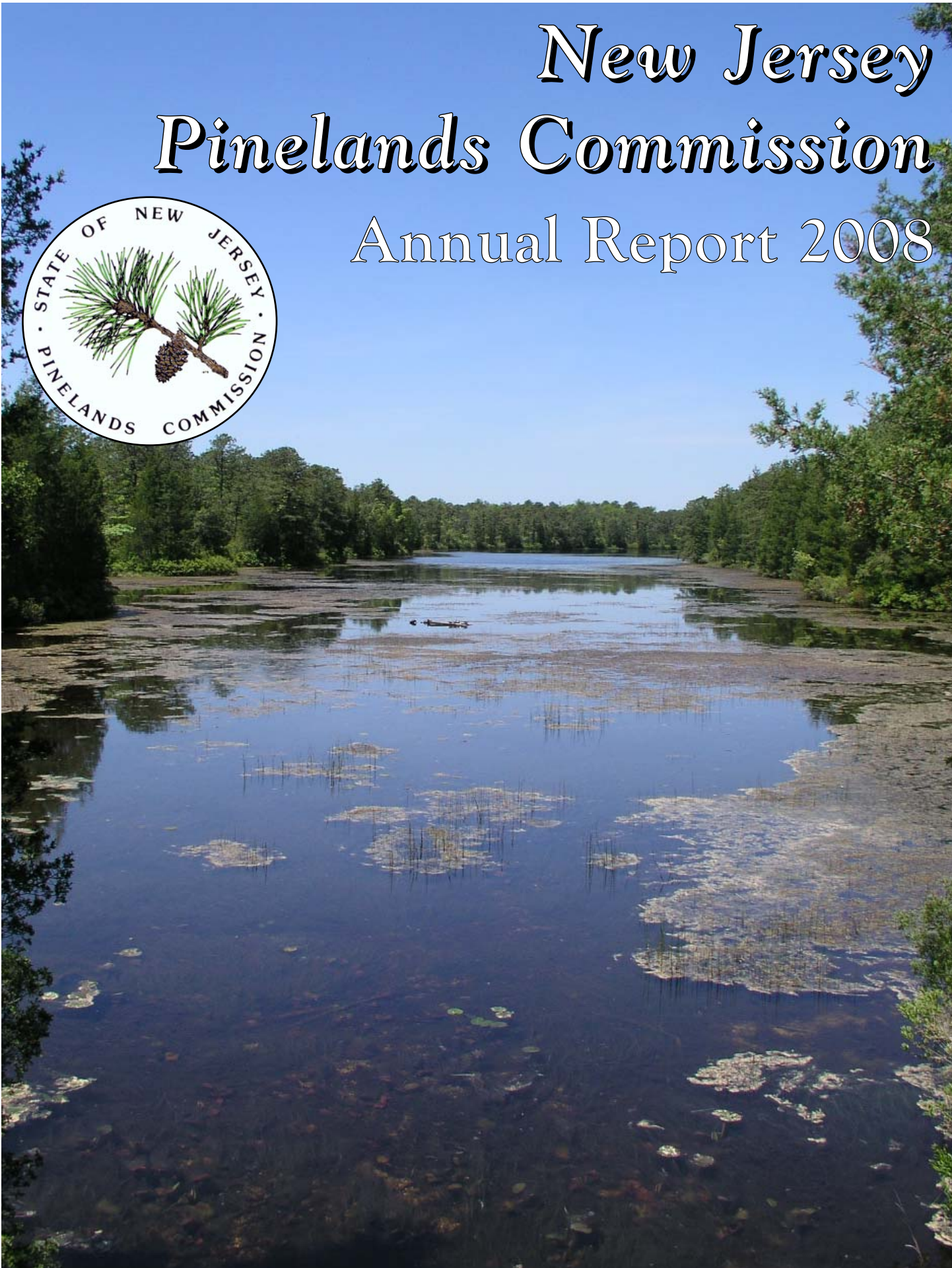


# New Jersey Pinelands Commission Annual Report 2008



# 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:** Turtles bask on a log in the center of the tea-colored waters of Lake Absegami in the Bass River State Forest in the Pinelands.

Photo by Paul Leakan/New Jersey Pinelands Commission

# New Jersey Pinelands Commission

## 2008

### Gubernatorial Appointees

Betty Wilson, Chairperson (January-October)

Candace M. Ashmun

Rev. Dr. Guy Campbell

Robert Hagaman (January-May)

Stephen V. Lee III

Edward Lloyd

Robert Jackson (June-Current)

### U.S. Secretary of the Interior's Appointee

Robert W. McIntosh, Jr.

### County Appointees

#### *Camden County*

Norman F. Tomasello, Vice Chairman

Acting Chairman (Nov.-Dec.)

#### *Atlantic County*

Paul E. Galletta

#### *Cape May County*

William J. Brown

#### *Burlington County*

Daniel M. Kennedy

#### *Cumberland County*

Leslie M. Ficcaglia

#### *Gloucester County*

Francis A. Witt

#### *Ocean County*

John A. Haas

### Executive Director

John C. Stokes

New Jersey Pinelands Commission

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# CHAIRPERSON'S MESSAGE

**EDITORS NOTE:** Betty Wilson served as the Commission's Chairperson from June 9, 2005 to October 31, 2008, and had served on the Commission as a gubernatorial appointee since 2002.

**A**s I look back on my tenure as a member and Chairperson of the Pinelands Commission, I am filled with great pride and optimism about the future of this special part of New Jersey. It was an honor to serve on an agency whose efforts have helped to protect a world-class ecosystem that covers a million acres, or nearly 20 percent of the entire state.

Through sound planning and with an eye toward the future, the Commission added another chapter to the Pinelands success story in 2008. The Commission advanced efforts to bolster the Pinelands protection program by proposing new rules that would require the clustering of residential development in Pinelands-designated Forest Areas and Rural Development Areas. The proposed amendment to the Pinelands Comprehensive Management Plan seeks to preserve and maintain the essential character of the Pinelands environment while preventing the proliferation of homes on large lots scattered throughout these two management areas.

Three environmentally-sensitive properties in the Pinelands were permanently preserved with money that the Commission administered through its Pinelands Conservation Fund. The Commission also dedicated \$867,666 from the fund toward the preservation of 450 additional acres in Atlantic, Burlington, Gloucester and Ocean counties. These properties contain exceptional Pinelands habitat that connects adjacent properties that are already preserved and will form a large, contiguous area of undisturbed land.

Commission scientists continued a major, multi-year study of the Kirkwood-Cohansey aquifer that underlies the Pinelands. The study will be completed in 2010, and will be invaluable in gaining a better understanding of the relationship between the aquifer and the unique Pinelands environment that it supports. Commission scientists also completed a comprehensive review of landscape and watershed conditions throughout the Pinelands. Commission planners are using information from this assessment to prepare possible refinements to the boundaries of some Pinelands Management Areas. These changes seek to ensure that important natural areas, such as those that provide habitat for rare plants and animals, receive the best possible protection.

The Commission and New Jersey Forest Fire Service joined forces to undertake a new initiative to identify and help implement specific measures to mitigate wildfire hazards and risks in Barnegat and Stafford townships. In October 2008, officials in Barnegat and Stafford unanimously passed resolutions endorsing the measures. The project will serve as a model for improving forest fire management and fire safety in communities throughout the Pinelands.

Last but not least, the Commission once again emphasized the importance of raising awareness and appreciation of the Pinelands by carrying out a series of public education projects. This included the 19th annual Pinelands Short Course, which featured 30 educational presentations and drew a record crowd of 622 people. The projects also included in-class presentations, the second-annual Pinelands Speaker Series, the first-ever Pinelands-Friendly Yard and Garden Fair and the second-annual Pinelands-themed World Water Monitoring Day. Additionally, the Commission worked with the National Park Service and the New Jersey Division of Parks and Forestry to install Pinelands National Reserve road signs in 15 locations in the reserve. The Commission also took a leadership role in helping to create a new brochure that highlights the Pinelands' natural, cultural and historic treasures. A total of 250,000 copies of the brochure have been printed and are available at parks, forests and nature centers throughout the Pinelands.

These efforts underscore the Commission's commitment to protect the Pinelands, and they are but a few examples of a nearly 30-year success story for which I am proud to have played a part.



Sincerely,

*Betty Wilson*  
Betty Wilson

# New Jersey's Economic Growth Strategies:

**Priority 1:** Market New Jersey for economic growth by partnering with the state's businesses and helping them to grow and prosper;

**Priority 2:** Develop a world-class workforce by assisting the state's students and job seekers to obtain the skills and education needed in a competitive global economy;

**Priority 3:** Promote sustainable growth with a particular emphasis on the state's cities and make strategic infrastructure investments to support economic growth while protecting the environment;

**Priority 4:** Nurture the development of new technologies, and ensure that the state continues to be a leader in innovation;

**Priority 5:** Encourage entrepreneurship and the growth of small, minority-owned, and women owned businesses; and

**Priority 6:** Enhance the global competitiveness of New Jersey's businesses.

## List of Significant Projects or Actions of the New Jersey Pinelands Commission that Furthered New Jersey's Economic Growth Strategies in 2008:

- **Proposed Clustering Amendment** (see Page 5): To the extent that it promotes sustainable development, this project helps to address the third priority of New Jersey's economic growth strategy.
  
- **Pinelands Development Credit Study** (see Pages 9-10): Since the Pinelands Development Credit program helps to promote sustainable growth, this project supports the third priority of New Jersey's economic growth strategy
  
- **Southern Pinelands Natural Heritage Trail** (see Pages 10-11): This project helps to address the third priority of New Jersey's economic growth strategy.
  
- **Kirkwood-Cohansey Study** (see Page 14): To the extent that this project will help government agencies make strategic water supply investments in a sustainable manner, it supports the third priority of New Jersey's economic growth strategy.
  
- **Electric Transmission Right-of-Way Plan** (see Pages 15-16): This project supports the first priority of New Jersey's economic growth strategy.
  
- **Website Enhancement** (see Page 24): This project helps to address the fourth priority of New Jersey's economic growth strategy.

