



ANJEC REPORT

Local Environment Matters

AUTUMN 2023

Inside:

- Special section – NJ's changing climate
- We have new flood hazard area rules!
- Climate-ready infrastructure



Director's Report

Climate action now – New Jersey leads

Climate change is here and the impacts are significantly affecting New Jersey. Our average temperature has increased more than any other state, rising 2.9° F in the past century, according to the NJ Climate Resource Center at Rutgers University. Warm air retains more moisture than cold air, leading to more intense storms dumping more rain over shorter periods of time with increasingly intense flooding.

We need to take two actions to combat the climate crisis:

1. Reduce greenhouse gas (GHG) emissions as much and as quickly as possible;
2. Make our communities more resilient to those impacts of climate change that we cannot stop.

The climate crisis impacts that we are experiencing today are the result of the GHG emissions that we have released into our atmosphere at increasing rates for decades. We need a massive pollution reduction diet immediately. In New Jersey, focusing on the top three most polluting sectors will yield the fastest, best results:

- electrifying our transportation sector and increasing development of public transportation;
- decarbonizing buildings with better insulation, more efficient electric appliances and phasing out natural gas;
- transitioning our energy production away from fossil fuels towards clean and renewable resources.

ANJEC is working to reduce GHG emissions in all three sectors: transportation, building efficiency and sustainable energy production. In the past year, we have hosted

six unique training sessions on the impacts of climate change on the Garden State specifically and we've brought in experts to explore the details of NJ's greatest efforts to transition to sustainable, renewable wind energy production. These sessions, listed below, are available on ANJEC's YouTube channel: @ANJECViews

Spring 2023

1. Climate change impacts on NJ: ocean acidification and sea level rise, May 10
2. Offshore research and monitoring: What we know and what we're learning, May 31
3. Wind project updates: Orsted and Atlantic Shores offshore wind, June 20

Fall 2022

1. The Arctic meltdown: Why it matters in NJ, Sept 15
2. Ocean and wildlife science, avian research, Oct 3
3. Wind project updates, Oct 11.

We need to multitask. While we are reducing GHG emissions, we must prepare for the impacts of the climate crisis that are here now and will escalate for at least the next several generations. Those who are first and worst hit by climate impacts are usually communities whose residents are predominantly black and brown and low-income. We need to take action now to ensure a more just and equitable future as climate crisis impacts escalate. The new Inland Flood Hazard Area Rules (pg 15) are the first land use rules in the nation to use


climate modeling to guide decisions today that will make our communities more resilient in the future. The climate modeling data projects precipitation increases and requires that new stormwater management infrastructure is built to handle the storms of the future rather than the past.

ANJEC will continue to work to serve your needs at the local and state levels of government. ANJEC is your resource. We look forward to seeing you at the 50th annual Environmental Congress on Oct. 13 (Page 9) and hearing about what you need from us.



Jennifer M. Coffey (she/her)
Executive Director

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**ANJEC**REPORT
Local Environment Matters

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564 MUNICIPALITIES ONE ENVIRONMENT

Executive Director Jennifer M. Coffey
Editor Julie Lange Groth

The mission of ANJEC is to promote local action to protect and restore New Jersey's natural resources and to ensure healthy communities for today and the future. ANJEC advances its mission by engaging in equitable and inclusive practices through leadership, partnerships, education, advocacy for strong public policy, and in support of environmental commissions, public officials, and communities throughout New Jersey.

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In this issue:

- 2** Director's Report
- 4** Aquatic connectivity through climate-ready infrastructure
- 6** Acting Locally
- 9** 50th Annual Environmental Congress
- 10** Special section:
NJ's changing climate
 - 10** New Jersey will bear the brunt of sea-level rise more than most places
 - 13** Preparing for potential impacts of ocean acidification in NJ
 - 15** Trifecta of flood protections will enhance public health and safety, protect environment in NJ
 - 18** New Jersey's changing climate
 - 20** Impacts of a changing climate
 - 22** Gas-powered leaf blowers – a dirty deal for people and the planet
 - 24** DEP unveils plan for Liberty State Park
 - 26** Drain fame: communities organize to clear storm drains
 - 28** Candace McKee Ashmun Memorial Fund
 - 29** Remembering Robert (Bob) Shinn, Jr. (1937-2023)
 - 30** Why I give to ANJEC

On the cover: NJ's state fish, the brook trout, cannot survive in polluted water.

Photo by Todd Saitley, Tennessee Aquarium

Aquatic connectivity through climate-ready infrastructure

By **Isabelle Stinnette**, NJ Harbor and Estuary Restoration Program Manager

The New York-New Jersey Harbor and Estuary Program's (HEP) project, Aquatic Connectivity Through Climate Ready Infrastructure, aims to address two of our region's pressing issues: habitat loss and flooding. For four years, HEP has worked to find and assess poorly performing bridges and culverts in coastal NJ. Their assessment process identified structures that are:

- too small or difficult for fish to navigate;
- undersized, leading to flooding and erosion of the streambanks; or
- crumbling, rusting out or otherwise unstable.

The opportunities afforded from the *Bipartisan Infrastructure Law* and other recent federal initiatives have galvanized an effort to address aging infrastructure and bring more environmental benefits to coastal north/central NJ.

Aquatic connectivity is a key restoration goal for HEP and its partners. Inadequately sized, positioned or blocked culverts or other stream crossings can be a seasonal or year-round barrier to aquatic species, fragmenting habitat and disconnecting the natural flow of organisms, material, and nutrients along the river system. This loss of stream connectivity is a critical threat to valuable and already vulnerable species, such as the native eastern brook trout, American eel and river herring. While aquatic connectivity has been studied in watersheds of New Jersey with respect to dams, the effectiveness of fish passage at

culverts and bridges had not been widely assessed. The assessment of barriers to fish passage has been recently prioritized regionally with the availability of the assessment protocols, developed by the North Atlantic Aquatic Connectivity Collaborative (NAACC), streamlining this research effort.

Human communities are also at risk

In addition to habitat fragmentation caused by inappropriately sized culverts, human communities are also exposed to flood risks due to undersized transportation infrastructure. Flood risk can be reduced if local decisionmakers are informed of current infrastructure conditions to proactively plan and implement restoration strategies on the highest priority bridges and culverts.

In many cases, towns do not have the resources to complete a thorough inventory and hydraulic capacity assessment of their existing infrastructure. Often, replacement of a damaged culvert ends up being executed because of a failure during an emergency. These emergency projects frequently result in the replacement of a culvert with the same undersized or incompatible structure, a waste of both time and money. HEP's project identified at-risk infrastructure using a model developed by the Cornell Water Resources Institute and prioritized structure upgrades with more appropriate infrastructure that also increases habitat value.

HEP's most recent assessments, funded by the US Environmental Protection Agency through the National Estuary Program's Coastal Watershed Grant administered by Restore America's Estuaries, included over 300 road-stream crossings in watersheds on the lower Raritan and South Rivers. Sample results from this analysis found that roughly a quarter of the crossing infrastructure assessed have moderate to severe barriers for fish passage and over 16 percent are undersized for the storm events that they are currently facing – and more so for future precipitation scenarios. An additional 20 percent of structures are damaged in some way with crumbling concrete or rusted metal. This assessment also trained undergraduate students from Rutgers University in partnership with the Rutgers Sustainable Raritan Initiative. Project results included recommendations for priority restoration projects in each watershed, available at www.hudsonriver.org/article/actcri.

Now, a new tool is available that can move these projects from the assessment phase to the design phase. HEP partnered with Princeton Hydro to produce a tool that helps communities prioritize these projects within a larger, real-world context. The tool incorporates concerns such as permitting, utilities, ownership, road classification and other restoration oppor-

tunities to look for red flags and evaluate costs. Its inputs are easy-to-assess field data or sites that have already been evaluated by HEP.

What towns can do

HEP has released this important resource to their partners to work towards the enhancement of stream infrastructure and to better provide aquatic connectivity for imperiled aquatic life and flood protection for our communities. They have additional funding through the *Bipartisan Infrastructure Law* for partners, including environmental commissions, that would like to pilot the use of this tool, in combination with community outreach, to take the next step towards infrastructure restoration that meets the needs of the community. If your environmental commission is within the watersheds served by the NY-NJ Harbor & Estuary Program (see www.hudsonriver.org/estuary-program) and you are interested in learning more about grant funding for these efforts, please contact me at istinnette@hudsonriver.org. 💧

More info

- HEP Aquatic Connectivity through Climate-Ready Infrastructure initiative – <https://www.hudsonriver.org/article/actcri>
- North Atlantic Aquatic Connectivity Collaborative – <https://streamcontinuity.org/naacc>
- Cornell Water Resources Institute culvert prioritization project – <https://cals.cornell.edu/water-resources-institute/watersheds/hudson-river-estuary/watershed-management/aquatic-connectivity-barrier-removal/culvert-prioritization-project>



NAACC personnel conducting an assessment to determine the suitability of a bridge for fish



By **Rita Singer**, Montclair Area League of Women Voters Environmental Committee; **Jaden Mena**, ANJEC Intern; **N. Dini Checko**, ANJEC Project Director; **Michele Gaynor**, ANJEC Resource Center; and **Julie Groth**, ANJEC Report Editor

Stillwater ordinance regulates recycling of spent biochar

Culminating more than two years of discussion, research, and recommendations by the Stillwater Township Environmental Commission (STEC), the Township Committee passed an ordinance in February that prevents spent biochar that was used as an aqua filter from being recycled into Stillwater's soils, where it could erode and/or run off back into the water table it was initially deployed to protect.

