



*National Association of
State Energy Officials*

NASEO Buildings and Energy Affordability Committee Webinar: Extreme Heat Policy

July 9, 2026



Welcome and Zoom Reminders

Agenda

- Welcome, Introductions, and Community Agreements
- NASEO Smart Surfaces Primers
- Panel Discussion: State Policy and Programmatic Opportunities to Address Extreme Heat
 - Moderator: Blake Shelide, Oregon Department of Energy
 - Grace Wickerson, Federation of American Scientists
 - Aileen Eagleton, New Jersey Board of Public Utilities
- Q&A and Full Group Discussion
- Next steps and close

Community Agreements*

- Respect and honor silence and confidentiality
- Be present
- Take care of your personal needs
- Speak your truth and let others speak theirs
- No one knows everything; together we know a lot
- No fixing, no saving
- Honor time agreements
- Be curious
- We are all human, not perfect
- Expect and accept non-closure
- Understand your position and impact

*Adapted from a presentation by Quinn Parker, Encolor

Energy Affordability Committee Updates

- Welcome new Leadership Team members!
 - Christine Knapp, Pennsylvania
 - Joshua Elliott, New Hampshire
 - Lauren Rosenstein, Oregon
 - Tracy Smetana, Minnesota
- [Energy Affordability Resource Library](#)
- Contact NASEO staff with questions or suggestions:
 - Sandy Fazeli (sfazeli@naseo.org)
 - Grace Lowe (glowe@naseo.org)
 - Arvand Golbazi (agolbazi@naseo.org)

2026 NASEO National Buildings Summit



<https://www.naseo.org/issues/buildings/committee>

Cities for Smart Surfaces Project

NASEO partnered with the Smart Surfaces Coalition, a cohort of more than 40 organizations, to help 10 cities across the U.S. increase adoption of Smart Surfaces at the metropolitan level by providing city staff and local community-based organizations with data and education, decision tools, and policy guidance.



What are Smart Surfaces?

Reflective/Cool Roofs



Green Roofs



Porous & Permeable Pavements



Solar Photovoltaics



Reflective/Cool Pavements



Trees



Green Stormwater Infrastructure



Zero & Negative-Carbon Concrete



How Smart Surfaces Can Support State Energy Offices' Goals

Affordability

- Reduce cooling load and lower energy costs
- Improve thermal comfort for homes lacking access to AC
- Increase solar panel cost-effectiveness when combined with cool roofs

Reliability

- Lower peak cooling demand during summer months
 - Ex. Cool roofs can reduce peak summer cooling demand by 11-27% in air-conditioned buildings
- Reduce reliance on peaking plants

Resilience

- Often more durable than conventional products
- Help manage stormwater and mitigate flooding impacts
- Improve thermal comfort during outage events

Economic Opportunity

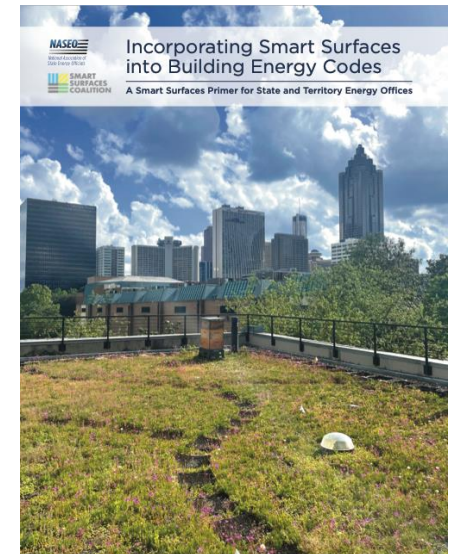
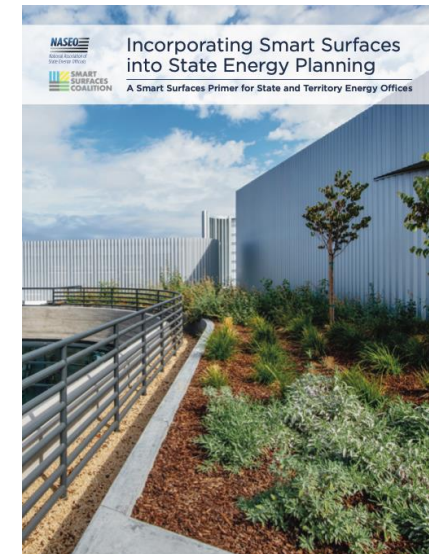
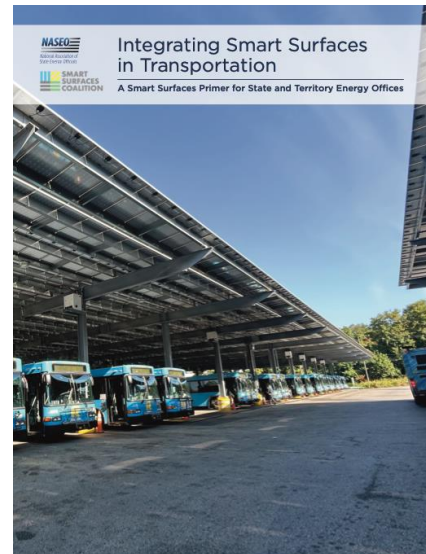
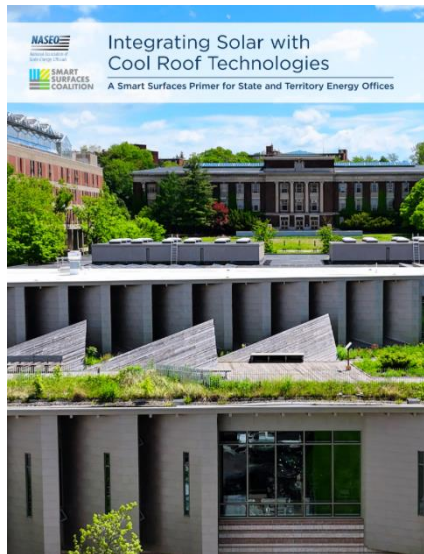
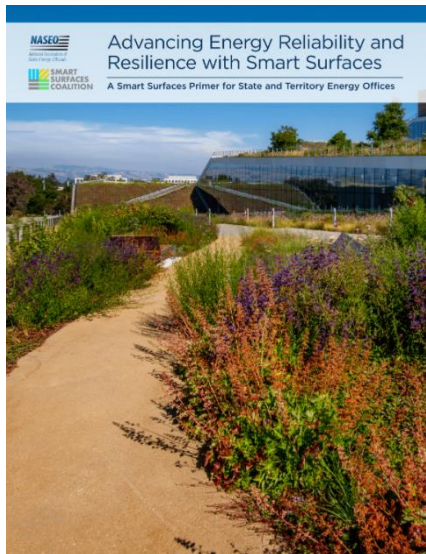
- Create local jobs
- Improve comfort and safety for outdoor workers
- Boost summer tourism by supporting more comfortable outdoor environments

Environmental Stewardship

- Shade trees and green stormwater infrastructure improve outdoor air quality and sequester carbon
- Help right-size HVAC systems and lower AC, reducing refrigerant emissions

NASEO Smart Surfaces Primers

- Series of briefs exploring how State Energy Offices can support implementation of Smart Surfaces across their policy, programmatic, and planning work
- Available on [NASEO's Publications page](#)



Additional Resources and Tools

- NASEO Report: [Beating the Heat: Recommendations and Considerations for States to Support Cost-Effective Residential Cooling](#)
- [Smart Surfaces Project Design Platform](#)
 - Benefit-Cost Analysis Calculator and Benefits Report
 - Spec Sheets and case studies
 - Project design checklist
- [Smart Surfaces Policy Tracker](#)
- [Smart Surfaces Coalition Decision Support Tool](#)
- [Smart Surfaces Coalition Benefit-Cost Analysis Tool](#)

FEDERATION OF AMERICAN SCIENTISTS

Who is FAS?

FAS is a nonpartisan, nonprofit organization based in Washington, D.C. that views policymakers as key to improving societal outcomes.

FAS was founded in 1945 by a group of scientists and engineers that emerged from the Manhattan Project, Oak Ridge, and Los Alamos.

