

# **Management Plan**

**for the**

**Towle Land**



**February 25, 2010**

**Prepared by the  
Land Stewardship Committee**

**A sub-committee of the  
Carlisle Conservation Commission**

**Land Stewardship Committee (July 2009 – June 2010)**

Elisabeth Carpenter, co-chair  
Dwight DeMay, co-chair  
Timothy Donohue  
Tim Fohl  
Debby Geltner  
Bonnie Jacobellis  
Lynn Knight  
Elizabeth Loutrel  
Warren Lyman  
Sylvia Willard, Conservation Administrator

Towle Land Management Plan prepared by:

Elisabeth Carpenter  
Warren Lyman

## TABLE OF CONTENTS

1. Introduction.....	1
2. Site Description.....	2
3. Site Acquisition, History, and Use.....	4
Acquisition.....	4
Site History and Use .....	5
4. Overall Management Objectives.....	6
5. Towle Land Management Actions by Management Unit.....	6
Towle Field .....	7
Pond and Dam.....	9
Parking Lot and Associated Entrance .....	10
Trails, Trail Signs, and Property/Information Signs .....	10
Stone Walls on Property Boundary and Field Boundary.....	12
Other Interior Structures .....	13
Forest and Wetland Areas.....	13
6. Towle Field Stewards and Responsibilities .....	14
7. Potential Volunteer tasks .....	14
8. Financial Plan.....	15
9. Review and Approval Process .....	17
Appendix A - Activities Coming After the 2007 Baseline Assessment .....	18

## LIST OF FIGURES

Figure 1. Towle Land Topography .....	2
Figure 2. Aerial Photograph of Towle Land.....	3
Figure 3. Towle Land Acquisition Parcels .....	4
Figure 4. Towle Field and Associated Features.....	8
Figure 5. Towle Land Trails .....	11

## LIST OF TABLES

Table 1. Towle Land Acquisition Summary.....	5
Table 2. List of (Non-Trail) Signs on Towle Land.....	12

# 1. INTRODUCTION

This Management Plan for the Towle Land follows the preparation of a Baseline Assessment by the Land Stewardship Committee and approved by the Carlisle Conservation Commission in April 2007. The background information presented here, primarily in Sections 2 and 3, is more fully discussed in the *Baseline Assessment for the Towle Land (April 2007)* which is available in Gleason Library, in the Carlisle Conservation Commission's office in Town Hall (66 Westford Street), and in the Land Stewardship Committee pages within the Town of Carlisle's website (<http://www.carlislema.gov>).

The approach taken in this Plan generally follows the recommendations of the 2005 report by Carlisle's *ad hoc* Land Stewardship Planning Committee: *Establishment of a Land Stewardship Program in Carlisle (October 2005)*. Following the preparation of a Baseline Assessment, the major steps recommended for planning were to:

- Develop overall management objectives;
- Identify management units (discrete areas to be managed separately) for the property;
- Prepare a management plan for each unit;
- Prepare a financial plan to show where necessary funds might be obtained; and
- Obtain appropriate reviews and public input.

**Sections 2 and 3** of this Plan provide summary information from the April 2007 Baseline Assessment, specifically for site description (Section 2) and for site acquisition, history and use (Section 3). (Activities taking place on the Towle Land after April 2007 are described in **Appendix A**.) The recommended overall management objectives for the Towle Land are then given in **Section 4**. In summary, they are to:

- Preserve wildlife habitat and biodiversity and protect water resources. This includes maintaining Towle Field to provide habitat for grassland birds and other native animals and plants, keeping the forested areas largely undisturbed, monitoring the condition of the fields, forests, streams, and wetlands, and controlling invasive and nuisance species.
- Provide and maintain passive recreation, including parking, clear entrances, clearly marked and maintained trails, trail and informational signs, and posted usage rules to inform the public about this property and appropriate uses of the land.
- Preserve and restore the historic Towle Field by appropriate mowing practices, maintenance of mowed paths, and management of invasive and encroaching vegetation.
- Maintain and restore vistas and the historic bounding stone walls.
- Foster knowledge and appreciation of the Towle Land wildlife and ecological resources, the agricultural heritage of Towle Field, the Native American cultural heritage, and linkages to other parts of town.

**Section 5** describes the specific recommended management actions for each of the seven management units. The management units are as follows:

- Towle field
- Pond and dam

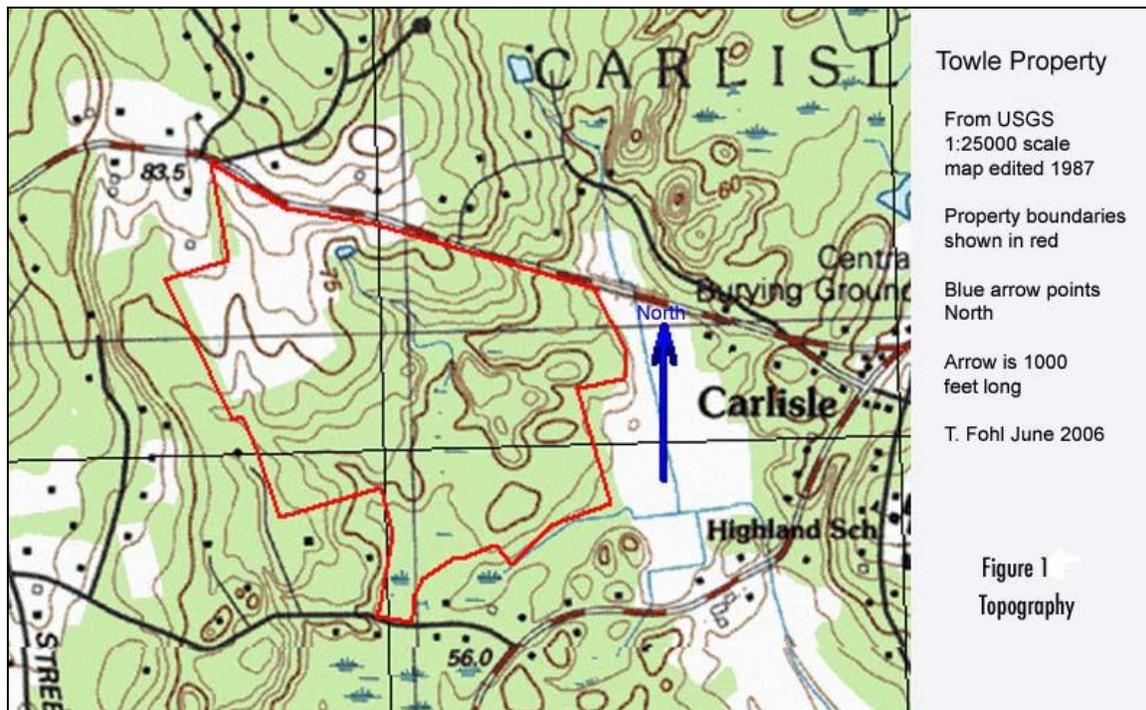
- Parking lot and associated entrance
- Trails, trail signs, and property/informational signs
- Stone walls (on property line and interior)
- Other interior structures
- Forest and wetland areas

