

Harnessing Nature-Based Solutions for Climate Resilience and Brownfield Restoration

August 2nd at 10 AM PT | 1 PM ET

A national network with deep local roots, we help communities to become healthier places to live, work, and play.



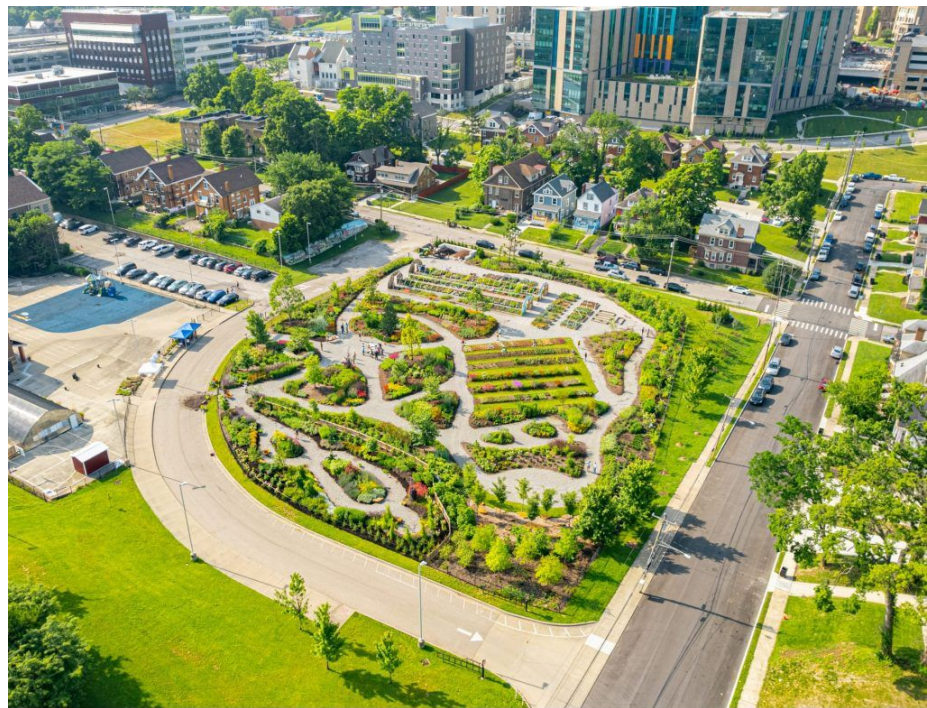
The Groundwork Network



Equitable Land Revitalization Technical Assistance

Promoting equity and environmental justice in land reuse efforts within and outside of the Groundwork network

- **Workshops & Trainings**
- **Direct Technical Assistance**
- **Visual Resource Library**



Thank you to the EPA's Office Of Brownfields and Land Revitalization for providing grant funding to support Groundwork USA's brownfields and equitable development technical assistance program.

We are already experiencing climate-changed induced extreme weather events

Orange Skies and Burning Eyes as Smoke Swirls Over New York City

New Yorkers are accusing the weather. This was some

[Give this article](#) [Share](#) [Bookmark](#)



Some New Yorkers and tourists walked through the arches of the Manhattan Bridge on Wednesday, even as air quality was poor. Photo by Dave Sanders for The New York Times

More Heat, and Little Respite, Is Expected in the Southwest

Forecasters predict that the heat wave could be “one of the longest,” with monsoons running late and nights that stay warm.

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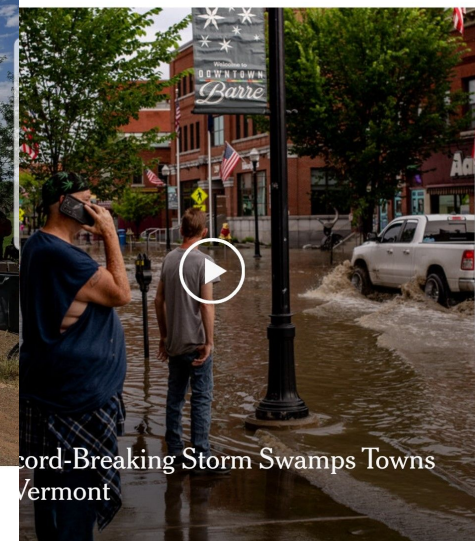
A volunteer distributed water and ice on Monday in Phoenix, where the temperature was expected to reach 106 degrees. Photo by Adriana Zehbrauskas for The New York Times



What to Know About Vermont's Devastating Floods

A person died after the state was inundated with days of heavy rain that flooded rivers to levels of their highest on record.

[Give this article](#) [Share](#) [Bookmark](#) [125 Comments](#)



Record-Breaking Storm Swamps Towns in Vermont

A two-day storm dumped more than eight inches of rain on some parts of the state. Photo by Hilary Swift for The New York Times

Brownfields & Environmental Justice

Brownfields

- Over 450,000 brownfields in communities throughout the US
- Predominantly located in communities of color and low-income communities



Opportunity for Community Benefit & Climate Resilience!



