

PINELANDS CLIMATE COMMITTEE MEETING

This meeting was conducted remotely

All participants were present via Zoom conference

The public could view/comment through Pinelands Commission YouTube link:

<https://www.youtube.com/channel/UCBgpC8sbR3Acrjo7ppxs3Uw>

Meeting ID: 844 3799 7322

February 25, 2022

Immediately following the 9:30 a.m. Policy & Implementation Committee Meeting

MINUTES

MEMBERS IN ATTENDANCE: Chairman Mark Lohbauer, Shannon Higginbotham, Jerome H. Irick, and Edward Lloyd

MEMBERS ABSENT: Alan Avery

OTHER COMMISSIONERS PRESENT: Chair Laura Matos, Theresa Lettman

STAFF PRESENT: Acting Executive Director Susan R. Grogan, Stacey P. Roth, Jessica Lynch, Charles Horner, Ed Wengrowski, Brad Lanute, Katherine Elliott, Steven Simone, Trent Maxwell, John Bunnell, Ernest Deman, Devin Walker, Paul Leakan, and Dawn Holgersen. Also present was Janice Venables, with the Governor's Authorities Unit.

1. Call to Order

Chairman Lohbauer called the Pinelands Climate Committee meeting to order at 10:39 a.m.

2. Adoption of minutes from the December 1, 2021 Pinelands Climate Committee meeting

Commissioner Higginbotham moved the adoption of the minutes of the December 1, 2021 Committee meeting. Commissioner Lloyd seconded the motion. All voted in favor.

3. Update on outgoing Pinelands Commission office initiatives

Local Government Energy Audit

Ms. Grogan said that the Commission was approved for the local government energy audit program. She said that Jessica Lynch, the Commission's Business Services Manager, hosted a site visit to inspect the Commission's offices.

Ms. Lynch said that on January 19, 2022, there was a full facility walkthrough. She said the consultant, through the Board of Public Utilities (BPU), was from The Research Corporation (TRC). She said they took many pictures during the visit.

She said that the Commission has received draft audit reports. She said it is in two parts. The first one is for the Richard J. Sullivan (RJS) Building. The second one is for the combined units of Fenwick Manor, the carriage house, and the barn, as they are on a campus meter. She said that the draft reports need to be reviewed within 30 days, then the reports will be finalized. She mentioned the possibility of having a presentation of the results to the Commission.

Chairman Lohbauer mentioned that the Batsto Visitors Center will be using a geothermal unit to provide their facility with heating and cooling. He suggested that it could be a guide for the Commission to use for more efficient heating and cooling.

Rain garden design and installation

Paul Leakan, the Commission's Communications Officer, provided an update on a project to install a rain garden at the Commission's office.

He said that, since the last meeting, the Commission has entered into an agreement with Rutgers Cooperative Extension to design and oversee the installation of the rain garden. He said the services will cost about \$4,000.

Mr. Leakan said that the preferred location has been selected for the placement of the rain garden. He said that it will be near the front and side entrances to the RJS Building. He said the rain garden will have an area of about 650 square feet. He said there will also be a bioswale, which is similar to a rain garden, but it conveys water and allows some infiltration.

He said that a concept drawing is forthcoming. He said the project manager came out on the same day as the energy audit. He said they conducted a two-hour survey. He said that they used a measuring tool that will upload information into architectural software. He mentioned that 181 photos were taken.

Mr. Leakan said that the drafted drawings should be completed by March 16th. He said those drawings will be reviewed for possible feedback. He said that upon signoff, the project will move on to receiving signed engineering drawings. From there, he said, there will be a determination of a contractor for any digging. He also said that plants will then be selected, and supplies will be ordered. He said he provided Rutgers with a list of native Pinelands plants.

He said that there will also be a decision on the placement of a wayside panel to educate visitors on the purpose of the rain garden. He suggested that the Commission staff could create the images for the panel.

In response to Chairman Lohbauer's question as to the timeframe for the project, Mr. Leakan said that Rutgers will provide a timeline, and it is anticipated that the project will start in the spring.

Chairman Lohbauer praised Mr. Leakan for providing a list of native Pinelands plants. Mr. Leakan emphasized the importance of the Commission's list to provide clarity on the subject. He said that the Commission is committed to using only native Pinelands plants in the construction of the rain garden.

