

# New Jersey Pinelands Commission Annual Report 2009



# 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:** Native vegetation thrives along Lake Nummy, a popular swimming destination in the Belleplain State Forest in the Pinelands.

Photo by Paul Leakan/New Jersey Pinelands Commission

# New Jersey Pinelands Commission

## 2009

### Gubernatorial Appointees

Candace M. Ashmun, Acting Vice Chair  
Robert Jackson  
Judith Link

Rev. Dr. Guy Campbell  
Stephen V. Lee III  
Edward Lloyd

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

Robert W. McIntosh, Jr.

### County Appointees

#### *Camden County*

Norman F. Tomasello, Acting Chairman

#### *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:** Norman Tomasello served as the Commission's Acting Chairman in 2009. He retired from the Commission in 2010.

The year 2009 presented substantial challenges and important opportunities for the New Jersey Pinelands Commission. However, I'm proud to say that despite the difficulties inherent in protecting this million-acre region -- particularly amid lower staffing levels -- the Commission was successful in seizing many opportunities to strengthen the Pinelands Protection Program.

The Commission adopted five amendments to the Pinelands Comprehensive Management Plan, the rules that govern land-use, development and natural resource protection in the Pinelands. One amendment requires the clustering of residential development in Pinelands-designated Forest Areas 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. Development is directed toward appropriate locations of a property, such as areas close to roads and other infrastructure, while the larger open space areas on the remainder of the property are permanently protected through deed restriction. Simply put, clustering helps to better protect the Pinelands' natural resources because it prevents the proliferation of homes that carve up large swaths of forest on scattered lots.

Other amendments to the Pinelands Plan facilitate the restoration of wetlands systems, authorize ecologically-based maintenance practices for 233 miles of electric transmission rights-of-way in the Pinelands, establish new management standards for advanced wastewater treatment systems in the Pinelands, and encourage specific practices that can be used to sustain and improve the overall health of Pinelands forests.

Aside from enhancing our Plan, the Commission tapped into its Pinelands Conservation Fund to help permanently preserve eight environmentally-sensitive properties that total more than 1,600 acres. These properties contain valuable habitat for a variety of Pinelands plant and animal species, including several that are threatened or endangered.

The Commission also agreed to provide \$100,000 from the Fund to help design a community wastewater system in Buena Vista Township, Atlantic County. The agreement will serve as a model for using small, community wastewater systems that can handle wastewater demands associated with rural commercial development while protecting Pinelands water quality.

In another measure aimed at better protecting water quality, the Commission worked with Winslow Township and the Camden County Municipal Utilities Authority to reach an agreement that will close a wastewater facility that is a source of pollution in a Pinelands watershed. The agreement also ends a sewer ban, enabling Winslow to permit economic development in the non-Pinelands portion of the township.

For the sixth straight year, Commission scientists directed the Kirkwood-Cohansey Project, a multi-agency study of the Kirkwood-Cohansey aquifer, and the wetland and aquatic communities associated with it. Information from the study will be used to ensure that future water supply needs of the Pinelands can be met without adversely impacting the Pinelands' sensitive and unique resources.

Lastly, the Commission continued to make great strides in educating the public about the Pinelands' special attributes. In 2009, the Commission educated a total of more than 4,000 people about the Pinelands. This includes in-class presentations, the 20th annual Pinelands Short Course, which attracted a record crowd of 693 people, as well as the Pinelands Speaker Series and the second annual Pinelands-Friendly Yard and Garden Fair.

I'm proud to have Chaired the Pinelands Commission in 2009, and I believe the Commission's accomplishments during the year will lead to great things for this special region far into the future.



**Norman F. Tomasello**  
**Acting Chairman**

Sincerely,

Norman F. Tomasello  
Acting Chairman

# 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 2009:

- **Clustering Amendment** (see Pages 1-2): To the extent that it promotes sustainable development, this project helps to address the third priority of New Jersey's economic growth strategies.
- **Electric Transmission Right-of-Way Plan** (see Page 2): This project supports the first priority of New Jersey's economic growth strategies.
- **Advanced Wastewater Treatment System Management** (see Page 3): This project enables the use of innovative technologies, thereby promoting the fourth priority of New Jersey's economic growth strategies.
- **Buena Vista Community Wastewater Treatment System Design** (see Page 5): This project helps to address the third and fourth priorities of New Jersey's economic growth strategies.
- **Pine Barrens Byway** (see Pages 6-7): This project helps to address the third priority of New Jersey's economic growth strategies.
- **Kirkwood-Cohansey Study** (see Page 11): 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 strategies.
- **Winslow Township Wastewater Agreement** (see Page 14): To the extent that it promotes sustainable development, this project helps to address the third priority of New Jersey's economic growth strategies.
- **Website Enhancements** (see Page 18): This project helps to address the fourth priority of New Jersey's economic growth strategies.

