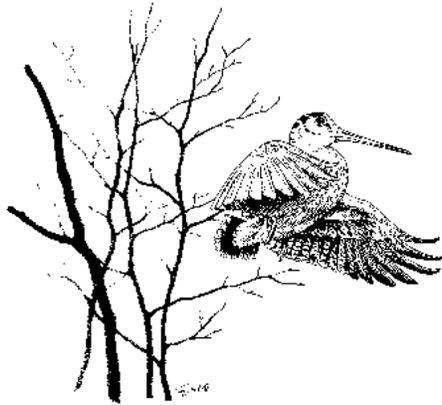


Baseline Assessment
for
Foss Farm



FINAL REPORT

September 30, 2008

**Prepared by the
Land Stewardship Committee**

**A Subcommittee of the
Carlisle Conservation Commission**

Foreword

This Baseline Assessment has been prepared by the Land Stewardship Committee (LSC), a subcommittee of the Carlisle Conservation Commission (CCC). The LSC, which was formed in January 2006, has a number of core tasks. Two key core tasks are to:

1. Conduct Baseline Assessments of Town-owned conservation properties; and
2. Develop a Management Plan for each of these properties.

The Baseline Assessment involves the collection, evaluation, and presentation of information on several topics, including:

- The acquisition of the property, including reasons for purchase, costs, funding sources, and associated land use restrictions;
- A detailed description of the property (using maps and figures, where appropriate) covering such topics as: boundaries (and abutters), major features (e.g., fields, woods, ponds, wetlands), topography, agricultural use and soil quality, trails, parking, and signs and displays;
- Historic and current uses of the property;
- A description of previous planning documents or other studies of the property;
- Maintenance activities and current condition of the property; and
- A list of issues to be addressed in the formulation of a Management Plan.

The Baseline Assessment is considered a working document and not a final published report. It is primarily designed to organize important information on a Town-owned conservation parcel in preparation for the writing of a Management Plan. It is expected that most of the information in the Baseline Assessment will eventually be used in the Management Plan which – after appropriate review – will be published in both hard copy and electronically (e.g., on the Town’s web site). The Baseline Assessment itself, after review and approval by the CCC, will be made available in electronic format to Town committees, boards, property user groups, and the public.

Because the Baseline Assessment is a working document, no attempt has been made to make it look like a formal publication. In addition, there may be a number of errors of fact, or omission, or emphasis which we hope the review process will correct prior to the writing of the more formal Management Plan.

If you have any comments on the content of this document, please send them to Lynn Knight (Lynn.Knight627@comcast.net).

(Photo credits: Judy Asarkof, Lynn Knight, Paul Carpenter, and Jenifer Bush).

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1.0 General Description of the Property

1.1 Overview

Foss Farm Conservation Area is a 57-acre conservation parcel located along the east side of Bedford Road (Rte 225) just after entering Carlisle from Bedford. The entrance lies about two miles east of the Carlisle town center between the intersections with River Road and Skelton Road (See Figure 1-1).

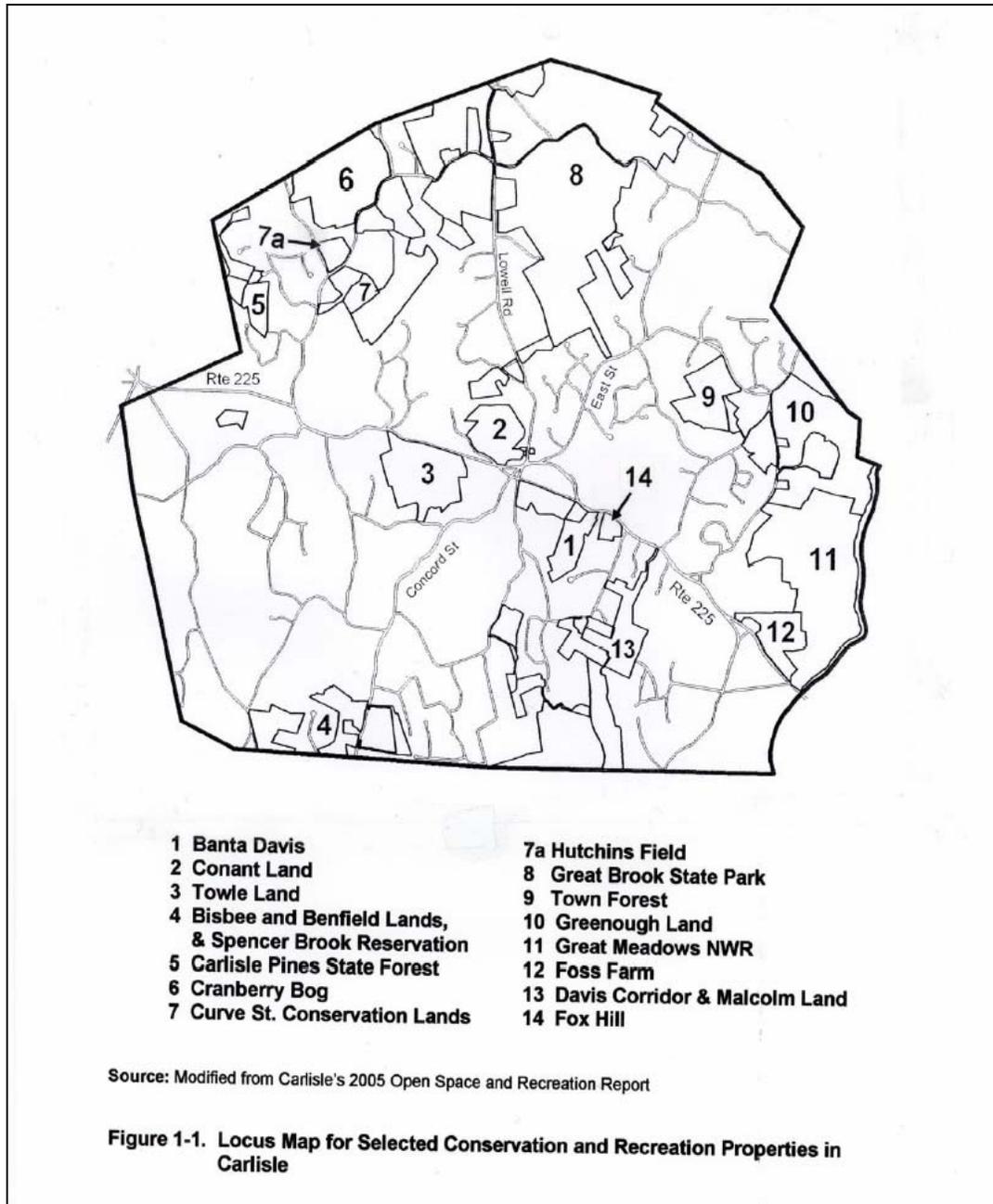


Figure 1-1. Locus Map

There is a second entrance, intended only for farm vehicle or pedestrian access, two-tenths of a mile farther east on Bedford Road. Foss Farm has approximately 2,822 feet of frontage along Bedford Road.

1.2 Abutters

The Foss Farm property (See Figure 1-2) is bounded by private property in the north, by Bedford Road along the western boundary, and by Great Meadows National Wildlife Refuge (GMNWR) along the east. The GMNWR is administered by the U.S. Fish and Wildlife Service. There are nine private abutters and near-abutters to the Foss Farm property.

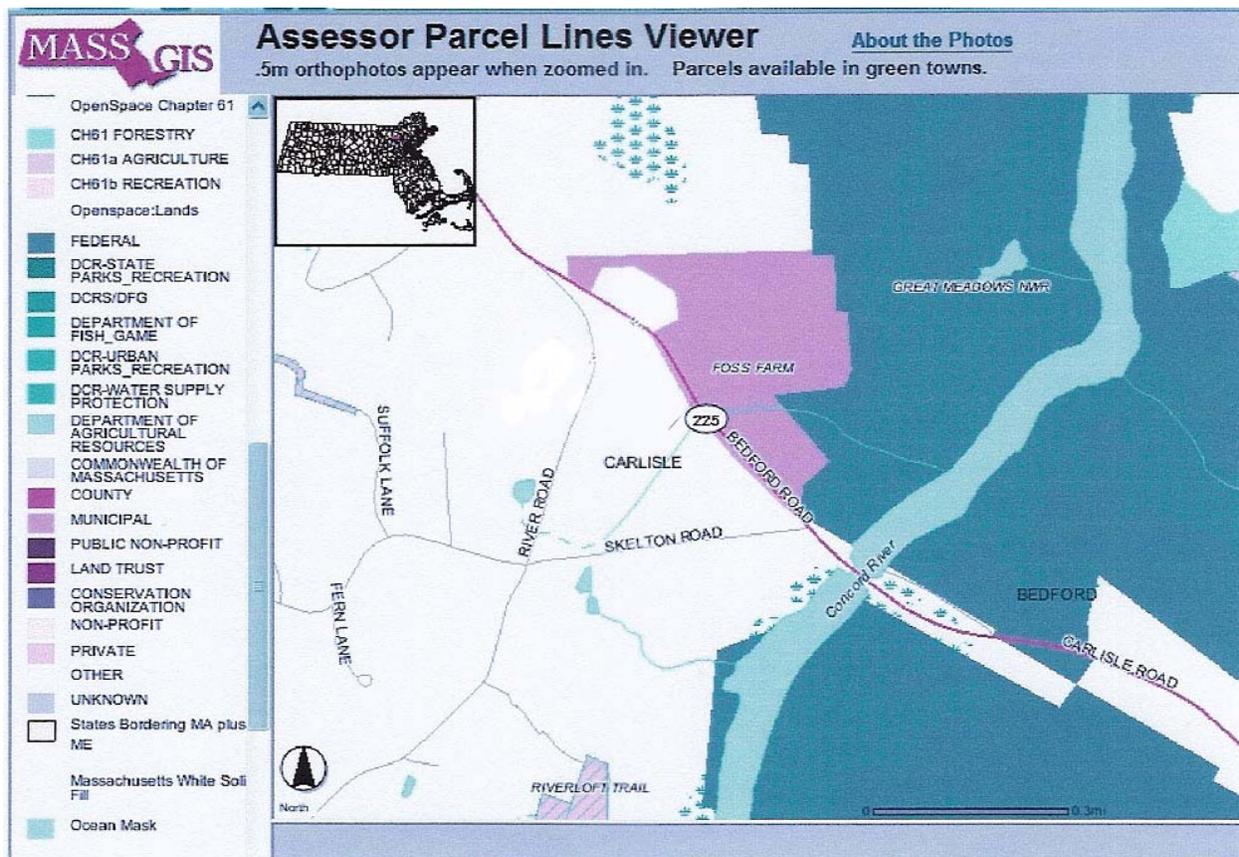


Figure 1-2. Foss Farm Parcel (Massachusetts GIS)

1.3 Major Features of the Property

Foss Farm has upland areas with rolling terrain as well as large expanses of flat lowlands. Much of the upland area in the northwest section of the property is forested (approximately 13 acres). The majority of the property (approximately 44 acres), however, is open fields allowing for some extensive vistas. Other features include a stream that winds through a wetland, damp forests, and areas of transitional vegetation (meadow to forest). On the property are two pony rings, two agricultural licensed fields, and a community garden area. There also are trails winding through

the wooded areas and trails along the perimeter of the fields. Stone fences border the property and several important species, such as American woodcock, blue-spotted salamander, and several types of turtles (Blandings, wood, painted, and snapping) have found suitable habitat at or near Foss Farm. A documented Native American site exists on the property. The general features of Foss Farm are shown in Figure 1-3. An aerial view of the property is shown in Figure 1-4 and the general topography is shown in Figure 1-5.

