



Figure 1.1: From Pratt Mountain (M. Przybyla)

Section 1: Property Description

Acquisition Background - The Watatic Partnership

The proposal to develop a telecommunications facility on the summit of Mount Watatic, as well as a residential subdivision at the base, prompted the formation of a partnership that resulted in the permanent protection of approximately 281 acres of public conservation land. The partnership included the Ashby Land Trust, the Ashburnham Conservation Trust, local officials from the communities of Ashburnham and Ashby, and representatives from the Massachusetts DCR and DFG.

At the time of acquisition there was a significant gap between the appraised fair market value (\$1.6 million) and the agreed upon purchase price (\$2.5 million). By law, the Commonwealth can not pay more than fair market value for real estate. Therefore the acquisition would not have been possible without the Campaign for Watatic. Organized by the Ashby Land Trust, this local fundraising effort gathered \$900,000 through donations received from hundreds of individuals, conservation organizations, corporations and foundations.

Almost one-third of the funds required for acquisition came from a Land & Water Conservation Fund (LWCF) grant awarded by the National Park Service and administered by the Massachusetts Division of

Conservation Services. The original application for the LWCF grant was submitted by the towns of Ashby and Ashburnham. At the Commonwealth's request the towns assigned their rights under the grant to the state so that the MA DCR and DFG could purchase the property. On July 10, 2002 DCR and DFG acquired a 98% interest in the land, while each land trust acquired a one percent undivided interest. Each land trust subsequently transferred one-half of one percent interest to their respective towns, resulting in six partners with undivided interest in the property.

Ownership

MA DCR and MA DFG jointly own a 98% undivided interest; the Towns of Ashburnham and Ashby each own a 1/2% undivided interest; and the Ashby Land Trust and the Ashburnham Conservation Trust each own a 1/2% undivided interest.

The property was acquired in 2002 for the purposes of conservation and public recreation. The Reservation is subject to easements for Fitchburg Gas and Electric Light Company and New England Telephone and Telegraph Company. There is also a right-of-way for access between Bennett Road and abutting private

property, located along the entrance to the former ski area.

Management Plan Requirement

In order to meet the obligations of the LWCF grant agreement, all partners must participate in the organization of a management plan for the property. This Resource Management Plan is intended to establish guidelines for partner cooperation and coordinated management of the property that will provide for the protection and stewardship of natural and cultural resources, and ensure consistency between recreation, resource protection and sustainable forest management. The plan is also intended to fulfill the legislative requirement (Chapter 21, Section 2F of the Massachusetts General Laws) regarding preparation of management plans for all state parks, forests and reservations under the management of DCR.

General Property Information

Name: Mount Watatic Reservation

Area: 281.5 acres

Perimeter: 3.3 miles

Location: Towns of Ashby (Middlesex County) and Ashburnham (Worcester County)

DCR Management Unit: Willard Brook State Forest, Great Brook District, Northeast Region, Division of State Parks and Recreation

DFG Management Unit: Northeast Wildlife District, Division of Fisheries and Wildlife

Ecoregion: Worcester-Monadnock Plateau

Watershed: A majority of the property is in the Merrimack River watershed. The western quadrant of the summit area (approximately 5 acres) is in the Millers River watershed.

Legislators:

Ashby – Senator Robert A. Antonioni (Senate District - Worcester & Middlesex),
Representative Robert Rice (House District – Second Worcester)

Ashburnham – Senator Stephen M. Brewer (Senate District - Worcester, Hampden, Hampshire & Franklin)
Representative Robert Rice



Figure 2.1 Forest road (A. Backman)

Section 2: Current Management

Current Management Activities and Responsibilities

DCR currently is the only Watatic partner with the capacity to provide ongoing management for Mount Watatic Reservation. The Reservation is part of the much larger 9,000-acre Willard Brook State Forest (SF) Management Unit, which includes Willard Brook, Townsend, Ashburnham, and J. Harry Rich State Forests, Pearl Hill State Park, and the Nashua River Rail Trail. Due to intensively used recreation areas at Willard Brook SF (approximately 41,500 visitors in 2005), Pearl Hill State Park (35,500 visitors in 2005), and the Nashua River Rail Trail (304,750 visitors in 2005), less than 5% of the Willard Brook Management Unit budget, staff time, and management resources can be focused on Mount Watatic Reservation. The principal management activities at the Reservation include:

- Road repairs along the forest road that leads from the Route 119 parking area towards Nutting Hill and the summit trail, to address flooding caused by beaver activity. Beaver control actions are important to maintain forest road access and to prevent the alteration of the adjacent rare dragonfly habitat. This road is technically part of Ashburnham State Forest.
- Responses to calls and local concerns, including gate and lock maintenance.
- Cleanup of illegal dumping.
- Installation of signs.
- Maintaining and regrading the Route 119 parking area, conducted on an annual or as needed basis. This parking area is technically part of Ashburnham State Forest.
- Storm water management on the summit road.
- Trail maintenance has mainly been conducted on the long-distance hiking trails by Friends of the Wapack.

2006 DCR and DFG/DFW Management Organization

- DCR Northeast Region Division of State Parks & Recreation Director Susan Hamilton, Great Brook District Manager Kathryn Garcia, Willard Brook Management Unit Supervisor Edward Torcoletti, Regional Management Forester Chuck Perna
- DFG Division of Fisheries & Wildlife, Northeast Wildlife District Manager Patricia Huckery

Mount Watatic Reservation - Staff and Management Support

- DCR Willard Brook State Forest Management Unit (2006)
Year-round and seasonal staff – Forest & Park Supervisor III, Forest & Park Supervisor II, year-round Laborer II, and eleven Seasonal Laborer positions.
DCR District/Regional Support Staff – Regional Management Forester, Bureau of Fire Control Districts 8 & 6, Ranger, Carpenter, Heavy Equipment Operator.
- DFG provides informational support related to rare species management, and vegetation management related to wildlife habitat enhancement.
- The Ashby Land Trust and the Ashburnham Conservation Trust have volunteered a significant number of work hours to raise funds for the original land protection effort, monitoring visitor activities, and conducting visitor surveys.
- The Towns of Ashby and Ashburnham provide emergency services and law enforcement on an as needed basis, with some support from State Environmental Police Officers, and provide support for environmental compliance via the Conservation Commissions.

Structures and Other Physical Inventory

- Route 119 parking area, gravel surface, space for 10 to 15 vehicles (expansion planned to provide space for an additional 10 vehicles).
- Entrance road from Bennett Road into former ski area parking lot – approximately one-quarter mile in length.

- Former ski area parking lot, large enough for approximately 100 vehicles – surface is in poor condition.
- Former ski area pump house adjacent to snowmaking pond – poor condition.
- Earthen dam structure associated with former snowmaking pond.
- Former ski area utility building located at the base of the summit road – a small cinder block structure.
- A slab foundation from former ski area base lodge.
- Summit road (from former ski area parking lot to the summit), associated drainage structures, utility poles and wires – approximately 0.9 miles in length.
- Miles of boundary – approximately 3.3.
- Size – 281.5 acres.

