



ANJEC REPORT

Local Environment Matters

AUTUMN 2019

1969 - 2019



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- **Building Bobcat Alley**
- ***The Energy Master Plan* – what you should know**
- **Living shorelines in NJ**



Director's Report

The climate crisis is here, and New Jersey is on the frontline

"New Jersey may seem an unlikely place to measure climate change, but it is one of the fastest-warming states in the nation," according to a Washington Post report released on August 13. "Its average temperature has climbed by close to 2 degrees Celsius since 1895 – double the average for the lower 48 states," the report continues.

That 2 degrees Celsius number has emerged as a critical threshold for global warming over the past two decades in order to avoid a host of catastrophic changes. International leaders agreed in the 2015 Paris Accord about the urgency of keeping the Earth's average temperature increases "well below" 2 degrees Celsius.

The data are clear. We are experiencing major impacts of climate change now. The data also tell us that there is a certain amount of inevitability caused by our greenhouse gas (GHG) emissions to date and that we will continue to experience rising temperatures at least through 2050. The good news is that the actions we take now to reduce those emissions (or not) will greatly affect the intensity of climate change impacts from 2050 moving forward.

To successfully combat the climate crisis we need to take immediate action under two broad categories:

1. Reduce our greenhouse gas emissions, and
2. Improve our resilience, primarily to flooding and drought, as well as habitat adaptation.

The Global Warming Response Act

New Jersey is taking bold action to reduce our greenhouse gases with the *Global Warming Response Act* that Governor Murphy signed into law this July. It establishes bold,

concrete benchmarks for reducing carbon dioxide, one of the primary GHGs spurring on the climate crisis. The *Act* requires the State to "limit the level of Statewide greenhouse gas emissions, and greenhouse gas emissions from electricity generated outside the State but consumed in the State, to the 1990 level or below by the year 2020, and to reduce those emissions to 80 percent below the 2006 level by the year 2050."

The new law also requires the State "... to develop a comprehensive strategy to reduce emissions of short-lived climate pollutants in the State," including methane and soot from diesel vehicles.

Strong actions from New Jersey, the most densely populated state in the nation, in conjunction with actions from California – the largest economy with highest number of people of any state in our union – are leading America's fight against climate change.

Clean wind energy

The NJ Board of Public Utilities (NJBPU) has awarded the first of what is expected to be several bids for the development of offshore wind turbines. In June, BPU awarded Orsted the contract to develop 1,100 megawatts of offshore wind energy off of Atlantic City's coast. The project will power approximately 500,000 homes and will be the largest offshore wind project in the United States.

The energy generated by the turbines will likely connect with land at one of the decommissioned power plants in Atlantic City, Ocean City or Waretown. The turbines will be located 15 miles offshore, well outside the migratory bird pathway. Monitoring of marine species and fishing areas is ongoing as the plans for the turbines continue to evolve.

What commissions can do

There is an enormous amount of work to do to combat the climate crisis. Environmental Commissions have been working to reduce locally generated GHGs by leading efforts to install electric vehicle charging stations in their communities, convert municipal fleet vehicles to plugins and discourage idling. Commissions can also help guide their communities to greater resilience by improving stormwater management and water conservation.

ANJEC is working to bring you new programs and resources to help you in your efforts. Meanwhile, New Jersey has some of the best available data on the global climate crisis, so be sure to check out the Rutgers Climate Institute, the Princeton Environmental Institute, and Climate Central.


Jennifer M. Coffey
Executive Director

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FIFTY YEARS

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Local Environment Matters

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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: *Apples* Photo by E. Helland

Living shorelines protect and restore habitat

By Cheryl Reardon, ANJEC Project Director



Our small State has over 1,700 miles of ocean and other tidal water coastline. New Jersey's coastlines are especially vulnerable to sea level rise and erosion, resulting in loss of land, wetlands and habitat as well as threatened and endangered species. Living shorelines have proven to be an effective response to addressing these conditions and are frequently more beneficial than hard structures such as bulkheads.

As defined in New Jersey's **Coastal Zone Management Rules at N.J.A.C. 7:7-1.5** (CZM), a living shoreline is "a shoreline management practice that addresses the loss of vegetated shorelines, beaches, and habitat in the littoral zone by providing for the protection, restoration or enhancement of these habitats." As explained in the CZM Rules, this is accomplished through the strategic placement of plants, stone, sand or other structural and organic materials. There are three types of living shorelines: natural, hybrid, and structural.

- Natural living shorelines include natural vegetation, submerged aquatic vegetation, fill, and biodegradable organic materials.
- Hybrid living shorelines incorporate natural vegetation, submerged aquatic vegetation, fill, biodegradable organic materials, and low-profile rock structures such as segmented sills, stone containment and living breakwaters seeded with native shellfish.
- Structural living shorelines include, but are not limited to, revetments, breakwaters, and groins.

Why living shorelines?

Storm action, compounded by sea level rise, has torn away our shoreline. This allows saltwater from the ocean to encroach further and further onto land, putting the water supply, homes and local industry more at risk.

Consider Maurice River Township, a small community at the southern tip of Cumberland County where the crabbing and fishing industries bring in up to \$100 million annually. Looking at a map of the Township,


Vegetation grows in logs made of wood chips, straw or coconut fibers to create a living shoreline in Maurice River Township.



it's easy to see where erosion has erased swaths of land that once jutted into the Maurice River and guided its flow. In the past 30 years, favorite beach landmarks along the river – the *A.J. Meerwald* tall ship, an 1849 lighthouse, a Rutgers oyster research center, a marine police station, several shipyards, and a few historic Swedish, Dutch and English communities – are at serious risk.

Nor'easters and storms like Sandy accelerate what's already happening. Communities have to build with an eye toward a more watery future and include techniques like covering rock jetties with dredge spoilage and organic material to foster animal life, and planting native grasses and shellfish beds along the shore.

Creating natural habitats for flora and fauna can help revitalize the ecosystem. A softer barrier against erosion will shift with the coastline and help diffuse the force of waves that crash against it, threatening what lies behind. Organic materials like coconut-fiber logs, oyster-shell bags, and marsh sills can outperform "hard" infrastructure like bulkheads.

Living shorelines make economic sense. They are cost-effective compared with hard structures, and they provide important ecosystem services that have both direct and indirect monetary values. As climate change advances, with associated sea level rise and storms of increasing frequency and severity, living shorelines are a natural solution for dealing with future erosion and changing landscapes. 

More information

Coastal Zone Management Rules at N.J.A.C. 7:7-1.5 (www.nj.gov/dep/rules/rules/njac7_7.pdf)
"Living Shorelines" – presentation from American Littoral Society (www.cleanoceanaction.org/fileadmin/editor_group2/Water_Quality/Living_Shorelines_ALS.pdf)
NJ Department of Environmental Protection www.state.nj.us/dep/opi/living-shorelines.html
American Littoral Society <https://www.littoralsociety.org/living-shorelines.html>
Partnership for the Delaware Estuary (www.delawareestuary.org/science-and-research/living-shorelines/)
Rutgers University Department of Marine and Coastal Sciences (marine.rutgers.edu/main/announcements/living-shorelines)



ANJEC'S 46th Annual Environmental Congress

Friday, Oct. 4, 2019

9:00 am to 4:30 pm

Mercer County Community College, West Windsor, NJ

Keynote speaker - Anthony Broccoli, Ph.D.,
Co-chair Rutgers Climate Institute; Chair, School of Environmental and Biological Sciences

Featured speaker - Catherine McCabe, Commissioner,
NJ Department of Environmental Protection

Enjoy a day jam-packed with information and resources you can use, with exciting workshops, exhibitors, Environmental Achievement Awards, Electric Vehicle Ride & Drive plus a special 50th anniversary celebration

Check the ANJEC website

<http://anjec.org/anjec-environmental-congress/>
for details and registration info



Acting Locally

By **S. T. Carroll**, ANJEC volunteer; **Brianna Marmol**, ANJEC volunteer; **Lyle Landon**, ANJEC Membership and Development Director; and **Wynniefred Victor Hinds**, ANJEC Community Outreach and Engagement Manager

Montville series stresses less waste

This year the Montville Environmental Commission (EC) launched a Sustainable Living Series comprised of three events: a zero-waste seminar, a backyard composting seminar and the screening of *A Plastic Ocean*, a film that highlights the seriousness of polluting the world's seas with plastic.

