



State of New Jersey
THE PINELANDS COMMISSION
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PHILIP D. MURPHY
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Lt. Governor

General Information: Info@pinelands.nj.gov
Application Specific Information: AppInfo@pinelands.nj.gov

LAURA E. MATOS
Chair
SUSAN R. GROGAN
Executive Director

MEMORANDUM

To: Members of the Pinelands Climate Committee

From: Susan R. Grogan 
Executive Director

Date: April 11, 2023

Subject: Meeting materials

Enclosed please find the agenda for the Pinelands Climate Committee's upcoming meeting on Wednesday, April 19, 2023. We have also included the minutes from the February 15, 2023 Committee meeting.

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 will be able 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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PINELANDS CLIMATE COMMITTEE MEETING

April 19, 2023 – 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's YouTube channel:
www.youtube.com/c/PinelandsCommission

To Provide Public Comment, Please Dial: 1-929-205-6099 Meeting ID: 850 9782 1311

Agenda

1. Call to Order
2. Adoption of the February 15, 2023 Climate Committee meeting minutes
3. Update on state initiatives
4. Update on office initiatives
5. Pinelands management area boundary analysis
 - Staff presentation on methodology
 - Discussion of next steps
6. Public comment

PINELANDS CLIMATE COMMITTEE MEETING

This meeting was conducted in-person and available remotely.

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

<https://www.youtube.com/c/PinelandsCommission>

Zoom Meeting ID: 834 3930 3661

February 15, 2023

MINUTES

MEMBERS IN ATTENDANCE: Chairman Mark Lohbauer, Alan Avery, Jerome H. Irick, and Edward Lloyd

MEMBERS ABSENT: Laura E. Matos and Theresa Lettman

STAFF PRESENT: Susan R. Grogan, Stacey P. Roth, Ed Wengrowski, Steven Simone, John Bunnell, Ernest Deman, Jessica Lynch, and Dawn Holgersen. Also present was Dorian Smith, with the Governor's Authorities Unit.

1. Call to Order

Chairman Lohbauer called the Pinelands Climate Committee meeting to order at 9:30 a.m.

2. Adoption of minutes from the November 30, 2022 Pinelands Climate Committee meeting

Commissioner Lloyd moved the adoption of the minutes of the November 30, 2022 Committee meeting. Commissioner Irick seconded the motion. All voted in favor.

3. Update on State Initiatives

New Jersey Department of Environmental Protection (NJDEP) Inland Flood Protection Rule Proposal

Ms. Roth said that a presentation was given at the November meeting by Ed Wengrowski, the Commission's Environmental Technologies Coordinator, regarding the NJDEP inland flood protection rule proposal. She said the proposal utilizes current and future data to address stormwater when considering development.

She said that the rule proposal updates National Oceanic and Atmospheric Administration (NOAA) data, which the Commission and NJDEP rely on to calculate stormwater and stormwater management requirements.

Ms. Roth said the Commission forwarded a letter to NJDEP on February 2, 2023, supporting the amendments and advising that the amendments would be incorporated by reference in the Pinelands Comprehensive Management Plan (CMP).

In response to Commissioner Lloyd's question as to frequency by which NJDEP will update the data, Ms. Roth said that the amendment will include current rainfall data and introduce factors to predict potential for future flooding. Mr. Wengrowski added that infrastructure will need to be sized to accommodate 100-year future storms, as it is estimated that such infrastructure has a useful life of 100 years.

Ms. Grogan said that the NJDEP may take considerable time to address public comment before passing the amendments. She said their schedule to adopt is currently unclear. She said the Commission intends to meet with NJDEP representatives to discuss implementation of the rules.

Chairman Lohbauer inquired as to whether changes are necessary when reviewing applications prior to the implementation of the rule. Ms. Grogan replied that no changes will be made until the rules are adopted.

Commissioner Avery asked for a description of the type of infrastructure that would be affected by the amendment. Mr. Wengrowski said that NJDEP has a presentation on its website that gives an example of the changes in design to a stormwater basin. He said larger pipes may also be necessary for better drainage.

