Amherst Mountains Community Forest Management Plan



Halfmile Pond in the Amherst Mountains Community Forest

Maine Department of Conservation Bureau of Parks and Lands



December 2010



ADOPTION CITATION

In accordance with the provisions in M.R.S.A. § 1847(2) and consistent with the Bureau of Parks and Lands <u>Planning Policy</u> and <u>Integrated Resource Policy</u> 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 the **Amherst Mountains Community Forest** is officially adopted.

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Acknowledgments

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I. Introduction

About This Document

This document constitutes a management plan (the Plan) for 4,974 acres of public land known as the Amherst Mountains Community Forest (AMCF). This parcel is managed by the Maine Bureau of Parks and Lands (the Bureau) as part of the Eastern Interior management region. The Plan summarizes the planning process and character of the plan area, but its primary function is to 1) provide a description of the resources found on the property, 2) describe management issues identified by members of the public and Bureau staff, and 3) put forth management recommendations and resource allocations to be implemented over the management period.

One objective of the Plan is to provide a balanced spectrum of opportunities in keeping with the opportunities and resources available in the region as a whole. In developing the management recommendations for this parcel, the Bureau has considered this broader perspective. In this region the state conservation ownership represents only a portion of the large-scale conservation efforts that have occurred in recent years; for many of these the Bureau is either a partner or is an abutter. Management of the Bureau's lands now and in the future will need to consider the context of these projects and similar efforts anticipated in the near future.

The Plan is also a commitment to the public that this property 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.

An important aspect of the management of public lands is monitoring and evaluation of proposed management activities in terms of stated objectives. This Plan describes monitoring and evaluation procedures for recreational use, wildlife management, and timber management.

The Amherst Mountains Community Forest Management Plan will be in effect for the next 14 years – the remainder of the 15-year management period for the Eastern Interior Region Management Plan. The Bureau recognizes that some resources and management issues, most notably recreation, may undergo more rapid and unanticipated changes over time. Thus, a review of current issues and progress on implementing the Plan's recommendations will be undertaken at five-year intervals, with a status report issued at that time to advisory committee members. If amendments to the Plan are proposed, there will be an opportunity for public review and comment prior to their adoption. At the end of fourteen years, the Bureau will undertake a full review and revision, integrating the Plan with the Eastern Interior Region Management Plan. It is recognized all recommendations may not be accomplished within the Plan period.

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 Bureau's management planning process includes a series of steps, each involving interdisciplinary review and extensive efforts to solicit and consider public comment, in order to achieve a plan that integrates various perspectives and needs while protecting and conserving the resources of Bureau lands.

<u>Acquisition Planning:</u> A number of management guidelines were laid out during acquisition process and articulated in the "Concept Plan" document, which was agreed to by the Bureau, the Town of Amherst, and the Forest Society of Maine (see Appendix B).

<u>Resource Assessments</u>: Bureau staff undertook a review of the natural, geological, historic and cultural, fisheries and wildlife, recreation, and timber and renewable resources. Much of this information was compiled by the Forest Society of Maine in the "Amherst Mountains Community Forest Reference Report". Resource professionals within the agency provided additional information. Bureau staff also participated in several field trips to the property.

Advisory Committee Formation: A Public Advisory Committee was formed in February 2010 (see Appendix A). Members of this committee were selected on the basis of their resource expertise and local knowledge. This group serves as a subcommittee of the Eastern Interior Region Advisory Committee, with membership of the two groups overlapping when practical. In December 2009, the Town of Amherst also established a citizen's Community Forest Committee to work with the Bureau and FSM and to oversee local management responsibilities. Four members of this local committee serve on the Public Advisory Committee.

<u>Issue Identification/Discussion:</u>:

- A Public Advisory Committee meeting was held in Bangor on March 17, 2010 to identify additional resource information and to determine and discuss management issues needing to be addressed by the Plan.
- A Public Scoping Session held in Bangor on March 17, 2010 to hear from the public regarding concerns for the future management of these properties.

Review of First Draft

- A Public Advisory Committee meeting was held in Bangor on April 26, 2010 to discuss and receive comment on the First Draft of the Management Plan.
- The First Draft of the Management Plan was circulated for broader public review and comment.
- A two week comment period was provided following the Advisory Committee meeting to allow for additional written comments.
- A focus group meeting and field trip was held in Amherst with representatives from the Town of Amherst's Community Forest Committee.

Review of Final Draft:

- Comments on the First Draft from the Advisory Committee, general public, Amherst Community Forest Committee and resource professionals were considered in developing a Final Draft Plan.
- The Final Draft was presented at a Public Meeting on July 13, 2010 in Bangor.
- A two week comment period was provided following the Public Meeting to allow for additional written comments.

<u>Commissioner's Review and Adoption</u>: Following the Final Draft Public Meeting, the Bureau considered all comments received, made decisions and revised the Final Draft. The Plan was reviewed by the Department of Conservation's Commissioner and adopted by the Commissioner and the Bureau of Parks and Lands Director.

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. 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.

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 the areas 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:

- <u>Vegetative Management</u> 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.
- <u>Wildlife management</u> within these areas must not manipulate vegetation or waters to create or enhance wildlife habitat.
- <u>Management or public use roads</u> are allowed under special circumstances, if the impact on the protected resources is minimal.
- <u>Trails for non-motorized activities</u> 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. <u>Trail facilities and primitive campsites</u> must be rustic in design and accessible only by foot from trailheads located adjacent to public use roads, or by water.

<u>Carry-in boat access sites</u> are allowed on water bodies where boating activity does not negatively impact the purposes for which the Special Protection Area was established. <u>Hunting, fishing, and trapping</u> are allowed where they do not conflict with the management of historic or cultural areas or the safety of other users.

<u>Research</u>, <u>interpretive trails</u>, <u>habitat management for endangered or threatened species</u>, 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 is 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

<u>Trail facilities and campsites</u> 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.

<u>Management roads and service roads</u> will be allowed as a secondary use in those backcountry areas where timber harvesting is allowed.

<u>Timber management</u> 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 (these will 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 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:

<u>Habitat management for wildlife</u>, 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.

<u>Endangered or threatened plants and animals</u>—The Bureau will cooperate with the US Fish and Wildlife Service, National Marine Fisheries Service, Maine Department if 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.

<u>Timber management</u> 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:

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

<u>Existing snowmobile and all-terrain vehicle activity</u> 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.

<u>New snowmobile or all-terrain vehicle trails</u> are allowed <u>only if all three</u> 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 <u>Access to Remote Recreation areas</u> 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 all shorelines, 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 designated trail or public use 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.

Class I Developed Recreation Areas

1. 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 launch areas and parking areas; shared use roads and/or trails designated for motorized activities; and trailhead parking areas.

2. 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:

<u>Timber management</u>, 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.

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

<u>Visual consideration areas</u> 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:

- <u>Overall Objectives:</u> 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.
- <u>Forest Certification</u>: 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, in practice, seeks to minimize the number of roads to that 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 respect to recreational opportunities. It may, through its decisions related to roads, provide varying recreational experiences. Opportunities for hiking, snowshoeing, backcountry 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:

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

<u>Diversity</u>: 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.

<u>Silvicultural Systems</u>: 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.

<u>Location and Maintenance of Log Landings</u>. 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.

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.

The process for conducting the SFI and FSC audits was rigorous and unique in that the Bureau underwent the two audit programs simultaneously. The audit was comprised of a field analysis of forest management practices at selected sites around the state, and an analysis of the Bureau's financial, personnel, policy development, and record-keeping systems. A Bureau-wide certification team was implemented to address "conditions" and "minor non-conformances" stipulated in the audit reports, including: significant enhancements to forest inventory data, development of a computerized forest-modeling program, a timeline for updating management plans for the entire land base, improvements in the use of Best Management Practices to protect water quality, and new commitments to public outreach and education programs. The Bureau is required to meet these conditions within certain timeframes in order to keep its certification status in good standing over the five-year certification period.