**Section 6** discusses Towle Land Stewards and their responsibilities. **Section 7** lists potential volunteer tasks for improvement of the Towle Land. A financial plan is provided in **Section 8**. The Plan’s anticipated review and approval process is outlined in **Section 9**.

It is anticipated that this plan will be updated from time to time. The current version will be at Gleason Library, at the Town offices, and on the Town website. Superseded versions may not have current information and should not be used.

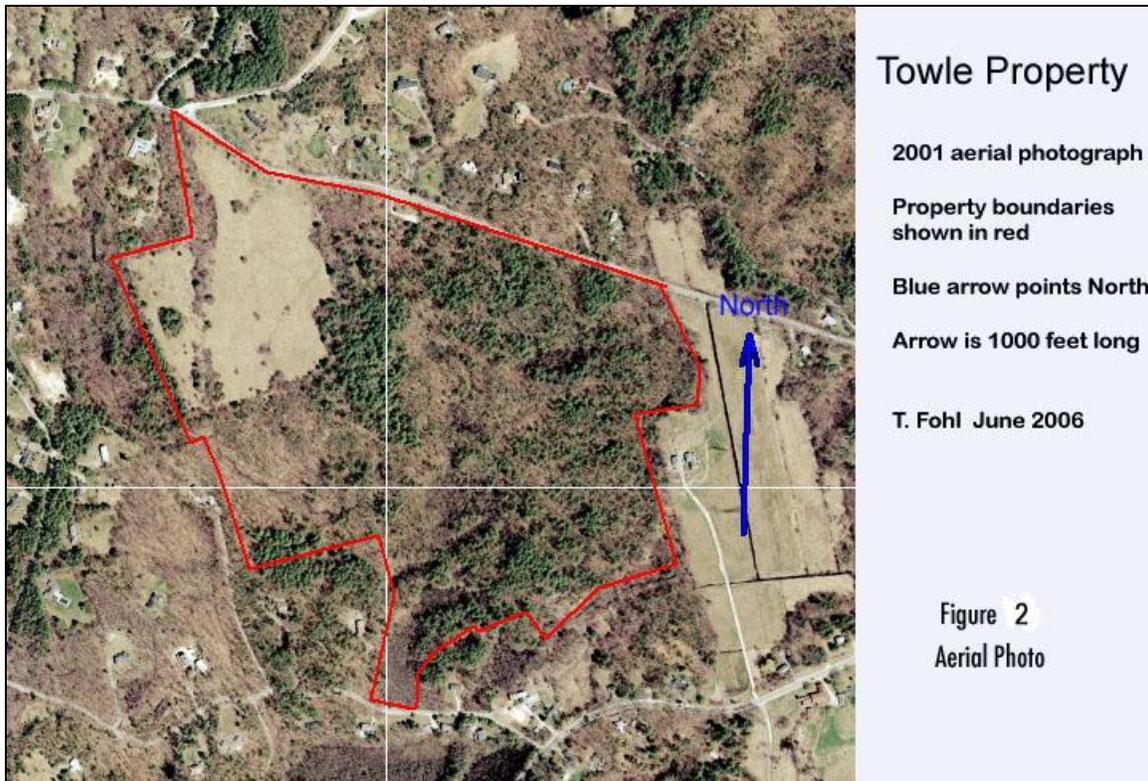
## 2. SITE DESCRIPTION

The Towle Land is a 112-acre conservation parcel, most of which was purchased by the Town in 1968 from private landowners. Smaller abutting parcels were acquired subsequently through 1971 (see Section 3). The property is located on the south side of Westford Street (Route 225), approximately one-half mile west of the town center. One spur on the south side of the property provides frontage on Bingham Road. As shown in **Figure 1**, most of the land slopes to the south or southeast with a total drop of about 80 feet from the northwest to southeast corners. Few slopes are greater than 10% and most are less than 5%.



**Figure 1. Towle Land Topography**

Approximately four-fifths of the Towle Land parcel is wooded with a mix of deciduous and evergreen trees. Open rolling fields of about 20-25 acres (known as Towle Field, the prominent grassy area highly visible from Westford Street) occur in the northwest portion along Westford Street. (See **Figure 2.**) The parcel has low forested rocky hills with granite/gneiss outcroppings, several small intermittent streams, wetlands, vernal pools, and areas of successional vegetation (meadow to forest). As of 2009, seven of the vernal pools have been certified with the State's Natural Heritage and Endangered Species Program. Man-made features include a parking lot (for approximately 12 cars), a trail system (with several small wooden bridges and boardwalks), a small pond with an earthen dam, conservation signs, stone fences, bird houses in the field, sugar maple plantings, and possible rock quarry and Native American sites. Trailhead access points for the public include the parking lot on Westford Street, two direct entrances to Towle field from Westford Street, and one entrance on Bingham Road. The trails (and associated trail signs) are maintained by the Carlisle Trails Committee. Towle Land features are described in detail in Section 5.