Recognizing that biochar has many practical uses in both agricultural and aquatics applications, the ordinance does not preclude use of biochar, but rather it mandates that those lake communities that use it to prevent harmful algae blooms and to remove other contaminants

from their waters must purchase their biochar directly from manufacturers who also promise to take the spent biochar back for recycling and keep accurate records for inspection at the Township's discretion.

Stillwater Township is home to several small lake associations, numerous lakeside recreational facilities and several Category 1 waterways among other natural water resources. The Township believes its biochar ordinance is the first of its kind in New Jersey. For more information, contact Commission Vice Chair Mandy Coriston at finnegansacrefarm@gmail.com.

— Julie Groth

Creating a public woodland preserve

The Alonzo F. Bonzai Wildlife Preserve, a 21-acre preserve in the northern section of Montclair, includes dense tree canopy, a flowing brook and an open meadow. It not only shares a border with the City of Clifton but also shares the border between Essex and Passaic Counties. An additional nine acres is owned by the North Jersey District Water Supply Commission. For years this unrecognized wilderness owned by the Township of Montclair was used as a dumping ground for unwanted furniture and all sorts of trash.

Clifton's decades-old sewage line once ran through the entire length of the preserve. After an environmental problem arose as the sewage line began to leak, Clifton awarded six million dollars to reengineer the old clay pipes running through the preserve in 2015. Using horizontal directional drilling, the sewer line was redirected away from the river on an incline deep underground so the sewage could run downhill to a main sewer line.

For the restoration phase of the project, Clifton planted 300 trees to replace those

that had to be removed, including along stretches where residents had usurped the property. An outpouring of community volunteer effort followed. Participants in the Rutgers Environmental Stewards program launched an ambitious project to remove invasive species. A local corporation, Philip Jeffries Ltd., encouraged employees to participate in ongoing periodic volunteer events, including planting a pollinator garden, funded by a successful donation campaign. To add to the bee-friendly environment, the Montclair Rotary Club recently donated bushes. Kiosks were donated by a benefactor and the Boy Scouts, who also supplied trees and boardwalks throughout the preserve over muddy sections. The Environmental Club of the Upper School of Montclair Kimberly Academy recently supplied 50 lanternfly traps and attached them to 25 trees in the reserve. An application to the State of NJ was accepted to make the preserve a nonprofit organization, so donations to it are now tax deductible.

– Rita Singer

Millburn students are mindful of food waste

The Millburn Environmental Commission (MEC) recently worked with Millburn High School students to reduce food waste. The MEC awarded the school funds to direct a food waste recycling pilot project, which ran from May 1 – June 9. MEC member Priya Patel said the goals of the project were to “divert food waste from the waste stream at the high school and...to educate students and staff around the importance of separating food scraps.”

Approximately 20 students volunteered in hopes of reducing the food waste they saw build up in their cafeteria. The participants were primarily from the school’s Environ-



On June 10, several environmental nonprofits and hundreds of people gathered at the beach in Long Branch for a rally to support offshore wind energy. Speakers included New Jersey Department of Environmental Protection Commissioner Shawn LaTourette, State Senator Andrew Zwicker, former Senate President Steve Sweeney and Assemblyman Wayne DeAnjelo as well as ANJEC Executive Director Jennifer Coffey.

Photo by Taylor McFarland

mental Club and a handful were from the Life Skills class (which incorporates students of ages 18-21 with severe learning disabilities).

Sveva Patel-Jhawar, vice president of the Environmental Club and coleader of the project, directed the volunteers alongside President Abby Packman. Students approached tables at lunch with buckets to collect the food scraps and diverted a total of 535 pounds of food from the waste stream. To ensure that the volunteers correctly dealt with food waste items, they were trained by Java’s Compost company, which also hauled the waste weekly to be composted at an industrial facility. Sveva found that, “It felt pretty good to do something...active and hands-on” and hopes to continue this project next year, as they have received an additional grant to do so.

This project not only helped reduce the load on landfills, but also helped increase awareness of the issue. The Millburn EC is currently exploring various food waste solutions for Millburn while focusing on reducing contamination of recycled materi-

als, which are already fairly low. Patel-Jhawar also started a voluntary food scrap collection program to provide residents with a waste disposal option. She advises that we, “Eat with intention, drink with intention and be mindful.”

– Jaden Mena

Cleaning up the Green Brook

The Green Brook is a tributary of the Raritan River and, for the first time in its history, there was a coordinated multi-county and multi-town cleanup of this waterway organized by the Lower Raritan Watershed Partnership (LRWP). On May 7, 99 volunteers along with a host of partners, including Watershed Ambassadors, Central Jersey Streams Team, NJ Clean Communities, the Mayors’ Alliance for a Cleaner Green Brook and township staff from participating municipalities Dunellen, Green Brook Twp, Middlesex, Plainfield, Bound Brook, and Scotch Plains gathered to haul out an impressive 6,132 pounds of trash in just a few hours! One location in particular, McCoy Park in Dunellen, was flooded with tires that were illegally disposed of and volunteers pulled out 4,500 pounds of trash!

Another historic first for this cleanup was the usage of NJ Clean Communities’ new Litter Survey and Data form. Volunteers were asked to track the types of discarded items, from balloons to fishing gear. These data sheets (see <https://njclean.org/images/DOCUMENTS/NJCCC-Litter-Survey-and-Data-Form-2023.pdf>) will be used at the State



Volunteers hauled out 6,132 pounds of trash from the Green Brook in just a few hours.

level to help quantify the effectiveness of the *Plastic Pollution Reduction Law* and provide recommendations for future policies.

The LRWP has been coordinating annual cleanups of the Green Brook for several years with the long-term goal of eliminating all trash entering the waterway. To assist with this goal, the Bandalong Bandit Litter Trap (www.bandalong.com.au/bandalong-litter-trap.html) will be installed in Fall 2023 at a trash “hotspot” along the Green Brook.

If you’re interested in learning more about LRWP’s water quality monitoring efforts and events, please visit <https://lowerraritanwatershed.org>.

– N. Dini Checko

Ridgefield Park unveils nature preserve

It is a fortunate town that can grant its residents a natural, protected preserve to be enjoyed for generations to come. The idea of creating a nature preserve in Ridgefield Park began decades ago. Last spring, after 50 years of envisioning such a project, the town held a dedication to celebrate the fruition of the Ridgefield Park Nature Preserve.

In 2018, then Mayor George Fosdick was presented with a check for \$200,000 from the Bergen County Open Space Trust to create a new nature preserve with trails. The Village provided a matching grant that allowed the EC to design, construct and complete an ADA-compliant interpretive trail and floating boardwalk throughout the preserve.

This 14-acre green space has a one-mile trail that travels around the preserve and crosses over wetlands, meadows and a forested area. Over the past 40 years plots of land were either donated or acquired by the Village to create this preserve and return the area to its natural state.

It was a collaboration of many residents, the current and former mayors, Environmental Commission Chair Stephen Quinn and the Village Board of Commissioners. Quinn has not only played an integral part in this project but has also been recognized as a medalist for environmental stewardship at the NJ State Governor’s Office of Volunteerism Awards.



The nature preserve stands as an embodiment of the power of volunteerism and community engagement. Quinn and Mayor John Anlian actively engage volunteers of all ages, working together to plant native species and eradicate invasives, such as bamboo. Quinn has also created educational signage, including Braille translations, and regularly organizes guided tours to enrich visitors' knowledge and understanding of the importance of this land.

– Michele Gaynor

EC Chair Stephen Quinn leads a tour at Ridgefield Park Nature Preserve.

Photo by Michelle DeLuca.

Come Celebrate



Friday, October 13

Full day in-person session at The Conference Center at Mercer County College

October 13 highlights:

- Keynote speaker: Lisa Flavia Garcia, USEPA Region 2 Administrator
- Featured speaker: Shawn LaTourette, NJDEP Commissioner
- Three workshop sessions with multiple topic choices
- ANJEC 2023 Environmental Achievement Awards
- Special Elected Official Awards presentation
- Exhibitors – Nonprofit organizations and environmental professionals

Virtual sessions

Tuesday, October 17; Wednesday, October 18;
and Thursday, October 19

More information at <https://anjec.org/environmental-congress-2/>

ANJEC is pleased to have the
New Jersey Land Trust Network
as a featured partner for this
50th Environmental Congress

Including special Land Trust focused workshop sessions.



New Jersey will bear the brunt of sea-level rise more than most places

By James Shope, Janine Barr and Robert Kopp*

"...sea-level rise is not experienced equally everywhere. In coastal New Jersey, sea level is rising about twice as fast as the global average."

Globally, sea levels are rising at an accelerating rate, exacerbating flooding during high tides and storms. From 1901 to 1970, global average sea level rose at 0.5 inch/decade; between 2006 and 2018, it rose three times faster. This rise has been primarily due to the warming of the oceans (resulting in increased volume) and the melting of ice on land – both effects of global warming due to greenhouse gas (GHG) emissions.

