



New Jersey Pinelands Commission

Annual Report 2010



Mission Statement *of the* New Jersey Pinelands Commission

The mission of the New Jersey Pinelands Commission 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.

Cover Photo: White water lilies bloom in a Pinelands swamp along Route 206 in Hammonton, Atlantic County.

Photo by Paul Leakan/New Jersey Pinelands Commission

New Jersey Pinelands Commission

2010

Gubernatorial Appointees

Candace M. Ashmun, Acting Chair

Robert Jackson

Judith Link

Rev. Dr. Guy Campbell

Lloyd Henderson Jr.

Edward Lloyd

U.S. Secretary of the Interior's Appointee

Robert W. McIntosh Jr.

County Appointees

Atlantic County

Paul E. Galletta

Burlington County

Daniel M. Kennedy

Camden County

Norman F. Tomasello (Jan. - May 2010)

Ed McGlinchey (Aug. - December 2010)

Cape May County

William J. Brown

Cumberland County

Leslie M. Ficcaglia

Gloucester County

Francis A. Witt

Ocean County

John A. Haas, Acting Vice Chair

Executive Director

John C. Stokes*

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*NOTE: John C. Stokes retired on Jan. 1, 2011. Nancy Wittenberg became the Executive Director on Jan. 3, 2011.

LAND USE & PLANNING

Pinelands Comprehensive Management Plan Amendments

In 2010, the Pinelands Commission adopted three sets of amendments to the Pinelands Comprehensive Management Plan (CMP), the rules that govern land-use, development and natural resource protection in the million-acre Pinelands Area. The amendments are as follows:



The Commission adopted three sets of amendments to the Pinelands Comprehensive Management Plan in 2010, and made significant progress in finalizing a proposed amendment aimed at ensuring the environmentally-appropriate siting of solar energy facilities in the Pinelands.

Photo/Paul Leakan

■ **The Fort Dix Consumer Electronics Recycling Pilot Program:** The Fort Dix Consumer Electronics Recycling Center was established under the auspices of a program developed by the New Jersey Department of Environmental Protection following the Department's reclassification of certain hazardous wastes, including those defined as consumer electronics, as "Class D Recyclables." The intent of this reclassification was to allow for the reclamation of certain electronic components, specifically those that incorporate circuitry, and their removal from the waste stream in favor of reuse in new or renovated consumer products.

However, the provisions of the Pinelands Comprehensive Management Plan that were in effect when the center began operating prohibited the recycling of hazardous materials anywhere within the Pinelands Area and the materials being processed at the center, while determined to be recyclable by the Department, were still classified as hazardous waste. Nevertheless, the Commission was sympathetic to the Department's efforts to reduce the volume of the waste stream in New Jersey by

instituting an innovative recycling pilot program and to return hazardous electronic components to a useful life. Consequently, in 2005, the Commission adopted a parallel program permitting continued operation of the Fort Dix consumer electronics recycling center until June 6, 2010, provided that functions at the recycling center are otherwise consistent with Pinelands standards and that certain benchmarks are met.

After the Commission monitored and evaluated the program, it chose to amend the CMP by permitting the recycling center to continue its operations on a permanent basis.

■ **The Alternate Design Wastewater Treatment Systems Pilot Program:** To prevent significant groundwater degradation from septic systems, no home that is served by a conventional septic system can be built on a lot smaller than 3.2 acres in the Pinelands. Since zoning in some non-sewered areas allows for smaller lots (one acre in size in some instances), the original CMP authorized the use of "alternative" septic systems that reduce pollution. Since the technologies identified two decades ago proved to be ineffective in reducing pollution, the Commission, with the help of the New Jersey Department of Environmental Protection (DEP) and a special committee of environmental and development representatives, investigated newer onsite wastewater treatment technologies and selected several, which may reduce nitrogen loading by as much as 65 percent, to test in the Pinelands. The testing is accomplished by allowing homeowners to install these technologies on a minimum one-acre parcel and by requiring the manufacturer to collect and analyze effluent samples from each system for three years, while providing professional operation and maintenance services for a minimum of five years.

