

Assessment, Recommendations, and Management Plan for the
EAGLE MOUNTAIN NATURAL AREA



Prepared for the Town of Milton

By LIA Consultants:

Elissa Arnheim • Jillian Butler • Brian Carlson • Heather Fitzgerald
Cynthia Fleming • Lexi Shear • Jenny Tollefson • Mike Winslow

and

Eagle Mountain Committee

DECEMBER 2000

Table of Contents

| | |
|--|----|
| <i>Table of Contents</i> | 1 |
| <i>List of Figures, Tables, and Graphics</i> | 2 |
| <i>Acknowledgements</i> | 2 |
| <i>Executive Summary</i> | 3 |
| INTRODUCTION..... | 3 |
| SITE NATURAL HISTORY | 3 |
| NATURAL RESOURCE MANAGEMENT | 3 |
| RECREATION AND EDUCATION..... | 5 |
| CONCLUSION | 6 |
| <i>Summary of Recommendations</i> | 7 |
| RARE PLANT AND COMMUNITY PROTECTION..... | 7 |
| RECREATIONAL ACTIVITIES | 7 |
| NATURAL RESOURCE AND WILDLIFE RECOMMENDATIONS..... | 7 |
| TRAIL SYSTEM RECOMMENDATIONS..... | 7 |
| EDUCATION..... | 7 |
| <i>Overview of the Eagle Mountain Natural Area</i> | 8 |
| LAND USE HISTORY | 8 |
| GEOLOGY | 12 |
| SOILS..... | 12 |
| HYDROLOGY | 13 |
| NATURAL COMMUNITIES..... | 13 |
| <i>Natural Resources</i> | 18 |
| WILDLIFE | 18 |
| AGRICULTURE | 19 |
| <i>Monitoring</i> | 20 |
| <i>Recreation and Education</i> | 22 |
| OVERVIEW | 22 |
| TRAIL SYSTEM | 22 |
| <i>Recreational Activities</i> | 23 |
| <i>Appendix A. Plant species list</i> | 27 |
| <i>Appendix B. Wildlife species list</i> | 29 |
| <i>Appendix C. Conservation Restrictions</i> | 30 |
| <i>Bibliography</i> | 45 |

List of Figures, Tables, and Graphics

| | |
|--|----|
| FIGURE 1. LOCATION AND BOUNDARIES OF EAGLE MOUNTAIN NATURAL AREA | 4 |
| GRAPHIC 1. LIMESTONE BLUFF CEDAR-PINE COMMUNITY | 6 |
| FIGURE 2. LAND USE HISTORY MAP | 9 |
| FIGURE 3. SOILS MAP..... | 14 |
| GRAPHIC 2. VIEW OF MT. MANSFIELD..... | 16 |
| FIGURE 4. NATURAL COMMUNITY MAP..... | 17 |
| GRAPHIC 3. 3-D VIEW OF EAGLE MOUNTAIN | 19 |
| GRAPHIC 4. GOLDEN CORYDALIS | 21 |
| FIGURE 5. TRAIL SYSTEM MAP..... | 24 |
| TABLE 1. RECREATION ACTIVITIES AT EAGLE MOUNTAIN NATURAL AREA..... | 25 |
| GRAPHIC 5. AERIAL PHOTO..... | 26 |

Note: This document is based on an assessment of Eagle Mountain Natural Area by LIA Consultants. It was later modified and adopted as a management plan by the Eagle Mountain Committee and the Milton Select Board.

LIA Consultants is comprised of the following graduate students in the University of Vermont Botany Department course, Landscape Inventory and Assessment, taught by Walter Poleman: Elissa Arnheim, Jillian Bulter, Brian Carlson, Heather Fitzgerald, Cynthia Fleming, Lexi Shear, Jenny Tollefson, and Mike Winslow.

The Eagle Mountain Committee consisted of Mr. Wendell Noble (Chair), Mr. Daniel Gaherty (Vice Chair), Mr. Mike Adams, Mr. John Cushing, Mr. William Everest, Mr. Philip Lapierre, and Ms. JoAnn Prince. Minutes of the Committee Meetings are available in the Milton Town Clerk's Office.

Acknowledgements

We would like to thank many people without whom this project would not have happened. Thanks to Liz Thompson, Brett Engstrom, Jane Dorney, Mike Snyder, and John Shane for offering us their perspective on the property; to Beverly Wemple and Charles Ferree for their indefatigable assistance with mapping technology; to Ian Worley for his insight both in the air and on the ground; to John and Peggy Hoyt and Larry Everest for sharing with us their vast knowledge of the property; to Ted Murin and Ernie Buford for their invaluable birding expertise; to all the members of the Eagle Mountain Committee and Conservation Commission for their input on this project; to Walter Poleman for his encouragement and support; and finally to each other, Heather, Elissa, Cynthia, Jenny, Brian, Jillian, Mike, and Lexi, for much patience and many long hours working on this project.

Executive Summary

Introduction

The Eagle Mountain Natural Area (EMNA) is a 226-acre parcel adjacent to the shore of Lake Champlain in the town of Milton, VT (Figure 1). The land was donated to the town of Milton by Lake Champlain Land Trust (LCLT) in 1998, but the LCLT retained a conservation easement on the property. Any major management decisions must be made cooperatively by the Town and the Land Trust. The Town of Milton requested the services of LIA Consultants to make management recommendations for EMNA.

In keeping with the LCLT easement, we have chosen two primary goals in the development of management recommendations for Eagle Mountain Natural Area: the preservation of ecological values and the enhancement of recreational opportunities. By preserving ecological values we mean to protect rare, threatened and endangered plants animals and natural communities, to maintain historic levels of biodiversity, and to prevent the erosion of topsoil. As the trail system is the basis of most recreational opportunities at Eagle Mountain Natural Area, managing for recreational opportunities means maintaining and enhancing the existing system. We have chosen promotion of agricultural and educational opportunities as secondary goals, which have been incorporated into our recommendations. Ultimately the success of our management recommendations should be judged by how well recreational and ecological goals are integrated.

Site Natural History

The under-lying bedrock is entirely Dunham Dolomite, a rock rich in calcium and magnesium carbonate. The area lies just east of the Champlain Thrust Fault. The thrust fault is responsible for the creation of Eagle Mountain itself and also for the ledges and steep cliffs on the west side of the property. The soils of Eagle Mountain Natural area are primarily thin rocky dry soils derived from glacial till.

The calcium in the rock and the ledges are unusual geologic features that contribute to the natural vegetation communities in the area. The dry, calcium rich soil supports the dominant community of mesic maple-ash-hickory forest. The cliffs and ledges are home to the rare plant golden corydalis and an unusual northern white cedar bluff community. In places rock ledges are exposed, and in others deeper soil collects. These variations, in addition to 40 acres of mowed fields, contribute to the diversity of the area. The combination of interior forest and open hayfields provides habitat for a wide diversity of wildlife.

Natural Resource Management

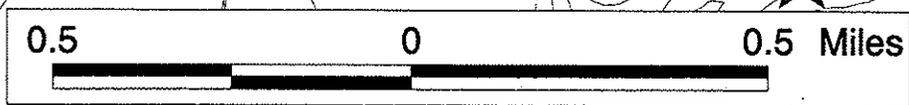
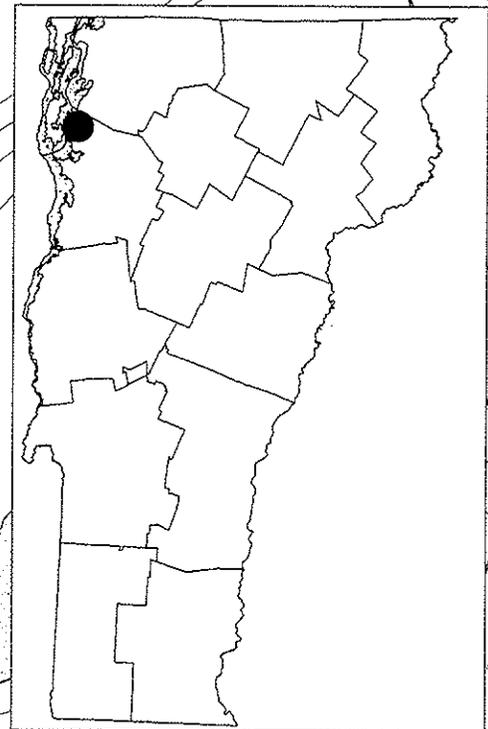
Our recommendations for EMNA stem from four concerns. Our first concern is protection of the rare plants and natural communities found on the property. We recommend construction of a short segment of wooden rail at the Lower Lookout to prevent visitors from trampling these plants and to keep visitors back from the steep cliffs. Additionally, we suggest extreme caution when clearing trees to improve views in

Figure 1. Location and boundaries of Eagle Mountain Natural Area, Milton, VT.

Eagle Mountain

Long pond

Roads pond



this area because of the potential damage to the rare plants. A botanist should be consulted to supervise this work. Secondly, in order to enhance food availability for wildlife, we recommend release of existing apple trees. Apples provide an excellent food source for a variety of species and the Eagle Mountain Natural Area property is blessed with an abundance of old trees that would benefit from removal of competition. Third, we recommend some trail maintenance to prevent soil erosion. Wet areas of certain trails are specified later in the report and limited seasonal use of some trails is also warranted. Finally, we recommend that conservation easements be obtained from willing landowners along the northwest border of the property. This property supports additional rare communities and species that deserve protection.

We discuss two potential agricultural uses of the land. First, to maintain Eagle Mountain Natural Area as a working component of the landscape, we encourage the continued mowing of the open accessible hay fields with restrictions as to the timing of harvests. Hayfields are becoming increasingly rare in Chittenden County due to suburban development. Meanwhile they provide breeding grounds for many grassland bird species that are declining throughout their range. To protect grassland birds, mowing should not be done before late June. Second, we discuss the future of maple sugar production on the land. While we feel sugaring is not detrimental to the landscape, the investment in large-scale operations is unfeasible and may conflict with recreational uses. Thus we recommend that any tapping currently done for personal use continue but no effort be made to expand sugaring operations.

Recreation and Education

We recommend continued pursuit of low impact recreational opportunities, banning of high impact, and regulating of medium impact pursuits at EMNA. Low impact recreation includes hiking, walking, hunting, observing wildlife, snow shoeing, and cross-country skiing. High impact uses include motorized recreation of any sort. Medium impact uses include mountain biking, horseback riding, and camping. When unregulated, these activities cause increased soil erosion that would require greater trail maintenance costs for the town. Camping should be managed to prevent littering, harvesting of firewood, or other negative human impacts. To enhance the enjoyment of recreational users of the property, we make many suggestions for trail system improvement. In addition to routine maintenance, these include construction of a more permanent kiosk at the trailhead and expansion of the parking area if use of EMNA increases beyond what we observed in the spring of 2000.

To enhance the education potential of EMNA we recommend development of an interpretive trail guide. Such a guide would help develop a sense of place among users of the property. This guide would offer information about historic and pre-European settlement conditions at Eagle Mountain Natural Area and how they have contributed to today's landscape. We hope that by developing a sense of the history of Eagle Mountain Natural Area, people will be willing to invest more in its future.

Conclusion

We envision EMNA in 50 years time as an oasis from an increasingly developed and fragmented landscape in Chittenden County. People will have an opportunity to escape to a quiet place, wildlife and plants will continue to benefit from the protections currently in place, and some economic benefit will accrue from the continued use of the northern hayfield. If our plan is successfully implemented we hope that five criteria will be met: populations of rare plants will remain constant or increase in size, there will be no loss of bird or mammal species sighted on the property, soil erosion along the trail will be minimal, the number of visitors to the site will increase as will their satisfaction with their visit, and economical production of hay will continue. Implementation of a monitoring program to focus on these five criteria will ensure that Eagle Mountain Natural Area continues to serve Milton in the future as well as it has in the past.



Northern white cedars have a yellowish hue, which makes limestone bluff cedar-pine communities detectable from the air. Source: Elizabeth Thompson, The Nature Conservancy.

Summary of Recommendations

Rare Plant and Community Protection

- When clearing trails or thinning trees around the cliff areas is necessary for recreational, scenic, or other reasons, it must be done under the guidance of a trained botanist so as to protect the rare plants and communities.
- Investigate obtaining a conservation easement for the property on the northwest side of EMNA if a willing seller becomes available.

Recreational Activities

- Permit low impact activities, including hiking, bird watching, cross-country skiing, snow shoeing, and hunting.
- Permit certain non-commercial medium impact activities on a seasonal basis, including horseback riding, and mountain biking, on designated trails only in accordance with appropriate Town ordinances.
- Permit camping in designated areas by town-approved permit.
- Assure the introduction of medium impact uses is permitted only after the property management tools and space are properly established.
- Prohibit high impact activities, including motorized vehicle use, snowmobiling, all-terrain-vehicle use, and dirt biking except for maintenance or public safety purposes.

Natural Resource and Wildlife Recommendations

- Harvest trees only in conjunction with other goals, including sugarbush management, apple tree release, or view improvement. It should be done in consultation with the county forester.
- Release apple trees. Volunteer labor may be recruited for this. Several trees can be released per year. Trees will need to be released as the canopy around them closes.
- Hunting will be allowed on the property, in season, to licensed hunters.
- Maintain hayfields, with harvests occurring in late June or every other year. Responsibilities for management of the hayfield could be contracted out to a local farmer. A longer-term agreement may result in superior care of the hay fields.

Trail System Recommendations

- Construct a wooden kiosk at the trailhead to present informational material.
- Close Trail #6 during wet season.
- Close Trail #5 connector.
- Remove Trail #7 from maps.
- Connect Lower lookout to VT Electric Cooperative Fields.
- Permit use of, or delineate a looped trail around the field during the non-summer season.
- Update trail markings.
- Re-survey property boundaries so they are accurately recorded in the town records.

Education

- Create a one-page interpretive guide to the trails and install corresponding numbered markers.
- Work with schools and youth groups to have the property serve as a learning experience.

Public Safety

- Construct and maintain short segment of wooden rail at the lower lookout.
- Encourage the posting of signs at trailheads and at the perimeter of hunter safety zones throughout hunting season.
- Periodically check and organize annual trail cleanup.
- Block trail access to motorized vehicles at the parking area.
- Move the parking area to the south to be at the very end of trail #1 with sufficient off-road parking and close the existing on-road parking area.

