

Sustainable Jersey Program Update

Randall Solomon, Executive Director
Renee Haider, Deputy Director
Heather McCall, Schools Program Director
Linda Weber, Director of Policy and Program Initiatives



Renee Haider

Deputy Director, Sustainable Jersey

Agenda

- Provide a brief overview of Sustainable Jersey and Sustainable Jersey for Schools
- Highlight resources available to municipalities
- Discuss our new Gold Star standards in Energy and Waste
- Review new actions for the 2018 certification cycle and beyond
- Answer your questions



A Framework for Action

- Coordinates priorities, resources, and policy among public and private, state and local actors, to identify actions to achieve statewide sustainability goals
- Develops tools, resources, and guidance to make progress
- Provides access to grants and assistance
- Recognizes accomplishments

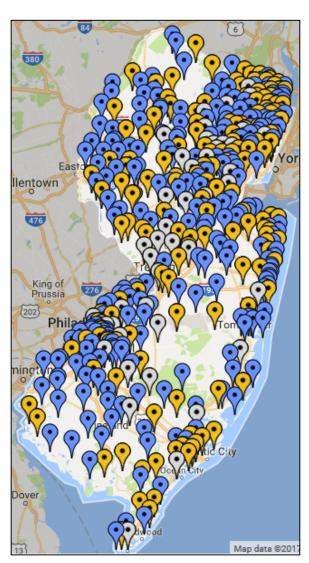








Program Participants





Municipal Program

445 (**79%**) 208 Certified

- 160 Bronze
- 48 Silver

Schools Program

281 Districts (46%) 700 Schools (28%)

- 11 Bronze
- 13 Silver

Municipal

Schools

What Does Certification Mean?

Bronze:

- Made a commitment to Sustainability
- Created internal organization (green team)
- Succeeded in implementing first significant actions

Silver:

- Beyond getting started
- Making significant progress in a broad range of areas
- Statewide leader



By the Numbers







4,645 requests for assistance/year

207 Sustainable Jersey yearly training and outreach events

7,000 actions completed

2,200 actions approved annually

52,000 monthly web page views

8,200 people on email list











Sign in or sign up.



ABOUT

ACTIONS & CERTIFICATION

EVENTS & TRAININGS

GRANTS & RESOURCES

MEDIA & COMMUNICATIONS SUPPORT US REGISTER



ABOUT SUSTAINABLE JERSEY

Sustainable Jersey is nonprofit organization that JERSEY provides tools, training and financial incentives to support communities as they pursue sustainability programs. Learn More →

PROGRAM AREAS

MUNICIPAL CERTIFICATION PROGRAM -

SCHOOLS CERTIFICATION PROGRAM --

ENERGY PROGRAM →

RESILIENCY PROGRAM --

PUBLIC INFORMATION & ENGAGEMENT →

PROGRAM FUNDERS

PARTICIPATING COMMUNITIES

View the map of Sustainable Jersey communities. Search the completed actions database and sort by county, actions and certification status! View

Now →

Or download the poster here.



SUSTAINABLE JERSEY MUNICIPAL CERTIFICATION PROGRAM

CURRENTLY CERTIFIED







BECOME CERTIFIED →

HEADLINES



70 NJ Municipalities Achieve Sustainability Certification OCT 31, 2017



2017 NJ Sustainability Summit to Focus on Local Action = Collective Impact

JUN 07, 2017

UPCOMING EVENTS



Middlesex Hub Green Drinks

Pino's Gift Basket Shoppe and Wine Cellar DEC 11, 2017 - 06:00 PM TO 08:00 PM



Opportunities for Adopting Electric Vehicles (EVs) in Municipal Fleets: A Primer Webinar

Online

NOV 29, 2017 - 01:00 PM TO 02:00 PM

NEW! GOLD STAR STANDARD

View the new Gold Star Standards in Energy and Waste - A new level of recognition for silver certified communities.

LEARN MORE -

GO TO SUSTAINABLE JERSEY FOR SCHOOLS

Sustainable Jersey Action Outline

Household Hazardous Waste 5 Points 10 Points 15 Points

Why is it important?

Who should lead and be involved with this action?

Timeframe

Project costs and resource needs

What to do, and how to do it ("How to")

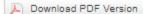
What to submit to earn points for this action

Gold Star Standard

Spotlight: What NJ municipalities are doing

Resources





New Action February 2017

This action will recognize municipalities that create permanent household hazardous waste (HHW) collection programs for two or more materials. Listed below are the most common materials collected:

- Anti-Freeze
- Batteries
- Consumer Electronics
- Fluorescent Light Bulbs
- Paint
- Pesticides and Herbicides
- Used Motor Oil

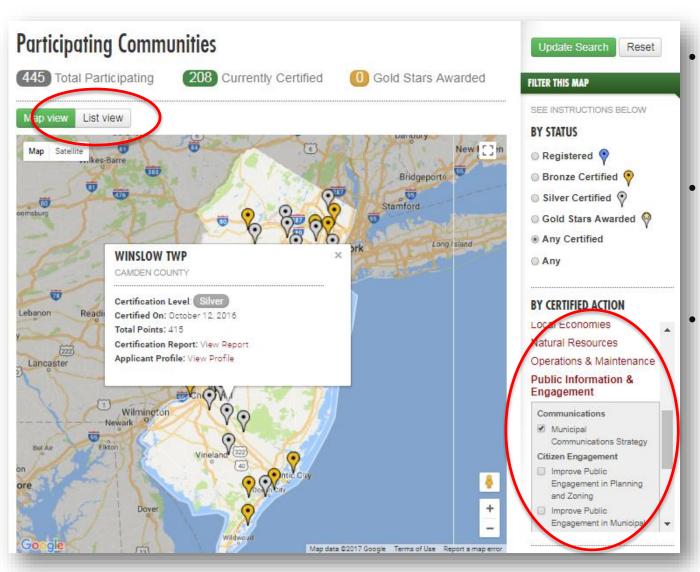
Lists of other items considered household hazardous waste are available here. Please note that prescription drugs are not covered under this action. See the Prescription Drug Safety and Disposal action to learn how to earn 10 points for a municipal prescription drug collection program.

To earn 5 points, a municipality must have collection programs in place for two designated household hazardous materials. An additional 5 points each can be earned for up to two other materials, for a maximum of 15 points.

For silver certified communities this action can count toward a Gold Star in Waste. See



Website Search Feature



- Allows you to look at documentation provided by certified schools
- Can download approved policies, plans, and other materials
- Quick and easy way to research what other districts are doing related to specific actions



Website Search Feature

Sustainable Jersey Community Certification Report

Download PDF Version

This is the Sustainable Jersey Certification Report of Winslow Twp (Camden), a Sustainable Jersey silver certified applicant.

