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TAHESHA L. WAY
Lt. Governor

State of New Jersey
THE PINELANDS COMMISSION
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LAURA E. MATOS
Chair
SUSAN R. GROGAN
Executive Director

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MEMORANDUM

To: CMP Policy & Implementation Committee

From: Gina A. Berg *gab*
Director, Land Use Programs

Date: April 16, 2025

Subject: April 25, 2025 Committee meeting

Enclosed please find the agenda for the Committee's upcoming meeting on Friday, April 25, 2025 and the minutes from the Committee's March 28, 2025 meeting.

The agenda includes an overview of the New Jersey Department of Environmental Protection Wetlands Mitigation rule proposal. The rule proposal is available online via the following link:
<https://dep.nj.gov/wp-content/uploads/rules/proposals/proposal-20250317a.pdf>

The Committee meeting will be conducted in-person and via teleconference. Specific access information will be provided to all Committee members in a separate email. The public is invited to attend the meeting in-person or view and participate in the meeting through the following YouTube link:

www.youtube.com/c/PinelandsCommission



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CMP POLICY & IMPLEMENTATION COMMITTEE MEETING

April 25, 2025 – 9:30 a.m.

This meeting will be held in-person and virtually

Richard J. Sullivan Center for Environmental Policy and Education
Terrence D. Moore Conference Room
15C Springfield Road
New Lisbon, New Jersey

Watch the meeting on the Pinelands Commission YouTube channel:

www.youtube.com/c/PinelandsCommission

To Provide Public Comment, Please Dial: 1-929-205-6099 Meeting ID: 868 7719 5173

Agenda

1. Call to Order
2. Adoption of minutes from the March 28, 2025, CMP Policy & Implementation Committee Meeting
3. Pinelands Conservation Fund 2025 Land Acquisition Grant Round
4. Permanent Land Protection Summit Update
5. Pinelands Conservation Fund Stewardship Monitoring Report
6. NJDEP Wetlands Mitigation Rule Proposal Summary
7. Public Comment
8. Adjournment

CMP POLICY & IMPLEMENTATION COMMITTEE MEETING

This meeting was conducted both remotely and in-person
The public could view/comment through Pinelands Commission YouTube link:

www.youtube.com/c/PinelandsCommission

Richard J. Sullivan Center
15C Springfield Rd
New Lisbon, New Jersey 08064
March 28, 2025 – 9:30 a.m.

MINUTES

Members in Attendance: Alan W. Avery, Jr., Jerome Irick, Mark S. Lohbauer, Chair Laura E. Matos, Jessica Rittler Sanchez

Members Absent: Theresa Lettman, Douglas Wallner

Staff Present: Gina Berg, John Bunnell, Ernest Deman, April Field, Lori Friddell, Susan R. Grogan, Brad Lanute, Paul Leakan, Stacey P. Roth

Also in attendance: Alexis Franklin with the Governor's Authorities Unit (Zoom), Metthea Yepsen, New Jersey Department of Environmental Protection (NJDEP), Nick Procopio, NJDEP

1. Call to Order

Chair Matos called the meeting to order at 9:31 a.m.

2. Adoption of minutes from the February 28, 2025 CMP Policy & Implementation Committee Meeting

Commissioner Lohbauer moved the adoption of the February 28, 2025 meeting minutes.
Commissioner Irick seconded the motion.

Commissioner Rittler Sanchez requested a change to the minutes reflecting her comments on page 8, to read "suggested" not "said".

Commissioner Lohbauer amended his motion to adopt the February 28, 2025 meeting minutes with revision to incorporate changes as provided by Commissioner Rittler Sanchez.
Commissioner Irick seconded the motion. All Ayes. The motion passed.

3. Presentation by the Department of Environmental Protection: New Jersey Wetland Program Plan, 2023-2027

Attachment A to these minutes and posted on the Commission's website at the following address:
<https://www.nj.gov/pinelands/home/presentations/2025.3.18%20NJ%20WPP%20for%20Pinelands.pdf>

Metthea Yepsen and Nick Procopio of the Division of Science and Research with the NJDEP presented the NJ Wetland Program Plan.

Ms. Yepsen outlined the reasons for the wetland program plan, what the plan entails, recent changes and examples of how the plan is being implemented. She explained that the plan satisfies a U.S. Environmental Protection Agency (EPA) requirement for receiving Wetland Program Development Grants and provides a tool for better communication and direction. She said wetlands cover 18% of the state and reviewed the many benefits of the wetland ecosystem services. Ms. Yepsen said the plan is a non-binding guidance document, with an overall goal to improve and protect the ecosystem services and functions provided by wetlands.

She presented the EPA's 2008 Core Element Framework and outlined the goals and the recommended four core elements, which include monitoring and assessment, restoration and protection, water quality standards and regulation. Ms. Yepsen identified recommended approaches to meet the framework, including public-private partnership, agency coordination, outreach and education.

She reviewed the three iterations of the NJ Wetland Program Plan, spanning 2013-2027 and their respective changes to the core elements. She noted that the current, third iteration, adds a seventh core element: environmental justice. She said the current plan (2023-2027) was written by an interdisciplinary team of scientists within the NJDEP, the Pinelands Commission, Highlands Commission and the NJ Sports and Exposition Authority (NJSEA). Ms. Yepsen presented the core element tables as they appear in the current plan and explained that each core element includes a goal, objectives, actions and activities. Ms. Yepsen said there are over 400 suggested activities with timelines. She reiterated the activities represent a wish list, not a requirement.

Ms. Yepsen presented an overview of the 2023-2027 NJ Wetland Program Plan and its seven core elements. She presented each core element's goal, objectives, actions and provided examples of related current activities as detailed in the attached presentation.

Attachment A to these minutes and posted on the Commission's website at the following address:
<https://www.nj.gov/pinelands/home/presentations/2025.3.18%20NJ%20WPP%20for%20Pinelands.pdf>

She said NJDEP has been focusing on establishing a sustainable wetland monitoring network to research, monitor and document trends. She reviewed the success of the NJ Tidal Wetland Monitoring Network in partnerships, funding and the anticipated release of the database and website. She explained the slower progress in the NJ Freshwater (non-tidal) Wetlands Monitoring Network as they are seeking funding and partnerships to continue working on previously established network of sites and data.

Ms. Yepsen referenced the Pinelands Commission report "Vulnerability and Comparability of Natural and Created Wetlands" as a successful example of developing guidance and training on the creation of resilient coastal and freshwater wetlands. Ms. Yepsen said the state has been active in funding, management and monitoring of wetland restoration projects.

In her overview of core element 4, Ms. Yepsen remarked on the new WatershedNJ Wetland Function Project, a planning tool that looks at water quality and watersheds and offers a functional data layer to identify water quality improvement.

Ms. Yepsen reviewed the four climate change element objectives of core element 5 and the strategic use of grant funding to increase carbon sequestration focus. She said the NJDEP has partnered with Rowan University on a NJ Carbon Flux in Non-tidal Wetlands Pilot project.

Regarding public outreach and education, she said there is a focus on reaching underserved groups and individuals including tribal and overburdened communities (OBC) with additional workshops and training opportunities for the public. Ms. Yepsen noted NJDEP's objective to ensure equitable access to the benefits provided by wetlands to all and to incorporate environmental justice in all wetland-related efforts.

Mr. Procopio emphasized that there is no commitment to accomplishing all the suggested activities and that they are provided to demonstrate areas of focus and to enable prioritization.

Chair Matos opened the floor to questions.

Commissioner Lohbauer thanked Ms. Yepsen and Mr. Procopio for the presentation and for the new resources revealed in the presentation. He said the Pinelands Commission prioritizes wetlands protection and inquired, in general, how the state is doing to recognize and protect wetlands.

Ms. Yepsen said that NJ is doing well compared to other states. She said the state accepts responsibility for preserving wetlands and is setting regulations to protect them. She said there is a lot of work being done on monitoring and assessment. She noted that hurricane Sandy brought much attention to tidal wetlands and contributed to the building of the tidal wetlands monitoring network.

Commissioner Lohbauer, in reference to a presentation slide, inquired how the wetlands ecological integrity assessment was performed. Ms. Yepsen explained the rating system follows the EPA three-tiered monitoring assessment, including a GIS component, rapid assessment and in-depth assessment component. She said as applied, the rating system has green, yellow and red condition ratings, with green the better condition.

Commissioner Lohbauer commented on the slide's indication that restoration is needed in the urban corridor. Ms. Yepsen explained that the GIS assessment looked at the impact of land use on surrounding wetlands and at watersheds and found a high correlation to land use and wetland condition. Mr. Lohbauer asked if based on the slide representation, the Pinelands hosts the largest percentage of wetlands in the state. Ms. Yepsen said she couldn't confirm, however she noted the large amount of tidal wetlands along the coast.

Commissioner Lohbauer questioned whether the NJDEP relies on volunteer assistance and if they support volunteer participation in meeting the goals of the plan. Ms. Yepsen said they rely on partnerships with non-profit, academic and federal agencies that use volunteer support. Mr. Procopio added that the science programs do not involve many volunteers.

Mr. Procopio said there is a lot of active work in tidal wetlands as compared to freshwater wetlands. He asked Ms. Yepsen to provide an overview of the coordination and collaboration of the tidal wetlands monitoring network and how the same could be done in freshwater or interior wetlands areas.