Overview of the Eagle Mountain Natural Area

Land Use History

Farming, recreation, and logging were the principal uses of the Eagle Mountain Natural Area landscape over the last century. While most of the area was deforested by the early 1900s, much of the western portion of the property was used for regular harvesting of sugar maple sap (Figure 2). Flat areas on the eastern side were used as hayfields and pastures. In the last forty years, the land has been primarily used for recreation, small-scale logging, and haying.

The Former Hoyt Property

John Hoyt Sr. first saw Eagle Mountain in 1916 while on a fishing expedition with a Middlebury College classmate. A group of walleye fishermen on Cedar Island told them about a cold spring on the Lake Champlain shore. By 1920, this spot had become a favorite camping place for John Hoyt Sr., his wife Pearl, and their family. They traveled to Lake Champlain from New London, Connecticut every summer.

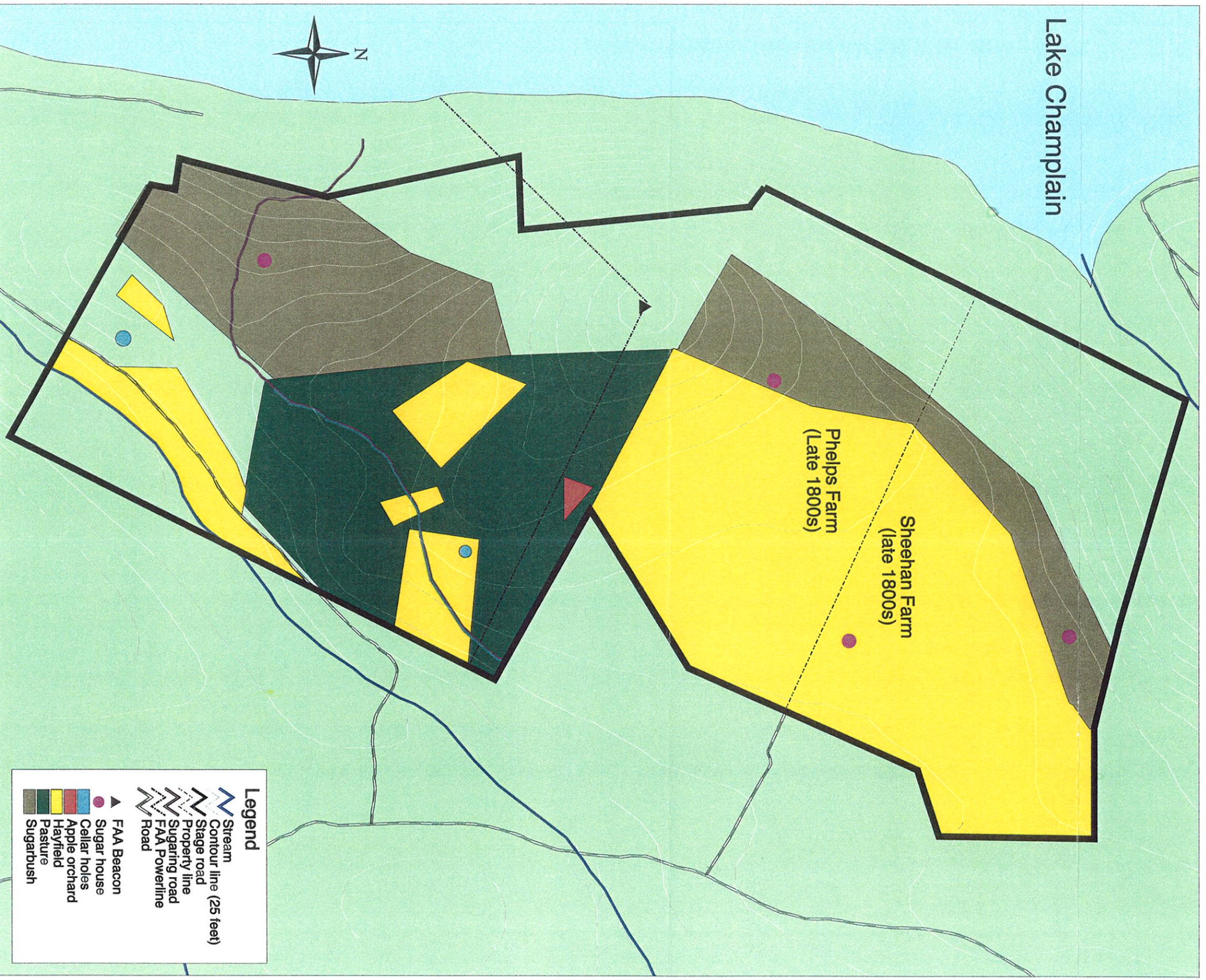
In 1922, John and Pearl Hoyt bought the land from the Clark family for \$1,200. The Clarks owned a lumber business, and had cleared the property of most trees many years before selling it to the Hoyts. No structures remained on the property at that time, although two cellar holes provided evidence of earlier residences. An old stage road ran through the northeast corner of the property, and John Hoyt Jr. reports that some of the hayfield and pasture areas showed evidence of use prior to his family's farming. The apple trees seen along the border of the Hoyt property represent an orchard that had been planted before 1922.

The Hoyt family spent the next ten summers camping on the lakeshore. They built a boathouse for their motorboat and a small shack to use as a dining and living area. Later, they constructed a small rental cottage using lumber hauled in by motorboat from South Hero. The 1 1/2 mile-long Cold Spring Road was cleared in 1927, and in 1931 the Hoyt family began living there year-round. They lived a subsistence lifestyle, catching fish and growing their own vegetables. They had a team of horses, one cow, and a brood of chickens their first year. Using pine harvested from the property, the Hoyts continued to build one new cottage about every two years until there were eight along the southwestern shore of the lake bordering their home on both sides.

The Hoyts ran a maple sugaring operation in the southwest corner of their property. In 1938, the area, known as "The Valley", was cleared as a primary route for the team of horses used in sugaring and selective logging. Over time, the ledges were thinned of trees such as ironwood, birch, ash, and hickory. At the peak of the sugaring years, about 1,200 buckets of sap produced 150-200 gallons of maple syrup that were harvested and sold each year. Alfalfa, barley, and timothy were grown on fields on the eastern half of the land, and three cows and fifty hens were kept along with the team of horses.

Preliminary Land Use History Map Eagle Mountain Milton, Vermont

Figure 2.



Digital data provided by VCGI.
Land use boundaries digitized by
LIA Consultants based on personal interviews.

0 100 200 Feet

When fully developed, the Cold Spring Camp consisted of eight cottages. Plumbing was installed in 1937, and electricity soon after in 1940. A small dairy farm and garden provided both extra income for the Hoyts and food for the campers. Refrigeration was provided by the cold spring until 1932 when ice was harvested from Lake Champlain and stored in sawdust for summer use in an ice box refrigerator.

During this time, Eagle Mountain continued to be known for its scenic overlooks. Family and neighbors enjoyed the lookouts and participated in cross-country skiing, hiking, and hunting of rabbit, fox, partridge, and deer. In 1939, the Federal Air Administration installed a rotating beacon at the peak of Eagle Mountain to guide Burlington-Montreal air traffic. A strip of land was cleared for a power line, and during construction vehicles came up the eastern ridge nearly to the top of Eagle Mountain. The beacon was removed in 1945, but was later replaced with a radar target tower for a number of years.

Between grazing and haying, most of the Eagle Mountain Natural Area landscape remained open through the 1940s. In 1952, John Hoyt Sr. was forced to give up both farming and camp work. Pearl Hoyt, with help from Peggy and John Hoyt Jr., then operated the camp for seven more years. In 1959 John and Peggy purchased the property and the John Hoyt Jr. family of six including children John III, Mark, Margo, and Christopher, worked together to operate Cold Spring Camp. Fifty-four families from all over the country gathered each summer for 35 years to vacation, swim, and fish on the shore of Lake Champlain.

In 1962, the Hoyts began participating in the Vermont Land Use Plan. During this time, the property was registered as a forest managed to preserve a sugarbush and to develop other trees for lumber. In the 1980s, the Hoyts were paid a small fee by the State Agricultural Department to increase wildlife forage options by clearing the area around apple trees on the northern border. They also cleared the barley field near the middle of the land, where in the last decade sumac and buckthorn trees have grown dense.

Cross-country skiing, hiking, and hunting by neighbors and Hoyt family friends has continued over the last four decades. Deer hunting has increased, although it has never been extremely common. Dump use was discontinued with the opening of the Milton municipal dump. In the last five years, the Hoyts have removed three tons of waste from two former dump sites. At different times in the last forty years, farmers were allowed to harvest hay from some of the fields and three horses were kept on the land. Seasonal cottages continued to be rented out on a weekly basis. In 1983, 10.7 acres of the northwestern corner of the property were given to John and Peggy's daughter Margo Breen. 8,000 board feet of pine were subsequently harvested from the larger property to build Margo's house. In 1986 this house and land were sold to the current owner, Walter Keating.

In 1992, John and Peggy ended participation in the Land Use Program. In 1994 they donated 115 acres of their land to the Lake Champlain Land Trust for the purpose of conserved open space and public access. This land became known as the Eagle Mountain Natural Area.

The Former Vermont Electric Cooperative Property

In the late 1800s the Phelps and Sheehan families farmed the land to the north of Eagle Mountain. The Phelps family maintained a small farm on the 80+ acres immediately north of Eagle Mountain. They lived off the land by hunting, trapping, and fishing in Long Pond.

The Sheehan family owned 100+ acres to the north of the Phelps farm. According to an Eagle Mountain legend, a hired man who lived at the mouth of Stone Bridge Brook fell in love with one of the Sheehan's daughters. The steep ledges made it difficult for him to access the Sheehan farm, so he built a ladder up the ledges, which became known as 'Jacob's Ladder.' He climbed his ladder to court the Sheehan daughter each afternoon when his chores were done.

In 1937 Van Buren Everest purchased the Phelps farm, including 12 cows and 2 horses. He purchased the Sheehan farm around this time as well, and before long he had 40 dairy cows, a team of horses, and operated a sawmill where he employed his two sons, Jed and Van Buren Jr. He was a savvy businessman, and kept the locals supplied with custom-sawed lumber. He hung 6,000 buckets in an active sugaring operation that produced around 600 gallons of syrup each year. Van Buren Sr. supplied local farmers with ice, which he collected from Long Pond and stored in an icehouse near the sawmill. The sawdust from the mill helped preserve the ice during the warmer months.

In 1961 Van Buren Everest optioned his land to the Vermont Electric Cooperative (VEC), but continued to harvest hay. VEC was then looking for new ways to generate power, and planned to produce hydroelectric power on the property. Despite acquiring the property, on-site power generation became infeasible and VEC abandoned its plans.

In 1998 the VEC land was sold to the Lake Champlain Land Trust (LCLT) for \$113,000. LCLT raised this money with the combined support of the Vermont Housing and Conservation Board (VHCB), the Vermont Land Trust, the Freeman Foundation, Husky, Inc., and another conservation supporter. Soon thereafter, the titles to the former Hoyt and VEC properties were both transferred to the town of Milton, Vermont, and the Eagle Mountain Natural Area became 226 acres. Today, LCLT is the primary steward of the Eagle Mountain Natural Area, and VHCB and LCLT are co-holders of the conservation easement. The town of Milton is charged with writing a management plan for Eagle Mountain Natural Area which will guide its stewardship into the future.

Note: The current property boundaries (most notably for the VEC property) in the town's GIS database in this report may be inaccurate and could be established as a goal of ownership. The chain of title has been researched in survey documents on the Hoyt property, and by attorneys for the Champlain Land Trust and Town of Milton for all of the property. These records are available in the Milton Land Records at the Town Clerk's Office.

Geology

The bedrock under Eagle Mountain Natural Area is entirely Dunham Dolomite. This calcareous rock was deposited 550-500 million years ago in the Iapetus Ocean, a shallow tropical sea, precursor to the modern Atlantic. The rock is rich in calcium and magnesium carbonate formed by the activity of marine organisms. The color of the rock is quite varied ranging from reddish brown to light gray. The darker areas arise from concentrations of detritus that were deposited in slight depressions in the sea floor. Proof of the shallowness of the sea can be seen in the disturbance of the layers caused by storm waves.

Subsequent layers of shale and sandstone buried the dolomite deeply. Around 445-430 million years ago the ocean floor deepened considerably. Material washing off from continents deposited a layer of mud which became the Shale of the Stony Point and Iberville formations. Massive tectonic forces closed the ocean and raised large mountains to the east. Large masses of rock were folded and deformed. In some places, the rock broke and layers of Dunham Dolomite were forced over the younger Iberville Shale. The line along which the rock broke is known as the Champlain thrust fault. It runs parallel to the current shoreline of Lake Champlain, and forms the cliffs of Eagle Mountain. The rock, however, was not pushed horizontally, but slightly upward. This upward tilt can be seen in the ledges at on the west side of Eagle Mountain. The Iberville Shale can be found under the dolomite below the Eagle Mountain cliffs.

When the Champlain Thrust Fault was formed, some portions of rock were pushed faster than others. This caused fractures in the rock approximately perpendicular to the line of the fault. Fractures such as these may have been responsible for forming the line of cliffs just above Stone Bridge Brook.

The Dunham dolomite is quite resistant to mechanical weathering, so the ledges and steep cliffs remain. The rock is not, however, resistant to chemical weathering. Acidic water easily dissolves it making the calcium in the rock available to the plants. This calcium enrichment is in part responsible for some of the plant communities of Eagle Mountain Natural Area.

The surface of Eagle Mountain was further altered by the glaciers that covered the area. The last glacier retreated about 10,000 years ago. The force of the ice scraped away all the topsoil and left in its place rocky debris called till. As the glaciers retreated, the Champlain Valley was covered first by a freshwater lake and then by a saltwater sea. These water bodies deposited silt and clay and that can be found in the northern part of the property mixed with rocks. The thin layers of till and silt left behind by the glacier and the glacial lakes are the parent materials from which the Eagle Mountain Natural Area soil is formed.

