

**BRADBURY MOUNTAIN STATE PARK  
& PINELAND PUBLIC LANDS**

**Management Plan**



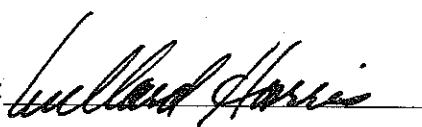
**Maine Department of Conservation  
Bureau of Parks and Lands**

**January 2011**

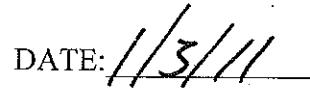
## ADOPTION CITATION

In Accordance with the provisions of M.R.S.A. §1847 (2) and consistent with the Bureau of Parks and Lands Planning Policy and Integrated Resource Policy for Public Reserved and Nonreserved Lands, State Parks, and State Historic Sites (revised December 18, 2000 and amended March 7, 2007), this Management Plan for **Bradbury Mountain State Park and the Pineland Public Lands** is hereby adopted.

RECOMMENDED:

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DATE:

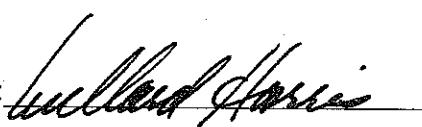
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Willard P. Harris

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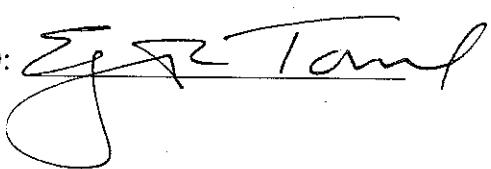
RECOMMENDED:



DATE: 1/3/11

Willard R. Harris  
Director  
Bureau of Parks & Lands

APPROVED:



DATE: 1-3-11

Eliza Townsend  
Commissioner  
Department of Conservation

ADOPTED DATE:

1-3-11

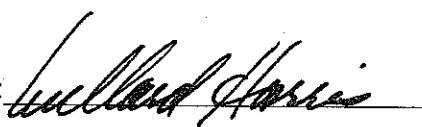
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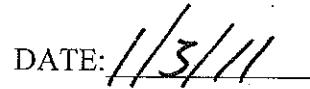
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## ***Acknowledgments***

The Bradbury Mountain State Park – Pineland Public Lands Management Plan was prepared through a collaborative effort involving contributions from the following Bureau of Parks and Lands staff:

Will Harris – *Director*  
Rex Turner – *Management Plan Coordinator*  
Kathy Eickenberg – *Chief of Planning*  
Ron Hunt – *Southern Region Parks Manager*  
Gary Best – *Southern Region Parks Assistant Manager*  
Frank Applebee – *Bradbury Mountain State Park Manager*  
Pete Smith – *Western Region Lands Manager*  
Brian Bronson – *ORV ATV Coordinator*  
Jim Brown—*ORV Recreational Trail Coordinator, Southern Region*  
Tom Charles – *Chief of Silviculture*  
Joe Wiley – *IF&W Wildlife Biologist assigned to the Bureau*  
Gena Denis – *Geographic Information System Coordinator*  
Tom Dinsmore – *Property Records Specialist*

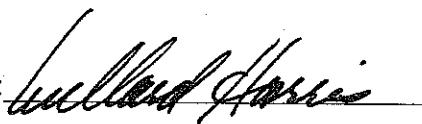
In addition, much of the material in the Plan related to natural resources, especially geology and soils, hydrology and water quality, natural communities, wetlands, ecological processes, and rare plant and animal species was provided by the Maine Natural Areas Program (MNAP). MNAP staff conducted a natural resource inventory for the Bureau and provided a detailed report, written by Andy Cutko, which is quoted from directly and paraphrased throughout the Plan.

The Bureau also acknowledges the helpful participation of the Bradbury Mountain State Park – Pineland Public Lands Management Plan Advisory Committee (Appendix A), and the many members of the public who participated in public meetings held during the preparation of this Plan.

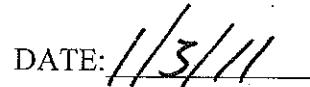
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## I. Introduction

### ***About This Document***

This document constitutes a fifteen-year Management Plan for Bradbury Mountain State Park in Pownal as well as the Pineland Public Lands in Gray, North Yarmouth, and New Gloucester. The Plan summarizes the character of the properties and their regional context and describes the planning process, but its primary function is to 1) provide a description of the resources found on the properties addressed, 2) describe management issues identified by members of the public and Bureau of Parks and Lands (“Bureau”) staff, and 3) put forth land management allocations and recommendations to be implemented over the next fifteen-year period.

One objective of the Plan is to mesh with the Bureau goal of providing a balanced spectrum of opportunities across all of the Bureau’s lands, keeping in mind the available opportunities in this specific region. In developing the management recommendations for each parcel, the Bureau has considered this broader perspective.

This plan is also a commitment to the public that these properties will be managed within prescribed legislative mandates and in accordance with the Bureau’s *Integrated Resource Policy* and its stated mission and goals. Future revisions to these commitments will occur only after providing opportunities for public comment. The Plan provides guidance to Bureau staff with responsibility for managing these properties, including a degree of flexibility in achieving the stated objectives. This document is not, however, a plan of operations. This point is especially relevant to Bradbury Mountain State Park, which, due to the nature of a campground park, has significant operational considerations.

The Bureau recognizes that some resources and management issues, most notably recreation, may undergo rapid or unanticipated changes, and a 15 year time interval may not adequately address these changes. Thus, a review of current issues and progress on implementing the Plan’s recommendations will be undertaken every five years, with a status report issued at that time to the advisory committee. If amendments to the Plan are then proposed, there will be an opportunity for public review and comment prior to their adoption. At the fifteen year interval, the Bureau will undertake a full review and revision of the Plan.

It should also be noted that combined planning for a property designated as “Park” and adjacent properties designated “Public Lands” presents special challenges, and the Bureau has had relatively few opportunities to date to provide a template for such a plan. In this case, the compelling reasons for an integrated “Parks” and “Lands” plan are clear. The ecology and recreational uses of the lands recognize no arbitrary “Parks” and “Lands” boundaries.

## ***What Bureau Properties are included in the Plan and What is the Character of the Region?***

Bradbury Mountain State Park and the Pineland Public Lands serve as the focus of this plan. The Bureau lands, easements, and trail license connecting Bradbury Mountain State Park to the Pineland Public Lands are also included in the plan, as is the historic Mayall Mills historic site in Gray. Table1, shown below, depicts relevant Bureau fee owned land by town.

**Table 1: ME Bureau of Parks and Lands Fee-owned Acreage by Town**

<b>Town</b>	<b>Acreage</b>
• North Yarmouth	• 200
• Gray	• 454.2
• New Gloucester	• 16
• Pownal	• 1,115.2
• Total	• 1,785.4

The Bradbury Mountain State Park & Pineland Public Lands Plan area is comprised of lands located in northeastern Cumberland County. The properties covered by this plan are located approximately halfway between Portland and Lewiston/Auburn. While the immediate surroundings of the properties are primarily rural with some minor suburban development, the overall area is one of the most populated regions of Maine. Cumberland County is Maine's most populous county with a 2008 population of 276,047 and a population density of 318 persons per square mile. This density is well above both the Maine and US density averages, which are 41.3 persons/square mile and 76.6 persons/square mile respectively.

The lands within this management plan represent important resources underpinning valuable habitat, water quality protection, recreational experiences, cultural features, and community sense of place. Plan input from Bureau staff and public comments/feedback shaped the plan and serve as the basis for management recommendations intending to sustain the integrity of these values. The key focus of this Plan will be management allocations and recommendations for the Bureau fee lands. However, other private and public conservation projects and lands in the vicinity of Bureau land, such as the Pineland Farms, owned and managed by the Libra Foundation, are important to the context of planning in this region and will be described in the Planning Context section.

## **II. The Planning Process and Guidance**

This section describes the Bureau's planning process for development of its management plans and the statutes and policies that guide its management decisions. The planning process includes a robust public participation effort, intended to provide input to the Bureau's management. In addition, the Bureau is guided by statutes requiring and directing the Bureau to develop management plans, and authority directing the Bureau to also create a system of ecological reserves. Overall, management of Bureau lands is guided by the Integrated Resource Policy (IRP), which itself was developed with a significant public process. Finally, the Bureau's forest management, where allowed under the multiple purpose management system defined by the IRP, is conducted sustainably, and is third party certified under the Sustainable Forestry Initiative (SFI) and the Forestry Stewardship Council (FSC) programs. The following describes these important influences guiding the development of this Plan in further detail.

### ***Public Participation and the Planning Process***

Overall, the development of management plans includes a series of steps, each involving interdisciplinary review, as well as extensive efforts to solicit and consider public comment, in order to achieve a Plan that integrates the various perspectives and needs while protecting and conserving the resources of Bradbury Mountain State Park and the Pineland Public Lands.

*Resource Assessments:* The first phase of the planning process includes a thorough study of the resources and opportunities available on the plan lands.

*Issue Identification/Public Scoping Session:* On April 1, 2010 a public scoping session was held at the Pownal Elementary School. This meeting laid out the objectives of and approach to Bureau management plans while also seeking input from the public on management issues and opportunities.

*Advisory Committee Formation and Review of Preliminary Inventory and Assessment:* A Public Advisory Committee was formed in the spring of 2010. Members of this Committee were selected on the basis of their resource expertise, and for their regional and local knowledge in areas important to the management of the plan's properties. On May 26th, 2010 this committee met in Pownal to identify key asset and values in the plan area as well as documenting issues needing attention. Ideas from this meeting were incorporated into a First Draft Plan.

*Advisory Committee Meeting on the First Draft Plan:* This draft included proposed resource allocations and proposed management recommendations, and initiated the next step in the public review process – the solicitation of public comments and a public meeting to showcase the draft plan. The key elements of the draft plan were presented to the Advisory Committee for discussion on October 18, 2010.

*Public Meeting on the Final Draft Plan:* A public meeting was held to review the Draft Management Plan and its proposed recommendations and to listen to public reactions, questions, and comments. The meeting, held on December 8<sup>th</sup> 2010 at the Memorial Elementary School in New Gloucester was well attended with a little over 50 participants.

*Commissioner's Review of the Proposed Plan, and Plan Adoption:* Comments received on the Final Draft Plan were considered as the final Plan for review by the Director of the Bureau of Parks and Lands was completed. Upon the Director's recommendation, the Plan was subject to the review and approval of the Commissioner of the Department of Conservation before it is officially adopted by the Department.

### ***Statutory and Policy Guidance***

Multiple use management plans are statutorily required for Public Reserved Lands pursuant to Title 12 MRSA § 1847 (2), and must be prepared in accordance with the guidelines set forth in the Integrated Resource Policy revised and adopted in December 2000 by the Bureau. It should be noted that there is no statutory directive to produce management plans for Maine State Parks. These laws and policies direct the Bureau to identify and protect important natural, ecological, and historic attributes; enhance important fisheries and wildlife habitat; provide opportunities for a variety of quality outdoor recreation experiences; and provide a sustained yield of forest products by utilizing forest management techniques and silvicultural practices that enhance the forest environment.

### ***Summary of the Resource Allocation System***

The Resource Allocation System is a land management-planning tool developed in the 1980s, and formalized in the *Integrated Resource Policy* (IRP), adopted in December 2000. The Resource Allocation System, which assigns appropriate management based on resource characteristics and values, is based on a *hierarchy* of natural and cultural resource attributes found on the land base. The hierarchy ranks resources along a scale from those that are scarce and/or most sensitive to management activities, to those that are less so. The resource attributes are aggregated into seven categories or “allocations,” including (from most sensitive to least sensitive): special protection, backcountry recreation, wildlife management, remote recreation, visual consideration, developed recreation, and timber management.

This hierarchy defines the type of management that will be applied depending on the particular resource attributes present, with *dominant* and *secondary* use or management designations as appropriate to achieve an integrated, multi-use management.

Within this plan, parcels designated as “Parks” (vs. “Public Lands”), DO NOT have resource allocations. However, there are specific management recommendations pertaining to “Park” designated parcels.

## ***Forest Certification***

In 1999 the Bureau made the decision to demonstrate exemplary forest management through participation in two nationally recognized sustainable forestry certification programs. The Bureau was awarded certification of its forestlands under the Sustainable Forestry Initiative (SFI) and the Forest Stewardship Council (FSC) programs in 2002. These third-party audits were conducted to determine if these lands were being managed on a sustainable basis. Successful completion of the FSC/SFI systems also qualified the Bureau to enter into the “chain of custody” program to market its “green-certified” wood. The process for enrollment in this program was completed in 2003, with certified wood now being marketed from Bureau managed lands.

## ***Ecological Reserves***

The Maine Forest Biodiversity Project (MFBP) was formed in 1994 to explore and develop strategies to help maintain Maine’s existing native species and the ecosystems that contain them. The MFBP was a consensus-based collaborative effort involving approximately one hundred individuals representing a diverse spectrum of interests and opinions: landowners, sportsmen, educators, advocates for property rights, foresters, wildlife and land conservation professionals, and representatives of the scientific community, state and federal agencies, and the business community. The inventory of potential ecological reserves conducted by the MFBP took place between January 1995 and October 1997, with guidance from a twenty-member scientific advisory panel.

Based on the work by the MFBP the Maine Legislature in 2000 authorized the designation of ecological reserves on Department of Conservation lands, and 68,974 acres were designated by the Bureau of Parks and Lands Director at that time. *Currently there are no designated ecological reserves in this plan area nor is it anticipated that there will be any upcoming designations in the area.*

### **III. Executive Summary of the Plan**

#### **Vision for Management of Bradbury Mountain State Park and the Pineland Public Lands**

*Bradbury Mountain State Park and the Pineland Public Lands will continue to serve environmental, recreational, and community functions that enhance the quality of life for local residents and area visitors alike. Management activities will be guided by the broad goal of helping retain and celebrate the natural and cultural character of the plan area.*



*View of Hiking at Bradbury Mountain State Park's Summit*

Overall, the properties will provide public access to a predominantly natural appearing environment where evidence of human activity harmonizes with the natural environment. On the Public Lands parcels, including the Pineland Public Lands and the Bradbury-Pineland corridor fee-owned properties, that natural environment will be managed to produce sustainable timber in a sensitive and complimentary manner to trail-based and consumptive (i.e., hunting, fishing) recreation activities as well as water-quality and wildlife management goals.

Bradbury Mountain State Park, traditionally the primary destination for most visitors will serve as the hub of visitor services, picnicking and general day use, trails access, camping, and events. Public information available at the Park will provide visitors with an understanding of the expanded scope of recreational opportunities made possible by the linkage of the Park to the Pineland Public Lands, including the Bradbury-Pineland Corridor. Developed recreation resources, including the playground, park headquarters, parking areas, developed restroom facilities, and areas of higher density trails will be based at the park. Developed park resources will respect the forested setting and will strive to mesh with the pastoral/forest character of the Town of Pownal. Signs and structures will impart a sense of appreciation for the resources shared and stewarded. Staff, signs, publications, or any other forms of communication will welcome users and advocate low-impact recreation practices. Site improvements, including but not limited

to potential campground enhancements, will be designed to meet evolving outdoor recreation demand and will be in line with park character.

Bradbury Mountain State Park will be a trail destination, with desirable, diverse, and sustainable trails. Trail enthusiasts will have access to well-managed trails during all seasons. Trails nearer the park's core, centered on Rt. 9, will have higher densities than other areas and will generally experience greater numbers of users. Trails on the adjacent "Corridor Lands" and the Pineland Public Lands will have lower trail densities and will typically serve local community recreationists as well as trail users looking to expand further from the park as part of longer trail experiences. The extended trail opportunity achieved by connecting Bradbury Mountain State Park and the Pineland Public Lands provides opportunities for longer distance trail uses, including a new venue for trail running and mountain biking events unique to southern Maine. The corridor and Pineland Public Lands trails, including trailheads, will be well-designed for intended recreational uses and respect their environmental and cultural settings.

Continual efforts will be made to ensure that evolving trail demand and patterns of use are understood and addressed to the extent possible with existing resources. Furthermore, ongoing communication will keep open the possibility of forging landowner and user-groups partnerships to establish new conservation and trail linkages expanding connectivity in the region.

Non-trail recreation experiences will continue to be valued and managed on all properties. Hunting access will continue where not prohibited by statute or deed and will be deliberately considered during all planning and development activities. The scenic importance of undeveloped and culturally important vistas, experienced from local roads and from trails, will be managed to ensure quality of place and community heritage is not unduly compromised.



*Above: hawk-watching atop Bradbury Mt.*

Management activities will be shaped by the knowledge that Bureau properties play a vital role in regional habitat functioning and ecological services such as water quality protection. Bureau management decisions and activities will minimize environmental impacts while looking for opportunities to improve wildlife habitat and protect environmental quality. As with most all aspects of management, wildlife habitat and ecological management considerations will be explored with appropriate governmental and non-governmental partners.

Timber management will occur as part of multi-use management objectives for Public Lands. The Bureau will establish communications that help local residents as well as visitors understand the purpose and intent of harvests. Timber management will dovetail with recreation, scenic, and wildlife planning and will showcase best management practices for nurturing multiple forest values.

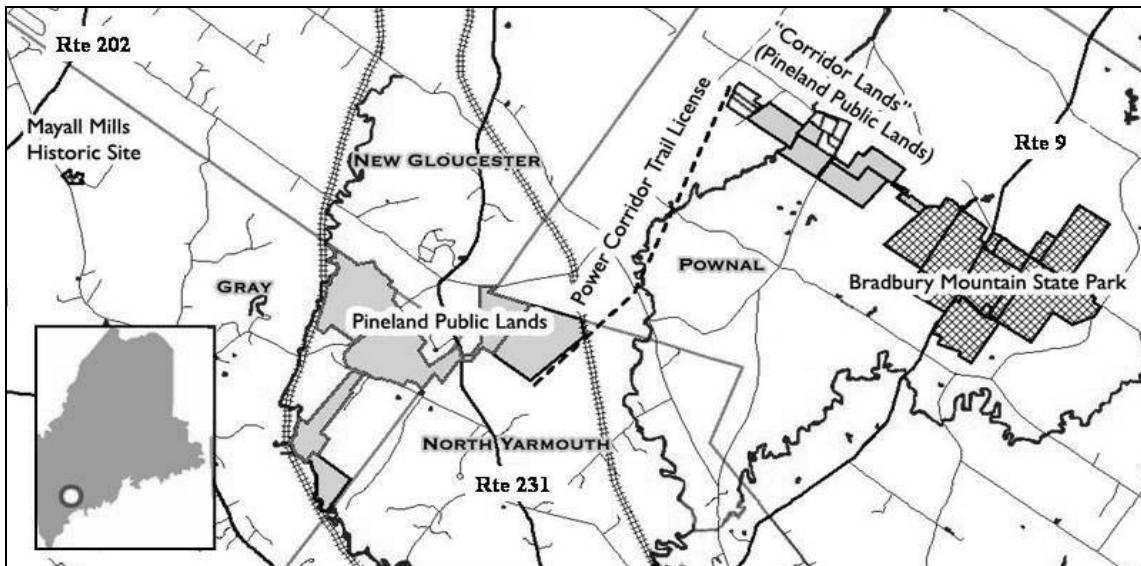
The overarching vision of this plan is that Bradbury Mountain State Park and the Pineland Public Lands will be a cherished local and regional asset where people can reap the rewards of conserved, well-managed outdoor areas providing a range of experiences. These properties will continue to be a close-to-home outdoor recreation resource for residents of southern Maine as well as a destination for visitors from further away regions, states, and even nations.



*Left: Bureau managed Royal River Shoreline in Gray*

**Figure 1: A General Overview of the Plan Area.**

Note that the crosshatched fill represents Parks designation, that the solid gray fill represents Lands designation, and that the Power Corridor is a trail license and the land ownership in that case belongs to Central Maine Power Company.



## **Overview of Resource Allocations**

Resource Allocations are categories used to define the dominant resource value for a defined (mapped) area. The Bureau uses a hierarchy of specific allocations to manage lands designated as Public Lands under a multiple-use mandate. The dominant allocations listed below cover only the Public Lands portions of the plan; Bradbury Mountain State Park is listed separately.

**Table 2: Dominant Allocations (in Acres)**

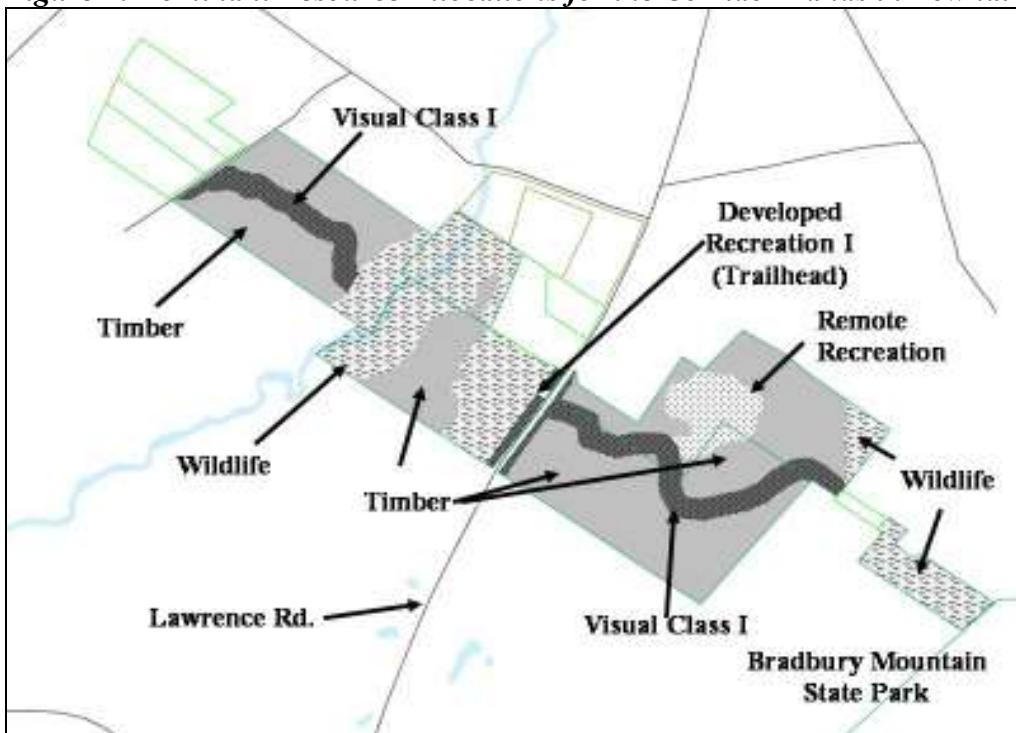
	Pineland Public Lands acres in allocation type	% of Pineland Public Lands acres in each allocation type	Bradbury Mountain State Park (Total Acres)
<b>Special Protection – Natural Area</b>	15.81	1.7%	
<b>Special Protection – Historical/ Cultural Area</b>	6.13	0.7%	
<b>Wildlife Management</b>	205.38	23.3%	
<b>Remote Recreation</b>	10.45	1.2%	
<b>Visual Consideration – Class I</b>	116.33	13.2%	
<b>Developed Recreation - Class I</b>	10	1.1%	
<b>Timber Management</b>	517.16	58.6%	
<b>Total</b>	881.26		730

*-Please note: Dominant acreages are representations based on GIS metrics and do not sum to total plan area acres due to measuring error and limits of GIS precision.*

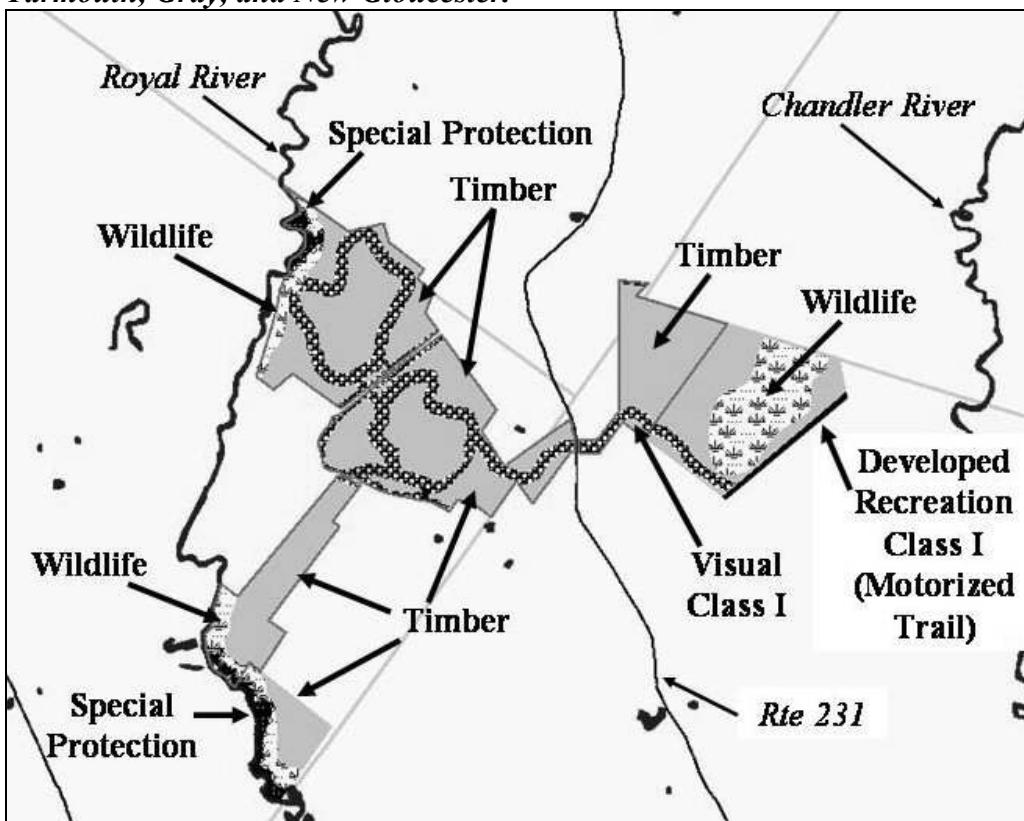
*-The following allocations from the IRP were not applied to the Pineland Public Lands: Special Protection—Ecological Reserve, Backcountry Non-mechanized, Backcountry Motorized, Developed Recreation Class II.*

Figures 2 & 3 (on the following page) map dominant resource allocations on the Corridor Lands and at Pineland Public Lands. It should be kept in mind that resource allocations are not used for easements nor are they applied to any acreage designated as “Parks”.

*Figure 2: Dominant Resource Allocations for the Corridor Lands in Pownal*



*Figure 3: Dominant Resource Allocations for the Pineland Public Lands in North Yarmouth, Gray, and New Gloucester.*



## **Summary of Issues and Management Recommendations:**

### **Bradbury Mountain State Park & Pineland Public Lands Plan Issues and Management Recommendations**

<b>Natural Resources Management Issue or Opportunity</b>	<b>Recommendation</b>
<u>Deer Wintering Areas and Trails:</u> specific locations on Bureau properties contain identified winter cover for deer. In the case of the Deer Wintering Area in centered on Thoits Brook in Pownal, the newly developing trail linking Bradbury Mountain State Park with the multi-use trail on the Central Maine Power corridor and the Pineland Public Lands crosses a portion of this wintering area. This may be an issue when deep snow-cover is present, as trail uses such as snowshoeing and cross-country skiing could be stressful to wintering deer in the area.	Bureau staff will develop and post seasonal trailhead messaging informing trail users on best practices to minimize recreation impacts on deer. Trail closures may be warranted during severe winter conditions.
<u>Deer Wintering Area Management:</u> Deer Wintering Area management should strive to provide ongoing cover, and as such, should work towards having sufficient softwood regeneration to replace existing, more mature, cover.	The Bureau Wildlife Specialist will guide any harvesting within Deer Wintering Areas. Harvesting will be performed specifically to aid the area's capacity to serve as winter deer cover.
<u>Invasive Species:</u> Morrow's honeysuckle ( <i>Lonicera morrowii</i> ), an invasive species, is occurring along the Royal River in the Pineland Public Lands and is impacting a population of wild leek ( <i>Allium tricoccum</i> ), a documented Maine rare plant species (State Rank S3). Additionally, invasive Japanese Barberry ( <i>Berberis thunbergii</i> ) is found on the Tryon Mountain tract. In both cases, eradication is challenging and likely to require ongoing efforts.	Monitor the Royal River floodplain site and consider options for supporting the wild leek population (i.e., evaluate options for invasive species control on site). Explore the potential for volunteers to assist with invasive species control efforts at either site or any other sites to be found. Consider including a control/eradication effort as part of an educational/interpretive opportunity focused on the issue of invasive species.

