

## *Rangeley Lake State Park*

### **Character of the Park**



Rangeley Lake State Park is situated on the southern shore of Rangeley Lake—a lake renowned for fishing and other recreational opportunities and scenic beauty. The park is located partly in the town of Rangeley, and partly in Rangeley Plantation—it is easily accessible from South Shore Road, which connects Routes 17 and 4. The Park offers camping, boating and fishing access, hiking, picnicking and swimming, all within a scenic remote setting. The Park is a destination in itself, and also provides opportunities that complement other recreation offerings the Rangeley Lakes region, a popular tourist and recreational destination.

The Park is most renowned for its campground, beach and boat access site. The campground contains 50 well-spaced campsites and campers can easily walk or drive to the beach and picnic area, located in a somewhat secluded cove, for swimming and picnicking. Day use visitors as well as campers can use the boat access area which includes a trailered ramp and docks with slips for tying boats. Additionally, visitors to lodging establishments in the region can use the Park's beach and boat access site. The Park is notable because it feels somewhat remote, however, it is easily accessible and located a short drive from the downtown center of Rangeley, where dining, shopping and other recreational amenities are available. It is also adjacent to other conservation properties owned by the Bureau and Rangeley Lakes Heritage Trust.

## **Acquisition History**

Rangeley Lake State Park consists of almost 900 acres along the southern shoreline of Rangeley Lake. In 1960, three acquisitions by the Bureau created the Park—which at that time consisted of 718 acres. Since then, multiple smaller Bureau acquisitions have added to the Park acreage, including the most recent addition of 29 acres which occurred in 2009. The current configuration of the Park now includes a contiguous block of forest and shoreline. Shoreline extends for approximately one and a half miles.

## **Natural Resources**

No comprehensive natural resource inventory has been performed. IFW has identified a Deer Wintering Area and Inland Wading Bird and Waterfowl Habitat on the western portion of the Park. Both of these features extend into the Rangeley Lakes Heritage Trust South Bog Property. An active bald eagle nest is located on the 2009 acquisition near South Bog. Further development of this Park should be informed by additional natural resource inventory and analysis.

## **Recreation and Visual Resources**

Rangeley Lake State Park offers a variety of recreational experiences, which are generally clustered in a core area accessible from State Park Road.

### *Camping*

The Rangeley Lake State Park campground is within a heavily forested area. There are fifty single campsites, all located along a one way loop road. These sites are well-spaced and somewhat visually buffered from one another. Forty sites can be reserved, and ten sites are non-reservable, kept available on a first come, first served basis. Several campsites and a restroom are handicapped accessible. Two group campsites are also available—one close to the beach and the other near a ball field.

### *Boating and Fishing*

A boat access site is available to both campers and day use visitors. Docks with slips are available for campers to secure their boats while staying in the park. A trailered ramp is available for campers and day use visitors. Many use this site for launching boats for fishing access—Rangeley Lake is renowned for its populations of landlocked salmon and trout.

### *Swimming and picnicking*

There is a swimming beach available for campers and day use visitors—with a grassy area and steps leading into the water. Picnic spots are situated in a forested area just above the swimming beach, and parking is available. A short hiking trail connects the campground with the beach.

### Other amenities

A ball field is available on the west side of the park, accessible from the State Park Road, with its own parking area. This is in close proximity one of the group campsites. There is a small field and playground with views of the lake in close proximity to the campground.

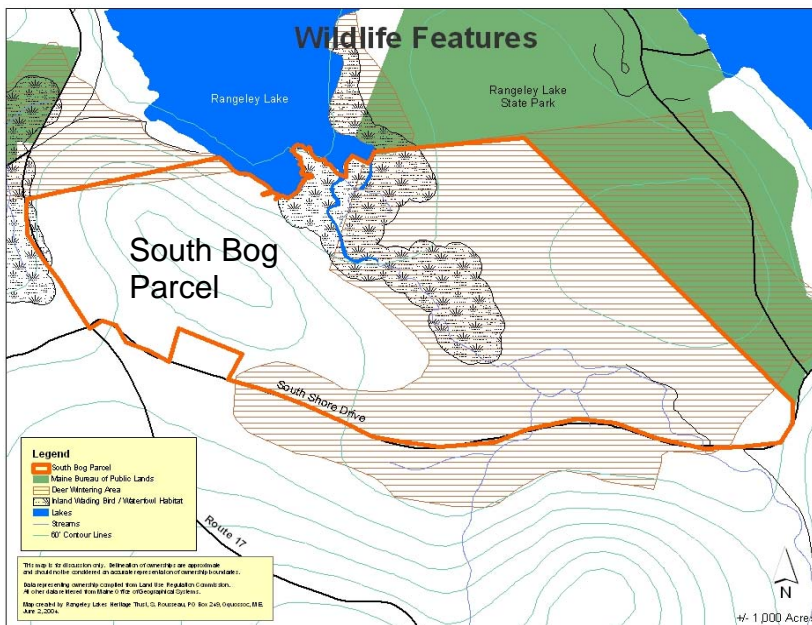
### **Recreation Resources Issues and Opportunities**

Several opportunities exist in the Park that would enhance the visitor experience:

- Add new campsites and add hook-ups to some of the campsites.
- Revitalize the playground area with a new playground and other amenities.
- Develop opportunities at the ball park, which is now currently an empty field.
- Add rustic cabins to the Park available for short term rent by the public.

The challenge becomes how to maintain the character of the Park as a remote, forested camping experience with access to a sparsely developed shoreline, while carefully choosing new amenities which enhance the visitor experience.

The opportunity also has been extended from Rangeley Lakes Heritage Trust to develop a trail that would connect the Park to the South Bog Property. To pursue this proposal, the Bureau would first need to assess whether Park visitors would likely use the trail, and if so, what sort of trail would be desirable. Other factors to be considered include siting the trail to avoid adverse impacts to the nearby IF&W designated Inland Wading Bird and Waterfowl habitat; how connecting the Park with the RLHT South Bog property would affect controlling access to the Park and the ability to collect fees; and insuring privacy and security for campers.



## Vision for Rangeley Lake State Park

*Management of the Park seeks to develop opportunities that add value to the visitors' experience, while consciously balancing this development with protecting the remote forested camping, swimming, boating and fishing experience. The Park cooperates and collaborates with area partners to provide high quality recreational opportunities and facilities that expand and enrich recreational options for visitors.*

## Rangeley Lake State Park Issues and Management Recommendations

Issue	Recommendations
<b><i>Natural Resource Management</i></b>	
A natural resource inventory has not been performed at Rangeley Lake State Park (NRIs are prioritized on public lands where timber management is performed).	When new facilities (including trails) are planned, use staff and MNAP specialists to perform an inventory of the general site, to locate the facility in an area where natural features will be the least impacted.
<b><i>Recreation Management</i></b>	
It is challenging to balance the addition of new visitor amenities with the retention of the remote experience of camping in a forested setting and enjoying the Park's sparsely developed shoreline.	Design new visitor amenity development to blend harmoniously with the remote and scenic character of the Park. Currently, developed areas of the Park (campground, boat access area, etc) are clustered in a core area accessible from State Park Road, yet screened from one another, so the atmosphere of a remote, natural setting is maintained at each site. Follow this well-planned tradition.
There is interest in developing a hiking/walking trail network from the developed recreation core of the Park, into the more remote areas. Rangeley Lakes Heritage Trust has expressed to the Bureau an interest in connecting South Bog property trails with the Park.	Explore the demand for and feasibility of building a hiking trail system from the Park connecting to the RLHT trails on the South Bog property. Consider: (1) the extent and nature of user-demand for such a trail; (2) whether the trail can be sited to avoid environmentally sensitive areas, and (3) if administrative concerns can be addressed, including ability to provide privacy and security to campers, and maintaining the integrity of the fee-collection system. If demand can be demonstrated, and environmental and administrative concerns can be addressed, pursue funding and work cooperatively with RLHT to construct the trail.

## *Bald Mountain Unit*



*Bald Mountain(photo center) as viewed from Route 4 Scenic Overlook, across Rangeley Lake*

### **Character of the Landbase**

The 1,850 acre Bald Mountain Unit is located near the village of Oquossoc in the town of Rangeley. It stands prominently between Mooselookmeguntic and Rangeley Lakes and is surrounded by roads (Route 17, Route 4, Bald Mountain Rd and Bemis Rd). The Unit is a recreational, scenic and economic asset in the Rangeley Lakes region—a region renowned for outdoor recreation based tourism. Scenic Bald Mountain, the Unit's namesake, is a majestic landscape feature in the Rangeley Lakes region, prominent in the view from Mooselookmeguntic, Cupsuptic and Rangeley Lakes as well as from scenic overlooks on Routes 4 and 17 and many other points. Bald Mountain is conical in shape and rises to an elevation of 2,443 feet. A popular hiking trail leads to the peak, where natural rock outcroppings and an observation tower allow spectacular views of the region. The excellent hiking, snowmobiling and hunting opportunities on Bald Mountain are popular recreational assets to the local community and tourism economy. In addition to its outstanding scenic and recreational values,

the Bald Mountain Unit is managed for timber production, conducted with utmost care for visual considerations.

### **Acquisition History**

The Bureau purchased the Bald Mountain property from Rangeley Lakes Heritage Trust (RLHT) using Land for Maine's Future (LMF) funds in 1994. RLHT had purchased the property in 1992 from International Paper Realty with the intention of seeking LMF funding in partnership with the Bureau to transfer Bald Mountain to the Bureau. Covenants in the deed agreed to by RLHT and the Bureau guide management toward dispersed outdoor recreation, sensitive forest management and protection of views of the mountain from surrounding lakes.

### **Natural Resources**

(Maine Natural Areas Program, 2010)

#### Geology and Soils

Bald Mountain is a conical shaped mountain rising abruptly from land between Mooselookmeguntic Lake and Rangeley Lake. Elevation begins at approximately 1,500 feet and ends at 2,443 feet at the summit. Slopes are gentler near the base, but rise steeply near the summit, where there are several large granite outcrops. Bedrock geology consists of acidic granite around the summit, and acidic sedimentary/metasedimentary rock at lower elevations. Soils are dry and acid, with soils at lower elevations well-drained and fertile in many areas.

#### Hydrology and Wetlands

Wetlands exist on the southernmost portion of the Bald Mountain Unit, where the terrain is much flatter close to Rangeley Lake. Both forested and open wetlands are present. Some of the wetlands are characterized as Shrub Swamp and are dominated by sweet gale and alder.

#### Rare plant and animal species

No rare plants or animals have been documented.

#### Natural Communities

Much of the Bald Mountain Unit at lower and middle elevations is Northern Hardwood Forest and Spruce Fir Northern Hardwood Forest. Much of the hardwood area has a history of forest harvest, still containing a range of age and size classes. Some areas were clearcut by the previous landowner, and are now hardwood sapling stands.

The summit of Bald Mountain is covered by a Spruce-Pine Woodland Natural Community of approximately 200 acres. Short, scrubby red spruce dominates, with balsam fir and heart-leaved paper birch also present. Low-bush blueberry, cushion moss, and lichens are also present. It is an old forest with little evidence showing previous harvest. Trees are older—samples taken show ages of red spruce ranging from 55 to 140 years. However, diameters are relatively small (dbh ranging from 5 inches to 14 inches from the same samples). Contained within the Spruce-Pine Woodland Natural Community, there is a small (about a quarter of an acre) Dwarf Shrub Bog formed in a depression in the rock outcrop. Fir, sphagnum and heath plants are the major components. Although this bog is near the summit of the mountain, it lacks the plant species indicative of true alpine bogs.



A Spruce Slope Forest is present below the summit, growing on thin soils over bedrock. This forest is mixed age as it has blowdowns and some previous harvest of larger spruce.

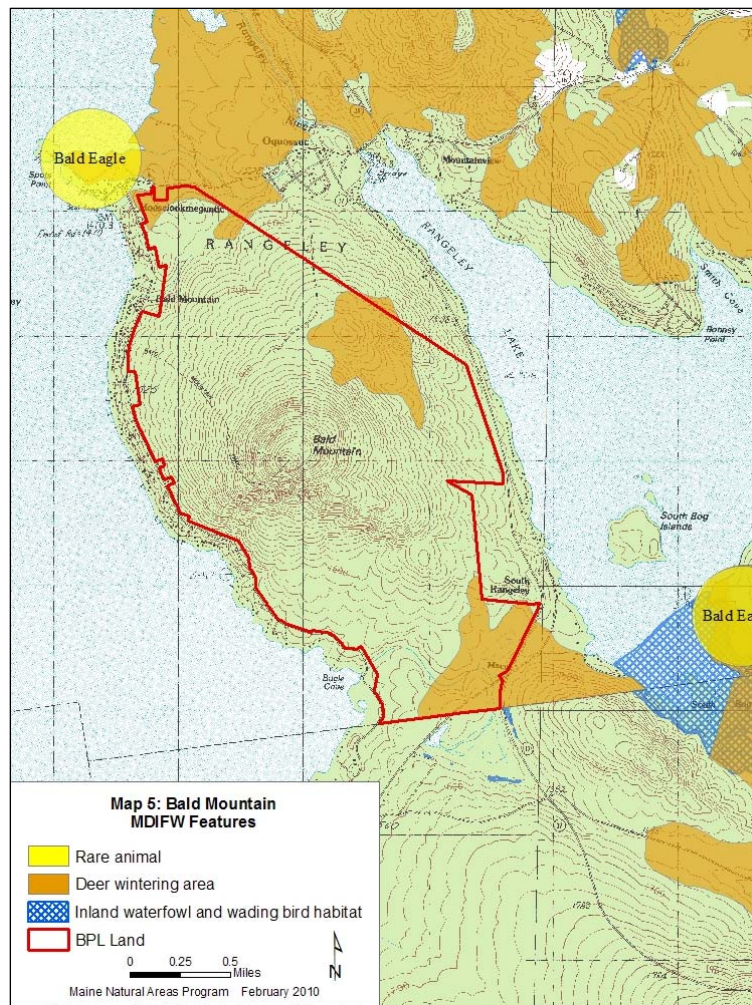
Fisheries and Wildlife

Deer wintering areas occur on the southern border of the Unit (extending into adjacent land), on the northeastern portion of the Unit, and on the northern border. The deer wintering area on the northern portion of the Unit near Route 4 is part of an extensive network of deer habitat to the north. Deer use is heavy year-round on the Unit, with deer browsing the young hardwoods. A long establish feeding program in Oquossoc helps contribute to the deer population on the northern portion of the Unit.

**Natural Resource Management Issues**

- Deer populations are unusually high on the Bald Mountain Unit, due to nearby deer feeding program, resulting in the high need for deer wintering cover regionally, and causing heavy browsing of young hardwoods that are desirable timber management species on the Unit. Opportunity exists to coordinate deer habitat management with

adjacent landowners—particularly RLHT and Rangeley Lake State Park.



## Recreation and Visual Resources

### Non-motorized uses

A popular hiking trail to the summit pre-existed Bureau ownership, and this trail was a major motivation for RLHT and others who partnered with the Bureau to preserve the property. A parking area is available off of the Bald Mountain Road on the west side of Bald Mountain. The hike is a short moderate hike of 1.4 miles, and locals as well as tourists, including families with children enjoy hiking to a stunning 360 degree view from the observation tower at the summit. Snowshoeing is also prevalent on the trail. Local tourism businesses and information centers often refer tourists to this trail.



*View from Lookout Tower, Bald Mountain, looking west.*

A longer trail to the summit originates from a parking area at the Haines Landing boat ramp funded by the Bureau's Boating Facilities Division. The hiking trail is somewhat less popular, as it is not as well-known and is a longer hike to the summit.

### Motorized uses

A snowmobile trail—ITS 84—traverses the Unit on the east side. ITS 84 is a corridor trail that travels all the way from the New Hampshire border in Lynchtown TWP, ME to the New Brunswick border in Calais, ME. The portion that traverses the Bald Mountain Unit is used as part of many shorter loop trails in the Rangeley region that give great views of Rangeley Lake. The snowmobile trail network in the Rangeley region is very popular, and an important contributor of the economy. The trail portion on the Bald Mountain Unit is a vital link in this network.

### Hunting

Bald Mountain Unit is used for upland bird, deer and bear hunting. There are two bear baiting sites on the Unit. Hunting is a popular tradition in the Rangeley Lakes region and many local guides use the Unit to provide clients with hunting opportunities.

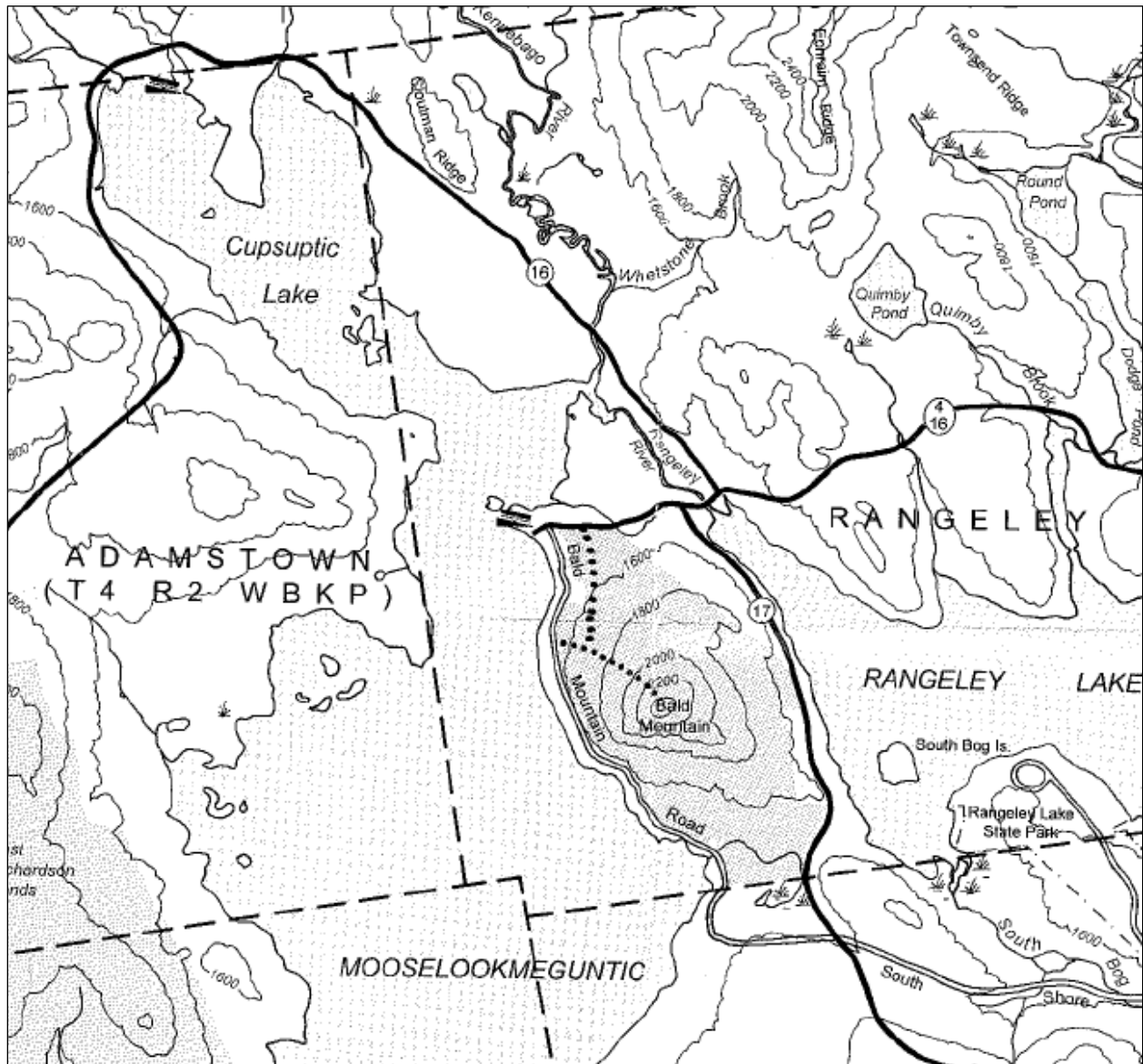
### Visual resources

Bald Mountain is a central landform viewable from formal scenic overlooks in the town of Rangeley located on Route 4 and Rangeley Plantation on Route 17, as well as from Rangeley Lake State Park. Rising between two large lakes, it contributes to the stunning scenery of the region. From the Bald Mountain summit observation tower, hikers can view an impressive landscape including Mooselookmeguntic and Richardson Lake, and across to the White Mountains in New Hampshire. Its scenic value was a major motivator for conservation of the property, acquired using Land for Maine's Future funds.



## Recreation and Visual Resource Issues

- The Bald Mountain Trail starting from the parking area on Bald Mountain Road is extremely popular for tourists and locals, including some inexperienced hikers. While the trail is challenging in some places, families with small children and also some elderly visitors use the trail because of its short distance and spectacular view. This is a challenge, as a greater level of maintenance is needed to accommodate the high level of use and higher expectations of users.



## **Timber Resources**

### Harvest History

Prior to Bureau ownership, the previous landowner conducted significant timber harvesting up through the early 1990's. There was a large clearcut in the 1980's on the southwest side of the Unit and two smaller clearcuts on the northern portion. For the most part, however, past cutting by the previous landowner was of moderate intensity. The Bureau performed a significant harvest on 700 acres of the Bald Mountain Unit in 2002-5, covering nearly half of the acres regulated for timber harvesting on the Unit. The decision to cover this area in a single harvest was made partly due to the heavy deer browsing of desirable hardwoods. By encouraging regeneration on many hundreds of acres over a short period of time, enough could potentially survive the browsing to establish a new age class with good proportion of sugar maple, yellow birch, and white ash (preferred deer browse species). This harvest produced 7,500 cords, 94 percent hardwoods and nearly 80 percent hardwood pulp.