# PINELANDS COMMISSION HIGHLIGHTS FOR 2009

- Judith Y. Link of Hamilton Township joins Pinelands panel. Page 1.
- Commission adopts five amendments to the Pinelands Comprehensive Management Plan, and proposes another amendment. Pages 1-3.
- Commission continues its review of possible changes to the boundaries of certain Pinelands Management Areas. Page 3.
- Commission teams up with the New Jersey Forest Fire Service to begin implementing strategies to mitigate wildfire risks in Barnegat and Stafford townships. Pages 3-4.
- Pinelands economy outpacing non-Pinelands region of southern New Jersey in several economic indicators. Pages 4-5.
- Commission agrees to contribute \$100,000 to help design a community wastewater system. Page 5.
- Commission endorses Final Corridor Management Plan for the Pine Barrens Byway. Page 6-7.
- Eight environmentally-sensitive properties in the Pinelands are preserved with funds administered by the Pinelands Commission. Pages 8-9.
- Commission scientists lead major study of the Kirkwood-Cohansey aquifer for the sixth straight year. Page 11.
- Commission approves agreement to eliminate a source of pollution within a Pinelands watershed in Winslow Township, Camden County. Page 14.
- Pinelands Short Course draws record crowd of 693. Page 17.
- Pinelands Commission takes steps to reduce waste and inefficiencies. Pages 19-20.

# New Commissioner joins Pinelands panel

The Pinelands Commission gained a new member in 2009 when Judith Y. Link of Hamilton Township, Atlantic County joined the Pinelands panel as a gubernatorial appointee.

Link attended her first meeting as a Commissioner on July 10. She filled a position that became vacant when Betty Wilson of Burlington City was named the Commission's Chairperson in June 2005. Wilson stepped down from the Commission in October 2008.

Link is a businessperson who brings a strong background in biology to the Commission. She has owned and operated Young's Skating Center in Mays Landing since 1995, and she has served on the Hamilton Township Environmental Commission since 2000. During her tenure on the Environmental Commission, Link has analyzed and investigated development applications that were presented to the township's Planning Board to determine their environmental and ecological impacts. She holds a bachelor's of science degree in biology from Ursinus College and a master's of science in biology (entomology) from West Chester University. She taught biology at Wissahickon High School in Ambler, Pa., for 12 years.

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.



Judith Y. Link, pictured center, took the oath of office with her husband, Jim, by her side. The oath was administered by DAG Amy Donlon, pictured left.

Photo/Paul Leakan

## LAND USE & PLANNING

### *Pinelands Comprehensive Management Plan Amendments*

In 2009, the Pinelands Commission adopted five amendments to the Pinelands Comprehensive Management Plan (CMP), the rules that govern land-use, development and natural resource protection in the million-acre Pinelands Area. The amendments are as follows:

■ **Clustering:** In an effort to better protect Pinelands resources, the CMP was amended to require the clustering of residential development in Pinelands-designated Forest Areas and Rural Development Areas.

The amendment requires 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 amendment requires 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 will 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 establishes 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.

■ **Wetlands Restoration:** The CMP was amended to facilitate the restoration of wetlands systems in the Pinelands.

Wetlands are an essential element of the Pinelands' ecology because they provide critical habitat for many rare plant and animal species and they maintain ground and surface water quality. They also provide critical stormwater storage capacity that helps control flooding. Development is generally prohibited within all wetlands in the Pinelands, and activities that have an irreversible effect on wetlands' ecological integrity are strictly prohibited. However, these limitations pose a dilemma when the Pinelands Commission receives proposals to restore wetland communities that have been impacted or altered due to human activities such as agriculture or urban development. These restoration projects might be viewed as inconsistent with Pinelands rules despite the beneficial effects they might provide to these wetlands.

In an effort to solve this dilemma, the CMP was amended to permit certain management activities in wetlands. Examples of these activities include allowing the establishment of characteristic wetlands on inactive farmland, the removal of exotic plant species or Phragmites from a wetland and activities that achieve ecological goals such as preventing the loss of a rare wetland community through succession, expanding a rare type of wetland community or creating more favorable conditions for the viability of rare plant or animal populations.

■ **Right of Way Maintenance:** The CMP was amended to authorize a detailed plan to carry out ecologically-based maintenance practices for electric transmission rights-of-way in the Pinelands.

The plan sets forth a variety of vegetation management practices for each of the roughly 3,000 spans along approximately 233 miles of right-of-way. The primary objectives of the plan are to create and maintain early successional (low-growth) habitats that are characteristic of the Pinelands, provide habitat for native and rare plant and animal species and ensure the reliability and safety of the electric transmission system in the Pinelands.

The CMP was amended to permit utility companies to carry out these prescriptions without prior approval by the Commission for 10 years. This period will allow for the Commission's Science office to undertake an extensive monitoring program to evaluate the effectiveness of the prescriptions and to determine whether the goals are being met. The utility companies are required to remit annual payments to the Commission to help finance these monitoring responsibilities. At the end of the 10-year period, the Commission's Executive Director will recommend whether to permanently incorporate the plan into the CMP, extend the pilot program or propose other measures.



The Pinelands Commission adopted five amendments to the Pinelands Comprehensive Management Plan in 2009.

Photo/Paul Leakan

■ **Advanced Wastewater Treatment System Management:** The CMP was amended to establish new management standards for advanced wastewater treatment systems in the Pinelands.

The rules set forth a series of measures that provide for the long-term maintenance of "alternative" or advanced treatment systems, including certification that these systems are in good repair and are functioning properly. Property owners must use these systems when building on unsewered lots that are between 1 and 3.2 acres. Unsewered development is not permitted in the Pinelands area on lots smaller than 1 acre. These treatment technologies can remove more than 65 percent of the pollution that is typically generated by standard septic systems but they do need to be properly maintained to ensure their reliability.