<b>Natural Resources Management Issue or Opportunity</b>	<b>Recommendation</b>
<p><u>Tryon Fields:</u> the Tryon fields located adjacent to the Lawrence Rd. in Pownal serve aesthetic, recreational (trail &amp; hunting), cultural/historic, and wildlife functions. Breeding bird habitat, including both field and shrub-scrub habitat, is of particular interest. Therefore, it is important that potential conflicts between these functions and values be addressed. The local land trust has expressed an interest in maintaining the historic/cultural and wildlife values of these fields.</p>	<p>The field maintenance regime, including scheduled bushhogging, will be established with the guidance of the Bureau wildlife specialist. Areas of open field as well as areas of juniper growth will be maintained. Apple and pin cherry trees will be allowed to establish themselves, though the overall management goal is to keep forest trees from overtaking the field complex.</p> <p>The Bureau should explore the feasibility of controlled burning as a means to maintain the fields. This concept, brought forth through the Advisory Committee, requires more study. The Bureau should explore a partnership with the local land trust to assist in the maintenance of the fields.</p>

<b>Historic/Cultural Issue or Opportunity</b>	<b>Recommendation</b>
<p><u>Mayall Mills:</u> the Mayall Mills site in Gray is not well connected with either Bradbury Mountain State Park or the Pineland Public Lands in terms of public information and public awareness.</p>	<p>Continue to provide online interpretive materials about Mayall Mills, but also consider looking for opportunities to engage visitors or potential visitors to Bradbury Mountain and Pineland in order to raise awareness of this locally available historic site.</p>
<p><u>Lawrence Rd. Trailhead:</u> there is concern that, if not properly sited and designed, a parking area/trailhead along the Lawrence Rd. has the potential to detract from the scenic aspects of the Tryon Fields while also impacting one of the Tryon family homestead sites.</p>	<p>Work with the local land trust in the locating and design work to establish a parking area supporting 5-8 vehicles. Focus on creating a parking area that minimizes the visual impact from both the fields above the site and the view of those fields from the road. Balance safety and maintenance needs with aesthetic considerations.</p>

<b>Historic/Cultural Issue or Opportunity</b>	<b>Recommendation</b>
<u>Historic Quarry Site:</u> the summit of Tryon Mountain is the site of a former feldspar quarry and retains evidence of that past land use.	Develop a designated trail spur to the quarry site, with due deference to safety. Consider targeted tree harvesting with the objectives of improving vistas from the summit area as well as opening up the immediate site to allow visitors to better understand and appreciate the historic elements of the site. Consider Explore developing onsite interpretive signage and/or print/web materials telling the story of the site.
<b>Recreation Issue or Opportunity</b>	<b>Recommendation</b>
<p><u>Trail Density:</u> Concern has been expressed through the management plan process that there is potential for a proliferation of trails west of the Park boundary that could negatively impact the wildlife habitat, opportunity for relative solitude, and overall recreational experience of those seeking a quiet walk in the woods. There is apprehension that these areas might have trails established to a similar degree as the trail system on the eastern (campground) side of the park, which has a relatively high density of trails, especially mountain bike trails.</p> <p>At the same time, there is interest on the part of other individuals/groups to diversify loop trail options in these same parcels to meet the growing demand for trail experiences at Bradbury Mountain State Park. Thus, there are divergent opinions on what number of trail segments is appropriate in the linkage corridor parcels</p>	<p>Establish a single trail in the Corridor Lands as the dominant trail feature meeting the needs of multiple non-motorized uses. Design the trail to accommodate mountain biking, equestrian use, hiking, snowshoeing, ungroomed cross-country skiing, and trail running. Consider how the trail can provide a recreational link with other trail opportunities while minimizing impact on other resource values including wildlife and dispersed recreational experiences such as hunting and nature observation.</p> <p>Develop two short destination trail spurs/loops connecting to the main corridor trail: (1) a spur trail to the historic quarry site on Tryon Mountain, and (2) a spur/loop trail west of the Lawrence Road to a view point overlooking the Tryon Fields and continuing on to link back to the main corridor trail before it crosses Chandler Brook.</p>



*(Left) Mountain Biking at Bradbury Mountain State Park)*

Recreation Issue or Opportunity	Recommendation
<p><u>Trail Construction, Access, and Private Lands:</u> Bradbury Mountain State Park has benefited from the labor and generosity of volunteers. Trail improvements and expansions have grown the number of trail users looking to Bradbury Mountain State Park for rewarding trail experiences.</p> <p>In some cases, though, unapproved trail construction and use has proven to be a friction point with abutting private landowners.</p>	<p>Continue to work with volunteer groups for the benefit of recreation and natural resources at Bradbury Mountain State Park. Establish a communications protocol to identify and quickly address trail use issues, including unauthorized trail building. Develop positive messages and preventive approaches to minimize problems, including clear messages at trailheads and trail junctions about designated uses and trail etiquette.</p>
<p><u>Snowmobile Access to Bradbury Mountain:</u> Public input identified an interest in providing an easier snowmobile route to the summit of Bradbury Mountain. The current approach along the Switchback Trail was described as being too challenging for many riders. At the same time, concern was expressed regarding the ecological impact of snowmobiles on juniper at the summit. Additionally, comments suggested snowmobile use was potentially a deterrent or detraction for snowshoers and skiers.</p>	<p>Consider options to improve snowmobile access to the summit Any new route should minimize clearing/construction and should avoid as much as possible vegetative impacts in the summit area (such as impacts to juniper bushes).</p>
<p><u>Possibility of an ATV Trail Connection through the Pineland Public Lands:</u> Late in the planning process, the Gray - New Gloucester ATV Club brought forth a request to have the plan retain the option for an ATV trail to cross the Pineland Public Lands in order to connect to the multi-use power corridor trail, whose license allows for ATV use. A formal route proposal has not been provided, and several comments from landowners adjacent to Pineland have shared strong concern over this proposal.</p> <p>At the same time, the plan is a long term plan and the ATV community has concern that a potential link in a developing trail network could be lost.</p>	<p>Continue to work with the ATV community and private landowners, through the Bureau's Off-Road Vehicle Division, to improve connectivity of the trail network in the plan vicinity, including better linking the power corridor trail segment into the wider system. Work to find other alternatives to having an ATV trail located across the Pineland Public Lands as the preferred option. Consider using the Pineland Public Lands only if other options are exhausted. In considering a route through the Public Lands, create a public process to give other interested parties, especially neighboring landowners, an opportunity to learn about any proposal and to provide their comments and concerns.</p>

Recreation Issue or Opportunity	Recommendations
<p><u><b>Bradbury-Pineland Trail Connector (Powerline Corridor Trail to Existing Trails at the Pineland Public Lands):</b></u></p> <p>Part of the impetus and emphasis in acquiring the lands connecting Bradbury Mountain State Park with the Pineland Public Lands was to provide a trail link between these two conservation properties. The trail license agreement along the power corridor finalized the connection, though as of 2010, no trail exists on the ground between the power corridor and the Pineland Public Lands' existing trails.</p> <p>Before completing the multi-use trail link from Bradbury Mountain State Park to the Pineland Public Lands, there needs to be a better understanding of the level of demand and types of use patterns that may emerge once the entire system is fully linked via a constructed trail. It is unknown to what degree hikers, bikers, skiers, and equestrians will use the power corridor trail to link the Park and Pineland.</p> <p>Further, both the existing South Loop and North Loop trails at Pineland need extensive repairs before additional use is introduced. If, in addition, new uses are to be accommodated at Pineland, any trail repair work should be preceded by a thoughtful redesign of the current trails.</p>	<p>Monitor trail use in the Corridor Lands, the CMP power corridor, and the Pineland Public Lands via informal and/or formal methods, including ongoing input from trail users.</p> <p>As resources allow, and as interest and demand is demonstrated, build off the existing work performed by the Off-Road Vehicle Division along the power corridor by extending a non-motorized trail segment from the power corridor to the Pineland Lands. Locate the trail through the southwest corner of the North Yarmouth portion of the Pineland Lands, across Route 231 (including appropriate measures to address safety at this crossing given limited sight distances), and connect into the existing South Loop at the Pineland Lands.</p> <p>Explore, as a first step in accommodating new uses on the Pineland Lands, redevelopment of the entire South Loop Trail for use by mountain bikers, skiers (ungroomed) and equestrian uses, taking into consideration soils and other potential site limitations. Redefine as resources allow.</p> <p>Consider developing a parking /trailhead area off the Town Farm Road for non-motorized access to the South Loop and CMP corridor trails once this new system is in place.</p> <p>Retain the North Loop Trail for existing uses - hiking, walking and snowshoeing. Do not redevelop for additional uses at this time.</p>

Recreation Issue or Opportunity	Recommendations
<p><b><u>Mountain Biking Demand:</u></b>  The planning process has shown great public interest in and passion for mountain biking in the plan area. The vast bulk of that interest has been focused on the Corridor Lands in Pownal. Once a link trail is established from the Power Corridor Trail to the South Loop Trail, bikers will have a continuous route between the Park and the Pineland Lands. However, the Pineland Lands do not presently garner a high level of interest among mountain bikers, especially compared to the Park. Given the proximity of the Pineland Farms private mountain biking trails to the trails on the Public Lands, it is possible that interest could grow for an expanded mountain biking opportunity in this area.</p> <p>.</p>	<p>Explore redeveloping the South Loop Trail at Pineland to accommodate mountain bikers and equestrians (see previous recommendation).</p> <p>Explore the potential for new singletrack mountain bike trails on the Pineland Public Lands. Any new trails would be secondary to timber management. Since a harvest is scheduled to occur within two years of the adoption of this Plan, there may be potential to work with the mountain bike community to develop trails following the timber harvest. Re-entry for timber harvesting would not occur for 15 to 20 years, providing an extended period of undisturbed trail use.</p> <p>Work with trail user groups in the design and development of any new trails or in redevelopment of existing trails, following trail development standards outlined in the Integrated Resource Policy (IRP) and other industry-accepted standards. Design any singletrack trails to also provide positive experiences for trail runners, walkers, and perhaps snowshoers.</p> <p>Explore the potential for a singletrack mountain bike trails on the Pineland Public Lands. New singletrack trails would not be explored in the vicinity of the Northern Loop and would be primarily integrated in Timber Dominant allocations. A harvest is slated to occur within two years of the adoption of this plan and there may be potential to work with the mountain bike community to develop trails following the timber harvest. It is anticipated that re-entry for timber harvesting would not occur for approximately 15 years following the cutting. Any trail development in addition to the proposed connector trail between the South Loop and the Power Corridor Trail would not trigger visual timber harvesting standards nor would trail development</p>

Recreation Issue or Opportunity	Recommendations
<p><u>Hunting Access:</u> A strong sentiment was expressed at public meetings regarding the need to maintain traditional hunting access. Part of this issue revolves around the regional context of southern Maine, where higher development pressures and land postings have combined to reduce hunting opportunities.</p>	<p>Inform the public through signage and postings when specific areas are open or closed to hunting and appropriate precautions including wearing blaze orange. Designate trail segments running through the corridor public lands as multi-use, not subject to the firearm rules designed for “marked hiking trail.” Apply this same approach to any trail segments developed to link the power corridor trail through the Pineland Lands to the existing South Loop Trail. However, continue current policy for the existing North and South Loop Trails in the Pineland Public Lands . These trails will have a 300’ zone on each side of the trail, including the trail itself, in which loaded firearms may not be carried or discharged.</p>
<p><u>Target Shooting at the Pinelands Unit:</u> Target shooting in the pit located in the southern half of the Pinelands Public Lands has become an issue of concern. Safety and litter issues, including shooting from the trail and leaving debris on site, were raised as problems. Additionally, the plan calls for creating a new trailhead in the vicinity of the gravel pit. Thus, trail use here may well increase. Conversely, there has been some negative reaction to new signage closing the pit to shooting, in that it is used for target shooting leading up to hunting season.</p>	<p>Close the pit area will be closed to shooting as it is within 300’ of a marked hiking trail.</p> <p>Post signage to educate trail users and hunters alike regarding hunting rules, seasons, and best practice. This includes expressing that the overall area is open to hunting, subject to trail rules and standard hunting laws.</p>
<p><u>Access &amp; Fees:</u> There is some evidence of some users accessing the Park trails, which do require a pass or fee, from points outside the park.</p> <p>Visitors are not generally charged fees to use Public Lands, although the Bureau may charge fees to cover costs of maintaining facilities such as parking areas, trailheads and trails.</p>	<p>Use signage and “iron rangers” to collect fees at entrance points to Bradbury Mountain State Park. Promote season passes as an efficient way for repeat visitors to pay for park entry. For use of Public Lands parcels, consider promoting voluntary donations at trailheads and parking areas.</p>

<b>Recreation Issue or Opportunity</b>	<b>Recommendation</b>
<p><u>Park Amenities:</u></p> <p>As resources become available, there may be opportunities to improve park amenities. There is interest in further enhancing the Park to provide visitors with amenities that are or may become in demand. Potential examples include showers in the day use area for trail users, trail improvements, electric and water hook-ups for campers, an expanded campground, a dump station in the campground, and other possible developments to better serve a public that is increasingly looking for and appreciating these types of features. Given Bradbury Mountain State Park's status as a popular outdoor recreation destination well-suited to those looking for front-country, managed trail experiences, amenity improvements may not detract from visitor experiences as they might in settings where visitors seek more primitive experiences.</p> <p>Additionally, there are less visible potential improvements needed to support operations.</p>	<p>Manage the Park and make facility improvements consistent with the spirit of the vision stated in this plan. Continue to provide new facilities and enhanced amenities. Being sensitive to keeping these improvements in harmony with the forested/rural character that makes the Park a desirable destination. Consider developing a Master Plan for improvements in consultation with a Landscape Architect.</p>

<b>Timber Management Issue or Opportunity (Pineland Public Lands)</b>	<b>Recommendation</b>
<p>Because pines are not particularly useful as winter deer cover, only a small proportion of softwood acres have good cover value.</p>	<p>Emphasize and encourage, as possible, fir and hemlock cover, including when below a pine superstory.</p>
<p>Small populations of black gum and American hornbeam, neither species very common in Maine, are found on these lands.</p>	<p>The special protection areas along the Royal River will encompass these species. However, there are known black gum specimen outside of those areas. Foresters developing harvesting prescriptions should be aware of that black gum may be present and should not be marked for cutting.</p>

<b>Transportation and Administrative Issue or Opportunity</b>	<b>Recommendation</b>
<p><u>Interagency Coordination:</u> The resources described in this plan involve management activities and responsibilities associated with three divisions of the Maine Bureau of Parks and Lands. Bradbury Mountain State Park falls under Southern Region Parks, the corridor lands and the Pineland Public Lands are the responsibility of the Western Region Public Lands, and the Off-Road Vehicle division oversees and manages the power corridor trail and trail license. However, there are opportunities for improving efficiency as well as visitor experiences made possible by improved intra-agency coordination.</p>	<p>Designate Bradbury Mountain State Park staff to oversee recreation management of the park and the corridor lands (as far as the power corridor). Designate the Off-Road Vehicle Program to maintain the segment of multiple-use trail along the power corridor and work with Central Maine Power to maintain the license agreement. Designate the Public Lands staff to manage trails at the Pineland Public Lands. To achieve coordination and efficiencies, designate Park staff to provide public information for all areas as well as be a partner in recreation projects to the extent possible (such as managing volunteers, performing routine trail maintenance, posting trailhead information, etc.).</p> <p>Encourage all Bureau staff to communicate and collaborate to provide a coordinated recreation experience between the various managed parcels. At least annually, a planning/work review workshop should be held to estimate projected trail corridor work, discuss recreation trends/observations/data, and to update management activities of note.</p>



*A rocky outcropping in the Corridor Lands.*

## **IV. The Planning Context**

In developing the Bradbury Mountain State Park & Pineland Public Lands Management Plan, an overview of the region's culture and history, natural and wildlife resources, other public and private conservation lands, and other topics, gives important context to management priorities.

### ***Cultural & Historical Overview of the Region***

Bradbury Mountain State Park and the Pineland Public Lands are located in an essentially rural setting still retaining an agricultural influence and the overall appearance and character of small New England towns. Together, the towns of Pownal, North Yarmouth, Gray, and New Gloucester are home to the two properties and the lands connecting them. While the immediate surroundings of the two properties are mostly rural, the larger context is that the area is flanked by major (by Maine standards) population centers. For instance, the Portland metropolitan area is close by, as are the cities of Lewiston, Auburn, and Brunswick. Furthermore, the area is less than half a day's drive from very significant population centers in the southern New Hampshire and greater Boston area.

The lives of generations of local residents reflect this rural character. Farming, milling lumber, and quarrying granite and feldspar sustained residents and powered the economy. Today, this tradition continues, albeit to a lesser degree. Still, the mix of agriculture practice and artifact, combined with small woodlot forest management flavors life in the immediate region. Additionally, recreation and nature-based tourism has grown as a part of local life and the local economy.

At the same time, the region is characterized by access to larger cities and to the coast. The properties are not far from I-295, Route 1, and are adjacent to the shopping destination of Freeport, which draws large volumes of tourists to destinations such as L.L. Bean. Thus, the communities surrounding Bradbury Mountain State Park and the Pineland Public Lands are at once marked by traditional, small town culture and yet are close to different cultural elements and opportunities in Freeport, Portland, and other relatively close centers.

### ***Regional Context and the Imperative to Protect Quality of Place***

*Charting Maine's Future: An Action Plan for Promoting Sustainable Prosperity and Quality Places* (Brookings Institution, 2006) discusses Maine's patterns of population movement and development. The excerpts below, in addition to generally illustrating significant patterns related to development also provide insight specifically on the region surrounding Bradbury and Pineland:

- In the period from 2000 to 2006, 77 percent of growth has taken place in surrounding towns, newer emerging towns, and rural areas distant from traditional centers. Sparsely populated rural towns are the most popular destinations.

• “Southern Maine saw home construction and other development change the character of 100,000 of its rural acres between 1980 and 2000—some 30 percent of its total. Cumberland County alone lost over 56,000 rural acres—a 39-percent reduction.”.

In short, much of the development and population shifting that has taken place within the last 20+ years has been a migration out of relatively more concentrated villages and cities into rural areas (notably to rural areas in Maine’s more populated southern counties). As stated by the Royal River Conservation Trust in their 2005 *Royal River Region Conservation Plan*, “in a relatively short period of time, the Royal River region has experienced profound changes to its natural landscapes. Suburban dwelling lots are replacing farm and forestland while shrinking available habitat for birds, reptiles, and mammals”. This challenging trend is of tremendous significance to the regional landscapes of which Bradbury Mountain State Park and the Pineland Public Lands are part.



*A View from the Southern Boundary of Bradbury Mountain State Park*

Bradbury Mountain State Park and the Pineland Public Lands are assets to the quality of place in Cumberland County in particular and southern Maine in general. Maine Quality of Place is described by the Maine State Planning Office as Maine’s as:

*“...our majestic mountains, unbroken forests, open fields, wild rivers, pristine lakes, widely-celebrated coast, picturesque downtowns, lively arts and culture, authentic historic buildings, and exceptional recreational opportunities.” (Maine State Planning Office, 2009).*

While the characteristics of Bradbury Mountain State Park and Pineland Public Lands stand on their own merit, it is the larger setting that emphasizes their regional value. A case in point is made by **Table 3** on the following page, which shows the proximity of the two properties to Maine’s top population centers.

**Table 3: Plan Properties' Proximity to Maine's Top Population Centers.**

Municipalities w/in 25 miles	2007 Population	Municipalities w/in 26-50 miles	2007 Population
Portland & South Portland	85,573 (combined)	Biddeford, Saco, & Sanford	59,668
Lewiston & Auburn	58,893	Augusta	18,367
Brunswick	21,806		
<b>Total:</b>	166,272		78035
<b>Grand Total (Residency 0-50 miles, Top 10 Population Centers): 244,307</b>			

These figures underscore the regional significance of the Bradbury and Pineland properties. The two Bureau properties sit within a region facing significant development pressures and are relatively close to a large segment of Maine's population. They, along with other public and private conservation areas, play a key role in providing the outdoor settings and opportunities that help shape regional quality of place.

### ***Natural and Geologic Resources in the Region*** (Source: Cutko, 2010)

#### **Climate**

The region's climate is influenced by both maritime and continental weather patterns. Southwest Maine has the warmest summer temperatures in the state, with a mean maximum July temperature of 81° F and a frost-free season of 140 to 160 days. Winter temperatures are relatively mild, with a mean minimum January temperature of 6° F. There is approximately 47 inches of precipitation a year; the proximity to the coast limits snowfall to approximately 60 inches per year.

The warmest and driest soils in the state occur in this region, due to a relatively mild climate, low moisture surplus, and the abundance of coarse, well drained soils. Along with the South Coastal Region, this is the only part of the state that has an average annual soil temperature between 45 and 60 (US EPA 2009).

### **-The Physical Landscape: Geology, Soils, and Hydrology-**

#### **Bedrock Geology**

Nearly all the lands in the region are underlain by an igneous pluton (mass of intrusive granitic rock) that extends from Freeport westward into New Hampshire. This highly resistant, acidic bedrock includes white granite, muscovite (a mineral related to mica), pegmatite, feldspar and sedimentary inclusions. In some places, smaller amounts of gray, layered metamorphic rock are interleaved with the granite and pegmatite (Maine Geologic Survey 2008).

#### **Surficial Geology & Soils**

In more recent geologic history, roughly 13,000 years ago, glaciers scoured and shaped the landscape. Glaciers scraped the resistant summits, scattering till across the uplands,

and depositing finer grained sediments across the lowlands as glacial melt waters entered the ocean. Some areas, such as along the Royal River, reflect past sea level rise by having clay soils laid down when the area was previously beneath sea level.

#### Hydrology and Wetlands

All of the lands covered by this plan are located within the Royal River Watershed, which drains 140 square miles and eventually empties into Casco Bay in Yarmouth. According to the Royal River Conservation Plan, created in 2005 by the Friends of the Royal River, “Crystal Lake in Gray, Sabbathday Lake in New Gloucester, and Runaround Pond in Durham are the only large surface water bodies in the region, and there are only five large wetland complexes dotting the landscape”.

#### Forests (Source: Cutko, 2010)

While the forests and fields of the region show much evidence of past human activities, over a century of forest recovery has allowed natural disturbances to become dominant factors influencing forest structure and composition.

Natural disturbance regimes in the Bradbury/Pinelands region are many of the same disturbances at work throughout southern Maine. In upland forests, the dominant canopy dynamics are primarily driven by single and multiple tree disturbances, encouraging tree regeneration in small gaps of less than  $\frac{1}{4}$  acre (Seymour et al 2002). The average rate of mortality in mature stands is approximately one half to one percent per year. Because most stands are made up of several species, stages of growth and eventually death occur at different rates. The dominant hardwood trees, red oak, sugar maple and yellow birch, can persist as canopy trees for over 200 years. Conifers such as hemlock and white pine also persist over time due to their longevity and shade tolerance. In fact, many of the tree species in mixed hardwood forests are shade-tolerant so regeneration tends to maintain species composition. (TNC,2000)

On a larger scale, the primary natural disturbance factors are wind, insects, and ice storms. These disturbance agents are evident on the landscape today, in the form of dead and dying beech trees that have succumbed to the introduced Nectria scale insect, and scattered damaged canopies of hardwoods on a few south facing slopes, remnants from the 1998 ice storm. The non-native hemlock wooly adelgid (*Adelgis tsugae*) has not yet arrived at Pinelands/Bradbury, but its threat is real, given the abundance of hemlock in the region.

Catastrophic disturbances such as tornados and thunderstorm downbursts affect the region very infrequently (on the order of hundreds of years), creating widespread pit-mound topography, large gaps, and coarse woody debris. In addition, naturally occurring fires in the region are rare, on the order of several hundred years (Lorimer and White 2003, US Forest Service 2008).

Pests of spruce-fir forests, such as spruce budworm and spruce bark beetle, are less of a concern here than in northern Maine because of the relatively small component of spruce and fir.

## **Recreation Resources in the Region**

### **Overview**

#### *Hunting, Fishing, and Wildlife Watching*

The general region this plan is located in is one bounded by Maine's highest population areas. Portland, Brunswick, and Lewiston/Auburn surround the region. As such, there is relatively high demand for access to open areas to hunt and fish. This point was made clear by participants in this planning process, especially given development pressures and the increasing occurrence of posted land. As reported in a September 6<sup>th</sup> 2008 article in the Boston Globe citing the Maine Small Woodlot Owners' Association, estimated 36 percent of small woodlot owners had posted their land as of 2005. This is a rise from 15 percent in 1991. While that number does not specify county data, it is reasonable to conclude that counties such as Cumberland with more fragmented, smaller forest owners are likely to have experienced a rise in posted land.

The MDIFW stocks the Chandler River and Royal River with both brook trout and brown trout. Fish survey reports from 2000 list brook trout, brown trout, pumpkinseed sunfish, and American eel as being found stream survey (Mitchell Center for Environmental and Watershed Research's PEARL website – [www.pearl.maine.edu](http://www.pearl.maine.edu)).

While not necessarily within the planning context of this plan, it should be noted that Sebago Lake, Maine's second largest lake and a renowned cold-water fishery is located just to the west of the region and undoubtedly is a resource used by sportsmen and women in the region. Likewise, Casco Bay is accessed from a number of points relevant to the context of this plan. Casco Bay serves as a significant fishery, especially for striped bass.

### **Motorized Recreation**

#### *ATV Riding*

There are several ATV clubs operating within proximity to the plan area. The GNG ATV Club serves the communities of Gray and New Gloucester and the North Yarmouth ATV Riders is based out of North Yarmouth. Additionally, 4 other ATV clubs operate in Cumberland County. According to the 2009-2014 Maine State Comprehensive Outdoor Recreation Plan (MESCOPR), Cumberland County has 128 miles of funded ATV trails.

#### *Snowmobiling*

Four snowmobile clubs operate in the immediate vicinity of the plan area. The Gray Sno Wolves, the Royal River Riders, Royal River SC, and the Tri-Town Penguins all serve as volunteer organizations supporting the snowmobile trails within and around the plan area. On a slightly larger geographic scale, it can be noted that as of 2008, there were 642 miles of snowmobile trails funded in Cumberland County (ME SCORP, 2008).

## Human -Powered Recreation

### *Paddling*

Compared to some Maine locations, the area in which this plan is set does not have as many opportunities for paddling, though the Royal River below Rt. 9 in North Yarmouth provides approximately six miles of easy, flatwater paddling. However, when considering resources slightly further afield, the paddling becomes more diverse. Access to Casco Bay (and numerous islands along the Maine Island Trail) serves sea kayakers. The Sebago Lake watershed to the west/northwest provides more lake and pond paddling.

### *Cross-country Skiing*

Pinelands Farms in Gray has 25 Km of ski and snowshoe trails situated on 2,500 acres of farmland hills. These trails are adjacent to, but separate from the Pineland Public Lands. Pineland Farms provides groomed trails enabling skate-skiing. They also provide rentals and lessons in addition to hosting cross-country ski events. Fees apply.

Libby Hill, also in Gray, provides a variety of skiing trails on 5 properties owned by the Town of Gray, SAD 15, Gray Community Endowment, and Mathew Morrill Trust. Several multi-use trails on-site are designed to enable cross-country skiing, in addition to other seasonal uses. More information on Libby Hill can be found on page 36.

### *Mountain Biking*



It is currently difficult to quantitatively assess the miles of mountain bike trails in the plan vicinity. However, there are more trails available in the region than those available at Bradbury Mountain State Park, which provides over 18 miles of trails open to mt. biking.

Recently, a Greater Portland chapter of the New England Mountain Bike Association (NEMBA)

was formed to support mountain biking in the Cumberland County area. In an October 2009 charter statement listed on the NEMBA website (<http://www.nemba.org>), the Greater Portland Chapter of the New England Mountain Bike Association expressed that,

“The area surrounding Portland, Maine is situated near many excellent mountain biking trails and potential future opportunities. Some of these trails are highly developed and protected for future user groups while others are simply rogue paths cut in the land by area riders. The city of Portland is home to approximately 64,000 people while the surrounding areas include around 230,000 residents. Many of these people enjoy being outside as often as possible, and a great deal are cyclists.

