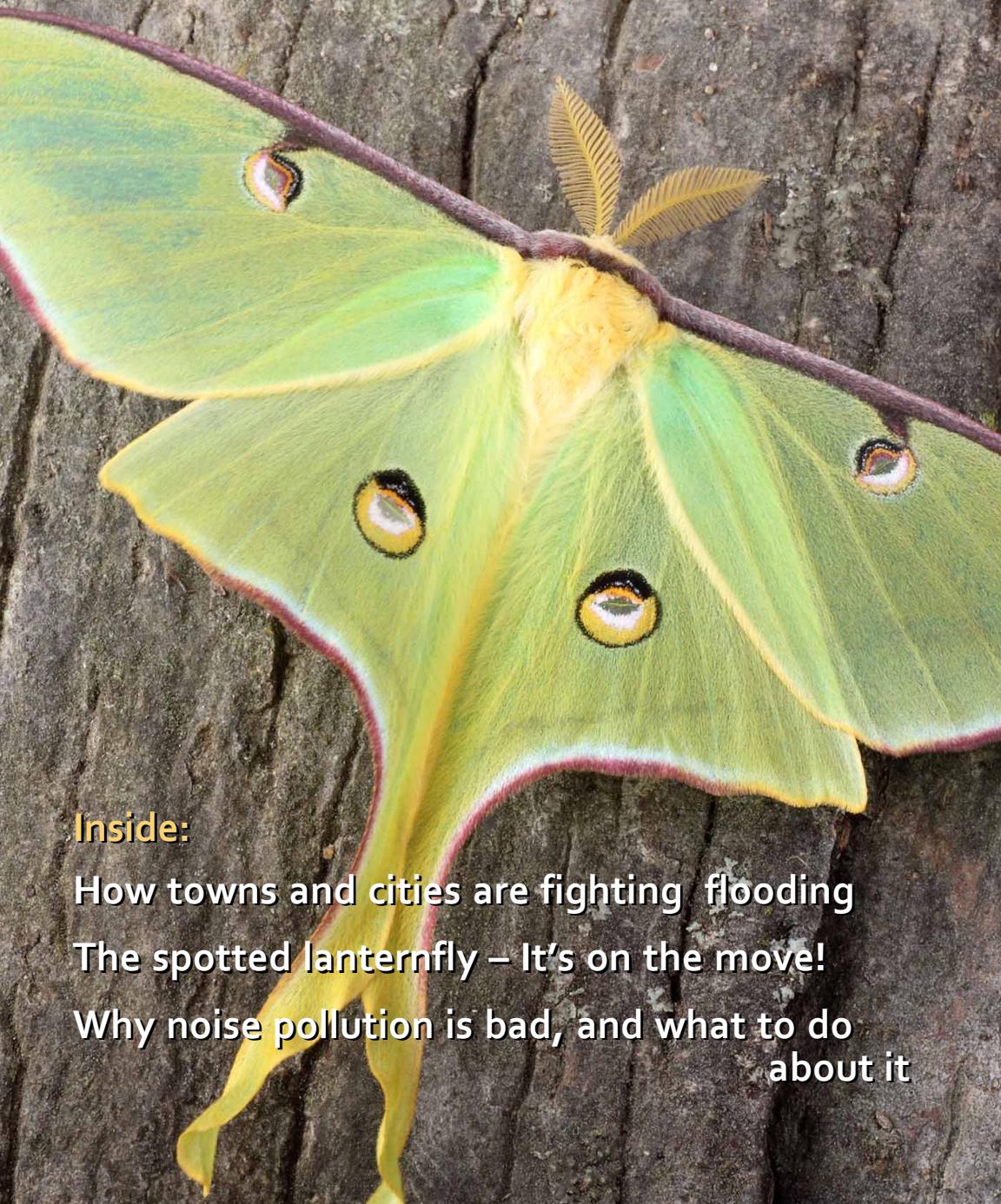




ANJEC REPORT

Local Environment Matters

AUTUMN 2018



Inside:

How towns and cities are fighting flooding

The spotted lanternfly – It's on the move!

Why noise pollution is bad, and what to do
about it



Director's Report

Help us help you

One of the busiest seasons for environmental commissions (ECs) is upon us. Harvest festivals and community fairs highlighting autumn's bounty give community's a chance to celebrate the season. ANJEC is here to help environmental commissions showcase their goals and efforts to residents and businesses in the community.

Teach others about environmental priorities

ANJEC has display boards and interactive community games for ECs to use when they table at community events. Our games are fun, educational, and engage people in a hands-on manner. Some of the games available for your EC to borrow are: the *Wheel of Knowledge* in two versions – “Cut Your Carbon Footprint” and “Cut Your Water Footprint;” the EQ Energy Challenge board game; the Habitat Protection card game; and a Plinko-based Plastic Pollution Reduction game. We also offer displays on green infrastructure; the Passaic River and stormwater.

ANJEC also has seven topical films available on loan to ECs, schools and green teams through our environmental film library, and we're always looking to add newly released films. (See page 14.) Get more details or request a film by emailing us at info@anjec.org or call 973-539-7547.

Amplify the impact of your park, stream, and coastal cleanups

ECs do a great job of organizing fall cleanup events and engaging community members. ANJEC can help magnify your hard work. Contact us as far in advance as possible of your cleanup event. We can help engage county and State officials and invite them and their staffs to your event. Having government officials at your event helps shine a spotlight on your great work, and can help garner press attention.

ANJEC can also help you write a press release about your event so those who weren't able to attend will read about it and be sure to mark their calendars next time. Also, ANJEC can provide you with information about plastics pollution, stormwater management and more to pass along to State and local officials urging them to take action to reduce litter and improve recycling. After all, the ultimate goal of cleanups should be to make the events obsolete.

Protect your local environment with policy improvements

ANJEC can help your EC research and analyze issues, draft ordinances, and build support among your local officials and community members. Dozens of municipalities have taken action in recent years, with support from their ECs, to reduce plastic pollution with bag and balloon release bans, improved stormwater management, and reduced hazards from flood impacts. Ordinances can take time and they need the support and engagement of local

officials and community leaders, so contact us when you are in the idea stage. ANJEC has model and samples ordinances from municipalities who have already taken similar actions. Using what already exists can save your municipality time and money in legal review.

The best way to contact ANJEC for assistance is by calling us at (973) 539-7547 or by sending an email to info@anjec.org. Stay connected with the stories we share about municipalities taking action to protect and restore NJ's environment by following us on Facebook and Twitter (@ANJECtweets). And if you aren't already receiving our news alerts and the biweekly ANJEC News, sign up at www.ANJECNews.com or send us an email at info@anjec.org.



Jennifer M. Coffey
Executive Director



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565 MUNICIPALITIES ONE ENVIRONMENT

Executive Director Jennifer M. Coffey
Editor Julie Lange Groth

The Association of New Jersey Environmental Commissions is a private, non-profit educational organization serving environmental commission and open space committee members, concerned individuals, non-profits, and local officials. ANJEC's programs aim to promote the public interest in natural resource preservation, sustainable development and reclamation and support environmental commissions and open space committees working with citizens and other non-profit organizations.

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On the cover: *Luna Moth*

Solutions for rising seas

By Elizabeth Ritter, ANJEC Deputy Director

In recent years, flooding has grown to be part of the landscape in New Jersey and around the world. In particular, those living in hard-hit, low lying areas are struggling to find solutions to prevent loss of life and property. Some cities have been developing innovative ideas for controlling floods and even welcoming in the rising water.

Rotterdam in the Netherlands has emerged as an example of forward thinking. With 90 percent of its land below sea level, the city needed to pioneer new ways to address the effects of climate change. Rotterdam has devised parks, lakes and plazas that double as reservoirs to receive water when seas and rivers overflow. By providing neighborhood enhancements that welcome the water in, the Dutch city has turned potential disaster into public amenities. This approach has been so successful that Rotterdam consultants are in demand for high-tech engineering and water management jobs in places like Ho Chi Min city, New Orleans and other cities around the globe.

Similarly, New Orleans has developed a water-welcoming approach as part of the Rockefeller Foundation's 100 Resilient Cities program. The pilot project in the Gentilly District diverts water into the landscape. There is a planned "water garden" on the site of a destroyed convent that will be able to store up to 10 million gallons of water. Permeable sidewalks, plantings along major roads and green infrastructure features on playgrounds and campuses will help to reduce flooding while adding green spaces and other amenities to neighborhoods. New Orleans will use lessons in this district as an example for other districts in the city as well as other areas in the country.

