



Inside:

From farm to fork in the cities

Fixing NJ's aging water infrastructure



Director's Report

Plastic pollution

Spring has sprung (FINALLY!). This is the season when so many of us begin to rediscover Jersey's great outdoors. With the appearance of budding trees and flowers, our parks, trails, and soon beaches begin to host more visitors, and plastic pollution will also grow.

The World Economic Forum and the Ellen MacArthur Foundation published a disturbing study in 2016 that shows if we keep using single-use plastics at our current rate, our oceans will contain more plastic than fish, measured by weight, by 2050.¹

ANJEC applauds environmental commissions (ECs), community groups, Scouts, school groups, and all volunteers who organize and participate in park and beach cleanups. These events are critical to cleaning up our open spaces after the long winter and to fostering stewardship. We challenge ECs to think beyond cleanup events and ask the question: What actions can we take to stop the pollution supply chain?

Education pays off

We should work to educate residents and visitors about the impacts that their actions have on open spaces and wildlife in the Garden State. Education can be a powerful springboard to action.

- Think about getting artsy – ECs can build partnerships with Scouting groups and student artists to create displays at

park and beach entrances, reminding people to show their love for our open spaces by leaving them cleaner than they found them.

- Think about installing displays at trail heads and at beach badge booths.

Build it and they will come

Studies have shown that education is most effective when it is coupled with action. ECs can advocate for reduction in single-use plastic with practical, visible action. Examples:

- Ask the municipal governing body to consider installing bottle refill stations in public outdoor spaces to encourage the use of reusable water bottles. Potential sources of funding include local businesses, the Environmental Infrastructure Trust and State stewardship funds.
- ECs can create goals to reduce plastic pollution at upcoming community events in their towns. Do you have a summer concert series? A food truck festival? A harvest fair? Let event organizers know that you would like to work with them to reduce plastic pollution. Some events now prohibit vendors from selling water in disposable plastic bottles and instead host a water truck to refill reusable containers. Event flyers should encourage attendees to bring their own water bottles. For those who forget their water bottles, have paper cups on hand.

Create partnerships

EC's can forge partnerships with local restaurants and ask them to eliminate

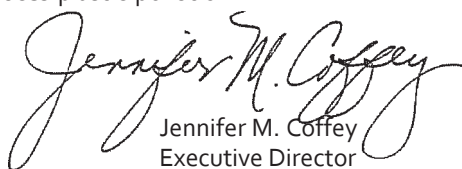
¹ www.weforum.org/press/2016/01/more-plastic-than-fish-in-the-ocean-by-2050-report-offers-blueprint-for-change/

plastic straws by establishing a no-straw policy or making paper straws available upon request. Educational messaging on menus and throughout restaurants will help customers understand and embrace the change. (Yes, change is hard, and there will be resistance. Just keep going).


Support stronger public policies

ANJEC and other environmental organizations are working with State legislators to draft laws that address pollution from plastic bags, polystyrene, bottles and balloons. We will send action alerts when legislation is scheduled for a vote.

Please call your State Senator and two Assembly representatives and let them know that you support legislation that reduces plastic pollution.



Jennifer M. Coffey
Executive Director



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ANJEC REPORT

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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In this issue:

- 2 Director's Report
- 4 Fixing NJ's aging water infrastructure
- 6 New invasive tick species a concern in New Jersey
- 8 From farm to fork in the cities
- 11 Acting Locally
- 13 ANJEC's 2018 Environmental Achievement Awards
- 14 Regional roundtables bring like minds together
- 15 Twelve steps for hosting a regional roundtable
- 16 Bold action for clean water
- 18 Fallen leaves and grass clippings pollute urban stormwater
- 20 Local Action Toolkits
- 21 Construction and demolition recycling
- 23 Electric vehicles benefit more than just their owners
- 25 It pays to plug in
- 26 Making the most of open space: 2017 Grants in action
- 28 New Jersey energy updates
- 30 *AJ Meerwald* Tours
- 30 ANJEC's 45th Annual Environmental Congress
- 31 Foundations for Effective Environmental Commissions

On the cover: New Jersey's long legacy of environmental protection has its heroes, including Candace Ashmun, ANJEC's first executive director. Former Governors Jim Florio (left) and Tom Kean helped celebrate her many accomplishments at her recent birthday party. Photo by Elliott Ruga

Fixing NJ's aging water infrastructure

By John F. McKeon, NJ Assemblyman, District 27

While energy and transportation assets are well known for being indispensable to our economy, security and overall quality of life, the significance of a safe, reliable and efficient water delivery system is habitually unheeded. But while many of us get frustrated at the damage a potholed roadway can do to our car, or worry about the stability of historic bridges, we would be equally troubled if we could see into our subterranean world.

There are about 60,000 miles of pipe buried within New Jersey, which, if laid end to end, would be long enough to extend to and from California ten times. The United States Environmental Protection Agency estimates that New Jersey will require an investment of \$7.96 billion by 2027 in order to continue to provide reliably safe water to the public. According to the American Society of Civil Engineers, closing this investment gap would create \$2.60 of economic activity for every \$1 invested.

Water systems in many of New Jersey's most densely populated areas either past or approaching the end of their useful lives. Half of these segments were installed around 1920 or even earlier! The City of Hoboken has averaged at least 20 water main breaks per year since 2012. These breaks shut down businesses, divert traffic and jeopardize public safety.

Water mains have been leaking and bursting with increased frequency. The unofficial standard leakage rate in New Jersey is 25-30 percent, much higher than the national industry standard of 15 percent. This amounts to millions of dollars a year lost at the expense of rate and tax payers.

When one in ten people on our planet still lacks safe and reliable access to clean drinking water, there is something simply immoral about a quarter of our supply being wasted annually.

When one in ten people on our planet still lacks safe and reliable access to clean drinking water, there is something simply immoral about a quarter of our supply being wasted annually.

A renewed commitment to water

Over the last 30 years, the US population has increased more than 40 percent while the GDP (Gross Domestic Product) has grown from \$2.5 to \$7.5 trillion. Yet, federal capital investment in water infrastructure has decreased by a whopping 70 percent.

Thanks to the historic levels of dysfunction and discord in Washington DC, state governments have no choice but to step up to the plate. Trenton must examine the Byzantine oversight and governance structure of our water utilities, where as many as four or five different agencies are responsible for our residents' water supply systems. Streamlining this structure under one authority could help alleviate some unnecessary administrative complexity.

The legislature should also consider amending the way in which we require the Department of Environmental Protection to draft and release the *Statewide Water Supply Plan*. The recent release of the update to the *Plan* was delayed by over 20 years and its substance was disappointing in a number of ways. By making this *Plan* more of a priority, we can develop a clearer and more prospective accounting of how our water supply can be protected from the threat of increasingly unpredictable weather patterns.

