notes that should dredged material need to be placed out of the region (e.g. Pennsylvania), all transportation emissions within the New York-Northern New Jersey-Long Island, NY-NJ-CT nonattainment area will need to be included in the general conformity determination.

Placement of Dredged Materials:
The volume of material to be removed as a result of the proposed plan is between 27 MCY and 33 MCY, yet the discussion of placement of dredged materials is limited to the following statement: "Dredged material will be beneficially used and placed either upland, at the Historic Area Remediation Site (HARS) or on a reef." EPA will reserve more specific comments until such a time as USACE has identified more detailed placement options for the quantities and types of material to be removed. EPA urges the USACE to contact the New York and New Jersey artificial reef managers to discuss the availability of these options. Concerning the potential placement of 22 MCY of materials at the HARS, USACE should coordinate as soon as possible with EPA Region 2 regarding this option. EPA is also concerned that upland disposal sites for non-HARS suitable material in the region may not be available in the near future. Upland placement costs may affect the project economics. In addition, EPA suggests that estimated volumes of hard clay be estimated, and any possible beneficial use of the clay be explored.

Superfund
The USACE should discuss the NYNJHDCI project with EPA Region 2 regarding the Newark Bay Study Area of the Diamond Alkali Superfund Site. EPA is requesting that the USACE meet with the

project manager of the study as soon as possible to determine what, if any, information should be included in the EA.

New York City Environmental Justice Alliance
166A 22nd Street, Brooklyn, NY 11232 | www.NYC-EJA.org

On the ground – and at the table

Thank you for the opportunity to testify. My name is Jalisa Gilmore and I'm the Research Analyst at the New York City Environmental Justice Alliance. Founded in 1991, NYC-EJA is a non-profit citywide membership network linking grassroots organizations from low-income neighborhoods and communities of color in their fight for environmental justice.

Our member organizations represent communities that have long struggled with the presence of polluting infrastructure and a lack of environmental amenities, contributing to poor health outcomes for residents. These environmental issues are only worsened by a changing climate that will increase extreme weather events, similar to Superstorm Sandy. Massive investments are needed to ensure NYC communities are resilient to impacts of future coastal storm risks, but these investments must be made intentionally- centering equity and justice.

The United States Army Corps of Engineers' New York-New Jersey Harbor and Tributaries Focus Area Feasibility Study(NYNJHATS) is an opportunity to protect New Yorkers against the risks posed by future storms. NYC-EJA supports the resolution calling upon the United States Congress to restore funding to NYNJHATS and for New York and New Jersey to advance their shares of the next phase of funding to revive the study until it is fully restored by Congress. However, as the project is revived there needs to be a commitment to addressing concerns raised by the community in prior to the suspension of the project.

The majority of the options that the Army Corps presented heavily relied on large harbor-wide barriers and floodwalls to protect the shoreline, without sufficient analysis to how this may disrupt ecosystems or exacerbate flooding in unprotected communities. Instead, options that implement nature-based infrastructure and smaller scale perimeter only flood protections—which can offer a number of environmental co-benefits—should be considered. In this new phase, Army Corps should incorporate recommendations and community input from projects that have already been put forth by frontline communities, yet not always considered or incorporated into final plans, such as the Hunts Point Resiliency and Eastside Coastal Resiliency projects. Lastly, the environmental justice map that the Army Corps is using does not accurately represent environmental justice neighborhoods. As the project moves forward, it should instead consider using the disadvantaged communities screening tool currently being developed pursuant to the NYS Climate Leadership and Community Protection Act.

New York City Environmental Justice Alliance
166A 22nd Street, Brooklyn, NY 11232 | www.NYC-EJA.org

On the ground – and at the table

Again, building NYC neighborhoods to be resilient is critical and NYC-EJA supports Intro 2092 which would develop climate resiliency guidelines and a climate resiliency score metric. We recognize the Council's commitment to environmental justice, with the requirement that 30% of the pilot projects be located in environmental justice communities. However, rather than require 30% of pilot project in environmental justice areas, we recommend the bill matches the NYS CLCPA's commitment of 35-40% for disadvantaged communities. Similarly to the Army Corps study, we are concerned that current maps may lead to an under-investment in communities that need it most and should consider using the CLCPA disadvantaged communities screening tool when it is available. As this resiliency score is developed input from members of the public with expertise in environmental justice should also be consulted to ensure an equitable process.

Since Superstorm Sandy, there has not been nearly enough coastal resiliency investment in the low-income communities of colors in the outer-boroughs where the most vulnerable populations are. These bills and resolutions have the opportunity to remedy this and protect frontline communities from future coastal storm risk. Thank you for your time and the opportunity to testify.

Testimony of Paul Gallay, President and Riverkeeper, Riverkeeper, Inc.

before the New York City Council Committee on Resiliency and Waterfronts

on Resolution No. 1389 and Intros 2092 and 2198

January 25, 2021

Thank you, Chairman Brannan and Members of the New York City Council Committee on Resiliency and Waterfronts, for your leadership in continuing to push for a robust U.S. Army Corps of Engineers study of our city's coastal resiliency. I am President and Hudson Riverkeeper of Riverkeeper, Inc, a not-for-profit organization dedicated to protecting and restoring the Hudson River from source to sea and safeguarding drinking water supplies, through advocacy rooted in community partnerships, science and law.

We fully support Resolution 1389, and we want to ensure that, as the resolution calls upon Congress for funding, it also asks the new Biden administration Office of Management and Budget to include the study in the Army Corps' 2021 budget. Once the study is funded, we urge this Committee and city agencies to be active, creative partners in advancing all of the innovations resulting from the HAT study. It will not succeed without strong partnership between the federal, city and state governments.

We also support Intro 2092 to assess city capital projects for resiliency and believe the bill could be strengthened with additional environmental justice criteria. However, Riverkeeper recommends finalizing a City-wide shoreline resiliency plan before passing Intro 2198, which would facilitate additional development in low-lying zones.

Riverkeeper Supports Resolution Number 1389 and Urges the Council to Use This Opportunity to Also Request That the Biden Administration Fully Fund the Army Corps Harbors and Tributaries Study.

Resolution number 1389 calls upon Congress to restore funding to the Army Corps of Engineers' New York/New Jersey Harbors and Tributaries ("HAT") Study. The study was halted by the Trump administration in June 2020, seemingly to the surprise of the Army Corps.[1] In recent days, Congress has taken action to allow a robust HAT Study to move forward. Now it is up to

[1] Samantha Maldonado, Emails Show Army Corps Scramble After Trump Gutted Resiliency Project, Politico (June 18, 2020), *available at* https://www.politico.com/states/new-york/albany/story/2020/06/17/emails-show-army-corps-scramble-after-trump-gutted-resiliency-project-1293520.

the Biden Administration Army Corps and Office of Management and Budget to reincorporate the study into the Army Corps Fiscal Year 2021 Budget.