Winslow Twp (Camden) was certified on October 12, 2016 with 415 points. Listed below is information regarding Winslow Twp (Camden)'s Sustainable Jersey efforts and materials associated with the applicant's certified actions.

Contact Information

The designated Sustainable Jersey contact for Winslow Twp (Camden) is:

Name:	Joseph Galaigher	
Title/Position:	Administrator / Administration	
Address:	125 South Route 73 Braddock, NJ 08037	
Phone:	609 567-0700	

Sustainability Actions Implemented

Each approved action and supporting documentation for which Winslow Twp (Camden) was approved for in 2016 appears below. Note: Standards for the actions below may have changed and the documentation listed may no longer satisfy requirements for that action. Additionally, points associated with actions prior to 2013 certifications may not be accurate.

Municipal Communications Strategy 10 Points

Program Summary:

We provide updates daily or as new events are announced via all lines of communication listed below. We implemented a mobile application called "GOrequest" for all residents to report issues ranging from Animal Control, Potholes, Property Maintenance issues, Snow removal, White goods pickup, Trash/recycling missed, etc. On the app, you can track your issues, look up Township Codes, link to the Township website, School District, Township offices, Elected Officials, Parks, sign up for Email/Text Notifications and see a list of Frequently asked questions. We also use Facebook, Twitter, Nixle and our website to announce events, meetings, new procedures, amber/missing person alerts and traffic delays. Our website contains links to each item listed above and also to agendas and minutes from our township meetings. They are updated as information is received, by several individuals, each in charge of their own areas.

- Municipal Communications Strategy Documentation
- Communication Inventory & Samples

You are able to see what other communities have done and look at their documentation!



Sustainable Jersey Grants Program



\$4,200,000

Total # of Grant Awards Since 2009

- 336 Municipal Grants
- 299 Schools Grants

2016 -2017 Funding Provided by:

- PSEG Foundation
- New Jersey Education Association
- Gardinier Environmental Fund
- New Jersey Department of Health



Current Funding Opportunity

\$200,000

- Available Grants
 - o Four \$20,000 Grants
 - Eight \$10,000 Grants
 - Twenty \$2,000
- Application Due Date
 - February 28
- Informational Webinar
 - December 6 at 1pm









"Hands-On" Assistance

Sustainable Jersey Solar Challenge

 Communities received support from Sustainable Jersey and EnergySage in developing and promoting an outreach campaign to increase residential and commercial solar installations

Technology Assessments

 Consultant worked with municipalities to develop a roadmap for transitioning to new forms of communications through emerging technology

Coding for Community

 Competition that matched technology experts with municipalities to develop solutions to local sustainability and public engagement issues

	Community Success Metrics Individual participating community statistics				
		Registrations	Contracts	Contracted kW	
	Hopewell	122	9	104.5	
•	Verona	110			
0 0	Maplewood	90	1	8.1	
	Hoboken	58	1	9.3	
	Highland Park	54			
	Woodbridge	49			
	Galloway	34	1	8.8	
	Total	517	12	130.7	



"Hands-On" Assistance

Environmental Defense Fund Fellows

 Climate Corp Summer Fellows placed in municipalities and schools to help advance their energy initiatives

TCNJ CEL Days

 Teams of TCNJ students assist municipal green teams with a one-day project

Coastal Resiliency

 Assisting communities with coastal vulnerability assessments and eco-based mitigation strategies.







"Hands-On" Assistance

Hazardous Materials in Flood Zones

 Helping communities and businesses better prepare for floods and use safer chemicals

Heat Island Assessments

 Piloted a heat island assessment in City of Newark

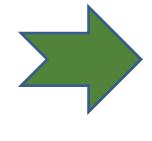






Regional Hubs

- ✓ Peer to peer learning
- ✓ Networking
- ✓ Success story sharing
- ✓ Training on SJ actions
- ✓ Collaborate on projects



- Atlantic-Cape May
- Camden-Burlington-Gloucester
- Essex
- Hunterdon
- Mercer
- Middlesex
- Monmouth
- Somerset







2017 Sustainable Jersey Heroes

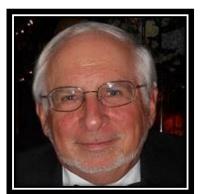
























Additions to Municipal Certification Program

New Actions:

- Arts & Creative Culture
- Energy
- Waste Management
- Land Use & Transportation
- Green Infrastructure
- Emergency Management & Resiliency

Gold Star Standards:

- Energy
- Waste







Strategic Initiatives



Bordentown City Green Fair Photo Collage

- Assess and improve certification actions to maintain program quality and demonstrate that the actions are relevant and in tune with current best practices
- Assess Equity and Fairness
 - Sustainable Jersey will do an equity assessment of the program.



Strategic Initiatives

- Build local capacity to successfully implement program actions through increased support
 - Continue to pursue opportunities for "hands on" assistance through partnerships
 - Explore development of regional hubs for schools
 - Support municipalities interested in earning a Gold Star in Energy and/or Waste
- Encourage municipal and school green teams to work together
- Continue to pursue a Gold Star Standards







2018 Certification Cycle



2018 CERTIFICATION CYCLE

June 3

Online Application Submission Deadline

Mid-July

Review Comments Provided to Municipality

September 9

Revised Application Submission Deadline (for those who applied in June)

Mid-October

Certifications Issued & Review Comments Provided to Municipality

November 18

Final Application Submission Deadline (for those who applied in June)

Mid-December
Final Decision on Pending Applications

Thinking about applying for certification in 2018?

Have Questions?

- Contact Samantha McGraw at 609-771-2938 or info@sustainablejersey.com
- Find a mentor at a regional hub meeting



Sustainable Jersey Supporters

Underwriters







Grants Program Underwriters







Platinum Sponsors









Gold Sponsor



Silver Sponsor



Bronze Sponsors















Heather McCall

Education Program Director, Sustainable Jersey for Schools

Sustainable Jersey for Schools Supporters

Underwriters









Grants Program Underwriters











Founding Sponsors







Bronze Sponsor







Randall Solomon

Director, Sustainable Jersey

Goal Star Standards

Silver certified municipalities are eligible to earn Gold Star recognition for achieving high levels of performance in key dimensions of sustainability.

