

Mahoosuc Unit and Grafton Notch State Park



Alpine habitat near the summit of Goose Eye Mountain – MNAP Photo

Character and Significance of the Mahoosuc Unit and Grafton Notch State Park

The Mahoosuc Public Reserved Lands Unit together with Grafton Notch State Park, and associated Grafton-Stowe and Robinson Peak conservation easements encompass just over 45,000 acres of mountainous terrain in the heart of the Mahoosuc Range. These lands include some of the State's most magnificent scenic and recreational lands, including over 18 miles of the Appalachian National Scenic Trail. The higher elevations south of Route 26 are dominated by one of the state's largest ecological reserves comprised of an extensive high quality alpine ridge and sub-alpine forest natural communities, while mid and lower-elevation areas are among the most productive timber lands in the state. Less than four hours from Boston and Montreal, and served by the gateway communities of Bethel, Maine to the southeast and Gorham, New Hampshire to the southwest, the area has long been a treasured destination of national and even international significance for backpacking, day-hiking and sightseeing. Canadian visitation to both the Park and Mahoosuc Unit is acknowledged in interpretive panels that are bilingual – French and English.

The Mahoosuc Unit (31,764 acres) features Old Speck Mountain (elevation 4,180 feet), Speck Pond, a 37-foot deep high elevation alpine tarn, and the Mahoosuc Notch, reputed to be the most difficult section of the Appalachian Trail as it passes over and through a steep jumble of rocks

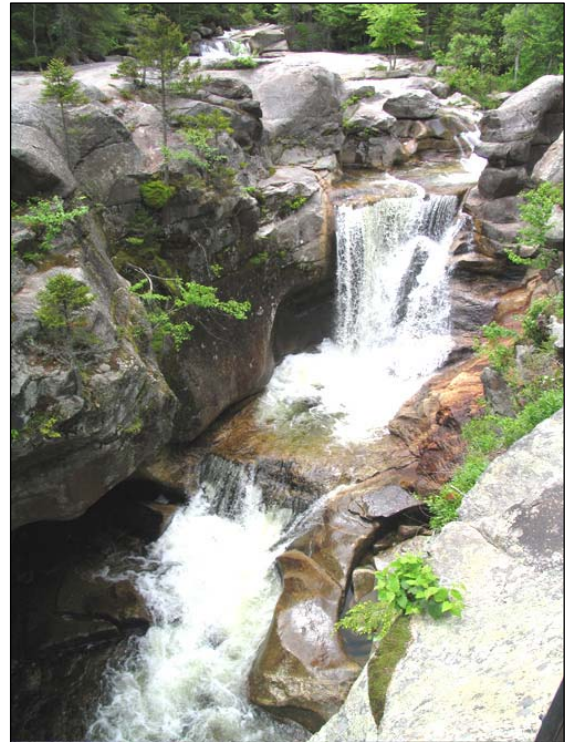
known as a Cold Air Talus Slope where cold air drainage results in ice chunks lasting through the summer months. In all, 18 miles of the AT and 20 miles of side trails cross through the Unit, connecting to trail systems on the surrounding properties. The 9,993-acre Carlo-Speck Ecological Reserve, one of the three largest in the state system and the one with most alpine



habitat of all (259 acres of alpine ridge), lies within the Mahoosuc Unit. The Bureau manages timber on approximately 16,000 acres of the lower elevation lands.

View of Old Speck from Table Rock in Grafton Notch State Park

Grafton Notch State Park, a 3,191-acre slice through the Mahoosuc Unit adjacent to Route 26, a nationally designated Scenic Highway, features outstanding day-hiking and waterfall viewing opportunities, with several small parking areas allowing visitors easy access to a series of impressive waterfalls and gorges. This State Park also serves as an entrance to the Mahoosuc Unit which abuts the Park to the north and south of Route 26, and includes a trailhead and parking area for accessing the AT and Grafton Loop Trail as well as two overlook trails within the Park boundary (the Eyebrow Trail west of Route 26, and Table Rock Trail to the east).



ITS 82, a regionally important snowmobile trail connecting to New Hampshire's snowmobile trail system gains elevation across the Stowe Mountain Easement and Mahoosuc Unit to capture views from a bald on Sunday River Whitecap Mountain, dropping back to parallel Route 26 through Grafton Notch State Park. The trail is maintained by the local snowmobile club.



Acquisition History

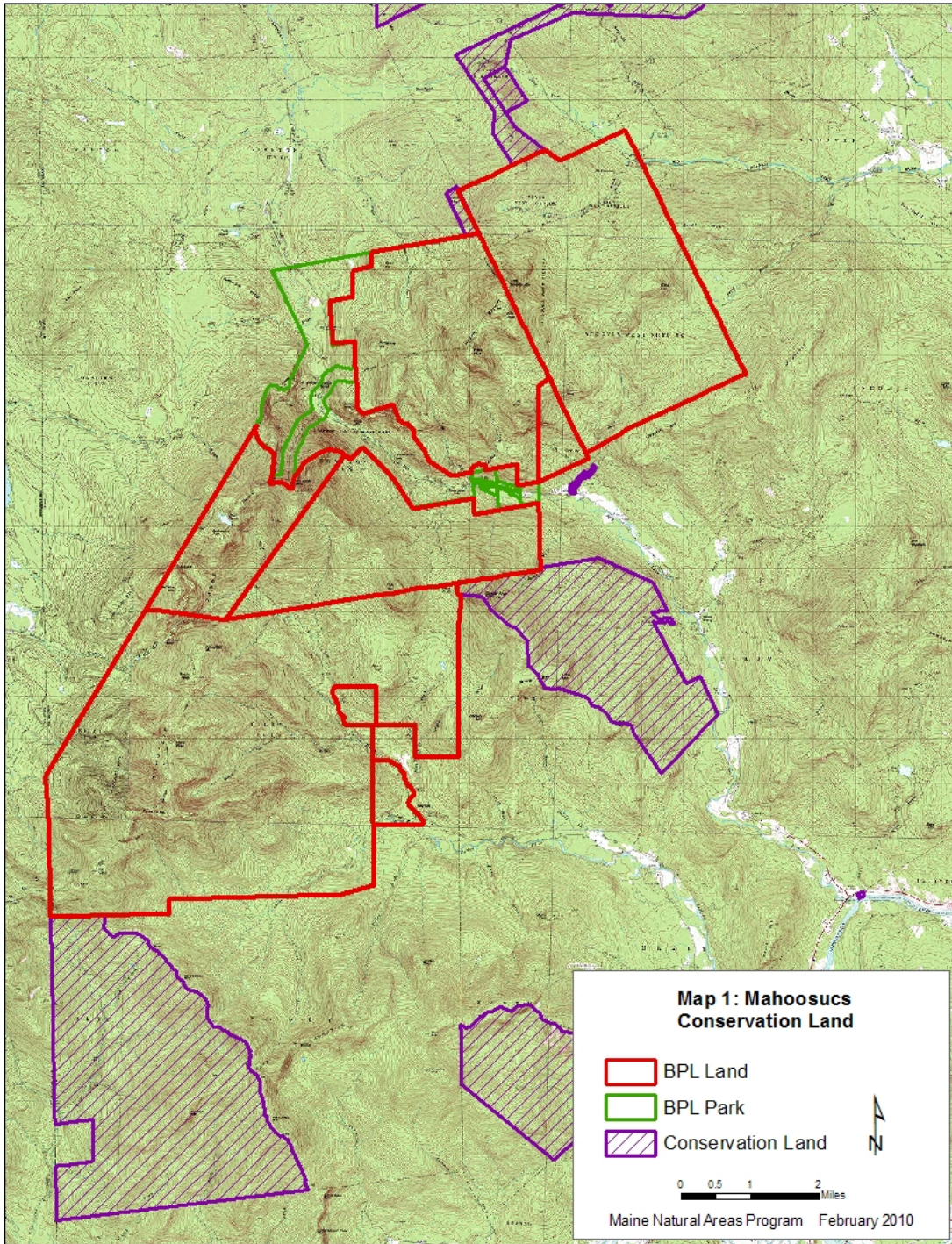
Mahoosuc Public Reserved Land Acquisitions

Acquisitions leading to the current Mahoosuc Unit began in 1977-8, when the original public lot in Riley Township (960 acres) was traded and approximately 21,000 acres in three transactions were acquired from Brown Company and International Paper. During the last 10 years, several acquisitions were added to the Unit including: the Wight parcel of 239 acres in Grafton Township (2000); the Frenchman's Hole property (in 2003 including LMF funds), the triangular shaped "Grafton Notch property" of 3,668 acres (in 2007 with Forest Legacy and other funds), and 206 acres of islands and shoreline on the Androscoggin River in the town of Gilead (acquired in 2009). Many non-profit and other partners contributed to and were integral to the Bureau acquiring these properties. Additionally, two Bureau owned conservation easements were added to the Mahoosuc Unit— the Robinson Peak easement (6,730 acres) in Riley Township in 2008 and the Grafton Stowe parcel east of the Unit containing Stowe Mountain (3,364 acres) in 2009. Conservation is a dynamic process in this region, with the Bureau looking pro-actively toward future acquisitions and working toward continuing coordination of conservation initiatives with federal, non-profit, and private partners.

Grafton Notch State Park Acquisitions

Acquisitions of the land for the Park began in 1963 with 2,875 acres purchased from Brown Company. Eighteen more parcels of land were acquired and added to the Park in the 1960s (most in 1964) and many of these parcels were less than five acres. Two more parcels of an acre each were added in 1977, and the Park boundaries have been fixed since that time.

Map showing acquisition parcels.



Natural Resources

A natural resources inventory of the Mahoosuc Unit was conducted by the Maine Natural Areas Program in 2009. The following information was excerpted from this inventory (MNAP, 2010).

Geology and Soils

Many of Mahoosuc's unusual features can be attributed to its geologic history and exposed bedrock. The rugged mountain range resulted from geologic uplift, but the sheer cliffs of Grafton and Mahoosuc Notches were scraped and carved by glacial activity. Talus slopes formed when the freshly carved vertical cliff faces were exposed to the elements. Without vegetation to stabilize the slopes as glaciers retreated, the steepest areas crumbled to form boulder fields that fill some of the valleys such as Mahoosuc and Grafton Notches. Some talus slopes support vigorous moss and lichen communities, while other slopes appear too active to support any substantial vegetation.