The federal omnibus appropriations bill, which includes the Resources Development Act (WRDA), was signed into law on December 27. The bill "funds the Army Corps of Engineers with a record level of funding at $7.8 billion, $145 million over FY 2020."[2] We understand that there is a large pool of funding for Army Corps studies across the United States, and there is at least $3.5 million available to fund the HAT Study. The WRDA portion of the bill, among other things:

- modifies the Army Corps mandate to allow for the Corps to address the impacts of low-frequency precipitation and sea level rise, not just storm surge;
- mandates consultation with affected communities;
- requires the Army Corps to evaluate nature-based alternatives in flood protection, and calculate their "long-term costs and benefits" if such features are not included in the recommended plan; and
- requires an update in Army Corps policies for evaluating impacts to environmental justice and disadvantaged communities, and providing for community notice, consultation, and engagement.[3]

Despite the funding and legislation, the Army Corps fiscal year 2021 budget does not explicitly allocate funding to the HATS Study.[4] We believe the New York City Council's Resolution should therefore be modified to also urge the Biden Administration Office of Management and Budget to incorporate the HATS study specifically into the Army Corps FY 2021 budget.

With such funding in place and a new directive from Congress to fully consider the impacts from climate change, we believe the Army Corps will have the authority and ability to comprehensively analyze climate change and sea level threats facing the region. At long last, and after repeated calls by the public and members of the New York City Council, the Army Corps will be in a position to issue holistic climate solutions, incorporating a new focus on ecological restoration and a greater emphasis on community engagement.

Once the study is funded, it will be crucial for this Committee, as well as our city and state agencies to cooperate with the federal government and surrounding states to actively and creatively engage in the HAT Study process.

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[2] National Conference for State Legislatures, What It Means for States; FY 2021 Appropriations Bill, at 10 (2021) https://www.ncsl.org/documents/statefed/NCSL_Summary_FY2021_Omnibus_Appropriations_Bill.pdf.

[3] U.S. House of Representatives Subcommittee on Water Resources and Environment T & I Democratic Staff, WRDA 2020; Water Resources Development Act (2020), *available at* https://transportation.house.gov/imo/media/doc/2020-12-21%20WRDA%202020%20Conference%20Agreement_Omnibus%20Fact%20Sheet%20FINAL.pdf

[4] Assistant Secretary of the Army (Civil Works), Department of the Army, Fiscal Year 2021 Civil Works Budget of the U.S. Army Corps of Engineers, at 3, 27 (2021), *available at* https://usace.contentdm.oclc.org/digital/collection/p16021coll6/id/2124

Riverkeeper Supports the Passage of Intro 2092 and Urges the Committee to Add Environmental Justice Criteria to the Grading Assessment.

Riverkeeper supports Intro 2092 and the intention to better equip and plan for resiliency of municipal buildings. The bill would require the Office of Long-Term Planning and Sustainability to develop pilot climate resiliency design guidelines for City capital projects.

In resilience planning such as this it is crucial to examine local, broad, and cumulative impacts. The resiliency criteria by which capital projects would be assessed under the pilot program include flooding risk, heat mitigation, energy efficiency, energy resilience, and on-site water capture and management, among others. These criteria are all warranted, but they may not necessarily achieve environmental justice. We urge the council to take a closer look at the resilience criteria with an eye towards adding environmental justice criteria.

Other additional criteria, such as community cohesion, or factors that take into account social vulnerability could be a start. The relative weighting of these criteria is also crucial and could be set by the Council. Certain local impacts, such as urban heat island impacts, may be most significant for our local communities. We seek to avoid a resilience 'win' or benefit based on broad impact gains or carbon footprint without a corresponding positive impact on historically disadvantaged communities. Cumulative impacts of multiple projects should also be a factor in scoring and design guidelines and a determinant factor for siting the building.

As we fully support the passage of Intro 2092, we urge the Council to broaden the resiliency grade criteria to reflect environmental justice goals.

Riverkeeper Urges the Council to First Plan for and Protect Low-Lying Areas from Flood Risks Before Passing Intro 2198.

It will be crucial in the coming years for New York City to plan and design for sea level rise. Riverkeeper understands those plans may include some adaptation measures such as increasing freeboard for new and substantially modified construction, as proposed in Intro 2198. However, we are concerned that taking steps now that would facilitate development on properties likely to be inundated during a 100-year storm will put more New Yorkers in harm's way during the next major flooding event, even where those properties are designed to withstand some flooding.

During Superstorm Sandy, "a staggering 51 square miles of New York City flooded—17 percent of the city's total land mass."[5] In total, the flooding affected the homes of 443,000 New Yorkers, not to mention the catastrophic impact it had on businesses and critical infrastructure, all totaling

[5] N.Y. City, A Stronger, More Resilient New York, at 13 (2013), *available at* http://s-media.nyc.gov/agencies/sirr/SIRR_singles_Lo_res.pdf.

$19 billion in damages.[6] We support building back in some areas, but other areas may simply be too dangerous to inhabit.

The freeboard measures proposed in the bill may give some New Yorkers the false impression that they are safe and that their properties will withstand a storm. In fact, despite design guidelines, flooding can cause structural damage, endangering all who stay put during an evacuation order. In addition, flooding may damage local infrastructure, making affected dwellings uninhabitable for weeks or months.

Before further development proceeds in low-lying areas, the city first needs a plan for shoreline protection. Such a plan, developed by community members with the support of city, state and federal partners, would determine where low-lying lands could be protected and where strategic retreat would be necessary. In the long run, it would be foolish to pursue development within the zones in the latter category, as it would cost the city more in disaster response than it would for the city to purchase the properties through a buyout program.

We urge the council to rethink land use in the floodplains and develop a plan for these buildings before issuing rules for redevelopment.

* * *

Thank you for your consideration of Riverkeeper's testimony. We look forward to working with the Council Members, the Office of Long-Term Planning and Sustainability and our partner organizations to ensure New Yorkers are protected against our rising waters and all climate change impacts.

Contact:

Paul Gallay, Riverkeeper, Inc., 914.478.4501, pgallay@riverkeeper.org

Testimony prepared with the assistance of:

Michael Dulong, Riverkeeper, Inc. 914.478.4501
Chrissy Remein, Riverkeeper, Inc, 914.478.4501

[6] *Id.*

Regional Plan Association

Testimony of Robert Freudenberg, VP Energy & Environment to the New York City Council Committee on Resiliency and Waterfronts, Regarding Int 2092-2020

January 25, 2021

Thanks for the opportunity to offer this testimony. My name is Rob Freudenberg and I am the Vice President for Energy & Environment at Regional Plan Association, an organization that for nearly a century has sought to advance and advocate for research-based solutions to long term problems.

