

Draft Management Plan/ Draft Environmental Impact Statement

for

the Albany Pine Bush Preserve

March 18, 2010

Location of Action: Albany County, City of Albany, Towns of Colonie and Guilderland and Village of Colonie

Lead Agency: Albany Pine Bush Preserve Commission
195 New Karner Road
Albany, New York 12205

Contact Person: Christopher Hawver, Executive Director

Prepared by: Albany Pine Bush Preserve Commission

Date: March 18, 2010

E-mail comments to: managementplan@albanypinebush.org

End of Comment Period: May 5, 2010

**Positive Declaration
Notice of Completion of Draft Environmental Impact Statement
Notice of Public Hearing**

Date of Notice: March, 24, 2010

Lead Agency: Albany Pine Bush Preserve Commission
Address: 195 New Karner Road, Albany, NY 12205

Title of Action: Adoption and implementation of a Management Plan for the Albany Pine Bush Preserve

SERQ Status: Type I

This notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review) of the Environmental Conservation Law.

The Albany Pine Bush Preserve Commission, as lead agency, has determined that the adoption and implementation of an updated Management Plan for the Albany Pine Bush Preserve, located in the Towns of Colonie and Guilderland, the Village of Colonie and the City of Albany, Albany County, may have a significant effect on the environment. As a result a Draft Management Plan and Draft Environmental Impact Statement (DEIS) have been prepared. Copies of the Draft Plan and DEIS are available for review at the agency contact listed below and at the locations on the attached listing.

An Executive Summary of the Draft Plan and DEIS is included. It contains a brief summary which describes the action, need, benefits, alternatives, and potential environmental impacts.

Public Hearings and Comments: A public hearing will be held on Thursday April 15 at 7:00 pm at the Albany Pine Bush Discovery Center, 195 New Karner Road, Albany, NY 12205. The purpose of this hearing is to offer the public an opportunity to provide comments on the Draft Plan and DEIS. Persons may provide comments at the public hearing or in writing no later than the end of the comment period – Wednesday, May 5, 2010. All written comments should be forwarded to the agency contact.

Agency Contact:

Draft Management Plan DEIS
Albany Pine Bush Preserve Commission
195 New Karner Road
Albany, New York 12205
518-456-0655

Or e-mail comments to: managementplan@albanypinebush.org

Availability of DEIS: Copies of the Management Plan and DEIS are available for review at the Albany Pine Bush Discovery Center, 195 New Karner Road, Albany, NY 12205 and at the locations described on the attached listing. The online version of the DEIS is available at the following publically accessible web site: <http://www.albanypinebush.org>.

EXECUTIVE SUMMARY

I. Introduction

The Albany Pine Bush is located on a gently rolling sand plain between the cities of Albany and Schenectady, New York. The sandy, well-drained soils in this area are characterized by a variety of plant species and ecological communities adapted to dry conditions and periodic fires. This area supports the Karner blue butterfly, a state and federally listed endangered species, and the globally rare pitch pine-scrub oak barrens community. The area also includes other natural communities, such as oak and pine forests and a diversity of wetlands, as well as several successional communities that have resulted from historic land use and fire exclusion.

In December of 1988, the New York State Legislature established the Albany Pine Bush Preserve Commission (Commission) and created the Albany Pine Bush Preserve, (Preserve) consisting of dedicated public and dedicated private land (see Appendix A). The Commission is responsible for managing the Preserve for its protection and appropriate public use. Since its inception, the Albany Pine Bush Preserve Commission has represented a unique and successful partnership between state agencies, municipalities, conservation organizations and private citizens. Commission members include the New York State Department of Environmental Conservation (NYSDEC), New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP), The Nature Conservancy (TNC), the City of Albany, the towns of Colonie and Guilderland, Albany County, and four private citizens appointed by the Governor.

In accordance with the legislation establishing the Preserve, the *Management Plan and Final Environmental Impact Statement for the Albany Pine Bush Preserve* was prepared and adopted in 1993. A supplement to that plan, titled *The Albany Pine Bush Preserve Protection and Project Review Implementation Guidelines and Final Environmental Impact Statement* (“Implementation Guidelines”) was prepared and adopted in 1996 (APBPC 1996). These plans were replaced with the Commission’s adoption of the 2002 Management Plan and Final Environmental Impact Statement (APBPC 2002). These plans have successfully guided resource protection and management activities.

