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LAURA E. MATOS  
Chair  
SUSAN R. GROGAN  
Executive Director

NEW JERSEY PINELANDS COMMISSION MEETING AGENDA  
Friday, April 12, 2024 - 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 via the following link:

<https://www.youtube.com/watch?v=ORdQrC7-tzk>

To Provide Public Comment, Please Dial: 1-929-205-6099 Meeting ID: 894 4949 9170

1. Call to Order

- Open Public Meetings Act Statement
- Roll Call
- Pledge Allegiance to the Flag

2. Adoption of Minutes

- March 8, 2024 (Open and Closed)

3. Committee Chairs' and Executive Director's Reports

4. Matters for Commission Consideration *Where the Record is Closed*

A. Permitting Matters

- Office of Administrative Law
  - None
- Review of Local Approvals
  - None
- Public Development Projects and Waivers of Strict Compliance:
  - Resolution Approving With Conditions (1) Application for Public Development: Application No. 2023-0196.001 - New Jersey Department of Transportation Installation of 266 linear feet of sidewalks and 898 linear feet of guiderails within the

Route 54 right-of-way  
Town of Hammonton

B. Planning Matters

- Municipal Master Plans and Ordinances
  - None
- Other Resolutions
  - None
- CMP Amendments
  - None

5. Public Comment on Public Development Applications and Waivers of Strict Compliance *Where the Record is Not Closed*

A. Public Development Projects

- Application No. 1981-1833.084 – Stockton University  
Installation of an irrigation well  
Galloway Township
- Application No. 1981-1833.085 – Stockton University  
Installation of a water well for vehicle maintenance  
Galloway Township
- Application No. 2024-0026.001 – Medford Township  
Demolition of an existing potable water well house, 50 years old or older, and the construction of a 373 square foot replacement well house  
Medford Township

B. Waivers of Strict Compliance

- None

6. Master Plans and Ordinances Not Requiring Commission Action

- Lakehurst Borough 2024 Master Plan Reexamination Report
- Ocean Township Ordinance 2023-18

7. Presentation and discussion of Evesham Township's proposed Memorandum of Agreement for accessible trails at the Black Run Preserve

8. General Public Comment

9. Resolution to Retire into Closed Session (if needed) – Personnel, Litigation and Acquisition Matters. *(The Commission reserves the right to reconvene into public session to take action on closed session items.)*

10. Adjournment

**Upcoming Meetings**

Wed., April 17, 2024

Fri., April 26, 2024

Fri., May 10, 2024

Climate Committee Meeting (9:30 a.m.)

Policy & Implementation Committee Meeting (9:30 a.m.)

Pinelands Commission Meeting (9:30 a.m.)

To ensure adequate time for all members of the public to comment, we will respectfully limit comments to **three minutes**. Questions raised during this period may not be responded to at this time but where feasible, will be followed up by the Commission and its staff.

Pinelands Commission and Committee meeting agendas are posted on the Commission’s Website and can be viewed at [www.nj.gov/pinelands/](http://www.nj.gov/pinelands/) for more information on agenda details, e-mail the [Public Programs Office](mailto:PublicProgramsOffice@pinelands.nj.gov) at [Info@pinelands.nj.gov](mailto:Info@pinelands.nj.gov).

PINELANDS COMMISSION MEETING

MINUTES  
March 8, 2024

*All participants were either in-person or present via Zoom conference and the meeting was livestreamed through YouTube: <https://www.youtube.com/watch?v=paoB8BMfG10>*

Commissioners Participating in the Meeting

Alan W. Avery Jr., Dan Christy, John Holroyd, Theresa Lettman, Mark Lohbauer, Mark Mauriello, Jonathan Meade, William Pikolycky, Jessica Rittler Sanchez, Douglas Wallner and Chair Laura E. Matos. Also participating were Executive Director Susan R. Grogan, Deputy Attorney General (DAG) Jay Stypinski and Governor’s Authorities Unit representative Alexis Franklin.

Commissioners Absent

Nicholas Asselta & Jerome H. Irick.

Call to Order

Chair Matos called the meeting to order at 9:35 a.m.

DAG Stypinski read the Open Public Meetings Act Statement (OPMA).

Executive Director (ED) Grogan called the roll and announced the presence of a quorum. Eleven Commissioners participated in the meeting.

The Commission pledged allegiance to the Flag.

Minutes

Chair Matos presented the minutes from the Commission’s February 9, 2024 meeting. Commissioner Lohbauer moved the adoption of the minutes. Commissioner Pikolycky seconded the motion.

The minutes from the February 9, 2024 Commission meeting were adopted by a vote of 11 to 0.

### Committee Reports

Chair Matos provided a summary of the February 23, 2024 Policy and Implementation (P&I) Committee meeting:

The Committee approved the minutes of the November 29, 2023 meeting and the minutes of the January 26, 2024 meeting.

Evesham Township presented a proposed trail improvement project at its Black Run Preserve municipal park. The project would provide more accessible and inclusive trails by grading and surfacing the trails with crushed stone, installing accessible parking spaces and installing a bridge in one section of the trail. Due to the extensive area of wetlands and wetlands buffers, the project will require a Memorandum of Agreement (MOA) to allow a deviation from CMP wetlands and wetlands buffer standards. The Committee indicated its support for the MOA. A presentation will be made to the full Commission in April.

The Committee next heard staff recommendations for changes to the project evaluation criteria for Pinelands Conservation Fund (PCF) land acquisition grants, and to the funding structure, along with the anticipated grant program schedule. Staff also discussed adding a new acquisition target area in the Pemberton Township Regional Growth Area and expanding the Belleplain – Peaslee target area in the Pinelands Village of Port Elizabeth – Bricksboro of Maurice River Township. These additions to the acquisition target areas were forwarded from the Climate Committee project to assess the need for Pinelands Management Area boundaries to address climate change impacts. The P&I Committee approved the revised PCF evaluation criteria and acquisition target areas.

Commissioner Lohbauer provided an update on the February 14, 2024 Climate Committee meeting:

Staff updated the Committee on the Board of Public Utilities Dual-Use Solar Pilot Program straw proposal and the status of Senate Bill 2424 (management of publicly owned forested land). Staff then made a presentation summarizing the Pinelands Management Area boundary assessment for climate change hazards and provided recommendations to the Committee. The Committee moved that the recommendations for new or expanded permanent land protection acquisition target areas should be forwarded to the P&I Committee for consideration. Separately, the Committee approved the recommendations for further exploring expanded wetlands buffers and for density transfer in certain Pinelands Villages.

### Executive Director's Report

ED Grogan provided information on the following matters:

- The Fenwick Manor Preservation Plan has been completed, submitted and accepted by the New Jersey Historic Trust. Once the grant agreement is signed, the scope of work and Request for Proposal for construction services will be drafted.
- The Personnel and Budget Committee is scheduled to meet on March 26<sup>th</sup>. The meeting agenda will include a recommendation to delete a number of fixed assets, including the Smart Board in this conference room. A large screen television will replace the Smart Board.
- An education session for Pinelands Area construction code officials and zoning officers has been scheduled for May 15<sup>th</sup> at Stockton University's Kramer Hall in Hammonton. Commission staff will provide relevant information on Comprehensive Management Plan (CMP) procedures and standards. Commission staff provided the necessary paperwork to ensure that training participants will receive continuing education credits from Rutgers University.

Gina Berg, Director of Land Use Programs, provided an update on the following planning matters:

- The Land Use Programs staff and the Science office have been busy developing a grant proposal for the America the Beautiful Challenge, and it will focus on land conservation and stewardship.
- Invitations have been sent to land preservation partners for the 2nd Annual Land Preservation Summit that is scheduled for April 4<sup>th</sup>. The New Jersey Department of Environmental Protection (NJDEP) will highlight changes to its Green Acres funding regulations and the New Jersey Conservation Foundation will review the State Conservation Blueprint. Commission staff will review the structure of the PCF and the upcoming grant round.
- Staff is reviewing the recently released Draft Statewide Water Supply Plan and will provide comment as necessary. The NJDEP is holding a briefing on the Plan that staff will attend.
- Interviews are being conducted to fill two vacancies in the Lands Use Programs Office.

April Field, Chief Permit Administrator, provided information on the following regulatory matters and noted that additional information could be found in the February 2024 Management Report.

- The Commission received an application from the NJDEP, Division of Fish and Wildlife, proposing the removal of approximately 1,600 linear feet of an existing dirt road in the Greenwood Forest Wildlife Management Area. Beavers are creating a dam in an existing culvert of the road, resulting in upstream flooding and impacting those wetlands. A meeting is scheduled with the applicant to discuss the proposal.

- The Dennis Township Board of Education (BOE) submitted information proposing a emergency services communication tower at the Dennis Township Elementary School. The school and the township will both use the tower for emergency communications. The elementary school is located in a Pinelands Village. Staff advised the applicant that the proposal could work if the BOE provided information demonstrating that the tower is an accessory use.
- Members of the public provided information about an illegal dumping matter in Pemberton Township at the February Commission and P&I Committee meetings. Commission staff was notified about improvements to an existing driveway associated with an agricultural operation on February 7, 2024. On February 9, 2024, NJDEP issued a violation letter to the property owner about filling wetlands, the same day Pemberton Township issued a cease and desist order for the driveway improvements. On February 21, 2024, the Commission issued a letter to the property owner advising of the wetlands protection and water quality standards in the Township ordinance and the CMP.

Chair Matos asked if the property owner has responded.

Ms. Field said the Commission has not received a response, but the NJDEP is taking the lead in the matter.

Stacey Roth, Chief, Legal and Legislative Affairs, said the Commission received an appeal of the Kirkwood-Cohansey Water Management Rule amendments that went into effect in December 2023. She said a briefing on the matter will be provided during the Closed Session portion of the meeting.

Brad Lanute, Chief Planner, updated the Commission on the following:

- The State Office of Planning Advocacy (OPA) distributed a draft preliminary plan to state agencies seeking comments by the end of February. As with the prior state plan, it discusses the Pinelands Commission, its planning role in the Pinelands Area, and the Pinelands Comprehensive Management Plan. Staff provided minor, clarifying comments back to OPA that are expected to be incorporated into the draft preliminary plan. The State Planning Commission will likely be acting on the draft preliminary plan in the coming months.
- The Interagency Climate Council continues to be active and busy. Over the winter, NJDEP staff to the Council engaged with all member agencies to brainstorm a work plan for the upcoming two years. As a result, the Council created three working groups:
  - A working group on Outreach and Engagement Strategies for the Council;
  - A working group on Coordinated State Agency Communications around Extreme Heat; and
  - A working group on developing best practices for Climate Vulnerability Assessments

Member agencies were asked to volunteer on at least one working group. As such, a Land Use Programs staff member will be participating on the Vulnerability Assessment Working Group.

Paul Leakan, Communications Officer, said 500 people have signed up for the 35<sup>th</sup> Annual Pinelands Short Course. He also noted that the 2023 Annual Report was included in the packet materials and a brief presentation will be provided later in the meeting.

Commissioner Avery said the Commission is on track to receive the budgeted amount for application fees based on the recent figures in the February 2024 Management Report.

Commissioner Avery asked if the road that the NJDEP is proposing to remove is a private or public road.

Ernest Deman, Supervising Environmental Specialist, indicated that the road is located on a parcel of land owned by the NJDEP and that the road has existed since at least the 1930's.

#### Public Development Projects and Other Permit Matters

Chair Matos introduced a resolution for the change in use of a former school in Washington Township and the construction of a building addition to a public works garage and paved parking area in Stafford Township

Commissioner Avery made a motion Approving With Conditions Applications for Public Development (Application Numbers 1987-1159.064 & 2000-0637.005) (See Resolution # PC4-24-04). Commissioner Lohbauer seconded the motion.

Ms. Field said a stormwater basin was installed as part of the original application for the Stafford Township Public Works building. During the site inspection for the building addition, it was determined that the existing stormwater basin was not functioning properly. She said Stafford Township is required to remediate the stormwater basin by December 31, 2024.

Ms. Field said in order for the change in use application of the school to professional office to meet CMP groundwater quality standards, the existing septic system will be converted to an alternate design septic system. She said the alternate design septic system will treat the wastewater.

Commissioner Rittler Sanchez asked which alternate design system will be installed.

Mr. Deman said Amphidrome Plus.

The resolution was adopted by a vote of 11 to 0.

#### Public Comment on Development Applications and Items Where the Record is Open

No one from the public provided comment.

### Ordinances Not Requiring Commission Action

Chief Planner Lanute provided an overview of the Ordinances reviewed in the last month:

- Evesham Township submitted its adopted Open Space and Recreation Plan;
- Barnegat Township amended an Ordinance to permit convenience stores in one of its Overlay Zones located in the Pinelands National Reserve (PNR). Barnegat is one of the few municipalities that has elected for the Commission to certify its Master Plans and Ordinances in the PNR portion of the town; and
- The Town of Hammonton adopted a number of Ordinances, one of which amends the density of a six-acre portion of a Redevelopment Plan located in a Pinelands Town.

### Other Resolutions

Chair Matos introduced a resolution to accept the Fiscal Year 2021 Audit Report.

Commissioner Pikolycky made a motion To Accept the Fiscal Year 2021 Audit Report (See Resolution # PC4-24-05). Commissioner Lohbauer seconded the motion.

Commissioner Avery said an audit is required as part of the Commission's statute and serves as a good policy to ensure that the public's money is spent correctly. He said there were no findings in the FY21 audit and thanked the Audit Committee, Commission staff and the Auditors for their work.

The resolution was adopted by a vote of 11 to 0.

Chair Matos introduced a resolution to approve the Commission's 2023 Annual Report.

Commissioner Lohbauer made a motion To Approve the Pinelands Commission's 2023 Annual Report (See Resolution # PC4-24-06). Commissioner Pikolycky seconded the motion.

ED Grogan said the Commission is required by both the Pinelands Protection Act and Executive Order #37 (Governor Cozine) to prepare an Annual Report that is first accepted by the Governor's office and then adopted by the Commission. She said the report is a cooperative effort by each office at the Commission. She said the report details the wide variety of activities the Commission is involved in.

ED Grogan said after decades and multiple iterations through the years, the Kirkwood-Cohansey Water Management rule amendments went into effect on December 4, 2023. She provided numbers related to land protection that occurred in 2023. She reviewed the development applications by type and location (Pinelands Management Area). She said the Commission approved 30 public development applications. She reviewed the Education and Outreach activities that staff organized with a summer and winter Short Course. The use of social media has allowed staff to raise a greater awareness and appreciation of the Pinelands. Lastly, she said the Commission was awarded grant funding to rehabilitate and preserve Fenwick Manor.

Link to the Annual Report:

[https://www.nj.gov/pinelands/infor/online/annual/Annual%20Report%202023%20\(Final\).pdf](https://www.nj.gov/pinelands/infor/online/annual/Annual%20Report%202023%20(Final).pdf)

Link to the 2023 Annual Report Presentation Slides:

<https://www.nj.gov/pinelands/home/presentations/2023%20Annual%20Report%20Presentation%20for%20PC%20Meeting.pdf>

The resolution was adopted by a vote of 11 to 0.

#### Presentation: Wharton State Forest Visiting Vehicle Use Map

John Cecil, Assistant Commissioner of State Parks, Forests & Historic Sites at the NJDEP, said Wharton State Forest is over 124,000 acres and is home to numerous plant and animal species and includes areas of important cultural significance. He said in the fall of 2022 the NJDEP embarked on a survey to determine how visitors use the forest. The survey was open for six weeks and included a mapping tool to collect spatial data. Many responders were opposed to a permit system; the Department subsequently decided to put that aside and focus on development of a map. More than 500 people attended an open house that was held at the Batsto Visitor Center in January 2024 to review the draft map.

Mr. Cecil reviewed the survey data. He said the data revealed that users would like to see more enforcement, better road maintenance and protection of sensitive areas. He said a main factor for the creation of a map is public safety that depicts where users of the forest should and should not go.

He said the NJDEP has been working closely with the Attorney General's office on enforcement matters, including imposition of higher fines for illegal off-road vehicle use. He said it is a challenge to apprehend people who are not doing the right thing. Park Police are not permitted to chase offenders. The NJDEP continues to look at other ways to catch off-road vehicle riders.

He then reviewed the evaluation of how the NJDEP determined what roads were appropriate for vehicle driving and what roads were inappropriate. He said the analysis began with the same topo maps that the Commission used back in 2017 as the basis for its resolution designating roads in Wharton State Forest for recreational use. He said 200 miles were removed and 200 miles of the 400 miles baseline will remain available for users. He said the public comment period will be extended until April 8, 2024.

Link to presentation slides:

<https://www.nj.gov/pinelands/home/presentations/Wharton%20SF%20Visiting%20Vehicle%20Use%20Map%20SPFHS%20NJDEP%2024Jan2024.pdf>

Commissioner Mauriello commended the NJDEP for taking on the challenge of creating a user map for Wharton State Forest. He said it's not easy task to protect the natural resources and keep the public access open.

Commissioner Rittler Sanchez asked how technology could be used to catch perpetrators.

Mr. Cecil said the first step is to have a map that defines where users can and cannot go and specifies an exit and an entrance. This will allow law enforcement to be in a better position to intercept and apprehend. He said the NJDEP uses cameras now but will place them in sensitive areas. He noted that drones and aircraft do not work as well as one would think.

In response to some questions and comments from Commissioners, Mr. Cecil said the NJDEP is constantly recruiting park police to increase enforcement measures. He said the following programs were at the Open House to offer expertise and guidance on the vehicle use map: Forest Fire service, State Park Police, and Natural Lands Management and Historic Sites. Lastly, he said discussions on increased enforcement related to the use of Class 2 officers will continue with the Attorney General's office.

### General Public Comment

Harry Harper of Browns Mills, NJ, said he is opposed to the proposed 575-unit residential development on Pole Bridge Road in Pemberton Township. He said although the developer is proposing to restrict a portion of the parcel as open space, the entire parcel should be preserved. He noted that the developer should be required to prepare and submit up to date habitat surveys.

Jonathan Peters, Professor at The City University of New York, said he began researching roads in the Pinelands after reading a report by the New Jersey Department of Transportation on historic roads that didn't list any roads in the Pinelands. He published a paper in the Transportation Research Record of the National Academy of Sciences (Attached). He said roads in the Pinelands are old and were developed in the 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> centuries. He said he researched the Wharton papers and found out that Mr. Wharton bought land from private hands but he did not acquire the roads. He said these are the people's roads that were established long before Mr. Wharton purchased the land.

Rocco Spano said he is against closing the people's roads in Wharton State Forest. He said he has been visiting Wharton for the past 50 years.

Jack O'Connor, founder of Pine Barrens Adventures, said that he supports responsible use of the Pine Barrens. He said according to his calculations, only 1% of users participated in the survey. He said the NJDEP knows where illegal activity is occurring. He said this plan hurts the people who ride legally.

Ryan Flynn of Mount Laurel, NJ, said he spent his childhood exploring Wharton State Forest and continues recreating in the forest today. He said he is happy to see the NJDEP engaging with the public, unlike they did with their 2015 map effort. He said he is disappointed by how the survey results are being processed. He said 72% of survey responders wanted to keep Wharton as is. He noted a discrepancy of the amount of miles within the forest. He said in 2014 the NJDEP requested federal funding for motorized maintenance of 600 miles of roads. He said if survey responders circled more than a 5,000-mile area within Wharton State Forest, the response was disregarded. He said only 182 surveys were used to draw the heat map. He said he hopes that if

NJDEP is closing a road, it is for the right reason. He does not support cutting of access to the public's favorite spots in the forest.

Ray Taylor of Tabernacle, NJ, said he spends a lot of time exploring with his dog. He also belongs to a hunting club. He said there is lack of parking areas in the forest and you need to be able to drive to certain portions otherwise you will have to walk for miles. He said he supports keeping access as it is and not creating any new roads.

Len Donovan said he is opposed to closing roads at Wharton State Forest. He said he explores the forest about once a week. He said you cannot explore from the main roads. He supports more law enforcement in the forest. He said in the past three years he has rarely seen Park Police but he has seen them on Route 206. He added that the Park Police always seem to have clean vehicles and if you are patrolling a forest, the vehicle would not be clean.

Ryan Holbrook of Atco, NJ, said road closures will lock the interior of Wharton State Forest and prohibit trappers from trapping predators of species such as the eastern wild turkey.

Samantha Parks of Mizpah, NJ, asked a question regarding Hamilton Township zoning, specifically if the professional planner utilized by the Commission addressed economic challenges in starting commercial entities in predominantly residential zones.

Russell Juelg of NJ Plant Partnership said he supports the NJDEP's decision to gain control of motorized traffic at Wharton State Forest. He said it's well-documented that the traffic in the forest has had a negative impact on rare plant species. He asked the Commission to act on updating the CMP's list of protected plant species, noting that the current list is now obsolete. He provided ways in which the Commission could accomplish updating the list (written comments attached).

Heidi Yeh of the Pinelands Preservation Alliance brought copies of their Annual State of Pinelands report. She highlighted the following in the report:

- Thumbs up to the NJDEP for the public engagement process on the Wharton State Forest vehicle map;
- Additional funding is necessary for the Pinelands Commission to hire more staff;
- Restore Payment in Lieu of Taxes (PILOT) funding for Pinelands municipalities with large amounts of preserved lands; and
- Provide funding to New Jersey parks, as they have fallen behind peer states.

Fred Akers of the Great Egg Harbor Watershed Association said there is renewed legislation that would require counties to assist in the off-road vehicle issue and \$1 million is associated with the bill. He said he has been working with Atlantic City Electric (ACE) for over a year in an effort to get them to fix guardrails and gates in the vicinity of Gravelly Run natural lands trust property in Hamilton Township. He said ACE has no interest in the protection of their rights-of-ways from off-road vehicle damage. He wanted to raise the issue because it's related to the Commission's transmission right-of-way plan for vegetation management.

Mike Keles of Evesham Township, NJ, requested that the Commission ask Evesham Township to look at alternatives for their accessible trails proposal at the Black Run Preserve that would not include the removal of trees or encroach on wetlands. He suggested that the existing trailhead at Kettle Run West may be a better option for the proposal.

Jason Howell of the Pinelands Preservation Alliance commended the NJDEP for embarking on a vehicle use map with the intent of protecting a globally unique ecosystem. He said if you compare the 2024 draft vehicle use map with the original 1966 map, you will notice the similarity between the two. He said routes cannot cross stream or wetlands. He said he has traversed each route in Wharton and over time some of the roads are now rivers or completely forested.

John Druding of Open Trails NJ said the NJDEP vehicle use map will close half the roads in Wharton State Forest and impact hunters, hikers and kayakers. He said five municipalities have passed resolutions opposing the road closures. He said Open Trails NJ has started a petition raising concerns about the NJDEP's plan and has over 5,500 signatures. He noted that Open Trails NJ has GPS data and photos for each of the proposed road closures, and they are all passable roads. He closed by saying he hoped the NJDEP would focus on enforcement, volunteerism, signage and education.

Heather Muran McGarvey of Shamong, NJ, said she runs the New Jersey Project and does not support the Vehicle Use Map at Wharton State Forest. She said the Forest should remain open and free to the people of New Jersey and especially to those who live close to it, including the children. She said the NJDEP should be concerned about saving the animals from the windmills at sea, instead they are concerned about plants in the forest. She said there are people tied to the Pinelands Preservation Alliance with private interests to close access to the water so that only their kayaks can go in the water. She said the plan to close roads in the forest is not fair.

Erin Keiser-Szabo said the road closures in Wharton State Forest will force people to walk over a mile to access certain spots. She said this will put the disabled community is at a disadvantage. She said the NJDEP picks and chooses what user groups can hold a cleanup and many cleanups have been canceled. She said she does not support the road closures in Wharton State Forest.

Joel Diosophen said he agreed with many of the commenters who spoke in opposition of the road closures. He said he is tired of government overreach. He added that he doesn't support the use of drones.

Harvey Mushman said he is a recreation trail user and is against the road closure process. He told the story of a man criss-crossing the sand roads in the Pinelands and destroying his car in the process. He said that man went on to write a book that led to Governor Brendan T. Byrne passing the Pinelands Protection Act. He said that man is John McPhee, and thousands of people have gone on to explore those sand roads and the road closures will prevent future exploration.

Natalie Stone of Tabernacle, NJ, said a users of the forest would like to see more enforcement. She said it's unfair to restrict responsible users and the NJDEP's plan does not solve the problem of illegal riders at Wharton State Forest. She said she would like to see the NJDEP engage with

special user groups who can help with cleanups and the construction of barriers. She said this needs to happen in a timely matter.

Closed Session

Chair Matos said the Commission will need to meet in closed session to be briefed on a few litigation matters.

DAG Stypinski read the closed session resolution.

Commissioner Lohbauer made a motion to enter into closed session at 11:58 a.m. Commissioner Mauriello seconded the motion.

Return to Open Session

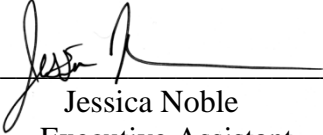
The Commission returned to open session at 12:33 a.m. Commissioner Mauriello left the meeting during the closed session discussion.

Ms. Roth said the Commission was briefed on new and pending litigation matters during the closed session.

Adjournment


Commissioner Pikolycky moved to adjourn the meeting. Commissioner Lohbauer seconded the motion. The Commission agreed to adjourn at 12:34 p.m.

Certified as true and correct:

  
\_\_\_\_\_  
Jessica Noble  
Executive Assistant

Date: March 18, 2024

# Identifying Colonial Roads in Southern New Jersey: An Application of Remote Sensing, Field, and Archival Methods to Document the Locations, Condition, and Routes of Critical American Revolutionary War Supply Chains

Transportation Research Record  
1–14  
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Jonathan R. Peters<sup>1</sup> , Cameron E. Gordon<sup>2</sup>, and Carl E. Peters<sup>3</sup>

## Abstract

This paper explores the identification, use, and preservation of historic roads in the state of New Jersey that primarily travel through public lands. The authors examine in detail the historical significance of several unpaved routes that continue to exist in Burlington County, NJ, as well as discuss various methods that can be used to identify routes with historical significance and document their physical characteristics. Field research was conducted to establish the current location of these historic routes, using LiDAR, GPS, and geographic information systems methods to estimate their likely date of construction. Further examination and mapping of these routes was undertaken, followed by documentation of the historical events linked to their use, thus establishing historical context. We identified likely routes used as critical Revolutionary War supply routes. The paper concludes with a discussion of appropriate actions that should be considered in the preservation of these routes and offers planners some options in relation to public policy.

## Keywords

geospatial data acquisition technologies, GIS, GPS data, LiDAR, public lands, transportation history

Documentation and identification of historic routes is a growing field of interest for transportation policy makers and historic preservation professionals. Marriott outlines three major categories of historic roads: (a) aesthetic routes, which are roads developed to serve a particular traveler experience, such as scenic enjoyment for leisure, recreation, or commemoration; (b) engineered routes, which are designed to enhance efficiency of travel and the movement of people and goods; and (c) cultural routes that may have emerged in response to evolving local or regional needs and movements (*1*). The first two will have well-established design criteria related to their development as well as a documented period of construction. Cultural routes, however, may have been developed over a considerable period of time and may not have a well-documented design history or date of construction.

Each type of route also has three broad categories of historic value according to Marriott: (a) design, that is,

an innovative or important use of design elements and aesthetic quality in the development of the route; (b) road construction technology, for which the route employed innovative or important construction techniques or materials; and (c) association with important and/or famous events can create a situation where the preservation of the route is important as a cultural marker and/or

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provides the opportunity to experience the route and surroundings that witnessed the historical event.

There are many examples of historic routes of various types and values, such as Route 66 or the Selma to Montgomery Highway with important historical associations, or the Bronx River Parkway in New York, the Columbia River Highway in Oregon, and the Going-to-the-Sun Road in Montana as good examples of aesthetic routes with key design features (1).

However, some historic roads are easier to identify and document than others. The Via Appia, begun in 312 BC, still provides a well-preserved example of Roman road building, affording a physical knowledge-base of the specifics of the Roman Empire's well-established practice of using public works to provide for political control, wide-scale military access, and significant trade activity. Sections of this road continue to exist, and the longest section of straight road in Europe remains a 39-mi segment of the Via Appia. Interestingly, the road continues to be used for vehicular traffic, some sections retaining their original paving, and the Italian government has restored several sections to their historic form (2).

There are many other routes, however, that have faded with time and even disappeared. This last type of road—a route that had historical significance but which has now been passed by economically and spatially—is the one that poses special challenges to the historian. The route must first be discovered, then accurately uncovered, appropriately preserved, and its historic role must then be properly interpreted and understood.

This paper examines in detail a set of methods a researcher can employ to identify historic routes, with a field example comprising several historically significant unpaved routes that continue to exist in Burlington County, NJ, parts of which have faded or been lost. The authors discuss various methods that can be used to clearly identify and map such routes, and report on field research conducted to establish the current location of these historic roads and give estimations of their likely date of construction. Further examination and mapping of these routes followed, to document the historical events linked to their use, in particular establishing the role they played, with reference to local industries, as supply routes during the American Revolutionary War. The paper concludes with a discussion of the appropriate actions that should be considered in the identification, preservation, and economic understanding of these routes, and others like them.

### **Burlington County Roads as Historically Significant**

The New Jersey Department of Transportation, in conjunction with the U.S. Federal Highway Administration completed and published the New Jersey Historic

Roadway Study (NJHRS), which attempted to explore and document the existing historic roads that still exist, grouping them into four categories by era of construction. The first—the Early Roads Era (1621 to 1815)—is of interest here (3).

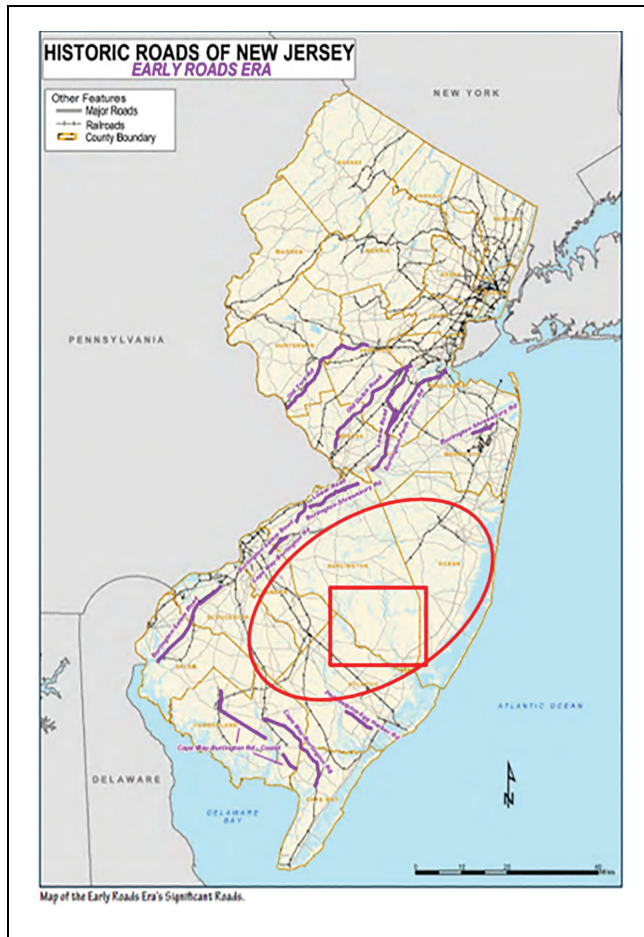
The authors of this paper decided to examine, by county, the reported historic routes that were established in the NJHRS. We then conducted further archival research to examine the reported historic routes based on early map analysis, as used by the NJHRS. We ended up focusing in detail on Burlington County, which remains a fairly pristine area of New Jersey, consisting of large swathes of public land and undeveloped private tracts. Here, several Early Roads Era routes appear to have survived, traversing public lands and also along established rights-of-way through private property. Although actual roads, even unimproved unpaved roads, have often disappeared in parts, the physical environment may be sufficiently untouched to allow for field investigation that can be cross-checked and expanded with archival research.

Figure 1 provides a map as established in the NJHRS of the Early Roads Era routes that still existed and could be documented in 2011 (Early Roads Era routes in purple). Burlington County is reported to have only a few small segments of Early Roads Era roads; in particular, the Burlington–Perth Amboy–Shrewsbury Road and the Cape May–Burlington–Salem Road. These roads are both located in the very north and west of the county, with no Early Era roads indicated in the south or east. We have indicated our general area of research in Figure 1 by a red oval that covers most of eastern Burlington County. Our particular area of research comprised four roads that are located within the red box in Figure 1.

Based on discussions with local historians and consultation with various historical documents, four key early routes were identified in southeast Burlington County as worthy of further investigation. These included (a) Middle Road, (b) Washington–Quaker Bridge Road, (c) Stokes Road, and (d) the Tuckerton Stage Route (see Figure 2). Based on the historical record, it appears clear that these routes were used extensively by the Americans to evade the British blockade and occupation of the area and provide both the Continental Army and local residents with needed supplies of both essential foodstuffs, ammunition and firearms.

### **Accurate Identification of the Historical Routes**

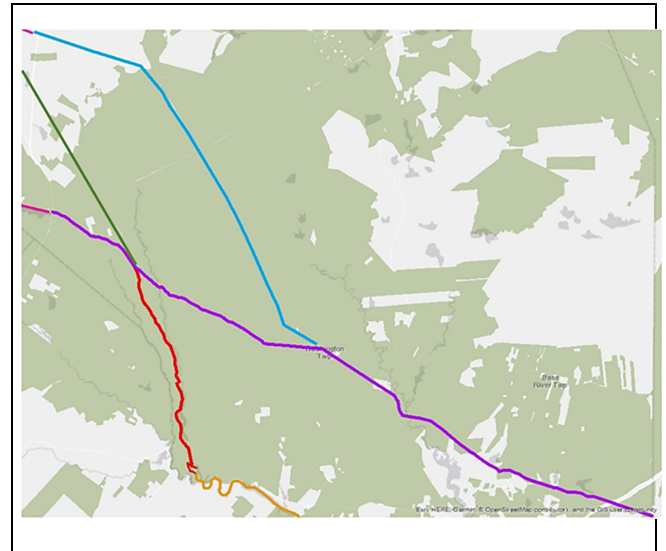
The next research challenge was to examine the specific condition and current characteristics of these routes. Examination of colonial era maps and comparison with



**Figure 1.** Early Roads Era roads identified in KSK Architects Planners Historians, Inc., Armand Corporation, Inc., and Michael Baker, Jr., Inc (3, p. 27). Authors' area of study circled in red and inset location of Figure 2 overlaid on area.

more recent maps, combined with field trips to the area showed that the rough alignments of these early roads continued to exist in the eastern portion of Burlington County. Furthermore, their current physical condition appeared to be quite similar to their condition when initially constructed; that is, passable tracks were present that had mostly never been paved or otherwise improved. This is because the area, known as the Pine Barrens, is protected, with relatively limited development and a large amount of public lands (indicated as shaded green in Figure 2), though regularly used by a range of off-highway vehicles and other leisure users. Oddly enough, this use was apparently regular enough to keep the old routes from totally disappearing into the forest, though not so extensive as to wear them away or alter them out of recognition.

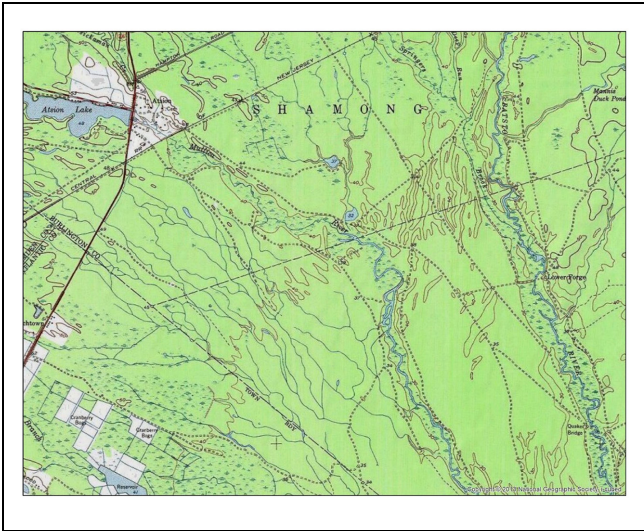
Of course, the mention of a road in a historical record is not tantamount to knowing its exact historic alignment. Identification of historic roads requires both



**Figure 2.** Inset Map I showing the routes of Tuckerton Stage Road (blue), Washington–Quaker Bridge Road (purple), Stokes Road (green), and Middle Road from Atsion to The Forks (red).

secondary research (e.g., thorough searching and analysis of archival information to understand where origins, destinations, and physical interconnections were) and primary research (fieldwork and “ground truth” investigation). In some cases, for example, where some sort of road still exists and its use has been steady, secondary research may be sufficient. But often, direct primary investigation of a route’s location is called for. Even where there is still a road, such digging (sometimes literally) is often needed to surface deviations between the past and present pathway. GPS, geographic information systems (GIS), physical sensing, and big data methods are all being used to aid in more accurately identifying and documenting historic roads (4, 5).