And that is exactly what we have before us today: legislation to codify a research-based approach that addresses what were once considered long term climate impacts – deadly heat, heavy precipitation and sea level rise – but that are now occurring on a more frequent basis and that are increasingly accelerating.

As a highly developed, dense waterfront city with 520 miles of shoreline, New York City is centered directly in the crosshairs of the climate crisis. More days with waves of extreme heat (the most deadly climate impact) will take an even greater toll on residents' health and well-being, while also boosting demand for power across an already strained grid. More frequent and intense bouts of precipitation will continue to overwhelm the City's antiquated stormwater management system leading to more instances of flooded neighborhoods, city streets, subway stations and other facilities across all five boroughs. Meanwhile, the slow and steady, but accelerating, sea level rise threatens to permanently inundate neighborhoods and infrastructure, while deepening the reach and destruction of coastal storm flooding.

Put another way, New York City faces a challenging and dubious future: uncomfortable at best, wholly uncertain at worst.

Faced with these worsening impacts, the City must make critical decisions about how and where it invests taxpayer dollars if it is to continue to thrive while safeguarding its residents and infrastructure. Over the past five years, the Mayor's Office of Resiliency in collaboration with City agencies developed and refined multiple versions of a set of Climate Resiliency Design Guidelines, the most recent version updated and released this past fall. These guidelines recognize that City capital projects can no longer be carried out as if the impacts of climate change are not here to stay. Instead, they incorporate the continually evolving science of the New York City Panel on Climate Change into standards for how to develop in ways that are resilient, now and into the future.

It is clear that the City must adapt to become more resilient and these guidelines offer one very important tool to do just that. Codifying them, identifying pilot projects that incorporate them, and developing metrics to gauge their success are not just a good ideas, they are essential. We urge this Committee and the greater Council to approve this legislation as an important next step toward a more equitable and resilient City.

Regional Plan Association

Echoing the comments made by fellow Rise to Resilience coalition members, these steps will make our communities safer and save taxpayer dollars in the long run. We also recognize that this one piece of legislation is just one of many steps that are needed, a number of which are also included in the proposed Rise to Resilience Act bill package.

Legislation like this demonstrates that resilience is moving from more of a guiding concept to a concrete reality. And none too soon. Please advance this common sense legislation and other legislation like it so that our City has a fighting chance to meet – head-on – the climate impacts we face today. Thank you.

To: Members of the Committee on Resilience and Waterfronts
From: Sam Horowitz, Master of Environmental Management Candidate, Yale School of the Environment
Date: 01/25/2021
RE: Support of Int. 2092, Climate Resiliency Design Guidelines and Resiliency Scoring

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Members of the Committee on Resilience and Waterfronts,

Thank you for the opportunity to submit testimony on Int. 2092, a crucial piece of legislation that will safeguard the city for years to come. Thank you to Councilmember Constantides for your leadership on climate change mitigation and resilience, and to my own councilmember, Brad Lander, for your support of this measure.

In October 2012, when I was 13 years old, I boarded up the windows of my home with cardboard boxes. Like nearly every other person in New York City, I knew that Superstorm Sandy was coming. Despite citywide preparations, the damage endured was immense. My windows shuddered through the night and water leaked into strategically placed buckets. The Gowanus Canal, a toxic body of water, overflowed and its murky waters inched dangerously close to my front steps. I was luckier than many other New Yorkers. Nearby businesses were inundated with the Gowanus' hazardous water and were forced to spend thousands remediating the damage. Entire neighborhoods flooded, hospitals experienced blackouts, residents in public housing were left without power, and forty-four people died. It was at that time that I and so many others began to understand the reality of climate change.

In the years since Sandy, New York has taken admirable steps to enhance its resilience to the projected impacts of climate change. Under the leadership of Dan Zarrilli and Jainey Bavishi, the City has moved forward on a number of resiliency projects which will protect people, property, and communities while centering environmental justice and equity. By passing Int. 2092, the City Council has an opportunity to augment the City's substantial efforts to improve climate resilience and to help create a city that is safer, more sustainable, fiscally responsible, and prepared for the sea level rise, storms, and increased temperatures that climate change will bring.

It would be irresponsible for public projects to go forward without accounting for climate risk. Doing so could leave both communities and the projects themselves vulnerable to climate shocks (such as a hurricane) and stressors (such as gradual sea level rise). If a waterfront project with a useful life of 70 years is not built to withstand the sea level rise and flooding levels projected over the lifespan of the project, it will ultimately constitute a waste of public resources. Accounting for these risks is especially important for the facilities which make our city run, such as hospitals, power generators, and public transit hubs. Superstorm Sandy showed us that boarding up windows and barricading subway stations is not enough to protect against climate impacts. Rather, the City must commit to long-term resilient planning practices that take future climate projections into account.

This is why Int. 2092 is so important. It will ensure that our public infrastructure is built to last, that our critical facilities can operate through both shocks and stressors, and that the communities which surround and rely on them are less vulnerable to service outages and future climate impacts. Furthermore, it will ensure that resilient projects are not insulated in affluent areas and will commit the City to enhancing resilience in environmental justice communities, which have borne the brunt of environmental injustices and which are also disproportionately on the frontlines of the climate crisis.

Building out our city's infrastructure without climate resilience at the forefront is not a viable option. Doing so will lead us back to the tragic events of Superstorm Sandy, where a lack of resilience led to significant destruction and loss of life. Int. 2092 is an important step for creating a more resilient city and an opportunity to continue the City's leadership on climate change. I urge the members of this committee to support Int. 2092.

Sincerely,
Sam Horowitz
Master of Environmental Management Candidate, Yale School of the Environment
*Platform Committee and Transition Panel Advisory Member, DNC Council on the Environment and Climate Crisis
*(*title for identification purposes only)*

Testimony in support of Int. No. 2092
Climate resiliency design guidelines and resiliency scoring

Members of the committee, citizens and residents of New York City, and participating legislators,
We thank you for the opportunity to share ECOncrete's testimony.

ECOncrete Tech is a company whose products and technologies support sustainable coastal and marine construction by promoting the development of diverse and productive flora and fauna in industrial, working, and urban waterfronts. Solutions for decreasing the ecological footprint of coastal projects are essential for the successful environmental and economic development of our shorelines and waterfronts.

Our resilience-building roots in NYC run deep. Since our first deployment in Brooklyn Bridge Park in 2013, we have prioritized the safety of New York City residents and its marine ecosystems. We collaborate with the NY Harbor School, Billion Oyster Project, and the Metropolitan Waterfront Alliance to support their invaluable initiatives, such as the Waterfront Edge Design Guidelines and Rise to Resilience. Our projects located at Huron St in Queens, Randall's Island, and Brooklyn Bridge Park are demonstrating the value of ecological design. ECOncrete's inclusion in the upcoming Living Breakwater Project for large-scale flood protection along Staten Island as part of the Rebuild by Design competition highlights the importance of ecologically sensitive large-scale flood protection measures. As private sector stakeholders, ECOncrete unequivocally supports this legislation, and commends the committee for their foresight and proactivity.

