



ANJEC REPORT

Local Environment Matters

SUMMER 2019

1969 - 2019



Inside:

- ANJEC Open Space Grant winners
- 50+ plastic pollution ordinances in NJ!
- Fighting invasive species



Director's Report

Ocean drilling and blasting is just plain bad

"On the way to Cape May, I fell in love with you" is a classic anthem featuring Jersey shore towns, but for me growing up, it was also an ode to the ocean. So when the Trump Administration put forth a proposal to drill for oil and natural gas off of all of America's coastlines, I took it personally.

The thought of assaulting our beloved ocean with fossil fuel drilling is bad enough, but adding insult to injury, it's also a senseless idea.

A spill off of New Jersey or any of our neighboring states would be absolutely devastating to marine mammals that use our coastal waters for feeding, breeding and migration. It would also be catastrophic for our economy.

"New Jersey's fishery and aquaculture resources contribute more than \$1 billion annually to the State's economy," according to the National Oceanic and Atmospheric Administration's (NOAA) Sea Grant program. Tourism in the Garden State contributed "\$45.4 billion in economic impact in 2017 – an increase of more than 2.9 percent over the previous year," according to the New Jersey Department of State.

In the face of a federal ruling against drilling in the Arctic and robust local, state, and federal bipartisan opposition to additional coastal drilling, the Trump Administration has chosen to postpone granting leases for oil and gas drilling off the coast of Jersey and other federal waters.

Nine states along the Atlantic Coast, including New Jersey, recently stood together to oppose fossil fuel exploration and drilling in federal waters. Governor Murphy also signed a law that prohibits drilling in the three miles of ocean water controlled by the State and prohibits building any infrastructure that supports drilling in federal or State waters, making drilling off our coast extraordinarily difficult.

We do still, however, need to be diligent about exploration for natural gas and oil drilling that require seismic blasting. Seismic blasting involves explosions of extraordinarily loud pressurized air (think air horn next to your ear, but worse) emitted every few seconds for consecutive days. The technique is used to map the ocean floor and fossil fuel deposits, but also destroys marine mammals' ability to migrate and communicate. The sound waves destroy fish and shellfish eggs and larvae, too. Ten environmental organizations and nine states, including New Jersey, are engaged in lawsuits to both place an immediate moratorium on seismic blasting and prohibit it completely off of our shorelines. There is also a bill pending in Congress to ban the technique.

The quest for clean energy

Now that we have avoided potential catastrophe, at least momentarily, we need proactive plans to meet our energy needs moving forward. A draft of the State's new *Energy Master Plan* is scheduled to be released in June for public review and

comment. The plan is expected to advance Governor Murphy's campaign commitments to pursue 50 percent carbon-free energy by 2030 and 100 percent by 2050 for the Garden State. California, Hawaii, Washington, D.C., Puerto Rico, New Mexico, Nevada and Washington State have already formally adopted similar goals backed by State law.

ANJEC will keep you up to date on ocean drilling, seismic blasting, the NJ *Energy Master Plan* and more. Please follow ANJEC on Facebook and Twitter for updates on public hearings, deadlines for public comments in State proposals and more.


In the meantime, let's all enjoy our ocean and beaches, "...cause down the Shore everything's all right," just like Bruce Springsteen tells us.



Jennifer M. Coffey
Executive Director

Library Subscription
\$ 18.00

1969 - 2019 ISSN 1538-0742



ANJEC REPORT
Local Environment Matters

Vol. 39 / No. 3 SUMMER 2019

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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E-mail info@ANJEC.org. Web site: www.anjec.org.

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On the cover: Three bear cubs Photo by Charles Fineran

Acting locally to fight invasive species

By **Michael Van Clef, Ph.D.**, Program Director,
New Jersey Invasive Species Strike Team

Introducing New Jersey's Invasive Species Strike Team

Founded in 2008, the New Jersey Invasive Species Strike Team provides an essential service to the entire conservation community through our dedicated focus on invasive species. We meet our mission to protect special places and rare species by working with the public and our conservation partners to prevent the spread of invasive species throughout New Jersey. We are the only program specifically dedicated to protecting our State's natural heritage from the threats posed by invasive species.



Purple loose strife is an invasive species in NJ.

With both public and private land owners, we encourage effective stewardship by searching for emerging invasive species. With their help, the Strike Team is able to map populations and support their eradication. In the past ten years, we have searched over 750,000 acres, documented 10,000 invasive species and eradicated 2,000 of them!

We act as a clearinghouse for invasive species knowledge and tools for the entire conservation community. With the help of our partners and the general public, the Strike Team can detect and eradicate populations throughout the State with documented sightings of populations being logged using our mobile phone application and being tracked through our statewide database.

Invasive species threaten biodiversity

Invasive species are considered the second greatest threat to biodiversity after outright habitat destruction. With hundreds of invasives impacting thousands of acres across our State, it would be easy to throw up our hands and give up. But dedicated land stewards don't give up! Anyone that has worked on controlling invasive species knows that strategic approaches and long term commitment are a necessity, along with lots of hard work. We've been really inspired by local strike teams – small groups of people absolutely dedicated to improving their local natural areas. For example:



Garlic mustard is an invasive plant that flowers in the spring in New Jersey.

and the Essex and Union County Parks, have proven that success is an option to those willing to put in the effort.

The Strike Team, realizing that persistent local support for particular tracts of open space is critical, has the goal of encouraging dozens of local groups throughout the State. John, Laurel, Theresa and Maggie had reached out to the Strike Team and we offered our support to strategize control efforts, along with providing seasonal interns when grant funding was available. We'd like to significantly expand this model. Currently, we provide free technical

- Volunteers from the Friends of Great Swamp National Wildlife Refuge, led by John Berry and Laurel Gould, have been working for years to turn back large infestations of glossy buckthorn that threaten one of the most intact wetland complexes in New Jersey.
- The Hilltop Conservancy, led by Theresa Trapp, has eliminated tens of thousands of invasive plants over the last decade, starting with the elimination of newly emerging species with small numbers of plants and progressing toward larger and larger infestations.
- At the Watchung Reservation, Maggie Southwell has been championing the control of Japanese aralia threatening a globally rare plant community. She has been mapping and treating many other species for years.

All of these exceptional volunteers, working with key landowner staff from the Refuge

support through our phone app and website that guide species identification and control methods while also providing maps on the distribution of invasive species. We are also available to respond to questions via email and phone. Site visits and concise prioritized control plans are available for a very modest fee. Ultimately, we hope to acquire funding to provide expanded services free of charge.

What not to plant

Looking to help by not doing anything? And by "anything," I mean voluntarily refraining from the purchase of invasive plants. The Strike Team, with experts that make up our Technical Advisory Committee, annually updates our Do Not Plant List and invites people to sign our Landscape Planting Pledge to avoid new purchases of invasive plants. The list includes widespread species, newly emerging species and

Remind me again, why are invasive species bad?

Invasive species are non-native species introduced by people. They grow densely to the exclusion of native plants that would normally coexist in a diverse community, creating the base of an incredibly intricate food web including thousands of plant and animal species.

Most invasive species are successful because they are not eaten by local insects. This short-circuits the food web – less insect food means less insects, then less animals that eat insects, etc.

An important thing to remember is that the invasive species problem is only about 50 years old – a mere blink from nature’s perspective. During this period, we’ve witnessed an exceptionally rapid loss of native species and invasive species are a significant cause; 40 percent of insect species are at risk of extinction, insect biomass is declining at 2.5 percent per year, and many North American birds are in steep population decline.