Ms. Yepsen explained that multiple federal, state and academic organizations were all monitoring NJ tidal wetlands using the Mid-Atlantic Coastal Wetlands assessment, however

there was not a statewide assessment. She said the EPA encouraged building a network to pull the data together in 2018. She said the network was formalized in 2019, with eight core groups doing the monitoring and 15 or more groups participating in meetings. NJDEP was able to obtain federal funding as a result of having a statewide network of coastal sites.

Mr. Procopio said there is no similar network of monitoring for the interior part of the state. He suggested finding out who is actively doing research and building on that.

Commissioner Lohbauer said he is proud of the work of the Pinelands staff and that the Commission is always looking for ways to improve. He asked for suggestions for focus areas.

Mr. Procopio acknowledged Chief Scientist John Bunnell and the Pinelands Commission staff on the long-term monitoring of wetlands conditions. He said there is no match to it and emphasized the importance of the long-term record in defining wetland conditions over time. He said it is a great model to follow.

Commissioner Rittler Sanchez said she agrees that NJ is doing a great job, especially in tidal wetlands. She inquired if in referring to the EPA, it was only including the estuary program.

Ms. Yepsen said the DEP works with the estuary program and with the grants management staff in EPA Region Two who have been involved and encouraged the development of the NJ Tidal Wetlands Monitoring Network.

Discussion followed on EPA Regions.

Commissioner Rittler Sanchez requested detail on the work of the carbon sequestration project and what results they envision from the project. She asked if there will be metrics, goals or a usable tool for agencies to further define the importance of wetlands in relation to climate change.

Ms. Yepsen provided background information, explaining that while wetland scientists have a grasp of the carbon sequestration and carbon fluxes in tidal wetlands, they do not have the same information for non-tidal wetlands. She said there is a lot of debate regarding carbon sequestration in freshwater wetlands and the possible offset from their production of methane gas. She explained the intent to look at all the carbon related fluxes including methane, within forested wetlands.

Commissioner Rittler Sanchez inquired about the project timeline.

Ms. Yepsen said they anticipate a final report in three years, following two years of data collection. She said that interim data reports could be expected.

Commissioner Rittler Sanchez said she will be interested to see how temperature and precipitation play into the results. She asked how the data will be used.

Ms. Yepsen said they will have a report, and data will be made public online. She explained that

the data will be applied to ongoing carbon sequestration projects. She referenced the state's natural and working land strategy that identifies goals for enhancing carbon sequestration on natural working lands and noted one of the listed activities includes a greenhouse gas assessment. She said the intended application of the carbon sequestration factor to the natural and working land strategies will help to track how land use changes impact sequestered carbon. She emphasized the need to develop the factor for freshwater wetlands. She anticipated the greenhouse gas inventory project should be updated within the year. Ms. Yepsen mentioned that the project funded by the Natural Climate Solutions grant will be looking into net carbon sequestration.

Commissioner Avery asked what parameters were being monitored on tidal wetlands.

Ms. Yepsen said monitoring is a three-tiered assessment, including a GIS component, a rapid assessment and an in-depth assessment using the Mid-Atlantic Coastal Wetlands quality assessment protocol. She said numeric data is collected, such as surface elevation changes, accretion measurements, vegetation data, and soil cores.

Commissioner Avery referred to the Tidal Wetlands Act and inquired about the biggest threat to the tidal wetlands that were not already disturbed or developed. Ms. Yepsen identified the largest threats to tidal wetlands as sea level rise, disturbance of natural sediment flows and erosion.

Commissioner Avery inquired where dredge spoils have been used as a restoration technique. Ms. Yepsen responded that a handful of projects have been completed along the Delaware bayshore, Meadowlands and across the Atlantic coast. Commissioner Avery asked if they were still demonstration projects. Ms. Yepsen said they are heading out of the demonstration phase and becoming more routine. Commissioner Avery remarked on both the difficulty in getting the DEP to allow shoreline mitigation when there is erosion and in finding locations to deposit dredge materials. Ms. Yepsen said that projects were managed by federal or state agencies previously, but programs are now expanding.

Commissioner Avery inquired about the involvement of the Sports Authority in the studies. Ms. Yepsen said they have a strong research and conservation component and are now called the Meadowlands Restoration and Research Initiative.

Regarding assessment of freshwater wetlands for carbon sequestration, Commissioner Avery asked if a methane generation parameter is included. Ms. Yepsen said yes, they are looking at how methane production offsets the carbon sequestration.

Commissioner Avery inquired if the NJDEP has acquisition funds for tidal wetlands. Mr. Procopio said not within the science and research program. He mentioned NJDEP Green Acres and the Division of Fish and Wildlife as programs that participate in acquisition.

Ms. Yepsen said they are looking at mechanisms to determine areas that may become wetlands in the future and methods to maintain them for natural marsh transgression because of sea level rise.

Commissioner Avery inquired if freshwater wetlands affected by sea level rise become saltwater wetlands. Ms. Yepsen explained that it depends on the location and described salt marsh spread.

Commissioner Rittler Sanchez inquired if the dredge spoil demonstration projects have shown an advantageous rate and depth of soil deposition. Ms. Yepsen said it depends on the site and location. Mr. Procopio added that continued monitoring is always important to help determine what is successful. He said the process is not simple. Ms. Yepsen commented that even and flat marsh topography is not best.

Commissioner Rittler Sanchez inquired if there are enough firms in NJ with expertise in marsh restoration. Ms. Yepsen responded there are not.

Commissioner Irick said he was encouraged to see the Meadowlands included in discussion and wanted to emphasize that NJ has the most stringent wetland protection and methods of identifying wetlands in the nation. He asked if the objective to increase wetlands acreage in core elements 2 and 3 is relative to reclamation or to adjusting the definition of wetlands to include a wider view and the addition of certain indicative species.

Ms. Yepsen said she is not involved in the regulatory side but has not heard any discussion of expansion of definitions or adding species. Mr. Procopio said the goal is to gain, with no net loss.

Commissioner Irick inquired about the floodplain manager certification seminar as listed as an activity in the plan.

Ms. Yepsen said it was not within their department, but she could obtain more information and report back.

Commissioner Avery remarked on the accuracy of NJDEP wetlands mapping.

Discussion followed on accuracy of mapping, field-based assessment and NJDEP Bureau of GIS research.

Mr. Procopio said that no program uses the GIS wetlands as a regulatory line, but only as guidance. He said field assessment is the best method for locating wetlands.

Pinelands Chief Scientist John Bunnell commented, regarding prior discussion on volunteers, that some departments within the NJDEP might use volunteers more than others to match funding for some federal grants. He said the Commission has used those volunteers. He said one way to increase the wetlands area is with better mapping. He said that Commission mapping of 6,000 natural ponds, excavated ponds, and stormwater basins resulted in increasing known wetlands in the state.

Chair Matos thanked Ms. Yepsen and Mr. Procopio for the presentation.

4. Update on the Interagency Council on Climate Resilience: 2024 Annual Report

Attachment B to these minutes and posted on the Commission's website at the following address:
<https://www.nj.gov/pinelands/home/presentations/NJ%20IAC%202024%20Annual%20Report%20Summary.pdf>

Gina Berg, Director of Land Use Programs, presented the NJDEP's Interagency Council (IAC) on Climate Resilience 2024 Annual Report. She said the Interagency Council is a coordination and collaboration effort involving 26 member agencies, including Pinelands staff representatives.

Executive Director (ED) Sue Grogan remarked on the wide variety of agencies and missions bringing different perspectives to the climate resilience topic.

Ms. Berg said all agencies are engaged in some aspect of climate change work. She said the report includes six climate resilience priority areas and highlights 88 actions taken by the agencies in 2024. She said projects are developed through the IAC work plan and include the collaborative activities of established work groups. Ms. Berg provided an overview of the six priority objective areas.

She reviewed the resilient and healthy communities priority, highlighting the NJPACT REAL rules from NJDEP and the State Hazard Mitigation Plan through the New Jersey Office of Emergency Management (NJOEM). She remarked that Emergency Management has a more immediate objective when dealing with climate change impacts compared to the long-term objectives of other agencies. She said all the listed projects address creating climate resilient and healthy communities.

She reviewed the listed projects and the varying agencies reported under the priority to strengthen ecosystem resilience. She presented the Pinelands projects listed in the IAC annual report, including implementation of the water management (K-C) rule amendment, the Pinelands Management Area vulnerability assessment, as suggested by the Climate Committee, and the Pinelands Conservation Fund (PCF) land acquisition priorities. She noted that the PCF project evaluation matrix includes factors for both climate and environmental justice priorities.

Ms. Berg said the report looks at projects that promote coordinated governance. She reviewed the report's objective to invest in information and public understanding. She said the NJDEP and NJ Department of Education have the largest role in that area.

She continued to outline the report objectives, including the promotion of climate-informed investments and innovative financing. She said the Pinelands Infrastructure Master Plan might be considered in that objective in the future. She reviewed the coastal resilience plan and funding to the 5-year Coastal Management Program and tidal wetland monitoring and assessment.

Ms. Berg highlighted takeaways and next steps. She remarked on the level of coordination and commitment of all agencies involved.