# PINELANDS COMMISSION HIGHLIGHTS FOR 2008

- Betty Wilson ends distinguished term as the Commission's Chairperson. Pages 1-2.
- New Commissioner joins Pinelands panel. Pages 2-3.
- Commission adopts one amendment to the Pinelands Comprehensive Management Plan, and proposes another amendment. Pages 4-5.
- Commission staff begin looking at refinements to Pinelands Management Areas based on ecological integrity assessment. Pages 5-6.
- Commission teams up with the New Jersey Forest Fire Service to develop strategies to mitigate wildfire risks in Barnegat and Stafford townships. Pages 6-7.
- Three environmentally-sensitive properties in the Pinelands are preserved with funds administered by the Pinelands Commission. Pages 12-13.
- Commission scientists lead major study of the Kirkwood-Cohansey aquifer for the fifth straight year. Page 14.
- Commission scientists complete landmark project to assess the Pinelands' ecological integrity. Page 15.
- Commission approves agreement to allow the widening of the Garden State Parkway, along with measures to ensure protection of important natural resources. Pages 18-19.
- Pinelands Short Course draws record crowd of 622. Page 22.
- Commission staff completes projects to install new Pinelands road signs and create a new brochure for the Pinelands National Reserve. Pages 22-23.
- Pinelands Commission takes steps to reduce waste and inefficiencies. Pages 25-26.

# Betty Wilson ends distinguished term as the Pinelands Commission's Chairperson

Betty Wilson, who has devoted much of her life to public service and helping to protect New Jersey's environment, stepped down from the Pinelands Commission on October 28, 2008, ending a distinguished term as the Chairperson of the Pinelands panel. Wilson had served as the Commission's Chairperson since 2005. She said she appreciates the opportunity to have served on the Commission.



**Betty Wilson**

"I have been honored to serve the people of New Jersey as a member and Chairperson of the Pinelands Commission," Wilson said. "There is enormous satisfaction in knowing that our work is preserving and protecting the New Jersey Pinelands. The greatest reward of serving on the Pinelands Commission has come from the privilege of working with the other Commissioners and our extraordinarily talented and hard-working staff. They are exemplars of the finest in public service."

Wilson's accomplishments as the Commission's Chairperson will have a lasting impact on the future protection of the Pinelands, according to Commission members and staff.

"I found her to be most dedicated, most sincere and conscientious about the opportunity and responsibility in carrying out the federal and state acts to protect the Pinelands," said Robert W. McIntosh, who has served as the federal representative on the Commission since 1995.

"Whenever anyone ponders the remarkable success of the Pinelands protection program, they have to consider the tremendous contributions and achievements of Betty Wilson," added John C. Stokes, the Commission's Executive Director. "Her love and knowledge of the Pinelands and her dedication to the Pinelands Commission and its staff will be sorely missed."

A resident of Burlington City, Wilson had served on the Commission since 2002 and was appointed as the Commission's Chairperson by then-Acting Governor Richard J. Codey on June 9, 2005.

During her tenure as Chairperson, Wilson led the Commission's efforts to:

- Adopt 17 amendments to the Pinelands Comprehensive Management Plan, the rules that govern land-use, development and natural resource protection in the Pinelands. The changes strengthen the Pinelands protection program and the Commission's mission to protect, preserve and enhance the region's significant and unique resources;
- Complete a comprehensive scientific study that evaluates the current status of the Pinelands ecology by analyzing landscape and watershed conditions throughout the million-acre region. The study shows that the Pinelands protection program, which preserves environmentally-sensitive areas while steering growth toward appropriate areas, has successfully maintained characteristic Pinelands habitat in a vast majority of the region. The data is being used to re-examine and possibly refine existing Pinelands management areas to reflect current ecological conditions and to ensure that important natural areas are afforded the protection they deserve;
- Authorize an agreement to extend public sanitary sewer to the Ancora Psychiatric Hospital in Winslow Township, Camden County and eliminate a failing wastewater treatment plant located onsite. The agreement permanently protected open space, decreased demand on Pinelands water supplies and removed a significant source of pollution from a Pinelands watershed;



- Approve funds toward the preservation of approximately 3,000 acres in the Pinelands through the Pinelands Conservation Fund;
- Win a major legal victory when a federal judge signed an order that permanently barred the construction of a proposed solid waste transfer station on a 20-acre property in Mullica Township, Atlantic County;
- Complete a comprehensive examination of housing demand in the Pinelands;
- Complete a natural resource conservation plan for an environmentally-sensitive area of southern Medford and Evesham townships;
- Reach an agreement to end the direct discharge of treated wastewater into a Pinelands stream in Buena Borough, Atlantic County;
- Approve an agreement that enabled the environmentally-safe closure of landfills at the Stafford Business Park;
- Complete a wildfire safety planning project in Barnegat and Stafford townships; and
- Launch and expand numerous public education projects. This includes the creation of the first-ever National Park Service brochure for the Pinelands National Reserve, a regional road sign system and a new series of educational seminars, as well as organizing the annual Pinelands Short Course, which has drawn record crowds during the past three years.

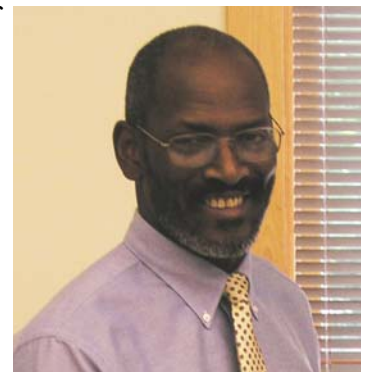
A summa cum laude graduate of Jersey City State College (now New Jersey City University), Wilson has held elected office at the municipal level and served in the New Jersey General Assembly from 1974-1975. From 1976 to 1980, Wilson served as Assistant Commissioner and Deputy Commissioner of the Department of Environmental Protection, handling an array of environmental policy issues including natural resource management, planning and acquisition. There, she handled Pinelands planning efforts following Governor Byrne's February 1979 signing of Executive Order 71 which established a planning process for the Pinelands and authorized creation of the first Pinelands Commission. Wilson also was the Associate Director of Recreation Programs for the U.S. Department of Interior in 1980, the Deputy Commissioner of the New Jersey Department of Labor and Industry in 1981 and Assistant Commissioner for Public Affairs for the New Jersey Department of Human Services from 1990-1993. Actively involved in civic and volunteer work, Wilson has served as Chairperson of the Burlington City Historic Preservation Commission as well as a Trustee of the Pinelands Preservation Alliance, Whitesbog Preservation Trust and Family Service of Burlington, among other organizations.

## New Commissioner joins Pinelands panel

The Pinelands Commission gained a new member in 2008 when Robert Jackson of Middle Township, Cape May County joined the Pinelands panel as a gubernatorial appointee.

Jackson attended his first meeting as a Commissioner on June 13. He filled a gubernatorial seat previously held by Robert Hagaman of Mullica Township, Atlantic County. A former Mayor of Mullica Township, Atlantic County, Hagaman joined the Commission in December 2002. On September 12, 2008, Commission members held a special event to honor Hagaman for his service (**please see photo on page 20**).

Jackson brings a strong background in public service to the Commission. He served as the Mayor of West Cape May from 2001-2005. He is currently the Legal Redress Chairman of the Cape May County National Association for the Advancement of



**Robert Jackson**

Colored People (NAACP) and is the President of the Board of Cape Human Resources. In addition, he is a member of the New Jersey Natural Areas Council. An avid surf fisherman, Jackson also has a background in marine environmental studies and is a former owner of a surf fishing center.

The Pinelands Commission consists of 15 members: seven appointed by the Governor of New Jersey, one appointed by each of the seven Pinelands counties and one appointed by the U.S. Secretary of the Interior. Members of the Commission serve staggered three-year terms and are uncompensated for their service.

## Pinelands loses two champions of environmental protection

Two of the earliest stalwarts of Pinelands protection passed away in 2008. Franklin E. Parker (see photo on left), who served as the first chairman of the Pinelands Commission from 1979 to 1988, died in early February.



Franklin E. Parker, seen here in a photo taken during his tenure as the Commission's Chairperson, passed away in February 2008.

Pinelands Commission archives

Thomas B. Darlington, who also served on the Commission from 1979-1998, passed away in August.

"Franklin Parker was one of the chief architects of the Pinelands protection effort," added John C. Stokes, Executive Director of the Commission. "As the Commission's first chairman, he guided the agency from its infancy with remarkable skill, patience and resiliency, all in an effort to ensure that the Pinelands protection program was built on solid ground."

A resident of Mendham, Morris County and a graduate of the University of Virginia Law School, Mr. Parker used his legal expertise to help preserve open space. His involvement in conservation issues began in the 1960s when he and other Morris County residents organized to fight a proposal to turn a valuable wetlands and wildlife habitat into a regional airport. His efforts helped create the Great Swamp National Wildlife Refuge, which contains 7,600 acres of swamp woodlands, upland forests, and marshes in Basking Ridge, New Jersey. Mr. Parker also served as a trustee on numerous non-profit, land-conservation organizations. In 1978, Congress passed the National Parks and Recreation Act, which designated 1.1 million acres of New Jersey's Pinelands as the country's first National Reserve. The following year the New Jersey Legislature passed the Pinelands Protection Act, which authorized the creation of a 15-

member Commission comprised of federal, state and local representatives to devise and implement a land-use plan to protect the region and its unique natural, cultural and historic resources. Then-New Jersey Governor Brendan T. Byrne selected Franklin E. Parker to direct this critical task as Chairman of the Commission.

Under Mr. Parker's watch, the Pinelands Comprehensive Management Plan, the rules that govern land-use, development and resource protection in the million-acre Pinelands preserve, was developed and adopted in 1981. The Pinelands protection effort is now considered among the most successful land-use and natural resource protection programs in the country.

In more recent years, Mr. Parker was active in working with the Trust for Public Land on land conservation projects.

Mr. Parker served as the first president of the New Jersey Conservation Foundation, a nonprofit land conservation organization. In 2003, the foundation purchased a 9,400-acre property in the heart of the Pinelands in Woodland Township, Burlington County, and dedicated the site as the Franklin Parker Preserve. In addition, Mr. Parker was inducted into the Pinelands Preservation Alliance's Pine Barrens Hall of Fame in September 2006.