Since its inception in 1988, the Commission has been successful in working toward its legislative mandate. Positive relationships have been established between numerous municipal, state, federal and private partners for the common goal of protecting and managing the Albany Pine Bush. As a result of extensive education and outreach efforts, awareness of the Pine Bush as a valuable ecological and open space resource is well established in the Capital District. In addition, the resource protection and management goals of the Commission are generally understood and accepted by the public. Over 3,200 acres of land have been permanently protected as part of the Preserve. More than 1,500 of these acres have been managed with prescribed fire, mowing, planting and other techniques to restore and maintain native habitat. In addition, the Commission works closely with municipal planning departments and developers in the region to achieve reasonable solutions for resolving the impacts of development within the Pine Bush Study Area. Tens of thousands of visitors enjoy the open space benefits provided by the Pine Bush Preserve, including growing numbers of school children. Over 18 miles of marked trails and established rules and regulations allow the public to pursue a number of outdoor recreational opportunities within the Preserve.

Although significant progress has been made, several factors indicate that the long-term future of the Albany Pine Bush is by no means assured. Development pressures in and around the Pine Bush continue. Since 2002, approximately 190 acres in the Pine Bush have been lost to

development. In addition, the Pine Bush municipalities are facing increasing development pressure, and other important areas recommended for protection remain at risk. Research and management activities in the last five years have also revealed that restoration and management of ecological communities in the Preserve will be more difficult than originally anticipated.

The legislation establishing the Preserve requires review of the Preserve Management Plan every five years. All of the factors mentioned above suggest that it is appropriate for the Commission to update and revise the previously prepared Preserve management plans. The 2010 Management Plan for the Albany Pine Bush Preserve combines and updates information contained in the 2002 Management Plan and FEIS. This plan also incorporates the latest conservation science to update protection and management goals and strategies in the Preserve. In addition to an updated Fire Management Plan, the 2010 Plan includes an updated Invasive Species Management Plan, a Recovery Plan for the Karner blue butterfly in the Albany Pine Bush, a detailed viability assessment for the pitch pine scrub oak barrens, a Resource Protection and Visitor Experience Vision, an education and outreach plan, and an updated monitoring plan. The contents of the 2010 Plan are summarized below, with an emphasis on the changes that are proposed to the previous plans.

II. Vision and Goals

The overall vision of the Albany Pine Bush Preserve is a continuation and refinement of the visions expressed in previous Plans. The Commission will continue to work with willing landowners to assure the creation of a viable Preserve. The Preserve will include dedicated public and dedicated private lands that have the necessary size, contiguity, and condition to support the long-term viability of the pitch pine-scrub oak community, the Karner blue butterfly, and the full range of native upland and wetland communities that make up the Pine Bush. The Preserve will also protect cultural resources (historic and archaeological sites), accommodate a variety of appropriate recreational uses, and provide educational and outreach opportunities for the public.

Ecological resource protection and management goals in the 2010 Plan are also consistent with those included in the previous Plans, and include the following:

1. Protect and manage an ecologically viable pitch pine-scrub oak barrens community to achieve/maintain the long-term goal of at least 2,000 fire-manageable acres using prescribed burns and other management techniques.
2. Protect and manage linkages that improve Preserve contiguity and enhance species dispersal.
3. Protect and manage buffer areas, particularly those that facilitate the Commission's fire management program.
4. Protect and manage significant cultural and environmental resources, including Karner blue butterflies and other Species of Greatest Conservation Need, water resources and historic/archaeological sites.

Program goals for the Preserve address recreational use, as well as education and outreach. As with the ecological goals, these goals are generally consistent with those outlined in the original Management Plan, and include the following:

1. Maintain and enhance public access to the Preserve in locations where doing so will not adversely impact ecological resources.

2. Enhance and expand educational and outreach efforts to increase the visibility and image of the Preserve, develop and maintain a sense of stewardship on the part of the public, and create a better appreciation and awareness of Pine Bush ecology and management.

III. The Albany Pine Bush Preserve

This section of the 2010 Management Plan describes the history, location, size, ecological communities, rare species, and existing recreational and management facilities of the Preserve. It includes a review and update of study area boundaries and additional discussion of the ecological processes that shape the natural communities of the Pine Bush.