Soils

The soils of Eagle Mountain Natural Area are predominantly rocky and thin. They are young, little weathered soils derived primarily from the glacial till. These soils

are not generally good for agriculture or commercial silviculture. They are, however, high in calcium due to the underlying bedrock, and thus are very fertile. In hollows among the ledges there are pockets of rich organic soil that has been washed down from above. These pockets are home to a diverse and unique community of herbaceous plants. In addition, there are plants growing directly on the rocks themselves some of which are quite rare since they are restricted to calcareous rocks.

Most of the southern portion of the property contains Farmington rocky loam and rockland. The Farmington soil is somewhat excessively drained and generally quick to dry. The rockland occurs where there is less than 10 inches of soil to bedrock. Both of these areas have very little agricultural or timber potential due to their stoniness and dryness. The area of Farmington soil in the northwest side of the property is considerably steeper so there is danger of erosion there, particularly if the vegetation is removed.

Along the road in the south half of the property is a strip of Cabot stony silt loam. This soil is poorly drained because it has a hardpan layer 1 – 2 feet below the surface. The hardpan restricts water movement causing severe agricultural limitations and severe windthrow potential on account of excess water.

The north half of the property is primarily Stockbridge and Nellis stony loam. These are deep extremely stony well-drained soils derived from glacial till. They are often saturated during the spring, but dry quickly. If the stones are removed they are generally good soil for timber and agricultural purposes. Peru stony loam, interbedded with the Stockbridge and Nellis soil, is less fertile and wetter.

In the northwest corner of the property an area of Limerick silt loam lies along Stone Bridge Brook. These soils contain sediment from the river and are often flooded for at least part of the year. They are highly fertile, however, excess water creates severe agricultural limitations.

Hydrology

There is very little permanent water on the property. Most of the water seeps down through the soil and runs through the highly fractured bedrock. Water can be seen running out of the bedrock of the western ledges and cliffs, and there is significant flow of water under the talus slope below the cliff. In most parts of the property, there is no layer of rock or hardpan to hold water on the surface, so the soils are generally quite dry. The exception to this is in the Cabot soil. The only permanent water course on the property is the stream in the Southeast corner.

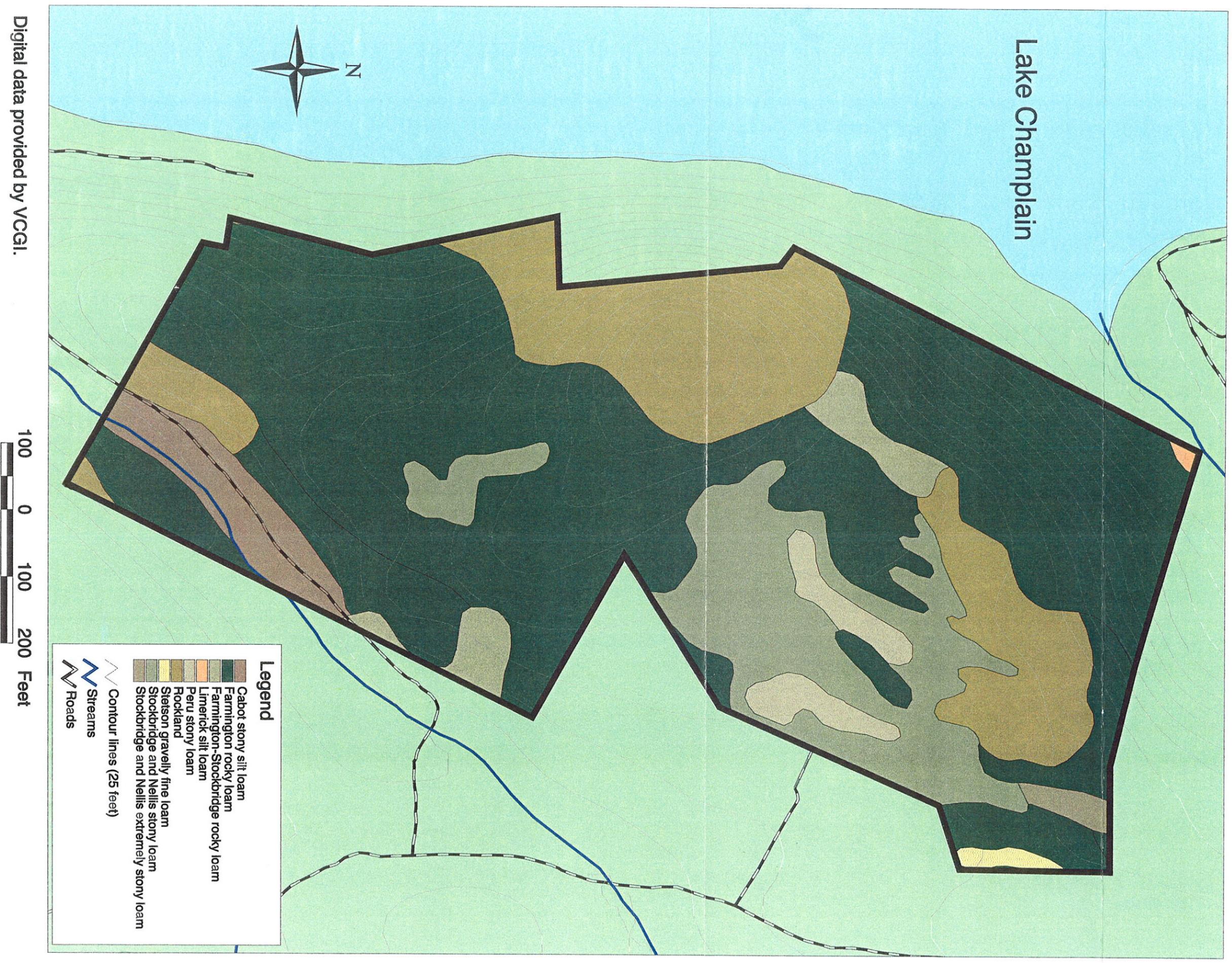
Natural Communities

Overview

Eagle Mountain Natural Area is located in the Champlain Valley, a region which is characterized by mild temperatures, low annual rainfall, and broad, flat agricultural lands of clays that were deposited by the ancient and very large Lake Vermont. Along with the local geology and soil composition, these features have a strong influence on the natural communities that occur there.

Soil Classification Eagle Mountain Milton, Vermont

Figure 3.



Mesic Transition Hardwood Forest

The most abundant community at the Eagle Mountain Natural Area is the Mesic Transition Hardwood Forest. It is also called the Mesic Maple-Ash-Hickory-Oak Forest, and is uncommon in Vermont. Because the community occurs in the warm climate areas of Vermont, oaks and hickories are common. The calcareous rock outcrops typical of this community support characteristic plants like maidenhair fern and large-flowered trillium. Much of this area at Eagle Mountain was managed, at some time, as a sugarbush. Today, grand old sugar maples dominate the canopy. The rolling fields are certainly a hallmark of recent (within 400 years) human settlement. Before they were cleared for agriculture or pasture, the area would have been part of the contiguous forest that blanketed the entire state. In recently cleared areas, new growth is often dominated by white pine, paper birch, and bigtooth aspen, like in the clearing and young forest near the trail head.

In the southern half of the property, there are special features that support distinctly different communities within the Mesic Transition Hardwood forest. Beneath several of the rock ledges, where moist calcium-rich sediments collect, is a Rich Northern Hardwood Forest community, distinguishable by basswood trees, and wild leeks, plantain-leaved sedge, and wild ginger on the forest floor. Some of the exposed ledges of calcium-rich rock contain Northern Hardwood Limestone Forest. This community is dominated by hophornbeam with maidenhair fern and blue cohosh in the understory. In areas of natural seeps, there are dense clusters of northern white cedars – these indicate two tiny Red Maple-Northern White Cedar Swamps.

Limestone Bluff-Cedar-Pine Forest

The Limestone Bluff-Cedar-Pine Forest is a rare community dominated by Northern White Cedar. It occurs on outcrops of calcareous rock, such as the Dunham Dolomite of the bluffs below and to the west of the summit of Eagle Mountain. There it exists in its classic form, a narrow band along the bluff, only extending slightly in from the edge, though in places it follows ridges of exposed rock up the hillside. These cliffs contain some of Eagle Mountain Natural Area's rare and unusual plants including Golden Corydalis and Walking Fern.

Hemlock Forest

Hemlock Forests often exist on microsites of knolls, gulfs, or ravines. They are cool and shady communities so many species are unable to grow in the understory. Hemlocks are very long-lived and shade-tolerant trees, which means that young hemlocks can grow up under the shade of their parent trees. Such a community is located on the north-northwestern slope of Eagle Mountain.

Dry Oak-Hickory-Hophornbeam Forest

Above the bluffs on the west and southwestern slopes of Eagle Mountain is a Dry Oak-Hickory-Hophornbeam Forest. It is uncommon in the State of Vermont, but moderately common in the Champlain Valley region. This community is open and park-like; you can see a long way through the woods because the shrubs and understory are sparse. There are scattered lawns of Pennsylvania sedge, a grass-like plant. Trees don't

grow particularly well on the shallow soils and in the droughty conditions typical of this community. These forests are often found on the rocky parts of Champlain Valley Farms. They were probably never cleared for agriculture, but used for woodland pasture. The northern section of Dry Oak-Hickory-Hophornbeam Forest is noticeably sparser.

Red Maple-Northern White Cedar Swamp

In the saturated soils along the brook in the southeast corner of EMNA, a dense stand of northern white cedars is surrounded by and interspersed with maple, ash, elm, and other hardwoods. White pines emerge from the canopy while below, a sparse but interesting ensemble of herbs and shrubs grow from water-filled hollows and slightly less saturated hummocks. Mosses are common.

Active Field

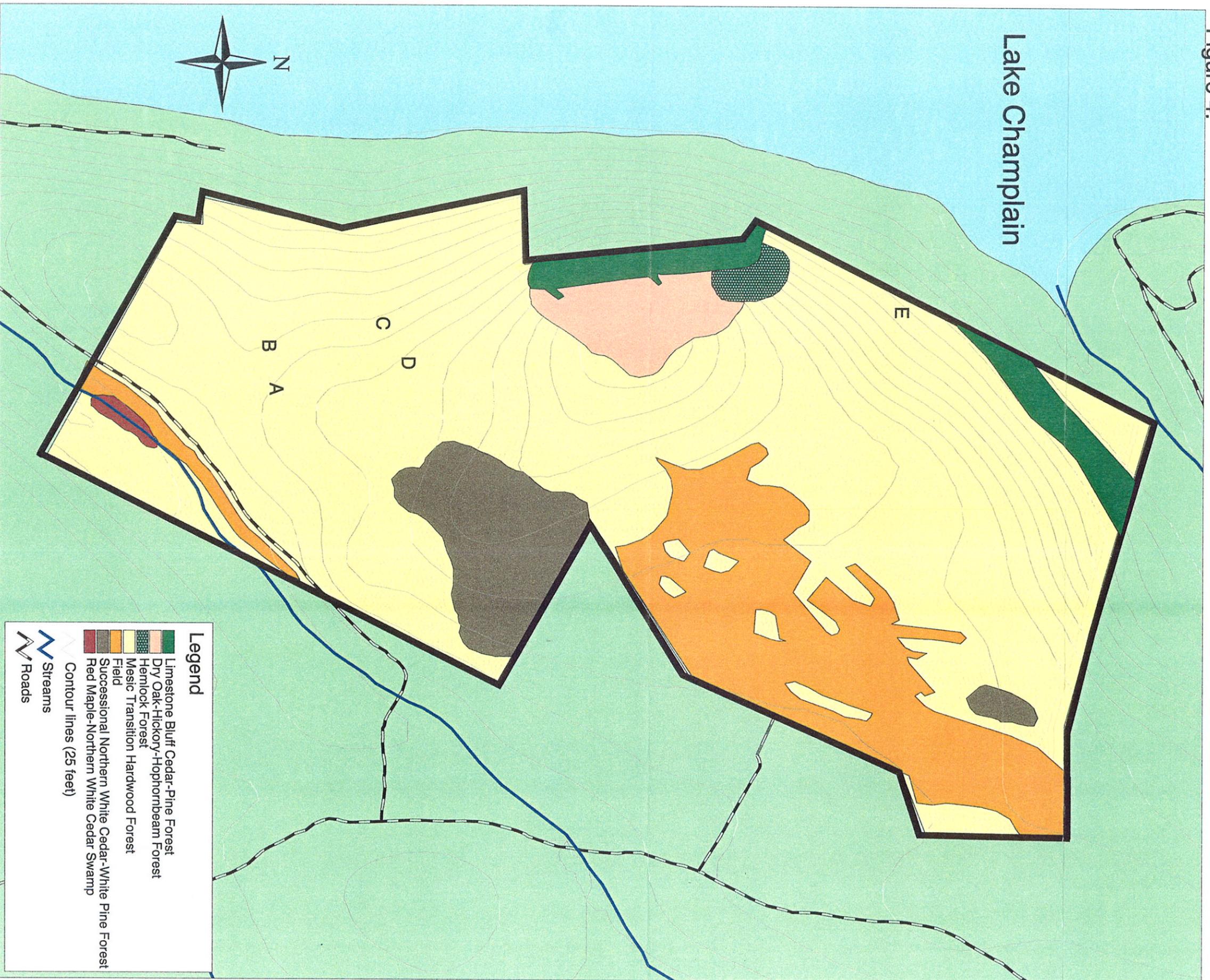
Some areas on the property have been hayed for many years and will probably continue to be. Since it is not possible to know for sure what communities existed on this land we chose to delineate it as a separate map unit, despite the fact that it is not technically a natural community. It is likely that the original forest in these areas was predominately Mesic Transition Hardwood Forest.



View of Mt. Mansfield across the northern fields of the Eagle Mountain Natural Area.

Natural Communities Eagle Mountain Milton, Vermont

Figure 4.



Digital data provided by VCGI.
Natural community boundaries
digitized by LIA Consultants
based on field inventory.

60 0 60 120 Feet

Legend

- Limestone Bluff Cedar-Pine Forest
- Dry Oak-Hickory-Hophornbeam Forest
- Hemlock Forest
- Mesic Transition Hardwood Forest
- Field
- Successional Northern White Cedar-White Pine Forest
- Red Maple-Northern White Cedar Swamp
- Contour lines (25 feet)
- Streams
- Roads

Examples of natural communities
occurring in specific, small areas:
A Rich Northern Hardwood Forest
B Northern White Cedar Seep
C Northern White Cedar Seep
D Limestone Forest
E Rich Northern Hardwood Forest

Natural Resources

The conservation easement on the Eagle Mountain Natural Area property is designed to conserve and protect wildlife habitat and outdoor recreational, cultural, and scenic values while providing for agricultural and educational opportunities. Any vegetation management or natural resource extraction must be in keeping with these goals.