Mr. Darlington (see photo on page 4) was a former longtime cranberry and blueberry farmer in Pemberton

Township, Burlington County. He operated Joseph J. White Inc. from 1952 until his retirement in 1995. He is the nephew of Elizabeth C. White, who helped to cultivate the blueberry at Whitesbog. Mr. Darlington had a background in machine design. He invented the “Darlington Picker,” the first successful dry-harvesting picker, as well as a blueberry-picking machine.

Mr. Darlington served on the Pinelands Commission’s Personnel and Budget Committee for many years, and was a proponent of protecting the Pinelands and its unique natural, cultural and historic resources.

“Tom brought the original farming perspective to the Pinelands Commission,” said Stephen V. Lee III, who has served on the Commission since 1982. “He was the primary agricultural voice on the Commission for a number of years. He served that role well in striking a balance on the Commission. He was a fine man.”

“Tom Darlington always demonstrated the best qualities one could ask of anyone serving the people of New Jersey in his role as a member of the Pinelands Commission,” said Terrence D. Moore, who served as the Commission’s Executive Director during the panel’s first two decades. “He exhibited extraordinary courage in voting to adopt the Pinelands Comprehensive Management Plan, consistently set the standard for integrity, and remained a person of genuine humility and kindness which endeared him to those who worked with him. These were not difficult for Tom to display in public life, since they were qualities he practiced every day in private life.”



**Thomas B. Darlington**

## LAND USE & PLANNING

### *Pinelands Comprehensive Management Plan Amendments*

In 2008, the Pinelands Commission adopted an amendment to the Pinelands Comprehensive Management Plan (CMP) that established a **new fee schedule for reviewing development applications** in the Pinelands.

The amendment is aimed at achieving a more equitable distribution of the review costs amongst the many different types of development applications that the Pinelands Commission is obligated to review, while also recouping a higher percentage, about half, of the Commission’s permit review costs through fees.

Since April 2004, the Commission has charged application fees as a means to cover a portion of the costs associated with reviewing development applications and related services that support the development application process. In Fiscal Year 2007, the Commission expended approximately \$1,479,000 on its application review functions and recouped \$713,000 in application fee revenue. While expenses have remained relatively stable during the past few years, ranging from \$1,422,000 to \$1,501,000 annually, the percentage of those costs recouped through application fees has dropped. In Fiscal Year 2008, fee revenues may cover only 32% of the Commission’s permit-related expenses.

During this same period of time, the Commission has had to assume greater responsibility for the review of storm water management plans associated with development applications. The Commission also is increasingly asked to review non-standard wastewater treatment technologies that are proposed as a means to allow more development on an individual parcel of land. Even though the number of development applications submitted for Commission review has dropped in the last several years, the amount of staff time devoted to most application reviews has increased.

These circumstances prompted the Commission to re-examine its application fee rates and incorporate numerous changes designed to more equitably distribute the permitting expenses and to increase the percentage of Commission permit-related expenses recouped through fees.

Under the new fee schedule, the Commission has begun assessing a \$200 fee for single family dwellings. It also

has assessed increased rates for residential subdivisions, increased rates for linear development, increased rates for mining operations, a moderate fee for public development and a surcharge for “alternative” wastewater technology reviews. Current rates for commercial and industrial developments are maintained.

Application fees to review single-family dwellings can be eliminated through the institution of a Local Review Officer Program, which expedites the approval process by having municipal officials review certain applications, without the need for Pinelands review first. Additionally, costs to review public development applications for many projects can be eliminated through streamlining agreements.

On July 11, 2008, the Commission proposed an amendment to the CMP that seeks to better protect Pinelands resources by mandating the **clustering** of residential development in Pinelands-designated Forest Areas and Rural Development Areas.

The proposal would require municipalities to incorporate the clustering provisions into their zoning ordinances, and it seeks to preserve and maintain the essential character of the Pinelands environment while preventing the proliferation of homes on large lots scattered throughout the Forest and Rural Development areas.

Clustering is a style of development that allows reduced minimum lot sizes in exchange for the preservation of open space or other desirable features of a property. Clustering does not necessarily change the number of homes, but the individual lot sizes are smaller than that which would occur under a conventional lot layout. Development can be directed toward appropriate locations of a property, such as areas close to roads and other infrastructure, while natural resources such as critical habitat for rare plant and animal species can be protected.

The proposed amendment would require the clustering of residential development in the Pinelands-designated Forest Areas and Rural Development Areas on one-acre lots. The open space created as a result of clustering would be permanently protected through deed restriction. Generally, the protected land will be owned by a homeowners association, a nonprofit organization or the municipality.

The amendment also would establish bonus density provisions for clustered development in the Forest and Rural Development Areas in order to encourage the consolidation of small lots and the protection of larger areas of open space. Permitted residential densities average one unit per 28 acres in the Forest Area and one unit per 5 acres in the Rural Development Area. The proposed density bonuses depend on the size of the tract and the municipal zoning designation.

In those rare cases where agricultural lands exist within that portion of the property to be protected through clustering, an agricultural easement may provide for continued agricultural use and expansion of that use up to 50 percent if certain conditions are met.

The proposed amendments are a major outgrowth of the Pinelands Commission’s comprehensive, five-year review of the Pinelands Comprehensive Management Plan (CMP). The CMP has guided land-use and development in the state-designated Pinelands Area since it took effect on January 14, 1981.

## *Possible revisions to the boundaries of Pinelands Management Areas*

In late 2008, Commission staff initiated efforts to take a close look at a series of possible refinements to the boundaries of Pinelands management areas based on a comprehensive re-examination of the region’s ecological characteristics.

Commission scientists recently completed a study that evaluates the current status of the Pinelands ecology by analyzing landscape and watershed conditions throughout the million-acre region (**see page 15 for more information**). The study shows that the Pinelands protection program, which preserves environmentally-sensitive areas while steering growth toward appropriate areas, has successfully maintained characteristic Pinelands habitat in a vast majority of the region. The data also showed that some areas of the Pinelands – between 30,000 and 50,000 acres, or about 3 to 5 percent of the million-acre region – should be



A total of 100 municipal and county officials attended two meetings the Commission held in October 2008 to discuss the possible management area changes. Photo/Paul Leakan

reviewed more closely. The boundaries of these land-use management areas may be changed in some of these areas to ensure that important natural areas are afforded an appropriate level of protection.

The Commission invited all county and municipal officials, including mayors, council members, planners, engineers, planning and zoning board members, environmental commissioners, freeholders and other officials in the Pinelands to attend one of two special meetings to discuss the management area changes. A total of approximately 100 officials attended the meetings, which were held on October 22 and 23 at the Commission's headquarters. Additionally, Commission staff has met with, and gathered information and feedback from, numerous municipal and county officials relative to the possible management area revisions.

The Commission's Policy & Implementation Committee will continue to consider these changes in 2009.

## *Pinelands Wildfire Safety Planning Project*

In 2008, the Pinelands Commission and New Jersey Forest Fire Service joined forces to undertake a new initiative to identify and help implement specific measures to mitigate wildfire hazards and risks in Barnegat and Stafford townships. As part of the project, a working committee appointed by both municipalities held numerous



John C. Stokes, the Commission's Executive Director, spoke during a February 28 press conference to announce a joint wildfire safety project that was launched in Barnegat and Stafford townships. Photo/Paul Leakan

meetings with representatives of the Commission and Forest Fire Service to assess known wildfire hazards and risks in their communities and to identify specific measures to mitigate those hazards and risks.

In October 2008, officials in Barnegat and Stafford unanimously passed resolutions endorsing the measures. These strategies call for:

■ **Creating and maintaining fuel breaks:** Fuel breaks are areas where vegetation has been selectively thinned to remove combustible fuels and help suppress the spread of wildfires. This strategy calls for establishing and maintaining a 200-foot fuel break along a 2.3-mile section of Pancoast Road where dense forest abuts residential development. Also, new fuel breaks would be created and maintained around the perimeter of Brighton at Barnegat and Pinewood Estates residential

communities, as well as the Scrubbie Pines Campground on Route 72.

■ **Regulatory amendments:** This strategy involves developing model zoning and subdivision regulations, based on current wildfire hazard management practices, which Pinelands communities can use to promote fire safety. It includes efforts to streamline the permitting process; instituting fuel break/fire break management compliance measures; updating local codes that incorporate current fire safety terms and practices; and recommending modifications to the State codes for construction materials, access requirements and landscape design.

■ **Creating Firewise Committees:** This strategy calls for the appointment of committees for each municipality that will oversee implementation of the wildfire safety program and will have principal responsibility to continue these initiatives into the future.

■ **Education and outreach initiatives:** It is critical to inform residents about the types of actions they can take to assume personal responsibility to help reduce wildfire risks for their homes and properties. This strategy includes meeting with homeowner associations and creating a Firewise Association; reviewing and updating elementary school fire safety curricula; holding a special event to raise students' awareness of fire safety; conducting a fire safety cleanup day; conducting homeowner education programs; developing and undertaking an area-wide fuel reduction maintenance program and conducting a regulatory training session for local officials.

■ **Community Wildfire Protection Plan:** This strategy calls for the development of a comprehensive wildfire protection plan for Barnegat and Stafford townships that will be used to achieve Firewise Communities/USA Certification for both communities.

In 2009, officials from both municipalities will work with the Commission and the Forest Fire Service to begin implementing the strategies. The project will serve as a model for improving forest fire management and fire safety in communities throughout the Pinelands.

Barnegat and Stafford townships are located entirely within the Pinelands National Reserve, which is home to fast-draining, sandy soil and expansive pine and oak forests, where more than 600 wildfires occur each year. The two Ocean County municipalities have an extensive history of wildfires, and have high-risk “wildland urban interfaces,” defined as areas or zones where structures and development meet with undeveloped wildland or vegetative fuels. In addition, the two municipalities are located within close proximity to the Warren Grove Gunnery Range, which was the site of a May 15, 2007 wildfire that burned 15,550 acres and prompted thousands of evacuations.



Barnegat and Stafford townships have an extensive history of wildfires. Both municipalities were affected by the May 2007 wildfire (shown in an aerial photo above) that burned 15,550 acres near the Warren Grove Gunnery Range.