We enthusiastically support the establishment of measurable indicators, a resiliency score metric, to not only enumerate the specific parameters of waterfront resilience, but also to require projects to meet or exceed a minimum resilience score. Among the suggested indicators, ECOncrete especially supports the following metrics: Integration with naturally resilient shoreline features; Green infrastructure; Resilient building materials; Living walls or structures; and Integration with and preservation of naturally occurring vegetation and habitat. We additionally support the comprehensive coverage of not only new projects, but also retrofits, improvements and alterations. The passage of this legislation will ensure that New York's resilience strategy is not simply based on mitigation, happening elsewhere and later, but engaged in on-site and real-time environmental protection and ecological uplift. It will enable ecological solutions to overcome barriers to adoption, and improve the structural and ecological capacity of working waterfronts and hardened shores. We applaud the sponsors of this bill for codifying this long-held understanding with a measurable and enforceable addition to local code.

To bolster enforceability, we propose the addition of financial incentives to exceed the minimum score, and award higher-scoring projects with reduced mitigation penalties, or other instruments. In crafting the metrics, we propose collaboration with or adoption of the Metropolitan Waterfront Alliance's WEDG design guidelines for a comprehensive and established scoring system with detailed metrics based on resilience, ecology, and access.

We thank this committee for proposing legislation to score new and maintenance waterfront construction based on resilience metrics, and for regulating a minimum threshold to be attained. We are grateful for your time and attention to this hearing process, and look forward to continuing collaborating with the city on coastal protection projects.

Shimrit Perkol-Finkel on behalf of ECOncrete Tech Ltd.

Testimony of Daniel Gutman

Before the

New York City Council
Committee on Resiliency and Waterfronts

Hearing on Resolution 1389

January 25, 2021

My name is Daniel Gutman. I am here representing the Metropolitan Storm Surge Working Group composed of scientists, engineers, architects and planners who have come together to advocate for a regional solution to storm surge and sea level rise.

We appreciate and support Resolution 1389 calling on Congress and the states of New York and New Jersey to restore funding to the Army Corps of Engineers' Harbor and Tributaries Study (HATS). However we do have one suggestion.

The fourth "Whereas" clause states that "HATS, if completed, would have proposed a comprehensive plan for managing future potential coastal storm risks." That statement is incorrect. Some of the alternatives that HATS evaluated are <u>not</u> comprehensive. In particular, the two HATS alternatives that are based largely on New York City's OneNYC plan for coastal protection do not include the complete plan that the Mayor's Office proposed. In fact, HATS Alternatives 3B and 4, which emphasize smaller-scale elements and local shoreline barriers, leave out 40% of the local shoreline barriers in the OneNYC coastal protection plan.[1]

We agree with you that HATS <u>should</u> propose comprehensive plans for managing coastal

[1] HATS Alternative 5 also is not comprehensive because it protects only a very limited portion of the New York City waterfront.

storm risk. So we think that you should add two paragraphs that first expresses that objective and second calls upon the New York State Department of Environmental Protection to ensure that that objective is met in the completed HATS study.

Our suggestion is that Resolution 1389 be modified as follows:

Res. No. 1389

Resolution calling upon the United States Congress to restore funding to the United States Army Corps of Engineers' New York-New Jersey Harbor and Tributaries Focus Area Feasibility Study, and the States of New York and New Jersey to advance their shares of the next phase of funding to revive the study until it is fully restored by the Congress.

By Council Members Brannan, Chin, Constantinides and Rosenthal

. . .

Whereas, HATS, when completed, should propose a comprehensive plan for managing future potential coastal storm risks facing the New York and New Jersey Harbor Region, including those from predicted sea level rise and extreme weather events, and the study is a necessary precursor to beginning any federally funded harbor-wide resiliency projects; and

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. . . , and be it further

Resolved That the Council of the City of New York calls upon the New York State Department of Environmental Conservation to ensure that all storm-surge protection elements of the OneNYC plan of the City of New York are included in HATS Alternatives 3B and 4.

Testimony of Catherine McVay Hughes before the
New York City Council Committee on Resiliency and Waterfronts Hearing on

Res 1389-2020
Calling upon the United States Congress to Restore Funding to the U.S Army Corps of Engineers' New York-New Jersey Harbor and Tributaries Focus Area Feasibility Study

T2021-7074
Resolution calling on Congress to pass, and the President to sign legislation amending the Stafford Act to proactively fund the planning and construction of FEMA and HUD coastal resiliency projects

Monday, January 25, 2021 10:00AM — REMOTE HEARING (VIRTUAL ROOM 1)

Good morning, Chair Brannan and Members Constantinides, Diaz, Rose and Ulrich. Thank you for the opportunity to testify today. My name is Catherine McVay Hughes, I served 20 years on Manhattan Community Board One, half that time as Chair or Vice-Chair. Today I am representing the **Financial District Neighborhood Association** (FDNA). FiDi is home to roughly 60,000 residents and is the fourth largest business district in the country. FDNA is the grassroots organization representing those of us who live in Manhattan south of City Hall.

FDNA **supports Resolution 1389-2020** that calls upon the United States Congress to restore funding to the United States Army Corps of Engineers' New York-New Jersey Harbor and Tributaries (USACE HATs) Focus Area Feasibility Study, and the States of New York and New Jersey to advance their shares of the next phase of funding to revive the study until it is fully restored by the Congress.

As you know, this study was suspended by order of then-President Trump in January 2020 with his "mops and buckets" tweet. The study included an area of 2,150+ square miles and 900+ miles of affected shoreline with an affected population of 16 million people in both NY and NJ. His executive action means that there is no planning at all underway to address the threats of sea level rise and storm surge for the entirety of the nation's largest metropolitan area.

You should also know that the HATs study, however, includes alternatives that do not protect the entirety of NYCs 520-mile shoreline. For example, 40% of New York City's plan for local shoreline protection was omitted from the study. Since the City would have to pay for that 40%, omitting the City's expenditure from the HATS skewed the cost comparison with comprehensive regional approaches. FDNA urges the City Council to include language in the resolution to highlight the importance of comprehensive, region-wide protection, and rejecting alternatives that leave significant areas of New York City exposed.