ED Grogan said the active participation of small agencies like the Commission, is a large effort and time-consuming challenge, she said there are many meetings and assignments to undertake. Ms. Berg suggested it would be beneficial to have a dedicated point person for the Commission to participate in the IAC.

Ms. Berg reviewed activities that intersect with the Commission's projects and goals, including open space acquisition, funding for stormwater resilience programs and infrastructure. She said

other next steps in terms of climate science could include watershed improvement plans, working with municipalities in a role other than reviewing master plan amendments, and the Commission's continued role in conformance.

Commissioner Rittler Sanchez remarked that the link to join the mailing list for the IAC was not functioning. She said, regarding community planning for resilience, most participants were government agencies except for the NJ Division of Banking and Insurance (NJDOBI), which she noted has a good link to outside entities. She said banking and insurance is going to be very important moving forward. Ms. Berg responded that their project included in the report is financing for private work.

Commissioner Rittler Sanchez inquired if NJDOBI has an action plan. Ms. Berg explained that the report is provided on completed work for 2024 and does not include a future workplan.

Commissioner Rittler Sanchez commented that there needs to be more private sector focus on insurance and financing of communities and development projects to get them more involved. She noted the importance of insurance, financing and taxation to plan implementation. ED Grogan said funding is essential.

Commissioner Lohbauer inquired if the Commission could collaborate with the Highlands Council for a dedicated staff member for the IAC.

ED Grogan said perhaps collaboration could help in gaining staff resources.

Commissioner Lohbauer said the Pinelands Commission has a great education program led by Joel Mott, Public Programs Specialist. He suggested seeking state support to spread awareness of the Pinelands Programs outside of the region.

ED Grogan said Mr. Mott has worked with Stockton University on programs and curriculum development. Paul Leakan, Communication Officer, said the Commission has a full education schedule for the number of staff. Ms. Grogan said it is beneficial to have the education curriculum and climate change topic brought to the local level so children can make the connection to their own homes and communities. She acknowledged that the Commission does that through its education resources.

Commissioner Avery inquired of NJDEP representatives if they work with the NJ Mosquito Commission.

Ms. Yepsen said she is aware of the Edwin B. Forsythe National Wildlife Refuge partnership with the mosquito commission in their wetland restoration projects.

Commissioner Avery said he favored a more naturalistic approach to mosquito control.

5. Public Comment

There was no public comment.

6. **Adjournment**

There being no other business, Commissioner Lohbauer moved to adjourn the meeting. Commissioner Rittler Sanchez seconded the motion. All voted in favor. The meeting was adjourned at 11:01 a.m.

Certified as true and correct:



Lori Friddell
Land Use Programs Technical Assistant

Date: April 4, 2025

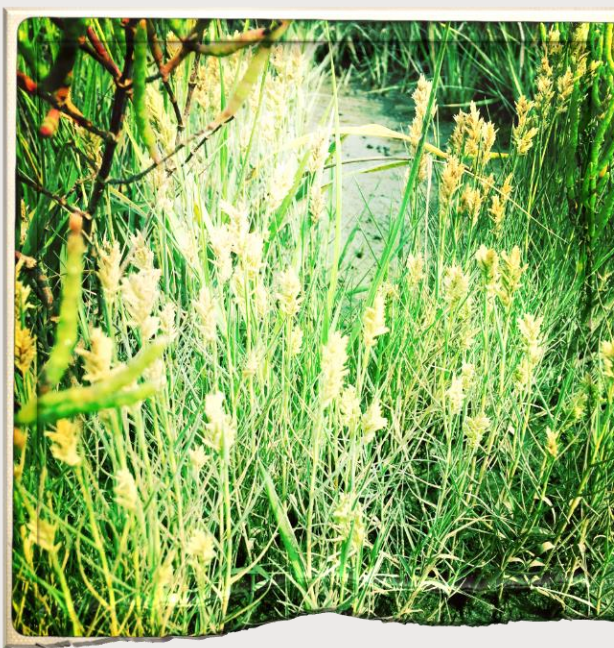


NJ's Wetland Program Plan

Metthea Yepsen and
Nick Procopio

Division of Science and
Research, NJDEP



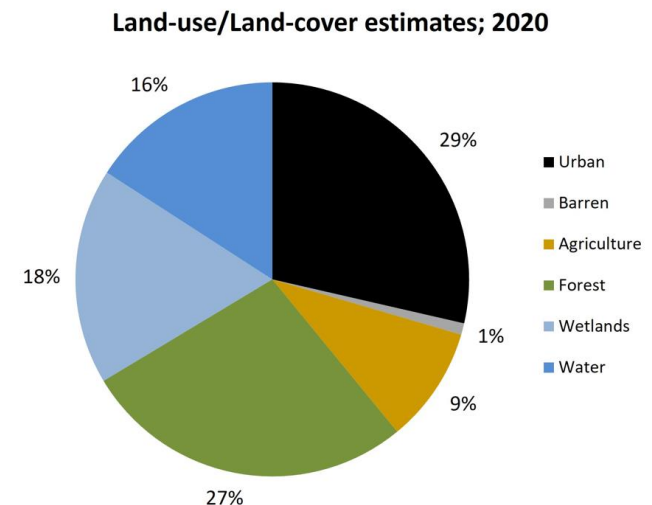
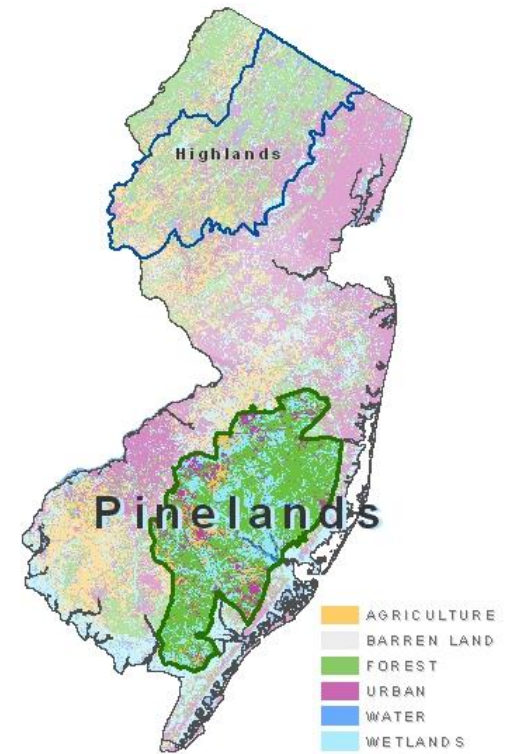


Outline

- Why do we have a Wetland Program Plan
- What is a Wetland Program Plan
- Iterations of the Plan
- Plan highlights

Why do we have a Wetland Program Plan

- Wetlands cover 18% of the state
- Satisfies a US EPA requirement for receiving Wetland Program Development Grants under the state and tribe track
- Framework for communication and coordination
- If we don't have a plan, how do we know where we are going or what we need to do to get there?



Wetland Ecosystem Services



Wetlands Are Awesome!

What is a Wetland Program Plan?

- State, tribal, or regional guidance document
- Follows EPA framework
- 3 - 6-years
- EPA Wetland Program Development Grant applications must reference the state Wetland Program Plan activities
- **No commitments are made to do any or all of the activities identified in the plan.**

NJ's WPP Overall Goal

Improve and protect the ecosystem services and functions
provided by wetlands

EPA's 2008 Core Element Framework

Iterations of the WPP



New Jersey Wetland Program Plan 2014-2018



First Iteration, December 2013

Prepared by:

New Jersey Department of Environmental Protection (NJDEP) pursuant to
The United States Environmental Protection Agency (EPA)
Enhancing State and Tribal Programs (ESTP) Initiative

Contacts:

New Jersey Department of Environmental Protection

Bob Hazen, Office of Science

Madhu Guru, P.E., Land Use Management

Leslie McGeorge, Water Resource Management

Kathleen Walz, Natural and Historic Resources



► 1st WPP (2014-2018) NJDEP Five Core Elements

1. Monitoring & Assessment
2. Regulation
3. Voluntary Wetland Restoration, Creation, Enhancement and Protection **and Improved Coastal Shoreline Resiliency**
4. Water Quality Standards for Wetlands
5. **Outreach & Education**

New Jersey Wetland Program Plan 2019-2022



Second Iteration, March 2019

Prepared by:

New Jersey Department of Environmental Protection pursuant to
The United States Environmental Protection Agency
Enhancing State and Tribal Programs Initiative

Key Contacts:

New Jersey Department of Environmental Protection
Metthea Yepsen, Nick Procopio, Division of Science & Research
Jill Aspinwall, Larry Torok, Land Use Management
Leslie McGeorge, Jay Springer, Water Resource Management
Iman Olguin-Lira, Site Remediation & Waste Management
Kathleen Walz, Natural and Historic Resources

New Jersey Pinelands Commission

John F. Bunnell

New Jersey Highlands Council

Keri Green



➤ Six Core Elements

1. Monitoring & Assessment
2. Regulation
3. Voluntary Wetland Restoration, Creation, Enhancement and Protection and Improved Coastal Shoreline Resiliency
4. Wetlands Water Quality Standards
5. Adaptation, resilience and mitigation in a changing climate
6. Outreach & Education