Photo/Paul Leakan

## *Hamilton Township Redevelopment Plan*

In January 2008, the Commission certified an ordinance that creates a redevelopment plan calling for the reuse of existing historic buildings located in the Mays Landing area of Hamilton Township, Atlantic County.

Approved by the township in September 2007, the ordinance adopts a redevelopment plan for the Mill Complex Redevelopment area. More commonly known as the Wheaton Mill Complex, the redevelopment area is located at the intersection of Old Harding Highway and Mill Street in Mays Landing and is bounded by the Great Egg Harbor River and Lake Lenape to the north and west. Totaling 5.5 acres on three lots, the area is home to eight buildings that were constructed and expanded between 1866 and 1925, as well as two paved parking lots. The structures are classified as contributing resources to the Mays Landing Historic District, which is listed on the State and National Registers of Historic Places and is designated as an historic Pinelands site.

The Mill Complex Redevelopment Plan seeks to promote the adaptive reuse of existing historic structures located onsite, revitalize the traditional “Main Street” commercial area of Mays Landing and provide an appropriate number of affordable housing units. To meet those goals, the plan provides for mixed use development, including residential dwelling units, business offices, specialty retail, restaurants, museums and studios for artists, craftsmen and photographers. Permitted residential density is 40 units per acre, 10 percent of which must be set aside for low and moderate-income households.

The redevelopment plan was borne out of recommendations included in a Livable Community Action Plan that was prepared in Hamilton Township in March 2004 as part of the Pinelands Excellence Program. The Pinelands Commission obtained funding from the Geraldine R. Dodge Foundation to undertake the program, which seeks to foster livable communities in municipalities that are experiencing development pressures. In 2002, Hamilton Township was selected as one of the two municipal participants in the program. A team of consultants was subsequently hired to lead the township in a community visioning process that culminated in the publication of a Livable Community Action Plan.

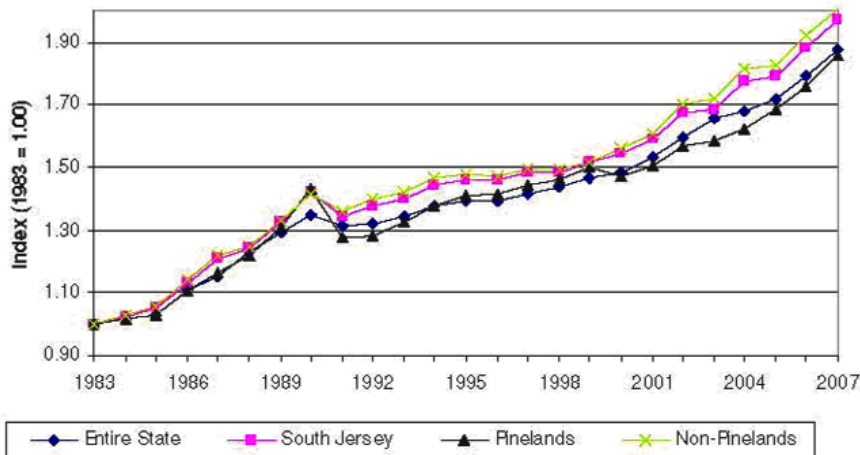
By certifying the ordinance, the Commission determined that it is in conformance with the Pinelands Comprehensive Management Plan.

## Long-Term Economic Monitoring Program

The Pinelands Commission released the Long-Term Economic Monitoring Program's Annual Report in 2008. The report once again showed that municipalities in the Pinelands are outpacing those in the non-Pinelands area of southern New Jersey in several key economic indicators.

A cooperative project administered by the New Jersey Pinelands Commission and funded by the National Park

### Index of Average Residential Property Tax Bill 1983-2007



Average residential property tax bills in the Pinelands are 36% lower than the statewide average and 14% lower than the Non-Pinelands municipal average.

Graph/Tony O'Donnell

Service, the annual report is a product of the Pinelands Long-Term Economic Monitoring Program. The program monitors, collects and analyzes data such as population demographics, property values, economic growth and municipal finances, with the fundamental goal of evaluating the economy of the Pinelands region in an objective and reliable way.

Data collected in 2008 reveals some key findings about the economy in the Pinelands\*, including the following:

- The average residential property tax bill for municipalities in the Pinelands is \$699 lower than in the Non-Pinelands region of South Jersey and \$2,461 lower than the

state as a whole.

- Effective tax rates, which measure the ratio of taxes to property value, continued their decline across all regions of the state for the seventh consecutive year in 2007. Effective tax rates in the Pinelands have fallen the most during that period (-32%).

- The median selling price of homes in the Pinelands increased 102% during the tremendous boom in housing prices from 2001 to 2006. In 2007, home prices dropped slightly across all regions as real estate activity cooled considerably. The median sales price for a home in the Pinelands was \$242,000 in 2007, compared to \$235,000 for the Non-Pinelands. This marks the third consecutive year that the median sales price for homes in the Pinelands is higher than homes in the Non-Pinelands. As recently as 1998, the median sales price in the Pinelands was 6.8% lower than the Non-Pinelands. The median sales price for a Pinelands home in 2007 was 3.0% higher than the Non-Pinelands.

- The Pinelands had a lower unemployment rate than the Non-Pinelands for the sixth consecutive year.

\*In the study, the "Pinelands" is defined as the entirety of the 47 municipalities in southern New Jersey that have at least 10 percent of their land area within the state-designated Pinelands Area. "Non-Pinelands" is defined as the remaining 155 municipalities located within the eight southernmost counties of New Jersey, including Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Ocean and Salem.

## *Hammonton Wastewater Infiltration*

In 1992, the Town of Hammonton, Atlantic County, received approval from the Pinelands Commission and New Jersey Department of Environmental Protection to replace an old sewer plant that discharged into Hammonton Creek, a tributary of the Mullica River, with a state-of-art treatment facility that would recharge the treated effluent into the ground through the use of infiltration basins. Unfortunately, the recharge area has not worked well, and because wastewater continues to be discharged to Hammonton Creek, the Town is in violation of administrative consent orders, judicial consent orders and various permits, including its Pinelands approval. Although the Town had taken some steps to investigate the problems, it had not conducted a comprehensive analysis. Unless the recharge problems are resolved, the Town could face a sewer moratorium and be liable for various other penalties.

In 2006, the Pinelands Commission and the Town of Hammonton entered into an agreement with the United States Geological Survey (USGS) to research the Hammonton infiltration-percolation lagoons to determine the cause for impeded infiltration and to identify methods to improve infiltration of the treated wastewater. Since the recharge of wastewater is a region-wide objective, the USGS is also assessing regional conditions throughout the Pinelands to provide guidance on how to best achieve infiltration at existing and future wastewater infiltration projects elsewhere.

In 2007, the USGS evaluated site design and facility operations data, and conducted geologic and geophysical subsurface investigations at the Hammonton recharge site and at several similar recharge facilities.

The USGS research team provided the Town of Hammonton and the Pinelands Commission with the results of the site-specific data analysis in December 2007. The USGS anticipates issuing a draft report by April 2009. The agency's analysis identified complex (heterogeneous) subsurface geology characterized by multiple low conductivity zones, perched water, trench infilling due to sidewall instability, lateral flow (interference) between trenches, and the need to enhance facility performance through re-engineering and site operation optimization studies. The USGS expects to issue its final report, including an analysis of regional site conditions in late 2009.

The \$240,000 research project was funded by the Town of Hammonton (\$100,000), the Pinelands Commission through the Pinelands Conservation Fund (\$100,000) and the USGS (\$40,000).

## *Pinelands Development Credit Study*

The Pinelands Development Credit (PDC) program is a regional development transfer program (**see page 13 for more information**) that encourages the permanent protection of land in the Pinelands Preservation Area District and agricultural areas by "transferring" development to designated Regional Growth Areas. Although more than 59,000 acres of land have been permanently protected through the program to date, the Commission has been conducting a comprehensive review to ensure that the program will continue to operate effectively in the years to come.

Because the number of "sending" opportunities in the Preservation and agricultural areas exceed the expected number of "receiving" opportunities in the Regional Growth Areas, the Commission's Policy and Implementation Committee has examined a variety of ways to increase the number of receiving opportunities. These include modifying the "bonus" density policies for residential development, adding a bonus density provision for non-residential development and allowing Pinelands Development Credits to be redeemed in Pinelands Town management areas. If the number of receiving opportunities significantly increases, sending areas may be established in some Pinelands Forest management areas.

Although the possible enhancements continued to be refined by Commission staff in 2008, the Commission postponed taking action on the changes until it receives guidance from the State Ethics Commission.

In October 2007, the Commission asked the State Ethics Commission for advice regarding the circumstances in which a Pinelands Commission member must recuse himself or herself from participating in discussions and votes regarding amendments to the Pinelands Comprehensive Management Plan (CMP). The question surfaced



during the Commission's consideration of the PDC enhancements. The Commission is seeking the advice to address a perceived conflict between the Pinelands Protection Act, which contains its own conflict of interest provisions, and the State's ethics law, in order to ensure that its actions will adhere to state ethics requirements.

The Commission expects to receive guidance from the State Ethics Commission on this matter in early 2009.

## *Southern Pinelands Natural Heritage Trail*

In 2005, the New Jersey Department of Transportation officially designated the Southern Pinelands Natural Heritage Trail as a New Jersey State Scenic Byway, and the Pinelands Commission applied for a National Scenic Byways Program grant to continue the process to obtain National Scenic Byway designation.

The National Scenic Byways Program awarded the Commission a \$200,000 grant to complete a comprehensive



The ruins of the Estellville Glassworks, which manufactured bottle and window glass in Estell Manor, Atlantic County in the 1800s, is one of many historic sites located along the Southern Pinelands Natural Heritage Trail. Photo/Barry Brady

Corridor Management Plan for the Trail in 2006. The intent of the plan is to develop a vision statement and goals for the byway, create a byway website and assess existing conditions along its route - including aspects such as physical elements, development trends and potential, road safety and traffic volume, existing amenities and tourism opportunities - so that a long-term strategy for the management and interpretation of the byway can be realized by the counties and municipalities through which it passes. The grant will be supplemented with \$25,000 in funds from the New Jersey Department of Transportation, and \$25,000 in matching in-kind services from the Pinelands Commission.