We've evolved as the world has, too.

We believe that science, technology, and innovation have the vast potential to generate societal good when harnessed appropriately.

Government can struggle to take advantage of the best ideas, talent, expertise, and evidence to drive policy and most effectively govern.

FAS exists to change that.



State and Local Heat Policy Agenda

Developing the State & Local Heat Policy Agenda



ENVIRONMENT

2025 Federal Heat Policy Agenda

01.13.25 | 16 MIN READ | TEXT BY GRACE WICKERSON & HANNAH SAFFORD & AUTUMN BURTON

What are the leading practices for state and local governments?



What federal policies would be highest priority to S&L gov't?

Developing the State & Local Heat Policy Agenda

1000 unique policies
reviewed and inventoried.



Engaged either a state or local
policymaker in all 50 states



400 experts co-developed the
Agenda through interviews,
roundtables, and surveys

Developing the State & Local Heat Policy Agenda



Keep people safe in the places
where they spent the most time



Transform communities so people
don't just survive, they thrive

State & Local Heat Policy Agenda Focus Areas



Safe Homes: Every family should be protected from dangerous heat at home.



Safe Workplaces, Schools, and Childcare: Every person should be protected from dangerous heat exposure on the job, at school, and at childcare facilities.



Safe Communities: Every community should get “heat-safe”, having the plans, capacity, and infrastructure to be ready for extreme heat.

State & Local Heat Policy Agenda Implementation Guide

- First-ever “heat policy taxonomy” to guide decision makers:
 - 4 pillars
 - 15 recommendations
 - 50 strategies
 - +400 unique policy actions
 - +1000 examples from all 50 states
- +150 spotlights of state level action, with examples from every state

Agenda, Implementation Guide, and Spotlights on HeatAgenda.US

The State and Local Heat Policy Agenda

Leading practices at the nexus of energy and extreme heat

Key Challenges

Affordability x Heat

- Cooling is necessary to stay healthy during extreme + chronic heat
- Rising energy prices are making homes more expensive to cool

Buildings x Heat

- The U.S. buildings stock need to be retrofitted for cooling - leveraging passive and active technologies. IAQ can be a co-benefit.
- The buildings of the future need to be built with future extreme temperatures in mind

Resilience x Heat

- Peak summer load demands are pushing the grid to the limit

Arizona establishes disconnection protections during hot days



Ohio provides cooling assistance to families in need

NEED HELP PAYING YOUR SUMMER ELECTRIC BILLS?

THE SUMMER CRISIS PROGRAM MAY BE ABLE TO HELP!

- ▶ Available July 1 through September 30;
- ▶ Available to households at or below 175% of the federal poverty level that also meet ONE of the following three requirements:
 1. A household member is 60 or older; OR
 2. A member of the household has a medical necessary condition certified by a qualified medical professional; OR
 3. The household has an electricity disconnection notice, has been shut off, or new electric service is being established.

***For more utility assistance information visit:
www.occ.ohio.gov/utilityassistance***



**Office of the Ohio
Consumers' Counsel**
www.occ.ohio.gov

AD-ASSIST-062624

Washington caps energy burden at 6%

County	Number of energy burdened low-income households	Percent of low-income households that are energy burdened	Percent of energy burdened low-income households of total population	Average energy burden for energy burdened low-income household	Total excess burden of energy low-income households
Cowlitz	4,139	25%	10%	\$811	\$3,357,312
Douglas	579	12%	4%	\$562	\$325,358
Ferry	1,243	81%	41%	\$1,354	\$1,683,084
Franklin	2,433	23%	9%	\$880	\$2,140,430
Garfield	271	60%	27%	\$1,559	\$422,967
Grant	2,955	21%	9%	\$705	\$2,083,758
Grays Harbor	5,837	46%	20%	\$1,064	\$6,211,221
Island	4,729	40%	13%	\$1,075	\$5,081,798
Jefferson	3,323	53%	21%	\$1,251	\$4,157,131
King	53,220	17%	6%	\$1,188	\$63,225,460

California codifies a state-wide maximum indoor temperature, Los Angeles County makes it enforceable



Maryland mandates landlords install and maintain AC



Massachusetts incentivizes Passive House construction



Electric buses serve as grid assets during extreme temperatures



California's partners with municipal utility to create resilience centers with cool, clean air



Next steps

Welcome you to:

Share the Agenda and implementation guide with your colleagues:

- HeatAgenda.US will be updated on a regular basis, we welcome feedback

Collaborate with FAS:

- We'd be excited to learn about your work on extreme heat and connect you to experts and peers

Support implementation of heat resilience best practices:

- We want to identify priority issue areas for collective solutioning
- Kicking off working groups this fall to collaborate on heat policy and practice in an ongoing manner

Connect with FAS

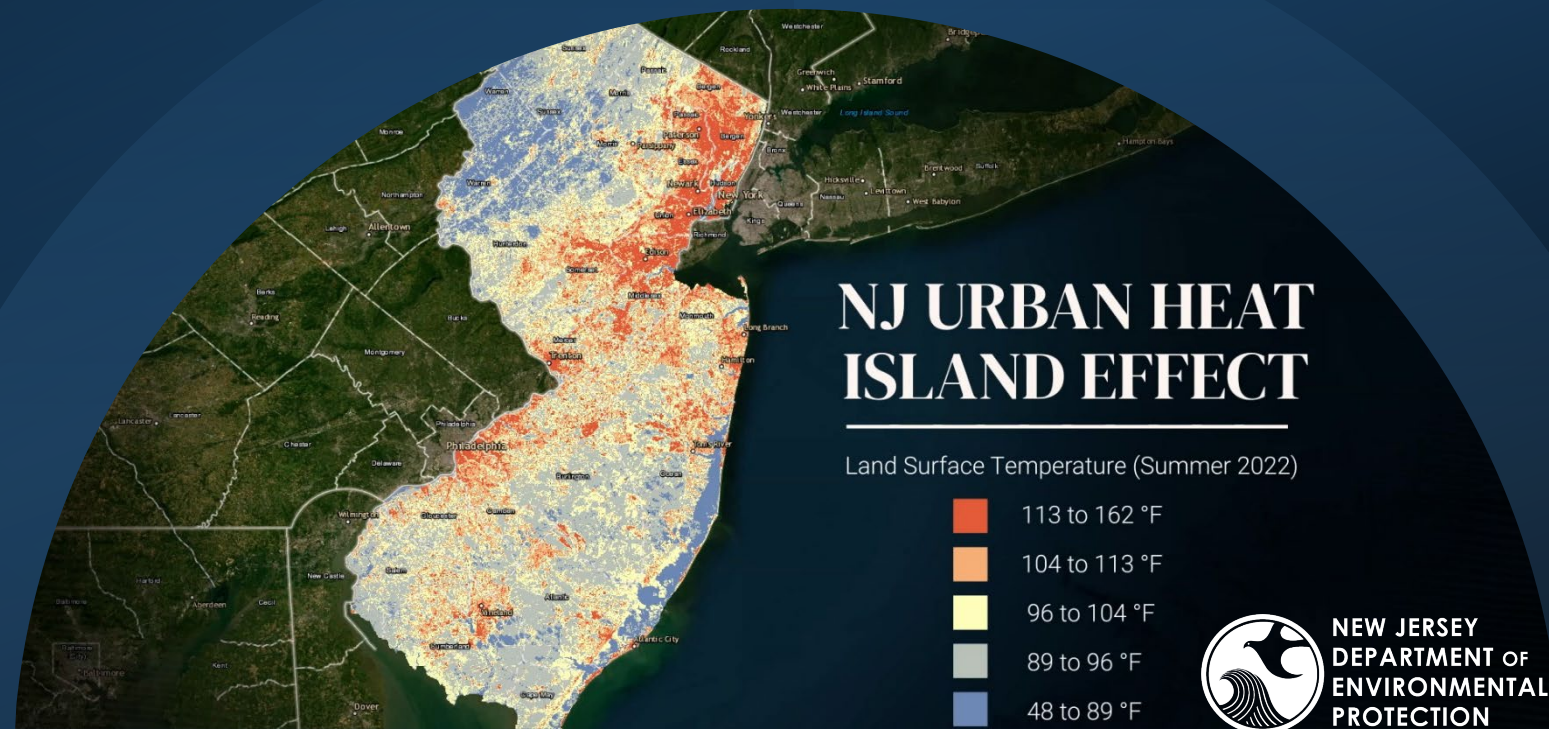
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Community- and Data-Driven Strategies to Reduce Extreme Heat through NJBPU's Urban Heat Island Mitigation Program (UHI Program)

Aileen Eagleton, Ph.D.

