



2018 NEW JERSEY SUSTAINABILITY SUMMIT

Welcome!!



WiFi network: **Guest-at-TCNJ3** | username: **guest2344** | password: **naranyru**



2018 NEW JERSEY
SUSTAINABILITY
SUMMIT

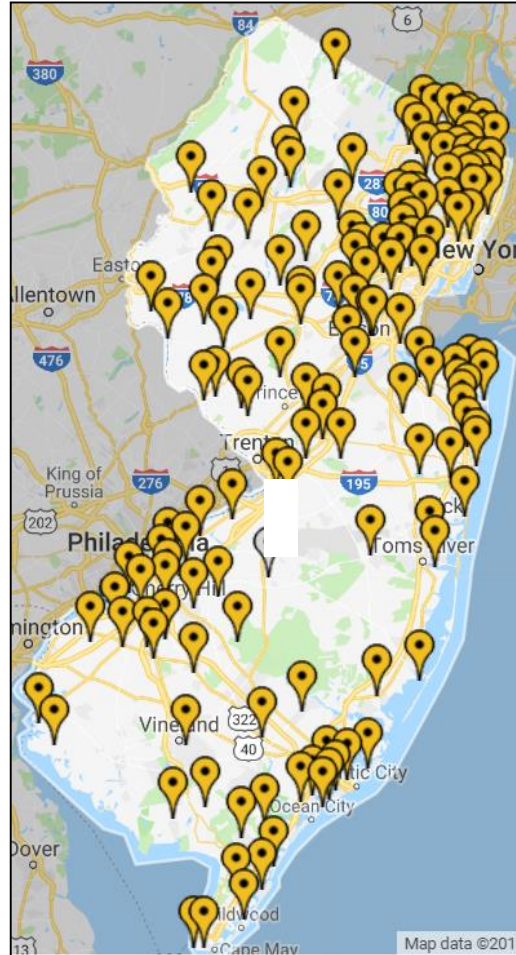
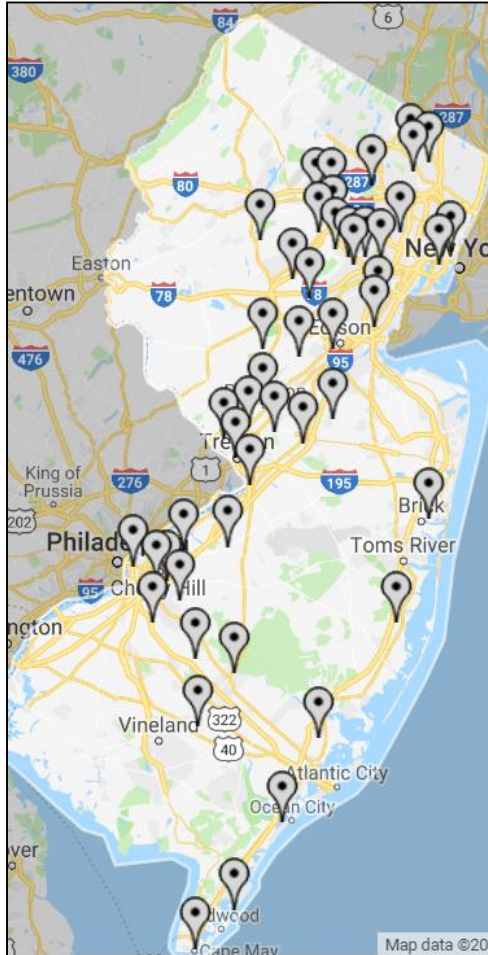


Sustainable Jersey Update

Renee Haider and Randall Solomon
Sustainable Jersey



Municipal Program Participants



80% Participation Rate

200 Certified

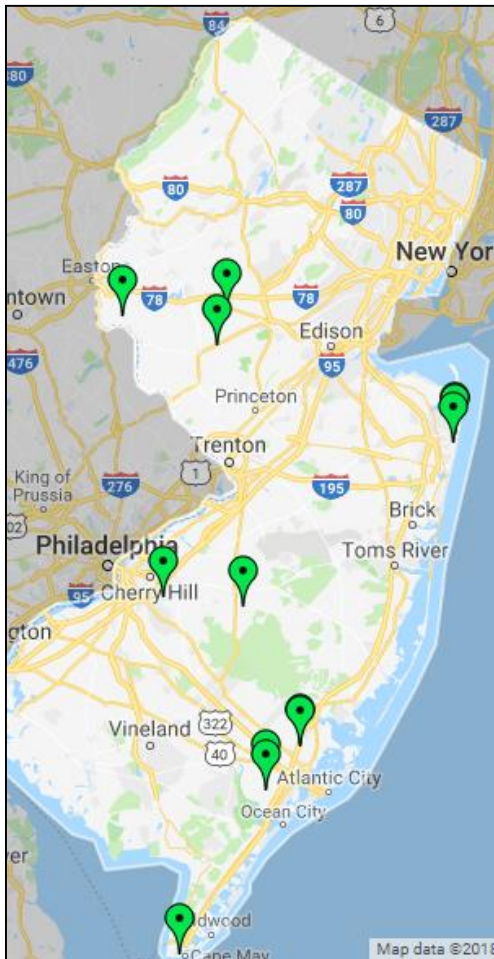
- 48 Silver

- 152 Bronze





Schools Program Participants



52% Participation Rate

194 Schools Certified

- 13 Silver

- 181 Bronze

96 In-Progress



Program Partners



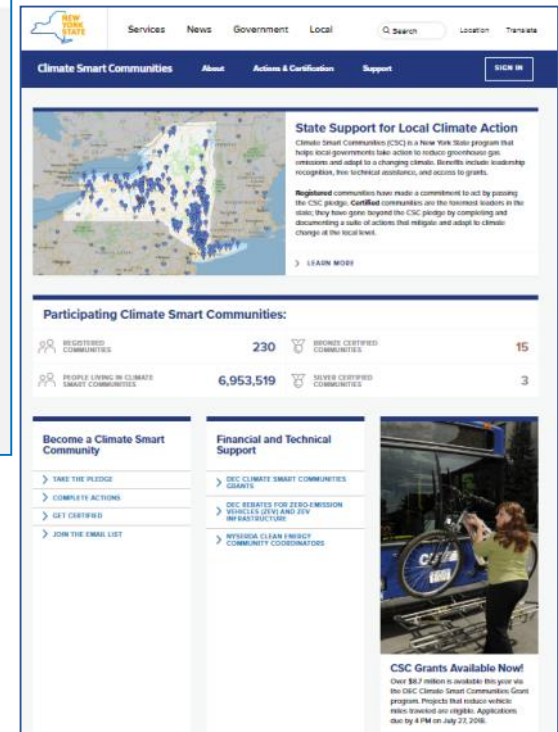
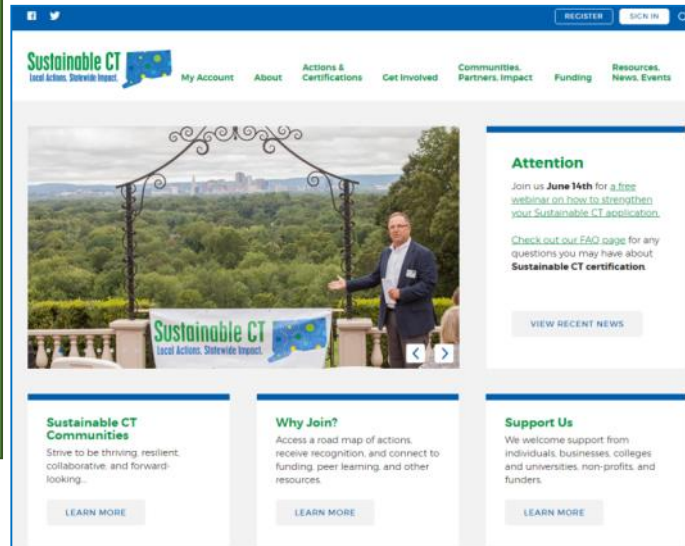
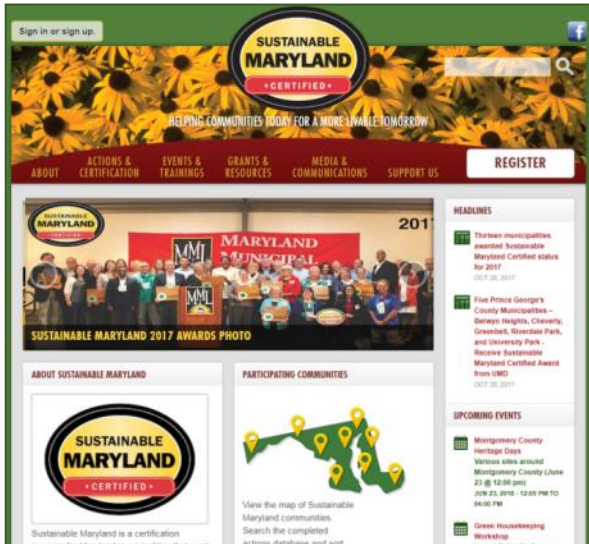
ACUA	Clean Ocean Action	NJ Clean Cities Coalition	NJLM
ANJEC	Cloud Institute	NJ Environmental Justice Alliance	NJPSA
ANJEE	College of St. Elizabeth	NJPN	NJSBA
ANJR	Creative New Jersey	NJ WEC	NJSBGA
APA - NJ	Duke Farms	NJ YMCA State Alliance	NJTPA
<u>ArtPride NJ</u>	DVRPC	NJAES	Rowan University
Arts Ed NJ	EPA	NJAHPERD	Rutgers University
Arts Ed Now	Green Building Center	NJASBO	The Nature Conservancy
Board of Public Utilities	HART-TMA	NJDCA	The Watershed Institute
Center for Creative Land Recycling	New Jersey Future	NJDEP	United Way of NJ
Center for Creative <u>Placemaking</u>	New Jersey Resources	NJDOH	USEPA Region 2
<u>ChargEVC</u>	NJ Audubon	NJDOT	USGBC - NJ
		NJEA	VTC
		NJ-GMIS	Young Audiences of NJ



National Role Model



Imitation is the sincerest form of flattery...