But sea-level rise is not experienced equally everywhere. In coastal New Jersey, sea level is rising about twice as fast as the global average. Since 1911, regional sea level has risen about 18 inches, compared to the global eight-inch average; the higher values in our State are largely due to natural land subsidence (about seven inches) amplified by groundwater withdrawal (another three inches). Moving forward, sea level in New Jersey will continue to rise, but its

magnitude depends on changes in global GHG emissions and warming.

In 2019, on behalf of the NJ Department of Environmental Protection, Rutgers University convened a Science and Technical Panel on sea-level rise to assess the state of understanding about

future sea-level change in NJ.¹ One of us (Kopp) chaired the panel, which included scientific experts from five universities in New Jersey and Philadelphia, three federal agencies, the New York City government, a private-sector research organization, and a professional association.

Based on this assessment, the experts concluded that sea level in coastal New Jersey will likely increase between 0.9 and 2.1 feet by 2050 compared

to the year 2000, and that emissions reductions will have little effect on sea-level change over this period. ("Likely" here indicates at least a two-in-three chance that the actual value will be in this range.)

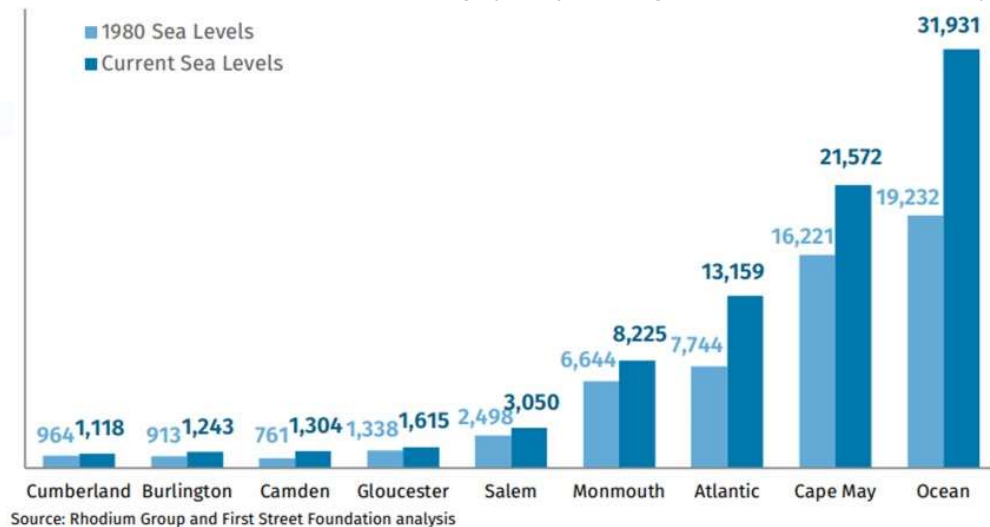
| Sea level rise amount | Low Emissions (2°C) | | High Emissions (5°C) | |
|-----------------------|---------------------|------------|----------------------|--|
| | 2 ft. | 2060-2100 | 2050-2090 | |
| | 4 ft. | after 2100 | 2080-2150 | |
| | 6 ft. | after 2140 | after 2100 | |

Table 1. The likely timing that the Jersey Shore will experience 2, 4, and 6 feet of rise compared to 2000. If emissions are reduced consistent with international aspirations (i.e., the low emissions scenario), society would have more time to adapt than under a high scenario.¹

Due to sea-level rise, 27,000 more NJ Properties experience annual flooding than would have in the 1980s

Change in New Jersey annual flood risk

Number of current properties at risk of annual flooding, by county, comparing sea levels in 1980 to sea levels today.



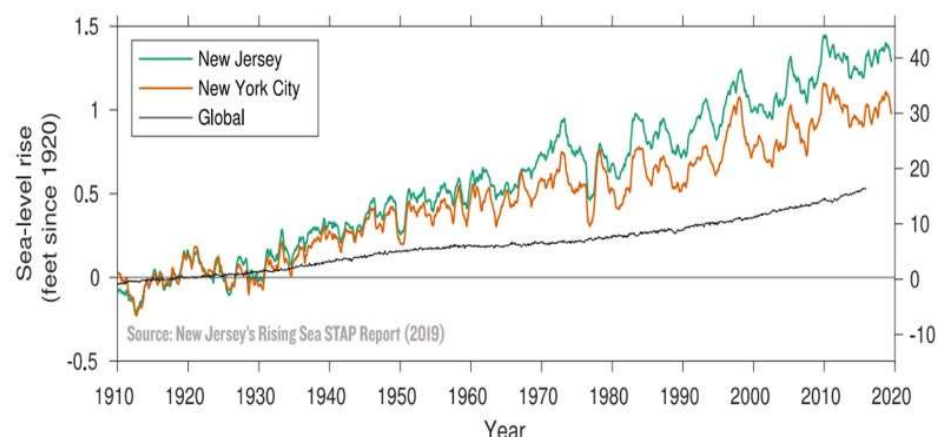
On longer time scales, projections are increasingly sensitive to the global emissions trajectory. While the world is largely locked into a certain amount of sea-level rise by 2050, reducing emissions will lessen subsequent rise. If the world continues the emissions trajectory of the last decade, sea level in New Jersey would likely be 2.0 to 5.1 feet higher than in the year 2000 by 2100. This projection includes potential contributions from instabilities in polar ice sheets (e.g., rapid melting) that are challenging to model but are necessary to consider in protective planning. Cutting emissions reduces the overall rise and the risk of such instabilities. In a future where emissions are consistent with international aspirations, as opposed to current policy,

sea level in New Jersey will likely be 1.7 to 3.9 feet higher by 2100.

It's already here

New Jersey is already experiencing the consequences of higher sea levels. Compared to the 1980s, about 27,000 more properties within New Jersey experience annual coastal flooding today due to higher sea levels. Higher sea levels also cause the flooding from large storms to be more destructive. It has been estimated that about 13 percent (\$3.7 billion) of the property damage caused by Hurricane Sandy in New Jersey² was due to sea-level rise amplifying storm surge destruction. With continued rise, about 90,000 NJ properties (worth about \$80 billion) will be

Sea level is rising even faster here in New Jersey than in the global average



in a one-in-30-year hurricane floodplain by 2050. Buildings within this floodplain will likely experience at least one flood over a typical 30-year mortgage.³

What can we do?

Society's actions today will shape the scale and impacts of future sea-level rise. The primary options to address sea-level rise hazards are adaptation and reducing emissions; both are unavoidable – only adaptation can respond to sea-level rise in the short term, but emissions reductions are critical to reduce future rise.

Adaptation options can include localized, relatively rapid efforts, such as raising homes, or longer-term societal changes, like planned relocation away from flood-prone regions. Actions that can be implemented quickly typically have a relatively short lifespan, while actions that take longer to implement are more enduring. For example, while

elevating homes can be done quickly, continued sea-level rise will eventually cause elevated homes to flood. Long-term, planned relocation of coastal communities will effectively remove the hazards of coastal flooding, but could damage the economic health and culture of a community.

There is no one perfect solution; a portfolio of approaches, refined in response to changing conditions, is key. What is clear is that reducing greenhouse gas emissions will provide more time to implement adaptation strategies and lessen negative socioeconomic impacts. The time bought by slowing sea-level rise will allow for more strategic, equitable, and long-lasting responses to coastal flooding hazards. 💧

**James Shope is a climate scientist at the Rutgers University-New Brunswick Department of Environmental Sciences and the New Jersey Climate Change Research Center.*

Janine Barr is an engagement specialist at the Bloustein School of Planning and Public Policy, the New Jersey Climate Change Research Center, and the Megalopolitan Coastal Transformation Hub.

Robert Kopp is a Distinguished Professor of Earth and Planetary Sciences at Rutgers University-New Brunswick and director of the Megalopolitan Coastal Transformation Hub, a 13-institution, Rutgers-led consortium that produces knowledge to inform flexible climate adaptation pathways in the New York City-New Jersey-Philadelphia region to guide the transition into a more resilient future.

- ¹ New Jersey's Rising Seas and Changing Coastal Storms: Report of the 2019 Science and Technical Advisory Panel – <https://doi.org/10.7282/t3-eeqr-mq48>.
- ² Economic Damages from Hurricane Sandy Attributable to Sea Level Rise Caused by Anthropogenic Climate Change. Nature Communications – <https://doi.org/10.1038/s41467-021-22838-1>.
- ³ New Jersey's Rising Coastal Risk – <https://rhg.com/research/new-jersey-flooding-hurricanes-costs-climatechange>.



Preparing for potential impacts of ocean acidification in NJ

By Grace Saba, Ph.D, Associate Professor, Department of Marine & Coastal Sciences, Rutgers University

As we are currently experiencing the hottest temperatures on record, many people are acutely aware that the primary driver of this warming is the rapidly increasing amount of atmospheric greenhouse gases like carbon dioxide (CO₂). What is less recognized is that these increasing CO₂ levels are also driving a process known as ocean acidification (OA). The ocean absorbs about one-third of the CO₂ in the atmosphere. Therefore, when increasing concentrations of CO₂ react with seawater, the chemistry of the ocean is altered, resulting in lower pH (increased acidity) and reductions in certain ions called carbonates that are essential for many marine organisms to build shell or protective structures.