In 2006, the Bureau hosted its first full recertification by FSC, concurrently undergoing its first surveillance audit by SFI, the latter now required under SFI's updated standards. Although the field portion took place during and immediately after a heavy November rainstorm, Best Management Practices implemented on Bureau lands were working well, and certifiers for both systems were very pleased with Bureau silviculture at all sites visited. As is usually the case, there were several conditions (now called Corrective Action Requests, or CARs) made by each certification system, which the Bureau will need to satisfy as it continues to improve its forest management which has already been certified as being exemplary. Subsequent compliance audits took place in the following three summers. The outcome of the two most recent compliance audits was to award unconditional certification to the Bureau, with no CARs indicated.

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.

To fulfill the legislative intent, these ecological reserves were established as 1) benchmarks against which biological and environmental change could be measured; 2) habitats adequate to maintain viable populations of species whose habitat needs are unlikely to be met on other lands; and 3) sites for scientific research, long-term environmental monitoring, and education. In addition, public access, hunting, and fishing are among the allowed uses on ecological reserves. The ecological reserves include many of Maine's best examples of alpine meadows, lakes and streams, and old growth forests.

Beginning in 2002, the Department of Conservation worked with a multi-disciplinary committee to draft an *Ecological Reserve Monitoring Plan* to guide periodic data collection at the landscape, stand, and species levels. The monitoring program is tied closely to other statewide and nationwide forest monitoring programs that use U.S. Forest Service Forest Inventory and Analysis (FIA) methods. To date, 387 permanent monitoring plots have been established on 12 Ecological Reserves, with ongoing monitoring work increasing the number of plots each year. The long-term monitoring program and the value of ecological reserves to this program have been recognized as models for public lands throughout the northeast.

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.

III. The Regional Context

Eastern Interior Region Plan Area

The Amherst Mountains Community Forest (AMCF or the Unit) is part of the Bureau's Eastern Interior Management Plan region. This region's western boundary is roughly the Penobscot River, and it extends east to the Canadian border. The region's southern boundary is roughly Route 9 and it extends northward to include the southern portion of Aroostook County. The region is well known for its abundance of lakes, rivers and extensive wetlands, as well as large blocks of un-fragmented forested areas. The region's economy is tied to these natural resources. An overview of the regional landscape and resources is provided Eastern Interior Region Management Plan.

Regional Conservation Efforts

Lower Penobscot Forest Project

The Amherst Mountains Community Forest is an important component of a broader, landscape-scale conservation initiative known as the Lower Penobscot Forest Project. This initiative is a partnership between The Nature Conservancy (TNC), the Forest Society of Maine (FSM) and the Bureau and will ultimately conserve over 42,000 acres.

The Lower Penobscot Forest spans a long ridge of scenic, largely undeveloped hills stretching from the headwaters of Sunkhaze Stream in the north toward Ellsworth, Orland, and the coast to the south. These granite hills contain a remarkable assemblage of remote, clear-water ponds that give the feel of Maine's North Woods, stunning cliff faces, and multiple hill-top outcrops offering remarkable views in all directions. This string of hills contains the headwaters of some key tributaries of the Penobscot River: Sunkhaze, Great Works, and Blackman Streams. These streams are the arteries of some major wetland complexes, most notably Sunkhaze Meadows, Great Works, and Chemo Bog. The area straddles the boundary between the Union and Penobscot River watersheds, and historically, Native Americans traveled through this area in order to get from one river system to the other.

In all, this area contains 75 miles of streams considered a conservation priority by TNC, multiple natural communities considered "exemplary" by MNAP and others, native brook trout fisheries, and 5,751 mapped acres of wading bird and waterfowl habitat. It contains excellent opportunities for hunting, fishing, hiking, camping, and other recreational activities. The University of Maine has many ongoing research projects in the area, and sustainable forestry will be practiced on much of the landscape.

In addition to the Amherst Mountains Community Forest, the Lower Penobscot Forest Project consists of two additional properties:

The Sunzhaze-Bradley Corridor – To the northwest of the AMCF, the Nature Conservancy recently purchased an easement on 12,710 acres along the southeast border of the Sunkhaze Meadows National Wildlife Refuge to be managed as an ecological reserve. The recently completed project will buffer Sunkhaze from development, protect water quality, and conserve habitat for its diverse wetland and forest species. The property will be available for pedestrian access, for activities including hunting, fishing, and hiking. The Sunkhaze Bradley Corridor

easement allows for (but does not require) the continuation of several motorized trails of regional importance. Its location provides connectivity between the Sunkhaze Meadows National Wildlife Refuge, the Bureau's Bradley Unit and the Amherst Mountains Community Forest.

The Great Pond Easement - Directly north of the AMCF, a working forest easement on 24,557 acres in the Townships of T32 MD and Great Pond is planned for purchase by the Bureau, with the assistance of The Nature Conservancy. This property has and will continue to be managed for a sustainable flow of forest products. This area contains the "horseback esker", a geologic feature of statewide significance, which is valued for views. Snowmobile and ATV trails on this property will remain subject to landowner policy. Youth programs by the nearby Maine Youth Fish and Game Association building benefit from this property.

Other, nearby conserved lands include the Sunkhaze Meadows National Wildlife Refuge, the Bureau's Bradley and Duck Lake Units and the Nicatous Easement, the University of Maine's Penobscot Experimental Forest, and the Forest Society of Maine's Hopkins Pond easement.

Map 1: Amherst Mountains Community Forest Regional Context BPL Nicatous Ease GREENEVELD Sunkhaze Meadows National Wildlife Refuge TNC Sunkhaze-Bradley Corridor Easement BPL Bradley Unit Amherst Mountains Community Forest Other Conserved Lands

IV. Properties and Resources of the Amherst Mountains Community Forest

Vision for the Amherst Mountains Community Forest

Lying just north of Route 9, the "Airline," the mountains, scenic ledges, and ponds of the Amherst Mountains Community Forest (AMCF or the Unit) are now part of an emerging, regional vision aimed at sustaining managed forests, wildlife habitat, and recreational opportunities across tens of thousands of acres of forestlands east of the Penobscot River.

For those who have climbed Amherst's mountains, fished its ponds or harvested from its forests, it is clear that this is a very special place. Peregrine falcons hunt from these ridges and nest nearby; brook trout live in the clear waters; deer, bear, partridge and woodcock thrive here; and thousands of migratory birds arrive each spring to nest on these lands. Forest management has also sustained a flow of forest products for more than 100 years – to the benefit of local and regional economies.

To completely understand what makes this place special, however, one must look beyond the landscape and into the community behind the conservation story. A diverse group of stakeholders worked together for over six years to construct a framework that benefits both conservation and economic interests. The result is a community-forest model and a unique state-municipal partnership. The Maine Department of Conservation, Bureau of Parks and Lands owns the property but it will be managed jointly by the state and town, with assistance from the Forest Society of Maine.

The following statement, adapted from the Amherst Mountains Community Forest Concept Plan (see Appendix B), lays out the vision that this Management Plan is designed to achieve.