New Jersey Wetland Program Plan 2023-2027



Third Iteration, December 2022

Prepared by:

New Jersey Department of Environmental Protection pursuant to
The United States Environmental Protection Agency
Enhancing State and Tribal Programs Initiative

Key Contacts:

New Jersey Department of Environmental Protection

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New Jersey Pinelands Commission

John F. Bunnell

New Jersey Highlands Council

Kelley Curran

New Jersey Sports and Exposition Authority

Terry Doss

➤ Seven Core Elements

1. Monitoring & Assessment
2. Regulation
3. Voluntary Wetland Restoration, Creation, Enhancement and Protection and Improved Coastal Shoreline Resiliency
4. Wetlands Water Quality Standards
5. Adaptation, resilience and mitigation in a changing climate
6. Outreach & Education
7. **Environmental Justice**

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

Division Of Science & Research

Bureau of Environmental Assessment

Water Resource Management

Bureau of Freshwater & Biological Monitoring

Bureau of Environmental Analysis Restoration and Standards

Watershed And Land Management

Watershed Protection & Restoration

Land Resource Protection

State Parks, Forests & Historic Sites

Bureau of Forest Management

Office of Natural Lands Management

State Park Service

Fish And Wildlife

Office of Environmental Review

Contaminated Site Remediation & Redevelopment Program

Division of Enforcement, Technical & Financial Support

Bureau of Environmental Evaluation and Risk Assessment (BEERA)

Air Quality, Energy & Sustainability

Climate Change, Clean Energy & Sustainability

Climate Resilience

Climate Resilience Planning

Community Investment & Economic Revitalization

Green Acres

Natural Resources Restoration

Department of Information Technology

Bureau of GIS

Commissioner's Office

Office of Environmental Justice

NEW JERSEY HIGHLANDS COUNCIL

Kelley Curran, Carolyn Klaube

NEW JERSEY SPORTS AND EXPOSITION AUTHORITY

Terry Doss

NEW JERSEY PINELANDS COMMISSION

John F. Bunnell, Kim Laidig

The 3rd Iteration of the NJ WPP (2023-2027) was written by an interdisciplinary team of 27 scientists in 17 Programs within the NJDEP, and several scientists in the Pinelands and Highlands Commissions and the NJSEA.





WPP Outline

- List of Contributors
- Introduction
- Core Element Tables
- Historical progress by Core Element

Core Element 1: Monitoring and Assessment

GOAL: To define ways to evaluate wetland condition to understand and preserve important wetland functions and ecosystem services that wetlands provide, including surface-water and ground-water quality, flood control, coastal storm surge detention, nutrient transformation, sediment and particulate retention, carbon sequestration, shoreline stabilization, and provision of plant and wildlife habitat.

OBJECTIVE 1: Develop a monitoring and assessment strategy using a multi-tier approach and testing innovative wetland condition and function assessment protocols.

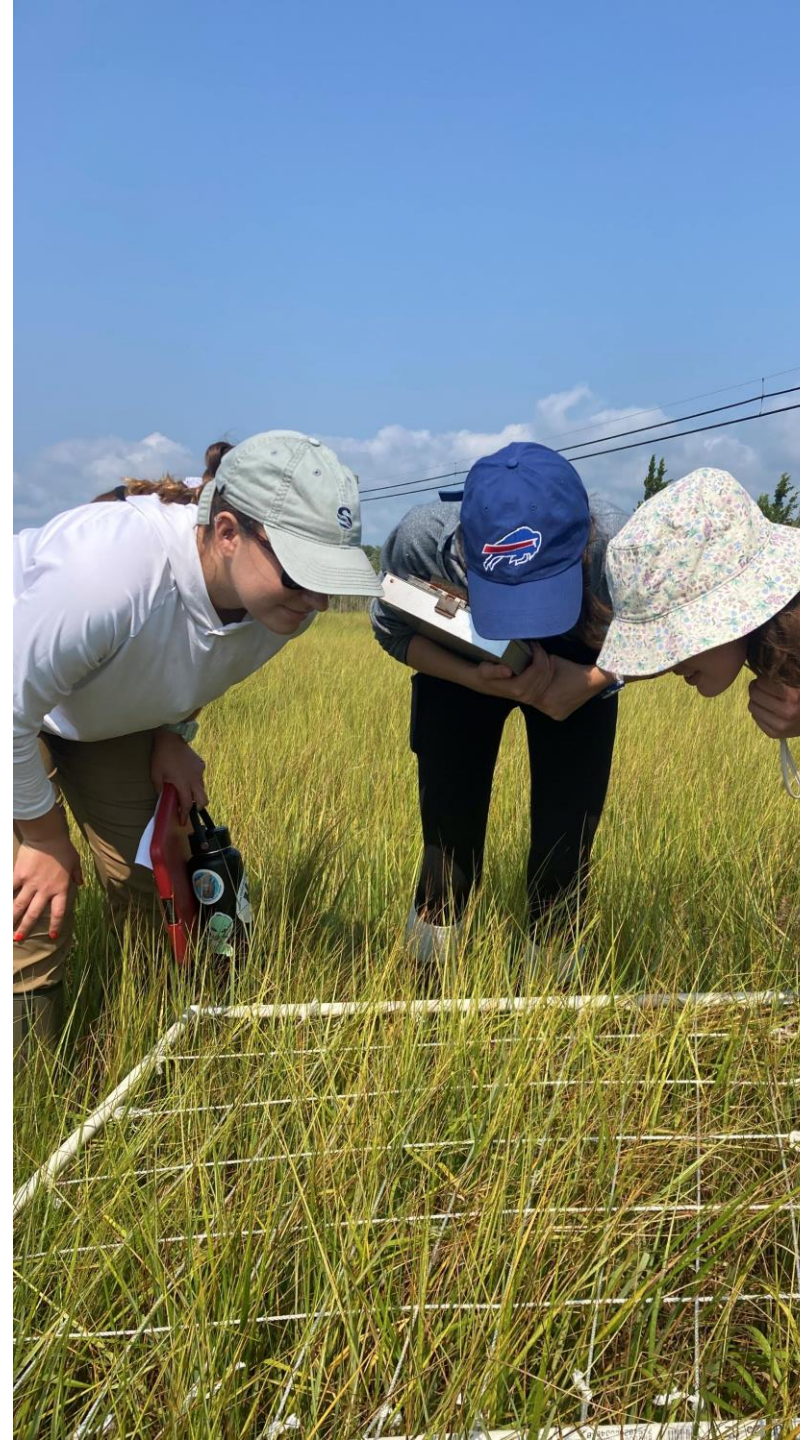
Action 1: Identify program decisions and long-term environmental outcome(s) that will benefit from a wetland monitoring and assessment program					
ACTIVITY	2023	2024	2025	2026	2027
Update and codify long-term wetland-related environmental goals in agency plans (e.g., DEP Networked Wetland Plan)	X			X	
Continue to identify programs that will ultimately use monitoring data (e.g., track trends, restoration, permitting) and meet with those State programs periodically to share information about progress and components of the strategy	X	X	X	X	X
Identify new ways that wetland data can be used to implement watershed planning, coastal resilience planning, and wetland restoration projects	X	X	X		
Action 2: Define wetlands monitoring objectives and strategies					
ACTIVITY	2023	2024	2025	2026	2027
Coordinate with relevant partners, in federal, state, tribal, and local agencies, universities, conservation organizations, National Estuary Programs, USEPA Regional and National wetland work groups	X	X	X	X	X
Continue participation in the NJ Tidal Wetlands Monitoring Network	X	X	X	X	X
Continue to develop a sustainable long-term monitoring and reference network for freshwater wetlands	X	X	X	X	X
Update wetland monitoring objectives and strategy. Define data needs and applications, including statistical analysis	X	X	X	X	X
Examine how to integrate wetlands monitoring strategy into existing and developing water quality monitoring					

Plan Overview



CORE ELEMENT 1: MONITORING & ASSESSMENT

GOAL: Define ways to evaluate wetland condition to understand and preserve important wetland functions and ecosystem services that wetlands provide





Monitoring & Assessment Objectives

OBJECTIVE 1: Develop a monitoring and assessment strategy

OBJECTIVE 2: Implement a sustainable monitoring program

OBJECTIVE 3: Conduct research to fill knowledge gaps

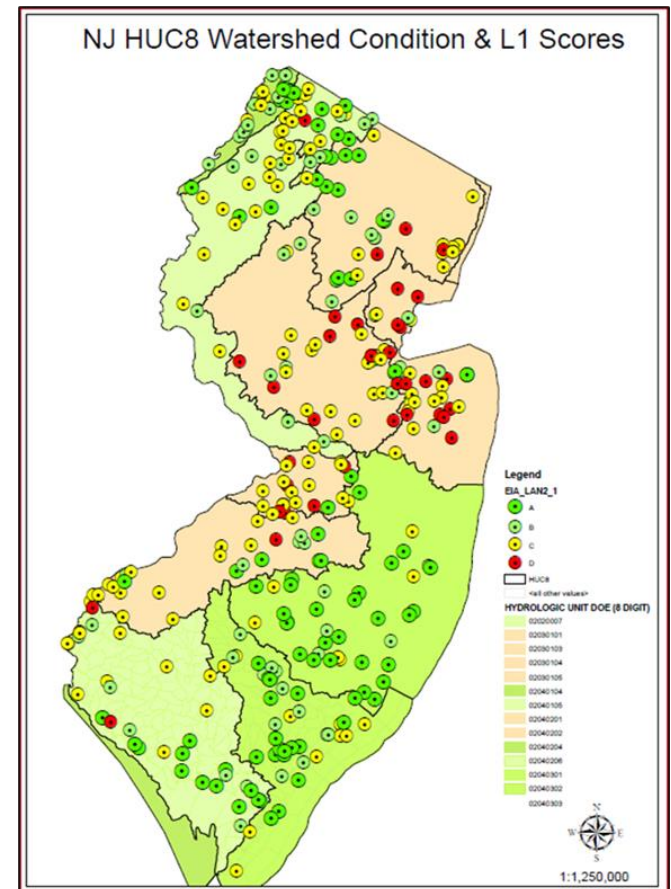
OBJECTIVE 4: Incorporate monitoring data into agency decision-making.