Nature-Based Solutions

- **Solutions to protect, manage, or restore ecosystems to address societal challenges, simultaneously providing benefits for people and the environment**
 - **Green neighborhoods**
 - **Cool spaces**
 - **Improve air quality**
 - **Mitigate flooding**

Transforming Land and Communities!



Today's Speakers



Jonathan Phillips, Executive Director
Groundwork Elizabeth



Todd Reynolds, Executive Director
Groundwork New Orleans

Project Funding

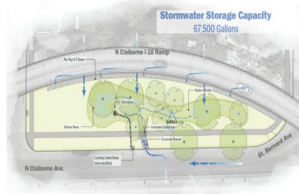


Contributing Partners



Priority Project

N Claiborne Ave & St. Bernard
7th Ward Neighborhood Project



Project Architect



Construction Supervised by:

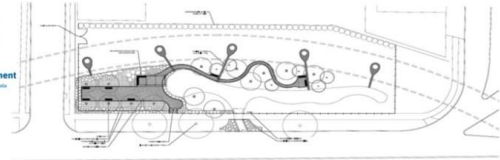


Team Members



Vision to Reality Stormwater Park Phase II

Project Funding:



Vision To Reality Stormwater Park

Phase 1

Construction Start : 10/1/2021

Construction Finish: 1/30/2022



Vision To Reality Stormwater Park

Phase 2

Construction Start : 3/1/23

Construction Finish: 8/1/2023

Trees - Native Plant Installation

October 2023





COMING SOON...
Vision to Reality Storm Water Park





COMING SOON...

Vision to Reality Storm Water Park





COMING SOON...

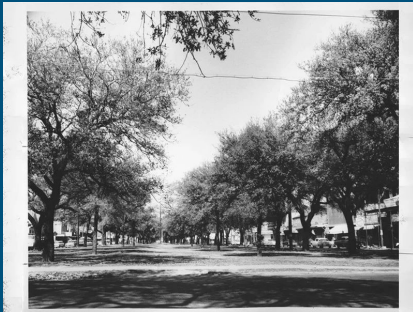
Vision to Reality Storm Water Park



Vision To Reality Stormwater Park

History: For more than a century, Claiborne Avenue served as a center of New Orleans' Black economic and cultural life. As the main street in Tremé, one of the oldest African-American neighborhoods in the country, the tree-lined avenue hosted generations of family businesses and community gatherings. Then, in the late 1960s, everything changed. A federal infrastructure initiative leveled the large oak trees, azalea gardens, and more than 100 homes and businesses to make space for an elevated freeway to cut through the heart of the community. To add to the tragedy, the largely unwanted highway increased exposure in the surrounding communities to pollution, noise, and flooding.

While debates about the future of the freeway have been reinvigorated by the passing of the latest infrastructure bill, Groundwork New Orleans and its network of community-based partners, including Healthy Community Services, aren't waiting for change to happen – they're making it happen. Working together, Groundwork New Orleans and Healthy Community Services, are taking the future into their own hands by putting shovels in the ground to address much-needed climate resilience challenges – including flooding and extreme heat –and creating beautiful outdoor spaces for the community to once again gather. At the top of their priority list is the 7th Ward Priority Project.

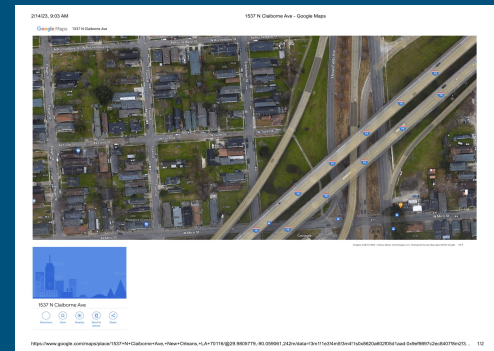
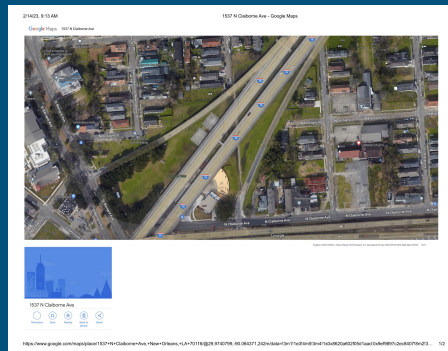
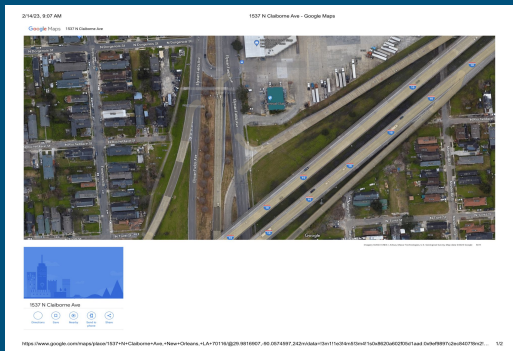


Vision To Reality Stormwater Park

Future: Phase one of the work – the installation of green infrastructure – may have wrapped up in January 2022, but there is a bigger vision for this space and the broader transformation of Claiborne Ave. Ultimately the goal is to not just address the stormwater challenges, but creating active parks for gathering and recreation at this site and at other sites along the historic avenue.