Sustainable Jersey is a founding member of the National Network of Statewide Local Sustainability Programs which now include 12 state participants

Sustainable Jersey by the Numbers in 2017



- **5,100** requests for assistance
- **7,200** interactions at **100** Sustainable Jersey trainings and outreach events
- **5,493** actions submitted;
2,664 actions approved
- **628,654** web page views
374,360 Facebook Impressions
302,794 Twitter Impressions



Regional Hubs



**Atlantic
Cape May
Counties**

Mercer County
Sustainability
Coalition



**SUSTAINABLE
ESSEX ALLIANCE**





New Municipal Actions



- **Climate Adaptation**

- Coastal Vulnerability Assessment
- Heat Island Mitigation
- Stormwater Management Ordinance



- **Land Use & Transportation**

- Green Infrastructure Planning
- Green Infrastructure Implementation





Updated Municipal Actions



- **Brownfields**
 - All existing actions
- **Local Economies**
 - Green Business Recognition Program





New Schools Actions



- **Energy**
 - Behavior-Based Conservation Programs
- **iSTEAM**
 - iSTEAM Planning & Implementation
 - iSTEAM Strategic Plan
 - iSTEAM Collaborative Units of Study
 - iSTEAM Professional Development Plan
- **School Culture and Climate**
 - Culture & Climate Needs Assessment
 - Inclusive Environments Where All Can Thrive





\$4.2 Million in Grants



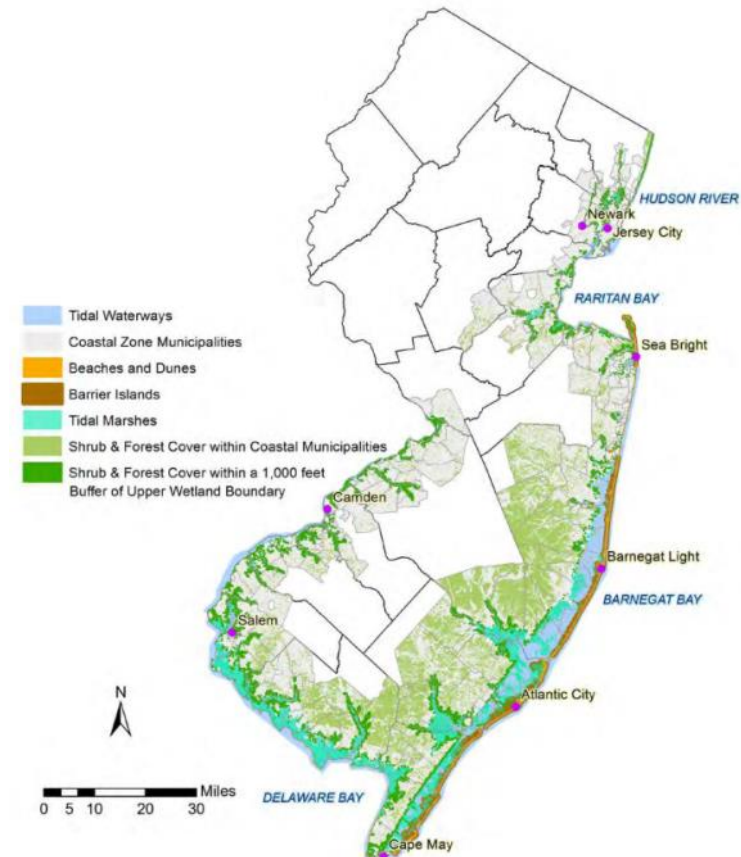
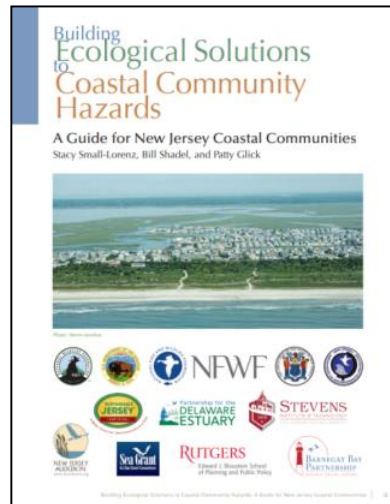


“Hands-On” Assistance



- **Building Ecological Solutions to Coastal Community Hazards**

- Coastal Vulnerability Assessments in 12 municipalities
- Technical Assistance 20 municipalities on eco-based mitigation solutions
- Training and Guidance Document





“Hands-On” Assistance



- **Environmental Defense Fund Fellows**

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



- **Power Save Schools Program**

- Schools receive energy conservation education and training through the Alliance to Save Energy’s Power Save Schools program



Funded By:





“Hands-On” Assistance



- Complete Streets Technical Assistance Program
 - Complete a specific project
 - Nine municipalities in the NJTPA region
 - Up to \$10,000 in direct technical assistance
 - Applications due July 27
- Green Infrastructure Planning and Implementation
 - Training
 - Green Infrastructure Plans



Graphic Courtesy of NJDOT

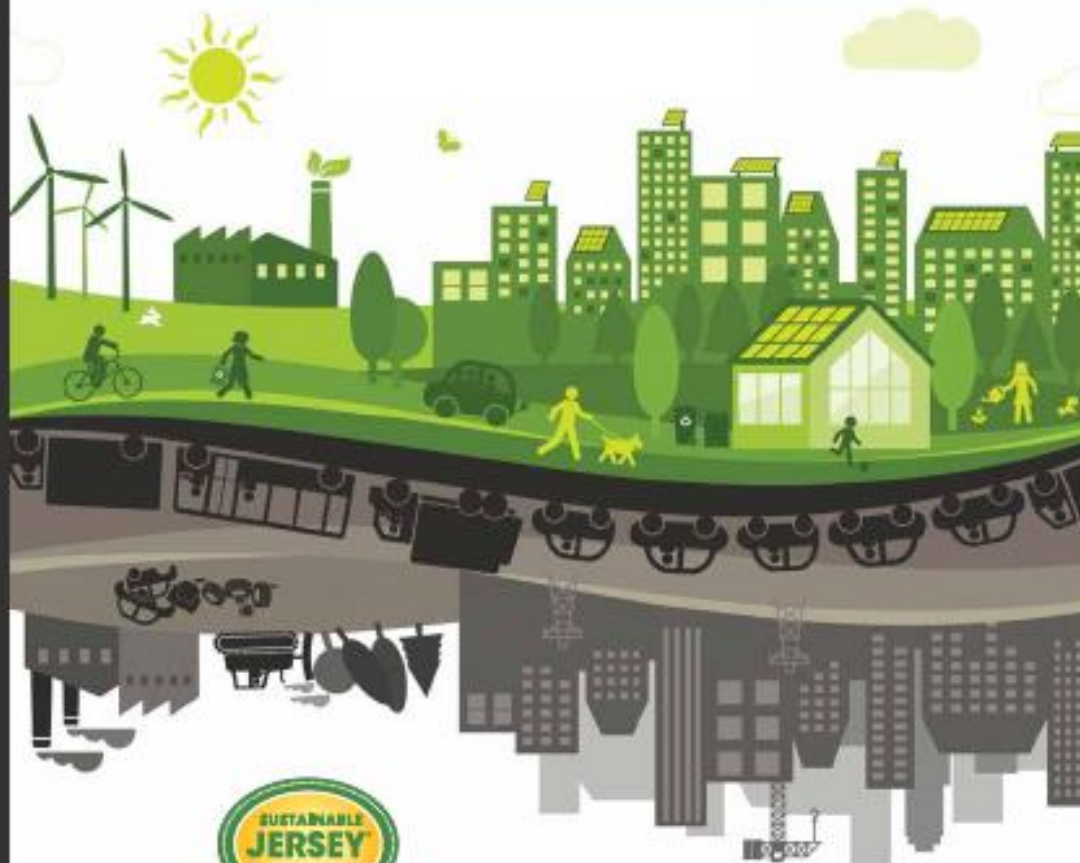




Vision **without action** is merely a dream. **Action without** vision just passes the time. Vision with **action** can change the world.

Joel A. Barker, American Businessman

THE 2017 NEW JERSEY
SUSTAINABLEABLE
STATE OF THE STATE REPORT





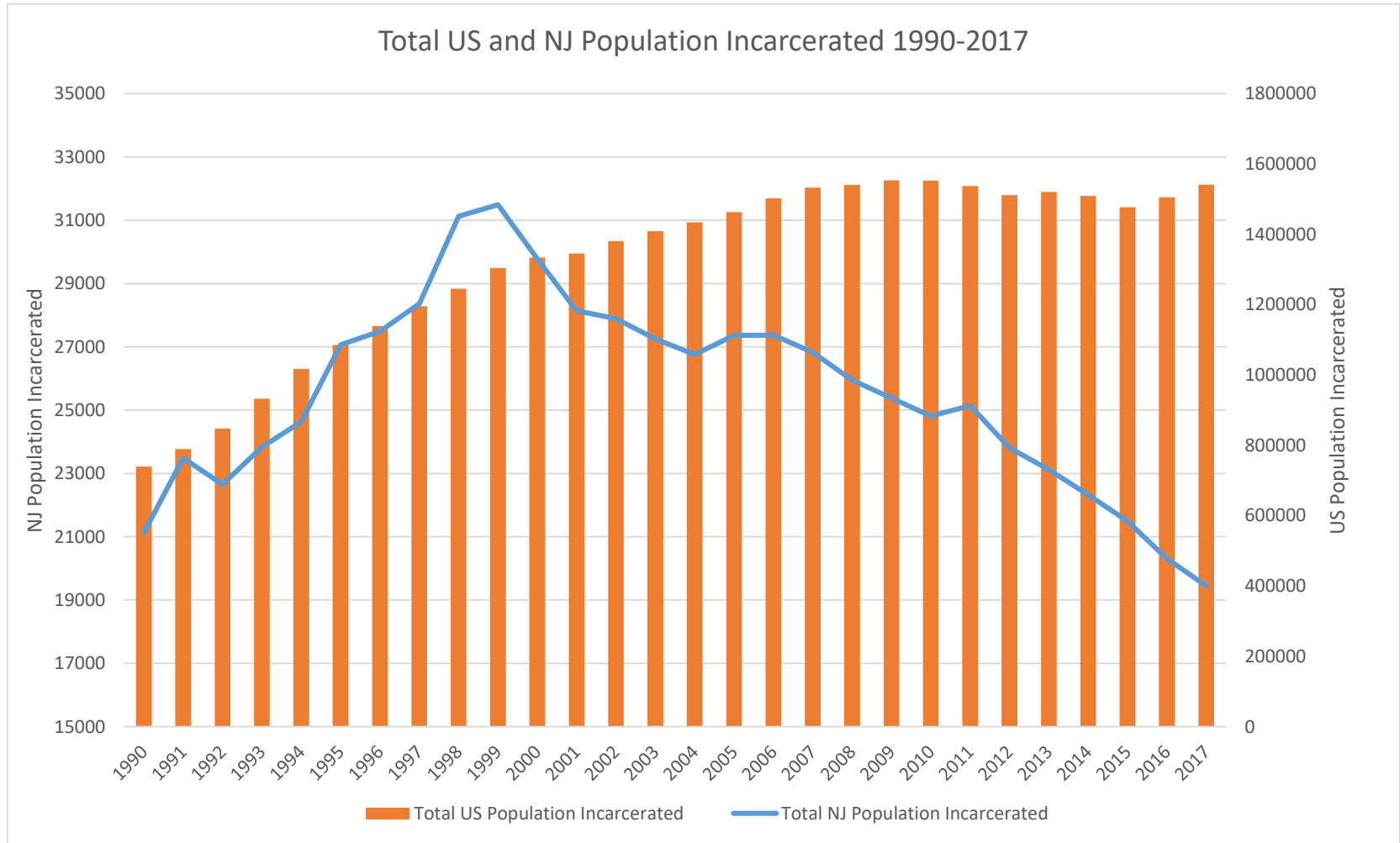
Positive Social & Behavioral Trends



- Increasingly NJ residents have equitable access to a high-quality **healthcare** system
- **Educational** outcomes are improving
- Access to the **arts** and **recreational** opportunities
- **Recycling** of the waste that is produced is increasing
- NJ is historically **safe**

