





Welcome to Makin' Green by Goin' Green!

Presenter: Joe Grillo, Sustainable Jersey
Development Director

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Session Presenters



Moderator: **Helaine Barr**, AICP New Jersey Department of Environmental Protection Bureau of Energy & Sustainability

Denise Venuti Free, Director of Communications NJ American Water (Voorhees/Camden)

Barry Zhang, Vice President Princetel, Inc. (Hamilton)

Robert (Bob) Prout, Director Prout Funeral Home (Verona)

Christine Symington, Sustainable Princeton & **Kathy Klockenbrink**, Business Owner, Jammin' Crepes

Gray Russell, Sustainability Officer, Montclair Township & **Lisa Johnson**, Business Owner, Culture Couture



NJDEP & Sustainable Business



The NJ Department of Environmental Protection is ideally positioned to encourage and promote sustainable practices and behaviors in the business community.





NJDEP Business Programs



Educational & Networking

- Sustainability Speaker Series (S3)
- NJ Wastewise Business Network
- Small Business Assistance Program
- <u>Sustainability Case Studies, Guidance</u>
 <u>Documents & Infographics</u>

Awards & Recognition

- NJDEP Recycling Awards
- Governor's Environmental Excellence Awards
- NJ Sustainable Business Registry

September 17th at Princeton University Sustainable Restaurant Workshop







What is a "Green Business"?



Green Businesses

Adopt principles, policies, programs, products, and practices built around environmental and social considerations, which often lead to better financial performance



Goal of Sustainable Business

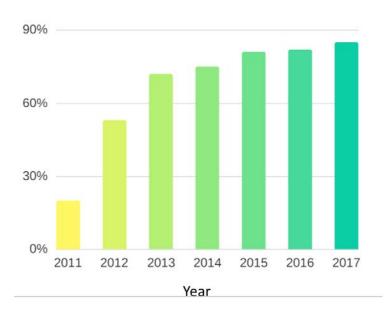
To create strategies that preserve the long-term viability of the People, Planet & Profit



Sustainability is for all types and sizes of Businesses

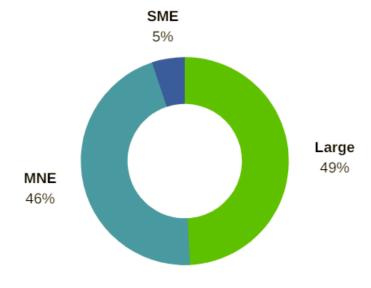


- 85% of S&P 500 Companies reported on Sustainability in 2017
- Sustainability Reporting is becoming the norm for large, multinational corporations
- Sectors with the highest reporting presence are Energy and Energy Utilities, Food and Drink and Financial Services
- 51% of Small Businesses are interested in Expanding Sustainability



Percent of S&P 500 Companies Reporting on Sustainability





Size of the U.S. companies that published a sustainability report for the 2015-2016 reporting period

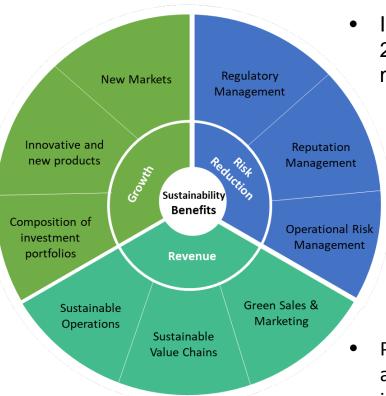
Source: Center for Sustainability and Excellence (2017)



Companies are finding value in sustainability



 Companies with high Environmental, Social and Governance Ratings outperform the market in the medium (3-5 years) and long (5-10 years) term!



In 2016 sustainable investments constituted 26% of assets that were professionally managed – worth \$22.89 trillion in total!