**Figure 2. Aerial Photograph of Towle Land**

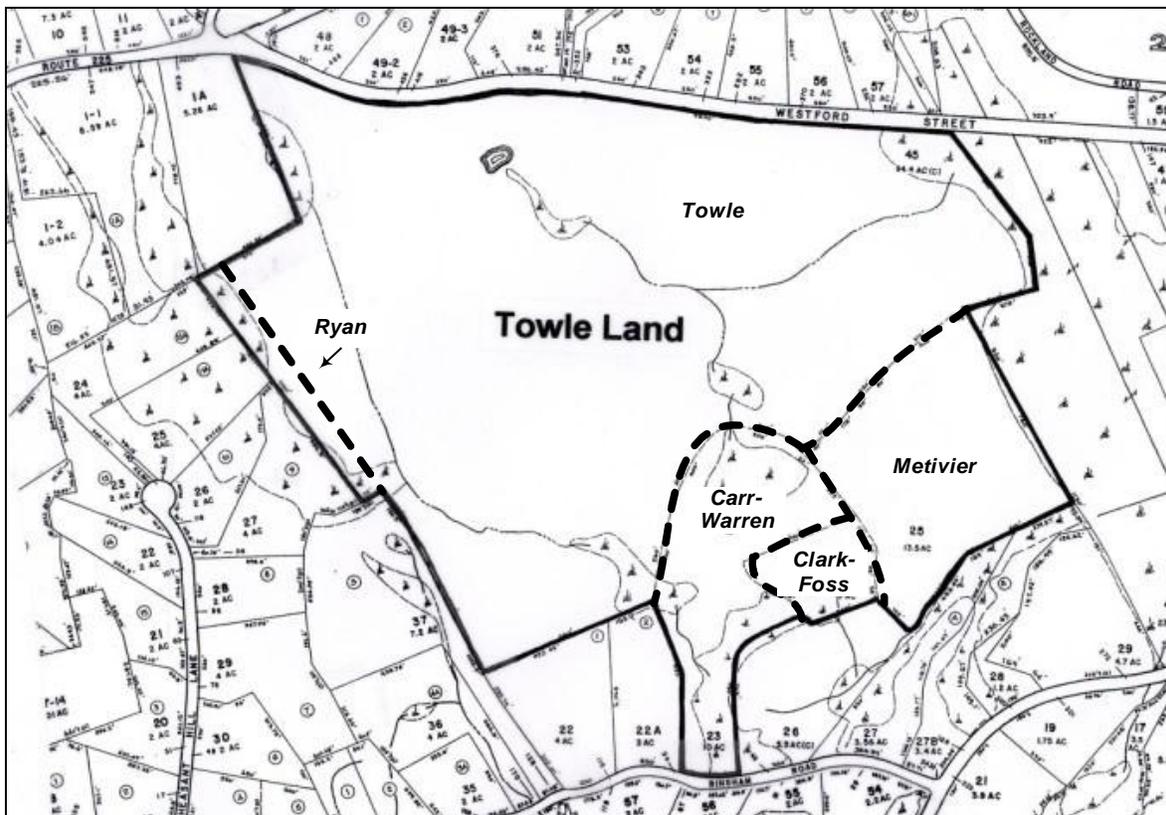
The Towle Land does not directly abut any other conservation or public land but is reasonably close to the town-owned Conant Land, located on Rockland Road just north and east of Towle Land. Trails are being developed to Towle from the Greystone Crossing development (between Bingham Road and Cross Street) via a private Conservation Restriction. Bingham Road with its Towle Land trail entrance is connected to Town Center via a pathway. There is a pathway along Westford Street that extends from Monroe Hill Road (at the NW corner of the Towle Land) to near Acton Street. This pathway is mostly contained within, and was constructed as a part of, the

Hanover Hill housing development which contains some lands with conservation restrictions, as well as a trail linkage to Virginia Farm Lane. There are approximately 30 privately-owned parcels of land that abut directly or closely with the Towle Land. At this time, all of the parcels surrounding the Towle Land have been built upon, although the property to the east still has an active hay meadow.

### 3. SITE ACQUISITION, HISTORY, AND USE

#### Acquisition

The Town of Carlisle acquired the Towle Land in five separate parcels from 1968 to 1971. The boundaries of these parcels are shown in **Figure 3**. These parcels were acquired with the intent for conservation and recreation use, as stated in the recorded deeds.



**Figure 3. Towle Land Acquisition Parcels**

The parcels were acquired by a combination of the following means:

- Town Meeting vote to be managed by the Conservation Commission and protected under Article 97 of the Massachusetts Constitution
- Acquired for conservation under MGL Ch 40 S8C
- Acquired by gift for conservation purposes
- Acquired with Commonwealth of Massachusetts self-help funds

- Acquired with Federal Land and Water Conservation Fund

**Table 1** summarizes the acquisition history of the Towle Land component parcels.

**Table 1. Towle Land Acquisition Summary**

<b>Parcel</b>	<b>Acreage</b>	<b>Acquisition Date</b>	<b>Purchase Price (\$)</b>	<b>Federal Funds (\$)</b>	<b>State Funds (\$)</b>	<b>Town Funds (\$)</b>
Towle	82.8	1968	168,540	84,270	~ 42,135	~ 42,135
Ryan	1.5	1969	Gift	0	0	0
Metivier	14	1970	14,000	0	~7,000	7,503
Clark/Foss	3.3	1971	2,608	0	1,304	1,304
Carr/Warren	10.3	1971	11,300	0	5,650	5,650
<b>Total</b>	<b>112</b>	<b>N/A</b>	<b>196,448</b>	<b>84,270</b>	<b>56, 809</b>	<b>56,592</b>

### Site History and Use

Based on the presence of possible Native American ceremonial stone structures, native peoples may have had a presence in this area. Early colonial use has not been researched, although a variety of agricultural uses may be presumed. In the early part of the 20<sup>th</sup> century, it was reported to have been part of a truck farm. Subsequent to the purchase by Dr. and Mrs. Towle in 1912, the field was still used for agricultural purposes, including pasturage for cows and horses, and for haying. The cow tunnel under Westford Street (linking the Towle’s home with the field to the south) was constructed in 1914. The Towles also built the small pond located between the current parking lot and the field. Cut stone remnants in the woods and historic reports indicate that there was some quarrying of stone in the southern part of the woods.

Following the Town’s purchase of the five properties constituting the Towle Land (1968 – 1971), the use converted to conservation and recreation. The conservation uses included, initially, some haying on the field. When the quality of the hay declined, this use was discontinued. There followed a period of time when field management lapsed and the field was not mowed. It was during this time period that non-native invasive plants (such as buckthorn) and nuisance plants (such as poison ivy) proliferated in the field. Subsequently the field was mowed annually to keep it open. The central part of the field became a managed habitat for grassland birds, including bobolinks and bluebirds. In the early Town-ownership years, the land was occasionally used for organized recreational activities, including annual spring kite-flying parties (in the field) and a popular cross-country ski program for youth. Later, organized recreational uses became limited to occasional guided walks by the Trails Committee.<sup>1</sup> In recent times, recreational use is primarily by individuals and families involved in hiking (including dog walking), cross-country skiing, and bird watching, on the forest trails and in the fields. The forest and field trails in particular provide exceptional cross-country skiing opportunities.