Recent Improvement Projects

- Removal of remnant structures from former ski area for public safety and aesthetic purposes, conducted by DCR staff in 2003.
- Regrading the Route 119 trailhead parking area, conducted by DCR staff in 2007.
- Trail maintenance conducted on an as needed basis mostly by volunteers from Friends of the Wapack.
- Installation of monuments at the base and summit to recognize successful Mount Watatic land protection effort, conducted by the Ashby Land Trust and members of the Campaign for Watatic in 2004.



Figure 3.1: View south from Mount Watatic (R. Flashman)

Section 3: Recreation and Public Access

Regional Demographics

During the past half-century local and regional population has increased, spurred by residential, retail and light industrial growth. The pace of residential development has been especially rapid during the past five years. A comparison of 1985 and 1999 land use, focused on the Fitchburg-Leominster-Gardner area, indicates that portions of the landscape developed for residential, commercial and industrial purposes increased by 2.5% during this time period, with a similar loss in the overall percentage of forested and agricultural lands.

The population within 10 miles of Mount Watatic is approximately 93,000 residents. The population of Fitchburg is about 40,000, and Gardner is a bit less than 20,000 out of this total. Winchendon, MA, New Ipswich, NH and Rindge, NH are also important community centers within this radius.

Community Overview – Demographics and Land Use

The **Town of Ashby** is a mostly residential community with a foundation of commercial home-based businesses. In 1998 the Town became the largest employer with the closing of the only large manufacturing facility in town. A historic district,

centered around Ashby's Town Common, was adopted by Town Meeting in 1997. In 1980, 2,311 people lived in Ashby. The population grew to 2,926 in 2004, with the greatest increase occurring during the 1980s. All of Ashby, with the exception of one small industrial zone, is zoned for residential use (mostly two-acre lot zoning). Considering the current zoning, land uses, and status of private undeveloped land, residential development is likely to have the greatest impact on the town and available open space. (Ashby Open Space and Recreation Plan)

In the year 2000 the **Town of Ashburnham** had a population of 5,546. During the 1980s the population rose by 40%. The overall land area of Ashburnham is almost twice that of Ashby, so the resultant population densities of the two towns are very similar. Ashburnham has over 20 lakes and ponds, including the Upper Naukeag Lake that serves as a drinking water supply reservoir for Ashburnham and Winchendon. The scenic landscape and many lakes and ponds make Ashburnham a desirable vacation spot, causing the population to double on a nice summer weekend. The regional school district and Cushing Academy are the largest employers. Similar to Ashby, Ashburnham is part of a larger trend toward increasing single-family home development. (Ashburnham Open Space and Recreation Plan)

Current Recreation Activities

Trails

Hiking is the most popular trail use. Two long-distance hiking trails, the Midstate Trail and the Wapack Trail, join at Route 119 and share the same stretch of trail through Mount Watatic Reservation. Hiking groups sometimes arrive by the busload.

In addition to hiking local residents occasionally use the unpaved forest roads for horseback riding.

There is some winter use of the trails for hiking, cross country skiing, snowshoeing and snowmobiling when snow conditions are favorable.

Unauthorized use of OHVs and 4-wheel drive trucks is common and increasing in frequency.

Hunting

Hunting is permitted in the abutting DFG Wildlife Management Areas and Ashburnham State Forest. Hunting is also permitted in Mount Watatic Reservation subject to DFG regulations, such as no hunting on Sundays, defined seasonal hunting timeframes, and maintaining proper distances from dwellings and roads.

The Summit

The summit area provides a dramatic spot for scenic views of the surrounding landscape, for photography, and for wildlife viewing such as the annual hawk migration.

The partners have received a variety of inquiries related to group activities or other unique uses of the summit area. The six owners have agreed to keep each other informed about these requests, and to filter appropriate requests through DCR's Special Use Permit system.

Current Points of Access

- The Route 119 trailhead parking lot is the main authorized and managed point of access.
- There is Route 119 roadside parking about one-half mile east of the trailhead parking lot, which is also used by hikers who want to take a more direct route to the summit.
- The right-of-way from Bennett Road to the former ski area is an important emergency services access point. Two locked gates are in place along this right-of-way, one located at Bennett Road and one closer to the former ski area parking lot. There is a problem regarding unauthorized access at this location with vehicles driven through abutting private property to go around these gates.
- Old Watatic Road continues to have a problem with unauthorized access point despite gates. Vehicles are driven around the gates or through the fields on the abutting DFW Gilchrest property. This road has been discontinued by the Town of Ashby, from the last house on the road to the end of the road, and is therefore owned by the abutters on either side.
- Binney Hill Road provides access to the Wapack Trail for visitors from New Hampshire.
- Numerous other rough roads provide access from Ashburnham, Ashby and New Hampshire.

This page is intentionally left blank as a placeholder for the **Demographics Map**.

The map is available in a separate file on the DCR website.

This page is intentionally left blank as a placeholder for the **Regional Land Use Map**.
The map is available in a separate file on the DCR website.

This page is intentionally left blank as a placeholder for the **Recreation / Public Access Map**.

The map includes Infrastructure items listed above under Structures and Other Physical Inventory, and is available in a separate file on the DCR website.

Organized User Groups

- Friends of the Wapack
- Midstate Trail Committee
- Eastern Mass Hawk Watch
- Boston Swiss Club
- Toah Nipi (Ashburnham based church group)
- Fitchburg Sportsmen's Club
- Various bus touring companies
- Boy Scout and Girl Scout troops
- Various school groups

Recreational Trends

2000 Statewide Comprehensive Outdoor Recreation Plan (SCORP) - statistics from Central Massachusetts:

Activities most widely engaged in by residents: swimming (61%), walking (59%), sightseeing/tours/events (56%), hiking (43%), fishing (34%), picnicking (33%), playground activity (32%), wildlife and nature study (30%)

Central Massachusetts residents had the highest percentage statewide for use of forests and showed the highest interest in use of water resources, especially lakes and ponds.

Preferences for funding initiatives: maintaining existing facilities (94%), improving access for people with disabilities (93%), restoring and improving existing outdoor recreation areas (91%), expanding environmental education programs (87%), providing guides/maps/interpretive information (86%), purchasing new outdoor recreation areas (81%), adding park staff (79%), increasing park police (78%), improving access by public transportation (71%).

2004 The Public's Use of Outdoor Resources in Massachusetts:

A Marketing Research Study Conducted for DCR by the Insight Group - compiled from telephone interviews of 400 park users and 100 non-users of parks

Leading Activities (previous 12 months):

Walking	80%
Picnicking	52%
Swimming	48%
Attending an event	48%
Historic appreciation	43%
Hiking	42%
Bicycling	40%
Boating/sailing	34%
Running/jogging	33%
Dog walking	29%
Nature study	27%
Camping	22%
Fishing	22%
Skating/hockey	14%
Mountain biking	14%
Downhill skiing	10%
Off Highway Vehicles	7%
Cross-country skiing	7%
Hunting	4%
Horseback riding	4%
Snowmobiling	3%

Conclusions of the Public's Use of Outdoor Resources in Massachusetts

- In 2004, 54% of Massachusetts residents surveyed reported using park and recreation facilities, as compared to 42% ten years earlier.
- Three-quarters of current (2004) users are under the age of 55. Park users tend to have attained a higher level of education, are more affluent, and more likely to have children than non-users.
- Green spaces, trails and parks command the most repeat use.
- Amenities that are most important to consumers include knowing that a facility is well maintained, that there are restrooms available, that they will be able to get exercise, that the facility is clean and has ample parking.