The 2017 *Water Quality Accountability Act* (WQAA), among other requirements, mandates that all water purveyors implement (by April 2019) an asset management plan designed to renew its infrastructure. This law represents an excellent first step in creating regulations that relate to water infrastructure, as opposed to water quality, which is already subject to a litany of important and well regarded regulations that protect our supply. As the WQAA moves towards implementation, it is critical that State agencies look for clear evidence of the fact that these plans are as thorough as necessary.

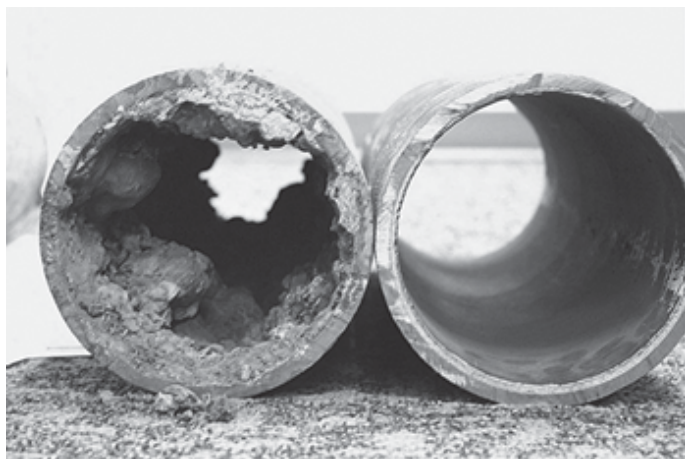


NJ Assemblyman John McKeon

New Jersey already has a wonderful mechanism for water infrastructure funding. The New Jersey Environmental Infrastructure Trust (NJEIT), established in 1988, has been authorized to spend up to \$641 million on low- to no-interest loans in 2018 for water infrastructure improvement projects. We must make sure the NJEIT is properly collateralized and make a commitment to these projects in the long term as New York, California and Massachusetts have.

The public faces a profound decision as it relates to the safe and reliable delivery of water to the spouts at our homes and businesses. We can ignore the probability of system failure and the massive costs associated with them, or we can take action to prioritize the health and economic prosperity of future generations. ●

Assemblyman John F. McKeon represents the 27th Legislative District in the lower house of the New Jersey State Legislature and is Co-Chair of the Joint Legislative Task Force on Drinking Water Infrastructure in New Jersey.



NJ's aging water infrastructure

New invasive tick species a concern in New Jersey

By Cheryl Reardon, ANJEC Project Director

Last August, a sheep farmer walked into the Hunterdon County health office with thousands of ticks clinging to her clothing. The tick attack occurred as the farmer tried to shear a sheep, unaware the animal was infested. While the number of ticks concerned health officials, what was more alarming is they could not identify the species of the tick.

Tadhg Rainey, the division manager of the county's Division of Health Services, visited the farm to see the sheep and, within two minutes of walking around, found himself covered with ticks. He turned to Andrea Egizi, a tick specialist at the Monmouth County Tick-borne Disease Lab for assistance. Egizi identified the tick as *Haemaphysalis longicornis* (*T. longicornis*), also known as the longhorn tick or the bush tick, an invasive species from East Asia.

This species spreads and infests rapidly, reproducing asexually by cloning, and is capable of laying thousands of eggs. The ticks then swarm livestock, sucking blood from a single host at the same time. The

ticks swell to the size of a pea when swollen with blood. While the ticks are known to carry viruses, it is uncommon for them to bite humans and it is uncertain whether they're capable of transmitting viruses found here in New Jersey. The ticks pose the greatest threat to animals, particularly cattle and sheep, and intense infestations are known to have led to cattle death in New Zealand.

Rutgers to the rescue

Using DNA analysis, Rutgers University worked with Monmouth and Hunterdon Counties to assess the size of the *T. longicornis* population. Rutgers' scientists do not believe climate change provided a path for the pest to New Jersey, but the US tick population could be affected by increasingly warm temperatures. The tick adds to the number of destructive invasive species from Asia that New Jersey and Pennsylvania are already dealing with, including the spotted lanternfly, southern pine beetle and hemlock wooly adelgid, among others.

Previously, *T. longicornis* wasn't known to have made it into the US, though animals carrying the tick had been stopped at borders. Scientists still don't know how the tick made its way into the State, but they are confident the infestation was



Longhorn tick

Photo by Jim Occi

not brought into New Jersey by the affected sheep, which had never travelled internationally and rarely left Hunterdon County. The 12-year-old sheep has since died, but its death is not believed to be related to the tick infestation. In keeping with NJ Department of Agriculture policy, the identity of the farmer and farm location were not made public.

Quick action hopefully avoids outbreak

Inspectors found a large number of ticks in all life stages on both the sheep and its paddock. Prompt reporting and quick action to contain the ticks has hopefully prevented a potential outbreak. The sheep was treated with a chemical wash that killed the ticks, and the property was scoured to remove the tall grass that served as habitat for the pests. Rainey and Egizi say they believe their efforts to contain and eradicate the pests have been successful.

Still, no one knows if the ticks will reappear this spring. Rainey and Egizi are hopeful that any ticks left behind were killed off during the winter since the Asian species cannot survive cold weather. However, unlike other ticks, this species can spend cold periods buried in the ground, so scientists cannot be totally certain whether the ticks are gone or will return with warmer temperatures.

Lyndsay Cole, a spokeswoman for the US Department of Agriculture’s Animal and Plant Health Inspection Service, said that the agency is working with State agencies

and local officials to set up tick surveillance in the area to determine if the tick is still present. For now, scientists are keeping a cautious eye on the area as spring approaches and temperatures climb. If the ticks survived the winter, they would be making their appearance again soon.

Prevention – Looking ahead

This incident highlights the need for New Jersey to be more proactive in monitoring tick populations, and to dedicate more resources to detecting and managing invasive pests. Monmouth County’s Tick-borne Disease Lab is the only county facility in the State that does regular tick surveillance.

New Jersey currently operates a facility dedicated to raising beneficial insects that keep invasive species in check, but the decades-old lab has been stripped of funds and is in disrepair. Governor Phil Murphy’s transition committee has recommended that the lab be fully funded and repaired. 🍓

More information

NJ Department of Agriculture – www.nj.gov/agriculture/news/press/2017/approved/press171121.html



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.

From farm to fork – It's closer than you think

By Sheila Baker Gujral, ANJEC Resource Center

It used to be that if you moved to the big city, you left your agricultural ways behind you. Nowadays, urban farms are popping up in densely populated areas, bringing with them fresh food options, improved health outcomes and local employment opportunities. There are a variety of agriculture types – rooftop farms, community gardens, old factories converted to indoor farms, farms on barges – as well as a variety of products and farming styles – aquaponics, aquaculture and hydroponics – producing leafy greens, vegetables, fruits, fish, eggs, chickens and more.