Energy

- Lower GHG in Municipal Operations
- Community-Wide GHG Emissions

Waste

- Achieve Target Recycling Rate
- Reduce Solid Waste

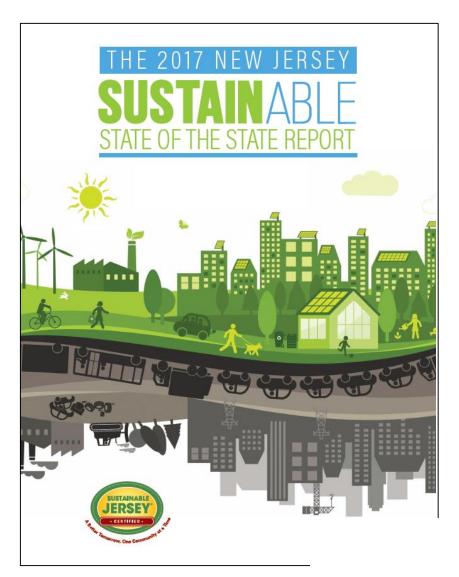
Water



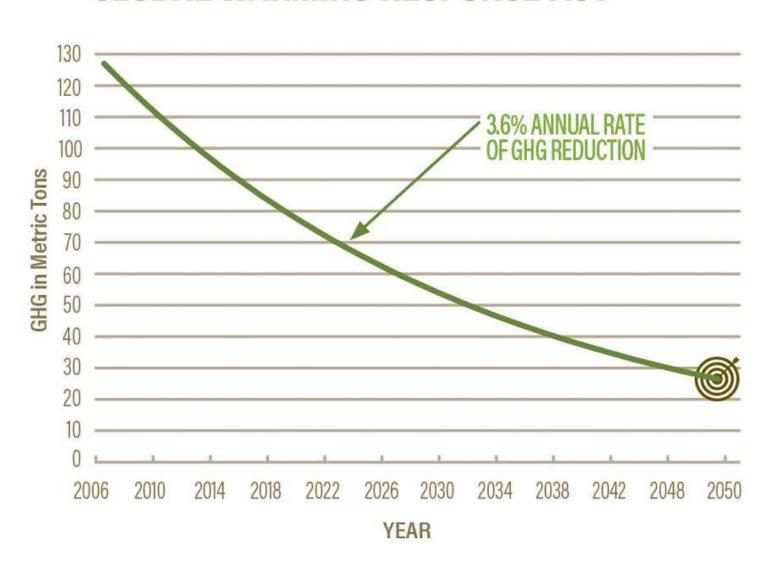


Sustainable Jersey Energy Goals

- 1. Decrease greenhouse gas emissions in time to avoid catastrophic climate impacts.
- 2. Increase renewable energy fraction.
- 3. Increase resilience of energy system.
- 4. Increase affordability of energy.
- 5. Decrease risk to health from the energy system.



STATEWIDE REDUCTIONS REQUIRED BY GLOBAL WARMING RESPONSE ACT



The Gold Star in Energy

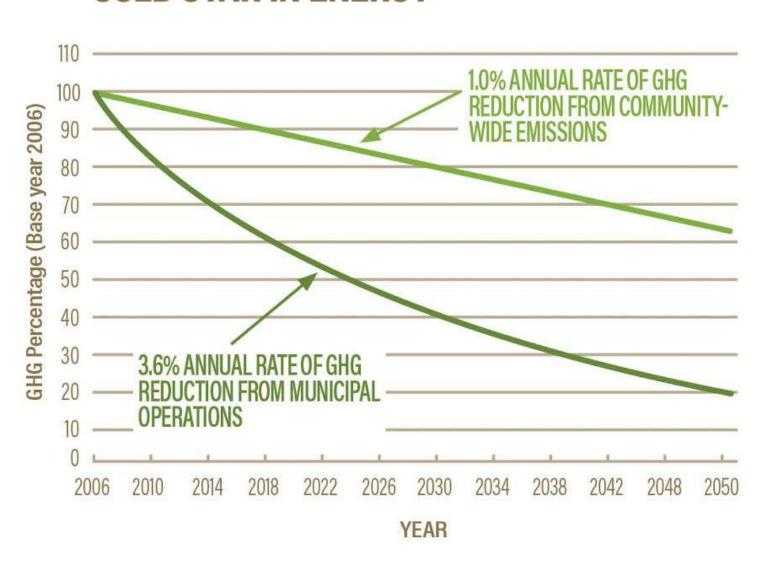
2 Municipal Roles, 2 Municipal Standards, 2 Gold Actions

- Municipal operations and facilities: Buildings, exterior lighting, fleets
- Influencing the community: Taking effective action to lower community-wide greenhouse gas (GHG) emissions





REDUCTIONS REQUIRED FOR GOLD STAR IN ENERGY



Strategies for Getting to Gold

MUNICIPAL OPERATIONS: GHG REDUCTION STRATEGIES AND GOAL

STRATEGIES AND ACTIONS TO ACHIEVE GOLD	TIME TO IMPLEMENT	IMPACT ON MUNICIPAL GHG
Renewable Energy Generation		4-38%
On-Site Solar System	1-2 years	1-35%
On-Site Wind System	3-5 years	<1%
Geothermal System	2-3 years	3%
Greening the Municipal Fleet	15-18%	
Purchase Alternative Fuel or Efficient Vehicles	3-7 years	4%
Convert Vehicles to Alternative Fuel	1 year	2%
Trip Optimization Software	1 Year	3-6%
Proper Vehicle Maintenance	1 Year	6%
Driver Training	1 year	3%
Buildings and Street Lighting Efficiency	12-19%	
Implement Energy Efficiency Measures	2-4 years	10-17%
Energy Tracking & Management	1 year	2%
Estimated Impact from Reduction Strategies		31-75%

Strategies for Getting to Gold

COMMUNITY-WIDE GHG EMISSIONS: REDUCTION STRATEGIES AND GOAL

STRATEGIES AND ACTIONS TO ACHIEVE GOLD	TIME TO IMPLEMENT	IMPACT ON MUNICIPAL GHG	
Renewable Energy Generation		6-11%	
Community Purchase of Green Energy (Aggregation)	1-2 years	4-7%	
Community-led Solar Initiatives	1-2 years	2-4%	
Mobile Sources (vehicles)		10-18%	
Public Alternative Fuel Vehicle (AFV) Refueling Station	1 year	5-10%	
AFV Infrastructure Permitting and Zoning	1-2 years		
Development Patterns/Intensity	5-10 years	5-8%	
Promoting Walking and Bicycling	2-10 years		
Building Energy Efficiency	3-4%		
Commercial Sector Outreach (Direct Install)	1-2 years	≈1%	
Outreach to Residents (Home Performance w/Energy Star)	1-2 years	≈1%	
Tree Canopy (Shading Effect)	1-10 years	1-2%	
Estimated Impact from Reduction Strategies		19-33%	