■ **Forestry:** The CMP was amended to encourage specific practices that can be used to sustain and improve the overall health of Pinelands forests.

Effective, pro-active management of Pinelands forests can help preserve and enhance the region's unique ecological character, including important habitat for native wildlife, while providing economic benefits to property owners. The CMP was amended to define 14 different forestry techniques and indicate where and how a particular practice should be conducted, and what controls should be applied to avoid potentially negative environmental impacts.

In addition to adopting five CMP amendments in 2009, the Commission proposed a rule amendment that further clarifies specific limitations on the use of disking (a forestry technique in which one or more steel disks are drawn across a site to cut through soil and roots) in Pine-Shrub-Oak forest types.

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 began reviewing a series of possible changes 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. 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 should be reviewed more closely.

Throughout much of 2009, the Commission gathered information and analyzed a series of recommended changes to the boundaries of certain Pinelands Management Areas. The changes seek to ensure that important natural areas are afforded an appropriate level of protection.

The Commission was scheduled to consider taking action on up to nine revisions during its regular meeting in December 2009. However, Gov. Jon Corzine requested that the Commission hold off on considering the proposal as a courtesy to the incoming administration of Gov. Elect Chris Christie.

## *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 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. Since then, staff from the Commission and Forest Fire Service have been meeting regularly with members of a group of local officials to implement many of the strategies, including carrying out education and outreach pro-

grams and appointing Firewise committees in both municipalities.

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 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.



Dozens of residents attended an open house at Horizons at Barnegat on April 2009 to learn about wildfire safety as part of a special joint project being undertaken by the Pinelands Commission and NJ Forest Fire Service. Photo/David Kutner

## *Long-Term Economic Monitoring Program*

The Pinelands Commission released the Long-Term Economic Monitoring Program’s Annual Report in 2009. 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.

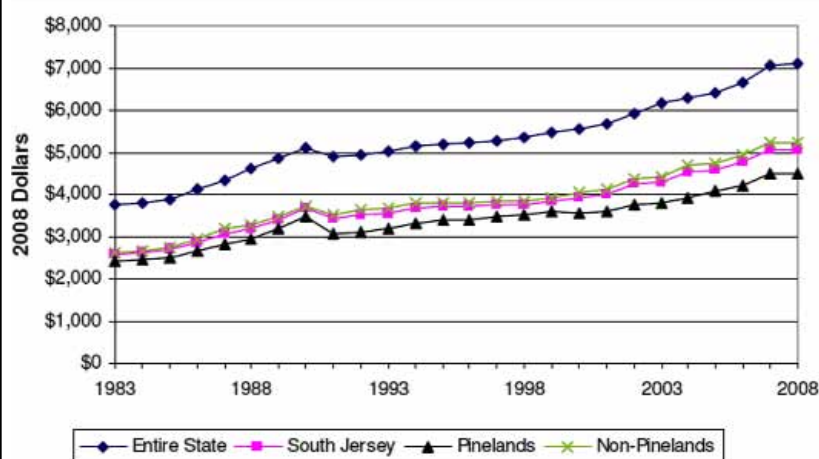
A cooperative project administered by the New Jersey Pinelands Commission and funded by the National Park Service, the annual report is a product of the Pinelands Long-Term Economic Monitoring Program. The program monitors, collects and analyzes data such as population demographics, property values, 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 2009 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 \$756 lower than in the non-Pinelands municipalities of southern New Jersey and \$2,611 lower than the state as a whole.
- Effective tax rates, which measure the ratio of taxes to property value, remained unchanged in the Pinelands in 2008 while rising in both the non-Pinelands (0.5 percent) and statewide (1.1 percent). Studies have suggested that effective tax rates above 3.00 indicate municipal fiscal stress. Currently, no Pinelands municipalities have a rate higher than 3.00. By contrast, 14 municipalities in the non-Pinelands area of southern New Jersey have effective tax rates above 3.00.
- The median inflation-adjusted sales price for a home in the Pinelands was \$242,000 in 2008, compared to \$235,000 for the non-Pinelands municipalities in southern New Jersey. Historically lower than surrounding areas, this marks the fourth consecutive year that the median sales price for homes in the Pinelands is higher than for homes in the non-Pinelands. The median sales price for a home in the Pinelands in 2008 was 3 percent higher than the non-Pinelands.
- The Pinelands had a lower unemployment rate than the Non-Pinelands for the seventh consecutive year. In the 28 years covered in the monitoring period (1980-2008), the Pinelands has now recorded a lower unemployment



## Average Residential Property Tax Bill



Average residential property taxes in the Pinelands are now \$756 lower than in the Non-Pinelands municipalities of southern New Jersey and \$2,611 lower than the state as a whole.

Graphic/Tony O'Donnell

rate than municipalities in the non-Pinelands municipalities of southern NJ in every year except two: 1980 and 2001.

■ Two major Pinelands industries, cranberry and blueberry agriculture, enjoyed across-the-board increases in prices, production and the value of utilized production. The value of utilized production rose 18 percent for cranberries and 5 percent for blueberries for the year. New Jersey ranks as the country's third largest producer of cranberries, with all production occurring in the Pinelands. The state is the nation's second largest producer of blueberries, with nearly all production occurring in the Pinelands.