After the Commission's Executive Director conducted a review of the Program and its success, the Commission

chose to amend the CMP to release two of the advanced wastewater treatment systems from the program and allow their installation in the Pinelands on a permanent basis. The Commission also extended the duration of the pilot program for two other participating systems and provided an opportunity for additional types of systems to be authorized for use through the pilot program.

■ **Disking:** In 2009, the Commission approved new rules aimed at encouraging specific practices that can be used to sustain and improve the overall health of Pinelands forests. The rules detail a series of recommended, ecologically-based forest management techniques that are incorporated in amendments to the CMP. One of those practices, called disking, involves drawing one or more heavy, round, concave, sharpened, freely rotating steel disks across a site for the purposes of cutting through soil and roots.

In 2010, the Commission amended the CMP to incorporate specific limitations on disking frequency and depth in Pine-Shrub Oak forests.

Aside from adopting the three amendments in 2010, the Commission began finalizing proposed rule changes that will ensure the environmentally-appropriate siting of solar energy facilities in the Pinelands. The changes are expected to be proposed in February 2011.

Richard Stockton College of New Jersey Master Plan

In September 2010, the Commission approved a new master plan for the Richard Stockton College of New Jersey in Galloway Township, Atlantic County. The Plan sets forth a comprehensive blueprint for the future development and expansion of the College's campus in recognition of increased enrollment and projections of future growth. The Plan permanently protects 1,257 acres of land on and near the college's campus, including 170 previously developable acres. It also increases the size of the College's development area by approximately 450 acres and the amount of developable land by 151 acres. The College also agreed to use low-impact design and construction principles by minimizing disturbance of forested areas, clustering development away from wetlands and deed restricted areas, and minimizing turf.



The property above is among the forested areas that will be permanently preserved under the Richard Stockton College's new Master Plan, which the Pinelands Commission approved in 2010.

Photo/Paul Leakan

Monroe Township Rezoning

The Commission worked with Monroe Township, Gloucester County, to rezone nearly 3,000 acres of land to ensure the appropriate level of protection.

The Commission redesignated 2,785 acres in Monroe from a Rural Development Area to a more environmentally-protective Forest Area, and it redesignated 128 acres in the Rural Development Area to a more development-intensive Regional Growth Area. The new Forest Area consists of mostly forested land, the vast majority of which features exceptional Pinelands habitat. The new Regional Growth Area is established on largely disturbed land, which is not considered Pinelands habitat.

The affected areas are appropriate for their new management area designations, and the significant increase in the size of the Forest Area more than offsets the relatively small expansion of the Regional Growth Area.

Review of Municipal Ordinances

All municipalities in the Pinelands Area are required to revise their master plans and land use ordinances in order to implement the objectives of the Pinelands Comprehensive Management Plan. To date, all seven counties and 52 of 53 municipalities with land in the state-designated Pinelands Area have had their master plans and land use ordinances certified by the Commission. Amendments to certified county and municipal master plans and land use ordinances must be submitted to, and approved by, the Commission.

During 2010, the Commission received and reviewed 103 ordinance and master plan amendments from 26 different municipalities.

PERMANENT LAND PROTECTION

Pinelands Conservation Fund

Five environmentally-sensitive properties in the Pinelands Area were permanently preserved in 2010 with funds administered by the Pinelands Commission. These properties included a 5.5 acre parcel located in Estell Manor City, an 8.7 acre parcel located in Bass River Township, an 8.8 acre parcel located in Bass River Township, a 16 acre parcel located in Jackson Township and a 29.5 acre parcel located in Jackson Township.