Currently, there is no unified group representing the interests of, and channeling the energy, of the local mountain bike community. An impressive number of people in the area have come out of the woodwork expressing interest in supporting and being involved with a local NEMBA chapter. The community appears to have sufficient interest in the group and a great deal of energy ready to be focused towards

maintaining and improving the trails networks we are so fortunate to have around town.”

Currently, mountain bike trails, both single track and along multi-use gravel trails are provided at the Androscoggin Riverlands State Park, located 20 miles north of Bradbury Mountain State Park. In addition, there are preliminary discussions on developing mountain bike trails at Range Pond State Park in Poland, which is within approximately 30-40 minutes of the plan area. Additionally, there is a Central Maine NEMBA chapter which has worked to develop trails located in the 45 minute to 1.5 hour range from the plan area (to the north, in Kennebec County).

#### *Hiking, Walking, and Trail Running*

Healthy Maine Walks ([www.healthymainewalks.org](http://www.healthymainewalks.org)), a coalition of trail and health agencies and organizations, lists 27 trail destinations within “Greater Portland/Casco Bay”. While this is not a full accounting of walking trails, it is a data source showing that there are numerous trails intended to serve walking, hiking, and running interests. Additionally, the 2008 MESCORP shows 35.7 miles of day-hiking trails on Bureau properties in Cumberland County. Please note that the Healthy Maine Walks and the Bureau trail mileage overlap (several Bureau sites are listed on the Healthy Maine Walks registry).

#### *Boating*

The plan area is not as rich in water-based recreation resources as some plan areas. This is based on a relatively limited supply of waterbodies.

***Table 4: State Owned or Assisted Boat Launching Facilities in the Royal River Region***

Water Body	Location	Type	Owner
Crystal Lake	Gray	Trailer	Town of Gray
Royal River	North Yarmouth	Hand Carry	Town of North Yarmouth
Sebago Lake*	Raymond	Trailer	MEDIFW

\*Included due to relative proximity and significance.

***Snowshoeing, an activity showing growth in the last decade, is available on numerous trails in the plan area.***



## **Other Bureau of Parks and Lands Properties in the Region**

The Maine Bureau of Parks and Lands actively manages four other properties within 25 miles of Bradbury Mountain State Park (not including the Pineland Public Lands and Mayall Mills).

- Mackworth Island in Falmouth provides a 1 ¼ mile trail encircling the island. Visitors to Mackworth Island experience views of Casco Bay and witness the historical aspect of the property, which was donated to the state in 1946 by Governor Percival Proctor Baxter.
- Range Pond State Park in Poland Springs welcomes visitors who enjoy the wide sandy beach as they swim, picnic and play. Leisurely walks are possible on the two-miles of easy trails comprised of old logging roads and railroad beds. A new group shelter, playground, and handicap accessible enhancements have been completed.
- Wolfe’s Neck Woods State Park in Freeport is founded on the 1969 gift of more than 200 acres given to the State by Mr. and Mrs. Lawrence M.C. Smith of Freeport. The park contains varied ecosystems, including climax white pine and hemlock forests, a salt marsh estuary, and the rocky shorelines on Casco Bay and the Harraseeket River. Numerous trails explore the habitats of this coastal park. A picnic area and group picnic shelter is available on-site.
- The Androscoggin Riverlands State Park is Maine’s newest state park and consists of 2,800 acres with 12 miles of river frontage. Walking, bicycling, hiking, snowmobiling, ATV riding, equestrian use, hunting, fishing, boating and wildlife observation are all available at this park adjacent to Maine’s second largest urban area.

Additionally, numerous Bureau properties are within 50 miles of Bradbury Mountain State Park. Those not yet mentioned include:

- 5 coastal beach parks – Crescent Beach, Reid, Popham, Ferry Beach, and Scarborough Beach
- 6 State Historic Sites – Colburn House, Eagle Island, Fort Baldwin, Fort Edgecomb, Fort Popham, and Whalesback Shell Midden
- Access to rocky, coastal views at Two Lights State Park
- Camping, freshwater swimming, trails and more at Sebago Lake State Park, which is the Bureau’s largest campground.
- Trails and river access at Dodge Point Public Lands.



*Wolfe’s Neck Woods State Park  
– Freeport, ME*

## ***Other Conservation Land and/or Outdoor Recreation Providers in the Region***

### **The Maine Department of Inland Fisheries and Wildlife (MDIFW)**

MDIFW manages Morgan Meadow Wildlife Management Area, which is a 1,072 acre management area in Raymond abutting the Gray town line. It is also worth noting that Inland Fisheries and Wildlife also operates the Gray Animal Farm, which is a major destination for those looking to see captive animals and learn about their conservation.

### **The Royal River Conservation Trust (RRCT)**

RRCT is a regional trust initially formed through the merger of the Yarmouth Land Trust, North Yarmouth Land Trust, New Gloucester Preservation Trust and the Friends of the Royal River. More recently, in 2009 the Pownal Land Trust merged into the entity as well. The Royal River Conservation Trust (RRCT) currently holds 28 easements and owns six preserves in the Royal River region. Currently, the RRCT is working to raise private funds to compliment Land for Maine's Future dollars to conserve the Pisgah Hill area in New Gloucester. This project is of particular note in that it would provide connectivity to the Bradbury Mountain State Park –Pineland Public Lands corridor.

### **Pineland Farms**

Pineland Farms' mission, as shared on its website ([www.pinelandfarms.org](http://www.pinelandfarms.org)), is to “provide a productive and educational venue that enriches the community by demonstrating responsible farming techniques, offering educational opportunities and encouraging a healthy lifestyle through recreation.”

The land is held by the nonprofit October Corporation, a nonprofit title-holding company of the Libra Foundation. Pineland Farms, Inc. is a separate nonprofit that runs all farm and education programs. Pineland Farms leases the property from October Corporation. Approximately 25 kilometers of professionally designed, well-kept trails are open for trail running, walking and hiking, orienteering, mountain biking, Nordic skiing, and dry-land Nordic ski training. Activities such as tennis and ice-skating are available as well.

*Right: Pineland Farms provides a range of recreation opportunities on their trail system. Fees apply. Photo source: Pineland Farms*



## **Libby Hill Forest**

Libby Hill Forest consists of over 6 miles of multipurpose recreational trails in Gray, Maine which are overseen by the Gray Parks and Recreation Department.

**Table 5: Trails at Libby Hill Forest**

Trail	Length (Miles)	Ski Trail Rating	Groomed for Skiing
<a href="#">Ghost Trail</a>	0.4	Back Country Skiing only	No
<a href="#">Lynx Trail</a>	0.6	Back Country Skiing only	No
<a href="#">Moose Odyssey</a>	3.1	Intermediate	Yes
<a href="#">Deer Run</a>	0.4	Easy	Yes
<a href="#">Holmquist Hollow</a>	0.4	Difficult	Yes
<a href="#">Turkey Trot</a>	0.6	Easy	Yes
<a href="#">Outback Trail</a>	1.0	Difficult (hiking intermediate)	No, back country conditions
<a href="#">Harold Libbey Trail</a>	1.2	Difficult (hiking Intermediate)	No, back country skiing, mountain biking, or hiking only



*(Left) “Ghost Trail” – Libby Hill Forest  
(photo source: [www.libbyhill.org/](http://www.libbyhill.org/))*

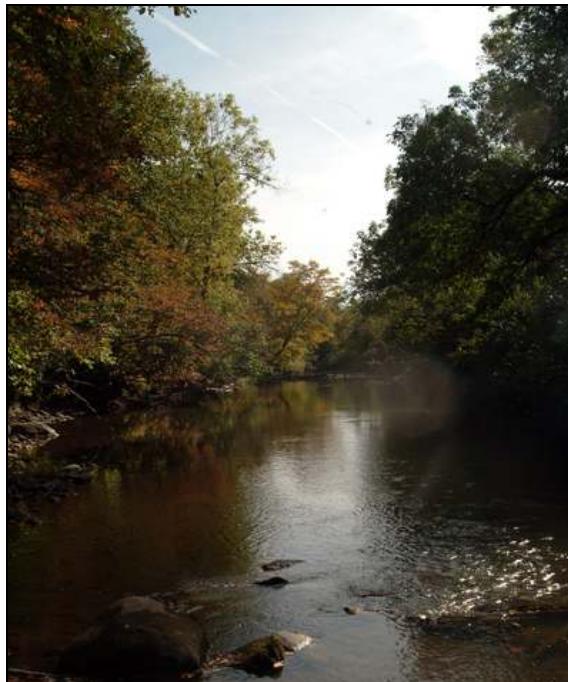
## **Planning Implications**

The areas encompassing and adjacent to Bradbury Mountain State Park and the Pineland Public Lands are in a region of Maine that has far greater development pressures than some other regions.

According to the Brookings Institution (2006), Southern Maine lost over 25% of its rural acreage to suburban development between 1980 and 2000.

This region of the state is within an hour's drive of a large segment of Maine's population. Additionally, this area is closer than many Maine regions to the much more populous greater Boston area. Together, these factors, combined with an attractive setting, make the open space available for recreation here highly valuable. Therefore, the need to effectively manage recreation to maximize diverse opportunities, reduce conflict, and protect resource values is essential.

According to the 2009-2014 Maine State Comprehensive Outdoor Recreation .Plan, in 2000, Cumberland County (the county in which this plan is located) had approximately 318 persons per square mile. This is much higher than the national average of 79.6 persons and is vastly higher than the state average of 41.3 persons. Furthermore, this trend of population growth in Cumberland County is predicted to rise (Renski, 2008). Therefore, it is reasonable to assume that over the 15 year lifespan of this management plan, more and more people are likely to look upon Bradbury Mountain State Park and the Pineland Public Lands for recreational opportunities. This is especially true given recent patterns of recreationists looking to recreate close to home (due to less vacation time and higher gasoline prices).



*Royal River*

## **V. Resources, Issues, and Management Recommendations for Bradbury Mountain State Park and the Pineland Public Lands**

### ***Lands included in this Plan***

This Plan includes Bradbury Mountain State Park in Pownal, the Pinelands Public Non-Reserved Lands in Gray and North Yarmouth, and lands (both fee and easement) linking the two state parcels via a “Corridor” and a 3-mile multi-use trail secured by lease that follows a CMP transmission line corridor. There are 192 acres of fee-owned lands 40 acres of Bureau-held easements Bureau land in the Corridor Lands. The lands expanding the Park and making this linkage possible were acquired between 2002 and 2008 through a collaborative effort involving the Bureau of Parks and Lands, the Pownal Land Trust, and the Town of Pownal. Funding for this project, called the Bradbury-Pineland Project, was provided by the Land for Maine’s Future Program (LMF), the Bureau of Parks and Lands, and private sources. Additional funds from the Bureau’s Off-Road Vehicle Program and the federally provided Recreational Trails Program (RTP) were used to construct the multi-use trail connecting the Bradbury and Pinelands state lands. In addition to securing lands and rights linking the two Bureau properties, Bradbury Mountain State Park was expanded by 137 acres as part of the LMF project.

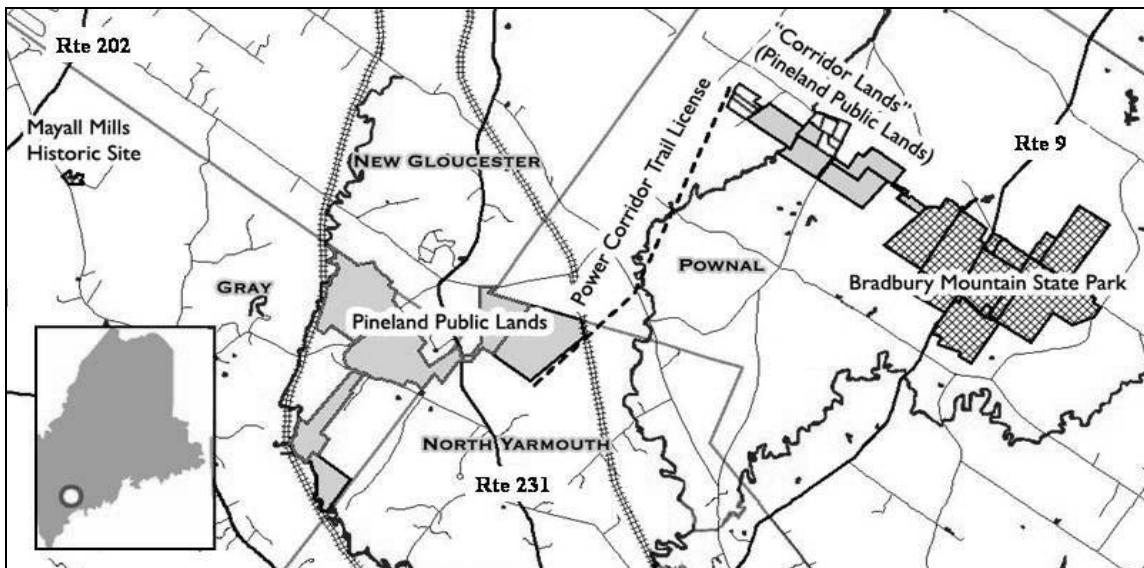
Lands incorporated in this plan include acres designated “Parks” and acres designated “Public Non-Reserved Lands” (see **Figure 4**, following page). These two designations have differing management rules and regulations. Parks are generally more intensively used, include an on-site management presence; and users must pay an entry fee. Reserved and non-reserved lands are generally open to the public for free, and are more multi-use - for example uses may include timber management.



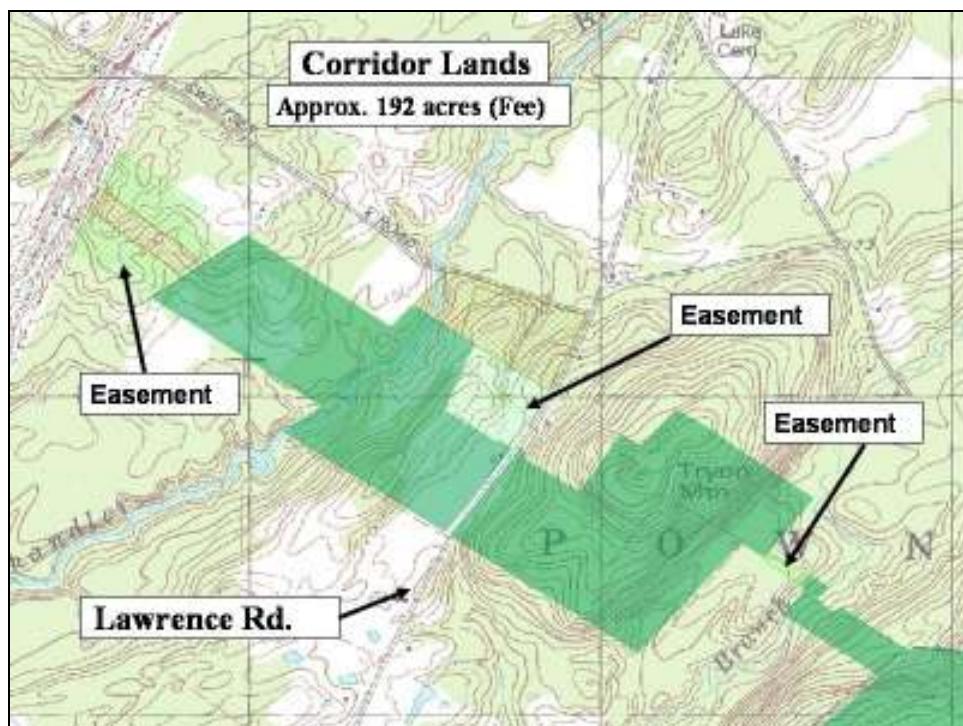
*New Playground at Bradbury Mountain State Park*

**Figure 4: A General Overview of the Plan Area.**

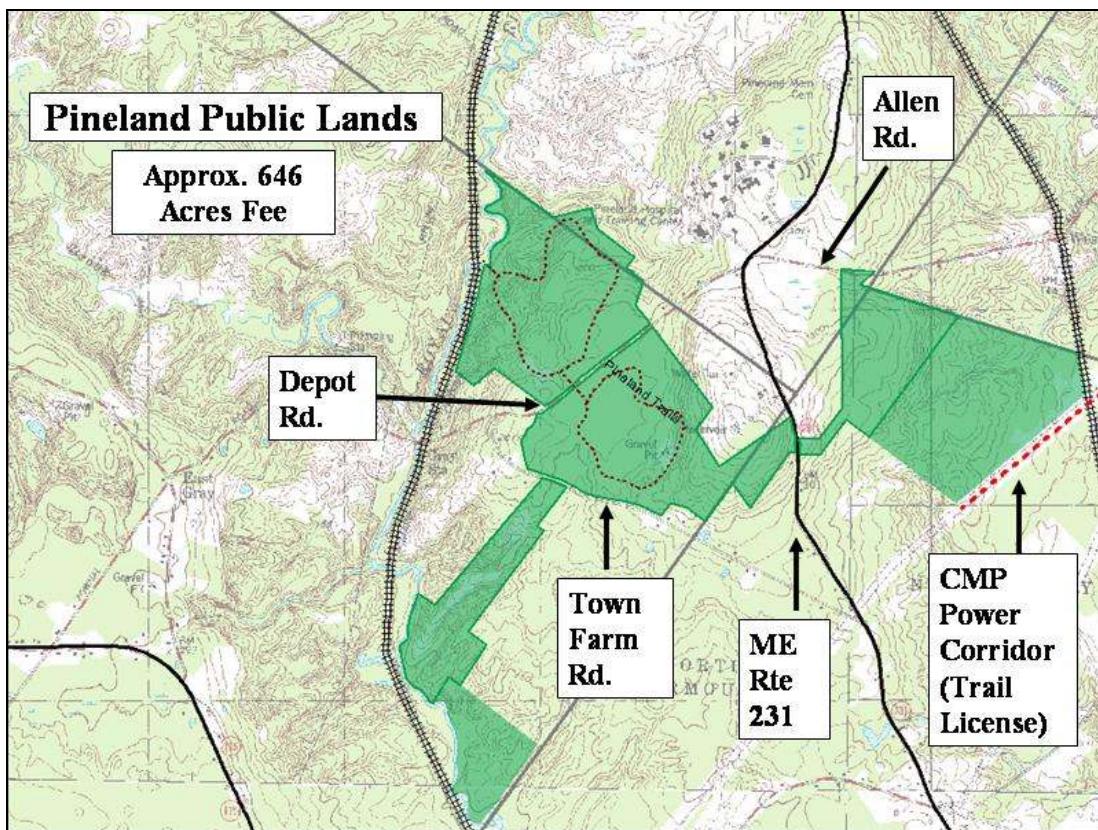
Note that the crosshatched fill represents Parks designation, that the solid gray fill represents Lands designation, and that the Power Corridor is a trail license and the land ownership in that case belongs to Central Maine Power Company.



**Figure 5: Corridor Lands (Pownal)**

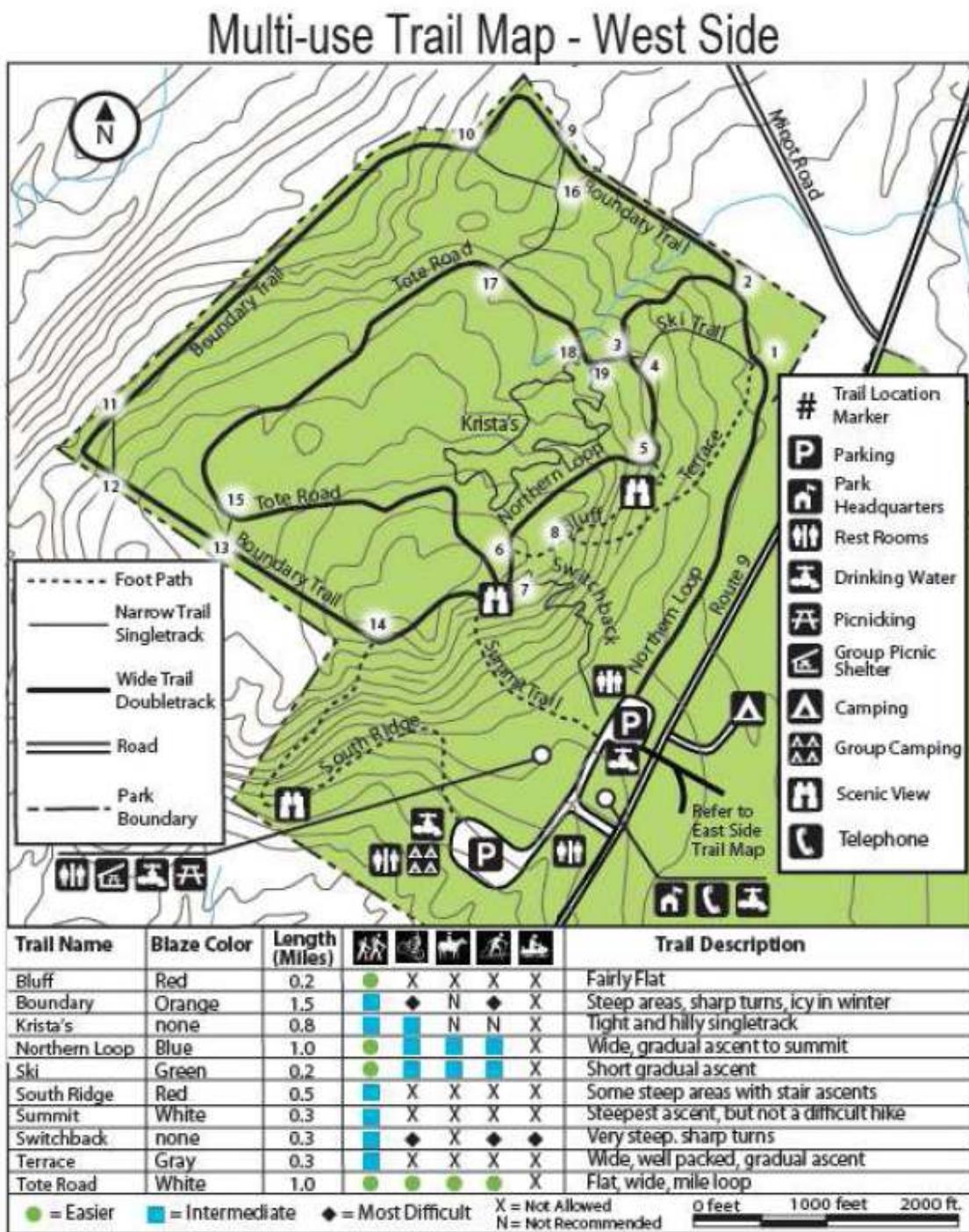


*Figure 6: Pineland Public Lands (North Yarmouth, Gray, New Gloucester)*

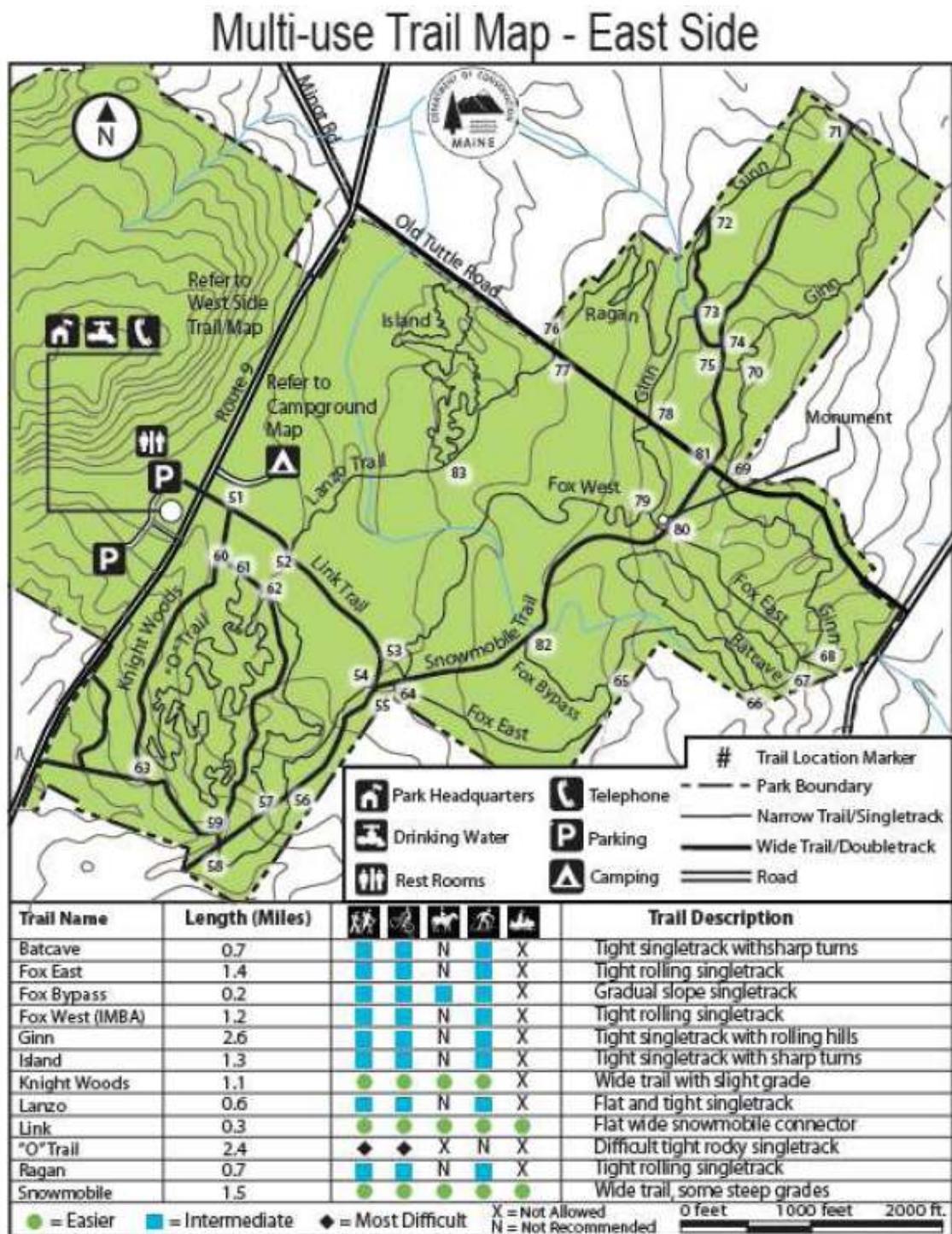


*"Singletrack" Mountain Bike Trail – East Side of the Park*

*Figure 7: Bradbury Mountain State Park – West Side*



*Figure 8: Bradbury Mountain State Park – East Side*



## **Vision for Management of Bradbury Mountain State Park and the Pineland Public Lands**

Overall, the properties will provide public access to a predominantly natural appearing environment where evidence of human activity harmonizes with the natural environment. On the Public Lands parcels, including the Pineland Public Lands and the Bradbury-Pineland corridor fee-owned properties, that natural environment will be managed to produce sustainable timber in a sensitive and complimentary manner to trail-based and consumptive (i.e., hunting, fishing) recreation activities as well as water-quality and wildlife management goals.

Bradbury Mountain State Park, traditionally the primary destination for most visitors will serve as the hub of visitor services, picnicking and general day use, trails access, camping, and events. Public information available at the Park will provide visitors with an understanding of the expanded scope of recreational opportunities made possible by the linkage of the Park to the Pineland Public Lands, including the Bradbury-Pineland Corridor. Developed recreation resources, including the playground, park headquarters, parking areas, developed restroom facilities, and areas of higher density trails will be based at the park. Developed park resources will respect the forested setting and will strive to mesh with the pastoral/forest character of the Town of Pownal. Signs and structures will impart a sense of appreciation for the resources shared and stewarded. Staff, signs, publications, or any other forms of communication will welcome users and advocate low-impact recreation practices. Site improvements, including but not limited to potential campground enhancements, will be designed to meet evolving outdoor recreation demand and will be in line with park character.

Bradbury Mountain State Park will be a trail destination, with desirable, diverse, and sustainable trails. Trail enthusiasts will have access to well-managed trails during all seasons. Trails nearer the park's core, centered on Rt. 9, will have higher densities than other areas and will generally experience greater numbers of users. Trails on the adjacent "Corridor Lands" and the Pineland Public Lands will have lower trail densities and will typically serve local community recreationists as well as trail users looking to expand further from the park as part of longer trail experiences. The extended trail opportunity achieved by connecting Bradbury Mountain State Park and the Pineland Public Lands provides opportunities for longer distance trail uses, including a new venue for trail running and mountain biking events unique to southern Maine. The corridor and Pineland Public Lands trails, including trailheads, will be well-designed for intended recreational uses and respect their environmental and cultural settings.