NASEO Buildings and Energy Affordability Committee Webinar: Extreme Heat Policy 7/8/2026

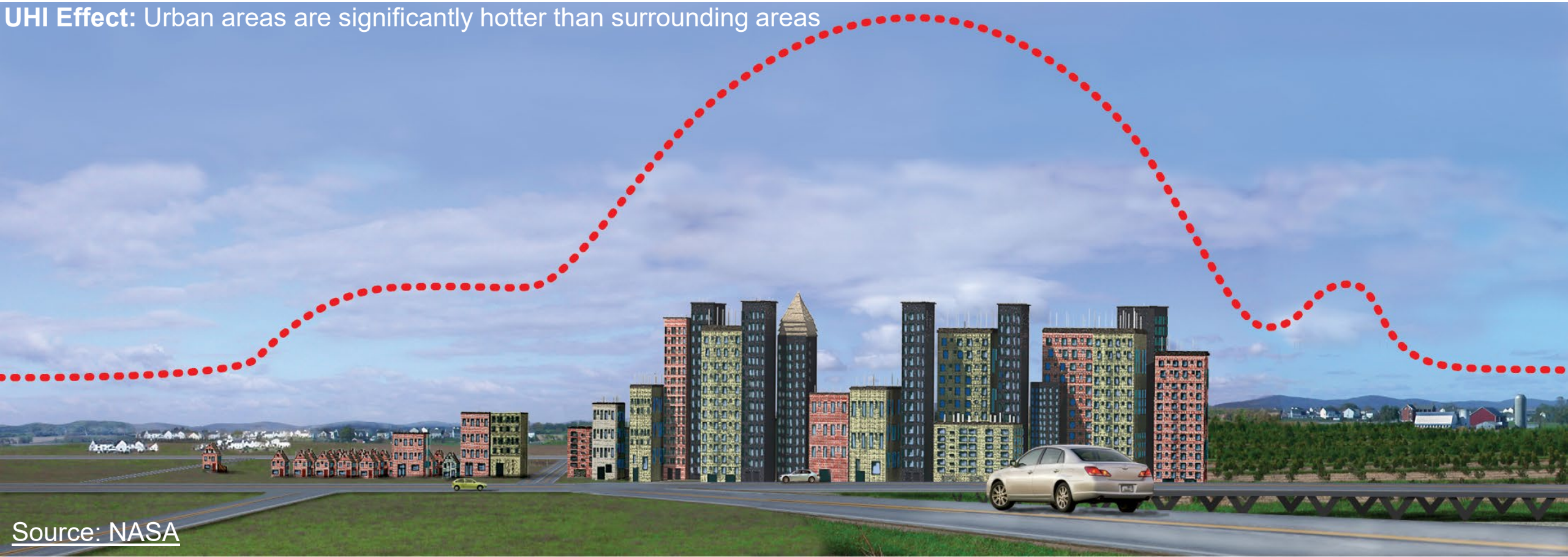


Presentation Outline

- **UHI Causes and Impacts**
 - UHI Effect Overview
 - The UHI Effect Increases Energy Demand and Environmental Burden
- **Disproportionate Extreme Heat Impacts on NJ's Overburdened Municipalities (OBMs)**
- **BPU Cool Cities Program: Urban Forestry Promotes Energy Efficiency**
- **Grant Program Structure (\$5,000,000 budget)**
 - Comprehensive UHI Interventions (2 | \$1,000,000)
 - Cooling the Built Environment (4 | \$500,000)
 - Urban Microclimate Interventions (20 | \$50,000)
- **UHI Program Project Summaries**
- **Impact and Future Directions**

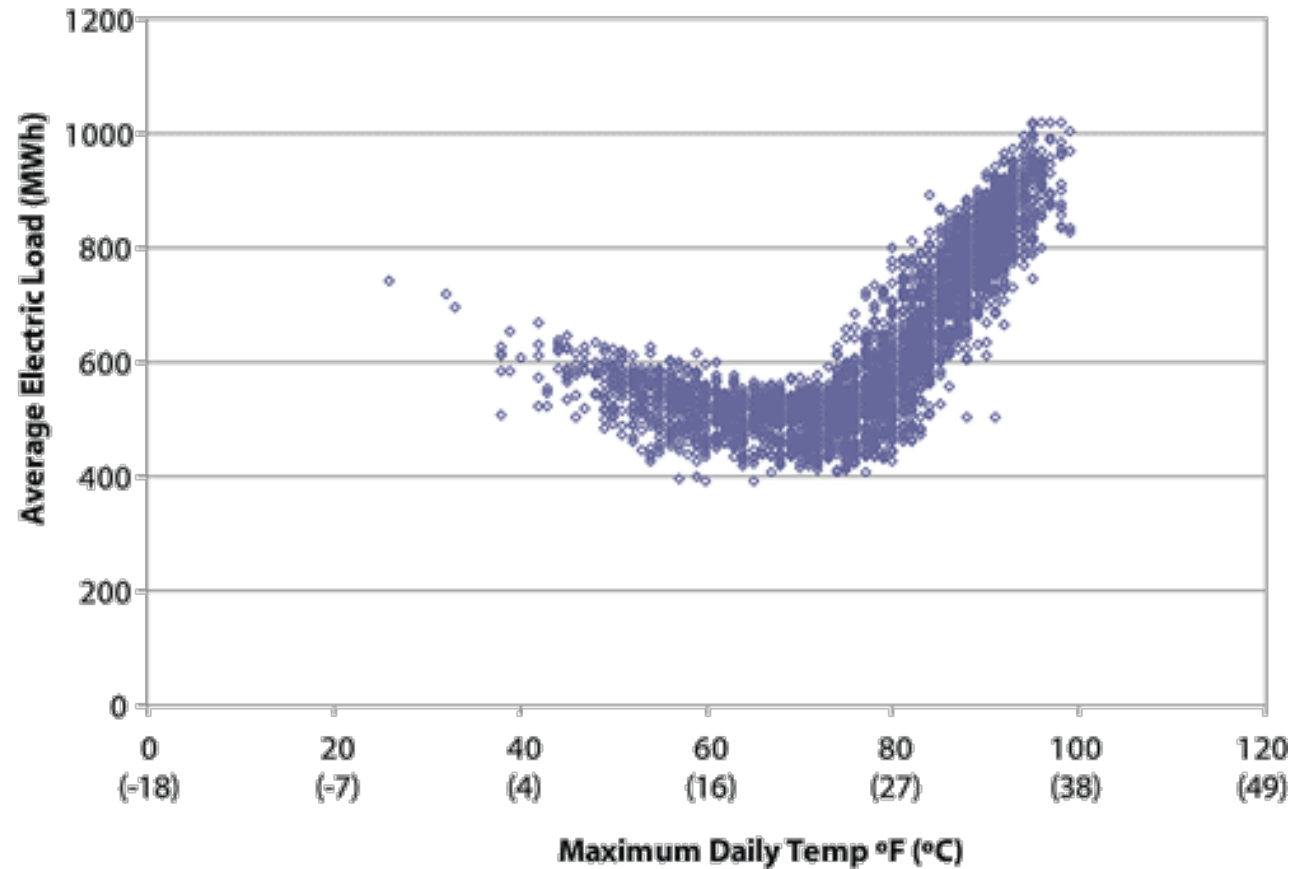
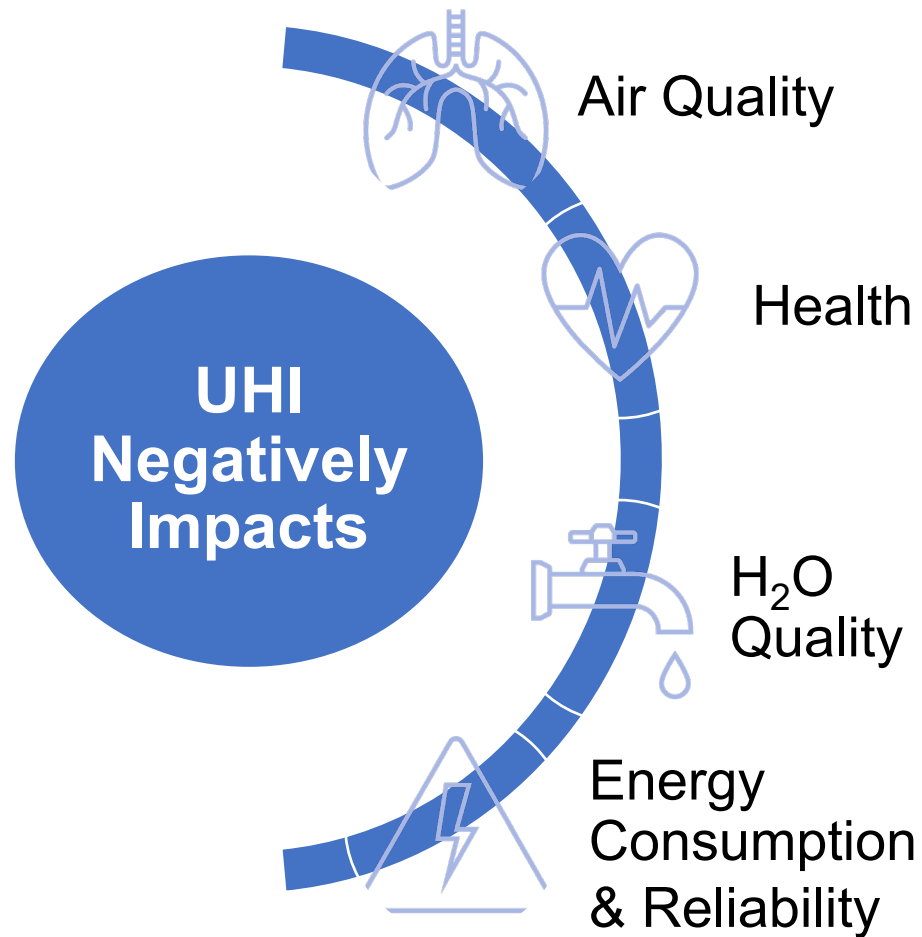
Urban Heat Island (UHI) Effect Overview