So, that’s why invasive species are bad.

potentially invasive species. Although New Jersey has been much less proactive than our neighbors in New York and Connecticut in banning the sale of invasive species, we hope that concerned individuals and municipalities will take it upon themselves to commit to not making the problem of invasive species any worse in New Jersey.

I found this quote when I started my stewardship career and thought I’d share: “The lesson I take from more than a decade of volunteer and professional land stewardship is that remarkable progress is the predictable result of steady, low-technology land management.”

– Jennifer Hillmer, Land Steward



SAVE THE DATE!

ANJEC'S 46th Annual Environmental Congress

Friday, Oct. 4, 2019

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

Acting Locally



By **Sheila Baker Gujral**, ANJEC Resource Center,
Isabella Castiglioni, ANJEC Outreach Manager, and
Cheryl Reardon, ANJEC Project Director

Can you DIG it?

Newark DIG (Doing Infrastructure Green) is working on establishing “sustainable green infrastructure as the first line of defense to better manage stormwater runoff, improve water quality and resiliency to flooding, and reduce combined sewer overflows.” It’s a coalition of municipal officials, environmental commissioners, engineers, and nonprofit groups (including ANJEC). In addition to installing green infrastructure (rain gardens, rain barrels, cisterns, pervious pavement, green roofs, etc.) throughout the city, they recruit volunteers to adopt catch basins.

As part of ongoing efforts to reduce flooding, Newark DIG and the City’s Office of Sustainability launched the Adopt-a-Catch-Basin program in spring 2018. A catch basin is a street drain that transports stormwater from the pavement to underground waterways. During heavy rain, catch basins can get inundated with litter and debris, clogging up stormwater access, causing street flooding and distributing litter on the street.

The City provides catch basin adopters with a “Care Kit” to help maintain their catch basin. The Care Kits include: a reflective safety vest, a one-year supply of refuse bags (25 trash bags, 25 recycling bags and 10 leaf litter bags), a one-year supply of disposable gloves (25 pairs), instructions and a maintenance log sheet. Adopters can also choose to have a local artist paint their catch basin. The results are beautiful and illustrate the connection between the water above and below the ground. Residents have noticed that after

adopting catch basins, flooding and litter have been reduced.

Since the program was launched, over 100 catch basins have been claimed and a new batch of adopters is being recruited now. The inspiration for this program is in Jersey City, which in turn was inspired by programs in Nashville and New Orleans. The Newark program is now inspiring Paterson. Paterson’s new Environmental Commission and Green Team are gearing up for their first round of Adopt-a-Catch-Basin recruitments.

Nathaly Agosto Filión, Newark’s Chief Sustainability Officer, says she finds people are “passionate about using green approaches, about using sustainable, environmentally-friendly ways of managing stormwater.”

Which municipality will be inspired next?

More information:

- www.newarknj.gov/card/adopt-a-catch-basin
- www.newarkdig.org/
- www.jcmakeitgreen.org/adopt-a-catch-basin/
- medium.com/@BloombergCities/giving-storm-drains-some-love-47bcc21d5d

– Sheila Baker Gujral

Hammonton receives One Water Award

Back in the early 2000s, Hammonton’s treated wastewater was meant to percolate into the ground through slit trenches. When the ground was frozen or during

heavy rainfall, however, the percolation trenches overflowed directly into Hammonton Creek. Tasked with finding an effective way to manage their wastewater, Hammonton implemented a creative solution.

With a grant from Sustainable Jersey and PSE&G, the town created a rebate program to help residents make the switch to more water-smart appliances around the home. Residents who updated their home appliances to conserve water received a financial incentive. For every dollar the

town spent on rebates, they saved just over 100 gallons of water!

Hammonton then redirected the overflow of treated wastewater to irrigate municipally owned land and soccer fields through driplines. The community's water conservation efforts also included public education and outreach, and a tiered water use rating system. For their impressive water conservation over the years, Hammonton has received one of the 2018 Jersey Water Works One Water Award.

– *Isabella Castiglioni*

Nature is front and center at family fun day in Ocean City

When environmentalists talk about sustainability, they usually mean keeping our planet green. But it also holds true for environmental groups trying to sustain their own momentum and to recruit the next generation.

"We have a series of educational lectures and other activities for adults," said Chris Halliday, a member of the Ocean City Environmental Commission. "We thought, why not put together a family-friendly day for the kids?"

The result played out in typical Ocean City fashion on May 4 as more than 300 parents and children attended the Commission's second annual Nature and the Environment Fun Day at the Community Center. The kids made arts and crafts projects using recycled materials, watched entertaining videos with environmental themes and played games. They also learned about serious issues facing Mother Earth and explored ways to address them.

At last year's inaugural event, about 50 people showed up. Bolstered by a sunshiny day and warm temperatures, the Stainton Senior Center was taken over by dozens of young families. "We completely went through all of the craft materials we brought," said EC member Catherine Cipella, who estimated that participants created approximately 250 recyclable craft projects.

The Commission has been increasing visibility with its ongoing lecture series advocating "coastal resiliency," the practice of adapting and finding strategies to protect barrier island environments and helping the community cope with flood hazards and other issues. This serious message took on a lighter tone for the little ones at this year's event, which was held in partnership with the Ocean City Free Public Library and the Cape May County Park & Zoo.

"This is a great chance to get the kids out and do something educational and fun," said Kristina Costello, who watched as



Kristina Costello of Brandywine, Md. helps daughter Klara and son Duke create decorative butterflies using recycled materials at Family Fun Day in Ocean City.

son Duke, 5, and Klara, 2, made decorative butterflies using toilet paper tubes and recycled paper. "We come every couple of months, and there is always something going on. This town does a great job putting the family events together."

Zoo Educators Kendra Verity and Nikki Licata engaged the children with a harmless snake and a jumbo-sized, floppy-eared rabbit named Bugs, clearly a star attraction based on an informal poll of the youngsters. The snake drew waves of new friends, even those a bit wary.

"Most children who have a fear of, or dislike, snakes have a parent or both who don't like them," Verity said. Children of all ages looked on wide-eyed as the reptile slithered to within inches of the girls and then stuck out its long tongue. "He's smelling you now," Verity said, to the children's astonishment. "He uses his tongue to smell things."

She added: "I caught the invitation this morning (on social media) that this was happening, and said, 'Let's go...Ocean City just keeps doing it better and better.... If Ocean City posts it, people will come.'"

– Cheryl Reardon

Exploring nature and climate change through art

Artist Susan Hockaday sees global climate change as a daunting challenge for all of us. Her exhibition in the windows of the Art Alliance of Red Bank seeks to bring together the global and personal aspects of a changing climate.

Plastic material has become one of the main tools in creating Hockaday's current



Plastic material has become one of the main ingredients in Susan Hockaday's art dealing with climate change.

photographs. It not only represents the vast reach of the petroleum industry, but it functions in every part of modern life. It is universal and very personal at the same time: familiar, intimate, and now, because of microplastic pollution as well as modern surgical techniques, it has even become part of our bodies.

Nature, in all its complexity and profusion, has always been a consuming interest and focus of Hockaday's art. In the Gyre Series of photographs in the windows of the Art Alliance, she has brought these two parts of our world – nature and plastic – together. They are formed from the same atoms, but now these realms are in combat, struggling for control of our environment. In the photographs these elements are layered, intertwined, and arranged against vivid colors to suggest the complexity of our situation. She leaves the interpretation of the images up to the viewer.