The next phase of work on this site will focus on activating the space through the installation of additional stormwater features, public seating to create gathering spaces, and additional fencing and signage to increase the sense of place and safety.

While this won't bring back the tree-lined Avenue in the short term, projects like the 7th Ward Priority Projects go a long way towards repairing the epic environment, social and health damage done to this community – one block at a time.



Groundwork Elizabeth August 2, 2023

Harnessing Nature Based Solutions for
Climate Resilience and Brownfield
Restoration in Elizabeth, N.J.



GROUNDWORK
Elizabeth



GROUNDWORK
USA

- Imagine a world where everyone has a healthy place to live, work and play. We do AND WE CAN!!!

- Groundwork Elizabeth is dedicated to pursuing a future in which everyone's neighborhood environment is green, healthy and resilient and lives are uplifted as a result. *HOW?*
- We work on projects and programs that provide a healthy physical environment and strive to mitigate environmental issues that affect those who often bear an unfair burden of Environmental INJUSTICE.

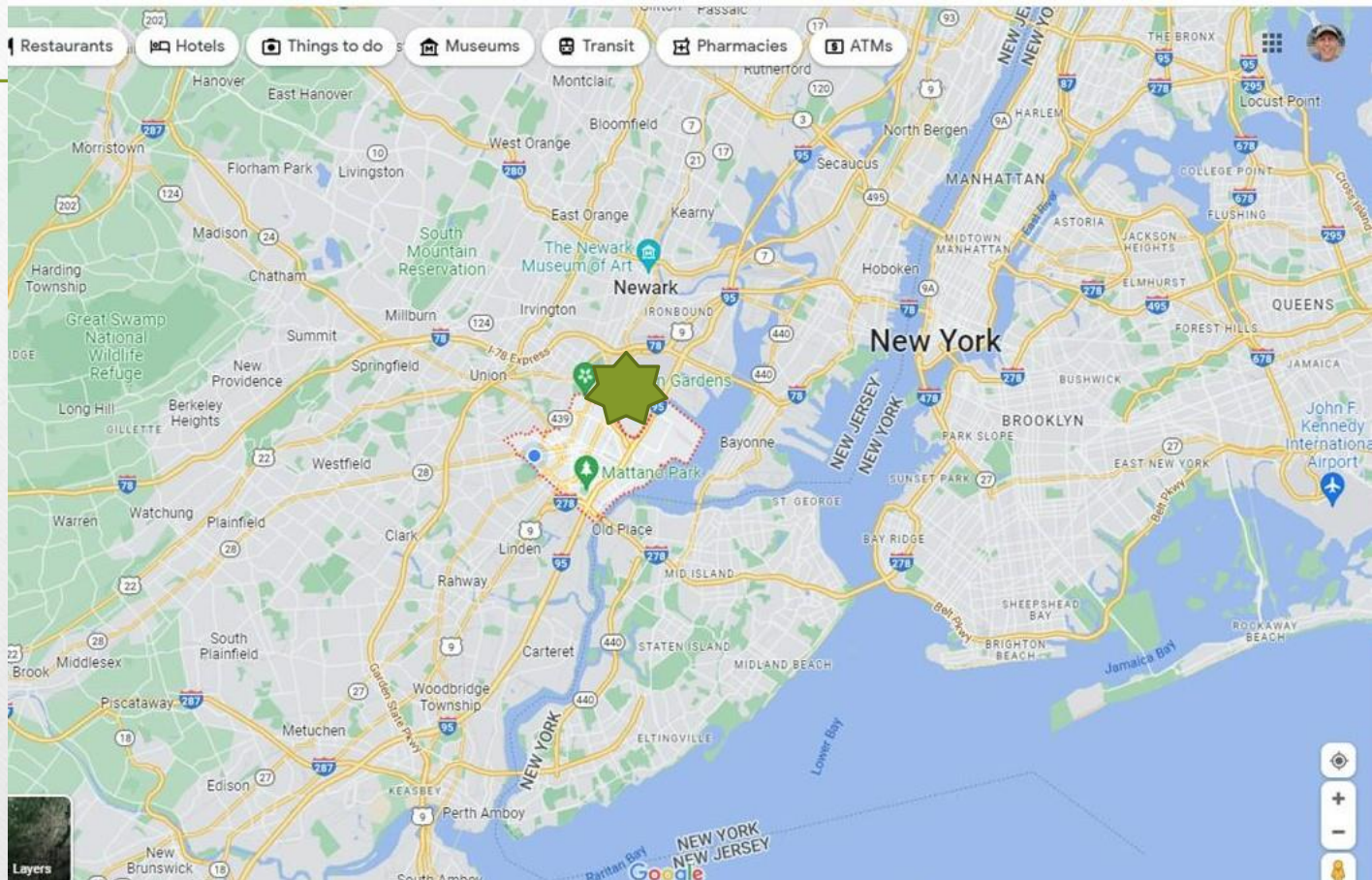


GROUNDWORK
Elizabeth

**OUR
WORK IS
LOCAL**

Where is Elizabeth, N.J.?

The City of Elizabeth, NY Metro Area Population 135,000, Union County 572,000



Demographics



DIVERSITY EXPLOSION



HOW NEW RACIAL DEMOGRAPHICS
ARE REMAKING AMERICA

WILLIAM FREY

Demographics



- 64% of residents are Hispanic/Latino of any race; 19% Black or African American
- significantly lower in high school graduation rates,
- Significantly lower for residents with a bachelor degree, household income, and
- home ownership rates

Elizabeth is significantly higher than the state median in persons below poverty level, violent crime, and crimes per square mile.

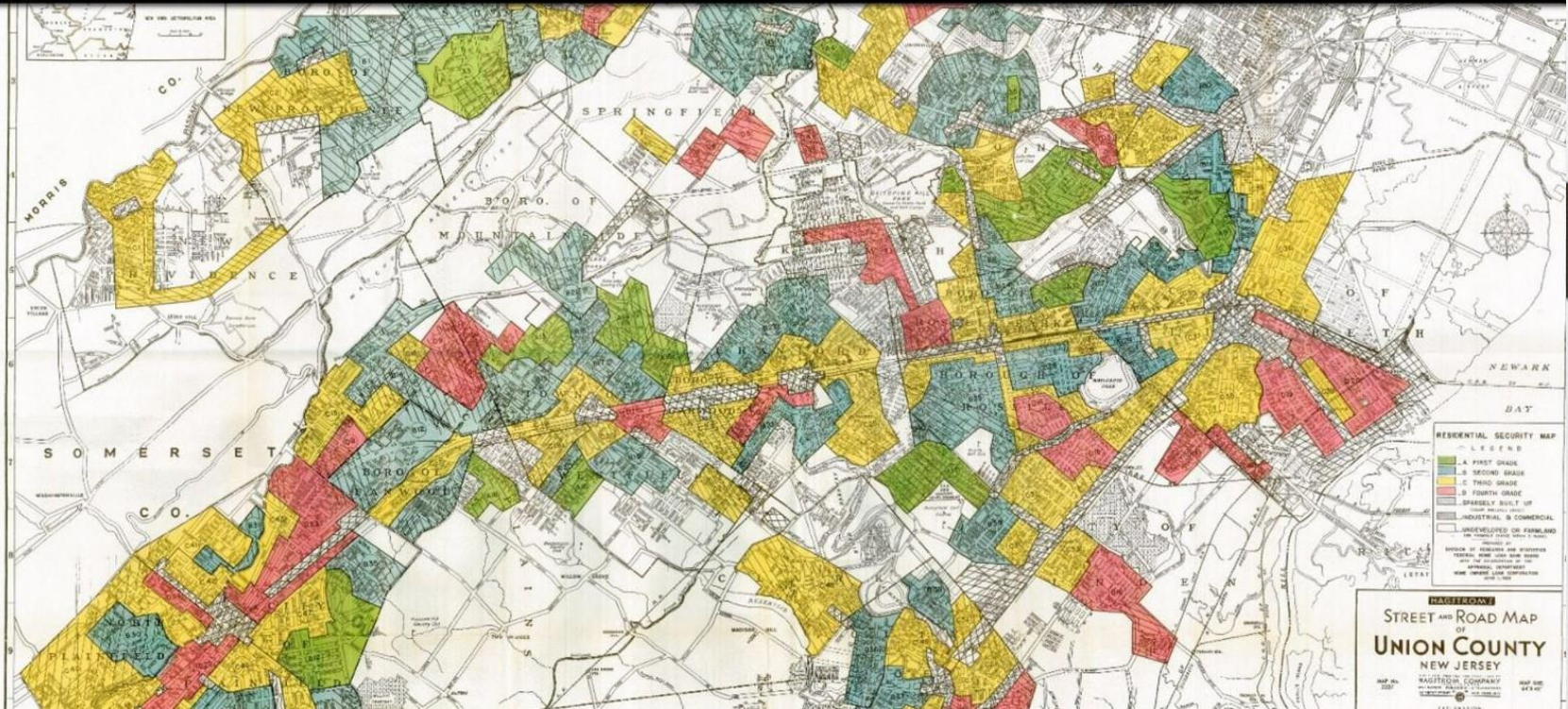
The long term issues of environmental injustice affect those most at risk and those that are in the weakest position to change their circumstances.