The four roads identified for detailed analysis in this study were located using comparisons with historic maps supplemented by direct field mapping of routes using GPS and GIS methods. One route in particular, Stokes Road, may have been used to supply troops at Valley Forge during the winter of 1777 to 1778. The authors were able to establish the length of time an existing route had been there, based on the earliest map that included that route, as well as conducting a literature review of existing sources to establish likely routes for historic roads. As a secondary source of location, the authors compared historic maps with the United States Geological Survey (USGS) topographical 7.5 min, 1:24,000-scale quadrangle maps both in paper and georeferenced forms that were produced from 1947 to 1992. This allowed us to establish the likely routes of these roads in the period in which the USGS conducted detailed mapping of the region (see Figure 3).



**Figure 3.** USGS topographical quadrangle map example: Atsion, NJ, quad detail.

Note: USGS = United States Geological Survey.



**Figure 4.** Detail of 1860 New Jersey topographical map by publisher H. G. Bond, of the Atsion area (to be compared with Figure 3).

This USGS map was then compared with older historical maps. A section of the 1860 Map of New Jersey published by H. G. Bond (see Figure 4) clearly indicates the location of the Quaker Bridge, which has a well-established construction date in the early 1770s. The map also provides clear indication of the routes of Stokes Road, Quaker Bridge Road, and Middle Road. The former two routes are also indicated on maps from 1834 by Finley and 1845 by Hammond. Middle Road was reported by other sources as being in use for military, commercial, and smuggling purposes in the 1760s to 1780s. All three of these routes are omitted from the NJHRS and yet all three appear to have very long histories of use. The route of the Tuckerton Stage Road, which is documented as in use for stage and cargo by the 1770s, can also be seen. The authors further confirmed these findings by utilizing primary resources located in the office of the Burlington County Clerk's archives that document the legal locations of roads as established at their time of formal creation and recognition (known in the world of surveying and land use as road returns, and discussed in more detail below).

The early maps in many cases indicated the historical locations of early roads, but as reported in the NJHRS, the mapped locations of routes on early maps may have varied from their actual positions. By comparing and analyzing maps from various eras, we could establish with some level of clarity the likely routes of early roads. Some of these routes also have established road easements that aided in this determination. Further—and fortunately—parts of these routes retain in many cases historic route names that help establish their location and use. Finally, several prominent and documented

features with long historical provenance (e.g., towns, bridges, and crossroads) helped us to georeference our historical maps to the current geography.

These locations were then compared with GPS tracks the authors collected in the field using Garmin GPS units and by driving in off-highway vehicles, motorcycles, and/or walking on foot, as needed, following the methods for data collection practices suggested by the New Jersey Department of Environmental Protection (6). These tracks were mapped using ESRI Corporation's ArcMap software and compared with existing official GIS data sources.

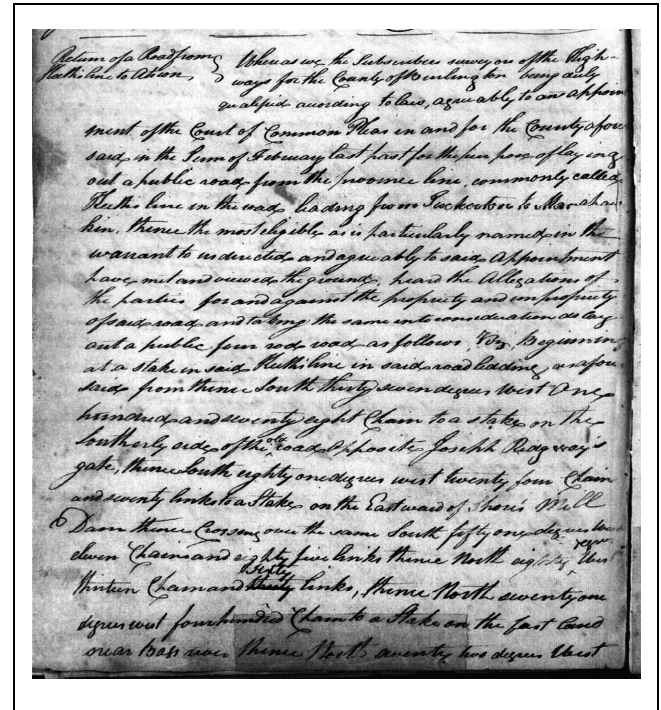
### Locational Inferences Based on the Historical Record

The NJHRS report noted that “few streams were bridged in the seventeenth and eighteenth centuries” (3, p. 22). While bridges of short spans were sometimes constructed, using simple stone or wood spans in what are known as beam bridges as described by Morriss (7, p. 160). The NJHRS further states “If a waterway could not be forded and was too wide to be easily spanned, colonials had to resort to ferries” (3, p. 22). Thus, early roads in this region would probably follow routes that allowed the user to avoid any major stream fords. Quaker Bridge is a notable exception as a bridged route that was well-known, well-documented, and extensively discussed in period documents. It was constructed by the Quaker community in the 1770s to allow travel between the Quaker meetings in Burlington and Tuckerton without the need for fording the Batsto River. Middle Road

provides a major bridge-free route for goods shipment from The Forks to inland points, and is one of the best routes south from the ferries at Philadelphia, Burlington, and Camden (the major urban centers of the time). The authors have traversed this route and it remains open and passable for the full distance from Atsion to The Forks.

A further element that can document the historic location and date of development of a given road would be a recorded public record of a road easement, called a road return, which would generally be found filed with the county clerk. In New Jersey, several high-quality primary historic records still exist from the colonial and early United States periods. New Jersey has a very rich set of historical records of road creation in several counties, with documents that provide very detailed information about the date of dedication, location, dimensions, and surrounding links. The authors researched the county records for Burlington County and found several period documents that establish the date and very specific routes of given public rights-of-way—and we have located several these records. As an example of the high level of historic content contained in public road returns we include the 1798 road return for Quaker Bridge Road (Figure 5). This return, filed on April 7, 1798 memorializes an approximately 30-mi road that stretched and still mostly stretches from the Burlington County border at the boundary, known as the Keith Line (the dividing line between the colonial provinces of East and West Jersey), to the iron works located at Atsion. This road may well have been in use before the date of this road return, and the road return itself references an “old road.” In many cases roads were established with general rights-of-way and there may or may not be a known record of the route as originally surveyed. In addition, road returns may have been lost in fires, floods, or other catastrophic events that destroyed public records. In those cases, the courts in the United States have tended to follow English Common Law that assumes the public dedication was made at some point in time, in spite of a lost road return.

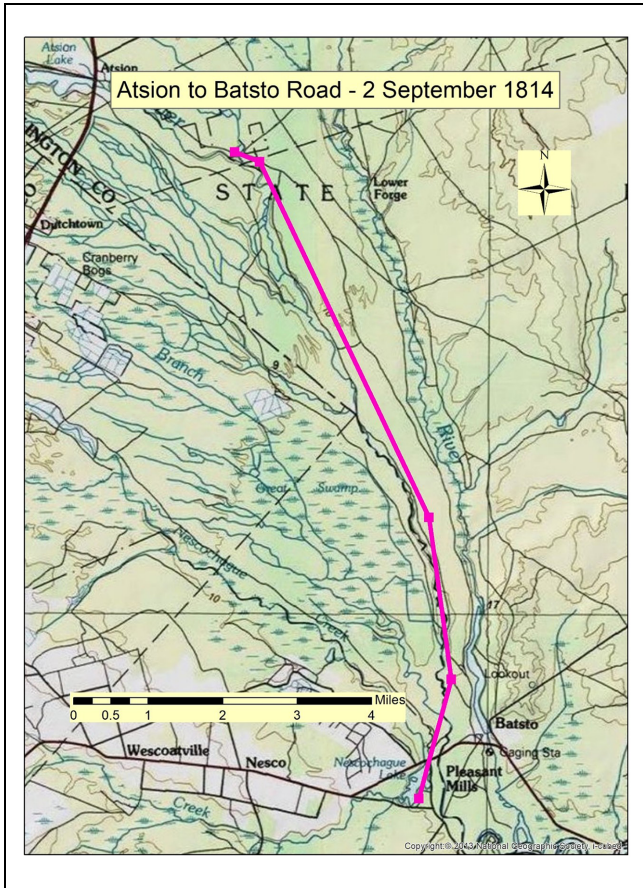
These road returns provide detailed starting points, as well as the route and endpoints of a given surveyed road. Further, they provide a documented “birth certificate” for a given right-of-way. By translating these documents from their historical distance measurements (66-ft “chains”) and bearings (magnetic compass headings) and correcting for compass variation, we can then recreate the historical data as a modern GIS polyline shape of a given road and then locate it based on the stated existing start- and endpoints. There are two additional sources of error based on the time horizon under discussion. First, the Earth’s magnetic pole moves over time; historical bearings are based on the magnetic pole location at the time the data were collected, and local magnetic



**Figure 5.** Extract of the road return for Quaker Bridge Road from the Burlington County, NJ, road returns: Book B, Burlington County Clerk's Office, recorded April 7, 1798.

conditions might alter the bearings. Second, local magnetic anomalies could affect compass headings. Correction factors are known and available to properly adjust the coordinates to fit with current geographic information such as GPS data.

If one converts the coordinates from the distance (chains) and bearings (degrees, minutes, and seconds) into meters and decimal degree bearings, then simple geometry will allow us to turn the geographic coordinates into geographic locations in Universal Transverse Mercator coordinates. These locations can be mapped directly or converted into longitude and latitude coordinates. The map in Figure 6 recreates the 1814 coordinates as reported in the road return for the Atsion–Batsto Road (called simply “Road in Washington” in the original records). The reprojected data were located based on existing physical information identified in the road return and we can see a close correlation between the coordinates of the road that indicates a 11.9-km (7.4 mi) road with four straight segments. The existing road is called Batsto River Road in current digital and print maps. Comparing the existing road in 2022 and the coordinates provided in the 1814 road return produced a traverse that exhibited a slight variation in the length of the road and an angular error (i.e., difference between the plotted location and the stated endpoint of about 482 m [1,584 ft])—or about 4.6% of the total length of the



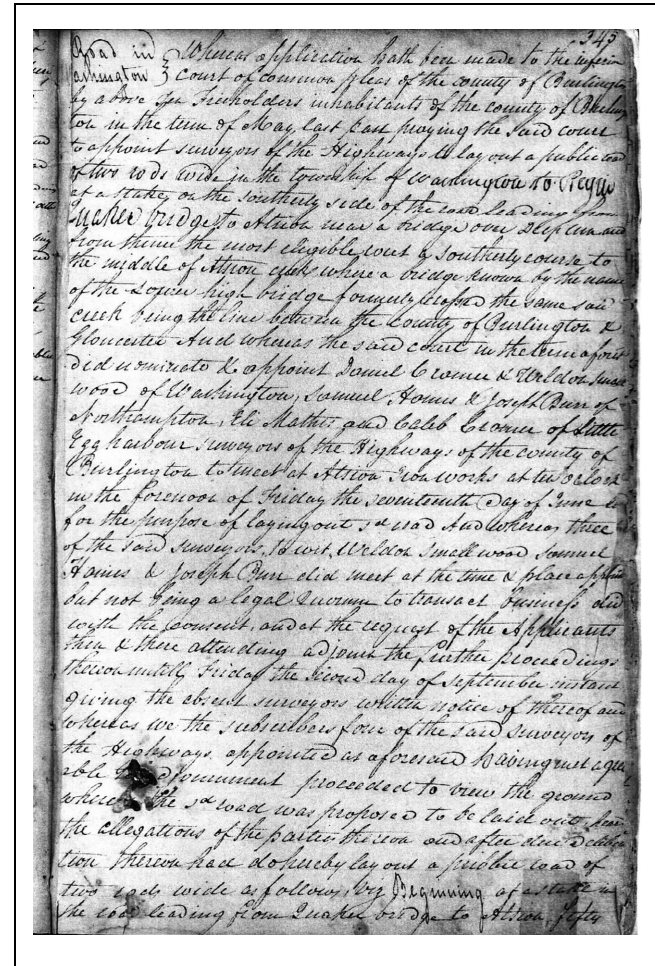
**Figure 6.** Atsion–Batsto road return recreated map based on 1814 road return map.

road—a rather modest error when one considers the technical resources available for surveyors in 1814 (errors such as angular measurements measured to a precision of only  $\frac{1}{4}^\circ$ , linear measurements with a chain divided into 8-in. links, and the potential for localized disturbances to the needle of the magnetic compass) and the challenges of field work in what was then and is still a heavily forested and swampy area. Such difficulties were identified as challenges and have been well understood by the professional surveying community for over 100 years.

An example of how this was done is provided in Figures 6 to 11, providing a visual record of how data from these road returns were cross-checked and integrated with historical maps, GPS data, and field information to come up with adjustments to provide accurate placement of the historical roads relative to their modern alignments.

Figure 6 shows the historic alignment and placement of the Atsion to Batsto Road on a modern map.

Figures 7 to 11 show photographs of the road returns relevant for the particular section of road in question. Figures 7 and 8 show the wealth of contextual

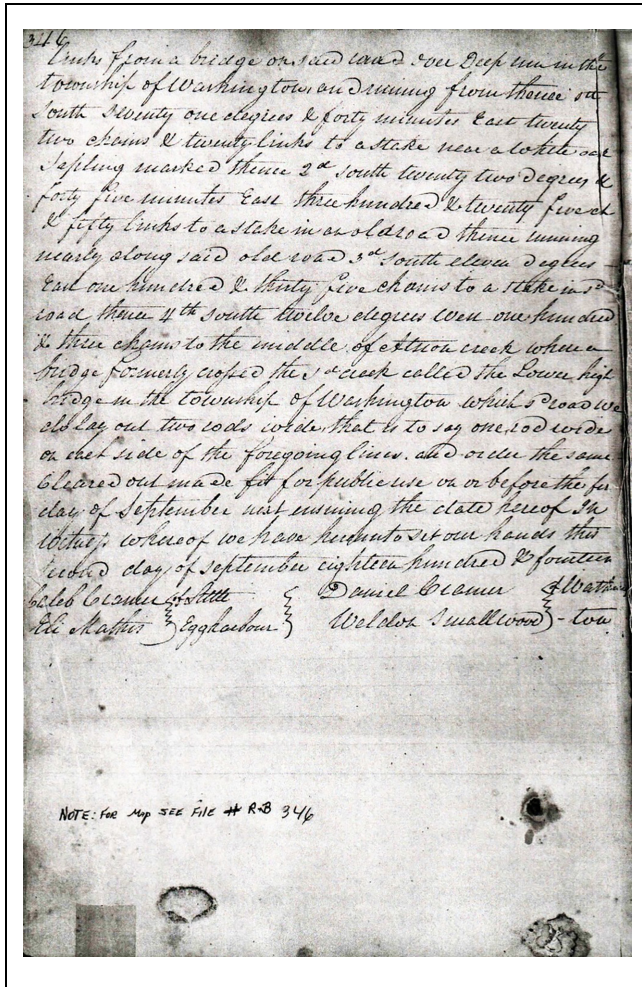


**Figure 7.** Photo-enhanced image of the Atsion–Batsto road return, Burlington County, NJ, road returns: Book B, Burlington County Clerk's Office, Mount Holly, NJ, p. 345.

information provided whereas Figure 9 shows the hand-drawn map of the route contained within the road returns. These maps were especially important for identifying the road routes. All these documents were digitized, enlarged, and clarified, allowing for precise information to be obtained on geographic start- and end-points for the road and other characteristics. Figures 10 and 11 show the enlargements and enhancements of particular road segments that were analyzed further for precise identification of the historical route within the contemporary landscape.

A result of all this analysis is shown in Figure 12, namely, the precise identification of the historic road endpoint in comparison with the current road network. Through systematic identification of other points along the road, its placement in a modern context can be completed.

To summarize, the road returns were photographed and then enhanced to allow for digitization and



**Figure 8.** Photo enhancement by the authors, road returns: Book B, Burlington County Clerk's Office, Mount Holly, NJ, p. 346.

comparison of that information as to the geographic start- and endpoints of a given route's measurements. Hand-drawn detailed maps from the road returns were overlaid on maps from various periods to identify key physical geographic features that will help with establishing the location of a road. Locational information and distance and direction data (recorded in historic chain distance and compass bearings) were collected from the road return text and converted into modern feet/meter distances and degree bearings. Then, adjustments for "drift" before and afterwards were made up to the present day and these were checked against tracking and measurements made during field trips on the actual road. This process both created and validated the historical route maps. Documentary information on these methods, a spreadsheet and a white paper that provides an overview of the process, are available from the authors by request (or from <https://histroads.commons.gc.cuny.edu/>). Figure 13 provides a flowchart that summarizes the entire process.

## Using Global Positioning System Tracks, Remote Sensing, and LiDAR Data to Refine and Validate Mapping

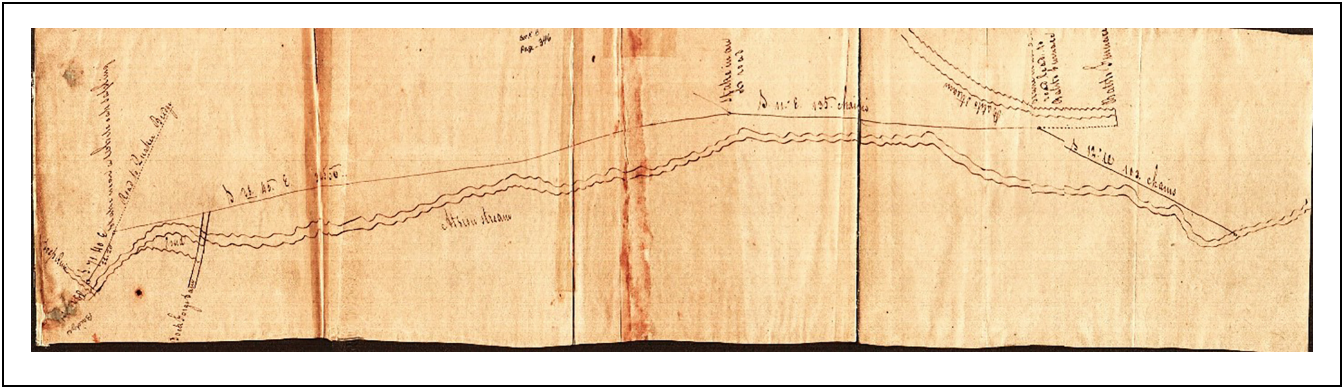
In our field validation of the USGS topographical maps, we found a high degree of correlation between our GPS tracks and the indicated sand roads ('unimproved roads' in USGS parlance). It appears that a good number of sand roads located in Burlington County have very long histories and several of these routes are associated with very historic events and historical figures. The digital USGS topographical maps and the field-collected GPS tracks produced by the authors' team validated that the routes appear to be stable in relation to location and route as compared to the 1947 to 1993 USGS topographical data. Given the dense forest surrounding these routes, it is likely that road users would remain on the established tracks and, thus, by use have preserved the route for future evaluation.

Validation of routes via GPS helps to resolve any discrepancies between historic maps, modern maps, and the actual current physical location of transportation assets. Our results in this case indicated a strong degree of correlation between the reported physical locations of the routes on the USGS topographical quads and the field-collected GPS routes. Several routes found in the field do not exist on the USGS maps, however, and that may well reflect new cut roads in the region as opposed to errors in the USGS mapping process. (As an interesting side note, we found considerable variation in some cases between our reported GPS field data and the modern GIS road shapefiles that appear to have been created using computer drawings by the file creator, as opposed to being based on field collection of data.)

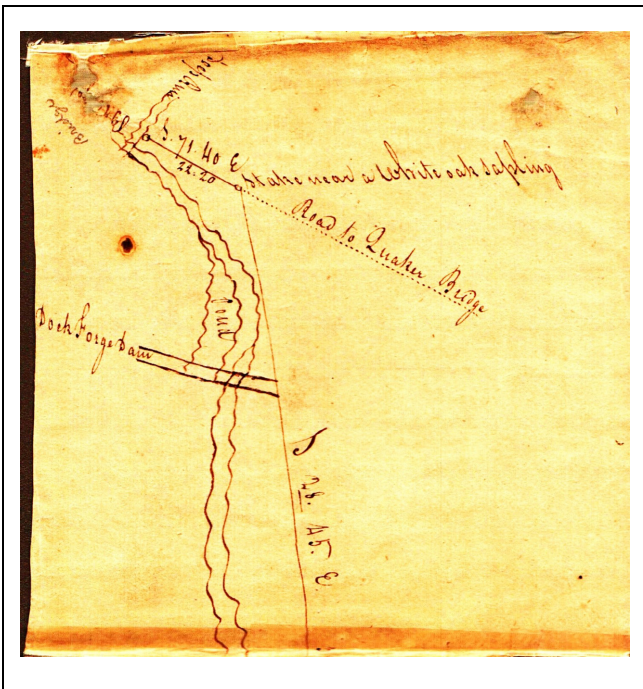
## Field Use of LiDAR Data in Historic Road Analysis

An alternative method of establishing the location of a historic road is the relatively new technology of light detection and ranging (LiDAR). Many governments have invested in having aerial LiDAR imaging performed for large sections of their state or region. These data are collected in the form of millions of data points that are delivered as a point cloud that can be analyzed in several ways. These point clouds contain information on every physical item that is struck by the laser imaging system in a particular geographic area and it provides the location of each point (longitude, latitude, and elevation). One can then filter the data as needed to examine detailed geographic items.

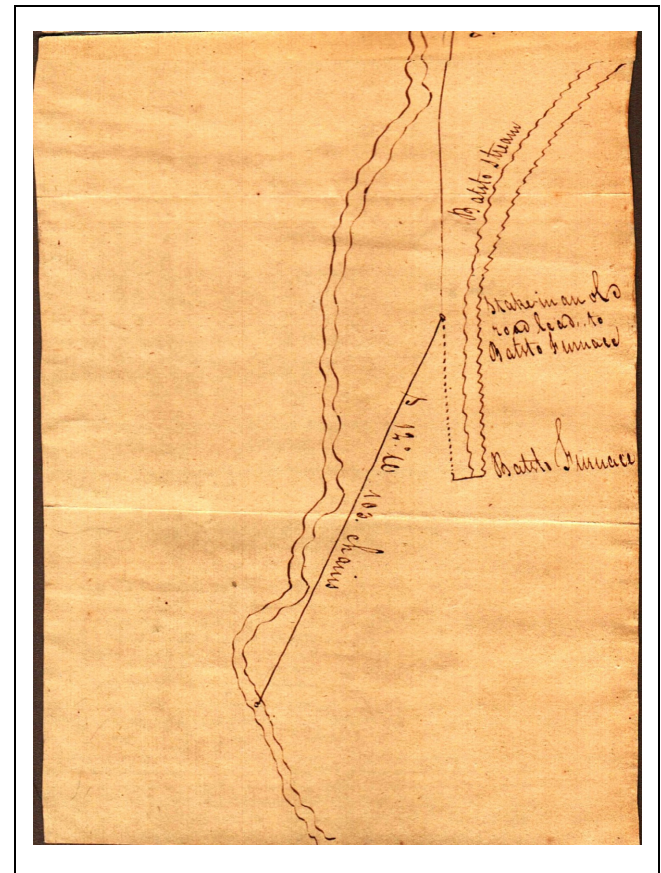
In our case, we obtained aerial LiDAR data from the state of New Jersey, Office of Geographic Information Systems. We then analyzed the data utilizing ESRI's



**Figure 9.** Road Return map of the Astion–Batsto Road. Road Returns: Book B, Burlington County Clerk’s Office, Mount Holly, NJ.



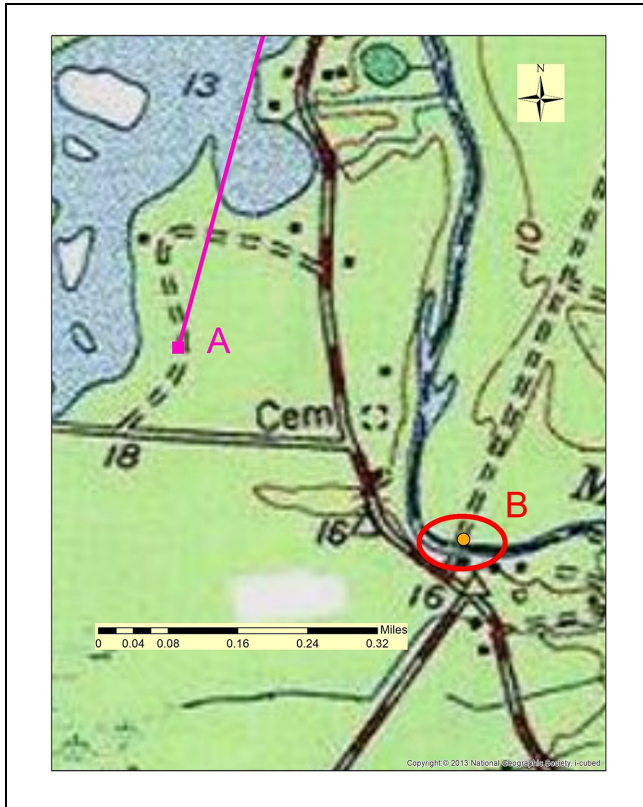
**Figure 10.** Inset map. Details from recorded map: Astion–Batsto road return, Burlington County, NJ, road returns: Book B, Burlington County Clerk’s Office, Mount Holly, NJ, pp. 345–346. Note: Preserved as a separate map.



**Figure 11.** Photo enhancement of the southern map segment by the authors. Road Returns: Book B, Burlington County Clerk’s Office, Mount Holly, NJ.

ArcGIS software, focusing on ground-level returns. In the region under study, the data are reported to be accurate to 5 cm in both the horizontal and vertical range with a 95% confidence interval (8, p. 2). The roads in question have been in use in some cases for over 250 years; as such, many have developed rather prominent “holloways”: worn depressions in the earth that are caused by the repeated use of vehicles, humans, and animals (7, pp. 81–84). By processing the LiDAR data at the appropriate scale, it is possible to locate the positions

of the holloways if they have sufficient depth. In the case of the sand roads of the Pinelands region of New Jersey, we found holloways that varied in depth, with some of the older roads, such as Middle Road, which dates from the 1790s or earlier, exhibiting strong and deep holloways of about 20 to 25 cm. Further, in some cases, the



**Figure 12.** Atsion–Batsto road return recreated map. Terminal end variation and comparison with existing road network.  
 Note: Estimated end at A; known endpoint circled in red at B.

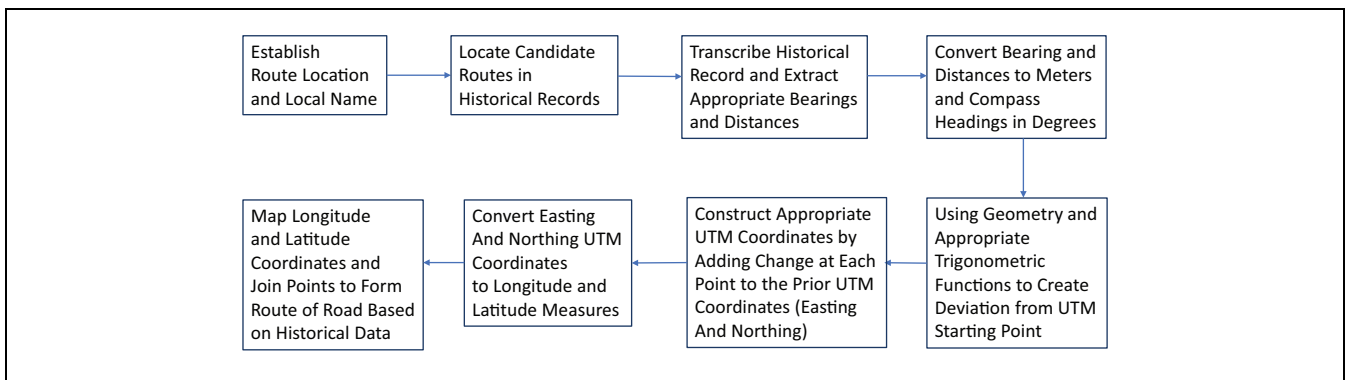
borders of the road were very distinct, such that they provided strong returns in the LiDAR images. Figures 14 and 15 provide examples of LiDAR images of segments of the Burlington County roads, whereas Figure 16 shows a photograph of what the roads there typically look like now.

Other road structures in the New Jersey Pinelands exhibited different returns. One interesting example was a road near the historic Batsto Village that exhibited very

strong, three-part ground returns. This was in sharp contrast to most sand roads, which comprise a quite braided or singular path in the LiDAR ground-level images. Field inspection found that the road in question was on an elevated embankment through a low-lying area that approaches a former bridge crossing. This is in line with the arguments from Morriss, where a trench on either side of an embankment from the removal of material would be expected, which was then used to construct the elevated road bed (7). In the LiDAR image (Figure 15), we can clearly see the elevated road embankment (A) as well as an on-grade road (B) with holloway and certain manufactured canal elements (C) as well as a prominent oxbow swamp on the edge of the Mullica River flood-plain (D). Figure 17 shows the GPS tracks overlaid on the USGS map.

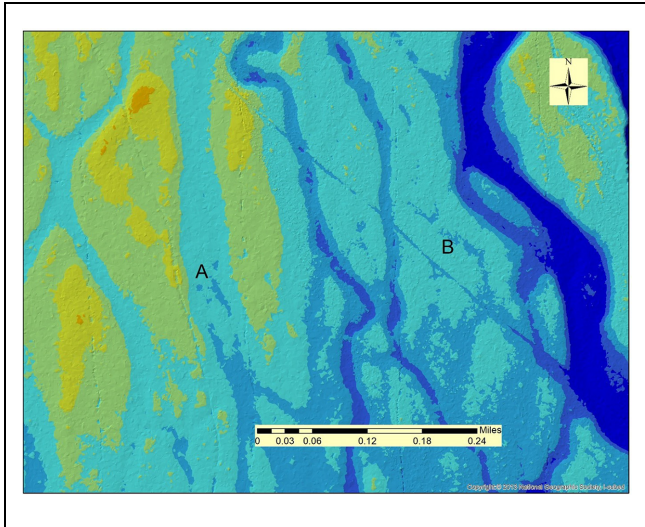
### Historical Context: Burlington County Roads and the American Revolutionary War

Although the methods described thus far were critical to identifying the historic routes, archival research, supplemented by secondary sources, was combined with the mapping to indicate that Middle Road was part of a network of sand roads that were utilized for trade and movement of military material during the American Revolutionary War in southern New Jersey. With the loss of the major trade ports of New York City and Philadelphia in 1777, the American Army was in critical need of supplies. The Continental Congress recognized the key value of smaller ports—some of which were used by smugglers—as key points of entry for military supplies, and on June 24, 1776 authorized the procurement and staffing of “Row Gallies” to protect Little Egg Harbor. Little Egg Harbor provided a key point through which to bring cargo either to be smuggled or in fact captured from British owners by American privateers (government-sanctioned pirates). Numerous manuscript



**Figure 13.** Flowchart of historic route identification using historical records and conversion into bearings, distances, and longitudes and latitudes.

Note: See text, data, and methods compendium for further details.

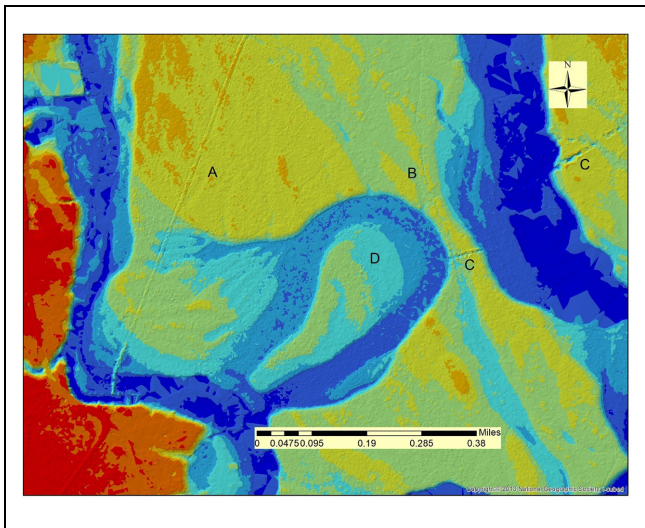


**Figure 14.** LiDAR image of ground returns for (A) Middle Road and (B) Batsto River Road in Wharton State Forest, NJ, based on 2015 DVRPA data.

Note: DVRPC = Delaware Valley Regional Planning Commission. Data citation provided as (8)

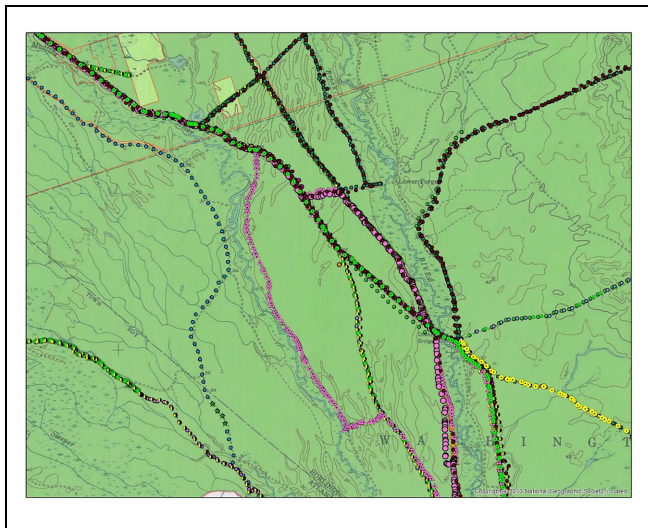


**Figure 16.** Typical sand road holloway on Middle Road in Wharton State Forest, NJ.



**Figure 15.** LiDAR image of The Forks area, based on 2015 DVRPC data.

Note: DVRPC = Delaware Valley Regional Planning Commission; A = elevated road embankment; B = on-grade road with holloway; C = manufactured canal elements; and D = oxbow swamp.



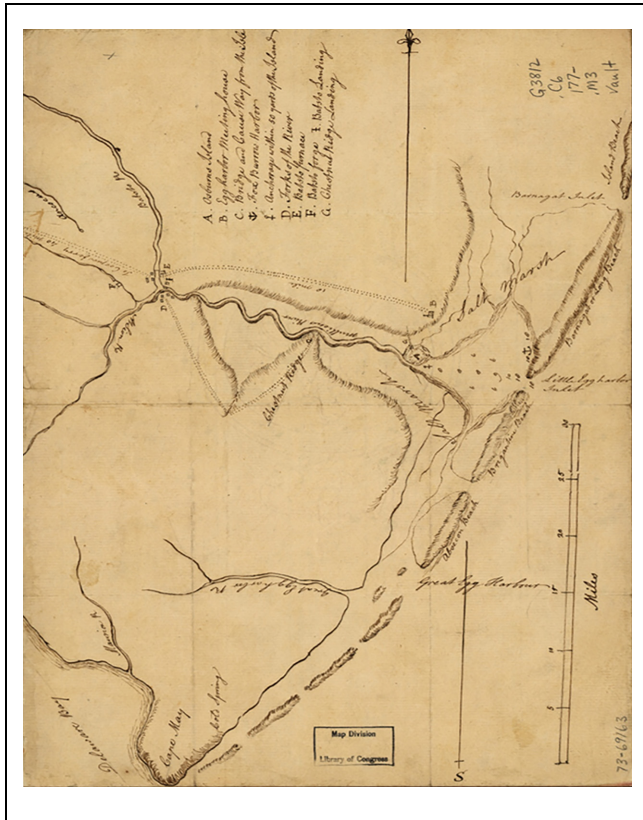
**Figure 17.** Authors' field-collected GPS tracks overlaid on USGS topographical maps: Atsion, NJ, quad area.

Note: GPS = global positioning system; USGS = United States Geological Survey.

references exist from the Revolutionary War papers of leading patriots and British leaders about smuggling activity and pirates at Egg Harbor, The Forks, and Batsto Iron Works (several of the relevant manuscripts are cited in Appendix 1).

The two main port areas of interest in Little Egg Harbor were Chestnut Neck and The Forks. These formed

the core of the south Jersey smuggling ports. The location of these activity centers are clearly indicated on the 1770 map (Figure 18; this map was drawn rotated 90° clockwise, with North indicated to the right; the map is shown with North at the top) as well as certain roads that served these areas, including Middle Road, which is indicated as a route to Camden, NJ (indicated as Cooper Ferry), where a ferry operated to bring people and goods to Philadelphia. Of note, the map indicates 40 mi to that location—very, very close to the actual distance on modern roads.



**Figure 18.** Map of south Jersey: The Forks and associated sand roads: a key revolutionary supply system.

Note: Map of the coast of New Jersey from Barnegat Inlet to Cape May. Scale ca. 1:32,000. Manuscript, pen-and-ink. Oriented with North to the top.  
Source: Library of Congress Maps of North America, 1750 to 1789, 1264 A.