Closer to home

Many New Jersey communities near waterways are getting used to more frequent flooding and are seeking new solutions that don't involve huge walls. Little Silver in Monmouth County experienced significant flooding and property loss during Sandy in 2012. As a result of participating in the New Jersey Coastal Community Resil-



New Orleans is one of the Rockefeller Foundation's 100 Resilient Cities



**Hoboken's Southwest Park,
NJ's first "resiliency park"
under construction**

Maurice River Township in Cumberland County regularly faces flooding due to tidal surges and sea level rise. The township has converted once-condemned property into a municipal park, restoring the land to natural habitat. By removing storm-ravaged

ience Demonstration Project, the municipality developed a Coastal Community Vulnerability Assessment Tool (VAT). Based on the VAT and responses to a Getting to Resiliency Questionnaire, the Borough updated its coastal wetlands ordinance. The law prevents development of coastal wetlands that protect areas from storm surge flooding. The Borough also passed an open space tax and an open space plan that makes floodplain management a priority in identifying properties to preserve.

Hoboken's new Rebuild by Design project was put to the test during August's severe rainstorms, and the system is working as planned. Southwest Park's two wet-weather pumps moved rain water into under-ground tanks where it was stored and then released into the Hudson River. Future tanks planned for two more public parks will hold an additional 1.47 million gallons of rain water.

- The overall plan supports four main goals:
- **Resist** – A combination of hard infrastructure (bulkheads, floodwalls, seawalls) and soft landscape features (berms or levees incorporated into city parks) provide barriers to sea intrusion.
 - **Delay** – Green infrastructure helps to slow and infiltrate stormwater runoff.
 - **Store** – Green and grey water infrastructure projects like bioretention basins, swales and green roofs complement the current and pending storage tank and pump systems.
 - **Discharge** – The city is identifying and upgrading the existing stormwater management system.

docks and sea walls and adding kayak and canoe access, the township added community parkland while stemming the tide.

Many New Jersey municipalities today are faced with flooding and sea level rise and are looking for innovative ways to combat climate change impacts. Protecting and preserving coastal lands that help slow rising water while introducing new green infrastructure elements are affordable methods for municipalities to control flooding. They also enrich neighborhoods with parks and other water features that add beauty and enhance quality of life.

For more information, contact the ANJEC Resource Center at info@ANJEC.org or 973-539-7547. 



**Maurice River Twp. Mayor Andy Sarchette
in 2013 walking the flood-ravaged
Thompson's beach as it was being restored
to natural habitat**

Smart Planning



Single-use plastics legislative roundup

By N. Dini Checko, ANJEC Resource Center

In 2018, we have seen increased public awareness, education, advocacy and scientific understanding about the dangers of single-use plastics around the nation. New Jersey has had an uptick in local and state-level legislative activity on single-use plastic bags, polystyrene food containers (Styrofoam™), plastic straws and balloons. Local activity is a driver for statewide change.

Statewide plastic bag bill

Thank you to all those who have contacted your town council members, legislators and Governor Murphy to amend and sign a proposed statewide plastic bag bill. Unfortunately, rather than fix the bill, Governor Murphy vetoed it, saying it did not go far enough to protect the State's citizens and environment.

But, here's the good news!

- Our legislators have proven they're open to passing strong legislation to deal with our plastic pollution crisis.
- Over a dozen NJ municipalities, including Hoboken and Jersey City, have already taken action by passing local ordinances banning single-use carryout bags and promoting reusable bags.



A baby osprey is caught in plastic waste.

Photo by Ben Wurst

- Retailers big and small are listening and some are even offering rewards to customers bringing their own bags.
- Numerous environmental commissions and green teams are actively engaged in community education and outreach. Using programs such as South Orange's S.O. Not Plastic campaign and Glen Rock's Trex Plastic Film recycling challenge towns are educating and offering alternatives that benefit the whole community.

Stop Styrofoam

Polystyrene and expanded polystyrene foam, better known as Styrofoam, pose a consumer and environmental health and safety hazard. There are currently two bills at the State level to ban this product. Senate bill S.1486 prohibits the use of Styrofoam in public schools and public institutions of

higher education. The other bill, S.2603, prohibits the use of Styrofoam in food service products and food packaging.

Many school districts are not waiting for the State to mandate replacing Styrofoam lunch trays. For example, the Let's Make Leonia Styrofoam-Free! campaign successfully ended the use of Styrofoam lunch trays in schools. In addition, the Leonia Action Alliance has built a great toolkit and local ordinance to make the township Styrofoam-free. <http://leoniaactionalliance.org/styrofoam-overview.php>

So long, straws!

When large corporations such as Starbucks and Marriott Hotels run public campaigns announcing plastic straw elimination, it causes a stir! The Borough of Atlantic Highlands held a townwide event called The Final Straw, drawing awareness to the harm discarded straws cause in the environment. And Monmouth Beach decided to ban straws along with single-use plastic bags and Styrofoam in one comprehensive ordinance.

At the State level, Assembly bill A.4394, would specifically prohibit use of plastic straws or stirrers. Recently, Senate bill, S.2776, was introduced to comprehensively eliminate plastic straws, single-use bags and Styrofoam.

Ban balloons

Balloons released into the environment become litter that affects marine and wildlife. A couple dozen Jersey Shore towns from Atlantic City to Ventnor have recognized the potential damage by passing local ordinances. Some municipalities, such as Stone Harbor, have ordinances that ban both mass balloon releases and aerial luminaries. In addition to becoming an environmental hazard, aerial luminaries are a fire hazard. <https://ecode360.com/32816035>

At the State level, Senate bill S.2468 prohibits the intentional mass release of balloons into the environment.

Together, we are making a difference. Please continue to impress upon our legislators the importance of this issue by passing local ordinances and/or supporting resolutions to protect residents. 

More info

ANJEC has model ordinances and resolutions available on our website and we're always here to help. Just email info@anjec.org or call 973-539-7547. And please keep ANJEC in the loop about your local plastic pollution prevention activities!

Stormwater utilities tackle pollution and flooding

By Sheila Baker Gujral, ANJEC Resource Center

"Rain rain, go away. Come again another day." As welcome as rain can be, particularly during dry spells, it creates problems when we get too much. As I write this article, we've just endured a weekend of heavy rains which caused massive flooding in some areas of the State, requiring evacuations and water rescues. It doesn't take a Hurricane Irene or Superstorm Sandy to cause major problems – an intense afternoon thundershower can do the trick.



New Jersey's aging water infrastructure

New Jersey's stormwater problem is growing and the infrastructure that was built to move polluted runoff away from our homes and businesses is inadequate and deteriorating. Municipalities are required to manage stormwater under "the New Jersey Administrative Code (NJAC) 7:8 (Stormwater Management Rules) as well as the various Municipal Stormwater General Permits issued under NJAC 7:14A.

Nearly every municipality in New Jersey has a stormwater system. In municipalities with combined sewer systems, the problem is aggravated by co-mingling raw untreated sewage and stormwater runoff and, during rain events, the mixture is released into our waterways. It's a messy situation and one that is often ignored. Stormwater runoff needs to be managed to avoid flooding, pollution, and erosion. Deferred maintenance of these systems only means the problem gets bigger. Putting off maintenance may provide a temporary budget fix, but always costs more down the road.

In 40 states and counting

A successful solution that's being used in 40 states and over 1,600 communities throughout the country is the creation of a stormwater utility. A stormwater utility is a separate funding mechanism set up to provide for the care and maintenance of the stormwater system. It's a fee-based approach based on how much a property is contributing to stormwater runoff. It is not assessed across the board, as a tax would be, but is based on the amount of impervious or hard surface on that lot, which does not absorb rainwater but sends it straight into the stormwater system. Under this approach, the more you are contributing to the problem, the more you pay. Some systems grant discounts on the fees in consideration of various stormwater reduction measures undertaken on the property, such as cisterns, green roofs, bioswales, rain gardens, pervious asphalt, permeable pavers and other green infrastructure methods.

On June 21, the New Jersey Senate passed a bill (S-1073) that would provide local municipalities the option to establish stormwater utilities. The companion bill (A-2694) was introduced in the Assembly earlier this year and has been referred to the Transportation and Utilities Committee. The passage of these bills would enable municipalities to better manage their stormwater and protect their communities from the polluting, flooding, and erosive effects that result from rain events. 

More info

- Jersey Water Works – www.jerseywaterworks.org/how-do-we-pay-for-new-jerseys-aging-stormwater-infrastructure/
- Stormwater management funding – www.jerseywaterworks.org/resource/communications-resources-funding-stormwater-management/
- The Watershed Institute – <https://thewatershed.org/stormwater-utilities-would-benefit-new-jersey/>
- Op-Ed – www.njspotlight.com/stories/18/03/19/op-ed-stormwater-utilities-an-idea-whose-time-has-come/

Proposal for Musconetcong River gas-fired power plant raises concerns

By David Peifer, ANJEC Project Director

A proposal by Phoenix Energy Center LLC to construct a 660MW combined cycle natural gas generating plant in Holland Township has raised concerns among local residents and members of New Jersey's environmental community.