The sprouting of urban farms is a response to “food deserts,” large areas in cities that lack access to fresh fruit, vegetables and meat. This typically happens in lower income neighborhoods, where grocery stores are lacking. As stated in the *UN's Trade and Environment Review*, “Meeting the food security challenges is... primarily about empowerment of the poor and their food sovereignty.” (“Wake Up Before It's Too Late: Make Agriculture Truly Sustainable Now for Food Security in a Changing Climate”).

The benefits to growing food right in the city are numerous – improved nutrition and health, reduced need to truck in food and nutritional education.

Vertical indoor farms around NJ

Vertical indoor farms are a new high tech trend with lots of opportunities for local restaurateurs, job seekers and food shoppers.

Aerofarms, founded in Newark in 2004, has focused on establishing its aeroponic farming operations on major distribution routes and near population centers. Their vertical farms are established inside repurposed industrial spaces and use growing technology to maximize their output. Their farming techniques use 95 percent less water than traditional field farming, do not require pesticides, and use 1 percent of the land typically required by traditional farming techniques. In addition to their three vertical farm spaces,

Newark Beth Israel
Farmers' Market



Aerofarms runs a farm with a local charter school, allowing the students to learn about modern farming techniques, providing local fresh greens to the cafeteria and fostering a sense of connection with food production.

In Kearny, Bowery Farming also operates indoors and vertically, and has the same benefits of water conservation, zero pesticide use and having 1/100th the footprint of an equally productive traditional farm. The urban location allows the farm to get produce from harvest to shelf on the same day. They use robotics, predictive analytics and machine learning to get the best flavors and the highest yield.

Other vertical farms in the NY/NJ area include:

- Gotham Greens in Brooklyn, Queens, and Chicago, which use renewable energy to power the greenhouses.
- The 6,000-square-foot Eagle Street Rooftop Farm in Brooklyn has an onsite market offering a diverse assortment of vegetables, fruit, roses and even chicken. It also offers apprenticeships and internships for aspiring urban farmers.
- Oko Farms in Brooklyn is the largest outdoor aquaponics venture in NYC, cultivating freshwater fish such as catfish, tilapia, and crawfish, along with fresh produce and herbs – a sustainable organic system where the only input is the fish food.
- Brooklyn Grange is the largest rooftop soil farm in the world, with over 50,000 pounds of organically cultivated produce a year.

Cooperative community-based farms

Kula Urban Farm in Asbury Park is a social enterprise that combines job training, educational programs and free fresh produce to those in need. They use hydroponic and aeroponic techniques and grow year-round with no pesticides. Like other urban farming operations, they are able to pick and deliver to restaurants in the same day, ensuring maximum freshness and flavor for the consumers.

Swale in New York City is a floating barge with 4,000 feet of solar-powered growing space that includes a perennial garden, aquaponics and an apple orchard. As a barge-based, public green space, Swale moves around the city to different locations. Public green spaces that are farmed productively can have a bigger positive impact on local health than a regular garden or park.

The New York City Parks Department runs a program called “Green Thumb,” the nation’s largest community garden program. With over 550 gardens, 35 staffers and 20,000 volunteer gardeners in the program, they provide training and support, free plants, shovels and wheelbarrows.

A deep connection with community health

Garden State Urban Farms (formerly Brick City Urban Farms) was founded in Newark in 2009. They used Earthboxes combined with Small Plot Intensive (SPIN) farming techniques to grow diverse and high quality produce on limited acreage. They recently partnered with Newark Beth Israel Medical Center and established an urban garden, a farmer’s market, and a three-acre hydroponic greenhouse.

In addition to offering their fresh produce to hospital visitors and staff, they have programs that teach about gardening and nutrition to children, parents and other residents of Newark’s South Ward. Last year over 3,200 people participated in their programs. The educational and nutritional aspects of the program have included “Beth Challenges,” a community-based weight loss and fitness program. Participants have lost over 24,000 pounds and reduced blood pressure by at least 70 percent.

Newark Beth Israel is New Jersey’s first hospital to accept Supplemental Nutrition Assistance Program (SNAP) benefits to pay for greenhouse-grown produce, further increasing the access that lower income residents have to fresh fruit and vegetables.

Speaking at “Building our Table: A Conversation about Sustainable Food Policy in Newark,” Newark Mayor Ras Baraka

stressed, "It's important that we have access to food. But it's also important that we have access to healthy food." He pointed out that Newark took a pledge to have all residents live within walking distance of a park and they are "...doing pretty well on that." He proposed that all residents should also have, within walking

distance of their homes, access to a community garden, because "...I honestly believe these urban gardens, community gardens, could do a lot to help with health."

We couldn't say it better ourselves. 🍃

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Acting Locally

By S.T. Carroll, ANJEC Volunteer
and N. Dini Checko, ANJEC Resource Center

Ewing environmental quiz is a winner

How often has your commission worried about creating a tabling display that will engage your community? For seven years the Ewing Environmental Commission (EC) has used a clever approach that is effective and simple to create.

In 2010 they developed an environmental quiz, which contained ten multiple choice questions, which were displayed on poster board. As a technique to gather information about town residents, the EC also used the quiz as a handout: the questions were listed on the front of a letter-size page, with space on the back of the page for participants' to list their environmental interests and contact information.

The Ewing EC has used versions of this quiz at each of its annual Community Fests held in the fall. Question topics include some general environmental issues and other topics specific to Ewing. An example of an environmental issue question is: In what year did recycling become law in NJ? (Answer: 1987). A Ewing-specific question is: Why is the Township's main office painted white?" (Answer: Reflects heat, saves money).

Community Fest attendees were enticed to take the quiz with the promise of prizes for the two highest scorers. The 2017 prizes were a book (*Bringing Nature Home*, by Doug Tallamy, a renowned entomologist and lecturer) and a cap imprinted with the Ewing EC logo. In addition to handing out quizzes at Community Fests,



Resident taking the Ewing EC's Environmental IQ Quiz

the Ewing Environmental Commission has interactive quizzes from previous Community Fests on its website (<https://ewingec.org/education-and-outreach/>).

As a tabling display this quiz vehicle has several advantages. Some are:

- It really is simple to create. Many of the questions can be reused in subsequent years.
- It can be tailored to issues that are of concern to an EC in any given year.
- Because it is limited to ten questions, the quiz is informational but not intimidating.
- It is an interactive tool that engages the community participant.
- The tool elicits information from the participants that can guide future programs and projects and invite volunteering.

- The quiz can be mobile. If people are not coming to your table, put the quiz on clipboards and send your table mates roving through the crowd.

For a copy of Ewing's Environmental IQ Quiz for 2017, contact the ANJEC Resource Center at info@ANJEC.org

— S.T. Carroll

Glen Rock takes Trex Challenge to recycle plastic bags

Glen Rock Environmental Commission (GREC) has been at the forefront of single-use plastic education in New Jersey. By running programs like Shop the Rock over the years, residents gain a deeper understanding of the problem of single-use plastic waste and are actively looking to "Green Up Glen Rock."