OA is occurring globally at a relatively constant but rapid rate and is projected to progress rapidly under a business-as-usual carbon emissions scenario. Coastal states, including New Jersey, are prone not only to global rates of OA, but also to local processes that can act to exacerbate acidification on variable spatio-temporal scales, such as freshwater sources (primarily riverine), seasonal stratification, coastal upwelling and eutrophication from excessive nutrient input.^{1,2}

Potential threat to NJ marine resources

OA is a growing threat to vulnerable aquatic species and may cause impaired

development; decreased survival, growth, and reproduction rates; and reduced ability to develop shells/protective structures. These effects have primarily been observed in laboratory settings, where organisms are exposed to variable levels of CO₂/pH. However, in the late 2000s Washington State experienced multiple devastating large-scale oyster hatchery losses attributed to coastal upwelling events that brought low pH seawater into the local area. These events precipitated a rapid industry plea for attention to the issue and resulting policy actions by the State.

While New Jersey has not yet experienced known direct impacts from OA, the science points to future impacts that will affect coastal ecosystems, vibrant industries and the communities that depend on sustainable ocean and coastal resources. In a meta-analysis of laboratory-based impacts of OA on Mid-Atlantic species, 65 percent of species studied responded negatively to low pH.³ The New Jersey Department of Environmental Protection (DEP) published the "2020 New Jersey Scientific Report on Climate Change,"⁴ which states, "New Jersey is at increased risk to the effects of OA due to its economic dependence on shellfish harvests, with southern New Jersey counties ranking second in the United States in economic dependence on shelled mollusks."

It is important to note that OA is progressing in tandem with other environmental stressors such as warming seawater temperatures. While many coastal fish and shellfish are resilient to natural fluctuations in environmental conditions, the co-occurrence of OA with other stressors may make these organisms more vulnerable.

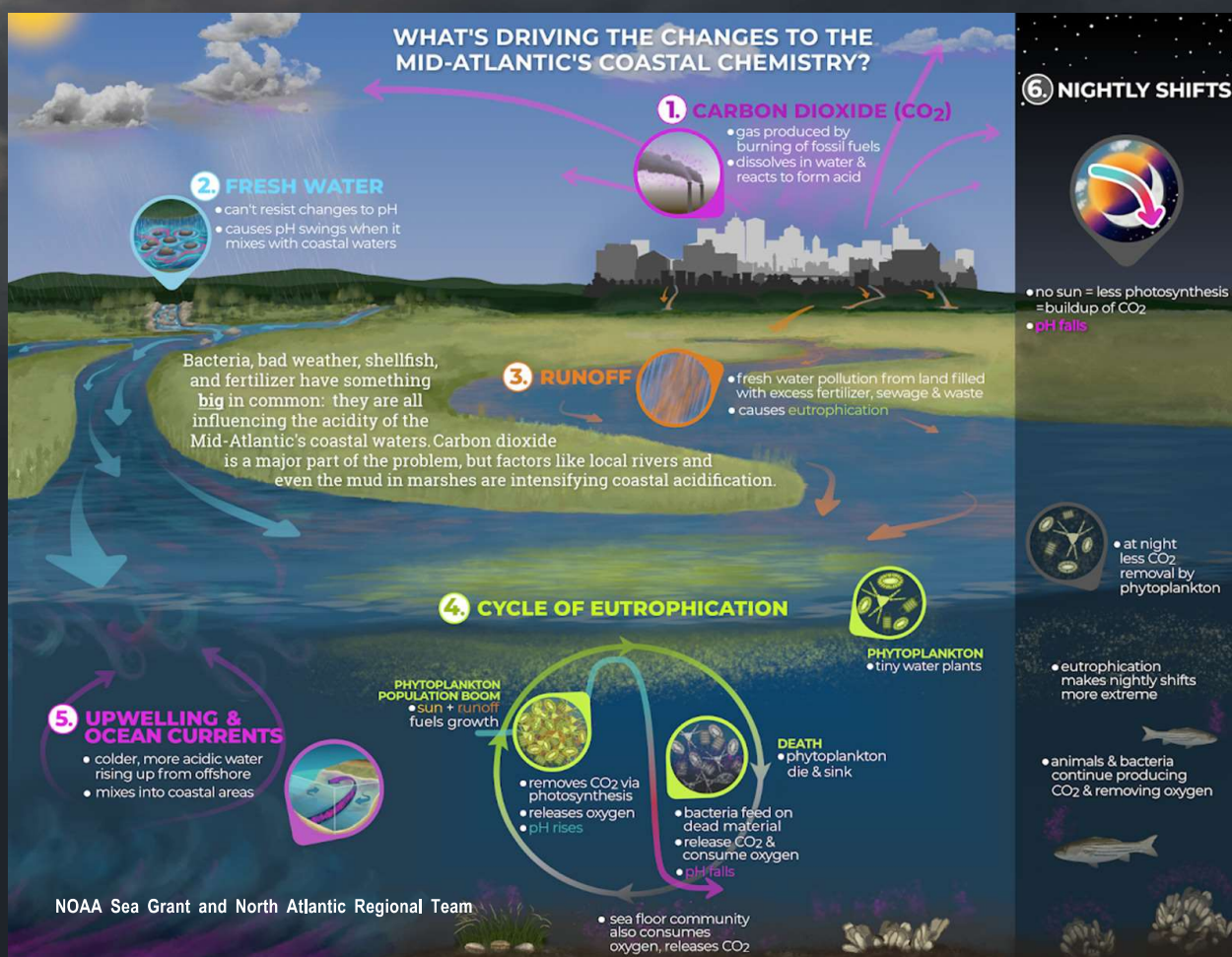
Preparing for future progression of acidification in NJ


Many states, including New Jersey, are already implementing policy-driven actions or preparing new approaches to mitigate pollution and climate change. For example, New Jersey's 2019 *Global Warming Response Act* commits New Jersey to reduce emissions by 80 percent below 2006 levels by 2050. And several New Jersey policies that focus on nutrient reduction and runoff management to improve water quality also help mitigate coastal acidification. The 2021 New Jersey Climate Change Resilience Strategy⁵ advocates for the creation of a State OA Action

Plan that will include strategies for reducing carbon emissions and local land-based pollution, strengthening monitoring to better understand and predict local conditions, enhancing research to address potential impacts to fisheries and aquaculture, investing in adaptive measures in partnership with industry or seafood dependent communities, and advancing information sharing strategies that help policy makers respond.

DEP's Coastal Management Program formed an OA team that has been engaging with researchers at Rutgers University toward this OA Action Plan. As part of this ongoing work, the collaborative group produced two reports focused on "Opportunities to Address Ocean Acidification Impacts in New Jersey"⁶ and "Recommendations for Developing a Statewide New Jersey Ocean Acidification Monitoring Network."⁷

Overcoming the challenges that OA presents to New Jersey will involve a coordinated effort to ensure priority monitoring and research are conducted to support scientific



goals and State policy. Additionally, action will be required from multiple municipal and State entities including those involved in freshwater and ocean water quality monitoring, ocean and coastal protection, fisheries and shellfisheries, economic development, and science and research. 

¹ Goldsmith, K.A., Lau, S., Poach, M.E., Sakowicz, G.P., Trice, T.M., Ono, R.C., Nye, J., Shadwick, E.H., St. Laurent, K.A., Saba, G.K. 2019. Scientific Considerations for Acidification Monitoring in the U.S. Mid-Atlantic Region. *Estuarine, Coastal and Shelf Science* 225: 106189, <https://doi.org/10.1016/j.ecss.2019.04.023>.

² Wright-Fairbanks, E.K., Miles, T., Cai, W.-J., Chen, B., Saba, G.K. 2020. Autonomous observation of seasonal carbonate chemistry dynamics in the Mid-Atlantic Bight. *Journal of Geophysical Research: Oceans* 125(11): e2020JC016505, [doi:10.1029/2020JC016505](https://doi.org/10.1029/2020JC016505).

³ Saba, G.K., Goldsmith, K.A., Cooley, S.R., Grosse, D., Meseck, S.L., Miller, W., Phelan, B., Poach, M., Rheault, R., St. Laurent, K., Testa, J., Weis, J.S., Zimmerman, R. 2019. Recommended Priorities for Research on Ecological Impacts of Coastal and Ocean Acidification in the U.S. Mid-Atlantic. *Estuarine, Coastal and Shelf Science* 225: 106188, <https://doi.org/10.1016/j.ecss.2019.04.022>.