Interagency Council on Climate Resilience (IAC) Resilience Action Plan for Extreme Heat

Mr. Wengrowski delivered a presentation on the IAC Resilience Action Plan for Extreme Heat. (Attached to these minutes and on the Commission's website at:

<https://nj.gov/pinelands/home/presentations/Climate%20Committee%20Briefing%202.15.2023.pdf>)

Mr. Wengrowski said that Commission staff members are continuing to engage with the IAC. He said that Ms. Grogan has informed NJDEP and the IAC of a short-term staffing shortage. He said the IAC replied that they would attempt to provide assistance.

He said one of the tasks of each agency is to give an "Agency at a Glance" summary. He said that it describes the mission and background of the agency and the programs it administers.

He said that the Commission is at an advantage because of the rules that are already in place that apply to climate resilience. He also mentioned that some agencies do not have a committee dedicated to climate initiatives.

Mr. Wengrowski said that the IAC entered into contracts with consultants for this initiative. He said advisory groups will be composed of subject matter experts and practitioners. He said the advisory groups will meet with the IAC and Commission staff during the development of the

Resilience Action Plan (RAP) to offer best practices and provide feedback. He said the advisory groups will also review the final draft of the RAP.

He said that March 31, 2023 is the first deadline in the timeline. He said that agencies will then be required to share draft action lists of extreme heat RAPs, including current agency actions and proposals. He said that on April 11, 2023, the IAC will identify which agency will lead on specific RAP topics.

He said that in May 2023, agencies will be required to share a list of current actions and proposed ideas with the advisory groups.

He said that the draft RAP will be released by the IAC in summer 2023, and the final extreme heat RAP will be released in fall 2023. He said that additional topics will be addressed in subsequent annual releases.

Mr. Wengrowski said that there were presentations made over the years discussing the potential impacts of extreme heat in the Pinelands Area. He said the older presentations are available online at the Commission website.

He said that one of the health impacts is heat-related mortality. He said that deaths increased during times of extreme heat, especially in vulnerable populations. He said another health impact is heat stress/stroke illness to outdoor workers.

He said that infectious diseases such as Lyme Disease, West Nile Virus and ragweed pollen are exacerbated in extreme heat. He said that extreme heat also decreases air quality, causing respiratory illness. He also said that harmful algal blooms spread in the heat, causing respiratory illness, foodborne illness, skin irritation and neurologic symptoms.

Mr. Wengrowski described infrastructure impacts of stress on pavement, bridge, and rail materials. He said the extreme heat reduces the efficiency of electric generating stations and solar voltaic facilities. He said the heat also causes failures with power lines, transformers, and refrigeration units.

He said that the warmer atmosphere as a result of extreme heat holds more water, leading to extreme rainfall events and causing dams to fail.

He outlined agricultural impacts from extreme heat as reduced crop yields, spread of invasive insects and plant pathogens, and increased irrigation demands. He said that if there are fewer days of cooler weather, it will affect the ability to grow the berry crops that the Pinelands are known for.

Mr. Wengrowski listed the impacts of extreme heat on the forest as a change in the forest composition, the increase of wildfire, the spread of invasive insects, and the change of geographic species range.

He said the extreme heat could cause a loss of native species, a geographic species migration, and habitat transitions. He said the impacts on water resources in extreme heat include a stress on water supply, and surface water quality impairments.

Mr. Wengrowski said the heat advisory group has been identified. He said they are affiliated with Georgetown Climate Centers Adaptation Program, Farallon Strategies, Toulan School of Urban Studies and Planning at Portland State University, Association of State and Territorial Health Officials, Georgia Tech Urban Climate Lab / Urban Climate Consulting, and WSP Global – Environmental Consulting.

Chairman Lohbauer asked if the upcoming IAC stakeholders meeting will be advertised on the Commission website. Mr. Wengrowski replied that when the link to the meeting is received, it will be posted on the website. Ms. Grogan said there is a section on the website that is used as outreach for this subject.

Chairman Lohbauer expressed concern with the staffing shortage and how it could affect monitoring of the Pinelands for impacts. He asked if grant funds would be needed to facilitate the monitoring. Ms. Grogan said that there are discussions with the Governor's office to create and fill positions, including the creation of a Climate Resilience Coordinator position to address the increased workload related to climate impacts.

Ms. Grogan said that the first RAP initiative from the IAC will give insight as to whether grant funds may be necessary for future initiatives.