Commissioner Irick commended Mr. Leakan for his work and asked if signage will be used to identify individual plants. Mr. Leakan replied that it has been done in other garden projects at the Commission's headquarters. He said that they will use the same types of markers.

4. Update on State initiatives

Ms. Grogan indicated that the state is involved in a number of initiatives. She said they were put on the agenda to make the Commissioners aware of the State's efforts and how the Commission fits in to them.

New Jersey Interagency Council on Climate Resilience

Ed Wengrowski, the Commission's Environmental Technical Coordinator, presented a slideshow on the New Jersey Interagency Council on Climate Resilience (NJIAC) (*attached to these minutes*).

Mr. Wengrowski mentioned that the Commission had received an invitation to participate on the Council. He said that Commission staff will be asked to contribute to the work of the Council.

He said that the Council was created through Executive Order No. 89, which was signed on October 2019. He said that it was established to develop short- and long- term action plans to promote the long-term mitigation, adaptation and resilience of the State's economy, communities, infrastructure and natural resources.

He said the Council will support the development and implementation of the State's Climate Change Resilience Strategy.

Mr. Wengrowski said that the NJIAC is Chaired by Jane Cohen, Executive Director of the Office of Climate Action and the Green Economy. He mentioned that the former Vice-Chair was the State's first Chief Resilience Officer, Dave Rosenblatt, who retired at the end of 2021. He said that the new Chief Resilience Officer is Nick Angarone of the New Jersey Department of Environmental Protection (NJDEP) Coastal Management Program.

He said that NJIAC held its first meeting in December 2019 and the participating agency liaisons have met monthly since August 2021. He said that the Commission was invited to join the Council in October 2021.

He said that Susan Grogan, Acting Executive Director, serves as the Commission's Principal Member. Mr. Wengrowski is the Commission's Primary Liaison to the Council.

Mr. Wengrowski said the NJIAC issued the NJ Climate Change Resilience Strategy in October 2021. He said the six identified priorities are to build resilient and healthy communities, strengthen the resilience of NJ's ecosystems, promote coordinated governance, invest in information and increase public understanding, promote climate-informed investments and innovative financing, and development a coastal resilience plan.

He said that the Council has recently developed an Operating Principles document. He said that document establishes the NJIAC governance structure, outlines expectations for primary liaison members, and sets the meeting structure for cabinet-level meetings, primary liaison meetings, working group meetings and Steering Committee meetings.

He said the Council is currently developing a workplan document.

Mr. Wengrowski said that the Commission will be asked to develop an action plan for implementation that addresses the items identified in Executive Order No. 89. He said the Commission will also be asked to provide periodic updates to the Council on Commission actions in furtherance of meeting the objectives in the Executive Order.

He said that the work of the Climate Committee will be brought to the NJIAC.

Chairman Lohbauer asked if the NJIAC has given the Commission a timeframe to develop an action plan. Mr. Wengrowski replied that it has not been specified. He went on to say that the Vice-Chair is working through the agencies to provide updates. He said that it is likely that within the coming months, up to 12 months, the Commission will be asked to make a presentation.

Chairman Lohbauer also asked if the NJIAC has established an outline for what should be in the plan. Mr. Wengrowski said yes, and that it is in development. He said that all of the agencies are participating in the development of that outline.

In response to Chairman Lohbauer's question about Committee input, Mr. Wengrowski said that Commission staff will be looking to the Committee for the actions that will be presented to the Council.

Forest Stewardship Task Force

Chairman Lohbauer mentioned that last year there were several Legislative bills regarding forestry. He said that through Stacey Roth, the Commission's Chief of Legal and Legislative Affairs, the Committee had discussions on the matter. He said she kept them updated. He also said that those bills did not progress in the Legislature.

He said that Senator Bob Smith is interested in replacing the bills and may be seeking guidance from the Forest Stewardship Task Force. Chairman Lohbauer said that he is interested to see what role the Commission staff may have in the Task Force, considering how much the previous bills would have impacted the Pinelands.

Ms. Grogan said that there isn't much to update beyond what is already posted online and in newspapers. She said that Senator Smith recently announced the formation of the Task Force and named four co-chairs. She said the representatives are from the NJ Audubon Society, NJ Forestry Association, NJ Conservation Foundation, and Sierra Club. She said there has been no information on other members of the Task Force.