Furthermore, FDNA **supports Resolution T2021-7074** calling on Congress to pass and the President to sign legislation amending the Stafford Act to proactively fund the planning and construction of FEMA and HUD coastal resiliency projects. The resolution states:

> "Regular tidal flooding is already occurring in NYC neighborhoods such as Broad Channel, Hamilton Beach, and Howard Beach, with a Lower Manhattan Climate Resilience Study conducted by NYC's Economic Development Corporation and the Mayor's Office of Recovery & Resiliency finding that by **2050, 37 percent of buildings in Lower Manhattan will be at risk from a rise in seawater level caused by a storm, otherwise known as storm surge**…"

Moving from the Federal to the City level, only recently has the planning process for the Financial District and Seaport been restarted. The FIDI AND SEAPORT Climate Resilience Plan is expected to be completed by end of this year and has secured NO FUNDING for implementation. The plan states:

> "As climate change progresses, warmer oceans and sea level rise will power increasingly frequent and intense storms with higher levels of flooding. By 2100, 100-year storm is projected to cause flooding over **12 feet deep above ground level in parts of the Financial District and Seaport**."

Although Interim Flood Protection measures (IFP) were installed north of Wall Street and were tested this past August — we saw how complicated it was to install one mile north of Wall Street taking several days, many people and lots of equipment — these are only short-term solutions. Moreover, there is no interim flood protection south of Wall Street. Just a reminder that in 2019, 1 in 10 jobs in NYC, $6.5 Billion estimated annual tax contributed and $74 Billion in Annual GDP (8% of NYC's total) is located at the tip of Manhattan. We need to secure our economy and coastline which includes keeping the lights on and the water out.

2020 ranks as the second-hottest year (just behind 2016) on record for the planet, knocking 2019 down to third hottest, according to a recent analysis by National Oceanic and Atmospheric Administration (NOAA) scientists. Additionally, the 2020 average annual Arctic sea ice extent (coverage) ties 2016 for the smallest on record. Oceans were also exceptionally warm with the 2020 annual global sea-surface temperature was the third highest on record — only 2016 and 2019 were warmer. "In broader context, the total cost of U.S. billion-dollar disasters over the last 5 years (2016-2020) exceeds $600 billion, with a 5-year annual cost average of $121.3 billion, both of which are new records."

Here are the links for the recent Storm Surge Working Group Newsletters: SURGEWATCH 12, SURGEWATCH 11 and SURGEWATCH 10.

Thank you for the opportunity to testify today.

Affiliations (for purposes of disclosure): Catherine McVay Hughes is a member of the Board of the Battery Park City Authority, CERES Presidents Council, Lower Manhattan Development Corporation, South Street Seaport Museum, WTC Scientific Technical Advisory Committee, Princeton Climate Institute, Storm Surge Working Group and Climate Coalition for the Seaport-Financial

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Attached are 3 newsletters: SURGEWATCH 12, 11 and 10. Thank you for the opportunity to testify today.

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JANUARY 2021 | ISSUE NO. 12

SURGE WATCH

A Note From the Chair

Filling the Void: From "Mops and buckets" to Planning and Protection

Ever since Commander-in-Chief Donald Trump fired off his infamous January tweet[1] ordering the US Army Corps of Engineers to immediately shut down their almost completed, $19 million Harbor and Tributaries Study (HATS), dismay, discouragement and disarray has grown about where to go next. Misinformation in the press about the cost of the projects and streams of propaganda from groups whose intentions may be good have complicated a rational discussion of a hybrid regional approach.

We need durable and eco-friendly protection of the most important and valuable metropolitan region in the country and perhaps the world. It is now eight years since Superstorm Sandy ploughed through our vulnerable city and surrounding communities laying waste to their massive yet fragile infrastructures. We continue to live with the clear and present danger of being ravaged by more crushing blows of the power of nature. But is it just nature, or are we being hurled into the jaws of man-induced climate change?

Whether one agrees or disagrees with the organization and direction of the HATS, all sides in the debate agree that the incoming Biden Administration should revive this regional study. The study design, however, which currently slants the cost/benefit analysis in a sharply negative way, needs major alterations.

An example is that the study design excludes new opportunities for commercial and community growth and stability inside a durable circle of protection for 100 more years of prosperity. Regionally orchestrated plans to retreat inland from ever rising seas must be developed.

The main structural problem of HATS is that the study compared comprehensive regional approaches of storm protection to a partial series of more local approaches. For example, 40% of New York City's plan for local shoreline protection was omitted from the study. Since the City would have to pay for that 40%, omitting the City's expenditure from the HATS skewed the cost comparison with comprehensive regional approaches.

New York City, Long Island and New Jersey communities must press for massive infrastructure funding for a coordinated effort, and not just a piecemeal approach. We have fallen into a floundering milieu of expensive and unworkable fragments that provide only short-term protection.

Regional approaches are not only cost-effective, but they provide long-term protection. Texas is well on its way getting funding for their "Ike Dike" sea gates to protect Galveston Bay and Houston. And the Dutch know exactly what they are doing with regional protection - half of their country's lowlands lie below sea level, yet they are one of the most affluent and vibrant societies on the planet. Britain is deep into planning a new, higher, stronger Thames River Barrier. Even the Italians declare their Venice "piano key" barriers work!!

Mr. Biden, congratulations on your Presidential election victory, but there's a huge amount of rebuilding needed to keep our harbors, coasts and cities safe, resilient and productive!

Malcolm Bowman,
Chair, Metropolitan NY-NJ Storm Surge Working Group.

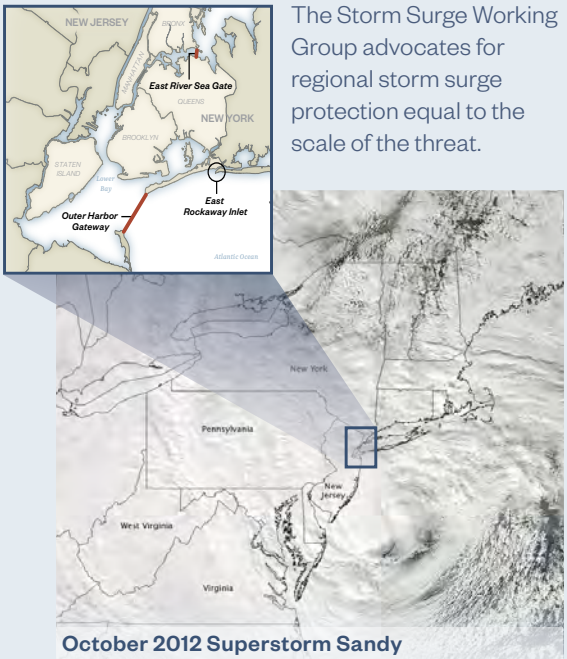
[1] "A massive 200 Billion Dollar Sea Wall, built around New York to protect it from rare storms, is a costly, foolish & environmentally unfriendly idea that, when needed, probably won't work anyway. It will also look terrible. Sorry, you'll just have to get your mops & buckets ready!"