In response to Chairman Lohbauer's inquiry, Ms. Grogan said the Governor's Office is supportive of the creation of a Climate Resilience Coordinator.

Commissioner Irick commented that he was surprised that Rutgers University was not listed as a contributor to the advisory group. Ms. Grogan replied that there was an extensive process for selecting the advisory group and there could be a possibility of Rutgers joining on a future initiative.

NJDEP Water Supply Plan Update

Ms. Grogan delivered a presentation on the upcoming NJDEP Water Supply Plan update.

(Attached to these minutes and on the Commission's website at:

<https://nj.gov/pinelands/home/presentations/Statewide%20Water%20Supply%20Plan%202023.CC0215.2023.pdf>)

Ms. Grogan said that Gina Berg, the Commission's Planning Specialist, attends the NJDEP water supply advisory council meetings. She said Ms. Berg prepared the presentation as an update for the Committee.

Ms. Grogan said NJDEP is preparing to issue an update to its water supply plan. She said the last plan was issued in 2017. She said this update will include a chapter on climate change impacts to water supply.

She outlined drafted topics for the climate change chapter as increased saltwater intrusion, potential changes in water availability, “flash” droughts, increasing groundwater recharge, and hotter/longer summers resulting in higher water usage.

Ms. Grogan said updates will be presented to the Committee as new information is released. She said that a schedule has not been published for the preparation of the plan.

Commissioner Lloyd inquired as to whether the NJDEP water supply plan will be used for decision-making by the Commission and the possibility of new rules being introduced to the CMP. Ms. Grogan replied that new rules would depend on what is being recommended in the plan update. She said there is a reference to the water supply plan in the Commission’s upcoming Kirkwood-Cohansey rules.

In response to Commissioner Avery’s question on interagency coordination, Ms. Grogan said there is a State Climate Resilience Officer at NJDEP that heads the IAC.

Ms. Grogan added to the previous discussion of climate resilience. She said that Rutgers Climate Corps is engaged with municipalities to help with their Climate Change Related Hazard Vulnerability assessments, which are required when updating the municipal master plan. She said the Highlands Council, with assistance from NJ Future, created a template and guidance documents for municipalities for the assessments. She said this would be beneficial to Pinelands municipalities.

4. Update on Office Initiatives

Jessica Lynch, the Commission’s Business Services Manager delivered a presentation as an update on office initiatives. (Attached to these minutes and on the Commission’s website at: https://nj.gov/pinelands/home/presentations/Pinelands%20Commission%20office%20initiatives_2_15_2023.pdf)

Ms. Lynch said the Commission is in the process of replacing light bulbs with LED bulbs. She said that staff have begun to use battery powered grounds equipment.

She said the Commission purchased a push mower to use while a riding mower is being researched. She said that a riding mower will be funded by the energy conservation reserve. She said the Commission intends to sell the gas-powered riding mower. She said the Commission will obtain quotes and plan to purchase a mower in the spring.

Ms. Lynch said the Commission will apply for a grant to purchase a medium to heavy duty vehicle charging station. She said the grant is funded through the Board of Public Utilities

(BPU), under the Regional Greenhouse Gas Initiative. She said the BPU recommended the Commission purchase a community charging station.

She said the Commission is preparing to issue a request for quote for two vehicles. She said many current electric/hybrid vehicles available through state contract do not meet the ground clearance requirements for Commission use. She described the possibility of other vehicles that may suit the Commission's needs.

Commission Avery said he saw the new battery powered push mower in use. He expressed concern on the availability of an electric/hybrid vehicle.

In response to Commissioner Avery's question about the potential for leasing a vehicle, Ms. Lynch said the Commission leased vehicles in the past. She said additional fees were charged for the extra wear and tear on the vehicles which resulted due to their extensive field use.

Commissioner Irick recommended the purchases to be new vehicles due to the uncertainty of a used vehicle's history.

Chairman Lohbauer commented his understanding of the difficulty in obtaining a suitable vehicle. He mentioned that Ford will soon release an electric version of its F-150 pickup truck. He suggested the Commission focus on purchasing an electric vehicle instead of a hybrid.

