

Flooding and Open Spaces: Stormwater Management

September 27th, 2024

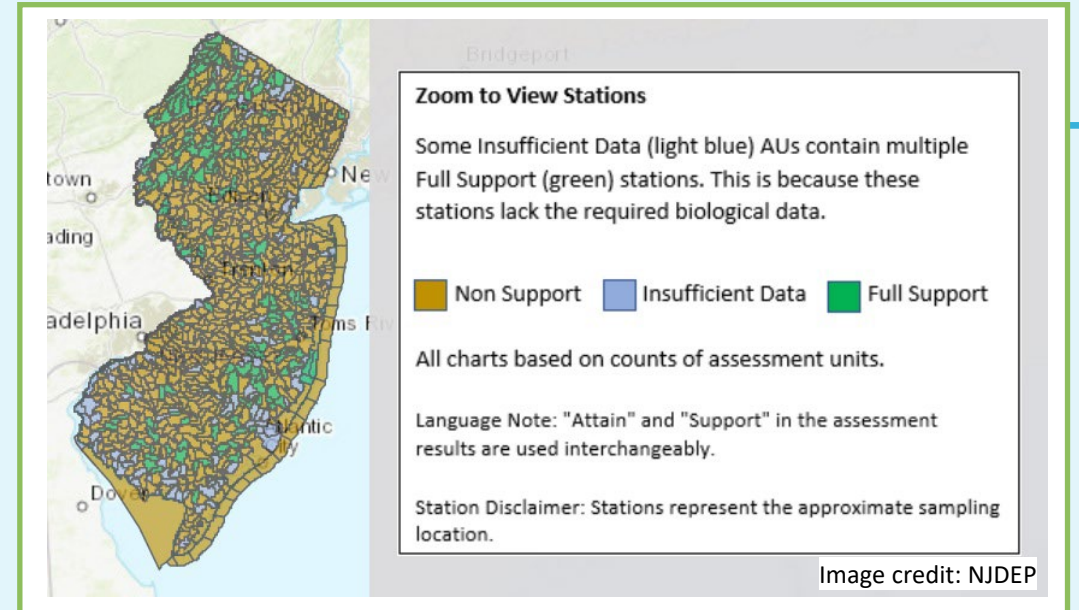
Allison McLeod



Stormwater Management in NJ

The Challenge...

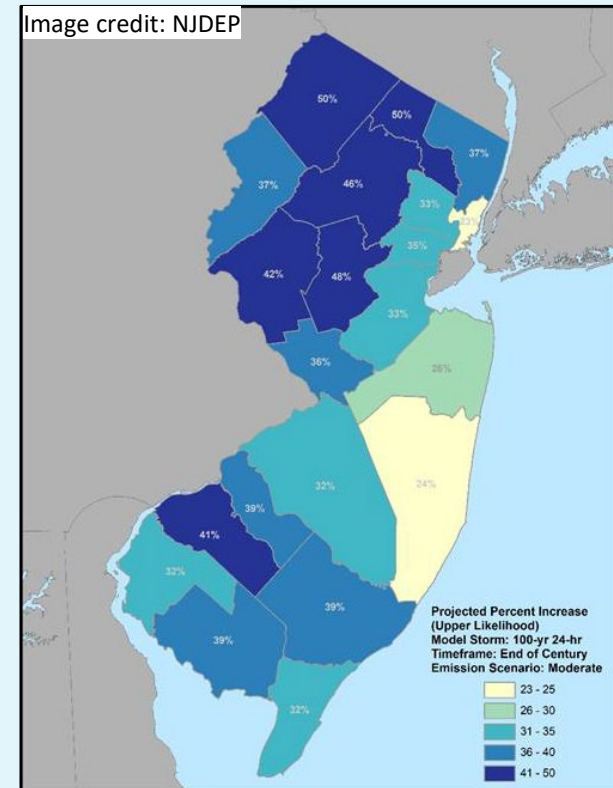
- Changes in rainfall patterns
- > **15%** of NJ is impervious cover
- **43%** of NJ's drinking waters **didn't meet** water quality standards in 2019
- Harmful Algal Blooms (**HABs**)