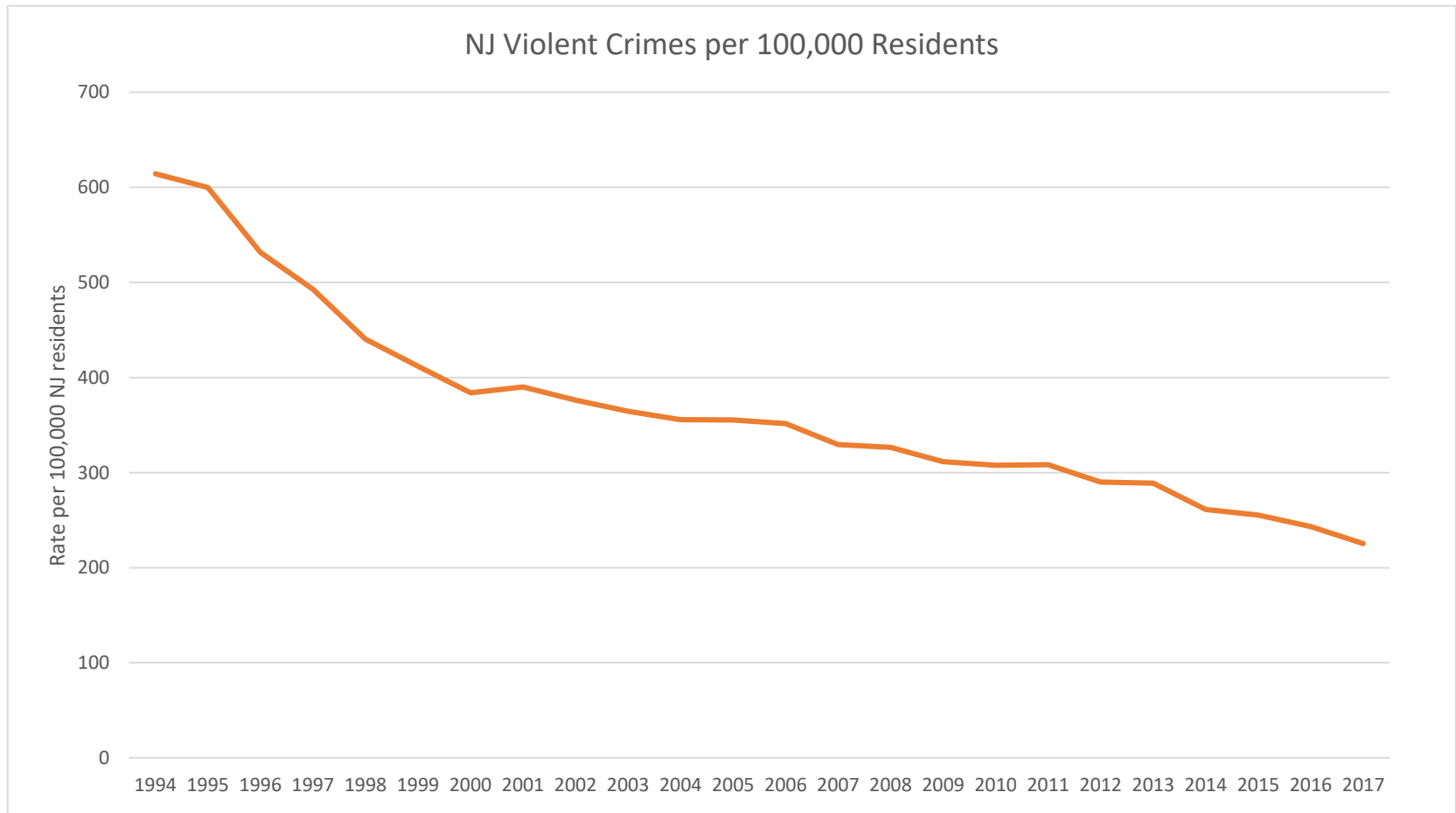


Incarceration Rate





Violent Crime





Economic Indicators



- Payrolls
- Poverty
- Unemployment and Underemployment
- Median Income
- Hours Worked to Make a Living
- Income Distribution
- Investment in Innovation and Research
- Business Starts and Failures



Selected Environmental Indicators



- Populations declined for 5 out of 6 species of birds representing the major NJ habitats and regions
- % impervious surface increased 20% between 1986-2012, at the expense of forest, wetlands and farms
- <20% of water bodies fully support recreational use and < 1% are safe for fishing (for consumption)
- Recycling rate has gone up, but so has waste generation
- Toxic chemical releases are increasing
- Percent of energy we consume that is renewable has declined



Where do we stand in 2018?



Adequate progress on **5** goals



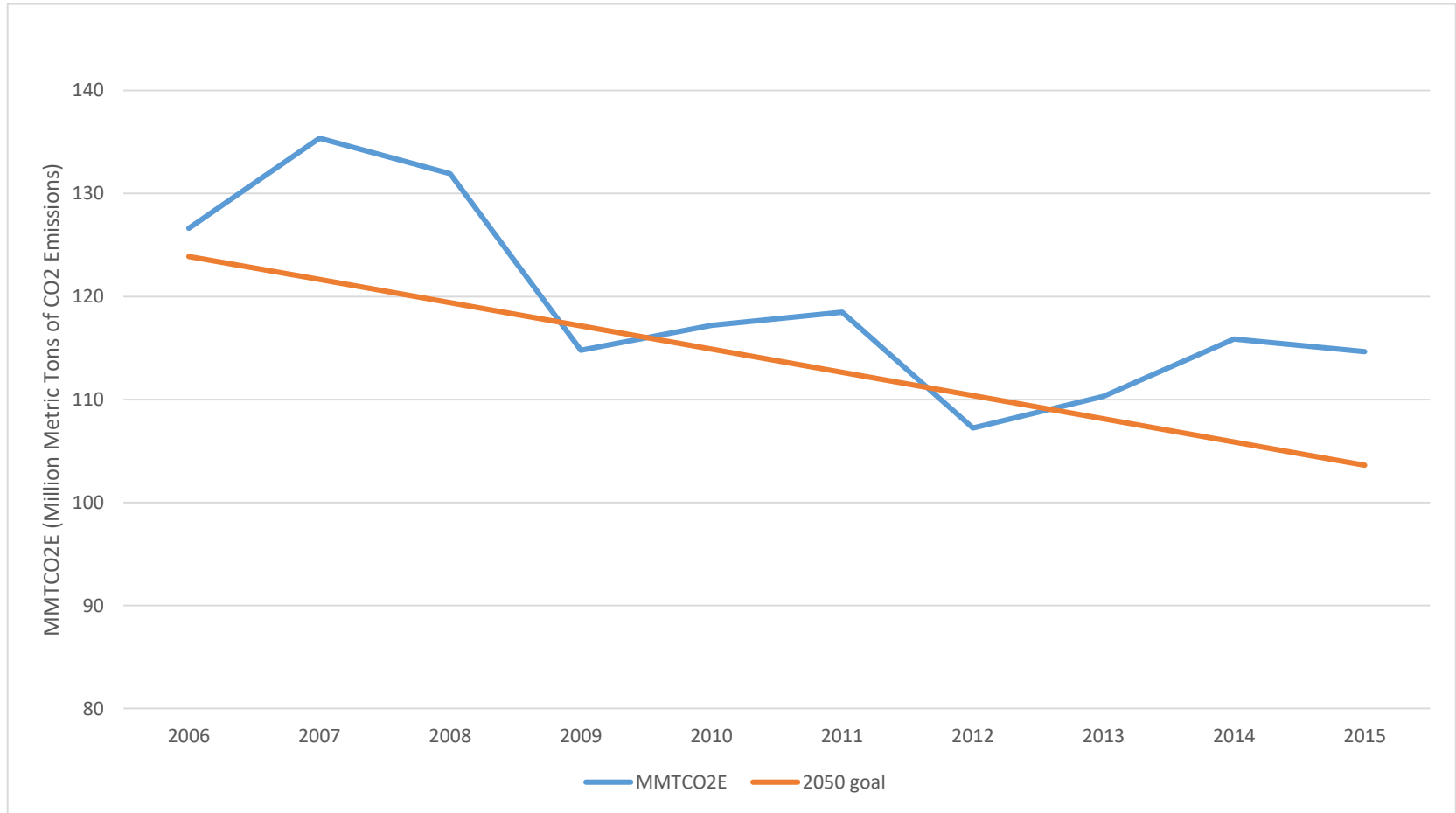
Inadequate progress on **27**



Unclear trends on **25** goals



Actual vs. Target GHG Emissions



© photo used with permission of Save Lucy Committee Inc

Don't forget
to take your
reusable bag
when you shop!





To a sea turtle or marine mammal,
this is food

Kick the plastic bag habit. Bring your own bag when you shop.



SO

NOT

PLASTIC



**A 7 Day Plastic-Free
CHALLENGE**

MONDAY



**Carry reusable shopping bags
and reusable containers for leftovers
at restaurants.**

A Movement on Plastic from the Bottom Up



- Dec 2015 - Longport adopts 10 cent fee on bags
- 2015-16 - Galloway, Upper Twp and others adopt resolutions encouraging reusable bags
- 2016 - Teaneck adopts fee on bags
- 2017 - Long Beach bag ban
- Feb 2018 -
 - Ventnor adopts fee on single use bags
 - Harvey Cedars adopts bag ban
- May 2018 -
 - Monmouth Beach bans bags, straws, food containers, and Styrofoam
 - Point Pleasant Beach bans plastic bags
- June 2018 – Jersey City and Hoboken Introduce plastic bag ban ordinances



Levels of Certification



- **Bronze**
 - Commitment to sustainability
 - Implement first significant actions on key issues
- **Silver**
 - Making major progress on a broad array of fronts
 - Statewide and national leader
- **Gold Star Standards**
 - Granted one issue area at a time
 - Recognizes achieving the goal on an issue
 - If every municipalities performed at same level, issue would be solved





Gold Star Standards



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

- **Waste**

- Achieve state target recycling rate
- Reduce solid waste every year

- **Energy**

- Reduce GHG emissions every year to meet state and global targets
- Both municipal operations and whole community

- **Water (In Progress)**





Water Goals



Drinking water clean and safe for human consumption.