Continual efforts will be made to ensure that evolving trail demand and patterns of use are understood and addressed to the extent possible with existing resources. Furthermore, ongoing communication will keep open the possibility of forging landowner and user-groups partnerships to establish new conservation and trail linkages expanding connectivity in the region.



***Bradbury Mountain State Park and the Pineland Public Lands will continue to serve environmental, recreational, and community functions that enhance the quality of life for local residents and area visitors alike. Management activities will be guided by the broad goal of helping retain and celebrate the natural and cultural character of the plan area.***

Non-trail recreation experiences will continue to be valued and managed on all properties. Hunting access will continue where not prohibited by statute or deed and will be deliberately considered during all planning and development activities. The scenic importance of undeveloped and culturally important vistas, experienced from local roads and from trails, will be managed to support quality of place and community heritage is not unduly compromised.

Management activities will be shaped by the knowledge that Bureau properties play a vital role in regional habitat functioning and ecological services such as water quality protection. Bureau management decisions and activities will minimize environmental impacts while looking for opportunities to improve wildlife habitat and protect environmental quality. As with most all aspects of management, wildlife habitat and ecological management considerations will be explored with appropriate governmental and non-governmental partners.

Timber management will occur as part of multi-use management objectives for Public Lands. The Bureau will establish communications that help local residents as well as visitors understand the purpose and intent of harvests. Timber management will dovetail with recreation, scenic, and wildlife planning and will showcase best management practices for nurturing multiple forest values.

The overarching vision of this plan is that Bradbury Mountain State Park and the Pineland Public Lands will be a cherished local and regional asset where people can reap the rewards of conserved, well-managed outdoor areas providing a range of experiences. These properties will continue to be a close-to-home outdoor recreation resource for residents of southern Maine as well as a destination for visitors from further away regions, states, and even nations.

### ***Character of the Lands***

Situated on Route 9 in the Town of Pownal, Bradbury Mountain State Park is only 30 minutes from Maine's two largest population centers, Portland to the south and Lewiston-Auburn to the north. This heavily used Park attracts visitors who enjoy picnicking, hiking, mountain biking, bird-watching and camping on its 731 wooded acres. Bradbury Mountain is the only state park in southern Maine to offer shared-use trails for horseback riders, mountain bikers and snowmobilers. Snow shoe rentals are available.

Sculpted by a glacier, Bradbury Mountain is the park's most outstanding natural feature, though it is not a major "mountain." Bradbury Mountain is less than 500 feet high. Hiking to the overlooks at the top of the mountain rewards the viewer with a panorama looking out over a coastal plain to the ocean, across a largely wooded landscape that comes alive with fall foliage. The abrupt rock massif that forms the mountain contributes to thermal air currents that attract birds during migrations, and birders are often seen at the overlooks in the spring, watching the return of eagles, ospreys, assorted hawks and

songbirds. A series of trails traverse the park, and are shared by hikers, mountain bikers, and horses. Remains of historic dwellings, paddocks, and old feldspar mine add interest to the trails.

The Corridor Lands form a string of conserved properties reaching northwestward from the northwest corner of the Park. The fee and easement properties in this cluster reach approximately 1.66 miles (straight-line) to the power corridor and its associated trail license. The properties cross Tryon Mountain., another low but locally significant hill top, as well as both Thoits Brook and the Chandler River. The lands provide habitat for deer and a variety of wildlife; and include old fields that serve wildlife in the summer, and sledders in the winter.

Located on both sides of Route 231, the Pineland Unit includes 646 acres of land in New Gloucester, Gray and North Yarmouth. This rolling forest land, surrounds the privately-held Pineland Center. The undeveloped public lands here help fill the growing need for open space and forest-based outdoor recreation in populous Cumberland County.

Recreation opportunities at the adjoining Pineland Center— with extensive groomed cross country ski trails and run/bike trails- complement the relatively more primitive trails on the Pineland Public lands. The two existing trails at the Pineland Public Lands are accessed at a trailhead on Route 231. The property also includes over 1.25 miles of shoreline along the Royal River. The variety of habitats on this unit provides the opportunity to see quite a range of wildlife. Upland species include white-tail deer, red fox, snowshoe hare, red squirrel, gray squirrel, ruffed grouse, woodcock, and wild turkey. Where the forests meet the fields, more than 8 miles of edges provide especially valuable habitat for many animals, including bluebirds, meadowlarks, and kestrels.

#### *Acquisition History:*

-*Bradbury Mountain State Park*: Bradbury Mountain State Park is one of the five original state parks established on lands purchased in 1939 from the federal government. Subsequently, gifts from Helen Cowan (79 acres in 1951), the US Department of Agriculture (173.2 acres in 1955), Charles Knight, Jr. (1.1 acres in 1962), Peter Bowman (20.1 acres in 1968), L.A. Marshall CO. (153 acres in 1996), Peggy Ragan (15.9 acres in 2004), and Robert and Linda McMahon (9.3 acres in 2007) have added to the park. Purchases after 1939 have added another 279.7 acres.

-*Pineland Public Lands-Corridor Lands adjacent to Bradbury Mountain State Park*: From 2002 to 2008, 192.1 acres of fee land have been purchased for Bureau ownership. Additionally, 39.5 acres of easement have been purchased. Some of the funding for these acquisitions has come through the Land for Maine's Future program (see box below).

*Pineland Public Lands*: the Pineland Center, which was first known as the Maine School for Feeble-Minded, opened in 1908 and closed 1996. It was developed as a campus for mentally disabled children and had a 28-building campus and 1600-plus acres when closed. During operation, much of the acreage associated with the center was cultivated to produce food for the center's residents and staff. In 2000, the State of Maine divided the property and sold a portion, including the former Pineland Center campus, to the

October Corporation, the real estate arm of the Libra Foundation. The remaining lands not sold to the October Corporation are now held by the state as the core of the Pineland Public Lands.

Since 2000, the portion of the Pineland property sold to the Libra Foundation has been developed to become “Pineland Farms”, a “5,000-acre working farm, diverse business campus and educational and recreational venue” (source: Pineland Farms website, [www.pinelandfarms.org](http://www.pinelandfarms.org)).

In 1999, the Bureau purchased 110 acres in North Yarmouth to be added to the Pineland Public Lands. A trade with the Cayuga Corporation that same year added 53 acres.

***The Land for Maine’s Future*** (LMF) Program has funded several projects along Bradbury-Pineland corridor. The LMF Program also helped to fund acquisition of several parcels in the 1990s that added 250 acres to Bradbury Mountain State Park. Other partners of the trail corridor include the Casco Bay Estuary Project Habitat Protection Fund and Pownal Land Trust. (Source: Maine State Planning Office - [www.maine.gov/spo/lmf/index.htm](http://www.maine.gov/spo/lmf/index.htm))



*Monument at the Tryon Field Site*

## **Natural Resources (*Source: Cutko, 2010*)**

### ***Geology and Soils***

With the exception of the Bradbury and Tryon mountain summits, soils in the region tend to be deep, well to moderately-drained sandy loams. Lyman, Dixfield, and Marlow soil series are the most frequent soil types. These are shallow to moderate depth, well to excessively drained soils formed in till. Lyman and Dixfield fine sandy loams are typically on ridges and slopes, with Marlow soils occurring in more gentle surfaces. Lowlands along streams and wetlands are underlain by soils of the Scantic-Buxton-Lamoine group. These are deep, poorly drained soils formed in glaciomarine or glaciolacustrine deposits on coastal lowlands and river valleys, with the Scantic type occupying the lowest position, and Lamoine and Buxton types on adjacent uplands.

### ***Hydrology and Wetlands***

The Royal River is the core hydrological feature associated with this plan. The Pineland Public Lands borders the main stem in two areas. The corridor lands in Pownal include relatively short segments where the Chandler River and Thoits Brook each pass through the properties. Both of these streams, like the entire landscape in which the properties are set, empty into the Royal River as it flows toward Casco Bay.

The Maine Department of Environmental Protection assigns water quality ratings based on dissolved oxygen levels, bacteria levels, the abundance and diversity of aquatic life (i.e., notably macro-invertebrates), and the relative presence or absence of discharges and dams. The classification system is used to direct the State in the management of its surface waters, protect the quality of those waters for their intended management purposes, and direct the State to enhance the quality to achieve those purposes. The Royal River is rated Class A (the second highest rating; suitable for drinking after disinfection) above the confluence of Collyer Brook. The river below that point receives a Class B rating (suitable for swimming). State ownership at the Pineland Public Lands is held both above and below this classification break point.

There are no large wetland complexes found on the properties in this plan. However, that is not to say that wetlands do not exist on these properties. Table 5 (below) shares Maine Department of Inland Fisheries & Wildlife wetland data obtained as part of the Natural Resource Inventory performed by the Maine Natural Areas Program.

### ***Ecological Processes/Disturbance Patterns***

*Disturbance Patterns:* the public lands in the region looked very different a century ago than they do today. Nearly all of the forestland has re-grown from abandoned pasture and cultivated fields. Nonetheless, after over a century of re-growth, forests today exhibit a relatively natural mix of composition and structure.

**Table 6: Bureau Managed Wetland & Wading Bird Acres within Plan Area**

Unit	Forested Wetlands	Open Wetlands	Total Wetlands	Wading Bird Habitat
Bradbury Mt. State Park	33.0	35.3	68.3	25.3
Pinelands Public Lands (including corridor lands)	26.7	15.3	42	0.0
<b>TOTAL ACRES</b>	<b>59.7</b>	<b>50.5</b>	<b>110.3</b>	<b>25.3</b>

In lowland forests along the Royal River, Chandler River, and Thoits Brook, natural disturbance includes beaver flooding and small areas of windthrow. Beavers build dams for safe access to the hardwoods they prefer to eat. When active, beaver ponds flood adjoining uplands, enlarging wetlands and creating new areas for wetland species to colonize. Once the hardwoods within a safe distance of the pond are gone, beavers often abandon their dam and build a new dam in a different location. These abandoned ponds typically slowly fill with sediment and eventually transition from marshy wetlands back to uplands. By creating and abandoning impoundments along the stream course, beavers create a mosaic of habitats for other plant and wildlife species.

Wind is not known to damage large areas in this landscape type; however, when it comes with ice, tens to hundreds of acres of forests can be damaged. Windthrow typically tends to impact fairly small patches in areas with poorly and very poorly drained soils, at the edges of stands, or within stands compromised by insect damage. Downbursts and small twisters will occasionally impact an area one-half to three-quarters of an acre in size and larger. Impacts at the stand level are generally temporary because damage is generally to limbs, and the main stem of the tree often recovers. Small gaps fill in from undamaged portions of trees, from surrounding trees, or from understory trees that are likely to be similar shade-tolerant species. In the most severe cases where large stems are snapped, there may be some localized regeneration of more shade intolerant species. These types of disturbances, if small enough, typically maintain the existing forest type. In older stands aging hemlock and white pine trees tend to die standing and fall down off of a rotten base. They generally do not take many, if any trees down with them. Small openings regenerate the overstory species, while slightly larger openings favor white pine or paper birch regeneration. As a result, the canopy of an unmanaged forest tends to have a moth-eaten appearance, with a coarse-grained uneven mosaic of small and medium patches in a patchwork of diverse stands (TNC 2000).

In one area of the Pinelands unit, crown losses from the 1999 ice storm averaged 30%, with white ash, beech, red maple, and yellow birch hit the hardest. The non-native gypsy moth has had periodic impacts on the lands, with the most recent damaging outbreak in 1992 and 1993. (T. Charles, BPL, personal communication).

Under natural conditions, mixed hardwood forests have an all-aged structure with a relatively continuous canopy. Forest canopies have a median age of approximately 150 to 200 years and the oldest trees approach 300 years in age, consistent with the life span

of the dominant tree species. Because soil moisture is the key component that determines a mixed hardwood's distribution (prefers dry to moderately wet soils), landscape patterns will likely be patchy.

### ***Wildlife and Wildlife Habitat***

The region's natural communities provide habitat for a number of common wildlife species. According to MDIFW's Beginning with Habitat analysis, Bradbury Mountain State Park and some of the Corridor Lands are part of two large forest interior habitats (872 acre and 1479 acre blocks). Interior forest provides habitat for numerous common neotropical migrants, including black throated green warblers, black-throated blue warblers, red-eyed vireos, ovenbirds, and chestnut sided warblers. The Corridor Lands contain about 30 acres of fields off the Lawrence Road. Together with nearly eight miles of forest edge, these fields provide habitat for many birds of grasslands and edges, including bluebirds, meadowlarks, woodcocks, ruffed grouse, and kestrels. Common mammals include white-tail deer, porcupine, red fox, snowshoe hare, red squirrel, and gray squirrel.

Bradbury Mountain is a popular location for viewing migratory raptors – particularly in the spring. In fact, the Bradbury Mountain Hawkwatch was created in 2007 to document the extent of the northbound hawk migration in the spring. The abrupt mountain summit in an otherwise low and rolling landscape contributes to thermal air currents that attract raptors during migrations, and birders are often seen at the summit outcrop in the spring and to a lesser degree the fall, watching the movement of eagles, ospreys, turkey vultures, assorted hawks and songbirds. Over 200 birds have been sighted in one hour from this perch. In addition, a number of uncommon species have been noted from this location, including sightings of golden eagle, peregrine falcon, merlin, blue-gray gnatcatcher, summer tanager, and swallow-tailed kite (Derek Lovitch; <http://maineoutdoorjournal.mainetoday.com/blogentry.html?id=12982>).

Mapped Deer Wintering Areas, also known as deer yards, have been identified by the Maine Department of Inland Fisheries in two locations relevant to this plan. These wintering areas serve an important biological role for deer in that the softwood cover reduces snow depths, blocks icy winds, and, especially in the case of cedar, provides access to a browsing opportunity not requiring the expenditure of excessive energy. The Bureau, in coordination with the Department of Inland Fisheries & Wildlife, actively monitors and manages its Deer Wintering Areas.

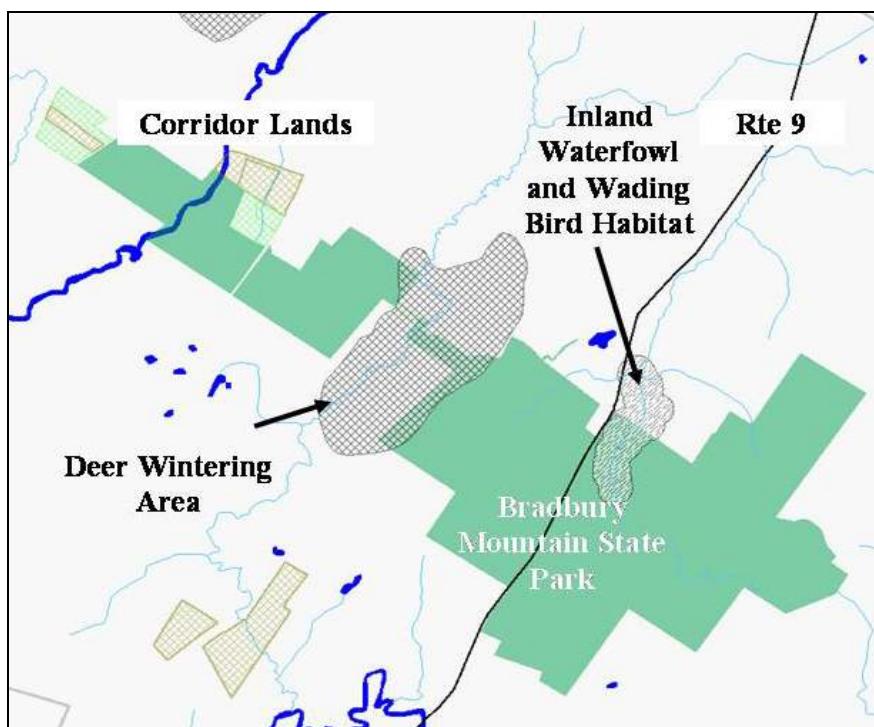
A 196 acre Deer Wintering Area exists in Pownal along the lowlands of the Thoits Brook between Bradbury Mountain and Tryon Mountain. This block slightly overlaps the western edge of Bradbury Mountain State Park and covers the small valley between the park's edge and the lower eastern slopes of Tryon Mountain. The majority of land in this Deer Wintering Area is privately held, though Bureau fee ownership and one small trail easement does bisect the block. The second Deer Wintering Area is located in North Yarmouth, on the eastern half of the Pineland Lands' North Yarmouth Parcel located south of the Allen Rd.

A 110-acre Deer Wintering Areas has been mapped on the Pinelands tract east of Route 291 and south of the Allen Road, and. Most of this DWA is in private lands, but roughly 25 acres is within state ownership (see Figure 4).

Both Deer Wintering Areas in this plan consist of mature hemlock, with a dense overstory and very little regeneration or understory. As a result, while thermal cover for deer appears good, winter food sources appear to be lacking.

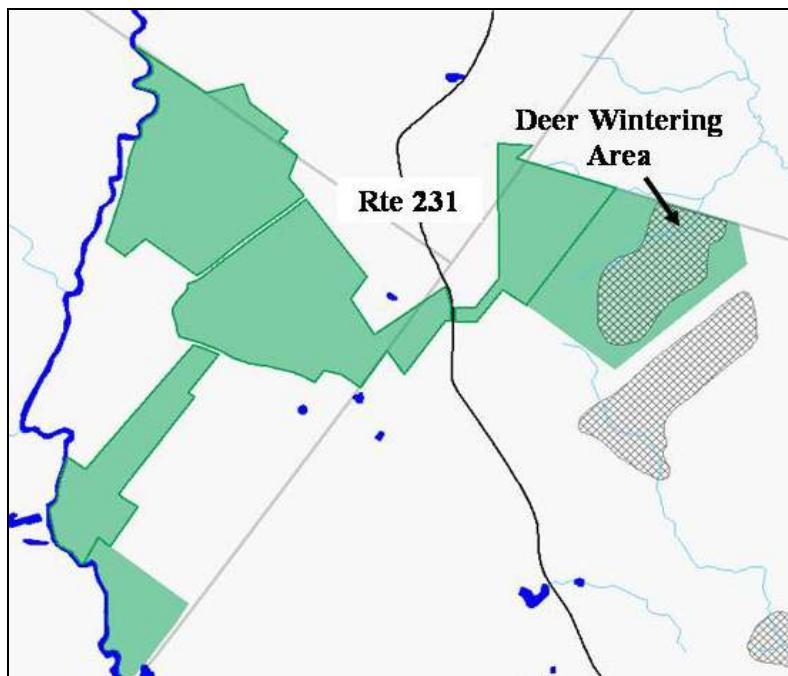
There are no significant mapped wetland resources on the Bureau properties in this plan. However, there is a mapped block of Inland Wading Bird & Waterfowl Habitat jutting into the northern boundary of Bradbury Mountain State Park. This block runs parallel to Rt. 9 on the eastern side of the park. It is centered on a small, unnamed brook. **Figures 9 & 10** show the location of the wildlife blocks discussed above

*Figure 9: Mapped Wildlife Habitat Areas at Bradbury Mountain State Park and the Corridor Lands*



*Looking Towards Tryon Mt.*

**Figure 10: Mapped Wildlife Habitat Areas at the Pineland Public Lands in North Yarmouth, Gray, and New Gloucester.**



### ***Fisheries***

The Maine Department of Inland Fisheries & Wildlife (MDIFW) stocks the Chandler River with both brook trout and brown trout. Brook and brown trout are also stocked in the Royal River. MDIFW Stream electrofishing reports from 2000 list brook trout, brown trout, pumpkinseed sunfish, and American eel as being found in their stream survey (source: Senator George J. Mitchell Center for Environmental and Watershed Research's PEARL website). PEARL information, based again on MDIFW data, shows eastern elliptio and eastern pearlshell mussels in the Gray/ North Yarmouth section of the Royal River.

The Maine Department of Environmental Protection assigns water quality ratings based on dissolved oxygen levels, bacteria levels, the abundance and diversity of aquatic life (notable macroinvertebrates), and the relative presence or absence of discharges and dams. The classification system is used to direct the State in the management of its surface waters, protect the quality of those waters for their intended management purposes, and where standards are not achieved, direct the State to enhance the quality to achieve those purposes. The Royal River is rated Class A (second highest rating) above the confluence of Collyer Brook. The river below that point receives a Class B rating. Bureau shoreline ownership at the Pineland Public Lands is held both above and below this classification break point. Maine statute directs that "Class A waters must be of such quality that they are suitable for the designated uses of drinking water after disinfection; fishing; agriculture; recreation in and on the water; industrial process and cooling water

supply; hydroelectric power generation, except as prohibited under Title 12, section 403; navigation; and as habitat for fish and other aquatic life. *The habitat must be characterized as natural*" (italics added). Class B waters are defined statutorily as "of such quality that they are suitable for the designated uses of drinking water supply after treatment; fishing; agriculture; recreation in and on the water; industrial process and cooling water supply; hydroelectric power generation, except as prohibited under Title 12, section 403; navigation; and as habitat for fish and other aquatic life. *The habitat must be characterized as unimpaired*" (italics added).

A number of potential vernal pools exist on the lands. These include small depressions within uplands and seasonally flooded areas of forested wetlands. In addition, some of the filled quarries atop Tryon Mountain may serve as vernal pools.

No rare animal species are known from the units. A freshwater mussel, the creeper (*Strophitus undulates*), has been found in the Chandler River near where it crosses the Elmwood Road and the powerline corridor (recreational trail link). This species is widely distributed across the state, but it is rarely abundant. Consequently, this species has been listed as special concern in Maine. The creeper prefers clean, flowing water.

### ***Natural Communities***

The most common upland natural community types on the Bradbury Mountain State Park and Pineland Public Lands properties are Hemlock Forest, White Pine – Mixed Conifer Forest, and Red Oak – White Pine – Northern Hardwood Forest. On the Pinelands Unit, white pine is the dominant species by volume (35%), followed by hemlock (20%), red oak (14%), and red maple (10%) (T. Charles, BPL, personal communication).

A number of mature hemlock and white pine stands, such as those on the west side of Bradbury Mountain and many stands in the Pinelands Unit, contain trees in the 110 to 125 year old range. These areas were likely pastures that were abandoned in the late 1800s and have been harvested at least once since then. On the Pineland Public Lands, many areas appear to have been selectively cut multiple times within the past few decades, with approximately 180 acres being cut between 1990 and 1997. In general, canopies have since closed in, and in several areas the dense forest cover has limited the understory regeneration. Overall, forests on the Pinelands Unit average 32 cords per acre – nearly twice the statewide average stocking (T. Charles, BPL, personal communication). While the amount of snags and coarse woody debris does not compare to that in unmanaged forests, several stands nonetheless are approaching ‘late-successional’ (but not old growth) structure.

East of Route 9 in Bradbury Mountain State Park, fields were abandoned within the last 30-40 years and now support early successional mixed forest of paper birch, red maple, white pine, and red oak, with some small patches of Red Maple Swamp.

The only rare natural community on the properties is a Hardwood River Terrace Forest along the Royal River within the Pineland Public Lands. This ~10 acre community is

characterized by a mid-aged forest with a diversity of trees, including white ash, sugar maple, red maple, American elm, blackgum, black cherry, and muscle-wood (also known as blue beech). The soil is enriched and supports a number of uncommon plants typical of this habitat, including blue cohosh (*Caulophyllum thalictroides*), jack-in-the-pulpit (*Arisaema triphyllum*), trout lily (*Erythronium americanum*), and Christmas fern (*Polystichum acrostichoides*). Because of its relatively small size, proximity to active railroad tracks, and the presence of invasive species, this natural community is not as high quality as others of its type in Maine.

With thin soils and rock outcrops, the summit and upper slopes of Bradbury Mountain support a more open Oak-Pine Woodland community type, with relatively stunted and scattered trees and characteristic grasses and herbs. The east facing slope of the Mountain supports a narrow band of Ironwood – Oak Talus Woodland, an open forest type that shows some nutrient accumulation from slopes above. The natural vegetation of this summit area has been altered by decades of heavy human use.

Some small areas of tree plantations occur on the properties, accounting for less than 1% of the forest cover. These include a ~40 year old red pine stand on the Pinelands tract. While red pine is native to Maine, it does not occur frequently.

Wetlands account for approximately 110 acres, or roughly 7% of the land acreage. Wetland acreage is evenly divided between forested types (60 acres), which are primarily red maple swamps, and open types (50 acres), which include both emergent and shrub-scrub types. Table 6 on page 46 summarizes wetland information on the properties.

#### Rare Plants

One rare plant species is known to be present on these lands. A small population of wild leek (*Allium tricoccum*) occurs in the floodplain forest along the Royal River. This plant is ranked S3 (rare) in Maine and is listed as Special Concern. It was last documented at the site in the spring of 2010.

#### Invasive Species

Unlike many state lands in more remote regions of central and northern Maine, some areas of the Pinelands tracts have been occupied by non-native, invasive plants. In particular, Morrow's honeysuckle (*Lonicera morrowii*) occurs frequently along the floodplain of the Royal River. In fact, it is currently shading out part of the population of wild leek (*Allium tricoccum*), a rare plant that occurs at this site. Eradication (or even control) may be difficult in this location, given the seasonal disturbance and seed source available from the Royal River.



*Wild leek (Allium tricoccum) along the Royal River. –  
Andy Cutko, MNAP*

Japanese barberry (*Berberis thunbergii*) occurs infrequently on the lands – particularly in the moist soils of upland forests on the Tryon Mountain tract. Its control may be possible but would likely require a dedicated volunteer removal and monitoring effort.

Natural Resources Management Issue or Opportunity	Recommendation
<u>Deer Wintering Areas and Trails:</u> specific locations on Bureau properties contain identified winter cover for deer. In the case of the Deer Wintering Area in centered on Thoits Brook in Pownal, the newly developing trail linking Bradbury Mountain State Park with the multi-use trail on the Central Maine Power corridor and the Pineland Public Lands crosses a portion of this wintering area. This may be an issue when deep snow-cover is present, as trail uses such as snowshoeing and cross-country skiing could be stressful to wintering deer in the area.	Bureau staff will develop and post seasonal trailhead messaging informing trail users on best practices to minimize recreation impacts on deer. Trail closures may be warranted during severe winter conditions.
<u>Deer Wintering Area Management:</u> Deer Wintering Area management should strive to provide ongoing cover, and as such, should work towards having sufficient softwood regeneration to replace existing, more mature, cover.	The Bureau Wildlife Specialist will guide any harvesting within Deer Wintering Areas. Harvesting will be performed specifically to aid the area's capacity to serve as winter deer cover.
<u>Invasive Species:</u> Morrow's honeysuckle ( <i>Lonicera morrowii</i> ), an invasive species, is occurring along the Royal River in the Pineland Public Lands and is impacting a population of wild leek ( <i>Allium tricoccum</i> ), a documented Maine rare plant species (State Rank S3). Additionally, invasive Japanese Barberry ( <i>Berberis thungbergii</i> ) is found on the Tryon Mountain tract. In both cases, eradication is challenging and likely to require ongoing efforts.	Monitor the Royal River floodplain site and consider options for supporting the wild leek population (i.e., evaluate options for invasive species control on site). Explore the potential for volunteers to assist with invasive species control efforts at either site or any other sites to be found. Consider including a control/eradication effort as part of an educational/interpretive opportunity focused on the issue of invasive species.

<b>Natural Resources Management Issue or Opportunity</b>	<b>Recommendation</b>
<p><u>Tryon Fields:</u> the Tryon fields located adjacent to the Lawrence Rd. in Pownal serve aesthetic, recreational (trail &amp; hunting), cultural/historic, and wildlife functions. Breeding bird habitat, including both field and shrub-scrub habitat, is of particular interest. Therefore, it is important that potential conflicts between these functions and values be addressed. The local land trust has expressed an interest in maintaining the historic/cultural and wildlife values of these fields.</p>	<p>The field maintenance regime, including scheduled bushhogging, will be established with the guidance of the Bureau wildlife specialist. Areas of open field as well as areas of juniper growth will be maintained. Apple and pin cherry trees will be allowed to establish themselves, though the overall management goal is to keep forest trees from overtaking the field complex.</p> <p>The Bureau should explore the feasibility of controlled burning as a means to maintain the fields. This concept, brought forth through the Advisory Committee, requires more study. The Bureau should explore a partnership with the local land trust to assist in the maintenance of the fields.</p>

## ***Historic and Cultural Resources***

### Pineland Public Lands

-Mayall Mills (pictured right): the Mayall Mill site is not officially a State Historic Site, though it is essentially promoted and managed as such. Located on the Mayall Road approximately one mile on the left at the intersection of the Megquier Road in Gray, it is managed as part of the Pineland Public Lands. Established by Samuel Mayall in 1791 in a small wooden building, this site grew to a larger operation based on the production from two large brick mills powered by the waters of Collyer Brook. Samuel Mayall's operation was the first successful water-powered woolen mill in North America, despite fierce opposition by British competitors.