Ms. Grogan said that staff sent an email to the designated address, requesting an opportunity for the Commission to participate. She said the email outlined the importance of forestry in the Pinelands. She said that the Commission received a form response expressing thanks for showing interest.

She said the purpose of the Task Force is to study and identify ways the State can better manage forests in order to fight climate change, prevent forest fires, and to improve the ecosystem and water quality.

Ms. Grogan said that the Task Force will meet, gather feedback, and speak with stakeholders to compile a report to submit to the Senate Environment and Energy Committee. She said there is no timeline for this to occur.

She said that staff will monitor the Task Force for updates and may reach out to Senator Smith's office as well.

Commissioner Irick expressed disappointment in the generic response received from the Task Force. He said that the Commission should have a full seat at the table and suggested sending a formal letter to Senator Smith with a request for such.

Chairman Lohbauer commented that it seems that Senator Smith is aiming to receive input from the public on this matter. Ms. Roth confirmed that currently there are no agencies linked to the Task Force. She mentioned that the Commission could send a letter to Senator Smith or try to reach out to the co-chairs.

Commissioner Irick stressed that Senator Smith should be reminded of the importance of the forest protection plan in the Pinelands.

Chairman Lohbauer suggested that the letter to Senator Smith note the existence of the Climate Committee and its active interest in forestry management issues in the Pinelands. He said that he would like to see the Commission have a role in the Task Force.

Commissioner Lloyd and Chair Matos echoed the sentiment expressed by Commissioner Irick and Chairman Lohbauer. Chairman Lohbauer also mentioned that about half of the forested land in the state is in the Pinelands.

Natural and Working Lands Strategy

Ms. Grogan presented a slideshow on the Natural and Working Lands Strategy (NWLS) (*attached to these minutes*).

Ms. Grogan said that the Natural and Working Lands Strategy is a joint effort between NJDEP and the New Jersey Department of Agriculture.

She said that a scoping document was released on NJDEP's website in December 2021. She said there will be targeted stakeholder sessions held in spring/summer 2022. She said the goal is for a NWLS final document to be released later in the year.

Ms. Grogan said the scoping document identifies recommended strategies in the subject areas of forests, agricultural lands and aquaculture, grasslands, wetlands, developed lands, and aquatic resources and habitats.

She said that the scoping document topics for forestry will be to preserve forested areas to avoid conversion, forest restoration, pro-forestation, a wildfire tracking system and prescribed burns, active forest management best management practices (BMPs), and to continue forest stewardship programs for private landowners.

Ms. Grogan said the agricultural lands and aquaculture priorities are to incentivize climate-friendly agricultural practices, create landowner assistance programs, reduce tillage practices and disturbances to limit carbon loss, plant carbon-sequestering cover crops, encourage "precision agriculture" which minimizes inputs, adopt aquacultural practices that consider ocean acidification, and expand technical assistance and cost-share assistance to encourage conservation practices on farms. She said they are goals the NJDA and State Agriculture Development Committee (SADC) have been working on for years.

She said the topics outlined for grasslands are to preserve grasslands to avoid conversion, encourage the creation of grasslands, minimize soil disturbance in pastures to reduce carbon loss, restore degraded grasslands by increasing plant diversity and planting productive species, and to increase production of forage for livestock.

She said the wetlands goals are to create, enhance and restore tide marshes and Atlantic white cedar wetlands, protect and rebuild salt marsh edges with living shorelines, remove tidal restrictions to increase saltwater flow into wetlands, preserve upland areas that are expected to become salt marshes as sea levels rise, preserve tidal marshes to avoid conversion, and develop blue carbon BMPs.

Ms. Grogan said the focus for developed lands is to prioritize funding for good forest strategies in urban forests, promote urban greening and reduction of impervious surfaces, expand the Urban & Community Forestry program to encourage and protect planting, target preservation of forested and grassland areas in urban and developed areas, and to encourage green infrastructure such as stormwater BMPs.

She said the aquatic resources and habitats goals, which are primarily coastal, are to restore and protect seagrass habitat, extend Marine Conservation Zone to seagrass beds, and to develop an ocean acidification plan to address impacts to fisheries, aquaculture, and ocean resilience. She said that these subjects are not particularly related to the Pinelands.