### Current Conditions

Soils on the regulated acres are mainly deep, well drained and fertile. These are the more gently sloped areas away from the steeply sloped summit. The south end of the Unit contains some flatter areas with somewhat poorly drained soils. The Bureau's regulated acres contain 64 percent hardwood type, 35 percent mixedwood type and 1 percent softwood. Mixedwood type is very similar to hardwood type with a higher spruce-fir component. Therefore, the regulated acres are almost predominately hardwoods. Almost 10 percent are dominated by aspen. Another 22 percent are the former clearcuts which are now sapling stands heavy to aspen, birch and Northern hardwoods, with considerable pin-cherry and pockets of spruce-fir. The remaining 70 percent of regulated acres are Northern hardwood forest or Northern hardwood spruce fir forest.

The average volume across Bald Mountain Unit regulated acres is 22 cords per acre. If former clearcuts (which are now sapling stands) were excluded, the average would be about 28 cords per acre. Composition of species outside the sapling stands is: 37 percent sugar maple, 20 percent spruce, 20 percent yellow birch, 8 percent red maple, 5 percent white birch, and 5 percent aspen.

## **Timber Management Issues**

- Timber management on Bald Mountain is challenging due to its visual prominence from many surrounding viewpoints.
- Another timber management challenge is balancing the need to provide wintering cover and browse for the unusually high deer population with other timber management goals.

## **Transportation and Administrative Considerations**

The Bald Mountain Unit is surrounded by public roads: Route 17 on the east, Route 4 to the north, Bald Mountain Road to the west, and the Bemis Road to the south. However, no public use roads exist inside the Unit and none are planned.

Rangeley Region Skeet and Trap Association has a lease to operate a skeet and trap range in the eastern portion of the Unit. This is accessible by a management road—known as the Skiway Road. The Association has the right to perform maintenance on this road.

A wireless communications company has a lease on a two acre parcel, near the summit of Bald Mountain, for the operation of a telecommunications tower, antennas, and associated facilities. The tower is accessible from the Skiway Road up to a gate, then by an access trail to be used by foot (or by snowmobile or ATV by leaseholders only) to provide for maintenance.

The Skiway Road is designated by the Bureau as a service road, closed to the public. It is open for Bureau management needs and for the two leaseholders to perform their operations.

The deed for the Bald Mountain Unit contains some specifications and restrictions that influence management. Specifically, public outdoor recreation is limited to “non-motorized primitive, dispersed outdoor recreation, hunting, and snowmobiling on designated trails.” Additionally, views from Cupstuptic, Mooselookmeguntic and Rangeley Lakes must be protected by assuring that any structures, roads, towers or platforms do not significantly detract from the scenic and natural features of the property as viewed from the lakes.

### **Transportation and Administrative Issues**

- It is the Bureau’s desire, and the deed to the Bald Mountain property specifies, that the telecommunications tower be as visually unobtrusive as possible. This is challenging due to the proximity of the tower to the summit and observation deck, and the wireless company’s periodic requests to expand capacity.
- Some unauthorized motorized use in the Unit occurs via the Skiway Road, which is a service road intended only for use by the Bureau staff and leaseholders.



*View of the Communications Tower on Bald Mountain from the hiking trail near summit*

## **Vision for the Bald Mountain Unit**

*The Bald Mountain Unit is an outstanding example of Bureau multiple use management. Bureau management protects the wildlife, recreational, and scenic values of the mountain while providing high value timber products. Because of its visual prominence and scenic importance, the Bureau's timber and wildlife management are conducted in a way that maintains the appearance of an unmanaged forest.*

*The Bald Mountain Unit provides high quality hiking, hunting and snowmobiling opportunities that benefit the residents and visitors of the Rangeley Lakes region. Partnerships with local hiking and snowmobile clubs enhance the recreational experience and bring local involvement on the Unit. The hiking trails are designed to accommodate high use and inexperienced hikers and trailheads are informational and easy to locate. The hiking and snowmobile trails provide a forested, natural experience, and include vistas that give recreationists a sense of the vastness of the lakes, forests and mountains that make the region so unique.*



## Bald Mountain Unit Allocations

The following “allocations” define general management objectives and direction for specific areas within the Bald Mountain Unit. See Appendix C for a description of designation criteria and management direction for the various allocation categories. The allocation map is located in Appendix F.

### Wildlife

- Deer wintering areas are designated wildlife dominant. There are three deer wintering areas on the Unit—one adjacent to the northern border of the Unit, one on the eastern border, and one on the southern border. All three deer wintering areas extend into adjacent private land.
- The wildlife allocation on the southern boundary of the Unit also contains open wetlands and a small stream.

### Visual

- Visual Class I standards will apply to the immediate area adjacent to the hiking trails to the Bald Mountain summit—both the trail originating from Bald Mountain Road and the trail starting at Route 4 – as well as to periphery of the trailhead areas and areas along public roads bordering the Unit (Route 17, Route 4, Bald Mountain Road, Bemis Road).
- Visual Class II standards will apply to the entire Unit.

### Developed Recreation

- The snowmobile trail—ITS 84—will be designated Developed Recreation Class I as the dominant allocation.
- The parking area for the Bald Mountain Trail off the Bald Mountain Road will be designated Developed Recreation Class I as the dominant allocation.

### Timber Management

- All areas not designated Wildlife or Developed Recreation dominant will be allocated as timber dominant.
- Timber dominant areas also allow recreation; however, by deed, this is limited to dispersed recreation, excluding motorized recreation except for snowmobiling.

## Bald Mountain Unit Resource Allocations Summary

Dominant Allocation	Number of Acres**
Wildlife	265
Developed Recreation Class I	50
Timber Management	1535

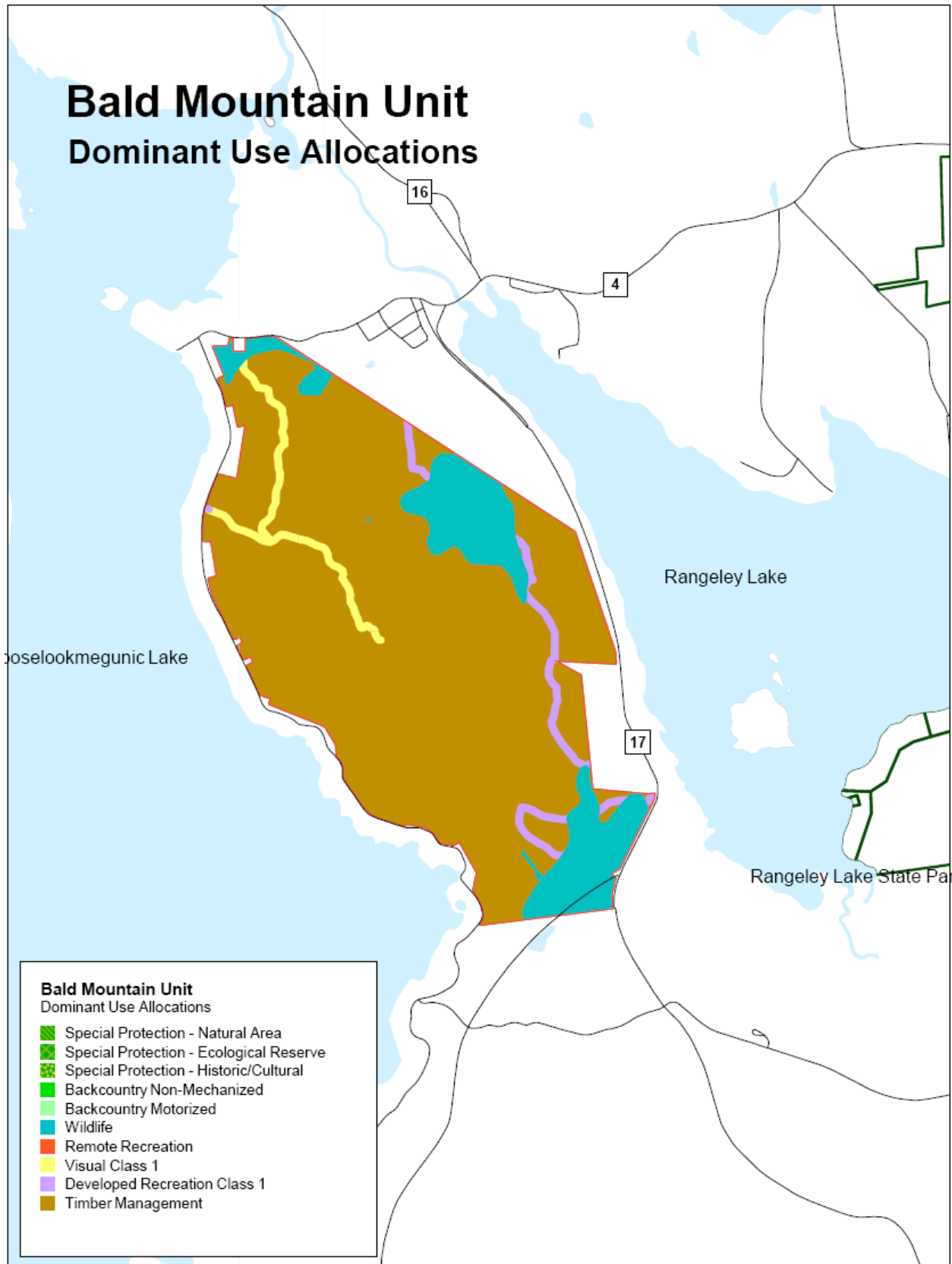
\*\*Approximate—actual acres will be determined in the field





# Bald Mountain Unit

## Dominant Use Allocations





## Bald Mountain Unit Management 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
<b><i>Natural Resource Management</i></b>	
<p>High wintering deer populations have resulted from a local feeding program. This has resulted in heavy browsing of young hardwoods on the Unit, as well as the need to provide more deer wintering cover.</p>	<p>Manage for deer wintering cover in the northern portion of the Unit on suitable sites, including areas zoned as deer wintering areas. Coordinate management of deer wintering area on the south portion of the Unit with RLHT (owners of the South Bog property) wherever possible. Continue to utilize silvicultural techniques that account for high deer populations, such as those described in the timber management section above, where appropriate.</p>
<b><i>Recreation Management</i></b>	
<p>A high level of maintenance and upkeep are needed on the shorter Bald Mountain Trail. This trail is hiked by people with a range of abilities, from young children to senior citizens. It is also a very popular hike, used by locals and also promoted by the nearby tourism businesses. At times the Bald Mountain Road parking area is full and hikers park along the road.</p>	<p>Upgrade the Bald Mountain Trail to accommodate a wider range of users (though not to a level that is fully ADA accessible). This more accommodating trail type is not typical on Public Reserved Lands, where hiking trails are typically primitive in nature. It is appropriate here to increase the trail's level of accommodation due to the trail's heavy use, short length, and its easily accessible location in an organized town with a thriving recreational tourism industry.</p> <p>Partner with volunteers from the Trails of the Rangeley Area Coalition (TRAC) to perform basic upkeep of both the trail from the Bald Mountain Road parking area, and the longer trail from the Route 4 parking area.</p> <p>Place signs at the Bald Mountain Road parking area directing people to the Route 4 parking area and trail when the former lot is full.</p>
<b><i>Timber Management</i></b>	
<p>Visual Concerns: Timber management</p>	<p>Continue to perform timber management with the</p>

<b>Issue</b>	<b>Recommendations</b>
<p>on Bald Mountain is challenging due to its visual prominence from many surrounding viewpoints. In recent years the Bureau has demonstrated timber management on Bald Mountain that has protected views of this scenic asset.</p>	<p>utmost consideration for visual concerns. Apply Visual Class II standards on all Timber Dominant acres and Visual Class I along hiking trails, public roads, trailheads and parking areas.</p>
<p>Timber management guidelines outlined in this Plan reflect current best practices geared to current conditions, which may change over time. These recommendations are provided to enhance the public’s understanding of how the Bureau will manage timber resources on the Bald Mountain Unit. These recommendations are not a “prescription” – only general guidelines.</p>	<p>Manage the Bald Mountain Unit to continue to grow fine quality hardwoods and spruce.</p> <p>Increase the proportion of softwoods where conditions warrant in the northern half of the Unit to provide for deer use.</p> <p>Perform improvement harvesting on the previous landowner’s clearcuts as soon as economic conditions allow.</p>
<b><i>Transportation and Administration</i></b>	
<p>Keeping the telecommunications tower as visually unobtrusive as possible is challenging due to the proximity of the tower to the summit and observation deck, and the wireless company’s periodic requests to expand capacity.</p>	<p>Continue to require provisions in any lease amendments to protect the views of Bald Mountain and from the Bald Mountain summit, and make the tower as visually unobtrusive as possible. This includes a height limit, among other considerations.</p>
<p>The Skiway Road on the eastern side of the Unit is a service road, open to Bureau staff and leaseholders. At times, it is used to gain unauthorized public motorized access into the Unit. Not much is known about this sporadic use.</p>	<p>Use signage to clarify that public motorized use is not authorized on this road. Communicate with leaseholders to delineate their access routes. If necessary, block side trails off the Skiway Road not needed by lessees or Bureau staff, and enlist enforcement help from MDIF&amp;W for unauthorized ATV use.</p>



## *Four Ponds Unit*



*Sabbath Day Pond from the Appalachian Trail*

### **Character of the Landbase**

The Four Ponds Unit is 6,018 acres located between Routes 17 and 4 south of Rangeley and Oquossoc. It is accessed most commonly via the Appalachian Trail off Route 17 (just east and north of the Height of Land scenic overlook on Route 17—the Rangeley Lakes National Scenic Byway). The Unit is best known for its remote and scenic high elevation ponds. The Appalachian Trail runs through the length of the Unit, with a shelter and camping area on Sabbath Day Pond (3.7 miles from Route 17) and near Little Swift River Pond (8.3 miles from Route 17). Elevation on the Unit ranges from 1740 feet to over 2900 feet. The Unit encompasses the entire shorelines of three ponds (Long Pond, Sabbath Day Pond, Little Swift River Pond) and significant shorelines of three others (Swift River Pond, Beaver Mountain Pond, Moxie Pond, and Round Pond). The Ponds offer a remote, walk in fishing opportunity. Approximately thirty camp leases are scattered around lakeshores of the Unit, with most of them on Long Pond. The snowmobile trail ITS 117 runs north to south through the Unit, one of the few snowmobile crossings of the Appalachian Trail in the region, providing connectivity between Rangeley region trails and trails to the south.

## Acquisition History

The Four Ponds Unit began as original public lots in Rangeley Plantation, Sandy River Plantation, and Townships D and E. Eventually the original public lots in Townships D and E were traded out. In 1977-8, 150 acres in Township D (around Long and Moxie Ponds) were acquired from Brown Company and 3,225 acres in Township E were acquired from International Paper. The current configuration of the Four Ponds Unit has been in place since 1978.

## Natural Resources

(Maine Natural Areas Program, 2010)

### Geology and Soils

The bedrock that underlies Four Ponds consists of sandstones and mudstones deposited during the Silurian period, 443 to 417 million years ago. At that time, an ancestral ocean basin was closing, and mountains were shedding large amounts of sediment into the ocean. These sediments were then subjected to pressure and heat and uplifted to form the Rangeley Formation, Perry Formation, and Greenville Cove Formation, depending on the various types of sediments (Maine Geologic Survey 1995). The surficial geology is dominated by 'thin drift' (till that is less than ten feet deep over bedrock). Soils are comparatively poorly developed and infertile soils typical of deep, dense till areas in northern and western Maine.

### Hydrology and Wetlands

The Four Ponds Unit encompasses parts or all of the shorelines of six ponds or lakes. All lie within the Richardson Lakes watershed, except Swift River Pond and Little Swift River Pond, which drain south to the Androscoggin. Bureau land covers roughly one mile of the south shoreline of the 499-acre Beaver Mountain Lake (also known as Long Pond), the largest of the lakes on the Unit. Water quality monitoring data for Beaver Mountain Lake has been collected sporadically since 1984, and the Lake's water quality is considered slightly above average, based on various chemical and physical measures. It is considered moderate in nutrients (mesotrophic), in contrast to other lakes on the Unit. Dissolved oxygen profiles from as recent as 2006 show moderate depletion in deep areas of the lake, and oxygen levels below 5 parts per million may stress certain cold water fish, and a persistent loss of oxygen may eliminate or reduce habitat for sensitive cold water species (PEARL Database). The 264-acre Long Pond has a maximum depth of 114 feet and has been classified as oligotrophic (clear and low in nutrients and aquatic vegetation). Sabbath Day Pond is a 65-acre lake with a maximum depth of 73 feet (PEARL database). The 43-acre Round Pond is a shallow (8 feet maximum depth), oligotrophic lake that is somewhat more acidic (pH 5.3) than other lakes.

Only 125 acres, or just over 3 percent of the Unit, is classified as wetland according to the National Wetlands Inventory. These wetlands, divided evenly between forested and open types, are scattered throughout the Unit along beaver meadows and drainages. The largest single wetland is a 60-acre alder and sedge meadow where an un-named brook enters Beaver Mountain Lake.

### Ecological Processes

In the upland forests of Four Ponds, there is variable evidence of spruce budworm, wind and weather damage, and moose browse. These processes particularly overlap at higher elevations, creating a patchy mosaic of stand structures. In addition, field work in 2008 revealed evidence of some fires long ago, including even-aged softwood stands and charcoal remnants in the soil. Small fires, such as those caused by lightning strikes, open up patches of forest that are typically re-colonized by spruce, aspen, or birch, depending on the seed source and intensity of fire. This patchy disturbance contributes to an uneven and diverse forest canopy. Beaver activity is evident in some of the small tributaries in the Four Ponds unit, including a small stream entering Long Pond from the northeast and a tributary to Swift River Pond.

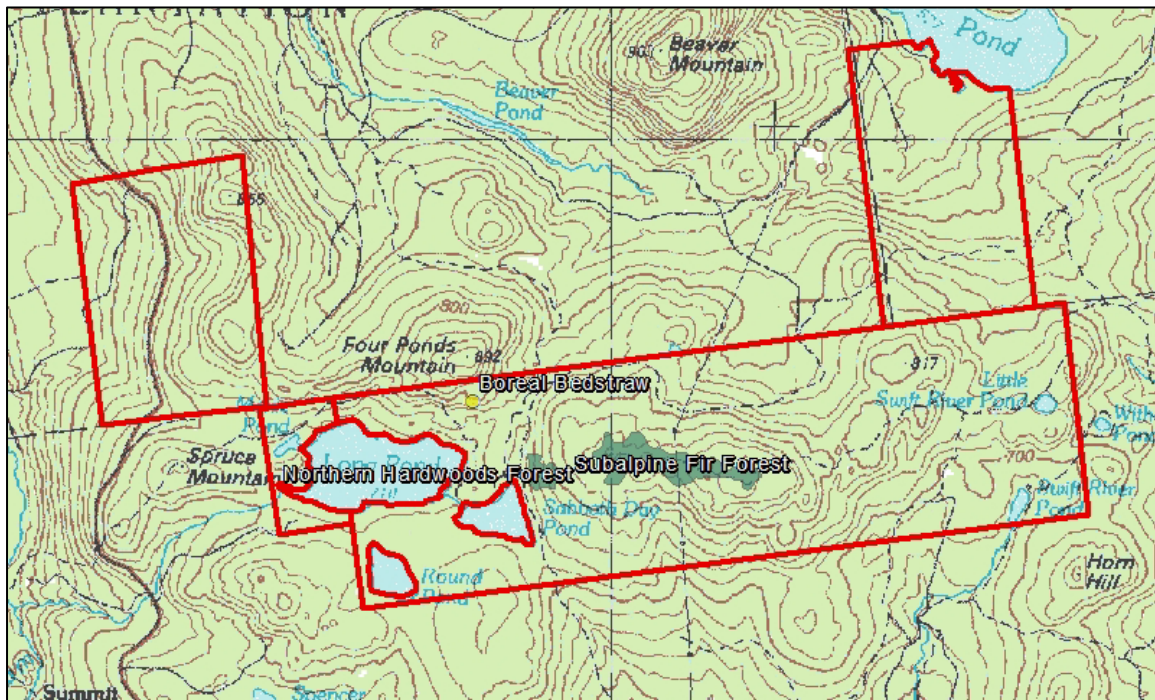
### Rare plant and animal species

Only one rare plant species, boreal bedstraw, is known from the Unit. A small population of this rare plant was found in a mountain seep north of Long Pond in 2008. Aside from the arctic char in Long Pond, no other rare animals are known from the Unit.

### Natural Communities

Four Ponds supports a mix of northern hardwood, mixedwood, and softwood forest that is characteristic of the region. Reflecting the relatively high elevation of the Unit, only 15 percent is mapped as hardwood forest (primarily the lower slopes of the Rangeley section), while 46 percent is mixed wood and 39 percent is softwood.

In terms of natural community types, the ‘matrix’ forest on much of the Unit is Montane Spruce – Fir Forest, which in places grades into the mixed Spruce – Fir Northern Hardwood Forest type, with smaller patches of Beech Birch Maple Forest and Fir – Heartleaved Birch Sub-alpine Forest. As noted previously, many areas show signs of past wind/weather events, with frequent but small (less than one acre) patches of blowdowns. Most areas show some signs of previous forest management.