Their current program is the Trex Plastic Film Recycling Challenge. Trex is a company that manufacturers decking materials composed of 95 percent recycled plastic, which is collected through community groups, schools and businesses. Participants in the recycling challenges receive plastic film collection bins at no cost. Winners of the challenges receive a bench made of recycled plastic, suitable for outdoor use in a park or playground.

Plastic film is made of thin polyethylene and includes bread bags, dry cleaning bags, newspaper sleeves, Ziploc bags, produce bags, bubble wrap and grocery bags. These materials cannot be recycled through curbside collection.

Candace Lynch, a GREC Green Team member, organizes this program. Trex provided bins for the program and GREC volunteers collect the plastic film, report amounts and deliver material to recycling centers.

The goal is to collect at least 500 pounds of plastic film in six months. Lynch said the response has been overwhelmingly positive and the Borough will easily complete this challenge in even less time. The bins have been placed in three locations: Borough Hall, a worship center and an elementary school.

One complaint the team received is that bin access is not always convenient. For example, Borough Hall is closed on weekends and evenings. Lynch's advice for ECs looking to run this program is to lay the groundwork first for location of collection bins, set up a volunteer schedule for processing, and get commitments for retailer recycling centers.

Trex also offers plastic film recycling through Acme, Target, Whole Foods, Stop & Shop and McCaffrey's Food Markets. While consumers can drop off plastic film to

any of these locations directly, few do because of lack of education on what materials are acceptable. The Trex Plastic Film Recycling Challenge helps to raise awareness that more than grocery bags can be recycled.

— N. Dini Checko



Glen Rock EC poster on a Trex recycling bin

Plastic-Free EB: One Bag at a Time

The Friends of the East Brunswick Environmental Commission (FriendsEBEC) estimate that 20 million single-use plastic bags are used each year in their town alone. So, they decided to launch a township-wide campaign, "Plastic-Free EB: One Bag at a Time," to encourage township residents to reduce their use of plastic bags by bringing reusable bags whenever and wherever they shop.

This multi-layered program has four components, beginning with third and fourth grade teachers who have incorporated plastics education into their curriculum and invited students to make posters about the life cycle of plastic bags. Elementary school students are an ideal age to imprint strong habits that will carry them forward.

Second, FriendsEBEC organized a logo contest with the high school's Students

Against Violating the Environment (S.A.V.E.) club for Plastic-Free EB. Third, FriendsEBEC is asking residents to take an online pledge to use reusable bags. Fourth, residents are challenged to make a video public service announcement highlighting

the issue and embracing the theme of reducing plastic bag use. David Moskowitz, FriendsEBEC President, says, "...If we engage one kid, our program is successful."

Given the positive response from students, this program is a bona fide success.



*East Brunswick plastic-free
logo contest winner*

More information

- Green Up Glen Rock – www.greenupglenrock.com/
- Trex recycling program – www.trex.com/recycling/recycling-programs/
- Friends of the East

Brunswick Environmental Commission –
<http://friendsebec.com/>

– N. Dini Checko

ANJEC's 2018 Environmental Achievement Awards

To be presented at the 45th Annual
Environmental Congress on October 12

Mercer County Community College

Deadline: Must be received by September 7, 2018

Email entries to info@anjec.org

For categories, application form and additional details go to
www.anjec.org or call ANJEC at (973) 539-7547

Regional roundtables bring like minds together

By Julie Lange Groth, ANJEC Report Editor

For the past eight years, the Essex County Environmental Commission has been hosting discussion groups for municipal environmental commissions (ECs), green teams and other local environmental activists and organizations. According to Gray Russell, Essex County Environmental Commission Co-chair, these regional roundtables, as they're called, typically attract 20 to 30 participants from towns throughout Essex County.

The Roundtables have two specific goals, Gray explains:

- to offer helpful information to municipal ECs on a variety of pertinent and hopefully timely topics, aimed at providing them with valuable resources to address their specific local issues; and
- to give ECs a platform for sharing their successes and obstacles with other towns. The roundtables foster valuable dialogue about approaches that have worked within the region, as well as initiatives that have not been effective. Participants learn about issues that are gaining traction in neighboring communities and potential solutions to address them.

The Roundtables happen two or three times per year and



Gray Russell

have covered a wide array of timely topics. Among the most popular sessions were those on:

- Environmental Grants in Oct. 2016 (Everyone is searching for funding!);
 - Water Conservation in April 2016 (at which the speakers were ANJEC Executive Director Jennifer Coffey and Ray Cywinski, ANJEC trustee and United Water executive);
 - Stormwater management / Green Infrastructure in Oct. 2017; and
 - Alternative Fuel Vehicles in April 2017.
- Gray, who is also the Sustainability Officer for Montclair Township, has compiled the following guidelines for towns that want to work together to start their own regional roundtables. 🍀

Essex County Environmental Commission receiving the ANJEC Environmental Achievement Award in October, 2017



Twelve steps for hosting a regional roundtable for environmental commissions

- 1** With input from your own members, select an appropriate topic that would be valuable for all area environmental commissions (ECs), green teams, and local environmental activists and organizations.
- 2** Determine one or (preferably) two experts on the selected topic, who can provide an entertaining presentation augmented by a slide show, lead the subsequent discussions and answer any questions.
- 3** Choose a convenient date – typically corresponding with your commission's regularly scheduled monthly meeting – and make sure that no holidays or other events fall at the same time.
- 4** Scout a convenient location, easily accessed and capable of holding a few dozen attendees comfortably with adequate seating and A/V capability, including a screen.
- 5** Book and confirm the speakers and the location.
- 6** Create a flyer announcing the event, stating the roundtable topic, date, time, location, description and a photo.
- 7** Send out the event flyer to the ECs, green teams, and activist groups via newsletters, email lists, Facebook and other social media, municipal websites and EC websites. Ask speakers to do the same with their contact lists and social media.
- 8** Repeat promotion and announcements increasingly in the weeks building up to the date of the event.
- 9** Confirm speakers, location and presentation equipment.
- 10** As a nice touch, offer healthy snacks for attendees whenever possible.
- 11** Provide a sign-in sheet to collect names, email addresses, affiliations and phone numbers.
- 12** Provide feedback review sheets and ask participants for their critique; thank everyone for attending!

For more information, please contact Gray Russell at grussell@montclairnjusa.org

Bold action for clean water:

An update on the Delaware River Watershed Initiative

By Jennifer Coffey, ANJEC Executive Director

This spring, 18 conservation and environmental organizations working in our State in partnership with the William Penn Foundation announced bold actions to protect and restore the Delaware River and its tributaries, which provide drinking water for 15 million people in New Jersey, Pennsylvania, New York and Delaware. This work aligns land preservation and ecological restoration with community engagement strategies in the four-state Delaware River Watershed Initiative (DRWI). This is part of a larger partnership of more than 65 NGOs

supported by more than \$40 million in funding. In New Jersey, the areas of focus include the most significant water resource regions of the State: the Highlands and the Pinelands.

