



STATE OF THE ENVIRONMENT



January 2026

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A MESSAGE FROM
Commissioner Shawn LaTourette
New Jersey Department of Environmental Protection

January 15, 2025

Dear Fellow New Jerseyans,

The Department of Environmental Protection (DEP) is pleased to report on the *State of the Environment* with this reflection and commitment to continuous action to improve and protect public health, safety, and the environment we all share. The *State of the Environment* is a primer for environmental protection in New Jersey, and a testament to our state's forethought and commitment to ensuring that the state continues to prioritize public and ecosystem health.

As the most densely populated in the state in the nation, and a birthplace of the American Industrial Revolution, it should be no surprise that New Jersey has a long, proud and bipartisan history of national leadership in restoring and protecting environmental quality. Having enduring significant industrial pollution and natural resource degradation from which our natural environment is still recovering, New Jersey has pursued and must continue to advance laws and policies that improve and protect public health, safety, and the environment while promoting smart growth and sustainable economic development.

There is no question that New Jersey has made great strides in environmental protection. Nonetheless, serious environmental, health and safety challenges still lie before us. In reporting on the *State of the Environment*, DEP documents many of our state's historic challenges and triumphs in addressing a host of environmental concerns, including water quality, land protection, air quality, legacy pollution, public lands, natural resources, and sustainability. The report emphasizes the progress that the DEP has more recently made on overarching issues, such as climate change and environmental justice. Finally, the report takes a realistic look at DEP action to date in light of future challenges and identifies the course for continued action in each major area of DEP responsibility.

In confronting the environmental challenges that lie ahead, our fellow New Jerseyans can rely on the bright, industrious, and steadfast public servants at DEP who have made the improvement and protection of our health and environment the cause of their professional lives. With your support, they will continue to advance sound science, thoughtful policy, balanced regulation, and wise investments that will continue to improve quality of life for people and communities across New Jersey.

Sincerely,

A blue ink handwritten signature of Shawn M. LaTourette, featuring a stylized 'S' and 'L'.

Shawn M. LaTourette

Commissioner

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OVERVIEW

As a national leader in environmental protection, the New Jersey Department of Environmental Protection (DEP) is committed to a balanced approach to protecting the environment and communities that is guided by the best available science. Established on Earth Day in 1970, DEP serves every corner of New Jersey as it implements a myriad of statutes through programs and regulations. With hard work, exceptional knowledge and expertise, DEP staff have made the agency an unflinching guardian of New Jersey's precious natural and historic resources and public health and safety. The scope of the DEP's work is vast and touches every aspect of life in New Jersey; from protection of endangered species, preserving our natural lands, and ensuring that the water that flows from the tap and in our rivers is clean and plentiful.

After more than 55 years of protecting the environment, public health, welfare, and safety, New Jersey has made great progress in improving statewide environmental quality and making New Jersey a stronger and more just state. Progress notwithstanding, New Jersey has only begun to address decades of environmental injustices, and long-deferred investments in environmental infrastructure, legacy pollution, and natural resource degradation, and a host of new and emerging environmental challenges demand that the DEP continue to work to protect the air, water, land, and natural and historic resources for the public benefit. Furthermore, the needs for environmental services and infrastructure are expected to multiply in the years ahead, especially as public entities work to remove new and dangerous chemicals from our water cycle and waste streams, and as our climate changes with projected increases in extreme weather and temperature, flooding, erosion, sea-level rise, drought, and wildfire that continue to threaten the safety of our communities and resilience of our economy. Beyond the support necessary for these basic health and safety needs, there is likely to be an increasing public demand for greater access to open space and improvements to recreational amenities that benefit residents and also maintain and attract visitors who fuel New Jersey's multi-billion-dollar tourism industry. These needs are felt more acutely and urgently in the communities most overburdened by pollution and most susceptible to the negative effects of climate change. These areas will need additional supports to ensure just protection for all of New Jersey's communities. Amidst all these needs, New Jerseyans are fortunate that our state has a long, strong, and proud history of treating the improvement and protection of public health, safety, and the environment as both a necessity and a sound investment.

To document this work in its entirety would be a daunting task, but in order to ensure transparency and catalog progress on DEP's priorities, DEP has prepared this *State of the Environment*. The goal is to document the history, progress, and challenges and to set forth the next steps to continue to serve New Jersey.

MEET THE DEPARTMENT



MEET THE DEPARTMENT

Meet the Department

Mission

Dedicated to improving and protecting public health and the environment we share, the Department uses the best available science to guide the conservation of natural and historic resources, ensure a stable climate and resilient communities, and secure clean and healthy air, water and lands throughout New Jersey. Committed to sustainable economic growth, the Department invests in communities and infrastructure, provides quality open and recreational spaces for residents and visitors, enforces environmental laws, and furthers the promise of environmental justice for all.

The New Jersey Department of Environmental Protection (DEP) was established by law on April 22, 1970, America's first Earth Day. At the time Governor Cahill said that the "pollution of our environment is a fact of grave concern to all thinking citizens," and that the creation of the new Department "was a giant step forward in our fight to preserve, protect and enhance the environment." DEP's formation in 1970 was the final step in a series of consolidations of several conservation agencies and commissions beginning as early as 1915, with some functions dating back to the late nineteenth century. DEP's function has remained largely unchanged since 1970, with the exception of a brief period (1991-1994) when the Department of Environmental Protection and Energy (NJDEPE) included an energy role.

"New Jersey is one of the few states with a structurally integrated approach to environmental governance."

New Jersey is one of the few states with a structurally integrated approach to environmental governance. Almost all of New Jersey's public and environmental health protection, natural resource conservation, outdoor recreation, environmental science and research, waste management, flood protection, and environmental infrastructure investment programs reside in the Department. On the federal level, these functions are separated into several principal executive branch agencies. In New Jersey, DEP is the Environmental Protection Agency, the Department of the Interior (which includes the Park Service, the Fish and Wildlife Service and US Geological Survey), the Nuclear Regulatory Commission, and parts of the Federal Emergency Management Agency and National Oceanic and Atmospheric Administration, all in one state agency. This structural integration enables many efficiencies in administration; it also means that DEP is responsible for implementing an ever-growing set of mandates that touch every sector of New Jersey's economy and reach every corner of the state. In fulfilling its mission to improve and protect public health, safety, and the environment, DEP uses the best available science to guide the conservation of natural and historic resources, ensure a thriving economy with resilient communities, and secure clean and healthy air, water, and lands throughout New Jersey. To support sustainable economic growth, DEP invests in communities and infrastructure, provides quality open space and recreational opportunities for residents and visitors, enforces environmental laws, and works to further the promise of environmental justice for all.

MEET THE DEPARTMENT

With more than 2,800 full-time employees and an additional 900 seasonal employees, DEP oversees a myriad of environmental issues that impact our public health, safety and economy. DEP includes programs that address:

- Air Quality, Energy, Materials and Sustainability
- Community Investment and Revitalization
- Contaminated Site Remediation and Redevelopment
- Climate Resilience
- Environmental Justice
- Fish and Wildlife
- State Parks, Forests and Historic Sites
- Water Resource Management
- Watershed and Land Management



To accomplish this work, the Department abides by five principles.

DEP PRINCIPLES

- Follow the law.
- Use the best available science.
- Listen to all sides.
- Find the best balance.
- Be transparent and honest with the public.

MEET THE DEPARTMENT

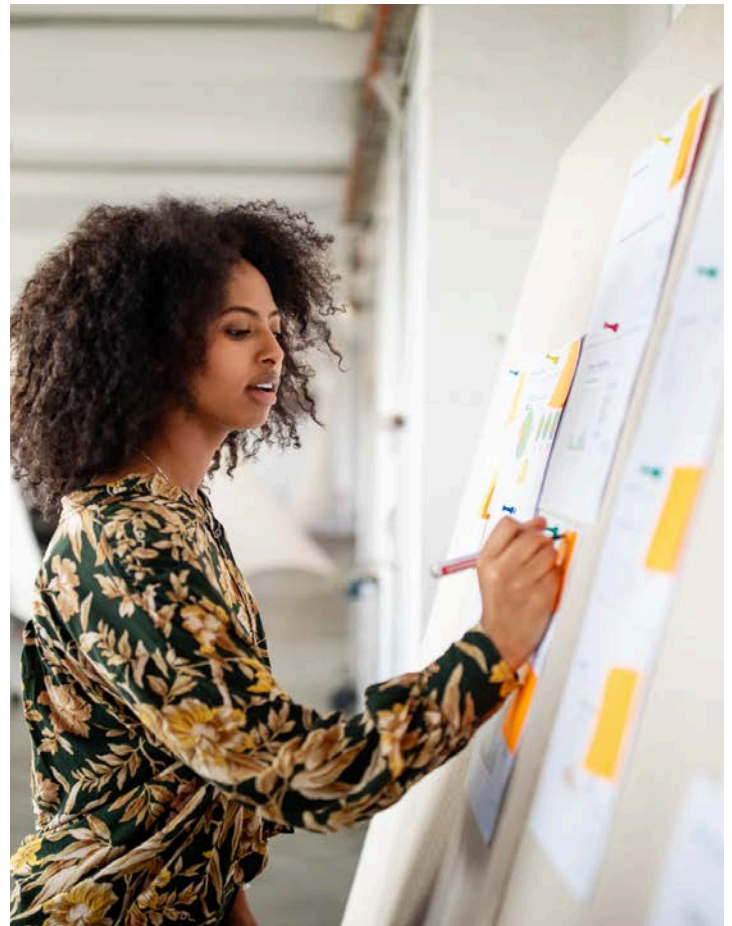
Serving New Jersey

The sections of this report document many programmatic efforts to further the mission of the Department. There are, however, a few efforts that are so fundamental to the DEP's ability to serve the public that they underpin the work of the entire Department.

Serving as a Science Agency

Consistent with its mission and the principle to “use the best available science,” DEP is, at its core, a science agency. DEP conducts and funds research and analysis to support policy and the implementation of environmental laws in New Jersey. DEP scientists in all programs identify and seek to understand emerging issues that require the DEP's attention, including the evaluation of cutting-edge science, and the science that underpins federal and global environmental policy. Although there are scientists in most programs at DEP, the Division of Science and Research is dedicated to ensuring that the DEP decision making is based on sound science by performing and supporting research to meet the needs of all DEP's programs.

Every effort that DEP undertakes begins with science. Science is constantly evolving based on observation and understanding of new information. Accordingly, DEP is constantly collecting and analyzing data., including the longstanding New Jersey Environmental Trends reports. DEP has been updating these reports since 1998; these reports are just one example of a longstanding data set that informs the protection of New Jersey's public health and environment. Each trend describes a specific area in which DEP has been working to improve conditions and presents environmental measurements for gauging the status of the environment in New Jersey. The trends reports, like other data and the research that DEP collects are an essential measure in determining the state of the Department's work.



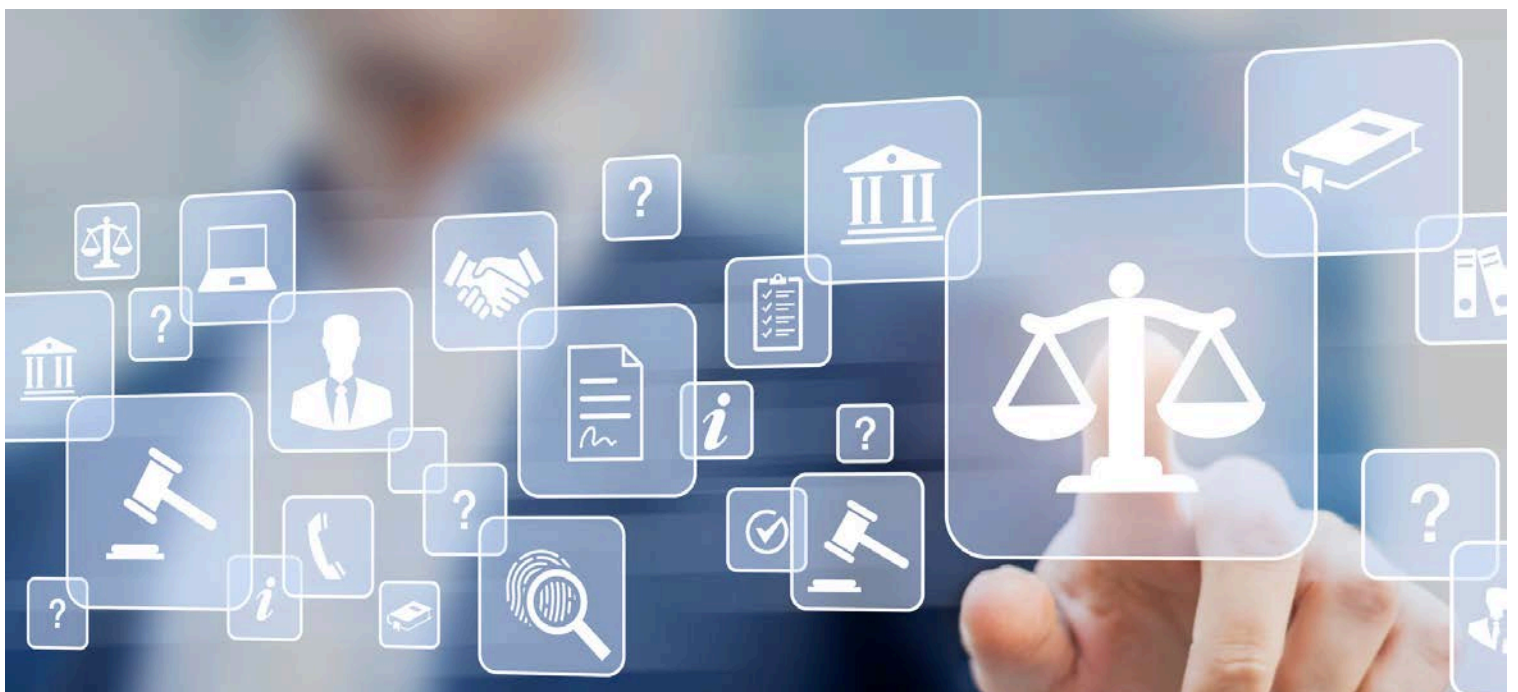
MEET THE DEPARTMENT

Using Data & Technology

DEP collects, generates, and manages an enormous amount of data to conduct daily business, set policy, inform the public, and ensure accountability. Like any private or public organization, data is one of the Department's most important strategic assets. The ability to manage, coordinate, and leverage decades-worth of data is critical in the modern, data-driven world and is essential to fulfilling the promise of transparency in the DEP's principles. Inconsistent data management as well as a lack of accessibility can lead to missed opportunities for data analysis that could support policy decisions. Consistent data management is increasingly important with growing use of artificial intelligence and a rise in multi-sector issues such as climate change, environmental justice, and widespread contamination, like PFAS or "forever chemicals." DEP must continue to prioritize quality data management across all programs, with emphasis on accessibility for multiple users and stakeholder input.

At present, DEP offers more than 650 online services to the public, including digital receipt of permit applications, forms, reports, certifications, e-payment services, and over 130 community-facing GIS applications and maps. The online and e-payment services are used by 101,000 individual users who process an average of 420 transactions/day across 670,000 unique regulated facilities while the community-facing GIS applications and maps are viewed an average of 5,700 times a day. DEP plans to deliver more technology related projects, including 50 new online services to support land use permitting, registration, and construction activities as well as mapping, data collection and management for remediation, air, and water resource programs. In addition, engaging stakeholders during the design process which strengthens data collection systems and visualization tools and makes them more accessible to a broader range of users.

Using data and technology to periodically assess and update programs can improve efficiency and service. To continue to meet the needs of the public and fulfill its mission, DEP listens to feedback, conducts targeted assessments, rebalances priorities, and adjusts processes as circumstances change. Over the last decade, DEP has committed to continuous improvement, using proven quality assurance methodologies to lean processes and more efficiently execute its mission. By training staff to assess programs and employing new technologies, DEP continues to improve programs.



MEET THE DEPARTMENT

Fostering a Thriving Economy

The goals of economic growth and environmental health are inherently connected and can be realized together. Finding the best balance requires a comprehensive understanding of environmental issues, including economic risk, cost, and benefit. DEP incorporates economic considerations in its decision-making through its Office of Economic Analysis. In fact, consistent with legal mandates, DEP evaluates the economic impact of all proposed regulations. A comprehensive analysis of economic issues requires DEP to recognize and evaluate the economic benefits and ecosystem services associated with the resources DEP protects, and to understand the risks posed by environmental harms, such as contamination and climate hazards. Evaluating policy in light of such information ensures that decisions are made in the best interest of the public.

In 2007, DEP released *Valuing New Jersey's Natural Capital*. DEP is working to develop an updated and modernized version of this report to ensure that the report reflects current data on land use and changes in ecosystem valuation since 2007. The new report will also show how natural assets have changed over time, such as how land use and land cover has changed. This analysis will highlight where ecosystems are declining, recovering, or remaining resilient and therefore identify opportunities to increase resilience to climate impacts. Understanding the economic risks of climate change, in particular, has been a key priority for DEP. DEP's report *Economic Risks of Climate Change in New Jersey* provides important context on how climate change is currently impacting New Jersey's economy, and how experts anticipate a changing climate may affect New Jersey's economic vitality in the years ahead.



Engaging the Community and Providing Public Education

DEP was established to serve New Jersey by protecting communities and the environment. It also plays an important role in supporting local goals for conservation, recreation, public health and economic development. DEP's work to protect water, air, land, natural resources, open space, and to foster sustainability must be informed by the local experience. By building and maintaining strong relationships, offering information, opportunities for engagement and navigation through regulatory processes, DEP ensures that environmental programs are aligned with local goals. DEP has dedicated DEP liaisons for local government, as well as a *Community Collaborative Initiative* and *Office of Permit and Project Navigation*, to ensure that communities have access to DEP programs and guidance. These initiatives work with local partners to improve the quality of life for New Jersey communities, promote environmental protection and justice, address critical issues, and foster innovation.

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DEP is an environmental steward for and with the public; but, understandably, matters of environmental protection, which can be complex, are not regularly in public view. DEP has an obligation to ensure that there is clear and concise information on environmental issues readily available to communities and that youth across the state is empowered through knowledge. Launched in 2021, the Youth Inclusion Initiative (YII) focuses on empowering youth, aged 16 – 20, from overburdened communities that have disproportionately less access to open space and natural lands. By providing participants with hands-on experiences, the YII empowers a diverse, knowledgeable, and capable new generation of environmental stewards. In 2022, the Environmental Council of the States, a national organization of environmental agencies, awarded DEP with the State Program Innovation Award for Water & Equity for the YII initiative.

These community engagement and education programs and partnerships bring communities green jobs, relevant tools and training, and opportunities for climate conscious growth community development

Taking Climate Action

Climate change threatens New Jersey's public health, safety, environment, and economy. New Jersey communities are experiencing more intense storms, rising seas, coastal and inland flooding, extreme heat and droughts due to climate change, and these impacts are projected to worsen over time unless there are drastic reductions in the climate pollutants causing global warming. Although climate action has a winding history in New Jersey, it has recently been meaningfully integrated into DEP's work because it is central to environmental and public health and a thriving economy.

Since 2018, DEP has taken a series of critical actions to help New Jersey meet greenhouse gas reduction or climate mitigation goals and make the state more resilient, securing New Jersey's position as a leader in climate action.



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Climate Mitigation

One of the most fundamental actions, as directed under [Executive Order 7](#) was to re-enter the Regional Greenhouse Gas Initiative. Although New Jersey was a founding member, the state withdrew in 2011 as directed by the Governor at the time. Restoring New Jersey's participation in RGGI not only contributed to reducing power sector carbon emissions in the region by over 50% since its inception, but has allowed New Jersey to award nearly \$216 million in clean energy and climate mitigation projects and programs estimated to provide over 616,000 metric tons of lifetime CO₂ emissions avoided along with co-benefit emission reductions in oxides of nitrogen, particulate matter, volatile organic compounds and oxides of sulfur.

New Jersey released its GWRA [80x50 Report](#) in October of 2020 in response to the mandates of the Global Warming Response Act or GWRA (N.J.S.A. 26:2C-37 to -58). Building on New Jersey's 2019 Energy Master Plan and the vision for 100% clean energy by 2050, this report analyzed New Jersey's greenhouse gas emissions reductions to date, evaluated plans already in place to further reduce those emissions, and presented a set of strategies across seven emission sectors for policymakers to consider in formulating legislation, regulations, policy, and programs to ensure that New Jersey achieves its GWRA 80x50 emissions reduction goal. In 2025, DEP released its update to the 80x50 Report, known as the Comprehensive Climate Action Report (CCAP). The CCAP serves as a progress report on the state's emission reduction efforts and identifies strategies across all sectors that New Jersey should consider closing the remaining emissions reduction gap.



With transportation being the largest emissions source, DEP made a concerted effort to coordinate programs and policies that support consumers' and businesses' choices to drive green. These actions have helped the state's clean transportation sector see significant growth, with electric vehicles now comprising over 14% of new vehicle sales. At the same time, the network of charging stations has expanded greatly. Streamlined permitting for charging stations, free technical assistance for fleets, planning grants, and PR campaigns rounded out the monetary incentives that have worked together to reduce transportation emissions.

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DEP has invested RGGI proceeds and other funding into carbon sequestration projects. Carbon sequestration is the natural ability of natural lands and ecosystems to absorb and store atmospheric carbon dioxide (CO₂), acting as carbon sinks. Forests, marshes, and coastal wetlands are particularly effective at carbon sequestration and have the added benefit of protecting communities from the more immediate impacts of climate change such as flooding and extreme heat. New Jersey GWRA 80x50 Report, shows that New Jersey's land sector sequestered the equivalent of 8.1 million metric tons (MMT) of CO₂ equivalent CO_{2e} (8% of New Jersey's net emissions) in 2018, and predicted that the DEP's efforts to conserve and protect the State's natural carbon sinks could increase that up to 10.8 MMT of CO_{2e} (33% of New Jersey's net emissions) by 2025.

Released in 2024, A Strategy to Advance Carbon Sequestration on New Jersey's Natural and Working Lands is the blueprint for enhancing carbon sequestration across the state with the aim of boosting the capture of CO₂ on both public and private lands, including wetlands, aquatic habitats, agricultural areas, and forests. That same year, DEP launched a series of RGGI-funded carbon sequestration programs, including:

- The Natural Climate Solutions Grant Program, designed to fund projects that create, restore, or enhanced New Jersey's natural sinks; and,
- Trees for Schools which provides grants to New Jersey public school districts, county colleges, and state colleges and universities to fund tree planting on campus.

In 2021, under Executive Order 274 (EO 274), interim greenhouse gas reduction target of 50% below 2006 levels by 2030 was established. EO 274 directs the Governor's Office of Climate Action and the Green Economy to coordinate efforts of Executive Branch departments and agencies to further develop and implement the objectives and strategies detailed in the state's Energy Master Plan and GWRA 80x50 Report. Read more about New Jersey's greenhouse gas reduction history and current efforts in Chapter 6, Sustainability.



Climate Resilience

Recognizing that communities were already suffering from the impacts of climate change, Executive Order 89 (EO 89) was issued in 2019 promoting a coordinated, statewide effort to improve climate resilience. EO 89 established a climate and flood resilience program, now known as the Office of Climate Resilience within DEP, led by a newly established New Jersey Chief Resilience Officer charged with, among other things, development and implementation of a Statewide Climate Change Resilience Strategy and providing strategic direction and support to the newly created New Jersey Interagency Council on Climate Resilience (IAC). The IAC coordinates the efforts of state agencies and departments to promote the long-term mitigation, adaptation, and resilience of the state's economy, communities, built infrastructure and natural resources. The IAC initially included representation by 16 state agencies and departments, but over time has grown to 26 agencies and departments, expanding consideration of climate resilience into additional policy areas. EO 89 also required the development of a Scientific Report on Climate that reflected the latest available climate science specific to New Jersey, which has been updated regularly to address emerging research and topics (see below). Since the issuance of EO 89, Chief Resilience Officer and the IAC have:

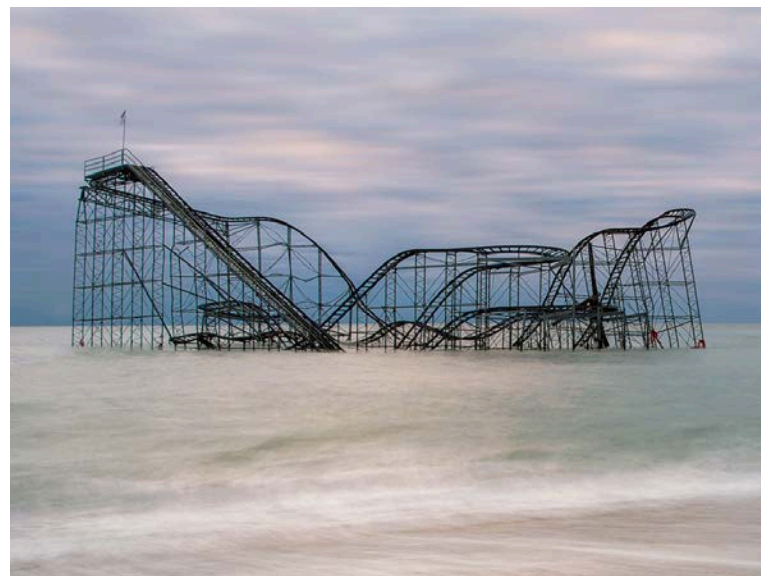
- Released the New Jersey Climate Change Resilience Strategy in 2021. The Strategy establishes a policy framework for state agency action on climate resilience, identifying six priority areas, and establishes a framework for continuous progress.
- Released the New Jersey Extreme Heat Resilience Action Plan (RAP) in 2024. Building off the Statewide Climate Change Resilience Plan, the Extreme Heat RAP focuses specific actions to mitigate the effects of climate-driven extreme heat, one of the deadliest impacts of climate change. The Extreme Heat RAP was additionally updated in 2025 to incorporate actions by new members of the IAC.
- Released the Statewide Flood Resilience Initiatives Report in 2025. This report highlights both ongoing programs and individual projects led by state agencies aimed at reducing flood risk.
- Continued to support the implementation of the Climate Change Resilience Strategy and Extreme Heat RAP, releasing update reports that demonstrate the ongoing commitment to addressing climate resilience.



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In addition to the work involving the IAC, the Chief Resilience Officer and DEP, took the following actions:

- Continued to support the development of essential New-Jersey specific studies and guidance, like the [New Jersey's Rising Seas and Changing Coastal Storms: Report of the 2025 Science and Technical Advisory Panel, Sea-Level Rise Guidance for New Jersey](#).
- Sea-Level Rise Guidance for New Jersey, and three important [rainfall studies](#).
- As directed by EO 89, released and regularly updated the [New Jersey Scientific Report on Climate Change](#). First released in 2020, the Department added an addendum to the report in 2022 that focused on the [climate change impacts on human health and communities](#). A visualization tool of the Scientific Report entitled [Climate Change in New Jersey: Impacts and Effects](#) was released in 2023. An update to this report was released in January.
- Created [Heat Hub NJ](#), a one-stop online resource including webinars, infographics, and mapping features designed to help the public protect themselves from the dangers of extreme heat.
- Released the [Economic Risks of Climate Change in New Jersey](#) report, which provides important context on how climate change is currently impacting New Jersey's economy, and how academic, government, and industry experts anticipate a changing climate may affect New Jersey's economic prosperity in the future.



MEET THE DEPARTMENT

Incorporating Climate Science into Rules

In 2020, under [Executive Order 100](#) (EO 100), DEP was directed to reform its regulations to reduce and adapt to climate change through an initiative known as New Jersey [Protecting Against Climate Threats, or NJ PACT](#). Specifically, NJPACT would include:

- Development of a [greenhouse gas monitoring and reporting program](#) to identify all significant sources of Statewide greenhouse gas emissions and monitor progress towards meeting the limits set forth in the Global Warming Response Act;
- Establish criteria to govern and reduce emissions of CO₂ and short-lived climate pollutants such as black carbon, hydrofluorocarbons, and methane;
- Integrate climate considerations into Department regulatory and permitting programs; and
- Require the Department to track the regulations it plans to update through an Administrative Order (AO).



In response to EO 100, in 2020 Administrative Order 2020-01 ([AO 2020-01](#)) was issued which gave explicit guidance regarding the content and timing of regulatory reforms. [NJPACT](#) consists of mitigation reforms that are intended to reduce climate impacts into the future and adaptation and resilience reforms that are designed to respond to impacts that are happening now and expected to worsen. The mitigation rules are known as [Climate Pollutant Reduction](#) (NJPACT-CPR) rules focused on efforts to reduce greenhouse gas emissions while the [Resilient Environments and Landscapes](#) (NJPACT-REAL) rules were focused on modernizing environmental land use rules to response to climate change by considering risks such as extreme rainfall, sea-level rise and chronic flooding, as well as facilitation of climate goals including green infrastructure and renewable energy. Read about the six rules adopted under the NJPACT-CPR initiative in [Chapter 6, Sustainability](#) and the two rules adopted as part of the NJPACT-REAL reforms in [Chapter 3, Land Resource Protection](#) of this report.

Also, in response to EO 100 and AO 2020-01, DEP released its [Strategic Climate Action Plan](#) in 2025, which sets the course for the next phase of the DEP's work to reduce and response to climate change. The development of this Plan involved the identification, by all DEP programs, of opportunities to make changes and integrate climate considerations. Read more about climate resilience and in [Chapter 3, Land Resource Protection](#) and throughout this report.

MEET THE DEPARTMENT

Furthering the Promise of Environmental Justice

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income in the development, implementation, and enforcement of environmental laws, regulations, and policies. Historically, New Jersey's low-income communities and communities of color have been subjected to a disproportionately higher number of environmental and public health stressors such as air and water pollution, resulting in higher rates of adverse health impacts, including cancer, elevated blood lead levels, and respiratory and cardiovascular diseases. Climate change impacts act as threat multipliers for already existing environmental and public health stressors by deteriorating air quality, increasing flooding, and exacerbating the urban heat island effect. In recent years, DEP has taken significant steps towards ensuring that environmental justice is embedded in its programs and operations, as well as those of other executive branch departments and agencies.

Executive Order 23 (EO 23) directed DEP to develop guidance for all executive branch departments and agencies on how to incorporate environmental justice considerations into their programs, operations, and actions. The goal of the guidance was to coordinate state action to address the many complex environmental justice issues that involve multiple state departments and agencies, such as housing, health, transportation, and strategic enforcement actions. EO 23 also continued the Environmental Justice Advisory Council or EJAC to support the DEP's efforts to integrate environmental justice tenets into its programs, policies, and actions. In response to EO 23, DEP hired its first Environmental Justice Director to lead and reimagine the Office of Environmental Justice tasked with overseeing DEP's internal work to incorporate environmental justice considerations, facilitate the efforts of New Jersey departments and agencies to amend the way the entire state achieves environmental justice, and engage with New Jersey's overburdened communities and remove barriers to accessing resources so that those communities are better informed and heard. Administrative Order 2020-02 (AO 2020-02) established the structure and format of the EJAC.



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To implement EO23 and AO 2020-02, DEP has:

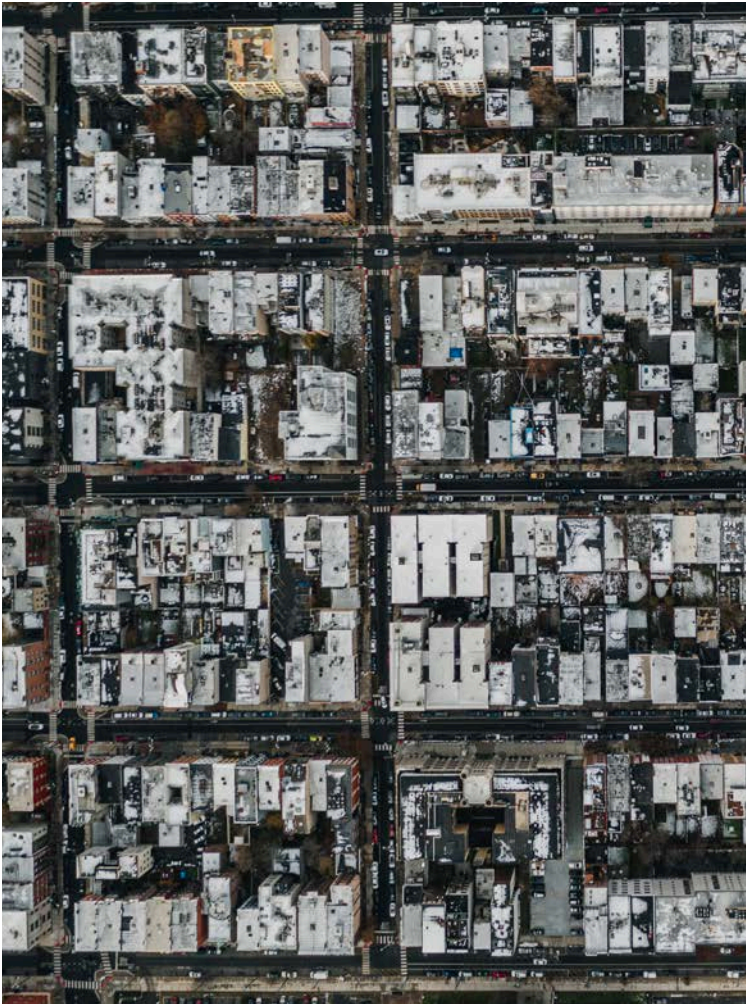
- Released [Furthering the Promise: A Guidance Document for Advancing Environmental Justice Across State Government](#) in 2020. This guidance document provides a framework for realizing the state's environmental justice goals concertedly across the Executive Branch and in collaboration with the communities.
- Released the DEP's first [Environmental Justice Action Plan](#) in 2026. Over a multi-year process, DEP conducted an assessment to understand agency best practices, gaps, and challenges to integrate environmental justice into its work. The results of the assessment formed the DEP's Environmental Justice Action plan which list several short, medium, and long-term goals and actions to replicate best practices, solve challenges, and close gaps across the agency.
- Led an Environmental Justice Community Engagement tour for DEP leadership and staff to meet with overburdened communities in every region of the state. Since returning to in-person meetings in late 2021, DEP staff have visited 18 counties and convened more than 1,250 residents to provide meaningful opportunities for residents to share their stories, inform DEP of their concerns, ask questions, obtain resources, and build connections.
- Issued a policy to ensure DEP's investments appropriately prioritized overburdened communities, including ensuring that a percentage of all RGGI proceeds were allocated in or benefited New Jersey's overburdened communities.
- Supported the implementation of DEP's environmental justice permitting rules (see more about the DEP's environmental justice rules below), including publishing the [Meaningful Public Participation Guidance](#) to assist applicants with the public participation requirement of the Rules and developing a platform to automatically send emails and texts that notify interested residents of upcoming EJ Rule public hearings.
- Launched the "[Navigating the DEP System](#)" Environmental Justice Educational Seminar Series to train advocates on how DEP's jurisdiction, processes, rules, online tools, and funding opportunities can increase community capacity and break down educational barriers that limit participation in environmental decision-making.
- Published the Environmental Justice Directory, a public list of environmental justice advocates, who, with their permission, allow DEP to publish their contact information, topical and geographic points of interest for industry, government, academia, and other entities to contact to promote an EJ-related opportunity.
- Supported EJAC and its working group efforts to consistently create and accomplish annual work plans and consult on various DEP projects. In 2025, EJAC hosted its first two public meetings providing members of overburdened communities with an opportunity to testify.
- Established the inaugural cohort of the DEP Facilitator Corps, a program to strengthen the DEP's community engagement skills.



MEET THE DEPARTMENT

New Jersey's Environmental Justice Law

On September 18, 2020, New Jersey's Environmental Justice Law (N.J.S.A. 13:1D-157) was signed. This law was the first of its kind in the nation, guiding DEP to assess relevant environmental and public health stressors affecting overburdened communities or OBCs, and to deny or condition permits for certain facility types that cannot avoid or appropriately minimize disproportionate environmental and public health stressors in that OBC. To implement this law, DEP adopted rules in April of 2023 and developed a complimentary online mapping tool, the Environmental Justice Mapping, Assessment, and Protection or EJMAP tool, to identify OBCs based on demographic criteria and support the comprehensive assessment of the impact of 26 environmental and public health stressors on those OBCs to establish a baseline of whether that OBC is already adversely impacted. In the interim period between when the new law was signed and the DEP's rules were implemented, Administrative Order 2021-25 (AO 2021-25) directed DEP's staff to meet legislative intent of the Environmental Justice Law.



“On September 18, 2020, New Jersey’s Environmental Justice Law was signed [...] the first of its kind in the nation.”



PROTECTING WATER

MILESTONES

1951

New Jersey Subsurface and
Percolating Waters Act

1954

New Jersey vs. New York

1972

Federal Clean Water Act

1975

New Jersey's first Water Supply
Master Plan

1981

New Jersey Water Supply
Management Act

1981

New Jersey Stormwater
Management Act

2001

New Jersey
Private Well Testing Act

2004

Stormwater Management Rules

2019

New Jersey Clean Stormwater and
Flood Reduction Act

2024

New Jersey Protecting Against
Climate Threats

Background

Water is critical to all life. Its protection is therefore a matter of public health and safety, quality of life, and of the sustainability of our ecosystem and economy. New Jersey's water resources include ground water reserves, wetlands and lakes, rivers, streams, estuaries, ocean and other surface bodies of water. The state relies on these valuable water sources for many important uses, and they are among the most environmentally valuable natural resources in the state. The state's 9.3 million residents, \$800 billion economy, and diverse ecosystems depend upon a clean, secure, sufficient, and resilient water resources and supply to meet daily needs, expand economic opportunities, enhance standards of living, improve public health, and protect and restore the natural environment.

DEP employs a "one water" approach to protect all forms of water resources through effective and balanced implementation of environmental laws and regulations to ensure the resources are protected throughout the water cycle. This approach acknowledges that all forms of water—including drinking water, groundwater, surface water, stormwater, and wastewater—are valuable. To protect water resources, the DEP uses an integrated approach to assessment, planning, and management. Managing water resources involves the development water quality standards, protection of water source areas (see [Chapter 3, Land Resource Protection](#)), water quality monitoring, the regulation of discharges, management of water withdrawals and support for operation, maintenance and construction.



Water Resources

New Jersey is a geologically and hydrogeologically diverse state. New Jersey's surface waters range from intermittent streams to large river systems (many of which are tidally influenced); acres of lakes, ponds, and reservoirs; and miles of estuarine and coastal ocean waters. These surface waters serve multiple purposes, such as drinking water supplies, fish and shellfish resources, propagation of fish and wildlife, outdoor recreation (swimming, boating), agriculture, aquaculture and industrial water supply.

Precipitation that does not directly enter rivers, lakes and other waterways seeps into the ground to become ground water, in a process known as recharge. Roughly a quarter of New Jersey's annual precipitation recharges the groundwater reservoirs. When groundwater is found in a large quantity, good quality and in rock or sediment that allows for easy flow, it is called an aquifer. Aquifers in New Jersey consist of regionally extensive areas where a geological formation or group of formations provide sufficient quantities of groundwater for the intended use, including drinking water supply, wetlands, and aquifers.

Wetlands are transitional lands, between permanently flooded deepwater environments and well-drained uplands, where the water table is usually at or near the surface or the land is covered in shallow water. These critical ecosystems are related to both surface and groundwater and are able to purify water, protect against flooding, and absorb excess carbon dioxide in the atmosphere is discussed in [Chapter 3, Land Resources Protection](#).

Water Supply Management

New Jersey has a population of approximately 9 million people, all of whom rely on clean, safe and adequate water supplies. Throughout history, the right to access and control water has been a source of conflict that required cooperation and, at times, mediation. As a result, some of the earliest known common laws relate to access to lifegiving water. Similar to the common laws related to access to tidal waters described in [Chapter 3, Land Resource Protection](#), allocation of freshwater resources is also governed by common law that has evolved over time, in many cases, to more explicit state and federal laws governing the management of this shared resource.

Proper water supply management requires a full and continuing knowledge of water sources so that managers plan and can balance water diversions across a variety of uses, including drinking, recreational, and industrial use, with the continued support of the ecosystem. In New Jersey, early efforts to understand water sources began in 1835, when the Governor appointed the New Jersey's first State Geologist to provide a geological and mineralogical survey of the state. It also developed the first topographical survey of the state that included identification of potential water supply reservoir locations. In 1915, the New Jersey Geological Survey (NJGS) became a permanent entity under the newly created Department of Conservation and Development and continues its work today as part of DEP, providing scientific support on a myriad of issues including matters of water supply and water quality. In 2012, NJGS was renamed the New Jersey Geological and Water Survey.

In the 1800s, as New Jersey developed, infrastructure was constructed to bring water to major cities (some of which is still in place today), like Newark, and towards the end of the century much of New Jersey's surface water reservoir system was constructed. Early on special legislative actions were necessary to secure large quantities of water and such decisions were generally made without regard for present or future impacts on water allocation. Beginning with the passage of statutes in 1907 and 1910, state approvals were required for all new or additional surface and groundwater withdrawals for public water supply purposes. Almost two decades later, in 1929 a law (P.L. 1929, C. 267) was passed that addressed major water issues like flooding, water power, navigation, drainage, and irrigation in addition to the "supply of pure and wholesome water from watershed to municipalities and the inhabitants thereof and the disposal of sewage and wastes which may affect the supply." This law established the State Water Policy Commission to consider these issues.

By 1947, groundwater withdrawal permits were issued in New Jersey by the Water Policy and Supply Council and in 1951, New Jersey enacted the New Jersey Subsurface and Percolating Waters Act (N.J.S.A. 58:4A-4.1 to -29) to regulate access to ground water, specifically through requirements related to well construction, maintenance, and the decommissioning of wells, and the licensing of well drillers and pump installers. Because there are more than 400,000 private water wells tapped into ground water in New Jersey, with approximately 10,000 drinking water supply and monitoring wells drilled annually, and because many of state's public water systems also rely on groundwater sources, this law is an essential element for protecting environmental and public health. Proper construction and decommissioning of wells protects the state's groundwater sources from contamination from surface pollutants or saltwater and is intended to eliminate physical hazards from abandoned wells.



NEW JERSEY WATERSHED AMBASSADORS: CHANNELING AWARENESS INTO ACTION

DEP is committed to the protection of New Jersey's water resources and the fostering of community stewardship. Since 2000, the AmeriCorps New Jersey Watershed Ambassadors Program has focused on environmental stewardship and education outreach, creating awareness about New Jersey's valuable and vulnerable water resources. This award-winning program educated the public regarding the effect human activities have on water quality and quantity, especially in the most densely populated state in the nation.

Each year, a new group of more than 20 Watershed Ambassadors engages with community members, channeling awareness into action. Since the beginning of the Watershed Ambassadors program approximately 500 members have devoted their time and talent to protecting New Jersey's water resources.



A number of water management events in the 1950s – 60s led to New Jersey's current water supply management landscape including:

Interstate Issues

Management of interstate waters can be complex. In the case of the Delaware River Basin, the U.S. Supreme Court intervened in 1931 and then again for a second time in 1954, multiple agencies across several states and in the federal government were managing the basin. In 1954, the U.S. Supreme Court issued a decree in the case of *New Jersey v. New York*, 347 U.S. 995 that established an equitable allocation under federal common law that addressed New Jersey's and New York City's out of drainage basin diversions, established minimum instream flows and reservoir releases and basic water quality improvements. In 1961, President Kennedy and the governors of Delaware, New Jersey, Pennsylvania, and New York for the first time signed a federal-interstate compact with concurrent legislation creating the Delaware River Basin Commission (DBRC) to jointly manage the basin across political boundaries.

Major Drought

Beginning in the fall of 1961, the Northeast experienced a severe water supply drought, marked by water shortages in major cities like Newark and New York City, and across the region. Water supplies did not recover fully until 1967. This drought is still considered the most severe drought documented in most of New Jersey.

New Reservoirs

As a result of post-war era growth and historic droughts, in the mid-1960s, the Spruce Run/Round Valley reservoirs were constructed and made operational. These two reservoirs combined with the Delaware & Raritan Canal make up a water system that can deliver 241 million gallons of water per day to water utilities serving central and northeastern New Jersey. Two other major reservoirs, Monksville and Manasquan, and several large raw water pumping stations to fill reservoirs, were constructed in the 1980s to address expanding water supply needs in North Jersey and Monmouth County, respectively.

The water supply drought of the 1960s underscored the need for coordinated water management and planning, and in 1975, New Jersey's governor authorized the drafting of the state's first Statewide Water Supply Master Plan. After a period of precipitation deficits and a declaration of drought emergency (1980-1981), the Legislature passed a series of laws designed to improve the state's ability to manage its water resources.



This legislative package included four fundamental laws:

New Jersey Water Supply Management Act

The Water Supply Management Act or WSMA (N.J.S.A. 58:1A-1 to -17), set forth that water resources are “public assets of the state held in trust for its citizens” and that planning and management of water resources is necessary and should include a regulatory permitting program and a plan for future need and emergencies. The WSMA established the governor’s ability to proclaim a water emergency, granted DEP the authority to adopt regulations pertaining to water emergencies and directed DEP to adopt a New Jersey Statewide Water Supply Plan that is revised at least once every five years.

Water Supply Bond Act of 1981

This law (P.L. 1981, c.261) authorized \$350 million in bonds for the rehabilitation and consolidation of inadequately operating water supply facilities and for new water supply facilities as recommended in the Water Supply Plan. Today, DEP works in partnership with the [New Jersey Infrastructure Bank \(I-Bank\)](#) to administer specific bills related to the Water Supply Bond Act through the New Jersey Water Bank.

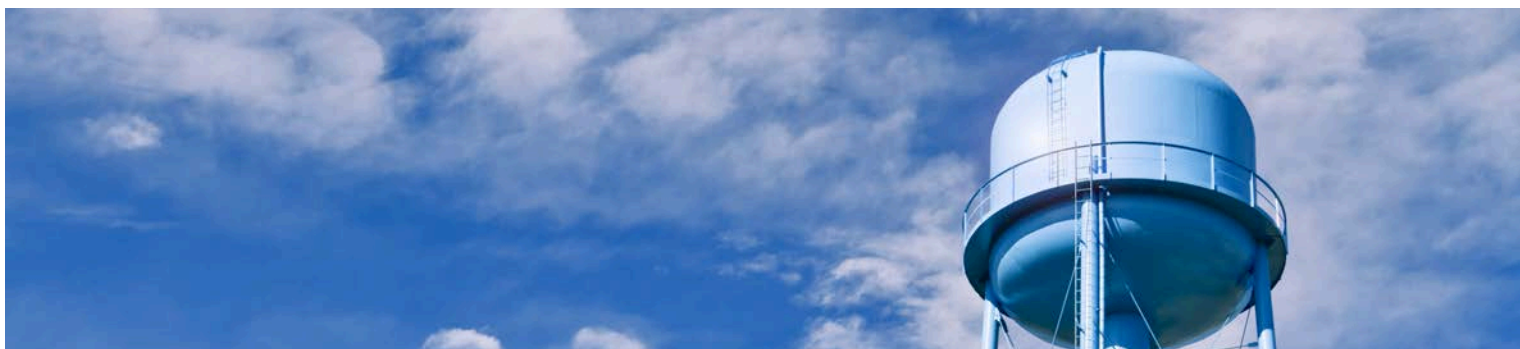
New Jersey Water Supply Authority Act

The New Jersey Water Supply Authority Act (N.J.S.A. 58:1B-1 to -25) established the [New Jersey Water Supply Authority](#) (NJWSA) and transferred all water supply facilities now or hereafter owned by the state, including the reservoirs constructed two decades earlier (Spruce Run and Round Valley), to NJWSA. Today, NJWSA manages the Raritan Basin Water Supply System and the Manasquan Water Supply System, providing water resources for 12 million New Jerseyans.

Small Water Companies Takeover Act

With the passage of the Small Water Companies Take-Over Act (N.J.S.A. 58:11-59 to -63) in 1981, the Legislature addressed issues specific to small water suppliers. This Act empowered DEP and the New Jersey Board of Public Utilities to order a suitable public or private entity to acquire small water companies, make needed improvements, and ensure adequate supply. The Water Infrastructure Protection Act or WIPA (N.J.S.A. 58:30-1 to -9) of 2015 further facilitated the take-over of small water systems by allowing distressed or failing municipally owned water/wastewater systems to be sold or leased to entities, bypassing voter referendums if “emergent conditions” exist.

This suite of legislation institutionalized long-term planning, which was considered a new concept to the eastern United States, which has generally been water rich. In 1982, the first Water Supply Plan was adopted and by mid-1985 the state was in another drought emergency.



Water Infrastructure

Water resources, including drinking and other in-home uses (e.g., bathing, cleaning), for the majority of residents, rely on an intricate infrastructure system (i.e., public water system) that sources, treats, and delivers safe water to end users. This involves collecting raw or untreated water from surface or groundwater sources, treating it to meet drinking water standards, and distributing it through service lines, known as a distribution system. Used water, known as wastewater, is either discharged locally into an approved groundwater discharge system or transported through a parallel infrastructure system (sanitary sewer collection) to a treatment facility where it's treated before returning it to the environment (surface or ground water). Additionally, other water users, such as agricultural and self-supplied industrial users, have their own but similar set of requirements and associated infrastructure.

Water resources are conveyed and distributed through pipes, pumps, and various facilities designed to treat and distribute drinking water or convey wastewater to be treated prior to being returned to surface or groundwater resources. Collectively this water infrastructure is vital to protecting public health and the environment. Although New Jersey had a significant amount of water infrastructure constructed decades earlier, many municipal utilities benefited from the federal government invested considerable resources through grants in water infrastructure throughout the 1970s. However, by the early 1980s, much of the state's existing infrastructure was falling into disrepair, which coincided with significant cuts in federal funding. As such, New Jersey could fund less than 6% of the state's priority projects.



In response to the decrease in federal funding the Wastewater Treatment Trust was formed in 1982. This was a precursor to the I-Bank, a critical partner in the New Jersey Water Bank. The Water Bank provides low-cost financing for the design, construction, and implementation of projects aimed at protecting and improving water quality, as well as ensuring safe and adequate drinking water for New Jersey residents. It finances projects using revenue bonds issued by the I-Bank and funds administered by DEP, including Federal State Revolving Fund (SRF) capitalization grants, state matching funds, loan repayments, state appropriations, and interest earned.

PROTECTING WATER

Various federal and state laws were enacted starting in the 1970s to regulate the quantity, quality and management of the state's water resources. These laws require that utilities providing drinking water or wastewater services to be compliant with health-based standards that are protective of public health and the environment. In order to ensure the proper operation and maintenance of water infrastructure, the New Jersey Legislature enacted the Water Supply and Wastewater Operators Licensing Act in 1983 (N.J.S.A. 58:11-64 to -73) requiring that the personnel operating those facilities were properly trained and qualified. That Act required that every wastewater, public water supply, and public water treatment system be operated and maintained by at least one licensed operator and established the criteria for that licensing program. Specifically, the Act authorized DEP to adopt rules to classify and reclassify licenses and systems, conduct examinations for licenses to operator systems, and structure a fee schedule and penalties for operating without a license.

Protecting Drinking Water

Public Water: Standards and Operation

Drinking water standards and the operation of water systems are governed by the federal Safe Drinking Water Act or SDWA (42 U.S.C. §§ 300f to 300j-27), which was passed in 1974 as one of many federal environmental laws. The goal of the SDWA is to protect the quality of the nation's drinking water and public health. The SDWA was amended, most notably in 1986, 1996, and 2018. The SDWA also authorizes grant programs to finance drinking water infrastructure projects, promote water system compliance, and control the underground injection of fluids to protect groundwater sources of drinking water. The SDWA established a framework whereby USEPA may delegate primary implementation and enforcement authority to states. States that have been delegated authority are granted "primacy" under this framework. New Jersey is one of 49 states that have been granted primacy.

Recognizing that state-level control and maintenance of high-quality drinking water to safeguard the health and welfare of New Jersey residents was in the best interest of the public, New Jersey assumed primary enforcement responsibility under the SDWA and subsequently passed the New Jersey Safe Drinking Water Act or NJSDWA (N.J.S.A. 58:12A-1 to -47) in 1977. The NJSDWA directed DEP to adopt and enforce its own state primary drinking water standards and regulations. DEP adopts federal standards by reference but may also adopt state standards that are more stringent.

In 1983, the state amended the NJSDWA to create a unique, science driven advisory body known as the Drinking Water Quality Institute (Institute). The Institute is a panel of experts tasked with making recommendations to DEP regarding their drinking water programs, including the development of drinking water standards. In 1986, the Legislature directed the Drinking Water Quality Institute and DEP to address contaminants in drinking water in several ways, including the development of monitoring schedules, setting enforceable standards, and continuing to research water quality issues. Since then, New Jersey has adopted 23 state drinking water standards or maximum contaminant levels (MCLs) that are either not regulated at the federal level or are federally regulated at a less stringent standard.

“DEP adopts federal standards by reference but may also adopt state standards that are more stringent.”

PROTECTING WATER AT THE SOURCE

With a focus on drinking water, in 1999, in accordance with the federal SDWA, New Jersey developed a Source Water Assessment Plan (SWAP). The SWAP incorporated the following:

1. Determination of the source water assessment area of each ground and surface water source of public drinking water.
2. An inventory of the potential contamination sources within the source water assessment area.
3. Determination of the public water system source's susceptibility to regulated contaminants.
4. Incorporation of public education and participation.

In 2004, source water assessment reports were completed for all public water systems in New Jersey. These reports identify the vulnerability of public water system sources to potential contamination. These assessments were performed in cooperation with the U.S. Geological Survey (USGS). This geospatial analysis included a review of potential or known sources of contamination in proximity distances of public drinking water supply receptors (i.e., wells and surface water intakes). These sources included agricultural land, landfills, and underground storage tanks. See Chapter 3, Land Resource Protection for more on watershed management for drinking water protection.

In more recent years, DEP has focused on source water protection by working with water systems and the interested public to ensure the accuracy of the earlier source water assessments, while simultaneously furthering source water protection initiatives through a focus on regionally based, watershed-scale solutions. DEP is currently working to revise the existing Source Water Assessment Program Plans to reflect a new strategy of regional stakeholder engagement, analysis, and prescription for watershed-scale water quality improvement actions to protect drinking water sources.



Private Wells

Not all drinking water is delivered through a public water system. In New Jersey, over 1 million residents are served by a private well. Private well owners are solely responsible for testing their water and taking corrective action like installing treatment when water is contaminated or exceeds health standards. To better protect these owners, New Jersey implemented the Private Well Testing Act or PWTA (N.J.S.A. 58:12A-26 to -37) in 2002. The PWTA is a consumer protection law which requires the well owner to provide buyers or lessees with test results specific contaminants. Certified testing labs must submit PWTA results to the DEP who then shares those results with local health officials. Approximately 25% of New Jersey's private wells have been tested because of the PWTA requirements.



Water Quality

In pursuit of clean and safe water, New Jersey has in all possible cases chosen to establish its own state-run programs. Many of these programs, while based on federal law, are built by and for New Jersey. Using the best available science to understand water quality across the state, DEP crafted permitting programs, and planning and funding initiatives to protect communities consistent with public expectation for clean and safe water resources.

Following World War II, increasing population and industrialization was negatively impacting water quality across the Nation. An environmental movement began and resulted in the enactment of several federal environmental laws, including an overhaul of the 1948 Federal Water Pollution Control Act, which is more commonly referred to as the Clean Water Act (CWA), in 1972. The CWA now required treatment for municipal and industrial wastewater before they could be discharged into waterways and increased federal assistance for municipal treatment plant construction. The 1972 law also enhanced enforcement and expanded the federal role while maintaining state responsibility for implementation.

Water Pollution Control

Shortly after the 1972 CWA, the County and Municipal Government Commission released a report entitled Water Quality Management: New Jersey's Vanishing Options that concluded that New Jersey needed “strong, comprehensive legislation on which to base a formal system for managing water quality issues.” Driven by the recommendations in the Commission’s report and other environmental events, New Jersey enacted the state’s Water Pollution Control Act (NJWPCA), N.J.S.A. 58:10A-1 et seq., in 1977. The NJWPCA authorizes DEP to regulate pollutant discharges into the state waters, set water quality standards for both point (pipe discharges) and nonpoint (stormwater runoff or faulty septic systems) pollution, and improve water infrastructure, reporting, and management. It also repealed the state’s existing water pollution laws dating as far back as 1882. The practical effect of the NJWPCA was for New Jersey to take over administration and enforcement of the CWA in New Jersey.

In 1982 the USEPA granted New Jersey the authority to implement Section 402 of the Clean Water Act, known as the National Pollution Discharge Elimination System (NPDES), to manage domestic and industrial wastewater discharges and stormwater runoff into surface waters. Since 1983, New Jersey has been issuing New Jersey Pollution Discharge Elimination System (NJPDES) permits with requirements that ensure proper treatment before wastewater, sewage, stormwater, and certain remediation dewatering are returned to the environment. NJPDES permits cover a wide range of permitted facilities that may discharge to surface or groundwaters of the state, including but not limited to industrial, large publicly owned treatment works, and smaller systems serving farms or apartment complexes. To ensure compliance with NJPDES permits, DEP routinely inspects permitted facilities, provides compliance assistance, and issues enforcement actions when necessary.

Stormwater discharges regulated under the NJPDES program involve runoff from impervious surfaces like pavements and parking lots. Regulation of these types of discharges, including from industrial, municipal and public complex facilities, are discussed in detail in Chapter 3, Land Resource Protection.



New Jersey also issues NJPDES permits for combined sewer overflows. Across the nation, in the oldest cities, there are wastewater collection systems that combine sanitary sewer and stormwater flows. Known as combined sewer systems, these outdated structures can discharge untreated sewage during high flow rain events. In 1994, the USEPA established the Combined Sewer Overflow (CSO) Control Policy, with the goal of reducing or eliminating CSO discharges to meet CWA requirements. The Policy provides a mandatory framework for how municipalities with combined systems must address overflows of raw sewage and stormwater into waterways. The Policy required immediate Nine Minimum Controls (NMCs), which include low-cost measures like better maintenance, public notification, and operational adjustments. The Policy also required development of site-specific Long-Term Control Plans (LTCPs) designed to address combined sewers through infrastructure and management strategies. LTCPs must also consider financial capabilities and public input and set forth a phased implementation schedule. New Jersey issued individual NJPDES permits for 209 CSO outfalls in 21 municipalities in 2015 that required implementation of the NMCs and development and submission of LTCPs. The LTCPs were submitted to DEP in 2020 for review and new final permits based on the information in the LTCPs were issued from 2022 to 2025 to replace the 2015 permits.