The Amherst Mountains Community Forest will help sustain the many values of this property for the residents of Amherst and the surrounding region by protecting the multiple natural and recreational resources. Successful management will ensure that:

- Access for hiking, hunting, fishing, camping, cross country skiing, snowmobiling, ATV trails, and other traditional recreation activities will continue;
- The lands will stay undeveloped, maintaining one of the increasingly scarce large tracts of undeveloped forestland in the region, and helping to maintain Amherst's rural character;
- Roughly 2,000 acres with high ecological value, including watersheds surrounding remote ponds and exemplary natural communities, will be managed for ecological protection and backcountry recreation;
- Forest management will be practiced in a sustainable manner for the production of quality timber and forest products on about 3,000 acres of managed forest;
- Important fish and wildlife habitats and rare natural communities will be protected;
- A community forest partnership will result between the Town of Amherst, the Bureau, and the Forest Society of Maine;
- The Town of Amherst will be part of management decisions for the property and will receive revenues from timber production.

Character of the Landbase

The Amherst Mountains Community Forest is a 4,974 acre tract of recreationally and ecologically important forestland surrounding six ponds with outstanding values in the town of Amherst. This property has been open to and used by residents of Amherst and the surrounding region for traditional outdoor recreational activities for generations. The property is also significant for the fish and wildlife habitats and unique natural communities found there and it has sustained a flow of forest products for centuries – to the benefit of the local and regional economies.

Acquisition History

The Unit's 2009 acquisition was the result of over six years of conservation planning led by the Forest Society of Maine (FSM), with the property changing ownership three times over that period.

Champion International Corporation (CIC) acquired the property as part of a much larger ownership through its merger with St. Regis Corporation in 1985 and owned it until 2000 when CIC was acquired by International Paper Company (IP). IP transferred their Maine timberland ownership to IP Maine Forest LLC in 2001 but retained mineral rights. IP Maine Forest LLC merged with SP Forest LLC in 2001.

SP Forest LLC subsequently sold 5,018 acres to G & D Properties in 2004. The conveyance included a protective covenant on 198 acres, which required the property be left in its natural state (see Appendix E). G & D Properties also acquired from IP a permit to use sand, clay and gravel located on the property for constructing and maintaining roads on the property. G & D Properties and IP also entered into a 10 year pulpwood timber purchase option that runs with the land and expires on May 25, 2014. The agreement allows IP the right of first refusal to purchase any timber harvested from the land. There is no obligation to harvest timber.

In 2005, G & D Properties conveyed approximately 45 acres of the property to David Richard West and Mark Robert West. This conveyance included an all purpose right-of-way, including utilities, along the 22-00-00 road from Route 9 to the conveyed premises along Indian Camp Brook. In 2006, G & D Properties sold the remainder to Amherst Woodlands, LLC. Amherst Woodlands, LLC agreed to act as an interim owner until funds could be raised to purchase the property for permanent conservation.

On June 18, 2009 the Bureau purchased the parcel with funding from the Forest Legacy Program and the Land for Maine's Future Program. The property is to be managed through a unique state-municipal-private partnership – the Bureau owns the property but it will be managed jointly with the Town of Amherst, which will receive assistance from FSM. This management structure was laid out during the acquisition process and articulated in three documents: 1) "Amherst Mountains Community Forest Concept Plan" (see Appendix B), agreed to by the Bureau, the Town of Amherst and FSM; 2) "Timber Management Lease of Public Lots" between the Bureau

and the Town of Amherst (see Appendix C); and 3) "Amherst Community Forest Agreement" (see Appendix D), which details the rights and commitments of FSM and the Town of Amherst.

Natural Resources

Geology and Soils

The soils on the Unit are glacial in origin, and tend to be deeper and more productive on north slopes, while somewhat thin and arid on south slopes. Overall, soils on the property are fairly well drained and favor spruce-fir, hemlock, white pine, and northern hardwood types.

Hydrology and Water Quality

The entire property lies within the Union River watershed. All the streams drain southerly and eventually converge with the West Branch Union River. The West Branch Union River empties into Graham Lake, a eutrophic reservoir formed by the construction of a hydro-electric power dam in 1922 on the Union River.

The Amherst Mountains Community Forest contains the following water bodies:

Water body	Area (acres)	Shoreline (miles)
Halfmile Pond	16.6 – portion within Unit	0.59 – portion within Unit
Ducktail Pond	23.8	0.84
Indian Camp Pond 1	0.5	0.12
Indian Camp Pond 2	1.8	0.2
Partridge Pond	28	1
Pug Pond	1	0.15
Snowshoe Pond	4.7	0.45
Unknown	1.9	0.25
TOTAL	78.3	3.6



Partridge Pond

Partridge Pond has been a site of nearly 20 years of water quality research region by the Senator George J. Mitchell Center for Environmental & Watershed Research. Partridge Pond is a clearwater lake with high water quality and a remote, pristine nature. Research measuring the response of this lake to reductions in acid rain has been especially important to the EPA national monitoring program and its assessment of the effectiveness of the Clean Air Act.

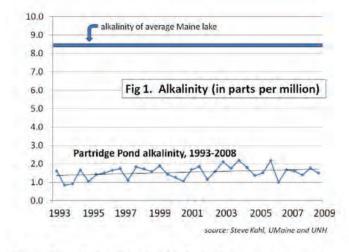


Figure 1. Partridge Pond is a dilute and poorly buffered pond compared to the average Maine lake. This means that it is vulnerable to acidification from acid rain. The response of this lake to reductions in acid rain is important to the EPA national monitoring program. Since 1993, the alkalinity in the pond has increased slightly from about 1.5 to about 1.8 parts per million. because the acidity and sulfate concentration (i.e. sulfuric acid) in rain and snow has declined (see figure 2).

Exemplary Natural Communities and Protected Areas

The Maine Natural Areas Program (MNAP) has identified two exemplary natural communities on the Unit.

The Bald Bluff Mountain *spruce-fir forest* is "an outstanding representative of a forest type that has otherwise been heavily altered in the region by budworm damage and timber management." "Other small but good quality natural communities adjacent to it (acidic summit and northern hardwood forest) add to the significance of this area." MNAP has also identified an exemplary *spruce-fir-broom-moss forest* on Bald Bluff Mountain where there is little or no sign of recent harvesting and several trees are between 100 and 200 years old, suggesting the forest community is probably old growth.

The location of these significant natural communities generally corresponds to a 198-acre deed restricted area known as the Bald Bluff Mountain Protected Area. Deed provisions dating back to 2004 call for the area to be managed "in its natural and undeveloped state in order to provide for the conservation and preservation of the natural resources within the Protected Area, including, but not limited to a large, relatively undisturbed mature spruce sloped forest…" (see Appendix E).



Spruce-fir-broom moss forest on Bald Bluff Mountain

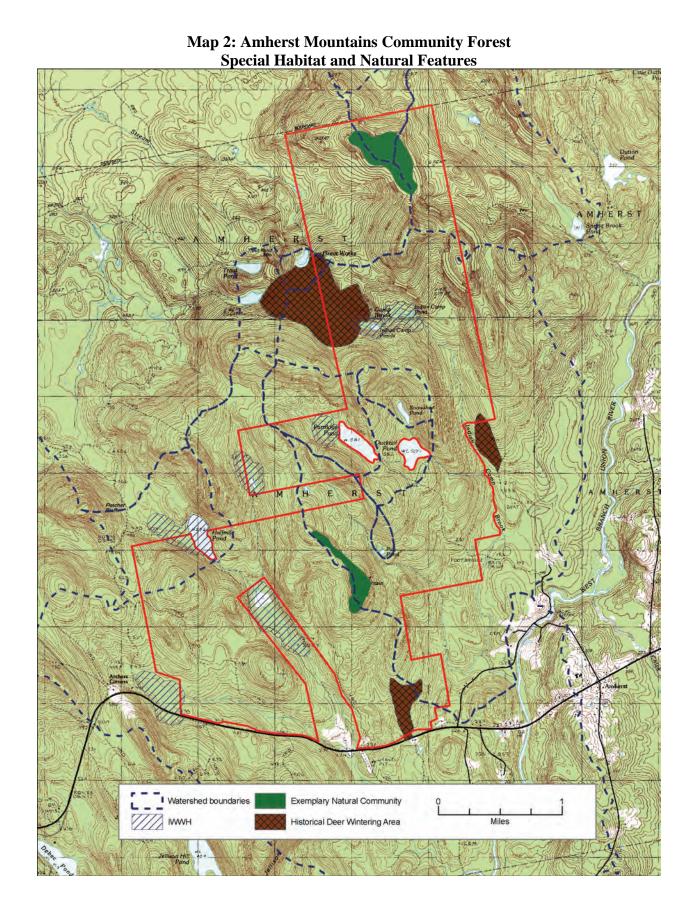
The *red pine woodland* on Bald Mountain has been ranked S3 (rare in Maine) and "among the best examples in the State of the community type."

