Flagstaff Region Management Plan



Maine Department of Conservation Bureau of Parks and Lands



June 12, 2007

ADOPTION CITATION

In accordance with the provisions of 12 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 the Flagstaff Region is hereby adopted.

RECOMMENDED: Jullan R. Jane DATE: 6/11/07

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Director

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APPROVED: Total K. M. Fowen DATE: 4/12/07

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Department of Conservation

ADOPTED DATE: 6/12/07 REVISION DATE: 6/12/22

Table of Contents

ACKI	lowledgements	
I.	Introduction	1
	About This Document	
	What Lands Are Included in the Flagstaff Region?	2
II.	The Planning Process	4
	Statutory and Policy Guidance	4
	Public Participation	
III.	The Planning Context	<i>6</i>
	Introduction	
	The Character and Resources of the Surrounding Region	<i>6</i>
	Public Lands and Facilities in the Surrounding Region	
	Trends in Recreation Use in the Surrounding Region	16
	Public and Private Recreation and Eco-Tourism Initiatives	17
	Conservation Initiatives.	19
	Federal Energy Regulatory Commission License for the Flagstaff Project	20
	Acquisition History	
	Previous Management Plans	25
	Summary of Planning Implications.	
IV.	Resources and Management Issues of the Flagstaff Plan Region	
	Overview	
	Bigelow Preserve and Surrounding Properties.	36
	The Bigelow Preserve	
	Character of the Land Base.	
	The Horns Ecological Reserve	38
	Natural Resources	39
	Historic and Cultural Resources	47
	Recreation and Visual Resources	48
	Timber Resources	54
	Access	59
	Administrative Concerns	66
	Management Issues	66
	Surrounding Properties	71
	Character of the Land Base	7
	Natural Resources	73
	Historic and Cultural Resources	7 6
	Recreation and Visual Resources.	76
	Timber Resources	77
	Administrative Concerns.	79
	Management Issues	80
	Mount Abraham	82
	Character of the Land Base.	82
	Mount Abraham Ecological Reserve	83
	Natural Resources	
	Historic and Cultural Resources	87
	Recreation and Visual Resources	87

	Timber Resources.	88
	Administrative Concerns	
	Management Issues	91
	Chain of Pond	
	Character of the Land Base	92
	Natural Resources.	
	Historic and Cultural Resources	
	Recreation and Visual Resources	
	Timber Resources.	99
	Administrative Concerns	99
	Management Issues	100
	Other Public Lots	101
	Coplin Plantation	101
	Freeman Township	104
	Highland Plantation	106
	King and Bartlett Township	109
	Redington Township	110
	Pierce Pond Easement	111
V.	Vision and Management Policies for the Flagstaff Region	112
VI.	Proposed Resource Allocations -General Management Direction	118
	Regional Overview by Allocation.	
	Proposed Resource Allocations – by Property	138
	Bigelow Preserve and Surrounding Properties	138
	Mount Abraham	151
	Chain of Ponds	153
	Other Public Lots	157
VII.	Management Recommendations - Specific Action Items	161
	General	161
	The Bigelow Preserve	162
	Flagstaff Lake/Surrounding Properties.	
	Mount Abraham	168
	Chain of Ponds	169
	Other Public Lots	170
	Pierce Pond Easement.	
VIII.	Monitoring and Evaluation	171

Appendices

- A. Flagstaff Planning and Management Staff, and Advisory Committee Members
- B. Bigelow Preserve Acts: An act to Establish a Public Preserve in the Bigelow Mountain Area (1976); and Act to Improve Access to Public Lands (2005)
- C. Summary of 1989 Bigelow Preserve Management Plan Recommendation Accomplishments
- D. Bigelow Lodge Use Guidelines
- E. Deed Restrictions Mount Abraham
- F. Summary of and Response to Public Comments
- G. Glossary
- H. References
- I. Technical Appendices Forestry (to be supplied)
- J. Technical Appendices Natural Resources Inventory (under Separate Cover)

Acknowledgements

The Flagstaff Region Management Plan was prepared through a collaborative effort involving contributions from the following Bureau of Parks and Lands staff:

Kathy Eickenberg - Management Plan Coordinator-Draft and Final Plan

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George Powell – Boating Facilities Director, Bureau of Parks and Lands

Gena Denis – Geographic Information System Coordinator

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, whose staff conducted a natural resource inventory for the Bureau and provided a detailed report, written by Brooke Wilkerson, which is included in this Plan (under separate cover) as Appendix J – Natural Resource Inventory of the Bureau of Parks and Lands Flagstaff Region.

Information about archaeological and historic resources information was also provided by Art Spiess at the Maine Historic Preservation Commission.

I. Introduction

About This Document

This document constitutes a fifteen-year Management Plan (the Plan) for the Reserved Land properties in the Flagstaff Region managed by the Maine Bureau of Parks and Lands (the Bureau). The Plan includes background information about the planning process and the regional context of the Plan, but the core of the Plan is a description of the character and resources in the Region, a Vision for the future of the public reserved lands in the Region, and management allocations and recommendations.

One objective of the Plan is to provide a balanced spectrum of opportunities across the Region, and in keeping with the opportunities and resources available in the broader surrounding Western Mountains Region. In developing the management recommendations for each parcel, the Bureau has been mindful of this broader perspective.

The Flagstaff Region Management Plan is a commitment to the public that the public reserved lands in this Region will be managed in accordance with the Bureau's mission and goals, and within prescribed mandates. Revisions to the Plan commitments will occur only after providing opportunities for public comment. The Management Plan will also serve as guidance to the Bureau staff. It will provide clear management objectives, while providing a degree of flexibility in achieving these objectives. It will not, however, be a plan of operations.

An important aspect of the management of public lands is monitoring commitments made in the plans, and evaluating the outcomes of management activities relative to overall objectives. This management plan describes monitoring and evaluation procedures for recreational use, wildlife management, management of Ecological Reserves, and timber management.

The fifteen-year duration for this Plan is a departure from Plans prepared in the past. The Bureau has recently amended its policy related to plan intervals as a result of changes in the planning process - plans are now being developed on a regional basis, with a more robust public process, which requires a more intensive and time consuming effort. In addition, a fifteen year interval aligns more closely to Bureau forest management plan prescriptions, and most other resource management concerns other than recreation. The Bureau recognizes that some resources and management issues, most notably recreation, may undergo more rapid or unanticipated change over time, potentially making it necessary to amend this Plan prior to the fifteen-year scheduled review. Thus, in addition to the fifteen-year scheduled Plan revision, 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 comprehensive review of the Plan, including revised inventories and a full public review process, and will develop management objectives and recommendations for the ensuring fifteen year plan period. The Bureau recognizes that several of the stated objectives will require longer than the fifteen year Plan period to achieve.

What Lands are Included in the Flagstaff Region?

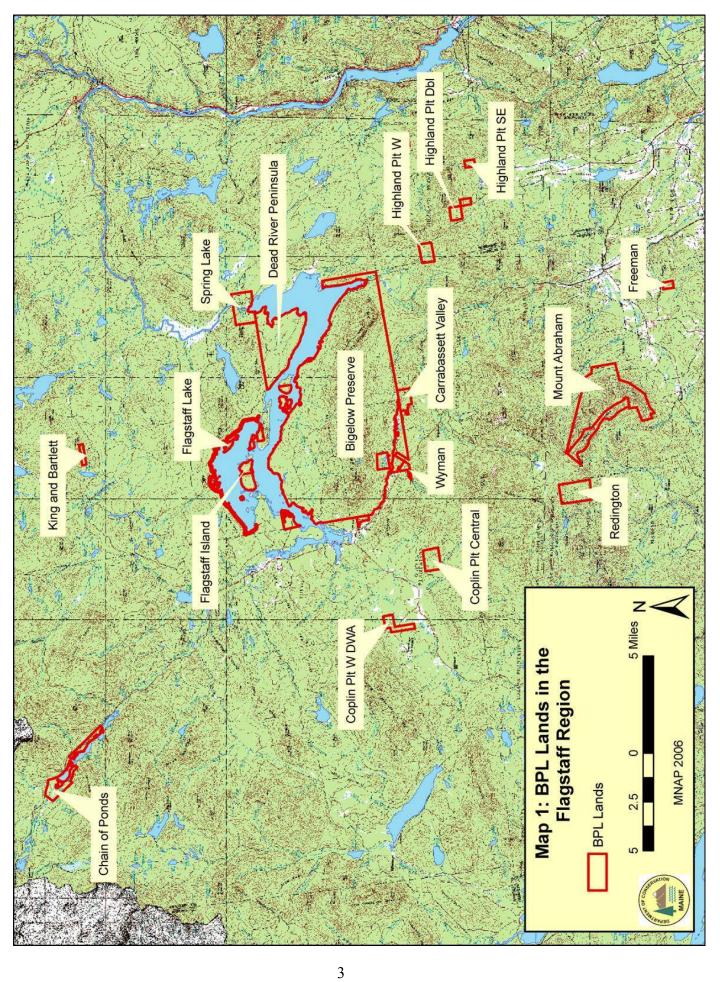
The Flagstaff Region roughly encompasses the area north of Farmington to the Canadian border, and east of the Rangeley Lakes Region to the Kennebec River valley. It includes the following properties:

Bureau of Parks & Lands Property In the Flagstaff Region

	Acreage
Flagstaff Lake/Bigelow Properties	43,591
Bigelow Preserve	34,934
Carrabassett Valley Lot	413
Coplin Plt. Range Trail Trailhead	111
Dead River Peninsula	3,962
Islands in Dead River Township	306
Flagstaff Twp. (Myers Lodge)	290
Flagstaff Twp. (Original Pond shoreline)	974
Flagstaff Twp. (Flagstaff Island) ¹	530
Spring Lake Lot	993
Wyman Township-E. of Route 27	937
Wyman Township- W. of Route 27	141
Mt. Abraham	6,301
Chain of Ponds	982
Miscellaneous Public Lots	3,136
Coplin Plt. West Lot	398
Coplin Plt. Central Lot	562
Freeman Twp. Lot	122
Highland Plt. Double Lot	362
Highland Plt Southeast Lot	121
Highland Plt. West Lot	408
King and Bartlett Twp. Lot	143
Redington Twp Lot	1,020
Total	54,010

¹ Flagstaff Island includes an original public lot of 189 acres, and 341 acres acquired from Plum Creek as part of the Flagstaff Twp original pond shoreline.

In addition, the Bureau has responsibility for monitoring compliance with a 9,182-acre conservation easement in Pierce Pond Township; this Plan will outline that responsibility as well as the Bureau's responsibility in preserving and interpreting the historic Arnold Trail where it passes through the Plan area.



II. The Planning Process

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.

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 the public reserved lands in the Flagstaff Region. In total six public meetings were held in the development of this Final Draft Plan, as described below.

<u>Resource Assessments</u>: The first phase of the planning process includes a thorough study of the resources and opportunities available on the Flagstaff Plan lands. Beginning in the summer of 2004, Bureau staff undertook an intensive review the natural and geological, historic and cultural, fisheries and wildlife, recreation, and timber and renewable resources. Much of this information was obtained by conducting formal inventories of specific resource areas (Natural Resource Inventory, Cultural Resource Inventory, etc.). Resource professionals from within the agency provided information on wildlife, recreation, and timber resources. Mapping and GIS-related information was also obtained as part of this phase.

Staff also participated in two reconnaissance field trips to the Plan Area to inventory and characterize the land-based resources and recreational features. The first trip was a summer road trip primarily looking at camping sites, snowmobile trails, boat access facilities, and roads; the second built on the first and utilized snowmobiles to review past harvests and their impacts on various resource allocations, inspect potential water access campsites and included a tour of the snowmobile trail system on the Bigelow Preserve and surrounding lands.

<u>Issue Identification/Public Scoping Session</u>: Another component of the planning process involved conducting a public meeting to determine and discuss management issues needing to be addressed by the Plan. This meeting was held in Farmington on March 29, 2005.

Advisory Committee Formation and Review of Preliminary Inventory and Assessment: In the fall of 2005 the Bureau compiled the resources and management issues identified as described above into a Preliminary Plan or Pre-Plan. At the same time a Public Advisory Committee was formed to review and discuss the Pre-Plan document on a more formal basis, and to provide input on the overall process for developing the Plan. 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 Flagstaff Region properties. A meeting to review the Preliminary Plan was held November 15, 2005.

<u>Follow-up "Focus Meeting:</u>" As needed, the Bureau holds special focus meeting to address a particular issue. Such a meeting was held February 16, 2006 to hear from the Friends of Bigelow and members of the public about concerns related to the Bigelow Preserve.

<u>Advisory Committee Meetings on the Initial Draft Plan</u>: The Initial Draft Plan, including a draft proposed Vision, proposed resource allocations, and proposed management recommendations, was reviewed by the Advisory Committee at a public meeting held February 27, 2007; a follow-up meeting on issues specific to the Bigelow Preserve was held March 29, 2007. Comments on the Initial Draft from the Advisory Committee and the public are included in the Appendices of this report and are reflected in this Final Draft Plan.

<u>Public Meeting on the Final Draft Plan</u>: The Final Draft Plan was presented and discussed at a public meeting on May 8, 2007.

<u>Commissioner's Review of the Final Proposed Plan, and Plan Adoption</u>: Comments received on the Final Draft Plan were considered in preparing the Final Management Plan for review by the Director of the Bureau of Parks and Lands. Upon the Director's recommendation, the Plan was then reviewed and approved of the Commissioner of the Department of Conservation, with formal adoption on June 12, 2007.

III. The Planning Context

Introduction

This section includes a summary of topics and issues that may have some influence upon decisions to be made in this Plan on how the Bureau will manage its lands during the next 15 years. Information is provided on:

- the character and resources of the surrounding region;
- recreational opportunities in the surrounding region;
- private-public initiatives related to recreation in the surrounding region;
- trends in recreational uses:
- conservation initiatives in the state and surrounding region;
- the Federal Energy Regulatory Commission license for the Flagstaff Project;
- how the Bureau lands were acquired, including any conditions imposed on the management of those lands, by deed or statute; and
- previous plans and the status of the Bureau's implementation of those plans.

For the purposes of this Plan, the "surrounding region" is defined to include, primarily, the area from Farmington to the Canadian border, and from the east side of the Rangeley Lakes area to the Kennebec River corridor, roughly corresponding to Franklin County and the portion of Somerset County westward from the Route 201 corridor.

The Character and Resources of the Surrounding Region

The Public Reserved Lands covered by this Plan lie within Maine's northern forest region, a largely undeveloped area that occupies approximately 8 million acres in the western mountains and northern half of the state, where population density is sparse and a large majority of towns are unincorporated (subject to the jurisdiction of the Maine Land Use Regulation Commission). The area is part of the broader northern forest region stretching from the Adirondacks in New York to the Canadian maritime provinces, which some call the largest undeveloped landscape east of the Mississippi.

The landscape of the region surrounding Flagstaff Region public reserved lands is characterized by broad valleys bounded by some of the highest mountains in the state. The region is highly scenic due to the steep mountainous terrain, with broad river valleys sweeping between the mountains from the Rangeley Lakes through the Dead River Valley and Flagstaff Lake. Alpine areas, including the unusually extensive areas on Mount Abraham and the Bigelow Range, now protected as Ecological Reserves, harbor rare plant and animal species, many of which are at the southern extent of their range. There is an abundance of lakes created both naturally (primarily through glaciation), and through dams constructed initially for log-drives, then for waterpower and hydropower water storage. Today, a number of the lakes, both natural and man-made, are actively manipulated for hydropower storage, subject to licenses from the Federal Energy Regulatory Commission (FERC). These include Flagstaff Lake and in the Rangeley Lakes system - Mooselookmeguntic Lake, the Richardson Lakes, Umbagog Lake, and Aziscohos Lake.

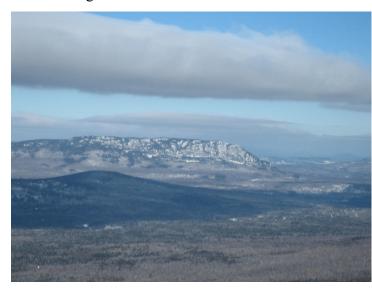
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Two of Maine's largest rivers, the Kennebec River (into which all of the lands in this Plan flow), and the Androscoggin River have headwater streams and lakes in this region. Native brook trout are the keystone fish species found in this region, and they thrive where spawning and nursery habitats are abundant. IF&W Fishery Region D (Rangeley Lakes area, including all Flagstaff Plan properties) has 204 lakes that support principal fisheries for brook trout. Of these, 97, (47%) have never been stocked with hatchery trout, and are populated by wild brook trout only. Trout stocking programs support recreational fishing opportunities in many lakes and ponds that lack suitable habitat for natural reproduction, but provide good habitat for adult trout (107 lakes are stocked with brook trout in the Region). Water quality is good to excellent throughout the region.

The forest products industry has historically been an important aspect of the character, economy, and culture of the Flagstaff region. The region is extensively forested and has been actively managed for timber since the 1800's. According to Austin Cary's survey in 1895, of the 335 square miles in the Sandy and Carrabassett River drainages (the area draining the south side of the Bigelow Range and including Mount Abraham and many of the small lots covered by this Plan), only 15% of the total land remained uncut at the turn of the century (Cogbill 1998). While the intensity of harvesting has since varied across the region, there was a significant and widespread impact to the forest resources in the 1980's due to a spruce budworm outbreak and the extensive harvesting that followed.

Deer populations in the region are low as a result of this harvesting, which has limited the availability of mature softwood stands needed for winter cover. Bear and moose populations are thriving in this region, however, due the availability of preferred foods resulting from extensive harvesting.

There are relatively few state or county roads in the Flagstaff Plan area or the surrounding region, as shown on the attached Regional Map. The 82 mile section of the Appalachian Trail that stretches from Route 4 in Rangeley to the Kennebec River is crossed by only one state road – Route 27/16 just south of the Bigelow Preserve and one paved county road – Long Falls Dam Road east of the Bigelow Preserve. In addition, the Trail is crossed by a county maintained gravel road within the Bigelow Preserve (the East Flagstaff Road). However, since the late 1960's when use of the region's waterways for log runs ended, this vast forested area has been laced with a network of private logging roads which, in addition to forest management, are utilized for a variety of recreational pursuits such as hunting, and have also been incorporated into a number of managed backwoods recreational trail systems, notably for snowmobiling and ATV touring.



The Bigelow Range

A full spectrum of recreational opportunities exists in the region including hunting, hiking, mountain biking, wildlife watching and sightseeing, snowmobiling, snowshoeing, backcountry skiing, ATV touring, downhill and cross-county skiing, camping, fishing, canoeing, and whitewater boating. Not surprisingly, this region has developed into a major four-season recreational use area.

Some noteworthy recreational opportunities in the region include:

• Backcountry hiking and camping. The Appalachian Mountain Club publication "Maine Mountain Guide" (AMC 2005) characterizes this area as including an "important and outstanding cluster of 4,000-foot peaks." This includes 10 of the state's 4,000-foot peaks including Saddleback (two peaks), Abraham, Sugarloaf, Crocker (two peaks), Spaulding, Redington, and Bigelow (two peaks), reached through the towns of Rangeley, Stratton, Kingfield, and Phillips. Sugarloaf Mountain, at 4,250 feet, is Maine's second highest mountain (aside from the subsidiary peaks at Katahdin)." A publication by the Maine Appalachian Trail Club (MATC 2004), "Guide to the Appalachian Trail in Maine," describes the 32 mile section of the Appalachian Trail between Routes 27 and 4 as "the most difficult along the AT in Maine, with the trail coming close to six 4,000-foot peaks and crossing three other peaks above 3,000 feet. This is classic mountain hiking featuring high peaks, deep valleys, open vistas, mountain ponds, and rock-strewn streams." Mention is also



Views from atop Mount Abraham

made (AMC 2005) of "the isolated mountains north toward the Canadian border, reached by a network of logging roads and Route 27." This refers to Kibby Mountain and Snow Mountain in the vicinity of the Bureau's Chain of Ponds property. (Note: there is no comprehensive map if all hiking trails in the region, similar to the ATV and snowmobiling maps shown on adjacent pages).

- Whitewater boating. Timed flow releases from the two hydropower storage projects in this region provide exceptional whitewater boating opportunities on the Rapid River below the lower dam on the Richardson Lakes; on the Magalloway River below Aziscohos Lake; and on the Dead River below the Long Falls Dam at Flagstaff Lake. The Dead River trip is the longest continuous Class IV and V stretch of whitewater in the state and is a highly popular commercial whitewater rafting destination.
- Extended canoe touring/camping. One of the most scenic sections of the Northern Forest Canoe Trail runs through the Plan area. This trail is a 740-mile historic water trail through New York, Vermont, Quebec, New Hampshire, and Maine that traces water routes once traveled by Native American Indians and later by Europeans. In Maine the

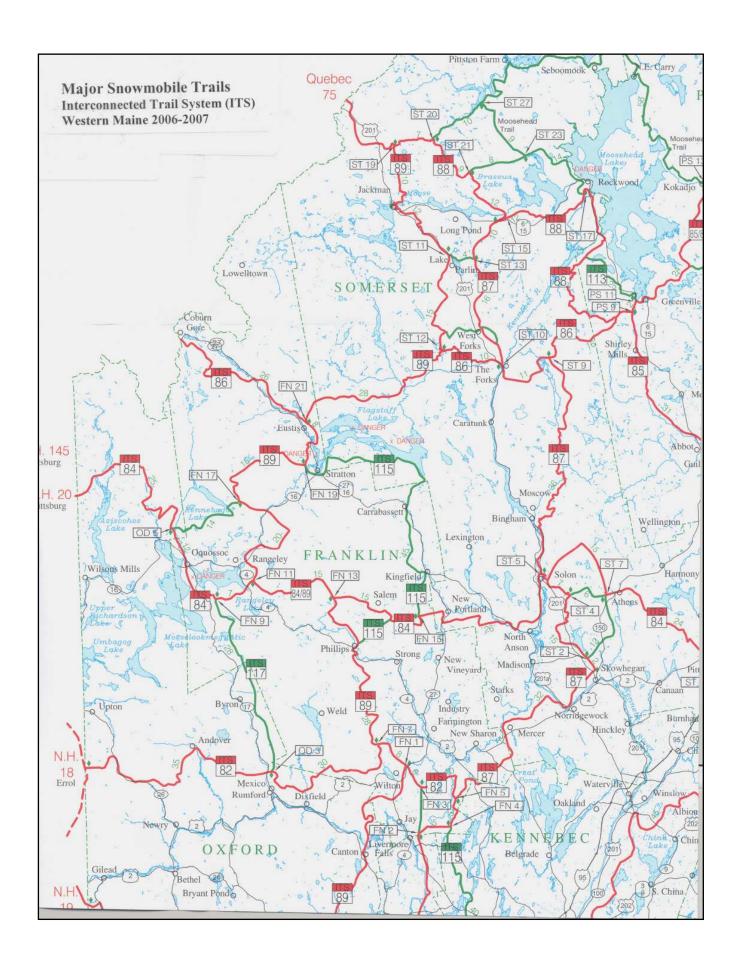


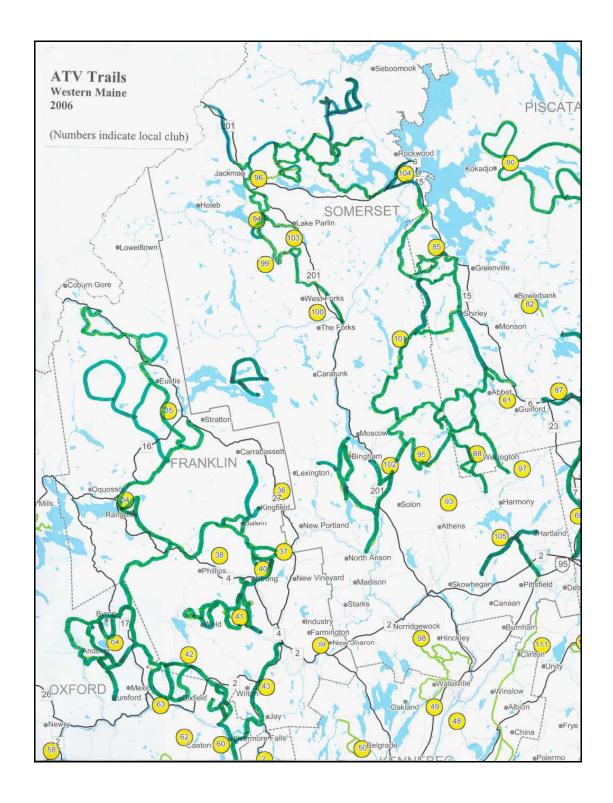
trail crosses a major divide in the Western Mountains region. Guides to this trail make note of this, advising that from the South Branch of the Dead River and north, the rivers flow northeasterly and are best traveled in this direction, while from the Rangeley Lakes, south, the reverse is true. In the Flagstaff Plan area the Northern Forest Canoe Trail follows the South Branch of the Dead River, Flagstaff Lake, and the Dead River north of Long Falls Dam.

- <u>Downhill and cross-country skiing</u>. In the surrounding region there are two commercial downhill ski resorts on Saddleback Mountain in Rangeley, and at Sugarloaf Mountain in Carrabassett Valley. Groomed cross-country ski trails are maintained at Sugarloaf and in the town of Rangeley.
- <u>Snowmobiling</u>. Both Rangeley and Stratton are major hubs for a highly popular interstate and international snowmobile trail that connects the northern forest snowmobile system in New York, Vermont, New Hampshire and Maine with Canadian trails. This system draws snowmobilers from the entire northeastern U.S., many of whom have camps in the area.



• Hunting, fishing, and wildlife watching: The 54,000 + acres of Public Reserved Lands covered by this Plan are available for hunting and access to adjacent public waters for fishing, except the developed recreation areas (drive-to camping areas, boat launch areas, etc.). Much of the surrounding commercial forested land is also open to hunting. Hunting for deer, moose, bear, and many small game animals and birds has been a traditional use in this large, undeveloped backwoods region. Touring the county roads and public access roads on the Public Reserved Lands is also a popular recreational activity.





• <u>ATVing</u>. There is a rapid growth in interest in ATV riding statewide, and in this region. Increasingly, snowmobile trails and back woods roads are being developed for ATV use in the summer. A system of trails is now in place linking the Rangeley Lakes region to Stratton, and northward to the Chain of Ponds public reserved lands. Trails also extend from Rangeley to Farmington and back up to Carrabassett Valley. A link is being sought to connect Stratton and Carrabassett Valley to complete the loop.

Public Lands and Facilities in the Surrounding Region

The following lists the public lands, parks, and boat access facilities in the region including Franklin County and the portion of Somerset County west of the Route 201 corridor.

Other Bureau of Parks and Lands Properties in Franklin and Western Somerset Counties

Public Reserved and Nonreserved Lands				Acres			
Cty	P/L	Name	Town	CE	Fee	Total	
FR	L	Bald Mtn/Rangeley	Rangeley	0	1873	1873	
FR	L	Dallas Plt Lots	Dallas Plt	0	439	439	
FR	L	Davis C/U	Davis Twp	0	640	640	
FR	L	Four Ponds	Twps D & E, Sandy River & Rangeley Plts	0	6018	6018	
FR	L	Kennebec Highlands	New Sharon	0	363	363	
FR	L	Rangeley Plt	Rangeley Plt	0	439	439	
FR	L	Smalls Falls	Twp E	0	375	375	
FR	L	Stetsontown	Stetsontown Twp	0	41	41	
FR	L	Tumbledown/Mt Blue	Twp 6, Weld, Perkins Twp, Phillips	12030	10556	22586	
SO	L	Caratunk Lots	Caratunk	0	1330	1330	Γ
SO	L	Dennistown Plt	Dennistown Plt	0	1000	1000	
SO	L	FPL/Wyman Lake	Pleasant Ridge	0	740	740	
SO	L	Holeb	Attean & Holeb Twps, T5R7 BKP WKR	0	20255	20255	
SO	L	Johnson Mnt	Johnson Mnt	0	960	960	
SO	L	Moose River S	Moose River	0	282	282	
SO	L	Pleasant Ridge Plt	Pleasant Ridge Plt	0	187	187	
SO	L	Sandy Bay	Sandy Bay Twp	0	2712	2712	
SO	L	Solon	Solon	0	42	42	
SO	L	Upper Enchanted Twp	Upper Enchanted Twp	0	320	320	Γ
SO	L	West Forks Plt Lots	West Forks Plt	0	1204	1204	Γ
SO	L	Yankee Woodlot	Skowhegan	0	238	238	
			Total	12,030	50,014	62,044	

Stata	Daulz	Duanautias			A	
Ctv	P/L	Properties Name	Town	Acres CE Fee Total		
Ciy	1/L	Jay-Farmington Rail	TOWII	CE	TCC	Total
FR	P	Trail	Jay, Wilton, Farmington	0	138	138
FR	P	Mount Blue State Parks	Weld Avon, Temple	0	8220	8220
		Rangeley Lake State				
FR	P	Park	Rangeley, Rangeley Plt.	0	870	870
SO	P	Lake George Reg Park	Skowhegan, Canaan	0	352	352
SO	P	Moxie Falls	West Forks Plt	0	217	217
			Total		9,796	9,796

State Wildlife Management Areas in Franklin and Western Somerset Counties Maine Department of Inland Fisheries and Wildlife

				Recreation					
Cty	Name	Town	Acres	Boat/ Canoe	Fur Trap	Ice Fish	Hunt	Inland Fish	Wildlife watch
FR	Chesterville	Chesterville	1340	C	Y		B, S, U, W	W	E, D, W
FR	Stump (Bauds) Pond	New Vineyard	40	С	Y	Y	B, S, U, W	W	E, D, M, W
	Black Brook	Pierce Pnd							
SO	Flowage	Twp	750	C	Y		B, S, U, W	C	E, D, W
SO	Fahi Pond	Embden	277	C	Y	Y	B, S, U, W	C, W	E, D, W
SO	Martin Stream	Fairfield	195	C	Y	Y	B, S, U, W	W	E, D, W
SO	Mercer Bog	Mercer	317	C	Y	Y	B, S, U, W	W	E, D, M, W

Total

Codes:

Boat/Canoe: C= Canoe Fur Trap & Ice Fish: Y=Yes

Hunt: B=Big game; S= Small game; U=Upland game; W=Waterfowl Inland Fish: W=Warm water species; C=Cold water species

Wildlife Watch: E=Eagles & osprey; D=Deer; W=Water birds; M=Moose

State Boat Launch Facilities in Franklin and Western Somerset Counties

Cty	Water Body	Municipality	Type	Owner
FR	LITTLE NORRIDGEWOCK STR	CHESTERVILLE	CI	DIFW
FR	SANDY RIVER	FARMINGTON	CI	DIFW
FR	RANGELEY LAKE	RANGELEY	TR	DOC
FR	QUIMBY POND	RANGELEY	CI	DIFW
FR	WEBB LAKE	WELD	TR	DOC
FR	EGYPT POND	CHESTERVILLE	CI	DOC
SO	CROCKER POND	DENNISTOWN PLT	TR	DIFW
SO	LITTLE BIG WOOD POND	DENNISTOWN PLT	TR	DIFW
SO	EMBDEN POND	EMBDEN	TR	DIFW
SO	FAHI POND	EMBDEN	CI	DIFW
FR	BAUDS (STUMP) POND	NEW VINEYARD	CI	DIFW
SO	WYMAN LAKE	PLEASANT RIDGE PLT	TR	DOC
SO	KENNEBEC RIVER	SKOWHEGAN	TR	DOT
SO	NORTH POND	SMITHFIELD	TR	DOC
SO	IRONBOUND POND	SOLON	TR	DIFW
SO	ATTEAN POND	T5 R1 NBKP	TR	DOC
SO	HOLEB POND	T6 R1 NBKP	TR	DOC
SO	GRACE POND	UPPER ENCHANTED TWP	CI	DIFW

Municipal and Private Boat Launch Facilities in Franklin and Western Somerset Counties

Cty	Water Body	Municipality	Type	Owner
FR	CLEARWATER POND	INDUSTRY	TR	INDUSTRY
FR	MOOSELOOKMEGUNTIC	RANGELEY	TR	RANGELEY
	LAKE			
FR	RANGELEY LAKE	RANGELEY	TR	RANGELEY
FR	RANGELEY LAKE	RANGELEY	TR	UNION WP CO
FR	PORTER LAKE	STRONG	TR	STRONG
FR	WILSON POND	WILTON	TR	WILTON
SO	WYMAN LAKE	CARATUNK	TR	CMP
SO	KENNEBEC RIVER	FAIRFIELD	TR	CMP
SO	WOOD POND	JACKMAN	TR	JACKMAN
SO	KENNEBEC RIVER	MADISON	TR	MADISON
SO	WESSERUNSETT LAKE	MADISON	TR	MADISON
SO	WYMAN LAKE	MOSCOW	TR	CMP
SO	KENNEBEC RIVER	NORRIDGEWOCK	TR	NORRIDGEWOCK
SO	LAKE GEORGE	SKOWHEGAN	CI	LAKE GEO CORP
SO	KENNEBEC RIVER	SOLON	TR	CMP
SO	MOXIE POND	THE FORKS PLT	TR	THE FORKS PLT

Codes:

TR=Trailered boat launch. CI=Carry-in boat access

Trends in Recreation Use in the State and Region

State Parks: Day use to Maine State Parks increased from 1.75 day use visits in 1993 to 2.32 million visits in 2001, and declined thereafter. In 2006 estimated day use was 1.75 million visits. Camper nights at state park campgrounds followed a similar trend, increasing from 208,000 nights in 1993 to 253,000 in 2002, and then declining. Use in 2006 was 229,000 camper-nights. A decline in economic conditions after 2001 likely contributed to the decline in use that followed an eight-year increasing trend.

<u>Snowmobile Registrations</u>: In contrast, snowmobiling has increased as reflected in snowmobile registrations. The Maine Snowmobile Association reports registrations of 80,833 in 2001-2002 winter season, and over 100,000 in the 2004-2005 season. Registrations were down to 75,096 in the 2005-2006 season due to an abnormally warm winter with little snow.

<u>All-Terrain Vehicle Registrations</u>: Bureau records (kept by fiscal year beginning in July) show that ATV registrations are rising, from 45,337 in FY 2001 to 62,478 in FY 2006.

Appalachian Trail Use: The Appalachian Trail Conservancy keeps records of the number of hikers completing the full 2,000 mile hike from Springer Mountain Georgia to Mount Katahdin, Maine. This group represents a small portion of the people who use the Appalachian Trail each year. Overall, the number of people completing the AT has grown exponentially since the 1960's. Compiled by decade, there were only 37 hikers completing the trail in the decade of the 1960's, increasing to 1,407 in the 1980's and 3,272 in the 1990's. In 2,000, more hike

completions were reported than in the first 40 years of records (1930's to 1970's). In recent years between 500 and 600 people complete the hike each year. In 2005 (most recent data for an entire year) there were 535 completions. In that year 217 hikers started the trip at Mount Katahdin, and 352 reached Mount Katahdin from a southern start, so as many as 569 may have passed through the Bigelow and Mount Abraham sections.

Public and Private Recreation and Eco-Tourism Initiatives

In the greater Western Mountains region, there are both public and private initiatives to develop additional recreational resources, and cultivate an eco-tourism economy to supplement the largely recreation and timber-based economy in the region. These efforts are likely to increase recreational opportunities in the region, and to attract more use to the region.

Maine Nature Tourism Initiative: In September 2004 the Maine Department of Economic and Community Development (DECD) commissioned a study to assess Maine's opportunities in nature-based tourism. A nationally-known experiential tourism development consulting firm, FERMATA, Inc. worked with state agency representatives, members of various state level organizations, and stakeholders in three rural pilot areas, one of which was the Western Mountains region, an area that includes the Flagstaff Region. FERMATA, Inc. identified sites of interest for tourism itineraries. This information was collected in collaboration with the Maine Mountains Heritage Network. One of the recommendations for carrying this work forward was to "strengthen the appeal of the local region as a recreational destination with a rich cultural and natural history."

Growing Landowner/ATV Club Trail Network: The Bureau of Parks and Lands Off Road Vehicle Program supports the formation of local ATV clubs to work with private landowners to develop and steward ATV trails. This program has gained momentum as ATV use has increased during the past 5 years (see next section). In 2004, the Maine legislature passed a law that made it illegal to operate an ATV on another person's land without the permission of the landowner (12 M.R.S.A Section 13157-A Operation of ATVs). Many landowners quickly saw the benefits of working with clubs rather than individuals in working out agreements that allowed continued use of existing trails and development of new trails on their lands. The result has been a proliferation of clubs and club sponsored trails, aided by funds dedicated to ATV trails primarily from ATV registrations (over 90% of the funds available) and a portion of the gasoline tax revenues (less than 10% of the funds). In 2006 there were 40 ATV clubs within a 50-mile radius of Stratton (136 clubs statewide). Within the Western Mountains region, 32 clubs received trail grants in 2006 to help construct 1,109 miles of trails; and 5 municipalities have received grants for another 400 miles of trails. This illustrates how fast opportunities for this sport are growing, in response to an ever-increasing demand.

Western Mountains Foundation Proposed Hut to Hut Multi-Use Trail - A recreational trail and hut system has been proposed by the Western Mountains Foundation that would provide a continuous 180-mile trail from the Bethel-Newry area to the Moosehead Lake area.

The first phase is centered on the northern end of the proposed system. It would be a four-season

trail, for hiking, mountain biking, and cross-country skiing, and would include some water-based recreation opportunities. The trail will cross the southeast corner of the Bigelow Preserve, an issue which was heavily contested and in 2005 resolved in the 1st Special Session of the 122nd legislature by passage of Public Law Chapter 205, S.P. 49 – L.D. 143 which limits the crossing of the Preserve by the trail to one mile. North of the Preserve the trail will run in proximity to the east shoreline of Flagstaff Lake, then will travel northward towards the Moosehead region.



Map provided by Western Mountains Foundation; the location of the ski trail on the Preserve is only representative. The legislature has since limited this trail to a section less than one mile in length (see map in Section VII. Management Recommendations).

Conservation Initiatives

Maine Audubon - Wildland Conservation Areas - Western Mountains: The following is taken from the Maine Audubon website: Maine Audubon Society is working to locate the best areas for conservation, commercial forestry, and rural development in Maine's Northern Forest. Amidst the 15 million acres of Northern Forest in Maine, we have identified five Maine Wildland Conservation Areas (MWCAs) totaling 4.3 million acres that host the most valuable concentrations of ecological and recreational assets. Maine Audubon's goal is to secure a future for valuable ecological and recreational wildlands within each MWCA with conservation strategies that enhance local economies and lifestyles. Each MWCA will be designed to ensure the future integrity of large, undeveloped landscapes in Maine, to provide opportunities for extended remote recreation, and to mimic natural processes that we hope will sustain the biological diversity of the Northern Forest. In addition, local communities will be encouraged to broaden their base of economic support by drawing on the multiple resources and values found within each MWCA.

The Western Mountains MWCA includes Flagstaff Lake and the mountainous areas to the south and north, as well as much of the upper Moose River watershed and Attean Pond. . . Mt. Abraham, Bigelow, and Sugarloaf mountains are among the mountains included in this MWCA. The 35,000 acre Bigelow Preserve, encompassing many peaks of the Bigelow Mountain range, features a mosaic of wetlands, a 6-mile-long glacier-deposited esker (a long ridge of sand and gravel), and fragile arctic-alpine plant species. Hikers and climbers of Bigelow Mountain and Mt. Abraham can explore one of the few alpine-tundra plant communities in the eastern United States.

Maine Appalachian Trail Land Trust – High Peaks Initiative: The Maine Appalachian Trail Land Trust (MATLT) was formed in June 2002 by a group of Mainers dedicated to the preservation of the natural qualities of the lands surrounding the Appalachian Trail in Maine. Following its campaign to acquire Mount Abraham and a portion of Saddleback Mountain, MATLT is embarking on a new initiative to research and document the ecological qualities of the entire Western Maine High Peaks Region. The MATLT website describes the region as follows: "The Western Maine High Peaks Region is the 203,400 acres roughly bounded by the communities of Rangeley, Phillips, Kingfield and Stratton. In this region, there are about 21,000 acres above 2700 feet. It is one of only three areas in Maine where the mountains rise above 4000 feet. The other two are the Mahoosuc Range and Baxter Park. Eight (8) of the fourteen (14) highest mountains in Maine are in this region (Sugarloaf, Crocker, South Crocker, Saddleback, Abraham, The Horn, Spaulding and Redington Peak.) These are all above 4000 feet. If one adds the Bigelow Range, across Route 27/16 from Sugarloaf, the region hosts ten (10) of the highest mountains (Avery Peak and West Peak added)). This area is comparable in size to Baxter Park but has 40% more area above 2700 feet."

Northern Forest Alliance Wildlands Initiative: The Northern Forest Alliance proposes creating a system of Wildlands across the Northern Forest to maintain ecological balance, provide remote and wilderness recreation opportunities, and support the forest-based economy. Included is a Western Mountains Wildland that corresponds with the Maine Audubon Western Mountains Wildlands area.

Federal Energy Regulatory Commission License for the Flagstaff Project

The FERC license for the Long Falls Dam was issued originally in 1979 with an expiration date of December 31, 1997. In 1995 then owner Central Maine Power Company submitted its application for a license renewal to FERC. FERC cannot approve the license until the project is certified by the Maine DEP to be in compliance with the State and Federal water quality laws. DEP policy limits the amount of drawdowns on lakes to protect aquatic life. The current owner of the Project, Florida Power and Light, disagrees with DEP's policies, which it maintains are not applicable to artificially created lakes, and is currently challenging that policy in court (now before the Maine Supreme Court with a decision expected by mid-summer). DEP policy requires that in order for a water quality certificate to be issued that would allow a drawdown greater than DEP's aquatic life guidelines would allow, the applicant must submit a "Use Attainability Analysis" (UAA) showing the economic impacts of incremental drawdown levels on aquatic life and the project's economic viability. Both the DEP and the US EPA must agree on the way the analysis is conducted, and the resulting decision as to an allowable drawdown. If the Maine Supreme Court upholds the state, ongoing issues with the UAA could further delay a water quality certificate. FERC cannot force the state to act; it can only issue an annual extension to the 1979 license, which it has done for ten years to date. Given the complications described above, this holding pattern could continue for some time.

The License Application filed in 1995 (as modified by a revised minimum flow proposal submitted to Maine DEP in October, 2003) proposed the following measures that would affect recreation or wildlife resources on Flagstaff Lake or on the Dead River:

- Develop a cooperative recreational management plan with the Maine Department of Conservation for abutting applicant and state-owned lands around Flagstaff Lake that have shared recreational facilities.
- Release a minimum flow of not less than 200 cfs from Long Falls Dam, except during spring refill of the reservoir, when outflow would be limited to 100 cfs, and except when summer drawdown levels reach 4.5 feet below full pond, when outflow would be limited to inflow (natural runoff). Note that current licensed minimum flow is 50 cfs. Note also that Maine DEP, in a water quality certificate issued on November 14, 2003 (and later rescinded by the Board of Environmental Protection after challenges by the conservation community), would require minimum flows of 100 cfs even after the summer drawdown of 4.5 feet was reached.
- Limit the drawdown of Flagstaff Lake to 4.5 feet below full pond between June 1 and August 31; note that in the November 2003 DEP water quality certification (see previous bullet) winter drawdowns were limited to 24 feet, which would reduce the surface area of the lake from approximately 18,000 acres at full pond to approximately 6,000 acres. The current license allows full drawdown (36 feet).
- Implement a loon management program, including the placement of artificial loon nesting platforms and monitoring of loon productivity.
- Improve the Route 27 Maine DOT boat launch (this work was completed in 2001).
- Improve signs and parking area at the Myers Lodge camping area and the Big Eddy camping area.

- Provide access under the ADA (Americans with Disabilities Act) to the Long Falls Dam picnic area.
- Conduct periodic assessments of recreational facilities use in accordance with FERC license requirements (see below).

The following is from the FERC Draft License for Long Falls Dam:

Within one year of the date of license issuance, which is on hold, FPL must file for FERC approval, after consultation with the U.S. Fish and Wildlife Service (FWS), Maine Department of Inland Fisheries and Wildlife (Maine DIFW), Maine Department of Environmental Protection (Maine DEP), Maine Department of Conservation (Maine DOC), National Park Service (NPS), and the Maine State Historic Preservation Office, a Comprehensive Recreation and Land Management Plan to protect and enhance terrestrial resources, including the federally-listed bald eagle, and to enhance recreation resources. The plan must include the following land management elements:

- (1) a provision for retaining the existing Flagstaff Project boundary up to an elevation of 1,150 feet U.S. Geological Survey datum to protect riparian habitat;
- (2) a proposal for including in the project boundary any additional lands needed for any recreational facilities required by this license;
- (3) identification of acceptable uses, such as timber harvest management and public access, for the buffer zone;
- (4) site-specific erosion and sediment control measures to be implemented during and after construction to minimize loss of the area's natural vegetation and provide for revegetation, stabilization, and landscaping of new construction areas and slopes affected by erosion; as well as other issues.

The plan shall include the following recreation elements:

- provisions to ensure continuation of public access to project recreation facilities for the duration of the license;
- a construction schedule, and associated costs, for any recreational enhancements required by this license;
- provisions for operation and maintenance of existing and new project recreation facilities and assessment of associated costs, including any maintenance agreements, and fees charged for public use;
- a discussion of how the needs of the disabled were considered in the planning and design of the recreation facilities; and
- detailed site plans for existing recreational facilities and preliminary site plans for recreational enhancements, including delineation of location relative to the project boundary.

FPL is to include with the plan an implementation schedule, documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the consulted agencies, and specific descriptions of

how the consulted agencies' comments are accommodated by the plan. They are to allow a minimum of 30 days for the consulted agencies to comment and to make recommendations prior to filing the plan for Commission approval. If FPL does not adopt a recommendation, the filing must FPL's reasons based on project-specific information.

FERC reserves the right to make changes to the plan. The plan shall not be implemented until FPL is notified by FERC that the plan is approved. Upon FERC approval, FPL must implement the plan, including any changes required by FERC.

FPL must, after consultation with the U.S. Fish and Wildlife Service, Maine Department of Conservation, Maine Department of Inland Fisheries and Wildlife, and National Park Service, monitor recreation use at the Flagstaff Project area to determine whether existing recreation facilities meet recreation needs.

During the term of the license, FPL must file a report with FERC on the monitoring results. The report shall include:

- (1) recreational use figures;
- (2) a discussion of the adequacy of the licensee's recreation facilities at the project site to meet recreation demand;
- (3) a description of the methodology used to collect all study data;
- (4) if there is a need for additional facilities, measures proposed by the

licensee to accommodate recreation needs in the project area;

- (5) documentation of agency consultation and agency comments on the report after it has been prepared and provided to the agencies; and
- (6) specific descriptions of how the agencies' comments are accommodated by the report.



Acquisition History

The Bigelow Preserve: The Bigelow Preserve was established by public referendum ("An Act to Establish a Public Preserve in the Bigelow Mountain Area", or "Bigelow Act") in June of 1976 to "set aside land to be retained in its natural state for the use and enjoyment of the public." The referendum was in response to a four-seasons resort that was proposed for the Bigelow Mountain area at that time (and included a ski area, marina, and accommodations for thousands, to be serviced by a proposed jetport north of the lake. The Bigelow Act provided for the long-term acquisition and management of approximately 40,000 acres of land, located on the southerly side of Flagstaff Lake and including the entirety of Bigelow and Little Bigelow Mountains. The Act also stated that the Preserve "shall include generally all land in Wyman and North One Half Township north of Stratton Brook Pond, and all land in Dead River Township south and east of Flagstaff Lake. All public lots within or contiguous to this area shall be included within the Bigelow Preserve."

School, ministry, and settled minister lots were "reserved and located" in the unorganized townships of Bigelow (507 acres), Wyman Township (480 acres) and in Dead River Township (960 acres) during the 1840's. The Wyman Lot was later conveyed in two separate transactions; Chapter 16 of the Resolves of 1971 authorized the Forest Commissioner to "convey certain lots of land in T4 R3 BKP WKR, Wyman Township," consequently, 17 of the 480 acres were conveyed at that time, with the remaining 463 acres of the lot conveyed to J. M. Huber Corporation in 1976.

The first significant addition to the state's ownership on Bigelow Mountain came in March of 1976 with a gift of 5,261 acres in Wyman Township from J. M. Huber Corporation. In 1978, with help from the federal Land and Water Conservation Fund, the Bureau of Parks and Recreation acquired 8,465 acres in Dead River Township from the Flagstaff Corporation and Flagstaff Lodge Company, Inc., including most of the area from the lakeshore to the summits within the township. Responsibility for management of both parcels was transferred to the Bureau of Public Lands in 1982.

Subsequent acquisitions to the Preserve include:

August 11, 1978 - 7 acres from Carl W. Demshar in Dead River Twp. February 2, 1982 - 5,275 acres from Hudson Pulp & Paper Company in Dead River Twp. October 16, 1989 - 4,274 acres from J. M. Huber Corporation in Wyman Twp. May 5, 1998 - 30 acres from Richard E. Fotter in Wyman Twp.

Other acquisitions of lands abutting the Preserve include:

April 28, 1998 – 115 acres from Angee Brochu in Coplin Plt. (Range Trail trailhead) March 29, 1999 - 963 acres from Huber Resources in Wyman Twp. – part of a larger, 2,075-acre acquisition within the township; also included 397 acres in Carrabassett Valley. A portion of this subsequently conveyed to Gardner Land, Inc. in 2006.

<u>Spring Lake Lot (T3 R4 BKP WKR -Spring Lake Township)</u>: This was an original Public Lot. Private and Special Law 1927, Chapter 113, made possible the private use of this lot; as a result,

Long Falls Dam was constructed in the late 1940's and early 1950's and portions of the townships were flowed, with Flagstaff Pond expanded to the much larger Flagstaff Lake. <u>Islands in Dead River Township</u>: The Bureau acquired its ownership of the islands in Dead River Township as part of the acquisition of lands from Hudson Pulp and Paper Company in 1982.

<u>Dead River Peninsular:</u> This included an original Public Lot. In 1978 the rest of the parcel was purchased from Diamond International.

<u>Flagstaff Island</u>: This included an original Public Lot on the eastern half; the western half was purchased from Plum Creek in 1999 as part of a larger acquisition.

<u>Flagstaff Township northern shoreline of the original Flagstaff Pond</u>: This was purchased from Plum Creek in 1999 as part of a larger acquisition.

Myers Lodge: This was an original Public Lot.

Mount Abraham Acquisition: In 2001, the Bureau completed the first phase of the Mount Abraham acquisition when it purchased 1,028 acres in Mt. Abram Twp. from Plum Creek Timberlands. A second phase included two parcels first acquired by the Appalachian Trail Conference (ATC), that were then given to the state in 2002. These parcels include 2,988 acres in Mt. Abram Twp., including most of the eastern and southern portions of the summit; and an adjoining 1,045-acre parcel in Salem Twp, along the southern portion of the mountain. These parcels were together deeded as an Ecological Reserve in order to protect the important natural communities that occur on the property. An easement on these parcels was also conveyed to The Nature Conservancy at the time the ATC acquired the property; the purpose of the easement is to ensure the protection of the Ecological Reserve. A fourth parcel (1,153) was acquired by the Bureau directly from the Mead/Westvaco Oxford Company in 2004, and includes the remaining summit area to the west and southwest. This acquisition was subject to a conservation easement held by the Maine Appalachian Trail Land Trust (MATLT) which requires the land to be accepted as an ecological reserve, prohibits motorized uses except in very narrow circumstances, and requires that the Management Plan be consistent with the conservation easement.

<u>Chain of Ponds Acquisition</u>: Most of the lands which comprise the Chain of Ponds public reserved lands were acquired from the Brown Company in 1978, as part of larger statewide land trade. An additional acquisition of 100 acres, along with a subsequent trade of 22 acres, took place in 1985 and 1986, brought the property to its present configuration.

Other Small Lots: Except for the Freeman Twp. Lot, which was tax acquired, these were all original Public Lots.

Previous Management Plans

Except for the Bigelow Preserve, no properties in the lands now incorporated in the Flagstaff Region Plan have ever had a management plan, although detailed Prescription Review and Multiple Use Coordination Reports have been completed on most of the parcels.

Bigelow Preserve Policy Issues/Guidelines: In 1981 a planning document was prepared and signed by the Commissioners of the Department of Conservation and the Department of Inland Fisheries and Wildlife. Considered a policy framework document, it covered broad issues ranging from acquisition of lands and detailing the various agency responsibilities, to operational issues such as management of timber harvest roads and public access roads. It set forth a Wildlife Management Policy developed by IF&W, and included a history of agreements related to responsibilities for maintaining and adding to the Appalachian Trail. This document laid out future plans to be developed, including a Forest Management Plan, and a recreation management plan. The subsequent plans developed are described below.

<u>Bigelow Preserve Forest Management Plan</u>: In 1982 the Bureau adopted its first management plan for the lands acquired during the previous decade as authorized by the Bigelow Act.

1989 Bigelow Preserve Management Plan: In 1989 the Bureau adopted its second management plan, which addressed not only recreation, but the full array of multiple uses on the Preserve. This Plan, signed by the Commissioners of Conservation and Inland Fisheries and Wildlife, replaced the 1981 Policy document, and laid out a new agreement on "Management Structure" between IF&W and the Department of Conservation, whereby the Bureau of Public Lands was designated the lead agency. This new arrangement reflected two developments that had occurred following the 1981 Policy Issues and Guidelines for the Bigelow Preserve: the assignment of an IF&W wildlife biologist to the Bureau of Parks and Lands who would participate as a member of the planning team developing management plans for all Public Reserved Lands, and an overarching policy document for the management of Public Reserved Lands adopted in 1985 – the Integrated Resource Policy developed with multi-agency and public input.

Appendix C details the Bureau's actions and progress in implementing the recommendations of the 1989 Bigelow Preserve Management Plan.

Summary of Planning Implications

- 1. The Flagstaff Region Plan public reserved lands lie in Maine's most mountainous area, in an area highly valued for its natural resources. The culture and economy of the area are historically linked to the forest resources and outdoor recreation.
- 2. The recreation opportunities on the public reserved lands in this region are part of a much larger landscape-level system connecting expansive mountain ranges and historic travel routes including the nationally significant Appalachian Trail; the Northern Forest Canoe Trail, an interstate system of snowmobile trails, and a growing regional network of ATV trails.
- 3. New public and private initiatives to further develop the recreation-based economy, and to conserve the special natural areas in the Region are strong, and sometimes competing.
- 4. The overriding attraction of the area for recreationists is its undeveloped backcountry character and exceptional natural beauty. Careful stewardship is needed to protect these values while making the public lands available to enjoy.
- 5. There are many opportunities for development of public-private partnerships to further both conservation, and development and stewardship of recreational opportunities on the Bureau managed public reserved lands including partnerships or cooperative agreements with the Maine Appalachian Trail Club (MATC); Florida Power and Light; local snowmobile and ATV clubs, the Western Mountains Foundation, municipalities, and others. These collaborative relationships are essential to good stewardship of the public lands.

IV. Resources and Management Issues of the Flagstaff Region Plan

Overview

The description of the physical landscape, hydrology, and natural communities and ecology provided in this section is based on information provided by the Maine Natural Areas Program (MNAP) which compiled a natural resource inventory of the Flagstaff Region lands for the Bureau. That inventory was based, in part, on field work conducted in 2004 on the Bigelow Preserve, Wyman Township lots south of the Preserve, Dead River Peninsula, Myers Lodge lot, and Flagstaff Island. The MNAP report is provided as a separate appendix to this Plan.

The Physical Landscape: Geology and Soils: The Flagstaff region is underlain by folded and faulted sedimentary and igneous rock that represents the region's chaotic geologic history. The sedimentary rocks originated as layers of sand and mud in an ocean basin along the ancestral margin of North America between 450 and 400 million years ago. The period between 500 and 380 million years ago was tumultuous for the region as an ancient ocean basin closed through a

series of collisions between large and small plates that make up the earth's crust. As plates continued to collide, this ocean basin was uplifted, and in places, magma welled up beneath the earth's surface and cooled slowly there, forming the granite that today underlies the north slope of Bigelow and most of the Chain of Ponds. The heat of these molten intrusions. together with the tremendous pressures of the colliding crustal plates, metamorphosed the overlying ocean sediments into the erosion resistant stone that formed the mountains in this



area. Today, the summit of Mount Abraham is fractured, metamorphosed sandstone, while the top of Bigelow is metamorphosed mudstone. The bedrock and surficial geologic history of the Bigelow area is covered in detail in the previous Natural Resource Inventory (Caljouw 1981).

During the last glaciation (11,000 years ago), much of the landscape was cloaked in till, though pockets of other glacial deposits can be found in the region. Glacial Lake Bigelow was once where Flagstaff Lake is now, filling the basin 33 feet higher than current summer lake levels. This lake formed because a till deposit dammed the outlet near the present site of Long Falls Dam. Lake sediments accumulated during Lake Bigelow's tenure, and much of the land that was once under the lake now has a layer of thick clay sediments, while upland areas have more typical till deposits. Traces of glacial outwash deposits and eskers, including one along Stratton brook registered in 1980 by the Maine Critical Areas program (now Maine Natural Areas

Program), are also found in the region. Soils reflect this glacial heritage and tend to be very stony.

Hydrology: The Plan area is part of the Kennebec River drainage. While most of the region drains into the Dead River, a tributary that joins the Kennebec at the Forks, the southeastern portion of the Bigelow Preserve, and the southern parcels (including the Highland, Mt. Abraham, Redington, and Freeman public lots) drain into the Sandy and Carrabassett Rivers which join the Kennebec just a few miles from each other in Anson.

Flagstaff Lake, impounded in 1949 by Central Maine Power, covers 20,300 acres, being approximately 14 miles long and 6 miles at its widest point, with a maximum depth of 50 feet, and an average depth of 18 feet. The lake drains a total of 516 square miles.

The maximum reservoir drawdown is 35 feet. Normally, the lake is drawn down 20 to 25 feet in the spring and 10 to 15 feet in the fall (in advance of fall rains). Aquatic plants are generally confined to water depths of six feet or less; this puts them in the zone that fluctuates due to hydropower storage manipulations, and during the winter, exposes them to freezing and desiccation. Observations on other large, impounded lakes indicate that vegetation dynamics in dammed lakes are vastly different than in relatively undisturbed lakes (Don Cameron, MNAP).

Natural Communities and Ecology: The Flagstaff Region is within the Western Mountains Biophysical Region (McMahon 1990). The area is characterized by cool summer temperatures, low annual precipitation, and high snowfall, and the mountainous landscape is highly dissected by small, steep-sided streams. Stands of red spruce (*Picea rubens*) and balsam fir (*Abies balsamea*) are common on ridgetops, and subalpine forest, which is made up almost exclusively of balsam fir, occurs at elevations greater than 2,500 feet. Sugar maple (*Acer saccharum*), yellow birch (*Betula alleghaniensis*), and beech (*Fagus grandifolia*) are common in the valleys. Woody species richness is low compared with other Biophysical Regions.

Encompassed within the over 54,000 acres of public reserved lands covered in this Plan are many of the important ecological features of the surrounding region, including hardwood and softwood forests along elevational gradients; large, intact wetlands; and alpine summits.

The vast majority of the land area is upland forest. Compared with private lands in the region, BPL lands support a significant component of mature and late successional forests.

Wetlands constitute 6.5% of the total land area. This includes 1,850 of forested wetlands and 1,658 acres of open wetland (nonforested, such as marshes). Most of the open wetlands occur around or near Flagstaff Lake, though significant open wetlands also occur south of the Bigelow range, along Stratton Brook.

Nearly as many acres are above 2,700 feet in elevation as are in



the low lying wetlands. High elevation areas constitute 5.75% of the total land area in this region. Of particular interest are the alpine communities found in the region, two of which, on Bigelow Mountain and Mount Abraham, are now part of Maine's system of ecological reserves. Many plant and animal species reach the southern limits of their range in Maine's alpine and sub-alpine zones. Those that can live in this harsh environment often adopt unique strategies to survive, including the ability to conserve water in the drying winds and to tolerate very cold temperatures. As a result, these areas tend to be hotspots for rare or uncommon species, including animals such as rock voles and Bicknell's thrush and plants such as Lapland diapensia.

<u>Wildlife Resources:</u> The Flagstaff Plan area encompasses a wide range of fisheries and wildlife habitats, with its many high mountains, lowland valleys, rivers, streams and wetlands. The area is home to deer, moose, black bear, bobcats, beaver, grouse, woodcock, and various species of ducks, geese, and birds, including species that require large unfragmented forests. This area has the lowest density of bald eagles in the state (bald eagles are listed as Threatened by Inland Fisheries and Wildlife). Eagles are, however, slowly colonizing this region from the south and east. Three bald eagle nest sites are active along the shoreline of Flagstaff Lake. A number of species of special concern are found in the region, including wood turtles, rock voles, and Bicknell's thrush.

Summary of Wetland and Wildlife Habitat Areas

PL Public Reserved	Total	Forested	Open	Wading	Deer	Acres >
Lands	Acreage	Wetland	Wetland	Bird	Wintering	2,700 feet
		Acreage	Acreage	Habitat (ac)	Areas (ac)	elevation
Bigelow/Flagstaff	43,591	1,645	1,510	1,729	90	3,113
Bigelow	34,934	1,161	1,056	1,232	0	3,113
Dead River Peninsula	3,962	295	166	236	0	0
Spring Lake	993	34	43	0	90	0
Flagstaff-Myers Lodg	290	120	43	79	0	0
Flagstaff Island	530	0	14	0	0	0
Flagstaff Lake Shore	974	23	156	102	0	0
Coplin Trailhead	112					
Wyman	1,078	15	28	80	0	0
Carrabassett Valley	413					
Mt. Abraham	6,301	0	0	0	0	3,124
Chain of Ponds	982	20	112	180	0	0
Miscellaneous Lots						
Coplin West	398	140	29	70	302	0
Coplin Central	562	0	0	0	0	0
Highland Double	362	0	0	0	0	0
Highland Southeast	121	0	0	0	0	0
Highland West	408	7	7	0	0	0
Freeman	122	0	4	0	0	0
King and Bartlett	143	0	0	0	0	0
Redington	1,020	0	0	0	0	49
Total	54,010	1,850	1,658	1,979	392	6,286

<u>Forest Resources</u>: Approximately 85% of the actively managed forests in the properties covered in this Plan are within the Bigelow Preserve and the Dead River/Spring Lake properties. With the exception of the Redington Public Lot, the properties all have similar conditions. Because the Plan area lies mostly in the mountainous area of Franklin and Somerset Counties, with some lots in gentler terrain, soil drainage classes cover the full range from excessive to poor. The area is also rich in well-drained and moderately well drained soils where fertility is generally high enough for growing quality hardwoods on most acres. Wet soils comprise a small portion of the forest; excessively drained soils are found mainly near the north shore of Flagstaff Lake, often holding a significant pine (white and some red) component.

The table below shows the average standing timber volumes on Bureau lands compared to other lands statewide, and for the Bureau lands in the Flagstaff Plan area compared to the average for Somerset and Franklin Counties. This is a reflection of the Bureau's multiple use management, and the Bureau's objective of managing for quality large sized trees.

Timberland Volumes per Acre				
	All Regulated Acres Flagstaff Plan Area			
Bureau Lands only*	20.93 cords/acre	24.32 cords/acre		
	Statewide**	Somerset County	Franklin County	
All Lands	14.54 cords/acre	13.83 cords/acre	13.88 cords/acre	

^{* 1999} Bureau inventory, reworked volumes.

^{** &}quot;Statewide" is limited to the seven northerly "regions" used for the inventory developed by the US Forest Service, omitting the Capitol and Casco Bay regions. Data is from the 1995 report.



View of Bigelow Mountain North Slope

Recreation Resources

Recreational opportunities on the Flagstaff Region Plan properties are wide-ranging, including hiking, camping, canoeing, fishing, hunting, mountain biking, nature walks/birding/photography, and ATV touring in the summer; and snowmobiling, cross-country skiing, snowshoeing, and dog sledding in the winter. There is also incidental use of the timber management roads for horseback riding. These properties are highly scenic, and draw day users and recreationists with primary destination including the Bigelow Preserve and the surrounding Flagstaff Lake properties; Mount Abraham, and the Chain of Ponds. In addition, a number of recreationists pass through on one of the area's regional trail systems – hikers on the Appalachian Trail, canoeists on the Northern Forest Canoe Trail, and snowmobilers on the interstate and international snowmobile trails. An active ATV community in the region has worked to provide a system of trails that link many of the public lands, and there is a growing interest in backcountry ATV touring and camping. Overall, the draw of this area for most recreationists is its "wild and scenic" character.

Not all of these opportunities occur on every property in the Flagstaff Region Plan properties. Motorized uses in the Bigelow Preserve are limited to snowmobiling on designated trails, and vehicular the use of public use roads designated at the time the Bigelow Act became law. Uses on Mount Abraham are similarly limited due the fragile ecology, with much of the mountain designated as an ecological reserve. A snowmobile and ATV trail system does pass through the Mount Abraham parcel, including a small stretch on the southern tip of the ecological reserve (which must be relocated if feasible), and following the management road on the non-ecoreserve portion.









Boating opportunities within the Plan area exist on Flagstaff Lake and the Chain of Ponds. Boat access to Flagstaff Lake is limited. The only designated boat access site on the Bigelow Preserve is a hand carry site at Round Barn; this site is also made available for trailered boat access during the fall waterfowl hunting season, a use that pre-existed the Bigelow Act. There are other designated boat access sites on Flagstaff Lake located outside of the Preserve, mostly as a result of the Federal Energy Regulation Commission (FERC) hydro license issued to Florida Power and Light (FPL). One is a concrete-planked trailerable site located on the South Branch of the Dead River in Stratton, on property owned by the State through the Boating Facilities Division of the Bureau. The Division has a 30-year lease with the Town of Stratton for maintenance and management of the site, for which FPL provides assistance. FPL also provides maintenance for two other sites on the east side of the lake, one of which abuts the Preserve at Bog Brook. There are a number of private camps at this location, with parking being very limited. The other site is located near the dam on the Spring Lake lot.

On the Chain of Ponds, hand carry boat access is provided at 2 of the ponds on public reserved lands, and a new, trailerable boat access ramp is being constructed on Natanis Pond.



Flagstaff Lake -boaters' view of Bigelow Mountain (BPL photo)

Historic and Cultural Resources

<u>Native American Prehistory</u>: The history of the Flagstaff Plan area dates back to its earliest use by Native Americans following the retreat of the glacier about 10,000 years ago.

Arnold Trail Historic District: In 1775 Washington dispatched Benedict Arnold and an army of 1100 soldiers up the Kennebec River to Quebec to launch a surprise attack in an attempt to overthrow British rule in Canada – in the hopes of turning the tide of the Revolutionary War. Arnold lead his colonial militia along an ancient Indian route from the Kennebec River, along the Dead River and into Canada, enduring tremendous hardships along the way, particularly on the northward trek from Bigelow Mountain to the Canadian border. The historic trail followed the watercourse along what is known as the Great Carrying Place, roughly over what is now the Appalachian Trail. The route continued along the Dead River in what is now Flagstaff Lake, then along the North Branch of the Dead River into the Chain of Ponds. The route continued northward along Horseshoe Stream. When the expedition reached Canada, the watercourse became obscured, and Arnold's army became separated. Many turned back at this point, many others died of starvation and exposure. A small contingent ultimately made it to Quebec, where the expedition came to an end when the attack on the British proved unsuccessful.

The Maine Historic Preservation Commission has filed an application to have the Trail included in the American Battlefield Protection Program, which would provide additional protections along the corridor. The Arnold Expedition Historical Society and the Kennebec-Chaudiere International Corridor have also worked on developing interpretive resources along the trail.

Lumbering in the Flagstaff Region: About thirty years after the Arnold expedition, a lumbering venture established a settlement on the Dead River, named Flagstaff after the flagpole allegedly erected by the Arnold expedition. In 1835 the Dead River Company was granted by the legislature (Private and Special Acts of Maine 1835 pp 858-859) "the right to clear the Dead River of obstructions.... And may for that purpose break jambs [sic] blast and split rocks, remove logs, gravel beds . . . and may erect, build and keep in repair guide booms and side dams." In 1843 the legislature authorized a dam on the Dead River, and on July 15, 1844 its construction was noticed in the Portland Advertiser (Wood, 1971). According to the sixth U.S. Census, in 1840, the area had numerous sawmills, though in the Dead River drainage only one town had sawmills-with two in Eustis; while in the Sandy and Carrabassett drainages there were many more - two in Kingfield, one in Lexington Twp, three in Madrid, two in Philips, one in Salem Twp, one in Freeman Twp, three in New Portland, four in Weld, three in Avon, three in Strong, six in Farmington, three in Industry, and ten others west and south of Farmington in Franklin County (Wood, 1971).

Large scale lumbering in the upper reaches of the Sandy and Carrabassett Rivers began later than in the Dead River drainage.

Early History of Settlements in the Flagstaff Area:

Settlement of the Flagstaff area did not occur until the early 1800's. By 1890, census figures showed the following settlements and populations: This area, as historically, remains very sparsely populated.