UHI Effect: Urban areas are significantly hotter than surrounding areas



Source: NASA

The UHI Effect Drives Up Energy Costs and Pollution



Urban heat and extreme temperatures significantly increase grid strain, with each 1 °C rise in ambient temperature boosting peak electricity demand up to 4.6%.

Extreme Heat and UHI Impacts on NJ Residents



2023-2024 EXTREME HEAT SURVEY RESULTS

Top Extreme Heat Concerns Selected by Respondents:

1 \$

Cost for AC/Cooling

4

Finding Shade Outside

2



Impacts to Own Health

5

Having to Work in Excessive Heat

3



Impacts to Health of Loved Ones

6

No/Limited Access to AC

www.nj.gov/bpu



NJ is the fastest warming state in the northeast.



Dense urban planning has contributed to this warming trend and the UHI effect.



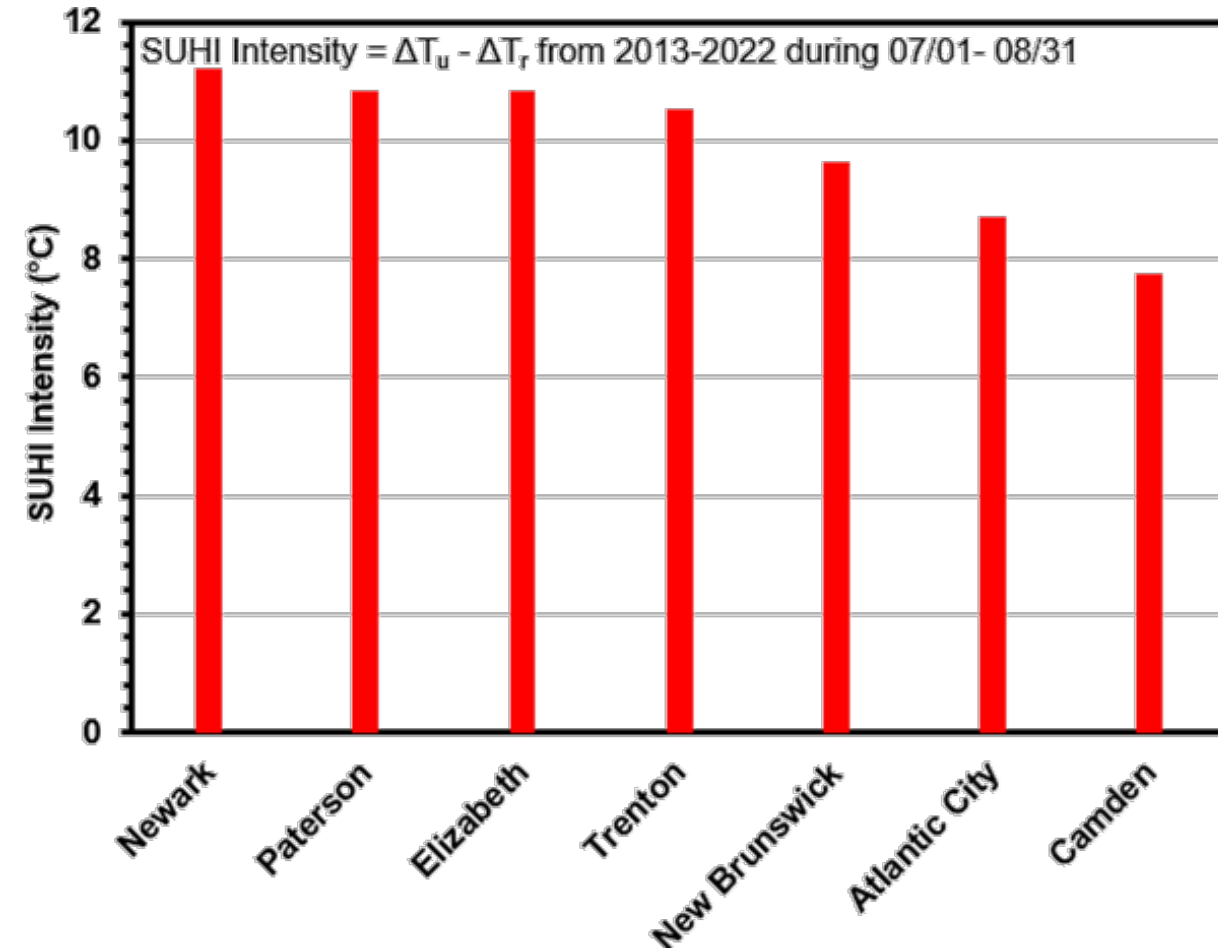
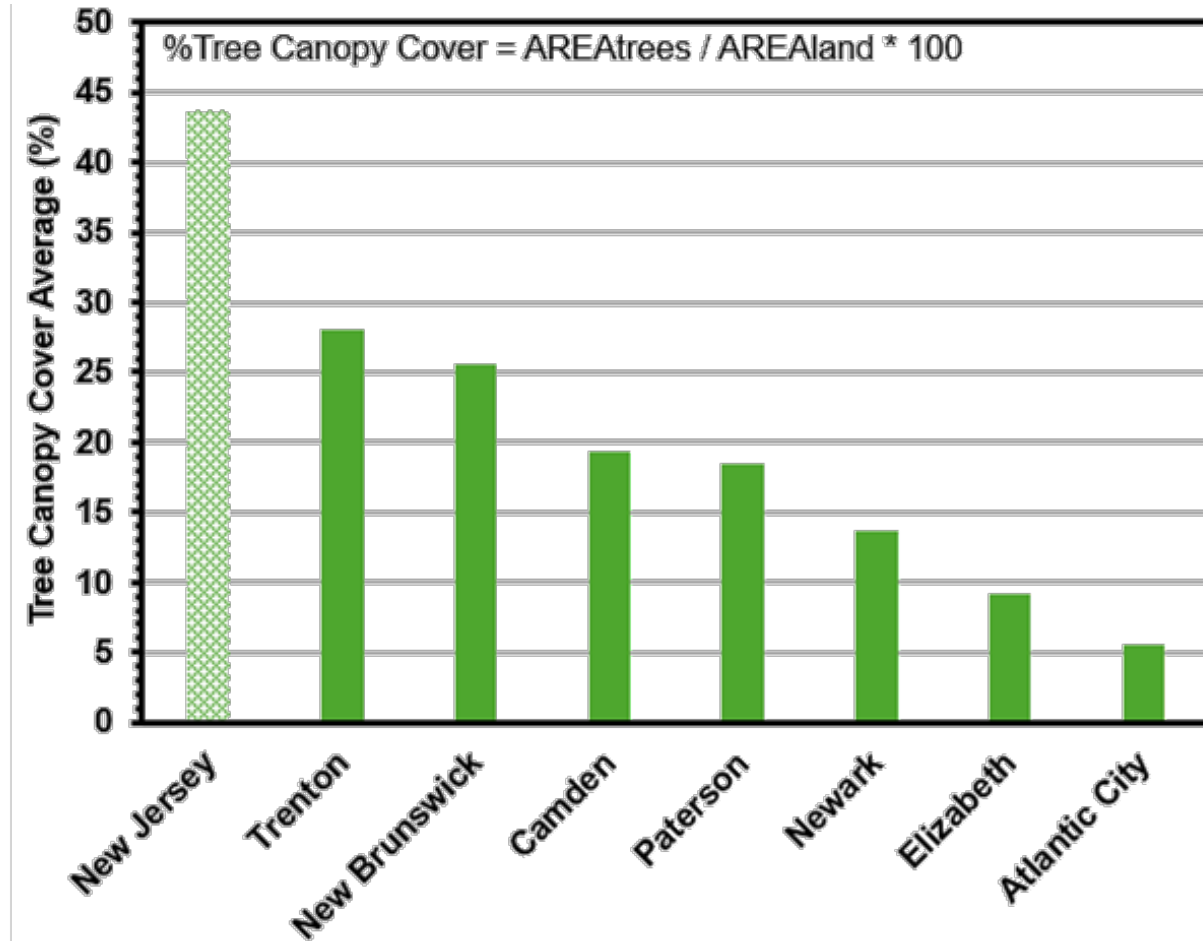
The top concern for NJ residents during extreme heat is cooling costs.