Given that the cargo was offloaded from ships, the location of the port facilities utilized could vary based on the water depth in the river and the size of the ship. The Forks of the Mullica River represented the furthest inland point that was commonly reachable by larger vessels for the purpose of moving cargo. Further west and north of that point were not navigable and thus the points of The Forks and Batsto Landing represented the best places to land cargo that was heading to Philadelphia and the surrounding areas, such as Valley Forge. Further, this same route was of value in providing access for the shipment of munitions (in particular cannon balls) from two key iron forges at Batsto and Atsion.

These roads were of crucial significance during the Revolutionary War. The American Army was in critical need of supplies, suffering from the financial frailty of the new American government, which was compounded by the British Army and Navy control and blockade of key ports. However, local colonial traders had a long tradition of skirting British rules by smuggling goods, landing them in remote locations outside of the supervision of the British authorities.

One key port for smuggling was Little Egg Harbor and the Mullica River in Burlington County. With the outbreak of the war, the American government authorized the use of privateers—state-sanctioned pirates—as a key method of obstructing British trade and obtaining necessary goods. The privateers were motivated by opportunity and profit, as goods captured were typically auctioned off, with some military supplies requisitioned for army use. The American government had military warehouses established at key smuggling points to receive munitions and military cargo, such as on Rabbit Island at The Forks (9).

The routes that were used most likely represented the most direct and safe routes for transport, with the major routes identified by local experts as still existing as the Tuckerton Road and the Quaker Bridge Road. In addition, the Middle Road also provided a direct ford-free route to the ferries at Camden, NJ, and then on to Philadelphia. When Philadelphia was held by the British in 1777 to 1778, other routes needed to be utilized to bring cargo further north to supply the American Army at Valley Forge, thus, roads like Stokes Road were probably used.

The Revolutionary War also stimulated increased activity at the local iron furnaces and pressure to provide more refined products to serve in the war effort. The iron furnaces and forges were of such importance to the war effort that its workers were exempted from military service. The commonly reported major trade routes for these activities included the Atsion Road and the Tuckerton Stage Route. These routes exist today in Wharton State Forest and in adjoining lands in Burlington County. The most direct route that avoided any major bridge crossing was the route of Mullica River Road or Middle Road and the western segment of the Quaker Bridge Road. These were identified by local experts as still existing and passable for use today (10).

Scholars note that the forges and furnaces of the area were critical producers of raw and finished materials for producing munitions (such as shot and muskets) and other supplies for the Continental Army. The roads of the Pine Barrens were utilized to move these goods to Philadelphia (9, 11). In addition, significant historical figures such as General Nathanael Greene and Benedict Arnold were actually part owners in privateering ships and the iron works.

These roads were also auxiliaries to various important events—including significant troop movements. The privateer activity so incensed the British command in New York City that a punitive raid was ordered in September 1778. The raid, which arrived at Little Egg Harbor, on October 5, 1778, was able to damage the area of Chestnut Neck, but was unable to reach a further 10 mi upriver to The Forks. Chestnut Neck is well-known today for the actual battle that occurred in this area that

involved a significant force from the Royal Navy under Captain Henry Collins and regular British Army soldiers and New Jersey Loyalist troops under Captain Patrick Ferguson, who were opposed by Count Pulaski of the American Army. The Forks remained largely untouched by this and other engagements and thus became forgotten by history. In fact, The Forks remained the major trading area for the next 3 years of the war with “fully 56% of all sales undertaken in the Little Egg Harbor region ... held at the Forks” (9, p. 133).

Given all of the activity from the Revolutionary War period, we feel confident that our evaluation of the routes in question would meet the standard of historical significance as Early Roads Era routes and thus should be identified as historic and managed appropriately.

### **Implications for Historical Research and Preservation**

The routes under consideration in Burlington County clearly fall in most cases as routes with historical association to important events. Given that these routes have never been paved, their structure and design elements are minimal, but their use in regional history, and ability to allow users to experience a very similar environment to the key periods of use is significant (the Early Roads period, 1651 to 1814, and even later use for liquor smuggling into the 1930s). The limited physical infrastructure and design elements of an unpaved forest route would have very different preservation standards and goals as compared to an engineered aesthetic route. One could easily argue that the lack of these infrastructure and design elements actually contributes to the high level of preservation and excellent historic context as they relate to the period of high significance—in this case, the Revolutionary War.

It certainly helps that these roads are located in a largely undeveloped region of New Jersey in state forest lands and surrounding agricultural and residential land. Our research work has focused on four roads in Wharton State Forest, the largest single tract of unimproved land in New Jersey (125,000 acres) in Burlington County. Inside the boundary of the state forest, over 500 mi of roads, trails, and fire cuts exist. They range in width from single track motorcycle trails and foot paths to minimally constructed sand roads to formal gravel roads and paved sections. The routes continue to exist for various reasons, including public access, historic agricultural activity, and hunting. Recreational users include hikers, mountain bikers, horse riders, kayak and canoe transport, and licensed motor-vehicle users (cars, trucks, and motorcycles). Thus, the existing roads provide visitors with several recreational opportunities and access to a broad range of areas in the forest.

Although this paper has focused on methods for identifying historic roads and the value of conducting thorough fieldwork using LiDAR, GPS, and GIS methods to assist in this task, further discussion as to how best we can preserve these historical assets once they are identified is necessary. Proper preservation and marking of historic roads are of key importance and a clear and actionable preservation plan should be developed. Further, a fuller understanding of the formal establishment of a road and its corresponding legal rights-of-way can support any discussion of the rights of the public to use these roads and that such use may not be curtailed by adjoining property owners.

The goals and practices of historic preservation for a given site can be in conflict with other regional plans, such as economic development or recreational uses. Public access onto the Wharton Forest roads and issues related to their use and the activity of motorized vehicles on existing sand roads and trails might be assumed to undermine preservation. Yet the use of these trails by modern vehicles could, paradoxically, potentially serve to preserve and manage overgrowth of the routes. A sensible management plan might include regular use of the routes to continue to maintain the open rights-of-way, in conjunction with heritage safeguards. Interestingly, documented loss of some significant routes resulting from a lack of use has indeed occurred in the area. A significant portion of the Tuckerton Stage Route has been lost, as the removal of a key bridge and development of a paved alternative resulted in the rerouting of traffic onto a parallel route. Thus, with limited travel and activity, the surrounding forest reseeded the route and, over time, the route was effectively extinguished. In particular, the section from Beaver Run to Bodine Field is reported to be unpassable as of the 1960s and today is largely lost owing to a lack of use. There are numerous similar examples elsewhere in the United States (7; Plates 3 and 7).

Thus, it may be that historic preservation and sensible use of these facilities may fruitfully coexist. In fact, regular use requires management and periodic maintenance, which may, if done properly, actually help preserve a route under the right conditions. This is particularly important for areas of high use and at intersections. These impacts are most pronounced at areas that concentrate activity, such as at river crossings and at geographic choke points. The often-stated desire to eliminate motorized vehicle road use in public parks, for the purposes of returning a given area to its natural state, in some cases may be in direct conflict to the historic preservation of these routes, as a lack of use could lead to the loss of the historic route because of overgrowth. Further, to maintain a route without use would require periodic trail cutting, a significant effort and expense for forest management. Of course, use can be harmful to

preservation as well, but should not automatically be assumed to be so.

There are several useful technological solutions that could be applied to protect and provide additional surface and subsurface strength to historic roads, with minimal impact to the look and functionality of historic roads. In particular, at high-use areas, the deployment of proper subsurface preparation and the use of geotextiles and soil stabilization can create very durable road surfaces that afford significantly better load capacity, while maintaining a surface appearance that is consistent with the historic nature of the road. For example, affordable geogrids can be placed using standard equipment to create a reinforced road that has significantly better wear and strength as compared to unreinforced soils. These technologies should allow the continued use of historic roads while preserving their essential characteristics and routing. Further, these techniques can be applied as needed, with appropriate surface treatment maintaining the historic appearance of a given route (12).

## Conclusions

This article has described a process used to identify, accurately map, and document historically significant roads. Five components were involved (after identifying the area of interest, in this case a set of roads in Burlington County, NJ, that were of importance during the American Revolutionary War): (1) extraction of contextual and geographic data from archival road record research (the “road returns”); (2) comparison of this source data with historical maps from various periods, cross-referenced and then superimposed on one other and then on contemporary USGS maps; (3) adjustment for course variation using appropriate corrections; (4) field measurement and observation of the present tracks and routes using GPS and LiDAR; and (5) validation, confirmation, and finalization of maps, pulling all the various components together. The establishment of the historical routes with a high degree of confidence then allowed for construction of an historical narrative and interpretation of the use and importance of the roads as supply routes during the American Revolutionary War.

Traditionally, the historic preservation community has placed significant weight on documentation via period documents and any photographic evidence, as well as physical inspections of construction methods and materials analysis to provide the strongest evidence of the historic nature of a given facility or corridor (13, 14). Historical maps can provide some insight into the period of construction and likely route of a given historic road, but the information typically has limited detail on the actual route. The methods outlined in this paper utilized

existing historic records, and a technology-enhanced reconstruction of the route then allowed us to more precisely examine the historical records in context to the physical geography. By locating the historical record of a given route, we can then establish with ever greater certainty the location and date of construction or establishment of a given historic route. Further analysis using LiDAR and field inspection via GIS analysis provides additional information about the current conditions and location of historic routes and may well assist in the location of potential sites for future archaeological investigation. Combining the technology-enhanced methods examined in this paper with the traditional methods of the historic preservation community provides a broader set of tools that can be applied to the corridor under consideration.

Although historical records may vary by location and time period, the broad and expanding availability of LiDAR data is allowing very detailed analysis of historical resources that were not generally available even two decades ago. Multiple data warehouses exist that can provide access to high-quality LiDAR data for many areas of the United States. One example is the USGS 3DEP LIDARExplorer web site (<https://apps.nationalmap.gov/lidar-explorer/#/>), which has data from multiple public sources for many states and regions. The ability of LiDAR information to provide very detailed physical information about remote areas is a huge advantage for facilitating a strategic data scan of a given area to identify potential high-value field visit locations.

The process methods outlined in this paper are generalizable to other roads in other areas and at other times, as well as to other historical and physical assets, though there will certainly be unique challenges in each case. The Burlington roads had the advantage of relatively abundant information residing in the field and the historical records, including maps that allowed LiDAR, GPS, and “ground truth” methods to add a great deal of explanatory and adjustment power. This will not always be so, in which case, more speculation and imputation may be necessary. This paper provides some strong confirmation that each of these methods are viable as standalone analysis tools—with multiple methods providing further confirmation of a given research question. Nonetheless, modern technology has greatly increased the ability of the historian or land-use manager to more firmly determine the path, condition, and use of historical roads and other assets. Further, this research has laid out some techniques that are available to researchers and managers, which have significant potential to improve the level of detail, timeliness, and accuracy of the information available about historical assets in a given region.

## Author Contributions

The authors confirm contribution to the paper as follows: study conception and design: J. Peters, C. Gordon, C. Peters; data collection: J. Peters & C. Peters; analysis and interpretation of results: J. Peters, C. Gordon, C. Peters; draft manuscript preparation: J. Peters, C. Gordon, C. Peters. All authors reviewed the results and approved the final version of the manuscript.


## Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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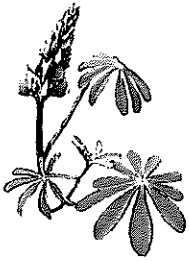
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## Supplemental Material

Supplemental material for this article is available online.

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# Partnerships for New Jersey

## Plant Conservation

Scientists, Advocates, Educators and Citizens

Working Towards Protection of New Jersey's Rare Flora

### **Testimony to the Pinelands Commission, March 8, 2024, concerning the CMP list of protected plant species.**

For the sake of any Commissioners who may not yet be familiar with the issue, the Commission's list of protected plant species is obsolete. It lacks scientific justification. There are plant species that are at a level of imperilment that is customarily referred to as "Threatened" that are known to occur within the Pinelands National Reserve but that are not included for protection under the CMP. It seems there are two possible ways to correct this.

First, the State of New Jersey could adopt legislation that recognizes imperiled plant species at the status of "Threatened." If this were to happen, the Pinelands Commission could simply adopt, by reference, the "Threatened" list, just as it did the "Endangered" list. This would not be a perfect solution for a variety of reasons, but it would be a big improvement. Unfortunately, it seems to be impossible to estimate how and when the state might adopt such legislation. Several conservation organizations have drafted a bill to accomplish this, and that bill has had sponsors in recent years, both in the Senate and the Assembly, but the bill never advanced, and, currently, has no sponsor.

The second possibility is that the Commission could rely on its own authority to declare what plants it considers worthy of protection. It seems there are two possible ways to go using this option.

The Commission could simply use the best possible source of information on imperiled plants, the list produced and maintained by the DEP itself in the New Jersey Office of Natural Lands Management. This list is composed of all the plant species of conservation concern in New Jersey, and it is updated as new data indicate the need to do so. It is formulated in accordance with the protocols of NatureServe, a nonprofit organization employing a system used throughout the US and Canada by professional conservationists (see [natureserve.org](http://natureserve.org)). NatureServe classifies and maps biodiversity, and it assesses biodiversity status and threats. It assigns conservation ranks to species that apply regardless of any politically-based statuses. The Commission could hardly be faulted for resting on the authority and conclusions derived from the NatureServe system, as employed by the New Jersey Office of Natural Lands Management.

Alternatively, the Commission could use its own authority to convene a working group composed of local experts in order to create a list of plant species that deserve protection. Using this option, the Commission could create criteria to be used by the working group that might include things in addition to the state status "Endangered" and conservation ranks assigned to any plants being considered. The advantage to this would be that the Commission could retain as protected, some plants that deserve protection, even though the species may not have state status or a conservation rank that designates it as "Threatened."

To give an example, Pine Barrens Reedgrass (*Calamovilfa brevipilis*) has been on the list of protected species since the creation of the CMP, but it doesn't hold the status of "Endangered" nor is it ranked in such a way as to indicate it is "Threatened." A strong argument could be made, however, that it deserves protection by virtue of the fact it is confined to some of our most characteristic Pine Barrens lowland communities; it is a strong indicator of habitat suitable for sometimes cryptic rare species; it is the host plant for a rare butterfly; and the Pine Barrens of New Jersey is the global stronghold for the plant.



# ***RESOLUTION OF THE NEW JERSEY PINELANDS COMMISSION***

**NO. PC4-24- 04**

**TITLE:** **Approving** With Conditions Applications for **Public Development** (Application Numbers 1987-1159.064 & 2000-0637.005)

Commissioner Avery moves and Commissioner Lohbauer seconds the motion that:

**WHEREAS**, the Pinelands Commission has reviewed the Public Development Application Reports and the recommendation of the Executive Director that the following applications for Public Development be approved with conditions:

**1987-1159.064**

<b>Applicant:</b>	<b>Stafford Township</b>
Municipality:	Stafford Township
Management Area:	Pinelands Regional Growth Area
Date of Report:	February 12, 2024
Proposed Development:	Construction of an 1,800 square foot addition to a Township Public Works garage and a 6,950 square foot paved parking area; and

**2000-0637.005**

<b>Applicant:</b>	<b>New Jersey Department of Environmental Protection</b>
Municipality:	Washington Township
Management Area:	Pinelands Village
Date of Report:	February 15, 2024
Proposed Development:	Change in use of a portion of the former Green Bank School to office space for the New Jersey Department of Environmental Protection.

**WHEREAS**, no request for a hearing before the Office of Administrative Law concerning the Executive Director's recommendation has been received for these two applications; and

**WHEREAS**, the Pinelands Commission hereby adopts the Conclusion of the Executive Director for each of the proposed applications for public development; and

**WHEREAS**, the Pinelands Commission hereby determines that the development proposed in each of the applications conforms to the standards for approving an application for public development set forth in the Pinelands Comprehensive Management Plan (N.J.A.C. 7:50-4.57) if the conditions recommended by the Executive Director are imposed; and

**WHEREAS**, pursuant to N.J.S.A. 13A-5h, no action authorized by the Commission shall have force or effect until ten (10) days, Saturdays, Sundays and public holidays excepted, after a copy of the minutes of the meeting of the Commission has been delivered to the Governor for review, unless prior to expiration of the review period and Governor shall approve same, in which case the action shall become effective upon such approval.

**NOW, THEREFORE BE IT RESOLVED** that Application Numbers 1987-1159.064 & 2000-0637.005 for public development are hereby **approved** subject to the conditions recommended by the Executive Director.

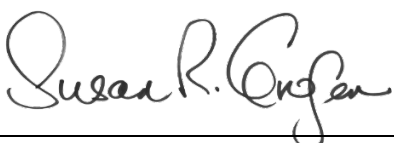
**Record of Commission Votes**

	AYE	NAY	NP	A/R*		AYE	NAY	NP	A/R*		AYE	NAY	NP	A/R*
Asselta			X		Lettman	X				Rittler Sanchez	X			
Avery	X				Lohbauer	X				Wallner	X			
Christy	X				Mauriello	X				Matos	X			
Holroyd	X				Meade	X								
Irick			X		Pikolycky	X								


\*A = Abstained / R = Recused

Adopted at a meeting of the Pinelands Commission

Date: March 8, 2024



Susan R. Grogan  
Executive Director



Laura E. Matos  
Chair



# State of New Jersey

THE PINELANDS COMMISSION

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PHILIP D. MURPHY  
Governor

TAHESHA L. WAY  
Lt. Governor

General Information: [Info@pinelands.nj.gov](mailto:Info@pinelands.nj.gov)  
Application Specific Information: [AppInfo@pinelands.nj.gov](mailto:AppInfo@pinelands.nj.gov)

LAURA E. MATOS  
Chair  
SUSAN R. GROGAN  
Executive Director

February 12, 2024

Matthew von der Hayden, Administrator (via email)  
Stafford Township  
260 Bay Avenue  
Manahawkin NJ 08050

Re: Application # 1987-1159.064  
Block 13, Lot 61  
Stafford Township

Dear Mr. von der Hayden:

The Commission staff has completed its review of this application for the construction of an 1,800 square foot addition to a Township Public Works garage and a 6,950 square foot paved parking area. Enclosed is a copy of a Public Development Application Report. On behalf of the Commission's Executive Director, I am recommending that the Pinelands Commission approve the application with conditions at its March 8, 2024 meeting.

Any interested party may appeal this recommendation in accordance with the appeal procedure attached to this document. If no appeal is received, the Pinelands Commission may either approve the recommendation of the Executive Director or refer the application to the New Jersey Office of Administrative Law for a hearing.

Prior to any development, the applicant shall obtain any other necessary permits and approvals.

Sincerely,

for Charles M. Horner, P.P.

Director of Regulatory Programs

Enc: Appeal Procedure

c: Secretary, Stafford Township Planning Board (via email)  
Stafford Township Construction Code Official (via email)  
Stafford Township Environmental Commission (via email)  
Secretary, Ocean County Planning Board (via email)  
Frank J. Little, PE, PP, CME (via email)



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Application Specific Information: [AppInfo@pinelands.nj.gov](mailto:AppInfo@pinelands.nj.gov)

LAURA E. MATOS  
Chair  
SUSAN R. GROGAN  
Executive Director

## **PUBLIC DEVELOPMENT APPLICATION REPORT**

February 12, 2024

Matthew von der Hayden, Administrator (via email)  
Stafford Township  
260 Bay Avenue  
Manahawkin NJ 08050

Application No.: 1987-1159.064  
Block 13, Lot 61  
Stafford Township

This application proposes the construction of an 1,800 square foot addition to a Township Public Works garage and a 6,950 square foot paved parking area located on the above referenced 20.61 acre parcel in Stafford Township. A Township Public Works facility is located on the parcel.

The applicant also proposes to relocate seven existing structures, including metal storage containers and a shed, located on the parcel. Those structures will remain on the parcel and will be located on existing paved surfaces.

### **STANDARDS**

The Commission staff has reviewed the proposed development for consistency with all standards of the Pinelands Comprehensive Management Plan (CMP). The following reviews the CMP standards that are relevant to this application:

#### **Land Use (N.J.A.C. 7:50-5.28)**

The parcel is located in a Pinelands Regional Growth Area. The proposed development is a permitted land use in a Pinelands Regional Growth Area.

#### **Wetlands Standards (N.J.A.C. 7:50-6.6)**

There are wetlands located on the parcel. All development will be located at least 300 feet from wetlands.

#### **Vegetation Management Standards (N.J.A.C. 7:50-6.23 & 6.26)**

The proposed development will be located over existing paved surfaces and a maintained grassed area. The proposed soil disturbance is limited to that which is necessary to accommodate the proposed

development.

The Landscaping and Revegetation guidelines of the CMP recommend the use of grasses that are tolerant of droughty, nutrient poor conditions. To stabilize disturbed areas, the applicant proposes to utilize grasses that meet that recommendation.

Water Quality Standard (N.J.A.C. 7:50-6.83)

The existing and proposed development will be serviced by public sanitary sewer.

Stormwater Management Standards (N.J.A.C. 7:50-6.84(a)6)

The proposed development is consistent with the stormwater management standards of the CMP. To meet the stormwater management standards, the application proposes to construct three underground infiltration trenches.

There is an existing stormwater management basin on the parcel. The basin was approved by the Commission as part of the application to construct the existing Public Works facility (App. No. 1987-1159.003). The existing basin is retaining stormwater runoff and not functioning as designed. To address this issue, the applicant proposes to remove all vegetation from within the basin and regrade the basin to the original design elevations.

Cultural Resource Standards (N.J.A.C. 7:50-6.151)

The Commission staff reviewed available information to determine the potential for any significant cultural resources that could be affected by the proposed development. Based upon the lack of potential for significant cultural resources within the area to be developed, a cultural resource survey was not required.

**PUBLIC COMMENT**

The applicant has provided the requisite public notices. Notice to required landowners within 200 feet of the above referenced parcel was completed on September 14, 2023. Newspaper public notice was completed on September 30, 2023. The application was designated as complete on the Commission's website on January 3, 2024. The Commission's public comment period closed on February 9, 2024. No public comment was submitted to the Commission regarding this application.

**CONDITIONS**

1. Except as modified by the below conditions, the proposed development shall adhere to the plan, consisting of 12 sheets, prepared by Owen, Little & Associates Inc. and dated as follows:

Sheets 1, 2, 6, 7, 9 & 12 - September 21, 2023

Sheets 3-5 & 8 - September 21, 2023; last revised November 14, 2023

Sheet 10 - undated

Sheet 11 - undated; last revised November 14, 2023

2. Disposal of any construction debris or excess fill may only occur at an appropriately licensed facility.
3. Any proposed revegetation shall adhere to the "Vegetation" standards of the CMP. Where appropriate, the applicant is encouraged to utilize the following Pinelands native grasses for revegetation: Switch grass, Little bluestem and Broom-sedge.
4. Prior to any development, the applicant shall obtain any other necessary permits and approvals.
5. The applicant shall complete the remediation of the existing stormwater basin by December 31, 2024.

### CONCLUSION

As the proposed development conforms to the standards set forth in N.J.A.C. 7:50-4.57, it is recommended that the Pinelands Commission **APPROVE** the proposed development subject to the above conditions.



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Application Specific Information: [AppInfo@pinelands.nj.gov](mailto:AppInfo@pinelands.nj.gov)

LAURA E. MATOS  
Chair

SUSAN R. GROGAN  
Executive Director

### **PINELANDS COMMISSION** **APPEAL PROCEDURE**

The Pinelands Comprehensive Management Plan (N.J.A.C. 7:50-4.91) provides an interested party the right to appeal any determination made by the Executive Director to the Commission in accordance with N.J.A.C. 7:50-4.91. An interested party is someone who has a specific property interest sufficient to require a hearing on constitutional or statutory grounds. Only appeal requests submitted by someone meeting the definition of an interested party will be transmitted to the New Jersey Office of Administrative Law for a hearing. Any such appeal must be made in writing to the Commission and received by the Commission's office no later than 5:00 PM on March 1, 2024 and include the following information:

1. the name and address of the person requesting the appeal;
2. the application number;
3. the date on which the determination to be appealed was made;
4. a brief statement of the basis for the appeal; and
5. a certificate of service (a notarized statement) indicating that service of the notice has been made, by certified mail, on the clerk of the county, municipal planning board and environmental commission with jurisdiction over the property which is subject of this decision.

Within 15 days following receipt of a notice of valid appeal, the Executive Director shall initiate the procedures for assignment of an Administrative Law Judge to preside at the hearing pursuant to the Administrative Procedures Act, N.J.S.A. 52:14B-1 et seq., and the procedures established by the Office of Administrative Law. The time, date and location of such hearing shall be designated by the Office of Administrative Law.



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LAURA E. MATOS  
Chair  
SUSAN R. GROGAN  
Executive Director

February 15, 2024

Kenneth Hayek (via email)  
NJ Department of Environmental Protection  
P.O. Box 420, Mail Code 401-041  
Trenton NJ 08625

Re: Application # 2000-0637.005  
Block 52.01, Lot 6.01  
Washington Township

Dear Mr. Hayek:

The Commission staff has completed its review of this application for the change in use of a portion of the former Green Bank School to office space for the New Jersey Department of Environmental Protection. Enclosed is a copy of a Public Development Application Report. On behalf of the Commission's Executive Director, I am recommending that the Pinelands Commission approve the application with conditions at its March 8, 2024 meeting.

Any interested party may appeal this recommendation in accordance with the appeal procedure attached to this document. If no appeal is received, the Pinelands Commission may either approve the recommendation of the Executive Director or refer the application to the New Jersey Office of Administrative Law for a hearing.

Prior to any development, the applicant shall obtain any other necessary permits and approvals.

Sincerely,

Charles M. Horner, P.P.  
Director of Regulatory Programs

Enc: Appeal Procedure

c: Secretary, Washington Township Planning Board (via email)  
Washington Township Construction Code Official (via email)  
Secretary, Burlington County Planning Board (via email)  
Kelley O'Such (via email)



# State of New Jersey

THE PINELANDS COMMISSION

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NEW LISBON, NJ 08064

(609) 894-7300

www.nj.gov/pinelands



PHILIP D. MURPHY  
Governor

TAHESHA L. WAY  
Lt. Governor

General Information: [Info@pinelands.nj.gov](mailto:Info@pinelands.nj.gov)  
Application Specific Information: [AppInfo@pinelands.nj.gov](mailto:AppInfo@pinelands.nj.gov)

LAURA E. MATOS  
Chair  
SUSAN R. GROGAN  
Executive Director

## **PUBLIC DEVELOPMENT APPLICATION REPORT**

February 15, 2024

Kenneth Hayek (via email)  
NJ Department of Environmental Protection  
P.O. Box 420, Mail Code 401-041  
Trenton NJ 08625

Application No.: 2000-0637.005  
Block 52.01, Lot 6.01  
Washington Township

This application proposes the change in use of a portion of the former Green Bank School to office space for the New Jersey Department of Environmental Protection (NJDEP) located on the above referenced 15.9 acre parcel in Washington Township.

On January 14, 2005, the Commission approved the construction of a 24,720 square foot school on the above referenced parcel (App. No. 2000-0637.001). After construction, the school was closed and subsequently purchased by the State of New Jersey.

On August 14, 2020, the Commission approved the change in use of a 9,000 square foot portion of the existing 24,720 square foot building to office space for the New Jersey State Park Police (App. No. 2000-0637.004).

This application proposes to establish offices for the NJDEP, Bureau of Marine Water Monitoring in the remaining 15,720 square feet of the building.

### **STANDARDS**

The Commission staff has reviewed the proposed change in use for consistency with all standards of the Pinelands Comprehensive Management Plan (CMP). The following reviews the CMP standards that are relevant to this application:

#### **Land Use (N.J.A.C. 7:50-5.27)**

The parcel is located in the Pinelands Village of Green Bank. Professional offices are a permitted land use in a Pinelands Village.

### Water Quality Standard (N.J.A.C. 7:50-6.83)

The former school building is serviced by an existing on-site septic system. The existing on-site septic system does not treat or reduce the level of nitrate/nitrogen in the wastewater.

The CMP requires that ground water exiting a parcel from existing and proposed development meet a two parts per million nitrate/nitrogen groundwater quality (septic dilution) standard. To meet this standard, the applicant proposes to replace the existing system with an on-site septic wastewater treatment system that will reduce the level of nitrate/nitrogen in the wastewater.

The CMP (N.J.A.C. 7:50-6.84(a)5iv(3)) specifies certain requirements for the use of an on-site septic wastewater treatment system that will reduce the level of nitrate/nitrogen in the wastewater. Those requirements include monitoring of the treated wastewater effluent to ensure that the existing and proposed uses will meet the two parts per million nitrate/nitrogen groundwater quality (septic dilution) standard. A condition is included in this Public Development Application Report to address the CMP requirements for use of the proposed system.

### **PUBLIC COMMENT**

The CMP defines the proposed change in use as “minor” development. The CMP does not require public notice for minor public development applications. The application was designated as complete on the Commission’s website on January 29, 2024. The Commission’s public comment period closed on February 9, 2024. No public comment was submitted to the Commission regarding this application.

### **CONDITIONS**

1. Prior to any change in use, the applicant shall obtain any other necessary permits and approvals.
2. The proposed on-site septic wastewater treatment system must be installed prior to the issuance of a Certificate of Occupancy for the proposed change in use.
3. Prior to the issuance of a Certificate of Occupancy for the proposed change in use, NJDEP shall submit to the Pinelands Commission an executed copy of a legal agreement addressing the CMP (N.J.A.C. 7:50-6.84(a)5iv(3)) monitoring and maintenance requirements for the proposed on-site wastewater treatment system.

### **CONCLUSION**

As the proposed development conforms to the standards set forth in N.J.A.C. 7:50-4.57, it is recommended that the Pinelands Commission APPROVE the proposed change in use subject to the above conditions.



## State of New Jersey

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Application Specific Information: [AppInfo@pinelands.nj.gov](mailto:AppInfo@pinelands.nj.gov)

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Executive Director

### **PINELANDS COMMISSION** **APPEAL PROCEDURE**

The Pinelands Comprehensive Management Plan (N.J.A.C. 7:50-4.91) provides an interested party the right to appeal any determination made by the Executive Director to the Commission in accordance with N.J.A.C. 7:50-4.91. An interested party is someone who has a specific property interest sufficient to require a hearing on constitutional or statutory grounds. Only appeal requests submitted by someone meeting the definition of an interested party will be transmitted to the New Jersey Office of Administrative Law for a hearing. Any such appeal must be made in writing to the Commission and received by the Commission's office no later than 5:00 PM on March 4, 2024 and include the following information:

1. the name and address of the person requesting the appeal;
2. the application number;
3. the date on which the determination to be appealed was made;
4. a brief statement of the basis for the appeal; and
5. a certificate of service (a notarized statement) indicating that service of the notice has been made, by certified mail, on the clerk of the county, municipal planning board and environmental commission with jurisdiction over the property which is subject of this decision.

Within 15 days following receipt of a notice of valid appeal, the Executive Director shall initiate the procedures for assignment of an Administrative Law Judge to preside at the hearing pursuant to the Administrative Procedures Act, N.J.S.A. 52:14B-1 et seq., and the procedures established by the Office of Administrative Law. The time, date and location of such hearing shall be designated by the Office of Administrative Law.



**RESOLUTION OF THE NEW JERSEY PINELANDS COMMISSION**

**NO. PC4-24- 05**

**TITLE:** To Accept the Fiscal Year 2021 Audit Report

**Commissioner Pikolycky moves and Commissioner Lohbauer seconds the motion that:**

**WHEREAS,** an audit of the Pinelands Commission’s Fiscal Year 2021 Financial Statements, Notes to the Financial Statements and Schedules of Federal and State Assistance was performed by the Office of the State Auditor; and

**WHEREAS,** the Fiscal Year 2021 Audit Report was issued on January 31, 2024; and

**WHEREAS,** the Fiscal Year 2021 Audit Report contains no Audit Findings or Questioned Costs; and

**WHEREAS,** pursuant to N.J.S.A. 13:18A-5h, no action authorized by the Commission shall have force or effect until ten (10) days, Saturdays, Sundays and public holidays excepted, after a copy of the minutes of the meeting of the Commission has been delivered to the Governor for review, unless prior to expiration of the review period the Governor shall approve same, in which case the action shall become effective upon such approval.

**NOW, THEREFORE BE IT RESOLVED** that the Pinelands Commission hereby accepts the Audit Report for Fiscal Year 2021 and directs that it be included as a publication available through the Pinelands Commission’s website.

**Record of Commission Votes**

	AYE	NAY	NP	A/R*		AYE	NAY	NP	A/R*		AYE	NAY	NP	A/R*
Asselta			X		Lettman	X				Rittler Sanchez	X			
Avery	X				Lohbauer	X				Wallner	X			
Christy	X				Mauriello	X				Matos	X			
Holroyd	X				Meade	X								
Irick			X		Pikolycky	X								

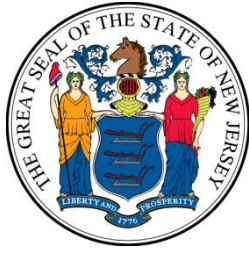
\*A = Abstained / R = Recused

Adopted at a meeting of the Pinelands Commission

Date: March 8, 2024

Susan R. Grogan  
Executive Director

Laura E. Matos  
Chair

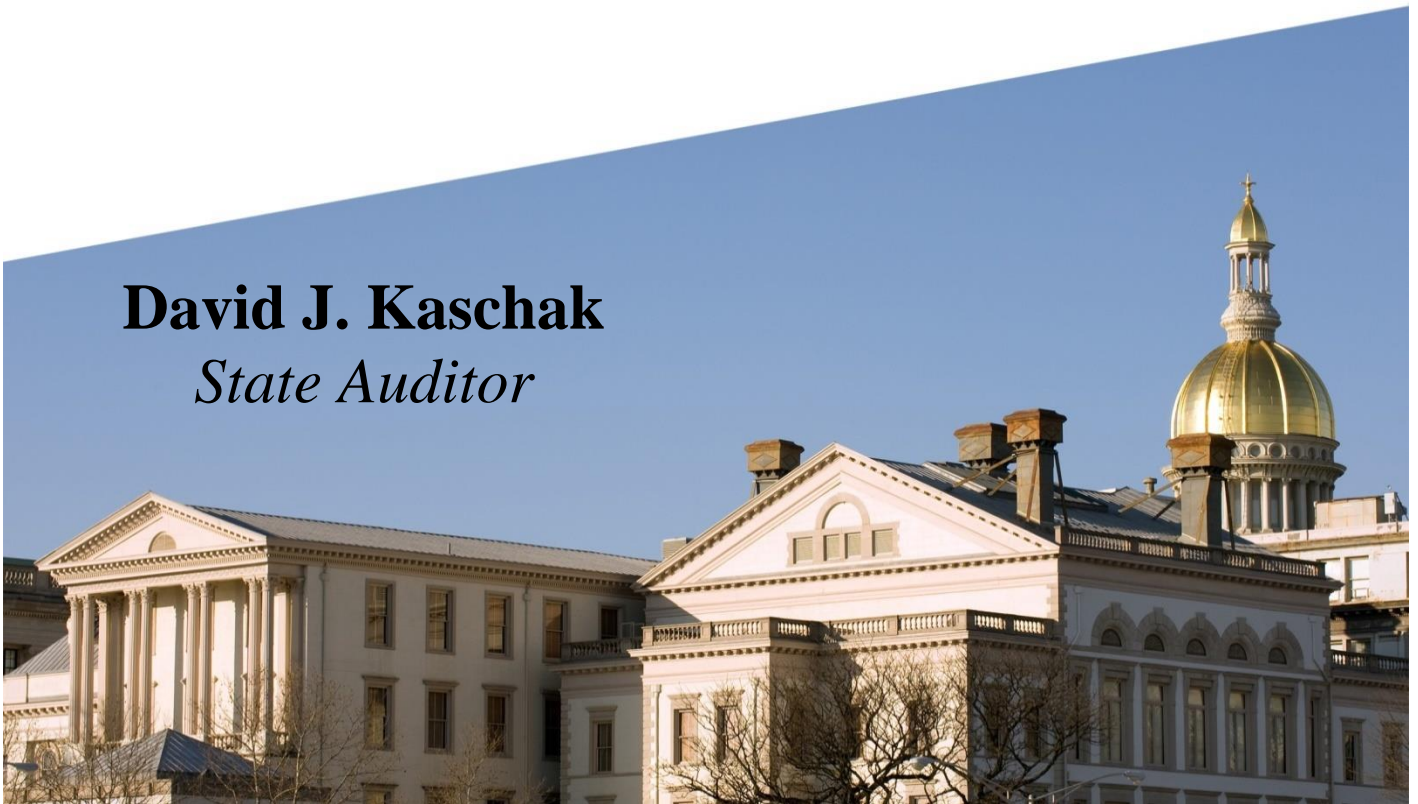


*New Jersey Legislature*  
★ *Office of* LEGISLATIVE SERVICES ★  
**OFFICE OF THE STATE AUDITOR**

Pinelands Commission

Fiscal Year 2021

**David J. Kaschak**  
*State Auditor*



LEGISLATIVE SERVICES COMMISSION  
2022-2023

Assemblyman  
Craig J. Coughlin, Chair

Senator  
Anthony M. Bucco, Vice-Chair

**SENATE**

Christopher J. Connors  
Kristin M. Corrado  
Sandra B. Cunningham  
Linda R. Greenstein  
Joseph Pennacchio  
M. Teresa Ruiz  
Nicholas P. Scutari

**GENERAL ASSEMBLY**

Annette Chaparro  
John DiMaio  
Louis D. Greenwald  
Nancy F. Muñoz  
Verlina Reynolds-Jackson  
Edward H. Thomson  
Harold J. Wirths



*NEW JERSEY STATE LEGISLATURE*  
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[www.njleg.state.nj.us](http://www.njleg.state.nj.us)

OFFICE OF THE  
STATE AUDITOR  
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Fax 609-633-0834

David J. Kaschak  
*State Auditor*

Brian M. Klingele  
*Assistant State Auditor*

Thomas Troutman  
*Assistant State Auditor*

The Honorable Philip D. Murphy  
Governor of New Jersey

The Honorable Nicholas P. Scutari  
President of the Senate

The Honorable Craig J. Coughlin  
Speaker of the General Assembly

Ms. Maureen McMahon  
Executive Director  
Office of Legislative Services

Enclosed is our report on the audit of the Pinelands Commission for the fiscal year ended June 30, 2021. If you would like a personal briefing, please call me at (609) 847-3470.