The first event focused on reducing trash production and featured speakers who explained the easiest ways to create less waste. Commission member Bansari Shah hosted and kicked off the evening by noting, "I try to simply reduce the amount of garbage I produce – especially by purchasing items in less packaging." That includes buying in bulk and eating more home-prepared meals. The second part of the program was a DIY table demonstration where participants could learn to make household items such as deodorants, air fresheners, cleaners and more without generating packaging waste.

The success of the zero-waste seminar led Montville EC to follow up with a Zero-Waste Fair in May. The fair featured a dozen local, eco-friendly vendors and several DIY demonstration tables to teach residents how to make greener versions of store-bought items like shampoo and herbicide. Attendees were advised to take actions like buying cloth wipes to save money and waste on paper towels or buying second-hand items.

The second event, a composting seminar, was designed to teach participants how to

compost in their own backyard. It was hosted by Java's Compost, a compost service company that provides composting equipment, training and a compost pickup service for those who want to recycle food waste but do not want to process it at home.

In the final event of the series, the EC continued its efforts to encourage residents to reduce their plastic footprint by screening *A Plastic Ocean*. The film starts with this statement: "The whole of the ecosystems of the world are based on a healthy ocean. And if that part of the planet becomes dysfunctional, goes wrong, then the world of life on this planet will suffer." The film goes on to dramatically show how badly polluted with plastic the ocean is becoming.

Stephen Pletko, who reviewed this film for Amazon in February 2017, observed: "This film brings to the forefront the devastating consequences of our global disposable lifestyle. We thought we could use plastic and simply throw it away. But we cannot because doing so has direct negative impacts on humans, animals (marine and land-based), as well as the environment."

Residents who attended the series now have reliable information, new tools and helpful reminders about waste reduction.

– S.T. Carroll



Montgomery's Second Chance Toys program collected 325 toys, with about 1,300 lbs. of plastic diverted from waste stream.

Used toys can help the earth

As the human population increases, plastic waste is becoming a critical issue affecting people, animals, and the environment. While all towns in New Jersey recycle plastics, not all plastic items are accepted by municipal recycling facilities, including toys. Happily, there's now an innovative approach to recycling children's toys through Second Chance Toys (SCT), a nationwide effort to keep plastic toys out of landfills by donating them to children in need.

Most toys today are made from plastics, which can take up to 1,000 years to decompose. While plastics eventually break down, they wreak havoc on our oceans and overall ecosystems by harming marine life and other species, polluting water supplies, degrading soil fertility and more. Since human population keeps expanding and plastics won't stop being produced anytime soon, it makes sense to recycle old playthings and give them to the next generation. This reduces plastic pollution and provides low-cost toys for children in low-income families – a win-win for everyone.

Toys, glorious toys!

Currently Fair Lawn, Holmdel, Middletown, Montgomery, Paramus, Upper Saddle River, Westfield and West Orange are participating in Second Chance Toys. Stuffed animals and larger toys like slides aren't currently accepted. Residents can drop toys off at recycling centers in any of these towns. Toy collections happen from spring through fall.

Montgomery Township's recent toy drives have been extremely successful, according to Bronna Lipton, Executive Director for Montgomery's Second Chance Toys staff.

The "quality of the toys collected was outstanding! They were all top notch, with barely a part missing. The community took pains to donate their toys in good condition with pieces carefully wrapped and attached. Therefore, we had very few toys that had to be thrown out," Lipton reported in May. There were 325 toys collected, cleaned, bagged and kept out of landfills with about 1,300 lbs. of plastic diverted from waste stream. Additionally, at least 650 children were positively impacted.

"Toys are important tools of play; they help children socially and emotionally, and help with their creativity," said Lipton. After receiving a toy, one child "wanted to be a scientist and get his family out of poverty. Another toy helped a child learn to walk."

Volunteers clean and transport the donated toys, while other helpers write personalized messages to their future owners. 1-800-GOT-JUNK? partners with the program and delivers the toys for free to communities in need. A four-hour event can generate up to 1,000 toys or more.

"We are pleased to offer this collection to the community. It is a win-win for our township, the environment and local children in need," said Art Villano, the Superintendent of Public Works for Montgomery Township.

More information

Learn more about Second Chance Toys.
(www.secondchancetoys.org/)

Organize a toy collection in your town.

(www.secondchancetoys.org/collect-toys)

Volunteers and monetary donations are always welcome.

– *Brianna Marmol*



Glen Rock adopts a storm drain program

The Glen Rock Environmental Commission (EC) and Green Team have found a way to offer a ready opportunity for volunteers, reduce pollution and make their town safer and cleaner. Everyone has seen storm drains that are clogged with leaves and trash. Glen Rock set up a program for dealing with immediate clogs and providing long term maintenance by inviting residents to volunteer to look after a particular storm drain of their choice.

The first step is to identify the storm drain by the nearest street address and then complete and submit the Adoption Form. When the EC confirms the drain is available for adoption, they send the volunteer a list of instructions: always wear work gloves; do not stand in the street when clearing the drain; collect the leaves and vegetative debris and dispose of them in a personal or town compost pile; and recycle cans and bottles and dispose of the rest as normal trash. If the object clogging a drain is stuck or too large to remove, volunteers are instructed to call the local Department of Public Works (DPW).

The results have been encouraging: engaged volunteers, cleaner water for downstream use, gratitude from the DPW and municipal government, and improved optics. Feedback has also been positive from neighborhood joggers, bike riders and walkers.

More information

See Glen Rock's You Tube video for more details. (www.youtube.com/watch?v=FuRnolyFmmY)

Newark has a catch basin adoption program too. (www.newarknj.gov/card/adopt-a-catch-basin) – Lyle Landon



New Jersey municipalities strive to become EV-Friendly

Electric Vehicles (EVs) are everywhere these days. Now that they've come down in price, EVs are becoming more attractive to mainstream consumers and sales are climbing. Municipalities throughout New Jersey are beginning to embrace them, mostly for practical and health benefits. New Jersey is planning on spending \$3.2 million from a VW Settlement Fund to install approximately 800 EV chargers throughout the State.

Municipalities such as Leonia, Jersey City, Newark and Elizabeth are leading the effort to integrate EVs into their municipal fleets. For example, Leonia Borough recently acquired plugin vehicles for police functions and general fleet purposes. Two chargers were also installed at police headquarters. Christoph Hesterbrink, Chair of the Leonia Environmental Commission, said, "The Leonia Environmental Commission is very supportive of reducing greenhouse gas emissions, and using electric vehicle in local government is a necessary contribution to doing our part at the local level. We hope that this pilot can be expanded to eventually include the entire borough fleet."

In July 2019, and at the insistence of nonprofit organization Clean Water Action, Governor Murphy directed the New Jersey Department of Environmental Protection (NJDEP) to regulate black carbon, also known as soot and a byproduct of burning of fossil fuels, particularly diesel and coal. Amy Goldsmith, Executive Director of Clean Water Action, commented, "There are over 15,000 truck

trips per day at Port Newark & Elizabeth, the largest seaport on the East Coast. Electrifying port operations by switching to plugin trucks and cargo handling equipment and installing charging stations would help to create 'Zero Emissions Zones' for the short hauling of goods, making a tremendous difference in the health of residents, truck drivers and dock workers."

Alison Cucco, chair of the Jersey City Environmental Commission, commented, "In the past few years, Jersey City has made strides to address the causes, and expected local effects, of global climate change. It's estimated that 30 percent of greenhouse gas emissions in the US are produced by the transportation sector, so switching to more energy efficient transportation can make a big difference. In Jersey City, we're lucky to have access to excellent public transportation, such as the PATH and Light Rail, but this summer our sustainable transportation options got even better when the City installed one public dual-port charging station on Marin Blvd. and two municipal dual-port charging stations for the City's fleet vehicles at City Hall. Each dual-port charging station can charge two vehicles at a time."

"The City of Jersey City is committed to introducing electric vehicles into its fleet and making sure that residents throughout Jersey City have access to electric vehicle charging infrastructure." Cucco continued. "The stations that were recently installed are the first step in that commitment."

– Wynnie-Fred Victor Hinds



The new Hackensack community garden is in full swing.