Donald J. Trump (@realDonaldTrump) January 18, 2020

Congress Passes Water Resources Development Act

The recently passed Water Resources Development Act of 2020 (WRDA) authorizes $9.9 billion for U.S. Army Corps of Engineers projects nationwide including over $400 million for habitat restoration in the NY-NJ region that will bring jobs, coastal risk reduction, and nature's benefits to the metropolitan region at a time when a resilient recovery is needed more than ever. The Act also authorizes procedural reforms for coastal risk projects including the NY-NJ Harbor and Tributaries Study (HATS) to better assure that risk mitigation projects more fully address risks associated with sea level rise.

The Storm Surge Working Group advocates for regional storm surge protection equal to the scale of the threat.



October 2012 Superstorm Sandy
Over $65 billion in damages. Six miles of offshore sea gates could protect 900+ miles of shoreline.

Source: *Moody's Investor Service, Getty Images*

Sustainable Investing: Within 20 years, rising sea levels will hit nearly every coastal county — and their bonds

As if municipalities and muni-bond investors don't have enough to worry about with a recession and dropping tax revenue because of the coronavirus, a recent report from Moody's Investor Service suggests coastal state and local governments face increased credit risks from rising sea levels as more frequent and severe flooding threaten coastal communities' economies, property values and critical infrastructure.

These increased credit risks could hurt municipalities from smaller towns economically dependent on fishing and shipping to even rich beach towns looking to borrow in the $3.85 trillion muni bond market to pay for everything from road repaving to a seawall...

... *Continue Reading...*

MarketWatch | Oct 14, 2020

Mose flood barriers raised in Venice, Italy

Image Credit: *Manuel Silvestri/Reuters*

Venice's controversial barriers prevent flooding for second time ...

Mose project operational after years of disagreements, scandals and cost overruns. Venice's long-delayed flood barrier has saved the city from high tides for a second time.

The 78 mobile barriers of the Mose project were activated early on Thursday morning after forecasts that the tide would reach up to 135cm. Without the barrier, a tide at that level would have flooded half of the city, with the popular tourist attraction of St Mark's Square usually bearing the brunt.

By mid-morning, strong winds and rain had pushed the water level as high as 140 cm in some areas of the lagoon, but in Venice city the level was stable at between 50-60cm.....*Continue Reading...*

Guardian | Oct 15, 2020

Other Flooding and Climate Change News

NYC confronts climate crisis reality with coastal rezoning plan .... *Continue Reading...*

Queens Daily Eagle | Oct 21, 2020

Eight Years After Sandy Battered The Rockaways, Construction Begins On Six-Mile-Long Resiliency Project *The city, state's Department of Environmental Conservation, and U.S. Army Corps of Engineers partnered on the Rockaways — Atlantic Shorefront project. Suffolk County's H&L Contracting LLC will lead construction on the first portion, under a $114 million contract. Another $237 million plan to build berms and floodwalls in Jamaica Bay is in the design process... Continue Reading...*

Gothamist | Oct 30, 2020

Mr. Infrastructure: 11 NYC Projects a Biden Administration Should Fund ... *Protect New York City with a Storm Surge Barrier ... New York is still dealing with the fallout from 2012's Superstorm Sandy in various ways, and given that climate change is causing a rise in the number of hurricanes each year, it is only a matter of time before we will face another storm like it. The Army Corps of Engineers has developed options for protecting the city from a future hurricane, and a six-mile long storm surge barrier in New York Harbor is the boldest. The plan has been critiqued as not being sufficient for dealing with the full effects of climate change or rising tides, and while that is true, building the barrier could greatly limit the damage incurred from a major storm....*

Continue Reading...*

Curbed | Nov 4, 2020

** This article reports an outdated cost figure that was superseded by an Army Corps estimate more than 45% lower than the cited cost.*

FLOODS: 2020 hurricane season is busiest ever recorded, and National Flood Insurance Program faces over $20 billion debt ... *The 2020 hurricane season is the busiest season ever recorded, with at least 29 named storms...*

Continue Reading... CNBC| Nov 18, 2020

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SEPTEMBER 2020 | ISSUE NO. 11

SURGE WATCH

A Note From the Chair

Re-evaluate the City's storm-surge protection strategy

The Environmental Protection and Resiliency & Waterfronts Committees of the New York City Council are currently considering legislation to require the Mayor to develop a comprehensive five-borough plan to protect the entire shoreline of New York City (Introduction 1620-2019). The SSWG invites you to join us in recommending an amendment to that proposed legislation that would require the Mayor's office, in providing such protection, to also re-evaluate the relative merits of offshore storm surge sea gates vs. shoreline storm-surge seawalls.

After Superstorm Sandy struck the city in 2012, the Mayor's Office, knowing very little about offshore barriers, chose a strategy of providing storm-surge protection with shoreline barriers only. The difficulties of planning and construction perimeter defenses in a very dense urban environment, and the surprisingly high cost of shoreline barriers, have since become apparent. In the eight years since Sandy, not one of these barriers has been started let alone completed. The first of the shoreline projects to advance, the East Side Coastal Resiliency Project, has seen its price tag more than triple and has generated considerable controversy and opposition.

At the same time, the Harbor and Tributaries Study (HATS) conducted by the U. S. Army Corps of Engineers has advanced our knowledge of offshore sea gates. We believe that it is high time for the Mayor's Office to re-evaluate its strategy of ignoring the regional approach afforded by offshore barriers. Pending additional studies and completion of comprehensive hydrodynamic, engineering, financial and environmental analyses, such as the Corps of Engineers might have completed, we ask all parties to keep an open mind. No resiliency plan of the scope required to protect the New York region can ever be perfect, nor entirely imperfect. All solutions will inherently contain both positive and negative aspects.

Given the alarming snail's pace of providing storm-surge protection on the city's shoreline, and the new information that has become recently available, the SSWG believes that the Mayor's Office should re-evaluate, with urgency, the relative merits of offshore vs. shoreline perimeter storm-surge defenses. A provision that would require periodic re-evaluation by the Mayor's Office would be an especially useful addition to Intro 1620.