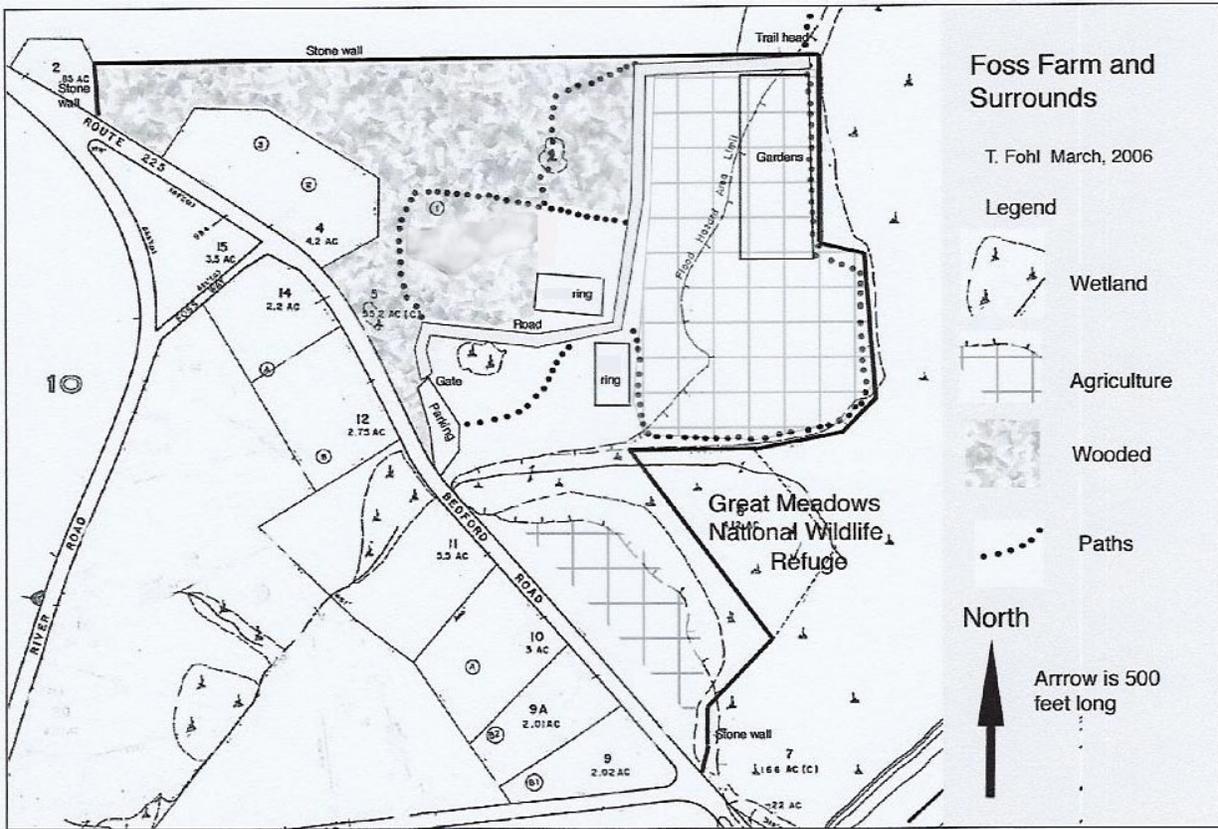


Figure 1-3. Major Features of Foss Farm



Figure 1-4. Aerial View of Foss Farm

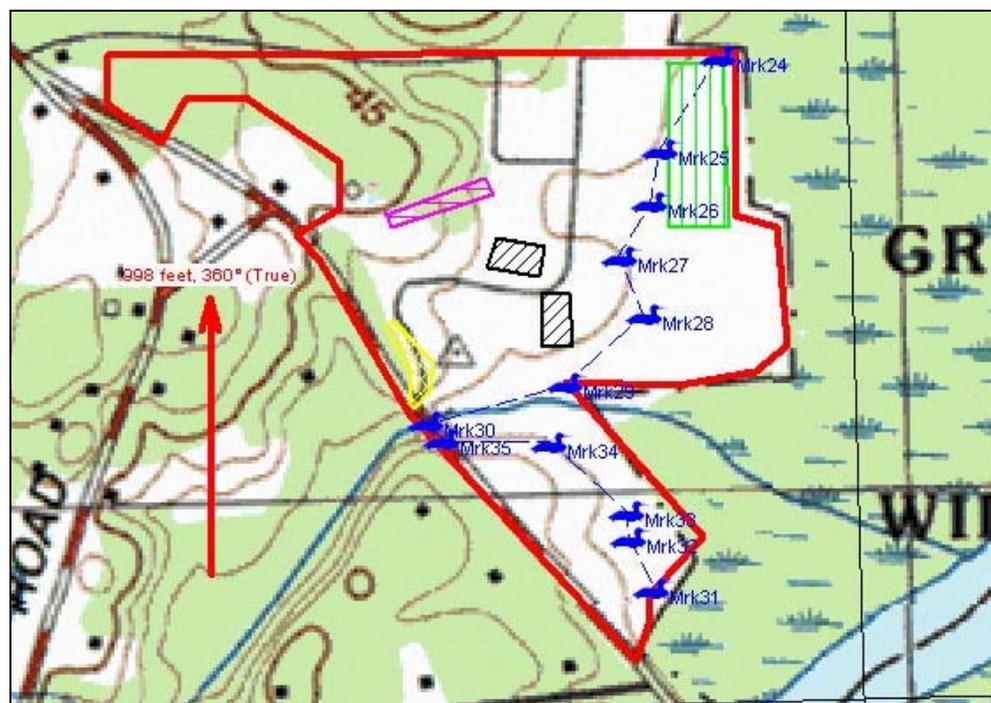


Figure 1-5. Foss Farm Topography

More detail about the following major features is provided below:

- Entrance and parking
- Fields (including horse/pony rings and community gardens)
- Forested areas
- Wetlands
- Soils
- Trails
- Special natural and historic features

Entrance and Parking

As already mentioned, the main entrance is along Bedford Road. The parking lot is unpaved and is approximately 30,000 square feet, estimated to support roughly 45 passenger vehicles. There is one marked handicapped parking spot. A small trash can is centrally located for basic trash. Plastic bags are supplied in a dispenser for dog walkers. At the end of the parking lot there is a gated entrance to the dirt road leading past the horse rings to the public gardens. All gardeners and many horse-owners have key access to this gate.

Fields

The open areas at Foss include a few small sections of grassland habitat, two pony rings, two large agricultural licensed fields, and a large community garden area. One agricultural field (Figure 1-6) is in the open area visible from the parking lot (sometimes referred to as the “lower field”; the other agricultural field is in the southern section of the property (referred to as the “upper field.”) The upper field is only accessible on foot via a path for farm vehicle access along Bedford Road.



Figure 1-6 . Lower Field at Foss Farm

In the northeast corner of the main section of the property, a portion of the open area is designated for community garden plots. Much of the rest of that field is licensed to a local farmer to raise animal feed. There is a significant gradation in soil types in these fields depending on the distance from the Concord River. Silty soils are found closer to the river;

sandy soils are found farther from the river as the elevation rises. (More specifics about the soils are discussed in a later section.) In most springs, large portions of the lower and the upper fields become completely saturated. Every few years, wetter springs make most of the agricultural field and the community garden plots impassable. Gardeners reported that in spring of 2006, ankle-deep mud made it necessary to replant their crops.



Figure 1-7 . Foss Farm Community Garden Plots

Forested Areas

Less than one-third of Foss Farm is forested. This area is highly utilized by deer, turkey, rabbits, raccoons, and foxes, with the edges providing important perching zones for hawks as well as multiple species of songbirds – including bluebirds. There are several walking trails and a few pony-jumps are scattered in a specific section near one of the riding rings.

The study authors walked the property and reviewed the tree and shrub species with local Carlisle resident and Certified Arborist, John Bakewell. In the upland area in the northern part of the property, the forests are predominantly tall deciduous and pine trees. The species observed included white pines, a variety of oaks, red maples, red cedars, cherries, hawthorns, birches, and some cottonwoods. There also are some pitch pines, which are relatively uncommon in Carlisle. There are some outstanding old oaks and other statuesque hardwoods along the forest edges.

In the forested areas that border the wetlands along the east side of the property, other species of trees more typical of damp woods were found. Species here included mainly alders and red maples. An occasional willow or walnut tree was seen. Some species of dogwoods were growing along the forest edge. There also are a few ancient apple trees.

There are several areas throughout the property that are thick with invasive non-native species, such as honeysuckle, bittersweet, and buckthorn. These occur mostly along the forest edges.

Wetlands

Much of the eastern edge of Foss Farm is bordered by wetlands associated with the Concord River. (See Figure 1-8.) In addition, a small perennial stream, with surrounding wetlands, flows under Route 225 and continues between the upper field and the main section of Foss Farm. The wetland section of Foss Farm is a source of not only typical wetland plants such as cattails, phragmites, and skunk-cabbage, but also widespread growth of wild grapes. It is along the edge of the main Foss Farm field and this wetland area that woodcocks are routinely seen displaying in the spring.

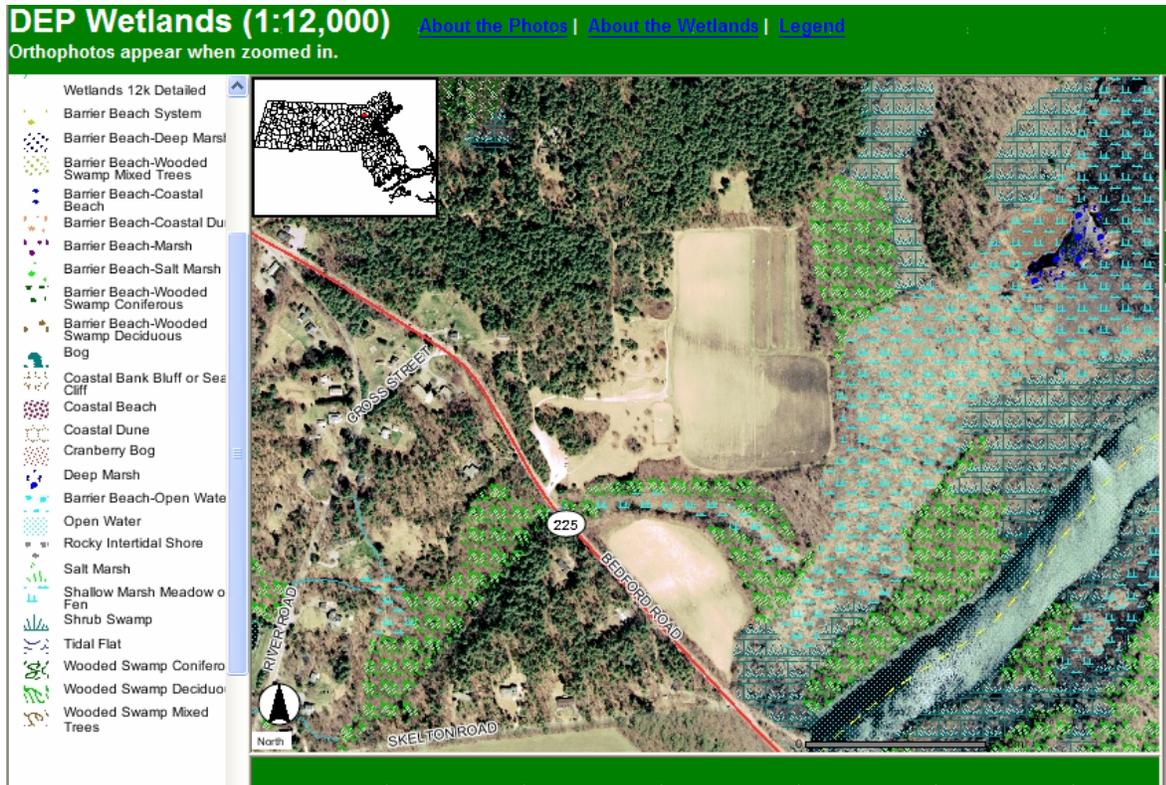


Figure 1-8. Foss Farm Wetlands

Given the proximity to the Concord River, the extensive wetlands, and the low-lying areas, Foss Farm provides an important role in the Sudbury-Assabet-Concord River watershed. The floodplains on Foss help provide flood control for Carlisle, Bedford, and Billerica. Figure 1-9 shows a view of some of the wetlands at Foss Farm.



Figure 1-9 . Wetlands along Stream at Foss Farm

Stone Walls

Two historic stone walls exist on the property; one is found along the northernmost border of the property separating Foss Farm from private property and from Great Meadows (See Figure 1-10). The other is a smaller stone wall close to the Concord River side on the far southeastern edge of the property. The walls are largely obscured by trees, vines, and bushes.



Figure 1-10. Stone Wall at Entrance to Great Meadows National Wildlife Refuge

Soils

There are ten categories of soils present at Foss Farm property, according to the Middlesex Conservation District’s *Soil Survey Report* (1995). (see Table 1-1) The locations of each type of soil are depicted in Figure 1-11. However, as indicated in the figure and the table, loamy sands dominate the two agricultural fields (Soil classifications 97A and 255B).¹

The *Soil Survey Report* provides an assessment of the suitability of the soils at Foss Farm for agriculture. As indicated in Table 1-1, nearly 75 percent of the soils are classified as “locally important,” which means that they are considered important to agriculture in Middlesex County and the State of Massachusetts.²

Table 1-1. Foss Farm Soils

Foss Farm Soils and Their Characteristics				
Map Code	Soil Type and Grade	Acres	Percent of Total Acres	Farmland Rating*
8A	Limerick silt loam, 0-3% slopes	4.2	7%	Not rated as farmland
36A	Saco mucky silt loam	0.3	1%	Not rated as farmland
51A	Swansea muck	0.2	0%	Not rated as farmland
97A	Suncook loamy sand, 3-8% slopes	12.4	21%	Locally Important
253B	Hinckley loamy sand, 3-8% slopes	1.3	2%	Locally Important
253C	Hinckley loamy sand, 8-15% slopes	8.7	15%	Not rated as farmland
253D	Hinckley loamy sand, 15-25% slopes	0.7	1%	Not rated as farmland
255B	Windsor loamy sand, 3-8% slopes	27.9	47%	Locally Important
256A	Deerfield loamy sand, 0-3% slopes	2.1	4%	Locally Important
307B	Paxton fine sandy loam, 3-8% slopes, extremely stony	2.2	4%	Not rated as farmland
Total		60	100%	

*Farmland is rated as either "prime" or "locally important."

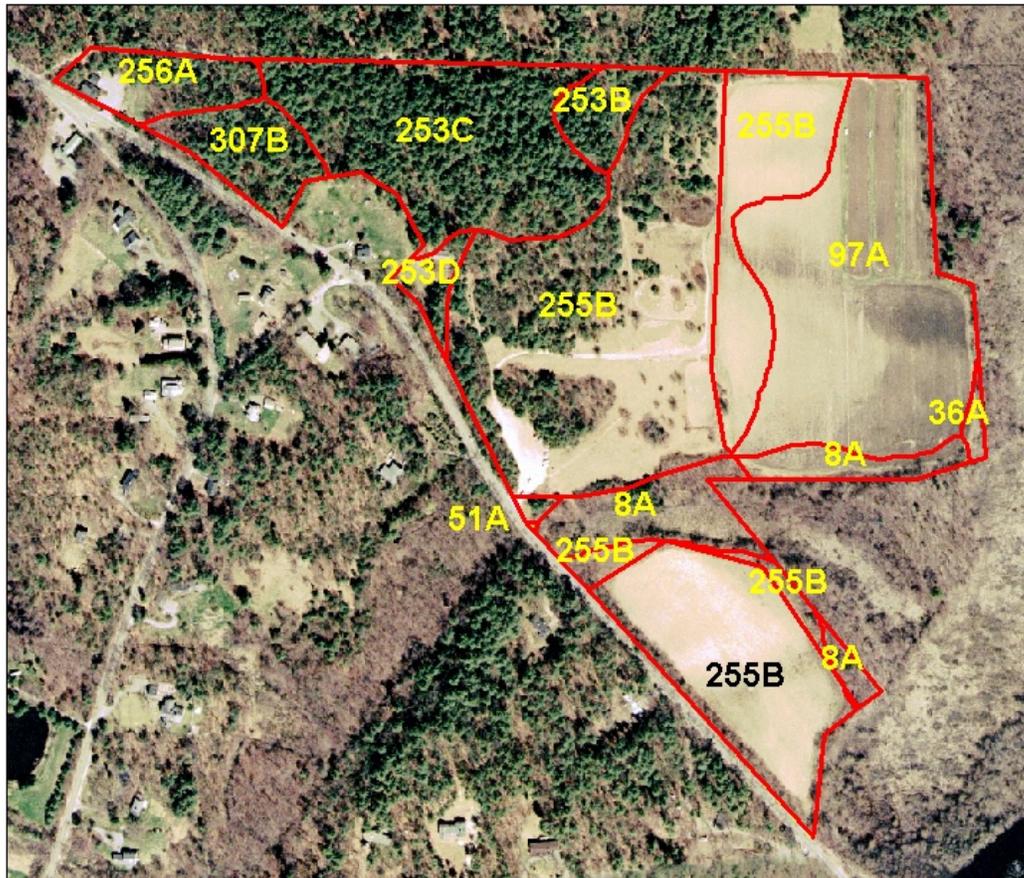
¹ 97A: Suncook - Consists of nearly level, deep (5+ ft.), excessively drained soils on floodplains. They formed in recent sandy alluvium. Suncook soils have very friable or loose sandy loam, loamy fine sand or loamy sand surface soil, over a loose, stratified loamy fine sand to coarse sand substratum. They have rapid or very rapid permeability. They are subject to common flooding for brief durations. Major limitations are related to flooding and droughtiness. 255B: Windsor - Consists of nearly level to very steep, deep (5+ ft.), excessively drained soils on glacial outwash plains, terraces, deltas and escarpments. They formed in sandy glacial outwash. Windsor soils have a very friable or loose loamy sand or loamy fine sand surface soil, very friable or loose loamy fine sand to sand subsoil over a very friable or loose sand or fine sand substratum to a depth of 60 inches or more. They have rapid permeability. Major limitations are related to droughtiness and slope.