Additional management guidelines were agreed to during the acquisition process and articulated in the "Amherst Mountains Community Forest Concept Plan" (see Appendix B) provide extra protection to roughly 1,800 acres (in addition to the Bald Bluff Mountain Protected Area) with high ecological value, including the red pine woodlands on Bald Mountain and the watersheds of three remote ponds.

No rare plants have been found on the Unit.

Natural Resource Management Issues

- High value natural resources have been identified around the Unit's ponds, Bald Mountain and Bald Bluff Mountain. Management agreements explicitly restrict timber harvesting in these areas and recreation uses must be carefully managed to respect these sensitive resources.
- Halfmile Pond provides valuable natural resources. However, only a portion of its shoreline and watershed are protected by permanent conservation measures.



Fisheries and Wildlife Resources

Fisheries

The remote ponds of Amherst offer excellent fishing opportunities. Halfmile Pond, Partridge Pond and Ducktail Pond are destinations for open water fishing. Halfmile Pond is the only pond currently open to ice fishing. The following information is summarized from Maine Department of Inland Fisheries & Wildlife surveys of Halfmile Pond, Partridge Pond and Ducktail Pond.

<u>Halfmile Pond</u> is mostly shallow, but a small volume of cool, sufficiently oxygenated water enables wild brook trout to survive through the summer. The outlet contains sections of good quality spawning and nursery areas. Halfmile Pond is the only pond within the Unit with a self-sustaining wild brook trout population. Species identified during a 2009 inventory include: Brook trout, Minnows, White sucker, Banded killfish, Pumpkinseed sunfish, Golden Shiner and Northern Redbelly Dace.



Halfmile Pond

<u>Partridge Pond</u> is a clear-water pond providing good habitat for brook trout. Although shallow, a number of springs enable trout to survive during the hot summer months. Species identified during a 2005 inventory include: Brook trout, Minnows, Banded killfish and Golden Shiner. The pond is stocked annually with brook trout.

<u>Ducktail Pond</u> is a deep, cool, clear water pond that provides good conditions for brook trout. The inlets are both muddy with no significant gravel or flow and the outlet is ledge with several steep drops creating impasses to fish. Lack of spawning habitat limits the fishery for wild brook

trout, therefore annual stockings of brook trout are done to sustain a fishery. Species identified during a 2008 inventory include: Golden shiner, Banded killfish, and White Sucker. The pond is stocked annually with brook trout.

Per-acre assessments currently indicate "relatively low-use" of these ponds, likely due to fairly restrictive regulations. Most fishing occurs in spring and Ducktail Pond receives the most use.

The streams in the Amherst Mountain Community Forest hold good populations of wild eastern brook trout. Streams such as Haynes Brook (outlet of Halfmile Pond), Indian Camp Brook, the outlet of Ducktail Pond and Pug Pond

Wildlife

Deer Habitat Management

Portions of three designated deer wintering areas have been mapped in the Unit, however most are historical having been recently cut. The most significant deer wintering area spans the western boundary. Stream corridors and softwood sites throughout the Unit contain additional potential to manage for deer habitat.

Beech Management

The Unit provides limited opportunities to manage for American beech trees and their production of high quality mast as a wildlife food source. Beech as a species has been and continues to be in decline across the state due primarily to the presence of the imported beech bark disease complex. Although bear are the focus species relative to maintaining a healthy beech component, thirty five other wildlife species also utilize its mast as a food source. In 1999 the Bureau incorporated *Beech Management Guidelines for Mast Production* into its *Wildlife Guidelines*, which provides guidance in identifying and retaining genetically-resistant beech trees.

Raptors and Other Birds

An analysis by the USFWS Gulf of Maine Coastal Program done in 2009 indicates that Unit provides important habitat for 32 of the 91 USFWS priority trust species, and particularly high value habitat for 14 of those 32 species, including wood thrush, bay breasted warbler, peregrine falcon, Canada warbler, and northern goshawk. The Unit also contains habitats for several highest-priority species listed in the BCR14 Bird Conservation Plan and is part of a Conservation Priority Focus Area identified in Maine's Wildlife Action Plan, due to multiple habitats and natural communities identified as significant.

Just off the Unit, Halfmile Pond Cliffs have a known peregrine falcon nesting site. Nearby bluffs have also been a release site for these birds. In 2009 the nesting pair successfully hatched and fledged four chicks—the first documentation of successful nesting in Amherst. Although the Halfmile Pond Cliffs are not within the Bureau's management, these bluffs and similar sites within the Unit provide habitat for peregrines. Furthermore, recreational climbers access the bluffs through Bureau lands on an informal trail that follows the shoreline around Halfmile Pond. In 2009, the peregrine nest was just a few inches above a pair of anchors that the climbers had drilled into the rocks. The peregrines have since moved. It appears that the new nest is not on a fixed climbing route, but it may continue to be impacted by this recreational use.



Halfmile Pond Cliffs

Fisheries and Wildlife Management Issues

- Halfmile Pond is the only pond within the Unit with a self-sustaining wild brook trout population. This resource will be sensitive to any increased fishing pressures.
- IF&W is considering changes to the fishing regulations on Halfmile Pond in order to protect the wild brook trout population. The Bureau does not regulate fishing and any IF&W change would require its own public process. However, a regulation change could impact the demand for access to the pond across the Bureau's roads and trails.
- There is a significant interest in enhancing deer and bear habitat where possible.
- Recreational climbers cross the Unit to access Halfmile Pond Cliffs where they may be disturbing nesting peregrines.
- Halfmile Pond and its associated cliffs provide high valuable fisheries and wildlife resources. However, only a portion of its shoreline and watershed are protected by permanent conservation measures.

Historic and Cultural Resources

According to the Maine Historic Preservation Commission, the Amherst Mountains Community Forest parcel does not have any known archaeological sites on the Unit or nearby. Based on soils, topography and the 1870 series historic maps, the Unit is unlikely to have any sites (historic Euroamerican or prehistoric Native American). Even the bedrock geology is not suitable for the use of the rock for stone tools. However, in Maine in general, there is a higher

probability of archaeologically sensitive sites near shorelines of lakes and ponds, and caution is in order whenever ground disturbance is planned in such areas.

Historic Resource Management Issues

Any disturbance of the ground on the shorelines of ponds within the Amherst Mountains
Community Forest parcel should be sensitive to the potential presence of Native American
artifacts.

Recreation Resources

There are four distinct recreational destinations within the Amherst Mountains Community Forest: 1) Bald Bluff Mountain; 2) Partridge and Ducktail Ponds; 3) Halfmile Pond; and 4) the former recreational lease site on Indian Camp Stream. A network of roads provides access for dispersed hunting and fishing activity. Bear, bird, deer, and moose hunting are popular on the Unit.