Gold Star Standard: Community Emissions

Lower community-wide GHG through six actions:

- Make Your Town Electric Vehicle Friendly (updated)
- Public Electric Vehicle Charging Infrastructure (updated)
- Make Your Town Solar Friendly (new)
- Community Led Solar Initiatives (new)
- Residential Energy Efficiency Outreach (updated)
- Commercial Energy Efficiency Outreach (updated)
- ALTERNATE PATH: meet 1% annual reduction by substituting pre-approved, effective actions (e.g., R-GEA)



Make Your Community Friendly for Solar and EVs

Supportive Solar Zoning Ordinance (new)

- Adopt Solar Zoning Ordinance
- Amend Permitting Fee Ordinance

Streamlined Permitting (new)

- Post requirements online
- Train permitting, codes, and inspection staff



EV Zoning ordinance -- EV charging stations as accessory use (updated)

- Ordinance -- design standards for EVSE and EV parking spaces
- Training for local officials

Outreach activities (updated)

- Incentive for pre-wiring for EV charging station
- Awareness event
- Commitment from 3 local partners for workplace chargers



Community Engagement for Solar and EVs

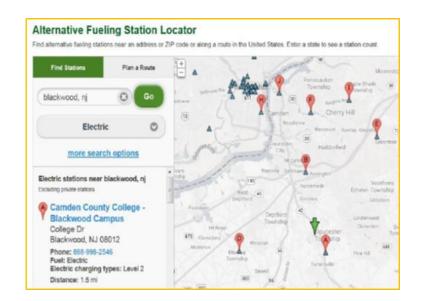
Community Led Solar Initiatives (new)

- Group purchasing models
 - Sustainable Jersey Solar Challenge
 - Solarize campaign
 - Solarize campaign for businesses
- Performance based criteria
 - % of residents participating
 - % of businesses participating
 - Overall kW installed per capita



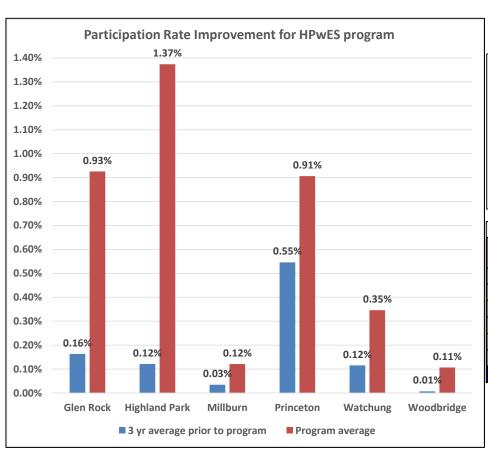
Public EV Charging Stations (updated)

- Municipality instrumental in the project
- Publicly available
- Listed on "public directory"
- Signage/Promotion of Charging Stations



Residential Energy Efficiency Outreach

Green team partners with municipal officials to complete targeted outreach program for the Home Performance with Energy Star & Comfort Partners programs



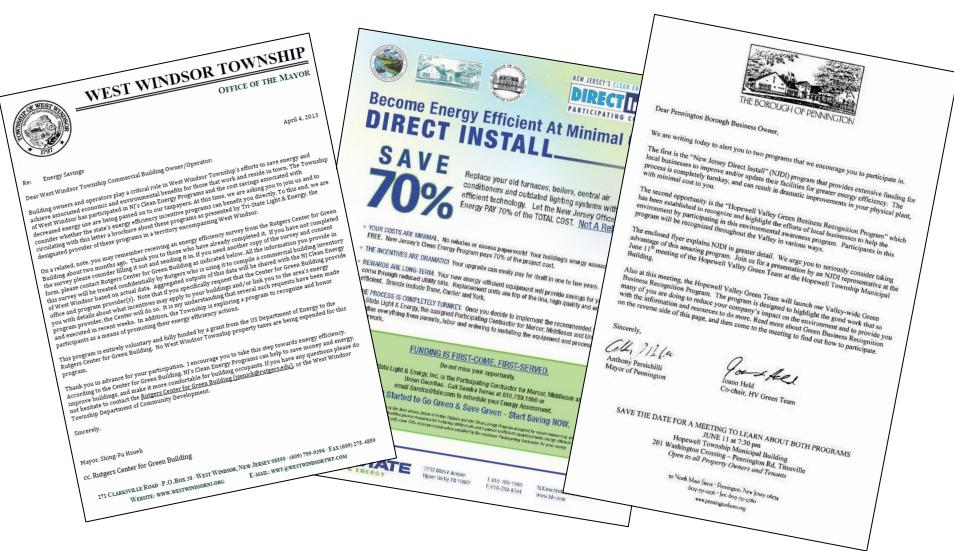
The average participation rate improvement for the six HPwES efforts that have been certified to date in Sustainable Jersey is a "6.8-fold" increase (range low of 1.7 to a high of 15.6)

Municipality	Households	2011	2012	2013	2014	2015	Total Completions
Glen Rock	3,672	0.16%	0.05%	0.27%	0.63%	1.23%	69
Highland Park	2,475	0.12%	0.93%	1.82%	0.53%	0.48%	114
Millburn	5,777	0.12%	0.02%	0.07%	0.02%	0.12%	24
Princeton	5,739	0.63%	0.51%	0.51%	1.10%	0.71%	301
Watchung	1,735	0.23%	0.06%	0.23%	0.06%	0.35%	19
Woodbridge	24,406	0.00%	0.00%	0.02%	0.19%	1.72%	509
Statewide	2,102,465	0.13%	0.18%	0.23%	0.26%	0.30%	30,060



Commercial Energy Efficiency Outreach

Green team partners with municipal officials to complete targeted outreach program to local businesses for the Direct Install program



Pathways to Gold Star in Energy

Sample Town A

- Municipal Carbon Footprint
- Plus six required actions
 - Make Your Town Solar Friendly
 - Community Led Solar Initiatives
 - Make Your Town Electric
 Vehicle Friendly
 - Public Electric Vehicle
 Charging Infrastructure
 - Residential Energy Efficiency
 - Commercial Energy Efficiency

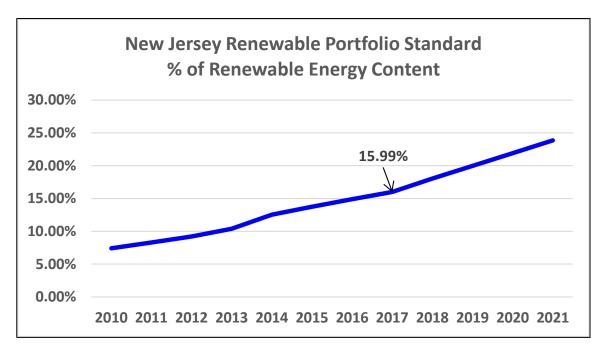
Sample Town B

- Municipal Carbon Footprint
- Provides robust data to demonstrate GHG reductions of 1% per year for 3 years
- Substitute preapproved activities, for example:
 - Renewable Government
 Energy Aggregation
 - EV Challenge