- 55% of US consumers are willing to pay more for products from socially responsible companies
- 72% of Millennials are willing to pay more for products and services from companies committed to positive environmental and social change
- Products that promote sustainability through marketing and packaging claims have an average annual sales increase of 5%, compared to conventional products

Sources:

[•]Sheila Bonini and Stephan Görner, "The business of sustainability: McKinsey Global Survey results," Oct 2011, mckinsey.com

[•]Bernow, Sara, Klempher, Bryce and Magnin, Clarisee, "From 'why' to 'why hot': Sustainabel investing as the new normal, Oct 2017, mckinsey.com

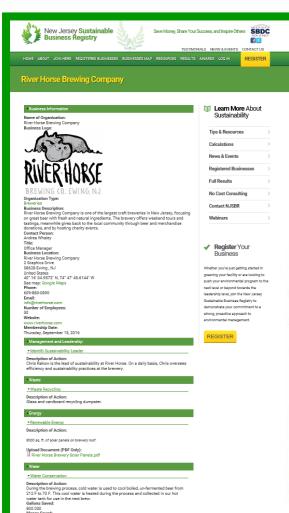
[.] Hozik, Michael, "Making the Green by Going Green: Increased Demand for Green Products and the FTC's Role in a Greener Future" Feb 2016 Georgetown Environemntal Law Review



NJ Sustainable Business Registry



Online Directory for Sustainable Businesses in NJ





Map of Businesses

Map Satellite

12 Fleri gton

Od

East Amwell
Township

Montgohery

South
Brunswick
Township

Firenton

Trenton

Trenton

Trenton

Berdentown
Trenton

Trenton

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





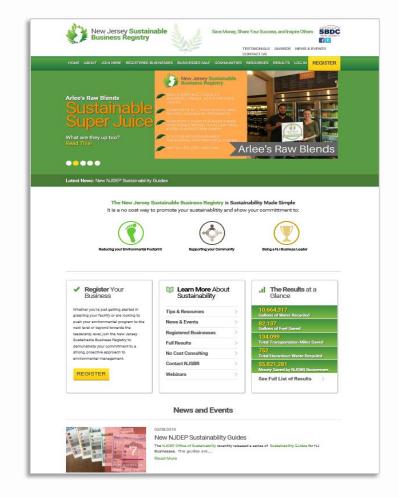
Goals of the NJ Sustainable Business Registry



Recognize and
Promote NJ
Sustainable
Businesses

Encourage all NJ businesses to adopt green practices

Increase Transparency for NJ Consumers





SJ Green Business Recognition Action



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

Requirements

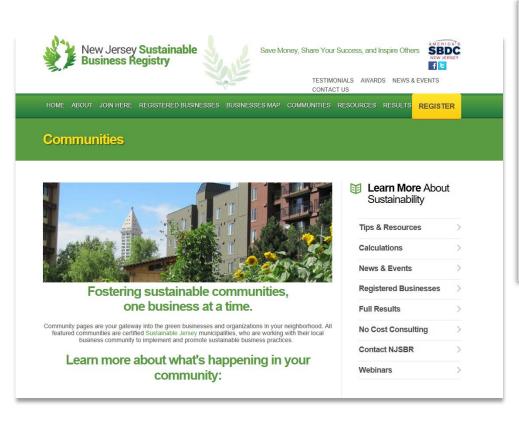
10 Points	Develop municipal criteria for participation and a marketing strategy to recognize local business participants. Program may be general, or sector specific. Promote program and have 2 businesses successfully participate.
20 Points	Adopt the New Jersey Sustainable Business Registry Program as the municipal criteria. Promote, assist and market to participating businesses – have 3 businesses successfully join the Registry.