Soils in Mahoosuc are dominated by the following soil types, in descending order of importance (adapted from Publicover 2003 and Polak et al 2007):

- Soils of high mountains occur on slopes and ridges primarily above 2500 feet. These soils, consisting of the Enchanted, Saddleback, Surplus, and Ricker series, typically support upper-elevation spruce-fir forests.
- Loamy soils developed from a combination of schist, phyllite, granite and gneiss occur on mid and lower slopes. They are intermediate in material, texture, drainage, acidity and fertility between the granitic soils of the high mountains and the slaty soils of the north slopes. The Lyman, Colonel, and Dixfield series are locally the most common soils in this group and typically support mixedwood and northern hardwood forests.
- Coarse-textured soils developed from granite, gneiss and schist are also found on north-sloping hills, ridges and mountain slopes. Generally well-drained and sandy in texture, they contain many rocks. These soils are very acidic and relatively infertile spodosols that typically support spruce-fir associations. Monadnock, Becket, and Turnbridge series are this group's most common soils in the Mahoosucs.

Hydrology and Wetlands

The Mahoosuc Unit lies within the Androscoggin River drainage. The ridge of the Mahoosuc Unit separates the watersheds of the Sunday River, Chapman Brook, and Bear Brook to the east and a number of smaller tributaries of the Androscoggin to the west. Streams from the Unit are known to be cool and high energy/high gradient, with many riffles, pools, and scenic waterfalls. Brooks are fed by numerous dispersed mountain seeps. There are many unmapped headwater streams.

The rugged topography of the Mahoosuc Unit does not lend itself to wetland formation. The Unit includes only 84 acres of wetlands (both open and forested types) and six acres of open water (Speck Pond). Wetlands are concentrated along beaver meadows and smaller streams.

Ecological Processes

Spruce budworm, wind, water and other natural processes have combined to shape the forests and ecology in Mahoosuc. Spruce budworm (the most recent outbreak occurring in the 1980's) has played a prominent role in forest disturbance at Mahoosuc, decreasing the amount and

quality of fir. Along exposed ridges, budworm damage combined with wind and weather effects created larger and more frequent gaps than in lower elevation forest. The forested communities on the unit show evidence of typical small gap disturbances from ice, windthrow, or natural tree mortality. These gaps increase the complexity of forest structure and add to the diversity of microhabitats in the forest for plants and animals.

Fisheries and Wildlife

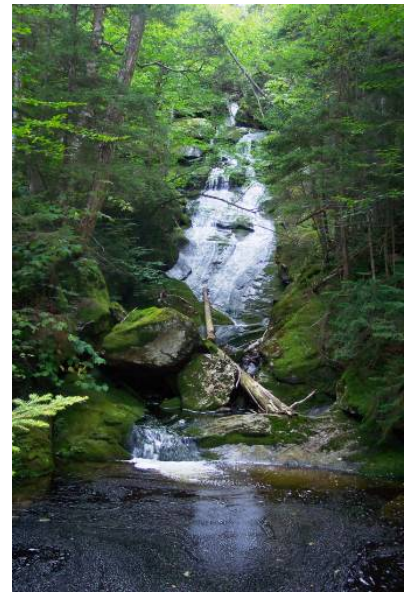
The Mahoosuc Unit provides habitat for many of the wildlife species one would expect to see in large habitat blocks of the western Maine woods, including moose, deer, black bear, fisher, beaver, and bobcat. In particular, Unit's high elevation forests *may support* species such as the American marten, Blackpoll warbler, Bicknell's thrush, spruce grouse, boreal chickadee, white-winged crossbill, and three-toed woodpecker. Grafton Notch State Park and the Mahoosuc Unit are part of the Maine Birding Trail. Moose tend to winter at higher elevations where they browse on fir, mountain ash, and yellow birch. High elevation ridgelines also serve as important migratory routes for songbirds, raptors, and bats.

A staff trip to Grafton Notch State Park in June 2009 revealed the following bird species: broadwing hawk, winter wren, ruby-crowned kinglet, ovenbird, black-throated blue warbler, black-throated green warbler, Nashville warbler, red-eyed vireo, least flycatcher, black and white warbler, blackburnian warbler, dark-eyed junco, yellow-rumped warbler, Canada warbler, magnolia warbler, golden-crowned kinglet and white-throated sparrow. This list does not represent an bird census or inventory.

At Speck Pond, small springs enter the pond from all sides and its outlet, Pond Brook, flows southeast into the Bull Branch of the Sunday River. Water quality in Speck Pond is good for coldwater gamefish and the Pond provides a unique backcountry fishing experience. Hatchery-reared brook trout provide the sport fishery because the pond and its small tributary system lack spawning and nursery habitat necessary to support natural reproduction. No other fish species occur in Speck Pond, so survival and growth of stocked trout are good.

The Sunday River and several of its tributaries, including Pond Brook, the Bull Branch, Goose Eye Brook, Miles Notch Brook, and Sargent Brook, support wild brook trout, burbot (cusk), slimy sculpin, white sucker, longnose sucker, and several common minnow species. The richness of fish species in the tributaries declines markedly with elevation, with brook trout becoming dominant in the upper reaches. The uppermost reaches of some streams are completely fishless due to the presence of impassable waterfall barriers.

The Sunday River and the lower Bull Branch also support small populations of rainbow trout, a non-native species that became established from hatchery plantings made many decades ago in the Androscoggin River drainage. The Sunday River and the Bull Branch presently provide sport fisheries for brook trout and rainbow trout that are locally important.



Goose Eye Brook – MNAP photo

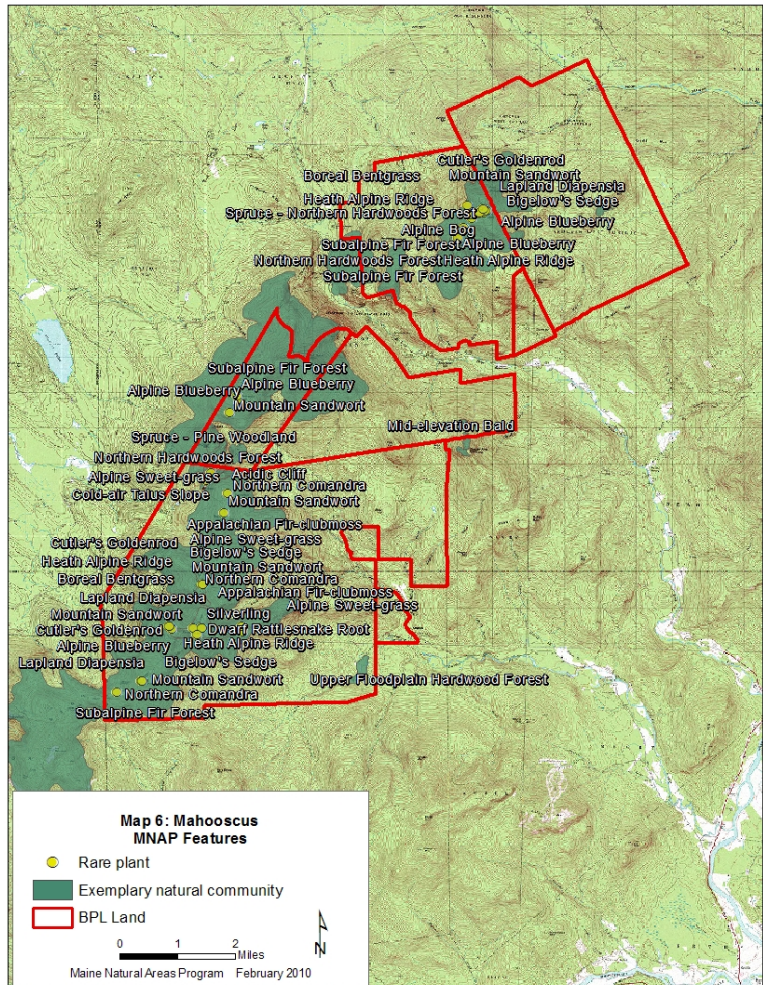
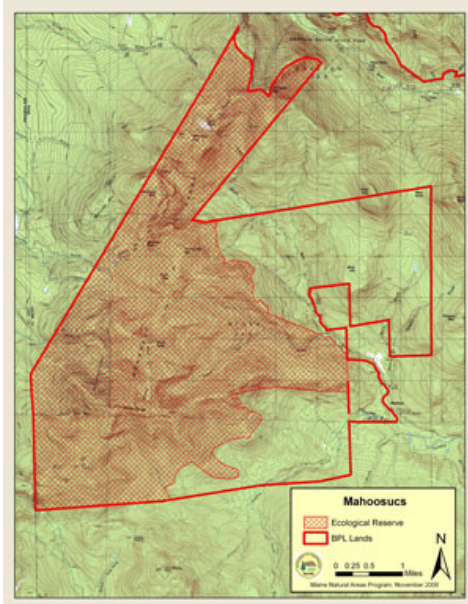
Rare Plant and Animal Species

Eleven rare plant species (a total of fifteen occurrences) are known from the Mahoosucs. Most of these occur within the exposed alpine zone of Goose Eye Mountain or the Baldpates. While none of these alpine species are globally rare, they are boreal species that persist only on mountaintops at the southern periphery of their ranges, and their habitats may be threatened by both recreational use and climate change. Peregrines have nested at Eyebrow Ledge on Old Speck within the last decade, and Lightning Ledge on Mt. Hittie is a historic nest site. The peregrine falcon was taken off the federal endangered species list in 1999, but its breeding population remains listed as endangered in Maine, as its numbers here are still low.

Natural Communities

Over 8,000 acres of the Mahoosuc Unit lies above 2700 feet in elevation. Despite the predominance of high elevation forests, more than half (54%) of the acreage of the Unit is hardwood; 22% is classified as mixed wood and 26% is softwood. Hardwood sites are dominated by Beech Birch Maple forests, mixed wood forests are primarily Spruce – Northern Hardwood, and softwood stands are divided among Montane Spruce Fir Forest and Fir-Heart leaf Birch Subalpine Forest. In general, most of the forests are silviculturally mature (e.g., moderately to well stocked with trees >50 years old), and relatively little forested acreage at the Mahoosucs is early successional. Ten exemplary natural communities have been mapped within the Mahoosuc Unit. The majority of these exemplary areas occur within the Ecological Reserve, and seven of the ten areas are associated with high elevation mountaintops or ridges at Goose Eye Peak, Mahoosuc Notch, Sunday River Whitecap, and Baldpate Mountain.