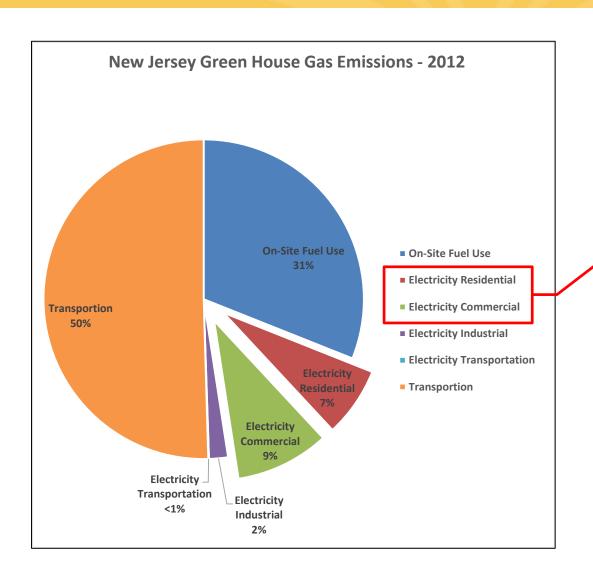
Renewable Government Energy Aggregation

- Community Choice
 Aggregation (CCA) is a
 municipal energy procurement
 model that replaces the utility
 as the default supplier of
 electricity for virtually all
 residential customers in a
 community.
- RGEA is a Sustainable Jersey action that utilizes the CCA model to spur adoption of cleaner energy in New Jersey.
- Law currently requires 15.99% of NJ energy from renewable content.

- RGEA Action gives points on a sliding scale depending on the percentage of energy from renewable sources in the default package.
- To date, only Woodbridge, NJ has adopted a CCA that has a renewable content above the existing renewable portfolio standard as its default package.



RGEA – Potential for Emissions Reductions



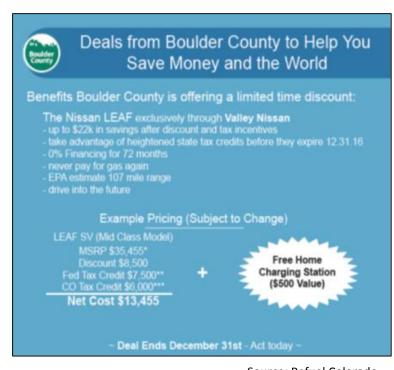
Based on a historic participation rate of 90+%, we estimate that a municipality in New Jersey could reduce their carbon emissions profile by 6 – 9% by implementing the RGEA action*

*RGEA with 40% renewable content



EV Group Purchase: EV Challenge

- Community-Led Outreach Campaign
- Engage local auto dealerships for:
 - Discount pricing
 - Limited duration
- Increase support for EV Friendly policies and Public EV Charging Infrastructure
- Programs in Colorado
 - 300% increase in EV sales
- Can be paired with Solar Group Purchase Program



Source: Refuel Colorado. www.refuelcolorado.com/sites/default /files/poster-december-leaf-sv.pdf



Going for Energy Gold!

- It's needed!
 - Gold Star in Energy demonstrates commitment to reducing GHG emissions in time to stabilize climate
- It's feasible!
 - Meeting 2 Gold Star Standards gets needed reductions using known strategies:
 - For municipal operations
 - For community-wide emissions
- Sustainable Jersey staff are here to help!
 - Contact us (soon!)



New Jersey Mayors Climate Summit

February 3, 2018 **Rutgers Bloustein School of** Planning and Public Policy New Brunswick, NJ

Hosts:

- Mayor Phil Kramer, Franklin Twp
- Mayor Bruce A. Harris, Chatham Borough
- Sustainable Jersey
- New Jersey League of Conservation Voters Education Fund
- Rutgers University Bloustein School of Planning & Public Policy

MAYOR PHIL KRAMER OF FRANKLIN TOWNSHIP & MAYOR BRUCE A. HARRIS OF CHATHAM BOROUGH CORDIALLY INVITE YOU TO

NEW JERSEY MAYORS' CLIMATE SUMN

WHEN

Saturday, February 3rd, 2018 Registration at 8:30AM • Program 9:00AM - 1:30PM

WHERE

Rutgers University Bloustein School of Planning & Public Policy 33 Livingston Ave, New Brunswick, NJ







The day will consist of three panels of experts who will discuss a pathway forward to enable New Jersey to succeed in meeting the challenges presented by climate change.

PANELS



WHAT WE MUST ACHIEVE



FROM COMMITMENT TO ACTION



RESOURCES FOR CHANGE

Mayors and community leaders across New Jersey have taken up the challenge of addressing climate change by adopting sustainable practices.

It is vital for our mayors and communities to take a leading role in preserving our environment and protecting the public health of our citizens.

Lunch will be provided to attendees.

SPEAKERS -

leanne Herb Rutgers Climate Institute

Randy Solomon Sustainable Jersey

Ed Potosnak

New Jersey League of Conservation Voters

Jenn Coffey Association of NJ Environmental Commissions

Robert E. Kopp. Ph.D. Rutgers Institute of Earth, Ocean, and Atmospheric Sciences

FFF

Early Bird \$10 Full (Starting Jan 27th) \$25 Students/Young Professionals \$10

www.njlcvef.org/summit or contact 609-331-9922

CO-SPONSORS



















Open to elected officials and all members of the public

Sustainable State Goals in Waste

- Solid waste generation is maximized.
- Reuse and recycling of waste generate are maximized.
- The production of hazardous waste is minimized, and that which is produced is disposed of in ways that are safe for humans and the environment.
- There is an equitable distribution of the impacts on human health of all forms of toxic pollution and waste disposal.