Monitoring Water Resources

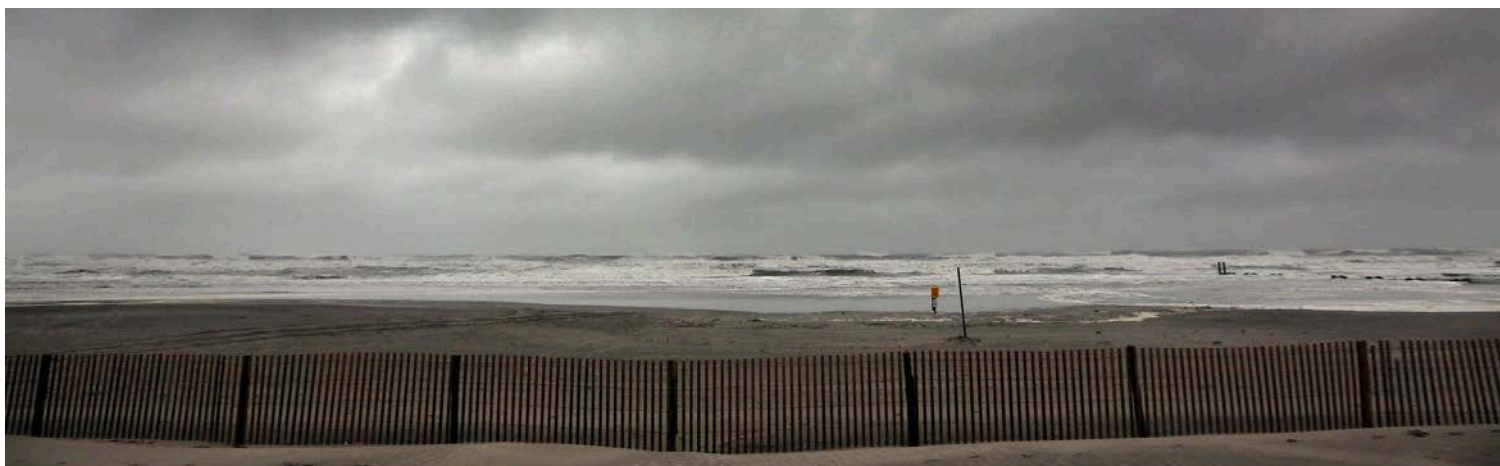
New Jersey has a comprehensive water monitoring network that includes fixed and random stations that track the status of surface and groundwater quality statewide and assess compliance with state and federal health-based standards to ensure the State's waters are safe for all types of uses, including drinking, recreation (swimming and fishing), aquatic life, shellfish consumption, and industrial usage. DEP conducts biological monitoring (macroinvertebrates, fish, and fish tissue), chemical/physical monitoring (surface water, lakes, and groundwater) and bacteriological monitoring (for seasonal recreational uses and shellfish consumption).

PROTECTING WATER

Established in 1976 to meet the requirements of the CWA and Section 106 of the USEPA's Water Control Pollution Control Grants mandate, New Jersey's Ambient Surface Water Quality Monitoring Network (Ambient Surface Network) began as a cooperative network with the USGS New Jersey Water Science Center. The network monitors rivers and streams using fixed and random stations throughout New Jersey's 20 Watershed Management Areas. The water sampling data collected quarterly is used to determine statewide water quality status and trends, and define the quality of water areas across the state. Sampling parameters include nutrients, pesticides, trace metals and PFAS and other contaminants of emerging concern when appropriate. The scope of the network has evolved over the years with the number of monitoring stations fluctuating based on data needs. Most recently (2022) the USGS/DEP cooperative version of the network included 123 stations (73 fixed, long-term stations and 50 short-term random stations). In 2023, DEP began the sole operation of this network. Notably, this operational change saves DEP approximately \$500,000 annually. DEP continues to partner with the USGS New Jersey Water Science Center, the NJWSA, and the DRBC for special projects and other collaborations.

Biological Monitoring is also used to assess the status of designated uses in state waters as required by the Clean Water Act (CWA) Section 305(b) (33 U.S.C. § 1315(b)). These programs include fish community, fish tissue, and macroinvertebrate monitoring as well as the newly developed, Environmental DNA (eDNA).

To compliment the Ambient Surface Water Quality Network, in 1989 the DEP established the Coastal Water Quality Network to provide water quality information for assessing the ecological health of New Jersey's coastal waters. The network stations have evolved overtime, starting with 200 stations sampled quarterly, to the current network of 40 stations sampled 5-10 times per year. DEP also implements the Barnegat Bay Long Term Monitoring network that consists of 30 monitoring stations that are sampled 20 times per year, to assess the health of the Barnegat Bay watershed and to monitor the effectiveness of nutrient reduction and restoration projects on improving water quality, that are funded throughout the watershed.



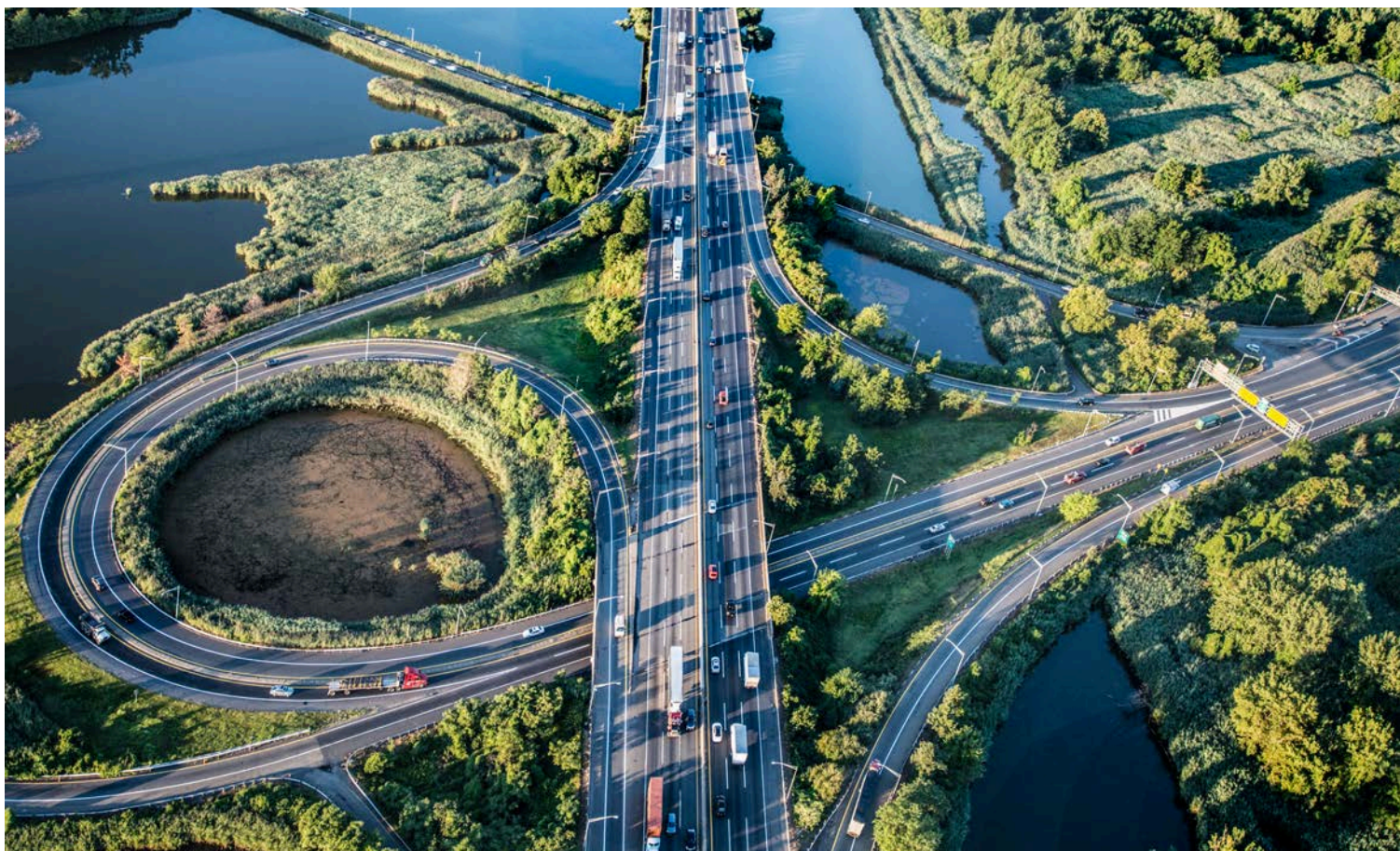
In 2002 DEP started the Real-time Continuous Water Quality Monitoring Network starting with 4 water quality monitoring buoys placed in Coastal Bays in Atlantic County. The continuous system has expanded and consists of 8 DEP marine water systems, 3 Barnegat Bay Partnership operated systems, and 12 DEP freshwater systems.

Since the 1970's, DEP has administered the National Shellfish Sanitation Program sampling network. This network consists of over 1,200 sampling stations sampled 5-10 times per year and tested for bacterial pathogens. Results are used to classify shellfish harvest waters to identify where it is safe to harvest shellfish for human consumption and supplies data for as long-term water quality bacterial indicator.

PROTECTING WATER

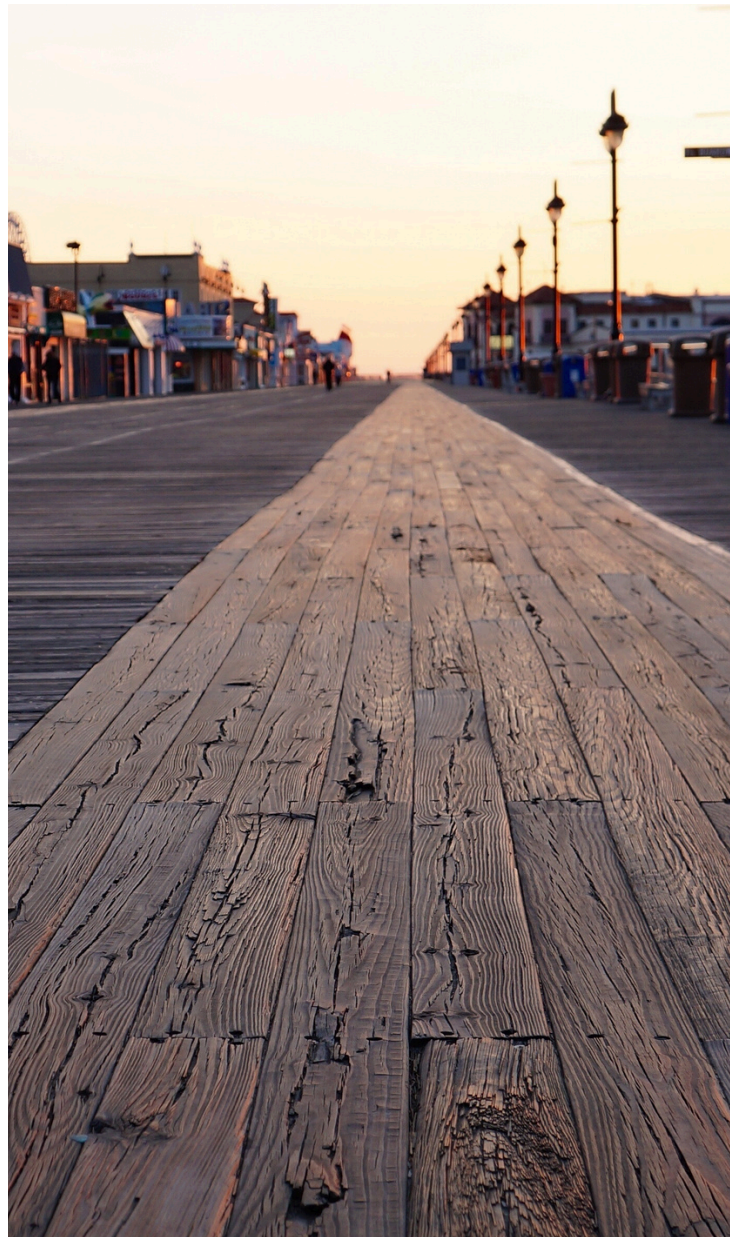
A similar groundwater monitoring network was established in 1983 and remain an ongoing partnership between DEP and USGS. The network was redesigned in 1999 to create the Ambient Groundwater Quality Monitoring Network that is designed to characterize the status of groundwater quality at or near the water table as a function of land use using 150 shallow wells distributed throughout the state that represent various land-use types. Groundwater samples collected over a 3-year period are examined to determine the concentrations of various constituents used as environmental indicators and to assess water quality trends, determine the effects of land use on shallow groundwater quality, and identify nonpoint sources of contamination and contaminants of emerging concern.

DEP uses the data collected from its networks, as well as monitoring data from a diverse group of partners, to inform the New Jersey Integrated Water Quality Assessment Report or Integrated Report. This biennial report assesses the health of the state's waters as required under sections 303(d) and 305(b) of the federal Clean Water Act, the NJ Water Quality Planning Act, and the NJ Water Pollution Control Act. The Integrated Report is a compilation of information and assessment of statewide water quality that identifies and prioritizes waters for protection, restoration, and additional monitoring or research. The Integrated Report covers over 19,000 miles of rivers and streams, 48,000 acres of lakes, ponds, and reservoirs, 950,000 acres of wetlands, 610 square miles of estuaries, 127 miles of coastline, and 450 square miles of ocean. The Integrated Report also establishes the (303(d) list) of impaired water bodies and identifies pollutant causes of impairments. The Integrated Report thus serves as an effective tool for enhancing, maintaining, and restoring water quality in all surface waters of the state to support their use for aquatic life, recreation, water supply, fish consumption, and shellfish harvest for consumption. Each report also includes an intensive assessment of one of New Jersey's five water regions (Atlantic Coastal, Raritan, Lower Delaware, Upper Delaware and Northeast) on a rotating basis.



BEACH MONITORING

Local health departments, in partnership with DEP, monitor recreational beach water quality from mid-May to mid-September. Each week water quality monitoring is conducted along the coast of New Jersey. In 2025, 216 beaches (191 ocean, 18 bay, and 7 river stations) were monitored. These numbers can change slightly each year based on a beach's opening status that may be unrelated to water quality (e.g. lack of lifeguard resources). The new and improved [Beach Monitoring website](#) includes a one-stop shop of information on current beach status, water quality sample results, reports of beach advisories and beach closings, information on other events that affect beaches, and daily updates from DEP's coastal surveillance flights which are conducted six days per week during the beach season (weather permitting). Data including bacteriological and harmful algal bloom (HAB) advisories was recently added to the Freshwater Beach Monitoring Program.



Water Quality Standards

DEP's Surface Water Quality Standards (SWQS) establish the policies, surface water classifications, and standards or criteria necessary to protect the quality of New Jersey's surface waters. SWQS are developed for different designated uses, including aquatic life general, aquatic life trout, primary and secondary contact recreation, drinking water supply, shellfish harvesting, and fish consumption. SWQS address various issues including antidegradation, designations, toxic substances, nutrients, and mixing zones. The SWQS also include procedures for establishing and modifying water quality-based effluent limitations for point source pollution discharges under NJPDES, issuing water quality standards variances, and reclassifying specific waterbody segments.

When SWQS are exceeded, a waterbody is considered impaired and listed on the 303(d) list, which is published biennially. The CWA requires states to address impaired waters by calculating a "pollutant diet" or Total Maximum Daily Load (TMDL) for impaired waterways. A TMDL is the maximum amount (i.e., load) of a pollutant that a water body can receive while still meeting SWQS and protecting designated uses. SWQS are implemented primarily through the issuance of NJPDES permits which establish limitations and requirements for the discharge of pollutants into waters of the State. SWQS are also implemented through other DEP regulatory programs, including Contaminated Site Remediation and Redevelopment.

Ground Water Quality Standards (GWQS) are the policies, classifications, and water quality standards or criteria that DEP has determined are necessary to maintain, restore, and enhance the quality of New Jersey's groundwater. GWQS establish classes of groundwater according to the hydrogeologic characteristics of the groundwater resource and the designated use(s) (e.g., drinking water supply, maintenance of special ecological resources, etc.) within each classification area. GWQS also establish water quality criteria, the level to which toxic substances can be reliably detected, known as the practical quantitation level (PQL), and antidegradation policies to protect the designated uses.

GWQS are implemented primarily through the NJPDES discharge to groundwater permit program and the Contaminated Site Remediation and Redevelopment Program. The actual groundwater classification, criteria, and GWQS that apply to a proposed activity (e.g., a new/expanded discharge to ground water or remediation of a contaminated site) are determined on a case-by-case, site-specific basis pursuant to the applicable regulatory program.

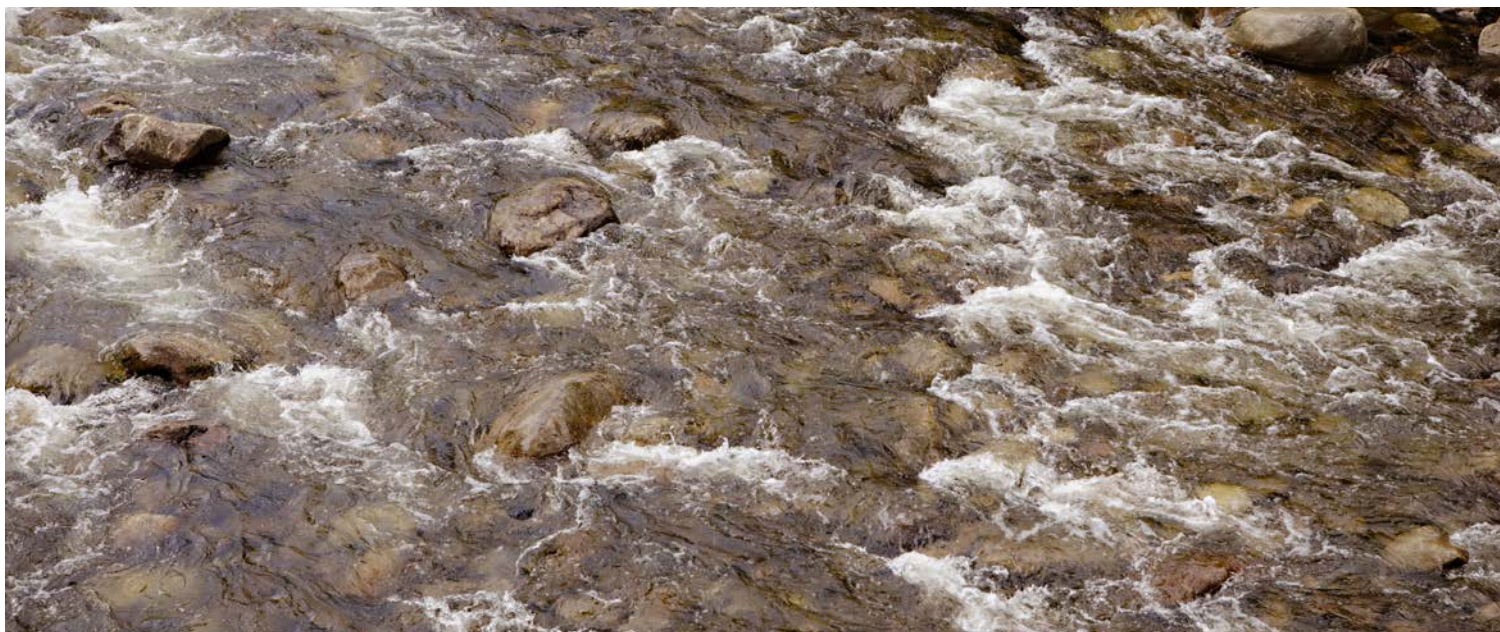


Water Quality Planning

With the passage of the CWA and subsequent state legislative enactments, New Jersey made significant progress in protecting and restoring the physical, chemical, and biological integrity of the state's waters. Much of that progress was attributable to efforts to control pollution from industrial and municipal wastewater treatment facilities under NJPDES permit programs. However, persistent problems remained, including nonpoint source pollution, headwaters destruction, failing or poorly maintained septic systems, air deposition of pollutants to waterways, and habitat degradation.

The New Jersey Water Quality Planning Act (N.J.S.A. 58:11A-1 to -16) was enacted in 1977 to establish New Jersey's framework for managing and protecting water quality as required under the federal CWA. The New Jersey Act acknowledged that the severity of the state's water pollution problems necessitated continuing water quality management planning to develop and implement water quality programs in concert with other social and economic objectives. This Act further noted that New Jersey's pollution abatement programs should consider natural and human-made conditions that influence water quality differently among and within watersheds and other regions of New Jersey, such as topography, hydrology, population concentration, industrial and commercial development, agriculture uses, and transportation. The Act gave the governor authority to establish areawide waste treatment planning areas overseen by designated planning agencies that were tasked with developing areawide management plans (formally known as 208 plans) consistent with the statewide continuing planning process required by the CWA.

Consistent with the NJ Water Quality Planning Act and the federal CWA, in 1985, DEP issued the first Statewide Water Quality Management Plan. This plan established the "foundation for unifying three, past and present, water quality and wastewater facilities planning programs into cohesive statewide program." The three programs referred to were wastewater facility planning (CWA section 201, pertaining to funding for treatment works facilities), basin planning (CWA section 303 (e), focused on point sources) and areawide planning (section 208, nonpoint sources). This comprehensive plan would address point and nonpoint source pollution through regulation and continuous planning contained strategies to address surface water quality, shellfish, protection of trout, lakes restoration and management, integration of drinking water supply, and acid producing geology.



PROTECTING WATER

In 1989, DEP adopted the Water Quality Management Planning (WQMP) rules to implement the requirements of the federal CWA and New Jersey Water Quality Planning Act. The state's WQMP rules were intended to integrate the various federal and state statutes into a comprehensive and continuing water quality management planning process designed to restore, maintain, and enhance, wherever possible attainable, water quality, water quantity, and ecosystem health. To that end, the WQMP rules served several basic functions. The rules established a general regulatory framework for areawide and statewide continuing planning activities, and complemented and supplemented other DEP rules pertaining to wastewater management, including but not limited to NJPDES (N.J.A.C. 7:14A), the Standards for Individual Subsurface Sewage Disposal Systems (N.J.A.C. 7:9A), the Surface Water Quality Standards (N.J.A.C. 7:9B), the Ground Water Quality Standards (N.J.A.C. 7:9C), and the Financial Assistance Programs for Environmental Facilities (N.J.A.C. 7:22). The WQMP rules also provided the basis for the development, rank, adoption, and modification of the "water quality limit surface waterbodies" listing (303(d) List) and addressed the development and adoption of TMDLs for water quality limited surface waterbodies identified through the List of Water Quality Limited Segments (water body segments like streams and rivers that do not meet water quality standards for certain pollutants). The WQMP rules addressed the density of individual subsurface sewage disposal systems (commonly referred to as septic systems). Finally, these rules establish a grant program to assist watershed management groups in carrying out watershed management activities, pursuant to the Watershed Protection and Management Act of 1997 (N.J.S.A. 58:29-1 to -8).

Over time DEP has reshaped the WQMP rules to align state planning efforts across various programs. Amendments in 2007 were intended to ensure that local planning agencies had up-to-date areawide plans that met the conditions of significant federal grants that were used to fund construction of wastewater system infrastructure across New Jersey. In 2011, the Legislature intervened to change the manner in which DEP could ensure updated plans and issue amendments to older plans. DEP promulgated rules accordingly in 2015 and significantly shifted the program's primary function from long range planning to site specific amendment-driven review.



The State of Water

The state of water in New Jersey is strong because DEP and its partners across the state have invested in science to develop standards and policies development to address pollution and manage the resources to ensure sustainable supplies are available for generations to come. Long-term water quality trends indicate that New Jersey has made strong progress, but a low percentage of waters that attain aquatic life use is a concern and new environmental and public health stressors continue to emerge. Extreme rainfall and heat and other climate impacts, as well as contamination from per- and polyfluoroalkyl substances (PFAS) and microplastics, and aging infrastructure, require a forward-looking and science-based approach. Building capacity at the local level to address these and other emerging challenges, fostering and expanding partnerships, and public education are necessary to continue to make progress.

Managing Water Supply

On September 23, 2024, DEP released the latest revisions to the Statewide Water Supply Plan, presenting updated water supply data, and adding several new points of analysis, including emerging water quality concerns and impacts from climate change. The Plan was updated to reflect the most current and best available science and concludes that, under normal conditions and in most regions, the state has sufficient quantities of water to meet current and reasonably anticipated future needs. Water supply planning or management strategies are not a one-size fits all approach. Water resources vary significantly by watershed and region; each has a unique set of stresses and issues that require specific planning approaches. As a result, the Plan identified various regions where there is a need for more detailed, regional analyses and responses or where specific water allocation restrictions are warranted.

While New Jersey is well-positioned to address its water supply challenges, the continued availability of water resources and their readiness for use is dependent upon intentional and consistent actions to conserve, bolster, and actively manage public and private water supplies, and to better quantify the evolving risks associated with climate change. In short, together with the multitude of water supply managers and water system owners, DEP must undertake continuous actions to mitigate the risks of climate change, aging infrastructure, and emerging contaminants.

Unlike the Water Supply Plan, DEP's water supply allocation permit rules, which establish privileges to divert water and govern the management of water quantity and quality, the issuance of permits as well as the handling of drought warnings, water emergencies, and water quality emergencies, have not been significantly revised since 1995. In the intervening years, there have been a number of laws enacted, updated science and technology, as well as policy priorities (e.g. climate change) that are not reflected in the current rules.



Next Steps

DEP has identified a series of priority actions in the [2024 Statewide Water Supply Plan](#). A subset of those priorities include that DEP must continue to expand its drought monitoring capability to address the state's changing climate, including the increased occurrence of so-called flash droughts, and proactively manage droughts when they do occur to shorten and lessen their impact. DEP must maintain and expand the raw and drinking water distribution infrastructure to ensure that communities have access to drinking water during droughts and water supply emergencies, such as broken water mains. DEP must work with the public to modernize the water allocation rules and keep the Water Supply Plan current. Beginning with stakeholder engagement, DEP should solicit input on key allocation rule amendments that would streamline processes, incorporate new data, including climate science, and modernize drought management procedures and adopt new rules in short order. Consistent with the requirements of the Water Supply Management Act, the Plan should also be revised and updated by 2027. However, the new dynamic format of the Plan allows for the update of individual components on an ongoing basis, ultimately resulting in a living document, many of which are included in a related [StoryMap](#).

Safeguarding Drinking Water

Drinking water is fundamental to our lives, our health, our environment, and our economy. Our dependence on water is unifying. Drinking water is often the significant exposure of a contaminant because it is part of our daily routine. Accordingly, the protection of drinking water, for people served by water systems and for those drinking from privately owned wells, is a high priority for DEP.

A comprehensive drinking water supply program is attentive not only to matters of water supply management as indicated above but also to the development of science-based and health-protective drinking water standards that are technically feasible. For water systems, this also includes the development of treatment techniques, where appropriate, sampling protocols, and, of course, diligent attention to operation and maintenance, which includes staff training, system resilience and security, and financial capacity. As required by the set of federal and state laws governing drinking water and private wells, DEP is tasked with the implementation of a drinking water program that includes all of these considerations. Over the past eight years, DEP has continued to lead the nation by responding to emerging issues with innovative solutions and state regulations based on the best available science.



Getting the Lead Out

Drinking water became the focus across the Nation when stories about lead contaminated drinking water made the news. In New Jersey, a reexamination of the federal rules adopted by reference in New Jersey governing lead in drinking water was already underway. As early as 2017, DEP was revisiting the way that systems sample for lead to ensure that sampling was representative and balanced when Newark schools reported an anomalous and concerning result. New Jersey acted swiftly to mandate testing through New Jersey Board of Education rules, with technical support from DEP and the drinking water community. DEP developed accessible sampling guidance, templates, and protocols to better protect from lead in drinking water and worked with the New Jersey Chapter of the American Water Works Association to train school district staff from across the state. Later, when an issue with corrosion control became apparent in one portion of Newark's water system, DEP worked closely with the City, their contractor and the USEPA to notify the public, deploy solutions, and address water chemistry causing the underlying issue.

A fundamental component to addressing lead in drinking water is understanding the components and materials of a water system's infrastructure/distribution system, including a complete and accurate inventory of service line materials. DEP began requesting lead service line counts as early as 2018, many water systems needed additional work to fully develop service line inventories.

In 2021 amendments to the New Jersey Safe Drinking Water Act, New Jersey's Lead Service Line Replacement or LSL law, (N.J.S.A. 58:12A-26 to -470), requires community water systems to identify and replace all lead service lines in their distribution systems by 2031. The LSL law includes requirements for community water systems to develop and post inventories on their websites, notify property owners, tenants, and non-paying consumers served by lead service lines, and provides funding pathways for lead service line replacement projects.



PROTECTING WATER

The need for financial and technical assistance and partnerships is key to achieving the goal of full replacement in the state. In 2023, DEP launched the New Jersey Technical Assistance Program (NJTAP). NJTAP provides technical assistance through third party providers who will give direct assistance to qualifying facilities. Since 2021, community water systems (CWS) have replaced 50,956 service lines. CWS identified the material of 628,314 previously unknown service lines.

Reflecting New Jersey's commitment to data accessibility, DEP, in partnership with the New Jersey Department of Health and the New Jersey Department of Community Affairs launched the [Potential Lead Exposure Mapping Tool or PLEM](#) in 2021. This tool helps the public, local health officers, and community groups better understand where children and adults may be at risk for lead exposure across the state by displaying data like age of housing stock. The data available on this map continues to expand. In 2024, a new map layer showing community water provider lead service line replacement inventories was added to PLEM to indicate potential lead exposure from drinking water and provide consumers with information about replacement progress. As systems update inventories, the LSL information in PLEM will expand and become more granular.

Next Steps

Most recently, New Jersey's unique understanding of the issues with the federal Lead and Copper rule, which originated in the 1990s, combined with the passage of the New Jersey LSL Law in 2021, led the DEP to develop the New Jersey Lead and Copper rule. This rule, which DEP expects to propose in early 2026, requires corrosion control on all systems, unless robust data can demonstrate that such measures are not required, and reflects the legal requirement to eliminate lead service lines by 2031 established in the New Jersey LSL law. The proposal will reflect years of stakeholder meetings and incorporate elements of the federal Revised Lead and Copper Rule that systems began complying with in 2024.

In early 2026, DEP will also publish a new tool that allows for more consistent quality submissions of lead sampling plans by water systems. This tool will also ensure that sample sites can be data managed in a singular database, allowing DEP to evaluate all sample sites, regardless of rule, in a holistic fashion.



Northeast Water Supply Resilience and Uncovered Finished Water Reservoirs

Uncovered water reservoirs are large, open-air basins used to store finished water for municipal drinking supplies, that are exposed and vulnerable to recontamination from birds, animals, insects, human activity, debris, algae growth, and air deposition. In addition, security measures must be closely evaluated to protect against contamination of the drinking water from human interaction. Finally, climate impacts like flooding from more frequent storms and increased precipitation events could inundate uncovered reservoirs, contaminating the water source. This was precisely the case in 2022 when the Passaic Valley Water Commission's (PVWC) New Street reservoir was inundated with untreated runoff from the remnants of Hurricane Ida, requiring a multi-week boil-water advisory.

Historically, uncovered water reservoirs were built because they were the most cost-effective way to store massive amounts of water for firefighting and to balance water supplies. In 2006, USEPA adopted rules designed to reduce illnesses caused by pathogens in drinking water, including requirements to reduce risks from uncovered finished water storage facilities. Specifically, the rule required that these storage facilities be either covered or their discharge treated prior to distribution to consumers by April 1, 2009.



There are five uncovered finished water reservoirs in New Jersey, four of which are located in the Northeast Region of the State. Since 2009, New Jersey has taken numerous steps to bring these reservoirs into compliance with the Federal rule and address the associated health risks to consumers.

Most recently, PVWC reached a significant milestone in this effort by taking the Levine reservoir out of service as part of multi-year project to construct concrete tanks within the reservoir's footprint. Upon the anticipated completion of this project in 2027, PVWC will move forward with the next phases to address the New Street and Great Notch reservoirs. PVWC is also working collaboratively with Newark Water Department to coordinate timing of this effort in conjunction with Newark's plans for the Cedar Grove reservoir so that the Northeast Region is not left vulnerable to supply issues while construction is ongoing. Due to the challenges of addressing these key reservoirs, combined with aging infrastructure in the Northeast as a whole, DEP is continuing its Northeast Resilience initiative, which is intended to ensure storage requirements by all utilities, particularly in that region, are met, to mitigate the loss of water service during emergency events. DEP continues to work with Trenton Water Works on that utility's replacement plan for the Pennington reservoir, which supplies Trenton and surrounding towns.

Next Steps

This complex issue remains a key priority for DEP. The extreme loss of reservoir storage is a concern that must be addressed. Solutions must balance public health, improved water system resilience, increased regional storage, evaluation of the potential for additional water/interbasin transfers, and construction of new interconnections between water systems.

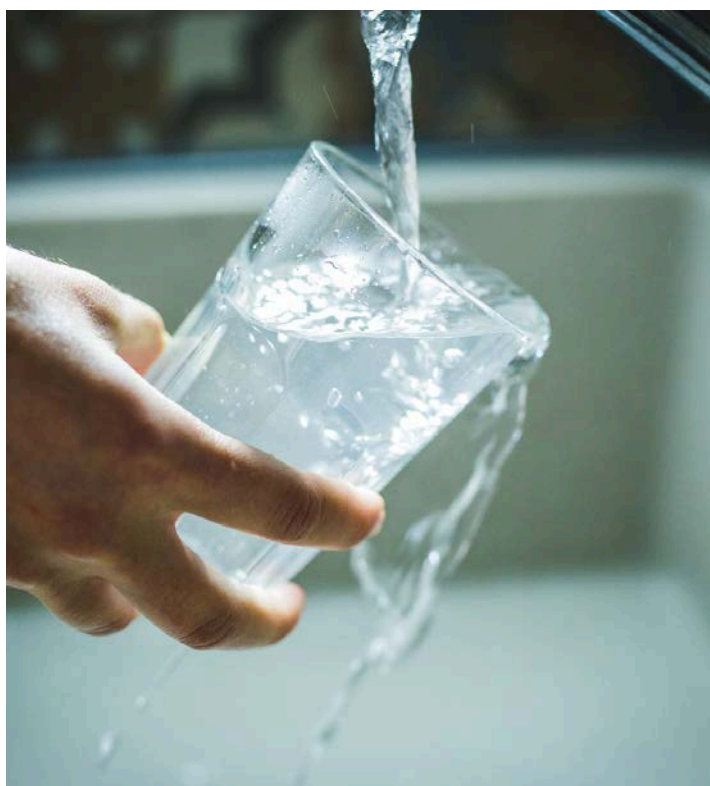
Drinking Water Science Agenda

DEP conducts, funds, and collaborates on a wide variety of water research topics, including those related to drinking water. By supporting expert boards and commissions such as the Drinking Water Quality Institute, New Jersey One Health Task Force, and the Science Advisory Board, and collaborating with academic institutions and other agencies and partners, DEP has expanded the water science agenda. This research supports DEP efforts to address water-related impacts from climate change, water quality issues and drinking water contaminants such as lead and corrosion control. This work is particularly important with respect to contaminants of emerging concern, like PFAS, 1,4-dioxane, cyanotoxins, and microplastics.

To best understand human health impacts from exposure to known and emerging contaminants, DEP scientists regularly assist programs in the development of human health-based criteria for drinking water, groundwater quality, surface water quality, and soil clean-up standards. DEP scientists also assess chemical hazard potential and exposure guidance, evaluate pathogen occurrence in drinking and source waters, and identify the latest analytical methods capable of achieving the necessary sensitivity to be health protective.

DEP has recently focused on PFAS, mainly understanding sources, treatment options, and human-health implications. PFAS are a large class of chemicals that are extremely persistent in the environment, and many have links to various human health problems. Recent completed studies include surveys of surface water, stream sediments, and fish tissue at waterbodies potentially impacted by PFAS and at sites with higher likelihoods of occurrence. Results from these surveys increased DEP's understanding of how PFAS partition in the environment and where drinking water sources may be impacted. Additionally, two technologies, an electrochemical-based treatment and a plasma-based approach, were evaluated to determine their abilities to destroy and remove PFAS and 1,4 Dioxane from water rather than simply filter them. Understanding the removal efficiencies of wastewater treatment plants aids in the understanding of drinking water source vulnerabilities in a complicated cycle of water use and reuse.

The analysis of cyanotoxins, produced by harmful algal blooms also present a key challenge, particularly for drinking water supply. Because available toxicological data for microcystin, the most commonly observed cyanotoxin in New Jersey, indicated that adverse health impacts could occur below the detection levels of known analytical techniques, DEP conducted a study with laboratories and utilities across the state. The results provided essential findings, not only for DEP to understand the technical limitations in characterizing this unique category of emerging contaminants, but also for the NJ Drinking Water Quality Institute in finalizing its recommendations for DEP to set drinking water quality standards for water utilities in its regulatory capacity. These recommendations will inform DEP development of a regulatory framework for vulnerable water systems to mitigate the risks associated with cyanotoxins in drinking water.



Microplastics, including the even smaller group of nanoplastics, pose special concerns to water quality due to their suspected overall prevalence and their ability to accumulate and persist in the environment. The potential risks microplastics pose to human health are currently the subject of extensive research. Physically, their size and shape can lead to cellular and tissue damage, while chemically, they may carry hazardous additives. Various toxic chemicals can attach to these particles, presenting a significant risk to human and environmental health. For example, they can accumulate and transport harmful substances like bisphenol A (BPA), phthalates, PFAS, pesticides, and heavy metals. Accordingly, in late 2025 New Jersey led a coalition of seven states to sign a [petition](#) to USEPA requesting nationwide monitoring of drinking water supplies for microplastics, with the goal of better understanding their occurrence in drinking water supplies.

In addition, DEP is responding to a variety of questions posed by the Legislature through [P.L.2023, c.318](#) that focus on identifying and testing microplastics in drinking water and understanding of microplastics removal technologies. An ongoing collaborative research project continues with Rutgers University to document the removal and rates of microplastic generation during treatment at three New Jersey wastewater treatment plants.

Next Steps

Research initiatives should continue to improve understanding of contaminant occurrence and likely sources, behavior, and potential impacts on human health, allowing for the development of proactive measures to address these emerging challenges. DEP should continue to evaluate pathways for testing of emerging contaminants. Efforts should also focus on the identification and evaluation of efficient and innovative water treatment (remove and/or destruction) processes for various contaminants of emerging concern in drinking water and wastewater.

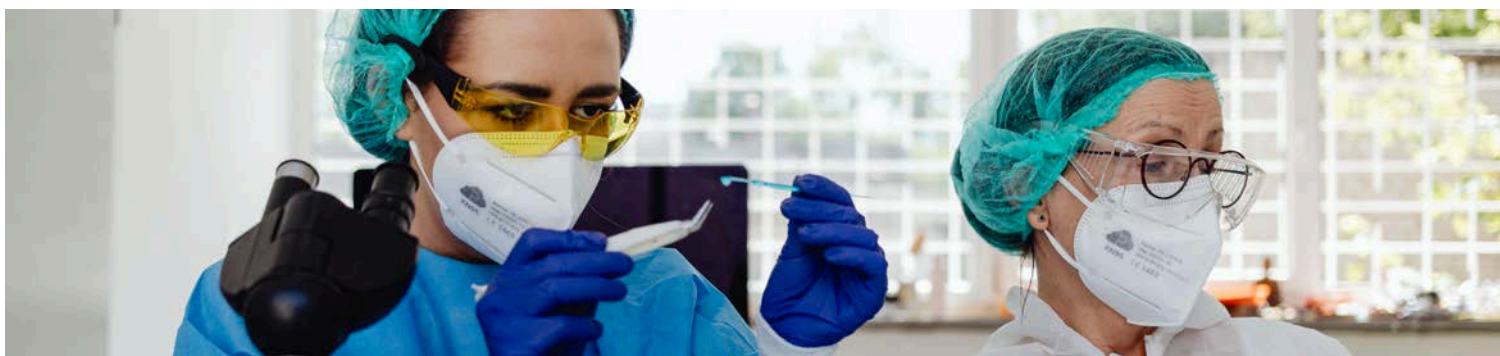


Updating Standards

Over the last eight years DEP continued the proud history of studying and addressing emerging drinking water issues with well-researched policy. Working with academic and federal partners, scientists within the DEP, the Science Advisory Board, and the Drinking Water Quality Institute, DEP develops standards based on sound science.

In 2018, New Jersey adopted amendments to the state SDWA and PWTA rules to better protect public health. The adopted rules extended monitoring requirements for radionuclides for certain non-transient non-community water systems, smaller water systems (e.g., schools, hospitals, daycares). While the USEPA deferred regulatory action for these systems based on costs on a cost basis, DEP noted that these systems serve already vulnerable populations that could be further exposed to these carcinogens on a long-term basis.

In addition, as part of these amendments DEP established an MCL for 1,2,3-trichloropropane (1,2,3-TCP), a potent carcinogen, and New Jersey became the first state to adopt a drinking water standard for any PFAS, setting an MCL for perfluorononanoic acid (PFNA). PFAS are a large class of chemicals that are extremely persistent in the environment, and many have been linked to various health problems in people. In 2020, DEP adopted health-based MCLs for two more PFAS, perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS), found throughout New Jersey. New Jersey's MCLs are based on recommendations made by the Institute.



Addressing PFAS

On April 10, 2024, USEPA adopted new federal MCLs for six PFAS (i.e., PFOA, PFOS, PFHxS, GenX Chemicals, PFNA and PFBS). In adopting these MCLs, USEPA incorporated the most recent science. On May 14, 2025, USEPA announced that while it will retain the MCLs for PFOA and PFOS with a delayed implementation timeline, they intend to rescind and reconsider the rules relating to PFHxS, PFNA, HFPO-DA (commonly known as GenX), and the Hazard Index mixture of these three PFAS plus PFBS.

DEP is moving forward with implementation of initial monitoring requirements for water systems according to adopted federal rule while simultaneously continual enforcement of the state MCLs. As the federal government amends their PFAS rules, DEP will continue to work with the Institute to ensure that the standards implemented in New Jersey are based on current science and health protective as required under the NJSDWA. On May 28, 2025, DEP asked the Institute to undertake a prompt and thorough evaluation of the health effects, analytical methods, and best available treatment options for all six PFAS for which USEPA established federal MCLs as of April 10, 2024. The purpose of this evaluation is to inform potential revisions to the state MCLs for PFOA, PFOS, and PFNA and the potential establishment of state MCLs for PFHxS, HFPODA (GenX), and PFBS and for their inclusion as parameters under the PWTA.

Finally, New Jersey, like other states around the nation, such as California, is exploring the idea of regulating PFAS differently. The chemical-by-chemical model that has resulted in many protective New Jersey standards seems infeasible to address the thousands of PFAS contaminants. On January 16, 2024, P.L.2023, c.279 directed DEP, in consultation with the Institute, to conduct “assessment of the feasibility of establishing a maximum contaminant level or other standard for the entire class, or for certain subclasses or mixtures” of PFAS. DEP will issue a report to document its findings in 2026.

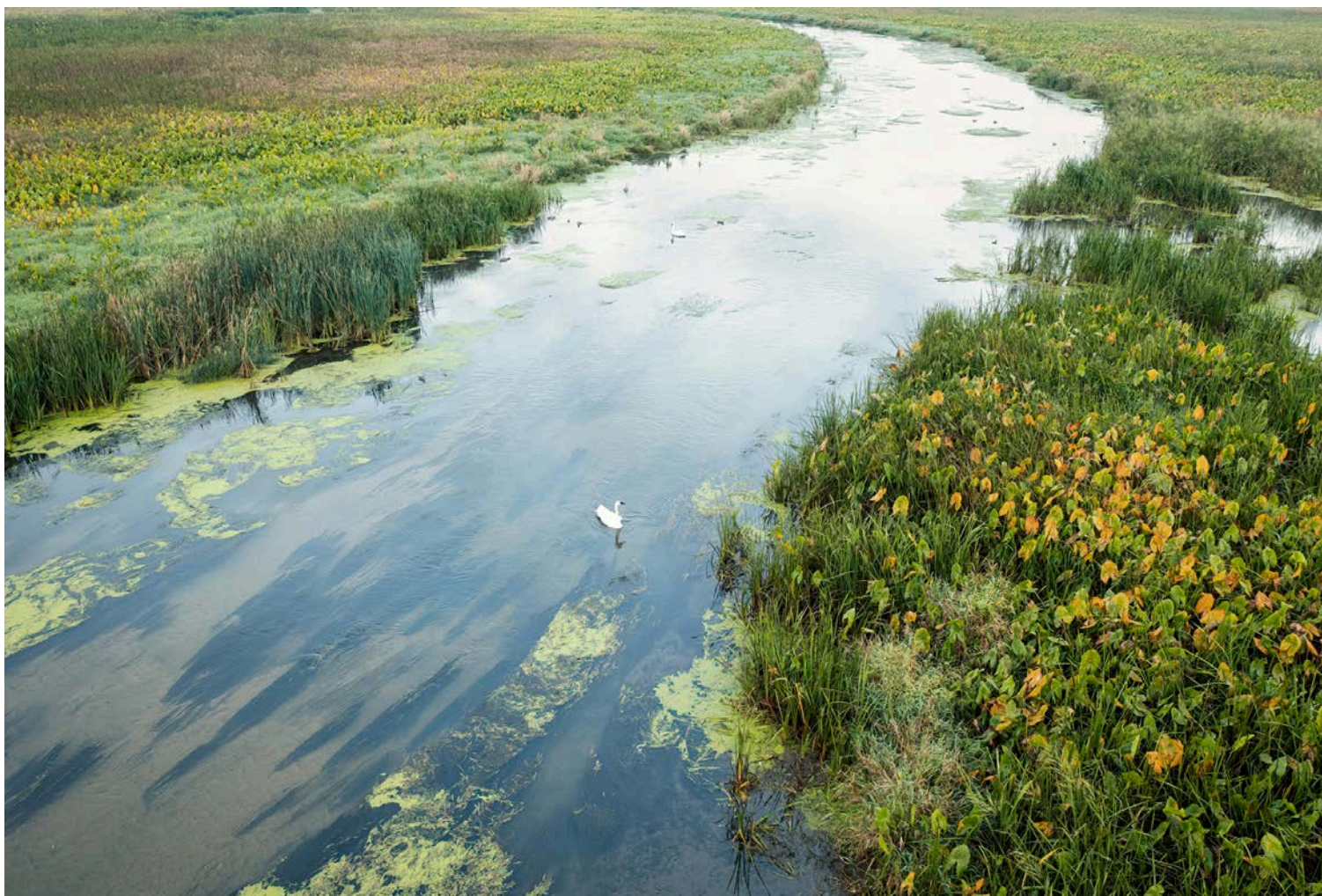
1, 4-dioxane

1,4-dioxane is a synthetic chemical used as a solvent in products such as adhesives, resins, oils and waxes, and wood pulping, and was formerly used as a stabilizer for chlorinated organic solvents. 1,4-dioxane is also used in the manufacture of pharmaceuticals, certain plastics and rubber, and other products, and in personal care products like detergents and cosmetics. Significant exposure to 1,4-dioxane is not known to occur during showering or bathing, as the chemical is not absorbed through the skin and does not vaporize significantly into the air from drinking water. However, 1,4-dioxane may pose a threat to human health if ingested in sufficient amounts, making it a concern for drinking water supplies. DEP adopted a GWQS for 1,4-dioxane in 2018 and private well owners may be eligible for financial assistance under the New Jersey Spill Compensation Fund, but there is no drinking water standard at this time. The Institute finalized and submitted a recommendation for a 1,4-dioxane MCL to DEP in the summer of 2021, which the Commissioner accepted. The treatment technology that removes 1,4-dioxane is complex and only proven effective on a large scale. Additional research and piloting is needed to identify a realistic treatment option for small systems and private wells with 1,4-dioxane. Additionally, operation of existing treatment technologies requires a higher-level licensed water operator to oversee operation. This poses significant challenges due to the aging licensed operator workforce and pending loss of institutional expertise to operate this complex treatment in a manner that safeguards consumers. DEP has begun to hold focus groups related to 1,4 Dioxane to support development of an appropriate regulatory pathway, which will continue in 2026. To enhance the understanding of 1,4 Dioxane throughout the state, DEP is collecting additional 1,4 Dioxane data from drinking water systems and included it in ambient groundwater and surface water monitoring networks.



Legionella

Legionella is a family of naturally occurring bacteria found in freshwater environments, including surface and ground water. The low amounts of Legionella found in freshwater do not typically lead to disease. If inhaled or aspirated, these bacteria can cause illnesses in humans, including Legionnaires' disease and Pontiac fever. While a natural part of the environment, Legionella can pose a risk to human health when they enter and proliferate through human-made water distribution systems, as the water supply may enter premise plumbing and become more easily aerosolized. In accordance with P.L.2024 c.66, DEP published Best Management Practices for Control of Legionella in Public Community Water Systems. The practices described, such as different types of flushing, disinfection residual maintenance, aim for improved chlorine residual and distribution system health. DEP will initiate stakeholdering in 2026 to initiate rulemaking.



Cyanotoxins

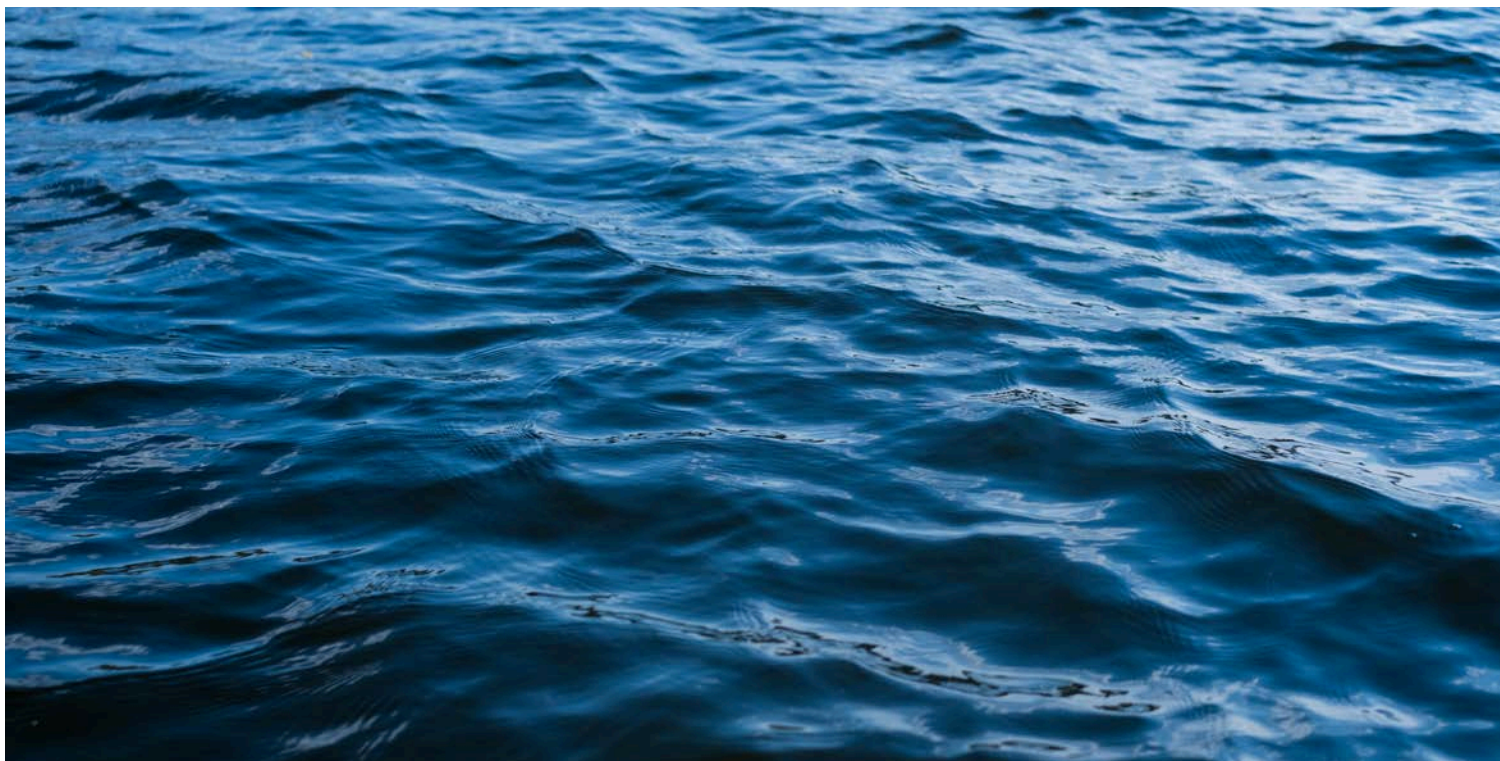
Cyanotoxins are produced by cyanobacteria, often referred to as harmful algal blooms (HAB) under certain conditions. Water systems with surface water supplies tend to be the most vulnerable to cyanotoxins, but certain groundwater sources, such as those identified as being under the direct influence of surface water (GWUDI) may also be susceptible to HABs. The Institute evaluated the health effects, analytical methods, and treatment options associated with cyanotoxins in drinking water. As the analytical or testing methods are currently a limiting factor, in August 2025, the Institute recommended a drinking water standard for the cyanotoxin microcystin based on the PQL of 0.3 µg/L and recommended that DEP regulate cyanotoxins in drinking water utilizing a treatment technique-based approach.

1,2,3-TCP MCL

When DEP adopted the MCL for 1,2,3-TCP of 30 parts per trillion (ppt), it reflected the practical quantitation level (PQL) or the level at which labs could reliably detect 1,2,3-TCP rather than the health-based MCL of 0.5 ppt. At the time, the available technology limited the ability to adopt a lower level. However, later in 2018, the Institute's Testing Subcommittee reviewed a new California MCL for 1,2,3-TCP of 5 ppt, which was based on a new lab method that was much closer to the health-based MCL recommendation. The Testing Subcommittee concluded that the recommended PQL should be updated to 5 ppt, making it possible for New Jersey to adjust their MCL to be lower, and therefore more protective. While there is low occurrence in water systems throughout the state, because 1,2,3-TCP is a potent carcinogen that works through a mutagenic and genotoxic mode of action, DEP plans to amend the MCL as part of a future rulemaking.

Radon

Radon in water at elevated levels is prevalent in New Jersey, especially in private wells. Radon is a known human carcinogen. The lifetime risk of cancer from ingesting and inhaling radon from drinking water can be as high as 1 in 10, with some of the highest radon concentration in private well water. Radon is different than most drinking water contaminants because the majority of risk water comes from breathing radon that has volatilized into the air, making it challenging to address. New Jersey does not have a drinking water standard for radon, so it is not monitored in public supplies and is not tested in private wells under the PWTA. In 2009, the Institute recommended a radon MCL to DEP. Due to the high occurrence of radon in drinking water across the state, addressing radon in drinking water is an important public health matter. DEP will explore options for rulemaking that are both feasible and protective of public health. The first step will be to engage stakeholders.



Next Steps

DEP is developing a rule making agenda to address the contaminants highlighted above and will continue to evaluate current science, working with stakeholders, including the public, the water sector and industry as well as the Institute to address these and as future contaminants of concern.

Protecting Private Well Owners

To protect private well owners, the rule adoptions described above also amended the PWTA rules based on the best available science. Years of sampling in New Jersey led DEP to expand the geographical extent of testing for gross alpha particle activity and arsenic, such that testing is required statewide, and to establish a requirement to test for uranium in the northern counties of New Jersey. In addition, 1,2,3-TCP, PFNA, PFOA and PFOS were added to the list of PWTA compounds for which the private well owners must test.

Next Steps

The quality of groundwater can change over time, necessitating routine testing of private well water to protect the health of those drinking from private wells. Although DEP has not collected quantitative data, it is suspected that many private well owners do not routinely test their wells and may go years between sampling events. By contrast, Community Water Systems, as required by the federal SDWA, are required to routinely test their water supplies and deliver information about the quality of their drinking water to their customers at least annually. Recent rule revisions will soon require delivery of that information on a bi-annual basis. DEP will expand upon existing work with local officials to encourage private well testing and treatment by communicating annually about existing aggregated private well data and providing guidance on treatment options and funding opportunities. DEP will communicate clearly about the types of contaminants, including PFAS, that have been detected in private wells locally. By providing this information to local officials, health practitioners, and the public, DEP hopes to help private well owners understand their potential risks from groundwater contaminants and encourage them to test and take appropriate action. Additional steps should be considered by establishing a credential process for individuals who install treatment devices for private wells, to ensure that when these systems are placed into homes, they are designed and installed by individuals who are qualified and technically competent to do so.

Water Quality

New Jersey can be proud of its cutting edge, nation-leading efforts to guard water quality. With unwavering commitment to protecting public health, the environment, and the economy, New Jersey continues to maintain, enhance, and restore water quality. Employing a “one water” approach that recognizes connections between all water resources and users, DEP has made great progress in recent years. With a strong commitment to data collection and analysis, DEP is well-positioned to meet challenges like emerging contaminants and climate impacts.

