Northborough, Massachusetts Open Space and Recreation Plan

August 2010









Approved through October 2017

With Assistance from



2 Washington Square – Union Station Worcester, MA 01604 www.cmrpc.org



Deval Patrick GOVERNOR

Timothy Murray
LIEUTENANT GOVERNOR

Ian Bowles SECRETARY

The Commonwealth of Massachusetts

Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Tel: (617) 626-1000 Fax: (617) 626-1181

March 9, 2011

Trish Settles
Central Massachusetts Regional Planning Commission
2 Washington Square – Union Station
Worcester, MA 01604-4016

Re: Open Space and Recreation Plan

Dear Ms. Settles:

Thank you for submitting Northborough's Open Space and Recreation Plan to this office for review for compliance with the current Open Space and Recreation Plan Requirements. I am pleased to write that the plan is approved. This final approval will allow Northborough to participate in DCS grant rounds through October 2017.

Congratulations on a great job. Please call me at (617) 626-1171 if you have any questions or concerns about the plan.

Sincerely,

Melissa Cryan Grants Manager

cc:

Board of Selectmen Recreation Department Conservation Commission

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SECTION 1 - PLAN SUMMARY

In August of 1985, the Massachusetts Division of Conservation Services (DCS) approved Northborough's first five year "Conservation, Open Space and Recreation Plan." Subsequent plans were prepared in 1990, 1998 and 2005. Major goals set forth in this and previous Open Space and Recreation Plans (OSRPs) included the following:

- Acquire and preserve open space,
- Enhance recreation opportunities,
- Maintain rural character of the town,
- Improve and expand existing recreational opportunities and
- Improve community understanding and commitment to conservation and protection of resources.

This OSRP builds on the previous plans and an understanding of Northborough's current place in the region, its history and sense of self, its demographics, and its growth and development patterns. A thorough review of the geology, landscape, water resources, vegetation, wildlife and fisheries, other unique and scenic resources as well as environmental challenges was necessary to develop a clear picture of the area's strengths, weaknesses, opportunities and threats. Working with the Town's Assessor, Town Planner, and others, an inventory of both public and private lands of conservation and recreation interest was compiled.

Along the way, the community revisited and refined its previously stated vision and developed goals, objectives and action steps necessary to accomplish that vision. In order to achieve the stated goals and objectives, an analysis of resource protection and community recreation needs was prepared. Finally a new seven year action plan with detailed action steps, time frames, and responsible parties is laid out so Northborough can move toward its vision.

2010 Northborough Op	en Space and Recreation	n Plan

SECTION 2 – INTRODUCTION

A - Statement of Purpose

In August of 1985, the Massachusetts Division of Conservation Services (DCS) approved Northborough's first five-year "Conservation, Open Space, and Recreation Plan." The plan was updated and approved in 1990, 1998 and again in 2005. In 2008 the Northborough Open Space Committee engaged the services of the Central Massachusetts Regional Planning Commission (CMRPC) to assist with a thorough update of its Open Space and Recreation Plan (OSRP). Its next update is due in 2010. The committee has held a very thoughtful planning process with significant and substantial community involvement.

An up-to-date Open Space and Recreation Plan is required for communities to be eligible for grant programs that help fund the purchase of open space or improvement of land for recreation purposes, some of which are outlined in Appendix A. But more importantly, the detailed planning process mandated by DCS provides the community with a thorough evaluation of recreation and conservation opportunities, and helps to uncover deficiencies that should be remedied to improve services for all residents. The community set priorities for natural resource conservation, planned for preservation and acquisition of open space properties, and outlined procedures to ensure recreation opportunities for all Northborough residents

Since the 2005 plan was issued many changes have taken place within the town and therefore revisions were necessary to insure that the plan is in keeping with the desires of the residents and with the state requirements.

As a result of the 2009 decision by the Executive Office of Energy and Environmental Affairs (EOEEA), instead of a five year action plan such as that presented in previous plans, a seven year action plan is presented.

B - Planning Process and Public Participation

The 2005 OSRP served as the base for this updated Plan. While some components of the Plan, such as area geology and history, did not change substantially and were not updated much, other components such as open space inventory, needs analysis, goals, and objectives did receive a lot of attention and updates. The process involved gathering information on changes to the town's population and growth patterns and input from the residents and public meetings with the Open Space Committee. The Town's staff provided technical input and details. CMRPC provided guidance and research assistance to staff and committee members, and helped compile the overall document.

The Open Space Committee was charged with the responsibility of producing the OSRP Plan Update. The Committee is composed of citizen members John Campbell (Chairman), Charlie Bradley (Trails Committee and member at large), Dan Clark (member at large), and board representatives Jeff Amberson (Board of Selectmen), Greg Young (Conservation Commission), Leslie Harrison (Planning Board), and David Putnam (Parks and Recreation Commission). The Open Space Committee is responsible for the identification and preparation of proposals for Town Meeting of properties to be acquired for open space and/or recreational use. The Open Space Committee also considers alternative methods for open space preservation, including but not limited to grants, donations, and conservation easements. The Trails Committee is a subcommittee of the Open Space Committee.

Committee members provided important background information, reviewed and commented on each of the Plan components in draft form, and facilitated the implementation of an on-line and paper survey and solicited public comment and input. The committee worked closely with the Town Planner and CMRPC staff to develop goals, objectives and the 7-year action plan. At all times, an informal consensus approach was used with Committee members until an agreement was obtained.