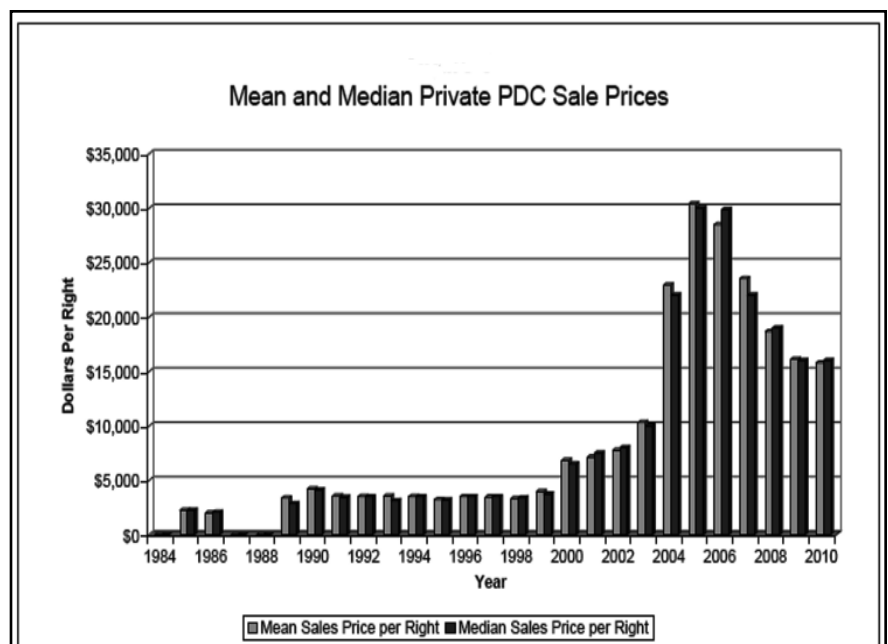
From 2007 to 2010, the Commission authorized money through the fund to preserve a total of 3,001.059 acres in the Pinelands.

The Pinelands Conservation Fund was created in 2004 as part of an agreement with the New Jersey Board of Public Utilities to permit the construction and upgrade of an electric transmission line through eastern portions of the Pinelands. Under the agreement, the special fund was established to further the Pinelands protection program and ensure a greater level of protection of the unique resources of the Pinelands Area. The utility that built the transmission lines, Atlantic City Electric (formerly Conectiv), provided \$13 million to establish the Fund. An additional \$3,415,000 was added to the Fund in 2009 as a result of an amendment to the Comprehensive Management Plan that authorized expansion of the Cape May landfill and through a 2008 Memorandum of Agreement with the New Jersey Turnpike Authority that authorized improvements to the Garden State Parkway.

The Fund is dedicated to three types of projects: permanent land protection; conservation planning and research projects and community planning and design initiatives. In 2006, the Commission hired a program facilitator, Conservation Resources Inc. of Chester, N.J., to assist in the land acquisition program and to identify land preservation projects. In 2009, Conservation Resources, Inc. was selected to further assist the Commission in utilizing the additional money made available for land acquisition.

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 to landowners in Pinelands-designated



Preservation, Agricultural and Special Agricultural Production Areas, which are the sending areas. These credits can be purchased by property owners and developers who are interested in developing land in Pinelands-designated Regional Growth Areas, which serve as the receiving areas, and can be used to increase the densities at which they build. Once those credits are “severed” from a sending area property, the property is permanently protected by a conservation or agricultural deed restriction and credits on the property can be sold

Credits are bought and sold in one-quarter credit units called “rights.”

During 2010, 11 rights were severed, protecting 81 acres of land. A total of 5,954 rights have been severed from 1982 to 2010, protecting 51,004 acres. In 2010, the mean sales price of PDCs was \$15,789 per right, while the median sales price was \$16,000 per right.

Limited Practical Use Program

The Pinelands Limited Practical Use (LPU) Program offers the owners of properties less than 50 acres in size, and whose application for a waiver of strict compliance (a variance from normal Pinelands zoning or environmental standards) has been denied by the Commission, an opportunity to sell their land to the State of New Jersey. In 2010, two parcels were declared eligible, totaling 1.03 acres.

SCIENCE AND RESEARCH ACTIVITIES

Kirkwood-Cohansey Study

The Commission continued to manage a \$5.5 million, multi-agency study of the Kirkwood-Cohansey aquifer, which consists of layers of sand and gravel that lie beneath the Pinelands and hold an estimated 17 trillion gallons of pure water.

The study, launched in October 2003, is being implemented by the Commission in cooperation with the New Jersey Department of Environmental Protection, Rutgers University, the United States Fish and Wildlife Service and the United States Geological Survey (USGS).