IV. Threats

An updated analysis of challenges to protection of the Preserve was undertaken as part of the 2010 Management Plan revision. This “threat” analysis indicates that development remains the primary challenge or threat to achievement of Preserve goals, and ultimately to the long-term viability of the natural communities and native species that make up the Preserve. The continued incremental loss of undeveloped land makes it increasingly difficult to assure adequate protection of the land necessary to allow natural ecosystem functions to occur in the Preserve. In addition, development results in increased fragmentation of the Preserve and increased human population and infrastructure in the areas surrounding the Preserve. Both of these factors significantly increase constraints on natural ecosystem functions and effective Preserve management. Natural processes such as species population growth and dispersal, interaction of subpopulations, and response to disturbance events are diminished in fragmented habitats. In particular, the juxtaposition of developed lands with Preserve property has created significant difficulties in the effective use of fire as a management tool. Other ecological restoration and management practices, including chemical and mechanical techniques, are also made more difficult/controversial due to the proximity of developed land to the Preserve.

Other threats to Preserve goals include invasive species (plants, pests, and pathogens), inappropriate and/or excessive public use, climate change, and overabundant deer and other wildlife. These threats can affect plant and animal survival and regeneration, alter plant and animal community composition and structure, and create nuisance and/or health problems for Preserve visitors and adjacent landowners.

V. Ecological Restoration and Management

The overall management objective for the Preserve’s pitch pine-scrub oak community remains the same: restore and maintain at least 2,000 acres of pitch pine scrub-oak barrens that can be managed with prescribed fire. However, based on over 15 years of experience managing the Albany Pine Bush, the Commission has determined that the objective of simply burning 200 acres annually, by itself, is no longer sufficient to assure the long-term viability of the Albany Pine Bush. In addition to fire, other management techniques are needed to restore habitat. Management units have been established throughout most Preserve lands, with objectives for each unit developed. The primary focus of these objectives is to restore and maintain the pitch pine-scrub oak community, Karner blue butterfly habitat, and habitat for other rare, declining and vulnerable species.

All management (ecological and recreational) and research/monitoring in the Preserve is guided by a Pine Barrens Viability Assessment (see Appendix B). The Assessment incorporates the latest

conservation science and management information, refining research and management objectives in the Preserve. Fire management activities will be guided by the updated Fire Management Plan (see Appendix C) which provides both required prescription parameters for weather and environmental conditions, and the personnel and equipment needed to safely implement prescribed burns undertaken to achieve ecological objectives. The Invasive Species Management Plan (see Appendix E) updates the 2002 Weed Management Plan, recognizing the significant threats posed by invasive plants, pests, and pathogens to native plant and animal communities. Selective mechanical (cutting, mowing, etc) and chemical (herbicide) treatments will be utilized to supplement fire management in areas where fire alone will not be effective in restoring pitch pine-scrub oak or in reducing or eliminating certain species, such as black locust, white pine or aspen. These techniques are also appropriate in areas where adjacent development imposes severe constraints on the use of fire. The Commission will also engage in the restoration of natural communities through the planting of native plants and will continue to encourage the use of such plants by adjacent landowners. Each of these detailed plans and the Karner blue butterfly Metapopulation Recovery Plan for the Albany Pine Bush (see Appendix D) are provided as appendices to the 2010 Management Plan and provide current and future Preserve managers with the technical detail required to meet Preserve goals.

The 2010 Preserve Management Plan also recommends expansion of existing Karner blue butterfly habitat and populations to achieve state and federal recovery goals. There are currently 10 occupied Karner blue butterfly subpopulations within the Albany Pine Bush Study Area. Each of these needs to be expanded so that there are at least 500 adult butterflies in the summer brood at each site. In addition, new sites, with similar subpopulation sizes, need to be created to meet recovery objectives. Other rare, declining and vulnerable species in the Pine Bush are dependent primarily on the pitch pine-scrub oak system, including associated terrestrial and wetland communities. These communities should be managed to ensure the availability of essential habitat elements (e.g. food sources and plant community structure) and the long-term viability of rare, declining, and vulnerable species considered Species of Greatest Conservation Need by state and federal governments.

