

Resilience+

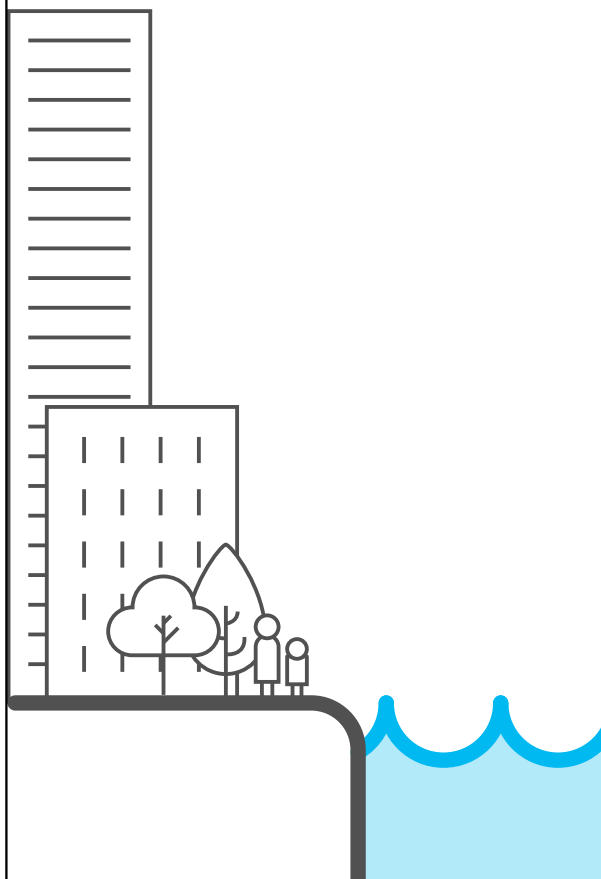
FiDi and Seaport

Climate
Resilience
Plan

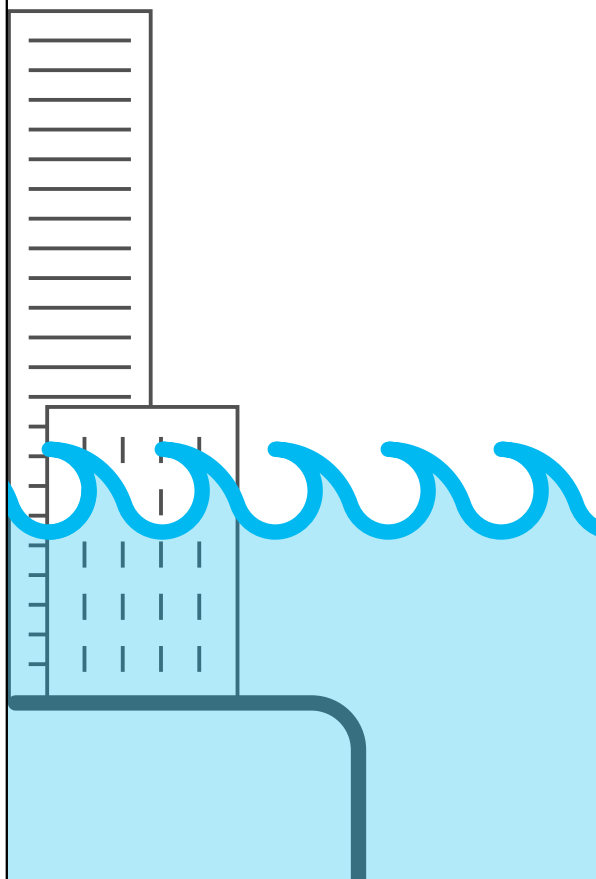


Presented by FiDi and Seaport Climate Resilience Plan | Spring 2024

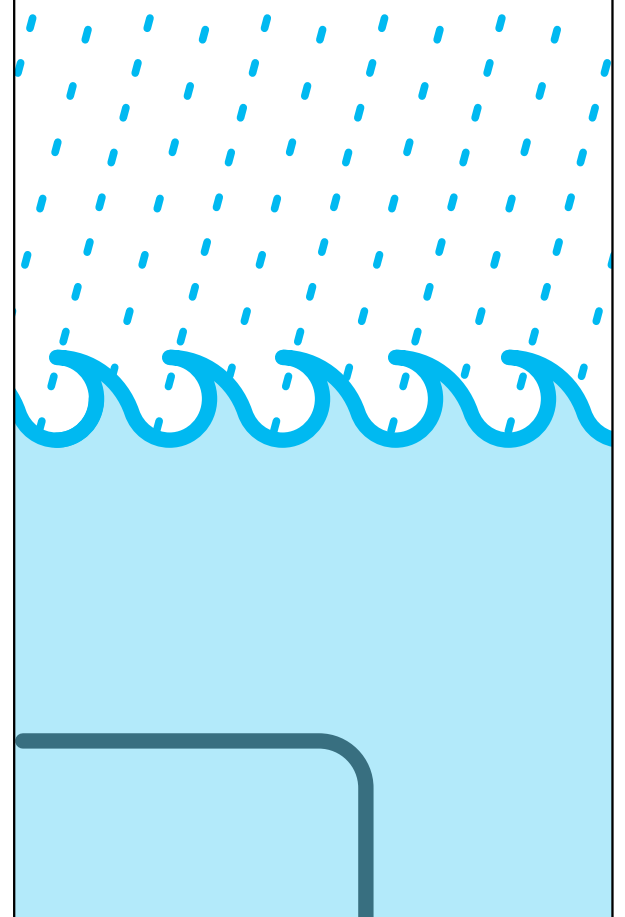
Sea levels are rising.



Storms are getting more extreme.