[Newark Ironbound section is one of the worst heat islands in the country](#)

[New Jersey Extreme Heat Resilience Action Plan](#)
[NJ weather: June and July were second hottest on record](#)

Disparate Impacts of Extreme Heat in Overburdened Municipalities (OBMs)

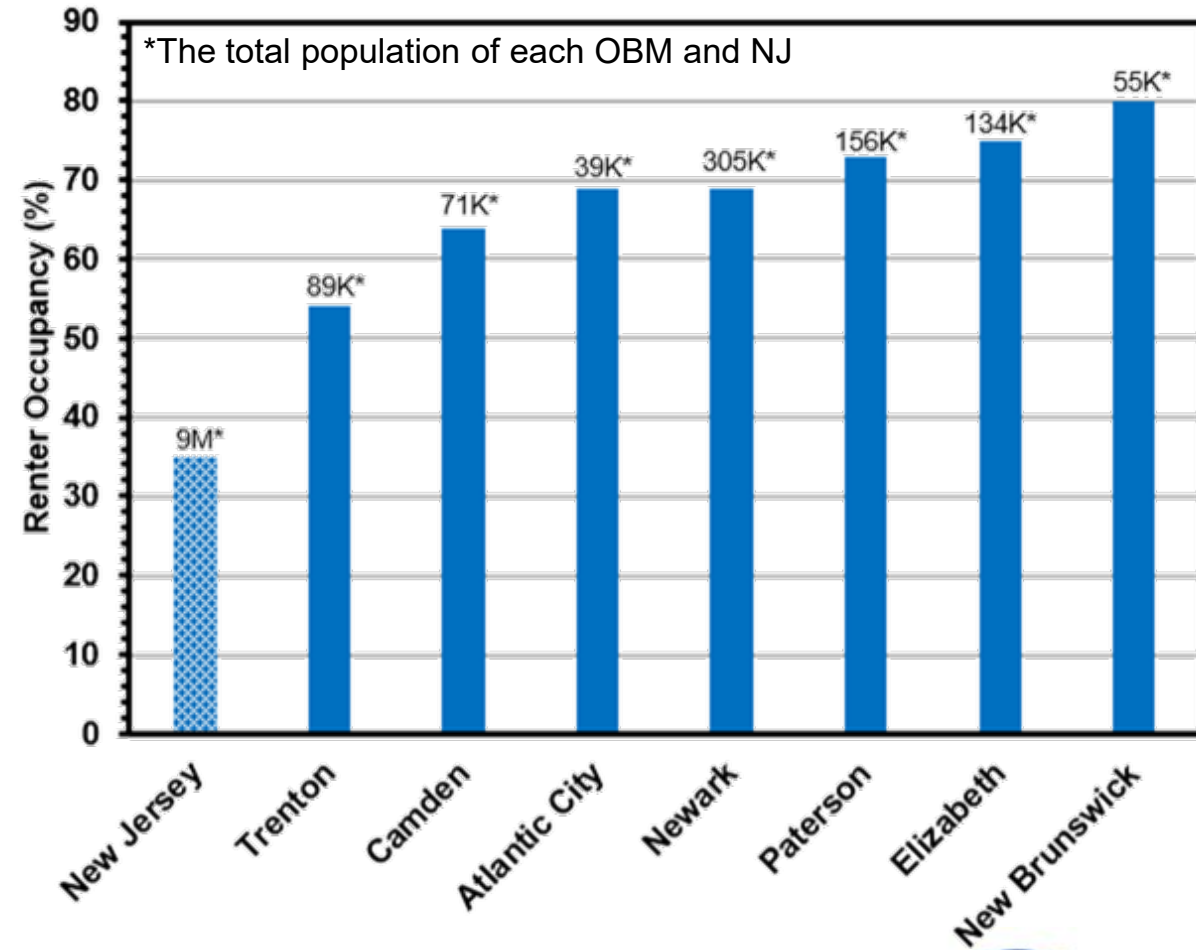
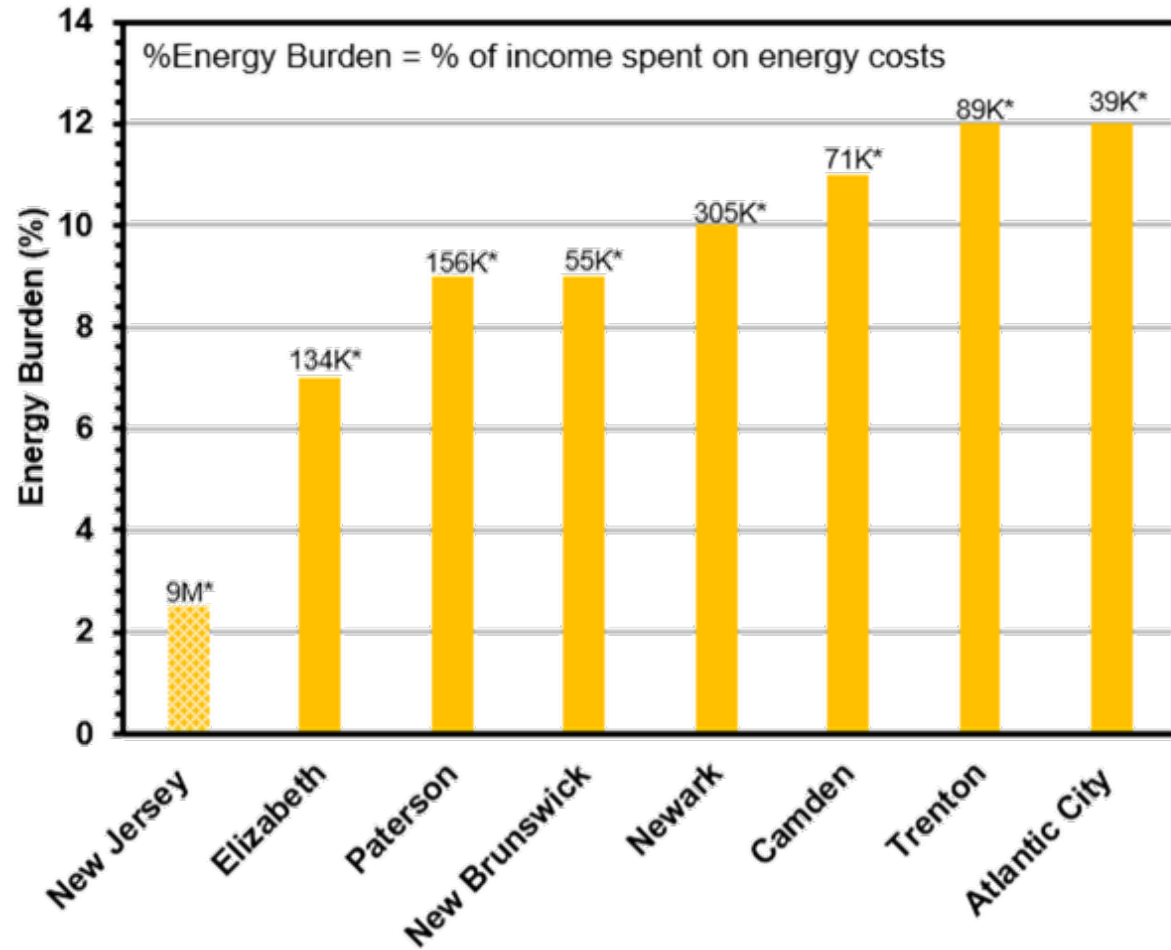