Redlining and Environmental Justice (HOLC)



Climate Safe Neighborhoods

[Race & Climate?](#) [Historic Segregation](#) [Neighborhood Risk](#) [What is GWE doing?](#) [Elmora](#) [Bayway](#) [Eport](#) [Coordinator Profile](#) [Get Involved](#) [Español](#)



To HAVE A Healthy Community we need a Climate Safe Elizabeth and Environmental Justice

WHAT CAN WE DO?

CLIMATE SAFE



ELIZABETH



*Take the
Climate Safe
Pledge!*

I, _____ promise
to protect the environment and
leave this world a better way
than I found it.

Name _____

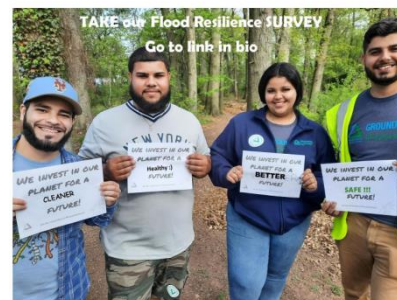
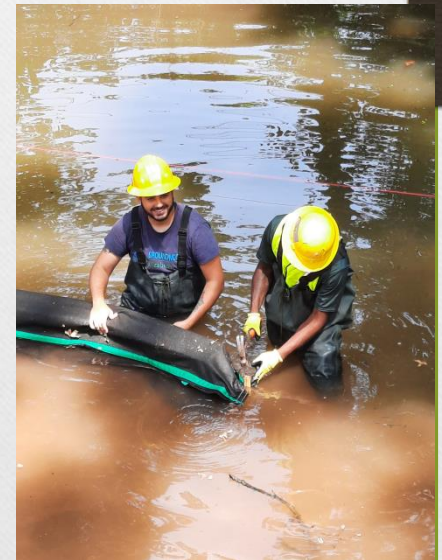
Email _____

Phone _____



3 sample projects and programs to help advance EJ and promote a healthier environment

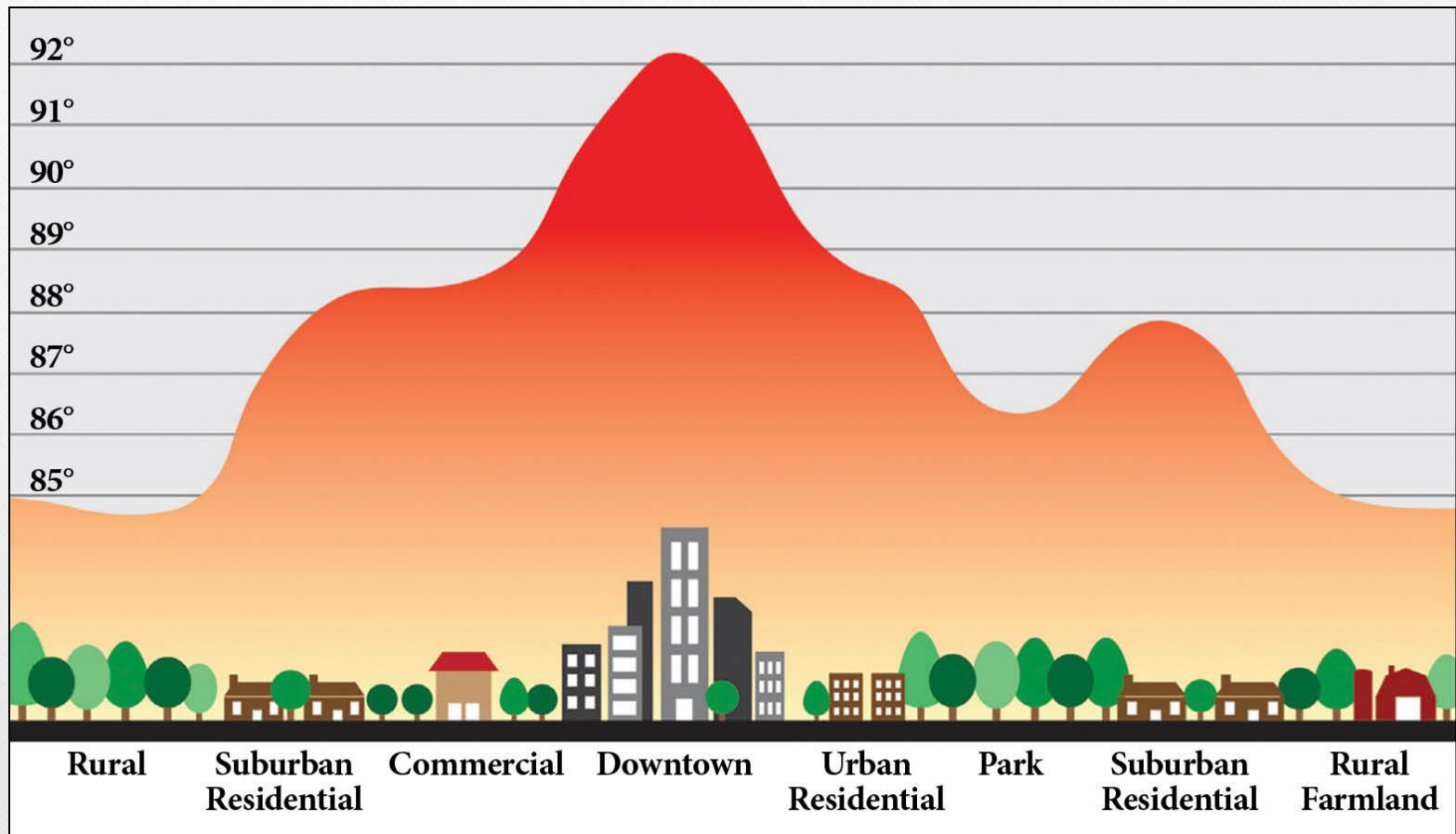
- MicroForests for MacroSolutions
- Phil Rizzuto Riverbank restoration project:
- Engaging our community in the process: Next Generation of Community Leaders