Monitoring the status of the pitch pine-scrub oak barrens, Karner blue butterfly habitat, and other natural communities and rare species is essential to improve the effectiveness of management programs. Since 2002 the Commission has continued and expanded active monitoring for a variety of rare and declining wildlife. Inventories of natural communities have been updated.

The fire management research initiative proposed by Givnish et al. (1988) has been implemented. An updated research and monitoring plan will be used to regularly assess the status of the Pine Barrens as prescribed in the Pine Barrens Viability Assessment. The permanent research plots previously established will be monitored, along with a host of other indicators as prescribed in the Pine Barrens Viability Assessment.

VI. Education and Outreach

As with recreation, the 2010 Preserve Management Plan reiterates and expands on many of the educational and outreach recommendations included in the 2002 Plan. The goal of these recommendations is to create a greater public awareness of Pine Bush ecology, Preserve management activities, and allowable Preserve uses. They also serve to increase the visibility of, and public appreciation for, the Preserve. Current and proposed educational and outreach opportunities include interpretive trails, informational kiosks, portable displays, volunteer naturalist and educator programs, education and outreach internships, development of school curricula and projects, development of fact sheets, development of a Web site, informational

meetings and mailings, educational walks, and presentations to a variety of groups. The 2002 Plan proposed construction of a visitor/education center, referred to as the Albany Pine Bush Discovery Center. The Discovery Center opened in 2007 and includes outdoor and indoor classrooms, guided and self-guided walks, interactive and interpretive exhibits, an orientation theater, biodiversity lab, gift shop, and native plant gardens. The Discovery Center building itself is an educational asset, having received a Leadership in Energy and Environmental Design (LEED) Gold rating by the U.S. Green Building Council.

VII. Recreation

The updated Preserve Management Plan continues and expands upon many of the recommendations included in the 2002 Plan. Recreation and public use recommendations included in the 2010 Plan reflect the fact that public use of the Preserve and recreational demand in the area have increased dramatically since preparation of the 2002 plan. Recreational use of the Preserve is guided by rules and regulations promulgated by the NYSDEC on September 20, 2000. These rules and regulations are posted in summary form at all official trailhead kiosks and on the Commission's Web site; they are designed to protect the Preserve and those who visit it by defining appropriate activities. These activities are primarily natural resource-oriented and/or trail-oriented. The 2002 Management Plan recommendation for the development of a comprehensive recreation plan to address appropriate public use and access to Preserve lands, while assuring that the Commission's resource protection and management goals are met has been completed and is included as Appendix G. This recreation plan, titled Albany Pine Bush Resource Protection and Visitor Experience Vision, details the recreational opportunities available in the Preserve and provides an analysis of existing recreation infrastructure as well as a conceptual framework for future recreational opportunities in the Preserve.