Waste Reduction

- Municipalities must demonstrate a reduction in total solid waste generation of at least 2% per year for 3 years (6% total).
 - 2015 Mercer County Characterization Study shows waste reduction trend over last 10 years.
 - NJDEP statewide data shows slight reduction trend since 2010
- Municipalities must be currently approved for a total of four Sustainable Jersey actions:



Four Required Actions

- Household Hazardous Waste Disposal (new)
- Prescription Drug Safety and Disposal
- Commercial and Institutional Recycling
- Recycling and Waste Reduction Education and Compliance (new)



Waste Reduction

Actions Contributing to Goal	% Reduction
Pay-As-You-Throw Program	14-27%
Grass - Cut It and Leave It Program	3-5%
Recycling and Waste Reduction Education and Compliance	1-10%
Backyard Composting Program	1-5%
Materials Reuse Program	1-5%
Reusable Bag Education Program	0-1%



Household Hazardous Waste (HHW) (new)

- Creation of permanent HHW collection programs vs. periodic (quarterly) collection
- Must have municipal convenience center or drop off location or "otherwise provide for collection" via shared services agreement or use of private facility
- Must commit to collect at least 4 HHW materials
 - Sample county inventory (of 25 town county)
 - o 24 out of 25 have convenience center
 - 15 collect used motor oil
 - 12 car batteries
 - o 11 eWaste
 - 9 rechargeable batteries
 - o 8 paint
 - o 7 anti-freeze
 - Other materials include florescent bulbs, pesticides, others agreeable to program

Recycling and Waste Reduction Education and Compliance (new)

Variable point action (15 & 20)

15 Points	20 Points (required for Gold)
1. Adoption of compliance & enforcement ordinance	1. Purchase, implement & promote recycling app
2. Develop compliance & enforcement strategy	
3. Implement & document program enforcement	
4. Acceptable materials flyer (visual depiction of what's recyclable)	
5. Quarterly messaging on recycling policies (2 print; 2 social media or other digital)	
6. Twice yearly messaging on waste reduction strategies & importance	



New Actions

Green Business Recognition Program Action (updated)

A three-tiered action that challenges communities to identify and recognize 'green businesses' in their communities.

Action is a Bronze and Silver Priority Action

Points: 10, 15, 20

Last Updated in 2015

Current Requirements

10 Points	Target local companies. Municipal criteria identified and a marketing strategy established to recognize participants.
15 Points	Adopt the New Jersey Sustainable Business Registry Program. Promote, assist and market to participating businesses – have 2 businesses successfully join the Registry.
20 Points	Promote and encourage participation in sector specific green business programs that are geographically and economically appropriate. Examples: River Friendly Program, NJDEP Clean Marina Program and Green Restaurant Certification.

Green Business Recognition Program Action (updated)

Condenses Action Tiers

Incorporates Tier 3 into Tier 1

Incentivizes Integration with the NJ Sustainable Business Registry

Provides more points to communities adopting the NJ Sustainable Business Registry as the criteria for Recognition

Why the Registry?

- -Increased transparency
- -Captures Metrics
- -Provides baseline for comparison across towns
- -Allows towns to focus on recruiting businesses, marketing and recognition events

Updated Requirements

1	0
Poi	nts

Develop municipal criteria for participation and a marketing strategy to recognize local business participants. Program may be general, or sector specific. Promote program and have 2 businesses successfully participate.

20 Points

Adopt the New Jersey Sustainable Business Registry Program as the municipal criteria. Promote, assist and market to participating businesses – have 3 businesses successfully join the Registry.

NJ Sustainable Business Registry

Online Directory for Sustainable Businesses in NJ





Map of Businesses South Brunswick Township River Horse Brewing Company X Levittown le-Trevose North Hanover Township

Businesses on the registry have met the qualifications for membership and maintain renewal on an biannual basis.

Membership Requirements:

- Share information about Five Sustainable Actions/Practices your business has adopted
- Identify One Cost Savings from a Practice
- Identify One Measurable Environmental Benefit from a Practice





Linda Weber

Director of Policy and Program Development, Sustainable Jersey

Resiliency, Green Infrastructure, Brownfields and the Arts and Creative Culture

Green Infrastructure Planning (new)

Green Infrastructure Implementation (new)

Heat Island Assessment (new)

Coastal Vulnerability Assessment (new)

Brownfields actions (updated)

Arts & Creative Culture (new)



Green Infrastructure Planning Action (new) Green Infrastructure Implementation Action (new)











Green Infrastructure Benefits

- Reducing stormwater runoff
- Improving water quality
- Reducing CSS overflows
- Reducing flooding

- Increase groundwater recharge
- Reducing heat island
- Improve air quality
- Improve habitat

	Reduce	es Storn	nwater	Runoff								Improves Community Livability						
Benefit	Reduces Water Treatment Needs	Improves Water Quality	Reduces Grey Infrastructure Needs	Reduces Flooding	Increases Available Water Supply	Increases Groundwater Recharge	Reduces Salt Use	Reduces Energy Use	Improves Air Quality	Reduces Atmospheric CO ₂	Reduces Urban Heat Island	Improves Aesthetics	Increases Recreational Opportunity	Reduces Noise Pollution	Improves Community Cohesion	Urban Agriculture	Improves Habitat	Cultivates Public Education Opportunities
Practice	600				Æ,			#	2	CO2			1	***	ţţţ	拳		O
Green Roofs					0	0	0						—		(
Tree Planting					0	-	0									—		
Bioretention & Infiltration					-	-	0	0						—	0	0		
Permeable Pavement					0	-		-				0	0		0	0	0	
Water Harvesting						-	0	-	-	-	0	0	0	0	0	0	0	







Green Infrastructure Planning (new)



Tier 1. Impervious Cover Assessment [5 pts]

Use GIS watershed maps
Calculate impervious cover
and stormwater runoff volumes



Tier 2. Green Infrastructure Action Plan

[10 or 15 pts]

Set short-term Impervious cover management goal (% or acreage) Identify sites for GI projects Develop concept plans/ project sheets



Tier 3. Green Infrastructure Strategic Plan

[20 pts]

Set long-term Impervious cover management goal (% or acreage) Identify long-term GI projects Assess the water quantity and quality benefits (modeling)

Green Infrastructure Implementation (new)



Tier 1. Implement Green Infrastructure demonstration Projects [10 pts]

Use GIS watershed maps
Calculate impervious cover
and stormwater runoff volumes



Tier 2. Implement Green Infrastructure Action Plan [20 pts]

Achieve the short-term goals for reducing impervious cover and increasing green infrastructure projects.



Tier 3. Implement Green Infrastructure Strategic Plan [30 pts] Achieve the long-term goals for reducing impervious cover and increasing green infrastructure projects.