\*In the study, the "Pinelands" is defined as the entirety of the 47 municipalities in south-

ern 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.

## Buena Vista Community Wastewater Treatment System Design

In August 2009, the Commission authorized an agreement to contribute \$100,000 to help design a community wastewater system in Buena Vista Township, Atlantic County.

The parties to the agreement are the Commission, Buena Vista Township and the Atlantic County Utilities Authority, or ACUA. Under the agreement, the Pinelands Commission's contribution will help defray costs the ACUA will incur to determine the feasibility of building a community wastewater system to serve the current and future needs of the Richland Village Redevelopment Area in Buena Vista.

The agreement will serve as a model for using community wastewater systems that can handle wastewater demands associated with rural commercial development while protecting Pinelands water quality.

Buena Vista Township lacks an adequate wastewater disposal method to service the Richland Village Redevelopment Area. The approximately 193-acre village is located along Route 40 and is currently 50 percent developed. An onsite, community wastewater treatment system would have positive benefits on water quality in an area currently served by onsite septic systems, while providing opportunities for economic growth, such as the modest expansion of businesses and limited residential development.

Among other things, the agreement calls for the Commission to help the Township identify permit requirements related to the installation of a wastewater system and likely financial resources to help offset project design costs. The Commission also will provide technical assistance and advice relative to wastewater treatment system feasibility, location and type. The Township will determine the boundaries of the area to be served by the system, and it will assess existing wastewater demand within the project area based on current wastewater flows, identify plans for known or planned development within the project area and determine demand for existing and future development.

The Atlantic County Utilities Authority will prepare a detailed analysis to determine site suitability, and it will prepare preliminary system designs and preliminary construction cost estimates. The Authority will also help to identify funding sources that may be available to build, operate and maintain the wastewater treatment system.



## ***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 federal agency is expected to issue its final report in early 2010, however, acting upon information provided by USGS during project briefings, Hammonton retained an engineering consultant to identify specific measures to optimize infiltration at the facility. Commission staff continues to work with Hammonton's consultants to maximize onsite recharge.

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).

## ***Joint Base McGuire-Dix-Lakehurst Land Use Study***

In June 2009, the Commission passed a resolution to endorse the April 2009 Final Report of the Joint Land Use Study for Joint Base McGuire-Dix-Lakehurst, which is located in parts of 10 municipalities in the Pinelands.

The report includes a series of recommended strategies designed to resolve land compatibility issues, strengthen base and local government relationships and provide a footprint for future Joint Base and community growth.

The Commission participated in the development of the study by serving on a Policy Committee that was comprised of representatives from Ocean and Burlington Counties, Jackson Township, Lakehurst Borough, Manchester Township, Plumsted Township, New Hanover Township, North Hanover Township, Pemberton Borough, Pemberton Township, Springfield Township and Wrightstown Borough, Lakehurst Naval Air Engineering Station, McGuire Air Force Base, Fort Dix Army Base, the relevant congressional delegations and a wide variety of State agencies.

The study calls for the Pinelands Commission to work with the affected Pinelands counties and municipalities to implement the recommended strategies contained in the study, recognizing that any municipal master plan and ordinance revisions that result from such implementation will require formal review and certification by the Commission pursuant to the Comprehensive Management Plan.

## ***Pine Barrens Byway***

The Pine Barrens Byway, formerly known as the Southern Pinelands Natural Heritage Trail, continued to be

developed as a Scenic Byway in 2009.

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 trail was designated as a New Jersey State Scenic Byway in 2005, and the Pinelands Commission was awarded a \$200,000 federal grant to continue the process to obtain National Scenic Byway designation. The Commission used the funds to hire a consulting team that issued a comprehensive Corridor Management Plan for the Byway in 2009.

The Plan sets forth a vision statement and includes specific recommendations and measures that can be undertaken to accomplish a series of Byway goals. For example,

the Plan urges the identification and prioritization of conservation lands for acquisition and the use of smart growth policies and strategies. Additionally, the Plan calls for increasing local and visitor awareness and appreciation of the Pinelands' fragile environment. It also recommends the implementation of numerous measures aimed at improving the visitor experience. Examples include the creation of better signage, branding and marketing to increase tourism and enhancing access to appropriate resources.

The Pinelands Commission officially endorsed the Plan in 2009, and it has been formally approved by the New Jersey Department of Transportation.

A Byway task force composed of volunteers met periodically in 2009 to begin implementing the recommendation of the plan. Additionally, a Byway website ([www.pinebarrensbway.org](http://www.pinebarrensbway.org)) was created and launched.

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.

## *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 the New Jersey Department of Environmental Protection (DEP) and a special committee of environmental and development representatives, investigated newer onsite wastewater treatment technologies and selected several, which may reduce nitrogen loading by as much as 65 percent, to test in the Pinelands. The testing is accomplished by allowing homeowners to install these technologies on a minimum one-acre parcel and by requiring the manufacturer to collect and analyze effluent samples from each system for three years, while providing professional



Batsto Lake is among the many natural attractions located along the Pine Barrens Byway. Photo/Paul Leakan

operation and maintenance services for a minimum of five years.