Along the Appalachian Trail east of Sabbath Day Pond, lower slopes support an exemplary Beech-Birch-Maple forest with several large (28-36 inch dbh) somewhat stunted yellow birch and sugar maple. The forest is relatively open, with basal area approximately 80 square feet per acre. A 25 acre patch along the trail exhibits little or no evidence of harvest or other prior human disturbance. The understory is well developed and characteristic of this type, dominated by wood sorrel and hobblebush with heavy moose browse. The density of large trees indicates the presence of an old growth component.

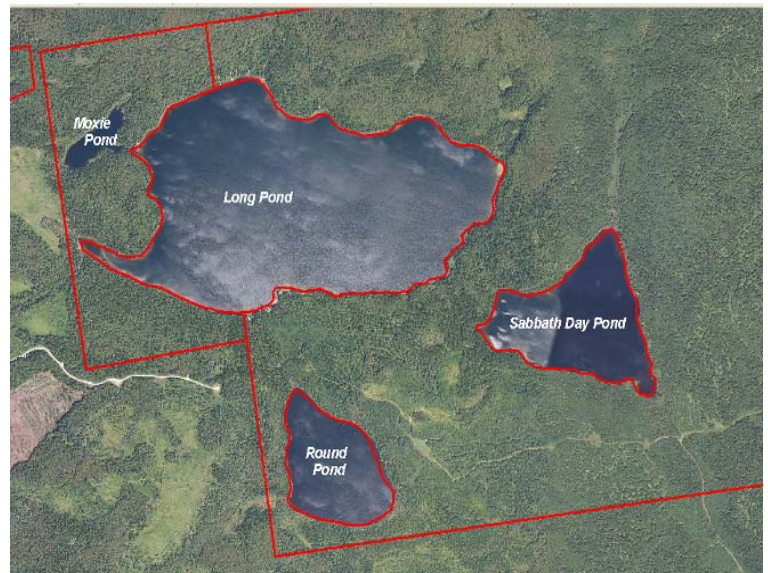
### Fisheries and Wildlife

The mid and high elevation, closed canopy forest provides habitat for a number of mammals, including black bear, fisher, bobcat, snowshoe hare, pine marten, and moose. Frequent songbirds in this coniferous forest type include black-throated green warbler, magnolia warbler, blackburnian warbler, northern parula, white-throated sparrow, and ruby-crowned kinglet.

Parts of three mapped Significant Wildlife Habitats are known from the Four Ponds Unit. A 50 acres wetland at the south end of Beaver Mountain Pond is mapped as a moderate value Inland Waterfowl and Wading Bird Habitat (IWWH). Part of another IWWH lies in a basin around Swift River Pond in the southeast corner of the Unit. At least one small wetland serves as a vernal pool (wood frog egg masses were noted in late April), and a number of ruts in a logging road/ATV trail also supported wood frog egg masses. No Deer Wintering Areas are mapped on the Unit.

LURC's Maine Wildlands Lake Assessment (1989) lists all of the ponds as having significant or outstanding fisheries. Round Pond, Long Pond, and Swift River Pond have been stocked with brook trout by IFW since 1989. Long Pond also supports a population of landlocked arctic char – a Special Concern species that occurs in only a handful of lakes in northern Maine. Waters in the “Four Ponds” portion of this unit are characterized by having very limited numbers of fish species, probably due to their remote, high elevation location upstream of steep natural barriers. Brook trout are present in all, either as wild populations (Sabbathday Pond) or as stocked populations (Long Pond, Round Pond, Moxie Pond). Long Pond also supports a robust population of reproducing Arctic charr along with rainbow smelt and a single minnow species (lake chub). Long Pond's charr population was introduced by the Maine Department of Inland Fisheries and Wildlife in the early 1970s in an effort to expand the range of this very uncommon species – charr are known to occur in only fourteen Maine lakes. The limited distribution of Arctic charr in Maine is likely a result of the species' narrow habitat requirements and intolerance of habitat changes, particularly the introductions of new species.

Little Swift River Pond supports a vibrant wild brook trout population, while Swift River



*Western side of the Four Ponds Unit, 2009 imagery*

Pond's trout fishery is maintained by annual plantings of hatchery fish. No other fish species are present in either pond, so conditions for brook trout are highly favorable.

Beaver Mountain Lake is a large headwater to Rangeley Lake that provides good habitat for a variety of fishes. A small wild brook trout population persists, with most production occurring in an unnamed tributary located on the lake's southwest shore. Landlocked salmon are also present and provide the principal sport fishery. Introduced many decades ago, salmon are now entirely self-sustaining in Beaver Mountain Lake. The lake's outlet - Long Pond Stream - provides superb spawning and rearing conditions for salmon and contributes wild fish to both Beaver Mountain Lake and Rangeley Lake. Rainbow smelts, longnose and white suckers, and four minnow species are also known to occur.

Beaver Mountain Lake attracts many anglers, particularly when high wind conditions prevent safe travel on nearby Rangeley Lake.

*Game Fish Species at Four Ponds (from MDIFW)*

<b>Pond Name</b>	<b>Size (acres)</b>	<b>Mean Depth (feet)</b>	<b>Maximum Depth (feet)</b>	<b>Fish Species</b>
Long Pond	264	40	114	Arctic Char, Brook Trout, Lake Chub, Rainbow Smelt
Sabbath day Pond	65	21	73	Brook Trout, Lake Chub, Rainbow Smelt
Round Pond	43	5	8	Brook Trout
Moxie Pond	7	7	19	Brook Trout
Swift River Pond	10	5	21	Brook Trout
Little Swift River Pond	7	10	22	Brook Trout

Loons have been documented on a number of the ponds by Maine Audubon, but nesting status is not known, except on Beaver Mountain Pond, where loons have been documented as nesting since 1983.

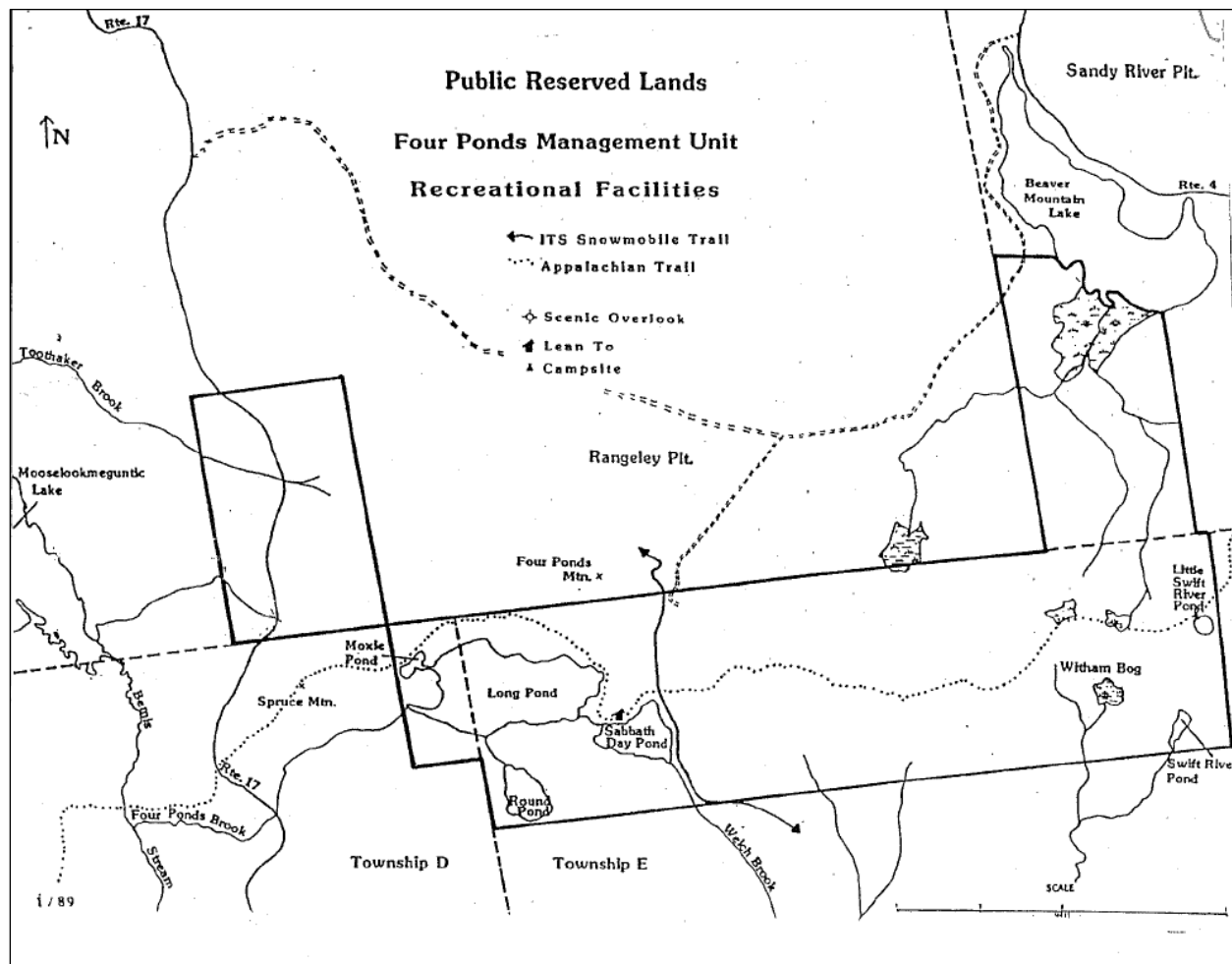
Other aquatic species known from the Unit include eastern elliptio and eastern floater (two species of freshwater mussels), both in Beaver Mountain Pond.

**Recreation and Visual Resources**

*Non-motorized uses*

The Appalachian Trail traverses the center of the Townships E and D portion of the Unit. The trail enters the unit on the West after crossing Route 17, and offers distant views of Mooselookemeguntic and Upper Richardson Lakes on the ascent of Spruce Mountain, less than a mile from Route 17. A second viewpoint, Bates Ledge located 2.7 miles from Route 17, overlooks Long Pond. After passing north of Moxie and Long Ponds, the AT descends to a site between Long and Sabbath Day Ponds where a hiker shelter and a platform campsite are available (3.7 miles from Route 17).





Traveling northbound (easterly across the Unit) on the AT, there is also a campsite on Little Swift River Pond within the Unit located 8.3 miles from Route 17. Several day hikes are possible using the AT on this unit, starting at the parking area at Height of Land overlook on Route 17, and ranging in length from 3.2 miles round trip to Moxie Pond, 7.4 miles round trip to Sabbath Day Pond, and 13.1 miles one way passing across the entire unit and beyond to Route 4, where there is another parking area.

### Motorized uses

The ITS 117 runs through the Four Ponds Unit along a management road. ITS 117 is a connector trail running in a north-south direction, connecting the major east-west corridor trails of ITS 84 in the Rangeley region and ITS 82 in the Rumford region. This snowmobile trail is one of few that is authorized to cross the Appalachian Trail in Maine, so it is therefore a vital connection for the Rangeley region snowmobiling to connect to points south (Rumford, Bethel, the Mount Blue State Park trails, etc).

### Hunting and Fishing

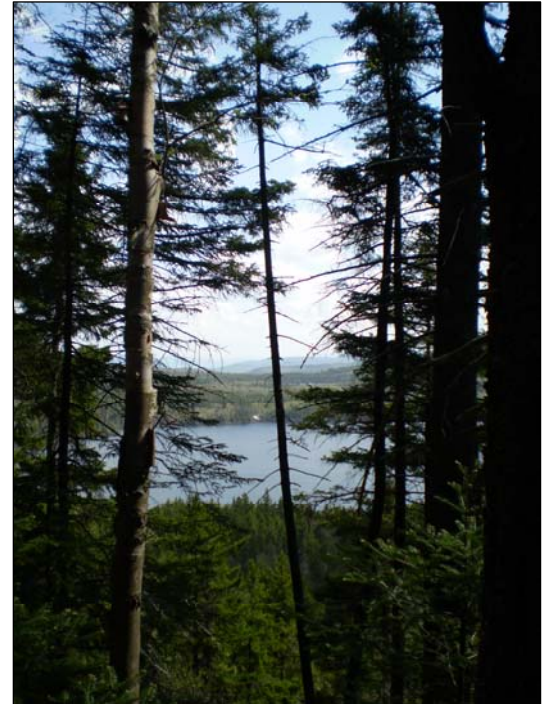
Remote fishing opportunities are abundant in the Four Ponds Unit. Round, Sabbath Day and Moxie Ponds are fly fishing only. Sabbath Day and Little Swift River Ponds have wild brook trout populations. Moxie, Round, and Long Ponds are stocked with brook trout. Beaver

Mountain Lake—in the Sandy River Plantation portion of the Unit—has a wild landlocked salmon and brook trout fishery.

Hunting opportunities are also abundant on the Four Ponds Unit. The Unit is open to hunting all the typical game species of the region—deer, bear, grouse, etc. Hunting is done by foot here, as there is very limited vehicular access.

### Visual Resources

The Four Ponds Unit's Rangeley Plantation parcel protects views for drivers on a section of Route 17—which is part of the Rangeley Lakes National Scenic Byway. Also, the views from the Appalachian Trail and ponds are a significant visual resource. The resource allocations applied in this plan (as they have in past management plans) formalize the protection of these national scenic resources.



*View of Long Pond from the AT*

### **Recreation and Visual Resource Management Issues**

- Snowmobilers have previously been travelling to the ITS connection east of Sabbath Day Pond from the south end of Mooselookmeguntic Lake across Route 17 north of Height of Land. This snowmobile trail did not cross the AT until a portion of the AT was relocated from a southerly route around Long Pond, to a northern route around it. Following the relocation, this snowmobile trail was considered by the National Park Service to be an unauthorized crossing.

Though this unauthorized AT crossing is not within the Four Ponds Unit, management of the Unit is implicated because the trail travels into the Unit to reach the officially designated snowmobile crossing of the AT on ITS 117.

- An unauthorized hiking trail on the Rangeley Plantation portion of the Four Ponds Unit has existed since the 1980s (or possible earlier). The previous Four Ponds Management Plan stated that it was unknown who developed or maintained this trail, and stated as a management goal to identify the party responsible for the trail and formalize management. The Bureau has been unable to locate who is responsible for this trail, and it appears to not be regularly maintained.
- Beaver Mountain Lake is on the Bureau's Boating Facilities Division priority list for providing public access. The Four Ponds Unit contains shorefront on Beaver Mountain Lake, so the potential exists to locate a boat access facility on the Unit. Issues that have deterred the development of this facility on the Unit include: the Bureau may not have the legal authority to grant public access across the currently existing road closest to the shoreline in the Unit, and existing wetlands and other natural features along the Bureau shoreline constrain the location choice.

- There is some unauthorized ATV travel on the Unit, entering via the ITS snowmobile trail east of Sabbath Day Pond, and the powerline corridor. The snowmobile trail intersects with an authorized ATV trail about two miles south of the Unit, and the powerline crosses the snowmobile trail in the same vicinity. Signage and possibly other measures are needed to keep ATVers from straying off the designated trail.

## **Timber Resources**

### Harvest History

Prior to state acquisition, the most recent harvesting on the Twp E portion of the Unit was apparently a light high grade during the 1960s, following a more extensive high grade harvest targeting spruce and yellow birch during the 1940s. This earlier harvest bypassed the fir, too small at the time, which then became the dominant species on most acres. The spruce budworm outbreak in the 1980s caused damage and some mortality of this fir. The Bureau was left with the challenge of managing the very high proportion of mature to over mature fir, much of it on land visible from below and adjacent to the AT. The Bureau initiated harvesting in 1985 on the southwest part of the Twp E ownership, site of the worst budworm damage. Harvests continued through 1995, producing almost 28,000 cords, over 80 percent of that softwood, nearly all fir. In 1998-99 an overstory removal harvest picked up the declining part of the residual from some of these cuts. Though the internal access is generally in place, the Bureau has no deeded access to Twp E. This part of the Unit has had harvesting only on frozen ground. That is likely to continue, due both to access across abutters and character of the land.

Harvests on the Rangeley Plantation portion of the Unit included a small operation in 1981-82, intended to treat about 150 acres but reaching about half that due to the steep slopes being unsuitable for along-the-contour strip cuts. A more extensive harvest began late in 1990 and finished four years later, treating nearly two-thirds of the regulated acres and producing 5,500 cords, of which 55% were hardwoods. On the Sandy River Plantation portion of the Unit, the Bureau conducted fairly heavy harvesting on the middle and upper slopes in the early 1980s, then returned in 2004-06 to partially harvest 75% of the regulated acres, including many entered in the earlier operation. This later harvest was mostly selection treatments, and yielded 5,500 cords, about 51 percent hardwoods. Harvesting on the Plantation Lots has occurred in both winter and summer.

### Current Conditions

Over the entire Four Ponds Unit, the acres hold inventory volume which is moderate by BPL standards, averaging about 21 cords per acre. Tree ages and sizes are generally modest compared to Bureau lands at lower elevations, though some yellow birch and sugar maple over 20" diameter at breast height (dbh) are present. Despite the elevation, deep soils here are producing high quality timber products. Tree heights are modest on the higher ground but form and soundness is usually good.

Stand Type Characteristics (regulated acres only, all parcels included):

Softwood types cover 1,600 acres, 34 percent of tract forest, considerably lower than before the harvesting of mature fir. Fir dominated much of the previous overstory and is the leading regeneration species. Softwood types average about 29 cords per acre. Most are found on moderately well to well drained sites, with some on thin/wet soils. Swampy ground is somewhat limited on these high elevation and strongly sloping acres. Spruce (nearly all red spruce) makes up 54 percent of the volume, fir 16 percent, then yellow birch at 10 percent, white birch at 9 percent, and red maple at 7 percent. The spruce is generally excellent quality as is the younger fir, but there is still some older fir that is fairly defective, usually in riparian buffers or the AT outer corridor. Quality is limited in hardwoods within this type. Spruce is the key management species, though fir is abundant in the regeneration and does well on these sites if not held too long. BPL practice is generally to manage fir as an intermediate species while culturing the spruce, but here the fir is likely to remain an important component at all times.

Mixedwood types are found on about 2,400 acres, 51 percent of the regulated area. They are found on all sites but the wettest and driest, and quality is fair to good. Mixedwood acres have the lowest average at 18 cords per acre, as much of this area was formerly dominated by overmature fir harvested in the 1980s and 1990s. A significant part of the mixedwood land was converted from softwood type by the fir harvest. Currently, spruce is 32 percent of type volume, yellow birch 22 percent, white birch 15 percent, and both fir and red maple 11 percent.

Hardwood types cover 700 acres, 15 percent of tract forest. Hardwood types average 21 cords per acre; are most often found on side slopes away from the highest elevations on well or moderately well drained soils; and are more common on the lower slopes and south of the Twp E ridgeline. Though most high value products were removed in the middle 20<sup>th</sup> century, these stands contain considerable quality stems, and though shorter than hardwoods on other tracts, can support good diameter growth. Sugar maple is the leading species with 39 percent of type volume, yellow birch is next at 27 percent, with spruce, fir, red maple, and white birch all between 5 and 7 percent. The 1980s-90s harvests concentrated on old fir but also worked in hardwood stands by removing lower quality stems, especially those with ice/snow breakage. Unlike nearly all other BPL hardwood areas, beech is a minor part of the stands and seldom of sufficient vigor to produce many beechnuts.



*Andy Mcleod (MNAP field staff) with old sugar maple*

## **Transportation and Administrative Considerations**

State Route 17—also known as the Rangeley Lakes National Scenic Byway—runs through the Rangeley Plantation portion of the Unit. The Edelheid Road is a public road which travels into the Sandy River Plantation portion of the Unit around the west shore of Beaver Mountain Lake. These are the only public use roads in the Unit, and no additional public use roads are planned.

All other roads in the Unit are management roads for use by Bureau staff. Most management roads within the Unit are accessed by crossing private roads, and the Bureau obtains permission from private landowners for this purpose.

There are thirty-three camplot leases within the Unit on Long Pond, Round Pond, Sabbath Day Pond and Beaver Mountain Lake. Consistent with Bureau policy, leases in place when the land was purchased will continue to be honored, so long as terms of the leases are followed. Bureau-wide policy on leaseholders states that the Bureau is not obligated to provide motorized access to lease-sites. However, lessees in the Four Ponds area have obtained permission from the private owner of the Four Ponds Brook Road to drive ATVs to the boundary of the Four Ponds Unit, close to Long Pond and Round Pond. Once on the Unit, Long Pond lessees park their ATVs near a common boat dock on Long Pond to obtain boat access to their leases. Round and Sabbath Day Pond lessees must park their ATVs at the Four Ponds Unit boundary and walk in.

## **Transportation and Administrative Issues**

- The Bureau's vehicular access for timber management of this Unit is limited, and in Township E depends entirely on permission from adjacent landowners.
- Leaseholders may not understand the Bureau's policy regarding use of ATVs to access their camps. The Bureau needs to clarify its policy for all Four Ponds area leaseholders. This is especially important due to the proximity of the Appalachian Trail to many camps and the need to avoid motorized crossings of the trail.
- There is some unauthorized ATV use on the Unit from ATVer's using the snowmobile trail and powerline, which intersect with an authorized ATV trail about 2 miles south of the Unit.