Rain is flooding our streets and homes.



In this issue:

**Climate Change
isn't Coming —
it's Here.**

**NYC is
pioneering
Resilience+
Infrastructure.**

**Resilience+
Community**

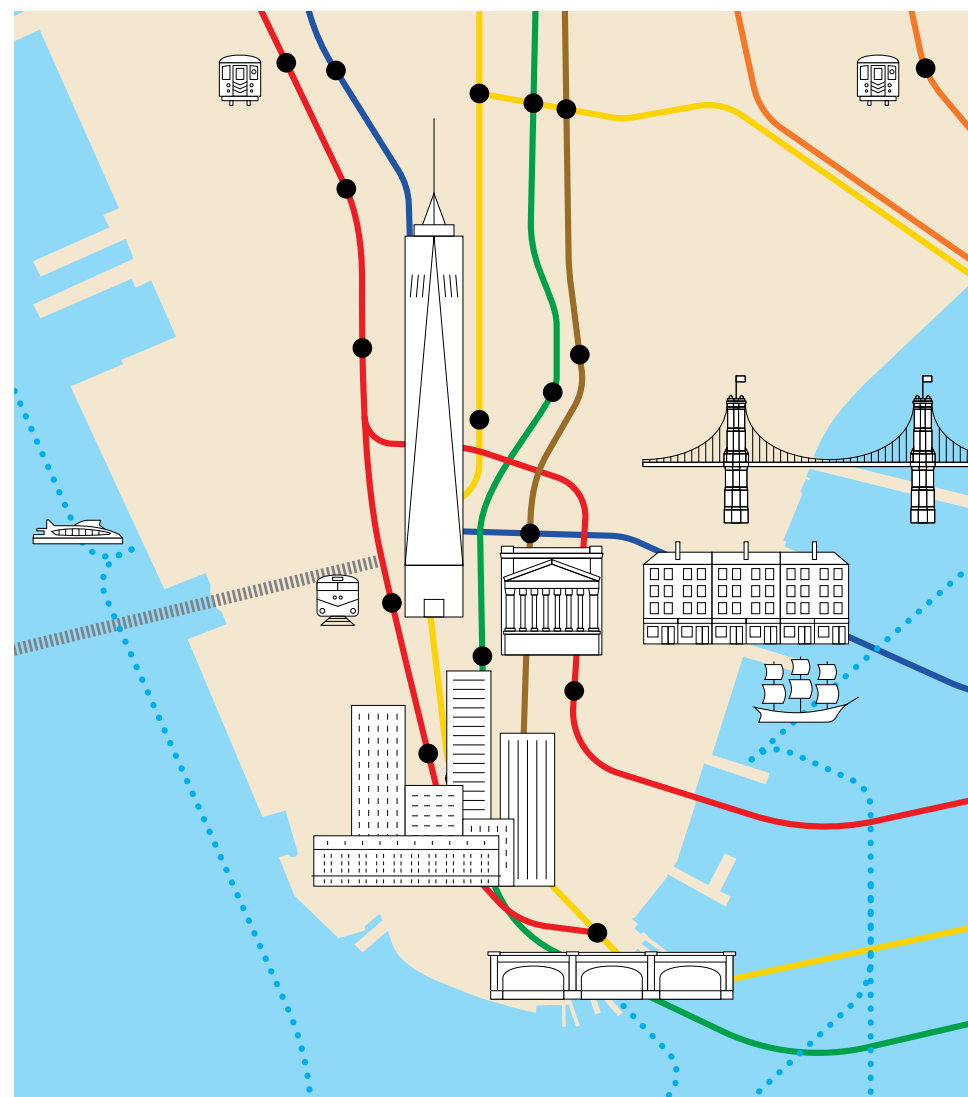
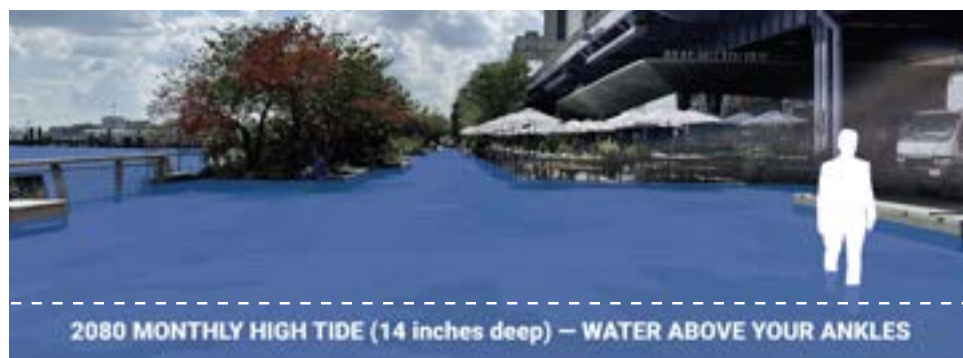
Climate Change isn't Coming — it's Here