What you should know about the new *Draft Energy Master Plan*

By Alex Ambrose, ANJEC Policy Associate

On June 20, New Jersey's long-awaited *Draft 2019 Energy Master Plan (EMP)* was published. The 108-page document is a manifestation of the Murphy Administration's vision and the Legislature's promise in the State's 2018 *Clean Energy Act* to get New Jersey to 100 percent clean energy by the year 2050.

The effects of climate change are more than obvious at this point. We know if we do not actively work to reduce greenhouse gas (GHG) emissions and other sources of carbon pollution – and do it fast – there won't be much of the Garden State left for our children and grandchildren.

Thankfully, this *EMP* makes great strides. It largely focuses on our two biggest contributors to greenhouse gas: the

transportation sector and the building sector. By electrifying these sectors, we can take huge steps toward reducing our GHG emissions.

EMP strategies

In case you haven't gotten the chance to peruse the entire plan, here are the top seven strategies guiding the *EMP*:

1. Reduce energy consumption and emissions from the transportation sector.
2. Accelerate deployment of renewable energy and distributed energy resources.
3. Maximize energy efficiency and conservation and reduce peak demand.
4. Reduce energy consumption and emissions from the building sector.
5. Modernize the grid and utility infrastructure.
6. Support community energy planning and action in low- and moderate-income and environmental justice communities.
7. Expand the clean energy innovation economy.

Three of the fascinating and inspiring goals laid out in the *Plan* are to:

- Implement a statewide program to replace street lights with energy-efficient LED fixtures.
- Add 15,000 jobs in the offshore wind industry over the next 10 years.
- Create a "Green Bank" to help provide financial mechanisms, such as leveraging public dollars to increase private sector investments, in order to grow the clean energy economy at a lower cost to ratepayers.



This *Plan* is just the first step; it's not perfect. The *Draft* itself points out what our State lacks in technology, where it has gaps in knowledge and where it falls short in funding. There are also concerns with ensuring that environmental justice communities and low- and moderate-income communities have equitable access to clean energy and are not further harmed by the cumulative impacts of

climate change. However, the final draft, set to be published in December of this year, is scheduled to include findings from other ongoing studies that may begin to fill in the gaps. 🌱

New Jersey Pinelands Commission – Back on track (almost)

By **Randi K. Rothmel, Ph.D.**, ANJEC South Jersey Project Director

Governor Phil Murphy's campaign promise to appoint qualified NJ Pinelands Commissioners is one step closer to fruition. The desired candidates must be supportive of the Commission's mission to "preserve, protect, and enhance the natural and cultural resources of the Pinelands National Reserve, and to encourage compatible economic and other human activities consistent with that purpose."

The Governor has since named Commissioner Richard H. Prickett as chairman (replacing Sean Earlen) and has nominated five highly qualified individuals to serve as Commissioners, including: ANJEC Executive

Director Jennifer Coffey, Theresa Lettman, Jessica Rittler Sanchez, Robert Jackson and Edward Lloyd (a reappointment). Lettman would succeed Candace McKee Ashmun, ANJEC's original executive director and original member of the Pinelands Commission. Rittler Sanchez, Coffey and Jackson would replace Governor Christie appointees Gary Quinn, Bob Barr (retired) and D'Arcy Rohan-Green.

The new nominees will make "the Commission more Pinelands-oriented," said Carleton Montgomery, executive director of the Pinelands Preservation Alliance. "They are people who are definitely conservationists, who replace ones who had a different agenda."

The 15-member board (seven of them governor appointees) are bound by the *Pinelands Comprehensive Management Plan (CMP)* for guiding land use, development and natural resource protection of the 1.1-million-acre Pinelands National Reserve which sits over a 17-trillion-gallon aquifer. Commissioners Barr and Quinn favored fossil fuel projects, including the




Pitcher plants in the New Jersey Pinelands

Southern Reliability Link and South Jersey Gas pipelines, considered by many to be noncompliant with the *CMP*.

Meet the new chairman and five nominees:

- Richard Prickett: Commissioner since 2012; formerly president of the Whitesbog Preservation Trust's Board; retired high school science teacher; served on the Pemberton Township Council and Planning Board.
- Theresa Lettman: Trustee for the Natural Lands Trust; formerly with Pinelands Preservation Alliance; chaired the Manchester Township Environmental Commission.
- Jessica Rittler Sanchez (MCRP, Ph.D.): Pinelands resident; Pinelands Preservation Alliance Board trustee; former regional planner for the Delaware River Basin Commission.
- Jennifer Coffey: ANJEC Executive Director; previously the policy director for the Watershed Institute; former Upper Freehold EC chair and board member.
- Robert Jackson: Former Pinelands Commissioner (2008 – 2015); previously mayor of West Cape May; background in marine environmental studies.
- Edward Lloyd (J.D.): Commissioner since 2002; lawyer; professor; director of the Columbia Law Environmental Clinic; sat on the New Jersey Supreme Court. Committee on Environmental Litigation.

The State Senate Judiciary Committee needs to approve these nominations before moving to a full Senate vote. If confirmed, the focus and direction of the Commission will be back on track (in line with the *CMP*). During the previous administration, the commissioners approved two natural gas pipelines through the Pinelands, despite opposition from environmentalists, residents and, in one case, four former governors.

More information about the NJ Pinelands Commission (www.nj.gov/pinelands/) 



Electric vehicle charging station

The state of electric vehicles in New Jersey

By **Eve Gabel-Frank**

A window has opened. New Jersey has the chance to become a national leader in transportation electrification following a slew of advancements in the past few years. In 2018, there were 5,651 battery-powered electric vehicle (BEV) sales in New Jersey, up from 6 BEV sales in 2011. Further, there are more choices – 43 plugin car models in 2018 versus only 8 models in 2010. Many more models will be in the market later this year, making 2020 the year of the electric vehicle. It's no surprise that New Jersey policy makers are now embracing the shift towards electrification.

Earlier this year, New Jersey Governor Murphy set a goal to deploy 330,000 light-duty electric vehicles (EVs) on the road by 2025 in conjunction with the State's goal of reaching 100 percent clean energy by 2050. This goal delivers on New Jersey's obligations as a Clean Car State⁴ and will be necessary to meet New Jersey's goals under the *Global Warming Response Act*. To reach these goals in the coming decades, we must commit now to rapidly electrifying transportation.

Policy movement

ChargEVC was formed in 2016 with ANJEC as a founding member, anticipating technology would progress and that new policies would be required to meet our goals. Made of not-for-profits, utility companies, the NJ Coalition of Automotive Retailers, car, bus and truck manufacturers, technology companies, and consumer advocates, ChargEVC published a "Roadmap" for electrifying the light-duty fleet with eight recommended actions.² We have seen significant progress to date:

- PSE&G and Atlantic City Electric (ACE) have submitted utility filings to the Board of Public Utilities (BPU) proposing investment in electrification projects, including charging technology.
- EV bill S2252/A4819 was introduced in the New Jersey legislature in 2018. This bill sets statewide goals, calls for the State to invest in the expansion of public charging infrastructure and establishes a rebate program for electric cars. ChargEVC is working with other interested stakeholders to get the EV bill passed in the upcoming lame duck session in the legislature.
- It Pay\$ To Plug In was formed in New Jersey with funding from the Volkswagen Environmental Mitigation Trust. Our State received \$72.2 million³, which will go toward funding electric charging stations as part of a charging network to provide fast and accessible charging for New Jersey drivers, as described by ChargEVC's Essential Public Charging Network (EPCN). This is a required step towards ensuring that necessary charging infrastructure is in place for widespread EV ownership.
- In February, the New Jersey Department of Environmental Protection (NJDEP) awarded grants to install 533 charging stations for individual applicants, and eight electric transit buses in Camden. Then in June, the NJDEP made additional awards for 10

1 In 2006, New Jersey opted-in the Zero Emission Vehicle (ZEV) program created by California and authorized for adoption by New Jersey under Section 177 of the *Clean Air Act*.

2 A Roadmap for Vehicle Electrification in New Jersey: Market Development Strategy and High Impact Initiatives. ChargEVC. September 13, 2017

3 www.state.nj.us/dep/vw/

electric garbage trucks, five electric school buses, 18 electric port-related vehicles, 39 units of electric ground support equipment, and 10 electric drayage trucks. This State-sponsored investment in EV projects is an important first step towards electrification of the transportation sector.