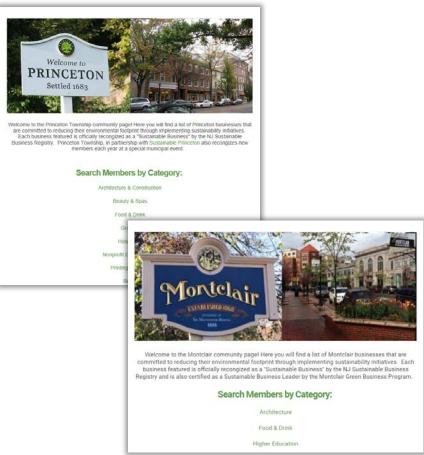


Community Pages



Developed in collaboration with Sustainable Jersey to enhance connection with local sustainability and economic advocates and serve as an incentive for business participation







Green Metrics







Thank You!





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Water is a Green Business



WE KEEP LIFE FLOWING™



New Jersey American Water



- Subsidiary of American Water Works Co. Inc.
- Roots date back to early 1800s, Incorporated in 1915
- Largest regulated water and wastewater service provider in NJ
- More than 800 employees



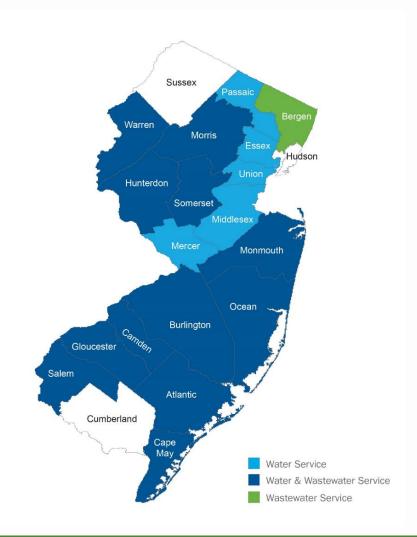


Our Service Area



WE SERVE

- Approx. 2.7 million people in 191 communities (1 out of every 3 people)
- 631,000 water customers:
 - o 93% residential
 - 7% commercial and industrial
- 46,000 wastewater customers





Our Water Systems



We serve 191 communities in the following counties:

- Atlantic
- Burlington
- Camden
- Cape May
- Essex
- Gloucester
- Hunterdon
 Union
- Mercer
- Middlesex

- Monmouth
- Morris
 - Ocean
 - Passaic
 - Salem
 - Somerset

 - Warren





Our Infrastructure



SOURCE OF SUPPLY

- 72% surface water
- 23% groundwater
- 5% purchased water

TREATMENT FACILITIES

- 7 surface water plants
 - 5 Directors Awards from the EPA's Partnership for Safe Water
 - Combined capacity: 350 MGD
- 20 wastewater plants (combined capacity: 7.2 MGD)



TRANSMISSION & STORAGE

- **247 wells** (combined capacity: 110 MGD)^{8,900} miles of water and sewer pipe
 - 158 water storage tanks
 - 121 water booster pumping stations
 - 60 sewer lift stations



Our Wastewater Systems





BERGEN COUNTY

 Oakland Twp. – Ramapo River Reserve

BURLINGTON COUNTY

- Mansfield Twp. (Mapleton) -Mansfield Farms; John Hydock Elementary School Northern Burlington School
- Homestead County Walk

CAMDEN COUNTY

Haddonfield Borough

CAPE MAY COUNTY

- Middle Twp. Avalon Country Club
- Ocean City

GLOUCESTER COUNTY

Elk Twp.

HUNTERDON COUNTY

- Bloomsbury Borough Fawn Run
- Clinton Twp. Brass Castle, Twin Oaks and Glen Meadows
- Tewksbury Twp. Crossroads at Oldwick
- Union Twp. Village Square and

Lookout Pointe

 Tewksbury Twp. (Pottersville) Brass Castle

MONMOUTH COUNTY

- Howell Twp. (Adelphia)
- Upper Freehold Twp. Four Seasons
 & Beacon Hill Clubhouse

MORRIS COUNTY

- Chester Twp. Four Seasons
- Jefferson Twp. Jefferson Peaks
- Mount Olive Twp. Country Oaks & Morris Chase

OCEAN COUNTY

- Lakewood
- Plumsted Twp. Jensen's Deep Run

SOMERSET COUNTY

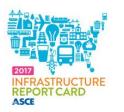
Hillsborough Twp. – Hillsborough Chase

WARREN COUNTY

Washington Twp. - Hawk Pointe



NJ's Infrastructure Report Card







Much of New Jersey's drinking water infrastructure has now aged significantly and has not received adequate capital spending for a long time. The ability of these systems to provide adequate services is threatened by age, lack of reinvestment, and a short-term focus.