	POPULATION		
	1890	2000	
Bigelow Plt	62	0 (last census 1930, pop. 39)	
Chain of Ponds	7	0 (last census, 1890)	
T4R2 (Carrabassett Valley)	9	399	
Carrying Place Plt	31	0 (last census 1950, pop. 30)	
Coplin Plt	71	135	
Dead River Plt	104	0 (last census 1950, pop. 1)	
Eustis	321	685	
Flagstaff Plt	87	0 (last census 1940, pop. 143)	
Freeman	464	0 (last census 1950, pop. 185)	
Highland Plt	76	52	
Kingfield	601	1,103	
Madrid	441	173	
Mount Abram	3	0 (last census 1900, pop. 4)	
Redington	28	0 (last census 1930, pop. 14)	
Salem	218	0 (last census 1950, pop. 67)	
T4R3 (Wyman Twp)	25	70	

History of Flagstaff Lake: In 1923, a Private and Special Law was enacted by the Maine Legislature (later amended in 1927), giving approval for construction of a dam on the Long Falls portion of the Dead River in Spring Lake Township. Water rights to the 1150' contour were also granted at that time. In 1940, CMP acquired the necessary lease from State in accordance with the 1927 legislation, and in the years that followed the villages of Flagstaff, Dead River, and Bigelow were vacated and flooded. The dam was built and the impoundment known as Flagstaff Lake created in the fall of 1949, although construction was not completed until the following year. As a result of this impoundment, full pond now reaches to the 1146 foot elevation contour.

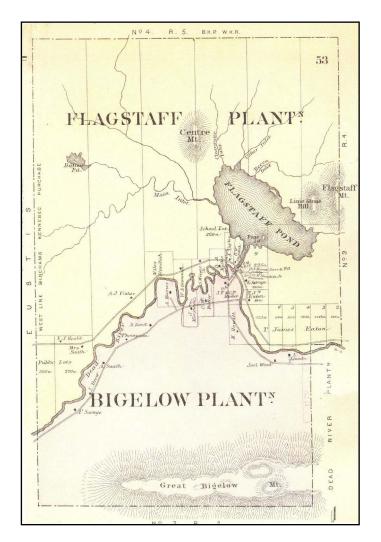
During low water conditions, remnants of the three villages displaced by dam may be visible. Dead River Plantation was located on what is now the southeastern shore of the lake, while the villages of Bigelow and Flagstaff surrounded what is now the small channel of water that leads to the upper portion of Flagstaff Lake (in what was formerly Flagstaff Pond). Bigelow Plantation was south of the old river course, while Flagstaff Plantation was on the north shore.

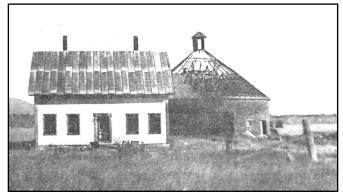
Duluth "Dude" Wing grew up in the village of Flagstaff and remembered fondly:

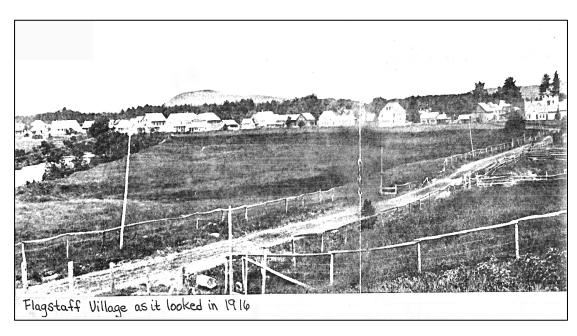
At times, the villagers had to ration the supply of electricity for special events:

[&]quot;... the little town of Flagstaff was unique in that everybody knew everyone else ... it was a nice quiet little town. There was only one industry- the Harry Bryant Mill (a birch mill) - it was on a millpond right on the village - the mill supplied power to us..."

[&]quot;Well, at school we had a lot of lights in the gymnasium. And if you had a basketball game scheduled that night, then the people in town shut off all their lights..."







Resources and Management Issues of The Bigelow Preserve and Surrounding Properties

This section will provide background information on the Bureau's lands in the vicinity of Flagstaff Lake, including, most prominently, the Bigelow Preserve. They are grouped together in this report because of the common and related recreational activities they provide – from lake boating and camping, to hiking and snowmobiling on the Bigelow Preserve, with trails linking to adjacent non-Preserve lands.

The Bigelow Preserve is the only property in this group to have had a previous management plan. Because of its history, and the previous work on the management plan, much more information exists for the Bigelow Preserve than for the other properties. In addition, the Bigelow Preserve is the only one of this group of properties to have specific legislated management direction. Therefore, this section and subsequent sections of the Plan will include two subsections: the Bigelow Preserve, and the other surrounding properties.

The Public Reserved lands covered in this section in addition to the Bigelow Preserve include those lands that ring the impounded Flagstaff Lake, including the Dead River Peninsula/ Spring Lake parcel, Flagstaff Island, several islands in and the shoreline strip around upper Flagstaff Lake (former Flagstaff Pond), the former Public Lot in Flagstaff Twp (Myers Lodge lot), and the islands (or portions thereof) in Dead River Township; and three parcels abutting or near to the Bigelow Preserve: the Wyman Township lots, Carrabassett Valley lot, and Coplin Plantation lot at the trailhead to the Range Trail which approaches the Bigelow chain of mountains from the western side near Stratton.

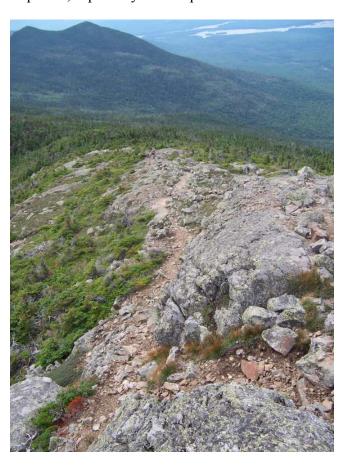


The Bigelow Preserve

Character of the Land Base: The 35,843-acre Bigelow Preserve is located in Bigelow, Wyman, and Dead River Townships in both Franklin and Somerset Counties. The Preserve is an area of extraordinary scenic beauty, offering rugged mountains, backcountry forests, and high elevation ponds. The Bigelow Range, a rugged ten mile long ridge which trends almost exactly east and west in contrast to the surrounding mountains, rises dramatically from the southern edge of Flagstaff Lake. The West Peak of the Bigelow range, 4,145 feet in elevation (USGS 1989), is one of the five tallest mountain in Maine. The Bigelow Range harbors a large number of exemplary natural communities and rare plant species, especially in its alpine summit areas.

Because of the topography of the Preserve, distinct zones of vegetation exist with increasing elevation. The forest at lower elevations consists primarily of beech, birch, and maple. From 2,000-2,700 feet the forest gradually changes to one dominated by spruce, fir, and white birch. Above 3,000 feet the trees decrease in size until they become low and shrub-like. Near the highest peaks, alpine grasses and flowering plants occupy the treeless summits.

Most of the Preserve is covered by a healthy and productive forest, which at lower elevations (under 2,200 feet) grows excellent timber at average and above average rates for western Maine. Although dominated by hardwoods, past harvesting activities throughout much of the Preserve has created a relatively diverse environment, home to more than 300 plant and tree species, 100 species of birds, and 26 species of mammals.



The seven peaks of the Bigelow Mountain range are traversed by 17 miles of Appalachian National Scenic Trail (AT). In addition, there are many miles of blue-blazed side trails managed as part of the AT system. Hiking in summer and snowmobiling in winter comprise the most popular uses in the Preserve, although a wide range of activities occur, including camping, cross country skiing, mountain biking, sightseeing, wildlife watching, hunting, and fishing.

In 2000, the Bureau designated 10,561 acres of the Bigelow Preserve as The Horns Ecological Reserve. It includes the high elevation alpine areas and peaks, and two arms extending down the mountain, one on the north, to Flagstaff Lake, and the other on the south, to Stratton Brook (see insert).

The Horns Ecological Reserve

The Maine Natural Areas Program describes the Horns Ecological Reserve:

Extending about 3,000 feet in elevation above Flagstaff Lake (1146 feet) to West Peak (elevation 4145 feet), The Horns Ecological Reserve encompasses the highest elevational gradient of any of the 17 reserves. Seven rare plant species are found in the alpine zone of the Ecological Reserve, and its area of alpine ridge supports over 3,100 acres of subalpine spruce-fir forest. Some of this sub-alpine forest has been harvested in the past, depending on forest type and accessibility. Nearly all of the sub-alpine type shows evidence of natural disturbance, spruce-budworm mortality, and wind/ice damage.

Operable mid-slope forests extend both north and south of the main ridgeline, affording opportunities to study the influence of aspect on forest characteristics. Most of the low to mid-elevation forests in the preserve were harvested several times in the last century. However, the reserve also supports good examples of two common matrix-forming natural communities, Beech-Birch-Maple Forest and Montane Spruce-Fir Forest. These stands show little evidence of past harvesting and support many trees over 110 years old.

Wetlands in and around the floodplain of Stratton Brook provide excellent examples of successional wetland systems from broad graminoid and shrub meadows and a convoluted mosaic of acidic fen, shrub swamp, and various graminoid and herbaceous meadows. All of the wetlands sampled by the Maine Forest Biodiversity Project MFBP contractors had been influenced by beaver.



Natural Resources:

Geology and Soils: The bedrock geology of the area surrounding the Bigelow Preserve is complex, the result of plate tectonics and upwellings of molten bedrock eons ago. Granite underlies most of the area, with metamorphosed sedimentary rocks forming the mountains in the Bigelow Range. In the Bigelow Preserve, some 400 million years ago, sediments accumulated in an ocean basin between two continental plates. The layers of sediments were incorporated into a syncline (large-scale fold) of pelitic rock (mudstone) that was highly metamorphosed by heat from igneous plutons when they intruded the area. The Bigelow ridgeline follows this syncline, and metamorphosed mudstones can be seen on top of the mountain. The regional folding and igneous intrusions occurred as part of the Acadian orogeny, one of New England's three mountain building events. A northwest striking fault has offset many of the bedrock units on the Preserve. The fault intersects Cranberry Pond on the ridgeline and runs west of East Nubble. This fault, probably related to a network of faults known as the Dead River fault system, caused the northeast side of the fault to be uplifted relative to the southwest side (Caljouw 1981).

The surficial geology is the result of glaciation, with glacial Flagstaff Lake depositing fine sediments, till blanketing most of the area, and a prominent esker (linear deposit of gravel formed by meltwater from the receding glacier) skirting the base of the Bigelow Range. The Stratton Brook esker was designated a state registered Critical Area in 1980 (this state program has since been discontinued).

The soils on the slopes of Bigelow Mt. formed in loamy glacial till. They range from moderately to very deep and well to excessively drained. Soils on the mountain's ridgeline are shallow, often consisting of a thin mantle of organic soil directly on bedrock.

Ecological Processes: Ecological processes on the mountainous areas of the Preserve reflect the influence of high elevations and steep topography. Traveling up slope, the wind increases, precipitation increases, and temperatures decrease. These factors have conspired to create distinct habitats – and therefore distinct plant communities. Low elevation flats are softwood dominated. Hardwoods dominate on the lower slopes of the mountain, while spruce and fir communities become more prominent as elevation increases. The transition zone between hardwood and spruce/fir takes place at a lower elevation on the northern side of the mountain than on the southern side, because the northern side is cooler and more shaded than the southern side. Growing conditions continue to become harsher as one gains elevation - wind, and cold temperatures on the upper slopes of Bigelow limit the number of species that can successfully live there. Close to the summit, krummholz appears. "Krummholz" (meaning "crooked wood") is the term used to describe the balsam fir, black spruce, and heart-leaf paper birch that populate this harsh environment. As the name implies, the growth form of these species under these conditions tended to be low, dense, and shrub-like, creating a virtually impenetrable dwarfed forest of trees up to ten feet tall. Lastly, few trees have survived Bigelow's exposed, windswept summit. Vegetation at the summit is characterized by small plants with specialized adaptations to cope with these challenging growing conditions.

The higher elevations of Bigelow Mt. show considerable spruce budworm damage. Although balsam fir is the preferred food of the budworm, the krummholz community dominated by fir has been an easy target for the pest. The most recent outbreak occurred in the 1980s, though budworm damage has been difficult to fully assess against the backdrop of wind and ice damage.

At higher elevations, the budworm damage combined with wind and weather effects to create larger and more frequent gaps.

Beavers have been active in the area in many of the lower elevation wetlands adjacent to Flagstaff Lake and at both of the higher elevation ponds (Horns Pond and Cranberry Pond). By creating and abandoning impoundments along the stream course, beavers have created a mosaic of habitats for other plant and wildlife species such as wading bird and waterfowl habitat, particularly along Stratton Brook.

Fire has played a role in natural disturbance on the Preserve, both in the northwest in an area that (was) burned in the 1940's (likely an escaped fire from the burning that was part of the land clearing prior to construction of the dam and the flowage of the river); and on the southern slopes (Caljouw 1981). Forest fires in New England historically have tended to be relatively small-scale events triggered by lightening strikes. The fires that occurred on the Preserve opened up patches of forest that are typically recolonized by fast growing, short lived species such as aspen and paper birch. This patchy disturbance contributed to the uneven and diverse forest canopy we now see. The forest landscape today, however, is not a fire-dependant ecosystem.

<u>Natural Communities - Wetlands</u>: Most of the wetlands on the Bigelow Preserve occur in association with Flagstaff Lake, and on the south side of the Bigelow Range along the Stratton Brook drainage.

An extensive Streamshore Ecosystem along Hurricane, Reed and Trout Brooks on the north side of Bigelow Mt. This exemplary ecosystem includes Alder Shrub Thicket, Spruce – Fir – Cinnamon Fern Forest, Tussock Sedge Meadow, and Northern White Cedar Woodland Fen natural communities. The slow moving streams that meander through the wetland are influenced by beavers.



A Tussock Sedge Meadow in Bigelow's Streamshore Ecosystem.

<u>Jones Pond Inholding</u>: An exemplary Mixed Tall Sedge Fen is located on the 270-acre Jones Pond inholding (held by the National Park Service as part of the Appalachian Trail).

<u>Natural Communities: Uplands</u>: Upland natural communities within the Bigelow Preserve include Spruce-Northern Hardwood Forest, Spruce-Fir Forest, Spruce-Talus Woodland, Beech-Birch-Maple Forest, and Fir-Heartleaf Birch Sub-Alpine Forest.

The section on Timber Resources following this section describes the overall distribution of hardwood and softwood stands on the Bigelow Preserve. The Maine Natural Areas program inventoried notable upland communities on the Preserve, a number of which were deemed "exemplary." These are described below, as well as notable upland communities. Except for one exemplary natural community on Flagstaff Island, all of the exemplary upland communities documented to date in the Flagstaff/Bigelow Properties are within the Bigelow Preserve.

- A small but exemplary Spruce Fir Broom-moss Forest and an exemplary Spruce

 Talus Woodland were found on East Nubble, a rocky knob on the north side of Cranberry
 Peak. The Spruce Fir Broom-moss Forest covers the East Nubble Summit. Core ages
 of spruce trees ranged from 115 to 260 years, and total basal area was found to be 140
 ft²/acre. The dominant understory species include fir, paper birch, and red spruce
 regeneration, and Canada mayflower (*Maianthemum canadense*). The Spruce Talus
 Woodland, on the north side of East Nubble, is mostly open talus with a 70% slope.
 Scattered red spruce and heart-leaved paper birch are present along with small patches of
 Labrador-tea (*Ledum groenlandicum*). A small (less than 5 acres) inoperable patch of
 ground on the north slope has been identified by the Preserve Manager as old growth.
- On the south slope of Bigelow Mt., within the Ecological Reserve between the Fire Warden's Trail and the Horns Pond Trail, are two exemplary natural communities. A Spruce Fir Feathermoss Forest is dominated by red spruce with lesser amounts of white pine, balsam fir, and red maple. Most trees in this area are 12 to 16 inches in diameter, and one spruce was aged at 121 years. The exemplary Beech Birch Maple Forest is dominated by sugar maple, which comprises 75% of the basal area. Yellow birch (Betula alleghaniensis), hophornbeam (Ostrya virginiana), and beech (Fagus grandifolia) are also present in minor amounts. The oldest tree sampled in the community was 152 years old.
- An exemplary Beech Birch Maple Forest. The 1,236 acre exemplary Beech Birch Maple Forest on the north side of Little Bigelow was harvested lightly in the 1940s but retains many of the structural attributes of late successional forests. Two hemlock (*Tsuga canadensis*) stumps, both 21 inches in diameter at breast height, were found to be 175 and 200 years old. Sugar maple (*Acer saccharum*) is dominant in all strata, with occasional yellow birch (*Betula alleghaniensis*), red spruce (*Picea rubens*), and hemlock. Lichens associated with late successional forests are frequent throughout the area. In general, the area doesn't show signs of enrichment, though one small seepy portion (less than three acres) includes some mild enrichment indicators such as Braun's holly fern (*Polystichum braunii*), zig-zag goldenrod (*Solidago flexicualis*), and red baneberry (*Actaea rubra*). Further field work is needed to refine the boundaries of this exemplary forest.

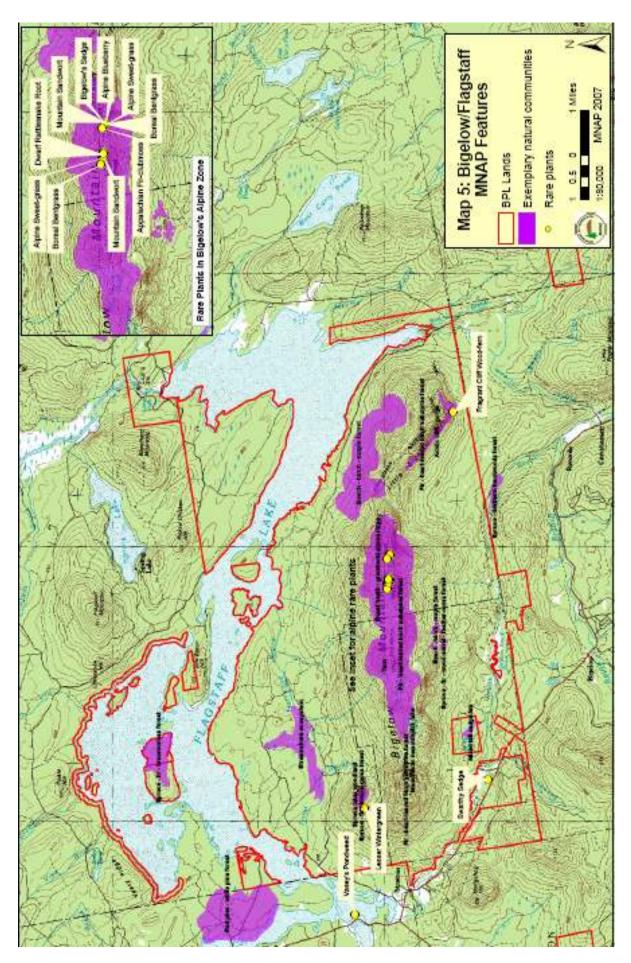
While the western portion of the area scores high on Manomet's late successional index, it does not meet BPL's definition of old growth. The Maine Natural Areas Program has assisted BPL in creating a harvest plan that maintains the exceptional qualities of this mature forest.

• <u>An exemplary Acidic Cliff – Gorge natural community</u>. The southwest side of Little Bigelow Mountain is characterized by very steep and exposed vertical walls. The granitic cliffs have steep gullies cutting through them and areas of large, blocky talus below them in places. Rusty cliff fern (*Woodsia ilvensis*), common hairgrass (*Deschampsia flexuosa*), and pale corydalis (*Corydalis sempervirens*) grow among the talus, while fragrant wood fern (*Dryopteris fragrens*) (S3) was found on the seepy cliff walls.

A Beech – Birch – Maple Forest runs along the base of the cliffs down to the power lines. Portions of this forest have been harvested in the past; however, the steeper slopes show no evidence of recent harvests.



Searching for rare plants on the cliffs of Little Bigelow.



Natural Communities: Alpine. Alpine ecosystems area defined as areas above treeline, where elevation and exposure create extremely harsh conditions; typically restricted in Maine to mountains above 3,500 feet, although not all mountains above 3,500 feet have alpine vegetation. Alpine ecosystems have low and often sparse vegetation due to the harsh environment. Certain tree species may be present, but only grow as krummholz, not erect. The extensive and varied alpine communities on the Bigelow Range were the primary reason for the designation of Bigelow Mountain as a National Natural Landmark by the US. National Parks Service in 1975. The National Natural Landmarks Program describes Bigelow Mountain as "One of the best and most representative alpine vegetation zones among lower elevation New England Mountains." (NPS website). The following exemplary alpine communities were documented by the Maine Natural Areas Program:

- An exemplary Fir Heart-Leaved Birch Subalpine Forest tops Little Bigelow's acidic cliffs, and is also found on Cranberry Peak and on an area that covers the Horns and West and Avery Peaks. This community consists of variously stunted to moderately sized balsam fir forests, depending largely on exposure. The shady understory is dominated by a dense growth of mosses with gold thread (*Coptis groenlandica*) and creeping snowberry (*Gaultheria hispidula*).
- <u>An exemplary Dwarf Heath Graminoid Alpine Ridge</u> tops Avery and West Peaks. The area is dominated by dwarf shrub heath and krummholz associates and is surrounded by sub-alpine spruce-fir forests.
- Horns Pond is considered an exemplary tarn, or small lake formed by glaciers. The steep sides of the pond and a shallow lip at the outlet have contributed to relatively stable water levels.
- <u>Cranberry Pond is as a monomictic, mesotrophic lake</u>, a shallow lake with moderate nutrient levels and water that doesn't mix or turn over with changes in the seasons. The pond's bouldery shoreline and shallow, organic lake bottom have been influenced by beavers in the past. The shallow grade of the pond created large areas of emergent aquatic plants that alternate with the mucky, unconsolidated pond bottom.

Rare Plant Species¹: A large number of rare plants are known on the Bigelow Preserve, including aquatic and alpine species. Both water awlwort (*Subularia aquatica*) (S2) and Vasey's pondweed (*Potamogeton vaseyi*) (S1) have been found in the shallow margins of Flagstaff Lake. Little shinleaf (*Pyrola minor*) (S3) was found in the drainage just west of East Nubble, and lesser wintergreen was found to the south of East Nubble. A population of alga pondweed (*Potamogeton confervoides*) (S2) has been found in the Horns Pond. West Peak and Avery Peak host alpine species including boreal bentgrass (*Agrostis mertensii*) (S2), Bigelow's sedge (*Carex bigelowii*) (S2), mountain sandwort (*Minuartia groenlandica*) (S3), dwarf rattlesnake root (*Prenanthes nana*) (S1), alpine sweet-grass (*Hierochloe alpina*) (S1), and alpine blueberry (*Vaccinium boreale*) (S2). In all, ten populations of rare plants are located on West Peak and Avery Peak. Fragrant wood fern (*Dryopteris fragrans*) (S3) was found growing on seepy cliff walls on the south side of Little Bigelow.

¹ (S1): Critically imperiled in Maine because of extreme rarity or vulnerability to extirpation. (S2): Imperiled in Maine because of rarity and vulnerability to further decline. (S3): Rare in Maine.

Wildlife Resources:

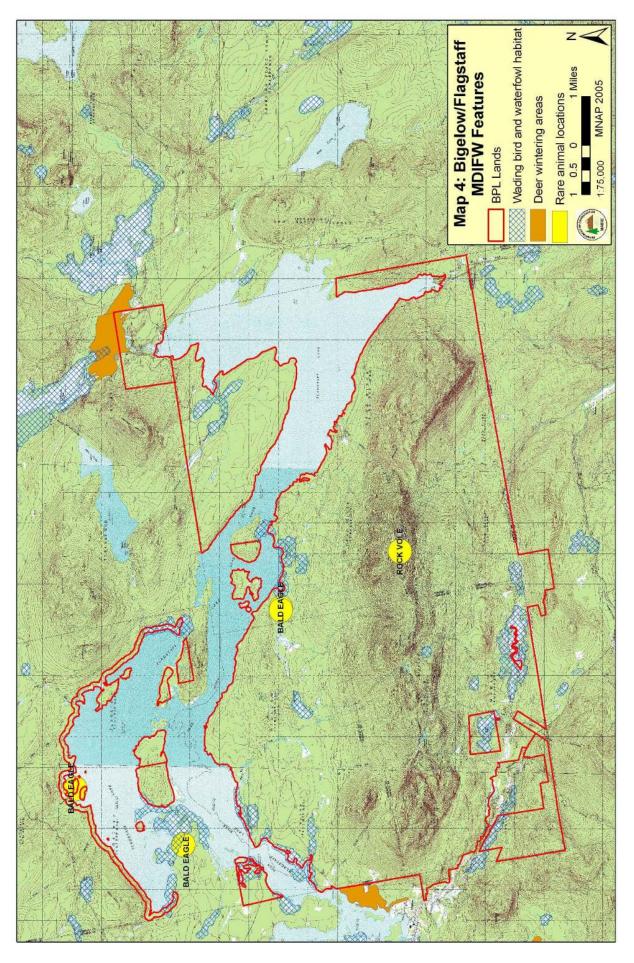
<u>Rare, Threatened, and Endangered Animal Species</u>: An active bald eagle's nest is found near Hurricane Brook on the Preserve. There is a historic peregrine falcon nesting site at Old Man's Head west of Safford Notch. This site is monitored frequently for nesting peregrines, although none has been documented for some time.

<u>Species of Special Concern</u>: The alpine and subalpine habitats along the spine of the Bigelow Range provide critical habitat for high elevation songbird species, including Bicknells thrush, and boreal chickadee. Bicknells thrush requires large, unfragmented subalpine areas for nesting and is only known from 66 sites in Maine (Vermont Institute of Natural Science), including the Bigelow Range. This species is the focus of a volunteer monitoring project coordinated by the Vermont Institute of Natural Science. A high-elevation bird survey route is run annually by a volunteer on the mountain.

Rock voles, a species of Special Concern, live in deep, cold, moist crevices in talus areas, typically at elevations above 3,000 feet in Maine. Also known as yellow nosed voles, rock voles are similar to meadow voles except for their distinctive yellow nose and different surface pattern on their molars. They feed on vegetation, roots, and berries, and their range is often restricted by water availability. Their range extends along the spine of the Appalachians, north to Labrador, and west to northern Minnesota. Rock voles have been found in the talus of the Bigelow Mountain ridgeline, which is their preferred habitat.

<u>Deeryards</u>: There are no mapped deeryards on the Bigelow Preserve, although staff continue to aerially monitor for this activity. A deer yard has been mapped adjacent to the Preserve in Stratton. Deer are common on this west side of the mountain where several Stratton residents have had feeding stations.

Wading Bird and Waterfowl Habitat: Wetlands associated with streams draining into Flagstaff Lake provide good waterfowl habitat - especially Reed Brook and Hurricane Brook. The Bureau has placed waterfowl nesting boxes at Hurricane and Stratton Brooks, which are used primarily by hooded mergansers and common goldeneyes.



Historic and Cultural Resources

<u>Native Americans</u>: The presence of Native Americans was evident along the historic footprint of the Dead River, as determined by archaeological site excavations undertaken by the Maine Historic Preservation Commission. Archeological research conducted in the region by others also has recovered artifacts at a number of sites along Flagstaff Lake and what would have been the edge of the post-glacial lake in the Flagstaff Basin. All shorelines are potentially sensitive for artifacts.

Arnold Trail Historic District: The area that lies in proximity to the original course of the Dead River prior to the construction of Long Falls Dam creating Flagstaff Lake, including the shoreline abutting the Preserve, is likely to contain important archaeological resources. There is potential for historic artifacts throughout this region (Seethe overview in section IV. for additional details on the Arnold Expedition).

<u>Bigelow Fire Tower</u>: A wooden fire tower was built on Avery Peak in 1905, and was replaced by a 38' steel tower in 1917. The tower was lowered to 20' in the 1930's due to the severe winds. A wooden ground house and stone foundation was constructed in 1965 to replace the existing tower; the remains of which are still found on the summit. The Maine Forest Service decommissioned the tower in the late 1970's.

Nomenclature:

- Bigelow Mountain is presumably named for Major Timothy Bigelow of the Arnold expedition, who was said to have climbed the mountain in the hope of seeing the spires of Ouebec.
- The Myron H. Avery Peak was named for a key figure in the establishment of the Appalachian Trail, who chaired the Appalachian Trail Conference from 1931 to 1952; and founded the Maine Appalachian Trail Club (MATC) in 1935, serving as Overseer of the Trail for that organization 1935 to 1949 and its President from 1949 to his death in 1952
- Stratton Brook and Stratton Brook Pond located along the southern boundary of the Preserve are named after the Stratton family who were early settlers in the region.
- Safford Brook, which flows into the lake from the south, was named for the Safford family who settled there in the 1880s. Ben Safford would grow up to be one of the many fire wardens stationed at Avery Peak.
- The Round Barn camping area was named after a barn located in that location prior to the construction of Long Falls Dam.

Recreation and Visual Resources

The Bigelow Preserve offers a wide variety of recreational opportunities, from vehicle accessible areas to backcountry areas. The goal of the recreational use program is to provide activities consistent with the natural and undeveloped character of the Preserve as prescribed in the Bigelow Act. Such recreational activities include backpacking, camping, hiking, snowmobiling, hunting, fishing, boating, snowshoeing, cross-country skiing, and mountain bike touring. ATV's are prohibited on the Preserve by administrative decision.

<u>Hiking</u> in the Preserve is one of the more popular activities. The Maine Appalachian Trail Club (MATC) maintains 17.6 miles of the Appalachian Trail (AT) through the Preserve, and an additional 14.8 miles of side trails in connection with the AT. Side trails include the Fire Wardens Trail (4.6 miles), Horns Pond Trail (2.4 miles), Range Trail (4.6 miles), and the Safford Brook Trail (2.2 miles). The popularity of the trailhead and heavy use of the Fire Warden's Trial and Horn's Pond Loop may call for developing alternatives to this section of trail.

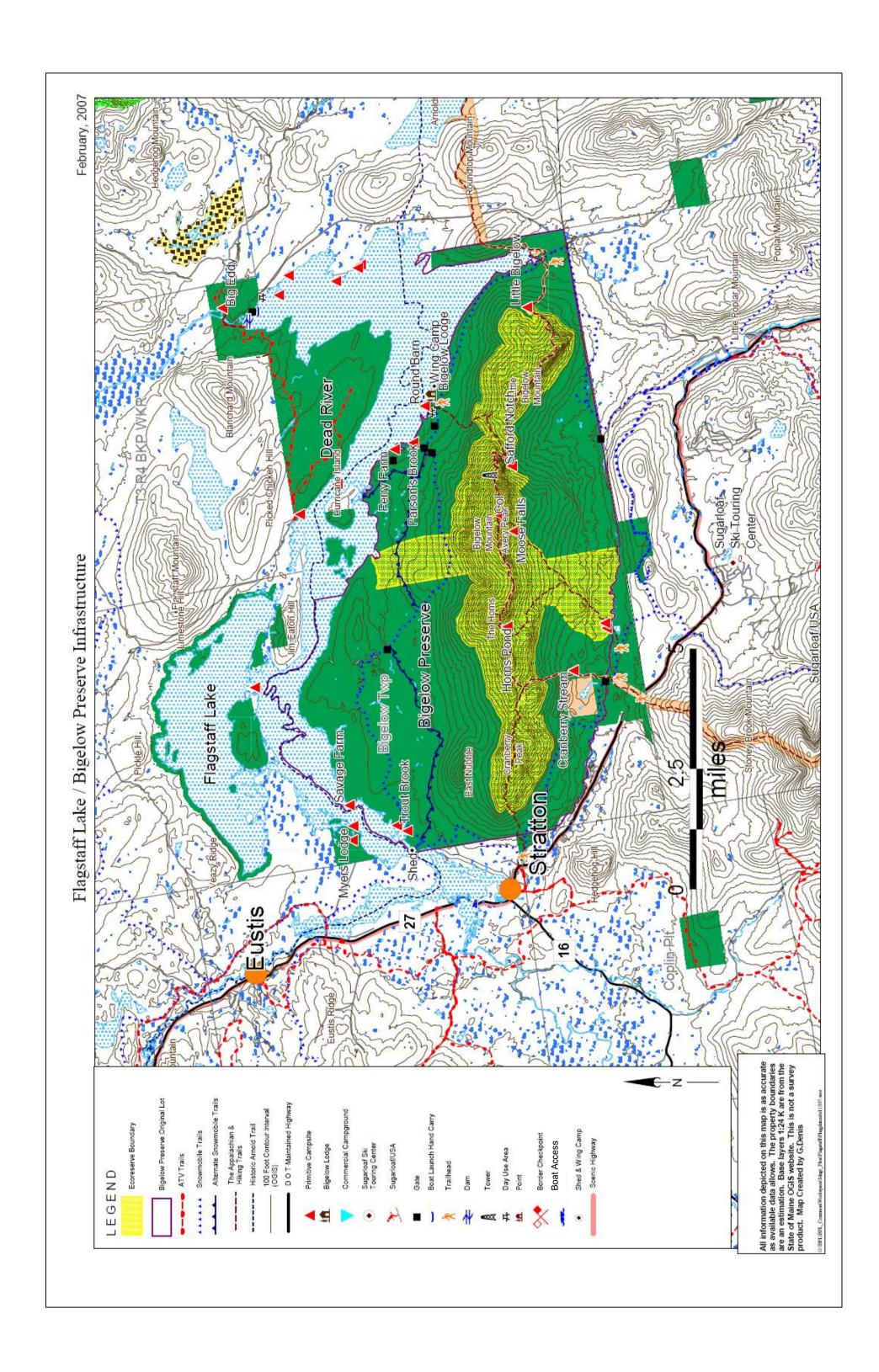
There are 6 trailheads providing access to this system, with four located off the Bigelow Preserve as it is presently defined. Those outside of the Preserve include the Range Trail trailhead to the west (on the Coplin Plt lot), an AT northbound trailhead on the west side of Route 27 (on the National Park Service AT corridor), and two trailheads on the Wyman Lot south of Stratton Brook serving the Fire Wardens/Horns Pond Trail trailhead and the AT trailhead. Those located on the Preserve include the trailhead to Little Bigelow off the East Flagstaff Road, and the Safford Brook Trail trailhead to the north, also off the East Flagstaff Road.

<u>Camping</u>: Campsites include vehicle drive-to/walk-to access at Round Barn (9 individual sites, 1 group site), Stratton Brook Pond (2 sites), Stratton Brook Pond (1 site, access by 4-wheel drive), Little Bigelow Gravel Pit (1 site), Trout Brook North (4 sites) and Trout Brook South (1 site). Dispersed camping without fires is also allowed away from developed sites and trails. There is hike-to camping in conjunction with the Appalachian Trail system, including Cranberry Stream (4 sites), Horns Pond (2 lean-tos, 7 sites, caretaker site), Moose Falls (3 sites), Avery Col (5 tent platforms), Safford Notch (2 tent platforms, 7 sites), and Little Bigelow (1 lean-to, 4 sites)

Water access camping is available on Flagstaff Lake at Savage Farm (4 sites), Ferry Farm (2 sites) and Parson's Brook (group site). Ferry Farm and Parson's Brook can also be accessed on foot. Camping without fires also is allowed along other areas of the shoreline in undesignated areas.

<u>Mountain biking</u> occurs on the Preserve mostly along the 1960's haul road, and is becoming more popular. Mountain biking is a use that did not exist in 1976 when the Bigelow Preserve was created; and was not a use that the 1989 Bigelow Preserve Management Plan addressed.

<u>Cross-country skiing</u>: There are approximately 6 miles of mapped ungroomed cross-country ski routes including, on the south side of the range, along the 1960's haul road that runs along the north side of Stratton Brook; skiing into Jones Pond is also a popular route; and on the north side, a route following the West Flagstaff Road (shared as a snowmobile trail) and a management road to the north of this road which provides access to Flagstaff Lake.



<u>Snowmobiling</u> in the Preserve is limited to designated trails. Approximately 31 miles of the 42-mile loop trail around the Bigelow Range is within the Preserve. Access to this loop is located on private land off Route 27 in Carrabassett Valley, and to the west in Stratton. Access points and winter trail grooming and maintenance are provided by the J.V. Wing and Arnold Trail Snowmobile Clubs.

Snowmobile trails in the Bigelow Preserve are built to take advantage of the spectacular scenery and remoteness that is inherent in the rugged mountain terrain of the Bigelow Preserve. As such, the trails meander across the landscape near shorelines, through beaver meadows, into dark cedar swamps and mature hardwood stands and climb to just shy of 2000 feet in elevation to capture outstanding vistas across Flagstaff Lake to the north and beyond, into the north woods of Maine. To ensure a safe passage, while protecting the opportunity for trail users to travel at a pace that allows for observation, the trail is constructed about twelve feet wide to facilitate speeds not to exceed 25 miles per hour. The trail is full of challenging dips and curves and carefully constructed to allow for good drainage come spring runoff. For this reason a majority of the trails are not useable until there is sufficient snow. This usually requires two storms, the first laying down a base layer to freeze in and a follow up storm to provide enough snow to create the trail bed. Major stream crossings have bridges built to protect not only the riders from the steep slopes and rocky bottoms but the streams so come the inevitable spring floods the steams flow unimpeded. Caution is advised when traveling the trails as they are shared with cross country skiers and even novices on snow-shoes who have yet to develop the skills to take them deep into the surrounding forests. Snowmobile riders may want to consider taking along a pair of snowshoes or skies themselves to enjoy an adventure to areas that come summer are far less accessible.

<u>The Bigelow Lodge</u> is open weekends during the winter, and is a popular lunch spot for winter recreationists, most of which are snowmobilers as the snowmobile trail passes by the lodge. In the summer months, the lodge is available for use by organized groups who have objectives in keeping with the objectives the Department of Conservation. These groups may rent the lodge, including for overnight use.

<u>Boating</u>: A hand-carry boat access site at the Round Barn camping area is the only designated site in the Preserve. This site is also available for trailered launching during the goose hunting season beginning October 1st. Within the Preserve, informal launching occurs off the West Flagstaff Road at Trout Brook and Cold Stream. These areas are only suitable for use of hand-carried watercraft as the shoreline is comprised of soft muck and deep sand.

Visual Resources:

Bigelow Mountain has been designated by the U.S. Department of Interior as a National Natural Landmark. One of the primary considerations for the establishment of the Preserve was to maintain its visual quality. Public enjoyment of the Preserve is dependent upon the assurance that views from the lower elevations looking up at the ridgeline, as well as views from the higher elevations looking over the Preserve, are of the highest quality possible. Along with background views, visual quality of the foreground areas as seen from public roads and public use areas is also important in managing the natural character of the Preserve. Visual management is also an important consideration when planning timber management activities.

EXISTING BIGELOW PRESERVE RECREATION FACILITIES

I) CAMPSITES

i) VEHICAL ACCESS

(a) DRIVE TO –WALK-IN

- 1. Round Barn (9 sites, 1 group site, 5 outhouses, day use, access road, 2 parking lots, kiosk)
- 2. Stratton Brook Pond (2 sites, 2 outhouses)

(b) DRIVE IN

- 1. Trout Brook North (4 sites, 1 outhouse, access road)
- 2. Trout Brook South (1 site, access road)
- 3. Little Bigelow Gravel Pit (1 site)
- 4. Stratton Brook Pond (1 site, access 4-wheel drive road, kiosk)

ii) REMOTE

(a) HIKE (MATC)

- 1. Cranberry Stream (4 sites, 1 outhouse)
- 2. Horns Pond (2 lean-to, 7 sites, Caretaker Site, 2 composting outhouses, day use historic CCC shelter, kiosk)
- 3. Moose Falls (3 sites, 1 outhouse)?
- 4. Avery Col (5 tent platforms, 1 outhouse)
- 5. Safford Notch (2 tent platforms, 7 sites, 1 outhouse)?
- 6. Little Bigelow Lean-to (1 lean-to, 4 sites, 1 outhouse)

(b) WATER

1. Savage Farm (4 sites)

(c) WATER/HIKE

- 1. Ferry Farm (2 sites, 1 wet willie)
- 2. Parson's Brook (1 group site, 1 wet willie)

II) TRAIL HEADS

- 1) Range Trail (parking lot, access road, outhouse, kiosk, winter parking)
- 2) AT North Bound (unimproved parking, kiosk)
- 3) AT South Bound (gravel pit parking, kiosk)
- 4) Fire Wardens Trail (parking lot, access road, kiosk)
- 5) Safford Brook Trail (parking lot) (lower portion to be relocated)

III) TRAILS

i) HIKING

- 1) Appalachian Trail (MATC) 17.6 miles
- 2) Fire Wardens Trail (MATC) 4.6 miles
- 3) Horns Pond Trail (MATC) 2.4 miles
- 4) Range Trail (MATC) 4.6 miles
- 5) Safford Brook Trail (MATC) 2.2 miles
- 6) Additional spurs (i.e. North Horn) 1 mile

ii) SKIING

- 1) 1960s Haul Road
- 2) Hurricane Cut-off
- iii) MOUNTAIN BIKE (unauthorized)
 - 1) 1960s Haul Road

iv) SLEDDING

- 1) West Flagstaff Road Option A
- 2) East Nubble Road Option B

- 3) North Connector Option A
- 4) North Connector Option B
- 5) East Flagstaff Option A
- 6) East Flagstaff Road Option B
- 7) West Boundary Connector
- 8) Compartment 14 Log Road, Wyman
- 9) Penobscot Bypass at Little Bigelow
- v) CAMPSITE TRAILS
 - 1) Round Barn
 - 2) Parson's Brook
 - 3) Ferry Farm
 - 4) Horns Pond (MATC)
- vi) OTHER
 - 1) Jones Pond Access
 - 2) Incidental use of logging roads for hunting, walking, biking, horseback riding, dog sleds, etc.

IV) BOAT LAUNCH

- 1) Round Barn hand carry summer, boat trailers in October
- 2) Bog Brook low quality boat trailers, FP&L
- 3) West Flagstaff Road hand carry
- 4) Stratton Brook Pond hand carry

V) BUILDINGS

- 1) Bigelow Lodge
- 2) Fire Warden Cabin
- 3) Fire Tower
- 4) Wing Camp
- 5) Old Boom Shack-ownership claim by FP&L

VI) PUBLIC USE ROADS

- 1) Bog Brook Road, County Road
- 2) East Flagstaff County Road
- 3) East Flagstaff Road
- 4) East Flagstaff Road Extension
- 5) West Flagstaff Road
- 6) East Nubble Road
- 7) Range Trailhead Road*
- 8) Stratton Brook Pond Road*
- 9) AT spur road off Stratton Brook Pond Road*

VII) GATES

- 1) West Flagstaff Road
- 2) East Flagstaff Road
- 3) Compt 14, Wyman West end Log Road
- 4) Jones Pond Road
- 5) 60s Road east end
- 6) Penobscot Bypass at Little Bigelow, west end.
- 7) Parson's Campsite
- 8) Parson's North Connector Option A
- 9) Ferry Farm Campsite
- * Not on the Bigelow Preserve

Timber Resources

<u>Bigelow Preserve</u>: This description includes the Bigelow Preserve, not including those lands in Wyman Township proposed to be added to the Preserve. Bigelow Mountain dominates the landscape, but most of the timber acreage is on lower slopes and the surrounding flatter land.

The following table shows a comparison of the Bigelow Preserve forest types, in acres and as a percentage of all forested acres in the Preserve. In 2000 some of the regulated and unregulated forested land became part of the Horns Ecological Reserve, with a resulting reduction in the total acres available for active timber management (regulated acres), of 4,301 acres. These forested acres are of a quality, species mix, and volume comparable to the adjacent regulated area. While this reduces the potential timber revenues from the Bigelow Preserve, the decision to create ecological reserves acknowledged the significant non-monetary values created through the system of ecological reserves, including protection of habitat that is uncommon in the state, and the creation of totally unmanaged systems against which the ecological changes resulting from management and climate will be measured.

Forest Type	Regulated Acres	Unregulated Acres Due To A Variety Of Allocations or Site Limitations	Previously Regulated Acres Prior To Ecological Reserve Allocation	All Forested Acres
Hardwood	10,920 (48%)	810 (12%)	1,655 (38%)	13,384 (40%)
Mixed	8,756 (39%)	3,104 (47%)	1,928 (45%)	13,788 (41%)
Wood				
Softwood	3,052 (13%)	2,693 (41%)	718 (17%)	6,463 (19%)
TOTAL	22,728 (100%)	6,607 (100%)	4,301 (100%)	33,637 (100%)

Note: These figures reflect a more accurate inventory of timber resources on the Preserve than existed in 1989; consequently, the figures on regulated and unregulated acres provided in the 1989 Plan are not comparable to the figures provided in this table.

<u>Harvest History</u>: As previously described in the Overview of Historical and Cultural Resources of the Region, lumbering in this area did not begin until the mid-1800's. A report issued in 1981 by the Maine Critical Areas Program on the Bigelow Preserve (Caljouw, 1981) provides the following description of the history of logging operations on the Preserve:

"North of the Range Trail, below 2,500 feet, the forest has been cut over roughly four times; above 2,500 feet to 3,400 feet, once or twice. The southern slopes between cold Brook and Little Bigelow seem to have been cut over once or twice. The slopes above 2,000 feet between the western edge of Little Bigelow and Cranberry Peak seem to have been cut over once; below 2,000 feet two to four times. Areas on Cranberry Ridge near Stratton seem to have been cut over two to four times.

Most of the southern slopes and upper elevations of the Preserve were clearcut by Great Northern in the early 1900's. They were interested in obtaining spruce and fir. . . The company constructed two major tote roads up the southern slopes of the Preserve to the Cranberry and Horns Ponds, where remnants of old woods camps are still found. By 1928, three sluices were constructed on the southern slopes of the mountain to transport

timber from the steep upper elevations to the more level lowlands. Both the Stratton Brook Pond and Jones Pond were dammed as holding ponds."

Prior to state acquisition, most of these lands had been harvested in the 1960s and 1970s, with the heaviest cuts taking place in Bigelow Township. However, some north-facing portions of Dead River Twp. have not been harvested since 1957 or before, about the time the land was cleared in preparation for Flagstaff Lake. This involved several large wildfires which established aspen stands covering hundreds of acres near the lake. Timber harvest operations began on the Preserve in late 1982, and have continued almost every year since. Nearly all harvests have been of the selection variety, designed to create or maintain multi-aged stands. The 23-year harvest volume of 82,000 cords is barely half of the maximum sustainable harvest level determined for the regulated portion of the Preserve.

<u>Current Stocking and Silvicultural Needs</u>: The Preserve acres hold relatively high inventories, averaging almost 25 cords per acre, with 40% of the regulated forest in types with stocking near or above 30 cords per acre. Though a large number of low quality trees remain, often the result of high-grading cuts prior to State ownership, most stands have a solid proportion of high quality stems, often of large size. Due to the extent of careful Bureau harvesting, there are no major silvicultural "emergencies." However, many stands would best have been treated 10-20 years ago, and though the opportunity to benefit these stands remains, it needs to be accomplished soon. The major area in this condition is the north slope on Dead River Township. The access is mainly in place, with only branch roads needed for future harvests. The forest here holds fine opportunity to manage late successional stands for high value timber products while maintaining or enhancing the ecological characteristics of such stands.

Softwood types cover about 3,050 acres, or 13% of the regulated acres. Most are found on moderately well to somewhat poorly drained sites, with a lesser amount in areas of poor drainage, and some pines with excessive drainage. Most are reasonably well stocked, with spruce (nearly all red spruce) making up about half the volume. Cedar and fir share another 30%, with white birch, pines (mainly white pine), and red maple at 4-6% each. Most softwoods, except cedar are of good quality; though significant fir and some spruce is mature to overmature. The cedar, like most in the Bureau's Western Region, is generally of low quality. Spruce is the key management species except on droughty sites where pine should be favored (pine should be encouraged in all stands), and in cedar swamps, which will receive less frequent management activity. Areas currently in softwoods should usually be managed to stay in the type, and some mixedwood (and aspen/fire) type are on sites better suited to growing spruce, fir, and pine.

Mixedwood types are found on about 8,756 acres, 39% of the regulated area. They are found on all sites but the wettest and driest. The mixedwood types average a bit less volume per acre, about 24 cords, while softwoods run 25 cords and hardwoods 26 cords, but quality is usually good. Spruce is 28% of type volume, and another 27%-28% is split between fir and red maple. White birch, cedar, yellow birch, and sugar maple area next, descending from 9% to 6%. Hemlock is only 4% of the type volume, but is much more abundant in some areas, especially north of the ridgeline. Management should favor spruce in most areas, pine where it occurs, and northern hardwoods (yellow birch, beech, sugar maple) on the more fertile soils. Much of the fir is mature, but a lot of the sapling stocking is fir, so its representation is likely to remain significant. Though important in northern hardwood stands, red maple should usually be discriminated against elsewhere, in favor of spruce/pine/more valuable hardwoods.

Hardwood types cover about 10,920 acres, 48% of the tract. There are two distinct subtypes within the broad type. About 12% is intolerant hardwoods, labeled as aspen or fire type. Most were established around 1950 by wildfires connected with land clearing for the impoundment, though there are occasional older aspen stands. Most of this type is dominated by quaking aspen approaching maturity, past maturity on poorer sites, and often holds abundant spruce, fir, and pine saplings in the understory. White birch and big tooth aspen are also significant components, with frequent pockets of spruce and fir, and occasional pine. Nearly 300 acres of this type, 25%-30% of its occurrence on the Preserve, was thinned during 2004 to release the desirable regeneration while taking advantage of the excellent aspen markets. This subtype has a volume per acre lower than the tract average, due to some occurrences on softwood sites with low fertility. However, it also holds over 600 stems per acre of 2-4" diameter fir and spruce, a sign of where many of these acres are headed. Management in this type should concentrate on recovering much of the value of the mature aspen and birch in a way that protects the Bigelow view sheds, and that retains most of the desirable softwood regeneration. If these stands were not on the Preserve, some progressive patchcuts for ruffed grouse would be recommended, which might still be possible on a smaller scale.

The remainder of the hardwood type is essentially all northern hardwood acres with heavy volumes, often above 30 cords per acre. Both site and tree quality are usually good to excellent; there are numerous lower quality stems but almost all areas in this type have tall, straight, sound trees in quantity. If there is a characteristic type for the Preserve, and for the Flagstaff Plan area, it is these stands. Sugar maple is the key species, making up a third of subtype volume. Beech and yellow birch split another 25%, but are quite different in character. The beech average stem diameter is just under 9" while yellow birch is 11.6", a very large average stem and similar to the sugar maple, which averages 11". After the three northern hardwood species comes spruce at 10% of volume, followed by red maple at 8%, white birch at 6% and fir at 5%. These stands often have a significant number of trees larger than 20", and most acres would qualify as late successional forest. Careful selection harvests can readily accomplish and maintain successional quality, while growing and selling high value timber.

Old Growth Forests: The Bureau's working definition of an Old Growth Stand (at least 5 acres) is that at least 50% of the overstory consists of trees that are long-lived or late successional (having achieved 50% of the maximum age - which is 150 years for most long-lived species and 200 for cedar, hemlock, and white pine), with characteristics such as large snags, large downed woody material, multiple age classes, and in which evidence of human-caused disturbance is absent or old and faint. This would cover forests that have not been harvested since the mid-1800's. Caljouw (1981) estimated only 5% of the total area of the Preserve to be unlogged forest and scrubland, noting that in the old days, the upper limit for cutting was about 3400 feet. See Harvest History section above for more information.

The Bureau has not identified any Old Growth stands on the Bigelow Preserve although trees aged at least 150 years are present. The East Nubble spruce-fir forest had ages ranging from 115 to 260 years (MNAP, 2006) and is designated a Special Protection area in this Plan. MNAP also identified an exemplary Beech – Birch – Maple Forest on the north side of Little Bigelow, noting that it was harvested lightly in the 1940s but retains many of the structural attributes of late successional forests. Two hemlock (*Tsuga canadensis*) stumps, both 21 inches in diameter at breast height, were found to be 175 and 200 years old. While the area scores high on Manomet's late successional index, it does not meet BPL's definition of old growth. This area was harvest

in 2006 in accordance with a harvest plan developed with MNAP that maintains the exceptional qualities of this mature forest.

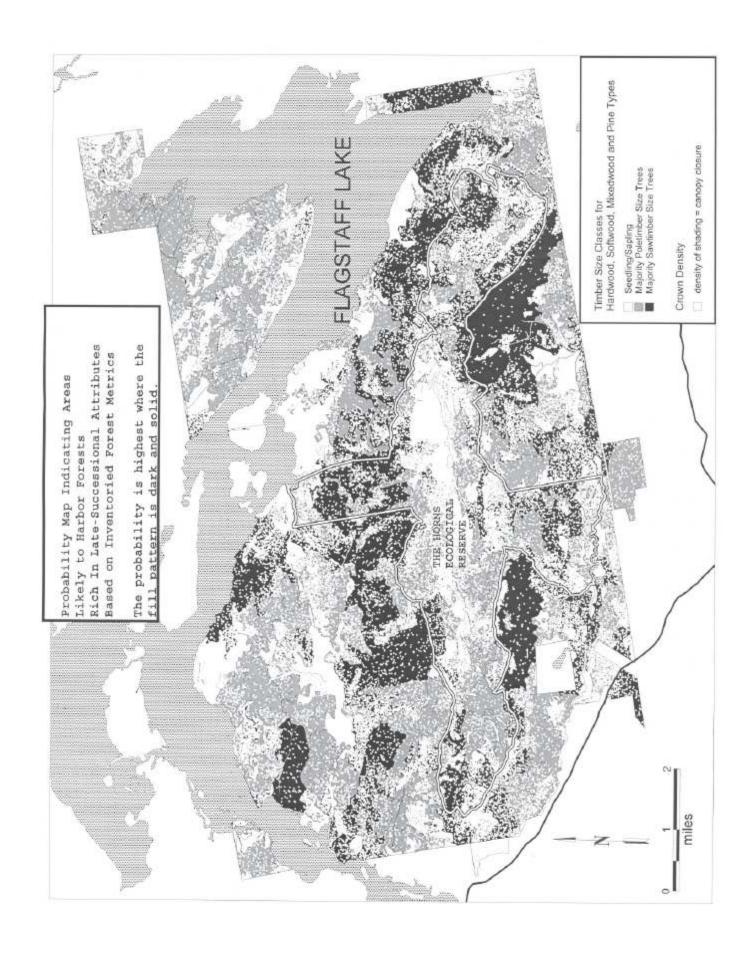
The Bureau has a policy for managing individual or groups of very old trees (less than the 5 acres needed to qualify for special protection) – called old growth component. Our current policy for old growth component, sketched out in the IRP and more fully discussed in guidance provided through the Bureau's Legacy/Reserve Tree document, is to retain this feature (where feasible) at similar proportions in the residual stand as it occurred pre-harvest, including species diversity.

Late Successional (LS) Forests: The Bureau has not conducted an inventory of late successional forest on its lands, or the Bigelow Preserve. However, the Bureau has inventoried and characterized the Public Reserved Lands according to standard forest management metrics. Bureau foresters have characterized the types of trees, their size, and extent of canopy closure on the Preserve. Stands are identified by size according to classification as seedling/sapling; majority poletimber, and majority sawtimber, where sawtimber size trees have a minimum diameter of 12 inches. The extent to which the forest canopy is open or closed is also a measure that is used in the Bureau's characterization of its forests. Canopy closure is ranked A to D with A having the highest percent closed (85-100% crown closure) and D the lowest (less than 33% crown closure).

While this existing data cannot be used to identify late successional forests, it can be used to estimate the probable occurrence of late successional forests. Statewide data have been interpreted this way to estimate that, based on the most recent Forest Inventory data, approximately 3% of the state's forest may be of late successional character (Ken Laustsen, presentation at the LSOG Manomet conference held in April of 2005). Applying this method to the 485,000 acres of public reserved land inventoried by the Bureau in 1999, using data for trees with diameters of 16"+ and other data, Public Reserved lands appear to have approximately 20% late successional stands, while the Bigelow Preserve is estimated to have from 30 to 35% in late successional forests (see attached map showing the probability of LS forests on the Bigelow Preserve).

The Bureau is refining its guidance on the management of late successional forests as the proportion late successional forests has increased over time (due to Bureau management) and interest in late successional forests has increased in the conservation community. In most of the Bureau's prescriptions, staff foresters consistently favor those tree species most commonly found in LS stands. This trend combined with an explicit policy similar to the Old Growth Component policy of no proportional loss, without documented cause will result in a continued increase in the proportion of Bureau forest land being LS. For the Bigelow Preserve the following guidance will ensure that the trend toward increasing amounts of LS forests:

- --Identify existing and "soon"-potential LS stands through the prescription process.
- --Retain sufficient large, old trees, and younger stems of long lived species.
- -- Avoid removal of disproportionate amounts of LS-character trees.
- --Avoid major reduction of crown closure, while managing within the bounds of good silviculture. Note that some areas of the Preserve are in need of silvicultural treatments that might require variance from this guidance for example, in old burn areas, restoring the forest to a healthy, multi-aged structure.



Access:

Roads - Public Access: Public Use and Management: In 1976, at the time of the Bigelow Act, there was vehicular access to and use of the lands now included in the Bigelow Preserve using various private woods roads, and old farm roads and deteriorated town ways that had existed prior to the flowage of Flagstaff Lake. The attached map², Public Access/Use in 1976, shows that in 1976 there were just over 99 miles of road footprints in the Preserve; and of these roughly 49 miles were assumed actively used by the public³. However, the Bigelow Act mandated that public vehicular access to the Bigelow Preserve lands be limited to roads that were "easily accessible to automobiles as of the effective date of this Act." Roads determined by the Bureau to have likely met this definition in 1976 may have totaled 18 miles (estimated to include those roads shown as Reg Maint and Light Maint on the attached 2006 road status map). The mandate contained in the Bigelow Act to reduce traditional access by vehicles to a limited number of roads on the Preserve was not achieved instantaneously. Rather, it was achieved through a gradual process, beginning with identifying those roads that would continue to be available for public vehicular use according to the Bigelow Act; providing information in a variety of ways to the public about the new restrictions on access; and as needed, installation of gates and barriers.

Character and Use of Roads in 1976: Two documents from the early days following the acquisition phase variously addressed the condition and accessibility of roads on the Preserve.

- 1. A report issued in 1979 "Final Recommendations of The Bigelow Coordinating Committee for the Bigelow Preserve" prepared by an ad hoc committee composed of representatives of The Natural Resources Council, Appalachian Mountain Club, Maine Appalachian Trail Club, and Friends of Bigelow and funded through those organizations (not a committee established by the Maine Department of Conservation) considered the following roads as easily accessible to automobiles: The Stratton Dump Road extension approximately one-half mile beyond the dump; the Stratton Brook Pond Road as far as the trailhead of the Firewarden's and Horns Pond (formerly the Appalachian Trail) trail; and the Flagstaff Road as far as the gate before the Flagstaff Lake Lodge. This group apparently considered both the condition of the road, and its accessibility in terms of being open to the public, and used a consensus process in determining which roads were easily accessible, as reflected by the following definition contained in the 1979 report: "those roads which could be traversed by an average passenger car as evidenced by the congregation of such vehicles at certain points along the roads or as agreed to by general consensus."
- 2. A 1981 report issued by The Department of Conservation Bureau of Parks and Recreation "Bigelow Preserve, Policy Issues/Guidelines" and approved by the Commissioners of the departments of Conservation, and Inland Fisheries and Wildlife which said, in a section on the Character and use of existing roads, "There are four roads which traditionally have been passable by two-wheel drive vehicles: The Flagstaff Road (which will be called the East Flagstaff Road in this paper), the Old Flagstaff Road (which will be called the West Flagstaff

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² Note that this map is based on current knowledge and subject to revision if additional old roadbeds are found during the forest management prescription process.

³ Actively used roads are assumed to have included "light maintenance" roads (brown solid line) – roads that would have been relatively recently constructed or improved access roads (as in the case of the East Flagstaff Road), some only accessible by vehicles with a high clearance; and roads passable by "4Wheel" roads would have been older or less developed woods roads requiring a 4wd vehicle, shown as dashed orange lines.

Road), the Stratton Brook Road, and the Huston Brook Road," although it was noted that this last road was probably impassable at about where it crosses the Preserve boundary. Note that only the portion of the Stratton Brook Road north of Stratton Brook was actually on the Preserve. This report described the East Flagstaff Road as ending at a point on the shore of Flagstaff Lake near an island owned by David Guernsey and the Scott Paper Company; and describes the West Flagstaff Road as extending "several miles into the North One-Half of T4 R3 BKP WKR" (aka Bigelow Township). The report also noted a side road off the West Flagstaff Road that leads to hiking access to East Nubble. A map showing these roads depicted the West Flagstaff Road as auto passable to just past Hurricane Brook, and the East Nubble Road extending about I mile in from the West Flagstaff Road.

Roads Accessible to Automobiles as defined in the 1989 Bigelow Preserve Plan: The most recent plan, the 1989 Bigelow Preserve Management Plan, depicted roads that were "auto passable" at the time of the Act (Map # 8 of that Plan) which included what is now known as the West Flagstaff Road to a point beyond Hurricane Brook; the East Flagstaff Road to the Round Barn Road and beyond, with two forks leading to the lake, one at Guernsey Island and the other to Ferry Farm; the East Nubble Road; and the Stratton Brook Road to a point past the Dead River Township line.

Roads Designated for Vehicular Access in the 1989 Bigelow Preserve Management Plan: The following roads were designated as public use roads in the 1989 Plan. The Plan stated that they would be maintained to a standard which allows careful travel by pick-up and most automobiles:

- West Flagstaff Road, terminating at Hurricane Brook.
- East Flagstaff Road to the Round Barn campsite area. The road extending beyond the Round Barn campsite area will not be maintained for public vehicular traffic, but will remain open provided there is no environmental damage or inappropriate use resulting from its use.
- East Nubble Road.
- Stratton Brook Road, terminating at or near the outlet of Stratton Brook Pond (actually outside of the Preserve in 1989).

The 1989 Plan noted that the Huston Brook Road was on private land and called for it to be blocked at Cold Brook (just inside the Preserve) and not maintained.

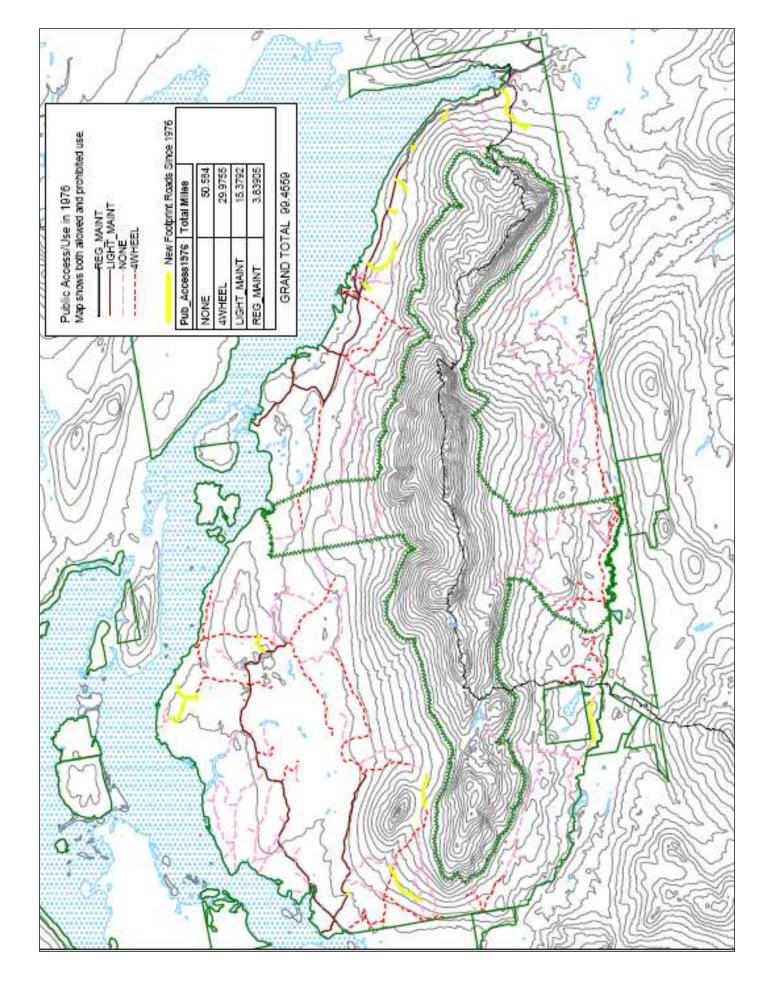
Status of Road Use in 1989: The attached map showing the status of public access in 1989 shows roads both designated for public use by the 1989 Plan and actually used at the time of the Plan (including sections of roads that, although not designated for public use, were kept open by private parties and used by the public). Actual use in 1989, including roads not authorized for public use, is estimated to have included approximately 48 miles of roads on the Preserve. This includes temporary access to and use of about 4 miles of woods roads actively used by the Bureau in 1989 and open to the public until timber management operations were completed and the roads were either "put to bed" (made impassable by vehicles) or gated. Roads designated for public access in the 1989 Plan, as described above, not including the East Flagstaff Road extension beyond Round Barn, totaled approximately 13.5 miles. Including the extension to Guernsey's island, the total miles of roads open for public use in 1989 was approximately 16.5 miles.

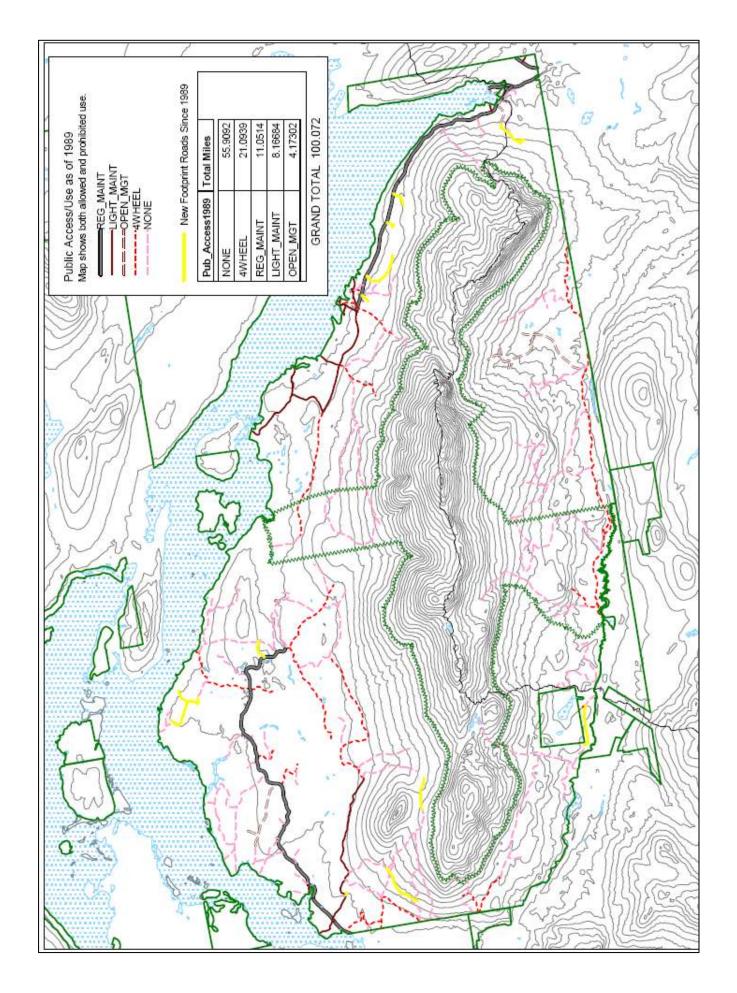
Status of Road Use in 2006: By 2006, there was nearly complete compliance with limitations on vehicle access. As shown on the attached map, there were 105 miles of roads on the Preserve in 2006 (see footnote 2 above). This is an increase since 1976 of 5.5 miles – consisting of woods

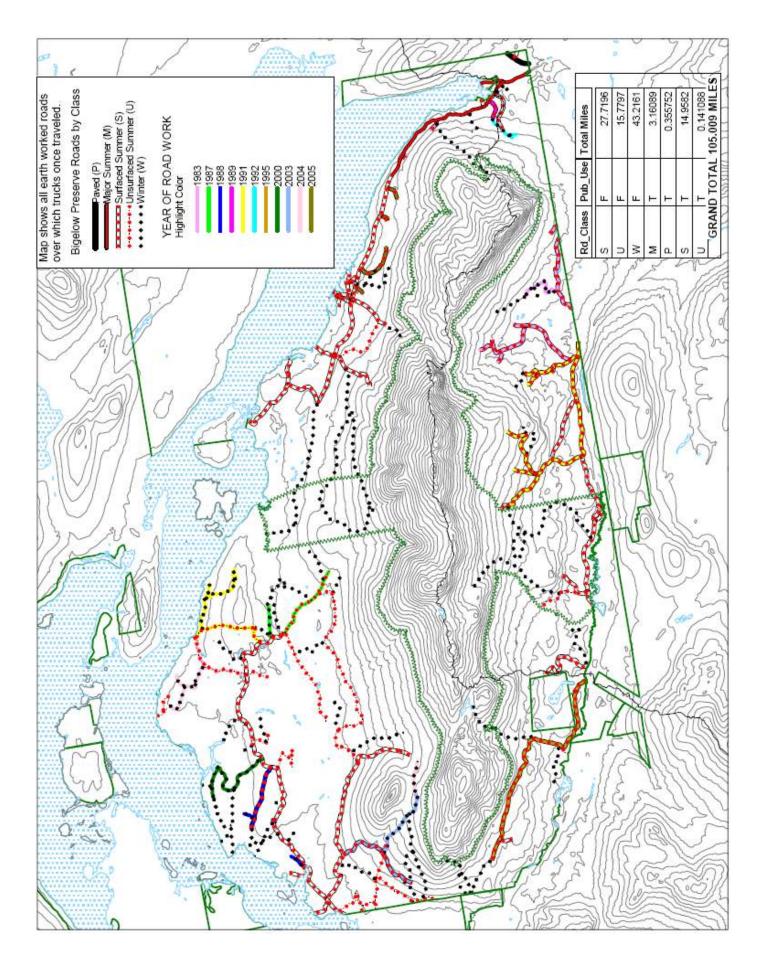
management roads built for temporary access for timber management and then closed. The average length of these new sections of road is about one-third of a mile. Public use of unauthorized roads is down to an estimated 2 miles of woods roads located at the western edge of the Preserve. The Bureau will continue to address unauthorized access and take appropriate measures to ensure compliance.