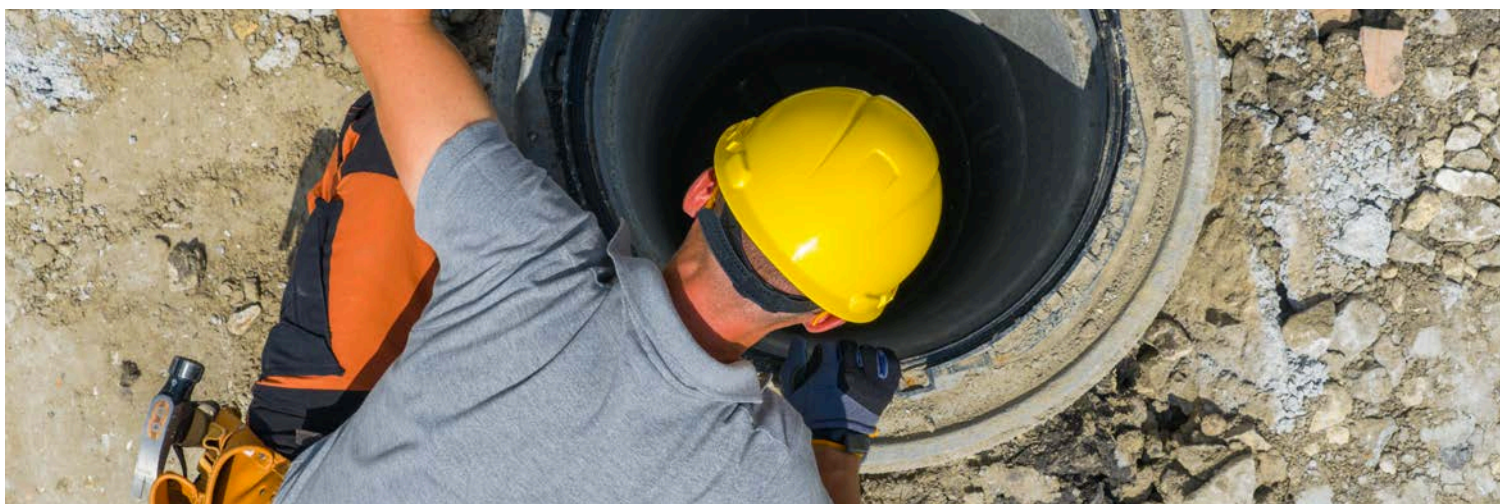
“With a strong commitment to data collection and analysis, DEP is well-positioned to meet challenges like emerging contaminants and climate impacts.”

Addressing Combined Sewers

Some older cities in New Jersey continue to operate existing combined sewer systems that were designed many decades ago to collect rainwater and snowmelt runoff, domestic sewage, and industrial wastewater in the same pipe. During rain events, these systems can reach capacity resulting in a combined sewer overflow (CSO) into a waterbody. CSOs are addressed through NJPDES permitting. NJPDES CSO permittees (municipalities and the receiving wastewater treatment plant) were required to submit long term control plans (LTCPs) in 2020. The LTCPs include an evaluation of available CSO control measures as well as a schedule for implementation of those measures to reduce or eliminate CSO. These schedules have been incorporated into NJPDES renewal permits as issued from 2023 to 2025.

The 2015 NJPDES CSO permit renewal required extensive public participation including the required development of a CSO Supplemental Team. This team met routinely to inform the development of LTCPs and these meetings were open to the public. This process allowed affected community to have a voice in the development of selected CSO alternatives. DEP was a consistent attendee at these meetings and involvement from the community did inform the selected alternatives for certain systems. The public engagement process, including the CSO Supplemental Team, has been continued in the subsequent renewal NJPDES CSO permits as issued from 2023 to 2025.

Subsequent to submission of the LTCPs, many permittees were proactively planning, designing, and constructing CSO control measures, in part due to the availability of attractive financing opportunities. DEP and the New Jersey I-Bank partner as the New Jersey Water Bank to administer New Jersey's SRF to provide low-cost financing for the design, construction, and implementation of projects that help to protect, maintain, and improve water quality. DEP recognizes the importance of providing robust funding opportunities for CSO projects, including gray and green infrastructure, including a variety of funding packages with low-interest loans and principal forgiveness and additional resources for disadvantaged communities. The Intended Use Plan is part of the State's Water Infrastructure Investment Plan (WIIP) and directs specific funds towards CSO improvements, including funds for the Publicly Owned Treatment Works (POTWs) that accept CSO flow. Over the last several years, DEP has consistently earmarked significant funds within the Intended Use Plan for CSO projects and has worked with CSO permittees to ensure their projects work their way through the process. CSO permittees have historically pursued funding through the New Jersey Water Bank and DEP is confident that they will continue to do so. This has resulted in the installation of CSO control measures ahead of the original schedule.



PROTECTING WATER

The New Jersey Water Bank also offers free technical assistance to disadvantaged communities for clean water projects, such as CSO control measures, and participants in this program are eligible for planning and design principal forgiveness loans and guaranteed funds upon construction certification. This comprehensive support framework streamlines project development for disadvantaged CSO communities and enhances capacity to comply with their LTCPs and meet their environmental and infrastructural needs.

Next Steps

DEP will continue to aggressively pursue the reduction or elimination of CSOs in the state. This will include finalization of the two remaining NJPDES CSO renewal permit and evaluation of progress towards implementing LTCP projects as permittees submit their Semi-Annual Progress reports as required in the permits. Additionally, DEP will continue to provide technical assistance, CSO funding packages and updating guidance as needed to assist permittees with the implementation of their LTCPs.



Harmful Algal Bloom Response

In 2017, DEP began tracking cyanobacteria, otherwise known as HABs, across the state and developed a multi-agency response plan for recreational use of waters. In 2019, in response to lakewide HABs in some of the largest lakes in New Jersey, the state announced a three-pronged initiative to prevent and respond to these disruptive blooms. The initiative included \$2.5 million in funding and \$10 million in principal forgiveness for demonstration projects and another \$1 million for water quality planning. The initiative was designed to build state and local capacity to respond to HABs by developing expertise, investing in science and technology, and improving public communication. This initiative has resulted in DEP-funded demonstration projects across the state and an annual HAB Summit where technology and lessons learned are exchanged. Most importantly, the initiative continues to spur local action that is mitigating and preventing HABs, and a user-friendly HAB dashboard that tracks active HABs and alerts when recreational activity should be avoided based on HAB data. DEP revisits its HAB strategy and continues to host the HAB Summit annually. With assistance from a team of experts, DEP released Lake Managers guidance and offered training for lake managers. The monitoring program has expanded to include an online reporting system, seasonal overflights, continuous monitoring through telemetry buoys, and a hand-held meter loan program for local partners. While response has improved and the community of practitioners is closely connected, DEP data shows that the HAB threat continues to grow, and blooms are lasting longer or even overwintering. The data indicates that the statewide occurrence of waterbodies with confirmed HABs has risen over 100% since the program began. Adding to the concern, approximately 35% of waterbodies with confirmed HABs experience reoccurrence and since 2019, HABs have persisted during the winter in 6-16 waterbodies each year. In 2022, the Millstone River saw a HAB of significant stream length and magnitude that threatened the drinking water source for hundreds of thousands of people in central New Jersey. Another event in a small northern lake demonstrated that these toxins may move through groundwater to inadequately constructed drinking water wells. Even before that event, given the acute health risk from the ingestion of the toxins that some blooms produce, DEP consulted with stakeholders, to develop drinking water protocols that water systems using surface water must incorporate into their emergency planning. The Drinking Water Quality Institute has made recommendations to DEP for standards and treatment of cyanotoxins. DEP continues to invest in science, monitoring, and new studies and to work with partners in other state agencies, including the New Jersey Department of Health, who governs public bathing beaches, and the New Jersey Department of Agriculture, who leads the New Jersey One Health Task Force and addresses livestock health across the state.



Next Steps

As the climate changes and more intense storm events and heat bring conditions conducive to widespread and long-lasting blooms, DEP will need to continue to engage partners and provide financial and technical support. Other local efforts to address water quality issues, such as watershed and stormwater planning, nutrient reduction, and reforestation to mitigate climate change and provide habitat, should be coordinated to optimize funding opportunities and bolster projects. See [Chapter 3, Land Resource Protection](#) for more information about watershed management.



Understanding Impairments

DEP uses monitoring data to assess New Jersey's waterbodies and verify if they are supporting their designated uses such as aquatic life use, drinking water, fish consumption among others. This is achieved by evaluating the water quality parameters associated with each designated use and whether they meet their surface water quality standards (SWQS).

[DEP's 2022 Integrated Report](#) assessed statewide attainment of each designated use. The report concludes that the waters of New Jersey are stressed. Stressed conditions are a result of multiple factors. An impairment for a designated use may be tied to one parameter exceeding criteria at one of many monitoring sites. Second, as the most densely populated state in the country, numerous pollutants from point and nonpoint sources are impacting water quality. Decades of industrial growth and urbanization, loss of important wetlands, fragmentation of forested areas, direct discharges to waterbodies, aging infrastructure, increases in storm runoff, damming of rivers and streams, climate change and numerous other anthropogenic activities have caused water quality degradation throughout the state. Third, historical practices before environmental regulations such as untreated discharges, indiscriminate dumping and abandonment of industrial sites have left behind a legacy of contaminated sites that still impact our waterbodies.

The federal CWA requires each state to address identified impaired, "unhealthy" waterbodies through TMDLs. TMDLs diagnose the source of the problem and quantify the water quality recovery, assisting DEP in achieving its priorities to ensure that the state's waters that are swimmable, fishable, and safe for drinking.

During each Integrated Report assessment cycle, impaired waters are ranked/prioritized for TMDL development. A load reduction target is established for each pollutant causing impairment. Mathematical models are developed to simulate water quality for a waterbody and all its contributing waters (i.e., the watershed). The model evaluates different scenarios to produce scientifically defensible reductions throughout the watershed. TMDLs, which must be approved by USEPA include public comment. Approved TMDLs, which include an implementation plan, are adopted as an amendment to the applicable water quality management plans.

Over 600 TMDLs are covered in 50 TMDL documents that have been developed in New Jersey. The pollutants addressed by these TMDLs include pathogens, total phosphorus, mercury, PCBs, and various other pollutants. As of 2020 five of the top ten causes of impairments are associated with the aquatic life designated use, including total phosphorus. TMDLs have been established for 68% of the pathogens, 65% of the mercury and 41% of the total phosphorus causing impairment.

Most recently, DEP is moving forward with a regulatory plan to protect and restore Barnegat Bay and its watershed. In 2010, in collaboration with stakeholders, DEP was tasked with a subset of actions from the Barnegat Bay 10 Point Plan, that include determining if the ecological health of Barnegat Bay was in decline. This assignment resulted in comprehensive research, investigative studies, monitoring, and modeling work over the course of the past fifteen years. The outcome of this effort is the proposal of a more rigorous water quality standard and a TMDL. The Barnegat Bay TMDL establishes a pollution budget for the Bay that requires reductions in nutrient loadings to achieve the new total nitrogen standard.

The Barnegat Bay TMDL Implementation Plan identifies the projects, regulatory and non-regulatory tools, outreach, and initiatives that will achieve the required reductions. These include a preliminary stormwater utility feasibility study for 24 municipalities in their MS4 permit, implementation of the New Jersey Statewide Fertilizer Law ([N.J.S.A. 58:10A-61 to -69](#)), development of four watershed-based plans, and a protection plan to ensure that the watershed and subwatersheds maintain attainment of the standards. Proposal of the Barnegat Bay TMDL is expected in 2026.

The TMDL process, while federally required and necessary, is complex and therefore typically takes years to complete. TMDLs have been explicitly integrated into point discharge permitting for years, and DEP adopted nonpoint policies, such as buffers and best management practices, into rule to further address impairments. However, only recently through the Municipal Separate Storm Sewer System (MS4) permits, has local action been required to address impairments. Local water quality can and will improve with targeted, data-driven action.



Next Steps

While continuing to pursue development of TMDLs, in the interim, DEP must evaluate existing data to better understand water quality stressors. In addition to Integrated Report, the WatershedNJ WebTool, the Watershed Quality Stressor, discussed in [Chapter 3, Land Resource Protection](#) will be an important and accessible tool to help local officials identify potential sources of impairment and guide solutions, especially where no TMDLs are available. In watersheds with TMDLs, this tool can guide action in support of reduced pollutant loads. DEP must also focus on TMDL implementation plans by continuing to coordinate internally and by engaging the community to foster and support meaningful action that will improve water quality.



Planning & Assessment

The 1985 Statewide Water Quality Management Plan envisioned multiple DEP programs working with local officials and the public together towards the improvement of water quality. DEP is closer than ever to this goal through implementation of the stormwater permitting requirements like CSO-LTCP and the MS4 permitting, regional stormwater planning and formation of stormwater utilities, the HAB Initiative, restoration for natural resource damages, and other efforts that are associated with water quality as a co-benefit, like resilience and water supply planning, and climate mitigation projects that include forest and coastal wetland restoration. This trend will continue as DEP builds its water quality science agenda and refreshes its Source Water Assessment Planning program. Programs such as the Youth Inclusion Initiative (see [Chapter 1, Meet DEP](#)) and the Watershed Ambassadors, and the statewide climate change competency education requirements, work to educate our youth on key environmental issues, planting the knowledge and therefore a sense of stewardship for shared water. DEP's [Our Water is Worth It](#) initiative highlights water champions across the state in an effort to grow water stewardship efforts.

Next Steps

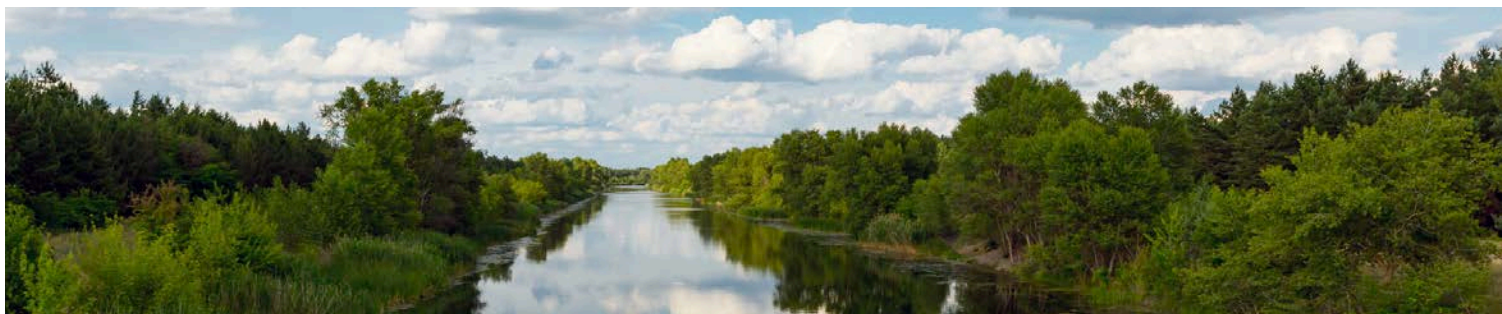
Decisions made at the local level, in the school yard, on municipal streets, in local parks, and in zoning decisions all impact water quality. DEP must continue to support local officials with tools, financial support, and technical and compliance assistance to improve water quality protect the local economy and increase resilience. With federal assistance to address many of these issues uncertain, partnerships and optimization of existing funds will be critical. As DEP endeavors to modernize Water Quality Management Planning, it will be important to assess the use of water quality planning grants (funded by Section 604(b) of the CWA), to determine how this funding may be applied to have more immediate impact. For a variety of planning efforts, including MS4 Watershed Improvement Plans, resilience and climate hazard planning, hazard mitigation planning, habitat recovery, natural resource damage, climate mitigation, and Source Water Planning, DEP should consider a central database of restoration projects that indicates their primary and co-benefits. Such an effort would be similar to the [Coastal Ecological Restoration and Planning](#) that identifies areas and projects for future ecological projects that have multiple community values.

Updating and Developing Standards

Category One (C1) waters are defined in the existing SWQS rules. C1 designation provides additional protection through permitting to waterbodies that help prevent water quality degradation and discourage development where it would impair or destroy natural resources and water quality. The maintenance of water quality is important to all residents, particularly to the many communities that depend upon surface waters for drinking water supplies, recreation, fishing, and shellfish harvesting. To date, DEP has designated over 7,400 stream miles and over 30,700 acres of lakes and reservoirs as C1 waters.

In 2020 DEP adopted amendments to the SWQS that upgraded approximately 600 river miles to the designation of C1. This adoption increased the number of C1 designated waters by 2.6%. Following the adoption, a “Category One (C1) Workgroup” was established. The Workgroup is comprised of intra-departmental members charged to evaluate options to improve the C1 nomination procedures. The recommendations will be shared with stakeholders in 2026 and would require updating the SWQS by rule.

DEP conducts studies on emerging contaminants to understand occurrence and inform standard development for individual contaminants. New contaminants can also be added to DEP’s surface and ground water ambient networks to better understand distribution of contamination. Contaminants of concern like PFAS are now monitored by drinking water systems, through the PWTAs, in the ambient surface and groundwater networks, through remediation data, and through certain wastewater discharge permits, including POTWs and active landfills. These dynamic data sets can be analyzed by water and system managers, the public, health officials, academia and DEP to better inform decision-making. Gathering such data is critical to understanding, and where feasible, addressing emerging contaminants, like microplastics, pharmaceuticals, and personal care products.



Establishment of GWQS often precedes the development of drinking water standards as they are also protective of drinking water sources and are necessary for site remediation efforts. SWQS are often the last standards developed for new contaminants. In 2020 DEP adopted amendments to the GWQS to establish a specific ground water quality standard for PFOA and PFOS in addition to the standard for PFNA adopted in 2018. In furtherance of DEP's PFAS Strategy, in February 2026 DEP will propose amendments to the SWQS that include levels of PFOA, PFOS, and PFNA for fresh and saline waters intended to protect human health. Specifically, based on the latest, New Jersey specific data, the amendments would update numeric surface water quality criteria (SWQC) for toxic substances for fresh and saline water. (SWQC) for toxic substances. The numeric SWQC for the toxic substances are the designated levels or concentrations of the constituents that, when exceeded, will prohibit or significantly impair a designated use of water. The SWQC are meant to protect human health and aquatic life from carcinogenic, mutagenic, or other adverse health effects from exposure. In addition to PFOA, PFOS, and PFNA, the proposal also includes 1,4-dioxane and 94 other toxic substances.

Next Steps

DEP will review comments and as appropriate work to adopt the proposed amendments in 2026.



Water Infrastructure & Operation *Asset Management*

Water, wastewater, and stormwater systems are made up of assets that must be maintained operated and periodically replaced. It takes incredible knowledge, expertise, and resources to run and manage these systems. An asset management plan is a tool that assists system managers in the prioritization of needed investments. Asset management generally includes an inventory and condition assessment of all assets, identification of level of service goals, a vulnerability assessment that determines criticality and risk (including climate risk), determination of the cost of assets over their useful life, and development of a long-term funding strategy. Because a changing climate will impact almost every aspect of a utility's asset management plan, it should be considered in every element of the plan. To support resilience planning for the water sector and to ensure the viability of state investments, the New Jersey Water Bank has developed and implemented resilience guidance that requires all projects funded through the Water Bank to assess existing and potential climate impacts when developing infrastructure planning and to incorporate appropriate resilience measures in construction designs. In the absence of an asset management plan, investments and maintenance are often deferred and infrastructure can deteriorate and eventually fail, at times catastrophically. For all types of water infrastructure, the cost of failure is high, often impacting public health and safety. As a result, there are various state mandates, including the requirements of the New Jersey Water Quality Accountability Act or WQAA (P.L. 2017, c. 133 and amended by P.L. 2021,c.262)) and the federal SDWA for technical, managerial, and financial capacity for drinking water systems.

For stormwater systems, which can be particularly challenging to manage due to lack of records regarding location and ownership, recent CSO and MS4 permitting changes now require the first step of asset management, that is, the development of an inventory. The ability to form a stormwater utility, which is a relatively new option in New Jersey but not elsewhere in the country, brings dedicated funding and clear responsibility which are also fundamental to asset management. However, neither wastewater nor stormwater systems have a mandate as robust as the WQAA requirements for drinking water systems. The WQAA addresses cybersecurity, physical maintenance like valve inspection, exercising and hydrant identification, and flushing, an asset management plan, an annual capital improvement report, and perhaps most importantly, executive certification of compliance. The implementation of these rules has the potential to improve New Jersey's drinking water infrastructure by preventing failure and spurring sound investment that can be supported by DEP through various funding streams.

Next Steps

With the adoption of the WQAA rules in September 2025, DEP can begin to fully enforce the WQAA, providing New Jerseyans the enhanced quality of water service. Furthermore, by including the requirement of an annual water loss audit starting in March 2027, DEP will have a better understanding of water losses resulting from leaks in water system distribution systems, potential non-compliance and determine when systems may need technical assistance. This will allow DEP to intervene before water quality failures become chronic, risking the public health and confidence of the residents served by that system. In addition, systems will have an idea of the cost of water loss, which will spur investment in needed improvements. The results of these audits will be considered in future iterations of the NJ Statewide Water Supply Plan.



Building on the success of the implementation of the WQAA, and consistent with the 2018 [Joint Legislative Task Force's Report on Drinking Water Infrastructure](#) recommendation, DEP would welcome a similar requirement for the wastewater and stormwater sector. DEP will continue to engage systems operators and local officials to build the expertise and capacity needed to manage water infrastructure and to provide financial support through various funding opportunities.

PROTECTING WATER

Emergency Management

In recent years, despite efforts to offer low-cost funding to help water systems modernize their infrastructure, many large-scale water main breaks, storms, or flooding events demonstrated that climate hazards in addition to aging infrastructure, pose a serious risk to New Jersey's water systems. Disruptions impact the quality of life, exacerbate public health issues, cause significant economic disruption, and harm public confidence in the adequacy of water supply.

Next Steps

Consistent with the requirements of P.L.2024, c.66, a law concerning Legionnaires' disease, DEP is in the process of developing an emergency response application. This tool will allow the public and agency partners enhanced visibility when water system disruptions, or emergency incidents occur, including the scope of impact.

Supporting Operation

Today's water and wastewater systems face many challenges such as widespread PFAS contamination and lead service line replacements, and these issues are compounded by aging infrastructure and climate change. These issues can be particularly challenging for communities that are already overburdened environmental stressors. The New Jersey Water Bank offers technical assistance at no cost to project sponsors that meet disadvantaged community criteria established in the Clean Water and Drinking Water Intended Use Plans. Third party providers assist with program navigation, financial and needs assessments, community engagement, and engineering services. Eligible sponsors may also be eligible for planning and design grants and loan principal forgiveness

Municipally-owned Systems

These challenges can be especially difficult for municipally-run water systems that already face tight local budgets. Municipally-run water and wastewater systems might feel inclined to sell their systems (through [WIPA](#) or a public referendum) when issues seem overwhelming. While this approach is appropriate for some systems, the decision must be weighed carefully in consideration of affordability issues and the loss of local decision making. Additionally, the sale of a system may not fund overdue repairs and capital needs but rather those costs are be passed along to customers as increased rates.



Next Steps

As an alternative to sale, regional/reformation solutions have gained national attention as options for these systems because they offer benefits such as leveraging resources and economic capacity. In the near future, DEP would like to explore a feasibility study on regional solutions statewide and a guidance document, both aimed at assisting systems looking at regional solutions.

Workforce Development

USEPA's [2024 Interagency Water Workforce Working Group Report to Congress](#) indicates that a water system workforce shortage is likely to occur in the near future. The report estimates that one-third of operators will be eligible for retirement over the next 10 years.

Next Steps

DEP's licensed operator rules, which have not been amended in many years, should be updated. DEP anticipates proposing amendments to its licensed operator rules based on stakeholder input to clarify roles and responsibilities, promote workforce development, and streamline the licensing process. In addition, DEP will engage professional associations and educational institutions to encourage students to enter this exciting and secure field.

Water System Operating Permit

While the New Jersey SDWA rules set forth numerous protective standards, DEP's current approach lacks a single, unified permit to ensure clarity of and accountability for these critical regulatory obligations. This approach instead relies on metrics that are too far removed from interim process failures to be efficient. A system that is in decline may not trigger a drinking water standard violation immediately, missing the opportunity for early intervention. Corrective action is likely more complicated and often more costly once a violation has occurred. In the wastewater regulatory model, an operation permit prevents such failures. A shift to this type of approach is of growing importance given new requirements for lead and emerging contaminants, threats from climate change, aging infrastructure, and staff shortages. An operation permit would create a holistic permit, set criteria and expectations in one permit (as opposed to multiple places), and set permit timeframes. This approach may also prevent the unfortunate step of direct state oversight, which occurs when there is imminent danger and which diverts resources from other statewide drinking water priorities.

Next Steps

Working with stakeholders, DEP will identify policy options to determine the appropriate rule amendments for a drinking water system operation permit.



Data Management and Modernization

Consistent with its commitment to enhanced data management and increased data accessibility and transparency, DEP has invested in a large number of information technology improvements—such as mapping, database enhancements, and visualization tools—and over the last several years, has prioritized IT projects that collectively enhance water management, environmental monitoring, and regulatory compliance, contributing to the protection of public health and water resources. For example, one such improvement allows for the electronic submission of drinking water data, including monthly water system operation reports and newly required lead testing data. Reliance on paper submittals for increasingly complex requirements is inefficient. Enhanced data management and analytics will increase transparency and system accountability. These initiatives will also help DEP streamline regulatory compliance, increase emergency response preparedness, and enhance public access to data. These improvements include reporting, data management, and public-facing data visualization applications related to several water rules. In addition, data analysis of newly-managed and even older sources of water data could improve efforts to improve water quality.

Next Steps

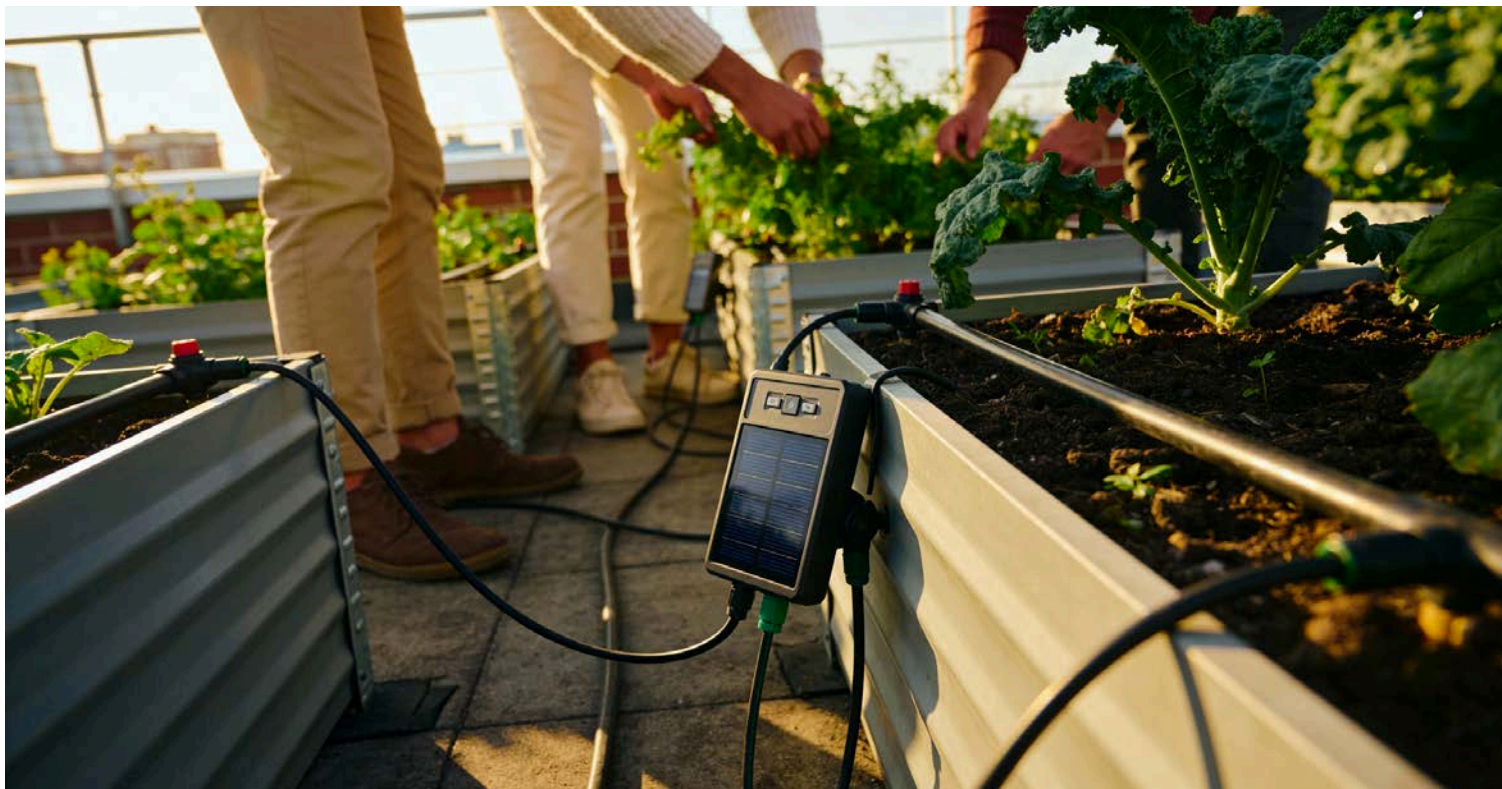
DEP will complete data management enhancement projects in priority order and will work with stakeholders to identify data analysis and visualization opportunities.

Amending NJPDES Fees

DEP anticipates amendments to alter the NJPDES fee structure, with a goal of a more predictable, transparent, equitable and efficient fee structure. Stakeholder sessions were held in 2023. Proposal, and subsequent adoption, of these rule amendments would provide for a NJPDES fee assessment and billing process that requires less DEP resources to administer and allows for timely billings and collections.

Next Steps

DEP anticipates proposing its draft rule amendments for NJPDES fees in 2026.



Investing in Infrastructure

USEPA's most recent Clean Watershed and Drinking Water Infrastructure needs surveys estimate twenty-year nationwide needs (i.e., unfunded projects and their associated capital costs to address water quality and water quality-related public health problems) of over \$1.2 trillion, which includes \$31.6 billion in needs in New Jersey. New Jersey's WIIP brings state, federal, and private market funds together to extend the reach and impact of the federal SRF investments. In 2024, the New Jersey Water Bank surpassed \$1 billion in infrastructure financing for 116 clean water and 31 drinking water projects, including funding for lead service line replacement, PFAS treatment systems, stormwater mitigation, CSS, wastewater treatment, and flood risk reduction. This was the Water Bank's largest awarded funding amount in a single year. In 2025, the Water Bank awarded \$945 million in infrastructure financing for 86 clean water and 44 drinking water projects. All told, over the life of the water infrastructure program, the New Jersey Water Bank has awarded \$9 billion in low-interest long-term loans and an additional \$2 billion in short-term construction loans for ongoing work expected to convert to long-term loans over the next five years. The short-term loan award amount is expected to increase as additional infrastructure projects reach construction readiness. Continued funding will allow New Jersey to keep making progress to address critical water infrastructure needs.

Next Steps

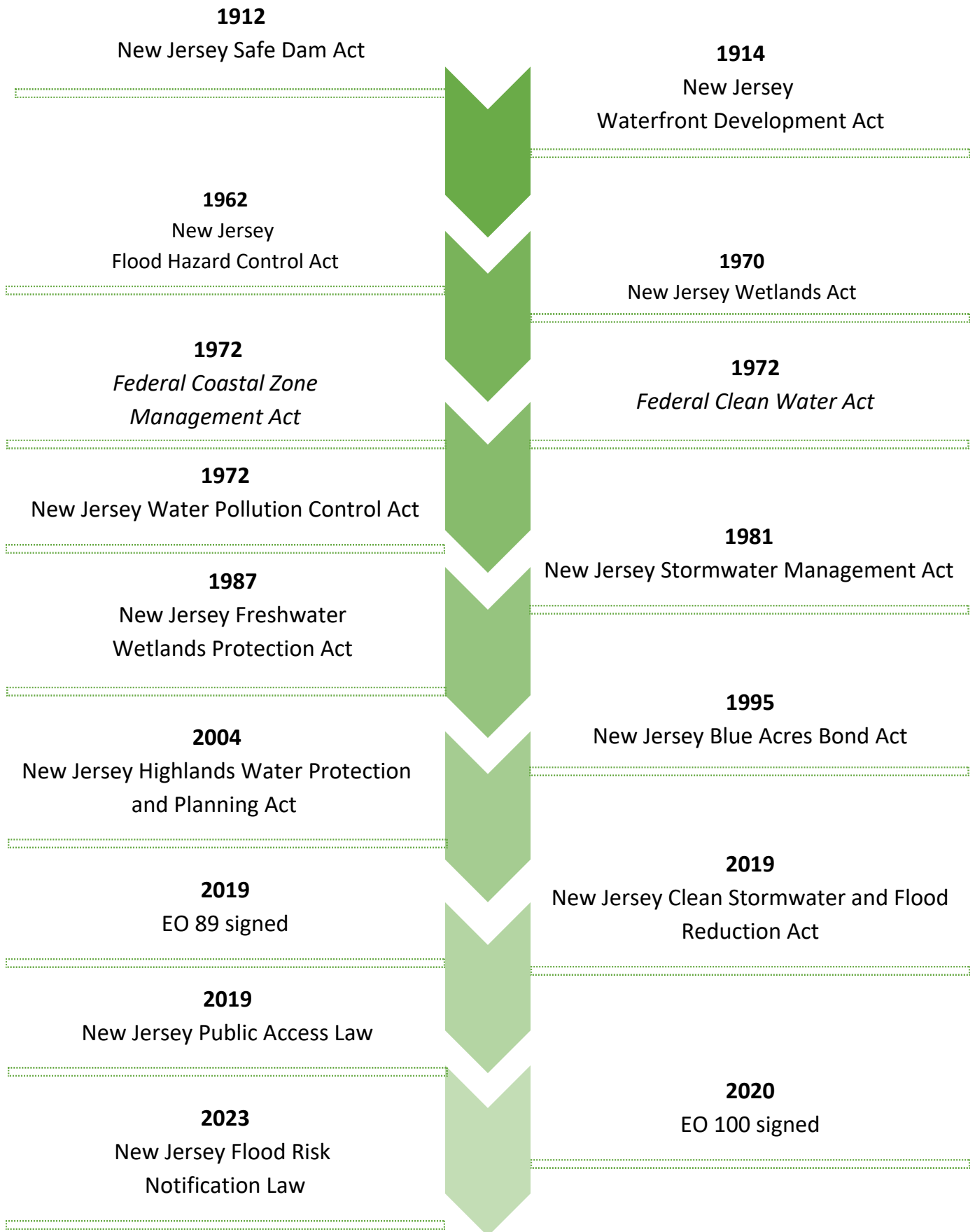
The Water Bank will continue to monitor available funds, assess areas of needs, and work with stakeholders to develop yearly funding plans to address New Jersey's priority water quality and human health issues. Identified Clean Watershed and Drinking Water infrastructure needs significantly exceed available Water Bank funds and continued federal and state investment is required to address those needs.



The image is a composite of three horizontal sections. The top section shows a bright blue sky with scattered white clouds. The middle section shows a wide, forested hillside with trees in various shades of green, yellow, and orange, suggesting an autumn setting. The bottom section shows a river flowing through a valley, with a concrete bridge crossing it in the distance. The foreground is filled with dense, colorful foliage in shades of green and yellow.

LAND RESOURCE PROTECTION

MILESTONES



Background

New Jersey is a beautiful mosaic of varied land use and land cover types. With just a few hours' drive, one can visit the mountains, the city, a quaint village, paddle on a major river, bird watch, or swim at the shore. In New Jersey's most traveled areas, a legacy of industry is readily apparent; however, not far from cities and bustling ports is the state's famous coastline and the vast natural and agricultural areas that are the basis for the moniker the "Garden State." This unique combination of characteristics – industry, essential and beloved natural resources, and a dense population – along with a home rule form of government, have shaped New Jersey's statewide land use policy.

Striving to balance quality of life, economic development, and conservation of the resources communities rely on, New Jersey has enacted environmental laws to protect the special areas that provide water and other essential benefits. In wetlands, both fresh and coastal, floodplains, the Highlands Region, the Pinelands, and the Meadowlands, New Jersey plans and regulates in recognition of the human relationship with these shared water resources. By protecting and managing our lands and watersheds, New Jersey ensures clean and plentiful water, and preserves natural and historic heritage, while ensuring that roads, navigational waterways, waterfronts, recreational areas, and other essential resources are operational and accessible.



Coastal Resources

DEP is the steward for diverse coastal resources along 1,800 miles of tidal coastline and the ocean 3 nautical miles from shore. Beaches, tidal marshes, watercourses, fisheries, forests, plants and wildlife, and many more coastal resources are key to the state's economy and quality of life. Tourism in shore communities is a \$38 billion per year industry in New Jersey, a fact that clearly demonstrates that the public feels connected to our coastal areas.

The right to access tidal waters and their adjoining shorelines is protected under the common law Public Trust Doctrine, as well as New Jersey statute. The Public Trust Doctrine is an ancient legal doctrine with its roots in Roman law that migrated from English law to early Colonial and American law. This doctrine, which holds that tidal waters and waters flowed by the tide belong to the public and shall be preserved for their use, is fundamental to coastal land use policy in New Jersey.

The New Jersey Coast is an ever-changing landscape of evolving community needs, economic growth, emerging stressors, and a changing climate. Accordingly, various laws were enacted to recognize the unique nature of New Jersey's coastal resources and over time the State's coastal policy has evolved. In 1914, the Waterfront Development Act (N.J.S.A. 12:5-1 to -11) recognized the importance of thoughtful treatment of tidal waterways and adjacent areas. Decades later, the coast was threatened by unchecked and unplanned residential, commercial, and industrial development, and was facing high demand for competing uses, including recreation, navigation, waste disposal, and commercial fishing. To ensure a balance of coastal use and resources, a suite of state laws was passed. The Wetlands Act of 1970 (N.J.S.A. 13:9A-1 to -10) was enacted to regulate disturbances to coastal wetlands, and in 1973, the Coastal Area Facility Review Act or CAFRA (N.J.S.A. 13:19-1 to -51) delineated an area from Raritan Bay to portions of Salem County where planning and regulation would shape the landscape.

The CAFRA area is contained within New Jersey's larger Coastal Zone, established through the federal Coastal Zone Management Act (16 U.S.C. §§ 1451-146) enacted a year earlier in 1972, to strike the same balance between coastal uses and coastal protection across the country. New Jersey's Coastal Zone includes the Hudson River from the interstate border with New York and related tidal waters south to Cape May Point, encompassing the state territorial waters of the Atlantic Ocean and associated tidal water bodies. From Cape May Point, the coastal zone extends north to Trenton and contains the waters of the Delaware Bay and River and the tidal portions of their tributaries. Upland areas along these tidal waterways are included within the coastal zone.

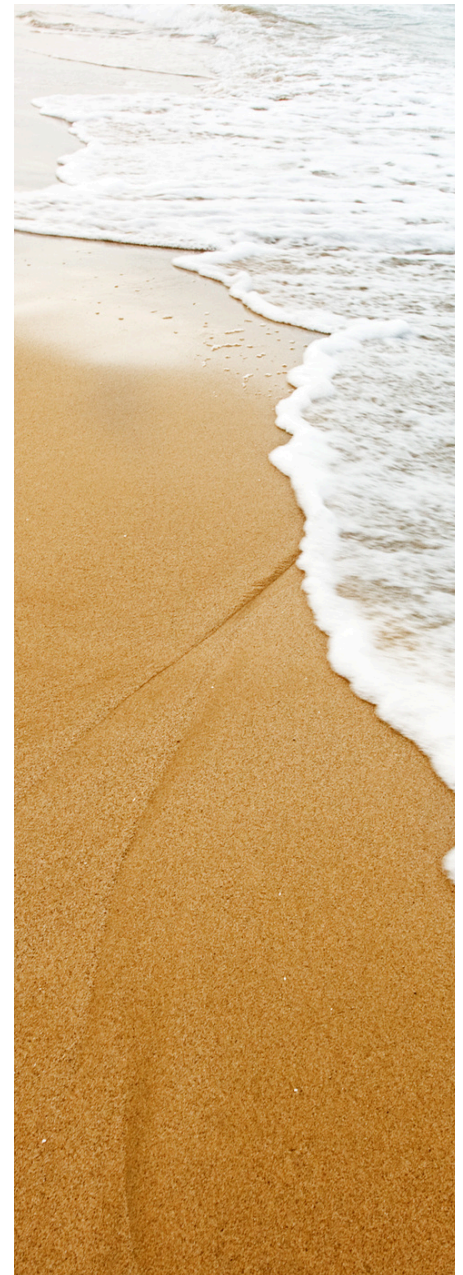


New Jersey's Coastal Management Program (CMP), established in 1978, is a network of offices within DEP that serve distinct functions yet share responsibilities that influence the state's coastal areas. An important aspect of the CMP is ensuring that coastal resources and ecosystems are conserved as a vital part of local, state, and federal efforts to enhance sustainable coastal communities. This is accomplished through sound planning, science and research, education and outreach, and collaboration and capacity building with local partners, as well as through the implementation of DEP's Coastal Zone Management or CZM rules (N.J.A.C. 7:7).

The CZM rules, by necessity, are a dynamic set of rules that interact with other relevant land use rules, such as the Flood Hazard Area Control Act Rules (N.J.A.C. 7:13). The CZM rules address activities in water areas (e.g., bridges, dredging, dams, reefs), other special areas (e.g., dunes, waterfronts, endangered and threatened species habitat, coastal wetlands, urban areas), and uses (e.g., housing, ports, transportation, coastal engineering). As the foundational laws and programs described above evolve with time, DEP remains steadfast in its longstanding role as the trustee and steward of coastal resources for the public.

Shore Protection

Dating back to the 1940s, New Jersey law has empowered the state government to “repair, reconstruct, or construct bulkheads, seawalls, breakwaters, groin, jetties, beachfills, dunes and any or all appurtenant and work, on any and every shore front” along the coastline as described at N.J.S.A. 12: 6A-1. After years of piecemeal projects of varying success, that at times exacerbated erosion in adjacent areas, the state looked to a more comprehensive and regional approach with the development of the Shore Protection Master Plan in 1981. In 1993, the Legislature created the Shore Protection Fund (N.J.S.A. 13:19-16.1 to -17), which receives annual appropriations from a portion of New Jersey's realty transfer fees. Monies in the fund must be used in accordance with a priority list approved by the Legislature consistent with the current Shore Protection Master Plan “for shore protection projects associated with the protection, stabilization, restoration or maintenance of the shore, including monitoring studies and land acquisition.” DEP administers this fund to implement beach nourishment and shore protection projects throughout the state. DEP uses the fund to leverage funding from federal agencies, mainly the U.S. Army Corp. of Engineers (USACE), to satisfy the non-federal cost-share requirement of projects constructed by USACE in partnership with the state, as well as to provide funding to local municipalities to construct shore protection projects in partnership with the state. After Hurricane Sandy, USACE estimated that beach and dune restoration projects in New York and New Jersey saved \$1.3 billion in avoided damages. Through partnerships with municipalities and counties, DEP implements the Shore Protection Fund to protect property and infrastructure from coastal storm damage, erosion and shoreline migration, and sea-level rise. In fiscal year 2025, the Shore Protection fund help leverage the placement of 4.3 million yards of sand across New Jersey's beaches, providing vital protection to the public and environment.



DEP is also responsible for three Coastal Storm Risk Reduction Projects along Raritan Bay in Monmouth County. These projects all serve to reduce flood damage during coastal storm events. Beyond shore protection projects, using cutting edge technology, DEP maintains the state's aids to navigation, operates critical coastal flood infrastructure, and conducts storm surveys, damage assessments, and emergency repairs from coastal storms impacting New Jersey.

Flooding

DEP's various flood protection programs and rules are part of a holistic, watershed approach to flood management and the protection of the waters of the state. The history of these programs and how they have evolved over time to address new threats and incorporate the best available science is described below.

Flood Regulations

Beginning in 1929, New Jersey began regulating "stream encroachments" with enactment of the law that established the State Water Policy Commission. Legislation was passed in 1962 regarding the delineation of flood hazard areas. The responsibilities associated with this legislation were assumed by DEP after its formation in 1970. In 1972, the law was amended to direct DEP to adopt floodplain regulations. With the passage of these earlier versions of the Flood Hazard Area Control Act (N.J.S.A. 58:16A-50 et. seq.) New Jersey acknowledged that public safety is threatened by flooding and that development in flood-prone areas should be managed to reduce risk to New Jersey's communities. The rules that followed established design flood and floodway limits that were strengthened over time based on new data and changing conditions. Today, the Flood Hazard Area Control Act rules minimize damage to life and property from flooding caused by development within flood hazard areas and protect riparian resources. These rules, along with essential building codes (N.J.A.C. 5:23) administered by the Department of Community Affairs and implemented by local construction officials, comprise the state's minimum flood standards recognized by the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program (NFIP). The rules are operative statewide but are also designed to protect against hazards in both coastal and inland Areas. The regulatory floodplain under these rules has long exceeded the Federal Insurance Rate Maps (FIRM) used by FEMA to assess flood risk. These maps are based on historical data that is changing more rapidly than amendments to the maps and do not account for continued development of the watershed, which has a significant impact on flooding. Furthermore, there are areas that have never had FIRM maps developed, including land owned or formerly owned by the federal government, or small and rural floodplains.

“DEP’s various flood protection programs and rules are part of a holistic, watershed approach to flood management and the protection of the waters of the state.”

Understanding flood risk at both the individual and community level is essential to mitigating flood impacts and damage. The administration of the NFIP includes routine education for local floodplain administrators who play a central role in the NFIP, particularly in preventing and assessing damaging after storm events. The Department is also a partner in USACE flood mitigation and risk reduction projects around the state.

Flood Buy Outs

The New Jersey Blue Acres Program was established in 1995 through the approval of the Green Acres, Farmland, Historic Preservation, and Blue Acres Bond Act (P.L.1995, c. 204), which initially allocated \$15 million to acquire properties in flood-prone areas of the Passaic River Basin. The goal was to reduce risks to life and property by removing vulnerable structures from areas at risk to flooding. The program offers voluntary buyouts to homeowners in flood-prone or storm-damaged areas, allowing them to sell their properties to the state. Once acquired, the homes are demolished, and the land is permanently preserved as open space—often repurposed for flood storage, passive recreation, or natural buffers. These lands are deed-restricted and managed by local governments or qualified partner organizations to ensure long-term environmental and community benefits. Additional funding for Blue Acres was secured through bond acts in 2007 and 2009, but the program gained significant momentum following Superstorm Sandy in 2012, which caused widespread devastation across coastal and riverine communities. In response, both federal and state funding increased, and the program received dedicated staff to support expanded buyout efforts. Today the program is regarded as a national model for flood buy outs.



DAMS

In 1912, New Jersey enacted the Safe Dam Act (N.J.S.A. 58:4-1 to-14) to govern the construction, repair, and inspection of existing and proposed dam structures. This law, which was amended in 1981, led to the adoption and implementation of DEP's current Dam Safety Standards regulations. Dams under state jurisdiction are defined as artificial barriers, together with appurtenant works, that raise the waters of a stream more than five feet above the usual mean low water height. The lakes and reservoirs created by dams provide numerous recreational opportunities, wildlife habitat, and scenic views that enhance enjoyment of the state's natural resources. Dams also provide sources for water supply, reduce flooding impacts, and satisfy the needs of business, industry, and agriculture. Dams nearing the end of their design life or those which have become obsolete may be removed, restored habitat by eliminating barriers to fish and re-establishing the natural dynamics of an aquatic system. For more about habitat restoration see [Chapter 4, Natural Resources](#).

DEP is responsible for ensuring the safety and integrity of existing dams in New Jersey and, thereby, protecting people and property from the consequences of dam failures. In the past 25 years, the nation has experienced a number of dam failures that resulted in loss of life and extensive property damage. Fortunately, New Jersey has not had the misfortune of experiencing a catastrophic dam failure; however, there have been an increasing number of small dam failures. These failures were largely attributed to a lack of maintenance and inspection as well as the fact that many of the dams in the state are nearing the end of their design life. Existing dams must be periodically inspected to ensure that they are adequately maintained, and dam owners are directed by DEP to correct any deficiencies found as a result of those inspections. Part of DEP efforts to upgrade dams includes the dissemination of low-interest loan funding through DEP's Dam Restoration and Inland Waters Loan Program. This \$110 million revolving loan program assists local governments and private lake associations/owners or similar organizations with dam restoration or inland waters projects. DEP issues construction permits for the rehabilitation and removal of dams and performs inspections to confirm compliance with approved plans and specifications. DEP also coordinates with the NJ Office of Emergency Management, as well as local and county emergency management officials, to prepare and approve Emergency Action Plans. Since failure of a dam can take only hours or minutes, it is imperative to have a detailed emergency action plan ready for use. This is particularly important for drinking water supply dams, where populations may rely directly on reservoirs as a drinking water source (See [Chapter 2, Protecting Water](#)).

Watershed Protection

The concept of comprehensive watershed protections was validated in a 1984 ruling on an appeal of the Flood Hazard Area Control Act Rules or FHACA rules (N.J.A.C. 7:13). The Appellate Division of the Superior Court of New Jersey found that DEP “has ample power to deal comprehensively in a single set of regulations with overlapping areas of flood hazards, water pollution, and the preservation of plant and animal life dependent on the streams being encroached upon.” Therefore, the FHACA rules not only protect life and property, but through alignment with other statutory goals discussed in detail in [Chapter 2, Protecting Water](#), they also preserve the quality of surface waters and protect the wildlife and vegetation that exist within and depend upon such areas for sustenance and habitat. These provisions, as well as stormwater management requirements that have been incorporated over the years, are an essential element of a comprehensive policy to “restore, enhance and maintain” water quality.



In 1985, the state released its first Statewide Water Quality Management Plan, a comprehensive statewide water quality policy addressing both point and nonpoint source pollution as well as integration of drinking water supply. This document, which is described in more detail in [Chapter 2, Protecting Water](#), was a precursor to the watershed approach DEP began using in 1996. The land that drains to waterways, known as the watershed, is important for much more than flood prevention. These areas are protected by statute because they provide services that are essential for the ecosystem, public health, quality of life, and the economy. DEP protects watersheds, including both land and waters of the state (ground and surface waters), through a number of mechanisms, including permitting, planning and grant allocation. These reflect the well-documented connection between conversion and use of land and water quality. Increases in impervious surfaces like pavement, the removal of vegetation, or the reshaping of topography result in direct and indirect impacts on water and the ecosystems that depend on those water resources. Management of land within the watershed is therefore inherently connected to the health of the water. Streams, rivers and wetlands are important resources that perform services that are essential for New Jersey’s economy, including for industrial and drinking water supply, biodiversity, fisheries, carbon sequestration, and recreational and resilience value.

Special Regions

In 1979, on the heels of Congress establishing the Pinelands National Reserve in 1978, New Jersey enacted the Pinelands Protection Act (N.J.S.A 13:18A-1 to -58) to protect a region with unique and important habitats, wetlands, and historic and cultural value as well as a watershed that includes a critical ground water reservoir or aquifer with 17 trillion gallons of high-quality drinking water.

In 2004, the Highlands Water Protection and Planning Act (N.J.S.A. 13:20-1 to -35) was signed into law to protect the 800,000 acres in the Highlands Region. That Act protects drinking water for over 5.4 million people and helps preserve important natural, cultural, and agricultural resources by establishing minimum environmental, water resource, and land use standards, establishing the Highlands Water Protection and Planning Council, and requiring the development a Regional Master Plan (RMP). The RMP and the rules and permitting program administered by DEP must be harmonized and, as appropriate, consistent.

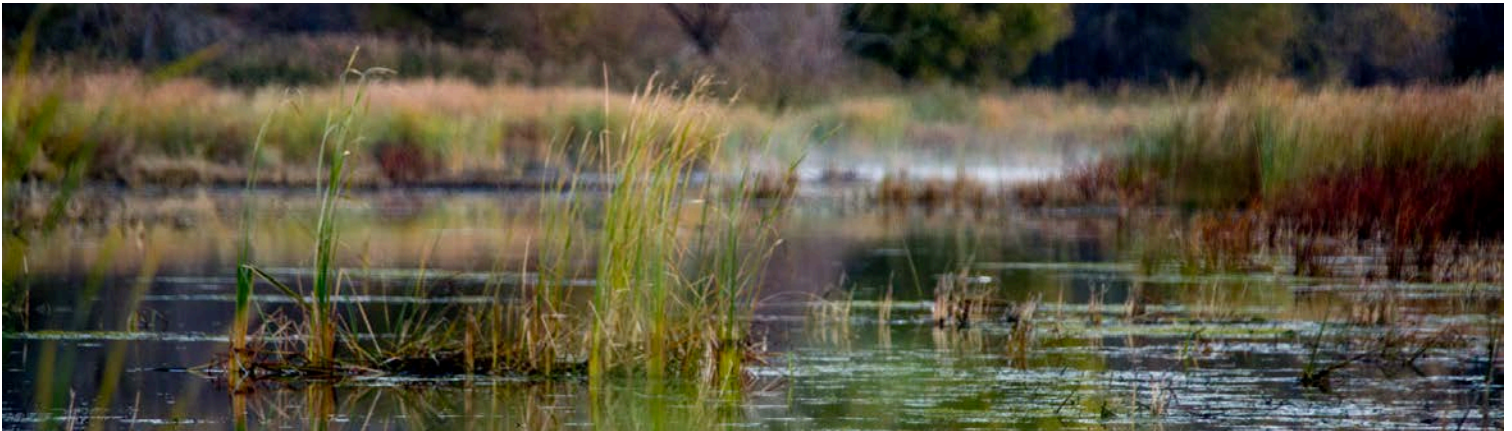
Other special areas within New Jersey included the Meadowlands District, formed in 1969 and overseen by the New Jersey Sports & Exposition Authority, and the Delaware & Raritan Canal Commission Review Zone formed by legislation passed in 1974 and managed by the Delaware & Raritan Canal Commission. DEP works closely with both organizations to manage these important coastal and drinking water resources.

DATA INFORMING POLICY

Since 1986, DEP has conducted rigorous, detailed studies of the status and trends in land use and land cover using aerial images and photo-interpretation. This data set is fundamental to tracking [changes in land use and cover](#) as part of [Environmental Trend Reporting](#). For example, between 1986 and 2015 New Jersey developed at a rate of nearly 34 acres per day. The analysis of aerial and satellite imagery has allowed New Jersey to understand loss of agricultural lands, forest, and wetlands and increases in open water and developed lands. This impressive data set has also been analyzed for landscape change, serves as the basis for habitat mapping, including fragmentation, and is used to track down pollution sources. Alongside other critical data, like the [water quality assessment](#) data and hydrography or waterbody GIS data, New Jersey's Land Use/Land Cover data informs land use policy.

Wetlands

New Jersey first recognized the importance of wetlands with the enactment of the Wetlands Act of 1970 (N.J.S.A.13:9A-1 to -10), which directed DEP to map and regulate coastal wetlands. Passage of the federal Water Pollution Control Act in 1972 was followed by a landmark court case in 1975 which clarified that wetlands were considered water of the United States. Subsequent amendments in 1977 changed its title to the Clean Water Act and included the regulation of wetland areas. The federal wetland program of today was therefore established to regulate discharge of fill into waters of the United States, including wetlands. Amidst concerns of continued wetland losses in the 1980s, the New Jersey Legislature began debating the regulation of freshwater wetlands. Prompted by the slow pace of their action, then Governor Tom Kean issued a moratorium on building in wetlands and less than a month later, in 1987, he signed the Freshwater Wetlands Protection Act (N.J.S.A. 13:9B-1 to -30). This law mandated the regulation of an estimated 300,000 acres of wetlands that were not previously protected under other laws such as those governing coastal wetlands or the Pinelands. The new law included protection of buffers or transition areas of various sizes depending on the natural resources associated with a specific wetland or water. New Jersey became the second state to assume the Clean Water Act Section 404 wetlands program in 1993 (33 U.S.C. § 1344), with authority to regulate wetlands in New Jersey in most areas was delegated to the state. In 2025, New Jersey and Michigan remain the only two states to have assumed authority of the wetlands program.



DEP's wetland program is cutting edge, collaborative, and comprehensive. In partnership with the New Jersey Sports and Exposition Authority, the New Jersey Pinelands Commission, and the New Jersey Highlands Council, every five years DEP submits an updated Wetland Program Plan to USEPA. The plan provides a framework for the State of New Jersey to strengthen the core elements of its wetland program and sets forth coordinated current and future wetland protection and management goals for the benefit of New Jersey's wetland resources and the quality of life for future generations. According to the [New Jersey Wetland Program Plan \(2023-2027\)](#), wetlands cover 17% of New Jersey and provide a "a plethora of ecosystem services to plant, animal, and human residents." Through its wetlands program, DEP performs research, regulates, monitors, and restores wetlands, which maintains water quality, builds resilience and provides education.

For over four decades DEP has been engaged in wetland monitoring and assessment. Tidal wetland mapping occurred in the 1970s, and freshwater wetlands were first mapped in the 1980s. Wetlands are monitored in various ways, including through the analysis of aerial imagery. In addition, the [New Jersey Tidal Wetland Monitoring Network](#) was formed in 2018 to improve the resilience of coastal communities and ecosystems through assessment of current conditions and identification tidal wetland trends. This information informs policy decisions and aids in the prioritization of the restoration efforts described in [Chapter 2, Protecting Water](#).

Stormwater Management

The groundswell of activity at the federal and state level to protect water also included regulation discharges of pollution under the Clean Water Act through the National Pollution Discharge Elimination System (NPDES) program as well as policies, plans and incentives designed to address nonpoint source pollution. In 1981, the New Jersey Legislature passed the Stormwater Management Act (P.L. 1981, c.32) to supplement and amend the state's Municipal Land Use Law (N.J.S.A. 40:55D-93 to -99). DEP adopted rules in 1983 requiring stormwater management on new development and providing grants for development of local stormwater management ordinances and plans. These rules and New Jersey's approach to stormwater management have evolved over time to be an essential element of the state's efforts to meet federal Clean Water Act requirements.