Stormwater Management in NJ

Climate Change

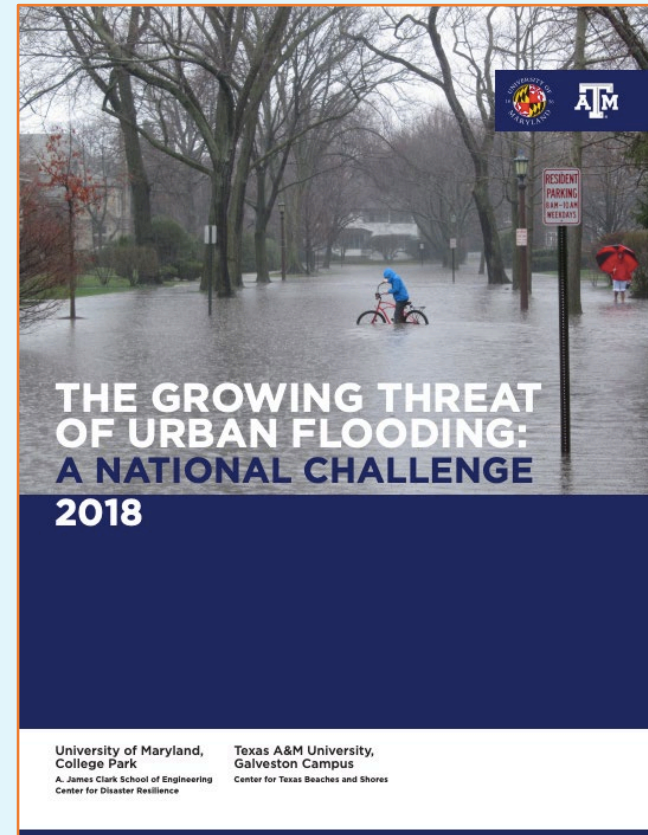
- 100-year storm during a 30-year mortgage.
- Precipitation is already [2.5% to 10% higher](#).
- Before REAL: flood maps are based on 1999 data.
- Projected 33% increase in precipitation by 2100
- Almost **15%** New Jersey is impervious



Stormwater Management in NJ

Stormwater Study

- **83%** of communities experienced local inland flooding.
- **85%** of communities experienced flooding outside of designated Flood Hazard Areas.
- Social costs of urban flooding events disproportionately hurt lower-income communities



The Stormwater Problem

The Cost

- Ida, 2021: **\$248.7 million** damages to homes/business and loss of **30 lives**
- Municipal and local challenges to flood response



Setting the Table



Photo credit: nj.com

Setting the Table

Multiple motorists rescued from flooded roadways in New Jersey and New York

Up to 6 inches of rain pummelled parts of New York City on Tuesday evening.

By [Bill Hutchinson](#)
August 7, 2024, 12:36 PM



Storm system causes flooding along I-95 corridor
The Northeast is bracing for another round of flash flooding and widespread damage as Tro...

[Show More](#)

Setting the Table



The screenshot shows the Department of Environmental Protection website. At the top left is the logo and text "Department of Environmental Protection". The main heading is "NJ PACT: Protecting Against Climate Threats". Below this is a navigation bar with links for "Home", "Resilient Environments and Landscapes", "Climate Pollution Reduction", "Acronyms", "Archive", and "Climate Change". The main content area features an aerial photograph of a coastal town with a large body of water and marshland to the left. Overlaid on the bottom of the photo is the text "NJ PACT Protecting Against Climate Change".

Setting the Table

New Jersey is threatened by climate change impacts such as rising sea levels, more intense and frequent storm events and flooding, and increasing temperature.



Resilient Environments and Landscapes (REAL)

Modernizing environmental land use rules to respond to climate change by considering risks such as sea level rise and chronic flooding, and to facilitate climate resilience by supporting green infrastructure and renewable energy.

[Learn more](#)

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Climate Pollutant Reduction (CPR)

Reducing greenhouse gas emissions requires a wide range of strategies, from regulatory reform to voluntary programs.