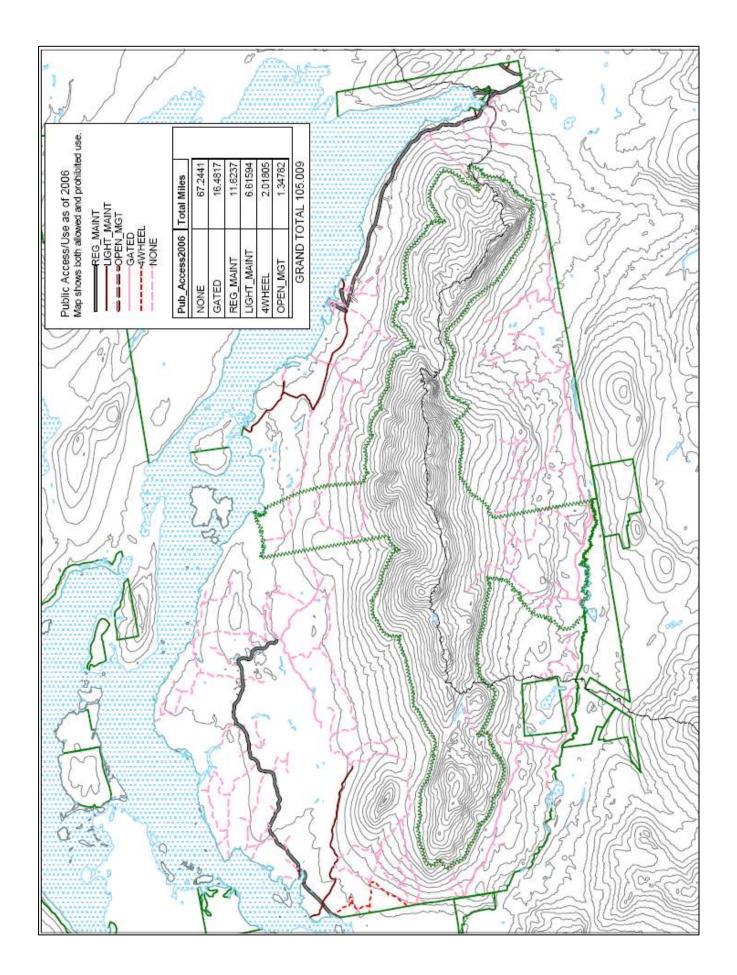
Bureau Use of Roads and Expansion of the Woods Road System on the Bigelow Preserve: There are 105 miles of road footprints known to exist on the Preserve today. This includes currently used roads and old roadbeds that pre-existed the Preserve. The attached map showing "all earth-worked roads over which trucks once traveled" provides the footprint of the woods roads and public use roads known on the Preserve. There is one small segment of a paved road on the Preserve – the Long Falls Dam road in the southeast corner, .36 miles long. Major summer roads include the first section of the East Flagstaff Road and the Bog Brook Road (together 3.2 miles). These are designated for public use. Summer surfaced roads include a variety of roads that are either used for Bureau timber management (27.7 miles) – all being closed to public use after operations cease; or are available to public vehicular use as designated public use roads (14.6 miles). The attached map shows, by color, when the road was in use for timber harvesting. Unsurfaced summer roads are used for timber management (15.8 miles); hiking trail sections follow these roads in a few short sections (.14 miles). Winter roads are those used for timber harvest only in the winter (43.2 miles).

Summary Data on Roads on the Bigelow Preserve - 2006			
Type of Road	Miles		
Public Use Roads			
Paved (Long Falls Dam Road)	.36		
Major Summer	3.16		
Summer Surfaced	14.64		
Subtotal	18.16		
Timber Management Roads			
All management road footprints	86.70		
New since 1976 (including relocations)	5.55		
Actively used since 1976 (see attached map)			
Total Miles of Roads – all types	105.01		









Administrative Concerns

<u>Fire Control</u>: The Bureau is currently working with the Maine Forest Service on a fire control plan for the Preserve.

Administrative Structures: The Bigelow Lodge is used as a base of operations to accomplish the management objectives of the Preserve, and more, broadly, of the Bureau. It is used as a warming hut for snowmobilers and cross-country skiers in the winter, and in the summer, for land stewardship and management training and education by state agencies and allied conservation interests.

<u>Leases and Agreements</u>: The privately owned "Wing" camp, east of the Bigelow Lodge, has been located on the property since the late 1930's. No lease or agreement is in place for this structure, which was initially believed by the owner to be on CMP ownership, below the 1150 foot elevation line, and later determined to be on Bureau lands.

The Bureau has a utility line lease with Somerset Telephone for an underground cable that extends from the Long Falls Dam road to the camps on the Bog Brook Road. This is a 25-year lease, which ends in 2014, although there are provisions within the current lease for its renewal.

The right-of-way to the privately owned portion of Guernsey's island, located more than three miles past the Lodge, was purchased by the Bureau.

<u>Inholdings</u>: A number of parcels exist under other ownership than by the Bureau within the bounds of the area defined for the Bigelow Preserve by the Bigelow Act. These include:

Camp lots at Bog Brook

Turner Camp Lot

FP&L Lease near Round Barn

National Park Service lands near the AT (both at Jones Pond area and near Bog Brook)

Five acres north of Stratton Brook

CMP peninsula in Dead River Twp (tip of east shore)

Camp along the powerline west of Bog Brook Road

Lands north of Stratton Brook in the southwest corner of the Preserve

Management Issues and Concerns for the Bigelow Preserve:

During the development of this Plan, a number of issues were raised, both related to the larger issues of the direction being proposed for the future management of the Preserve, and lesser issues related to specific management needs at specific locations. The following section summarizes the larger issues, and presents the Bureau's perspective on these issues as the basis for the recommendations which follow.

Additions to the Bigelow Preserve: A number of interests raised the issue that parcels acquired by the Bureau and adjacent to the Preserve should be added to the Preserve. These requests included the Wyman lots south of the Preserve, on both sides of Route 27, the Carrabassett Valley lot, and the lot in Coplin Plantation at the Range Trail trailhead.

The Bureau's interpretation of the Bigelow Act is that there are no existing contiguous "Public Lots" as defined by the Bigelow Act that have not already been incorporated in the Preserve

boundary. However, the Bureau agrees that contiguous lands that contain sensitive ecological resources, add value to wildlife habitat, or are important to protect or expand recreation opportunity should be acquired as available, and should be considered for inclusion in the Preserve. These lands would be managed to be compatible with the Preserve.

Recreation Management Direction and Cumulative Changes to the Preserve: An over-arching concern expressed by a number of interests relates to how the Preserve will be managed in the future. There were concerns that, little by little, the nature of the Preserve could shift from a backcountry area to an intensively managed recreation destination, which would be contrary to the purposes for which the Preserve was established. A concern is that the Bureau will overdevelop the Preserve with trails, additional camping facilities, and new uses. There were concerns about allowing mountain biking on the Preserve, and the compatibility of this with other uses and the backcountry character of the Preserve. In addition, a coalition of interests under the umbrella name of the Northern Forest Alliance Caucus requested, in 2003, that significant areas of the Preserve be set aside new Backcountry Non-Mechanized areas (where timber harvesting is not allowed) to address what was perceived a shortage of these opportunities in Maine and on public lands.

Cumulative Changes to Recreation Facilities: The Bureau has been very conservative in the addition of recreation facilities to the Preserve, instead focusing on improving the existing facilities to avoid environmental degradation. For example, the 1989 Plan called for development of the Round Barn area with up to 15 individual campsites and 1 group site, and a day use area. The Bureau developed 9 individual sites and one group site, plus a day use area. All sites are walk-to from a parking area (the Plan gave discretion to the Bureau to design these as drive-in sites). At the same time, it designated two areas nearby for walk-to or water access (gating a previous road access) at Ferry Farm (2 individual sites) and Parson's Brook (1 group site). Two traditional camping areas at Trout Brook were allowed to continue as drive-in sites, as was the Savage Farm water access site (4 sites). The Bureau also worked closely with the MATC to relocate and redesign camping opportunities on the AT. Two new camping areas were created to alleviate problematic crowding and impacts at the Horns and Bigelow Col sites – sites were added at Cranberry Stream and Moose Falls. No new hiking trails were constructed, although some relocation occurred, while one trail, the Parson's Trail, was discontinued. An inventory of existing facilities was included in Section IV (see page 49).

Addition of Mountain Biking as an Allowed Use on the Preserve: Much guidance is provided in the Bigelow Act on the management of recreation uses on the Preserve. However, the Bigelow Act does not include an exclusive list of allowed uses; rather it contains a list that is suggestive of the types of uses to be allowed. Mountain bikes did not exist in 1976 when the Bigelow Preserve was created (the first prototypes for mountain bikes were developed in 1977 and the first commercial production and marketing of "mountain bikes" began in 1979 in California). In 1989, when the first comprehensive management plan was developed for the Preserve, mountain biking may have occurred on the Preserve, but was not addressed in the Plan. Hence this is the first management plan to acknowledge and plan for this use. It is the Bureau's view that mountain biking, as a backcountry touring experience, can be compatible with the quiet backcountry recreation opportunities that are currently provided on the Preserve in the nonwinter seasons; and that the potential conflicts that could occur relate primarily to the proximity of hiking and mountain bike trails, and potential conflicts with off-trail backcountry uses such as hunting or trapping, and orienteering. Proper planning can address these issues. Areas where mountain bikes will be allowed will be limited and clearly defined. Current Bureau policy does not allow off-road travel by wheeled vehicles of any sort (DOC Rule 04-059 Chapter 51: Use of

"Public Lands;" defined as public reserved lands and non-reserved lands; last amended March 2004; subject to legislation related to allowing ATV trails on public lands). This Plan will allow mountain bikes only on designated public use and management roads.

Designation of Snowmobile Trails on The Horns Ecological Preserve: The Bureau is proposing to designate a primary and an alternate snowmobile trail crossing the north arm of the Ecological Reserve. Some interests have requested that the Bureau examine alternatives that would avoid crossing the Ecological Reserve, or would limit the number of trails to one permanent snowmobile trail. The Bureau's Integrated Resource Policy (IRP) guidelines state that existing snowmobile trails and roads are allowed in Ecological Reserves where (1) they are situated in safe locations, (2) have minimal adverse impact on the values for which the reserve was created, and (3) cannot be reasonably relocated outside of the reserve. When the ecological reserve was created in 2000, there was already an established primary snowmobile trail through the north arm, following an existing winter woods road, and the alternate trail, and a previously used trail to the north of this trail at a lower elevation was designated as an alternate trail, to be used only when the primary trail could not be used due to logging in adjacent areas. This alternate trail follows, for the most part, another winter road at the bottom of the mountain (the map on page 64 shows the winter road network that existed prior to ecoreserve designation). The Bureau is proposing to continue these two snowmobile trails, with the higher elevation trail designated as the primary trail and the lower elevation trail serving as an alternate trail, based on the following:

- (1) both trails are designed to be safe;
- (2) there is minimal adverse impact on the values of the reserve by using existing roads, there is no new footprint from the trails (except for a short section on the alternate trail); and
- (3) the trails cannot be relocated since the ecological reserve goes to the lake, and the Bureau has a policy of not locating any snowmobile trails on lakes.

Two other issues were raised regarding the snowmobile trails: whether a single trail could be designated, and whether the lower elevation trail would have less impact by being closer to the edge of the reserve. In order to have only one trail, the Bureau would have to upgrade the road network in the adjacent area to a summer road, which would have a significant impact on the adjacent area, and add unnecessary cost. As to making the lower trail the primary trail, this would have more impact on wildlife, as it would travel through wetlands and near an active eagle's nest (eagle's begin nesting in March). By keeping the primary trail on the upland area, this impact would be minimized since the lower trail would only be used perhaps once every 15 or 20 years.

Expansion of Backcountry Non-Mechanized Recreation areas on the Preserve: Management of the Bigelow Preserve is subject to special management conditions outlined in the Bigelow Act, including that snowmobiling is allowed on designated trails, and the Preserve is to be managed for timber production sensitive to recreation and natural values. As such, it would be contrary to the Act to designate a majority of the Preserve as a no-cut area, which is what would result by adopting the NFA caucus recommendations. Further, the Bureau's forest management on the Bigelow Preserve is subject to visual considerations that retain the appearance of an undisturbed forest when viewed from hiking trails (the vast majority of which are already within the 35,000-acre Ecological Preserve, which is also a Backcountry Non-Mechanized Recreation area as a secondary allocation). More distant areas seen from trails and roads are also managed to avoid any obvious alterations to the landscape. In addition, except for the burn regeneration area north of Hurricane Brook, the Bureau is limiting its management to multi-age management with an objective of growing large quality trees (generally producing late successional character). In

other words, the visual experience will be very close to a natural unmanaged forest in the eyes of most recreationists. Because motorized recreation is already very limited, with the snowmobile trail system largely established, it is possible to designate areas of the Preserve as non-mechanized, and substantially achieve the objectives of the Backcountry Non-Mechanized allocation, without the elimination of timber harvesting. The Bureau has designated a new allocation specific to the Preserve to achieve this.

Timber Management and Related Management Roads: Concerns were expressed related to the Bureau's timber management and related improvement or construction of roads. This included a perception that the number and size of management roads on the Preserve is increasing; and that the Bureau is embarking on a more intensive timber management approach that will alter the character of the Preserve, and diminish the late successional forests on the Preserve. A number of interests requested that the Bureau develop a set of management guidelines for late successional forests, and that some of the late successional forests be allowed to progress to old growth status by designating them for no further harvesting. In addition, the Northern Forest Alliance Caucus requested that significant areas of the Preserve be set aside as additions to the Ecological Reserve (in addition to the request for significant no-cut Backcountry recreation areas – see above), prompted by a concern that the forests of Maine lack late successional and old growth stands due to the differing management objectives of private timber management companies.

Cumulative Changes to Roads. Section IV of this Plan, Character and Resources of the Flagstaff Region, describes the character and uses of roads on the Bigelow Preserve since 1976 (see page 57). There was an existing network of woods management roads on the property in 1976 totaling approximately 99 miles. The Bureau has used these existing roads to provide public access consistent with the Bigelow Act, and to manage timber on the Preserve. Approximately 18 miles of these roads provide public access; the remaining roads provide access for timber management and serve as trails for snowmobiling and other allowed recreation uses when there is no conflict with timber management. The Bureau has added only 5.5 miles to the original network of roads, some of these to relocate roads that were not in keeping with the Bureau's environmental standards. The vast majority of these added roads were very short segments (the average length was one third of a mile) and were located at the periphery of the Preserve, with the exception of a short extension to the East Nubble Road. Bureau standards are consistent with the direction provided in the 1989 Management Plan for the Bigelow Preserve that is, new road construction is kept to the minimum necessary; roads are kept as narrow as possible and built to conform with the terrain. When no longer needed, the roads are either gated or "put to bed" – with culverts removed and the exposed surfaces seeded or otherwise stabilized. In a short period of time, vegetation regrows in areas cleared for proper drainage, and the opening associated with the road is allowed to narrow until the road is needed again in the future.

<u>Late Successional and Old Growth Forest Management</u>. In a previous section (Section IV page 55) the Bureau's approach to management of late successional and old growth forests was described. Overall, the Bureau's management will increase the amount of late successional forest on Public Reserved Lands over time, and protects old growth stands (5 acres or larger) and smaller old growth components in a mixed age stand. It is estimated that late successional forest represent 30 to 35% of all forests on the Bigelow Preserve. Further, the 4,300⁴ acres of

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⁴ The Horns Ecological Reserve is predominantly wooded, with approximately 10,000 acres in forests. The 4,300 acres is that portion considered to have been "operable" or harvestable. Another 5,700 acres are inoperable due to steep or rough terrain or low growth rates. These contain the krummholtz and subalpine fir and spruce forests.

forests included in The Horns Ecological Reserve within the Bigelow Preserve represents some of the best late successional forest in the state, and will be allowed to mature unmanaged and uncut – with many of those acres having the potential eventually reach old growth status. In a report issued in June of 2005 by the Maine Natural Areas Program on comparative measurements of the forested areas within the BPL Ecological Reserves (Cutko, 2005), the forests in The Horns Ecological Reserve as having "an abundance of well-stocked northern hardwoods and spruce-fir forest . . with a higher average basal area and more large trees than the overall Reserve average." Mean tree age of canopy trees for this reserve was 105 years, compared to 107 years at Big Reed, the largest known old growth forest in the state (~5,000 acres held by The Nature Conservancy).

What has not been determined is how much late successional and old growth forest is needed to provide the full range of ecological values in a forested system. In terms of wildlife habitat, late successional and old growth forests provide much the same values according to a recent publication (DeGraff et. al, 2005). "Landowners Guide to Wildlife Habitat"). Both provide habitat for large cavity nesters like pileated woodpeckers, and provide large downed wood which is beneficial for reptiles, amphibians, small mammals and insect species. Species most dependent on old growth are certain mosses, lichens and fungi. In terms of wildlife habitat, DeGraff recommends less than 10 percent of the forest be managed for large sawtimber and old growth. A related question is, what is the appropriate scale of the mosaic of forested conditions, including early successional to old growth, that should be represented on the landscape? Interspersion of habitats provides benefits to many species; others need large blocks of a specific habitat type. Should the Bureau's management of small public lots scattered throughout an industrially managed forest be different than how it manages large blocks like the Bigelow Preserve and the Dead River Peninsula?

The Bureau's management of Public Reserved Land forests for multiple uses, including timber production for revenue, recreation, and wildlife habitat results in a different forest than found on most industrially managed forest lands. Further, because of the unique characteristics of each of the Public Reserved Lands, and the differing context of surrounding land uses, recreation opportunities, and forest conditions, there is no single management regime that should be applied to all Public Reserved Lands. The Bureau is in the process of developing a forest management model that will enable it to more accurately predict the future of the forest under various management regimes, and through a variety of other means, is constantly evaluating and adjusting its management in light of new research and an expanded understanding of the science of forest management. The ability to adjust to new findings and new concerns, including how the Bureau should be managing its lands in light of climate change, is key to the Bureau's ability to continue state of the art land management.

Specific Recreation/Visual Management Issues: In addition, a number of other, more specific management issues were identified in during the planning process, including the question of whether additional trails and campsites are needed; how the Bigelow Lodge will be managed; the future of the fire tower, and the future of the small building near the former logging boom at the narrows south of Trout Brook. These issues are addressed in the management recommendations contained in Section VII of this Plan.

Some of these higher elevation forests were harvested in the past. As part of the ecological reserve, they may develop into "old growth" for this type of forested system (at least one absent any human alteration).

Properties Surrounding The Bigelow Preserve and Flagstaff Lake

Character of the Land Base:

<u>Dead River/Spring Lake lot</u>. This includes 4,191 acres on the peninsula in Dead River Twp., including an original public lot, together with lands acquired from Diamond International Corporation in 1978 as part of a larger land trade, and an original 960-acre public lot in Spring Lake Township (T3 R4 BKP WKR), for a total area of 5,151 acres. Except for the steep land along and near Long Falls on the Spring Lake parcel, the terrain on this tract is flat to gently sloping, in contrast to almost all the rest of the Plan area.

The Spring Lake parcel is dominated by the Long Falls Dam and the Dead River and includes a popular fishing and camping spot called The Big Eddy below Long Falls Dam. The entire lot was leased from the Bureau by Central Maine Power Company as part of the development of Flagstaff Lake as a storage reservoir for downstream power production. Florida Power and Light now holds that lease and maintains a boat access facility and picnic area at the dam as part of its federal hydropower license.

The Dead River peninsula has some areas of hardwood in addition to abundant softwood and mixed wood stands. Softwood covers 27% of the property; mixed wood covers 61%; and hardwood covers 12%. Spruce budworm outbreaks in the mid-1980s prompted the state to conduct the second largest clearcut (200 acres) ever managed by the Bureau. The property has



been primarily managed for wildlife, timber, and to a lesser extent for recreation. There is extensive, undeveloped shoreline on the lake, and a large waterfowl impoundment on Blanchard Brook flowage. developed in cooperation with the Department of Inland Fisheries and Wildlife and International Paper. ATV trails follow the public use road that crosses the top of this parcel, and the area is also popular for hunting.

<u>Flagstaff Lake northern shoreline and islands</u>. The northern shoreline of Flagstaff Lake and a number of small islands in the same vicinity were acquired from Plum Creek in 1999. This property consists of approximately 1,316 acres abutting the northern shoreline of Flagstaff Lake in Flagstaff Township. The exact acreage has not been determined because the property was conveyed as a 500-foot wide strip immediately inland from the high water mark of the lake (defined as the 1,146-foot elevation contour); however, the deed excludes lands owned by

Florida Power and Light (FP&L) which generally owns to the 1150-foot contour around the lake, except where there is state ownership that preceded the Flagstaff Project (original public lots). The forest is mostly mixed wood and softwood, and has not been harvested in several decades. Eagles are known to nest on the near-shore islands. There are no public roads to this shoreline. The land is primarily accessed by water, and is available for water-access camping. With a predominantly southern exposure and views of the Bigelow range, it provides great camping opportunities.

<u>Flagstaff Island</u>. This 530-acre parcel is located in Flagstaff Lake north of the Preserve, at the western end of Flagstaff Lake. This predominantly wooded island, located near to the former village of Flagstaff, has a gentle topography, with only slightly more rise than the Dead River Peninsula. The western end of the island is predominantly a Spruce – Northern Hardwood Forest that transitions to an exemplary White Pine – Mixed Conifer Forest further inland (see further description under Natural Resources – Upland Natural Communities). Facing the south with spectacular views of the Bigelow Range, and located on the leeward side of prevailing winds, it is well suited for water access camping.

<u>Flagstaff Lake Islands in Dead River Township</u>. The Bureau owns the entirety of two islands located just offshore of the mouth of Hurricane Brook, and the western half of the large island directly east of these.

Myers Lodge Lot in Flagstaff Township. This 290-acre parcel is part of a larger original public lot located on the west side of Flagstaff Lake. Access to the parcel is over a 2-mile stretch of gravel road that used to be the road to Flagstaff Village. It joins with Route 27 about 4 miles north of Stratton, just above the Cathedral Pines (a grove of large red pines that is now a campground). The Myers Lodge parcel is almost entirely flat, with small differences in elevation resulting in major changes in vegetation. The 60 acres of open bog which abuts the beach is only a couple feet lower than the nearby forest stands of spruce and pine (mostly white with some red) on well-drained sand, with



spruce and cedar on wet sites in between. There is also some fire origin forest and near the campsites, many trees have the limby appearance typical of old farm areas. The parcel contains five designated drive-to campsites and a swim beach, and is popular for day use and camping, and is used as an informal boat access. There are remarkable views of the Bigelow Range from the property. The shoreline is also attractive from the lake.

Wyman Township lots. In 1999, the Bureau acquired from Huber Resources Corp. a 2,075-acre parcel in Wyman Township which included, part of an original public lot that had been sold. The 1999 acquisition included lands on both sides of Route 27 southwest of the Bigelow Preserve. Since then, a portion of this lot has been conveyed, with Legislative authorization, in trade for lands surrounding Katahdin Lake. The remaining land is in two parcels: one is adjacent to the Appalachian Trail parking area on the south side of Route 27; the other includes lands directly



across Route 27 and south of Stratton Brook with the powerline forming the southerly boundary. These are relatively small parcels, but add great value to the Preserve as they include the wetland complex associated with Stratton Brook; and an old growth stand on the parcel adjacent to the AT parking area. It also provides further protection to areas in proximity to the AT that have been used as informal camping areas for hikers that arrive at the trailhead too late to start the imposing climb up Bigelow Mountain. In addition ,it secures a portion of the Bigelow Loop snowmobile trail located on the Stratton Brook parcel.

<u>Carrabasset Valley lot</u>. As part of the 1999 Huber lands acquisition, an additional 397 acres adjacent to the powerline in the Town of Carrabassett Valley was also acquired. This parcel is a hillside on the south side of the Stratton Brook drainage, and is within the viewshed of the AT on Bigelow Mountain. A piece of the Bigelow Loop snowmobile trail crosses this parcel.

<u>Coplin Plantation Lot</u>: In 1998 the Bureau acquired 112 acres along Curry Street north of Route 27, needed to provide access to the recently reconstructed Range Trail trailhead. This trailhead provides access for dayhikers to Cranberry Mountain and connects to the AT.

Natural Resources:

Geology and Soils: The bedrock geology of the Flagstaff/Bigelow area is complex, the result of plate tectonics and upwellings of molten bedrock eons ago. Granite underlies most of the area. The surficial geology is the result of glaciation, with glacial Flagstaff Lake depositing fine sediments, and till blanketing most of the area. Soils on the Dead River-Spring Lake property are glacial till or glaciofluvial deposits, and tend to be very deep, ranging from somewhat poorly to excessively well drained.

<u>Ecological Processes</u>: Beavers have been active in the area in many of the lower elevation wetlands surrounding Flagstaff Lake. The hydroelectric storage dam that created Flagstaff Lake is drawn down in the winter to a maximum depth of 35 feet (the lake has a maximum depth of 50 feet). This limits the development of aquatic plants and emergent vegetation. Spruce budworm also caused mortality, particularly on the Dead River Peninsula.

<u>Natural Communities: Wetlands</u>: Wetlands occur in association with Flagstaff Lake, at the Myers Lodge parcel, on portions of the northern Flagstaff Lake Shoreline, and on the Dead River Peninsula. Of particular note are those on the Dead River peninsula.

<u>Dead River Peninsula</u>: This lot has several wetlands, though none rises to the level of exemplary due to relatively small size, including a Northern White Cedar Swamp in the center of the peninsula. In addition to northern white cedar, there are areas of dense balsam fir and red maple regeneration, but neither of these species is in the canopy. There are also small openings in the canopy that are dominated by a dense growth of mountain holly. A wetlands drainage cuts through the north-central portion of the peninsula and drains into Flagstaff Lake at a cove on the east side of the peninsula. This beaver controlled area consists of Alder Shrub Thickets alternating with Mixed Graminoid Shrub Marshes. A Spruce – Fir – Cinnamon Fern Forest was documented on the north side of the drainage, while a Leatherleaf Boggy Fen is south of the drainage.

<u>Natural Communities: Uplands</u>: Upland natural communities in the Bigelow/Flagstaff Properties include Spruce-Northern Hardwood Forest, Spruce-Fir Forest, Spruce-Talus Woodland, White Pine-Mixed Conifer Forest, Beech-Birch-Maple Forest, and Fir-Heartleaf Birch Sub-Alpine Forest.

Flagstaff Island: The western end of Flagstaff Island is a Spruce – Northern Hardwood Forest that transitions to a White Pine – Mixed Conifer Forest further inland. This mature, upland forest is interrupted by significant patches of blowdowns, resulting from natural disturbance events in the last ten years. The forest has 60% canopy cover and is dominated by red maple, red spruce, paper birch, and white pine, with dense pine and fir regeneration. Two large red spruce trees were determined to be 115 and 120 years old, with 14 inch and 17 inch diameters, respectively. The canopy is approximately 65 feet high, with the diameters for all species ranging from a 12 inch paper birch to a 31 inch white pine in the supercanopy. The central and eastern portion of the island is characterized as an exemplary spruce-fir forest, described below:

• An exemplary Spruce – Fir – Broom-moss Forest of roughly even-age was documented on the central and eastern portion of Flagstaff Island, occasionally grading into patches of White Pine – Mixed Conifer Forest. This 300 acre, mature, closed canopy forest is spruce dominated with scattered white pine, paper birch, and red maple. Large aggregations of *Lobaria pulmonaria* lichen (a species associated with late successional forests) are prevalent on many of the red maples. Most spruce is in the 12 to 16 inch diameter range, while white pine ranges from 16 to 25 inches in diameter. Two large spruces were found to be 155 and 125 years old, and a white pine was aged at 125 years old.

Flagstaff Peninsula/Myers Lodge Lot: The uplands of Flagstaff Peninsula on the west side of the lake, contains a transitional White Pine – Mixed Conifer Forest that shows evidence of a harvest roughly 60 years ago followed by a burn. Scattered aspen and red pine are in the overstory, while the understory is comprised of red spruce, fir, and white pine.

<u>Wyman Parcel West</u>: The Wyman parcel to the west of Route 27, southwest of Bigelow, consists of mature hardwood forests on the upper slopes that grade into spruce – fir forests in lower elevations. The Beech – Birch – Maple Forest in the southern portion exhibits old

growth characteristics including late successional indicator lichens and mature trees such as a 275 year old hemlock, though the late successional index was not calculated.

Wildlife Resources (see map in previous section):

Rare, Threatened, and Endangered Species: Several bald eagle nest sites are located on or near to the property that the Bureau holds along the shorelines and islands of the lake in Flagstaff Township. In 2006 there were none known to be used by an active nesting pair on Bureau lands, but in the past there have been active nests on Flagstaff Island, and on an island near the northern shoreline in Flagstaff Township (the latter site may be use this year – it was not clear at the time of the aerial survey conducted by MDIF&W.

<u>Species of Special Concern</u>: Wood turtles (species of special concern) have been found in the Dead River and females occasionally utilize the gravel road bank as nesting areas.

<u>Deeryards</u>: The Bureau manages a small but mapped deer wintering area on the north edge of the Spring Lake Lot in cooperation with MIF&W. Timber harvesting on this lot has focused on improving the softwood shelter for deer.

<u>Wading Bird and Waterfowl Habitat</u>: Significant winter draw downs limit the development of aquatic wetlands and marshes on Flagstaff Lake, and the fishery as well, with most species being of the warm water variety, along with occasional brook trout. As a result, the lake generally provides poor waterfowl habitat, except for the sedge meadows at the inlet of the North Branch to Flagstaff Lake. However, a resident Canada goose population on the lake is heavily hunted in September.

In addition, the Bureau manages, in cooperation with MIF&W, an impoundment on Blanchard Brook on the Dead River peninsula created to enhance the habitat for waterfowl. The impoundment was created in 1985 by installing a water control device at the culvert on the Flagstaff Road. Approximately 20 acres were flooded with one to two feet of water, creating ideal waterfowl rearing habitat. Waterfowl nest boxes placed within the flowage have helped produce consistently high occurrences of hooded merganser and common goldeneye broods, making this area one of the more successful in the state. The surrounding wetland is frequently used by moose, great blue heron, osprey, and beaver.

<u>Grouse and Woodcock Management</u>: The Dead River peninsula, dominated by early successional tree species due to sandy soils and a history of fire, has been managed for ruffed grouse and woodcock. Timber harvests in the 1990's created a patchwork of small openings beneficial to grouse. The Bureau has also conducted grouse drumming counts during the spring breeding season to determine populations.

Historic and Cultural Resources

Native Americans: The presence of Native Americans was evident along the historic footprint of the Dead River, as determined by archaeological site excavations undertaken by the Maine Historic Preservation Commission. Archeological research conducted in the region by others also has recovered artifacts at a number of sites along Flagstaff Lake and what would have been the edge of the post-glacial lake in the Flagstaff Basin. All shorelines are potentially sensitive for artifacts.

<u>Arnold Trail Historic District</u>: The area that lies in proximity to the original course of the Dead River prior to the construction of Long Falls Dam creating Flagstaff Lake is likely to contain important archaeological resources. There is potential for historic artifacts throughout this region.

Nomenclature:

- The origin of the word "flagstaff" is presumed to have come from the Arnold Expedition, when Benedict Arnold planted a "flagstaff" outside his tent in an area near what is now called Flagstaff Lake.
- Jim Eaton Hill, on a peninsula in the lake, is named for a farmer who once lived in that area.
- Streams along the north bank of the lake include Butler Brook, named for William Butler, an early settler who came to the area during a minor gold rush.
- Nearby Becky Inlet is named for Becky Butler whose two children are said to have drowned there.
- Viles Brook is named for another family of early settlers.

Recreation and Visual Resources

Spring Lake Lot: Most of the recreational use of these lots is related to use of the Big Eddy camping area on the Spring Lake parcel. Located on the banks of the Dead River about a half mile downstream from Long Falls Dam, and just off the County Road (Long Falls Dam Road), the site is accessible by all types of vehicles including large Recreational Vehicles. A variety of sites are available including waterfront, wooded, and open gravel pit. These sites are often used as a base from which to hunt and fish. The site can accommodate 10 to 12 parties comfortably, and is typically crowded on holiday weekends. The Bureau has maintained contracts with the County Sheriff to provide law enforcement services at the site, particularly on holiday weekends.

Also on the Spring Lake lot, a portage trail, now part of the Northern Forest Canoe Trail, is maintained by Florida Power and Light as part of the hydro license agreement.

Florida Power and Light also manages a day use, picnic, and primitive boat launching site just east of Long Falls Dam, also in connection with the hydro license.

<u>Dead River Peninsula</u>: On the Dead River Peninsula, hunting is a popular activity. In addition, the public use road on this parcel has been maintained as a multi-use trail and is a designated trail for ATV riders, connecting to a loop that extends around Spring Lake. There is one primitive campsite on the western edge of the peninsula. The road leading to it is in poor condition, and the Bureau will have to decide whether to continue to allow public vehicular access to this site or to make it a walk-to or water-access site. Because of the southerly aspect of the shoreline, and its

leeward position for prevailing winds, the shoreline of the Dead River peninsula is an ideal location for additional water access campsites to serve the Northern Forest Canoe Trail.

Myers Lodge Lot: The parcel contains five designated drive-to campsites and a swim beach. Three campsites are located on the north side of the access road several hundred yards from the shoreline; the other two are located near the beach area. Most of these sites see heavy use throughout the camping season; portable toilets have been placed in this area as a temporary solution to ongoing sanitation issues. A proliferation of camping also occurs during lake drawdowns when considerable beach area is exposed. Informal launching of hand-carry and trailered boats also occurs on the beach; canoeing to and camping on the Savage Farm campsite area on the Preserve from this location is a popular activity. The proximity of trailered boat launching to the swim beach, and the used of the beach for camping and parking cars, is in conflict with the use of the beach as a day use and swimming area. The Bureau is considering how to manage this site more appropriately.

Other Flagstaff Lake Shorelines and Islands: The state-owned properties on the shorelines and islands of Flagstaff Lake presently have no designated campsites, but may be used for camping without fires. All are presently water access only, although the Bureau is seeking to obtain access rights over Plum Creek roads to the northern shoreline of Flagstaff Lake in Flagstaff Township. This could provide ATV access to designated areas of this shoreline for camping. Care would be needed to site these well away from any active eagle or loon nests in this area of the Lake. Additional designated water access primitive campsites may be appropriate on Flagstaff Island, and the islands in Dead River Township, again, sited away from known eagle nests or loon nest sites. Florida Power and Light is monitoring loon nests as part of its Federal hydropower licensing.

Timber Resources

<u>Dead River Peninsula/Spring Lake Lots</u>: Only 6% of the forest in the Dead River/Spring Lake property is unregulated (not suitable for timber harvesting). While soils here are generally not as fertile as those on the Bigelow Preserve, they are still adequate for growing softwoods, and in some places fertile enough to produce quality hardwoods. Inventory volumes on the parcel are considerably less than those on the Bigelow Preserve, averaging about 17 cords per acre.

<u>Harvest History</u>: Since the budworm salvage cuts of the mid-1980s, over 38,000 cords have come from the Dead River/Spring Lake lot, a rate that slightly exceeds the sustainable harvest level for the tract. This occurred because spruce budworm salvage resulted in nearly 200 acres of clearcuts in 1985, the second largest clearcut ever managed by the Bureau. The broad scale harvests of the early 1990s took considerable mature aspen, and removed low-grade hardwood left by harvests of the 1960s and 1970s conducted under previous ownership. Over 70% of the total harvest came during the period from 1992 to 1995. Except for the grouse management patches with their 10-year interval, these stands were prescribed for re-entry in 20 years, and by 2012 the long-term harvest rate will have decreased to less than the Sustainable Harvest Level.

<u>Stand Type Characteristics and Management Objectives (regulated acres only)</u>: Softwood covers 27% of the property, 50% of that being spruce, 19% fir, and 9% each pine (almost all white pine) and red maple. The recent harvesting captured most of the low quality or high risk stems, leaving the better trees with room to grow while establishing desirable

regeneration with an increased proportion of pine. Management has been (and should continue to work) to increase the pine component while maintaining spruce in at least its present abundance. Near-future harvests will likely target trees declining in health - such as maturing fir - providing more room for regeneration.

Mixedwood is by far the most common type. The Sackett & Brake (S&B) timber typing put it at 71% of the regulated acres, but the prescriptions identified only 61%. Though the S&B work was post-cut and the prescription was (of course) pre-cut, observations and harvest volumes (57% hardwood from 1992 on) support the prescription percentages. Within the type, spruce makes up one third of the volume, with red maple at 21%, fir %14, and aspen 9%. Pine, cedar, and white birch are 7,6, and 5% respectively. Although a few areas are fertile enough to grow quality hardwoods (and show it by having healthy yellow birch and hemlock), most of this type should be managed to encourage softwoods, especially spruce and pine. Given the preponderance of softwoods in the understory, the softwood/mixedwood type percentages might be switched 20-30 years from now. Two stands that were typed as mixedwood deserve special mention: The combined 150-acre area was budworm-damaged softwood, clearcut in 1985, with 32 acres planted in 1985 to white and red pine, and another 54 acres to all white pine in 1986. About 20 acres of plantation received release treatment (some mechanical, most herbicide) in 1988-1990 with varying effectiveness, though the largest trees are 40'+ tall and 9" in diameter (dbh). The rest of the planted area has enough pine to be an important part of the stand, but some areas have become aspen type.

The hardwood type on the property is almost all aspen, clearing-for-lake fire origin near the shoreline, and 20-30 years older near the north boundary. Patchcuts of 1-3 acres have been made throughout this type, mostly occurring from 1992-1994, some on the far south in 1998, and a second series in the north in 2002. Non-aspen hardwood stands occur in scattered pockets, with most heavy to red maple. Only one stand with "normal" northern hardwoods (beech, yellow birch, and/or sugar maple) is found on the Spring Lake lot. Management should probably retain all present hardwood type but not try to increase it, given the soils present. Most aspen should continue to regenerate if small patchcuts, timed to benefit grouse, are used. Other hardwood stands would benefit from a reduction of the red maple component while promoting sugar maple and yellow birch. The very scarce beech should be retained unless it is high risk.

Myers Lodge Lot: This relatively flat parcel has 60 acres of open bog, with nearby forest stands of spruce and pine on well-drained sand, and spruce and cedar on wet sites in between. There is also some fire origin forest and some, near the campsites, where many trees have the limby appearance typical of old farm areas. The 1985 prescription called for harvesting on nearly 200 acres, but the actual harvest in the summer of 1987 treated only 71 acres, concentrating on thinning, while not conducting patch cuts in the spruce-cedar and spruce-fir stands as prescribed. It is probable that the fir, the target species on the un-entered sites, had already died by the time of the harvest.

Northern Shoreline of Flagstaff Lake, Flagstaff Township: The forest is mostly mixedwood and softwood, and resembles Dead River Peninsula in species composition, but with greater volumes because it has not been harvested in several decades. The parcel is entirely unregulated forest (acres not designated for timber management), due mainly to the difficulty in getting there, and the uncertain boundary between FPL and the Bureau within the 500 foot shoreline.

Wyman Lot south of Route 27: The Wyman parcel to the west of Route 27, southwest of Bigelow, consists of mature hardwood forests on the upper slopes that grade into spruce – fir forests in lower elevations. The Beech – Birch – Maple Forest in the southern portion exhibits old growth characteristics including late successional indicator lichens and mature trees such as a 275 year old hemlock. This area, though remarkable for its age and structure, is quite small – around 24 acres in size. Any timber management will seek to retain the current species mix and foster or maintain late successional forest values.

<u>Coplin Plt Trailhead Lot</u>: This lot consists primarily of early successional forests. Any timber management in this area will be aimed, over the long term, at improving the stand to a multi-aged status, and will be subject to the visual class I standards in the vicinity of access road, trailhead and parking area.

Administrative Management

Leases and Agreements: The Long Falls Dam lease, originally with Central Maine Power in 1940 and assigned to Florida Power and Light in the 1990's, is located on Flagstaff Lake at the outlet of the Dead River on the Spring Lake public lot. The lease, issued by the State of Maine as provided in Private and Special Law in 1923 (and amended in 1927), allowed for the construction of the dam and resulting impoundment on Flagstaff Lake. The lease also permits administrative use of the remaining upland area of the Spring Lake public lot where it is necessary to the ongoing management of the dam. This provision does not interfere with timber management or the recreational use of the property.



A mature yellow birch in Wyman.

A lease for a one third-acre parcel along the Long Falls Dam Road on the Spring Lake parcel is in place with Nestle Waters North America, Inc. The lease provides additional space for an off-road loading area in conjunction with spring water extraction activities taking place on adjacent private lands.

Management Issues and Concerns

Coordinated Planning for Water-based Recreation Opportunities on Flagstaff Lake

- A number of Public Reserved Lands abut Flagstaff Lake. In developing a management plan for these Public Reserved lands, consideration should be given to the range of opportunities to be provided on these lands, and ensuring as full a complement of uses as possible.
- Planning for all the lands surrounding Flagstaff Lake as related to each other also makes sense in the context of the hydropower license for the Long Falls Dam (The Flagstaff Project, FERC No. 2612) which is held by Florida Power and Light (FPL). The Federal Energy Regulatory Commission routinely required licensees to develop recreation plans for project lands and in this case, FPL owns the lands surrounding the lake to elevation 1150 feet (4 feet above the normal high water level for the lake), except in areas that were original Public Lots (where the State ownership would include the entire shoreland to the water). Typically, a FERC recreation plan would involve providing boat access and campsites and other recreation facilities such as day use areas.
- Another related issue is how erosion of the shoreline is affecting natural resources and recreation opportunities.
- Collaborating with FPL and other stakeholder interests in developing a coordinated plan for use and stewardship of the shorelands of Flagstaff Lake should be a management objective for the Plan.

Other Specific Recreation Management Issues

Dead River/ Spring Lake Lot:

- Improvements are needed at the Big Eddy campsite area, particularly for sanitation.
- A route is needed for a portion of the Western Mountains Foundation ski trail on the parcel.

Myers Lodge Lot:

• The heavy use and proliferation of camping on the Myers Lodge parcel, along with its popularity for boating and day use, has created negative impacts to both the physical and social environment of the use area. Sanitation issues need to be further addressed.

Wyman Lot:

• A portion of this lot is needed to provide a connection for the ATV network in the area between Stratton and Carrabassett Valley.

Flagstaff Lake Northern Shoreline:

• There is interest in having an ATV accessible camping opportunity on Flagstaff Lake in a location that will minimize potential conflicts with the Northern Forest Canoe Trail.

Historic-Cultural Management Issues

• Ground disturbance near Flagstaff Lake could impact historic or archeological resources. The Flagstaff Lake area has a long and complex geologic history that complicates identifying areas of potential archeological sensitivity including (1) a post-glacial lake that has lake levels near to the present lake (approximately 30 meters higher); (2) a vast floodplain and meandering river following the breach of that lake (potentially an ice-dam that eventually melted); (3) glacial deposits such as eskers, which provided vantage points for Indian camps, (4) early Euro-American settlement and logging of the area, including using the Dead River for log drives; and (5) the relatively recent impoundment

of the Dead River with widely fluctuating lake levels and drawdowns, with water and ice action capable of scouring and redepositing artifacts to other locations including nearshore areas. Further, it is possible that early use and occupation of the area by Indian peoples could have occurred at multiple locations, including along the old lake shores, along the shores of the Dead River (and its shifting course over time), and in association with glacial deposits such as eskers that would have provided a high ground advantage point for camps in proximity to a watercourse. Given all these factors, any ground disturbance near the present shoreline, or on higher grounds close to the shoreline, especially where the original course of the Dead River is close to the shoreline or where streams enter the impoundment, should be considered archeologically sensitive.

Administrative Issues

Northern Shoreline, Flagstaff Township

- The boundary line along the northern shoreline needs to be established.
- The Bureau needs to secure deeded management access to the properties acquired from Plum Creek on the northern shoreline of Flagstaff Lake.

Dead River Peninsula

• The North Flagstaff Road (aka Picked Chicken Hill Road) on the Dead River Peninsula has not been formally designated for public use. The 2002 aspen harvest managed patches to the roadside (a departure from policy regarding the management of public roads), in part due to the frequent blowdowns blocking the road. Future patch cuts may also be required near or directly on the road for the above reasons. This will affect the Bureau's ability to manage for a visual buffer along this road.

Mount Abraham

Character of the Land Base

The 6,214-acre Mt. Abraham property includes the two summits and most of the northeast side of the mountain. Known locally as Mt. Abram, it is the ninth tallest mountain in Maine at 4,050 feet, and is characterized by very steep and rugged talus slopes, particularly on the northern and eastern sides. The extensive, treeless alpine area covers 200 acres on the northwest summit, and 150 acres on the southeast summit. The abundance of talus distinguishes Mt. Abram from other mountains in Maine. The mountain also has a striking and rugged appearance from the valley below.

Most of this property, 5,285 acres, has been designated as the Mount Abraham Ecological Reserve. The Ecological Reserve encompasses the treeless ridge top and a majority of the northern and eastern slopes, and incorporates a number of rare plants and exemplary natural communities that collectively form an exemplary alpine ecosystem. Also of note is the state's largest mountain ash (*Sorbus americana*), which grows on the slopes of Mt. Abraham. Though not a rare species, this remarkable tree has a circumference of 47 inches and a height of 49 feet.

A 1,028 acre parcel to the east of the reserve area consists of several hundred acres of softwood plantations and hundreds more acres of recent (within the past 20 years) and heavy partial cuts.

The Appalachian Trail abuts the northwestern boundary of the Reserve, and a side trail from the AT extends to the summit, where it joins with the former Fire warden's trail which descends the eastern slope to a woods road located off the Bureau ownership. This is the traditional access to the Mountain.



Mount Abraham Ecological Reserve

The Maine Natural Areas Program describes the Mount Abraham Ecological Reserve:

Mt. Abraham's summit forms an extensive treeless ridge dominated by characteristic alpine vegetation. In fact, Mt. Abraham supports some of Maine's largest alpine habitat outside of Katahdin. Three different types of alpine communities are present, and together these rare communities provide habitat for five rare plant species. One vegetation type in particular – Diapensia Alpine Ridge – occurs at only two other locations in Maine.

Lower slopes of the mountain contain mature hardwood and spruce forests with little to no signs of past harvesting. Some old growth spruce stands sampled in 1997 support trees over three hundred years old. Other noteworthy natural communities include fire-dependant, open canopy spruce woodlands and birch woodlands.



Natural Resources

Geology and Soils: Prior to the Acadian orogeny (375 million years ago), one of the three major mountain building events in New England, sediments accumulated in an ocean basin between two of the earth's plates. Once these plates collided, the sandstone and mudstone from the basin were folded and deformed under pressure, building mountains. These folded rocks form the bedrock of Mt. Abraham.

Glaciers have also left their mark on the mountain. The most recent ice sheet in New England, 12,500 years ago, moved from northwest to southeast. As a consequence, the ice smoothed the northwest side of the mountain and left the southeast side relatively rough. Glaciers also left a layer of till on the mountain, with thin deposits near the summit and thicker deposits downslope. Once the ice retreated, the relatively porous metamorphosed standstone on the summit of the mountain was exposed to the weather. Repeatedly, water seeped in to small cracks and pores in the rock, then froze and expanded, wedging the rock apart and deepening the formerly small cracks. This process, called frost wedging, is responsible for the mountain's distinct mound of talus at the summit.

Soils on the property reflect their glacial heritage; many of the soils are based in glacial till or other glacial deposits and are very stony. Soils at the summit and along the upper ridgeline are well drained, and tend to have a thin organic layer overlying rock fragments and till. Further down slope, soils become more variable, with drainage ranging from somewhat poorly to somewhat excessively drained and soil depth varying with topography.

<u>Hydrology</u>: Numerous small, forested streams drain the mountain. The streams draining the mountain are extremely steep, frequently jumping their channels to form new channels, and occasionally forming small pools below steep drops in elevation. Most of the property drains to the Carrabassett River, while the southeast side drains to the Sandy River. Both are part of the Kennebec River drainage.

Wetlands: There are no wetlands on the property.

<u>Ecological Processes</u>: Ice, wind, and cold temperatures at the top of Mt. Abraham limit the number of species that can successfully live there. A krummholz of balsam fir, black spruce, and heart-leaf paper birch populate this harsh environment.

Spruce budworm damage is evident along the ridge of the mountain. Although balsam fir is its preferred food, the fir-dominated krummholz community was also targeted. The most recent outbreak occurred in the 1980s, though the damage was difficult to assess against the backdrop of wind and ice damage.

The hardwood communities on the property show evidence of typical small gap disturbances from ice, windthrow, and natural tree mortality. These gaps have increased the complexity of the forest structure, and have added to the diversity of microhabitats in the forest for plants and animals.

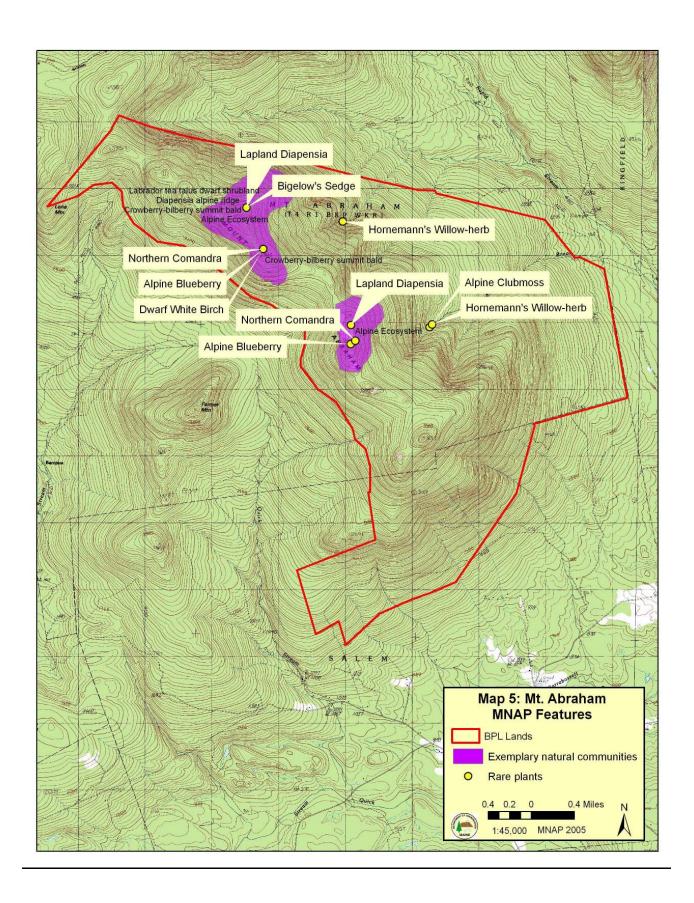
<u>Rare Plant Species</u>: A number of rare plants have been documented on Mount Abraham. These are plants determined to be critically imperiled in Maine because of extreme rarity or vulnerability to extirpation (State rank S1), or imperiled in Maine because of rarity or

vulnerability to further decline (S2). Both the northwest and southeast summits of Mt. Abraham host a number of rare alpine plant species rated as S2. Lapland diapensia (*Diapensia lapponica*), a plant with a low, "pincushion" shape, is found on both summits. Alpine blueberry (*Vaccinium boreale*) and northern comandra (*Geocaulon lividum*) are also on both summits. The northern comandra tends to have a patchy distribution in the alpine area, tucked in among sheep laurel, blueberry, and krummholz vegetation. In addition, the northwest summit hosts a small patch of Bigelow's sedge (S2) (*Carex bigelowii*) near the fire tower, which has been partially trampled by hikers. Lastly, a single individual of a rare hybrid birch (*Betula x minor*) (S1) has been found on the southeast slope of the northwest summit.

Hornemann's willow-herb (*Epilobium hornemannii*) (S1) has been found in several shaded, moist, rocky drainages on the east side of the mountain including Norton Brook. Northern firmoss (*Hupersia selago*) (S1) was also found along the margins of Norton Brook.

<u>Natural Communities</u>: The most distinctive feature of the mountain is the summit, and the host of exemplary natural communities found there.

- <u>Exemplary Alpine Ecosystem</u>. All of the communities described below are considered exemplary and collectively they form an exemplary Alpine Ecosystem.
- The majority of the northwest alpine area can be classified as a <u>Crowberry-Bilberry Summit Bald</u>. Alpine bilberry (*Vaccinium uliginosum*), Labrador tea (*Rhododendron groenlandicum*), sheep laurel (*Kalmia angustifolia*), low sweet blueberry (*Vaccinium angustifolium*), mountain cranberry (*Vaccinium vitis-idea*), heart-leaved birch (*Betula cordifolia*), and fruiticose lichens dominate the treeless area. Patches of <u>Spruce Fir Krummholz</u>, with black spruce (*Picea mariana*) and balsam fir (*Abies balsamea*), are common in this area and form a lower elevation apron around the exposed alpine habitat.
- A small example of a <u>Diapensia Alpine Ridge</u> occurs on the northeast slope along either side of the Fire Wardens Trail. Abundant amounts of *Diapensia lapponica* and purple crowberry (*Empetrum eamesii*) are characteristic of this area.
- The southeast summit of Mt. Abraham is much like the main summit. Steep talus slopes dominate the alpine zone with beds of ericaceous vegetation and krummholtz mixed throughout the community. The area above treeline is again a Crowberry-Bilberry Summit Bald, with alpine bilberry (*Vaccinium uliginosum*), Labrador tea (*Ledum groenlandicum*), mountain cranberry, black spruce, and heart-leaved birch. Spruce-Fir-Birch Krummholtz is found at the bottom of the talus slopes and in the saddle between knolls. A dense thicket of stunted black spruce, balsam fir, and heart-leaved birch characterize these areas. The substrate is organic with peat and lichens. A line of cairns passed through this area and a small amount of trampling was noted.
- The base of the talus slope along the Fire Wardens trail on the north slope has a one to two acre *Labrador Tea Talus Dwarf-Shrubland*. Dense patches of Labrador tea (*Rhododendron groenlandicum*), black crowberry (*Empetrum nigrum*), and sheep laurel (*Kalmia angustifolia*) with six to ten foot tall black spruce (*Picea mariana*) characterize this area.



<u>Fisheries and Wildlife Resources</u>: The Bureau has conducted two high elevation bird surveys along the old Warden's Trail on the east side of Mt. Abraham and along the Appalachian Trail on Spaulding Mountain in cooperation with the Vermont Institute of Natural Science. The focus of these surveys is Bicknells thrush. Because this thrush breeds in alpine and subalpine habitat, an area quite limited in Maine and the northeast, it is a species of special concern. Observations of a number of other high elevation birds, such as winter wren, Swainson's thrush, red-breasted nuthatch, black-capped chickadee and brown creeper have also been recorded from the survey.

The extensive talus slopes on all sides of the mountain provide optimal habitat for rock voles.

Historic and Cultural Resources

Logging in the area was accelerated in 1871 by the arrival of the Sandy River Railroad to the region. According to Austin Cary's survey in 1895, of the 335 square miles in the drainages of the Sandy and Carrabassett Rivers, only 15% of the total land remained uncut. Mt. Abram Township was settled only in the late 1800s, with a logging camp at the settlement of Barnjum near the Madrid line west of the mountain. The townships in this area tended to have medium sized parcels owned by small companies. In the 1950s, 15,000 acres surrounding Barnjum was purchased as a country estate. Much of this and other land was then acquired by Boise Cascade after 1979, and thereafter by Mead Corp. (Cogbill 1998).

A 20 foot steel fire tower was erected on the summit in 1924, and rebuilt in 1936, presumably because of ice damage. What remains of the tower is located on the portion of the property recently acquired from Mead Westvaco in 2004. The warden's camp, located on the hiking trail along the east side of the mountain was probably constructed about the time of the tower. The "L" shaped log addition was built onto the camp in 1956 or 1957, to provide more living space for Warden Harris and his wife.

Recreation and Visual Resources

<u>Facilities and Opportunities</u>: The principal recreational use of the property is the hiking trail system to the summit of Mt. Abraham. There are no overnight camping facilities on the property, although hikers have been known to utilize the cab remains of the fire tower on the summit for that purpose. The trail to the summit has been informally maintained over the years by the Bates Outing Club.

There are essentially two trailheads on the property; the traditional trailhead along the main access road where it first comes onto the property from the West Kingfield Road, and a second, informal trailhead along the same trail but closer to the summit. This second area resulted from road improvements made by the previous landowner. The trail from here leads directly to the old fire warden's cabin, which has been open and available for use by the public for many years. The cabin is considered unsafe, however, due to a general lack of maintenance. From the cabin the trial ascends steeply to the summit.

From the northwest summit of the mountain, a blue-blazed side trial connects to The Appalachian Trail, which is managed as part of the AT system.

The Salem Snowmobile Club maintains a trail that passes along old roads skirting the southern and eastern boundary of the property. Sporadic bootleg use does occur between Mt. Abraham and Spaulding Mountain (east to west) and attempts (by ATV's also) to climb the summit of Abraham from the southwest have become more frequent.

<u>Visual Considerations</u>: Visual concerns on this parcel will include the foreground views from the hiking trail and trailhead. If any of the road constructed by the previous owner for timber management purposes is to be retained for public access as a road or trail, it will require some visual improvements over time. Some portion of the non-reserve parcel is also visible from the mountain; visual considerations will need to be included in any planned timber harvesting on this parcel.

Timber Resources

The majority of Mount Abraham is designated as an Ecological Reserve and will not be managed for timber. The Reserve forest includes considerable steep and/or infertile land that has never been harvested. However, it also includes some 1,500 acres in late successional stands, mostly northern hardwoods and northern hardwood/spruce-fir, all on the east slope above the softwood plantations. One pocket of extremely large and old red spruce, showing recent mortality, was noted southwest of the warden's cabin, on operable terrain that is now part of the Reserve. Depending on the extent of this pocket, it may qualify as an old growth stand.

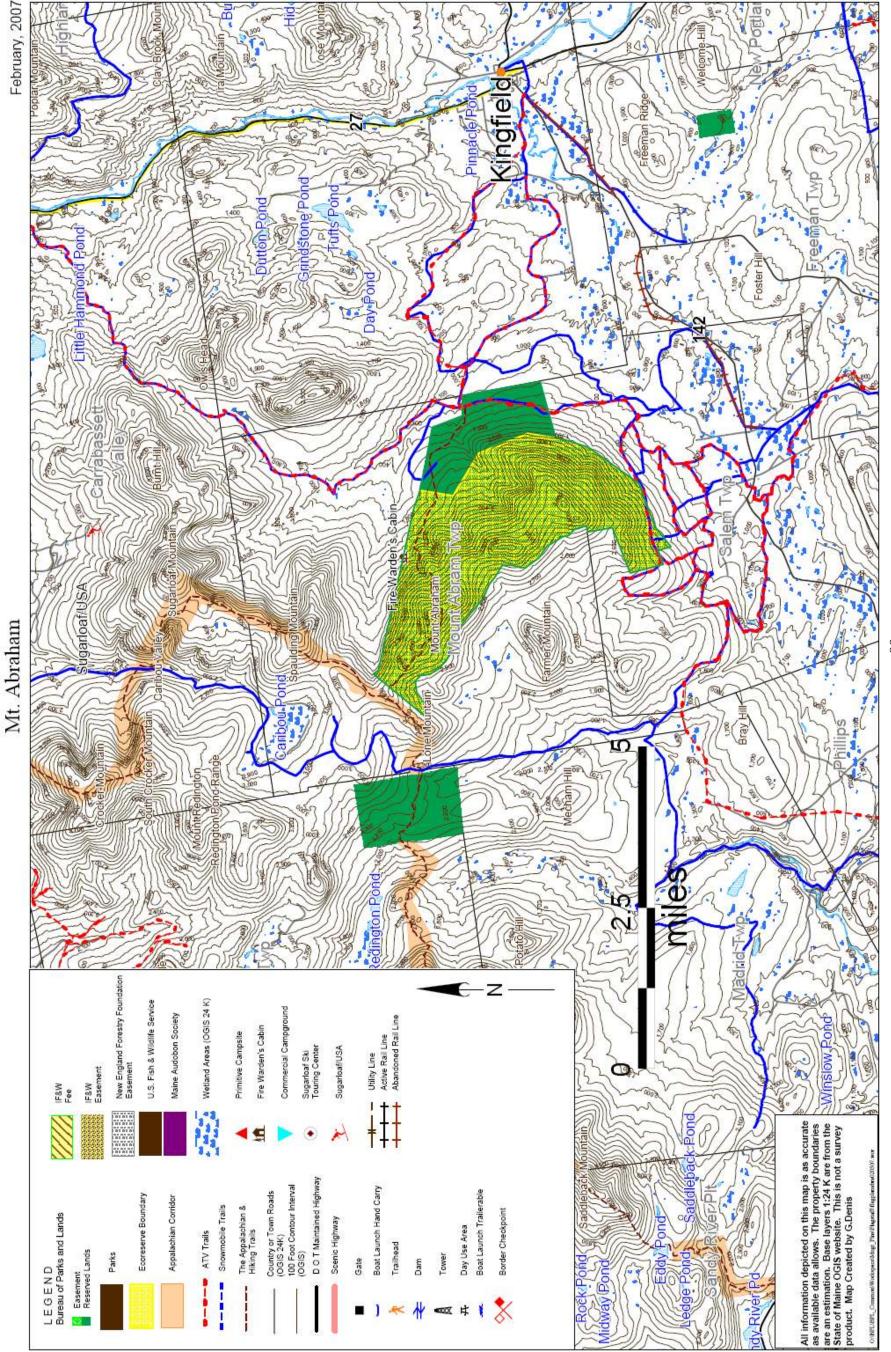
The area outside Ecological Reserve status is a 1,028-acre parcel purchased from Plum Creek. It lies on the east edge of the overall tract, and is the area lowest in elevation. This forest is not appropriate for Ecological Reserve designation due to several hundred acres of softwood plantations (mostly red pine and white spruce, with a bit of black spruce), and hundreds more acres of recent and heavy partial cuts within the past 20 years. The remainder of this parcel is mostly low quality and understocked hardwood over dense hardwood regeneration. Naturally occurring softwoods (mostly spruce) are found mainly in small areas not recently harvested. This parcel will be managed in similar fashion to Bureau forest land elsewhere, with the plantations being replaced by natural regeneration as the trees mature and are harvested.

Other than one road built into the Reserve from the east, the area has no issues in regards to old roads for timber management purposes.

Administrative Concerns

<u>Public Use and Management Roads, Gates and Road Control</u>: The access road into the property is from the West Kingfield Road, its primary purpose being a timber management road under the previous landowner. Efforts will need to be made to determine the drive-to end point of this road. The road currently does not meet Bureau standards for public vehicular use.

<u>Fire Control</u>: The Bureau is working with the Maine Forest Service to develop a fire control plan for this area.



Management Issues and Concerns

Natural Resource Management Issues

- Fragile alpine areas can be trampled by hikers who stray off trail.
- Snowmobile and ATV use has been noted in the subalpine forest and even into the alpine zone. Vegetation (including rare plants) in these areas grows slowly and is slow to recover from damage; this area is within the Ecological Reserve.
- Roads on the property have some rutting and erosion. A decision must be made on how and where to block any roads now within the Ecological Reserve (unless they serve as part of an ATV or snowmobile trail system that cannot be reasonably relocated), and how much effort needs to be made to put these roads to bed.

Wildlife Management Issues

• Recreational uses of the mountain need to be monitored to minimize impacts to high elevation bird habitat.

Recreation/Visual Management Issues

- The original Mt. Abraham trailhead has been used little since a timber management road improved by the previous landowner has provided hikers with an ad hoc parking and trailhead area 1 ½-2 miles closer to the summit.
- The future of the current road into the property needs to be determined. In particular, will any of it be maintained for public vehicular access, or will it become a management road that is also a hiking trail?
- The old camp Fire Wardens camp is unsafe, but is still utilized. It's future needs to be determined.
- The remains of the old fire tower on the summit may be a safety hazard and needs to be removed. It also may concentrate use in this area, which includes a rare patch of Bigelow sedge.
- Snowmobiles and ATV's are able to access the summit from the west side of the mountain on the recent Mead-Westvaco acquisition, which is causing damage to the fragile alpine vegetation.
- The Bureau does not have a formal trail maintenance agreement with the Bates Outing Club.
- The hiking trail is poorly located; relocation needs to be explored.
- Determine what public uses will be allowed in the existing gravel roads within the non-ecoreserve portion of the property.

Timber Management Issues

• Management of the plantations needs to be planned, though there is little to do silviculturally over the next 15 years.

Administrative Management Issues

• Determine the end point of the current gravel management road.

Chain of Ponds



Character of the Land Base

This highly scenic 1,041-acre parcel in Chain of Ponds Township consists mostly of the eastern and northern shoreline of a chain of ponds including from northwest to southeast, Round, Natanis, Long, Bag, and Lower Ponds. The basins form numerous coves and small wetlands, which then empty into the North Branch of the Dead River south of the public reserved lands. A description of Chain of Ponds in the Portland Press Herald by an outdoors writer captures the beauty of this area: "There are few places in Maine with as rugged a landscape... Mountain summits and ridges surround the narrow ribbon of water and create a fjord-like setting. On the western edge of the ponds, gray blocks of granite plunge down into the clear waters. Fragrant cedars line many portions of the ponds." (Michael Perry, September 2, 2001).

Route 27, a designated scenic byway, runs along the eastern side of the Ponds. The road is an arterial route used by logging trucks, and to increase safety, DOT recently realigned and rebuilt the road. The rebuild included a scenic overlook that provides good views of the ponds and will be installing interpretive panels about the Arnold Trail.

At the North end of Natanis Pond the Bureau leases land to a commercial campground that predates the Bureau's acquisition of the property.

Inland Fisheries and Wildlife owns and maintains a dam at Lower Pond at the outlet which functions to maintain the trout and salmon fishery habitat within the chain. The dam was reconstructed in 1991. The ponds are known for their good fishing.

Upland portions of the property include a field and forest complex known as Upper Farm, located mostly east of Route 27. Management of the fields has been directed towards maintaining its openness and value for wildlife habitat.

The upland area north of Natanis and Round Ponds is a mix of forest, wetland, and forested wetland, and is prone to flooding from nearby beaver activity.

Natural Resources

Geology and Soils: Chain of Ponds is underlain by acidic granite, most of which was deposited during the Devonian period, 354 to 417 million years ago. These igneous intrusions formed during one of the three major mountain building events in New England. As plates collided, magma welled up and cooled slowly beneath the earth's surface. After millennia of erosion, the rock that was once buried beneath hundreds of feet of bedrock is now at the earth's surface.

A small portion of the property at its southern end is underlain by the oldest bedrock in Maine-gneiss originating 1.6 billion years ago prior to the emergence of life from the sea (David Kendall, 1987, "Glaciers and Granite, A Guide to Maine's Landscape and Geology).

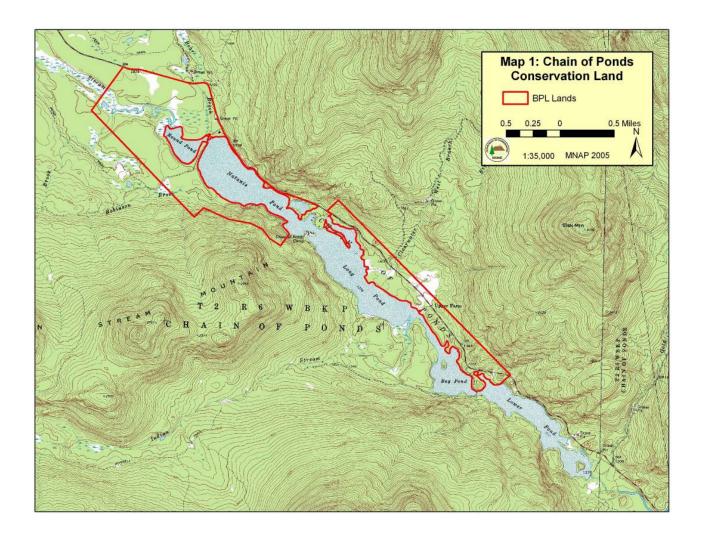
The north end of Chain of Ponds is underlain by glacial outwash deposits (such as glacial deltas). Along the east side of the ponds some esker deposits are found. In other areas – including most of the property – till is the dominant glacial deposit. The soils on Chain of Ponds have not been mapped.

<u>Hydrology and Water Quality</u>: The five ponds cover 700 acres and drain 64.5 square miles. The maximum depth is 106 feet, while the average depth is 24 feet.

<u>Wetlands</u>: The Chain of Ponds property has 132 acres of wetlands, only 20 of which are forested. Much of the wetlands consist of shrub-lined tributaries to the ponds. The property also has 180 acres of wading bird habitat, most of which is concentrated around Round Pond and its tributaries.

<u>Natural Communities</u>: There are no exemplary natural communities documented on the Chain of Ponds property, though the area does contain a diverse collection of wetlands and uplands in good condition.