ANJEC is working with municipalities to protect streams with intact buffers, strengthen stormwater ordinances, improve water conservation practices and install green infrastructure projects to reduce local flooding and clean pollutants from rain water and snow melt.

Through the DRWI, ANJEC is working in two critical areas: the Kirkwood-Cohansey Aquifer and the NJ Highlands. The Kirkwood-Cohansey area of New Jersey stretches from the

NJ nonprofit leaders and representatives from the William Penn Foundation at press event in April to announce renewed funding for DRWI water protection projects



Delaware Bayshore to the Pinelands and is comprised of cities, suburbs, forests and farms. Its namesake aquifer, which extends across some 3,000 square miles and holds 17 trillion gallons, supports a unique ecology, supplies fresh water to wells and coastal estuaries, and contributes about 12 percent of all water flowing to Delaware River tributaries in the area.

The New Jersey Highlands supplies 70 percent of the State's population, or 6.2 million people, with drinking water. About half of the land area is forested, while developed and agricultural uses each account for approximately 20 percent of the region's land cover.

Leading green

At a time when the federal government is redefining priorities for the US Environmental Protection Agency, leadership by public agencies and NGOs at the state, regional and local levels is more important than ever to keep our water clean. Federal policies over the past several decades, such as the *Clean Water Act*, have successfully reduced pollution in waterways nationwide, yet recent rollbacks of protections and budget cuts threaten to slow or reverse progress.

The DRWI's grassroots approach represents a strategic path forward for the Delaware River basin. It is a nationally significant model that demonstrates the power of an organized, independent, nonprofit-driven approach that encourages partnership between communities and the philanthropic sector.

New Jersey organizations working in partnership to protect and restore the Delaware River are: American Littoral Society; Association of New Jersey Environmental Commissions; Hunterdon Land Trust; The Nature Conservancy, New Jersey Chapter; The Land Conservancy of New Jersey; Musconetcong Watershed Association; Natural Lands; New Jersey Audubon; New Jersey Highlands Coalition; New Jersey Conservation Foundation; North Jersey Resource Conservation and Development; Partnership for the Delaware Estuary, Inc.; Pinelands Preservation Alliance; Rutgers Cooperative Extension Water Resources Program; South Jersey Land & Water Trust; Trout Unlimited; The Trust for Public Land; and Wallkill River Watershed Management Group.

DRWI nonprofit organizations have developed shared action plans to reduce four priority threats to clean water. Informed by science, the Initiative is working in eight targeted areas, where analysis has indicated that interventions could significantly safeguard or improve clean water. Together, these eight areas constitute 25 percent of the river basin and include portions of Delaware, Pennsylvania, New Jersey and New York. For more information, including a list of all participating organizations, visit www.4states1source.org.



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



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



Fallen leaves and grass clippings pollute urban stormwater

By **David Peifer**, ANJEC Highlands Project Director

Leaves and grass clippings may seem innocuous as they float gently down to your neighborhood catch basin and disappear into the underground pipe system (aka storm drain), but they are far from gone when they're out of sight. Rapidly flowing water carries them directly to a stream, lake or estuary, especially during the summer mowing season for grass and in autumn for leaves. In the stream they begin to decompose, absorbing oxygen from the water and releasing nitrogen (especially from grass clippings) and phosphorous (from leaves). These substances are referred to as nutrients.

While streams can and do absorb a certain amount of leaf material naturally, the rapid pulse and increased volume of the leaves delivered by storm drain systems overwhelms the stream's ability to assimilate these nutrients. The reduced oxygen level and increased nutrient load cause eutrophic conditions characterized by algae blooms, nuisance aquatic weed growth, fish kills and serious water supply treatment problems.

Statewide and nationally, nutrient pollution of our waterways is one of the most common pollution problems we face.

In a US Geological Survey study of the impact of leaves and grass on urban stormwater conducted in Madison, WI, leaves contributed 56 percent of the total annual phosphorous load in areas where leaf litter was not removed. Even more striking was the reduction in the total annual contribution to phosphorous loadings (down to 16 percent) when streets were cleared of leaves prior to a rain event. See: www.usgs.gov/news/removal-fallen-leaves-can-improve-urban-water-quality.

What municipalities can do

Leaf removal is one of the best approaches available to municipalities to control nutrient loads, especially phosphorous in local streams. For communities in developed areas with tree cover, offering leaf pickup could help improve local water quality, especially where streams have a known problem with phosphorous.



Removing fallen leaves can protect urban water quality.

In addition to keeping leaves out of traditional storm drain systems, incorporating green stormwater infrastructure can remove large quantities of nutrients in stormwater runoff by encouraging soil filtration and plant uptake. Rain gardens and other bio-infiltration techniques are particularly effective. Town officials should consider municipal facilities, schools and institutions for opportunities to install these relatively low-cost features to help control nutrients entering surface and groundwater.

Converting areas around waterways on public land to buffer strips (also known as riparian buffers) can help reduce mowing while saving time, fuel and money in the process. This can be accomplished by supplemental planting, control of exotic invasive plants and/or natural succession. (In natural succession, an ecological community naturally undergoes more or less orderly and predictable changes following a disturbance of habitat.) Vegetated buffers improve bank stability, reduce erosion, provide habitat for numerous species and increase filtration of runoff before it enters the stream – all good things.

Homeowners and public land managers can make a difference too

Homeowners and managers of public properties should be educated in proper control and use of their grass clippings and leaves. For example:

- A “cut it and leave it” approach reduces fertilizer expense while helping to protect potable water aquifers from increasing levels of nitrate nitrogen, a human health concern. Nitrogen-hungry lawn grass benefits when mowed clippings are finely chopped and allowed to fall back into the sod.
- Use of a mulching mower will eliminate the need to collect grass clippings and the problems that result from trying to dispose of large quantities of cuttings.
- A mulching mower can also chop up fallen leaves, allowing them to fall back into the lawn and saving the costs of raking and disposal.
- Grass should be cut only a third of its length and blades should be kept sharp to prevent damage to the remaining leaves and roots.
- It is also a good practice not to “shoot” cuttings into waterways or onto paved surfaces. Sometimes this is a simple matter of turning the mower around so that the cuttings discharge back onto the lawn.

Black gold in your own backyard

Composting is an elegant way to recycle nutrients at low cost. Grass clipping can provide needed nitrogen to facilitate composting if mixed with leaves in proper proportions. According to Rodale's *Organic Life*: “Building your pile with one part grass clippings or other green matter to two parts dead leaves or other brown matter will give you the right mix.”