~100 activities identified

Activity: Establish a sustainable wetland monitoring network to research, monitor, and document trends

- NJ Tidal Wetland Monitoring Network
 - Sites
 - ~10 years of data
 - Partnerships
 - Funding
 - Methods
 - Database and website
 - Status and trends report
- NJ Freshwater (non-tidal) Wetlands Monitoring Network
 - Sites
 - 1 year of data (~2014)
 - Partnerships
 - Funding
 - Methods
 - Database and website
 - Status and trends report

Wetland Ecological Integrity Assessment (EIA) by Watershed





Core Element 2: Regulation

GOAL:

- Prevent wetland loss
- Preserve wetland function
- Replace unavoidable or unauthorized losses
- Increase the quantity and quality of wetlands
- OBJECTIVE 1: Improve existing wetland protection efforts
- ~40 activities identified

Regulation Examples:

Watershed & Land Management

Home  **eServices** Resources Land Resource Protection Watershed Protection Resilience Engineering Enforcement Help

Activity: Develop e-submission capabilities to allow for all permits to be electronically submitted

[Home](#) / **eServices**

Watershed & Land Management E-Services (DEP Online)

As part of its continued commitment to customer service and transformation, the Division of Land Resource Protection provides electronic services as an alternative to paper to allow property owners to apply online for certain land use determinations, authorizations and tidelands license renewals and ownership changes.

Quick Links for E-Services

-  Permit Checklists
-  NJDEP Online
-  Property Owner Certification Form
-  Public Notice Form
-  E-Services FAQ

Accessing the System

Users may access the electronic system at <https://njdeponline.com>. Follow the registration process and create an account. You must have a valid email address to create an online account. NJDEP Online offers two different types of services: Non-Registered and Registered.

Pay A Paper Invoice

You may pay a paper invoice online using our "[Pay a Paper Invoice](#)" service. You will need either an Invoice Number or NJEMS Bill ID which will be located on the invoice you've received.

Service Selector

Unsure which service to use? Select the type of permit you need to apply for from the drop down and find out!

Activity selection

Individual Permits (IP)

You will need to use the "Apply for a Land Use General Authorization or Permit" service. You can find all the info you need on [this page](#).



Resilient Environments and Landscapes - NJ PACT

Action: Improve wetland regulations, policies, or guidelines



Core Element 3:

Voluntary Wetland
Restoration, Creation,
Enhancement and Protection
and Improved Coastal
Shoreline Resiliency



Core Element 3

Goal:

- To prioritize and implement programs for ecological restoration and protection of wetlands
- Land acquisition, watershed planning, and development of a coastal shoreline resiliency program



CORE ELEMENT 3

OBJECTIVE 1: Clearly and consistently define restoration and protection goals

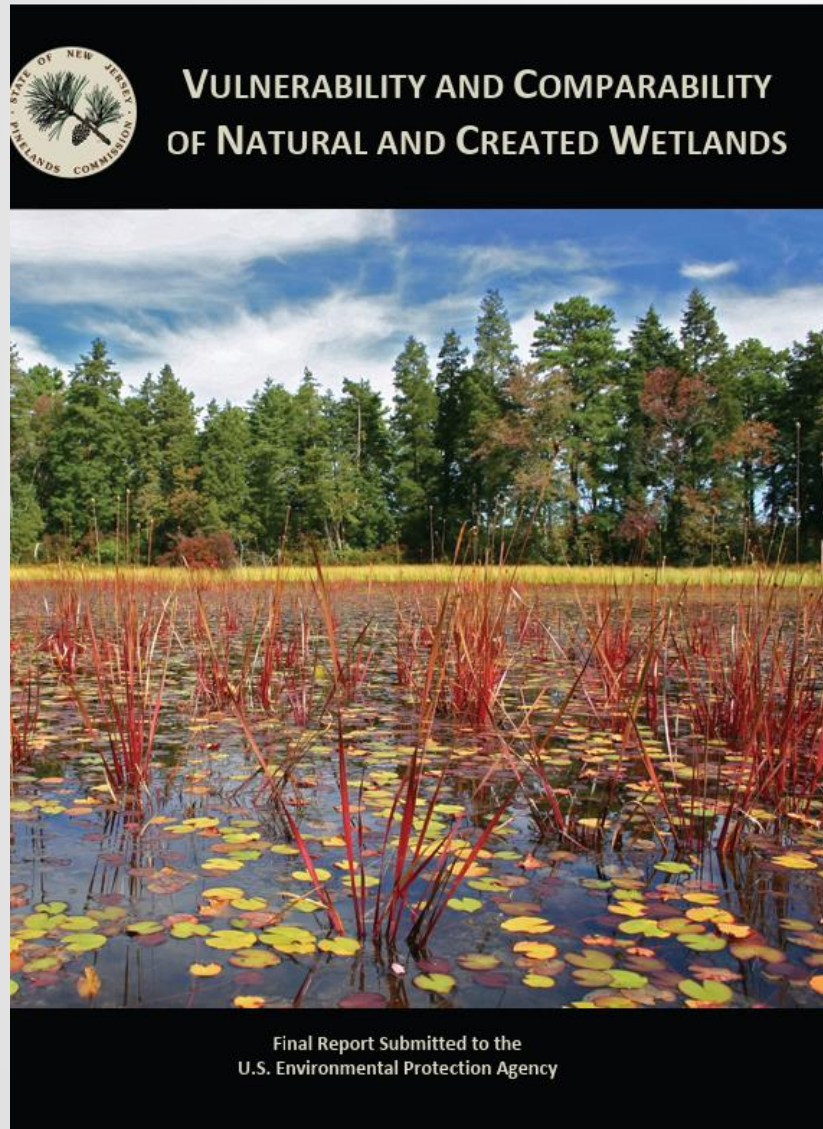
OBJECTIVE 2: Protect wetlands from degradation or destruction

OBJECTIVE 3: Increase wetland acres and improve wetland condition and function

OBJECTIVE 4: Public Education, Outreach, and Training

Example:

Activity: Develop guidance and training on the creation of resilient coastal and freshwater wetlands



Pinelands Commission
report “Vulnerability and
Comparability of Natural
and Created Wetlands” US
EPA project



Restoration Example:

Activity: Develop site-specific plans for wetland restoration, creation, and enhancement projects and monitor completed projects

State is very active in the funding, management, and monitoring of wetland restoration projects.



Core Element 4: Wetland Water Quality Standards



Goal

- To protect, maintain, and restore the quality of New Jersey wetlands in accordance with the Clean Water Act
- Set benchmarks for condition and/or function by wetland type
- Water Quality Standards will use monitoring data to define wetland quality