Chairman Lohbauer asked if the outcome of the NWLS could lead to CMP amendments. MS. Grogan replied that it is possible, although it is uncertain whether the strategy will go into enough detail for that to happen. She said some items may lead to prioritization for funding or grants.

In response to a question from Commissioner Lloyd, Ms. Grogan said that CMP amendments related climate change will be included in the Policy & Implementation Committee's April discussion and prioritization of CMP amendments.

Chairman Lohbauer commented that he is glad to see other agencies working on these issues. He said that it removes some of the burden on Commission staff.

5. Discussion of draft resolution to acknowledge the goals of the NJ Global Warming Response Act and frame the discussion of future CMP amendments related to climate impacts

Chairman Lohbauer commented that the idea for this resolution came from a member of the public.

Ms. Grogan said that Chairman Lohbauer identified three goals at the last Committee meeting. She said they were to draft a formal acknowledgement of the NJ Global Warming Response Act, look at the Commission's operations to see what can be done in-house, and move forward with consideration of CMP amendments.

She said to start, she looked back at the original resolution that was introduced by the Committee. She said that it did create a good framework outlining the responsibilities of the Committee. She said that any new resolution should build upon it.

She said the resolution was drafted to amend and supplement the original resolution and to mention more about the NJ Global Warming Response Act. She said it also references the State's goals and the NJDEP 80x50 Report to reduce emissions to 80 percent below the 2006

levels by the year 2050. She said it is important for the Commission to formalize its commitment to meeting those goals.

Ms. Grogan said the Committee will consider the strategies in the NJDEP 80x50 Report as it develops and considers policies and possible CMP amendments relating to climate change.

She said that many state agencies are using the same wording and reports as they move forward. She said the resolution would be a good way for the Commission to formally recognize that it is looking at the same goals and documents.

Chairman Lohbauer expressed his appreciation in the approach taken for the resolution. He said it will be a good way to recognize that the Commission is mindful of maintaining consistency with the legislation in place.

Commissioner Lloyd moved the recommendation to forward the resolution to the full Commission. Commissioner Higginbotham seconded the motion. All voted in favor.

6. Public Comment

Fred Akers, from the Great Egg Harbor Watershed Association, mentioned an issue about dredge spoils. He said that during the last three months, he has processed three applications to take dredge spoils from the Brigantine/Atlantic City area and place it along the Tuckahoe River in Estell Manor and Corbin City. He said that the State has set up the process and it seems to be accelerating the amount of material being transferred from the coast to the Pinelands. He said, in those three months, the total cubic yards (cu. yd.) of material have been over 117,000. He said that at 20 cu. yd. per truck, it would amount to around 5,800 truckloads of dredge spoils moved to the Forest Area of the Pinelands.

He said that there is talk and work that has been done for engineering with nature and regional sediment management planning with the idea that, instead of digging dredge spoils and leaving a hole, to take that material and elevate marshes or expand islands that have been eroded to help with climate resilience. He said that he has made comments to the State and the Army Corps of Engineers and doesn't think he's getting anywhere. He said that he wanted to bring it to the attention of the Committee and the Commission. He is hoping that the Commission could help stop the dumping of dredge spoils in the Pinelands.

Chairman Lohbauer asked Mr. Akers if the activity had anything to do with the replenishment of beaches. Mr. Akers replied that it's in back bay areas that's relative to navigating boats. He said the sediment erodes off the marshes and builds up in the channels, making it shallow for the boats. He said it's an issue where Congressman Jeff Van Drew and the new Senator from Atlantic County are pushing for more dredging.

Chairman Lohbauer said that he is not aware of any applications relating to that activity. Mr. Akers said that Commission staff are aware of the situation.

Commissioner Irick asked if dredge spoils are moved to Estell Manor, would tree clearing be done to lay the spoils. Chairman Lohbauer said that he believes the Commission would not allow it.

Ms. Roth indicated that this activity is usually seen in the Pinelands National Reserve (PNR), where the Commission does not have primary jurisdiction. She said the Commission does provide comment to NJDEP on those matters. She said there is one application to the NJDEP to create a dredge spoils facility. She said that the Commission issued a letter stating that the facility would not be consistent with CMP water quality standards.

She went on to say that whenever fill is placed on a parcel in the Pinelands, it cannot exceed background in terms of its potential for contaminants or constituents within the soil. She said that comments are made to NJDEP when it relates to applications in the PNR. She said that NJDEP takes the position that applications do not have to be in strict compliance with the standards in the CMP; rather, they must be generally consistent with the Federal Act and intent, goals and objectives of the CMP.