## **Vision for the Four Ponds Unit**

The Four Ponds Unit provides exceptional remote four-season recreational opportunities that are valued in themselves or as part of extended trail systems of national and statewide importance. The Unit compatibly accommodates portions of the Appalachian Trail, the Interstate Snowmobile Trail system including one of the limited number of snowmobile AT crossings in the state, and an emerging Hut to Hut cross country ski trail envisioned to extend from Bethel in the heart of the Western Mountains to Rockwood in the Moosehead region. Hiking, backpacking and fishing interests experience quiet and solitude and the chance to observe wildlife, and fish in the remote ponds where loons and arctic char evoke a distant past. Winter finds snowshoers, snowmobilers, and cross-country skiers enjoying trails in the western area's more gentle terrain. Partnerships with recreation clubs enhance the recreation experience. Timber is managed sustainably for high quality products and to protect the scenic character for hikers and snowshoers traversing the Appalachian Trail, and for travelers along Route 17, a National Scenic Byway. Exemplary multiple use management contributes to the array of high quality recreation opportunities in the region, while the high quality timber harvested from this Unit supports Bureau operations, management of this Unit for public recreation, and the local economy.

## **Four Ponds Unit Allocations**

The following “allocations” define general management objectives and direction for specific areas within the Four Ponds Unit. See Appendix C for a description of designation criteria and management direction for the various allocation categories. The allocation map is located in Appendix F.

### ***Special Protection Dominant***

The Appalachian Trail corridor—100 feet on either side for a total of a 200 foot corridor—is Special Protection Historic/Cultural.

### ***Wildlife Dominant***

Riparian buffers of 330 feet around all water bodies and major streams are designated wildlife dominant, as are wetlands and two exemplary natural communities—a Northern Hardwoods Forest and a Subalpine Fir Forest which abut the AT and are mostly contained within the AT Special Protection corridor. However, where they are not within this corridor, they are wildlife dominant with a remote recreation secondary allocation.

A secondary remote recreation allocation is also designated for the riparian areas around the ponds.

### ***Remote Recreation Dominant***

The area around the “Four Ponds” (Sabbath Day, Long, Round and Moxie) is remote recreation dominant in areas where it is not in a more restrictive allocation. This remote recreation area extends east as far as the management road which serves as ITS 117.

Remote recreation also applies as dominant allocation for an additional 400 feet adjacent to the AT special protection allocation which covers the first 100 feet on either side of the trail, except where allocated Wildlife (for exemplary natural communities).

Visual Consideration

Each side of the AT corridor is subject to a Visual Class I allocation beyond the Special Protection dominant 100 foot buffer. Also, areas adjacent to public use roads and all shorelines of lakes are subject to a Visual Class I allocation.

Timber Dominant

All other acres not described above are Timber Dominant.

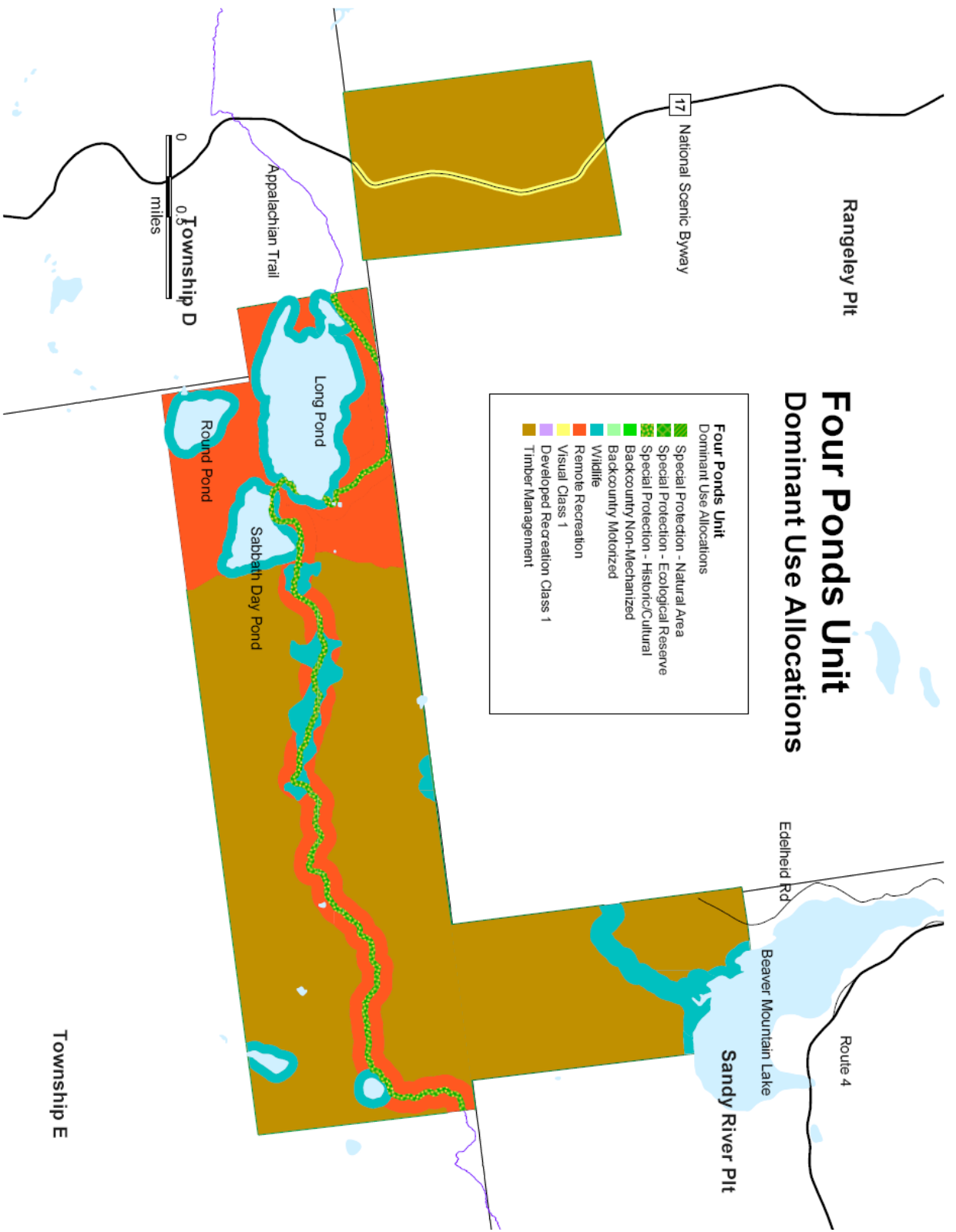
<b>Allocation</b>	<b>Dominant</b>	<b>Secondary</b>
	Acres*	Acres*
Special Protection	158	
Wildlife	521	
Remote Recreation	892	422
Timber Management	4197	1,413

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



# Four Ponds Unit Dominant Use Allocations

- Four Ponds Unit**
- Dominant Use Allocations**
- Special Protection - Natural Area
  - Special Protection - Ecological Reserve
  - Special Protection - Historic/Cultural
  - Backcountry Non-Mechanized
  - Backcountry Motorized
  - Wildlife
  - Remote Recreation
  - Visual Class 1
  - Developed Recreation Class 1
  - Timber Management





## Four Ponds Unit Issues and Management 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
<b><i>Recreation Management</i></b>	
<p><u>Snowmobile AT crossing</u>: A club snowmobile trail from Mooselookmeguntic Lake crosses the Appalachian Trail on private land, and travels into the Four Ponds Unit to reach the officially designated ITS 117 AT crossing on Bureau land. This crossing was created when the AT was relocated to go north of Long Pond. The National Park Service (NPS) has stated that this crossing is in violation of their trail crossing policy. A replacement trail is needed that allows snowmobilers to travel. The NPS could decide to allow this crossing if no alternate trail can be located.</p>	<p>Work with the snowmobile club, RLHT, and other willing landowners to relocate this trail so that it will be consistent with NPS Appalachian Trail policy. Authorize a new snowmobile trail on the Rangeley Plantation and Township E portions of the Unit, if deemed suitable by the ORV program and other parties, if necessary to comply with NPS Appalachian Trail policy. Maintain the original club trail as the preferred alternative if the NPS changes their policy to allow the snowmobile/ AT crossing.</p>
<p><u>Unauthorized hiking trail</u>: An informal hiking trail on the Rangeley Plantation portion of the Four Ponds Unit has existed since the 1980s (or possible earlier). To the best of the Bureau’s knowledge, this trail leading from Route 17 to Mooselook Lake was never formally authorized. It is unclear who, if anyone, is maintaining it and what purpose it serves.</p>	<p>Remove any signage placed on the trailhead (as well as any other indicators that this is a designated trail).</p>
<p><u>Maine Huts and Trails interest in a winter trail in the Unit</u>: Maine Huts and Trails expressed interest in locating a winter trail in the Four Ponds Unit. The precise location is not known at this time, but it may involve crossing the Appalachian Trail in the Four Ponds Unit.</p>	<p>Work with Maine Huts and Trails, and Appalachian Trail partners (MATC and ATC) to explore the feasibility of a winter trail in the Four Ponds Unit. If a trail location is indentified, convene the Advisory Committee to review and give comment on the proposal. Consider holding a public meeting for input, particularly if a motorized crossing (for grooming machines) of the AT is proposed.</p>
<p><u>Boat Access on Beaver Mountain Lake</u>: Beaver Mountain Lake is on the Bureau’s</p>	<p>Retain the option to locate a boat access facility on Beaver Mountain Lake in the Four Ponds Unit if</p>

<b>Issue</b>	<b>Recommendations</b>
<p>Boating Facilities Division priority list for providing public access. The Four Ponds Unit contains shorefront on Beaver Mountain Lake, so the potential exists to locate a boat access facility on the Unit, if legal road access can be obtained and a suitable site can be located. The Four Ponds Unit may or may not be determined the most appropriate location for public boat access on Beaver Mountain Lake.</p>	<p>legal access can be assured and a suitable site is located. Through the Bureau’s Boating Facilities Division, cooperate with IF&amp;W and other relevant parties to determine the timing, location, and design of the boat access facility.</p>
<b><i>Timber Management</i></b>	
<p>Timber management guidelines outlined in this Plan reflect current best practices geared to current conditions, which may change over time. These recommendations are provided to enhance the public’s understanding of how the Bureau will manage timber resources on the Four Ponds Unit. These recommendations are not a “prescription” – only general guidelines.</p>	<p>Timber management objectives in the Four Ponds Unit include growing high value timber products, chiefly sawlogs and veneer, while maintaining visual integrity and enhancing the diversity of wildlife habitat and stability of the forest. Management will value species such as spruce, sugar maple, and yellow birch, while taking advantage of the fast growing and abundant but shorter lived fir.</p> <ul style="list-style-type: none"> <li>• <b>Softwood Stands:</b> Manage the softwood types to stay in this type, moving acres to a higher spruce component while taking advantage of fir’s suitability on these sites to produce a more diverse and stable forest.</li> <li>• <b>Mixed Wood Stands:</b> Manage the mixed wood types to encourage reversion to softwoods where past harvesting had changed the type— particularly where softwoods have a strong spruce component. Moving mixed wood acres to a higher spruce component while taking advantage of fir’s suitability on these sites can produce a more diverse and stable forest. Management on mixed wood types should favor spruce and the birches, and sugar maple (and red maple, to a lesser degree) on better sites.</li> <li>• <b>Hardwood Stands:</b> Manage hardwood acres for sugar maple and yellow birch along with any spruce, managing fir as an intermediate product. Full crowned beech should be retained wherever possible.</li> </ul>
<b><i>Transportation and Administrative Issues</i></b>	
<p><u>Management Access:</u> Vehicular access for Bureau staff for timber management is</p>	<p>Seek opportunities to obtain vehicular rights of way for management purposes, particularly in</p>

<b>Issue</b>	<b>Recommendations</b>
<p>limited, and in Township E depends entirely on permission from adjacent landowners.</p>	<p>Township E.</p>
<p><u>Camp lessee access rights:</u> For Four Ponds area lessees, permission has been obtained from the owner of the D Town Road for the use of ATVs to access the Four Ponds Unit. Once at the border of the Four Ponds Unit, Long Pond lessees have a common boat dock. Round Pond and Sabbath Day Pond lessees have foot access only. It is important to identify and clarify lessee access routes, to deter motorized AT crossings that violate NPS policy, to preserve the remote character of the Unit, and to be considerate of surrounding private landowners.</p>	<p>Clarify with lessees on Sabbath Day, Long, and Round Ponds the access routes and permissions they have on the Four Ponds Unit. This may be done through a meeting between the Bureau, lessees and the adjacent private landowners, or through written correspondence.</p>
<p><u>Unauthorized ATV use:</u> There is some unauthorized ATV travel on the Unit, entering via the ITS snowmobile trail east of Sabbath Day Pond, and the powerline corridor. The snowmobile trail intersects with an authorized ATV trail about two miles south of the Unit, and the powerline crosses the snowmobile trail in the same vicinity. Signage and possibly other measures are needed to keep ATVers from straying off the designated trail.</p>	<p>Work cooperatively with adjacent landowners to identify areas where unauthorized trail use is occurring. Work with local ATV clubs to identify effective means of deterring unauthorized use of snowmobile trails and powerline corridors to gain entrance into the Unit. Consider signage, trail impediments, and enforcement options.</p>





## ***Richardson Unit***



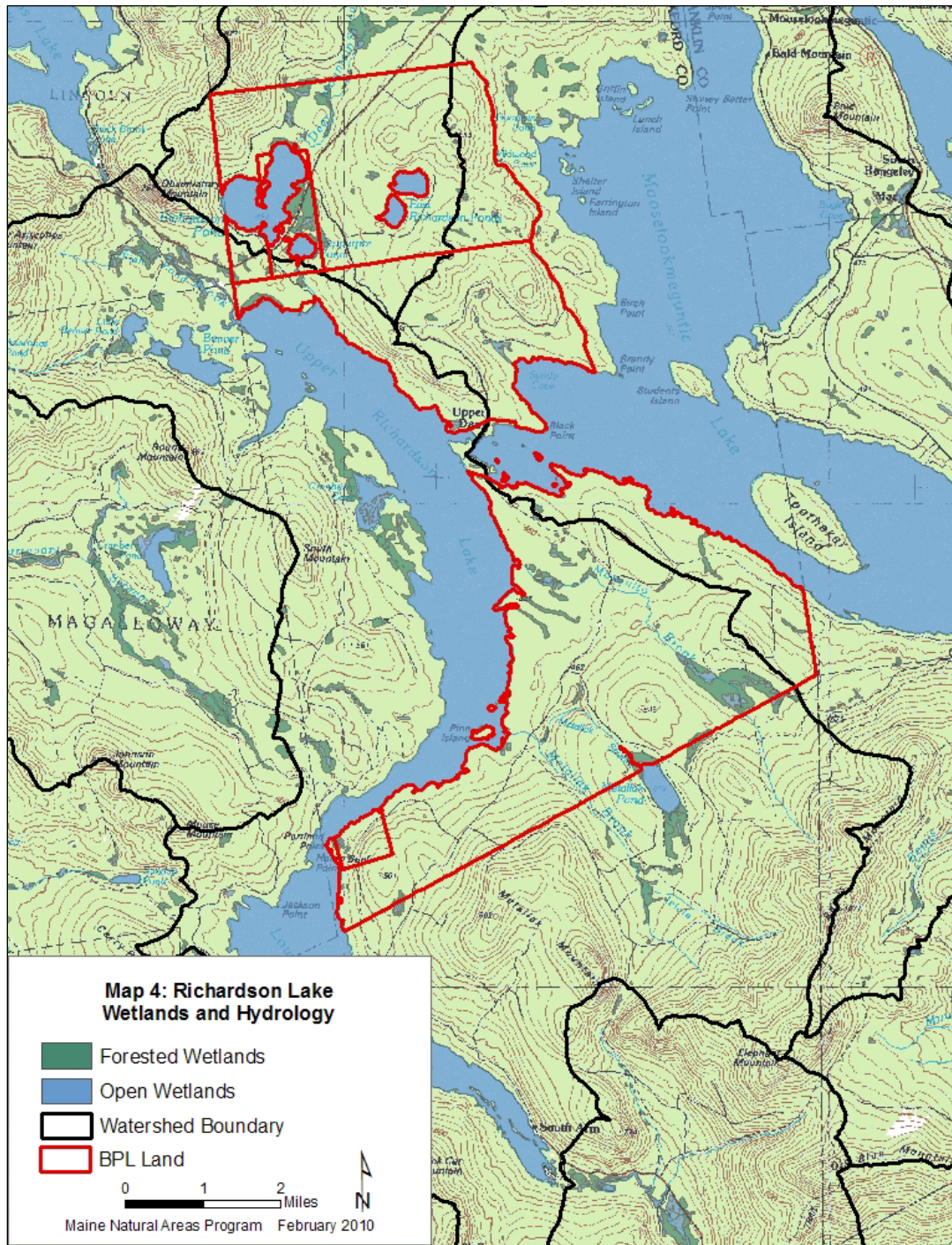
View of South Shore of Richardson Lake

### **Character of the Landbase**

The Richardson Unit encompasses 18,484 acres between Mooselookmeguntic Lake and the Richardson Lakes in the heart of the Rangeley Lakes Region. The Unit is essentially an hour glass shape between the lakes, excluding lands around Upper Dam in the middle (owned by Union Water Power Company) and excluding the northwest shore of Mooselookmeguntic Lake (owned by Rangeley Lakes Heritage Trust). The majority of the eastern shoreline of Richardson Lakes and a portion of Mooselookmeguntic are protected by the Unit—thus helping to preserve, in concert with other conservation lands, the natural character of the shorelines of these lakes, known for their scenic beauty and outstanding fishing and other recreational opportunities. The Unit includes two boat ramps for access to these lakes and many remote, water access campsites dispersed along the shoreline and islands of the Unit. The Unit also provides road access to the Upper Dam tailrace —famous since the 19<sup>th</sup> Century for its fly-fishing. Wetlands, streams and ponds on the Unit also provide valuable fisheries and wildlife habitat. The Richardson Unit is a productive timber area, with gentle terrain and fertile soils producing high volumes of quality timber products and a reliable land base for Bureau timber management.

## Acquisition History

The Richardson Unit is comprised of land that is part of the original public reserved lots in Adamstown and Richardsontown Townships, and major acquisitions from Brown Company, Pingree Heirs, and James River Corporation. The original public lots consisted of 960 acres each, and some was traded out for other acquisitions—640 acres remains of the Adamstown Twp original public lot, and 249 acres of the Richardsontown Twp lot. In 1978, the Bureau acquired 3,117 acres from Brown Company, in 1984, 17,010 acres was acquired from Pingree Heirs, and an additional 1,712 was added in 1986 from James River Corporation.





## Natural Resources (Maine Natural Areas Program, 2010)

### Geology and Soils

The Richardson Unit is flat and rolling (especially compared to the surrounding region) with elevations ranging from 1450 feet at lake level to 2100 feet. Nearly 75 percent of the Unit has a slope of 5 percent or less. Bedrock is primarily granitic and soil deposits are generally deep and coarse textured tills. Glacial stream deposits are present with the most significant being an esker near the Narrows. Poorly drained swamp deposits occur on the south portion of the Unit near Metallak Stream, Mosquito Brook and Sandy Cove.

### Hydrology and Wetlands

The Rangeley Lakes have been impounded as storage reservoirs for downstream energy generation and log driving since the 1800s. The lake levels are drawn down in the fall and winter, creating extensive vegetated wetland flats and sandy beaches.

The lakes lie in the Upper Androscoggin River watershed. Mooselookmeguntic Lake drains through Upper Dam into Upper Richardson Lake, which then drains through Middle Dam on Lower Richardson Lake into the Rapid River. The Rapid River flows into Lake Umbagog, which forms the headwaters of the Androscoggin River. Several mid-size meandering streams drain the Unit, including Mosquito Brook, Metallak Stream, and Metallak Brook.

In LURC's Wildlands Lake Assessment (1987), Lower Richardson Lake is listed as 'Class 1A' or statewide significance, based on a number of high resource values. Data sporadically collected since 1981 indicates that the water quality of Upper Richardson Lake is above average and the water quality of Mooselookmeguntic is average, based on measures of water clarity, total phosphorus, and chlorophyll-A. Recent dissolved oxygen profiles show no oxygen depletion (i.e., no risk to cold water fisheries) in deep areas of either lake, and water quality appears to be stable (University of Maine PEARL database).

In addition to these large lakes, three large ponds are entirely contained within the Unit: the 465-acre West Richardson Pond, the East Richardson Ponds (54 and 78 acres), and the 53-acre Peppertop Pond. No water quality data are available for these smaller lakes.

The Richardson Unit has 965 acres of wetlands, of which two-thirds are forested and one-third are open, according to the National Wetlands Inventory. At 5% of the land base, the proportion of wetlands here is lower than other parts of Maine but significantly higher than the rugged Mahoosuc Unit. Wetlands range in size from relatively small, isolated kettlehole basins to larger complexes of beaver meadows. The Kettlehole peatland near The Narrows Back berm basin along Upper Richardson Lake, the largest wetland on the Unit, is an approximately 250 acre complex of peatlands and beaver meadows along upper Mosquito Brook.



*Kettlehole peatland near The Narrows- MNAP Photo*

### Ecological Processes

The open expanses of the Rangeley Lakes can deliver large gusts of channeled wind to the surrounding forests, resulting in sandy berms and overwash basins along the lakeshores. These overwash basins, though somewhat artificially enhanced by manipulated lake levels, support an uncommon and unique assemblage of plant species (including sedges, rushes, and swamp candles) that also occurs on natural lakeshores in northern and Downeast Maine.