Mayall first chose this area because of an abundance of sheep among farms in the region and the working grist mill here that he leased and converted to woolen manufacturing. He later purchased the mill before expanding the operation. At its peak, Mayall Mills employed 20 people and produced 30,000 yards of woolen cloth in a year. When Samuel died in 1831 his daughters took over the mills and eventually leased the buildings to other milling managers. The mills ceased operation in 1903.

**Figure 11 (Right): Mayall Mills Location in the Town of Gray.**

The site is currently interpreted via several interpretive panels available to the public on site. Additionally, the Bureau website has several pages of background information and diagrams explaining the historical significance of the site and the past operating infrastructure that drove the mill.

**Bradbury Mountain State Park and “Corridor Parcels”**

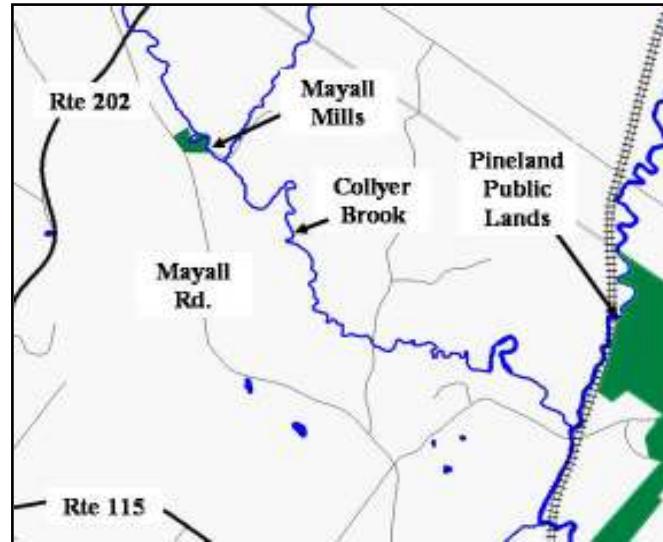
The land on which the park is located was first settled in the early 1800's by the Cotton family. The foundation of the Cotton house can still be seen at the location of the current brush dump off from Rt. 9 near the Minot Rd. There are several other old foundations in the park including what is known as Jones's Inn. This inn was supposedly used by many travelers using the "Post Rd" which is currently Route 9. An archeological dig in 2001 proved that this inn was actually a farmer's home and was not used as an Inn.

The current park land was actively farmed in the 1800's, including a unique grape crop that was grown on the terraces known as the Northern Bluff. These grapes were renowned for miles around and the terraces are still visible along park trails. A "Cattle Pound", which was built in 1805 to house stray farm animals that damaged neighbor farmers' crops is still in very good shape today and is interpreted for park visitors. The miles of rock walls throughout the park, which separated the land of various farmers, continue to stand as artifacts of past land use.

In 1925-1929, feldspar was mined from the base of Bradbury Mountain and shipped to mills in New Jersey and used for making dinnerware and bathtubs. A simultaneous operation occurred at Tryon Mountain as well. Several quarry pits and a still-erect derrick pole can be found at the Tryon site.

In the early 1940's there was a rope tow up to the Northern Bluff, where skiers swooshed down the mountain in the winter. Evidence of this tow can still be seen in the rock face of the Northern Bluff.

**Tryon parcels in Bradbury – Pineland Corridor:** As mentioned above, there was an active Feldspar mining operation on Tryon Mountain. Before and after that operation, however, the lands around Tryon Mountain and the Lawrence Road were used for family farming. The Tryon family has owned and worked their Pownal lands since 1800. Remnants (e.g., portions of the cellar hole) of the Samuel L. and Abby Bedell Tryon Homestead, built in 1853, are now part of the corridor lands owned and managed by the



Bureau. Additionally, the fields behind this homestead site are locally considered cultural aspects of the landscape hearkening back to the agricultural tradition of the site.

<b>Historic/Cultural Issue or Opportunity</b>	<b>Recommendation</b>
<u>Mayall Mills</u> : the Mayall Mills site in Gray is not well connected with either Bradbury Mountain State Park or the Pineland Public Lands in terms of public information and public awareness.	Continue to provide online interpretive materials about Mayall Mills, but also consider looking for opportunities to engage visitors or potential visitors to Bradbury Mountain and Pineland in order to raise awareness of this locally available historic site.
<u>Lawrence Rd. Trailhead</u> : there is concern that, if not properly sited and designed, a parking area/trailhead along the Lawrence Rd. has the potential to detract from the scenic aspects of the Tryon Fields while also impacting one of the Tryon family homestead sites.	Work with the local land trust in the location and design work to establish a parking area supporting 5-8 vehicles. Focus on creating a parking area that minimizes the visual impact from both the fields above the site and the view of those fields from the road. Balance safety and maintenance needs with aesthetic considerations.
<u>Historic Quarry Site</u> : the summit of Tryon Mountain is the site of a former feldspar quarry and retains evidence of that past land use.	Develop a designated trail spur to the quarry site, with due deference to safety. Consider targeted tree harvesting with the objectives of improving vistas from the summit area as well as opening up the immediate site to allow visitors to better understand and appreciate the historic elements of the site. Consider Explore developing onsite interpretive signage and/or print/web materials telling the story of the site.

## ***Recreation and Visual Resources***

### **Hunting, Fishing, and Wildlife Watching**

The wildlife value of Bradbury Mountain State Park and the Pineland Public Lands is very significant. First, the properties have habitat value for a range of species. Just a few examples include deer wintering areas in the Thoits Brook – Tryon Mountain area, shrub-scrub successional bird habitat in the vicinity of the Tryon fields west of the Lawrence Rd. in Pownal, and the portion of the Pineland Lands north of the Depot Rd. in Gray serving as high-quality, dense migratory bird breeding habitat (i.e., warblers).

Complimenting this habitat function is the fact that the Bureau's properties provide for hunting access in a part of the state where the tradition of unrestricted hunting access is relatively more at risk. Thus, Bradbury Mountain State Park and the Pineland Public Lands are both part of significant undeveloped habitat blocks as well as hunting destinations. Popular target species include white-tailed deer, turkey, and ruffed grouse.

Both Bradbury Mountain State Park and the Pineland Public Lands allow hunting. At Pineland, hunting is restricted along the two marked hiking trails (North and South Loop Trails). At the Park, hunting is not permitted between May 1 and September 30. It should be further noted that hunting is not permitted at any time in the western half of Bradbury Mountain State Park. Page 57 lists relevant Park as well as Lands hunting rules. .

Fishing opportunities do not exist within the Bradbury Mountain State Park boundary. However, the Chandler River within the Bureau's adjacent Corridor Lands provide for seasonal trout fishing. The Royal River is another fishing opportunity flowing through, in this case, the Pineland Public Lands. Maine Department of Inland Fisheries & Wildlife stocking records from 2010 indicate that 500 brook trout and 450 brown trout were stocked in the Chandler River in the spring of the year. Records also show 1250 brown trout and 950 brook trout being stocked in the Royal River (combined brown trout stocking from sites in New Gloucester, Yarmouth, and North Yarmouth and brook trout stocking in Yarmouth and New Gloucester).

There are watchable wildlife opportunities in all of the properties covered by this plan. However, a distinct opportunity merits mentioning. Bradbury Mountain State Park is on the recently developed Maine Birding Trail. It is specifically included for its significance as a destination to observe migrating hawks and other raptors in the spring. Since its inception in 2007, the spring hawkwatch at Bradbury Mountain State Park has been led by local bird experts Jeannette and Derek Lovitch in order to quantify the extent and duration of the northbound raptor flight over Bradbury Mountain State Park. This effort has produced valuable research data while also helping the public become more aware and appreciative of both migratory birds and birdwatching as an activity.



*(Left) Clearing for the trail in the Corridor Lands*

## ***Bradbury Mountain State Park & Pineland Public Lands Hunting Rules***

### **Relevant Park Rules**

#### **20. Hunting and trapping:**

- a. All hunting and trapping shall take place in accordance with the laws of the State of Maine, the laws and rules of the Maine Department of Inland Fisheries and Wildlife, and local ordinances.
- b. The possession and/or use of firearms or weapons is prohibited in all areas between May 1 and September 30, except where hunting is allowed during this period.
- c. Hunting is not permitted at any time at State Historic Sites or Memorials, or at any of the properties listed below: ... that portion of Bradbury Mountain State Park west of State Route 9; ....
- d. Hunting is not permitted between May 1 and September 30 at any of the properties listed below: ...Bradbury Mountain State Park east of Route 9; ...
- e. The discharging of any weapon is prohibited from or within 300 feet of any picnic area, camping area or campsite, parking area, building, shelter, boat launch site, posted trail or other developed area.
- f. Trails which are closed to hunting will be posted to that effect at access points. On trails posted as closed to hunting, loaded weapons are not permitted on the tread way and weapons may not be discharged within 300 feet of the trail.
- g. Work areas and areas with significant public use may be temporarily posted as closed to hunting by park management in the interest of public safety.
- h. Baiting of wildlife for the purpose of hunting is prohibited
- i. Trapping may take place only in accordance with the laws of the State of Maine, the laws and rules of the Maine Department of Inland Fisheries and Wildlife and local ordinances. Trapping in state parks or historic sites in organized townships requires the written permission of the Bureau.
- j. Bureau employees or their representatives in the official conduct of their duties and in accordance with bureau policy with prior approval from the bureau are exempt from the above rules.

### **Relevant Public Lands Rules**

**Firearms:** Do not discharge firearms within 300 feet of campsites, marked hiking trails, or boat launches. Loaded firearms are not permitted at campsites or on hiking trails.

## ***Motorized Recreation***

### ***Snowmobiling***

There are 2.1 miles of snowmobile trail located within the boundary of Bradbury Mountain State Park. This includes a challenging 0.3 mile section of trail leading to the summit of Bradbury Mountain. The trail license corridor agreement between Central Maine Power Co. and the Bureau totals approximately 3 miles and links the Bureau properties and easements contiguous with the park to the Pineland Public Lands.

However, the corridor creates a non-motorized link only. Snowmobile and ATV use is restricted to the power corridor (which connects with regional networks and, in the case of snowmobiling, circles back from south of the Elmwood Rd. to enter the southern edge of the eastern half of Bradbury Mt. State Park). There are no ITS system trails on the properties; the trail sections are maintained as local trails by the Tri-Town Penguins snowmobile club.

### ***ATV Riding***

ATV riding is provided along the 3-mile multi-use power corridor. At the time of this plan, the ATV network this 3-mile section would link to is not developed and designated ATV trails in the region tend to be located west and south of the Pineland Public Lands. **Figure 12** on the following page depicts regional snowmobile and ATV trails in the vicinity of the plan.

## ***Human-Powered Recreation***

### ***Paddling***

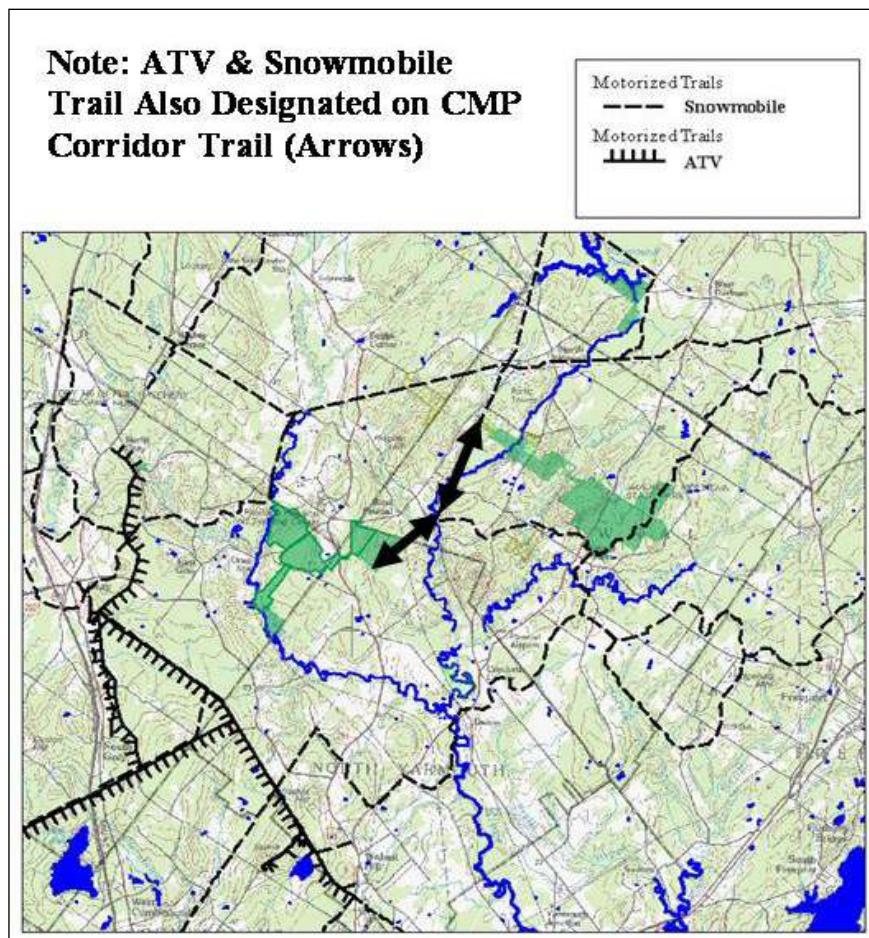
While the properties in this plan do not provide highly used or significantly renowned paddling opportunities, there are a few recreational paddling opportunities of note. The Royal River is canoeable as it passes along the western edge of the Pineland Lands. However, this section of river is not widely viewed as a significant paddling destination. The nearest boat launch site is a hand-carry site several miles downstream off rt. 231 in North Yarmouth.

The Chandler River runs through the connector properties acquired to create a linkage between Bradbury Mountain State Park and the Pineland Public Lands. Additionally, the river flows amidst the power corridor trail license. The Chandler River provides limited paddling when water levels are high enough, including a section of class II whitewater within one of the Bureau parcels. It is unknown how many paddlers use this section of water, though it is not assumed to be anything but a small number.



*(Left) Chandler River(Corridor Lands)*

*Figure 12: Generalized Map of Motorized Trails in the Plan Vicinity.*



#### *Hiking, Walking, Trail Running, and Snowshoeing*

Bradbury Mountain State Park offers 1.3 miles of trail that are exclusively for hiking. However, there are over 15 miles of trail in which hiking, walking, and/or trail running is one of multiple trail uses. The summit of Bradbury Mountain is a hub of trails that also provide access to various park settings. The singletrack mt. bike trails, notably those on the eastern half of the park, are sought out by trail runners who tend to find the flow of the bike trails conducive to their running experiences. The Pineland Public Lands Unit offers two interconnected hiking loops. The northern loop is a 1.7 mile hike while the southern loop totals 1.5 miles. Both are accessed off of a trailhead on the Depot Rd. in Gray.

The power corridor trail license connects parcels in Pownal (including Bradbury Mountain State Park) with the Pineland Public Lands in Gray, North Yarmouth, and New Gloucester. This linkage is open to hikers, walkers, and runners (along with other use types).

Snowshoeing is possible on all of the trails mentioned for other uses, with the exception of any trail segments groomed for cross-country skiing. Bradbury Mountain State Park provides plowed winter parking and access to trails. Access at other trailheads, including at Pineland Public Lands, is less reliable and to this point, has not been maintained by the Bureau.

#### *Cross-country Skiing*

Bradbury Mountain State Park traditionally grooms specific trails for cross-country skiing. Approximately 18 miles of trail are open to cross-country skiing (though not all miles are necessarily designed to facilitate skiing or groomed). The newly developing corridor trail initiated prior to plan development will also accommodate ungroomed cross-country skiing. The multi-use power corridor trail section will enable skiers to use the trail along with snowmobilers. Finally, the two trail loops at the Pineland Public Lands can be skied, though they are not specifically managed for a cross-country ski experience.

#### *Mountain Biking*

Bradbury Mountain State Park is widely viewed as a significant mountain biking destination. There are 18.8 miles of trail within the park open to riders. Of those, 12.4 are narrow singletrack trails designed specifically for mountain biking (though open to other uses depending upon trail designation and terrain). Singletrack trails at Bradbury Mountain State Park vary by difficulty of terrain and features, but the defining characteristics include narrowness, the use of turns and switchbacks (as opposed to “fall line” trail segments running straight uphill), and the use of narrow bridges to cross wet areas. Trails at Bradbury can accommodate beginner, intermediate, and advanced riders.

Groups such as Friends of Bradbury and local chapters of the International Mt. Biking Association (IMBA) have a history of organizing numerous trail work days as well as running races and events at the park. The combined efforts of the Bureau and volunteer partners has greatly grown the mountain biking opportunity at Bradbury Mountain State Park. This partnership continues through this planning effort and ongoing trail development discussions. Determining the desirable amount of mountain bike trails available to riders on more recently acquired lands adjacent to the park is a significant component of this plan.

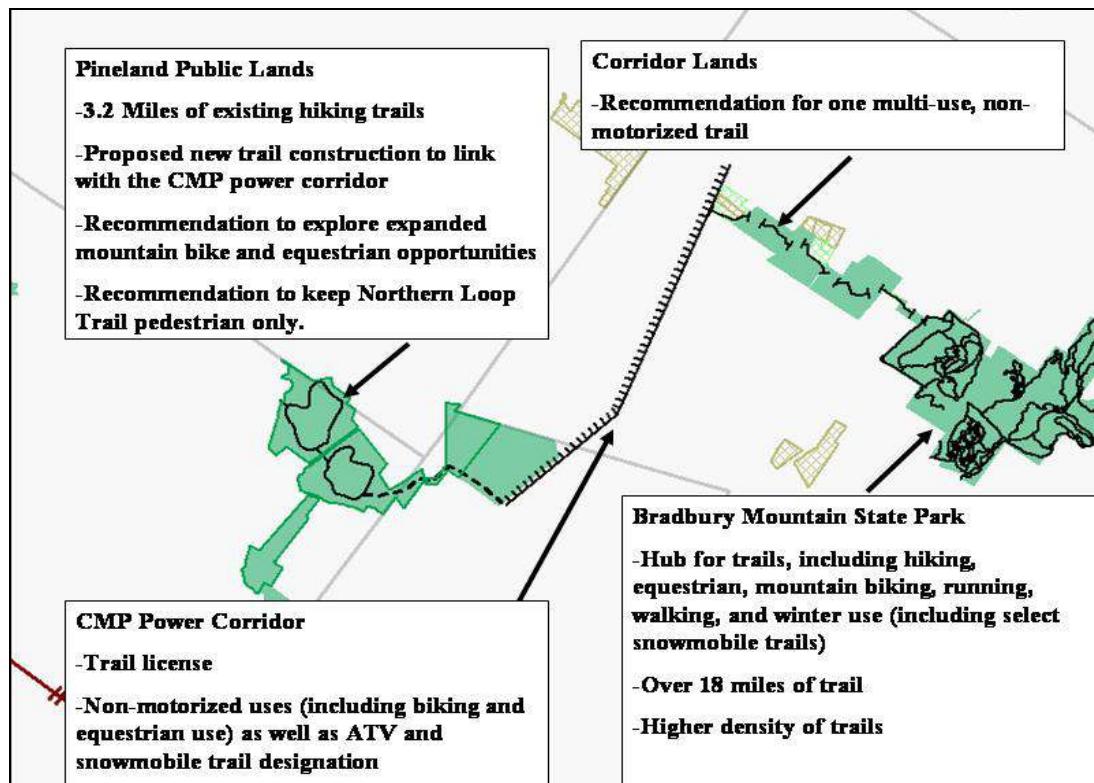
#### *Equestrian Trails*

Bradbury Mountain State Park provides 5.3 miles of trail that accommodate horse riding. The developing corridor trail (non-motorized section from the western park boundary to

the power corridor) will accommodate horses as well, though the riding experience will be primitive in nature. Two planned bridges within the Corridor Lands are intended to meet equestrian standards.

The multi-use power corridor trail segments, totaling approximately 3 miles in length, are available for equestrian use. This includes several bridges designed for multiple use types, including equestrian use.

**Figure 13: Trail Overview for the Plan Area.** Note that the multiple, existing and proposed trail segments create a non-motorized link for pedestrian, equestrian, and bike use between Bradbury Mountain State Park and the Pineland Public Lands.



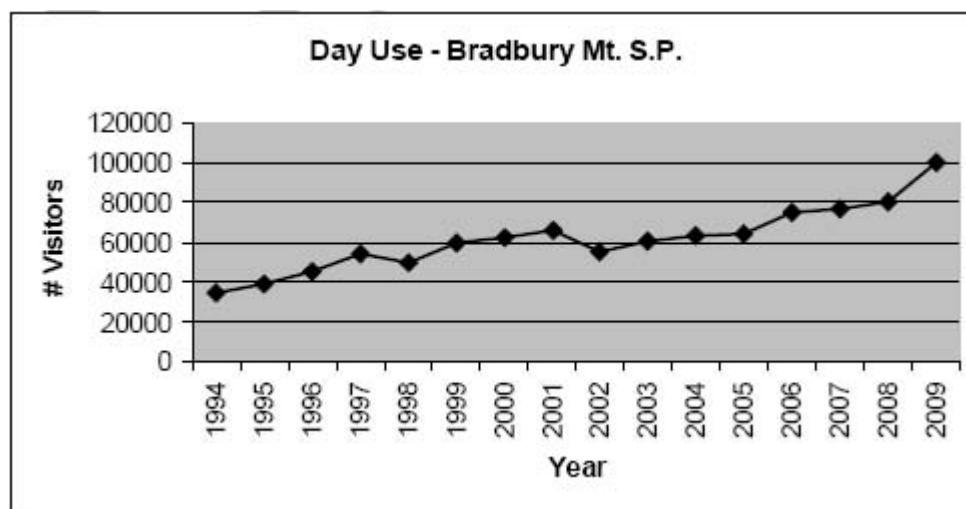
#### **Bradbury Mountain State Park Use Trends.**

While it has been difficult to quantitatively assess use at the Pineland Public Lands, Bradbury Mountain State Park provides data that supports the idea of growing recreation demand. **Table 7** as well as **Figures 13 and 14** depict visitation at Bradbury over the last 15 years.

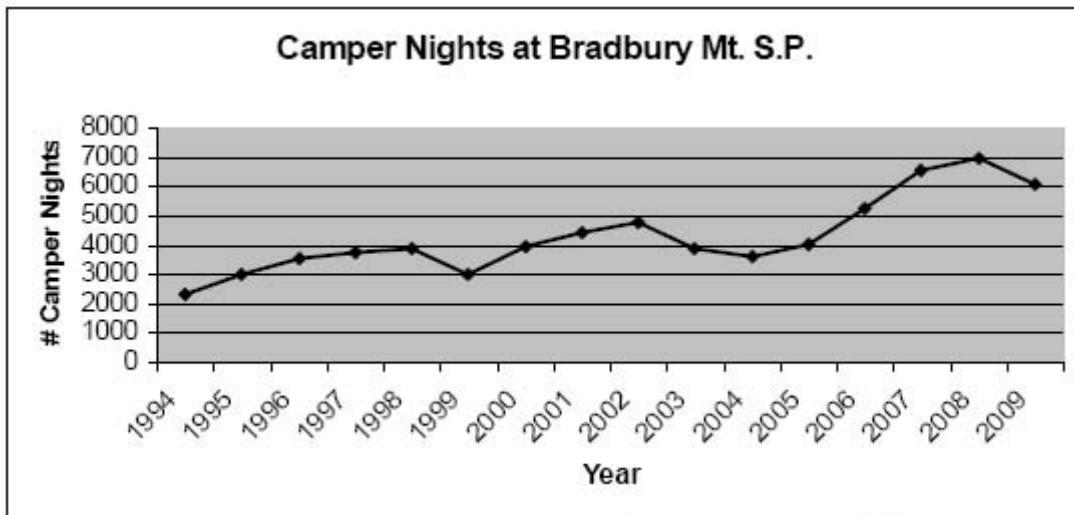
**Table 7: Day use and Camper Nights at Bradbury Mt. S.P. (1994-2009)**

<u>Year</u>	<u>Day Use</u>	<u>Year</u>	<u>Camping</u>
1994	34448	1994	2316
1995	38948	1995	3013
1996	45196	1996	3578
1997	54538	1997	3735
1998	49330	1998	3866
1999	59258	1999	2976
2000	61925	2000	3941
2001	65751	2001	4431
2002	55287	2002	4767
2003	60049	2003	3871
2004	63131	2004	3623
2005	63857	2005	4056
2006	74909	2006	5291
2007	76947	2007	6564
2008	80640	2008	6991
2009	100415	2009	6103

**Figure 13: Day –Use Visitation at Bradbury Mountain State Park 1994-2009**



**Figure 14: Camper Nights at Bradbury Mountain State Park 1994-2009**



Recreation Issue or Opportunity	Recommendation
<p><u>Trail Density:</u> Concern has been expressed through the management plan process that there is potential for a proliferation of trails west of the Park boundary that could negatively impact the wildlife habitat, opportunity for relative solitude, and overall recreational experience of those seeking a quiet walk in the woods. There is apprehension that these areas might have trails established to a similar degree as the trail system on the eastern (campground) side of the park, which has a relatively high density of trails, especially mountain bike trails.</p> <p>At the same time, there is interest on the part of other individuals/groups to diversify loop trail options in these same parcels to meet the growing demand for trail experiences at Bradbury Mountain State Park. Thus, there are divergent opinions on what number of trail segments is appropriate in the linkage corridor parcels</p>	<p>Establish a single trail in the Corridor Lands as the dominant trail feature meeting the needs of multiple non-motorized uses. Design the trail to accommodate mountain biking, equestrian use, hiking, snowshoeing, ungroomed cross-country skiing, and trail running. Consider how the trail can provide a recreational link with other trail opportunities while minimizing impact on other resource values including wildlife and dispersed recreational experiences such as hunting and nature observation.</p> <p>Develop two short destination trail spurs/loops connecting to the main corridor trail: (1) a spur trail to the historic quarry site on Tryon Mountain, and (2) a spur/loop trail west of the Lawrence Road to a view point overlooking the Tryon Fields and continuing on to link back to the main corridor trail before it crosses Chandler Brook.</p>

Recreation Issue or Opportunity	Recommendation
<p><u>Trail Construction, Access, and Private Lands:</u> Bradbury Mountain State Park has benefited from the labor and generosity of volunteers. Trail improvements and expansions have grown the number of trail users looking to Bradbury Mountain State Park for rewarding trail experiences.</p> <p>In some cases, though, unapproved trail construction and use has proven to be a friction point with abutting private landowners.</p>	<p>Continue to work with volunteer groups for the benefit of recreation and natural resources at Bradbury Mountain State Park.. Establish a communications protocol to identify and quickly address trail use issues, including unauthorized trail building. Develop positive messages and preventive approaches to minimize problems, including clear messages at trailheads and trail junctions about designated uses and trail etiquette.</p>
<p><u>Snowmobile Access to Bradbury Mountain:</u> Public input identified an interest in providing an easier snowmobile route to the summit of Bradbury Mountain. The current approach along the Switchback Trail was described as being too challenging for many riders. At the same time, concern was expressed regarding the ecological impact of snowmobiles on juniper at the summit. Additionally, comments suggested snowmobile use was potentially a deterrent or detraction for snowshoers and skiers.</p>	<p>Consider options to improve snowmobile access to the summit Any new route should minimize clearing/construction and should avoid as much as possible vegetative impacts in the summit area (such as impacts to juniper bushes).</p>
<p><u>Possibility of an ATV Trail Connection through the Pineland Public Lands:</u></p> <p>Late in the planning process, the Gray - New Gloucester ATV Club brought forth a request to have the plan retain the option for an ATV trail to cross the Pineland Public Lands in order to connect to the multi-use power corridor trail, whose license allows for ATV use. A formal route proposal has not been provided, and several comments from landowners adjacent to Pineland have shared strong concern over this proposal.</p> <p>At the same time, the plan is a long term plan and the ATV community has concern that a potential link in a developing trail network could be lost.</p>	<p>Continue to work with the ATV community and private landowners, through the Bureau's Off-Road Vehicle Division, to improve connectivity of the trail network in the plan vicinity, including better linking the power corridor trail segment into the wider system. Work to find other alternatives to having an ATV trail located across the Pineland Public Lands as the preferred option. Consider using the Pineland Public Lands only if other options are exhausted. In considering a route through the Public Lands, create a public process to give other interested parties, especially neighboring landowners, an opportunity to learn about any proposal and to provide their comments and concerns.</p>