² Locally Important: Farmland that fails to meet the requirements of Prime farmland, but is of statewide importance for the production of food, feed, fiber, or forage crops. Also included are nearly Prime farmlands that economically produce high yields of crops when managed according to acceptable farming methods.

Foss Farm

Field Office: WESTFORD SERVICE CENTER
District: MIDDLESEX CONSERVATION DISTRICT

Agency: MA Assoc. of Conservation Districts
Assisted By: Elizabeth McGuire 5/5/2006



Legend

-  Soils Map
-  Consplan



Figure 1-11. Foss Farm Soils

Trails

The Carlisle Trails Committee maintains all foot trails across Foss Farm. Figure 1-12 shows the Trails Committee trail map for Foss Farm. Trails wind through the upland forest and follow the perimeter of the open areas. Foss Farm trails link to the Great Meadows National Wildlife Refuge, which in turn connects to the O'Rourke and the Greenough conservation lands. This makes Foss Farm a highly desirable destination for hiking.

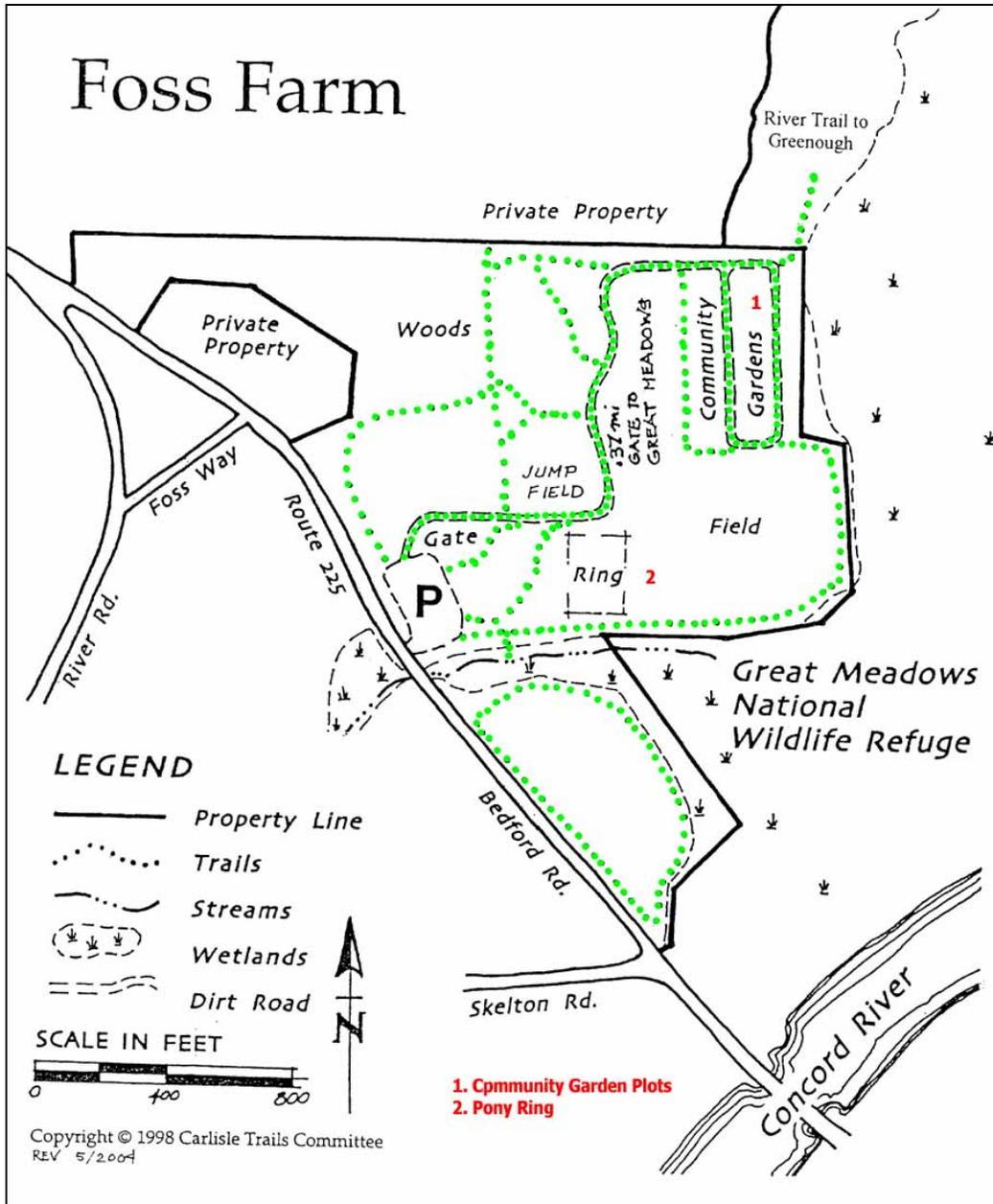


Figure 1-12. Foss Farm Trails

Currently, there is no access to the upper field from the main section of the property. A trail and bridge over the stream and the wetland intended to connect the main section of Foss Farm to the “upper field” was installed some years ago. The Carlisle Trails Committee hopes to complete this trail in the near future.

On the nearby Great Meadows National Wildlife Refuge, discussion has been ongoing regarding the creation of a loop trail which would connect trails along both sides of the Concord River leading from the Foss Farm trails in Carlisle, onto the Great Meadows River Trail, into Greenough Conservation Land, into Billerica’s portion of Great Meadows trails, back into Bedford, and re-connect in Carlisle. Hikers would cross the Concord River on Route 4 in Billerica and along Route 225 at the border of Carlisle and Bedford.

Special Natural and Historic Features

Various remnants of old structures and machinery can be spotted along the fields and trails pointing to prior and historic uses of this area. At one time asparagus was farmed and wild asparagus plants can still occasionally be spotted along the field edges. There is a documented Native American site on the property. The specific location of the site is undisclosed. Appendix A contains a letter from the Massachusetts Historical Commission referencing the site.

The combination of forest, field, wetlands, and “edge” habitat attracts a large number of bird and animal species. A formal list of bird sightings was completed by local birders Tom and D’Ann Brownrigg from 1988 -2002 for both the Greenough and Foss Farm Conservation Areas. (See Appendix B). In addition, Foss Farm visitors have reported routinely seeing bluebirds, woodcocks, tree swallows, chickadees, robins, house wrens, Coopers hawks, marsh hawks, bobolinks, and kestrels as well as many other birds. Foss Farm is regularly the site of a spring woodcock walk led by the Brownriggs of Carlisle. Other annual and occasional bird walks are held there as well. Other wildlife use is evident from footprints, scat or other sightings, including deer, coyote, fox, raccoons, turkey, and an occasional moose raiding the public gardens. Foss



Figure 1-13. Field/Forest Edge Habitat (with Bluebird Boxes)

Farm provides habitat for many species of turtles. Every spring, young snapping turtles are seen venturing out of their nests in the sandy upland soils on their way to the river. Painted turtles are a common sight.

Several species of special interest to biologists and conservationists have been spotted at Foss Farm. Specifically, the blue-spotted salamander has been spotted several times, most recently in the community garden plots (see Figure 1-14). Also, the wood turtle has found a suitable habitat. Detailed descriptions of these two species from the Massachusetts Natural Heritage and Endangered Species Program (NHESP) are found in Appendices B and C.



**Figure 1-14. Blue-Spotted Salamander Found at Foss Community Gardens (2007)
(Courtesy of Jenifer Bush)**

The NHESP³, a part of the Massachusetts Division of Fisheries and Wildlife, has designated a portion of land in eastern Carlisle – including parts of Foss Farm - as a Supporting Natural Landscape (defined below). The Foss Farm portion, shown in NHESP's BioMap (available at <http://maps.massgis.state.ma.us/BIOMAP>), includes primarily the wetland portion that lies on the eastern portion of the property. Portions of Foss are part of a larger ecologically significant area that includes the Great Meadows National Wildlife Refuge (on both sides of the Concord River), Carlisle's Greenough Conservation Land to the north, and other abutting lands on both sides of the Concord River.

The designation of "Supporting Natural Landscape" was a result of the statewide biodiversity conservation planning project called BioMap. The goal of the BioMap project, completed in 2001, was to identify and delineate the most important areas for the long-term viability of terrestrial, wetland, and estuarine elements of biodiversity in Massachusetts. A key objective of BioMap was to identify and delineate Core Habitats that were the most critical sites for biodiversity conservation across the State. Core Habitats represent habitats for the State's most viable rare plant and animal populations and include exemplary natural communities and aquatic habitats. In BioMap, areas designated as Supporting Natural Landscapes provide buffers around

³ A general description of the NHESP may be found at <http://www.mass.gov/dfwele/dfw/nhESP/nhbiomap.htm>.

the Core Habitats, connectivity between Core Habitats, sufficient space for ecosystems to function, and contiguous undeveloped habitat for common species (see Figure 1-15).

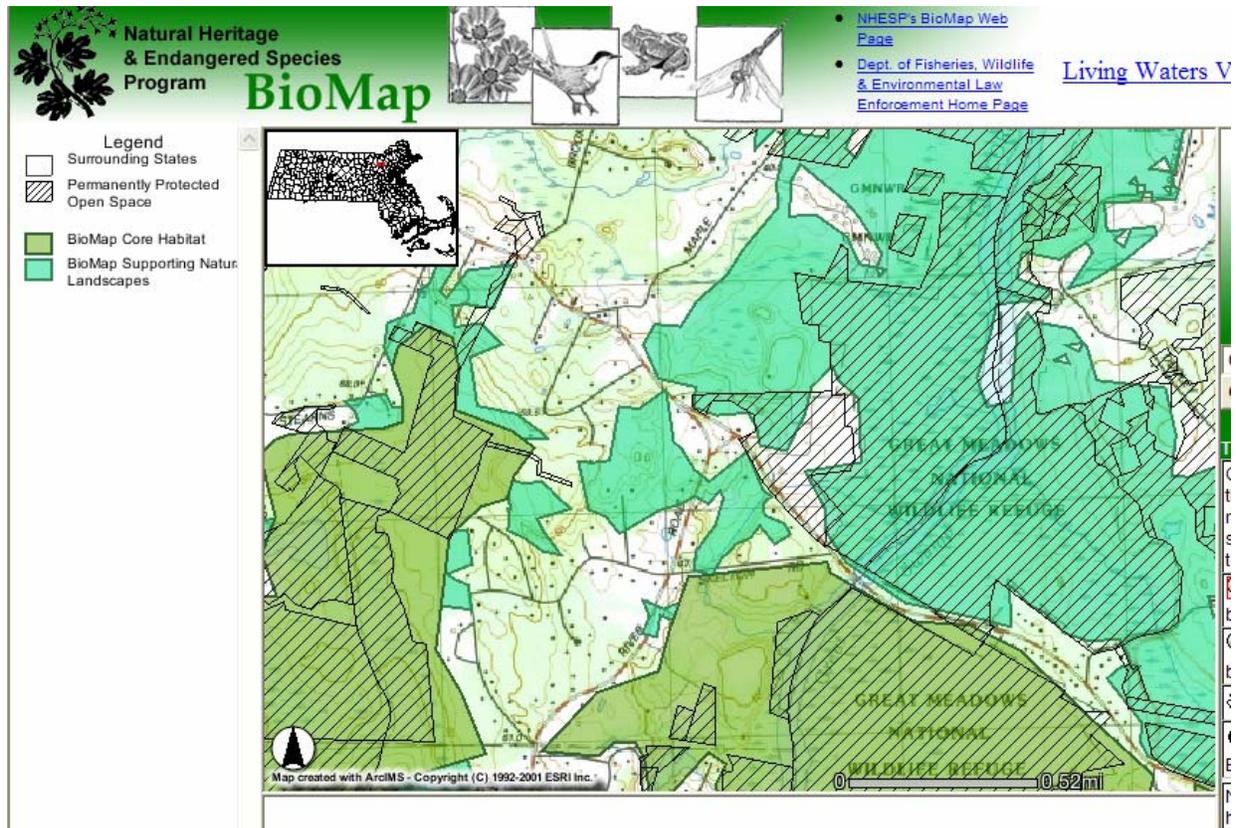


Figure 1-15. Core Habitats – Foss Farm Area

In addition, the NHESP has created maps depicting Priority and Estimated Habitats (see Figure 1-16). The Priority Habitats of Rare Species shows the geographic extent of Habitat of state-listed rare species in Massachusetts based on observations documented within the last 25 years in the database of the NHESP. Priority Habitats are the filing trigger for proponents, municipalities, and other stakeholders for determining whether or not a proposed project must be reviewed by the NHESP for compliance with the [Massachusetts Endangered Species Act](#) (MESA). The Priority Habitats presented here are those published in the 12th Edition of the Massachusetts Natural Heritage Atlas, and are effective beginning October 1, 2006.