Status reports on the pilot program are issued every year in August. The seventh annual report was issued on August 5, 2009. 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. Bio-microbics, the manufacturer of the forth technology, the FAST system, has also not yet demonstrated the FAST systems ability to meet Pinelands water quality standards, based on a small number of installations. Bio-microbics continues to work toward improving the performance of these systems under the observation of Commission staff.

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 analyzed the existing regulatory framework pertaining to the operation and management of onsite wastewater systems. This included a review of State statues 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. 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 2009, the Commission amended the Pinelands Comprehensive Management Plan to establish new management standards for advanced wastewater treatment systems in the Pinelands (**see page 3 for more information**), and it developed and disseminated informational materials to help municipalities and homeowners ensure maximum longevity of all onsite wastewater systems.

## *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 2009, the Commission received and reviewed 124 ordinance and master plan amendments from 34 different municipalities.

# PERMANENT LAND PROTECTION

## *Pinelands Conservation Fund*

Eight environmentally-sensitive properties in the Pinelands Area were permanently preserved in 2009 with funds administered by the Pinelands Commission. These properties included a 700-acre parcel in Hamilton Township and a 63-acre parcel in Mullica Township, both in Atlantic County; a 69-acre parcel in Medford Township, Burlington County; a 603-acre parcel in Lacey and Ocean Townships, Ocean County; a 37-acre parcel in Ocean Township; and three parcels totaling 179 acres in Jackson Township, Ocean County.



From 2007 through 2009, the Commission's Permanent Land Protection Committee authorized money through the fund to preserve a total of 4,252 acres in the Pinelands.

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

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



Ferns line the sand road that meanders through the center of a 700-acre property that was permanently preserved in 2009 with funds administered by the Commission.

Photo/Paul Leakan

## *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. In June 1999, the Pinelands Commission entered into a 10-year agreement with The Nature Conservancy to administer this fund.

During 2009, the Commission reimbursed The Nature Conservancy a total of \$240,085 from the fund on three projects. These three projects protected approximately 42 acres in Atlantic County. All of the protected lands are located in the Pinelands Forest Area within the City of Estell Manor and will be managed by The Nature Conservancy as part of its Head of River Preserve.

All of the CMCMUA acquisition fund has now been expended. A total of \$2.25 million was used to facilitate the permanent protection of approximately 3,000 acres in the Pinelands. Of this total, 534 acres are located in Atlantic County, 643 acres are in Burlington County, 70 acres are in Cape May County, 491 acres are in Cumberland County and 1,243 acres are in Ocean County.

## *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 2009, 31 rights were severed, protecting 317 acres of land. A total of 5,943 rights have been severed from 1982 to 2009, protecting 50,923 acres. In 2009, the mean sales price of PDCs was \$16,125 per right, while the median sales price was \$16,000 per right.

## Pinelands Limited Practical Use Program

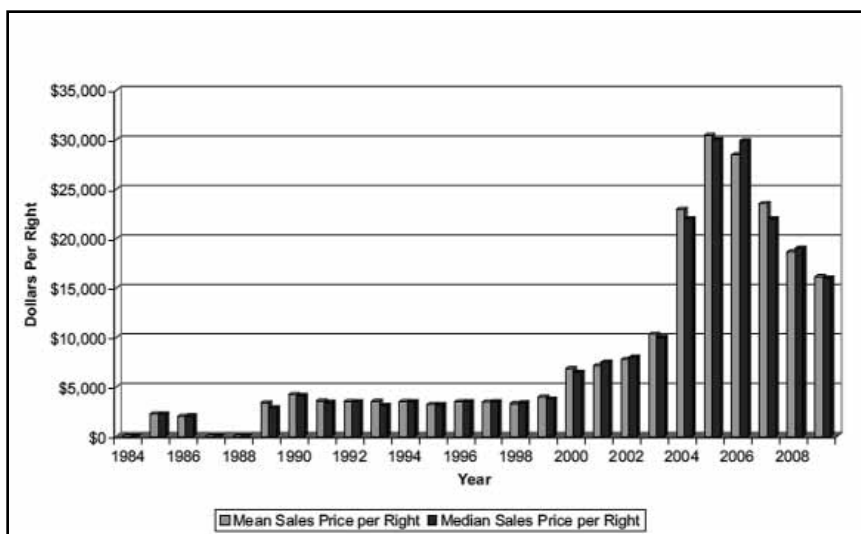
The Pinelands Limited Practical Use (LPU) Program offers the owners of properties less than 50 acres in size, and whose application for a waiver of strict compliance (a variance from normal Pinelands zoning or environmental standards) has been denied by the Commission, an opportunity to sell their land to the State of New Jersey. In 2009, two parcels were declared eligible, totaling 1.03 acres. To date, \$1.7 million has been spent to buy and permanently preserve 1,330 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 2009, which runs from July 1, 2008 to June 30, 2009, 295 new sets of Pinelands license plates were issued and 3,962 sets were renewed.

## Mean and Median Private PDC Sale Prices



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



# 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 sixth 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 groundwater-withdrawal scenarios.