The 130-mile trail passes through Atlantic, Burlington, Cape May, Cumberland and Ocean counties, including portions of 16 municipalities. It travels along existing roadways in the southern region of the 1.1-million-acre

Pinelands National Reserve.

The effort to create the byway is a major outgrowth of the Pinelands Commission's Rural Economic Development Program. Legislation passed in 1997 appropriated \$250,000 to the Pinelands Commission to help rural communities identify and plan economic development strategies to stimulate environmentally-suitable growth. Expert consultants worked with seven municipalities in limited-growth areas in the Pinelands, and several potential planning initiatives and projects were identified, including the suggestion for a New Jersey and National Scenic Byway that would bring widespread awareness and appreciation of the natural and cultural assets of the Pinelands.

In 2007, the Commission awarded a contract for a consulting team to help prepare the Corridor Management Plan. The team consists of four firms. Taintor & Associates, Inc., is the lead consultant, with Rick Taintor as project manager. The other firms are Whiteman Consulting Group, Ltd.; Paul Daniel Marriott and Associates; and Howard/Stein-Hudson Associates, Inc.

Two committees - a Corridor Management Committee consisting of representatives of the municipalities and counties along the byway and a larger Heritage Trail Committee also consisting of public representatives - were established to oversee corridor planning activities.

In 2008, the consultants held a total of 10 meetings with the Corridor Management Committee (of which five were joint meetings with the Heritage Trail Committee) to discuss various draft segments of the plan, including the vision statement, the byway theme and intrinsic qualities, public education and interpretation, the physical/visual elements survey and rating system, the development trends analysis and such technical issues as traffic safety and signage and transportation plans. Meetings were also held to inform the general public and businesses along the byway route about the byway and progress toward completion of the corridor management plan.

The Corridor Management Plan is scheduled to be completed by April 2009.

## *Alternative Septic 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 Pinelands Comprehensive Management Plan (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 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 one-acre lots 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.

Status reports on the pilot program are issued every year in August. The sixth annual report was issued on August 5, 2008. To date, two of the technologies, Amphidrome and Bioclere, are meeting performance targets. One technology, Cromaglass, although having achieved modest improvement in treatment system performance, has not yet met effluent targets necessary for use on one-acre parcels. The installation of new Cromaglass systems has been suspended until the performance problems at existing systems are resolved.

Because the new systems are technologically sophisticated, care must also be taken to properly operate and maintain them on a long-term basis. With help from a DEP grant, in November 2006, the Pinelands Commission retained a consultant with expertise in septic system management to investigate options for their management in the Pinelands. The consultant has now analyzed the existing regulatory framework pertaining to the operation and management of onsite wastewater systems. This included a review of State statutes and regulations, local ordinances and practices, and regional and sub-regional institutional entities (utility authorities, environmental health agencies, etc.) that could play a role in the long-term management of septic systems.

Beginning in 2007 and continuing through 2008, the consultant and Commission staff worked with local entities throughout the Pinelands to identify locally-suitable ways to ensure that septic systems are maintained in a manner that protects public health and the environment (**see page 22 for more information**). These efforts help to provide much-needed assistance to Pinelands Area counties and municipalities in complying with Pinelands requirements as well as water-quality management planning requirements recently proposed by the DEP.

In 2008, Commission staff began drafting a proposed amendment to the Pinelands Comprehensive Management Plan that would provide for the regular inspection of all onsite wastewater treatment systems and pumping of septic tanks as needed. The rules are expected to be proposed in April 2009.

## *New Stormwater Management Ordinances*

In 2006, the Commission adopted a set of amendments to the Pinelands Comprehensive Management Plan that require stormwater runoff to be managed in accordance with both New Jersey Department of Environmental Protection stormwater regulations and Pinelands Comprehensive Management Plan regulations.

These amendments were adopted to address stormwater-related water quality, groundwater recharge and water quantity impacts of major developments and to integrate the New Jersey Department of Environmental Protection requirements and current stormwater engineering practices into the Pinelands Comprehensive Management Plan. These include requirements for pre-treatment and recharge of stormwater from high pollutant loading areas, specific site assessment protocols for major development, low-impact site design, standards for permanent stormwater facility maintenance and management of onsite soil resources, particularly in the post-construction period to test as-built field conditions against design assumptions.

These Comprehensive Management Plan amendments became effective on May 1, 2006. Municipalities located within the Pinelands Area are to adopt ordinance amendments necessary for conformance with any Comprehensive Management Plan amendments within one year of the effective date of the amendments.

During 2008, the Commission fully certified the stormwater plans and stormwater control ordinances of 35 municipalities and granted extensions to one municipality.

## *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 reviewed by, the Commission.

During 2008, the Commission received and reviewed 192 ordinance and master plan amendments from 45 different municipalities.

# PERMANENT LAND PROTECTION

## *Pinelands Conservation Fund*

Three environmentally-sensitive properties in the Pinelands were permanently preserved in 2008 with funds administered by the Pinelands Commission. These properties included a 70-acre parcel in Buena Vista Township, Atlantic County, a 10-acre parcel in Medford Township, Burlington County (**see photo on right**) and a 30-acre parcel on the border of Buena Borough, Atlantic County and Franklin Township, Gloucester County.

In May 2008, the Commission's Permanent Land Protection Committee authorized money through the fund to preserve 450 acres in Atlantic, Burlington, Gloucester and Ocean counties. In September 2007, the Committee approved funding for the preservation of 12 properties totaling 3,200 acres.

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.

The Fund is dedicated to three types of projects: \$6 million for permanent land protection (\$4.2 million of which has been allocated); \$3.5 million for conservation planning and research projects and \$3.5 million to support 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 proj-



A 10-acre property that features known habitat for endangered timber rattlesnakes in Medford Township, Burlington County (shown above) was permanently preserved in July 2008 with funds administered by the Pinelands Commission. Photo/Paul Leakan

ects.

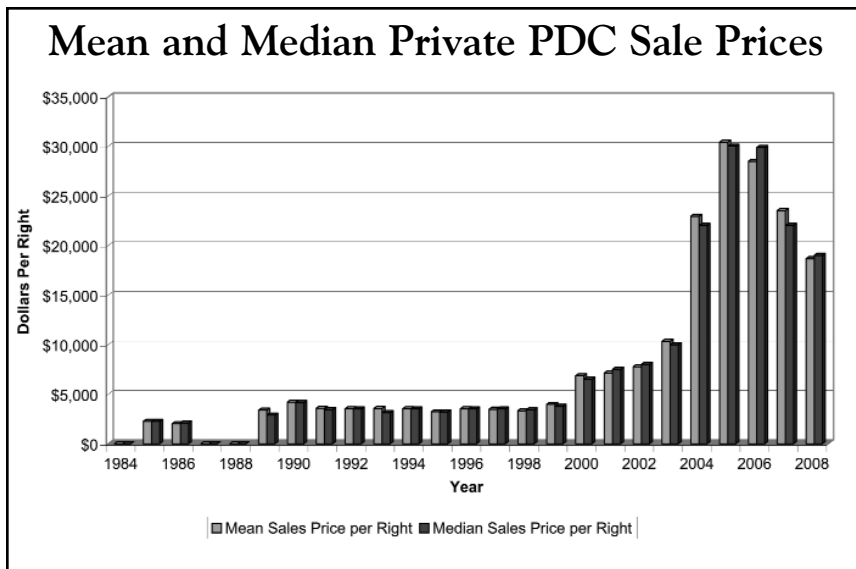
## Cape May County Municipal Utilities Authority Acquisition Fund

The Cape May County Municipal Utilities Authority (CMCMUA) fund was established under an agreement between the Pinelands Commission and the CMCMUA whereby the CMCMUA pledged \$2.25 million to fund up to 50 percent of the fair market value of land acquisitions in the Pinelands National Reserve. Eight percent of the fund was set aside for land acquisition in Cape May County.

During 2008, the Commission reimbursed The Nature Conservancy a total of \$311,367 from the fund on four projects. These four projects protected approximately 76 acres in Atlantic, Cape May and Cumberland counties. In Atlantic County, 35 acres in the Pinelands Forest Area within Estell Manor were protected. In Cape May County, two properties totaling 12 acres were protected in Dennis Township. Both of these properties are now managed by the New Jersey Department of Environmental Protection as part of Belleplaine State Forest. In Cumberland County, 29 acres in Maurice River Township's Forest Area were protected. This property is now managed as part of the Eldora Nature Preserve.

## 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 2008, 355 rights were severed, protecting 3,636 acres of land. A total of 6,969 rights have been severed from 1982 to 2008, protecting 59,444 acres. In 2008, the mean sales price of PDCs was \$18,653 per right, while the median sales price was \$19,000

Note: No private sales in years 1984, 1987 and 1988. In order to reflect the influence of the re-sale market, includes secondary as well as first-time sales, resulting in some multiple counting of rights. Does not include sales/transfers involving special circumstances such as gifts within families or sales including land.

Source: 1991 Plan Review document (for data through mid-1991) and the PDC Bank

per right.

## Pinelands 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 environ-

mental standards) has been denied by the Commission, an opportunity to sell their land to the State of New Jersey. In 2008, three parcels were declared eligible, totaling 5.54 acres. To date, \$1,921,733 has been spent to buy and permanently preserve 1,340.11 acres.

## *Pinelands License Plates*

Since 1998, Pinelands specialty license plates have been available to New Jersey motorists who want to show their support for the Pinelands while helping to protect the region's open space. After reimbursing the Motor Vehicle Commission for expenses associated with the plates, proceeds from the application and renewal fees are deposited in the Pinelands Preservation Fund. The Fund goes toward the acquisition of ecologically-sensitive land in the Pinelands. It is managed by the New Jersey Department of the Treasury, with land acquisitions administered by the New Jersey Department of Environmental Protection.

During Fiscal Year 2008, which runs from July 1, 2007 to June 30, 2008, 403 new sets of Pinelands license plates were issued and 11 sets were renewed.