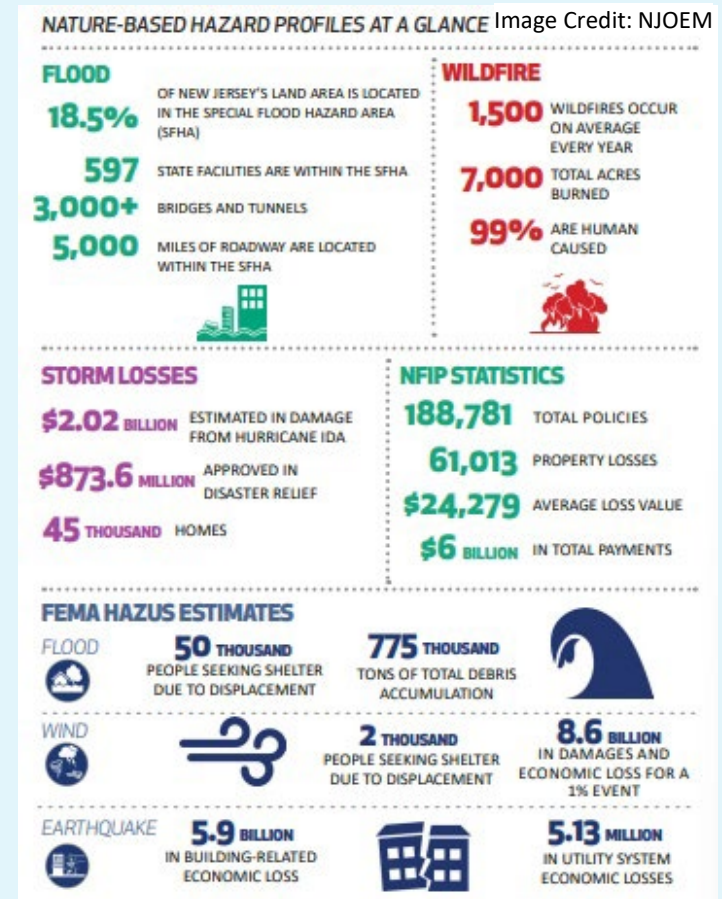
[Learn more](#)

NJPACT REAL

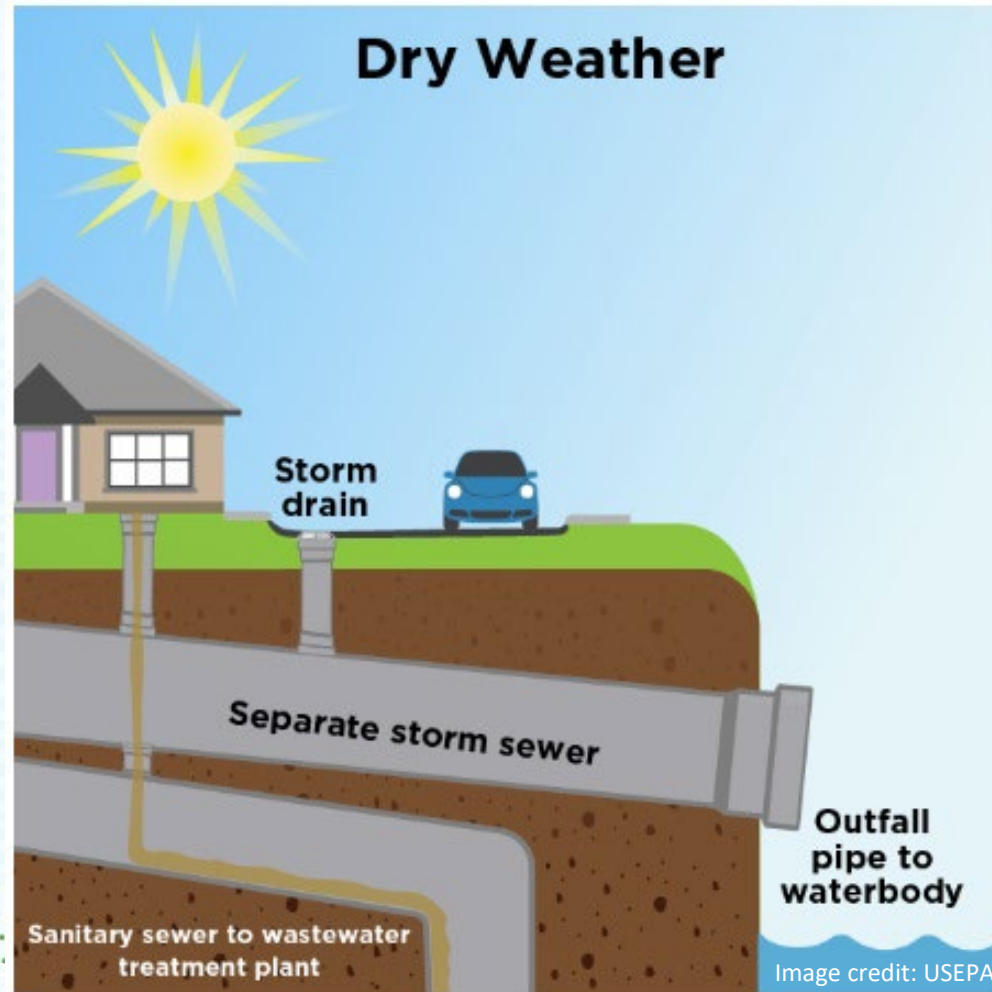
- Adjust Coastal Flood Hazard Areas
- Create an Inundation Risk Zone
- Improve water quality and reduce flooding by adding sound stormwater management practices
- Encourage nature-based solutions
- Support renewable energy
- Improve alignment with National Flood Insurance Program (NFIP)
- Improve DEP permitting processes