- The *Draft 2019 New Jersey Energy Master Plan (EMP)*, includes transportation as a significant part of the strategy to reach 100 percent clean energy by 2050. Furthermore, electrifying the transportation sector was listed as the first of the seven priorities in the *Draft EMP*. (See article on page 10.)
- On June 3rd, Governor Murphy announced The New Jersey Partnership to Plug-In. The Partnership was established to coordinate the efforts of BPU, the NJDEP, and the State Economic Development Authority to build out the necessary infrastructure to support electric vehicle ownership to improve air quality and reduce greenhouse gas emissions.
- Currently, the BPU is preparing for the launch of an EV rebate program, for which the State budget allocated \$30 million dollars. Establishing multiyear funding for a rebate program is part of the EV bill mentioned previously that ChargEVC is pushing to get passed in the lame duck session of the legislature this fall.

Taken together, all these initiatives can vault New Jersey to national leadership in the EV market.

ChargEVC priorities

Passage of the EV bill (S2252/A4819) and getting the utility filings underway is a top priority for ChargEVC. We need to build the charging infrastructure to alleviate range anxiety and get drivers comfortable with purchasing EVs. This infrastructure will also provide access to clean transportation options for all people with electric transit, electric car sharing and ride sharing services. With more EVs on the road, all New Jersey residents will be able to enjoy cleaner air, savings for all utility customers and big benefits to our economy by keeping dollars in New Jersey that would otherwise be spent on fossil fuels.

For more info, visit www.chargevc.org.

Lake Como partners with talented teens to become eco-destination

By **Jenine Tankoos**, ANJECTrustee

Lake Como may be small, but it has big plans for environmental stewardship. Less than a quarter of a mile in size with a population of just 1700, Lake Como is a shore town that visitors usually pass through on their way to other shore destinations. But volunteers there have a vision to turn Lake Como into a distinctive eco-friendly area that will attract visitors. To help bring their concept to fruition, the town has teamed up with a magnet high school to also create an unusual experiential learning opportunity for students.

An important partner in the Lake Como project is HEALTH for Youths, Inc., a nonprofit organization based in Staten Island. HEALTH for Youths brought the town together with the Williamsburg High School of Architecture and Design (WHSAD), which is located in Brooklyn, NY.

First encounters

On a cold and windy day last January, students from WHSAD traveled by bus to Lake Como to get to know the area and to meet with stakeholders about their goals and priorities for the project. In the words of one student, Melina Jorge, who wrote about the visit on her school's website, the students were there to prepare a plan for "how to make Lake Como a greener place." She explains further that the students "listened to presentations and were introduced to the many volunteers and important people who make Lake Como what it is today and what it will be in the future."

The students' visit began with a tour of Lake Como led by then Environmental Commission Chair Jon Gibbons, who also organized the day's events. The students braved the cold to get familiar with six



Lake Como students tour the lakefront on a frigid January day.

Photo by Courtney Winston

outdoor public spaces in the town; each of which will become a distinct environmental destination that embodies the town's vision for the future. They include the Lakefront Fun and Wildlife Park, Pathway to the Lake, Borough Hall Demonstration Stormwater Gardens, Patchwork for Wildlife and the Main Street Arboretum. One area, called Candide's Garden, established in 2017, was honored with an ANJEC Environmental Achievement Award. The town plans to create the remaining five destinations over the next five years.

In May, the students returned to Lake Como bearing proposals for the design of the next destination to be established, the Lakefront Fun and Wildlife Park. There were five competing student teams who presented their designs for this park to a room full of town officials, residents and representatives of several local organizations, among them the Friends of Lake Como Environment and The Master Gardeners of Monmouth County. After the students fielded questions, a panel of eight judges chose the winning design.

We have a winner!


Lake Como Mayor Kevin Higgins presented a plaque to the winning team, including three seniors from WHSAD: Kaylin Guzman, Joseph Balbuena and Milana Baldizzi. Their winning design creates a living shoreline with a variety of flora that will increase habitat and aesthetic appeal. In addition, the design includes a footpath with stumps for children to jump from one to another. A picnic area with innovative benches that convert to tables was particularly intriguing to the audience. The students also shared their vision for a minimalistic playground that provides structures for imaginative play that blend into the landscape and may include repurposed materials.

The winning team talked about three existing play spaces from which they had drawn inspiration: The High Line in Manhattan, Prospect Park in Brooklyn and Domino Park, also in Brooklyn. The students cited elements of these parks


that they felt could also be incorporated into the Lake Como Lakefront Fun and Wildlife Park, including a water bottle refilling station, a dog water fountain, a composting area near the picnic benches, small solar powered lights along the footpath and recycling collection containers.

Over the summer, the students have worked to hone the details of the winning design. They are incorporating comments from residents and local organization members who were at the presentation. Monmouth University, another partner on the Lake Como effort, will be providing GIS support and system integration services for the project.

Pleased with the success found so far implementing their vision to turn Lake Como into a shore destination, the town plans to continue the partnerships it has formed for redesigning its public spaces. Plans are underway for WHSAD school students to play a role in developing the remaining parts of their five-year-long project.

Jon Gibbons, a tireless volunteer for Lake Como, commented about the project and its projected success: "I cannot express what a game changer this will be for Lake Como!" 

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! 

Bringing our aging infrastructure into the 21st Century

Combined sewer overflows and long term control plans

By Sheila Baker Gujral, ANJEC Resource Center

When it rains, it pours...and in Combined Sewer Overflow (CSO) towns, it can pour raw sewage right into your community. In 21 cities throughout New Jersey, combined sewer systems (CSSs) were designed back in the late 1800s and early 1900s to collect raw sewage and rainwater runoff in the same pipes. All of the sewage and runoff is sent via one pipe to the sewage treatment plant, where it is treated and then discharged to a water body.

That's great when it works. Sometimes, however, the system can be overwhelmed by sudden rain storms or heavy snow melts. When the treatment plant is operating beyond its capacity, the system is designed to allow for combined sewer

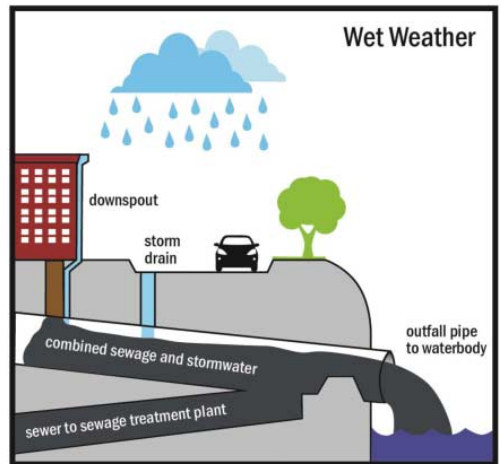
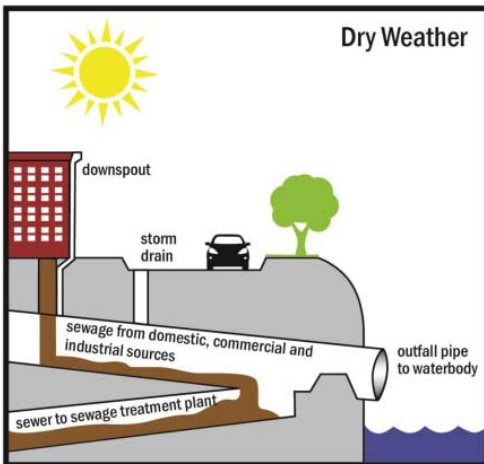
overflows: excess water is sent directly into local water bodies, bypassing the treatment plant and the treatment process entirely.

Yes, it is what you think it is. Raw sewage and industrial waste can be part of the excess water mixture that is pumped directly into local rivers and streams – it can even back up into your basements and streets – almost 23 billion gallons of sewage tainted water a year!

That's disgusting. So what are people doing about it?

Permits and plans

The New Jersey Department of Environmental Protection (NJDEP) issued CSO permits in 2015 to entities that operate the



CSOs in dry (left) and wet weather

CSO outfalls and run the sewage treatment plants. These permits have a timeline for developing Long Term Control Plans (LTCPs), a system-wide evaluation of the sewage infrastructure, with the goal of reducing or completely eliminating CSO discharges. The permits encourage collaboration between the permit holders and community members in coming up with ways to reduce the stormwater burden on their community.