A handwritten signature in cursive script that reads 'David J. Kaschak'.

David J. Kaschak  
State Auditor  
January 31, 2024

**PINELANDS COMMISSION  
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Assemblyman  
Craig J. Coughlin, Chair

Senator  
Anthony M. Bucco, Vice-Chair

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INDEPENDENT AUDITOR'S REPORT

The Honorable Philip D. Murphy  
Governor of New Jersey

The Honorable Nicholas P. Scutari  
President of the Senate

The Honorable Craig J. Coughlin  
Speaker of the General Assembly

Ms. Maureen McMahan  
Executive Director  
Office of Legislative Services

**Report on the Financial Statements**

We have audited the accompanying modified accrual basis financial statements of the Pinelands Commission as of and for the year ended June 30, 2021, and the related notes to the financial statements as listed in the table of contents.

***Management's Responsibility for the Financial Statements***

Management is responsible for the preparation and fair presentation of these financial statements in accordance with the modified accrual basis of accounting described in Note 1; this includes determining that the modified accrual basis of accounting is an acceptable basis for the preparation of the financial statements in the circumstances. Management is also responsible for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatements, whether due to fraud or error.

### ***Auditor's Responsibility***

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

As discussed in Note 1, the Pinelands Commission prepares its financial statements on a modified accrual basis, which is a comprehensive basis of accounting other than accounting principles generally accepted in the United States of America.

### ***Opinion***

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective modified accrual basis financial position of the Pinelands Commission as of June 30, 2021, and the respective changes in financial position, and budgetary comparisons for the General Fund and the Special Revenue Funds for the year then ended in accordance with the modified accrual basis of accounting described in Note 1.

### ***Emphasis of Matter***

#### ***Basis of Accounting***

We draw attention to Note 1 of the financial statements, which describes the basis of accounting. The financial statements are prepared on the modified accrual basis of accounting, which is a basis of accounting other than accounting principles generally accepted in the United States of America. Our opinion was not modified with respect to this matter.

### *Adoption of New Accounting Pronouncements*

As discussed in Note 1, the Commission adopted the provisions of Governmental Accounting Standards Board (GASB) Statement No. 84, *Fiduciary Activities*, and GASB Statement No. 90, *Majority Equity Interests – an amendment of GASB Statement No. 14 and No. 61*. Our opinion was not modified with respect to these matters.

### ***Other Matters***

#### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the schedules listed under Required Supplementary Information in the accompanying table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Management has omitted the management's discussion and analysis that accounting principles generally accepted in the United States of America require to be presented to supplement the basic financial statements. Such missing information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. Our opinion on the basic financial statements is not affected by this missing information.

#### *Other Information*

Our audit was conducted for the purpose of forming an opinion on the Pinelands Commission's financial statements. The schedule of expenditures of state financial assistance is presented for the purpose of additional analysis as required by New Jersey Department of the Treasury Circular No. 15-08-OMB and is not a required part of the financial statements.

The schedule of expenditures of state financial assistance is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. Such information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and

other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditures of state financial assistance is fairly stated, in all material respects, in relation to the financial statements as a whole.

**Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated January 31, 2024 on our consideration of the Pinelands Commission management's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Pinelands Commission's internal control over financial reporting and compliance.



David J. Kaschak  
State Auditor  
January 31, 2024

**PINELANDS COMMISSION  
COMBINED BALANCE SHEET  
ALL FUND TYPES AND ACCOUNT GROUPS  
JUNE 30, 2021**

	GOVERNMENTAL FUND TYPES		FIDUCIARY FUND TYPES	ACCOUNT GROUPS		TOTAL (Memorandum Only)
	GENERAL FUND	SPECIAL REVENUE FUNDS	PRIVATE PURPOSE TRUST FUNDS	GENERAL FIXED ASSETS	GENERAL LONG-TERM DEBT	
<b>ASSETS</b>						
<b>Cash &amp; Cash Equivalents</b>	\$ 3,062,278	\$ 8,367,531	\$ -	\$ -	\$ -	\$ 11,429,809
<b>Receivables:</b>						
Federal	177,613	-	-	-	-	177,613
Other	-	-	-	-	-	-
<b>General Fixed Assets:</b>						
Furniture & Equipment	-	-	-	1,129,821	-	1,129,821
Vehicles	-	-	-	110,720	-	110,720
<b>Amount to be Provided for</b>						
Retirement of Long-Term Liabilities	-	-	-	-	620,102	620,102
Due from Other Funds	563,277	-	-	-	-	563,277
Restricted Cash & Cash Equivalents	29,698	-	48,856	-	-	78,554
<b>Total Assets</b>	<b>\$ 3,832,866</b>	<b>\$ 8,367,531</b>	<b>\$ 48,856</b>	<b>\$ 1,240,541</b>	<b>\$ 620,102</b>	<b>\$ 14,109,896</b>
<b>LIABILITIES &amp; FUND EQUITY</b>						
<b>Liabilities:</b>						
Accounts Payable	\$ 753,315	\$ 41,305	\$ -	\$ -	\$ -	\$ 794,620
Salaries Payable	97,944	-	-	-	-	97,944
Payroll Deductions Payable	95,963	-	-	-	-	95,963
Compensated Absences	77,844	-	-	-	620,102	697,946
Deferred Revenue	29,600	1,759,200	-	-	-	1,788,800
Due to State of New Jersey	255	-	-	-	-	255
Due to Other Funds	-	541,384	21,893	-	-	563,277
<b>Total Liabilities</b>	<b>\$ 1,054,921</b>	<b>\$ 2,341,889</b>	<b>\$ 21,893</b>	<b>\$ -</b>	<b>\$ 620,102</b>	<b>\$ 4,038,805</b>
<b>Fund Equity:</b>						
<b>Restricted For:</b>						
Unemployment Compensation	\$ -	\$ -	\$ 3,602	\$ -	\$ -	\$ 3,602
Katie Fund	-	-	8,361	-	-	8,361
Timber Rattlesnake Study	6,675	-	-	-	-	6,675
Rattlesnake Fencing	21,749	-	-	-	-	21,749
<b>Committed To:</b>						
Pinelands Conservation	-	5,102,245	-	-	-	5,102,245
Kirkwood-Cohansey Study	-	29,185	-	-	-	29,185
Encumbrances	203,176	-	-	-	-	203,176
Retiree's Health Benefits	799,155	-	-	-	-	799,155
Microfilming Project	-	-	-	-	-	-
Building Improvements	-	-	-	-	-	-
Vehicle Replacements	-	-	-	-	-	-
Computer Replacements	-	-	-	-	-	-
Other	-	-	-	-	-	-
Investment in General Fixed Assets	-	-	-	1,240,541	-	1,240,541
<b>Assigned To:</b>						
Subsequent Years Expenditures	(957,004)	814,397	15,000	-	-	(127,607)
Other	-	79,815	-	-	-	79,815
<b>Unassigned Fund Balance:</b>	<b>2,704,194</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,704,194</b>
<b>Total Fund Equity</b>	<b>\$ 2,777,945</b>	<b>\$ 6,025,642</b>	<b>\$ 26,963</b>	<b>\$ 1,240,541</b>	<b>\$ -</b>	<b>\$ 10,071,091</b>
<b>Total Liabilities &amp; Fund Equity</b>	<b>\$ 3,832,866</b>	<b>\$ 8,367,531</b>	<b>\$ 48,856</b>	<b>\$ 1,240,541</b>	<b>\$ 620,102</b>	<b>\$ 14,109,896</b>

The accompanying Notes to the Financial Statements are an integral part of this Statement.

**PINELANDS COMMISSION**  
**COMBINED STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES**  
**ALL GOVERNMENTAL AND FIDUCIARY FUND TYPES**  
**FOR THE FISCAL YEAR ENDED JUNE 30, 2021**

	GOVERNMENTAL FUND TYPES		FIDUCIARY FUND TYPE	TOTAL (Memorandum Only)
	GENERAL FUND	SPECIAL REVENUE FUNDS	PRIVATE PURPOSE TRUST FUNDS	
<b>REVENUES</b>				
State of New Jersey Appropriations	\$ 3,099,000	\$ -	\$ -	\$ 3,099,000
Fringe Benefits Paid by the State	687,000	-	-	687,000
State of New Jersey Supplemental Appropriations	-	-	-	-
Federal Grants	678,820	-	-	678,820
State Grants	-	500,000	-	500,000
Other Grants	-	-	-	-
Interest Income	2,170	5,143	30	7,343
Unemployment Deductions	-	-	-	-
Application Fees	643,429	-	-	643,429
Other	79,258	-	75	79,333
<b>Total Revenues</b>	<b>\$ 5,189,677</b>	<b>\$ 505,143</b>	<b>\$ 105</b>	<b>\$ 5,694,925</b>
<b>EXPENDITURES</b>				
<b>Current:</b>				
Personnel	\$ 4,367,532	\$ 512,758	\$ -	\$ 4,880,290
Supplies	80,493	15,239	-	95,732
Services	466,733	62,030	-	528,763
Maintenance & Rent	27,556	-	-	27,556
<b>Capital Outlay</b>	<b>17,648</b>	<b>850</b>	<b>-</b>	<b>18,498</b>
<b>State Aid &amp; Grants</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Land Acquisition</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total Expenditures</b>	<b>\$ 4,959,962</b>	<b>\$ 590,877</b>	<b>\$ -</b>	<b>\$ 5,550,839</b>
<b>Excess/(Deficiency) of Revenues Over Expenditures</b>	<b>\$ 229,715</b>	<b>\$ (85,734)</b>	<b>\$ 105</b>	<b>\$ 144,086</b>
<b>OTHER FINANCING SOURCES (USES)</b>				
Uncollectible Receivables	\$ -	\$ -	\$ -	\$ -
Operating Transfers Out	-	(60,000)	-	(60,000)
Operating Transfers In	60,000	-	-	60,000
<b>Total Other Financing Sources (Uses)</b>	<b>\$ 60,000</b>	<b>\$ (60,000)</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Excess/(Deficiency) of Revenues Over Expenditures &amp; Other Financing Sources (Uses)</b>	<b>\$ 289,715</b>	<b>\$ (145,734)</b>	<b>\$ 105</b>	<b>\$ 144,086</b>
<b>Fund Balance - Beginning of the Year</b>	<b>2,488,230</b>	<b>6,171,376</b>	<b>26,858</b>	<b>8,686,464</b>
<b>Fund Balance - End of the Year</b>	<b>\$ 2,777,945</b>	<b>\$ 6,025,642</b>	<b>\$ 26,963</b>	<b>\$ 8,830,550</b>

The accompanying Notes to the Financial Statements are an integral part of this Statement.

PINELANDS COMMISSION  
**COMBINED STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCES**  
**GENERAL AND SPECIAL REVENUE FUND TYPES**  
**BUDGET AND ACTUAL - BUDGETARY BASIS**  
**FOR THE FISCAL YEAR ENDED JUNE 30, 2021**

	GENERAL FUND			VARIANCE FAVORABLE/ (UNFAVORABLE)	SPECIAL REVENUE FUNDS			VARIANCE FAVORABLE/ (UNFAVORABLE)
	ADOPTED BUDGET	FINAL BUDGET	ACTUAL		ADOPTED BUDGET	FINAL BUDGET	ACTUAL	
<b>REVENUES</b>								
State of New Jersey Appropriations	\$ 3,099,000	\$ 3,099,000	\$ 3,099,000	\$ -	\$ -	\$ -	\$ -	\$ -
State Supplemental Appropriations	-	-	-	-	-	-	-	-
Fringe Benefits Paid by the State	687,000	687,000	687,000	-	-	-	-	-
Federal Grants	585,000	585,000	678,820	93,820	-	-	-	-
State Grants	-	-	-	-	500,000	500,000	500,000	-
Other Grants	-	-	-	-	-	-	-	-
Interest Income	4,000	4,000	2,170	(1,830)	7,098	7,098	5,143	(1,955)
Application Fees	380,000	380,000	643,429	263,429	-	-	-	-
Anticipated from Reserves	142,070	142,070	-	(142,070)	-	-	-	-
Fund Balance Anticipated	957,004	957,004	957,004	-	31,586	31,586	-	(31,586)
Pinelands Conservation Activities Reserves	-	-	-	-	323,556	323,556	-	(323,556)
Other	1,000	1,000	79,258	78,258	-	-	-	-
<b>Total Revenues</b>	<b>\$ 5,855,074</b>	<b>\$ 5,855,074</b>	<b>\$ 6,146,681</b>	<b>\$ 291,607</b>	<b>\$ 862,240</b>	<b>\$ 862,240</b>	<b>\$ 505,143</b>	<b>\$ (357,097)</b>
<b>EXPENDITURES</b>								
<b>Current:</b>								
Personnel	\$ 4,955,565	\$ 4,955,565	\$ 4,367,532	\$ 588,033	\$ 675,239	\$ 675,239	\$ 512,758	\$ 162,481
Supplies	128,784	128,784	81,932	46,852	16,545	16,545	15,239	1,306
Services	701,967	701,967	376,676	325,291	107,456	107,456	62,030	45,426
Maintenance & Rent	83,620	83,620	35,556	48,064	-	-	-	-
Capital Outlay	45,138	45,138	11,655	33,483	3,000	3,000	850	2,150
State Aid and Grants	-	-	-	-	-	-	-	-
Land Acquisition	-	-	-	-	-	-	-	-
<b>Total Expenditures</b>	<b>\$ 5,915,074</b>	<b>\$ 5,915,074</b>	<b>\$ 4,873,351</b>	<b>\$ 1,041,723</b>	<b>\$ 802,240</b>	<b>\$ 802,240</b>	<b>\$ 590,877</b>	<b>\$ 211,363</b>
<b>OTHER FINANCING SOURCES (USES)</b>								
Uncollectible Receivables	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operating Transfers Out	-	-	-	-	(60,000)	(60,000)	(60,000)	-
Operating Transfers In	60,000	60,000	60,000	-	-	-	-	-
<b>Total Other Financing Sources (Uses)</b>	<b>\$ 60,000</b>	<b>\$ 60,000</b>	<b>\$ 60,000</b>	<b>\$ -</b>	<b>\$ (60,000)</b>	<b>\$ (60,000)</b>	<b>\$ (60,000)</b>	<b>\$ -</b>
<b>Net Increase/(Decrease) in Fund Balances</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,333,330</b>	<b>\$ 1,333,330</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (145,734)</b>	<b>\$ (145,734)</b>

The accompanying Notes to the Financial Statements are an integral part of this Statement.

**PINELANDS COMMISSION**  
**NOTES TO THE FINANCIAL STATEMENTS**  
**FOR THE FISCAL YEAR ENDED JUNE 30, 2021**

**Note 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**Description of the Reporting Entity** – The Pinelands Commission (Commission) was formed in 1979 by the Pinelands Protection Act. The Commission is charged with the development and implementation of the Comprehensive Management Plan for the Pinelands. It plays significant roles in monitoring the level and types of development that occur within the Pinelands including, but not limited to, acquisition of land, planning, zoning, permitting, research, and education. The Commission consists of 15 members. Seven are appointed by the Governor of New Jersey. Another seven are appointed by each of the counties within the Pinelands, i.e., Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, and Ocean. One member is appointed by the U.S. Secretary of the Interior. The Commission works closely with all levels of government, organizations, and interested citizens to help them understand and implement the Pinelands Comprehensive Management Plan.

The primary criterion for including activities within the Commission's reporting entity, as set forth in Section 2100 of the GASB Codification of Governmental Accounting and Financial Reporting Standards, is the degree of oversight responsibility maintained by the Commission. Oversight responsibility includes financial interdependency, selection of governing authority, designation of management, ability to significantly influence operations, and accountability for fiscal matters. The combined financial statements include all funds and account groups of the Commission over which the board exercises operating control. There were no additional entities required to be included in the reporting entity under the criterion as described above in the current fiscal year.

**Basis of Presentation** – The financial statements are prepared on the modified accrual basis of accounting, which is a basis of accounting other than accounting principles generally accepted in the United States of America. The more significant of the Commission's accounting policies are described in this note.

The accounts of the Commission are organized on the basis of funds and account groups, each of which is considered a separate accounting entity. The operations of each fund are accounted for with a separate set of self-balancing accounts that comprise its assets, liabilities, fund equity, revenues, and expenditures or expenses, as appropriate. Government resources are allocated to and accounted for in individual funds based upon the purposes for which they are to be spent and the means by which spending activities are controlled. An account group, on the other hand, is a financial reporting device designed to provide accountability for certain assets and liabilities that are not recorded in the funds because they do not directly affect net expendable available financial resources.

The various funds and accounts are grouped into three fund types within two broad fund categories and two account groups as follows:

## **GOVERNMENTAL FUNDS**

**General Fund** – The General Fund is the general operating fund of the Commission. It is used to account for all financial resources except those required to be accounted for in another fund.

**Special Revenue Funds** – The Special Revenue Funds are used to account for the proceeds of specific revenues, other than trusts, that are legally restricted to expenditures for specified purposes. The Commission utilizes the following three special revenue funds:

**Pinelands Development Credit Fund** – This fund is used to account for appropriations from the State of New Jersey that are restricted to purchasing Pinelands Development Credits through the Pinelands Development Credit Bank.

**Kirkwood-Cohansey Study Fund** – This fund is used to account for monies transferred to the Commission from the “Water Supply Fund” by the State of New Jersey to fund the completion of a report on the assessment on how the future and current water supply needs within the Pinelands area may be met while protecting the Kirkwood-Cohansey aquifer system.

**Pinelands Conservation Fund** – The Commission has reserved a portion of this fund to be used for preservation of land and designated other portions to be used for conservation planning/research and for community planning/design.

## **FIDUCIARY FUNDS**

**Private Purpose Trust Funds** – The Private Purpose Trust Funds are used to account for assets held by the Commission in a trustee capacity or as an agent on behalf of others. These include two Private Purpose Trust Funds: the Unemployment Compensation Insurance Fund and the “Katie Fund”. Private Purpose Trust Funds are accounted for in essentially the same manner as governmental funds. Private Purpose Trust Funds account for assets of which both the principal and interest may be spent.

## **ACCOUNT GROUPS**

**General Fixed Assets Account Group** – Fixed assets used in governmental fund type operations are accounted for in the General Fixed Assets Account Group rather than in governmental funds.

**General Long-Term Debt Account Group** – Long-term liabilities expected to be financed from governmental funds are accounted for in the General Long-Term

Debt Account Group, not in the governmental funds. This includes the non-current portion of the liability for compensated absences.

Because of their spending measurement focus, expenditure recognition for governmental fund types is limited to exclude amounts represented by non-current liabilities. Since they do not affect net current assets, such long-term amounts are not recognized as governmental fund type expenditures or fund liabilities. They are instead reported as liabilities in the General Long-Term Debt Account Group.

**Basis of Accounting and Measurement Focus** – The modified accrual basis of accounting is used for measuring financial position and operating results of all governmental and fiduciary fund types. Under the modified accrual basis of accounting, revenues are recognized when they become both measurable and available. "Measurable" means the amount of the transaction can be determined and "available" means collectible within the current period or soon enough thereafter to be used to pay liabilities of the current period. Expenditures are recognized in the accounting period in which the fund liability is incurred, except for principal and interest on general long-term debt, which are recorded when due.

**Budgets/Budgetary Control** – An annual appropriated budget is approved by the Commission each year for the General Fund and Special Revenue Funds. The budgets are prepared using the budgetary basis of accounting. Formal budgetary integration into the accounting system is employed as a management control device during the year. Encumbrance accounting is also employed as an extension of formal budgetary integration in the governmental fund types.

The accounting records of the General Fund and Special Revenue Funds are maintained on the budgetary basis. The budgetary basis differs from modified accrual basis in that the budgetary basis recognizes encumbrances as expenditures and also recognizes increases/decreases in internal designations of fund balance, whereas the modified accrual basis does not. Sufficient supplemental records are maintained to allow for the presentation of modified basis financial reports.

The budget, as detailed on the Combined Statement of Revenues, Expenditures, and Changes in Fund Balances – General and Special Revenue Fund Types, Budget and Actual – Budgetary Basis, includes all amendments to the adopted budget.

The following presents a reconciliation of the General Fund from the budgetary basis of accounting as presented in the Combined Statement of Revenues, Expenditures, and Changes in Fund Balances – General and Special Revenue Fund Types, Budget and Actual – Budgetary Basis to the modified accrual basis of accounting as presented in the Combined Statement of Revenues, Expenditures, and Changes in Fund Balances – All Governmental and Fiduciary Fund Types.

Net increase (decrease) in fund balances for the year (budgetary basis)	
adjustments:	\$ 1,333,330
Less: net decrease in revenue recognized in previous years	(957,004)
Less: prior-year encumbrances recognized as current-year expenditures	(289,787)
Add: current-year encumbrances	<u>203,176</u>
Excess (deficiency) of revenues and other financing sources over expenditures and other financing uses (modified accrual basis)	<u>\$ 289,715</u>

The following presents a reconciliation of the Special Revenue Funds from the budgetary basis of accounting as presented in the Combined Statement of Revenues, Expenditures, and Changes in Fund Balances – General and Special Revenue Fund Types – Budget and Actual – Budgetary Basis to the modified accrual basis of accounting as presented in the Combined Statement of Revenues, Expenditures, and Changes in Fund Balances – All Governmental and Fiduciary Fund Types.

Net increase (decrease) in fund balances for the year (budgetary basis)	
adjustments:	\$ (145,734)
Less: net decrease in revenue recognized in previous years	-
Less: prior-year encumbrances recognized as current-year expenditures	-
Add: current-year encumbrances	<u>-</u>
Excess (deficiency) of revenues and other financing sources over expenditures and other financing uses (modified accrual basis)	<u>\$ (145,734)</u>

**Encumbrances** – Under encumbrance accounting, purchase orders, contracts, and other commitments for the expenditure of resources are recorded to reserve a portion of the applicable appropriation. Open encumbrances are reported as reservations of fund balances at fiscal year end as they do not constitute expenditures or liabilities but rather commitments related to unperformed contracts for goods and services.

**Cash and Cash Equivalents** – Cash and cash equivalents include petty cash, change funds, cash in banks, and all highly liquid investments with a maturity of three months or less at the time of purchase and are stated at cost that approximates fair value. The Commission also participates in the State of New Jersey Cash Management Fund administered by the New Jersey Department of the Treasury, Division of Investment, wherein amounts contributed by the state, as well as other local government units, are combined into a large-scale investment program.

**Fixed Assets** – General fixed assets are reflected as expenditures in the applicable governmental funds, and the related assets are reported in the General Fixed Assets Account Group. Fixed assets are defined by the Commission as assets that have a cost in excess of \$250 at the date of acquisition and a useful life of one year or more.

**Compensated Absences** – Compensated absences are those absences for which employees will be paid, such as vacation, sick, administration, and paid leave bank. A liability for compensated absences attributable to services already rendered and not contingent on a specific event that is outside the control of the Commission and

its employees is accrued as the employees earn the rights to the benefits. Compensated absences related to future services or contingent on a specific event that is outside the control of the Commission and its employees are accounted for in the period in which such services are rendered or in which such events take place.

In governmental funds, compensated absences that are expected to be liquidated with expendable available financial resources are reported as an expenditure and fund liability in the fund that will pay for the compensated absences. The remainder of the compensated absences liability is reported in the General Long-Term Debt Account Group.

**Due from/to Other Funds** – Amounts due from/to other funds represent monies owed from or to other funds. The General Fund disburses all the funds for expenditures incurred by all other funds, and the monies are transferred between funds.

**Deferred Revenue** – Deferred revenue in the General and Special Revenue Funds represents cash that has been received but not yet earned.

**Fund Balance** – Refer to Note 11 for full description.

**Total Columns on Combined Statements** – Total columns are captioned "Memorandum Only" to indicate that they are presented only to facilitate financial analysis. Data in these columns do not present financial position, results of operations, or changes in financial position in conformity with accounting principles generally accepted in the United States of America, nor is such data comparable to a consolidation.

**Management Estimates** – The preparation of financial statements in conformity with accounting principles generally accepted in the United States required management to make estimates and assumptions that affect the reported amounts of revenue and expenditures/expenses during the reporting period. Actual results can differ from those estimates.

## **CHANGES IN ACCOUNTING POLICY**

### **Recently Issued Accounting Principles**

In Fiscal Year 2021, the Commission adopted two new Governmental Accounting Standards Board (GASB) standards as follows:

GASB Statement No. 84, *Fiduciary Activities* was issued to improve guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported.

GASB Statement No. 90, *Majority Equity Interests – an amendment of GASB Statement No. 14 and No. 61* improves the consistency and comparability of

reporting a government's majority equity interest in a legally separate organization and to improve the relevance of financial statement information for certain component units.

Accounting standards not yet adopted that the Commission is currently reviewing for applicability and potential impact include:

GASB Statement No. 87, *Leases* was issued to establish standards of accounting and financial reporting for leases by lessees and lessors. The requirements of this statement are effective for periods beginning after December 15, 2019. After the issuance of GASB Statement No. 95, *Postponement of the Effective Dates of Certain Authoritative Guidance* in May 2020, the effective date was postponed for fiscal years beginning after June 15, 2021.

GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period* requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. The requirements of this statement will improve financial reporting by providing users of financial statements with more relevant information about capital assets and the cost of borrowing for a reporting period. The resulting information also will enhance the comparability of information about capital assets and the cost of borrowing for a reporting period for both governmental activities and business-type activities. This standard is effective for reporting periods beginning after December 15, 2020.

GASB Statement No. 91, *Conduit Debt Obligations* will improve financial reporting by providing a single method of reporting conduit debt obligations for government issuers and eliminate diversity in practice. The statement achieves these objectives by clarifying the existing definition of a conduit debt obligation; establishing that a conduit debt obligation is not a liability of the issuer; establishing standards for accounting and financial reporting of additional commitments and voluntary commitments extended by issuers and arrangements associated with conduit debt obligations; and improving required note disclosures. This standard is effective for reporting periods beginning after December 15, 2021.

GASB Statement No. 92, *Omnibus 2020* was issued in January 2020 to improve the consistency in authoritative literature by addressing practice issues that have been identified during implementation and application of certain GASB statements. Paragraphs 4, 5, 11 and 13 of this statement were effective upon issuance, though paragraphs 4 and 5 were later delayed by GASB Statement No. 95. The remaining paragraphs of the statement are effective for reporting periods beginning after June 15, 2021.

GASB Statement No. 93 *Replacement of Interbank Offered Rates* applies to governments who enter into agreements that were subject to the Interbank Offered Rate (IBOR). This standard is effective for fiscal years beginning after June 15, 2021.

GASB Statement No. 94, *Public-Private and Public-Public Partnerships (PPPs) and Availability Payment Arrangements (APAs)* was issued as guidance stating that PPP is an arrangement in which a government contracts with an operator to provide public services by conveying control of the right to operate or use a nonfinancial asset, such as infrastructure or other capital asset, for a period of time in an exchange or exchange-like transaction. The statement also provides guidance for APAs, which is an arrangement in which a government compensates an operator for services that may include designing, construction, financing, maintaining, or operating an underlying nonfinancial asset for a period of time in an exchange or exchange-like transaction. This standard is effective for fiscal years beginning after June 15, 2022.

GASB Statement No. 96, *Subscription-Based Information Technology Arrangements* provides guidance on the accounting and financial reporting for subscription-based information technology arrangements (SBITAs) for government end users. This statement (1) defines a SBITA; (2) establishes that a SBITA results in a right-to-use subscription asset and a corresponding liability; (3) provides the capitalization criteria for outlays other than subscription payments; and (4) requires note disclosures regarding a SBITA. This standard is effective for fiscal years beginning after June 15, 2022.

GASB Statement No. 97, *Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans*, was issued to increase consistency and comparability related to the reporting of fiduciary component units, mitigate costs associated with the reporting of certain defined contribution benefit plans and enhance the relevance, consistency and comparability of the accounting and financial reporting for Internal Revenue Code (IRC) Section 457 deferred compensation plans. This standard is effective for reporting periods beginning after June 15, 2021.

Management has not yet determined the impact of these statements on the financial statements.

**Note 2: CASH AND CASH EQUIVALENTS**

The Pinelands Commission is governed by the deposit limitations of New Jersey state law. The deposits held at June 30, 2021, and reported at fair value are as follows:

<b>Deposits:</b>	<b>Amount</b>
Demand deposits	\$ 11,507,734
Cash on hand	629
<b>Total Deposits</b>	<u><u>\$ 11,508,363</u></u>

<b>Reconciliation of Statement of Comparative Balance Sheets:</b>	
General Fund	\$ 3,091,976
Special Revenue Funds	8,367,531
Private Purpose Trust Funds	48,856
<b>Total Reconciliation of Comparative Balance Sheets</b>	<u><u>\$ 11,508,363</u></u>

GASB Statement No. 40, *Deposit and Investment Risk Disclosure*, requires that the Pinelands Commission disclose bank deposits that are subject to custodial credit risk. The custodial credit risk for deposits is the risk that, in the event of a failure of a depository financial institution, the Commission will not be able to recover deposits or will not be able to recover collateral securities that may be in the possession of an outside party. As of June 30, 2021, the Commission's confirmed bank balances amounted to \$204,053.35, and \$0 was exposed to custodial credit risk as uninsured and uncollateralized.

The balance of the Commission's cash and cash equivalents are deposited in the New Jersey Cash Management Fund (CMF). The CMF is governed by regulations of the State Investment Council, which prescribe standards designed to ensure the quality of investments in order to minimize risk to the CMF's participants. An amount totaling \$11,369,410 was deposited with the CMF as of June 30, 2021; the Commission had \$138,335 in the operating account and \$629 in petty cash. The State of New Jersey, Department of the Treasury, Division of Investment, issues publicly available financial reports that include the financial statements of the CMF. The financial reports may be obtained by writing to the State of New Jersey, Department of the Treasury, Division of Investment, P.O. Box 290, Trenton, NJ 08625-0290.

**Note 3: FIXED ASSETS**

The following schedule is a summarization of general fixed assets by source as of June 30, 2021:

	Balance			Balance
	<u>June 30, 2020</u>	<u>Additions</u>	<u>Deletions</u>	<u>June 30, 2021</u>
Furniture/ Equipment	\$ 1,114,858	\$ 14,963	\$ -	\$ 1,129,821
Vehicles	110,720	-	-	110,720
<b>Total</b>	<u><u>\$ 1,225,578</u></u>	<u><u>\$ 14,963</u></u>	<u><u>\$ -</u></u>	<u><u>\$ 1,240,541</u></u>

**Note 4: LEASES**

**Lease Obligations** – At June 30, 2021, the Commission had no operating lease agreements in effect. The Commission is paying a monthly rental charge for a copy machine that is no longer under an agreement. Payments under the month-to-month rental for the fiscal year ended June 30, 2021 were \$5,251.

**Note 5: RETIREMENT SYSTEM**

All required employees of the Commission are covered by the Public Employees' Retirement System (PERS), which has been established by state statute and is administered by the New Jersey Division of Pensions and Benefits (division). According to the State of New Jersey Administrative Code, all obligations of the system will be assumed by the State of New Jersey should the system terminate. The division issues a publicly available financial report that includes financial statements and required supplementary information. That report may be obtained by writing to:

State of New Jersey Division of Pensions and Benefits  
P.O. Box 295  
Trenton, New Jersey 08625-0295

<http://www.nj.gov/treasury/pensions/gasb-notices.shtml>

**General Information about the Pension Plan**

**Description of Retirement Plan**

**PERS** – is a cost-sharing, multiple-employer defined benefit pension plan established as of January 1, 1955 under the provisions of N.J.S.A. 43:15A. The PERS's designated purpose is to provide retirement, death, disability, and medical benefits to certain qualified members. Membership in the PERS is mandatory for substantially all full-time employees of the State of New Jersey or any county, municipality, school district, or public agency, provided the employee is not required to be a member of another state-administered retirement system, other state pension fund, or local jurisdiction's pension fund.

**Vesting and Benefit Provisions**

**PERS** – The vesting and benefit provisions are set by N.J.S.A. 43:15A and 43:3B. The PERS provides retirement, death, and disability benefits. All benefits vest after ten years of service, except for medical benefits, which vest after 25 years of service or under the disability provisions of the PERS.

The following represents the membership tiers for PERS:

Tier	Definition
1	Members who were enrolled prior to July 1, 2007
2	Members who were eligible to enroll on or after July 1, 2007 and prior to November 2, 2008
3	Members who were eligible to enroll on or after November 2, 2008 and prior to May 22, 2010
4	Members who were eligible to enroll on or after May 22, 2010 and prior to June 28, 2011
5	Members who were eligible to enroll on or after June 28, 2011

Service retirement benefits of 1/55th of final average salary for each year of service credit is available to tiers 1 and 2 members upon reaching age 60 and to tier 3 members upon reaching age 62. Service retirement benefits of 1/60th of final average salary for each year of service credit is available to tier 4 members upon reaching age 62 and tier 5 members upon reaching age 65. Early retirement benefits are available to tiers 1 and 2 members before reaching age 60, tiers 3 and 4 before age 62 with 25 or more years of service credit and tier 5 with 30 or more years of service credit before age 65. Benefits are reduced by a fraction of a percent for each month that a member retires prior to the age at which a member can receive full early retirement benefits in accordance with their respective tier. Tier 1 members can receive an unreduced benefit from age 55 to age 60 if they have at least 25 years of service. Deferred retirement is available to members who have at least 10 years of service credit and have not reached the service retirement age for the respective tier.

### **Contributions**

**PERS** – The contribution policy is set by N.J.S.A. 43:15A and requires contributions by active members and contributing employers. Members contribute at a uniform rate. Pursuant to the provisions of Chapter 78, P.L. 2011, the active member contribution rate increased from 5.5% of annual compensation to 6.5% plus an additional 1% phased-in over seven years beginning in July 2012.

The member contribution rate was 7.50% in state fiscal year 2020. The phase-in of the additional incremental member contribution rate takes place in July of each subsequent state fiscal year. The rate for members who are eligible for the Prosecutors Part of PERS (Chapter 366, P.L. 2001) was 10%. Employers' contribution amounts are based on an actuarially determined rate. The Commission's contribution amounts are based on an actuarially determined amount, which includes the normal cost and unfunded accrued liability.

The Commission's contractually required contribution rate for the fiscal year ended June 30, 2021 was 15.90% of the Commission's covered payroll. This amount was actuarially determined as the amount that, when combined with employee contributions, is expected to finance the costs of benefits earned by employees during the year, including an additional amount to finance any unfunded accrued liability.

Based on the most recent PERS measurement date of June 30, 2020, the Commission's contractually required contribution to the pension plan for the fiscal

year ended June 30, 2021 was \$486,504, and was paid on April 7, 2022. The Commission's contractually required contribution to the pension plan for the fiscal year ended June 30, 2020 was \$502,099 and was paid by April 8, 2021. Commission employee contributions to the pension plan during the fiscal year ended June 30, 2021 were \$255,880.

**Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions**

**PERS** – At June 30, 2021, the Commission's proportionate share of the net pension liability was \$7,484,719. The net pension liability was measured as of June 30, 2020, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of July 1, 2019. The total pension liability was calculated through the use of updated procedures to roll forward from the actuarial valuation date to the measurement date of June 30, 2020. The Commission's proportion of the net pension liability was based on a projection of the Commission's long-term share of contributions to the pension plan relative to the projected contributions of all participating employers, actuarially determined. For the June 30, 2020 measurement date, the Commission's proportion was 0.0458977285%, which was an increase of 0.0034941411% from its proportion measured as of June 30, 2019.