Estimated Habitats are for use with the [Wetlands Protection Act](#) regulations (310 CMR 10.00). The Estimated Habitats of Rare Wildlife are a subset of the Priority Habitats of Rare Species. They are based on occurrences of rare wetland wildlife observed within the last 25 years and documented in the NHESP database. They do not include those areas delineated for rare plants or for rare wildlife with strictly upland habitat requirements. The Estimated Habitats presented here are those published in the 12th Edition of the Massachusetts Natural Heritage Atlas, and are effective beginning October 1, 2006.

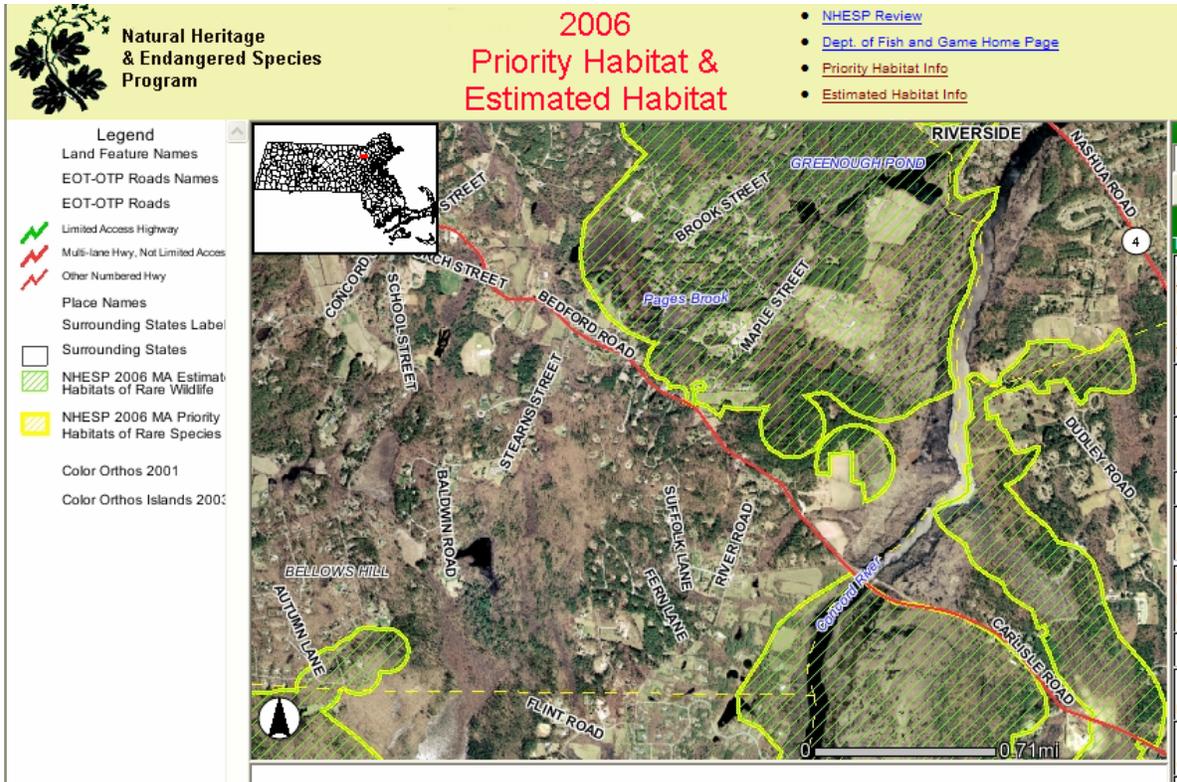


Figure 1-16. Priority and Estimated Habitats – Foss Farm Area

2.0 Purchase and Acquisition of the Property

This conservation land was purchased from Mr. William Foss, who lived on this 61.3-acre farm for 61 years. After he ceased operating the farm himself, he leased fields to a local farmer to raise feed corn. On the remaining portions of the land, Mr. Foss generously allowed the people of Carlisle and neighboring towns to use the property for the following activities:

- Horseback riding, Pony Club Activities, horse shows
- Dog shows, sled dog training, and dog field trials
- Passive recreation, including kite flying, walking, cross-country skiing, nature study, snowshoeing, and picnicking
- Town Fairs, 4-H Club activities, Colonial Minuteman Historical Musters
- Supervised trap shooting
- Snowmobile riding

In 1971, Mr. Foss sold 57.04 acres, retaining 4.26 acres for himself, to the Carlisle Conservation Commission (CCC). The total cost of the purchase was \$100,624. The funding sources used to purchase the property were as follows:

- Federal Land and Water Conservation Fund - \$50,312
- Massachusetts Department of Natural Resources – Self Help Program - \$25,156
- Town of Carlisle, Conservation Fund - \$25,156

Land purchases made with funds from each of these sources are subject to certain restrictions:

- Federal Land and Water Conservation Fund. This Fund was established by the Federal Land and Water Conservation Fund Act of 1965, 78 Stat. 897. The Environmental Handbook for Massachusetts Conservation Commissioners states that any project receiving money from the fund:

“...becomes permanently protected parkland. The boundary plan is the permanent protected boundary for the site. Any boundary encroachment, change of use or lack of basic maintenance constitutes a conversion. If a conversion is anticipated, the Massachusetts Department of Conservation and Recreation (DCR) must be notified. Any proposed conversion must be approved by DCR and the National Park Service and the project applicant must offer another site of equal monetary value and recreational use.”

In addition, land purchased with Federal Land and Water Conservation Funds must be available for use by anyone—not only Carlisle residents. Residents of adjacent or distant towns may use the property in accordance with the rules and regulations established by the Carlisle Conservation Commission.

- Massachusetts Self- Help Program. The Massachusetts Self-Help Program was established in 1960 by M.G.L. Chapter 132A, Section 11 to assist Conservation Commissions established in municipalities in the acquisition of land for conservation and

passive outdoor recreation purposes. Properties purchased with Self-Help funds may only be used for conservation and passive outdoor recreation. Passive recreation is defined as any activity that can be casually performed outdoors with minimal disturbance of an area's natural condition.⁴ Examples of passive recreation include hiking, picnicking, cross-country skiing, and informal sports activities on an open field. Examples of active recreation provided in official documents include competitive sports or sports using man-made facilities. Further, the policy states:

“Therefore, development of facilities on Self-Help land is limited to such items as trails, comfort stations, small parking areas, small shelters or maintenance support structures, boardwalks over wet areas, duck blinds, etc.”

- Carlisle Conservation Fund. The funds under the jurisdiction of the Carlisle Conservation Commission are governed by the Conservation Commission Act M.G.L. Chapter 40, Section 8C; Acts of 1996, Chapter 258, Section 15. Conservation Commissions, Establishment; Powers and Duties. The provisions of the law state that money in the funds established by Conservation Commissions may be used to:

‘...acquire, maintain, improve, protect, limit the future use of or otherwise conserve and properly utilize open spaces in land and water areas within its city or town, and it shall manage and control the same.’

At the time of the acquisition, the CCC intended to preserve the land for conservation purposes, but also to continue most of the uses allowed by Mr. Foss listed above. According to documents on the Foss Farm Acquisition⁵, the CCC stated its intention to continue leasing portions of the land for agriculture to maintain the farming industry of Carlisle, which is fast disappearing. It also stated that new activities would be considered as needs arise “... provided only that such activities do not conflict with each other or damage the land.”

According to a letter dated December 3, 1970 from A.E. Benfield, Chairman of the CCC to Mr. James A. Miller, the Director of Community Development at the Metropolitan Area Planning Council seeking their approval of the acquisition, Mr. Benfield stated that the purchase of this land had the enthusiastic support of the Selectmen, the Planning Board, and the Recreation Committee. The town voted 286 in favor to 3 opposed on the motion proposing the acquisition of the property at the Special Town Meeting of October 26, 1970. The deed was recorded by the Middlesex Registry of Deeds on July 7, 1971, Book 1966, Page 642.

Executive Order Affecting State-Funded Land Acquisitions

There is an Executive Order that was signed by Governor Edward J. King, on March 19, 1981, that addresses agricultural uses of lands purchased with state and Federal funds. This Executive Order #193 applies to Foss Farm. In its preamble, Executive Order #193 discusses the significance of agricultural land in Massachusetts as a finite natural resource that is being

⁴ “Statement of Policy Regarding M.G.L. Chapter 132A, Section 11. The Self-Help Program. Massachusetts DCS.

⁵ Foss Farm Purchase and Acquisition Files, Carlisle town Hall

threatened by competing land use interests. The benefits of agricultural land listed by Governor King include:

- Reducing flooding by absorbing rain and snow waters
- Replenishing critical groundwater supplies by preserving a pervious surface
- Purifying the air by keeping land open and supporting natural vegetation
- Enhancing wildlife habitat
- Maintaining the aesthetic and historic quality of the landscape

The Order acknowledges the continual loss of privately owned agricultural land and makes the case that state-owned land in agricultural use is increasingly playing a larger role in preserving this valuable natural resource for future generations. It states:

“State funds and federal grants administered by the state shall not be used to encourage the conversion of agricultural land to other uses when feasible alternatives are available.”

And,

“State agency actions shall encourage the protection of state-owned agricultural land by mitigating against the conversion of state-owned land to nonagricultural uses, and by promoting soil and water conservation practice.”

For purposes of the Executive Order, state-owned land is defined as all lands purchased in whole or in part with state funds or federal funds administered by the state. The Order defines agricultural land as land classified as Prime, Unique, or of State and Local Importance by the USDA Soil Conservation Service, as well as land characterized by active agricultural use.

Since Foss Farm was purchased with state funds, the land is and has been in agricultural use for many years, and the soils on much of the property have been designated as locally important by the Soil Conservation Service, it would be subject to the requirements set forth in Executive Order 193.

3.0 Historic and Current Uses

3.1 History and Use Pre-1971

The Concord River watershed has been home to humans for at least 10,000 years. Artifacts that testify to their presence have been found throughout the area. The Foss Farm property and neighboring areas were ideal locations for Indian occupation. The adjoining Concord River was the principal route for travelers through the region, and the river and its adjoining areas were a major source of food (fish, reptiles, waterfowl, and mammals). Just a few miles downstream from the Foss Farm area was a falls which was the site of a large fishing camp used when salmon, alewives, and similar fish migrated upriver to spawn. In addition, the terrain is ideal for Indian agriculture and habitation. Artifacts found at this site have been assigned dates between 3600 and 4100 years ago.

It is believed that a major trail running from Lexington to Littleton crossed the river about where Bedford Road now is and essentially followed Bedford Road through the center of Carlisle; thus Foss Farm and the surrounding area were at a crossroads of two of the great highways of the pre-colonial period.⁶ The area has been identified in a survey of archaeological sites in the Concord River watershed as having a high probability of containing Indian cultural material; in fact artifacts have been found there. The Massachusetts Historic Commission has registered three sites in the area, one on Foss Farm itself (see Appendix A). Artifacts, including arrowheads, from the area are in the collection of the Carlisle Historical Society.

Colonists Robert and John Blood built a house in what is now Carlisle around 1653⁷, having bought an extensive amount of land in what are now the towns of Carlisle, Chelmsford, and Billerica. In 1739, one of Robert Blood's grandsons, Simon Blood, built the house that eventually became known as the William Foss, Jr. house at 981 Bedford Road. Phinehas Blood, the great-grandson of Robert Blood, and son of Simon and Abigail (Flint) Blood, was born in 1750, probably in this house. Phinehas Blood was the builder and operator of the historic Wheat Tavern (built ca 1782) in Carlisle center. There is some evidence that the 981 Bedford Road house was also used as a tavern at some point.

After Phinehas Blood lived in the house and farmed the land, it was sold to the Hutchinson family. Three more families owned the house and land before the Fosses bought it: the Fletchers, the Hills, and then the Hansons, who bought it in 1889. The location of the historic house can be seen on the topographic map (Figure 1-5) as the small black rectangle in the private land bounded on 3 sides by the Foss conservation land and on the south side by Bedford Road, in the northwestern part of the parcel. Frank Foss moved his family to the land in 1904. Mr. Foss turned several acres between the house and the river into an asparagus farm, an industry that became commercially successful.

⁶ "The SUASCO Watershed Archaeological Inventory Project: Exploring the Cultural Resources of a Suburban Area", Curtiss Hoffman and Adrienne Edwards, The Sudbury Valley Trustees, (2003)

⁷ Wilkins, Ruth Chamberlin, Carlisle: Its History and Heritage, The Carlisle Historical Society, Inc., Carlisle, MA 1976.

The property was farmed by the Foss family from that time until purchase by the town. Mr. William Foss, Jr., a former selectman of Carlisle, lived on the property, which included about 61.3 acres with the house and barn, for 61 years. After he ceased operating the farm himself, he leased the fields to a local farmer to raise feed corn. He continued to raise corn, beans, squash, tomatoes, and asparagus in his own vegetable garden. For many years, Mr. Foss allowed the people of Carlisle and neighboring towns to use the remaining portions of the land for various activities. In 1971, Mr. Foss sold 57 acres of his property to Carlisle (see Section 2) but retained his historic home.⁸ Mr. Foss died in 1973 in his 91st year, while out in his gardens.

Mr. Gilbert L. Foss, Sr., a son of William Foss, was born in Carlisle in 1937 and raised on the Foss Farm. He enjoyed life on the farm where, in addition to farming, he made homemade wines and candies. He died on September 14, 2006, in Kansas City, MO. (Carlisle Mosquito, 2006).