Water quality in streams, lakes & wetlands sufficient to support species & ecosystems; safe for recreation & fishing.



Water supply, including streamflow & groundwater, sufficient for human uses and & ecosystems.



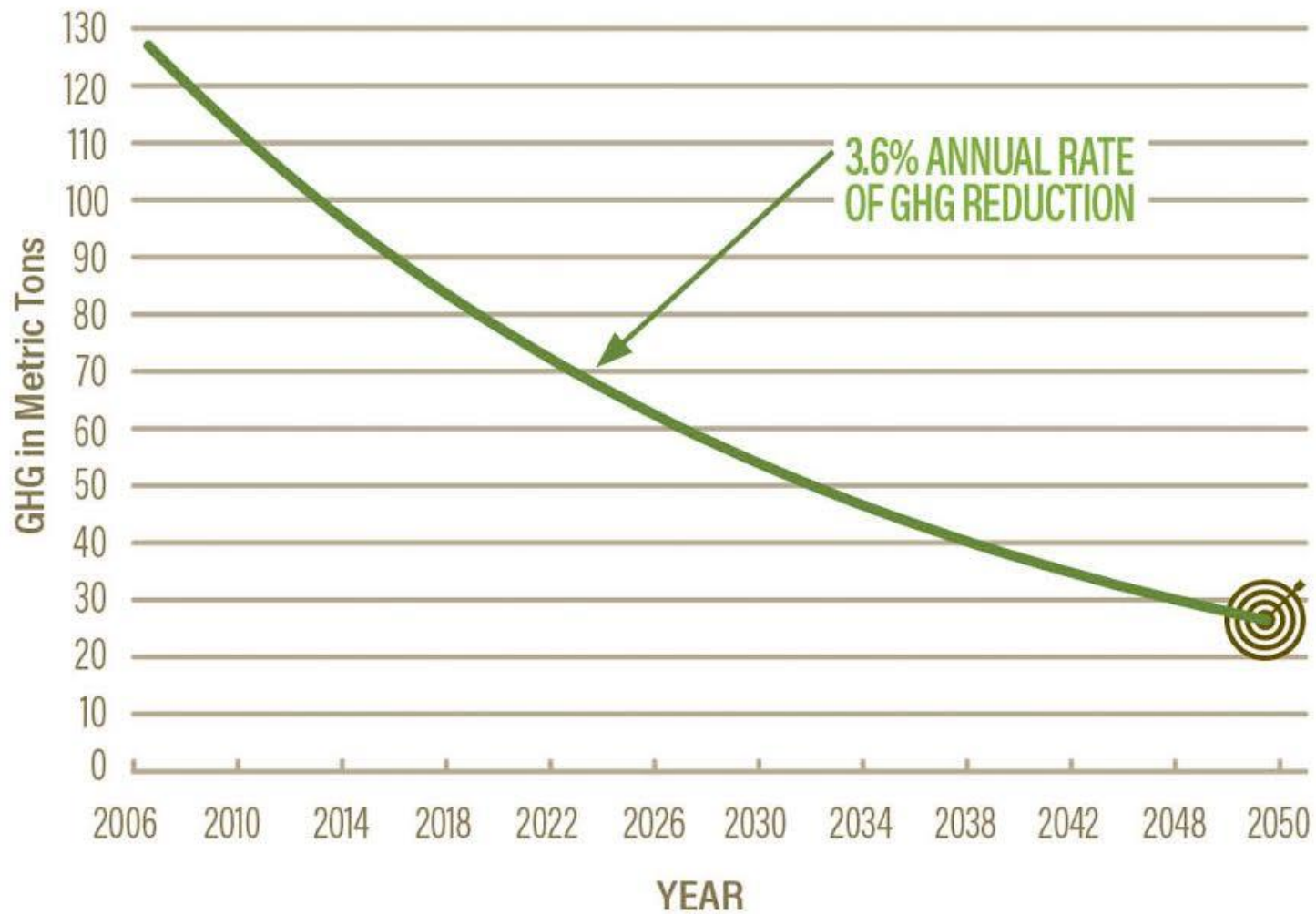
The **water system**, including infrastructure (drinking, stormwater & wastewater), provides adequate capacity & is resilient to climate change.



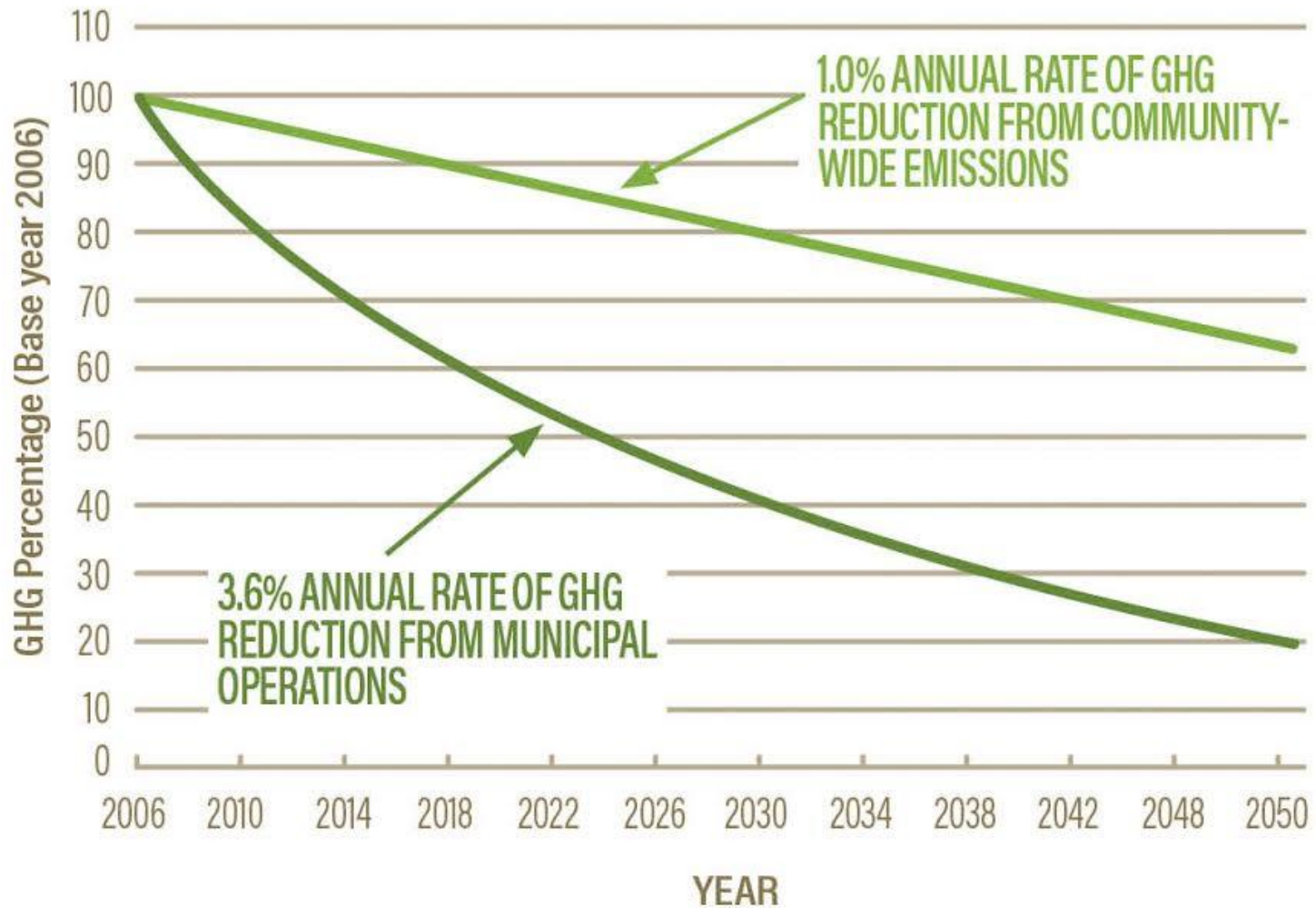
Access to water resources universally affordable & fairly distributed.



STATEWIDE REDUCTIONS REQUIRED BY GLOBAL WARMING RESPONSE ACT



REDUCTIONS REQUIRED FOR GOLD STAR IN ENERGY





A Movement Toward Energy Gold



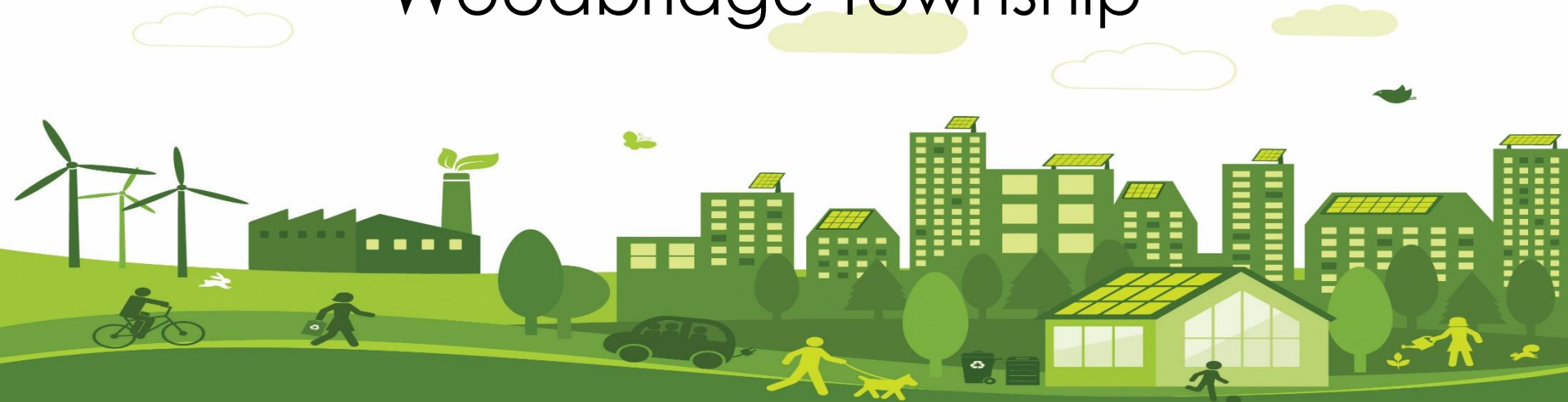
- A wave of local leadership to achieve our climate goals
- 13 Mayors formally commit to implement Energy Gold Star and locally ***achieve ~40% of State's needed GHG reductions***