Non-Motorized Use

The Bald Bluff Mountain area contains an approximately 1 mile trail, starting at the 22-00-0 Rd and ending on a rocky outcropping on Bald Bluff Mountain. This area also contains a spur trail, approximately 0.1 mile, leading to another rocky bluff just west of Bald Bluff Mountain. These trails provide easy hiking, traveling through a forested landscape and offering vistas of the surrounding landscape. The trails are marked with blue blazes to both bluffs. The existing trailhead is just north of the Unit boundary on the abutting "Great Pond Parcel" (managed by American Forest Management). The trail continues to meander on and off the Unit along its course.



Bald Bluff Mountain trail sign

Approximately 2.5 miles of trails access Partridge Pond and Ducktail Pond from the 22-00-0 Rd. The trail to Partridge Pond passes through a stretch of early to mid-successional, hardwood dominated forest and into a later successional, softwood dominated forest. Skid trails cross this trail at various points with the early successional forest. The trail passes over a diverse forest floor, including granite outcroppings, and lower, wetter areas. The northern arm of the trail, heading to the eastern shore of Partridge Pond, crosses over a natural granite bridge and continues to a granite shoreline or beach. The western arm of the trail continues on to the northwestern side of the pond and ends at a large wetland area near a recreational camp lease site. The Ducktail Pond Trail travels mostly steeply uphill from the 22-00-0 Rd, paralleling Ducktail Brook. The trail travels through a later successional, softwood dominated forest that is denser than on the trail to Partridge Pond. After reaching Ducktail Pond, the trail curves west to connect to the Partridge Pond trails.

A lightly used trail to Halfmile Pond steeply descends from the end of a logging road to the shore of Halfmile Pond. The trail is hard to follow as it crosses a series of streams and wet areas around the eastern shore. From there, it travels inland and up a slight incline towards Halfmile Pond Bluffs. The trail passes through a later successional, softwood dominated forest. This trail is not clearly defined and resembles more of a deer path at times with erratic pink flagging. This trail receives occasional use by fishermen and rock climbers crossing the Unit to access Halfmile Cliffs.

Although not authorized or supported by the regional club (Airline ATV Riders), sections of the Bald Bluff Mountain Trail as well as the trail to Partridge Pond and connecting to Ducktail Pond have received local ATV use. The trail down to Halfmile Pond from the 9-13 spur and the trail along Ducktail Brook show no visible sign of ATV use.

Motorized Use

The Unit's road and trails provide access to several destinations and important connections to regional ATV and snowmobile trail systems. Only one motorized route has been officially designated in the recent past. The lack of designated connections to the ITS trail system has limited snowmobile use of the Unit.

Although not officially designated, snowmobiles and ATVs have traditionally travelled the 22-00-0 Rd to access the Unit's interior and connect to regional trail networks to the north, including ITS 84, the region's major east-west snowmobile trail. To access this network, riders continue north along the 22-00-0 Rd into the abutting "Great Pond" parcel. This property is currently under conservation easement negotiations as part of the "Lower Penobscot Forest Project" (see Regional Context section, page 17). The abutting manager (American Forest Management) currently permits motorized access along this route, although it may not be permanently secured as part of the conservation easement negotiations.

The 9-13 Rd has received both ATV and snowmobile use. From Route 9, the road travels for approximately 2 miles until it crosses the Unit boundary just before intersecting with the Trout Pond Rd. This abutting property manager (Prentiss and Carlisle) currently prohibits ATVs while permitting snowmobiles. For this reason the regional ATV club has not endorsed nor maintained

this trail. Although not officially authorized, this route has also been more appropriately used as a local snowmobile trail—providing an important access point and link to the ITS system via the "B-loop trail".

Motorized users have also travelled the 9-13 Rd and a short unnamed spur to access the short (approximately 0.2 mile) hiking trail to Halfmile Pond (see Nonmotorized Trails section, page 25).

On the opposite side of Halfmile Pond, the single designated motorized trail, a local snowmobile trail known as the "Halfmile Trail", enters the Unit from the abutting trail network. This trail crosses the Unit for approximately 0.2 miles, providing direct access to Halfmile Pond for ice fishing.

A short trail (approximately 0.2 mile) travels east from the 22-00-0 Rd to the former recreational lease site on Indian Camp Stream. This trail has received little public use in the past, but this former lease site has been identified as a desirable destination for both motorized and nonmotorized users alike.

Motorized users are looking for additional connections between the 22-00-0 Rd and a planned expansion of the "Salt Shed" trail system to the south of Route 9. An unmapped historical snowmobile trail dating back to the 1980's and the 9-25 Rd have been identified as having the potential to form a connecting route. This opportunity has not been investigated for feasibility, impacts or alternatives.

Newer roads built since 2003, including the 9-25 Rd and spurs roads off the 22-00-0 Rd, have recently provided additional access into the interior of the Unit for more dispersed recreation uses including hunting and locally known fishing destinations along the Units numerous brooks and streams. However, motorized use of these roads has not been specifically authorized and presents significant management challenges.

Camping

Camping has traditionally occurred in two locations on the Unit:

- 1) Ducktail Pond—there are multiple sprawling sites at the outlet. An old outhouse located very close to the shoreline and trash has been a frequent problem at this location.
- 2) Partridge Pond—one small campsite is located at outlet.

Additionally, the former recreational lease site on Indian Camp Stream has been identified as a potential campsite or day use area.

Boating

There are no boat launching facilities on the Unit, although small boats have been hauled in along the trails to Halfmile, Partridge and Ducktail Ponds and stored along the shore. A number of canoes, several seemingly abandoned, can be spotted along the shorelines.

Hunting and Trapping

The AMCF is known as an exceptional bear hunting area. Bear hunting with hounds occurs within the Unit. Baiting locations are found throughout the AMCF and used by at least one

guide and several locals. Guides are interested in future commercial bear bait sites within the Unit. Guides also use the AMCF for moose hunts, especially via the 22-00-0 road but ATV access on other roads is important for game removal. Upland game birds are hunted from main roads, spur roads and tote roads. During general firearm season, deer are hunted throughout the AMCF using all the roads for access. Tree stands may be scattered throughout the Unit.

No specific information is currently available on use by trappers, but it is likely that trapping has historically occurred in many parts of the AMCF, especially beaver on streams and wetlands.

Recreation Management Issues

- The Bald Bluff Mountain trailhead and portions of the trail are located just north of the Unit boundary on the adjacent "Great Pond Parcel".
- The Unit's recent acquisition and proximity to the population centers of Bangor and Ellsworth will likely increase demand on the recreation infrastructure.
- In particular, additional demand is expected for longer day-hiking opportunities. There may be opportunities to meet this demand by connecting some of the existing short hiking trails.
- Additionally, as the Down East Sunrise Trail opens in Ellsworth or if a local club reorganizes, demand will also increase for more and better motorized trail amenities such as camping, parking, view opportunities and access to nearby trails.
- There are opportunities to provide interpretive and educational information for recreational users particularly about working forests along the Partridge Pond Trail.
- The camping areas on Partridge and Ducktail ponds need improvements and additional maintenance—sanitary issues are of particular concern.
- Trails need to be marked and improved. Trailhead parking areas need to be designated and improved.
- The trails to Partridge and Ducktail ponds are not appropriate for ATV use because they are steep, prone to erosion and access sensitive areas. The local club (Airline ATV Riders) does not support this use nor do they wish to maintain these trails. However, both trails currently receive unauthorized ATV use.
- Without boating facilities or motorized access to the ponds, it will be difficult to bring in small boats in for fishing, as has been the local tradition. The distance and rough terrain to Ducktail and Partridge Pond is especially challenging.
- Unauthorized ATV use along the western portion of 9-13 Rd may be impacting the abutting landowner.
- The "Halfmile Trail" has provided designated, primitive snowmobile access to Halfmile Pond for ice fishing. However, unauthorized ATV and vehicular access has been observed and the trail is eroded. Concerns have been raised about the potential impacts of direct snowmobile access on the pond's self-sustaining wild brook trout fishery and the remote character of the pond.
- A motorized trail connecting the 22-00-0 Rd to a planned expansion of the Salt Shed Trail system warrants further exploration.
- The former recreational lease site provides a new opportunity for an additional camping or day use area.