To further answer Commissioner Irick's question, Ms. Roth said that NJDEP would be doing the permitting on tree clearing for those facilities. She said that staff is involved. Ms. Roth said that she and Branwen Ellis, a Commission Environmental Specialist, had discussions with NJDEP on the matter of placing dredge spoils. She said a recommendation was made that applications not be approved by NJDEP for placement of dredge spoils because of the possibility of contaminants in the soils.

In response to Chairman Lohbauer's question, Ms. Roth said that the matters she has seen have been in the PNR.

Charles Horner, the Commission's Director of Regulatory Programs, said that staff have received inquiries relating to the placement of dredge spoils. He said that upon receiving guidance that it must be demonstrated to be consistent with the CMP standard for non-degradation, the inquiries do not move forward to an application. He said that generally in the staff's experience, the dredge spoils have contained contaminants.

Rhyan Grech, from the Pinelands Preservation Alliance (PPA), mentioned the upcoming appearance being made by NJDEP Commissioner Shawn LaTourette at the Commission's March 11th meeting. She suggested that the Commission speak to Mr. LaTourette about the matter of dredge spoils and recommend aligning what happens in the PNR with the standards in the CMP. She said the Memorandum of Agreement (MOA) with NJDEP does state that it will uphold the goals and intent of the Pinelands Protection Act and the CMP. She said she would argue that non-degradation is an important goal.

Ms. Grech thanked Mr. Leakan for his update on the rain garden project. She said that it is wonderful that the project will use native Pinelands plants.

She mentioned that the PPA previously submitted a list of recommendations on climate change for consideration by the Commission. She said one of the recommendations is around plants. She said that under the CMP, no development can occur unless it avoids irreversible, adverse impacts to plants that are designated as endangered by the NJDEP. She said there is a list of 54 plant species. She said the PPA feels that the list is outdated. She recommends the language be amended to include plant populations listed as endangered and species of concern by the NJ Natural Heritage Program. She said it would align with the Highlands Protection standards.

Ms. Grech thanked the staff for the work being done with the State initiatives. She suggested that the Climate Committee meet monthly. She said it is critical to align with the State initiatives. She also said there is plenty that can be done in the Pinelands without waiting for the NJDEP or other State agencies. She said the situation with climate change calls for that kind of urgency.

Chairman Lohbauer thanked the PPA for its submission of recommendations. He said the recommendations have been circulated to all the Commissioners.

Jessica Rittler Sanchez said she is glad to see that the Commission is on the NJIAC.

She said regarding the Forest Stewardship Task Force, she had the opportunity to meet with Senator Jean Stanfield yesterday. She said she is interested in learning more about the Pinelands. She said Senator Stanfield is also supportive of the green amendments. She mentioned that Senator Stanfield is a member of the Senate Climate and Energy Committee. Ms. Rittler Sanchez suggested that Senator Stanfield may be a good contact regarding joining the Task Force.

Ms. Rittler Sanchez expressed concern that the NWLS only mentions protections for saltwater species, and not for freshwater.

She also asked how much stormwater runoff will be captured in the rain garden and if anything needs to be done for Fenwick Manor or the parking lot for future impacts.

Chairman Lohbauer commented that he didn't notice that the NWLS only addressed saltwater species. Ms. Grogan indicated there are specific sections on wetlands and aquaculture separate from the coastal goals. She said the freshwater goals may be grouped with the agricultural section of the document.

In response to Ms. Rittler Sanchez's question, Mr. Horner said when the RJS Building and parking area was constructed, a stormwater management basin was put in place to meet CMP standards. He said that while staff have not seen the final rain garden design, it will likely treat a small percentage of runoff. He said that it could be reviewed to see if another rain garden may be sited.

Ms. Grogan said that when Rutgers came to the property to inspect, they did identify options for additional rain gardens. She said one suggestion was to build a rain garden adjacent to Fenwick Manor. She said there were issues with large trees in between the buildings. She said it would be

something to look to in the future. She said the best approach was to tie in the rain garden with the newer building and existing stormwater basin.

Ms. Grogan mentioned that another meeting of the Climate Committee is scheduled for March 25, 2022. She said that suggestions can be made to herself or Chairman Lohbauer to be added to that agenda for discussion.