New Jersey will need to overhaul a lot of its existing drinking water infrastructure in the next two to three decades.



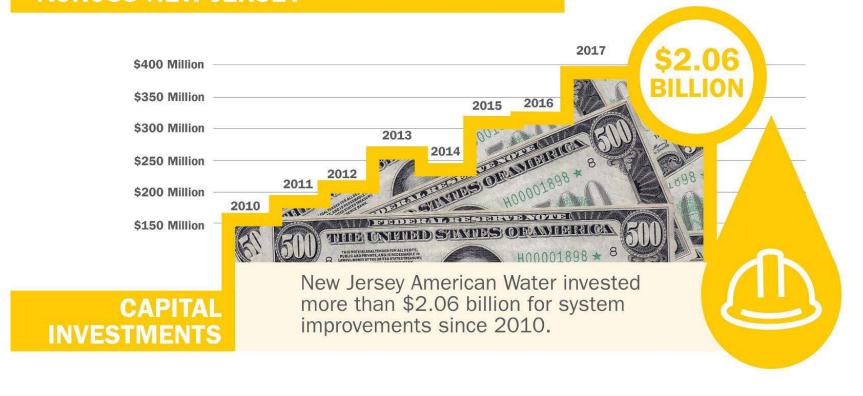
National studies and anecdotal evidence indicate that New Jersey wastewater infrastructure has not received adequate capital spending for many years. While some improvements have been made, progress on improving wastewater infrastructure has been offset by new and continued problems. Much of New Jersey's existing wastewater infrastructure will need to be overhauled in the next two to three decades, along with billions of dollars for control of combined sewer overflows.



We're Invested in New Jersey



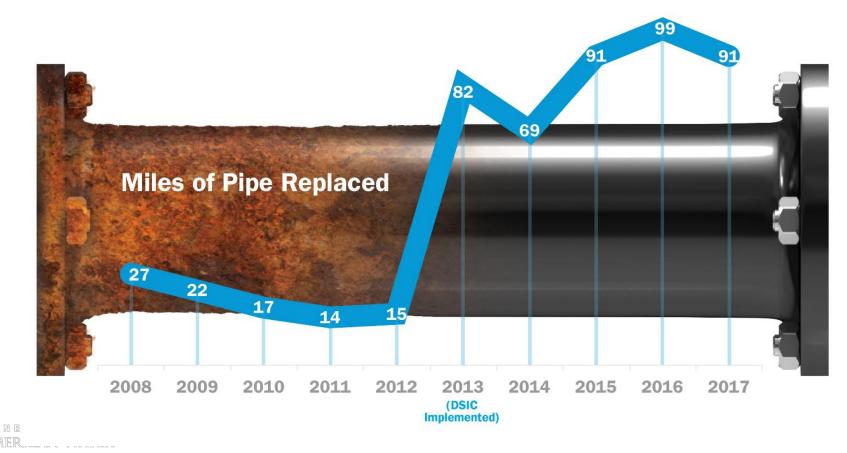
MAKING NEEDED CAPITAL INVESTMENTS ACROSS NEW JERSEY





Out with the Old





We've replaced 527 miles of main since 2008.



Environmental Stewardship



Key sustainability goals established by American Water:

- Reduce GHG emissions by 40% by 2025
- Reduce annual water use by 3.5 billion gallons through conservation efforts
- Prioritize R&D efforts in water quality and technology

Renewable Energy

- Solar installations at four surface water treatment facilities and two groundwater treatment facilities
- Over 3 million kWh of solar energy annually in the past four years, reducing CO2 emissions by more than 5,000 metric tons total.