Chapter 2, Protecting Water explains Clean Water Act Section 402 (33 U.S.C. § 1342), which resulted in the NPDES program, and New Jersey's delegated program, the New Jersey Pollution Discharge Elimination System (NJPDDES) program. NJPDDES Stormwater Permitting is an important element of pollution control and nonpoint source pollution. For information on Combined Sewer Overflows (CSO), where stormwater and sanitary sewers are handled in one system, see Chapter 2, Protecting Water. The federal NPDES program had two phases of stormwater permitting amendments: Phase I (1990) and Phase II (1999). Phase I addressed medium and large Municipal Separate Storm Sewer Systems (MS4s), including cities or counties of a certain population size and industrial stormwater discharges. Phase II addressed small MS4s, including smaller municipalities, public complexes (large hospitals, prisons, military bases), and highway agencies. DEP issues Industrial Stormwater and MS4 permits to regulate stormwater discharges to surface and ground water and maintain and enhance water quality. The New Jersey MS4 permitting program was established in New Jersey in 2004. The MS4 minimum standards address six federally required control measures, including public involvement and participation, local public education and outreach, construction site runoff and post-construction management, pollution prevention (e.g., street sweeping, leaf collection), infrastructure mapping, and scour and illicit discharge detection and elimination. Review of major development stormwater management is primarily achieved at the local level, under the authority of the MS4 permit, through the adoption of local ordinances, and consistent with DEP's Stormwater Management (N.J.A.C. 7:8). Where a DEP land use permit is required (i.e., Flood Hazard Area Control or Freshwater Wetlands, or Coastal Zone), DEP reviews the project for compliance with the stormwater management rules. These reviews represent roughly one quarter of the total number of stormwater management reviews statewide. DEP is responsible for enforcing MS4 requirements, including pollution prevention and site review done at the local level. After decades of addressing point source discharges, future water quality improvements statewide are dependent on successful stormwater management at the local level, particularly as the climate changes and existing threats are magnified.

“New Jersey’s approach to stormwater management [has] evolved over time to be an essential element of the state’s efforts to meet federal Clean Water Act requirements.”

DEP also regulates industrial stormwater discharges under NJPDES to minimize pollutants entering stormwater runoff throughout New Jersey. Many industries are regulated through this program, including lumber, paper, chemicals, petroleum, leather, metals, mining, landfills, recycling (including scrap metal), and warehousing. By issuing permits the program ensures that Best Management Practices are an active component of a company's operations at over 2,500 permitted facilities in the state. These practices are documented within a required Stormwater Pollution Prevention Plan. Many facilities are also required to sample their discharges and provide analytical results of pollutant concentrations to DEP. Exceedances of thresholds set in permits may result in fines or other enforcement action by DEP. To ensure compliance with the federal and state standards, DEP routinely conducts stormwater inspections, provides compliance assistance, and issues enforcement actions when necessary.

The State of Land Resource Protection

The landscape of New Jersey would look vastly different had the various environmental land use laws described above not been enacted to protect New Jersey's land resources and communities. As a direct result of these actions, New Jersey continues to boast a thriving economy with clean and plentiful drinking water, pristine pinelands and highlands areas, and robust recreational, shore, and ecotourism sectors. By combining the law, science, and the protection of public safety and the ecosystem services that support New Jersey's economy, DEP continues to adapt and enhance its land protection programs and rules. As the climate changes and the population expands, DEP will need to continue to build on this strong foundation to continue to strike the balance between public safety, environmental protection and meeting public needs.



Watershed Protection

Successful watershed protection requires partnership at all levels of government. Protection begins and ends with water monitoring ([Chapter 2, Protecting Water](#)) and data analysis, which provides information about the health of waterways and whether programs and projects intended to improve water quality are effective. Planning and implementation are the necessary steps in between to identify and implement actions that will address impaired water quality.

Understanding that watershed protection is necessary to protect the health of our waterways, including critical drinking water sources, DEP recommitted to a watershed approach through realigning programs, enhancing coordination, and modernizing rules. Core DEP programs involved in watershed protection include water and land use permitting, water supply and monitoring, and the science and research team. However, nearly all programs within DEP have some nexus to water quality. Because complex issues like harmful algal blooms and stormwater management involve actions and initiatives across DEP, routine coordination is necessary to form policy and identify and implement effective solutions. By leveraging data and funding, DEP can help communities to manage their watersheds and select prevention and mitigation solutions that are science-based and have multiple benefits.

Watershed Health & Planning

Watershed planning is central to the goals of the federal Clean Water Act, that is to maintain and restore water quality. These goals are met through planning efforts that address both point and nonpoint source discharges. By realigning the watershed protection programs, DEP acknowledged the role that development, stormwater runoff, and erosion play in degrading New Jersey's waterways and the importance of watershed planning and projects for community and economic resilience. Having made great progress in stabilizing and improving water quality over decades through point source regulation, DEP is expanding efforts to reduce nonpoint source pollution, a continuing major contributor to water impairments.

To foster watershed planning at the local level, over the last eight years DEP has awarded grants for watershed planning totaling \$5.1 million. DEP is also working with Rutgers University and stakeholders to develop a user-friendly suite of data tools to support local watershed management and planning. [WatershedNJ](#) includes an interactive tool for members of the public and practitioners who are interested in understanding local watershed health. Additional tools, including a Water Quality Stressor Webtool and Watershed Quality Solutions Webtool, are under development. These tools will help local governments and other entities develop USEPA approved 9-point Watershed Plans or MS4 Watershed Improvement Plans.

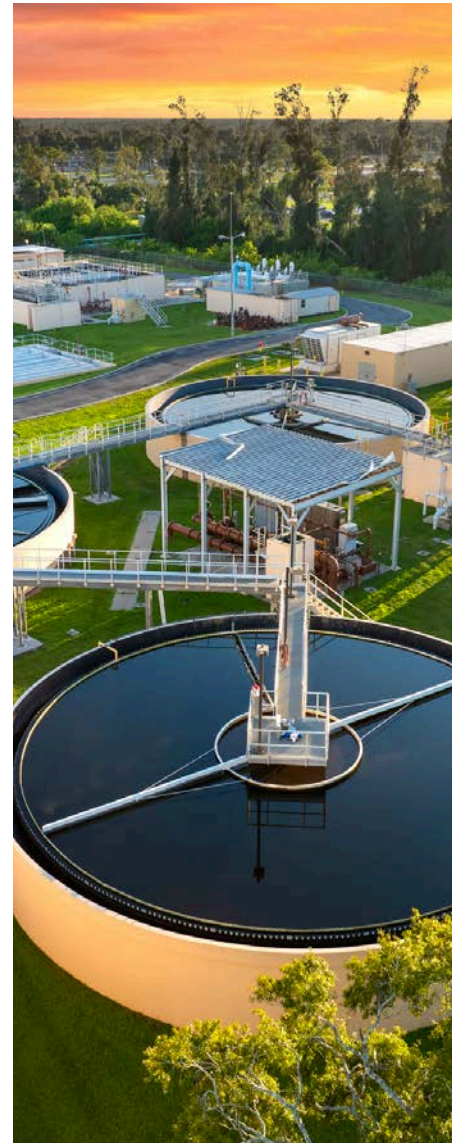
Next Steps

DEP will work to ensure effective community engagement and continue to expand efforts to build local capacity for watershed management and planning. Such endeavors are most effective when built with the community. Through use of focus groups and stakeholder sessions, DEP will work to understand community needs and assist with prioritization of projects.

Coordination with water and watershed programs and stakeholders on all watershed issues is essential to optimizing programs and policy. This is particularly important for shared issues like harmful algal blooms, nutrient management (including Total Maximum Daily Load development and implementation), water infrastructure resilience, stormwater permit compliance, emerging contaminants, sediment management, new drinking water Source Water Assessments, wetland condition assessments, and enhanced and digitized water monitoring data.

Financial support through the Watershed Restoration grants has been essential but the processing for applying and administrating these grants can be challenging for grant managers and grantees. will work with stakeholders and USEPA to identify opportunities to streamline and improve the grant process.

In 2026, in partnership with Rutgers University, DEP will release the WatershedNJ Water Quality Stressor Webtool. Using authoritative data, this tool will help identify potential sources of water-quality impairments. Based on this information, communities can design projects that improve local watershed health and apply for funding to implement them.



Stormwater

Over the last eight years, several factors have highlighted the importance of stormwater management and created a new urgency to accelerate innovative efforts, such as nature-based solutions and regional planning, across the state. Communities across the state are experiencing stormwater-related impacts from climate change. Increasing frequency of intense storm events coupled with absent or inadequate stormwater management is causing stormwater flooding that disrupts businesses and schools and requires increased emergency response. In addition, extreme rainfall events bring nutrients and chemical and thermal pollution to waterways as nonpoint source pollution that have real impacts to local economies, like increasing frequency and duration of harmful algal blooms. Much of New Jersey was developed before stormwater management was required. Where stormwater infrastructure does exist, it is simply not designed for the new extreme rainfall events. In addition, stormwater infrastructure is often not well understood or maintained and is increasingly beyond its useful life. In fact, the USEPA estimates that \$15.6 billion in water-related funding is needed for stormwater management in New Jersey. This need can seem overwhelming, especially for smaller jurisdictions. Regional partnerships and other new approaches will be necessary to address stormwater management moving forward. Over the last few years, New Jersey has seen regulatory reform, enhanced MS4 permitting, groundbreaking legislation, and supportive funding and technical assistance all aimed at improving stormwater management.

In 2020, DEP adopted the first phase amendments to the Stormwater Management rules after almost a decade of stakeholder engagement. These amendments acknowledge that engineering with nature using nature-based solutions or green stormwater management measures is less costly and associated with many co-benefits for communities. In addition to water quality benefits, these well-established management approaches beautify and enhance open space, filter air pollutants, sequester carbon, and help cool communities. The amendments establish green infrastructure as the preferred and predominate method for managing stormwater.



LAND RESOURCE PROTECTION

In 2023, DEP amended the rules again to reflect the best climate science available. The Inland Flood Protection Rule reflects New Jersey's changing climate and more frequent and intense rainfall, replacing standards based on outdated data and past conditions. In an effort to close severe climate data gaps and provide a reliable scientific basis for regulatory adjustments, DEP commissioned New Jersey-specific studies that confirmed precipitation has increased in the state over the past 20 years and will continue to increase through the end of this century. The studies were conducted by the Northeast Regional Climate Center, a partner of the National Oceanic and Atmospheric Administration and released in November 2021, with a peer-review by DEP's Science Advisory Board. Applicants are now required to use this New Jersey-specific precipitation data when addressing stormwater pursuant to the stormwater management rules.

In 2024, DEP proposed the second phase of the rule amendments discussed at length during years of extensive stakeholder engagement. The proposed amendments will improve water quality and reduce flooding by adding sound stormwater management practices in areas where stormwater is not adequately managed and by asking communities to incorporate climate resilience into municipal and regional stormwater management plans. Under the current rules, existing development can be redeveloped with no stormwater treatment, leaving New Jersey's older urban communities without a mechanism to improve water quality and mitigate flood risk with modern stormwater management best practices. Stakeholders have repeatedly indicated that New Jersey's stormwater issues cannot be managed by addressing new development alone. DEP agrees. Furthermore, regional planning to date has not included climate change considerations, a factor that will affect success of any management measure. Collectively, these changes are expected to improve local and regional water quality and important measures for achieving risk reduction and mitigation.

“Stakeholders have repeatedly indicated that New Jersey’s stormwater issues cannot be managed by addressing new development alone. DEP agrees.”

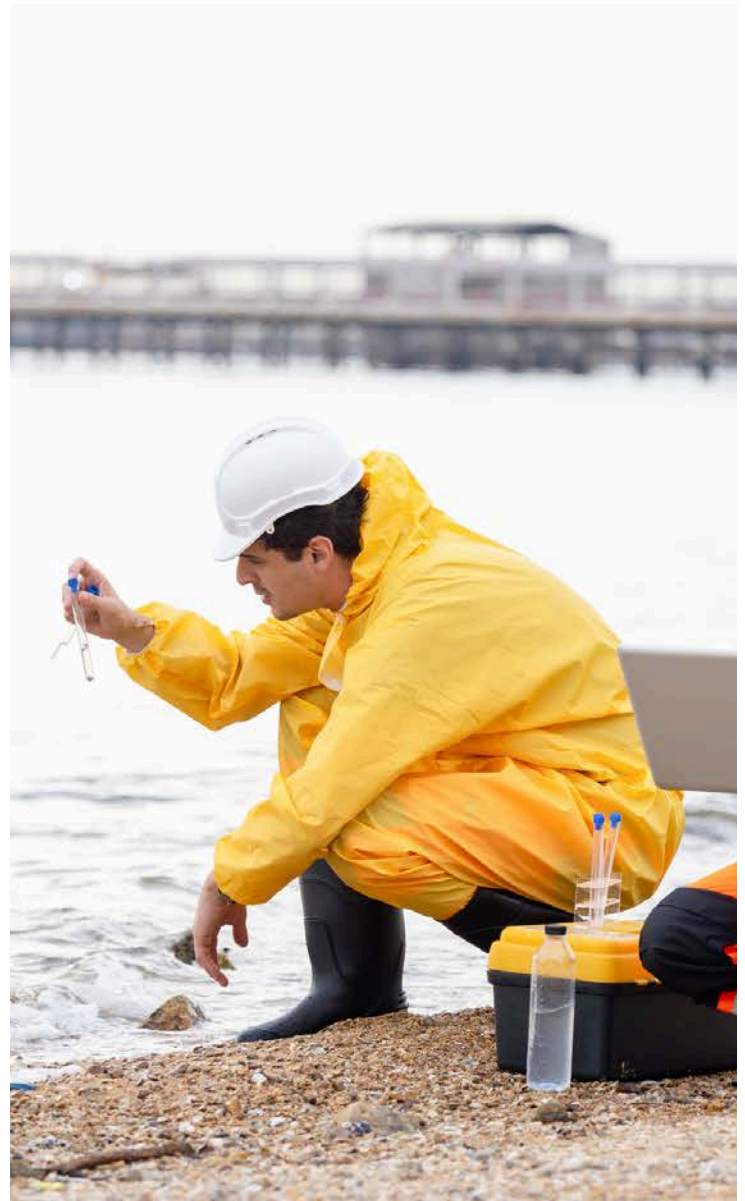
In 2023, nearly twenty years after the establishment of the MS4 permitting program, DEP issued a new MS4 permit designed to help communities take action to protect their local and regional water quality and mitigate costly stormwater flooding. Statewide water quality is dependent on the responsible operation of local stormwater systems. Each permittee has a responsibility not only to their own community but also to downstream communities. Because effective operation and maintenance of stormwater systems require an understanding of all system assets, the 2023 MS4 permit required permittees to expand existing stormwater infrastructure inventories. This information is uploaded to an existing statewide map which has utility beyond stormwater management, including emergency response. To support inventory mapping and planning, since 2023, DEP has offered nearly \$26.5 million in grants to local and county governments.

The 2023 MS4 permit also requires a Watershed Improvement Plan to identify actions to correct existing impairments caused by runoff, like excess nitrogen, phosphorus and pathogens, all of which threaten the health of water supplies. In partnership with the Rutgers Cooperative Extension Water Resources program, DEP is funding a technical assistance program intended to help communities evaluate lasting solutions such as formation of stormwater utilities and support Municipal Separate Storm Sewer and Combined Sewer Outfall Long-term Control Plan compliance.

LAND RESOURCE PROTECTION

The Clean Stormwater and Flood Reduction Act (N.J.S.A. 40A:26B-1 to -18) is also driving exploration of regional stormwater management. This law, passed in 2019, granted local and county governments and certain utilities the ability to manage stormwater services like any other water or sewer utility by establishing a stormwater utility. A stormwater utility allows communities to dedicate fees charged for stormwater service directly to stormwater management, thus allowing a utility to properly operate, maintain, repair, and improve their storm sewer system as necessary. The concept of charging a fee for utility service is not a novel or new approach and there has been successful application of this model across the nation. DEP issued [guidance](#) to support the establishment of stormwater utilities, but seeing that none had yet been formed as of 2022, DEP made \$2 million available in technical assistance to facilitate feasibility studies. As of 2025, four stormwater utilities have formed, and the feasibility of regional action is also being explored regionally.

Beyond regulatory and permitting efforts, DEP has demonstrated its commitment to building local capacity to manage stormwater through technical assistance, partnerships, and funding. Since 2018, DEP has awarded more than \$33 million in Water Quality Restoration grants to improve the health of waterways in all corners of the state, including stormwater management projects.



Next Steps

Fostering New Solutions

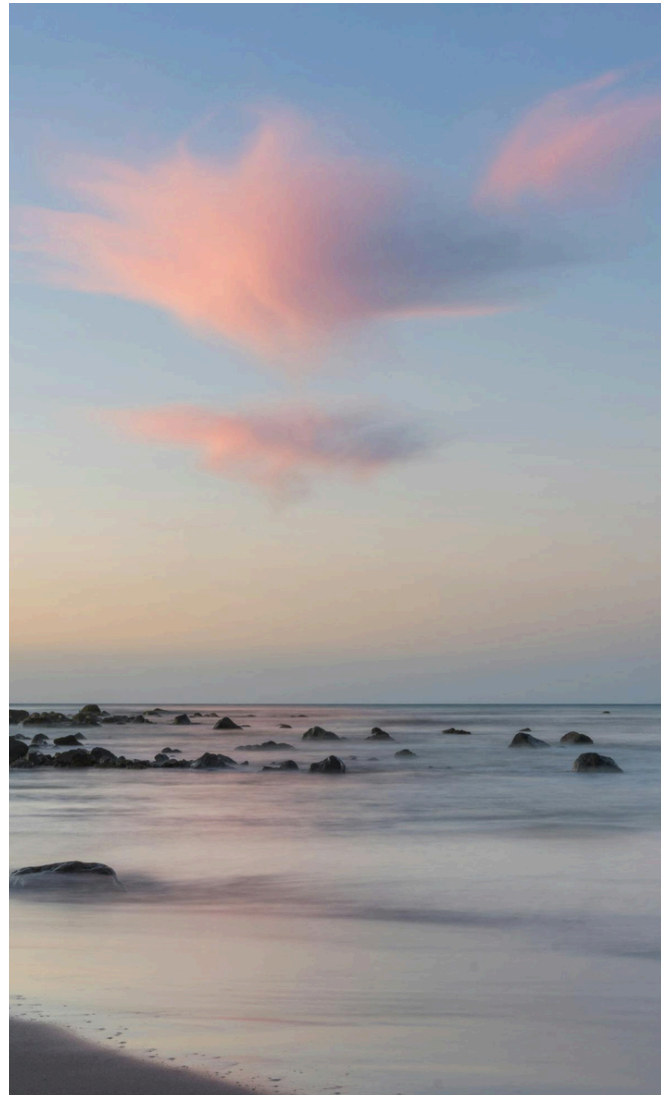
As climate change brings more intense rainfall events and watersheds continue to develop with impervious surface, all levels of government will need to work to maintain and improve existing infrastructure while employing new and innovative approaches to managing stormwater. Understanding stormwater infrastructure and areas of inadequate management that result in impairments or flooding are critical. Because both water-quality impairments and flooding are costly to all involved, partnerships across jurisdictions and with the private sector can be an effective means of managing stormwater. DEP will continue to encourage regional planning and solutions.

Stormwater Utilities

As older stormwater systems are already failing, there is an urgency to address stormwater issues that are outpacing the availability of funding. Managing stormwater as a utility that charges a fee for a service like water or sewer, rather than spreading it across the property tax base, is an important and well-established method for funding improvements. This proven model addresses those entities that contribute large quantities of stormwater making use of a system to which they never contribute financially. DEP will continue to support communities that explore or employ this approach.

Rule Implementation

With the Resilient Environments and Landscapes (REAL) rules, DEP hopes to adopt the second phase of much needed stormwater amendments that finally address management in historically urbanized areas. Implementation of this rule will require engagement with communities and the practitioners that work on their behalf. Similarly, DEP must engage with MS4 permittees as they work to comply with the new permitting requirements. Compliance assistance in addition to the grants and technical assistance already offered will be critical to the success of the program. DEP's current compliance and enforcement model should be assessed to ensure that it is addressing nonpoint source pollution effectively across the state. DEP will once again engage communities, stakeholders, and practitioners to solicit program feedback and to share programmatic data that is the foundation of any assessment. The overarching goals of this effort will be to support more impactful projects, streamline processes, enhance compliance, facilitate regional solutions, and build local capacity to do all of the above.



Building Resilience

Climate change threatens New Jersey's environment, economy, and the health and safety of its people. The science of climate change is well established, and while it continues to develop, it is certain that impacts will continue to grow. While there will likely continue to be some uncertainty about the degree of those impacts, delaying action until there is perfect information is not only irresponsible, but it also runs counter to DEP's mandates to protect natural resources and public health. Given that inaction is not a choice, DEP has ensured that the best available and, wherever possible, New Jersey-specific data is the basis for all efforts to build resilience in New Jersey. With a strong scientific basis for understanding the future climate impacts that will affect land resources, including rising seas and increasing intensity of storms, DEP has an obligation to help New Jersey communities envision a more resilient future.

The decade of resilience planning described below led to the development of the [Building a Climate Ready NJ](#) (Climate Ready NJ) initiative, a \$72 million award from NOAA's very competitive Climate Resilience Regional Challenge. This initiative includes DEP and partners from the NJ Coastal Resilience Collaborative and establishes the state's largest transformational resilience initiative to date, including many of the elements of a comprehensive resilience program that are listed below. Climate Ready NJ includes a host of projects and activities, including extensive outreach and education, workforce development, resilience planning, project design, the construction of a new waterfront resilience park, 60 neighborhood-scale stormwater management projects, and restoration of coastal marsh in the Meadowlands. Importantly, this initiative includes the establishment of a resilience project design pipeline to move projects from plans and concepts to implementation, a critical gap in New Jersey's resilience framework.



Planning and Technical Assistance

Local decisions about zoning, redevelopment, housing, open space, and other investments will affect how climate change impacts their own and neighboring communities. To ensure that investments made at the local level withstand future conditions, climate change must be integrated into all local and regional planning efforts. To foster sound resilience planning, DEP has been providing local governments with planning and technical assistance since Hurricane Sandy decimated New Jersey's coast in October 2012. Initial efforts focused on providing local governments with an understanding of their vulnerability and providing guidance to make informed decisions through initiatives funded by the National Oceanic and Atmospheric Administration (NOAA) such as the [Resilient Coastal Communities Initiative](#), [Getting to Resilience](#), [Building Ecological Solutions to Coastal Community Hazards](#), and the [Sustainable & Resilient Coastal Communities](#) project. These initial offerings culminated in the establishment of the New Jersey Coastal Resilience Collaborative, bringing together public, private, and non-profit organizations to provide consistent and coordinated expertise to New Jersey's coastal communities.

While individual municipalities have land use authority, climate hazards such as flooding, storms, and increasing heat, do not abide political boundaries. The DEP launched its first regional planning effort, [New Jersey Fostering Regional Adaptation through Municipal Economic Scenarios](#) (NJ FRAMES), with 15 municipalities in northeast Monmouth County. The final NJ FRAMES Regional Resilience Adaptation Action Plan was released in December 2019 and remains a strong vision for the Two Rivers region.

Those post-Sandy initiatives established a strong foundation for Resilient NJ, the state's premiere resilience planning and technical assistance program. Originally funded through the National Disaster Resilience Competition, the first aspect of the program launched in 2018 with the establishment of a Regional Resilience Planning program that provided planning assistance to 24 municipalities in 4 diverse coastal regions. The Resilient NJ planning process provides a comprehensive regional vulnerability and risk assessment, and through a robust community engagement process, culminates in regional resilience action plans that identify projects and actions to meet the community-defined visions for a resilient future. Those four regional plans were finalized in 2023, and with additional technical assistance from DEP, resulted in over \$26 million in additional federal funding to implement the actions in those plans.



Next Steps

In 2026, the Resilient NJ program will expand into new areas of the state with the kickoff of 4-6 new regional resilience plans funded through multiple sources, including the Climate Ready NJ initiative. The program is also seeking ways to continue to provide technical and planning assistance to participating communities to implement the completed resilience plans, including:

- A Local Resilience Network (LRN) for communities to learn and share best practices;
- An update of the Local Resilience Planning Toolkit;
- Municipal guidance for municipalities to address extreme heat; and
- An online resilience projects database.



Understanding and Communicating Flood Risk

Despite decades of regulating floodplains statewide, and with flood disclosure only recently mandated, development in the FEMA delineated Special Flood Hazard Area (SFHA) has increased. According to a [study](#) published in 2025 by Rutgers University, across the state between 1986 and 2020, “Urban land use area increased by 7.0% to cover 16.7% of the SFHA.” According to another Rutgers University [study](#), more than 400,000 properties statewide, with an estimated value of \$149.4 billion, are located in the SFHA. The SFHA likely underestimates flood risk because these maps are backward looking, incomplete, and are updated with varying frequency. For a long time, DEP has used this mapping as a starting point for addressing flood risk, using a broader floodplain that accounted for development while advancing regulations designed to reduce risk. Given climate change, flood-prone areas are expected to expand further.

DEP is committed to helping communities understand and communicate flood risk. By providing education and resources for local floodplain administrators, DEP ensures that communities are making informed decisions. In 2022, DEP released the draft Floodplain Administrators Guidebook and convened 27 municipal training sessions to assist 110 communities in adopting Flood Damage Prevention Ordinances. Partnering with Rutgers University and the Jacques Cousteau National Estuarine Reserve, DEP sponsors [MyCoast: New Jersey](#), a webtool used to collect and analyze photos of flood events and places statewide. Photos are linked to weather and tide data to create reports that help stakeholders to understand flooding and coastal change and make informed decisions.

In response to increasing flood risks across the state, the New Jersey Flood Risk Notification Law (P.L. 2023, c. 93) was enacted on July 3, 2023. The law requires landlords and sellers of real estate property to make certain disclosures concerning known and potential flood risks. Since March 20, 2024, every seller or renter of real estate property must disclose specific flood risk information before the property becomes obligated under any purchase or rental contract, including whether the property is located in a FEMA Special Flood Hazard Area or Moderate Flood Hazard Area, and actual knowledge concerning flooding or flood risks for the property. DEP developed a [Flood Risk Notification Tool](#) to assist individuals in providing the flood disclosures required by law.

Next Steps

New Jersey must explore technology that will lead to more accurate depiction of flood risk than the FEMA maps that are commonly used, including wide-scale modeling and community observational tools, like MyCoast. Enhanced mapping is also critical for resilience and emergency plannings as well as community investment. DEP has engaged a contractor to conduct global research on flood mapping, inventory all of New Jersey's existing floodplains, identify potential methodologies for state floodplain mapping, consult with stakeholders and subject matter experts to form recommendations, and demonstrate methodology options. Next, DEP must determine how best to depict flood risk areas in New Jersey moving forward, and then swiftly move to develop and implement a strategy to generate new data, tools, and/or maps as applicable options.



Regulating for the Future

With years of dense development and historical manipulation of rivers and floodplains, New Jersey remains one of the most vulnerable states in the nation to damage from sea-level rise, storm surge, more frequent and intense precipitation, erosion, and other climate impacts. As New Jersey's watersheds continue to develop and storms continue to intensify, functioning and expansive floodplains will become even more essential to the quality of life in local communities. These areas absorb flood waters, remove pollutants that threaten recreation and drinking water, and play an essential role in maintaining biodiversity and building resilience to the worsening impacts from climate change such as heat and intense rainstorms.

With a recognition that climate science was not incorporated in New Jersey's land use regulations, Executive Order 100 directed DEP to modernize regulations to adapt to climate change. As a result, DEP proposed the New Jersey Protecting Against Climate Threats (NJ PACT) rulemaking effort to update its FHACA, stormwater management, freshwater wetland, and coastal rules to reflect the best available New Jersey-specific science on climate change.

“As New Jersey’s watersheds continue to develop and storms continue to intensify, functioning and expansive floodplains will become even more essential to the quality of life in local communities.”

In 2023, as part of NJ PACT rule reforms, DEP adopted the Inland Flood Protection Rule, based on New Jersey rainfall studies. The rulemaking updated New Jersey's existing flood hazard and stormwater regulations by replacing outdated precipitation estimates with modern data that account for observed and projected increases in rainfall. These changes will lead to stormwater and flood design that remains protective as the climate changes and extreme rainfall events become more intense.

Most recently, with the adoption of the NJ PACT REAL rules, DEP incorporated climate science into land resource protection rules to increase the resilience of coastal communities as they face the growing impacts of climate change. The REAL reforms are based on the best available and New Jersey-specific climate science to update New Jersey's existing flood hazard, stormwater, coastal zone and freshwater wetland regulations statewide while also improving water quality, flood protections and addressing issues of particular concern to overburdened communities.

Next Steps

As science evolves and with implementation of the Inland Flood Protection and REAL rules, there will be opportunities to improve process and the rules themselves. DEP must work to evaluate and revise the rules accordingly.



Blue Acres

Initially administered intermittently as a subset of the broader Green Acres Program, the Blue Acres program is now a cornerstone of New Jersey's flood mitigation and climate resilience strategy. In 2019, the New Jersey Legislature passed a constitutional amendment to provide a sustainable funding source that included Blue Acres. This stable funding, combined with strong local interest, has enabled the program to operate both reactively in response to disasters and proactively to reduce future flood risk and support the state's broader climate adaptation goals.

To date, Blue Acres has acquired over 1,200 homes, particularly in communities that have experienced repeated flooding. The program is widely recognized for its cost-effectiveness, its personalized buyout approach, and its commitment to innovation, flood resilience planning, and risk reduction. A DEP study conducted in 2025 looked at 37 buyouts completed in 2002 in Manville Borough, Somerset County and found that the avoided flood damages were twice the cost of the buyouts—underscoring the long-term value of this program.

Over the past eight years, the program has received a record-setting \$54 million in state funding to meet the growing demand for buyouts. It has also broadened its federal funding capacity beyond its primary funding sources from FEMA and Housing and Urban Development (HUD) by partnering with the U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service through the Emergency Watershed Protection program.

Blue Acres continues to respond to disasters such as Tropical Storm Ida (2021) and more localized storm events in 2023, 2024, and 2025, offering buyouts and support to affected homeowners. The program also works closely with the Resilient NJ program, local governments, academic institutions, and nonprofit organizations to ensure that acquired lands are restored and managed in ways that enhance flood storage and local ecology and reduce maintenance burdens.

In recent years, Blue Acres has placed greater emphasis on post-buyout land use restoration and long-term visioning. These efforts aim to transform former residential properties into landscapes that improve floodwater storage and provide multiple benefits to vulnerable communities. In collaboration with Rutgers University and nonprofit partners, Blue Acres has produced key resources such as the [Post-Buyout Land Management Field Guide \(2024\)](#), the [Primer for Creating Flood-Resilient Landscapes \(2023\)](#), and a series of concept designs (2024) to inspire the ecological repurposing of acquired lands.

Together, these initiatives support long-term climate resilience, enhance biodiversity, and address the needs of populations most at risk from flooding and the compounding impacts of climate change.



Next Steps

Over the next decade, sustained state leadership, smart planning, and reliable state funding for buyouts will be essential to the success of the Blue Acres program, especially as federal funding for risk reduction becomes less predictable or reliable. To effectuate these goals, the Blue Acres program intends to increase its engagement with communities through visioning of post-acquisition land use, to support community buy-in and promote the properties as positive community assets.

To strengthen the case for buyouts, Blue Acres will seek to support partnerships and research that quantifies the environmental and resilience benefits of converting developed land to open space. Specifically, studies that evaluate flood storage and stormwater recharge capacity, and that recommend nature-based design strategies, could help demonstrate the local value of buyouts. Empirical evidence like this can be used to support open space risk reduction efforts, and may moderate concerns about the loss of local, residential tax rates.

To further enhance buyout planning, Blue Acres is exploring the creation of a Buyout Declaration of Intent (BDI) in flood-prone areas. This tool would allow homeowners to proactively express interest in a future buyout, enabling more proactive and community supported buyout planning. It will also help Blue Acres better anticipate future funding needs and allow the program to respond more effectively before the next flood or private sale of an at-risk, flood-prone property.

Finally, Blue Acres supports the idea of offering dedicated grants or subsidies to communities that integrate buyouts into their climate resilience planning with the intention of developing green infrastructure and nature-based solutions that will proactively reduce future flood risk. Blue Acres would benefit from a dedicated design and funding pipeline to support the development and implementation of nature-based solutions, with a priority pathway for designs planned on Blue Acres properties. By investing in a structured and accessible project pipeline, DEP can accelerate the adoption of nature-based solutions, reduce long-term flood risk, and enhance community resilience.

Resilience Projects

Shore Protection & Flood Engineering

In recent years DEP has worked with partners to increase the resilience of many New Jersey communities. In 2019, working with USACE beach and dune beach and dune reconstruction projects were completed, and progress was made on congressionally authorized projects - adding 16 miles of engineered beach, constructing a new seawall to protect the north end of Atlantic City, and the Sea Bright/Monmouth Beach Seawall. In 2022, DEP invested approximately \$59 million as part of three beach renourishments projects in Monmouth County, North Ocean City, and Cape May bolstering the coastline of several communities, and helping to protect residents and properties from storm surge and flooding. Most recently, with U.S. Army Corps of Engineers (USACE), DEP completed placement of approximately 5.4 million cubic yards of sand to protect roughly 19 miles of shoreline totaling around \$192 million, in Cape May City, Lower Township, Atlantic City, Ventnor, Margate, Longport, Long Beach Township, Beach Haven, Harvey Cedars, Seaside Park, Seaside Heights, Toms River Township, Lavallette, Brick Township, Mantoloking, and Bay Head. These projects also included the replacement or repair of public accessways to the beach, re-establishment of native dune plant species, installation of dune fence, and the repair of a stormwater outfall pipe.

DEP completed feasibility and environmental impact studies for two major HUD Rebuild by Design projects: construction of a resilience barrier in Hoboken and resilience and restoration projects for the Meadowlands. These innovative projects invest \$380 million to reduce flooding across eight towns in North Jersey and provide open space, waterfront access, and urban recreational infrastructure. DEP also awarded \$298 million in construction contracts for two flood-resilience projects funded through the HUD Rebuild by Design competition grant program. The projects – one in Hoboken and parts of Jersey City and Weehawken and another in the Little Ferry, Carlstadt, Moonachie, South Hackensack and Teterboro – represent major milestones in protecting these regions from flooding resulting from severe storms and sea-level rise associated with the worsening effects of climate change.



Nature-Based Resilience

Nature-based solutions (NBS) are based on the idea that nature is resilient. Designing with and restoring nature builds resilience and creates ecosystem value. Many rules prioritize NBS and restoration of natural systems and multiple programs throughout DEP support and promote NBS. DEP also partners with other agencies like the New Jersey Department of Transportation and the Economic Development Authority to incorporate NBS into various projects. Because so many groups are involved in NBS, DEP works to ensure alignment by communicating regularly with involved groups about grants, permitting, projects, scientific research, trends, and restoration and policy opportunities.

DEP is committed to fostering NBS across the state. Most recently, for coastal NBS projects, DEP proposed amendments in the REAL rules to streamline land resource permitting. These projects can be funded through DEP's Coastal Management program, Natural Resource Damage claims, or Regional Greenhouse Gas Initiative (RGGI) funds (see [Chapter 4, Conserving & Restoring Natural Resources](#)). In addition, DEP funds watershed restoration activities that address nonpoint source pollution through USEPA pass-through grants issued under Section 319(h) of the federal Clean Water Act. The green infrastructure required under DEP's Stormwater Management rules (N.J.A.C. 7:8) as well as mitigation required under the Freshwater Wetlands Protection Act Rules (N.J.A.C. 7:7A) and Flood Hazard Area Control Act Rules (N.J.A.C. 7:13) also restore natural systems and function, thereby increasing resilience.



DEP protects existing natural systems through a myriad of environmental protection laws described throughout this report, but a changing climate will mean that these systems must adapt. Natural and working lands (see [Chapter 4, Conserving & Restoring Natural Resources](#)) include forests, submerged aquatic vegetation, and coastal marshes. These areas provide valuable ecosystems services, including flood protection, habitat, and carbon sequestration. These same areas are threatened by climate change impacts. DEP continues to work with partners through research and demonstration projects to better understand how to prioritize such projects. Because restoration work can result in increased carbon sequestration, some of this work can be funded through RGGI. Through the Natural Climate Solutions grants, in 2023, DEP provided \$5 million to schools to plant 3,000 trees and \$24 million to projects which will restore tidal wetlands, salt marsh vegetation, living shorelines, forest restoration, and urban forest canopy enhancement.

DEP is also a cooperating agency and provides key personnel for various technical advisory committees for the review of key measures such as updating the USACE Dredge Material Management Plan ensuring the viability of Beneficial Reuse of dredged material in Federal navigational dredging and ecosystem restoration projects. Such projects include efforts to build marshes vulnerable to sea-level rise using dredged sediment. DEP also works to identify susceptible marshes that could greatly benefit from sediment placement during state navigational dredging projects and partners with the New Jersey Department of Transportation to place material on state-owned marshes.



In 2022, working with Stevens Institute of Technology, DEP updated the [Living Shorelines Engineering Guidelines](#), that were originally released in 2015. This document provides guidance on the design of living shorelines projects that is consistent with the most current research. Living shorelines are an alternative shoreline stabilization approach to more traditional “hard” stabilization measures such as bulkheads and seawalls that incorporate natural features and reduce erosion by mimicking features of the natural environment. The updated guidelines identify the parameters critical to the success of living shoreline projects, outline the level of analysis required to understand those parameters, and provide guidance on how to incorporate those parameters into a project design.

Finally, a variety of programs across DEP are working together to provide training, guidance and a one-stop website with resources that are valuable to the public and practitioners who are interested in learning about and pursuing nature-based solutions in communities across the state. DEP recognizes that the science surrounding nature-based solutions is evolving and is therefore committed to participating in and funding research and is forming an expert team to support DEP as it evaluates new approaches and techniques.

Supporting Projects from Concept to Implementation

There are opportunities for resilience and restoration across the state, in cities, at the coast, on farmland, and every area in between. By identifying and prioritizing projects that provide multiple environmental services, DEP can optimize its efforts. Projects that restore and protect the shoreline or add trees and vegetation in overburdened communities will also provide human and ecosystem health benefits. For example, the Bay Point restoration project, completed in February 2025, in Lawrence Township in Cumberland County was a Blue Acres site that was restored to provide resilience by protecting the system from wave energy and storm surge while enhancing habitat for horseshoe crabs and beach nesting birds.

Projects and opportunities for resilience and restoration projects originate from multiple DEP programs, including the projects identified in Resilient NJ plans, the many Blue Acres properties, shore protection and flood engineering, and the activities in the Building a Climate Ready NJ initiative.

“There are opportunities for resilience and restoration across the state, in cities, at the coast, on farmland, and every area in between.”

Additionally, a diverse coalition of state agency, non-governmental organizations, and academic partners has been collaborating on the development of a Coastal Ecological Restoration and Adaptation Planning (CERAP) tool, which identifies areas and projects for future ecological projects that have value in increasing community resilience, ecosystem health, and carbon sequestration. To support CERAP, which is described above, this same coalition has been building the New Jersey Restoration Tool Organization Suite (NJResTOrS) to better integrate web-based decision support tools that help users work directly from project scoping through evaluation. The NJResTOrS workflow proceeds from the statewide perspective of the CERAP tool to a landscape scale evaluation of the marsh landscape with the Marsh Explorer and Living Shorelines Explorer tools to more detailed site level assessment and guidance provided by the Wetlands Assessment Tool for Condition & Health and the Living Shoreline Feasibility Model.



LAND RESOURCE PROTECTION

In 2020, the New Jersey Science Advisory Board issued *The Status and Future of Tidal Marshes in New Jersey Faced with Sea Level Rise*. The report included potential remedies to address the vulnerability of these coastal resources, which provide essential services like carbon sequestration, habitat and flood protection. Understanding and planning for marsh migration requires careful study and thoughtful strategy to support communities. To that end, using Coastal Zone Management funding, DEP is compiling research which evaluates the current state and practices of ecologically based hazard mitigation strategies, marsh migration modeling, and their relationship with sediment delivery and accrual. This project also involves the drafting of a workplan for the development of a sediment transport and marsh retention data layer for restoration project planning and prioritization. This data layer will provide valuable information to project developers and regulatory agencies to inform intervention tactic selection, including single or inter-related approaches, to ensure that coastal wetlands can effectively adapt to sea-level rise through vertical accretion and/or inland migration. The developed data layer will ultimately be incorporated into NJResTOrS. Based on the research, assessment, and mapping conducted, in partnership with Stockton University, DEP will develop a whitepaper summarizing the overall migration potential of New Jersey's coastal wetlands. The paper will consider those wetlands unable to migrate, including any barriers to their migration and their potential to benefit from ecologically-based hazard mitigation strategies. This information will be used to inform state policies and programs that address marsh migration.

These examples are just several components of a larger strategy to equip coastal planners and practitioners with the resources to plan, coordinate, and implement climate resilience and coastal restoration projects that support community resilience, ecosystem health, and carbon sequestration.



Next Steps

DEP will continue to further the understanding of land resources through research and development of tools, including the update and augmentation of CERAP through Climate Ready NJ. In 2026, DEP will issue a new wetlands trends report and data layers to help in the identification and planning of tidal wetland restoration and protection projects. These efforts will continue to be added to NJResTOs. In addition, since there is a robust tidal wetland monitoring network but no comparable network for freshwater wetlands, DEP needs to work to address this gap.

To ensure wise, consistent, and efficient state investments that avoid maladaptation, and in light of dwindling federal support, DEP strongly recommends development of a Statewide Climate Resilience Investment Plan with that incorporates and builds on these ongoing efforts and which considers the availability of any dedicated climate resilience funding sources that may materialize through future legislative enactments or otherwise identifies potential such funding sources that the state should pursue.. This plan would provide recommendations to strengthen resilience and promote long-term adaptation of New Jersey's communities, socially vulnerable populations, public health, infrastructure, economic sectors, and natural resources, protect against maladaptation, and identify funding mechanisms for implementation.



As climate impacts increase, DEP will continue to work with communities to identify and prioritize resilience projects. Establishing clear and data-driven criteria for projects that qualify and meet state and community objectives will be important. Uncertainty about federal funding and programs will likely be a challenge. Resilience projects may require state and local funding in the absence of federal participation as a primary driver. Accordingly, projects will need stable funding and local support, which requires significant local engagement at all phases.

DEP will continue to develop resilience projects that have a positive federal Benefits Cost Analysis ratio (BCA) beyond simple repetitive loss calculations. At present most BCAs do not include alternative/expanded data sets that may be required to reflect co-benefits such as carbon sequestration, habitat uplift, urban amenities and public access.

Finally, timelines for larger projects have traditionally taken 15-30 years from concept to final completion. With climate impacts increasing and therefore urgency to act, these timeframes must be shortened to the extent practical. Phased and adaptive approaches will likely be necessary and will help build momentum for inter-related on the community-wide resilience projects.

Public Access

In the past eight years, the most significant development related to public access to tidal waters and their shorelines was the enactment of P.L. 2019, c. 81, codified at N.J.S.A. 13:1D-150 to -156, and colloquially referred to as the Public Access Law. This law represents a codification of the Public Trust Doctrine common law, but with some notable revisions. It affirms DEP's authority and duty to protect the public's rights of access and sets specific standards for when access must be provided, as well as certain limited exceptions (e.g., facilities with national security concerns, limitations on access at marinas, and restrictions on access necessary to protect threatened and endangered species).

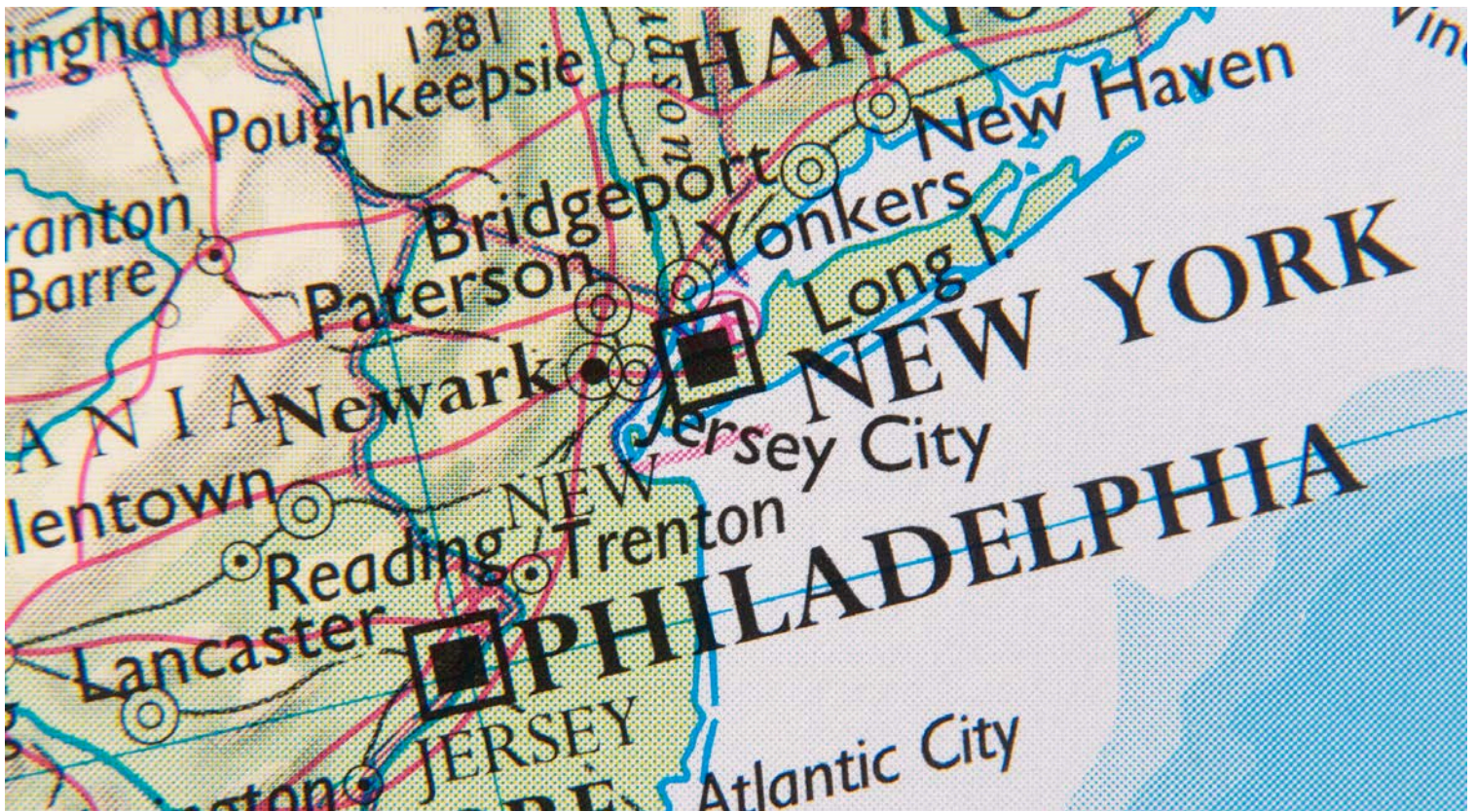
The law requires that whenever DEP receives a permit application for a development project that impacts a tidal waterway, and which involves a change in the existing footprint of a structure, a change in use of the property, or involves beach replenishment or beach and dune maintenance, that DEP review the existing access to tidal waters and adjacent shorelines in place and, as a condition of the permit, require that additional public access be provided. Notably, the law sets standards for determining the additional access that are separate and distinct from the common law factors, representing a partial deviation from the common law specifically in the context of permit approvals.

Consistent with the Public Access Law's conferred authority to limit access for the protection of threatened and endangered species, DEP adopted new rules at N.J.A.C. 7:25-4A to set standards for such limitations on access. DEP regularly receives and investigates complaints from the public related to interference with public access and it is likely that the extent and scope of public access to tidal waters will continue to be refined.



Next Steps

DEP will propose and adopt new standards in its Coastal Zone Management and FHCAA rules to both protect and provide incentives for the improvement of meaningful public access to the State's tidal waterways. Proposed rule amendments will implement the 2019 law related to public access (N.J.S.A. 13:1D-150 to -156), which expands the requirement for public access to additional types of permit applications and includes expanded standards and requirements for the type and quality of public access to be provided. The new rules will include incentives for municipal participation in Municipal Public Access plans, and permit conditions that more meaningfully provide for the creation and preservation of meaningful public access.



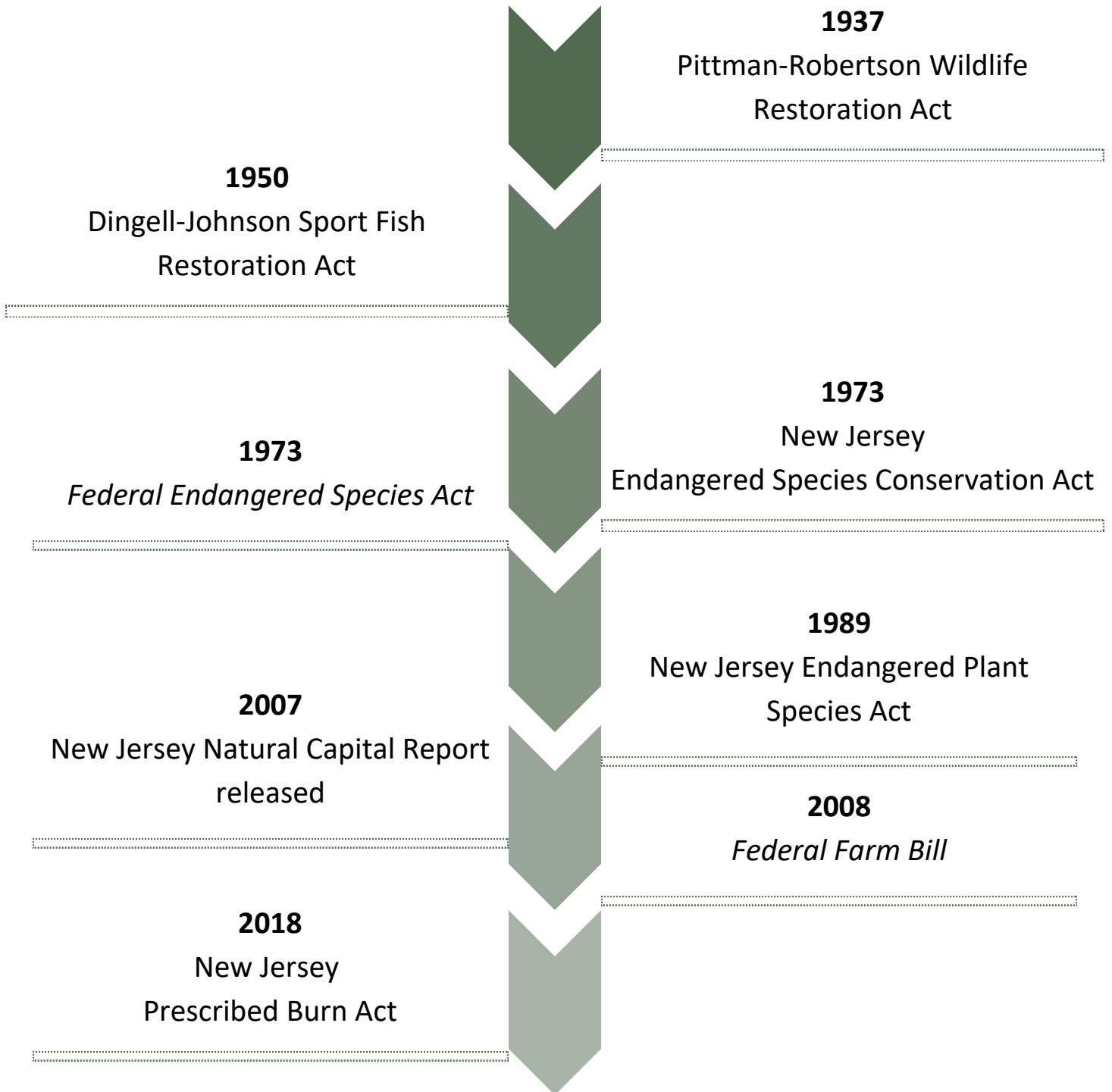
Improving Efficiency

All organizations, including DEP, benefit from periodic evaluation of process. DEP's Land Resource Protection permit process is no exception. Housing needs, including those associated with the fourth round of affordable housing, as well as growing energy and resilience needs, are likely to increase permit applications. Maintaining and improving processing efficiency will require that DEP address all parts of the permit review process that are under its control. Waste (i.e., unnecessary processing steps, idle time, untapped talent or technology) should be eliminated and delays should be minimized. DEP is in the process of assessing its permit application review workstreams and has utilized the Lean Six Sigma process improvement system to identify efficiencies. DEP is also preparing to implement staff augmentation through use of outside contractors to handle appropriate aspects of application review, with a pilot contract currently underway for select stormwater reviews. In addition, DEP has identified that a modernized, bi-directional permitting dashboard is needed to provide a single interface for both applicants and review staff to engage and track the permitting process to maximize transparency and streamlining.

CONSERVING & RESTORING NATURAL RESOURCES



MILESTONES



CONSERVING & RESTORING NATURAL RESOURCES

New Jersey has a diverse landscape making it rich in natural resources. These resources are vital for public health, ecosystem health, and the economy. Resources such as air, water, soil, forests, wetlands, and terrestrial and aquatic plant and animal species provide essential benefits to society. DEP acts as the public trustee responsible for protecting and restoring New Jersey’s natural resources from environmental contamination and degradation under the Public Trust Doctrine. This body of law provides that natural resources, including lands, waters, air, and living resources, are held in trust by the state for the benefit of the public. This obligation includes working to remediate any environmental damage to return natural resources to their pre-discharge or disturbance quality, quantity, function, and value, and implementing restoration projects that compensate for any interim or permanent value losses. While protection and remediation of other natural resources such as air, water, wetlands, and land are discussed in other chapters of this report, this chapter describes the protection of forests and native plant and animal species, and the restoration of those resources when direct and egregious environmental impacts occur.

Background

Valuing Natural Capital

The idea of natural capital is attributed to E. F. Schumacher, who used the term in the 1973 book entitled “Small is Beautiful.” In 2007, DEP released *Valuing New Jersey’s Natural Capital*, a report that assessed the economic value of New Jersey’s natural resources. In that report, natural capital is described as consisting “of components of the natural environment that provide long-term benefits to society.” The report continues to explain that the benefits derived from our natural capital “come from ecological systems or ecosystems, a dynamic complex of plant, animal, and microorganism communities and their nonliving environment, all interacting as a functional unit.” Nearly two decades later, the concept of natural capital and ecosystem benefits remains relevant. The loss or alteration of ecosystem benefits resulting from climate impacts across the globe is highlighting the critical role that natural resources play in maintaining the environmental balance the state has experienced. While DEP’s 2007 report was based on the best available science at the time, there have been many advancements since its publication that need to be accounted for, such as the growing understanding of carbon sequestration.



CONSERVING & RESTORING NATURAL RESOURCES

Forests

Approximately 40% of New Jersey's total land area (1,990,425 million acres) is covered in deciduous or coniferous forests. 62% of those forests are privately owned, while the remaining 38% are publicly owned. DEP manages approximately 588,000 acres of forested land across state-owned parks, forests, historic sites, and wildlife management areas. For more information on publicly owned forests see [Chapter 7, Public Lands & Recreation](#).

Forest management in New Jersey has evolved significantly over time, shifting from a historic focus on timber production and utilization to a wide range of strategies that reflect the diverse values and benefits of healthy forests. In 1990, the U.S. Forest Service (USFS), in partnership with state forestry agencies, created the Forest Legacy Program (FLP). The program uses conservation easements and strategic land acquisitions to keep forests as forests, support sustainable management, and advance the broader state goals. In addition to promoting stewardship on private lands, FLP recognizes the public benefits that forests provide, including recreation, drinking water protection, and fish and wildlife habitat.

The 2008 federal Farm Bill requires each state forestry agency to develop a SFAP to receive and maintain federal funding. In New Jersey, the SFAP serves first and foremost as a comprehensive, strategic roadmap for forest stewardship. It is designed to guide scalable forest management practices at state, regional, and local levels, in both rural and urban areas, so that diverse community needs and landscape types are effectively addressed. The [current SFAP](#), released in 2020, projects a 10-year vision rooted in continuous assessment of forest attributes, such as location, type, age, and successional stage. This information helps forest owners, land managers, and resource professionals make science-based decisions. The SFAP applies a holistic, adaptive conservation management approach that includes monitoring biodiversity, fostering wildlife habitat, responding to pest outbreaks, and actively restoring and sustaining ecologically significant areas across the state.

To support public and private forest stewardship and management activities, the DEP also operates the [Forest Resource Education Center \(FREC\)](#) and the New Jersey State Nursery. These operations help to educate the public regarding forest ecology, stewardship, and management. The FREC maintains eight miles of trails which feature learning stations with informational kiosks on environmental topics, including an accessible Sensory Awareness Trail designed to encourage visitors of all abilities to use multiple senses to explore the forest. The state Nursery produces tree seedlings for distribution to private landowners and municipalities and supports forest restoration efforts on public lands. In addition to tree species, the Nursery also helps advance other DEP programs and priorities by propagating and distributing native plants.



New Jersey Plants

The native flora of New Jersey is a fundamental component of the state’s biodiversity. Despite its size, density, and urbanized infrastructure, New Jersey has a high concentration of native plant species relative to other states, providing a home for over 2,100 species. In large part, this diversity is due to the varied habitats, landscapes, and the physiographic regions (i.e. Ridge and Valley, Highlands, Piedmont, Coastal Plain) in the state. New Jersey’s native vegetation has established long-term complex relationships with other native organisms, some of which are dependent on one another to survive and thrive. In addition, native herbs, trees, and shrubs help conserve and filter water, sequester carbon, support wildlife, conserve soil resources, and provide a range of ecosystem services related to the climate, flooding, and water and air purification, as well as intrinsic and economic values.



Endangered Plants

In 1989, New Jersey’s Endangered Plant Species List Act (N.J.S.A. 13:1B-15.151 to -15.158) was enacted. In that Act, the Legislature declared that “plant species have medicinal, genetic, ecological, educational and aesthetic value to the citizens of New Jersey; that the perpetuation of many plant species native to New Jersey or the United States is in jeopardy [...]” Unfortunately, 17% of New Jersey’s species are classified as endangered. Through its Natural Heritage Program and its Biotics database, DEP monitors the status of over 850 native New Jersey plant species, including the 356 species listed as endangered. The Natural Heritage Program has compiled Rare Plant Profiles on the natural history, conservation status, and threats for over 230 rare plant species as a resource to better understand and protect the rarest elements of the state’s biodiversity. Where feasible, the profiles include information on diagnostic characteristics, seed dispersal and plant reproduction, pollinator dynamics, interspecies interactions, associated species, habitat requirements, national and state distribution and range, vulnerability to climate change, and management recommendations. Also, for the first time, plants are included on the state’s list of Species of Greatest Conservation Need (SGCN) in the 2025 update of the [State Wildlife Action Plan \(SWAP\)](#). See more information on the SWAP in the Native Wildlife section below.