Chairman Lohbauer commented that he likes having the meetings monthly. He said that having the meeting after the P&I meeting has been successful.

Commissioner Irick complimented Ms. Grogan on her work managing all the challenges that have been brought to the Commission. Ms. Grogan replied with thanks and recognized the staff for their contribution. She said it was a group effort.

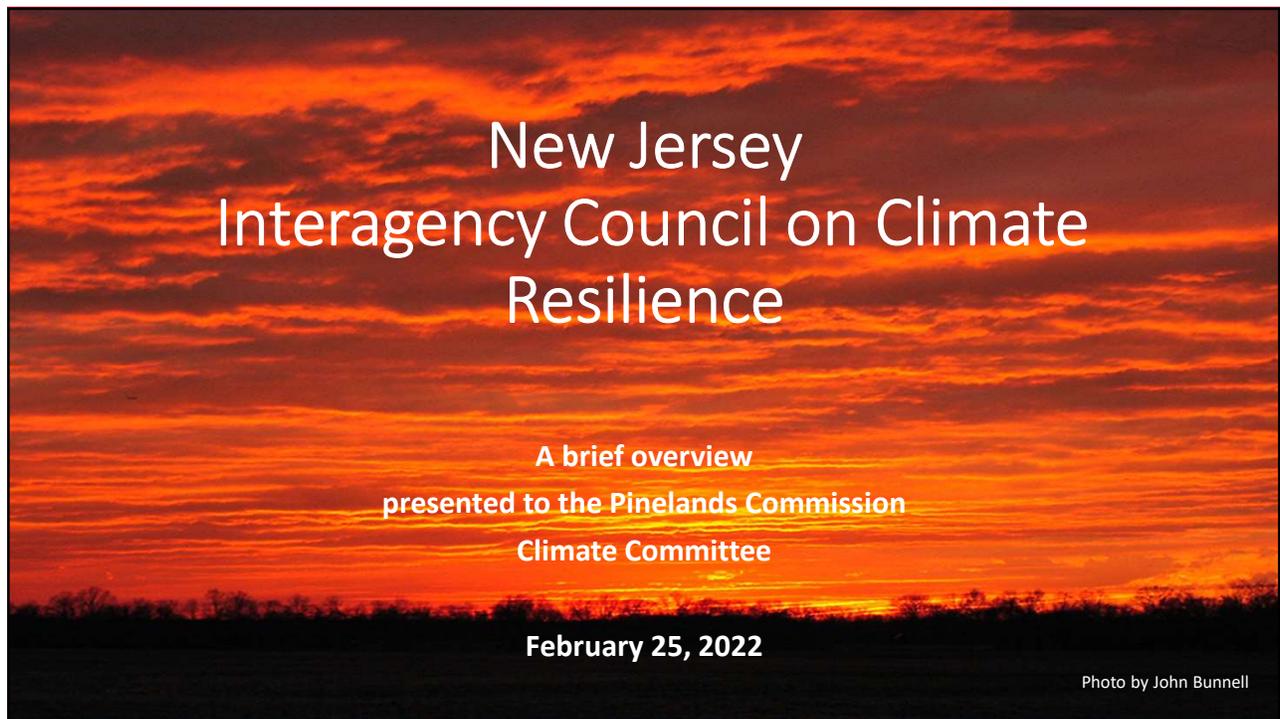
Chairman Lohbauer closed public comment at 11:50 p.m.

There being no further discussion, Commissioner Higginbotham moved the closing of the meeting. Commissioner Lloyd seconded the motion. The meeting concluded at 11:52 a.m.

Certified as true and correct

A handwritten signature in black ink, appearing to read "Dawn Holgersen", with a long, sweeping underline.