*Back berm basin along Upper Richardson Lake –MNAP Photo*

In the interior forest, wind bursts and occasional ice damage create groups of toppled canopy trees that add both vertical and horizontal structure to the forest. The large downed woody debris creates denning sites for small mammals and contributes nutrients to the forest floor. The resulting openings in the canopy also allow suppressed trees and seedlings to take advantage of the sunlight and add younger trees to the canopy.

Beavers are active along some of the numerous small streams that feed into Lower Richardson Lake, including Mosquito Brook and Metallak Stream. When active, beaver ponds flood adjoining lowland forest, enlarging wetlands and creating new areas for wetland species to colonize. By creating and abandoning impoundments along the stream course, beavers create a mosaic of habitats for other plant and wildlife species.

The spruce budworm is one of the most destructive native insects of softwood forests in the eastern United States. Given the preponderance of softwood on the Richardson Unit, the impacts of the most recent outbreak of spruce budworm in the 1980s were significant. Outbreaks coupled with periodic wind events resulted in heavy damage to fir dominated and mixed stands; stands dominated by mature spruce received less damage. As discussed further in Timber Resources section below, extensive salvage harvesting took place in the response to the budworm, with the heaviest harvesting south of Upper Dam.

### Rare Plant and Animal Species

No rare plants or animals have been documented in the Richardson Lake Unit.

### Natural Communities

The forests at Richardson Lake are predominantly mixed wood, with lesser amounts of softwood and comparatively little hardwood. Red spruce, balsam fir, and white pine are the dominant softwood species, and yellow birch, paper birch, aspen, red maple, and sugar maple are the

dominant hardwoods (see Timber Resources section below for more detail of overall forest conditions).

A relatively small portion of the Unit would qualify as late successional forest. A number of older forest stands were identified in the Publicover et al (1998) report; among the older stands encountered in 2009 field work include:

- A 40-acre White Pine – Mixed Conifer Forest east of the Narrows and Portland Point. A limited harvest was conducted in this area in the 1990s to salvage wind damaged timber, but many large red spruce and white pine trees remain. This stand has an ‘old growth component’ (with an estimate of 10 to 15 trees greater than 16 inch dbh per acre). A steep slope of spruce and cedar just east of this stand may also support an old growth component (cored cedar trees were aged between 150 and 200 years old), but this stand is less than two acres.
- A 25 acre stand of Low Elevation Spruce Fir Forest near the mouth of Mosquito Brook has limited signs of past harvest and supports numerous old trees (core ages for spruces were 145 and 163, and numerous trees are in the 20-26 inch diameter range). This natural community grades from a well drained stand on a small knoll to poorly drained spruce flats. This stand has a strong presence of an old growth component, and may be classified as a small old-growth stand.



*42” white pine east of the Narrows  
MNAP Photo*

Note that while the two stands above exhibit late-successional characteristics, they are too small to meet the Maine Natural Areas Program criteria for ‘exemplary natural communities’.

In addition to these old stands, a Red Pine – White Pine Forest occurs on Pine Island, a 20 acre island near the mouth of Metallak Brook. This is an uncommon forest type in Maine (ranked S3 meaning it is rare in Maine) and is typically more frequent in Downeast Maine. Most canopy trees are in the 16-24 inch diameter range, with some white pines approaching 32 inches. The stand is apparently even-aged, possibly originating after a harvest and burn about 150 years ago (based on tree cores and charcoal in the soil). There has also been some more recent selective cutting. The stand is approximately 57 percent white pine and 36 percent red pine, and there is little to no red pine regeneration, so in the absence of fire or other disturbance, red pine may eventually be lost from the stand.



### Fisheries and Wildlife

The Richardson Lakes and Mooselookmeguntic Lake provide some of Maine's best fishing opportunities for brook trout and landlocked salmon, drawing thousands of open water anglers to the region each year. Brook trout are native to the lakes and their tributaries; salmon, and the rainbow smelts that provide their primary forage, were introduced in the late 1800s. Brook trout and salmon populations in Mooselookmeguntic Lake are supported entirely by natural reproduction, while those in the Richardson Lakes are augmented with hatchery stocks. The Richardson Lakes also support a small sport fishery for hatchery-reared lake trout (togue) that grow to attractive sizes. Other fish present in the two lakes include yellow perch, landlocked alewife, white and longnose sucker, slimy sculpin, brown bullhead, and about 12 minnow species.



*Bull moose at the mouth of Metallak Brook*

Mill Brook, Metallak Brook, Mosquito Brook, and Upper Dam Pool - all tributaries to the Richardson Lakes – provide important spawning habitat for rainbow smelts, the primary forage for predatory fish in the Richardson Lakes. Recreational smelt harvest was recently banned on these streams in an effort to bolster declining smelt production and improve the quality of the lakes' landlocked salmon fishery.

West Richardson Pond and the East Richardson Ponds provide brook trout sport fisheries. Trout are stocked annually in all three ponds because spawning habitat is limited. A small population of wild salmon persists in West Richardson Pond by utilizing limited spawning and nursery habitat in Deer Mountain Stream and an unnamed brook draining to the pond's west basin. Pepperpot Pond supports a small brook trout population; its fishery is limited to the spring and early-summer periods because it is shallow and warms quickly. Most fish species present in the Richardson Lakes, including yellow perch, are also present in West Richardson and Pepperpot Ponds. Yellow perch are absent from the East Richardson Ponds due to impassable barriers on their outlet streams.

Loon data for Richardson and Mooselookmeguntic Lakes indicate high counts in recent years, peaking at 46 individuals on Richardson in 2001 and 39 individuals on Mooselookmeguntic in 2004 (PEARL database).

The Richardson Unit has one 480 acre mapped Deer Wintering Area located along the mouth of Mosquito Brook. One hundred sixty acres of another mapped DWA occurs south of Pepperpot Pond along Mill Brook, though relatively little winter deer use has been observed in this area. The Unit also has about 200 acres of mapped Inland Waterfowl and Wading Bird habitat; the largest of these areas (165 acres) is Pepperpot Pond and the adjacent wetlands.

A number of potential vernal pools were identified during field work in 1998, 2008, and 2009, but none of these areas have been verified during the amphibian breeding season.



## Recreation and Visual Resources

The extensive shoreline of the Richardson Unit provides for preservation of the scenic character of the Richardson Lakes and Mooselookmeguntic as well as remote recreational opportunities. Major recreational uses are camping at sites along the shoreline of Upper Richardson Lake, fishing, boating, and hunting. Visitors also travel through the Richardson Unit to access the Upper Dam, a popular and historically significant fishing spot.

### Non-motorized uses

Camping and picnicking are available along the shores of the lakes. There are fourteen campsites (12 are on Richardson Lakes) and two picnic areas on the Unit, which are accessible by water. The Richardson Lake campsites are available for a fee, and must be reserved through the South Arm campground (which manages camping through a lease agreement with the Bureau). Additionally, three boat ramps on the Unit are available for launching kayaks and canoes. Two of them—the Mill Brook and South Arm boat ramps—are available for motor boats as well, and one ramp on West Richardson Pond is hand carry only. Additionally, there is a short trail that leads from the South Arm Road along Metallak Brook to the Lake, which can be used as a hand carry boat access site.



*Campsite on Richardson Lake*

### Motorized uses

Access to Richardson Lakes for motorboats is provided on the Unit at the Mill Brook Boat Ramp. This ramp is ADA accessible. There is also a boat ramp on the south portion of the Richardson Unit—on Mooselookmeguntic Lake off the South Arm Road. ATV riding is available on shared use roads on the Unit posted as open to this use. A total of 25 miles are currently available—15 on the northern portion and 12 on the southern portion. ATV riders use these roads to access hunting and fishing areas. Snowmobiling is allowed on shared use roads that are not plowed. Snowmobile use is generally by campowners travelling to the major snowmobile system.

### Hunting and Fishing

The Richardson Lakes and Mooselookmeguntic Lake provide some of Maine's best fishing opportunities for brook trout and landlocked salmon, drawing thousands of open water anglers to the region each year. The Richardson Unit provides access to these lakes by the two trailered boat ramps described above under "motorized uses" and by a hand carry boat ramp West Richardson Pond. Also, anglers travel through the Unit to access the Upper Dam pool, located below the dam between Mooselookmeguntic Lake and Upper Richardson Lake, to fish for trophy sized landlocked salmon and brook trout that are attracted to the tailrace flow below Upper Dam. Special IF&W regulations for this prized fishery include a late season fly fishing

opportunity through October, together with highly restrictive fishing regulations including fly-fishing only, minimum length of 18 inches for salmon and 12 inches for brook trout, and a daily bag limit of one fish. Upper Dam has been known widely as a fishing destination since the late 19<sup>th</sup> Century, when tourists arrived by railroad and then steam boat. The Upper Dam House and many nearby camps hosted visitors. The Upper Dam pool was made famous in part by Carrie Stevens who lived there and became a fly-tying legend, using one of her flies to catch a 7 pound brook trout. When word spread, more visitors flocked to Upper Dam pool to catch trophy brook trout.

Hunting opportunities are abundant on Richardson Unit for a variety of game species, especially grouse, bear and deer. The public use roads and management roads with 'shared use' status (including ATV access) make hunting opportunities more easily accessible through much of the Unit.

### Visual resources

The Richardson Unit includes approximately 11 miles of shoreline on The Richardson Lakes and eight miles of shoreline on Mooselookmeguntic Lake. Bureau ownership and management practices help (along with shoreline under non-profit conservation ownership and conservation easement) protect the scenic beauty of these lakes.

### **Recreation and Visual Management Issues**

- Some concerns have been raised by the public that camping information available for the Richardson Unit is confusing—it is difficult to know who to contact for reservations, because various sites are owned by different organizations—each with its own reservation system.
- There have been complaints to the Bureau regarding the reservation system used by the South Arm Campground. The campground, which manages reservations for their own private campground and another private landowner on the Richardson Lakes, uses a 'right of first refusal' model for their reservation system. Campers have the right to renew their campsite for the same date the next year. For example, the campers who have reserved the most desirable site for 4<sup>th</sup> of July weekend one year have a 'right of first refusal' on that same campsite for the following year. This system, though appropriate for a private campground, has been challenged by some members of the public as not appropriate on public lands. Campers who want a chance of reserving a desirable site on a summer holiday weekend are often blocked from doing so, because that site is reserved year after year by the same group.
- Access to Upper Dam is provided via the Bureau's management road. This road is controlled by a system of gates, and some feel it is unnecessarily restrictive (see discussion under Transportation and Administrative Issues).

## **Timber Resources**

The Richardson Unit is a productive timber area, with gentle terrain and fertile soils producing high volumes of quality timber products. The Bureau has harvested more volume on this Unit than any other in the Western region, and stocking continues to be good.

### Harvest History

These acres have an extensive harvest history. The previous landowners had been conducting spruce budworm salvage/presalvage harvests for several years prior to Bureau ownership in 1984. The Bureau continued these type of harvests in 1985-6, harvesting nearly 19,000 cords of mostly fir and spruce. From 1985 to 1993, the Bureau harvested a total of 49,000 cords, moving from southern to northern portions of the Unit over this nine year period. An average of 10 cords per acre were harvested and about 73% of the volume was spruce and fir.

Between 1995 and 2001, Bureau staff worked with a Rangeley logging contractor to use a small Swedish shortwood processor to thin dense stands of spruce-rich poletimber. About 1800 acres were treated in this way, averaging nearly 14 cords per acre of almost exclusively softwoods. Hardwoods were left in these stands to increase diversity. The University of Maine's Cooperative Forestry Research Unit installed a research plot in this tract in the year 2000 and has been tracking the plot annually as part of its long term Commercial Thinnings Research Network.

Between 1999 and 2008, harvesting in stands other than the above mentioned spruce poletimber resumed. Hardwood markets improved during this time, so about 52 percent of the harvest was hardwood. During this 10 year period a total of 30,500 cords was taken, at an average of 8.4 cords per acre.

### Current Conditions

Soils on the Richardson Unit include many acres which are well-drained and fertile, some acres with wet areas and rock/moss ground cover, and everything in between.

Softwood type covers about 30 percent of the Unit's regulated acres, and contains the highest percentage of spruce of any major Bureau Unit at 63 percent. The remainder of softwood type volumes are: 12 percent pine, 7 percent fir, and 5 percent each of cedar, yellow birch and white birch. Softwood stands are most common on gently sloping land with somewhat limited fertility, and quality is very good (except for cedar and fir). Three age classes of spruce dominated softwood stands exist: young stands as a result of budworm salvage harvests, poletimber stands dating to the 1930s (possibly released by the 1938 hurricane), and older stands tending toward late-successional. There are several small zoned deer wintering areas and other acres where deer have historically yarded in the softwood type. Cover has been diminished due to budworm salvage harvesting.

Mixedwood type is found on 44 percent of the Unit's regulated acres—nearly all Spruce-Fir-Northern Hardwoods. Mixedwood type is largely a result of past favoring of softwoods in harvesting, however, soils in these areas are well-suited to grow both hard and softwoods.

Volume is around 18 cords per acre, which is lower than the average for the Richardson Unit, due to harvests occurring since 1970 creating younger stands. Volume of mixedwood type is composed of: 32 percent spruce, 19 percent yellow birch, 14 percent red maple, 11 percent fir, 8 percent white birch, 5 percent cedar and 4 percent pine. Quality is good for all but the cedar and some of the red maple.

Hardwood type covers 26 percent of the regulated acres, mostly composed of Northern Hardwoods, with a few intolerant hardwood stands. Hardwood type occurs on low hills of the Unit, and averages 21 cords an acre. Yellow birch is the most abundant species at 26 percent of the hardwood type volume. Sugar maple makes up 22 percent, spruce is next at 16 percent, red maple is 13 percent, beech is 8 percent, white birch is 7 percent and fir is 5 percent. Quality and growth is good, with the exception of some of the beech affected by the beech bark complex.

## **Transportation and Administrative Considerations**

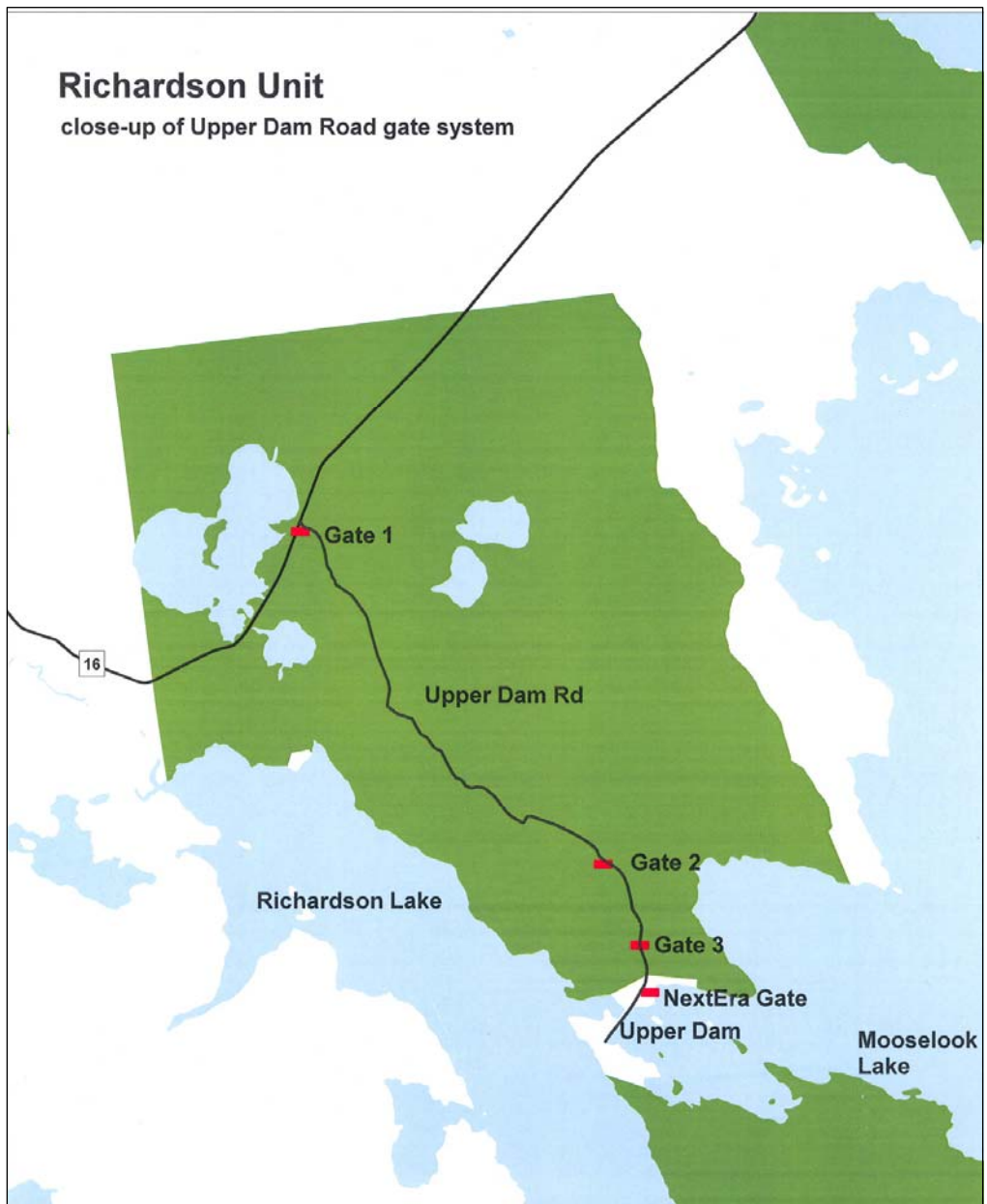
### Public Use Roads

Public use roads in the Unit include the South Arm Road, which traverses the southern portion of the Unit. This road is used by the general public for hunting access and ATV riding. A small parking area is available near Metallak Brook, which accesses a short trail leading to the lake near Pine Island. This can be used as a hand carry boat access site.

State Route 16 runs through the northern end of the Richardson Unit. From Route 16, two public use roads are available that travel south. The Mill Brook Road leads to the Mill Brook Boat Ramp, an ADA accessible ramp on the Unit providing access to Upper Richardson Lake. The Upper Dam Road also leaves Route 16, traveling south through the Richardson Unit to Upper Dam—owned and operated by NextEra Energy.

Upper Dam Road has a three gate system to control access to Upper Dam pool during various times of the year. The gate system outlined below was designed to optimize fishing access at the dam during the prime fishing seasons in spring and late fall, with more limited access in the summer season due to concerns of safety and security at the dam.

- Gate 1—located at the beginning of the road near Route 16—is closed for the early spring to protect the road during mud season. It is opened as soon as road conditions allow for safe travel and road surface stability.
- Gate 2 is located partway between Route 16 and Upper Dam—approximately 1.3 miles from Upper Dam pool. It is open after mud season and stays open until June 30, to provide access closer to the dam for fishing during the prime fishing season. It is closed July 1 through Labor Day, to reduce summer crowding at the dam. After Labor Day, it is open for the fall fishing season. When Gate 2 is closed (July and August) visitors must park at Gate 2 and walk 1.3 miles to get to Upper Dam.
- Gate 3 is located near the property boundary between the Bureau's Richardson Unit and NextEra Energy's property. It is approximately 1700 feet from Upper Dam pool. This gate is open for late season fishing beginning September 1, and the gate remains open through the winter. There is a parking area and outhouse at this gate.



### Transportation and Administrative Issues

- Members of the public have expressed dissatisfaction regarding the 3 gate system. One concern often raised is that the timing of the gate closures is confusing to the public. Additionally, in July and August when Gate 2 is closed, anglers who have limited physical ability have difficulty walking the 1.3 mile distance from Gate 2 to Upper Damp pool and back. Another issue is that in the September and October late fishing season, when all three gates are open, there is sometimes a congestion and safety issue when anglers drive as close as they can to the dam and block a fourth gate owned by NextEra.

The Bureau needs to address the issues surrounding the three gate system in order to reduce confusion and improve access for the public, while considering legitimate safety and security concerns at the dam.

## Vision for the Richardson Unit

*Management of the Richardson Unit protects the remote character and scenic shorelines and views of the Richardson and Mooselookmeguntic Lakes. The Unit provides public access for boating, hunting and fishing, ATV riding on shared use roads, and water access camping. Collaborations and partnerships with conservation organizations and neighboring landowners provide expanded recreational opportunities and management efficiencies. The forests are managed to produce high quality timber products while protecting or enhancing wildlife and fisheries resources.*

## Richardson Unit Allocations

The following “allocations” define general management objectives and direction for specific areas within the Richardson Unit. See Appendix C for a description of designation criteria and management direction for the various allocation categories. See Appendix F for a map of these allocations.

### Wildlife Dominant

Riparian buffers of 330 feet around the abundant lake and pond shorelines and major streams are designated wildlife dominant. Deer wintering areas (one south of Pepperpot Pond and one surrounding Mosquito Brook) are also designated wildlife dominant. Wetlands, including those identified by MIF&W as Inland Wading Bird and Waterfowl Habitat, are included in this allocation. Remote recreation is a secondary allocation for the lake and pond shorelines.

### Visual Consideration

Visual Class I status is given to public use roads—including South Arm Road, Upper Dam Road, and Mill Brook Road, along Route 16 as it passes through the Unit, as well as all lake shorelines and boat ramp areas. Visual Class II standards will be applied to any hillsides visible from the lakes.

### Developed Recreation

Developed Recreation Class I is the dominant allocation around the Mooselookmeguntic and Mill Brook Boat Ramps.