MAYOR RAVINDER BHALLA, HOBOKEN, NJ
MAYOR CHRISTOPHER BOBBITT, LAWRENCE TOWNSHIP, NJ
MAYOR CHUCK CAHN, CHERRY HILL TOWNSHIP, NJ
MAYOR VICTOR DELUCA, MAPLEWOOD TOWNSHIP, NJ
MAYOR DAVID DELVECCHIO, LAMBERTVILLE, NJ
MAYOR STEVEN FULOP, JERSEY CITY, NJ
MAYOR MICHAEL GONNELLI, SECAUCUS, NJ
MAYOR BRUCE A. HARRIS, CHATHAM BOROUGH, NJ
MAYOR LIZ LEMPERT, PRINCETON, NJ
MAYOR JOHN C. MCCORMAC, WOODBRIDGE TOWNSHIP, NJ
MAYOR EDWARD MEINHARDT, LIVINGSTON, NJ
MAYOR BRUCE PACKER, GLEN ROCK, NJ
MAYOR KEVIN RYAN, VERONA, NJ



On the Road to Energy Gold: Illuminating Pathways Forward

Maplewood Township
Town of Secaucus
Woodbridge Township





Join the Maplewood Solar Challenge!
Free estimates that make choosing the best option easy

MaplewoodSolar.org





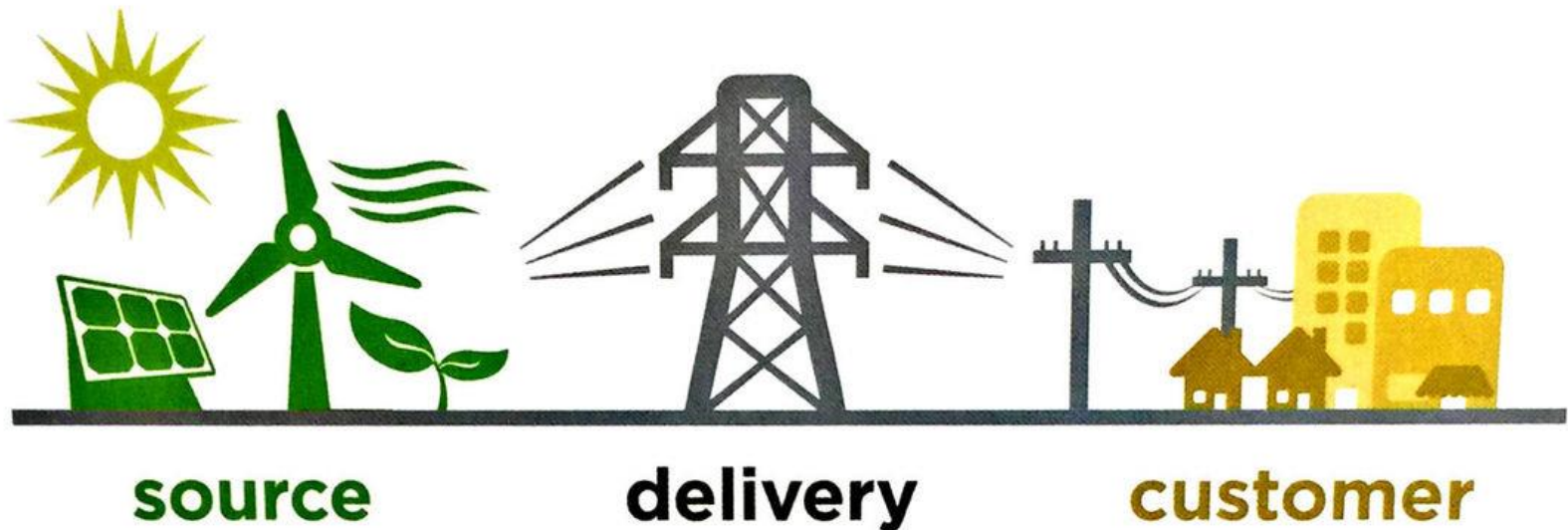
Sustainable Maplewood

- ♦ **Coordinates the planning and implementation of municipal, community-based and intergovernmental sustainability projects**
- ♦ **Monitors and guides the Township's progress in meeting agreed-upon sustainability goals and objectives**
- ♦ **10 Member Committee: Mayor, Township Committee member, Administrator, Department Directors, Planning Board Chair, Green Team Chair & Environmental Advisory Committee Chair**

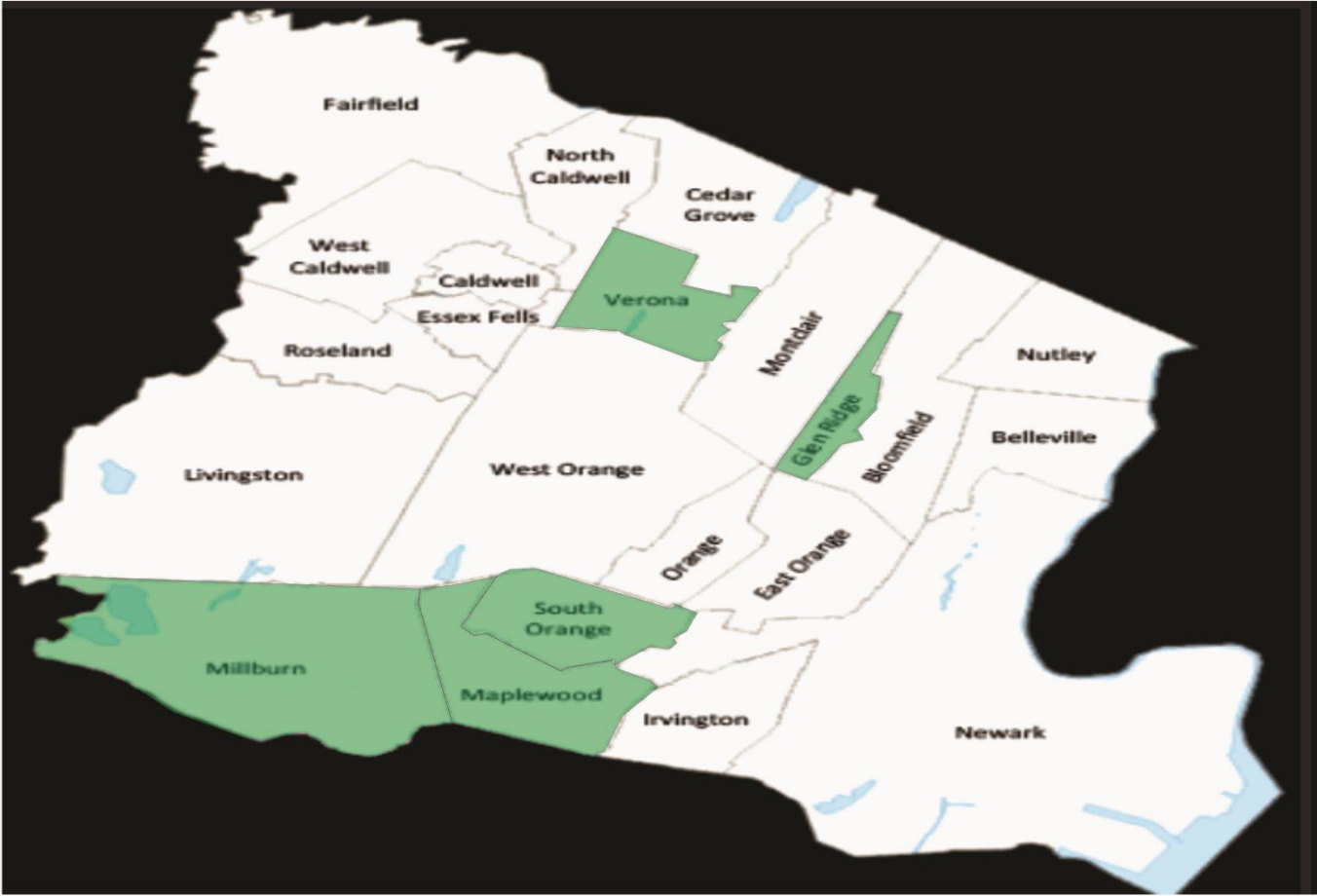
New Jersey Government Energy Aggregation



Local governments create a large buying group of residential electricity customers to seek bids for greener and cheaper energy rates.



SUSTAINABLE ESSEX ALLIANCE



Municipalities that have passed resolutions to participate in the RFP process for the Sustainable Essex Alliance Community Choice Aggregation project.

SUSTAINABLE ESSEX ALLIANCE

- 1. Maplewood – Lead Municipality**
- 2. Montclair**
- 3. Millburn**
- 4. South Orange**
- 5. Verona**
- 6. Glen Ridge**

119,000 Residents

New Jersey Municipal Populations

- 1. Newark**
- 2. Jersey City**
- 3. Paterson**
- 4. Elizabeth**
- 5. SUSTAINABLE ESSEX ALLIANCE**

Where are we now?

Municipal ordinances adopted establishing energy aggregation

Resolutions passed designating Maplewood as lead agency

Contract with consultant to draft Request for Proposals for energy providers

Launch public education campaign

Switch providers in 4th quarter 2018



**Maplewood Township
Committee**

Resolution 105-17

***Supporting the
Principles of the Paris
Climate Accord***

**Adopted Unanimously on
June 20, 2017**

*U.S. governors, mayors, businesses, investors, colleges
and universities say:*

**WE ARE
STILL IN**

*and will work together to ensure the
U.S. remains a global leader in reducing carbon emissions.*

Secaucus is EV Friendly!



Amanda J Nesheiwat
Environmental Director



Year of Climate Action

- ▶ Develop a Carbon Footprint
- ▶ Increase EV Infrastructure
- ▶ LGEA- Energy Upgrades/Schneider Electric
- ▶ Direct Install Program - LED Lighting
- ▶ Outreach to Business Community about BPU Energy Incentives
- ▶ Energy Sage- Residential Access to Solar
- ▶ Energy Aggregation (Municipal)
- ▶ Hudson County Microgrid Project
- ▶ Increase Recycling Rate
- ▶ Climate Action Plan for 2019



Sustainable Communities and Electric Vehicles

- ▶ Secaucus is committed to Sustainability!
- ▶ Sustainable Jersey - Fleet Inventory Analysis
- ▶ Cost Savings!
- ▶ Expansion of our EV fleet!



Community Response

- ▶ Charging stations reduce range anxiety.
- ▶ Residents love our electric cars!
- ▶ Mayor and Council are excited about the positive response.



Collaboration with Municipal Officials

- ▶ Secaucus Engineering Department
 - ▶ Zoning Permit Review
- ▶ Secaucus Police Department and Fire Department
 - ▶ Safety/fleet
- ▶ Nearby Communities
 - ▶ Example: Montclair



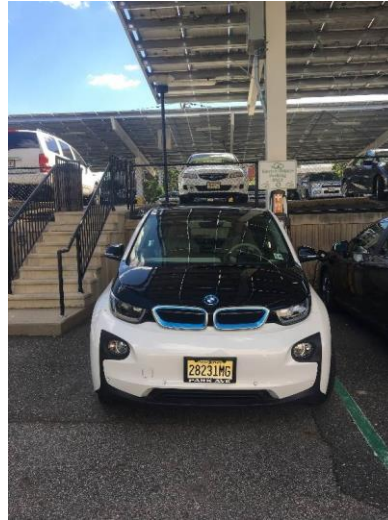
Challenges

- ▶ Finding a co-op to purchase an electric vehicle. (leasing is not available for some cars). Sometimes government procurement of vehicles is difficult.
- ▶ Finding ideal locations in town.
- ▶ Parking in urban environments and lack of parking spaces.
- ▶ Charging stations curbside.