The location is on the banks the Musconetcong River, an important Delaware River tributary. Designated a Category 1 stream, it has been the focus of decades of preservation and restoration activities by State, county and nonprofit organizations.

These efforts have included, among others, public education, private conservation efforts, land preservation, environmental planning, water quality monitoring and dam removals. Recent dam removals have resulted in the first successful Shad spawning in the river in over 100 years.

The proposed property is a very large, vacant paper mill with a large amount of impervious cover. It is possible that the project could result in less impervious cover than presently exists on the site.

The location is in the Highlands Preservation Area, as designated by the *Highlands Water Protection and Planning Act*, and the *Highlands Regional Master Plan*. It is located in a sub-watershed that has been determined by the Highlands Council to be in an existing water deficit of 983,000 gallons per day.

Impact on water

According to the applicant's submissions to the Highlands Council, the project will require 5.5 million gallons of water per day, primarily for evaporative cooling, but will return only 1.5 million gallons per day to the river. Water sources may include the river or a number of wells. Such uses are termed "consumptive uses" by the New Jersey Department of Environmental Protection (NJDEP) and the Delaware River Basin Commission (DRBC).

The proposed combined cycle natural gas generating plants are fast becoming the preferred technology for providing new generating capacity nationwide. However, most combined cycle plants like the one proposed evaporate large quantities of water from the watershed, unlike the "once-through" cooling systems used in older plants, where nearly all the cooling water is returned to the river.

The project sought and was granted an exemption by NJDEP from the *Highlands Act*, the *Highlands Regional Master Plan (RMP)* and local conformance ordinances. The exemption will render these protections ineffective so that only the NJDEP permitting process, DRBC regulations and the previously existing local zoning will govern the site.

The exemption granted is: "Exemption #4: 4. Reconstruction of buildings or structures within 125 percent of the footprint: The reconstruction of any building or structure for any reason within 125 percent of the footprint of the lawfully existing impervious surfaces on the site, provided that the reconstruction does not increase the lawfully existing impervious surface by one-quarter acre or more. This exemption shall not apply to the reconstruction of any agricultural or horticultural building or structure for a non-agricultural or non-horticultural use."

Lessons learned from assessing industrial sites

Assessing complex, former industrial sites is a lot more complicated than the typical housing project. Planning boards and environmental commissions can have a lot of say in project development at the local level, even on projects with NJDEP permitting. But even with an Environmental Impact Statement ordinance, it can be hard for municipal officials to know the right questions to ask of such applicants.

The Musconetcong Watershed Association (MWA), an ANJEC partner, recently met with members of the Holland Township Environmental Commission and Planning Board to review the Phoenix project proposal and to discuss some lessons learned from a previous, large-scale solar farm project. As an environmental organization, the Musconetcong Watershed Association is often called in to help. According to MWA Executive Director Alan Hunt, "...we rely on our municipal official partners to keep us informed on proposed projects, and also take action to protect the river."

Hunt shares his insights about lessons learned in an article at www.anjecnews.com/assessing-proposals-for-complex-sites.html

Acting Locally



By Michele Gaynor, ANJEC Resource Center, and Julie Lange Groth, ANJEC Report Editor

East Brunswick goes plastic free – one bag at a time

Friends of East Brunswick Environmental Commission wanted to spread the word that residents can be part of the solution to the plastic pollution problem. Residents of the town use about twenty million plastic bags every year. The goal of the Plastic Free EB – One Bag at a Time poster contest was to spread the word about the harm plastic bag pollution is doing to wildlife and the environment. Residents were invited to commit to saying no to plastic bags by signing the plastic pledge.

Throughout July the town's library held an art show featuring the work of East Brunswick public school students who participated in a poster contest themed on Plastic Free EB – One Bag at a Time. Posters by about 70 kids made the contest a huge success.



An entry in the Plastic Free EB - One Bag at a Time poster contest

East Brunswick plans to continue their bag use reduction campaign, and the online plastic reduction pledge will be promoted at township events.

With more New Jersey towns taking the initiative to reduce plastic pollution, a little education and outreach can make a big difference, even if it is just one bag at a time.

~ Michele Gaynor

Berkeley Heights – Recycling plastic into a park bench

Berkeley Heights is giving residents the opportunity to create something useful from their plastic garbage rather than tossing it into the trash. Through the Plastic Film Recycling Challenge offered by the Trex decking company, towns and schools are able to reduce their plastic

pollution by having it turned into a new bench. The company uses 95 percent recycled plastic and wood to create its products.

With a goal of collecting 500 pounds of plastic film and bags within a six-month period, Berkeley Heights set out to earn



their own Trex-made bench. Since June, members of Berkeley Heights Environmental Commission (BHEC) have been gathering plastic film and bags used to package frozen food, dry cleaning, cereal and snacks (to name a few) which residents placed in the Trex-supplied bins that were placed around town. One BHEC member and one volunteer from the community were assigned to do the collections from the bins each day. They would weigh and then shuttle the bags to the local Acme supermarket, Trex's collection partner, for recycling.

Berkeley Heights surpassed their goal by collecting over 600 pounds of plastic bags in under two months. Local businesses have partnered with BHEC in the recycling and collection effort. Stop and Shop and other stores contributed the thin film plastic from their incoming shipments of goods.

Through this program, Berkeley Heights residents saved approximately 45,540 thin film plastic bags from going into a landfill. See the complete list of collectable plastic bags and find out how to involve your town at www.trex.com/recycling/recycling-programs/.

The town of Glen Rock has also participated in the TREX collection program and has already collected more than 500 pounds of plastic bags and received their new Trex bench this year. Residents turned in the required amount of plastic in just six weeks. What a fantastic way for towns to reduce the amount of plastic pollution and help keep plastic out of our oceans and landfills!

~ Michele Gaynor

A different angle on green design

On June 14, the Reeves-Reed Arboretum in Summit hosted Style & Sustainability, a sustainable fashion show in the Arboretum's garden. The program featured guest designers from major labels as well as emerging designers, all presenting wearable fashion using sustainably-sourced virgin materials, recycled materials, or upcycled materials.

The aim of the show was to engage all levels of the fashion community – students, emerging designers, established brands, retailers, buyers, manufacturers, industry experts and fashion media – in an ongoing conversation about ethical fashion choices, with a goal to empower not only the designers but consumers as well.

Participating in the evening's event were Leslie Patrizio, a local fashion show producer and stylist, and Laura Engelke, a New York City stylist with a focus on sustainability and eco-conscious, ethically produced clothing.

Designers from the Fashion Studies Program at Montclair University created outfits specifically for the evening's runway using soda can tabs, duct tape, coffee filters and bags, as well as a costume from the Shakespearean play, "A Midsummer Night's Dream," designed with upcycled credit cards and Metrocards. Some of the fashions items shown came from local boutiques and consignment stores.

~Julie Lange Groth

A clarification

The ANJEC Report is designed to provide helpful information that is true and correct to the best of our knowledge. Information in the ANJEC Report does not necessarily imply an endorsement by ANJEC. We regret that the article in the Summer 2018 issue about the preservation of CowTown Rodeo reflected an implicit endorsement of rodeo activities.



ANJEC in the City



By **Kerry Margaret Butch**, Community Engagement Coordinator,
Rutgers University Center for Environmental Exposures and Disease (CEED),
former ANJEC Urban Project Director

Clean air victory on the Elizabeth waterfront

Exhaust emissions from diesel engines are a complex mixture of gases, vapors and particles that degrade air quality and harm health. It is also a major source of particulate matter air pollution, especially fine “particles” less than 2.5 microns in diameter (PM2.5). These invisible microscopic particles, a small fraction of the width of a human hair, have been linked to worsening of asthma and other lung diseases, heart disease, and increased risk of death from heart attacks and stroke. Increased exposure to PM2.5 has also been linked to premature birth and adverse pregnancy outcomes.

In addition to particulate matter, diesel exhaust contains a number of toxic gases and vapors, including carbon monoxide, nitrogen oxides, formaldehyde and acrolein, which are among more than 40 compounds in diesel exhaust with recognized toxicity associated with higher risk of asthma. Diesel exhaust contains several chemical carcinogens, and diesel exhaust itself has recently been determined to cause cancer in humans according to the International Agency on Cancer Research (IARC).

The effects of diesel exhaust are particularly troubling in cities like Elizabeth, where there is concern about high rates of asthma, especially among children.

There has been a concerted effort to address the adverse environmental health impacts of diesel exhaust from traffic created by the New York/New Jersey Port. A “big picture” policy initiative put forth by the Coalition of Healthy Ports calls for banning diesel trucks servicing the port that were made before 2007. Trucks built since then are cleaner and adhere to stricter exhaust standards that have reduced PM2.5 emissions by 90 percent. There are actions, however, that can be taken on a local level that can make a tremendous difference in local air quality, health and quality of life.