These permit holders all just met their July 1, 2019, deadlines to provide a "Development and Evaluation of Alternatives Report," which is an analysis of the alternatives a municipality can take to reduce CSO discharges and flooding. Over the next year, permit holders must determine which alternatives to choose, with a July 1, 2020, deadline for the complete LTCP. One of the alternatives with a variety of positive co-benefits for the community is green infrastructure (GI).

Green infrastructure

Green infrastructure is a cost-effective, resilient way to manage stormwater that provides a variety of community benefits. (Gray infrastructure refers to the pipes and tunnels in the water infrastructure system.) GI uses vegetation, soils, and other elements and practices to restore some of the natural processes required to manage water and create healthier urban environments.¹ These practices include rain barrels, permeable pavements, green roofs, rain gardens, downspout disconnections, tree canopies and more. In addition to the ecosystem benefits (absorbing and filtering rainwater, reducing flooding), there are many ancillary advantages to greatly enhance your community.

The city of Philadelphia found that increasing their tree canopy could reduce the ozone and particulate pollution levels, resulting in increased air quality, reduced

mortality and fewer missed work days. GI can also improve residents' health, as more green spaces lead to increased physical activity, which can lead to reduced rates of obesity, diabetes, high blood pressure, heart disease, arthritis and certain types of cancer.²

Increased vegetation and green space also provide more wildlife habitat, as well as helping to reduce soil erosion. And GI can result in more local jobs as there are construction and maintenance requirements associated with each project. Shady green spaces can also offset the heat island effect and absorb ambient noise. Investing in GI also returns benefits to the property owners as it increases property values. On top of all these advantages, GI can help your community become more resilient to climate change as we face increasingly intense weather events.

Required elements and minimum controls

The National CSO Policy requires Long Term Control Plans (LTCP) to contain certain elements, such as public participation, cost/performance considerations and post-construction compliance monitoring. A complete list can be found at www.epa.gov/npdcs/npdcs-cso-control-policy.

Permittees are also required to enact Nine Minimum Controls (NMCs) and to develop an LTCP to control their CSOs. The NMCs are "minimum technology-based controls used to address CSOs without extensive engineering studies or significant construction costs and are in place prior to the implementation of long-term control measures." They are the bare minimum that must be in place before the LTCP alternatives are weighed. The Nine Minimum Controls are described at www.nj.gov/dep/dwq/cso-nine.htm.

Community benefits, outreach and input

Collaborative groups such as Camden SMART (Stormwater Management and Resource Training) (www.camdensmart.com/), Newark DIG – Doing Infrastructure Green

1 <https://www.epa.gov/green-infrastructure/what-green-infrastructure>

2 <https://www.epa.gov/green-infrastructure/benefits-green-infrastructure>

(www.newarkdig.org/), Paterson SMART (www.facebook.com/patersonsmart/) and others have been working hard to get input from residents so that green infrastructure is installed where it can most benefit the community.

Getting robust community participation can be a challenge but it gives decision makers important feedback and lets community members know how they can benefit from the increased green space and the other advantages green infrastructure installations provide.

What can you do in your community?

- Check in with your Environmental Commission or community action group to see how you can get involved in the community participation part of the process. If you're not sure who to contact, get in touch with the ANJEC Resource Center and we can point you in the right direction. (973-539-7547 or info@anjec.org).
- Check to see what reports have already been submitted on behalf of your CSO permittee at www.nj.gov/dep/dwq/cso-ltcspsubmittals.htm.
- Contact the NJDEP to share your feedback at www.nj.gov/dep/dwq/cso-contacts.htm. You can request green infrastructure benefits for your community. Sign up for their email list-serve so you can stay abreast of developments.

List of impacted communities

New Jersey has 213 CSOs within 21 communities. They are listed at www.nj.gov/dep/srp/brownfields/roundtables/cso_permitting_10022015.pdf.

Further Reading:

- CSOs in New Jersey: Jersey Water Works – www.jerseywaterworks.org/our-work/initiatives/csos-in-new-jersey/
- EPA Benefits of Green Infrastructure – www.epa.gov/green-infrastructure/benefits-green-infrastructure

- EPA Combined Sewer Overflows – www.epa.gov/npdes/combined-sewer-overflows-csos
- EPA Combined Sewer Overflows: Guidance for Long Term Control Plans – www.nj.gov/dep/dwq/pdf/1995-09-ltcspsubmittals-epa-832-B-95-002.pdf
- EPA Combined Sewer Overflow Control Policy – www.nj.gov/dep/dwq/pdf/1994-04-19-cso-overflow-control-policy.pdf
- NJDEP Combined Sewer Overflows – www.nj.gov/dep/dwq/cso.htm
- NJDEP Long Term Control Plan Submittals – www.nj.gov/dep/dwq/cso-ltcspsubmittals.htm
- CSO Sewer Maps – www.nj.gov/dep/dwq/cso-sewer-maps.htm



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Fifty years of golden moments

By Julie Lange Groth, *ANJEC Report* Editor



The story of ANJEC can be visualized as a series of golden moments, strung together like pearls to create a 50 year history. The spaces between the pearls represent challenges and crises that inevitably gave rise to the new solutions and accomplishments embodied in each new pearl.

One of the earliest golden moments was the 1975 ANJEC Environmental Congress, attended by over 1,000 people, where the guest of honor was Stewart L. Udall, Secretary of the Interior under Presidents Kennedy and Johnson.

Among 2019's golden moments was the announcement that New Jersey municipalities, with the help of their environmental commissions, had passed more than 70 ordinances to prevent plastic pollution by September 1.



ANJEC Water Resource Protection Team investigating the health of a stream in 1978



Helen Fenske

*Richard Sullivan and his wife,
Renee, at ANJEC's 40th
anniversary party*



Candace McKee Ashmun



The early days

Candace McKee Ashmun (Candy) remembers how it all began. She credits certain visionary people for creating ANJEC, including her friend Helen Fenske, who had just led the successful campaign to save the Great Swamp from development before joining forces with David Moore of NJ Conservation Foundation, where Candy worked at a card table in her early days as ANJEC's first executive director.

Also playing a key role in ANJEC's formation was Richard Sullivan, who became the first Commissioner of the State's Department of Environmental Protection (DEP) when it was formed on Earth Day in 1970, with Fenske as head of the Office of Environmental Services. In the early days, when almost all EC members were new to the job and knowledge about protecting the local environment was hard to come by, ANJEC's annual course for commissioners was 10 weeks long.

"Helen went to the EPA (US Environmental Protection Agency) and got us a huge grant to train all nine of the states that had environmental commissions," Candy recalls. "They were all local control states, mostly in New England...We couldn't afford a staff, but the CETA (Comprehensive Employment and Training Act) program was looking for jobs for recent college graduates." Hiring CETA recruits enabled ANJEC to quickly expand its capacity. "So after we trained our staff, we devised a course and we took it on the road."

"What I've always been proud of is the way environmental commissions rise to the challenge. Being in New Jersey, there are lots of problems, but ECs stand up to them. I think local action is more seriously undertaken here than in other states."

David Moore, founding director of NJ Conservation Foundation

David Moore remembers a Drew University-hosted conference in the late 1960s under Helen Fenske's supervision, highlighting the Massachusetts Conservation Commission movement. Massachusetts was a local control state where Fenske had some roots, and the idea of conservation commissions greatly appealed to her.

"The conference was amazingly successful, drawing over 500 people," Moore recalls. "And it gave the New Jersey Legislature the strength to act on enabling legislation to create municipal conservation commissions statewide, sponsored by Josephine Margetts from Harding Township.

"Now there are hundreds of Environmental Commission all over New Jersey, doing the work that Helen envisioned in 1969, and a strong coordinating organization that Helen and I founded to assist them – the Association of New Jersey Environmental Commissions.



ANJEC staff and trustees at a retreat in 1999

Helen Fenske with Christopher Daggett (center) and Governor Tom Kean



Governor Tom Kean, 1982 to 1990

"New Jersey faced some serious environmental challenges when I came into office, from over development in sensitive natural areas to toxic waste spills.