Hockaday is an award-winning artist whose work is included in many public and private collections. An artists' reception was held on March 2 in the main gallery space at Art Alliance of Monmouth County in Red Bank. – Cheryl Reardon

A rain garden grows in Vineland

In early May, the Vineland Environmental Commission, with help from ANJEC, Rutgers Cooperative Extension Water Resources, the Vineland Department of Public Works and many volunteers installed a large rain garden at the Vineland Public School. In addition to naturally filtering stormwater runoff from the rooftop and parking area, the colorful native plants will serve as pollinator habitat while adding beauty to the property.



Announcing the 2019 ANJEC Open Space Stewardship Grant Recipients

Supported by the Sandy Batty Grant Fund

By **Elizabeth Ritter**, ANJEC Deputy Director

For the seventh year, ANJEC is providing funding for its Open Space Stewardship Grants. Over the coming months, environmental commissions (ECs) will be implementing exciting local stewardship projects across the State. ANJEC is delighted to announce that the winners for 2019 include 18 environmental commissions whose projects were selected from a record-breaking pool of almost 50 applications.

The funded projects include activities such as:

- Enhancement and preservation of trails;
- Green infrastructure improvements;
- Community and pollinator gardens;
- Butterfly gardens and enhancements
- Birding habitat improvements and
- Invasive species education and removal

No cash match is required for the grants, which range from \$500 to \$1500. Projects require an in-kind labor contribution from the commission and other volunteers totaling at least 80 hours. Projects often bring in many times that amount of support from community groups and individuals, who help with physical labor or even donate professional skills. The funded projects are often part of larger initiatives that may include funding from additional sources. Receiving a grant can sometimes encourage the community to plan even more activities to protect the environment. ANJEC remains committed to these worthwhile projects and all the enthusiasm and community goodwill they generate.



For their 2017 grant project, the Summit EC renovated and extended steep steps on the Passaic River Trail.

The primary objective of the Open Space Stewardship Grant Program is to increase residents' awareness and appreciation of local open space, ultimately increasing public support for open space stewardship. Another objective of the program is to raise the profile of the environmental commission in the community. Environmental commissions do untold amounts of important work in their towns, but often operate under the radar.

The program requires grantees to include community outreach and promotion of their projects through activities such as press coverage, social media and website postings, event attendance, signage, brochures and other efforts to bring attention to the projects. It is essential for a commission to continually affirm its value as a community resource, so the town will trust and support the group's efforts and programs.

ANJEC's 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 looking 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 you would like to make a donation, contact ANJEC at 973-539-7547.

The 2019 grantees are:

- Belvidere, The Pollinator Prerogative
- Bernardsville Borough, Green Infrastructure
- Bordentown City, Park Beautification
- Brick Township, Habitat Awareness
- Ewing Township, Pollinator Garden
- Glen Rock Borough, Rain Garden
- Hopatcong Borough, Rain Garden
- Hopewell Township, Organic Community Garden
- Lambertville City, Wildlife Habitat Garden
- Liberty Township, Meadow Garden
- Long Branch City, Dune Planting/Restoration
- Mansfield Township (Warren County), Solitary Bee Program
- Marlboro Township, Green Learning Center
- Readington Township, Community Pollinator Garden
- South Orange Village, Invasive Species Removal
- Swedesboro-Woolwich, Bluebird Habitat
- Washington Township, Trail Enhancement and Tools
- West Milford Township, Creek Cleanup and Enhancement 

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.

Tap water is regulated by the EPA, while bottled water is regulated by the FDA, which has weaker standards.



Know thy water – tap or bottled?

By **Jennifer M. Coffey**, ANJEC Executive Director
and **N. Dini Checko**, ANJEC Resource Center

Water, water everywhere, but which drop to drink? Plastic single-use bottles are convenient, but only about 30 percent are ever recycled, and the water inside can be dirtier than what comes out of your tap. On the flip side, how can you know for certain that your tap water is clean?

If your water comes from a public supply, not a private well, it is treated and tested before it is sent rushing through pipes to your home, school or workplace. But even the clean water from a treatment plant can become contaminated by the very pipes it flows through, as we learned from the tragic situation in Flint, MI. In recent years, portions of at least six counties in New Jersey have exceeded standards for lead levels in drinking water, and several additional counties have identified various perfluorinated compounds in water sources.

We are hearing more about drinking water contamination issues in the Garden State because the New Jersey Department of Environmental Protection (NJDEP) has adopted more stringent testing requirements for lead and copper and NJ is the

first state in the nation to set drinking water standards for perfluorinated compounds.

In April, the NJDEP proposed strong drinking water standards for perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS); in 2017, NJDEP adopted standards for Perfluorononanoic Acid (PFNA) and 1,2,3-Trichloropropane. All of these perfluorinated chemicals are remnants of our industrial past, used in firefighting foams, nonstick cookware, coatings for fabric and paper products, stain resistant carpets, and applications in aerospace, automotive, semiconductors, photographic imaging, construction, electronics and aviation products. Perfluorinateds have a variety of human health impacts, including hormone alteration, developmental impairments and cancer.

Know your water

The vast majority of New Jersey tap water is clean and meets the tougher NJ *Safe Drinking Water Act* standards. If you are concerned or curious about the quality of your tap water, you have the right to

review your drinking water quality test data. First, you need to learn if you have a public or private water supply. If you pay a water bill, you have a public source. If you have a private well, the location of it should be marked on the property survey map on your deed.

Public water supply:

- Public water supply quality data is available at: www.epa.gov/ccr. All public drinking water supplies are tested frequently and comply with the federal and state *Safe Drinking Water Act* standards. Your water company is required to send you an annual copy of their drinking water quality report. Drinking Water Watch allows users to view drinking water information for NJ water systems. https://www9.state.nj.us/DEP_WaterWatch_public/index.jsp
- Although water is certified as clean as it leaves a water treatment plant, pipes leading from a treatment plant to your home may contain lead or be fitted together with lead solder. This lead can leach out of pipes if the water is too corrosive, as was the case in Flint and some areas in northern NJ. You can have the tap water in your home tested by searching the internet for "NJ certified drinking water labs." A professional will come to your home and take a water sample. You will get the results within a week. The test will cost you \$80 to \$130.
- If you do find elevated lead levels, the lab is required to report the finding to the NJDEP. Your water company is then required to offer you a safe drinking water alternative, such as installing a filter on your faucet.

Pipes leading from a treatment plant to your home may contain lead or be fitted together with lead solder.

Private well:

- If you have a well, you are 100 percent responsible for ensuring that your water is safe to drink.
- A certified drinking water lab can assist you with developing a testing regimen for your home. You will want to test annually for the basic drinking water quality standards, including lead, arsenic, bacteria, and nitrates. You should also regularly test for volatile organic compounds (VOCs) if you are in an agricultural area, and for mercury and radiation, depending on the types of naturally occurring rocks in your region.

A certified lab can help you identify what tests you need and how often. Testing your tap water can ease your mind about the safety of your family's drinking water so you can forego the expense, questionable quality and environmental impact of single-use plastic bottles.

Say no to bottled water

The bottling industry has done a great job of selling us on the myth that bottled water is healthier and better than tap water. Why? It's extremely profitable. Bottled water is the largest US beverage category by volume. In 2018, national sales of bottled water came in at \$18.5 billion. Bottled water can cost consumers nearly 2,000 times the price of tap water, three times the price of a gallon of milk and four times the price of a gallon of gasoline (Food & Water Watch).