Local action

Deacon Walter Leak of the Mt. Calvary United Church on First Street in Elizabeth makes his living driving tractor trailer trucks. He has also led the fight for a healthier and safer neighborhood. Leak sounded the alarm



and worked with residents, grassroots organizations, local officials and a State legislator to ban big rigs on First Street. He created a campaign that included a petition drive and a community education program, and he convinced Assemblywoman Annette Quijano to champion the cause.

First Street is a narrow, two-lane city street that runs through an urban neighborhood, past schools, a childcare center, and an athletic field. It also runs across the Elizabeth Port neighborhood parallel to the Turnpike. In order to avoid the higher toll, truckers would travel north and south on First Street as an alternative to the New Jersey Turnpike between Exits 13 and 13A. Residents were justified in their concerns about safety and health impacts.

"This area's big for asthma. Maybe this is one of the things that's causing it," Leak laments.

Truck count and air monitoring on First Street

Other community leaders, including Glenn Arnold from Brand New Day and James Carey of the E Port Presbyterian Center, contacted Dr. Robert Laumbach of Rutgers CEED to ask about partnering to undertake a truck count and air monitoring report on First Street. Working with a team of residents, community-based organizations and neighborhood volunteers, the team stood on the sidewalk and counted trucks. The actual truck count tallied more than 50 trucks per hour during a typical weekday morning. Researchers, working in

tandem with residents, monitored the air. According to their study, there was a spike in black carbon with each passing truck, an indicator of diesel exhaust pollution. (<http://ceed.rutgers.edu/wp-content/uploads/2018/03/Report-on-Elizabeth-Truck-Count-5.24.13.pdf>)

The study shone a spotlight on how truck traffic was negatively impacting the daily lives of residents in Elizabeth. Dr. Laumbach presented the collected data to local officials during a community meeting. The officials, including Council President Carlos Torres, were convinced that there was a need to enact the ban.

On May 10, 2017, the City of Elizabeth Council unanimously passed an ordinance to restrict traffic on First Street to vehicles under four tons, essentially banning tractor trailers.

"The truck ban is about public safety and cleaner air," declared Assemblywoman Annette Quijano, describing the changing waterfront community that included the addition of three new schools, a senior citizen center and a waterpark catering to children. She worked to convince the New Jersey Department of Transportation that the area was becoming increasingly residential.

In March of 2018, the Rutgers team partnered with the E Port Presbyterian Center and Groundwork Elizabeth to do a post-ordinance assessment. According to the report:

"Community truck counts documented a drastic reduction in truck traffic, especially diesel tractor trailer trucks on First Street, comparing May 24, 2013, to March 14, 2018.



On First Street in Elizabeth, volunteer team members stood on the sidewalk and counted trucks.

There was an 86 percent reduction in truck traffic. Average measurements of black carbon and ultrafine particle counts (also a sensitive indicator of traffic pollution) were consistent with the truck counts, showing a reduction of about 80 percent."

The 2018 graphs also showed that black carbon had flatlined, with no spikes indicating fluctuations on weekdays. While performing the 2018 truck count and air monitoring, participants did observe a few truckers violating the ordinance. Councilman Manny Grova takes his constituents concerns very seriously. "Now it's about enforcement," he said. "The only message I can give to the truck companies is to stay out of our neighborhood."

Elizabeth is a port city and the municipality has a vested interest in maintaining a thriving industry, but that doesn't mean that its leadership is willing to do so at the cost of risking the health of its residents.

"They need to make the trucks cleaner," said Elizabeth Mayor Christian Bollwage. "Going forward, the Port Authority and cities like ours have to work together."

Spreading the word

The Rutgers CEED, is hosting a conference, Public Health and Our Ports: The Road to Clean Air, on Friday, October 26, at the Rutgers Center for Law and Justice in Newark. The symposium will bring together community members, decision makers and public policy thought leaders, environmental and public health organizations, labor and faith-based organizations, and academics who are eager to learn more about the issues and create solutions to improve public health. To register for the conference, click on www.eventbrite.com/e/public-health-and-our-ports-the-road-to-clean-air-tickets-49746055792. For a copy of Elizabeth's truck ban ordinance or the 2018 Post Ordinance Assessment, please contact Kerry at kerry.butch@eohsi.rutgers.edu or call (732) 982-6942. 

More information

• *Countdown to Cleaner Air: Street Scientists and the Fight for First Street* – an eight and a half-minute film featuring the people who led the fight, available at www.youtube.com/watch?v=uM2gjytmzeo

ANJEC Film Lending Library

ANJEC has the following films available to lend to your environmental commission, school or green team for public screenings:

- **Bag It! Is Your Life Too Plastic?** – An investigation into plastic and its effect on our waterways
- **Poisoned Waters** – This film shows the kinds of pollution now contaminating America's waterways
- **Highlands Rediscovered** – Explore the history of this heavily-forested NJ region
- **King Corn** – Addresses questions about how we eat and how we farm
- **Groundswell Rising** – An inspiring film about the power of community organizing to protect our children's air and water
- **Flow – How Did a Handful of Corporations Steal Our Water?** – An award-winning documentary
- **Kilowatt Ours – A Plan to Re-Energize America** – Solutions to the great energy problems of our day
- **Turning the Tide** – A documentary about the Hackensack Meadowlands.

Get more details or request a film by contacting ANJEC
at info@anjec.org or calling 973-539-7547.

Freshwater mussels are cleaning our water

By Lyle Landon, ANJEC Development Director

The Delaware Estuary is unique in that it has almost a continuous ring of fringing wetlands. This large area (133 river miles) is home to tidally-influenced wetlands: saltwater and freshwater wetlands, and those in-between. Mile "0" of the Delaware Estuary begins at the mouth of the Delaware Bay between Delaware and New Jersey. It runs 82 miles north to the Commodore Barry Bridge near Philadelphia, where fresh and salt water meet, and then continues farther north ending in Trenton. These wetland habitats are critical to protect against flooding, help clean water, and sustain native fish, birds, crustaceans and other migrating species. Our tidal wetlands also combat climate impact by trapping carbon and absorbing floodwaters.

Understanding, conserving and restoring native freshwater mussels in the 51 miles of the estuary, from the Commodore Barry Bridge to Trenton, is part of the mission and an ongoing project for the Partnership for the Delaware Estuary (PDE). Freshwater mussels significantly contribute to improvements in all-around ecosystem health, diversity and resilience. This is an immense and important undertaking.

Given the size of this geography, it is not surprising that it took a large coalition of partners – nonprofits, scientific institutes, government agencies, foundations and



Freshwater mussels

volunteers, working collaboratively, to plan, implement, manage, monitor and report their findings.

Fighting the decline of freshwater mussels

Scientists at PDE initiated mussel restoration in 2008 to understand the current status of freshwater mussel populations and how they could help those populations in decline. Mussel populations plummeted due to toxic spills and industrial waste, as well as loss of forests along streams. Fish populations also dropped, compounding the mussel loss since mussel larvae attach to fish gills during their first weeks of life. The blue-shelled mussels we see on menus are saltwater mussels and they are neither imperiled nor endangered.

Freshwater mussels are some of the most diverse bivalves, with more than 300 species native to North America. More than 70 percent of mussel species are endangered, and now only a few are commonly found in the rivers and streams

throughout the Delaware Estuary. The lack of freshwater mussels on riverbeds and streambeds puts the substrata – literally the bottom of the habitat – at risk as mussels burrow into rocks and leaves to form beds that naturally fortify them. These filter-feeding bivalves clean the water.

Kurt Cheng, Shellfish Coordinator for the PDE, describes freshwater mussels as mighty water treatment animals. “They perform the mechanical function of a water treatment plant.” They suck water in and trap solids, like dirt and algae and other pollutants, and release clean, filtered water. Removing the particles also benefits other aquatic plants and animals by allowing sunlight to reach river bottoms. An adult freshwater mussel (4-5 inches in length) can filter up to 20 gallons of water per day. One mussel bed that PDE scientists studied removed 26 metric tons of solids from the water in a single summer. That’s equivalent to the weight of five adult elephants. Centuries ago, freshwater mussels were a food source for Native Americans. Because rivers are more polluted now, fresh water mussels are not harvested commercially for food.

To conserve or restore freshwater mussels?

The PDE Mussel Project began with the goals of surveying, monitoring, and diagnosing the health of freshwater mussels and their habitats. By identifying the drivers of freshwater mussel health, scientists could then determine whether conserving or restoring mussel beds would be the best course of action for the ecosystem. PDE scientists determined that both conservation and restoration were necessary. Conservation alone would not work because the freshwater mussel lifecycle was too long – five to ten years to reach adulthood (saltwater mussels mature in two to three years). Their long maturation cycle is another reason why freshwater mussels are not a viable commercial crop, and a reason that even with a protected status, recovery would take too long.