www.nj.gov/bpu



[Methodology \(treeequityscore.org\)](http://treeequityscore.org)
[ARSET - Satellite Remote Sensing for Measuring Urban Heat Islands](#) | [NASA Applied Sciences](#)

Disparate Impacts of Extreme Heat in Overburdened Municipalities (OBMs)



www.nj.gov/bpu



[Census Reporter: Making Census Data Easy to Use](#)

[LEAD Tool | Department of Energy](#)

[Aspects of Energy Inequity in New Jersey – New Jersey State Policy Lab \(rutgers.edu\)](#)

BPU & DEP Cool Cities: Urban Forest Energy Efficiency Initiative

Past BPU Investments in Urban Canopy:

- **2007:** BPU and DEP entered into Memorandum of Agreement in which ~\$4 million was put towards planting trees across NJ's largest cities.
- A New Jersey Clean Energy Program report demonstrated that ~**2,000 trees** planted in 2006 through Cool Cities resulted in annual energy savings of **196 MWh (enough to power 19 U.S. Households on average for 1 year).**

Cool Cities Annual Energy Savings

x 2000



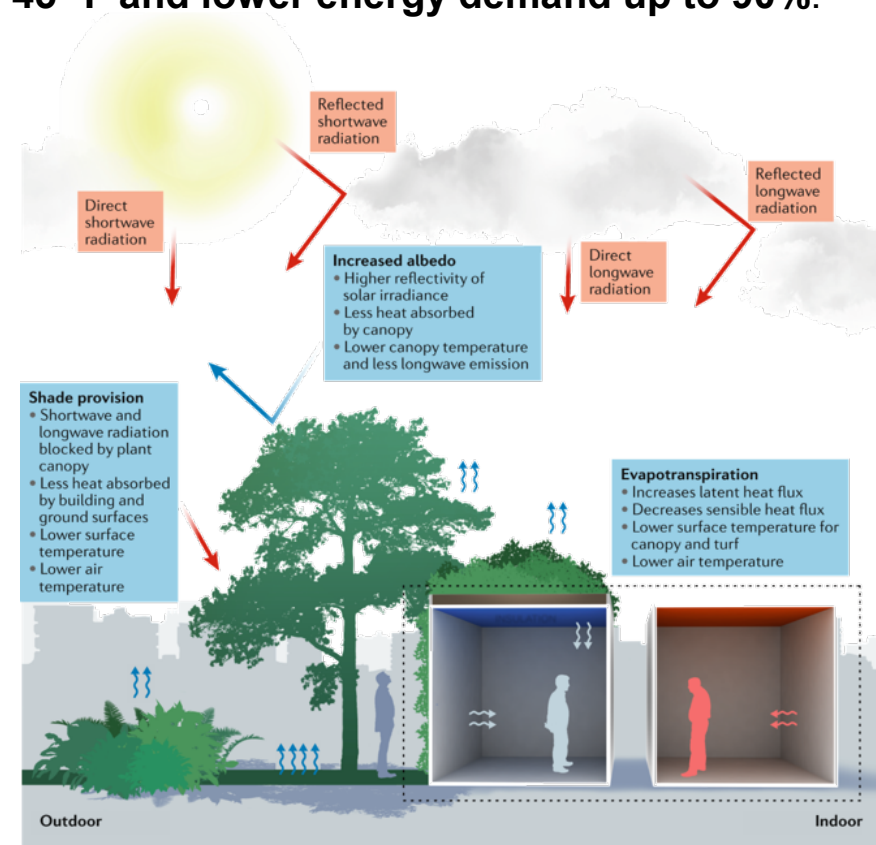
x19

[DEP & BPU Kick-Off Cool Cities: an Urban Forest Energy Efficiency Initiative](#)

[NJCEP 2006 Annual Report PDF-1.pdf](#)

Important Considerations for Natural Land Cover Expansion:

- **Urban green space**, including parks and gardens, **reduces** temperatures attributed to the **Urban Heat Island Effect by as much as 11%.**
- Expanding **urban canopy** cover can **lower surface temperatures by 20–45 °F** and **lower energy demand up to 90%.**



Wong et al. *Nat Rev Earth Environ* **2021**, 2, 166–181.

Ko, Y. *Urban For. Urban Green*, **2018**, 34, 318–335.

[Urban green space cooling effect in cities: Heliyon](#)



Funding Mechanisms for Community-driven Cooling Strategies

1. Comprehensive UHI Interventions (2 Grants| \$2 Million):



Photo Credit: NJ Tree Foundation

Up to \$1M for large-scale projects that address cooling infrastructure needs (e.g., green spaces, shade structures, and public amenities).

2. Cooling the Built Environment (4 Grants| \$2 Million):



Groundswell

Up to \$500,000 for cooling center fortification and community resilience hub activation through energy efficiency upgrades and battery storage systems.

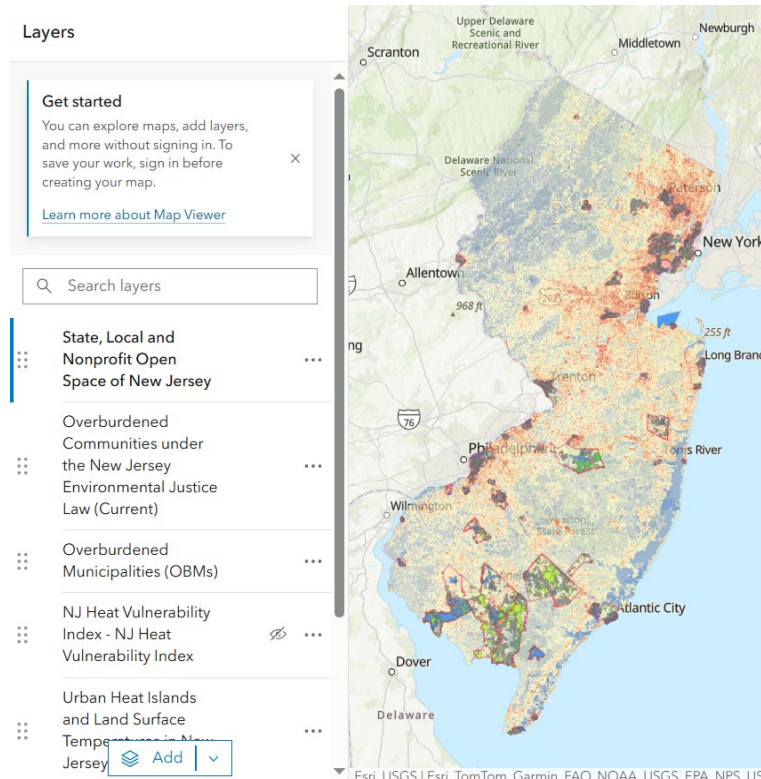
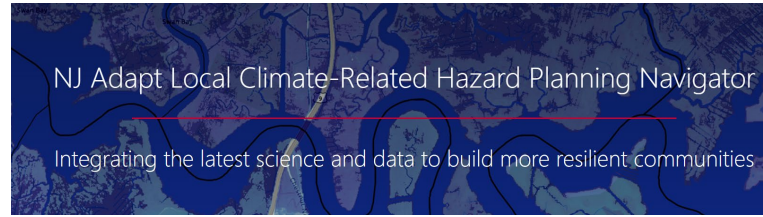
3. Urban Microclimate Interventions (20 Grants| \$1 Million):



