



As part of the Public Forums series on the **NYC Comprehensive Waterfront Plan**, the Waterfront Alliance partnered with DCP to host a meeting on **Resilience and Climate Change Adaptation**. There were close to 80 attendees from nonprofit and community groups in NY and NJ, government representatives, and residents with a general interest in the waterfront and concern about climate change.

Following remarks and a presentation on the Comprehensive Waterfront Plan, Carrie Grassi (Mayor's Office of Recovery and Resiliency) and Kate Boicourt (Waterfront Alliance) presented on the state of resilience work in NYC and the region, setting the stage for discussion. Carrie Grassi highlighted the city's multi-layered strategy for building resilience and mitigating risk through various City programs, land use policies, infrastructure projects and how the city is planning solutions, with federal and state partners, to make the city more resilient. Kate Boicourt presented early findings of the Waterfront Alliance's resilience task force, which has developed a policy platform for resilient New York-New Jersey region.

Following this overview, Waterfront Alliance staff facilitated a Strengths, Weaknesses, Opportunities, and Threats (SWOT) exercise on coastal resilience. The SWOT exercise enabled attendees to think collectively about major issues relating to coastal resilience and adaptation. Participants then broke out into smaller groups to discuss these issues and report back their top priorities. The ideas and themes highlighted during the open SWOT portion are listed at the end of this document.

The topics discussed during breakout groups (6-8 people) were:

- (1) **Issues related to infrastructure, planning and technology:** What issues should we be focused on for the next 10 years as they relate to sea level rise and climate change?
- (2) **Governance & management:** What are the related public policy issues that need to change? What are the governance/management and regulatory issues that we need to address in order to support goals for a resilient NYC?
- (3) **Equity:** How do we ensure an equitable transition as we adapt to a changing climate?
- (4) **Data & further Analysis:** Do we need further analysis, information or data to inform how we plan for the future of the city in terms of resilience and climate change?

Main takeaways:

Throughout the event, there was a focus on competing interests at the water's edge, for example, development along the waterfront and the need for infrastructure and/or living shorelines to better adapt the city to sea level rise and coastal storms. The notion of having robust public access coupled with resilience measures came up as both a challenge and opportunity. Some of the topics discussed included: funding for resilience projects, rezoning and land use at the water's edge and in the floodplain, and the role of community engagement. While there are significant challenges related to levels of management, infrastructure needs and climate change projections, attendees suggested there's potential for increased public engagement, education and awareness.

During the breakout groups, more specific ideas, priorities and themes emerged, as summarized below:

Development, Soft Shorelines, and Coastal infrastructure

Some attendees suggested increasing the resilience of the waterfront, while decreasing real estate development within the coastal areas in the city. Issues around prioritizing natural shoreline restoration and decreasing density in the floodplain were raised. Individuals discussed the need for building hard infrastructure for storm protection and deploying flood measures as well as softer shorelines and the planting of native trees and plants. Some discussions around managed retreat focused on language (too militaristic and unappealing) and suggested changing the discourse to 'moving inland' instead.

Themes that emerged in relation to infrastructure included increasing the resilience of electrical systems supplying critical infrastructure (pumps, subways, heating, and food storage); retrofitting for storm protection at the same time as retrofitting for energy efficiency; and increasing energy storage and microgrids or other systems that enable a more distributed electrical system. Additionally, participants were interested in looking for opportunities to restore/build better infrastructure, from envisioning more transportation alternatives, to improved sewer systems, to ecological restoration through marshes, oysters, etc.

Regulatory mechanisms and funding sources

Attendees focused on how to address both waterfront development and balancing interests, while highlighting the power that development industries can have in shaping the waterfront. Here, attendees also highlighted the tensions between highly developed waterfronts and the need for tax revenues from high-value properties. Some suggestions to address these issues were: revamping building codes and permitting softer shorelines, transfer of development rights and density transfers, other types of zoning incentives, developing design guidelines and permitting that incorporate longer-term sea level rise projections, and streamlining systems and regulations for greater flexibility to adapt to climate change and rising sea levels. There was a strong desire from professionals (landscape architects, engineers) to get a more streamlined system when working with multiple city/state and federal agencies.

Attendees suggested that no capital or programmatic changes will happen if there is no funding, therefore that alternative funding sources are needed. The need for funding sources not related to disaster relief was highlighted.

Increased public awareness and education

Increasing public education and awareness and the different pathways to do so was highlighted by many participants. Empowering individuals in the planning process has been a recurring theme through all five public forums. Suggestions on incentivizing community participation, especially in underserved communities included: low-income communities should be given a platform/part in the decision-making process and prioritized for resilience investments and stormwater management improvement. Additionally, there is a need for greater focus on place-making and connectivity to waterfront resources and public and school education focused on conversations about climate as part of an overall strategy for building public awareness.

Transparency, decision-making and community engagement

Attendees frequently mentioned the need for transparency and data-driven methods in the government for decision-making processes. Participants suggested that the availability/improvement of open source

platforms could help improve information flow about the water quality, sea level rise, weather events, as well as emerging issues . A topic of discussion was about setting clear vision for the waterfront and identifying programs and projects that help to achieve the vision through community engagement process. Suggestions included investing in “worthy” programs to support the infrastructure along the waterfront.

The ideas and themes highlighted during the SWOT exercise were:

Strengths and opportunities

- Climate-driven risks are increasing, which is both a threat and opportunity for public conversation and decision-making
- Communication about climate risk and options is an opportunity
- Where we have good waterfront access, there is an opportunity for public engagement and education
- Improving water quality is an opportunity for increasing direct connections with water and understanding of climate risks
- Ferries are incrementally increasing access to our waterfronts and waterways
- Areas where we have significant supporting infrastructure above water level and that can bear increased density
- Existing waterfront planning processes are opportunities to engage and discuss risk and options
- Multiple data sources that can be leveraged

Weakness and threats

- Overall threat of climate change and its relation to land use/people: increased temperature, sea level, and frequency of storms
- Maintenance/infrastructure is aging
- Significant funding gaps
- The amount of property and infrastructure at risk is enormous
- Development in risky areas
- Lack of strategic plan for adaptation
- Diversity in ownership means a great challenge to communication and strategy, as solutions will need to be tailored

Key themes by comments included development, connectivity, education, awareness, community benefit, climate change, resiliency, protecting infrastructure, flexibility, transparency, accessibility, renovation, rebuilding, cooperation, empowerment and public-private partnerships.