Harvest of some trees could be seen as an economic opportunity but would compromise scenic and recreational values at the property. Furthermore, the thin soils throughout the property and steep terrain along the western portions would make sustainable extraction of timber unfeasible. Harvest of trees in conjunction with other goals such as apple tree release, or trail maintenance would be feasible and is recommended. Mike Snyder, the Chittenden County Forester, is an excellent resource and should be consulted in conjunction with any tree harvesting.

Extensive sugar bushes have been maintained at Eagle Mountain Natural Area in the past. Maintenance of a large scale sugaring operation could provide agricultural resources. Access roads would not be required if gravity fed tubing were used. However, the tubing would adversely affect the scenic nature of the land and the project would be expensive to initiate and time consuming to maintain.

The region to the north west of the property is one of the most diverse parts of the area and contains several communities of rare plants. Addition of this property to the Eagle Mountain Natural Area would increase the amount of intact forest in the preserve and protect the entire area between the road and the lake. We recommend that the town acquire this property or that the land trust purchase easements on the land should a willing seller become available.

Wildlife

Apple trees provide numerous values to wildlife so we recommend release of existing trees from competition. Dead portions of trees should be trimmed keeping in mind that cavities provide nesting opportunities for many species. Competing trees should be removed unless they are mast producers like beech, oak, hickory, or serviceberry. Pruning is most effective between February and mid-April, and should be done over a period of two or three years per tree. Pruning of each tree would need to be repeated periodically as the surrounding canopy closes.

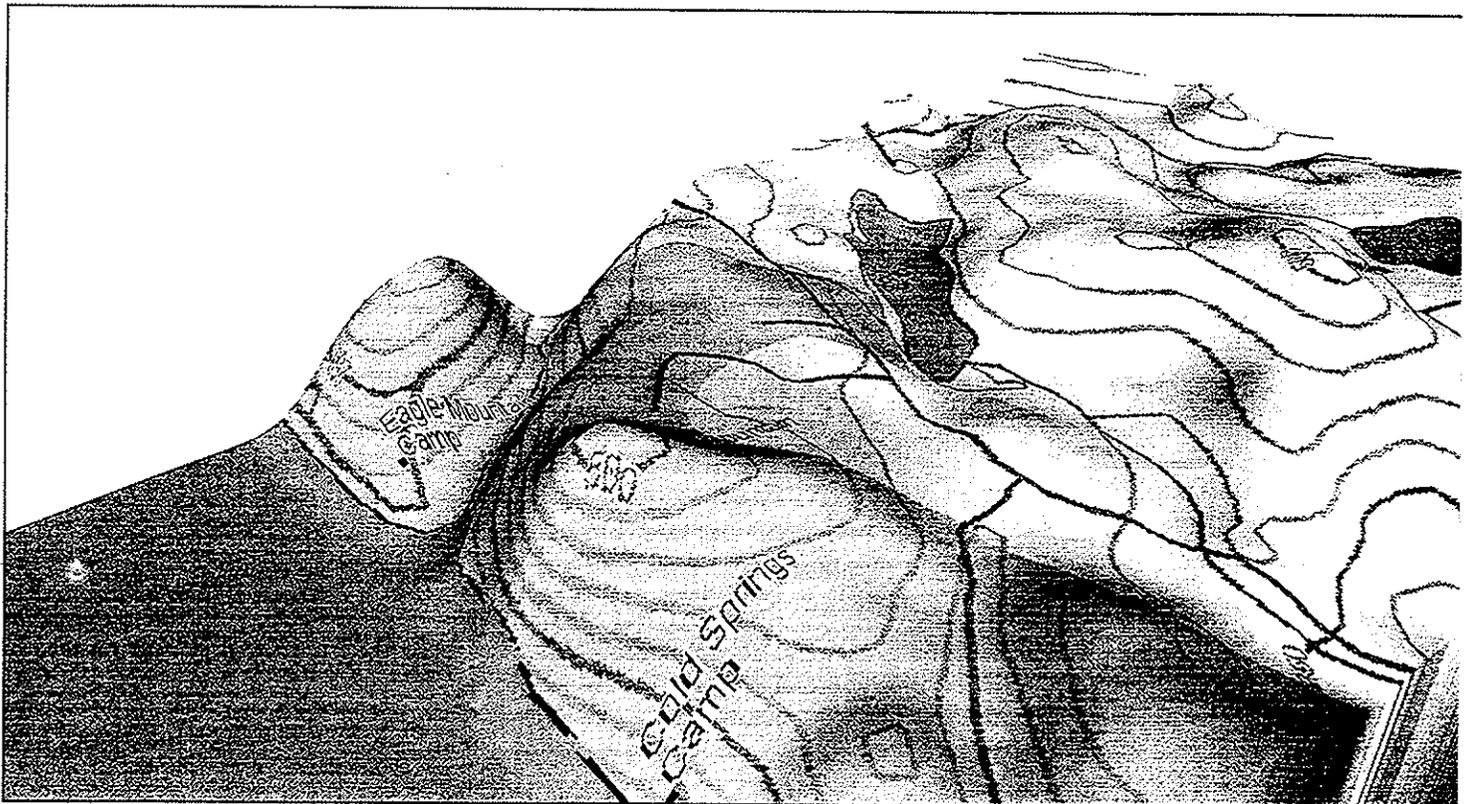
The landscape at Eagle Mountain Natural Area is well suited for deer. Release of apple trees would further encourage growth of the herd. Extensive deer herds can inhibit recruitment of new trees from the understory through their foraging if left unmanaged. Hunting is a traditional recreational pursuit in Vermont. Increasingly private lands have been posted against hunting so the availability of public lands for hunting is important. We recommend that the Eagle Mountain Natural Area property be kept open to hunters. We also encourage the placement of signs at trailheads during the hunting season to warn

other users of the land that hunting does occur there. Perhaps these signs could be placed by local hunters or hunting groups that use the land.

Agriculture

The hayfields at Eagle Mountain Natural Area provide wonderful recreation opportunities, maintenance of an agricultural landscape, and potential breeding grounds for declining populations of grassland birds. We recommend leasing management and maintenance responsibilities of the field to a local farmer who can then utilize the hay. The field may need to be replanted and limed soon. Patches of moss and bedstraw currently appear in the field and compete with more desirable grasses. We do not recommend planting reed canary grass in the field since it is considered an invasive weed. Perhaps a mixture of timothy, brome grass, and orchard grass would be most appropriate. Sid Bosworth and Craig Altemose of the University of Vermont Cooperative Extension Service are two excellent resources for management of hay fields in Chittenden County.

Although maintaining the hayfields is worthwhile, simultaneous management for high quality forage and grassland birds presents a dilemma. Grass should be harvested early for optimal forage quality, but doing so significantly lowers the nesting success of many species, especially bobolinks. We recommend either harvesting the grass only in late June or every other year to allow birds time to finish nesting, but we recognize that a compromise will need to be reached with whomever does the harvesting.



3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 Detail 12-9 Datum: NAD27

A three dimensional view of Eagle Mountain. Source: DeLorme 3-D Topo Quads.

Monitoring

The town of Milton is faced with the challenge of balancing *use* and *protection* to ensure the long-term ecological health of the Eagle Mountain Natural Area. In natural areas where human use is permitted, a proactive approach to land conservation is critical.

Ecological monitoring is the key to effective land management. Monitoring enables the landowner to assess changes in the quality and integrity of the landscape, and to adapt management strategies accordingly over time. Through monitoring, long-term trends emerge that provide more insight into the health of the system than do isolated observations.

The Town of Milton functions within the Select Board-Manager form of government. As public servants, the responsibility for forming and adopting policies on the care of public property rests with the Select Board. The Town Manager has the duty to oversee day-to-day maintenance of Town property such as the Eagle Mountain Natural Area. This may include relying on cooperative efforts with volunteer groups, State funded programs (Forestry and Recreation grants and/or the YCC program) and paid municipal Buildings and Grounds staff. It is imperative that monitoring be incorporated into the management plan, and we recommend five areas on which to focus.

Easement Monitoring

EMNA should be monitored at least annually to assure that easement conditions are being met.

Rare plants

To ensure the stability of the rare plants at the site we recommend annual censuses of golden corydalis populations between May and July. The results of this should be made available in the Milton Town Clerk's Office.

Wildlife

If Eagle Mountain Natural Area is to function as a nature preserve there should be no loss of animal diversity. We recommend annual volunteer monitoring of the presence or absence of vertebrate species through winter tracking, spring bird walks, and casual observations. It would be useful to keep all collected information in a central location, such as at the Milton Town Clerk's Office.

Trail Maintenance

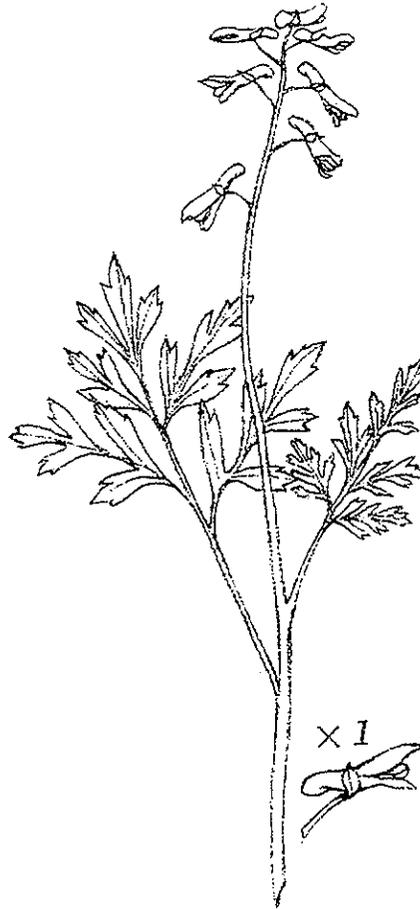
We recommend establishing permanent sites along the trails where trail condition can be monitored by photographs taken at regular seasonal and annual intervals. This photo record will help to ensure that the permitted recreational activities continue to be compatible with the Eagle Mountain Natural Area landscape. It will also provide a basis for adapting trail maintenance strategies over time. Monitors should look for areas of excessive trail erosion or wetness and quickly work to remedy these situations.

Visitor Use

We recommend installing a visitor sign-in log at the trailhead to monitor any future changes in visitor use at Eagle Mountain Natural Area. Knowing the number of people using the Eagle Mountain Natural Area will help guide future decisions regarding permitted recreational uses, access, and trail maintenance.

Hayfields

Two factors will indicate successful integration of agricultural and ecological concerns in the hayfield. First, if grassland birds successfully fledge chicks, then ecological goals will be met. As part of the wildlife monitoring special attention should be given to nesting success of meadowlarks, bobolinks, savanna sparrows, and grasshopper sparrows. Second, if the farmer who is contracted to mow the field is able to produce quality forage hay then agricultural goals will be met.



Golden corydalis (*Corydalis aurea*) is a rare plant found in the Eagle Mountain Natural Area. Source: Newcomb's Wildflower Guide.

Recreation and Education

Overview

Managing for recreation requires consideration of both environmental quality and visitor desires. In addition, recreation management can be costly and time-intensive. Therefore, a balance must be struck between the benefits and costs of permitted recreational activities. Most recreational activities require the use of the trail system. Knowledge of the rich natural and cultural history of Eagle Mountain Natural Area would give visitors a better appreciation of the significance of the site, and its larger ecological and cultural context.

Trail System

We recommend building a simple wooden kiosk at the trailhead that portrays Eagle Mountain Natural Area as a place where both recreation and conservation are priorities. This structure would contain a waterproof enclosure for posting general information: a trail map, a Champlain Basin map (for landscape context), a list of permitted/non-permitted activities, special announcements, information about rare or sensitive species, a sign-in log to monitor visitor use, and interpretive trail guides.

We assessed the current trail system and the potential for new trails based on three considerations: the purpose or destination of the trail, the location and condition of the trail (slope, aspect, hydrology, and soil condition), and the maintenance required to sustain the trail in good condition. Using the information gathered we made recommendations on existing trails #6, #4, and #7. Trail #6 accesses the southwest corner of the property and provides limited lake views. However, during the spring melt and after heavy rain, it channels runoff, which makes the trail impassable. We recommend discouraging use of this trail during extremely wet periods. Signs posted at the ends of the trail could inform visitors of the reason for the trail closure. Currently a connector trail serves as a shortcut between trails #4 and #2. The trail density is high in this small area and can be confusing to hikers. For this reason, we recommend brushing in the connector and eliminating it from the trail map. Due to ice storm damage, trail #7 is difficult to locate and is not heavily used. Rather than investing energy in clearing the trail, we recommend removing it from the trail map.

In addition, we suggest the construction of two new trails: a lookout loop and a field loop. To provide access from the Lower Lookout to the Vermont Electric Cooperative fields, we recommend extending the Lookout trail along the same contour to the north, and then east into the sugar bush. We strongly recommend that a qualified naturalist oversee the trail placement to ensure that visitor traffic does not threaten rare plants that grow on the ledges. We also recommend posting signs at the lookout requesting that people stay on the trail to preserve the rare plants on the cliff edge. Once in the field, a loop trail around the perimeter would provide visitors wonderful views of the Green Mountains to the east and concentrate pedestrian traffic to a minimal area.

The trail markings as they currently exist are contradictory and often confusing. The trail system should be clearly and consistently marked. We recommend that trails be

marked with numbered signs that correspond to the trail maps and that incorrectly numbered trails (#1 and #2) be reconciled with the maps. Posting signs at the trail junctures would prevent visitor confusion. Finally, we recommend that the property boundary be clearly marked with blazes on trees to prevent visitors from trespassing on the neighbor's property.

Trail maintenance is an ongoing chore. Litter will accumulate through the year, each winter limbs or trees will fall in the trail, and wet areas are likely to develop. To help with the tasks of trail maintenance we recommend implementing an annual trail clean-up day in late spring. Volunteer crews could help clean the dumpsite at the beginning of trail #1 and clear brush and downed logs from trails. In return residents would be encouraged to gather firewood from the brush piles created. Milton has had great success in coordinating volunteer activities for Green-Up Day and perhaps some of that energy could be tapped to help EMNA.