Trends and other information specific to Mount Watatic Reservation

The management partners have observed a general increase in all uses of this area. Some is the result of the publicity generated by the purchase of the mountain and the local fundraising efforts to pay for the purchase.

Mount Watatic Visitor Profile – Fall 2004

The Watatic Management Committee organized a simple visitor survey that was administered in the fall of 2004. Approximately two-thirds of the surveys were administered by volunteers in face-to-face interviews in the Route 119 parking area from October 9-November 6, 2004. The remaining one-third of the surveys were filled out by visitors in a post card format and mailed back to DCR. The post card responders visited the mountain between October 8 and November 11, 2004. The following summary includes responses from 266 individuals. The summary is intended to provide a basic profile of fall 2004 visitors, and represents an initial gathering of baseline data that can be compared with future surveys. The results should not be considered as statistically significant.

Where did the visitors come from?

- 22% Ashby / Ashburnham
- 23% MA & NH towns abutting Ashby / Ashburnham
- 22% Central Massachusetts
- 26% Eastern Massachusetts
- 1% Massachusetts / CT River Valley
- 3% New Hampshire
- 2% Other New England / New York
- 1% Other states / other countries

Who accompanied them?

- 10% came by themselves
- 51% came with family members
- 26% came with friends
- 11% came with family & friends
- 2% came with an organized group

How many individuals were in their group?

- 10% came by themselves
- 35% two people
- 35% three to five people
- 14% six to ten people
- 6% more than ten people

How many years have they been visiting Mount Watatic?

- 15% first visit
- 11% two years
- 15% three to five years
- 14% six to ten years
- 15% eleven to twenty years
- 19% more than twenty years

How many times per year do they visit Mount Watatic?

- 15% first visit
- 43% once or twice
- 23% three to five times
- 8% six to ten times
- 11% more than ten times

What was the purpose of their visit?

- 95.5% hiking
- 3.5% other trail use
- 1% other (foliage / hawk watch / peace & quiet)



Figure 4.1: View from the Wapack/Midstate Trails (A. Backman)

Section 4: Natural and Cultural Resources

Regional Context

Geology, Topography and Land Cover

Mount Watatic is located within the Worcester-Monadnock Plateau Ecoregion, which includes the most mountainous and hilly areas of Massachusetts' central upland. The general vegetation types in this ecoregion are transition hardwoods (maple-beech-birch, oak-hickory) with some northern hardwoods (maple-beech-birch). Forested wetlands are common and surface waters are acidic.

Mount Watatic is a classic monadnock, a residual hill or mountain composed of more resistant bedrock than the surrounding landscape, with a peak elevation of 1832 feet above sea level. The summit area is mostly open with herbaceous and shrub vegetation and a few hardy trees. The slopes are steep and forested, and there is an extensive wetland system at the base of the mountain on the south side. The mountain rises

approximately 650 feet above the surrounding landscape.

The composition of the bedrock, together with glacial and post-glacial deposition and erosion, has created a mosaic of landforms, sediments and soils. These topographical and geological characteristics in combination with climatic conditions provide a foundation for a variety of ecosystem types, attracting virtually every form of wildlife known in the northeastern part of the United States. These factors provided Native American hunters and gatherers a rich and diverse subsistence base that would have contributed to the many forms of land use practiced throughout the 12,000 years that humans probably occupied the region.

Protected Land and Open Space

Mount Watatic Reservation is part of a 900-acre block of protected open space managed by DCR and DFG. A 211-acre block of Ashburnham State Forest includes sections of the Wapack and Midstate Trails with a trailhead parking lot off Route 119. Hiking trails climb Nutting Hill within this state forest area. The 150-acre DFG Watatic Mountain Wildlife Sanctuary abuts Ashburnham State Forest and the Reservation, encompassing the northwestern flank of Mount Watatic. Hunting and trapping are not permitted in this area, which has been preserved specifically for the protection of native wildlife species. A 263-acre block of the DFG Ashby Wildlife Management Area abuts the eastern side of the Reservation.

In spite of the general increase in population and housing development, a significant amount of continuity still exists in the undeveloped forested landscape in this region. The **Regional Open Space Map** shows that nonprofit conservation organizations, municipalities and state agencies have been successful at protecting a substantial amount of conservation land.



Figure 4.2 Forested slope (A. Backman)

This page is intentionally left blank as a placeholder for the **Water Resources Map**. The map is available in a separate file on the DCR website.

This page is intentionally left blank as a placeholder for the **Regional Open Space Map**. The map is available in a separate file on the DCR website.

Cultural and Scenic Resources

Land Use History

To the east of Mount Watatic, Paleo Indian hunters and gatherers may have reached the Nashua River drainage sometime between 12,000 to 9,500 years ago. Their history is well documented in the Connecticut River drainage to the west. One therefore would speculate that they roamed and likely lived, even if only in small brief camps, in the intervening area, such as around Mount Watatic. By Late Woodland and Early Historic times the Nashaway, a band of a broader group of Algonquin speaking peoples, inhabited the area prior to colonial settlement. The Nipmuc, Massachusetts and Pennacook tribes may have all hunted or inhabited portions of the area.

The mountain was used as a landmark and sacred site by the indigenous Algonquins. The name comes from the Algonquin word witeoauk meaning “wigwam place.” In fact the domed shape of the mountain resembles a traditional wigwam. Native Americans associated the mountain with Wituomanit, the deity who guarded households from misfortune, and early post contact tales mention native pilgrimages to the summit to make offerings to the deity. (Johnson 1995)

With the displacement of the native population by European settlers the mountain was gradually logged off and turned into pasture land. By the mid-1800s most of the Reservation property and the surrounding area was pasture land, as indicated by extensive stone walls throughout the property, including the vicinity of the summit. By the late-1800s pasture land in the towns to the east had become increasingly scarce. To alleviate the situation cattle drives were conducted in the spring from as far away as Littleton to pasture the animals for the season. The soils and springs on the mountain are ideal for blueberries and the area outside of the pastures were put into blueberry production that provided residents with a cash crop through the Depression years.

Some of the landscape surrounding Mount Watatic was used for subsistence farming, but tax records indicate that most holdings were small, with relatively few livestock and very low assessed values per acre. Conditions for farming were not ideal. (Clark 1999). A changing economy gradually reduced the need for

agriculture in the area. The 1938 hurricane caused extensive damage to forest stands on the mountain and to fences, and blocked access roads. Agricultural activity was abandoned on the mountain and natural forest succession progressed from that point forward.

Archaeological Resources

Given the complex environmental characteristics and favorable site location criteria of much of the Mount Watatic region, the area must be considered to contain exceptionally high archaeological potential, both for the numbers of sites yet to be discovered, as well as for sites that retain high archaeological integrity and research value. The lack of development and low population densities have likely allowed for the survival rate of archaeological sites to be higher here than in most other parts of the state. According to DCR’s staff archaeologist, the Mount Watatic region is “a veritable archaeological museum.”

The potential archaeological resources within the Mount Watatic region are unique records of past human behavior, sometimes resulting from a single activity or event, and sometimes from hundreds and even thousands of years of repeated and recurrent use. The potential survival of many intact and well preserved archaeological sites here makes it one of the most important areas for research about our cultural heritage within the Commonwealth.