Scientists from these agencies are seeking to address two major research questions: First, what are the probable hydrologic effects of groundwater diversions from the aquifer on stream flows and wetland water levels? Second, what are the probable ecological effects of these changes on aquatic and wetland communities?

In 2010, Commission scientists published reports on the potential impact of groundwater withdrawals on forested wetlands, swamp pink, stream habitat, pond vegetation, and frog development. The studies suggest that reductions in wetland water levels and stream flow due to groundwater withdrawals will result in losses in areas occupied by wetland-forest communities, exposure of swamp pink colonies to uncharacteristically dry hydrologic conditions, loss of stream aquatic habitat, shifts in stream macroinvertebrate and fish communities, loss of aquatic and wetland herbaceous plant communities in intermittent ponds, and shortened pond hydroperiods, which may impact the larval development and metamorphosis of native Pinelands frog species.

All five reports have been submitted to journals for publication and all have been published except for the pond vegetation report, which is still in review.

Long-Term Environmental Monitoring Program

In 2010, Commission scientists continued to carry out scientific surveys of Pinelands watersheds as part of a comprehensive, nationally-recognized, long-term environmental monitoring program.

Since the 1990s, the Commission has conducted surveys at hundreds of sites in the Pinelands in an effort to characterize the effect of existing land-use patterns on aquatic and wetland resources and to monitor long-term changes in these resources. Commission scientists monitor water quality, vegetation and fish in streams and

impoundments, and frogs and toads in impoundments in the Mullica River, Rancocas Creek, Great Egg Harbor River, and Barnegat Bay watersheds. Staff has completed two rounds of surveys in the Mullica, Rancocas Creek and Great Egg Harbor River watersheds. Scientists will complete the second round of surveys in the Barnegat Bay watershed in 2011.

Since 2005, Commission scientists have measured water quality at 47 sites on a monthly basis, with a few exceptions. Scientists record water levels at 34 ponds and 45 forest plots in the Pinelands each month. The Commission has monitored calling frogs and toads at 14 ponds since 1993.

REGULATORY ACTIVITIES

Permitting

The Commission's staff reviews municipal and county permitting decisions and development approvals to determine potential impacts on Pinelands natural resources. In cases where the local approval may be inconsistent with Pinelands regulations, the Commission's Executive Director has the authority to refer the approval to the Pinelands Commission, which can modify or overturn it. In 2010, the Commission's Project Review Office received 535 new applications. During the year, actions were taken on 1,705 applications. A total of 26 actions were taken on applications through the Local Review Officer Program, which expedites the approval process by having municipal officers review certain applications, without the need for the Commission's review first.

Wetlands Permits

The Commission also has the authority to issue Freshwater Wetland General Permits in the Pinelands Area on behalf of the New Jersey Department of Environmental Protection. The Commission issued eight such permits in 2010.

Violations

The Pinelands Commission continues its efforts to provide assistance to municipalities in pursuing and resolving violations of the local land use ordinances and Pinelands regulations. A total of 22 new violations were reported to the Commission in 2010.

Application Review Efficiencies

In 2010, the Commission authorized agreements that provide for more efficient reviews of certain public development applications proposed by Pinelands counties. The agreements enable the Commission's staff to review and approve small development projects proposed by counties, such as traffic signals, street lights and guide rails, in lieu of a lengthier process that ultimately requires the full 15-member Commission to approve these projects at their monthly meeting.

The proposed projects covered by the agreements still must meet all Pinelands zoning and environmental standards, such as the protection of ground and surface water resources, wetlands, threatened and endangered plants and animals, vegetation, and historic resources.

These agreements also call for the Commission and the counties to continue their work to implement specific management practices that will better protect and promote native vegetation, including rare plant species, along roadsides in the Pinelands. A series of best management practices have been prepared, and they provide specific guidance for managing road shoulders in a manner that protects and perpetuates native vegetation, while also ensuring traffic safety along Pinelands roads. The practices also reduce maintenance costs, hinder the spread of

invasive, non-native vegetation, and help to curb the use of costly soil amendments and herbicides.