# SCIENCE & RESEARCH ACTIVITIES

## *Kirkwood-Cohansey Study*

The Pinelands Commission continues to direct the Kirkwood-Cohansey Project, a multi-agency study of the Kirkwood-Cohansey aquifer, and the wetland and aquatic communities associated with it. Legislation passed in 2001 appropriated \$5.5 million from the State Water Supply Fund to determine how the current and future water-supply needs within the Pinelands Area can be met while protecting this aquifer system and avoiding adverse impacts to Pinelands ecology. 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 completed the fifth year of research as they 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 order to answer these questions, scientists are studying surface and ground water dynamics of the aquifer and its response to pump tests. They are also characterizing the relationship of hydrology to wetland forest communities, stream fish and macroinvertebrates, pond vegetation, frogs, swamp pink, and soil nitrogen dynamics. Using this information, the study investigators will predict potential hydrologic and ecological changes associated with various draw down scenarios at the landscape scale. In 2008, the USGS completed a report on the hydrogeologic framework of the three watersheds that are the focus of the study.

The report is now available as a pdf file that can be downloaded from the Commission website (<http://www.state.nj.us/pinelands/science/kirkwood>). The USGS is currently preparing a report that characterizes stream flow and water level and includes hydrologic maps and water budgets for the three primary study basins. The USGS also completed a draft report describing the relationship of stream-fish and macroinvertebrate communities to variations in stream flow. Commission scientists completed a paper describing the effect of potential water-level declines on swamp pink, a federally-endangered plant species. The paper will soon be published in a scientific journal. The Kirkwood-Cohansey Project is expected to be completed in 2010.

## Ecological Integrity Assessment

In 2005, the Commission launched a project to assess the ecological integrity of the Pinelands. The objective of the project is to provide a comprehensive review of landscape and watershed conditions throughout the Pinelands to better ensure that important natural areas, including those that provide habitat for threatened and endangered plant and animal populations, are protected.

This landmark project relies heavily on data collected through the Commission's long-term environmental-monitoring program and is coordinated with monitoring-program activities.

The assessment is an advanced, quantitative look at three types of integrity. Each type of integrity expands upon the principles used in the original Pinelands Comprehensive Management Plan and on the management of threatened and endangered plant and animal species through ecological management. Rather than just focusing on the sightings of threatened or endangered species or the presence of habitat, the landscape is evaluated for its quality and hence its long term sustainability.

The Ecological Integrity Assessment provides a relative ranking of the ecological integrity of Pinelands habitat throughout the Pinelands Area. Pinelands habitat includes upland forests, wetlands, and water bodies. Habitat was broken up into 10×10-m pixels and, using different methods, a separate landscape-, aquatic-, and wetland-drainage integrity score was determined for each 10×10-m habitat pixel. Detailed methods for determining landscape, aquatic, and wetland-drainage integrity can be found on pages 11, 12, and 14 of the EIA report, respectively. For each 10×10-m habitat pixel, the three separate integrity scores were then averaged for an ecological-integrity score, which ranged from >0 to 100%. The ecological-integrity scores were grouped into ten classes (<0-10%, 10.1-20%, 20.1-30%, 30.1-40%, 40.1-50%, 50.1-60%, 60.1-70%, 70.1-80%, 80.1-90%, 90.1-100%).

A technical document that includes an extensive literature review, methods, and the results of the ecological-integrity assessment was completed in 2008 (Zampella et al. 2008). The document is available on the Commission's website at: <http://www.nj.gov/pinelands/science/eia/index.html>.



Commission and Rutgers scientists are developing an ecologically-based plan for maintaining electric transmission rights-of-way in the Pinelands such as the one above in Cumberland County.

Photo/John Bunnell



The ecological integrity assessment provides comprehensive information that is being used to ensure that important natural areas, including habitat for protected species such as the Northern pine snake (above), are protected.

Photo/Allison Brown

Commission planners are using the assessment, among other data, to re-evaluate some Pinelands Management Area designations (see page 5 for more information).

### Electric Transmission Right-of-Way Plan

Pinelands Commission and Rutgers University scientists are developing an ecologically-based right-of-way maintenance plan in cooperation with representatives of the Board of Public Utilities, Public Service Electric and Gas, Jersey Central Power and Light, Atlantic City Electric (formerly Conectiv), and the New Jersey Department of Environmental Protection Endangered and Nongame Species Program. The goal of the project is to prepare right-of-way maintenance plans that create and maintain relatively stable and sustainable, early successional habitats that reflect characteristic Pinelands habitats,

require minimal management, ensure transmission reliability and safety, and minimize the need for individual Pinelands permit reviews.

Rutgers University scientists mapped the managed vegetation along bulk electric transmission rights-of-way located throughout the Pinelands and the vegetation of early successional habitats not associated with rights-of-way (reference habitats). Field plots were established in representative managed and reference habitats. The vegetation maps and field data will be used to compare vegetation structure and composition between managed and reference habitats. In 2007, Rutgers and Commission scientists traveled along the vast majority of the mapped rights-of-way to characterize existing vegetation conditions in an effort to develop vegetation-management recommendations.

During 2008, Rutgers and Commission scientists assigned detailed vegetation-management recommendations to each of 3,059 spans along the 236 miles of rights-of-way. The plan will be completed by March 2009.

## *Abandoned Cranberry Bog Succession in Relation to Variations in Water Level*

The purpose of this study, which is being conducted at the New Jersey Conservation Foundation's 9,400-acre Franklin Parker Preserve in Burlington County, is to describe the effects of variable hydrology on wetland succession in an abandoned-cranberry bog.

In 2008, Science Office staff collected vegetation and environmental data from 30 previously established study plots. Quantitative measurements of plant cover and growing-season plant-species surveys were completed at all plots. Monthly water-level data were collected from water-level observation wells located in each plot. Soil moisture data was collected quarterly, and digital photographs were collected for each of the study plots.

The study provides an opportunity to investigate the effect of variable hydrology on plant-community composition, which is an important aspect of the ongoing Kirkwood-Cohansey study.



Commission scientists are studying the effects of variable hydrology on wetland succession in abandoned cranberry bogs at the Franklin Parker Preserve (above). Photo/Paul Leakan

## *Watershed Studies*

The Mullica River Basin was the initial focus of the Pinelands Commission's long-term environmental-monitoring program. A comprehensive report describing the results of the Commission's landscape, water-resources, and wetland-community monitoring program in the basin was released in December 2001 (Zampella et al. 2001). Three other reports describing the ecological status of surface waters in the Rancocas Creek basin (Zampella et al. 2003), Great Egg Harbor River Watershed Management Area (Zampella et al. 2005), and Barnegat Bay Watershed (Zampella et al. 2006) were released in subsequent years.

Science staff initiated a second round of watershed surveys as part of a new long-term environmental-monitoring program plan prepared in 2006. The four major watersheds will be resurveyed over a five-year period. During each watershed survey, water quality (pH and specific conductance), stream vegetation, impoundment vegetation, stream fish, impoundment fish, and anurans (frogs and toads) will be monitored. Specific conductance and pH will also be monitored during each of the five years at a network of 47 benchmark stations distributed throughout the four watersheds. Five additional sites located in drainages impacted by the May 2007 wild-fire at the Warren Grove Gunnery Range also will be sampled along with the benchmark sites. A final report describing the results of the four watershed surveys will be prepared in 2012.

During 2008, pH and specific conductance were sampled over an eight-month period (March through October) at 84 stream and impoundment sites throughout the entire Mullica River Basin. Biological surveys were completed in the western portion of the Mullica River Basin, which includes the Batsto River, Mullica River, Sleeper



Kate Reinholt, a Research Technician with the Commission, collects water-quality data as part of the Commission's long-term environmental monitoring program. Photo/Paul Leakan

Branch, Nescochague Creek, and Lower Mullica systems. Vegetation was surveyed at 35 stream sites and in 19 impoundments. Fish were sampled at 34 stream sites and in 19 impoundments. Anuran vocalization surveys were conducted at 18 impoundments.

### *Water-level Monitoring: Forested Wetlands and Coastal Plain Ponds*

Monitoring of water levels at five pitch pine lowland reference sites continued for the 22nd year. With the exception of one year, these sites have been monitored continuously since 1987. Water levels were monitored at 14 Coastal Plain ponds for the 30th consecutive year (1996 - 2008). Surveys for calling anurans (frogs and toads) were also completed annually at these 14 ponds, along with 6 other ponds, during the same 13-year period.

Water levels at an additional 15 Coastal Plain ponds and 45 forest plots were also monitored as part of the Kirkwood-Cohansey Project.

### *The Effect of Upland Buffer Zones in Mitigating the Impact of Suburbanization on the Integrity of Wetlands Communities*

In 2008, the Commission accepted a grant from the U.S. Environmental Protection Agency (EPA) to quantify the relationship between the proximity of developed lands and the ecological integrity of Pinelands wetlands. The biological indicators that will be examined in the study include palustrine-wetland plants and pond-breeding frogs and toads. The ultimate goals of the project are to increase our understanding of the critical issue concerning the distance between wetlands and upland development needed to protect the ecological integrity of wetlands and to identify relationships that can be more broadly applied throughout the Pinelands as part of the Commission's review of proposed development projects. In 2008, Science staff prepared a Quality Assurance Plan at the request of the grants manager for the EPA. Science staff also initiated the selection of study sites.

## **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 2008, the Commission's Project Review Office received 726 new applications. During the year, actions were taken on 2,604 applications. A total of 37 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 Pinelands 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 11 such permits in 2008.

## *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 117 new violations were reported to the Commission 2008. The Commission received three plans for site renovations for the year.

## *Garden State Parkway Widening Project*

On November 14, 2008, the Pinelands Commission voted to approve a Memorandum of Agreement (MOA) that authorizes widening the Garden State Parkway in the Pinelands.

The agreement was reached among the Commission and the New Jersey Turnpike Authority. It permits the Turnpike Authority to widen the Garden State Parkway between Interchange 30 in Somers Point, Atlantic County and Interchange 80 in South Toms River, Ocean County to respond to traffic demands and to improve public safety within the corridor.

The 50-mile widening project will occur mostly within the median and primarily within the Parkway's existing right-of-way. All but approximately one mile of the project will occur in the Pinelands. It will add a third traffic lane and wider shoulders in the northbound and southbound directions. The project also will include the construction of new parallel spans and rehabilitation of existing bridges over the Mullica and Bass rivers, as well as widening the existing bridge over Patcong Creek.