The Financial District and Seaport neighborhoods are already vulnerable to flooding, and flood risk will only increase with climate change.

Numerous storms over the last decade have already exposed Lower Manhattan's vulnerabilities to the impacts of extreme weather, which are only expected to get worse. In 2012, Hurricane Sandy claimed 44 lives and caused \$19 billion in damages and lost economic activity throughout the city. In Summer 2021, temperatures reached record highs and unprecedented rainfall flooded buildings, streets, and subways, resulting in loss of life and signif-

icant infrastructure damage across the city. By the 2040s, Lower Manhattan's shoreline will begin to experience frequent tidal flooding from sea-level rise. By the 2050s, this flooding will occur monthly, and, by the 2080s, it will happen every day. Failure to act will render much of this area unusable, leading to the loss of Lower Manhattan—along with its critical citywide functions—as we know it today. What happens in Lower Manhattan impacts New Yorkers in every corner of our city. Failure to address the potential impacts of climate change in Lower Manhattan bears a steep cost and impacts all of New York City. Inaction is not an option.

Lower Manhattan is increasingly vulnerable to flooding due to the impacts of climate change.



The Lower Manhattan Shoreline has Evolved for Centuries

Lower Manhattan has continually evolved to adapt to the needs of a changing city. Until the early 1600s, Manhattan was lushly forested and was home to the Lenape people for about 3,000 years. By 1660, Dutch set-

tlers had established an early settlement on existing land in Lower Manhattan. By 1874, New York's waterfront had transitioned to an industrial hub, deeply tied to the African diaspora and slave trade. Lower Manhattan was



lined with piers by the early 1900s, and industrial and operational uses dominated the waterfront.

Construction of the FDR Drive in the 1950s disconnected the city from the waterfront. From the 1960s onward, the shoreline was extended and piers were demolished to create space for

recreation and other uses, including the construction of Battery Park City. By the early 2000s, NYC's waterfront looked much like it does today. As it has in the past, the future of the shoreline will need to continue to evolve to protect the city from the threats of flooding and climate change.