Unlike tap water, which is regulated by the US Environmental Protection Agency,



bottled water is regulated by the US Food and Drug Administration (FDA). FDA standards and testing for bottled water are weak. In April, Consumer Reports (CR) released an in-depth investigation highlighting the elevated levels of arsenic in bottled water. Arsenic is a naturally occurring heavy metal, but regular consumption over extended periods increases the risk of cardiovascular disease, can lower IQ scores in children, and can cause certain cancers and other health problems.

The FDA says that 10 parts per billion is safe, but research indicates that this is too high and levels should not exceed three parts per billion. CR also found that the federal government's safety inspections of water bottling facilities hit a 15-year low in 2017. In 2010, the FDA conducted 371 inspections; by 2017, that number fell to 209. Few states regularly conduct independent tests on bottled water for contaminants, as local water suppliers must for tap water. The NJ Department of Health does have a bottled water program, but with only one full-time employee to oversee it.

Don't drink the plastic

A 2018 study by Orb Media shows that water inside a single plastic bottle can contain thousands of microplastic particles. Tests on more than 250 bottles from 11 leading brands reveal widespread contamination with plastic debris, including polypropylene, nylon, and polyethylene terephthalate (PET). Plastic was identified in 93 percent of the bottled water samples.

When plastic is exposed to sunlight or heat, the harmful chemicals used to make the plastic bottle itself leech into the water. Use of plastic products leads to ingestion and/or inhalation of large amounts of both microplastic particles and hundreds of toxic substances with known or suspected carcinogenic, developmental or endocrine-disrupting impacts.

Then there's the issue of the empty bottle itself. What happens to 70 percent of plastic bottles that never get recycled? In the US alone, we go through 50 billion bottles annually and most end up as litter,

in a landfill or incinerated. Food and Water Watch reports that local municipalities in 2016 spent more than a staggering \$100 million to clean up and dispose of waste from non-recycled plastic water bottles.

What to do

What can communities do to increase public confidence in tap water? Here are some ideas:

- For a fun, interactive activity at your next green event, host a "water tasting bar." Offer passersby samples of tap and bottled water (using paper cups of course) and ask if they can tell the difference.
- Pledge to have NO plastic bottled water at all events. Tell food/beverage vendors that they cannot sell bottled water. Instead, bring in water buffalo trucks from a local water company and make sure to advertise that people should bring their own reusable bottles. Some of NJ's landmark events, such as Barnegat Bay Day, already do this.
- Offer convenient water refill stations throughout your town. For example, the Hoboken Hydration Station Program allows local businesses to place stickers in storefronts for free water refills. Customers bring their own reusable bottles and restaurants get extra foot traffic and green business recognition. www.hobokennj.gov/resources/hoboken-hydration-station
- Install water refilling stations in public spaces and schools and watch the counter track how many bottles were saved!

Given the cost, quality and environmental impact of plastic-bottled water, the only reasonable answer is to drink tap water. With a little bit of research and testing, you can feel comfortable with your decision to take back the tap. 💧

Sources:

- www.foodandwaterwatch.org/sites/default/files/rpt_18o2_tbtbigwaterhustle-web.pdf unsafe-levels/
- www.consumerreports.org/water-quality/arsenic-in-some-bottled-water-brands-at-
- <https://orbmedia.org/stories/plus-plastic/multimedia>
- <http://becausewater.com/ultimate-guide-fundraising-water-bottle-filling-stations-schools/>

Momentum is growing to cut plastic pollution

New Jersey municipalities have passed more than 50 ordinances to ban single-use plastics such as bags, straws, balloons and Styrofoam. And the number is growing fast!

ANJEC held two press events in early May to celebrate this great accomplishment by towns all over the State.

The first event was held on May 2 at Glen Rock's Thielke Arboretum Environmental Education Center. The second was held on the Asbury Park Boardwalk on May 7. Glen Rock's ordinance prohibits businesses from offering single-use thin plastic carry-out bags. Paper bags and reusable bags may be sold to customers for ten cents apiece upon request. Asbury Park has an ordinance banning mass balloon releases.

For sample ordinances and more information about how to reduce plastic pollution in your town, please contact the ANJEC Resource Center at info@anjec.org or by calling 973-539-7547



Helen Henderson of the American Littoral Society, left, and ANJEC Executive Director Jennifer Coffey on the Asbury Park Boardwalk



Speakers at ANJEC's May 7 press event on the Asbury Park Boardwalk were, from left, Bradley Beach Mayor Gary Engelstad; Helen Henderson, Littoral Society; Jennifer M Coffey, ANJEC Executive Director; Jon Weber, Surfrider; Noemi de la Puente, NJ Environmental Lobby; Zack Karvelas, Clean Ocean Action; and NJ Dist. 11 Assemblyman Eric Houghtaling.

New Jersey towns with plastic pollution ordinances

As of May 20, the following communities have passed ordinances to reduce plastic pollution:

Balloon Ordinances

Asbury Park
Atlantic City
Atlantic County - parks only
Beach Haven
Bradley Beach
Brigantine
Cape May City
Egg Harbor City
Galloway
Lavallette
Long Beach
Long Branch
Longport
Margate
Monmouth Beach
Mount Laurel
New Milford
North Wildwood
Point Pleasant Beach
Sea Isle City
Somers Point

Stone Harbor
Tinton Falls
Upper
Ventnor

Straw Ordinances

Atlantic County - parks only
Lambertville
Little Silver
Monmouth Beach
Ocean Gate

Styrofoam Ordinances

Lambertville
Leonia
Little Silver
Maplewood
Monmouth Beach
Ocean Gate

Bag Ordinances

Atlantic County - parks only
Avalon
Beach Haven
Belmar
Bradley Beach
Brigantine
Glen Rock
Harvey Cedars
Highland Park
Hoboken
Hopewell Borough (Mercer)
Jersey City
Lambertville
Little Silver
Long Beach
Longport
Maplewood
Monmouth Beach
Ocean Gate
Parsippany (resolution)
Point Pleasant
Somers Point
Stafford
Stone Harbor
Teaneck
Ventnor



The Glen Rock Environmental Commission shows its colors at the May 2 press event there.



Where are they now?

An occasional series that checks in on ANJEC alumni

By **Michele Gaynor**, ANJEC Resource Center

ANJEC Intern Lindsay McNamara

Lindsay's college internship at ANJEC in 2010 cemented her interest in joining the New Jersey environmental nonprofit community and she's been a part of the industry ever since. Under the guidance of ANJEC Media Director Julie Lange Groth, Lindsay learned how to turn her interest and skills in writing into a career in communications/public relations.

After her internship, Lindsay went on to graduate from the University of Delaware with a BA in Environmental Studies with a concentration in Environment, Society and Sustainability in 2012. During her senior year, a committee she formed launched an environmental campaign to raise awareness about bottled water

on campus. The goal was to help students become more informed consumers and to shed light on the unsustainable environmental, economic and health consequences of buying and drinking bottled water.

After graduation, as the Ocean Advocacy Fellow for Clean Ocean Action, Lindsay worked on an anti-liquefied natural gas (LNG) campaign that ultimately led to the defeat of the Port Ambrose LNG facility proposed off the coast of Long Branch. As an advocate at Clean Ocean Action, she worked up and down the coast of New Jersey, volunteered in the aftermath of Superstorm Sandy, and helped organize beach cleanups throughout the State.