For the fiscal year ended June 30, 2021, the Commission's proportionate share of the pension expense was \$484,597. This pension expense was based on the pension plan's June 30, 2020 measurement date. This expense is not recognized by the Commission because of the basis of accounting as described in Note 1; however, as previously mentioned for the fiscal year ended June 30, 2021, the Commission's contribution to PERS was \$502,099 and was paid by April 8, 2021.

At June 30, 2020, the Commission reported deferred outflows of resources and deferred inflows of resources related to PERS from the following sources:

	<b><u>Deferred Outflows of Resources</u></b>	<b><u>Deferred Inflows of Resources</u></b>
Differences between expected and actual experience	\$ 136,284	\$ 26,469
Changes of assumptions	242,813	3,133,923
Net difference between projected and actual earnings on pension plan investments	255,834	-
Changes in proportion	1,129,043	35,001
Commission contributions subsequent to the measurement date	<u>486,504</u>	<u>-</u>
	<u>\$ 2,250,478</u>	<u>\$ 3,195,393</u>

The amount of \$486,504, included in deferred outflows of resources, will be included as a reduction of the net pension liability in the fiscal year ending June 30, 2022. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

<b><u>Fiscal Year Ending June 30</u></b>	<b><u>Amount</u></b>
2022	\$ (638,049)
2023	(559,559)
2024	(194,920)
2025	(20,486)
2026	<u>(18,405)</u>
	<u>\$ (1,431,419)</u>

The amortization of the above other deferred outflows of resources and deferred inflows of resources related to pensions will be over the following number of years:

	<b>Deferred Outflows of Resources (in years)</b>	<b>Deferred Inflows of Resources (in years)</b>
Differences between expected and actual experience		
Year of pension plan deferral:		
June 30, 2014	-	-
June 30, 2015	5.72	-
June 30, 2016	5.57	-
June 30, 2017	5.48	-
June 30, 2018	-	5.63
June 30, 2019	5.21	-
June 30, 2020	5.16	-
Changes of assumptions		
Year of pension plan deferral:		
June 30, 2014	6.44	-
June 30, 2015	5.72	-
June 30, 2016	5.57	-
June 30, 2017	-	5.48
June 30, 2018	-	5.63
June 30, 2019	-	5.21
June 30, 2020	-	5.16
Net difference between projected and actual earnings on pension plan investments		
Year of pension plan deferral:		
June 30, 2014	-	5.00
June 30, 2015	5.00	-
June 30, 2016	5.00	-
June 30, 2017	-	5.00
June 30, 2018	-	5.00
June 30, 2019	5.00	-
June 30, 2020	5.00	-
Changes in proportion		
Year of pension plan deferral:		
June 30, 2014	6.44	6.44
June 30, 2015	5.72	5.72
June 30, 2016	5.57	5.57
June 30, 2017	5.48	5.48
June 30, 2018	5.63	5.63
June 30, 2019	5.21	5.21
June 30, 2020	5.16	5.16

## Actuarial Assumptions

The net pension liability was measured as of June 30, 2020, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of July 1, 2019. The total pension liability was calculated through the use of updated procedures to roll forward from the actuarial valuation date to the measurement date of June 30, 2020. This actuarial valuation used the following actuarial assumptions, applied to all periods included in the measurement:

	<u>PERS</u>
Inflation - Price	2.75%
Inflation - Wage	3.25%
Salary increases:	
FY 2017 to 2026	2.00% - 6.00% Based on Years of Service
FY 2026 and thereafter	3.00% - 7.00% Based on Years of Service
Investment rate of return	7.00%
Mortality rate table	Pub-2010
Period of actuarial experience study upon which actuarial assumptions were based	July 1, 2014 - June 30, 2018

For PERS, pre-retirement mortality rates were based on the Pub-2010 General Below-Median Income Employee mortality table with an 82.2% adjustment for males and 101.4% adjustment for females, and with future improvement from the base year of 2010 on a generational basis. Postretirement mortality rates were based on the Pub-2010 General Below-Median Income Healthy Retiree mortality table with a 91.4% adjustment for males and 99.7% adjustment for females, and with future improvement from the base year of 2010 on a generational basis. Disability retirement rates used to value disabled retirees were based on the Pub-2010 Non-Safety Disabled Retiree mortality table with a 127.7% adjustment for males and 117.2% adjustment for females, and with future improvement from the base year of 2010 on a generational basis. Mortality improvement is based on Scale MP-2020.

In accordance with state statute, the long-term expected rate of return on plan investments (7.00% at June 30, 2020) is determined by the State Treasurer, after consultation with the directors of the Division of Investment and Division of Pensions and Benefits, the PERS Board of Trustees, and the actuaries.

The long-term expected rate of return was determined using a building block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense, and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected

rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic rates of return for each major asset class included in PERS’s target asset allocation as of June 30, 2020 are summarized in the following table:

<u>Asset Class</u>	<u>PERS</u>	
	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
Risk mitigation strategies	3.00%	3.40%
Cash equivalents	4.00%	0.50%
U.S. Treasuries	5.00%	1.94%
Investment grade credit	8.00%	2.67%
High yield	2.00%	5.95%
Private credit	8.00%	7.59%
Real assets	3.00%	9.73%
Real estate	8.00%	9.56%
U.S. equity	27.00%	7.71%
Non-U.S. developed markets equity	13.50%	8.57%
Emerging markets equity	5.50%	10.23%
Private equity	13.00%	11.42%
	<u>100.00%</u>	

**Discount Rate** – The discount rates used to measure the total pension liability at June 30, 2020 was 7.00%. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current member contribution rates and that contributions from employers and the non-employer contributing entity will be based on 78% of the actuarially determined contributions for the state employer and 100% of actuarially determined contributions for the local employers. Based on those assumptions, the plan’s fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on plan investments was applied to all projected benefit payments to determine the total pension liability.

**Sensitivity of Commission’s Proportionate Share of Net Pension Liability to Changes in the Discount Rate**

The following presents the Commission’s proportionate share of the net pension liability at June 30, 2020, the plans measurement date, calculated using a discount rate of 7.00%, as well as what the Commission’s proportionate share of the net

pension liability would be if it were calculated using a discount rate that is 1% lower or 1% higher than the current rates used:

	<b>PERS</b>		
	<b>1%</b>	<b>Current</b>	<b>1%</b>
	<b>Decrease</b>	<b>Discount Rate</b>	<b>Increase</b>
	<b>(6.00%)</b>	<b>(7.00%)</b>	<b>(8.00%)</b>
Commission's proportionate share of the net pension liability	<u>\$9,496,104</u>	<u>\$ 7,484,719</u>	<u>\$5,886,800</u>

**Pension Plan Fiduciary Net Position**

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the respective fiduciary net position of the PERS and additions to/deductions from PERS’s fiduciary net position have been determined on the same basis as they are reported by PERS. Accordingly, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value. For additional information about PERS, please refer to the plan’s Annual Comprehensive Financial Report (ACFR), which can be found at: <https://www.nj.gov/treasury/pensions/financial-reports.shtml>.

**Note 6: HEALTH CARE BENEFITS**

The Commission provides health care benefits, through the New Jersey State Health Benefits Program, to all continuing employees who are scheduled to work 25 or more hours per week, along with their spouses and eligible dependents. Expenditures for health care benefits are recognized on a pay-as-you-go basis.

In accordance with P. L. 2011, Chapter 78, employees enrolled in the New Jersey State Health Benefits Program are required to contribute a portion of their bi-weekly salary. The balance of the monthly health care benefits premium is paid by the Commission, which receives a credit from the state. Employees covered by other health insurance can elect to waive coverage and receive \$1,000 annually.

The Commission’s health care benefits premiums, including employees’ contributions, are as follows:

<b>Health Care Costs</b>				
<b>Fiscal</b>		<b>Cost to</b>	<b>Employee</b>	<b>Credit from</b>
<b>Year</b>	<b>Premium</b>	<b>Commission</b>	<b>Contributions</b>	<b>State</b>
2021	\$ 725,594	\$ (14,786)	\$ 174,373	\$ 566,007
2020	789,947	37,872	168,970	583,105
2019	817,394	105,692	174,699	537,003
2018	806,293	135,627	154,447	516,219
2017	798,708	152,158	134,323	512,227
2016	797,988	152,839	134,285	510,864
2015	840,454	195,690	130,114	514,650

**Note 7: OTHER POSTEMPLOYMENT BENEFITS (OPEB)**

**General Information about the OPEB Plan**

**Plan Description and Benefits Provided** – The Commission contributes to the State Health Benefits Local Government Retired Employees’ Plan (plan), which is a cost-sharing multiple-employer defined benefit other postemployment benefit plan. It covers employees of local governments that have adopted a resolution to participate in the plan. The plan meets the definition of an equivalent arrangement as defined in GASB Statement No. 75, *Accounting and Financial Reporting for the Postemployment Benefits Other Than Pensions*; therefore, assets are accumulated to pay associated benefits. For additional information about the plan, please refer to the State of New Jersey, Division of Pensions and Benefits’s Annual Comprehensive Financial Report, which can be found at the following link.

<https://www.nj.gov/treasury/pensions/financial-reports.shtml>.

The plan provides medical and prescription drug benefits to retirees and their covered dependents. Under the provisions of Chapter 88, P.L. 1974 and Chapter 48, P.L. 1999, local government employers electing to provide postretirement medical coverage to their employees must file a resolution with the division. Under Chapter 88, local employers elect to provide benefit coverage based on the eligibility rules and regulations promulgated by the State Health Benefits Commission. Chapter 48 allows local employers to establish their own age and service eligibility for employer-paid health benefits coverage for retired employees. Under Chapter 48, the employer may assume the cost of postretirement medical coverage for employees and their dependents who: 1) retired on a disability pension; or 2) retired with 25 or more years of service credit in a state or locally administered retirement system and a period of service of up to 25 years with the employer at the time of retirement as established by the employer; or 3) retired and reached the age of 65 with 25 or more years of service credit in a state or locally administered retirement system and a period of service of up to 25 years with the employer at the time of retirement as

established by the employer; or 4) retired and reached age 62 with at least 15 years of service with the employer. Further, the law provides that the employer-paid obligations for retiree coverage may be determined by means of a collective negotiations agreement.

Pursuant to Chapter 78, P.L., 2011, future retirees eligible for postretirement medical coverage who have less than 20 years of creditable service on June 28, 2011 will be required to pay a percentage of the cost of their health care coverage in retirement provided they retire with 25 or more years of pension service credit. The percentage of the premium for which the retiree will be responsible will be determined based on the retiree's annual retirement benefit and level of coverage.

**Contributions** – The funding policy for the OPEB Plan is pay-as-you-go; therefore, there is no prefunding of the liability. However, due to premium rates being set prior to each calendar year, there is a minimal amount of net position available to cover benefits in future years. Contributions to pay for the health benefit premiums of participating employees in the OPEB plan are collected from participating local employers and retired members.

The Commission was billed monthly by the plan and has expended \$163,364 for the fiscal ended June 30, 2021, representing 5.34% of the Commission's covered payroll. The Commission has recognized revenue in the amount of \$120,993 for a credit from the State of New Jersey to cover retiree health benefits; however this credit has no effect on the calculations in the plan. At June 30, 2021, there were no retirees required to pay a percentage of the cost of their health care coverage.

#### **OPEB Liability, OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources**

**OPEB Liability** – At June 30, 2021, the Commission's proportionate share of the net OPEB liability was \$9,645,048. The net OPEB liability was measured as of June 30, 2020, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of June 30, 2019, which was rolled forward to June 30, 2020.

The Commission's proportion of the net OPEB liability was based on the ratio of the plan members of an individual employer to the total members of the plan's nonspecial funding situation during the measurement period July 1, 2019 through June 30, 2020. For the June 30, 2020 measurement date, the Commission's proportion was 0.053743%, which was an increase of 0.000985% from its proportion measured as of the June 30, 2019 measurement date.

**OPEB Expense** – At June 30, 2021, the Commission's proportionate share of the OPEB expense, calculated by the plan as of June 30, 2020 measurement date is \$19,407. This expense is not recognized by the Commission because of the basis of the accounting as described in Note 1; however, as previously mentioned, for the

fiscal year ended June 30, 2021, the Commission made contributions to the plan totaling \$163,364.

**Deferred Outflows of Resources and Deferred Inflows of Resources** – At June 30, 2021, the Commission had deferred outflows of resources and deferred inflows of resources related to the OPEB liability from the following sources:

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between expected and actual experience	\$ 254,043	\$ 1,796,088
Changes of assumptions	1,442,596	2,144,910
Net difference between projected and actual earnings on OPEB plan investments	6,125	-
Changes in proportion	191,717	425,376
Changes in contributions subsequent to the measurement date	<u>163,364</u>	<u>-</u>
Total	<u>\$ 2,057,845</u>	<u>\$ 4,366,374</u>

The amount of \$163,364, included in deferred outflows of resources, resulting from the Commission's contributions subsequent to the measurement date, will be included as a reduction of the Commission's net OPEB liability in the fiscal year ending June 30, 2022.

The Commission will amortize the other deferred outflows of resources and deferred inflows of resources related to the OPEB liability over the following number of years:

	<b>Deferred Outflows of Resources (in years)</b>	<b>Deferred Inflows of Resources (in years)</b>
Changes of assumptions	7.87	-
Net difference between projected and actual earnings on OPEB plan investments	5.00	-
Changes in proportion	7.87	7.87

Other amounts included as deferred outflows of resources and deferred inflows of resources related to the OPEB liability will be recognized in future periods as follows:

<b>Fiscal Year</b>	
<b>Ending June 30</b>	<b>Amount</b>
2022	\$ (552,481)
2023	(552,952)
2024	(553,711)
2025	(554,406)
2026	(388,854)
Thereafter	<u>130,511</u>
Total	<u>\$ (2,471,893)</u>

### **Actuarial Assumptions**

The actuarial assumptions vary for each plan member depending on the pension plan in which the member is enrolled. The total OPEB liability as of June 30, 2020 was determined by an actuarial valuation as of June 30, 2019, which was rolled forward to June 30, 2020 and used the following assumptions:

	<b><u>Actuarial Assumptions</u></b>
Inflation	2.50%
*Salary increases:	
Through 2026	2.00% - 6.00%
Thereafter	3.00% - 7.00%

\*Salary increases are based on the years of service within the respective plan.

Preretirement mortality rates were based on the Pub-2010 Headcount-Weighted Healthy Employee Male/Female mortality table with fully generational mortality improvement projections from the central year using the MP-2020 scale. Postretirement mortality rates were based on the Pub-2010 Headcount-Weighted Healthy Annuitant Male/Female mortality table with fully generational improvement projections from the central year using the MP-2020 scale. Disability mortality was based on the Pub-2010 Headcount-Weighted Disabled Male/Female mortality table with fully generational improvement projections from the central year using the MP-2020 scale.

Certain actuarial assumptions used in the July 1, 2019 valuation were based on the results of the pension plan’s experience study for which the members are eligible for coverage under this plan, the Public Employees’ Retirement System (PERS). The PERS experience study was prepared for the period July 1, 2015 to June 30, 2019.

**Discount Rate** – The discount rate used to measure the OPEB Liability at June 30, 2020 was 2.21%. This represents the municipal bond return rate as chosen by the state. The source is the Bond Buyer Go 20-Bond Municipal Bond Index, which includes tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher. As the long-term rate of return is less than the municipal bond rate, it is not considered in the calculation of the discount rate, rather the discount rate is set at the municipal bond rate.

**Health Care Trend Assumptions** – For pre-Medicare preferred provider organization (PPO) and health maintenance organization (HMO) medical benefits, the trend rate is initially 5.6% and decreases to a 4.5% long-term trend rate after seven years. For self-insured post-65 PPO and HMO medical benefits, the trend rate is 4.5%. For prescription drug benefits, the initial trend rate is 7.0% decreasing to a 4.5% long-term trend rate after seven years. For the Medicare Part B reimbursement, the trend rate is 5.0%. The Medicare Advantage trend rate is 4.5% and will continue in all future years.

**Sensitivity of the Net OPEB Liability to Changes in the Discount Rate** – The Commission’s net OPEB liability as of the plan’s June 30, 2020 measurement date, calculated using a discount rate of 2.21%, as well as using a discount rate that is 1% lower or 1% higher than the current rates used is as follows:

	<b>1% Decrease (1.21%)</b>	<b>Current Discount Rate (2.21%)</b>	<b>1% Increase (3.21%)</b>
Commission's proportionate share of the net OPEB liability	\$ 11,402,485	\$ 9,645,048	\$ 8,253,877

**Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rates** – The Commission’s proportionate share of the net OPEB Liability as of June 30, 2020, using a healthcare cost trend rates that are 1% lower or 1% higher than the current healthcare cost trend rate used is as follows:

	<b>1% Decrease</b>	<b>Healthcare Cost Trend Rates</b>	<b>1% Increase</b>
Commission's proportionate share of the net OPEB liability	\$ 7,981,287	\$ 9,645,048	\$ 11,823,766

### **OPEB Plan Fiduciary Net Position**

For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the respective fiduciary net position of the State Health Benefits Local Government Retired Employees' Plan and additions to/deductions from the plan's respective fiduciary net position have been determined on the same basis as they are reported by the plan. Accordingly, contributions (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value. For additional information about the plan, please refer to the plan's Annual Comprehensive Financial Report, which can be found at:

<https://www.nj.gov/treasury/pensions/financial-reports.shtml>.

### **Note 8: RISK MANAGEMENT**

The Commission is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters.

**Property and Liability Insurance** – The Commission maintains an umbrella policy and commercial insurance coverage for property, general liability, commercial auto, and workers' compensation.

**New Jersey Unemployment Compensation Insurance** – In 1979, the Commission elected to fund its New Jersey Unemployment Compensation Insurance under the "Benefit Reimbursement Method". Under this plan, the Commission is required to reimburse the New Jersey Unemployment Compensation Fund for benefits paid to its former employees and charged to its account with the state. The Commission is billed quarterly for amounts due to the state. The following is a summary of employee contributions, reimbursements to the state for benefits paid, and the ending balance of the Commission's trust fund for the current and previous four years:

<b><u>Fiscal Year</u></b>	<b><u>Employee Contribution</u></b>	<b><u>Annual Reimbursement</u></b>	<b><u>Funding Balance *</u></b>
2021	\$ -	\$ -	\$ 3,602
2020	419	-	3,586
2019	4,454	16,614	2,724
2018	6,334	872	14,302
2017	4,375	12,050	8,566

\*Includes annual interest income

**Note 9: LONG-TERM DEBT**

**Compensated Absences** – The Commission’s policy states that employees are entitled, upon termination, to the current year’s earned but unused vacation time in addition to any unused vacation time previously earned. In addition, employees are eligible, at retirement, to receive payment for one-half of their accumulated sick leave up to a maximum of \$15,000. Unused vacation time expected to be taken in the succeeding fiscal year in the amount of \$77,844 has been recorded as a liability in the General Fund on the accompanying balance sheet.

A liability for vested compensated absences has also been established in the General Long-Term Debt Account Group as the benefits accrue to employees. As of June 30, 2021, the estimated long-term liability for compensated absences was \$620,102. Net long-term debt as of June 30, 2021 is as follows:

	<u>Balance</u> <u>6/30/2020</u>	<u>Additions</u>	<u>Deductions</u>	<u>Balance</u> <u>6/30/2021</u>	<u>Due Within</u> <u>One Year</u>
Compensated absences payable	\$ 88,910	\$ -	\$ 11,066	\$ 77,844	\$ 77,844
Estimated compensated absences payable	410,906	209,196	-	620,102	-
Total	<u>\$499,816</u>	<u>\$209,196</u>	<u>\$ 11,066</u>	<u>\$697,946</u>	<u>\$ 77,844</u>

**Note 10: INTERFUND RECEIVABLES AND PAYABLES**

The following interfund balances remained on the balance sheet at June 30, 2021:

<u>Fund</u>	<u>Interfund</u> <u>Receivable</u>	<u>Interfund</u> <u>Payable</u>
General Fund	\$ 563,277	\$ -
Special Revenue Funds	-	541,384
Private Purpose Trust Funds	-	21,893
Total	<u>\$ 563,277</u>	<u>\$ 563,277</u>

The interfund receivables and payables above predominately resulted from collections and payments made by certain funds on behalf of the other funds. During the fiscal year 2021, the Commission expects to liquidate such interfund balances, depending on the availability of cash flow.

**Note 11: GASB 54 – FUND BALANCE DISCLOSURES**

In accordance with GASB No. 54, *Fund Balance Reporting and Governmental Fund Type Definitions*, the Commission classifies governmental fund balances as follows:

- Non-spendable – includes fund balance amounts that cannot be spent either because it is not in spendable form or because of legal or contractual constraints.

- Restricted – includes fund balance amounts that are constrained for specific purposes that are externally imposed by external parties, constitutional provision, or enabling legislation.
- Committed – includes fund balance amounts that are constrained for specific purposes that are internally imposed by the government through formal action of the highest level of decision-making authority and does not lapse at year-end.
- Assigned – includes fund balance amounts that are intended to be used for specific purposes that are neither considered restricted nor committed. Fund Balance may be assigned by the executive director or the board of commissioners.
- Unassigned – includes balance within the General Fund that has not been classified within the above-mentioned categories and negative fund balances in other governmental funds.

Specific reservations of fund balances are described below:

**RESTRICTED FOR:**

Unemployment Compensation – This reserve was established with funds contributed by employees and used to reimburse the state for benefits paid, \$3,602.

Katie Fund – The Kathleen M. Lynch-van de Sande Fund consists of contributions from the public which are dedicated to the support of reforestation and vegetation activities in the Pinelands and to further educational programs and projects that enhance the understanding of the Pinelands National Reserve, \$8,361.

Timber Rattlesnake Study – This reserve was created as a result of a settlement in order to fund an escrow for the study and monitoring of the timber rattlesnakes in and near a particular development site, \$6,675.

Rattlesnake Fencing – This reserve was created to account for funds restricted for possible future fencing necessitated by the above rattlesnake study, \$21,749.

**COMMITTED TO:**

Pinelands Conservation Fund – This reserve was established with funds provided by the Atlantic Electric Co. as a result of the proposed electric transmission line project to further the Pinelands protection program and ensure a greater level of protection for the unique resources of the Pinelands area, \$5,102,245.

Kirkwood-Cohansey Study – This reserve was created from funds from the Water Supply Fund to assess and prepare a report on the key hydrological and ecological information needed to determine how the current and future water supply needs of the Pinelands may be met while protecting the Kirkwood-Cohansey aquifer system and avoiding any adverse ecological impact, \$29,185.

Encumbrances – The reserve for encumbrances was created to represent encumbrances outstanding at the end of the year based on purchase orders and contracts signed by the Commission but not completed as of the close of the fiscal year, \$203,176.

Retirees’ Health Benefits – This is a designation of fund balance that the Commission intends to use to fund future retirees’ health benefits, \$799,155.

Investment in General Fixed Assets – This represents the amount invested in fixed assets, \$1,240,541.

**ASSIGNED TO:**

Subsequent Year’s Expenditures – This designation of fund balance has been appropriated and included as anticipated revenue for the year ending June 30, 2022, \$(127,607).

Other – This represents designations of fund balance that the Commission intends to use for various projects, such as Pinelands poster reprinting and service awards, \$79,815.

**UNASSIGNED FUND BALANCE:**

Unassigned – This represents the portion of fund balance resources available for appropriation, \$2,704,194.

**Note 12: ECONOMIC DEPENDENCY**

The Commission receives a significant portion of its total revenues from the State of New Jersey. Because these revenues are subject to annual appropriation, any reduction in the amount appropriated in the state’s budget will have a material impact on the operations of the Commission. A comparison of annual operating revenues is shown below:

<u>Fiscal Year</u>	<u>Total State Aid Revenues</u>	<u>General Fund Revenues*</u>	<u>Percentage</u>
2021	\$ 3,786,000	\$ 5,249,677	72%
2020	3,636,000	4,659,249	78%
2019	3,486,000	5,335,483	65%
2018	3,336,000	4,342,259	77%
2017	3,486,000	4,225,149	83%

\* Includes transfers from other funds

**Required Supplementary Information**

**PINELANDS COMMISSION**  
**SCHEDULE OF THE COMMISSION'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY**  
**PUBLIC EMPLOYEES' RETIREMENT SYSTEM (PERS) - LOCAL**  
**REQUIRED SUPPLEMENTARY INFORMATION**

	Measurement date ending June 30			
	2020	2019*	2018	2017
Commission's proportion of the net pension liability	0.0458977285%	0.0424035874%	0.0396726809%	0.0387524433%
Commission's proportionate share of the net pension liability	\$ 7,484,719	\$ 7,640,483	\$ 7,811,353	\$ 9,020,949
Commission's covered payroll (plan measurement period)	\$ 3,255,936	\$ 2,964,972	\$ 2,664,084	\$ 2,713,988
Commission's proportionate share of the net pension liability as a percentage of covered payroll	229.88%	257.69%	293.21%	332.39%
Plan fiduciary net position as a percentage of the total pension liability (local)	58.32%	56.27%	53.60%	48.10%

**PINELANDS COMMISSION**  
**SCHEDULE OF THE COMMISSION'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY**  
**PUBLIC EMPLOYEES' RETIREMENT SYSTEM (PERS) - LOCAL**  
**REQUIRED SUPPLEMENTARY INFORMATION**

	Measurement date ending June 30			
	2016	2015	2014	2013
Commission's proportion of the net pension liability	0.0393468730%	0.0385232928%	0.0406718663%	0.039469948500%
Commission's proportionate share of the net pension liability	\$ 11,653,415	\$ 8,647,707	\$ 7,614,886	\$ 7,543,491
Commission's covered payroll (plan measurement period)	\$ 2,706,800	\$ 2,739,132	\$ 2,796,096	\$ 2,698,088
Commission's proportionate share of the net pension liability as a percentage of covered payroll	430.52%	315.71%	272.34%	279.59%
Plan fiduciary net position as a percentage of the total pension liability (local)	40.14%	47.93%	52.08%	48.72%

Note: Until a full ten-year trend is completed, information will be presented for years for which information is available.

\*For 2019, Plan fiduciary net position as a percentage of the total pension liability (local) changed from 40.45% reported in the prior year's report to 56.27%.

**PINELANDS COMMISSION**  
**SCHEDULE OF THE COMMISSION'S CONTRIBUTIONS**  
**PUBLIC EMPLOYEES' RETIREMENT SYSTEM (PERS) - LOCAL**  
**REQUIRED SUPPLEMENTARY INFORMATION**

	Fiscal Year Ended June 30							
	2021	2020	2019	2018	2017	2016	2015	2014
Contractually required contribution	\$ 486,504	\$ 502,099	\$ 412,464	\$ 394,615	\$ 359,000	\$ 349,552	\$ 331,197	\$ 335,293
Contributions in relation to the contractually required contribution	(486,504)	(502,099)	(412,464)	(394,615)	(359,000)	(349,552)	(331,197)	(331,197)
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,096
Commission's covered payroll (fiscal year)	<u>\$ 3,060,315</u>	<u>\$ 3,170,017</u>	<u>\$ 3,140,268</u>	<u>\$ 2,915,910</u>	<u>\$ 2,692,751</u>	<u>\$ 2,707,759</u>	<u>\$ 2,697,688</u>	<u>\$ 2,697,688</u>
Contributions as a percentage of commission's covered payroll	15.90%	15.84%	13.13%	13.53%	13.33%	12.91%	12.28%	12.43%

Note: Until a full ten-year trend is completed, information will be presented  
for years for which information is available.

**Changes in Benefit Terms**

None

**Changes in Assumptions**

For 2020, the discount rate changed to 7.00%, the long-term expected rate of return remained at 7.00%, demographic assumptions remained in accordance with the results of the July 1, 2014 - June 30, 2018 experience study and the mortality improvement scale incorporated the plan actuary's modified MP-2020 projection scale. Further, salary was assumed to increase between 2.00% and 6.00% (based on years of service) through fiscal year 2026 and 3.00% and 7.00% (based on years of service) for each fiscal year thereafter. For 2019, the discount rate changed to 6.28%, the long-term expected rate of return remained at 7.00%, demographic assumptions were revised in accordance with the results of the July 1, 2014 - June 30, 2018 experience study and the mortality improvement scale incorporated the plan actuary's modified MP-2019 projection scale. For 2018, the discount rate changed to 5.66%, the long-term expected rate of return remained at 7.00%, demographic assumptions were revised in accordance with the results of the July 1, 2011 - June 30, 2014 experience study and the mortality improvement scale incorporated the plan actuary's modified MP-2014 projection scale. For 2017, the discount rate changed to 5.00%, the long-term expected rate of return changed to 7.00% from 7.65%. For 2016, the discount rate changed to 3.98%, and the long-term expected rate of return changed to 7.65% from 7.90%. For 2015 and 2014, the discount rate was 4.90% and 5.39% respectively. In addition, the social security wage base was set at \$118,500 for 2015, increasing 4.00% per annum, compounded annually, and the Internal Revenue Code Section 401(a)(17) pay limit was set at \$265,000 for 2015, increasing 3.00% per annum, compounded annually.

**PINELANDS COMMISSION**  
**SCHEDULE OF CHANGES IN THE TOTAL OPEB LIABILITY AND THE COMMISSION'S PROPORTIONATE SHARE OF THE NET OPEB LIABILITY**  
**STATE HEALTH BENEFIT RETIRED EMPLOYEES' OPEB PLAN**  
**REQUIRED SUPPLEMENTARY INFORMATION**

	Measurement date ending June 30				
	2020	2019	2018	2017	2016
Total net OPEB liability:					
Service cost	\$ 605,949,339	\$ 666,574,660	\$ 896,235,148	\$ 1,064,525,862	\$ 793,330,866
Interest	497,444,533	636,082,461	764,082,232	648,423,508	693,228,312
Change of Benefit Terms	1,034,142	(1,903,958)	-	-	-
Differences between expected and actual experience	541,506,395	(1,399,921,930)	(3,626,384,047)	-	-
Changes in assumptions or other inputs	3,074,968,821	(1,635,760,217)	(2,314,240,675)	(2,587,850,974)	3,126,488,338
Net investment income	(2,858,334)	(4,826,936)	(2,320,422)	(791,049)	(310,043)
Contributions from employers and non- employers	(327,416,317)	(390,269,556)	(474,742,947)	(434,877,635)	(397,482,072)
Administrative expense	9,913,267	9,478,435	8,200,113	8,894,576	528,244
Net change in total net OPEB liability	\$ 4,400,541,846	\$ (2,120,547,041)	\$ (4,749,170,598)	\$ (1,301,675,712)	\$ 4,215,783,645
Total OPEB liability, beginning	13,546,071,100	15,666,618,141	20,415,788,739	21,717,464,451	17,501,680,806
Total OPEB liability, ending	<u>\$ 17,946,612,946</u>	<u>\$ 13,546,071,100</u>	<u>\$ 15,666,618,141</u>	<u>\$ 20,415,788,739</u>	<u>\$ 21,717,464,451</u>
Commission's proportion of the net OPEB liability	0.053743%	0.052758%	0.054073%	0.054329%	0.055825%
Commission's proportionate share of the net OPEB liability	<u>\$ 9,645,048</u>	<u>\$ 7,146,636</u>	<u>\$ 8,471,410</u>	<u>\$ 11,091,694</u>	<u>\$ 12,123,775</u>
Commission's covered payroll (plan measurement period)	<u>\$ 3,170,017</u>	<u>\$ 3,140,268</u>	<u>\$ 2,915,910</u>	<u>\$ 2,692,751</u>	<u>\$ 2,707,759</u>
Commission's proportionate share of the net OPEB liability as a percentage of covered payroll	304.26%	227.58%	290.52%	411.91%	447.74%
Plan fiduciary net position as a percentage of the total pension liability	0.9100%	1.9800%	1.9700%	1.0300%	0.6900%

Notes to schedule:

No assets are accumulated in a trust that meets the criteria in Paragraph 45 of GASB 75

In accordance with GASB 75, the above information is also presented for the State Health Benefit Local Government Retired Employees' Plan. These schedules are presented to illustrate the requirements to show information for 10 years; however, until a full 10-year trend is compiled, this presentation will only include information for those years for which information is available.

**PINELANDS COMMISSION  
SCHEDULE OF THE COMMISSION'S CONTRIBUTIONS  
STATE HEALTH BENEFIT RETIRED EMPLOYEES' OPEB PLAN  
REQUIRED SUPPLEMENTARY INFORMATION**

	Fiscal year ending June 30				
	2021	2020	2019	2018	2017
Commission's required contribution	\$ 163,364	\$ 159,893	\$ 218,955	\$ 284,092	\$ 305,161
Contributions in relation to the required contribution	(163,364)	(159,893)	(218,955)	(284,092)	(305,161)
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -
Commission's covered payroll (fiscal year)	<u>\$3,060,315</u>	<u>\$3,170,017</u>	<u>\$3,140,268</u>	<u>\$2,915,910</u>	<u>\$2,692,751</u>
Contributions as a percentage of commission's covered payroll	5.34%	5.04%	6.97%	9.74%	11.33%

Note: In accordance with GASB 75, the above information is also presented for the State Health Benefit Local Government Retired Employees' Plan. These schedules are presented to illustrate the requirements to show information for 10 years; however, until a full 10-year trend is compiled, this presentation will only include information for those years for which information is available.

**Changes in Benefit Terms**

None

**Differences between Expected and Actual Experience**

The increase in liability from June 30, 2019 to June 30, 2020 is due to changes in the census, claims, and premium experience.

**Changes in Assumptions**

The decrease in the liability from June 30, 2018 to June 30, 2019 is due to the combined effect of the decrease in the assumed discount rate from 3.87% as of June 30, 2018 to 3.50% as of June 30, 2019; and changes in the trend, excise tax, updated decrements, PPO/HMO future retiree elections, salary scale and mortality assumptions. The increase in the liability from June 30, 2019 to June 30, 2020 is due to the decrease in the assumed discount rate from 3.50% as of June 30, 2019 to 2.21% as of June 30, 2020, as well as changes in the trend, repealment of the excise tax and updated mortality improvement assumptions.

## **Other Information**

**PINELANDS COMMISSION**  
**SCHEDULE OF EXPENDITURES OF STATE FINANCIAL ASSISTANCE**  
**FOR THE FISCAL YEAR ENDED JUNE 30, 2021**

Grantor/Pass Through Grantor/Program Title	PROGRAM or		GRANT PERIOD		ACCOUNTS	DEFERRED	CASH/ CREDIT		ACCOUNTS	DEFERRED
	STATE GRANT or GMIS NUMBER	AWARD AMOUNT	FROM	TO	RECEIVABLE 6/30/20	REVENUE 6/30/20	RECEIVED	EXPENDITURES	RECEIVABLE 6/30/21	REVENUE 6/30/21
<b>Department of Environmental Protection</b>										
State Aid	100-042-4800-082	\$3,099,000	07/01/20	06/30/21	\$ -	\$ -	\$ 3,099,000	\$ 3,099,000	\$ -	\$ -
Pinekinds Development Credit Purchases	100-042-4800-324	13,000,000	07/01/99	Completion	-	1,759,200	-	-	-	1,759,200
<b>Credit from State - Fringe Benefits</b>	not applicable	687,000	07/01/20	06/30/21	-	-	687,000	687,000	-	-
<b>Total State Financial Assistance</b>					<u>\$ -</u>	<u>\$ 1,759,200</u>	<u>\$ 3,786,000</u>	<u>\$ 3,786,000</u>	<u>\$ -</u>	<u>\$ 1,759,200</u>

See Report and Notes to Schedules of Expenditures of State Financial Assistance.

**PINELANDS COMMISSION  
NOTES TO THE SCHEDULE OF EXPENDITURES OF  
STATE FINANCIAL ASSISTANCE  
FOR THE FISCAL YEAR ENDED JUNE 30, 2021**

**Note 1: GENERAL**

The accompanying Schedule of Expenditures of State Financial Assistance presents the activity of all state financial assistance programs of the New Jersey Pinelands Commission. The Commission is defined in Note 1 to the financial statements. All state financial assistance received directly from state agencies is included on the Schedule of Expenditures of State Financial Assistance.

**Note 2: BASIS OF ACCOUNTING**

The accompanying Schedule of Expenditures of State Financial Assistance is presented using the modified accrual basis of accounting. This basis of accounting is described in Note 1 to the Commission's general purpose financial statements.

**Note 3: RELATIONSHIP TO FINANCIAL STATEMENTS**

Amounts reported in the accompanying schedule agree with amounts reported in the Commission's financial statements.

**Note 4: RELATIONSHIP TO STATE FINANCIAL REPORTS**

Amounts reported in the accompanying schedule agree with the amounts reported in the related state financial reports.