Archaeological remains of Colonial and Federal Period farmsteads dot the landscape, often hidden and protected by a shroud of vegetation. The remains of farm complexes featuring a main house, barns of varying sizes, a multitude of out buildings, wells and stone walls that set aside pastures from tilled land and orchards attest to the agrarian base of the region.

One of the more interesting historic archaeological remains in the Mount Watatic region is that of the Shaker compound. The site in Ashburnham contains visible structural remains of building foundations and stone walled enclosures (probably animal pens and gardens). It is likely that the Ashburnham Shaker lot was a satellite of the larger Harvard Shaker Village.



Figure 4.3: Historic photo (date unknown) of women boating with Mount Watatic in the background (provided by R. Flashman)

While the Mount Watatic region never achieved the industrial success of other Central Massachusetts towns like Northbridge, Uxbridge and Blackstone, its watercourses supplied sufficient head of water for small mill operators. The remains of grist and saw mills can be found throughout the region, often in seemingly isolated locations.

Scenic Resources

To date formal historic and scenic landscape inventories have not been prepared for Ashby and Ashburnham. However, it is likely that reasonably good representations of historic and scenic landscapes exist due to the region's continued rural character. Working farms can still be found, and former farms retain much of the integrity of setting as they still can be associated with outbuildings, stone walls, orchards, and open fields.

Visual intrusions caused by modern development on the landscape are relatively modest in the Mount Watatic region. Except in relatively few locations the broader rural landscape retains scenic qualities worthy of preservation.

Natural Resources

Habitat Resources

Land identified as BioMap Core Habitat by the Massachusetts Natural Heritage & Endangered Species Program (NHESP) consists of the most viable rare plants, rare animals and natural communities known in Massachusetts. Supporting Natural Landscapes consist of the most intact lands adjacent to Core Habitat, and serves to buffer and link Core

Habitat areas. Core Habitat areas within the Reservation include the summit, a portion of the slope running northeastward from the summit, and a small patch just below the summit on the southeast side. A large area of Core Habitat located in the abutting Watatic Mountain Wildlife Sanctuary overlaps into the western flank of the focus property. Most (if not all) of the remaining acreage in the Reservation is classified as Supporting Natural Landscape. Please refer to the **Priority Natural Resources Map**.

Areas classified as Living Waters Core Habitat by NHESP consist of water bodies that contain the best freshwater habitats with rare species and exemplary communities. Critical Supporting Watershed areas consist of upland that have the greatest potential to influence or impact the species living in Living Waters Core Habitat. The Reservation includes Critical Supporting Watershed in the Merrimack River basin for Core Habitat downstream in New Hampshire.

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The map is available in a separate file on the DCR website.

Additional Notable Natural Features

- Acidic rocky summit / rock outcrop community (NHESP-determined exemplary occurrence of the community type).
- Red spruce – fir – northern hardwood forest type, uncommon in eastern and central Massachusetts. (This area is characterized by spruce trees of significant size and age, and includes NHESP-designated priority habitat, potential habitat for Boreal Chickadee.)
- Rare dragonfly habitat associated with the summit area.
- Steep ledges with potentially unaltered vegetation.
- Steeply sloped late-successional forest (excellent interior bird habitat).
- Early-successional (scrub-shrub) habitat within the former ski area.
- The Reservation is a designated site under the Important Bird Area Program. The site is part of a migration corridor for more than 5000 migratory raptors each year, contains an assemblage of species characteristic of a unique habitat within the state, and is recognized for importance related to long-term research, environmental education and bird conservation. During a nine-hour period on September 17, 2007 1959 hawks and one bald eagle were observed from the summit of Mount Watatic. Twelve bald eagles were observed on 9/12/07. (reports@hawkcount.org)
- More than ten acres of forest on the lower slope near the former ski area that is almost pure sugar maple, probably established by adjacent seed sources when an entire stand was blown down by the 1938 hurricane.
- Part of the headwaters of the Souhegan River in the greater Merrimack River watershed.
- Important sub-watershed for wetland ecosystems at the base of the mountain south side, which include habitat for sundews, pitcher plants, and a variety of uncommon wildlife species e.g. dragonflies, damselflies, salamanders and turtles.
- A number of additional rare species occurrences and certified vernal pools in abutting state conservation lands

Each of the property co-owners has a full set of community and species observation forms and information sheets provided by the NHESP. In addition, a Biological Survey commissioned by the Department of Fish & Game and completed by Frances H. Clark (Carex Associates) in 1999 describes many of the natural resource attributes of Mount Watatic and the surrounding landscape, and is available as a reference for the Mount Watatic management partners.

Forest Resources

The DCR Management Forester has conducted an initial forestry assessment for the focus property. Please refer to the following description of forest stands and accompanying draft map.

Forest Stands

1. The former ski slopes were located in this area. Open areas and wooded areas between old slopes are put together in this type to consolidate into one stand. The old ski slopes are regenerating with numerous hardwood species along with white pine and spruce. The wooded areas between them have some variation as they progress up the slope. Species consist of spruce, white pine, red maple, red oak, and black birch. Size range from saplings to medium sized saw logs. Heights for saw logs range from 1/2 log to 2 1/2 logs. Quality ranges from poor to very good.
2. This stand is a hardwood mix with red oak, black cherry, pin cherry, white birch, yellow birch, black birch, ash, red maple and white pine. Size ranges from small pole to medium saw log, with the greater percentage being large pole to small saw log. Heights are one log to two plus logs. Quality ranges from fair to excellent.
3. This is a mixed hardwood and white pine stand that has been cut. There are scattered saw log size trees but the majority are pole size. Species include red oak, red maple, sugar maple, ash and white pine. Quality ranges from fair to excellent.
4. This stand is white pine/hardwood type. Size ranges from pole to medium saw logs. Heights range from one log to three logs. Quality ranges from fair to excellent. Stocking in this stand does vary from B level to A level but the variations are not distinctive enough to break stand in smaller areas.
5. This is an open area that includes roadway, old parking lots, pond and some old fields.
6. This stand is almost pure sugar maple. The size ranges from pole to small saw log. The heights range from two logs to three logs. The quality of the stand is good to excellent. The stocking is above the A level.
7. This stand is a hemlock/hardwood type with associates of white pine and spruce. The hardwoods include red maple, red oak, white birch, yellow birch, and beech. The size varies from pole to medium saw log with heights of one to two logs. The stand quality is good to excellent. Some logs have been cut in this area.
8. This stand is the ridge top of Mount Watatic. Red oak trees are stunted due to severe site conditions. Most of the trees are not very large and have characteristics of old growth trees. More investigation should be done on this area to determine the age of these trees. Stand #8 has low timber value.
9. This is a mixed stand of hardwoods and white pine. Size is pole size to some small saw logs. Heights are one half log to one and a half log. Stocking is between A and B level. Stand #9 has low timber value.
10. This stand is a mixed hardwood type with red maple, pin cherry, black cherry, white birch and ash. The size is from saplings to poles. Multiple stems from stump sprouts indicate that this area was cut heavily at some point in time. Quality is poor and the heights are relatively short. At this time there is not much timber value in stand #10.

This page is intentionally left blank as a placeholder for the **Forest Stand Map**.
The map is available in a separate file on the DCR website.