To increase public awareness of the presence and value of plants, and to combat the phenomenon known as “plant blindness” (the cognitive and cultural bias causing humans to disregard the presence and underestimate the importance of plants in our daily lives), the Natural Heritage Program recently launched its [Botanical Literacy Initiative](#). The intent is to afford New Jersey’s youth the opportunity to develop empathy with plants and nature through lesson plans designed for both formal K-12 educators and informal educational settings, such as in nature centers and through interpretive programs.

CONSERVING & RESTORING NATURAL RESOURCES

Endangered and some rare plants are protected in land areas that DEP and regional authorities regulate, including freshwater wetlands, the coastal zone, riparian zones, flood hazard areas, Highlands and Pinelands. These plants are also protected under DEP's water quality management regulations which may require restrictions on development in environmentally sensitive Natural Heritage Priority Sites, critically important areas designated to conserve New Jersey's rare plant species and ecological communities. Because of their ecological importance, endangered and rare plant species are afforded more regulatory protection by DEP than other species. This can include more expansive regulatory buffers so as not to encroach upon critical habitat for endangered plant species. It can also result in project design modifications to avoid impacts. For example, under the Highlands regulations, DEP will not issue a Highlands approval for a project that will jeopardize the continued existence of, or result in the likelihood of the destruction or adverse modification of habitat for, any rare, threatened, or endangered species of animal or plant. The Pinelands Commission regulations prohibit development "unless it is designed to avoid irreversible adverse impacts on the survival of any local populations of those plants designated by DEP as endangered plant species" or on the 54 plant species listed as threatened or endangered plants of the Pinelands Comprehensive Management Plan rules.

New Jersey Wildlife

New Jersey is home to over 1,000 different species of wildlife, including mammals, birds, amphibians, reptiles, and marine and freshwater fish. Native wildlife also includes pollinator species such as bees, butterflies, and hummingbirds that are critical for the reproduction of many plants, including commercially important crop species. The diversity of New Jersey's ecosystems, including coastal marine areas, fresh and saltwater marshes, lakes and rivers, and pine and upland hardwood forests, provides unique habitats for an array of game and nongame wildlife species. DEP works to protect and manage this diverse range of species and their habitats to ensure continued biodiversity in the state.

Today, DEP is dedicated to the protection and management of New Jersey's fish and wildlife resources, public education to foster human/wildlife co-existence, and continuing support for recreational and commercial use now and into the future. This work originates as far back as the use of bounties for wolves and prohibitions on the export of deer skins in the late 1600s, pre-dating the establishment of the Nation. Legislation to regulate hunting of deer began in 1722 and what would eventually become DEP Fish & Wildlife element was established by law in 1892. Fundamental federal wildlife restoration laws were passed with the Pittman-Robertson Wildlife Restoration Act, initially enacted in 1937 as the Federal Aid in Wildlife Restoration Act (50 Stat. 917), and with the Federal Aid in Sport Fish Restoration Act of 1950, now referred to as the Dingell-Johnson Sport Fish Restoration Act (16 U.S.C. § 777 to -777n). When DEP was created in 1970, it included an expanded Division of Fish, Game and Shellfisheries. With the passage of the Endangered and Nongame Species Conservation Act in 1973, DEP added a new program charged with managing all endangered and nongame forms of wildlife to ensure their continued participation in the ecosystem.



CONSERVING & RESTORING NATURAL RESOURCES

DEP has collected data for estimating and tracking the populations of certain fish, and game and nongame species over time. Fish and wildlife population trends are summarized through DEP's [Environmental Trends Reports](#), which began in 1998. Modern efforts to manage fish and wildlife populations require sound science and data collection including monitoring of trends, disease surveillance, and pathology.

Fish & Game Management

DEP successfully manages deer, black bear, turkey, upland game birds, coyote, fox, small game, migratory birds, and furbearing species. The first hunting license in New Jersey was issued in 1902. In the decades that followed, DEP's fish and game management evolved to include game farms and the management of more than 365,000 acres in Wildlife Management Areas (WMA). Targeted game management efforts over the years have resulted in many successes, included the reintroduction of the beaver beginning in 1934 and the turkey in 1977, as well as the bobcat restoration project.

Management and support of the state's fish resources also has a long history in New Jersey, with the first fishing license required in 1915. To support recreational fishing, New Jersey opened its first fish hatchery in 1912 in Hackettstown and began the propagation of trout. In 1961, the Lebanon Freshwater Fish Lab was constructed, and the following year, the Research in Trout Management project was initiated. In 1963, the Pequest Trout Rearing Station along the Pequest River began production and remained active until the opening of the Pequest Trout Hatchery in 1982. New Jersey currently stocks more than 600,000 trout in approximately 200 bodies of water annually and has an active warmwater fish program. Freshwater fishery initiatives were not limited to trout. In 1979, the rearing of tiger muskies, a hybrid of northern pike and muskellunge, began at the Hackettstown facility; and in 2006, that facility began stocking landlocked salmon. To meet current management goals and assure long-term protection of the state's aquatic resources, DEP routinely conducts fishery surveys on the state's freshwater lakes and streams.

“Modern efforts to manage fish and wildlife populations require sound science and data collection including monitoring of trends, disease surveillance, and pathology.”

DEP's management of marine fisheries dates back to 1945. Through conservation and research activities, DEP manages New Jersey's marine fish and shellfish resources for commercial and recreational fisheries, which generate recreational and commercial fish revenues of about \$2 billion, and supports a \$16 billion tourism industry. Important conservation efforts include the [Artificial Reef Program](#), the designation of the state's first and only Marine Conservation Zone around the Sedge Islands of Barnegat Bay in 2001, and the 2003 pilot-scale oyster revitalization project to enhance a seedbed in lower Delaware Bay with the planting of nearly 30 million oysters. Marine research efforts are based out of the Nacote Creek Marine Research Station, which opened in 1964. New Jersey has an incredible body of data about marine fisheries, including more than thirty years of sampling as part of the [New Jersey Ocean Stock Assessment Program](#). This information is used to monitor and formulate fishery stock assessments vital to long-term sustainability. New Jersey's [marine fisheries trends](#) are available beginning in 1998.

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DEP continues to gather critical data using cutting edge techniques as part of managing natural resources in a changing environment. This data is important for the development of watershed and water quality regulations, such as the Surface Water Quality Standards that list classifications based on aquatic life; the Flood Hazard Area Control Act Rules and Freshwater Wetland Protection Act Rules, which rely on trout population data to determine levels of protection for waterways and wetlands; and the coastal rules, which protect shellfisheries and other marine fisheries.

Finally, DEP has a strong focus on wildlife and ecosystem education. DEP's hunting education program covers beginner training, bow and trapper courses, and hunting programs for all skill levels. DEP also provides wildlife education on native species and some of the conservation projects and management tools used to keep the state's wildlife populations healthy and in balance with the human population. The Pequest Trout Hatchery and Natural Resource Education Center is open for self-guided tours and offers recreational activities. Through the "Trout in the Classroom" program, over 40,000 students per year learn about the importance of clean water for insects, trout, and people. Sedge Island Natural Resource Education Center, located in Barnegat Bay off Island Beach State Park, offers environmental education programs to participants 12 years of age and older that focus on salt marsh ecology, conservation, fishing, and clamming.

Endangered & Nongame Species

In December 1973, two weeks before the federal Endangered Species Act (16 U.S.C. §§ 1531-1544) was signed, the state passed the New Jersey Endangered Special Conservation Act or ENSCA (N.J.S.A. 23:2A-1 to -16) designed to protect and restore endangered and threatened wildlife in the state. ENSCA is designed to protect species whose survival in the state is imperiled by loss of habitat, over-exploitation, pollution, or other impacts. DEP promulgates rules to implement ENSCA that protect and restore endangered and threatened wildlife in the Garden State. In addition, endangered and threatened species and some nongame species habitats are protected through various land use rules similar to the protection described above for plants, as well as through remediation technical regulations. In the Highlands Preservation Area, habitat for species of special concern is also protected pursuant to the Highlands Water Protection and Planning Act (N.J.S.A. 13:20-1 to -35). DEP's land use regulations also address federal species that are protected under the federal Endangered Species Act.

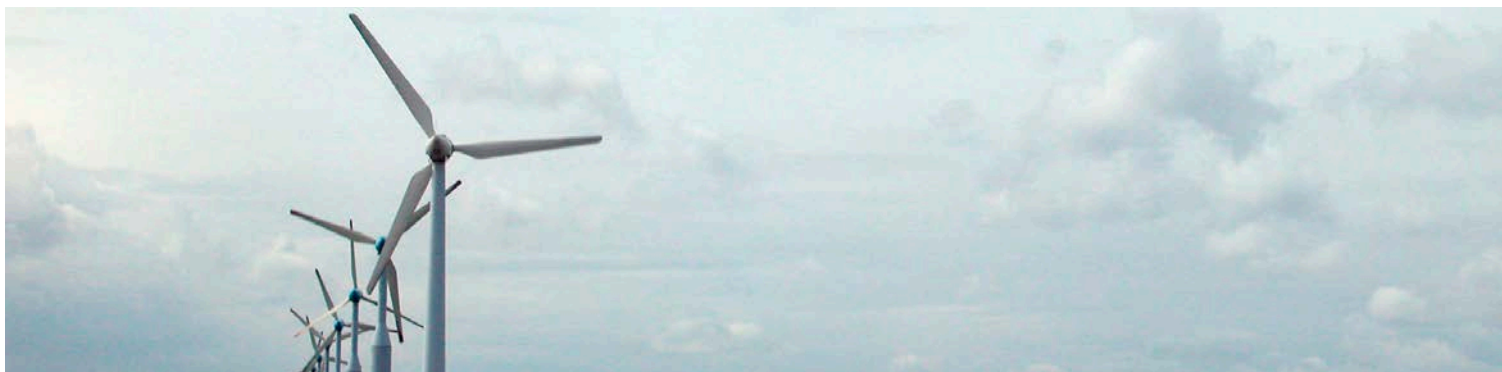


CONSERVING & RESTORING NATURAL RESOURCES

The interconnections between wildlife species and the ecosystem are so vast and intricate that they are not fully understood, but the role of wildlife species, including nongame species, as an essential part of a healthy ecosystem and the services it provides is widely accepted. As the densest state in the Nation, many efforts to study and/or restore wildlife populations are centered around human-induced impacts or potential impacts. For example, raptors like eagles, peregrine falcons, and osprey were negatively impacted by the pesticide Dichlorodiphenyltrichloroethane (DDT), the use of which was eventually banned in 1972. Colonial nesting waterbirds were nearly driven to extinction by plume hunters in the early 1900s and were impacted again mid-century by diminished prey resulting from overexploitation and alteration of freshwater and coastal wetland habitats. Red knots, which have been studied annually by DEP since 1997, suffered significant impacts due to unregulated horseshoe crab bait harvesting in the 1990s that depleted horseshoe crab eggs, a critical food source for these endangered birds. The eggs fuel the red knots extraordinarily long migration from as far away as the southern tip of South America to their breeding grounds in the Arctic. The health and propagation of the state's wildlife species are valuable indicators of environmental quality overall, including resource abundance and health; levels of toxic substances, such as organic contaminants and heavy metals; and levels of human disturbance. Some of these species have rebounded while others are still recovering, but all are already facing the realities of a changing climate.

Addressing Evolving and Potential Impacts

Since DEP is charged with finding a balance between natural resource management and the use of the state's natural resources for human needs, its terrestrial and aquatic wildlife research needs to evaluate evolving and potential impacts. When it comes to mitigating and responding to climate change, understanding the benefits and impacts from both mitigation and adaptation decisions is critical. One clear example that requires careful study is the development of offshore wind energy. As the steward of marine resources for the public, DEP needs to understand the potential impact of offshore wind to the wildlife that rely on the marine resource region that includes bays, estuaries, and state jurisdictional marine waters. This region is home to 28 marine mammals and 336 marine finfish at some point during the year, and more than half of the New Jersey species on the federal threatened and endangered species list, including several species of turtles and whales, as well as the Atlantic sturgeon. As a result, DEP conducted baseline studies in waters off New Jersey's coast and in 2010 released four volumes of the [Ocean/Wind Power Ecological Baseline Studies](#). The current Offshore Wind Research and Monitoring Initiative (RMI) continues to address regional research and monitoring of marine and coastal resources during offshore wind development, construction, operation, and decommissioning as recommended in the New Jersey Offshore Wind Strategic Plan. RMI is a rigorous collaborative scientific effort that supports the state's mandate to protect and responsibly manage New Jersey's coastal and marine resources while supporting the state's Offshore Wind Economic Development Act (P.L. 2010, c. 57), Executive Orders 8 and [92](#) (EO 8 and EO 92), and the state's Energy Master Plan.



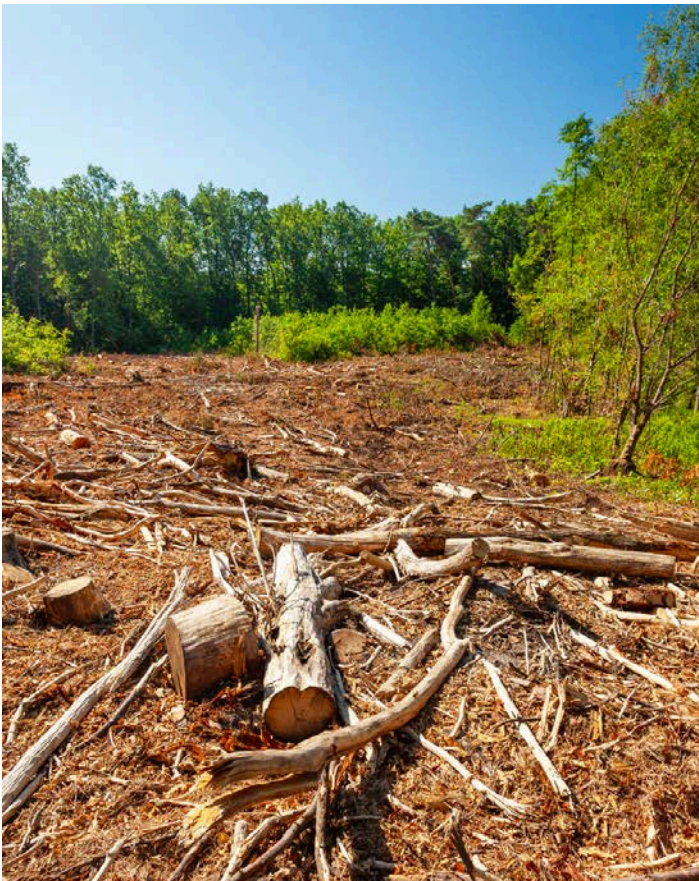
CONSERVING & RESTORING NATURAL RESOURCES

Since 1983, DEP has administered the Toxics in Biota Committee (TIBC) “to continue and expand the Department’s efforts to evaluate the problem of PCB [Polychlorinated Biphenyls] and other toxic contamination of New Jersey fisheries and biota.” Representatives from DEP and the New Jersey Departments of Health and Agriculture serve on TIBC to address matters concerning contaminated biota in the state. For example, the TIBC reviews and approves the Fish Consumption Advisories developed using data from DEP’s fish tissue monitoring program that regularly collects fish tissue for contaminant analysis from the state’s rivers, lakes, and coastal waters. These advisories are typically updated annually as new tissue data become available. While mercury and PCBs are often the drivers for fish advisories, Per- and Polyfluoroalkyl Substances (PFAS) data has recently been incorporated into advisory development.

As DEP works with communities across the state to adapt to climate change and address complex environmental health issues (i.e., drinking water contamination or sewer discharges), finding balance that is based on a sound science and an understanding of wildlife and ecosystem capacity will continue to be essential.

Protecting Habitat

The greatest threat to New Jersey’s plant and animal species is the destruction, degradation, or fragmentation of their habitats from both human action and natural causes fauna. The New Jersey [Landscape Project](#) is DEP’s ongoing geospatial pro-active approach to the long-term protection of rare animal species and their important habitats. The Landscape Project identifies large land areas called “landscape regions” that are ecologically similar in their plant and animal communities. Using an extensive database, DEP staff combine imperiled and priority animal species location information with land-use/land-cover data to map areas of critical importance for imperiled animal species within each landscape region. The most recent revision was completed in January 2025, updating these maps that are widely used for land use and conservation planning.



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Natural Heritage Priority Sites are another critical habitat mapping initiative. These sites are important to the conservation of New Jersey's biological diversity, with particular emphasis on rare plant species and ecological communities. While these sites are based on analysis of information in the New Jersey Natural Heritage Database, they do not represent an exhaustive identification of all the known habitat for endangered and threatened species in New Jersey. Maps depicting these sites are a valuable planning tool but are not a substitute for the on-site surveys and Natural Heritage Database searches required by DEP's regulatory programs. Mapped Natural Heritage Priority sites are protected under certain land use regulations in New Jersey.

In 2000, Congress created the federal State Wildlife Grants Program to help states conserve imperiled wildlife species, particularly those that were not traditionally hunted or fished. The program requires states to develop Comprehensive Wildlife Conservation Strategies, colloquially known SWAP, to identify SGCN, their habitats, threats, and conservation actions to protect them. U.S. Fish and Wildlife Service (USFWS) approval of these plans makes states eligible for federal State Wildlife Grant funds for conservation actions. DEP released its initial SWAP in 2006, a revision in 2018, and the most recent revision was completed in October of 2025, which identified 614 wildlife and 128 plant species of greatest conservation need.



Non-native & Invasive Species Management

Stewardship and restoration efforts, including management to control overabundance of native (e.g., white-tailed deer), non-native, and invasive species, are necessary to protect and preserve the state's native biodiversity. Invasive species are those that have been accidentally or intentionally released into an environment in which they are not native (e.g., European starlings, Japanese barberry, Emerald ash borer, Dutch elm disease). Not all non-native species are invasive (e.g., crop species such as corn, lettuce, etc.); however, those considered invasive have the potential to cause ecological and economic harm. Non-native, invasive plants pose a threat to ecosystems, as well as to rare and endangered plant species populations, as they can spread at a rapid pace and outcompete native species for space and resources. Some invasive plants can even alter habitat characteristics, rendering these areas unsuitable for the original inhabitants. Similarly, invasive wildlife species (invertebrates, birds, fish, amphibians, reptiles and mammals) can cause negative impacts to the environment and human health through rapid reproduction rates, introduction of pathogens or disease, and intensive competition for habitat and food resources. Invasive species pose unique challenges by existing outside of the ecosystem where they evolved, resulting in fewer predators and other population control mechanisms which allows them to be extremely successful in environments they invade.

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In 2009, DEP released the [New Jersey Strategic Management Plan for Invasive Species](#) (NJSMPIS) “to reduce the impacts of invasive, non-native and nuisance species to state lands and waterbodies, protect biodiversity, restore and enhance protected resources, and provide coordination and guidance for invasive species activities throughout the state.” The NJSMPIS outlines actions state agencies can perform to collect information on the abundance and distribution of invasive species within the state, and to assess threat levels to state resources based on their life history and invasive potential. Non-native (“exotic”) species also require special permitting through DEP to prevent unintentional introductions.

Natural Resource Restoration

Natural Resource Damages (NRD) are used to provide compensation for the loss of value of, injury to, or destruction of natural resources from the discharge or release of hazardous substances into the environment. NRD can take the form of land preservation that protects local ground water offering water quality and recharge characteristics comparable to the injured resources, monetary restitution to DEP that goes directly to restoring natural resources with a nexus to the injuries, restoration project implementation by a responsible party, or some combination of all three. NRD differ from the remediation efforts discussed in [Chapter 8, Cleaning Up a Legacy of Industrial Pollution](#) in that those actions seek to reduce or remove the threat of contamination to public health, safety, and the environment, while natural resource restoration seeks to restore resources to their pre-discharge condition or provide compensation to the public for lost resources. For example, remediation would include the removal of a contaminant source through excavation or dredging while restoration would include creating or enhancing unique habitats such as wetlands or grasslands.

When a spill or release of hazardous substances occurs, DEP conducts a natural resource damage assessment, to determine the type and extent of the injury to natural resources and loss of values and services associated with those resources. Assessments vary depending on the natural resource injured. Impacts on ground water sources are generally assessed using Resource Equivalency Analysis (REA) to quantify the contamination volume and calculate the land area or other recharge means needed to provide equivalent recharge volume of clean water to the aquifer. When there are ecological impacts or habitat injury, DEP generally uses a Habitat Equivalency Analysis (HEA) which equates the amount of natural resource injury to the amount of restoration needed to offset that injury. Depending on the type of spill or discharge, both analyses might need to be conducted. Beyond assessing the injury impacts, DEP brings legal action to hold responsible parties accountable for NRD liabilities. These suits may be settled through mediation, but often cases require consent judgement for a court-entered settlement agreement. DEP also encourages responsible parties to settle potential NRD liability through a collaborative settlement process, which aims to assess injury and resolve NRD without the need for litigation. See a [complete list of New Jersey’s restoration projects](#).

DEP also requires restoration as part of wetlands and riparian zone enforcement and mitigation, and funds restoration that has a water quality benefit under the [Watershed Restoration Grants](#) program.

“Natural Resource Damages are used to provide compensation for the loss of value of, injury to, or destruction of natural resources.”

The State of Natural Resources

Over the last eight years, DEP has focused on broad issues such as improving water quality, adapting to and mitigating climate change, and furthering environmental justice. These and other overarching goals dovetail with protections that benefit New Jersey's natural resources and the public that enjoys them. Still, as the population grows and the climate changes, there will be far more to do to protect these critical resources.



Natural Capital and Ecosystem Services

Quantifying Economic Benefits

Since the 2007 release of the Natural Capital Report, DEP has continually sought to understand the overall value of the state's natural resources and the economic costs when those resources are damaged or contaminated. Although microscale cost-benefit analyses are often part of DEP's case-by-case decision making, a comprehensive macroscale understanding of the value of the state's natural capital and the true financial impact of not restoring and protecting those resources would help DEP better evaluate solutions to overarching issues like climate change and environmental justice, and communicate the often overlooked environmental and socioeconomic benefits of these resources. To that end, DEP needs to develop an updated and modernized version of the Natural Capital Report.

Natural and Working Lands

Natural and working lands, which include forests, wetlands, agricultural lands, grasslands, and urban and community green spaces, perform important ecosystem services such as providing wildlife habitat, contributing to the health and resilience of communities, mitigating climate change through natural carbon sequestration, and strengthening the state's economy. As the most densely populated state in the Nation, New Jersey faces intense pressure to develop land to accommodate its growing population, and these natural and working landscapes remain under constant threat from encroaching development. Some Natural and Working Lands are also discussed in [Chapter 3, Land Resource Protection](#) and [Chapter 6, Sustainability](#).

Although forest land cover in New Jersey has remained relatively stable since the 1970s, this trend is not expected to continue. To help maintain New Jersey's current forest land cover, the state provides several tax incentive programs for private landowners. Approximately 350,000 acres across more than 7,400 private properties are enrolled in DEP programs such as the [Woodland Assessment Program](#) and the [New Jersey Forest Stewardship Program](#) which incentivize landowners to conserve and restore forests. The FLP also helps protect forest land by securing conservation easements on private property or purchasing forested land through the USFS. DEP's Green Acres Program administers the FLP and related funds, as well as state funds for similar open space protection purposes.

CONSERVING & RESTORING NATURAL RESOURCES

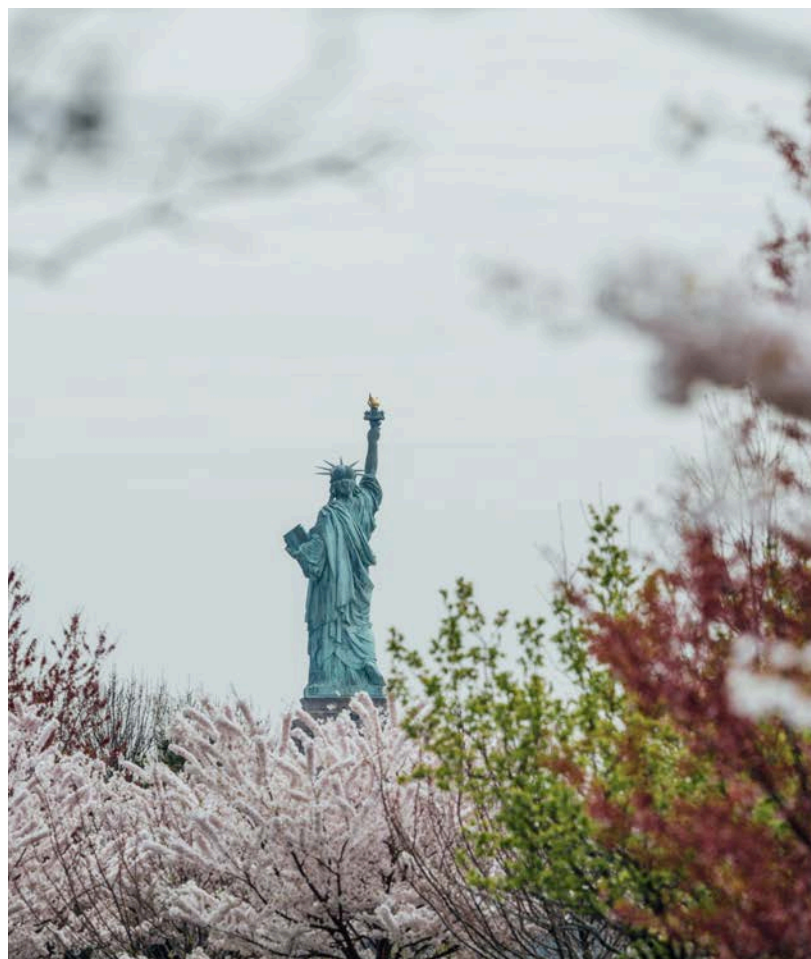
Urban and community forests are also an essential part of New Jersey's natural and working lands. Street trees, parks, riparian corridors, and neighborhood woodlots collectively form an urban forest canopy that helps cool communities, reduce energy use, manage stormwater, improve air quality, and provide habitat in highly developed areas. Through the DEP Forest Service's New Jersey Urban and Community Forestry Program, DEP works with municipalities, counties, and community partners to plan, plant, and care for trees in cities and towns. The program provides technical assistance, training, and grants to support community forestry management plans, increase tree canopy in areas with limited shade, and promote equitable access to the benefits of trees. By strengthening local capacity to manage urban forests, these efforts complement statewide climate, resilience, and equity goals and ensure that the benefits of forests reach all New Jersey residents.

To further protect these lands, DEP released the [Natural and Working Land Strategy \(NWLS\)](#) in 2023 detailing how well-informed land restoration and management strategies can increase the potential of natural and working lands to sequester carbon from the atmosphere through long-term storage and accumulation in vegetation and soils. The NWLS, developed in partnership with the New Jersey Department of Agriculture (NJDA), is designed to identify and prioritize cost-effective and pragmatic near-term land management strategies and targets for land managers, including the state land managers in DEP. The NWLS additionally sets longer-term goals that require more effort and funding, including potential programmatic changes. Each recommendation considers co-benefits, such as an increase in ecosystem services, economic opportunities, and community resilience, in addition to carbon sequestration benefits. DEP's existing Coastal Ecological Restoration and Adaptation Plan (CERAP) can also assist in identifying areas for ecological projects to help meet the carbon sequestration goals of the NWLS while increasing community resilience and ecosystem health.

Forest Management & Stewardship

DEP has developed comprehensive strategic documents, including the SFAP and NWLS, to guide statewide forest conservation, stewardship, and adaptive management. Implementation of these strategies protects and enhances forest carbon, manages and reduces hazardous fuels to prevent wildfires, conserves and restores biodiversity, and conserves and maintains soil, water resources, and habitat.

DEP's approach to forest management is guided by a standardized, science-based process that incorporates adaptive management, stakeholder engagement, and robust data analysis to sustain and improve forest health. This framework emphasizes monitoring and measurable objectives to ensure that management actions remain ecologically sound, resilient to climate challenges, and aligned with the state's long-term sustainability and conservation priorities.



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DEP is working to develop a model, ForCARMA, to project forest carbon estimates under a variety of simulated management scenarios, evaluated against New Jersey’s greenhouse gas emissions targets. This tool will help assess carbon tradeoffs associated with different forest management strategies and policies and will provide clear visuals to support public understanding of management options and their tradeoffs. Once completed, the model will be integrated into the DEP’s greenhouse gas inventory updates to more accurately represent the role of New Jersey’s forests in meeting the state’s overall climate goals.

DEP’s Forest Fire Service has long regulated the use of prescribed burning as an effective and economical management technique to reduce hazardous fuels; prevent large-scale wildfires; restore, enhance and manage ecosystems; and protect communities. Prescribed burning is the practice of purposefully setting fires in forests and grasslands under well-defined and strategically planned conditions. The 2018 [New Jersey Prescribed Burn Act \(N.J.S.A. 13:9-44.11 to -44.17\)](#) authorizes and promotes the use of controlled, prescribed burns for various land management purposes, including wildfire control, ecological restoration, and public safety. The law expands the acceptable uses beyond reducing fuel to include habitat management and other natural resource goals.

In 2024, New Jersey experienced 1,439 wildfires that burned over 12,000 acres. These wildfires were driven in large part by a combination of climate-related factors, including record drought conditions across the state exacerbated by extreme heat (2024 was the 3rd warmest summer on record for New Jersey). Wildfires can damage or kill mature trees and understory vegetation and harm soils, releasing back to the atmosphere any carbon sequestered in those natural sinks. In addition, wildfire destroys plant and animal habitats, requiring them to migrate to survive. While prescribed burns can reduce wildfire risk, they cannot keep up with increasing climate factors that create the perfect environment for wildfires across the state.

“While prescribed burns can reduce wildfire risk, they cannot keep up with increasing climate factors that create the perfect environment for wildfires across the state.”

In an effort to further reduce wildfire risk in the state, DEP released [the New Jersey Wildfire Risk Assessment Portal \(NJWRAP\)](#) in 2024. The NJWRAP compiles data and resources to assist residents, community leaders, and fire professionals in understanding wildfire risk and provides resources for mitigating those risks. NJWRAP also assists DEP in identifying areas where prescribed burning could help reduce wildfire risk. In 2025, DEP launched NJ Wildfire SMART (Safety, Mitigation, Awareness, Resources, Training), a series of actions and informational resources that outline practical steps for reducing wildfire risk and spread.

In addition to implementing forest stewardship and management practices on state-owned land, DEP works directly with private forest landowners and communities to foster and encourage forest stewardship, including regulating and supporting private landowners’ safe use of prescribed burning. DEP also administers the Private Lands Forest Stewardship Program which provides participants with technical and financial assistance and public recognition as stewards of the land to promote environmentally responsible forest resource management and reduce forest fragmentation.

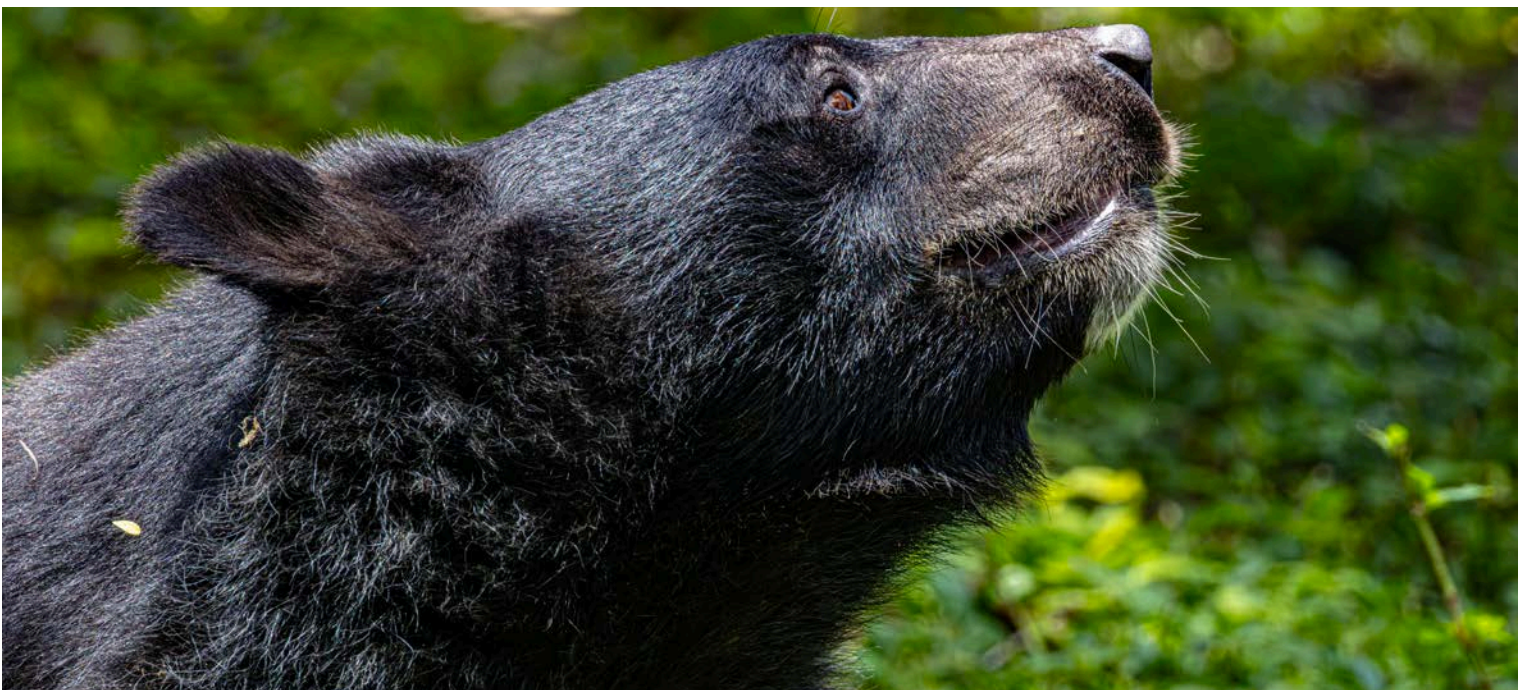
Strategic Fish & Wildlife Management

Develop and Implement Fisheries Management Plans

While the federal government’s fisheries management system handles species and fisheries that operate in federal waters, a state system has jurisdiction over migratory species commonly targeted by harvesters and anglers within three nautical miles from the shore. New Jersey manages these specific species that pass-through state waters cooperatively through interjurisdictional organizations such as the Atlantic States Marine Fisheries Commission. The state is solely responsible for species that generally do not cross state boundaries (non-migratory species such as blue crabs and hard clams). State law requires DEP, in conjunction with the Marine Fisheries Council and the Shellfisheries Council, to prepare fisheries management plans (FMPs) for each major fishery in the state (N.J.S.A. 23:2B-6). In 2023, DEP developed formal FMPs for the blue crab and hard clam fisheries in New Jersey to monitor the health of their populations and implement management strategies that allow for sustainable harvesting. DEP is now prioritizing other species for FMPs development.

Black Bear Non-Lethal Strategy

The American Black Bear is native to New Jersey. Since the late 1970s, the black bear population has increased and expanded its range from the forested areas of northwestern New Jersey both southward and eastward. DEP responsibly manages this growing population and responds to increasing encounters between bears and humans. Since 2001, DEP has spent more than \$15 million on black bear management, including education, law enforcement, research, and monitoring activities. In 2022, DEP leveraged a supplemental appropriation of \$1.5 million to enhance and expand non-lethal bear management strategies to reduce the number of human interactions with bears. This resulted in an increased number of conservation officers for bear management, more trained local officials, and expanded public education and outreach. DEP’s [Know the Bear Facts](#) outreach campaign includes public service announcements on social media, streaming services, and radio broadcasts during periods of peak bear activity. In addition, the campaign includes an interactive education program available free to schools, summer camps, campgrounds, nature centers, scouts, hiking clubs, and municipalities. In addition to public education, DEP continues to pursue strategies such as improved control of human-derived food and trash management and expanded black bear research and monitoring activities.



Ocean and Coastal Acidification

Climate change is resulting in the acidification of New Jersey's coastal waters. Oceans absorb about one-third of the carbon dioxide (CO₂) emitted into the atmosphere. As levels of CO₂ increase from human activities, the amount of CO₂ absorbed by the ocean also increases. When CO₂ dissolves in seawater, a series of chemical reactions occur making the water more acidic. Coastal acidification is caused by algal blooms resulting from inputs of nutrients to coastal waters from nonpoint sources and stormwater, which is changing due to increased rainfall and storm intensity. If not addressed, acidification will negatively impact ecosystem balance and the survival of marine fish and shellfish species. For example, shell formation in shellfish is particularly vulnerable to environmental impacts and can impact the commercial shellfish industry and recreational harvest of shellfish that are an important part of tourism in the state. In 2025, DEP released the [New Jersey Ocean Acidification Action Plan](#).

The plan identifies five overarching goals for both ocean and coastal acidification:

1. Establish a coordinated and sustained ocean acidification monitoring network;
2. Conduct research;
3. Support and achieve ongoing DEP goals that mitigate the drivers of ocean acidification;
4. Make policy changes; and
5. Create an education and outreach strategy.



The plan also establishes an Ocean Acidification Coordination Committee comprised of members from multiple sectors to advise on the implementation of the plan. The goals, when implemented, will advance ocean and coastal acidification monitoring and research that will be used to inform DEP's policies and actions moving forward; reduce causes of ocean acidification and build resilience for coastal communities and industries vulnerable to the negative impacts of ocean and coastal acidification; and expand public awareness and partnerships that will be essential to achieving ocean and coastal acidification actions.



Wildlife Recovery

Over the past decade, stewardship and conservation actions as well as partnerships have benefited threatened and endangered species as follows.

Historic contamination of New Jersey's environment with chemicals like DDT and PCBs that accumulated in the fish and other prey hunted by the bald eagle increasingly became a major threat to the birds' survival. Simultaneously, New Jersey lost high quality contiguous forests and aquatic habitats to support the birds' feeding and nesting. By the late 1970s, New Jersey had only one remaining bald eagle nest and the bird was listed on the state's endangered species list. Recovery efforts starting in the early 1980s, including the reintroduction of eagles from Canada and artificial incubation and fostering efforts, showed great progress over time. Active nests surpassed 100 for the first time in 2012, and more than doubled to 250 by 2022. In early 2025, DEP adopted regulatory changes that updated the bald eagle's official status from state endangered to special concern.

Like the bald eagle, increased use of the pesticide DDT caused a sharp decline in New Jersey's osprey population. This decline was worsened by hunters and people collecting osprey eggs as a hobby, requiring the state to designate them as endangered. Active state intervention and protection, including the creation and maintenance of human-made nest structures, resulted in the number of nesting osprey pairs increasing from 60 in 1974 to 731 in 2022. DEP's 2025 rule changes updated the osprey's status from threatened to stable-secure.

The rule changes that modified the bald eagle and osprey statuses also increased conservation concern for 30 species by adding them to the state's endangered species list as endangered or threatened.

In addition to its regulatory efforts, DEP restored and protected endangered bog turtle wetland habitats primarily through cooperative agreements with landowners, and restored fish habitats in the Musconetcong and Raritan Rivers by removing dams. Of particular note is the removal of an obsolete dam in Columbia Lake in the Columbia WMA. This project, which started in June 2018 with the drawdown of the lake, removed an obstacle that was blocking American Shad from their historic spawning grounds and impeded the movement of the America Eel. The dam removal project was one aspect of a larger initiative led by The Nature Conservancy with the goal of improving riparian and in-stream habitat throughout the Paulins Kill Watershed. Other success stories include the recovery of the peregrine falcon which went from extirpated in the 1960s to 35 pairs currently in the state; the stabilization of beach-nesting birds along the state's coastline; and the continued support for the long-term recovery of bats from white-nose syndrome.

In an effort to offset the continued impact on the red knot, DEP initiated several management programs to improve conditions for the birds and the horseshoe crabs whose eggs are their primary source of food. These programs were primarily stewardship initiatives to minimize human disturbance to feeding shorebirds during the month of May.



CONSERVING & RESTORING NATURAL RESOURCES

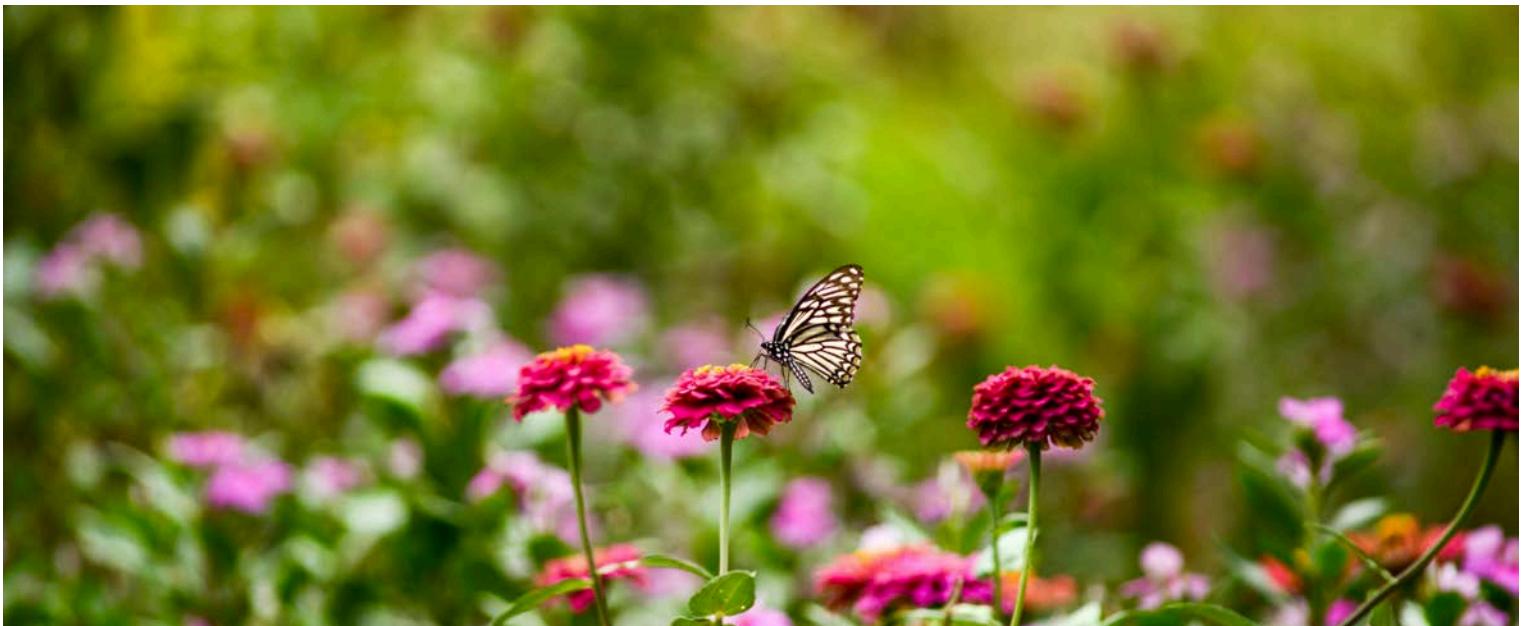
In 2019, DEP released guidance on its [Connect Habitat Across New Jersey \(CHANJ\)](#) initiative as well as a companion web viewer that included mapping layers for habitat cores, corridors, and road segments. CHANJ is designed to make New Jersey landscapes and roadways more permeable for terrestrial wildlife by identifying key areas and actions needed to achieve and maintain habitat connectivity across the state. In 2025, DEP revised and updated its critical wildlife habitat mapping for Community Land Use Planning and Species Conservation as part of the New Jersey Landscape Project.

In 2023, DEP, in partnership with the New Jersey Board of Public Utilities, released the [Standards for the Use of Pollinator-Friendly Native Plant Species and Seed Mixes in Grid Supply and Select Net Metered Solar Facilities](#). The growing need for solar arrays as alternative energy sources to mitigate greenhouse gas emissions can have detrimental impacts on the land and surrounding habitats depending on how and where they are sited. This guidance document outlines standards that promote native plantings at solar generation sites to minimize or avoid the negative impacts of these installations on the natural landscape. The standards address site assessment, planning, design, plant selection, site preparation, planting methods, and maintenance and monitoring requirements.

Stewardship by New Jersey's conservation partners and individual landowners has benefitted wildlife and their habitats across more than 40,000 acres. Examples include the management of important agricultural grassland, early successional, wetland, and riparian habitats with periodic mowing; prescribed burning; and other techniques to benefit grassland birds and other wildlife. Partners also re-contoured and planted degraded lake and stream shorelines to enhance water quality and wildlife value. Finally, forests on private and public lands were managed to increase species diversity and understory vegetation.

Next Steps

DEP will continue to work to protect New Jersey's wildlife. The 2025 revision of the SWAP includes plants for the first time. It identifies 614 wildlife and 128 plants as SGCN. The SWAP website will be expanded in 2026 to include more data on the SGCN plus improved accessibility for all kinds of users. The 2025 SWAP updated the habitat assessments, the problems species and habitats face, and prioritized conservation actions needed over the next ten years.



CONSERVING & RESTORING NATURAL RESOURCES

Invasive Species

Over 100 aquatic invasive species (AIS) have been identified and categorized. These species often impact habitats to the detriment of native flora and fauna, outcompete native species for resources, and negatively affect recreational activities such as fishing and boating, which can adversely impact local economies. Recognizing the critical importance of addressing and mitigating the spread of AIS in New Jersey, in 2024, DEP released the [New Jersey Aquatic Invasive Species Management Plan](#) with input from the public, in partnership with a variety of New Jersey state agencies and environmental stakeholders. The Plan focuses on identifying, addressing, and managing invasive species threats to New Jersey's waterways. The purpose of this plan was to provide the framework to coalesce existing initiatives, identify partner agencies that can leverage resources and expertise, and centralize the collection of data on the distribution and occurrence of AIS.

Natural Resource Restoration

[Administrative Order 2023-08](#) directs the DEP to modernize guidance, improve transparency, and enhance public engagement regarding the development and implementation of NRD assessments and compensation projects. This Administrative Order affirms DEP's duties as trustee for the state's natural resources and directs DEP to put in place mechanisms to enhance consensus-building in the planning, design, and implementation of NRD activities through improved collaboration with the public and stakeholders.

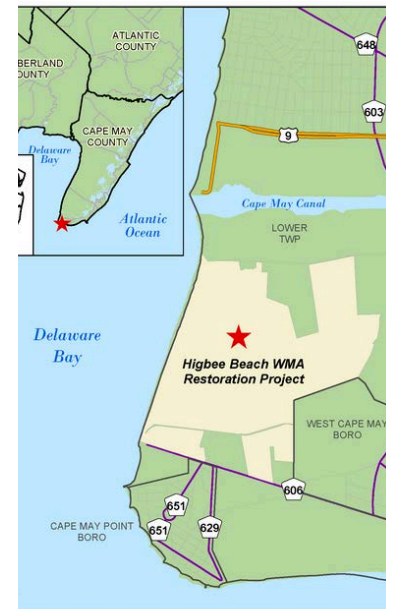
In addition to the restoration and revitalization projects at Liberty State Park and Cramer Hill Waterfront Park discussed in more detail in [Chapter 7, Public Lands & Recreation](#), DEP has started a number of high-profile restoration efforts, including:

Pond Creek Habitat at Higbee Beach Wildlife Management Area

This project, located in Cape May County, will result in over 400 acres of restored and enhanced wetland and upland maritime habitats damaged by an old industrial plant and sand mining. These acres fall within the known ranges of resident bird species and are particularly important since Cape May is an integral part of the Atlantic Flyway, the major north-south bird migratory path in North America that starts in Greenland and ends in South America and the Caribbean.

Ciba-Geigy Property

The permanent preservation of 1,000 acres in Toms River, Ocean County, that were once the home of the Ciba-Geigy Chemical Corporation will provide ground water recharge and nine ecological restoration projects as compensation for historic environmental impacts on the ecology and ground water in the area. During its operations, Ciba-Geigy discharged hazardous substances into the Toms River and the Atlantic Ocean and buried 47,000 drums of toxic waste, polluting ground water used as a drinking water source for town residents. New Jersey's Department of Health found a statistically significant elevation in overall cases of pediatric cancer in Toms River between 1979 and 1995 associated with environmental exposures from this illegal dumping. The property was formally listed on the National Priority List (NPL) as a Superfund site in 1983, and this restoration effort is part of the 2023 final settlement of a NDR compensation effort that will be implemented by the responsible party pursuant to the settlement agreement. Ultimately, the site will allow for public access and provide educational resources.



CONSERVING & RESTORING NATURAL RESOURCES

Cornell-Dubilier Electronics, Inc. Property

In South Plainfield, Middlesex County, DEP is using NRD funds to restore, replace, rehabilitate, and/or acquire natural resources equivalent to those damaged at or from the Cornell-Dubilier Electronics, Inc. Superfund site. Cornell-Dubilier Electronics, Inc. released and buried materials contaminated with PCBs that impacted the soils and ground and surface waters on the 26-acre industrial site as well as in adjacent areas. This restoration project, which is one of multiple projects in the Raritan drainage basin to address the natural resource injury, is a joint effort with the National Oceanic and Atmospheric Administration (NOAA) and USFWS to restore injured habitats, reconnect the public to the natural resources the Raritan watershed, and facilitate public outreach and education.

Mad Horse Creek Wildlife Management Area Wetlands Restoration Project

This project in Salem County will create nearly 200 acres of *Spartina alterniflora* habitat, tidal waters, wet meadow, and grassland area to compensate for environmental damages from the 2004 Athos oil spill. The spill oiled 1,723 acres of shoreline and 1,899 acres over six tributaries, negatively impacting aquatic life and killing an estimated 11,869 birds. In addition, recreational services were halted, resulting in an estimated financial loss of \$1,319,097.

Next Steps

DEP will continue to aggressively pursue NRD cases, consistent with statutory authority and the Public Trust doctrine. Through litigation partnership with the Attorney General, DEP will continue to analyze potential cases and pursue active NRD cases for compensation. DEP will also continue to pursue cost recovery actions pursuant to the state's Entire Controversy Doctrine. This doctrine is a rule that requires all claims and parties related to a single transaction or controversy be litigated in a single lawsuit to promote comprehensive litigation, prevent fragmented decision, ensure fairness to all parties, and advance judicial efficiency by avoiding multiple lawsuits on the same issues. Cost recoveries are distinct from NRD recovered funds, which must go to the constitutionally dedicated NRD Fund to pay for projects to repair, restore, or replace damaged or lost natural resources or permanently protect natural resources. Cost recoveries can be used to fund remediation. DEP's goal would be to add these cost recoveries to the Hazardous Discharge Site Cleanup Fund (HDSCF) and use them to advance the new and ongoing remediation projects. In the absence of any cost recoveries, the HDSCF may not have sufficient funding to cover all program costs, further straining the state's Spill Compensation Fund (see [Chapter 8, Cleaning Up a Legacy of Pollution](#)). Finally, DEP is developing a framework for the selection of restoration projects that relies on collaboration and coordination within DEP to ensure that the projects selected for restoration are those which maximize environmental benefits, including flood retention, carbon sequestration, urban green spaces creation, water quality improvements, habitat restoration, and other injury repair.



CONSERVING & RESTORING NATURAL RESOURCES

Climate Change

As explained above and in detail in the 2025 New Jersey Scientific Report on Climate Change, New Jersey is already experiencing the detrimental effects of a warming planet. The risks of significant storms, flooding (including sunny day flooding and flash floods), drought, extreme heat, and wildfires has all risen across the state, and is projected to increase and intensify over time. Slower moving impacts, like rising seas and ocean and coastal acidification, are also of concern. These impacts have serious consequences for ecosystem services and biodiversity. Wildfires, storms, and flooding can result in habitat loss and negatively impact New Jersey's wildlife, especially those species with limited ranges, slow adaptation abilities, and/or a dependence on a specific environment to survive. Changes in temperature regimes are already having an impact on the timing of natural events, such as flowering, fruiting, pollination, and migration, ultimately impacting plant and animal lifecycles and the entire food web. In extreme cases, abrupt changes in species dynamics and the timing or availability of their preferred food sources can lead to population declines or extinction. Climate change can also create conditions that allow invasive species to thrive and outcompete native species. Some of these species can bring vector-borne and zoonotic diseases that not only impact New Jersey's wildlife but can shift into the human population and make New Jersey residents ill.

Next Steps

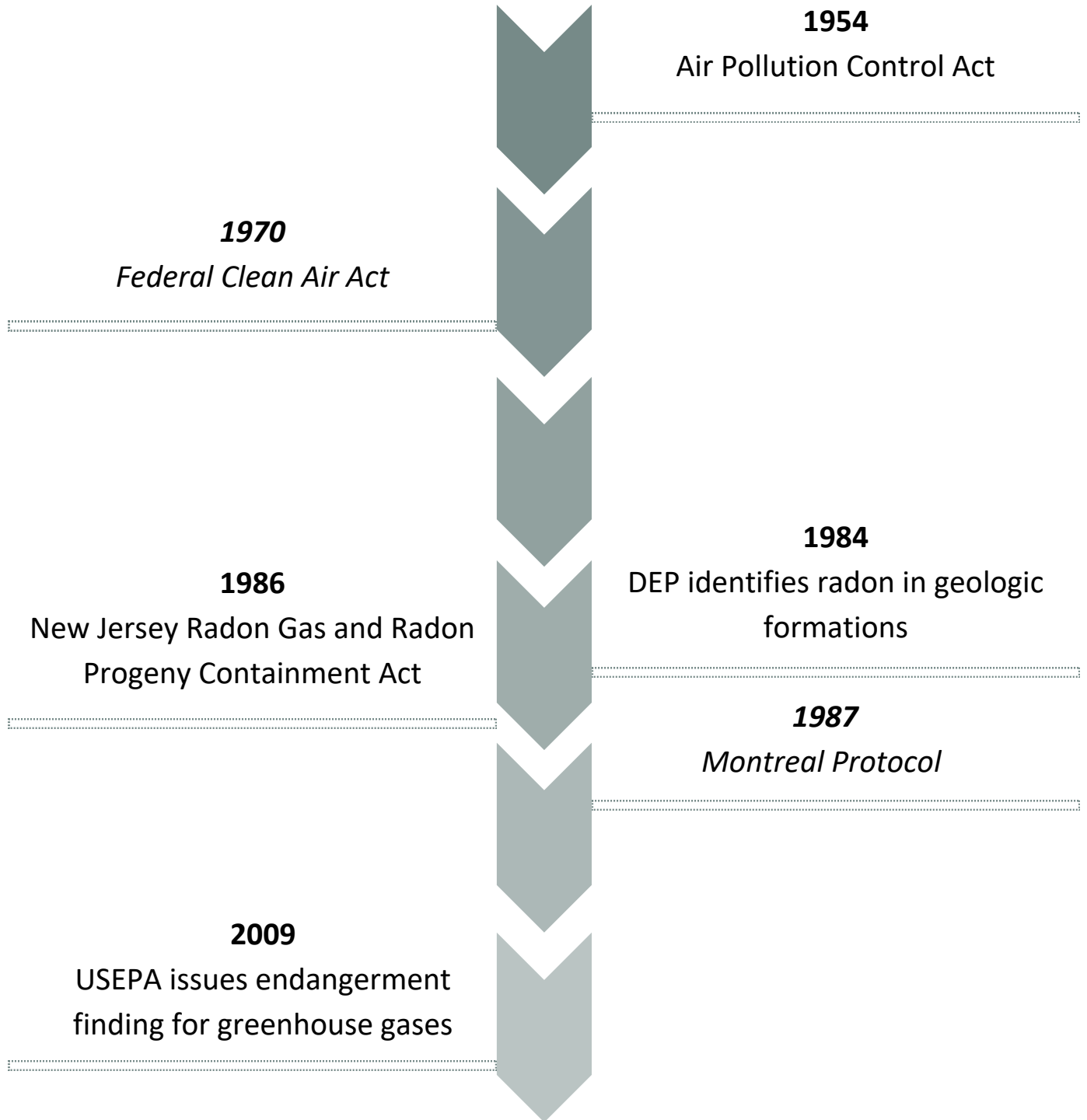
DEP will continue to make progress towards the goals in the state's key climate planning documents including the DEP's Strategic Climate Action Plan, the Natural and Working Land Strategy, and the New Jersey Scientific Report on Climate Change. The Strategic Climate Action Plan was finalized in 2025 in response to [Executive Order 100](#) and [Administrative Order 2020-01](#), and sets the course for DEP's next phase of climate action by looking across all its programs to identify additional opportunities to meaningfully prepare the state for the impacts of climate change. Regular updates to the New Jersey Scientific Report on Climate Change will ensure that data and future projects specific to conditions in New Jersey are readily available and remain fundamental to ensuring decisions are based on well-established scientific principles.





PROTECTING AIR

MILESTONES



Background

New Jersey has a long, industrialized history, leading America's Industrial Revolution by hosting the Nation's first planned industrial city in the 18th century – Paterson, New Jersey. Located between the major urban centers of New York and Philadelphia, New Jersey offered easy access to consumer markets, sources of financial capital, and large populations and immigration ports to supply the workforce. Over time, these industries grew along the corridor that runs from northeast to southwest, generating significant air and water pollution. Exhaust from the cars and trucks using New Jersey's extensive network of highways and interstates added to the already significant air pollution emitted by stationary sources of pollution, including from factories and power plants. The adoption of New Jersey's Air Pollution Control Act in 1954 was spurred by triggering events that caused government officials to recognize that air emissions were a serious public health problem. These events included the 1948 Donora Smog which killed 20 people in Pennsylvania and "smog week" in November of 1953, where air pollutants were trapped by meteorologic conditions all along the east coast, causing eye and throat irritation and increases in mortality in New Jersey and New York.