Conservation education was deemed very important because, given the multitude of freshwater mussel species, it is very likely that uninformed harvesting (now sometimes illegal) would occur. A good rule to follow is, if you see a mussel bed in a river, don’t touch it. Instead, take a picture of it, note its location and send the information to the PDE.

In a healthy freshwater habitat, mussels can live up to 100 years, making them among the longest-lived invertebrates. Their survival is all the more remarkable given that their reproduction is complex. Mussel larvae develop into perfectly shaped tiny mussels, are released into the water and attach to their host fish. Eventually they drop off to join another bed, or begin their own. It is easy to see why dams could wreak havoc with their reproduction process; hence the need for restoration.

Analysis of this situation led to the breakthrough vision of the PDE to put into practice the theory that mussels could make a significant contribution to restoring our degraded freshwater habitats. The PDE proposed creating freshwater mussel hatcheries specifically for the purpose of using mussels to help clean estuary waters.

Now the PDE is partnering with other organizations at the local, state and federal level to coordinate efforts with existing initiatives of others. The PDE is working with hatcheries to grow hearty, common mussels which are replanted in unclean water where they are most needed. It’s a dirty job, but they can do it!

This collaboration among organizations, scientific research and new technologies is proving that freshwater mussel conservation and restoration operations are improving the water quality and the health of the freshwater ecosystem. 

More info

Partnership for the Delaware Estuary freshwater mussels program – www.delawareestuary.org/science-and-research/freshwater-mussels/

The spotted lanternfly has arrived in NJ

What you need to know

By Jillian Madsen, ANJEC Volunteer

New Jersey Secretary of Agriculture Douglas H. Fisher announced in July the first sightings of the spotted lanternfly in Mercer, Hunterdon and Warren Counties. This invasive species has the potential to devastate the Garden State's trees and crops.

There's a new insect species on the east coast, and it's traveled all the way from East Asia. The Asian plant hopper, better known as the spotted lanternfly, is an invasive species in the US and a huge threat to New Jersey's crops and trees.

The adult spotted lanternfly's appearance is vibrant and unique, with red and black spotted hind wings, gray and black spotted forewings, and a black head. The insect is about one inch in length and a half inch in width. Their mating season is in the fall, followed by a long stage during the winter in which egg masses are left on smooth surfaces. An egg mass looks like a patch of mud. When the spotted lanternflies hatch around mid-May, they are wingless and black with white polka dots on their backs.

These insects feed on more than seventy plant species, including cultivated grapes, fruit trees, hardwood trees, willows, maples, poplars and birch. Their primary victim, however, is the Tree of Heaven, where the spotted lanternflies prefer to lay their eggs. The insects use their mouthparts to dig into plant tissues and suck out fluids, which promotes mold growth, making crops unsellable. In fact, spotted lanternfly activity can diminish grape harvest by



75-90 percent, according to the Rutgers Cooperative Extension. Because it feeds in large congregations, it can rapidly devastate vegetation.

The spotted lanternfly's feeding habits also attract unwanted wasps, hornets, and ants that are drawn to the sugary fluids around the weeping wounds. Additionally, this invasive species can be harmful to domestic animals due to the toxic substance, Cantharidin, which is excreted from the Tree of Heaven when it is attacked.

How did it get here?

The spotted lanternfly was first accidentally introduced into Berks County, Pennsylvania, in September, 2014, and has since spread to multiple nearby counties. The State government responded by issuing a quarantine of thirteen counties to prevent the insect from spreading. The quarantine requires that outdoor items be inspected before moving them out of the area. Despite these efforts, the spotted lanternfly still managed to make its way to New Jersey, particularly in Mercer, Hunterdon and Warren Counties. The New Jersey Department of Agriculture responded with a quarantine of these three counties.



Spotted lanternfly nymph

Though this issue has not yet reached the same magnitude as in Pennsylvania, New Jersey residents are strongly encouraged to take action to prevent the spread the spotted lanternfly and protect precious natural resources.

What you can do

- Inspect your vehicle for hitchhiking spotted lanternflies before traveling, especially between Pennsylvania and New Jersey.

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Environmental Impacts • Wetlands • www.njeco.com

- Inspect outdoor items (i.e. firewood, paving stones, lawn equipment) for egg masses.
- If you discover egg masses, scrape them off, double bag them, and throw them away or place them in alcohol, bleach or hand sanitizer to exterminate them.
- Closely monitor highly infested and vulnerable areas.
- Do not attempt to solve the problem yourself with insecticides. Instead, report the infested site to [SLF-plantindustry @ag.nj.gov](mailto:SLF-plantindustry@ag.nj.gov) or call the New Jersey Spotted Lanternfly Hotline at 1-833-223-2840. 

Passive House principles save energy

By David Peifer, ANJEC Project Director

Since Governor Murphy took office, New Jersey has taken several important steps toward developing what it now calls a clean energy system in our State. In particular, he has acted to rejoin the Regional Greenhouse Gas Initiative (Executive Order 7), encourage offshore wind development (Executive Order 8), and spur a "clean energy economy" (Executive Order 28). State government has also enacted two important pieces of legislation: Assembly bill A-3723 that changes clean energy portfolio standards to mandate 50 percent "clean energy sources" for electricity by 2050 and Senate bill S-2313 that provides for financial subsidies to the State's nuclear plants. From an energy perspective, the first nine months of 2018 have been a remarkable period for our state.

It is clear that these actions are all about getting energy from clean sources, with only one minor provision in A-3723 that deals with enhancing energy efficiency. It calls for a 2 percent reduction in electricity use and a .75 percent reduction in natural gas, a fossil fuel that is itself a potent greenhouse gas if released into the air.

According to the US Energy Information Agency, approximately 39 percent of all energy consumed in the US is by residential and commercial buildings, primarily to operate heating, cooling and ventilation equipment. This energy is currently derived mainly from fossil fuels, with smaller amounts derived from solar, wind and geothermal sources.

If New Jersey is to achieve its energy conservation objectives, improving the performance of new and existing buildings will be a priority. Fortunately, there is a proven, fully developed, cost-effective way to reduce a building's energy consumption by up to 80 percent that can be implemented today – Passive House design.

An oldie but a goodie

A Passive House is not an architectural form. The principles and techniques of the Passive House design system have been applied for decades to individual residences, apartment structures, schools, public

buildings, libraries, airports and other structures in the US and worldwide.

The search for more efficient buildings received a critical boost after the fuel crises of 1973 and 1979. The basic techniques still in use today originated in the 1970s. These concepts include:

- superinsulation,
- airtight envelopes,
- energy recovery ventilation,
- high performance windows, and
- managing solar gain.

Nobel prize winner Dr. William Shurcliff wrote about Passive House principles in the 1980s.¹ When the fuel crises ended in the US, so did interest in Passive House construction, but interest remained high in Europe. Dr. Wolfgang Feist and Dr. Bo Adamson continued to develop the

¹ For a good description of the early American roots of the Passive House movement, go to: <http://blog.phius.org/passive-house-history-phistory-part-i-north-american-roots/>

theories and applications behind Passivehaus (the German spelling), which led to improvements, such as higher-performing products like triple-glazed windows and air exchange-heat recovery systems.

The first Passivhaus was built in Darmstadt, Germany.² To help propagate Passivehaus principles, Feist founded the Passivhaus Institut (PHI), which is headquartered in Darmstadt, Germany. PassiveHouse Institute US (PHIUS) was cofounded by one of Feist's students, Katrin Klingenberg. Because the US climate is far more varied than Germany's, many of the European-specific principles of design were adapted. Since then, Passive House professionals have assisted architects and planners worldwide. Interest continues to grow and numerous expert designers have been trained in Passive House principles.

Bringing Passive House principles to your community

If your municipality is planning a new town hall, school, social center or even affordable housing, the environmental commission can recommend the use of PassiveHouse design principles early in the process. To see how one group of designers used PassiveHouse design principles on an affordable housing project that has actually been built, go to: www.architectmagazine.com/practice/how-affordable-housing-is-driving-passive-house-design_o. The new building could become a powerful example for others who are retrofitting their buildings or constructing new ones.

In evaluating the feasibility of a PassiveHouse approach to building design, it is important to remember that while some "first costs" may be higher, others will be lower. For example due to the super-insulated nature of the building, heating and cooling equipment will be

² The first Passivhaus: https://passipedia.org/examples/residential_buildings/multi-family_buildings/central_europe/the_world_s_first_passive_house_darmstadt-kranichstein_germany



A *Passive House*
Courtesy of David Peabody Passive House Institute & Alliance US

smaller, lighter and less costly. Importantly, most of the costs associated with a building are not from construction costs but rather over the building's lifespan in the form of energy use and maintenance, so long-term energy savings will quickly offset higher construction costs.