Mahoosuc Ecological Reserve



*Mahoosuc Unit Exemplary Communities
Maine Natural Areas Program*

The Carlo-Speck Ecological Reserve



Extending from 1120 feet to 3980 feet in elevation, the Carlo-Speck ecological reserve is second to only Bigelow in elevational gradient, and it is one of the three largest state reserves. Most of the reserve (8,458 acres) has been classified as sub-alpine forest, and 259 acres have been classified as alpine ridge -- the most alpine habitat of any of the thirteen ecological reserves. This alpine ridge, traversed by the Appalachian Trail, supports numerous populations of rare plants. Mahoosuc Notch, a notoriously difficult section of the Appalachian Trail, passes through a jumble of boulders known as a rare Cold Air Talus Slope community, where cold air drainage results in ice chunks remaining through the summer months.

Less than 10% of the reserve was classified as regulated timberland, primarily the hardwood and mixed wood stands on the lower slopes. Most of these stands have been selectively harvested in the past, but some areas, including a beech-birch-maple forest in Mahoosuc Notch, show no evidence of cutting. At intermediate elevations, some transitional conifer-dominated stands also show no signs of past harvesting, with trees over 245 years old.

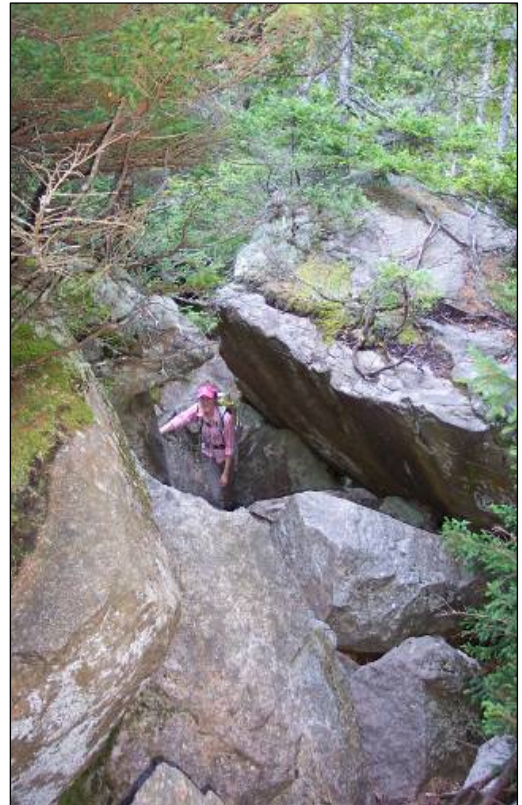
The reserve also includes the 10-acre, 37 foot deep Speck Pond, a sub-alpine tarn. Only two acres within the reserve is wetland.

Rare Species and Exemplary Natural Community Table for Mahoosucs Unit

Common Name	Latin Name	S-RANK	G-RANK	State Status
<i>Exemplary Natural Communities</i>				
Cold Air Talus Slope		S2	GNR	N/A
Northern Hardwoods Forest		S4	G3G5	N/A
Spruce-Northern Hardwoods Forest		S4	GNR	N/A
Spruce-Pine Woodland		S4	G3G5	N/A
Subalpine Fir Forest		S3	GNR	N/A
<i>Rare Plants</i>				
Alpine Blueberry	<i>Vaccinium boreale</i>	S2	G4	SC
Alpine Sweet-grass	<i>Hierochloe alpina</i>	S1	G5	T
Mountain Sandwort	<i>Minuartia groenlandica</i>	S3	G5	SC

One of the most unusual natural communities occurs at Mahoosuc Notch, a striking jumble of car-sized boulders sandwiched between two sheer 400 foot cliffs. The Appalachian Trail traverses the 25 meter wide notch, in places forcing hikers to scramble among and through boulders. The lack of sunlight, cold air drainage, and abundance of boulders results in ice chunks lasting well into the summer. The Cold Air Talus Woodland vegetation is boreal, with abundant Labrador tea, mountain cranberry, rhodora, and stunted black spruce. Adjacent to the hiking trail in the notch, a dense mat of moss covers the shaded boulders. Upslope the vegetation grades into parts Acidic Cliff (on the steepest sections) and parts Red Spruce Mixed Conifer Woodland (nearer to the summit crest).

Another unusual natural community is the Sub-alpine Slope Bog (also called ‘hanging bog’) on the north-facing slope of East Baldpate. Two approximately one acre patches of shallow peatland vegetation occur on a 20-50% slope over seepy granite. These patches support bog vegetation of Labrador tea, deer-hair sedge and Sphagnum spp. Subalpine slope bogs are known from only a few sites in Maine.



The Appalachian Trail traverses a ½ mile long boulder field in Mahoosuc



200+ year old yellow birch tree in Mahoosuc Notch – MNAP photo

In addition to the uncommon high elevation natural communities, the Mahoosucs harbor a few remnant patches of late-successional to old growth northern hardwood and mixed wood forest. Just north of Mahoosuc Notch, a small (approximately 25 acre) patch of old growth Beech birch maple forest lies at the headwaters of a small stream. This stand is dominated by large yellow birch, with about 25 percent spruce and a relatively open understory of hobblebush. Ages of three cored spruces in the canopy were 85, 152, and 285, suggesting an all-aged stand. Numerous very large yellow birch trees were noted, including one 40 inches in diameter. Another late successional Beech Birch Maple forest occurs on the east side of Grafton Notch along the Appalachian Trail, within the State Park boundary. There are vague signs of harvesting 50 or more years ago, with numerous large yellow birch trees and moderate abundance of large-diameter coarse woody debris.

The recent acquisition north of Slide Mountain and along Bull Branch (also known as the Grafton Notch Forest Legacy parcel) also has a few hundred acres of late-successional spruce-fir and mixed forest at high elevation. While some harvesting likely occurred here long ago, the forest structure is largely undisturbed, and cored spruce trees were 127, 165, 180, 196, and 211 years old. Three rare plant species were also found along a headwater seep in this area.

Natural Resource Issues

- The nexus of highly sensitive alpine communities and high value, popular hiking trails presents management challenges. The major challenge from a natural resource perspective is how to manage recreation to protect alpine communities and rare plant populations from major impacts.

Historic and Cultural Resources

The earliest human inhabitants of this area, Paleoindians, arrived as the glaciers receded, some 12,000 years ago. As described by the Maine History Project (www.mainememory.com) the largest collection of Paleoindian artifacts in this area is the Vail site on the Magalloway River in western Maine. Now flooded by the Aziscohos dam, the site yielded some 4,000 tools, primarily scrapers, fluted points, wedges, and cutters, suggesting a seasonal encampment occupied over several centuries. Nearby hills constricted the migrating herds and gave hunters an opportunity to intercept them. Similarities between the tools found here and those from sites in Nova Scotia and eastern Massachusetts imply a basic cultural unity across this vast Maritime Peninsula, but the Vail site also contained exotic artifacts, made of materials from as far away as western Vermont, New York, and Pennsylvania. Along their seasonal migrations, Paleoindian hunters undoubtedly met other wandering bands, with whom they exchanged gifts. The disappearance of the Paleoindians some 10,000 to 8,000 years ago is still something of a mystery.

It was a Woodland people known as the Wabanaki who encountered the Europeans when they arrived on the Maine coast at the beginning of the 16th century. Wabanaki – the People of the Dawn – were part of an Algonquian confederation stretching from New England west to the Great Lakes. The Wabanaki Indians, hunted and formed summer settlements near the Androscoggin River. European settlement occurred in the Mahoosuc region in the late 18th century, slower than much of Maine and New Hampshire due to rugged terrain and conflicts with Native Americans. Settlers spread up the Androscoggin River, north from Bethel, and east from the Connecticut River. Early settlers in the rugged Mahoosuc mountains cleared forests to supply building materials and feed local sawmills, and farmed the tough soils in the summer. Wood was moved along the Androscoggin River in the famous log drives of the 19th and 20th centuries. (Mahoosuc Initiative 2007)

The formation of the towns of Berlin, NH, Errol, NH and Bethel, ME began in the late 18th century. The first train in the Mahoosuc region—The Grand Trunk connecting Portland, Maine and the St. Lawrence Valley in Canada—was established in 1851. Tourists using this train to get to the White Mountains and the Rangeley Lakes and the recreational visibility of the larger region grew. The Appalachian Mountain Club formed in 1876 and gradually brought an increased awareness of the Mahoosuc mountains and region. (Mahoosuc Initiative 2007)

Recreation Resources

The Mahoosuc mountain range, which the Park and Unit are a part of, is renowned for its scenic beauty and recreational opportunities. Grafton Notch State Park and the Mahoosuc Unit, along with the Grafton Loop Trail provide a wide variety of exceptional backpacking, hiking and nature observation opportunities. The area has long been a treasured destination of national and even international significance for these recreational pursuits. Below is a brief description of the many waterfall viewing, day hiking, and backpacking opportunities available.

Popular stops along Route 26 in Grafton Notch State Park

Screw Auger Falls

A walking path from a small parking area leads to this 23 foot waterfall lying in a narrow gorge along the Bear River.

Mother Walker Falls

This V-shaped gorge is more than 40 feet and 980 feet long.

Moose Cave

A quarter mile loop trail gives views of this 200 foot long gorge, lying within a 45-foot-deep canyon in the bedrock. Water skirts boulders and disappears temporarily into a cave beneath a huge granite slab.

Spruce Meadow Picnic Area

Lying in the Park's northern portion, this picturesque setting offers picnicking spots overlooking a wildlife-rich march and Old Speck Mountain.

Day hikes in Grafton and/or Mahoosuc originating from the Route 26 parking area

A large parking area along Route 26 in the center of the Park provides access for many hikes, all using the Appalachian Trail for a portion or all of the hike, including:

Table Rock Loop Trail (1.8 miles)

Entirely within the Park, traveling north from Route 26, this popular trail leads to the outcrop of Table Rock. Incredible views of the region and particularly of Old Speck Mountain are offered.