In 2009, the USGS completed draft reports that characterize streamflow and water level for the three study watersheds. The reports also present models used to estimate the potential impact of streamflow reductions on stream-fish and macroinvertebrate assemblages. Commission scientists completed studies to predict the potential impact of groundwater withdrawals on vegetation in forested wetlands and frog development and metamorphosis in ponds. These two studies were accepted for publication in scientific journals. Commission scientists also prepared draft reports describing the potential impacts of withdrawals on aquatic habitat availability in streams and vegetation in ponds. The Kirkwood-Cohansey Project is expected to be completed in late 2010.

## *Electric Transmission Right-of-Way Plan*

In 2009, Pinelands Commission and Rutgers University scientists completed 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 (low-growth) 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 was completed in March 2009 and was author-

ized through an amendment to the Pinelands Comprehensive Management Plan (see page 2 for more information).

In 2010, Commission scientists will initiate a vegetation-monitoring study in selected right-of-way spans to determine whether the vegetation-management prescriptions result in relatively stable and sustainable early successional habitats that are characteristic of the Pinelands and which provide habitat for native-Pinelands plants and animals, including threatened and endangered species.

## *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



Kim Laidig, a Principal Research Scientist with the Commission, surveys vegetation as part of the Commission's long-term environmental-monitoring program.

Photo/John Bunnell

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 wildfire at the Warren Grove Gunnery Range also will be sampled along with the benchmark sites.

Staff re-surveyed the Mullica River Watershed in 2007 and 2008, as well as the Rancocas Creek Watershed in 2009.

As part of the Commission's efforts to re-survey the Rancocas Creek Watershed, specific conductance and pH were sampled dur-

ing the 8-month growing season at 58 stream and impoundment sites throughout the watershed. Biological surveys were also completed in the Rancocas Creek Watershed, which includes the North Branch Rancocas Creek, South Branch Rancocas Creek, and Southwest Branch Rancocas Creek, and the Greenwood Branch systems. Vegetation was surveyed at 43 stream sites and 18 impoundments, fish were sampled at 43 stream sites and 18 impoundments, and anuran-vocalization surveys were conducted at 20 impoundments. In 2010, surveys will be completed in the Great Egg Harbor River Watershed. The Barnegat Bay Watershed will be resurveyed in 2011. A comprehensive report describing the results of the four watershed surveys will be prepared in 2012.

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

Staff monitored water levels at five pitch pine lowland reference sites 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 fourteenth consecutive year (1996 - 2009). Surveys for calling anurans (frogs and toads) were also completed annually at these 14 ponds, along with six other ponds, during the same 14-year period. From



2004-2007, water levels at 15 Coastal Plain ponds and 45 forest plots were monitored as part of the Kirkwood-Cohansey Project. Since 2008, water-level monitoring at these 15 ponds and 45 forest plots was continued as part of the long-term environmental-monitoring program. Long-term water-level data from three ponds and several forest plots were relied upon for portions of the frog-larval-development study and the forest-wetland study that were completed 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. In 2009, staff initiated field work and 52 frog and toad breeding ponds were surveyed monthly from March-June. In 2010, Commission scientists will complete a second round of frog and toad surveys. Additionally, staff will select at least 30 wetland-forest study sites, completing vegetation surveys at each site.



The Pine Barrens treefrog is a native Pinelands species. Commission scientists are surveying frog and toad breeding ponds as part of an EPA funded study.

Photo/John Bunnell

## 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 2009, the Commission's Project Review Office received 590 new applications. During the year, actions were taken on 2,357 applications. A total of 34 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 nine such permits in



2009.

## *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 116 new violations were reported to the Commission 2009.

## *Winslow Township Wastewater Agreement*

In December 2009, the Pinelands Commission approved an agreement that will eliminate a source of pollution within a Pinelands watershed in Winslow Township, Camden County.

The Commission worked with Winslow and the Camden County Municipal Utilities Authority to reach an agreement that will close a wastewater facility that is a source of pollution. The agreement also ends a sewer ban, enabling Winslow to permit economic development in the non-Pinelands portion of the township.

Winslow Township is currently served by two wastewater treatment systems. The Cedarbrook system collects wastewater from within the Township's Pinelands Regional Growth Area, primarily within the Mullica River Basin. Wastewater from this system is conveyed to the Camden County Municipal Utilities Authority's (CCMUA) facility in Camden City, where it is treated and discharged into the Delaware River. The Township's other wastewater system is located in Sicklerville, which serves only that portion of the Township outside of the Pinelands. Wastewater there is treated and discharged into lagoons where the treated wastewater percolates into the ground and recharges the Kirkwood-Cohansey aquifer. The treated wastewater contributes to the base flow of the headwaters of the Great Egg Harbor River that eventually flows through the Pinelands, adding a potentially significant source of pollutants within the Great Egg Harbor River Basin. The Sickerville facility has reached its wastewater treatment and recharge capacity. The New Jersey Department of Environmental Protection has prohibited Winslow from permitting additional sewer connections, precluding future growth in the non-Pinelands portion of the Township.

The agreement reached by the Commission, Winslow and the CCMUA will allow the Utilities Authority to close its Sicklerville plant and convey all wastewater from that facility to its Camden facility, where it will be treated and discharged into the Delaware River. In order to convey the wastewater to Camden for treatment, the CCMUA will connect the Sicklerville system to its regional sewage collection system by way of two parallel sanitary sewer lines. Once the CCMUA has begun conveying wastewater through the new sewer lines, it will cease discharging the Township's present and future wastewater at its Sicklerville facility, which will help to improve water quality in the region.