You can contact the Passive House Institute of the US at: www.phius.org/. You will probably be able to arrange for a highly qualified speaker to present to the commission, the governing body or the public. Remember, with an 80 percent energy reduction over current building codes, Passive House design could go a long way toward meeting energy objectives.

More information

Energy-related executive orders

- Executive Order 7: Re-joining the Regional Greenhouse Gas Initiative, <https://nj.gov/infobank/eo/o56murphy/pdf/EO-7.pdf> (See also: Regional Greenhouse Gas Initiative: www.rggi.org/)
- Executive Order 8: Offshore Wind Development, <https://nj.gov/infobank/eo/o56murphy/pdf/EO-8.pdf>
- Executive Order 28: Clean Energy Economy (authorizes new Energy Master Plan, <https://nj.gov/infobank/eo/o56murphy/pdf/EO-28.pdf>)

Legislation:

- A-3723, www.njleg.state.nj.us/bills/BillView.asp
- S2313, www.njleg.state.nj.us/2018/Bills/S2500/2313_l1.HTM

What's all the noise about?

(And why should we care?)

By Cheryl Reardon, ANJEC Project Director

"Calling noise a nuisance is like calling smog an inconvenience.

Noise must be considered a hazard to the health of people everywhere."

~William H. Stewart, Former US Surgeon General

What is noise?

According to the Webster and Oxford dictionaries, noise is an unwanted sound, especially one that is loud or unpleasant and causes disturbance. The definition continues with similar adjectives, but it's important to note that these terms are subjective. To some extent, noise is in the ear of the listener. But it's also true that noise can have real, serious, negative and measurable effects. For example, many of us grew up enjoying loud music through headphones and at concerts, which may have led to some level of hearing loss.

In addition to premature hearing impairment, whether we realize it or not, noise pollution can negatively impact health in various ways, including: hypertension, sleep disturbances, child development problems, cardiovascular issues, dementia and psychological dysfunctions.

What about marine and wildlife?

Our oceans are no longer quiet. Thousands of oil drills, sonars, seismic survey

devices, recreational watercraft and shipping vessels are now populating our waters, causing serious noise pollution for marine life. Whales are among the most affected as their hearing helps them to orient themselves, feed and communicate. Noise pollution also interferes with feeding habits of dolphins as well as their reproductive patterns and migration routes. It can even cause hemorrhage and death.

Birds and land animals are also affected by noise pollution in the form of traffic and aircraft noise, firecrackers and other loud sounds pervasive in our densely populated world.

Social and economic costs of noise pollution

The World Health Organization estimates that one out of three people in Europe is harmed by traffic noise. Beyond the purely medical effects of noise pollution on the individual, there is a significant social and economic impact associated with impaired health. For example, sleep disturbance due to noise pollution can affect an individual's



Noise from aircraft is a major cause of noise pollution.

work performance during the day. Hypertension and cardiovascular disease aggravated by noise cause increased healthcare costs as well as lost productivity. Noise also negatively affects school performance in children.

How towns resolve noise issues

The issues surrounding noise in our environment can be complicated and pervasive. People believe in their right to quiet enjoyment of their surroundings. Conflict often arises when one person's sounds are another person's noise, resulting in calls to the municipal office and/or police... and sometimes even lawsuits.

With the exception of nuisance animals (barking dogs), the need to limit excessive noise by states and local municipalities appears to have arisen from the 1972 *Noise Pollution and Abatement Act*. The federal law was passed mainly in response to human hearing loss caused by occupational noise and by excessive noise from airports and highways. Outdoor noise can be a major concern, especially in communities with dense residential areas and those in close proximity to commercial/industrial areas.

As a result, more noise ordinances are being developed that limit the allowable noise levels at different times of day for different zoned areas. For example, a municipality might seek to limit construction noise by forbidding work between the hours of 10 pm and 6 am or by setting maximum decibel limits (depending on the

time of day) that are measured at the business property line.

Commercial noises could range from loud music from a night club to the banging at a construction site to the 24/7 sound of diesel engines in industrial centers. As suburban sprawl has intruded into agricultural areas, new residents often became alarmed at the sounds echoing across farm fields from tractors and trucks operating pre-dawn to very late in the evening. For this reason, some municipalities have adopted "Right to Farm" ordinances protecting farming operations from nuisance complaints.

Unlike nuisance noise, commercial noise limits are most often set out as part of the zoning code, so offenders are cited for violating the zoning ordinance, or sometimes specific use permits, which can carry a high penalty. 

More Information:

ANJEC's Resource Center can provide sample ordinances to help municipalities enact new or updated noise ordinances. Just email info@anjec.org or call 973-539-7547.

These websites contain more information on noise pollution:

- New Jersey Department of Environmental Protection – www.nj.gov/dep/enforcement/noise-intro.html
- US Environmental Protection Agency – www.epa.gov/laws-regulations/summary-noise-control-act



Got an idea for the ANJEC Report?

The *ANJEC Report* welcomes submissions or suggestions from our readers.

- Is there a topic or issue you'd like us to write about?
- Have you recently completed a project that would be of interest to other local environmentalists?
- Would you like to author an article in your area of expertise? If so, please let us hear from you. Your input is valuable. Just email the editor at jlang@anjec.org.

Water conservation ordinances help protect our water supply

By Jody Carrara, ANJEC Project Director

With a population density similar to that of India, it is critical that New Jersey's fresh water supplies are used sustainably for the welfare of residents, farms, industry and ecosystems. And New Jersey will continue to grow; census data predict the State will have a population of 9.2 million by 2020 (<http://worldpopulationreview.com/states/new-jersey-population/>)

Have you paid attention when the news declares a drought emergency and announces that the "salt front" is getting close to Philadelphia? That happens when high tides during drought reach farther up the Delaware River and closer to water company intake pipes supplying many towns with drinking water. Our lives and livelihoods depend upon consistent and dependable rainfall, but with changing weather patterns rainfall amounts are no longer dependable.

Rivers, reservoirs and aquifers that supply the

drinking water for our population are wholly dependent upon rainfall for replenishment. New Jersey owns all surface and ground water within its boundaries, and it is the State's obligation to allocate water supply in a sustainable manner. It is also, however, an obligation for all of us to use our water wisely.

Have you ever seen lawn sprinklers left on when it's raining, or an outdoor hose running into the gutter? We can certainly reduce our water use at home by using the most efficient appliances, landscaping with drought resistant native plants/grasses and storing irrigation water in rain barrels. And the New Jersey Department of Environmen-



Water conservation ordinances encourage smart irrigation techniques

tal Protection can deny water allocations when there is not sufficient water supply for new development as they did in Lakewood recently. But piecemeal actions are not enough to sustain our water supply well into the future.

Put it in writing

Only a commitment to water conservation by municipalities can help mitigate New Jersey's enormous water usage. Bloomfield, Moorestown, Camden, Westwood, Belmar and Vineland are just a few of the towns that have adopted mandatory year-round water conservation ordinances in New Jersey.

Water conservation ordinances have key elements that provide easy to follow guidelines for when a homeowner can irrigate their lawn, shrubs and flowers. Some of those regulations are:

- Properties may only water two days per week. Various approaches are used to determine which days, depending upon the size of the town, such as an even/odd address number schedule, a district map, or coordinating irrigation days with trash pick-up.
- Watering may only be conducted between the hours of 6 am and 9 am or between 5 pm and 8 pm.
- The watering of any single area may not exceed thirty minutes per day.
- Flowers and shrubs may be watered as needed with a handheld hose equipped with an automatic shut-off nozzle.
- No hose or irrigation system watering is permitted when it is raining.
- Irrigation with systems equipped with a SMART controller must have met the minimum requirements for water use efficiency as described in the irrigation industry's guidelines: (www.irrigation.org/SWAT) Smart Water Application Technologies).
- All new irrigation systems must have a SMART controller that detects moisture in the soil so that sprinklers will not turn on if it is raining.
- Outside water use is strictly prohibited during a declared drought emergency. In

addition to the outside prohibition and whenever possible, all inside water use for homes and businesses shall be reduced.