Solar Energy Facilities at the Stafford Business Park

In 2010, the Commission approved plans to develop solar energy generating facilities on a portion of a capped landfill at the Stafford Business Park.

The Stafford Business Park is located in a Pinelands Regional Growth Area, a land-use area in which intensive residential and business development is permitted.

A portion of 50-acre landfill located onsite was deed restricted as open space as part of a Memorandum of Agreement (MOA) that the Commission reached in June 2006. That agreement allowed Stafford Township's government to redevelop its Business Park as a means to fund costs to cap landfills that are located onsite and were contributing to the pollution of groundwater supplies. The agreement also resulted in the permanent preservation of 645 acres of off-site lands, the incorporation of "Green Building" measures at the Business Park, water quality improvements to Route 72, and the implementation of rare plant and animal management programs.

In November 2010, the Commission approved plans to construct solar panels on top of the closed landfill. The 6.5 megawatt solar facility is expected to generate up to 70 percent of the park's energy needs.

To mitigate for the loss of marginal open space on the landfill, Stafford Township will obligate its redeveloper to provide the Pinelands Commission with a monetary contribution of \$152,900. The Commission will use the contribution to fund a study of approximately 40 existing landfills in the Pinelands that remain unclosed despite Pinelands requirements. Under the study, Commission staff will collect existing data from the DEP, identify public health and environmental receptors, build a geographic database, identify critical leachate parameters and thresholds, and characterize landfills on the basis of health and environmental risks. The study will determine the continuing environmental impacts associated with these landfills, while identifying the appropriate means of landfill closure to ameliorate these impacts.

PUBLIC INFORMATION, PARTICIPATION & EDUCATION

Outreach and Education

The Commission's Communications and Public Programs Office staff handled 186 press inquiries and responded to 1,439 public inquiries regarding the Pinelands in 2010. They issued a total of 16 press releases and media advisories about the Commission and wrote, designed, edited and distributed two editions of the Pinelander, the Commission's official newsletter.

For the fourth year, the Commission sponsored an educational program called the Pinelands Speaker Series, which featured a screening and discussion of "Flying with Emilio," a documentary about Captain Emilio Caranza, a Mexican aviator whose plane crashed in the Pinelands in 1928 and has left a lasting impression on the community, a hands-on demonstration of how to make and use rain barrels (**please see photo on page 7**), and a presentation that highlighted the benefits of planting native vegetation in the Pinelands. The presentations were held at the Richard J. Sullivan Center for Environmental Policy and Education, and attracted approximately 100 people.

Additionally, staff organized and carried out its fourth annual, Pinelands-themed World Water Monitoring Day event. Held at the historic Batsto Village, the event attracted more than 180 students and teachers who gauged Pinelands water quality and learned about the importance of protecting the region's unique natural and historic resources. The students measured the levels of pH or acidity in water, as well as water clarity, temperature and dissolved oxygen. Water in the Pinelands is generally undisturbed, has a low pH and low dissolved solids, enabling



Participants learned how to make rain barrels during presentation sponsored by the Pinelands Commission in 2010.
Photo/Paul Leakan

it to support uniquely adapted Pinelands plants and animals. The students' findings were posted on the World Water Monitoring Day Web site (www.worldwatermonitoringday.org), where test results can be compared over time. In addition to assisting with the water tests, staff from the Pinelands Commission used nets to catch native Pinelands fish and demonstrated how the Commission protects wetlands and habitat for rare plants and animals.

Additionally, Commission staff participated in total of 26 educational presentations and continued to work with the Pinelands Educational Advisory Council. The Council is composed of educators, interpretive specialists and others who advise the Commission on ways to improve, expand and better coordinate Pinelands-related educational and interpretive programs.

Pinelands Short Course

The 21st annual Pinelands Short Course drew a record crowd of more than 800 people, breaking the previous year's record of 693 attendees. Held on March 20, 2010 at Burlington County College (BCC), the event featured a total of 43 educational presentations, including 27 new programs.