⁴ 2020 New Jersey Scientific Report on Climate Change, <https://www.nj.gov/dep/climatechange/data.html>

⁵ 2021 New Jersey Climate Change Resilience Strategy, www.nj.gov/dep/climatechange/resilience-strategy.html

⁶ Opportunities to Address Ocean Acidification Impacts in New Jersey, <https://njclimateresourcecenter.rutgers.edu/wp-content/uploads/2021/04/Opportunities-to-Address-Ocean-Acidification-Impacts-in-New-Jersey.pdf>

⁷ Recommendations for Developing a Statewide New Jersey Ocean Acidification Monitoring Network, https://njclimateresourcecenter.rutgers.edu/wp-content/uploads/2020/09/Recommendations-for-NJ-OA-Monitoring-Network_FINAL.pdf




Trifecta of flood protections will enhance public health and safety, protect environment in NJ

By Jennifer M. Coffey, ANJEC Executive Director

In recognition of the intense impacts of the climate crisis, most notably the increasing intensity of rainfall over shorter periods of time and subsequent flooding, the State has adopted new Inland Flood Hazard Regulations. Climate change modeling supported by Rutgers University and the Office of the

New Jersey State Climatologist, Cornell University, and the National Oceanic Atmospheric Administration (NOAA) all confirm that for decades to come, New Jersey can expect to experience increasingly intense storms that bring greater amounts of rainfall over shorter periods of time followed by longer periods of dryness.



These changing weather patterns, combined with NJ's intense land development and parched ground from longer periods of dryness, will continue to result in more flooding. The new Inland Flood Hazard Rules make significant upgrades to both our flood and stormwater rules in New Jersey.

Like many states, New Jersey has used historical weather data from the years 1899-1999 to establish expected rainfall amounts and calculate 100-year floodplain and stormwater management volumes. The problem with this approach is that, because of the climate crisis, the past is no longer a predictor of the future. The most recent 50 years (1949-1999) of observed data shows increased rain volume over the prior 50 years (1899-1949). Precipitation volume and intensity has increased even more over the most recent 24 years (1999-2023). Climate science modeling predicts that precipitation volume will increase between 20 and 50 percent over 1999 volumes by the year 2100.

The new Inland Flood Hazard Rules are the first in the nation to use climate modeling to regulate land use. New Jersey is leading the way in embracing science to improve environmental, public health and safety regulations. They will use observed data from the year 2000 through 2020 and climate modeling data through 2100 to establish new stormwater management

volume calculations and to delineate new 100-year floodplains.

What the new rules require

The new rules require that any new development must manage stormwater volumes for future increased precipitation rates rather than building for the past. This will result in stormwater management infrastructure that is over-designed and built for today's standards, but equipped to meet our stormwater needs in the future.

The width of floodplains are increasing with more rainfall; therefore, the new rules use climate modeling to establish more accurate floodplain boundaries. In general, the new 100-year floodplain boundaries are established where the 500-year floodplain boundaries were set. The exceptions are at the highest elevations in the State, such as the Highlands, where elevation reduces flood risk in some cases.

Because of New Jersey's age as one of the original thirteen colonies, and our now expanding floodplains, there is substantial pre-existing development in our floodplains. The new Inland Flood Hazard Rules establish enhanced construction safety standards for development or redevelopment in these newly explained floodplains. The Inland Flood Hazard Rule construction standards and building requirements are very similar to those that were adopted for coastal communities in the aftermath of Superstorm Sandy in 2012.

Municipal ordinance housekeeping

As new State and federal laws and regulations are adopted, municipal ordinances need to be updated to come into compliance. Environmental Commissions (ECs) should communicate with their municipal governing bodies about updating ordinances that stem from both the new Inland Flood Hazard Protection Rules adopted in July and the new municipal separate storm sewer system (MS4) permits issued in December 2022.

All municipalities now hold Tier A MS4 permits, as the Tier B permit was eliminated.

Tree ordinance: As per the MS4 permit, all municipalities must adopt a tree protection ordinance by December 2023. ANJEC advises adopting an ordinance that governs tree protection, removal, and replacement during construction of an approved site plan application AND that governs private, non-agricultural land management.

Additional flood protection laws and requirements recently adopted that work as companions to the Inland Flood Hazard Protection Rules are:

- **National Flood Insurance Program (NFIP) Municipal Requirements:** Insurance companies and the federal government alike have taken notice of NJ's increased flooding reality. As such there are new requirements for municipal compliance with the NFIP to ensure best management practices and protections for residents and businesses. NFIP is a voluntary federal program for communities that makes federally backed flood insurance available to the residents of participating communities. As a condition of participation, communities are required to adopt and enforce flood damage prevention ordinances. Remaining in good standing under NFIP is also important to qualify for post disaster aid and grant programs. The NJ State NFIP Coordinator's office in DEP is available to provide assistance to NJ communities in successful implementation of the NFIP program.
- **Flood Risk Notification Law:** Governor Murphy signed a new law in July 2023 providing residents with flood risk information they need to better protect their families and properties. Bill S3110/A4783 "...requires sellers of property and

landlords to make certain notifications regarding flooding. Under the *Law* sponsored by Senator Bob Smith and Assemblyman John McKeon, sellers of real property and landlords must disclose knowledge of a property's history of flooding, flood risk, and location in a flood zone or area. Additionally, the law requires landlords to notify tenants of the availability of insurance for renters through the National Flood Insurance program," according to a release by the Governor's office. ●

Changing weather patterns, combined with NJ's intense land development will result in more flooding.



Salt storage ordinance: The MS4 permit requires the adoption of a Privately-Owned Salt Storage Ordinance by December 2023 requiring that "piles of salt and other solid (granular) de-icing materials which are not stored in a permanent structure be covered by tarping when not in use and secured in a way to prevent exposure to rain, snow, or stormwater run-on," according to the updated MS4 permit language section F(b).

Riparian buffer/stream corridor protection, flood hazard protection, and stormwater management ordinances:

These ordinances must be updated immediately to come into compliance with the Inland Flood Hazard Protection Rules. References to flood hazard areas need to be updated in municipal ordinances to reflect floodplain expansion based on climate change impact modeling used in the new rules. Additionally, municipal stormwater ordinances need to be updated to include increased precipitation volumes required by the new State rules. ●

New Jersey's changing climate

By **David A. Robinson, Ph.D.**, Distinguished Professor,
Department of Geography, NJ State Climatologist, NJ
Agricultural Experiment Station, Rutgers University

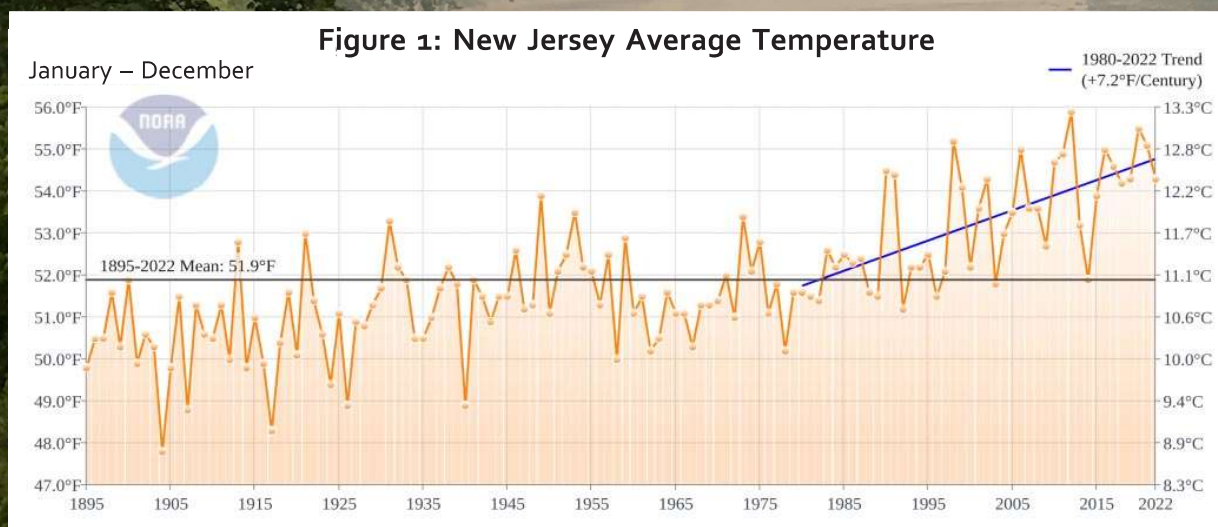
New Jersey's middle-latitude coastal location leaves the State exposed to most every weather and climate variable imaginable. Even distant volcanoes and ice sheets play a role in determining NJ's climate and coastal sea level. Underlying the daily, seasonal and annual variability in temperature and precipitation that is associated with natural occurrences are the impacts humans are having on

the State's climate system. There is increasing evidence that warming temperatures and a new precipitation regime is underway heralding changes in the strength and frequency of severe events.

It is generally recognized that an anthropogenic global warming signal emerged from a naturally "noisy" climate system around 1980. Examining a linear regression of NJ annual temperatures since 1980 shows a warming trend of 7.2°F per century, making NJ one of the nation's fastest warming states (figure 1).

In recent decades NJ has become wetter compared to previous periods, including

Figure 1. NJ annual temperatures from 1895-2022*



the two wettest years on record in 2011 and 2018 (figure 2). The 1980-2022 interval has seen annual precipitation trend upward at a pace of 14.08 inches per century. This has been accompanied by increasing interannual variability. Also, more of NJ's precipitation is falling in larger events, contributing to increased flash flood and river flooding events in recent decades.