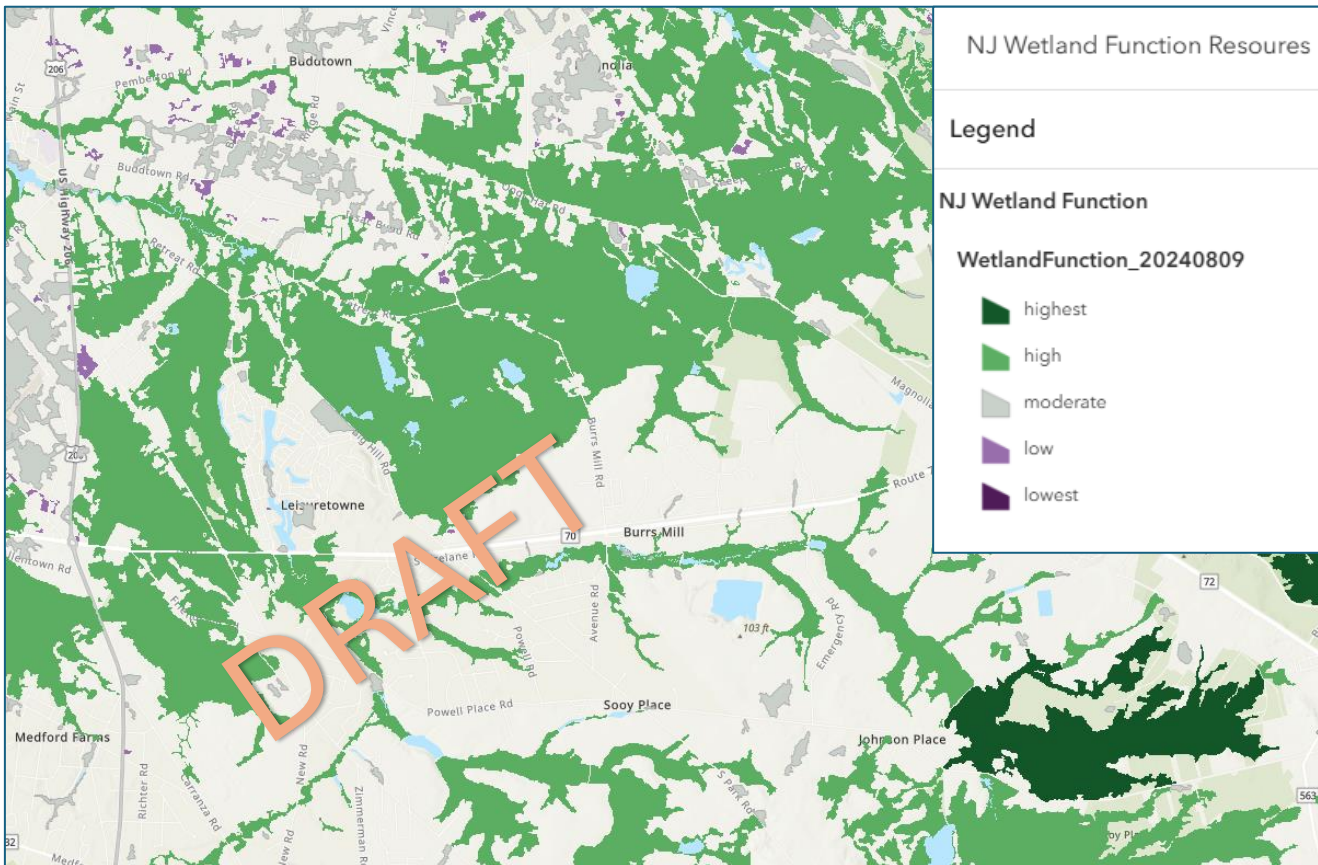
OBJECTIVE 1: Develop wetland-specific water quality standards.

~18 Activities identified

Example:

Activity: Explore options for differentiating and mapping wetland types by their functions and ecosystem services

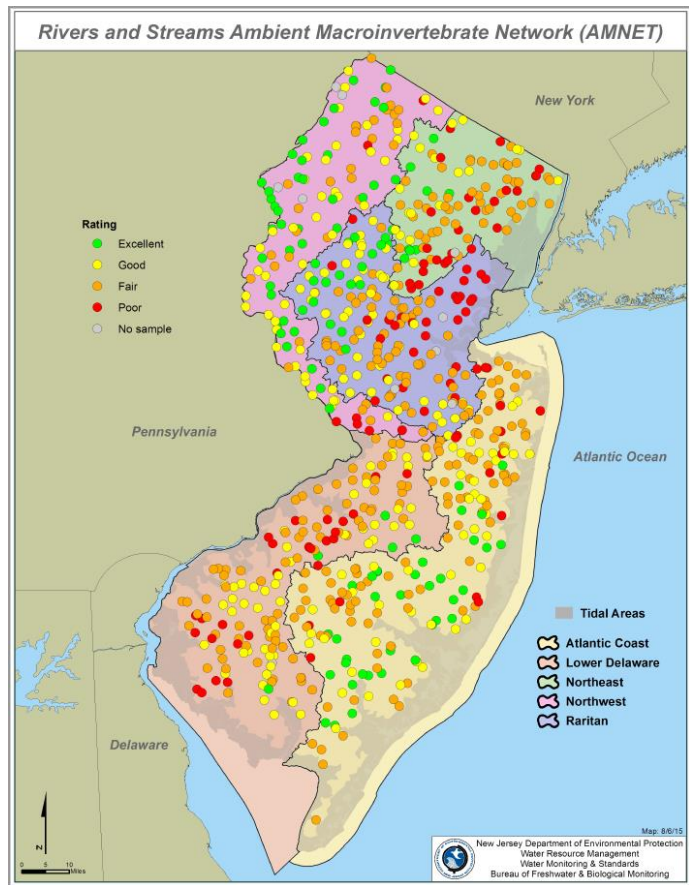
WatershedNJ Wetland Function Project



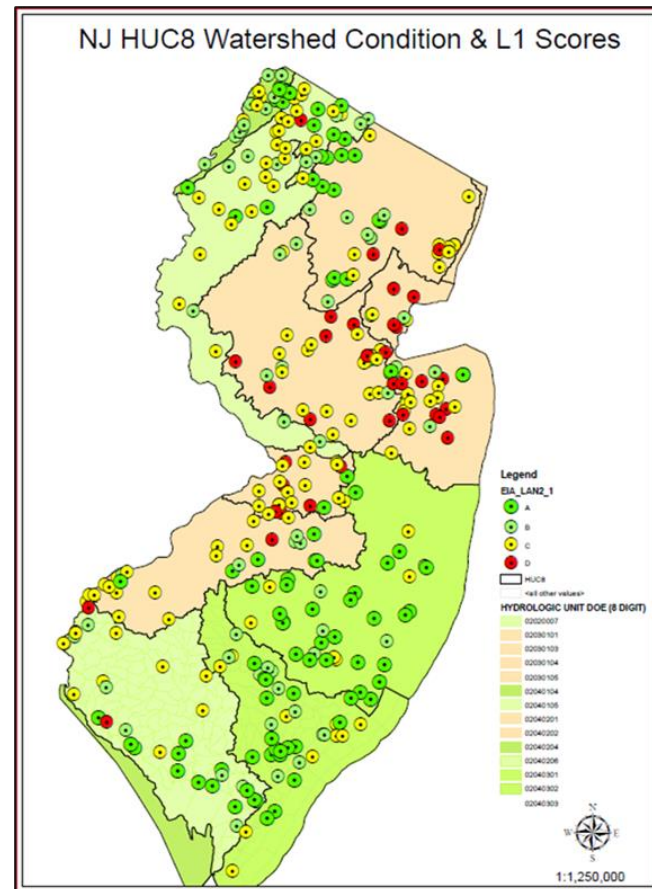
- WatershedNJ Wetland Functional layer
- Water quality improvement is one of the three functions assessed

Example: **Activity:** Conduct research on the relationship between groundwater quality and wetlands, and the influence of wetlands on downstream water quality

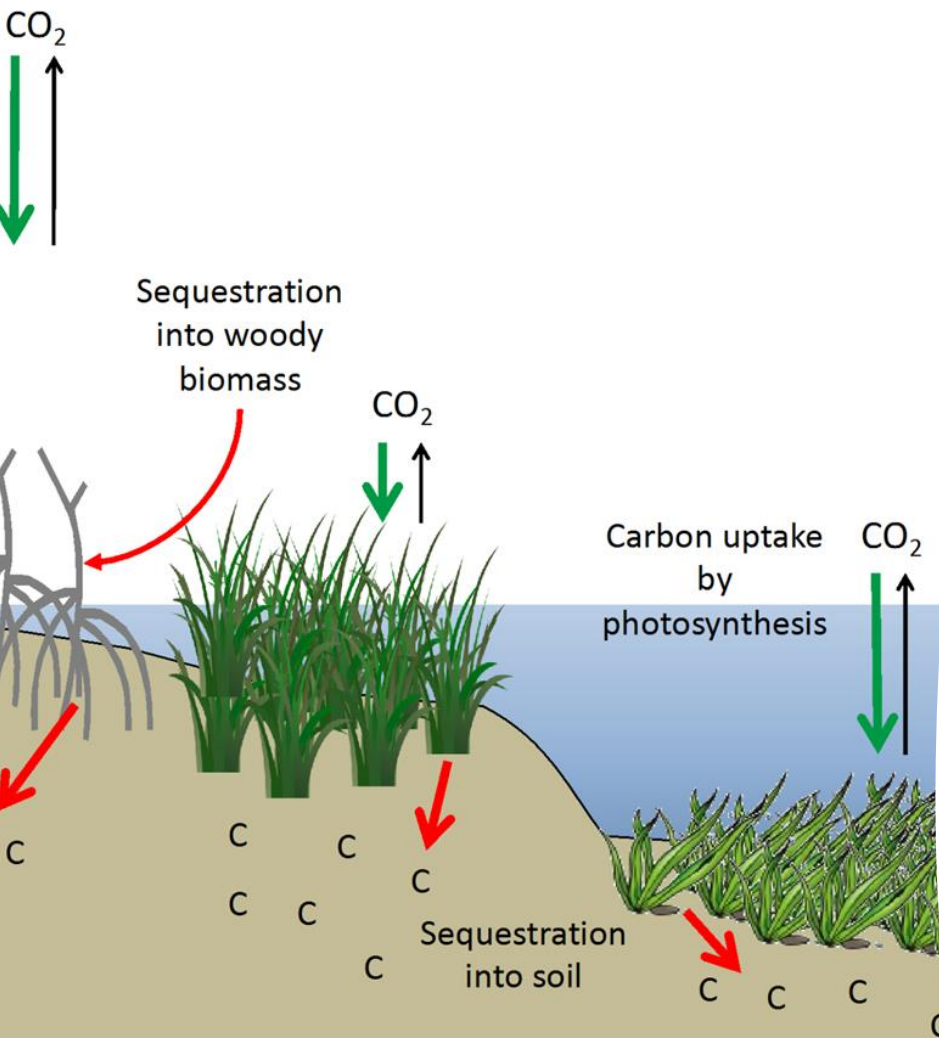
Ambient Macroinvertebrate Network (AMNET)



Wetland Ecological Integrity Assessment (EIA) by Watershed



Core Element 5: Adaptation, Resilience and Mitigation in a Changing Climate



GOAL:

- Reduce and respond to climate change
- Improve wetland resiliency
- Maximizing carbon sequestration
- Coastal resilience plans and policies that prioritize coastal ecosystems for habitat value and community resilience

A photograph showing a cross-section of a wetland core sample. The sample is a dark, moist, silty material, likely sediment, which is being measured with a yellow ruler. The ruler is placed horizontally across the middle of the sample, with markings from 13 to 40 visible. Above and below the sediment are clumps of green and yellow marsh grasses. A person's hand is visible at the top right, holding the ruler.