One of the purposes of the Lake Champlain Land Trust easement is to conserve and protect scenic values at EMNA. With the addition of the Vermont Electric Cooperative parcel, the visitor to EMNA now can enjoy beautiful views of the Green Mountains from the open fields. Views of Lake Champlain are best from the lower lookout and the Eagle Mountain summit. These viewsheds should be carefully managed so as not to negatively impact the fragile cliff community and the rare plants it supports. Additionally, we recommend construction of a short segment of wooden rail at the Lower Lookout for visitor safety and to protect rare plants. A botanist should be consulted prior to any management activities in these areas.

Recreational Activities

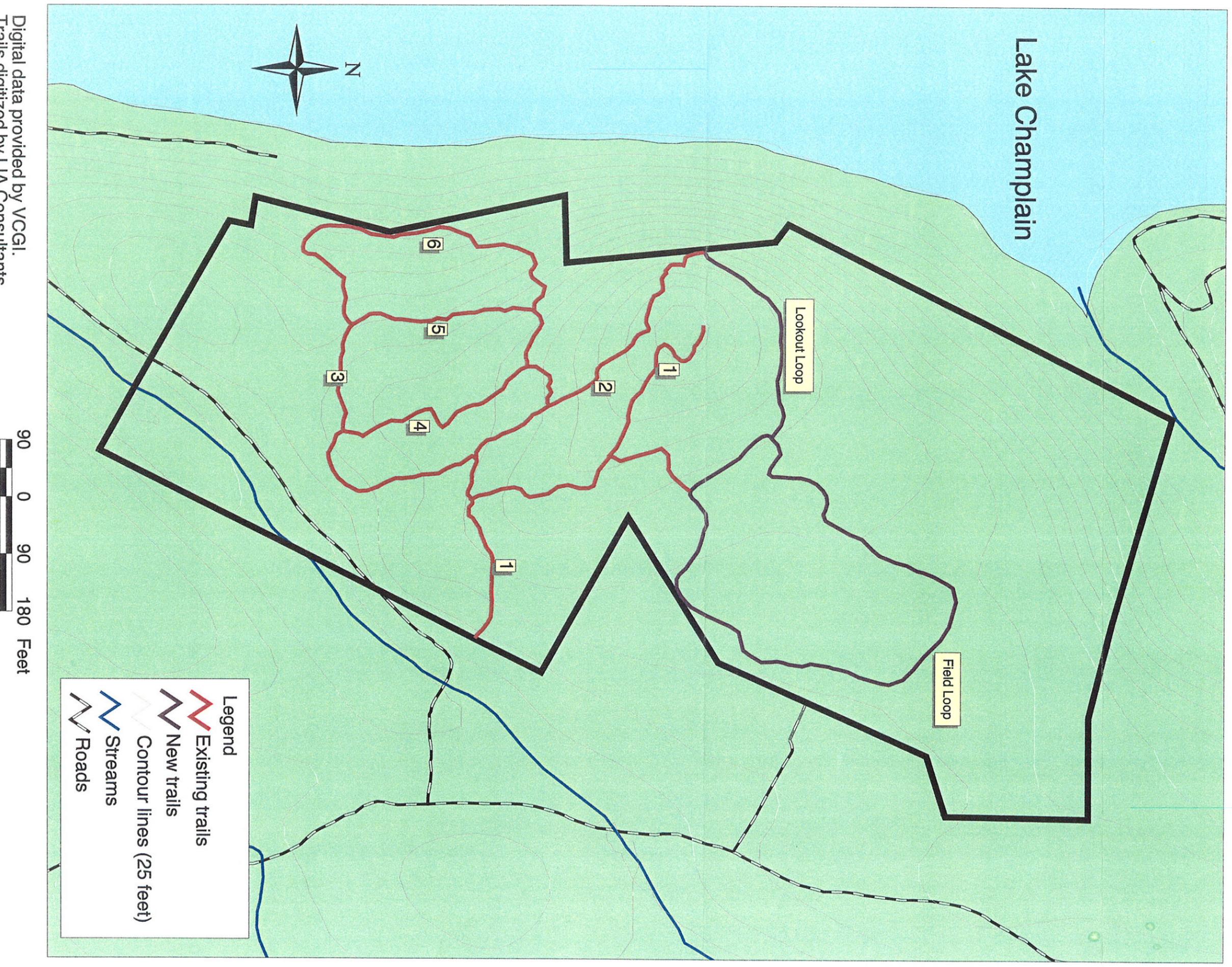
According to the conservation easement, any activity that might be detrimental to the recreation, scenic, agricultural, or educational value of EMNA must be carefully evaluated. Low impact recreational activities are most compatible with protecting the natural integrity and beauty of the landscape. Based upon our assessment of the current trail conditions including the potential for soil compaction, trail widening, erosion, rutting, and water channeling, we believe the current low impact activities allowed at EMNA are compatible with the trail system and, therefore, should continue.

Activities that have the potential to negatively impact the trail system should not be allowed. High impact activities, such as motorized vehicle use, lead to rapid environmental degradation and therefore require greater investment in monitoring and trail maintenance. Medium-impact activities are more difficult to assess. Table 1 below summarizes the considerations that led us to recommend permitting horseback riding, mountain biking, and overnight camping at limited areas and times within the EMNA. In all cases, more intensive management would be required, environmental impacts increase, and potential social conflicts emerge.

Camping can have negative ecological consequences (Table 1), especially if allowed on a widespread basis throughout EMNA. Despite this potential for damage,

Trails Map Eagle Mountain Milton, Vermont

Figure 5.



Careful planning and management could allow for the creation of satisfactory rules and camping for the public in designated areas. The following camping recommendations are proposed:

- Camping should be allowed only within specified area(s) by permit issued by the town.
- Campers should practice minimum impact camping only (see Vermont Guide to Primitive Camping on State Lands) and avoid fragile natural vegetation.
- Establish clearly usable and clear rules for moderate impact uses (horseback riding, mountain biking, and camping) on the EMNA. The rules should be enforceable through an ordinance.

| Activity | Managerial | Environmental | Social | Resolution |
|-------------------------|--|--|--|---|
| Horseback Riding | Seasonally restricted Create trailer parking Increase monitoring and trail maintenance | Trail degradation Animal waste on trail | Conflicts with hikers Animal waste on trail Potential for commercial use | Designate certain trails for seasonal horseback riding enforceable by ordinance |
| Mountain biking | Seasonally restricted Increase monitoring and trail maintenance | Trail degradation | Conflicts with hikers | Designate certain trails for seasonal mountain biking enforceable by ordinance |
| Camping | Seasonally restricted Camping site restrictions and establishment | Human waste Garbage Fire hazards Vegetation impacts | Unightly campsites | Designate area(s) for camping by permit with rules enforceable by ordinance |

Table 1: Managerial, environmental, and social considerations (and proposed resolution) for three recreation activities at Eagle Mountain Natural Area, Milton, Vermont.

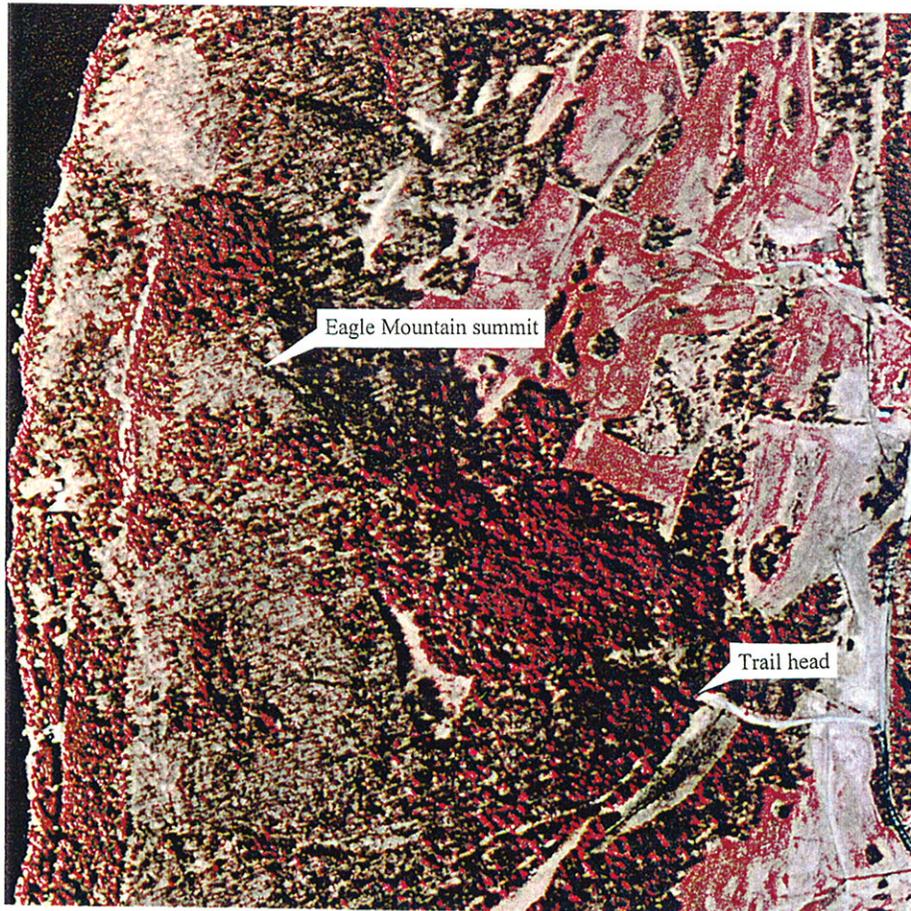
Interpreting the Cultural and Natural Landscape

EMNA offers an excellent opportunity for visitors to become acquainted with the natural and human history of the area. The mountain itself is an example of the tectonic forces that shape the earth. The proximity of Lake Champlain provides an opportunity to contemplate how different the landscape would have appeared covered by glaciers, Lake Vermont, or the Champlain Sea. Maintained agricultural fields are a reminder of what all of Vermont looked like just 100 years ago while recently abandoned fields demonstrate the lands ability to recover its forests. Invasive plants like buckthorn may give us a glimpse of the landscape of the future.

We recommend modifying the existing Eagle Mountain Natural Area trail brochure into an interpretive trail guide that will introduce visitors to the natural and cultural history of the site. An interpretive trail guide is a simple, low-cost, yet effective educational tool. A student or class in The University of Vermont’s Environmental Program could produce the brochure. Walter Poleman could serve as a contact person for Milton.

The one-page guide would feature a series of interpretive stops corresponding with numbered markers on the trail. It would also include a trail map and a summary of the land use and conservation history at Eagle Mountain Natural Area. The guide would draw visitors' attention to natural and cultural features that might otherwise go unnoticed: the geology (dolomite outcrops), invasive species (buckthorn), forest succession in old fields, apple tree management, open fields, wildlife habitat (snags), limestone bluff-cedar-pine natural community, stone walls (segment along trail #1), and old cellar holes or a sugar house.

We also recommend preserving existing cultural features at Eagle Mountain Natural Area, such as stone walls and cellar holes to provide visitors with a historical perspective of the Eagle Mountain Natural Area. Another beneficial project would be to have a student (contact Walter Poleman, UVM) continue to research the land use history and refine the preliminary map presented here. This perspective is an important ingredient of stewardship: by viewing the landscape on a continuum of time, we become aware of its history and have a vested interest in its future.



Color infrared aerial photos are used to interpret vegetation types. This photo was taken in the spring, before leaf-out, so the difference between deciduous forest (maroon) and coniferous forest (bright red) is pronounced. Source: United States Geological Survey, EROS Data Center.

Appendix A. Plant species list

The following is a list of all the plant species that we observed in the field. It is complete as possible given the limitations of field time and season.

Woody Species

Alder, Speckled (*Alnus incana*)
Apple (*Malus* sp.)
Ash, Black (*Fraxinus nigra*)
Ash, White (*Fraxinus americanus*)
Aspen, Bigtoothed (*Populus grandidentata*)
Aspen, Trembling (*Populus tremuloides*)
Basswood (*Tilia americana*)
Beech, American (*Fagus grandifolia*)
Birch, Grey (*Betula populifolia*)
Birch, Paper (*Betula papyrifera*)
Birch, Yellow (*Betula alleghaniensis*)
Bladdernut, American (*Staphylea trifolia*)
Buckthorn, Common (*Rhamnus cathartica*)
Cedar, Eastern Red (*Juniperus virginiana*)
Cedar, Northern White (*Thuja occidentalis*)
Cherry, Black (*Prunus serotina*)
Cherry, Choke (*Prunus virginiana*)
Dogwood, Alternate Leaved (*Cornus alternifolia*)
Dogwood, Red Osier (*Cornus sericea*)
Elderberry (*Sambucus* sp.)
Elm, American (*Ulmus americana*)
Hazelnut, Beaked (*Corylus cornuta*)
Hemlock, Eastern (*Tsuga canadensis*)
Hickory, Bitternut (*Carya cordiformis*)
Hickory, Shagbark (*Carya ovata*)
Hophornbeam (*Ostrya virginiana*)
Maple, Red (*Acer rubrum*)
Maple, Striped (*Acer pensylvanicum*)
Maple, Sugar (*Acer saccharum*)
Oak, Red (*Quercus rubra*)
Oak, White (*Quercus alba*)
Oak, Yellow (*Quercus mulenbergii*)
Pine, Red (*Pinus resinosa*)
Pine, White (*Pinus strobus*)
Poison Ivy (*Toxicodendron radicans*)
Raspberry (*Rubus* sp.)
Service Berry (*Amelanchier* sp.)
Sumac, Staghorn (*Rhus typhina*)
Viburnum, Maple-leafed (*Viburnum acerifolium*)

Yew, Canada (*Taxus canadensis*)

Herbaceous species

Bloodroot (*Sanguinaria canadensis*)
Blue Cohosh (*Caulophyllum thalictroides*)
Canada Mayflower (*Maianthemum canadense*)
Coltsfoot (*Tussilago farfara*)
Corydalis, Golden (*Corydalis aurea*)
Dutchman's Breeches (*Dicentra cucullaria*)
Early Meadow-rue (*Thalictrum dioicum*)
Fern, Bulblet Bladder (*Cystopteris bulbifera*)
Fern, Christmas (*Polystichum acrostichoides*)
Fern, Fragile (*Cystopteris fragilis*)
Fern, Intermediate Wood (*Dryopteris intermedia*)
Fern, Maidenhair (*Adiantum pedatum*)
Fern, Marginal Wood (*Dryopteris marginalis*)
Fern, Royal (*Osmunda regalis*)
Fern, Sensitive (*Onoclea sensibilis*)
Fern, Walking (*Asplenium rhizophyllum*)
Ginger, Wild (*Asarum canadense*)
Grass, Bottlebrush (*Elymus hystrix*)
Hepatica, Blunt-lobed (*Hepatica americana*)
Hepatica, Sharp Lobed (*Hepatica acutiloba*)
Leeks, Wild (*Allium tricoccum*)
Herb Robert (*Geranium robertianum*)
Lily, Trout (*Erythronium americanum*)
Mountain Rice (*Oryzopsis racemosa*)
Mullein (*Verbascum thapsus*)
Rock Polypody (*Polypodium virginianum*)
Sedge (*Carex peckii*)
Sedge (*Carex pedunculata*)
Sedge, Broad-leaved (*Carex platyphylla*)
Sedge, Ebony (*Carex eburnea*)
Sedge, Pennsylvania (*Carex pensylvanica*)
Sedge, Plantain Leafed (*Carex plantaginaea*)
Strawberry, Wild (*Fragaria virginiana*)
Spring Beauty (*Claytonia virginica*)
Squirrel Corn (*Dicentra canadensis*)
Sweet Cicely (*Ozmorhiza* sp.)
Trillium, Large-flowered (*Trillium grandiflorum*)
Trillium, Red (*Trillium erectum*)
Violet (*Viola* sp.)