Stormwater Management in NJ

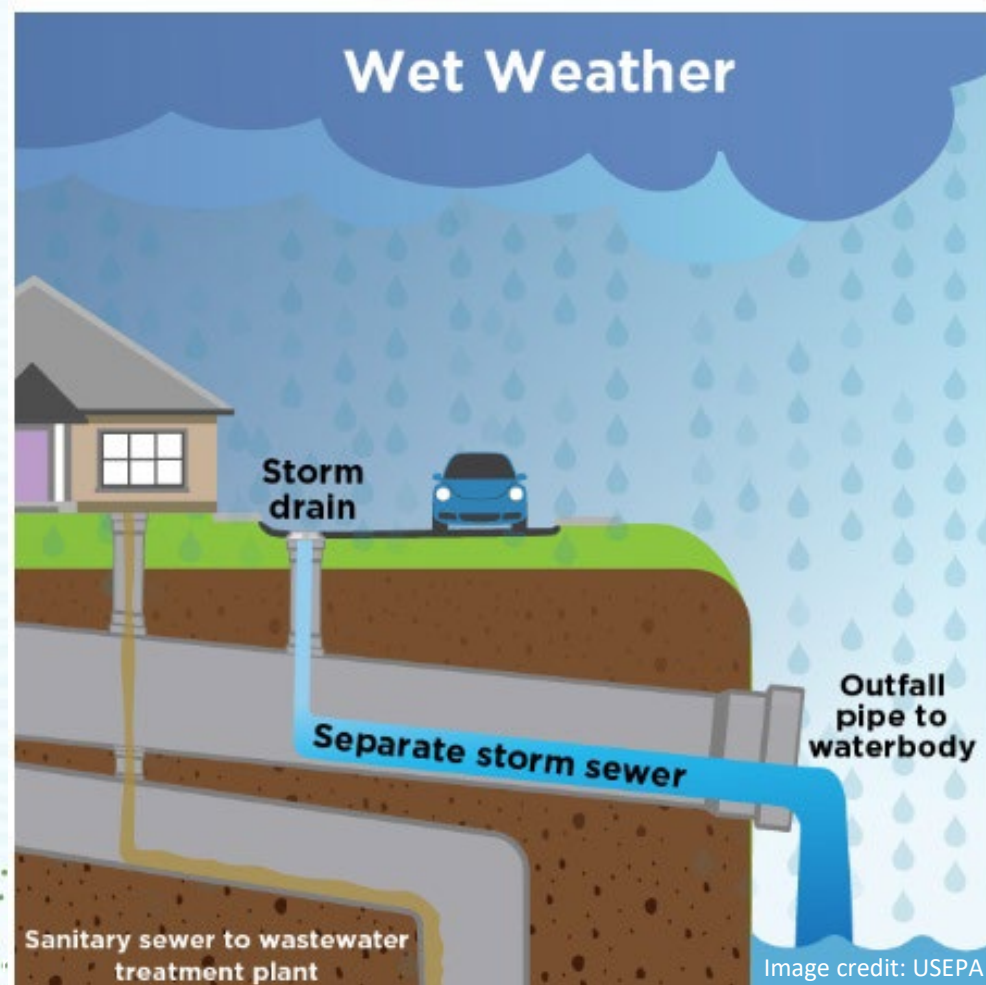
- 2022: DEP ranked nearly 700 water infrastructure project needs totaling nearly **\$7 billion**
- Dedicated funding?
- Gaps in capacity



Stormwater Management in NJ



Stormwater Management in NJ



Stormwater Utility

Similar to a water or sewer utility, a stormwater utility is a local assessment district that dedicates funding specifically and solely to address stormwater management problems.

STATE LAW, 2019:

- Clean Stormwater and Flood Reduction Act is *Permissive*
- **Localities decide** whether to create a stormwater utility

Stormwater Utility

Dedicated, Equitable, Sustainable

- Dedicated source of funding
- Equitable - contributors pay their fair share
 - Includes groups that contribute but don't currently pay
- Sustained, similar to a sewer utility
- Market-based solution
 - Economic incentive to reduce runoff

Stormwater Utility

Community Benefits

- Reduce localized flooding
- Sustainable funding
- Green infrastructure
- Economic development



Image credit: US Dept of Energy and Environment

Learn More



FLOOD DEFENSE NEW JERSEY



Resources:
flooddefensenj.org



THANK YOU

Questions?

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