---

<sup>1</sup> Recreational activities by large groups on Towle field is now somewhat problematic due not only to the desire to minimize disturbance of the habitat for grassland birds, but also to the significant growth of poison ivy and glossy buckthorn in the field.

Following the issuance of the Baseline Assessment for the Towle Land in April 2007, a number of different activities related to trails (including two new trails), maintenance, and study have taken place. These are summarized in **Appendix A**. None of these activities imply any material changes to the 2007 Baseline Assessment.

#### **4. OVERALL MANAGEMENT OBJECTIVES**

The town of Carlisle acquired the component parcels of the Towle Land for conservation and passive recreation purposes. Any use of these lands should be consistent with good conservation practices and would therefore be limited to activities with minimal impact. The Towle Land is a significant conservation holding for Carlisle, providing:

- Preservation of fields, edge/boundary areas, woodlands, surface water bodies (streams and pond), and wetlands for wildlife habitat
- Preservation of significant land for recreation. The Towle property is well known and used for activities such as birding, nature education, hiking, and cross-country skiing
- Preservation of significant vistas. The Towle property provides a pastoral vista for traffic along Westford Street in both directions and is a significant asset to the Town. Vistas within Towle property are also significant
- Preservation of the historical values of the land and its cultural heritage

Accordingly, the overall management objectives are to:

- Preserve wildlife habitat and biodiversity and protect water resources. This includes maintaining Towle Field to provide habitat for grassland birds and other native animals and plants, keeping the forested areas largely undisturbed, monitoring the condition of the fields, forests, streams, and wetlands, and controlling invasive and nuisance species.
- Provide and maintain recreation, including parking, clear entrances, clearly marked and maintained trails, trail and informational signs, and posted usage rules to inform the public about this property and appropriate uses of the land
- Preserve and restore the historic Towle Field by appropriate mowing practices, maintenance of mowed paths, and management of encroaching and invasive vegetation
- Maintain and restore vistas and the historic bounding stone walls
- Foster knowledge and appreciation of the Towle Land wildlife and ecological resources, the agricultural heritage of Towle Field, and the Native American cultural heritage
- Educate the public on access and linkages to the Towle property from other parts of town

#### **5. TOWLE LAND MANAGEMENT ACTIONS BY MANAGEMENT UNIT**

This section describes the Towle Land management units and the recommended management actions for each unit. The management units are as follows:

- Towle field
- Pond and dam

- Parking lot and associated entrance
- Trails, trail signs, and property/information signs
- Stone walls on property boundary and field boundary
- Other interior structures
- Forest and wetland areas

## **Towle Field**

Towle Field (approximately 20 – 25 acres) is the prominent grassy area in the northwest quadrant of the Towle Land (see **Figure 2**). A schematic of the different areas of the field, the wooded islands in the field, the walking paths, and the surrounding stone walls and woods is shown in **Figure 4**. The field is possibly the best-known and most accessible feature of the Towle Land. Hardy herbaceous plants and grasses dominate the field vegetation. Invasive woody plants (such as glossy buckthorn) and nuisance plants (such as poison ivy) are prevalent in the field. Small tree “islands” occur in several places in the field. The field and its margins are prime habitat for birds and other wildlife; approximately 20 bluebird houses have been erected in the field. Based on an assessment by the Natural Resources Conservation Service (USDA), all of the soils in the field are rated as Prime.<sup>2</sup>

An intermittent stream flows south through the field (partially flowing subsurface), dividing it into eastern and western portions. The stream is lined with wetland vegetation, providing habitat for wildlife. Twelve sugar maples (one now dead) were planted in 1979 along the eastern and northern perimeter of the field; additional sugar maples were planted along the stream. The Board of Health has installed a high water test well (actively monitored) adjacent to the northern edge of the field.

Woody perennial shrubs, trees, and vines (including invasive buckthorn) are encroaching on the margins of the field and growing along the stone wall along Westford Street. In 1979, the meadow extended about 1500 feet from Westford Street at its furthest point and was almost as wide. A 1971 aerial photograph (available in Town Office files) shows substantially less tree growth – including fewer and smaller tree “islands” – within the field and also north of the pond.