Lindsay then moved on to Conserve Wildlife Foundation of New Jersey, where she helped to spread the word about and recruit volunteers for important habitat restoration projects happening along the Delaware Bayshore after Superstorm Sandy. A coastal resiliency project that benefited wildlife and people alike, CWF's oyster reefs were designed to reduce beach erosion and create calmer water for spawning horseshoe crabs.

Lindsay also earned her Master of Arts in public and organizational relations from Montclair State University and completed the master ecologist class offered at Duke Farms in Hillsborough. Over the last two years, she helped

organize the NJ Land Rally EnviroMentors Program, which seeks to bring emerging conservation professionals and experienced conservation champions together.

Lindsay now serves as the Mid-Level Giving Manager at National Audubon Society at their NYC headquarters. Born and raised in NJ, she enjoys birding with Bergen County Audubon Society, traveling and writing about her adventures on her blog, "20-something Environmentalist." If that doesn't keep her busy enough, she also volunteers at The Raptor Trust in the Great Swamp National Wildlife Refuge. 🐦



Lindsay McNamara



Acting Locally

Environmental Commissions on the frontlines

By Julie Lange Groth, *ANJEC Report* Editor

New Jersey is the most densely populated state in the USA, yet our small State is home to a rich diversity of precious natural resources. With crystal-clear aquifers in the Highlands to the north and the Pinelands to the south, NJ is an important source of drinking water to the entire region. The western part of the State is in the Delaware River Watershed, an intricate web of rivers and streams that fill the water glasses of 15 million people in New Jersey, New York, Pennsylvania and Delaware.

More than a third of NJ's border is coastal, and its bays, harbors, sounds, wetlands, inlets and tidal areas constitute an exceptional, delicately balanced ecosystem that is home to an enormous variety of species.

While various State and federal laws aim to protect these special resources, local action makes it happen. Over 300 Environmental Commissions (ECs) in communities throughout NJ are at the vanguard of resource protection, working tirelessly to defend the unique natural treasures in their towns.



Organizing and educating

It was a time of awakening and expansion. New environmental commissions were being formed at a rapid rate, sometimes as many as 10 per month. The new Municipal Land Use Law passed in 1975, required municipal planning



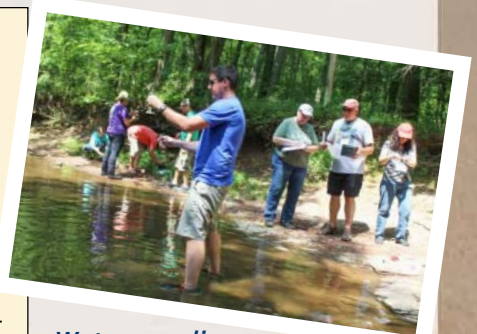
boards to send their ECs a copy of every development proposal for review if they've completed an Environmental Resource Inventory.

ECs were arming themselves with knowledge, taking stock of their towns' environmental assets, advising their local governments, educating residents and adding solid value to the quality of life in their communities. For example:

- The Hopewell Twp. (Mercer) Environmental Commission conducted a limnology survey of water quality and stream life in major streams at 60 sites with the help of high school students.
- The Environmental Commission in Hazlet Twp. established a nature museum without expending any municipal funds. It was staffed entirely by volunteers and had a library of over 500 donated volumes. The museum was a center of community education, hosting guest speakers, film screenings and workshops.

"People in town realize the importance of recycling. Eventually our landfills are going to be filled, and we'll have to travel farther and farther away to find a space for disposal. We need to reuse what's reusable."

Metuchin Environmental Commission Secretary Arline Owen, 1977



Water sampling in a Hopewell Twp. stream.

1979-1989

Recycling and remediation

New Jersey was facing a garbage crisis. Towns were mobilizing to find local solutions to the growing problem of solid waste disposal and how to locate and clean up hazardous waste sites. Homeowners wanted to know that their drinking water was free of pollution and ECs began partnering with local health officers to make the vital connection between a clean environment and a healthy population.

All over NJ, commissions were working to keep the environmental mistakes of the past from being repeated in their towns. For example:

- The environmental commission in Jersey City launched a comprehensive education and outreach program on air pollution, traffic control, hazardous waste cleanup, recycling and solid waste management.
- The Mansfield Twp. (Burlington) EC collected about 23 tons of newspapers and 35 pounds of aluminum in its first collection of recyclables. The town was too rural to participate in a county program, so the local senior citizens, ladies Auxiliary and Boy Scouts staffed the locally established drop-off center.
- The Shrewsbury EC conducted a natural resource inventory that showed a property with habitat for rare flora and fauna, in particular Great Blue Herons, that could not support a proposed 220-unit townhouse development. The town ultimately changed the zoning to limit development density.

"An environmental commission cannot make a law and it cannot instill a conscience. But hopefully it can influence both these controls for the protection and enhancement of our fragile and already injured planet and its finite resources."

From Warren Twp.'s Statement of Environmental Values and Priorities, 1983

Great Blue Heron



1989-1999

Protecting and preserving

The ratables chase was on! As new development gobbled up more and more of New Jersey's natural lands, communities began to awaken to the importance of their open spaces, not only for their crucial environmental role, but also significant social and economic value.

Environmental commissions around the State worked to identify and preserve properties that offered habitat, protected water supplies, offset carbon pollution and provided other important ecological benefits. For example:

- Foreshadowing today's plastic pollution crisis, in 1991 the Stafford Twp. EC drafted an ordinance requiring retailers using plastic food packaging to recycle it, and the Madison school district became the first in New Jersey to ban non-biodegradable plastics from school property.
- The Wildwood Crest EC successfully worked to persuade US Fish and Wildlife Service to preserve a 390-acre decommissioned Coast Guard training base to become a wildlife refuge for migratory birds. They were supported by 120 other environmental commissions who sent letters of support.

In 1993, the Eatontown Environmental Commission pioneered efforts to allay the harmful effects of light pollution on wildlife. The Borough passed the State's first light pollution ordinance, leading the way to the creation of a NJ Light Pollution Study Commission and the development of a statewide model ordinance by the Department of Environmental Protection.



American Oystercatchers are often seen at the wildlife refuge in Wildwood Crest.



Sustainability

As climate change cast a growing shadow on the environmental landscape, ECs urged their communities to reduce their carbon footprints and behave in more sustainable ways. Growing scientific data and the documentary film, *An Inconvenient Truth*, brought growing interest in green building, renewable energy, low-emission vehicles, green purchasing and other pathways to sustainability.



Brownfield solar development in Trenton

As New Jersey joined the Regional Greenhouse Gas Initiative and Governor Corzine signed the *Global Warming Response Act* stating NJ's goals for fighting climate change, ECs worked locally to conduct municipal energy audits, develop sustainability plans, promote energy efficiency and water conservation and many other initiatives. For example:

- The Cranford Environmental Commission helped the Township pass the State's first Green Building ordinance to "to encourage resource conservation, reduce the waste generated by construction projects, increase energy efficiency, and promote the health and productivity of residents, workers, and visitors to the city."
- The Leonia EC objected to construction of a semi-pro baseball stadium with 2000 parking spaces in one of Southern Bergen County's last open spaces. The land provided a stopover for numerous species of migrating birds. Their successful campaign convinced County Freeholders to declare that no stadium could be constructed on a county facility.