The western edge of Natanis Pond is characterized by steep slopes with several rocky outcrops covered with rock polypody (*Polypodium* sp.). A Spruce-Northern Hardwoods forest dominates these steep slopes down to the pond edge. The understory is open with hobblebush (*Viburnum lantanoides*), spinulose wood fern (*Dryopteris carthusiana*), and other common forest herbs including painted trillium (*Trillium undulatum*), common wood-sorrel (*Oxalis montana*), bunchberry (*Cornus canadensis*), and bluebead lily (*Clintonia borealis*). Canopy species include white cedar (*Thuja occidentalis*), red spruce (*Picea rubens*), yellow birch (*Betula alleghaniensis*), red maple (*Acer rubrum*), and hemlock (*Tsuga canadensis*), with spruce as the most abundant tree. Tree ages include a 133 year old cedar, a 77 year old spruce, and a 130 year old yellow birch.



A small Mixed Graminoid – Shrub Marsh is found along the northwestern edge of the property. This is characterized by several graminoid species (including species of *Scirpus*, *Carex*, *Eleocharis*, *Glyceria*, and *Calamagrostis canadensis*). Black bulrush (*Scirpus atrovirens*) and inflated sedge (*Carex vesicaria*) are dominant. Old beaver dams are evident here (the marsh appears to be an abandoned impoundment), but no recent activity was noted. Species diversity is very high in this area.

The northern end of Round Pond is characterized by a Sweet Gale-Mixed Shrub Fen. This small open fen is dominated by sweet gale (*Myrica gale*) and speckled alder (*Alnus incana*). Meadowsweet (*Spiraea alba*) and star sedge (*Carex echinata*) are frequently encountered. Slender sedge (*Carex lasiocarpa*) and marsh-potentilla (*Comarum palustre*) are scattered throughout the community.

A Spruce-Larch Wooded Bog is found on the eastern edge of the fen at the northern edge of the pond. This is characterized by black spruce (*Picea mariana*) up to 30' and an understory of sheep laurel (*Kalmia angustifolia*), leatherleaf (*Chamaedaphne calyculata*), three-seeded sedge (*Carex trisperma*), and Labrador tea (*Rhododendron groenlandicum*) with hummocks of sphagnum.

<u>Fisheries and Wildlife Resources</u>: The five interconnected ponds contained and the narrow valley surrounding them are the primary natural features. The ponds all have suitable coldwater game fish habitat with Natanis Pond having the deepest water. The Maine Department of Inland Fisheries and Wildlife has stocked lake trout in the ponds to supplement a slow growing salmon population. Brook trout and salmon populations maintain themselves by natural spawning in tributaries to the ponds.

There have been reports of low numbers of deer wintering along Horseshoe Stream and north of Round Pond but this activity has not been verified by ground surveys.

The fields associated with an abandoned farm (Upper Farm) adjacent to the east side of Route 27 have been mowed to maintain the open habitat, in what is otherwise a heavily forested area. Scattered apple trees are found along the old foundation and at the edges of the field. The alders along Upper Farm Brook south of the field have been managed for woodcock by clearing five 30-foot wide strips perpendicular to the brook to rejuvenate the decadent alder. The uplands away from the ponds and Route 27 are forested, but steep and narrow in most places.

Both active and abandoned beaver impoundments have been observed on the property, many of which have been created and abandoned over time, resulting in the mosaic of habitats along the stream course.

Historic and Cultural Resources

Arnold Trail Historic District: The Chain of Ponds were part of the route for the 1775 Arnold Expedition, which headed northward following a portage trail around Horseshoe Stream to Arnold Pond, and on to Canada. Although many of the Expedition's provisions and possessions had been discarded or lost prior to reaching the Chain of Ponds, it is possible that Bureau lands in the vicinity of Natanis and Round Ponds, and Horseshoe Stream may contain some artifacts. (See also the Overview in Section IV for additional details).

Recreation and Visual Resources

<u>Facilities and Opportunities</u>: Recreational use of this area consists of camping at the Bureau's primitive campsites on Long Pond and Bag Pond, and at the commercial campground (under a lease from the Bureau) on Natanis Pond, canoeing and kayaking, and fishing. All campsites are presently accessible by vehicle. A network of ATV trails now extends from Stratton to the commercial campground. Ice fishing is a popular winter activity with parking available north of the Natanis Campground entrance along Route 27.

Boat access to the ponds presently consists of an informal boat access from a beach at the north end of Natanis Pond, which is part of the commercial lease and requires payment of a small fee; two hand carry launch sites at the Bureau's campsite locations on Long Pond, and from a gravel road that runs down across an old (now submerged) road crossing between Bag and Lower Pond. There is also a steep gravel ramp off of Route 27 on Lower Pond. Reconstruction of Route 27 eliminated an existing formally-designated boat access site to Natanis Pond on Route 27, and has removed a stretch of road that ran close to the shores of Natanis Pond and provided informal access sites which were used in the winter to gain access to the lake for ice fishing. Because these access points were eliminated, and because access to this chain of ponds from lower ponds can be difficult when water levels are low, the Bureau's Boating Facilities Division has been

working with the Public Lands Regional staff and MDOT to provide improved boat access. MDOT will upgrade the existing steep gravel launch on Lower Pond to an improved trailerable boat access facility. Boat access to Natanis Pond will also be improved in conjunction with other improvements to the commercial campground lease site, including a reconstructed bridge over the narrows between Round Pond and Natanis Pond, and a designated boat access parking area funded by MDOT. Carry-in access to the two middle ponds within the chain will be formalized and signage provided to identify their locations.

Primitive camping is available at several locations on the ponds. Two campsites with toilet facilities are found off the old road that connects Bag and Lower Ponds, near the informal boat launch site. There are three other sites within the Upper Farm area, where toilet facilities are also available. These sites, however, are in need of upgrading.



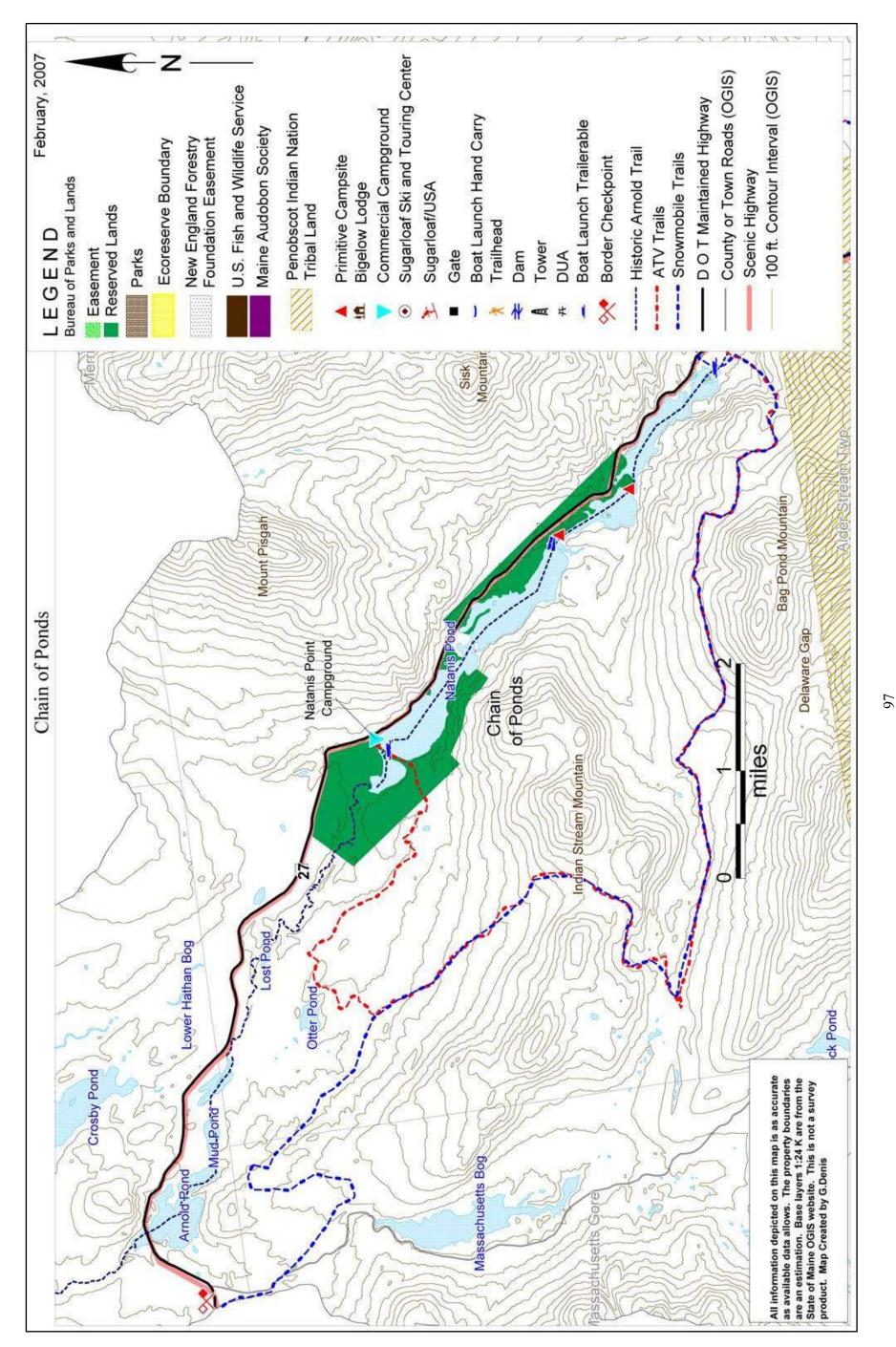
There has been discussion over the years of a motorized, international multi-use trail from

Stratton to the U.S./Canadian customs gate in Coburn Gore. More recent efforts have been in combination with other efforts to establish an ATV trail system on private lands, that would include Natanis Point Wilderness Campground. A number of visitors come to the campground to take advantage of these ATV trail opportunities. At present, the international trail system has been designated, but is only authorized for snowmobile use at this time – mostly because landowner permission for use of ATV's on the Canadian side has not been secured. A spur from the ATV trail to the campground is maintained specifically for ATV's, and provides access from the campground to Stratton.

Through a cooperative agreement with the Arnold Expedition Historical Society, a footpath skirting Round Pond has been established on Bureau lands which retraces the route of the 1775 Arnold Expedition. The Arnold Expedition Historical Society is proposing to work with private landowners to extend the present footpath beyond Bureau lands, following the historic route as closely as possible to Arnold Pond. This trail will be named the "Height of Land Portage Trail."

<u>Visual Considerations</u>: Most of the land surrounding the ponds is steep and hilly with considerable slopes visible from the water. This does not impose special concerns relative to timber management, as most of the terrain is inoperable. RV's and other camping setups along the shoreline of Natanis Pond are easily seen from Route 27 and from the Pond, although the campground lessee has worked to make this less visible in recent years.





Timber Resources

The terrain throughout the property is mostly steep, with timber management greatly constrained both by slope and proximity to water, public highway, and recreational use. Only about 240 acres, less than 25% of the forest area, is considered manageable (regulated, in forestry terms) and is located in two separate areas. The first is a strip in the Upper Farm area east of Route 27, with some located behind the fields, and another accessed by a gravel road that runs through the property. This parcel contains mainly well-stocked northern hardwoods, uncut for the past 30+ years, but with an extensive harvest history before that. The second area lies behind and west of Natanis Point Wilderness Campground, on either side of Horseshoe Stream and associated wetlands. This land is not quite as steep as the first parcel and is mainly mixedwood, northern hardwood/spruce-fir, with a similar cutting history. Any timber management would be geared towards wildlife and retaining the existing forest types in most cases.

Administrative Concerns

<u>Leases and Agreements</u>: Natanis Point Wilderness Campground has a 7-acre commercial lease with the Bureau, which includes approximately 1,500' of frontage along the northwestern shoreline of Natanis Pond. The current lease is a continuation of an agreement begun with the Brown Company prior to state ownership in 1978.

There are five residential camplot leases on the property, all of which were in place prior to acquisition of the property in 1978. A one-acre lease is located south of the Upper Farm area along the east side of Route 27, and has road access; three other one-acre leases are located along the eastern shoreline between Long and Bag ponds, and have road access; a fifth lease includes a one half-acre lot on Long Pond, and is water accessible only. These leases have been established on a five-year renewable basis, are for residential and seasonal use only, and contain conditions that limit improvements to both structures and lots.

<u>Public Use and Management Roads, Gates, and Road Controls</u>: The campground area contains the only public access road into the northern end of the property, although visitors are required to

check-in prior to its use. The bridge over the outlet between Round and Natanis Pond was reconstructed in the 1990's, and replaced in 2005 with assistance from the Department of Transportation. The bridge replacement is part of a two-phase project that will include replacing the old boat launching facility on Route 27 with a new one within the campground.

Fire Control: Plan in progress.



Management Issues and Concerns

Natural Resource Management Issues

- Potential impacts to the lake environment due to the campground's proximity to the shoreline should be monitored.
- Invasive aquatic species are a concern from use of the boat launches.

Wildlife Management Issues

- The old fields and apple trees are in need of periodic management to maintain their habitat attributes.
- The Horseshoe Stream area holds good potential as a deer wintering area, and will require further monitoring and evaluation regarding its future suitability.

<u>Historic-Cultural Management Issues</u>

- Any management in the northern end of the property should take into consideration the historic significance of the Arnold Trail.
- Explore opportunities to provide interpretive resources for this portion of the Arnold Trail. A cooperative agreement with the campground may an option for distributing information and housing interpretive displays describing the exploits of the Expedition in this area and northward to Quebec.

Recreation/visual Management Issues

- Providing adequate boat launching continues to be an area of concern.
- Areas authorized for camping require further redesign and construction.
- Additional primitive campsites may be appropriate on Long and Bag Ponds.
- The Bureau should work with the commercial campground lessee to ensure the campground is in character with the scenic and primitive nature of the surroundings and provides adequate access for day-users and short-term camping parties.

Timber Management Issues

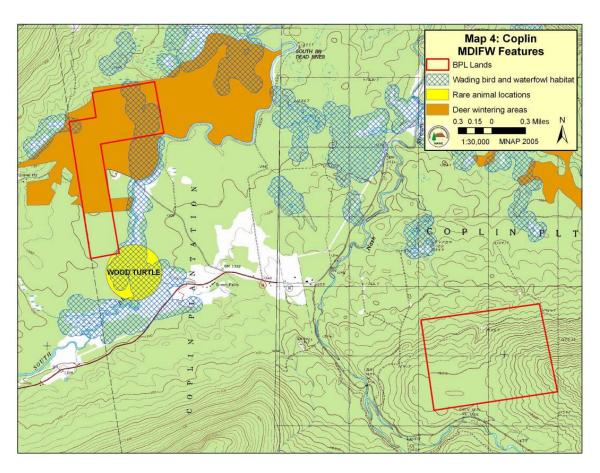
 Due to terrain limitations, visual considerations, wildlife habitat values, the modest acreage of this property, any harvests should be secondary to recreation and wildlife habitat management.

Other Public Lots

The numerous small holdings in the Flagstaff region are presently managed primarily for timber management with secondary uses of wildlife management and dispersed recreation. Lands included in this category are: Coplin Plantation Central, Coplin Plantation West (DWA), Freeman, Highland Plantation Double, Highland Plantation Southeast, Highland Plantation West, King and Bartlett, and Redington. Most of these lands are original public lots, and they range in size from 52 acres (King and Bartlett) to 1,020 acres (Redington). There are no known exemplary natural communities, rare plants, or rare animals on these lands.

Coplin Plantation

The two Coplin Plantation public lots include the 400-acre West or Deeryard lot, which abuts the plantation boundary to the west, just west of the south branch of the Dead River. The lot provides excellent deer wintering habitat and is managed for this use in cooperation with the Department of Inland Fisheries and Wildlife. A second parcel, the 500-acre Center lot, is primarily managed for timber, and is entirely surrounded by industrial forestland.



Coplin Plantation West Lot (Deeryard Lot):

Natural Resources

<u>Geology and Soils</u>: The area is underlain by mafic (igneous, chiefly iron-magnesium) and intermediate granite bedrock; the surficial geology includes till and ice contact glaciofluvial deposits. Soils are very stony, well to poorly drained, and formed in dense till.

<u>Wetlands</u>: The parcel is rich in wetlands, including 140 acres of forested wetlands and 29 acres of non-forested wetlands. IFW has used the parcel as a study site to research the influence of timber harvests on deer habitat preferences.

<u>Fisheries and Wildlife</u>: Nearly the entire lot is zoned as a Deer Wintering Area (DWA), which is part of the larger yard along the Dead River. Extensive measurements of deer cover and use took place here during the earlier harvest and for a number of years afterward, documenting a very high number of deer per square mile wintering in the yard. The DWA was the focus of a long-term study of the relationship of softwood cover to deer movement and use by IFW from 1984 to 1991. Results so far have been inconclusive because the data could not be analyzed statistically.

Past harvesting has focused on managing the softwood component for wintering deer. A harvest conducted in 2005 and 2006 released patches of advanced softwood regeneration from large overstory hardwoods to promote this development.

Several small wetlands occur on the lot; one has been in use by a nesting pair of Canada geese for about 10 years. Woodpeckers are abundant due to the copious supply of dead and dying balsam fir and the abundance of over mature aspen. Beaver occasionally dam the streams until their preferred food is gone. A small dense white cedar stand is also found on the north line of the lot

Timber Resources: Most of the non-forest and unregulated forest is poorly drained bog land. Except for its lack of significant pine, the forest here resembles that on Dead River Peninsula. Forest types are 50% softwood, 35% mixedwood, and 15% hardwood. Leading softwood species are spruce, fir, and cedar. The southern part of the parcel was harvested in 1985 in response to a spruce budworm outbreak. This area currently has an overstory of poplar with a softwood understory. The northern part of the parcel is characterized as forested wetland and lowland areas punctuated by forested knolls. The 1986-1988 harvest targeted fir and some mature spruce, as well as aspen and red maple - the major hardwood species found on this lot. In early 2005 a few hundred cords of mostly (90%) aspen were harvested to help release the softwood understory. Management of this lot has been pointed toward maintaining and enhancing its winter value for deer.

Coplin Plantation Center Lot:

Natural Resources

<u>Geology and Soils</u>: The portion of this parcel north of the road is underlain by mafic (see above) and intermediate granite, while south of the road is underlain by acidic sediments. The entire parcel is also underlain by glacial till. Very stony, deep soils that formed in glacial till characterize the parcel.

<u>Wetlands</u>: A small wetland is located in the north-central portion of the parcel, on the south side of the logging road. This wooded swamp is characterized by northern white cedar and three-seeded sedge with red baneberry occasional along the edge.

<u>Wildlife Resources</u>: Moose, deer, bear, coyote and red fox are common on the lot. Several small streams bisect the lot, but it is not known if these streams support viable fish populations

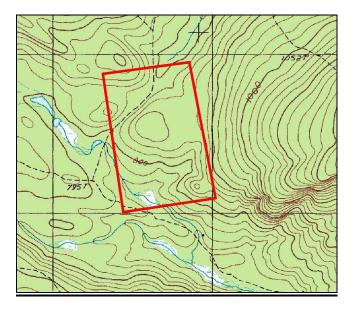
Natural Communities: This lot is composed mostly of hardwood species with some older trees despite a history of multiple harvests. The lot has often been described as an "island" as it is surrounded entirely by commercial forestland. Towards the eastern and central parts of the parcel, the woods are relatively mature. A Beech-Birch-Maple Forest is found throughout the northeastern quadrant of the parcel. Two different age classes are evident here suggesting a selective harvest at least 75 years ago (based on tree size and age). Several mature trees are present including a 36 inch diameter sugar maple and a 29 inch diameter yellow birch. Several other birch, maples, and basswoods were aged to over 130 years. During the prescription process, a late successional index of 6 was applied to the hardwood area which indicates a presence of old growth trees within the stand (old growth component) but overall not a single stand of old growth. Several beech trees are infected with *Nectria*. The understory is abundant with sugar maple and beech regeneration as well as hobblebush and oak fern, as well as a number of other species of ferns. Several small, seepy drainages flow through the forest. Species diversity is high throughout the area.

<u>Timber Resources</u>: This lot has been managed mostly for timber, with good soils and mostly well-stocked stands similar to those found at Bigelow. Timber types are 15% softwood, 25% mixedwood, 60% hardwood. The mixedwood type is an exception to the "well stocked". The spruce/fir/aspen stand had narrow stripcuts made as part of the 1984-85 harvest, which also treated (selection harvest) about 1/3 the hardwood acres while thinning much of the softwood type. The mixedwood area suffered significant windthrow post-harvest, especially on the south lot line adjacent to a large clearcut made by the abutter. This stand also had rather poor drainage, as does some of the softwood. The hardwood stands are mostly on well-drained fertile ground.

This lot offers the opportunity, especially in its hardwood stands, to manage late successional forest for high quality timber. It has recently been re-prescribed, and was harvested in 2005 and 2006.

Freeman Township

The 122-acre Freeman lot came to the State for nonpayment of taxes, and lies in the northeast part of Freeman Township, on the east side of Freeman Hill adjacent to a town maintained road.



Natural Resources

<u>Geology and Soils</u>: The parcel is underlain by acidic sedimentary bedrock and glacial till. Soils tend to be very deep and well drained with some wet runs. The terrain is gently to moderately sloping.

<u>Natural Communities/Wetlands</u>: The west side of the parcel hosts a two acre Red Maple Sensitive Fern Swamp. This forested wetland is dominated by red maple with paper birch, balsam fir, green ash, and cedar also present. The shrub layer is sparse, and the abundant herbaceous layer includes common woodland plants. Basal area in this location is 120 ft²/acre.

A wetland in the southwest corner of the property graded from a small area of cedar swamp to an Alder Shrub Thicket and includes four acres of open wetlands. One cedar cored had a diameter of 14 inches and was 125 years old. There was evidence of beaver in the area.

<u>Fisheries and Wildlife</u>: This lot contains a beaver flowage at the southwest corner, and good quality pole sized oak component important for mast (nut) production.

<u>Timber Resources</u>: The land is nearly all forest, consisting mostly of well-stocked second growth hardwood, typical of the surrounding area. Portions of this lot were heavily harvested 25-30 years ago (prior to BPL's ownership). Old cellar holes and the even-aged character of the timber indicate grown up pasture or farmland on other portions of the lot. The key species appear to be spruce, oak and sugar maple, with white pine occasionally important. Most acres would benefit from an improvement harvest.

The ridge in the center of the property appears to be regenerating. Basal area averages $60 \, \mathrm{ft^2/acre}$. Aspen and balsam fir dominate. Red spruce, paper birch, and northern white cedar are also present in the canopy. Most trees are pole-sized, though there are occasional larger spruce. One small area of blowdown was observed near the top of the ridge.

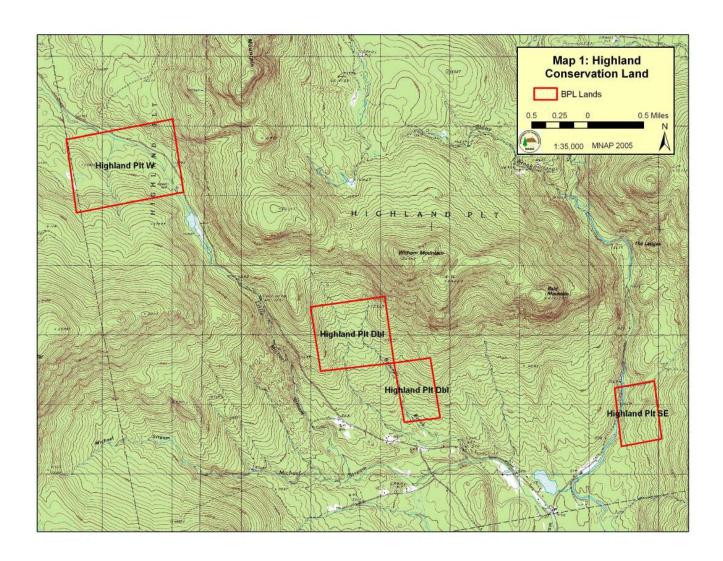
A harvest prescription was completed in 2006, and harvesting began in the fall and is expected to be completed during the winter of 2007.



The Alder Shrub Thicket at Freeman.

Highland Plantation

Four of the five Highland Plantation lots are included in this Plan. A fifth lot to the east will be considered in a separate regional plan that addresses properties within the Kennebec valley area. Though none of the four lots lie on this township's mountainous northern end, all have considerable steep ground. Soils are generally well to moderately well drained, and fertile except on the steepest land. The forest is well stocked with quality stems, with volumes and competition similar to those found on Bigelow Preserve. The lots are described in three sections: (1) the two-parcel Double lot (300 acres) which connect at their north/south corners, lies in the southwest part of the plantation; (2) the Southeast or Oak lot (125 acres) which is smallest of the parcels, and is located on the southeastern portion of the plantation; Sandy Stream separates all but 10 acres in the northwest corner from easy access, though the larger portion is accessible from the uphill side; and (3) the West or Long Falls Dam lot (325 acres), named because of the one mile of county road located on the property. The West lot is the most diverse of the lots discussed in this section.



Highland Plantation Double Lot:

Natural Resources

<u>Geology and soils</u>: The parcel is underlain by acidic granite bedrock and till and glacio-marine surficial deposits. Soils on the parcel tend to be well to somewhat excessively drained.

<u>Fisheries and Wildlife</u>: This 362 acre primarily hardwood forest lot has the usual mix of wildlife species found in this area of Maine.

<u>Timber Resources</u>: Both lots are occupied mainly by good quality northern hardwood stands, and all but a few steep and rocky acres at the north end of the larger lot are managed (regulated) forest. Hardwood type covers 88% of the lot, with mixedwood at 5%, and softwood at 7%. Over half of the total acres on this lot have sugar maple as the lead species with beech being next. Some hardwood stands are beech dominant. The one mixedwood area has large hemlock along with spruce and hardwoods within a riparian buffer. Half the softwood acres are hemlock dominated within a riparian buffer; the other is mostly spruce on relatively steep but operable land. These lots were selection harvested in 1987-90. A trespass cut of several acres occurred at on the larger of the two lots in 2003.

Highland Plantation Southeast Lot:

Geology and Soils: The area is underlain by acidic granite and glacial till, and soils on the parcel formed in loamy glacial till and tend to be well to somewhat excessively drained. The soil is acidic (pH of 3.5) and rocky, with occasional small granitic cliffs along the terraces. There are several ravines and seeps on the lower slopes. If the area is harvested in the future, these will need to be flagged and adequately buffered.

<u>Fisheries and Wildlife</u>: This 121 acre primarily hardwood forest lot has the usual mix of wildlife species found in this area of Maine. Sandy Stream in the Southeast lot supports a limited brook trout fishery.

<u>Natural Communities</u>: Sandy Stream runs through the eastern half of the property, and a series of hardwood and hemlock dominated small terraces lead down to the water. A small (three to four acre) Hardwood River Terrace Forest occurs on the east side of Sandy Stream. This area was cut 30+ years ago and is characterized by pole-sized red oak (40%), and a remainder of sugar maple (20%), hemlock (20%) with scattered cedar, beech, red maple, and white ash. Further up the slope, the tree layer is dominated by hemlock with beech, yellow birch, and red oak also present. Basal area is 170 ft²/acre. The shrub layer is sparse, consisting of small amounts of striped maple and hobblebush. The herb layer is patchy, dense in some places and sparse in others.

<u>Timber Resources</u>: This tract holds high volumes of late successional species, and has unofficially been excluded from harvest consideration, in part as a small but intact LS example. Except for some possible cuts 30+ years ago (before the bridge went out) right next to the old road along the south line, this lot appears uncut for at least 50 years, though it had some significant cutting at some time before that. Forest types are roughly 60% mixedwood, 35% hardwood, with the small component of softwood being hemlock within a steep ravine. The key

species are sugar maple, hemlock, and beech, though the beech component has been halved over the past 20 years, probably due to the beech bark syndrome. There are also 3-4 acres in the southeast corner where 15-25 inch diameter red oak is the primary species. Oak is otherwise scattered throughout much of the lot.

Highland Plantation Highland Plantation West Lot:

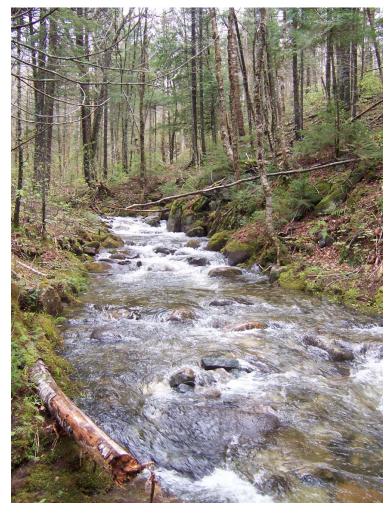
<u>Geology and Soils</u>: Bedrock types on this 408 acre lot include acidic sedimentary rock, moderately calcareous sedimentary rock, and mafic and intermediate granite. Glacial till is the

dominant surficial deposit.

Fisheries and Wildlife: This forest lot has the usual mix of wildlife species found in this area of Maine. Several apple trees were released and pruned on this lot, which is transected by the Long Falls Dam Road, at the time of the most recent harvest by the Bureau.

<u>Timber Resources</u>: Due to previous harvesting activities, this lot is dominated by regenerating spruce. The parcel contains seven acres of nonforested wetlands and seven acres of forested wetlands. It appears to have an even mix of hardwood, softwood, and mixedwood types with hardwood concentrated on the drier slopes and softwood found in ravines and wetter areas.

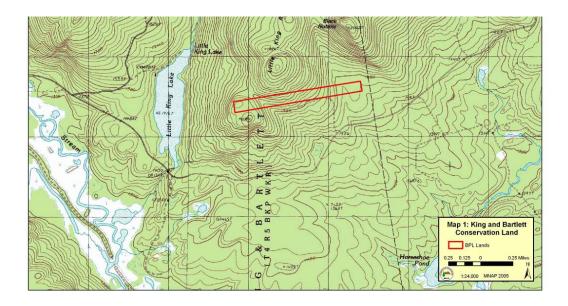
Twenty-two acres on the parcel are unregulated due to steepness and the presence of a 7-acre semi-open swamp. Forest types are roughly 34% softwood, 25% mixedwood, and 41% hardwood. Sugar maple is by far the most



important hardwood species, followed by beech and yellow birch. In the softwoods, the fir and spruce components had been about equal prior to harvesting from 1988 to 1991, which took considerably more of the fir. However, spruce still holds a strong second position and is relatively healthy, with most of the older high-risk trees removed. The lot is considered to be mostly late successional forest of high quality.

King and Bartlett Township

The 143-acre King and Bartlett parcel is the remainder of an original public lot and is the smallest parcel within the Flagstaff region. It lies several miles behind a tight gate and is surrounded by a large area of industrial forest ownership. The location of the lot was recently confirmed.



Natural Resources

<u>Geology and Soils</u>: The parcel is underlain by acidic sedimentary bedrock and glacial till. Soils on the parcel formed in dense till and tend to be shallow and excessively drained. Colonel-Dixfield-Lyman is the dominant soil type.

Natural Communities: Though older stumps were noted at the site, portions of the lot have an old growth component with some trees more than 100 years old and possibly as much as 200 years old. The lot includes Beech – Birch – Maple Forest and Spruce – Northern Hardwood Forest natural communities.

<u>Wildlife Resources</u>: Evidence of deer, moose, and coyote has been observed throughout the lot. Snowshoe hare have been seen in areas with heavy softwood cover. The mature forest structure found on the lot, including snags and coarse woody debris, likely provides denning and nesting sites for a variety of wildlife.

<u>Timber Resources</u>: This lot is well-stocked with high quality timber on a productive site. During the prescription process in 2006 the lot was evaluated by MNAP and was determined to have an old growth component. The lot was harvested in 2006.

Redington Township

The 1,000-acre Redington parcel is an original public lot located on the southeast corner of the

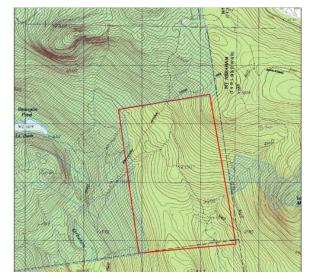
township, two miles west of Mt. Abraham.

Natural Resources

<u>Geology and Soils</u>: The parcel is underlain by acidic granite and glacial till. Soils are very stony and somewhat poorly to somewhat excessively well drained.

<u>Timber Resources</u>: The parcel is dominated by mixedwood stands with hardwoods on the lower southwesterly slopes and softwood in the northeast and central portions of the parcel.

In 2001, timber harvests were conducted during winter months north and south of the AT, with some large fir found in the higher elevations.



Much of this parcel is strongly sloping, although most of it is operable timberland. The lot's unregulated forest is either related to the 200 foot wide AT crossing just south of the lot's midpoint, or the 46 acres (P-MA) between the 2,700 (P-MA), and 3,000 foot elevations. The lowest point on the lot, at the south line, is about 2,000 feet in elevation. This relatively high elevation has a major effect on the species and character of the timber. Trees tend to be short-bodied throughout most of the lot, their "carrot (or lollypop on birch) character" becoming more pronounced as elevation is gained, especially on fir. The high elevation birch often has one nice straight log, topped by a spray of branches unmerchantible even for pulp. The lot's species diversity is relatively low. Two northern hardwood stands on the south (and lower elevation) half of the lot cover 241 acres and are the only acres with enough sugar maple (about 55% of the volume) to be worth noting. The other hardwood stand is 32 acres of white birch and red maple saplings and poles resulting from a 1960's clearcut. None of these stands were entered during the 1998-2001 harvests.

The lot holds only 117 acres of softwoods, nearly half being another sapling-pole stand (spruce-fir about 50-50) from a 1960s clearcut. Most of the other 60 acres, including much of the P-MA, had fir and some spruce cut by the Bureau. The softwoods probably still hold more fir than spruce despite fir being targeted during the recent harvest, with much smaller amounts of white and yellow birch present. Over 60% of the lot holds mixedwood forest, and this type is about 25% each fir, yellow birch and spruce, 18% white birch, and the rest red maple. Nearly 2/3 of this type had harvesting in the recent operation, with fir the major species removed – it was 1/3 of the stand pre-cut. The untreated mixedwood type was land, which had been cut more heavily in the 1960s. Fir, spruce, and the birches within the softwood/mixedwood types are the species best suited for the soils and elevation, with spruce and yellow birch being the more valuable and longer lived species.

Recreational Resources

Approximately 6,000 feet of the Appalachian Trail runs east/west through the center of the parcel.

Pierce Pond Easement

In the late 1990's, conservation easements were acquired on three properties totaling 9,812 acres comprising much of the land within the Pierce Pond watershed including the shorelands of Pierce Pond and numerous smaller ponds. At the time that the easements were acquired, the lands were owned by S.D.Warren Company (now owned by Plum Creek), Maine Wilderness Watershed Trust, and Charles Valentine. Funding for the purchase of the easements was provided through the U.S. Forest Service Forest Legacy Program. The conservation easements prohibit future development while allowing for continued forest management and providing foot access to the public for traditional recreational uses including hunting and fishing. Public vehicular access to Pierce Pond is via a woods road from the Long Falls Dam Road to Lindsay Cove (road use fee charged). Within the easement area access is primarily by small boat and foot. The Appalachian Trail crosses a portion of the property.

The Bureau is responsible for monitoring and enforcing the Pierce Pond conservation easements. The Maine Wilderness Watershed Trust, a local land trust, owns lands and holds additional easements in the area. The Trust provides seasonal recreation management on some of the Pierce Pond lands.



V. Vision and Management Policies for the Flagstaff Region

General Principles

The Flagstaff Region Management Plan is a commitment that the Public Reserved Lands within the Region will be managed in accordance with prescribed mandates including the Act for the Bigelow Preserve, the Bureau's mission and goals, the policies as set forth in the Bureau's Integrated Resources Policy (IRP) management guidance document, and the Vision set forth in this Plan.

Multiple Use Management Policies

- 1. Management of the Flagstaff Region Public Reserved Lands will be based on the principle of multiple use to produce a sustained yield of products and services, and sound planning (Title 12, Section 1847); where "multiple use" means (Title 12, Section 1845):
 - a. The management of all of the various renewable surface resources of the public reserved lands including outdoor recreation, timber, watershed, fish and wildlife and other public purposes.
 - b. The harmonious and coordinated management of the various resources without impairing the productivity of the land and with consideration being given to the relative values of the various resources and not necessarily to the combination of uses that will give the greatest dollar return or the greatest unit output.
 - c. That some land will not be used for all of the resources.
 - d. Making the most judicious use of the land for some or all of these resources over areas large and diverse enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions.
- 2. Public Reserved Lands in the Region will provide a demonstration of exemplary land management practices, including silvicultural, wildlife, and recreation management practices (Title 12, Section 1847).

Recreational Uses - Statutory Guidance

- 3. Public Reserved Lands in the Region will provide a wide range of outdoor recreational and educational opportunities (IRP); including provision of remote, undeveloped areas (Title 12, Section 1847).
- 4. There shall be full and free public access to the Public Reserved Lands together with the right to reasonable use of those lands, except reasonable fees may be charged to defray the cost of constructing and maintaining recreation facilities. Restrictions on free and reasonable public access may be imposed where appropriate to ensure the optimum value of the lands as a public trust. (Title 12 Section 1846).

Ecological Reserves – Statutory Guidance

- 5. "Ecological reserves" within the Region are designated 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 (Title 12 Section 1801, subsection 4):
 - As a benchmark against which biological and environmental change may be measured;
 - To protect sufficient *habitat* for those species whose habitat needs are unlikely to be met on lands managed for other purposes; or
 - ° As a site for ongoing *scientific research*, long-term environmental monitoring and education.
- 6. Ecological Reserves are managed as directed by statute (Title 12 Section 1805) or deed and in accordance with sound science. Allowed uses are managed to be compatible with the purposes of the reserve, and include hiking, cross-country skiing, primitive camping, hunting, fishing, and trapping, and other uses determined to have minimal impact on ecological reserve values and purposes. Snowmobiling and ATV touring, to the extent allowed by deed or statute, occur on existing trails that are well designed and built, are safe, and have minimal adverse impact on the ecological values of the reserve, and cannot be reasonably located outside of the ecological reserves. No timber harvesting or salvage harvesting occurs within the ecological reserves.

Vision for the Flagstaff Region Public Reserved Lands

- 7. The Flagstaff Region Public Reserved Lands conserve and protect some of the State's most significant recreational, ecological, and economic resources. Through exemplary management, these lands are anchors in the sparsely populated Western Mountain Region for outdoor recreation, eco-tourism, and sustainable forestry yielding high value timber products.
- 8. The Bureau lands are signature landscapes that draw visitors to the Region in search of a remote recreation experience, to boat and fish on tranquil waters, enjoy extended river canoe trips amidst highly scenic mountains, hike on one of the most rugged stretches of the Appalachian Trail, camp on sandy beaches on Flagstaff Lake or the Chain of Ponds, snowmobile through a backcountry preserve, enjoy mountain biking, cross-country skiing and snowshoeing on backcountry trails, and hunt on lands that are rich in wildlife, and that invite a walk in the woods as its own reward. A regional network of ATV trails is enriched by opportunities for touring and camping in remote settings on designated Public Reserved Lands.
- 9. The unique high elevation ecological reserves provide protection for rare alpine and sub-alpine plant communities, and advance understanding of the value of special protected resources. Ecologists are actively engaged in scientific study of how these natural ecological communities adapt or respond to changes in the environment. Bureau management of adjacent lands provides unusual opportunities for comparing the responses of natural communities to well-managed communities with nearly identical biologic and geo-physical influences.

Vision and Management Policies for the Bigelow Preserve

Background: The Bigelow Preserve is the most prominent component of the Flagstaff Regional Plan due to its historic, current, and future significance to the region and to the state. Its management has been directed by previous Plans and policies, beginning with the mandates contained in the 1976 Bigelow Act.

The Vision for management of the Bigelow Preserve was first expressed in "An Act to Establish a Public Preserve in the Bigelow Mountain Area" enacted in June of 1976. The purpose clause of the Act sets forth specific guidance for future management of the Preserve. Prior to development of the first Management Plan, the Department of Conservation issued guidance on interpreting the Act for management purposes, and issued policies related to interpretation of "natural state" and its importance relative to recreation, forestry, and wildlife management, and the type of campsites to be provided. In 1989, the first comprehensive Management Plan for the Bigelow Preserve spoke at length about the "Management Philosophy" for the Preserve.

The following Vision for the Bigelow Preserve honors and builds upon these statutory mandates and the management visions expressed in prior management documents.

General Management Philosophy

1. The Bigelow Preserve will be managed for multiple uses including wildlife, visual quality, recreation, and timber production. However, the overriding management consideration in the Preserve will be to maintain its overall natural character and dispersed public use, consistent with the types of uses that existed in 1976 when the Bigelow Act was passed. These included hiking, camping, fishing, hunting, and snowmobiling.

Management for Natural Character and Visual Resources

- 2. The Bigelow Preserve will continue to be noted as an exceptionally scenic landscape as a result of careful management of recreation uses, attention to maintaining high quality visual landscapes, and forest management that enhances the quality, diversity and age structure of the forest, with an objective of producing a mix of trees in all stages of succession, including, large healthy late successional trees.
- 3. The Bigelow Range continues to be an area of national distinction due to the unusual high elevation natural communities that qualified it for designation as a National Natural Landmark in 1976. These and other notable ecological communities on the Preserve, designated for Special Protection, continue to provide high quality examples of undisturbed significant natural communities.
- 4. As stated in the 1989 Management Plan for the Bigelow Preserve, one of the primary reasons for the establishment of the Preserve was to maintain the visual quality of the Bigelow Range. The Bureau will continue to manage the Preserve to assure that views from the lower elevations looking up at the ridgeline, as well as views from the higher elevations looking out over the Preserve, appear as a natural forest.

Recreation Facilities Management Policies

- 5. Recreation in the Preserve will be provided with little permanent physical alteration of the environment and will be managed to avoid the concentration of users in a manner detracting from the essential character of the natural surrounding. The Bureau will manage the Preserve for a spectrum of recreational experiences, from "backcountry non-mechanized" opportunities for hunting, hiking, camping, snowshoeing, and cross-country skiing, to "remote recreation" opportunities including water access camping, to opportunities for drive-to camping, bank fishing, mountain biking, wildlife watching and scenic touring along designated roads and designated snowmobile trails.
- 6. The recreation, scenic and wildlife values of the Preserve will be maintained with a minimum of trails and improvements, such as parking areas. Camping sites will generally range from well dispersed camping areas with one or two individual campsites, to sites designed to accommodate ten to twelve people. However, a few sites may be designed to accommodate groups of up to 30 people. At Round Barn and the south side of Trout Brook, campsites continue as walk-to from visually buffered parking areas, designed as tent sites for small parties. Individual campsites will be screened from each other, with a buffer of trees and shrubs is maintained between the sites and the lake.
- 7. The Appalachian National Scenic Trail and associated side trails within the Preserve will continue to be managed to provide a high quality, low-impact hiking and camping opportunity, managed cooperatively with the Maine Appalachian Trail Club (MATC), consistent with MATC standards for the Trail. Alternate trail routes will be developed only when there is a demonstrated need to relieve the intensive pressure on particularly sensitive portions of the trail, or provide new opportunities. A pubic education effort cooperatively implemented by the Bureau and the MATC will continue to focus on effectively raising awareness and compliance by hikers with hiking and camping leave-no-trace principles.
- 8. The snowmobile trail through the Preserve will continue to be designed and managed to provide a unique backcountry experience for snowmobilers. The trail will be kept to a minimum width and will be designed primarily for scenic quality, attracting riders not as a through trail, but as a trail that is a worthy destination in itself. The Bigelow Lodge will continue to provides an opportunity for snowmobilers, snowshoers, and cross-country skiers to stop and enjoy warmth and a hot beverage. The Bureau will continue to manage the primary and alternate sections of the trail that cross the northern arm of The Horns Ecological Reserve as low-impact, high quality scenic trails compatible with the Reserve.
- 9. The few roads on the Preserve available for public use will continue to be narrow and gravel-surfaced, consistent with a remote backcountry character; there will be no through connection, either as a public use road, or a management road, between the East and West Flagstaff Roads.
- 10. Woods management roads may be used as informal non-motorized recreational trails when not being used for active timber harvesting, to provide opportunities for snowshoeing, cross-country skiing, hunting and wildlife watching. Certain of these roads may also be designated for mountain biking.

Management of Recreational Use of the Preserve

- 11. The Bureau is mindful of the need to carefully manage public use of the Preserve in order to protect its fragile resources from degradation due to overuse. The Bureau will monitor use to ensure that use levels are consistent with protection of the natural and remote recreational values of the Preserve. The Bureau will not seek to "market" the Preserve to increase its use; however, the Preserve was created as a "Public Preserve" and the Bureau will provide, as it does for all Public Reserved Lands, basic information about the Preserve, including essential information such as the location of campsites, trails and other facilities, and describing features, natural history, and use regulations, using, for example, brochures and online information accessed through the Bureau's website.
- 12. The Bureau has spent the first 30 years of the existence of the Preserve acquiring the Preserve lands, and improving the existing facilities to address or prevent environmental issues. This Plan contains recommendations that look to the future in terms of addressing existing or potential needs for limited new facilities. The Bureau believes the new trails and facilities proposed in this Plan, which will only be pursued as the need or demand for them is clearly documented, approach the limits of what would be the maximum appropriate level of "developed" facilities in keeping with the backcountry dispersed recreation experience of the Preserve.

Forest Management Policies

- 12. Sustainable, third-party certified forestry will continue to be practiced on the Preserve. The Bureau will continue to seek dual certification, as resources allow, from both the Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative (SFI).
- 13. Forestry objectives will focus on maintaining a high level of structural, age and species diversity; a healthy, productive and resilient forest; and the appearance of a natural forest where, from the standpoint of the observer, there is no obvious alteration to the landscape (Visual Consideration Class II). In areas of high visibility, adjacent to trails and campsites, public use roads, and the lake shoreline, the standard will be to maintain the appearance of an essentially undisturbed forest (Visual Consideration Class I).
- 14. It shall be the policy with the Bigelow Preserve to aggressively fight, by whatever means deemed necessary by the Director of the Bureau of Forestry, any fire whether human-caused or of natural origins.

Wildlife Management Policies

15. Consistent with past policy, as articulated in the 1981 Bigelow Preserve Policy Issues/Guidelines document signed by then Commissioner of the Maine Department of Inland Fisheries and Wildlife, it will be the policy of the Bigelow Preserve to manage wildlife for species richness. As the Preserve is primarily forested, woodland wildlife will predominate. Wildlife species diversity will be achieved through encouraging the maximum number of endemic species in the Preserve. A distribution of forest types, age classes, and spatial relationships will be encouraged. This will provide a maximum diversity of habitat and will result in a maximum diversity of wildlife species. Notwithstanding this general policy, the needs of less common or rare species requiring more restricted or complicated habitat conditions will be integrated into the management scheme. Wildlife management objectives will not be biased towards game species.

Past Policies and Guidance for Management of the Bigelow Preserve Incorporated in this Plan

The Bigelow Act (1976): Sec. 3. Purpose. The purpose of this Act is to set aside land to be retained in its natural state for the use and enjoyment of the public. The Preserve shall be managed for outdoor recreation such as hiking, fishing, and hunting, and for timber harvesting. Timber harvesting within the Preserve shall be carried out in a manner approved by the Bureau of Forestry and consistent with the area's scenic beauty and natural features. All motor vehicles, not including vehicles engaged in timber harvesting, shall be restricted to roads designated for their use, except that snowmobiles shall also be allowed on designated trails. Designated roads shall be limited to those easily accessible to automobiles as of the effective date of this Act. No buildings, ski lifts, power transmission facilities or other structures shall be built in the preserve except for open trail shelters, essential service facilities, temporary structures used in timber harvesting, small signs, and other small structures that are in keeping with the undeveloped character of the Preserve (See Appendix B for the full Act).

Bigelow Preserve, Policy Issues/Guidelines (Bureau of Parks and Recreation, 1981): During the acquisition phase, as lands came into state ownership, the Departments of Conservation and Inland Fisheries and Wildlife issued guidance on interpreting the Act for management purposes.

<u>Policy 1A:</u> natural state – maintenance of the general natural character of the environment of the Preserve by managing the resources to accommodate low intensity dispersed recreation activities, the basic facilities necessary to provide access to these opportunities (e.g. trailhead parking, boat access to Flagstaff Lake, walk-in, or water access campsites, picnic sites), forest management and wildlife management facilities. Recreation in the Preserve should require little permanent physical alteration of the environment and should not encourage the concentration of users in a manner detracting from the essential character of the natural surrounding. . . Wildlife and timber management should also require little permanent physical alteration of the environment.

<u>Policy 4A:</u> the relative importance of recreation, forest and wildlife management within the Preserve. Management of recreation, the forest for wood products, and wildlife habitat shall be secondary to maintaining the overall natural character of the Preserve.

Policy 19A: The Bigelow Preserve will be considered a backcountry recreation area rather than a wilderness area. According to researchers for the U.S. Forest Service, "backcountry" refers to any area where the management objectives stress dispersed, off-road recreation activities such as hiking, cross-country skiing, snowshoeing, snowmobiling, trail bike riding, canoeing, hunting, fishing and camping. They consider backcountry to be a recreation area, in contrast to wilderness, which they define as primarily a large natural ecosystem, to be experienced as it is. By definition, recreation opportunities could be enhanced or even created in backcountry, but not in wilderness.

Bigelow Preserve Management Plan (Bureau of Parks and Lands, August 1989):

MANAGEMENT PHILOSOPHY: The Bigelow Preserve represents one of many publicly owned parcels of land in the State. Each unit from Baxter State Park, to Acadia National Park, to Sebago Lake State Park, to Wolf Neck Woods State Park is managed to provide a different type of experience for the visitor. No one parcel of public ownership provides all the recreational needs of Maine's citizens. These lands taken collectively, managed by a number of different public agencies, represent a vast array of public use and enjoyment opportunities. The type of environment existing in the Preserve is rare to the northeast as well as in the eastern part of this country. The combination of alpine and subalpine vegetation, high mountain ponds, undeveloped landscape and interesting geological features resulted in the Bigelow Range being designated as a National Natural Landmark in 1976. Similar environments elsewhere in the country have often been significantly altered or are in danger of being altered. The Bigelow Preserve will not and cannot provide all recreational needs or wants of the people. To do so would destroy the character that is so special. The very purpose of establishing the Preserve was to provide a semi-remote environment and to protect some important and fragile habitats from being destroyed. What the Preserve does provide is one very important type of experience in the overall picture of public ownership. This diverse ownership, taken as a whole, does provide "something for everyone."

VI. Proposed Allocations – General Management Direction

Proposed Resource Allocations - Regional Overview by Allocation

The Resource Allocation System is a land management-planning tool first developed in the 1980's, and formalized in a document entitled *Integrated Resource Policy (IRP)*. The IRP was further refined through a public process that produced the current version, adopted December 18, 2000. The Resource Allocation System, which is used to designate 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) special protection, backcountry recreation, wildlife management, remote recreation, visual consideration, developed recreation, and timber management.

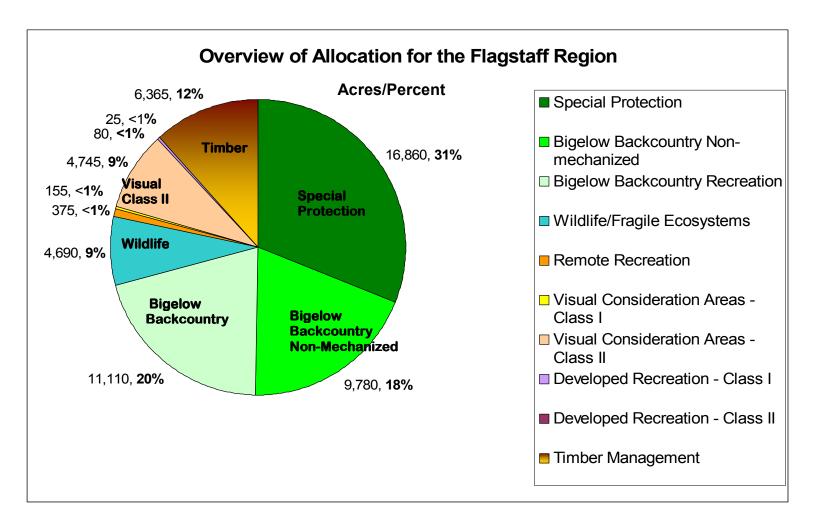
This hierarchy defines the type of management that will be applied where these resource attributes are found, with *dominant* and *secondary* use or management designations as appropriate to achieve an integrated, multi-use management.

The following is a description of the Resource Allocation System categories applied in this Plan, the management direction defined for each category in the Bureau's Integrated Resource Policy planning document, and the application of these allocations within the Flagstaff Region properties.

Overview of Allocations for the Flagstaff Region

RESOURCE ALLOCATION	DOMINANT ALLOCATIONS (acres)	SECONDARY ALLOCATIONS (acres)
Special Protection	16,860	Not applicable
Ecological Reserves	15,830	Not applicable
Significant Natural Areas	755	Not applicable
Cultural/Historic Areas (AT and Arnold Trail)	275	Not applicable
Backcountry Non-mechanized	0	15,090
"Bigelow Backcountry Non-mechanized"	9,780	225
"Bigelow Backcountry" Recreation	11,110	1,075
Wildlife/Rare or Exemplary Ecosystems	4,690	4,7501
Remote Recreation	375	2,435 ¹
Visual Consideration Areas – Class I	155	Not available
Visual Consideration Areas – Class II	4,745	Not available
Developed Recreation - Class I	80	Not available
Developed Recreation Class II	25	Not available
Timber Management	6,365	Not available
TOTAL ACRES	54,185 ²	

Preliminary estimate. ² Acreages are representations based on GIS metrics rounded to the nearest 5 acres, and do not sum to total Plan acres due to measuring error and limits of GIS precision (estimates are 3-4% high).



SPECIAL PROTECTION AREAS

Designation Criteria

- 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. Secondary recreation use is allowed with emphasis on non-motorized dispersed recreation. For the two Ecological Reserves that are part of this property, Backcountry Non-Mechanized Recreation is designated as a secondary allocation for most of the area. Other direction provided in the IRP includes:

- <u>Vegetative Management</u> on Ecological Reserves, including salvage harvesting is considered incompatible except in response to a threat that may spread to surrounding lands if not addressed (severe disease or insect infestation). 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, interpretive trails, habitat management for endangered or threatened species,</u> are allowed in Special Protection natural areas unless limited by other management guidelines.

Special Protection Areas Designated for the Flagstaff Region

For the Flagstaff Region, Special Protection areas defined include:

- areas officially designated as Ecological Reserves (10,560 acres in The Horns and 5,285 acres on Mount Abraham),
- natural areas to be set aside for no active timber management (Flagstaff Island 530 acres; East Nubble on Bigelow Mountain 60 acres; Huston Brook Pond buffer roughly 30 acres; an old growth stand on the Wyman Lot south of Route 27 25 acres, and a portion of Highland Plantation Southeast Lot roughly 110 acres).
- the 100-foot no-cut buffer on either side of the Appalachian Trail and its associated side-trails (on the Bigelow Preserve this includes the Warden's Trail, Horns Pond Trail, the Range Trail, the Safford Brook Trail, and any trails to be constructed during the Plan period; it also includes all hiking trails on Mount Abraham and the AT on the Redington Twp Lot) (total of 250 acres).
- an area along the historic Arnold Expedition Trail (a 100-foot buffer on either side of the hiking trail established in proximity to the historic route, within in the Chain of Ponds parcel (30 acres).

In total, this allocation includes approximately **16,875 acres** over all the parcels included in the Region.



BACKCOUNTRY RECREATION

Designation Criteria

- 1. Superior scenic quality
- 2. Remoteness
- 3. Wild and pristine character, and
- 4. Capacity to impart a sense of solitude.
- 5. Most will encompass more than 1,000 contiguous acres.

There are 2 Backcountry Recreation Area designations in the IRP: Non-Mechanized, and Motorized. Only the Non-Mechanized designation is applied in this Region. The Bigelow Backcountry designation created for this Plan has many of the elements of the standard motorized backcountry designation; while the Bigelow Backcountry Non-Mechanized is similar to the Backcountry Non-Mechanized except that multi-age timber harvesting is allowed.

Non-mechanized Backcountry Recreation Areas include:

- no roads
- outstanding opportunities for solitude;
- outstanding opportunities for a primitive and unconfined type of dispersed recreation;
- trails for non-mechanized travel; and
- no timber harvesting.

Motorized Backcountry Recreation Areas include:

- multi-use areas;
- significant opportunities for dispersed recreation;
- trails for motorized and mechanized activities;
- timber harvesting on a multi-aged basis; and
- management roads.

Both types may contain ecological, geological, or other features of scientific, educational, scenic, biological, or historical value.

Management Direction

<u>Vegetative Management</u>: Not allowed in non-mechanized backcountry; allowed in motorized backcountry as a secondary use designed to enhance plant and animal diversity (multi-aged management only). Salvage harvests are allowed in Motorized Areas but not allowed in Non-mechanized Areas

<u>Wildlife Management</u>: Within non-mechanized backcountry areas must not manipulate vegetation or waters to create or enhance wildlife habitat. No restrictions in motorized backcountry.

<u>Management or public use roads</u>: Only within motorized backcountry and Bigelow Backcountry. <u>Recreational Facilities</u>: Trail facilities, carry-in boat access, and primitive single or group campsites for dispersed recreation are allowed; all trails must be well designed and constructed, situated in safe locations, and have minimal adverse impact on the values for which the area was created; campsites must be primitive, rustic in design and accessible from trailheads and parking areas located outside of the area or by water.

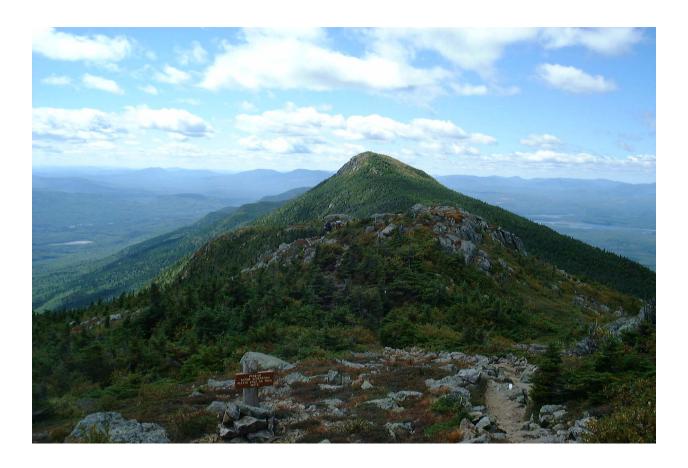
<u>Hunting, fishing, and trapping</u> are allowed where they do not adversely impact the safety of other users.

Backcountry Non-mechanized Areas Designated for the Flagstaff Region

This allocation is proposed as a <u>secondary allocation</u> for:

- The Horns Ecological Reserve excepting the area on the north arm including and north of the snowmobile trail; and on the south arm, the area including and south of the "Sixty's Haul Road." (9,780 acres)
- The Mount Abraham Ecological Reserve, excepting the existing ATV trail that follows an existing road and the area south of it on the southern boundary of the Reserve (unless the trail can be reasonably relocated) (5,220 acres).
- Flagstaff Island, except for the shoreland area which is allocated as Remote Recreation (355 acres)

In total, this allocation includes approximately 15,090 acres as a secondary allocation.



BIGELOW-SPECIFIC BACKCOUNTRY ALLOCATIONS

Because of the provisions of the Bigelow Act that define the purposes of the Bigelow Preserve and the uses allowed, the Bureau is defining two Backcountry allocations that are specific to this Preserve: Bigelow Backcountry Non-Mechanized, and Bigelow Backcountry.

<u>Rationale</u>: The Bigelow Act allows, but significantly limits, motorized uses: snowmobiles are allowed on designated trails; and motor vehicles are limited to roads "easily accessible to automobiles as of the effective date of (the) Act." Further, timber harvesting is allowed "consistent with the area's scenic beauty and natural features."

The 1989 Bigelow Preserve Management Plan designates the majority of the Preserve as "Backcountry." The definition for Backcountry at the time of the 1989 Plan was "Low intensity use recreation areas with exceptional natural characteristics. Timber harvesting and related management activities are constrained and use of motor vehicles by the public is prohibited." Although the Act permitted some limited motorized uses, this allocation was nevertheless the best fit for the intent of the Act, and was applied subject to the special provisions of the Act.

Today, the Bureau faces a similar dilemma – the allocation system was revised in 2000 to include two subcategories under the "Backcountry" allocation: (1) "Motorized," which allows timber harvest and which allows all types of motorized and mechanized uses provided appropriate trails can be constructed that are well designed, safe and (2) "Non-mechanized" which excludes not only motorized uses but also mechanized uses such as bicycling; and which does not allow timber harvesting. Neither of these subcategories is consistent with the vision for the Preserve contemplated by the Act. The generic description of Backcountry areas, however, does: "areas allocated for dominant recreation use for the values associated with a special combination of features including superior scenic quality, remoteness, wild and pristine character, and the capacity to impart a sense of solitude."

Two Backcountry allocations are being employed in this Plan specific to the Bigelow Preserve – one which does not allow motorized or mechanized uses, and one which does, subject to the additional restrictions of the Bigelow Act. These are named "Bigelow Backcountry Non-mechanized" and "Bigelow Backcountry."

BIGELOW BACKCOUNTRY NON-MECHANIZED

Designation Criteria

- 1. Superior scenic quality
- 2. Remoteness
- 3. Wild and pristine character, and
- 4. Capacity to impart a sense of solitude.
- 5. Will encompass more than 1,000 contiguous acres.

Management Direction

<u>Vegetative/Timber Management</u>: Forest management including timber harvest is allowed as a secondary use (multi-aged management only). Salvage harvests are allowed.

<u>Wildlife Management</u>: May not employ even aged management or clearcuts greater than five acres

<u>Management or public use roads</u>: Management roads for timber management only. No new forest management roads are allowed within 500 feet of the Appalachian Trail or any of its side trails. Public use roads limited to those that were easily accessible to automobiles at the time of the Bigelow Act.

<u>Recreational Facilities</u>: Trail facilities, carry-in boat access, and primitive single or group campsites for dispersed recreation are allowed. All trails must be well designed and constructed, situated in safe locations, and have minimal adverse impact on the values for which the area was created; campsites must be primitive, rustic in design and accessible from trailheads/ parking areas located outside of the area...

<u>Hunting, fishing, and trapping:</u> Allowed where they do not adversely impact the safety of others. <u>Motorized/Mechanized Uses</u>: Not allowed.

Note of Explanation: "Bigelow Backcountry Non-mechanized" is defined from

- a. the Bigelow Act: which
 - Specifies continuation of timber management and harvesting consistent with the area's scenic beauty and natural features as one of the purposes of the Preserve;
 - o limits <u>structures</u> to be built on the Preserve allowing only trail shelters, essential service facilities, temporary structures used in timber harvesting, small signs, and other small structures that are in keeping with the undeveloped character of the Preserve).
- b. the Bureau's <u>IRP guidance for Backcountry Motorized Recreation</u>, as it relates to wildlife management and restriction of timber harvests to multi-aged management, allowance of salvage harvests, prescribed burns and insect and disease control, and allowance of timber management "to provide an environment characterized by a rich variety of plant and animal species;" and
- c. the Bureau's <u>management decision</u> to expand a non-motorized/non-mechanized area within the Preserve beyond the area of the Ecological Reserve while providing for continued timber management.

Bigelow Backcountry Non-mechanized Areas Designated in this Plan: This allocation is proposed generally for the area between the designated motorized and mechanized trails that circumnavigate the Preserve (including reserved alternate locations for the snowmobile trail), and the boundary of The Horns Ecological Reserve. It also includes the eastern shore of Flagstaff Lake within the Bigelow Preserve. It includes approximately 9,780 acres as a dominant allocation.

BIGELOW BACKCOUNTRY

Designation Criteria

- 1. Superior scenic quality
- 2. Remoteness
- 3. Wild and pristine character, and
- 4. Capacity to impart a sense of solitude.
- 5. Most will encompass more than 1,000 contiguous acres.

This allocation is essentially the same as the Bigelow Backcountry Non-mechanized allocation, except that, as provided in the Bigelow Act, snowmobiles are allowed on designated trails, and passenger vehicles are allowed on designated roads. By Bureau discretion and interpretation of the Bigelow Act, mountain bikes will be allowed on designated roads and trails under this allocation. Consistent with past policy, ATV's will not be allowed within the Preserve.

ATV's or other off-road vehicles are not allowed on the Preserve by Bureau policy. ATV's are not consistent with the quiet backcountry non-winter recreation opportunities provided by the Preserve. While passenger vehicles are allowed on designated roads, these roads are dead-end roads, and do not provide the opportunity for through-passage in the Preserve.

This allocation will permit *mountain biking* on designated management roads and trails, under the discretion granted the Bureau in determining appropriate uses for the Preserve. The Bureau will manage mountain biking to avoid conflicts with these other uses, by keeping the number of trails limited and located outside of a core non-mechanized area. This Plan proposes to allow mountain bikes on roads designated for automobiles - the East and West Flagstaff Roads; on the "Sixties Haul Road" (extension of the Huston Brook Road); on the Stratton Brook Road (linking the Sixty's Haul Road to Route 27), and on the woods management road linking the Stratton Brook Road to Stratton, that travels through the lower elevations on the southwest slope of the Bigelow Range.

Bigelow Backcountry Areas Designated in this Plan

This allocation is proposed for portions of the Bigelow Preserve between the above described Bigelow Backcountry Non-Mechanized areas and the boundary of the Preserve (including proposed add-ons), with the exception of an area between the West Flagstaff Road and Hurricane Brook, and the lake, which is allocated as Visual Class II. This allocation includes **11,110 acres as a dominant allocation**, and 1,075 acres as a secondary allocation within the Ecological Reserve in two areas: the area of the north arm including and north of the primary snowmobile trail; and the area on the south arm including and south of the 60's Haul road (extension of the Stratton Brook Road).



WILDLIFE MANAGEMENT/ RARE OR EXEMPLARY ECOSYSTEM AREAS

Designation Criteria

- 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 or 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 Management Areas. Recreational use of Wildlife Management Areas typically includes hiking, camping, fishing, hunting, trapping, and sightseeing. Motorized trails for snowmobiling and ATV riding (unless otherwise prohibited) 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.

Wildlife/Rare or Exemplary Ecosystems and Habitat Areas Designated for the Flagstaff Region

Wildlife management areas on the Flagstaff Region public reserved lands include

- LURC designated deer yards;
- riparian shoreline areas along the lakes and major rivers (330-foot zone from edge of water), and along minor streams (75-foot zone from edge of water);
- two known bald eagle nest sites included within the riparian zone area;
- old fields/grasslands on the Chain of Ponds unit; and at the site of the reclaimed Stratton landfill;
- wading bird and waterfowl habitats as defined by MDIF&W;

- MNAP designated exemplary natural communities including the exemplary streamshore system involving Hurricane Brook, Reed Brook, and Trout Brook on the Bigelow Preserve; and the exemplary Beech-Birch-Maple forest on the north side of Little Bigelow Mountain; and
- Additional areas as may be defined through detailed field work related to forest management – these areas could include vernal pools and other wetlands, for example.

This allocation, as a dominant category, includes a total of approximately **4,140 acres** over all the parcels included in the Flagstaff Region (further detailed in the parcel by parcel discussion which follows). In addition, managing to enhance wildlife habitat is a significant component of the Bureau's approach to timber management, and hence it is a significant secondary use within the Timber Management areas, and even the Bigelow Backcountry Areas where timber harvesting occurs. Overall, Wildlife Management allocations include:

	Dominant	Secondary (rough estimate)
Bigelow Preserve /Flagstaff Lake	3,185 acres	4,685
Mount Abraham	50 acres	not available
Chain of Ponds	915 acres	0
Other Public Lots	540 acres	20
	4,690 acres	4,705



REMOTE RECREATION AREAS

Designation Criteria

- 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. Direction provided in the IRP includes:

<u>Vegetative/Timber Management:</u> Timber management is allowed as a secondary use. New woods management roads are not allowed within 500 feet of the Appalachian Trail or its side trails. <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 (would not be allowed within 500 feet of the Appalachian Trail or its associated side trails except for trail crossings approved by the Appalachian Trail Conference, MATC and National Park Service); 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.

Remote Recreation Areas Designated for the Flagstaff Region

Remote recreation areas on the Flagstaff Region public reserved lands are proposed to include:

- As a secondary allocation for the 330-foot wildlife riparian areas surrounding Flagstaff Lake;
- As a secondary allocation for the islands in Dead River Township (dominant Wildlife Management allocation);
- The camping area at Round Barn on the Bigelow Preserve:
- A 400-foot corridor on either side of the 100-foot Special Protection zone along the Appalachian Trail and associated side trails in any areas not within The Horns or

Mount Abraham Ecological Reserves, or within the Bigelow Backcountry Non-mechanized area.

- As a secondary allocation for the Special Protection area around Huston Brook Pond.
- As a secondary allocation for the Old Growth Special Protection area on the Wyman Lot.

Remote Recreation as a dominant use accounts for **375 acres**; and as a secondary use totals approximately 2,435 acres as detailed below.

	Remote Recreation	Remote Recreation
	Dominant Use	Secondary Use
Bigelow Preserve	180	2,435 And Other Flagstaff
Lake Parcels		
Mount Abraham	85	
Other Public Lots	<u>110</u>	
Total	375	



VISUAL CONSIDERATION 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.