## Goals

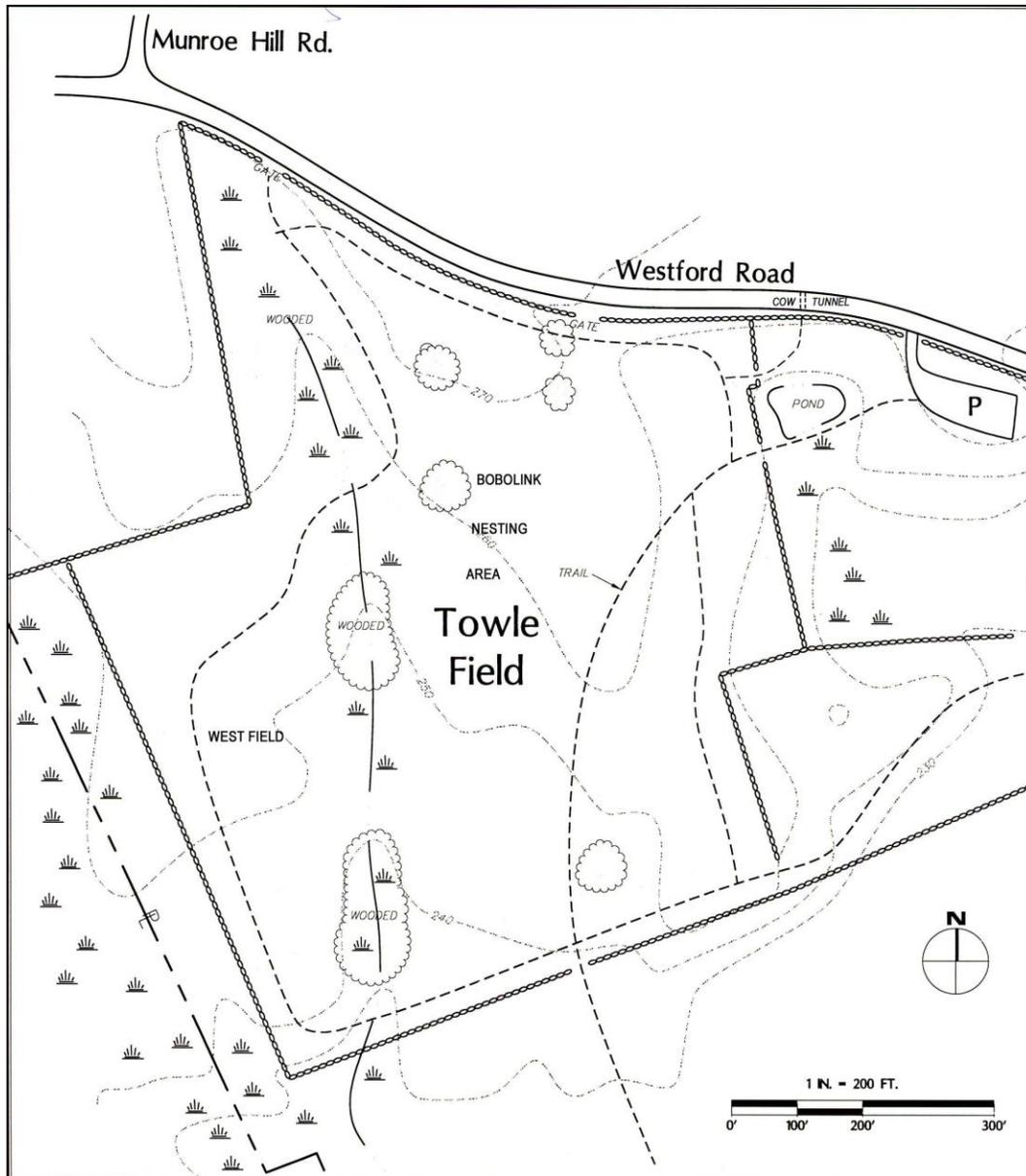
The goals are to maintain the field as follows:

- The grassland nesting area in the central part of field should be protected and maintained from May to August for bobolinks and other grassland birds
- The entire field should be maintained to provide sustainable habitat for other flora and fauna. For example, the tree and shrub islands provide secondary growth habitat for significant bird life and the damp area of the field on the south side, near the existing boardwalk, supports some unusual plants
- To provide vistas (including from Westford Street toward the field)

---

<sup>2</sup> Prime farmland is land that has the best combination of physical and chemical characteristics, as well as sufficient moisture and growing season, for producing food or other crops.

- To provide for passive recreation on the field, including perimeter and cross-field trail and the grassy expanses of the fields
- For historic preservation and educational opportunities (e.g., bird watching)



**Figure 4. Towle Field and Associated Features**

Actions

- Continue maintenance mowing of the field with seasonal (May through August) exclusion of the central grassland bird nesting area, and exclusion of other areas, such as the damp area near the boardwalk, deemed appropriate to preserve native wildflowers

and shrubs, and other areas to encourage tall grasses. A selective mowing plan should be developed with a means (such as staking) to exclude mowing from designated areas.

- Determine the appropriate mowing frequency (likely 2-3 times a year) to maintain field health and control invasive species
- Seek the services of an independent professional to evaluate field condition and make recommendations for future maintenance and uses. Practices could include, but not necessarily be limited to: (1) plowing and reseeded; (2) need for occasional soil enhancements with lime or fertilizer; (3) occasional use of sheep (or possibly goats) for intensive grazing; (4) herbicide wipe applications for invasive buckthorn and poison ivy; (5) edge maintenance; (6) exclusion of certain areas from mowing to maintain wildlife habitat and preserve native species; and (7) possible haying in certain areas to maintain the open vista
- Evaluate the impact and feasibility of mowing or cutting brush right to edge of fields where a tractor-pulled mower cannot reach, and cutting low hanging branches so a tractor can safely mow close to the edge. However, these low-hanging branches on the edges of fields also provide habitat for wildlife
- Mow the trails across and around the field often enough (3 – 4 times per season) to provide poison-ivy-free walking paths
- Evaluate options for removing nuisance and invasive plants, primarily buckthorn and poison ivy
- Evaluate options for containing the growth of the tree islands in the field and removing invasive species in these areas. The islands may interfere with, or enhance, vistas in some cases but also provide valuable second growth habitat for birds.
- Evaluate the wetland vegetation along the stream for removal of invasive species and other trees, while maintaining the streamside woodland habitat
- Continue monitoring of bobolink use of nesting area and maintenance of birdhouses
- Keep a detailed record or log of maintenance activities, costs, and results
- Remove dead or diseased sugar maples; periodically inspect sugar maples; investigate replacement of lost sugar maples
- Promote some warm-weather recreational activities in the field if the poison ivy can be removed
- Investigate the possibility of forming a group of volunteers to restore and maintain Towle Field

## **Pond and Dam**

The pond, located immediately east of the Towle field and west of the parking lot, was formed by damming the stream originating from at least two springs feeding it from the north. The dam is a 7 ½ ft vertical dry stone wall on the downstream side, with a 1-inch overflow pipe near the eastern end. The width of the dam is 11 ft at the ends and 9 ft in the middle. The upstream dam wall is dry stone wall and earth bank. The dam is deteriorating and the pond is silting up. At least four previous studies have addressed the pond and dam; recommendations have ranged from doing nothing to complete (and likely expensive) restoration of the pond and dam.

### Goal

It is unlikely that restoration of the Towle pond and dam would be funded at this time. Repairing the leaking dam would be expensive. Without this funding, the best alternative is to maintain the trail crossing the dam, keep it safe, and manage encroaching vegetation (trees and brush) to keep the path and dam structure clear and reduce tick transfer. The pond is classified as wetland and appropriate filings must be made with ConsCom before removing trees from the dam.

### Actions

- After appropriate wetlands filings, establish a routine process and schedule by DPW (or possibly volunteers) to clear the brush and saplings growing on the dam. Continue to cut brush and saplings growing on the dam and keep the trail clear
- During periods of low water, clear brush, debris, and fallen stones from the pond
- Consider use of heavy equipment (likely by DPW) to rescue and replace large stones that have fallen from the dam

### **Parking Lot and Associated Entrance**

There is a small parking lot, with space for approximately 12 cars, along the north side bordering Westford Street. In the summer the lot becomes screened from the road by vegetation. The lot is reached by a short dirt access road from Westford Street. Large puddles and potholes often develop in this road in the spring and early summer.

