

# NJ's Waterways, Coastal Resilience and Flooding

By Maria Verdugo



## Overview

In New Jersey, flooding is a major issue due to the many waterways/bodies that all eventually connect to the Hudson River, the Delaware River, the Atlantic Ocean, Delaware Bay, and the New York Bay. As you can see NJ is prone to severe flooding due to the amount of water near it. This is due to rises in sea level which have risen to a foot higher than it was in the 1950's. This is because NJ land is sinking and because of the effects of erosion on Jersey shores. The effects of natural disasters such as hurricanes and coastal storms have gotten worse. A Rutgers study showed that in 1889 there were about 20,000 acres of wetlands in New Jersey but in 2019 there were only about 8,400 acres. With major development projects being built over Wetlands such as the American Dream Mall, which alone has taken up over 7 acres of wetlands there isn't much that can be done in terms of flood control for many communities in New Jersey and it is up to the people who live in these towns and neighborhoods to be able to bounce back from these floods. The most recent incident of flooding happened only a week ago, the flooding that was affecting New York and New Jersey because of heavy rains. The flooding caused road closures, and it destroyed many people's basements and their

first floors. The flooding also got as high as the cars on the streets in some areas and a state of emergency was declared. It seems as though there are news articles about flooding in New Jersey and that might cause anxiety to some but luckily, some things are being done in many towns/neighborhoods and you as an individual can do something for your community to build resilience in the event of another hurricane or coastal storm.

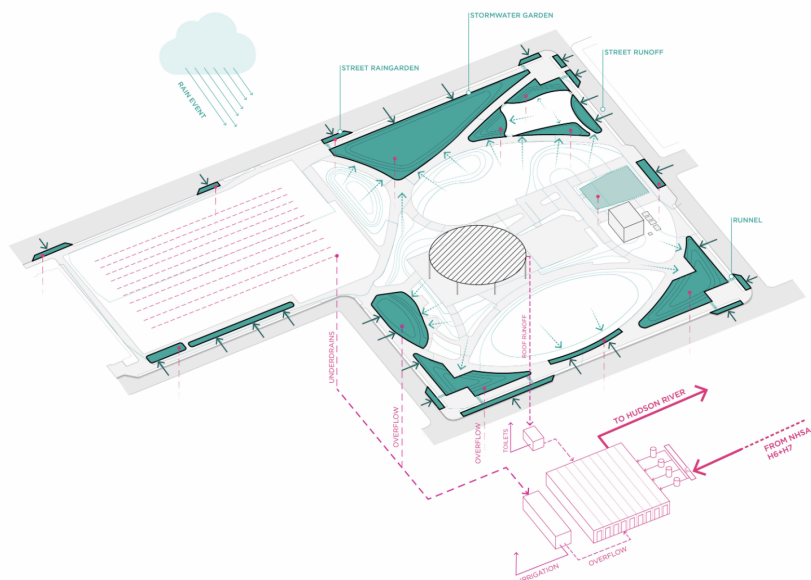


### Definitions of Key Terms

- **Coastal Resilience**- the ability to bounce back after a natural disaster such as flooding, hurricanes, or coastal storms
- **Sea Level Rise**- This happens because of melting ice due to climate change and other factors such as coastal erosion
- **Climate Change**- long-term change in temperature affecting the planet we live in due to human activities
- **Wetlands**- Areas of land that are covered in water. These areas benefit many organisms and even humans since they help with flood control.
- **Waterways**-A river, canal, or body of water that can be used for travel by water
- **Erosion**-The process of geographical features being worn away and carried away naturally

## Case Study

A case where a community could build its coastal resilience would be in Hoboken NJ. On June 12th, 2023, Hoboken opened a resilience park that would help Hoboken bounce back from flooding. Flooding is a huge problem in Hoboken since it is right next to the Hudson River. The park has been designed to capture up to 2 million gallons of water by collecting runoff from sewer districts where it is connected to a filtration system underground to be later treated and then released back into the Hudson. They were able to do this because they received a \$10 million grant from the Federal Emergency Management Agency(FEMA) and a \$1 million grant from the Hudson County Open Space Trust Fund for this project to happen. This is a great example of communities building strategies to be more resilient. Hoboken is a city in New Jersey that floods a lot. A resilience park is just one of many things that can be done for a city suffering because of sea level rise. This might not solve all their flooding problems but it will help many people in Hoboken. If possible, this is an example by which some coastal communities can follow. Hope is not lost for people who live in towns or cities that constantly flood and the people in these communities need to know that there is hope and there are steps that they can follow to make a helping change for their community.