We worked hard to pass the *Freshwater Wetlands Protection Act* in 1987 that safeguarded freshwater wetlands by creating a buffer zone adjoining the wetlands where new construction could not take place. To get the Legislature to pass that bill, I even imposed a moratorium on new development permits in wetlands areas. We caught some flak for it, but we got it done.

I always knew I could count on ANJEC's support to help educate the public about the importance of what we were doing and to help get things implemented at the local level. I really valued that partnership."



*300 Mendham Road,
ANJEC's home since the beginning*

Candy Ashmun with Governor James Florio, left, and Governor Tom Kean



Governor James Florio, 1990 to 1994

"When ANJEC started, I was just starting my political career as NJ State Assemblyman in the 3rd District (Camden County)," Governor Florio recalled at ANJEC's gratitude celebration at the Pinelands Commission offices in June. He harkened back to the formation of the first environmental commissions and how ANJEC was and remains a unique resource for local officials to assist and advise them as they work to protect natural resources in their towns.

"ANJEC is also an important advocate for federal and state programs that have kept New Jersey on the forefront of the environmental movement from 1969 till today and will continue to do so for the next fifty years," he said.

After leaving office, Governor Florio was appointed by Governor James McGreevey to chair the New Jersey Pinelands Commission, where he formed a lasting friendship with Candy Ashmun, who was integral to the enactment of the *Pinelands Protection Act* in 1979 and is one of the original members of the Pinelands Commission.

Retired ANJEC staffer David Peifer, second from left, leads environmental commissioners on a site walk as part of an ANJEC workshop on site plan review.





From left, Governor Christine Todd Whitman, former ANJEC Executive Director Sally Dudley and Candy Ashmun

Governor Christine Todd Whitman, 1994 to 2001, and EPA Administrator, 2001 to 2003

"I congratulate the ANJEC for their fifty years of serving our great State. Safeguarding the environment was a hallmark of my time as Governor and EPA Administrator. As Governor, I was pleased to work with members of both parties to preserve a record amount of New Jersey land as permanent green space.

"When I was EPA Administrator, we promoted common-sense environmental improvements, such as watershed-based water protection policies. We championed regulations requiring non-road diesel engines to reduce sulfur emissions by more than 95 percent and during my tenure, the Agency was successful in passing and implementing landmark legislation to promote the redevelopment and reuse of brownfields, previously contaminated industrial sites.

None of this would have been accomplished without the leadership and support of organizations such as the ANJEC, and I remain grateful for all that they have done and continue to do in protecting our environment."

NJ Senator Bob Smith

"ANJEC holds a special place in my heart. My involvement with New Jersey's environmental issues began in 1972 when Piscataway's Mayor Ted Light appointed me to the Piscataway Township Environmental Commission. Since that time, it has been my goal to leave our state greener and cleaner. Along the way ANJEC has played a major role in the passage of environmental legislation that will leave behind a legacy.

Some of the important milestones include:

- New Jersey's *Clean Water Act* permitting program;
- The *Highlands Water Protection and Planning Act*;
- Joining the Regional Greenhouse Gas Initiative (RGGI);
- Amending the constitution to secure long-term sustainable funding for open space, farm land preservation and historic preservation.

As chairman of the Senate Environment and Energy Committee, which is widely regarded as the most interesting committee in the State Legislature, it is a pleasure to work with the incredible professionals at ANJEC on the environmental issues impacting the Garden State!

Congratulations on your 50th Anniversary!
Keep up the good work!"



NJ Senator Bob Smith at ANJEC's Capitol Day in 2014

Sandy Batty, ANJEC Executive Director, 2002 to 2014

Since environmental commissions were formed in New Jersey 50 years ago, they have received grants to accomplish special projects for their towns. Early on, the DEP gave small grants to commissions as incentives to develop programs and give recommendations to their local governments.

By the year 2000, the DEP saw significant cutbacks, and so the municipal grant program was discontinued. However, ANJEC was able to secure foundation funding to continue grants. The Fund for New Jersey provided support for local land use planning, especially for innovative projects like creating town centers or developing cluster ordinances.

Starting in 2002, the Geraldine R. Dodge Foundation gave ANJEC pass-through grants for environmental commissions to create master plans, environmental resource inventories, and open space plans. Commissions also accomplished many innovative projects such as bike/pedestrian trail plans, conservation easement programs, vernal pool assessments and ordinances to protect critical areas and connect open space and cultural resources.

As Executive Director, I was gratified and pleased that Dodge recognized the value of the program and continued it for a decade, giving ANJEC a total of more than \$1 million in funding. Environmental commissions contributed their local expertise to the projects, and increased their knowledge by implementing them, becoming more

experienced in representing the environment in municipal land use discussions. At the same time, the grant projects provided me and the other ANJEC staff members with first-hand knowledge of local planning and documents that we could share with commissions throughout the State.

After the Dodge program concluded, I found the grants so valuable that I recommended ANJEC create its own grant program for commissions to encourage local open space stewardship. The result has been new trails, enhancements at local parks, interpretive signage, pollinator gardens and much more.



Former ANJEC Assistant Director Kerry Miller, left, with former ANJEC Executive Director Sandy Batty in the ANJEC Resource Center



The Sandy Batty Grant Fund was established upon Sandy's retirement in 2014 to finance EC open space stewardship projects

Past is prologue

As ANJEC reaches its half century mark, tremendous progress has been made to address the environmental misdeeds of the past and protect our precious natural resources for future generations. Decades of hard work by local environmental commissions have defended forests against clear cutting, secured green open space from development and prevented the pollution of streams and rivers from dirty runoff. Environmental commissions have fought to protect endangered species from extinction, reduce carbon emissions and safeguard pollinators that ensure an abundant harvest in our Garden State.

It has been ANJEC's privilege to support environmental commissions in their valiant efforts, and to stand with them to advance sound policy at the State and federal level.

But our work is far from done. The world is poised on the precipice of grave environmental peril as a rapidly heating climate threatens every aspect of life on our planet.

As New Jersey strives to address and mitigate the impacts of climate change, ANJEC continues to work with communities across the State to achieve greater resiliency and preparedness for the challenges ahead.



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We make things work for you.

A pollinator garden grows in Caldwell

By Elizabeth Ritter, ANJEC Deputy Director

A NJEC grant recipients are turning small funds into gold. Since 2015, ANJEC has offered Open Space Stewardship Grants for municipal environmental commission projects around New Jersey. Community gardens, refurbished trails, rain gardens, native plantings, dune restoration sites, pollinator habitats and more are enhancing communities and the visibility of the environmental commission, along with the partnerships they make in the process.

Spotlight on Caldwell

The Caldwell Environmental Commission (CEC) wanted to create pollinator habitat on a 70-foot by 100-foot property with a tall black walnut tree in one corner of the lot. A chain link fence separated the lot from Pine Brook, a stream that runs through the entire Borough. The CEC developed a plan to create a rectangular meadow in the center of the property bordered by a four-foot-wide path with gardens dedicated to different pollinators around the outside perimeter. Native trees, including three Serviceberries, two red buds, a dogwood and a Paw Paw, were placed around the perimeter.

The meadow was established in the fall of the 2015 using a seed mixture of native plants suited to that ecosystem. That meadow has had minimum maintenance



Members of the Caldwell Environmental Commission celebrate their pollinator garden.

thus far and truly is following its own course. Meadow vegetation is cut down once each year in the late fall.

The outer gardens were developed gradually using only native, untreated perennials, except for two small sections in the Monarch Garden that contain annuals. Perennials were selected that tolerate the clay soil, the presence of a black walnut, nearly day-long sunshine, and the presence of deer. Plants were chosen to bloom at various times throughout the growing season to provide continuous food for pollinators.

Support from the Home Depot Foundation and employees helped add the permeable paved pathway, and the local Rotary Club installed a split rail fence around the property. Donations from ShopRite of West Caldwell and Investor's Bank paid for garden plantings through 2019. Other donations came from the Somerset County Soil Conservation District, the Passaic/Essex/Union Soil

Conservation Service and the Pinelands Nursery. A donated English Garden Bench was placed in the garden in honor of a long-time Caldwell resident.

Volunteers make the difference

Volunteers helped in remediating the soil, clearing the area of rocks and construction material and planting the gardens. Among the helpers were local Boy Scouts, students of James Caldwell High School and Caldwell-West Caldwell Middle School, students of Caldwell University and Montclair State University, St. Aloysius Green team members, Essex County Master Gardeners, and Caldwell Council, CEC members and its garden committee.