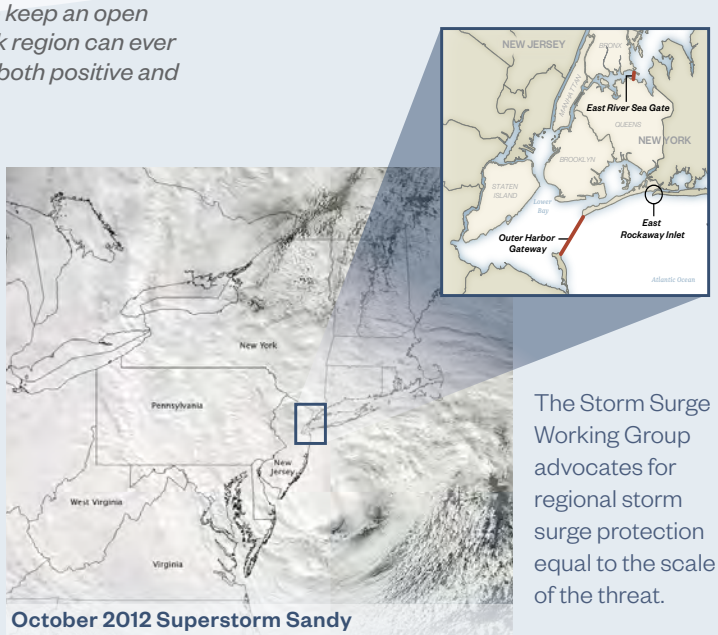
Before going too far down the road of constructing an expensive, counter-productive, and ineffective system of shoreline barriers supposedly designed to protect against both extreme storm surges and slow but accelerating sea level rise (an impossibility in our judgment), we believe that all alternative strategies should be objectively and fairly considered. That is the purpose of this amendment before the City Council. We hope you agree.

Malcolm Bowman,
Chair, Metropolitan NY-NJ Storm Surge Working Group.

The NYNJHAT Study, along with several other nation-wide USACE Coastal Storm Risk Mitigation feasibility studies, did not receive federal appropriation funding as announced in the USACE Fiscal Year 2020 Work Plan. The Study's Tentatively Selected Plan (TSP) milestone and release of the draft Integrated Feasibility Report and Tier 1 Environmental Impact Statement (EIS), originally scheduled for release in late summer 2020, has also been indefinitely postponed. Activities related to the NYNJHAT Study are suspended until further notice.

For more information, visit the project website: http://www.nan.usace.army.mil/NYNJHATS/

The Science of Storm Surge Risk Reduction, SSWG's Presentation to the COPRI (Coastal Oceans Ports Rivers & Inlets) Metropolitan Section, American Society of Civil Engineers on 12 August 2020.



October 2012 Superstorm Sandy
Over $65 billion in damages. Six miles of offshore sea gates could protect 900+ miles of shoreline.

The Storm Surge Working Group advocates for regional storm surge protection equal to the scale of the threat.

Image Credit: *Leonard Zhukovsky/Shutterstock*

Off-shore sea gates could protect New York: The effort faces objections, but it may be the best way to hold back storm surges.

...This year's hurricane season began on June 1 and extends through the end of October. You would expect that nearly nine years after Superstorm Sandy devastated the region, we would be well prepared, but this isn't the case. After nearly a decade of bureaucratic fumbling and delays, virtually nothing has been built to prevent a recurrence of the flooding, loss of life, many tens of billions of dollars in property damage and extensive disruption to the region's infrastructure and economy wrought by Sandy.

Earlier this year, in a short-sighted, politically motivated action, President Donald Trump shut down the US Army Corps of Engineers Harbor and Tributary Study studying alternatives to protect the New York-New Jersey Metropolitan region from future disastrous storm surges. In the absence of this study, there is now no clear strategy to prevent recurrence of the devastation caused by Superstorm Sandy in October 2012... *Continue Reading...*

City and State | July 1, 2020

NYSDEC: Measuring Sea Level Rise, *Click to see*

Rising Seas Threaten an American Institution: The 30-Year Mortgage

Climate change is starting to transform the classic home loan, a fixture of the American experience and financial system that dates back generations.

Home buyers are increasingly using mortgages that make it easier for them to stop making their monthly payments and walk away from the loan if the home floods or becomes unsellable or unlivable. More banks are getting buyers in coastal areas to make bigger down payments — often as much as 40 percent of the purchase price, up from the traditional 20 percent — a sign that lenders have awakened to climate dangers and want to put less of their own money at risk.

And in one of the clearest signs that banks are worried about global warming, they are increasingly getting these mortgages off their own books by selling them to government-backed buyers like Fannie Mae, where taxpayers would be on the hook financially if any of the loans fail.....*Continue Reading...*

The New York Times | June 19, 2020

Other Flooding and Climate Change News

Second '50 year flood' puts Hoboken under water again, but $3 billion fix is unlikely *Continue Reading...*
NJ.com | Jul 23, 2020

Climate Change Poses 'Systemic Threat' to the Economy, Big Investors Warn: Financial regulators should act to avoid economic disaster, according to a letter from pension funds and other investors representing almost $1 trillion in assets.. *Continue Reading...*
The New York Times | July 21, 2020

To Face Flooding, New York Region Needs Big Bucks and Bold Moves: Report *Continue Reading...*
City Limits | July 10, 2020

Storm surges are often the biggest killers in hurricanes *Continue Reading...*
KRIS 6 News | Jun 18, 2020

Your Climate Disaster Tax Bill is Growing: The federal government's spending on calamities related to global warming is a rapidly rising fiscal threat. *Continue Reading...*
The New York Times | June 23, 2020

Design and the Green New Deal
"We don't need playful design proposals; we need high-impact built projects — prototypes for the resilient futures we've been promised....The outcomes do not match the scale of the climate emergency or the claim that Rebuild by Design could do things better and faster than, say, the Army Corps of Engineers..... " *Continue Reading...*
Places Journal | April 2019

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JUNE 2020 | ISSUE NO. 10

SURGE WATCH

A Note From the Chair

Earlier this year, funding of the US Army Corps of Engineers NY-NJ Harbor & Tributaries Study (HATS) was abruptly cancelled, just two months before the long-anticipated release of a Tentatively Selected Plan (TSP) which would have identified the leading alternatives for coastal storm risk mitigation for NY Harbor. The retraction of Army Corps funding leaves at a complete standstill the only region-wide effort with a scope appropriate to the scale of the challenges presented by future storm surges.

This is a travesty of enormous dimensions and consequences. For several years the Army Corps has investigated a variety of alternative strategies. HATS identified the most cost effective and most comprehensive of these alternatives to be a regional system of offshore storm-surge barriers, with navigable sea gates built far away from dense infrastructure. This alternative would block extreme surges from both the ocean and from Long Island Sound. The least expensive but also least effective proposal examined was a limited string of onshore perimeter walls, some built as high as 25 feet, to serve double duty against both storm surges and sea level rise.

In the absence of a regional strategy, ongoing local municipal attempts to design their own systems of perimeter walls and shoreline protection proceed in fits and starts. Virtually none of these have been completed: most are mired in controversy, cost overruns and delays. Many are of questionable effectiveness and would, to varying degrees, block iconic views, limit waterfront access and disrupt urban life and property.

Fundamentally, storm surge and sea level rise are regional challenges requiring regional solutions. We need to evaluate and implement a hybrid system of barriers with movable gates to protect the region from the sudden acute - in human terms - 'heart attack' of devastating storm surges as well as a network of low onshore barriers to protect against the 'chronic community-health' issue of long-term sea level rise.