Under the state Air Pollution Control Act, New Jersey started monitoring air quality regionally in 1965, and additional DEP authority to regulate air emissions flowed from the federal Clean Air Act of 1970 and its various amendments. In New Jersey, DEP assumed the role of implementing the federal Clean Air Act in addition to its state air quality authorities.

Over time, state, regional and national emission reduction strategies have resulted in significant improvements in overall air quality. Section 177 of the Clean Air Act, in particular, has been critical to state and regional efforts to reduce emissions from on-road mobile sources of air pollution by allowing states to adopt more stringent emission standards established by the State of California.



PROTECTING AIR

Today, DEP works to improve and protect air quality through a variety of programs that:

- Monitor current air quality through a comprehensive ambient air monitoring network (29 stations) and support local community air monitoring;
- Create and maintain air emission inventories and perform emission modeling to project future air quality and assess risk;
- Develop emission reduction plans and promulgate rules to realize those plans;
- Set and enforce the requirements in facility air pollution control permits;
- Implement and enforce rules designed to reduce mobile and stationary air pollution sources; and
- Collaborate with other states to establish and achieve shared goals for air quality management.



As part of its mandate to protect public health and the environment, there are specific goals that DEP works to meet and maintain, known as the National Ambient Air Quality Standards (NAAQS) for criteria pollutants and health benchmarks for hazardous air pollutants (HAPs).

Criteria Pollutants

Criteria pollutants with established NAAQS include ground-level ozone, particulate matter for both size 10 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) or less and $2.5 \mu\text{g}/\text{m}^3$ or less (PM_{10} and $\text{PM}_{2.5}$), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), carbon monoxide (CO), and lead.



Hazardous Air Pollutants

HAPs, also known as air toxics, are pollutants that do not have established NAAQS but may be associated with significant health impacts. The USEPA regulates 188 HAPs, including benzene from gasoline, perchloroethylene from dry cleaner facilities, and methylene chloride from solvents and paint strippers. The list also includes dioxin, asbestos, toluene, and metals such as cadmium, mercury, chromium and lead. Many HAPs have associated health benchmarks which estimate the health effects from continuous lifetime exposure with a margin of safety, leveraging toxicity values developed by the United States Environmental Protection Agency (USEPA) and other agencies from animal or human data. There are established carcinogenic and non-carcinogenic health benchmarks for those air toxics where toxicity data is available.

With the exception of ground-level ozone, New Jersey long ago attained the NAAQS as outlined below and continues to maintain those standards to this day.

- Nitrogen Dioxide (NO₂)- New Jersey attained and continues to maintain the NO₂ NAAQS of the 100 parts per billion (ppb) 1-hour NAAQS for 2 decades.
- Sulfur Dioxide (SO₂) - Although New Jersey saw a spike in SO₂ emissions in 2013 attributed to emissions from a coal-fired facility in Pennsylvania, emissions returned to meeting the NAAQS after that facility was shut down. SO₂ levels have remained in compliance with the 75 ppb 1-hour NAAQS ever since.
- Carbon Monoxide (CO) - New Jersey attained and continues to maintain the CO NAAQS of 9 parts per million (ppm) for more than 25 years.
- Lead - Air concentrations of lead dropped significantly with the phase out of leaded gasoline and the removal of lead from paint and other products. The lead NAAQS of 0.15 µg/m³ hasn't been exceeded since the early 1980s.
- Particulate Matter (PM) - New Jersey attained both the 24-hour and annual PM₁₀ NAAQS in 1987 and continues to maintain compliance with those standards. The state attained both the current 24-hour PM_{2.5} NAAQS of 35 µg/m³ and both the 15 and 12 µg/m³ annual PM_{2.5} NAAQS in 2012.

Though New Jersey is in attainment for these NAAQS and therefore statewide air quality has improved significantly since 1970, many localized hot spots of poor air quality remain, primarily in in the state's overburdened communities (OBCs). This is due to the cumulative impact that multiple pollution-emitting facilities and fossil-fuel powered vehicles have when located near each other within OBCs. Maintaining NAAQS attainment while further reducing air emissions, particularly in OBCs, will ensure all New Jerseyans are breathing clean air.

“Maintaining NAAQS attainment while further reducing air emissions, particularly in overburdened communities, will ensure all New Jerseyans are breathing clean air.”

Air Monitoring

Beyond federally-required air quality monitoring to determine attainment and maintenance of the NAAQS, individuals and communities have measured air pollution at the local level since the mid-1990s. These community-based efforts have increased awareness of air quality issues to help the public reduce their exposure to certain pollutants, produced new data and forecasts, and identified monitoring gaps and the need for new monitoring sites. Additionally, local air monitoring can help identify localized issues such as air toxic emissions or the sources of odors in neighborhoods. Recent technological advancements in electrical engineering and wireless networking have led to the availability of “low-cost” air monitoring sensors to measure air pollution in real-time. DEP continues to encourage communities to use these devices to learn more about air pollution, find local air pollution sources, monitor hot spots, and collect data for additional research. Through its [Community Science Air Monitoring Program](#), DEP provides guidance on device selection and usage, download and data interpretation, and analysis, and even has a limited number of various low-cost monitors that communities can borrow.

Radon

In addition to the pollutants discussed above, radon is a naturally occurring gas that DEP helps New Jerseyans address because it poses a serious health threat. Exposure to radon is the second leading cause of lung cancer in the general population, and the leading cause of lung cancer in non-smokers, but serious health risks can be avoided through proper remediation.

DEP first became aware of the hazards associated with radon in 1984 during a contamination investigation in the Reading Prong, a uranium-rich geological formation affecting portions of Pennsylvania, New Jersey, and New York. Further testing showed that homes in that area had high indoor levels of radon. In 1986, the state Legislature allocated funds for DEP to assess radon hazards statewide and develop a certification program for radon consultants who perform testing and mitigation. The resultant testing showed that radon was a statewide health issue, with most of the state classified as having moderate- or high-risk potential for elevated levels of radon exposure. In 1987, the USEPA and U.S. Geologic Survey (USGS) created the first maps of areas with potentially high radon levels. These maps were a crucial first step in understanding the extent of the problem. DEP's [Radon Potential Map](#) shows areas of the state with the potential for elevated radon concentrations based on geology and the amount of uranium in the soil. However, even if an area is in a low or moderate tier for potential radon, DEP recommends testing as radon concentrations are highly variable with exceedances of the radon indoor air action level observed in every county in New Jersey.

In 2005, U.S. Surgeon General issued the National Health Advisory on Radon recommending people test their homes for radon every other year, upon sale, whenever a structural change is made, when using a previously unoccupied area of the home (e.g., finished basement), and after a radon mitigation system is installed. Both DEP and the USEPA provided information to help the public understand the health risks associated with radon and make decisions based on their [risk tolerance](#). In addition, DEP works to reduce risk through a Radon Awareness program, and by providing grants up to \$2,000 each to municipalities, schools, and local health departments to purchase and distribute radon test devices free of charge. Radon can also be an inhalation risk from water sources. Read more about radon in drinking water in [Chapter 2, Protecting Water](#).



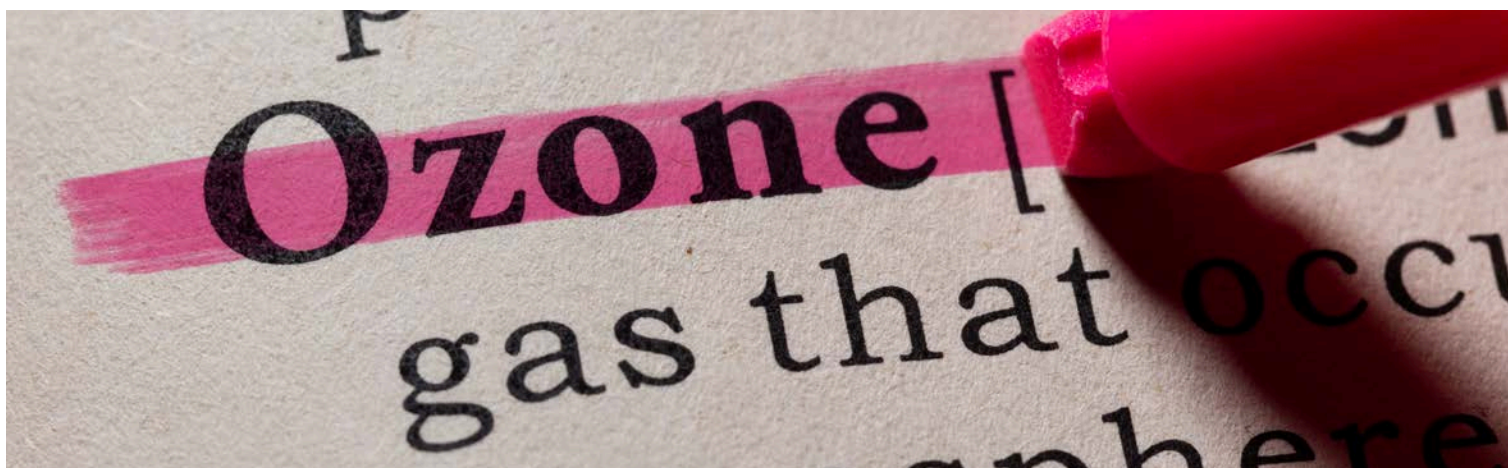
State of Air

New Jersey has made great strides in reducing air pollution to meet federal and state health standards and mitigating radon threats across the state. Still, new and emerging contaminants, potential impacts from federal rollbacks and funding cuts, and other evolving factors require that DEP continually assess and adapt to best protect public health, safety, and the environment, particularly in its OBCs. A sustained commitment to action in the key areas that follow will ensure that we continue to improve the state of air in New Jersey.

Reducing Pollutants

Criteria Pollutants

As discussed above, New Jersey has attained and continues to maintain all but one of the NAAQS, ground-level ozone. This pollutant is harmful to human health and can have a deleterious effect on the environment. Ground-level ozone is formed in the atmosphere through photochemical reactions between nitrogen oxides (NO_x) and volatile organic compounds (VOCs) (referred to as ozone precursors). Because ozone forms in the presence of heat and sunlight, the highest levels occur during the summer. DEP's [2024 Annual Air Quality Report \(AAQR\)](#), released at the end of 2025, shows that the state is on track to meet the current annual ozone NAAQS of 0.070 parts per million (ppm).



In New Jersey, primary sources of human-made VOCs are motor vehicles, consumer products like paints and solvents, and industrial and commercial fuel combustion; while the primary sources of human-made NO_x emissions are motor vehicles, construction equipment, power plants and industrial, commercial, and residential combustion. According to the 2024 AAQR, there were no exceedances of either the 9.0 µg/m³ annual average or the 35.0 µg/m³ daily average PM_{2.5} NAAQS in 2024.

On July 24, 2025, DEP adopted two new rules aimed at reducing VOCs from consumer products (chemically formulated products sold to retail customers for personal, household, or automotive use) and architectural and industrial maintenance coatings (paints, varnishes, stains, industrial maintenance coating, and traffic coatings), which represent the largest sources of VOC emissions in the state's emission inventory. Several VOCs impacted by the rules are also classified as HAPs pursuant to the Clean Air Act. These new rules are based on model rules developed by the Ozone Transport Commission (OTC), which were largely based on a series of existing California rules. The rules lower the VOC limits for 15 existing "paint" categories and 13 existing consumer product categories; add VOC limits for 12 new "paint" categories and eliminate 15 "paint" categories by merging them into new or existing categories with lower VOC limits. DEP estimated the combined VOC reductions from the implementation of these two rules to be 11.6 tons per day.

Hazardous Air Pollutants

Using the health benchmarks discussed above and the average air concentration of a specific chemical, DEP calculates risk ratios to determine risk from exposure for that chemical. If a risk ratio is less than one, the air concentration should not pose a health risk; if a ratio is greater than one, there may be a health risk. The risk ratio also indicates how much higher or lower the estimated air concentration is compared to the established health benchmark. In New Jersey, based on 2024 data, acrolein and formaldehyde showed the highest risk statewide, with risk ratios in the double digits across the state. Other pollutants above health benchmarks at all four monitoring states that collect air toxic data were acetaldehyde, benzene, carbon tetrachloride, chloroform (methyl chloride), and 1,2-dichloroethane (ethylene dichloride). Acetonitrile, Acrylonitrile, 1,3-butadiene, chloromethane, ethylbenzene, styrene, and tetrachloroethylene had risk ratios greater than 1 for at least one air toxic monitoring sites. Visit DEP's [2024 New Jersey Air Quality Report](#) for a complete summary of the air quality data collected from DEP's extensive air monitoring network.

On February 24, 2022, DEP adopted new regulations to limit toxic air emissions from fumigation. The adopted regulations clarify that fumigation operations require an air permit when those operations exceed the applicable thresholds, and prohibit a fumigation operation from emitting a fumigant into the outdoor atmosphere unless the owner has performed a risk assessment that shows negligible offsite impacts. These rules also added two air toxics to New Jersey's HAPs list; sulfuryl fluoride, which is primarily used in fumigation operations and hydrogen sulfide, an unintended by-product of many waste/wastewater treatment operations. Lastly, these rules require applicable stationary sources to report on an additional 13 HAPs as part of their annual NJ Emission Statement submittal. As a result of this reporting, DEP has listed several of the 13 added HAPs as pollutants of concern in New Jersey, suggesting that further action is needed on these substances to address health concerns.



Next Steps

DEP will review and disseminate USEPA's AirToxScreen (formally known as the National Air Toxics Assessment or NATA) updates to provide localized modeling results for air toxics in New Jersey's communities. This updated information will also be integrated into the [Environmental Justice Mapping, Assessment, and Protection \(EJMAP\)](#) tool to update the three air toxics-related environmental stressors. Additionally, the DEP will continue the geospatial mobile air monitoring project started in 2025 to better identify air pollution sources in overburdened communities by connecting real-time air measurements with real-time locational data. DEP will continue ongoing work to attain the ozone NAAQS through implementation of stringent NO_x and VOC emissions standards, strict environmental compliance, and consistent enforcement where individual sources fail to meet their environmental obligations.

Climate Impacts

Temperature is a key factor in the ozone formation reaction, with higher temperatures increasing the reaction rate, generating more ground-level ozone. This phenomenon is known as the “climate penalty.” While states have seen significant ozone emission reductions over time because of federal and state laws and technological advances, this “climate penalty” has been observed with recent spikes in ground-level ozone emissions in the U.S. and Europe during particularly hot periods. As climate scientists predict that extreme heat events will become more frequent and last longer as the planet warms, there will be a parallel increase in the formation of ground-level ozone that could counteract government efforts to reduce the pollutant and attain the health standard. In addition, recent research shows that as the planet warms, ground-level ozone will become less sensitive to reductions in NO_x emissions, meaning that greater NO_x emission reductions will be needed to get the same air quality benefit.

Urbanized areas, many of which are OBCs, often have more sources of air pollution, including power plants and dense traffic, resulting in higher air pollution levels than rural areas. These same areas also tend to have less tree canopy causing these areas to experience the urban heat island effect, a phenomenon where urbanized areas experience higher temperatures than the surrounding rural or forested areas due to a high density of roads and buildings which absorb and retain heat. Increased heat can also result in increased emissions from the energy usage needed to help residents stay cool. While urban heat islands increase heat stress on local residents, so-called “urban pollution islands” also increase their exposure to air pollution. These compounding effects make already unhealthy circumstances worse.

Recent efforts designed to reduce or eliminate carbon emissions from the burning of fossil fuels (e.g., power plants, cars and trucks, etc.) also reduce criteria air pollutants (ozone precursors) and certain HAPs (benzene, PM from diesel emissions) from those same sources. It is also true that programs designed to reduce air pollutants from the burning of fossil fuels will reduce climate impacts. DEP has taken significant steps to reduce carbon emissions and sequester carbon in the natural environment through implementation of new programs (i.e., investments from [RGGI](#) proceeds) and regulation amendments (i.e., [NJRACT CPR rules](#)). These efforts, as with many carbon reduction strategies in New Jersey, are currently implemented under the authority of both the Federal Clean Air Act and New Jersey’s Air Pollution Control Act. Read more about New Jersey’s carbon reduction efforts in [Chapter 6, Sustainability](#).



Unfortunately, the current federal administration is taking aggressive steps to undermine and repeal states' authority to reduce carbon and criteria pollutant emissions from the transportation and other sectors. One proposal seeks to rescind the Endangerment Finding for greenhouse gas emissions under Section 202(a) of the Clean Air Act and repeal all greenhouse gas emission standards for light-duty, medium-duty, and heavy-duty vehicles. New Jersey is a so-called "Section 177 State" because it uses the authorization in Section 177 of the Clean Air Act to incorporate California's standards rather than rely on typically weaker federal standards. The federal administration has also moved to terminate California's waiver allowing the state to develop and implement its own on-road vehicle standards through an unlawful application of the Congressional Review Act. If successful, the deregulation of greenhouse gases will also have a significant deleterious impact on New Jersey's ability to meaningfully reduce NO_x , $\text{PM}_{2.5}$, and VOCs, some of which are carcinogens, and to attain the ozone NAAQS. Thus, New Jersey and the other Section 177 states across the country need to develop alternative methods to continue to reduce emissions from the transportation sector.

Heat is not the only climate impact related to air quality. Wildfire is yet another climate impact that threatens New Jersey's air. While New Jersey currently meets the $\text{PM}_{2.5}$ NAAQS, wildfires – both within and outside of New Jersey – threaten the state's ability to continue to maintain that standard. Wildfires spread particulate matter hundreds of miles from their source. Changing climate patterns, particularly warmer and dryer conditions, are likely to increase the frequency and intensity of wildfires. Wildfires also emit VOCs and NO_x , which can lead to the formation of ground-level ozone. A recent study shows that wildfire smoke notably increased levels of $\text{PM}_{2.5}$ and ground level ozone across the U.S. from 2018-2023.



Next Steps

Raising Awareness

In the coming years, to prevent health impacts, DEP will need to work with communities to raise awareness of heat stress and air quality impacts, while investing in and encouraging electrification from renewable sources and implementation of other local projects, such as tree planting and other construction techniques that engineer shade to lower local temperatures. Continual study in both heat mitigation and air emission reductions will be essential to the development and selection of protective actions. While continuing to work to reduce climate pollutants and set the example for other states to follow suit, DEP must also better understand the likelihood and drivers of increasing ground-level ozone formation and PM2.5 emissions, especially when they co-occur. With a firm understanding, New Jersey can continue to protect communities through improved prediction, planning, and communication.

Academia and local officials can also play a key role in implementing solutions by identifying and executing solutions that address multiple climate issues at once. For example, installation of green infrastructure can offer shade and air quality benefits while reducing flooding and improving water quality. There is an urgent need to help communities build capacity to plan for and integrate climate resilience strategies that will protect individuals, communities, and the local economy.

Continued Support for Cleaner Technologies

State support for cleaner technologies will continue to be important to air quality improvements and clean energy goals. Programs intended to encourage production, delivery, and marketing of cleaner vehicles while making clean transportation more affordable and accessible are needed. The rollback of federal standards creates an opportunity for vehicle and equipment manufacturers to “backslide” and produce more fossil fuel-powered vehicles and fewer alternatively-fueled vehicles such as electric vehicles. This backsliding could lead to lower compliance costs. Innovative approaches to counteract this type of backsliding should be explored.

Indirect Sources

The Clean Air Act defines an “indirect source” as a structure, such as a facility, building, road, or highway, “which attracts, or may attract, mobile sources of pollution” (42 U.S.C. Part 52). Some examples are warehouses, parking lots, and freight centers. The Clean Air Act gives states the option to include indirect source rules in their state Implementation Plans with the aim of reducing emissions from vehicles attracted to stationary sources. DEP should remain engaged in the ongoing state-level discussions surrounding indirect sources to ensure that proposed policy solutions are well-informed by New Jersey specific data and conditions and meet the unique needs of NJ facilities.



Unregulated Contaminants

New Jersey has taken considerable steps to reduce exposure, particularly in drinking water, from certain per- and polyfluoroalkyl substances (PFAS). More details about DEP's efforts are included in New Jersey's PFAS actions in [Forever No More](#), DEP's PFAS strategy. While PFAS have been released into the environment for decades, scientists and regulators are still working to understand the releases from air emissions that contribute to total human exposure, both from inhalation and from the contamination of drinking water and fish tissue from air deposition. PFAS released to the environment can accumulate in soil and migrate to impact surface water and ground water for many years after release.

With an understanding of the impact of PFAS air emissions on public health, New Jersey joined North Carolina and New Mexico in August 2024 to petition USEPA to designate four specific PFAS (PFOA, PFOS, PFNA, and GenX) as HAPs under the Clean Air Act. Should EPA fail to regulate PFAS in air, New Jersey can, under its own authority, add PFAS contaminants as additional pollutants to its HAPs list. To this end, DEP has convened an internal workgroup to gather information and develop recommendations to support regulating PFAS in air emissions. Doing so would allow the state to limit the release of those PFAS where sufficient data exists to support a standard.

Microplastics, including the even smaller group of nanoplastics, are another emerging contaminant on the horizon. They have received growing attention because of their ubiquitous presence in the environment and documented occurrence in every human organ system. Data regarding the presence of microplastics in human and animal systems continues to grow, and studies to better understand whether there are health effects associated with the internal presence of microplastics are expanding. Much of the existing microplastics research has focused on presence in water, while information about microplastic presence in other media like sediment, soil, and the atmosphere remains limited. Understanding microplastics in the atmosphere, including ambient air, precipitation, deposition, and dust which is capable of resuspension in the air, will help identify exposure pathways, which will be critical if studies indicate negative health effects. Because of their large sorption capacity, microplastic can serve as carriers of other chemical pollutants, including PFAS and heavy metals. The air-water deposition of microplastics, PFAS, and other impactful contaminants can create a combined toxicity and pose elevated risks to ecosystems and human health.



Next Steps

Further research and program development is needed to ensure that DEP understands the nature and prevalence of PFAS in the atmosphere and the fate and transport of those chemicals when emitted from a stationary source. Efforts to better understand this process could use on-going modeling work. Should USEPA choose not to regulate PFAS in air in a timely manner, DEP may seek to amend state rules by regulating PFAS or certain PFAS as air toxics. This step would be necessary for the protection of human health, welfare, and the environment for New Jersey, in part because these substances move from air to land and water. Additional research and program development is also needed to better understand microplastics in the atmosphere, their fate and transport in the environment, and their ability to carry other contaminants like PFAS and heavy metals.



Equity & Localized Impacts

Cumulative Impact

The impacts from environmental pollution are not felt equally across the state. Certain communities, particularly communities of color and low-income communities, are disproportionately impacted by environmental threats and have higher incidences of poor health and welfare because of those threats. New Jersey has made great strides in protecting those communities from further harm through the implementation of the Nation's first Environmental Justice Law. Still, DEP is limited in how it can evaluate the overall impact from exposure to multiple environmental and public health stressors, even from related stressors like Air Quality Index (AQI), air toxics, and traffic. Individuals are unique in terms of their overall health and immune responses, and there are many other factors outside of environmental and public health stressors that could lead to negative health outcomes, like age, gender, and social choices (i.e., smoking, alcohol consumption). This is why designing and implementing a "one size fits all" cumulative impacts assessment is challenging. New Jersey's EJMAP tool instead performed a comparative analysis that considers the number of stressors impacting OBCs and their non-overburdened neighbors to identify communities that need additional protections and interventions.

Next Steps

While the approach used in the EJMAP tool works, as science and technology progress, DEP needs to continue to evaluate if there are better and more accurate ways to determine overall cumulative impact. This includes conducting research and regular reviews of current methodologies, opening a dialog with other states working in this space, hosting robust stakeholder discussions on cumulative impacts, and exploring cutting-edge and novel approaches to cumulative impacts assessment.

Improved and Increased Local Air Monitoring

Advancements in detection technology and wireless capabilities have greatly expanded the selection of air monitors available on the market. While there is always a need for a comprehensive air monitoring network to gather data on regional air quality and determine attainment with national health standards, it's become increasingly important to have more localized monitors that can identify unique community concerns and pinpoint hotspots for further analysis. While the monitors in the state's ambient air network are costly and specifically located to represent regional air quality, low-cost sensors are easier to locate, and the data collected gives a more nuanced representative of the air quality in a community. There are also examples where low-cost sensors are "networked" together to create a micro-network for a town or municipality, with the data visually displayed in real-time to help communities make informed decisions. Finally, there are mobile platforms that could help DEP more accurately understand the spatiotemporal characteristics of air contaminants.

Next Steps

Leveraging local and mobile monitoring data with data from the ambient air monitoring network could create a more accurate emission profile for the state. DEP should consider how best to use these newer monitoring technologies to supplement the ambient air monitoring network and better focus targeted health risk intervention strategies based on composition-specific data.

Fugitive Dust Plans

Soil disturbance from construction, commercial, and residential land development, and agricultural activities can generate dust that is picked up by the wind and spread in the atmosphere. This "fugitive" dust is not discharged in a confined and regulated stream, like a facility smokestack that has traditional air pollution control systems, posing risks to human health in and around the source. Fugitive dust is a mix of both larger scale particles (PM₁₀) and smaller particles (PM_{2.5}) that can be inhaled causing direct health impacts. Particulate matter can also carry harmful substances like heavy metals and carcinogens when inhaled, increasing the risk for health impacts. In 2021, the New Jersey Clean Air Council released [Dust in the Wind: Just a Nuisance or Something More?](#) This hearing report provides public comments and testimony as well as recommendations for DEP, including best management practices, increased data collection, and public outreach. Over time, DEP has instituted efforts to incorporate fugitive dust and associated dust management plans into the regulatory review and enforcement of air facilities. The primary focus of this effort is offsite dust and particulate impacts from both facilities defined as major sources of air pollution (i.e. electric generating units, large industrial operations), facilities with documented dust impacts, and other permitted air sources located in overburdened communities.



Federal Rollbacks and Funding Cuts

It's impossible to talk about forward movement in protecting New Jersey's air quality without highlighting the importance of federal partnership. Because air pollution can travel great distances and does not abide political or geographic boundaries, the federal government plays a critical role in protecting the public from air pollution. Prior to this year, the federal government also played an essential role in fostering and conducting cutting edge science and research. As many states look on with disbelief, the federal government has announced their intention to minimize and, in some cases, remove protections that are known to safeguard communities from poor health outcomes. These decisions at the federal level will have a negative impact on the state's ability to meet and maintain air quality standards and health benchmarks. In 2025, through USEPA, this federal administration has taken steps to:

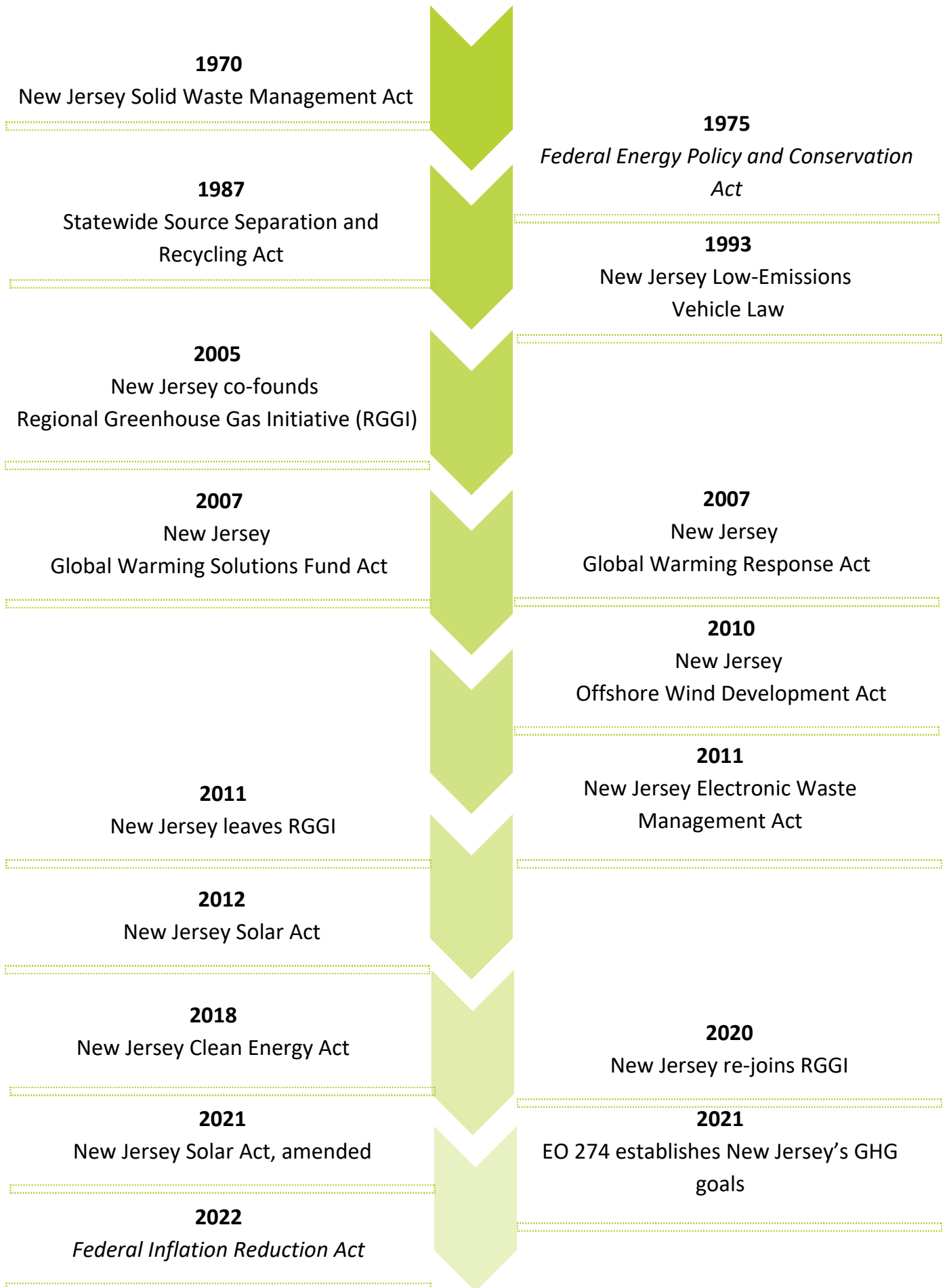
- Rollback the revised PM_{2.5} annual standard of 9 µg/m³ in place since February 2024;
- Repeal California's waiver (adopted by New Jersey and many other states) that allows the adoption of more stringent mobile source emissions standards than federal alternatives;
- Repeal the endangerment finding that provides the rationale for regulating greenhouse gas emissions under the authority of the Clean Air Act;
- Repeal the Carbon Pollution Standards which regulate CO₂ emitted by power plants;
- Repeal certain amendments to the National Emissions Standards for HAPs (NESHAP) for coal- and oil-fired electricity generating units, commonly known as the Mercury and Air Pollution for power plants or MATS; and
- Decentralize the USEPA's Office of Research and Development, with functions and staff moved to program offices. This reorganization disrupts independent research and is likely to hinder federal, and by extension state, response to environmental threats and chemical risks



An aerial photograph of a city waterfront. In the background, a dense skyline of skyscrapers is visible under a bright blue sky with scattered white clouds. In the middle ground, a body of water is filled with numerous sailboats and yachts. In the foreground, a large, lush green park with many trees and a paved road with cars is shown. The word "SUSTAINABILITY" is overlaid in large, bold, dark blue letters across the center of the image.

SUSTAINABILITY

MILESTONES



Background

The definition set forth in a 1987 United Nation's Commission Report is a commonly used definition for sustainability -- meeting the needs of the present without compromising the ability of future generations to meet their own needs. That same Commission Report called for a strategy that united development and the environment and posited that achieving sustainability would require a balance between environmental protection, social equity, and economic profitability. Over time, the concept of sustainability has been applied to many sectors, including energy generation, transportation, and materials management. DEP works to create opportunities to promote and implement sustainability principles and programs that support New Jersey's communities and businesses. Like other environmental and public health efforts, the state's sustainability efforts inherently consider climate mitigation and resilience, as well as environmental justice.

DEP has focused its sustainability efforts on educating communities about associated benefits of sustainability as well as achieving a legislatively mandated reduction of statewide greenhouse gas (GHG) emissions by 80% from 2006 levels by 2050 and reaching the state's 60% total solid waste and 50% municipal solid waste recycling goals.

Greenhouse Gas Reductions

In 2005, New Jersey joined the Regional Greenhouse Gas Initiative (RGGI) as one of the founding members. RGGI is a market-based, cap and invest regional initiative. The objective of this multistate cooperative effort is to reduce carbon dioxide (CO₂) emissions from the power sector across the 10 participating states in the northeast. These states established a regional cap on CO₂ emissions, setting a limit on emissions from regulated power generators that declines over time. Entities regulated under this program are required to purchase CO₂ allowances at quarterly auctions proportional to the short tons of CO₂ they emit. The proceeds from these auctions are distributed to the participating states to invest in clean energy and climate projects and programs, including energy efficiency, natural resource projects that sequester carbon, and bill assistance programs for local businesses and communities. New Jersey benefits from RGGI participation through reductions in carbon emissions from the fossil-fueled power sector while simultaneously generating funds to reinvest in other climate change mitigation strategies. In 2011, New Jersey withdrew from RGGI only to begin the process to rejoin in 2018. New Jersey's RGGI program has yielded over \$1 billion to date and serves as an economic and regulatory catalyst shaping the state's energy and climate future.



New Jersey is required by a 1977 law to create an Energy Master Plan (EMP) every 10 years and to update it every three years (N.J.S.A. 52:27F-14). The EMP is New Jersey's strategic vision for the production, distribution, consumption, and conservation of energy in the state. The 2008 EMP, which was adopted following the New Jersey Global Warming Response Act or GWRA (N.J.S.A. 26:2C-37 to -58), which was enacted in 2007 was the first to include GHG emissions reductions. The GWRA sets statewide GHG limits, requiring a reduction to or below 1990 levels by 2020 and 80% below 2006 levels by 2050 (that latter goal is referred to as the 80x50 goal). Executive Order 274 (EO 274), issued in 2021, established an interim GHG emissions goal of 50% below 2006 levels by 2023 (referred to as the 50x30 goal). The GWRA requires the development of a statewide GHG emissions inventory, which is a critical tool for tracking progress towards New Jersey's emissions reduction goals and establishing historical emission trends. New Jersey's Greenhouse Gas Inventory includes estimates for CO₂, methane (CH₄), nitrous oxide (N₂O), and fluorinated gases with high global warming potentials, along with estimates for black carbon and carbon sequestration.



To support the GWRA goals, also in 2007, the state passed the Global Warming Solutions Fund Act or GWSFA (N.J.S.A. 26:2C-45 to -57) authorizing the implementation of a market-based CO₂ emissions trading program like RGGI, establishing the Global Warming Solutions Fund, and setting forth how the state would redistribute trading program proceeds through agency allocations and programmatic areas of focus. The GWSRA proceed allocation framework is currently implemented as part of New Jersey's RGGI participation. Three state agencies, DEP, the Board of Public Utilities (BPU), and the Economic Development Authority (EDA), are each allocated a percentage of the RGGI proceeds and must use those funds as specified in the GWSFA. EDA, which receives 60% of the RGGI proceeds, must reinvest their allocation toward programs that reduce carbon emissions from commercial, institutional, and industrial entities. BPU must reinvest its 20% allocation in carbon emission reduction programs for low- and moderate-income residents. DEP receives two different allocations: 10% to reinvest in programs that result in carbon emission reductions from local governments and 10% to reinvest in programs that support natural resources that sequester carbon such as forests and wetlands.

The GWSFA establishes clear objectives that RGGI-funded initiatives collectively must meet, and these initiatives must be selected only after the agencies gather diverse and meaningful input from stakeholders. The GWSFA objectives focus on ensuring that the funded programs ultimately result in net GHG reductions, support the state's efforts to meet its GWRA 80x50 limit, reduce energy use, provide co-benefits (e.g., air quality improvements, flood resilience), and respond to the negative effects on human health and the environment in overburdened communities resulting from environmental degradation and climate change. To meet these goals, the agencies jointly produce RGGI Strategic Funding Plans that spell out the initiatives the state will invest in over three-year periods. On January 7, 2026, the three agencies released New Jersey's third Strategic Funding Plan, identifying 9 initiatives in which invest RGGI proceeds for the years 2026 through 2028, including catalyzing clean, equitable transportation; accelerating building decarbonization; promoting blue carbon in coastal habitats; strengthening New Jersey's forests; sustaining and growing the New Jersey Green Bank; supplementing ratepayer relief; expanding clean energy generation, transmission, storage, and grid resilience; mobilizing clean manufacturing and industry; and enhancing the clean energy supply chain, workforce, and technology development.

In furtherance of these goals the New Jersey enacted the Offshore Wind Economic Development Act, (P.L. 2010, c. 57) in 2010 to incentivize the development of offshore wind facilities. Also in 2010, DEP released four volumes of the Ocean/Wind Power Ecological Baseline Studies to ensure that New Jersey was prepared to make informed offshore wind development decisions. New Jersey's offshore wind development efforts were subsequently slowed significantly during the Christie administration but gained significant momentum in recent years. The Solar Act of 2012 (P.L. 2012, c. 24), which amended certain aspects of the statute that governs the generation, interconnection and financing of renewable energy. The Solar Act mandated that 4.1% of electricity sales must come from solar by 2028 and required BPU to conduct proceedings to establish new standards and to develop new programs to continue growth in the solar industry.

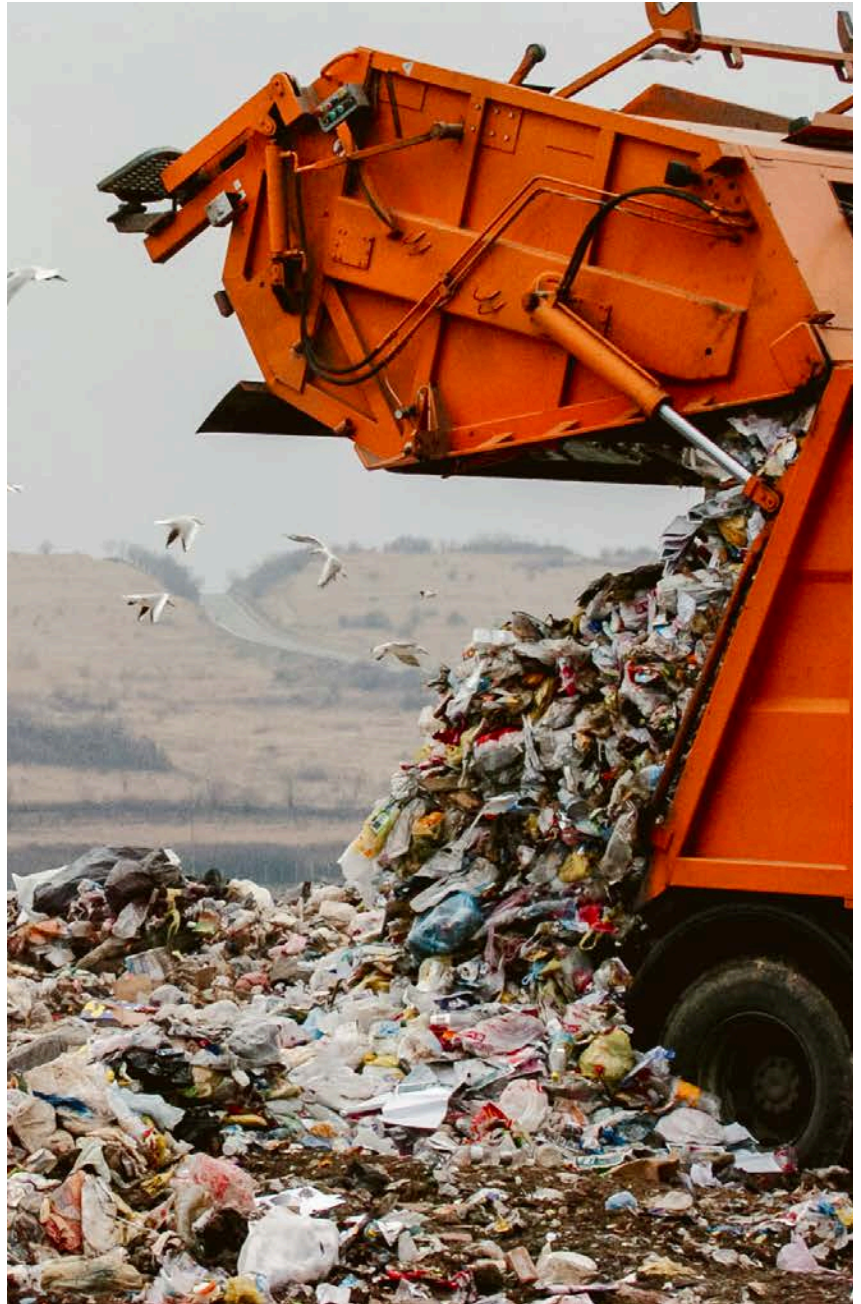


Materials Management

Since its creation in 1970, DEP has had the responsibility of addressing the environmental and public health concerns associated with waste handling and disposal. DEP defines solid waste as garbage, refuse, sludge, or any other waste material. Historically, waste disposal in New Jersey was relatively crude and inconsiderate of environmental and public health consequences. Common disposal methods included local dumps or landfills and unregulated burning. New Jersey's Solid Waste Management Act, first passed in the 1970 and amended in 1975, provided a regulatory scheme for the environmentally sound management of solid waste and established county solid waste management districts to control solid waste flow through the development and implementation of solid waste management plans. This led to significant investments in landfills, resource recovery facilities (i.e., facilities that combust solid waste to generate electricity) and transfer stations (i.e., facilities where waste is moved from smaller collection vehicles to larger vehicles or rail cars for long-distance transport to disposal facilities) statewide.

More than 400 landfills were registered with DEP between 1970 through the early 1980s, many of which were handling large amounts of waste coming from other states like New York and Pennsylvania. An estimated 400 additional landfills or open dumps operating during that time were never registered with DEP. Landfills, particularly legacy landfills that stopped operating before strict standards for proper closure were in place, can contaminate groundwater and soil. Not only do landfills take up significant space, but these important elements of the waste disposal infrastructure were often located in urban centers, many of which are now considered environmentally overburdened communities.

Today, DEP requires environmental controls for waste management practices; planning and financing of facilities and systems for waste reduction; recycling; resource recovery, destruction and disposal; and economic regulation and integrity review of the entities involved in waste management. Currently, New Jersey has 12 commercial sanitary landfills, four resource recovery facilities, and approximately 60 transfer stations evaluated through the solid waste facility permitting process to meet rigorous design and operational standards.



Modern landfills include systems to collect, manage, and treat the leachate or liquid generated when water percolates through waste materials and extracts various soluble and suspended solids such as heavy metals and pathogens. Collected leachate is then sent to wastewater treatment facilities for treatment prior to eventual discharge. In addition to water quality concerns, landfills are a contributor to GHGs. Solid waste in landfills results in anaerobic decomposition that in turn produces landfill gas, which is roughly an equal mixture of methane and carbon dioxide. The methane produced is particularly problematic, because it is a GHG that has a warming effect much greater than carbon dioxide. Methane generated in landfills is also a safety concern as it can migrate below ground and become an explosion hazard to nearby structures. Modern landfills include systems to collect landfill gas to either vent, flare, or combust it for onsite for electricity generation. More recently, landfill owners have installed renewable natural gas (RNG) systems to capture and clean landfill gas and upgrade it into pipeline-quality RNG that can be injected into the existing natural gas network.

In the late 1980s, DEP required the closing of many of the older landfills and incinerators that lacked proper air quality emission controls. In addition, with the goal of reducing the amount of waste entering landfills, New Jersey became the first state in the nation with a mandatory recycling program through the passage of the Statewide Source Separation and Recycling Act of 1987 (N.J.S.A. 13:1E-99.11 to -99.43). Recycling embraces the framework of sustainability by allowing businesses to turn waste into marketable products.

The state's original recycling law set ambitious goals to recycle 50% of the municipal waste stream (i.e., waste coming from homes and businesses) and 60% of the overall waste stream (i.e., municipal waste plus construction and industrial waste). The Electronic Waste Management Act (N.J.S.A. 13:1E-99.94 to -99.114). and its subsequent amendments expanded New Jersey's recyclable categories to include electronic waste (e.g., computers and televisions) which had become the fastest growing portion of the municipal waste stream. Removing these items saves additional landfill space and removes wires and other electronics that could result in fires.

With respect to the management of hazardous materials, the federal government has delegated authority to DEP to manage hazardous waste. In this role, DEP parallels federal regulations to identify and classify waste as hazardous and ensure that those who generate, transport, or disposal of hazardous waste do so properly without creating additional pollution.

“DEP parallels federal regulations to identify and classify waste as hazardous and ensure that those who generate, transport, or disposal of hazardous waste do so properly without creating additional pollution.”

Building Community Sustainably

Sustainability is a shared responsibility and while state government takes a leadership role in fostering and furthering sustainable practices, such as waste reduction and recycling, it is imperative that sustainability practices, including concepts like reuse and repair, take a broad approach and become a trend that is shared and spread through industries and education systems. To that end, DEP is a significant partner in three statewide efforts designed to encourage sustainable practices in New Jersey's municipalities and local governments, school systems, and businesses, and recognize leaders in these spaces. Since 2009, [Sustainable Jersey](#), a non-profit organization working to further sustainability, has worked with state agencies like DEP as well as non-profit organizations, foundations, academia, and industry to help municipalities take meaningful actions to make their communities more sustainable and resilient. Participating municipalities earn points for taking actions in different categories such as energy, diversity and equity, land use and transportation, natural resources, waste management, and sustainability and climate planning, to get certified as a sustainable community. Over time, Sustainable Jersey has added additional tiered goals for municipalities to strive toward. To date, 83% of New Jersey municipalities participate in Sustainable Jersey and 91% of New Jersey's population lives in these communities.

In 2014, Sustainable Jersey partnered with the New Jersey School Boards Association to launch Sustainable Jersey for Schools. Like the municipal program, Sustainable Jersey for Schools worked with experts, including state agency partners, local school officials, and educators, to craft the program's content. This program is similar to the municipal program, with schools and school districts taking actions in various categories to earn certification. To date, 67% of New Jersey public school districts participate in Sustainable Jersey for Schools.



Also in 2014, DEP partnered with the New Jersey Small Business Development Center to design a program that recognizes and promotes sustainable practices in New Jersey's businesses, nonprofits, and higher education institutions. The New Jersey Sustainable Business Registry builds on the Sustainable Business Initiative to educate and assist businesses in adopting green practices. Businesses join the Registry by documenting their implementation of at least five sustainable practices, including one resulting in pollution reductions and one demonstrating cost savings. Registry members benefit from free marketing materials and recognition, access to no-cost consultants, and webinars.

The State of Sustainability

Over the last eight years, New Jersey has committed to sustainability, with DEP leading many of the actions necessary to achieve that commitment. A wide array of initiatives fall under the banner of sustainability, many of which have a nexus with climate and environmental justice action. As New Jersey continues to experience and respond to climate change and understanding the true cost of decisions and whether they are not sustainable and equitable, is becoming even more important. DEP will need to continue to make progress and change, through education, incentives, assistance, and thoughtful planning.

POWERING NEW JERSEY

The movement of wholesale electricity in New Jersey and across 12 other states and the District of Columbia is coordinated by PJM Interconnection, a regional transmission organization (RTO) that operates the largest electricity market in North America. Within PJM's territory, the dispatch, reliability, and pricing of electricity are predominantly driven by the interplay of supply, demand, and other market factors. Recent increases in electricity prices are reflective of the confluence of these factors. Demand for electricity across the PJM territory has risen and is anticipated to continue to rise. This is largely due to new energy-intensive data centers and beneficial electrification demand for clean transportation and building decarbonization. Additionally, the increase in extreme weather events such as heat waves and infrastructure-damaging storms within the PJM region have strained or damaged transmission infrastructure which can compound historical annual peak energy periods throughout the year. The regional energy supply has been constrained in recent years from the technological and economic limitations, and ultimate retirement, of older power plants and PJM's backlog of requests to connect new renewable energy projects like solar arrays to the electric grid.

The PJM capacity market is focused on ensuring the region will have sufficient energy supply during future peak demand periods. Recently, that market experienced extremely high auction prices associated with newer metrics PJM employed to evaluate confidence in future supply. The cost of natural gas, which is the dominant fuel for generators within the PJM territory, has also increased compared to pre-2020 levels due to global market shifts and other constraints around demand and supply. Finally, aging transmission and distribution infrastructure can raise energy costs by limiting energy flow within the system and requiring costly system upgrades. These increased costs to PJM are ultimately passed on to the rate payers in their territory.

Energy Master Plan

The 2024 EMP incorporates recent technology and policy dynamics to outline a cost-effective sustainable energy future for New Jersey. This report includes accounting to document previous carbon reduction strategies, summarized stakeholder feedback, and an updated Integrated Energy Plan rooted in economy-wide energy system modeling pathways for meeting near and long-term climate and energy goals. The EMP also illustrates the evolution of decarbonization policy in New Jersey and synthesizes official state reports and studies including topics like affordability and rates, building decarbonization, offshore wind development, and electrification of the transportation sector.

Finally, the plan describes seven “No Regrets Strategies” for successful climate mitigation in the energy sector. These include:

- Acceleration of clean energy deployment
- Expand of electrification and efficiency programming
- Ensure energy affordability, equity, and environmental justice
- Ensure a reliable and modern grid
- Stay the course on transmission electrification
- Enhance regional coordination and advocacy
- Drive innovation in workforce development

These strategies, according to the EMP “form the lynchpin of the state’s energy policy regardless of future uncertainties or technological preferences.” Using a variety of approaches the plan promotes a strategy that can adapt and evolve with technology, current conditions and stakeholder input.



Clean Energy Transition

According to [New Jersey’s Greenhouse Gas Inventory – 2025 Mid-Cycle Update Report](#), emissions from electricity generation, including those from in-state generating stations, solid waste resource recovery facilities, and electricity imported from outside the state, are the second largest single sector source contributing to the state’s total net GHG emissions. Beyond RGGI’s role in decarbonating the electric generation sector, in recent years, New Jersey has made serious commitments to renewable energy technologies, particularly solar and offshore wind. To that end, the Solar Act of 2021 (P.L. 2021, c. 169) directed BPU to double growth of existing solar program, incentivizing up to 3,750 megawatts (MW) of solar generation by 2026. Additional commitments strive to meet the goals established in the 2018 Clean Energy Act (P.L. 2018, c. 17) which include:

- Setting a Renewable Portfolio Standard (RPS) that requires 35% of the energy sold in the state to come from qualifying renewable sources by 2025 and 50% by 2030;
- Updating the solar RPS to 5.1% of energy generated in the state by 2021 and establishes a Community Solar Energy Pilot Program;
- Codifying the New Jersey’s goal ([Executive Order 8](#)) of 3,500 megawatts (MW) of offshore wind by 2030 and reinstating a tax credit program for offshore wind manufacturers. This wind goal was later increased to 7,500 MW by 2035 through [Executive Order 92](#);
- Requiring each utility to implement energy efficiency measures to reduce electricity usage by 2% and natural gas usage by 0.75%; and
- Codifying the Administration’s goal of achieving 2,000 MW by 2030.

Consistent with the EMP and to meet the goals of the 2018 Clean Energy Act, DEP has taken the following actions with respect to renewable energy:

- Development of the [New Solar Incentive Siting tool](#), a new web-mapping application intended to provide solar developers with mapping support and analysis to aid in identifying preferred and allowable locations for siting solar photovoltaics (PV) projects under the current BPU solar incentive programs.
- Release of [Solar Permitting Guidelines](#) to facilitate permit coordination with solar developers.
- Release of the [Guidance Document for Solar Permitting on Landfills](#) to help guide developers through the process of siting solar arrays on properly closed landfills in New Jersey.
- Release of the [Solar Facility Pollinator-Friendly Standards](#) to encourage the co-location of pollinator habitat with grid supply solar facilities.
- Release of the [New Jersey County Solar PV Dashboard](#) to provide a high-level analysis of solar PV installations in New Jersey by county.



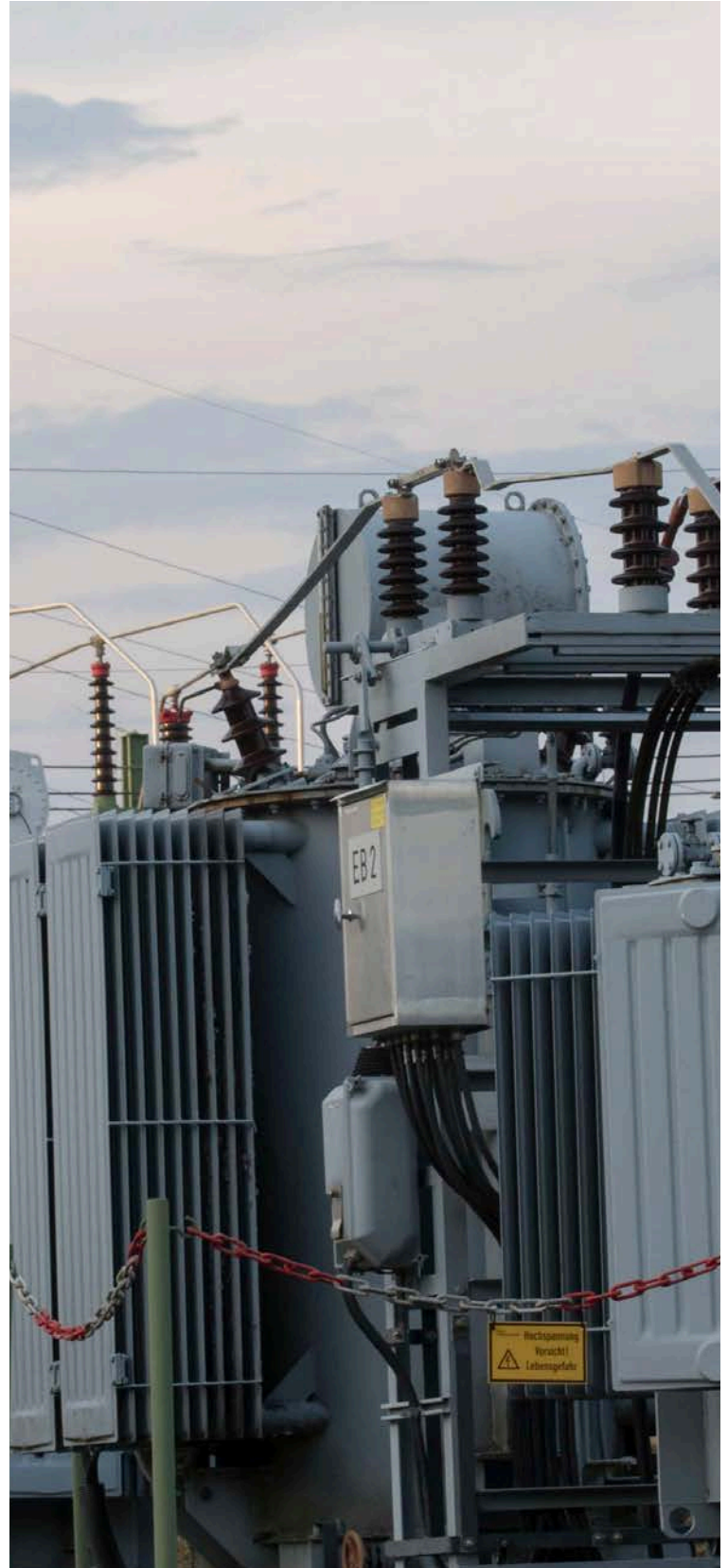
New Jersey remains committed to wind development despite more recent challenges in this sector that may delay early deployment. Supply chain and economic hurdles and most recently uncertainty at the federal level have set progress back. Technological advancements, as well as progress in other parts of the world are likely to aid New Jersey in the long run. New Jersey set a goal for offshore wind development of 11 GW of nameplate capacity (i.e., the amount of energy the turbine would produce if it ran 100% of the time at optimal wind speeds) by 2040; and DEP and our sister agencies continue to pursue this target. Finally, two of the seven rules DEP adopted under NJ PACT - Climate Pollutant Reductions (CPR) (also see [Chapter 5, Protecting Air](#)) address emissions from the electric generating sector among other stationary emission sources in the state. The Greenhouse Gas Monitoring and Reporting Rule amended the state's emission statement program to require sources of methane with a potential to emit 100 tons or more annually to report their emissions, and required methane reporting from gas distribution companies, as well as added reporting requirements for users of halogenated gases, such as hydrofluorocarbons. The NJ PACT - CPR rule to Control and Prohibition of Carbon Dioxide Emissions from Stationary Sources targeted CO₂ emission reductions from fossil-fired electric generating units through the application of emission limits. This rule also required CO₂ emission reductions from commercial and industrial fuel-fired boilers based on additional permitting requirements and banned the sale of No. 4 and No. 6 fuel oils.

Next Steps

As New Jersey endeavors to re-shape its energy future, DEP, in partnership with the BPU, will need to carefully balance the state's decarbonization and electrification goals with the need to secure a more resilient electricity transmission infrastructure with enhanced capacity. This will require careful planning and partnerships to foster innovative and collaborative action.

Increase Renewable Energy Generation Supplying the Grid

Renewable energy projects have historically languished in PJM's interconnection queue. These projects will increase generation by serving the grid, particularly by interconnecting ready projects, thereby reducing costs. These types of projects, such as solar photovoltaics, while numerous, have lower capacity values compared to their fossil- or nuclear-powered counterparts and therefore their addition to the grid had been underprioritized. To remedy these delays, PJM has already reformed its interconnect review process by shifting its approach from a "first in, first served" approach to a "first ready, first served," implementing a new application cycle, and strengthening readiness requirements to ensure project maturity. Coupled with one-time initiatives to add shovel ready projects, such as the Reliability Resource Initiative, and by taking advantage of existing surplus capacity in renewable energy generating facilities, battery storage can bolster supply. There are additional actions that could simplify distribution level connections, improve data transparency and system modeling practices, enhance long-term transition planning, and implement other policy reforms around interconnection studies and reliability of current online resources that could help reduce electricity costs in the near-term. More challenging solutions to drive down electricity costs will require addressing complex regionwide issues, such as federal and state permitting and policy dynamics, siting constraints, and supply chain disruptions are outside of PJM's purview. Moving forward, ongoing collaboration and transparency among PJM and the states in its territory is crucial to increasing new renewable and nuclear generation and energy storage while driving down costs.