The relationship with Caldwell University has developed so that incoming freshman service projects are often done at the garden, and the university-wide Day of Service with faculty and students has been an integral part of the garden's development. Students from Dominican College also participated in a Day of Service at the garden - they helped to turn over the soil and construct edging for the monarch butterfly garden.

Getting the word out

Caldwell Public Library hosted a lunch & learn program featuring a CEC created slide show on the pollinator garden. The CEC also screened the film, *The Wings of Life*, to highlight the close connection between flowers and the many winged species (bees, butterflies, birds and bats) that allow the plants to reproduce. In addition to the library program, the film was shown to 2nd, 3rd and 4th graders at the Essex Fells School as part of Earth Day celebrations.

The CEC felt strongly that community members needed to know more about pollinators and the threats they are facing in New Jersey and beyond, so they invited Dr. Doug Tallamy, an expert on native plants and pollinators, to speak about his book *Bringing Nature Home*. They collaborated with the West Caldwell and Roseland Environmental Commissions, Sustainable Verona, NJ Beekeepers, Grover Cleveland to

get funding for the program. Over 125 people attended the event and all received pollinators to take home - swamp milkweeds and red oak trees purchased with the help of Pinelands Nursery and a grant from Sustainable Jersey.

In 2018 the CEC participated in the Pennsylvania Horticultural Society's Greening and Gardening Contest and received a Blue Ribbon Award in the Public Space Category. The Caldwell garden was also part of the Native Plant Society's tour of native plant gardens in Essex County, which resulted in a video of the garden.

As part of the Earth Day program this year, The CEC partnered with the West Caldwell Environmental Commission to present "Attracting Pollinators to your Garden," a presentation that two of the Caldwell Environmental Commission members prepared. Everyone that attended received 5 pollinator plants to develop their own gardens.

A little seed money goes a long way. The CEC has created a beautiful asset for the community as well as a haven for pollinators and other creatures. Their work is a terrific example of how a small amount of funds can provide the initiative for almost limitless expansion. Key to the commission's success was the amount of effort put into community education and publicity about pollinators, resulting in a community that is supportive of the commission's efforts on a large scale. Connections to the community also resulted in increased potential sources for volunteers and funding to expand projects.

More information

- The Caldwell garden is open during daylight hours and visitors are welcome any time of the year.
- inaturalist is an app for your cell phone that allows you to quickly identify plants that may be unknown to you. It requires a photo of the plant (or animal) and the identification is made almost instantly.
- Butterfly and moth identification (www.butterfliesandmoths.org/)
- A citizen science project to inventory the butterflies and moths of the US where you can log your own sightings (<https://janetmarkman.com/galleries/nggallery/galleries/Bold,-Brilliant-Butterflies-of-Northern-New-Jersey-2019>).

A guide to local plastics ordinances: FAQs

By N. Dini Checko, ANJEC Resource Center

With 70+ plastics ordinances passed and counting in New Jersey, we are starting to see patterns in terms of the types of opportunities and challenges in front of municipal officials, businesses, communities, and environmental commission (EC) or green team members. With 565 unique municipalities in the State, one strategy does not work for all on plastics education and legislation. Here are some answers to frequently asked questions:

Q Our community is interested in reducing plastic pollution. Where do we start?

A First, get organized.

- Identify a team of five to seven dedicated community members who will champion the effort. Be sure to include elected officials, municipal staff, community and business leaders.
- Think about a program/ordinance that was well received in your town in the past. What worked? Why? Who was involved? How could that process have been made better?
- Join forces. Connect with neighboring communities or join an existing group, such as North Jersey Sustainable Municipal Alliance.

Q We know education is key to changing behavior, but we don't have enough volunteers or time to create materials.

A Imitation is the sincerest form of flattery and, fortunately, many ECs and green teams are willing to share materials that they have already developed, from petitions to social media messages. It can save a lot of time when you adapt what another town has already created.

ANJEC aims to keep up with what everyone's doing and to share information via the ANJEC Report, the ANJEC News and social media. So watch our posts and

articles and repost them on your Facebook and Twitter accounts. And be sure to share what you're doing too! Here are some other ways to get the word out.

- Show a movie about plastic pollution in your community, school, or library and discuss what can be done locally. Ask people to take a pledge to live free of single-use plastic and support local plastic pollution ordinances. Two good films are available on loan for public screening from ANJEC: *Plastic Ocean* and *Bag It*.
- Write an opinion piece or letter to the editor of your local newspaper on why it's important to reduce single-use plastics and how residents can get involved and support your efforts. Highlight local businesses that are already taking action and celebrate their stories.



Q How do I educate people who think they don't need a ban on single-use bags because they already "reuse or recycle" them?

A Impress them with data!

- The average American uses 500 plastic bags per year. Do the math based on your town's population and share that whopping number with skeptics. By the way, less than one percent of plastic bags ever get recycled.
- Teach people how to reuse the plastic bags they can't avoid accumulating, like newspaper bags and packaging for cereal, bread, chips, etc. Get creative with trash!
- Plastic bags floating around in the natural environment and in the recycling stream are costing the town taxpayers money. Discarded bags block storm drains, which can lead to flooding. Plastic bags improperly thrown into recycling create major problems for recycling centers, because they clog the machines and are often contaminated.
- "Free" bags given out by stores are not truly free. There's always a cost that's figured in to the markup for other items.

Q What are some key elements of a successful ordinance?

A An ordinance banning single-use plastic and/or paper bags should have a concise and clear definition of what constitutes a reusable bag. An ordinance banning polystyrene foam (Styrofoam) food service ware should include a concise and clear definition of eligible alternative products. For all ordinances, carefully consider enforcement, data collection and reporting mechanisms.

No need to reinvent the wheel! ANJEC collects plastic pollution ordinances that have been enacted all over the State, so ask us for samples of ordinances passed by towns similar to yours.



NJ municipalities have passed over 70 plastic pollution ordinances.

Q How long should I expect a successful campaign to take, start-to-finish?

A It depends on the public's interest level. South Orange started their education and ordinance campaign back in 2017, and the plastic bag ordinance finally passed in mid-2019, while the City of Lambertville introduced and passed their comprehensive plastics ordinance within three months.

Q What is the best way to work with small and large commercial retailers to make the transition?

A Interact with them!

- Develop an online or printed survey to gather business owners' feedback and commitment regarding plastics regulations. This will give you a better idea what you're up against.
- Pound the pavement – Meet with as many business owners as possible, especially grocery store managers. Bring talking points and ask them to commit to the success of your new ordinance.
- Organize merchant roundtable meetings – Discuss issues such as cashier training, parking lot signage and offering reusable bags.
- Encourage restaurants and eateries to perform plastic waste audits (see www.productstewardship.us/page/RestaurantGuide).

Q How can we learn from other municipalities who have been through this process?

A Here are some tips from other towns that have passed plastic pollution ordinances:

- Provide a simple, clear explanation of allowed products under the ordinance – Make it as easy as possible for people to conform to the ordinance.
- Have a strong and diverse communication strategy.
- Build support for a local ordinance through petitions.
- Consider enforcement – Who is going to do it?
- Work with neighboring towns – Retailers will feel less threatened that their customers will go to the next town to avoid the fee.

Q Do you have any best practices to share on communication strategy?

A Here are some approaches that have been working well for New Jersey towns:

- Use different platforms to get the message out – the municipal website, social media, schools, tabling at local events, personal connections, etc.
- Match your educational material with the diversity of your community (Spanish, Hindi, Korean, French, etc.).
- Remember brand consistency – Develop a unique name and/or image that will be used consistently. For example, the City of Lambertville's

Ditching Disposables initiative has a distinctive logo and tagline that's being used across all communications efforts to engage the community as they transition away from single-use plastics.


- Know your opposition and have talking points ready.
- Educate the community with easy-to-adopt actions.
- Reinforce and celebrate positive changes – Look for bright spots, such as local businesses that are already reducing single-use plastics. Tell their stories through social media, the town website and local press.

Keep in touch!

If you have more questions or you're looking for ordinance samples or other information, please reach out to the ANJEC Resource Center at info@anjec.org.