Because it will impact habitat for certain threatened and endangered plant and animal species, the project might not be fully consistent with Pinelands regulations. However, the Pinelands Commission determined that the MOA is accompanied by measures that will, at a minimum, afford an equivalent level of protection of Pinelands resources than would be provided through the strict application of Pinelands standards.

In order to provide an equivalent level of protection of Pinelands resources, the Turnpike Authority has agreed to purchase and deed restrict against future development at least 142.76 acres of land to offset potential threatened and endangered plant and animal species habitat impacts associated with the project. The Authority will provide a portion of this offset at a 259-acre site known as the Turtle Creek site in Washington Township, Burlington County. The site contains expanses of Atlantic White Cedar forest that have substantially recovered from historical logging. The site has been studied over the years and has been documented to contain numerous State threatened and endangered species, including Pine Barrens tree frog, various bird species, timber rattlesnake, New Jersey rush and Pine Barrens boneset. Although the entire Turtle Creek site will be preserved as part of the Authority's overall mitigation package for the project, 44 acres of the site will be specifically set-aside for Pinelands threatened and endangered species habitat offsets. The remaining acreage will be utilized for New Jersey Department of Environmental Protection freshwater wetland mitigation and to address Coastal Area Facility Review Act wildlife habitat mitigation.

The Authority will address the remaining 98.76 acres of threatened and endangered species offset through the future acquisition of land elsewhere. That land will also be deed restricted against future development to ensure that suitable and characteristic habitat for the northern pine snake and red-headed woodpecker is preserved.

A conservative, landscape-based approach combined with field verification of potential habitat was used to identify threatened or endangered species habitat that may be impacted by the project. No direct impacts to plants or animals are expected as a result of the project.

The project is consistent with all other standards of the Pinelands Comprehensive Management Plan, including

stormwater management, wetlands requirements and standards for public development.

Acting as technical consultants on behalf of the Pinelands Commission, the Delaware Valley Regional Planning Commission (DVRPC) undertook a study of the proposed project's potential to generate secondary, growth-related impacts that might induce changes in land use that would be inconsistent with the Pinelands land use program. The DVRPC concluded that only the induced impacts in the vicinity of Interchanges 58 and 69 would have the potential to be inconsistent with the Pinelands program.

Under the MOA, steps will be taken under a separate agreement through which the Authority will address the secondary impacts. More specifically, the agreement requires the Turnpike Authority to "freeze" the zoning on 50 parcels totaling 1,502.31 acres so that no additional development than is presently permitted can occur, and the Authority must provide a cash payment to the Commission to purchase an additional 18 undersized lots that total 91.5 acres.

The Pinelands Commission's Executive Director will submit a biennial report to the Commission on the progress of the project, beginning in December 2010. The report will confirm, pursuant to the terms and conditions of the MOA, whether there are any material additions, deviations or modifications when the Turnpike Authority provides notice of its intent to begin individual segments of the project, identify whether new information indicates that the project's impacts will materially change from those anticipated in the MOA, provide the status of the action taken during the reporting period pursuant to the agreement on secondary impacts and advise the Commission of any necessary follow-up actions.



Overhanging trees are reflected on the tea-colored waters of the Toms River in the Pinelands in Jackson Township, Ocean County.

Photo/Paul Leakan

# Around the Pinelands in 2008



Commission Chairperson Betty Wilson joined other Commissioners and staff to honor former Commission member Robert Hagan (right) for his years of service on the Pinelands panel.



Commission Principal Research Scientist John Bunnell (center) helps students catch fish during the second-ever, entirely Pinelands-themed World Water Monitoring Day event, which was held at Batsto Village on October 16, 2008.



In December, Commission Executive Director John C. Stokes (center) and Commission Vice-Chairman Norman Tomasello (right) honored Walter Freas (left), who resigned as a member of the Pinelands Educational Advisory Council after 23 years of volunteer service.



Nicholas Procopio (right), a Research Scientist with the Commission, was interviewed by Joe Bisicchia (left), the host of CN8's "Comcast Newsmakers," in 2008. Procopio discussed Pinelands water quality during the program.

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

# PUBLIC INFORMATION, PARTICIPATION & EDUCATION

## *Outreach and Education*

The Commission's Communications and Public Programs Office staff handled 258 press inquiries and responded to 2,222 public inquiries regarding the Pinelands in 2008. They issued a total of 29 press releases and media advisories about the Commission, arranged for a press conference about the Commission's wildfire safety project (see page 6 for more information) and wrote, designed, edited and distributed two editions of the Pinelander, the Commission's official newsletter, to 5,200 people.

For the second year, the Commission sponsored an educational program called the Pinelands Speaker Series, which featured a presentation that demonstrated how to create backyard wildlife habitats, another that focused on insect-eating pitcher plants and provided attendees with an opportunity to view live plant specimens under a microscope and with a magnifying glass (see photo on right) and a third presentation that showed and discussed a video of the "People of the Pines." The presentations were held at the Richard J. Sullivan Center for Environmental Policy and education, and it attracted a total of approximately 100 people.

Additionally, staff organized and carried out the second-ever, entirely Pinelands-themed World Water Monitoring Day event. Held at the historic Batsto Village, the event attracted more than 160 students who gauged Pinelands water quality and learned about the importance of protecting the region's unique natural and historic resources.



Jean Montgomerie of the Commission's Regulatory Programs staff showed students how to identify different Pinelands soils during World Water Monitoring Day.

Photo/Paul Leakan



Attendees learned about pitcher plants, an insect-eating plant native to the Pinelands, at a presentation held during the second annual Pinelands Speaker Series.

Photo/Paul Leakan

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 it to support uniquely adapted Pinelands plants and animals. The students' findings will be posted on the World Water Monitoring Day Web site ([www.worldwatermonitoringday.org](http://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, historic resources and habitat for rare plants and animals. A naturalist from the Wharton State Forest provided information about native Pinelands animals during the event.

Also in 2008, the Commission teamed up with the New Jersey Audubon Society, the Pinelands Preservation Alliance and the Woodford Cedar Run Wildlife Refuge to hold the first-ever Pineland-Friendly Yard & Garden Fair. Held at Cedar Run in Medford Township, Burlington County, the event featured a native plant sale with more than 70 different species of Pinelands plants, as well as guided nature walks, professional assistance with landscape design, live animals, information on fire-safe landscaping and numerous gardening seminars and talks. Mike McGrath, host of the

nationally-syndicated public radio show, “You Bet Your Garden,” discussed the “Seven Secrets of Organic Gardening” and fielded questions from attendees.

More than 400 people attended the fair, which is part of a backyard habitat education program that promotes the benefits of using native Pinelands plants to help preserve and protect the region’s unique environment.

During 2007 through 2008, Commission staff conducted a series of more than 16 meetings throughout the Pinelands to discuss the impact that septic systems can have on water quality. The meetings are part of a Commission-led effort to develop programs to manage septic systems in the Pinelands.

Lastly, Commission staff wrote a series of Pinelands-related news articles, entitled “A Sign of the Pines,” participated in total of 25 in-class presentations and festivals and continued to work with the Pinelands Educational Advisory Council. The Council advises the Commission on ways to improve, expand and better coordinate Pinelands-related educational and interpretive programs. The Council met three times in 2008, providing input on the Pinelands Short Course, efforts to revise the Commission’s online curriculum guides and other projects.



More than 400 people attended the first-ever Pinelands-Friendly Yard & Garden Fair in September 2008. Photo/Paul Leakan



The 19th annual Pinelands Short Course drew a record crowd and offered two courses with live snakes. Photo/Paul Leakan

## *Pinelands Short Course*

The 19th annual Pinelands Short Course drew a record crowd of 622 people, shattering the previous year’s record of 450 attendees. Held on March 1, 2008 at Burlington County College (BCC), the event featured a total of 30 presentations, including 20 new programs and numerous popular topics from the past. New course topics included Pinelands storytelling; the Eastern Coyote of New Jersey; disturbance, fire effects and rare species: lessons from the Warren Grove Gunnery Range; Pinelands forestry; Pinelands orchids and wildflowers; maritime forest, birding, botany and canoeing in Atlantic County; the first temporary housing at Whitesbog Village; an archaeological reconstruction of a rediscovered village called Florence; the earliest years of the blueberry industry; basketry; seasonal occupations; Lenape living in the Pinelands; hiking; creating backyard habitat for butterflies, hummingbirds and other wildlife; two presentations with live snakes; forest fire safety; and two programs with live Pinelands music.

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.

## *Pinelands Interpretation*

In 2008, the Commission worked with the National Park Service and the New Jersey Division of Parks and Forestry to complete two major projects aimed at raising awareness and appreciation of the Pinelands National Reserve.

Commission staff oversaw a project that resulted in the installation of Pinelands National Reserve road signs in 15 locations in the 1.1-million-acre reserve. Posted in early March 2008, the road signs carry the Pinelands



Pinelands road signs were posted in 15 locations in the reserve in 2008. Photo/Paul Leakan

National Reserve logo, which features a pitch pine cone bough, as well as the message, “Keep it Clean and Green” (see photo on left). The signs measure 4-feet high and 6-feet wide. They complement existing Pinelands National Reserve road signs that were posted on the Garden State Parkway and Atlantic City Expressway in 2006.

The regional road sign project was funded by a federal transportation enhancement grant. The grant also funded the creation of Pinelands-themed wayside exhibits and kiosks that have been installed at six state forest areas in the Pinelands and other locations.

In May 2008, the Commission, the National Park Service (NPS) and the state Division of Parks and Forestry unveiled a new brochure detailing the natural, cultural and historic treasures found in the Pinelands National Reserve.

The three agencies teamed up with a writer and designer from the NPS’ Harpers Ferry Center to produce the brochure (see photo on right). Commission staff took dozens of photographs of Pinelands plants, animals and landscape scenes, providing mapping data and helped to draft and edit the text and graphic design of the brochure. The project was funded through a cooperative agreement between the partners, including \$25,000 from the NPS Pinelands Interpretive Office and a \$13,000 NPS Challenge Cost Share Program grant that the Commission matched with in-kind services.