This dynamic waterfront has adapted time and time again over the past 400 years.



New York City is Working to Protect Lower Manhattan from Flooding



In 2019, the City released the **Lower Manhattan Climate Resilience Study**, a comprehensive multi-hazard climate risk assessment, highlighting the vulnerabilities of the area.

Based on this study, New York City has identified a set of strategies to build resilience in Lower Manhattan. The City, State, and Federal government have committed over \$1.7 billion in capital investments for the coastal protection projects in Lower Manhattan.

Within Lower Manhattan, the Financial District and Seaport neighborhoods pose unique challenges to implementing a flood defense system. A complex mix of infrastructure and the presence of active ferries, combined with limited space along the waterfront, constrain the possibilities for constructing flood defense.

New York City is Pioneering Resilience+ Infrastructure

The Resilience+ Approach Will Protect NYC from Climate Change while Enhancing the Waterfront

The City of New York is pioneering a Resilience+ approach to building climate resilience infrastructure to both protect our city and make it better for all New Yorkers. The Resilience+ approach means that we are building

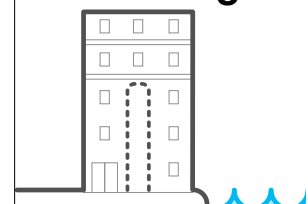
infrastructure that protects our city from climate change while also creating new public open space, enhancing transportation systems, and improving our city.

Flood barriers can take different forms to meet the needs of our community. They can be ...

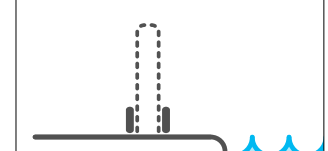
... buried under landscapes.



... incorporated into buildings.



... put on wheels for just-in-time deployment.



Proposed Waterfront: View looking South from Pier 17 (2021)

FiDi and Seaport Climate Resilience Plan is a Shared Vision for a Resilient Waterfront

The new design will create three distinct destinations along the Financial District and Seaport waterfront that are seamlessly connected by accessible pathways to create a comprehensive waterfront.

To accommodate the new flood protection, the existing shoreline between The Battery and the Brooklyn Bridge will be extended into the East River up to one city block (200 feet) and elevated to protect against flooding. A multilevel flood protection system will

be built on top of this new shoreline extension and will feature: (1) A lower-level esplanade that will overlook the water and be elevated to protect against sea-level rise. It will provide a continuous pathway that connects to the ferry terminals. (2) An upper level that will protect against coastal storms, featuring a new park that provides views of the harbor and city. (3) Drainage improvements, including traditional gray infrastructure and nature-based solutions to manage stormwater flooding.

Resilience+

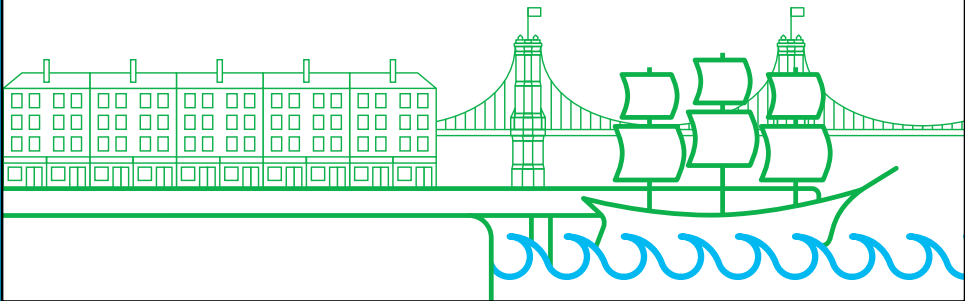
- +Accessibility
- +Culture
- +Ferries
- +History

- +Nature
- +Parks
- +Views
- +so much more

The existing shoreline between The Battery and the Brooklyn Bridge will be extended into the East River.

NYC will integrate Resilience+ infrastructure into three destinations along the Financial District and Seaport waterfront.