Figure 5.1: View from Mount Watatic summit (A. Backman)

Section 5: Mission, Management Goals and Principles

Mission and Overall Management Goals

The mission guiding the long-term stewardship of the Mount Watatic Reservation is to conserve and manage important natural, cultural and recreational resources.

The overall management goals for the Mount Watatic Reservation are:

- *Maintain and enhance native biodiversity.*
- *Provide for sustainable public access for hiking and other low-impact forms of outdoor*

recreation, including opportunities for enjoying panoramic views from the summit.

- *Preserve a place to relish the peace and beauty of nature in the heart of an exceptional protected landscape.*

General Management Principles

- There will be no commercial use of Mount Watatic Reservation.
- There will be no vehicular access to the summit except for access related to rescue, fire suppression, law enforcement, and partner-approved habitat management and maintenance purposes.
- Communication, coordination and cooperation between partners will be organized in a way that enhances the overall management capacity.
- Management of Mount Watatic Reservation will be consistent with adjacent conservation properties.
- Recreational activities will be monitored and managed to ensure public safety and sustainability related to stewardship of natural resources.
- Forest and vegetation management activities may be conducted to improve forest vigor and enhance native biodiversity and will be consistent with forest management of adjacent conservation properties.
- The partners will continue to share information and cooperate related to regional land protection priorities.



Figure 5.2: Mount Watatic team members (A. Backman)



Figure 6.1: Kiosk at Mount Watatic (A. Backman)

Section 6: Management Recommendations

Priority Findings

These priority findings, developed by the Partner Management Committee, will guide the overall management direction of the Mount Watatic Reservation.

- Mount Watatic Reservation contains an exceptionally rich and unique range of natural and cultural resources and contributes substantially to the continuity of lands in Ashby and Ashburnham managed for conservation purposes.
- Mount Watatic Reservation is an important link for Central Massachusetts and New Hampshire long-distance hiking trails, including a junction between the Wapack and Midstate Trails. The Reservation and surrounding conservation lands are also a component of the Quabbin to Cardigan Initiative greenway focus area. Mount Watatic also is a great 'small' mountain for families to climb.



Figure 6.2: Trail at Mount Watatic (A. Backman)

- The summit area is one of the most popular destinations in Central Massachusetts for outdoor enthusiasts. The popularity of the site presents a variety of management challenges and opportunities. The partners expect to continue to receive requests for a variety of special uses and events.
- Subjective observation by partner representatives indicates that the number of visitors has increased over the past several years, probably due in part to the publicity surrounding the Campaign for Watatic that led to the successful land protection. The main trailhead parking area on Route 119, which is actually part of Ashburnham State Forest, is frequently filled to capacity with overflow parking along the margin of the state highway. Visitation is expected to gradually increase as the regional population increases and as more people become aware of the Reservation as a public recreation resource.
- Unauthorized Off Highway Vehicle (OHV) use is common and problematic in Mount Watatic Reservation, and is increasing statewide.
- The steeply sloping topography adds to management challenges related to summit road maintenance, trail maintenance and forest management activities.
- Undivided ownership by six partners and the lack of on-site staff will require extra effort related to coordination and cooperation to provide for adequate resource stewardship and sustainable public access.

Management Issues & Concerns

The following management issues and concerns were identified by the Partner Management Committee. Many of these concerns are addressed in the subsequent recommendations. The remainder will be prioritized through long-term coordination of the Partner Stewardship Committee described below in the Partner Coordination section.

- Lack of on-site staff to monitor, maintain and manage the property.
- Increased OHV use, camping and other unauthorized overnight activities, illegal trash dumping.
- Unauthorized and unmonitored access from the Bennett Road emergency / management entrance as well as from multiple access points surrounding the Reservation.
- Increasing level of visitation, and visitation levels that exceeds parking capacity.
- Absence of sanitary facilities.
- Requests for special uses and events involving the summit area and former ski area parking lot.
- Public safety regarding the remaining ski area structures.
- Visitor overuse in some locations causing degradation of understory vegetation.
- Summit road erosion, trail erosion.
- Potential trail conflicts between user groups.
- Potential conflict between trail use (authorized and unauthorized) along the ridge from Mount Watatic to Nutting Hill, and adverse impacts to the acidic rocky summit/rock outcrop community.
- Insufficient trail marking, signage, maps, and property information provided for the public.
- The need for a comprehensive inventory of species and natural communities.
- Invasive species, domestic animals adversely affecting native wildlife species.
- Potential for brush fires.
- Boundary encroachment.
- Municipal rezoning of adjacent Route 119 corridor for 'green' business.

Land Stewardship Zoning Guidelines

State legislation (Chapter 21 Section 2F) that established DCR in 2003 requires the preparation of management plans for all of DCR's parks, forests and reservations. This legislation states that plans will include guidelines for operation and land stewardship, provide for the protection and stewardship of natural and cultural resources, and ensure consistency between recreation, resource protection, and sustainable forest management. The Land Stewardship Zoning Guidelines define three types of zones to address this legislative requirement and to provide a framework for the development and implementation of management guidelines to protect the particular resources located within the property. (General descriptions are provided below. The full text of the Guidelines is included in the appendices.)

A. General Land Stewardship Zoning Guidelines

Zone 1

This zone includes unique, exemplary and highly sensitive resources and landscapes that require special management approaches and practices to protect and preserve the special features and values identified in the specific Resource Management Plan. Examples of these resources include rare species habitat identified by the Natural Heritage & Endangered Species Program as being highly sensitive to human activities, fragile archaeological or cultural sites, and unique or exemplary natural communities. Management objectives emphasize protecting these areas from potentially adverse disturbances and impacts.

Zone 2

This Zone includes areas containing typical yet important natural and cultural resources on which common forestry practices and dispersed recreational activities can be practiced at sustainable levels that do not degrade these resources and that hold potential for improving their ecological health, productivity and/or protection through active management. Examples include terrestrial and aquatic ecosystems characterized by a diversity of wildlife and plant habitats, rare species habitat that is compatible with sustainable forestry and dispersed recreation, agricultural resources, and resilient cultural sites and landscapes. Zone 2 areas may be actively managed provided that the management

activities are consistent with the approved Resource Management Plan for the property.

Zone 3

This zone includes constructed or developed administrative, maintenance and recreation sites, structures and resilient landscapes which accommodate concentrated use by recreational visitors and require intensive maintenance by DCR staff. Examples include areas developed and deemed appropriate for park headquarters and maintenance areas, parking lots, swimming pools and skating rinks, paved bikeways, swimming beaches, campgrounds, playgrounds and athletic fields, parkways, golf courses, picnic areas and pavilions, concessions, and areas assessed to be suitable for those uses.

Significant Feature Overlays

The three land stewardship zones may be supplemented with significant feature overlays that identify specific designated/recognized resource features. These significant features are generally identified through an inventory process or research, and are formally designated. The purpose of these overlays is to provide more precise management guidance for identified resources and to recognize, maintain, protect, or preserve unique and significant values, regardless of the zone in which they occur. Examples of significant feature overlays include Forest Reserves, areas subject to public drinking water regulations, or areas subject to historic preservation restrictions. Specific management guidelines for significant features overlays are provided by resource specialists or by the federal, state, regional, or local agency that has recognized and listed the resource or site.