The Future!

- ▶ Hudson County Micro Grid Pilot Program
- ▶ New EV's on the way!
- ▶ EV's for Parking Enforcement
- ▶ Hydrogen Fuel Cell Stations



Thank you!

Amanda J Nesheiwat
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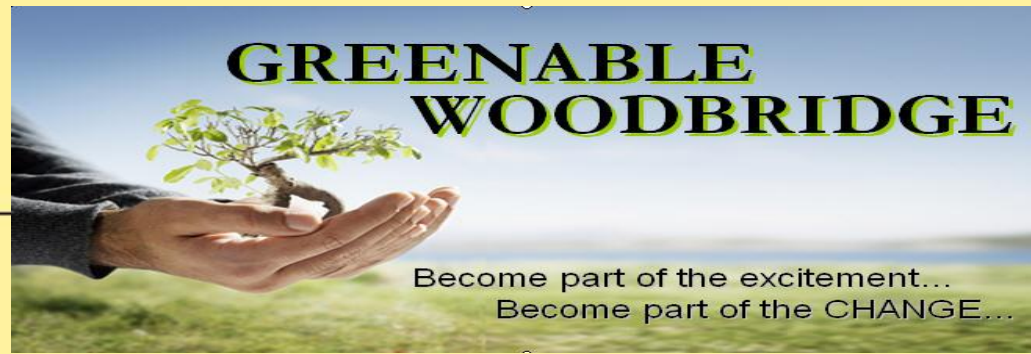




GREENABLE WOODBRIDGE

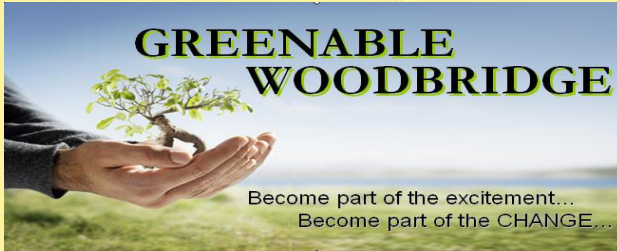


Mayor John E. McCormac
Caroline Ehrlich / Chief of Staff / Redevelopment



- Woodbridge Township is the sixth largest municipality in the State of New Jersey encompassing 24.2 square miles and is home to 100,000+ residents.
- Woodbridge Township is comprised of 10 towns - each with their own identity and character - Avenel, Colonia, Fords, Hopelawn, Iselin, Keasbey, Menlo Park Terrace, Port Reading, Sewaren and Woodbridge Proper.
- Woodbridge has five downtowns, three train stations including Metropark, and almost every major highway leads to Woodbridge including the NJ Turnpike, Parkway, US Routes 440, 287 and State Routes 1 & 9.

Greenable Woodbridge Green Team



Greenable Woodbridge Through Leadership & Innovation

Sustainability ~ “Thinking Globally... Acting Locally” ~ Sustainability

Greenable Woodbridge Green Team

Mayor’s Office... Municipal Council... Municipal Department Directors & Public Employees
Local Businesses and Community Residents

Chair: Caroline Ehrlich

Co-Chairs: Gary Sondermayer, Thomas Flynn, & Jeffrey Mayerowitz

Public Works: Fleet Inventory and Food Waste Initiative

Health Department: Pre-School Restaurant Programming, Stroke Testing

Planning & Development: Green Building Initiatives

Engineering Division: Green Infrastructure

Office of Communications: Greenable TV-35 Programming, Greenable News & Web Site

Greenable Woodbridge Awards

Eight-Time Sustainable Jersey™ Silver-Level Champion
1st Municipality to Achieve over 1,000 Points in Sustainable Jersey
3-STAR Community Rating for National Leadership in Sustainability
Governor's Environmental Excellence Award
Mayor John E. McCormac "Environmentalism of the Year"
New Jersey Association of Floodplain Management (NJAFM)
Outstanding Floodplain Management Award 2017
Sustainable Raritan River Award
2009 "Achievement in Planning" Award
The Association of New Jersey Apprenticeship Coordinators (ANJAC)





Greenable Woodbridge Climate Change Practices

Energy Conservation

Municipal Facilities Energy Audits & Upgrades

**Municipal Building ~ Barron Arts Center ~ Main & Branch Libraries
Health Center ~ Animal Shelter ~ Evergreen & Sycamore Senior Centers
Public Works Garage ~ 9 Municipal Pump Stations ~ Fire Departments**



- **Retrofit & Install LED Light Fixtures and Lamps**
- **Occupancy Sensor Lighting Controls**
- **Programmable Thermostats**
- **High Efficiency Gas Water Heaters**
- **Low-Flow Domestic Water Devices**
- **HVAC System Improvements**
- **High-Efficiency Electric Air Conditioning Units**
- **Custom Building Automation Controls**
- **Upgrade Premium Efficiency Pump Station Motors & Engines**



Greenable Woodbridge Climate Change Practices

WHAT WE PLAN TO DO:

Numbers based off of our 2017 Energy Audit reports by TRC. Woodbridge has established funds via the municipal capital budget to begin the implementation of the Energy Conservation Measures (ECMs).

	Estimated Install Cost	Estimated Incentive	Estimated Net Cost
Lighting Upgrades	\$470,185.64	\$44,875.00	\$425,310.64
Occupancy Sensors	\$8,408.00	\$1,645.00	\$6,763.00
Other Upgrades	\$61,563.04	\$4,499.80	\$57,063.24
TOTALS	\$540,156.68	\$51,019.80	\$489,136.88

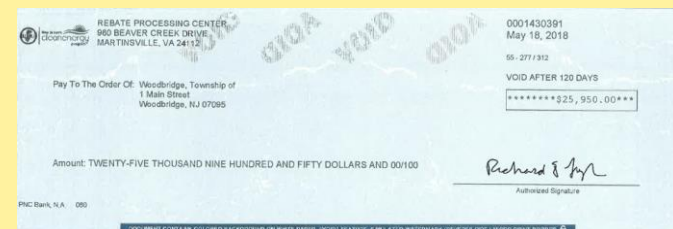
Greenable Woodbridge Climate Change Practices



Woodbridge Community Center Completed an Energy Audit & Retro-Fit to Further Improve Energy Efficiency

Woodbridge Community Center took the lead in Woodbridge Township's mission to reduce the carbon footprint.

- The WCC partnered with the BPU Clean Energy Program to complete a project to enhance the building's lighting through the use of energy-saving (LED) light bulbs. The lighting project replaced every lighting fixture in the building and parking lot and will reduce the overall electricity generated at the WCC. The Clean Energy Program allowed the WCC to replace each fixture with cost energy savings LED lighting.
- BPU Clean Energy Grant: \$45,000.00. \$50,000 per year hard cost savings. Program will pay for itself in five years.
- An automated building control system for the HVAC has been installed which decreases the use of energy by reducing the HVHC runtime sustained during times of operation when the building is uninhabited.
- New hot water heating units and a more effective water pump system have also been installed.
- Received two rebated checks in the amount of \$26,000

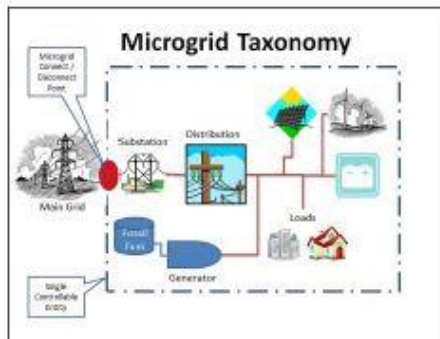


Greenable Woodbridge Climate Change Practices

MICROGRID: The Woodbridge Township Microgrid connects critical facilities, private entities and services which allows those facilities to remain operational while the power grid is down..

What is a Microgrid?

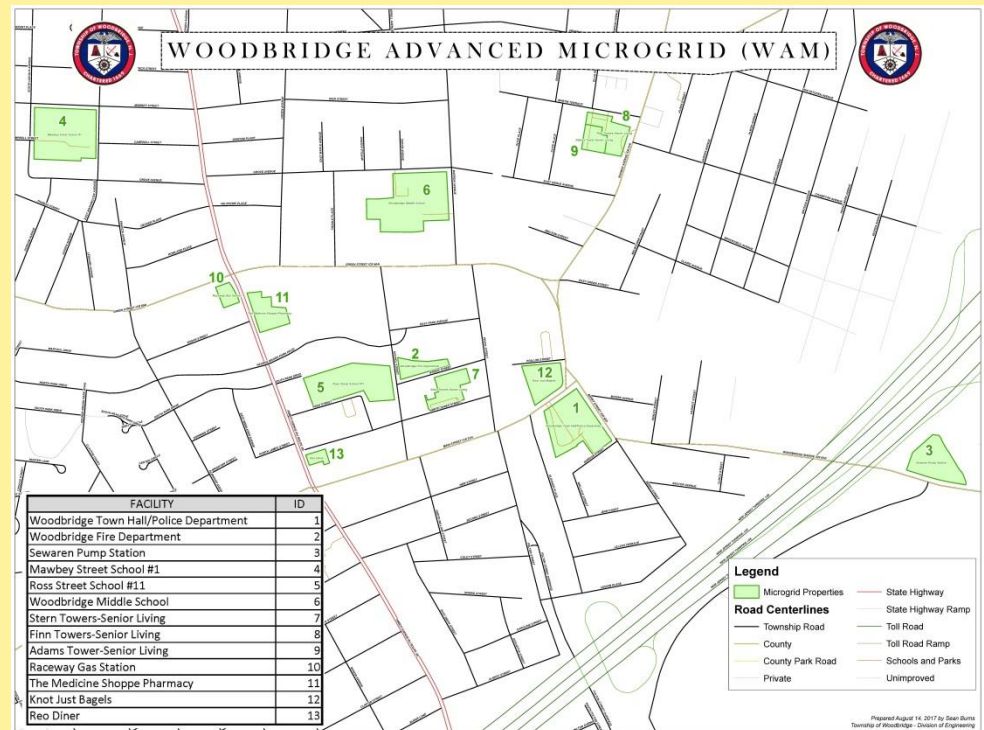
- A microgrid is a small or local electric power system that can operate with the main grid or by itself in an emergency situation within a specific area like a hospital, school/college or an entire community.
- Microgrids are intended to be used during heavy electric demand periods (peak) or for electrical back up purposes when the main grid is off line.