Most Visual Consideration Areas are secondary allocations, as the dominant allocations assert the primary values to be maintained in the management of vegetation or timber for those allocations. For example, all lakeshores are allocated as wildlife dominant; visual consideration areas are also a standard allocation for lakeshores. While a visual consideration allocation along a hiking trail may result in tree removal to provide a vista, in a wildlife management riparian area, maintained as a vegetated travel corridor for wildlife, this may not be allowed.

Designation Criteria

Visual Class I. Areas where the foreground views of natural features that may directly affect enjoyment of the viewer. Applied throughout the system to all shorelines, trails, public use roads, and management roads open to public vehicular traffic. Applied as a variable width buffer determined from line of sight (distance a person can see the forest floor when looking into the forest, which varies according to topography and type of forest).

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 if consistent with the dominant allocation.

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.

Visual Consideration Areas Designated for the Flagstaff Region

<u>Visual Class I</u> areas will be defined as a secondary allocation on the ground for areas adjacent to public use roads, lake and river shorelines, areas around Developed Recreation sites, and designated trails (including snowmobile trails). Approximately **155 acres** are estimated as a dominant allocation for the Plan area; these are areas that largely occur on the Bigelow Preserve and Flagstaff Lake and surrounding properties.

<u>Visual Class II</u> areas will be defined as areas beyond the immediate foreground, such as distant hills, viewed from public use roads or from the lakes (as seen from a boat, or from a shoreline viewing the opposite shoreline). For the Bigelow Preserve, all areas not designated as Visual Class I are allocated as Visual Class II. A large area north of the West Flagstaff road is allocated as dominant Visual Class II, as well as much of the Wyman lot south of Route 27, and the Carrabassett Valley lot (total in the range of 3,700 acres). In addition, much of the area not designated as ecological reserve on Mount Abraham is in Visual Class II (850 acres). Together, these areas cover approximately **4,550 acres**.



DEVELOPED RECREATION AREAS

Designation Criteria

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.

Class II Developed Recreation Areas

1. Are the most intensely developed recreation facilities managed by the Bureau and typically include:

campgrounds with modern sanitary facilities, showers, and running water; beaches with improved parking areas, picnic tables, and foot trails; family and group picnic areas; shared use roads and/or trails designated for motorized activities; and hard-surface boat launch ramps with improved parking areas for motor vehicles and boat trailers.

2. Usually have seasonal full-time 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.

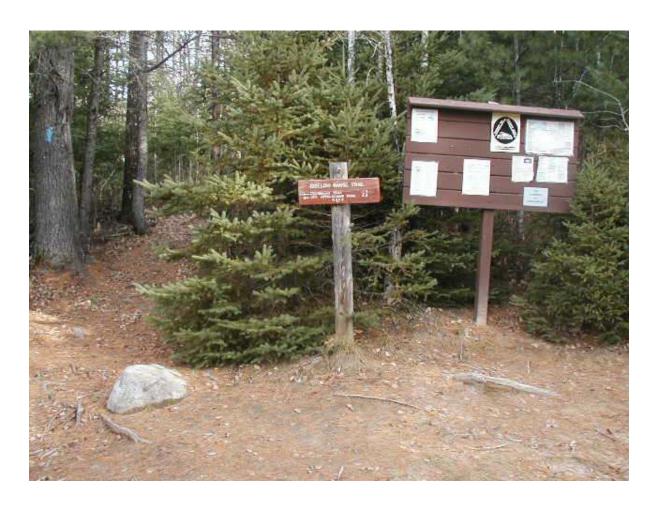
<u>Visual consideration areas</u> are often designated in a buffer area surrounding the Developed Recreation area.

Hunting and trapping: Not allowed.

Developed Recreation Areas Designated for the Flagstaff Region

Class I Developed Recreation Areas allocated for the Flagstaff Plan Region include the drive-to campsites on the south side of Trout Brook (off the West Flagstaff Road); the Bigelow Lodge on the Bigelow Preserve; , the boat launch and picnic area on the Spring Lake lot under lease to Florida Power and Light; public use roads, ATV trails, snowmobile roads; and gravel boat access sites at Chain of Ponds that are not in the ownership and control of MDOT. This allocation, excluding roads and trails, totals roughly **80 acres** over all the public reserved parcels in the Flagstaff Region. These are further detailed in the parcel by parcel discussion which follows.

Class II Developed Recreation Areas allocated for the Flagstaff Plan Region include only the Natanis Point Campground which is a commercial campground operating under a lease on Natanis Pond in the Chain of Ponds parcel. This allocation includes **approximately 25 acres**.



TIMBER MANAGEMENT AREAS

Designation Criteria

- 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.

<u>Recreational Use</u>: 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, 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. 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 needs.

Timber Management Areas Designated for the Flagstaff Region

For the Flagstaff Region properties, Timber Management as a dominant use is designated for portions of:

- the Dead River Peninsula,
- Spring Lake lot,
- Myers Lodge Parcel on Flagstaff Lake,
- the miscellaneous public lots except the Highland Plantation Southeast and Coplin Plantation West lots.

The total area in this allocation as a dominant use is approximately 6,050 acres.



Proposed Resource Allocations - by Property

The Bigelow Preserve and Surrounding Properties

The Flagstaff Lake/Bigelow Preserve lands include the Bigelow Preserve, Coplin Plt Range Trailhead, Wyman Lot East, Wyman Lot West, Carrabassett Valley Lot, Dead River Twp. Islands, Dead River Peninsula, Spring Lake Lot, Flagstaff Island, Flagstaff Plt.-Northern Shoreline, Flagstaff Plt - Myers Lodge Lot. As indicated below, the Bureau is proposing to add some of these properties to the Bigelow Preserve.

Proposed Additions to the Bigelow Preserve: The Bureau has defined contiguous lands that should be added to the Preserve to include, generally, undeveloped lands that are not separated by a road, lake, powerline, or other ownership. This would include undeveloped lands in Bigelow, Eustis, Coplin Plantation, Wyman and Dead River Township that lie north of Route 27 and the powerline that borders Wyman and Dead River Township; lands east of Flagstaff Lake in Dead River Township, and lands in Carrying Place Township between the Long Falls Dam Road and Flagstaff Lake.

As it does on all other acquired lands, the Bureau will evaluate vehicle-passable roads existing at the time of acquisition of these contiguous lands to determine whether such roads will be closed, maintained or made available for the public's use. Since these lands will be at the periphery of the Preserve, the Bureau will also evaluate whether there is a need for additional access points (parking and trailheads) and whether the added lands provide opportunities to meet any such access needs.

Consistent with this policy, the Bureau proposes to add the following parcels to the Preserve and to manage them consistent with the provisions of the Bigelow Act:

- 1. Coplin Plt –Range Trailhead: Trailhead to the Range Trail/Cranberry Mountain with preexisting road.
- 2. Wyman Twp Wyman Lot East parcel: contiguous to preserve, south of Stratton Brook, to Route 27 and a line 500 feet north of the Carrabassett Township Line and the Central Maine Power transmission corridor easement transecting the Bureau's Carrabassett Valley Lot; excepting an area east of the intersection of the corner of the CMP powerline and the Appalachian Trail corridors as shown below, (this excluded parcel is transected by a road that is a crucial link in the regional ATV system connecting the Stratton area with Carrabassett Valley and Kingfield); and a small triangular parcel north and west of the AT Corridor and west of Route 27.

Summary of Proposed Allocations (acres)

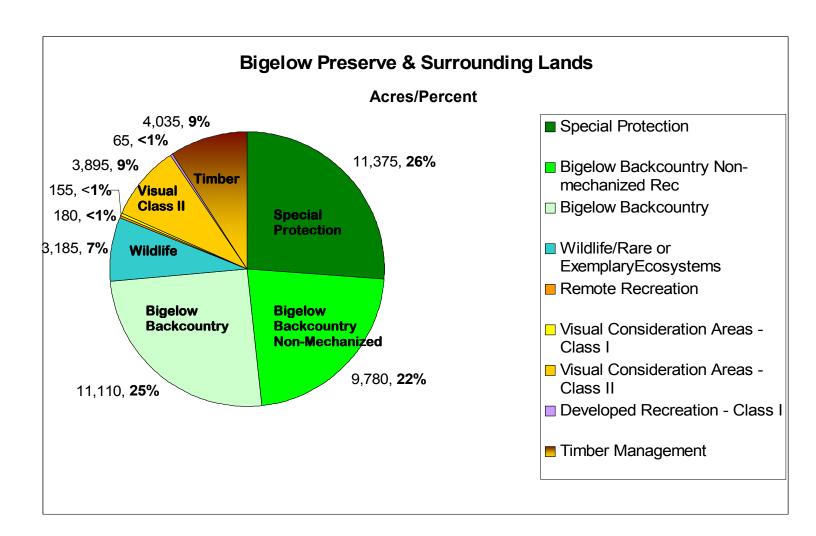
Allocation	Bigelow Preserve (Including proposed additions)		Surrounding Lands		Total	
	Dominant	Secondary	Dominant	Secondary	Dominant	Secondary
Special Protection	10,825	NA	550	NA	11,375	NA
Ecological Reserve	10,545	NA	0	NA	10,545	NA
AT Corridor	190	NA	0	NA	190	NA
Natural Areas	90	NA	550	NA	640	NA
Backcountry Non-Mechanized Recreation	0	9,515	0	355	0	9,870
Bigelow Backcountry Non-Mech Rec	9,780	225	NA	NA	9,780	225
Bigelow Backcountry	11,110	1,045	NA	NA	11,110	1,075
Wildlife/Rare or Exemplary Habitats/Ecosystems	1,245	Not available	1,940	Not available	3,185	4,685 ^{1,2}
Remote Recreation	180	Not available	0	Not available	180	2,4351
Visual Consideration Class I	130	Not available	25	0	155	Not available
Visual Consideration Class II	2,675	Not available	1,220 ¹	Not available	3,895	Not available
Developed Recreation Class I	15	Not available	50	0	65	NA
Timber Management	0	0	4,035	Not available	4,035	Not available
TOTAL ³	35, 960				43,780	

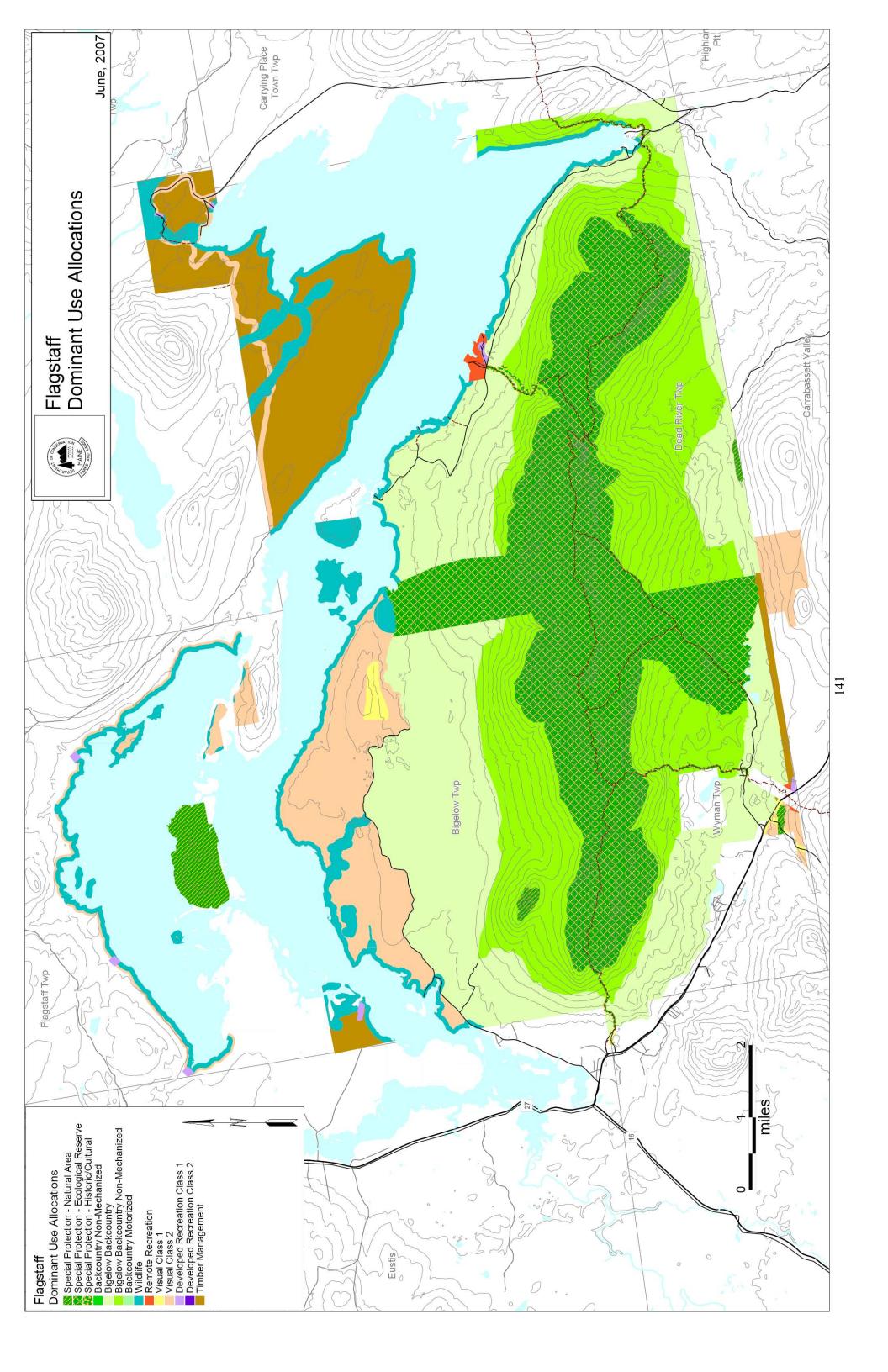
¹ Preliminary estimate.

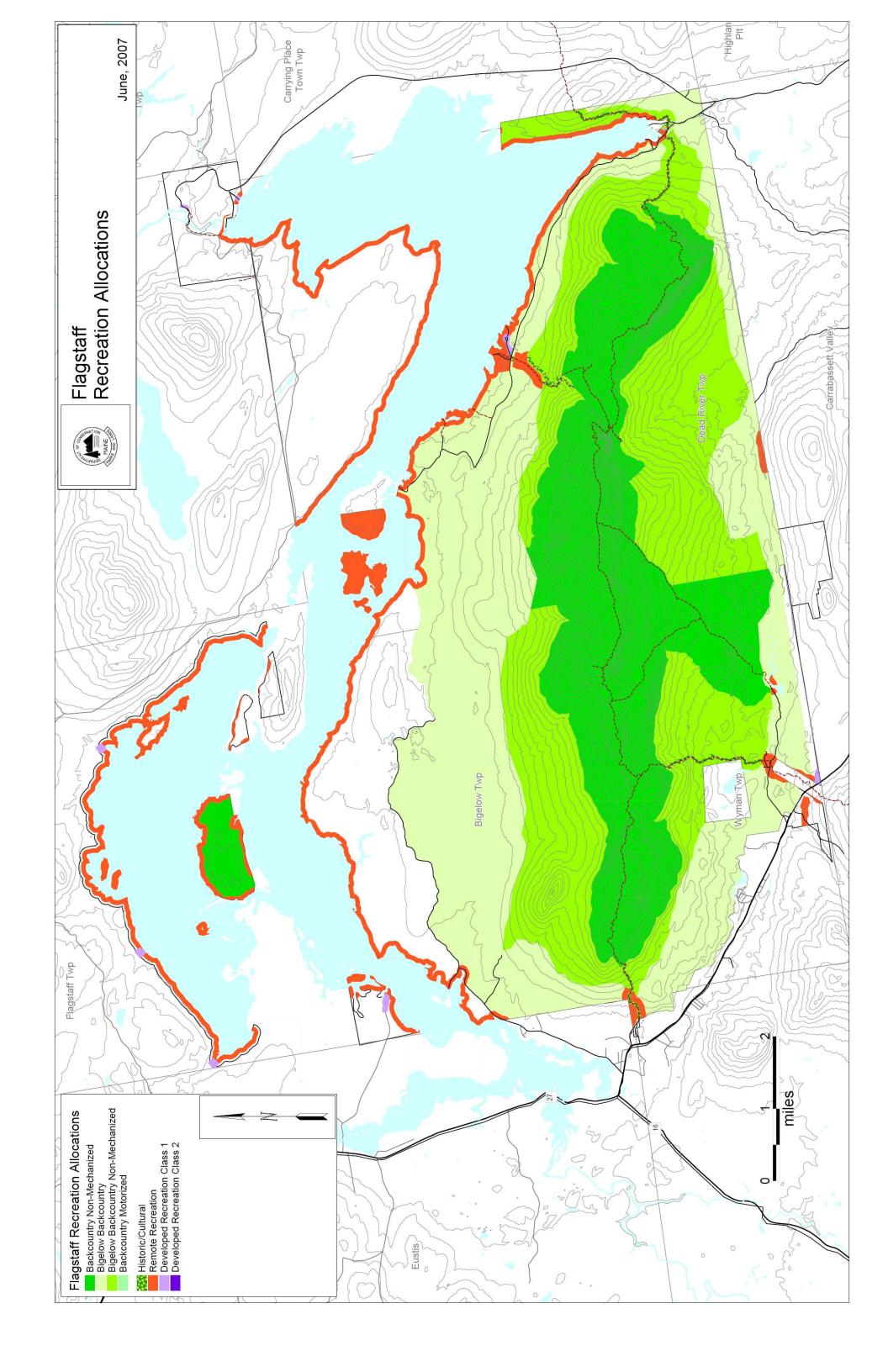
Not including areas managed for recreation, visual consideration, and timber where wildlife features are protected or enhanced during the detailed forest management prescription process.

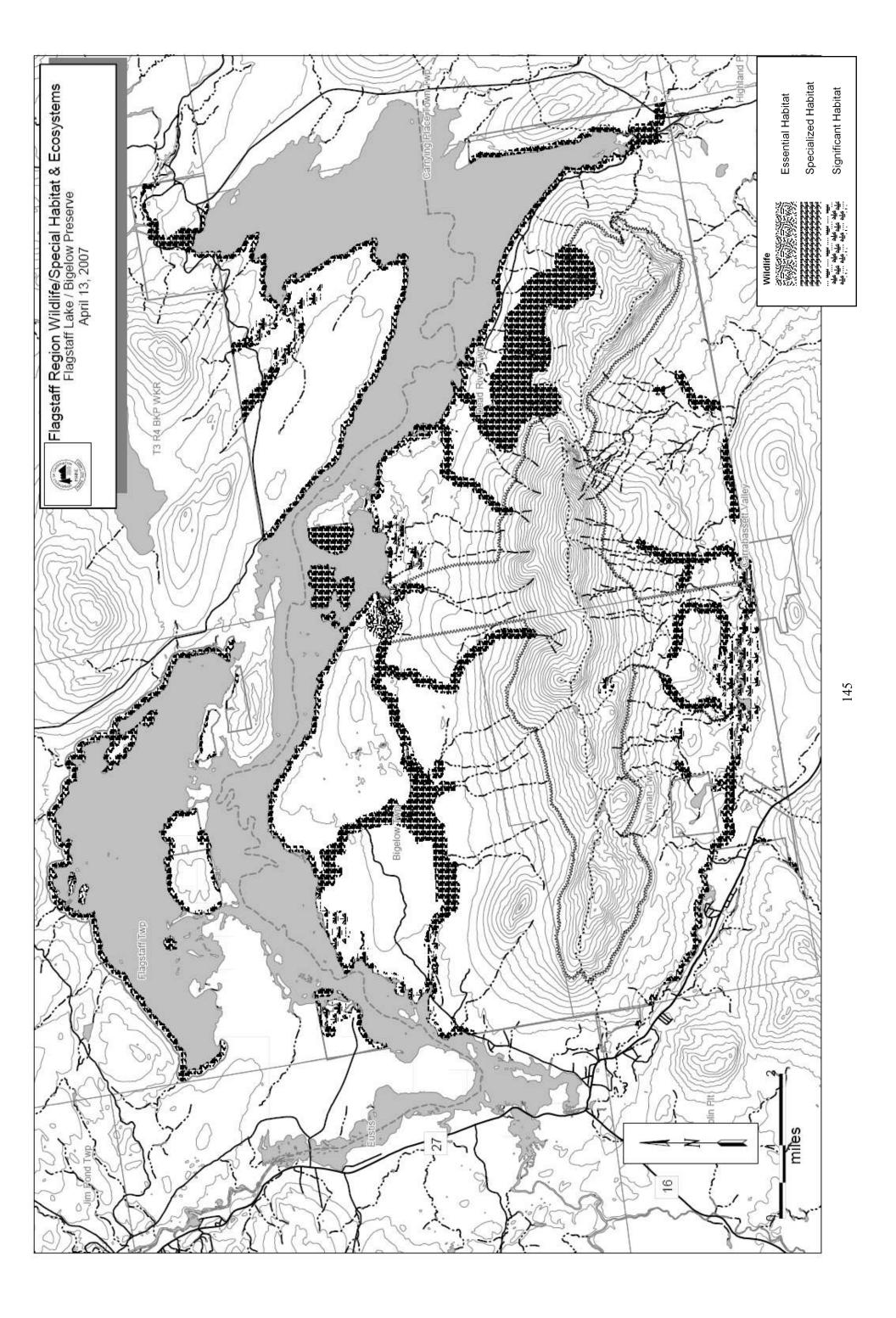
³ Note: acreages are representations based on GIS metrics rounded to the nearest 5 acres, and do not sum to the acreages by parcel due to measuring error and limits of GIS precision (above acres are overall high by approximately 3-4%).

NA = Not applicable









Proposed Special Protection Areas (Dominant Allocation):

- 1. <u>The Horns Ecological Reserve (Bigelow Preserve)</u>: Retain existing ecological reserve boundary (10,545 acres).
- 2. <u>East Nubble Summit and northern talus slope (Bigelow Preserve</u>)— summit contains an exemplary Spruce-Fir-Broom moss forest with a small Old Growth stand and is a prominent scenic resource; and an exemplary Spruce-Talus Woodland on the northern slope (60 acres).
- 3. <u>Huston Brook Pond (Bigelow Preserve)</u>: An area around the highly scenic 5 ½ acre Huston Brook Pond, defined on the north, east and west by a 100 foot buffer from the pond and on the south, an area of steep slopes with mature white pine, by the ownership line. There is no motorized access, but it is a popular stop for folks utilizing a nearby management road for recreating and a favorite destination for fishing (30 acres).
- 4. <u>Appalachian Trail Corridor (Bigelow Preserve)</u>: A 100-foot buffer along the Appalachian Trail Corridor sections that are not within the Ecological Reserve (no timber harvesting is allowed in the Ecological Reserve). This buffer extends around shelter sites and ancillary structures adjacent to the Trail. [Note: This represents no change from the 1989 Bigelow Preserve Plan which defined a 100-foot no-cut buffer on either side of the trail.] There is also proposed a minimum additional 400-foot buffer from motorized or mechanized uses other than forestry operations applied either as an adjacent Bigelow Backcountry Non-Mechanized allocation or Remote Recreation allocation. In addition to the protections afforded by these allocations, no new woods management roads will be constructed within 500 feet of the AT.
- 5. <u>Flagstaff Island (Bigelow Township)</u>: MNAP exemplary natural community on the central and eastern portion: an even-aged exemplary Spruce-Fir-Broom-moss Forest; the southern part of the island is of high recreational value and has a mature Northern Hardwood Forest transitioning to White Pine –Mixed Conifer Forest (530 acres).
- 6. Wyman Township old growth forest: south of Route 27 (~ 25 acres).
- 7. Other Significant Features: Sites identified during the acre-by-acre field examinations conducted in developing multiple use coordination reports and timber management prescriptions, including vernal pools; old growth stands (5 acres or more in size) and old growth components (less than 5 acres in size); and other notable features.

Secondary Allocations and Uses within the Special Protection Areas: Recreation will be a secondary use in the above listed Special Protection Areas. Motorized uses are not allowed in the Special Protection Areas identified as "natural" or "historic/cultural" (except that motorized crossings of the AT are allowed if approved by the Appalachian Trail Conference and MATC). Motorized activities may be allowed in Ecological Reserves under very restricted conditions. Commercial timber harvesting is not allowed in any Special Protection Area.

This Plan designates Backcountry Non-mechanized Recreation as a secondary allocation for Flagstaff Island except for a 330-foot Remote Recreation secondary allocation along the shoreline (due to the potential influence of motorized watercraft on the uses on the shoreline). The Plan also designates a secondary Backcountry Non-Mechanized Recreation allocation within The Horns Ecological Reserve, except for the area north of the Bigelow Range extending from the snowmobile crossing to the northern boundary of the Ecological Reserve; and except for the area on the south side of the range from and including the "1960's Road" road to the southerly boundary of the ecological reserve. Those areas excepted from the Backcountry Non-mechanized allocation on the Ecological Reserve are allocated to Bigelow Backcountry as a secondary allocation. In addition, there is also a variable width Visual Class I zone applied to the

Appalachian Trail and any side-trails with Special Protection allocations (for purposes of view management and management of allowed activities that could affect visual quality). Proposed secondary recreation allocations are shown on the attached Recreation Allocation map.

Proposed Bigelow Backcountry Non-mechanized Recreation Areas (Dominant Allocation): This allocation is proposed generally for the area between the designated motorized and mechanized trails that circumnavigate the Preserve (including reserved alternate locations for the snowmobile trail), and the boundary of The Horns Ecological Reserve. It also includes a minimum 400-foot area adjacent to the 100-foot Special Protection zone adjacent to the Appalachian Trail in portions of the Preserve not within The Horns Ecological Reserve, and the eastern shore of Flagstaff Lake within the Bigelow Preserve.

Secondary Allocations/Uses within the Bigelow Backcountry Non-mechanized Recreation Areas: Multi-age timber management is a secondary allocation subject to Visual Class I restrictions adjacent to any roads or trails; and subject to Visual Class II restrictions elsewhere. Wildlife Management is also a secondary allocation in this area. Wildlife and timber management activities conducted in areas designated by MNAP as exemplary communities require consultation with MNAP. Specific areas (both dominant and secondary allocations) are shown on the attached Wildlife/Rare or Exemplary Ecosystems and Habitats Map.

Proposed Bigelow Backcountry Recreation Areas (Dominant Allocation): This allocation is proposed for much of the rest of the Bigelow Preserve, excepting an area north of the West Flagstaff Road and Hurricane Brook, and the Round Barn and Bigelow Lodge area.

This allocation includes a portion of the shoreline area between the East Flagstaff Road and the Bigelow Lodge, in which the snowmobile trail has been permanently located. No timber management will occur in this area.

Secondary Allocations/Uses within the Bigelow Backcountry Recreation Areas: Same as for Bigelow Backcountry Non-mechanized Recreation Areas.

Proposed Remote Recreation Areas (Dominant Allocation): This allocation is applied to the outer 400-foot corridor of any section of the Appalachian Trail or connecting trails that are not buffered from motorized and mechanized recreation through another allocation, such as Ecological Reserve or Bigelow Backcountry Non-Mechanized.

Proposed Wildlife/Rare or Exemplary Ecosystems and Habitat (Dominant Allocation): The attached Dominant Allocation map shows areas designated as dominant for this allocation, while the map showing only Wildlife/Rare or Exemplary Ecosystems and Habitat areas shows both dominant and secondary areas. In both cases, management of the lands will protect important wildlife and Rare or Exemplary ecosystems and habitats. However, in dominant areas the Bureau may have additional latitude to actively manage these areas to enhance the values, with less deference to recreation.

Wildlife management areas include major riparian zones (330 feet) along shorelines and major streams; minor riparian areas (75 feet) along minor streams (shown on the map with dashed lines); eagle nest sites (essential habitat), waterfowl and wading bird habitat, deer yards, and open fields (significant habitat); and exemplary natural communities identified by the Maine Natural Areas Program (MNAP) (boundaries subject to revision upon detailed field inspection),

including an exemplary Streamshore Ecosystem at the headwaters of Hurricane, Reed, and Trout Brooks (approximately 525 acres) and an exemplary Beech-Birch-Maple forest (1236 acres) on the north side of Little Bigelow Mountain. The attached map does not include exemplary communities that are completely within the ecological reserve (these areas are to remain unmanaged).

Secondary Allocations/Uses within Wildlife_and Rare or Exemplary Ecosystems and Habitats: Recreation is allowed in this allocation as a secondary use, as is timber management, subject to modifications to enhance wildlife habitat or protect Rare or Exemplary ecosystems and habitats, and subject to any visual consideration restrictions. This includes the following secondary allocations: Remote Recreation and Visual Consideration Areas (Class I and II as appropriate) for the undeveloped shorelines of Flagstaff Lake and islands within Dead River Township allocated for Wildlife/Rare or Exemplary Ecosystems and Habitats as the dominant allocation; and Timber Management subject to wildlife, recreation and visual concerns (Note that there will be no commercial timber management in the shoreline riparian zone between the East Flagstaff Road and the Bigelow Lodge).

Proposed Visual Consideration Areas: Visual Consideration areas for the Bigelow Preserve/Flagstaff Lake properties are both dominant and secondary allocations.

Visual Class I (dominant allocation):

- 1. The visually prominent hillside north of Hurricane Brook and east of the West Flagstaff Road (Bigelow Preserve).
- 2. The West Flagstaff Road (Bigelow Preserve).
- 3. Lands along the side of Route 27 within the Wyman Parcel, excluding an area to be reserved for a future parking lot and areas now or in the future designated by the Bureau for expansion of the existing transmission line corridor.
- 4. The public access road into the Myers Lodge parcel.
- 5. The public access roads on the Spring Lake lot and Dead River Peninsula parcel.

Visual Class I (secondary allocation):

- 1. The entire undeveloped shoreline of Flagstaff Lake including islands (within Bureau ownership) as viewed from Flagstaff Lake or the Dead River (secondary to Bigelow Backcountry, Special Protection, and Wildlife dominant allocations).
- 2. All hiking trails.
- 3. All public use roads (where not designated as dominant visual consideration).
- 4. A buffer around all trailheads, parking areas, or campsites.
- 5. A buffer around Bigelow Lodge.

Visual Class II (dominant allocation):

- 1. The portions of the Wyman Lot not included in the Bigelow Preserve (primarily on the south side of Route 27), except where Class I and subject to any expansion of the existing transmission line corridor approved by the Bureau.
- 2. The lands in Bigelow Township and Dead River Township that lie north of the West Flagstaff Road and Hurricane Brook.
- 3. The Carrabassett Valley lot south of the powerline.
- 4. Visible upland portions of the Flagstaff Lake islands in Bureau ownership.
- 5. The ATV trails on the Dead River Peninsula parcel (except where timber management is needed to address unusual circumstances such as blowdowns and restorative forestry).

Visual Class II (secondary allocation)

- 1. All areas of the Bigelow Preserve that are not Visual Class I.
- 2. Visible upland portions of the Flagstaff Township northern shorelands and islands in Bureau ownership from the edge of the Wildlife Riparian zone to the upland extent of lands visible from the water or islands.
- 3. All management roads that are open to public use on an ongoing basis, after harvesting is completed.

Secondary Allocations/Uses within Dominant Visual Consideration Areas: Dispersed recreation including approved uses on designated management roads and trails, and timber harvesting. The Wyman Lot south of Route 27 provides a critical link in a regional ATV trail system which would connect trails in the Rangeley and Stratton areas to Carrabassett and Kingfield via existing snowmobile trails and powerline trails. Both the Wyman lot and the Carrabassett Valley lots are needed for this connection. A previous map included in Section VI. Management Issues and Recommendations) shows the proposed ATV trail location as it related to state lands.

Proposed Developed Recreation Areas (Dominant Allocation)

Developed Recreation (Class I)

- 1. The drive-to southerly campsite at Trout Brook (Bigelow Preserve).
- 2. The Bigelow Lodge (Bigelow Preserve) -for non-commercial low-intensity education/ stewardship related uses and limited support (warming hut) for the snowmobile trail system.
- 3. Myers Lodge upland drive-to campsites.
- 4. The Big Eddy camping area on the Dead River.
- 5. Existing and proposed parking areas.
- 6. All roads or trails designated for public motor vehicle use, snowmobile use, or ATV use.
- 7. The Long Falls Dam boat access and picnic area (FPL lease).

Secondary Uses within Developed Recreation Areas: Timber management that is sensitive to visual, wildlife, and user safety is allowed as a secondary use in Developed Recreation Class I areas. Timber management is not allowed in Developed Recreation Class II areas.

Proposed Timber Management Areas (Dominant Allocation): Most Bureau lands are managed to some extent for timber production. This management is a secondary objective in areas that are allocated as Wildlife Management, Remote Recreation, Visual Consideration Areas, and Developed Recreation Class I Areas, and, in the case of the Bigelow Preserve, as Bigelow Backcountry Non-Mechanized and Bigelow Backcountry Areas. For the Flagstaff/Bigelow Preserve lands, there are two areas proposed for management for timber as its dominant use:

- 1. Dead River Peninsula/Spring Lake lots except where designated for Wildlife, Visual Consideration or Developed Recreation I.
- 2. Myers Lodge parcel where not allocated for Wildlife Management, Developed Recreation, or Visual Class I.
- 3. A 500-foot corridor adjacent to the Carrabassett Valley Town line, within Wyman Township, and a small parcel at the junction of Route 27 and the northern boundary of the AT Corridor (see map).

Secondary Uses on Timber Dominant lands: Recreation and Wildlife Management.

Mount Abraham Allocations

Summary of Proposed Allocations (acres)

RESOURCE ALLOCATION	DOMINANT ALLOCATIONS (acres)	SECONDARY ALLOCATIONS (acres)
Special Protection	5,315	Not applicable
Ecological Reserves	5,285	Not applicable
Cultural/Historic Areas (AT)	30	Not applicable
Backcountry Non-mechanized	0	5,220
Wildlife/Rare or Exemplary		
Ecosystems	50	
Remote Recreation	85	
Visual Consideration Areas – Class I	0	Not available
Visual Consideration Areas – Class II	850	Not available
Developed Recreation - Class I	<1	Not available
Timber Management	0	985
TOTAL ACRES	6,300	
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¹ Preliminary estimate. ² Acreages are representations based on GIS metrics rounded to the nearest 5 acres, and do not sum to total Plan acres due to measuring error and limits of GIS precision (estimates are 3-4% high).

Proposed Special Protection Areas (Dominant Allocation):

- 1. Mount Abraham Ecological Reserve: Designate pursuant to deed.
- 2. <u>Appalachian Trail side trail</u>: 100-foot no-cut buffer along either side of the hiking trail within areas outside of the ecological reserve.

Secondary Uses within the Special Protection Areas: Recreation is an allowed secondary use within the Ecological Reserve and hiking trail corridor. Taking into account the existing motorized trail within the southern portion of the Ecological Reserve, and the scale of the hiking trail corridor, secondary recreation allocations are proposed as follows:

<u>Backcountry Non-mechanized Recreation</u> for the Ecological Reserve. This allocation may exclude the area including and south of the existing ATV/snowmobile trail that crosses the southerly portion of the Ecological Reserve, if it is determined that the trail cannot be reasonably relocated, is safe, and has a minimal adverse impact on the values of the Ecological Reserve.

Remote Recreation: As a secondary allocation to the 100-foot special protection zone along that portion of the hiking trail that lies outside of the Ecological Reserve (shown on the allocation map in its current configuration; to be revised when the trail is relocated).

Proposed Remote Recreation Area (Dominant Allocation): An outer corridor along the hiking trail extending from the special protection core area to a point 500 feet from the trail, on portions that lie outside of the Ecological Reserve (shown on the allocation map in its current configuration; to be revised when the trail is relocated).

Secondary Uses within the Remote Recreation Areas: Timber harvesting sensitive to visual and wildlife considerations. New forest management roads, and motorized/mechanized uses that are not forestry related are not allowed within the remote recreation trail corridor except at established crossings.

Proposed Wildlife/Rare or Exemplary Ecosystems and Habitat Areas (Dominant Allocation): This allocation applies only to areas outside of the Ecological Reserve.

1. Major Riparian (330 feet) on either side of steep mountain second order streams. This includes Norton Brook. Where it overlaps a secondary Remote Recreation allocation adjacent to the Appalachian Trail, no new timber management roads may be constructed within 500 feet of the trail.

Secondary Uses within the Wildlife/Rare or Exemplary Ecosystems and Habitat Areas: Recreation is allowed within Wildlife Management areas provided it does not adversely affect the wildlife and Rare or Exemplary ecosystems and habitats in the area; motorized trails for snowmobiling and ATV riding are allowed to cross Wildlife dominant areas where there is no cost-effective alternative and the trails do not conflict with the wildlife values or adversely affect Rare or Exemplary ecosystems or habitats.

Proposed Visual Consideration Areas: This allocation applies to areas outside of the Special Protection area. There are no dominant visual class I allocations on this parcel.

Visual Class I (secondary allocation):

1. A variable width buffer on either side of the hiking trail as it passes through the area outside of the Ecological Reserve (shown on the allocation map in its current configuration; to be revised when the trail is relocated).

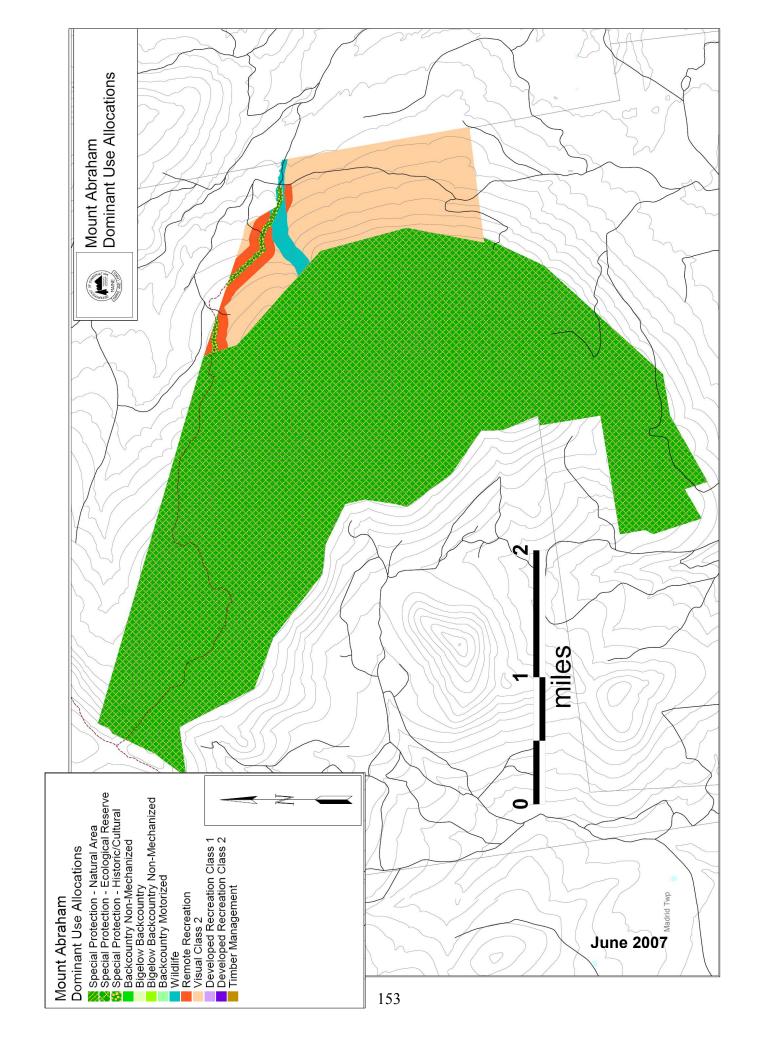
Visual Class II (dominant allocation):

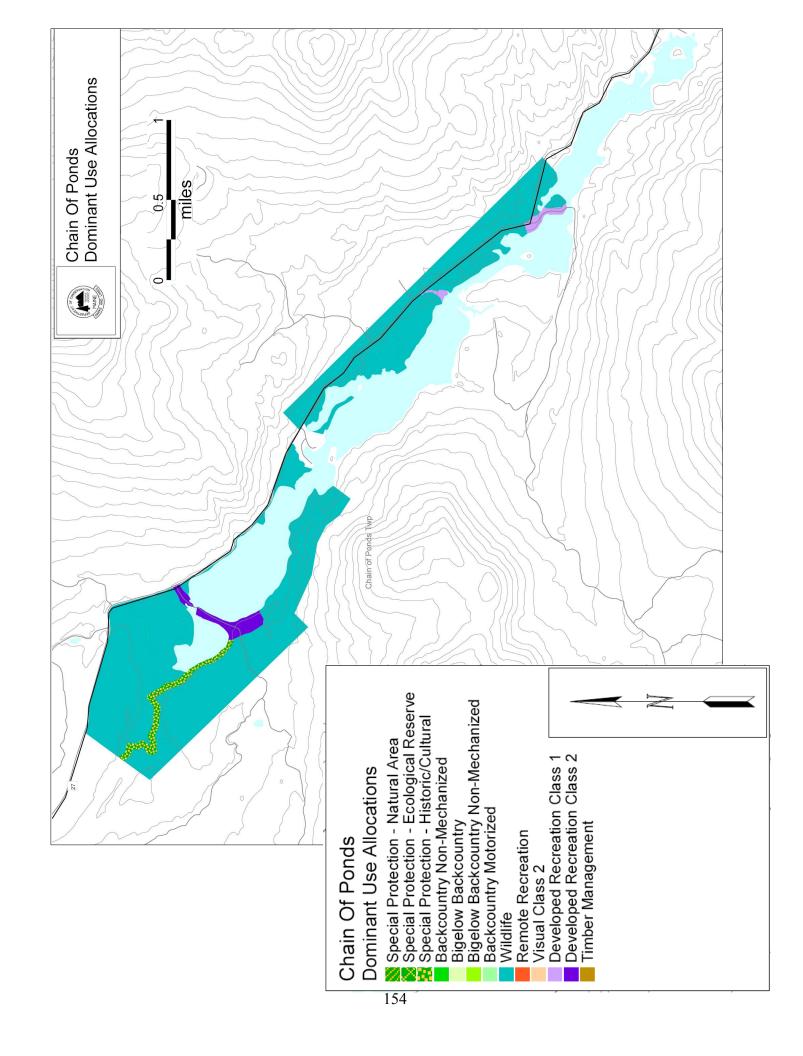
1. That portion of the parcel that is not allocated to Special Protection, Wildlife and Rare or Exemplary Ecosystems and Habitats, Remote Recreation, or Developed Recreation.

Secondary Allocations/Uses in the Visual Class II Dominant area: Timber Management will be a secondary allocation for this area. This area includes several hundred acres of softwood plantations, hundreds more acres of recent and heavy partial cuts and mostly low quality and understocked hardwood and over dense hardwood regeneration. Secondary uses for Visual Class II and Timber Management include both motorized/mechanized and non-motorized recreation, and wildlife management.

Proposed Developed Recreation Class I (Dominant Allocation):

1. Trailhead Parking area to serve the relocated trail.





Chain of Ponds Allocations

Summary of Proposed Allocations (acres) Chain of Ponds

RESOURCE ALLOCATION	DOMINANT ALLOCATIONS (acres)	SECONDARY ALLOCATIONS (acres)
Special Protection	30	Not applicable
Cultural/Historic Areas (Arnold Trail)	30	Not applicable
Wildlife/Rare or Exemplary		
Ecosystems	915	30
Visual Consideration Areas – Class I	0	380
Visual Consideration Areas – Class II	0	130
Developed Recreation – Class I ¹	10	
Developed Recreation – Class II ²	25	
Timber Management	0	370
TOTAL ACRES	980 ³	910

Includes existing drive-to primitive campsites and boat access areas

Includes Natanis campground, boat launch and parking area near campground, ATV trail. Acreages are representations based on GIS metrics rounded to the nearest 10 acres, and do not sum to total Plan acres due to measuring error and limits of GIS precision.

Proposed Wildlife/Rare or Exemplary Ecosystems and Habitat (Dominant Allocation): This property has a prevalence of riparian areas and wetlands; in addition, there is a field maintained for wildlife habitat near the Upper Farm Campsite. The remaining areas are small in size, steep, and most suited as extended riparian zones. This allocation applies to the entire ownership excepting Bureau campsites, camplot leases, the Natanis Campground lease, boat launching facilities and associated parking areas.

Secondary Uses within the Wildlife/ Rare or Exemplary Ecosystems and Habitat Allocation: Dispersed recreation, including camping, boating and fishing, will be secondary uses in this allocation. Secondary Visual Consideration allocations are described below. Timber management will be a very limited secondary use, subject to wildlife, recreation, and visual concerns. Proposed Visual Consideration Areas as a Secondary Allocation:

Visual Class I: Appropriate areas: foreground views as seen from roads, trails, and waterbodies, including

- 1. Buffer along the entire shoreline (within Bureau ownership) of the ponds.
- 2. Buffer around parking areas and campsites on Long and Lower Ponds.

Visual Class II: Appropriate areas: background hillside views as seen from any of the ponds or their shorelines, and distant views from Route 27

- 1. Entire hillside on west side of Natanis Pond.
- 2. Hillside east of Route 27 at base of Sisk Mountain (as viewed from Bag Pond and Lower Pond).

Proposed Developed Recreation Class I Areas (Dominant Allocation):

1. All campsites and carry-in boat access sites. This includes the Upper Farm campsite and carry-in boat access on Long Pond, and the Burnt Dam carry-in boat access and campsite area on the peninsula at the top of Lower Pond and proposed additional campsites.

Proposed Developed Recreation Class II Areas (Dominant Allocation):

1. Hard-surfaced boat access areas and improved parking areas (proposed at Natanis Pond near/on campground lease); the Natanis Pond Campground lease area; and the ATV trails that extend from the campground beyond the lease area.

Proposed Allocations for Other Public Lots

Summary of Proposed Allocations (acres) Other Public Lots

RESOURCE ALLOCATION	DOMINANT ALLOCATIONS (acres)	SECONDARY ALLOCATIONS (acres)
Special Protection	145	Not applicable
Significant Natural Areas	115	Not applicable
Cultural/Historic Areas (AT)	30	Not applicable
Wildlife/Rare or Exemplary		
Ecosystems	540	20
Remote Recreation	110	
Visual Consideration Areas – Class I		190
Timber Management	2,330	645
TOTAL ACRES	3,1251	

Acreages are representations based on GIS metrics rounded to the nearest 10 acres, and do not sum to total Plan acres due to measuring error and limits of GIS precision.

Coplin Plantation Central Lot: <u>Timber Management as Dominant Allocation</u>. This lot was recently harvested; no special features were found in the timber harvest prescription process, and access to the lot is limited. Recreation and Wildlife Management as secondary uses.

Coplin Plantation West Lot: <u>Dominant Wildlife/Rare or Exemplary Ecosystems and Habitat</u> due to predominance of wetlands and deer management areas; <u>Secondary Visual Consideration Class I</u> along the Dead River at two points of contact; this River is part of the Northern Forest Canoe Trail; and the put-in for the South Branch Dead River canoe trip begins at the Kennebago Road crossing between these two points. Timber Management as a secondary allocation.

Freeman Township Lot: <u>Dominant Wildlife/Rare or Exemplary Ecosystems and Habitat</u> for the riparian area (330 feet) surrounding the open wetland and along the first order stream (75 feet) in the southwest corner; and otherwise <u>Timber Management</u> as the dominant allocation due to limited access, size, and absence of unusual natural features or special recreational values.

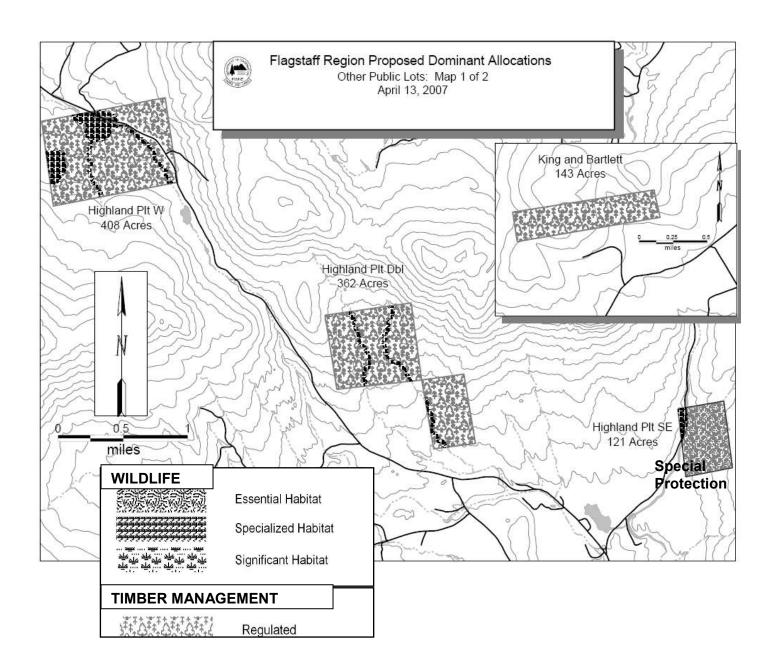
Highland Plantation West Lot: Dominant Wildlife/Rare or Exemplary Ecosystems and Habitat for the riparian area (330 feet) surrounding the seven acres of non-forested wetland and 75 feet along both sides of the first order stream that cuts through the lot; Visual Class I (of variable width) for the areas abutting the Long Falls Dam Road; Timber Management on all acres (dominant except in the Visual consideration and Wildlife Management areas where it is a secondary use). This is mostly high quality late successional forest with no unusual natural features or special recreational values.

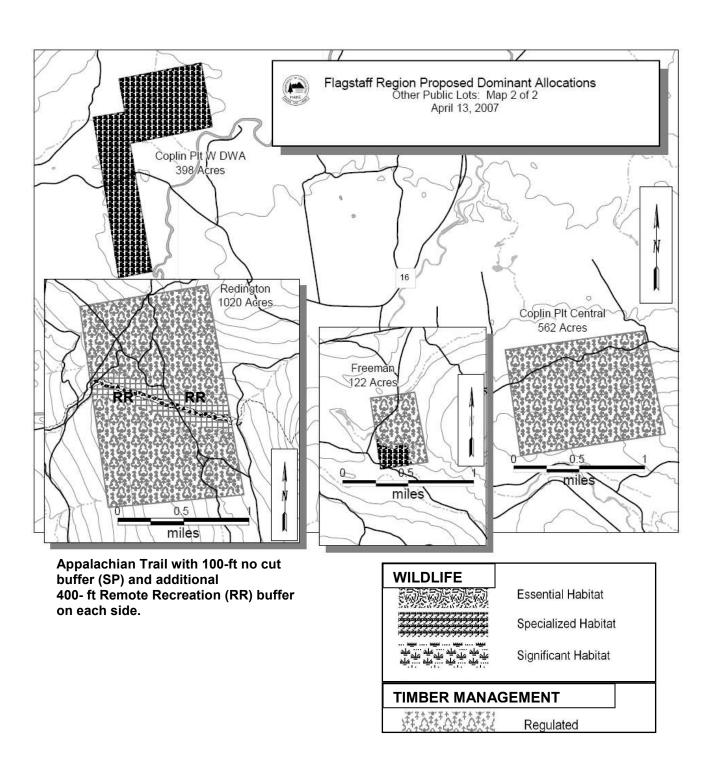
Highland Plantation Double Lot: Dominant Wildlife/Rare or Exemplary Ecosystems and Habitat for a 75-foot riparian corridor along both sides of two first order streams that traverse these lots; Timber Management as a dominant use except in the Wildlife Management areas where it will be secondary. These are good quality northern hardwood stands with no unusual natural features or special recreational values.

Highland Plantation Southeast Lot: Special Protection as a dominant allocation for areas to the east of Sandy Stream due to a late successional forest and wildlife habitat of particular value in the context of an industrial forest. This lot also includes a steep gradient second order stream, and ravines and seeps in the lower slopes. Dominant Wildlife/Rare or Exemplary Ecosystems and Habitat for the area west of Sandy Stream, which is crossed by a woods road with a secondary Visual Class I around the small waterfall/ledge/pool area on the north line of the parcel that receives considerable recreation use. Secondary Timber Management in areas not allocated for Special Protection, subject to wildlife and visual concerns.

King and Bartlett Township Lot: <u>Timber Management as the dominant allocation</u>. A small narrow lot with principal value for timber and no public access (access is limited to the private clientele of the King and Bartlett Fish and Game Club, which is currently operated as a traditional Maine sporting camp).

Redington Township Lot: This lot is difficult for the public to access except on foot via the Appalachian Trail; and its primary value is for timber. <u>Dominant Special Protection no-cut area</u> along a 100-foot corridor on either side of the Appalachian Trail; <u>Dominant Remote Recreation</u> from 100 to 500 feet outside of the no-cut area; <u>Visual Class I</u> of variable width on both sides of the Appalachian Trail; <u>Timber Management as dominant</u> for all areas not within the Special Protection, Remote Recreation, or Visual Consideration areas; <u>secondary Timber Management</u> within the Remote Recreation and Visual Consideration areas. Note that new timber management roads or motorized recreation trails are not allowed within 500 feet of the Appalachian Trail.





VII. Management Recommendations

The recommendations presented below are intended to provide both general and specific guidance to the managers of these lands. These recommendations are organized around the various uses for which these lands are managed, and are not presented in any order of priority. Implementation of these recommendations will proceed as resources allow, in accordance with an overall operations plan that will be developed for the Region subsequent to the adoption of this Plan, as outlined in Section VIII. Monitoring and Evaluation.

Management Recommendations- General: Applies to all Lands

Rare or Exemplary Ecosystems and Habitat Management

- 1. Keep recreationists on trails, especially in alpine areas, through scree walls, education, etc.
- 2. Protect natural communities and rare plant populations from impacts related to land management by consulting with the Maine Natural Areas Program prior to harvesting in areas containing rare plants or plant communities, exemplary natural communities, or areas identified in the 1998 report by Janet McMahon, "An Ecological Reserves System Inventory" which identified areas that could potentially be designated as ecological reserves.
- 3. Consult with the Maine Natural Areas Program prior to establishing new trails or cutting vegetation for view opportunities in an ecological reserve.

Rare, Threatened and Endangered Species; Species of Special Concern

4. Manage areas around rare animal sites according to MDIFW or USFW guidelines, as appropriate.

Wildlife Management

- 5. Manage public reserved lands in the region to increase the quality and quantity of softwood dominated stands amongst the predominance of hardwoods. A better diversity of forest types will benefit many wildlife species.
- 6. Follow the Bureau-adopted "beech management guidelines" to assist field staff in assuring the continued existence of beech as a viable component of hardwood stands where they exist within the Plan area. Maintaining beech in the face of severe disease problems is a regional goal. Beechnuts are an important food for more than 40 wildlife species, and important to bear reproduction.
- 7. Provide significant amounts of multi-aged forests (this general goal will enhance wildlife habitat over time).
- 8. In cooperation with Florida Power and Light, MDIFW, and MDOT, as appropriate, pursue ways to educate the public about threats to the fishery from illegal stocking of non-native fish, which diminish native populations, and threats to the health of the region's lakes and ponds from the introduction of invasive aquatic weeds.

Management Recommendations for the Bigelow Preserve

Flagstaff-Lake Focused Recreation: In cooperation with Florida Power and Light and constituent groups develop a coordinated plan for Flagstaff Lake related recreational facilities. Areas to address include:

<u>Water Access Camping</u>: When the need can be documented and resources are available, consider additional remote water access sites at:

- 1. the Savage Farm Site across from Myers Lodge
- 2. the Reed Brook area
- 3. additional areas identified in the Bureau's Multiple Use Coordination Reports (developed as part of the forest management prescription process)

Walk-to or Drive-to Camping and Recreation:

- 4. Redesign Trout Brook Sites limit vehicle access to the lake on the north side of the brook and define 4 individual party walk-to sites; continue to provide drive-to group site on the south side of the brook.
- 5. Work with Florida Power and Light to remove the shack near old boom dam and limit vehicle access creating a walk-to/water access site or sites.
- 6. Limit further development at the Round Barn site to not more than two additional sites on the east side of the cove; and a designated disabled access site near to the parking area. Improve the privy nearest the parking area to be compliant with the American with Disabilities Act.
- 7. Continue to allow trailered boat access to Flagstaff Lake at Round Barn during the fall waterfowl hunting season only.

Land-Based Recreation

Additions to the Bigelow Preserve:

- 1. Consistent with Bureau Policy on additions to the Preserve, add the following to the Bigelow Preserve: the Range Trailhead (Coplin Plt); and the Wyman Lot East (north and east of powerline and Route 27; excepting a small area near the powerline needed for a proposed ATV trail following the powerline to bypass of the transformer station); and excepting a buffer along the CMP powerline of 500 feet; and a small buffer north of the Boralex powerline as shown on the allocation maps.
- 2. Close to motorized public use two small spur roads that branch southerly off the Stratton Brook Road on parcels added to the Preserve.

Hiking, Biking and Camping Opportunities:

- 3. In consultation with the MATC and ATC, evaluate and document the need for additional hiking trails to relieve heavily used areas or provide new opportunities for which there is a documented demand. Implement, if the need can be demonstrated, and the resources are available, one or both of the following:
 - a. Avery Peak Bypass Trial: This could provide additional loop possibilities and a thru trail option that does not require the very difficult and intimidating summit of Avery Peak. It could also provide a safe alternate route during times of inclement weather for planned hikes that start on one side of the ridge and go to the other. Currently parties must make the choice to go over the peaks in dangerous conditions or turn back. The safest choice is often difficult one to

- make. There appears to be a demand with many aging hikers for such an alternative. The entire route area has been scouted.
- b. North Col Trail: This could provide a loop from the Round Barn Campsite decreasing pressure on the heavily used Safford Brook Trail. Upper portions of the closed Parson's trail could be utilized with lower sections rerouted to bring hikers to the East Flagstaff Road Extension. Further evaluation of the possible location of this trail is needed, if the need can be justified.
- 4. Work with MATC to develop walk-to campsites on the east shore of Flagstaff Lake on Bureau lands, to meet existing demand associated with the A.T.
- 5. Explore developing a summer hiking trail through the eastern shore area of the Bigelow Preserve, connecting with the Western Mountains Foundation (WMF) Trail, in consultation with MATC and the ATC.
- 6. Install a foot bridge over the outlet of Stratton Brook Pond on the Fire Wardens Trail.
- 7. Reconfigure the parking area and campsite in the gravel pit that serves the Little Bigelow Trailhead.
 - a. Maintain as a year-round parking area for AT hikers, boaters, and cross-country skiers. Provide a pit privy that is ADA compliant to serve the parking area and other allowed uses.
 - b. Investigate the feasibility of providing a path to the lake from this parking area for hand-carry boat access (including an option of a connector trail to the Bog Brook Road).
 - c. Develop/designate one or more camping areas (depending on demand) limited to tent camping to serve parties that arrive late in the day to start a hike or boat trip the following day. Limit use of the site(s) to one or two nights only, as deemed appropriate based on use.
 - d. Allow use of a portion of the parking area for special events associated with the Trail, subject to approval of a Special Use Permit.
- 8. Remove the Fire Tower from Avery Peak after consultation with the Maine Forest Service. The tower is in very poor shape and an attractive nuisance. Damaged walls provide access and fires have burned through the floor. Structure would be dismantled and burned on site. Stone foundation would be left providing defined durable surface for trail users.
- 9. Retain Fire Warden's cabin and maintain structure for continued seasonal use by the MATC.
- 10. Continue to cooperate with MATC's Caretaker and Ridgerunner Education (CARE) program at Horns Pond, The Col volunteer program and other MATC partnerships.
- 11. Designate mountain biking routes as follows: along the existing public use roads; along the Stratton Brook and Huston Brook Roads (the latter also known as the "Sixties haul road"); and the woods road from the Range trailhead to the Stratton Brook Road.

Winter Recreation:

- 12. Develop routes for two backcountry skiing areas. Explore possible trails connecting to Jones Pond area with the National Park Service, MATC and ATC.
- 13. Designate the existing high elevation snowmobile route crossing through north leg of The Horns ecological reserve as the primary snowmobile route on the north side of Bigelow; and designate the existing lower elevation route as an alternate trail to be improved and used when the Bureau is actively harvesting in the higher elevation areas.
- 14. Design snowmobile trails to be not more than 12 feet wide, maintaining natural contours to discourage high speed travel and ensure safety to about a 25 mph speed. Major stream

crossings will have bridges built to protect not only the riders from the steep slopes and rocky bottoms but to allow the streams to flow unimpeded during the spring runoff.

15. Winter Parking

- a. Continue to plow area at Range Trail
- b. Explore options to provide a winter parking area serving the south side of the Preserve for access to cross-country ski trails and winter hiking; and on the north side at Gravel pit parking area near Bigelow Trailhead.
- 16. Continue to cooperate with both local snowmobile clubs to provide groomed sled trials. Additional seasonal barricades are required to control inappropriate summer use.

Use of the Bigelow Lodge:

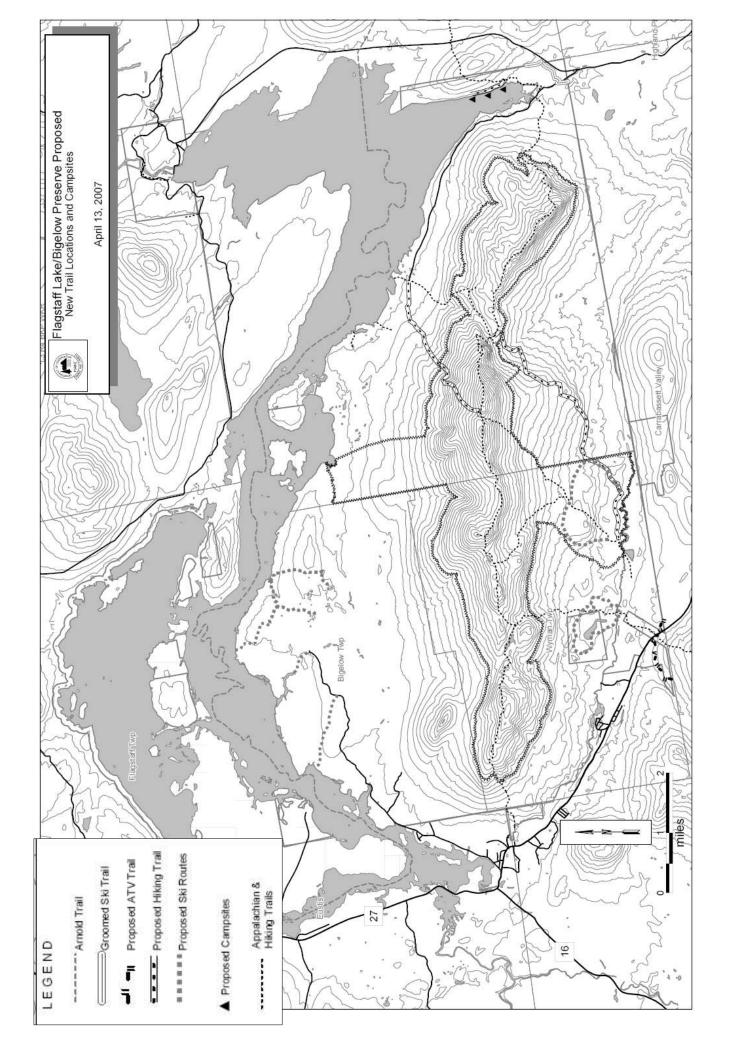
- 17. Develop operational procedures and guidelines for use of the Bigelow Lodge for summer and winter use.
- 18. Manage the Bigelow Lodge to minimize its impacts on other users in the Preserve.

Historic Resources

1. Any activities that would result in ground disturbance in historic and archaeologically sensitive areas must be reviewed by the Maine Historic Preservation Commission (MHPC). Sensitive areas include areas close to the original Dead River channel – Round Barn and Ferry Farm where there could be artifacts from the Arnold Expedition; and areas determined to have potential for prehistoric artifacts – all shoreline areas.

Administrative Issues

- 1. Execute a lease for the Wing Camp.
- 2. Gravel extracted from pits within the Preserve may only by used for purposes within the Preserve. All depleted pits will be rehabilitated.
- 3. Seek to acquire in-holdings within the Preserve boundaries, or lands adjacent to the Preserve that have valued public resources, if these lands are placed on the market and can be acquired at fair market value, and funds are available for the acquisition.



Management Recommendations –Flagstaff Lake/Surrounding Properties

Coordinated Recreation Planning for Flagstaff Lake:

- 1. In cooperation with Florida Power and Light and constituent groups develop a coordinated plan for recreational facilities on Flagstaff Lake. In general, evaluate the demand and needs for additional water access camping sites on Flagstaff Lake in cooperation with user groups such as the Northern Forest Canoe Trail organization, Outward Bound and Chewonki, and local guides. Implement when the need is documented and resources allow.
- 2. Develop a formal agreement with Florida Power and Light regarding the management of lands and recreation resources within the 1146-foot and 1150-foot elevation contours of shoreline adjacent to Bureau ownership.
- 3. Discuss/pursue erosion control along the shoreline of Flagstaff Lake with Florida Power and Light.

Flagstaff Lake Focused Recreation:

Water Access Camping:

Islands:

1. Evaluate the need and feasibility of adding water access sites on Flagstaff Island.

Dead River Peninsula:

- 2. Designate the North Flagstaff Road (Picked Chicken Hill Road) as a public use road.
- 3. If the demand can be documented, and as resources allow, provide additional remote water access camping sites. The shoreline of the Dead River Peninsula has been identified as the preferable location for through-trippers on the Northern Forest Canoe Trail due to prevailing winds and aspect.

Walk-to or Drive-to Camping and Recreation Opportunities on Flagstaff Lake:

Myers Lodge:

- 1. Designate the access road as a public use road.
- 2. Limit vehicle access to the lake. Remove the culvert through the drainage area and replace with a foot-bridge wide enough for carry-in boat access.
- 3. Develop drive-to campsites on high ground near the footbridge. Designate one handicapped accessible site.
- 4. Provide one or more vault toilets, including one that is ADA compliant.
- 5. Manage the beach area for carry-in boat access and day use, except in areas designated for walk-to campsites; manage a portion of the beach for day use.

Northern Shoreline – Flagstaff Township:

6. Explore the potential for ATV access to the northern shoreline of Flagstaff Lake (the area that was the original Flagstaff Pond) for a remote ATV camping opportunity (requires agreements with adjacent landowners). As with other remote sites, provide a parking area with footpaths to campsites and the lake. Design at least one site to be handicapped accessible. (Note, these sites would also be accessible by water).

Dead River Peninsula:

7. Redesign site on west end of Dead River Peninsula lot to be walk-in or water access; block the spur road to this site and provide a parking area for walk-in users.

<u>Boat Access</u>: Pursue parking improvements to the Flagstaff Lake boat access facility on the Spring Lake parcel with Florida Power and Light (responsible for this facility under their Federal Energy Regulatory Commission license).

Dead River Focused Recreation:

1. Improve the Big Eddy Campsite sanitation facilities.

Land Based Recreation

- 1. Wyman Lot (south) and Carrabassett Valley lots: Work with the Flagstaff Area ATV Club to develop a route connecting trails in Coplin Plantation to Kingfield via the Wyman lot south of Route 27, crossing the AT along Route 27, connecting to the CMP powerline on the east side of Route 27 (involving a bypass around the transformer station using an existing road and a small portion of the Wyman lot north and east of Route 27), and then connecting to the existing snowmobile trail heading south of the Preserve (see attached diagram).
- 2. Wyman Lot (south): Construct an interpretive trail through the Old Growth Stand, as resources allow.
- 3. Spring Lake and Dead River Peninsula Lots: Designate the road on the Spring Lake Lot beginning at the bridge over the Dead River, and continuing across the top of the Dead River Peninsula as a public use road. Allow public use of the management road that branches south from this road on the Dead River Peninsula (this will be maintained only to the standard of a woods management road, and may be used by ATV's and for pedestrian uses).

Historic Resources: Any activities that would result in ground disturbance in historic and archaeologically sensitive areas must be reviewed by the Maine Historic Preservation Commission (MHPC). Sensitive areas include areas close to the original Dead River channel – where there could be artifacts from the Arnold Expedition; and areas determined to have potential for prehistoric artifacts – the entire shoreline of Flagstaff Lake.

Administrative Issues:

1. Survey the boundary line on the Northern Flagstaff Lake shoreline parcels acquired from Plum Creek.

Mount Abraham – Management Recommendations

Wildlife/Rare or Exemplary Ecosystems and Habitats

- 1. Work with local snowmobile and ATV clubs to increase awareness of the impacts of these trails on the fragile alpine areas.
- 2. Block and post trails and roads on Bureau lands that are used to gain unauthorized motorized vehicle access into ecological reserve. Work with adjacent landowners to block and post trails that enter the Ecological Reserve from the western side.
- 3. Develop an agreement with MDIFW wardens to provide an enforcement presence if necessary, to ensure that ATV's and snowmobiles are not violating posted areas.
- 4. Remove the "cave" and metal structures, including the old fire tower, from the peak.

Recreation

- 1. Re-establish the hiking trailhead at the original lower elevation site and reroute the trail on Bureau lands to connect with the Warden's trail.
- 2. Remove the old Fire Wardens cabin and locate/construct a group tent site.
- 3. Block the logging roads that extend into the Ecological Reserve and put them to bed.
- 4. Evaluate alternatives to the road across the southern arm of the ecological reserve presently used as part of the snowmobile and ATV trail system in the area. Relocate these trails to other roads if reasonable, and discontinue the road on the ecological reserve.
- 5. Continue to allow ATVs and snowmobiles to use the existing gravel management road on the easterly edge of the non-ecoreserve portion of the property, provided there are no environmental issues.