### Goal

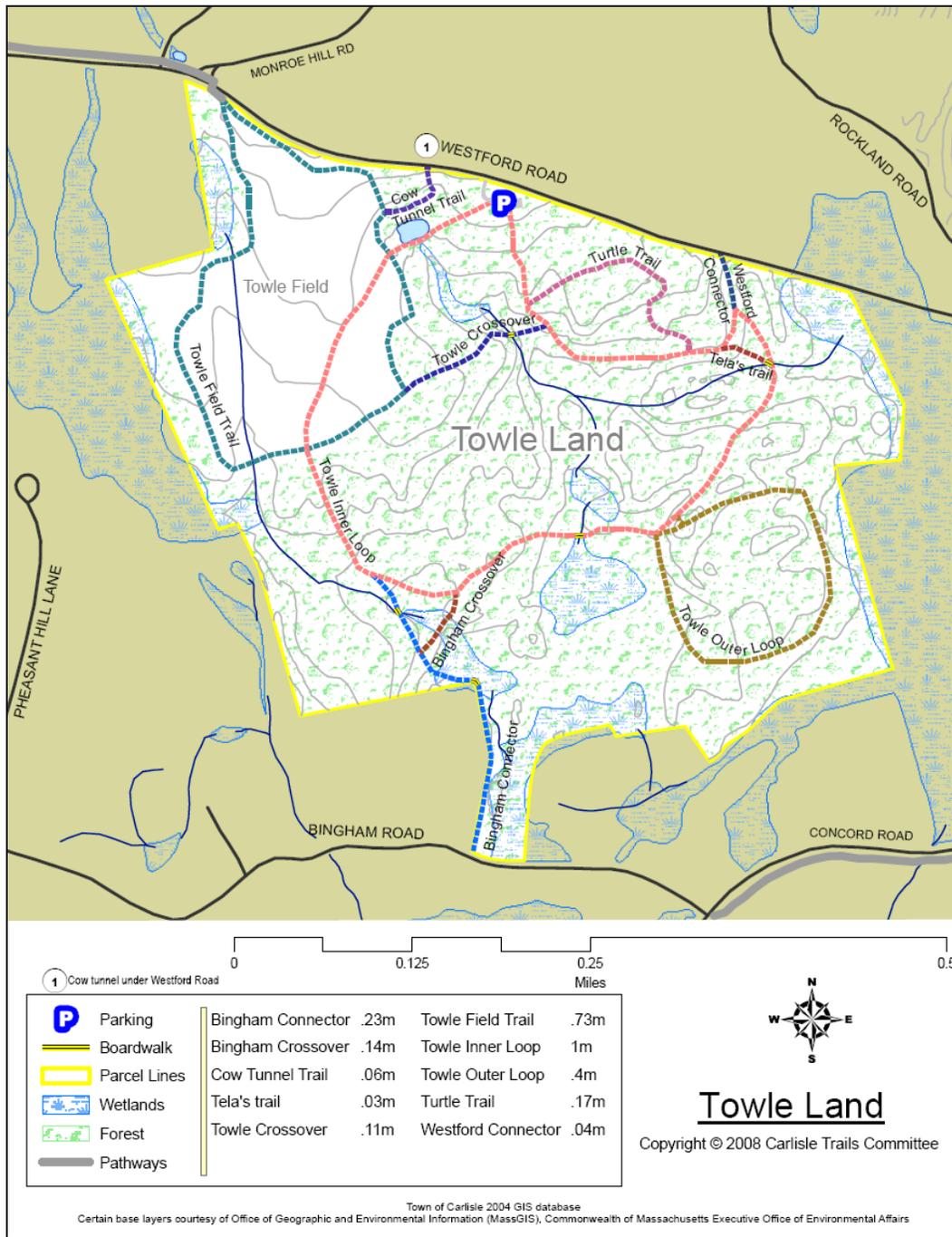
The primary goal is to improve the usefulness and safety of the parking lot by improving the surface, making the lot more visible from the road, and providing better sign information. Future limited expansion of the lot may be advisable.

### Actions

- Request regular DPW maintenance of the parking lot access to keep the area smooth and free of depressions that allow large puddles to form, or possible regrade the road to prevent depressions from forming
- Cut back brush between the parking lot and Westford Street. This will make the parking lot more inviting and accessible to the public, and clearly visible from the road
- Improve and replace signs (see section below)
- Based on usage, determine if the existing trash can is necessary, or if a “carry in, carry out” policy is preferred
- Add a dog bag dispenser
- Based on observed usage, determine if some expansion of the parking lot is desirable

### **Trails, Trail Signs, and Property/Information Signs**

Trails and trail signs are maintained by the Trails Committee. **Figure 5** shows the density and extent of the well-developed trail system. As shown by the summary of (non-trail) signs in **Table 2**, one property sign exists at the entrance to the parking lot, a second exists



**Figure 5. Towle Land Trails (from Carlisle Trails Committee)**

in the parking lot, and a third is located at the Bingham Road trail entrance. A wooden property sign (“Towle Land”), clearly visible from Westford Street, was recently erected at the entrance to the parking lot. Another wooden sign (“Towle Field”) exists along the northern perimeter facing Westford Street. The parking lot also has a sign requesting proper trash disposal in the trash can at that location. At four locations that provide entrance to Towle Field, there are signs asking

visitors to not disturb the bobolinks during their nesting period (May 15 to August 1). The Carlisle Trails Committee has posted directional signs on trees along the trails in the woods.

**Table 2. List of (Non-Trail) Signs on the Towle Land**

<b>Type of Sign<sup>3</sup></b>	<b>Location</b>	<b>Status</b>
Property (routed wood)	N edge of field by Rt. 225	Old, but in fair condition
Parking lot (routed wood)	Entrance to parking lot	New (2008)
Primary (wood, painted red)	Parking lot	New (2008)
“Please do not litter, ...” (routed wood)	Parking lot, by trash can	Old. Letters repainted in 2008.
Secondary (aluminum)	Bingham Rd. trailhead	Old (short version)
“Help the bobolinks ...” (laminated paper)	Four locations providing access to field.	Two old. One new put on wood stand by parking lot.