The new programs included an all-day bus tour focusing on historic sites in the Pinelands, as well as courses on primitive survival techniques in the Pinelands, New Jersey's biodiversity, historic uses of Pinelands plants for medicine and other purposes, a photographic journey of preserved natural sites, birding, botany and canoeing in Gloucester County, bats, butterflies and moths, Pinelands pollinators, the value and characteristics of red and white cedar trees, the history of Brotherton and Shamong, cranberry culture and the business of farming, lesser known stories about Pinelands people, the effects of fire and disturbance on Pinelands soil, the impacts of land use changes on the natural environment, and a viewing and discussion of a new documentary that charts the history of the Central Railroad of New Jersey's most famous train: the Blue Comet.

The event also featured four live musical performances (**please see photo on right**), six field trips and Pinelands art exhibits and demonstrations.

The Pinelands Short Course is sponsored by the Commission, the Pinelands Institute for Environmental Studies (or P.I.N.E.S.) and Burlington County College, which has hosted the event at its Pemberton Township campus since 2004. The event is registered with the New Jersey Department of Education, and professional development credits are available to New Jersey teachers who attend.



The Bad Dogz were among the live bands who provided musical entertainment during the 21st annual Pinelands Short Course.
Photo/Paul Leakan

New Jersey Open Public Records Act

The Commission responded to 39 requests for public records under the statutory requirements of the New Jersey Open Public Records Act (OPRA) in 2010.

Around the Pinelands in 2010



Receptionist Melody A. Wood, left, was honored for 20 years of dedicated service at the Pinelands Commission in 2010. She received a plaque from Acting Chairman Norm Tomasello, right, who retired in May 2010, ending his 14-year tenure.



More than 180 students and teachers participated in the Commission's annual World Water Monitoring Day Event. Students above use a net to survey for native Pinelands fish.



Longtime Pinelands Commission staff members Nadine Young, left, and Kathy Whitton retired in 2010. Young served as the Commission's Executive Secretary, while Whitton served as the Executive Director's Secretary.



Participants learned how to make fire during a Pinelands Survival course offered during the 21st annual Pinelands Short Course. The event drew a record crowd of more than 800 people.

**Photos by Paul Leakan
New Jersey Pinelands Commission**

FINANCES

Fiscal & Budget

The Commissions Operating Budget for Fiscal Year 2011, which began July 1, 2010, totals \$4,214,700. Of this, \$3,805,800 or 90.3 percent, was budgeted for personnel expenses.

Budgeted revenue sources include \$349,300 in federal grants, a \$2.169 million State appropriation, \$692,500 in State grants and other State funding, \$450,000 in application fees and \$411,750 from the Commission's fund balance and reserves.

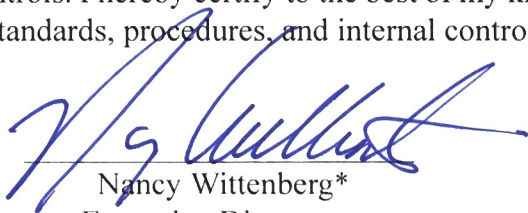
The 2011 budget for the Kirkwood-Cohansey Study, funded through legislation passed in 2001, is \$922,760. The budget for the Pinelands Conservation Fund is \$1.518 million. The Commissions Audit Report for Fiscal Year 2010, which ended June 30, 2010, can be found on the Office of the State Auditors web site at: www.njleg.state.nj.us/legislativepub/auditreports_department.asp#PINE. The report is also available on the Pinelands Commissions web site: www.nj.gov/pinelands.

Pinelands Application Fees

Since April 2004, the Pinelands Commission has received application fees to partially underwrite the direct costs associated with reviewing development applications. During Fiscal Year 2010, application fee revenues totaled \$471,774 (\$78,449 less than in Fiscal Year 2009). Due to the volatility of the real estate market, \$450,000 is anticipated in the Fiscal Year 2011 budget, although this amount is not projected to be reached.

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 2010 calendar year, all of the Commission's standards, procedures, and internal controls were followed.



Nancy Wittenberg*
Executive Director



Donna L. Connor
Business Manager

***Note:** Nancy Wittenberg became the Executive Director of the New Jersey Pinelands Commission on January 3, 2011, replacing John C. Stokes, who served as Executive Director during the 2010 calendar year and retired on January 1, 2011.