Recreation Issue or Opportunity	Recommendations
<p><u><b>Bradbury-Pineland Trail Connector (Powerline Corridor Trail to Existing Trails at the Pineland Public Lands):</b></u></p> <p>Part of the impetus and emphasis in acquiring the lands connecting Bradbury Mountain State Park with the Pineland Public Lands was to provide a trail link between these two conservation properties. The trail license agreement along the power corridor finalized the connection, though as of 2010, no trail exists on the ground between the power corridor and the Pineland Public Lands' existing trails.</p> <p>Before completing the multi-use trail link from Bradbury Mountain State Park to the Pineland Public Lands, there needs to be a better understanding of the level of demand and types of use patterns that may emerge once the entire system is fully linked via a constructed trail. It is unknown to what degree hikers, bikers, skiers, and equestrians will use the power corridor trail to link the Park and Pineland.</p> <p>Further, both the existing South Loop and North Loop trails at Pineland need extensive repairs before additional use is introduced. If, in addition, new uses are to be accommodated at Pineland, any trail repair work should be preceded by a thoughtful redesign of the current trails.</p>	<p>Monitor trail use in the Corridor Lands, the CMP power corridor, and the Pineland Public Lands via informal and/or formal methods, including ongoing input from trail users.</p> <p>As resources allow, and as interest and demand is demonstrated, build off the existing work performed by the Off-Road Vehicle Division along the power corridor by extending a non-motorized trail segment from the power corridor to the Pineland Lands. Locate the trail through the southwest corner of the North Yarmouth portion of the Pineland Lands, across Route 231 (including appropriate measures to address safety at this crossing given limited sight distances), and connect into the existing South Loop at the Pineland Lands.</p> <p>Explore, as a first step in accommodating new uses on the Pineland Lands, redevelopment of the entire South Loop Trail for use by mountain bikers, skiers (ungroomed) and equestrian uses, taking into consideration soils and other potential site limitations. Redefine as resources allow.</p> <p>Consider developing a parking /trailhead area off the Town Farm Road for non-motorized access to the South Loop and CMP corridor trails once this new system is in place.</p> <p>Retain the North Loop Trail for existing uses - hiking, walking and snowshoeing. Do not redevelop for additional uses at this time.</p>

Recreation Issue or Opportunity	Recommendations
<p><b><u>Mountain Biking Demand:</u></b>  The planning process has shown great public interest in and passion for mountain biking in the plan area. The vast bulk of that interest has been focused on the Corridor Lands in Pownal. Once a link trail is established from the Power Corridor Trail to the South Loop Trail, bikers will have a continuous route between the Park and the Pineland Lands. However, the Pineland Lands do not presently garner a high level of interest among mountain bikers, especially compared to the Park. Given the proximity of the Pineland Farms private mountain biking trails to the trails on the Public Lands, it is possible that interest could grow for an expanded mountain biking opportunity in this area.</p> <p>.</p>	<p>Explore redeveloping the South Loop Trail at Pineland to accommodate mountain bikers and equestrians (see previous recommendation).</p> <p>Explore the potential for new singletrack mountain bike trails on the Pineland Public Lands. Any new trails would be secondary to timber management. Since a harvest is scheduled to occur within two years of the adoption of this Plan, there may be potential to work with the mountain bike community to develop trails following the timber harvest. Re-entry for timber harvesting would not occur for 15 to 20 years, providing an extended period of undisturbed trail use.</p> <p>Work with trail user groups in the design and development of any new trails or in redevelopment of existing trails, following trail development standards outlined in the Integrated Resource Policy (IRP) and other industry-accepted standards. Design any singletrack trails to also provide positive experiences for trail runners, walkers, and perhaps snowshoers.</p> <p>Explore the potential for a singletrack mountain bike trails on the Pineland Public Lands. New singletrack trails would not be explored in the vicinity of the Northern Loop and would be primarily integrated in Timber Dominant allocations. A harvest is slated to occur within two years of the adoption of this plan and there may be potential to work with the mountain bike community to develop trails following the timber harvest. It is anticipated that re-entry for timber harvesting would not occur for approximately 15 years following the cutting. Any trail development in addition to the proposed connector trail between the South Loop and the Power Corridor Trail would not trigger visual timber harvesting standards nor would trail development</p>

Recreation Issue or Opportunity	Recommendations
<p><u>Hunting Access:</u> A strong sentiment was expressed at public meetings regarding the need to maintain traditional hunting access. Part of this issue revolves around the regional context of southern Maine, where higher development pressures and land postings have combined to reduce hunting opportunities.</p>	<p>Inform the public through signage and postings when specific areas are open or closed to hunting and appropriate precautions including wearing blaze orange. Designate trail segments running through the corridor public lands as multi-use, not subject to the firearm rules designed for “marked hiking trail.” Apply this same approach to any trail segments developed to link the power corridor trail through the Pineland Lands to the existing South Loop Trail. However, continue current policy for the existing North and South Loop Trails in the Pineland Public Lands . These trails will have a 300’ zone on each side of the trail, including the trail itself, in which loaded firearms may not be carried or discharged.</p>
<p><u>Target Shooting at the Pinelands Unit:</u> Target shooting in the pit located in the southern half of the Pinelands Public Lands has become an issue of concern. Safety and litter issues, including shooting from the trail and leaving debris on site, were raised as problems. Additionally, the plan calls for creating a new trailhead in the vicinity of the gravel pit. Thus, trail use here may well increase. Conversely, there has been some negative reaction to new signage closing the pit to shooting, in that it is used for target shooting leading up to hunting season.</p>	<p>Close the pit area will be closed to shooting as it is within 300’ of a marked hiking trail.</p> <p>Post signage to educate trail users and hunters alike regarding hunting rules, seasons, and best practice. This includes expressing that the overall area is open to hunting, subject to trail rules and standard hunting laws.</p>
<p><u>Access &amp; Fees:</u> There is some evidence of some users accessing the Park trails, which do require a pass or fee, from points outside the park.</p> <p>Visitors are not generally charged fees to use Public Lands, although the Bureau may charge fees to cover costs of maintaining facilities such as parking areas, trailheads and trails.</p>	<p>Use signage and “iron rangers” to collect fees at entrance points to Bradbury Mountain State Park. Promote season passes as an efficient way for repeat visitors to pay for park entry. For use of Public Lands parcels, consider promoting voluntary donations at trailheads and parking areas.</p>

<b>Recreation Issue or Opportunity</b>	<b>Recommendation</b>
<p><u>Park Amenities:</u></p> <p>As resources become available, there may be opportunities to improve park amenities. There is interest in further enhancing the Park to provide visitors with amenities that are or may become in demand. Potential examples include showers in the day use area for trail users, trail improvements, electric and water hook-ups for campers, an expanded campground, a dump station in the campground, and other possible developments to better serve a public that is increasingly looking for and appreciating these types of features. Given Bradbury Mountain State Park's status as a popular outdoor recreation destination well-suited to those looking for front-country, managed trail experiences, amenity improvements may not detract from visitor experiences as they might in settings where visitors seek more primitive experiences.</p> <p>Additionally, there are less visible potential improvements needed to support operations.</p>	<p>Manage the Park and make facility improvements consistent with the spirit of the vision stated in this plan. Continue to provide new facilities and enhanced amenities. Being sensitive to keeping these improvements in harmony with the forested/rural character that makes the Park a desirable destination. Consider developing a Master Plan for improvements in consultation with a Landscape Architect.</p>

## ***Timber Resources***

### ***Pineland Public Lands***

#### *Harvest History*

There is a long history of timber harvesting at Pineland, much of which produced pine, oak, and hemlock sawlogs for the use of Pineland Center, and which prior to the creation of BPL in 1973 were conducted by foresters with the Maine Forest Service. During the period 1990-97 selection harvests were conducted by the Bureau on about 180 acres of the currently State-owned portion of original Pineland, with almost 2,000 cords produced, mainly of lowgrade material such as pulpwood and firewood. Species favored for retention were white pine, oak, hemlock (this last species especially in potential deer winter cover), and quality stems of ash, birches, and maples. The recent North Yarmouth acquisition appears to not have been harvested since perhaps 1980, but the new addition to the "tail" area south of the Town Farm Rd in Gray was cut very heavily in the early

1990s, with poorly planned access roads eroding badly post-harvest, though they had stabilized by the time of State acquisition.

Gypsy moth did considerable damage in oak-rich stands during 1992-93, with some spotty mortality. No other insect or disease problems have caused much damage in recent years. The 1998 ice storm was moderate overall but severe on some species and in some areas. A crown-loss survey done the next spring on the easternmost portion of original Pineland, the land east of Rt. 231, showed crown loss averaging 30% for hardwoods, but was over 50% on white ash and 35-50% on beech, red maple, and yellow birch. About 60% of this area, and the worst of ice damage, now belongs to Libra. Other portions of State ownership held more softwoods, which had only light damage on most trees. However, there were a couple of multi-stem blowouts seen in the red pine plantation on the more recent North Yarmouth acquisition, places where groups of 10-20 stems were destroyed.

#### Current Conditions

The Pineland properties includes almost all heavily stocked forest land, with volume averaging 32 cords per acre, nearly twice the statewide average and approximately 50% above that for pine-rich southern Maine. The overall average includes 44 acres on the recent "tail" acquisition that was essentially clearcut in or about 1990. This portion holds perhaps five cords per acre. Forest other than that one stand averages 34 cords per acre, and the 165 acres of softwood type (28% of all operable forest land) holds 41 cords per acre.

#### Stand Type Characteristics (regulated acres only):

Due to the relatively small forest acreage under consideration, the types will all be described under one heading. The overall forest volume is 35% white pine and 20% hemlock. Red oak and red maple are next, with 14% and 10%, respectively, then red pine with 6% and paper birch with 4%. No other species has more than 2.5% of the volume. 63% of total cords are softwood species. White pine stems average 12.5" and close to 14" without the younger (planted about 1970) pine plantations on the newer North Yarmouth acquisition. Red oak averages 11.5", hemlock 10.7", and no other species averages larger than 9.5". Quadratic mean diameters over 10" occur only in stand components with a strong representation of large stems.

The softwood stands are dominated by white pine, with the exception of the planted red pine and one stand in North Yarmouth (original Pineland acres) heavy to hemlock with a significant superstory of pine and oak. This latter stand offers good winter cover for deer, and has been heavily utilized during past winters, though not visited by staff during recent winters. Mixedwood and hardwood acres have pine and/or oak as the dominant species, with hemlock and red maple also important. Nearly all acres hold high volumes of good quality timber, large old trees, abundant snags and woody debris, and fine opportunities for producing high value timber and high value late successional wildlife habitat. Management should maintain and enhance these conditions, favoring pines, oak, and hemlock, along with quality stems of spruce and hardwoods.

There are also two less common tree species found in limited areas of the original Pineland acreage. The first is American hornbeam, also known as blue beech. This is a small tree - Maine's big tree list recorded one just 9" in diameter and 25 feet tall, at Pineland, but it was badly damaged by the 1998 ice storm and currently the list does not include this species. It is found in significant numbers on heavy soils along the Royal River, mostly on the "tail" though the former champion was near the tract's west boundary and the railroad bridge across the river. The second tree is black gum, or black tupelo. Like American hornbeam it is a species most often found farther south, though tupelo's range extends to the Gulf of Mexico, far beyond that of hornbeam. Tupelo is a medium-size tree, and has been noted in a small wetland about 1,000 feet south of the three-town (Pownal, New Gloucester, North Yarmouth) corner, and also a couple hundred feet west of the gravel pit in Gray. The first site had about ten black gum at last visit, over ten years ago, while the second had only two trees noted.

<b>Timber Management Issue or Opportunity</b>	<b>Recommendation</b>
Because pines are not particularly useful as winter deer cover, only a small proportion of softwood acres have good cover value.	Emphasize and encourage, as possible, fir and hemlock cover, including when below a pine superstory.
Small populations of black gum and American hornbeam, neither species very common in Maine, are found on these lands.	The special protection areas along the Royal River will encompass these species. However, there are known black gum specimens outside of those areas. Foresters developing harvesting prescriptions should be aware of that black gum may be present and should not be marked for cutting.

### ***Transportation and Administrative Considerations***

The proximity of Bradbury Mountain State Park to the Pineland Public Lands points towards coordinating management activities between the Park and Public Lands. The park manager and staff report to the Maine State Parks Southern Regional Manager while the Pineland Public Lands are under the control of the Western Region Lands manager and staff. The power corridor trail license is managed by the Off-Road Vehicle program. Therefore, all three of these Bureau entities need to coordinate to maximize efficient and effective management and to provide recreational opportunities that function in a complimentary manner.

<b>Transportation and Administration Issue or Opportunity</b>	<b>Recommendation</b>
<p><u>Interagency Coordination:</u> The resources described in this plan involve management activities and responsibilities associated with three divisions of the Maine Bureau of Parks and Lands. Bradbury Mountain State Park falls under Southern Region Parks, the corridor lands and the Pineland Public Lands are the responsibility of the Western Region Public Lands, and the Off-Road Vehicle division oversees and manages the power corridor trail and trail license. However, there are opportunities for improving efficiency as well as visitor experiences made possible by improved intra-agency coordination.</p>	<p>Designate Bradbury Mountain State Park staff to oversee recreation management of the park and the corridor lands (as far as the power corridor). Designate the Off-Road Vehicle Program to maintain the segment of multiple-use trail along the power corridor and work with Central Maine Power to maintain the license agreement. Designate the Public Lands staff to manage trails at the Pineland Public Lands. To achieve coordination and efficiencies, designate Park staff to provide public information for all areas as well as be a partner in recreation projects to the extent possible (such as managing volunteers, performing routine trail maintenance, posting trailhead information, etc.).</p> <p>Encourage all Bureau staff to communicate and collaborate to provide a coordinated recreation experience between the various managed parcels. At least annually, a planning/work review workshop should be held to estimate projected trail corridor work, discuss recreation trends/observations/data, and to update management activities of note.</p>

## **Resource Allocations**

### *Special Protection Dominant*

All of the 5 acre Mayall Mills site in Gray (not shown in figure 8 or 9) will receive a special protection (historic/cultural area) allocation. Additionally, two parcels located respectively in northern and southern riparian areas along the Royal River will receive special protection designation. These two areas are based upon the Natural Resource Inventory, which identifies the location of a Hardwood River Terrace Forest and the presence of a population of rare wild leek (*Allium tricoccum*).

### *Wildlife Dominant*

Mapped deer wintering areas in both Pownal and North Yarmouth, 330' riparian buffers along the Royal River and Chandler River, and the Tryon Fields will all receive wildlife dominant allocations.

### *Remote Recreation Dominant*

The summit area atop Tryon Mountain will receive remote recreation designation. It is worth noting that this designation is intended to denote that recreation is the dominant value on site, but that forest management activities aiming to improve vistas and better showcase the historical aspects of the summit landscape (i.e., quarrying history) are completely permissible.

### *Visual Consideration Areas*

An approximately 100' visual class I buffer will apply to all public roadsides adjacent to all lands excluding the Park. A 100' visual class I buffer shall apply to each side of hiking trails, including the corridor trail. However, this allocation does not apply to the section of corridor trail adjacent to the southeast line of the North Yarmouth parcel at the Pinelands Public Lands.

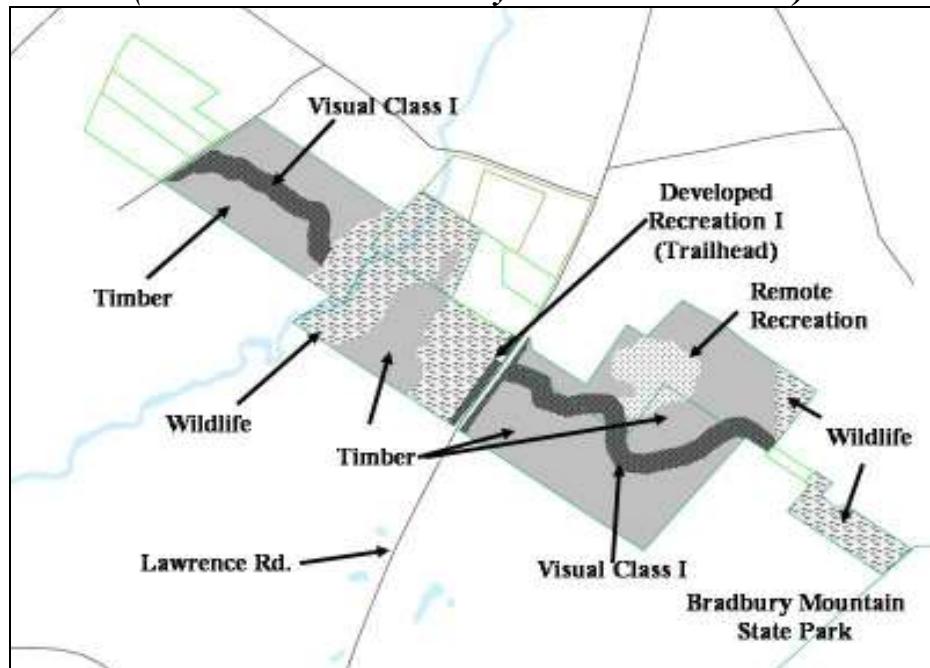
### *Developed Recreation Areas*

The aforementioned North Yarmouth parcel line adjacent to the trail corridor, which is both motorized and non-motorized at this point, will be a Developed Recreation Area. This allocation will extend 100' into the Bureau's ownership. Also, trailheads on the Depot Road, off Town Farm Rd. near the grave pit off the, and along the Lawrence Rd. in Pownal will be Developed Recreation as well.

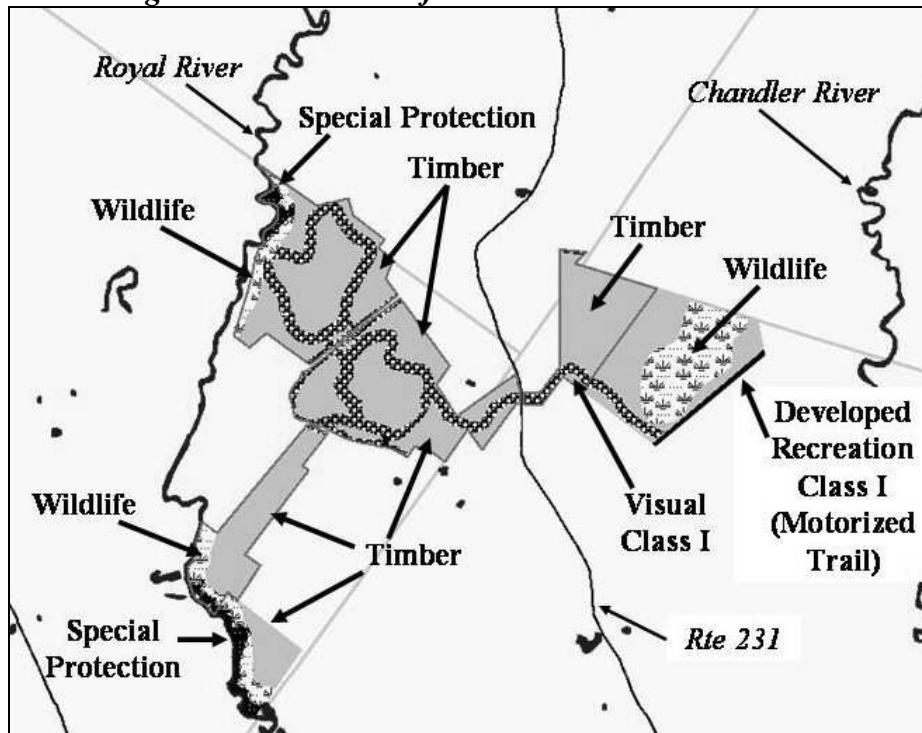
### *Timber Management Areas*

The remaining unallocated acres at the Pineland Public Lands, including the corridor lands, will be Timber Management Dominant. Timber will be a secondary allocation in wildlife, remote recreation, and visual consideration areas. However, it is worth noting that singletrack mountain bike trail development is to be explored in the southern half of the Pineland Public Lands within areas allocated as timber dominant. This recommendation does not trigger visual standards nor does it demote the timber dominant status. Rather, it intends to allow singletrack trail development in a way that does not restrict timber management.

*Figure 14: Allocations for the Fee-Owned Public Lands in the Corridor  
(Does Not Include Bradbury Mountain State Park).*



*Figure 15: Allocations for the Pineland Public Lands*



## **VI. Monitoring and Evaluation**

Monitoring and evaluation are needed to track progress in achieving the management goals and objectives for the Plan area and the effectiveness of particular approaches to resource management. Monitoring and evaluation will be conducted on wildlife, ecological, timber, and recreational management in relation to the expressed goals and intentions of this management plan.

### ***Implementation of Plan Recommendations***

The Bureau will develop an action plan for implementing and monitoring the management recommendations in this Plan. This will include an assignment of priorities and will, along with other Bureau responsibilities across the state, help shape budgets on an annual basis. The Bureau will track its progress in implementing the recommendations and make adjustments to the priorities as needed.

#### ***Recreation***

Data on recreational use is helpful in allocating staff and monetary resources for management of the properties and in determining the public's response to the opportunities being provided.

In addition to gathering data on use, the Bureau will monitor public use to determine:

- (1) whether improvements to existing facilities or additional facilities might be needed and compatible with general objectives;
- (2) whether additional measures are needed to ensure that recreational users have a high quality experience;
- (3) whether use is adversely affecting sensitive natural resources or the ecology of the area;
- (4) whether measures are needed to address unforeseen safety issues;
- (5) whether changing recreational uses and demands present the need or opportunity for adjustments to existing facilities and management; and
- (6) whether any changes are needed in the management of recreation in relation to other management objectives, including protection or enhancement of wildlife habitat and forest management.

#### ***Wildlife***

The Bureau, through its Wildlife Biologist and Technician, routinely conducts a variety of species monitoring activities statewide. The following are monitoring activities that are ongoing or anticipated for plan area:

- (1) The Bureau will direct efforts to manage the Tryon Fields for wildlife values.
- (2) The Bureau will monitor and manage the habitat within mapped Deer Wintering Areas;

- (3) The Bureau will work to address the presence of invasive plant species, notably along the Royal River in the areas where wild leek are found.

### ***Timber Management***

Local work plans, called prescriptions, are prepared by professional foresters in accordance with Bureau policies specified in its *Integrated Resource Policy*, with input from other staff. These documents are then peer-reviewed prior to approval. Preparation and layout of all timber sales involve field staff looking at every acre to be treated. Trees to be harvested are generally hand marked on a majority of these acres. Regional field staff provide regular on-site supervision of harvest activities, with senior staff visiting these sites on a less frequent basis. After the harvest is completed, roads, trails, and water crossings are discontinued as appropriate, although some management roads may remain open to vehicle travel. Changes in stand type resulting from the harvest are then recorded so that the Bureau's GIS system can be updated.

The Bureau is currently developing a post-harvest monitoring plan to assist forest managers in assessing harvest outcomes on all managed lands. The monitoring plan will also address water quality and Best Management Practices (BMPs) utilized during harvest activities.

Third party monitoring is done mainly through the forest certification programs of the Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative (SFI). Each program conducts rigorous investigations of both planning and on-ground practices. An initial audit by both programs was completed in 2001, with certification awarded in 2002. A full re-audit of both programs was conducted in the fall of 2006 with certification granted in 2007. The Bureau is also subject to compliance audits during the 5-year certification period.

## V. Appendices

### Appendix A. Advisory Committee Members

<b>Public Members</b>	
<b>Tim Giddinge</b>	<b>Town of Pownal Selectman</b>
<b>Derek Lovitch</b>	<b>Freeport Wild Bird Supply</b>
<b>Brian Stearns</b>	<b>Friends of Bradbury Mountain State Park</b>
<b>Brian Danz</b>	<b>New England Mountain Bike Association - Greater Portland Chapter</b>
<b>Ellen Ross</b>	<b>Maine Equestrian Trails Alliance</b>
<b>Phil Wentworth</b>	<b>Easement Grantor, Abutter</b>
<b>Chris Ayres</b>	<b>Easement Grantor, Abutter</b>
<b>Bureau of Parks and Lands Staff</b>	
Will Harris, Bureau Director	<b>BPL Director</b>
Rex Turner, Recreation Specialist	<b>Planner</b>
Ron Hunt, So. Reg. State Parks Mgr.	<b>Park Management</b>
Gary Best, So. Reg. State Parks Asst. Mgr.	<b>Park Management</b>
Frank Applebee	<b>Park Management</b>
Brian Bronson, Off Road Vehicle Division	<b>ORV</b>
Jim Brown, Off Road Vehicle Division	<b>ORV</b>
Joe Wiley	<b>Wildlife Biologist – IFW &amp; DOC</b>
Tom Charles	<b>Chief of Silviculture</b>

## **Appendix B. Public Participation and Responses to Public Comments**

*Issue Identification/Public Scoping Session:* On April 1, 2010 a public scoping session was held at the Pownal Elementary School. This meeting laid out the objectives of and approach to Bureau management plans while also seeking input from the public on management issues and opportunities.

*Advisory Committee Formation and Review of Preliminary Inventory and Assessment:* A Public Advisory Committee was formed in the spring of 2010. Members of this Committee were selected on the basis of their resource expertise, and for their regional and local knowledge in areas important to the management of the plan's properties. On May 26th, 2010 this committee met in Pownal to identify key asset and values in the plan area as well as documenting issues needing attention. Ideas from this meeting were incorporated into a First Draft Plan.

*Advisory Committee Meeting on the First Draft Plan:* This draft included proposed resource allocations and proposed management recommendations, and initiated the next step in the public review process – the solicitation of public comments and a public meeting to showcase the draft plan. The key elements of the draft plan were presented to the Advisory Committee for discussion on October 18, 2010.

*Public Meeting on the Final Draft Plan:* A public meeting was held to review the Draft Management Plan and its proposed recommendations and to listen to public reactions, questions, and comments. The meeting, held on December 8<sup>th</sup> 2010 at the Memorial Elementary School in New Gloucester was well attended with a little over 50 participants.

*Commissioner's Review of the Proposed Plan, and Plan Adoption:* Comments received on the Final Draft Plan were considered as the final Plan for review by the Director of the Bureau of Parks and Lands was completed. Upon the Director's recommendation, the Plan was subject to the review and approval of the Commissioner of the Department of Conservation before it is officially adopted by the Department.

<b>Comments on the Plan Draft for the Bradbury Mountain State Park- Pineland Public Lands Management Plan (Summarized)</b>	
<b>Comment Theme: Support for a Greater Number of Narrow Singletrack Mountain Bike Trails.</b>	
<b>Comment</b>	<b>Response</b>
<p><b>The Bureau should develop more than a single, point to point trail in the corridor lands between the park and the power corridor. This includes the Bureau properties on and around Tryon Mountain.</b></p> <p><b>Arguments:</b></p> <ul style="list-style-type: none"> <li>• Loop options improve the experiences of trail users by providing varying options of different difficulty and length for individuals and families. Multiple trail options promote repeat visitation and trail use.</li> <li>• Potential conflict between trail user groups is reduced by dispersing use, and opportunities for solitude are increased through dispersing use as well.</li> <li>• Multiple, properly constructed contour trails can withstand the impacts of use and reduce erosion better than all use occurring on a single trail.</li> <li>• New, multiple loop trails would reduce the current impact on existing trails within the park.</li> <li>• Mountain bikers have a demonstrated track record of volunteering at Bradbury Mountain State Park and would likewise volunteer on singletrack trails within the corridor.</li> </ul> <p><b>Comments supporting this position received from:</b></p> <p>Robert Adair, President -White Mountains chapter of the New England Mountain Bike Association</p> <p>John Anders, Midcoast Maine chapter -New England Mountain Bike Association (McNEMBA)</p> <p>Brian Alexander</p> <p>Christopher Anderson</p>	<p>The decision to develop a single multi-use trail with limited destination spur side trails within the Corridor Lands instead of the requested multiple loop trail concept was difficult given the excitement and willingness to volunteer exhibited by the trail community, especially those whose passions focus on singletrack mountain bike trails. However, the Bureau's decision was based on several countering factors.</p> <p>First, it became clear that the community was not completely comfortable with higher levels of trail development. This included town officials, the land trust community, abutters, and several parties involved in the delicate negotiations and acquisitions that made up the corridor.</p> <p>Wildlife, and hunting considerations, and the sensitivity of solitude were also factors. While individual singletrack trails may not constitute a major impact to wildlife habitat and behavior, multiple routes on which trail users frequently pass through habitats is a point of concern. Any trail is a vector for disturbance and the planning process identified minimizing wildlife impacts here as a priority.</p> <p>Hunting is not incompatible with trails. The Bureau provides areas for both on its lands across the state. However, as with the wildlife concern, density of trails was identified as an issue that can lead to diminished hunting experiences.</p> <p>Additionally, recommending a single trail linked to other trail segments is seen as a way</p>

David, Maureen, Helen and Philip Anderson  
William A. Turner  
Leanne Bard and Arthur Davis  
Mark Battle  
Bicycle Coalition of Maine  
Jeff Borland  
David Boyle  
Fred Masciangelo  
James Thibodeau  
Michael Loncoski  
Andy McMahon  
Brooks More  
John Burns  
Paula Burton  
Aron Buterbaugh  
Allspeed Cyclery & Snow  
Nicholas A. Carll  
Tom Caswell  
Bart Chapin  
Gregory V. Choquette – CR NEMBA  
James Cornwall  
Kris Les  
Trevin Cobb  
Phil Coupe  
Tony Cowles  
Nate Crooker  
Brian Danz  
Gerry Dauphin  
Matthew DeLorme  
Marguerite Pennoyer and Donald Endrizzi  
Scott Farrell  
Tom Fremont-Smith  
Andrew W. Freye  
Matthew Furtney  
Friends of Bradbury Mountain  
Shannon Gilmore  
Adam Glick, President Greater Boston  
NEMBA  
Craig Hansen  
John Harrington  
Tim Hawkins  
Andy Haynes  
Healthy Casco Bay  
Nora Healy  
David Hughes -Carrabassett Region NEMBA  
President

to provide access across a relatively undeveloped area while preserving the opportunity for off-trail experiences including not just hunting but also wildlife observation and general appreciation of quiet spaces in nature.