B. Land Stewardship Zoning Guidelines for Mount Watatic Reservation

The development and application of these Guidelines is a result of a step-by-step analysis of the natural and cultural resources of the Reservation and compatible public access and recreational uses. In a sense they are the culmination of the planning process, and are intended to help guide the long-term management of the Reservation. Please refer to the **Land Stewardship Zoning Guidelines Map**.

The recommended Guidelines for Mount Watatic Reservation are as follows:

Zone 2

The majority of land within the reservation, including wetlands, forested slopes and the summit area.

Zone 3

The former ski area parking lot on the north side of the property. This site might be used for future event parking if management and enforcement capacity allows for on-site coverage during visitor use.

Significant Feature Overlay:

The summit area that is identified by the Natural Heritage & Endangered Species Program (NHESP) as BioMap Core Habitat and supports an exemplary acidic rocky summit / rock outcrop community (please see **Priority Natural Resources Map**). Applicable management guidelines include monitoring rare species populations following NHESP guidelines (taking into consideration availability of staff and volunteers), and enforcement of regulations related to authorized and unauthorized summit activities, such as OHV use (taking into consideration availability of staff with enforcement capabilities).

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Land Stewardship Zoning Guidelines Map.

The map is available in a separate file on the DCR website.

Recommendations are categorized under the following management topics:

- 1. Partner Coordination**
- 2. Natural and Cultural Resource Management**
- 3. Public Access, Recreation and Environmental Education**
- 4. Reservation Maintenance and Improvements**
- 5. Additional Surveys, Studies and Research**

Recommendations for Partner Coordination

Facilitate and strengthen partner cooperation and coordination in order to support and enhance overall management capacity.

Partner Communication & Coordination

Recommendation 1: Form a Watatic Stewardship Committee with one representative and one alternate appointed by each of the six partners, within one-half year following partner approval of this Resource Management Plan. This committee will replace the Partner Management Committee as the vehicle for partner communication and coordination. The mandate of this committee is to oversee and support long-term implementation of the Resource Management Plan, rather than exercising control over the day-to-day management of the facility. The Stewardship Committee is an advisory group and will not have the authority to direct management activities of any partner(s).

Recommendation 2: In order to modify the Resource Management Plan, at least four of the six partners must approve of the modification, including at least one from each category (nonprofit, municipal, state) of partner. Modifications may include adding, deleting or modifying RMP recommendations.

Recommendation 3: The Watatic Stewardship Committee will develop a Memorandum of Agreement (MOA) regarding maintenance of the Reservation to be signed by all partners, and will meet biannually to share management and maintenance concerns, and to evaluate and/or update the Resource Management Plan.

Italicized portions of the following Recommendations subsections are considered to be partner management policies that can serve as the foundation of the MOA.

Recommendation 4: Provide an efficient method for partner communication and decision making related

to immediate management and maintenance concerns, and related to requests for group activities or special events, as follows:

- If the proposed event or activity is not commercial in nature, does not involve vehicular access to the summit, and will not adversely impact resources or normal visitor activities, the Watatic Stewardship Committee representative who has been contacted will forward the request to the Willard Brook SF Supervisor and copy the remaining the Stewardship Committee Representatives. The request can then be reviewed through the DCR Special Use or Recreation Permit process.
- If any Stewardship Committee Representative is the recipient of a request regarding a new type of activity, or a request that might result in adverse impacts, the member will provide e-mail notice to the other Watatic Stewardship Committee members for review and comment.
- If management or maintenance concerns are brought to the attention of one of the ownership partners, the Watatic Stewardship Committee representative will forward the information to the Willard Brook SF Supervisor and copy the remaining Stewardship Committee Representatives.
- Application process by a partner(s) for a local or state permit such as a Notice of Intent will allow for the other partners to review the proposal in advance of filing, and will identify the responsible party in case of violations.
- A partner subcommittee can be formed to develop and implement ideas for management related funding (independent of DCR capital and operational budget), such as alternatives for endowments, benefactors or trustees, and other methods to improve management capacity.

Law Enforcement Coordination

Management Policy 1: *Unless otherwise identified in this Resource Management Plan with specific guidelines, recreation-related DCR regulations (CMRs) and hunting-related DFG regulations (CMRs) will be applicable to property use and management. Additional signs may be required to ensure that hunters will not stray onto the abutting DFG Wildlife Sanctuary.*

Management Policy 2: There will be no authorized use of the Reservation by Off Highway Vehicles (OHVs), except for partner-approved habitat management and maintenance purposes, and emergency vehicle access. Signs at the base of the summit road will indicate unsafe passage and access by only authorized vehicles.

Management Policy 3: There will be no parking in the former ski area access ROW, and no parking at other unauthorized locations as identified by the Partner Stewardship Committee.

Recommendation 1: Develop a Mutual Aid Agreement between state (EPOs and state police) and municipal police departments, including New Ipswich, NH. The Agreement could include a description of emergency contact protocol, a process to recover costs of negligent behaviors that trigger an emergency response, equitable dispersal of fines between responding departments, and a process to notify the Watatic Partners.

Recommendation 2: Direct all CMR (Code of Massachusetts Regulations) and other state and local law violations, irrespective of the issuing agency, to the Ayer District Court. This procedure will require an application to the court, by law enforcement officials representing the Partners, requesting that the court handle all Mount Watatic Reservation related citation activity, and the subsequent consent of the court.

Recommendation 3: Explore the possibility that the Towns of Ashby and Ashburnham may be able to develop and enforce regulations or bylaws specific to the Reservation, because both towns have an undivided ownership interest in the property.

Recommendation 4: The Law Enforcement Subcommittee will meet to clarify action steps and a timetable for implementation.

Recommendation 5: The partners will request law enforcement personnel to enforce OHV violations to the greatest degree possible, with recommended increases in penalties for subsequent violations. If unauthorized OHV use continues to the detriment of natural resources or Reservation visitors, partners may request that law enforcement staff conduct concerted enforcement initiatives.

Recommendation 6: Unauthorized parking areas should be clearly marked and signed.

Recommendation 7: It may be possible to gain better control over unauthorized OHV access originating

from Old Watatic Road with the installation of a gate and sign, if DFG can maintain adequate access to the Ashby Wildlife Management Area via the Mount Watatic Reservation. All points of unauthorized OHV access should be gated and signed as resources become available

Recommendations for Natural and Cultural Resource Management

Protect and manage important natural and cultural resources, including rare and endangered species habitat and unique natural communities.

Management Policy 1: Forest management and forest management planning will include preparation of a District Forestry Plan for the mid-state area following completion of the more general Worcester-Monadnock Plateau Ecoregion Forestry Plan. (These projects are part of the requirements for Green Certification of state agency forestry programs, which include third party review under federal and international sustainable forestry guidelines. General goals for sustainable forestry include keeping closely monitoring on forest vigor, and attaining a more balanced age structure with a focus on enhancement of native wildlife diversity. Forest management may include thinning immature stands to promote healthier trees, selection or group selection harvests to maintain northern hardwoods, and shelterwood harvests to encourage white pine and oaks.) DFG and DCR Foresters will work cooperatively to ensure that forest management planning and activities are conducted at the ecosystem level and are consistent throughout abutting conservation properties. Implementation of forest management plan recommendations will be subject to partner review and approval.