### Goal

The goal is to improve signs for the trail system to make it more user-friendly, encourage use of the forest trails, perhaps widen some trails to reduce tick transfer (especially the main access trail), and provide more informational signs at the parking lot and other areas.

### Actions

- Add an information kiosk at the parking lot
- Post a trail map for whole property in the parking lot, showing forest and field trails
- Add trail signs at the parking lot (one at both trail heads)
- Consider adding additional information at the parking lot
- Work with the Trails Committee to improve trail signage and widen brush cutback on trails as appropriate
- Evaluate the “informal” trails that have developed over time to determine if they should be removed to enhance wildlife habitat

### **Stone Walls on Property Boundary and Field Boundary**

As in many rural New England landscapes, stone walls are a prominent feature of the landscape. Stone walls line a large portion of the northern boundary along Westford Street (except for three access openings), about half of the western boundary, a small portion of the eastern boundary, and about half of the southern boundary. In addition, remnants of stone fences of indeterminate age occur within the property, most likely the result of historic field clearances. The condition

---

<sup>3</sup> Note: the property sign has the words “Towle Field” and the logo of the Carlisle Conservation Commission (“Conserve Carlisle” with heron). The parking lot entrance sign has the words: “Towle Land Parking Area.” The primary sign states the land is conservation land, provides a bullet summary of the most important ConsCom rules, and – at the bottom – provides the state and Federal funding sources for the land purchase (required by law). The secondary sign states the land is conservation land, lists five basic ConsCom rules, and has the ConsCom logo at the bottom. Photographs of all the old signs are provided in the Baseline Assessment.

and appearance of the visible stone wall along Westford Street is of some concern, as it forms part of the vista of the Towle Land as seen from the road, and will continue to deteriorate if not repaired.

### Goal

The goal is to maintain, restore as needed, and keep the stone walls and entrances visible for aesthetic, historic, and educational value.

### Actions

- Rebuild the stone wall in the two areas where it is falling down (near the northwest corner along Westford Street)
- Conduct a survey of the condition of the remaining stone walls
- Develop a plan to rebuild the walls (using on-site stone) where needed and clear away encroaching plants
- Repair the gate (off Westford Street by the property sign) that gives access to the field
- Add a gate at opening at NW corner of property (along Westford Street); the gate would allow pedestrians, but not motor vehicles, to pass
- Investigate an outreach program to educate the public on stone walls (this need not be limited to Towle Land)

**Other Interior Structures** (including stone wall remnants and possible quarry sites and Indian ceremonial structures)

### Goals

The goal is to preserve the property's cultural and historic heritage of human artifacts.

### Actions

- Conduct an inventory to document and describe these structures
- Assess the value of these structures for educational use
- Possibly add information on these structures to the parking lot kiosk

### **Forest and Wetland Areas**

Upland pine and oak forests cover about four-fifths of the Towle land. The property includes coniferous forest (composed primarily of white pine and other evergreens in successional forest), deciduous forest consisting primarily of oaks and maples, and mixed stands of coniferous and deciduous trees. The Towle Land woodlands appear to provide better habitat (be in a more "natural" condition) for wildlife than many of the other forested conservation lands in Carlisle; at least they did not originate as commercial plantations. The areas of upland forest include wetlands that are surrounded by wet wood transition zones which serve as buffers. The main wetlands are noted for large stands of skunk cabbage. The streams in the forests provide an important habitat for wetland vegetation and wildlife and add to the visual value of the property,

especially where the steams flow among large granite outcroppings covered with ferns, mosses, and other moisture-loving plants.

### Goals

The goal is to preserve the forest and wetland areas for wildlife habitat and recreation on the trail system, and encourage appreciation and use of the forest areas. The forested areas should be left mostly undisturbed.

### Actions

- Identify areas in the forest that should be kept free of trails to enhance wildlife habitat
- Monitor the wetlands for additional vernal pools to be certified
- Periodically check for invasive plants and remove them
- Develop an up-to-date inventory of plants (native, introduced, and invasive). An extensive plant inventory was completed for a previous study (see the Baseline Assessment); it would be useful to compare and evaluate the changes
- Investigate the feasibility of developing a management/stewardship plan for the Towle Land forests, with the priority of maintaining and enhancing wildlife habitat
- Possibly add information on forest natural history to the information kiosk

## **6. TOWLE FIELD STEWARDS AND RESPONSIBILITIES**

For a current list of Towle Land stewards, contact the Conservation Commission administrator (978-369-0336) or the current Land Stewardship Committee chairman.

Towle Land stewards are volunteers who have agreed to help monitor the condition of the land and report damage (natural or man-made), encroachments by abutters, and other items of significance including sightings of rare birds, unusual plants, and invasive plants and insects. This could be on an informal basis. In addition, a schedule of inspection could be established as follows:

- Annually: boundaries (encroachment), water bodies, boardwalks, invasive species
- Semi-annually: signs at entrances and on trails, field condition, habitat health indicators
- Monthly: kiosk material, parking lot, possibly trail conditions (primarily the responsibility of the Trails Committee)
- As needed: organize work parties to carry out aspects of the management plan

## **7. POTENTIAL VOLUNTEER TASKS**

It is not uncommon for members of the Carlisle community, especially young people, to volunteer for community service tasks on conservation land. The following is a list of potential tasks for the Towle Land. Any person interested should first contact the Conservation

Administrator for details on the volunteer tasks that are available, and on the best times and means to accomplish the tasks.

1. Conduct – on the entire property or some portion thereof - an inventory of any of the following: (1) invasive plants; (2) wildflowers (by season); (3) native trees and shrubs; (4) other plant life; (5) fauna in the seasonal pools which may be vernal pools; and (6) stone walls and other structures
2. Cut back brush and trees along edge of field, and remove overhanging branches
3. After evaluation and approval by the Conservation Commission, help to cut back and/or remove trees and shrubs on the Towle Field. This will help reclaim more of the field
4. Clear vegetation from the stone walls facing Westford Street to improve the vista.
5. Clear the brush between the parking lot and Westford Street
6. Help remove invasive plants, especially from the field (e.g., glossy buckthorn) and the parking lot (e.g., garlic mustard)
7. Monitor the existing certified vernal pools, and look for other pools that may be certified

## **8. FINANCIAL PLAN**

Recommendations are given on how to cover the costs of recommended actions for each management unit.