Minimizing Water Loss

- Detecting and fixing leaks before they become large breaks
- 17 percent lost water average, compared to state averages of 25-30 percent.

Maximizing Efficiency

 Pump replacement and pressure management to increase efficiency















Camden Initiatives



- Over \$4 million in contributions to Camden initiatives in last 6 years:
 - NRTC Grants (Von Neida Park storm drainage, Cramer Hill Now 2018)
 - AWCF Building Better Communities Grant of \$125,000 to Von Neida Park for water splash park
- In-kind donations of computers, monitors, lab equipment, furniture
- Free water service installations to Hispanic Family Center Community Garden and St. Anthony of Padua Community Garden
- GIS and Asset ID projects with Hopeworks and PowerCorps investing in both infrastructure and people









Community Outreach and Education



- Speaking engagements
- Community fairs and festivals
 - Puddles Water Van
 - Tabling
- Plant Tours
 - Delran Treatment Plant
 - Canal Road Treatment Plant
- Partnerships
 - Hopeworks N Camden
 - Future City Competition
 - Scholastic
 - Clean-ups, Volunteer engagement











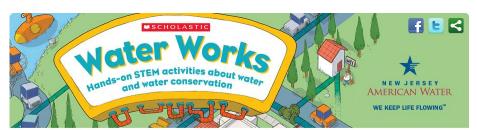
A Partnership with Purpose



Since 2011, New Jersey American Water has had a great partnership with Scholastic creating a math and science program educating students on the value of water.

- Updated the go-to portal for teachers that house all program information including:
 - Lesson plans and activities
 - Poster teaching guide
 - Video clips
 - Interactive and educational games
- Over 8,000 teachers kits were mailed throughout New Jersey American Water's service territory.

Visit <u>www.scholastic.com/njaw</u> to Learn More





CLASSROOM EXPERIMENTS











Water Conservation IO

DOWNLOAD THE POSTER



Free Educational Resources



- New Jersey American Water & Scholastic Partnership: www.scholastic.com/njaw
- Water Information Center located on New Jersey American Water website
- Water Basics Book available online (http://bit.ly/waterbasicsbook) and in print. For printed copy request, please email puddles@amwater.com.
- Wise Water Use Tips: https://amwater.com/njaw/water-information/wise-water-use
- Detecting Leaks (English & Spanish): https://amwater.com/njaw/water-information/detecting-leaks
- Watershed Protection Tips: https://amwater.com/njaw/water-information/watershed-protection
- Water Treatment (How a treatment plant works) https://amwater.com/njaw/water-quality/water-treatment
- Lead & Drinking Water: https://amwater.com/njaw/water-quality/lead-and-drinking-water



Thank You



Denise Venuti Free

Director of Communications & External Affairs New Jersey American Water (856) 782-2316 Denise.Free@amwater.com



WE KEEP LIFE FLOWING™



Princetel, Inc.







- Located in Hamilton, Mercer County
- New Jersey's first and only industrial building with LEED Platinum rating (2014.10.21).
- Manufacterer of fiber optic rotary joints that has grown to cover more than a dozen models and three dozen channels in one device.
- Sustainability is an ethical imperative in Princetel's corporate culture...



Princetel's Sustainability Achievements



- LEED certificate: Platinum (10/20/2014);
- <u>Location</u>: Good connections to the surrounding community & public transportation;
- <u>Site selection</u>: Building re-developed on a brownfield;
- <u>Sustainable practices</u>: Bike racks, dedicated efficient car and carpool lots;
 Incentives: Cash rewards for walking, biking, carpooling, and using public transit;
- Water: 10,000 gallon rain water harvesting system (reduced potable water usage by 66%); Irrigation: Rain water. No permanent irrigation systems;
- Energy: Solar electricity production reducing energy cost by 54%;
- <u>Construction</u>: R40 roof insulation and white membrane; 100% of paints, coatings, adhesives, and sealants with minimal amount of VOCs; 98% of work areas with access to outside views and natural lights; Existing structural elements: 98% reused in the building; Construction waste: 97% recycled; Construction materials: 30% recycled materials & 18% made locally (<500 miles)



Thank You!