Enforcement is key

A typical water conservation ordinance in New Jersey specifies that a particular town official or office is responsible for upholding the ordinance, and fines can reach as high as \$500 for infractions. Camden's ordinance states: "Violations include knowingly or recklessly watering or irrigating or permitting irrigation of lawn or landscape on owned, leased or managed property that results in the following:

- 1) Watering during any form of precipitation;
- 2) Water leaking from any irrigation equipment;
- 3) Water puddling on landscape or impervious surfaces;
- 4) Water runoff from irrigated property;
- 5) Irrigating on days not permitted in this ordinance; or
- 6) Irrigating at hours not permitted in this ordinance." www.jerseywaterworks.org/wp-content/uploads/2016/01/City-of-Camden-Water-Conservation-Ordinance.pdf

Many towns are finding that neighbors are proud to conserve water and happy to let people know if sprinklers are on when it is raining. And of course there are exceptions in the ordinances for newly sodded lawns, farms and grey water use. Education of residents is extremely important so that neighbors can spread the word about the value of the town's water supply. As part of an education campaign to make residents aware of the new ordinance, towns have created very informative websites. Vineland's can be found at: <http://utilities.vinelandcity.org/water-conservation/>

New Jersey is in the unique position of being both coastal and highly developed. We must work toward sustaining our ecosystems and industries. Environmental commissions throughout the State are doing this by educating residents about the source of their drinking water and its finite nature, and by adopting mandatory water conservation ordinances to normalize the habit of valuing and conserving water. 

In remembrance

Remembering Jean Clark: Mother of Recycling

By Julie Lange Groth, ANJEC Report Editor

After pioneering Montclair's recycling program in the 1970s (one of the first in the country), Jean Clark, who died in June at age 95, became known as the "Mother of Recycling." She shepherded landmark recycling legislation at the State level and became a repository of knowledge about the environmental movement in New Jersey.

Along the way, Clark received many awards, including: "Recycler of the Year" from the National Recycling Congress (1980), "Recycler of the Decade" (1980) from the New Jersey Department of Environmental Protection, the New Jersey Pride Award in the field of Environment (1986) and more.

She was both tireless and effective, serving on the Essex County Solid Waste Advisory Council, the New Jersey Audubon Society Board, the Montclair Bird Club, the Montclair Organizations for Conservation, the Association of New Jersey Recyclers, the Montclair Nature Center, the Montclair Hawk Watch and the League of Women Voters. Her passion for the environment

was inspired by a strong connection to the natural world that was as intimate and real as other peoples' connections to family.

Gray Russell, Montclair's Sustainability Officer, recalled that, thanks to Clark's pioneering efforts, the township passed a *Mandatory Separation Act* in 1975, which was the first such law in the State. By 1978, Montclair had a town-wide curbside collection program.

"We were the first town in the state to provide this service, too – almost a decade before the 1987 *Mandatory Recycling Act of NJ*. And since New Jersey was the first state in the country with a mandatory recycling law, Montclair was the first of the first."

Russel remembers Clark as "a true original: a real gem, a protector of the planet, and a determined advocate for environmental responsibility."

In a speech at Wells College in 2000, when Clark was honored as the Alumna of the Year, she cited famed environmental writer Rachel Carson and the first picture of the earth from space as her inspirations. She reminded others that "bringing about

change takes a lot of time, persistence, and patience," and that being a volunteer was effective because "your motives are not suspect...and it's also harder to get rid of you." 



Jean Clark enjoying nature

We will miss Connie Stroh

Excerpt from eulogy given by **Mark Forstenhausler**,
Randolph Mayor

Connie Stroh, a dedicated citizen of Randolph and of the world, died in May at the age of 83. She served on many committees dedicated to the environment, including: the Randolph Environmental Commission, Parks Conservation Committee, New Jersey Clean Water Council, Rockaway River Watershed Association, and the new Environmental & Landmarks Committee.

Years ago Connie was instrumental in creating the Environmental Commission (EC) as a separate municipal board to focus on environmental issues in our community. She was the EC's point person for reviewing applications for development, spending countless hours examining site plans for environmental impacts and attending meetings. Most recently Connie served as the Vice Chair of the Environmental & Landmarks Committee and also served as President of the Rockaway River Watershed Association.

Earlier this year it was my honor to present Connie with the Outstanding Volunteer Award on behalf of the Township Council. I had the privilege to serve on the Environmental Commission with her for two years, and in that time I saw just how dedicated and sincere she was. She had a special interest in invasive species in Randolph, and helped develop an indigenous species list for the Township as well as educational materials. Frankly I was unaware of the very real problems that the wrong plantings can cause to our local environment, but Connie enlightened us.

Due to her dedication and enthusiasm for the issues near and dear to her, many of our residents were much better informed. She was a wonderful community volunteer, and Randolph Township will certainly miss her. I would like to offer my most sincere condolences to her family, and would also like to remind them how



Connie Stroh with Randolph Mayor Mark Forstenhasler

Photo by Pat Robinson, Randolph Reporter

much Connie was appreciated for the huge difference she made in the course of her full, meaningful life. 

Thanks to ANJEC member communities

We are grateful to the thousands of volunteers serving as local officials in more than 260 municipalities and counties that are members of ANJEC. These dedicated people – from municipal and regional environmental commissions and green teams to open space committees, planning boards, governing bodies, shade tree commissions and zoning boards – dedicate their time and efforts to assure a clean environment and high quality of life in their communities throughout our State. Thank you! 

It Pay\$ to Plug In: NJ's electric vehicle charging grants

It Pay\$ to Plug In will provide grants of up to \$6,000 per charger to offset the cost to purchase and install electric vehicle charging stations. The program is designed to expand New Jersey's growing network of electric vehicle (EV) infrastructure, allowing residents, businesses and government agencies to purchase and drive electric vehicles. EVs dramatically reduce vehicle emissions and improve air quality for everyone.

Eligibility criteria

- Level 1 and Level 2 charging stations are eligible.
- The program is open to businesses, governments, nonprofit organizations and educational institutions. Private residential dwellings other than multi-unit dwellings are not eligible for grants.
- Charging stations must be installed in New Jersey.
- Charging stations must be owned by the applicant, not leased.
- Approvals are first-come, first-served.

Eligible projects

- Workplaces:
Charging stations for employees who drive electric vehicles.

A public EV charging station in Secaucus

- Public places: Charging stations that are available to the public.
- Multi-unit dwellings: Charging stations for multi-family residences, including apartments, condominiums and townhouses.

Application forms, grant amounts and instructions are available at www.drivegreen.nj.gov/plugin.html.

More info

- Learn more about electric vehicle charging stations at www.drivegreen.nj.gov/charging.html.
- For questions or additional information, please contact the New Jersey Department of Environmental Protection, Bureau of Mobile Sources at DriveGreen@dep.nj.gov or call (609) 292-7953.



Municipal separate storm sewer system (MS4) permits

Has your municipality complied with the 2018 MS4 permit requirements? One of the new requirements is that in municipalities with a Tier A permit, all local officials and staff who review or make decisions on stormwater plans need to complete the *Asking the Right Questions E-tool for Stormwater* training. The good news is, it's easy to do!

Asking the Right Questions in Stormwater is an interactive training tool designed by Rutgers and ANJEC specifically for municipal board and governing body members. It provides a general understanding of the post-construction section of the permit so that they can "Ask the Right Questions" during their review.

Lead the charge!

Your town can help move New Jersey toward an EV-friendly future

ANJEC is a proud partner of ChargEVC, a nonprofit organization working to provide leadership, resources, research and advocacy to advance electric vehicle programs and policies in New Jersey.

Associate membership in ChargEVC is now being offered to municipalities, environmental commissions, green teams, and other local groups who want to be at the vanguard of this important movement. Individuals can also become members. Benefits of membership include:

- alerts about available funding and promotional programs for EV charging infrastructure;
- a Municipal Guide, which outlines template resolutions, model ordinances, and other helpful content to assist municipalities;
- a weekly summary of media reporting on developments in the EV field;
- access to the EV studies and plans developed by ChargEVC;
- updates on the electric vehicle market in New Jersey;
- advocacy opportunities at the State level for programs and policies.

Municipal membership dues are \$100 annually and membership for individuals costs \$50. Find more information at www.chargevc.org/how-to-join/.

Municipal officials and staff include all members of the planning board, zoning board/board of adjustment, environmental commissions, and the municipal engineer. In municipalities with Tier B permits, officials and staff are also strongly encouraged to complete the training.

Most municipalities have a Tier A permit. Tier B permits are generally given to rural municipalities. Municipal permit designa-

tions can be found at www.nj.gov/dep/dwq/pdf/MS4_municipal_tier_list.pdf.

ANJEC is also offering Asking the Right Questions E-tool for Stormwater Training webinars where you can ask live questions of an expert. Check with the ANJEC Resource Center at info@ANJEC.org for upcoming dates. 

Local Action Toolkits now available

Has your environmental commission or green team identified some issues you want to work on in the coming year, but don't know how to get started? The ANJEC Resource Center has prepared a set of tools and information that may help you get out of the starting gate with a bang.

