

GREEN INFRASTRUCTURE

BRINGING NATURAL CLIMATE RESILIENCE SOLUTIONS TO NEW BEDFORD

Climate change is leading to sea level rise and more intense precipitation events. Paired with development that limits natural absorption of stormwater, these changes mean that some aging stormwater systems are no longer capable of handling the increasing volume of stormwater. Without action, the city is looking at a future of frequently flooded roads, damaged infrastructure, and costly repairs. Green infrastructure is one solution.

CLIMATE CHANGE DEMANDS **ACTION**



Sea level rise possible by 2050



Increase in heavy downpours in MA between 1950 and 2014, the 11th largest increase among all states

WHAT IS GREEN INFRASTRUCTURE?

Green infrastructure refers to natural solutions that infiltrate, store, or absorb stormwater to reduce runoff to existing stormwater and sewer infrastructure. It is a solution that improves water quality, reduces urban flooding, mitigates extreme heat, enhances neighborhood livability, and delivers environmental justice, if prioritized in historically marginalized neighborhoods.

EXAMPLES IN ACTION



STORMWATER BASIN

Wet or dry management basin that detains and treats stormwater runoff.



RIGHT-OF-WAY BIOSWALE

Often found along curbs and in parking lots, using vegetation to infiltrate and filter stormwater runoff.



SUBSURFACE STORAGE

Storage and infiltration of stormwater runoff under play courts, parking lots, and other paved areas.



POROUS PAVEMENT

A type of pavement that allows stormwater to flow through it and be filtered.



RAIN GARDEN

Small, shallow areas of plantings that collect runoff from roofs, streets, and sidewalks.



GREEN ROOF

Roofs covered with vegetation that absorb and filter stormwater runoff and reduce building energy costs.

Data Sources: Northeast Climate Adaptation Science Center. Resilient MA Datagrapher. MA Climate Change Clearinghouse. Retrieved from http://resilientma.org/. Climate Central. (2015). When it Rains it Pours: Heaviest Downpours are on the Rise. Retrieved from http://assets.climatecentral.org/pdfs/WhenItRainsItPours methods.pdf.



NEW BEDFORD'S GREEN INFRASTRUCTURE MASTER STRATEGY

New Bedford's **Green Infrastructure Master Strategy and Implementation Roadmap** will maximize the utilization of green infrastructure throughout the City in a deliberate and strategic manner. The City is leading this effort to demonstrate the tangible benefits green infrastructure can deliver, like those shown to the right. The primary objectives of the effort are to:

Assess the City's drainage and infrastructure

Identify green infrastructure opportunities

Set priority actions for implementation



PRIORITIZING ENVIRONMENTAL JUSTICE

Environmental justice communities are the hardest hit by urban flooding and extreme heat.

To combat this environmental injustice, the plan includes a special focus on green infrastructure strategies that will benefit these communities.

The City is partnering with community-based organizations to amplify the voices of environmental justice communities in the planning process.





A CONTINUING COMMITMENT TO RESILIENCE

The Green Infrastructure Master Strategy advances actions identified in **NB Resilient**, the City's climate action and resilience plan, to promote green infrastructure, improve stormwater management, reduce harmful runoff, and increase tree canopy coverage.

GET INVOLVED Visit nbresilient.com/category/green-infrastructure to learn more.