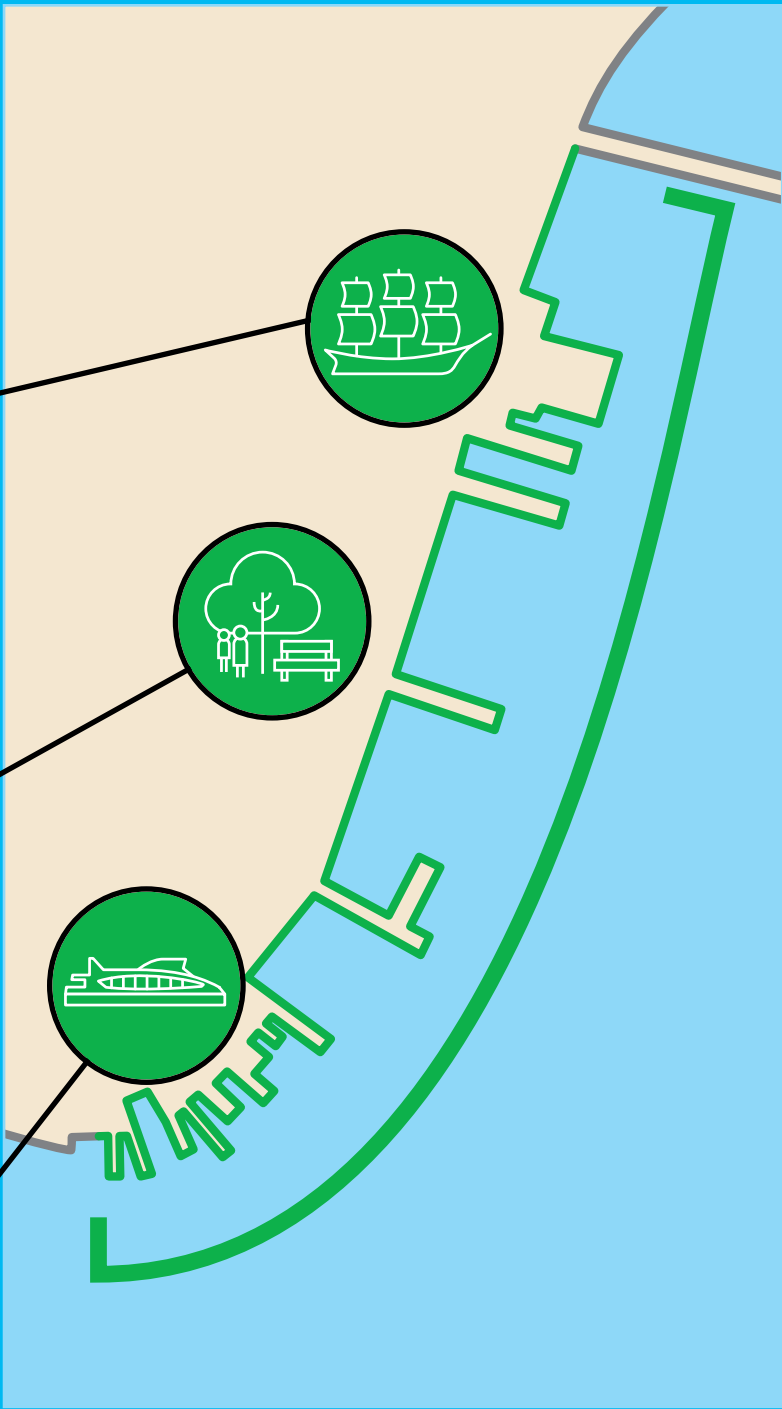
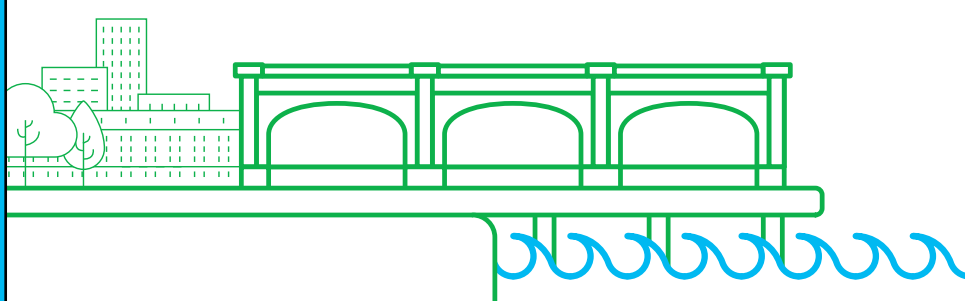
Seaport Piers