In response to Commissioner Lloyd's question as to the status of the current vehicles, Ms. Grogan said one of the vehicle purchases would be to replace the Toyota Prius, which does not meet the needs of Commission staff. She said the other purchase would be an addition to the fleet. She also said the Commission may need to purchase a hybrid vehicle, as a charging station is not yet installed at the facility.

In response to Commissioner Avery's question on state approved vendors for electric charging station installation, Ms. Lynch indicated she did not see a list of installers when researching grants.

Chairman Lloyd inquired about the possibility of entering a contract with an off-site charging station. Ms. Grogan said the staff will research the idea. She also said there are few charging stations in the area and the charging needs for the Commission may not be feasible under those circumstances.

Chairman Lohbauer commented that while many electric vehicles are costly to purchase, they cost less to maintain.

5. Public Comment

Heidi Yeh, from the Pinelands Preservation Alliance (PPA), said she had experienced difficulty in obtaining an electric vehicle. She said the PPA has vehicle charging facilities available for use. She praised the Commission's efforts to create a Climate Resilience Coordinator position.

She inquired about the progress of the list of priorities for revised policies and CMP amendments.

Ms. Yeh said that a group of graduate students from Princeton University is working with the PPA to provide literature review and analysis that can help support the climate goals presented in previous meetings. She said the PPA will issue a white paper on those findings.

She extended an invitation to Commissioners and staff to a science forum to be held on May 19. She said the theme is “Climate Change in the Pinelands”.

Chairman Lohbauer lost connection with the Zoom meeting at 10:31 a.m. Commissioner Lloyd served as chair in his absence.

Steven Simone, the Commission’s Planning Specialist, commented on the possibility of the nearby post office installing charging stations in the future.

There being no further discussion, Commissioner Avery moved the closing of the meeting. Commissioner Irick seconded the motion. The meeting concluded at 10:34 a.m.

Certified as true and correct:

A handwritten signature in black ink, appearing to read "Dawn Holgersen", with a long, sweeping horizontal stroke extending to the right.

Dawn Holgersen
Office Assistant
April 5, 2023

Pinelands Climate Committee

UPDATE ON NEW JERSEY'S INTERAGENCY COUNCIL ON CLIMATE RESILIENCE:
PINELANDS COMMISSION'S RESILIENCE ACTION PLAN FOR EXTREME HEAT

February 15, 2023

1

Agency at a Glance

Pinelands Commission

An independent state agency charged with preserving, protecting, and enhancing the natural and cultural resources of the federally designated Pinelands National Reserve while encouraging compatible economic and other human activities consistent with that purpose. The Commission has regulatory jurisdiction over the 938,000-acre Pinelands Area, which was established by the State legislature through the Pinelands Protection Act in 1979 and includes portions of 7 counties and all or portions of 53 municipalities in southern New Jersey. All development in the Pinelands Area and all county and municipal master plans and ordinances must be consistent with the Pinelands Comprehensive Management Plan, which sets forth detailed land use and environmental standards, including those related to wetlands, vegetation, forestry, water quality, stormwater management and fire management.

Programs · Science programs · Pinelands Climate Committee · Land Use and Planning · Transfer of Development Rights (Pinelands Development Credit Program) · Permanent Land Protection · Long-Term Environmental and Economic Monitoring

2

Pinelands Commission Resilience Action Plan

- To be developed in consultation with an Advisory Group formed by the IAC and composed of subject matter experts and practitioners
- The Advisory Groups will meet with the IAC, including Commission staff, during the development of the RAPs to offer best practices and provide feedback on interim documents. The Advisory Groups will also review the final draft RAPs prior to release.

3

Extreme Heat Resilience Action Plan

March 31, 2023 – Agencies to share draft Action Lists of Extreme Heat RACs - (current agency actions & proposed ideas)

April 11, 2023 – IAC will identify which agency will lead on specific RAC topics

May 2023 – Agencies to share list of current actions and proposed ideas with Expert Advisory Groups

Summer 2023 – Draft Resilience Action Plan Released by IAC

Fall 2023 – Final Extreme Heat Resilience Action Plan Released by IAC

Additional topics will be addressed in subsequent annual releases

4

Potential Impact of Extreme Heat on the Pinelands Area

Health Impacts

- Heat-related mortality
- Heat stress, heat stroke to at-risk outdoor workforce (agricultural, construction, military, etc.)
- Increased infectious disease – Lyme Disease, West Nile Virus, Ragweed pollen
- Air quality- respiratory illness - Ground-level Ozone- Climate Penalty, vulnerable asthma sufferers
- HAB toxin exposures respiratory illness, foodborne illness, skin irritation and neurologic symptoms

