

Riverkeeper Testimony on Intros 1620, 1480, and 382
Tuesday, October 29, 2019; 1:00pm
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Good afternoon Council Members Constantinides, Brannan, Koo, Levin, Gibson and Grodenchik. Thank you for introducing 1620, an incredibly important piece of legislation to create a comprehensive five borough plan to protect the entire shoreline from climate change, sea level rise, and sunny day flooding. Thank you, Members Constantinides and Ulrich, for introducing 1480, which will help rid our waters of derelict barges and boats and hold those who dump them responsible. And, we thank Member Ulrich for introducing 382 to inform landowners in the floodplain of their potential hazards and insurance requirements. Riverkeeper appreciates the opportunity to provide testimony on these critical laws.

Riverkeeper Supports Passage of Intro 1620 and Hopes The Council Will Consider Adding Provisions to Guarantee Meaningful Public Participation and Comprehensive Resiliency Planning

As we are all aware, there have been, and continue to be, a number of plans throughout New York City and the region to address some combination of climate change, sea level rise, and storm surge flooding. Both the city and state administrations have proposed plans and the federal Army Corps of Engineers is in the midst of a multi-million dollar study to propose multi-billion dollar structures throughout our area. Unfortunately, the processes by which these plans are advancing repeatedly fail to effectively include community voices, and the plans are either ad hoc or fail to address the depth and breadth of issues facing our region.

Boston is taking very positive, comprehensive action to combat climate change and its effects. Not only does Climate Ready Boston follow the trend of moving storm surge and sea level rise responses to shore-based defenses — including restored marshes, deployable floodwalls, elevated waterfront parks, plazas, berms, and wetland terraces. But it also includes adapting infrastructure, energy systems, sustainable development, multi-purpose green spaces, stormwater infrastructure, and engaging communities. And by creating responses with multiple benefits — such as recreational space that absorbs flooding, or transportation service upgrades that go along with resiliency upgrades — we also create a mechanism for greater community buy-in and overall more effective

systems. Climate Ready Boston recognizes both that changing climate happens on multiple levels and scales, and that residents, businesses, and communities all have the power to take action and be prepared.

Boston's five guiding resilience principles provide important insight when thinking about how we should frame our five-borough resiliency approach:

1. Generate multiple benefits.
2. Incorporate local involvement in design and decision making.
3. Create layers of protection by working at multiple scales.
4. Design in flexibility and adaptability.
5. Leverage building cycles.

And these five principles led Boston to reject in-water barriers in favor of a balanced plan with: better building codes, shoreline defenses like berms and living shorelines, elevating and hardening public structures and services, creation of salt marshes and other places for the water to go, construction of green infrastructure to store water and, generally, adaptation of an “architecture of accommodation.”

It's critical that as we prepare for the future of NYC with all the threats from climate change and sea level rise, that we do it in such a fully comprehensive way. We've learned from the Army Corps' NY/NJ HATS Study that there are many unintended consequences when you're making big plans for big structures. The Corps has finally recognized that deflection or induced flooding from their large in-water barriers could be so problematic — both the actual flooding and the cost of mitigating against it — that they are seriously considering abandoning plans for certain of these structures. Such problems can be avoided by looking at the entire NYC region (and beyond) as a single entity — planning a thoroughly comprehensive strategy that has all boroughs and shorelines and communities represented.

A comprehensive approach to on-shore measures will also continue to support the vibrant eco-systems in the NYC waters as well as the water bodies themselves. Further, such plans will allow the existing sewage system to continue to function without threatening to pollute NYC communities with trapped toxic waters or stopping the continuous flushing of other types of waterborne contaminants. Intro 1620's methodology should also allow for the incorporation of the Long Term Control, MS4, and Green Infrastructure Plans throughout the city.

Community representation and participation must be transparent and an integral part of the process in order to succeed. We have to avoid duplicating situations like the East Side Resiliency Project planning fiasco, which is to say, that communities, community organizations, grassroots, and other issue-based organizations need to be fully incorporated into the process, up through decision-making, not brought along for the ride and then have plans switched at the eleventh hour.

And a comprehensive plan must also include community resilience work and support. In crisis after crisis we see that the best and most immediate responses are always local and community-based, and that the stronger the community social infrastructure is, the better prepared the community is to face a crisis, or worse, to respond to one.

Both our government and communities need to come together to figure out how to live with, and be surrounded by, the ever rising waters in our area. In 1953, Rotterdam began building a series of dams, barriers, and seawalls as part of a national project called Delta Works; five years ago they planned an upgrade, the Rotterdam Climate Proof Program. Arnoud Molenaar, who manages it, said, "Before, we saw the water as a problem. In the Netherlands, we focussed on how to prevent it from coming in. New York City focused on evacuation, how to get people out of the way. The most interesting thing is figuring out what's between these approaches: what to do with the water once it's there." Rotterdam is now experimenting with an architecture of accommodation.

As Mitch Waxman, the historian of the Newtown Creek Alliance said, "Wouldn't it make more sense to create oceanside topography that breaks up wave action, and that could eat up the energy of a storm surge, than it would be to build giant mechanisms which we are going to have to maintain and replace?" he says. About the Army Corps' approach to addressing storm surge with in-water barriers he said, "Unfortunately, we are taking a very American tack with this, which is building a machine to do something which nature would do better."

We urge the City Council, as part of the comprehensive five borough plan, to consider incorporating the kinds of creative, adaptive measures along our shorelines that Mr. Waxman references.

Riverkeeper does not support in-water barriers. Accordingly, we appreciate the council members specifically highlighting measures including rip rap, breakwaters, floodwalls, marshes, non-structural living shoreline options, and similar stabilization methods. Following Mr. Waxman's recommendations of multi-beneficial plans, there is one

in-water measure that should be incorporated into a five borough — and beyond — resiliency plan: off-shore wind.