3.2 History and Use 1971- Present

At the time of its acquisition by the Town of Carlisle in 1971, 70% of the Foss Farm was in open fields; approximately 20 percent of that area is still under cultivation under license agreement. The rest of the area was wooded. At the time of acquisition, the CCC intended to lease a small portion of the land to a local farmer to continue the farming of the land. It was felt that this would benefit wildlife in the area, as well as maintain the farming industry which was disappearing from the suburban setting.

Section 2 describes the various activities on Foss Farm at the time of the acquisition. CCC also planned to make Foss Farm available for new activities as the demand arose, provided only that such activities did not conflict with each other or damage the land. Such uses were in the spirit of what William Foss intended in the transfer of his property to the town.⁹ At the current time, the Foss Farm conservation parcel sustains the most varied and intensive use of any of the Carlisle conservation lands. The following sections provide some details on the uses of the property from 1971 to the present.

Agriculture

Approximately 20 acres of field are currently cultivated by Mark Duffy under a license agreement with the CCC. Mr. Duffy is a local farmer, employed by the state, who operates the dairy farm at Great Brook Farm State Park in Carlisle and the Carlisle Cranberry Bog under a lease agreement with the town of Carlisle. Mr. Duffy has been farming at Foss since 1987.

Mr. Duffy has stated that his ability to have access to these fields is essential to his dairy farm operations at Great Brook Farm State Park. Foss Farm provides Mr. Duffy with the opportunity

⁸ The historic 1739 house is not located on the town-owned conservation land of Foss Farm. When William Foss agreed to sell the 57 acres to the town, he intended to retain his house and the two acres surrounding it. He also wanted to retain an abutting two-acre lot for a granddaughter who might someday want to build a house on it. The historic 1739 house was extensively renovated and enlarged in 2006. A new house was built on the abutting lot in 2006.

⁹ Carlisle Conservation Commission, Foss Farm Acquisition, 1970, Carlisle Town Offices files.

to raise his own feed locally, which significantly reduces the costs of purchasing and transporting feed. He uses the corn or hay raised at Foss Farm to help feed his cows at Great Brook Farm.

Some area residents lodged complaints with CCC in 1992-1993 about the use of the fields for corn, which was felt to be obstructing the view, limiting public enjoyment of the property, and using public land for private profit. There were also concerns about pesticide use in the corn fields. Mr. Duffy explained that he left an open area around the field for walking, horseback riding, and sled dog training. He had planted all corn that year since the hay yields and profits had been negligible due to the condition of the soil. If the field is all in hay, sometimes there are problems with the public riding, walking, and littering on the cultivated hay fields. The CCC explained that its practice is to license some conservation lands for agricultural purposes in exchange for maintaining the fields with good agricultural practices. The Commission does not have the budget to keep up the fields on its own. In addition, the Town of Carlisle has repeatedly affirmed a desire to maintain the rural landscape and agriculture.

The U.S. Department of Agriculture evaluated the soil characteristics at Foss to help the CCC determine whether the town should continue to allow farming at that location. Mr. Duffy was cited by the state Pesticide Bureau for applying Atrazine within 50 feet of a town groundwater-monitoring well, but it was determined that Mr. Duffy was unaware of the existence of the well as it was not shown on town maps. In 1993, the Pesticide Bureau indicated that there was not a clearly defined violation and provided Mr. Duffy with guidelines for posting notification of pesticide use.¹⁰ Current farming practices and chemical uses are in compliance with State regulations and notices are posted at the time of pesticide and herbicide application. Issues and concerns associated with chemical use on Foss Farm will be addressed in the Foss Farm Management Plan.

Prior to Mr. Duffy's tenure, fields on Foss Farm were planted by Mr. George Fletcher, a farmer in Westford. (Mr. Duffy started at Foss in the late 1980's, harvesting some fields under the Fletcher lease). At a meeting of the Foss Farm subcommittee of the CCC on February 5, 1985, Mr. Fletcher noted that through the years certain portions of the tilled fields at Foss Farm had been subjected to some erosion and loss of topsoil. Various ideas were discussed for improving the soil, but no definitive recommendations were made – they were waiting for spring when more accurate soil assessments could be made. It is not known at this time if any action was eventually taken.

Mr. Stephen Verrill of Concord grew corn on Foss Farm prior to the Fletcher lease. In 1972, he was asked by CCC to leave a section of the "upper field" bordering Bedford road for a Little League ballfield. He was allowed to use the remaining field on the condition that he would harrow and seed it in the fall after harvest.¹¹ Subsequently, Mr. Verrill was asked to plant winter rye, after harrowing, on part of the field he was using for corn. He was also asked to plant part of the upper field, which he was no longer using, with a mixture of perennial clover and hay in the fall. This was upon recommendation by Mr. Ken Harte after consultation with the Audubon Society.¹²

¹⁰ Letter from John Kenney, Chief Inspector, Pesticide Bureau, to Mark G. Duffy, dated August 24, 1993.

¹¹ Letter from A.E. Benfield, CCC Chairman, to Mr. Stephen P. Verrill, dated May 31, 1972.

¹² Letter from A.E. Benfield, Conservation Commissioner, to Mr. Stephen Verrill, dated June 20, 1972.

Carlisle's Open Space and Recreation Plan of 2006 (as have previous plans) stresses the need for preservation of agricultural land in Carlisle: "Economic pressures on agricultural use of land in Carlisle cannot be underestimated. The town must monitor existing agricultural operations in Carlisle and provide support as necessary to help them remain. Continued existence of the agricultural operations supports the aesthetically pleasing rural character of Carlisle, supports proper stewardship of the land, and helps keep land from development, thus protecting natural resources and reducing the strain on other limited town resources. The town should continue to support initiatives such as the farmer's market to encourage local farmers".¹³

In 1978, it was noted in a report to CCC that poplars have been encroaching on the field and should be taken out by the roots. It was also noted that the oaks, pines, and poplars could be thinned out that year and possibly the choke cherries the following year. It was recommended that the encroaching trees be cut back to the stone walls. The status of these encroachments needs to be continually monitored. This will be addressed in the Foss Farm Management Plan.

Public Gardens

After the acquisition, the CCC encouraged Mr. Foss to continue to work his vegetable garden, which now lay on land that belonged to the Town. This is the area that has now become community garden plots. It is notable that there was an extensive and well-established asparagus bed in that location. Unfortunately, the renowned asparagus bed was seriously damaged when the community plots were put in – however, the feathery sprouts of asparagus from this old bed have been observed.

In 1974, CCC Commissioner George H. Bishop and Associate Commissioner David C. Ives operated a successful summer pilot program of vegetable garden plots available to the public at Foss Farm. Again, in February 1975, the CCC announced a "one-season lease on a first-come, first-serve basis" for plots at Foss Farm, which would be about 700 to 800 square feet and would cost \$4.00 each, with a maximum of two plots allowed per family. The Commission arranged to have the plots plowed and disked in early April. It was stipulated that the harvest must be completed before the Thunderbridge Muster (see following sections), which was scheduled for the Columbus Day weekend in October.

In 1974, there were 42 farmers using the plots. In 1981 the number had risen to 72, but by 1984 the number had dropped to 34. The number rose to 48 in 1985 after extensive improvements and increased steadily thereafter. In 1993, 63-65 plots were rented out. In 2002, there were so many applicants that some had to be turned away. In recent years, demand for garden plots is getting higher. For the 2008 growing season, 100 plots were rented and over 15 requests for plots had to be denied.

In 2006 the fee was raised to \$10. Beginning in 2005, the garden plot fees were deposited in a revolving account for maintenance of Foss Farm. This was approved at Town Meeting.

¹³ Town of Carlisle Open Space and Recreation Plan 2005, June 2006.

The plots take up about two acres of the Foss Farm property. Currently, about 100 community garden plots are available for seasonal use on a first come, first-served basis (see Figure 3-1). The plots are available to Carlisle and non-Town residents. Any citizen can use the plots

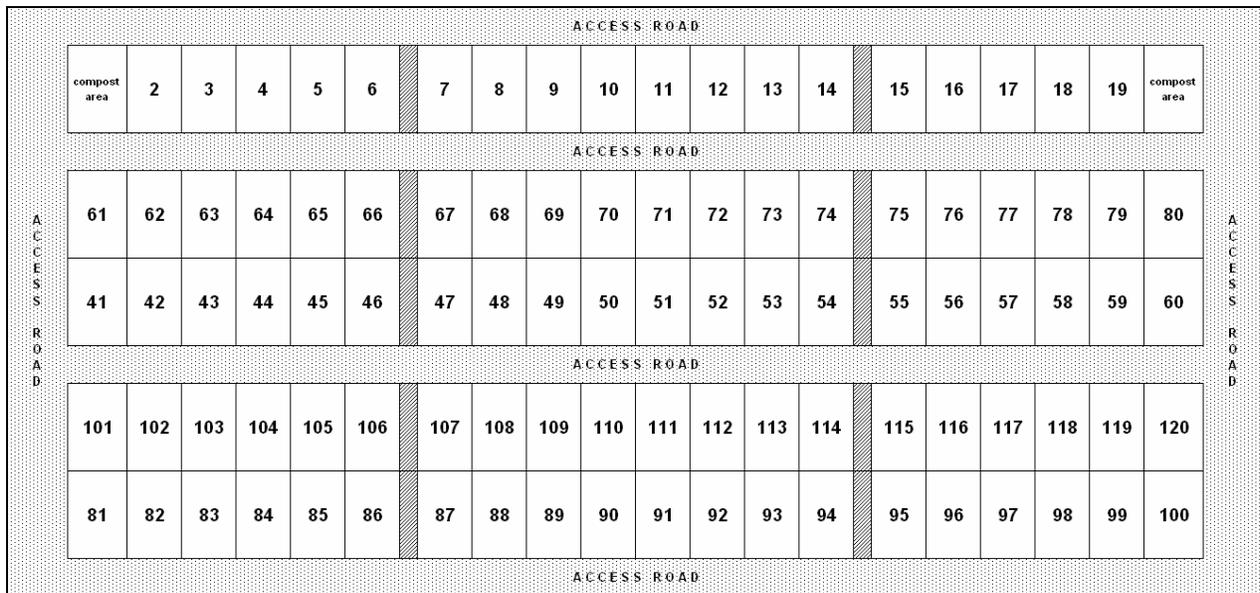


Figure 3-1. Foss Farm Community Garden Plot Plan

because Federal funds were part of the funding sources for acquisition of the property (see Section 2). At this time, approximately one-third of the plots are issued to non-residents. Community garden arrangements are currently managed by Mr. Robert Dennison, a long-time Carlisle resident appointed by the CCC to coordinate all activities at the gardens. He has been in charge for at least 20 years. Vehicle access (via dirt way) to the gardens is through a locked pipe gate at the northwest end of the parking lot. The gardeners have keys to the gate. Gardeners are responsible for maintaining and cleaning their own plots. Water is supplied by hand pumps located at periodic intervals. Current management and maintenance practices for the community gardens are discussed in Section 5.

The community gardens provide an opportunity for local families to grow their own produce and provide hands-on gardening experience for children and novice gardeners in a peaceful, country-like setting. The locally-produced vegetables, fruits, and flowers from the community gardens enhance the tables of local residents as well as provide significant input to the Carlisle Farmers Market. The Farmers Market was initiated in 2004 after John and Annette Lee, long-time Carlisle residents, attended Terra Madre, the first Slow Food conference in Turin, Italy. Annette Lee was inspired by this experience to start a local farmers market and together with her neighbors, long-time Foss plot farmers Gale and Peter Constable, held the first Carlisle Farmers Market at Old Home Day in 2004. The subsequent markets have been held at the Kimballs Ice Cream parking lot at Bates Farm on Bedford Road and take place on Saturday mornings from July through October.

During the spring and summer of 2006, the dirt roads to and between the public garden areas were extraordinarily rough due to weather conditions and high water levels. Gary Davis of Carlisle Department of Public Works provided fill for the rough areas at the request of the CCC.

Equestrian Activities

Horseback riding and other equestrian events are among the long-standing legacy activities, from the time that Foss Farm was privately owned, that continue today. Foss Farm has enclosed riding rings for safety. Once riders become proficient in the ring, they can move out to free-ride on the trails and open spaces. The horse and pony riding rings, which accommodate both dressage and jumping, have recently been substantially upgraded, primarily for safety reasons (the footing was becoming treacherous). The Old North Bridge Pony Club, an educational non-profit group dedicated to teaching children how to be safe and responsible in riding and caring for horses, holds regularly scheduled clinics and lessons in addition to rallies. The rallies make use of temporary jumps placed in certain locations on the property. The jumps are placed so as not to restrict access to the community gardens or hiking trails. (Permits for equestrian and other activities on Foss Farm are summarized in Appendix E).

The Pony Club applies to the CCC for permission to hold their lessons and special events. All Pony Club activities and equipment, including portable restrooms during events, are paid for by the Pony Club. Pony Club events may include a public address system with gas generators, toilet facilities, and food concessions. Historically, some of the Pony Club events have been quite large (for example, an event was held in the fall of 1992 that involved 25 trailers with horses and 50 participants, which stressed the capabilities of the parking lot). These events are well-organized and the subsequent cleanup is satisfactory.

In 1989, Carlisle resident Trent Taylor presented to the CCC an Eagle Scout proposed project to rebuild the horse riding ring at Foss Farm. The cost would be \$400. CCC could not afford that and asked Mr. Taylor to return with revised estimates. On October 12, 1989, CCC approved the project after seeing revised numbers. The project was funded by the Pony Club, private contributions, donated lumber and labor, and a small amount of CCC funds.

The Pony Club and the Carlisle Area Equestrians, who also use Foss Farm, have been active in the past improving and maintaining the riding facilities and the Foss Farm property in general. They have worked with CCC to develop appropriate plans for both immediate and long-term renovations of the existing equestrian facilities. In 2005-2006, an old abandoned riding ring was refurbished. The work was supported by labor donations and fund-raising activities of the club. In the past, the Pony Club has worked to restore the traditional open field appearance at Foss by removing trees and underbrush which had become established in formerly open areas, and by planting native grasses. They contribute to the maintenance of Foss Farm by mowing certain areas every year.