View of Sunday River Whitecap from Table Rock Trail

Eyebrow Loop Trail (2.2 miles)

This trail rises steeply to an “eyebrow” shelf/overlook on Old Speck Mountain at 2,900 feet. Later it meets the Appalachian Trail, which can be used to complete the loop back to the parking area following the Cascade Brook downstream.

Baldpate Mountain Trail (5.8 miles roundtrip West Peak only, 7.6 miles including East Peak)
Following the AT northbound from the parking area, hikers can travel across the north slope of West Peak of Baldpate. Continuing for one more mile, the East Peak offers views in all direction. Day hikers return southbound on the AT.



From Summit of E. Baldpate

Old Speck Trail (8 miles round trip)

Old Speck is one of the highest peaks in Maine and offers spectacular views from an observation tower at the summit. Traveling southbound along the AT from the Grafton Notch parking area will take you to the peak.

Day hikes in Mahoosuc accessed from points other than the Route 26 parking area

Wright Trail (7 miles round trip)

This trail follows the scenic Goose Eye Brook before steeply climbing to Goose Eye Mountain and the Appalachian Trail in the southern portion of Mahoosuc Unit. It is accessed from a small parking area off the Bull Branch Road.

Cataracts Trail (1 mile round trip)

This short trail is along the Frye Brook, where hikers can view several falls in the granite bedrock gorge between Baldpate and Surplus Mountain. A picnic area is available at the end of the Trail.

Trails through private land accessed from the Success Pond Road

There are four hiking trails that originate on private land with parking areas off the Success Pond Road to the west. These Trails all meet up with the Appalachian Trail on the southern portion of the Mahoosuc Unit and are named for their destinations: Speck Pond Trail, Mahoosuc Notch

Trail, Goose Eye Trail, Carlo Col Trail. A parcel of land in New Hampshire containing the beginnings of the Goose Eye and Carlo Col Trails is soon to be added to White Mountain National Forest and managed as AT corridor lands.

Backpacking in Grafton and Mahoosuc

Grafton Loop Trail (42 miles)

This is a high elevation, backcountry trail connecting a series of scenic peaks using the Appalachian Trail on Grafton and Mahoosuc, as well as new trail on Bureau land and private land. The trail takes approximately three days, with primitive campsites available. Many partners were involved with the Bureau in conceiving of and constructing the Grafton Loop Trail, including the Appalachian Mountain Club, the Maine Appalachian Trail Club, the Mahoosuc Land Trust, the Trust for Public Land, and many others, including the private landowners whose land the Trail crosses.



View from Sunday River Whitecap Portland Press Herald Photo

Appalachian Trail (2,178 miles)

The Appalachian Trail is a National Scenic Trail stretching from Springer Mountain in Georgia to Mount Katahdin in Maine. Approximately 18 miles of the AT run through the Park and Unit, including the famed “Mahoosuc Notch” which is known as the “toughest mile on the AT”. Backpackers completing the entire AT find the Grafton/Mahoosuc portion one of the most challenging (as it is boulder strewn and steep in parts) and scenic (as it follows the ridgelines of the Mahoosuc range and offers great views). Many shorter hikes (as noted above) use the AT in whole or in part.

Other recreational opportunities in Grafton/Mahoosuc

Frenchman’s Hole

Frenchman’s Hole is a popular swimming area on the south portion of Mahoosuc Unit near Bull Branch Road. A recently constructed parking area enhances access to this swimming hole. Visitors can swim in a deep pool under a 20 foot waterfall.

Snowmobiling

ITS 82—a snowmobile trail that connects Andover to New Hampshire’s Trail 18—runs through the Park and Unit. This trail runs along the Bear River south of Route 26, and affords views of Table Rock and surrounding mountains. Snowmobilers don’t ride as fast due to the terrain, making it a somewhat ‘family-friendly’ route. Use is constrained due to the fact that once snowmobilers reach the New Hampshire border, they cannot continue unless their sled is also registered in NH. A club trail, maintained by the State Line Snowmobile Club in Upton, travels

north from ITS 82 just before the NH border. Snowmobilers can travel east on this trail and loop back south returning to ITS 82 in Andover.

Human-powered Winter opportunities

Ice climbing, snowshoeing, winter camping and Nordic skiing are popular uses of the Park and Unit. These activities currently occur without active management by the Bureau.



Old Speck Trail and View

Recreational Resource Issues

- The management system in Grafton Notch State Park and Mahoosuc Public Reserved Land thrives on collaboration and partnerships. Within the Bureau, two branches manage the Park and the Lands Unit--the Bureau's Western Region Lands office manages Mahoosuc Unit, the Bureau's Parks South office manages Grafton Notch State Park. The Appalachian Mountain Club (AMC) works across the Park and Unit, managing both the AT and Grafton Loop Trail south of Route 26. The Maine Appalachian Trail Club (MATC) also works across both the Park and Unit, managing the Grafton Loop Trail and AT sections north of Route 26. The Mahoosuc Land Trust (MLT) played an important role in the development of the Grafton Loop Trail and owns and manages the parking area for the GLT in addition to the Puzzle Mountain parcel—a popular day hike along the GLT.

There are great strengths to this management system. Having a state park along the Notch—which is bi-sected by a National Scenic Byway—allows for the more developed, front-country, accessible recreation experiences which the Maine State Park system can provide. The Mahoosuc Unit, managed as part of the Bureau's Public Reserved Lands system, offers the type of remote and primitive setting that the public reserved lands system is well positioned to provide. The Bureau's managing partners—AMC and MATC—greatly enhance and expand the Bureau's capacity to provide and manage backcountry recreation experiences for the public. They bring expertise on trail-building and maintenance (including incorporating low-impact trail building techniques), managing visitors' experience, and further increase the capacity of the Park and Unit by coordinating

volunteer trail maintenance programs and applying for grants for and performing trail upgrades.

There are also challenges inherent in this management system. There are many areas in which more coordination between Parks, Lands, AMC and MATC is desirable. Providing public information in the form of written materials, signage, kiosks, and on-site staff is an area that could benefit from greater coordination/collaboration. Prioritizing trail upgrades could also benefit from coordination, as there is a high density of trails in the Park and Unit and surrounding private lands, and at times the managing partners are inadvertently competing for limited trail improvement grant funds. Increasing coordination would take greater devotion of Bureau staff time and other resources, which are currently in short supply. Only two seasonal park staff are devoted to Grafton Notch State Park and Mahoosuc Unit has a forester and seasonal recreational ranger who are both responsible for several additional lands units.

- There is a need for improving information for hikers and backpackers in Grafton, Mahoosuc and the Grafton Loop Trail. Currently, for visitors travelling to the Park for a day hike, the Park AT parking lot contains limited information on trails which could be expanded and developed further. Park staff presence on trails and in the AT parking lot is sporadic by necessity, as the two seasonal staff in the park stay very busy maintaining facilities and assisting visitors in the popular waterfall stops. For backpackers and overnight visitors, available information is likewise limited. They may encounter an AMC caretaker at the Speck Pond camping area in addition to the limited written information in the Park AT parking area. Additionally, signage for the Park indicates camping is not allowed in the Park; however, backcountry camping is available in the Mahoosuc Unit and along the Grafton Loop Trail.
- Significant winter recreational use occurs in the Park and Unit, without active management on the part of the Bureau. Currently in the Park, ice climbing, winter camping, Nordic skiing and snowshoeing are popular winter pursuits including many guided trips. There are opportunities for Parks and Lands to better facilitate this winter recreation, such as communicating with the DOT on a plan for which areas to plow out for parking, and working with the local Nordic ski community to identify appropriate areas for a trail system. Challenges involved with winter recreation management include Bureau staffing (park staff and lands recreational staff are summer seasonal).
- Many hikers value the trails that cross private land onto Mahoosuc Unit that originate from the Success Pond Road (a private road). These trails have existed for decades, are maintained by AMC and provide more diverse hiking options. Additionally, some of these routes facilitate easier access related to emergency situations along the AT. As with any trail on private land, there is a potential that the landowner could close off access to these trails. However, land surrounding the Carlo Col Trail and the Goose Eye Trail is in the process of being acquired by the White Mountain National Forest and will be protected for the public. The Notch Trail and the Speck Pond Trail remain in private ownership until they reach the Mahoosuc Unit and some fear they could be closed to the public.

Additionally, there is a need for information and signage to guide use appropriately on all four trails originating from Success Pond Road, which cross through sensitive areas of the Bureau's ownership in the Carlo-Speck Ecological Reserve. The potential for increasing use from this side of the Unit off the Success Pond Road underscores the need to work with adjacent landowners in managing this use.

Timber Resources

The Bureau manages timber resources where allocated to provide a diverse forested environment and generate high quality – high value products to support Bureau operations and the local economy. Exemplary management that contributes to public values, including recreation and wildlife habitat, is the standard.

Harvest history

Harvests by previous landowners

Prior to State acquisition the most recent harvesting on most acres took place in the 1960s and 1970s. The 1960s-70s harvests were occasionally quite heavy, probably because nearly all the stands were dominated by sawlog size/quality trees, as that's most of what was harvested. "Test notches" were observed on Andover West Surplus, where cutters in the 1960s looked at the interior of some large trees and found them too defective for the markets of that time. As noted above in the Acquisition History section, a few parcels have been added to Mahoosuc Unit recently, and the Newton-Tebbetts acquisition had a 400 acre selection harvest during the 1990s.

Bureau harvests in Riley Township portion of Unit

The Bureau's initial timber sale on the Mahoosuc Unit was begun in 1984 near the north line of the Bull Branch of the Sunday River. This warm-season selection/thinning operation harvested about 11,600 cords from 1,100 acres over a six-year period. In 1987 a companion fall-winter harvest was developed on the southerly border the Mahoosuc Unit in the Sunday River valley. This operation lasted approximately four years and yielded another 4,000 cords. The same area was harvested in 2008 through 2009 and focused on very low value areas. After the access to the Miles Notch Brook area was permitted from an abutting landowner in the 1990s, a sale there from 1992-95 produced 11,000 cords.

Bureau harvests in Andover West Surplus portion of Unit

The initial Bureau harvest into Andover West Surplus, in the Stony Brook headwaters, began in 2003 and lasted six winters, with 9,000 cords harvested. A major operation, estimated to produce over 20,000 cords in approximately four winters, began late in 2008 in the Frye Brook drainage. Through 2009, BPL harvests have totaled over 48,000 cords, 93% hardwoods (by far the highest of any major BPL Unit) and 74% hardwood pulp. Except for a small amount of thinning in younger hardwoods and some large-group selection in the Sunday River re-entry, all harvests have been single tree and small group selection.