Barry Zhang, CEO – barryzhang@princetel.com



Prout Funeral Home





Robert Prout, Director



June 2004





con-

neighbors, police said. When Jason Monsell returned, his father was dead and his mother was covered in blood, police said. Patricia Monsell showered, chansed clothes and left the house

changed clothes and left the house to dispose of the evidence, police said. Phone records show she and her son spoke 46 times by cell phone during a 28-hour span following the shooting, police said. Patricia Monsell then arranged

Patricia Monseil then arranged to meet up with Jason Monseil and her daughter, Jennifer Monseil, 26, at a local theater to watch "Taking Lives," a movie about a serial killer. When Patricia and Jennifer Monseil returned to the Bridgewater home, they called 911, police said.

Jennifer Monsell has not been implicated in her father's death. In addition to murder and weapons offenses, the indictment yesterday against Jason Monsell included charges of hindering apprehension, obstruction of justice and faise





Solar panels have resulted in a 40 percent electricity cost savings for homeowner and state BPU Commissioner Connie Hughes.

Power to the people and then back again

Solar panels generate plenty of electricity

BY JOE TYRRELL

In state government, you can never have too much power, so utility Commissioner Connie Hughes is generating some at home.

Taking advantage of improved technology and the state's own rebate program, Hughes of the state Board of Public Utilities and her husband Jm had solar panels installed across the roof of their East Amwell home five weeks ago.

Bringing the power of the sun Bringing the power of the sun the sun of the sun of the sun of the have already cut the utility bill for their largely electric house by 40 percent from last year. In a larger sense, they are highlighting the state incentives intended to "transform" the energy marketplace.

"When we built this house in 1988, we had it designed as a passive solar home," with two stories of south-facing windows to let in the rays, Hughes said. "We would have liked to install solar panels, but it wasn't cost-effective then."

But that has changed so much that Hughes can point to a set of utility meters on her outside wall that can spin backward as well as forward. Along with another array in her basement, they show that at times, the house generates more electricity than it uses. Such surpluses go to the power grid, bringing relimbursement from Jersey Central Power & Light.

That's just one of the provisions

That's just one of the provisions

shine fell on them, you got 60, 70 watts of electricity," he said. "Now, they're 14 percent efficient, some, 16 percent."

The difference, he said, is the in-

FRIDAY, JUNE 18, 2004

The difference, he said, is the involvement of major Japanese manufacturers, such as Sharp Electronics, which produces the panels used at the Hughes home.

New Jersey's initiative may accomplish the same thing on the consumer side, said Colin Murchie, director of government affairs for the Solar Energy Industry Association in Washington, D.C.

Solar power worldwide has gone from less than 100 megawatts in 1996 to 750 last year, he said. But there have been only a few spots on the globe where it is a significant alternative to fossil fuels, he said.

"Worldwide, the leaders in residential solar energy have been Germany, Japan and California," he said, but in the space of three years, "It's now Germany, Japan, California and New Jersey."

Simply by changing government policy, the state "is creating a solar mouster or "The 171 customers who have taken advantage of the rebate program since 2001 represent the majority of New Jerseyans with solar power, he said.

majority of New Jerseyalis with solar power, he said.

Across the country, there are "tens of thousands" of small residential solar systems, said Brad Collins, a spokesman for the American Solar Energy Association of



June 2005







June 2005







June 2005







June 2005







SUSTAIN ABILITY







2009







Natural Burial







Natural Burial







Thank you...and let folks know!