5

Potential Impact of Extreme Heat on the Pinelands Area

Infrastructure Impacts

- Pavement, bridge, and rail material stress
- Reduced efficiency of electric generating stations, solar voltaic efficiency declines, power lines failures, transformer failures, refrigeration unit failures
- Dams - failure due to extreme precipitation resulting from warmer atmosphere holding more water, leading to extreme rainfall events

6

Potential Impact of Extreme Heat on the Pinelands Area

Agricultural Impacts

- Reduced crop yields
- Invasive insects
- Plant pathogens
- Irrigation demands

7

Potential Impact of Extreme Heat on the Pinelands Area

Forest Impacts

- Forest composition
- Wildfire
- Invasive insects
- Geographic species range

8

Potential Impact of Extreme Heat on the Pinelands Area

Species and Landscape Impacts

- Loss of native species
- Geographic species migration
- Habitat transition

9

Potential Impact of Extreme Heat on the Pinelands Area

Water Resource Impacts

- Water supply stress
- Surface water quality impairments (microbiological)

10

IAC Meeting update Feb. 14, 2023

Public webinar on IAC’s Climate Resilience Action Plan development is scheduled for March 2, 2023 from 6:00 – 7:00 pm

Extreme Heat Advisory Group has been identified –six individuals affiliated with :

- Georgetown Climate Centers Adaptation Program
- Farallon Strategies
- Toulon School of Urban Studies and Planning – Portland State University
- Association of State and Territorial Health Officials
- Georgia Tech Urban Climate Lab / Urban Climate Consulting
- WSP Global – Environmental Consulting

11

Discussion and Questions

12

2023 Statewide Water Supply Plan

Pinelands Climate Committee
February 15, 2023

1

Five-year Update

- Last issued in 2017
- DEP holding stakeholder meetings
- Presentations at the monthly Water Supply Advisory Council meeting
- New in this update: Planned chapter on climate change impacts to water supply

2

Draft Climate Impacts Chapter

Increased saltwater intrusion

- Sea level rise
- Well inundation
- Delaware River salt line moving upstream

Potential changes in water availability portion of stream low flow margin

- - K-C rule proposal reference LFM

“Flash” droughts to be considered = brief, intense droughts

Trend analysis identified increasing groundwater recharge

Hotter/longer summers = higher water use predictions

3

Other Chapters

- _____ Water Use characterization
- _____ Safe drinking water issues
- _____ Statewide water resource protection & planning efforts*
- _____ Regional planning for watershed deficit mitigation*
- _____ Action Plan*
- _____ Summary, conclusions & recommendations*

*Future discussions at WSAC meetings and stakeholder sessions

4



Pinelands Commission

Our internal path to sustainability.

1



Changing to LED Lighting

Since the Commission's participation in the BPU sponsored Energy Audit, lightbulbs are being replaced with LEDs throughout the office.

2

Battery Powered Grounds Equipment Acquired

Trimmer	\$179.00
Leaf Blower	\$449.00
Push Mower	\$649.00
Total	\$1,277.00

3

Future Purchase Identified

Ryobi – 42 inch deck, brushless, 80V ride on mower (or similar model)

- Funded by Energy Conservation Reserve
- Need to sell existing gasoline mower
 - Fixed Asset Deletion approval by P&B
 - List on GovDeals.com
- Obtain quotes and purchase by Spring

4

Medium- and Heavy-Duty Electric Vehicle Charging Program

- Funds provided by RGGI (Regional Greenhouse Gas Initiative).
- Community Charging: \$225,000 toward the purchase and installation of 150 kW or greater dual-port, networked DCFC and Make-Ready, with at least \$25,000 per charger suggested for use in potential distribution system upgrade funding. Chargers must be publicly available.
- Deadline: May 12, 2023



5

Purchasing of New Electric or Hybrid Field Vehicles

Current Vehicles on State Contract do not meet our ground clearance needs.

RFQ (Request for Quote) currently being prepared with the specifications needed for field work vehicles.



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