It is noted in the records that on October 8, 1972, the Carlisle 4-H Riders gave a horse show at Foss Farm. Horse-drawn sleighs were also in evidence at Foss farm in the 1990's.

Canine Activities

Dog training activities (for bird dogs and sled dogs) and dog sledding have taken place on the woodland roads and the farmer's roads around the agricultural fields (and on adjoining property with permission). Sled dog training is still an activity on fall, winter, and spring mornings on Foss Farm, involving several individuals. Training the sled dogs in the non-snow season involves hitching the dogs to an all-terrain vehicle (ATV) and racing them around the internal dirt roads and mowed tracks. The dogs are very excited and this is a fun activity for families to watch. There are currently four dog teams using Foss Farm. Bob Dennison coordinates these activities.

Many Carlisle residents walk their dogs on the Foss Farm property. Most of the dog walkers have their animals under control but there have been instances of uncontrolled dogs chasing wildlife across the hay fields. After several complaints about dog owners failing to pick up dog droppings, CCC began to provide bags for dogwalkers to use to pick up after their animals. Although the bag dispenser is clearly located at the entrance to the trail from the parking lot, this amenity has met with mixed success.

Trails and Trail Usage

Hiking, jogging, cross-country skiing, bicycle riding, and horseback riding take place on the trails of Foss Farm. The trails are maintained by the Carlisle Trails Committee. A popular trail leads from Foss Farm across the Great Meadows National Wildlife Refuge and connects to the Greenough Conservation Land.

The trails on Foss Farm, described in Section 1, wind through the woods and around the perimeters of the two major fields. It is unclear how much hiking is actually done on the field perimeter trails as they are intermittently mowed. This has been a concern over the years: for example, in 1988 CCC noted in a letter to Mr. Fletcher, then the farmer at Foss, that "we would be pleased to get that perimeter path put back around the lower field at Foss Farm," apparently in a response to a request by him (the field was planted in corn at the time).¹⁴

In 2002, the CCC in conjunction with Foss Farm community gardener and mower Jack O'Connor inspected the condition of the overgrown trails and field perimeters at Foss Farm. They noted that brush and young pine seedlings were closing in the trails and the open fields and agreed that, as a minimum, the encroaching vegetation should be cut back 5-10 ft around the public gardens and the major trails. The CCC budget could not cover the cost of this at the time and Trails Committee co-chair Louise Hara recommended that the two committees work together to reclaim the area foot by foot.

The bridge crossing the stream to the south of the parking lot is in good condition; however, trails and boardwalks are needed to connect the two fields. This project is on the Trails Committee list of proposed projects. There are indications that hikers and runners would use this trail to and around the upper field if completed.

¹⁴ Letter from Eunice Knight, CCC Clerk, to Mr. Robert Fletcher, dated 23 April 1988.

Birding/Natural History

Foss Farm is a popular place for bird and wildlife watching. In the spring, American woodcocks, bluebirds, barn and tree swallows, and other species nest on the property. Killdeer have been seen regularly, and in 2001 nested in one of the community garden plots. Several bluebird houses have been erected in the fields near the pony ring and the community gardens. Indigo buntings, owls, rough-legged hawks, and red-tailed hawks are also frequent visitors. Great blue herons and osprey have been noted flying overhead. In 1998, a young bear was sighted several times. In 2005, a moose was observed sampling from the garden plots.

In 1991, the CCC investigated the use of Foss Farm as a site for soccer fields. As part of this activity, on April 10, 1991, Donald and Lillian Stokes, authors of several bird guides and members of the North American Bluebird Society, provided a memo to CCC on the status of nesting bluebirds and other bird species on Carlisle conservation land. The following is a verbatim excerpt on Foss Farm from the memo:

“Bluebirds: Last year a pair of bluebirds nested in a bluebird box on the horse ring and raised 3 young. They nested in April-June. This year a pair is exploring the nest boxes and is about to begin nest building.

Bluebirds feed in the sparse “old man’s beard” grass habitat between the parking lot and the horse ring and to the north of the horse ring. It is important that this grass be mowed once a year to preserve this feeding habitat.

Regarding proposal of establishing a soccer field at Foss Farm – It would be disruptive to bluebirds to have a soccer field located anywhere near their nesting and feeding grounds. It is recommended the soccer field be located on some other conservation land like Fox Farm which is not used by nesting birds. [This is probably a reference to Fox Hill, another Carlisle conservation parcel (See Fox Hill Management Plan, July 2006)].

Bobolinks: Attempted to nest on Foss Farm in the alfalfa field but haying took place in the middle of their nesting cycle. Bobolinks could be established at Foss Farm if the same haying practices were followed as the mowing on Towle land – if the field were mowed in mid July, after Bobolinks have finished nesting. Massachusetts Audubon says the conservation of open grasslands is a concern since this is a diminishing habitat in Massachusetts.

Woodcocks: Use the area between the parking lot and the horse ring as a mating ground. Males display here at dusk between from March to July. Females come and mate with them and nest in the edges of the surrounding woods.

Other species: Tree swallows, chickadees and house wrens nest in the other nest boxes. Coopers hawks, northern harriers, and kestrels have been seen feeding in the fields.”

The commission voted to deny the use of Foss Farm for soccer since such use would substantially alter the habitat.¹⁵

The first “woodcock walk” was held at Foss Farm under the leadership of Tom and D’Ann Brownrigg, long time Carlisle residents and birders, on April 21, 2001. These walks, open to the public, have been held every spring at dusk since that time and are usually well-attended. Foss Farm is one of the few publicly accessible places in Carlisle where American woodcocks can be observed displaying. During the 2007 walk, three or four male woodcocks were heard at the forest/field margin in several widely separated places on the property.

According to Tom Brownrigg, Foss Farm includes prime habitat for American woodcocks and other bird species. Killdeer and Baltimore orioles have been seen on the property. Other bird walks are held at Foss throughout the year since it has several different types of habits that attract unique and varied species of birds. Appendix B contains a list of species seen at Foss Farm.

The habitat at Foss supports a number of turtle species. Wood turtles and Blanding’s turtles have occasionally been found. Snapping turtles and painted turtles are a common sight at Foss.

The sandy open areas at Foss Farm are ideal habitat for a species of solitary wasp that is native to eastern North America (*i.e.*, *Cerceris fumipennis*). In July, 2008, these wasp nests were the focus of a biosurveillance training exercise conducted by the U.S. Department of Agriculture, Forest Service. The purpose of the surveillance was to survey for the infestation of Emerald Ash Borer Beetles. Scientists observed and recorded the species of beetle that the female wasps had collected for food and were bringing to their underground nests for storage.

Ball fields

In 1972, the CCC gave permission to the Carlisle Baseball League to prepare a baseball diamond in the southeastern end of the upper field bordering Bedford Road and the Great Meadows refuge, close to the river. There were also special considerations to not block access for farmers to harvest the rest of the field. A softball field was built on a 2-acre tract of land in this location the same year the land was purchased, but it was deemed to be too soggy within 2 years. In 1976 the Recreation Commission came back with a proposal for a ballfield near the horse ring, but after analyzing the soil conditions on Foss, decided to finish the Spalding Field instead.

Over the past few years, the Recreation Commission, in both the Open Space and Recreation Plan and in meetings with the Carlisle Selectmen and CCC, has indicated a desired use of Foss Farm for siting additional baseball, soccer, or all-purpose athletic fields, with associated expanded access and parking capability. In February 2001, the Carlisle Recreation Commission presented a case for construction of two soccer fields and expanded parking at Foss Farm. The fields would be located on the Bedford Road side of Foss. A letter from the State Executive Office of Environmental Affairs in 2002 indicated that the property was purchased primarily for conservation purposes; is clearly under the jurisdiction of the CCC; and the building of ball fields would be problematical. “A master plan should be prepared in consultation with the U.S. Fish and Wildlife Service. The area is a critical buffer to the National Wildlife Refuge and

¹⁵ Minutes of the Conservation Commission, April 11, 1991.

contains an important agricultural resource. The placement of active facilities on this conservation area could adversely impact these important conservation interests.”¹⁶

In 2006, the Recreation Commission independently submitted a request to Carlisle’s Community Preservation Committee (CPC) for design funds for an overall use plan for Foss Farm. The driving force behind this request was the Recreation Commission’s desire for additional all-purpose athletic fields on Foss Farm, citing a critical shortage of such fields to meet the town’s needs. However, as Foss Farm is under the management of the CCC and the stewardship of the Land Stewardship Committee, this request was deferred by CPC. There are currently no active plans to convert parts of Foss Farm to active playing fields, as other sites in Carlisle (such as Banta-Davis and Benfield lands) are designated for active recreation uses; such uses of Foss Farm may be legally constrained (see Section 2).

Parking Area

In 1971, the Carlisle Department of Public Works laid out a parking area on the Foss Farm. DPW also helped bury or remove old automobiles and other unwanted objects on the property. The cost of trash removal was partly met by a \$100 gift from the Carlisle Sportsman’s Club. The gate beyond the parking lot was destroyed by a truck in 1990. CCC allocated \$200 for replacement of the gate. The gate was replaced again in 2006 after falling into disrepair.

The parking lot today accommodates about 45 cars. It is surfaced by very sandy soil and is uneven and deeply channeled in places. Usage of the parking lot ranges from having only a few cars (most of the time) to overflowing during special Pony Club events. The condition of the parking lot is an ongoing issue; it was noted in 1985 that there was a serious erosion problem at the entrance to the parking lot, and that brush should be cleared from the road making the parking lot visible. Apparently there was a real or perceived fear of vandalism in the parking lot at this time.¹⁷

Some regrading work was done at the parking lot and road by Roger Davis of Carlisle Department of Public Works in June 1986. Currently, the parking lot becomes extremely muddy in early spring due to partial thawing of the ground.

There is a handicapped parking sign, installed in 1990, adjacent to the trail leading east from the parking lot. (Foss Farm was cited by the State in 1989 for not having a handicapped parking sign posted). The dirt road to the community gardens, and some of the other trails, are very sandy and likely to be difficult for wheelchair use.

Other uses

The first Annual Colonial Muster and Field Day at Foss Farm was held in September, 1967 (prior to the Town’s purchase of the land), with the Bedford Minute Men as hosts. Many

¹⁶ Letter from Joel A. Lerner, Director, Office of Environmental Affairs, to Sylvia Willard, Conservation Administrator, dated May 28, 2002. In addition, Foss Farm received a Self-help Grant as part of its purchase. “Active recreational uses” are not funded by Self-Help. (See Section 2).

¹⁷ Minutes of the Carlisle Conservation Commission, 17 October 1985.

attendees wore Colonial costume and a group marched from as far away as Charlestown. There were fife and drum drills, musket contests, and cannon firing. The day ended with a mock battle between the Redcoats and the Minute Men. This event became known as the Thunderbridge Muster¹⁸ and was often held in subsequent years at Foss Farm, hosted by Carlisle's Colonial Minutemen. Activities expanded to include a wide variety of events, including living history displays of Colonial crafts, oven baking, weapons, and music.¹⁹ The event was continued through the late 1970's but was discontinued by the early 1980's due to lack of interest. In its heyday, the event was enthusiastically attended and some re-enacting participants apparently refused to leave, camping overnight at Foss, firing shots into the evening, and leaving beer cans about for horrified residents to find in the morning. However, the event organizers always cleaned up.

In 2002, a Carlisle resident proposed the creation of a large compost/horse manure storage area and new trail at Foss Farm. This proposal was not approved by the CCC due to strong reservations on safety and aesthetics grounds, and significant opposition from abutters and community gardeners.

Past use of Foss Farm (prior to purchase by the town) included snowmobiles. Snowmobiles used Foss Farm in 1971, after it became public property, and the CCC at that time voted to extend snowmobiling hours to 9:30 PM on Foss Farm; however, abutters eventually complained about night use and this was eventually disallowed. In 1978, the Commission approved continued use of snowmobiles on Foss, with restrictions on operating within 400 feet of Bedford Road. Snowmobiles were still an allowed use at Foss Farm in 1991. Eventually, due to public pressure, snowmobile use was banned on Foss Farm. There are occasional illegal snowmobile incursions into Foss Farm from abutting land.

Other uses of interest include the following:

- Boy Scout picnics have taken place by permit at Foss Farm.
- Mr. Steve Golson used the field for model rocket launching in 1993. A model rocket launch event was held by Carlisle Boy Scouts in the fall of 2007 and one is planned by the Scouts for the fall of 2008.
- In 2001, there was a proposal to place cell towers on Foss Farm. As commercial uses are not allowed at Foss Farm according to the State and Federal purchase and funding agreements, this never occurred and the facility was subsequently located on adjacent private property.

¹⁸ The term "Thunderbridge" refers to the iron and plank suspension bridge built in 1893 over the Carlisle half of the Concord River on what is now Route 225, replacing the bridge that was originally built around 1795 (Bull, Sydney A., History of the Town of Carlisle, Massachusetts. 1754-1920, The Murray Printing Company, Cambridge, MA, 1920; Carlisle Historical Society, Images of America: Carlisle, Arcadia Publishing, 2005. The term refers to the noise made when traveling over the bridge. The Heald House of the Carlisle Historical Society has an undated painting by Ed French of the "Thunderbridge".

¹⁹ Forsberg, Charlie, personal communication, 2008; Town Files – Foss Farm, Carlisle Town Hall, Carlisle, MA.

- Annual review of 1973 permits included Sportsmen’s Club; Setter Club; Torger Tokle League; 4-H Club; Dog Sledding; Snowmobiling (a formal complaint against snowmobiles was registered by G. Miskolczy, Carlisle citizen); Minutemen; Mr. Verrill, for agriculture on Foss fields; Baseball League.
- The Carlisle Sportsmens Club held supervised trap shooting (for the uninitiated, this means the shooting (with shotguns) of clay pigeons catapulted from a device).
- CCC approved the use of Foss Farm for the Republican Town Committee to hold a Republican Rally on September 10, 1978.
- Beekeeping; a request was made to CCC in 1971 for beekeeping on Foss Farm. The request was deferred by CCC until use regulations for Foss could be formulated. The outcome is unknown.
- Bonfires: the site of an unpermitted bonfire and associated party-type litter on the east side of the upper field at Foss was reported to Carlisle police by Land Stewardship Committee members in November 2007.