Management Policy 2: Following partner review and approval, DCR's staff archaeologist will assist with the review of any proposed projects or management activities that could adversely affect cultural resources. Site protection and avoidance of impacts are the best strategies to protect and preserve archaeological resources (or potential archaeological resources). Detailed guidelines for management of historical and archaeological resources are included in the appendices.

Management Policy 3: Partners may identify priority land protection projects and continue to cooperate on regional land protection initiatives with a general objective to enhance the continuity of conservation lands.

Recommendation 1: Prepare baseline documentation reports as a priority resource management tool. Baseline documentation is a fundamental conservation and management tool that ideally is conducted before other significant management actions are undertaken (given the caveat of limited staff resources). Baseline surveys include permanent photo documentation with GPS coordinates of boundaries (concurrent with boundary marking), important natural communities (e.g. Acidic Rocky Summit, Spruce-Fir Northern hardwood Communities), high use areas, and problem areas for OHV access and use. Monitoring and control is particularly important in areas where intensive visitor use and sensitive resources coexist, such as the summit area. A notebook of prints with captions should be kept by the partners in order to document changes and make future management and legal decisions about property trespass, natural community decline caused by invasive species, visitor use and illegal activities.

Recommendation 2: Seek management guidance from the Natural Heritage & Endangered Species Program (NHESP) regarding high ground recreation activities and potential impacts to the Acidic Rocky Summit/Rock Outcrop Community (such as trampling of mosses and lichens).

Recommendation 3: Prepare a detailed inventory of species and natural communities, following the recent Frances Clark report and include a breeding bird survey. Partners should seek support from environmental programs in colleges and universities and from scientists associated with environmental organizations and local naturalists.

Recommendation 4: Assure protection of the Mountain Fern (*Dryopteris campyloptera*), a NHESP Watch List species in Massachusetts. This fern occurs primarily in northern Berkshire and Franklin counties. Coordinate with DFW regarding GPS documentation.

Recommendation 5: Request additional management guidance as applicable from NHESP regarding rare species habitats and significant natural communities; and incorporate any applicable general guidelines

developed by DCR and NHESP under the Biodiversity Stewardship Initiative.

Recommendation 6: Coordinate beaver management strategies and actions to protect rare species habitat and maintain access for emergency and management vehicles.

Recommendation 7: Prepare a GPS inventory of invasive plants. DFG staff have identified bittersweet, common buckthorn and multiflora rose on the property. Monitor for invasive species and signs of forest disease in the Spruce-Fir Northern Hardwood Community. This is an uncommon community in eastern Massachusetts and the Mount Watatic habitat includes spruce trees of significant size and age. Monitor for signs of the Hemlock Woolly Adelgid.

Recommendation 8: Focus invasive species monitoring and control efforts on important natural communities and along trails and roads.

Recommendation 9: Invasive species management may include prevention using public outreach and visitor education. Partners may utilize the networking capabilities of the New England Invasive Plant Group or similar organization to establish partnerships with environmental organizations and regional college and university environmental programs to support research and invasive species population control. Undivided ownership by the private nonprofit partners may allow for eligibility for funding under the United State Fish and Wildlife Service Landowner Incentive Program.

Recommendation 10: Small-scale Forest Reserves within Mount Watatic Reservation may be identified as part of the regional forest management planning to be undertaken. These areas would not be actively managed, and could be used as a control to compare over the long-term with similar actively managed stands. There are additional areas in the Reservation that will not be actively managed due to steep slopes and other site factors.

Recommendations for Public Access, Recreation and Environmental Education

Provide a safe and clean environment for sustainable, dispersed, non-motorized recreation activities.

Management Policy 1: Support hiking as the primary recreational activity and use for Mount Watatic Reservation. In a fall 2004 survey, over 95% of the respondents visited the Reservation for this purpose. Considering the current lack of on-site staff and the partner's overall stewardship responsibilities and challenges, attempting to offer management support for additional recreational activities or other trail uses is not feasible unless the activity is supported and monitored by a dedicated user group.

Management Policy 2: There will be no authorized use of the premises by OHVs, except for partner-approved habitat management and maintenance purposes, and emergency vehicle access. Signs at the base of the summit road will indicate unsafe passage and access by only authorized vehicles.

Management Policy 3: There will be no overnight use, campfires or other open fires.

Management Policy 4: Use of the former ski area parking and former ski lodge site will only be permitted if the partners can provide staff to monitor the site while the Bennett Road gates are open. Activities that may be supported by the partners include events to raise funds for implementation of Resource Management Plan recommendations, and partner-approved group activities with the overall objective of enhancing environmental education opportunities.

Recommendation 1: Expand the Route 119 trailhead parking area and ensure the project is compatible with adjacent environmental resources.

Recommendation 2: Provide additional information for the Kiosk at the Route 119 trailhead that may include a map showing the conservation properties in the Mount Watatic area, trail map brochures, information on partner ownership, regulations, hunting seasons and emergency contact numbers. Regulations which are particularly important to the partners for management of the Reservation may be

highlighted, such as prohibitions on OHV access and use, overnight use, and campfires or other open fires.

Recommendation 3: Through signage and face-to-face contact, encourage large organized groups who travel to the site by bus, that they should contact the Willard Brook State Forest headquarters in advance of their visit to request a Special Use Permit for organized outings.

Recommendation 4: Establish a Memorandum of Understanding (MOU) with the Friends of the Wapack to clarify guidelines and standards for trail maintenance, including vegetation clearing and management for scenic views. The Friends are currently working on a MOU with the U.S. Fish & Wildlife Service for the section of trail through the Wapack National Wildlife Refuge at the northern end of the trail. This could be used as a model for a Mount Watatic MOU.

Recommendation 5: Snowmobiling may be allowed if a written agreement is established between a responsible snowmobile group and the Partners. The agreement must include Partner-approved performance standards, including identification of designated trails.

Recommendation 6: If forest management activities occur in the future, install wayside interpretive signs to explain the purpose and long-term implications. Investigate the potential for interpretive signs related to the pure sugar maple stand.

Recommendation 7: Promote partner coordination with local schools to support environmental education programs.

Recommendation 8: Investigate preparing a trails and information brochure that will be available at the Route 119 trailhead, at Willard Brook State Forest, and at appropriate locations in the communities.

Recommendations for Reservation Maintenance and Improvements

Provide regular maintenance for existing uses and facilities, remove facilities that are not beneficial for visitors or management purposes, and undertake priority improvements, contingent upon staff, volunteer, and funding resources.

Recommendation 1: Continue grading of the Route 119 trailhead parking area as needed.

Recommendation 2: Maintain the summit road contingent on funding and qualified maintenance support.

Recommendation 3: Remove the abandoned summit road utility poles and associated wires.

Recommendation 4: Demolish and remove the abandoned pump and engine house adjacent to the former ski area snow-making pond, and the utility building at the base of the summit road.

Recommendation 5: Install signage.

- Upgrade informational, directional and boundary signs contingent on funding, staff and sign material availability.
- Install a sign at the base of the summit road indicating unsafe passage and access by only authorized vehicles.
- Install directional signs at the summit to keep visitors on the trail system and away from the summit access road.
- Install sign indicating “no parking / do not block gates” at the Bennett Road right-of-way to the former ski area.
- Install similar signs in other key locations to gain better control of illegal access points.
- Install hunting information signs related to the abutting Wildlife Sanctuary.
- Clearly mark property boundaries, including the private property boundary along the saddle leading from the main summit to the lower summit.