Climate Change Element Objectives

OBJECTIVE 1: To improve ecosystem resiliency and adaptation in the face of climate change.

OBJECTIVE 2: Develop a strategic initiative that identifies a prioritization methodology for tidal marsh and forest carbon sequestration projects.

OBJECTIVE 3: Develop and implement coastal resilience planning and actions that prioritize ecological-based community and habitat resilience.

OBJECTIVE 4: Increase the public awareness and knowledge of the value of wetlands for climate change mitigation and resilience.

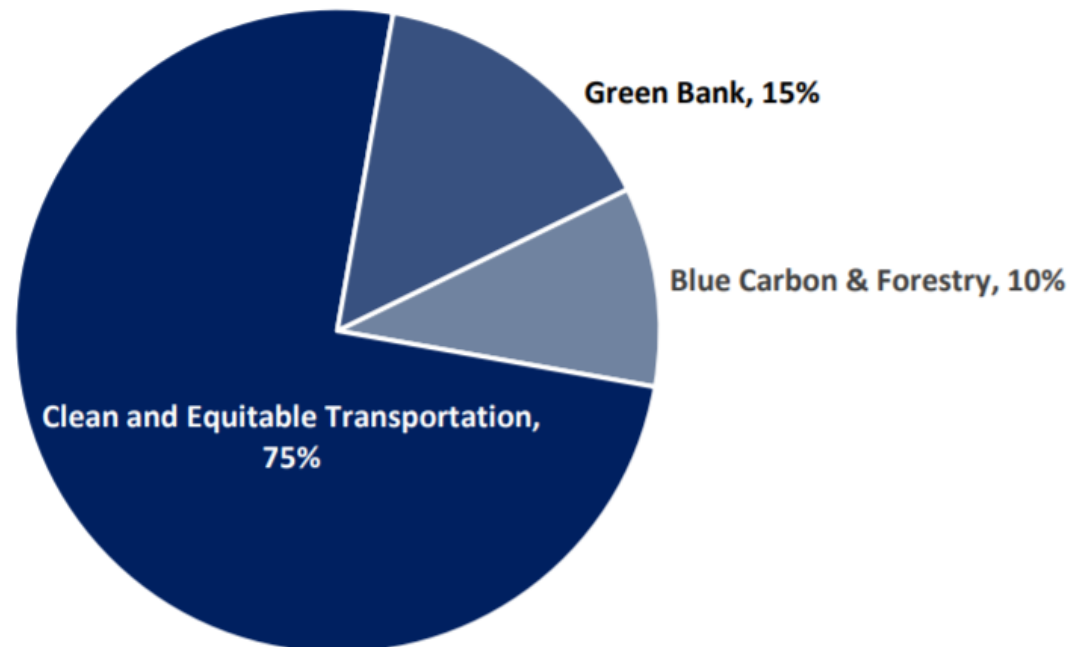
Example:

OBJECTIVE 2: Implement strategic initiatives that increase carbon sequestration in wetlands such as the Natural and Working Lands Strategy and RGGI Strategic Funding Plan

Natural Climate Solutions Grant Program funded ~\$15 Million worth of tidal wetland restoration projects in 2023



PERCENTAGE OF FUNDING BY INITIATIVE



Example:

Activity: Research non-tidal wetland capacity for net carbon sequestration, including fungal networks, by soil type (peat vs mineral) and wetland type (hydrology and vegetation)

- New Jersey Carbon Flux in Non-tidal Wetlands Pilot Project
- Study of net carbon flux in three forested wetland types (Atlantic White Cedar, Coniferous, Deciduous)
- Study in the Mulica River catchment





Core Element 6: Public Outreach and Education

GOAL:

- State actions that increase the public's understanding, awareness, and appreciation of wetlands
- Education, information, outreach, and involvement

OBJECTIVES

- One
 - Efforts to educate the general public on wetlands functions, benefits and values
 - Increase opportunities for recreational interaction
 - Raise awareness of regulations
- Two
 - Ensure long-term outreach, collaboration, and knowledge-sharing with the public
 - Focus on underserved groups and individuals including tribal and overburdened communities (OBC)



Example: Activity: Sponsor workshops and training opportunities for the public on wetland restoration and best management practices



NJ BU Summit on Beneficial Use of Dredged Material For Restoration

CELEBRATING 10 YEARS OF MAKING MUD MATTER

**DECEMBER 4, 2024
8:30 AM – 4 PM**

CO-HOSTED BY TNC (EVENT SPONSOR) & NJ DEP



Environmental Justice in New Jersey



GOAL:

- Provide and ensure equal access for overburdened communities to the benefits provided by wetlands
- Customized approach to assistance that enables and supports equitable access to and participation in the wetland programs provided by the State

OBJECTIVE: Enact principals of environmental justice in all facets of NJDEP wetland-related efforts

~40 Activities identified

Core Element 7: Environmental Justice

Examples:

Activity: Prioritize overburdened communities when selecting projects for restoration, creation, enhancement, and protection of wetlands

Cramer Hill Waterfront Park freshwater wetland restoration project - Camden



Natural Climate Solutions Grants – OBCs a priority



A close-up photograph of various succulent plants, likely from a wetland. The plants have thick, fleshy leaves in shades of red, pink, and green. Some plants have small, pointed leaves, while others have more rounded, bead-like leaves. The background is blurred, showing more of the same vegetation under bright, natural light.

Questions?

Wetland Program Plan Contact:
Metthea Yepsen

Bureau Chief

Division of Science and Research
NJ DEP

Metthea.yepsen@dep.nj.gov

T (609) 940-4027

<https://www.nj.gov/dep/dsr/wetlands/>

NJ IAC 2024 Annual Report Summary

March 28, 2025

Policy & Implementation Committee

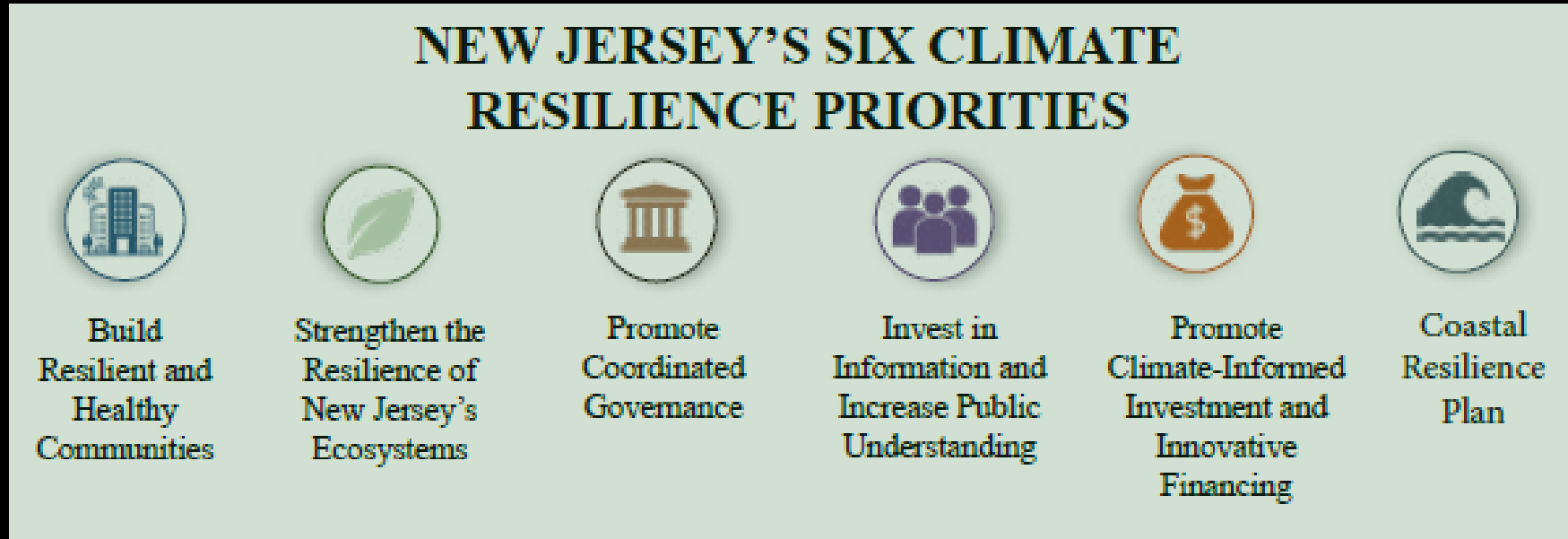


26 Member Agencies

NJ INTERAGENCY COUNCIL
ON CLIMATE RESILIENCE
**2024 ANNUAL
REPORT**

- Board of Public Utilities
 - Dept of State
 - Dept of Agriculture
 - Dept of Banking & Insurance
 - Dept of Transportation
 - Dept of Treasury
 - Economic Development Authority
 - Dept of Children & Families
 - Highlands Council
 - Pinelands Commission
 - Dept of Community Affairs
 - Housing & Mortgage Finance Agency
 - Infrastructure Bank
 - NJ Transit
 - Office of Emergency Mgmt
 - Dept of Community Affairs
 - Dept of Education
 - Dept of Environmental Protection
 - Dept of Health
 - Dept of Human Services
 - Dept of Labor & Workforce Development
 - Dept of Law & Public Safety
 - Dept of Military & Veterans Affairs
 - Port Authority of NY & NJ
 - Sports & Exposition Authority
 - Turnpike Authority
- 
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2024 Achievements & Ongoing Efforts to Address the six Climate Priority Areas



Highlights 88 actions State agencies have taken in 2024 to adapt and respond to climate change.