VIII. Protection

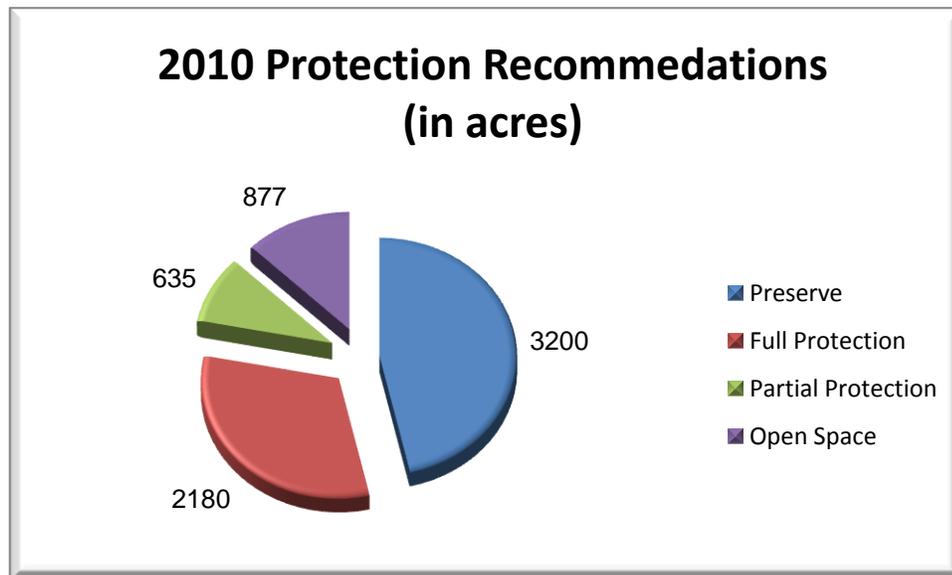
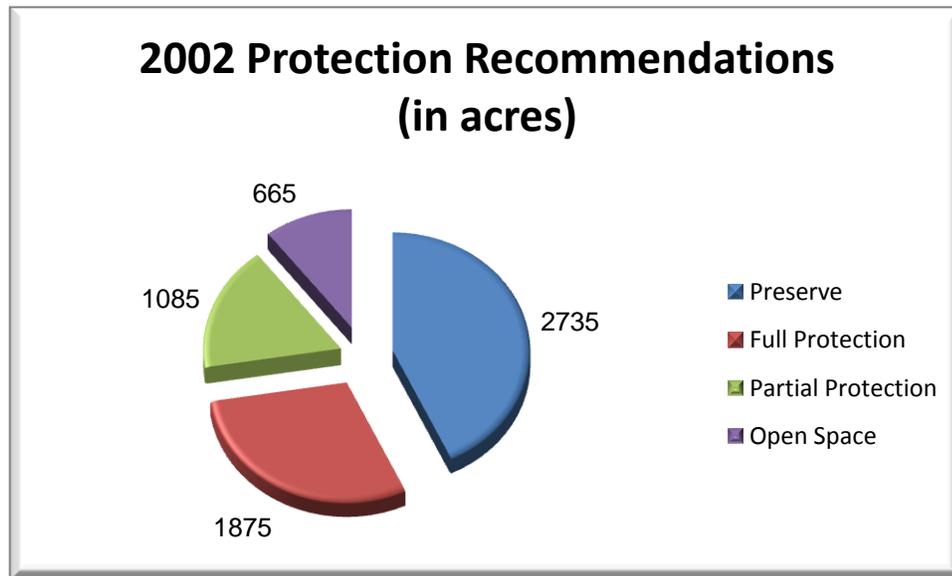
Following the protection recommendations included in the 2002 Management Plan, the Commission has worked closely with willing landowners to protect approximately 440 acres of additional land over the last eight years. Much of this land has been protected as a result of the support of the State of New York, The Nature Conservancy and other Commission members. The Preserve currently encompasses approximately 3,200 acres, of which approximately 2,877 acres are considered fire-manageable/restorable. Commission experience suggests that the criteria used in the development of the 2002 Management Plan and the project review process established in that Plan are generally effective in defining protection priorities and providing Commission input on projects that could affect the Preserve. However, in response to ongoing efforts by the state and others to protect remnant and restorable Pine Bush habitat in Schenectady County, open space within and beyond the 2002 Study Area boundary was evaluated using the 2002 criteria. This, in turn, has been expanded to include an additional 450 acres of open space recommended for protection in Albany County.

Significant results of this re-evaluation include:

- An enlarged Study Area encompassing 450 acres of open space between the existing Preserve and the Schenectady County border.
- Eighteen new protection areas, totaling approximately 526 acres, were added to the Albany Pine Bush Study Area. Seventeen of these new areas (482 acres) received a Full Protection recommendation and one new area (44 acres) is recommended as open space.

- Three pre-existing protection areas adjacent to the enlarged Study Area were re-evaluated (areas 52a, 52b, and 52c). Two areas (52b and c) were elevated to Full Protection recommendations because of increased connectivity and buffer scores and the discovery of new Karner blue butterfly subpopulation.

The overall result of the re-evaluation of protection priorities is that the 2010 Management Plan envisions a Preserve of 5,380 acres. This vision is based on the recommendation that 2,180 acres be designated for full protection (i.e. protection of undeveloped portions of designated areas in their entirety). The 2010 Plan reduces the overall acreage recommended for partial protection (i.e. protection of an average 50% of a designated area) from 1,085 acres to 635 acres. Charts comparing 2002 protection recommendations with those included in this plan are presented below.



The Commission will continue to actively work with willing landowners to acquire or otherwise protect lands within the Pine Bush Study/Project Review Area, while still respecting private property rights. As in previous plans, an important component of the Commission's resource protection activities will also be the continued provision of review and comment on proposed development projects within the Albany Pine Bush Project Review Area.