- Microgrids use different energy resources, such as solar, wind, gas or diesel generators, fuel cells and microturbines, and battery storage.



- Microgrids work as an "Island" (or many "islands" in large communities) that are separate from the large grid, so if the large grid goes down, they can run on their own.



Greenable Woodbridge Climate Change Practices

Anti-Idling (Car Battery) Technology Program:

COMING SOON: Greenable Woodbridge secured a \$10,000 Sustainable Jersey grant through the Gardinier Environmental Fund to fund electric vehicle infrastructure and an battery-supported idle reduction System for police vehicles. After a demonstration from Stealth Power to our Police Department, Department of Public Works, and other key staff, Woodbridge has purchased three batteries in total to be installed as part of this pilot program.




Greenable Woodbridge

Climate Change Practices

New Police Hybrid Vehicle Program:

- **COMING SOON:** The all-new pursuit-rated Ford Police Interceptor Utility hybrid is designed to help make the lives of law enforcement officers easier with improved pursuit performance and standard all-wheel drive – and save agencies and taxpayers money. Its hybrid batteries are specially placed inside the vehicle so they do not compromise passenger or cargo space. While fuel economy certification isn't complete, the Police Interceptor Utility hybrid is expected to have a projected EPA-estimated combined label of at least 24 mpg – approximately 40% improvement over the current 3.7-liter V6. Anticipated fuel economy gains, combined with expected fuel savings from reduced engine idling time, are expected to help save law-enforcement customers an estimated \$3,200 per vehicle in yearly fuel bills versus the current Police Interceptor Utility.





Greenable Woodbridge Climate Change Practices

Electric Vehicle (EV) Car Share Program:

COMING SOON: Woodbridge Township has embarked on the first step to implement a scalable Electric Vehicle Car Share program. The EV Program will play a significant role in shaping Woodbridge Township's long-term vision for Electric Vehicle Car Share market development and will serve to reduce carbon emissions, thus contributing to the Greenable Woodbridge Climate Change practice. The EV Program looks to offer complete street services, enhanced mobility through fuel-efficient vehicles and a comprehensive approach to reducing greenhouse gas emissions. Woodbridge Township has awarded a contract to GreenSpot EV Infrastructure to operate the EV Car Share program in Woodbridge, at no cost to the Township. Locations for the EV charging stations are being finalized now and the program will begin this year in 2018.



greenspot™
EV Infrastructure

Greenable Woodbridge Climate Change Practices

Solar Challenge & Solar Panels:

- Greenable Woodbridge Investment of \$7 Million (\$2.4 Million Rebate from the NJBPU) in Solar Energy Initiatives
- Solar Installed at 6 Municipal Buildings; Multiple School District Buildings and Facilities; Fire Departments Buildings; Corporate Investment in Solar (Bayshore, FedEx); Solar-Powered Pedestrian Cross Walks
- Sustainable Jersey Solar Challenge & Energy Sage ~ 2017
- Woodbridge Township Building Department approved 166 Residential Solar Panel permits (October, 2016 through May, 2017)
- RFPs have been drafted to install solar panels at all municipal building parking lots and a large hill at the Woodbridge Community Center.





Greenable Woodbridge Climate Change Practices

Energy Aggregation



Woodbridge Township is raising the Sustainability bar with the renewal of the Tri-Eagle Energy aggregation program by including a higher percentage of renewable energy than what is required by state law – thus making Woodbridge Township the leader in the State of New Jersey!

This additive amount of renewable energy will be generated from renewable generation facilities located in our own State, sending a strong message to renewable developers that we want more green power generated here and spurring new economic growth in New Jersey in this high-tech industry.



GreenableWoodbridge Outreach Practices



The Woodbridge Channels



WOODBIDGE NOW

Your FREE APP is here!
Search "Woodbridge Now" in the App Stores.

**BUSINESS DIRECTORY • LINKS • NEWS
EVENTS • VIDEOS • SOCIAL • PARKING**



THE WOODBRIDGE NEWS.

Vol. 11, Issue 1

Greenable Edition 2018

Published from 1899-1902. Reborn in 2007.

Town Hall | Main Street • Woodbridge, NJ 07095 www.twp.woodbridge.nj.us

Sustainable Woodbridge: #1 in New Jersey

Think Globally, Act Locally

"Woodbridge Township is committed to developing strategies that will reduce our impact on the environment both collectively and individually, so that we might preserve our natural resources for our citizens now and into the future."

— Mayor John E. McCormac

In today's world, living a Sustainable lifestyle is no longer a luxury. If we are to provide our children with a secure future, we must start now to better manage the ways we use energy and other natural resources at work and home – and Greenable Woodbridge is the vehicle by which our Township has moved into the future as the number one sustainable and environmentally-conscious community in New Jersey.

Over the past nine years, Greenable Woodbridge has set the pace as the statewide leader in sustainable initiatives receiving the designation as a certified Sustainable Jersey community by the New Jersey League of Municipalities. As a Sustainable Jersey community, Woodbridge has secured the tools, guidance, training and financial resources necessary to institute programs and initiatives that provide for long-term sustainable savings.

What is Greenable Woodbridge?

Greenable Woodbridge is a long-term, Township-wide environmental awareness initiative that touches nearly every resident, businessperson and visitor to our community with real, environmentally-friendly

Continued on page 4

Mayor John E. McCormac and Caroline Ehrlich, Sustainable Woodbridge Program Director, explain the successful Woodbridge Sustainable Jersey initiative to the Connecticut Conference of Mayors.

WE ARE THE CHAMPIONS

Woodbridge Township was named the 2017 Sustainable Jersey™ Silver-Level Champion by the New Jersey League of Municipalities for the eighth year. Woodbridge competed against 445 New Jersey municipalities, including 205 Sustainable Jersey Certified municipalities and 46 Silver-Level certified towns in the Sustainable Jersey competition, earning Sustainable points with 92 actions in 18 separate categories – scoring a record 1,035 points.

Greenable Woodbridge continues to implement many sustainable initiatives and programs that serve to better manage the ways we use energy and other natural resources at work and home.

"Ten Towns... One Green Community"

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GreenableWoodbridge Climate Change Practices

Clean Energy & Smart Energy Residential & Business Programs



GreenableWoodbridge

Climate Change Practices

GREEN INFRASTRUCTURE INITIATIVES:

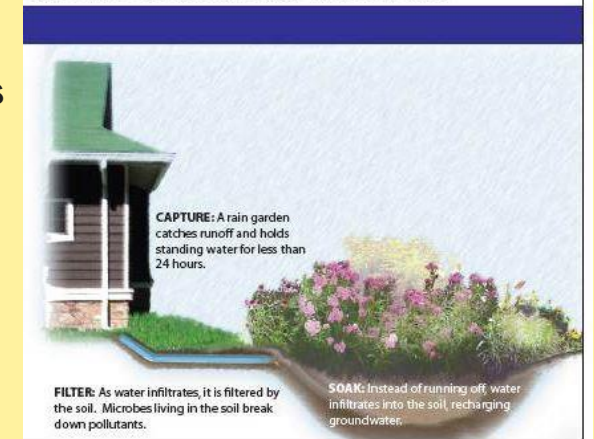
Green infrastructure is effective, economical and enhances community “Quality-of-Life

Greenable Woodbridge Green Infrastructure:

- Tree Planting and Wetlands Restoration
- Storm Water Management & Infrastructure Improvements
 - Storm water drains through gutters
 - Storm sewers and other engineered collection systems
- Rain Gardens and Bioswales use plants found in the local ecosystem in conjunction with innovative engineering solutions to help capture and treat storm-water run-off
- Green infrastructure helps filter the water before it reaches waterways

RAIN GARDEN

This garden is designed to intercept, treat, and infiltrate stormwater at the source, before it becomes runoff. The plants are native to the region and help retain pollutants that could otherwise harm nearby waterways.



Greenable Woodbridge

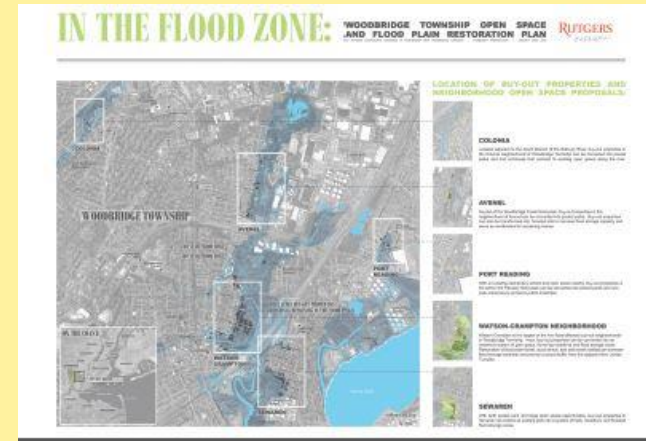
Climate Change Practices

BLUE ACRES FLOOD ZONE RESTORATION

The New Jersey Department of Environmental Protection Blue Acres Buy-Out Program has purchased more than 130 Woodbridge flood zone properties – most located in the Watson/Crampton neighborhood)

As part of the post-Sandy Blue Acres program, the Township develop plans to remediate, restore and return the properties as open space and preserve the natural wetland habitat. The Rutgers University Cooperative Extension Program to developed restoration and maintenance strategies for the acquired floodplain properties. The plans provide for the establishment of a “Conservancy Area” that will include landscape design and the planting of native flowers, plants, shrubs and trees which will provide a natural habitat along the edge of the open space restoration area.

Restoring the natural floodplain helps the ecological system to function as a means by which to better cope with flood inundation and sequester carbon. Replacing acres of impervious surface cover (streets) with native vegetation leads to enhanced carbon sequestration and a decrease in greenhouse gas producing actions associated with impermeable infrastructure and energy demand.



Greenable Woodbridge

Climate Change Practices

Woodbridge Bike Share Program:

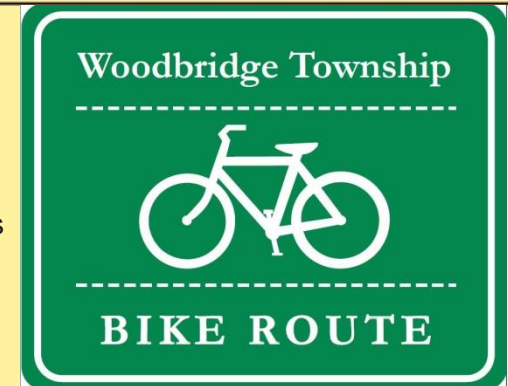
The goal is to design and implement a Bike Share program that focuses on a system that is accessible, affordable and contributes to the Township's Sustainable practices. In designing the Bike Share system mobility, transportation and equity are the primary focus while ensuring that the system also supports the Township's economic development and regional competitiveness goals.