(www.rodaleorganiclife.com/garden/compost-questions). **Do not compost herbicide/pesticide-treated lawn clippings. They can contaminate your compost.** The resulting compost can be reapplied to the lawn areas as a “top dressing” to provide needed nutrients, soil carbon and general improvement of soil health. In fact, compost has been called “black gold” by organic gardeners and has many uses in home gardens, landscaped areas and large recreational fields.

Ideally, leaves should be shredded first to increase their active surface area in the compost pile and should be carefully mixed with enough nitrogen sources to stimulate aerobic decomposition, sometimes aided by insects and other small helpers. Shredding the leaves also reduces their volume to about 1/10 of their normal volume, minimizing the area devoted to composting.

Environmental commissions have an important role to play in preventing fallen leaves and grass clippings from polluting waterways. They can encourage their communities to make better use of nature's free nutrient resources and

improve the health of plant communities by:

- educating municipal officials about optimal leaf removal and mowing techniques
- creating riparian buffers to eliminate mowing near waterways
- training homeowners about composting, and
- employing green stormwater infrastructure in appropriate places on municipal property.

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

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 and governing bodies - dedicate their time and efforts to assure a clean environment and high quality of life in their communities throughout our State. Thank you! 🍀

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 do 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 DC

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. 🍀

Construction and demolition recycling and green management practices

By Lyle Landon, ANJEC Development Director



One of an environmental commission's main charges is to review site plans for the environmental impact of new construction, redevelopment and land use. Among areas that should be reviewed is the waste management plan to make sure green management techniques are being used to protect the environment and save resources (materials, energy and money).

Historically, waste materials would end up in a landfill or incinerator. However, with increased tipping fees and growing emphasis on green building practices, contractors are looking for alternatives that are both cost effective and sustainable. For example, if a builder is following LEED (Leading Energy and Environmental Design) waste management practices and reporting, a minimum of 75 percent of materials and packaging (by weight) should be diverted from landfills and incinerators through salvaging, reuse and recycling. Materials also may be donated to charitable organizations to earn LEED points.

These LEED standards can be used as a checklist for non-LEED projects too. Only nonhazardous materials – acoustic tile, cardboard, concrete, glass, wallboard, insulation, metals, paper, plastics, wood, etc. – should be targeted for recycling.

In the overall site review process, if the municipal planning board determines that the proposed plans are in compliance with local ordinance standards as well as state

and federal statutes, the plans will likely be approved. When the Environmental Commission (EC) has a good relationship with the planning board, the EC may make additional suggestions. Suggestions are often based on the town's green building checklist, which the EC can help to write, and sometimes includes recommended products and procedures. Products like LED lighting, Energy Star appliances, low-flush toilets and even green infrastructure, are relatively easy to identify on the builder's specification lists, site plans and artist renderings of the completed project. What is not apparent, but should be discussed, are waste management procedures.

A construction and demolition waste management plan should always be in place. Take pollution prevention, for example, which is a green construction and demolition management practice. Construction sites have long been identified as large contributors to runoff pollution. Materials washed into the storm drain have a direct impact on local waterways and their aquatic habitat – and to human and animal populations living downstream. Ecological damage can be significant.

Concrete pollution

Among the most common discharges into storm drains near construction sites are the residue and contaminants from washing down equipment such as concrete

trucks, pumps, mixers, chutes, hand tools and wheelbarrows. Unused concrete at construction sites can also contaminate water and, in turn, nearby wildlife and vegetation.

Concrete washout wastewater is caustic and considered to be corrosive with a pH over 12, higher than Liquid Drano® (pH 11), ammonia or other household cleaning detergents. The pH limit for sewer water outflow for surface water is 9 in most area, with stricter limits in critical regions such as the Pine Barrens to protect the natural ecology. Concrete’s contaminants may damage surface water ecosystems and reach both surface and groundwater (our major source for irrigation), rendering them unfit for their legally “designated uses.”

Potable wells, which are rarely tested or treated, may also be affected. While public water supply systems, being much larger and under routine treatment and monitoring, are less at risk, treating contaminated water is expensive and pollution prevention is almost always a safer and less expensive option.

The *Clean Water Act* requires developers to comply with permit requirements and take simple, basic steps to prevent pollutants from contaminating stormwater. Due to this widespread runoff pollution, especially in urban areas, the United States Environmental Protection Agency (EPA) has stepped up efforts to keep Stormwater Pollution Prevention Plans compliant with the National Pollution Discharge Elimina-

tion Systems. Potential discharges into the storm drain systems from concrete work has become a priority of the EPA and the NJ Department of Environmental Protection, water quality control officials, regional and local inspectors as well as a strategic target of advocacy and environmental groups.

A solution to concrete pollution

Fortunately, there are solutions to help contractors and developers comply with regulations while sustainably building and demolishing. One such solution is a concrete washout system, which provides a portable, self-contained and watertight roll-off bin that controls, captures and contains concrete washout material and runoff. This system makes it easy to washout concrete trucks, pumps and equipment onsite, and facilitates easy offsite recycling of the concrete materials and wastewater. The tank containing washout water and slurry is taken offsite for testing and treatment.

The initial process allows the majority of the particulate to settle in a series of watertight concrete, plastic or steel tanks. After a period of time, the water is pumped from the tanks through a series of filters, ranging from ten to 600 microns, to further remove the finer particulate. Treatments lower the pH to an acceptable level.

Once processed and treated, this water can be classified as disinfected secondary-23 recycled water. Most of the water is typically delivered to a sewerage commission as a clean and reusable non-potable product.

When environmental commissions review site plans, they should remember to ask questions about the applicant’s construction and demolition waste management plan, and walk the site before and during its demolition and construction. 🍀

Note: *Concrete Washout Systems is a business supporter of ANJEC; however ANJEC does not endorse any particular businesses.*



Concrete being poured at construction site

Electric vehicles benefit more than just their owners

By Tom Johnson, *NJ Spotlight*

In a bid to accelerate the transformation of the transportation sector, a new study says growing electric-vehicle use will deliver large benefits not only to their owners but also to all utility customers.

The study, commissioned by ChargeVC, suggests there will be net savings for utility customers if plug-in vehicle owners charge their vehicles at off-

peak times for electricity – even after including the cost of installing the infrastructure and enhancing the power grid.

Electrifying the transportation system is viewed by many clean-energy advocates as a significant part of the state's efforts to reduce emissions contributing to climate change, as well as cleaning up air quality in New Jersey, which often fails to meet federal health standards.

The transportation sector accounts for 46 percent of the state's greenhouse-gas emissions, the largest of any area of the economy, including power plants.

New Jersey lags behind

But New Jersey, as the study notes, lags behind other states in building the charging infrastructure to hasten wider adoption of electric vehicles. The study cites the



Electric vehicle Ride & Drive at ANJEC 2017 Environmental Congress

benefits of expending public and private investment in that cause, which it claims will reduce vehicle-operating costs for consumers, with the added benefit of lower air pollution.