Concerned about air quality, the Town of Belvidere reactivated its Env
Pennsylvania electric utility sought to expand its plant. The EC belie
blowing across the Delaware River into their community. After conc
of asthma was high compared to the US norm, they successfully ad
station and town-wide asthma screening program.

2009-2019

Resilience

On the heels of the greatest recession to hit the US since the Great Depression, Superstorm Sandy arrived. One of most devastating hurricanes ever to hit the mid-Atlantic coast exposed the folly of building and paving over dunes and marshland, clear cutting forests, and ignoring scientists' warnings of climate change and rising sea levels.



NJ towns have worked to recover and rebuild with a growing awareness that climate change would bring more storms with increasing frequency and intensity. Environmental commissions helped officials weigh strategies that considered the ability of natural systems to recover from disturbances, to tolerate or adapt to a changing climate, and to deal with evolving environmental issues. For example:

- When drinking water supplies were at serious risk in the Kirkwood-Cohansey Aquifer underlying the Pinelands region of NJ, the Environmental Commission helped the Town of Hammonton (the blueberry capital of the world!) cut water use by about 40 percent through a water conservation challenge, a rebate program for new water-efficient appliances and public education. Their work continues. *(Continued on back)*



Buying water-efficient appliances helped Hammonton cut water usage.

Environmental Commission when a nearby
vealed emissions from the plant were
ducting a survey showing local incidence
vocated for a permanent air monitoring



Climate March 2014

2009-2019

Resilience *Continued*

- The Chatham Township Environmental Commission worked with local schools to implement a food waste composting program that turned virtually all of the cafeteria food waste into rich garden compost, saving the school district up to \$6,000 in mulching and landscape fees each year.
- After Hurricane Irene in 2011, mayors of towns along the Rahway, with the help of their local ECs, organized to find solutions to flooding in the Watershed. They advocated for ordinance changes and better stormwater management practices to protect water quality and reduce the quantity of uncontrolled runoff.



The Upper Deerfield Twp. EC, with the help of ANJEC, several partners and many volunteers, installed a 2000-sq.-ft. rain garden at the Municipal Complex to provide habitat and to naturally filter pollution from stormwater runoff before recharging the groundwater to protect the health of the adjacent stream.



The vital work of ECs has advanced the environmental movement immeasurably in our Garden State over the past 50 years. And their work will continue to play a crucial role in protecting our future.



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www.anjec.org



P O W E R I N G P R O G R E S S

EMPOWERING PEOPLE > POWERING LIFE

Our vision for the future of New Jersey is one where we use less energy and the energy is cleaner, more reliable, more resilient and affordable.



PSEG

We make things work for you.

ANJEC welcomes new staff!

By Elizabeth Ritter, ANJEC Deputy Director

Earth Day 2019 was a banner day for ANJEC as we welcomed three new staff members to our wonderful, dedicated team!

Wynniefred Victor Hinds

Wynniefred joins ANJEC in the newly created position of Outreach and Community Engagement Manager. She will be working on assisting environmental commissions (ECs) and local officials as they work in their communities to protect our precious natural resources. She will be reaching out to ECs to help them form valuable connections to ANJEC as well as with their counterparts in other communities to work together on a regional basis. Wynniefred will also be helping ECs with tools for recruitment, community engagement and more.

Wynniefred currently co-chairs the Newark EC and has worked as a consultant and a teacher. A graduate of City College of New York, she is fluent in French, Spanish and Haitian Kreyol. Wynniefred will be a valuable asset to ANJEC and we are delighted to have this new position serving NJ's local environmental commissions!

Wynniefred can be reached at wvhinds@anjec.org, 973-539-7547.

Randi Rothmel, Ph.D.

Randi is ANJEC's new South Jersey Project Director. She will be working on programs and initiatives in the southern part of our Garden State and will be spending a lot of her time on the Delaware River Watershed Initiative (DRWI) funded by the William Penn Foundation in the Kirkwood Cohansey Aquifer cluster.

Randi is currently the Chair of the Mt. Holly Environmental Advisory Board and was responsible for rejuvenating the group and starting many of its new projects and



ANJEC's newest staff members, from left: Wynniefred Victor Hinds, Randi Rothmel and Alex Ambrose

initiatives. She is also a graduate of the Rutgers Environmental Stewards program. Randi's earlier work as a research scientist included serving as director for a state-certified lab that provided reports and expertise for water cleanup projects and more.

Randi can be reached at 973-539-7547 or rrothmel@anjec.org.

Alex Ambrose

Alex joins ANJEC as Policy Assistant. Alex will be working on the DRWI as the ANJEC staff member in the NJ Highlands Cluster. Alex will also be working across the State on policy issues.

Before coming to ANJEC, Alex was a policy assistant at New Jersey League of Conservation Voters and gained vast experience working on a number of coalitions, including Flood Defense NJ and Keep It Green, both partnering with NJ nonprofits, including ANJEC.

A graduate of Rutgers University School of Environmental and Biological Sciences, Alex brings that expertise to ANJEC along with a love of nature and the natural resources of NJ.

Alex can be reached at 973-539-7547 or aambrose@anjec.org. 🌱

Glen Rock adopts 100 percent renewable energy plan for residents

By **Ken Jones**, Glen Rock Environmental Commission

In February, Glen Rock's Borough Council accepted and approved the latest bids for the town's Government Energy Aggregation (GEA) program, established a year ago, that makes available 100 percent renewable energy for a discounted price for all households. The plan known as DEAL (Discounted Energy Aggregation pLan) has been under development since the concept was brought to the Council's attention in early 2017 by Ken Jones, Ben Meyer, Sylvia Rabacchi and Noelle Siong, all members of the Glen Rock Environmental Commission (GREC) Energy Committee.

According to New Jersey's Board of Public Utilities (BPU), a GEA program allows municipalities, working alone or in a group, to aggregate the energy requirements of residential, commercial and municipal customer accounts so that the participating customers can purchase their electric supply and/or gas supply from third party suppliers at prices lower than the average utility price, with the possibility of added benefits such as higher renewable energy content. GEAs offer low-priced, fixed-rate electricity to users in participating groups.



Numerous municipalities in New Jersey have enacted GEA programs for the benefit of their residents since the State passed legislation in 2003 that provides communities the right to aggregate all of the residential accounts within their boundaries, and to solicit bids from suppliers in order to get the best price and terms. Glen Rock's GEA is the first in the State to offer 100 percent renewably sourced electricity. Two years ago, Woodbridge implemented a GEA with 20 percent renewable content with similar savings for residents.

"This is by far the most impactful undertaking our community can do to collectively decrease our carbon footprint," said GREC co-chair Sylvia Rabacchi. "We estimate a 26 percent reduction of our town's total greenhouse gas (GHG) emissions, excluding transportation, with DEAL, which sets us on the path of the State goal of an 80 percent reduction of GHG emissions by 2050."


"This is a win-win for the residents," said Mayor Bruce Packer, adding that "The town-wide savings are estimated to be about \$150,000 in total for the 18 month duration of the contract."

By law, this is an opt-out program, so anyone who doesn't want to participate can opt-out for any reason. But Councilwoman and GREC liaison Arati Kreibich believes, "Most residents will want to stay in because the rates are a little cheaper than PSE&G and because it is 100 percent green."