Timber Resources

1. Evaluate forest management opportunities on the non-ecoreserve portion of the property.

Administrative Issues

- 1. Determine and mark the boundary of the ecological reserve where roads appear to cross the ecological reserve (southern and eastern boundary); and where woods roads appear useable by ATV's to illegally access the summit area (portions of the western line).
- 2. Assess any environmental issues with roads located on the Bureau lands. Put to bed any roads not needed for forest management purposes and not part of an approved snowmobile or ATV trail network.
- 3. Develop a proposal to the MATC for extending the Appalachian side trail (blue-blaze trail) from the summit to the Bureau trailhead on the east side of the mountain.

Chain of Ponds – Management Recommendations

Recreation Resources

- 1. Redesign Burnt Dam Campsites.
- 2. Through the Boating Facilities Division, work with MDOT to provide improved public boat access to this string of ponds. Improve the boat ramp in the Natanis Campground to a concrete-plank ramp and provide additional parking. Block the informal access site onto Natanis Pond, just south of the entrance to the Natanis Campground to discourage its use (unsafe location).
- 3. Provide an ADA compliant privy at the new boat launch facility on Natanis Pond; upgrade the privy at the Upper Farm site to be ADA compliant as resources allow.
- 4. Work with the Boating Facilities Division and MDOT, using MDOT Water Access Bond money to develop an improved trailerable boat access onto Lower Pond, to replace a steep, gravel ramp at the same location.
- 5. Provide signage to identify hand carry boat access to the two middle ponds within the chain, Long Pond and Bag Pond.

Historic Resources

- 1. Any activities that would result in ground disturbance in historic and archaeologically sensitive areas must be reviewed by the Maine Historic Preservation Commission (MHPC). Sensitive areas include areas in proximity to Natanis Point, Round Pond and Horseshoe Stream.
- 2. Pursue interpretive efforts related to the Arnold Trail in cooperation with MDOT (related to interpretive panels to be erected at the new scenic overlook on Route 27, as part of the Scenic Byways program), and the Arnold Trail Historical Society, which maintains a trail around and above Round Pond.

Wildlife/Rare or Exemplary Ecosystems and Habitats

- 1. Periodically manage the old fields and apple trees to maintain their habitat attributes.
- 2. Monitor and evaluate the potential of the Horseshoe Stream area for designation as a managed deer wintering area.
- 3. Post information at the trailered boat access on Natanis Pond related to procedures for avoiding introduction of invasive aquatic vegetation and fish.

Administrative Issues

- 1. Work with the Natanis Campground leaseholders to ensure continued reasonable public access to public resources including availability of short-term camping sites; access to the planned public boat access at the north end of Natanis Pond; access to ATV trails; and access to the Arnold Trail walk.
- 2. Work with the commercial campground lessee to ensure the campground is in character with the scenic and primitive nature of the surroundings, and has as little impact on the lake and associated wetlands as possible.

Other Public Lots - Management Recommendations

Coplin Plantation West Lot (Deeryard Lot)

- 1. Continue to manage for wildlife; monitor and evaluate use and ongoing studies related to the Deer Wintering area on this lot.
- 2. Define the Visual Class I area along the Dead River prior to any timber harvest in this area.

Coplin Plantation Center Lot

1. Continue to manage for late successional forest for high quality timber where appropriate, and a diverse wildlife habitat.

Freeman Township Lot

1. Continue to manage for high quality timber and diverse wildlife habitat.

Highland Plantation West Lot:

- 1. Continue to manage for late successional forest for high quality timber where appropriate and wildlife values.
- 2. Define the Visual Class I area along the Long Falls Dam Road prior to any timber harvest in this area.

Highland Plantation Double Lot:

1. Continue to manage for late successional forest for high quality timber where appropriate and diverse wildlife habitat.

Highland Plantation Southeast Lot:

- 1. Manage the portion of the lot west of Sandy Stream for wildlife.
- 2. Establish a Visual Class I area around the small ledge/waterfall on the north line of the parcel prior to any timber harvest in this area.
- 3. Provide signs along the gravel road visible to the public showing points of entry onto and exit from this lot. Provide a small parking area along the road if feasible.

King and Bartlett Township Lot:

1. Continue to manage for late successional forest for high quality timber where appropriate and wildlife values.

Redington Township Lot:

- 1. Continue to manage for late successional forest for high quality timber where appropriate, and wildlife habitat, subject to a variable width Visual Class I area and the 100-foot nocut area along either side of the Appalachian Trail.
- 2. Avoid placement of new forest management roads within the remote recreation zone along the AT.

Pierce Pond Easement - Management Recommendations

1. Establish and implement an annual monitoring program in cooperation with the US Forest Service (holder of the Plum Creek and Maine Wilderness Watershed Trust conservation easements), and the Maine Wilderness Watershed Trust (third party enforcer to the conservation easement held by the Bureau on the Charles and Gertrude Valentine property).

VIII. Monitoring and Evaluation

Monitoring and evaluation are needed to track progress in achieving the management vision, goals and objectives for the Flagstaff Region public reserved lands, and effectiveness of particular approaches to resource management. Monitoring and evaluation will be conducted on wildlife, ecological, timber, and recreational management efforts in the Flagstaff Region.

Implementation of Plan Recommendations

The Bureau will develop, within 2 years of plan adoption, a process for implementing, accomplishing, and tracking the management recommendations put forth in the Plan. This will include a framework of recommendations with priority levels assigned and targeted timeframes established by priority level. This framework will be utilized to determine work priorities and budgets on an annual basis. The Bureau will document, on an annual basis, its progress in implementing the recommendations, its plans for the coming year, and adjustments to the target timeframes as needed.

Recreation

Data on recreational use is helpful in allocating staff and monetary resources for management of the Bureau's public reserved lands, and generally determining the public's response to the opportunities being provided. It also provides a measure of the effectiveness of any efforts to publicize these opportunities. Use data for the Flagstaff Region, except for use on the Appalachian Trail and some scattered monitoring of snowmobile use on the Bigelow Preserve, does not exist. Fees are not charged for the use of these lands, so this avenue for use data, available to the Bureau's Parks system, does not exist for the Flagstaff properties. The Bureau will consider how additional use data could be gathered, perhaps by periodic user surveys.

In addition to gathering data on use as opportunities arise, the Bureau will generally monitor use to determine:

- (1) whether improvements to existing facilities or additional facilities might be needed and compatible with the vision for the Flagstaff Region;
- (2) whether 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) 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 conduct a variety of species monitoring activities statewide. The following are monitoring activities that are ongoing or anticipated for the Flagstaff Region.

- (1) The Bureau cooperates with MDIF&W monitoring of game species, including, for this Region, deer, moose, grouse, and black bear. Of particular interest are the deer wintering areas on the Spring Lake, Chain of Ponds, and Coplin West lots, since there is a need for this habitat in the region. As staff and budgets allow, the Bureau will coordinate with MDIF&W on aerial and ground surveys of these deer wintering areas to determine the distribution and use related to habitat quality and quantity. These surveys will be conducted during winter under snow conditions that restrict deer mobility.
- (2) The Bureau also conducts periodic "drum counts" for monitoring ruffed grouse populations in areas managed specifically for this species on the Dead River Peninsula in this Region.
- (3) In cooperation with the Vermont Institute of Natural Resources (VINS), the Bureau participates in monitoring high elevation birds, including Bicknell's thrush, on Mount Abraham. VINS also monitors these birds on Bigelow Mountain, through another partner.
- (4) The Bureau will identify and map significant wildlife habitat such as vernal pools and inland waterfowl and wading bird areas 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 as defined in the Bureau's Wildlife Guidelines

Ecological Reserves

There are currently sixteen Ecological Reserves on BP&L lands throughout the state. Ecological Reserves are established "for the purpose of maintaining one or more natural community types or native ecosystem types in a natural condition . . . and managed: A) as a benchmark against which biological and environmental change can be measure, 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." (Title 12, Section 1801). The Maine Natural Areas Program (MNAP) is conducting long-term ecological monitoring within these Reserves.

There are two Ecological Reserves in this Region: The Horns Ecological Reserve, and the Mount Abraham Ecological Reserve. The MNAP conducted natural resource inventories on these lands in 2005 as part of the reserved lands management planning process. MNAP is also monitoring these lands as part of its long term monitoring of Ecological Reserves to monitor ecological change within Ecological Reserves and to compare Ecological Reserves to areas under different management regimes. Baseline data were collected using permanent plots at the Horns in 2002

and at Mount Abraham in 2004. These areas will be re-inventoried periodically, according to schedules developed by the Bureau and MNAP.

Timber Management

Since timber harvesting is both the source of the majority of Lands Division revenue and potentially the most widespread source of ecological disturbance on the landbase, its monitoring is important and is done throughout the Bureau's process. The local work plans, called prescriptions, are prepared by professional foresters according to Bureau policies, with input from staff specialists, then are peer-reviewed prior to approval. Preparation and layout of all timber sales include having field staff look at essentially every acre to be treated before it is to be harvested, with individual tree marking done on the majority of harvest acres. Regional field staff are on site checking on harvest practice and progress frequently, and senior staff visit these sites on a less frequent basis to obtain the overall picture of what is taking place in the forest. After the harvest is completed, roads, trails, and water crossings are put to bed as appropriate, and any changes in stand type are 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 (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 our planning and on-ground practices. Compliance field audits are conducted annually, with comprehensive reviews, including reviews of management plans, conducted every five years. A comprehensive audit was completed for Bureau lands in 2006 by FSC. The Bureau's management practices scored exceedingly well in this audit.

Flagstaff Region Management Plan Adopted June 12, 2007

Appendices

- A. Flagstaff Planning and Management Staff, and Advisory Committee Members
- B. Bigelow Preserve Acts: An Act to Establish a Public Preserve in the Bigelow Mountain Area (1976); and An Act to Improve Access to Public Lands (2005)
- C. Summary of 1989 Bigelow Preserve Management Plan Recommendations - Accomplishments to 2007
- D. Bigelow Lodge Policy
- E. Deed Restrictions Mount Abraham
- F. Public Comment Process and Summary of Public Comments with Bureau Response
- G. Glossary
- H. References
- I. Technical Appendices Forestry (under separate cover, to be supplied)
- J. Technical Appendices Natural Resources Inventory (under separate cover)

Appendix A.

Bureau of Parks and Lands Flagstaff Region Planning and Management Staff

Will Harris- Director, Bureau of Parks and Lands

Kathy Eickenberg - Management Plan Coordinator

Cindy Bastey – Chief Planner, Bureau of Parks and Lands

Peter Smith – Regional Manager, Public Reserved Lands Western Region

Steve Swatling – *Bigelow Preserve Manager*

Tom Charles – Chief of Silviculture, Bureau of Parks and Lands

Joe Wiley – *IF&W Wildlife Biologist assigned to the Bureau of Parks and Lands*

Brooke Wilkerson – Maine Natural Areas Program specialist assigned to the Seboomook Unit

Scott Ramsay – Supervisor, Off-Road Vehicle Program of the Bureau of Parks and Lands

Tom Desjardin – Historic Sites Specialist

George Powell – Boating Facilities Director, Bureau of Parks and Lands

Stephen Richardson – Senior Forest Engineer, Bureau of Parks and Lands

Gena Denis – *Mapping and GIS Coordinator*

Flagstaff Region Lands Advisory Committee

(Other agency and Public members)

Forest Bonney, Inland Fisheries and Wildlife, Fisheries Biologist

Jennifer Burns, Maine Audubon Society

Timothy Carter, Representative, House District 19

Diano Circo, Natural Resources Council of Maine

Debi Davidson, Izaak Walton League

Ernie DeLuca, Florida Power and Light

Thomas Dodd, Sustainable Forest Technologies

Greg Drummond, Claybrook Lodge

Dick Fecteau, Maine Appalachian Trail Club

Matt Gomez, Maine Forest Service

Walter Gooley, Senator, Senate District 18

Bruce Hazard, Mountain Counties Heritage

J.T. Horn, Appalachian Trail Conference

Chuck Hulsey, Inland Fisheries and Wildlife, Wildlife Biologist

Bob Luce, Town of Carrabassett Valley

Rick Mason, East Flagstaff Lake Property Owner's Association

Peter Mills, Senator, Senate District 26

Bill Munzer, J.V. Wing Snowmobile Club

Wright Pinkham, Representative, House District 88

Josh Royte, *The Nature Conservancy*

Dick Smith, Flagstaff Area ATV Club

Rich Smith, Timber Resource Group

Ken Spaulding, Friends of Bigelow

Ken and Sharon Thomas, Natanis Point Campground

Kenny Wing, Eustis

Appendix B

An Act to Establish a Public Preserve in the Bigelow Mountain Area

(enacted by public referendum June 8, 1976)

Be it enacted by the People of the State of Maine, as follows:

<u>Sec.1. Bigelow Preserve.</u> The Department of Conservation, including the several bureaus and agencies therein, and the Department of Inland Fisheries and Game are hereby authorized and directed to acquire approximately 40,000 acres of land on and around Bigelow Mountain in Franklin and Somerset Counties for a public preserve to be known as the Bigelow Preserve. The Preserve shall include generally all land in Wyman and North One Half Township north of Stratton Brook and Stratton Brook Pond, and all land in Dead River township south and east of Flagstaff Lake. All public lots within or contiguous to this area shall be included within the Bigelow Preserve.

Sec. 2. Administration and Acquisition. The Preserve shall be administered by the Departments of Conservation and Inland Fisheries and Game. These Departments shall seek and use funds for the acquisition of land necessary for the Bigelow Preserve from state bond issues and appropriations, federal funds, and other sources now or hereafter available to them. Acquisitions shall be coordinated by the Department of Conservation. Sufficient property rights and interests shall be acquired to accomplish the purposes of this Act.

Sec. 3. Purpose. The purpose of this Act is to set aside land to be retained in its natural state for the use and enjoyment of the public. The Preserve shall be managed for outdoor recreation such as hiking, fishing, and hunting, and for timber harvesting. Timber harvesting within the Preserve shall be carried out in a manner approved by the Bureau of Forestry and consistent with the area's scenic beauty and natural features. All motor vehicles, not including vehicles engaged in timber harvesting, shall be restricted to roads designated for their use, except that snowmobiles shall also be allowed on designated trails. Designated roads shall be limited to those easily accessible to automobiles as of the effective date of this Act. No buildings, ski lifts, power transmission facilities or other structures shall be built in the Preserve except for open trail shelters, essential service facilities, temporary structures used in timber harvesting, small signs, and other small structures that are in keeping with the undeveloped character of the Preserve.

[Note: The effective date of the Act was July 24, 1976, the day the proclamation was approved by Governor James B. Longley. Being a publicly initiated bill, the Act has no public or private citation.]

Public Laws First Special Session of the 122nd Chapter 205 An Act to Improve Access to Public Lands

Be it enacted by the People of the State of Maine, as follows:

Sec. 1 I.B. 1975, $\S 3$, $2^{\text{nd}} \P$ is enacted to read:

The Department of Conservation, Bureau of Parks and Lands may construct and maintain a trail, not more than one mile in length, in the southeast corner of the Bigelow Preserve at a location and of a width to be determined and approved by the bureau. The trail within the Preserve is to be a segment of a longer trail. The trail within the Preserve is for use by the Public at no charge for hiking, cross-country skiing and other compatible nonmotorized trail uses only. Motorized equipment and vehicles may be used for the construction of the trail and for grooming of the cross-country ski trail. The Director of the Bureau of Parks and Lands may enter into a lease or other agreement to facilitate the construction, operation or maintenance of the trail by another entity consistent with the Maine Revised Statutes, Title 12, section 1852. All necessary permits and agreements for the trail to be located on land abutting the Preserve must be completed with the owners of the abutting land prior to construction of the trail within the Preserve. If the segment of trail within the Preserve is not constructed by December 31, 2008, this authorization terminates. [Effective September 17, 2005].

Appendix C Summary of 1989 Bigelow Preserve Management Plan Recommendations Accomplishments to 2007

SPECIAL PROTECTION

1. Evaluate any proposed activity within the Special Protection Zone to assure that there will be no significant adverse impact on the protected resources.

Resource protection is the first priority with all activities undertaken designed to lessen the negative impacts that recreational uses have on the area. Additional projects undertaken to reduce the risk of negative impacts included increased use of rock to create scree walls to explicitly define the trail across the Alpine zone, removal of the Col lean-too and encourage less experienced campers to stay at lower elevation sites like the Horns Pond lean-to and the Little Bigelow lean-to, and an expanded education effort in the Principles of LNT by paid Caretakers.

- 2. Develop, with the assistance of the trail groups and other interested parties, information signs to encourage proper use and protection of the resources in the Special Protection Zone.

 MATC maintains signs in the Alpine areas and in re-vegetation zones at highly impacted campsites on the A.T.
- 3. Monitor the rare plant and animal populations through periodic field examinations to ensure they remain a viable component of the Preserve.

MNAP has completed work to re-inventory and track populations. They are also called on to assist in areas where during the field work for Prescription Review and Multiple Use Coordination Reports unique micro environments or plant associations are encountered.

4. Leases for radio towers, microwave antennas, and other such communication equipment are not compatible with management of the Preserve, and will only be allowed for emergency purposes and for a limited period of time.

The above were complied with throughout the plan period.

RECREATION

1. Provide trailhead parking for the Range Trail, AT, and Fire Wardens trail.

Range trailhead was reconstructed and access road relocated. Route 27 trailhead was developed by DOT/MATC. BPL relocated and improved Firewardens trailhead.

2. Relocate the first section of Range Trail (west end) onto publicly owned land (Stratton Water District) to avoid any future conflicts with private owners.

Property acquired and trail relocated.

- 3. Begin Fire Wardens Trail at Stratton Brook Pond outlet cutting a trail parallel to the existing Stratton Brook Road in order to eliminate potential conflicts between logging traffic and hiking. Redesigned logging access (logging treated as a secondary activity to the recreation), to provide for harvested wood to move east or west of current trail.
- 4. Resolve potential conflicts between hikers and timber management along Fire warden Trail just north of the Stratton brook Road and along the AT near the East Flagstaff Road. Both trails follow old roads, which appear to be the only feasible access into certain parts of the Preserve for timber management. Minor trail relocations appear to be the best solution. All hiking trails should have permanent locations.

Both roads were relocated allowing the trails to have permanent locations unchanged. The upper section of the Safford Brook Trail was relocated off the forest management road. The lower section relocation has been partially constructed. There remain sections of both the A.T. and side trails to be relocated in the future that were not identified in the plan.

5. As per agreement developed by Public Lands and Parks and Recreation in 1982, continue a no cut zone 100' on each side of the AT. From 100'-500' from the AT, use only uneven aged harvesting methods approved by Parks and Recreation. Use the standards on the Fire warden's Trail, Range Trail, and Stafford Brook Trail.

In addition to the 100-foot no-cut zone, a variable width harvest zone is established along these trials prior to any harvests near the trails.

6. Rehabilitate the lean-to site at the Horns Pond or move it and the trail further south away from the Pond

The trail was kept in the same location; the campsite was redesigned and rebuilt locating 95% of the impacts out of the Horns Pond watershed. Two lean-to's were constructed replacing the two on the A.T. with one of the original historic C.C.C. built lean-to's converted to day use only. Individual and group tent sites were constructed with earth pads. Footpaths were closed or hardened reducing the total trails by 27%. Through trail reduction, the shoreline available for recreational use was decreased by 75%. The trail on the outlet of the pond was relocated and hardened providing access to the back side of the pond.

7. Provide for overflow camping in designated locations with proper facilities down slope from the Horns Pond and Bigelow Col sites.

Overflow sites are limited to small previously impacted areas centrally located at the existing sites. New sites were added at Cranberry Stream and Moose Falls to provide alternate options. Groups are encouraged to use Moose Falls instead of the Col. Individuals seeking a more secluded experience are directed toward the Cranberry Stream site. MATC maintains a Volunteer Group Registration via email designed to reduce crowding at campsites. From their web site MATC.org: "Summer camps, Adventure programs and Orientation groups account for 40% of traffic on the Trail. The Maine Appalachian Trail Club has been working to reduce overcrowding at sites and the increased impact it brings, with our Group Registration System."

8. Do not allow overnight camping at Cranberry Pond or Houston Brook Pond. Currently, there are no designated sites on either pond and developing sites would create a problem for management and maintenance. In addition, since one of the two high mountain ponds already has camping (Horns Pond), the other pond (Cranberry Pond) should be left undeveloped. Both Cranberry and Houston Brook Ponds are available for day use.

Camping has not been permitted in these areas.

- 9. Make all designated campsites fire safe and provide for appropriate human waste disposal. Sites have been designated as "authorized", "permit only" or "No Fire Sites" as appropriate; sanitary facilities have been provided where needed.
- 10. Examine the need for more water access sites on Flagstaff Lake.

A need for additional sites has been noted over the last two years, due in large part to the popularity of kayaking and designation of the Northern Forest Canoe Trail.

11. Continue the previous pattern of establishing use of the Round Barn Site on Flagstaff Lake as a vehicle access camping area. It appears from comments received that most if not all sites at Round Barn should be drive-to-requiring a short walk from the vehicle to reach campsites as opposed to sites that can be directly driven to. However, over the next two years the type of campsites (drive-in, drive-to 100-200 feet from vehicle), and how many sites should be upgraded will be determined. Developing a specific recommendation will be a major task for the Preserve Manager. No more than 15 individual campsites whether drive in or drive to, along with one group site, a day use area, parking and appropriate sanitary facilities will be constructed. This is not to say that all 15 sites would be built soon, if at all. It simply means that no more than 15

individual campsites will be constructed at Round Barn. The Round Barn site will be the one area in the Preserve where drive-to or drive-in sites are provided. Information showing the location of other campsites on Public Lands nearby but outside the Preserve as well as private campgrounds nearby will be provided onsite to guide users to those areas when the Round Barn sites are occupied. The future of the Round barn sites depend upon the Bureau's ability to maintain and direct appropriate use and public's willingness to use the area under the guidelines established. Round Barn established as a drive-to walk-to camping area with a centrally located parking area; there are currently 9 campsites (two were constructed several years after the initial project), plus an isolated group site and a designated day-use area, with the potential for an additional two sites as needed on the east side of the cove. With opening of the Carriage road to the public via an agreement in 2005 between the Penobscot Nation and the Town of Carrabassett Valley there has been a marked increase in use at Round Barn. Midweek day-use has increased dramatically though previous use was very light so the impact is minor.

12. Develop plans for a few (3-6) walk-in campsites at Jones Pond and a connecting trail to the AT.

In cooperation with MATC we decided to add a campsite on Cranberry Stream; the Jones Pond site was not desirable due to the high population of mosquitoes.

13. Work more closely with the Trail Clubs and volunteers to ensure proper maintenance of all trails. Review and approve all work preformed by the clubs except routine maintenance. Support the idea of a caretaker for the Horns Pond/Bigelow Col sites.

Caretaker program was expanded to 2 people, providing full time coverage at Horns Pond.

Three additional caretakers have been added to the program at other high use AT locations in Maine making an expanded, week long intensive training program held at the Bigelow Lodge possible. This includes two full days of LNT training on the mountain.

14. Discontinue and "put to bed" the Parsons Trail located on the north side of the Bigelow Range. The trail is steep and difficult to properly maintain.

There is interest in establishing a "loop," that would involve upper portions of the discontinued trail and decrease pressure on the AT, the summit of Avery and the Safford Brook Trail.

15. Develop, consistent with the Preserve Act, interpretive signs which will help users better understand the natural processes going on in the Preserve, as well as directional signs.

Directional signs have been installed; interpretive signage still remains to be done

16. Provide for a snowmobile trail or alternate trails on the north side of the Bigelow Range between the Long Falls Dam Road and the west line of the Preserve that will be available every season. Work with snowmobile groups to examine the feasibility and desirability of a loop trail around the entire Preserve. In theory, the idea of the loop trail around the Preserve is acceptable. However, given the topography, the fact that the trail would most likely need to cross private land, and the cost of establishing the trail away from other potential conflicting uses, construction of the loop trail may not take place for many years. The local snowmobile club will be counted on to provide a considerable amount of assistance and expertise in developing any new trails.

Ongoing work to provide a trail location that does not conflict with current harvests.

17. Develop cross-country ski trails around Jones Pond, which will be off-limits to snowmobiling in order to provide for those wishing to ski separate from snowmobiles. Develop other ski trails particularly on the south side of the Range, if the need can be demonstrated to serve as combination snowmobile and cross-country ski trail.

Most of the interest has been in off-trail skiing; no groups or individuals have taken an interest in building and maintaining un-groomed backcountry ski trails; a proposal for ski trails, however, is being included in the revised Preserve management plan.

18. Any recreation facility constructed (campsite, privy, parking area, etc.), should be as primitive in nature as possible to provide for protection of the resource but still be of high quality and allow for safe and public enjoy.

Ongoing. Recreational driveways are kept narrow and lay with the land. Campsites provide minimum facilities required for resource protection. For example, given the well developed backcountry ethics of the users we have not found it necessary to provide picnic tables as a means of preventing cutting of live trees to build make shift tables.

WILDLIFE

1. <u>General.</u> The Bureau as part of the <u>Integrated Resource Policy</u> developed guidelines for wildlife management on Public Lands. The Guidelines include establishing riparian zones, retention of den trees or cavity trees, managing for diversity of wildlife habitat, seeding of disturbed areas where possible with a green mixture beneficial to wildlife, and requiring the

Bureau's wildlife biologist to comment on and approve all harvest operations. These guidelines are all applicable to the Preserve and wildlife management there will be guided by the existing wildlife policies for other Public Lands.

2. Impoundments. The Stratton Brook Pond and an old impoundment site along Hurricane Brook in Bigelow Twp. - both represent important or potentially important wetlands habitats, which will be examined for the desirability if installing a water control device to improve the wetland component of the flowage. This type of impoundment, given the shallow, weedy nature of the flowages, would benefit wildlife species such as waterfowl and furbearers, but not create water deep enough to enhance the coldwater fisheries. Both Jones Pond and Huston Brook Pond will be examined to see if a small dam, raising the water level 2-4 feet would benefit the coldwater fisheries. If any of these four potential impoundments prove to be worthwhile, they will be constructed. (Construction of the Stratton Brook flowage would require permission from the adjoining landowners.) All water control devices will be small (similar in size to those in place at the time of the Bigelow Act) and designed to blend in with the character of the Preserve. All the proposed impoundment sites had such water control devices in place at the time of the Bigelow Act.

The distinctive meanders of Stratton Brook Pond is an easily recognizable landmark from the high elevation trail system providing a solid orienteering point in a sea of trees. The scenic values when taken with the current wildlife values makes holding the water level at its current level desirable. To date, no dam has been required to achieve these objectives; Hurricane Brook dam was considered not effective so was dropped; other dams were regulated out of existence.

3. Rare Species Management. The habitat of the yellow-nosed vole is all within the Special Protection Zone, which provides it the necessary protection. The historic eagle-nesting site along Flagstaff Lake will be examined and managed to encourage its use by eagles. This means retaining large white pines along the shoreline suitable for use of nesting sites. If any area is found to be used by rare or endangered species, appropriate management steps will be taken to maintain or enhance the habitat being used.

The yellow-nosed vole has been renamed by scientists to the short-nosed vole. Eagles nests active within the last 20 years have been located at Hurricane Brook, Flagstaff Island, and a small island on the north end of the original Flagstaff Pond.

4. <u>Fish Stocking.</u> The stocking program conducted by the Department of Inland Fisheries and

Wildlife at Horn's Pond provides an additional recreational opportunity and should continue. However, because the high mountain area around the pond is fragile, the effect of increased human traffic around the shoreline will be monitored. In the event that the fishing pressure results in serious effects to the environment, a request will be made for Department Inland Fisheries & Wildlife to discontinue the stocking. If the Jones Pond impoundment is built it may be necessary to stock trout, at least for a few years, in order to establish a healthy population. Fish stocking and its cost will be coordinated with the Department of Inland Fisheries and Wildlife.

Monitoring of foot traffic around Horns Pond is conducted routinely by the MATC Caretakers as part of there regular duties. A hardened trail was constructed and is maintained to give people access to the north shore. Bureau (waiting to get 5-year stocking history from IF&W)

5. <u>Flagstaff Lake.</u> Flagstaff Lake is not in the Preserve, but does greatly influence management of the Preserve; the fluctuating water limits the lakes desirability for water-oriented recreational use and for wildlife habitat. However, it may be possible, through plantings, to establish vegetation along the shore of the lake to benefit waterfowl. The Bureau will work with CMP and the Department of Inland Fisheries and Wildlife to assess what can be done.

Plantings along the shoreline of Flagstaff Lake not undertaken

6. <u>Habitat Diversity.</u> Efforts to increase the amount of softwood and (subsequently decrease the amount of hardwood) will have a beneficial impact on wildlife, particularly where hardwoods now occupy several hundred contiguous acres by providing for more diverse environment. It will not be possible or desirable to decrease the hardwood on a large scale, but it can be accomplished in selected areas.

The focus of this effort was to increase deer cover along drainages, such as Trout and Cold Brook, which continues to be a worthwhile focus directing the timber management.

7. Wetlands. Wetlands add a degree of habitat diversity and provide part of the lifecycle requirements for many species of wildlife. Wetlands also serve a number of other important ecological purposes, including storage of ground water and stabilization of surface water. There are several hundred acres of wetlands within the Preserve, some of which are associated with the impoundment areas discussed in b. of this section. Of particular additional note are the wetlands along Trout Brook, Reed Brook, Hurricane Brook, and smaller areas on the south side of the mountain range in Dead River Township near Cold Brook. All wetland areas are surrounded by a 330-foot riparian zone (defined on page 26). In that zone, forest management will be designed to maintain the quality of the wetland to enhance its' wildlife benefit.

Ongoing.

8. Openings. Open areas, particularly when they are well dispersed through the landscape, can be important wildlife habitat. The wood yards associated with timber harvesting will provide many such openings. Such areas are particularly valuable when seeded with a mixture of grasses beneficial to wildlife. In addition, the existing opening adjacent to the Stratton landfill will be kept as open field

Mowing is conducted every few years as needed.

VISUAL RESOURCES

The exact boundaries of the 3 visual zones are often difficult to determine on a map or in the field. There is the need for flexibility over the next few years to more precisely define the boundaries of each zone. This will require field checking the map as it is drawn in this plan from many different locations to determine the accuracy of each zone's delineation. These visual zones will be adjusted as necessary based on new information collected over the years.

The Bureau has information/maps in hard copy where compartment exams have been completed. This information is not currently available on the GIS

TIMBER

1. General. After extensive review, the Bureau of Public Lands adopted timber management standards in 1985. Applied everywhere else on Public Lands, these standards are also appropriate for the Preserve and will govern timber management there. The one major exception is that the maximum clear-cut size on the Preserve will be 10 acres instead of the standard maximum elsewhere of 20 acres.

All harvesting activities must be compatible with visual management as described earlier. The Bureau has recently developed a very detailed field guide entitled <u>Wildlife Guidelines</u> which outlines the specific actions, including forest management, needed to accomplish a particular wildlife management practice. For example, the <u>Guidelines</u> outline the correct procedure for seeding log landings and abandoned roads as well as describing the habitat requirements of important wildlife species, and techniques for managing them.

There have been no clearcuts on the Preserve, either before the implementation of the 1989 Plan or after; the Bureau has otherwise followed all BP&L timber management standards

2. <u>Old Growth.</u> As mentioned in the Special Protection Zone section, no old-growth stands have been identified but some probably do exist. When potential candidates are located they will be evaluated to determine if they require protection. In addition, as shown on map #6 there are significant areas that are being set aside never to be cut (approximately 1/3 of the land in the Preserve.) Many of these are not old growth stands now, but will become so in the future. The University of Maine is proposing a system of "Ecological Preserves" (essentially undisturbed areas) around the State in many different types of habitat. The Bureau will cooperate with the University to determine if any of the no cut areas in the Preserve fit into that project.

A five-acre (?) OG stand was found on East Nubble, which is within a 200-acre no-cut area. No other area has warranted the OG designation; 10,500 acres on the Preserve were designated as Ecological Reserve

3. <u>Lack of Softwood</u>. An overall forest management goal in the Preserve is to increase the amount of softwood at lower elevations in order to create greater diversity for wildlife and increase financial return. There are a number of areas currently occupied by hardwood or mixed wood stands as the result of past harvesting practices that are better suited for softwood production. Timber management efforts on these areas will be conducted to increase the softwood component where practical.

1999 inventory showed 44% softwood volume (+/-), harvests since 1990 have included only 32% softwoods, indicative of the Bureau's efforts to increase the softwood component across the Unit.

4. Quality vs. Fiber. The goal on the Preserve as on the other parcels on public lands, will be to favor growing large, high quality trees for saw timber and other high value products over growing smaller, low quality trees for fiber. This is possible on most of the operable land in the Preserve. There are a few operable areas, mainly poor sites (wet, rocky, steep, etc.) or stands containing low value species where the production of fiber may be emphasized as an interim step toward achieving a significant improvement to the stands. With proper management, these areas may eventually produce large, valuable wood products. Examples here include wet areas dominated by cedar or old burn sites containing nearly pure stands of low quality aspen on soils more suitable for softwoods.

Since 1990, harvest of both softwoods and hardwoods has been heavier towards the lower quality pulp, in an effort to increase the proportion of higher value tress

ADMINISTRATIVE ITEMS

1. No wood yards will be allowed on public use roads. In addition, any management road frequently used by the public for snowmobiling, hiking, cross-country skiing and hunting will also be managed for visual considerations.

Ongoing

2. Any new road construction will be kept to the minimum necessary to manage the Preserve, including the management of timber. The roads constructed will be kept as narrow as possible and built to conform to the terrain. In addition, roads will be designed to limit the length of sections running at right angles to the ridgeline and other public viewing areas. When no longer needed, any new road or reconstructed management road will be water-barred, seeded or otherwise stabilized.

Ongoing

3. The public use roads may be temporarily gated or otherwise blocked during times of the year when vehicle traffic is likely to cause serious damage to the roads (principally during spring break-up), create erosion or during times of high fire danger.

Annually roads are damaged by impatient 4-wheel drive enthusiasts. This results in little to no environmental damage but pushes the use of the road by the general public back 2-3 weeks from what otherwise would have been.

- 4. The public use roads will end at the following locations:
 - a. West Flagstaff Road at Hurricane Brook gated
 - b. Stratton Brook Road at or near the outlet of Stratton Brook Road boulders
 - c. Houston Brook Road at Cold Brook gated
- d. East Flagstaff Road at the road leading to the Round Barn campsites (vehicle access is allowed to the sites). The road beyond the turn to the Round Barn will not be maintained for public vehicle traffic. However, as long as environmental damage and inappropriate use such as unauthorized camping does not occur, the road will remain open. There is a gate, but it is not closed. A well attended public meeting was held to hear concerns that the road beyond Round Barn not be closed to public use. This lead to a policy to keep the road open but not maintained as long as there was no negative environmental impacts. The gate can be closed at times when the road cannot support public use.

5. The public use roads will be maintained to a standard, which allows careful travel by pick-up trucks and most automobiles

The Bureau has established 5-yrear maintenance contracts for road maintenance.

6. The Houston Brook Road, since it serves little public use purpose will not be maintained. (The road is on private land)

Gated, ROW limited to timber management

7. ATV's are not consistent with the Bigelow Act, and therefore ATV use will not be permitted in the Preserve *Not permitted*.

STRATTON DUMP

Closed out, capped and seeded by the town. The fields will be mowed every few years to maintain the open habitat.

PRESERVE MANAGER

Hire a Preserve Manager. The Bureau of Public Lands will develop a job description. The Preserve Manager needs to have training in multiple-use land management including recreation and forestry. This position will be within the Bureau of Parks and Lands and be responsible for all day-to-day operations in the Preserve, including recreation management, visitor contact, and development and supervision of timber harvesting activities. In addition, this position will be available to work on other land in the area managed by the Bureau of Public Lands. The goal is to have this position filled during the summer of 1989. The Preserve Manager position will report to the Bureau's Western Region Manager. The Regional Manager will have overall responsibility for activities in the Preserve and will be the first step in dealing with issues of policy in the Preserve. *Hired in August of 1989 and remains in the position with 17 years experience managing the*

FLAGSTAFF LODGE

Preserve.

The Lodge may serve in the future as a headquarters, an equipment storage area or, perhaps a Preserve visitor's center. The potential usefulness of the building for any of these purposes cannot

be determined at this time. Over the next two years the Preserve Manager will help develop recommendation to the agencies involved with the management of the Preserve as to what new facilities are needed and how existing facilities, primarily the Lodge, fit the overall Preserve management scheme of the Preserve, it will be used and maintained as in the past, for educational, scientific, administrative or other non-profit public service uses. Other appropriate non-commercial uses, which could help defray the costs of maintenance, will be explored.

Completed (lodge use policy under review)

FIRE TOWER AND CABIN AT BIGELOW COL

The mountainous terrain of Western Maine sometimes makes it necessary to place communication equipment on prominent mountaintops in times of forest fires or other emergencies. The need for that capability is very real in the Bigelow area. The existing Tower could be used to house and secure expensive, portable radio equipment on a temporary basis. Thus, the Tower should remain and also be maintained so that it is not a visual detraction. The cabins serve the worthwhile function of providing living quarters for campsite caretakers and should be used and maintained for that purpose.

MFS owns the tower which is in very poor condition due to vandalism and the elements. BP&L owns the cabin which needs repairs to the roof and sills, and is in use by the MATC volunteer caretaker program.

OUTHOLDINGS AND LEASES

The existing out holdings and leases within the Preserve boundaries are on private lands and have been in existence for many years, with most dating back to the 1940's. As currently used, they do not affect the public's use of or the character of the Preserve in any significant manner. This, there is no overriding need to acquire any of those existing parcels or lease. There is always the potential that a significant conflict between the private owners and the Preserve management could arise. If it does, the Bureau will consider ways of resolving such conflicts, including acquisition of the outstanding interest. In addition, the Bureau of Public Lands will discuss with CMP their leasing policy with the objective of limiting further leasing of land by CMP within the Preserve Boundaries.

Bureau routinely coordinates with abutting landowners on leases and other administrative items that impact the Preserve.

The Wing Camp on the lake just east of the Bigelow Lodge is still unresolved though the

current spokesperson has indicated a willingness to sign a lease.

There may be lands adjacent to the Preserve that, if acquired, would enhance the overall management of the Preserve. The Bureau of Public Lands will pursue such opportunities if these lands are placed on the market and money is available.

The Bureau has acquired parcels that abut the Preserve (Fotter Parcel in Wyman, Huber Parcel in Carrabassett Valley and Wyman, and the Labonte Parcel in Coplin Plt.)

REVENUES

The Bureau of Public Lands will hold all revenues received from the Preserve. From this money, the Bureau will hire and equip a Preserve Manager. In addition, the Bureau will pay the cost of developing and maintaining recreation facilities and wildlife enhancement projects. As with all other parcels managed by the Bureau of Public Lands, revenue generated in the Preserve will not be dedicated solely for use within the Preserve. If money received is above the cost of providing for the Preserve Manager and basic facilities development and maintenance, it will be used where it will benefit the natural resources and public enjoyment of the Public Reserved Lands. Conversely, money generated on other Public Lands can be used to fund major projects with the Preserve.

Appendix D

Bigelow Lodge Operations Guidelines

Summer Season: Memorial Day weekend through Columbus Day weekend.

Filters for determination of appropriate summer use and priority:

- 1. Is consistent with the management objectives of the Bigelow Preserve.
- 2. Is consistent with the objectives and purposes of the Department of Conservation and does not conflict with other uses of the Bigelow Preserve.
- 3. Reduces expenditures by the State or saves money from State funded programs and does not conflict with the objectives of the Bigelow Preserve or the Department of Conservation.

In all cases, Parks & Lands must recover costs associated with the use.

Daily cost will be determined as \$150.00 plus staff time expense above the initial contact, plus the cost of any extra materials. The charge for a single nights stay would be a minimum of \$300.00. The maximum stay allowed is seven days, six nights at a minimum charge of \$1,050.00.

Winter Season: January – March weekends and February school vacation week.

The building will be open for day use by winter recreational visitors. Day use privileges include use of the open fire for cooking on a stick, enjoying a snack and/or beverage brought along or provided by the Bureau and use of the chemical toilet in the basement. Donations will be accepted to cover costs of supplies.

The Bureau encourages volunteers to assist in running the lodge in the winter. The presence of a volunteer allows the Bureau attendant to inspect trail conditions and to interact with the visitors in a casual, unhurried pace. In addition to the personal benefits of volunteering, volunteers bring their own experiences and guidance to enhance the experiences of the public. Up to four adult volunteers per day may sign up to help run the winter program. Volunteer duties include meeting and greeting visitors, preparing and serving hot drinks and snacks, preparing and stacking fire wood, maintaining the fires in the fireplace and woodstove, fetching water to be boiled for drinking and cleaning of the facilities. Volunteers provide their own transportation to and from the lodge. They have the option of spending the night between consecutive days of volunteering. They provide all their own food and bedding. Organized snowmobile or cross country ski clubs will be paid a stipend for providing volunteers to staff the lodge during the winter program.

The Bureau will also allow individuals not associated with an organized club to volunteer for this opportunity. The stipend will not be available to individuals as it is intended to support organizations that are active partners in stewardship of the trails.

Appendix E

Deed Restrictions Mount Abraham Property

Appendix E-1: Quitclaim Deeds (dated March 25, 2002) from the

Appalachian Trail Conference donating two parcels

(approximately 4,033 acres in Mount Abraham

Township and 1,045 acres in Salem Township) to the State of Maine subject to a Conservation Easement.

Conservation Easement on Mount Abraham parcels

(dated March 25, 2002).

Appendix E-2: Quitclaim Deed from Meadwestvaco Oxford

Company to State of Maine (dated September 29, 2004) for fee sele of approximately 1 153 gares subject

2004) for fee sale of approximately 1,153 acres subject

to a Conservation Easement.

Conservation Easement on Mount Abraham parcel

(dated September 29, 2004).

Appendix F PUBLIC COMMENT PROCESS AND

SUMMARY OF WRITTEN COMMENTS WITH BUREAU RESPONSE

(the full record of comment letters is available on the Bureau's website as "Supplement to Appendix F")

PREFACE: Public Consultation Process		
I.	Comments Applicable to the Flagstaff Plan as a Whole	F-3
	The Planning Process.	F-3
	Backcountry Non-Mechanized Allocations	F-4
	Motorized Recreational Trails	
	Additions to Ecological Reserves	F-9
	Late Successional/Old Growth Timber Management	F-10
	Buffers Along the Appalachian Trail	F-13
	Historic Resources.	F-16
II.	Comments Specific to the Bigelow Preserve	
	Additions to the Bigelow Preserve	F-17
	Policy on Inholdings	
	Cumulative Changes to the Preserve's RecreationValues	
	Publicity for the Preserve.	
	Changes to the Preserve from Timber Management and Roads	
	Commercial Uses of the Preserve	
	Western Mountain Foundation Summer Trail and the Preserve	
	The Bigelow Lodge	
	Location of Snowmobile Trails on the Preserve	
	Mountain Biking on the Preserve	
	Changes to the East Flagstaff Road Gravel Pit Parking/Camping Area	
	Proposed New Campsites on East Shore Flagstaff Lake	
	Potential Conflicts at New Campsites on Flagstaff Lake	
	Recreation Facilities at Round Barn	
	Gravel Extraction	
	Wildlife Management	
***	Boating Access to Flagstaff Lake	
III.	Comments Specific to Mount Abraham	
	Protection of Sensitive Habitats from Motorized Recreation	
TX 7	Facilities Improvements – Trail and Campsites	
IV.	Comments Specific to the Chain of Ponds Property	
	Boat Access to Natanis Pond.	
	Public Access to the Height of Land Hiking Trail (Arnold Trail)	
T 7	Impacts of the Campground on Ecological and Scenic Values	
V.	Comments Specific to Other Public Lots	
	Myers Lodge and Big Eddy Campsites	
	Boat Access to Flagstaff Lake at Spring Lake	
	Highland Plantation Southeast Lot.	
	riiginanu fiantauon southeast lot	г - 43

Preface Public Consultation Process

Plan Phase/Date	Action	Notices/Attendance/ Responses
Scoping Phase		
February 17, 2005	Notice of Public Scoping Meeting	100+ letters mailed; notice in papers
March 29, 2005	Public Scoping Meeting held	61 members of the public attended
April 29, 2005	End of Public Scoping Comment period	23 letters and emails received
Preliminary Plan		
October 31, 2005	Notice of First Advisory Committee Mtg	100+ letters sent
November 15, 2005	First Advisory Committee Meeting	14 Advisory Committee members plus BPL staff attended
November 29, 2005	Focus Meeting with Flagstaff ATV Club	Attendance: Bureau staff and ATV interests
December 21, 2005	Notes of November 15 and Nov 29 meetings mailed	100 + mailings
December 16, 2005	End comment period on Preliminary Plan	5 comment letters received
February 16, 2006	Focus Meeting with Friends of Bigelow	3 representatives of FOB and 23 members of public; plus Bureau staff
Initial Draft Plan		
February 9, 2007	Initial Draft Plan made available online and written notices sent to the public and Advisory; with notice of the February 27 th Advisory Committee Meeting and comment deadline of March 13 th (28 days from assumed receipt of the notice and plan).	162 mailings to the public; 25 notices plus report sent to Advisory Committee
February 27, 2007	2 nd meeting of the Advisory Committee	7 AC members and 17 members of the public attended
March 13-15, 2007	Comment Deadline extended to Mar 15	14 comment letters received by 15th
March 19, 2007	Notice of follow-up meeting on Bigelow Preserve issues	Sent 162 general public mailings and 25 AC members
March 29, 2007	Follow-up meeting on Bigelow Preserve issues	8 AC members and 19 members of general public attended
Final Draft Plan		
April 25, 2007	Final Draft made available online and notice of availability and Public Meeting scheduled May 8 th with comment period ending May 29 th sent to AC and public	162 general public mailings; 25 AC mailings (including draft report)
April 29, 2007		Notice of Public Meeting posted in papers
May 8, 2007 Public Meeting held		8 AC members and 9 members of the public attended
May 17, 2007	Notes of May 8th public emailed to AC; notice of online availability of the PowerPoint presentation made at the public meeting on the Bureau's website.	
May 29, 2007	End of Comment Period	18 comment letters received

Comment Response

I. Comments Applicable to the Flagstaff Region Plan as a whole

The Planning Process

The Fifteen Year Plan Cycle and the Role of the Advisory Committee: [Diano Circo, NRCM; Dick Fecteau, MATC; Jennifer Burns, Maine Audubon; Pamela Prodan; Ken Spalding, Friends of Bigelow; Bob Weingarten]

Diano Circo, NRCM (Preliminary Plan): The Natural Resources Council (Council) believes that the Bureau of Parks and Lands (Bureau) should not extend the duration of management plans from the currently mandated 10 years to 15 years. The forests of Maine have seen tremendous change in just the past 10 years. Extending the time between plan review and revision will severely limit the Bureau's and public's ability to keep the plan relevant over time.

<u>Dick Fecteau</u>, <u>MATC (Preliminary Plan)</u>: If the plan is not meant to be static but ongoing during its shelf life, then the advisory committee should become a standing committee that meets with BPL at least annually to address such proposals as they arise.

Jennifer Burns, Maine Audubon (Initial Draft): I note that the Bureau is still taking a 15 year planning approach. I continue to have some concern that the reality will be a 20-year cycle, which is not appropriate. There are also legitimate concerns about issues being approached in a "piecemeal" fashion during the 15 years instead of comprehensively.

Pamela Prodan (Initial Draft Plan): . . . although I recognize that the current Integrated Resource Policy now allows for 15 years between plan revisions, I believe that this is too long a period to go, especially for a sensitive area like the Bigelow Preserve. Overall state policy changes that can necessitate revisions to this plan would seem to be inevitable. As a precaution, this plan should incorporate a formal mid-point review. Ongoing public participation and evaluation should occur through same type of process that the standing committee has been able to provide.

Ken Spalding (on the Initial Draft Plan): I believe it would be very helpful for the Bureau to hold meetings of the regional advisory committees on a regular basis even after the final plans are adopted. This would be an opportunity for the Bureau to keep the committee up-to-date on management and management issues, maintain an ongoing relationship with the parties and get feedback and suggestions in a setting with all the stakeholders rather than

The Fifteen Year Plan Cycle and the Role of the Advisory Committee:

The Bureau's new 15-year plan interval includes a review of current issues and progress on implementing the plan's recommendations every five years, with a status report issued at that time to the Advisory Committee (see page 1 of the Plan). What this does, in fact, is create a standing advisory committee. This is a major new development. The Advisory Committee can review this information, and if there are new issues that have arisen since the Plan was adopted, and these new issues warrant possible amendments to the Plan, the Plan can be reopened and amended and after a public process.

The Bureau has always had a policy that, at any time, when there is a pressing new issue that needs to be addressed in the Plan, the Plan may be reopened to address that issue. This continues to be the policy. The new policy, as stated in the Plan, is that the Bureau will now undertake an additional step aimed at keeping the Plan current – the five year review with the Advisory Committee.

With this added step, the five year review including an external review by the Advisory Committee, the Bureau feels confident that scheduled Plan revisions will, in fact, be timelier in the future.

having multiple meetings with individuals or individual groups. It should also make the next update of the plan much easier. . . Recommend involving a standing Advisory Committee on a regular basis in review of current issues and implementation of recommendations. This could be annual discussions, or every other year. At an absolute minimum it should include a meeting of the group as part of the five-year review plus other discussions as significant issues arise. A status report to the group each five years appears wholly inadequate.

The timeframe for public input was too short for adequate public review of the Initial and Final Draft Plans. [Bob Weingarten; Diano Circo, NRCM; Dick Fecteau; Pamela Prodan]

Bob Weingarten (Initial Draft): It is unfortunate that so little time has been given the public to respond to this large Flagstaff Plan Draft. While months and months elapsed between the deadline for comments on the Pre-plan and the issuing of this new Feb. 9, 2007 Draft, barely a few weeks have been allowed for public response- hardly sufficient given the scope of the Region.

Diano Circo, NRCM (Final Draft): While the Council understands the pressure faced by the Bureau of Parks and Lands (Bureau) to meet a June 15th deadline for adoption of this plan we continue to be concerned that the notice given to the public has been inadequate. The Draft Plan was released on April 23rd and only two weeks later, May 8th, a public hearing was held in Farmington. This is extremely short notice and likely the cause of limited turnout. This region includes some of the most important recreational assets in Maine. The public's ability to provide substantive input into management of these areas is a crucial part of the public process. We believe the limited notice has been a serious limiting factor in this process.

<u>Dick Fecteau, MATC (Final Draft)</u>: I still do not understand why timber management plans for "green certification" are driving the timeline for management of all uses of public lands.

<u>Pamela Prodan (Final Draft)</u>: ...I only wish there had been more time to review the Final Draft and formulate questions on it before the public meeting. Given sufficient time for public review, it could have been a much more productive meeting.

The timeframe for public input was too short for adequate public review of the Initial and Final Draft Plans.

The Bureau agrees that the timeframe for public input on the Initial and Final Draft Plans was compressed compared to timeframes allowed on other plans recently completed. This was due to a deadline for completing several management plans (including the Downeast, Northern Aroostook, and Flagstaff Region Plans) according to an accelerated schedule in order to maintain the Bureau's sustainable forestry certification. However, the timeframes were not unreasonable and the Bureau feels that there was adequate opportunity for public input, through meetings and written comment.

In short, at least one month was provided from the time the reports were available to the comment deadline.

Approximately 2 weeks into that month, the Bureau held public meetings to present the Plan and answer questions. Following the public meeting and the close of comment period on the Initial Plan, the Bureau held a second meeting to discuss issues and information compiled specifically on the Bigelow Preserve in response to comments.

The schedule and opportunity for comment on these two draft plans is summarized in the Preface to these comments.

Backcountry Non-Mechanized Allocations for the Flagstaff Plan Area

There is an imbalance in opportunities available in Maine for motorized recreation and non-mechanized back country recreation. [Jennifer Burns, Maine Audubon; Diano Circo, Natural Resources Council of Maine (NRCM)].

Imbalance between Motorized and Non-Motorized Recreation opportunities:

There is no doubt that the network of ATV trails in the state is growing in response to a rapid increase in interest for these trails; with the miles of trails increasing from 440 in

Diano Circo, NRCM (On the Final Draft Plan) The Non-Mechanized Backcountry designation was designed to create quiet people-powered recreation opportunities on public lands, yet its application has been extremely limited. Areas for quiet recreation are becoming harder and harder to find in Maine. The Bureau has done a significant amount of work to expand motorized trail systems over the past several years. There are now hundreds of miles of ATV and snowmobile trails within this Plan's region alone. However, there are precious few acres currently designated for people-powered uses. As motorized trail use expands, the places for quiet people-powered recreation are rapidly shrinking. This is even more important considering that the private lands in this region offer little opportunity for this type of quiet recreation. In many cases Bureau lands are the only places this type of experience can be found.

The Council strongly believes there is a need to better balance Maine's recreational infrastructure by creating and expanding Non-Motorized Backcountry areas. If the Bigelow Preserve is not a place deserving of the Backcountry Non-Mechanized designation then it is hard to believe anywhere in the region will meet the Bureau's standard.

The Bigelow Backcountry Non-Mechanized Recreation Allocation:

<u>Diano Circo, NRCM</u>: The creation of the Bigelow Backcountry Non-Mechanized designation is a step in the right direction. However, mechanized harvesting does have an impact on quiet recreation.

1995 to 5,231 in 2006. However, the total miles of snowmobile trails has been relatively stable since 1995, and many of the ATV trails are being designed to follow the snowmobile trails. What has made this motorized trail system possible is the network of woods roads that continues to increase as timber is more and more intensively managed.

Significantly, between 90% and 95% of snowmobile and ATV trails are on private property, and comparatively few of these are located on public lands administered by the Bureau. These trails are not permanent public trails, but generally exist under landowner agreements that are secure for only one year. In some areas of the state, ATV and snowmobile trails have been discontinued when landownership changed. A trend for increased turnover in ownership of large parcels is putting these trails increasingly at risk. As a result, both motorized and nonmotorized users understandably look to public lands to meet some of their needs. The Bureau is legislatively directed to provide both kinds of opportunities.

The Bureau's mandate for multiple use management of the Public Reserved Lands does not allow allocations that are meant only to "balance" a perceived imbalance; allocations are resource based. Hence areas designated for Backcountry Nonmechanized recreation must clearly provide a backcountry recreation opportunity. The Bureau evaluates the recreational values of each parcel in determining appropriate allocations. The Integrated Resource Policy (IRP) guidance defines Backcountry Recreation Areas as those set aside for dominant recreation use having superior scenic quality, remoteness, wild and pristine character, and capacity to impart a sense of solitude. These areas generally include more than 1,000 contiguous acres.

This Plan sets aside three areas for Backcountry Non-Mechanized Recreation – including 9,515 acres on the Bigelow Preserve, 5,220 acres on Mount Abraham, and 355 acres on Flagstaff Island. This represents 15,090 acres out of the total 54,185 acres in the Plan area (28 percent). In defining these areas, the Bureau determined that additional acres added to the areas designated would not appreciably increase the backcountry recreation opportunity, as the allocations encompass a significant majority of existing hiking trails and scenic view areas, and include the an area extending between ½ to 1 mile out from the trails on the Bigelow Preserve and similarly on Mount Abraham (see also the discussion on page 68 of the Plan).

The Bigelow Backcountry Non-Mechanized Recreation Allocation: On the Bigelow Preserve, the Bureau is constrained in how much of the Preserve it can take out of timber production given that timber management is one of three specific purposes listed in the Act that created the Preserve, together with recreation and wildlife management. However, the Bureau did include a special allocation for the Preserve to enhance the "quiet" qualities of the backcountry non-mechanized areas – called Bigelow Backcountry Non-mechanized Recreation - that allows timber management while prohibiting motorized and mechanized recreation uses. This

BCNM and Ecological Reserves:

<u>Diano Circo, NRCM</u>: The only areas designated for Non-Mechanized Backcountry overlap with the existing Ecological Reserve. While Ecological Reserves serve a very important ecological role they are not necessarily the most appropriate or attractive areas for people-powered recreation.

allocation surrounds the BCNM allocation on the Preserve, to enhance the remote, quiet qualities of the recreation experience from trails on the Preserve.

While timber harvest operations within the Bigelow BCNM may be audible in the adjacent BCNM areas in some locations at certain times of the year, this impact is quite limited considering that the scale of timber harvesting activities on the Preserve as a whole is relatively small (with less than 800 acres harvested annually of the 24,000 acres managed for timber as a dominant or secondary use), locations are generally limited to one area at a time, and the periods of active harvesting are generally limited by ground conditions to six or seven months per year. In addition, harvest operations near to public recreation areas are avoided on weekends during the summer, wherever possible. As a result, at any point in time, most of the Preserve is quite insulated from intrusions from timber harvesting, and where timber harvesting occurs, it is timed as much as possible not to intrude on the backcountry experience.

BCNM and Ecological Reserves: The notion that existing Backcountry Recreation Areas were laid over Ecological Reserves in incorrect. The opposite is true. Ecological Reserves were designated on Bureau lands in 2000, while most Backcountry Recreation Areas were created under management plans prepared in the 1980s and 1990s. In the case of the Bigelow Preserve, the BCNM area was not determined by the Ecological Reserve boundary, although it made sense to follow the boundary where the two allocations were reasonably proximate. The designated BCNM area was determined based on recreational values, and corresponds closely with the area designated as a no-cut backcountry area in the 1989 Bigelow Preserve Management Plan. It includes, however, areas surrounding the Wardens and Horns Pond Trails, which were not in the 1989 Plan's backcountry no-cut area. In the case of Mount Abraham, the designation includes the entire ridgeline and the steep slopes surrounding it – an area which includes the existing AT spur trail and the largely exposed ridgeline with spectacular views and which could some day include a further extension of the existing trail.

The designated BCNM area corresponds with the highest value backcountry attributes on the Bigelow Preserve. It includes all 3,100 acres of area above elevation 2,700 feet; and all but approximately 6.5 miles of the 32.5 miles of hiking trails on the Preserve. The 6.5 miles not included in the BCNM area are lower elevation trail segments including: the beginning of the Range Trail (less than 1 mile); the beginning of the Safford Brook Trail (less than 1 mile); approximately 1 mile at the start of the Little Bigelow Trail from the East Flagstaff Road trailhead; approximately 1.5 miles eastward of the Little Bigelow Trailhead (including portions of the trail that follow the East Flagstaff Road and that circumnavigate the Bog Brook area and head north and east to the Preserve border with Carrying Place Township); and the first 2 miles of the Appalachian Trail from the Stratton Brook trailhead to Cranberry Pond.

Motorized Recreational Trail Corridors in the Flagstaff Region

Need for Motorized Trail Corridors on Public Lands:

[David Cota for municipal officials and representative in Carrabassett Valley, Kingfield, Eustis and Highland Plantation; Dan Mitchell, ATV Maine; Richard Smith, Flagstaff Area ATV; Kenneth and Sharon Thomas, Natanis Point Campground]

Joint letter from Municipalities (From Scoping Meeting): We support the development of recreational trail corridors through these public lands for public use. The rapidly changing private landownership patters threaten traditional public access to private land and it is our belief that a regional recreational trail system plan be adopted that recognizes the importance of the existing and future motorized and non-motorized trail corridors that connect communities and destination attractions. . . . While we recognize that the "Bigelow Act" does not allow motorized use such as ATVs in the Bigelow Preserve, we recommend that, where it is legal, where there is a demonstrated need by recognized local ATV clubs and where appropriate, the State resource management personnel be allowed to work with our local clubs to establish ATV trails on public lands.

ATV Maine (Scoping Meeting): We need more access to Public and private lands to build an interconnecting trail system. The Governors ATV Task Force, ATV Maine and some very talented State Employees have taken ATVing from a nuisance to a viable industry for the State of Maine. The next step in our endeavors is to create an interconnected trail system. Each parcel of our public lands contains enough acreage to support the use if All Terrain Vehicles and still leave plenty of room for other traditional uses. I have to ask why private and corporate landowners should give us access to their lands if we aren't using our own public lands for this trail system.

Richard Smith, Flagstaff Area ATV (On Initial Draft Plan): I am asking for Stratton Brook Rd as an ATV trail connection between Stratton and Carrabassett as it is an auto road and would make the connection between Route 27 and the powerline possible. We have verbal permission from the private landowners on both sides of the Preserve between Stratton and Carrabassett, but there is no other alternative but to use part of the Preserve to make the connection. In addition to the Stratton Brook Road, the only other viable trail would be the old woods road on the Wyman piece next to the CMP Substation to connect to the Powerline. . Our goal is to build trails and connect communities with a system much like the snowmobiles have. This particular piece is VITAL to make this connection.

<u>Richard Smith</u> (<u>Final Draft Plan</u>): I would like to go on record that the strip of land beside the powerline in Wyman Twp be reserved for possible ATV use.

Need for Motorized Trail Corridors on Public Lands:

The Plan recognizes this need and includes a number of provisions for motorized trail opportunities, including: (1) continuing the Bigelow Loop snowmobile trail and continuing operation of the Bigelow Lodge as a rest stop for winter trail users; (2) providing a crucial ATV trail link between Stratton and Carrabassett which also legally crosses the Appalachian Trail, using a small portion of the Wyman lot south of the Bigelow Preserve; (3) ensuring that the existing low-elevation snowmobile and ATV trails on the non-ecoreserve portion of the Mount Abraham property will not be disrupted – while it recommends relocating the trail that crosses the southerly portion of the Mount Abraham ecological reserve, if reasonably feasible; (4) supporting and continuing the ATV trail spur into the Chain of Ponds property, a camping destination for ATVers using the ATV trail network extending from Stratton. This trail links to the commercially operated Natanis Point Campground, which has a lease with the Bureau for use of lands at the top of Natanis Pond; (5) providing ATV riding opportunities on designated management roads on the Dead River Peninsula property; and (6) recommending that the Bureau pursue ATV access to three remote campsites on Flagstaff Lake in Flagstaff Twp, potentially connecting to the regional ATV trail system in the Stratton area.

The Bureau appreciates and requests the continuing support of the ATV community in ensuring that motorized trail use is responsible. The Bureau's Off-Road Vehicle Program supports the formation of ATV clubs to work with landowners to develop and steward ATV trails. The Bureau's experience has been that clubs have a very positive influence on the ATV community, with the result that, where clubs are active, landowners are experiencing few problems with off-trail riding and damage to sensitive areas. The demand for ATV trails is growing rapidly. Maine's system of ATV trails now attracts the ATV touring public from throughout New England. With a new generation of active-minded retirees with second homes in the region adding to the demand, and a general trend towards ATV recreating, this pressure may continue for some time. It is especially important, if ATV interests wish to have expanding opportunities, that organized ATV clubs take an active role in ensuring that ATV users do not damage sensitive resources by riding in areas that do not have approved trails.

In the Flagstaff Region, the Bureau is recommending an expansion of opportunities around Flagstaff Lake and is working to provide a needed connection between Stratton and Carrabassett. At the same time, the Bureau is asking ATV clubs in the area to work proactively to help stop the illegal use of ATVs on Mount Abraham, which is damaging the sensitive alpine vegetation.

Sharon and Kenneth Thomas, Natanis Point Campground (on the Initial Plan): We wish to express our views on this [ATV use on Public Lands]. ATV use is an up and coming recreational boon to this state. Recently there was a multiuse trail designed and implemented where the ATV use ends at the campground. Snowmobilers are allowed to continue to the border, but ATVs stop at Natanis. Each year sees more and more people booking reservations here so that they can ride the trails. They have to adhere to our very strict rules about ATV use. Every person that stops by the store adds revenue to an otherwise struggling economy. They also add revenues to the Eustis/Stratton area each time they stop for gas, buy a lunch or need a repair. Each and every person we talk to comments on how well those trails are maintained and how much they appreciate having a trail to ride on. Brian Bronson and the many workers who made this happen are to be commended for their diligence and hard work. It requires a lot of work and manpower to maintain these trails and having local clubs to do that makes it easier for the state and safer for all those that ride. Please keep this in mind. We who are in the tourism/recreation business need every chance we can get and we are wiling to do the work if the state will provide the opportunities.

Promoting ATV use is not sound public policy.

Pamela Prodan (Initial Draft): Participating blindly in the expansion of a growing road and trail network in the region ignores the impacts of such enlarged access on the landscape, including the spatial degradation of large unbroken areas. The plan does not seem to recognize this rapidly vanishing value. The proliferation of ATV trails in formerly non-motorized areas, including in our state parks and Public Lands, is especially distressing. This one of the most unfortunate developments of the past few decades, in my opinion.

Given the growing awareness in this State of the necessity of moving away from the unbridled consumption of fossil fuels and emitting of carbon dioxide, the Bureau's pursuit of motorized recreation is also probably a strategic error. Only time will tell, but I hope the Bureau starts thinking about what may be inevitable: that one day, government will not promote motorized recreation trail use, recognizing that no matter how many jobs it may support, it harms the environment. In truth, "ATV trails" are more like roads than they are like "trails." The subsidization of these so-called "trails" for vehicles developed and marketed to consumers with no regard for the environmental damage they cause should be recognized for what it is: antithetical to sound policy.

<u>Dick Fecteau (Final Plan)</u>: At a time when Mainers are thinking about the effects of global warming, curbing the use of imported energy and promoting alternative energy the administration seems to be promoting motorized recreation. It is personally disturbing to me that the opening

Promoting ATV use is not sound public policy.

The Bureau is not promoting ATV use; rather, the Bureau is providing assistance to clubs, including financial assistance from revenues obtained from ATV registrations and a portion of the state gasoline tax revenues, in response to a legislatively mandated program. This is State policy, not Bureau developed policy.

That said, the effect of the Bureau's program has been to support ATV clubs in working with landowners in designating and maintaining trails that are safe and properly designed to avoid environmental impacts. As described on page 17 of the Plan, as of 2004 it is illegal to operate an ATV on another person's land without the permission of the landowner.

The vast majority of trails follow existing woods roads; these are a fact of life on the Maine landscape, and would exist whether or not ATV's were allowed to use them.

As to the economic study, this was a study conducted by the University of Maine, Margaret Chase Smith Policy Center following standard practices for economic impact studies. If there are questions related to assumptions and methods used in that study, the Bureau suggests contacting the authors.

page of the BPL website highlights the "economic benefits" of ATV usage in Maine. The document does mention ATV damage to the environment but does not attempt to quantify the cost of this damage. The document does seem to include all sorts of expenses that add up to \$200 million of "economic benefits" for Maine. The reality is that most of this money is spent by Mainers for machines, fuel and equipment that is not produced in Maine. How does sending almost \$200 million of Maine based money for products produced out of State provide economic benefits to Maine?

Requests for Additions to Ecological Reserves

The Plan fails to recommend any expansion to the Ecological Reserves or to identify areas that should be considered for potential expansions in the future.

[Diano Circo, NRCM; Jennifer Burns, Maine Audubon; Northern Forest Alliance Caucus – submission on 10/23/03 preceding Flagstaff Plan public process] **Expansion of Ecological Reserves:** The Bureau feels that the critical natural communities have been protected by the 2000 ecoreserve designation, and is not proposing to expand the reserve during the 15-year Plan period. The following provides background for this determination:

- Ecological Reserves on public lands are part of a statewide system, designed "to represent all native ecosystem types across their natural range of variation in Maine." (McMahon, 1998, p. 1). The Bureau's policy is to "implement a system-wide approach to areas to be designated as Ecological Reserves." (Integrated Resource Policy, 2000, p. 23)
- It is premature and potentially counterproductive to identify potential ecological reserve additions without benefit of a system-wide context and analysis. The Bureau and MNAP have agreed that, upon completion of management plans for lands that include Ecological Reserves designated in 2000, the two agencies will work to determine where the greatest benefits to the Reserve system would result from expanding Reserve acreage. MNAP is the state agency that conducts an ongoing, statewide inventory of rare plants, animals, natural communities and ecosystems, and maintains a biological and conservation database for ecologically significant sites for conservation and land use planning (12 MRSA Sec 544).
- In the interim, both agencies continue to gather data on ecologically significant areas. This information is available to the public at any time. The Maine Natural Areas Program (MNAP) prepares a Natural Resources Inventory (NRI) for each management plan. The inventory reports identify ecologically significant areas and include management recommendations for these areas.
- With regard to the recommendation of the NFA Caucus to add roughly 6,500 acres to the existing 10,560 acres of ecological reserve on the Bigelow Preserve (notwithstanding the issue of the statutory direction for timber management on the Preserve as discussed above), MNAP did not identify any natural communities of special interest in either of the two areas suggested for addition; and has indicated that Bureau forest management practices for these areas would not adversely impact the values these areas might add to the ecological reserve if, at a later date, it was determined that these expansions to the reserve would add value to the ecoreserve system.

Late Successional and Old Growth Forest Management

The Plan should include a detailed inventory of late successional stands in the plan area (with particular interest for this on the Bigelow Preserve). [Diano Circo, NRCM; Jennifer Burns, Maine Audubon; Ken Spalding, Friends of Bigelow]

Jennifer Burns, Maine Audubon (on the Final Draft) - On page 55, the Bureau indicates, "In most of the Bureau's prescriptions, staff foresters consistently favor those tree species most commonly found in LS stands. This trend combined with an explicit policy similar to the Old Growth Component policy of no proportional loss, without documented cause will result in a continued increase in the proportion of Bureau forest land being LS." How will the Bureau document this if there is no LS baseline inventory? The air photo method described is only an indication of potential LS stands, not a baseline, and does not distinguish between younger and older LS stands.