Appendix B. Wildlife species list

This list of wildlife includes species seen by LIA Consultants during the spring of 2000, the Cold Springs Consultant group, or local residents).

Birds

American Woodcock
Turkey Vulture
Red-tailed Hawk
American Kestrel
Ruffed Grouse
Wild Turkey
Mourning Dove
Barred Owl
Downy Woodpecker
Hairy Woodpecker
Pileated Woodpecker
Northern Flicker
Eastern Phoebe
Rough-winged Swallow
Blue Jay
American Crow
Common Raven
Black-capped Chickadee
Red-breasted Nuthatch
White-breasted Nuthatch
Brown Creeper
Winter Wren
Golden-crowned Kinglet
Ruby-crowned Kinglet
Wood Thrush
Hermit Thrush
Veery
American Robin
Brown Thrasher
Red-eyed Vireo
Blue-headed (Solitary) Vireo
Yellow-rumped Warbler
Black-throated Green Warbler
Black-throated Blue Warbler
Blackburnian Warbler
Black and White Warbler
Yellow Warbler
Golden-winged Warbler
American Redstart
Ovenbird

Scarlet Tanager
Northern Cardinal
Rose-breasted Grosbeak
Evening Grosbeak
Indigo Bunting
Chipping Sparrow
Song Sparrow
Fox Sparrow
Dark-eyed Junco
Bobolink
Red-winged Blackbird
Brown-headed Cowbird
Common Grackle
Baltimore Oriole
Purple Finch
American Goldfinch

Mammals

White-tailed Deer
Coyote
Red Fox
Fisher
Weasel (ermine)
Raccoon
Moose
Eastern Cottontail
Eastern Chipmunk
Gray Squirrel
Striped Skunk
Porcupine
Northern Flying Squirrel
Red Squirrel

Amphibian & Reptiles

Red-spotted Newt
Redback Salamander
Spotted Salamander
Wood Frog
Northern Leopard Frog
Spring Peeper
Garter Snake

Appendix C. Conservation Restrictions

GRANT OF DEVELOPMENT RIGHTS AND CONSERVATION RESTRICTIONS

THIS GRANT of Development Rights and Conservation Restrictions (the "Grant") is given on this 23rd day of December, 1998, by the LAKE CHAMPLAIN ISLANDS TRUST, d/b/a LAKE CHAMPLAIN LAND TRUST ("LCLT"), a nonprofit corporation incorporated under the laws of the State of Vermont, with an address of One Main Street, Burlington, County of Chittenden, State of Vermont, on behalf of itself and its successors and assigns (the "Grantor"), to itself, LCLT and the VERMONT HOUSING AND CONSERVATION BOARD ("VHCB"), a public instrumentality of the State of Vermont with an address of 149 State Street, Montpelier, County of Washington, State of Vermont, and their successors and assigns (hereinafter, collectively, "Grantees").

WHEREAS, VHCB is a public instrumentality of the State of Vermont existing by virtue of the Vermont Housing and Conservation Trust Fund Act, 10 V.S.A. §311 (the "Act") which provides grants and loans to eligible entities for projects which fulfill the goals of creating affordable housing for Vermonters and/or conserving and protecting Vermont's agricultural land, historic properties, important natural areas and recreational lands;

WHEREAS, the Act provides that in the best interests of all of its citizens and in order to improve the quality of life for all Vermonters and to maintain for the benefit of future generations the essential characteristics of the Vermont countryside, Vermont should assist in creating affordable housing and in preserving the state's agricultural land, historic properties, important natural areas and recreational lands;

WHEREAS, eligible activities under the Act include, but are not limited to, the protection of agricultural land, important wildlife habitat and important natural areas, the preservation historic properties or resources and the protection of areas suited for outdoor public recreational activity;

WHEREAS, VHCB has awarded a grant to LCLT for the acquisition and conservation of a parcel consisting of 111 acres, more or less, which, when added to a parcel already owned by LCLT will result in the conservation of 226 acres, more or less, by LCLT ("Eagle Mountain Natural Area") and situated in the Town of Milton ("Town"), and for conveyance of the Eagle Mountain Natural Area to the Town; and,

WHEREAS, LCLT has secured other public and private grant funds to assist in the conservation of the Eagle Mountain Natural Area for purposes consistent with the objectives of the VHCB Program;

WHEREAS, LCLT and VHCB have entered into VHCB Grant Agreement #99-005 which provides in part, that: (i) VHCB will make a grant in the amount of up to \$76,000 to LCLT to acquire and conserve the Eagle Mountain Natural Area; and (ii) the Town will hold the Eagle Mountain Natural Area for natural resource protection, open space, education purposes, and public outdoor recreation, subject to this Grant.

Milton Vermont 12/23/98
Received for amount 4 check
AB P
Reference to 197-185-99
Interest LAND
Attest Janette M. Latford
Town Clerk Assr

Vermont Property Transfer Tax
32 V.S.A. Chap. 231
- ACKNOWLEDGEMENT -
Retur. Recd. - Tax Paid - Board of Health Cer. Recd.
Vt. Land Use & Development Plans Act Cert. Recd.
Return No. 98-374
Signed Janette M. Latford Clerk Assr
Date 12/23/98

NOW, THEREFORE,

KNOW ALL PERSONS BY THESE PRESENTS that the LAKE CHAMPLAIN ISLANDS TRUST, d/b/a LAKE CHAMPLAIN LAND TRUST, on behalf of itself and its successors and assigns (hereinafter "Grantor"), pursuant to Title 10 V.S.A. Chapters 34 and 155 and in consideration of the payment of Ten Dollars and other valuable consideration paid to its full satisfaction, does freely give, grant, sell, convey and confirm unto the LAKE CHAMPLAIN ISLANDS TRUST, d/b/a LAKE CHAMPLAIN LAND TRUST and the VERMONT HOUSING AND CONSERVATION BOARD, and their respective successors and assigns (hereinafter "Grantees") as tenants in common, forever, the development rights, public access covenant, right of entry, and perpetual conservation easement and restrictions, (all as more particularly set forth below) in a certain tract of land consisting of 226 acres, more or less, of vacant land (hereinafter "Protected Property") located in the Town of Milton, County of Chittenden, State of Vermont, said Protected Property being more particularly described in Schedule A attached hereto and incorporated herein.

The development rights hereby conveyed to Grantees shall include all development rights except those specifically reserved by Grantor herein and those reasonably required to carry out the permitted uses of the Protected Property as herein described. The conservation easement and restrictions hereby conveyed to Grantees consists of covenants on the part of Grantor to do or refrain from doing, severally and collectively, the various acts set forth below. It is hereby acknowledged that these covenants shall constitute a servitude upon and shall run with the land.

I. Purposes of this Grant and Management Plan.

A. Purposes of the Grant

Grantor and Grantees acknowledge that the purposes of this grant are as follows (the "Purposes of this Grant"):

1. Consistent with the goals set forth in 10 V.S.A. §6301, the primary purpose of this Grant is to conserve and protect public outdoor recreational, habitat, cultural, scenic values and open space resources of the Protected Property and to prevent the use or development of the Protected Property for any purpose or in any manner that would adversely affect these resources.

2. Secondary purposes are to provide opportunities for agricultural and educational activities and to permit the construction and maintenance of public trails and structures incidental to appropriate public recreational use of the Protected Property for present and future generations.

3. These purposes will be advanced by conserving the Protected Property because it possesses the following attributes:

- (a) contains outstanding examples of warm calcerous cliffs and calcerous wooded talus natural communities;
- (b) includes an extensive open and wooded complex which supports a variety of flora and fauna;
- (c) contains at least one plant species, golden corydalis, listed as threatened by the Vermont Non-Game and Natural Heritage Program;

- (d) contains Eagle Mountain, one of the highest points on Lake Champlain with panoramic views from its summit;
- (e) a portion will be managed as an ecological protection zone;
- (f) contains approximately forty (40) acres of prime agricultural soils;
- (g) contains existing hiking trails; and
- (h) has great potential for recreational and educational uses.

Grantor and Grantees recognize these public outdoor recreational, scenic, agricultural, cultural and open space resource values of the Protected Property, and share the common purpose of conserving these values by the conveyance of conservation restrictions, and development rights, to prevent the use or development of the Protected Property for any purpose or in any manner which would conflict with the maintenance of these public outdoor recreational, scenic, wildlife, agricultural, cultural and open space resource values. Grantees accept such conservation restrictions, development rights and public access easement in order to conserve these values for present and future generations.

B. Management Plans.

Grantor will, from time-to-time develop comprehensive Management Plans for the Protected Property (hereinafter "Management Plans"). Said Management Plans shall:

1. Provide for the use and management of the Protected Property in a fashion which is not inconsistent with the Purposes of this Grant; and
2. Be designed to protect the natural, wildlife habitat, scenic and open space value of the Protected Property; and
3. Be consistent with the objectives of providing reasonable public access to recreational values and conserving the agricultural, cultural, ecological and educational values of the Protected Property; and
4. Be prepared in consultation with the Lake Champlain Land Trust; and
5. Otherwise be consistent with the terms and conditions of this Grant.

Prior to the final adoption of each Management Plan, Grantor shall: (a) secure appropriate input from the Town of Milton and from the general public; and (b) provide Grantees with a copy of each such Management Plans.

II. Restricted Uses of Protected Property.

1. The Protected Property shall be used for public outdoor recreation, habitat protection, open space, agricultural, and educational purposes in perpetuity. No residential, commercial, industrial or mining activities shall be permitted. No building or structures shall be constructed, created, erected or moved onto the Protected Property, except as permitted in Section III and the Management Plan.

2. Except as permitted by Section III of this Grant, no rights-of-way, easements of ingress or egress, driveways, roads, or utility lines or easements shall be constructed, developed or maintained into, on, over, under, or across the Protected Property, without the prior written permission of Grantees. Grantees may grant such permission if they determine, in their sole discretion, that any such improvement would be consistent with the Purposes of this Grant, and not adversely affect the historic, agricultural, natural and recreational significance or the scenic beauty of the Protected Property.

3. There shall be no signs, billboards, or outdoor advertising of any kind erected or displayed; provided, however, that Grantor may erect and maintain reasonable signs indicating the name of the Protected Property, organizations providing funding or sponsorship, boundary markers, directional signs, signs informing the public about reasonable use, memorial plaques and historical markers.

4. The placement, collection or storage of trash, human waste, or any other unsightly or offensive material on the Protected Property shall not be permitted except at such locations, if any, and in such a manner as shall be approved in advance in writing by Grantees. The storage and spreading of manure, lime, or other fertilizer for agricultural purposes, and the temporary storage of trash in receptacles for periodic off-site disposal, shall be permitted without such prior written approval.

5. Except as permitted by this Grant or as may be reasonably necessary to carry out the uses permitted by this Grant, there shall be no disturbance of the surface of the Protected Property including but not limited to filling, excavation, removal of topsoil, sand, gravel, rocks or minerals, or change of the topography of the land in any manner. In no case shall surface mining of subsurface oil, gas or other minerals be permitted.

6. There shall be no manipulation of natural watercourses, marshes, or other water bodies, nor shall there be activities conducted on the Protected Property which would be detrimental to water purity, or which could alter natural water level or flow, except as reasonably necessary to carry out the uses permitted on the Protected Property under this Grant.

7. No use shall be made of the Protected Property, and no activity thereon shall be permitted which, in the reasonable opinion of Grantees, is or is likely to become inconsistent with the Purposes of this Grant.

8. Except for a conveyance of the Protected Property to the Town of Milton, Grantor shall not give, grant, sell, convey, subdivide, transfer, mortgage, pledge or otherwise encumber the Protected Property without the prior written approval of Grantees.

III. Permitted Uses of the Protected Property.

Notwithstanding the foregoing, Grantor shall have the right to make the following uses of the Protected Property:

1. The right to use the Protected Property for all types of non-motorized, dispersed outdoor recreational purposes (including, but not limited to, fishing, bird-watching, walking, snowshoeing, cross-country skiing, and swimming) not inconsistent with the Purposes of this Grant. Use of the Protected Property for snowmobiling and mechanized activities may be permitted in the discretion of Grantor.

2. The right to use the Protected Property to conduct all activities allowed by the Management Plans, provided that such activities are reasonably necessary to carry out the Purposes of this Grant and are not inconsistent with the provisions of this Grant. Provided that they are contained within the Management Plans, such activities may include, but shall not be limited to the management of vegetation and wildlife, and the use and management of the Protected Property for outdoor public recreation. This Section III(2) shall not be construed to authorize the construction of new structures not otherwise permitted by this Grant.