Several of the most widely cited objections to sea gates are based on exaggerated and/or inaccurate information. Among these objections are: (1) potential for increased flooding outside the closed gates, (2) construction costs, (3) water quality and environmental impacts, (4) induced flooding and public health impacts, (5) social justice and equity issues and (6) risk of failure. In prior issues of Surge Watch (Nos. 7 and 9) we reported on assessments of the potential for increased surge height outside of closed regional barriers and found these impacts to be much smaller than anticipated by many. In future issues, we will continue to address misleading claims put forward by many critics of the regional sea gate proposal.

Storm surges and sea level rise represent existential threats to the future well-being of coastal NYC, NJ and Long Island. The tragic effects of the coronavirus pandemic serve to remind us that the unlikely and even the unthinkable, can and do occur. Articles highlighted in this issue report that we enter the 2020 hurricane season expecting continued increases in global temperatures amid warnings of an above average hurricane season to accompany the ongoing coronavirus pandemic. The SSWG will continue to advocate for further objective analysis of the proposed regional sea gate system as well as restoration of funding for the NYNJ HATS effort.

Malcolm Bowman,
Chair, Metropolitan NY-NJ Storm Surge Working Group.

The NYNJHAT Study, along with several other nation-wide USACE Coastal Storm Risk Mitigation feasibility studies, did not receive federal appropriation funding as announced in the USACE Fiscal Year 2020 Work Plan. The Study's Tentatively Selected Plan (TSP) milestone and release of the draft Integrated Feasibility Report and Tier 1 Environmental Impact Statement (EIS), originally scheduled for release in late summer 2020, has also been indefinitely postponed. Activities related to the NYNJHAT Study are suspended until further notice.

For more information, visit the project website: http://www.nan.usace.army.mil/NYNJHATS/

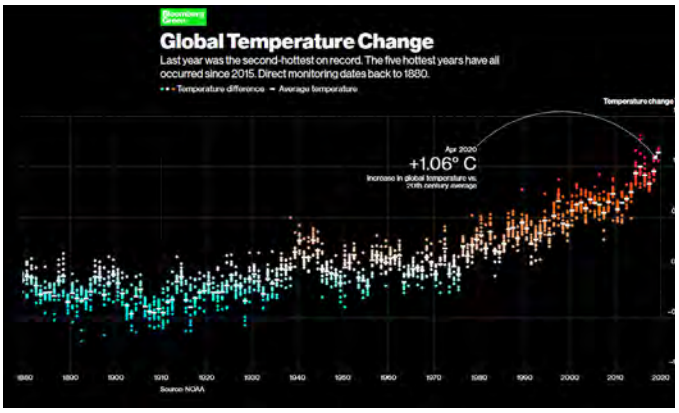

Image Credit: *Bloomberg / 2020*

Global Temperature Change: Last Year Was the Second-Hottest on Record. The Five Hottest Years Have All Occurred Since 2015.

Why this Number? Just look at what almost one degree Celsius of warming has done: more extreme heat and wildfires, bigger storms and droughts, hotter and higher seas, warmer summers and winters. Many animals and plants are shifting to new areas, seeking familiar ecosystems elsewhere. Industries and economies are either facing or preparing for impacts.

This number matters because every small fraction of a degree matters. The Paris Agreement in 2015 set a worldwide aspirational target to hold warming to 1.5°C, down from a 2°C target. Staying below 1.5°C would prevent hundreds of millions of people from suffering through extreme heat waves and give other living things more time to adjust to changing conditions.... To learn more, *Continue Reading...*

Bloomberg / 2020

Image Credit: *JNOAA / Climate.gov / Jan 8, 2020*

Hard Hurricane Season Could Hit East Coast After Coronavirus Peak

There is a 69 percent chance a major hurricane will land somewhere on the U.S. coastline between June and November, forecasters say. The East Coast could be headed for a brutal hurricane season just after the new coronavirus outbreak peaks in New York City, forecasters say.

The 2020 hurricane season could bring 16 named storms — four more than the average — up the Atlantic Coast this summer, according to Colorado State University meteorologists. "The team predicts that 2020 hurricane activity will be about 140 percent of the average season," meteorologists wrote.... To learn more, *Continue Reading...*

Patch / Apr 2, 2020

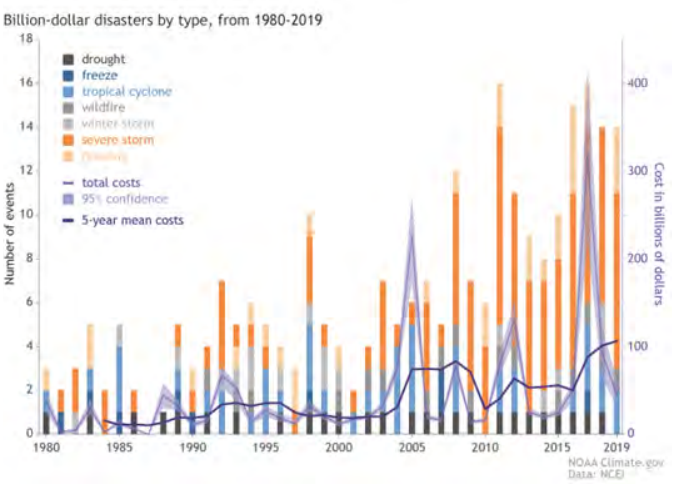

Image Credit: *NOAA Climate.gov, based on NCEI data*

2010-2019: A Landmark Decade of U.S. Billion-Dollar Weather and Climate Disasters

NOAA's National Centers for Environmental Information (NCEI) tracks U.S. weather and climate events that have great economic and societal impacts (www.ncdc.noaa.gov/billions). Since 1980, the U.S. has sustained 258* weather and climate disasters where the overall damage costs reached or exceeded $1 billion (including adjustments based on the Consumer Price Index, as of January 2020). The cumulative cost for these 258 events exceeds $1.75 trillion. During 2019, the U.S. experienced a very active year of weather and climate disasters. In total, the U.S. was impacted by 14 separate billion-dollar disasters including: 3 major inland floods, 8 severe storms, 2 tropical cyclones (Dorian and Imelda), and 1 wildfire event. 2019 also marks the fifth consecutive year (2015-19) in which 10 or more separate billion-dollar disaster events have impacted the U.S .... To learn more, *Continue Reading...*

NOAA / Climate.gov / Jan 8, 2020

Other Flooding and Climate Change News

Experts agree this hurricane season will be above-average, maybe even extremely active. Continue Reading...

CNN / May 8, 2020

Storm Surge Maps Will Warn Coastal Residents of Potential Deadly Floods. Continue Reading...

Scientific American / April 26, 2020

Climate Adaptation Risks Displacing Vulnerable Communities, If Not Done Right Continue Reading...

Scientific American / April 29, 2020

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