The study's release comes at a time of increasing public debate over how New Jersey is to achieve a cleaner energy future and at what cost. A comprehensive bill to subsidize nuclear power plants and carbon-free sources of electricity like solar is facing still opposition, in part over its perceived expense to ratepayers.

Even with those competing policies, there is movement to push for broader investment in electric-vehicle infrastructure. A week ago, Atlantic City Electric filed a \$14.9 million petition with regulators to invest in a range of electric-vehicle programs. A Senate committee has been

considering a bill (S-1975) to require the State to develop a plan to increase sales of plug in vehicles and electric charging stations around New Jersey.

Intense competition

In addition, there are pots of money available to fund these projects, although the competition for the funding is intense. For instance, New Jersey received \$72 million from a nationwide settlement with Volkswagen for the company's cheating on diesel emission software in its vehicles. The State Department of Environmental Protection solicited requests for how the money should be disbursed late last year.

So far, it has received requests for funding from 114 projects, totaling more than \$387 million. The projects run the gamut – from electrifying equipment from shore to ocean vessels; to ferries and tugs; to school or transit buses; to forklifts and cargo-handling equipment at ports; to diesel trucks; and to charging stations at local communities, such as the Municipal Complex in Paramus.

To clean-car advocates, the response is heartening. "It proves that this effort could

be a real economic driver in the state," said Chuck Feinberg, president of the New Jersey Clean Cities Coalition, and a member of ChargeVC.

Other funds for this effort might be available from money received from New Jersey rejoining a regional initiative to combat greenhouse gas emissions from power plants. Once the state rejoins the Regional Greenhouse Gas Initiative, it will receive funds from a surcharge on power-plant emissions to fund clean-energy initiatives.

How that money from both RGGI and Volkswagen is allocated, however, has yet to be determined.

"It's important that all stakeholders continue working to improve air quality – and the health of our residents – through a concerted, collaborative effort to increase the number of zero-emission vehicles and infrastructure to support them," said Peg Hanna, manager of DEP's Division of Air Quality. 🍓

This article originally appeared in *NJ Spotlight* on March 2, 2018.

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 & 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.

It pays to plug in:

Grants available for workplace charging stations

By Michele Gaynor, ANJEC Resource Center

Employers can take the lead in making workplaces ready for electric vehicles (EVs) by providing charging stations for employees who drive plugin cars. Because most people park at their workplace for hours each day, it's the ideal place to charge their cars. Installing charging infrastructure is an important step that will reduce climate-warming CO₂ from car emissions.

Now a new electric vehicle workplace charging grant is available to offset the cost of purchasing and installing electric vehicle charging stations for employers who want to provide this benefit to employees. The New Jersey Department of Environmental Protection (NJDEP) is offering the grant program to employers in hopes of encouraging employees to purchase and drive electric vehicles to work.

Once eligibility criteria are met, the NJDEP will reimburse each applicant up to \$250 per Level 1 charging station and up to \$2500 per Level 2 charging station. A Level 1 charging station uses a standard 120 volt outlet and the cord charger that's included with the car. A Level 2 charging station requires a 240 volt outlet but takes about half the time for a full charge (approximately four hours).

New Jersey lags behind some other states in the number of EVs on our roads. Dealing with "range anxiety" (the fear of becoming stranded if your battery runs out) may become less onerous with the introduction of a new set of bills before the State legislature this March. NJ lawmakers approved bills that will establish aggressive


targets for getting more electric vehicles on the road and set up a statewide public plugin electric vehicle charging system. The goal is to install at least 600 public DC Fast Chargers (they use a special port and are even faster than Level 2) plus Level 2 public chargers at 300 locations or more in the State by December 2020.

New Jersey already has many DC Fast Charging Stations spread throughout the State, which allow for 60-80 miles of driving range per 20 minutes of charging. In most places in NJ you are within a 25 -mile radius of a DC Fast Charger.

One more reason to opt for an electric vehicle – you do not have to pay sales tax when you buy an electric vehicle in NJ! Electric utility companies also offer special rates to reduce the cost of powering EVs.

The NJDEP also recognizes employers that are helping to reduce air pollution from cars with their NJ Charging Challenge: Electrify Your Workplace. A certificate of recognition is awarded to private, government, educational and nonprofits that have installed charging stations for their employees at their place of work.

For more information about the Charging Station Grant go to:

- www.drivegreen.nj.gov/programs.html
- www.njleg.state.nj.us/2018/Bills/S2500/2252_11.HTM 

Making the most of open space: 2017 Grants in Action

By Elizabeth Ritter, ANJEC Deputy Director

The fifth year of ANJEC's Open Space Stewardship Grant program is beginning to bloom with successful local projects led by Environmental Commissions throughout the State.

The 2017 grant projects include a wide range of activities, such as a water tower property beautification, trails improvements, dune plantings, invasive species education and removal programs, river trail restoration and more.

The 2017 grantees were:

- Cape May City: *Water tower grounds beautification project, Phase I*
- Englewood City: *Englewood Environmental & Historical Trail*
- Evesham Township: *Black Run Preserve Ambassadors Program*
- Frenchtown Borough: *Frenchtown Preserve trails improvement*
- Manalapan Township: *Mini kiosk, Manalapan Recreation Center, Environmental Education Center*
- Monmouth County and Middletown Township: *Bayshore Waterfront Park sand dune planting*
- Morristown: *Elliot Street Playground Community Garden pilot project*
- Mt. Holly Township: *Pollinator garden on High Street*
- Pennington Borough: *Howe's Arboretum community plan*
- Pennsauken Township: *Circuit/East Coast Greenway Bike & Ride*
- Princeton Township: *Princeton Invasive Species community education program*
- Stillwater Township: *Interpretive signs, open space stewardship*
- Summit City: *Reconstruction & expansion, Passaic River Trail*
- Teaneck Township: *Hackensack River Greenway trail improvement*
- Washington Township (Morris County): *Native pollinator meadow project, Phase I*




Reconstruction and expansion of the Passaic River Trail in Summit

The primary objective of the Open Space Stewardship Grant Program is to increase residents' awareness and appreciation of open space, which raises public support for open space. Another critical objective of the program is to raise the profile of the environmental commission in the community. It is essential for a commission to continually publicize activities and accomplishments, encouraging support and trust from the community. Successful projects usually involve other civic groups like Scouts, students, Kiwanis, Veterans and other local service organizations, often resulting in lasting partnerships.

The Open Space Stewardship Grant program is underwritten by the Sandy Batty Grant Fund, established in 2014 through a

fundraising campaign to commemorate 27 years of service by retiring Executive Director Sandy Batty.

ANJEC is always on the lookout for additional sources of revenue to support grants for environmental commissions. If your organization would like to hold a fundraiser to support the grant program, or if you would like to make a donation, contact ANJEC at 973-539-7547. 