Degree of severity depends on us

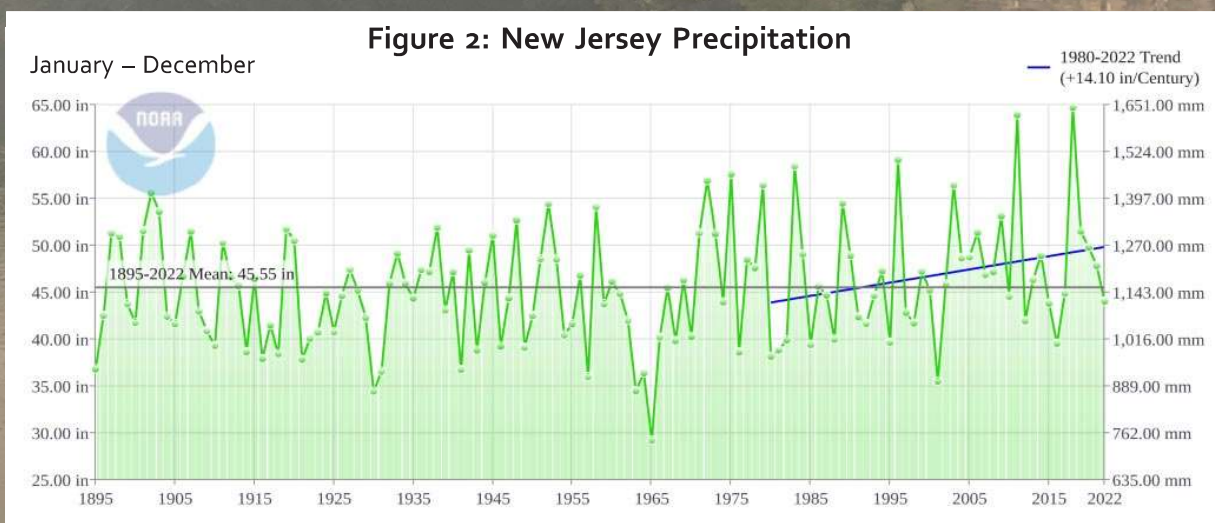
Basic physics and numerical climate models suggest a continuation and likely acceleration of the current warming. Models also suggest that this region will become wetter with a continued increase in stormy events. Exactly how much change is in store for NJ and surroundings is not possible to know, in large part due to uncertainties about just whether, how quickly or how much humankind will do something to minimize future changes. This depends on future levels of greenhouse gases generated by the burning of fossil fuels, along with other human activities

that impact the climate system. At least several additional degrees of warming are likely by midcentury with more to follow. Increasing atmosphere and ocean temperatures are likely to generate more precipitation, perhaps at a rate close to seven percent for each 1.8°F of warming (based on a physical relationship between temperature and potential atmospheric moisture). Sea level is expected to rise several feet by the end of the century as ice sheets melt and warming oceans thermally expand.

With a warming atmosphere and ocean, and a resultant increase in atmospheric moisture, the climate system is increasingly primed for wetter, more intense storms. With sea level rising, even lesser storms may be quite damaging. It remains to be seen if or how quickly actions may be taken at local to global scales to minimize future climate change and resultant impacts. Without question, it is important that everyone has a general understanding of the climate system and the societal ramifications associated with ongoing climate change. 💧

*Values in figures 1 and 2 are based on an average of several dozen stations located throughout the state. Linear regression (blue line) is shown for the 1980-2022 period (NCEI Climate at a Glance).

Figure 2. NJ annual precipitation from 1895-2022*



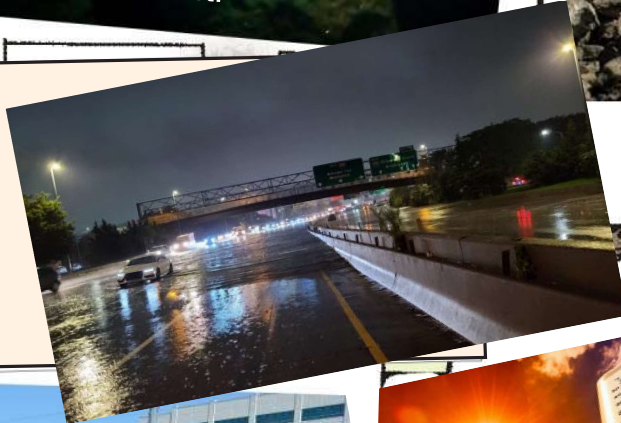


Last year oceans hit their warmest levels on record for the fourth consecutive year. 2023 is very likely to rank among the 10 warmest years on record. All of the top six hottest levels have occurred in the last six years. Warming oceans are affecting sensitive species off the NJ coast.

The City of Newark hit a new record 24, 2022 as Sunday marked the 5th straight day of temperatures over 100 degrees



A section of Interstate 287 collapses in Rockaway Twp. after Hurricane Irene.



Hurricane Ida



On July 3, the planet saw its hottest day on record and, should warmer ocean and air surface temperatures continue, 2023 could become the warmest year ever.



Superstorm Sandy

on July
traight
es.

Impacts of a changing climate



Dense smoke from Canadian wildfires engulfed this region in June 2023. View from Easton, PA looking across the Delaware River to Phillipsburg, NJ. Photo by David Robinson

- ① At least seven people in Bucks County, PA, were killed as cars were swept away in flash floods, and up to five inches of rain fell in Warren County, NJ, on July 17, 2023.



Gov. Murphy declared a state of emergency after flash floods, landslides, downed trees and widespread power outages crippled the Garden State.



Gas-powered leaf blowers – a dirty deal for people and the planet

By **Cheryl Reardon**, ANJEC Project Director

Put simply, gas-powered leaf blowers (GLBs) are unnecessary, pollute the environment and pose serious health concerns. Leaves don't need to be blown. They can be raked, swept up or, better yet, left where they fall to fertilize the ground. Decomposing leaves are important for soil remineralization and restoration; they improve water retention by the soil while providing vital habitat for various critters, especially during the cold months.

GLBs are highly polluting, dangerous to our health and very bad for the environment. They operate at decibels that can cause hearing loss to humans and animals. Powered by two-stroke engines, they are lightweight, powerful, inefficient, dirty little machines. Roughly 30 percent of the fuel used in two-stroke engines fails to undergo complete combustion, resulting in the release of toxic pollutants, including carbon monoxide, nitrous

oxides and hydrocarbons. Aside from its well-known health risks, carbon monoxide contributes to ground-level ozone; nitrous oxides and hydrocarbons are components of smog and, if that weren't enough, they're also carcinogenic.

GLBs also burn an oil-gas mixture that generates high levels of cancer-causing chemicals as well as fine particulate matter. These invisible pollutants are inhaled by equipment operators, residents and passers-by, causing health affects ranging from heart and lung disease to asthma, stroke, cancer and premature death. Even short-term exposure can be harmful. Workers, children, seniors and people with chronic illness are at the greatest risk.

An independent study showed that operating a two-stroke GLB for thirty minutes emits pollutants equal to those generated by a Ford F-150 truck driven 3,900 miles (the distance from Texas to Alaska.) Another independent investigation showed concentrations of very hazardous ultrafine particles from commercial GLBs to be up to fifty-four times higher than a busy highway intersection in Los Angeles. Another study found that pollution from operating a commercial GLB for one hour was equivalent to driving 1,100 miles in a 2017 Toyota Camry. That's approximately 16 hours of



driving, or a road trip from Los Angeles to Denver.

A 2018 study showed that Americans use three billion gallons of gasoline each year to power lawn equipment – equal to six million gasoline powered vehicles over the same one-year period. The high emissions from this equipment would “FAIL” any car or truck inspection. At a time when we are highly conscious of the extreme dangers of fossil fuel emissions and making great strides moving to electric vehicles, how can we rationalize accepting this pollution?

The California Air Resources Board has adopted a GLB ban to be enacted by 2024. Washington, DC, Burlington, Vermont and Vancouver, British Columbia, also have bans or limits.

Legislative action in NJ

In 2021, noting the environmental hazards and health risks of GLBs, New Jersey Senator Bob Smith, Chair of the Senate Environment and Energy Committee, introduced legislation (S4273) that would prohibit the sale of GLBs within a year of the bill’s passage and ban their use entirely after four years. The bill was brought forward as S437 in the current session and is pending.

A second bill (A6238), proposed by Assemblywoman Lisa Swain tasks the Board of Public Utilities with establishing a rebate program for the purchase of electric or battery-powered leaf blowers. It is also pending in the current session as A1939.

Last May, Assemblyman Herb Conaway, Jr, introduced Assembly Bill 3906 that prohibits the sale and use of gas-powered lawn equipment (not just leaf blowers) and provides for a series of tax credits for



those purchasing electric equipment to replace their gas-powered equipment. The bill is currently under review by the Environment and Solid Waste Committee.

NJ towns are taking action

Over the past decade, municipalities here in New Jersey have been taking steps to limit gas-powered leaf blower use (along with other two-stroke motor equipment, such as chainsaws and hedge trimmers) to specific months or to ban them all together. Several towns, such as Princeton, Montclair, Leonia, South Orange and Westfield have responded to residents’ concerns and adopted ordinances limiting GLBs to specific days, times and months of the year.

Maplewood adopted an ordinance banning GLBs altogether. This ordinance took effect in January after local leaders tested the waters for six years with a partial ban.

For more information on safer options and sample ordinances for consideration in your town, please contact ANJEC’s Resource Center at info@anjec.org.