The agreement also includes specific safeguards that will greatly reduce Winslow's use of water from the Kirkwood-Cohansey aquifer.

# Around the Pinelands in 2009



Joel Mott, a Public Programs Specialist with the Pinelands Commission, used a model to discuss the Kirkwood-Cohansey aquifer system during an education program held at Camp Inawendiwin in Tabernacle Township, Burlington County.



Karen F. Riley, the author of "Voices in the Pines," delivered a lively presentation during the third annual Pinelands Speaker Series in 2009. The presentation attracted approximately 25 people.



Patrick Burritt (center), a Research Technician with the Pinelands Commission's Science office, helps students sample Batsto Lake during the third annual Pinelands-themed World Water Monitoring Day event, which was held in October 2009.



Brian Szura (left), an Environmental Specialist with the Pinelands Commission, received a certificate honoring him for his 10 years of dedicated service in 2009. He received the certificate from Acting Chairman Norman Tomasello (right).

**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 244 press inquiries and responded to 2,159 public inquiries regarding the Pinelands in 2009. They issued a total of 24 press releases and media advisories about the Commission and wrote, designed, edited and distributed two editions of the *Pinelander*, the Commission's official newsletter.

For the third year, the Commission sponsored an educational program called the Pinelands Speaker Series, which featured a presentation that provided a hands-on demonstration of how to survive in the Pinelands, including finding food and shelter, locating water and making fire, one that focused on the lesser-known stories of the people in the Pinelands and their struggles and triumphs over adversity in protecting their way of life, and one that uncovered the secrets of Pinelands plants and their nutritional and medicinal uses. The presentations were held at the Richard J. Sullivan Center for Environmental Policy and Education, and attracted a total of more than 100 people.

Additionally, staff organized and carried out its third annual, Pinelands-themed World Water Monitoring Day event. Held at the historic Batsto Village, the event attracted more than 170 students who gauged Pinelands water quality and learned about the importance of protecting the region's unique natural and historic resources. The stu-

dents 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 were 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 (**please see photo on the left**) and demonstrated how the Commission protects wetlands and habitat for rare plants and animals.

Also in 2009, the Commission teamed up with the New Jersey Audubon Society, the Pinelands Preservation Alliance and the Woodford Cedar Run Wildlife Refuge to hold the second annual Pinelands-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, live animals and numerous gardening seminars and talks. Mike McGrath, host of the nationally-syndicated public radio show, "You Bet Your Garden," discussed the many benefits of planting during the fall season and fielded questions from attendees.



Attendees learned wilderness survival skills during a presentation held as part of the Commission's third annual Pinelands Speaker Series. Photo/Paul Leakan



Commission staff educated students about native fish and water quality during the third annual Pinelands-themed World Water Monitoring Day event at Batsto Lake. Photo/Paul Leakan



Approximately 300 people attended the second annual Pinelands-Friendly Yard & Garden Fair in September 2009. Photo/Joel Mott

Approximately 300 people attended the fair (**please see photo on the left**). The event 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.

Lastly, Commission staff wrote a series of Pinelands-related news articles, entitled "A Sign of the Pines," participated in total of 37 in-class presentations and festivals and continued to work with the Pinelands Educational Advisory Council. The Council is composed of educators, interpretive specialists and others who advise the Commission on ways to improve, expand and better coordinate Pinelands-related educational and interpretive programs. The Council met three times in 2009, providing input on the Pinelands Short Course, efforts to revise the Commission's online curriculum guides and other projects.

## *Pinelands Short Course*

The 20th annual Pinelands Short Course drew a record crowd of 693 people, breaking the previous year's record of 622 attendees. Held on March 7, 2009 at Burlington County College (BCC), the event featured a total of 34 educational presentations, including 24 new programs and the first-ever, all-day bus tour of the Pinelands.

New course topics included new documentary film about Emilio Carranza, a famous Mexican aviator whose plane crashed in the Pinelands in 1928, as well as courses about the region's botanical treasures, ghost towns, archaeology, ethnic settlements, the history of Double Trouble State Park, tundra swans, vultures and other birds, fungi, a review of the Pinelands' ecological integrity, the lifestyles and culture of native Pinelands residents, the plight of honey bees in the Pinelands and elsewhere, beneficial uses of native plants, how to create a dragonfly/wildlife pond and attract butterflies, a discussion of author John McPhee and a half-day field trip to Whitesbog Village to tour "Holly Haven."

The event also featured popular courses from previous years, including presentations about hiking, canoeing, native frogs, toads, fish, hawks, owls and live snakes.

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



The 20th annual Pinelands Short Course drew a record crowd and offered a popular course about hawks and owls. Photo/Paul Leakan

## *Pinelands Interpretation*

In 2009, the Commission worked with the National Park Service to advance a new project to design Pinelands-themed, educational exhibits in the Richard J. Sullivan Center for Environmental Policy and Education. Using a portion of the \$50,000 that it received from the National Park Service's Pinelands Interpretive Office, the Commission hired a graphic designer who conducted a comprehensive assessment of the building for these exhibits. The report was issued in June 2009, and it includes a series of schematic designs for exhibitry, as well as recommendations for enhancing the building for the benefit of visitors. The Commission anticipates complet-





Members of the Pinelands Municipal Council's Executive Committee took the oath of office in 2009.