The front side of the brochure features a colorful, photographic collage of Pinelands landscapes, as well images of plants and animals such as the Pine Barrens tree frog, a common yellowthroat (bird), an insect-eating pitcher plant and the rare Pine Barrens gentian (plant). It also explores the close relationship between the Pinelands’ natural resources and its culture.

A chronology of human activity in the region, and a diagram of the 17-trillion-gallon Kirkwood-Cohansey aquifer system are also displayed.

The other side of the brochure features a large map that details the Pinelands National Reserve boundary, and charts the location of major roads, state parks, forests, wildlife management areas and wildlife refuges. The map also provides information about recreational opportunities offered at popular Pinelands destinations, including addresses, phone numbers and web sites for those locations.

A total of 250,000 copies of the brochure were printed. The brochure can be obtained at Bass River State Forest, Belleplaine State Forest, Brendan T. Byrne State Forest, Double Trouble State Park, the Forest Resource Education Center, and Wharton State Forest, or by contacting the Pinelands Commission.

Also in 2008, the Commission received \$50,000 from the National Park Service’s Pinelands Interpretive Office to fund a plan to design Pinelands-themed, educational exhibits in the Richard J. Sullivan Center for Environmental Policy and Education. In 2009, the Commission will use the funds to hire a graphic designer to conduct an assessment of the building for these exhibits.



The new Pinelands brochure is available at parks, forests and nature centers throughout the Pinelands.

## Pinelands Municipal Council

Created under the Pinelands Protection Act of 1979, the Pinelands Municipal Council is empowered to review any changes to the Pinelands Comprehensive Management Plan, while also advising the Pinelands Commission on any matters of common concern to Pinelands municipalities.

The Pinelands Municipal Council elected its Executive Committee for the year on March 11, 2008. Buena Vista



State Senator Jeff Van Drew (left) swore in Tabernacle Township Committeeman Richard Franzen to the Executive Board of the Pinelands Municipal Council in 2008.

Photo/Paul Leakan

Township Mayor Chuck Chiarello was elected to another term as the Council's Chairman. Chiarello chaired the Pinelands Municipal Council in 2007 and 2006, in addition to serving in that capacity from 1996 to 2002. He also served as the Council's vice-chairman from 2003-2005. Woodbine Borough Mayor William Pikolycky was re-elected to serve as Vice-Chairman. Pikolycky served as the Council's Chairman from 2003-2005. Berkeley Township Planning Board Chairman Anthony Mazzella was chosen to serve his third term as Secretary. Mazzella also serves as the Mayor's designee to the Pinelands Municipal Council for Berkeley Township. Egg Harbor City Mayor Joseph A. Kuehner was selected to serve his third term as Treasurer. Kuehner was first elected Treasurer in 2005. Tabernacle Township Committeeman Richard Franzen was chosen to serve his first term as the Council's Member at Large (**see photo on left**). Franzen took over the position that was held by former Mullica Township Mayor Robert Hagaman, who served eight terms as the Council's Member at Large before stepping down from the post.

Each year, the Pinelands Commission and the Pinelands Municipal Council co-sponsor an orientation session for newly-elected, appointed or any other municipal officials, with the goal of familiarizing or providing a refresher course on the Pinelands environment and regulations. The 2008 session was held on April 30 at the Commission's headquarters. Thirty-three officials attended the event.

## *Website Enhancements*

Staff continued to enhance the Commission's Web site ([www.nj.gov/pinelands](http://www.nj.gov/pinelands)) by completing major upgrades to the Permitting & Applicant Services page. The changes seek to improve navigation and provide more detailed information such as guidelines and tools to help applicants. The News & Announcement section of the Home Page was expanded, and several new pages and Pinelands fact sheets were added. Lastly, an internal search engine was added to make the Website fully searchable by keyword or topic.

## *New Jersey Open Public Records Act*

The Commission responded to 22 requests for public records under the statutory requirements of the New Jersey Open Public Records Act (OPRA) in 2008.

# FACILITIES & OPERATION

## *Fiscal & Budget*

The Commission's Operating Budget for Fiscal Year 2009, which began July 1, 2008, totals \$4,567,595. Of this, \$3,667,000, or 80 percent, is budgeted for personnel expenses. Budgeted revenue sources include \$631,050 in federal grants, a \$2.618 million State appropriation (\$630,000 lower than in FY2008), \$398,700 in State grants and other State funding and \$450,000 in application fees. In addition to the operating budget, \$431,258 is budgeted for the Commission's commitment to the special land acquisition program funded through the Cape May County Municipal Utilities Authority. The 2009 budget for the Kirkwood-Cohansey Study, funded through leg-

isolation passed in 2001, is \$1,114,000. The budget for the Pinelands Conservation Fund is \$4.81 million.

The Commission's Audit Report for Fiscal Year 2008, which ended June 30, 2008, can be found on the Office of the State Auditor's website at: [www.njleg.state.nj.us/legislativepub/auditreports\\_department.asp#PINE](http://www.njleg.state.nj.us/legislativepub/auditreports_department.asp#PINE). The report is also available on the Pinelands Commission's website: [www.nj.gov/pinelands](http://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 2008, application fee revenues totaled \$595,884 (\$116,862 less than in Fiscal Year 2007). Due to the volatility of the real estate market, \$450,000 is anticipated in the Fiscal Year 2009 budget.

## *Reducing Waste & Inefficiencies and Seeking Cost Savings*

### *Unfilled & Vacant Positions*

In 2008, the Commission's authorized staffing level allowed for 66 full-time, equivalent positions. By the end of 2008, only 58.5 of the 66 positions were filled. Several positions remain unfilled or have been reduced to part-time positions. The Commission continues to explore the use of volunteer interns. In 2008, two volunteer interns provided assistance to the Land Use & Technology offices.

### *Professional Services*

The Pinelands Commission Information System (PCIS), which is a central computer database that merges the agency's permitting, zoning, violation and geographic data, was enhanced in several areas in 2008. These enhancements help to streamline the processing of development applications. The Commission plans to incorporate additional enhancements in 2009 in an effort to ensure quicker responses to development applications.

The Commission's Business Services Office manually maintains its human resource data in a series of spreadsheets. However, in 2008, the Commission completed a project to develop a new Human Resources Management System. This system maintains information in an Oracle database and reduces data duplication, increases efficiency, enhances reporting capabilities and facilitates data exchange with the Pinelands Commission timesheet tracking system.

The Commission employs a counselor to advise the Executive Director on legal matters. Previously, the Commission used the services of the Division of Law for its legal advice. Since employing the staff attorney, the Commission has saved an estimated \$200,000 of potential legal fees from the State.

The Commission reduced its energy costs in 2008 by lowering thermostats, turning off lights when rooms are not in use and by purchasing window inserts that improve insulation. The Commission also purchased a hybrid vehicle, which resulted in lower gasoline costs and the receipt of a \$4,000 rebate from the New Jersey Office of Clean Energy.

In another cost-savings measure, the Commission hired a consultant to create a map service that can be used by Commission staff and will eliminate the need to buy additional desktop mapping software. Completion of the map service is anticipated in 2009.

Lastly, the Commission lowered its health benefit costs after staff began contributing 1.5% toward its health insurance in October 2008. More than \$20,000 in savings were realized as a result of this contribution in 2008, and more than \$112,500 could be saved in 2009.

### *Business Practices*



In 2008, the Commission identified and began carrying out changes to its business practices to reduce costs and improve efficiency, particularly in light of reduced staffing levels (see **Unfilled & Vacant Positions above**).

The Commission started implementing a new procedure in which it uses e-mail to transmit documents to towns, counties, state agencies and interested parties. This includes public hearing notices, rulemaking documents, meeting agendas, reports on municipal master plans and ordinances and other miscellaneous materials. Sending these documents electronically has saved a large sum previously spent on paper, postage and copying.

The Commission also took steps to maximize the efficiency of its staff. For example, the Commission began using aerial surveys instead of site visits in reviewing development applications involving cultural resources. It also eliminated in-house, cultural resources surveys for municipalities and limited its review of demolitions to designated historic structures only. These measures reduce the amount of staff time needed to review these types of applications.

The Commission saved considerable staff time by re-categorizing the types of municipal master plan and ordinance amendments that require the Commission's formal review. For example, routine master plan and ordinance amendments that are reviewed by staff and are deemed to be fully consistent with Pinelands regulations are approved in-house rather than going before the full 15-member Commission for its approval.

The Commission also sought to increase staff efficiency by providing more staff training on how to use Geographic Information Systems (GIS) technology, freeing up its GIS staff to perform other important tasks. A request form was created to ensure that requests for mapping and data information specify exactly what type of information is needed from, and will be provided by, the Commission's GIS Office. The form reduces instances where mapping and data work must be re-done.

Also in 2008, the Commission began exploring measures to streamline its review of certain types of public development applications. These measures will reduce the amount of paperwork to process certain public development applications, while also ensuring that these applications meet all standards and regulations of the Pinelands Comprehensive Management Plan. The Commission expects to begin implementing these measures in spring 2009.

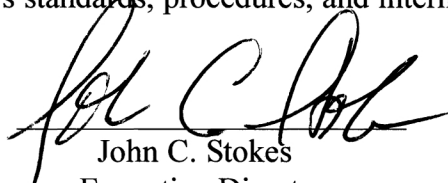
Additionally, the Commission began evaluating its Local Review Officer program (see **page 17 for more information about the program**) to determine its efficiency in reducing processing time to review certain development applications. Recommendations to improve the program are expected to be implemented in 2009.

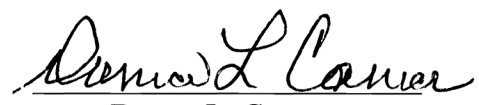
## ***Internal Financial Controls***

Please refer to the annual audit report to view two reports on the internal controls instituted by the Pinelands Commission. These reports can be found on the Office of the State Auditor's website. The address is: [http://www.njleg.state.nj.us/legislativepub/auditreports\\_department.asp#PINE](http://www.njleg.state.nj.us/legislativepub/auditreports_department.asp#PINE). The reports also are available on the Pinelands Commission's website: [www.nj.gov/pinelands](http://www.nj.gov/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 2008 calendar year, all of the Commission's standards, procedures, and internal controls were followed.

  
John C. Stokes  
Executive Director

  
Donna L. Connor  
Business Manager