Environmental issue: FLOODING



Environmental Issue: Heat Island Effect and Air Quality



Planning and Commitment

GROUNDWORK
CHANGING PLACES
CHANGING LIVES

CLIMATE CHANGE RESILIENCE IN ELIZABETH

WHAT YOU SHOULD KNOW

Climate Change Resilience: In order to prepare for the potential damages associated with extreme weather events, the city must invest in preventative and adaptive measures. Involvement of community members helps with prioritization of resilience goals and initial actions.

Tidal Climate Adjusted Flood Elevation

- Sea Level Rise 5 ft
- Special Flood Hazard Area
- Floodway
- Open Water

Data Sources: NJDEP, NJGIM

NYC OpenData, New Jersey Office of GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

In the coming years, climate change will cause:

- sea level rise
- more frequent and intense flooding
- more frequent and intense storms
- more extreme heat days per year

How can the community prepare for these impacts?

Groundwork Elizabeth's future work will help center the community's needs in climate resilience planning! Action is already being taken in the form of land restoration and gardening projects. Learn more about existing programs and view more interactive data about climate through the GW Elizabeth website: tinyurl.com/gweclim

STAY CONNECTED!

Follow our social media for future updates and opportunities to get involved!

GROUNDWORK
Elizabeth

Twitter: @gweizabeth Instagram: @groundworkelizabeth Facebook: @GWEElizabeth

Planning occurs at the Groundwork Elizabeth MicroFarm and Environmental Center



MicroForests offer a hands on way to control flooding, fight heat islands, improve air quality



Groundwork Elizabeth in partnership with GW USA, NJ Conservation Foundation and others to build up to 6 MicroForests locally.

First Microforest in Elizabeth, Union County, N.J.





com

MicroForests for MacroSolutions

URBAN MICRO FORESTS

CLIMATE CHANGE MITIGATION & BIODIVERSITY RESTORATION



Around the world, there's a growing movement to create tiny forests in cities to improve their livability and help fight climate change. The idea is simple – take brownfield sites, amend the soil, plant them densely with a wide variety of native seedlings, and let them grow with minimal intervention. The result is complex ecosystems that grow quickly and are perfectly suited to local conditions. Micro forests do most of the things large forests do: absorb carbon from the air, soak up storm water, provide habitat for wildlife, cool the air in summer and they can also help muffle city noise. As the nation's most urbanized state, New Jersey has many places just perfect for tiny forests.



FOSTERING ECOSYSTEM SERVICES

Urban micro forests provide valuable ecosystem services, such as air pollution removal, carbon storage, oxygen production, and stormwater runoff prevention. The species, size and distribution of the trees are significant factors that determine the present and future supply of ecosystem services.

Considerable attention is needed when selecting plants for forest establishment, protection, and management in order to meet current and future demands on the ecosystem services as the need to mitigate climate change increases in densely populated city centers.

FUNCTIONAL BENEFITS OF URBAN FORESTS

- **Carbon Sequestration:** Trees reduce the carbon in the atmosphere by sequestering it in new growth every year. The amount of carbon annually sequestered increases with the size, age, and health of the trees. Carbon storage has attracted significant attention due to climate change.
- **Oxygen Production:** Oxygen is needed by all humans and wildlife and is one of the most commonly cited benefits of urban trees.
- **Climate Management:** Urban vegetation provides direct and indirect benefits. While providing shade, trees also undergo the process of evapotranspiration which regulates heat and cools the air.
- **Air Pollution Removal:** Air quality is improved by reducing air temperature, directly removing pollutants from the air through tree leaves and offsetting carbon dioxide emissions (reducing energy consumption in buildings consequently reduces air pollutant emissions from the power sources).
- **Stormwater Management:** Surface stormwater runoff can cause concern in many urban areas as it can contribute to the pollution streams, wetlands, rivers, lakes, and oceans.
- **Energy Savings:** Trees reduce building energy use in warm months and allow warmth from sunlight in winter while protecting from wind.