Climate Action Toolkit - Includes dozens of helpful resources, such as:

- How to assess a community carbon footprint
- Model resolution for a municipal greenhouse gas audit
- Resource paper on siting solar installations in NJ
- Guidance for creating Plug-In Electric Vehicle (PEV) friendly ordinances
- Information on stream corridor protection
- Model water conservation ordinance and how to develop one



2017 Climate March in Washington

Plastic Pollution Toolkit - Articles, reports and sample ordinances including:

- Sample municipal ordinances for balloon release ban (Atlantic City) and plastic bag reduction (Longport)
- Lambertville's food waste collection ordinance
- Lots of articles, tips and other information

Templates for basic environmental commission annual reports and budgets

To get these tools, please contact the ANJEC Resource Center at info@anjec.org or visit our website at www.anjec.org. 

Meet Isabella!

ANJEC is delighted to welcome Isabella Castiglioni to the staff. Her ample skills and experience will contribute greatly to our efforts to ensure clean water and a healthy environment for the people of New Jersey.

Hello! I'm Isabella and I'm working with both ANJEC and the Pinelands Preservation Alliance (PPA) as they implement the *Delaware River Watershed Initiative Plan*. A lot of my work will be helping homeowners and municipalities to build green stormwater infrastructure projects, mainly within the Rancocas Creek Watershed. These could vary from a small rain garden that takes runoff from a homeowner's driveway, to much larger projects covering thousands of square feet.

A little bit about my background: I graduated from Binghamton University in 2016, where I studied physical geography and minored in both geology and biological anthropology. I previously worked for the AmeriCorps Watershed Ambassador Program, where I enjoyed getting to

do a mix of field work, projects and environmental education. In addition to my work with ANJEC and the PPA, I'm pursuing a Master's of Environmental Studies at the University of Pennsylvania.

Like a lot of others in the environmental field, I decided on this career because I love being outside. When I have free time, I enjoy going for a hike or a walk. My other hobbies include reading and listening to music. I look forward to working with ANJEC and hope to meet many of you at the ANJEC Environmental Congress on Oct. 12 or other ANJEC events! 



Isabella working on a rain garden at Olson Middle School



For more information
contact ANJEC at (973) 539-7547



ANJEC is proud to be a member of Earth Share New Jersey.

**ANJEC'S 45th Annual
Environmental Congress**

Friday, October 12, 2018

9:00 am to 4:30 pm

Mercer County Community College,

West Windsor, NJ



Keynote address:
Governor Christine Todd Whitman



Featured Speaker:
NJDEP Commissioner, Catherine McCabe

Highlights include:

- Exciting workshops on important environmental topics
- Exhibits from New Jersey Nonprofits
- Electric vehicle Ride & Drive
- 2018 ANJEC Environmental Achievement Awards
- **New for 2018 – Farmers Market!**

**Enjoy a day jam-packed with
information and resources you can use!**

For more information and registration, visit the ANJEC website:

<http://anjec.org/confworkshops.htm>

Or call 973-539-7547.



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Aboard the AJ Meerwald

Once again, ANJEC friends set sail aboard the historic *AJ Meerwald* this summer for cruises on the Hudson River.

The *AJ Meerwald* is a Delaware Bay Oyster Schooner, a distinct vessel that evolved to meet the needs of the local oyster fishery. It originally launched in 1928 and was one of hundreds of schooners built along South Jersey's

Delaware Bay before the decline of the shipbuilding industry during the Great Depression.

In 1998 Governor Christine Todd Whitman designated the *AJ Meerwald* New Jersey's Official Tall Ship. Each summer it spends some time in North Jersey, setting sail from the Alpine Boat Basin. 



Matt Hanks





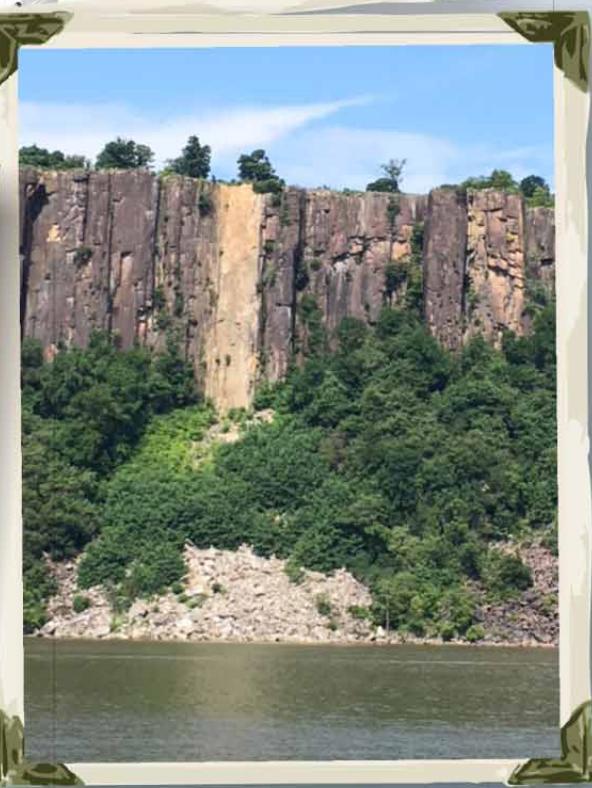
Martha Lieblich



Matt Hanks



Matt Hanks



Martha Lieblich



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It's time to plan for ANJEC 2019 Membership

A

s an ANJEC member, your commission is part of a vital network of over 350 New Jersey ECs working to ensure that the environment has a strong voice in local government. Your ANJEC membership empowers you with in-person and on-line trainings, resources, updates on statewide policy proposals, and opportunities to partner with non-profit leadership initiatives.

ANJEC training is an important benefit of membership

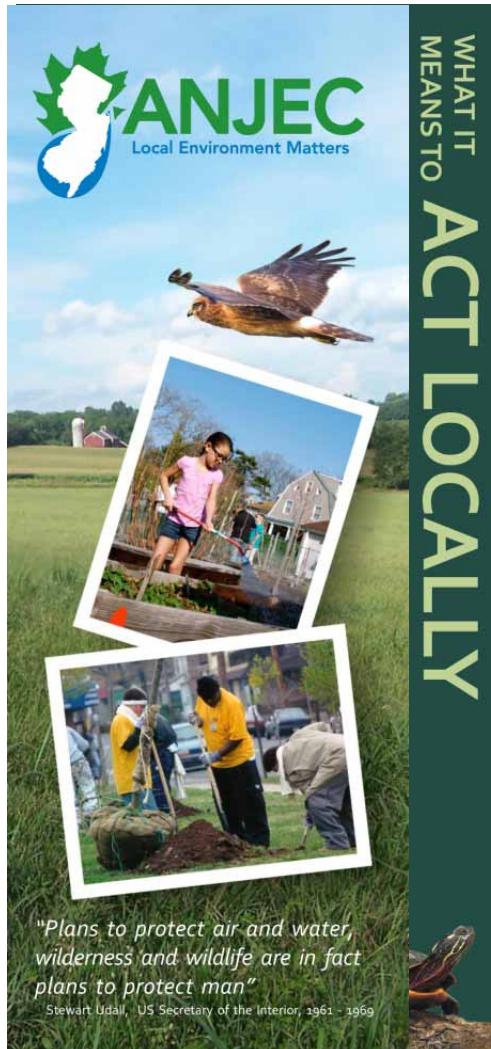
Our courses, workshops, webinars, road shows and conferences provide topnotch training for local environmentalists and offer a robust forum for sharing information and success stories among towns. ANJEC members get **FREE ADMISSION** to all of our 2019 workshops and webinars, as well as our annual Fundamentals for Effective Environmental Commissions course, offered at three locations around the State.

Members also are eligible for discounted admission to:

- The annual ANJEC Environmental Congress
- Road shows on topics of your choice, delivered at your location.

The ANJEC Resource Center is on call

Experienced ANJEC project directors are available to research members' questions, provide information and share their knowledge to help your commission, committee or green team work more effectively. This includes best practices and information on emerging environmental issues.



"Plans to protect air and water, wilderness and wildlife are in fact plans to protect man"

Stewart Udall, US Secretary of the Interior, 1961 - 1969

ANJEC 2019 membership packets will be mailed to your town hall soon!

See membership details on our website at <http://anjec.org/EnvCommMember.htm>.

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Social networking can offer important tools for staying connected, getting news out quickly and gathering feedback in a world where people have many choices for how they communicate. That's why ANJEC is on both Facebook and Twitter. We'd love to highlight your town's successes on our Facebook page, so please "like" us at www.facebook.com/ANJECpage and then post your commission or green team events, activities and accomplishments. And if you use Twitter (www.twitter.com), please follow @ANJECTweets and we'll return the favor!



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ShopRite is proud to support ANJEC.

A photograph showing several people in white t-shirts with "ShopRite TEAM GREEN" printed on them, bending over to pick up trash in a park. They are wearing green long-sleeved shirts underneath their t-shirts and red and white checkered gloves. They are holding large blue trash bags. The background shows trees and other volunteers in the distance.

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