**Note 5: MAJOR PROGRAMS**

Major programs are identified in the *Summary of Auditor's Results* section of the Schedule of Findings and Questioned Costs.

**Pinelands Commission**

**Report on Internal Control over Financial Reporting and on Compliance  
and Other Matters Based on an Audit of Financial Statements Performed  
in Accordance with *Government Auditing Standards***

**For Fiscal Year Ended June 30, 2021**

Assemblyman  
Craig J. Coughlin, Chair

Senator  
Anthony M. Bucco, Vice-Chair

SENATE  
Christopher J. Connors  
Kristin M. Corrado  
Sandra B. Cunningham  
Linda R. Greenstein  
Joseph Pennacchio  
M. Teresa Ruiz  
Nicholas P. Scutari

GENERAL ASSEMBLY  
Annette Chaparro  
John DiMaio  
Louis D. Greenwald  
Nancy F. Muñoz  
Verlina Reynolds-Jackson  
Edward H. Thomson  
Harold J. Wirths



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STATE AUDITOR  
609-847-3470  
Fax 609-633-0834

David J. Kaschak  
State Auditor

Brian M. Klingele  
Assistant State Auditor

Thomas Troutman  
Assistant State Auditor

**REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON  
COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF  
FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE  
WITH GOVERNMENT AUDITING STANDARDS**

**INDEPENDENT AUDITOR'S REPORT**

The Honorable Philip D. Murphy  
Governor of New Jersey

The Honorable Nicholas P. Scutari  
President of the Senate

The Honorable Craig J. Coughlin  
Speaker of the General Assembly

Ms. Maureen McMahan  
Executive Director  
Office of Legislative Services

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Pinelands Commission, as of and for the year ended June 30, 2021, and the related notes to the financial statements, and have issued our report thereon dated January 31, 2024.

**Internal Control over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the Pinelands Commission's internal control over financial reporting (internal control) to determine the audit

procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Pinelands Commission's internal control. Accordingly, we do not express an opinion on the effectiveness of the Pinelands Commission's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

### **Compliance and Other Matters**

As part of obtaining reasonable assurance about whether the Pinelands Commission's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

### **Purpose of this Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.



David J. Kaschak  
State Auditor  
January 31, 2024

**Pinelands Commission**

**Report on Compliance for Each Major State Program; Report on  
Internal Control over Compliance; and Report on the Schedule of  
Expenditures of State Financial Assistance Required by New Jersey Department of the  
Treasury Circular No. 15-08-OMB**

**For the Fiscal Year Ended June 30, 2021**

Assemblyman  
Craig J. Coughlin, Chair  
Senator  
Anthony M. Bucco, Vice-Chair

SENATE  
Christopher J. Connors  
Kristin M. Corrado  
Sandra B. Cunningham  
Linda R. Greenstein  
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Assistant State Auditor

**REPORT ON COMPLIANCE FOR EACH MAJOR STATE PROGRAM; REPORT ON  
INTERNAL CONTROL OVER COMPLIANCE; AND REPORT ON THE SCHEDULE  
OF EXPENDITURES OF STATE FINANCIAL ASSISTANCE REQUIRED BY NEW  
JERSEY DEPARTMENT OF THE TREASURY CIRCULAR No. 15-08-OMB**

INDEPENDENT AUDITOR'S REPORT

The Honorable Philip D. Murphy  
Governor of New Jersey

The Honorable Nicholas P. Scutari  
President of the Senate

The Honorable Craig J. Coughlin  
Speaker of the General Assembly

Ms. Maureen McMahan  
Executive Director  
Office of Legislative Services

**Report on Compliance for Each Major State Program**

We have audited the Pinelands Commission's compliance with the types of compliance requirements described in the New Jersey Grant Compliance Supplement that could have a direct and material effect on each of its major state programs for the year ended June 30, 2021. The Pinelands Commission's major state programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

## **Management's Responsibility**

Management is responsible for compliance with the requirements of laws, regulations, contracts, and grants applicable to its state programs.

## **Auditor's Responsibility**

Our responsibility is to express an opinion on compliance for each of the Pinelands Commission's major state programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and New Jersey Department of the Treasury Circular No. 15-08-OMB. These standards and New Jersey Department of the Treasury Circular No. 15-08-OMB require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major state program occurred. An audit includes examining, on a test basis, evidence about the Pinelands Commission's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major state program. However, our audit does not provide a legal determination of the Pinelands Commission's compliance.

## **Opinion on Each Major State Program**

In our opinion, the Pinelands Commission complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major state programs for the year ended June 30, 2021.

## **Report on Internal Control over Compliance**

Management of the Pinelands Commission is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the Pinelands Commission's internal control over compliance with the types of requirements that could have a direct and material effect on each major state program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major state program and to test and report on internal control over compliance in accordance with New Jersey Department of the Treasury Circular No. 15-08-OMB, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of the Pinelands Commission's internal control over compliance.

*A deficiency in internal control over compliance* exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing

their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a state program on a timely basis. A *material weakness in internal control over compliance* is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a state program will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a state program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of New Jersey Department of the Treasury Circular No. 15-08-OMB. Accordingly, this report is not suitable for any other purposes.

**Report on the Schedule of Expenditures of State Financial Assistance Required by New Jersey Department of the Treasury Circular No. 15-08-OMB.**

We have audited the financial statements of the Pinelands Commission as of and for the year ended June 30, 2021, and have issued our report thereon dated January 31, 2024, which contained an unmodified opinion on those financial statements. Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The accompanying schedule of expenditures of state financial assistance is presented for purposes of additional analysis as required by New Jersey Department of the Treasury Circular No. 15-08-OMB and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditures of state financial assistance is fairly stated in all material respects in relation to the financial statements as a whole.



David J. Kaschak  
State Auditor  
January 31, 2024

**PINELANDS COMMISSION  
SUMMARY SCHEDULE OF AUDIT FINDINGS AND QUESTIONED COSTS  
FISCAL YEAR ENDED JUNE 30, 2021**

**Section I - Summary of Auditor's Results**

**Financial Statements**

Type of auditor's report issued: Unmodified

Internal control over financial reporting:

Material weakness(es) identified?  Yes  No

Significant deficiency(ies) identified?  Yes  None Reported

Noncompliance material to financial statements noted?  Yes  No

**Federal Awards Section**

Federal Awards Section is not applicable; The Pinelands Commission did not meet the \$750,000 threshold for federal single audit.

**State Awards Section**

Internal control over major programs:

Material weakness(es) identified?  Yes  No

Significant deficiency(ies) identified?  Yes  None Reported

Type of auditor's report on compliance for major programs: Unmodified

Any audit findings disclosed that are required to be reported in accordance with New Jersey Department of the Treasury Circular No. 15-08-OMB  Yes  No

**PINELANDS COMMISSION**  
**SUMMARY SCHEDULE OF AUDIT FINDINGS AND QUESTIONED COSTS**  
**FISCAL YEAR ENDED JUNE 30, 2021**

**Section I - Summary of Auditor's Results (continued):**

Identification of major programs:

<u>State Program Number</u>	<u>Name of State Program</u>
100-042-4800-082	State of New Jersey Appropriation
Not applicable	Credit from State - Fringe Benefits

**Section II – Schedule of Financial Statement Findings**

No compliance or internal control over financial reporting findings were noted that are required to be reported under *Government Auditing Standards*.

**Section III – Schedule of State Awards Findings and Questioned Costs**

The audit disclosed no findings or questioned costs for the current period.

**PINELANDS COMMISSION  
SUMMARY SCHEDULE OF PRIOR AUDIT FINDINGS AND QUESTIONED COSTS  
FISCAL YEAR ENDED JUNE 30, 2021**

<u>Finding No.</u>	<u>Condition</u>	<u>Status</u>
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None.		
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**RESOLUTION OF THE NEW JERSEY PINELANDS COMMISSION**

NO. PC4-24- 06

**TITLE:** To Approve the Pinelands Commission’s 2023 Annual Report

Commissioner Lohbauer moves and Commissioner Pikolycky seconds the motion that:

**WHEREAS**, in September 2006, then Governor Corzine issued Executive Order #37; and

**WHEREAS**, Executive Order #37 called for the preparation and approval of a comprehensive report concerning the operations of each State authority; and

**WHEREAS**, the report shall set forth the significant actions of the Commission; and

**WHEREAS**, because the report is to be done on an annual basis and it includes much of the same information as the Commission's Annual Report, which is required by the Pinelands Protection Act, the two reports have been combined every year since 2007 as a cost savings measure to eliminate waste and promote efficiency as called for in Executive Order #37; and

**WHEREAS**, pursuant to N.J.S.A. 13:18A-5h, no action authorized by the Commission shall have force or effect until ten (10) days, Saturdays, Sundays and public holidays excepted, after a copy of the minutes of the meeting of the Commission has been delivered to the Governor for review, unless prior to expiration of the review period the Governor shall approve same, in which case the action shall become effective upon such approval.

**NOW, THEREFORE BE IT RESOLVED** that the attached 2023 Annual Report be approved, submitted to the Governor's Authorities Unit and posted on the Commission's website.

**Record of Commission Votes**

	AYE	NAY	NP	A/R*		AYE	NAY	NP	A/R*		AYE	NAY	NP	A/R*
Asselta			X		Lettman	X				Rittler Sanchez	X			
Avery	X				Lohbauer	X				Wallner	X			
Christy	X				Mauriello	X				Matos	X			
Holroyd	X				Meade	X								
Irick			X		Pikolycky	X								

\*A = Abstained / R = Recused

Adopted at a meeting of the Pinelands Commission

Date: March 8, 2024

\_\_\_\_\_  
 Susan R. Grogan  
 Executive Director

\_\_\_\_\_  
 Laura E. Matos  
 Chair



# 2023 Annual Report

New Jersey Pinelands Commission



# Protecting the New Jersey Pinelands

The New Jersey Pinelands Commission is an independent state agency whose mission is to preserve, protect, and enhance the natural and cultural resources of the Pinelands National Reserve, and to encourage compatible economic and other human activities consistent with that purpose.

The Commission was created by the passage of the Pinelands Protection Act in 1979.

To accomplish its mission, the Commission implements a comprehensive plan that guides land use, development and natural resource protection programs in the 938,000-acre Pinelands Area of southern New Jersey. The Commission's 15-member board consists of state, county and federal appointees who volunteer their time and expertise. The panel meets monthly and receives guidance from its Executive Director and staff.



**Above:** The Pinelands is home to vast forests, farms and towns that cover portions of seven counties in southern New Jersey. This photo was taken at the Franklin Parker Preserve in 2023.

Photo/Paul Leakan

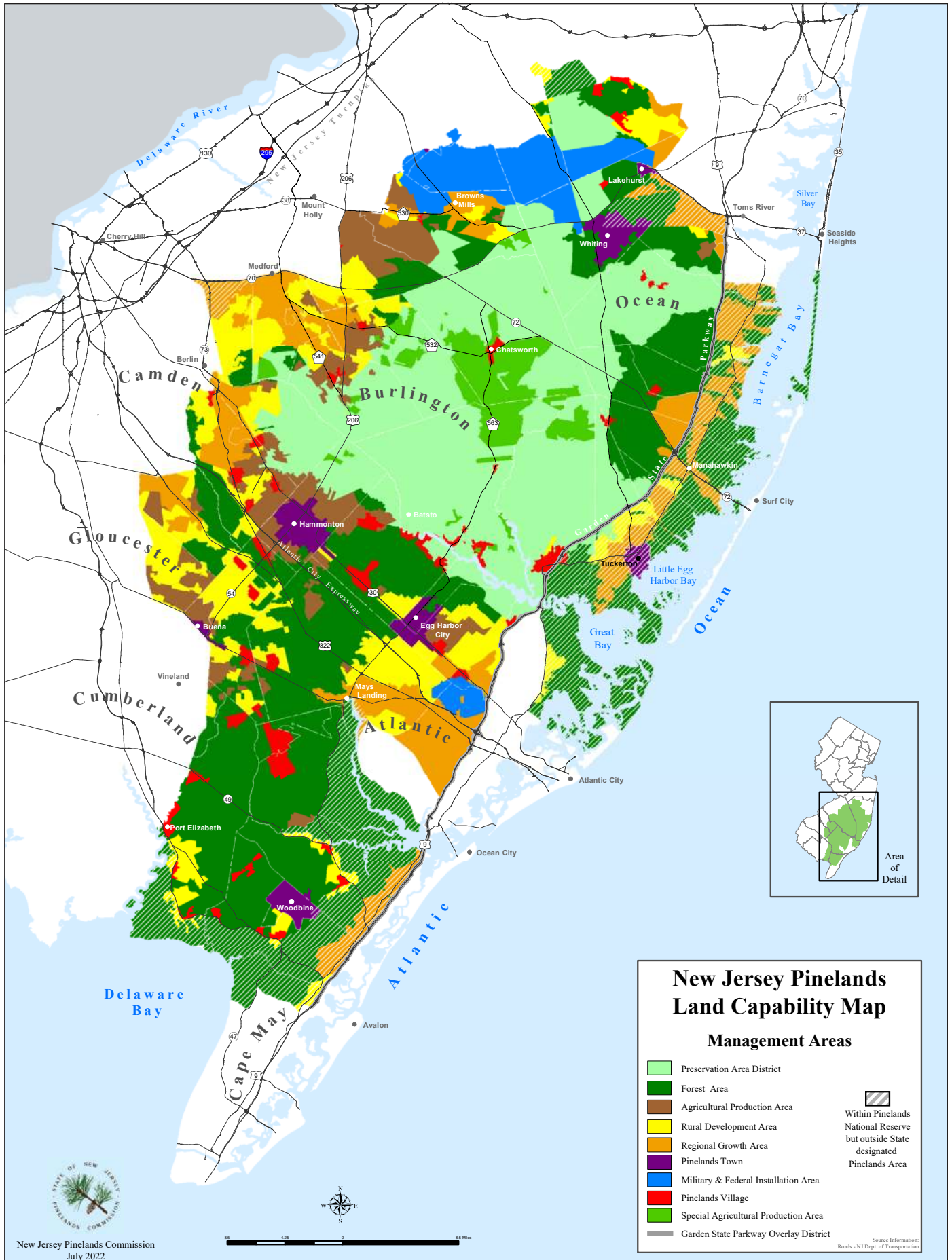
## Commissioners:

Laura E. Matos, Chair  
Alan W. Avery, Jr., Vice Chairman  
Nicholas Asselta  
Daniel Christy  
John Holroyd, Jr.  
Jerome H. Irick  
Theresa Lettman  
Edward Lloyd (January - August)  
Mark S. Lohbauer  
Mark Mauriello  
Jonathan Meade  
William Pikolycky  
Doug Wallner

Susan R. Grogan, Executive Director

Pinelands Commission  
P.O. Box 359  
New Lisbon, NJ 08064  
Phone: (609) 894-7300  
Fax: (609) 894-7330  
Website: [www.nj.gov/pinelands](http://www.nj.gov/pinelands)





# Executive Director's Message

2023 was another busy and productive year for the Commission. I'm proud of all of our accomplishments, including many that will better protect the Pinelands for decades to come.

We welcomed two new Commission members in 2023. We also worked hard to fill numerous staff vacancies so that the Commission's goals could be advanced. Meanwhile, we greatly advanced efforts to stabilize and preserve the Fenwick Manor farmhouse, an 18th century structure that has housed Commission staff since 1980. In 2023, the Commission applied for and was awarded a significant Capital Level II grant from the New Jersey Historic Trust. The grant will allow the Commission to rehabilitate and ensure the long-term preservation of the historic building.

After decades of intensive study, the Commission adopted water management rules that strengthen protections of the Kirkwood-Cohansey aquifer and the Pinelands ecology as a whole, while ensuring sufficient water supply for authorized development in the growth-oriented portions of the Pinelands Area. We also undertook a comprehensive review of Pinelands management area boundaries to identify areas designated for growth that are vulnerable to climate change, with the goal of considering zoning changes, enhanced wetlands protection and/or land preservation in the future. We continued to administer the Pinelands Development Credit Program, which has permanently preserved more than 58,070 acres in the Pinelands Area since 1982. We initiated agreements with two Pinelands municipalities to facilitate development of accessible trail improvements. We received and reviewed 142 municipal master plan and ordinance amendments and 364 new development applications in 2023. We undertook a multitude of scientific research projects, including water-level monitoring, frog and toad surveys and radio-tracking of native, rare snakes and eastern box turtles. We continued to raise awareness and appreciation of the Pinelands, educating thousands during special events and in-class programs and by sharing social media posts and responding to public inquiries.

Sadly, we lost one of the strongest, most effective advocates for Pinelands protection when Commissioner Ed Lloyd passed away on August 5th. Ed volunteered countless hours of his time and considerable expertise in environmental law as a Commissioner for more than 20 years. We miss him as a champion for the Pinelands and as a friend.

This was a challenging year, but we can look back and be proud of our efforts to protect this special part of New Jersey for current and future generations.



**Above:** As of June 2023, more than 51% (or 482,000 acres) of the Pinelands Area has been permanently preserved. Photo/Paul Leakan

A handwritten signature in black ink that reads "Susan R. Grogan". The signature is written in a cursive, flowing style.

Susan R. Grogan  
Executive Director

# In Memoriam: Pinelands Commissioner Ed Lloyd

The Pinelands Commission lost one of its powerful advocates for environmental protection in 2023, as longtime Commissioner Ed Lloyd passed away on August 5th.

“The loss of Ed Lloyd will be deeply felt by New Jersey’s environmental community, especially those of us here in the Pinelands,” said Pinelands Commission Chair Laura E. Matos. “His dedication to the environment and preservation efforts was always at the forefront during his storied career, and he will be greatly missed.”

Mr. Lloyd joined the Pinelands Commission on November 8, 2002 after being appointed by then-Gov. James E. McGreevey. He was a Clinical Professor of Environmental Law at Columbia Law School. He previously served for 15 years as Director of the Rutgers University Environmental Law Clinic. Mr. Lloyd also served as General Counsel and past Executive Director of the New Jersey Public Interest Research Group. He served on the New Jersey Supreme Court Committee on Environmental Litigation, and he testified before Congressional and legislative committees on issues such as energy conservation, solar power, clean water standards and regulations, freedom of information, water supply planning and conservation, and solid waste. A graduate of Princeton University, Mr. Lloyd held a Juris Doctor from the University of Wisconsin.

Mr. Lloyd was a highly active member of the Pinelands Commission, having served on the agency’s Policy and Implementation, Climate, Permanent Land Protection, Public and Governmental Programs, Agriculture, Plan Review, Memorandum of Agreement and Personnel and Budget committees.

During Mr. Lloyd’s tenure on the Commission, the agency:

- Established the Pinelands Conservation Fund, which has since helped to permanently preserve nearly



**Above:** This photo was taken when Ed Lloyd took the oath of office as a Pinelands Commission member in 2002. File photo

9,000 acres of land in the Pinelands and has financed numerous Pinelands research, planning and education and outreach projects;

- Adopted significant amendments to the Pinelands Comprehensive Management Plan (CMP), the rules that govern land use, development, and the protection of resources in the Pinelands. Among these amendments were requirements for the clustering of residential development throughout much of the Pinelands Area, enhanced standards for stormwater management, a pilot program for vegetation management in electric transmission rights-of-way, and siting standards for solar energy facilities;

- Completed numerous scientific studies, including a multi-year study of the Kirkwood-Cohansey aquifer system that lies beneath the Pinelands and contains trillions of gallons of water;

- Established and implemented a highly successful pilot program to test the ability of advanced wastewater treatment technologies to meet stringent Pinelands water quality standards;

- Approved changes to the Pinelands Land Capability Map that reduced the size of development-oriented

management areas and resulted in greater protections to nearly 14,000 acres of land; and

■ Increased its focus on education and outreach by designing, building and opening the new Candace McKee Ashmun Education Exhibit at its headquarters and by expanding its educational offerings with annual Pinelands-themed World Water Monitoring events.

Members of the Pinelands Commission adopted a resolution honoring Mr. Lloyd for his service on August 11, 2023.

In addition, Commissioners and the agency's staff unveiled a newly planted, native sweetbay magnolia and sign honoring Mr. Lloyd during a special ceremony at the Commission's headquarters on October 13, 2023.

Mr. Lloyd's wife, Janine G. Bauer, and two children,



**Above:** Commission staff installed a memorial plaque next to a native sweetbay magnolia tree that they planted at the agency's headquarters in memory of Commissioner Ed Lloyd in October 2023.

Photo/Paul Leakan

Abigail and Alex Lloyd, attended the ceremony, which included comments about Mr. Lloyd's extraordinary work and dedication to protect the environment in New Jersey.



**Above:** Mr. Lloyd's wife and two children joined current and former Commission members and Commission staff for a ceremony to unveil a newly planted sweetbay magnolia that was planted in his memory in October 2023.

Photo/Paul Leakan

# Commission Gains Two New Members in 2023

The Pinelands Commission gained two new members on its 15-member board in 2023, including gubernatorial appointee Mark Mauriello and Cumberland County representative Nicholas Asselta.

Mr. Mauriello took the oath of office during the Commission’s regular meeting on January 13, 2023. He is a former Commissioner of the New Jersey Department of Environmental Protection (NJDEP), and he replaced Gary Quinn on the Pinelands Commission.

Mr. Mauriello began his career with the NJDEP in May 1980, after earning a bachelor’s degree in geology from Middlebury College in Vermont. He accepted a position as a shoreline mapping specialist with the New Jersey Geological Survey, and during the 1980’s and 1990’s he rose through the ranks of the Division of Coastal Resources and Land Use Regulation Division and was appointed as Division Director in 2002. In 2006, Mr. Mauriello was selected by NJDEP Commissioner Lisa Jackson to be Assistant Commissioner for Land Use Management. In November 2008, Mr. Mauriello was nominated by Governor Jon S. Corzine to serve as Commissioner of the NJDEP, replacing newly confirmed U.S. Environmental Protection Agency Administrator Lisa Jackson. He served in that capacity from November 2008 until his retirement from NJDEP in January 2010. In March 2010, he accepted a position as Director of Environmental Affairs and Planning with Edgewood Properties. In this capacity, Mr. Mauriello is responsible for overseeing the company’s environmental programs and planning initiatives and serves as an advisor on regulatory issues and property acquisitions. He also serves as vice-president of the Board of Trustees of New Jersey Future, vice-president of the Board of Trustees of American Littoral Society and as a Board member of the New Jersey Association for Floodplain Management.

Mr. Asselta took the oath of office during the Commission’s regular meeting on February 10, 2023. He filled a seat that became vacant when Jane Jannarone resigned from the Commission in December 1, 2022.

A native of Vineland and the son of a Vineland Police Officer and the city’s first detective, Mr. Asselta graduated from Vineland High School, Cumberland County College and Frederick Military Academy. He attended Rider College and the Glassboro State College Management Institute. After college, Mr. Asselta worked for 23 years, culminating in his position as Marketing and Production Director for Times Graphics, Inc., a Gannett Company subsidiary. Mr. Asselta has been an educator, a coach and a community leader. From 1978 to 1981, he served as an adjunct faculty member at Atlantic Cape Community College, where he served as the head basketball coach. He was elected to the Vineland Board of Education in 1993, and in 1995 he was sworn in as a member of the New Jersey State Assembly to fill an unexpired term. He was elected to his first full term on the General Assembly in November 1995. Having completed four terms in the General Assembly, Mr. Asselta was sworn in to serve



**Commissioner Mark Mauriello**



**Commissioner Nicholas Asselta**

on the New Jersey State Senate in January 2004. He went on to serve as a Commissioner on the New Jersey Board of Public Utilities from 2008-2013, where he fought to maintain affordable utility rates for New Jersey ratepayers while improving the utility infrastructure throughout the state. In 2013, Aqua America asked Mr. Asselta to join the company as president of its New Jersey Division. In November 2016, he was hired as Vice-President of South State, Inc., a major road, bridge and utility infrastructure building based in New Jersey. He began working as an independent consultant in 2019, providing services for private, public and political clients. Numerous community and civic groups have recognized and honored Mr. Asselta for his work, and he continues to serve on The New Jersey Vietnam Veterans Memorial Foundation.

In January 2023, the Commission adopted resolutions thanking Commissioners Quinn and Jannarone for their service.

The Commission's 15-member board consists of seven members who are appointed by the New Jersey Governor, one member appointed by each of the seven Pinelands counties, and one member appointed by the U.S. Secretary of the Interior. The gubernatorial appointees are subject to the review and consent of the New Jersey Senate.

## Commission Appoints New Executive Director

The Pinelands Commission voted unanimously to appoint Susan R. Grogan as the agency's Executive Director on February 10, 2023.

Ms. Grogan served as the agency's Acting Executive Director for 18 months, and Commissioners expressed their support for her extraordinary accomplishments and skills as the agency's top executive.

"Her wealth of experience, extraordinary knowledge, and tremendous work ethic are only a few of the reasons we are thrilled to officially appoint her Executive Director," said Commission Chair Laura E. Matos.

The position of Executive Director of the Pinelands Commission became vacant on June 24, 2021, following the passing of Nancy Wittenberg. In accordance with the Pinelands Commission's By-Laws, then-Chairman Richard Prickett designated Ms. Grogan as the Commission's Acting Executive Director.

Ms. Grogan has worked at the Pinelands Commission since August 1988. She served as the Commission's



**Above:** Pinelands Commission Chair Laura E. Matos (left) seated next to Susan R. Grogan during the meeting in which Ms. Grogan was appointed the Commission's new Executive Director. Photo/Paul Leakan

longtime Chief Planner and was promoted as the Director of Planning in 2020. In her capacity as Chief Planner, Ms. Grogan authored many amendments to the Comprehensive Management Plan, reviewed thousands of municipal ordinances and master plans to ensure conformance with Pinelands regulations, implemented the Pinelands Conservation Fund land acquisition program that has preserved nearly 9,000 acres to date and supervised Planning Office staff and a wide variety of projects. Ms. Grogan has also served

as the Executive Director of the Pinelands Development Credit Bank since 2011.

Ms. Grogan advanced numerous initiatives during her tenure as the Commission's Acting Executive Director, including:

- The adoption of amendments to the CMP that will better protect Pinelands resources by requiring the use of green infrastructure and other more stringent standards to manage stormwater;
- Proposing rule changes pertaining to water management and the Kirkwood-Cohansey aquifer. These rule changes have since been adopted, as noted below;
- Working to prepare the Commission for future rule changes aimed at addressing climate change;
- Recruiting and hiring several staff members to fill vacant positions;
- Providing invaluable guidance to longtime and new Commission members;
- Securing funding to help refurbish the historic Fenwick Manor farmhouse;
- Overseeing the implementation of office-wide policies pertaining to COVID-19; and
- Furthering efforts to reduce the Commission's carbon footprint at its headquarters.

Prior to joining the Commission, Ms. Grogan was the Assistant Land Use Coordinator for Burlington County's Office of Economic Development, where she was responsible for implementing the county's farmland preservation program, among other responsibilities. Ms. Grogan holds a Masters of City and Regional Planning from Rutgers University and a Bachelors of Arts in Government and Sociology from the College of William and Mary. She is a licensed New Jersey Professional Planner and a member of the American Institute of Certified Planners.

The Commission's Executive Director is responsible for the daily operations of the Commission and its staff of 41 planners, scientists, environmental reviewers, computer programmers, educators, and others.



**To the left:** Susan R. Grogan received a standing ovation from Commission members after being appointed as the agency's new Executive Director in February 2023.

Photo/Paul Leakan

# Planning Activities

## Amendments to the Pinelands Comprehensive Management Plan

After decades of intensive study, the Commission adopted rules in 2023 that strengthen protections of the Kirkwood-Cohansey aquifer and the Pinelands ecology as a whole, while ensuring sufficient water supply for authorized development in the growth-oriented portions of the Pinelands Area.

The Kirkwood-Cohansey is a freshwater reservoir underlying the Pinelands and containing an estimated 17 trillion gallons of water. Withdrawals from the aquifer can negatively impact the essential character of the Pinelands environment; therefore, the Commission proposed clear, quantifiable standards to address potential adverse local and regional impacts.



**Above:** In 2023, the Commission adopted rules that strengthen protections of the Kirkwood-Cohansey aquifer and the Pinelands ecology as a whole.

Photo/Paul Leakan

Climate change is anticipated to create more extreme patterns of rainfall and drought. The rules adopted by the Commission provide a margin of safety for the ecosystems and human uses of the Kirkwood-Cohansey aquifer by limiting the total volume of water that can be withdrawn in a watershed and by prohibiting new withdrawals in the most protective management areas within the Pinelands Area.

## Climate resilience

The Commission continued to focus on climate change and resilience, while working to reduce the agency's environmental impacts.

The Commission's Climate Committee met four times in 2023, focusing on the review of and potential changes to Pinelands regulations for solar energy facilities, including consideration of agrivoltaics and other siting opportunities. The Committee also undertook a comprehensive review of Pinelands management area boundaries to identify areas designated for growth that are vulnerable to climate change, with the goal of considering zoning changes, enhanced wetlands protection and/or land preservation in the future.

Climate resiliency was also the focus of office initiatives, as evidenced by the purchase of two plug-in, hybrid electric vehicles for field work and conversion of all grounds maintenance equipment from gas to electric. Finally, Commission staff attended the monthly and senior staff meetings of the Interagency Council on Climate Resilience and contributed to the Council's agency accomplishments report and upcoming Extreme Heat Resilience Action Plan.

## Pinelands Commission Agreement Would Authorize Accessibility Improvements at Pemberton Lake Trail

In 2023, the Pinelands Commission finalized a proposed Memorandum of Agreement (MOA) that would enable Pemberton Township to undertake accessibility improvements at the Pemberton Lake Trail.

Pemberton Lake is located in the Pemberton Lake Wildlife Management Area, which is managed by the NJDEP. The site consists of three parcels. Pemberton Township owns two of the parcels, and the State of New Jersey owns the third parcel.

The Commission's proposed MOA with Pemberton Township would enable the Township to improve a portion of the Pemberton Lake Trail that starts at the site's parking area on Magnolia Road and proceeds proximate to the shoreline of the lake to the trailhead at the NJDEP's parking area on Coleman's Bridge Road. The improvements include placing crushed gravel within the existing length and width of the trail, leveling the trail to no more than a 5% grade along its entire length and installing boardwalks at two areas of the trail that are prone to being wet. The improvements would make the trail firm, stable and flat from side-to-side, so it is more accessible to individuals with mobility issues.

Portions of the Pemberton Lake Trail are located within wetlands and wetlands buffers, necessitating the Commission's authorization of a deviation from the standards of the Pinelands Comprehensive Management Plan (CMP) in order to permit the trail improvements. Under the CMP, such deviations may be granted via MOAs between the Commission and other public agencies. MOAs allow those agencies to undertake development activities that may not be consistent with Pinelands regulations, so long as the agreement is accompanied by measures that afford an equivalent level of protection of the resources of the Pinelands as would be provided through a strict application of CMP standards.

To offset the impacts associated with the trail improvements, the Township has proposed to:



**Above:** The Commission's proposed Memorandum of Agreement would allow Pemberton Township to undertake accessibility improvements at the Pemberton Lake Trail. Photo/Paul Leakan

- Revegetate two wetlands buffer areas within the project site, one (4,980 square feet) adjacent to the Magnolia Road parking area and the other (9,250 square feet) adjacent to the Coleman's Bridge Road parking area, with native Pinelands vegetation;
- Create a rain garden in a portion of the denuded area adjacent to the parking area on Magnolia Road;
- Install a gate at each end of the improved trail that is designed to permit pedestrians, wheelchairs, walkers and electric scooters to enter the trail, while prohibiting entry by off-road vehicles;
- Install wooden rail and post barriers at specific points along the trail in the vicinity of the Pemberton Bypass that are currently used unlawfully by off-road vehicles to access the trail; and
- Create two accessible parking spaces at the existing Coleman's Bridge Road parking area.

The Commission is scheduled to vote on the MOA during its regular meeting in January 2024. Also in 2023, the agency began working on a similar MOA that would allow the paving of an existing trail around Forecastle Lake in Stafford Township for accessibility purposes.

## Pinelands Development Credit Program

The Pinelands Development Credit Program is a regional transfer of development rights program that preserves important agricultural and ecological land. Pinelands Development Credits (PDCs) are allocated by the Commission to landowners in the Preservation, Agricultural Production and Special Agricultural Production Areas, which are the sending areas. PDCs can be purchased by property owners and developers who are interested in developing land in Regional Growth Areas, which serve as the receiving areas.

Once PDCs are “severed” from a sending area property, the property is permanently protected by a conservation or agricultural deed restriction and the PDCs allocated to that property can be sold on the private market.

During 2023, 41.25 PDCs were allocated by the Commission to 15 sending area properties. A total of 25.00 PDCs were severed, protecting a total of 557.43 acres of land in the Preservation Area District, Agricultural Production Area, and Special Agricultural Production Area on properties located in Hammonton Town, Mullica Township, and Woodland Township. Since 1982, 58,070 acres in the Pinelands Area have been permanently preserved through the PDC



**Above:** This blueberry farm in Hamilton Township, Atlantic County was permanently preserved through PDC severance in July 2022.

Photo/Steve Simone

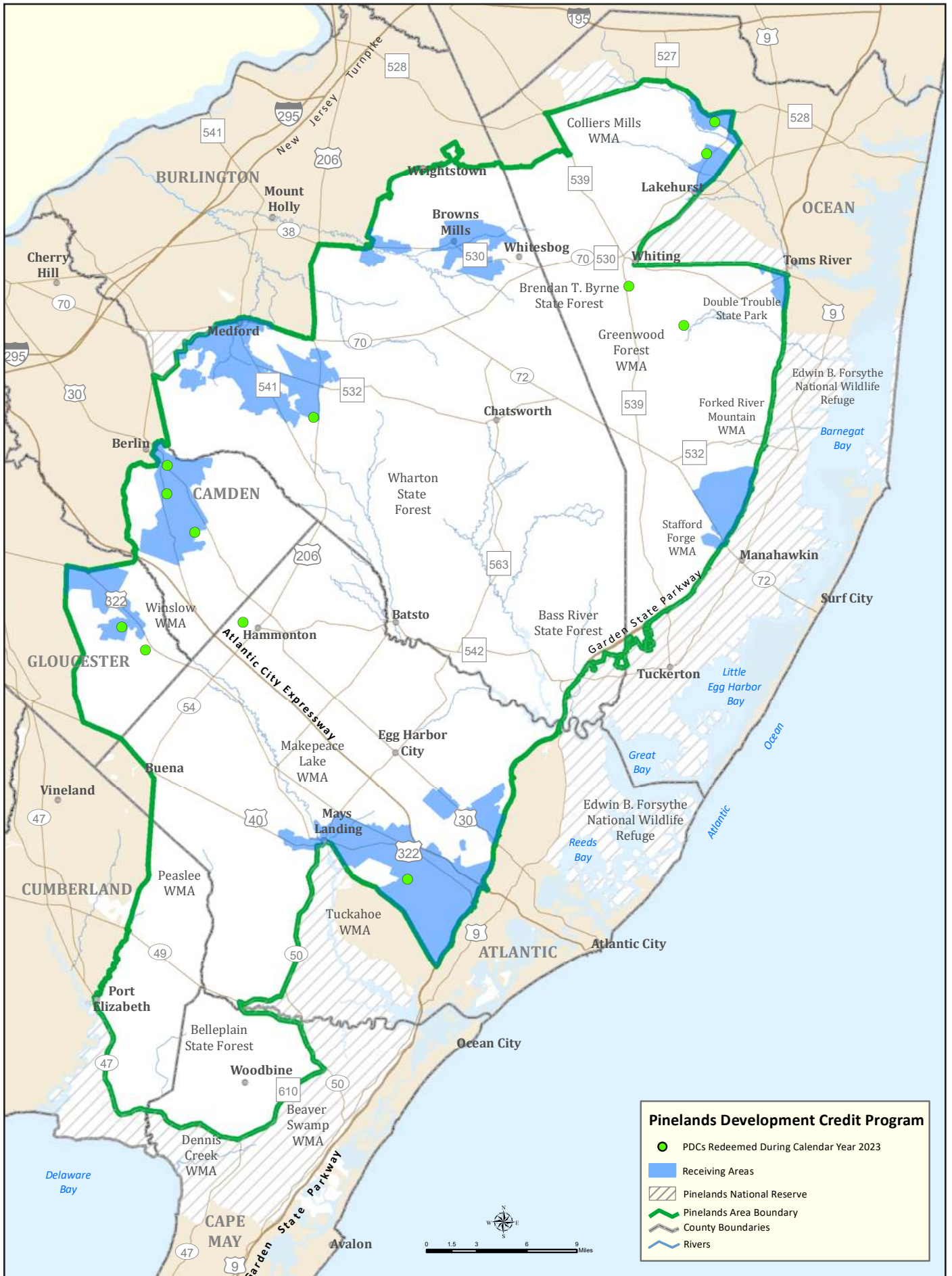
Program.