Dawn Holgersen
Office Assistant
March 15, 2022



1



- Interagency Council on Climate Resilience created through Executive Order No. 89
- Established to develop short- and long-term action plan to promote the long-term mitigation, adaptation and resilience of NJ's economy, communities, infrastructure and natural resources.
- The Council will support the development and implementation of the State's Climate Change Resilience Strategy

2

IAC Member Agencies

Department of Agriculture
Department of Banking and Insurance
Department of Environmental Protection
Department of Health
Department of Human Services
Department of Law and Public Safety
Department of Military & Veterans Affairs
Department of State
Department of Transportation
Department of the Treasury
Board of Public Utilities

Housing and Mortgage Finance Agency
Economic Development Authority
New Jersey Infrastructure Bank
New Jersey Transit
New Jersey Turnpike Authority
New Jersey Sports and Exposition Authority
New Jersey Office of Emergency Management
New Jersey Highlands Council
Pinelands Commission
Port Authority of New York and New Jersey

3



Photos by John Bunnell

The IAC is Chaired by Jane Cohen, Ex. Director of the Office of Climate Action and the Green Economy

Its former Vice-Chair was NJ's first Chief Resilience Officer, Dave Rosenblatt, who retired at the end of 2021

Since January 2022, Nick Angarone of NJDEP's Coastal Management Program is the state's new Chief Resilience Officer

The IAC held its first meeting in December 2019 and the participating agency liaison's have been meeting monthly since August 2021.

The Pinelands Commission was invited to join the IAC in October 2021.

Acting Executive Director Grogan serves as the Commission's Principal Member and Ed Wengrowski serves as the Commission's Primary Liaison to the Council

4

IAC Actions

Issued the New Jersey Climate Change Resilience Strategy in October 2021, with 6 identified priorities

- Build Resilient and Healthy Communities
- Strengthen the Resilience of NJ's Ecosystems
- Promote Coordinated Governance
- Invest in Information and Increase Public Understanding
- Promote Climate-Informed Investments and Innovative Financing
- Coastal Resilience Plan

Development of an Operating Principals document

- Establishes the IAC Governance Structure
- Primary Liaison member expectations
- Meeting structure for Cabinet-level meetings, Primary Liaison (Senior Staff) meetings, Working Group meetings and Steering Committee meetings

Working on a Council Workplan Document



5

What's next for the Pinelands Commission:

- Develop an Action Plan for implementation by the Pinelands Commission that addresses the EO 89 agency directives
- Periodically update the IAC on Commission actions in furtherance of meeting the objectives of EO 89.



6

Natural and Working Lands Strategy: NJDEP and Dept. of Agriculture

February 2022

1

Process

- Scoping Document released – December 2021
- Targeted Stakeholder Sessions – Spring/Summer 2022
- Final NWLS Strategy released – TBD 2022

2

Recommended Strategies

- Forests
- Agricultural Lands and Aquaculture
- Grasslands
- Wetlands
- Developed Lands
- Aquatic Resources and Habitats

3

Forestry

- Preserve forested areas so as to avoid conversion
- Forest restoration
- Proforestation
- Wildfire tracking system and prescribed burns
- Active forest management BMPs
- Continue forest stewardship program for private landowners

4

Agricultural Lands and Aquaculture

- Incentivize climate-friendly agricultural practices
- Create landowner assistance programs
- Reduce tillage practices and disturbances to limit carbon loss
- Plant carbon-sequestering cover crops
- Encourage “precision agriculture” – minimize inputs
- Adopt aquacultural practices that consider ocean acidification
- Expand technical assistance and cost-share assistance to encourage conservation practices on farms

5

Grasslands

- Preserve grasslands so as to avoid conversion
- Encourage creation of grasslands
- Minimize soil disturbance in pastures to reduce carbon loss
- Restore degraded grasslands by increasing plant diversity and planting productive species
- Increase production of forage (for livestock) through irrigation, introduction of earthworms, etc.

6

Wetlands

- Create, enhance and restore tide marshes and Atlantic white cedar wetlands
- Protect and rebuild salt marsh edge with living shorelines
- Remove tidal restrictions to increase saltwater flow into wetlands
- Preserve upland areas that are expected to become salt marshes as sea levels rise
- Preserve tidal marshes so as to avoid conversion
- Develop blue carbon BMPs

7

Developed Lands

- Prioritize funding for good forest strategies in urban forests
- Promote urban greening and reduction of impervious surfaces
- Expand Urban & Community Forestry Program (encourage and protect planting)
- Target preservation of forested and grassland areas in urban and developed areas
- Encourage green infrastructure (stormwater BMPs)

8

Aquatic Resources & Habitats

- Restore and protect seagrass habitat
- Extend Marine Conservation Zone to seagrass beds
- Develop ocean acidification plan to address impacts to fisheries, aquaculture and ocean resilience.