Special regulations

Permits are required from the CCC for certain activities, including use of community garden plots, group equestrian activities, and anything involving explosives or firearms. A sample list of permits issued at Foss Farm is provided in Appendix E.

A rule established in 1980 allows use of firearms by permit on Foss Farm (the only conservation parcel where such use was allowed). The permit must be granted by four commissioners. “Permit applications will be considered only for Foss Farm and may be obtained from the commission’s secretary or the Town Clerk.” This rule became the subject of controversy in 1984 when a Bedford policeman applied for a permit to use dog training devices (dummy launchers) at Foss Farm. The application was withdrawn, but the issue remained a concern with users of the property. It was noted in 1989 that signal guns and launchers were used for dog training

The 2003 map from the Natural Heritage and Endangered Species Program (NHESP) shows an Estimated Habitat of Rare Wildlife polygon for wood turtle on Foss Farm. During 2004 and 2007, blue-spotted salamanders were found and reported to NHESP. (See Section 1). Special regulations and review apply to development activities and uses that may impact these habitats.

3.3 Summary of Current Uses

Over the years since Foss Farm was acquired by the Town in 1971, use patterns and activities on the property have evolved with the desires of the local population and increasing levels of environmental awareness and education. Some uses have come and gone, such as snowmobiling and Colonial musters. Other uses have remained popular since the acquisition of the property, including farming, hiking, dog-walking, bird-watching, and equestrian activities. In general, the

trend appears to have been toward less motorized and mechanized activity. Current activities can be summarized as follows:

- Agriculture: Continued use of the upper and lower northern field for corn or hay production, under license agreement with a local farmer, is foreseen. No expansion of this activity is planned into other areas at Foss.
- Community gardens: Continued full use of the approximately 100 community garden plots. The gardens were expanded in the spring of 2004 and now include a row of plots near the southern edge of the wildlife refuge. No further expansion is planned at this time, but if Carlisle's population grows, pressure to provide more gardens may grow as well.
- Horse and pony activities: Continued traditional and increasing use in the upgraded facilities. No current expansion of facilities is anticipated.
- Dog training and activities: Continued use for training and running sled dogs.
- Trails and trail usage: Continued and increasing use by hikers, bicycle riders, dog walkers, cross-country skiers, birders, and horseback riders. There is a proposal to increase mowing of the paths around the perimeter of the fields. In addition, there are trail linkages to the Federal wildlife refuge and the Greenough conservation property.
- Birding/natural history: Continued and increasing interest, given the importance of the Foss Farm habitats and its location adjacent to Great Meadows National Wildlife refuge.
- Parking: Continued use. Parking is very light most of the time, but special events can overwhelm the lot. During recent years, the Pony Club, with permission from the CCC, has put a portable toilet in the parking lot. In 2005, a dog bag dispenser at the perimeter of the parking lot was installed and is maintained by the CCC.

References

1. Wilkins, Ruth Chamberlin, Carlisle: Its History and Heritage, The Carlisle Historical Society, Inc., Carlisle, MA 1976.
2. Benfield, A.E., "Open Space IV", Carlisle Mosquito, March 7, 1986.
3. Lapham, Donald A., Carlisle: Composite Community, 1970.
4. Town of Carlisle Open Space and Recreation Plan 2005, Carlisle, MA June 2006.
5. Carlisle Trails Committee, Trails in Carlisle, 2005.
6. Carlisle Town Hall, Foss Farm files (includes deeds, certifications, meeting minutes, letters, announcements, Mosquito articles, and miscellaneous items of interest)

4.0 Previous Planning or Other Study Documents

4.1 Farmland Plan by the Soil Conservation Service (1983)

In 1983, the CCC requested the assistance of the US Department of Agriculture's Soil Conservation Service (SCS, Littleton, MA) in developing a land use plan for four agricultural properties in Town, including the Foss Farm fields. (The other three properties included Towle field, the Fox Hill fields, and fields that are now part of Fiske Meadow and the adjacent Four Seasons Development conservation restriction.) A major consideration in the development of the SCS plan was the desire to increase the viability of agriculture in Carlisle.

The SCS report (SCS, 1983)²⁰ to the CCC made reference to Carlisle's *Open Space and Recreation Target Plan – 1984* (March 1979) which included as Goal #5: "Encourage Preservation of Agriculture". Under this goal were listed three objectives:

- a) Protect the most viable – and visible – farmland from development
- b) Retain and restore active farming on both public and private land
- c) Promote backyard farming

The SCS report provided the following general comments:

"The primary land use objective of the Commission is that all fields remain in permanent vegetative cover. This practice is the best method of protecting the soil resource base while supporting agriculture. The agricultural resource (i.e., hay crop) should also be protected; usually by developing specific management criteria in a lease with the renting farmer. Other land uses, such as passive recreation and wildlife, are also important. This is especially true with the Towle field, where it is part of a larger parcel consisting of woods and swamp. With proper planning, all three land use objectives [listed above] can be accommodated in one overall plan."

Specific recommendations for the Foss fields in the SCS report were as follows:

"Foss Fields – 23 acres, 1983. At the present time, these fields are used as cropland. The Commission plans to have them reseeded to hay in the next year. Existing cover is mature winter rye with heavy weed undergrowth, mainly ragweed and crabgrass."

The SCS report also provided the following comments for all parcels studied:

"MANAGEMENT ALTERNATIVES - The soils found in the fields owned by the Conservation Commission are rated good to excellent in terms of agricultural capability. This can be better understood by reading the capability unit descriptions and definitions of prime and important farmland. It would be possible then, to use some of these fields more intensively (i.e., row crops) and still maintain and protect the soil resource base. Specifically

²⁰ *Carlisle Conservation Commission – Soil and Water Conservation Plan*, prepared by the US Department of Agriculture, Soil Conservation Service (Littleton, Mass.), September 1983.

the Foss Fields come to mind, mainly because of their size, location and availability of water for irrigation.

However, in a situation such as this where the land is not farmed by the owner, but leased to an active farmer, certain land use criteria should be developed. These standards would be made part of the lease and might include:

- Timing and rate of lime and fertilizer applications
- Use of cover and green manure crops
- Crop rotations
- Strip cropping and other erosion control measures
- Species to be seeded for winter cover and permanent vegetative cover.”

The SCS report contains locus maps and soil type maps for each property. The three types of soils identified for Foss were described as follows:

Suncook loamy fine sand (0 – 3% slopes). Excessively drained soil formed in sandy material adjacent to streams. Loamy sand subsoil may have layers of coarser sands and gravel. Subject to occasional or frequent flooding.

Windsor loamy sand (3 – 8% slopes). Droughty soil formed in thick deposits of sandy materials. Loose, yellowish brown loamy sand subsoil that is usually free of gravel.

Limerick silt loam (0 – 1% slopes). Poorly drained soil formed in silt loam and very fine sandy loam material adjacent to streams and rivers. Dark surface layer. Grayish subsoil. This soil is subject to frequent flooding.

Each soil type was assigned an “agronomic capability unit” [code], and the report then supplied – for each capability unit – (1) a soil description; (2) use limitations (e.g., potential erosion); (3) suitable crop uses; (4) suitable forage uses; and (5) estimated yields that could be expected for various crops in units of tons (or hundredweight) per acre.

The SCS report also contained other useful information on pertinent farming practices.

4.2 Foss Farm Subcommittee Report and Recommendations (August 17, 1985)

A subcommittee of 7 individuals held six meetings at the request and direction of the CCC to address the following:

- Concerns that the property not be used exclusively for one activity
- Review the uses outlined in the original deed.
- Review the signage and use of stickers.
- Several issues associated with the gardens.
- Mowing needs for the horses.
- Parking lot improvements needed.
- Protection of wildlife habitat.

- Trash, scrap tires, and police concerns.
- Unspecified concerns about dogs, guns, and snowmobiles.
- Farming uses.
- Use of permits for certain activities.

The outcomes of the meetings are as follows: The group did not reach a consensus on skeet shooting and dog training activities that involve guns. However, updated rules and policies regarding the gardens were recommended. Recommendations regarding signs, access, policing, controlling erosion in various places on the property, including the parking lot, were made.

4.3 Foss Farm Management Plan

A Memorandum entitled “Foss Farm Management Plan – Goals for Fiscal Year 1995-1996” was submitted to the CCC from J. Lane and S. Spang on December 20, 1994. In it, seven goals were articulated:

- Three goals were focused on clearly delineating the conservation, recreation, and agricultural areas to protect and enhance each use, as well as protect public safety.
- Develop a farm plan that allows the farmer the freedom to use Integrated Pest Management (IPM) farming practices, but gives the CCC the right to review and approve the plan on a yearly basis.
- Complete a farming agreement to allow the CCC to lease the land to prospective farmers.
- Coordinate recreational uses and organize maintenance responsibilities among the users.
- Formulate a plan to assure that habitats for woodcock and other ground-nesting birds remain an integral part of Foss Farm.

4.4 A Study Plan for the Town of Carlisle (1995)

This plan consolidated current and prior surveys to indicate that townspeople had goals which fit into four basic categories: (1) Rurality; (2) Community; (3) Education; and (4) Safety. The first three specific goals related to Rurality (see page 4 of the study plan) were:

- Encourage and protect agricultural uses;
- Maintain, in an undeveloped state, large connected parcels for wildlife corridors and trails; and
- Protect natural and historic features.

The following quote from the study plan (Page 7) states:

“That townspeople greatly value the rural appearance of Carlisle can be seen from the results of questionnaires of 1974, 1985, 1990, and 1994 and the Community Planning Days of 1992 and 1993. Residents consistently value the remaining natural views along Town roads, appreciate the rural vistas, and enjoy the open spaces of Carlisle. The significance of this issue is so great as to take precedence over all other issues to

townspeople. Although there has been a substantial turnover of residents, the significance of this issue has not changed in more than 20 years. Consequently, this Plan will recognize RURAL AESTHETIC as one of the most important issues to Town residents.”

The Study Plan included a list of Action Recommendations, the first three of which dealt with preserving the rural character of the Town. They are as follows:

1. Enhance the rural aesthetic of the Town and maintain the perception of rurality in the most reasonable and achievable manner. Encourage the use of conservation easements, conservation restrictions, purchase of development rights and other preservation mechanisms for the protection of selected undeveloped parcels.
2. Acquire open space properties to enhance the rural aesthetic in keeping with the recommendations of the open space and recreation report and reduce the impact of development of the provision and quality of Town services.
3. Evaluate and update the conservation cluster bylaw, zoning bylaw and subdivision rules and regulations to ensure that the rural aesthetic is given paramount importance in the Town’s regulatory structure.

4.5 Open Space and Recreation Plan

The first Open Space plan was prepared by the Town of Carlisle in 1979 and revised in 1987, 1994, 2000, and 2006. The 2006 OS&R Plan includes sections on

- Community setting
- Environmental inventory and analysis
- Inventory of land of conservation and recreation interest
- Community vision
- Analysis of needs
- Goals and objectives
- 5-year action plan
- Public comments
- Appendices with maps and other material

It is useful to provide the goals and objectives of the OS&R plan to provide continuity and a frame of reference for other planning documents. This set of goals and objectives, derived from research on community vision and analysis of needs, are as follows:

Goal 1 – Maintain the rural character of Carlisle

- Protect natural features such as open fields, woodlands, and scenic vistas
- Protect corridors for wildlife and linking trails and provide additional protected connections between existing open spaces
- Maintain a balance of protected open space throughout town
- Encourage agriculture in town

Goal 2 – Protect the town’s environment

- Protect the town’s water resources: land with surface water resources, wetlands, stream, ponds, or potential aquifer sites
- Protect natural spaces that provide ecological diversity
- Identify and protect sites with rare, endangered, or protected species

Goal 3 – Meet the town’s recreation needs

- Improve the town’s recreational facilities
- Enhance handicap accessibility
- Provide additional sites for active recreation facilities
- Upgrade existing recreation areas and facilities

Goal 4- Proactively manage land use in town

- Educate the town about the value of planning for long-term land use
- Guide where and how concentrated development occurs
- Improve the town’s ability to finance preservation of open space and recreation

In Chapter 7 (Analysis of Needs), Section A (Summary of Needs for Resource Protection), the Plan states:

Encourage Agriculture – Economic pressures on agricultural use of land in Carlisle cannot be understated. The Town must monitor existing agricultural operations in Carlisle and provide support as necessary to help them remain. Continued existence of the agricultural operations supports the aesthetically pleasing rural nature of Carlisle, supports proper stewardship of the land, and helps keep land from residential development, thus protecting natural resources and reducing the strain on other limited Town resources. The Town should continue to support initiatives such as the farmer’s market to encourage local farmers. A few interested residents are investigating the possibility of establishing an Agricultural Commission.

This is applicable to Foss Farm, which includes community vegetable, fruit, and flower gardens as well as hay- and corn-growing operations for livestock feed.

5.0 Current Condition and Maintenance Activities

5.1 Signs

There are several issues regarding the signage at Foss Farm that need attention:

Entrance Sign- Motorists coming from either direction often miss the Foss Farm entrance because the existing wooden property sign is set back from the road making it difficult to see when approaching (see Figure 5-1). In addition, the lettering on the sign is faded. Repainting the lettering and either moving the existing sign to a better vantage point, or installing an additional sign at a good vantage point, would improve the situation.



Figure 5-1. Main Sign for Foss Farm

There are the remains of a deteriorated sign and sign post on the north side of the entrance (opposite the property sign). It is an eyesore and should be removed (see Figure 5-2). A new sign to improve identification of the entrance could be installed in this location since it is closer to the road and elevated on the natural embankment.



Figure 5-2. Dilapidated Foss Farm Sign

Parking Lot Signs – In the parking lot, the sign at the main trail entrance leading to the field and the pony rings, is in poor condition. This sign is a standard “Welcome to Carlisle Conservation Land” sign. The logos indicating the various sources of funding may not be accurate and the lettering is quite faded. The sign is partially obstructed by brush (see Figure 5-3).