In 2023, a total of 31.00 PDCs were sold, with an average sales price of \$73,242 per PDC. A total of 13.75 PDCs were redeemed for one nonresidential project and 11 residential projects involving a variety of single-family detached dwellings, townhouses and apartments. These projects are located in Egg Harbor Township, Hammonton Town, Jackson Township, Lacey Township, Manchester Township, Monroe Township, Shamong Township, Waterford Township, and Winslow Township in 2023, as depicted on the map on page 12.



**Above:** This 30-unit inclusionary housing development in Medford Township, Burlington County, includes 25 market rate units and five affordable housing units. It is being built with the use of 1.75 PDCs, which were redeemed in September 2022.

Photo/Steve Simone



## Reviewing Municipal Ordinances

The master plans and land use ordinances of all Pinelands municipalities and counties must be consistent with the Pinelands CMP. Consistency is ensured through the conformance process, by which municipalities and counties submit their master plans, ordinances and amendments to the Commission for review and certification.

The Commission received and reviewed 142 municipal master plan and ordinance amendments in 2023. Many of these ordinances amended stormwater management standards in response to amendments to the CMP adopted in 2022. The Commission also approved significant master plan and zoning updates for Bass River Township. The Commission continued to see a trend of municipalities adopting redevelopment plans

regulating land uses in areas designated in need of redevelopment. In 2023, the Commission reviewed 19 ordinances either adopting or amending redevelopment plans. As in 2022, these redevelopment plans sought to advance a variety of local planning objectives, including the development of affordable housing and senior housing, warehouses, cannabis-related land uses, solar energy facilities on closed landfills, and the redevelopment of aging shopping centers. The Commission also approved two redevelopment plans, one in Monroe Township and one in Waterford Township, that will require the acquisition and redemption of Pinelands Development Credits as part of any warehouse development within the respective redevelopment area.

## Permanent Land Protection Summit, Update & Priorities

### Land Preservation Summit

The Pinelands Commission hosted its first in-person Land Preservation Summit at the agency's headquarters on March 7, 2023.

Presentations by NJDEP Green Acres staff, Ocean County staff, and New Jersey Conservation Foundation staff described the objectives of each entity's land preservation program, plus the successes and challenges to achieving those objectives.

Nineteen different organizations were represented and participated in roundtable discussions about the topics of climate change impacts, stewardship, partnership, and economy of open space issues. Staff gained valuable insights into ways of improving participation in future Pinelands Conservation Fund land acquisition grant offerings.

### Permanent Land Protection Update

The Commission's staff delivered the annual update on permanent land protection in the Pinelands on October 13, 2023.

A total of 1,359 acres of land were preserved in the Pinelands Area from July 2022 to June 2023. Of that total, 123 acres were preserved through Pinelands programs, along with 348 acres of land through the Pinelands Development Credit Program. As of June 2023, 51% (482,000 acres) of the state Pinelands Area has been permanently preserved through a variety of programs.

Of that total, 94% of the land is located in Pinelands Management Areas that are designated for conservation,

including the Preservation Area District, the Forest Area, the Special Agricultural Production Area, and the Agricultural Production Area.

**Possible Changes in Priorities for Permanent Land**

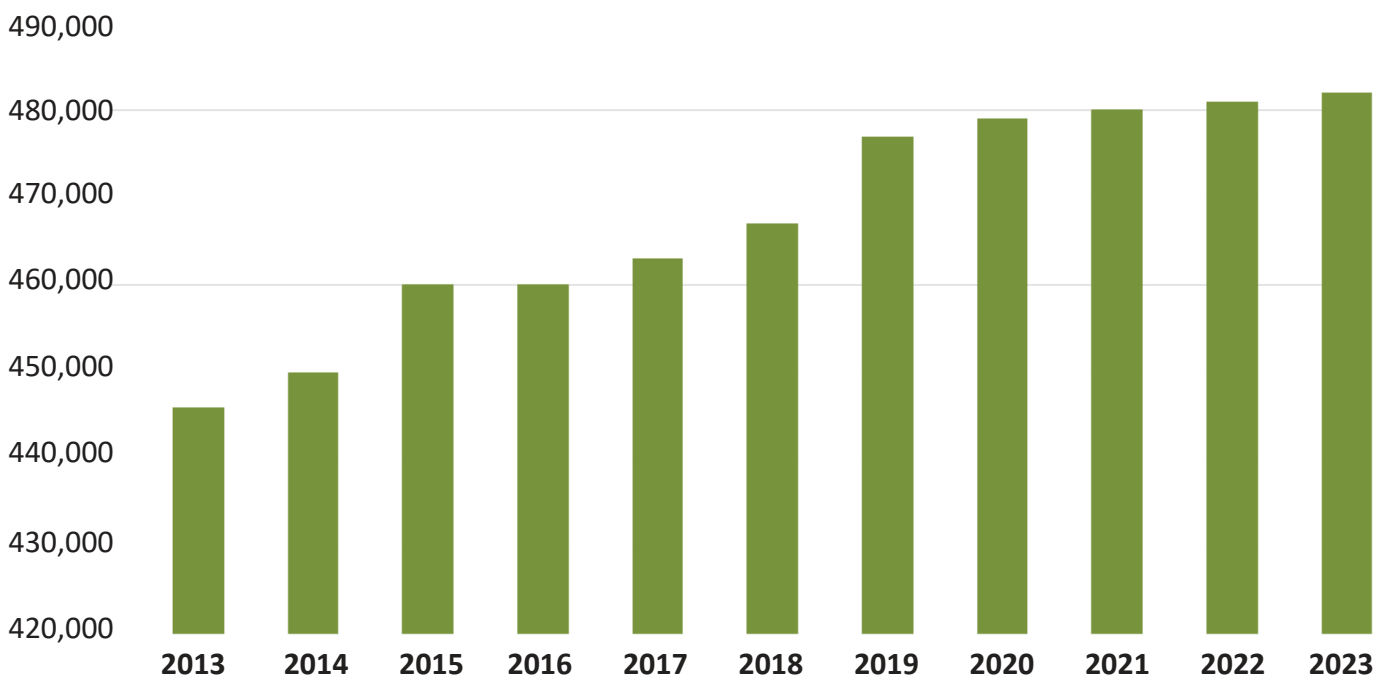
In late October of 2023, Commission members and staff discussed possible changes to the priorities and funding for future land preservation projects through the agency’s Pinelands Conservation Fund (PCF).

The possible changes include adding consideration of NJDEP environmental justice communities’ stressors and historically underserved communities as factors in the Commission’s acquisition project evaluation matrix. Changes in the boundaries of the Commission’s 20 land acquisition target areas might also be considered as well as a revision of factors in the evaluation matrix to better align with NJDEP’s recreation plan and land acquisition priorities. As a tool to assist preservation partners with the stewardship challenges identified at the Land Preservation Summit, the Commission may also consider a potential change to its PCF land acquisition funding structure.



**Above:** As of June 2023, 51% of the land in the Pinelands Area has been permanently preserved, including the Cloverdale Farm County Park (a former cranberry farm) in Barnegat Township. Photo/Paul Leakan

**Acres Preserved in the Pinelands Area**  
(Rounded to the nearest thousand)



# Regulatory Activities

## Applications

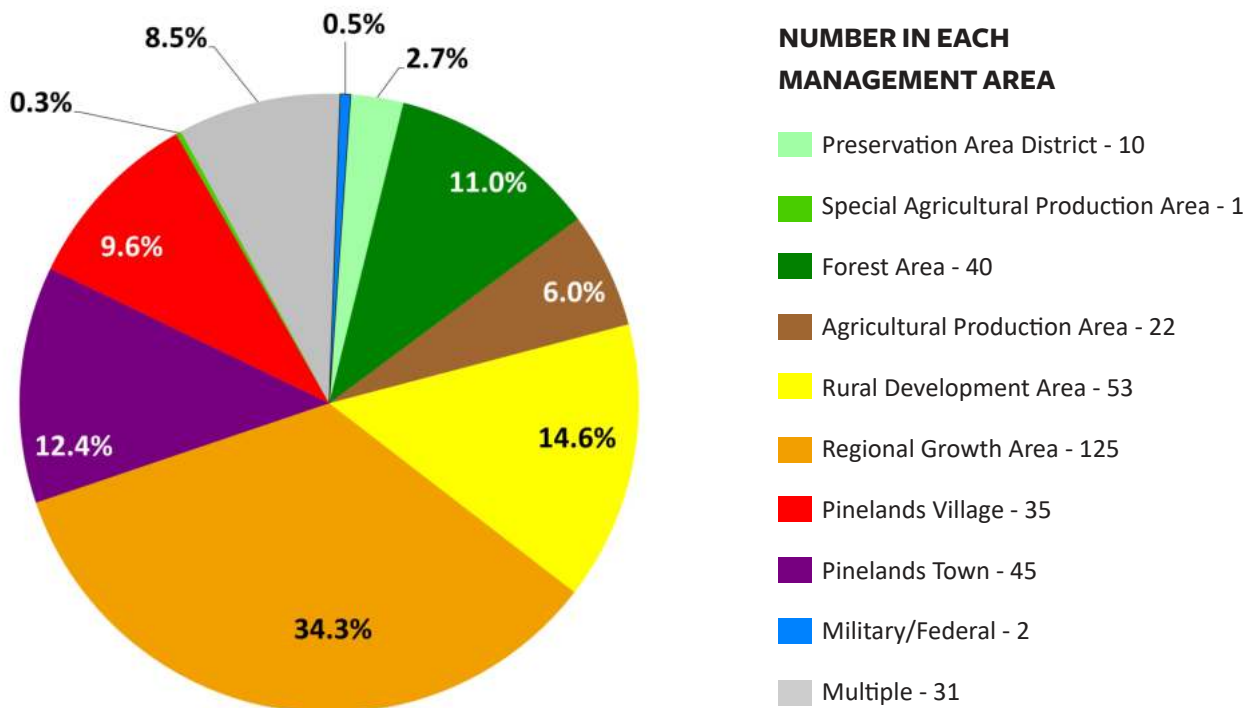
The Pinelands Commission reviews applications for development by evaluating proposals to ensure that they meet the regulations contained in the Pinelands Comprehensive Management Plan. Development proposals must meet a series of environmental standards, including those that protect water quality, wetlands and threatened and endangered species.

The Commission’s development approval process varies, depending on whether the application is submitted by a public agency or a private landowner. The Commission’s staff reviews private development proposals, such as single-family dwellings, subdivisions and commercial projects.

The Commission received a total of 364 new applications for development in 2023, with the highest percentage of the applications (34.3%) proposing new development in Pinelands Regional Growth Areas (or RGAs). There are 24 municipalities with RGAs in the 938,000-acre state Pinelands Area. RGAs make up 8% of the land in the Pinelands Area, and they are generally located on the fringes of the Pinelands boundary. The RGAs include areas of existing development and adjacent lands that have the infrastructure such as sewers, roads and other utilities needed to accommodate new development while protecting the essential character and environment of the Pinelands. The Pinelands CMP encourages future growth in the RGAs as a way to prevent scattered and piecemeal development in other more sensitive portions of the Pinelands Area. The pie chart below illustrates the number and percentages of applications received by management area in 2023.

A majority of the development applications received were for residential development (51.9%), followed by commercial/industrial development (27.7%), infrastructure (7.1%), institutional (6%), recreation (2.7%),

**Development Applications Received in 2023 by Management Area**



resource extraction (1.6%), mixed use (1.3%), forestry (0.8%) and other (0.5%). A full listing of development applications received by development type in 2023 is shown to the right.

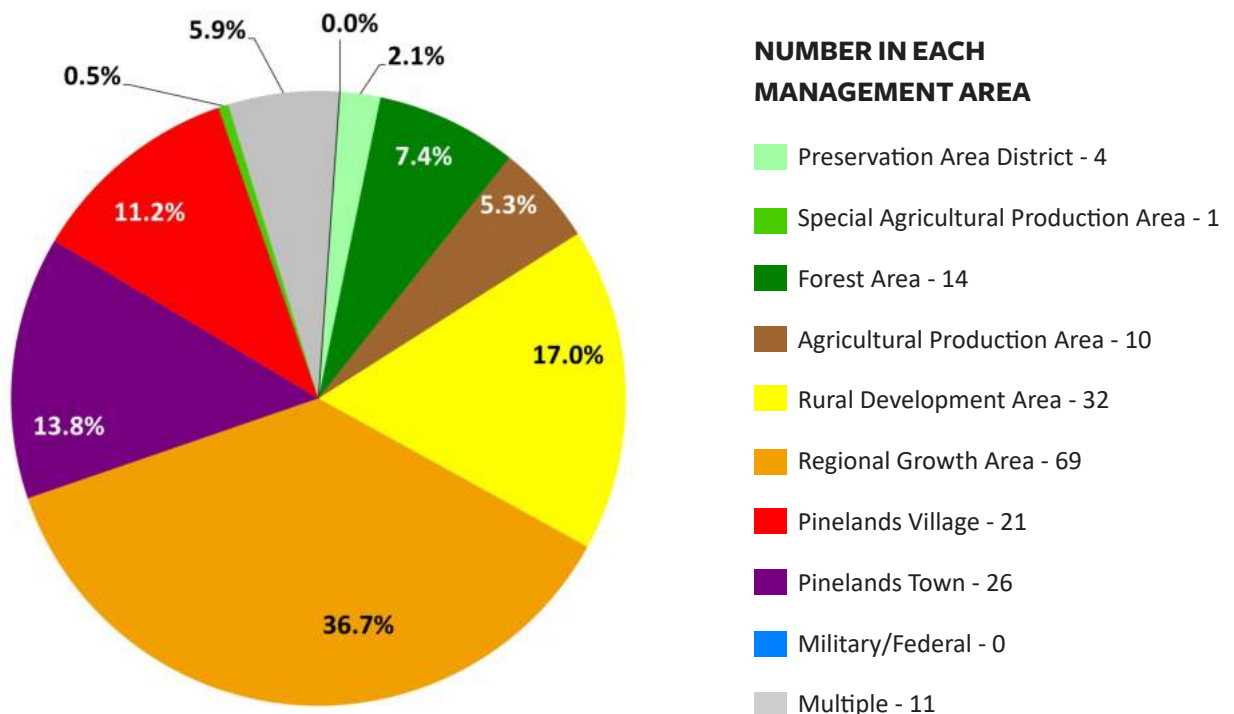
After applicants provide all of the necessary information, the Commission issues a Certificate of Filing (or CF), signifying completion of an application and allowing an applicant to seek all municipal and county approvals for the proposed development. Other completeness documents include Preliminary Zoning Permits (PZPs) and Notices of Filing, which are issued under alternative permitting programs in accordance with the CMP. These documents certify completeness of development applications and are equivalent to CFs. A total of 188 Completeness Documents were issued in 2023, including CFs, PZPs and Notices of Filing.

### Development Applications Received in 2023 by Development Type

Development Type	Total
Residential	189
Commercial/Industrial	101
Infrastructure	26
Institutional	22
Recreation	10
Resource Extraction	6
Mixed Use	5
Forestry	3
Other	2
<b>Total</b>	<b>364</b>

The highest percentage of Completeness Documents (36.7%) were for proposed development in Regional Growth Areas (as shown in the chart below).

### Completeness Documents Issued in 2023 by Management Area

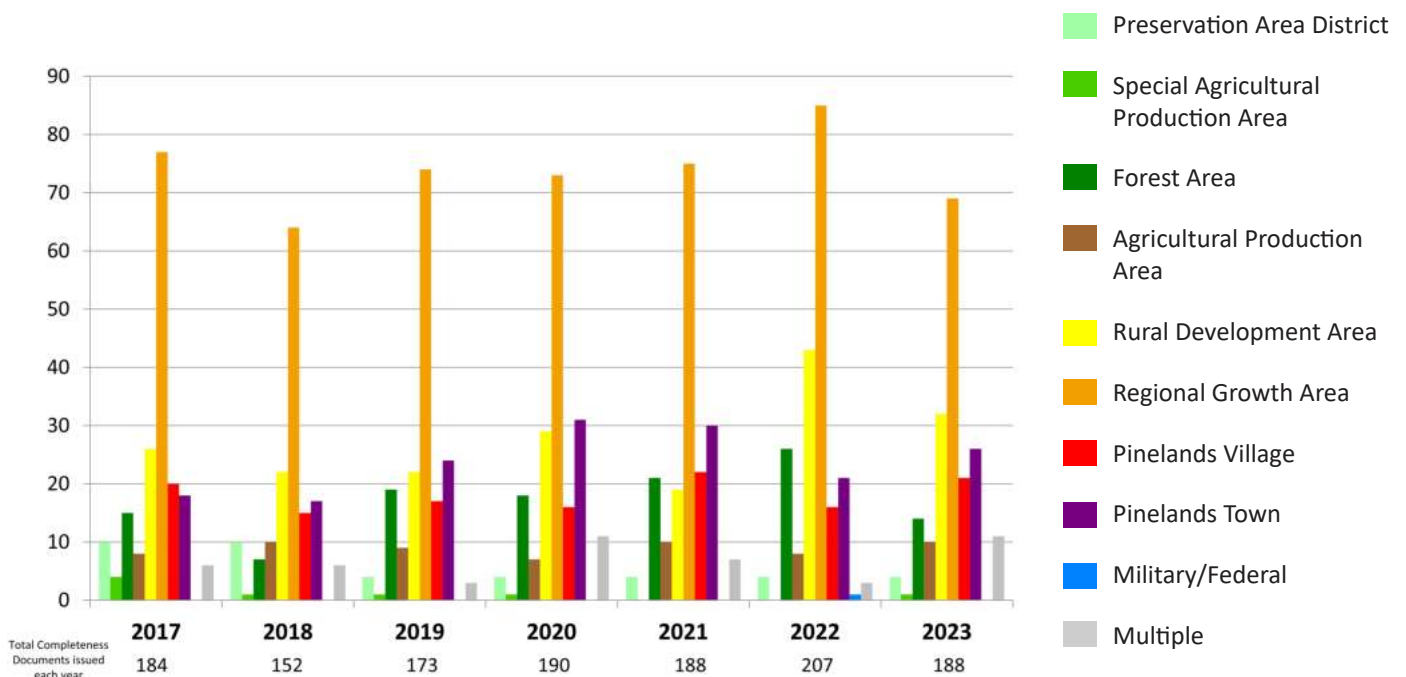


## Completeness Documents Issued in 2023 by Management Area and Type of Development

<b>Management Areas</b>	Commercial	Infrastructure	Institutional	Recreation	Residential	Resource Extraction	<b>Total</b>
Preservation Area District	2					2	4
Special Agricultural Production Area					1		1
Forest Area	4				9	1	14
Agricultural Production Area	4				6		10
Rural Development Area	9				22	1	32
Regional Growth Area	25	3	3		38		69
Pinelands Village	5				16		21
Pinelands Town	12	1			13		26
Military/Federal							0
Multiple	5	2			3	1	11
<b>Totals</b>	<b>66</b>	<b>6</b>	<b>3</b>	<b>0</b>	<b>108</b>	<b>5</b>	<b>188</b>

Of the 188 Completeness Documents that were issued in 2023, most involved proposals for residential development (108 or 57.4%), followed by commercial development (66 or 35.1%, as shown in the table above). The Commission issued similar numbers of Completeness Documents from 2017 to 2023, with the highest percentage of the proposals for development located in RGAs (69 or 36.7% of the total, as shown on the bar graph below).

## Completeness Documents Issued in 2023 by Management Area (2017-2023)



After an applicant receives any required municipal or county approvals for private development in the Pinelands Area, copies of those approvals must be sent to the Commission. The Commission staff then reviews the approved development and determines whether it meets all Pinelands standards. If it does, the Commission staff will send the applicant a letter confirming that the agency’s review is complete and the permit or approval can take effect.

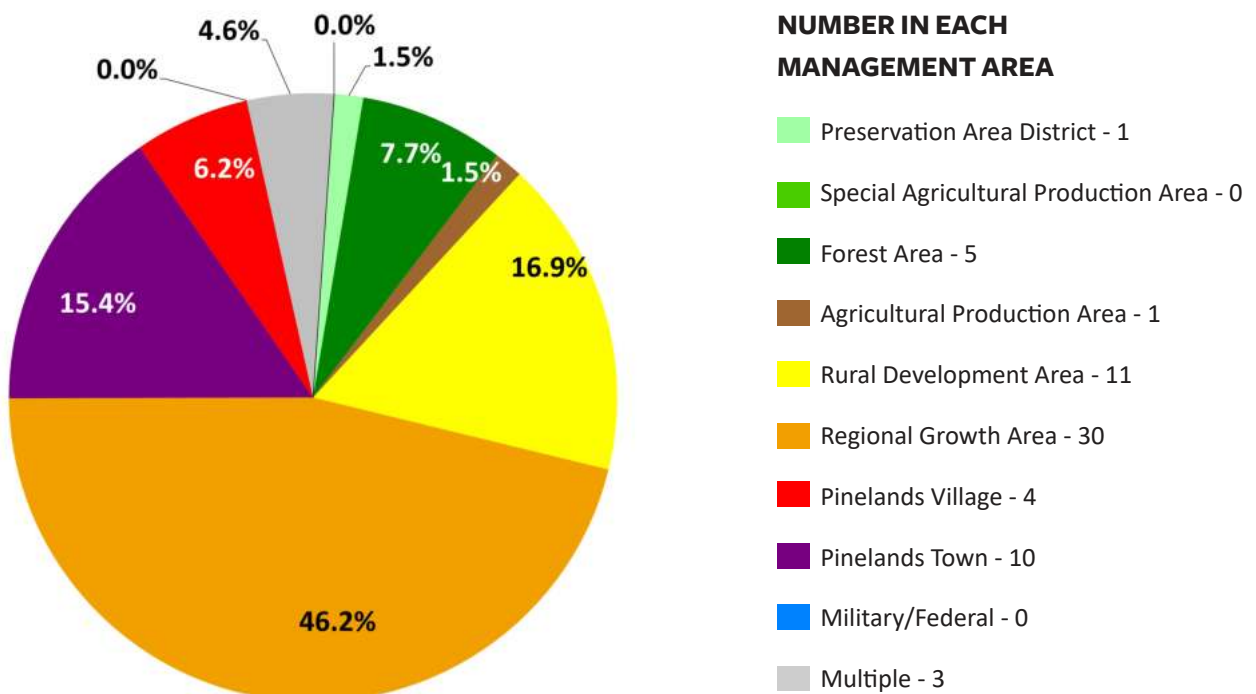
The Commission staff issued such determinations for 65 development projects in 2023, allowing the associated final municipal site plan and subdivision approvals to take effect. Thirty-one of these applications (or 47.6%) were for commercial or industrial development, including retail commercial buildings, offices, warehouses, hotels, storage yards, and solar energy facilities. An equal number (31 or 47.6%) were for residential development, with one additional project proposing a mix of residential and nonresidential uses. In total, 1,079 residential units were approved, in projects ranging in size from 1 to 457 units. The vast majority of approved residential projects were for single-family detached dwellings; however, several of the larger projects included townhouses and multifamily (apartment) units. The final two approved projects were for resource extraction and infrastructure.

The 65 applications are located in 25 municipalities, with the highest percentage (10.38%) located in Monroe Township, Gloucester County. The table on the following page provides a full list of municipalities. Nearly half (46%) of the applications are for development in the RGA, as shown in the pie chart below.

### Final Municipal Site Plan/Subdivision Approvals Allowed to Take Effect in 2023 By Development Type

Development Type	Total
Commercial/Industrial	31
Residential	31
Mixed Use	1
Infrastructure	1
Resource Extraction	1
<b>Total</b>	<b>65</b>

### Final Municipal Site Plan/Subdivision Approvals Allowed to Take Effect in 2023 by Management Area



The Commission staff reviewed approvals for significantly more private development applications than the 65 discussed above during 2023. Many preliminary site plan and subdivision approvals were reviewed and allowed to take effect, along with hundreds of municipal building permits, county septic permits and other types of approvals. Still other approvals were reviewed but determined to be inconsistent with Pinelands standards. Such approvals cannot take effect until the inconsistencies have been addressed.

The Pinelands Commission is also responsible for reviewing and approving development applications that are submitted by public entities, such as a municipality, county or a State agency. The full, 15-member Commission votes on whether to approve these applications during its monthly meetings. The Commission approved a total of 30 applications for public development in 2023, including construction of an artificial turf field at an existing, municipal recreational facility in Hammonton, soil capping of a closed, 42.5-acre municipal landfill in Berkeley Township, installation of an artificial turf field at Oakcrest High School, replacement of an existing access road bridge at the NJDEP’s Forest Resource Education Center in Jackson Township, soil capping of a closed, 53-acre municipal landfill in Woodbine Borough, construction of 1,200 linear feet of earthen trail at the Piney Hollow Preservation Area in Franklin Township, Construction of a 10,749-square-foot New Jersey Guard Civil Support Team Building at Joint Base McGuire-Dix-Lakehurst in Jackson Township, construction of a 20,138-square foot building at the Ocean County Vocational Technical School in Jackson Township and construction of a 10,563-square-foot addition to an existing school and 73 parking spaces in Hammonton.

### Final Municipal Site Plan/Subdivision Approvals Allowed To Take Effect in 2023

Municipality	Number of Applications
Barnegat Township	3
Bass River Township	1
Berkely Township	3
Buena Vista Township	3
Egg Harbor City	2
Egg Harbor Township	7
Evesham Township	2
Folsom Borough	1
Galloway Township	5
Hamilton Township	2
Hammonton Town	4
Jackson Township	4
Lakehurst Borough	1
Manchester Township	2
Medford Township	2
Monroe Township	10
Mullica Township	1
Shamong Township	1
Southampton Township	1
Tabernacle Township	1
Upper Township	1
Vineland City	1
Waterford Township	2
Winslow Township	4
Wrightstown Borough	1

Some applications may not be able to meet all of the Commission’s land use or environmental standards. In these instances, applicants may elect to apply for a “Waiver of Strict Compliance.” The Commission approved 4 waivers in 2023, each of which allowed for the development of one single-family home.



**Above:** The Pinelands Commission approved 30 applications for public development in 2023, including the replacement of an existing access road bridge at the NJDEP’s Forest Resource Education Center in Jackson Township. Photo/Paul Leakan

### Recreation Permits

In 2023, the Commission issued 10 Recreation Permits for organized, off-road vehicle events in the Pinelands Area. In order to receive a Recreation Permit, groups must submit a completed “Off-Road Vehicle Event Application” for each proposed event. In addition to the application form, the group must submit the course route in electronic format, an application review fee, proof of insurance, property owner permission and proof that the township and New Jersey State Police have been notified. Commission staff reviews the course route to determine if there are any issues

with wetlands, threatened and endangered species, deed-restricted land and private and public ownership. Any portions of the route that have potential issues are site inspected by a member of the Commission's staff. If any route changes are necessary, a revised route is required and must again be submitted for review.

## Online Enhancements to Further Assist Applicants

The Commission completed several major, online enhancements to assist applicants in 2023, including the creation of a simplified, easy-to-use, interactive Pinelands Property Lookup Map and a portal that enables applicants to pay their required application fees online.

The [Pinelands Property Lookup Map](#) can be accessed on the Commission's website, and it enables users to quickly determine whether a property is located in the Pinelands Area, along with providing other key information, such as the Pinelands Management Area, the municipal zoning, and the presence or absence of wetlands and wetlands buffers.

The [Commission's new payment portal](#) was launched in September 2023 and is also linked on the agency's website. It enables applicants to pay application fees online. Previously, applicants could only submit their application fees by paying via check or money order. Of the total 441 application fee payments that the Commission received in 2023, approximately 18% were paid online.

## Science & Research Activities

### Long-term Environmental Monitoring Program

#### Rare Snake Monitoring

Long-term data for assessing rare snake population trends in the Pinelands are lacking. Therefore, the Pinelands Commission is establishing a network of natural snake hibernacula, shed areas, and nest sites to monitor long-term changes in several species of rare snakes. As part of ongoing snake studies that were initiated in late 2016, numerous winter hibernacula have been identified for corn snakes and pine snakes. The Commission is attempting to identify more natural pine snake hibernacula and natural hibernacula for other rare snake species. From 2018 to 2023, corrals were built around most hibernacula to capture snakes as they emerge from hibernation in the spring. The corrals offer an effective, non-invasive method to census snakes each spring without physically disturbing hibernacula or hibernating snakes.



**Above:** A corn snake that emerged from its hibernacula and was recaptured inside a closed corral.

From 2016 to 2023, 2,140 snakes representing 13 species were found. These include 1,159 corn snakes, 513 pine

snakes, 192 kingsnakes, 137 black racers, 86 hognose snakes, and 53 snakes of several other species. All snakes were weighed, measured, and PIT tagged. A PIT tag is a tiny, glass-coated microchip commonly used in wildlife research that allows for the permanent identification of an animal through the use of a special scanner that reads the unique tag number. A total of 343 of these processed and tagged snakes were recaptured at least once during this period.

## Snake Disease Monitoring

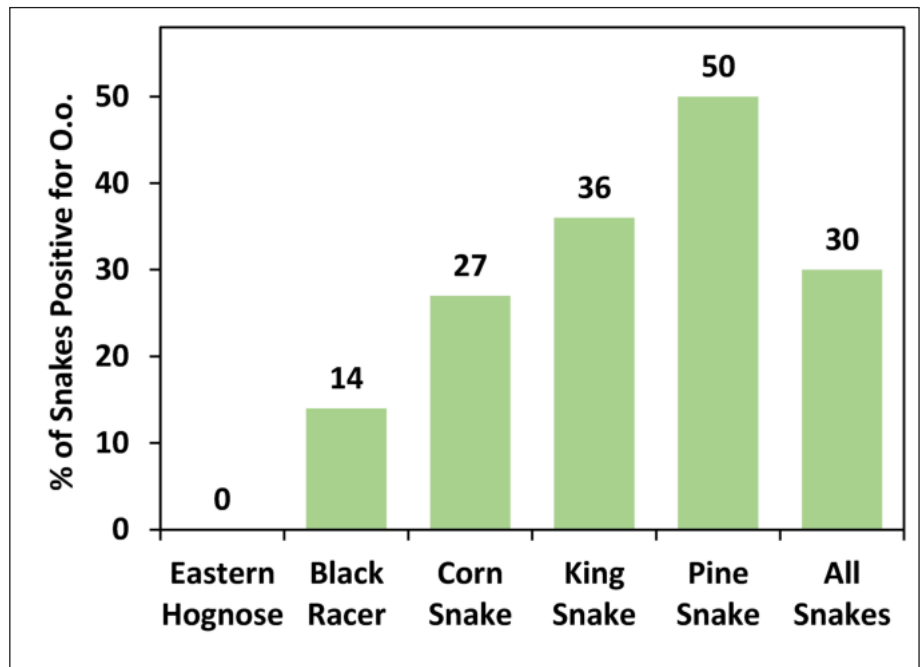
**Snake Fungal Disease:** In 2018, Commission scientists began collaborating with Dr. Joanna Burger of Rutgers University, Robert Zappalorti of Herpetological Associates, Inc., and Dr. Jeffrey Lorch of the United States Geological Survey (USGS) to conduct research on snake fungal disease in the Pinelands. Snake fungal disease is an emerging disease found in populations of captive and wild snakes and is caused by the fungus *Ophidiomyces ophidiicola*. Although snakes can show signs of fungal disease just after spring emergence from hibernation, it was previously unknown if *O. ophidiicola* was present inside the hibernacula.

Dr. Burger and Mr. Zappalorti have been excavating a group of northern pine snake hibernacula annually for almost 40 years. Their long-term study provides a unique opportunity to sample inside snake hibernacula to determine if the fungus is present in the soil or on the hibernating snakes. Initial sampling in 2018 indicated that *O. ophidiicola* was present on snakes and in the soil inside the hibernacula, therefore, in 2019 - 2022, all hibernating snakes were swabbed for snake fungal disease. Results assessing the presence of *O. ophidiicola* in hibernacula versus adjacent soils and examining factors associated with the growth of the fungus were published in the Journal of Fungi (Campbell, L.J.; Burger, J.; Zappalorti, R.T.; Bunnell, J.F.; Winzeler, M.E.; Taylor, D.R.; Lorch, J.M. Soil reservoir dynamics of *Ophidiomyces ophidiicola*, the causative agent of snake fungal disease. Journal of Fungi 2021, 7, 461).

Results assessing fungal prevalence among individual snakes and the soils in contact with them during hibernation were published in Environmental Monitoring and Assessment (Burger, J.; Gochfeld, M., Zappalorti, R.; Bunnell, J.; Jeitner, C.; Schneider, D.; Ng, Kelly,; DeVito, E.; Lorch, J. M. Prevalence of *Ophidiomyces ophidiicola* and epizootiology of snake fungal disease in free-ranging Northern Pine Snakes (*Pituophis melanoleucus melanoleucus*) in New Jersey. Environmental Monitoring and Assessment 195, 662 (2023) <https://doi.org/10.1007/s10661-023-11259-w>).

In 2023, all hibernating snakes were sampled again for fungal infections.

A manuscript assessing the relationship between sores present on a snake and the clinical evaluation of sores by an investigator and whether the snake is infected was submitted for publication in a scientific journal at the end of 2023.



**Above:** Graph showing the percentage of individual snake species and all snakes sampled that are positive for *Ophidiomyces ophidiicola*, the fungus responsible for snake fungal disease.

Building on the fungal disease results obtained from the artificial hibernacula excavations, Commission scientists began collaborating with researchers at Virginia Tech to swab for fungal disease from snakes that were collected from the natural hibernacula, nest sites, and shed sites discovered as part of the Rare Snake Monitoring component. In 2023, swab samples from 164 snakes were sent to Virginia Tech for analysis. Results for the first batch of 80 swab samples indicate that 30% of the sampled snakes tested positive for *O. ophidiicola*, the fungus associated with snake fungal disease. Results varied by species.

**Adenovirus Monitoring:** As part of a collaboration with Dr. Anthony Geneva of Rutgers University, Commission scientists swabbed Pinelands snakes to test for the presence of adenovirus. Adenoviruses affect the gastrointestinal tract and liver of some reptile species, including snakes. Swab samples from 216 snakes were sent to Rutgers University for eventual analysis.



**Above:** Commission scientists processing and swabbing a northern pine snake for diseases.

**Other Environmental Monitoring:** Other 2023 environmental monitoring activities included surveying calling frogs and toads at a group of ponds that are surveyed annually, measuring bimonthly water quality at 47 stream sites, recording monthly water levels at 35 forest plots and 30 ponds, and maintaining continuous water-level recorders installed in seven other ponds and in a shallow observation well installed within a pine lowland forest. Prior to the December water-level monitoring round, large trucks drove through two of the ponds in Brendan Byrne State Forest and damaged the pond sediments, vegetation community, and metal posts used for measuring water levels. Trucks drove in the same pond and other long-term monitoring ponds in the past. The damage was reported to the NJDEP southern regional superintendent of the New Jersey Park Service.

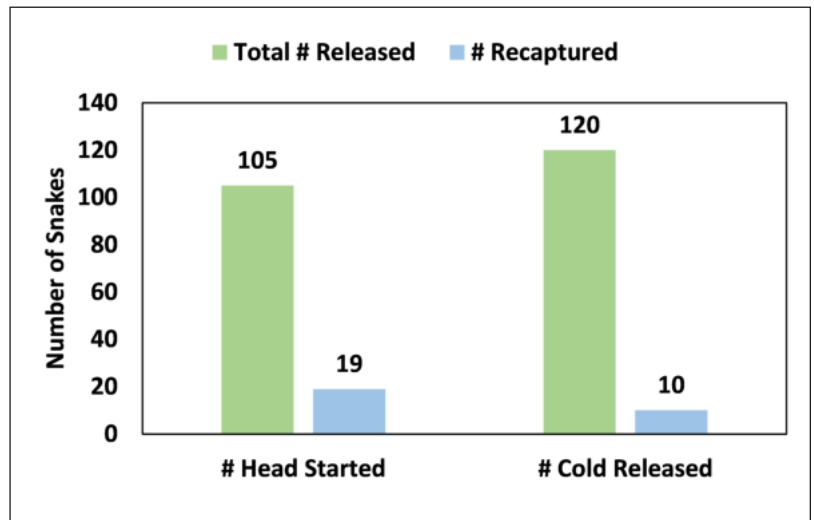
Long-term environmental monitoring research is being funded by the National Park Service.



**Above:** Recent vehicular damage to a long-term monitoring pond.

## Joint Corn Snake Radio-tracking and Drift Fence Study

In 2016, Commission scientists began to collaborate with Dr. Howard Reinert of The College of New Jersey, Mr. Robert Zappalorti of Herpetological Associates, and the NJDEP Endangered and Nongame Species Program staff to conduct an intensive research project on the corn snake in the Pinelands. The corn snake is listed as an endangered species in New Jersey. The goals of the corn snake research are to better understand the habitat requirements and life history of this secretive serpent to develop meaningful conservation management programs for the species and ensure its continued survival in the Pinelands.