Visual Resources

The scenic quality throughout the Unit contributes significantly to the uniqueness and remote character of the Unit. Because of the topography, most of the Unit is visible from at least one of the many viewpoints along internal trail and road systems as well as from surrounding peaks and stretches of Route 9. The Unit also provides distant views of coastal bays and islands, lakes, ponds, mountains, cliffs and forestland well beyond the Unit, including landmarks such at Cadillac Mountain and Mt. Katahdin on a clear day.

Visual Resource Management Issues

- Management of the resources should take into consideration visual quality; in particular, the background views as seen from the remote ponds, Bald Mountain, Bald Bluff Mountain and other high points on the Unit.
- Foreground views along trails and public access roads are also important to the visual management program and should be taken into consideration when timber harvesting or recreational facilities are planned.

Timber and Renewable Resources

Nearly all acres to be managed for timber on this property have had harvesting during the past 25 years, much of it since the turn of the millennium. The harvests have often been heavy, though not commonly heavy enough to meet the MFS definition of a clearcut. All species were taken but the concentration appears to have been softwoods, especially spruce and pines. This appears particularly the case in the more recent cuts in the central and northern part of the land. Some stands of reasonably good hardwood saplings on the west part point to better soils and probably a greater hardwood component prior to harvest.

This is almost all low stocked forest land, with volume averaging less than 9 cords per acre when inventoried in 2008, less than half of the average for the other lands covered by the Bureau's Eastern Interior management plan. There are apparently no areas in the timber management sector that might warrant consideration as High Conservation Value Forests (HCVF), though future management – especially in riparian or deer wintering areas, might bring some stands into late successional forest conditions. The Manomet Late Successional Index is based on trees 16" dbh and larger, and this land averages just 1.6 such trees per acre, less than one-tenth the quantity needed to signify late successional status. Half of this limited number of large trees are red maple, not really a long-lived species on these soils.

Stand Type Characteristics:

Due to the relatively small forest acreage under consideration and the extensive alteration of the forest due to harvesting, the types will all be described under one heading. Data from 2003 give the type proportions as 44% hardwood, 35% mixedwood, and 21% softwood. Subsequent harvests have probably reduced the softwood percentage even more. Given the soils and conditions for this tract, the historic (before timber harvesting began altering the mix) type distribution probably would have less than 20% hardwood type and the remainder split fairly evenly between mixedwood and softwood.

Most stands have low crown cover of tall trees, corresponding mainly to the Bureau's "C" or "D" crown closures, 34-67% closure and under 34% closure, respectively, and the "D" type

appears much more common. There is also significant acreage in size class one stands, those made up predominately of trees 4" in diameter and smaller, and with insufficient larger trees to be themselves typed. Some of these seedling/sapling stands hold well stocked larger saplings, especially on the western part of the land, while other size class one stands are recent heavy harvest areas with mainly seedling size trees (smaller than 0.5" in diameter.) The low stocking of larger trees means that net growth will be quite modest over the next 20 years or so, or until the younger trees established as a result of the recent harvests grow into merchantable size. Once that ingrowth comes into play, the growth rates will be significantly higher.

Spruce (nearly all red spruce) and red maple each are 23% of total volume, hemlock and yellow birch each 10-11%, white birch 8%, white pine and beech each 5%. There is slightly more hardwood volume than softwood. Average stem diameter is a modest 8.1", about the same for softwoods and hardwoods. Among the leading species, only hemlock (average 9.6") is much larger than the average, though red maple is 8.9".

Management should seek to restore the higher softwood proportion of the past, both to reverse the trend caused by recent harvests and to produce a forest with more valuable timber and a more natural ecological community. Increasing the softwood is most desirable along riparian buffers, to ensure shade for coldwater brooks and streams, and in areas important as winter cover for deer, but should be a goal on most acres under timber management. Spruce, fir, hemlock and cedar are the key species for riparian and deer cover areas, and pines should be encouraged wherever found. In many areas converted to hardwood or mixedwood type by harvesting, there is considerable softwood regeneration established. Encouraging this resource will be important in bringing the forest back toward its natural state.

Hardwood species management should generally focus on the more fertile areas where these trees will grow well. There are small areas of aspen where this important wildlife habitat should be encouraged, but most hardwood management should be for the northern hardwood mix – beech, yellow birch, and sugar maple. Beechnuts are usually the major source of hard mast for wildlife in the northern two-thirds of Maine, but the species is of poor quality on this tract due to many factors – infertile site, harvest history, and beech bark disease, which is rampant in this region. Any beech with smooth bark and/or full crowns should be retained whenever possible. Oak, the other hard mast producer on these acres, is much less common but is also better suited to these soils of limited fertility. Retention of oak and releasing it from competition where feasible is a most desirable management practice.

Though management access is fully in place due to all the recent harvests, some of these roads include steep grades and will require careful maintenance, to keep them from being degraded and requiring costly fixes. Some of the forest land is rich in large boulders and/or steep slopes, often making equipment travel (and thus harvesting) a challenge.

Timber Management Issues

• Recent harvests have skewed forest types away from softwoods. In some cases the next generation of trees is heavy to softwoods, making restoration fairly simple. In other areas the

- regeneration is mainly hardwoods, often on sites where limited fertility will support only low quality hardwood growth.
- Much of this tract holds soils which are coarse, often excessively drained and thus droughty, and there are considerable acres of steep and rocky land. This will affect both choice of tree species to favor and manner of harvesting.
- Numerous brooks and streams flow through the timber management area. The riparian buffers have often received heavy harvesting, reducing the proportion of softwood in locations where its presence is especially important.
- Beech and oak are the available mast species on the lot. In this region beech bark disease is so prevalent, and on the lot sites are of such modest fertility, that increasing the oak component may offer the best long-term strategy for securing hard mast.
- Timber management will be conducted in partnership with the Town of Amherst, as laid out in the "Timber Management Lease of Public Lots" (see Appendix C).
- With assistance from the FSM, the Town of Amherst has fulfilled its first two management responsibilities— to form a Community Forest Advisory Committee and to prepare the first Ten Year Timber Management Plan (see Appendix F).
- Although the first timber harvest is projected to occur beyond this Plan's 14-year management timeline, the Bureau will need to work closely with the Town of Amherst's Community Forest Committee to meet upcoming requirements for a Ten Year Operating Plan and Annual Operating Plans. Operating plans will address road work, boundary line work and other land maintenance activities in preparation for longer-term timber management.
- Careful planning will be needed prior to any harvesting due to the challenging terrain and the visual resources found throughout the Unit.

Transportation and Administrative Resources

Roads

The 22-00-0 Rd, the 9-13 Rd, and an associated spur road towards Halfmile Pond have provided the main public access into the Unit. Newer roads built for timber management between 2003 and 2006 have recently provided additional access into the interior of the Unit when conditions permit. These include spurs of the 22-00-0 Rd as well as significant portions of the 9-25 Rd.