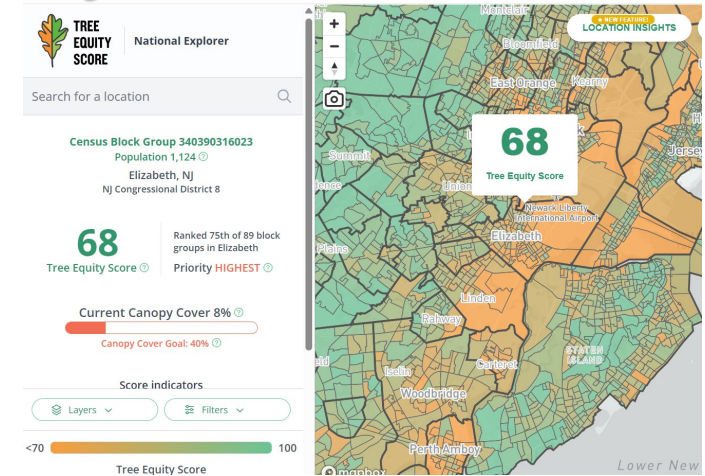
Photo Credit: Jonathan Gordon

Up to \$50,000 for small-scale community projects (e.g., community gardens).

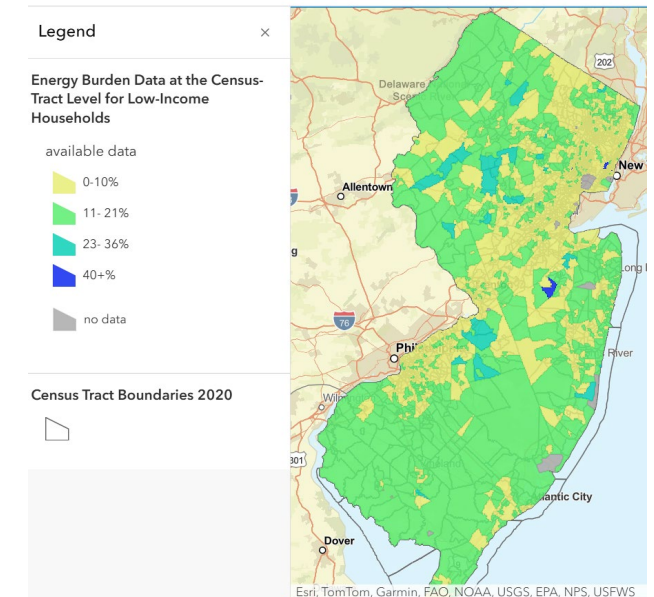
Local Insights and GIS Inform Multi-hazard and Vulnerability Assessments



The [NJ UHI Mitigation and Resilience Planning](#) tool helps identify which communities are most at risk from extreme heat, within overburdened municipalities (OBMs).



The [tree equity score](#) accounts for tree canopy need and sociodemographic information.



The [energy burden tool](#) provides NJ energy burden data at the census-tract level for low-income households (0-200% FPL).

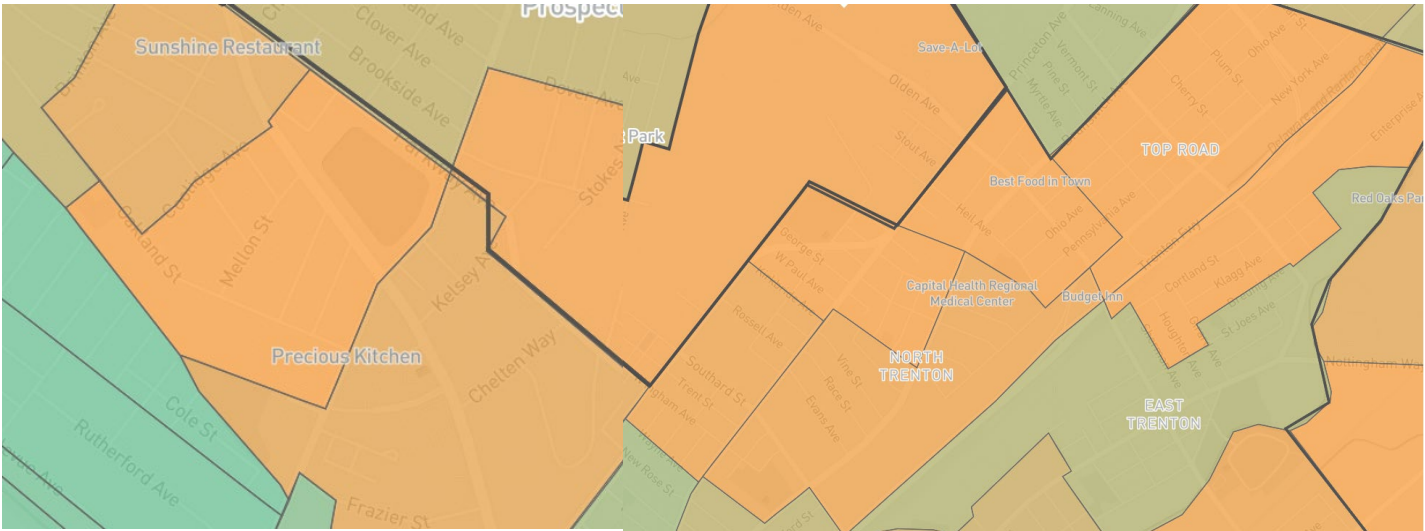


RUTGERS-NEW BRUNSWICK
Edward J. Bloustein School
of Planning and Public Policy



Category 1: Awardee Project Summary

Trenton: Planting trees in Census Tracts 14.01, 17, & 18 with low tree canopy and severe EB (13%).