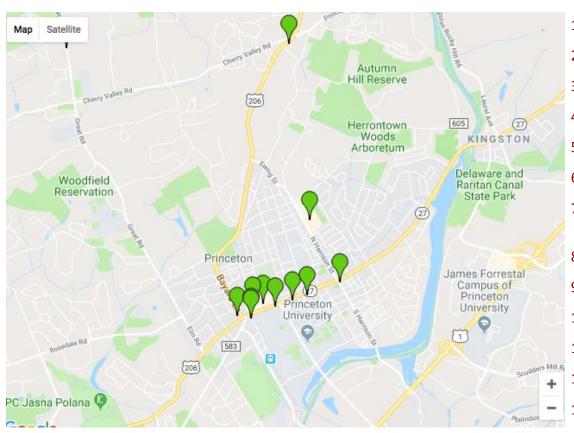




Robert Prout – <u>RJProut@Verizon.net</u> – (973) 239 – 2060 Prout Funeral Home, 370 Bloomfield Ave, Verona, NJ 07044 www.proutfuneralhome.com







- 1. Arlee's Raw Blends
- 2. Copper River Salon & Spa
- 3. greendesign
- 4. Homestead Princeton
- 5. Jammin' Crêpes
- 6. JZA&D Architecture and Design
- 7. Lasley Brahaney Architecture and Construction
- 8. McCaffrey's Food Markets
- 9. The Peacock Inn
- 10. Princeton Printer
- 11. Princeton Public Library
- 12. Sustainable Princeton
- 13. Whole Earth Center







Princeton

Marketing Efforts

- Recognize businesses on our social media channels
- Organize an annual recognition for businesses on the registry event at Council meeting





Congrats to Jammin' Crepes for making the NJDEP Air Quality, Energy and Sustainability's New Jersey Sustainable Business Registry!

Jammin' Crêpes uses all ENERGY STAR appliances and collects all of their food and organic waste for composting!









Benefits

- Establishes a relationship with the businesses and lays the groundwork for more meaningful engagement
- Gives SP the opportunity to learn the unique challenges for businesses from adopting more sustainable practices







Challenges

- Business owners are busy!
- Getting the businesses to use as a marketing tool
- May require several interactions to get 1 business to follow through





What can Sustainability look like for a Small Business



- Incremental Goals & Successes
 - o Research: It may be easier than you think!
 - Short Term vs Long Term Vision
 - Your Business's definition of success
- Center around a defined Mission Statement, large or small









Final Thoughts from Princeton



- Belief that a drop in a Bucket can make a ripple
- Cost Analysis
- Coordinating with existing resources
- Power of Networking: there are more businesses that would like to take this challenge
- Social Media is your friend!
- Customer Recognition
- Do we really have a choice?



Thank You!



- Christine Symington
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- Kathy Klockenbrink
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Township of Montclair







Montclair Green Business Recognition Program



General "green" practices are recognized by taking simple actions across several sustainability categories. Participants must fulfill (or pledge to fulfill) a number of steps selected from the **Green Business Actions List**:

- Waste Management
- Water Conservation
- Green Building and Landscaping
- Transportation
- Pollution Reduction
- Social Responsibility
- Commitment to Local Economy
- Goals and Reporting for: Green Business Leaders (NJ Sustainable Business Registry)





The Montclair Office of Environmental Affairs and The PSEG Institute for Sustainability Studies

HEREBY CERTIFY

Nauna's Bella Casa

as a

Montclair Green Business

2017

GRAY RUSSELL
MONTCLAIR SUSTAINABILITY OFFICER





Culture Couture, Montclair, NJ





Fair Trade * Organic * Ethical Up-cycled * Natural Materials Made in USA * Cottage Industry





Thank you!



- Gray Russell, Sustainability Officer Township of Montclair grussell@montclairnjusa.org
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Grants Program Underwriters





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Current Annual Sustainable Jersey for Schools Sponsors

Sustainable Jersey for Schools Underwriters









Small Grants Underwriters







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GOLD



SILVER











Q&A

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