Invest in Solar

Solar energy is widely recognized as the quickest and cheapest source for new electricity generation. It will continue to play a critical role in New Jersey's clean energy future, and DEP, in partnership with BPU, thus continued support for the expansion of state solar energy programs is critical. The New Jersey's Community Solar Program, launched as a pilot in response to requirements in the 2018 Clean Energy Act (P.L. 2018, c. 17) was made a permanent program in 2023. The program ensures a just and equitable clean energy transition by allowing those who rent, lack control of their roof, live in a multi-family building, do not have property suitable for solar, or cannot afford the cost of a solar installation to benefit from the cost savings and clean energy associated with solar power. In 2025 a new law (P.L. 2025, c. 135) further directed BPU to open registration for an additional 3,000 MW of community solar facilitating the swift expansion of solar access for 450,000 additional residents, including 250,000 low-income families.

New Jersey governmental entities are uniquely positioned to support the continued expansion of solar in New Jersey, even in the absence of federal renewable energy tax credits, such as the Inflation Reduction Act. To further support expansion and in response to the 2018 Clean Energy Act, the NJBPU, established a Remote Net Metering (RNM) Application and Approval Process. This process allows governmental entities to install a solar array on-site or off-site on private property, for up to 5 MW by aggregating electricity usage from facilities within the same electric distribution service territory. The RNM market segment currently has an annual capacity of 50 MW.

To continue to support the implementation of these programs DEP must keep existing siting tools and guidance up to date and continue to communicate and connect with a broad and diverse audiences. DEP must also evaluate its own facilities and land holdings to determine its capacity to host solar arrays. DEP can lead by example but leveraging the RNM program and developing robust guidance to help other government entities take advantage of that program.



Bolster Energy Storage

Energy storage systems are crucial for integrating intermittent renewable energy sources like solar onto the grid and strengthening grid resilience against outages. To expand the state's energy storage network, BPU implemented the [Garden State Energy Storage Program \(GSESP\)](#). The GSESP is a multi-phase program designed to deploy 2,000 MW of energy storage by 2030, satisfying a requirement of the 2018 Clean Energy Act. Launched in June 2025, the GSESP's first phase is set to procure at least 1,000 MW of storage through competitive bidding. Phase 2, slated for launch in 2026, will focus on incentives for smaller energy storage systems. Designed to provide additional energy storage beyond the GSESP, the state's [Competitive Solar Incentive Program](#) provides incentives to qualifying grid supply solar generation projects, solar generation paired with energy storage and large non-residential net metered projects over 5 MW. Pairing energy storage with solar installations can reduce electricity consumption during peak demand by shifting usage to off-peak times, increase local consumption, increase grid independence, and if done properly, provide environmental benefits by reducing GHGs and other air pollutants. DEP should expand its existing solar PV siting and permitting guidance to facilitate the adoption of battery storage systems in the state.

Evaluate Nuclear Expansion

In the medium to longer term, nuclear energy presents an opportunity to substantially increase clean in-state generation without increasing GHG or other air pollutants. Despite considerable timelines for the planning, permitting, engineering, and construction of nuclear plants, locations with interconnection potential and other geographic considerations that lend themselves to sites suitable for nuclear generators may be attractive to potential investors. New Jersey is home to three nuclear reactors located at the Artificial Island complex in Salem County. The complex has adequate room for additional capacity and has already received an Early Site Permit approval from the Nuclear Regulatory Commission, which is valid until 2036. The New Jersey State Police Office of Emergency Management, in coordination with DEP, has a robust Radiological Emergency Response Plan that provides an immediate and comprehensive response to any nuclear incident at Artificial Island. That plan is sufficiently robust to support offsite response for any additional reactors sited at that location. Another potential place for added nuclear capacity, including Small Modular Reactors, is the former site of the Oyster Creek Generating Station, which permanently closed in 2018. Additionally, the state should support efforts to create and grow a New Jersey workforce capable of engineering, manufacturing, operating, and maintaining new nuclear.



Build Local Capacity

Transitioning to clean energy is a collective endeavor, requiring widespread adoption and support. New Jersey needs to continue to include stakeholders in all planning, policy, and incentive program development to ensure the energy transition is responsive to the varied and local needs of New Jerseyans. State programs and policies must continue to acknowledge that different communities have distinct needs and assets and benefit from tailored solutions. DEP will need to continue its efforts to engage the public meaningfully and develop resources to accelerate clean energy deployment throughout the state.



Transportation

Emissions from the transportation sector, which includes on-road gasoline- and diesel-fueled vehicles as well as those powered by compressed natural gas and other fossil fuels, aviation, marine and rail, is the largest contributor to the state's total net GHG emissions. Accordingly, the 2019 Energy Master Plan, for the first time included efforts to decarbonize the transportation sector, improve access to mass transit, and provide alternative transportation options. Furthermore, transportation is also responsible for about 21% of the manmade volatile organic compounds and oxides of nitrogen emissions that contribute to the formation of ground-level ozone, which is associated with serious health effects. Decarbonizing the transportation sector requires a commitment to transition from fossil fuels like gasoline and diesel to electric power. DEP has taken the lead, through both regulations and rules and incentive programs to strategically move the state towards this transition.

New Jersey has made great strides to electrify the transportation sector in recent years. New Jersey's 2020 Electric Vehicle Act (P.L. 2019, c. 362) set a suite of goals to further the state's transition. The goals included increasing targets for the number of plug-in electric registered light-duty vehicles in the state through 2024, increasing targets for the number of publicly available electric vehicle chargers available on New Jersey corridors through 2025, targets for the number of multi-family residential properties and franchised overnight lodging establishments with electric vehicle chargers by 2025, and targets for electrification of state-owned vehicles and new bus purchases. As of June 2025, electric vehicles make up over 14% of new vehicle sales. and there are 4,227 publicly accessible electric vehicle charging ports. The state's 2024 EMP re-committed to transportation electrification, directing the state to continue scaling up consumer incentives, utility investments, regulatory streamlining, and public-private partnerships designed to accelerate electric vehicle adoption and expand New Jersey's charging infrastructure.

Four of DEP's NJ PACT CPR rulemaking efforts (also see [Chapter 5, Protecting Air](#)) focus on reducing emissions from the transportation sector, either by ensuring an increasing percentage of electric vehicles were offered for sale in the state, tightening emissions standards on Internal Combustion Engine vehicles and mobile cargo handling equipment over time, or adding more stringent inspections requirements for certain diesel vehicles.

Advanced Clean Truck (ACT) Program and Fleet Reporting Rule

This effort incorporates the State of California’s Advanced Clean Truck regulations (13 CCR § 1963 to 1963.5) by reference. California’s ACT requires manufacturers of vehicles over 8,500 pounds to participate in a credit/deficit program intended to increase the percentage of electric vehicles sold in New Jersey. The rule also requires one-time reporting to enable DEP to obtain information that will inform future decisions concerning further emission reductions from the transportation sector.

“Drive Green [initiative] debunks myths about going electric and outlines the numerous financial incentive programs to help fund New Jersey’s transition to zero emission transportation.”

Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards Rule

Based on California regulations, this rule requires diesel mobile cargo handling equipment at ports and intermodal rail yards to apply best available control technology while zero-emission technology continues to advance for this equipment.

Heavy-Duty Omnibus Rule

This rule incorporates California’s regulations by reference. The rule includes standards and requirements for Model Year 2027 or later heavy-duty new engines and vehicles. DEP also amended its diesel vehicle emission inspection requirements to apply to medium-duty vehicles. A companion rulemaking by the New Jersey Motor Vehicle Commission required these medium-duty vehicles to periodically undergo emissions inspections for the first time in the history of the state’s vehicle inspection program.

Advanced Clean Cars II (ACCII) Rule

This rule builds on previous California’s rules that New Jersey had already incorporated by reference requiring stricter emission standards for all model year 2009 and subsequent passenger cars and light-trucks and requiring manufacturers to meet a zero-emission vehicles (ZEV) sales requirement. ACCII requires all vehicles sold to be ZEVs by 2035 through increasing ZEV sales requirements over time.

DEP is moving electrification forward with non-regulatory initiatives as well. DEP established [Drive Green NJ](#), a one-stop shop for learning about the benefits of electric vehicles. This initiative debunks myths about going electric and outlines the numerous financial incentive programs to help fund New Jersey’s transition to zero emission transportation.

Since its inception, New Jersey has dedicated \$35 million to It Pay\$ to Plug In, providing grants for the installation of charging stations at public, workplace, and multi-unit dwelling locations. Periodic funding is also available for public DC Fast Charging (DCFC) Stations. Due in part to this program, New Jersey met the 2020 Electric Vehicle Act (P.L. 2019, c.362) goal of having 1,000 Level 2 chargers and 400 DC fast chargers available for public use.

The Clean Corridor Coalition, led by DEP, will invest nearly \$250 million in truck charging infrastructure on the I-95 and adjacent corridors throughout the State and its neighboring states of Connecticut, Delaware and Maryland. This funding will also finance training and support services to establish a skilled workforce. As one of the most densely populated corridors, cutting GHGs and air pollution from trucks in the I-95 region will improve quality of life for millions of people while expanding the region's charging infrastructure.

DEP announced a School Transportation Eco-hub pilot program which brings together battery storage, on-site solar energy generation, microgrids, and bi-directional electric school bus technologies. The pilot projects will test two-way charging in a controlled environment, helping the state understand potential grid impacts and envisioning a future vehicle-to-grid framework for the state. The Eco-hub will demonstrate how these technologies can ultimately help electric vehicles reduce ratepayer costs and electric grid demand.

Understanding the cost of transitioning New Jersey's transportation sector to local governments and communities, DEP released a [OneStopShop app](#) that enables residents, businesses, and policy makers to find sources of funding for efficiency, transportation, and other sustainability-focused projects. The tool helps simplify the funding search to make these projects a reality by identifying potential grants, rebates, financing options, and technical assistance programs. Incentive information is updated frequently. After answering a few quick questions about their project, users are directed to relevant federal, state, local, and utility funding programs that are open and accepting applications. that enables New Jersey residents, businesses, and policy makers to find funding for efficiency, transportation, and other sustainability-focused projects. The state offers various electric vehicle-related incentive programs through BPU and EDA, including [Charge Up New Jersey](#), [NJ ZIP](#), and the [Clean Fleet program](#), that are included in the app.

DEP's [Fleet Advisor](#) provides small public, private, and non-profit fleet owners with free technical assistance regarding transition of medium- and heavy-duty trucks to ZEVs. The program helps fleet owners navigate key decisions around fleet electrification such as vehicle choice and overall cost and can provide on-site electric vehicle charging infrastructure assessments. The program has analyzed nearly 300 diverse vehicle types including school buses, vans, ambulances, garbage trucks, and shuttle buses.



Next Steps

In addition to the transportation measures outlined above and in [Chapter 5, Protecting Air](#), DEP must consider innovative approaches to address unique transportation challenges. Community car-sharing programs could address electric vehicle demand in areas with limited charging infrastructure availability and low vehicle ownership rates. Therefore, a potential innovated solution could involve employing electric ride-hailing services to transport individuals in rural areas to important services. DEP's [eMobility Grant Program](#) already covers a wide variety of shared-use electric vehicle programs, including community carshare and electric ridesharing programs. DEP could consider expanding its eMobility grants into larger programs that provide sustained incentive support over a long period of time and prioritize EV car-sharing services in multi-unit dwellings, overburdened communities, and rural regions. DEP could also consider establishing a fee and incentive structure to support ride-hailing drivers, developing general electric vehicle adoption targets for ride-hailing fleets and coupling ride-hailing and car-sharing applications with public transit and micromobility solutions to further reduce emissions while providing alternative transportation options.

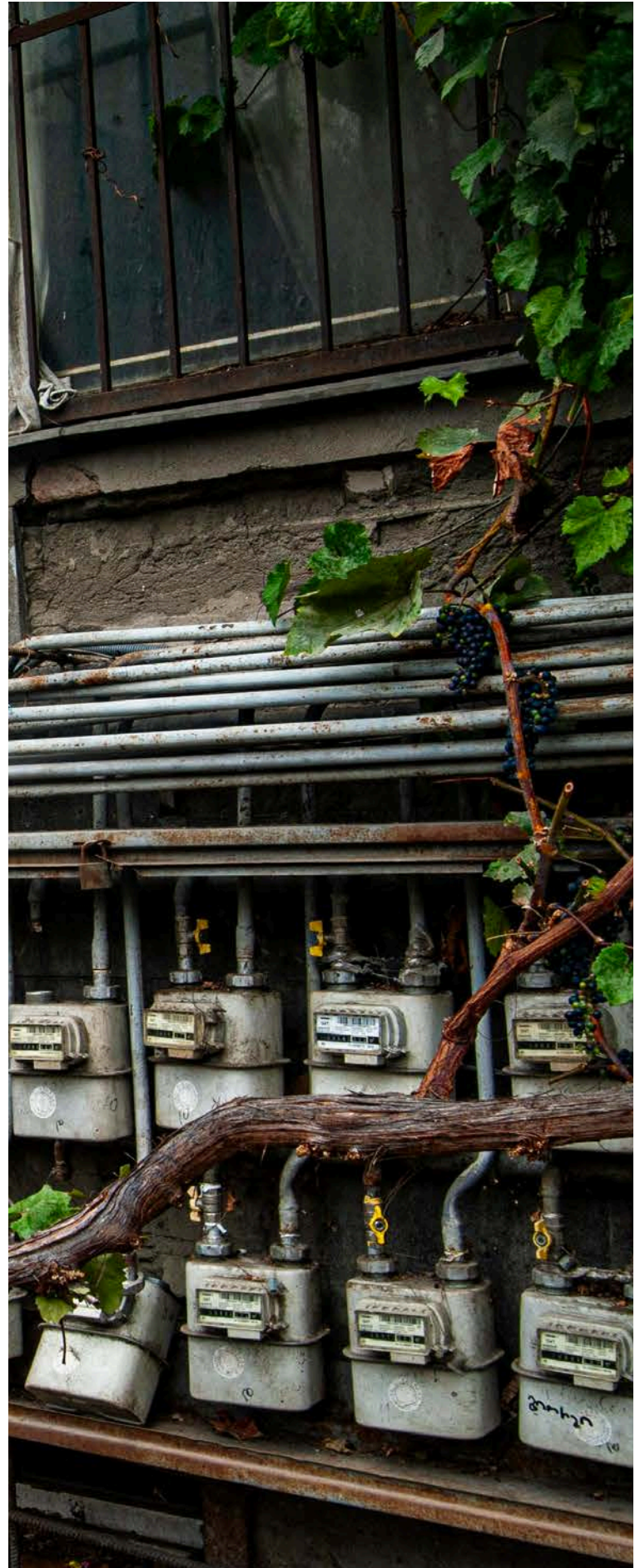
As grid demand increases, New Jersey must pursue mitigating measures such as innovative rate design, energy storage, and vehicle-grid-integration to alleviate the impacts of transportation electrification on the electric grid and convert electric vehicles into a grid asset.



Building Decarbonization

Residential and commercial buildings combined are a larger contributor to New Jersey's total net GHG emissions than electricity generation alone. Space and water heating account for most of the emissions in these sectors, with 90% of residential buildings and 83% of commercial buildings relying predominately on natural gas for those functions. Reducing emissions to meet the state's 2050 GHG emissions goal would require converting New Jersey's buildings to clean heating and cooling systems. Completing this type of large-scale energy conversion is one of the state's most complex challenges because of the age of the New Jersey's existing building inventory and its connection to a fossil fuel-based infrastructure. Additionally, New Jersey's oldest building stock is often located in overburdened communities with limited resources. These buildings can require upgrades and repairs before they can sustain and support the conversion to electric power, such as new electrical panels to expand capacity, replacement of outdated wiring with modern copper wiring, upgrades to building envelopes to enhance energy efficiency, and the addition of new circuits. Including an on-site alternative energy source like solar would require an assessment of the roof and its ability to support the panels. As a result of these challenges, converting older building stock must be paired with policies requiring net-zero emissions from new construction and greater efficiency for newer existing construction. This includes adopting the latest building codes for new construction and retrofitting the envelopes of the majority of residential and commercial buildings. As with electrification of the transportation sector, shifting added load from these sectors to electric power will require augmenting the capacity of the electric distribution system and ensuring that new capacity is met with clean and renewable energy sources.

As grid demand increases, New Jersey must pursue mitigating measures such as innovative rate design, energy storage, and vehicle-grid-integration to alleviate the impacts of transportation electrification on the electric grid and convert EVs into a grid asset.



Reflecting the need for a balanced strategy for building decarbonization, Executive Order 316 in 2023, setting 2030 goals to electrify 400,000 additional dwelling units and 20,000 commercial spaces and/or public facilities, and requiring an additional 10% of residential units serving households earning less than 80% of area median income be made “electrification ready.” Simultaneously, DEP signed a Memorandum of Understanding with eight other states in 2024 committing to transition 65% of residential space and water heating equipment to heat pumps by 2030, and 90% by 2040, across participating states. Finally, in 2025, New Jersey released a [Strategic Roadmap for Building Decarbonization](#). The Roadmap includes recommendations for policy, legislative, and regulatory advancements, along with workforce development and funding strategies to create cleaner, greener buildings that benefit New Jersey families and workers. Meeting Governor Murphy and the Department’s building decarbonization goals and implementing the recommendations laid out in the Roadmap will require continued coordination between the Department, BPU and the New Jersey Department of Community Affairs (NJDCA), the agency responsible for building codes and requirements.

DEP continues to take important strides in advancing clean and energy-efficient buildings throughout the State via a variety of strategies. The One Stop app discussed above helps users identify funding opportunities like grants, loans and tax credits for sustainability projects – including energy efficiency and heat pump adoption.

DEP is working closely with the BPU to encourage adoption of ground source heat pump (GSHP) systems as a clean and highly efficient technology for meeting building heating and cooling needs. In 2023, the Department released a [Ground Source Heat Pump Baseline Report](#) that evaluated the landscape of existing GSHP installations throughout the state. Building on this work, DEP continues to collaborate with the BPU and other key stakeholders to enhance awareness and adoption of these systems.

“The purpose of DEP’s Leading by Example initiative is to showcase that energy efficiency and emission reductions are achievable, and to stand as a leader towards attaining the state’s clean building goals. “

Additionally, in the last few years, DEP is [Leading by Example \(LBE\)](#). As directed by Administrative Order 2023-13, DEP has inventoried its various buildings to track energy usage, evaluate associated emissions, and implement energy conservation measures and renewable energy technologies. The purpose of DEP’s LBE initiative is to showcase that energy efficiency and emission reductions are achievable, and to stand as a leader towards attaining the state’s clean building goals.

Next Steps

As New Jersey continues to push forward with electrifying its building stock while ensuring energy affordability, there is a critical need to implement energy efficiency measures to balance the demand from beneficial electrification efforts. Upgrading existing building envelopes to satisfy the requirements of electrification can ensure optimal building performance for energy and cost savings. DEP will need to enhance its outreach efforts and develop resources for building owners to undergo the process of introducing energy efficiency and clean heating equipment to either newly constructed or retrofitted buildings. To ensure the workforce is ready for the transition to clean heating equipment, DEP will need to continue partnering with other state agencies to make certain the necessary education, training, and outreach materials are available to prepare the labor force for heat pumps and other energy conservation measures. Additionally, DEP can create tools and other relevant resources based on the needs of specific stakeholders in this sector, such as guidelines for complying with building codes, online tools to boost the marketability of heat pumps, educational materials to boost awareness and compliance with energy benchmarking efforts, technical resources for equipment manufacturers transitioning to heat pumps, and more. As grid demand increases, New Jersey must pursue mitigating measures such as innovative rate design, energy storage, and vehicle-grid-integration to alleviate the impacts of transportation electrification on the electric grid and convert EVs into a grid asset.

As DEP is tasked with monitoring and mitigating emissions, it will likely be necessary for DEP to consider regulations like a clean heat standard that sets emissions limits for fossil fuel energy providers, building performance standards that require existing buildings to reduce their emissions over time, and zero-emission space and water heating equipment standards that phase out the manufacturing and installation of inefficient fossil fuel heating systems. DEP will also need to continue supporting the adoption of the latest building codes, with additional advocacy for a potential all-electric building code for new construction. Further, as DEP is committed to reducing its energy usage and emissions from its buildings, it is important to continue with the LBE initiative and consider expanding the program to set DEP-wide energy use or emission reduction goals. In tandem, DEP will need to consider the establishment of a Clean Heating Procurement requirement for state buildings, particularly as these buildings transition to clean and efficient energy sources.



Materials Management

While the state has come close to meeting its original recycling goals, challenges, including fluctuations in global recycling markets, continue to impede the final push to meet those goals. Recycling programs faced difficult times in the latter half of the previous decade due to weak markets, low recyclable commodity prices, and rising program costs. With recycling markets still weak heading into 2020, the Recycling Market Development Council was established by law (P.L. 2019, c. 439). The Council is tasked with exploring the marketing challenges facing New Jersey's recycling programs and propose recommendations that would advance recycling in New Jersey. The Council released its recommendations report to the Governor and New Jersey Legislature in April 2022. The report included numerous recommendations, some of which have since been implemented like the initiation of a statewide public education campaign, the promotion of Recycle Coach information system, and the implementation of the Recycled Content Law. Some of the other recommendations of the Council should be considered for the near future such as establishing a Recycling Market Center which would expand commodities of recycled products and leading by example by promoting green purchasing at the state and local government levels.



The same year that the Recycling Market Development Council was formed, the New Jersey Solar Panel Recycling Commission was established by law (P.L. 2019, C. 215) to investigate and recommend options for recycling and other end-of-life management of solar panels and other solar energy structures. The Commission released its recommendations report to the Governor and Legislature on November 29, 2023, and DEP has initiated the process to amend the New Jersey Hazardous Waste Rules to classify end-of-life solar panels as Universal Waste. An item becomes a universal waste when either USEPA or DEP designates it as such through rulemaking, because the material is commonly generated and when properly managed at the end of its useful life, poses relatively low risk. Although solar panels are generally safe in use, some panels contain metals like lead that make them hazardous at end-of-life (when disposing). Classifying end-of-life solar panels as universal waste will encourage recycling because recycling facilities will be able to manage larger quantities without triggering the comprehensive set of hazardous waste regulations. In turn, this will help more solar panels get recycled instead of ending up in landfills or incinerators, while also giving businesses and communities a simpler, more flexible, safe, and cost-effective way to handle them.

Climate Vulnerability

Landfills across the state may be vulnerable to climate change. More frequent extreme rain events, extreme heat, and rising seas may impact the function and integrity of our landfills. DEP recognizes the importance of planning for these impacts with respect to these facilities.

Next Steps

DEP will evaluate the need for extending post-closure care periods for landfills to enable DEP to retain regulatory oversight of previously closed landfills should it be necessary to prepare for and mitigate climate hazards. The community will be meaningfully engaged in this evaluation and planning.



Food Waste

DEP estimates that approximately 22% of all household, commercial, and institutional waste generated in New Jersey is food waste. This equates to 1.46M tons of food waste or approximately 325 pounds of food waste per person per year. To tackle this, New Jersey has a series of laws, regulations, and plans designed to reduce the amount of food waste entering the municipal waste stream. The Food Waste Reduction Act (P.L. 2017, c.136) establishes a specific goal of reducing food waste generated in the state by 50% by 2030. As part of this effort, DEP developed the New Jersey Food Waste Reduction Plan, quantifying food waste production and establishing short-term and long-term strategies to achieve the 50% goal. Following on the heels of the Food Waste Reduction Act, in 2020, the Food Waste Recycling and Waste-to-Energy Production Act (P.L. 2020, c.24) was enacted, requiring large food waste generators (those who produce 52 tons or more of food waste per year) located within 25 road miles of an approved food recycling facility to source separate and recycle their food waste. DEP adopted rules at N.J.A.C. 7:26K to implement this law and is in the process of developing report documents by which large food waste generators will be required to submit their food waste tonnages that are recycled on an annual basis.

Funding from USEPA's Solid Waste Infrastructure for Recycling grants is being used to fund food waste management programs in local governments and to fund a toolkit to help food waste generators determine compliance measures under the Food Waste Recycling and Food Waste-to-Energy Production Law. DEP is also working directly with New Jersey's Office of Food Security Advocate to ensure that food that would otherwise be wasted is donated to those in need. One REA-funded grant has yielded an interactive map that locates food waste generators and the recipients of donated food such as food banks and pantries. This map can assist those who are looking for local food donation options and can help keep wasted food out of our landfills.

Next Steps

DEP will be launching reporting tools for large food waste generators to disclose how they manage their food waste for the first time pursuant to the Food Waste Recycling Law. Additionally, to further the goals of the Food Waste Reduction Plan, DEP will continue to fund programs that develop food waste management plans in local governments and in universities throughout the state. To facilitate the state's composting infrastructure, DEP will continue to pursue a tiered permitting structure through rule modification that will enable small-scale composting units to develop without the need for an overly burdensome permitting process.

Beyond these efforts, DEP should consider requiring district Solid Waste Management Plans to include food waste reduction and source separations of organic materials in their plans. If food waste and organic material separation and diversion were mandated in district solid waste management plans, actors in the waste industry would be less hesitant to invest in food waste recycling. Furthermore, mandating separation of food waste and organics would be a major step in New Jersey's goal of reducing food waste 50% by 2030.

Getting Past Plastic

Plastics released into the environment do not biodegrade but instead break down into microplastics which accumulate in the natural environment and are consumed by and bioaccumulate in fish and other marine life, thereby entering the larger food chain. According to the Interstate Regulatory & Technology Council microplastics are "one of the biggest emerging threats to the global environmental community" and that regarding potential health effects, "research articles are being published at a rapidly accelerating rate." A new law (P.L. 2020, c. 117) was enacted to recognize the growing environmental and public health impacts of single use plastics, approximately a third of which are only used once and then discarded. This law banned or limited use of single-use plastic carryout bags, polystyrene foam food service products, and plastic straws. DEP adopted rules to implement this law and promoted the Get Past Plastic marketing initiative to educate the public about the restrictions on single-use plastic items. DEP worked in tandem with the Department of State's Business Action Center and New Jersey Clean Communities Council to ensure that businesses had a clear line of communication to relay any questions or concerns about this law.



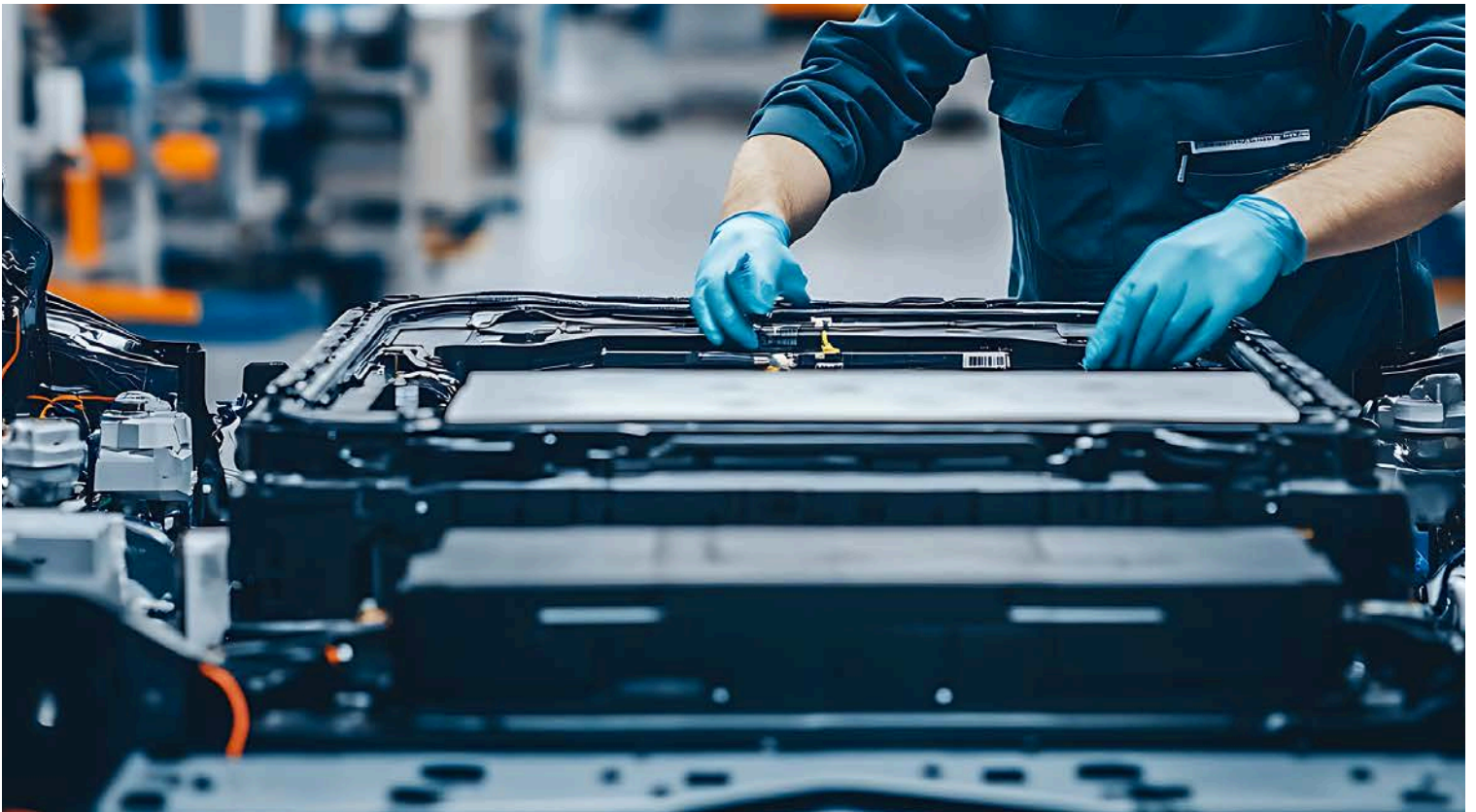
Next Steps

DEP will continue its work with the Plastics Advisory Council to study ways to reduce the prevalence of single-use plastics in our society. Specifically, further research into ways to reduce microplastics in the environment along with alternative options for single-use materials will be prioritized.

Extended Producer Responsibility

EPR programs make manufacturers more responsible for the lifecycle of their products, from production through end-of-life disposal. These programs encourage manufacturers to design products with less environmental impact and more opportunities for reuse and recycling while simultaneously reducing or eliminating the financial burden on local governments to manage product waste. In January of 2024, New Jersey was the first state in the nation to pass legislation requiring manufacturers to take responsibility for the end-of-life management and recycling of electric and hybrid vehicle batteries. Specifically, the Electric and Hybrid Vehicle Battery Management Act (N.J.S.A. 12:1E-99.81a TO -99.81q) requires producers of certain electric and hybrid vehicle propulsion batteries, including lithium-ion and nickel-metal hybrid batteries, to register with DEP and annually report on the number of covered batteries they sell, offer for sale, or distribute in or into New Jersey. Starting in 2027, these producers must create and submit management plans to the Department outlining their vehicle and battery take-back programs, and any other needed programs to facilitate the proper recycling or disposal of these batteries.

Extended producer responsibility legislation is expanding throughout the nation, and New Jersey is taking notice. Some of the more recently enacted EPR laws in other states include materials such as paint, packaging, batteries, textiles, and carpets. DEP is working with groups such as the Association of New Jersey Recyclers (ANJR) to research EPR and ensure that any potential legislative opportunities are manageable at the state level. While we continue to research EPR in other states, DEP will be continuously looking to improve upon and modernize our existing eWaste EPR law and further implementation and rulemaking for the EV Battery Management Law as outlined above.



Next Steps

DEP will continue researching the best methodologies to implement EPR legislation and continue interacting with other states that have already enacted EPR laws. In addition, DEP will work with groups like ANJR to develop standard language that could be used in EPR templates for future legislation. Finally, DEP will promulgate rules that amend the existing eWaste EPR regulations in New Jersey.

Recycled Content

New Jersey's Recycled Content Law, signed in January of 2022, requires manufacturers to use a minimum percentage of post-consumer recycled content in certain products such as rigid plastic containers, plastic beverage containers, glass containers and plastic carryout bags, and prohibits the sale of polystyrene loose-fill packaging. These manufacturers must also register with and submit annual compliance reports to DEP. The Recycled Content Law specifically seeks to stimulate recycling markets by creating consistent demand for recycled materials and aligns with one of the recommendations from New Jersey's Recycling Market Development Council. A more comprehensive EPR program that would require producers of packaging products to adopt and implement packaging produce stewardship programs is under consideration by the New Jersey State Legislature.



Next Steps

DEP will continue implementing the minimum postconsumer recycled content mandates in the Recycled Content Law concurrent with the development of rules. In addition, for the first time, manufacturers of “covered products” will be required to submit detailed compliance reports. These reports will provide data that demonstrates that products purchased in New Jersey are meeting the postconsumer recycled content mandates of this law.

Scrap Metal Facilities

Scrap metal facilities are establishments that receive, store, process, or recycle ferrous and non-ferrous metals (e.g. steel, aluminum, and copper) collected from end-of-life products and structures such as vehicles and appliances. They are sometimes colloquially referred to as scrap yards or junk yards. Processing at these facilities often involves sorting, shredding, melting and purifying metals to prepare them for reuse or to convert them into raw materials for manufacturing new products. As such, these facilities can serve an important role in keeping materials in circulation and out of landfills. At present, these facilities are exempt under existing solid waste authorizing laws, leaving them “orphaned” with respect to traditional DEP waste and recycling facility permit and enforcement requirements. As a result, at times, these facilities have created serious environmental impacts, most notably from fires sparked by wiring, batteries, or other flammable materials in the scrap piles onsite.

In addition, many of these facilities are located in overburdened communities, contributing to their overall disproportionate environmental and public health burdens. Consequently, scrap metal facilities are specifically defined as a regulated entity in the New Jersey’s Environmental Justice Law and implementing rules (N.J.S.A. 13:1D-157 TO -161, and N.J.A.C. 7:1C). DEP regulates these facilities through existing permitting programs, such as air quality, land use, and stormwater permitting. They are not regulated through solid waste permitting.

Next Steps

DEP will work within the limits of state law to address local impacts from scrap metal facilities, engage and hear from the public about their concerns and solution, and work with legislators interested in doing the same.

Data Accessibility and Management

Many of the actions highlighted throughout this chapter, including the GHG monitoring and reporting rule, the one-time reporting requirement of the ACT program and fleet reporting rule, the regular tracking and visualization of RGGI proceed funds, and the annual reporting requirements associated with new EPR rules, will provide data sets to establish metrics, track progress, determine additional policy needs, and share successes. Connecting data across DEP and making it accessible to the public allows for a more comprehensive picture of environmental and public health challenges, particularly for cross-cutting issues like climate change and environmental justice. DEP’s ability to effectively manage its data is more critical than ever not only because of AI applications, but also because of the loss of rich data sets and resources at the federal level.

“DEP’s ability to effectively manage its data is more critical than ever not only because of AI applications, but also because of the loss of rich data sets and resources at the federal level.”

Next Steps

DEP will need to work with intention of managing its data to optimize accessibility and its ability to evaluate programs. This requires coordination across programs, quality control and stakeholder engagement to ensure that tools meet the needs of the public.

Building Community Sustainability

Over the last fifteen years, DEP and its partners have built a strong foundation for community sustainability. Across New Jersey, communities are mobilizing volunteer green teams, empowering local leaders to advance sustainability projects, connecting with local businesses to encourage sustainable practices, and embracing green technologies like solar PV and green stormwater infrastructure. DEP must now shift its focus to the next frontier of sustainability. Community sustainability must move beyond the idea of “greener communities” to advocate for hyperlocal circular economies and to facilitate the creation of local eco hubs (described below). Sustainability must become central, as a core community building and small business strategy, rather than an extra consideration or side program.

Fostering a Circular Economy

Adopting hyper-local circular economies is the next major step in community sustainability because it directly addresses the weaknesses of today's global, linear, high-waste, high-dependency systems. According to the USEPA, a circular economy "keeps materials and products in circulation for as long as possible." That means that society must seek to reduce, reuse, recycle, and to also repair and in the case of composting, even rot to minimize waste and its associated impacts.

Ongoing efforts including procurement of the Recycle Coach app for residential use statewide and the Recycling Enhancement Act Higher Education Grant Program (N.J.S.A. 13:1E-96(b)(5)) which offers over \$1 Million per year in funding to colleges and universities in the state to conduct recycling demonstration projects, should be sustained. DEP must also continue its work to support and match byproducts and waste streams with opportunities for upcycling and reuse, like the partnership with Sysco Corporation that will expand recycling seafood shells for the creation of oyster reefs.

Next Steps

DEP will continue to work with partners and local non-profits like Sustainable Jersey, the New Jersey Composting Council and New Jersey Clean Communities Council to spur and accelerate innovation and to ensure that education and outreach regarding the reduce, reuse, and recycle concept continues to spread throughout the state. DEP will continue to support key educational components such as the Recycle Coach app while also researching new and exciting ways to spur recycling market development in the state. Additionally, building upon its momentum from its partnership to recycle seafood shells for the creation of oyster reefs, the Department will seek opportunities to support the creation of local circular economies.

DEP must thoughtfully integrate and expand its existing green business programs and offerings, to transition from primarily offering "entry level" sustainability initiatives, to helping small businesses scale up sustainability efforts. DEP should ramp up its efforts to connect with business organizations, individual businesses and communities to promote and provide resources to navigate funding applications, evaluate existing resource use and develop full fledged sustainability plans. DEP recently launched its Plan for Sustainability program, which offers free assistance to New Jersey businesses seeking to create a centralized document outlining their approach to sustainability. This effort will serve as a springboard for deeper engagement in the coming years.



Create Local Eco Hubs

Eco hubs, also known as sustainability hubs or community green hubs, have the potential to transform community sustainability, by demonstrating cross-sector solutions and making sustainability practical, visible and accessible to everyday people. They serve as multi-purpose centers that provide services, resources and programs to help neighborhoods live more sustainably. They can help residents reduce waste, energy use and emissions by demonstrating technologies and often being net zero. They typically offer tool libraries, repair cafes, community gardens, and centralized locations for composting. Additionally, these hubs serve as resilience centers during extreme weather events, serving cooling/warming shelters, with backup power (like solar and battery storage). They are also spaces where people meet, learn and collaborate – learning about energy efficiency, gardening or other topics unique to the local context. DEP has taken one step in supporting the creation of eco hubs, through its effort to pilot a series of “eco-hubs”, which will connect electric school buses to microgrids powered by on-site solar generation, battery storage, and bi-directional school bus charging. In the coming years, the Department should build upon the lessons learned via this pilot and work to weave in other aspects of sustainability and resilience into future efforts.



Artificial Intelligence and Data Centers

New Jersey’s growing Artificial Intelligence (AI) industry presents positive opportunities for breakthroughs in innovation, economic growth, education, and government service delivery, but also comes with significant new risks and challenges. The AI industry and the data centers that support them require massive amounts of energy and water. The Environmental and Energy Study Institute (EESI) notes that there were 5,426 data centers in the U.S. as of March 2025 that consumed about 17 gigawatts of power in 2022. For context, a large nuclear plant generates about 1 GW of power. Between 2018 and 2021, the number of U.S. data centers more than doubled, and then more than doubled again in the next four years; a testament to how fast these centers are spreading nationwide. About 56% of the power currently used by U.S. data centers comes from fossil fuels, and projections estimate their energy demand in 2030 will increase to up to 130 GW, 12% of the total U.S. power demand. EESI also reports large data centers can consume up to 5 million gallons of water a day to cool their processor chips and avoid overheating, the equivalent of the water use of town populated by 10,000 to 50,000 people (East Rutherford has ~10,000 residents while East Brunswick has ~50,000 residents; approximately 144 New Jersey municipalities have populations between 10,000 and 50,000 according to the 2020 U.S. census). There is certainly opportunity for creative solutions, such as water reuse and renewable energy as the resources and infrastructure needed to support these facilities is addressed at the state level. New Jersey’s commitment to further the promise of environmental justice must also apply to the evaluation of these facilities.

Federal Rollbacks and Funding Cuts

Changes at the Federal level to repeal key regulations, rescind or rollback standards and critical policies (see [Chapter 5, Protecting Air](#)) and scientific findings, and recall or deny funding are having a significant detrimental impact on state efforts to ensure a clean, sustainable, and equitable future. Foremost among the federal changes is the USEPA's August 1, 2025 proposal to reconsider and rescind the endangerment finding for GHG emissions under § 202(a) of the Clean Air Act (42 U.S.C. § 7521(a)) and repeal all GHG emission standards for light-duty, medium-duty, and heavy-duty vehicles.. At its core, the endangerment finding is the science-based determination that six GHGs endanger human health and welfare, which is the foundation of EPA's authority for climate regulation .. Since that finding in 2009, the USEPA and states have leveraged Clean Air Act authority to regulate GHG emissions by establishing standards for mobile sources, power plants, and other fossil fuel burning industries and sources. Repealing this finding removes the underpinning of numerous federal and state rules and requirements, many of which have already been implemented and proven beneficial in reducing GHG emissions and providing significant co-benefits for clean air, water, and land, and improved public health. The future of these regulations and requirements becomes unclear in the absence of the endangerment finding, putting those benefits in jeopardy and stymieing the clean energy and transportation economy that many U.S. businesses have already invested billions of dollars in to cultivate.

As detrimental as the proposed rescission of the endangerment finding would be, the USEPA's actions to rescind California's most recent vehicle emissions waivers for ACCII, Heavy-Duty Omnibus, and ACT is even more pernicious. Under the Clean Air Act, California is the only state allowed to apply to the USEPA for a waiver from the federal preemption provisions that prohibit states from enacting emission standards for new motor vehicles and new motor vehicle engines. The Clean Air Act also requires the USEPA to grant these waivers absent certain disqualifying conditions. The Clean Air Act Amendments of 1990 further allowed other states to adopt California's emissions standards under certain conditions. As of 2025, 17 states, including New Jersey, and the District of Columbia have used that authority to adopt some subset of California's standards, which are largely more stringent than those set by the federal government. As discussed above, New Jersey has adopted rules that incorporate by reference California's ACCII, Heavy-Duty Omnibus, and ACT. However, without the California's waivers for these programs, these rules cannot be implemented, jeopardizing New Jersey's efforts to achieve New Jersey's zero emission vehicle goals and creating a comprehensive, clean, and sustainable transportation sector in New Jersey.



Compounding these setbacks is the One Big Beautiful Bill Act's (OBBBA) (Pub. L. No. 119-21) determination to rescind unobligated federal funding previously allocated by Congress through the Bipartisan Infrastructure Law (BIL) (Infrastructure Investment and Jobs Act, Pub. L. No. 117-58) and Inflation Reduction Act (IRA) (Pub. L. No. 117-169) and alter timelines for clean energy tax credits established by the IRA. The BIL funding focused on upgrading physical systems such as roads and bridges (including building out an electric vehicle charging network), mass transit, water infrastructure, broadband internet, and energy distribution. Many of the projects scoped out leveraging this funding are still under construction or have yet to be implemented, and loss of funding could jeopardize their completion and waste the substantial funds already invested. The IRA complemented the BIL by providing tax credits and other financial incentives to catalyze clean energy and transportation adoption. Shortening the timeframes on these incentives discourages future investments in electric vehicles and their charging network, solar panels, wind power, heat pumps and energy-efficient appliances.

Finally, the federal administration has taken actions to slow or halt wind energy development, including a temporary withdrawal of offshore areas from leasing, a moratorium on new offshore wind permitting, and a reassessment of previously approved projects. These actions have created significant disruptions for the wind energy industry, with some companies pausing investments and offshore wind projects. Federal policy changes and delays impacting offshore wind development will make it more challenging for New Jersey to meet the goal of reaching 11 gigawatts of offshore wind capacity by 2040. Major projects off the New Jersey coast, including the Atlantic Shores and Leading Light projects have already been cancelled, the Attentive Energy 2 project has been delayed, and NJBPU has delayed offshore wind transmission infrastructure by over two years because of the uncertainty created by the federal Administration's actions.

“DEP needs to continue to lead by example, demonstrating the significant environmental and economic benefits that come from transitioning to clean transportation and energy alternatives.”

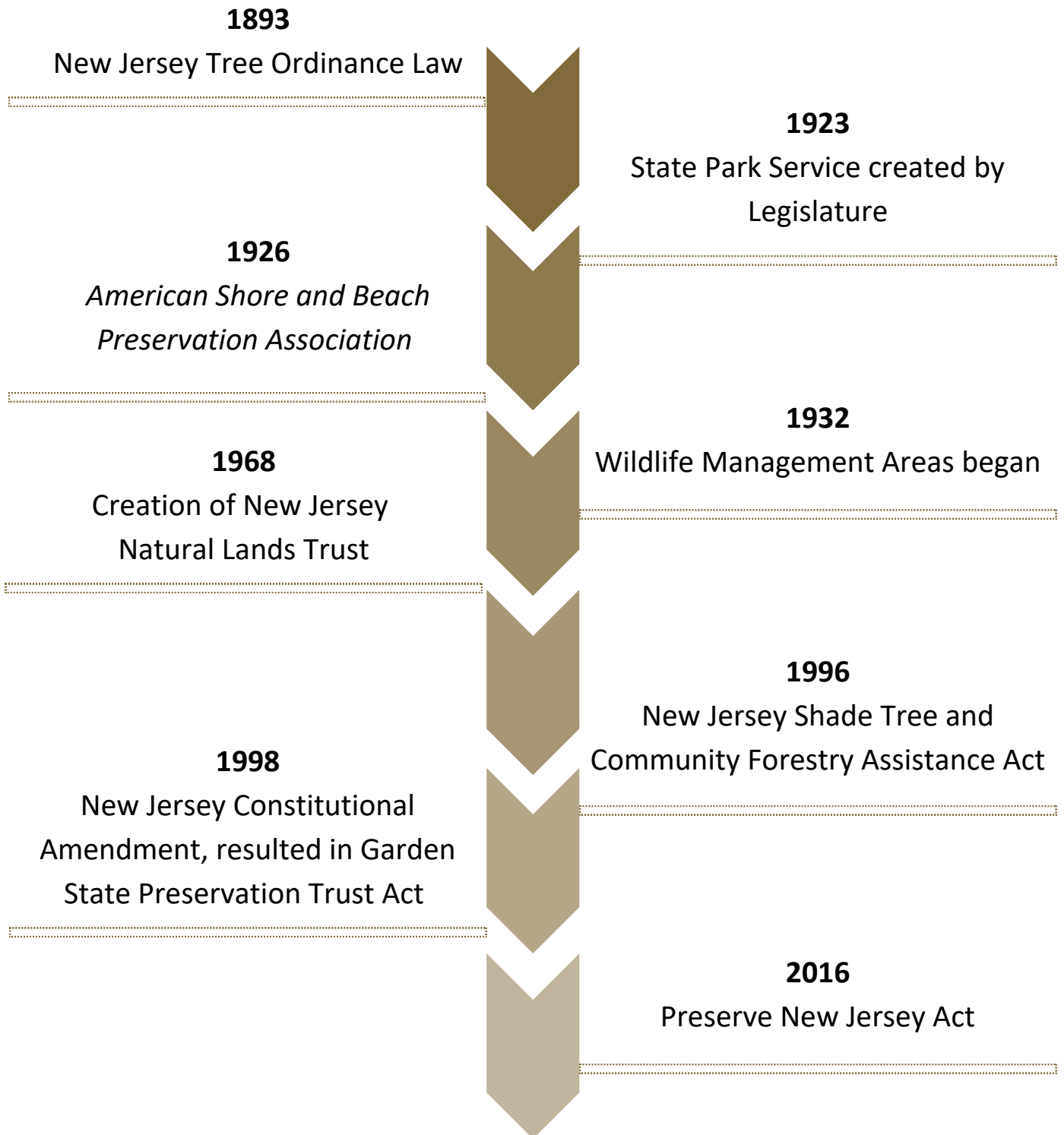
Next Steps

Weathering these federal changes in policy direction and funding while maintaining its commitment to public health protection and a sustainable and equitable future for all New Jerseyans will be challenging for DEP. Facing these threats will require DEP to re-evaluate its current processes and funding sources, brainstorm new approaches for the state that could achieve the same end results and create novel and unique partnerships. DEP will need to look to private industry and nonprofits working in the energy, transportation, and waste reduction spaces to identify, support, and promote innovative solutions. DEP will also need to explore how to leverage non-traditional funding streams from private and philanthropic foundations to fill the gaps left by rescinded federal allocations and grants. Finally, DEP needs to continue to lead by example, demonstrating the significant environmental and economic benefits that come from transitioning to clean transportation and energy alternatives.



PUBLIC LANDS & RECREATION

MILESTONES



Background

Despite being the most densely populated state in the nation, New Jersey is home to vibrant coastlines, dense forests, active farmlands, wildlife management areas, state parks, historic sites and thousands of local parks. DEP is responsible for the management of New Jersey's State Park System which includes 41 state parks, 11 state forests, 5 recreation areas, 6 marinas, 4 golf courses, and over 50 historic sites and districts encompassing over 454,000 acres of land or 10% of New Jersey's total land area. For context, the national average for lands managed by a state is about 1%. DEP also manages 122 wildlife management areas (WMAs) comprising an additional 365,000 acres of land and making up more than 44% of the state-owned public open space. Finally, DEP oversees the acquisition and preservation of land to support conservation and recreation through a variety of programs, including Green Acres, the New Jersey Trails Program, and the protection of flood prone areas through the Blue Acres program.

From 1992-2022, DEP's efforts significantly increased preserved land, adding nearly 300,000 acres to state parks and forests, more than the number of acres preserved over the prior 30 years (228,229 acres). Over the same period, annual visitation to the state park system also increased significantly from just over 10.6 million to over 17 million people. Public lands generate substantial direct and indirect economic benefits for New Jersey. Visitors to parks and other public lands contribute to local economies through purchases at nearby businesses, including shops, restaurants, and lodging establishments. In 2024, tourism spending totaled \$50.6 billion statewide, supporting employment and tax revenues across host communities.

New Jersey's state parks, forests, and natural areas also provide extensive ecosystem services—such as carbon sequestration, soil stabilization, groundwater recharge, habitat preservation, biodiversity support, and flood mitigation. For example, DEP estimates that a typical acre of forest or rural green open space yields at least \$10,000 in value through erosion control, flood reduction, pollination, water filtration and supply, and contributions to tourism.



Open Space and Public Lands

DEP's Green Acres Program, which was created in 1961 to meet the growing recreation and conservation needs of the state, is the nation's longest-running program of its kind. Initially outlined as a 10-year, \$60 million acquisition program to double the state's recreational and conservation lands, Green Acres has since preserved over 725,000 acres of open space and parkland through a combination of land acquisition, grants to local non-profit partners, and voter-approved bond acts. The 1961 Bond Fund that established the Green Acres Program also assisted with the acquisition of many monumental park projects, including over 280 acres of land that would become Liberty State Park, 4,000 acres of Wawayanda State Park in Sussex County, and over 8,000 acres added to Belleplaine State Forest in Upper Township, Cape May County. In 1998, the residents of New Jersey voted to approve a constitutional amendment which would create the state's first stable source of funding for open space, farmland, and historic preservation. The enabling legislation that followed, the Garden State Preservation Trust Act (N.J.S.A. 13:8C-1 to -42), authorized Green Acres funding from the state sales tax through 2029. Additional funding was approved by voters in 2007 and 2009, and in 2014, New Jersey voters approved the ballot question for the Preserve New Jersey Act (N.J.S.A. 13:8C-43 to -57), which allows for the use of a portion of the Corporate Business Tax to fund the Green Acres Program. Since its inception, New Jersey voters have authorized \$3.3 billion in Green Acres funding, approving every bond referendum put before them. In total, these dollars have funded more than 1,200 local and non-profit park development and stewardship projects in communities around the state.



In 1995, DEP launched its Blue Acres Program, which focuses on relocating New Jersey residents whose homes are subject to repeated flooding by acquiring that property and turning it into natural flood storage areas, parks, and community open space. This program plays an important role in both disaster recovery and flood mitigation. Its proactive approach builds community resilience while expanding access to open space. Read more about the Blue Acres program in [Chapter 3, Land Resource Protection](#).

State Parks, Forests, and Historic Sites

New Jersey's State Park System was established by Legislation in 1923 to manage protected lands for recreational use. At the time, there were just three state parks: Washington Crossing, Swartswood, and Hopatcong. Today, the State Park System boasts parks and forests throughout the state that feature New Jersey's diverse landscapes (e.g. coastal, pinelands, highlands) and offer a variety of active (e.g., swimming, hiking, fishing) and passive (e.g., bird watching, photography) outdoor activities. The State Park System also highlights New Jersey's rich history as one of the 13 original colonies and key participant in the Revolutionary War.

Nearly 40% of New Jersey's total land area is covered in deciduous or coniferous forests. Sixty-two percent (62%) of those forests are privately owned, while the remaining 38% are publicly owned. While historic trends highlight significant deforestation beginning in the 1800s, the state's total forested area has largely stabilized in recent years, with only a 6.9% loss between 1986 and 2021. New Jersey's 11 state forests are the largest component of the over 454,000 acres of state-managed parks, forests, and historic sites, with Wharton State Forest alone exceeding 110,000 acres.

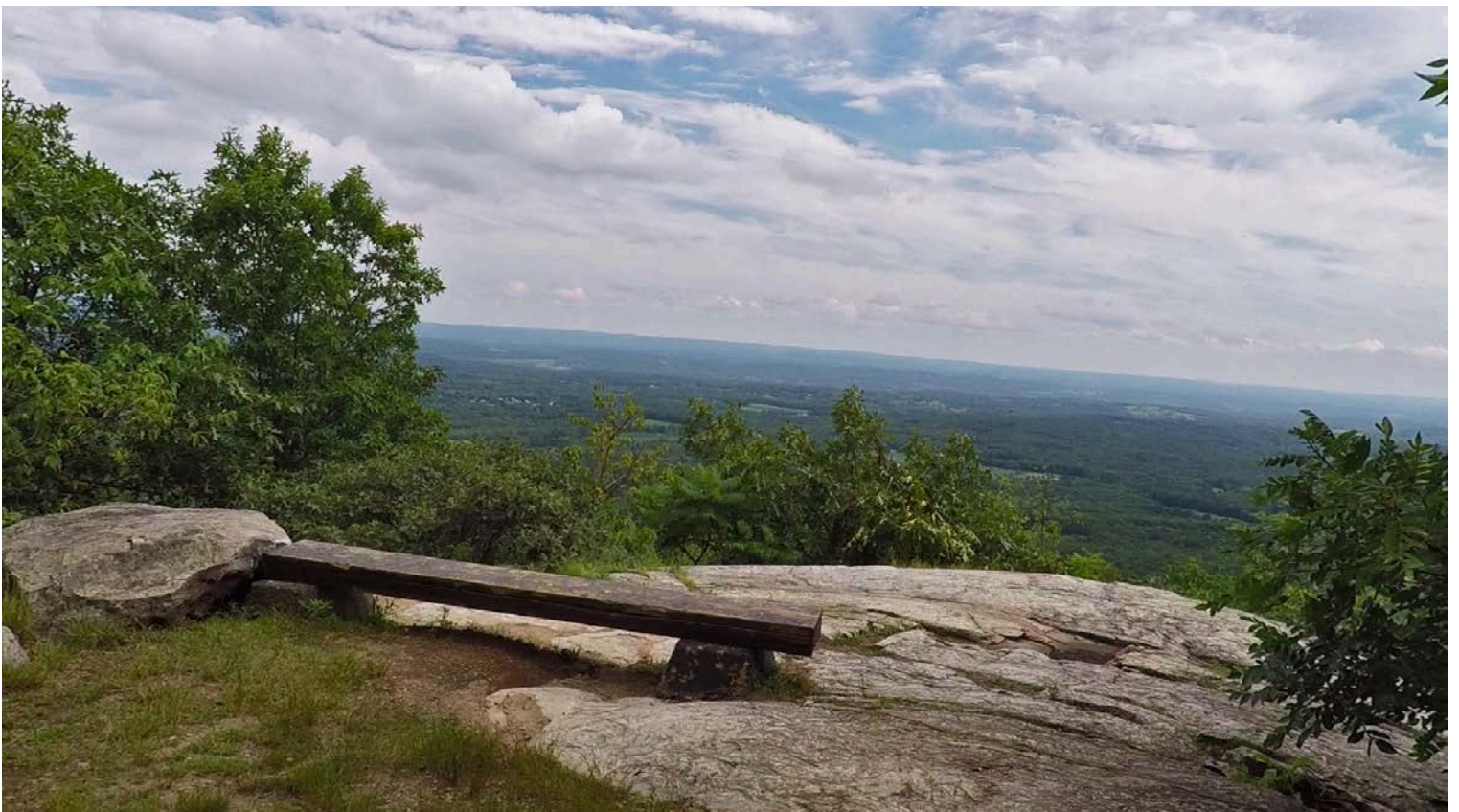
Finally, DEP manages and preserves over 50 historic sites and villages, such as Batsto Village within Wharton State Forest and Allaire Village as part of Allaire State Park, that chronicle the state's role in the American Revolution, and the state's industrial and cultural past. These properties, maintained by DEP and its partners, offer visitors a chance to experience the diverse stories embedded in the landscape and architecture of New Jersey's past. ,



Natural Areas

In 1961, the New Jersey Legislature established the Natural Areas System to provide special protection for lands managed by DEP and Natural Lands Trust (see below) that serve as habitat for rare plant and/or animal species or ecological communities representative of New Jersey or the nation. The System was established to ensure that these areas remained in a natural condition. DEP's Natural Areas and Natural Areas System rules (N.J.A.C. 7:5A) outline the procedures, standards, and criteria for how natural areas are identified, classified, and managed, and how the Natural Areas System is administered. In addition, the Governor appoints the Natural Areas Council to advise DEP on all matters relating to the administration of the Natural Areas Act (N.J.S.A. 13:1B-15.4 to -15.12) and Natural Areas System Act (N.J.S.A. 13:1B-15.12a to -15.12a10). This can include recommending designation of all of the sites listed on the National Natural Landmarks Register to the Natural Areas System; reviewing and recommending adoption of management plans; reviewing and amending DEP's rules governing natural areas; and recommending the acquisition of lands for future natural areas designation. Natural areas are land or water owned in fee simple or held as a conservation easement by DEP. In 1975, the Legislature bolstered protections for these natural areas by prohibiting the lease, sale, or exchange of system lands. Today, the Natural Areas System includes 47 designated natural areas encompassing more than 40,000 acres of land open to the public for passive recreational use that does not compromise the natural features and biodiversity resources of the site.