URBAN MICRO FORESTS GROW









Planting Impact Tree Planting Event

Sunday, March 26
1pm to 5pm

**Groundwork Elizabeth
MicroFarm**
740 West Grand St. • Elizabeth, NJ

Let's plant
trees!
Let's plant
hope!

Scan here
for more
information!



For disability-related
accommodations please
contact 201.684.7593.

Conservation and Restoration: Phil Rizzuto Park

Welcome to the Trotters Creek Trail



Sponsored by the Union County Board of Chosen Freeholders

UNION COUNTY
We're Connected to You!

Take time to visit Trotter's Creek Trail, Elizabeth's Last Woods, and learn about what's in your ecosystem!



1. Welcome Sign
2. Plant Identification
3. Aquatic Ecosystems
4. Vernal Pool
5. Habitat Exploration Guide
6. From Trotter's Creek to the Atlantic Ocean

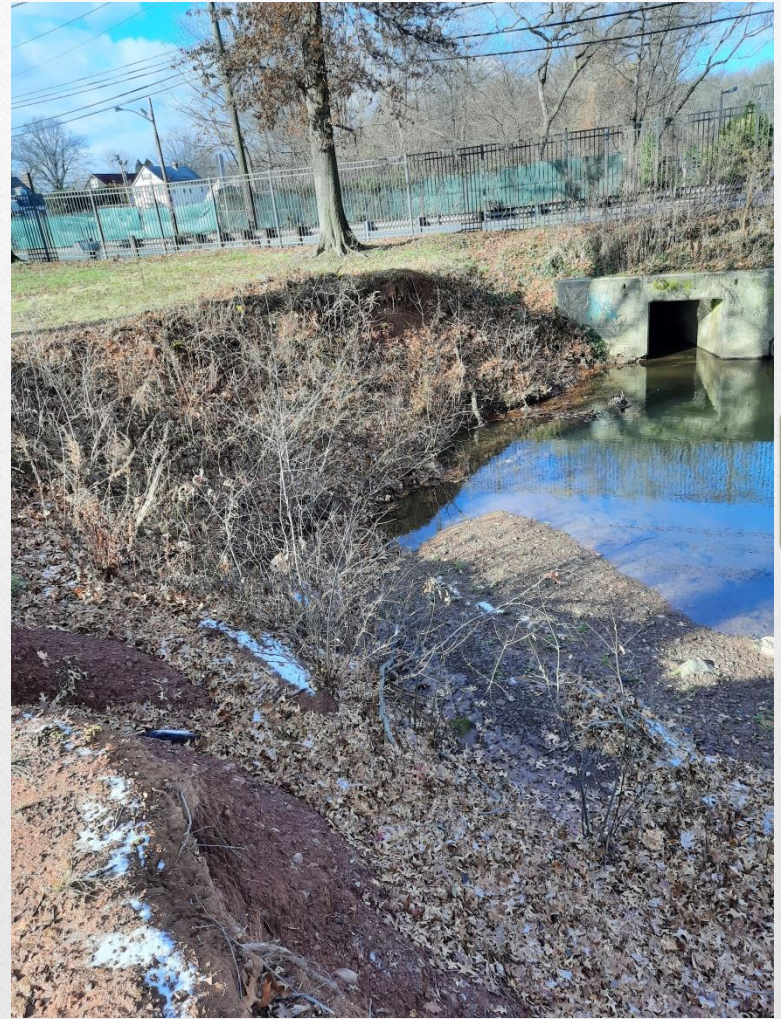


Special Thanks to Kean University (SESS) students for providing content throughout the trail.

For more information: www.groundworkelizabeth.org







Just as we plant MicroForests, we Repair our urban waters





To promote community support and EJ, we engage community through events and programs along urban waters



Cleanups along riverbanks



Great American Backyard Bird Count





Sponsored by the Union County Board of County Commissioners
UNION COUNTY
We're Connected to You!

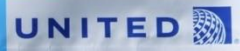
BOOTS NOT SUITS

EARTH DAY EVENT

DATE:
APRIL 21, 2023
1PM-5PM

LOCATION:
PHIL RIZZUTO PARK

Register Here



SUSTAINABILITY!!