Photo/Ed Wengrowski

ing the planning and design phases for the exhibits in 2010.

Also in 2009, the Commission staff created a geo-database that charts the specific locations and conditions of dozens of Pinelands National Reserve interpretive wayside panels and road signs. The information will guide decisions regarding the possible replacement of certain signs.

## *Pinelands Municipal Council*

Created under the Pinelands Protection Act of 1979, the Pinelands Municipal Council (**see photo on left**) 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 in March 2009. Buena Vista Township Mayor Chuck Chiarello was elected to another term as the Council's Chairman. Chiarello chaired the Pinelands Municipal Council in 2006, 2007 and 2008, 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 fourth 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 fourth term as Treasurer. Tabernacle Township Committeeman Richard Franzen was chosen to serve his second term as the Executive Committee's Member at Large.

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 2009 session was held on May 28 at the Commission's headquarters. Forty-seven 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 creating a new Visiting & Recreation section that features an interactive Pinelands map and information about places to explore the region. The Commission also completed major upgrades to the Science section, added a "Hot Topics" section on the Home page and enabled the public to sign up for the "Pinelands News & Alert E-mail Alert." Those who sign up for the service receive periodic e-mails with direct links to new Pinelands Commission press releases and reports, as well as information about web site enhancements and various Pinelands events and meetings.

## *New Jersey Open Public Records Act*

The Commission responded to 39 requests for public records under the statutory requirements of the New Jersey Open Public Records Act (OPRA) in 2009.

# FACILITIES & OPERATION

## *Fiscal & Budget*

The Commission's Operating Budget for Fiscal Year 2010, which began July 1, 2009, totals \$4,639,500. Of this, \$4,186,800 or 90 percent, was budgeted for personnel expenses. Budgeted revenue sources include \$372,600 in federal grants, a \$2.592 million State appropriation (later reduced by \$99,000; \$125,000 lower than in FY2009), \$692,000 in State grants and other State funding and \$500,000 in application fees. In addition to the operating budget, \$30,100 was budgeted for the Commission's commitment to the special land acquisition program funded through the Cape May County Municipal Utilities Authority (CMCMUA). These funds represented the remaining balance of the CMCMUA acquisition fund, and they were expended in 2009 (**please see page 9 for more information**). The 2010 budget for the Kirkwood-Cohansey Study, funded through legislation passed in 2001, is \$1,114,518. The budget for the Pinelands Conservation Fund is \$5.6 million. The Commission's Audit Report for Fiscal Year 2009, which ended June 30, 2009, 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 2009, application fee revenues totaled \$550,223 (\$45,661 less than in Fiscal Year 2008). Due to the volatility of the real estate market, \$470,000 is anticipated in the Fiscal Year 2010 budget.

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

### *Unfilled & Vacant Positions*

In 2009, the Commission's authorized staffing level allowed for 66 full-time, equivalent positions. By the end of 2009, only 55 of the 66 positions were filled. Several positions remain unfilled or have been reduced to part-time positions. The Commission was successful in obtaining two college students as volunteer interns in the Land Use and Technology Office for several months in 2009.

### *Salary & Wages*

The Commission renegotiated its contract with the Communication Workers of America, Local 1040. As a result of the renegotiation, salary increases for union members were reduced by 4.5 percent. Wages were frozen for non-union employees, and there were no merit raises for union employees. Also in 2009, the Commission instituted six unpaid furlough days for employees.

### *Supplies*

The Commission continued to reduce its consumption of supplies in 2009. For example, the Commission discontinued its practice of printing hard copies of its newsletter, the Pinelander. Instead of printing and mailing approximately 6,000 copies of the Pinelander twice a year, the Commission chose to save costs by only offering

an electronic version of the newsletter on its website. The decision saved the Commission a total of approximately \$2,200 in 2009. The Commission also saved money by reducing its consumption of various supplies such as disposable plates that are used before and after meetings.

### *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 further enhanced in 2009. These enhancements help to streamline the processing of development applications and improve efforts to manage various projects. Additional enhancements are planned for 2010.

The Commission reduced its energy costs in 2009 by lowering thermostats and turning off lights when rooms are not in use.

In another cost-savings measure, Commission staff began using a new map service that has eliminated the need to buy additional desktop mapping software. Staff is preparing to provide the service to members of the public in fall 2010.

### *Business Practices*

In 2009, the Commission continued to carry 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 expanded its efforts to use 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.

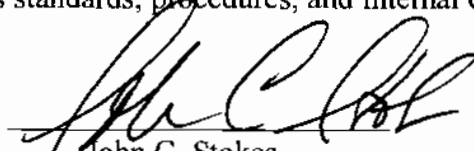
The Commission continued to explore measures to streamline its review of certain types of public development applications. These measures will reduce the amount of paperwork to process certain public development applications, while still ensuring that these applications meet all standards and regulations of the Pinelands Comprehensive Management Plan. The Commission expects to enter into agreements with counties that will enable it to implement these measures in 2010.

## **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 2009 calendar year, all of the Commission's standards, procedures, and internal controls were followed.

  
John C. Stokes  
Executive Director

  
Donna L. Connor  
Business Manager