The Bureau notes that Bradbury Mountain State Park has over the past decade seen a surge in the construction of new trails, especially mountain bike trails. This has breathed exciting new life into the Park. Over 18 miles of mountain biking trails are available, including over 12 miles of singletrack. In fact, a number of new trails have already been added east of Route 9 on newly acquired lands that were part of the Bradbury-Pineland project (the Ginn, Ragan and Lanzo Trails).

The Bureau determined that the multi-use trail through the Corridor Lands, onto the CMP power corridor multi-use trail and eventually onto the Pineland Public Lands would expand the existing biking opportunity and experience at the Park with a cross-country element for those looking to expand the geography of their experience.

While singletrack trails can be built to a high standard with limited environmental impact, the Bureau has concluded that dispersing use onto new trails is not environmentally preferable to concentrating use on an existing trail given that multiple trails have real implications for the quality of wildlife habitat.

The Bureau does recognize all of the many hours of volunteer labor, event management, and experience provided by trail groups at Bradbury Mountain State Park

<p>Channing Jones Kurt Jorgensen David Keppler Aaron Kiander Kate Kingston Dan Kovarik Andrew Krantz Hattie Landry Erik Langenbach Anders Larson Robert L Lavoie Joshua M. Lawrence Casey Leonard Arnold Macdonald Nathan Mack Bruce A. Malmer Dan March Scott Markowski Caroline and Ben Mathes Christopher J. McGrath Andy McMahon Debra Merrill Maine Outdoor Adventure Club Michael Moore New England Mountain Bike Association (NEMBA) Eammon Carleton – Blackstone Valley chapter NEMBA Gregg Novick John Pentecost Kurt Perham North Shore New England Mountain Biking Association (NSNEMBA.) Glen L. Porter Phillip J. Potenziano Sheldon Prosser Mary P. Rial Ken Rogers Sheila Reiser Mark Ruggiero Will Sherman Eric Schonenberg Brian C. Soares Natalie Spak Michael Stephanakos Timothy Stiles</p>	
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<p>Jennifer Story      Jonathan A. Sylvester      James Tasse      Joshua Tauses-Carrabassett Region NEMBA      Tom Tero      Danielle R. Triffitt      Kerry Tull      Peter Van Alstine      Mitch Wacksman      Eric Warren      Bret Watson      Brad M. Weller      Ruth Wheeler      Dan Sexton      C. S. Whichard      Bill Yeo      Ray Youmans      Edward Zelonish      Jack Zinn      Sam Zuckerman</p>	
<p><b>The planned multi-use (non-motorized) corridor trail is too wide and does not provide the intimate experience that narrow trails do.</b></p> <ul style="list-style-type: none"> <li>• Narrow, “singletrack” trails following contours have only a minimal impact on plant and animal communities.</li> <li>• A “highway” through the woods will not serve the interests of trail recreationists.</li> <li>• Mountain biking is generally not a point A to point B activity. Riders prefer loop trails with various natural and man-made obstacles to challenge skill and stamina.</li> </ul> <p><b>Comments supporting this position received from:</b></p> <p>Christopher Anderson      John Burns      Aron Buterbaugh      Peter DeSantis      Barry Dikeman      Ken Filliter      Steve Fischer      David Hughes -Carrabassett Region NEMBA President      Jim Iannazzi      Hattie Landry</p>	<p>The Bureau recognizes that the multi-use, non-motorized corridor trail laid out over 2009/2010 is not a singletrack mountain bike trail. It is intended to be maintained to approximately 8 feet in cleared width (less of a treadway) and 14' in cleared height. Where necessary, surface material (such as gravel) will be imported. These elements are based on a combination of rescue considerations, access for trail maintenance, and activity needs (e.g., equestrian standards, etc.).</p> <p>At the same time, the Bureau believes the trail will provide an aesthetically pleasing experience. It is not a “bulldozed path” nor is it a straight line but a gently winding path that generally flows with the landscape. Overall, it is intended to be a welcoming route for multiple user groups.</p> <p>The trail may not meet the technical bike riding niche filled by trail segments within the Park, but it does play a fitness and intermediate rider role.</p>

<p>Eric Schonenberg      James Tasse      Joshua Tauses-Carrabassett Region NEMBA      New England Mountain Bike Association      (NEMBA)</p>	
<p><b>Historical expectations for multiple biking trails in the corridor (Pownal) were tied to and heightened by acquisitions in the corridor.</b></p> <p>John Burns      Brian Stearns      Joshua M. Lawrence      James Tasse      New England Mountain Bike Association      (NEMBA)</p>	<p>The Bradbury-Pineland Corridor Project that acquired these lands stated, as one of its objectives, expanded trail opportunities for mountain biking and hiking. So it is not unexpected that expectations were raised regarding new mountain biking opportunities. The Bureau notes that for the three parcels that were added to the Park as part of this project, (Ginn, Ragan and Lanzo) there have already been additional mountain biking trails planned and constructed bearing the names of these landowners.</p> <p>The present planning effort began after those trails were constructed, however, and is part of the process used for planning Public Lands as opposed to Parks. For the Public Lands corridor, how trails are planned and designed must be determined through a required public planning process, and in the context of the multiple-use mandate of Public Lands. The Bureau, through this process, has come to understand the differing historical expectations associated with acquisitions, and has had to consider broad community input in determining future uses of the property. This is decidedly different from the process used at the Park. The outcome is a more multi-use orientation that complements what has been done in the Park.</p>
<p><b>Singletrack mountain bike trails are lower impact than some other trail types in Maine and are used by other activity groups in addition to biking, yet singletrack trails appear to be viewed negatively or are otherwise not embraced.</b></p> <p>Craig Hansen      Tom Tero</p>	<p>The existence of an extensive and recently expanded trail network at Bradbury Mountain State Park, and proposed new possibilities at the Pinelands Public Lands speaks to the Bureau's view that this activity should be part of the trail opportunity available at state lands. The Bureau has recently included singletrack trails in the management plan for the Androscoggin Riverlands State Park; and singletrack trails are being considered at Lake</p>

	<p>St. George State Park, Range Pond State Park, and Aroostook State Park. The Bureau welcomes an ongoing dialog between bike enthusiasts and the Bureau regarding singletrack trails on Bureau properties.</p>
<p><b>Developing more trails will have significant benefits for health, wellness, and education. These benefits should be considered as support for increasing the amount of trails available through this planning process.</b></p> <p>Jeff Borland  David Boyle  Bart Chapin  James Cornwall  Andrew W. Freye  Mike Loughlin  Kent Simmons  Ken Rogers  Jonathan A. Sylvester  Robert W. Tabor</p>	<p>The Bureau agrees that mountain biking provides significant health benefits. A major priority in Maine's 2009-2014 State Comprehensive Outdoor Recreation Plan involves connecting more Mainers of all ages with the benefits of outdoor recreation. The Bureau feels that this plan helps meet this goal. The corridor trail is a new recreation opportunity affording both contemplative and fitness benefits. Additionally, the power corridor trail links the Park and Corridor Lands with the Pineland Public Lands, which in turn will receive new and upgraded trails. The plan provides miles of new trail opportunities, including additions already accomplished prior to this Plan on lands acquired as part of the Bradbury-Pineland Project.</p>
<p><b>Bradbury Mountain State Park's value as a tourist destination has grown greatly due to mountain biking and there is now potential for even more growth and the associated positive economic impacts.</b></p> <p>Jim Barry  Allspeed Cyclery &amp; Snow  Patrick Hackleman - Casco Bay Sports  Andy Haynes  Jim Iannazzi  Andrew Krantz  Casey Leonard  Arnold Macdonald  Bret Watson</p>	<p>Mountain biking has helped promote the Park as a destination. Certainly, that increase in use has not only increased Park entry fee revenues but also has contributed to the local economy. However, growth and change must be weighed against the risk that balance can be lost in relation to the other uses at the Park and the connected lands. Apprehension about losing balance was a major theme expressed during this planning process. At the same time, the plan does increase trail opportunities without diminishing existing opportunities.</p>
<p><b>Mountain Biking has provided a dramatic increase in Park attendance and revenue.</b></p> <p>Phil Coupe  Gerry Dauphin  Patrick Hackleman -Casco Bay Sports  Robert W. Tabor</p>	<p>See above.</p>
<p><b>The concept of "rogue trails" is incorrect, and stems at least partially from a misunderstanding of the 2007 "Enduro"</b></p>	<p>The creation and use of unapproved trails is not unique to one user group (e.g., mountain bikers). In the case of this plan, the Bureau</p>

<p><b>race course on the Tryon Mountain area that was temporary in nature and approved by the past park manager. Friends of Bradbury Mountain State Park and the mountain bike community have worked to quickly address very limited instances of unapproved trail building.</b></p> <p>Brian Stearns</p>	<p>heard concerns from a number of individuals that bikers have created new trails or used trails not designated for biking. It is a sensitive issue here in relation to both private lands and citizens being protective of the recently acquired Corridor Lands. The “Enduro” race example has been a source of confusion, including expectations for future trail development. The Bureau accepts its role in creating this source of confusion. The Bureau appreciates that the biking community tries to educate and direct users to avoid undesignated trail use. Moving forward, as reflected in this Plan, the Bureau does want to work constructively with the biking community to create new opportunities. We recognize that we also will need to work together to educate not just mountain bikers but the public regarding designated trail uses to avoid future misunderstandings.</p>
<p><b>Comment Theme: Support for Limiting Trail Development to a Single Multi-use Trail in the “Corridor Lands”</b></p>	
<p><b>Comment</b></p> <p>Pownal residents value rural character, open space, and traditional recreational experiences. Tryon Mt. in particular is a destination for family picnics, gem – hunting, observing wildlife, and finding solitude. Hunters seek out this undisturbed area. These values are threatened by proposals to develop a network of trails beyond a single corridor trail.</p> <p>Pownal Board of Selectmen Stanley Rose Candace Hyde</p>	<p><b>Response</b></p> <p>In this planning process, the Tryon Mountain area was a focus of major public input, including intense interest in having a more developed trail network. The Bureau decided against this more intensive trail concept, and instead focused on balancing two goals: trail connectivity to the Pineland Public Lands, and the protection of the wildlife/hunting/solitude values.</p>
<p><b>The acquisition process that was undertaken to obtain the Corridor Lands for the state was promoted as supporting unfragmented wildlife habitat, the conservation of wild open space, and a single recreational trail link between conservation properties. Participants did not expect these lands to be developed with a network of multiple loop trails. That level of development threatens the very qualities the project targeted to protect.</b></p>	<p>The Bureau did heavily weigh the intent of the Bradbury-Pineland Project and input of those involved in acquisitions. The Plan supports the value of these lands as wildlife habitat as well as recreation corridor through its decision to focus trail development on a single connector trail with minimal side trails to destinations within the Corridor Lands.</p>

<p>Steve Hyde      Bill Ginn      Liza Nichols      Royal River Conservation Trust      Chris Ayres      Ron Huntley</p>	
<p><b>The proposed single trail is a good plan in that it provides new opportunities for long distance trail users while still allowing shorter duration users to enjoy trails at either end of the connecting corridor</b>      Ellie Tucker</p>	<p>The Bureau agrees that diversity of opportunity should be a guiding principle in planning for multiple interests on limited lands.</p>
<p><b>There are already negative impacts from the increased number of mountain bikers, including rude and proprietary behavior, renegade trails, and unsafe interactions along trails.</b>      Deb Cluchey      Jennifer Caven</p>	<p>Mountain biking is a designated use at Bradbury Mountain State Park and per this plan, will be in the Corridor Lands, along the CMP trail license, and eventually within the Pineland Public Lands. Mountain bikes are not allowed on trails other than designated trails.</p>
<p><b>Mountain bikes pose a danger to other trail users.</b>      Liza Nichols      Jonathan Dawson</p>	<p>The Bureau will use a variety of tools to manage recreation on trails at Bradbury and Pineland. Education is the Bureau's preferred approach, with enforcement a secondary tool. Understanding standard trail etiquette is always a need when multi-use trails are constructed on heavily used public lands. Bureau staff will address this education need, and welcomes user-group assistance.</p>
<p><b>Additionally, mountain bikes should be prohibited in the Corridor Lands, or if allowed, should have a separate trail.</b>      Jennifer Caven      Jonathan Dawson</p>	<p>Staff will continue to listen to issues and monitor any problems relating to safety. If problems are encountered, the first step will be to communicate the issue with the responsible user group.</p>
<p><b>Mountain bike use of trails deemed non-mechanized (i.e., hiking, walking only) should be deterred through the use of bollards, gates, fencing, etc to reduce the ability of non-approved users to access sections of trail that is closed to said group(s).</b>      Derek Lovitch</p>	<p>There is formal and informal segregation of trail use within the Park. Along the corridor trail, however, multiple non-motorized uses are to be permitted, including mountain biking. At the Pineland Public Lands, the Northern Loop Trail will remain pedestrian uses only. Signage and, where practical, design elements will be used to deter unapproved uses.</p>
<p><b>"The east side of the Park that has seen a</b></p>	<p>The east side of the Park was not developed</p>

<p><b>huge proliferation in mountain biking trails that has virtually excluded all other user groups Furthermore, both Northern Goshawk and Red-shouldered Hawk no longer appear to breed in the park. Both species had nesting territories on the east side of the park as recently as 2007, but neither species were suspected of nesting by 2010. Both species- like most forest-breeding raptors - are notoriously susceptible to disturbance near the nest. The elimination of these species in the park does coincide with the increase in trail development and use, although – to be fair – numerous other variables cannot be eliminated. This type of impact supports limiting mountain biking trail development in the Corridor Lands.”</b></p> <p>Derek Lovitch</p> <p><b>The number of trails on the east side of the Park are visually unappealing and very disturbing.</b></p> <p>Donna Thurston.</p>	<p>under a management plan. However, its development has greatly expanded biking opportunities held dear by many bikers. The plan does not recommend closing any existing approved mountain bike trails within the Park. At the same time, the plan does not advocate for trail development similar to the east side of the Park (due to several factors described in more detail throughout this plan).</p> <p>The Bureau is open to learning more about potential wildlife impacts. As resources and opportunities allow, the Bureau will assess impacts to breeding bird populations and habitats. This may be most relevant to any new trail planning efforts associated with implementing this plan (e.g., connector trail segments at the Pineland Public Lands).</p>
<ul style="list-style-type: none"> <li>• <b>There is concern that the park’s overall vision is a balanced one, and not overly driven by the vision of a particularly user group, even if that group is extremely enthusiastic and motivated.</b></li> <li>• <b>“While new trails provide more recreational opportunities, they have potential to adversely affect wildlife habitat, increase erosion and runoff, and negatively affect the overall experience of other park users – particularly those engaging in more passive pursuits”. Along these lines, surveys may be useful in understanding potential impacts from higher levels of trail development.</b></li> </ul> <p><b>The current plan is an opportunity to provide balance in that recent developments have swung the pendulum too far in the direction of mountain biking.</b></p> <p><b>There is a question as to how much the Park</b></p>	<p>Most generally, this plan does not direct management to develop any undeveloped areas into “mountain bike parks”. There is a recognition that much development has occurred to enhance mountain biking at the Park and that numerous values need consideration.</p> <p>Survey work is a valuable idea and will be pursued as resources allow.</p> <p>The concept of a post-management plan “management committee” touches upon the need to maintain communication with numerous stakeholders, which is recognized.</p> <p>As part of the Bureau’s standard planning process for Public Lands, the advisory committee will receive 5-year updates on the progress of implementing the management plan, and any new issues not addressed in the Plan that warrant attention.</p>

<p><b>should be developed to accommodate users versus being left undeveloped. Furthermore, there may be a need to abandon multiple-use principles in places and instead segregate uses.</b></p> <p><b>The Bureau should consider following up the plan with a management committee made up of Bureau staff, some local members and perhaps one representative of each major user groups, (e.g. biking, hiking, Nordic skiing/snowshoeing, hunting and horseback riding.)</b></p> <p>Will Johnston</p>	
<p><b>The mountain bikers having a well organized advocacy approach, an economic impact for the Park, and a history of volunteering should not trump other factors and give mountain biking unfair consideration in this plan.</b></p> <p>Liza Nichols</p> <p><b>The walking/hiking public is not as organized as the biking community and this should be taken into account.</b></p> <p>Jonathan Dawson</p>	<p>The goal of the management plan input process was to gather the full range of perspectives. All perspectives have value and have been considered in this Plan. No one perspective has been afforded more weight because of a well-organized constituency, or economic considerations. The Bureau has a multiple use mandate for Public Lands. Our policy document, the Integrated Resource Policy (IRP) reflects the Bureau's priorities to maintain diverse opportunities, a diverse environment and to protect sensitive resources.</p>
<p><b>Mountain bikes are very damaging to the environment and more trails will equal more damage.</b></p> <p>Liza Nichols</p>	<p>Essentially all recreation activities have some degree of impact. Trails of all sorts concentrate use and can lead to erosion and other environmental impacts if not properly managed. This plan recognizes this and it is this reality that has guided the decision to limit trails in certain areas where numerous persons advocated for more trails.</p> <p>The Bureau appreciates that mountain bikers at Bradbury Mountain have demonstrated a willingness to seek out expert trail-building resources as well as provide volunteers to improve the sustainability of trails.</p>
<p><b>The Wilson Rd. is private and with the exception of a short distance on which the corridor trail will travel should be clearly listed as private.</b></p> <p>Chris Ayres</p>	<p>This is noted. The Bureau will work with adjacent landowners to direct trail users away from the Wilson Rd. (with the noted exception).</p>

<b>Comment Theme: Trail Development at the Pineland Public Lands</b>	
<b>Comment</b>	<b>Response</b>
<b>Any new trails developed at the Pineland Public Lands property should be reviewed and open to input from neighboring landowners.</b> Scott. Whichard	Planning for development of trails is guided by a management plan process including public input. Design and implementation of new trails recommended in the Plan is done in accordance with Bureau standards and is performed under the supervision of Bureau staff.. Because the proposal for a potential new ATV trail through the Pineland Public Lands was received after the draft plan was prepared for public comment, the Bureau has recommended any ATV trail considerations in Pineland, which are identified as possible though not preferred, be subject to a public review process, with specific input sought from neighboring property owners.
<b>The Bureau should prioritize fixing the existing North and South Loop hiking trails over construction of any new trails at the Pineland Public Lands.</b> Courtney Kennedy	The Bureau acknowledges that the existing North and South Loop Trails do need significant repairs. The Plan recommends that the North Loop Trail retain its current pedestrian only designation; as such appropriate maintenance improvements for hiking/walking are not tied to any other trail work and could be scheduled as resources allow. The South Loop Trail has been identified as an opportunity to diversify trail uses associated with the Bradbury-Pineland trail linkage. Namely, this trail loop and the area around it will be explored further for potential to upgrade the trail to also allow bike and equestrian use (as conditions allow). This upgrade needs to coordinate with a new linkage to enable those uses (in addition to pedestrian uses) to link from the power corridor trail. Hence any improvements to the trail should reflect new uses planned for the trail. This will necessarily require additional planning and design before any improvements are made.
<b>The proposed trail linkage points adjacent to Rt. 231 are not appropriate for trail development due to habitat and wildlife sensitivities.</b> Scott Whichard	Existing data from the Maine Department of Inland Fisheries and Wildlife depicts a Deer Wintering Area east of the proposed Rt. 231 crossing area. Additionally, Beginning with Habitat assessments for North Yarmouth ( <a href="http://www.beginningwithhabitat.org">http://www.beginningwithhabitat.org</a> ) show a

	<p>limited strip of high value habitat in the 231 area. This data is based on a habitat suitability model developed by the Gulf of Maine Coastal Program (US Fish &amp; Wildlife Service). However, the bulk of the Bureau property here is not identified as especially sensitive or unique. This aligns with the findings of a Natural resource Inventory performed by the Maine Natural Areas Program in the summer of 2010.</p> <p>The intent of a connector trail would be to finish the non-motorized link between Bradbury and Pineland. Efforts will be taken to locate the most environmentally benign route, even though there is limited Bureau ownership to choose from in this linkage area.</p>
<p><b>The proposed trail segment near Rt. 231 should avoid being located next to abutting private properties.</b></p> <p>Robert Kendrick</p>	<p>Location of this segment of proposed trail is constrained by a narrow segment of Bureau property ownership. Therefore, it is more difficult here to be far removed from abutting property lines. However, the Bureau will avoid placing trails next to boundary lines as much as possible.</p>
<p><b>There is already an existing trailhead on the Depot Rd. in Gray that receives only light use, so why would the Bureau propose a new trailhead on the Town Farm Rd.? Why not just increase the size and improve the visibility of the existing trailhead?</b></p> <p>Judd Newcomb</p>	<p>The justification for a proposed trailhead/parking on the Town Farm Rd. is to provide trailhead parking for not only hikers/walkers, but also bikers and potentially equestrians. The trailhead on the Depot Rd. immediately accesses the North Loop Trail, which is to remain closed to mountain bikes and horses. A new location on the Depot Road would avoid confusion and potential congestion at this site. Additionally, a trailhead off the Town Farm Rd. would give the Bureau the option of phasing in potential improvements to the South Loop Trail to accommodate biking and equestrian uses. This would allow access to a proposed link to the power corridor multi-use trail and on to the Corridor Lands in Pownal and Bradbury Mountain State Park.</p>
<p><b>There are numerous trail running events at the Pineland Center using their trails and facilities. It would be great to link with that trail system as well.</b></p>	<p>The Bureau is open to exploring connectivity with other trail systems.</p>

Mark Bergeron	
<p><b>“The consideration to allow motorized vehicles (4-wheelers and snowmobiles) would ruin any opportunity for the hikers, bikers and snowshoeing, etc. to enjoy those trails.” Noise, pollution, and watchable wildlife will be destroyed by allowing ATVs and snowmobiles into the Pineland Public Lands.</b></p> <p>Courtney Kennedy, echoed by Steven Mitchell and Tim Anketelle</p>	<p>The Plan states a clear preference for finding connections working with other key landowners rather than introduce ATV trails to the Pineland Lands. Due to the uncertainty and lack of time for in-depth public comment regarding potential ATV access, the Bureau intends to fully engage the public if any further consideration is given to ATV use at Pineland.</p>
<p><b>The last minute addition of considering ATV and snowmobile use at the Pineland Public Lands is unfair to the process.</b></p> <p>Courtney Kennedy</p>	<p>See above.</p>
<p><b>Any non-motorized connection between the CMP power corridor trail and the existing Pineland Public Lands trails will lead to unapproved use by snowmobiles and ATVs.</b></p> <p>Scott Whichard</p>	<p>Managing trail use of public lands is a continual task undertaken by the Bureau. In this specific case, not unlike the junction between the Corridor Trail (non-motorized) and the power corridor trail (non-motorized &amp; motorized), there will be a clear break in designated use. In both cases, trail design (e.g., junction location, width of trail clearing, boulder barricades, etc.) as well as signage are onsite tools used to discourage unapproved use. Additionally, ongoing communication with trail users and abutters will help monitor inappropriate trail use.</p>
<p><b>Given that ATV and snowmobile labor and funds are being used to construct the power corridor trail section, the Bureau should strongly consider allowing ATVs and snowmobiles to cross the Pineland Public Lands.</b></p> <p>Scott Hatch</p>	<p>Bureau trail projects use a variety of funding sources. In this example, it is recognized that the Bureau’s Off-Road Vehicle Program worked hard to develop the power corridor trail and that that trail is open to non-motorized users as well as ATV riders and snowmobilers. The Bureau also notes that part of the funding behind that project included Recreational Trails Program funds from the Federal Highway Administration that were specifically designated for diverse uses (i.e. ATV/bike/equestrian etc.). While trail improvement funding sources often have specific stipulations on intended trail uses, these funding sources are not the determining factor in the planning of trails networks - they are more properly implementation tools.</p> <p>Factors that will determine whether the link</p>

	being sought to connect to the Powerline corridor travels through Bureau or private lands include ensuring existing trail systems are not adversely affected and the best possible trail location is used to avoid environmental issues.
<b>Comment Theme: Regional Trail Linkages</b>	
<b>Comment</b>	<b>Response</b>
<p><b>In reference to the Corridor Lands, the draft plan has a recommendation reading, "However, short, supplemental destination trail segments may be considered in select locations. These additional segments will be limited and will be designed to provide access to a side feature."</b></p> <p><b>This statement is much too limiting and does not provide for the consideration of future trail links to additional lands.</b></p> <p>Rosemary Whitney Nancy Wines-DeWan</p>	<p>The draft text mentioned was intended to address the proposed concept of multiple loop trails within the Corridor Lands owned by the Bureau. If opportunities arise to connect to a trail on partnering non-Bureau properties, these opportunities should be explored with guidance from the plan. This is especially true for regionally significant opportunities. This concept has been included in the final plan.</p>
<p><b>There is not enough public land in this area to support the recreation demand and therefore, the publicly held conservation properties should be nuclei around which recreation partnerships with private landowners radiate.</b></p> <p>Scott Hatch</p>	<p>Please see above and note the reference to exploring regional opportunities with partners. The Bureau's primary mechanism for expanding recreation opportunities on private lands is through trail agreements -notably for ATV and snowmobile trails, but also now including private endeavors such as the Western Mountains Foundation Hut to Hut cross-country ski trail system. However, the Bureau has a very limited capacity to engage in this sort of regional trail system planning, the exception being the dedicated ORV Program which is funded with equipment registration fees and gas taxes.</p>
<p><b>The State should facilitate ways to increase connections between the Bradbury/Pineland corridor trails and other regional trail networks in Cumberland County.</b></p> <p>Friends of Bradbury Mountain</p>	<p>See responses above.</p>
<b>Comment Theme: Support for Expanding Equestrian Trails.</b>	
<b>Comment</b>	<b>Response</b>
<p><b>Equestrians are losing opportunities to ride across the state. This loss of opportunity is</b></p>	<p>The Bureau intends to use the Corridor Lands, the CMP power corridor trail license, and, as</p>