Livability & Economic Competitiveness:

- Develop an innovative transportation system that improves Woodbridge Township livability and economic competitiveness.
- Improve public health by maximizing ridership and increasing the share of bicycling and walking in the community as part of a healthy lifestyle.
- Optimize the number of destinations that can be served by a bike share system with a focus connecting neighborhoods and destinations.
- Implement a system that can be regionally scaled throughout the Township and expand the geographic coverage of the operating service area to include various communities.

Improve Quality of Life through Bicycling:


- Create a system that relieves traffic congestion by enabling bicycling for work, shopping and recreation and serves as a complement to transit by serving as a first and last-mile option.
- Increase bicycling by providing easy access to bicycles for people who may be interested in riding, but do not have access to a bicycle.
- Provide residents and visitors with a safe transportation option that promotes active, healthy living and increases awareness and visibility of bicycling as a viable transportation mode.



Greenable Woodbridge Climate Change Practices

Commercial & Residential Buildings

- Adoption of a Green Building Policy
- Create a Green Building Scorecard
- Implement Green Design Standards through Site Plan review
- Transit-Oriented Redevelopment

	
30 Points Achieved Possible Points: 69 Certified 20 to 32 points Silver 33 to 38 points Gold 39 to 51 points Platinum 52 or more points	
5 Sustainable Sites Possible Points: 14	
<input checked="" type="checkbox"/> Y Prereq 1 Erosion & Sedimentation Control <input checked="" type="checkbox"/> 1 Credit 1.1 Site Selection 1 <input checked="" type="checkbox"/> Credit 1.2 Urban Redevelopment 1 <input checked="" type="checkbox"/> Credit 1.3 Brownfield Redevelopment 1 <input checked="" type="checkbox"/> 1 Credit 1.4 Alternative Transportation, Public Transportation Access 1 <input checked="" type="checkbox"/> 1 Credit 1.4.2 Alternative Transportation, Bicycle Storage & Changing Rooms 1 <input checked="" type="checkbox"/> Credit 1.4.3 Alternative Transportation, Alternative Fuel Refueling Stations 1 <input checked="" type="checkbox"/> 1 Credit 1.4.4 Alternative Transportation, Parking Capacity 1 <input checked="" type="checkbox"/> Credit 1.5.1 Reduced Site Disturbance, Protect or Restore Open Space 1 <input checked="" type="checkbox"/> Credit 1.5.2 Reduced Site Disturbance, Development Footprint 1 <input checked="" type="checkbox"/> Credit 1.6.1 Stormwater Management, Rate and Quantity 1 <input checked="" type="checkbox"/> Credit 1.6.2 Stormwater Management, Treatment 1 <input checked="" type="checkbox"/> 1 Credit 1.7.1 Landscape & Exterior Design to Reduce Heat Islands, Non-Roof 1 <input checked="" type="checkbox"/> Credit 1.7.2 Landscape & Exterior Design to Reduce Heat Islands, Roof 1 <input checked="" type="checkbox"/> Credit 1.8 Light Pollution Reduction 1	<input checked="" type="checkbox"/> Y Prereq 1 Storage & Collection of Recyclables <input checked="" type="checkbox"/> Credit 1.1.1 Building Reuse, Maintain 75% of Existing Shell 1 <input checked="" type="checkbox"/> Credit 1.1.2 Building Reuse, Maintain 100% of Existing Shell 1 <input checked="" type="checkbox"/> Credit 1.1.3 Building Reuse, Maintain 100% Shell & 90% Non-Shell 1 <input checked="" type="checkbox"/> 1 Credit 2.1 Construction Waste Management, Divert 50% 1 <input checked="" type="checkbox"/> 1 Credit 2.2 Construction Waste Management, Divert 75% 1 <input checked="" type="checkbox"/> Credit 3.1 Resource Reuse, Specify 5% 1 <input checked="" type="checkbox"/> Credit 3.2 Resource Reuse, Specify 10% 1 <input checked="" type="checkbox"/> 1 Credit 4.1 Recycled Content 1 <input checked="" type="checkbox"/> 1 Credit 4.2 Recycled Content 1 <input checked="" type="checkbox"/> Credit 5.1 Local/Regional Materials, 20% Manufactured Locally 1 <input checked="" type="checkbox"/> Credit 5.2 Local/Regional Materials, of 20% Above, 50% Harvested Locally 1 <input checked="" type="checkbox"/> 1 Credit 6 Rapidly Renewable Materials 1 <input checked="" type="checkbox"/> 1 Credit 7 Certified Wood 1
2 Water Efficiency Possible Points: 5	
<input checked="" type="checkbox"/> 1 Credit 11.1 Water Efficient Landscaping, Reduce by 50% 1 <input checked="" type="checkbox"/> Credit 11.2 Water Efficient Landscaping, No Potable Use or No Irrigation 1 <input checked="" type="checkbox"/> Credit 12 Innovative Wastewater Technologies 1 <input checked="" type="checkbox"/> 1 Credit 3.1 Water Use Reduction, 22% Reduction 1 <input checked="" type="checkbox"/> Credit 3.2 Water Use Reduction, 32% Reduction 1	<input checked="" type="checkbox"/> Y Prereq 1 Minimum IAQ Performance <input checked="" type="checkbox"/> Y Prereq 2 Environmental Tobacco Smoke (ETS) Control <input checked="" type="checkbox"/> 1 Credit 8.1 Carbon Dioxide (CO₂) Monitoring 1 <input checked="" type="checkbox"/> Credit 8.2 Increase Ventilation Effectiveness 1 <input checked="" type="checkbox"/> 1 Credit 9.1 Construction IAQ Management Plan, During Construction 1 <input checked="" type="checkbox"/> 1 Credit 9.2 Construction IAQ Management Plan, Before Occupancy 1 <input checked="" type="checkbox"/> 1 Credit 4.1 Low-Emitting Materials, Adhesives & Sealants 1 <input checked="" type="checkbox"/> 1 Credit 4.2 Low-Emitting Materials, Paint 1 <input checked="" type="checkbox"/> 1 Credit 4.3 Low-Emitting Materials, Carpet 1 <input checked="" type="checkbox"/> 1 Credit 4.4 Low-Emitting Materials, Composite Wood 1 <input checked="" type="checkbox"/> 1 Credit 5 Indoor Chemical & Pollutant Source Control 1 <input checked="" type="checkbox"/> 1 Credit 6.1 Controllability of Systems, Perimeter 1 <input checked="" type="checkbox"/> Credit 6.2 Controllability of Systems, Non-Perimeter 1 <input checked="" type="checkbox"/> Credit 7.1 Thermal Comfort, Corry with ASHRAE 55-1999 1 <input checked="" type="checkbox"/> Credit 7.2 Thermal Comfort, Permanent Monitoring System 1 <input checked="" type="checkbox"/> Credit 8.1 Daylight & Views, Daylight 75% of Spaces 1 <input checked="" type="checkbox"/> Credit 8.2 Daylight & Views, Views for 90% of Spaces 1
4 Energy & Atmosphere Possible Points: 17	
<input checked="" type="checkbox"/> Y Prereq 1 Fundamental Building Systems Commissioning <input checked="" type="checkbox"/> Y Prereq 2 Minimum Energy Performance <input checked="" type="checkbox"/> Y Prereq 3 CFC Reduction in HVAC&R Equipment <input checked="" type="checkbox"/> 2 Credit 1.1 Optimize Energy Performance, 25% New / 10% Existing 2 <input checked="" type="checkbox"/> Credit 1.2 Optimize Energy Performance, 35% New / 20% Existing 2 <input checked="" type="checkbox"/> Credit 1.3 Optimize Energy Performance, 45% New / 30% Existing 2 <input checked="" type="checkbox"/> Credit 1.4 Optimize Energy Performance, 55% New / 40% Existing 2 <input checked="" type="checkbox"/> Credit 1.5 Optimize Energy Performance, 65% New / 50% Existing 2 <input checked="" type="checkbox"/> Credit 2.1 Renewable Energy, 5% 1 <input checked="" type="checkbox"/> Credit 2.2 Renewable Energy, 10% 1 <input checked="" type="checkbox"/> Credit 2.3 Renewable Energy, 20% 1 <input checked="" type="checkbox"/> 1 Credit 3 Additional Commissioning 1 <input checked="" type="checkbox"/> Credit 4 Ozone Depletion 1 <input checked="" type="checkbox"/> 1 Credit 5 Measurement & Verification 1 <input checked="" type="checkbox"/> Credit 6 Green Power 1	<input checked="" type="checkbox"/> 2 Credit 1.1 Innovation in Design: Exemplary Performance (50%+) 1 <input checked="" type="checkbox"/> Credit 1.2 Innovation in Design: 1 <input checked="" type="checkbox"/> Credit 1.3 Innovation in Design: 1 <input checked="" type="checkbox"/> Credit 1.4 Innovation in Design: 1 <input checked="" type="checkbox"/> 1 Credit 2. LEED Accredited Professional 1
10 Indoor Environmental Quality Possible Points: 15	
2 Innovation & Design Process Possible Points: 5	

Thank You



**Greenable
Woodbridge**

***Become part of the excitement...
Become part of the CHANGE...***

www.twp.woodbridge.nj.us



And the first
Gold Star Standard
in Energy goes to...

Woodbridge Township





Coffee Break

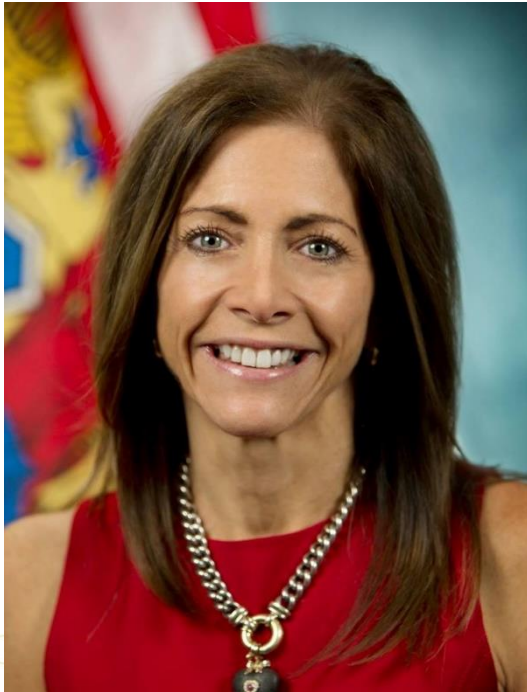


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Keynote Address:

First Lady
Tammy Snyder Murphy





Clean Energy at New Jersey's Forefront

Joseph L. Fiordaliso

President

NJ Board of Public Utilities





2018 NEW JERSEY SUSTAINABILITY SUMMIT

- ✓ Compost
- ✓ Recycle
- ✓ First Breakout Session begins at 1:15pm



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