IX. Implementation

The Albany Pine Bush Preserve Commission continues to face multiple financial challenges to accomplish its mission of managing and protecting the Albany Pine Bush. These include securing the resources to support an operating budget, a capital budget, and endowments. Funding and in-kind support during the first years of the Commission came from various Commission members and the New York State Legislature. Additionally, the City of Albany provided mitigation fees associated with the interim landfill. To date, more than \$30 million has been invested in the Albany Pine Bush Preserve. Currently, operating funds are drawn from the New York State budget (Environmental Protection Fund), revenue from an operating endowment, revenue from a Discovery Center endowment, revenue from the Albany Pine Bush Commission Discovery Education Center Endowment Foundation established by TrustCo Bank, landfill mitigation, private fund raising and grants from federal, state, and other public and private agencies.

The fiscal projection for the next five years is based on recent growth. Operational expenses associated with achieving the Commission's vision of an ecologically viable Preserve, public recreational opportunities along with operations for the Discovery Center and associated educational and public programs are estimated at between \$2.5 million and \$2.8 million per year. The land acquisition and protection goals identified in this plan will require an investment of an additional \$25 to \$30 million.

X. Environmental Impacts

The 1993, 1996 and 2002 Management Plans included the components of an Environmental Impact Statement (EIS). These Plans/EISs identified both beneficial and potentially adverse impacts associated with plan implementation. Ways to mitigate potential adverse impacts were also described. Consequently, the impacts of Preserve protection and management as proposed in the previous plans have already been addressed. For this reason, only impacts that will be added or changed as a result of implementation of the 2010 Management Plan are addressed in this Plan.

Adoption and implementation of the 2010 Preserve Management Plan will result in a variety of beneficial environmental and socioeconomic impacts, which are outlined below:

1. Improved protection, management and restoration of unique Pine Barrens communities and rare species, including the endangered Karner blue butterfly and other Species of Greatest Conservation Need.
2. Improved protection and management of wetlands, water resources and forested ravines and the habitat and hydrologic functions they provide.
3. Improved open space and quality of life benefits for Preserve neighbors and residents of the Capital District.

4. Improved recreational and educational opportunities for area residents, students and the general public.
5. The potential of increased property values for Preserve neighbors.
6. Greater contiguity and buffering of the Preserve, which facilitates natural ecological processes, such as dispersal, and Preserve management activities, such as prescribed burns.
7. Increased public safety due to the decreased likelihood of uncontrollable wildfires.
8. Improved management of Preserve wildlife populations to reduce the potential for damage to natural communities and conflicts with Preserve neighbors (e.g. motor vehicle accidents, property damage, nuisance, and disease transmission).
9. Maintenance and preservation of significant historical and archaeological sites that exist in the Preserve.

Potential adverse impacts associated with implementation of the 2010 Management Plan include the following:

1. Increased costs for land acquisition if purchased in full; an estimated \$25 - \$30 million will be needed to acquire the additional land proposed for full protection.
2. Increased operating costs associated with expanded management, education and outreach programs.
3. Removal of up to 705 additional acres of undeveloped property (recommended for full protection) from the tax rolls in the Towns of Guilderland and Colonie.
4. Greater short-term impacts on Preserve flora and fauna due to increased management of the Preserve.

Mitigation measures are identified and/or proposed for all of these potential adverse impacts. They include the following:

- Alternatives to fee simple acquisition are proposed to reduce costs and potential loss of tax revenue associated with resource protection.
- Continued expansion and diversification of funding through federal, state and local governments, private foundations, individuals, mitigation fees, funds from Commissioners, and grants from public and private agencies.
- Smoke and wildfire hazards will be minimized by monitoring weather conditions, modifying the size and shape of the burn, monitoring the moisture content of fuel and following site-specific burn prescriptions, as described in the updated Fire Management Plan.
- The seasonal amount, timing and frequency of management (fire, mechanical, chemical) will incorporate adequate refugia to buffer native flora and fauna from short-term impacts resulting from Preserve management.

It is therefore the conclusion of the environmental impact statement that there are substantial ecological and socioeconomic benefits associated with Plan implementation, and that any potential adverse impacts can be adequately mitigated.