Camplot Leases

There is 1 private residential camplot lease within the Unit, which was established by previous landowners in the early 1970s. Administratively, this lease will continue on a five-year renewable basis as directed by statute, provided the terms and conditions of the lease agreements are met. ATVs have been used to access to this lease site along the Partridge Pond trails.

One additional lease was terminated prior to the Bureau's acquisition. The remaining structures are now owned by the Bureau and could provide shelter for trail crews in the short-term. Although the site has been considered for a camping area or day use area, the structures are not in good condition for long-term use.

Transportation and Administrative Management Considerations

- The Bureau and the Town of Amherst have agreed upon a shared cost agreement laid out by the "Timber Management Lease of Public Lots" (see Appendix C). Good communication and recording keeping will be essential to successfully implementing this agreement.
- Public access to the east side of the Unit, via the 22-00-0 Rd, requires crossing a privately-owned abutting parcel. The Bureau has an 80-ft wide easement across this privately-owned stretch of the 22-00-0 Road "for hauling woods products and gravel and for all other purposes relating to forest management". The abutting landowner allows public access (including by snowmobile and ATV).
- An abutter on Indian Camp Brook holds an all purpose right-of-way along the 22-00-00 Rd.
- The most prominent current vehicular access issue is a flooded area at the north end of the 22-00-0 Rd.
- Public access on the 9-25 Rd and the spurs off the 22-00-0 Rd present management concerns related to safety, road maintenance costs, natural resource impacts, illegal trash dumping and impacts on neighboring landowners.
- Shared use roads need to be clearly identified on the Unit.
- Penobscot 4 Wheel Drive Club has expressed interest in accessing areas of the Unit, including a management road off the 22-00-0 Rd and a rock pit on the 9-25 Rd.
- Maintenance concerns may warrant seasonal road closures, as has occurred under previous ownerships.
- A spur off the 9-13 Rd provides vehicular access to within a ¼ mile of Halfmile Pond. There is concern that increased access via this road may impact the pond's wild brook trout fishery and remote character and nearby sensitive habitats including peregrine nesting sites.
- IP retained an undivided one-half royalty interest in any minerals produced from the Unit.
- IP holds a pulpwood timber purchase option for any timber harvested on the subject property. The option expires May 25, 2014.
- No new camp leases will be developed.



Flooded section of the 22-00-0 Rd.

Resource Allocations and Management Recommendations

Special Protection Allocations

The Special Protection allocation as a dominant use will apply to the following areas:

- The "Ponds Tract" an area encompassing and connecting Halfmile, Partridge, Ducktail, Snowshoe, and Pug ponds and much of their watershed areas within the Unit. This area also encompasses Bald Mountain and its *red-pine woodland* exemplary community.
- The "Bald Bluff Mountain Protected Area" encompassing the deed restricted area and its exemplary *spruce-fir-broom-moss forest* community.

Special Protection Management Recommendations

- Prohibit motorized use and make efforts to prevent unauthorized use.
- Monitor sensitive resources, including *red-pine woodland* on Bald Mountain.
- Allow the continuance of the existing camplot on Partridge Pond. Issue Special Use Permits to allow limited ATV access to and from the camps on the existing trail system.

Recreation Allocations

The Non-mechanized Backcountry Recreation allocation will apply as a secondary use on the "Ponds Tract" and Bald Bluff Mountain Protected Area" where Special Protection is the dominant use.

The Developed Recreation Class I allocation will apply as a dominant use to the following areas: Public Use Roads; Management Roads designated for shared use; the former lease site on Indian Camp Stream; the "Halfmile Trail" snowmobile trail; and trailhead parking areas.

The Remote Recreation allocation will apply as a dominant use to the Partridge Pond Trail, where it travels through the Timber Management area. The Remote Recreation allocation will apply as a secondary use to the Ducktail Pond Trail, where it travels through the Wildlife Management area.

Recreation Management Recommendations

- Adopt the Bald Bluff Mountain, Halfmile, Partridge and Ducktail ponds trail systems. Monitor use and implement signage, relocation or rehabilitation projects as necessary.
- Adopt the Partridge and Ducktail Pond campsites. Monitor use and address environmental concerns.
- Work with IF&W to monitor recreation impacts on identified wildlife and fisheries resources, including Halfmile Pond's wild brook trout population and peregrine nesting on Halfmile Pond Cliffs.
- Assess demand for longer day-hikes. Explore the feasibility of providing such opportunities by connecting existing hiking trail networks.
- Explore the possibility of working with the Town of Amherst to provide boat storage or lending practices on the ponds.

- Allow the continuance of the "Halfmile Trail" snowmobile trail which has provided direct winter access to Halfmile Pond for ice fishing. Make efforts to prevent unauthorized ATV use and monitor impacts on Halfmile Pond and surrounding Special Protection Areas.
- Develop the former lease site on Indian Camp Stream as an additional camp site or day use area.
- Adopt and improve trailhead areas for Halfmile Pond trail, Partridge and Ducktail pond hiking trails, and Bald Bluff Mountain hiking trails.
- Investigate the potential and need for linking the 22-00-0 Rd to a planned expansion of the Salt Shed Trail system via the 9-25 Rd and a historical snowmobile trail.
- Develop informational signage for climbers accessing Halfmile Pond Cliffs via informal trails near Halfmile Pond to help protect nearby peregrine nesting sites.

Wildlife Management Allocations

Wildlife management as a dominant use will apply to the following areas not allocated as Special Protection areas.

- <u>Historical deer wintering areas</u> The Bureau's goal is to increase the amount of softwood on the Unit. This is a long-term endeavor that dovetails both the silvicultural and wildlife goals for the property. Management in deer wintering areas is coordinated with IF&W.
- Major riparian areas Riparian zones of 330 ft along major streams.
- Inland wading bird and waterfowl habitat.

These management zones protect important feeding and nesting areas and are used as wildlife travel corridors.

Wildlife Management Recommendations

- Look for/expand opportunities to enhance mature softwood habitats for softwood dependent species, especially deer. When feasible, coordinate deer habitat management with adjacent landowners, particularly across the western boundary of the Unit.
- Manage riparian areas with a goal of retaining key structural elements such as snag and den trees, to encouraging a variety of tree species and age classes, and to maintain sufficient shoreline cover necessary for wildlife habitat and water quality protection.

Visual Consideration Areas

The Visual Class I allocation will apply as a dominant use on lands adjacent to Public Use Roads, Management Roads designated for shared use and other Developed Recreation Areas.

The Visual Class II considerations will apply to all other areas of the Unit.

Timber Management Allocations

The Timber Management allocation will apply as a dominant allocation, subject to Visual Class 2 considerations, on remaining lands not subject to Special Protection, Wildlife, Developed Recreation or Visual Class 1 dominant allocations.

The Timber Management allocation will apply as a secondary allocation in Wildlife, Developed Recreation areas and Visual Class 1 dominant areas.

Timber Management Recommendations

- Manage to allow the softwood component to increase, by preferential harvest of hardwoods and favoring of softwood regeneration.
- To the extent practical, favor those species best suited to the site. Species which do well on sites of limited fertility, spruce, pines, to a lesser extent oak, should be encouraged.
- Restoring high softwood component in riparian buffers and in deer cover will not be easy but should be a priority.
- Retain healthy beech, including those with beech bark disease but full crowns, wherever feasible. Favor oak at all times.