Current timber conditions (for regulated acres subject to timber harvesting)

Softwood type covers *just 1.5 percent* of the regulated acres, and is composed of 55 percent spruce, 21 percent cedar, 7 percent fir and 5 percent hemlock. All softwoods except cedar tend toward good quality here, though some old hemlock is defective. Most of the limited softwood area is found at the upper edge of operable ground or in steeply sloping riparian buffers.

Mixedwood is found on *about 14 percent* of Mahoosuc regulated forest. Nearly all of this is spruce-fir/Northern hardwoods, and though some acres may have been shifted from softwood type by past harvesting, most of this type is on soils well suited for growing both softwoods and hardwoods. Spruce is the leading species, 29 percent of mixwood type volume, with yellow birch second at 19 percent, and fir 16 percent. Red maple is 10 percent of type volume, and hemlock, sugar maple, beech, and white birch are all around 6 percent. Quality is generally very good for all species present except for the oldest hemlock, and the beech, which is often badly damaged by the beech bark syndrome.

Hardwood type is much the dominant forest on the Mahoosuc Unit, covering 84 percent of regulated acres, and essentially all of it is Northern hardwoods. Sugar maple is the most common species with 25 percent of hardwood type volume, and the other two Northern Hardwood species are next, yellow birch at 22 percent and beech at 18 percent. After these comes: red maple at 13 percent, spruce and white birch at 6 percent, and fir at 4 percent. Red oak is a minor but important component, most common south and east of Goose Eye, and is significant both for wildlife food, and for high quality/value timber. Hardwood type quality and growth is as good on Mahoosuc Unit as anywhere on Bureau lands, though hardwoods of somewhat lower quality (shorter) are found on steep land higher up on the mountains. Beech quality is variable due to the bark complex, but averages better than on most other Bureau lands.

Timber Management Issues

- Timber management in Mahoosuc must be conscious of scenic concerns from hiking trails, both along the trails themselves, and views from trails along exposed ridgelines. Views from the Grafton Scenic Byway (Route 26) must also be protected. Much of the Mahoosuc is high-value, productive timberland, which contributes to the local economy and assists the Bureau in achieving the financial sustainability of the Public Reserved Lands system. Additionally, the Mahoosuc Unit, and the entire Mahoosuc Range is a highly prized all-season recreational destination—and recreation in the Park and Unit benefit the local tourism economy as well. Achieving the appropriate balance of timber management and recreation—where these uses co-exist in some areas and exist separately in others—is a challenge and opportunity here.

Transportation and Administrative Considerations

The Park and Unit are accessible by motor vehicle in a few different ways (see recreation resources map). Grafton Notch State Park is bisected by Route 26, which gives easy access to parking areas for hiking, waterfall viewing and other activities as noted in the Recreation

Resources section above. This section of Route 26 from Newry to Lake Umbagog is a Maine Scenic Byway—specifically known as the Grafton Notch Byway.

The Mahoosuc Unit has limited vehicular access, to preserve its backcountry character. The Riley Township portion of Mahoosuc Unit is accessible from the Sunday River Road (starting from Route 2 in Bethel). When it reaches the southeast border of the Unit, it crosses the Twin Bridges and branches into two directions. The Sunday River Road continues southwest (upstream) and provides access for timber management in the Sunday River valley for the Bureau and also continues on to land owned by the Sunday River Ski Area. This is currently designated as a *management road with shared use status*—a designation that continues in this plan. This means it is a road the Bureau maintains for timber management access, however, it is open to use by the public for use of passenger vehicles, ATVs, horses and bicycles as long as it remains in service. The Bureau is not obliged to maintain it for public use.

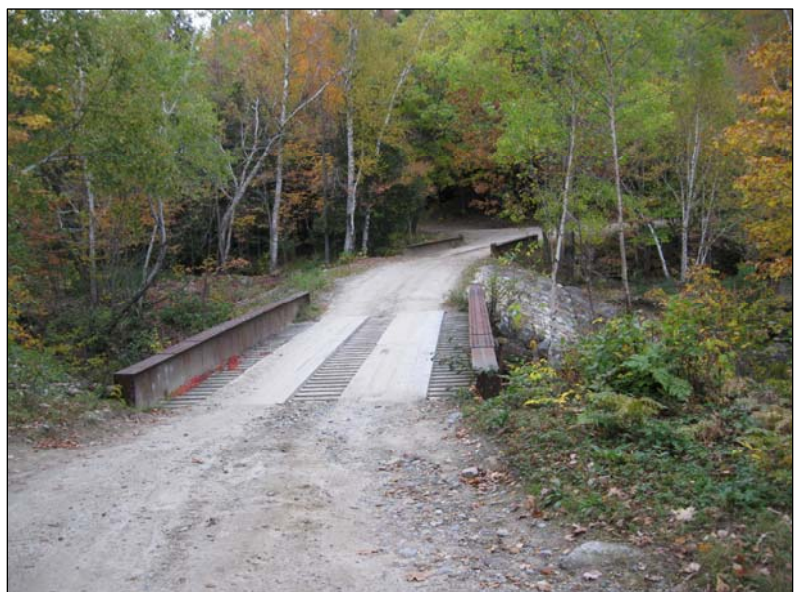
The Bull Branch Road—which branches in a northerly direction after Twin Bridges—provides access for Bureau timber management and access to abutting landowners. Additionally, recreationists access the Wright Trail and Frenchman’s Hole. The Bull Branch Road—from Twin Bridges to the Wright Trail parking area—will be maintained as a *public use road* in this plan, open to passenger vehicles, ATVs and bicycles. Beyond the Wright Trail parking lot the road becomes a network of management roads closed to public vehicular use or ATV use.

In Andover West Surplus, the East B Hill Road is a county road that cuts through the northeast corner of the Mahoosuc Unit. It is also used by the public to access the Cataracts Trail (a small parking area is available on the East B Hill Road) and by Bureau foresters for timber management. The East B Hill Road is a *public use road* for the purposes of this plan due to its status as a county road.

All other roads existing in the Mahoosuc Unit are considered management roads closed to public motorized use. Select winter motorized use is allowed—such as grooming for Nordic ski trails in certain areas and existing snowmobile trails (see recreation map).

Transportation and Administrative Issues

- The Sunday River Road, after it enters the Mahoosuc Unit past the Twin Bridges, turns in a southwest direction upstream, and in the 1988 Mahoosuc management plan was designated as a management road for the Bureau and abutting timber landowners. Several factors have increased use of this road since that time. In the 1990s, in response to a new Bureau



policy authorizing ATV use on select public lands gravel roads, the Sunday River Road on the Mahoosuc Unit was additionally designated for shared use. Additionally, there has been increasing use of Jeeps on this road, which are at times are traveling to destinations on abutting lands for off-road use, and in some cases going off road on Bureau lands (which they are not authorized to do). Another factor that has increased, and will continue to increase use of this road is the development of the Sunday River Ski Area, which purchased land south of the Mahoosuc Unit in Riley Township from the former timberland owners. The Ski area plans to increase recreational use of this part of their ownership, which will likely involve an increase of traffic across the Sunday River Road on the Mahoosuc Unit.

The issue to be addressed is the unauthorized off-road use that is occurring on Bureau lands, which travel on the Sunday River Road enables. The road travels through a Bureau timber management zone, and some Jeep and ATV drivers are leaving the main road and traveling onto management roads and skid trails.

Conservation Easements and New Fee parcels

Grafton Notch Stowe Mountain Conservation Easement

In 2009, the Bureau acquired a conservation easement adjacent to the Mahoosuc Unit on 3,363 acres of land owned by the Center for Special Needs Trust Administration. This easement acreage contains the Stowe Mountain (1,820 feet), Bald Mountain (2,072 feet) and Sunday River Whitecap (3,376). It is natural and undeveloped forest land with streams, steep sloping uplands, and exposed ridgelines including alpine and sub-alpine communities. An exemplary Crowberry-bilberry Summit Bald Community occurs on Sunday River Whitecap, and two tributaries to the Bear River—Simmons Brook and Wight Brook run through the easement area. Over four miles of the Grafton Loop Trail travel through this easement area, as well as ITS82 snowmobile trail.

Easement language prohibits residential, commercial or industrial development, and protects recreational, wildlife and ecological values for the public. It assures the availability of the property for traditional, non-intensive outdoor recreation, and protects ecological, wildlife, water quality, and other values. It allows management by the landowner as a working forest. However, there is a “no-cut” zone along the Grafton Loop Trail, which totals 760 acres and varies in width along the trail from 350 feet to 2,500 feet.