<u>Diano Circo, NRCM (on the Final Plan)</u> - We continue to believe it is necessary for the Bureau to complete, and include in the Plan, a thorough inventory of existing Old Growth and late successional stands. These are extremely rare and important ecological features in Maine. Understanding the extent and quality of these areas is even more essential considering that these types of stands are also exceedingly rare on the industrial lands that surround the Bigelow Preserve (Preserve) and in the region in general.

The current data/modeling included in the Draft Plan is a somewhat helpful yet a very course filter for understanding what actually exists on the ground in the Preserve. We understand the Bureau's concerns about the potential time and cost of an inventory. However, it is our understanding that an inventory could be done at a limited cost and in a short period of time, perhaps as little as two to three weeks, utilizing information that has already been collected for other studies.

We do not feel that the Bureau's current proposal to do analysis on a plot by plot basis during the planning of harvests is adequate. This proposed approach would not provide a comprehensive understanding of what exists in the Preserve before decisions about management are made. By the Bureau's own admission the existing data provided in the Draft Plan can not be used to identify late successional forests (April 23, 2007 Draft Plan, p. 55). The Bureau also has not identified any Old Growth stands on the Bigelow Preserve (April 23, 2007 Draft Plan, p. 54). A comprehensive understanding of what exists on the Unit as a whole is the only responsible way to insure that the appropriate site-specific management decisions are being made. Without this information it is impossible to do effective long-term management planning. A baseline understanding of what exists in the Preserve is an absolute necessity.

Inventory of late successional stands: This concern has been addressed in the Plan (see page 57). The Bureau has not conducted an inventory of late successional forest on its lands. or the Bigelow Preserve. However, the Bureau has produced a map showing the probability of occurrences of late successional stands on the Preserve using standard forest management metrics. The map was developed following an approach that was used by the Maine Forest Service to estimate late successional forest occurrence Statewide, based on the most recent federal-state Forest Inventory data (Ken Laustsen, presentation at the LSOG Manomet conference held in April of 2005). The data used for the statewide analysis was collected at randomly placed samples throughout the State, at a density of about one sample plot per 6,000 acres. For the Bigelow Preserve, the Bureau used data developed using a combination of air photo interpretation and ground truthing (1998), including approximately 500 data points on the ground on the Bigelow Preserve (about one per 70 acres). These data characterized the types of trees, their size, and extent of canopy closure on the Preserve. Applying a method similar to that used at the state level, using data for trees with diameters of 16"+ and other data, the Bigelow Preserve was estimated to include from 30 to 35% in late successional forests (see map on page 58), compared to 3% statewide and 20% on all Bureau lands. This approach, which uses data not simply based on air photo interpretation, but also ground inspections, is replicable and can be used to track changes over time, both at the statewide and Bureau-wide level, and on the Bigelow Preserve.

What is important to note is that late successional forest are increasing, not decreasing, on Bureau lands, due to the way the Bureau manages its lands – to grow large trees; and following a policy of no proportional loss of late successional trees, without documented cause. For example, when a stand is subject to a 25% removal harvest, only 25% of the oldest cohort of trees (late successional) would be normally be harvested. Further, any old growth stands of 5 acres or more are set aside for no harvesting. This management will result in a continued increase in the proportion of Bureau forest land being LS.

Further, before the Bureau prescribes a harvest, Bureau foresters conduct a detailed stand by stand evaluation, and consult with MNAP if there are any stands or features that appear to be exceptional or approaching old growth status. It is at this level of survey that detailed information on late successional stands is compiled. It would be duplicative of this effort (and would require scarce Bureau resources) to also conduct a complete inventory of late successional stands as an exercise in and of itself.

Because of the way the Bureau manages its lands for large trees and for wildlife habitat, which includes retention of large trees for cavity nesters, and because detailed compartment exams precede any timber harvest prescription, and because, particularly on the Bigelow Preserve, most of the forests are allocated for multi-age management and visual consideration, having a detailed LS inventory would not appreciably change the way the Bureau manages these lands. The Bureau does have a baseline understanding sufficient to manage the late successional forests appropriately (see next comment and response).

The suggestion that the Bureau needs to have an inventory that distinguishes younger vs. older LS stands adds a new dimension to the issue, the reasoning for which is not explained. However, the Bureau's management of LS stands will retain a spectrum of tree ages on the landscape, and continuing status as LS, if that is the concern. In terms of wildlife habitat, with LS and Old Growth offering, in this part of the world, no distinctly different habitat values, the Bureau feels confident that the LS forests that it manages will provide valuable wildlife habitat that may be scarce on industrially managed forests, again, following our current management methods.

Comments from Maine Audubon related to Late Successional Management Guidelines (Final Draft Plan): In addition, the Bureau has also listed a number of guiding principles to help ensure the trend toward increasing amounts of LS forests (Page 55). We have specific comments in regard to each principle. First, "Identify existing and "soon"-potential LS stands through the prescription process." The preceding guidance does not recognize the range in LS attributes. Simply managing stands to meet the numeric measure provided by the Manomet LS index may not allow stands to attain true ("older") LS condition. The index is simply a measure of relatively big trees (>16 in DBH). It is merely a precursor to management planning, i.e., it suggests that there may be something valuable that needs to be managed differently, but having stands "meet the index" should not be the management objective. The LS guidance should include the following:

- During pre-harvest stand-level inventories the Bureau should identify the full range of tree diameters and conditions in stands that currently or will in the near future meet the Manomet LS index. Specifically, the stand inventories should break down the basal area and trees per acres by major diameter class (e.g., 10-15, 15-20, 20-25, >25) and also inventory snags and large downed logs.
- Because "stands" are identified by air photos and LS
 components may be patchy due to past harvesting, the
 stand-level inventories should also map and describe
 areas within a stand that have significant numbers of
 very large and old trees and consider them for different
 treatment in the prescriptions.
- At Bigelow, due to the large potential area of LS stands and stand components outside of the ecological reserve, the Bureau should identify and inventory all stands with LS potential (i.e., do this for all potential LS at one time, rather than stand-by-stand as the are scheduled for management) and develop a landscape plan that

Late Successional Forest Management Guidelines:

The purpose of the management plan is to define general management direction, including where timber management will be allowed, and whether it will be a dominant or secondary use (subject to conditions to avoid conflicts with the dominant uses). Beyond this, management plans do not recommend how the Bureau manages forests, such as defining specific forest management guidelines related to late successional forest management. The discussion included in the Plan that summarized some of the broad principles the Bureau has followed or proposes to follow for maintaining or increasing the proportion of late successional forests on the public reserved lands was meant as background, and is not a Plan recommendation (see also discussion on page 69-70 of the Plan).

As a separate endeavor, related to management of all public reserved lands, the Bureau has been refining its approach to late successional forest management over the past several years, in consultation with the Bureau's standing Silvicultural Advisory Committee and a more recent ad hoc Late Successional Silvicultural Advisory Committee. Individuals associated with these committees include Rob Bryan, forester for the Maine Audubon; Bill Leak, scientist and forester with the USDA Forest Service Northeast Forest Experiment Station in Durham, NH; John Hagan, scientist at the Manomet Center for Conservation Science; Bob Seymour, Professor of Silviculture, Alan White, Professor of Forest Ecology, and Mac Hunter, Professor of Wildlife Ecology, all at the University of Maine at Orono; Charlie Cogbill, forest ecologist specializing in old growth; and Mike Dann, forester with Seven Islands Company. That process will continue.

It is clear from our discussions with these various experts that there is not a clear "science" around the core issues of how one defines "late successional" or even "old growth." Even if we could clearly identify these stands in a way all could reasonably agree upon, there is no clear science or agreement as to what proportion of the land base of the Public Reserved

includes specific objectives for the location (e.g., across a range of sites) and total area of stands in "younger LS" (meets LS index, but few very old trees) and "older LS" condition (many very old trees; near to Old Growth). Because Bigelow plays an important ecological role in the landscape that includes heavily harvested private lands (see comments below), the Bigelow landscape plan (and smaller units as well) should consider consideration of the condition of surrounding forests.

The second guidance principle is, "Retain sufficient large, old trees, and younger stems of long lived species." There is a need to define "sufficient" and also to clarify what standard will be applied to measure sufficiency.

The third guidance principle is to "Avoid removal of disproportionate amounts of LS-character trees." This should be stated in the positive as a measurable objective. The objective here should be to a) maintain the proportion of large old trees by major diameter class as defined above,, i.e. make sure "older LS stands" stay older, and b) develop measurable objectives for large woody debris recruitment (to always make sure that some live trees will simply grow old and die).

The fourth guidance principle is to "Avoid major reduction of crown closure, while managing within the bounds of good silviculture. Note that some areas of the Preserve are in need of silvicultural treatments that might require variance from this guidance – for example, in old burn areas, restoring the forest to a healthy, multi-aged structure." It is unclear what is meant by "in need of." This is needed for what? If these areas are currently in LS condition, then a variance might not be "required" or applicable. If an LS landscape plan and objectives were developed for Bigelow as described above, then it will be easier for the Bureau to justify "major reductions in crown closure" for stands that are not being managed specifically for LS attributes.

Last, the Bureau further discusses late successional and old growth forest management on Pages 67 and 68. In the first full paragraph on Page 68, DeGraff's wildlife recommendations are discussed. The DeGraff recommendations are for the landscape scale. While Bigelow is a large management unit, it is surrounded by private lands that are cut heavily and provide abundant early to mid- successional habitat but little "older" forest habitat. Thus, the Bureau lands should provide a greater percentage in older age classes than the generic recommendations provided by DeGraff et al.

Lands would be appropriate to retain in managed LS or to set aside to develop into Old Growth – an issue that must be addressed in the context of the Bureau's multiple use mandates, and the broad objectives put forth of achieving a balance of ecological habitats in the context of the intensively managed privately held forests in this state.

Fortunately, these questions are somewhat less pressing given that it has been the Bureau's past practice and remains its intent to manage forests on the Public Reserved Lands in a way that increases, rather than decreases, late successional values, and to retain existing old growth stands. In addition, a significant acreage of forested lands has already been aside within the Flagstaff Plan area (not including areas above 2700 feet elevation on Bigelow and Mount Abraham) for no further timber management - roughly 10,250 forested acres (19% of public reserved land in the Flagstaff Region).

The Bureau understands that the issue of managing late successional forests is both complicated and in some quarters, controversial, and is committed, through a variety of means, to continually evaluating and adjusting its management in light of new research and an expanded understanding of the science of forest management. The Bureau continues to work towards state-of-the-art science-based management through peer reviews and consultation processes with experts in the field, and is in the process of developing a forest management model that will enable it to more accurately predict the future of the forest under various management regimes.

Since 2000, forests managed by the Bureau are also subject to rigorous certification standards for sustainable forestry (through both the Forest Stewardship Council and the Sustainable Forestry Initiative). By the terms of the FSC audit, the Bureau must track and report to FSC any timber sales which propose to enter stands with "high value late-successional forest" and/or "strong presence of an old-growth component." Hence these issues are among the top of the Bureau's priorities to address.

The Bureau is <u>not</u> suggesting that only 10 percent of its landbase should be managed in late successional and old growth forests, as suggested by DeGraff et.al for optimizing wildlife habitat in New England. On the contrary, the discussion on page 68 of the Final Draft recognizes that Bureau managed lands are providing a needed type of habitat that is largely absent on industrially managed forest lands. The question about scale was meant to prompt thinking that looks for appropriate solutions to the problem of this type of habitat loss and how state lands could best be managed in this context – what should be the size of LS habitat inclusions in the larger landscape? How much connectivity should there be between those inclusions? How much of the problem is addressed by having Bureau lands managed for LS habitat? Should the Bureau be looking to provide a more diverse habitat on its lands? These are big picture issues that are being raised in the interest of addressing the problem rather than jumping to conclusions or focusing on quick but perhaps not the only or most effective solutions.

Management of Buffers along the Appalachian Trail

Overall Direction for Mount Abraham, Bigelow Preserve, Redington Public Lot.

J.T. Horn, Appalachian Trail Conservancy: After reviewing the descriptions of resources and conditions on these lands we are supportive of the broad direction outlined for these properties. The proposed direction is compatible with our long term understanding for how the BPL can and should manage your properties – that is for multiple use with special protections for the most sensitive ecological and recreation resources, including the Appalachian Trail.

Reduced Protection for the Appalachian Trail:

Several people commented on what was perceived to be less protection for the AT. [J.T. Horn, Appalachian Trail Conservancy; Diano Circo, NRCM; Dick Fecteau, MATC; Ken Spalding, Friends of Bigelow; Jennifer Burns, Maine Audubon]

J.T. Horn, ATC (on Initial Draft Plan): There appears to be a new "Visual Consideration Area" allocation around all the hiking trails, including the A.T. This is a positive step that should provide increased protection for the visual resources of the trails in the region. We commend the Bureau for bringing this kind of sensitivity to your timber harvesting plans. However, impacts to the A.T. can be more than just visual. Auditory impacts are a significant concern, especially areas like Bigelow and Redington that offer a truly remote hiking experience. New impacts such as permanent motorized trails, or developed recreation facilities could create significant noise that would detract from this sense of remoteness. Also, a defined distance that protects the A.T. will likely avoid confusion or argument in implementing actions on the ground. Last, we believe that the 1981 MOA is still the operative agreement for A.T. protection on State of Maine lands and wish to hold BPL to the long established protection standard. [Note: This agreement called for 100-ft no-cut zone and an additional 400 foot-zone on either side of the trail (1000 ft-corridor) in which activities in the outer 400-ft zone would be limited to "temporary ones in connection with timber harvesting, hunting, fishing, trapping, hiking, nature study or other such uses which do not cause a permanent intrusion on the use of the trail."] For these reasons, we ask that you continue to give the Appalachian Trail a 1,000 foot buffer (200 foot "core" and 800 foot "outer" protection zones). This does not seem to vary much from your intentions with the combined 100 foot buffer plus the Visual Class I area and would not impact the total acreage of lands open to timber harvesting.

Dick Fecteau, MATC (On Initial Draft Plan): Our understanding is that the draft plan proposes a 100' buffer of no disturbance on either side of a trail and a further visual buffer where no disturbance would be visible by a hiker on the trail. This seems to be a significant change of wording from the previous MATC/BPL agreement. While it might

Overall Direction for Management of the Appalachian Trail Buffers: The ATC's support of the Bureau's overall approach to management of the Public lands containing portions of the Appalachian Trail corridor is appreciated.

Reduced Protection for the Appalachian Trail:

As proposed in the Initial Draft Plan (February 2007), protection of the AT included a 100-foot no-cut zone and a variable width visual protection zone. The Final Draft Plan (April 2007) addressed the issues raised by the ATC regarding protecting the trail corridor from development and motorized uses other than timber harvesting, consistent with and providing additional protections compared with past agreements. The adopted Plan incorporates the changes in the Final Draft. The vast majority of the AT and side trails to the AT will have an expanded protective zone that is both more extensive and more protective than what was in place in the 1989 Bigelow Preserve Management Plan. In summary, for much of the AT a corridor greater than 1,000 feet will prohibit new snowmobile trails and no new woods roads will be permitted within 500 feet of the AT. In addition, a Class I visual zone of variable width will more effectively screen any evidence of timber harvesting from the trail. A comparison of protections in effect from the previous and new adopted Plans follows:

<u>Protections prior to the current plan as adopted, for the Bigelow Preserve:</u>

Timber harvesting and timber management roads: there was an inner corridor of 100 feet on both side of the Appalachian Trail, where timber harvesting was prohibited: and an outer core of an additional 400 feet (total of 1000 ft corridor for both inner and outer zones) where timber harvest was allowed but subject to multi-age management. The same standards also applied to the side trails including the Firewarden's Trail, the Range Trail, and Safford Brook Trail. In 1989 no restrictions were placed on the development of woods management roads within the 1000-ft corridor (except for the first 100 ft adjacent to the trail). However, there was a no-cut timber management zone defined around the entire ridgeline and along the AT easterly descending from Little Bigelow. Except for the Little Bigelow end of the AT, none of the various trails approaching the ridgeline were included in the no-cut area: excluded were the AT approach to Cranberry Pond, the Range Trail, the Warden's Trail and Horns Pond Trail, and the Safford Brook Trail.

Snowmobile and motorized trails within the 1000-ft corridor: For any part of the AT in Maine, snowmobile and ATV trails may not cross the AT without approval from the ATC and MATC, pursuant to a 1981 agreement. On the

provide a greater sense of protection from conflicting activities, given the small number of miles of hiking trails now outside the ecological reserve within the Bigelow Preserve we would think it reasonable to extend the 100' buffer of no disturbance to at least 500' either side which could eliminate conflicts over the term "visual disturbance" in practice on the ground.

(On Final Draft Plan) I think the Bureau has heard from JT Horn about the AT buffer within the Bigelow Preserve.

Diano Circo, NRCM (On the Final Draft): The Appalachian Trail (AT) is an icon of Maine and a tremendous recreational asset to the Flagstaff region. In this version of the Plan the AT is still only buffered by a 100 foot no-cut buffer with an additional 400 feet in Bigelow Backcountry Non-Mechanized. The Bigelow Backcountry Non-Mechanized designation would not allow motorized recreational uses but does allow mechanized timber harvesting.

Ken Spalding, Friends of Bigelow (On Final Draft): Although the inclusion of visual consideration and a remote recreation allocation for an additional 400' beyond the 100' special protection is good, the 100' special protection remains inadequate. Having spent my entire adult life working on trails, including participating in the MATC fieldwork for the original LURC zoning, I feel comfortable saying that 100' is very rarely, if ever, adequate for protection of the values associated with the Appalachian Trail. Regardless of what the plan has included in the past, a 100' protection zone is inadequate. The concept of assessing the Trail in the field to determine the site-specific protection needed is a good one, but it should include consideration of a number of items, including visual, sound and inappropriate access. It should also be done in advance, in addition to looking at potential conflicting uses at the time of their proposal.

Jennifer Burns, Maine Audubon (on the Initial Draft): I request that you take another look at the protection of the Appalachian Trail to insure that it is adequately protected. As a state agency managing land with a National Scenic Trail, the Bureau should be pursuing the highest level of management to protect the trail's values.

Bigelow Preserve, under the previous Plan, snowmobile trails could have been permitted within 1000 feet of the AT, if it was determined there would be no significant impact on the trail. The 1000 ft corridor was surrounded by a Backcountry Recreation zone that allowed snowmobile trails and other allowed non-motorized uses. In 2000 the creation of the Ecological Reserve surrounding much of the AT and side trails introduced restrictions, but not prohibitions, on any new snowmobile trails within the ecological reserve, which included much of the 100-ft AT Corridor.

Other use limitations: The 1989 Plan designated the 1000-ft corridor along the AT (not including side trails) as a Special Protection Designation, which required any proposed activity to be evaluated to assure there would be no significant adverse impact on the protected resources, and limited leases for radio towers, microwave antennas, and other such communication equipment to emergency needs and for a limited period of time. In addition, the 1981 Memo of Agreement referenced by J.T. Horn limited activities which could take place in the 400-ft outer core to "certain temporary ones in connection with timber harvesting, hunting, fishing, trapping, hiking, nature study, and other such uses which do not cause a permanent intrusion on the use of the trail."

Protections adopted for the Bigelow Preserve by the 2007 Flagstaff Region Plan: The Plan replaces the outer 400-ft corridor with

- a backcountry non-mechanized recreation designation (BCNM) extending out generally ¼ to 1 mile from most of the AT and side trails (all but 6.5 miles of the 32.5 miles on the Bigelow Preserve), corresponding to the ecological reserve boundary (excluding the northern arm) which prohibits timber cutting and all motorized or mechanized uses as well as any development or leases;
- for trail segments and trail facilities not within the BCNM area (the other ~6.5 miles), <u>either</u> a Bigelow Backcountry Non-Mechanized zone extending from the 100-ft core area at least 400 feet on either side of the trail (for most section it is considerably more than 400 feet), which allows timber harvesting but no new woods roads within the 400-ft zone; and which does not allow development or motorized or mechanized uses or trails except for existing trail crossings; <u>or</u>
- a remote recreation zone corresponding to the 400-ft outer AT corridor, which explicitly prohibits public motorized or mechanized uses or trails except for existing trail crossings; together with a management directive to prohibit new woods management roads within this area; and
- a variable width visual consideration area that will retain the appearance of an essentially undisturbed forest as viewed from the AT or its side trails. This zone may extend beyond 500 feet in some cases, or may be less than 500 feet; it is driven by what a hiker can see from the trail rather than an arbitrary distance.

AT Protections prior to current plan for the Redington Lot and Mount Abraham:

Redington Lot: Uses near to the AT were subject to a 100-

Protections in the Plan versus NPS, ATC, and MATC policy:

Diano Circo, NRCM (on Final Draft): As we have stated in previous comments, The National Park Service's (NPS) and Appalachian Trail Conservancy's (ATC) general standard for protection of the AT corridor is 500 feet of non-motorized buffer on either side of the trail (1,000-foot corridor). This is also the minimum standard for National Forest lands. If there is any place where this standard should be met in Maine it is in the Bigelow Preserve.

ft no-cut inner corridor, and an additional 400-ft outer corridor that allows multi-age timber management subject to visual class I considerations, and a limitation on other uses as defined in the 1981 memo of Agreement with Parks and Recreation that allows "certain temporary ones in connection with timber harvesting, hunting, fishing, trapping, hiking, nature study, and other such uses which do not cause a permanent intrusion on the use of the trail."

Mount Abraham: This property was acquired by the Bureau in 2002 and 2004 subject to conservation easements that required 5,285 acres of the total 6,300 acres to be designated as an ecological reserve. The easement also prohibited timber harvesting and use of motorized vehicles except as allowed pursuant to a Management Plan (to be developed by the Bureau consistent with applicable laws and policies related to such uses in ecological reserves).

Protections adopted in the 2007 Flagstaff Region Plan the Redington Lot and Mount Abraham: For trails not protected by the ecological reserve and backcountry non-mechanized recreation designations (in the case of Mount Abraham), the Bureau has defined a no-cut zone for the first 100 feet on either side of the hiking trails; an outer zone of an additional 400 feet in which no new management roads may be built and new motorized trails are not allowed; and a variable width visual consideration zone along the trail, which may extend beyond the 500 feet inner and outer corridor.

Protections in the Plan versus NPS, ATC, and MATC policy: The protections to the AT afforded by this Plan are consistent with past and current draft revisions to policies for timber harvesting set forth for Maine sections of the AT by the MATC, which are the guiding policies for the state (not National Park Service or National Forest Service policies):

1997 and current policies of MATC: "No uniform policies now exist for timber management along the Trail in Maine, except for restrictions, especially on permanent developments (including roads), that are imposed by the Land Use Regulation Commission, and restrictions on clear-cutting and provisions for regeneration of harvested areas that are contained in Maine's 1989 Forest Practices Act. Most National Park Service lands along the AT in Maine have been acquired in fee. No commercial timber harvesting will be permitted on these lands. . . . Where the Trail crosses property of the Bureau of Public Lands, timber cutting is prohibited within 100 feet on each side of the Trail, special consideration is given to Trail concerns within 500 feet of the footpath, and "Visual Management System" practices are followed on lands that are highly visible from the AT and other viewpoints.

It is not practical to screen the Appalachian Trail from all views of timber harvesting activities in Maine. The Trail follows generally high ground, with many viewpoints that overlook the surrounding countryside. Moreover, the MATC feels that it is not desirable to completely insulate hikers from the realities of the production processes that provide the paper on which their guidebooks and maps are printed and the

lumber from which many Trail structures are built. Primary goals that guided the Club's advice to the agency partners as they acquired corridor lands were to minimize permanent developments (roads, structures) near the Trail, to maintain desirable microclimatic effects of forest cover on the footpath and hiker, and to preserve those timber stands (such as the virgin spruce-fir forest on Elephant Mountain) that are of outstanding natural interest."

The current draft revision to that policy (dated 1 March 2007) retains most of the above language, except that it updates the BPL policy in light of the BPL's 2000 Integrated Resources Policy guidance document as follows, quoting from the IRP: "To protect trail environments, a designated corridor should be maintained in which harvesting will be designed principally for aesthetic purposes, including view enhancement, except for the removal of blowdowns and hazards. Each harvest will be coordinated with the Bureau's Recreation Specialist during the harvesting prescription review process and will, as a minimum, adhere to Class I Visual standards."

In fact, the Bureau manages timber according to visual sensitivity guidelines for more than what is seen in the immediate vicinity of the trail – any distant areas viewed from the trail are also managed as Visual Class II areas where the appearance of a managed forest does not draw undue attention and there are no obvious alterations to the landscape.

Historic and Archaeological Resources

Treatment of Historical and Archeological Resources in the Plan:

Steven Scharoun (Initial Draft): Please consider integrating into the plan the following:

- 1. Compilation of a historic site inventory, through background research, field inspection and interviews.
- 2. Develop historic contexts as an aid in the interpretative study of cultural resources listed in the inventory.
- 3. Devise a management plan that acknowledges the importance of historic preservation.

Examples of historic contexts which apply to the Flagstaff Region: Precontact/Contact Native American, Euroamerican exploration and war, Euroamerican settlement, Logging and Lumbering, Agriculture, Water powered mills/rural industries, Transportation (water, road, rail), Hunting, fishing and trapping, Forest Service, CCC, Historic Sporting Camps, Tourism, and Hydroelectric generation/Flood Control dams.

A cultural resource management plan links these contexts with historic sites and resources within the Flagstaff study area. The National Park Service has established guidelines for the study of historic rural

Treatment of Historical and Archeological Resources in the Plan:

The Bureau agrees that it is important to protect historical and archaeological resources on Bureau managed lands. Bureau practices in planning for and managing these resources do provide that protection.

The Bureau acknowledges that a detailed site inventory could identify additional historic resources of interest; and that with additional resources, more interpretive opportunities might be possible on Bureau lands. However, given limited resources, the Bureau cannot undertake the level of study and interpretation undertaken by the National Park Service.

In the Flagstaff Region Plan, archaeological and historical context, significant resources, and sensitivities are described and considered. Contexts described include prehistoric use of the area prior to Euroamerican settlement; early logging history; the Arnold Expedition through the plan area; history of fire towers; and the development of the Flagstaff hydropower storage project which flooded and displaced communities in the creation of Flagstaff Lake (see pages 33-35, 47, 76, and 94). Sensitive areas are identified in the Plan,

landscapes and for the individual cultural contexts that compose them.

and operationally, Bureau field staff are routinely instructed to be aware of consultation requirements whenever management actions are planned that could impact these resources such as development of recreational facilities or roads and log yards, or if artifacts are discovered of potential historical value (see pages 162, 165, and 167). Collaborative efforts with the Maine DOT and Arnold Expedition Historical Society are recommended for development of interpretive resources in the Chain of Ponds area (page 167).

II. Comments Specific to the Bigelow Preserve

Requests for adjacent lands to be added to the Bigelow Preserve: [Ken Spalding, Friends of Bigelow; Diano Circo, NRCM]

Ken Spalding, FOB (Scoping Session): Public lots contiguous to the Preserve are, by law, part of the Preserve and need to be managed as part of the Preserve. Even those which may not be legally contiguous which may have an influence on the experience within the Preserve, should be managed in a way that precludes a negative impact on the Preserve.

Diano Circo, NRCM (Initial Draft Plan): We are very supportive of the additions of public lots (Coplin Plantation and Wyman Township) to the Bigelow Preserve. These parcels directly abut the Preserve and it makes sense to include them under a single consolidated management regime. However, it is unclear why the public lot abutting the Preserve's southern boundary (Carrabassett Lot?) is not also included as an addition to the Preserve. We believe this lot should be added to the Preserve. It is especially important because it essentially abuts the Ecological Reserve and proposed Non-Mechanized Backcountry area. The addition of the lot and its subsequent designation as Bigelow Backcountry would provide a necessary buffer to these areas.

Policy on Inholdings:

Ken Spalding, Friends of Bigelow (On the Preliminary Plan); It is good that the document includes a history of the acquisition of land in the Preserve, including a list of the acquired parcels and when they were acquired. In keeping with this being a plan, the parcels included in the Preserve. but not yet acquired, should also be listed and the plan for how they will be acquired should be included. There should also be maps included that show the parcels that still need to be acquired. Plans for acquisition would presumably vary for each parcel or class of parcels. Plans for acquisition could include that certain parcels would be acquired from willing private landowners as they become available, that certain lands would not be acquired as long as they remain underwater or that an agreement would be reached with the landowner in advance in case lands beneath Flagstaff become dry, or it could be that federal lands are deemed to be managed in conformance with the Bigelow Act and don't need to be acquired as long as they are maintained in

Requests for adjacent lands to be added to the Bigelow

Preserve: The Bureau has added the abutting Coplin Plt lot to the Preserve, along with the Wyman lot that abuts the Preserve south of Stratton Brook, excepting a 500-ft strip adjacent to the Carrabassett town line and CMP powerline easement, and a small buffer adjacent to the Boralex powerline corridor north of the National Park Service AT corridor. These exceptions allow for possible future expansion of a regionally significant utility corridor that is located in a mountain pass between the Bigelow Range and the Crocker Mountain system. In addition, the lands excluded are an important part of one of only a few options available to connect the ATV trail network north and south of the Appalachian Trail. The National Park Service prohibits such crossings except at existing road crossings; in this case, Route 27 crosses the AT and allows a connection to trails in Carrabassett Valley via the Boralex and CMP utility corridors. Neither ATV trail nor power transmission facilities are allowed in the Preserve by the Bigelow Preserve Act.

The Bureau's policy related to additions to the Preserve is contained on page 136 of the Plan. The term "public lots" is interpreted to mean any of the original public lots, not any public land; and areas separated by a powerline corridor or road are not considered contiguous by the Bureau. This excludes the Carrabassett Valley parcel from consideration.

Policy on Inholdings:

The Final Plan includes a complete list of inholdings within the Bigelow Preserve Boundary (page 66) and a recommendation to seek to acquire in-holdings within the Preserve boundaries, or lands adjacent to the Preserve that have valued public resources, if these lands are placed on the market and can be acquired at fair market value, and funds are available for the acquisition (page 162).

their current management or that the State enter into an agreement with the National Park Service to ensure that these lands stay compatible.

(On Final Draft Plan): A list of in-holdings in the Preserve is given on page 64, but it is not clear if this is a complete listing of property that is within the authorized Preserve boundary, but not owned by the State. And there does not appear to be a discussion of what the Bureau intends to do about potential future acquisition.

Cumulative Changes to the Preserve – Vision, Policies and Recommendations for Recreation Facilities and Uses: [Ken Spalding, Friends of Bigelow; Norm Kalloch; Dick Fecteau; Bob Weingarten]

Ken Spalding, FOB (Comments at Scoping Session): We need to have a long range vision for the Preserve. We can't just respond to issues or find a nice place for a trail or campground and build it. If we don't have a concept of how our actions will affect the future, some day we will realize we don't have anymore, what we thought we protected. (Comments on Initial Draft Plan): It appears to me that we are gradually losing the commitment to the remote character of the Preserve. The draft plan does speak to retaining the natural character and dispersed public use consistent with 1976 uses, of having little permanent physical alteration of the environment and maintaining a minimum of trails and improvements. Much of the language that reinforces and explains this from the earlier documents (1979, 1981 & 1989) has, however been lost. One example is the loss of the clearly explained concept that the entire public land base can provide "something for everyone," but the Bigelow Preserve, by design, is only meant to meet a limited niche of types of use. Some of this language has been included as an historical note, which is good to have, but makes it all the more striking that it isn't being included in this document. Some management recommendations relate to improving the remote character, but the overall sense is one of development and expansion of facilities. I am deeply concerned that despite some of the language in the plan, the Bigelow Preserve is becoming thought of as a recreation area that should be available for meeting a plethora of needs not intended or contemplated in the Act and a continuous expansion of facilities. (Comments on Final Draft Plan): It is valuable to have the cumulative changes made in the Preserve. The description on page 65 of the "Cumulative Changes to Recreation Facilities" does not include the addition and relocation of snowmobile trails since the creation of the Preserve. This would seem to be one of the most significant changes and should be included.

Norm Kalloch (On Final Draft Plan): A major concern I have is that the Department of Conservation is trying to meet the wants of all the various interest groups. It seems the Flagstaff Region and the Preserve in particular are being incrementally divided/developed to meet these demands from the various clubs, foundations, and other groups. It seems that hardly a request made by an entity during the

Cumulative Changes to the Preserve – Vision, Policies and Recommendations for Recreation Facilities and Uses:

The Bureau agrees with the concept of having a Vision for the future of the Preserve and is sensitive to the concerns that the Preserve not be over-developed. In response to these comments, the Bureau modified the Initial Plan as follows.

The Plan now contains the following sections in the Section V. under "Vision and Management Policies for the Bigelow Preserve" (page 114):

Management of Recreational Use of the Preserve

- 11. The Bureau is mindful of the need to carefully manage public use of the Preserve in order to protect its fragile resources from degradation due to overuse. The Bureau will monitor use to ensure that use levels are consistent with protection of the natural and remote recreational values of the Preserve. . . .
- 12. The Bureau has spent the first 30 years of the existence of the Preserve acquiring the Preserve lands, and improving the existing facilities to address or prevent environmental issues. This Plan contains recommendations that look to the future in terms of addressing existing or potential needs for limited new facilities. The Bureau believes the new trails and facilities proposed in this Plan, which will only be pursued as the need or demand for them is clearly documented, approach the limits of what would be the maximum appropriate level of "developed" facilities in keeping with the backcountry dispersed recreation experience of the Preserve.

In addition, rather than provide excerpts from past plans as historical context, the Plan now includes and incorporates into this Plan a number of policies from past documents (page 115) including three key policy statements from the 1981 Bigelow Preserve Policy Issues/Guidelines addressing the maintenance of the natural character of the Preserve (Policy 1A); the importance of recreation, forest and wildlife management relative to natural character (Policy 4A); and management of the Preserve as a backcountry recreation area rather than as a wilderness area (Policy 19A).

The Plan also includes and adopts the Management Philosophy articulated on page 8 of the 1989 Bigelow Preserve Management Plan (see page 115). An important departure, however, is that the Bureau has chosen not to include the last sentence of this Management Philosophy: "It is important to remember that the character and

planning process that has not been granted in Management Recommendations. The requests from these groups include: more hiking trails, more snowmobile trails, more ski trails, more campsites, more water access. All these added recreational opportunities are fine and good on the surface, but in the aggregation they impact the character of the Preserve. I hope Bigelow Preserve isn't slowly moving from Preserve status to State Park status. These private and public initiatives in and nearby the Preserve will have an accumulative negative effect on the character of the Preserve and the experience of those who consider it a special place as it now exists.

<u>Dick Fecteau (on the Preliminary Plan</u>): If we can agree that the Bigelow Act was meant to preserve the Preserve as it was in 1976, then the vast increase in snowmobile trails, use, noise and speed needs to be discussed in detail.

Bob Weingarten (on the Initial Draft Plan): The lack of usage data and the lack of an inventory of timber, roads and structures make it very difficult to determine the "state" of the Bigelow Preserve. There is also an absence of identifiable indicators as a means to measure the impact of the "multiple-use" strategy employed by the Bureau in its management of the Preserve. Currently, the Preserve is managed as though it had unlimited capacity to absorb more and more usage, without apparent evaluation of the effects on the physical resource or on the very values that have been embodied in the Preserve since it was created by citizen referendum in 1976.

Planning for the next 15 years for the Bigelow Preserve should focus on the projected growth of various usages and how they will impact the Preserve. Adhering to the specifications of the 1976 Bigelow Act to regulate *type* of usage is not enough to assure that the "natural character" of the Bigelow Preserve will remain as it was in 1976. In addition, the *scale* of the usage should be regulated and *restricted* when necessary based on objective indicators. The 1989 Bigelow Plan spoke of "adhering to the *spirit* of the Bigelow Act" (p4), yet I seem to have missed seeing this extremely important management ingredient in the 2007 draft.

The spirit of the Act was, and is, protection of the character of the area as it was before it became a multiple-use facility for the Bureau. Would not adhering to the spirit (and in some cases the letter) of the Bigelow Act preclude eco-tourism, large-scale motorized recreation, massive, revenue-driven logging (including cutting rare late-successional forest stands and building ultra-wide roads for hauling logs), and other accommodations that are being made due to the multiple-use philosophy the pervades the Plan? As compared to the 1989 Plan's management objectives, the 2007 draft clearly is much *less* oriented towards the spirit and goals of the Act and what it was trying to achieve by creating the Preserve, and much *more* oriented towards the Preserve as a source of economic benefits and unlimited recreational capacity.

recreational experience in the Preserve can be maintained only if the Preserve is managed as it is today." The Bureau disagrees with the interpretation by some interests that this suggests that the types of uses, facilities and forest management practices existing on the Preserve in 1989 would be fixed in time and not be changed. The Bureau does not share this interpretation. Rather, the Bureau understands this sentence to mean: "It is important to remember that the character and recreational experience in the Preserve can be maintained only if the Preserve is managed as it is (managed) today." That is, the recreation opportunities on the Preserve would be developed and managed primarily for a remote backcountry recreation experience, not intensively developed in the model of a State Park.

The 1981 Bigelow Preserve Policy Issues/Guidelines which preceded the 1989 Management Plan clearly envisioned a changing array of uses, potentially including even motorized trail bikes, and an organized family campground if the need could be demonstrated. The number and types of trails was also viewed as potentially increasing, with the suggestion that improvements and additions were needed to hiking and snowmobile trails. This supports the interpretation that the types of uses and number of developed facilities was not viewed as static, but dynamic, changing in response to changing demands, although guided by the overall objective of keeping the Preserve a backcountry recreation experience.

For the same reasons, and the lack of any explicit language in the Bigelow Act otherwise, the Bureau disagrees that the Bigelow Act was meant to "preserve the Preserve as it was in 1976." Again, this is not to say that the Bureau has no direction from the Act. This is an area that past plans have viewed, and the current Plan continues to view, as providing a backcountry recreation experience.

Regarding the concern that development of recreation trails and facilities may change the natural character and/or degrade the recreation experience (the issue of carrying capacity), Section VIII. Monitoring and Evaluation, includes a section on Recreation directing the Bureau to monitor recreation use to ensure that facilities are not overused with adverse effects either to the environment or the recreational experience (see page 169).

In addition, the Bureau has taken a conservative approach to development of new facilities. The Plan states throughout that proposed new trails or facilities will be constructed only when the need can be demonstrated; and if related to the AT, that any plans be developed in consultation with the MATC. Cross-country ski routes proposed are just that – routes using existing woods roadbeds, not newly constructed trails. Similarly, mountain biking will occur on existing roadbeds, and will not involve new trail construction. Regarding campsites, the 1989 Plan included a limit of 15 individual campsites at Round Barn; only 9 were constructed, and the current Plan proposes to build not more than 2 additional sites plus one handicapped accessible site, still less than the limit set in the 1989 Plan.

Additional water access sites may be added if interest in the Northern Forest Canoe Trail and use of the water access sites by other users indicates a need.

In addition to a conservative approach to new facilities, the Plan is proactive in restoring or protecting a remote experience. For example, the Plan recommends discontinuing road access to the north side of Trout Brook; and discontinuing two spur roads off the Stratton Brook Road on the Wyman parcel being added to the Preserve. In addition, a large area of the Preserve (9,780 acres) has been designated Bigelow Backcountry Non-mechanized, which will prohibit any further development of snowmobile or mechanized trails in this area (see also discussion on page 67 of the Plan).

The Bureau has not and is not proposing facilities for "large-scale motorized recreation" on the Preserve. The Plan does not propose any addition to the existing snowmobile trail (although this does not preclude relocating the trail as needed to avoid conflicts with forest management or changes in agreements to allow the trail on abutting properties), and includes a statement in the Vision and Policies section (page 113) that sets design parameters to keep the trail a relatively slow, touring trail with a minimum footprint. The 1989 Plan called for the development of a through snowmobile trail on the north side of the Preserve connecting the East and West Flagstaff Roads; and working towards a loop trail that would likely involve sections of trail outside of the Preserve. That loop trail was constructed, with the final section put in place in the mid-1990's; recently, a section of that trail was relocated off the East Flagstaff Road to reduce conflicts with winter use of the road for timber management and reduce impacts to the road. This will also reduce travel speeds on the trail. Likewise, the primary trail has been moved off the West Flagstaff Road to a logging road. These trails are not suitable for speed exceeding 25 mph.

While there has been an increase in snowmobiling on the Preserve primarily following the completion of the Bigelow Loop (mid 1990's), overall there has not been a trend towards higher and higher use of the trail, but rather a fluctuation from year to year depending on weather. Level of use on the snowmobile trails is estimated based on visitors to the Bigelow Lodge, which has ranged, since 1991, between 1500 and 3000 persons per year, depending on snow conditions (see also discussion on page 28 of these comments). This is not expected to change.

The Bureau has not and is not proposing to market the Preserve for "eco-tourism" or "massive revenue-driven logging with ultra-wide roads" – see discussion on these topics in a following comment section.

Concerns that the Preserve will be publicized and commercialized; and request to include prior policy on publicity (not specifically related to the Western Mountains Foundation Hut-to-Hut proposed trail on the Preserve): [Ken Spalding, FOB; Bob Weingarten; Pam Prodan; Dick Fecteau; Norm Kalloch]

Publicity for the Preserve:

The Final Plan includes the following policy regarding publicity (page 114): The Bureau will not seek to "market" the Preserve to increase its use; however, the Preserve was created as a "Public Preserve" and the Bureau will provide, as it does for all Public Reserved Lands, basic information about the

Ken Spalding, FOB (Scoping Comments): I urge you to continue the policy of providing information about the Preserve, but not publicizing it.

Bob Weingarten (on Initial Draft): One of the principles that has underlined the management of the Bigelow Preserve since its inception has been a conscious commitment to minimal marketing and publicity of the Bigelow Preserve. Page 53 of the 1989 Plan expressed it thusly:

"The purpose of this plan is to provide for public use and enjoyment of the Bigelow Preserve, while assuring that the natural character of the parcel is preserved. Given the uniqueness of the Bigelow Preserve and the fragile nature of some of its most important resources, the parcel could become the subject of overuse. The design of facilities such as campsites, location of trails, size of parking areas, can help prevent overuse and direct use to the most appropriate locations. Further, as is the case with other parcels of Public Lands, the State will not seek publicity for the Bigelow Preserve beyond providing essential information materials and maps showing the location of campsites, snowmobile trails, hiking trails, and public use roads and describing features, natural history, use regulations."

As far as I can tell this commitment has been eliminated from the 2007 Draft

The language on minimal publicity, as well as the *commitment* to minimal publicity, must be restored to the Plan. No compromise! In its Feb. - March 2005 survey of its membership in preparation for the original Scoping session of the planning process, **91.2**% of the respondents favored the continuation of the publicity policy as stated on page 53 of the 1989 Plan.

The Preserve should not be an identified target of "ecotourism," as stated on page 17 of the Draft. This needs to be made *explicit* in the Vision for the Bigelow Preserve beginning on pg. 90.

Pam Prodan (on Final Draft Plan): The 1989 plan states that the state should not seek publicity for the Bigelow Preserve beyond providing essential information materials and maps. This policy should continue so that the Preserve does not become a recreation destination and so that the natural character of the preserve continues to be protected. The Bureau should not advertise the Preserve, nor should the Bureau associate itself with entities that do.

<u>Dick Fecteau (on Final Draft Plan):</u> The Bigelow Preserve is not supposed to be "marketed". All references to ecotourism, FERMATA, mountain biking and WMF "huts" have no place in the BP management plan document.

Norm Kalloch (on Final Draft Plan): I feel that in order to maintain the unique and semi-wilderness character of the Preserve that a specific management recommendation should be in the Plan not to actively advertise nor over promote the Preserve. The Dept. of Conservation should keep publicity of the Preserve low key with the main publicity coming from word of mouth.

Preserve, including essential information such as the location of campsites, trails and other facilities, and describing features, natural history, and use regulations, using, for example, brochures and online information accessed through the Bureau's website.

The Bureau is not proposing to target the Bigelow Preserve as a destination for eco-tourism. Mention of the Maine Nature Tourism Initiative was included in the Plan as context for understanding the future of outdoor recreation demand in the Flagstaff Region; this is a standard element of our planning for public lands. The Plan was amended, given the concerns expressed, to remove any linkage between the Bigelow Preserve and the Nature Tourism Initiative to avoid the appearance of any endorsement relative to the Preserve.

Inclusion of the Western Mountains Foundation proposed Hut-to-hut trail system is also for context – and because the legislature approved a small (less than 1 mile) segment of a groomed cross-country ski trail on the Preserve. It is the Bureau's understanding that the Bigelow Preserve will not be used by WMF to promote this trail system.

Changes to the Preserve from timber management and roads: [Greg Drummond; Dick Fecteau; Bob Weingarten; Pam Prodan; Ken Spalding for Friends of Bigelow]

Greg Drummond (during Scoping phase): The biggest change that I have seen in my time here has been in logging. When the Bigelow Preserve was created, we were in the infancy of mechanical logging and the log drives were just ending. There were still some relatively remote places and roads were much more primitive than the gravel highways of today. When the "Preserve" was created, I don't think we imagined how much things would change. I never read any of the material about management of the preserve and assumed that a preserve was just that. Something that would remain the same over a long period of time. I was surprised when there was a logging job taking place in the "preserve" even though I had logged on a Public Lands lot myself. Even since then, some big changes have taken place. In the past 10 years or so mechanical logging has become the norm for around here and it is shocking how much woodland has been consumed. I don't think the planners who first created the management plan envisioned today's type of logging as what would be used in the preserve.

After taking the September tour of the proposed Little Bigelow harvest I haven't spent a day without thinking about it. Dave Soucy, Pete Smith, Steve Swatley and Tom Charles are an impressive and talented group of men. It is obvious that they are sincere, knowledgeable and hardworking. They explained in detail how the harvest would go and why it was a sensible and conservative plan. I believe that it is a good plan and they will likely reach their forestry goals. I do have a different opinion on some parts of it though.... Since virtually all the woodland surrounding the preserve is, in my opinion, under siege, and I don't buy the idea that any significant amount of land is being harvested sustainably, the preserve has much greater public value in the long term with a much lighter touch in the area of harvesting wood. No matter how sound your forest management plan is, when you use feller bunchers, huge skidders, and tractor trailers along the main access road, suddenly the preserve looks just like any other commercial woodland. The fact that you feel the need to spend more money and resources to camouflage the work area from public view says so.

When the definition of "old growth" excludes trees that are in areas where some past harvesting took place, it means to me that there probably won't be any discovery of "old growth" anywhere in the preserve. In my opinion any tree that exceeds the 200 year age was here before any logging took place in this area and should be considered as "old growth". In a continuing harvest cycle of 15 or 20 years between cuts, it seems to me that any really old trees are gone forever when they are cut. If in fact our goal is to increase the percentage of mature trees in the canopy, a more benign way to achieve it would be not to harvest at all. Also to me the signs of logging that occurred years ago

Changes to the Preserve from timber management and roads: As a follow-up to the comments received on the Initial Draft Plan, the Bureau developed an inventory of all roads on the Preserve, including all roadbeds still evident on the Preserve that had been constructed for timber harvesting before and after the establishment of the Preserve. This inventory was included and discussed in the Final Draft of the Plan on pages 59-65 and page 69. In addition, pages 54-55 provide a summary of the harvest history of the Preserve lands prior to state acquisition.

Extent of roads: As explained in the Plan, because the Preserve lands were extensively harvested, up to elevation 3,400 feet, with the most recent round of harvesting occurring in the 1960's and 1970's, an extensive network of old logging roads exists on the Preserve. In 1976, that included approximately 87 miles of roads (not including the 18 miles of roads that become public use roads - the East and West Flagstaff Roads and about 1/3 of a mile on the Long Falls dam road). The Bureau has since added only 5.5 miles of new timber management roads, in many cases to reroute old roads that did not meet Bureau environmental standards. Hence it cannot be said that the Bureau has been engaged in a large scale effort to build new and permanent management roads. The Bureau uses the existing system of old roads, which requires in most cases, cutting brush and re-establishing culverts or bridges during the harvest, and then removing those culverts or otherwise putting the road to bed, and allowing the vegetation to again re-establish prior to the next harvest in that area (15 to 25 years, depending on the stand).

Size of roads: That said, it is true that harvesting methods have changed; and use of tractor trailers has replaced the once common small (3-axle) logging truck. This has necessitated some widening and changes in the alignment of the roads on curves to accommodate these tractor trailers in getting to the log yards. This represents a small portion of the roads in active use however. Further, the Bureau works with contractors to ensure the road is no wider than necessary. There is every incentive to do this since neither the contractor nor the Bureau wants to incur added costs for over-built roads. As before, these roads are allowed to re-vegetate when the harvest is completed. Most harvest jobs are sized to take only one or two years to complete.

Timber management roads as an intrusion on the natural character: Given that the Bureau is not constructing any permanent management roads, but is instead re-using existing logging roads that are not being used for vehicular access after the harvest is completed, and which are allowed to revegetate, the "intrusion" is both temporary and small scale. Further, the Bigelow Act, by allowing timber harvesting as one of three purposes, cannot be reasonably construed to mean that small-scale temporary roads may not be constructed and existing roadbeds improved for timber harvesting. To suggest that these roads are an unacceptable intrusion on the natural character of the Preserve is to set an unreasonably restricted standard for timber management on the Preserve, one that is at odds with all previous management policies and guidelines:

have historical value that will be obliterated by modern logging.

Wildlife habitat was another thing mentioned in our September tour. At this time, I can't foresee a shortage of any of the types of habitat that result after a harvest takes place. I can see a problem for certain species that need mature forests to exist in. Gray Jays and Spruce Grouse both utilize mature boreal type forests and the habitat they favor is being reduced at an alarming rate. Almost the only place I can find a Black -backed wood pecker outside the preserve is in the remaining spruce/fir stands around Pierce Pond. The warbler populations have been in a slow decline for quite some time. Many of those species use mature deciduous canopy to find food and nesting places and they return to the same areas year after year, migrating all the way from wintering areas in South and Central America. Rarely do we find any place that can compete with the Bigelow Preserve for numbers and variety of warblers. When you add Gray Jays. Black backs and Spruce Grouse to this mix there is no place that can compare. I can't help thinking that stability of habitat in the preserve and disruption of it everywhere else is the reason for this. The biggest disruption in the preserve is by far, commercial harvest of timber. None of the other proposed activities will even begin to compare to that.

The changes made will be, for all practical purposes, permanent and I can see a day when there are no more giant old sugar maples standing and preserving their genetic possibilities for my grandchildren and theirs to enjoy. Every single day that goes by those old trees become rarer and more unique. If we need the income so badly let's focus our efforts on the other public lands and leave the Bigelow Preserve in the condition that it is in and will become all on it's own without our meddling.

<u>Dick Fecteau (on Preliminary Plan)</u>: If we can agree that the Bigelow Act was meant to preserve the Preserve as it was in 1976, then ... the new 1/2 mile long truck road built to 1500' elevation for removal of late successional timber is a great intrusion into otherwise undisturbed terrain.

Bob Weingarten (on Initial Draft Plan): The spirit of the Act was, and is, protection of the character of the area as it was before it became a multiple-use facility for the Bureau. Would not adhering to the spirit (and in some cases the letter) of the Bigelow Act preclude. . . massive, revenue-driven logging (including cutting rare late-successional forest stands and building ultra-wide roads for hauling logs)?

Pamela Prodan (on Initial Draft Plan): With regard to roads, the management plan ignores an issue rife with conflict and controversy. The point has already been made that the Bureau should not build any more roads until it has completed a road inventory, including motorized trails. The inventory would also explain the need and use of each road and trail. This seems to me like a sensible approach to take at this time. It is hard to believe that the acceleration of the road and trail

The 1981 Bigelow Preserve Policy Issues/Guidelines states that "traditional uses of the Preserve (dispersed recreation, timber harvesting, hunting) have included limited development, such as trails, shelters and logging roads. Such activities, unless abused, should not be considered "unduly compromising" [of the natural character]. Section 13 of that document, Timber harvesting road system, states that "the forest management road system will be kept to the minimum possible" stating further that the character of the forest road system depends on the extent of use of mechanized equipment, silvicultural methods, and the use of the roads for service or fire protection.

The 1982 Forest Management Plan specifically allows skid trails, winter and summer road construction provided they are not visible from the lake or ridgelines, and not within 500 feet of the Appalachian Trail nor within 75 feet of public use roads.

The 1989 Bigelow Preserve Management Plan includes a map showing then-known existing management roads (Map 7), and states "any new road construction will be kept to the minimum necessary to manage the Preserve, including the management of timber (note particularly that management roads in this Plan were not strictly limited to those needed for timber management).

Criteria for forest management contained in the Bigelow Preserve Act: The Bigelow Preserve Act does not require that timber harvesting be conducted virtually invisibly, with no summer roads, to maintain natural character. The standard to which the Bureau conducts its forestry operations on the Preserve is consistent with the Bigelow Act. The Bigelow Act states that timber harvesting within the Preserve shall be carried out in a manner approved by the Bureau of Forestry and consistent with the area's scenic beauty and natural features. The Preserve, and all Bureau managed woodlands are dual third party certified as meeting sustainable harvest criteria, which include not only producing a sustained yield of products, but protecting important natural resources, providing a diverse wildlife habitat, and being socially responsible (providing a flow of income throughout the year to local contractors and processors). These procedures meet and exceed Bureau of Forestry (now Maine Forest Service) standards. The Bureau maintains strict adherence to protection of visual character in its timber harvests on the Preserve. It also consults with the Maine Natural Areas Program when harvesting may impact a sensitive natural feature.

There is no language in the Bigelow Act that constrains timber harvesting to maintaining the "undeveloped character of the Preserve" as that language referred to structural development. Further, the initial sentence of the Purpose clause of the Act – "The purpose of this Act is to set aside land to be retained in its natural state for the use and enjoyment of the public." - refers to keeping the Preserve natural as opposed to developed, given that the impetus for state acquisition was a proposed four seasons resort.

infrastructure on Public Lands is sustainable in the long term. It is time to take stock, in preparation for some decisions as to where to cut back.

Why cut back? Participating blindly in the expansion of a growing road and trail network in the region ignores the impacts of such enlarged access on the landscape, including the spatial degradation of large unbroken areas. The plan does not seem to recognize this rapidly vanishing value. . . .Not only is the number of miles permanent roads and trails still growing, but the character of many roads and trails is becoming more imposing on the landscape as they become wider, straighter and more built up.

I am also convinced that constructing new roads in the Bigelow Preserve in most cases is illegal. It is particularly disturbing to me that the Bureau has undermined the policy guidance that road-building in the Preserve be kept to the minimum possible (1981 guidelines policy 13). Even though the draft plan mentions this policy, the Bureau does not seem to care to follow it faithfully. Winter roads have much less impact than summer roads and so winter roads should be the rule in the Bigelow Preserve At the follow-up focus meeting on February 16, 2006, I asked why more winter harvesting is not done in Bigelow Preserve in order to entirely avoid the construction of roads. This would lessen the impact of harvesting on the landscape and would also be consistent with the language of the Bigelow Act and the uses and practices as they existed in 1976 when the Bigelow Act was passed. I was told at that time by managers that year-round harvesting was planned to be conducted in order to provide harvesting jobs year-round. This rationale is unacceptable given that it unnecessarily requires the construction of roads, and given that nowhere in the Bigelow Act is there language that allows employment considerations to override the requirement that harvesting be conducted consistent with the "natural features" and in keeping with the "undeveloped character" of the Preserve. The unfortunate consequence of ignoring the explicit language of the Bigelow Act is that, where at one time only the natural character of the landscape informed the sensibilities of the human eye, today, the most noticeable feature is a road system made to direct log trucks through the landscape. Hardly an experience of "land retained in its natural state," if you ask me.

Perhaps the strongest argument against roads being built in the Bigelow Preserve is the explicit language of the Bigelow Act itself around harvesting. Creation of permanent year-round haul roads and permanent management roads like those that have been recently constructed do not come under anyone's definition of "harvesting." For further evidence of this, see the definition of "Timber Harvesting," in the Land Use Regulation Commission's rules: "The cutting and removal of trees from their growing site, and the attendant operation of mobile or portable chipping mills and of cutting and skidding machinery, *including the*

Winter roads versus summer roads/year-round harvesting: The Bureau agrees that restricting timber harvesting activities to the winter season would minimize the need for "summer roads" and would have the least impact on the natural character of the Preserve. However, as pointed out above, the Bigelow Act does not require or suggest that timber be limited to use of winter roads in order to maintain a natural state. What the Act does specify is that timber harvesting is allowed subject to general criteria as described above.

The reality is that because of a shrinking winter season and other factors explained below, limiting timber harvesting on the Preserve to winter operations only could relegate management of timber to an incidental and uneconomic activity. The Bureau has used a combination of winter and summer roads in order to attain a level of harvest that attracts responsible logging contractors, and to provide a reasonable return to the Bureau to support not only timber management costs, but also recreation and wildlife management costs. Winter haul roads are operable dependably for fewer and fewer weeks; in good seasons, from January through mid-March. Summer harvests also have a limited window, to avoid damaging roads and soils, generally between July and September. This is a narrow window of time, given that harvests are subject to strict requirements with roads being kept as narrow as possible, log yards and small as feasible, and care having to be exercised in a selection cut not to damage the trees not harvested. For an economic harvest, with responsible contractors, some use of summer roads is required. As stated above, however, these are put to bed at the close of the harvest and allowed to re-vegetate, so that the intrusion on the natural character is minimized.

The Bureau's view that timber harvesting was not meant to be merely incidental is not new. From the earliest planning documents, timber harvesting was acknowledged as more than an incidental activity – though it was subject to maintaining wildlife and protection of the "natural character" of the Preserve. The 1981 Bigelow Preserve Policy Issues/ Guidelines document states: "Because timber management is permitted, sustained yield management in areas which will not be adversely affected by cutting should be sought." Sustained yield management was defined as "management of a forest property for continuous production with the aim of achieving, at the earliest practicable time, an approximate balance between net growth and harvest, either by annual or somewhat longer periods." However, this was qualified with "The sustained yield concept will be modified in the Preserve to protect natural character." It is fair to say that the Bureau has complied with this policy; harvesting has not approached the sustained yield level – as stated in the Plan (page 55), the 23year harvest volume of 82,000 cords is barely half of the maximum sustained harvest level determined for the regulated portion of the Preserve."

<u>Legality of timber management roads</u>: The Bureau does not agree with the argument that Pamela Prodan offers that building new roads in the Preserve is illegal. The LURC definition for "timber harvesting" which does not include construction of management roads has no bearing on what is allowed under the Bigelow Act. LURC excludes construction

creation of skid trails, skid roads, and winter haul roads, but <u>not</u> the construction or creation of land management roads" (emphasis added). All motor vehicles except for vehicles engaged in "timber harvesting" and snowmobiles are restricted to the "designated roads" that were easily accessible to autos at the time of the creation of the Bigelow Preserve. Trucks engaged in hauling logs are not "vehicles engaged in timber harvesting."

Because new permanent roads are not "designated roads" under the Bigelow Act, any permanent haul roads built since 1976 to accommodate log trucks, other than winter haul roads, are illegal under the Bigelow Act. All such roads must be removed and the landscape restored to its natural conditions and contours, and I believe that some day this will come about. I would urge the Bureau to change its position and immediately curtail the construction of land management roads in the Preserve. It should also incorporate in its accounting the full cost of eventual restoration of the post-1976 roaded areas to their natural pre-construction conditions.

(on Final Draft Plan): I believe it is important for the Bureau to FURTHER REDUCE IMPACTS OF TIMBER HARVESTING UPON THE NATURAL CHARACTER of the Bigelow Preserve. In particular, impacts to the landscape, soil and organisms should be minimized to preserve the undeveloped character of the Preserve. To achieve this, winter harvesting should be preferred over summer management operations and construction of roads that permanently alter the land. No additional permanent management roads should be constructed.

Ken Spalding, FOB (on Initial Draft Plan): . . . the Act does not give the authority for what has become known as "management roads." There has been an implicit understanding that roads would be constructed for timber harvesting, but all the previous documents have talked about the minimum possible road building, alternative management methods to road building, and making the roads impassable at the conclusion of harvesting operations.

of management roads from its definition of timber harvesting in order to distinguish differing regulatory requirements – in some cases timber harvesting requires a permit (in wetlands for example), while in most cases this is simply an allowed activity. Construction of management roads is allowed subject to land use standards, but no permit is required. This distinction is for clarity in understanding LURC regulations – it is not a standard definition that is used outside of LURC regulations, and has no application to Bureau authority under the Bigelow Act.

Impacts of harvest methods: Regarding mechanical harvesting, using feller-bunchers actually provides a higher degree of control in felling trees, so that damage to standing trees is minimized compared to previous methods. Combined with the Bureau's light-handed selection prescriptions, harvesting trees on the Bigelow Preserve is hardly comparable to the industrial forestry practiced on most privately held lands in the area.

Impacts to wildlife habitat: For the vast majority of managed acres on the Preserve, the Bureau's timber management will increase, not decrease, habitat consisting of mature trees – i.e. late successional forest characteristics. See also the previous response related to late successional forest. What may not be widely understood is that, in the eastern US, there are no wildlife species that are dependent on old growth, so that species that do well in old growth will also do well in a late successional forest (see also the discussion on pages 69-70 of the Plan).

Loss of oldest trees: The Bureau's previous response to concerns about late successional forest management addresses the fear that eventually there will be no large trees left on the Preserve. The Bureau's management of old growth component, old growth stands, and late successional forests, together with the extensive area set aside in the ecological reserve, will increase, not decrease, the number of large old trees on the Preserve.

Concerns about commercial use of the Preserve, and connection of commercially operated or pay-to-use trails to public trails within the Preserve [Norm Kalloch; Nelson Camp; Bob Weingarten]

Note: This issue does not include the comments made exclusively on the proposed extension of the Western Mountains Foundation groomed cross-country ski trail through a portion of the Preserve, as that was resolved by Legislative Action (See Appendix B, and a description of the WMF proposed trail on page 18 of the Plan).

Norm Kalloch (Scoping phase): Groomed cross country ski trails going through the Preserve and other recreational trail corridors will compromise the outdoor experience for us and others who value being able to just use and enjoy the preserve in an

Commercial uses of the Preserve and connections by commercial or pay-to-use trails to public trails in the

Preserve: The Bureau has a variety of relationships with commercial enterprises that use Public Reserved Lands which allow an expansion of outdoor recreation opportunities for the public. For example, commercial guides and entities such as Chewonki and Outward Bound have, for a long time, been free to use Bureau lands and facilities, subject to normal length of stay and group size limits; in some cases trails on Public Reserved Lands connect to pay-for-use/commercial trail systems on adjacent lands; and the Bureau leases lands to commercial sporting camps or campgrounds on Public Reserved Lands.

The Bureau's Integrated Resource Policy (IRP) document includes a policy on Trail Connections (page 64) that provides

informal manner. Another concern I have is that if such uses are allowed in the Preserve that eventually there will be fee for use. The Ski Touring Center in Carrabassett Valley, Town of Carrabassett Valley and so called non profits are all to eager to offer their services and financial support to develop recreational corridors and a groomed cross country ski trail inside the Preserve and of course tie them to existing trails in Carrabassett Valley. There is nothing wrong with fee for use but commercializing public lands is wrong. There are plenty of opportunities at area cross country skiing facilities for those who like to cross country ski and snowshoe on a more formal basis. Maine voters did not vote to create the Preserve to have others profit from it. If these endeavors are worthy of pursuit then they should be constructed outside of the Preserve.

(<u>Final Plan</u>): I do not feel that a commercial enterprise like Western Mountain Foundation should be allowed to construct a hiking trail in the Preserve. Such a trail is for the benefit of the Foundation and not the typical user of the Preserve. Allowing this trail to be built sets a bad precedent if similar request is made by another entity in the future. Any discussion for establishing such a trail by the WMF should be an open process including a public forum on this issue.

Nelson Camp (Scoping Phase): I am very concerned about commercialism within the Bigelow Preserve. I thought it was for the use of the public and not for profit. Larry Warren's plans for the hut system turn this public area into a profit making venture.

for the Bureau to work with others where appropriate to connect trail systems on Bureau-managed land with trail systems on nearby private or public land.

When a trail on Public Reserved Lands is constructed specifically to connect to an adjacent pay-for-use trail, a Special Use Permit is issued that specifies that the trail is a public trail, not to be used exclusively by the commercial interest's clients. The permit may also require a fee to cover maintenance or include provisions whereby the commercial entity agrees to maintain the trail. Any arrangement with WMF would prohibit charging fees for use of any trails on the Preserve; and would specify that trails on the Preserve may not be designated for the exclusive use of WMF clients.

In addition to these conditions, the Bureau's IRP contains a policy for Special Use permits for commercial or noncommercial use of Public Reserved Lands, which lists 8 conditions which must be met, including (see the IRP at page 77 for the full list):

- It is sufficiently demonstrated that the activity will have minimal adverse impact upon any natural, geological, historical, cultural, fisheries and wildlife, recreational, or visual resources.
- There is minimal disruption to regular or normally recurring patterns of public use, and the number of persons involved does not exceed the carrying capacity for that specific area.
- The activity does not cause an undue administrative or operational burden upon the Bureau, including considerations pertaining to staffing, budget restraints, and maintenance.

The proposed trail through the east shore area of the Preserve that would connect to the WMF summer trail between the WMF huts on Flagstaff Lake and Poplar Stream Falls is only conceptual at this time, and would be subject to the Bureau's review and coordination with the Appalachian Trail Conference and MATC, since it would involve, at the very least, a crossing of the AT (see next comment and response).

Objections to the proposed WMF Summer Trail through Preserve and connecting with the Appalachian Trail. [J.T. Horn, Appalachian Trail Conference, Dick Fecteau, MATC; Ken Spalding, Friends of Bigelow]

J.T Horn, ATC (Initial Draft Plan): Connector between WMF Hut System and the A.T. A more thorough evaluation of the potential impacts to the Appalachian Trail is necessary and this project should be dropped from the plan unless such an evaluation is done. It seems likely that such a connection would make much of the hut traffic follow the Appalachian Trail to go from one hut to the next. This could have significant negative impacts on the current remote and primitive character of the Appalachian Trail and detract from one of the few places on a hiking trail in the preserve where one can expect to find solitude. Our experience in the White Mountain National Forest is that hut visitors and A.T. hikers have clashing expectations

Proposed WMF Summer Trail through Preserve and connecting with the Appalachian Trail. The Bureau recognizes that pursuant to agreements with the National Park Service, any trails connecting to the Appalachian Trail are subject to the overall administrative authority and direction of the National Park Service, and their designees, the Appalachian Trail Conference and the Maine Appalachian Trail Club. The State has agreed to manage the AT on its lands consistent with the MATC and ATC plans for management of the Appalachian Trail in Maine. Further, it is the Bureau's policy regarding connection of its trails to trails on adjacent lands, as stated in the IRP (page 64), to obtain landowner approval before any connections are made. The intent of the Bureau's policy on trail connections is to have full agreement by the entities involved as owners or stewards of the Trails. Therefore, mutual agreement among the parties will be sought.

The Plan now calls for the Bureau to "explore developing a

about the type of experience they seek and that large facilities draw numerous people that can lead to crowding along nearby trail systems. Such a trail is not required by the legislation authorizing a ski trail in the Bigelow Preserve or other actions at this time. Previous discussions with Larry Warren and the Western Mountains Foundation have made it abundantly clear that ATC is not interested in having the Appalachian Trail become part of the standard route from one hut to the next. Having said that, we are willing to work with BPL and WMF to find suitable places for the WMF trails to cross the A.T.

Dick Fecteau, MATC (on Initial Draft Plan): The draft plan is suggesting that MATC work with BPL and WMF to connect the WMF "huts" summer trail along Flagstaff Lake with the Appalachian Trail. This was not mandated by the legislation that altered the Bigelow Preserve Act to allow WMF to cross the southeast corner of the BP with up to a 1 mile trail. Any trail that seeks to connect with the AT needs discussion with MATC, ATC and NPS before proceeding. There is no support within the MATC exec committee to utilize the AT to connect the WMF "huts."

summer hiking trail through the eastern shore of the Bigelow Preserve, connecting with the WMF Trail, in consultation with MATC, ATC and WMF."

Continued Management and Use of the Bigelow Lodge: [Dave Cota, Municipal officials; Ken Spalding, Friends of Bigelow; Dick Fecteau; Jennifer Burns, Maine Audubon; Diano Circo, NRCM]

Dave Cota, municipal representatives (Scoping phase): Continued public use of the Bigelow Lodge. While currently underutilized, this facility is used for a number of State functions as well as by various organizations. We recommend that this facility be properly maintained and that current uses be allowed to continue (warming hut in the winter months) along with increased public use of this facility by various educational and other organizations (boy scouts, girl scouts, etc.).

Ken Spalding, FOB (on Final Draft Plan): The Bigelow Lodge . . . is clearly a non-conforming use in the Preserve. Many issues have been addressed and explained in the draft of the final plan, but the anomaly of the existence of the Lodge continues to be ignored. Merely discussing the management of the Lodge does nothing to explain its existence or why the Bureau continues to manage this facility that is completely out of character with the rest of the Preserve and the Preserve Act. At a minimum, this issue really should be addressed.

We, of course, believe it should be removed. Bigelow lodge is a pre-existing, non-conforming use that is inconsistent with the purpose and allowed uses under the Bigelow Preserve Act. The lodge detracts from the remote character of Preserve, requires expenditure of funds and staff time, including the assignment of special winter staff, and serves no purposes consistent with the purpose of the Preserve. The management plan should include a plan for the removal of the lodge.

Continued Management and Use of the Bigelow Lodge: The Plan continues to support use of the Bigelow Lodge for

The Plan continues to support use of the Bigelow Lodge for public purposes, consistent with past policy.