<p><b>driven by sprawl and loss of landowner permission. The loss is most acute in southern Maine (e.g., Cumberland County).</b></p> <p>Vicki Austin Char Jewell Sally Labree Judy Morton Amy Morton Susie Reinheimer Donna Sutera Melanie Voisine JoAnn Walker Kathrin Wormwood</p>	<p>much as possible given resources and site conditions, the Pineland Public Lands as an opportunity to enhance the equestrian opportunities in southern Maine. Additionally, the Bureau is supportive of partnering with other landowners to expand opportunities through trail linkages.</p>
<p><b>Equestrians do not need multiple trails in the Corridor Lands. Experience shows that multiple-users on the same trail can work well, including with horses.</b></p> <p>Vicki Austin Patsy O'Brien</p>	<p>It is the Bureau's intent to help educate trail users and manage recreation so that multiple user groups can effectively share trails. Input, support, and ongoing dialog with equestrians will help this effort.</p>
<p><b>Horseback riding has documented, positive economic impacts as well as social benefits to communities and individuals.</b></p> <p>Char Jewell Erin Judkins</p>	<p>The Bureau agrees that horseback riding is a valuable recreational activity with a variety of benefits.</p>
<p><b>There are limited long-distance opportunities for horseback riding and riders are often forced onto unsafe, busy roads.</b></p> <p>Mary Ellen and Jim Hesselbacher Erin Judkins Karla Morrill Judy Morton Amy Morton Donna Sutera</p>	<p>It is hoped that over time the Bradbury Mountain State Park – Pineland Public Lands Management Plan and the implementation of its recommendations will create a riding opportunity in which riders can find safe, continuous riding on trails located in predominantly natural settings.</p>
<p><b>Horses are already allowed on some trails at Bradbury Mountain State Park, so it is only reasonable to extend the opportunity that currently works well within the Park.</b></p> <p>John Armstrong Nancy Wines-DeWan Susie Reinheimer Donna Thurston</p>	<p>This reality is part of the foundation of the vision for the multi-use non-motorized trail through the Corridor Lands and on to Pineland via the power corridor trail.</p>
<p><b>Existing equestrian trails at Bradbury Mountain State Park can be seen as too limited to justify a trip. Expanding the available trail mileage would be great.</b></p>	<p>See above.</p>

<p>Sally Labree</p> <p><b>Equestrian trail users require specific parking spaces (no less than 40' in length, with drive through layout ideal). It is encouraged that equestrians locate a private parking facility not within the Park to be managed by equestrians and to possibly serve ATVs as well. This trailhead would not require fees, though the lost Park revenue (from equestrians not accessing trails via a trailhead inside the Park) would be compensated by not having trailers take up multiple spaces within the Park.</b></p> <p><b>Furthermore, the distances horses are capable of covering necessitate the trails at the Park and the Pineland Public Lands being seen as part of a larger system. Therefore, a pilot program to bring together Bureau managers as well as private landowners to facilitate trail connections and management should be initiated.</b></p> <p>Scott Hatch</p>	<p>The Bureau acknowledges that equestrian users require specialized accommodations for parking and handling of horses, and that the park is not well-equipped for these needs at this time. Linkages with trails and trailheads on private land is possible, as this plan indicates that the Bureau is open to exploring regional trail linkages beyond the Bureau's property ownership or trail license.</p> <p>The Bureau depends on visitor fees to support needed amenities, including trails and bridge crossings that accommodate horses. Expanding opportunities that link into park systems must recognize the reality that visitors to the Park are required to pay an entrance fee (if they do not have a pass). This can be accomplished, even if accessing the park from a trail originating outside the Park boundary. Iron rangers, in which users deposit a fee into a secure metal tube, are to be available in addition to the gatehouse.</p> <p>The Bureau understands there are a number of improvements that could be made to the Park to increase accommodation to a variety of user-groups. This Plan is not facilities improvement Plan for the Park. Such a plan is recommended however. Addressing the needs of equestrians would be an appropriate topic for such a plan.</p> <p>As previously noted, the Bureau has a very limited capacity to engage in regional trail system planning, the exception being the dedicated ORV Program which is funded with equipment registration fees and gas taxes. Nevertheless, the Bureau welcomes an ongoing dialog with trail users and regional trail providers.</p>
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**Comment Theme: Thoughts on Trail-Related Improvements & Management (Not Specifically Concerning Trail Locations or Number of Trails)**

Comment	Response
<b>The plan should consider developing use specific trails and trailheads, to separate use.</b>	The Bureau has successfully created and managed both dedicated trails and multi-use

Damon L. Smith	trails. Multi-use trails are designed to maximize recreation opportunity on limited lands, and to minimize maintenance costs and environmental issues. Separate or dedicated trails target separation of uses needed for specific desired experiences. This Plan includes both types of trails. A non-motorized multi-use trail crosses the Corridor Lands; a multi-use motorized and non-motorized trail crosses the CMP corridor lands; and at the Pinelands Public Lands, the plan recommends both, keeping the North Loop Trail pedestrian only while allowing the possibility of bikes and horses on the Southern Loop Trail and to planned linkages to the power corridor trail.
<b>Within the entire corridor, trail development should include points of interest for all user communities and should include view spots, benches or picnic tables and side trails to natural geographic features of interest.</b> Friends of Bradbury Mountain	The Plan for the Corridor is premised on providing a different experience from the Park, one that is less structured, with a primary trail corridor and two side trials to scenic view destinations. Picnic tables and benches are generally not in keeping with this vision.
<b>Efforts should be focused on funding and planning of trail hardening efforts within the park to help sustain the trails against pressures of weather related erosion and a growing base of users.</b> Brian Stearns	The Bureau recognizes this need. The trails at both Pineland and Bradbury have been assessed for needed improvements.
<b>Park staff should develop an easier loop trail near the parking area. Along some of the existing trails, add simple technical skills elements to enhance the user experience, such as balance beams, teeter-totters, pump tracks, and bermed corners. These common features are found in planned mountain bike trail systems around the world. These elements will help attract younger riders.</b> Friends of Bradbury Mountain	Any facility improvements to the Park will adhere to the vision stated in this plan. Any trail developments must harmonize with the forested/rural character that makes the park a desirable destination for visitors with diverse interests.  Presently the Park does not have a system of trails that are strictly dedicated to mountain biking; the types of enhancements requested are appropriate on dedicated trails, but are not appropriate for hiking or other trail users. Evaluation of these types of potential features would need to consider whether such a dedicated trail system can be accommodated, given the range of trail interests at this Park and its limited geographic size.
<b>Any parking at the Tryon Fields/Tryon</b>	The Bureau recognizes that there are

<p><b>Monument site along the Lawrence Rd. should be parallel to the road or otherwise placed to avoid having a parking lot and numerous cars detracting from the scenic aspect of the monument/fields area.</b></p> <p>Steve Hyde Alix W. Hopkins Christopher Ayres</p>	<p>sensitivities regarding the design and placement of this trailhead. The Bureau will work with the land trust to explore options to meet stated parking needs safely while minimizing any negative impacts.</p>
<p><b>There is some concern that dog-walking will be impacted by other trail uses and that dogwalkers will be forced to keep dogs on leash at all times.</b></p> <p>Moira Shanahan</p>	<p>Within the Park, pets must be on a leash not exceeding four feet in length and must not be left unattended. Pet owners must immediately clean up fecal deposits left by their pets.</p> <p>The Pineland Public Lands fall under general state law regarding dogs. According to <a href="#">Title 7, section. 3911</a> of Maine law, it is “unlawful for any dog to be at large, except when used for hunting.” “At large” is defined as off the premises of the owner and not under the control of any person whose personal presence and attention would reasonably control the conduct of the animal.</p> <p>That said, areas within the corridor identified as deer wintering areas may be off limits not only to dogs but humans during the winter, to limit stress to wintering deer. Additionally, though not strictly required, where use increases and new uses are introduced, it would be prudent and advisable to keep dogs on a leash.</p>
<p><b>The state does a poor job posting information at trailheads and at trail junctions. Information about hunting, sensitive environments, designated trail uses, etc. is lacking.</b></p> <p>Liza Nichols</p>	<p>The Bureau agrees that information posting is an important management tool. The Bureau, recognizing the increased interest in these lands resulting from recent acquisitions and the Bureau public planning process, is committed to improved information posting.</p>
<p><b>Improved signage and maps are needed throughout the park to facilitate user navigation and promote wider usage of the entire trail system. As part of this effort, better placement of informational kiosks is needed.</b></p> <p>Brian Stearns</p>	<p>See above.</p>
<p><b>Geocachers are developing and promoting unapproved sites on Bureau property as well</b></p>	<p>While the Bureau recognizes geocaching as a legitimate outdoor recreational activity, the</p>

<b>as on private lands accessed through Bureau property.</b> Brian Stearns	Bureau has a geocaching policy statement giving park managers the opportunity to remove geocaches if it is determined that geocaching activities are causing resource degradation or violation of rules.
<b>Comment Theme: Support for Limiting Snowmobile Access to the Summit of Bradbury Mountain</b>	
<b>Comment</b>  <b>Snowmobile access to the summit area damages vegetation, especially juniper bushes, and also detracts from the experience of snowshoers and other non-motorized winter users. Snowmobile access should be limited.</b> Derek Lovitch	<b>Response</b>  The summit of Bradbury Mountain provides a unique regional opportunity to get a vista over the coastal plain of Cumberland County. Improving snowmobile access is seen as a way to allow less adventurous and less expert snowmobilers to reach the summit vista. This is seen as allowing family riders to visit the summit. While there may be a somewhat reduced experience at times for some non-motorized users, the overall public value is seen as a net positive.  Efforts will be made to monitor for vegetation impacts and to address any impacts encountered.
<b>Comment Theme: Support for Improved Snowmobile Access to the Summit of Bradbury Mountain</b>	
<b>Comment</b>  <b>Current Snowmobile access to the summit of Bradbury Mountain is very difficult. The designated trail (Switchback Trail) is hard to find and is for advanced riders. New access is needed to allow less challenging access.</b>  <b>Snowmobile clubs have found that non-motorized users enjoy the groomed snowmobile trails. Therefore, sharing trail segments would not be a big problem. Additionally, the local snowmobile club is willing to assist with trail maintenance.</b> Bernie Coombs, Tri-Town Penguins Snowmobile Club. Dick Dyer	<b>Response</b>  The plan advocates establishing an easier snowmobile route to the summit. The Bureau will encourage and facilitate collaborative efforts to ensure a compatible shared trail experience between non-motorized and snowmobile users. Signage and communications will be used to minimize any potential trail conflicts.
<b>Comment Theme: Hunting, Wildlife, and Trails</b>	
<b>Comment</b>  <b>“The greatest threat to the future of hunting</b>	<b>Response</b>  From early on in the management planning

<p><b>in Maine is loss/lack of access; and this is especially true of southern Maine, the state's most populated area. That makes huntable land of exponentially greater value and importance in this region.”</b></p>	<p>Bob Humphrey, echoed by comments from Judd Newcomb</p>	<p>process, the Bureau has heard a similar message. The plan takes care to minimize any impact to the ability of hunters to enjoy their sport on the properties in this plan.</p>
<p><b>Also, during the acquisition phase of the Bradbury-Pineland project, the Bureau expressed that protecting hunting would be a priority.</b></p>	<p>Bob Humphrey</p>	<p>Traditional hunting restrictions at the west side of Bradbury Mountain State Park and restrictions associated with existing hiking trails at the Pineland Public Lands have been retained, but new trail proposals are designed avoid hunting restrictions. Furthermore, protecting hunting experiences is one of the factors in choosing not to develop more trails in areas such as Tryon Mountain.</p>
<p><b>“A 300’ discharge of a firearm rule makes much of the lands, especially south of Depot Road (Pineland), unhuntable - a 300’ distance is actually a 600’ corridor considering both sides of the trails. With the creation of any new trails, especially loop trails, the huntable areas become smaller and smaller.”</b></p>	<p>Judd Newcomb</p>	<p>The plan retains the existing application of the 300’ hunting rule at the Pineland Public Lands (North and South Loop Trails). However, any new trail segments will be multi-use and will not trigger the 300’ rule. Thus, there is no reduction of existing hunting area.</p>
<p><b>The gravel pit adjacent to the South Loop Trail at Pineland is very well-suited to safe target shooting, has long been used by area residents, and should be reopened to shooting (is currently closed due to being within 300’ of the marked hiking trail). The north end of the pit is not within 300’ of the trail. The Bureau should consider options such as relocating the trail and/or establishing acceptable shooting days/time (e.g. no shooting on Sundays), etc.</b></p> <p><b>Shooting now seems to be occurring in less safe places than the pit.</b></p>	<p>Judd Newcomb</p>	<p>The pit is within 300’ of the trail and is therefore, by rule, off limits to shooting. Additionally, there have been complaints of unsafe actions as well as shells and other debris.</p>
<p><b>There is a need to educate the public about appropriate safety while in the woods during hunting season.</b></p>	<p>Liza Nichols</p>	<p>As this plan is implemented it is envisioned that a link trail will be established eastward from the pit towards an eventual junction with the power corridor trail in the North Yarmouth end of the Pineland Public Lands. This, coupled with increasing demand for trails in Cumberland County, is likely to lead to more trail users. The plan also calls for a trailhead near the pit location once a linkage is established for mountain bikes and (potentially) horses. This also reduces the safety of having shooting in the pit.</p>
<p>Scott Hatch</p>		<p>Park staff and signage on trailhead kiosks/bulletin boards will serve as the primary education tools informing the public about hunting rules and safety at Bureau properties. Where trail/hunting policies change, such as leaving the western side of the</p>

	Park, signage should be posted informing the public about the rules and safety considerations.
<b>The Bureau should close certain trails during firearms season as well as potentially during blackpowder season.</b>  Liza Nichols Christopher J. McGrath Ray Youmans Brian Alexander	This comment received interest in the public meeting held in December 2010. However, it requires rule-making and is not viewed as a preferred recommendation at this time, due to its precedent-setting potential. Presently the Bureau has no such policy in place on any of its lands. If issues arise regarding conflicts between hunting and trails and are not remedied, this option could be reevaluated.
<b>The trail in the Corridor Lands should require dogs be on leash. Additionally, the proposed spur trail to the summit of Tryon Mt. should be closed in the winter to protect deer.</b>  Chris Ayres	The Corridor Lands fall under the general state law regarding dogs being under control (vs. at large). Should problems arise with dogs at large chasing wildlife and/or causing conflicts with other visitors, the Bureau may work with law enforcement to address the issue. Posted messaging will include appeals for users to voluntarily leash pets. The Bureau will also consider closing foot traffic to deer wintering areas during deep snow conditions, if warranted.
<b>Additional trails will condense wildlife and have a negative impact on hunting.</b>  Stanley Rose	This plan recognizes that trails have an impact on wildlife. It also recognizes that trails are highly valued and in demand. The plan is more limiting to trail development than many would like, yet does increase trail opportunities.
<b>“We are horrified at the freedom hunters have to hunt in/around areas which are heavily used by hikers! ....we are at a loss to understand why hunters need to be hunting near popular hiking trails.”</b>  Peggy and David Waterman	Maine has a strong hunting tradition. Southern Maine in particular has seen rapid fragmentation of forest land and rural areas due to encroaching suburbanization. This, coupled with increased land posting, has led to a reduction in regional hunting opportunities. At the same time, there is growing interest in trails. Therefore, with relatively limited resources, places such as Cumberland County require the sharing of open space between various user groups.
<b>Comment Theme: Environmental Stewardship</b>	
Comment	Response
<b>The clearing at the back of the Tryon fields down to stream was an appallingly huge swath with brush piled up streamside, a</b>	This area saw trail clearing work in 2010. This process requires the clearing of brush and other cleared material as part of the

**stonewall busted out, and rocks strewn all over.**

**The state said there is no sensitive flora in the area. However, there are large sections of Club Moss containing the variety known as Ground Cedar. Ground Cedar is not declared endangered but is increasingly scarce/threatened because people harvest it for Christmas decorations. The State should be aware and shift trails to avoid damage and temptation.**

Liza Nichols

construction process. Slash and debris are typically pulled away from trailsides and the area quickly takes a more appealing character.

Staff can monitor the cedar concern. It is one example of an issue potentially addressed through the use of Leave No Trace trailhead messages (Leave No Trace is a nationwide program advocating low-impact outdoor skills and ethics).

## **Appendix C The Resource Allocation System**

The following is a description of the Resource Allocation System categories and the management direction defined for each category. Not all of these allocations are applied in this plan.

### ***Designation Criteria for Special Protection Areas***

- 1.** *Natural Areas*, or areas left in an undisturbed state as determined by deed, statute, or management plan; and areas containing rare and endangered species of wildlife and/or plants and their habitat, geological formations, or other notable natural features;
- 2.** *Ecological Reserves*, established by Title 12, Section 1801: "*an area owned or leased by the State and under the jurisdiction of the Bureau, designated by the Director, for the purpose of maintaining one or more natural community types or native ecosystem types in a natural condition and range of variation and contributing to the protection of Maine's biological diversity, and managed: A) as a benchmark against which biological and environmental change can be measured, B) to protect sufficient habitat for those species whose habitat needs are unlikely to be met on lands managed for other purposes; or C) as a site for ongoing scientific research, long-term environmental monitoring, and education.*" Most ecological reserves will encompass more than 1,000 contiguous acres.
- 3.** *Historic/Cultural Areas* (above or below ground) containing valuable or important prehistoric, historic, and cultural features.

### **Management Direction**

In general, uses allowed in special protection areas are carefully managed and limited to protect the significant resources and values that qualify for this allocation. Because of their sensitivity, these areas can seldom accommodate active manipulation or intensive use of the resource. Recreation as a secondary use is allowed with emphasis on non-motorized, dispersed activities. Other direction provided in the IRP includes:

*Vegetative Management* on Ecological Reserves, including salvage harvesting, is also considered incompatible. Commercial timber harvesting is not allowed on either Ecological Reserves or Special Protection natural areas.

*Wildlife management* within these areas must not manipulate vegetation or waters to create or enhance wildlife habitat.

*Management or public use roads* are allowed under special circumstances, if the impact on the protected resources is minimal.

*Trails for non-motorized activities* must be well designed and constructed, be situated in safe locations, and have minimal adverse impact on the values for which the area is being protected. *Trail facilities and primitive campsites* must be rustic in design and accessible only by foot from trailheads located adjacent to public use roads, or by water.

Carry-in boat access sites are allowed on water bodies where boating activity does not negatively impact the purposes for which the Special Protection Area was established.

Hunting, fishing, and trapping are allowed where they do not conflict with the management of historic or cultural areas or the safety of other users.

Research, interpretive trails, habitat management for endangered or threatened species, are allowed in Special Protection natural areas unless limited by other management guidelines

### ***Designation Criteria for Backcountry Recreation Areas***

Relatively large areas (usually 1,000 acres or more) are allocated for Backcountry recreational use where a special combination of features are present, including:

- Superior scenic quality
- Remoteness
- Wild and pristine character
- Capacity to impart a sense of solitude

Backcountry Areas are comprised of two types:

Non-mechanized Backcountry Areas – roadless areas with outstanding opportunities for solitude and a primitive and unconfined type of dispersed recreation where trails for non-mechanized travel are provided and no timber harvesting occurs.

Motorized Backcountry Areas – multi-use areas with significant opportunities for dispersed recreation where trails for motorized activities and timber harvesting are allowed.

### **Management Direction**

Trail facilities and campsites in all Backcountry Areas will be rustic in design and accessible from trailheads located outside the area, adjacent to management roads, or by water. All trails must be well designed and constructed, situated in safe locations, and have minimal adverse impact on the Backcountry values.

Management roads and service roads will be allowed as a secondary use in those Backcountry Areas where timber harvesting is allowed.

Timber management in Motorized Backcountry Areas will be an allowed secondary use, and will be designed to enhance vegetative and wildlife diversity. Salvage harvesting is allowed in Motorized Backcountry Areas only.

Wildlife management in Non-mechanized Backcountry Areas will be non-extractive in nature.

### ***Designation Criteria for Wildlife Dominant Areas***

1. *Essential habitats* are those regulated by law and currently consist of bald eagle, piping plover, and least tern nest sites (usually be categorized as Special Protection as well as Wildlife Dominant Areas).
2. *Significant habitats*, defined by Maine's Natural Resource Protection Act, include habitat for endangered and threatened species; deer wintering areas; seabird nesting islands; vernal pools; waterfowl and wading bird habitats; shorebird nesting, feeding, and staging areas; and Atlantic salmon habitat.
3. *Specialized habitat areas and features* include rare and exemplary natural communities; riparian areas; aquatic areas; wetlands; wildlife trees such as mast producing hardwood stands (oak and beech), snags and dead trees, den trees (live trees with cavities), large woody debris on the ground, apple trees, and raptor nest trees; seeps; old fields/grasslands; alpine areas; folist sites (a thick organic layer on sloping ground); and forest openings.

### **Management Direction**

Recreation and timber management are secondary uses in most Wildlife Dominant Areas. Recreational use of Wildlife Dominant Areas typically includes hiking, camping, fishing, hunting, trapping, and sightseeing. Motorized trails for snowmobiling and ATV riding are allowed to cross these areas if they do not conflict with the primary wildlife use of the area and there is no other safe, cost-effective alternative (such as routing a trail around the wildlife area). Direction provided in the IRP includes:

*Habitat management for wildlife*, including commercial and noncommercial harvesting of trees, will be designed to maximize plant and animal diversity and to provide habitat conditions to enhance population levels where desirable.

*Endangered or threatened plants and animals* – The Bureau will cooperate with the US Fish and Wildlife Service, National Marine Fisheries Service, Maine Department of Inland Fisheries and Wildlife, and Maine Natural Areas Program in the delineation of critical habitat and development of protection or recovery plans by these agencies on Bureau lands.

*Timber management* as a secondary use in riparian buffers will employ the selection system, retaining all den trees and snags consistent with operational safety. In other wildlife-dominant areas it will be managed to enhance wildlife values.

### ***Designation Criteria for Remote Recreation Areas***

1. Allocated to protect natural/scenic values as well as recreation values. Often have significant opportunities for low-intensity, dispersed, non-motorized recreation.
2. Usually are relatively long corridors rather than broad, expansive areas.
3. May be a secondary allocation for Wildlife Dominant areas and Special Protection – Ecological Reserve areas.

4. Examples include trail corridors, shorelines, and remote ponds.

## **Management Direction**

Remote Recreation areas are allocated to protect natural/scenic values as well as recreation values. The primary objective of this category is to provide non-motorized recreational opportunities; therefore, motorized recreation trails are allowed only under specific limited conditions, described below. Timber management is allowed as a secondary use. Direction provided in the IRP includes:

*Trail facilities and remote campsites* will be rustic in design and accessible by foot from trailheads, management and/or public roads, or by water.

*Existing snowmobile and all-terrain vehicle activity* may be continued on well-designed and constructed trails in locations that are safe, where the activity has minimal adverse impact on protected natural resource or remote recreation values, and where the trails cannot be reasonably relocated outside of the area.

*New snowmobile or all-terrain vehicle trails* are allowed only if all three of the following criteria are met:

- (1) no safe, cost effective alternative exists;
- (2) the impact on protected natural resource values or remote recreation values is minimal; and
- (3) the designated trail will provide a crucial link in a significant trail system;

*Access to Remote Recreation areas* is primarily walk-in, or boat, but may include vehicle access over timber management roads while these roads are being maintained for timber management.

## ***Designation Criteria for Visual Areas***

Many Bureau-managed properties have natural settings in which visual attributes enhance the enjoyment of recreational users. Timber harvests which create large openings, stumps and slash, gravel pits, and new road construction, when viewed from roads or trails, may detract significantly from the visual enjoyment of the area. To protect the land's aesthetic character, the Bureau uses a two-tier classification system to guide management planning, based on the sensitivity of the visual resource to be protected.

***Visual Class I*** Areas where the foreground views of natural features may directly affect enjoyment of the viewer. Applied throughout the system to shorelines of great ponds and other major watercourses, designated trails, and designated public use roads.

***Visual Class II*** Include views of forest canopies from ridge lines, the forest interior as it fades from the foreground of the observer, background hillsides viewed from water or public use roads, or interior views beyond the Visual Class I area likely to be seen from a trail or road.

## **Visual Class I Management Direction:**

Timber harvesting is permitted under stringent limitations directed at retaining the appearance of an essentially undisturbed forest.

Openings will be contoured to the lay of the land and limited to a size that will maintain a natural forested appearance.

Within trail corridors or along public use roads it may be necessary to cut trees at ground level or cover stumps.

Branches, tops, and other slash will be pulled well back from any trails.

Scenic vistas may be provided.

### **Visual Class II Management Direction:**

Managed to avoid any obvious alterations to the landscape.

Openings will be of a size and orientation as to not draw undue attention.

### ***Designation Criteria for Developed Recreation Areas***

Developed Class I areas are low to medium density developed recreation areas, while Developed Class II areas have medium to high density facilities and use such as campgrounds with modern sanitary facilities. There are no developed class II areas in the Aroostook Hills public reserved lands (they are more typical of State Parks).

#### **Class I Developed Recreation Areas**

Typically include more intensely developed recreation facilities than found in Remote Recreation Areas such as: drive-to primitive campsites with minimal supporting facilities; gravel boat access facilities and parking areas; shared use roads and/or trails designated for motorized activities; and trailhead parking areas. These areas do not usually have full-time management staff.

### **Management Direction**

Developed Recreation areas allow a broad range of recreational activities, with timber management and wildlife management allowed as secondary uses. Direction provided in the IRP includes:

Timber management, allowed as compatible secondary use, is conducted in a way that is sensitive to visual, wildlife and user safety considerations. Single-age forest management is not allowed in these areas. Salvage and emergency harvests may occur where these do not significantly impact natural, historic, or cultural resources and features, or conflict with traditional recreational uses of the area.

Wildlife management may be a compatible secondary use. To the extent that such management occurs, it will be sensitive to visual, and user safety considerations.

Visual consideration areas are often designated in a buffer area surrounding the Developed Recreation area.

## ***Designation Criteria for Timber Management Areas***

1. Area meets Bureau guidelines as suitable for timber management, and is not prohibited by deed or statute.
2. Area is not dominated by another resource category. Where other uses are dominant, timber management may be a secondary use if conducted in a way that does not conflict with the dominant use.

## **Management Direction**

The Bureau's timber management practices are governed by a combination of statute and Bureau policy, including but not limited to policies spelled out in the IRP. These general policies include:

*Overall Objectives:* The Bureau's overall timber management objectives are to demonstrate exemplary management on a large ownership, sustaining a forest rich in late successional character and producing high value products (chiefly sawlogs and veneer) that contribute to the local economy and support management of Public Reserved lands, while maintaining or enhancing non-timber values (secondary uses), including wildlife habitat and recreation.

*Forest Certification:* Timber management practices (whether as a dominant or secondary use) meet the sustainable forestry certification requirements of the Sustainable Forestry Initiative, and the Forest Stewardship Council.

*Roads:* Public use, management, and service roads are allowed. However, the Bureau seeks to minimize the number of roads that are needed for reasonable public vehicular access or timber harvesting.

*Recreational Use:* Most recreational uses are allowed but may be subject to temporary disruptions during management or harvesting operations. The Bureau has latitude within this allocation category to manage its timber lands with considerable deference to recreational opportunities. It may, through its decisions related to roads, provide varying recreational experiences. Opportunities for hiking, snowshoeing, back-country skiing, horseback riding, bicycling, vehicle touring and sightseeing, snowmobiling, and ATV riding all are possible within a timber management area, but may or may not be supported or feasible, depending on decisions related to creation of new trails, or management of existing roads and their accessibility to the public.

In addition, the IRP provides the following specific direction for timber management:

*Site Suitability:* The Bureau will manage to achieve a composition of timber types that best utilize each site.

*Diversity:* For both silvicultural and ecological purposes, the Bureau will maintain or enhance conditions of diversity on both a stand and wide-area (landscape) basis. The Bureau will manage for the full range of successional stages as well as forest types and tree species. The objective will be to provide good growing conditions, retain or enhance structural complexity, maintain connectivity of wildlife habitats, and create a vigorous forest more resistant to damage from insects and disease.

***Silvicultural Systems:*** A stand will be considered single-aged when its tree ages are all relatively close together or it has a single canopy layer. Stands containing two or more age classes and multiple canopy layers will be considered multi-aged. The Bureau will manage both single- and multi-aged stands consistent with the objectives stated above for diversity; and on most acres will maintain a component of tall trees at all times. Silvicultural strategy will favor the least disturbing method appropriate, and will usually work through multi-aged management.

***Location and Maintenance of Log Landings:*** Log landings will be set back from all roads designated as public use roads. Off-road yarding may be preferable along all gravel roads, but the visual intrusion of roadside yarding must be balanced with the increased soil disturbance and loss of timber producing acres resulting from off-road spurs and access spurs. All yard locations and sizes will be approved by Bureau staff prior to construction, with the intention of keeping the area dedicated to log landings as small as feasible. At the conclusion of operations, all log landings where there has been major soil disturbance will be seeded to herbaceous growth to stabilize soil, provide wildlife benefits, and retain sites for future management need.

## **Appendix C. Works Cited**

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