### Timber Management

All other acres not specified above are timber dominant.

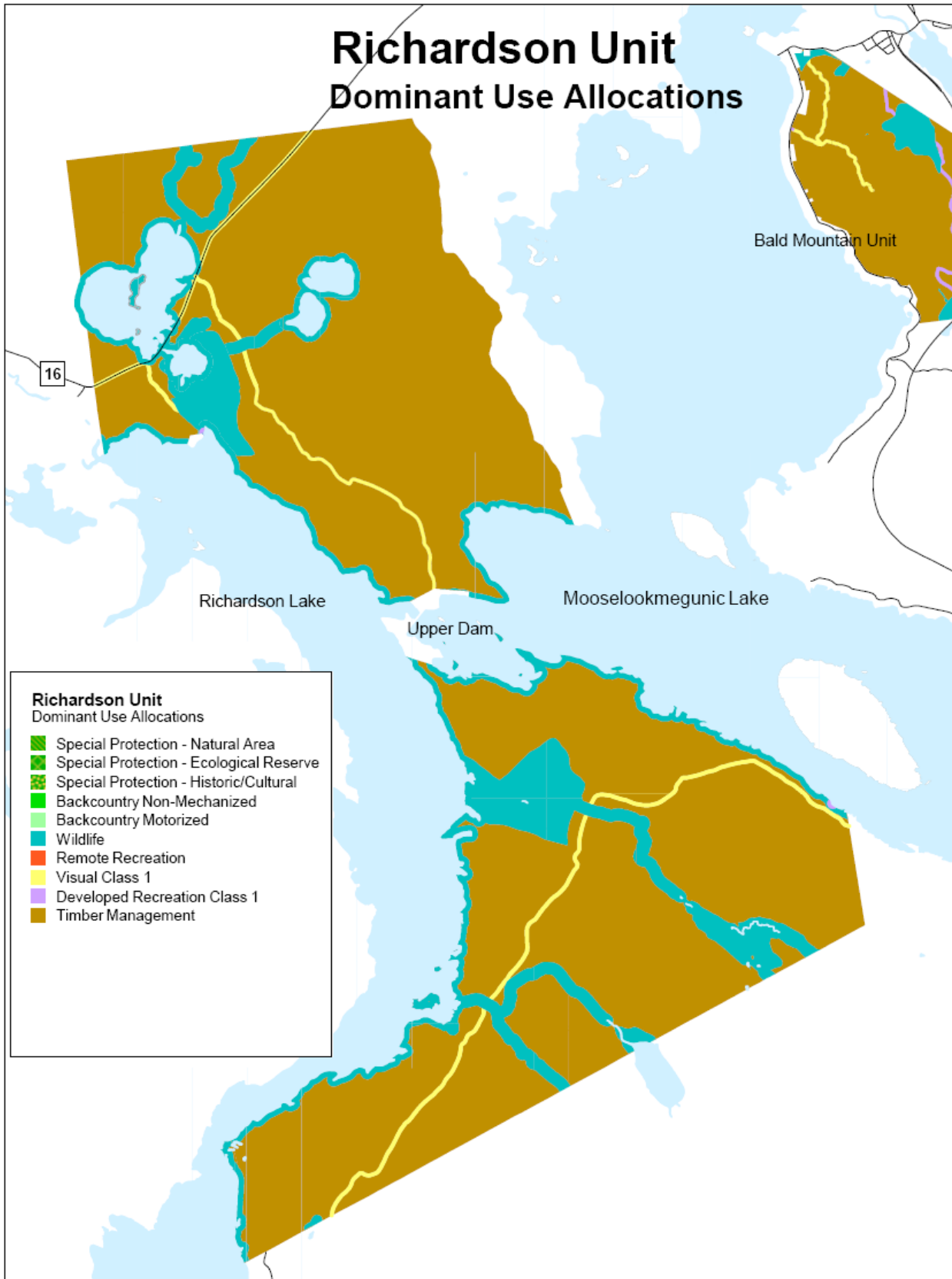
## Richardson Unit Resource Allocations

Allocation	Dominant	Secondary
	Acres*	Acres*
Wildlife	2,830	
Remote Recreation		800
Developed Recreation Class I	**8	
Timber Management	15,533	2,830

\*Dominant acreages are representations based on GIS metrics

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

# Richardson Unit Dominant Use Allocations







## Richardson Unit Issues and Management 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.

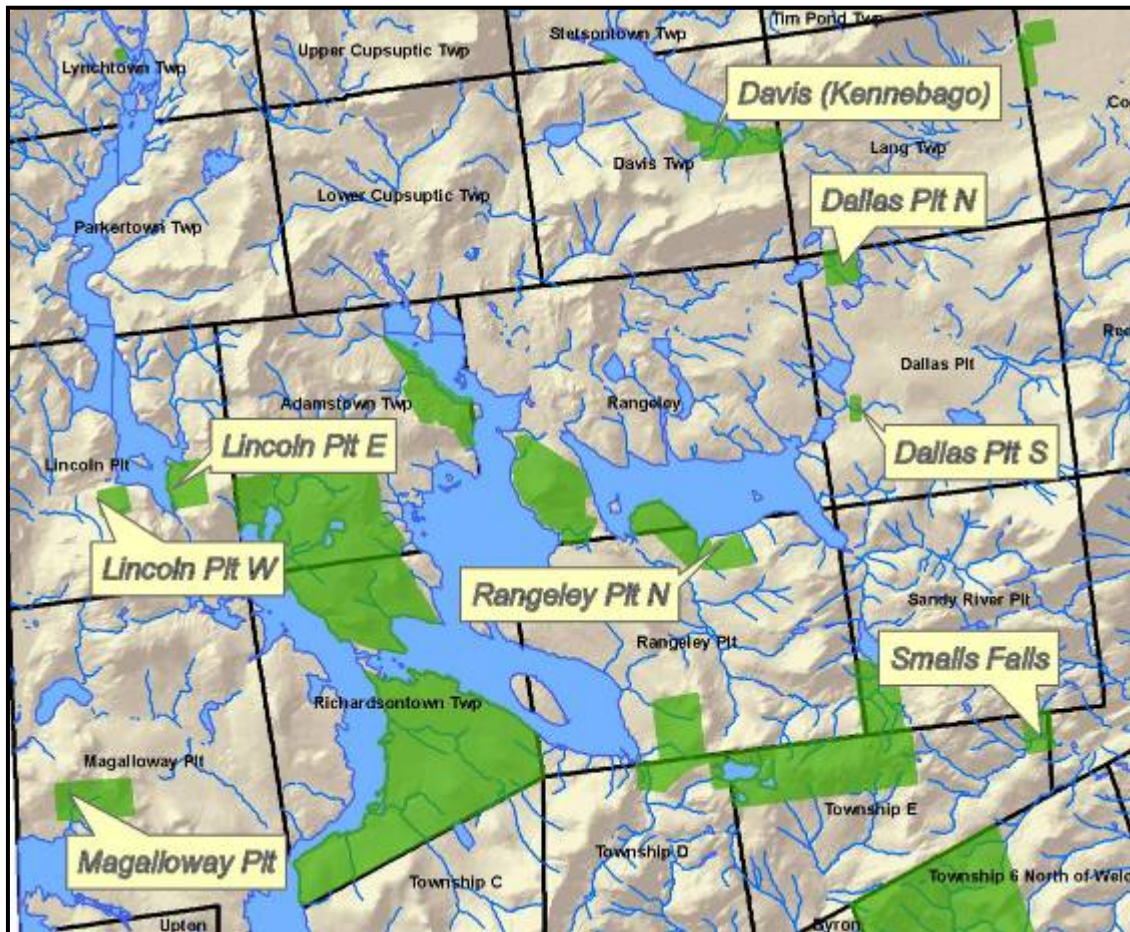
Issue	Recommendations
<b><i>Recreation Resources</i></b>	
<p><u>Improve Information for Camping Reservations.</u> Some concerns have been raised by the public that the camping reservation system on Richardson and Mooselookmeguntic Lakes is confusing—it is difficult to know how to get a reservation, due to the many different organizations that own or manage campsites on these lakes. Campsites on Bureau lands are managed by the South Arm Campground.</p>	<p>Improve information and reduce confusion about camping reservations on Bureau Lands. As opportunities arise collaborate with other campsite owners on the Richardson Lakes and Mooselookmeguntic Lake in improving clarity of information. Specific recommendations:</p> <ul style="list-style-type: none"> <li>• Publish a new “Map and Guide” for the Richardson Lakes and Mooselookmeguntic Lake in collaboration with other conservation and recreation providers on these lakes; identify which sites belong to which landowner, including the phone numbers for making reservations.</li> <li>• Improve the Bureau website to provide clear information on camping at Bureau lands. Include links to other organizations’ websites as appropriate.</li> <li>• Consider additional signage at campsites, in keeping with the remote and scenic character of the lakes.</li> <li>• As opportunities arise, participate in larger initiatives in the Rangeley Lakes region to increase the awareness and public information on camping opportunities.</li> </ul>
<p><u>Equal access to camping sites.</u> The reservation system used by the South Arm campground for their private campground—offering campers the ‘right of first refusal for their campsites for the following year—is not appropriate for public lands.</p>	<p>Work with South Arm campground to phase out the ‘right of first refusal’ system for reservations at the Richardson Unit. Establish a policy that no new rights will be established and old rights will be phased out.</p>
<p><u>Parking for Metallak Brook Trail:</u> There is some interest in expansion of the small parking area near the foot trail which</p>	<p>Explore the potential for expanding this parking area to meet demand for hand carry boat launching.</p>

<b>Issue</b>	<b>Recommendations</b>
leads from South Arm Road, along Metallak Brook, to South Richardson Lake.	
<b><i>Timber Management</i></b>	
<p>Timber management guidelines outlined in this Plan reflect current best practices geared to current conditions, which may change over time. These recommendations are provided to enhance the public’s understanding of how the Bureau will manage timber resources on the Richardson Unit. These recommendations are not a “prescription” – only general guidelines.</p>	<p><u>Softwood Stands</u>: On softwood types, management will maintain the high spruce component while encouraging pine and removing fir as an intermediate product. A small proportion of hardwoods will be retained for diversity. Fertility limitations mean widespread conversion to hardwoods is not desirable, though the birches may do fairly well. A second entry will be made into spruce poletimber stands—balancing spacing, potential windthrow, and release of the regeneration created by the 1996-2002 harvest. Areas of current deer wintering area zoning and where deer have yarded will be managed to retain good softwood cover wherever possible, and bring softwood regeneration to cover status through careful overstory removal.</p> <p><u>Mixed Wood Stands</u>: On mixed wood types, growing high value hardwoods in mixture with spruce and pine is a desired objective in the older stands, with yellow birch the most favored species. In younger hardwood stands (which include aspen and pin cherry), reversion to softwood type is desirable, especially near deer wintering areas.</p> <p><u>Hardwood Stands</u>: On hardwood types, yellow birch is the first priority species, followed by sugar maple, spruce, and any existing pine. The small proportion of healthy beech will be retained, and good quality red maple will be encouraged along with any ash. The softwood component of hardwood stands will be retained, or increased where spruce is common in the understory. Conversion to mixedwood or softwood may be appropriate on less fertile stand edges near softwood stands.</p>
<b><i>Transportation and Administration</i></b>	
<u>Gated Access to Upper Dam</u> : The current three gate system on the Upper Dam Road—leading to Upper Dam—is	Revise the current gate system for controlling access to Richardson Lake and the Upper Dam tailrace via Upper Dam Road in order to better

<b>Issue</b>	<b>Recommendations</b>
<p>confusing to the public, limits access for anglers with limited physical abilities during the summer, and causes crowding and traffic flow problems at Upper Dam during fall fishing season.</p>	<p>serve the public. Develop a Plan that will eliminate the current confusion over which gates are open when, will improve access for people with limited physical abilities, and will address current and potential congestion and safety on the Upper Dam Road. Work with NextEra Energy on development of this plan to address legitimate safety and security concerns. This plan shall be adopted within five years of this management plan adoption, but after the completion of dam reconstruction.</p> <p>In developing this Plan, investigate the feasibility of the following option:</p> <ul style="list-style-type: none"> <li>• Keep Gate 2 open year round</li> <li>• Keep Gate 3 closed year round</li> </ul> <p>This is the preferred option in terms of administrative ease, simplicity, and improved public access. Due to its simplicity, it would eliminate confusion for the public. At all times of year (except mud season) the public would be able to drive to Gate 3 and park, walking 1700 feet to the Upper Dam pool. During July and August, this option would improve access for the public (currently the public has to park at Gate 2 and walk 1.3 miles to Upper Dam during these months). At the same time traffic congestion at Gate 4 would be eliminated in September and October, because people would have to park at Gate 3, where a parking area is provided.</p>

## *Various Small Lots in the Western Mountain Region Lakes Area*

Various smaller scattered Bureau holdings in the Western Mountains Region are managed primarily for forest products and dispersed recreation, such as hunting and fishing. Aside from the lakeshores and Smalls Falls, the units receive comparatively little public use. Units included in this portion of the report are shown below. The public land units range in size from 66 to 1,764 acres and collectively support roughly equivalent areas of softwood, mixed wood, and hardwood. The smaller lots average 23 cords/acre, which is slightly larger than the BPL regional average stocking and significantly higher than the average stocking on private lands in the region. All the units have been managed for timber by BPL and former owners.



### *Davis (Kennebago) Lot*

The 886 acre Davis Lot in Davis Township is also known as the Kennebago Lot because it lies along the south shoreline of Kennebago Lake. It is an original public lot which shares a common and undivided ownership with the Kennebago Lake Camps (KLC owns a one-third common and undivided interest in the entire lot).

### **Natural Resources (MNAP, 2010)**

The 886-acre Davis Lot supports young to mid-aged forests on gentle slopes heading down to Kennebago Lake. Young hardwood and mixed wood stands dominate the slopes, while young softwood (primarily spruce-fir) forests occur along lowlands and along the two miles of lakeshore.

Kennebago Lake is a large (1,764 acre) oligotrophic water that provides excellent habitat for coldwater fishes. Native brook trout are very abundant and provide a high quality sport fishery. Captive brook trout derived from the Kennebago Lake drainage currently support a substantial part of Maine's hatchery program, reflecting the high quality of these particular fish. A small population of landlocked salmon is also present from introductions made many decades ago, and they provide an important ancillary fishery in Kennebago Lake and in the upper Kennebago River. Brown trout, a species not native to North America, persist as a relic population in Kennebago Lake from an introduction made prior to 1939.

Other species known to occur in Kennebago Lake include rainbow smelt (introduced) and two native minnows (blacknose dace and lake chub). White and longnose suckers, which are very common throughout most of Maine, are conspicuously absent from the upper Kennebago River drainage, including Kennebago Lake. The absence of suckers is an important factor contributing to high brook trout abundance in these waters.

The Unit also contains most of the shoreline of Flatiron Pond, a 30 acre shallow pond in the southwest corner of the Unit. Flatiron Pond supports a vibrant wild brook trout population that sustains itself by spawning on shoreline gravels. Other species include rainbow smelt, blacknose dace, and lake chub. The smelts arose from an unauthorized introduction made many years ago – they are strong predators on newly hatched brook trout fry and compete with older trout for food resources.

Nesting loons have used the Kennebago Lake in past years, with moderate numbers (10-20 adults) counted in annual surveys.

The east side of the Unit contains two of the Blanchard Ponds – small (<4 acre), shallow ponds that drain into Kennebago Lake through Blanchard Brook. Two 'moderate value' waterfowl and wading bird habitats have been mapped by IF&W in this area.

Extensive harvesting (clearcuts) occurred in the 1970s prior to the Bureau acquisition. Since that time, the Bureau has conducted no timber harvesting on this parcel. Most of the Unit supports young forest (sapling/pole stage stands), but some small more mature hardwoods occur upslope of Flatiron Pond.

### **Recreation Resources**

Recreational resources on the Lot are primarily fishing in Kennebago Lake and Flatiron Pond. Additionally, a club snowmobile trail that begins in downtown Rangeley travels north on the Bud Russell Road, then veers east and leaves the lot north of Blanchard Ponds to join ITS 89.



## **Timber Resources**

### Harvest History

Much of the Lot was harvested during the 1970s, with large clearcuts in mature and budworm damaged spruce-fir, and lighter selection or shelterwood harvests in hardwoods and mixedwoods. Other than some right-of-way wood cut by an abutter to gain access through the easterly end of the Lot, no harvesting has occurred since.

### Current Conditions

Topography is rolling with a general north to northeast aspect and no major hills. Soils are mainly moderately to well drained. Due to the heavy volumes removed in the 1970s, the Lot has under 20 cords per acre, though it is well stocked with younger trees. Many acres of the softwoods cut then have regenerated with enough white birch, aspen, and pincherry to be typed mixedwood at present, though fir and spruce are the leading species in those stands. At present, only 9 percent of the Lot is typed as hardwoods, mainly in a stand of northern hardwoods heavy to sugar maple and yellow birch near Flatiron Pond. Mixedwood stands cover 60 percent of regulated acres, with about half of this the sapling/small pole stands established by the 1970s clearcuts. These younger stands have fir as the leading species, followed by white birch, spruce, and aspen, with pincherry still common though it should begin to drop out soon. Older mixedwood stands are spruce-fir/northern hardwoods and generally well stocked three decades after being partially harvested. The 31% of regulated forest in softwoods include several dozen acres of young stands where the hardwood component is comparatively low. Other softwood types include perhaps 100 acres of poletimber well suited to thinning with cut-to-length processor, and older stands of spruce-fir or cedar/spruce-fir, usually with the fir mature to overmature.

## **Transportation and Administrative Concerns**

Vehicular access to the Lot is from the Loon Lake Road, which begins in downtown Rangeley and travels north, and becomes the Bud Russell Road as it reaches the Lot. A set of camps—Kennebago Lake Camps (KLC) occupies the shore of a cove at the south side of the lake. KLC shares a common/undivided ownership of the Lot in which one third of the acreage is owned common/undivided by KLC, with the other two thirds owned by the State. The camps themselves are on about 30 acres leased (at 2/3 interest) from the Bureau. The entire Lot lies behind the Loon Lake gate, which is controlled by the private owners of the Loon Lake/Bud Russell Roads.



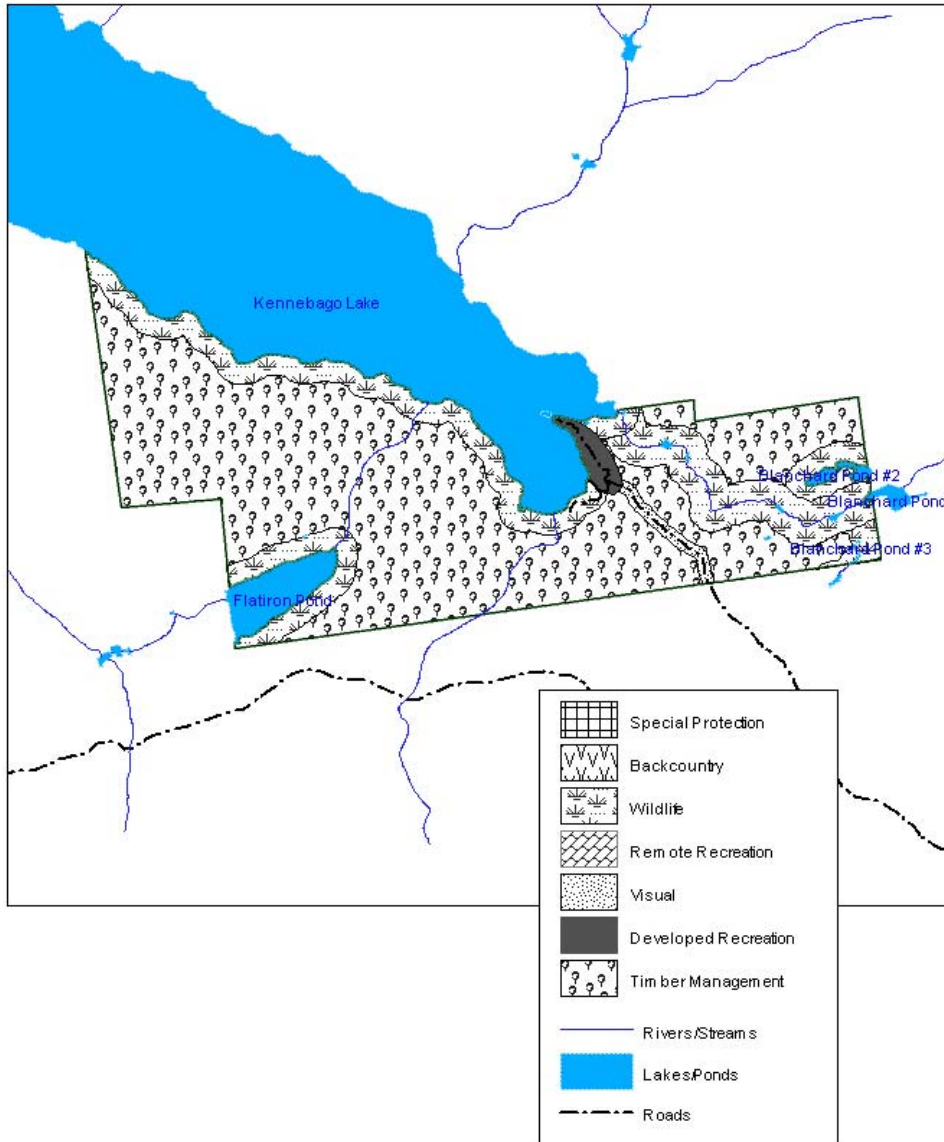
*South shore of Kennebago Lake, with camp leases*

## **Management Issues**

There is no vehicular access for the public to the Davis Lot. Access is desired for fishing in Kennebago Lake and Flatiron Pond.