Resources:

1. Surfrider tool kit (http://public.surfrider.org/RAP/RAP_Toolkit.pdf)
2. Measuring Plastic Bag Laws Effectiveness: (www.plasticbaglaws.org/effectiveness)
3. Hudson River Trash Reduction Toolkit (www.hudsonriver.org/article/stopping-trash-where-it-starts)
4. Rethink Disposable provides more working examples (www.cleanwater.org/campaign/rethink-disposable)



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 jlange@anjec.org.

New plastic pollution ordinances

Congratulations to Parsippany and Paramus, who recently passed plastic pollution ordinances on July 17 and Aug 21 respectively. There are now over 70 municipal ordinances in New Jersey dealing with single-use plastic bags, balloons, straws and Styrofoam food containers.

Scouts worked hard to help Paramus get its plastic bag and Styrofoam ordinance passed. Paramus is a major shopping hub for New Jersey. It includes about 700 retail stores and sees more retail sales than any other zip code in the country.



Parsippany's ordinance bans businesses from handing out single-use plastic bags and places a fee between 10 cents and 25 cents on paper bags. Businesses will also be allowed to give credits to customers that bring their own reusable bags.

Where are they now?

An occasional series that checks in on ANJEC alumni

By **Michele Gaynor**, ANJEC Resource Center

ANJEC Intern Hannah Thonet

ANJEC has been fortunate to have had dedicated and enthusiastic interns throughout our fifty years. One such intern, Hannah Thonet, has since established herself as a driving force of environmental policy for New York and New Jersey.

Hannah began thinking about sustainability as a college summer intern for ANJEC in 2001, when she wrote environmental articles for the *ANJEC Report* and edited a chapter of its manual on smart growth and redevelopment.

While earning her MPA from Columbia University in Environmental Science and Policy, Hannah led a graduate capstone group consulting for New York City's Office of Long-term Planning and Sustainability, analyzing how municipalities can institutionalize sustainability priorities and practices. After graduation, Hannah served as Chief of Staff in the New York City Department of Environmental Protection, where she co-chaired the department's participation in the City's sustainability plan, OneNYC, and facilitated the agency's multi-decade plan to reduce localized stormwater flooding in southeast Queens.



Today, Hannah is the Bureau Chief of Policy in the Division of Clean Energy at the NJ Board of Public Utilities, the State's energy regulator. In this role, she helps drive New Jersey's energy policy goals and

is the chief architect of the 2019 *Energy Master Plan (EMP)*. (See related article on page 10.)

The *EMP* is Governor Murphy's thirty-year plan to reach 100 percent clean energy and reduce New Jersey's climate emissions by 80 percent of the state's 2006 emissions by 2050. The *Draft 2019 EMP* lays out seven primary pathways to achieve these clean energy and climate goals,

including increased electrification of transportation, efficiency measures, and renewable energy generation while also growing the State's innovation economy and supporting environmental justice communities and low- and moderate-income households. The *Draft 2019 EMP* was released in June and is currently open for public comment. Hannah will be attending public hearings and meeting with stakeholders in preparation for releasing the *Final EMP* in December. 🌊

Bobcat Alley: Planning for habitat connectivity

By Isabella Castiglioni, ANJEC Outreach Manager

It's no secret that habitat fragmentation threatens the survival of our native wildlife. It is difficult to answer the question of how to manage our land to minimize fragmentation. This is especially true in our State where, according to the New Jersey Department of Environmental Protection's (NJDEP's) Connecting Habitat Across New Jersey (CHANJ) program, we are "on track to reach build-out by the middle of this century." As Gretchen Fowles, director of the CHANJ program reports, we are in a critical time period where we can plan development and maximize habitat connectivity.

About five years ago, the Nature Conservancy was facing the challenge of how to connect protected lands permanently so that species could have access to the habitat that they need. Thankfully, while

just under one third of New Jersey's land is in urban use, one third is also preserved. So the key is to identify "corridors" that would allow wildlife to travel between already preserved areas.

Bobcat Alley grew as an answer to the question of how to permanently preserve habitat connectivity. The Alley is a region in Northwest New Jersey that connects the Appalachian Mountains to the New Jersey Highlands. This region is part of a larger corridor that the Nature Conservancy has identified as critical for species migration, especially in the face of climate change, when researchers anticipate we will see many species shifting from south to north.

The power of community

Bobcat Alley is a patchwork of preserves, all strung together with the common goal



Bobcat Alley is a patchwork of connected preserves, all with the common goal of maintaining quality habitat and connectedness for bobcats and other species.

of maintaining good habitat and connectivity for bobcats and other species that might live in this area. Although the Nature Conservancy (TNC) leads the project, many partners are involved in working towards the goal of preserving all 32,000 acres of Bobcat Alley. Other partners include Warren and Sussex counties, municipalities like Hardwick Township, and local environmental organizations such as the Ridge and Valley Conservancy. Project partners have even included individual people such as Jack Branagan, who sold to the Nature Conservancy 55 acres that he had bought in 1987 to protect the land from being developed into townhomes. Each partner organization handles the land management for their respective preserve.

Through ongoing monitoring and tracking efforts, researchers are beginning to validate the theory that animals will move between various habitat cores using the corridors. Biologists from the New Jersey Endangered Species Program track animals, even using a scat-sniffing dog to help monitor the presence of bobcats. The wild cats are elusive and otherwise hard to detect.

TNC is also working with Montclair State University and the CHANJ program to perform roadkill surveys. Although they are morbid-sounding, these surveys should help to identify "hotspots" where wildlife frequently get killed while trying to cross roads. This data could help guide smarter development.

The possibilities of change


The CHANJ program has been an essential partner in establishing Bobcat Alley. According to their guidance document, CHANJ hopes to "help:

- 1) prioritize land protection,
- 2) inform habitat restoration and management, and
- 3) guide mitigation of barrier effects on wildlife and habitats," which it does mainly by providing resources like its guidance document and online mapper.

The mapper, which is hosted by ESRI ArcGIS Online, has a number of layers that

can be turned on and off to glean the desired information from the map. Corridors are ranked from "easier movement" to "more difficult movement" for wildlife.

Within these corridors are "stepping stones" (another layer on the map), that show smaller sections of habitat that would link the larger cores. Just like stepping stones across a creek, they provide a way for wildlife to move from one area to another. Roads and culverts are also data layers, and give the user insight into what existing development is fragmenting the land in question. Another useful feature of the mapper is the ability for users to import their own data. Essentially, all of the regular power of ArcGIS is available, but targeted towards connecting habitat.

These resources provide environmentalists, planners, and land managers with the tools they need to make smart choices. Whether you are working to guide development in your town, evaluating land preservation projects or supporting wildlife management goals, it can all be done with the goal of creating connected habitat. As Bobcat Alley shows, the best results are achieved through partnerships. 

More information

New Jersey Department of Environmental Protection: Division of Fish and Wildlife, Connecting Habitat Across New Jersey (CHANJ) (www.njfishandwildlife.com/ensp/chanj.htm)

The Nature Conservancy, Building Bobcat Alley (www.nature.org/en-us/about-us/where-we-work/united-states/new-jersey/stories-in-new-jersey/building-bobcat-alley/)

ANJEC happenings

It's been a busy summer at ANJEC, with exciting events happening all over the State! Here are some scenes from an ANJEC gratitude celebration in June at the Pinelands Commission offices in Pemberton.

ANJEC's original Executive Director Candace Ashmun, center, is surrounded by other ANJEC leaders. Clockwise from left are: Current Executive Director Jennifer Coffey; past Deputy Director Kerry Miller; past Executive Director Sandy Batty; and current Deputy Director Liz Ritter.



Longtime ANJEC Advisory Board members Peg Van Patton, left, and Martha Lieblich



Governor James Florio was the guest speaker at ANJEC's gratitude celebration at the Pinelands Commission offices in June.



Glittering conversation at ANJEC's gratitude celebration



On Aug. 20, ANJEC co-sponsored an HAB forum in Sparta along with other NJ nonprofits in response to several lake closings due to harmful algae blooms in the State.

Photos by Lee Clark, NJLCV



The Ditching Disposables Forum in Lambertville on July 23, was designed to inspire local action through policy and stewardship in order to reduce single-use plastic consumption and pollution in the Delaware River Watershed communities.



The Ditching Disposables forum played to a packed house.

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ANJEC's Environmental Congress – October 4, see page 5