To learn more: Click [here](#).

- IAC Work Plan
- Collaborative Activities of the Council (Work groups)
 - Outreach & Engagement Strategy
 - Extreme Heat Coordinated Communication
 - Vulnerability Assessment
- Activities of Member Agencies

1. Resilient & Healthy Communities

NJPACT REAL Rules (NJDEP)

State Hazard Mitigation Plan (NJOEM)

Resilient NJ

Climate Resilience Funding Directory

Blue Acres

Implementation of Flood Disclosure Law (Flood Risk Notification Tool)

NJ Extreme Heat Resilience Plan

2. Strengthen Ecosystem Resilience

Implementing
habitat connections
in applications for
crossings (DEP)

Climate smart
agriculture
strategies identified
(Ag)

Sustainable
agriculture grants by
Highlands Council
(Highlands)

Restoring Surface
Water Habitats
(DEP)

Ecological
Restoration & green
infrastructure
(NJDOT)

Water supply
monitoring for
harmful algal
blooms (DEP)

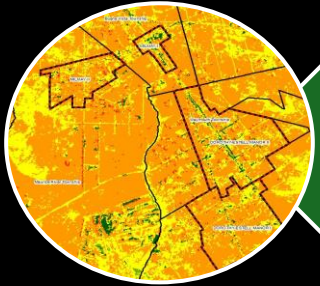
Resilience Planning
in the NJ
Meadowlands
(NJS&EA)

Shoreline & marsh
restoration (NJS&EA)

Pinelands Projects in the IAC Annual Report



Water Management (K-C) rule amendment
implementation

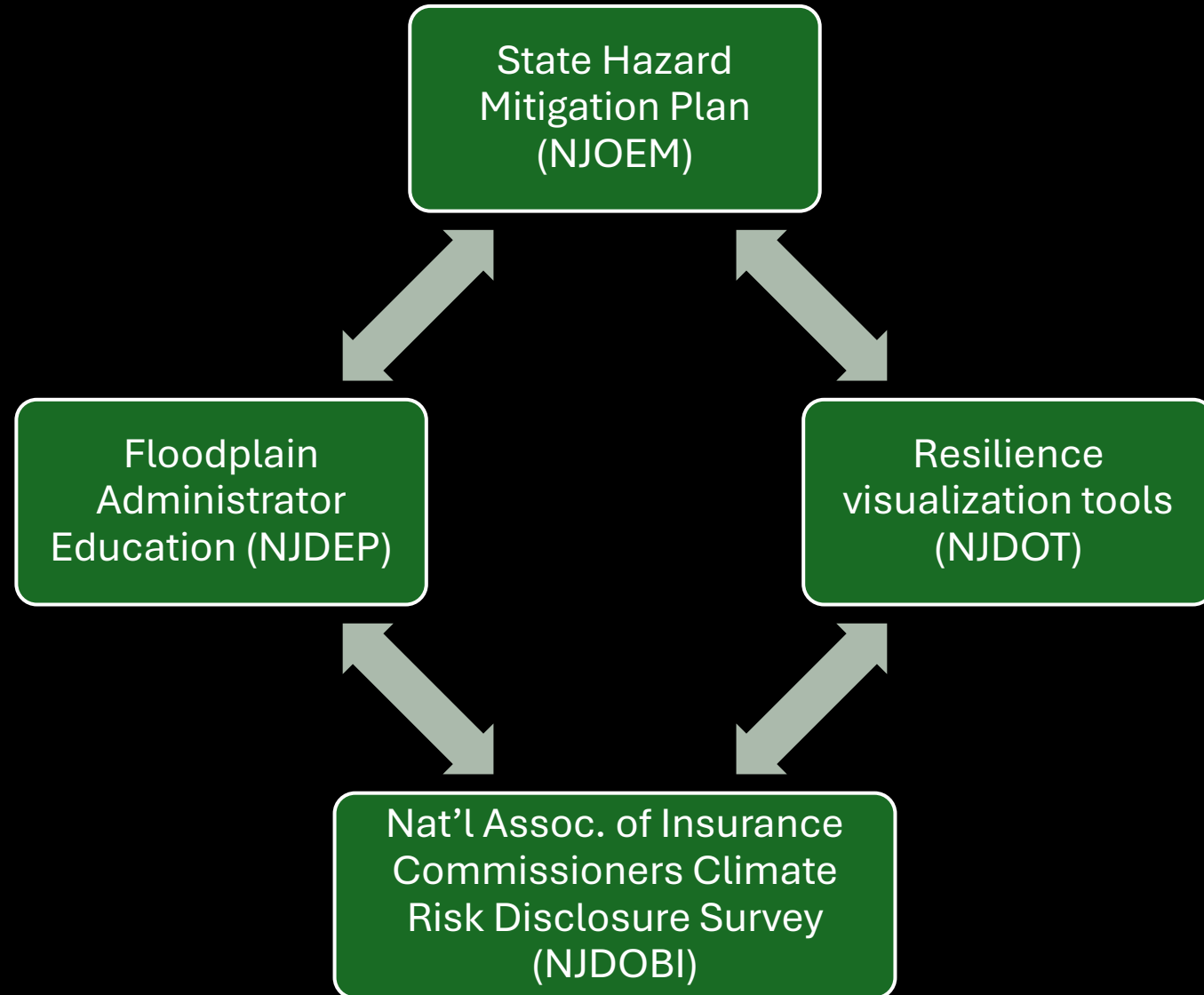


Pinelands Management Area vulnerability
assessments



Pinelands Conservation Fund acquisition priorities
and expanded target areas for climate impacts

3. Promote Coordinated Governance



4. Invest in Information and Increase Public Understanding

- Climate Change Public Education Outreach Campaign (DEP)
- K-12 Climate change education grants (EDU)
- Heat Hub and Heat-related illness Dashboard (DEP)
- Community resilience videos on municipal resilience work in Stafford Township and in the City of Lambertville (DEP)
- Clearinghouse website for climate science (DEP)
- Americorps Training to expand climate response skills (DEP)
- MyCoast photo challenge (DEP)
- Updating current science on Sea-level Rise and Coastal Storms and climate model projections (DEP)

5. Promote Climate-informed Investments & Innovative Financing

ASSEMBLY, No. 3829

STATE OF NEW JERSEY

INTRODUCED JUNE 17, 1985

By Assemblyman MARSELLA

AN Act authorizing the creation of a debt of the State of New Jersey by issuance of bonds of the State in the sum of \$30,000,000.00 for the purpose of providing grants and loans to local units of government in the pinelands area for infrastructure capital projects necessary to accommodate development in the regional growth area; providing the ways and means to pay the interest on the debt and also to pay and discharge the principal thereof; providing for the submission of this act to the people at a general election and making an appropriation therefor.

Funding for hazard mitigation and resilience projects (I-Bank and NJOEM)

Competitive grants for storm recovery and mitigation in infrastructure (DCA)

Web-based applications and guidance for financing drinking water quality and reliability projects (I-Bank and DEP)

Requirements to incorporate climate change considerations into planning & design of State Revolving Fund projects (DEP)

Ready to be Resilient Stormwater and Resilience Funding program (DEP)

Finance assistance for private sector resilience (EDA)

Site assessment protocols & project design for sustainable and resilient housing to apply for competitive 9% tax credit awards

6. Coastal Resilience Plan

- Climate Ready NJ - Coastal Management Program received \$72.4 million to implement a 5-year program to establish and expand community resilience through planning, project design, and implementation
- Tidal wetland monitoring and assessment (NJS&EA)

Takeaways and next steps

High level of effort across all state agencies

- Number of activities
- Number of agencies

Need for coordination and integration across agencies

- IAC direction
- Results

Activities that intersect Commission projects and goals

- Open space acquisition
- Ready to be Resilient Stormwater and Resilience Funding Program
- Infrastructure

Consider Commission next steps

- Watershed improvement plans
- Community planning for resilience

[nj-iac-2024-annual-report.pdf](#)