Recommendation 6: Request assistance from recognized trail management organizations to maintain or relocate eroded trails.

Recommendation 7: Utilize the Watatic Stewardship Committee for help and advice to coordinate volunteer activities.

Recommendations for Additional Surveys, Studies and Research

Gather additional information related to resources and visitor use to support sustainable management of the Reservation.

Recommendation 1: The DCR management forester and a forestry intern conducted a GPS inventory of roads and trails during the fall of 2006. The inventory included notes on trail conditions. The next recommended step is to assess this information and compile a list of trail maintenance needs using a Trail Impact Assessment that was developed for use at Mount Wachusett State Reservation by DCR staff. A summary of this assessment process is included in the appendices.

Recommendation 2: Conduct GPS survey of illegal dump site locations, and develop long-term monitoring / enforcement / remediation plan.

Recommendation 3: Conduct visitor surveys on a regular basis so that the partners can assess trends in the amount and types of visitor use in all seasons.

Recommendation 4: Survey environmental education programs in the local schools in order to determine how they are using the Reservation, and to assess how the partners might be able to support and expand on these programs

Recommendation 5: Coordinate with DCR and DFG Management Foresters to identify areas that may be appropriate for designation as Small (patch) Forest Reserves. Small Forest Reserves are portions of state lands where commercial harvesting of wood products will be excluded in order to sustain biological diversity. Reserves may be identified due to the presence of important forest resources such as unique natural communities, steep slopes or other natural attributes that will benefit from a hands-off management approach that leaves the forest canopy intact.

Recommendation 6: Inventory historic stone walls using GPS technology and undertake concurrent historical land use and land records research.



Figure 6.3: Hiking at Mount Watatic (A.Backman)

Management Needs and Recommendations

This section includes an assessment of current and future management activities, responsibilities and capacity, and describes two levels of management capacity – the first level (Level 1) addresses current needs and capacity, and the second level (Level 2) describes management needs to implement priority stewardship responsibilities and strategies.

much larger 9,000-acre Willard Brook State Forest (SF) Management Unit. Due to intensively used recreation areas at Willard Brook SF, Pearl Hill State Park and the Nashua River Rail Trail, less than 5% of the Willard Brook Management Unit budget, staff time, and management resources can be focused on Mount Watatic Reservation.

Current Management Capacity (Level 1)

As described in Section 2: Current Management, DCR currently is the only Watatic partner with the capacity to provide ongoing management for Mount Watatic Reservation. The Reservation is part of the

Current Management Activities with Level 1 Management Capacity

As described in Section 2: Current Management, and repeated here for comparison between Level 1 and Level 2:

- Conduct road repairs along the forest road that leads from the Route 119 parking area towards Nutting Hill and the summit trail to address flooding problems caused by beaver activity. Implement beaver management strategies to maintain forest road access and to prevent the alteration of the adjacent rare Odonate habitat. (This road is technically part of Ashburnham State Forest.)
- Respond to calls and local concerns, including gate and lock maintenance.
- Cleanup illegal dumping.
- Install signs.
- Maintain and regrade the Route 119 parking area, conducted on an annual or as needed basis. (This parking area is technically part of Ashburnham State Forest.)
- Maintain trails.
- Conduct storm water maintenance on the summit road.

Key Strategies to Support Current Management Capacity

A. Partner Communication & Coordination

The partners recommend formation of a Watatic Stewardship Committee with one representative and one alternate appointed by each of the six partners. The mandate of this committee would be to oversee and support long-term implementation of the Resource Management Plan, rather than exercising control over the day-to-day management of the facility. The Stewardship Committee would be an advisory group and would not have the authority to direct management activities of any partner(s). The Stewardship Committee can provide an efficient method for partner communication and provision of advice related to immediate management and maintenance concerns, and related to requests for group activities or special events. **A partner subcommittee could be formed to develop and implement alternatives for management-related funding, such as establishing endowments and identifying other private and public sources of**

funding to help improve management capacity.

One example of this activity could be raising the funds needed to hire a seasonal position to provide a presence on the trail system, to assist lost or injured hikers, provide a basic level of informational services for visitors, and monitor the trails for environmental and maintenance concerns. An account managed by a nonprofit partner could facilitate flexibility and quicker accessibility to funds.

B. Law Enforcement Coordination

The partners have initiated a process that may lead to all CMR violations, irrespective of issuing agency, being directed to Ayer District Court in order to enhance consistency of the law enforcement process. There is also potential for the development of a Mutual Aid Agreement between state (EPOs and state police) and municipal police departments, including New Ipswich, NH. The Agreement could include a description of emergency contact protocol, a process to recover costs of negligent behaviors that trigger an emergency response, and the equitable dispersal of fines between responding departments.



Figure 6.4: Environmental Police (www.mepoa.org)

Priority Stewardship Responsibilities and Management Needs (Level 2)

The Mount Watatic management partners anticipate that pressures from visitor use will gradually increase as local and regional populations grow, as more land is developed, and as more people become aware of this public recreation resource. Conflicts between visitor use and the preservation of sensitive resources such as the acidic rocky summit natural community must be monitored and managed on a long-term basis.

The management partners recognize the need to enhance management capacity in order to address priority management concerns.

- The first priority is to identify and monitor existing and potential areas of resource stewardship and visitor conflict through baseline inventories, and to increase the capacity to monitor natural and cultural resource and recreational uses on a regular basis.
- Boundary marking, improved environmental education through better signage and public outreach, and partner coordination with local and state law enforcement staff related to illegal OHV activity are important management responsibilities.
- Additional management resources are needed to provide visitor contact, monitor the trailhead area, trails and summit activities, undertake basic trail maintenance, and provide first level emergency services (with a potential for contact and coordination with local Emergency Medical Services).



Figure 6.5: Wapack Trail Kiosk at Mount Watatic (A. Backman)

An increased Level 2 management capacity that could begin to address the partner-identified priorities for management of Mount Watatic Reservation includes:

- The addition of a DCR Seasonal Supervisor and Laborer positions, assigned as necessary to Mount Watatic Reservation, as a requested addition to the DCR staffing plan if adequate operational funding is available.

- DFG resources to organize and administer the identification and monitoring of existing and potential areas of resource stewardship and visitor conflict through baseline inventories.
- Management partner efforts to identify additional strategies for management support from municipal and nonprofit partners, and to foster partnerships with organized park user groups and organizations that can support environmental research and education.

Stewardship Opportunities

There are also additional stewardship opportunities that may enhance overall management capacity:

- The partnership between two towns, two nonprofit conservation land trusts, and two state agencies provides unique opportunities for cooperation so that the sum of the partnership management capacity can be stronger than any of the individual partner's management capacities.
- There is a potential to increase management and maintenance capacity through coordination with a variety of volunteers.
- The partners have initiated a process for coordinating local and state law enforcement capabilities.
- There is a potential to provide on-site environmental education opportunities for local school systems regarding the unique environmental resources and values of Mount Watatic.
- There is a potential to coordinate with college and university environmental programs, and scientists associated with environmental organizations, to expand and refine baseline information through research projects and resource inventories. This could enhance the partners' long-term stewardship of Mount Watatic Reservation.