## Davis (Kennebago) Lot Allocations



### Wildlife Dominant

Extensive acreage in the Lot is wildlife dominant due to riparian buffers on Kennebago Lake, Flatiron Pond, the Blanchard Ponds, and Blanchard Brook.

### Visual

A buffer along the Bud Russell Road is Visual Class I, as well as along the lake shorelines.

### Developed Recreation

The area between the Bud Russell Road and Kennebago Lake is Developed Recreation Class I, due to the numerous camps.

### Timber Management

The remaining acres are Timber Dominant.

<b>Davis Lot - Summary of the Allocations</b>	
<b>Dominant Allocation</b>	<b>Number of Acres*</b>
Wildlife	227
Developed Recreation Class I	13**
Timber Management	644
*Dominant acreages are representations based on GIS	
**Approximate—actual acres will be determined in the field	

<b>Davis Lot Management Issues and Recommendations</b>	
<b>Management Issue</b>	<b>Recommendation</b>
<u>Public Access:</u> There is no vehicular access for the public to the Davis Lot. Access is desired for fishing in Kennebago Lake and Flatiron Pond.	Work with surrounding private landowners to provide public vehicular access to the Davis Lot. If this is successful, work with the Department of Inland Fisheries and Wildlife to determine appropriate boat access, parking and signage for Kennebago Lake and Flatiron Pond.
<u>Future Timber Management:</u>	<ul style="list-style-type: none"> <li>• Because of the ownership split, coordinate any timber harvest with KLC, who will also receive one third of revenues.</li> <li>• Management must also respect the visual impact from the lake, though relatively gradual slopes mean that only minor constraints are needed, and the character of the forest is suited to lighter harvests that will not be readily visible from the water. Extensive lake frontage and uplands somewhat visible from the lake must be a factored in planning timber harvests.</li> <li>• The large area of even-aged stands established in the 1970s represent an age class and stand condition less common on Bureau lands. By the end of the Plan period, these should be approaching the time when a commercial thinning will be desirable.</li> </ul>

## ***Stetsontown Lot***

The 41 acre Stetsontown Lot is an original public lot. Ten acres of the Lot is composed of Grants Camps, which has a commercial lease on this area. Four other camplot leases occur in the Lot. It is accessible by the Kennebago River Road, a private road traveling north from Route 16. The road is gated shortly after it leaves Route 16—this gate is staffed by the private landowner. The Bureau has arranged with the owner of the road and Grants Camps to allow the public access to three parking spaces and a hand carry boat ramp within the lease area. Members of the public check in at the gate, and inform the gatekeeper of their intention to visit the Public Lot and use one of the three spaces.

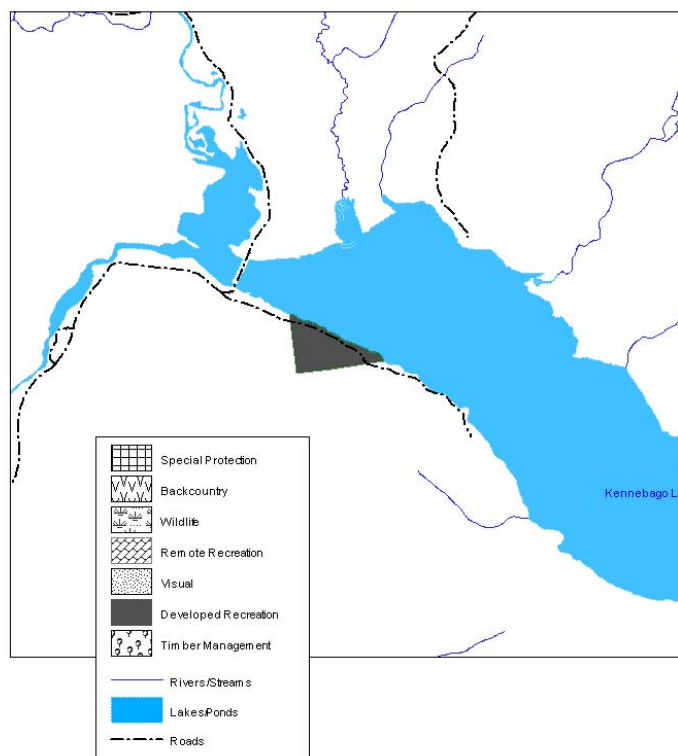
No natural resource inventory or timber inventory have been performed. No timber harvesting will be performed.

### **Stetsontown Lot Allocations**

#### *Developed Recreation*

The entire Lot, due to the presence of many camplot leases, will be Developed Recreation Class I.

<b>Summary of Allocations</b>	
<b>Dominant Allocation</b>	<b>Number of Acres*</b>
Developed Recreation Class I	52
*Dominant acreages are representations based on GIS metrics and do not sum total unit acres due to measuring error and limits of GIS precision.	



### ***Dallas Plantation Lots (North and South)***

Two public lots are owned in Dallas Plantation—the 373 acre North Lot and the 66 acre South Lot. These are both original public lots. The North Lot lies to the east of Loon Lake, accessed from the Loon Lake Road, and the South Lot is adjacent to Route 16, a short distance northeast of downtown Rangeley.



### **Natural Resources (MNAP, 2010)**

#### ***North Lot***

The 380-acre Dallas Plantation North Lot is an original public lot that has been managed for forest products for many years, with the most recent harvests occurring in the mid and late 1980s. It is characterized by gentle slopes and mid-aged northern hardwood and mixed forests, with softwoods along a central meandering stream that drains from the Greeley Ponds to Loon Lake. The Lot, however, does not include frontage on any of these waterbodies. Three small emergent beaver meadows (each less than 2 acres) lie along this stream, and a large area of inland waterfowl and wading bird habitat lies just east of the Unit around the Greeley Ponds. Approximately 110 acres (the southeastern half of the Lot) of softwood and mixed forest have been mapped as a Deer Wintering Area.

#### ***South Lot***

The 66-acre Dallas Plantation South Lot lies on lowland forest just a few miles outside of Rangeley. The Lot is forested with mid-aged mixed wood stands and includes a small stream that drains into Bull Pond. The Lot was most recently harvested by the Bureau in 1986.

### **Recreation and Visual Resources**

A major snowmobile/ATV trail—ITS89—runs lengthwise through the South Lot. Dispersed hunting may also occur.

### **Timber Resources**

#### ***Harvest History***

North Lot— this was harvested twice during the 1980s, in 1980-81 and in 1987-89. Volume from the first harvest is unavailable, but was probably over 2,000 cords of mostly softwood (it occurred at the height of budworm damage). A clearcut of nearly 30 acres, alternate stripcuts on about 40 acres, and selection/patch selection harvests on perhaps another 100 acres would have produced heavy volumes. The late-1980s entry treated 135 acres, with some work in the residual strips (including some pre-harvest stem-injection herbicide on aspen and red maple to influence regeneration), and the remainder selection harvest. Total harvest volume was about 1,250 cords, 86% hardwoods.

South Lot—In 1986 the Bureau harvested about 500 cords, mostly budworm-damaged fir and overmature aspen.

### Current Conditions

On the North Lot, soils and topography are quite varied for a tract of under 400 acres. There are open wetlands, abundant boulders, steep slopes, soils ranging from swamp to excessively drained (thin to ledge), along with riparian buffers and 112 acres of zoned deer wintering area. The 18-19 cords per acre are 39 percent spruce, 16 percent cedar, 12 percent white birch, 9 percent red maple, 8 percent fir, and 7 percent yellow birch.

The South Lot has moist to wet soils on gentle slopes, with most acres holding a mix of aspen/white birch and fir on moderately well to somewhat poorly drained soils. The remainder is poorly drained soil with softwoods, mostly fir and cedar. Volume averages 16-18 cords per acre. The Lot now holds a two-story stand with scattered fir, aspen, birch (and cedar in wet areas) over dense saplings, mostly fir and aspen.

### Future Management

Manage the North Lot to retain diversity for wildlife and protect deer wintering area.

On the South Lot reversion to more site-suitable softwood type is an objective. Timber management will respect the well-used motorized trail and the roadside view.

### **Transportation and Administrative Concerns**

The North Lot is accessible from the Loon Lake Road and the Bud Russell Road. However, the Lot is behind the Loon Lake gate, controlled by the private owner of the roads, which greatly limits public access but has little or no effect on timber management.

The South Lot is adjacent to Route 16 and is accessible from a management road (also serving as an ATV and snowmobile trail) traveling through the Lot south from 16.

### **Management Issues**

The public has no vehicular access to the North Lot due to the Loon Lake gate.

### **Dallas Plantation Lots Allocations**

#### Wildlife Dominant

The North Lot contains wildlife dominant areas that include deer wintering area, riparian buffers on streams and small ponds, and wetlands.

The South Lot has a minor riparian buffer on a stream running through the Lot.

#### Visual

The South Lot has a Visual Class I buffer along Route 16.

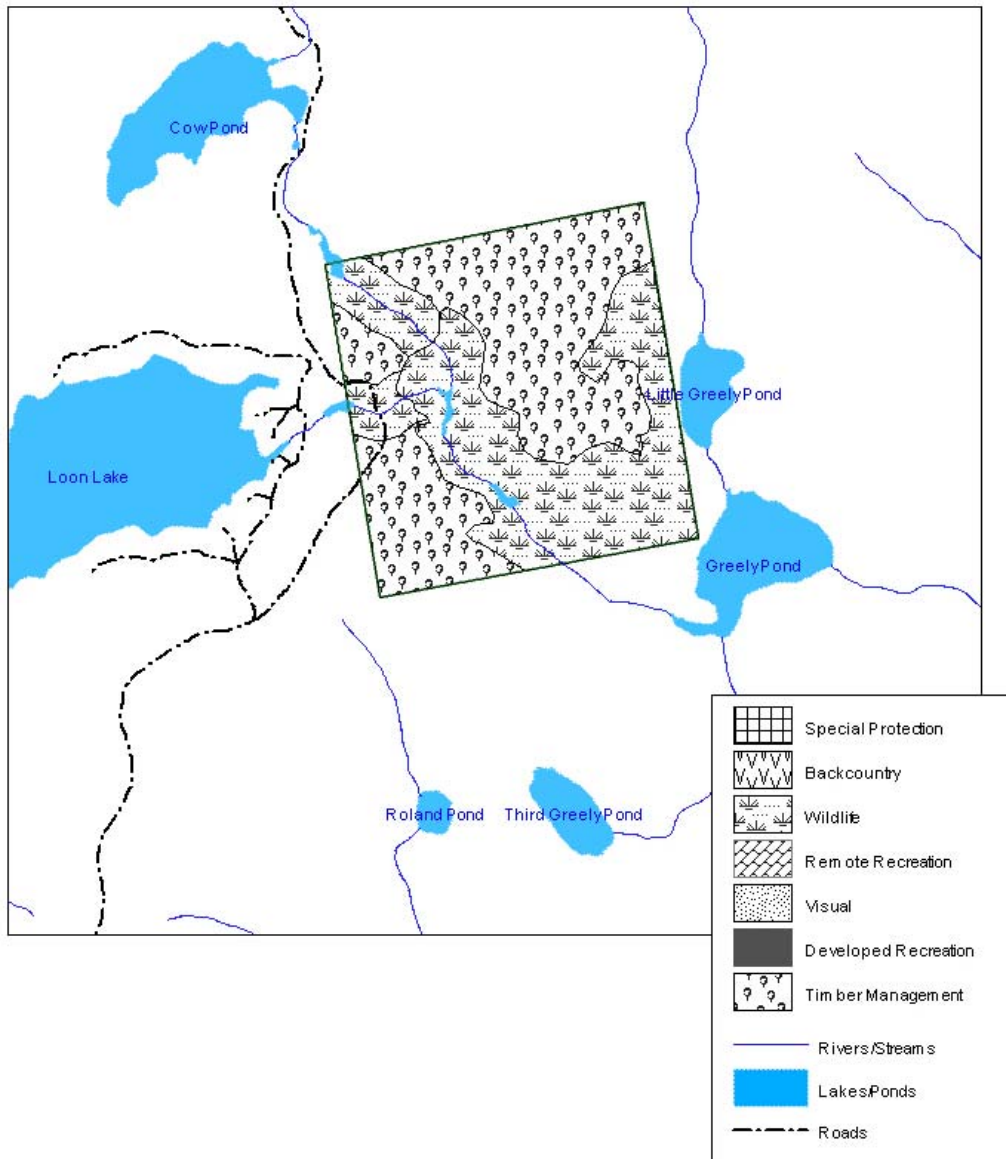
#### Timber Management

All other acres are timber dominant.

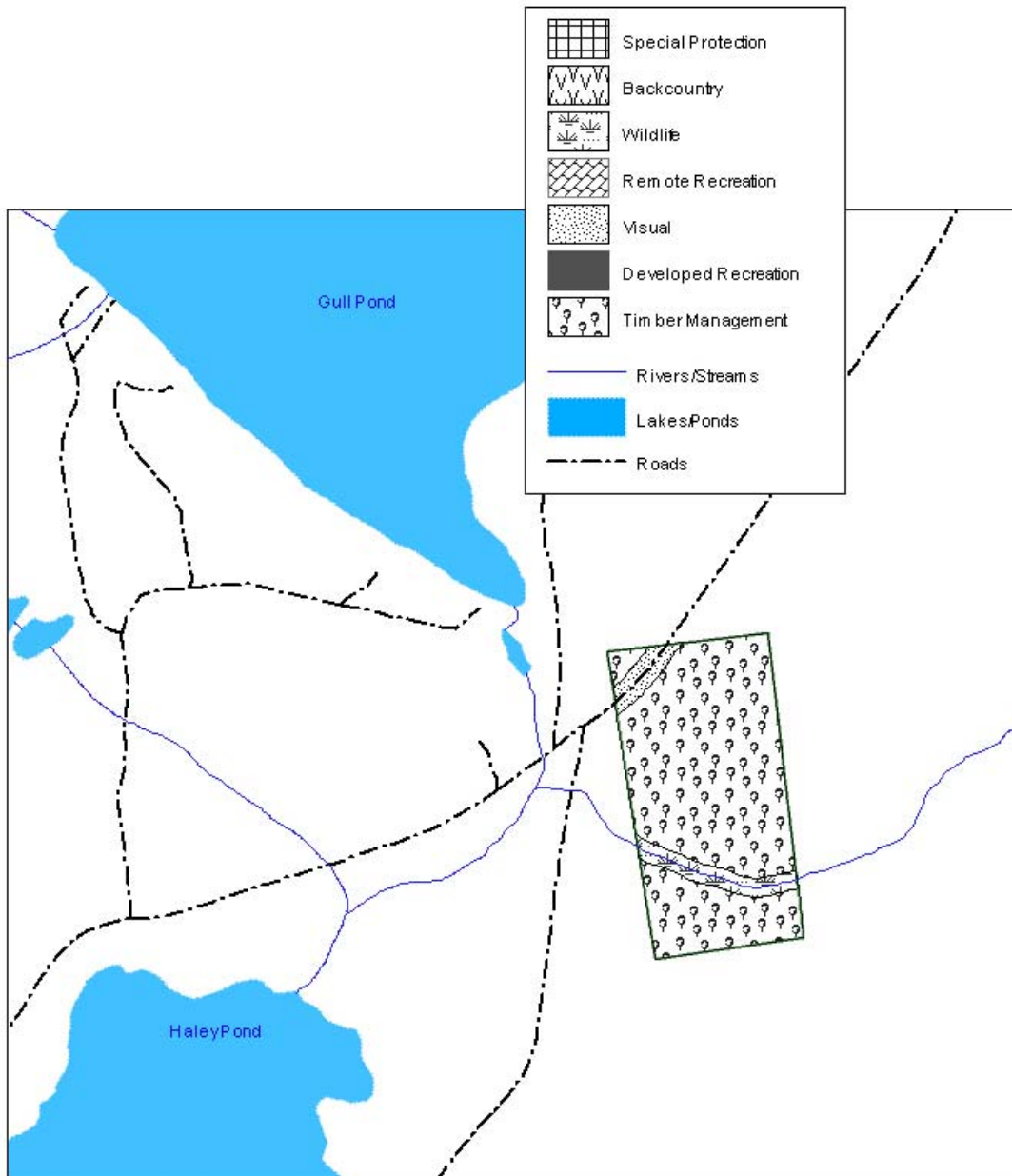
Summary of Allocations – North and South Lots	
Dominant Allocation	Number of Acres*
Wildlife	185
Visual Class I	3**
Timber Management	264

\*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

**Dallas Plantation North Lot Dominant Resource Allocations**



## Dallas Plantation South Lot Dominant Resource Allocations



Dallas Plantation Lots Management Issues and Recommendations	
Management Issue	Recommendation
<i>Public Access:</i> The public has no vehicular access to the North Lot due to the Loon Lake gate.	Work with the private landowner of Loon Lake Road to allow public access closer to the Davistown Lot, which, if successful, would also allow access to the Dallas Plantation North Lot.



## ***Smalls Falls (Township E) Lot***

The Township E Lot is also known as the “Smalls Falls Lot” because it surrounds Smalls Falls, which is a series of seven drops along the Sandy River, just above its intersection with the Chandler Mill Stream. The falls are owned and managed by the Maine Department of Transportation, which also own and manage a picnic and rest area off of Route 4 which is adjacent to the public lot, and provides access for travelers and picnickers to Smalls Falls. The Township E Lot is 370 acres and was acquired by the Bureau in 1999. The Lot is bisected by Route 4, but with most of the acreage on the southwest side of the road, surrounding Smalls Falls.



*MNAP Photo of Smalls Falls*

### **Natural Resources (MNAP, 2010)**

Smalls Falls has been the subject of much geologic research and it has been revealed that most of the bedrock units span from 423 to 391 million years old. The metamorphosed sedimentary layering has been turned up on edge and runs in a northeast-southwest direction. The underlying rock formation is black schist with thin layers of light brown quartzite.

Forests on the Bureau Lot surrounding Smalls Falls are regenerating from a heavy harvest that occurred prior to Bureau acquisition. Small remnants of more mature forest stand in the northern part of the Lot. No rare species or significant wildlife habitat are known on the Lot.

### **Recreation and Visual Resources**

Route 4, which bisects the Lot, is part of the Rangeley Lakes National Scenic Byway. As such, any management activities on the Lot will work to enhance and protect the view from this route. The DOT owned Smalls Falls area--a 54 foot series of waterfalls, colorful gorges and popular swimming holes, with a picnic and rest area—is a great recreation resource that the Bureau-owned Lot serves to enhance by protecting surrounding views.

There is regular interest in recreational gold-panning in the Chandler Mill Stream. The Bureau issues special use permits for this on request.

### **Timber Resources**

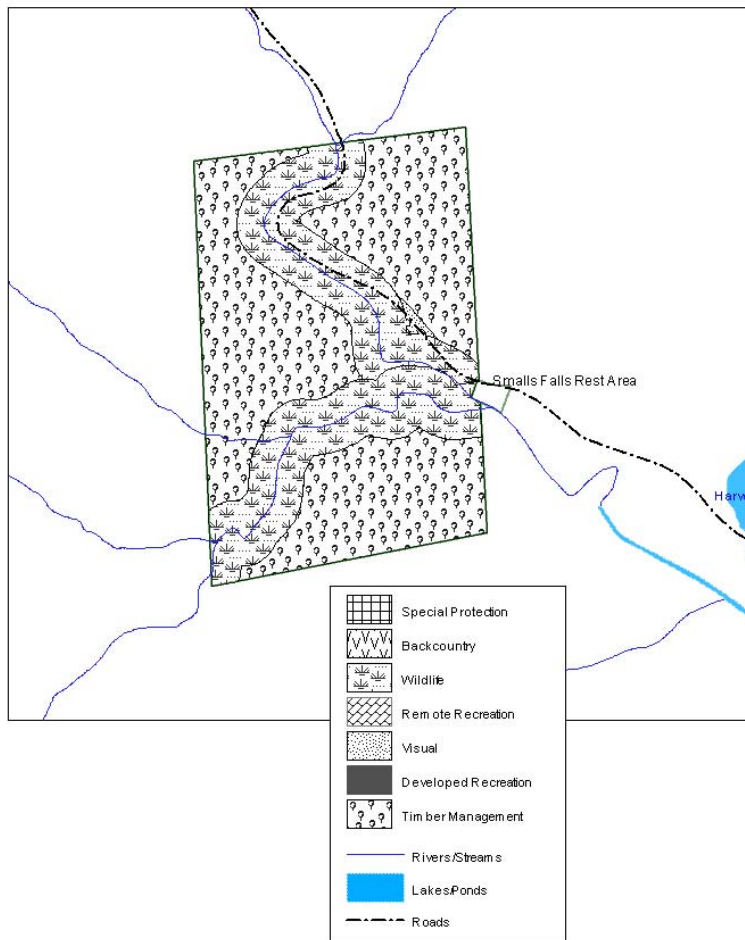
No comprehensive timber assessment has been performed. The Lot contains mostly young hardwoods, and it is likely that no timber management will be performed during the planning period.

**Transportation and Administrative Considerations**

Route 4 bisects and provides access to the Lot. The DOT has recently re-routed a portion of Route 4 that had been particularly curvy and dangerous for truck traffic. Route 4 has essentially been straightened in that section. Both the old route and the new route are on the Public Lot. Since the Township E Lot surrounds and enhances the DOT Smalls Falls area, coordination in management is needed.