Lead the charge!

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

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

Associate membership in ChargeEVC 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 ChargeEVC;
- 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/. 

New Jersey energy updates

By Jody Carrara, ANJEC Project Director

Governor Phil Murphy has an ambitious vision for New Jersey to have 100 percent renewable and sustainable energy production by the year 2050. This goal could be accomplished by a number of technologies and programs currently being revamped or instituted by the State. The governor has begun his initiative with the passage of executive orders that require New Jersey agencies to work together to create regulations and policies supportive of these goals.

Regional Greenhouse Gas Initiative (RGGI)

As directed by the Governor in January 2018 with Executive Order #8, the New Jersey Department of Environmental Protection (NJDEP), the Board of Public Utilities (BPU) and the Economic Development Authority (EDA) are working to re-enter the Regional Greenhouse Gas Initiative. (Governor Christie pulled New Jersey from the program in 2011). The re-entry will take from six months to a year and will include negotiations with the nine other Northeastern and Mid-Atlantic states in the program.

RGGI started with ten states, including New Jersey, in 2006 with the goal to reduce carbon dioxide (CO₂) and other greenhouse gases by a negotiated amount. New Jersey committed to reduce greenhouse gases from 2006 levels by 80 percent by the year 2050. Essentially, power plants that produce more than 25 megawatts of energy through fossil fuels must buy allowances/credits through regional quarterly auctions and invest in projects that offset carbon emissions. Some proceeds are paid back to states for consumer projects such as home and business improvements for energy efficiency. Some states are reporting a 45 percent reduction in carbon emissions since the program began.

The NJDEP held a public meeting on March 29 to discuss New Jersey's RGGI rulemaking process for prioritizing projects funded with RGGI auction proceeds. The presentation can be found at: www.state.nj.us/dep/aqes/docs/rggipresentation.pdf

The Repower SM turbine, offshore Scotland, one of the world's largest wind turbines.



Offshore drilling

The federal government oversees activities in the Atlantic Ocean from state jurisdictional boundaries up to 200 nautical miles offshore through the United States Bureau of Ocean Energy Management (BOEM). This agency, through the National Outer Continental Shelf Oil and Gas Leasing Program, establishes a schedule for the timing, size and location of all oil and gas lease sales permitted under the existing program regulations. Currently, only ten sites in the Gulf of Mexico and one in Alaska are approved for lease sales for the five-year period from 2017 to 2022.

President Trump's Executive Order 13795, passed on April 28, 2017, directs the BOEM to create a new Outer Coastal Shelf Program for 2019 through 2023. This proposed program would allow oil and gas leases at 47 sites in all coastal states in the country, with the exception of Hawaii and parts of the Gulf of Mexico.

The first iteration of the Draft Proposed Program was published on January 4, 2018, and the comment period closed on March 9. Two more iterations of the plan will be proposed.

Environmental organizations, coastal businesses, state attorneys general, governors, over one hundred lawmakers and the US Defense Department are joined in opposition to the Draft Proposed Program. Keep abreast of the regulation proposals at: www.boem.gov

Offshore wind energy

The wind turbine industry is the 4th largest electrical power source in the United States. The US Department of Energy predicts that wind energy will meet 35 percent of the country's power needs by 2050. New Jersey's goal is to generate 3,500 megawatts of wind energy by 2030, which would power approximately 30 percent of the States' needs.

Executive Order # 8, issued in January 2018, directs the NJDEP and the BPU to fully implement the 2010 *Offshore Wind Economic Development Act* by creating an

Offshore Wind Strategic Plan that includes natural resource protection (think migratory bird flyways and marine species migrations), workforce development and updated rules and policies that promote offshore power. It will also include permitting criteria in coordination with the federal government.

Because the wind turbines are located offshore, the BOEM will also coordinate renewable energy activities through its Intergovernmental Renewable Energy Task Force, which is made up of representatives from federal, state, local and tribal governments. There are currently active leases for wind turbine locations off the coast of New Jersey. Information about these leases and the program can be found at: www.boem.gov/New-Jersey/.

Clean, reliable and affordable energy production in New Jersey calls for a multifaceted approach. While this article discusses energy producing technologies currently in the news, let's not forget solar energy, wave/current energy, biomass and other new energy sources that are being researched and developed. All have a role to play in our State's renewable energy portfolio. 🍓



Jody Carrara, ANJEC Project Director in South Jersey, recently celebrated her 20th anniversary at ANJEC. Thanks and congratulations to Jody for all her great work on behalf of the environment in New Jersey!

Book now!



AJ Meerwald Tours on the Hudson River **Wednesday, July 11 - Sunday, July 15**

Join ANJEC and other friends on a series of sails on New Jersey's official tall ship, the AJ Meerwald, a restored 115-foot oyster schooner built in 1928.

View the New York Skyline and majestic Palisades while learning about the history, environment and culture along the Hudson.

Most sails depart from the Alpine Boat Basin.

Entertainment, times and prices vary.

Check the ANJEC web site (www.anjec.org) for times, starting points and destinations.

To sign up for a specific sail, email ANJEC at info@anjec.org or call (973) 539-7547

SAVE THE DATE!

ANJEC'S 45th Annual Environmental Congress **Friday, October 12, 2018**

9:00 am to 4:30 pm

Mercer County Community College, West Windsor, NJ

Enjoy a day jam-packed with
information and resources you can use,
with exciting workshops, exhibitors,
Environmental Achievement Awards
and more!

Watch the ANJEC website (www.anjec.org) for details

Scenes from ANJEC's

Foundations for Effective Environmental Commissions

March 10, 17 and 24

Nearly 200 EC members gathered for basic and advanced training on how to led a highly effective EC. These trainings happen every March.



New ANJEC resource paper Septic Systems, Clean Water and Your Municipality



Our newest resource paper offers 16 pages of helpful information for environmental commissions about caring for septic systems in your town, including:

- Why municipalities should care about septic systems
- Recognizing the warning signs of septic system failure
- Taking action: The 5 levels of protection
- Sample ordinances from NJ towns
- Septic system owner education references
- And much more!

This is the only publication available that addresses septic system management for municipalities. It's available for download from the ANJEC website at www.ANJEC.org/pdfs/SepticSystemMgt.pdf



Paperless *ANJEC Report* available!

Instead of waiting for the US Mail, ANJEC members can receive the quarterly *ANJEC Report* via email! Benefits include:

- earlier delivery (one to three weeks ahead of the mailed version);
- easy, one-click links to articles and references;
- easily downloaded onto your electronic reading device.

You will also help us reduce the magazine's carbon footprint by eliminating some of the paper, printing chemicals and transportation involved with producing our magazine.

To sign up for a members-only subscription to the paperless *ANJEC Report* just contact us at info@anjec.org or call (973) 539-7547.

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