Brownfields Actions (updated)

Revisions to the following existing actions:

Brownfields Inventory Brownfields Marketing Brownfields ReUse

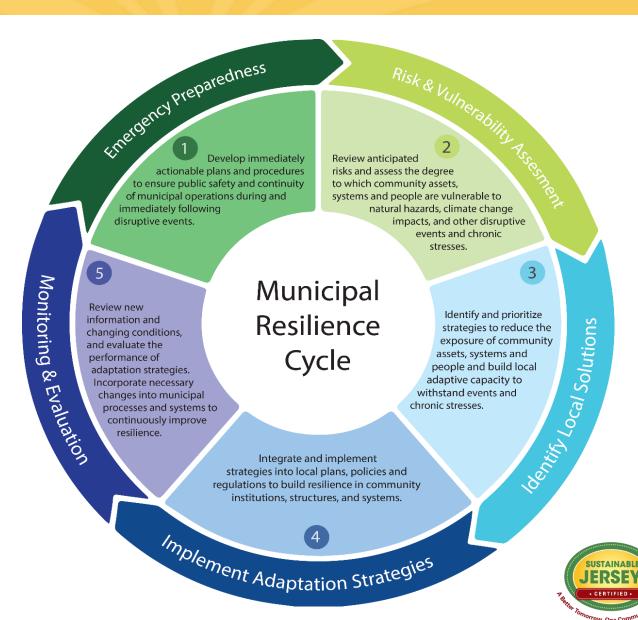
And stay tuned for three new Brownfields actions!





Sustainable Jersey Resiliency Program

Municipal resilience is the ability of a community to adapt and thrive in the face of extreme events and stresses.



Our Partners in Coastal Resiliency









NJ Climate Adaptation Alliance

























Protecting nature. Preserving life.™

Coastal Vulnerability Assessments (new)

A tool and process that analyzes:

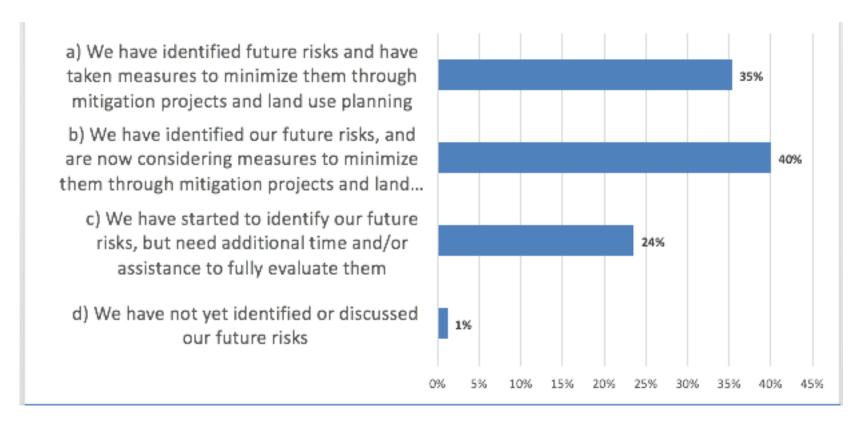
- the degree to which a community's assets will be impacted by projected sea level rise and future storm surge; and,
- the consequences those vulnerabilities pose to the community.



It is not a "solutions" document (that's a subsequent process)

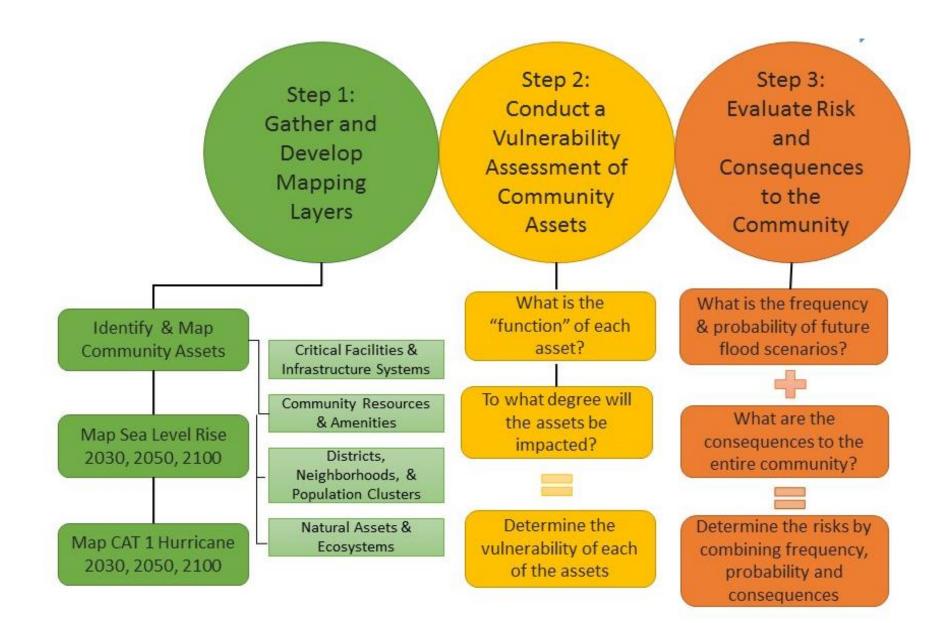
Sustainable Jersey

Question: How would you characterize your progress in recovery?



Conclusion: There is wide variability in the approach and depth of analysis municipalities use when conducting risk and vulnerability assessments."

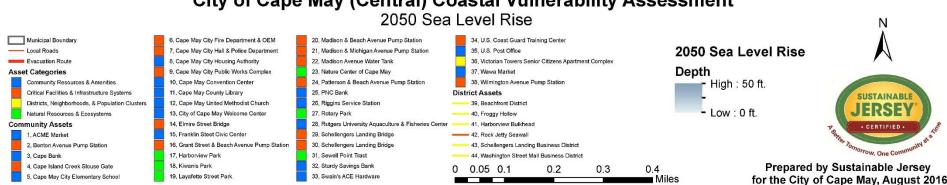
Coastal Vulnerability Assessments (new)



Step 1: Map Community Assets & Flood Scenarios



City of Cape May (Central) Coastal Vulnerability Assessment



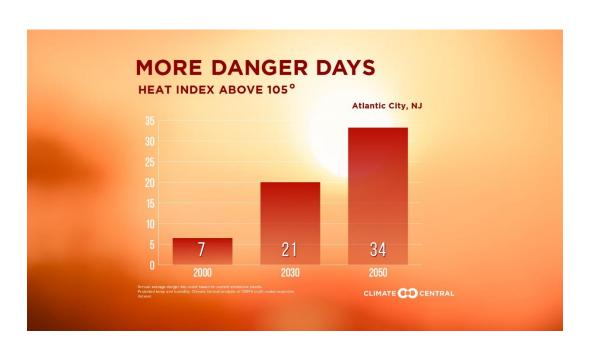
Coastal Vulnerability Assessments (new)

The final matrix allows for prioritization of potential projects.