- The Bigelow Act does not address the disposition of the Bigelow Lodge, although it was clearly present at the time of the referendum. While the Act does not allow construction of new structures in general, it does allow construction of essential service facilities. These are facilities that could cover a broad range of buildings, including storage and maintenance buildings, and buildings that provide a center for operations. The Lodge does, in fact, serve these purposes.
- The 1981 Bigelow Preserve Policy Issues/Guidelines document stated only that uses of the Lodge should be compatible with Preserve management objectives. It's use in the winter as a warming hut for snowmobilers and back-country skiers has existed since before the 1989 Bigelow Preserve Management Plan. Snowmobiling is an allowed uses of the Preserve under the purpose clause of the Bigelow Act
- The Bureau continues to see value in the Bigelow Lodge for educational, scientific, administrative or other non-profit public service use, as did the planners and managers involved in the 1989 Management Plan for the Bigelow Preserve.

For all of the above reasons, the Bureau has concluded that the benefits of continued use of the Lodge outweigh any concerns about it's "incompatibility" with the natural state of the Preserve. Management guidelines for use of the Lodge are included in Appendix D of the Plan.

Diano Circo, NRCM (on Initial Draft Plan): The Bigelow Lodge has been a source of contention for more than 30 years. At the November 19th 2004 Advisory Committee meeting the Bureau agreed that the Committee should take time to review the issues surrounding Bigelow Lodge. It was assumed that part of that discussion would surround arguably the biggest issue involving the lodge—whether it should remain at all. Yet, the current draft of the Management Plan simply assumes its continued use. The Advisory Committee for this plan has been together since 2004 and has never had an in-depth discussion about the future or issues surrounding the Lodge. As part of this revision process the Advisory Committee should have a detailed discussion about the future of the Lodge.

The appropriateness of the location and level of use of snowmobile trails on the Preserve. [Dick Fecteau, Friends of Bigelow; David Cota for municipal officials and representative in Carrabassett Valley, Kingfield, Eustis and Highland Plantation; Rick Mason, East Flagstaff Lake Property Owners Association; Ken Spalding, Friends of Bigelow; Diano Circo, NRCM; Jennifer Burns, Maine Audubon]

Dick Fecteau, FOB (Scoping phase): Question 7 [questionnaire circulated to Friends of Bigelow membership] stated that Snowmobiling in the Bigelow Preserve has grown enormously since the Bigelow Act was passed in 1976. Then we asked, do you think there should be limitations on the number of snowmobiles allowed in the Preserve? 74% answered yes, 15% answered no and 11% had no opinion. Friends of Bigelow believe that the snowmobile speed, traffic, noise and pollution issues should be discussed during this planning process.

Dave Cota, joint letter of municipalities (Scoping Phase): Snowmobile Trails and Usage should continue to be allowed in the Bigelow. Preserve and these public lands. Department of Conservation personnel should be allowed to continue to work with local snowmobile clubs to maintain and groom existing trails and to relocate trails, as necessary, to alternative compatible trails during logging and other management activities.

Rick Mason, East Flagstaff Lake Property Owners

Association (Scoping Phase): Snow Mobile Access &
Safety. We recommend that some sort of speed
limit be imposed with in the Bigelow Preserve especially on
the Northern portion of the trail. The Bigelow Preserve is
for families to safely enjoy, and many of our members are
elderly also and have difficulty getting out of the way of
speed demons. Spot checks by wardens and peer pressure
from local clubs along with speed limit signs (15-20 Mph)
should be sufficient.

Jennifer Burns, Maine Audubon (Initial Draft Plan): page 24 of the Integrated Resource Policy does indicate that existing snowmobile trails may be allowed to continue in ecological reserves where they cannot be reasonably

The appropriateness of the location and level of use of snowmobile trails on the Preserve. The Bigelow Act specifically allows snowmobiling on the Preserve, on designated trails. The Bureau agrees that how the Bureau manages snowmobiling on the Preserve affects the opportunities for quiet winter recreation activities such as cross-country skiing, snowshoeing, and winter hiking. The Plan addresses these concerns in the Vision and Policies section of the Plan (page 113); and in the Plan recommendations (page 161). As stated in the Plan, the management vision is to have a slow (maximum safe speed of 25 mph), scenic trail, not a high speed major corridor. Trail widths are kept to a minimum, and follow the contours of the land with plenty of turns and dips, which discourage high speed travel. In 2006 the portion of the trail following the East Flagstaff Road was relocated off the road, which provides a more scenic and necessarily slower route.

The Bigelow Loop trail was completed in 1995. The loop was envisioned in the 1989 Management Plan for the Bigelow Preserve. That Plan acknowledged that snowmobiles used a variety of woods roads on the Preserve. Since then, the Bureau has designated the trails on which snowmobiling may occur. The loop trail provided a trail that was attractive and groomable, and eased the transition to having a single designated trail on the Preserve. This has reduced the footprint of this use on the Preserve.

The level of snowmobiling use on the Preserve has increased since the Preserve was established, as use statewide has increased. Snowmobile registrations increased from 71,000 in 1976 to over 102,000 in the 2004-2006 season (the last two years have been down from that number due to poor snow conditions). The miles of trails statewide increased more dramatically, from just under 5,000 miles in 1977 to over 13,000 in 2007. Areas in proximity to major snowmobiling "hubs" that draw sledders from surrounding interstate and international (Canadian) trails, including Rangeley and Stratton, have the highest levels of use.

That said, the Bigelow Preserve is not a major destination for most snowmobilers due to the nature of the trail. Use on the Preserve, as reflected by visits to the Bigelow Lodge, has risen from roughly 1,000 sledders per year in the 1980's to an average of 2,000 following the completion of the loop trail. This varies considerably depending on the weather; with heavy

relocated outside of the reserve. We request that the plan address the potential alternatives to the snowmobile trail that goes through the ecological reserve in the Bigelow Preserve and address why each alternative does or does not work.

<u>Diano Circo, NRCM (Initial Draft Plan)</u>: For roads and motorized trails within Ecological Reserves and Non-Mechanized Backcountry areas the Bureau should detail, based on the *Integrated Resource Policy* (IRP), why:

- 1) No safe, cost effective alternative exists for relocating roads and motorized trails
- The impact on the 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

We believe this information is necessary to provide a foundation for future management in these areas and is vital to ensuring the integrity of both the Non-mechanized Backcountry designation and the Ecological Reserve system during this and future plan revisions. The information gathered today can insure an accurate baseline for future plan updates and revisions.

The inventory of roads and motorized trails is especially important in regards to the existing snowmobile trails that cross the Ecological Reserve and proposed Non-Mechanized Backcountry area. The Draft Plan (p. 125, #6) would allow two snowmobile trails to cross the Ecological Reserve even though they are connections to the same trail. This is counter to what is directed in the IRP.

The IRP would <u>potentially</u> allow a single preexisting trail that provides a *crucial link in a significant system* where *no safe, cost effective alternative exists*. However, if two sections of trail connect to the same points over a limited area obviously one is not *crucial* to the system and should be eliminated. Further, without a detailed inventory with the Bureau's rationale there is no justification that the trail is *crucial*, the *impact on the protected natural resource values or remote recreation values is minimal*, and *no safe, cost effective alternative exists*. A safe cost effective alternative may exist that better protects the values of the Ecological Reserve and Non-Mechanized Backcountry Area.

In this case <u>if</u> it can be determined that a trail should be allowed to cross the Ecological Reserve the trail least conforming to the protections placed on Ecological Reserves should be eliminated. The lower trail because it is further from the core of the Reserve and proposed Non-Mechanized Backcountry area would appear to be more appropriate than the higher elevation trail. <u>However, the Bureau must first provide a detailed rationale compliant with the IRP to show that any trail should be allowed to cross the Ecological Reserve.</u>

While we understand the Bureau's intention of providing an alternate route for snowmobiles when areas become closed for harvesting, this is not a provision that we have seen applied to any other trail system in the Bureau's ownership. In fact, this would seem to imply that all use years approaching 3,000 sledders (2001) and low use years, such as the past season (2006-2007) at roughly 1,200 sledders. It is not clear what the future levels of snowmobiling will be, with trends toward warmer winters. The Bureau will monitor this use, however, and will make appropriate adjustments to the trails or signage as needed to ensure that use conforms to the vision for these trails.

Regarding the snowmobile crossings of The Horns Ecological Reserve, the Ecological Reserve was designated in 2000, after the snowmobile trails had been put in place. The IRP defines the following criteria for continuation of *existing* snowmobile trails on ecological reserves:

- 1. they are well designed and constructed
- 2. are situated in safe locations
- 3. have minimal adverse impact on the values for which the reserve was created
- 4. cannot be reasonably located outside of the reserve.

The crucial link criteria applies only to new trails through an ecological reserve. The Bureau addressed the concerns raised by NRCM and Maine Audubon on page 68 of the Plan. In brief, the snowmobile trail is safe, well designed, has minimal impact on the ecological reserve according to MNAP, and cannot be reasonably relocated out of the ecological reserve as that would involve putting the trail on Flagstaff Lake, which is against Bureau policy.

There are not two active trails—rather a primary and an alternate trail that will be used only when needed to avoid conflicts with logging operations adjacent to the ecological reserve. This will occur when the adjacent lands are being harvested, approximately every 15 to 20 years, for the duration of the harvesting activity, generally one to three years. The alternate trail is not maintained between active use periods. This is standard practice for management of snowmobile trails on actively managed forest lands, both within the public and private sectors.

motorized trails that cross through areas managed for forestry by the Bureau would necessitate providing maintained alternative trails in case of future closings. This is clearly an unwieldy prospect and an unnecessary redundancy.

Unless the Bureau can show that the current snowmobile trails meet the requirements of the IRP for Ecological Reserves and Non-Mechanized Backcountry areas both trails should be removed from the Reserve.

Mountain Biking as an Allowed Use on the Preserve [David Cota for municipal officials and representative in Carrabassett Valley, Kingfield, Eustis and Highland Plantation; Robert Kimber; Ken Spalding, Friends of Bigelow]

David Cota, joint letter of municipal officials (Scoping Phase): The sport of mountain biking has increased dramatically since the 1989 BPMP and there is currently, a substantial amount of this activity in the Bigelow Preserve. Specifically, the Stratton Brook road to the Huston Brook road trail is a high quality trail and is used by hundreds of mountain bikers each year. To a more limited extent the snowmobile trail from the Stratton Brook parking lot south and east to the Huston Brook Bridge is also used as a mountain bike trail. We advocate that a local group work closely with the State's resource management personnel to allow continued use of these trails.

Robert Kimber (Scoping Phase): The purpose of the Preserve is not to keep up with the recreational Joneses and alter its management policies to suit changing fashions among recreationists. Recreation is a secondary and subordinate use of the Preserve and should be permitted there only if it is compatible with the goal of ecological protection. Many forms of recreation are compatible with that goal: hunting, fishing, hiking, snowshoeing, real cross-country skiing. Recreational activities and facilities that introduce further mechanization into the Preserve—ATV use, for example, or mountain biking or machine-groomed cross-country ski trails—are not compatible and can only serve to erode the natural character of the preserve.

Ken Spalding, FOB (Initial Draft Plan): If there is interest in designated bike trails it is certainly an issue. As with the other issues, this requires much more explanation. There also needs to be a full vetting of the idea before bicycling in the Preserve is condoned. Non-motorized but mechanized use in the Preserve is neither explicitly permitted nor prohibited in the Preserve Act. There is clearly a difference between bicycling and other traditional non-motorized uses of the Preserve. This is recognized in the Bureau's Resource Allocation System where there are two backcountry designations, a non-mechanized backcountry category that does not allow mechanized uses and a motorized backcountry category that allows motorized and mechanized uses. Recommend that this issue be brought to the Advisory Committee for a full discussion before it is included in the plan.

Mountain Biking as an Allowed Use on the Preserve

The Final Plan includes a discussion about this issue, as requested (see page 67). It is the Bureau's own longstanding policy to limit off-road travel by wheeled vehicles of any sort; hence the Plan allows mountain bikes only on designated public use roads and management roads which are specified on page 161 of the Plan to include the Stratton Brook and Huston Brook Roads; and the woods road that connects the Range trailhead to the Stratton Brook Road.

Further, the Plan includes a significant area allocated at the core of the Preserve, in Special Protection (the Ecological Reserve) and in Bigelow Backcountry Non-Mechanized (total area of 20,340 acres out of 34,934 acres) in which mountain bike trails would not be allowed (see allocation map on page 139). The area in which mountain bike trails could be designated potentially in the future is largely lower elevation areas with moderate topography at the periphery of the preserve.

(On the Final Draft Plan): It is good that the plan includes a discussion of bicycle use on the Preserve rather than just make decisions about it with no discussion. The discussion correctly recognizes this as a use that was not contemplated by the Preserve Act and is a new use of the Preserve, specifically addressing this as an addition to the uses allowed on the Preserve. The fact that there is no explicit mention of bicycling in the Preserve Act should not be interpreted to mean, however, that it is an appropriate use. The fact that the illustrative recreation uses mentioned are all non-mechanized and the only exception. snowmobiling, is specifically mentioned would. I believe. more accurately be interpreted to suggest a decision on such an unanticipated type of recreation should be made conservatively and not expand the types of use allowed. The decision of the Bureau to allow, and limit, the mechanized use of bicycling on the same roads that are designated for passenger automobiles seems reasonable.

Reconfiguration of the Gravel Pit Parking/Camping area near the Little Bigelow Mountain Trailhead (off the East Flagstaff Road): [John Webster; Darlene Gray; Richard Mason; Richard Towle; Ben Gilman; Mike Davis; Peter Roderick; Ray Ronan]

John Webster (Final Draft Plan): On pages 125/126 under 9. Winter Parking, it states, c. Close campsite at Little Bigelow Trailhead and redesign for year round parking for AT and overnight use for people who launch for extended boat trips from the day use car top boat launch at end of Bog Brook Road. I find this recommendation particularly disturbing, considering I have enjoyed this camp site for the last ten years, and there are no other camp sites in the immediate area, accessible by car. . . My friend, who is disabled, enjoys going to this camp site with me, for some quality nature time. My friend is confined to a wheel chair, and no other camp sites in this area allow him access. The old gravel pit has seemed to accommodate all day/extended parking uses in the period I have been using the gravel pit for camping.....Flagstaff Lake isn't part of the area managed under this proposed plan, and I don't feel it is the purpose of this plan to plan or accommodate uses outside of the Preserve. . . . If the intention is to redesign the gravel pit, as the draft plan states, it is just as easy to move some more gravel, which will allow for the camping to stay. There is no data stated in any of the printed material I have seen on this matter, which supports redesigning for parking, and doing away with camping. . . . A new boat launch area has been established just north of Stratton, on RT27 in recent years, so I feel there is adequate overnight boater parking already supplied for Flagstaff Lake. . . If you do away with the camping in the gravel pit, this means that hikers who drive up late on a Friday evening, will not be able to park, and CAMP, so they can get an early start hiking on Saturday morning.

<u>Darlene Gray (Final Draft Plan):</u> RE: Closing the campsite at Little Bigelow trailhead. Although I don't see how you're

Reconfiguration of the Gravel Pit Parking/Camping area near the Little Bigelow Mountain Trailhead (off the East Flagstaff Road): In response to the comments received on this Plan recommendation, the Bureau has amended the Plan to provide one or two campsites adjacent to the area to be designated for parking to ensure the parking area is not used for camping when people arrive late in the day intending to start a hike or boat trip the next day. The use of those campsites will be limited to one or two nights to be sure this site is only used in conjunction with a multi-day hike or boat trip, and not as a camping destination in and of itself. Our expectation is that this site will get more use as a water and hiking trailhead and parking area – and that uses such as what has occurred informally by the Trail Magic group need to be controlled to avoid use conflicts at the site.

Under our new management plans for this site, the Trail Magic activity will be subject to approval of a Special Use permit, as an exception to otherwise limited use of this area other than for parking. In general, this type of use normally requires a special Use Permit as outlined in our IRP, which has specific language related to Special Uses. A special use permit is required when a use occurs that requires the exclusive use of a site or that is outside the bounds of the normal dispersed uses provided for on public reserved lands - and on the Bigelow Preserve there has been an explicit policy in place since 1981 that states "Recreation in the Preserve should not encourage the concentration of users in a manner that detracting from the essential character of the natural surrounding." This language was incorporated in the 1989 Bigelow Preserve Management Plan and is also included in the current Flagstaff Region Management Plan.

The Bureau has also revised the Plan recommendations in light of comments and concerns related to handicap-accessible sites (not only for this site but for others, including at the Round Barn camping and day use area just up the road from this site; and at the popular camping and day use area at the Myers Lodge site and a potential ATV accessible site on the north shore of Flagstaff Lake - the latter two sites are in Flagstaff Township).

going to stop people from camping there. I do have a suggestion on that area. Why not make that lake accessible, as there is an old road there that goes a short distance to the lake. It wouldn't take too much to reopen it, and the gravel is right there. As the so called day use cartop boat launch at the end of Bog Brook Rd. has no place to park. Except on camp owners property or in the roadway. This is a big problem and needs to be addressed. . . . Making that area lake accessible would help to relieve some of the traffic pressure on Bog Brook Rd. and give people lake access and a place to park.

Richard Mason (Final Draft Plan): We also oppose the socalled parking area for big Kayak and canoe groups who hog the space foe 3 or 4 days at a time. We suggest creating an access site and parking at the next cove over in the existing campsite in the gravel pit, or else where deemed suitable.

Richard Towle (Final Draft Plan): It has come to my attention that the Gravel pit on Bigelow preserve that is now a camping spot is going to be closed for future use. I have used this area for camping on many occasions. I use it mostly when I do a hike from the Gravel Pit up and over the Bigelow's and down to route 27. I also use it when I hike north to route 201 in Caratunk. What I usually do is drive up on a Friday . . .and set up camp in the Gravel Pit and spend the night and head out first thing Saturday morning. If the camp site is eliminated then we will no longer be camp there prior to our hike on the night before.

It is also my understand that this camp site is trying to be eliminated because . . . one individual is using the area for Trail Magic for thru hikers hiking the Appalachian Trail from Georgia to Maine. . . (and the Preserve Manager) thinks that it takes away from the wilderness experience. If a person has hiked 2,000 miles from Georgia and made it to the Gravel Pit on the preserve in Maine then stopping for a hamburger from some person handing them out is not going to ruin that person's wilderness experience. Heck the person just hike 2,000 miles. Someday I will be leaving Georgia and hiking to Maine on the Appalachian Trail and I sure hope I run into some Trail Magic like this. It would be a great reward to find an unexpected hamburger near a trail crossing. Maybe the person is not representing the preserve when they are doing this Trail Magic but it sure makes the state of Maine and looks good and makes the hiker receiving the Trail Magic feel welcome in Maine. Personally I think that the preserve should jump on this and help the person that is doing this Trail Magic and support them rather then discourage it. I am not saying it is something that should be done every weekend or all the time at the preserve. It is my understanding that . . . (this is done) in September every year for about 5 days. I feel if this is all that is done then there is no problem with it. I could see a problem if it was done all the time through out the summer, but this is not the case. .

Further, the Plan addresses the suggestion that an alternate carry-in boat access site be developed from the Gravel Pit parking area. As with any public lands adjacent to public waters, the Bureau considers and provides for public access to those waters where appropriate. In the case of the Bigelow Preserve, the Bureau is conscious of maintaining the Preserve's remote character; the allocations designated for the Preserve will not allow any new trailered boat access.

The specific management recommendation as amended for this site is found on page 161 of the Plan, and reads as follows:

Reconfigure the parking area and campsite in the gravel pit that serves the Little Bigelow Trailhead.

- a. Maintain as a year-round parking area for AT hikers, boaters, and cross-country skiers. Provide a pit privy that is ADA compliant to serve the parking area and other allowed uses.
- b. Investigate the feasibility of providing a path to the lake from this parking area for hand-carry boat access (including an option of a connector trail to the Bog Brook Road).
- c. Develop/designate one or more camping areas (depending on demand) limited to tent camping to serve parties that arrive late in the day to start a hike or boat trip the following day. Limit use of the site(s) to one or two nights only, as deemed appropriate based on use.
- d. Allow use of a portion of the parking area for special events associated with the Trail, subject to approval of a Special Use Permit.

Mike Davis (Final Draft Plan): I hiked the Maine section of the Appalachian Trail in 2002. I was the recipient of "trail magic" provided by Ray Ronan and his trail magicians on that most memorable day in September at the Little Bigelow sand pit. If you have ever done any long distance hiking, the kindness and goodies provided all along the 2100 miles is much appreciated by one and all. The following year and each year since completing the trail, I have become one of Ray's many 50+ year old elves. We meet each year at the "sand pit" the weekend following Labor Day, set up our "oasis", help hikers with first aid, food, soft drinks, repairs, rest, camaraderie and an overall memorable experience. It has been described as one of the finest magical experiences in the 2100+ miles that the trail follows from Georgia to Maine. As we interact with the Bigelow Preserve officials, we take direction and adjust our presence as requested. We clean up after ourselves and leave the area cleaner than when we arrive. . . Maine is the final state in the 2100 miles that these extraordinary hikers have traversed. Why not proudly make the state of Maine the most memorable. If the sand pit is converted into an Appalachian Trail, trailhead parking lot exclusively, it will force us to try and find another spot that allows parking. camping and socializing. While we are there, we always share the area with people using the area for parking while they spend a day or more on the trail. While we are there we ensure their vehicles are safe and offer the same support to those folks as the long distance ones. I don't know why the site can't support parking and our rather short 5 or 6 day event. There is surely enough space.

Peter Roderick (Final Draft Plan): I am disappointed to see that the campsite at the Little Bigelow Mountain trailhead is slated for closure. This campsite is of great convenience to those of us who travel long distances to get to the Bigelow preserve and need a spot nearby the Appalachian Trail to spend our first night in the area. I have used the campsite as a beginning point for a number of treks in the Bigelows in years past. I hope that you would see fit to leave the campsite intact and available. It seems that there is enough room for the campsite and any additional parking spots to co-exist.

Ray Ronan (Final Draft Plan): I would like to comment on the proposed plan for Flagstaff. On page 125/126, . . . there is a note regarding the parking area at the Little Bigelow Trailhead. I do not understand why it is necessary to eliminate the campsite in order to expand the parking lot for year around use? Are there too many campsites in that area? I hardly think so. This site also affords easy access to the lake with boats or for swimming. The parking area is an old gravel pit so I would think that the expansion could be easily done without impacting the lone campsite. In fact, while you are at it why not put in a privy at that site? Thank you for your consideration.

<u>Dick Fecteau</u>, <u>MATC</u> (<u>Final Draft Plan</u>): The proposal to close the gravel pit campsite (used mostly by RV's) across

from the Little Bigelow Trailhead and redesign it for a parking area seems reasonable. MATC could support this becoming a parking area and maybe even a hand carry boat launch to Flagstaff lake from the new parking area. I can think of no other AT trailhead in Maine that caters to RV campers. I think BPL has other gravel pits along the East Flagstaff road that would relocate this RV camping activity away from the AT corridor.

Proposed new campsites on the east shore of Flagstaff Lake. [Richard Mason for the East Flagstaff Lake Property Owners Association; Darlene Gray; Gary Broniarczyk; Marquise Hebert; Jeffrey Fournier]

<u>Darlene Gray (Final Draft Plan)</u>: In the Flagstaff Management Plan of April 23, 2007, I oppose two of the plans for that area . . .

(2) Page 158, to develop 3 walk-to campsites on the east-south shoreline of the lake. The AT hikers are all ready camping on the shoreline. We don't need any more campsites on the east-south shoreline. Noise and fire danger are two of the biggest reasons as there are many more.

Gary Broniarczyk (Final Draft Plan): I would also like to submit my opposition to the three proposed primitive camp sites on the eastern shore of Flagstaff Lake within the Bog Brook cove where the Bog Brook camps and beach are located. I feel the proposed sites are too clustered and in a already developed cove, as such I feel there would be a negative experience for the people camping at these sites as well as local camp owners and those who use the beach. People using these camp sites are looking for a wilderness and secluded experience elsewhere on the lake, not clustered together in a developed cove.

Richard Mason (Final Draft Plan): On behalf of the members of the East Flagstaff Lake Property Owners Association, I would like to submit our comments and concerns with . . . the three additional primitive camp sites proposed in the plan for the East shore of the Bog Brook cove where the traditional camps are located that were displaced once already by the formation of Flagstaff Lake itself. In the Initial Draft these sites we are made to believe they were needed for AT users and it appears for WMF hikers for a proposed new hiking trail. As a Advisory committee member I was told they were to be water access only now we see an actual trail going to these sites. My group wishes to submit our opposition to these 3 clustered sites in plain view of numerous camps right across the lake and in earshot of those and others including several landowner's camps behind these sites several hundred yards uphill.

We believe there will be a negative impact and experience from the close proximity of these sites and neighboring camps. Everyone will be hearing and seeing everyone else. We could not imagine a worse place for someone looking to experience wilderness camping and a bit of solitude. We believe we are being targeted for our

Proposed new campsites on the east shore of Flagstaff Lake.

The Bureau understands the concerns of the property owners at in the Bog Brook area and will consider their concerns prior to any development of campsites on the eastern shore of the Preserve. That said, the Bureau would like to correct several misperceptions expressed in these comments, and answer specific concerns on the suitability of this area for campsites:

- The map included in the Plan on page 163 depicts the general location of the campsites; the actual site locations would be determined from a detailed assessment of the options in the general area. The campsites will be located ½ to one mile from the camps on the Bog Brook road. The Bureau will also take care to avoid conflicts with camps located on the adjacent properties to the east of the Preserve lands
- These sites would serve primarily Appalachian Trail hikers, and an occasional canoe or kayak party that has launched from the Bog Brook access point and is returning from a multi-day outing.
- Prior to establishing any campsites, the Bureau will consult with the Maine Appalachian Trail Club and the Appalachian Trail Conference as this proposal would entail a side trail from the Appalachian Trail to the campsites. The approval of these organizations is required for any side trails to the AT.
- The proposed campsites are not part of the Western Mountains Foundation trail proposal, nor are they a replacement for campsites that are now located on the peninsula that has been identified in the WMF Trail proposal as the site of one of the Huts.
- The proposed sites are not intended as part of the Northern Forest Canoe Trail. The Bureau will be looking at the possibility of additional water access sites on the Dead River Peninsula, as part of that Trail.
- The Bureau's experience is that sites requiring a half-mile hike to reach them are not used as party sites. The Bureau will monitor the use of these sites and if this were to become an issue, the Bureau will address it as needed.
- The Bureau's experience is that campfires at sites with fire-rings located near to the shore of a lake are not a fire hazard given the availability of water to quench them.
- It is the Bureau's responsibility to monitor and maintain these sites. It has not been determined if the new side trail and campsites would be maintained by the MATC as part of the agreement between the MATC and the Bureau related to the AT.

opposition to WMF's proposal even though we respect and appreciate the people and staff at BPL and have only wished to have our fair say to mitigate negative impacts on us and all users of the Bigelow Preserve. After all who would know better than those living the closest to it.

Marquise Hebert (Final Draft Plan): I would like to express my opposition to the 3 new proposed camp sites off of Bog Brook rd., Dead River Peninsula noted on page 160 of the plan. . . . These sites are not remote and there will be conflict with others using this already popular area for locals and camp owners. I do not believe the canoeist from the Northern Forest Canoe Trail would want to venture this far south, I believe they would be using the sites that WMF proposes to take over and manage for a nominal fee. I believe BPL and WMF dreamed this location up to displace what Larry Warren calls rif raf (local kids).

Jeffrey Fournier (Final Draft Plan): I am writing to you as one of many concerned landowners located at the Flagstaff Bigelow Preserve Region. I have land that borders the preserve at the southern point of Flagstaff Lake. It has been brought to my attention over the past two years of proposed plans from developers to attempt to do several things within the Bigelow Preserve. 1-A "groomed" Cross Country ski trail . . 2- Now a proposed multiple primitive camping site along the lake within this preserve. This being proposed again by the same developers . . for the ski trail. The sites labeled as the Northern Forest Canoe Trail. . . I have several concerns...One is that this is an isolated area and primitive campsites bring campfires which prevailing winds subject my property and my camp to risk of being damaged. There is no access to fight such a fire should an irresponsible camper along the lake fail to put out their site campfire. Also this could create other issues such as loud unruly groups along the lake and my property, trash, debris, cleanliness from human waste disposal. Question – who will be the responsible party to care for a clean these sites. How often will they be visited and patrolled for safety and obedience to state laws.

Second, my understanding is the Northern Forest Canoe Trail that is being developed comes from the northwest part of Flagstaff Lake crossing the lake some 2-3 miles above this "southern area" traveling towards the Flagstaff Dam to the outlet. So with this in mind why a need for this primitive campsite diverting the canoe trail from its destination course. I believe these issues mentioned warrant "Public Hearings" in all cases as they affect our State of Maine public resources.

Potential conflicts at new campsites on Flagstaff Lake: Norm Kalloch (Final Draft): Regarding the language in the Initial Draft Plan which recommended that the Bureau "evaluate the demand and needs for additional water access camping sites on Flagstaff Lake in cooperation with user groups such as the Northern Forest Canoe Trail organization, Outward Bound and Chewonki, local guides and Florida Power and Light. Identify areas best suited for these user groups." (page 161, Initial Draft); and another

Potential conflicts at new campsites on Flagstaff Lake: The Bureau was not suggesting that each of these groups be provided campsites exclusively for their use. Rather, the intent was to gather input from these groups as to the need for additional sites, if there were specific needs that the Bureau should consider, such as the need for more large group sites; and preferred locations. The final Plan was amended to clarify this. The Bureau may designate some sites specifically for handicapped persons or large group occupancy, but otherwise,

recommendation to explore the potential for ATV access to the northern shoreline of Flagstaff Lake for a remote ATV camping opportunity (also page 161 of the Initial Plan) - Mr. Kalloch asked "Why are user groups having their own campsites? The management plan supports creating new camp sites for ATV operators, Northern Forest Canoe Trail paddlers, MATC, outward Bound, Chewonki and local guides. Are these sites to be off limits to folks who happen to paddle to one of these sites to spend the night camping?"

any site may be used by any party on a first come-first served basis.

Recreation Facilities at Round Barn: [Ken Spalding, Friends of Bigelow; David Cota for municipal officials and representative in Carrabassett Valley, Kingfield, Eustis and Highland Plantation]

Ken Spalding, FOB (Scoping Phase): The Round Barn site has been expanded. I suggest it should be made smaller again and turned into a water access site, possibly with walk-in camping sites provided on the East shore of Flagstaff and in Carrabassett Valley.

David Cota, joint letter from Towns (Scoping Phase): Continued use of the "Round Barn" campsites in the Bigelow Preserve: We recommend continued use of these campsites. Perhaps the Management Plan may wish to address additional sanitary facilities for this campground. This area may see additional use in the future with the possible reopening to the public of the Carriage Road in Carrabassett Valley.

Recreation Facilities at Round Barn: As suggested in the letter from David Cota, the Carriage Road was reopened and use at Round Barn has increased. This is the one site on the Preserve identified in the 1989 Plan to be suitable as a day use area as well as for camping. The 1989 Plan left open whether this site should be managed as a drive-to camping site or as a camping site requiring a walk from a trailhead/parking area to the campsites. The Bureau configured this site to be a walk-in site requiring a short walk to the campsites (roughly 200 to 500 feet) and to the day use area (roughly 75 feet) as opposed to a site with drive-to campsites and day use area. Further, the Bureau has limited the number of campsites to less than proposed in the 1989 Plan. Future additions to this site will still result in fewer campsites than proposed under the 1989 Plan. The sand beaches in this area, its historical use, the existence of the East Flagstaff Road providing access to it, and the provisions of the Bigelow Act allowing public vehicular access to this site, all support the current and proposed configuration for this site.

Gravel Extraction on the Preserve:

<u>Pamela Prodan, Final Draft Plan</u>: As was the case in 1989, the Bureau's policies should continue to minimize the extraction of gravel to assure the natural character of the land is preserved to the greatest extent possible.

Various Comments Related to Wildlife Management on the Preserve [Ken Spalding, Friends of Bigelow; Richard Mason, East Flagstaff Lake Property Owners Association]

Ken Spalding (Preliminary Plan): The document says that bald eagles and Tomah mayflies are in the area and that "there are no other *threatened or endangered species* known to occur in this area." It would be helpful to know what else has been looked for and what plans exist to look in the future. What studies have been done to search for lynx for example?

There has undoubtedly been some surveying for lynx done in the region, for example as part of the 60 random townships surveyed by the US Fish and Wildlife Service, University of Maine and Maine Inland Fisheries & Wildlife (IF&W). Has any evidence of them been found? Where have they not been looked for yet, for example in the higher elevations on Bigelow and Abraham. Five years ago IF&W said there were no lynx in Maine. When they searched, however, they discovered they are here and now estimate

Gravel Extraction on the Preserve:

The Bureau has incorporated the 1989 policy into the current Plan on page 162; however, the current version of the policy has eliminated the provision that allowed gravel to be sold for use outside the Preserve in connection with the rehabilitation of a gravel pit within the Preserve.

Various Comments Related to Wildlife Management on the Preserve

Threatened and endangered (T&E) species habitat: The Bureau's policies related to T&E species are explained in the Bureau's Integrated Resource Policy (page 42). In general, the Bureau does not undertake field studies to identify and document the presence of T&E species on the Public Reserved lands – although the Bureau understands habitats that are important to these species and manages accordingly, taking into account available information from MDIF&W on essential habitats (bald eagle nest sites in the Flagstaff Plan area) and significant habitats (habitat defined under the Maine Natural Resources Protection Act for T&E species). The Bureau biologists would report any new occurrences of T&E species that are not known to occur in that area to MDIF&W and USFWS, but does not undertake specific surveys on T&E species.

In addition, the Bureau manages the Public Reserved Lands consistent with guidelines from MDIF&W related to

there are 300 to 500 in Maine.

Ken Spalding (Final Draft): Imperiled Species. The plan states the Bureau will manage areas around rare, threatened and endangered species sites according to MDIFW guidelines. Are these guidelines published? Are they consistent with the U.S. Fish & Wildlife Service (USFWS)? The USFWS recognizes some species in these categories that the MDIFW does not. It would make sense for Maine public lands to be managed in whichever is the more conservative approach. (p 157)

East Flagstaff Lake Property Owners Association (Scoping Phase):

Game Wildlife Habitat Enhancement.

We believe that since DIF&W was originally supposed to be managing the Bigelow Preserve along with BPL and that hunting is named as one of the activities to be allowed to continue according to the Bigelow Act plus the fact that other activities allowed for are being actively managed for, that game species should see more active management. In general we would like to see DIF&W involved in 10% of all forestry done in the Bigelow Preserve. By this we mean that 10% of the land harvested is harvested in such away as to directly benefit games species with the wood byproduct as a secondary benefit even if this means a lower grade byproduct such as bolt wood. Half of the 10% could be active reforestation in such away to directly benefit game species after a normal forestry operation where the wood byproduct would be of a higher value than bolt wood but the area is managed after primarily for the targeted game species. We are sure much is already being done in this area of request as a outcome of good normal forestry practices. We would just like to see more emphasis here and some kind of measurable metrics in place to be viewed in some kind of report. Following is a list of recommendations.

habitat for Species of Special Concern such as the yellownosed vole, Bicknell's thrush, and peregrine falcon, species that have been documented historically or presently within the Flagstaff Plan area. Bureau biologists cooperate with other agencies and programs such as the avian surveys conducted through the Vermont Institute of Natural Science (VINS) to document the presence of certain species of interest including Bicknell's thrush and peregrine falcons in the Bigelow area.

Lynx: The 60 towns randomly sampled were all north of the Preserve. Lynx were observed only on the northerly half to two thirds, not being found south of Rt 6/15 between Rockwood and Jackman. Furthermore, on only two townships were both lynx and bobcat observed, with sampled towns to the south having had only bobcat observed and sampled towns to the north only lynx observed, leading biologists to think there is some antagonistic behavior between the two species. That does not prove the absence of lynx at Bigelow, but having the nearest observed occurrence 40 bobcat-occupied miles away makes it a fairly low possibility.

Imperiled Species: The language in the Plan now states that the Bureau will manage areas around rare animal sites according to MDIFW or USDW guidelines, as appropriate.

Game Wildlife Habitat Enhancement.

In general, the Management Plans for Public Reserved Lands do not contain specific management prescriptions for wildlife, just as they do not contain specific management prescriptions for timber. Wildlife management is guided by Bureau policy, as contained in the IRP (pages 38 to 44), and specific management guidelines developed by the Bureau's biologist and IF&W, as explained below.

- a. Since 1984 the bureau has had an IFW wildlife biologist on staff reviewing and approving all (100%) timber harvest plans. This staff wildlife biologist also edited the bureau's Wildlife Guidelines which are implemented across the landbase. The nature of wildlife management on public lands is extensive in nature trying to balance habitat for all species, not just game species. Where there are opportunities, game species are featured such as in deer yard management or aspen management for grouse.
- b. The bureau, through its biologist actively manages deer wherever possible. The bureau manages numerous areas as if they were zoned deer yards even though they don't meet the minimum criteria established by LURC and IFW.
- c. The Dead River peninsula is actively managed for grouse by creating small even aged blocks of aspen from 10 to 40 years of age to meet all of the habitat needs of grouse.
- d. Alder stands at Chain of Ponds are managed by cutting strips perpendicular to the topography to stimulate dense

- b. Deer Yards and Foraging Areas. Map, protect and expand where possible.
- c. Grouse, Uneven Aged Management of Poplar stands especially near mature Hemlock and other softwood stands. Leave plenty of mature seed bearing Yellow Birch also.
- d. Woodcock, manage for Alder thickets less than 2 inches in diameter.
- e. Most wildlife, reseed road beds with White Clover and like legumes.
- f. Bears and all other wildlife, Beech tree preservation.
- g. Turkeys, anything specifically known to increase their survival away from non agricultural lands.
- h. Ducks.?

Beech Tree Preservation.

Do not cut mature trees with smooth bark and healthy crowns, including those that exist isolated from larger Beech stands

Apply agricultural lime on the healthy stands and isolated trees to bolster the trees defenses against Beech Bark Disease

Work with DIF&W to assess the characteristics of particular beechnut producing hardwood stands to determine which are most important and take action to save these stands.

In general we believe the Bigelow Preserve with it's ecological preserves intact would be and should be the ideal candidate for Beech Bark Disease research jointly with DIF&W and the Maine Forest Service and other interested parties.

Bog Brook Deer Yard Mapping, Protection and Enlargement

This is a locally known deer yard, where the deer use the road system to move between it and neighboring deer cover and feeding areas. Our members have noted DIF&W employees dragging 3 dead deer out from across the road one February, 5 years ago. Many have searched for and found numerous sheds in the area.

This may be a small yard in and of it self, but when considered with the ancillary deer cover and feeding areas with smaller pockets of Spruce/Fir canopy it takes on more significance. Considering the losses this State has witnessed on our deer yards, the significance of the Bigelow Preserve to the public and the fact that there are no mapped deer yards with in the preserve we believe it is of the utmost importance to map this yard. We also request a moratorium be put in place on any cutting in or

new vegetation creating ideal woodcock feeding habitat.

e. Most roads, yards and disturbed areas are seeded with a special wildlife seed mix developed by the bureaus

special wildlife seed mix developed by the bureaus biologist that contains Dutch white clover, hairy vetch and birdsfoot trefoil when the operations are closed out.

- f. The bureau biologist developed "Beech Guidelines" for managing northern hardwood stands to retain beech of mast-producing size and preserve "clean" beech which shows resistance to beech bark disease. MDIFW has adopted the guidelines for management of their lands. There is no scientific evidence that agricultural lime has any effect on beech vigor or growth. Dormant applications of lime sulphur to the bark of beech trees has been used to control the beech scale insect on ornamental trees. Doing this in extensive forested areas would be impractical and cost prohibitive.
- g. Most lands in the Flagstaff unit are not within the historical range of the wild turkey and severe winters will likely limit their survival here.
- h. The Blanchard Brook impoundment at Dead River is managed for waterfowl production. Stable water levels and nest boxes make this a very productive area for common goldeneyes and hooded mergansers.

Beech Tree Preservation

As mentioned previously the bureau has written guidelines for managing beech for beechnut production.

The bureau works with many partners in research on wildlife habitat and will continue this effort.

Bog Brook deer yard

The biologist will survey this area under restrictive travel conditions for deer and map areas of deer use. Harvesting here, if warranted, will be designed to improve the shelter value of the stands to deer based on an assessment of existing conditions. A common misconception is that deer yards should not be cut. Deer yards are almost always even aged and if younger ages of trees that provide shelter, usually spruce and fir, are not developed the older trees will mature at about the same time and die, leaving a 35 year period with no suitable cover. IFW guidelines encourage the management of half the area of a deer yard as cover and the other half as younger replacements for the older trees through light periodic harvesting.

A standard of 20 deer per square mile is required by LURC for an area to qualify for zoning as a deer yard. The bureau can use any deer density standard it wishes in an area not zoned by LURC, but an area should show at least moderate use during restrictive travel conditions.

near this deer yard until the proper assessment has been made.

Map and protect the deer yard that is located within the Bigelow

Preserve, exceeding LURC standards.

Identify the ancillary deer yard type areas within several miles of Bog Brook deer yard and consider what past, current and future

forestry practices will have on Bog Brook yard. Given that the ancillary deer yard areas have already been cut and will be providing additional winter browse, we assert that the portion of Bog Brook deer yard within the Bigelow Preserve be protected from any cutting what so ever, for any reason.

Any future forestry done near or adjacent to the Bog Brook deer yard should be such that it does not invade the Spruce/Fir Broom Moss forest as is and should be managed to enlarge the deer yard and ancillary areas. Coyotes. We like else where in the State are experiencing a coyote problem on our deer. If DIF&W were to set up a coyote bait site, near the deer yards with a heated blind, we could see to it that it gets manned by local hunters to reduce the population with out any risk to non target species.

Boating Access to Flagstaff Lake [Ken Spalding, Friends of Bigelow; Norm Kalloch]

Ken Spalding, FOB (Final Draft): On page 158 the plan seems to indicate that exploration is needed to find access to Flagstaff Lake from the Bigelow Preserve for large boats. Access sites to the lake for large boats may be appropriate to explore for other places on the lake, but it should not be developed in the Preserve.

Norm Kalloch (Final Draft): Page 158...providing access for larger boats....How large are the boats this access will be created for? Boats with an 80 plus HP outboard, Pontoon boats, or something smaller? I think this is important as people's expectations may or may not be met with what is constructed. Also the effect of high speed boats on Flagstaff could have an adverse effect on other users of the Lake (canoes, small power boats). There is already a ban on personal water craft on Flagstaff Lake. If access is created for boats with high horsepower then the purpose of the PWC ban will be compromised.

Boating Access to Flagstaff Lake

On further consideration, since the boat launch in question was not on the Public Reserve Lands, the Bureau eliminated this recommendation entirely from the Final Plan.

III. Comments Specific to the Mount Abraham Property

Protection of sensitive habitats in the Ecological Reserve from damage from motorized recreational uses: [Dick Fecteau, MATC; Carole Haas Maine Appalachian Trail Land Trust; J.T. Horn, ATC; Bob Weingarten]

<u>Dick Fecteau, MATC (Preliminary Plan):</u> The issue of motorized incursions on Mt Abraham need to be addressed immediately by blocking access and installing informational signage.

Protection of sensitive habitats in the Ecological Reserve from damage from motorized recreational uses:

The Plan includes recommendations to use a variety of approaches to stop the motorized vehicle incursions on the Mount Abraham ecological reserve (page 166), including:

- 5. Work with local snowmobile and ATV clubs to increase awareness of the impacts of these trails on the fragile alpine areas
- 6. Block and post trails and roads on Bureau lands that are

<u>Carole Haas, MATLT (Initial Draft)</u>: Thank you for an excellent job on the Plan in general. It provides a lot of important and interesting information regarding the region as a whole as well as the individual parcels. We appreciate as well the attempts being made to discourage illegal snowmobile and ATV use within the Mt. Abraham Ecological Reserve.

J.T. Horn, Appalachian Trail Conservancy (on the Initial Plan): As the entity that helped purchase the Mt. Abraham property we are pleased to see the Bureau re-commit to the ecological reserve on the property and to making some needed improvement to the trail system. ... We also believe that better education, closures and enforcement of the prohibition of motorized trails in the ecological reserve is critical to the protection of the special values of the Mt. Abraham property.

Bob Weingarten (Initial Draft): The State land on Mt. Abraham above 2700' is designated as an Ecological Reserve under the terms of the arrangement that enabled the State to acquire the land. An Ecological Reserve is to be maintained under stringent land use protection standards. This includes protecting the fragile flora and fauna that occupy the zone above 2700'. Motorized recreation should not be permitted in this zone. During the winter of 2005/2006 I was privileged to have the opportunity to ski to the top of the saddle between the peaks of Mt. Abraham and Middle Abraham. In this location our party found clear evidence that snowmobiles had scoured the rocks and defiled the flora growing in this fragile habitat. This was reported to BPL.

I was astonished to hear BPL staff defend lack of enforcement of the ban on motorized recreation on the Mt. Abraham Ecological Reserve during the meeting of the Flagstaff Advisory Committee on Feb. 27, 2007. The protection of the Ecological Reserve on Mt. Abraham should be given the highest priority by BPL and staff should give this issue its full and undivided attention. An enforcement plan to prevent the destruction of alpine or subalpine habitat or flora on Mt. Abraham should be included in the Draft Plan (as well as on the ground immediately).

- used to gain unauthorized motorized vehicle access into ecological reserve. Work with adjacent landowners to block and post trails that enter the Ecological Reserve from the western side.
- 7. Develop an agreement with MDIFW wardens to provide an enforcement presence if necessary, to ensure that ATV's and snowmobiles are not violating posted areas.

The Bureau has never defended lack of enforcement; rather, the Bureau spoke frankly at the meetings on the issues that make it difficult to enforce prohibitions of ATVs from high elevation alpine habitats. The Bureau is committed to addressing this issue.

Facilities improvements: Trail and campsites [Dick Fecteau, MATC; J.T. Horn, ATC]

<u>Dick Fecteau, MATC (Preliminary Plan)</u>: The old firewarden's cabin should be removed with the possible addition of a campsite and privy at the site.

The old tower should be removed then signage and skree walls installed to protect the alpine zone from wandering hikers. The old firewarden's trail and access from Kingfield should be repaired or relocated, the lower 1 mile is beyond salvage, it might be easier and less expensive to maintain the road around to the upper trail section for hiker access.

(Initial Draft): The MATC exec committee does wish to

Facilities improvements: Trail and campsites

The Plan incorporates these suggestions (see page 166) and looks forward to working with MATC to improve the recreational trails on Mount Abraham.

work with BPL on the Mt. Abraham Firewarden's Trail. We think there may be money available from reserves held by LMF to pay for trail crew time as needed. MATC will accept a management agreement with BPL for this trail and any new campsite at the site of the old cabin. MATC will support removing the remains of the old tower and debris on the summit.

J.T. Horn, ATC (Initial Draft): ... we are pleased to see the Bureau re-commit ... to making some needed improvement to the trail system. It is our understanding that the MATC is prepared to help with Trail reconstruction and maintenance on the Mt. Abraham Fire Warden's trail.

IV. Comments Specific to the Chain of Ponds Property

Boat Access to Natanis Pond:

Kenneth and Sharon Thomas, Natanis Point Campground, (Initial Draft): We are in contact with the State about the boat launch they propose and that discussion continues to unfold as to how it will be handled. Our concerns are the maintenance of the parking area, trash issues (we do not allow trash to be left, it is a carry-in/carry-out policy), governing the safety of our campers versus not knowing who is operating in the campground (alcohol is always a concern) and where it is placed along the beach so as not to be an eyesore from the highway or from our campers view.

. We wish to have a say in how this new boat launch area is designed and where it is located.

Boat Access to Natanis Pond:

The Bureau will be working with MDOT and the campground owners on the design of the new boat launch and will consider the concerns raised. These are operational details that are not generally included in the management plans.

Public Access to the Height of Land Portage Trail (following the Arnold Trail) through Natanis Point Campground:

Duluth Wing, Arnold Expedition Historical Society (Initial Draft): The trail head to gain access to the proposed Height of Land Portage Trail begins on the south side of Natanis Point. The public wishing to gain access would have to pass through a portion of the campground. This may be a justified conflicting issue, if not planned for. We would like to make suggestions so as to minimize possible frictions, but not within the context of the Draft Management Plan. We simply wish to point out there is a potential use problem that needs to be addressed.

Kenneth and Sharon Thomas, Natanis Point Campground, (Initial Draft): It has always been our policy for anyone whishing to visit the Natanis Memorial or hike the Arnold Trail to do so at no charge even during the regular camping season.

Public Access to the Height of Land Portage Trail (following the Arnold Trail) through Natanis Point Campground:

Impacts of the campground on the ecology and scenic values of Natanis Lake.

Duluth Wing, Arnold Expedition Historical Society (Initial Draft): Long term, it may be an ecological and visual advantage to discontinue the campsites directly on Natanis Point. These campsites can be prominently seen by traffic passing along route 27 and detracts from the otherwise fine scenery. The campsites located in the adjacent forest seem to be located well. Second, this point is showing considerable human wear along the point's east and west shorelines. It may be better to have people walk this point, rather than having campsites all along the exposed shoreline. We recommend that an ecological assessment of the wear on the shorelines be undertaken to determine if detrimental damage is being done.

Kenneth and Sharon Thomas, Natanis Point Campground, (Initial Draft): Whoever runs this campground has had to purchase that right for a price. Our living depends on this income. It is a commercial endeavor with severe ramifications if any part is revoked. It is our belief that we can continue to operate this as a commercial campground and still give proper respect to the history and environment around us. . . The views from our beach take in the Bigelow Range and surrounding mountains. Those campsites are the most sought after because of the pristine beauty that awaits them as they wake up every morning. Our policy is to provide more than half our waterfront sites to the everyday public at all times. We even eliminated some seasonal sites on the waterfront to make more available to the public. People reserve those sites a year in advance because of the uniqueness and privilege of being on the water along with the spectacular views. That fact alone is enough to make anyone realize how important this campground is to the public. They can enjoy the area here knowing that their camping experience will be monitored for safety, cleanliness, quietness and kept to a reasonable cost that allows people to bring their whole family. Boy scout Troops, church groups and local school departments yearly utilize this campground for teaching the young people about respecting the land, the history around the Arnold Trail Expedition and learning to enjoy the great outdoors. One such group brings in the disadvantaged children who would otherwise never know what camping means.

Impacts of the campground on the ecology and scenic values of Natanis Lake.

The Bureau recognizes the balance it must strike between the economic interests of the commercial campground on the one hand, and the public interests for access to recreation opportunities on public lands (see above two comments) and protection of natural and scenic resources. These are issues that need to be worked out at an operational level with the leaseholder. Hence the Plan makes only general recommendations related to ensuring reasonable public access, and protection of scenic and natural resources (see page 167). The Bureau appreciates the willingness of the current leaseholder to accommodate those public interests, and their efforts to make improvements to the campground to address environmental issues.

V. Comments Specific to Other Public Lots

Myers Lodge (Flagstaff Township) and Big Eddy Campsites (Spring Lake Lot)

David Cota for municipal officials and representative in Carrabassett Valley, Kingfield, Eustis and Highland Plantation (Scoping phase): We recommend the discontinuance of the "dysfunctional activities" and lack of management witnessed on an ongoing basis at the "Big Eddy" and Myers Lodge" state-owned sites. The new

Myers Lodge (Flagstaff Township) and Big Eddy Campsites (Spring Lake Lot)

Since this comment was made the Bureau has developed a monitoring effort with Maine Forest Service staff to manage the problems at the Big Eddy site. In addition, the Plan recommends improvements to the sanitary facilities at this site, so this issue is being addressed.

management plan should address proper sanitary facilities, as needed on-site supervision and police protection to manage these areas. Complaints were raised at our March 21 (2005) meeting that women and children were actually afraid to go to Big Eddy at certain times due to safety concerns.

At the Myers Lodge site, the Plan recommends a reconfiguration of the site to discontinue vehicle access to the beach and make this into a camping and day use area. This change is expected to resolve some conflicts that have occurred at this site and make better use of the beach at the site for day use.

Spring Lake Lot - Boat Access

Norm Kalloch (Final Draft): Recommended the Bureau "Work with FPL to build a slightly larger parking area for those people wanting to park while accessing Flagstaff and the Picnic area launch off the Long Falls Dam Road. Currently there is little room to maneuver a vehicle around (and park) if more than 1 vehicle is already parked at the launch. I feel minimal if any work needs to be done to improve the boat launch itself. Canoes and kayaks can be hand carried to the water with minimum difficulty. A launch for larger boats already exists at the south end of the lake (Bog Brook Rd?)."

Spring Lake Lot - Boat Access

The Plan recommends that the Bureau pursue parking improvements to the Flagstaff Lake boat access facility on the Spring Lake parcel with Florida Power and Light, which is responsible for this facility under their Federal Energy Regulatory Commission license (page 165).

Wyman Township Lot

J.T.Horn, ATC (Initial Draft): Disposition of the Wyman Township Lands on the South Side of Route 27. In the recent Katahdin Lake acquisition, part of the BPL Wyman Township lands were traded away as part of the exchange with the Gardner Company. However, BPL retained a few hundred acres adjacent to the Appalachian Trail corridor on the south side of Route 27. It is unclear to me what the final disposition of this tract is under the proposed Flagstaff Region Plan. Other lands on the north side of Route 27 appear to be additions to the Bigelow Preserve as they are "adjacent" to the existing Bigelow Preserve consistent with the language in the Bigelow Act. However, the BPL lands in Wyman Township on the south side of Route 27 have been the focus of some dispute about whether they should be included in the Bigelow Preserve or not. We believe that an addition to Bigelow is a logical disposition, despite the separation of a paved state highway. In any event, our hope is that it will be managed to enhance A.T. protection and will not be open to new motorized trails or developed recreation. A statement clarifying the status of this parcel should be included in the final plan.

Wyman Township Lot

The Plan does not include the portion of the Wyman Lot west of Route 27 in the lands to be added to the Bigelow Preserve. The allocation for this area includes a Visual Class II zone for much of the parcel, as well as, adjacent to the National Park Service AT Corridor, a Remote Recreation zone to provide a buffer in which motorized or mechanized recreation trails are prohibited within 500 feet of the AT (the AT is not centered within the NPS owned 1000 ft wide corridor; hence where the trail is located less than 500 feet from the NPS boundary, the Remote Recreation zone is applied on adjacent Bureau lands to attain 500 feet of protection). See maps on pages 139 and 141, and the written description of the allocations on pages 146 and 147.

Highland Plantation Southeast Lot:

Norm Kalloch (Final Draft): I support a small sign being placed at both ends of the road where it crosses the property showing people that they are on public land. Can that be added as a Management recommendation?

Highland Plantation Southeast Lot:

This was a good suggestion and the Bureau has added such language to the Final Plan. The Bureau took this one step further and recommended, in the Plan, that a parking area be provided along the road if feasible. (see page 168).

Appendix G Glossary

- "Age Class": the biological age of a stand of timber; in single-aged stands, age classes are generally separated by 10-year intervals.
- "ATV Trails": designated trails of varying length with a variety of trail surfaces and grades, designed primarily for the use of all-terrain vehicles.
- "All-Terrain Vehicles": motor driven, off-road recreational vehicles capable of cross-country travel on land, snow, ice, marsh, swampland, or other natural terrain. For the purposes of this document an all-terrain vehicle includes a multi-track, multi-wheel or low pressure tire vehicle; a motorcycle or related 2-wheel vehicle; and 3- or 4-wheel or belt-driven vehicles. It does not include an automobile or motor truck; a snowmobile; an airmobile; a construction or logging vehicle used in performance of its common functions; a farm vehicle used for farming purposes; or a vehicle used exclusively for emergency, military, law enforcement, or fire control purposes (Title 12, Chapter 715, Section 7851.2).
- "Bicycling/ Recreation Biking Trails": designated trails of short to moderate length located on hard-packed or paved trail surfaces with slight to moderate grades, designed primarily for the use of groups or individuals seeking a more leisurely experience.
- "Boat Access Improved": vehicle-accessible hard-surfaced launch sites with gravel or hard-surface parking areas. May also contain one or more picnic tables, an outhouse, and floats or docks.
- "Boat Access Unimproved": vehicle-accessible launch sites with dirt or gravel ramps to the water and parking areas, and where no other facilities are normally provided.
- "Campgrounds": areas designed for transient occupancy by camping in tents, camp trailers, travel trailers, motor homes, or similar facilities or vehicles designed for temporary shelter. Developed campgrounds usually provide toilet buildings, drinking water, picnic tables, and fireplaces, and may provide disposal areas for RVs, showers, boat access to water, walking trails, and swimming opportunities.
- "Carry-In Boat Access": dirt or gravel launch sites accessible by foot over a short to moderate length trail, that generally accommodates the use of only small watercraft. Includes a trailhead with parking and a designated trail to the access site.
- "Clear-cut": an single-age harvesting method in which all trees or all merchantable trees are removed from a site in a single operation.
- "Commercial Forest Land": the portion of the landbase that is both available and capable of producing at least 20 cubic feet of wood or fiber per acre per year.
- "Commercial Harvest": any harvest from which forest products are sold. By contrast, in a precommercial harvest, no products are sold, and it is designed principally to improve stand quality and conditions.

- "Community": an assemblage of interacting plants and animals and their common environment, recurring across the landscape, in which the effects of recent human intervention are minimal ("Natural Landscapes Of Maine: A Classification Of Ecosystems and Natural Communities" Maine Natural Heritage Program. April, 1991).
- "Cross-Country Ski Trails": designated winter-use trails primarily available for the activity of cross-country skiing. Trails may be short to long for day or overnight use.
- **"Ecosystem Type":** a group of communities and their environment, occurring together over a particular portion of the landscape, and held together by some common physical or biotic feature. ("Natural Landscapes Of Maine: A Classification Of Ecosystems and Natural Communities." Maine Natural Heritage Program, April, 1991).
- "Folist Site": areas where thick mats of organic matter overlay bedrock, commonly found at high elevations.
- **"Forest Certification"**: A process in which a third party "independent" entity audits the policies and practices of a forest management organization against a set of standards or principles related to sustainable management. It may be limited to either land/forest management or product chain-of-custody, or may include both.
- "Forest Condition (or condition of the forest)": the state of the forest, including the age, size, height, species, and spatial arrangement of plants, and the functioning as an ecosystem of the combined plant and animal life of the forest.
- "Forest Stewardship Council (FSC) Certification": A third-party sustainable forestry certification program that was developed by the Forest Stewardship Council, an independent, non-profit, non-governmental organization founded in 1993. The FSC is comprised of representatives from environmental and conservation groups, the timber industry, the forestry profession, indigenous peoples' organizations, community forestry groups, and forest product certification organizations from 25 countries. For information about FSC standards see http://www.fscus.org/standards_criteria/ and www.fsc.org.
- **"Forest Type":** a descriptive title for an area of forest growth based on similarities of species and size characteristics.
- "Group Camping Areas": vehicle or foot-accessible areas designated for overnight camping by large groups. These may include one or more outhouses, several fire rings or fire grills, a minimum of one water source, and several picnic tables.
- "Horseback Ride/Pack Stock Trails": generally moderate to long-distance trails designated for use by horses, other ride, or pack stock.
- "Invasive Species": generally nonnative species which invade native ecosystems and successfully compete with and displace native species due to the absence of natural controls. Examples are purple loosestrife and the zebra mussel.

- **"Late successional"**: The condition in the natural progression of forest ecosystems where long-lived tree species dominate, large stems or trunks are common, and the rate of ecosystem change becomes much more gradual. Late successional forest are also mature forests that, because of their age and stand characteristics, harbor certain habitat not found elsewhere in the landscape.
- "Log Landings": areas, generally close to haul roads, where forest products may be hauled to and stored prior to being trucked to markets.
- "Management Roads": roads designed for timber management and/or administrative use that may be used by the public as long as they remain in service. Management roads may be closed in areas containing special resources, where there are issues of public safety or environmental protection.
- "Mature Tree": a tree which has reached the age at which its height growth has significantly slowed or ceased, though its diameter growth may still be substantial. When its annual growth no longer exceeds its internal decay and/or crown loss (net growth is negative), the tree is overmature.
- "Motorized": a mode of travel across the landbase which utilizes internal combustion or electric powered conveyances; which in itself constitutes a recreational activity, or facilitates participation in a recreational activity.
- "Mountain Bike Trails": designated trails generally located on rough trail surfaces with moderate to steep grades, designed primarily for the use of mountain bicycles with all-terrain tires by individuals seeking a challenging experience.
- "Multi-aged Management": management which is designed to retain two or more age classes and canopy layers at all times. Its harvest methods imitate natural disturbance regimes which cause partial stand replacement (shelterwood with reserves) or small gap disturbances (selection).
- "Natural Resource Values": described in Maine's Natural Resource Protection Act to include coastal sand dunes, coastal wetlands, significant wildlife habitat, fragile mountain areas, freshwater wetlands, great ponds and rivers, streams, and brooks. For the purposes of this plan they also include unique or unusual plant communities.
- "Non-motorized": a mode of travel across the landbase which does not utilize internal combustion, or electric powered conveyances; which in itself constitutes a recreational activity, or facilitates participation in a recreational activity.
- "Non-native (Exotic)": a species that enters or is deliberately introduced into an ecosystem beyond its historic range, except through natural expansion, including organisms transferred from other countries into the state, unnaturally occurring hybrids, cultivars, genetically altered or engineered species or strains, or species or subspecies with nonnative genetic lineage.
- "Old Growth Stand": a stand in which the majority of the main crown canopy consists of long-lived or late successional species usually 150 to 200 years old or older, often with characteristics such as large snags, large downed woody material, and multiple age classes, and in which evidence of human-caused disturbance is absent or old and faint.

- "Old Growth Tree": for the purposes of this document, a tree which is in the latter stages of maturity or is over-mature.
- **"Pesticide":** a chemical agent or substance employed to kill or suppress pests (such as insects, weeds, fungi, rodents, nematodes, or other organism) or intended for use as a plant regulator, defoliant, or desiccant. (from LURC Regulations, Ch. 10)
- "Primitive Campsites": campsites that are rustic in nature, have one outhouse, and may include tent pads, Adirondack-type shelters, and rustic picnic tables. Campsites may be accessed by vehicle, foot, or water.
- "Public Road or Roadway": any roadway which is owned, leased. or otherwise operated by a government body or public entity. (from LURC Regulations, Ch. 10)
- **"Public Use Roads":** all-weather gravel or paved roads designed for two-way travel to facilitate both public and administrative access to recreation facilities. Includes parking facilities provided for the public. Management will include roadside aesthetic values normally associated with travel influenced zones.
- "Recreation Values": the values associated with participation in outdoor recreation activities.
- "Regeneration": both the process of establishing new growth and the new growth itself, occurring naturally through seeding or sprouting, and artificially by planting seeds or seedlings.
- "Remote Ponds": As defined by the Maine Land Use Regulation Commission: ponds having no existing road access by two-wheel drive motor vehicles during summer months within ½ mile of the normal high water mark of the body of water with no more than one noncommercial remote camp and its accessory structures within ½ mile of the normal high water mark of the body of water, that support cold water game fisheries.
- "Riparian": an area of land or water that includes stream channels, lakes, floodplains and wetlands, and their adjacent upland ecosystems.
- "Salvage": a harvest operation designed to remove dead and dying timber in order to remove whatever value the stand may have before it becomes unmerchantable.
- "Selection": related to multi-aged management, the cutting of individual or small groups of trees; generally limited in area to patches of one acre or less.
- "Service Roads": summer or winter roads located to provide access to Bureau-owned lodging, maintenance structures, and utilities. Some service roads will be gated or plugged to prevent public access for safety, security, and other management objectives.
- "Silviculture": the branch of forestry which deals with the application of forest management principles to achieve specific objectives with respect to the production of forest products and services.

- "Single-aged Management": management which is designed to manage single age, single canopy layer stands. Its harvest methods imitate natural disturbance regimes which result in full stand replacement. A simple two-step (seed cut/removal cut) shelterwood is an example of a single-aged system.
- "Snowmobile Trails": designated winter-use trails of varying length located on a groomed trail surfaces with flat to moderate grades, designed primarily for the use of snowmobiles.
- **"Stand":** a group of trees, the characteristics of which are sufficiently alike to allow uniform classification.
- "Succession/ successional": progressive changes in species composition and forest community structure caused by natural processes over time.
- "Sustainable Forestry/ Harvest": that level of timber harvesting, expressed as treated acres and/or volume removals, which can be conducted on a perpetual basis while providing for nonforest values. Ideally this harvest level would be "even-flow," that is, the same quantity each year. In practice, the current condition of the different properties under Bureau timber management, and the ever-changing situation in markets, will dictate a somewhat cyclical harvest which will approach even-flow only over time periods of a decade or more.
- "Sustainable Forestry Initiative (SFI)": A third party sustainable forestry certification program that was developed in 1994 by the American Forest and Paper Association, which defines its program as "a comprehensive system of principles, objectives and performance measures that integrates the perpetual growing and harvesting of trees with the protection of wildlife, plants, soil and water quality." To review SFI standards see http://www.afandpa.org/Content/NavigationMenu/Environment and Recycling/SFI/The SFI Standard/The SFI Standard.htm.

Appendix H

References

- Caljouw, Caren, and Sarah Roeske. 1981. A Natural Resources Inventory and Critical Areas Survey of Bigelow Preserve. Prepared for the Department of Conservation, Bureau of Public Lands. Critical Areas Program, State Planning Office (now Maine Natural Areas Program, Maine Dept. of Conservation), Augusta, Maine.
- Central Maine Power Company. 1995. Final License Application. Flagstaff Project FERC No. 2612. Six volumes. Central Maine Power Company, Augusta, ME. (Project now owned by Florida Power and Light, Augusta, ME).
- Clark, James, Janet Cormier, and Richard Will. 1995. Phase I Archaeological Resource Assessment of the Flagstaff Lake Storage Project (FERC No. 2612) Somerset and Franklin Counties, Maine. For Central Maine Power Company. On file at the Maine Historic Preservation Commission, Augusta, ME.
- Cogbill, Charles. 1998. An Ecological Assessment of Mead and SAPPI Corps on Mounts Abraham and Saddleback, Maine, a final report for the Appalachian Trail Conference.
- DeGraaf, Richard, m. Yamasaki, W. Leak, and A. Lester. 2005. Landowners Guide to Wildlife Habitat, Forest Management for the New England Region. University of Vermont Press, Burlington, VT.
- Fermata, Inc. 2005. Executive Summary, Strategic Plan for Implementing the Maine Nature Tourism Initiative. For the Maine Department of Community and Economic Development, Augusta, ME. At http://www.fermatainc.com/maine/
- Forest Fire Lookout Association (FFLA) Maine Chapter. 2006. Maine Fire Tower Trivia.
- McKinley, Peter. 2007. An Ecological Study of the High Peaks Region of Maine's Western Mountains. For The Maine Appalachian Trail Land Trust. www.matlt.org
- McMahon, Janet. 1998. An Ecological Reserves System Inventory Potential Ecological Reserves on Maine's Existing Public and Private Conservation Lands. A REPORT PREPARED FOR THE Maine Forest Biodiversity Project. Maine State Planning Office, Augusta, Maine.
- Maine Department of Conservation, Bureau of Parks and Lands. 1989. Bigelow Preserve Management Plan. Maine DOC, Bureau of Parks and Lands, Augusta, Maine.
- Maine Department of Conservation, Bureau of Parks and Lands. 2000. Integrated Resource Policy for Public Reserved and Nonreserved Lands, State Parks, and State Historic Sites. MDOC, Augusta, ME.

- Maine Department of Conservation, Bureau of Parks and Lands. 2003. Maine State Comprehensive Outdoor Recreation Plan, 2003-2008. MDOC, Augusta, ME.
- Maine Department of Conservation, Bureau of Parks and Recreation. 1981. Bigelow Preserve Policy Issues/Guidelines. MDOC, Augusta, Maine.
- Maine Department of Conservation, Bureau of Public Lands. 1982. Bigelow Preserve Forest Management Plan.
- Maine Department of Conservation and U.S. Department of Interior, National Park Service. 1982. Maine Rivers Study. MDOC, Augusta, ME.
- Maine Department of Conservation, Land Use Regulation Commission. 1999. Land Use Guidance Maps Abraham Twp, Bigelow Twp, Chain of Ponds Twp, Coplin Plt, Dead River Twp, Freeman Twp, Highland Plt, King and Bartlett Twp, Redington Twp, Salem Twp, T3R4 BKP WKR, Wyman Twp.
- Maine Department of Conservation, Land Use Regulation Commission. 2005. Chapter 10, Land Use Districts and Standards for areas within the Jurisdiction of the Maine Land Use Regulation Commission. MDOC, Augusta, ME.
- The Bigelow Coordinating Committee 1979. Final Recommendations for the Bigelow Preserve.
- Spiess, A., and D. Putnam. 2006. West Branch Purchase Continued Archaeological Survey 2004 and 2005; Report to Land for Maine's Future Board and Forest Society of Maine. Maine Historic Preservation Commission, Augusta, ME.
- Wilkerson, Brooke. 2006. Natural Resource Inventory of the Bureau of Parks and Lands Flagstaff Region. Maine Natural Areas Program, Department of Conservation, Augusta, ME.
- Will, Richard and Edward Moore. 2002. Recent Late Paleoindian Finds in Maine. The Maine Archaeological Society Bulletin 42:1:1-14.