DEP unveils plan for Liberty State Park

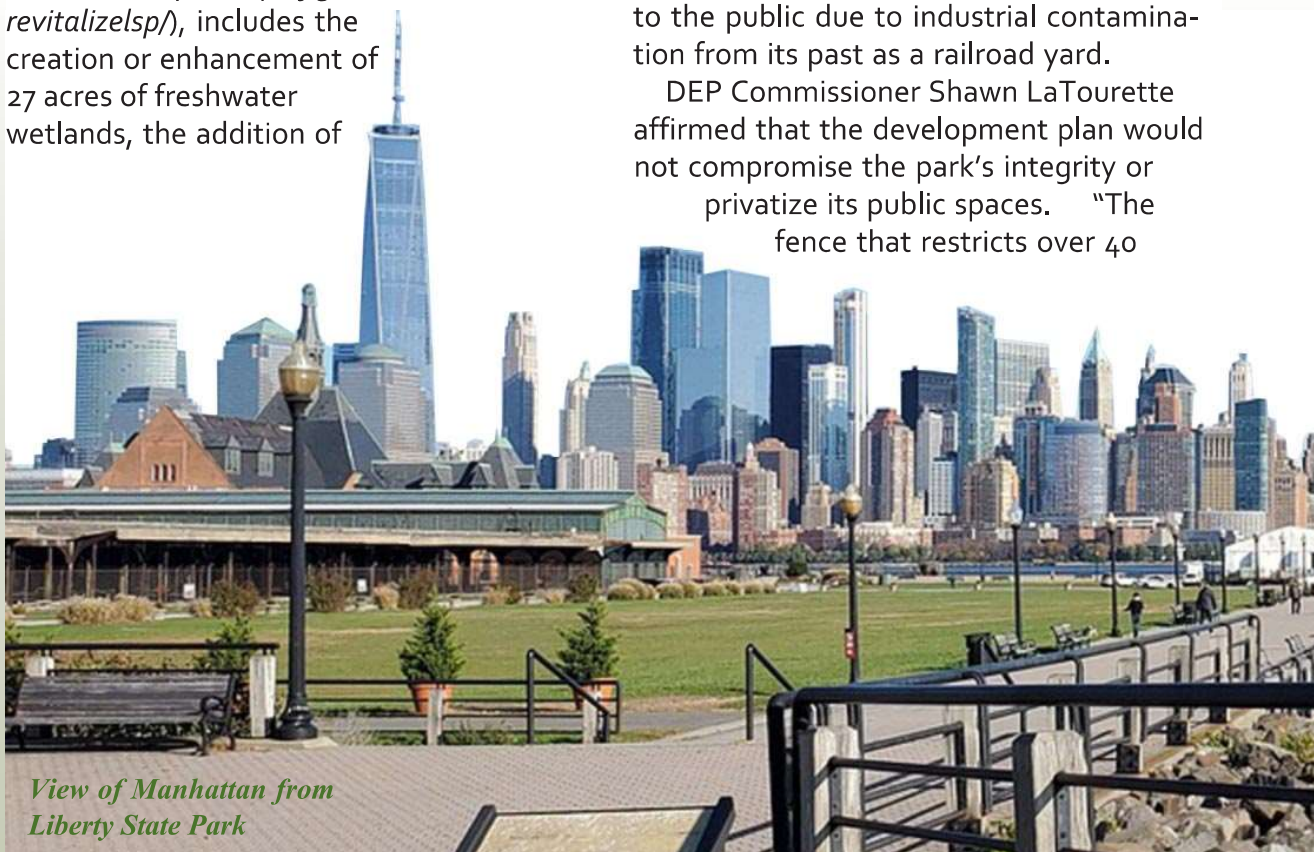
By **Hana Katz**, ANJEC Policy and Program Associate

The New Jersey Department of Environmental Protection (DEP) has unveiled an ambitious and long-awaited development plan for Liberty State Park, called The Liberty State Park Natural Resource Restoration Project. Focusing on preservation and sustainability, the plan has garnered praise from environmentalists and park enthusiasts everywhere and aims to enhance the park's recreational offerings while safeguarding its natural beauty.

This comprehensive development plan, available (<https://dep.nj.gov/revitalizesp/>), includes the creation or enhancement of 27 acres of freshwater wetlands, the addition of

50 acres of saltmarsh and the improvement of 133 acres of upland maritime habitat. Reintroducing these tidal and non-tidal wetlands, as well as native meadows and urban forest, will benefit the local environment and provide visitors with the opportunity to engage with nature. It also incorporates a 5.6-mile system of trails and paths with interpretive signage for visitors to explore, and hilltop scenic overlooks with views of the NY/NJ Harbor and the New York skyline. Importantly, it includes cleaning up over 230 acres currently closed to the public due to industrial contamination from its past as a railroad yard.

DEP Commissioner Shawn LaTourette affirmed that the development plan would not compromise the park's integrity or privatize its public spaces. "The fence that restricts over 40



*View of Manhattan from
Liberty State Park*

percent of the landmass that makes up Liberty State Park will not be replaced with ticket booths for private commercial events. No arenas or large concert-like stadiums. When I said no commercialization and privatization, that is what I mean,” he emphasized in a recent PBS interview. The DEP’s commitment to preserving the park’s natural resources and promoting sustainable practices has received widespread praise from social and environmental groups. Sam Pesin, beloved Director of Friends of Liberty State Park and a tireless advocate in the fight against commercialization, hailed the plan as a major win for the park and the people. “This will be a major part of the governor’s legacy in New Jersey,” he stated in an article.

The DEP’s transparency and public engagement ensures that the community’s concerns and aspirations are fully considered throughout the project. The construction is scheduled to begin in January 2024. 🌊

More info

- www.pbs.org/video/njdeps-shawn-latourette-on-liberty-state-parks-future-h1qk3k/
- www.nj.gov/dep/nrr/restoration/liberty-state-park.html

Thanks to ANJEC member communities

We are grateful to the thousands of volunteers serving as local officials in more than 300 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! 🌊

\$393M PFAS settlement reached in NJ

Solvay, a Belgian multinational chemical company, has agreed to pay New Jersey \$393 million to clean up decades of PFAS pollution in a 37-square-mile area around its West Deptford factory. The settlement ends a years-long court fight between the company and the DEP. The funds will also be used to help pay for upgrades that remove the chemicals from public water systems, investigate PFAS impacts on nearby water systems and private wells and compensate the public for harm to natural resources, including PFAS pollution in nine public water systems and private wells in five towns.

This is the latest in a series of actions to protect NJ citizens from chemicals linked to various health conditions, including some cancers. In 2018, NJ established itself as a national leader in efforts to protect public water supplies from the chemicals by being the first state to set a health limit for PFNA, a type of PFAS, in drinking water, followed by regulatory limits on PFOA and PFOS. 🌊



Drain fame: communities organize to clear storm drains

By **Georgia Madiba**, ANJEC Membership Manager

For environmental commissions (ECs), several points of action converge at the storm drain: water quality, stormwater management, litter/plastic pollution and yard debris as well as localized flooding. Storm drains, also known as catch basins, exist to collect stormwater, but contaminants, litter and debris can also pass through the grates. If not removed, these pollutants will enter streams, rivers and eventually oceans, degrading water quality and often causing localized flooding due to blockages. To address this challenge, environmental groups in NJ have taken steps to ensure storm drains are clear by launching organized programs that double as opportunities to engage community members and raise awareness surrounding water quality.

Programs around the State

Newark's Adopt-a-Catch Basin program, a project of the Newark Office of Sustainability, began about five years ago and has reached nearly 200 adopted drains. (newarknj.gov/card/adopt-a-catch-basin) Residents commit to a regular cleaning day and receive a "catch basin care kit" with instructions. Upon request, the City commissions local artists to paint the drains to raise awareness while adding a creative element to the

program. Jersey City's Adopt-a-Catch Basin program is very similar to Newark's and is run by the Jersey City Municipal Utilities Authority with decorative painting also an option. (jcmtua.com/storm_water_management_adopt_a_catch_basin.php)

Inspired by Newark's program, the Paterson Green Team, with support from the Sewage-Free Streets and Rivers campaign, began an Adopt-a-Catch Basin program in August of 2019. (sewagefreenj.org/2020/01/14/1659/) They began with a kickoff event that included handing out adopt-a-catch basin kits as well as educating residents about sewer overflow issues and the need for a long-term control plan. Participation in Paterson has also surged to around 190 adopted catch basins.

In the spring of 2020, the Westfield Green Team established an Adopt-a-Drain program for the town while fulfilling an internship project for a member's Rutgers Environmental Steward certification. (westfieldnj.gov/420/Adopt-a-Storm-Drain) Westfield learned about an online program used in other states out of

The Paterson Green Team launched an Adopt-a-Catch Basin program in 2019.

Photo courtesy of the Sewage-Free Streets and Rivers campaign





Newark's Adopt-a-Catch Basin program adds creative interest by commissioning local artists to paint select drains. Photo courtesy of the Newark EC.

Hamline University in St. Paul, MN. To streamline the adoption process and data tracking, the program maps drain locations, enabling residents to view all drains available for adoption and to choose one or more for themselves, usually the ones closest to their homes. Westfield contracted with Hamline University to use their program, along with their website and associated database, for a fee. Once adopted, residents name the drain and enter data into the system about what has been collected during their regular cleanings. On an annual basis, or with more frequency if desired, reports can be generated reflecting data on the poundage of collections. Westfield residents have adopted and cared for almost 330 drains so far.