Two prior bids received last year on a similar renewable product failed to provide pricing below utility rates, and the Council, with the advice from Gabel Associates (energy agent for DEAL), decided not to move forward. The energy product secured by the winning bid is comprised of a variety of renewable energy sources.

"Not all types of renewable energy offer the same benefit to residents in NJ," explained Jones. "According to the GREC website for DEAL, 41 percent of the electricity is sourced from NJ solar and regional Class 1 Renewable Energy Certifi-

cates (RECs). This is important because these RECs support the building of regional solar and wind farms that create jobs in our area and have a direct impact on improving our air quality. The remaining 59 percent of the electricity is sourced from national wind, which is generated mostly in western states."

For now, residents need not do anything. Homeowners will receive letters over the next few weeks with specific details about the program, which is expected to start in June. 

More information

- www.state.nj.us/njpowerswitch/gea/index.html
- www.state.nj.us/bpu/pdf/energy/NJ_Gov_Energy_Aggregation_Summary.pdf
- Contact Ken Jones at 201-310-1585



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ANJEC Fundamentals for Effective Environmental Commissions 2019

By **Michele Gaynor**, ANJEC Resource Center

ANJEC held its newly updated introductory training course for environmental commission members this spring. With over 175 participants, it was one of our most successful and well-attended training programs ever. Enthusiastic participants gathered at separate sessions in Bridgewater and West Deptford in March with a third session in Ridgefield in May to gain tools and knowledge to help them improve their communities and become effective members of their local environmental commissions.

The program included breakout sessions on best practices for Environmental Commissions as well as an update on the New Jersey stormwater rules. ANJEC ended each workshop with hands-on exercises and a networking opportunity.

The course agenda included:

- Responsibilities and powers of an environmental commission
- Stormwater regulations in NJ
- Site plan review
- Creating/updating an ERI
- The Municipal Master Plan and the environmental commission's role in the process
- Reviewing and updating municipal environmental ordinances. 



ANJEC Trustee Cinnie MacGonable speaking at the Fundamentals for Effective Environmental Commissions course in Bridgewater

Hands on training in Site Plan Review in West Deptford





Participants learned how to evaluate proposals for development at ANJEC's Fundamentals for Effective Environmental Commissions course on Saturday, May 18, in Ridgefield.



A networking break in Bridgewater

The registration table was busy at ANJEC's Fundamentals for Effective Environmental Commissions course on Saturday, May 18, in Ridgefield.



Save the dates

***AJ Meerwald* Tours on the Hudson River** **Wednesday, July 3 – Sunday, July 14**

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.



Recycling rules demystified

By Lyle Landon, ANJEC Development Director

New Jersey was the first in the nation to mandate recycling on a statewide basis. In 1987 the New Jersey *Statewide Mandatory Source Separation and Recycling Act* was passed, requiring that each municipal governing body submit an annual Recycling Tonnage Report summarizing the amount of material recycled during the previous calendar year. Recycling has greatly reduced the amount of refuse being incinerated or going to landfills. Now, more than forty years later, New Jerseyans are in the habit of recycling everyday items such as bottles, cans, papers, plastics #1 #2 and #5, etc.

But it's still confusing!

Confusion often sets in when infrequently used items need to be discarded, such as used motor oil, white goods, batteries, etc. State and county laws dictate that they must be recycled, but where should these items be taken? Some municipalities and counties have their own Recycling Centers and some contract with a private facility, like Atlantic Fibers. Some municipalities have the Department of Public Works (DPW) pick up these items curbside, while some contract with private haulers.

The differences don't stop there. Some municipalities have the DPW picking up recyclables from homes but require businesses and institutions to contract with private haulers and private facilities, and

each may have its own rules. Of course, contracts expire and new contractors can have different requirements. And there are still more questions:

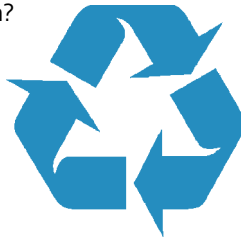
- What days are Bulky Waste days?
- When does yard waste pickup begin (and do we really have to bag our leaves now)?
- Where is the big paper shredding thingy going to be this year and
- Will the high school students be offering to wash cars for a donation to the lacrosse club again while we wait in the shredding line?

Answers to questions about recycling can be ridiculously complex. For most of us, however, the answer to "what is recyclable?" only needs to be answered for where we live and work. And now, you don't even have to remember all of these particulars, because there's an app for that (www.recyclecoach.com), according

to Ashia McRae at New Jersey Department of Environmental Protection (NJDEP) Recycling.

I recommend trying the app. There are no profiles to fill out; it simply asks for the address you're interested in researching, and then it asks for the item, providing a

choice of 8 icons of popular searches plus an option to fill in the blank. I was impressed that even when I typed in "paint cans," I could select Aerosol Cans, Empty Metal Paint Cans, Latex Paints, or Paints, Stains, Finishes & Solvents. I selected the



last entry and up popped three drop-off household hazardous waste events with addresses. One more click brought up more granular results – the time of the event and details about size restrictions and a phone number to call. Awesome! Alexa just got beat!

If your town is not already participating in Recycle Coach, your Environmental Commission and municipality can work together to get your data included.

There were a number of items for which a referral to a specialty recycling site was provided.

For example, a search for medicine referenced a website (www.disposemymeds.org) that includes a medical disposal locator. Today, if one is replacing a white goods item, such as a dishwasher, the installer will usually take away the old one for free or for a fee. The U.S. Environmental Protection Agency's Responsible Appliance Disposal program offers rebates of \$15 to \$50 for old but working refrigerators, freezers, room air conditioners or dehumidifiers. To schedule an appointment for appliance pickup, call 888-990-2246.

Choose to reuse

What do you do with items that still have some life left in them? The website www.njrecyclingnj.com offers a lot of options for where these objects might be reused or repurposed. It also has instructions about where the worn out or unneeded items can be deposited, from construction material and lumber, bicycles, tires and electronics to CDs, eyeglasses, shoes, hotel soap and chip bags.

When used items are not in good enough condition to be sold at a yard sale, given away or donated to a charity – like that old mattress you no longer use for

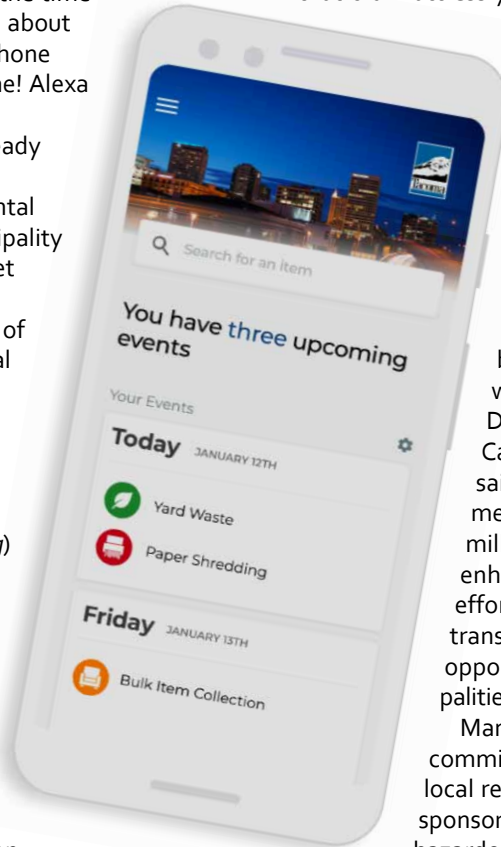
kids' sleep-over parties – call your town DPW to see if it can be picked up on Bulky Waste Day.