In 1968, the Legislature created an independent agency, the New Jersey Natural Lands Trust (NJNLT). The NJNLT is tasked with acquiring and preserving land in its natural state for the protection of natural diversity and passive public enjoyment. NJNLT manages its properties to conserve endangered species habitat, rare natural features, and significant ecosystems, and distributes information to educate the public on the importance of protecting and valuing open space.



Wildlife Management Areas

Wildlife management areas (WMAs) are state-owned public lands totaling approximately 365,000 acres originally purchased to preserve and maintain a diversity of fish and wildlife habitats and provide public shooting and fishing grounds. The recreational focus has broadened to include all forms of wildlife-related recreation including bird and wildlife watching. The WMA System began in 1932 with the purchase of the 387-acre Walpack Tract in Sussex County. Today, New Jersey's 122 WMAs, which vary in size from less than an acre (Delaware River Fishing Access Site at the Pennsauken WMA) to 33,000 acres (Peaslee Tract in Cumberland and Cape May Counties), offer wildlife-related recreational opportunities not available in all state parks. These include licensed hunting, fishing, and trapping, as well as wildlife viewing. WMAs across the state protect a wide array of habitats, including coastal marshes, pine barrens, woodlands, and river systems. Approximately 1,100 miles of roads help make these areas accessible.

While the WMA system was initially purchased using funds from the sale of hunting and fishing licenses, in 1961, the first of several Green Acres bonds were publicly approved and issued, enabling the public to participate in the development of the overall system. Green Acres bonds provided funding for approximately half of the present WMA system while operations continue to be funded by hunting and fishing license proceeds.



New Jersey Trails System

In 1974, the New Jersey Legislature passed the New Jersey Trails System Act (N.J.S.A. 13:8-30 to -44), which established the New Jersey Trails Program to support and foster an interconnected network of trails for outdoor recreation and active transportation (e.g., biking, running). DEP, advised by the New Jersey Trails Council, established its first Trails Plan in 1982. Last updated in 2009, New Jersey's Trails Plan, developed jointly by DEP and the New Jersey Department of Transportation (DOT), is a blueprint for future actions needed to improve New Jersey trails for recreation, transportation, and quality of life. DEP and DOT are currently developing a New Jersey Trails Playbook. The Playbook will be a series of statewide trail planning guidance documents that ensure safe and equitable access for users of all abilities. This Playbook will expand on and supplements the 2023-2027 Statewide Comprehensive Outdoor Recreation Plan known as Outside Together! Under the authority of the National Recreational Trail Fund Act of 1993 (23 U.S.C. § 206), the New Jersey Trails Program also administers federal Recreational Trails Program grants designed to develop, maintain, and restore trails and trail-related facilities.



The State of Public Lands & Recreation

Since 2018, DEP has invested in public lands and recreation in furtherance of several goals, including preserving, protecting, and enhancing nature; mitigating climate impacts; furthering outdoor equity; fostering ecotourism and heritage tourism; improving the user experience; and ensuring responsible public use.

Preserving to Protect Nature

New Jersey has done an admirable job at preserving land and open space in a densely populated state, but growth continues to convert existing green space in New Jersey. Currently, about 1/3 of the land in New Jersey is developed (33%) and 1/3 has been preserved by the state and non-profit land trusts (34%), which leaves only about 1/3 left for future decisions on which direction it will take.

In 2025, New Jersey announced that New Jersey joined the High Ambition Coalition for Nature and People, a group of member states, territories, and countries committed to conserving 30% of their land by 2030. As a leader in land and water conservation, New Jersey has already protected more than 1.6 million acres of open space — more than 30% of the state's total land. Despite achieving this goal, DEP has committed to continue to preserve and revitalize public land to protect nature and people.

DEP marked the state's celebration of Earth Week 2025 by announcing more than \$131 million in Green Acres investments for parks, recreation, and open space preservation projects across New Jersey. The Green Acres package provides funding for recreation and open space projects in every county and was approved on April 14 by the independent Garden State Preservation Trust. Upon approval by the Legislature, this funding package brings the total Green Acres investments over the last eight years for park development and open space projects to \$695 million. Furthermore, DEP continues to preserve land that provides multiple ecosystem benefits. The Kellogg Tract (2,200 acres) easements acquired in October 2018, create passive recreation access, preserves habitat, and protects water quality. This property alone protects 8% of the Musconetcong Watershed. Holly Farm in Cumberland County is one of the most significant acquisitions in state history. With the purchase agreement for this 1,400-acre tract, DEP preserved a precious endangered species habitat and helped mitigate climate change impacts.

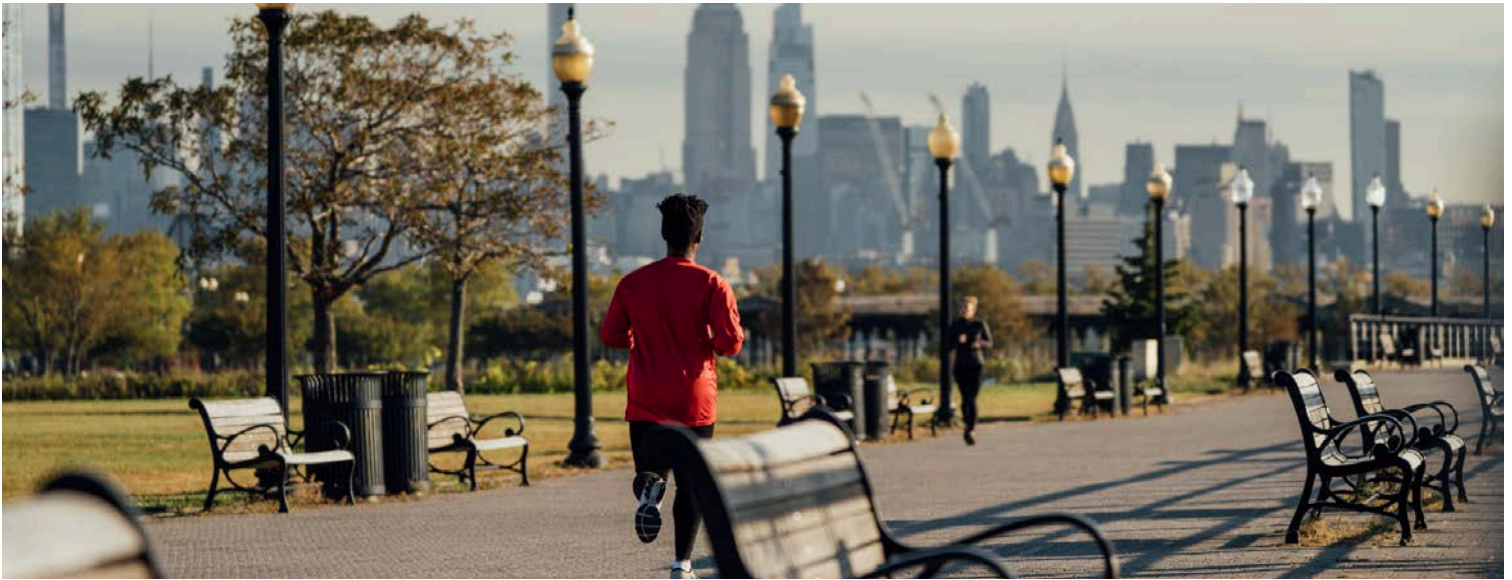
Next Steps

Continuing to fund, acquire, and manage New Jersey's open public spaces is critical to ensure remaining lands are preserved and protected for the multiple recreational and ecosystem values that they provide. This work will continue through strong partnerships with local governments and nonprofit land preservation associations. DEP needs to continue to manage and maintain its existing open space assets, including state parks and WMAs. As many areas of the state approach build out and there is less property to acquire and preserve, open space funding could be redirected to support stewardship and maintenance of these existing lands.



Getting Outside Together

Outside, Together! is the Statewide Comprehensive Outdoor Recreation Plan (SCORP) for New Jersey. The SCORP represents a collaborative effort to enhance outdoor recreation and conservation across New Jersey, focusing on improving quality of life through accessible and sustainable outdoor spaces. Incorporating diverse insights from New Jersey communities and developed in partnership with the Outdoor Recreation Advisory Committee, the SCORP was approved by the National Park Service (NPS) on March 1, 2024, maintaining New Jersey's eligibility to receive federal funding from the Land and Water Conservation Fund through 2033. The SCORP outlines a comprehensive five-year (2023-2027) strategy prioritizing expanding open space, enhancing environmental stewardship, advancing climate resilience, promoting equity, and leveraging innovative technology to create a sustainable and resilient environment. These principles recognize the intrinsic value of New Jersey's natural resources in boosting economic well-being, promoting physical and emotional health, addressing social inequalities, and nurturing community spirit. The plan underscores DEP's commitment to ensuring that all New Jerseyans have access to high-quality, close-to-home recreation and open space opportunities.



Furthering Outdoor Equity

Despite making significant progress in this area of the last 8 years, many of New Jersey's overburdened communities still lack open and green spaces and adequate tree canopy. In fact, 87% of overburdened communities (OBCs) in New Jersey have less tree cover when compared to the average of their non-overburdened neighbors. This lack of green space and adequate tree canopy creates urban heat islands in overburdened communities making them substantially hotter in the summer as compared to communities with thriving tree canopies. A growing body of evidence shows that access to green space in urban areas brings considerable benefits to the health and well-being of residents. These benefits include improved cognitive development and functioning, reduced severity of Attention-Deficit/Hyperactivity Disorder (ADHD), reduced obesity, and positive impacts on mental health. Trees filter the air, provide shade on hot days, and sequester carbon; wetlands and marshes clean water and protect communities from floods and storm surges, parks provide safe havens where children can play and connect, and trails allow people to exercise outdoors. Furthermore, the development of urban parks is well understood to spur further environmental improvements and stimulate economic growth. Meaningful access to these resources encourages formative, positive experiences within these treasured places that will foster stewardship by establishing connections to nature and history.

Urban Parks

DEP is committed to environmental justice and equity and, with additional Urban Parks grants approved by the Legislature in the state's FY21-24 budgets, DEP has advanced open space and recreation initiatives in urban areas and overburdened communities, including those with smaller populations. In 2024 alone, DEP allocated over \$108 million to 141 local governments and non-profit land trusts for open space acquisition, park development and restoration, historic preservation projects, and stewardship throughout New Jersey, including \$33.1 million for 49 inclusive playgrounds. Priority ranking and grant incentives resulted in more than 60% of these awards being allocated to projects in or near (within ¼ mile) OBCs. In addition, by partnering with cities, DEP has expanded open space and recreation opportunities in urban areas. Under this initiative, DEP is acquiring land in several cities and entering into management agreements with their governing bodies, which will be responsible for maintaining the land and developing close-to-home park facilities.

Examples of recent Department-supported urban parks projects include:

- Cramer Hill Waterfront Park in Camden. This 62-acre park, developed on a former contaminated landfill, is part of a broader Camden Waterfront Park initiative and was funded with \$47 million in natural resource damages. It serves as a vital green space in an environmental justice community that opened to the public in 2021.
- Liberty State Park in Jersey City. New Jersey's first urban state park opened to the public in 1976. Efforts to update and revitalize this park are currently ongoing, with plans to bring more than one hundred acres of active recreational, arts, and cultural improvements to Liberty State Park's perimeter and create a central park with natural landscapes that build resilience to flooding and other climate impacts while providing passive recreation and educational opportunities to the public.
- The Greenway, a nine-mile, 100-foot-wide former rail-line that traverses eight municipalities across New Jersey's two most densely populated counties of Essex and Hudson. Efforts are underway to transform this abandoned resource, that passes through Montclair, Glen Ridge, Bloomfield, Belleville, Kearny, Newark, Secaucus, and Jersey City, into New Jersey's newest State Park. When complete, the Greenway will provide outdoor recreation and alternative transportation opportunities for these communities, many of which are overburdened by environmental and public health stressors. In 2022, DEP acquired the property from Norfolk Southern, and in 2025, work began on the first phase of the project, spanning 0.9 miles in Newark. The Greenway marks the largest single investment in state history for the acquisition and development of a new state park, totaling \$69.2 million.



Next Steps

DEP needs to continue its efforts to build capacity for outdoor experiences by identifying new opportunities to improve or expand access to high quality parks, create new parks, expand tree canopy, and provide safer bicycle and pedestrian corridors. Future urban parks grants for local government land acquisition, park development, and historic preservation projects is dependent on the provision of funding by the legislature.



Urban and Community Forests

New Jersey made significant strides to encourage and enhance urban and community forests during the last eight years. As of 2024, New Jersey has 258 active community forestry management plans and 167 accredited communities and has provided 5,708 hours of continuing education courses. Continuing its partnership with Rutgers' Urban Forestry Program, DEP developed continuing education opportunities for those interested and engaged in local forestry programs throughout the state. These short courses included hands-on field training designed to elevate local stewardship efforts.

In addition, DEP leveraged proceeds from the Regional Greenhouse Gas Initiative (RGGI) to fund natural climate solutions, including urban forests in local communities. Since returning to RGGI in 2019, DEP has awarded approximately \$13 million dollars to fund 59 forestry projects that provided benefits in New Jersey's OBCs. DEP's Green Acres Program has also funded a host of natural infrastructure and green space projects, including urban forests and other tree planting and urban parks. The combination of education opportunities and increased funding opportunities helped drive DEP's goals to increase the number of municipalities actively engaged in urban and community forestry efforts.

To advance forestry science, DEP is working to develop the first Urban Forestry Inventory Analysis (FIA) for the Trenton Metro areas, expected to be released in 2026. While U.S. Department of Agriculture (USDA) conducts nation-scale urban forest inventories to address local and regional issues related to trends in forest extent, health and productivity; land cover and land use change; and the changing demographics of private forest landowners, a city-focused FIA will highlight macro scale changes specific to New Jersey's urban forests.

Next Steps

DEP will continue to create urban forests in the most overburdened and densely populated areas of the state and encourage and facilitate participation in the Urban and Community Forestry Program. Additionally, DEP will work in partnership with communities to identify opportunities and plan to mitigate urban heat with urban forests and targeted tree planting.

Fostering Ecotourism and Heritage Tourism

Ecotourism is responsible travel to natural areas focused on education, conservation, and supporting local communities, often through activities like hiking, bird watching, and guided tours. Heritage tourism centers around exploring and appreciating a region's cultural, historical, and environmental heritage. New Jersey is uniquely situated to empower communities through investment in ecotourism, heritage tourism, and outdoor recreation due to an already diverse visitor base, proximity to urban centers, a strong business community, and exceptional environmental, historical, and cultural assets. The state's ecotourism and heritage tourism industries significantly contribute to the economy, with outdoor recreation providing \$10.7 billion in value added in 2021. These industries attract non-local visitors who bolster local businesses and drive economic development through events like cultural festivals, farmers' markets, and artisan fairs. High-quality parks and recreational opportunities increase property values and support local businesses, while ecological benefits such as air pollution removal and stormwater management further enhance community well-being. By promoting an increased connection to nature and outdoor recreation opportunities, ecotourism also stimulates healthier communities through physical activity and improves quality of life, including improving mental health and wellness. Both ecotourism and heritage tourism enhance community identity and "sense of place" by highlighting unique ecosystems and historic and cultural resources that define a community's character and environment. Heritage tourism, in particular, increases social cohesion by presenting connections to a shared past and highlighting collective stories and achievements.

New Jersey's ecotourism and heritage tourism sites face on-going challenges such as development pressures, climate change impacts, and limited funding to acquire new sites for preservation and conservation. Maintenance and restoration of existing sites also presents capacity and funding issues. Finally, it is challenging to expand and ensure equitable access for underserved communities. Implementing inclusive programming that overcomes barriers like transportation limitations and park fees is critical to attracting visitors and providing quality customer services. To address these issues effectively, a coordinated approach is essential, focusing on both safeguarding these sites and expanding economic opportunities.

“By striking a balance between access and conservation, New Jersey can protect its unique assets, foster community identity, and support economic growth.”

Next Steps

DEP, along with its partners in the outdoor recreation industry, must prioritize solutions to these issues and explore innovative economic development opportunities that support continued operations. By striking a balance between access and conservation, New Jersey can protect its unique assets, foster community identity, and support economic growth.

Improving User Experience

DEP continues to make capital improvements to DEP-owned public lands to ensure that the public has a memorable and comfortable visiting experience. This includes providing facilities like restrooms and visitor centers and enhancing infrastructure such as roads and bridges. t the DEP continues to work to reduce backlogged projects and to make repairs, enhance property maintenance, improve energy efficiency, and build climate resilience, as funds allow.

DEP also explored innovative ways to leverage this funding to improve user experience and improve efficiency and resilience on public lands, including partnerships with outside organizations and the formation of funding-focused foundation. The New Jersey State Parks and Open Space Foundation was established pursuant to law (P.L. 2023, c. 256) to raise funds to maintain and develop assets, including natural assets, and expand educational activities at state, county, and municipal parks and open space. As an example of “out of the box” initiatives, DEP used funding from the New Jersey Board of Public Utilities to install electric vehicle chargers in Cheesequake, High Point, Round Valley, and Wawayanda State Parks, and Wharton State Forest. The improvements at Liberty State Park also include the installation of new direct current fast chargers. In addition to improving the user experience, these projects further DEP’s climate goals.

Next Steps

DEP will continue to evaluate its existing park, forest, and historic site facilities and assets to identify opportunities to expand and enhance the user experience across the state. In addition, DEP will seek out new opportunities to fund existing park upgrades and enhancements.



Ensuring Responsible Use

Protection of the state's public resources requires deliberate and concerted efforts to ensure responsible public use. Use of public lands must strike a careful balance between passive and active use and protection of natural resources that are held in trust for the public by the state. The most recent issue of concern is the widespread use of off-road vehicles (ORVs) in ecologically sensitive areas. Misuse of ORVs on public lands has caused extensive damage to protected habitats, negatively impacted endangered and threatened wildlife and their potential for recovery, and diminished the use and enjoyment of public lands for other users. To address this concern, starting in 2021, DEP began an extensive engagement process with stakeholders and experts, including user groups, Department scientists and land managers, and the public, to formulate a plan to define appropriate and reasonable vehicle access for recreation, while protecting ecologically sensitive areas. This effort focused on Wharton State Forest as it is the largest publicly owned forest in New Jersey. On November 25, 2024, DEP released The Wharton Visiting Vehicle Use Map online as a georeferenced PDF with printed copies available at both the Batsto and Atsion offices within Wharton State Forest. The map clearly delineates the 261 miles of legal roads within the forest where licensed drivers can drive their street-legal, registered, and insured vehicles within the forest. It also clarifies that the use of non-street legal ORVs is prohibited in the forest. The map was updated on September 25, 2025, to designate an additional 8.9 miles of hunting-only access to bring the total to 270.2 miles of legal roads in recognition of the important role the hunting community plays in managing wildlife populations and their broader contribution to conservation efforts. DEP will use the Wharton Visiting Vehicle Use Map as a model for access plans in other DEP managed public lands.



“Use of public lands must strike a careful balance between passive and active use and protection of natural resources that are held in trust for the public by the state.”

Climate Change

New Jersey is already experiencing the detrimental effects of a warming planet. Incidents of significant storms, flooding - including sunny day flooding and flash floods -, drought, extreme heat, and wildfires have all risen across the state. DEP owns or controls well over a thousand buildings, facilities, and historic and cultural resources and structures, and a network of roads, trails, campgrounds, and other amenities, which are potentially vulnerable to climate impacts.

Severe storms with strong winds and flooding have had significant impacts on park infrastructure such as roads, dams, and bridges, as well as boardwalks and lifeguard stations. Additionally, downed trees and debris require emergency cleanup operations to make these areas safe again for public access. Severe erosion, particularly to dunes and other natural storm barriers along the coast, leave these areas vulnerable to future storms while time-consuming restoration efforts are underway. These impacts result in significant recovery costs that could otherwise be spent on enhancing public lands and facilities.

In addition, extreme temperatures put capacity strains on the State Park System. Throughout the summer, some parks, particularly those with swimming amenities, must close because of the volume of people visiting to escape the heat. Reaching maximum capacity at any state park challenges the staff and resources to maintain the quality of support for visitors.

Public lands, with all their climate impact-reducing and resilience benefits, are also a climate solution. These include acting as natural basins to collect and absorb storm and flood waters and providing shade and green areas that re-radiate rather than absorb heat, reducing the number of urban heat islands in community neighborhoods, especially in overburdened communities. Additionally, green infrastructure, like trees and other vegetation, can sequester carbon, taking it out of the atmosphere and thereby contributing to the state's efforts to reduce greenhouse gas emissions as well as reducing flooding.

Next Steps

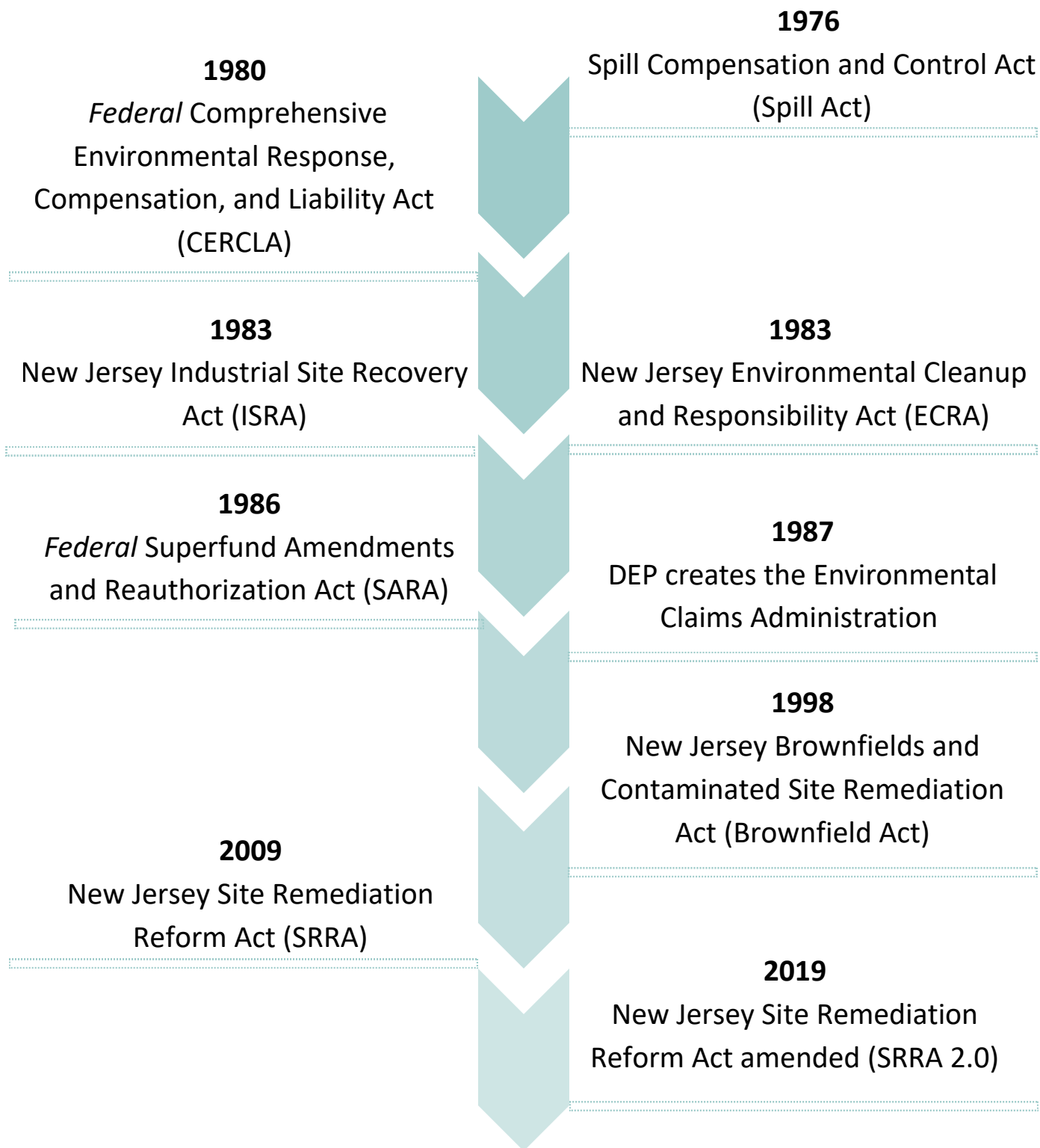
To ensure high quality outdoor recreation experiences are accessible to all, DEP must assess the vulnerability of public lands and the buildings and infrastructure they include. With a robust inventory in hand, DEP must develop and implement a plan to adapt assets and infrastructure for climate realities. Resilience actions may include relocation, nature-based solutions, and/or new facilities in more climate resilient locations. In addition, DEP must strategically acquire and enhance public land to increase community resilience, such as planning for marsh migration and tidal surge. Public education will also be essential, focusing on personal protection from extreme weather while using public lands. Finally, DEP must lead by example, undertaking energy efficiency and sustainability evaluations to support the transition from fossil fuel heating and cooling to more sustainable energy systems, and by implementing energy saving measures.





**CLEANING UP A LEGACY OF
INDUSTRIAL POLLUTION**

MILESTONES



CLEANING UP A LEGACY OF INDUSTRIAL POLLUTION

Like many hubs of productive industrial activity, New Jersey's history of heavy industry also left behind unintended environmental harms, prompting later generations to clean up hazardous substances that were released into New Jersey's environment. To ensure that such past and present pollution is cleaned up by those responsible, DEP administers multiple state laws that require responsible parties to (1) investigate sites for known or suspected contamination, and (2) perform remediation to clean up contaminants according to New Jersey's strict standards for protecting human health and the environment. DEP oversees the investigation and remediation of sites by responsible parties and takes enforcement action where necessary to compel cleanup actions. In some cases, where responsible parties are defunct, unable, or unwilling to perform a cleanup, DEP may step in to address risks from contamination using available public funds.

In addition to cleanup oversight, DEP studies new and emerging contaminants, and uses the best available science concerning toxicological and ecological risk to establish protective standards that govern remedial activities. DEP also provides technical and financial assistance to help local governments and innocent purchasers of contaminated property complete site investigation and remediation. Working with federal counterparts, such as the U.S. Environmental Protection Agency (USEPA), DEP also plays an important role in the cleanup of federally designated Superfund sites located in New Jersey. Through the application of sound science, regulatory oversight, and provision of technical and financial support, DEP enables the reuse and redevelopment of contaminated property while always ensuring the protection of human health and the environment.

Background

New Jersey's industrial history reaches back to the start of the Industrial Revolution and has resulted in a legacy of contaminated sites. While the legacy of contamination is not unique to New Jersey, early and strong action to address it is. Years before Congress acted to address contamination nationwide, New Jersey's Legislature enacted the New Jersey Spill Compensation and Control Act, (N.J.S.A. 58:10-23.11 to -23.24) in 1976. While the Spill Act originally focused on the development of oil and gas reserves off the New Jersey coast, it was later amended to address other issues, including the remediation of contaminated sites. Through the authority established under the Spill Act, DEP can act directly to conduct or arrange for remediation of a site or direct a responsible party to perform the remediation.

The Spill Act also established a fund to provide financial assistance to residents, businesses, and government entities in New Jersey who, by no fault of their own, are affected by the discharge of a hazardous substance. This "Spill Fund" is administered by DEP and provides this assistance to treat, restore, or replace water supplies contaminated by hazardous substances, or to address damages to real or personal property that were caused by a discharge of hazardous substances. In addition to the Spill Fund, DEP also administers public bond funds to address discharges of hazardous substances or other pollutants (i.e., toxic contaminants that are not designated as hazardous substances under the Spill Act).



CLEANING UP A LEGACY OF INDUSTRIAL POLLUTION

Where DEP steps in to address hazardous substances or contaminants utilizing the Spill Fund, bonds, or other available public funds, it can recover costs from any person who is in any way responsible for the contamination.

Especially when contamination from hazardous substances goes unnoticed or unaddressed, cleanup can be long and costly, and sites can become abandoned, leaving taxpayers to foot the bill for their remediation. New Jersey learned quickly that early identification of contaminated sites saves money for both private and public entities while enabling the redevelopment of commercial and industrial property for new and economically productive purposes. In 1983, the state enacted the Industrial Site Recovery Act or ISRA (N.J.S.A. 13:1K-6 to -13.1), originally known as the Environmental Cleanup Responsibility Act. ISRA requires owners and operators of most industrial facilities to investigate their sites for contamination prior to ceasing operations, selling, or otherwise transferring their property or businesses. Where contamination is found, ISRA requires the owner to complete cleanup prior to a sale or to provide financial assurance to ensure that cleanup will be completed post-sale. ISRA has helped to ensure that discharges of hazardous substances are identified and cleaned up before property changes hands and while financial resources are available, relieving taxpayers of the burden to clean up legacy contaminated sites.



The Brownfield and Contaminated Site Remediation Act or Brownfield Act (N.J.S.A. 58:10B-1 to -31), first enacted in 1998, closed legal gaps in prior laws and provided additional supports to advance the cleanup and reuse of vacant or underutilized industrial or commercial sites known or suspected to be contaminated. Rather than merely relying upon the report of a discharge of hazardous substances to the DEP, the Brownfield Act added an affirmative obligation for responsible parties to remediate discharges of hazardous substances to DEP standards, even in the absence of a Spill Act directive or ISRA-triggering transaction. Importantly, the Brownfield Act also instituted financial incentives to encourage the cleanup and redevelopment of contaminated properties. Additionally, since many petroleum and hazardous substances are held in underground storage tanks, DEP also administers the Underground Storage of Hazardous Substances Act or UST Act (N.J.S.A. 58:10A-21 to -37), which requires registration and monitoring of UST systems for leaks, and the cleanup of any discharges from UST systems.

CLEANING UP A LEGACY OF INDUSTRIAL POLLUTION

New Jersey's contaminated site remediation and redevelopment laws have resulted in the implementation of strict cleanup standards that are necessary to protect public health, safety, and the environment while promoting sustainable economic development by returning former industrial and commercial sites to productive new uses. Between 1979 and 2009, over 53,000 sites in New Jersey were remediated. Notwithstanding this progress, New Jersey still faced more than 20,000 open remediation cases by 2009, including over 4,000 that had been in the cleanup process for more than a decade. As the number of remediation cases proved to outpace limited DEP case management resources, policymakers considered how best to expedite contaminated site remediation without sacrificing environmental quality or public health protections.

In 2009, the New Jersey Legislature enacted the Site Remediation Reform Act or SRRRA (N.J.S.A. 58:10C-1 to -29), shifting the contaminated site cleanup paradigm in New Jersey. To add case management capacity, increase program efficiency, and remediate sites faster, SRRRA established mandatory remediation timelines and created a class of Licensed Site Remediation Professionals (LSRPs) to oversee the site cleanups subject to the strict standards established by DEP, which licenses the professionals and audits their cleanup cases. Under SRRRA, parties responsible for remediating discharges of hazardous substances must retain an LSRP to case manage the cleanup and ultimately approve its completion. While SRRRA took advantage of the private marketplace of technical experts that emerged in response to the cleanup laws of the 1970s and 1980s, SRRRA did not remove DEP oversight or otherwise privatize the remediation of contaminated sites in New Jersey. SRRRA requires that the LSRP comply with all remediation statutes, DEP regulations, and technical guidance when making remediation decisions. While LSRPs are retained by responsible parties, they are not advocates for their clients, but instead professionals licensed by DEP who must always hold the protection of public health and the environment as their highest priority. To that end, SRRRA requires that LSRPs exercise independent professional judgement that is free from the private, economic, or other interests of the responsible parties who retain them.

While SRRRA intended that the majority of contaminated sites be directly overseen by LSRPs, the law also provided that DEP undertake traditional direct oversight of certain cases, including sites with a history of noncompliance or where responsible parties failed to meet remediation deadlines. In those cases, the responsible party must still retain an LSRP and pay for the remediation, but cleanup determinations are made by DEP, which selects the remedial action.

In 2019, the Legislature enacted amendments to SRRRA, ISRA, the Spill Act, and the Brownfield Act, commonly known as SRRRA 2.0 (P.L. 2019, c. 263), to address issues with new SRRRA processes that were identified in the first ten years of its implementation. Among other things, SRRRA 2.0 modified the public notice requirements, added a section to address immediate environmental concerns (IECs) identified at an unoccupied structure, clarified notification obligations for retained LSRPs, added surety bonds as acceptable remediation funding sources, formalized malpractice actions against LSRPs, and allowed DEP to modify direct oversight requirements.



CLEANING UP A LEGACY OF INDUSTRIAL POLLUTION

As compared to the period between 1979 and 2009, when over 53,000 sites were remediated, over 56,000 sites were remediated between 2012 (when SRRA was fully implemented) and 2024. Notably, these statistics include contaminated industrial or commercial sites, as well as the remediation of unregulated heating oil tanks, which are prone to leaking. Similar to the LSRP program, the Unregulated Heating Oil Tank (UHOT) program allows qualified environmental professionals to investigate and remediate discharges with limited DEP oversight.

Focusing on the LSRP program, from 2012 to 2024, the average number of active cases was 10,560 per year. During the same time, approximately 1,100 LSRP cases were closed per year on average.



Federal Role in Site Remediation

Federal laws concerning contaminated sites also play a role in New Jersey. Under the federal Superfund law (i.e., the Comprehensive Environmental Response, Compensation, and Liability Act or CERCLA, 42 U.S.C. §§ 9601 to -9675), heavily contaminated sites around the nation began to be federally designated as Superfund sites in the early 1980s. CERCLA, which is based on the earlier New Jersey Spill Act, provides USEPA with broad authority to respond directly to releases or potential releases of hazardous substances that could threaten public health and the environment. Unlike New Jersey law, which creates an affirmative obligation for any responsible party to clean discharges of hazardous substances that they are in any way responsible for, USEPA has a formal process for listing Superfund sites according to a [Hazardous Ranking System](#). There are currently 1,343 sites on the USEPA's National Priorities List (NPL). New Jersey has 116 NPL listed Superfund sites, the highest of any state in the Nation—a reflection of New Jersey's industrial past and its commitment to identifying cleanup needs. In New Jersey, DEP seeks out contaminated sites and cleans them up. And, when USEPA leads the cleanup of a Superfund site in New Jersey, DEP is an active partner in the remediation.

Publicly Administered Site Remediation

DEP conducts response actions using public funds at contaminated sites where a responsible entity is unwilling or unable to perform the necessary actions. Currently, there are 882 sites where DEP is conducting remediation using public funds. However, due to limited resources, the publicly funded remediation paradigm typically focuses on identifying and protecting receptors (i.e., people, sensitive populations or natural resources) and conducting interim remedial measures, rather than investigating and remediating all contamination.

The State of Remediation

New Jersey has made great strides in the identification and remediation of contaminated sites. Still, new and emerging contaminants, varying degrees of compliance, scarce public resources, and other evolving factors require that DEP continually assess and adapt its implementation of contaminated site remediation laws to best protect public health, safety, and the environment while promoting the redevelopment of brownfields that can improve economic outcomes and enhance quality of life in communities across the state. A sustained commitment to action in the key areas that follow will ensure that we continue to improve the state of contaminated site remediation in New Jersey.

Funding Challenges

Publicly-Funded Remediation

Over 20 years ago, the goal of publicly funded remediations was to conduct complete remediations including identifying and protecting receptors, identifying all sources of contamination, delineating all contaminants in all media, and completing remedial action. Since then, due to limited resources, the publicly funded remediation paradigm shifted to primarily identifying and protecting receptors and conducting interim remedial measures to address threats to sensitive receptors, such as contamination in a drinking water well or of indoor air above DEP standards. DEP investigates whether receptors are impacted by possible contamination in drinking water, indoor air, and soil. Protecting receptors can be any actions taken to prevent human health risks from exposure to hazards in drinking water, indoor air, and soil. Due to widespread Per- and polyfluoroalkyl substances (PFAS) contamination throughout the state, there is a greater need for DEP to conduct receptor evaluations, pausing other projects undergoing investigation and remediation due to lack of funding. Funding sources need to be identified to continue these paused investigations and to conduct remediation of PFAS contamination, as well as to assist property owners with the installation of treatment systems on PFAS-contaminated wells and to conduct investigations and remediation of sites impacted by other contaminants. It is estimated that \$200 million will be needed to address PFAS contamination alone over the next 10 years.

DEP uses public funds to protect people and natural resources, then pursues responsible parties to complete the remediation and seeks reimbursement for the public funds spent. Since fiscal year 2015, DEP has spent approximately \$255 million at 1,205 sites and encumbered \$48.4 million for current and future remediation activities at 726 sites.



CLEANING UP A LEGACY OF INDUSTRIAL POLLUTION

Spill Fund

In July 1987, DEP created the Environmental Claims Administration (ECA), responsible for administering the New Jersey Spill Compensation Fund Damage Claims Program (Spill Fund), created by the Spill Act, to help innocent individuals, businesses, and local governments suffering direct or indirect damages from the discharge of a hazardous substance. The Spill Fund receives annual revenue from a tax on the transfer of petroleum products or other hazardous substances within New Jersey.

The ECA receives damage claims for private well contamination, property value diminution, emergency response actions, loss of income, loss of tax revenue by a state or local government, and water supply system claims. Total payments for valid claims averaged \$725,000 for fiscal years 2015 through 2021. Payments more than doubled in fiscal year 2022 to \$1.9 million after the adoption of Ground Water Quality Standards for PFAS. This upward trend continued with \$4.7 million paid in Spill Fund Damage Claims in fiscal year 2023, \$4.3 million paid in fiscal year 2024, and \$3.7 million in fiscal year 2025.

Currently, the vast majority of claims (~95%) pertain to private well damage from the discharge of PFAS. The number of PFAS claims received by DEP has been increasing. Currently, ECA has approved for payment 1,699 PFAS claims for which an alternate water source has been provided (a point of entry treatment (POET) system using either granular activated carbon or ion exchange resins, or a waterline connection), at a cost of \$7.7 million. It should be noted that POET systems require annual monitoring and maintenance. Future costs are estimated to approach \$4 million per year for these PFAS claims.



To further assist a greater number of private well owners affected specifically by PFAS, DEP implemented a policy, titled [Using NJDEP CSRR Financial Relief Criteria for Spill Fund Damage Claims and Publicly Administered Remediations](#). This policy provides financial assistance to a private well owner for an alternate water source based on the USEPA's MCLs for PFAS, rather than New Jersey's MCLs which are either higher or do not exist.

ECA also faces uncertainty with regard to other contaminants of emerging concern. For example, there is no known treatment that can be deployed to remedy private potable drinking wells impacted by 1,4-dioxane. Therefore, to address 1,4-dioxane in private wells, ECA is currently providing bottled water at a cost of approximately \$900 per year. Where available ECA evaluates connecting affected homes to an existing public water system, which is an expensive endeavor. Even where water mains exist nearby affecting private potable wells, the cost to extend waterlines typically exceeds \$1 million, irrespective of the number of individual homes connected.

CLEANING UP A LEGACY OF INDUSTRIAL POLLUTION

Program Efficacy

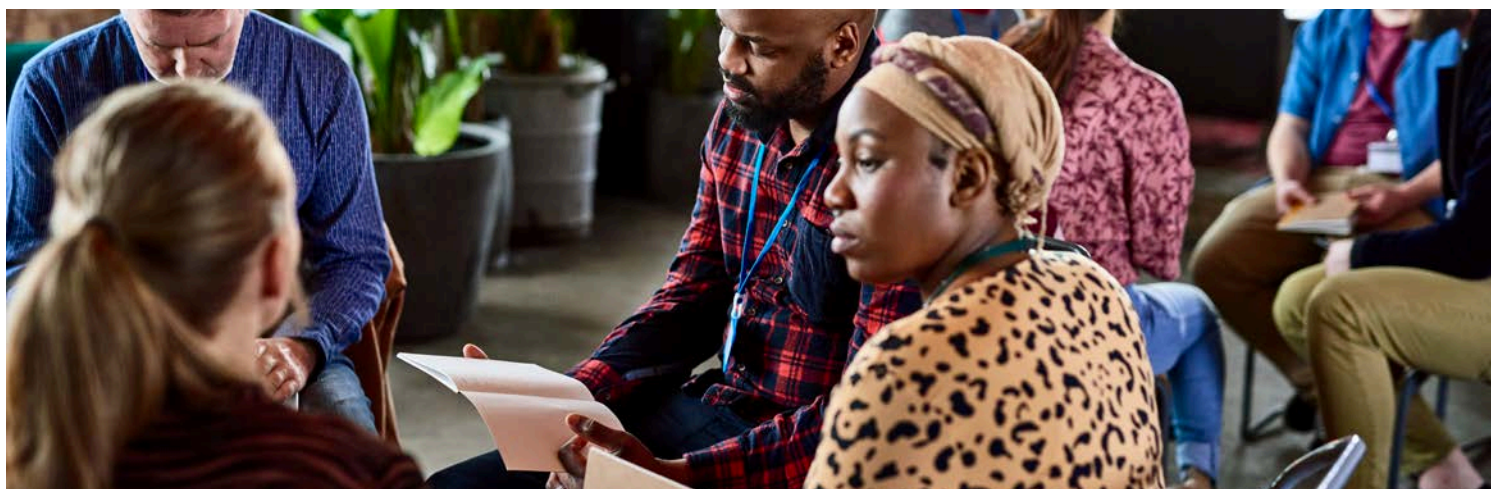
While DEP continues to discover new or previously unknown discharges of hazardous substances that add to the number of known contaminated sites in New Jersey, the state has continued to reduce the number of contaminated sites to a historic low, from 14,238 at the end of 2018 to 13,150 at the beginning of 2026. DEP's commitment to continuous improvement requires periodic data analysis to evaluate efficiency and program effectiveness. While the shift to LSRP oversight and other programmatic changes made under SRRA and SRRA 2.0 significantly improved the timely remediation of contaminated sites in New Jersey, the evaluation of DEP data reflects that thousands of cases are still in non-compliance with their remedial obligations and in DEP's direct oversight. As of May 2025, unfortunately, of currently active LSRP cases, nearly 50% missed applicable remediation timeframes and, pursuant to SRRA, are technically subject to DEP's traditional direct oversight. This data is explained in more detail in the "Direct Oversight" section of the latest [Site Remediation Trends Report](#).

Program Efficiency

Started in November 2023, the Remediation Process Improvement Initiative (RPII) is a collaborative effort between the DEP, LSRPs, the regulated community, and other interested stakeholders to further improve and streamline remediations in the state. As a result of these discussions, DEP has produced training flow charts, checklists, and other guidance to assist the regulated community in complying with rules and regulations. DEP also reestablished the Technical Review Panel to address technical disagreements between LSRPs and DEP staff. Finally, DEP made numerous changes to reduce permit backlog and decrease processing times, notably by streamlining review of the Remedial Action Report (RAP) applications and creating a certification to expedite the permit processing.

Next Steps

DEP will continue to look for efficiencies in the remediation process. To that end, DEP is developing an application that will use Artificial Intelligence (AI) to conduct inspections of documents submitted by LSRPs. For permit processing, DEP will implement a one RAP concept that incorporates all media into one permit. This approach allows for the same monitoring schedule and the submission of a comprehensive Biennial Protectiveness Certification for all media. The one RAP concept also simplifies the processing of administrative changes. DEP will also develop an online system for RAP applications, eliminating any confusion about what is required in a complete application for the regulated community. DEP must continue to develop and implement reforms to improve compliance and reduce the number of cases that enter DEP direct oversight, including by educating remediating parties about extensions, demonstrating flexibility when reviewing extension requests, and considering rule amendments to formalize the remediating parties notification of financial hardship.



Data Accessibility

DEP is the steward of a vast amount of data concerning past and on-going remediation projects, including historic context and sampling results on an array of hazardous contaminants. Through on-going investigations, DEP also collects location and other information on businesses and industries that are likely to leave behind contamination. DEP is committed to the maintenance and quality assurance of these data, which can be analyzed to inform policy development, improve transparency, and foster accountability. Maintaining high quality and secure data is of particular importance in the era of artificial intelligence (AI). Understanding and visualizing DEP's data on remediated sites is also important to contextualize the hazards in New Jersey's communities, show progress and success, and identify critical needs to improve the remediation process overall. As such, data must be both readily available and accessible to the public, stakeholders, and decision makers. To this end, DEP has developed user-friendly and innovative tools like the [Community Corner](#) and the [Contaminated Sites Explorer](#), to improve the public's ability to assess, visualize, and meaningfully interpret data on contaminated sites around the state. DEP is also working to develop a PFAS visualization tool that would pull DEP's monitoring and sampling data across media (drinking water, water resources, soil, air, biota) into one location to help contextualize the scope of the problem (see the "Emerging Contaminants" section, below, for more information regarding PFAS). Tools such as these provide practitioners and the public with a site-by-site understanding of progress and foster accountability.

“DEP is committed to the maintenance and quality assurance of these data, which can be analyzed to inform policy development, improve transparency, and foster accountability.”

Next Steps

Innovative projects like those described above have identified opportunities to improve DEP's data. For example, there are several data sets that are not readily available to the public and that require maintenance, migration to newer systems, and/or interpretation before they can be made meaningfully accessible to the public or used effectively in connection with other information technology or AI applications. DEP must identify and prioritize the maintenance and release of these data. DEP is currently developing an application that uses AI to conduct a preliminary inspection of remedial phase documents and identify reports that have complex remediation issues requiring staff review, and cases that do not adhere to rules and guidance. Implementation of this application would allow staff to focus on reviews and improve overall processing times.

Polluter Accountability

Remediations must be conducted in accordance with DEP rules and regulations. If the person responsible for conducting a remediation does not do so, DEP first offers compliance assistance in an attempt to bring the remediation back into compliance. If education and outreach are not successful, DEP has multiple tools it can use to compel enforcement. These include, but are not limited to, Directives, Administrative Orders (AO), Notice of Civil Administrative Penalty Assessment (AONOCAPA), Notice of Civil Administrative Penalty Assessment (NOCAPA), Municipal Summons in Municipal Court, Revocation of a No Further Action (NFA) letter, Revocation of Remedial Action Permit, Demand for Stipulated Penalties, Notice of Intent to Draw on Remediation Funding Source, and Liens for unpaid fees or cost recovery. If these enforcement actions are unsuccessful, DEP can pursue litigation in New Jersey's Superior Court. If there is a potential impact on public health, DEP may conduct the remediation if the person responsible for conducting remediation is unable or unwilling to do so, and subsequently, pursue cost recovery. This process may lead to mediation and, in a few cases, litigation.

Where necessary to ensure accountability to cleanup obligations, DEP refers matters to the New Jersey Attorney General for consideration of enforcement via the Courts. In recent years, DEP has worked with the Attorney General's Office on a multi-year enforcement initiative to hold industrial polluters accountable for contamination, particularly in environmentally overburdened communities. Since 2018, New Jersey has filed dozens of cases seeking to require responsible parties to fulfill their cleanup obligations and/or to recover cleanup costs incurred by the state. Settlements in several of these cases have already resulted in more than \$3 billion in cleanup and cash payments for damages to the public's natural resources.

Next Steps

The mechanisms discussed above can result in DEP collecting penalties and ensuring that a remediation is properly completed. However, in some cases, the result is a paper judgment where DEP cannot collect penalties and must wait for another responsible party to conduct the remediation. DEP recognizes that it is important to prioritize compliance assistance in an effort to avoid lengthy and costly enforcement actions and litigation. However, DEP will proceed with litigation when necessary.



CLEANING UP A LEGACY OF INDUSTRIAL POLLUTION

Legacy Sources and Contaminants

DEP plays an important role in identifying and facilitating the cleanup of legacy pollution. This can be particularly challenging where contaminants were used widely across the state, and where that use was historic and therefore, the responsible parties have long gone out of business. One such example is tetrachloroethylene, also known as perchloroethylene, PERC, or PCE. It is a colorless, nonflammable liquid solvent primarily used to dry clean fabrics or degrease metals. PCE and its breakdown products (trichloroethylene, dichloroethylene, and vinyl chloride) do not readily degrade in the environment. Exposure to PCE and its breakdown products poses significant health risks. In the early 1970s, regulations were enacted to manage the use and disposal of these substances and, in 2024, USEPA set a 10-year phaseout for the use of PCE in dry cleaning to eliminate the risk to people who work or spend considerable time at dry cleaning facilities. With historic dry cleaner practices of discharging PCE into the environment, New Jersey has detected these chemicals in its soils and groundwater. These chemicals can also volatilize and impact air quality in buildings overlying contaminated groundwater or soil. This makes the remediation of former dry cleaner properties essential, especially since these businesses are often located in residential neighborhoods. DEP is conducting a study to identify former dry cleaners throughout New Jersey and investigate if there is any legacy impact on people or natural resources from PCE use, and if mitigation systems (i.e., POETS on drinking water wells, vapor mitigation systems if indoor air is impacted) are needed. With thousands of former dry cleaner sites across the state, cleaning up this contamination is resource-intensive and expensive, but critical to protecting public health and the environment in New Jersey.

Next Steps

Upon completion of the mapping of former dry cleaner locations, it is important to share the information with planners and environmental professionals. A publicly-accessible database and GIS layer will be a valuable tool, supporting environmental professionals in identifying contamination and assessing impacts, particularly to people or natural resources that are particularly vulnerable to harm from these contaminated sites. DEP will also continue to investigate and address potential impacts from contamination emanating from former or current dry cleaners. In the future, DEP will need to identify resources to conduct remediation at these sites.



Emerging Contaminants

New contaminants and updated science are continually emerging. DEP monitors peer-reviewed literature and other studies to stay current and make important decisions about understanding the occurrence of emerging contaminants in New Jersey and their associated health effects. Contaminants of emerging concern (CEC) are substances that are not regularly monitored or currently regulated but have a perceived, potential, or known threat to human health or the environment based on preliminary data. CECs can also be substances that require regulatory reassessment based on new information. CECs can be chemical, biological, or radiological materials, newly present or present at lower, detectable levels. CECs can include pharmaceuticals and personal care products, industrial chemicals, and cyanotoxins from harmful algal blooms. DEP works to stay abreast of evolving science and technology related to the ability to detect CECs and to identify CECs in the environment. The federal government plays an important role in understanding CECs, as much of the remediation-related research into known contaminants and CECs is federally-funded through grants and appropriations and/or conducted in coordination with the USEPA. In addition, the federal government collects information for targeted “unregulated contaminants” from drinking water systems on a routine basis. DEP may also conduct or fund research to better understand sources, occurrence, exposure pathways, and potential impacts on human health, ecosystems, and the environment. At other times, DEP will rely on research from other states or academia. If, through the research previously described, a CEC is determined to be present in New Jersey and to have a negative impact on human health or the environment, DEP can develop standards or list the CEC as hazardous substances under the Spill Act. Examples of CECs that DEP determined to regulate in recent years include PFAS, 1,2,3-trichloropropane, and 1,4-dioxane.

“PFAS is a large family of fluorinated chemicals, some of which are considered CECs and have been detected in the New Jersey environment.”

PFAS is a large family of fluorinated chemicals, some of which are considered CECs and have been detected in the New Jersey environment. This family of thousands of synthetic, man-made chemical compounds contains strong chemical bonds that do not break down in the environment. Several PFAS have been found to have notable levels of toxicity at low concentrations and can bioaccumulate in humans and animals. To date, New Jersey’s remedial investigations and evaluations have resulted in the development of soil and soil leachate standards for four PFAS (i.e., PFNA, PFOA, PFOS and GenX) and New Jersey drinking water standards for three (i.e., PFOA, PFOS and PFNA). DEP has also designated PFOA, PFOS, and PFNA as hazardous substances under the its discharges of petroleum and other hazardous substances (DPHS) rules which make them subject to strict oversight and liability requirements under the New Jersey Spill Act. In addition, DEP has developed Interim Specific Ground Water Quality Standards (ISGWQS) for two novel PFAS, perfluoropolyether dicarboxylic acids (PFPE-DCAs) and chloroperfluoropolyether carboxylates (CIPFPECAs). Learn more about DEP’s past and future PFAS action in DEP’s PFAS Strategy [Forever No More](#).

CLEANING UP A LEGACY OF INDUSTRIAL POLLUTION

Addressing CECs, from investigation to standard development to treatment, is necessary to protect public health but can be challenging, costly, resource-intensive, and time-consuming, especially given the number of potential sources throughout New Jersey. Uncertainty regarding federally-funded support for critical science is of concern with respect to the need to reduce exposure and employ new technology. Replacing this support is not a cost that New Jersey has had to cover before. Furthermore, the increasing number of Spill Fund applications for financial assistance submitted to DEP to address wells impacted by PFAS threatens the continued solvency of the Spill Fund.

Next Steps

Studies that include the evaluation of PFAS in soils and precipitation will provide a basis of understanding that will lead to more effective management. The development of guidance to support efforts to remediate even low levels of PFAS will help ensure the protection of public health and the environment. As more CECs are detected in the environment, DEP will continue to evaluate and prioritize these based on occurrence and their potential for environmental and health risks. This includes conducting source investigations for the contamination as well as expanding investigations to identify additional impacted drinking water wells and providing treatment. Furthermore, DEP must find ways to continue to support private well owners and businesses by ensuring adequate Spill Fund or alternative funds are available.

Brownfield Redevelopment and Community Revitalization

DEP is committed to furthering environmental benefits while realizing strong economic growth. In October 2023, DEP relaunched the Brownfield Development Area (BDA) program, and in 2025 accepted 12 new BDAs. Under the BDA approach, DEP works with selected communities affected by multiple brownfields to design and implement remediation and reuse plans for these properties simultaneously. The BDA approach enables remediation and reuse to occur in a coordinated fashion. In this innovative process, DEP invites the various stakeholders, including owners of contaminated properties, potentially responsible parties, developers, community groups, technical experts, and residents, to participate in the cleanup and revitalization approach.

To date, thousands of blighted brownfields have been redeveloped into community assets, helping catalyze neighborhood revitalization in the state's most overburdened communities like Camden, Perth Amboy, and Palmyra. Notable projects include the cleanup and transformation of the Harrison Avenue Landfill into the Cramer Hill Waterfront Park in Camden, the cleanup of a former smelting site on the Arthur Kill waterfront in Perth Amboy into the Thomas Mundy Peterson Park, and the transformation of a former municipal complex in Bayonne into a public park with underground flood control technology that protected the community during Hurricane Ida. In addition, DEP partnered with the New Jersey Economic Development Authority (EDA) to triple the number of cities in DEP's Community Collaborative Initiative (CCI), expanding to eight new cities – Newark, Jersey City, Paterson, Paulsboro, Salem City, Vineland, Millville and Bridgeton.

DEP will continue to encourage interested community members and stakeholders to consider a redevelopment project in their community. DEP developed an [ARCGIS Story Map](#) project that introduces the brownfield redevelopment process, Hazardous Discharge Site Remediation Fund, and the Landfill Development program, and describes success stories for several redevelopment projects.



CLEANING UP A LEGACY OF INDUSTRIAL POLLUTION

Next Steps

DEP will work with municipalities and developers to continue progress on the 12 BDAs designated in 2025. DEP will also maintain timely review and approval of Hazardous Discharge Site Remediation Fund grant applications, which are an integral part of helping municipalities move the investigation and remediation of their brownfield sites forward.

Climate Change

Climate change is the ultimate threat multiplier, bringing a host of impacts, including extreme heat, wildfires, flooding, and sea-level rise, that were never contemplated when remediating contaminated sites. In New Jersey, climate considerations are especially critical, because the state is warming faster than the Northeast region and global averages, and because sea levels are rising at a rate more than double the global average. These climate impacts can compromise the integrity of containment systems, disrupt treatment processes, and lead to the mobilization of contaminants.

Next Steps

DEP must better understand forthcoming climate impacts on contaminated sites and better encourage remediating parties to incorporate climate resilience into remediation planning, monitoring, and long-term management. DEP intends to evaluate the vulnerability of contaminated sites from climate risks, including sea-level rise and fluvial and stormwater flooding. These evaluations should include an assessment of potential impacts to surrounding communities should contaminants be released into populated areas. DEP will also evaluate regulations and policy guidance, including the [Technical Guidance: Planning for and Response to Catastrophic Events at Contaminated Sites](#), to identify modifications needed to ensure remedial measures are resilient to effects of climate change.



Federal Uncertainty

Current and potential future federal actions could negatively impact New Jersey's ability to efficiently remediate sites and identify new environmental and public health concerns. For example, DEP has significantly relied on the now disbanded USEPA Office of Research and Development as a critical partner in building New Jersey's understanding of new contaminants and the use of cutting-edge treatment technologies. In addition, the termination of clean energy tax credits and the energy community tax credit that fosters the clean-up of brownfields and other previously developed sites for development will potentially slow remediation progress across New Jersey.



As the state with highest number of federally-listed Superfund sites, the efficacy and continued funding of the federal Superfund program is of critical importance to New Jersey. For remedial actions conducted by USEPA at CERCLA-regulated sites on the NPL using Superfund funding, the state is responsible for 10% of the remedial action costs using public funds. DEP spends approximately \$7.5 million annually on its 10% share. In addition, in accordance with CERCLA, the USEPA transfers responsibility and associated costs for long-term operations and maintenance of remedies at Superfund-funded sites, making DEP 100% responsible for the capital costs to maintain, upgrade, and replace equipment which costs millions of dollars annually.

As noted above, DEP conducts remediation at non-Superfund sites using public funds to ensure the protection of public health and safety, including to avoid imminent risks to the public. Where risks and potential costs of response exceed state capacity, DEP refers matters to the USEPA for consideration of an immediate federally led and funded removal action under CERCLA. Should federal support for CERCLA action wane, action at Superfund sites could slow, and the state may have to assume full responsibility for imminent response actions. Such an occurrence could place a significant financial burden upon the state, which already lacks adequate resources to fund the complete remediation of existing publicly-administered sites.