In the summer of 2021, Berkeley Heights joined Westfield in launching an Adopt-a-Drain program using Hamline's online tool, thanks to a grant from the PSE&G Foundation via Sustainable Jersey. (berkeleyheights.gov/1492/Adopt-a-Drain) Berkeley Heights added a creative component by introducing a "Top 50 Drain Names" contest in the spring of 2022, and shortly after received an ANJEC Environmental Achievement Award at the 2022 annual Environmental Congress for their program. Berkeley Heights reports that about 184 drains have been adopted.

The benefits abound!

During ANJEC's 2023 annual Fundamentals for Effective Environmental Commissions training, Franklin Township (Somerset County) EC member Paul Walitsky presented on the topic of community involvement, highlighting the town's Adopt-a-Drain program begun in 2022 with Hamline's program. (franklintwpnj.org/committees-commissions/environmental-commission/adopt-a-drain)

Walitsky shared that by starting Franklin's program, they were "creating a citizen-focused, voluntary stormwater management and community engagement program." Outlining the benefits, he described the activity as attainable for the average resident, allowing them to participate in a hands-on activity with minimal commitment while making a difference in their community. Plus, residents can name their drains and brag about them on social media, bringing extra attention to the initiative. Franklin residents have adopted 126 drains so far.

Walitsky said Franklin's Department of Public Works (DPW) loves the program as it directly aids in protecting stormwater infrastructure. It "stops stuff from going in" and lessens their load, he explained. Due to the success, the DPWs in both Berkeley Heights and Westfield now include the costs to utilize Hamline's Adopt-a-Drain program in their annual budgets while the environmental groups continue to manage and operate the programs. Hamline reports that 582,000 pounds has been collected nationwide.

If your Environmental Commission has begun a similar program to keep storm drains clear, ANJEC would like to hear about it! Please send us the name and description of your program, or if your municipality would like to begin one, to info@anjec.org. 💧




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You can find recordings of our webinars, workshops and trainings from the past three years, including Environmental Congress presentations, on ANJEC's YouTube channel, ANJEC Views. This is your opportunity to:

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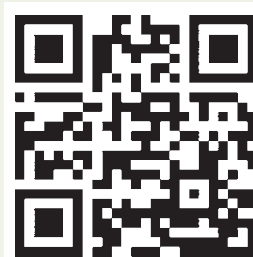
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To donate, use the QR code or mail a check to ANJEC, PO Box 157, Mendham NJ 07945.

Remembering Robert (Bob) Shinn, Jr. (1937-2023)

By **Randi K. Rothmel**, ANJEC Project Director

Bob Shinn, appointed by Gov. Christine Todd Whitman as NJ Department of Environmental Protection (DEP) Commissioner from 1994 to 2002, passed away last May after over thirty years of dedicated public service. He held office on the Hainesport Township Committee (1968-1976); Burlington County Freeholders (1977-1985); and NJ General Assembly (1985-1994). Gov. Brendan Byrne appointed him to the Pinelands Commission in 1977, where he served until 1985.

Shinn was a staunch advocate for farmland preservation. His leadership led to the preservation of the first farms (608 acres in Chesterfield Twp.) under the newly formed 1985 State Farmland Preservation Program. He also spearheaded work preserving farms in the Pinelands before the creation of the Pinelands Development Credit Bank. As Assemblyman, he sponsored the Burlington County *Transfer of Development Rights (TDR) Act* passed in 1989. His early efforts led to the nearly 250,000 acres of preserved farmland in NJ today.

As Freeholder (renamed Commissioner), Shinn was instrumental in the development of Burlington County's Resource Recovery Complex – the first-of-its-kind regional recycling program.

At the DEP, he pushed to modernize environmental land use decision making and instituted the use of GIS to improve the understanding of natural resources across the landscape.

"Bob was a one-of-a-kind visionary with the unique ability to convert his vision into concrete strategies and see them implemented," said Susan E. Payne, Executive Director of New Jersey's Farmland Preserva-




From left: Herman Durr, Mayor of Chesterfield; Bill Pettit, Sr., Chair, Burlington County Farmland Preservation Advisory Board; Bob Shinn; Brad Smith, County Freeholder; and Art Brown, NJ Secretary of Agriculture at event celebrating the first five farms preserved under the NJ Agriculture Retention and Development Act in 1985.

tion Program. "He was an inspiration to everyone he worked with and remained remarkably humorous and humble through every endeavor."

In a 1994 *New York Times* article, before taking on his role as DEP Commissioner, Shinn looked back on his years of local and State government and acknowledged the difficulty in keeping both development and agriculture interests satisfied.

"...But overall, I think you'll find that I've added a significant amount of open space and farmland to the State's inventory and that we'll be looking at an environmental master plan and implementation of it," he noted.

Burlington County Commissioner Tom Pullion summed up Shinn's contributions this way: "Bob Shinn Jr. was a true environmental champion who leaves behind a legacy of accomplishments that still benefit residents across Burlington County and New Jersey to this day." 

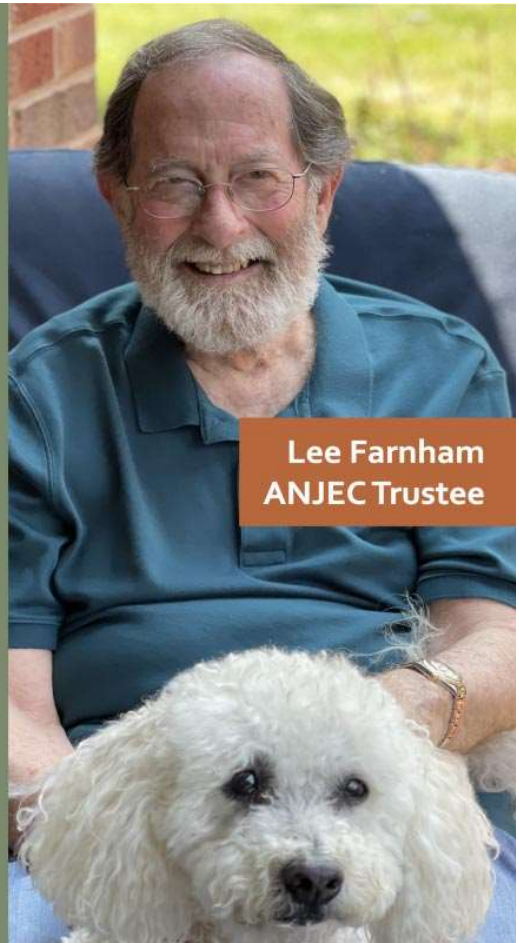
Why I give to ANJEC...

Years ago, when I joined the Ewing Township Environmental Commission (2002-2018) we wanted to become involved in making the Township more aware of environmental issues. That is how I first became involved with ANJEC.

I found that ANJEC was dedicated to helping its members, like us, raise awareness on the local level. If there was a statewide issue, like elimination of plastic bag pollution, ANJEC provided draft resolutions that local townships could use to push the issue. Those helped. The workshops to increase awareness of environmental issues were also very helpful to us. As we relied more and more on ANJEC to help us achieve our environmental goals, I began donating to ANJEC because I really believe in the mission, and experienced firsthand how they empower environmental commissions through education and resources.

When I became a member of the ANJEC Board of Trustees and began serving on the Finance Committee, I was aware that my age required me to take an annual required minimum distribution (RMD) from my IRAs. When I retired from my 20 plus-year career as a financial advisor, I knew I could fulfill the annual RMD requirement by contributing to nonprofit 501c3s. If I did that, then I could help ANJEC by donating more to them (and other nonprofits), without incurring more taxable income, thereby fulfilling two goals at once!

If you have an RMD because of your age, donating through your IRA or other employer-sponsored retirement plan could help you reduce your taxable income.



What is the required IRA minimum distribution?

The required minimum distribution (RMD) is the minimum amount account holders must withdraw from employer-sponsored retirement plans (SEP-IRAs) each year once they reach 73 years of age. If you fail to meet your RMD, the amount not withdrawn will be taxed at 25 percent. At 70½ years of age, account holders are permitted to make qualified charitable distributions from their IRA, SEP-IRA or inherited IRA.

Why should I donate from my retirement account?


If you have an RMD on your employer-sponsored retirement plans (including IRAs and profit-sharing plans, 401(k) plans, 403(b) plans and 457(b) plans) and you do not need the funds, donating to charity is a great option. Your required withdrawal will be

included in your taxable income and cannot be rolled into other tax-deferred accounts. However, donating your RMD is a qualified charitable distribution and will not be taxed up to \$100,000 annually.

How do I donate from my RMD?

The Internal Revenue Service website provides worksheets to help you calculate your RMD to determine your minimum during this tax year. Next you will need to plan your withdrawals by determining the accounts and the charities to which you wish to donate. The charity must be a qualified 501c3 organization, such as ANJEC. Donations must be made by December 31 to qualify for the 2023 tax year.

This article is for general information purposes only and should not be considered financial advice. We encourage you to contact a financial professional for more information.

Thank you! 

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