Transportation and Administrative Management Recommendations

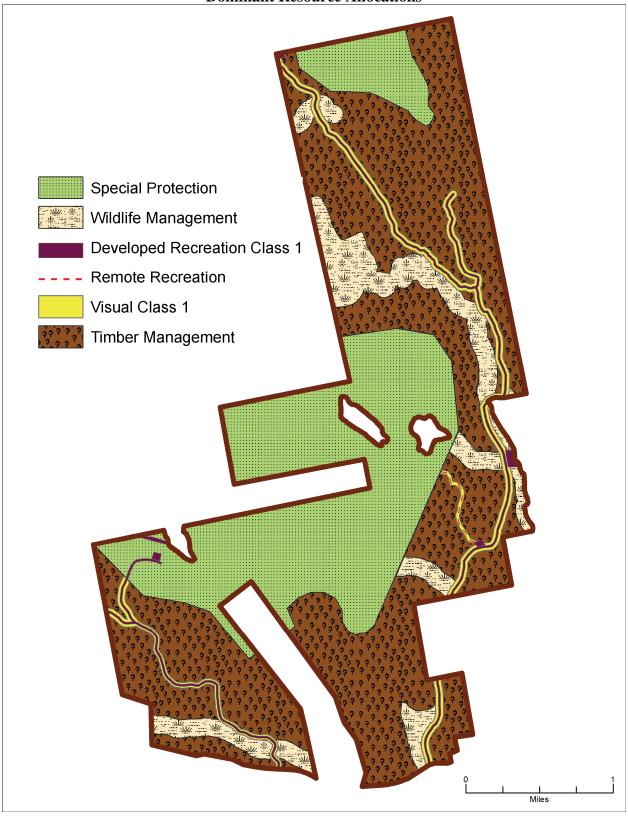
- The Bureau should continue to work cooperatively with abutters to manage public access affecting neighboring parcels.
- The Bureau should explore options for obtaining more clear legal access for public recreation to the east side of the Unit.
- Designate the 22-00-0 Rd and the 9-13 Rd and its associated Halfmile Pond spur road as Public Use Roads providing north-south vehicular access through the Unit as well as access to the Halfmile Pond trailhead.
- Designate the remaining road network as management roads- including spurs off the 22-00-0 Rd, the 9-25 Rd and western portions of the 9-13 Rd.
- Designate the 22-00-0 Rd, the 9-13 Rd, the Halfmile Pond spur road, and a portion of the northeast spur on the 22-00-0 Rd as shared use roads—providing two important links to regional motorized trail networks as well as to key recreation destinations with the Unit.
- Indicate what uses will be permitted on shared use roads. With one exception, shared use roads will be open to passenger vehicles, ATVs, snowmobiles, horses and bicycles when conditions permit. The portion of the 9-13 Rd west of the Halfmile Pond spur road will be closed to ATVs to discourage unauthorized traffic on abutting parcels.
- Restrict public motorized access as necessary on the northeast spur of 22-00-0 Rd management road beyond where it is designated for shared use to address safety and maintenance concerns.
- Restrict public motorized access as necessary on the 9-25 Rd to prevent unauthorized motorized use within the Special Protection Area and to address environmental and maintenance concerns.
- Explore possible uses by special permit for the Penobscot 4WD club.
- Continue working with the local snowmobile, ATV, and 4WD clubs to minimize conflicts on road use and for safety purposes.
- Assess the condition of the structures at the former recreational lease site on Indian Camp Stream to determine whether the camp can be used to shelter trail crews.
- Minimize road improvements and additions in the Unit. Use existing roads to accomplish management whenever possible.

Allocation Summary

Allocation	Dominant Acres	Secondary Acres
Special Protection	1,708	NA
Timber Management	2,532	788
Wildlife Management	518	
Non-mechanized Backcountry Recreation		1,708
Remote Recreation	3	3
Developed Recreation Class I	87	
Visual Class I	183	

Acreages are representations based on GIS metrics and do not sum to total unit acres due to measuring error and limits of GIS precision.

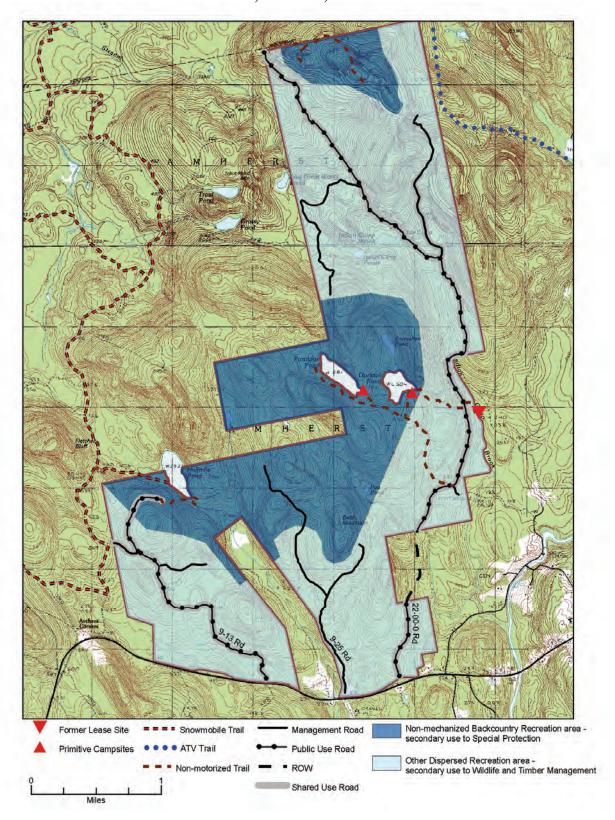
Map 3: Amherst Mountains Community Forest Dominant Resource Allocations



Timber Management Resource Allocations Timber Management Dominant Timber Management Secondary No Timber Management

Map 4: Amherst Mountains Community Forest
Timber Management Resource Allocations

Map 5: Amherst Mountains Community Forest Recreation Areas, Facilities, and Infrastructure



V. Monitoring and Evaluation

Monitoring and evaluation are needed to track progress in achieving the management goals and objectives for the units and the effectiveness of particular approaches to resource management. Monitoring and evaluation will be conducted on ecological, recreational, wildlife and timber management efforts throughout the Unit.

Implementation of Plan Recommendations

The Bureau will develop, within two years of Plan adoption, an action plan for implementing and monitoring the management recommendations in this Plan. This will include an assignment of priorities and timeframes for accomplishment that will be utilized to determine work priorities and budgets on an annual basis. The Bureau will document annually its progress in implementing the recommendations, plans for the coming year, and adjustments to the priorities and timeframes as needed.

Recreation

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

The Bureau will monitor public use to determine:

- (1) if improvements to existing facilities or additional facilities are needed and compatible with general objectives
- (2) if additional measures are needed to ensure that recreational users have a high quality experience (which could be affected by the numbers of users, and interactions among users with conflicting interests)
- (3) if use is adversely affecting sensitive natural resources or the ecology of the area
- (4) if measures are needed to address unforeseen safety issues
- (5) if changing recreational uses and demands present the need or opportunity for adjustments to existing facilities and management
- (6) if 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 conduct a variety of species monitoring activities statewide. The following are monitoring activities that are ongoing or anticipated for the Amherst Mountains Community Forest:

(1) The Bureau will cooperate with IF&W in the monitoring of fish and wildlife species.

(2) The Bureau will identify and map significant wildlife habitat such as vernal pools and den trees in the process of developing its detailed forest management prescriptions. The boundaries of any sensitive natural communities will also be delineated on the ground at this time. Any significant natural areas or wildlife habitat will then be subject to appropriate protections.

Timber Management

Timber management and operating plans will be prepared by the Town in accordance with Bureau policies specified in its *Integrated Resource Policy*. Timber management activities shall be in compliance with all local, state and federal laws and include implementation of the appropriate "Best Management Practices" for minimization of erosion and siltation.

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 (BMP's) 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.