3. The right to establish, reestablish, maintain and use existing cultivated fields and pastures located within the approximately 40 acres of prime soils off Henry Road for agricultural and/or horticultural purposes in accordance with generally accepted agricultural practices and sound husbandry principles.

4. The right to:

(a) maintain, repair, improve and replace existing recreational trails, provided that the location, use and construction of such new trails are consistent with the Purposes of this Grant and consistent with the Management Plans.

(b) clear, construct, maintain, repair, improve and replace new recreational trails and structures related to such trails provided that:

1. the location, use and construction of such new trails or structures are consistent with the Purposes of this Grant and consistent with the Management Plans;

2. within any area of the Protected Property designated as an ecological zone, a plan describing the location, construction, maintenance and use of the proposed trail and structures is submitted to Grantees for their approval prior to trail clearing, which approval shall not be unreasonably withheld or conditioned. In reviewing this plan, Grantees may consult with the State of Vermont Nongame and Natural Heritage Program. The surface of a trail within an "ecological zone" may be improved with natural materials, including stone or gravel, but shall not be paved.

5. The right to construct, maintain, repair and use two (2) parking lots on the Protected Property, including associated access drives and utilities, together with the right to construct improvements normally associated with a parking lot. Provided, however, that any such improvements shall be consistent with the Management Plans. The first parking lot shall be within the easterly portion of the Protected Property, accessible from Henry Road, so-called. The second parking lot shall be within the southerly portion of the Protected Property adjacent to Cold Spring Camp Road and this second parking lot shall be limited to a four car parking area.

6. The right to construct, maintain, repair and replace picnic facilities and sanitary facilities for members of the public using the Protected Property, provided that any such improvements shall be consistent with the Management Plans.

7. The right to charge members of the public reasonable fees for admission to and use of the Protected Property, provided said fees are collected only for community events on the Protected Property or such fees are reasonably necessary to support Grantor's management of the Protected Property. Fees shall not be based on place of residency.

8. The right to install and maintain fencing to manage pedestrian and vehicular access to the Protected Property.

IV. Public Access.

Grantor covenants and agrees that the Protected Property shall be available to the general public for all types of non-motorized dispersed recreational and educational purposes (e.g. swimming, fishing, bird-watching, walking, snowshoeing, cross-country skiing, etc.) not inconsistent with the Purposes of this Grant. Notwithstanding the foregoing, Grantor may limit or restrict public access to the Protected Property to assure compliance with the requirements of this Grant, to protect natural habitats, or to protect the public health or safety (including the right to permit, regulate or prohibit hunting and trapping).

In the event Grantor proposes to transfer the Protected Property into the ownership of an individual or entity which does not undertake in writing at the time of transfer to provide recreational and educational opportunities to the general public on the Protected Property, Grantor shall convey to Grantees or their designee, a public access easement. Said easement shall provide reasonable public access to recreational opportunities, shall be consistent with the Purposes of this Grant, and shall be in a form approved by Grantees.

V. Right of Entry.

In the event of the conveyance of the Protected Property to the Town of Milton, said conveyance shall be subject to a right of entry vested in Vermont Land Trust, Inc., and Vermont Housing and Conservation Board. Grantor covenants and agrees as follows:

1. Grantor shall use and maintain the Protected Property exclusively for uses permitted under this Grant, consistent with the Purposes of this Grant, and shall make the Protected Property available for public access as provided in Section IV hereof.

2. As owner and manager of the Protected Property, Grantor shall periodically inspect the Protected Property to assure Grantor's and the public's compliance with the terms and conditions of this Grant and shall, upon request, report the results of the inspections to Grantees.

3. Grantor shall take all reasonable steps to correct any violation of the terms and conditions of this Grant in the event a breach is discovered.

4. Except for a conveyance of the Protected Property to the Town of Milton, Grantor shall not give, grant, sell, convey, subdivide, transfer, mortgage, pledge or otherwise encumber the Protected Property without the prior written approval of Grantees.

In the event Grantor takes or fails to take any action which could result in a breach or could reasonably be interpreted as expressing an intent to breach the obligations set forth in this Section, Grantees reserve the right of entry for conditions broken or an executory interest, which right, if exercised by Grantees upon such breach of, or intention to breach, the above covenants,

shall be exercised by mailing a notice of violation ("Notice") by certified mail to Grantor. The Notice shall declare that the power of termination has been exercised and shall state the breach which caused the action. Grantor shall have a period of sixty (60) days from the date of receipt of the Notice to correct the breach causing the termination. If in the reasonable opinion of Grantees the breach is not cured within said sixty-day period, the termination shall become final and a copy of the Notice shall be recorded in the Town of Milton Land Records. Grantees' rights and remedies under this Section V shall be in addition to the rights and remedies set forth in Section VI, below. No delay or omission by Grantees in the exercise of its rights under this Section V shall impair Grantees' rights under this clause or be construed as a waiver of the right of entry.

VI. Enforcement of the Restrictions.

Grantees shall make reasonable efforts from time to time to assure compliance by Grantor with all of the covenants and restrictions herein. In connection with such efforts, Grantees may make periodic inspection of all or any portion of the Protected Property and for such inspection and enforcement purposes, Grantees shall have the right of reasonable access to the Protected Property. In the event that Grantees becomes aware of an event or circumstance of non-compliance with the terms and conditions herein set forth, Grantees shall give notice to Grantor of such event or circumstance of non-compliance via certified mail, return receipt requested, and demand corrective action by Grantor sufficient to abate such event or circumstance of non-compliance and restore the Protected Property to its previous condition. In the event there has been an event or circumstance of non-compliance which is corrected through negotiation and voluntary compliance, Grantor shall reimburse Grantees all reasonable costs incurred in investigating the non-compliance and in securing its correction.

Failure by Grantor to cause discontinuance, abatement or such other corrective action as may be demanded by Grantees within a reasonable time after receipt of notice and reasonable opportunity to take corrective action shall entitle Grantees to bring an action in a court of competent jurisdiction to enforce the terms of this Grant and to recover any damages arising from such non-compliance. Such damages, when recovered, may be applied by Grantees to corrective action on the Protected Property, if necessary. If the court determines that Grantor has failed to comply with this Grant, Grantor shall reimburse Grantees for any reasonable costs of enforcement, including court costs and reasonable attorneys' fees, in addition to any other payments ordered by such court. In the event that Grantees initiates litigation and the court determines that Grantor has not failed to comply with this Grant and that Grantees have initiated litigation without reasonable cause or in bad faith, then Grantees shall reimburse Grantor for any reasonable costs of defending such action, including court costs and reasonable attorneys' fees. The parties to this Grant specifically acknowledge that events and circumstances of non-compliance constitute immediate and irreparable injury, loss and damage to the Protected Property and accordingly entitle Grantees to such equitable relief, including but not limited to injunctive relief, as the Court deems just.

The remedies described herein are in addition to, and not in limitation of, any other remedies available to Grantees at law, in equity, or through administrative proceedings. No delay or omission by Grantees in the exercise of any right or remedy upon any breach of Grantor shall impair Grantees' rights or remedies or be construed as a waiver.

VII. Miscellaneous Provisions.

1. Where Grantor is required, as a result of this Grant, to obtain the prior written approval of Grantees before commencing an activity or act, and where Grantees have designated in writing another organization or entity which shall have the authority to grant such approval, the approval of said designee shall be deemed to be the approval of Grantees, provided that Grantor has given its written consent to such designation, which consent shall not be unreasonably withheld. Grantor shall reimburse Grantees or Grantees' designee for all extraordinary costs, including staff time, incurred in reviewing the proposed action requiring Grantees' approval; but not to include those costs which are expected and routine in scope. When Grantees have authorized a proposed action requiring approval under this Grant, Grantees shall, upon request, provide Grantor with a written certification in recordable form memorializing said approval.

2. It is hereby agreed that the construction of any buildings, structures or improvements, or any use of the land otherwise permitted under this Grant, shall be in accordance with all applicable ordinances, statutes and regulations of the Town of Milton and the State of Vermont.

3. Grantees shall transfer the development rights, right of first refusal, and conservation easement and restrictions conveyed by Grantor herein only to a State agency, municipality, or qualified organization, as defined in Chapter 34 or Chapter 155 Title 10 V.S.A., in accordance with the laws of the State of Vermont and the regulations established by the Internal Revenue Service governing such transfers.

4. In the event the development rights or conservation restrictions conveyed to Grantees herein are extinguished by eminent domain or other legal proceedings, Grantees shall be entitled to any proceeds which pertain to the extinguishment of Grantees' rights and interests. Any proceeds from extinguishment shall be allocated between Grantor and Grantees using a ratio based upon the relative value of the development rights and conservation restrictions, and the value of the fee interest in the Protected Property, as determined by a qualified appraisal performed at the direction of either Grantor or Grantees in the year of this conveyance. Grantees shall use any such proceeds to preserve undeveloped and open space land in order to protect the aesthetic, cultural, educational, scientific, and natural resources of the state through non-regulatory means.

5. In any deed or lease conveying an interest in all or part of the Protected Property, Grantor shall make reference to the conservation easement, restrictions, and obligations described herein and shall indicate that this easement and restrictions are binding upon all successors in interest in the Protected Property in perpetuity. Grantor shall also notify Grantees of the name(s) and address(es) of Grantor's successor(s) in interest.

6. Grantees shall be entitled to rerecord this Grant, or to record a notice making reference to the existence of this Grant, in the Town of Milton Land Records as may be necessary to satisfy the requirements of the Record Marketable Title Act, 27 V.S.A., Chapter 5, Subchapter 7, including 27 V.S.A. §§603 and 605.

7. While title is herein conveyed to Grantees as tenants in common, the rights and interests described in this Grant, including enforcement of the conservation easement and restrictions, may be exercised by Grantees collectively, or by any single Grantee individually,

provided that court enforcement action by a single Grantee shall foreclose action on the same issue(s) by the other Grantees who shall be bound by the final determination.

8. The term "Grantor" shall include the successors and assigns of the original Grantor, Lake Champlain Islands Trust, d/b/a Lake Champlain Land Trust. Upon the transfer of fee title to the Protected Property by said original Grantor to the Town of Milton subject to the terms of this Grant, the term "Grantor" shall, following said conveyance, denote the Town of Milton, its successors and assigns as to the Protected Property or any portion thereof. The term "Grantees" shall include the respective successors and assigns of the original Grantees, Lake Champlain Islands Trust, d/b/a Lake Champlain Land Trust and Vermont Housing and Conservation Board

9. In the event Grantor, Lake Champlain Islands Trust, d/b/a Lake Champlain Land Trust should in the future cease to exist, whether by corporate dissolution, by a failure to maintain its status as a corporation as required by the laws of the State of Vermont, or by other action or inaction, then all right, title and interest of Grantor, Lake Champlain Islands Trust, d/b/a Lake Champlain Land Trust shall vest by operation of law in the Vermont Land Trust, Inc., a non-profit Vermont corporation with principal offices located in Montpelier, Vermont.

10. The original Grantees, on October 31, 1997, executed an instrument entitled "Stewardship Memorandum of Understanding" (the "MOU") to clarify the roles of the original Grantees with respect to the stewardship of the Protected Property and to delegate certain stewardship responsibilities to Lake Champlain Islands Trust, d/b/a Lake Champlain Land Trust ("LCLT"). Any person dealing with LCLT may rely without further inquiry on a certificate signed by a person appearing to be a duly authorized agent of LCLT and stating that such person has the authority pursuant to the MOU to act on behalf of all original Grantees, or to the existence or nonexistence of any fact or facts which constitute conditions precedent to any action of all original Grantees, and to the execution, acknowledgment and delivery of any agreement, instrument or document on behalf of all original Grantees.

11. Any signs erected on the Protected Property which mention funding sources shall include the Vermont Housing and Conservation Board and the Vermont Land Trust, Inc.

INVALIDATION of any provision hereof shall not affect any other provision of this Grant.

TO HAVE AND TO HOLD said granted development rights and conservation easement and restrictions, and executory interest, with all the privileges and appurtenances thereof, to the said Grantees, Vermont Housing and Conservation Board, and Lake Champlain Islands Trust, d/b/a Lake Champlain Land Trust, their respective successors and assigns, to their own use and behoove forever, and the said Grantor, Lake Champlain Islands Trust, d/b/a Lake Champlain Land Trust, on behalf of itself and its successors and assigns, does covenant with the said Grantees, their successors and assigns, that until the ensembling of these presents, it is the sole owner of the premises and has good right and title to convey the same in the manner aforesaid, that the premises are free from every encumbrance, except easements and use restrictions of record as set forth in Schedule B attached hereto and incorporated herein, and it hereby engages to warrant and defend the same against all lawful claims whatever.

IN WITNESS WHEREOF, Peter A. Espenshade, duly authorized agent of the Lake Champlain Islands Trust, d/b/a Lake Champlain Land Trust, has executed this Grant on this 23rd day of December, 1998.

IN THE PRESENCE OF:

Lake Champlain Islands Trust,
d/b/a Lake Champlain Land Trust

Austin D. Hart
Witness to P A E

By: [Signature]
Its Duly Authorized Agent

STATE OF VERMONT
COUNTY OF CHITTENDEN, SS.

At Burlington, Vermont, on this 23rd day of December, 1998, personally appeared Peter A. Espenshade, duly authorized agent of the Lake Champlain Islands Trust, d/b/a Lake Champlain Land Trust, and he/she acknowledged this instrument, by him/her sealed and subscribed, to be his/her free act and deed, and the free act and deed of the Lake Champlain Islands Trust, d/b/a Lake Champlain Land Trust, before me.

Austin D. Hart
Notary Public
My Commission Expires:

Approved by the Vermont Housing and Conservation Board:

12/20/98
Date

By: [Signature]
Its Duly Authorized Agent

SCHEDULE A

PROTECTED PROPERTY DESCRIPTION

Parcel I.