There are special use permits allocated on request for recreational gold extraction on Chandler Mill Stream.

**Smalls Falls (Township E) Lot Allocations**



*Wildlife Dominant*

Riparian buffers along the Sandy River and Chandler Mill Stream are Wildlife Dominant. The Wildlife Dominant allocation also serves to enhance views surrounding the DOT Smalls Falls area.

*Visual*

A Visual Class I buffer surrounds the portion of Route 4 that is not allocated Wildlife.

*Timber Management*

The remaining acres will be Timber Dominant.

<b>Summary of Allocations</b>	
<b>Dominant Allocation</b>	<b>Number of Acres*</b>
Wildlife	135
Visual Class I	2**
Timber Management	242
*Dominant acreages are representations based on GIS metrics	
**Approximate—actual acres will be determined in the field	

**Smalls Falls (Township E) Lot Issues and Recommendations**

<b>Management Issue</b>	<b>Recommendation</b>
IF&W has expressed concerns that the recreational gold dredging on Chandler Mill Stream may be impacting the fisheries.	Work with IF&W to investigate potential fisheries impacts of the recreational gold extraction on Chandler Mill Stream. If unacceptable impacts are identified, eliminate this use.

***Rangely Plantation Lot***

The 462 acre Rangely Plantation Lot was acquired in two parcels—an 87 acre parcel in 1997 from the Trust for Public Land and a 352 acre parcel in 1998 from the Maine Conference of Seventh Day Adventists. It lies almost adjacent to Rangely Lake State Park—it is separated from the Park by South Shore Drive. It covers a north facing hillside, and much of the Lot was once cleared or pastured farmland—stone walls, old farm equipment and remains of old structures are evidence to this past. There are no lakes, streams or wetlands on the property.

**Recreational Resources**

A club snowmobile trail travels through the Lot, connecting Rangely Lake with ITS84.

**Timber Resources**

*Harvest History*

The larger (352 acre) parcel had been previously farmland—either entirely cleared, or used as partially cleared pastureland. It had been heavily harvested prior to state acquisition. The smaller parcel had been harvested about 20 years prior to state acquisition. The Bureau has not performed any timber management yet on this Lot.

*Current Conditions*

The Lot slopes gently to the north, and has deep soils which are moderately to well drained (with only small areas of wetter soils). The larger parcel contains stocking of less than 15 cords per acre, mostly hardwoods of modest quality and young fir. Some mature aspen are near the South Shore Road. The smaller parcel has closer to 25 cords per acre.

**Transportation and Administrative Concerns**

Access to the Rangely Plantation Lot is from the South Shore Drive.

When privately owned, the Lot had been designated by the Maine Legislature as a game sanctuary. This designation prohibits hunting on the property.

## Management Issues

Now that the Lot is in public ownership, the ‘no hunting’ prohibition runs counter to the Bureau’s typical practice, which is to allowing hunting throughout Public Reserved Land (except near hiking trails, campsites and other recreational facilities).

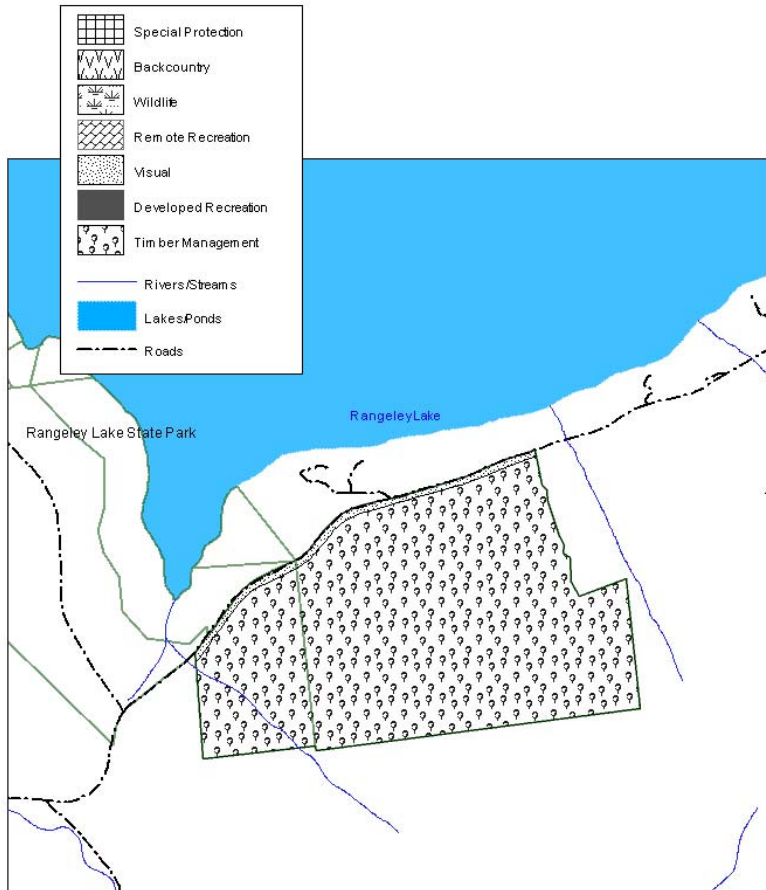
## Rangeley Plantation Lot Allocations

### Visual

A buffer along the South Shore Drive will be Visual Class I.

### Timber Management

The remainder of the Lot is Timber Dominant.



<b>Rangeley Plantation Lot Summary of Allocations</b>	
<b>Dominant Allocation</b>	<b>Number of Acres*</b>
Visual Class I	14**
Timber Management	448
*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	

<b>Rangeley Plantation Lot Management Issues and Recommendations</b>	
<b>Issues</b>	<b>Recommendations</b>
<u>Game Preserve</u> : Now that the Lot is in public ownership, the ‘no hunting’ prohibition runs counter to the Bureau’s typical practice, which is to allowing hunting throughout Public Reserved Land (except near hiking trails, campsites and other recreational facilities).	Work with the legislature to remove the game sanctuary status on the Rangeley Plantation Lot, now that it is in public ownership. This will only be pursued on the public lot, not the surrounding private lands in game sanctuary status.
<u>Future Timber Management</u>	Because the volumes of timber are well below the Bureau’s typical volumes, it will be some time before any significant timber harvesting will be performed. However, there are scattered mature aspen that may be harvested, as well as removing any tall aspen near South Shore Road that become a hazard.

### ***Lincoln Plantation Lots (East and West)***

Lincoln Plantation West and East Lots are located on the southern end of Aziscohos Lake. The 640 acre East Lot lies along the shoreline of the Lake on the Black Brook Cove, just north of Route 16. The West Lot is 279 acres and is south of Route 16 and Aziscohos Lake (it does not contain lake frontage).

#### **Natural Resources (MNAP, 2010)**

The West Lot occupies the north facing slope of a 2,000 foot forested summit—Lower Aziscohos Mountain. Most of the Lot is mid-aged northern hardwood forest, with younger spruce-fir occurring on the upper slope. This Lot was most recently harvested by BPL in 1992 and 1993.

The East Lot contains over a mile of frontage on Black Brook Cove at the south side of Aziscohos Lake. The Lot slopes up from the Lake at 1,514 feet to an elevation of perhaps 1,850 feet along the east line. Most of the shore frontage is occupied by leased camps. The interior of

the parcel is stocked with young to mid-aged stands of hardwood, mixed wood, and softwood. Partial harvesting occurred on the northern half of the lot in from 1999 to 2001. Aziscohos Lake is a 6,700-acre impoundment formed by a large dam completed in 1911 on the Magalloway River. The Lake provides excellent habitat for salmonid fishes, including native brook trout and introduced landlocked salmon. Both species are sustained entirely by natural reproduction and support popular, high quality sport fisheries. Rainbow smelts are present and provide important forage for the lake's predatory fish, and they support a heavily used recreational spring dipnet fishery on certain Aziscohos Lake tributaries. The lake also supports longnose and white suckers, slimy sculpin, brown bullhead, and nine native minnow species.

No rare features of Significant Wildlife Habitats are known from either Lot.

## **Recreation and Visual Resources**

### West Lot

There is an informal hiking trail to Lower Aziscohos Mountain that begins on the West Lot management roads and travels on to private land to reach the mountain. The trail is described in guidebooks as having excellent views of the Rangeley region.

### East Lot

Though there is no boat access on the public lot, a trailered ramp partly funded by the Bureau's Boating Facilities Division is just south of the Lot. The ramp is administered by the Black Brook Cove Campground, and is available to the public.

## **Timber Resources**

### Harvest History

The West Lot was cut heavily during the 1950s by Brown Company, creating a new age class on most acres. Thus the stands here tend to be younger than is the usual on Bureau tracts in this area, heavy to poletimber and small sawtimber, and with fewer very large trees. The Bureau conducted a selection/improvement harvest in 1992, treating about half of the area. Eighty five percent of harvest volume was hardwood pulp, as the treatment was designed to remove low quality stems and focus growth on the best potential trees.

On the East Lot, harvesting in the 1950s established regeneration on much of the lot, including considerable aspen at lower elevation and along old winter roads. The major wind event of July 5, 1999 flattened about 50 acres on this lot, in several patches, while causing partial windthrow on another 50 or more. That event plus the amount of large mature fir triggered a prescription, followed by a substantial timber harvest which yielded almost 3,700 cords from 405 acres in 1999-2001. Sixty-one percent of the harvest volume was spruce and fir, mainly the latter.

### Current Conditions

The West Lot has a generally northerly aspect, with gentle slopes on the north part becoming steeper to the south as elevation rises from about 1,500 feet to almost 2,100. Topography is challenging for timber harvest on the southeasterly quarter of the lot, with slopes, boulders and outcrops. Soils are generally deep and fertile except on that southeast quarter, the upper portions of which are thin to ledge. Most of the lot acreage is capable of producing good quality



hardwood and spruce-fir timber. Current stocking is probably over 30 cords per acre, 47% sugar maple, 17% spruce, 16% yellow birch, 10% red maple.

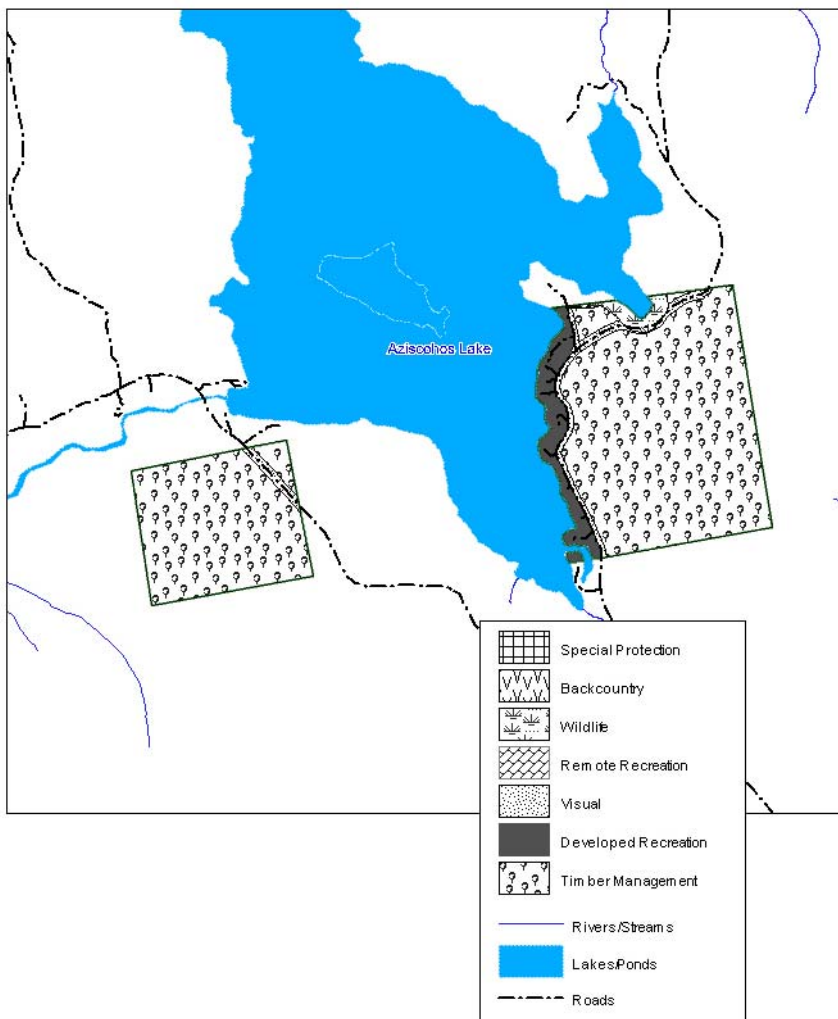
On the East Lot, most of the land suitable for timber management lies east of the Lincoln Pond Road. Much of the land is fairly steep, only the bouldery softwood stand in the east center of the lot presents much challenge to operations. Most soils are deep and fertile, the exception being that boulder area, and well able to grow good quality hardwood and softwood timber. Current stocking is about 27 cords per acre, consisting of: 43 percent spruce, 19 percent yellow birch, 16 percent sugar maple, 9 percent white birch, and 7 percent fir.

**Transportation and Administrative Concerns**

The West Lot is accessible from Route 16—in fact Route 16 travels through the north east corner of the Lot.

The East Lot is accessible from the Lincoln Pond Road, which travels north from Route 16, goes through the East Lot, and continues north along the east side of Aziscohos Lake and ends at Kennebago River. Lincoln Pond Road is open to the public, and also provides access to the several dozen leased camplots with lake frontage on the East Lot, some of which draw water seasonally from streams well to the east of the road.

**Lincoln Plantation Lots Allocations**



Wildlife Dominant

East Lot—the shoreline of Aziscohos Lake on the north end of the Lot is wildlife dominant.

Visual

West Lot—Route 16 where it runs through the Lot has a Visual Class I buffer.

Developed Recreation

East Lot—from the Lincoln Pond Road to the shoreline of Aziscohos Lake is Developed Recreation Class I due to the camplots.

Timber Management

All other acres are Timber Dominant.

<b>Lincoln Plantation Lots: Summary of Allocations</b>	
<b>Dominant Allocation</b>	<b>Acres*</b>
Wildlife	15
Visual Class I	34**
Developed Recreation Class I	53**
Timber Management	744
*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	

<b>Management Issues</b>	<b>Recommendations</b>
<i>Future Timber Management</i>	<p>West Lot management will continue to focus on hardwood sawlog production, with spruce important on higher elevations and in the northeast corner near the highway.</p> <p>On the East Lot, management for high quality hardwood and spruce will be the timber priority. Maintain visual integrity along the Lincoln Pond Road and along Route 16.</p> <p>Exercise care when harvesting near the frequent streams, especially those containing infeed pipes for camplot water supply.</p>

## ***Magalloway Plantation Lot***

The 1,044-acre Magalloway Lot is an original public lot, covering rolling terrain south of Sturtevant Mountain and sloping down into Umbagog Lake. It is bordered on the south and west by land within the Lake Umbagog National Wildlife Refuge.

### **Natural Resources (MNAP, 2010)**

The land is gently to moderately sloping with a southerly aspect. Except for small areas either wet or ledgey, soils are mainly deep and fertile. Forest cover consists of mature mixed and hardwood stands that were selectively harvested by the Bureau in 2008 and 2009.

Nearly all the parcel is categorized as hardwood (49%) or mixed wood (44%), with only 7% softwood. Forest stocking following the recent harvest exceeds 25 cords/acre, which is higher than the average stocking of Bureau lands in the region. The variable intensity of prior harvest activity across the site gives some stands the appearance of being minimally managed while others are more obviously responding to past removals. Some areas of the residual forest maintain late-successional values – particularly in the eastern half of the lot, where the frequency of large trees and late-successional lichens is high compared to adjacent forests.

The Unit includes part of a 25-acre ‘high value’ Waterfowl and Wading Bird Habitat mapped by I&FW. Considerable area in the southwest portion is part of a cooperative (unzoned) deer wintering area which extends onto NWR land, and winter deer use has been heavy, especially as the lands to the Lot’s north and east have been heavily harvested in recent years.

### **Recreational Resources**

Hunting is likely the only recreation use occurring on the Lot.

### **Timber Resources**

#### ***Harvest History***

Much of the Lot had a highgrade harvest in 1960-61 by the holder of timber and grass rights. The Bureau harvested in 1984-85 on the west half of the lot, concentrating on budworm-damaged fir and spruce, and on mature hardwoods. Issues with the west side access stopped this harvest before completion. New access has now been secured from the north, circling around the east side and entering from the south, allowing downhill skidding and hauling on most of the Lot. This access was used for the 2008-09 harvest, which treated 90% of regulated acres with individual tree and small group selection, producing just over 10,500 cords, 64% hardwoods.

#### ***Current Conditions***

Softwoods cover just 9 percent of forest acres, mostly on wetter ground in the southwest corner. This area provides good winter cover for deer. Current stocking is over 30 cords per acre, about 38% spruce, 35% cedar, 10% each fir and yellow birch.

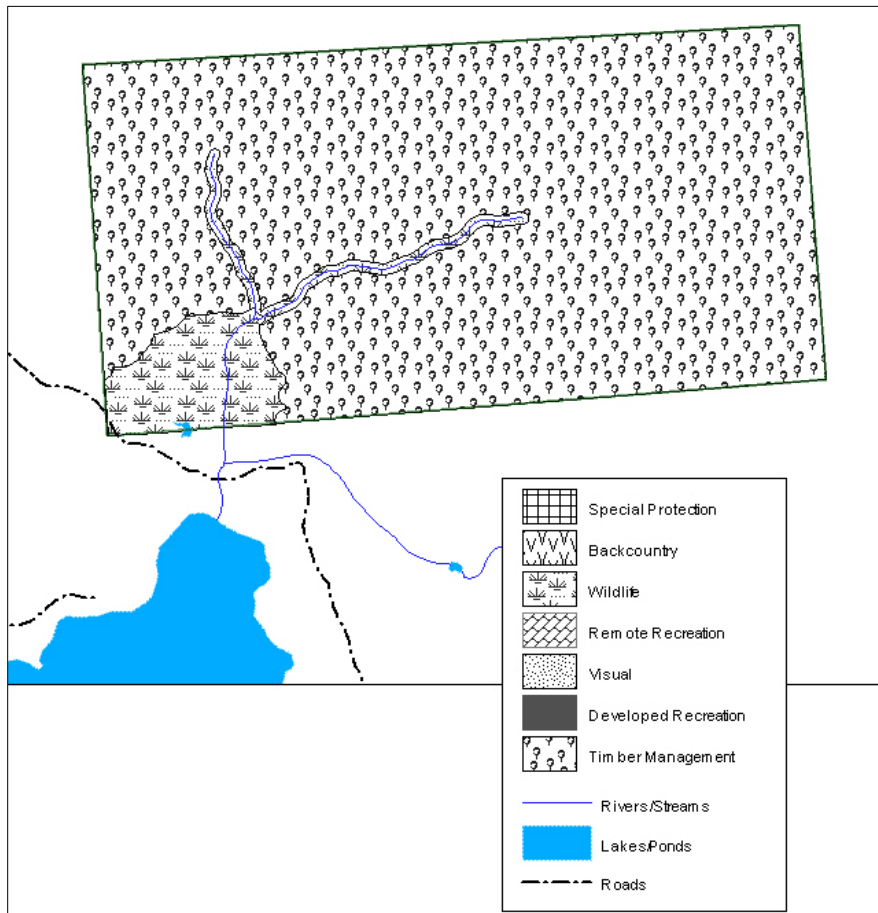
Mixedwood stands total 42% of forest area and are found on well drained mid-slopes throughout the lot. Post harvest volume is 25-27 cords per acre, 51% spruce and 24% yellow birch. Red maple, sugar maple, and fir together make up another 16% of the post harvest type.

Hardwood type occupies just under half the lot, and about half of this area holds stands which meet the Bureau standard for high value late successional forest. The species mix includes mainly trees which can readily be managed to retain this character. The post harvest volume of 21-23 cords per acre is about 36% sugar maple, 18% each yellow birch and spruce, and 9% each red maple and beech. Though less than 5% of the stand, white ash grows very well and should be encouraged.

**Transportation and Administrative Concerns**

The Lot is accessed from the Sunday Cove Road—from Route 16, head south on the Sturtevant Pond Road, which ends at the Sunday Cove Road.

**Magalloway Plantation Lot Allocations**



Wildlife Dominant

Riparian buffers, inland wading bird and waterfowl habitat, and deer wintering area are wildlife dominant.

Timber Management

All other acres are Timber Dominant.

<b>Magalloway Plantation Lot – Summary of Allocations</b>	
<b>Dominant Allocation</b>	<b>Acres*</b>
Wildlife	93
Timber Management	1014
*Dominant acreages are representations based on GIS metrics and do not sum total unit acres due to measuring error and limits of GIS precision.	

<b>Magalloway Plantation Management Issues and Recommendations</b>	
<i>Future Timber Management</i>	<p>Softwood types should be managed to retain deer winter cover, while producing spruce and fir timber.</p> <p>Mixedwood stands, where they abut deer cover should usually be managed to increase the softwood proportion for additional winter cover. There and elsewhere, the mixedwood stands can produce high quality spruce, yellow birch, and sugar maple. Much of this type is at or near late successional character, and management should maintain this status where feasible.</p> <p>Hardwood types should be managed to retain the late-successional character, consistent with tree conditions and timber goals, particularly on the east half of the Lot.</p>