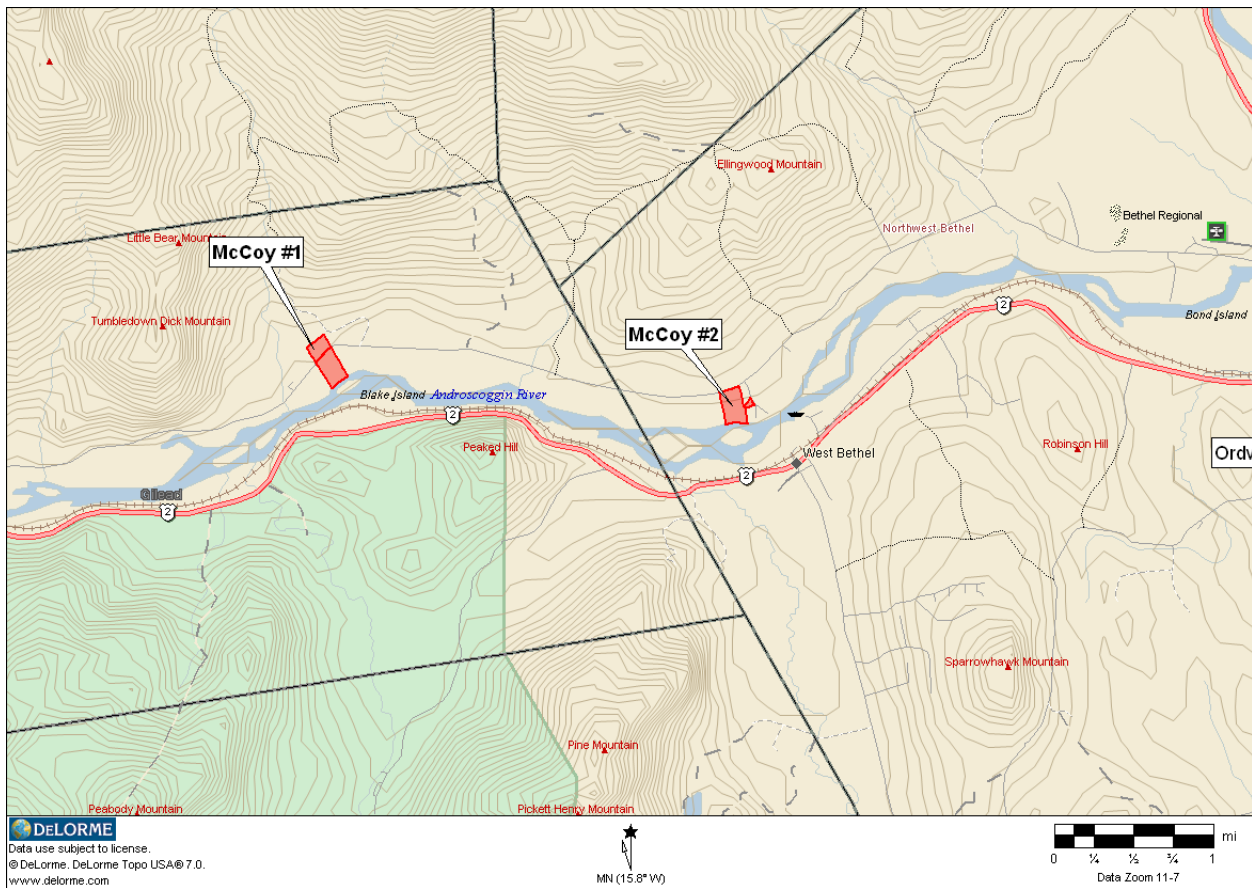
Robinson Peak Conservation Easement

The Robinson Peak Easement was acquired by the Bureau in 2008 from the LBA Forest Stewardship Initiative. It consists of 6,730 acres directly south of the Mahoosuc Unit in Riley Township. Easement language allows public access for traditional, non-intensive public recreation and prohibits residential, commercial or industrial development. Commercial forestry is allowed but not required, and must be performed to ensure a continuing, renewable, and long-term harvest forest products. Minor recreational structures for public use are allowed, such as gravel parking areas and trail improvements.

New Bureau Fee parcels in the town of Gilead

In 2009 and 2010 the Bureau purchased several parcels of Androscoggin River islands and riverfront lands. These acquisitions were part of a larger initiative by the Bureau, The Conservation Fund, Maine Department of Inland Fisheries and Wildlife and other government agencies and land trusts to conserve riparian lands and acquire public access rights for anglers and boaters along the Upper Androscoggin River and the Wild River. In 2009, with the support of The Conservation Fund and MDIFW the Bureau purchased 206 acres of shoreline and islands along the river—including four miles of Androscoggin Riverfront and two miles of Wild River riverfront. In 2010 two additional parcels totaling 43 acres were purchased using Land for Maine’s Future Fund.

These lands will be managed by MDIF&W through a management agreement with the Bureau (see Appendix B). The Bureau will continue to work with MDIF&W to inventory and plan for these lands.



New Bureau Fee parcels (2009 parcels only)

Vision for the Mahoosuc Unit and Grafton Notch State Park

The Mahoosuc Unit and Grafton Notch State Park continue to be signature landscapes known regionally and nationally for their spectacular scenery including high mountain vistas and a sculpted gorge with waterfalls. Transected by a National Scenic Highway, these public lands offer a range of high quality recreational experiences, from drive-to picnicking at the gorge and waterfalls along Route 26, to extensive hiking, camping and backpacking opportunities in the remote scenic high elevation areas. Approximately half of the Mahoosuc Public Reserved Lands Unit is sustainably managed for timber while the other half is set aside for protection of important ecological features, wildlife habitat, and for backcountry recreation.

In the extensive high mountain area of the Mahoosuc Unit, recreation is managed for a low intensity backcountry experience, and trails and recreation facilities are carefully managed in the ecological reserve to minimize impacts to the ecological reserve values. The nexus of highly sensitive habitats and high value scenic and hiking opportunities draws ecologists and recreation managers into collaborations to develop and showcase low-impact trail technologies.

Grafton Notch State Park scenic attractions provide an opportunity to experience and learn about the natural resources of the Mahoosuc Region. Visitors can easily and conveniently obtain information at Park kiosks about the recreational facilities and opportunities at the Park, Mahoosuc Unit, and adjacent private lands. The Park is welcoming to visitors who come to enjoy the cooling mists of the waterfalls, enjoy a picnic, walk along gentle trails in the gorge or hike short but rigorous loops to viewpoints on the Eyebrow or Table Rock Trails, or use the Park to stage a multi-day hiking and backpacking trip on the adjoining Mahoosuc Unit or Grafton Loop Trail. Bureau staff are able to communicate with trail stewards and Speck Pond camping area caretakers to provide information about trail conditions and campsite availability, and otherwise assist visitors using the extensive trails network accessed via the Park.

Management of the recreation facilities and recreation uses on the Mahoosuc Unit, Grafton Notch State Park and Grafton Loop Trail models partnerships with private landowners, conservation and recreation organizations. A recreation management coordinator works with Bureau staff and multiple partners to ensure exemplary maintenance of facilities and provide an effective yet unobtrusive presence supporting recreational users and protecting the sensitive ecological areas. Use is carefully monitored and options are explored with partners to expand recreation opportunities when needed in order to avoid levels of use that diminish the quality of the recreation experience or jeopardize the fragile alpine communities.

Management of the timberlands demonstrates exemplary multiple use and sustainable forest management producing high quality sawlogs and retaining a late successional character. Because of the exemplary management, these lands are an important component of the local economy contributing a continued source of jobs and revenue from both timber operations, and as tourism and recreation destination.

Mahoosuc Unit Allocations

The following “allocations” define general management objectives and direction for specific areas within the Mahoosuc Unit. See Appendix C for a description of designation criteria and management direction for the various allocation categories. Allocation maps are found in Appendix F.

Special Protection Dominant

- The Mahoosuc (Carlo-Speck) Ecological Reserve on the southern portion of the Unit. The Ecological Reserve contains many rare plant species and exemplary natural communities.
- An area on the Baldpates containing the Heath Alpine Ridge and Subalpine Slope Bog communities, and surrounding exemplary Sub-Alpine Fir Forest natural communities ranked S3.
- An area on Lightning Ledge—a historic Peregrine Falcon nesting area (natural area).
- The Appalachian Trail corridor and the Grafton Loop Trail (historic/cultural special protection) for 100 feet on each side of the trail where not already contained within a larger Special Protection or Backcountry Non-mechanized Dominant Allocation.

These areas are also designated backcountry non-mechanized as a secondary allocation.

Backcountry Non-mechanized Dominant

- The ridgeline extending east from Old Speck to Slide Mountain and including an area around Sunday River Whitecap Mountain. This includes a 500-foot buffer south of the Grafton Loop Trail, and encompasses an area extending over the ridgeline down to an elevation of approximately 2700 feet as far as Slide Mountain; and a more extended downslope area north of Sunday River Whitecap Mountain. This allocation excludes the ITS 82 snowmobile trail which pre-existed the Backcountry Non-mechanized designation, and will be a designated Developed Recreation Class I corridor through the Backcountry Non-mechanized area.
- The 400 foot buffer extending from the 100 foot Special Protection zone designated on either side of the Appalachian Trail from the point entering the Unit east of Table Rock to an area defined around Baldpate Mountain by the 2,700 foot elevation contour, except where defined as Special Protection.
- A buffer area around the Special Protection areas on the west and east peaks of Baldpate Mountain and the Sub-alpine Fir Forest special protection area west of Baldpate, extending down to an elevation of 2700 feet.

Wildlife Dominant

- Riparian zones of 330 feet on each side are applied on Sunday River, Bull Branch, Miles Notch Brook, Sargent Brook, Wight Brook, Frye Brook and other major streams, except where designated Special Protection or Backcountry Non-mechanized. Additional major riparian zones may be designated by field staff during the silvicultural prescription process.

A Visual Class I allocation is also applied to this allocation along portions of the Sunday River within the Unit, and Bull Branch Stream to the point of the confluence of Speck Pond Brook Stream.

Remote Recreation Dominant

- A 400 foot buffer beyond the 100 foot special protection area on each side of the AT (except where designated Special Protection, or Backcountry Non-Mechanized) and Grafton Loop Trail (except where designated Special Protection, or Backcountry Non-Mechanized or Wildlife Dominant)

This area is also subject to Visual Class I (where not already contained within a larger Special Protection or Backcountry Non-mechanized Dominant Allocation).

Developed Recreation Dominant

- Parking areas—for the Wright Trail, the Frenchman’s Hole Day Use Area, and the Cataracts Trail. These areas will be buffered with a Visual Class I allocation.
- The ITS 82 snowmobile trail .

Visual Class I: In addition to areas mentioned above, this will be applied to

- The Cataracts Trail (recognizing that the adjacent management road is by necessity within view of this trail). Note this is the shortened trail to the Cataracts; the former AT trail to the Cataracts is discontinued.
- The East B Hill Road within the Unit.