Being all and the same land and premises conveyed to Lake Champlain Islands Trust, Inc., d/b/a Lake Champlain Land Trust by Warranty Deed of Vermont Electric Cooperative, Inc., dated December 23, 1998, and recorded in Volume ____, Page ____ of the Town of Milton land records, and being more particularly described therein as follows:

Commencing at a point located on the southwesterly boundary of a parcel entitled "Phelps Farm, Parcel No. 1 of Option" as shown on a survey entitled "Option to Purchase and Easement, Van B. Everest Estate to Vermont Electric Cooperative, Inc." said survey being dated the 12th day of October, 1978. Said survey also having been revised as to "Lines between Tie #3 and Tie #7 -- on 2/15/1979" to bring parties to final agreement. Said survey having been done by Newtown Surveyors, Inc., Morrisville, VT and said survey to be of record in the Land Records of the Town of Milton. Said point being located 1600 feet, more or less, northwesterly from the center line of a road marked "To Intersection W/T.H. #4"; Thence proceeding North 71°26'22" East a distance of 724.30 feet, more or less, to a point marked by an iron pin, which pin is 100 feet southeasterly of a maple tree; Thence continuing North 47°30'16" East a distance of 509.6 feet, more or less, through a line pin to a point entitled Tie #4 being marked by an iron pin set in the ground; Thence continuing North 31°46'23" East a distance of 700 feet, more or less, to a point marked Tie #3 as shown by an iron pin set in the ground; Thence proceeding North 85°09' East to a distance of 334.32 feet, more or less to a point, said point Tie #5; Thence turning to the left and proceeding North 15°34'28" East a distance of 340.15 feet, more or less, to a point, said point being Tie #6; Thence continuing North 18°29'21" East a distance of 350.35 feet, more or less, to a point said point being marked Tie #7; Thence turning to the left and proceeding North 65°45'44" West a distance of 501.50 feet, more or less, to a point marked by an iron pin set in the ground which point is marked Tie #1; Thence continuing North 60°56'19" West a distance of 1391 feet, more or less, along a red flagged line to a point marked by an iron pin set in the ground; Thence turning to the left and proceeding South 46°11'31" West a distance of 2150 feet, more or less, to a point marked by an iron pin set in the ground; Thence turning to the left and proceeding South 45°10' East a distance of 1775 feet, more or less to the point or place of beginning.

Said parcel above described being labeled "Phelps Farm, Parcel No. 1 of Option and Sheehan Farm, Parcel No. 1 of Option and Parcel No. 2.

Said total parcel supposed to contain 115 acres of land, more or less.

Meaning to describe all parcels of land as set forth in one certain Option Agreement between the late Van B. Everest and Vermont Electric Cooperative, Inc., said Option being dated the 16th day of August, 1961.

This conveyance is being subject to all of the terms and conditions set forth in said Option Agreement and Extensions.

Parcel II.

Being all and the same land and premises conveyed to Lake Champlain Islands Trust, d/b/a Lake Champlain Land Trust by Warranty Deed of John P. Hoyt, Jr., and Margaret W. Hoyt, dated January 19, 1995, and recorded at Volume 64, Page 644-8 of the Town of Milton land records, and being more particularly described therein as follows:

Being a piece or parcel of land designated as Lot No. 11, containing 114.6 acres, more or less, located on a portion of a private roadway known as "Cold Spring Road", as depicted on the following plans prepared by Trudell Consulting Engineers, Inc.: (SP1 entitled "John and Margaret Hoyt, Cold Spring Camp, Cold Spring Road, Milton, Vermont, Master Site Plan," dated 8/3/94, last revised 11/10/94, and recorded as Map Slide 253 of the Milton Town Land Records; (ii) SP2 entitled "John and Margaret Hoyt, Cold Spring Camp, Cold Spring Road, Milton, Vermont, Subdivision Plat," dated 8/16/94, last revised 11/10/94 and recorded as Map Slide 254 of the Milton Town Land Records; and (iii) SP3 entitled "John and Margaret Hoyt, Cold Spring Camp, Cold Spring Road, Milton, Vermont, Lots 1-9 Site Plan," dated 8/18/94, last revised 11/10/94 and recorded as Map Slide 254 of the Milton Town Land Records (collectively, the "Site Plan").

Being a portion of the lands and premises conveyed to John P. Hoyt, Jr. and Margaret W. Hoyt by Warranty Deed of Pearl R. Hoyt, dated December 16, 1967 and recorded in Volume 39, Page 100 of the Milton Town Land Records. Reference is also made to a boundary line adjustment described in the following deeds: (1) Quit Claim Deed from John P. Hoyt, Jr. and Margaret W. Hoyt to Paul E. Chausse, dated April 16, 1971 and recorded in Volume 44, Pages 23-24 of the Milton Town Land Records, and (2) Quit Claim Deed from Paul E. Chausse to John P. Hoyt, Jr. and Margaret W. Hoyt, dated April 16, 1971 and recorded in Volume 44, Pages 25-26 of the Milton Town Land Records.

SCHEDULE B EASEMENTS AND USE RESTRICTIONS

Subject to the rights of the public and others entitled thereto to use that portion of the Protected Property lying within the boundaries of roads maintained by one or more of the town, state or federal jurisdictions for all purposes commonly used for roads in the State of Vermont.

Subject to the rights of the public to use waterways and bodies of water as implied by the Public Trust Doctrine.

Subject to a right of way and easements for utilities granted to Central Vermont Public Service Corporation and New England Telephone and Telegraph Company by instrument dated October 11, 1960 and recorded in Book 35 at Page 348 of the Town of Milton Land Records; by instrument dated June 18, 1962 and recorded in Book 36 at Page 24 of said land records and by instrument dated July 16, 1964 and recorded in Book 36 at Page 531 of said land records.

Subject to a right of way and easements for utilities granted to Central Vermont Public Service Corporation by instrument dated September 1, 1954 and recorded in Book 33 at Page 234 of the Town of Milton Land Records; and by instrument dated February 28, 1957 and recorded in Book 34 at Page 196 of said land records.

Subject to a right of way and easement for utilities granted to Public Electric Light Company by instrument dated December 21, 1944 and recorded in Book 30 at Page 596 of the Town of Milton Land Records.

Subject to terms and conditions of the Option Agreement between Van B. Everest and Vermont Electric Cooperative, Inc., dated August 16, 1961.

Subject to a utility line easement granted to Central Vermont Public Service Corporation and New England Telephone and Telegraph Company, by deed dated July 17, 1981 and recorded in Book 48 at Page 221 of the Town of Milton Land Records.

Subject to a utility line easement granted to Central Vermont Public Service Corporation and New England Telephone and Telegraph Company, by deed dated August 27, 1984 and recorded in Book 87 at Page 393 of the Town of Milton Land Records.

Subject to a utility line easement granted to Central Vermont Public Service Corporation and New England Telephone and Telegraph Company, by deed dated July 1, 1956 and recorded in Book 34 at Page 112 of the Town of Milton Land Records.

Subject to a right of way granted to Elmer C. Martin and Marjorie B. Martin by deed dated July 11, 1928 and recorded in Book 27 at Page 715 of the Town of Milton Land Records.

Subject to spring and water rights granted to Vernon and Margo Breen by deed dated February 12, 1987 and recorded in Book 103 at Page 417.

Subject to the rights of camp lot owners of Lots 1-8 of the Cold Spring Camp subdivision to construct and utilize a community septic disposal system on Lot 11 in the event of failure of the existing systems serving each of the camp lots.

Subject to an easement and right of way 30 feet in length and 10 feet in width to provide for an emergency vehicle turnaround as depicted on the above-referred Site Plan, as required by the Town of Milton Subdivision (PRD) approval.

Subject to the construction of a four-car parking area, the exact location to be determined, as referenced on the above-referred Site Plan, as required by the Town of Milton Subdivision (PRD) approval.

Subject to a reserved 60 foot right of way and easement over the existing road known as Cold Spring Road, in favor of John P. Hoyt, Jr., and Margaret W. Hoyt, and their heirs, successors and assigns, for use and maintenance, in common with LCLT and others entitled thereto, of that portion of Cold Spring Road located within Lot 11, and as depicted on the above-referred Site Plan.

Subject to an easement and right of way in favor of John P. Hoyt, Jr., and Margaret W. Hoyt, and their heirs, successors and assigns, and other members of the Cold Spring Road Association, Inc., for hiking, cross-country skiing and snowshoeing (sic), in a manner consistent with the stewardship and monitoring plan developed and modified from time to time by LCLT, or its successors or assigns.

Subject to a license to John P. Hoyt, Jr., and Margaret W. Hoyt only, to take firewood and maple syrup from the premises, for personal use by them and not for sale to others, in a manner consistent with the stewardship and monitoring plan developed and modified from time to time by LCLT, or its successors or assigns.

Subject to a license to John P. Hoyt, Jr., and Margaret W. Hoyt only, for the benefit of them only, to hunt deer, partridge and rabbits on the premises, for personal use by them and not for sale to others in a manner consistent with the stewardship and monitoring plan developed and modified from time to time by LCLT, or its successors or assigns.

Subject to State of Vermont Land Use Permit #4C-0961 dated December 2, 1994 and recorded in Book 163 at Page 699 of the Town of Milton Land Records.

Subject to the terms and conditions of a Pledge Agreement by and between John and Margaret Hoyt and LCLT, dated July 7, 1994 and recorded in Book 164 at Page 251 of the Town of Milton Land Records; as amended by an Amendment to Pledge Agreement dated October 31, 1994 and recorded in Book 164 at Page 259 of said land records; and by Second Amendment to Pledge Agreement dated November 15, 1994 and recorded in Book 164 at Page 261 of said land records.

Subject to the terms and conditions of the Declaration of Planned Residential Development, Cold Spring Camp, dated December 16, 1994 and recorded in Book 164 at Page 227 of the Town of Milton Land Records.

Subject to the terms and conditions of a Roadway Agreement and Waiver by and between John and Margaret Hoyt and the Town of Milton dated December 16, 1994 and recorded in Book 164 at Page 235 of the Town of Milton Land Records.

Subject to the terms and conditions of a Roadway Agreement for Cold Spring Road, dated January 12, 1995 and recorded in Book 164 at Page 533 of the Town of Milton Land Records.

Subject to the terms and conditions of the State of Vermont Subdivision Permit #EC-4 18 dated November 17, 1994 and recorded in Book 163 at Page 638 of the Town of Milton Land Records.

Subject to the terms and conditions set forth in the "Restated and Amended By-Laws of the Cold Spring Road Association, Inc.", dated January 12, 1995 and recorded in Book 164 at Page 549 of the Town of Milton Land Records.

Subject to the terms and conditions of the Town of Milton Subdivision (PRD) approval as noted in the letter from Krista L. Andry, Milton Town Planner to John and Margaret Hoyt, dated November 30, 1994.

Bibliography

- Allen, George W. (1989). *Soil Survey of Chittenden County, Vermont*. U.S. Government Printing Office: Washington, D.C.
- Beattie, Mollie, Charles Thompson and Lynn Levine (1993). *Working with Your Woodland: A Landowner's Guide*. University Press of New England: Hanover, NH.
- Bollinger, E.K. and T.A. Gavin (1990). Eastern bobolink populations: Ecology and conservation in an agricultural landscape. In *Ecology and Conservation of Neotropical Migrant Landbirds*. J.M. Hagan III and D. W. Johnston eds. Smithsonian Institution Press: Washington, D.C.
- Bornie, W.T., S.F. McCool, and G.H. Stankey. (1998). *Protected Area Planning, Principles, and Strategies*, in: Linderberg, K., M.E. Wood, and D. Engeldrum (Eds). (1998). *Ecotourism: A Guide for Planners and Managers 2*: 133-154.
- Delorme. (1999). 3-D TopoQuads. CD-ROM Software. Yarmouth, ME.
- Dorney, Jane. (2000). Personal Communication.
- Everest, Larry. (2000). Personal Communication.
- Herman, T.B., S. Bondrup-Nielsen, J.H. Martin Willison, and N.W.P. Munro (Eds). (1995). *Ecosystem Monitoring and Protected Areas*. Science and Management for Protected Areas Association: Canada.
- Hoyt, John and Margaret. (2000). Personal Communication.
- Hunter, Malcom L. Jr. (1990). *Wildlife Forests and Forestry: Principles of Managing Forests for Biological Diversity*. Regents/Prentice Hall: Englewood Cliffs, NJ.
- Johnson, Charles W. (1998). *The Nature of Vermont*. University Press of New England: Hanover, NH.
- Loso, M., C. Marriot, B. Minter, M. Plummer, S. Searcy (1995). *Eagle Mountain Natural Resource Inventory and Management Recommendations*. University of Vermont Publication: Burlington, VT.
- National Geographic (1999). *Field Guide to the Birds of North America 3rd Ed*. National Geographic Society: Washington, D.C.
- Newcomb, Lawrence (1977). *Newcomb's Wildflower Guide*. Little Brown and Company: Boston.

- Olson, Don. (2000). Personal Communication.
- Petrides, George A. (1972). *Peterson Field Guides: Trees and Shrubs*. Houghton Mifflin Company: Boston.
- Rezendes, Paul (1992). *Tracking and the Art of Seeing: How to Read Animal Tracks and Sign*. Camden House Publishing, Inc.: Charlotte, VT.
- Sanford, R., D. Huffer, and N. Huffer. (1995). *Stone Walls and Cellar Holes: A Guide for Landowners on Historic Features and Landscapes in Vermont's Forests*. Vermont Agency of Natural Resources: Waterbury, VT.
- Snyder, Michael (August 1996). Forgotten fruit: Apple trees in the wild. *Vermont Woodlands*: pp. 14-17.
- Stone, Solon W. and John G. Dennis (1964). *The Geology of the Milton Quadrangle, Vermont*. Vermont Development Department: Montpelier, VT.
- Thompson, E.H. (April 2000). Personal Communication.
- Thompson, E.H. and E.R. Sorenson (2000). *Wetland Woodland Wildland: A Guide to the Natural Communities of Vermont*. University Press of New England: Hanover, NH.
- USGS-EROS Data Center. National Aerial Photography Program. E-mail: custserv&edcmail.cr.usgs.gov
- Vermont ANR (1995). *A Landowner's Guide: Wildlife Habitat Management for Vermont Woodlands*. Vermont Department of Fish & Wildlife and Department of Forests, Parks and Recreation.
- Wessels, Tom (1997). *Reading the Forested Landscape: A Natural History of New England*. The Countryman Press: Woodstock, VT.

Other Resources:

- Extension System of the University of Vermont. South Burlington Office. Spear St., South Burlington. 802-656-5433
- Mike Snyder. Chittenden County Forester. 111 West St. Essex Junction, VT. 802-879-6565