**Above:** Results of the headstarting component of the corn snake study (2016 – 2023).

The research includes two components:

radio-telemetry and headstarting, which is a conservation technique where vulnerable young animals are raised in captivity until they attain a larger size and then released into the wild. For the telemetry aspect, researchers surgically implant small radio-transmitters in adult corn snakes and locate the snakes on a regular basis to collect data on their activity range; types of habitats used; and the locations for nesting, shedding, and hibernation. In 2019, scientists completed radio-tracking of 29 corn snakes, which concluded the telemetry component of the study. Corn snake telemetry data will be analyzed by Commission scientists.

For the headstarting component of the study, researchers collected corn snake eggs from nest areas and transported them to a laboratory for incubation and hatching. The hatchlings are PIT tagged and one-half of them are released back to the primary nest area as cold-released snakes. The other group of hatchlings is kept in the laboratory over the winter and released the following spring as headstarted snakes. The goal is to recapture as many of these snakes as possible to assess growth and survivorship of the cold-released and headstarted hatchlings over time.

In 2019, a drift fence array was established at the primary nest area to help recapture corn snake hatchlings to assess the survival of headstarted and cold-released hatchlings. An equally important goal was to assess the effectiveness of using a drift fence outfitted with box traps and artificial wood and metal cover to detect corn snakes and other species of snakes. During the final year of the study, a series of pitfall traps were installed in the ground along the fence. A total of 7,644 animals were found along the drift fence, under the artificial cover associated with the fence, or in the traps. These 7,644 animals included 15 species of snakes and 22 species of other animals, including toads, frogs, salamanders, lizards, turtles, mammals, and birds. The drift fence was removed from the area at the end of 2022. Drift fence data will be analyzed by Commission scientists.

In 2023, the headstarting component of the study was completed. For the 2016 – 2023 period, a total of 225 corn snake hatchlings, including 120 cold released and 105 head started hatchlings, were released. To date, 10 cold-released and 19 headstarted snakes were recaptured over the course of the study. Scientists also continued to release corn snake hatchlings and monitor corrals and strategically placed cover in other nearby areas for new and previously pit tagged snakes.

This Joint Corn Snake Study is being funded by the Pinelands Commission and the NJDEP.

## Eastern Kingsnake Study

In 2019, the Commission was awarded funding for a grant proposal, titled “Activity range, habitat use, shedding, denning, and nesting of the wetland-dependent eastern kingsnake.” The eastern kingsnake is listed as a species of special concern in New Jersey because it is vulnerable to multiple threats, is potentially declining, and its distribution and population status are not known.

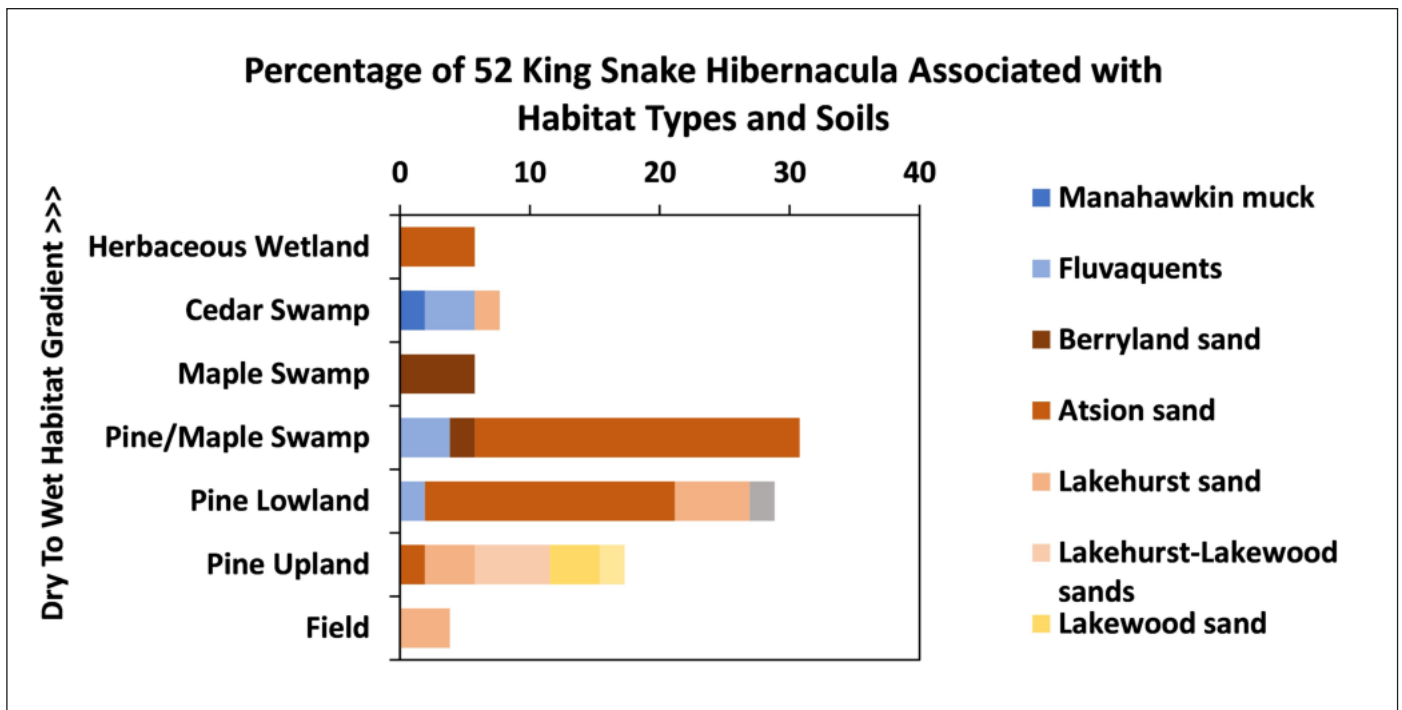
Commission scientists collaborated with Mr. Robert Zappalorti of Herpetological Associates and Dr. Howard Reinert of The College of New Jersey on this four-year study. Scientists used radio-telemetry to determine the activity range; upland and wetland habitat use; and timing of shedding, denning, and nesting of the eastern king snake.

From 2019 to 2022, scientists radio-tracked 47 king snakes, including 23 females and 24 males. Of the 47 kingsnakes, 22 snakes hibernated, 20 died, 4 were released, and 1 went missing. Radio-tracking was completed in 2022.



In 2023, the remaining study snakes were collected after they emerged from dens, transmitters were removed, and the snakes were released. During the summer, science staff visited the 52 kingsnake hibernacula identified during the study and characterized the habitat structure and forest type of the hibernation sites. All field data collected during the study have been finalized and methods and software for data analysis are being investigated.

This research is being funded by a grant from the U.S. EPA and a match by the Commission through the Pinelands Conservation Fund.



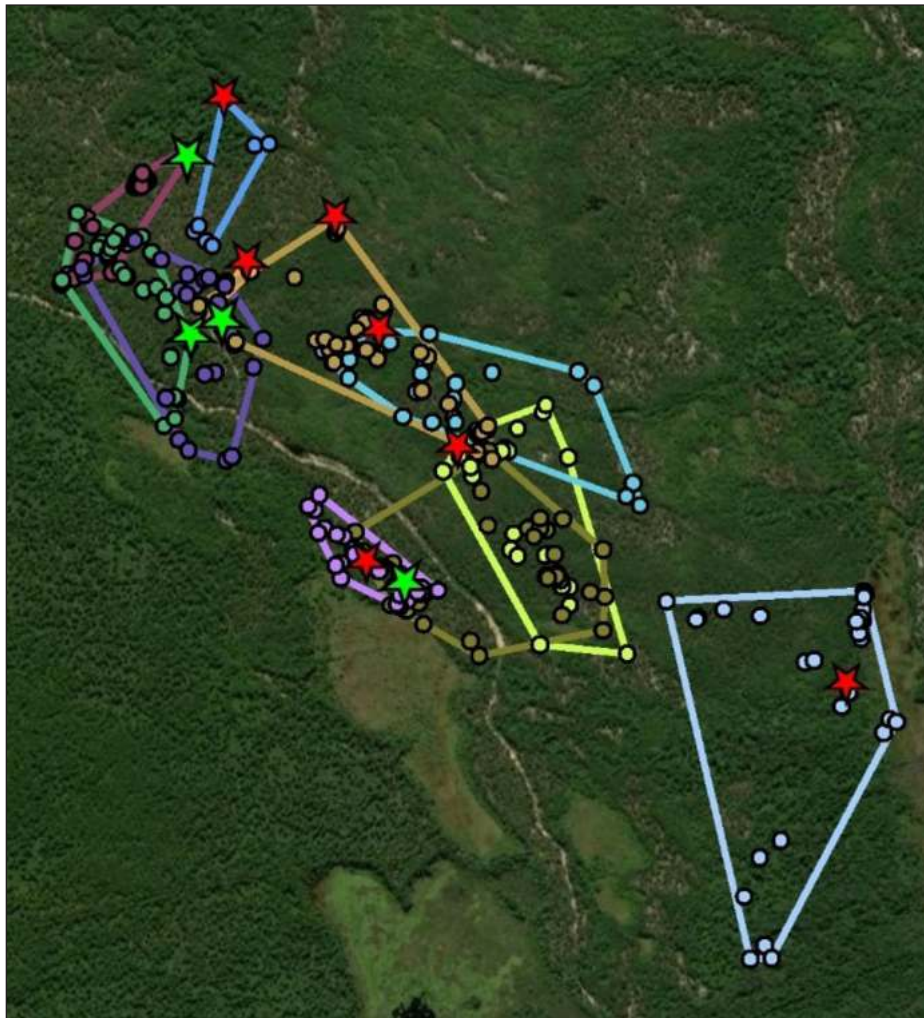
**Above:** Most king snake hibernacula were located in sandy wetland soils associated with pine lowland and pine/maple swamps.

## Eastern Box Turtle Study

In 2021, the Commission began to radio track eastern box turtles. This species is listed by the NJDEP as a species of special concern because it is vulnerable to multiple threats, its distribution and population status in the state are not well understood, and it is potentially declining throughout its range. One goal of this research on box turtles is to gather data on turtle behavior, habitat use, movement, and use of nest sites and hibernacula in the Pinelands. Another goal is to monitor turtles in burned and unburned areas to better understand the relationship between turtles and prescribed fire. In 2021, a total of 20 box turtles were captured and outfitted with external transmitters and radio tracked about once each week. The turtles were tracked to their winter hibernation areas.

In 2022, Commission scientists frequently checked the box turtles in spring to detect when they emerged from hibernation burrows. New turtles found at existing study sites were captured, processed, and tracked. In November, 36 turtles were tracked to hibernation burrows and geographic coordinates were collected at these locations.

In 2023, Commission scientists visited the overwintering locations of the 36 turtles to measure the thickness of the leaf litter, thickness of the partially decomposed organic layer, depth to the sand, and depth of the hibernating turtles. Additional turtles found while radio tracking the 36 turtles after spring emergence were measured and weighed, and radio-transmitters were glued on their shells to track them as part of the study. A total of 68 box turtles are currently being radio tracked. In the fall, staff affixed iButtons to a subset of turtles to collect temperature data before, during, and after the hibernation period. Staff also assessed the overlap of box turtle activity ranges and overwintering locations with areas approved for prescribed burning by the New Jersey Forest Fire Service in preparation for the upcoming burn season. Staff met with other turtle researchers at the annual Northeast Partners in Amphibian and Reptile Conservation (NEPARC) meeting and at the North American Box Turtle Conservation Workshop to discuss current research and conservation challenges faced by this species. An agreement between the Commission and the NJDEP to provide some funding for the box turtle study was finalized and executed.



**Above:** Activity ranges for several eastern box turtles that were radio tracked in 2023. Dots indicate the locations of turtles, lines show the activity ranges, and stars denote turtle hibernation locations. Turtles overwintering at green stars have iButtons glued to their shells and turtles at red stars do not have iButtons. The iButtons log the temperature of the turtle during hibernation.

# Public Information, Education & Outreach

## Raising Awareness, Fostering Stewardship

The Commission continued to raise awareness and appreciation of the Pinelands in 2023, educating thousands about the region's resources.

The Commission cosponsored and carried out the 34th annual Pinelands Short Course at Stockton University's main campus in Galloway Township on March 11, 2023. More than 430 people attended the event, which featured 28 educational presentations, including 21 new programs. Ninety-eight percent of the event evaluation respondents rated the event as either excellent or great.



**Above:** The Commission's Instagram site has more than 4,000 followers.

Staff educated more than 130 students about the Pinelands during the World Water Monitoring Challenge at Batsto Lake on October 20, 2023. The event is co-organized and staffed by the Commission, NJDEP, New Jersey Division of Parks & Forestry, the Jacques Cousteau National Estuarine Research Reserve, and Americorps Ambassadors.

More than 120 people attended the 7th annual Pinelands Summer Short

Course on June 23, 2023. The daylong, educational event was held at Stockton University's Kramer Hall in downtown Hammonton. The event featured 12 classroom programs at Kramer Hall and guided field trips at the 1808 Trail in Wharton State Forest, a walking tour of Batsto Village and a kayak trip on the Mullica River. Event evaluations were also overwhelmingly positive.

The Commission also organized and hosted three educational presentations at its headquarters in 2023. The first presentation was held on July 20, 2023 and featured numerous live turtle species, including the highly unusual and inquisitive Otis the Box Turtle (see page 27 for a photo). The second presentation was held on August 3, 2023, and it provided attendees with an

## By the Numbers:

In 2023, the Commission's staff:

- Responded to more than 700 public inquiries about recreation, general information about the Pinelands and the Commission, and other non-development application questions;
- Organized and carried out the 34th annual Pinelands Short Course, the 7th Pinelands Summer Short Course, the annual, Pinelands-themed World Water Monitoring Challenge events. The events educated a total of nearly 700 people;
- Organized, promoted and staffed three educational presentations that were held at the agency's headquarters as part of the Pinelands Speaker Series. The presentations educated a total of more than 90 people;
- Took and shared 1,360 photos and 103 videos on the agency's Instagram site and shared 678 Tweets on X (formerly known as Twitter);
- Uploaded/archived 44 videos that raise awareness of the Pinelands on the Commission's YouTube Channel, garnering 153 new subscribers, 353 shares and 22,300 views for the year;
- Maintained, updated and enhanced the Pinelands Commission's website. This included creating a new Cultural Resources webpage and updating dozens of documents and webpages; and
- Designed and launched the Commission's new online store, which has netted more than \$1,600 in sales. (See pages 29 - 30).

opportunity to learn about and then make their own hand-printed art with natural materials such as the leaves from trees and shrubs. (Please see the photo on page 28). The third program was held on September 21, 2023, and it included a presentation on the use of native trees and shrubs, along with guided tours of the Commission's rain garden, pollinator garden and bog. Attendees also sampled fresh pawpaw fruit that was harvested at the Commission's headquarters. Pawpaws are a native and rare species in New Jersey.



**Above:** Bethany Williams, an Environmental Specialist with the Pinelands Commission (center), was among the staff members who educated students during the annual World Water Monitoring Challenge in 2023.

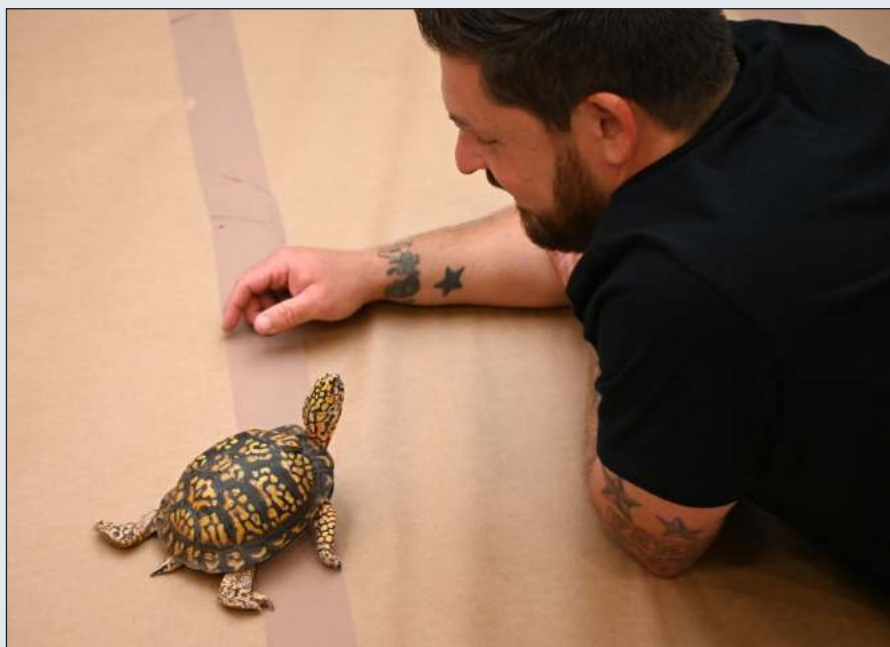
Photo/Paul Leakan

Commission staff shared hundreds of posts, 103 videos, 1,360 photographs, links to meetings, and numerous polls and Pinelands-themed trivia contests on its Instagram account and 678 Tweets on its X account (formerly known as Twitter). Dozens of additional videos were uploaded to the agency's YouTube channel, which garnered 153 new subscribers, 353 shares and 22,300 views in 2023.

Commission staff also delivered dozens of presentations in schools, libraries, and other venues in 2023. They also led numerous field trips, including

a daylong tour of the Pinelands with Cliff McCreedy of the U.S. Biosphere Network on November 9, 2023. The Pinelands National Reserve is one of 28 internationally recognized areas across the continental United States, Puerto Rico and Hawai'i.

Last but not least, the Commission continued to educate the public by promoting visitation of the Candace McKee Ashmun Education Exhibits at its office in Pemberton Township.



**To the left:** Chris Leone of Garden State Tortoise delivered a lively presentation on the Turtles of the Pinelands at the Commission's headquarters on July 20, 2023. More than 30 people attended the presentation, which included live turtles such as Otis the Box Turtle (shown here).

Photo/Paul Leakan

## Pinelands National Reserve Calendar

The Pinelands Commission issued its seventh edition of the Pinelands National Reserve wall calendar in late November 2023.

The calendar features a theme of “Winged Wonders of the Pinelands,” and includes 38 photos of birds, butterflies, moths, dragonflies, damselflies, bees, the Jersey Devil and other winged creatures.

The Commission worked with Rowan College at Burlington County to design and print the calendar.

All of the photos were taken by members of the Commission’s staff.

Aside from the photos of the region’s resources, the calendar includes State holidays, dates of Pinelands Commission meetings and important dates in Pinelands history.

A total of 834 copies of the calendar were printed and distributed free of charge at the Bass River State Forest, Batsto Visitor Center, Belleplain State



**Above:** The front cover of the 2024 Pinelands National Reserve wall calendar features a photo of a monarch butterfly drinking nectar from a native sweet pepperbush flower in the Pinelands.

Forest, Brendan T. Byrne State Forest, the General Store at historic Whitesbog Village, and at the Pinelands Commission’s headquarters.

The project was funded by the National Park Service.



**Above:** Presenter Laura Bethmann (second from left) demonstrated how to create hand prints by using natural materials such as leaves during a presentation at the Pinelands Commission’s headquarters on August 3, 2023. Photo/Paul Leakan

# Finances

## Fiscal & Budget

The Commission's Operating Budget for Fiscal Year 2023 totaled \$6,499,578. Of this, \$5,563,299, or 85.59% percent, was budgeted for personnel expenses.

Budgeted revenue sources included \$383,000 in federal grants, a \$3,399,000 State appropriation, \$693,000 in State grants and other State funding, \$650,000 in application fees and \$1,374,578 from the Commission's fund balance and reserves.

The budget for the Pinelands Conservation Fund was \$960,831.

During 2023, the State Auditor worked to complete the Commission's Audit Report for Fiscal Year 2021, which ended June 30, 2021. Work on the Fiscal Year 2022 Audit Report will commence in 2024.

## Pinelands Application Fees

Since April 2004, the Pinelands Commission has received application fees to partially underwrite the direct costs associated with reviewing development applications in the Pinelands Area. During Fiscal Year 2023, unaudited application fee revenues actually collected totaled \$1,105,475.25 (\$7,957.10 less) than Fiscal Year 2022).

## Refurbishing Fenwick Manor

In 2023, the Commission applied for and was awarded a Capital Level II grant from the New Jersey Historic Trust. The grant will allow the Commission to rehabilitate and ensure the long-term preservation of its historic office building, known as Fenwick Manor. The structure was constructed as early as the late 18th century and has been the home of some of New Jersey's most industrious people, including Benjamin Jones, James Fenwick, J.J. White, and Elizabeth C. White. Benjamin Jones, who is responsible for the initial construction of the house, owned Hanover furnace and Mary Ann Forge and constructed the Columbus, Kinkora, and Springfield Railroad to transport his iron. James Fenwick and J.J. White are responsible for transforming cranberry agriculture in southern New Jersey from a minor rural activity into the major industry that continues today. J.J.'s daughter, Elizabeth White, conducted horticultural experiments that led to the cultivation of the first commercial blueberry crop. Funds from an historic sites management grant, received in 2022, were used to complete a preservation plan and will inform the rehabilitation effort. The awarded Capital Level II grant funds of \$575,000 will be equally matched by the Commission, making a total of \$1,150,000 available for the much needed stabilization and improvements to this important historic structure.



## New Pinelands Merchandise & Online Store

The Commission started selling Pinelands merchandise after launching its online store in 2023, with all proceeds from sales benefiting a fund that supports native plantings and raises awareness of native vegetation.

The [online store is accessible via the Commission's website](#), and it enables the public to purchase mugs that feature a photo and information about the iconic Pine Barrens treefrog, Pine Barren Gentian or the Jersey Devil, along with reusable grocery/market tote bags and note cards. (The mugs and tote bags are shown in the photos to the right.)

The Commission netted \$1,657.75 in sales from August through December 2023.

All proceeds from sales go to the Kathleen M. Lynch-van de Sande Fund. The fund was established in memory of Ms. Lynch-van de Sande, a NJ Pinelands Commission Environmental Specialist who died in a car accident in June 1989. Sales and donations will support the planting of native Pinelands plants and projects that raise awareness about native Pinelands plants.

Over the years, thousands of dollars have been dedicated to the fund's mission. To date, three arboretums were funded at area schools and over 35 scholarships were awarded to a senior majoring in the environmental field from each high school in the Pinelands. It also funded the creation of a rain garden that serves as a model for rain gardens in the Pinelands.

Proceeds from sales and donations to the fund will support future rounds of grant funding for projects that focus on native plants in the Pinelands.

### Certification

As required by State Executive Order #37, all State authorities are required to certify that during the preceding year the authority has, to the best of its knowledge, followed all of the authority's standards, procedures, and internal controls. I hereby certify to the best of my knowledge that, during the 2023 calendar year, all of the Commission's standards, procedures, and internal controls were followed.



---

Susan R. Grogan  
Executive Director



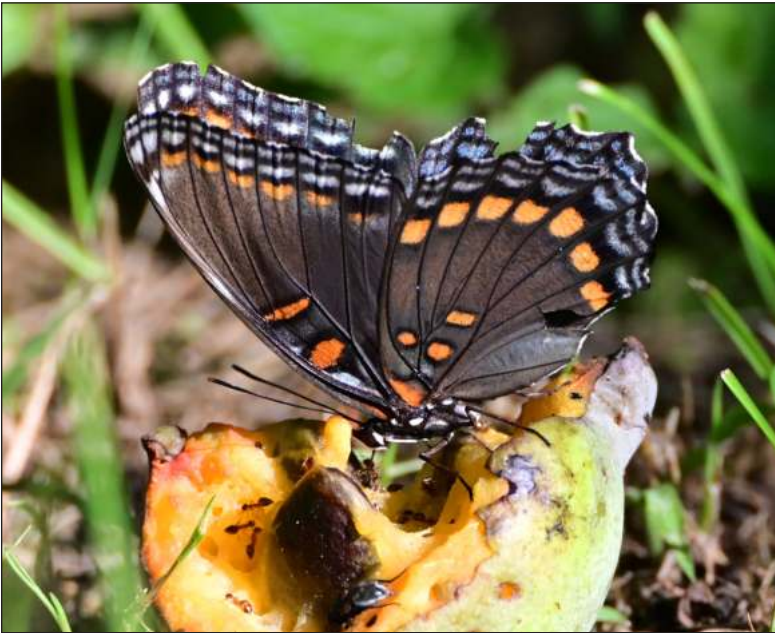
# Scenes around the Pinelands in 2023



**Above:** This male prairie warbler was photographed at Whitesbog Village in Brendan T. Byrne State Forest in early May 2023. They are approximately 4 inches in length and have a thin bill.



This fiery sunset reflected off Atsion Lake in Wharton State Forest in the Pinelands on November 8, 2023. The site is a popular spot for kayaking, hiking, picnicking, photography and swimming (in season).



**Above:** This red-spotted purple butterfly was feasting on the nectar of a pawpaw fruit that fell on the ground at the Pinelands Commission's headquarters in 2023.



**Above:** Native pink lady's slipper orchids were blooming in abundance at this site in the Pinelands in May 2023. They are among almost 30 species of wild orchids that can be found in the Pinelands.

**Photos by Paul Leakan  
NJ Pinelands Commission**



**COVER PHOTO:** Sunrise over the Town of Hammonton, as captured in October 2023. Photo/Paul Leakan



# RESOLUTION OF THE NEW JERSEY PINELANDS COMMISSION

NO. PC4-24-\_\_\_\_\_

**TITLE:** Approving With Conditions an Application for Public Development (Application Number 2023-0196.001)

Commissioner \_\_\_\_\_ moves and Commissioner \_\_\_\_\_ seconds the motion that:

**WHEREAS**, the Pinelands Commission has reviewed the Public Development Application Report and the recommendation of the Executive Director that the following application for Public Development be approved with conditions:

**2023-0196.001**

**Applicant:** New Jersey Department of Transportation

**Municipality:** Hammonton

**Management Area:** Pinelands Town Management Area

Date of Report: March 19, 2024

**Proposed Development:** Installation of 266 linear feet of sidewalks and 898 linear feet of guiderails within the Route 54 right-of-way.

**WHEREAS**, no request for a hearing before the Office of Administrative Law regarding the Executive Director's recommendation has been received for this application; and

**WHEREAS**, the Pinelands Commission hereby adopts the Conclusion of the Executive Director for the proposed development; and

**WHEREAS**, the Pinelands Commission hereby determines that the proposed public development conforms to the standards for approving an application for public development set forth in N.J.A.C. 7:50-4.57 if the conditions recommended by the Executive Director are imposed; and

**WHEREAS**, pursuant to N.J.S.A. 13A-5h, no action authorized by the Commission shall have force or effect until ten (10) days, Saturdays, Sundays and public holidays excepted, after a copy of the minutes of the meeting of the Commission has been delivered to the Governor for review, unless prior to expiration of the review period and Governor shall approve same, in which case the action shall become effective upon such approval.

**NOW, THEREFORE BE IT RESOLVED** that Application Number 2023-0196.001 for public development is hereby **approved** subject to the conditions recommended by the Executive Director.

### Record of Commission Votes

AYE NAY NP A/R\*

AYE NAY NP A/R\*

AYE NAY NP A/R\*

Asselta					Lettman					Rittler Sanchez				
Avery					Lohbauer					Wallner				
Christy					Mauriello					Matos				
Holroyd					Meade									
Irick					Pikolycky									

\*A = Abstained / R = Recused

Adopted at a meeting of the Pinelands Commission

Date: \_\_\_\_\_

\_\_\_\_\_  
Susan R. Grogan  
Executive Director

\_\_\_\_\_  
Laura E. Matos  
Chair



# State of New Jersey

THE PINELANDS COMMISSION

PO Box 359

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www.nj.gov/pinelands



PHILIP D. MURPHY  
Governor

TAHESHA L. WAY  
Lt. Governor

General Information: [Info@pinelands.nj.gov](mailto:Info@pinelands.nj.gov)  
Application Specific Information: [AppInfo@pinelands.nj.gov](mailto:AppInfo@pinelands.nj.gov)

LAURA E. MATOS  
Chair

SUSAN R. GROGAN  
Executive Director

March 19, 2024

Robert Bird (via email)  
New Jersey Department of Transportation  
1035 Parkway Ave  
P.O. Box 600  
Trenton NJ 08625

Re: Application # 2023-0196.001  
Route 54  
Town of Hammonton

Dear Mr. Bird:

The Commission staff has completed its review of this application for the installation of 266 linear feet of sidewalks and 898 linear feet of guiderails within the Route 54 right-of-way. Enclosed is a copy of a Public Development Application Report. On behalf of the Commission's Executive Director, I am recommending that the Pinelands Commission approve the application with conditions at its April 12, 2024 meeting.

Any interested party may appeal this recommendation in accordance with the appeal procedure attached to this document. If no appeal is received, the Pinelands Commission may either approve the recommendation of the Executive Director or refer the application to the New Jersey Office of Administrative Law for a hearing.

Prior to any development, the applicant shall obtain any other necessary permits and approvals.

Sincerely,

Charles M. Horner, P.P.

Director of Regulatory Programs

Enc: Appeal Procedure

c: Secretary, Town of Hammonton Planning Board (via email)  
Town of Hammonton Construction Code Official (via email)  
Town of Hammonton Environmental Commission (via email)  
Atlantic County Department of Regional Planning and Development (via email)



State of New Jersey  
THE PINELANDS COMMISSION  
PO Box 359  
NEW LISBON, NJ 08064  
(609) 894-7300  
www.nj.gov/pinelands



PHILIP D. MURPHY  
Governor  
TAHESHA L. WAY  
Lt. Governor

General Information: [Info@pinelands.nj.gov](mailto:Info@pinelands.nj.gov)  
Application Specific Information: [AppInfo@pinelands.nj.gov](mailto:AppInfo@pinelands.nj.gov)

LAURA E. MATOS  
Chair  
SUSAN R. GROGAN  
Executive Director

## **PUBLIC DEVELOPMENT APPLICATION REPORT**

March 19, 2024

Robert Bird (via email)  
New Jersey Department of Transportation  
1035 Parkway Ave  
P.O. Box 600  
Trenton NJ 08625

Application No.: 2023-0196.001  
Route 54  
Town of Hammonton

This application proposes the installation of 266 linear feet of sidewalks and 898 linear feet of guiderails within the Route 54 right-of-way in the Town of Hammonton.

The applicant proposes sidewalk improvements at thirteen intersections within the Route 54 right-of-way between Route 30 and Second Road. Sidewalks are currently either missing or substandard at these thirteen intersections. This application also proposes the installation of new guiderail and the extension of guiderails in the vicinity of the Route 54 and Atlantic City Expressway intersection to improve motorist safety.

### **STANDARDS**

The Commission staff has reviewed the proposed development for consistency with all standards of the Pinelands Comprehensive Management Plan (CMP). The following reviews the CMP standards that are relevant to this application:

#### **Land Use (N.J.A.C. 7:50-5.27)**

The proposed development is located in the Pinelands Town of Hammonton. The proposed development is permitted in a Pinelands Town.

#### **Linear Improvement Standards (N.J.A.C. 7:50-6.13)**

The proposed guiderails will be located within 300 feet of wetlands. The CMP prohibits most development in wetlands and requires up to a 300 foot buffer to wetlands.

The CMP permits the installation of linear improvements such as guiderails in the required buffer to wetlands provided the applicant demonstrates that certain CMP specified conditions are met. The

applicant has demonstrated there is no feasible alternative to the proposed guardrails that does not involve development in the required buffer to wetlands that will result in a less significant adverse impact to wetlands. In addition, the proposed guardrails will not result in a substantial impairment of the resources of the Pinelands. With the conditions below, all practical measures are being taken to mitigate the impact on the required buffer to wetlands. The guardrails proposed within the required buffer to wetlands are necessary to improve motorist safety. The applicant has demonstrated that the need for the proposed guardrails overrides the importance of protecting the required buffer to wetlands.

Vegetation Management Standards (N.J.A.C. 7:50-6.23 & 6.26)

The proposed development will be located within maintained grass road shoulders. The proposed soil disturbance is limited to that which is necessary to accommodate the development.

The Landscaping and Re-vegetation Guidelines of the CMP recommend the use of grasses that are tolerant of droughty, nutrient poor conditions. The applicant proposes to utilize a seed mixture which meets that recommendation.

**PUBLIC COMMENT**

The CMP defines the proposed development as “minor” development. The CMP does not require public notice for minor public development applications. The application was designated as complete on the Commission’s website on February 8, 2024. The Commission’s public comment period closed on March 8, 2024. No public comment was submitted to the Commission regarding this application.

**CONDITIONS**

1. Except as modified by the below conditions, the proposed development shall adhere to the plan, consisting of 26 sheets, prepared by McCormick Taylor, all sheets dated October 5, 2023.
2. Disposal of any construction debris or excess fill may only occur at an appropriately licensed facility.
3. Any proposed revegetation shall adhere to the "Vegetation" standards of the CMP. Where appropriate, the applicant is encouraged to utilize the following Pinelands native grasses for revegetation: Switch grass, Little bluestem and Broom-sedge.
4. Prior to any development, the applicant shall obtain any other necessary permits and approvals.
5. Appropriate measures shall be taken during construction to preclude sediment from entering wetlands and shall be maintained in place until all development has been completed and the area has been stabilized.

**CONCLUSION**

As the proposed development conforms to the standards set forth in N.J.A.C. 7:50-4.57, it is recommended that the Pinelands Commission **APPROVE** the proposed development subject to the above conditions.



## State of New Jersey

THE PINELANDS COMMISSION

PO Box 359

NEW LISBON, NJ 08064

(609) 894-7300

[www.nj.gov/pinelands](http://www.nj.gov/pinelands)



PHILIP D. MURPHY  
Governor

TAHESHA L. WAY  
Lt. Governor

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Application Specific Information: [AppInfo@pinelands.nj.gov](mailto:AppInfo@pinelands.nj.gov)

LAURA E. MATOS  
Chair

SUSAN R. GROGAN  
Executive Director

### **PINELANDS COMMISSION** **APPEAL PROCEDURE**

The Pinelands Comprehensive Management Plan (N.J.A.C. 7:50-4.91) provides an interested party the right to appeal any determination made by the Executive Director to the Commission in accordance with N.J.A.C. 7:50-4.91. An interested party is someone who has a specific property interest sufficient to require a hearing on constitutional or statutory grounds. Only appeal requests submitted by someone meeting the definition of an interested party will be transmitted to the New Jersey Office of Administrative Law for a hearing. Any such appeal must be made in writing to the Commission and received by the Commission's office no later than 5:00 PM on April 8, 2024 and include the following information:

1. the name and address of the person requesting the appeal;
2. the application number;
3. the date on which the determination to be appealed was made;
4. a brief statement of the basis for the appeal; and
5. a certificate of service (a notarized statement) indicating that service of the notice has been made, by certified mail, on the clerk of the county, municipal planning board and environmental commission with jurisdiction over the property which is subject of this decision.

Within 15 days following receipt of a notice of valid appeal, the Executive Director shall initiate the procedures for assignment of an Administrative Law Judge to preside at the hearing pursuant to the Administrative Procedures Act, N.J.S.A. 52:14B-1 et seq., and the procedures established by the Office of Administrative Law. The time, date and location of such hearing shall be designated by the Office of Administrative Law.



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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 Commission

From: Katie Elliott *KE*  
 Planning Specialist

Date: April 2, 2024

Subject: No Substantial Issue Findings

During the past month, the Land Use Programs Office reviewed one ordinance amendment and one master plan reexamination report that were found to raise no substantial issues with respect to the standards of the Pinelands Comprehensive Management Plan (CMP). They included the following:

**Lakehurst Borough 2024 Master Plan Reexamination Report** – includes: an update on the major problems and objectives related to land development identified in the previous reexamination report (2008); a discussion of the changes in policies and objectives since the prior report; updated demographic information; and a summary of recommended changes to the master plan and municipal land development regulations. The report recommends that the Planning Board consider updating various elements of the master plan in the future. The report also recommends updating the Borough’s zoning map to delineate the boundaries of previously adopted redevelopment areas that supersede underlying zoning regulations. Lastly, the report describes various areas of the Borough’s Land Development Regulations that should be further evaluated for potential amendments including residential housing types, definitions, conditional use standards, home occupations and professional home offices, parking requirements, lighting standards, architectural guidelines, trash enclosures, signs, and renewable solar energy systems. The report does not contain specific ordinance language addressing these identified subject areas.

**Ocean Township Ordinance 2023-18** – amends the Phase 1 – Route 9 Redevelopment Plan, previously certified by the Commission, to permit Class 5-Cannabis Retail uses on Block 41, Lot 36.01. The Route 9 Redevelopment Area is located outside of the State-designated Pinelands Area, but within a Regional Growth Area of the Pinelands National Reserve (PNR). In 2007, the Pinelands Commission certified the Township’s land development regulations and zoning plan for the PNR portion of the Township.