## Significant People

- Jainey K. Bavishi is an American government official who has been the Assistant Secretary of Commerce for Oceans and Atmosphere at the National Oceanic and Atmospheric Association (NOAA) since January 2023. She specializes in climate adaptation and resilience. She has written about flooding in three major cities in the U.S. that have been severely impacted by flooding due to climate change. The cities she writes about are New Orleans, Honolulu, and New York City. She writes about them in her essay “A Tale of Three Cities” and informs the reader of the future of these and other coastal cities.
- Maggie Thomas is a climate policy specialist. She works to build coastal projects and other climate-related issues in politics. She also has an essay in ***All We Can Save*** called “The Politics of Policy” in which she talks about environmental racism, the Green New Deal, and a Blue New Deal specifically to cover issues in coastal counties due to storms. She informs the reader on why the sea level is rising and provides good information for anyone who wants to learn more about the topic.
- Colette Pichon Battle is a climate activist and lawyer. She advocates for many issues of climate injustice, one being the effects of hurricanes and other natural disasters on people. She talks a lot about resilience. She has written essays about climate activism. For example, she has an essay in ***All We Can Save*** called “An Offering from the Bayou” It speaks on flooding in Louisiana and land loss as well as the communities that would be affected by sea level rise.

## Action Steps:

- Doing research and being informed about the topic is the first major step to taking action. Informing others about coastal resilience and informing them about why flooding is such a big issue could bring people together to advocate for action.
- Another thing that you can do is advocate for wetland protection. You could join a protest or organize one yourself. There are many other ways to advocate other than protests, such as advocating online. There are many organizations that work to protect wetlands in New Jersey one example being the Nation Association of Wetland Managers.
- Prepare yourself with materials you might need in case of a flood. As a community, it is a good idea to make sure that everyone has access to these materials as well
- As an individual going to town meetings and bringing up some topics from this toolkit could be helpful for your community to be aware that there is something they could do about it
- Communities can begin to build buildings at elevated heights

## Resources:

Below are resources for emergency preparedness in the case of flooding or hurricanes.

- <https://www.nj211.org/emergency-preparedness>
- <https://nj.gov/njoem/plan-prepare/floods.shtml>
- <https://njclimateresourcecenter.rutgers.edu/nj-adapt/>
- [https://www.jerseycitynj.gov/residentresources/emergency\\_resources](https://www.jerseycitynj.gov/residentresources/emergency_resources)

## Overview:

- <https://sealevelrise.org/states/new-jersey/#:~:text=The%20sea%20level%20off%20New,than%20it%20was%20in%201950.&text=This%20increase%20is%20mostly%20due,sinking%2C%20shores%20are%20also%20eroding.>
- <https://www.njconservation.org/great-news-for-new-jerseys-streams-and-rivers/#:~:text=New%20Jersey%20is%20surrounded%20by,River%20or%20New%20York%20Bay.>
- <https://www.njspotlightnews.org/2021/11/nj-wetlands-rising-sea-level-treat-inundation-back-bay-flooding-meadows-under-water/#:~:text=In%20the%20Meadowlands%2C%20most%20of,was%20down%20to%20about%208%2C400.>
- <https://www.sierraclub.org/new-jersey/press-releases/0341>

## Definitions of key terms

- <https://oceanservice.noaa.gov/facts/resilience.html#:~:text=Coastal%20resilience%20means%20building%20the,then%20simply%20reacting%20to%20impacts.>
- <https://education.nationalgeographic.org/resource/sea-level-rise/>
- <https://www.un.org/en/climatechange/what-is-climate-change>
- <https://education.nationalgeographic.org/resource/wetland/>
- <https://education.nationalgeographic.org/resource/erosion/>

### Case studies:

- <https://abc7ny.com/resiliency-park-flooding-hoboken-governor-phil-murphy/13372563/>
- <https://www.northjersey.com/story/news/2023/06/12/hoboken-nj-new-park-prevent-flooding-communities/70315280007/>
- <https://www.hobokennj.gov/news/city-of-hoboken-opens-new-jerseys-largest-resiliency-park#:~:text=ResilienCe%20Park%20was%20found%20in,Bank%20through%20the%20U.S.%20 Environmental>

### Significant people:

- <https://www.noaa.gov/news-release/jainey-k-bavishi-begins-as-deputy-noaa-administrator>
- <https://www.allwecansave.earth/contributors>
- <https://taproot.earth/team/colette-pichon-battle-esq/>
- **All We Can Save** edited by Ayana Elizabeth Johnson and Katharine Wilkinson

### Action steps:

- [https://www.csrwire.com/press\\_releases/779991-four-steps-building-resilient-coastal-cities](https://www.csrwire.com/press_releases/779991-four-steps-building-resilient-coastal-cities)
- <https://www.nawm.org/>