Timber Dominant

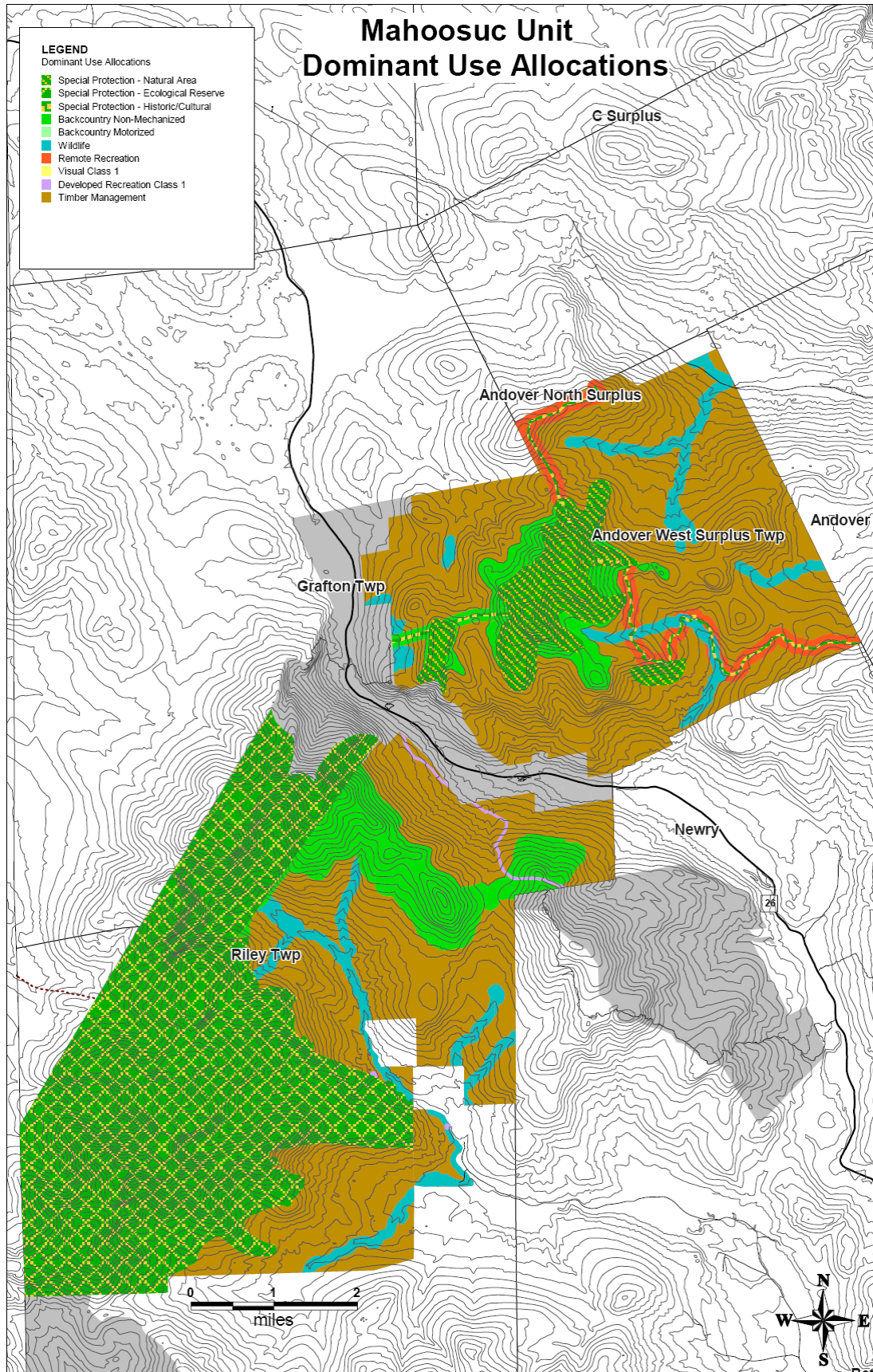
All other areas not allocated above are designated Timber Management dominant. During the silvicultural prescription process, it is determined which timber dominant areas are subject to Visual Class II treatment. A Visual Class II designation assures that timber management will protect views from hiking trails, public roads, and scenic overlooks and other recreation features. The majority of the Timber Dominant acres in the Mahoosuc Unit are visible from one or more of these recreational features and will be subject to Visual Class II treatment.

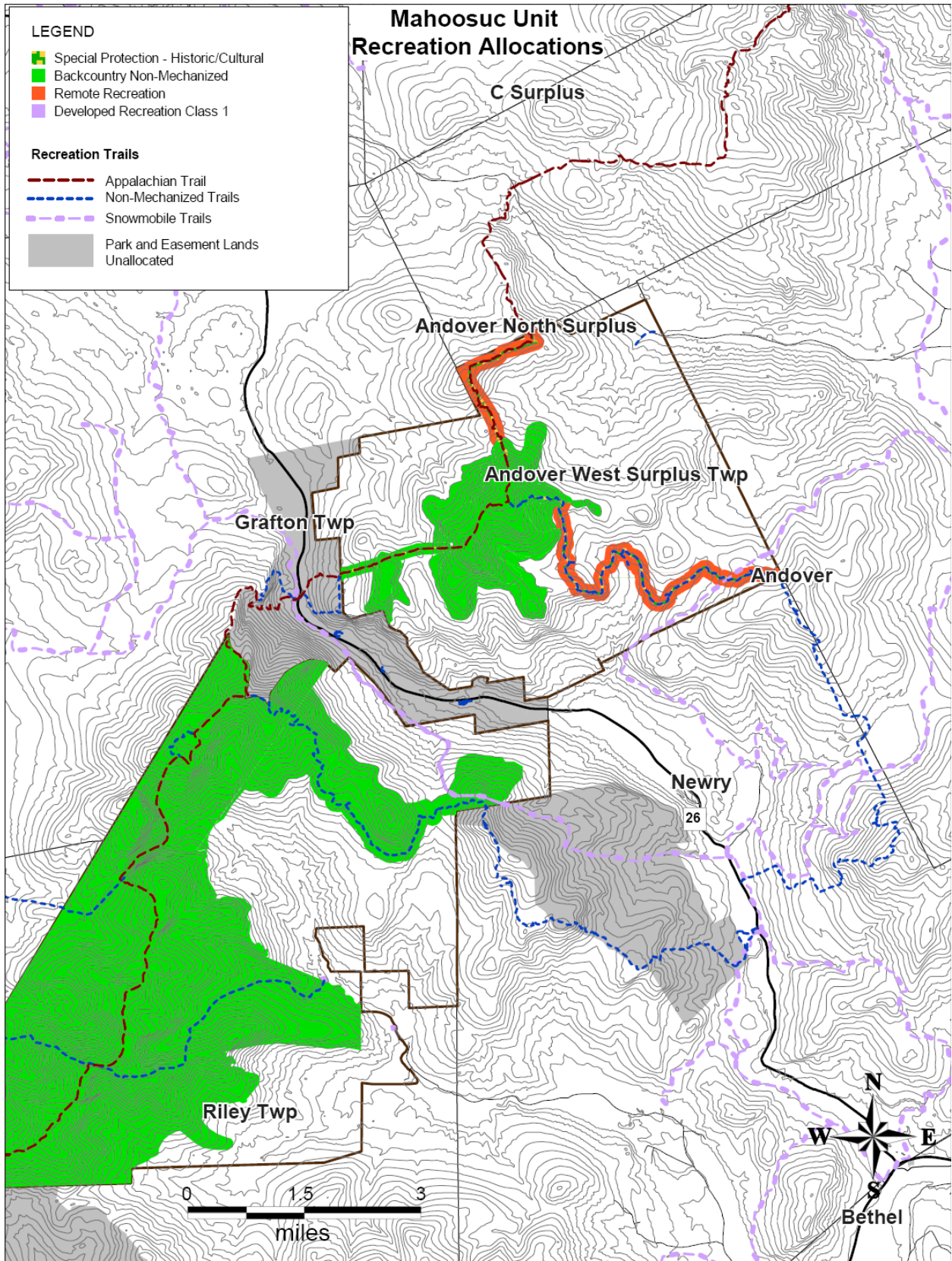
Mahoosuc Unit Allocations

Allocation	Number of Acres*	
	Dominant	Secondary
Special Protection	11,832	
Backcountry non-Mechanized	2,379	11,507
Remote Recreation	598	
Wildlife	1,668	
Development Recreation Class I**	74	
Timber Management	14,617	2,266

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

**Approximate—actual acres will be determined in the field





Grafton Notch State Park and Mahoosuc Unit Issues and Recommendations

While allocations define the general management direction, management recommendations define specific actions to be taken during the course of the 15 year Plan period in response to identified management issues.

Issue	Recommendations
<i>Recreation Management</i>	
<p><u>Sensitive resources</u>: Significant recreation use in sensitive alpine and sub-alpine areas in the Mahoosuc Unit creates the need for careful management.</p>	<p>Work toward achieving an exemplary standard of balancing recreation and environmental protection in an environment that is both highly valued recreationally and highly sensitive ecologically.</p> <p><i>Explore:</i></p> <ul style="list-style-type: none"> • Upgrading trails or sections of trails by hardening and/or adding additional trail structures to reduce/prevent erosion. • Relocating or eliminating sections of trail if necessary. • In alpine areas, using specialized alpine trail building techniques, encouraging hikers to stay on trails by better defining trails (while considering the remote, backcountry experience). • Improving and maintaining existing trails should be a higher priority than new trail construction (excluding potential trail segment relocations). However, new trail construction will be considered if high visitor use is causing unacceptable impacts in a particular area and it is determined that a new trail is needed to disperse use. • Increasing hiker awareness of ecologically sensitive areas through increased information and education, delivered through various media, signage and possibly a ridge-runner. • Discouraging use of informal trails that are shown to be causing environmental problems.
<p><u>Coordination</u>: Maintenance of the hiking trail network on Bureau lands and the Grafton Loop Trail depends on multiple partners—the Bureau (Parks, Lands), MATC, AMC, and MLT. Greater coordination between partners could improve recreation management and</p>	<p>Designate a Bureau staff person to organize and facilitate a Grafton and Mahoosuc trail coalition, to include a representative from Parks, Lands, MATC, ATC, AMC and MLT, to meet at least once annually. Through the coalition: (1) develop periodic trail management plans, and work together to implement these plans. (2) prioritize trail upgrades from year to</p>