Youth participation, our next Generation

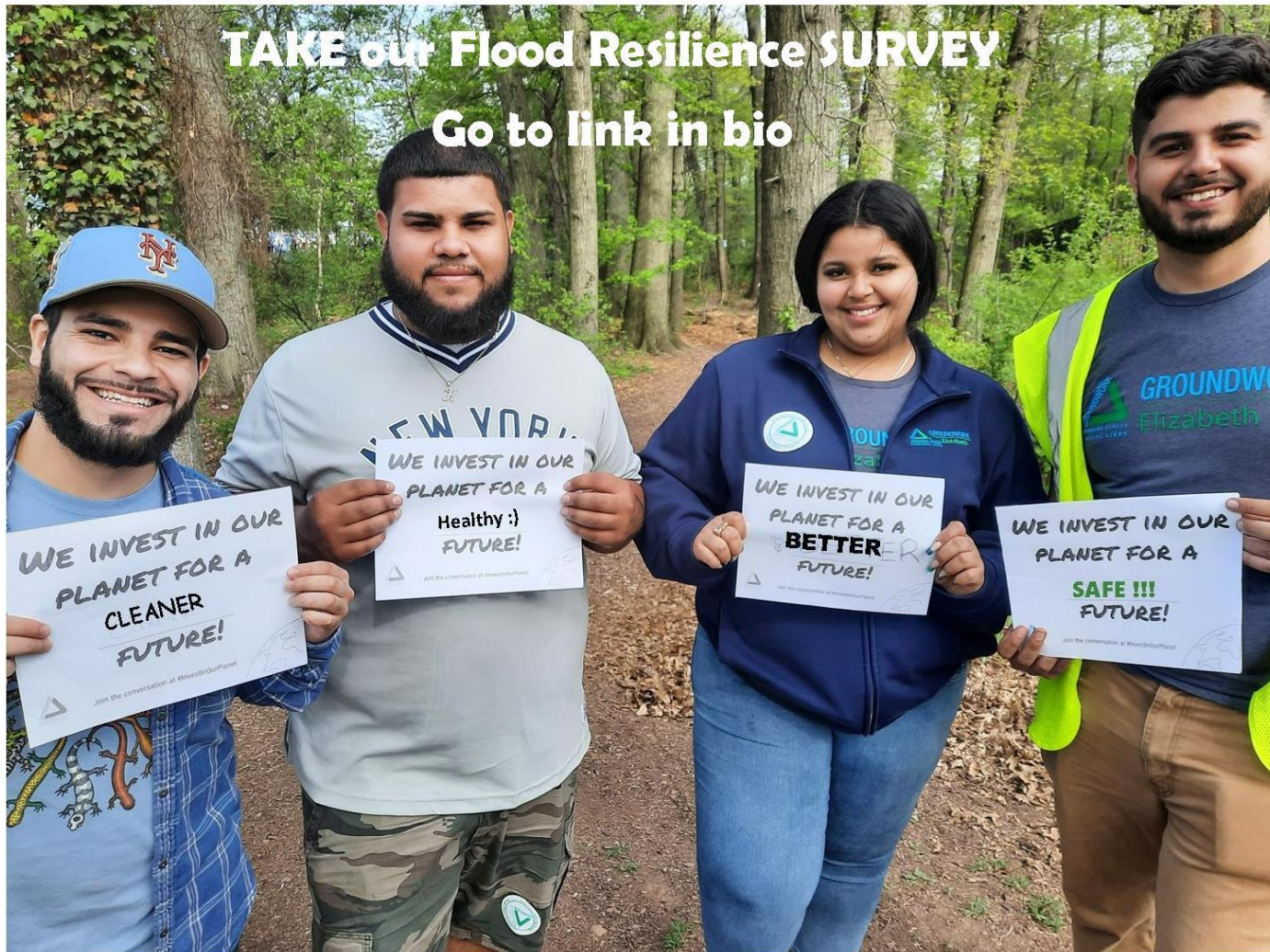


Next Generation of Community Leaders



TAKE our Flood Resilience SURVEY

Go to link in bio



Mayor's Youth Council and our GREEN TEAM



Quick recap:

- Improve EJ communities with more trees, **MicroForests**
- Restore and repair riverbanks, reduce flooding, enhance natural environment
- Get community educated and motivated to continue the progress.



QUESTIONS and contacts

URBAN MICRO FORESTS

CLIMATE CHANGE MITIGATION & BIODIVERSITY RESTORATION



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URBAN MICRO FORESTS GROW



www.groundworkelizabeth.org

jonathan@groundworkelizabeth.org

Questions?



Thank you!

You can reach us at:

Jalisa Gilmore
Senior Manager of Environmental
Justice Programs
Jalisa@groundworkusa.org

John Valinch
Senior Manager of Equity & Resilience
Programs
John@groundworkusa.org

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Free Technical Assistance Offerings
<https://groundworkusa.org/ta-services/>

Brownfield Newsletter
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- Groundwork USA News & Updates
- Equitable Development Tools & Resources

* indicates required

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