Asset Name Asset Category Asset Function Vulnerability Rating Consequences Rating							
			Sea Level Rise	CAT1 Hurricane	Sea Level Rise	CAT1 Hurricane	
Abbott's Farm Dyke	Critical Facilities & Infrastructure Systems	A dyke system used to control water levels and protect properties in the wetlands complex to the North of the dyke.	Moderate	High	High	High	
Abel Nicholson House	Community Resources & Amenities	A historic farm house, currently unoccupied, and placed on the National Historic Register.	NA.	Low	NA.	Moderate	
Beaches	Natural Resources & Ecosystems	The beach along the Delaware River extending from the Southern end of South Oakwood Neighborhood and running north to the mouth of the Salem River.	High	High	High	High	
Drenk Behavioral Center	Community Resources & Amenities	A treatment center that primarily focuses on mental health and substance abuse services.	High	High	Insignificant	Insignificant	
Elsinboro Fire Company	Critical Facilities & Infrastructure Systems	The Fire Company provides emergency services, both firefighting and EMS, for the Township.	NA.	High	NA	High	
Elsinboro Municipal Building	Critical Facilities & Infrastructure Systems	The Elsinboro Municipal Building operates as the Elsinboro Township administrative building.	NA	Low	NA	Low	
Elsinboro Point	Natural Resources & Ecosystems	A small public access area owned and operated by PSE&G.	Insignificant	Insignificant	NA	NA	
Elsinboro School	Community Resources & Amenities	A public elementary school that serves students from Kindergarten through the 8th Grade.	NA.	NA	NA	NA	

(Urban) Heat Island Assessment (new)

Urban heat islands
are areas in cities and
towns that are much
warmer than
surrounding areas.

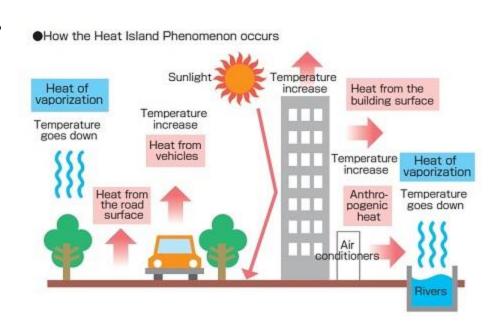




Temperatures in these "hot spots" continues to rise in the evenings due to heat reflecting off buildings.

Heat islands are due to:

- Low albedo surfaces that retain heat from the sun, e.g. dark roofs, asphalt, synthetic grass.
- Tall buildings that trap air and prevent wind flow.
- Building surfaces that retain solar heat and emit it during the evening.
- Overall lack of trees, vegetation.
- Heat released by traffic and cooling systems



Sustainable Jersey Heat Island Assessment "Action"

STEP 1: Go to NJ Heat Map

Find the hot spots in your municipality.

Identify the property type/name.



STEP 2: Using the underlying aerial, identify the contributing source of heat, or "hot spot typologies".

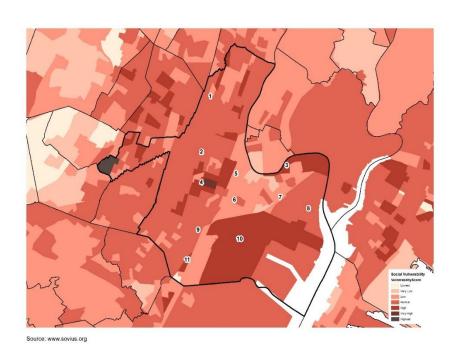


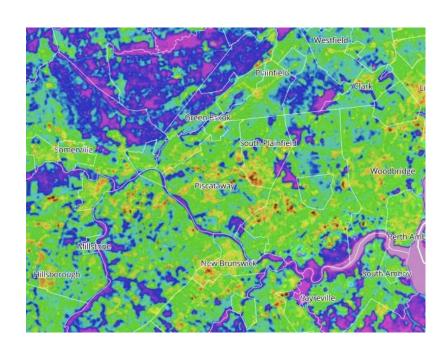


Common hot spot typologies:

- Dark roofs
- Synthetic grass
- Parking lots, or large asphalt areas,
- All compounded by lack of trees

STEP 3: Map the socially vulnerable populations in your community and tree canopy cover.





Hot Spot	Hot Spot Type	Ownership Type	Action
1. Newark Schools Stadium and Kasberger Field	Astro Turf Field	Public	Add heat warnings, Limit use on hot day, Eventually remove Astro Turf field
2. University Hospital	Dark Roof	Private	Convert to green or "cool roof"
3. 60 Lister Ave	Dark Roof	Private	Convert to green or "cool roof"
4. Central High School / Nat Turner Park and American History High School	Astro Turf Field, Asphalt School Yard	Public	Add heat warnings, Limit use on hot day, Eventually remove Astro Turf field; Add vegetation and green infrastructure
5. Edison Parking	Parking Lot	Private	Add vegetation and green infrastructure
6. South Ironbound	Lack of Tree Cover	Private	Convert to green or "cool roof"; Add vegetation and green infrastructure; Plant more street trees
7. North Ironbound Cluster	Dark roofs	Private	Add heat warnings, Limit use on hot day, Eventually remove Astro Turf field. Convert to green or "cool roof"
8. Waterfront Cluster	Dark roofs	Mixed	Convert to green or "cool roof"
9. Lower Clinton Hill / South South Broad Street Cluster	Dark roofs	Private	Convert to green or "cool roof"
10. Newark Airport	Dark roofs and paving	Semi- Private	Convert to green or "cool roof"; Add vegetation and green infrastructure
11. Dayton/Weequahic	Astro Turf field, Dark roofs	Mixed	Add heat warnings, Limit use on hot day, Eventually remove Astro Turf field; Convert to green or "cool roof"
12. Port Newark	Large Areas of Asphalt	Semi- Private	Convert to green or "cool roof"; Add vegetation and green infrastructure

STEP 4: Develop a list of solutions to mitigate the effects of the heat island.

Municipal Commitment to Support Arts and Creative Culture



Awards
municipalities that
take steps to
promote, support
and welcome
artistic and cultural
activity.

Municipalities can earn five points (up to 25 points) for each option.

Municipal Commitment to Support Arts and Creative Culture



Eligible projects and achievements

- Arts in master plans & redevelopment plans
- Ordinances that promote arts activities & expression
- Creation of a Cultural District

and...

Municipal Commitment to Support Arts and Creative Culture

Eligible projects and achievements (continued)

- Ordinances that support temporary art and street musicians
- Support to artistic & cultural organizations
- "Percent for Arts" ordinances or policies





Q&A