Issue	Recommendations
resource protection along this trail system.	year, and coordinate in the grant application process. (3) coordinate and improve public information for hikers and share visitor use information.
<p><u>Hiker Information:</u> Currently there is limited information available for hikers and backpackers about trails in Grafton Notch State Park, and the Mahoosuc Unit, including the Grafton Loop Trail.</p>	<p>Increase and improve information and service for hikers and backpackers at Grafton Notch State Park and the Mahoosuc Unit. <i>Explore:</i></p> <ul style="list-style-type: none"> • Designating a summer staff person, riderunner or intern to rove the trails and spend time in the Park AT parking lot, giving information to hikers on trail conditions, campsites, etc. • Expanding the written information available at the Park AT parking lot including further enhancements to the kiosk, and including a method for hikers to provide information for each other. • Printing a new “Map and Guide” which includes Grafton Notch State Park, Mahoosuc Unit and the Grafton Loop Trail. • Providing up-to-date information on the Bureau’s website on trail conditions, forestry operations, gate status, rules and guidelines, etc. • As opportunities arise, participate in larger initiatives (with Mahoosuc Initiative, chambers of commerce, or tourism businesses) to coordinate in information provision. • Other methods determined by the Grafton and Mahoosuc Trail Coalition and/or the Parks and Lands staff.
<p><u>User and trail survey:</u> A systematic evaluation of trail conditions and user experience is needed to more effectively manage trails, especially in fragile alpine areas.</p>	<p>Work with partner organizations to monitor visitor use, experience and trail conditions. Explore options with partners to expand recreation opportunities if needed in order to avoid levels of use that diminish the quality of the recreation experience or jeopardize the fragile alpine communities.</p>
<p><u>Winter Use Needs:</u> Winter recreational use is occurring in the Park (ice climbing, mountaineering, winter camping). Because there are no Bureau staff on site in the winter, the Bureau has only anecdotal information from user groups about this use. Parking areas are</p>	<p>Gather more information about winter recreation use in the Park. Working with local recreation groups and local officials, develop a communication protocol with the DOT and annually determine appropriate parking areas to be plowed to support winter recreation. Determine if other trail facilities or services are needed to support winter use. Address as</p>

Issue	Recommendations
<p>plowed by the DOT based on informal communication with Bureau staff and local groups.</p>	<p>resources allow, with partner groups.</p>
<p><u>Nordic Skiing</u>: Local businesses, outing clubs and schools have expressed an interest in developing the Upper Bull Branch area for groomed Nordic skiing. This area is especially suited to serve as an early winter training area.</p>	<p>Partner with local groups interested in developing the Bull Branch valley for Nordic skiing. Coordinate with groups to designate routes and allow them to groom trails, potentially through a Special Use Permit. After December 1 or the first significant snowfall, whichever is later, manage the Bull Branch Road for non-motorized uses (except Bureau management and grooming for Nordic skiing). This is an opportunity to model how Nordic skiing can work with timber management on Bureau lands.</p>
<p><u>Regional Nordic trails</u>: There is interest in the larger region of developing a long-distance Nordic ski trail network. Details of this network are not yet developed, but there may be future interest in using the Park and Unit for a portion of this trail system. There has been interest expressed in creating a trail over Miles Notch—in the east end of the Backcountry Non-mechanized allocation, and potentially within the Ecological Reserve.</p>	<p>Currently, there is no specific proposal for locating a groomed Nordic ski trail system other than the general location of the Bull Branch valley. The management road network within timber management areas has been mentioned as suitable in the short-term for this use.</p> <p>The resource allocations identified in this plan in the Bull Branch Valley are a blend of ecological reserve, wildlife, backcountry non-mechanized, and timber management. As stated in the recommendation above, the Bureau will be working with local Nordic ski interests to designate routes and allow for trail grooming. The Bureau and Nordic ski groups will have to consider many factors in locating trail—such as up-coming timber operations and terrain. Under the resource allocation system, grooming for Nordic skiing would be easily allowed in the timber dominant allocation, and in the wildlife allocation on existing management roads. If, in the process of designating specific routes for skiing, it is determined that there is a desirable route that extends into the Ecological Reserve or Backcountry Non-mechanized allocations, the Bureau will need to consider whether this is consistent with current policy and statutory guidance. The Ecological Reserve statute and the Bureau’s IRP are the guiding documents the Bureau will consult to consider new recreational uses in the Ecological Reserve, and IRP description of the Backcountry Non-mechanized allocation will be consulted for decisions on mechanized grooming in</p>

Issue	Recommendations
	the Backcountry non-mechanized area. Both of these documents are available in the Appendix.
<p><u>Bureau staff limitations:</u> The recreation management issues and recommendations listed above all point to the issue of staffing limitations. Grafton Notch State Park has two seasonal staff who stay very busy maintaining facilities and helping visitors around the popular waterfall viewing areas. The Mahoosuc Unit is served by a forester and seasonal recreation ranger who are divided amongst many other public lands properties. With current staff limitations, the Bureau would be stretched in its ability to implement plan recommendations such as convening a trail coalition, improving hiker information, lowering environmental impact, monitoring visitor use, and generally providing more collaboration with managing partners and user groups. More broadly, there is a need for increased recreation management capacity on all Bureau lands in this region.</p>	<p>Explore options that could achieve a recreation management system for the Grafton and Mahoosuc lands which is seamless, serves the public well, balances recreational use and ecological protection, and more fully realizes the benefits of the many partnerships which bring energy and capacity to this dynamic recreational area. Explore the feasibility of providing a recreation coordinator to work with the various Bureau staff and management partners to implement the recreation recommendations in this plan. Such a coordinator could also develop and expand the Bureau’s partnerships in the region and improve collaboration and coordination with partners.</p> <p>Specifically investigate creating a new permanent position which could not only serve the Grafton and Mahoosuc area, but the larger Western Maine region. Explore shared funding options for this position, such as a jointly funded position with the Mahoosuc Initiative or local recreation/tourism groups. In the short-term, explore use of a variety of internship programs and grant funding to provide this capacity, recognizing that short-term positions will lack the depth and continuity needed for optimal effect.</p> <p>In the interim, until a new Recreation Coordinator position can be created, designate an existing staff person to fill this role.</p>
<p><u>Western side trails:</u> The Speck Pond Trail and the Notch Trail originate from private lands to the west of the Mahoosuc Unit and therefore could be closed to public access at the landowner’s discretion.</p>	<p>Work with the adjacent landowners to resolve any issues with public use. If the Speck Pond and/or Notch Trail are closed to access by the private landowner, the Bureau will, in consultation with partners, assess whether additional hiking opportunities are needed within the Park or Unit, and may work with partners to address that need.</p>
<p><i>Timber Management</i></p>	
<p><u>Future Management Guidelines:</u> Timber management guidelines outlined in this Plan reflect current best practices geared to current conditions, which may change</p>	<p>Management of the very limited <i>softwood type</i> acres should maintain significant stocking of softwoods, and encourage softwoods where spruce regeneration is common.</p>

Issue	Recommendations
<p>over time. These recommendations are provided to enhance the public's understanding of how the Bureau will manage timber resources on the Mahoosuc Unit. These recommendations are not a "prescription" – only general guidelines.</p>	<p>On <i>mixedwood stands</i>, growing high value hardwoods in mixture with spruce is a desired objective, retaining hemlock for structure and diversity. Some mixedwood stands are located at higher elevations, at the edge of unregulated acres. Here the softwoods might be encouraged more than the hardwoods.</p> <p>In <i>hardwood type stands</i>, sugar maple and yellow birch are the key management species, and healthy beech and good quality red maple can also be encouraged, along with any ash. Oak should be favored where it occurs, and oak regeneration should be nurtured. The softwood component, particularly spruce, should be maintained, or increased where spruce is common in the understory. However, conversion to mixedwood or softwood is generally not a priority, except perhaps on the higher/steeper land where hardwoods grow less well.</p>
<p><u>Scenic Protection</u>: Timber management in Mahoosuc must be conscious of scenic concerns from hiking trails, both along the trails themselves, and views from trails along exposed ridgelines. Views from the Grafton Scenic Byway (Route 26) must also be protected.</p>	<p>The resource allocations for the Mahoosuc Unit will incorporate a 100 foot no-cut buffer on either side of the Appalachian Trail and all official side trails, and the Grafton Loop Trail. A remote recreation allocation with Visual Class I treatment is the dominant allocation for an additional 400 feet along either side beyond the no-cut buffer (where trails are not already within the Ecological Reserve or Backcountry Non-mechanized allocations). This insures that where forest management occurs close to these trails hikers will not be able to readily discern signs of forest harvesting, and harvesting will be timed to have the least impact on trail users. For timber management areas viewed at a distance from hiking trails, public roads, scenic overlooks, and other recreational features, a Visual Class II treatment will be applied.</p>
<p>Ecological Values: Because of the ecological values of this Unit, special care is needed when harvesting timber.</p>	<p>Prior to harvesting, during preparation of timber harvest prescriptions, consult with the Maine Natural Areas Program whenever harvest will take place in identified exemplary communities (allocated wildlife); or in area that was originally proposed by the Forest Biodiversity Project for consideration as an ecological reserve; to ensure that ecological values are maintained.</p>

Issue	Recommendations
<p><u>Wildlife Values</u>: The Bureau has a multiple-use mandate for these lands and must balance and provide recreation, ecological, wildlife, and timber values.</p>	<p>The Bureau designates wildlife dominant areas for habitat protection, including riparian zones and deer wintering areas, among others (see Appendix C for a more detailed description). Wildlife values are always dominant over timber values and recreation values. In addition, the Bureau has Wildlife Management Guidelines that indicate wildlife features that should be maintained in Timber dominant areas, and guide management of special habitats allocated Wildlife Dominant. These guidelines are in addition to guidance provided in the Bureau’s Integrated Resource Policy document.</p>
<p><i>Transportation and Administrative Concerns</i></p>	
<p>Unauthorized and problematic off road vehicle use occurs on the southern-most portion of the Mahoosuc Unit. This use is facilitated by the Sunday River Road (which extends into the Mahoosuc Unit west of Twin Bridges and into abutting land to the southwest).</p>	<p>Retain the portion of the Sunday River Road within the Mahoosuc Unit as a gravel surfaced forest management road with “shared use” status. This will continue its use for Bureau timber management, and allow vehicular use (including ATV use) for the public. However, do not promote the road as a motorized trail destination.</p> <p>Work to eliminate the unauthorized vehicular use that leaves this road and travels into the less improved timber management roads and skid trails on the Unit. Methods could include:</p> <ul style="list-style-type: none"> • Use additional signage as needed to clarify that while motorized travel is authorized on the Sunday River Road, travel off this road into other parts of the Mahoosuc Unit is prohibited. • Retire and/or block the less improved Bureau timber management roads leaving the Sunday River Road when active management is not occurring. • Reach out to clubs, abutting landowners and organizers of ORV events to gain their cooperation in eliminating the unauthorized ORV use in the Mahoosuc Unit. • If other methods fail, work with MDIFW wardens to establish an enforcement presence to deter this use.