Off-Shore Wind can mitigate storm impacts in addition to moving us from carbon intensive fossil fuel use to large scale, viable, renewable energy. University of Delaware studies have found that turbines - depending on numbers - can provide up to a 30 percent reduction of precipitation, decrease storm surge by up to 79%, and reduce peak wind speeds by up to 92 mph.

Therefore the city, at all levels of government, should be doing whatever it can to support increasing our off-shore wind commitment to increase our renewable energy share, decrease our reliance on dirty and dangerous fossil fuels, and increase storm resilience in all of these ways.

Riverkeeper also appreciates that Intro 1620 begins to tackle the hard questions that living with the water requires. By recognizing that "structural and non-structural risk reduction approaches" also means "strategic relocation programs removing structures from floodplains, wetlands preservation and restoration, densification on high ground, and any similar concepts." It is becoming clearer every day that there are places around this city where maintaining a presence will not be viable moving into a future with increasing sea level rise.

Riverkeeper appreciates the on-going work of the City Council to comprehensively address the growing threats of climate change, sea level rise, and sunny day flooding, while working with communities and community organizations. We fully support Intro 1620 and look forward to working together to implement this important law and to help protect NYC.

Riverkeeper Strongly Supports Passage of Intro 1480

Riverkeeper supports Intro 1480, which would create a program to dispose of, or if appropriate, reuse marine debris left on public beaches. The program would require a plan to recycle the debris where possible. It is common for this type of debris to mar public beaches and other city-owned property, and it is also common for the marine debris, especially derelict barges and boats, to remain in city waterways or on other public lands.

Riverkeeper mounted a campaign in 2015 to have two derelict barges removed from the East River at Flushing Bay. The barges were loose and shifting, jeopardizing maritime

traffic. Large and small pieces of expanded polystyrene foam pollution were breaking off the barge. This foam pollution can be found in nearly every tributary, from miniscule particles to large, refrigerator-sized chunks of foam.

It became clear that a complicated legal framework would prevent swift removal of the barges. Working with state and local elected officials, then-Congressperson Joe Crowley, New York City and state agencies, we advocated for Army Corps to remove the navigational threat.

Again in 2017 we coordinated with New York State and City officials on removing an abandoned deck barge from the Upper East River near Whitestone. For years local community members and business owners had tried to get the abandoned barge removed after it had been dumped during the night. It was physically deteriorating, impeding navigation of the waterways and actively discharging copious amounts of polystyrene pollution.

Other smaller debris, such as marine garbage and even yachts have been stranded all over the city, in waters as diverse as the Bronx River and Jamaica Bay where boats have sunk into river beds. In other places, boats are unlawfully moored, and some abandoned, such as near the mouth of Newtown Creek.

It seems the intent of this bill is to remove debris not only left on public beaches, but also the debris that is stranded “in the water or along the shoreline.” Intro 1480, Proposed New City Charter Section 20-f(3). It is essential that these areas be included in the bill so the barges, yachts, and other large items that may not land on public beaches could also be cleaned up. Moreover, expressly incorporating these areas would provide city officials authority to address these issues cheaply and efficiently before the debris rots, breaks down smaller, and affects a larger area of city shoreline. The investigation into the individuals responsible for the debris could also begin immediately. The first paragraph of proposed Section 20-f could be modified to add:

The mayor or such agency as the mayor shall designate shall establish a marine debris disposal office to monitor, recycle or dispose of marine debris left on public beaches and in the water or along the shoreline.

Thank you to Council Members Costa Constantinides and Eric Ulrich for recognizing the importance of removing marine debris and for pushing this bill forward. We fully support your efforts and urge the council to pass Intro 1480.

Riverkeeper Supports Intro 382 and Urges the Council to Modify the Bill to Extend Notice of Flood Hazards to All New York Landowners in the 500-Year Floodplain

Today, seven years after Superstorm Sandy took the lives of at least 43 New Yorkers, most residents remain unaware of the extent of their flood risk. It is crucial to warn New Yorkers of the potential that their homes and businesses will flood so they can take precautions to protect themselves physically and protect their property financially. When the flood hazard area maps are finally set by the Federal Emergency Management Agency (FEMA), Intro 382 will provide notification to all property owners in the special flood hazard areas of their risk and flood insurance requirements. This notification will be crucial to protecting life and property, though it will not go far enough.

Sandy flooded a staggering 51 square miles of New York City, which is 17 percent of the City's total land mass. The previous FEMA flood maps had indicated that only 33 square miles of New York City might be inundated during a so-called 100-yr flood. 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 \$19 billion in damages. Only about 80% of people affected by Sandy flooding had flood insurance.

FEMA has proposed to update that woefully underestimated map, but its proposal would still cover an area much smaller than the true projected 100-year floodplain. To boot, the new maps would delineate only a fraction of the widely expanded flood plain area that we can expect in 2100 due to the impacts of climate change. If the maps are drawn and published in such a way as to allay the flooding concerns of communities who are "outside the line," those community members will be more likely to shelter in place during major storms, putting their lives at risk. Additionally, developers will be more likely to build in these areas, unnecessarily putting people and real estate in harm's way.

We respectfully request that the City Council modify the bill to inform by mail all of those New Yorkers in the 100- and 500-year floodplains of their potential risk, even though their financial requirements will differ according to the lines that will be drawn by FEMA. It is in the long-term interest of this city to inform all New Yorkers about their risk and insurance options.

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Thank you for your consideration of this testimony, and thank you for all you do to empower our communities, protect clean water, and build resiliency. Riverkeeper looks forward to continuing to work with the Council and other stakeholders to protect and restore our waterfronts and prepare our communities for climate change.