Kiosk – The existing kiosk is in good condition, but the material displayed needs to be updated. A larger map showing Foss Farm and the connecting open space parcels would be helpful to visitors. Information on the species unique to Foss Farm could be educational to visitors.



Figure 5-3. Main Trail Entrance from Parking Lot (Showing Kiosk, Signs, and Dog Bag Dispenser)

National Wildlife Refuge Signs – Foss Farm abuts Great Meadows National Wildlife Refuge (NWR) property. The entrance to the NWR land is in the northeast corner of Foss, near the public gardens. Two NWR signs marking the corner of the NWR land are located approximately 100 yards west of the actual trail entrance to the refuge. These signs create confusion because they are next to a path that leads to private property. The juxtaposition of the signs and the path lead one to believe that this path to private property is the entrance to NWR land. In an effort to alleviate this confusion, there is a small sign on the Foss property indicating that the actual NWR trail entrance is located some yards to the east. It is recommended that improvements be made to this sign to avoid misdirecting newcomers to the property.

Note: After the review draft of this report was approved by the Conservation Commission, but before this final draft was prepared and made public, all of the issues discussed above related to the entrance and other signs were addressed. In June, 2008, new signs were installed and, in addition, the material in the kiosk was updated and augmented.

5.2 Trails and Open Areas

The Carlisle Trails Committee maintains the trail network at Foss Farm. There is no set maintenance schedule for trails; rather, the Committee maintains a list of those sections that have been recently checked or cleared. Members walk much of the system on a regular basis to inspect as well as enjoy the trails. Special efforts are made to check major trails after large

storms. When routine trail maintenance (brush cutting and branch removal) is required for a particular area, it is scheduled at monthly Trails Committee meetings and volunteers are notified of scheduled work days for these tasks.

Each of the seasons has its share of work that fits into the Committee's management schedule:

- Winter: Activities include cutting and removal of trees that fall along the path to keep trails open for skiing, tobogganing heavy materials into remote sites, as well as planning, manufacture and painting of signs for trails, mapping and charting on GPS when the foliage is out of the way, and planning for the rest of the year.
- Spring: The time before the foliage and bugs arrive in mid-April is the best time to do major clearing jobs that require cutting and trimming of branches along the trail.
- Summer: Heavy spring rains may require trimming of new growth along trails. Mowing in areas in the sun and in open fields needs to be done at this time. The Trails Committee now owns a brush trimmer to help with this task. Members and volunteers also use their own private equipment to cut the field trails at Foss Farm.
- Fall: Boardwalks and other major projects are completed at this time when the ground is the most stable and the bugs are not as much of a nuisance.

At Foss Farm, Mark Duffy, who farms at Great Brook Farm State Park and currently holds the license for the agricultural fields at Foss Farm, mows around the perimeter of the fields usually once a year. This mowing frequency is not sufficient to maintain walking trails throughout the growing season. In the summer, the perimeter trails on the east and south sides of the lower field are usually not passable for walking. The perimeter trail on the upper field is also not mowed with enough frequency to guarantee passage throughout the season.

The Pony Club maintains the rings, and mows around the rings as well as the field between the parking lot and the rings before their spring show. They may pay for additional mowing later in the season in preparation for events or for general maintenance purposes. In the past, the Pony Club has provided funding for mowings and tree removal in an attempt to keep areas from becoming too overgrown and to keep open vistas. The CCC, the Trails Committee, and the Pony Club have all worked together to keep the open fields and trails. The dog sled group also has contributed to clearing efforts. The Trails Committee does some additional mowing, and spreads wood chips at the trail opening into Great Meadows. A Carlisle resident who gardens at the community gardens periodically mows around the gardens and around the lower agricultural field as well.

Despite maintenance efforts, brambles and buckthorn are fast spreading in the fields, making walking difficult. Lack of consistent clearing over the last fifteen years has turned what was once a grass land into a low pine forest that now obstructs the view of the fields from the parking lot. The skeet shed, once in the open field, is now enclosed by the pines and buckthorn. All along the field edges, bushes and trees, mostly invasive species, have been encroaching on the

open areas. The current level of mowing and clearing is not sufficient for keeping the existing open areas from shrinking further.

5.3 Parking Lot

The parking lot, which is quite sandy, has been subjected to years of erosion (see Figure 5-4). Consequently, there are large ruts and dips, particularly nearer to the entrance. Regrading and possibly the addition of stones or another material that wouldn't wash away as easily would help the situation. Deposition of eroding sand from the parking lot to the nearby wetlands should be investigated and mitigated.



Figure 5-4. Surface of Foss Farm Parking Lot

The CCC has installed a plastic bag dispenser and sign to encourage the dog walkers to pick up after their animals. It has been brought to our attention that wasp nests in the dispenser have created hazards in past summers. In addition, some users have suggested that the bags be of better quality. A trash barrel is provided and maintained by the town near the main trail entrance. If the barrel were to be placed closer to the bag dispenser, it might better encourage dog walkers to use the bags and dispose of them properly.

Frequently, additional trash cans have been provided and maintained by the Pony Club, particularly during special events. The Pony Club usually has a vendor deliver and maintain a port-a-potty in the spring and remove it in the fall. This is provided as a convenience to its own members.

5.4 Gardens

As previously discussed, Robert Dennison manages the community garden plots at Foss Farm. He reports that he often has to turn people away because there are not enough plots to satisfy the demand. In general, he did not report any significant issues related to the gardens except for having to make some repairs to the pumps in recent years. Mr. Dennison's management and maintenance activities for the gardens include the following:

- In February, coordinate (with CCC administrator) the Press Release for the garden plot availability

- Clean debris from plots and manage the plot staking (removing and refurbishing old stakes, making new stakes, lining up volunteers to assist with staking out plots on the ground, staking out plots)
- Coordinate and supervise the annual (spring) turning over of the garden with farmer (Mark Duffy)
- Acquiring new lumber, hardware, keys, etc., and replacing pump parts as needed
- Process requests for plots and assign 100 plots, and do phone follow-up
- Mail Plot Plans at gardening time
- Take money and bills to Conservation office

Gardeners have expressed a strong desire for additional pumps to make watering easier. It was reported that a few of the existing pumps still had intermittent problems. There appears to be a desire on the part of some gardeners to take some collective action to replenish the soil. They are concerned with the depleted condition of the soil after so many years of cultivation. However, Mr. Dennison relayed that a past effort to spread manure on all plots was not met with unanimous approval from the gardeners. Also, there are concerns about some gardeners not cleaning their plots at the end of the season, leaving debris for others to deal with.

The summer of 2006 was a dismal year for many Foss Farm farmers, due to high rainfall, flood conditions in the Concord River, low spring/early summer temperatures, and high humidity. Many of the plots were waterlogged for much of the growing season. At the urging of Gail Constable, CCC decided to have an agricultural burn on the community plots in the hopes that this would reduce pests and improve the soil. The controlled burn was conducted in November 2006 with the help of Sylvia Willard, Bob Dennison, Gail Constable, Jack O'Connor, Jenifer Bush, and several other Foss farmers and friends (see Figure 5-5). Experience with the 2007 growing season seemed to suggest that the burn improved the plots by reducing pests and improving the soil.



Figure 5-5. Foss Farm Community Garden Controlled Burn (December 9, 2006)

Regarding other maintenance issues, some significant puddles develop in depressions in the road surrounding the plots after rain storms. This situation would benefit by filling low areas with

gravel. Given the growing demand for plots, expanding the garden area should be considered. Lastly, theft of produce continues to be an issue for gardeners. The severity of the problem varies each year.

Unauthorized use of the garden road has presented some difficulties in the past. Gardeners often report that the gate had been left unlocked overnight or for long stretches of time during the day. This allows for unauthorized entry of other vehicles. Even though the intention is for the last gardener leaving the area to lock the gate, this does not always occur. Even with gardeners in the area, unauthorized vehicles have entered and driven around the property. In late June, 2008, an unauthorized individual drove down to the gardens in a pick-up truck, the driver spoke with some gardeners, and then he proceeded to drive off the road, through some of the trails, breaking branches and running down small trees as he went. Finally in an attempt to leave, the driver crashed into and bent the post that holds the garden gate open.

5.5 Wildlife Habitat

Foss Farm has a rich diversity of wildlife and plant species. The unique mix of fields, upland forest, damp forest, wetlands, and edge habitat provides for the success of a multitude of species. It is important to maintain the existing balance which allows not only wildlife to prosper, but allows the coexistence of the unique mix of existing recreational uses that Foss Farm supports. To this end, it is important to keep the open areas open and not allow more encroachment of the forested areas. Since the town purchased the property, significant areas that were once open have become forested. The historic stone walls along the field edges on the northern boundary of the property have become overgrown. There is oriental bittersweet, an invasive vine that is threatening some mature trees. Multiflora rose and buckthorn grow all along that edge as well. The forest edge, along the western and southern boundaries of the lower field, are overgrown with invasives as well. The same problem exists on the upper field. A few invasive species were spotted in the wet areas.

Future land management efforts for Foss Farm would be greatly aided if the town sought an expert to conduct a plant/wildlife inventory and habitat assessment. This type of effort would be productive and is justified for Foss Farm in particular for several reasons. As described in this baseline assessment, Foss Farm has a diverse set of habitat types (upland scrub pine forest, damp forest, wetlands, open fields, and edge habitat) that support a wide variety of native plants and animals. Proximity to the Concord River draws riparian species and migratory birds. Some endangered or rare species have been found at Foss. It is adjacent to the wildlife refuge and Greenough, another large conservation parcel. Foss connects to rare species habitat in adjacent towns providing important wildlife corridors and connectors. All of these features contributed to its designation as part of supporting areas for Core Habitat by the Natural Heritage and Endangered Species Program (See Section 1.) Because Foss Farm is so important from a habitat conservation perspective, it would be appropriate to seek expert advice as to how to properly manage the property given the fact that it is also heavily used for recreation and agriculture.

6.0 Recommendations for the Management Plan

Foss Farm is unique among the conservation parcels in Carlisle. It offers a perfect setting for some wonderful outdoor activities for which there are no alternative venues in town. Since many of these activities are “endangered,” especially among children, because lifestyles today seem to be over-focused on activities indoors, we are fortunate to have a place for people to pursue these outdoor hobbies. These activities provide enjoyment for all ages and foster values related to agriculture and country living. Dog training, pony riding, gardening, agriculture, bird watching, model rocket and plane flying, and other community-based events have taken place at Foss for many years without substantially interfering with each other. Continuing to provide an appropriate venue for these compatible uses should be a priority in the Foss Farm management plan.

Based on our review of all the baseline assessment information presented in this report, we have identified the following specific issues that should be taken into consideration in the management plan for Foss Farm:

- The allowed uses at Foss Farm must be cognizant of the Executive Order 193 (discussed in Section 2) that seeks to promote agriculture in Massachusetts through state and Federal grants, as well as to mitigate against the conversion of state-owned land from agriculture into other uses.
- The Community Gardens are an asset to the town and to neighboring towns. Availability of the gardens has been a driving factor in the initiation of and participation in the Carlisle Farmer’s Market. Community gardens take advantage of a unique opportunity to promote a sense of community and provide a forum for sharing knowledge about home gardening practices. The gardens have received community support for many years, as exhibited by past town discussions regarding valuable allowed uses at Foss Farm. In addition, the community gardens provide wildlife habitat for birds in the off-seasons. Management plans for Foss Farm should allow for the continued use of the Community Gardens. Ways to manage the community gardens, involving the stakeholders, will be discussed in the management plan. Maintenance needs, potential improvements (such as additional pumps), and need for additional garden capacity will be addressed in the management plan.
- The Pony Club also is an allowed use that has had long-time support from Carlisle residents. These activities promote a sense of community, and provide a healthy source of outdoor recreation for children. Foss Farm offers a unique, safe, and suitable setting for these activities in Carlisle. The Pony Club has been responsible in managing their own activities and has made significant contributions to the maintenance of Foss Farm for many years. The management plan will address continued use of Foss Farm for Pony Club activities. Coordination of mowing and other maintenance activities and manure management practices will be addressed.
- Important wildlife habitats at Foss Farm should be maintained; for example, for the woodcocks, blue birds, killdeers, blue-spotted salamanders, wood turtles, and possibly Blandings turtles. In addition, edge habitat should be maintained for the many species of birds and small mammals that thrive there. LSC stewards toured the Foss Farm area with

Tom and D'Ann Brownrigg in 2007, resulting in a number of suggestions to improve the various habitats for the birds that live in and migrate through Foss Farm.

- Parking lot maintenance and improvements. The parking lot is in need of grading. Erosion control measures to prevent future deterioration would be helpful.
- Improved signage at the entrance would improve safety associated with cars entering the parking lot. New conservation land use signs are also needed at the trail entrance from the parking lot, and at the driveway entrance to the upper field along Bedford Road to discourage illegal motorized traffic.
- The sight lines from the entrance along Bedford Road should be maintained for safe passage of traffic to and from the property.
- Trails along the perimeter of the agricultural fields should be mowed more often to maintain them throughout the entire growing season.
- Finishing the trail connection from the main part of Foss Farm to the upper field (to the south) should be a priority.
- Maintenance activities should focus on preventing encroachment of the forests into the open areas. Brambles in some portions of the fields are becoming a problem. Controlling invasive species in some targeted instances (particularly to save specimen trees) should be a priority. The trees and shrubs bordering Bedford Road along the upper field should be thinned to improve vistas of the opens field and the bordering forests and wetlands. Eliminating buckthorn along the fence edging the parking lot should be considered.
- Issues related to the poop-scooping bag dispenser will be addressed.
- The management plan should address the issue of public notice or posting requirement associated with the agricultural lease if pesticides are applied to the hay or corn crops.
- Officially, no motorized vehicles are allowed on Foss Farm, except for community garden access. However, dogsled training activities do use all-terrain vehicles along the roads and trails. In previous years, permits were issued for this activity. The need for renewing permits for this activity should be addressed in the management plan.