

New Jersey Pinelands Commission

A Year in Review

Fiscal Year 2010



More than 30 years since the passage of the Pinelands Protection Act, the million-acre Pinelands Area of southern New Jersey remains one of America's greatest natural treasures.

The New Jersey Pinelands Commission has successfully carried out a comprehensive, regional plan that safeguards the Pinelands' unique ecosystem by steering development away from environmentally-sensitive areas.

With staffing levels down by 19 percent and no shortage of important tasks to accomplish, Fiscal Year 2010 posed many challenges for the Pinelands Commission. However, New Jerseyans can take pride in the efforts to greatly bolster the Pinelands Protection Program in FY 2010.

The Commission is proud to highlight many, but by no means all, of these accomplishments in this year-end review.

During FY 2010, despite lower staffing levels and without a full complement of Commission members, the Commission:

■ Dedicated more than \$1.9 million from its Pinelands Conservation Fund to preserve 1,612 acres in Atlantic, Burlington, Cape May and Ocean counties in the Pinelands. **During the past three years, the Commission has allocated a total of \$5.75 million from this Fund toward the permanent preservation of 4,640 acres of land.** In many cases, these properties provide critical habitat for rare plants and animals, and they connect adjacent lands that are already preserved, creating a large, contiguous area of undisturbed forest;

■ **Added \$5.3 million to the Pinelands Conservation Fund** (initially started with \$13 million) **to support permanent land protection, conservation planning and research and community design projects;**

■ **Approved new rules aimed at encouraging specific practices that can be used to sustain and improve the overall health of Pinelands forests.**

The rules detail a series of recommended, ecologically-based forest management techniques that are incorporated in amendments to the Pinelands Comprehensive Management Plan, the rules that govern land-use and natural resource protection in the Pinelands Area.

The amendments 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;

■ **Approved an amendment to Pinelands rules to facilitate the restoration of wetlands systems in the Pinelands.**

Wetlands cover 35 percent of the Pinelands and are an invaluable resource that receives special protection in the Pinelands. Wetlands provide habitat for 80 percent of the region's rare plants and animals. They also purify water by removing sediments, fertilizers, toxins and heavy metals;

■ **Approved an amendment to Pinelands rules that establishes ecologically-based maintenance practices for electric transmission rights-of-way in the Pinelands.** The plan covers 3,000 spans along approximately 233 miles of right-of-way.



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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;

■ **Approved changes to the Pinelands Comprehensive Management Plan that establish new management standards for advanced wastewater treatment systems in the Pinelands.** These treatment technologies can remove more than 65 percent of the pollution that is typically generated by standard septic systems but do need to be properly maintained to ensure their reliability;

■ **Began the last year of a \$5.5 million, multi-agency study of the Kirkwood-Cohansey aquifer,** which are layers of sand and gravel that lie beneath the Pinelands and hold an estimated 17 trillion gallons of pure water.

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

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

In 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;

■ **Helped institute new management practices aimed at better protecting and promoting native vegetation, including rare plant species, along roadsides in the Pinelands.**

The practices specify techniques for managing vegetation along Pinelands roads, including when, where, how and if vegetation should be mowed. They also call for using clean fill dirt along roads, ensuring that the fill is obtained from a local source. The use of nutrient-rich or high pH soil and soil amendments is also discouraged. These practices will help to minimize the establishment of non-native plant species. In addition, vegetation will be maintained in a manner that does not obstruct sight lines or pose potential hazards

to drivers. Special measures will be taken to ensure that rare plant communities growing along roadsides are protected. The Commission is currently working with officials from the seven counties in the Pinelands (Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester and Ocean), as well as state transportation agencies, to implement this ecological approach for maintaining road shoulder vegetation.

The New Jersey Department of Transportation (DOT) will be following these practices this year when it conducts a pilot project along the entire length of state Route 72 in the Pinelands. The practices are consistent with the DOT's Grassland Eco Mow Zone Program, which the transportation agency has implemented on other roadways in the state;

■ **Continued to carry out scientific surveys of Pinelands watersheds as part of a comprehensive, nationally-recognized, long-term environmental monitoring program;**

■ **Reviewed hundreds of applications to ensure compliance with regulations that protect Pinelands resources,** such as water, wetlands and habitat for rare plants and animals. Commission staff investigated 206 violations in FY 2010;

■ **Completed another comprehensive study charting the economic health of the Pinelands.** The study shows that Pinelands communities are outperforming municipalities in the non-Pinelands area of southern New Jersey in several economic indicators. For example, the unemployment rate in the Pinelands is lower than in the non-Pinelands area of southern New Jersey. Also, average residential property taxes in the Pinelands are \$756 lower than in the non-Pinelands area of southern New Jersey and \$2,611 lower than the state as a whole;

■ **Educated a total of nearly 7,000 people about the Pinelands' natural treasures.** This includes presentations and special programs at colleges and universities, elementary and high schools and camps inside and outside of the Pinelands.

This also includes organizing and carrying out the 21st annual Pinelands Short Course, which attracted a record crowd of more than 800 people; as well as a Pinelands-themed World Water Monitoring Day, which educated more than 170 students, and the annual Pinelands Speaker Series;

■ **Made arrangements for a new, online mapping service** that will allow the public to view Pinelands Commission map layers, including management areas, zoning and

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wetlands boundaries. This mapping service will be available on the Commission's website later this summer;

■ **Continued a backyard habitat program.** This includes organizing and carrying out the second annual "Pinelands-Friendly Yard and Garden Fair," which attracted approximately 300 people. It also includes delivering several educational presentations, creating and distributing a new native landscaping brochure and launching a new web page aimed at encouraging practices to better protect Pinelands habitat.