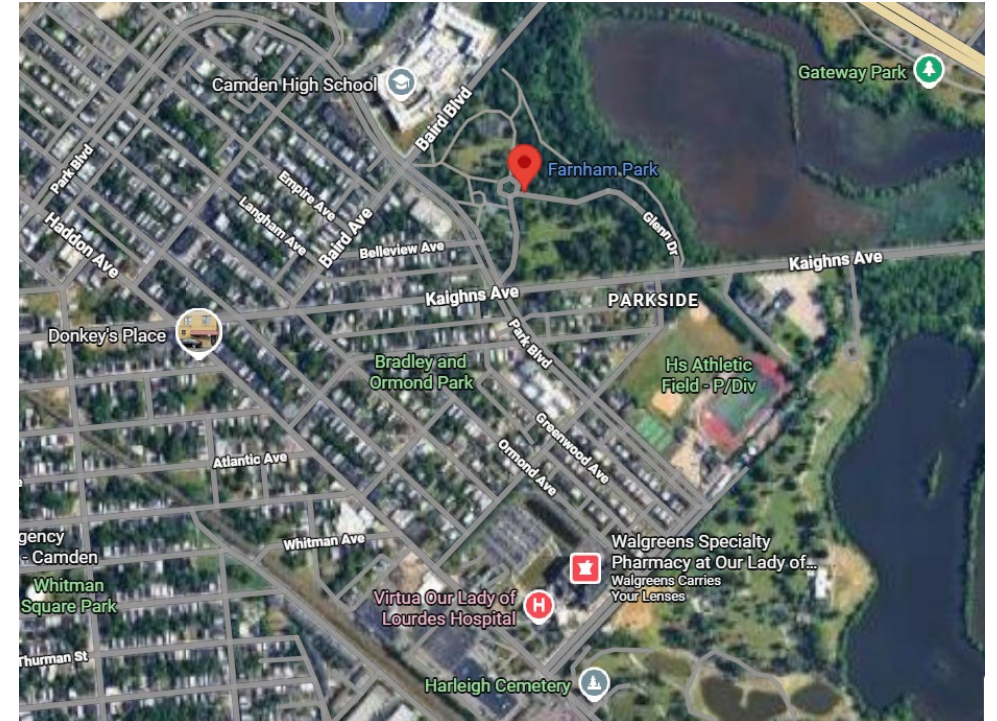


OBM	Project Summary
Trenton	Trenton North and West Wards Tree Arteries: Plant 700 trees along street arteries in high priority areas; connect residential areas to cooling centers & essential services via green corridors; strong partnerships & workforce development through the climate corps program.



Category 1: Awardee Project Summary

Camden: Improvements to youth recreation amenities, pavilions, and surrounding green spaces in a centrally located park.



OBM	Project Summary
Camden	Redevelopment of Farnham Park: Upgraded shade structures & splash pad; installing a new playground with heat-reflective materials; and the Recreation Dept will oversee long-term maintenance.

Category 2: Project Summaries

Trenton



Ellarslie Annex Cooling Center: The Trenton Museum Society in partnership with the City will rehabilitate the former Hermitage library location, which was an important asset to the West Ward. The resilience hub project includes plans for installing a high-efficiency HVAC system, cool roof, accessibility upgrades, and a hybrid natural gas (NG) generator & BSS as a backup power source.

Pennsauken



Elm Avenue Resilience Hub Creation: The establishment of the Pennsauken Youth Athletic Activities Complex as a resilience hub includes plans for installing a geothermal heat pump, envelope upgrades, and including a hybrid NG generator and BSS setup as backup power.

Category 2: Awardee Project Summaries

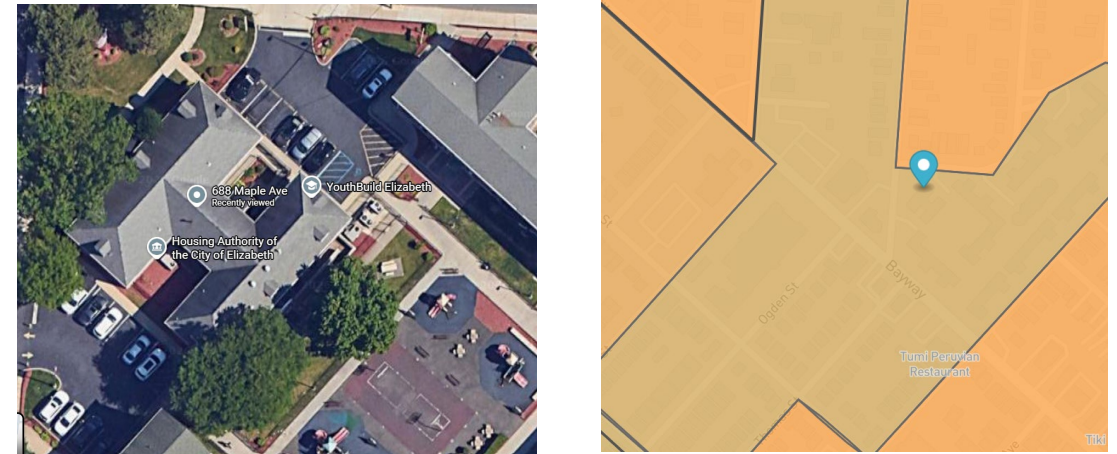
Newark:



Firefighters Memorial Park Climate-Resilient Community

Space: The project is strong on community significance and is located in a high-priority area with low tree-canopy coverage. In-depth redevelopment plans including shaded cooling stations with heat-reflective materials, smart-misting features along walking paths, accessible water fountains, and planting drought-resistant native trees.

Housing Authority of Elizabeth:



Bayway Community Center (CC) Cool Roof and Heat Resilience

Project: The planned cooling center site is a neighborhood hub located near a community garden and recreational space in a high priority area with 11% tree canopy cover. The project focuses on community-informed cooling-efficiency upgrades including a cool roof.

Category 3: Awardees Overview

Community Gardens, Green and Blue Infrastructure, & Shading



Resilience District - City of New Orleans



missouriindependent

- **Newark SaS** – Shade Infrastructure Project
- **NJ Conservation Foundation** – Green Streets to Battle Monument School
- **Greater Newark Conservancy**
 - Culture Spot Garden
 - Smith Street Garden
- **City Green (Paterson)** – Learning Garden Microclimate Project
- **Isles, Inc. (Trenton)** – H2Grow-Bellevue
- **Groundwork Elizabeth (Elizabeth and Roselle)** – Native Tree Canopy Expansion
- **Rabbit Hole Farm (Newark)** – Cooling Improvements
- **FARD United (Newark)** – Green Infrastructure & Community Clean-ups
- **One Ocean County (Lakewood Township)** – Sports Complex Cooling Garden



Category 3: Awardees Overview

Creative Placemaking & Pop-up Cooling Stations

- **Trenton Artworks, Inc.** – Heat Resilience Garden: Interactive Public Art for Community Climate Awareness
- **Neighborhood Collaborative Community Gardens (Camden)** – Blooming Bus Stops
- **Project for Empty Space (Newark):**
 - Art Canopies
 - NIGHT FEST Markets
- **Ducktown CDC (Atlantic City)** – Cooling Corridor & Pop-Up Oasis
- **Passage Theatre Co. (Trenton)** – Cool Theatre Passageways

Community Heat Preparedness & Outreach

- **Key Recreation (Egg Harbor City)** – Buffalo Ave Playground Relief
- **Outdoor Equity Alliance** – Trenton Urban Heat Initiative: Activate the Community Cooling Council for Piloting Cooling Interventions
- **Isles, Inc. (Trenton)** – Cooling Benches
- **Center for Environmental Transformation (Camden)** – East Camden Community Heat Preparedness



[mymodernmet: Crochet Canopy](#)



[UHI Outreach EPA](#)



[OASIS - Street Lab](#)



[Heat Resilience- Sasaki](#)



UHI Program Broader Impacts and Future Directions

- **Funding Demand & Impact:** BPU Staff received \$12.35M in funding requests, which was well above the \$5M budget. The grants support place-based cooling interventions in OBMs to strengthen energy and climate resilience, as well as community connectivity.
- **Interagency & Community Partnerships:** Partnering with the DEP, Rutgers, and Community Organizations to setup air quality and temperature monitors at project sites. Additionally, Rutgers is providing technical assistance to awardees and will be modeling the energy savings and environmental benefits of UHI Program-funded cooling infrastructure.
- **Promoting other BPU Clean Energy Programs & Utility Assistance:** The UHI Program expands cooling access through investing in infrastructure and raising awareness about residential energy efficiency programs and Ratepayer Assistance (e.g., Comfort Partners, DCA's Weatherization Assistance Program, Summer Termination Program, and the Universal Service Fund) through community organizations.
- **Targeted Outreach & Equity Considerations:** Identifying areas with higher percentages of residents without AC ([Local Air Conditioning Estimates](#)) in and around UHI Program project sites.
- **Alignment with CCRHVAs & Cooling Ordinance Policy:**
 - Municipal projects under the UHI Program, support Climate Change-Related Vulnerability Assessment requirements under the NJ Municipal Land Use Law and offer model case studies for addressing extreme heat.
 - UHI mitigation offers passive cooling strategies that help reduce temperature inside buildings and cooling ordinances provide further protection from high indoor temperatures.