Waterfront Park



Resilient Ferry Hub



Resilient Ferry Hub — The Battery to Vietnam Veterans Memorial Plaza

The Resilient Ferry Hub is home to the Whitehall Ferry Terminal and Battery Maritime Building. If no action is taken, rising sea levels will cause the city's ferry terminals to experience regular service disruptions by the 2050s.

To address this risk, the project proposes to build long-term flood defense and reconstruct the ferry terminals to

be resilient. Floodwalls will be integrated within and around the buildings. In this area, access to the waterfront from the broader FiDi neighborhood will be created at Whitehall Street, Old Slip, and Broad Street. Rebuilding this waterfront provides an opportunity to create new resilient ferry terminals that can better serve New Yorkers for generations to come.



Ferry terminals will be reconstructed and protected against climate change, ensuring that the ferries can serve New Yorkers for generations to come.



Multi-level Waterfront Park — Vietnam Veterans Plaza to Maiden Lane

With little space available on land to build flood defense, this project will require extending the shoreline 90 to 200 feet (about 1/2 to a full city block) into the East River.

Piers and ferry terminals will be reconstructed to be resilient. The new extended shoreline will feature a two-level waterfront that provides flood protection, while ensuring accessibility and expanding opportunities for recreation.

The upper level protects the city from future coastal storms, while the lower level protects from sea-level rise and provides access to water and maritime vessels.

The new shoreline will add approximately eight acres of new public open space. While programming for the open space is not yet defined, this area is designed to be flexible for different uses and will face both the city and the water.

The new shoreline will add approximately eight acres of new flexible open space.





Proposed Waterfront: View at Maiden Lane (2023)

Seaport Piers — South Street Seaport Waterfront

South Street Seaport has been an area of maritime activity since the 17th century. If no action is taken, the historic neighborhood will remain vulnerable to flooding.

This project proposes building long-term flood defense by extending the shoreline and reconstructing low-ly-

ing piers at a higher elevation. This will provide an opportunity to both protect the historic area and better connect the waterfront to its history. A detached esplanade near the Brooklyn Bridge, as depicted in the rendering below, creates opportunities for ecological enhancements and getting close to the water.

Rebuilding this waterfront provides an opportunity to both protect the historic area and better connect the waterfront to its history.



Proposed Waterfront: View of North Cove under the Brooklyn Bridge (2023)



Existing view of a visiting ship at Pier 17



Existing view looking north at the Brooklyn Bridge

Resilience+ Community

The FiDi and Seaport Climate Resilience Plan will Continue to Evolve

The FiDi and Seaport Climate Resilience Plan will continue to be refined over the next several years.

In the upcoming phases of work, the City will continue to advance technical studies and engineering for the flood protection infrastructure as well as refine the design of the open space. We are working toward a preliminary design for the flood protection infrastructure in 2025, which will allow us to begin the environmental review and

permitting process in the of beginning of 2026. The “topside” elements, such as the green spaces and programming, and the ferry terminals will continue to be designed over the next several years.

We believe the FiDi and Seaport Climate Resilience Plan has an opportunity to be not only a city and state leader at the intersection of climate adaptation and climate mitigation, but also a global leader.

New York Needs You to Make this Plan a Reality

In September of 2023, we hosted the “Resilience+ Expo” at the Battery Maritime Building to give New Yorkers an opportunity to learn about the FiDi and Seaport Climate Resilience Plan and provide feedback.

Please be on the lookout for more exciting events and engagement opportunities! Sign up for our newsletter to receive project updates as well as information on upcoming engagement opportunities.

Learn more about the plan by visiting fidiseaportclimate.nyc. The website provides over 1,000 pages of work that the project team has documented since the project began.

Sign up for our newsletter at fidiseaportclimate.nyc



fidiseaportclimate.nyc