### **Towle Field**

Routine Mowing – Continue the current practice of using ConsCom’s budget to cover costs of mowing. This cost was \$1,781 in 2009 (same as in 2008). Funds for this activity should be supported in the budget; this is currently the only management tool for Towle Field and should be a priority. The anticipated mowing is done three times in each summer and includes trail mowing and protection (i.e., no mowing) of the bobolink nesting area until about mid-August. (The Conservation Administrator requests new quotes each year from individuals interested in mowing the field. The Request for Quote specifies the mowing times and locations for each phase of the work.)

Non-Routine Removal of Invasive Plants or Unwanted Brush/Trees – Three “funding” methods are possible: (1) Seek grant funds for occasional use of special mowing/cutting services, grazing animals, or other methods for control of unwanted vegetation. (2) Use required in-kind services of ConsCom licensees, including those holding licenses to tap the sugar maple trees on Towle Field. (3) Use volunteers, including (if available) individuals in the Restorative Justice program.

Bird House Maintenance – This is currently done by a volunteer (Tom Brownrigg). It is possible that a trainee could help with this.

Professional Evaluation of Field and Woodland Vegetation – Seek grant funds.

### **Dam**

Routine Maintenance – Seek assistance from the Department of Public Works (DPW), or possible volunteers, for routine maintenance such as brush clearing and stone replacements. After obtaining the required wetlands permits, remove trees which could compromise the dam.

### **Parking Lot and Associated Entrance**

Routine Maintenance – Seek assistance from the DPW for such items as road grading, pothole filling, grass and brush cutting, and snow plowing.

Trash Removal – Continue the practice of using ConsCom’s budget to hire a local commercial trash hauler to periodically empty the one trash can at the site. This cost was approximately \$200 for the fiscal year ending in June 2008.

### **Trails, Trail signs and Property/Informational Signs**

Other Signs/Maps – No ConsCom costs are likely to be required beyond the use of normal office equipment. Some costs might be borne by the Trails Committee for any signs they make.

### **Stone Walls**

Repairs to Stone Wall – Seek volunteer or other non-funded labor after checking liability issues.

New and Replacement Gates – For materials, seek free materials from DPW or Town citizens. As a last resort, use ConsCom funds to purchase the gate(s). Use DPW and/or volunteer labor for installation.

### **Other Interior Structures including Bridges**

Inventories and Assessments – Use qualified volunteers if available. If not, seek grant funds. (Note: bridges are maintained by the Trails Committee using their appropriated funds).

### **Forest and Wetland Areas**

Vernal Pool Monitoring – Use qualified volunteers.

Inventory of Plants – Use qualified volunteer if available. If not, seek grant funds.

Forest Stewardship/Management – investigate the feasibility of state funding for plans to maintain this habitat for wildlife

## **9. REVIEW AND APPROVAL PROCESS**

The steps for the review and approval process are as follows:

- The Trails Committee shall review this plan and provide comments (this was completed on September 30, 2009).
- The revised (if necessary) plan shall be presented for approval at a public hearing at a Conservation Commission meeting.
- ConsCom comments shall be incorporated. (The final plan was approved by ConsCom on February 25, 2010).
- The approved plan shall be made available to the public at the appropriate locations.

## APPENDIX A

### Activities Occurring after the 2007 Baseline Assessment

#### 2007

New Boardwalk – The Carlisle Trails Committee and friends built a new boardwalk to allow hikers to skirt a small stream on the trail entering the Towle Land from Bingham Road.

New Turtle Trail – Boy Scout Jimmy Burnham, as part of his Eagle Scout project, constructed a new trail that passes by a large rock feature that resembles a turtle. The Carlisle Trails Committee included this trail in its November, post-Thanksgiving guided walk for the public.

Wildlife Habitat Improvement Program (WHIP) – 2007 was the last year of the 5-year WHIP program which paid for supplemental mowing of the Towle field for habitat improvement for grassland birds. Towle field was inspected by two representatives of the USDA who had oversight responsibility in WHIP. (A prior inspection had also taken place in August 2006.) Supplemental mowing was continued in 2008 at Town expense.

#### 2008

New Trail to Cow Tunnel - An Eagle Scout project by Boy Scout Jeff Pedersen provided improvements and renovation of a rudimentary trail from Towle field to the cow tunnel which passes under Westford Street. The project included installation of a trailhead sign.

Grassland Birds Study – Towle field was one of 28 grassland fields studied by Tufts University graduate student Alexander “Sasha” Keyel (working under Dr. J. Michael Reed). He and an assistant collected data on the presence of grassland birds, and the density, abundance, territory size, and anti-predatory behavior of bobolinks. Preliminary data have been provided to the Town.

Biological Tour by Naturalist – Michele Grzenda, a local naturalist, gave a 2-hour biological tour of the Towle Land under a fee-based community adult education program.

Field Edge Maintenance with the Restorative Justice Program – With a few youths in the Restorative Justice Program (plus their supervisors and an LSC member), a significant amount of edge clearing was undertaken on the northern and northeastern sides of Towle field. In the same area, low hanging branches of trees were also removed if they would create a hazard to the field mower.

Vernal Pool Investigations and Certification – Tom Brownrigg (with assistance from Kay Fairweather and Warren Lyman) investigated a number of potential vernal pools on the Towle Land and submitted documentation for certification to the State’s Natural Heritage and Endangered Species Program (NHESP). Certification was received for 7 pools. NHESP-assigned registration numbers for these pools are 4774 to 4782, inclusive. Details on the locations of the pools and the supporting data are available in Town Office.

New Conservation Signs – Under a program funded with Community Preservation Act funds, new conservation signs were added to the Towle Land at a few locations including the parking lot and the Westford Street entrance to the parking lot.

Town Pathway Connection – The Town built a section of a pathway (walkway) along Westford Street with an eastern terminus at the northwest corner of the Towle Land.

## **2009**

Sugar Maple Tapping – In February 2009, the Conservation Commission issued a Land Use Permit to Town resident John Bakewell allowing him to tap the sugar maple trees in Towle field for maple sap. Tapping started on February 10, 2009. This is a pilot program in which Mr. Bakewell will compensate the Town with in-kind services (e.g., field edge maintenance), and provide a report on the project to ConsCom.

Kiosk – A de-acquisitioned kiosk formerly used at Great Meadows National Wildlife Refuge was refurbished and donated by the Trails Committee and installed for use at the Towle parking lot in late 2009 at no cost to the Town.