Municipal tonnage reports show that recycling rates are increasing, which is good news beyond reducing the waste stream. NJ DEP Commissioner Catherine McCabe said that local governments will share \$14.3 million in grants to enhance recycling efforts in 2019, which translates to a grant opportunity for municipalities.

Many environmental commissions help improve local recycling rates by sponsoring household hazardous waste collection events, providing recycling receptacles and pickup in public places, maintaining leaf composting operations

and doing educational outreach about the importance of recycling. If you have ideas for projects to improve recycling in your community, talk to your local Recycling coordinator about applying for a grant.

More information at: www.state.nj.us/dep/dshw/recycling/recycoor.htm



The Recycle Coach app from NJDEP

The Uninhabitable Earth

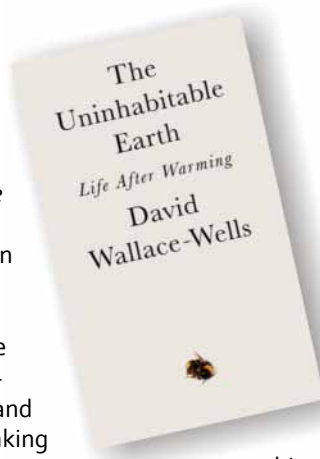
Review by S. T. Carroll, ANJEC Volunteer

David Wallace-Wells is unflinching in his portrayal of the immensity and intensity of climate change in *The Uninhabitable Earth* ("Uninhabitable"), a new book that is well written and a marvelous source of memorable quotations. It describes at great length the current and potential consequences of climate change and the reasons that we resist taking adequate action to mitigate it.

Indeed, the first sentence of the book is, "It is worse, much worse, than you think."

Throughout the book, however, Wallace-Wells is consistently adamant that we have the tools and ability to constrain the worst effects of a changing climate – that the people alive today are the only ones with the opportunity to change the course of climate change. Do have the courage to read this book

The following observation from *Uninhabitable* occurred early in the book. "Many perceive global warming as a sort of moral and economic debt, accumulated since the beginning of the Industrial Revolution and now come due after several centuries. In fact more than half the carbon exhaled into the atmosphere by the burning of fossil fuels has been emitted in just the past three decades.



Which means we have done as much damage to the fate of the planet and its ability to sustain life and civilization since Al Gore published his first book on climate than in all the centuries – all the millennia – that came before. The United Nations established its climate change framework in 1992, advertising scientific consensus unmistakably to the world;

this means we have now engineered as much ruin knowingly as we ever managed in ignorance."

That passage makes one wish that we had done more. The longest section of *Uninhabitable* has chapters on current and projected effects from several climate change issues, including: Heat Deaths, Hunger, Drowning (due to sea level rise), Wildfire, Disasters (no longer "natural"), Climate Conflict and "Systems." Here are just a few samples:

- **Heat** – In the US, 70,000 workers have been seriously injured by heat since 1992 and by 2050 255,000 are expected to die globally from direct heat effects;
- **Sea Level Rise** – 311,000 homes in the US will be at risk of chronic inundation by 2045, and by 2100 the number could exceed 2.4 million;
- **Climate Conflict** – For every half degree of warming, societies will see between a

10 and 20 percent increase in the likelihood of armed conflict;

- **Systems Crises** – A World Bank 2018 study projects that 140 million people in sub-Saharan Africa, South Asia and Latin America will become climate migrants (And we think the world has an immigration problem today!).

Uninhabitable cites several reasons that climate mitigation fails to get traction. In the Story Telling chapter, Wallace-Wellis notes that there is not a satisfactory villain class to provide drama; we all benefit from fossil fuels so there are billions of us and we are all complicit.

Early in the book, the author articulates his main theme as follows: “But while there are a few things that science does not know about how the climate system will respond to all the carbon we’ve pumped into the air, the uncertainty of what will happen – that haunting uncertainty – emerges not from scientific ignorance but, overwhelmingly, from the open question of how we respond. That is, principally, how much more carbon we decide to emit, which is not a question for the natural sciences but the human ones. Climatologists can, today, predict with uncanny accuracy where a hurricane will hit, and at what intensity, as much as a week out from landfall; this is not just because models are

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! 🌱

good, but because all the inputs are known. When it comes to Global Warming, the models are just as good, but the key input is a mystery: What will we do?”

Throughout *Uninhabitable* the author returns to this theme and in the closing pages he again states: “But, all told, the question of how bad things will get is not actually a test of the science; it is a bet on human activity. How much will we do to stall disaster, and how quickly?” It is a call to action. 🌱



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ANJEC's 2019 Environmental Achievement Awards

To be presented at the
46th Annual Environmental Congress
October 4

Mercer County Community College

Deadline: Must be received by September 6, 2019

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



Thank you to our trustees

ANJEC is proud to have what is known as "a working board," meaning our trustees pitch in and help us accomplish our mission through their knowledge, time and generosity of spirit as well as financial support.

We'd especially like to welcome our new members in 2019: Ed DiFiglia, Patricia Elkis, Kate Hutelmyer, Meishka Mitchell and Barbara Rogers.

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Ditching Disposables

Tuesday, July 23rd, 7:00 pm

The Lambertville House,
32 Bridge Street, Lambertville, NJ

Please join us for a regional plastics forum aimed to inspire local action through policy and stewardship to reduce single-use plastic consumption and pollution in the Delaware River Watershed communities.

Come learn and share best practices on education, ordinances and implementation.

Refreshments will be served.

**Registration free to ANJEC members,
\$10 non-members;**

**To register, email info@anjec.org or call
973-539-7547.**



*This project was partially funded by the Lower Delaware
Wild & Scenic Management Council with support
from the National Park Service.*


RIP Wallace Broecker, Grandfather of Climate Science

1931-2019

By Julie Lange Groth, ANJEC Report Editor

Professor Wallace Broecker, a pioneering New York geochemist who is credited with coining the term "global warming" in 1975, died on Feb. 18 after a long and distinguished career at Columbia University. Much of his work focused on the oceans. He helped to lay out a map of global ocean circulation and its profound effects on climate. Broecker was among the first scientists to foresee the impact of human behavior on rising earth temperatures.

His theories have since been proven by events and today are almost universally accepted by climate scientists. According to Broecker, dumping greenhouse gases into the atmosphere was "...an experiment that could have devastating effects. We're playing with an angry beast - a climate system that has been shown to be very sensitive."

So alarmed by the potential impacts of global warming, Broecker in his later years urged serious study of extreme solutions to the climate crisis, which included creating a massive solar shield in the Earth's atmosphere, a tactic known variously as "geoengineering," "the sulfur solution," or "solar radiation management." 

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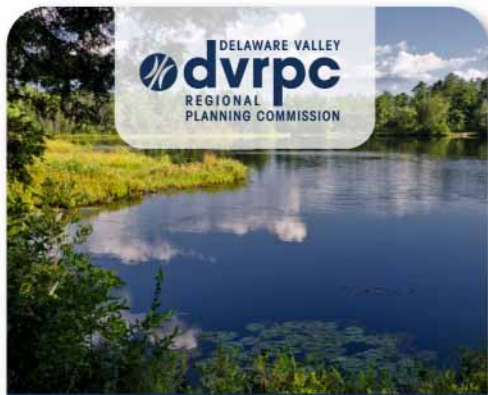
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