In the winter and spring of 2009, CMRPC, the Town's Open Space Committee, and Planning Department developed a survey to gather resident input regarding open space and recreation in Northborough. The survey was based on the model set up in the Division Conservation Services (DCS) Open Space Planners Workbook. The survey was developed and summarized using the internet application SurveyMonkey ©. The availability of the survey and hyperlinks were placed on the Town website, sent via email to Town boards and commissions and to other interested parties. The survey was also made available in hard copy. The on-line survey was available from June 1 through July 31. No hard copies were submitted. 170 surveys were received. A summary of the survey results is attached as Appendix D.

Though the survey was distributed broadly, there were no efforts to target specific areas or populations because of environmental justice concerns. Northborough is not currently a community with clusters of minority, low income, foreign born, and low English proficiency populations.

In addition, the community was invited to review drafts of the plan which was published on the town's website. The Trails Committee, the Conservation Commission, the Recreation Commission, the Planning Board, the Board of Selectmen, and Central Massachusetts Regional Planning Commission each reviewed and provided letters of support (attached in Section 10). In August of 2010, a Community Forum was hosted by the Open Space Committee to solicit final feedback and comment on the plan.

Overall the process of developing this plan was comprehensive and inclusive in scope and is consistent with methods recommended by DCS. The process distilled a lot of useful information and fostered an insightful analysis that yielded a forward thinking and useful plan.

SECTION 3 - COMMUNITY SETTING

A - Regional Context

Northborough is a rural suburban community located in central Massachusetts. The Town is bordered by Berlin on the north, Westborough on the south, Marlborough on the east, Southborough on the southeast, and Boylston and Shrewsbury on the west. Marlborough and Shrewsbury provide a more urbanized atmosphere while Berlin and Boylston to the north reflect the rural character of this portion of town. Northborough is 10 miles northeast of Worcester, 30 miles west of Boston, and 190 miles from New York City. A map showing Northborough's Regional Context is attached. According to the United States Census Bureau, the town has a total area of 18.76 square miles, of which, 18.53 square miles of it is land and 0.23 square miles of it is water.

Zoning regulations compatible with the surrounding communities provide similar uses along the common borders. For example a portion of the eastern end of town is zoned industrial with the same zoning located across the border in Marlborough. Westborough has a business zone along our southern border compatible with Northborough's zoning. Berlin and Boylston's zoning adjacent to Northborough is also residential and is mixed with conservation land along the northern border. In Shrewsbury sections of residential land abut Northborough residential land.

Northborough is located in the Worcester area. Principal highways are

- US Route 20;
- US Interstate 290, which connects Interstate 495 with Worcester;
- State Route 9, the Worcester Turnpike;
- State Route 135:
- US Interstate 495, which borders to the east;
- US Interstate 90, the Massachusetts Turnpike; and
- US Interstate 190, which links to the Fitchburg-Leominster area.

US Interstate 90 and 495 form a major interchange in the neighboring town of Westborough:

The region is well connected by rail and highway to the ports, airports, and intermodal facilities of Boston and Providence. CSX provides freight service to Northborough. Northborough is a member of the Worcester Regional Transit Authority (WRTA) but does not receive services. Cavalier Coach Corporation provides commuter service to Boston via Route 20/Boston Post Road. Commuters can also board Massachusetts Bay Transit Authority (MBTA) trains on the Framingham-Worcester Line at Westborough and Southborough. Amtrak trains on the Lakeshore Route connecting Boston to New York and Chicago can board at the Framingham and Worcester Stations. Though most air travelers utilize Boston's Logan Airport, TF Green Airport in Providence and Manchester New Hampshire's Airport, some use the Worcester Municipal Airport, located on Route 122. Several smaller airfields are also located within a 20 mile radius.

Several of Northborough's open spaces cross the Town border into adjacent towns. Mt. Pisgah is shared with the Town of Berlin. Some of the New England Forestry Foundation properties lie in both Northborough and Shrewsbury. Large amounts of land part of the Westborough State Hospital are located in the Towns of Northborough and Westborough.

While Northborough was once primarily a farming community, it has transitioned to a more white collar community, with its residents holding jobs in retail, service and high tech sectors. Northborough falls squarely in the area sometimes referred to as the Arc of Innovation, or the Metrowest 495 Corridor. Despite the shift, several farms (Tougas, Berberian, Davidian for fruits and vegetables, plus a few Christmas tree farms, etc.) still operate in the community.

Northborough has many schools, public and private. It is home to four public elementary schools serving grades preK-5: Lincoln Street School, Margaret E. Peaslee School, Fannie E. Proctor School, and Marion E. Zeh School. Private schools include The Cornerstone Academy, Alhuda Academy and St. Bernadette's. The middle school for students in grades 6 to 8 is the Robert E. Melican Middle School. All of the public schools in Northborough are part of the Northborough-Southborough Regional School District. The public high school serving Northborough is Algonquin Regional High School, shared with Southborough. Debates have erupted over whether Northborough and Southborough should have separate high schools; however, citizens of both Northborough and Southborough successfully fought to keep the school regionalized. Assabet Valley Regional Technical Vocational High School is a choice school for Northborough students, though the majority of students attend Algonquin. Other Northborough students attend private high schools in Southborough, Shrewsbury or Worcester. (Massachusetts Department of Housing and Community Development)

B - History of Community

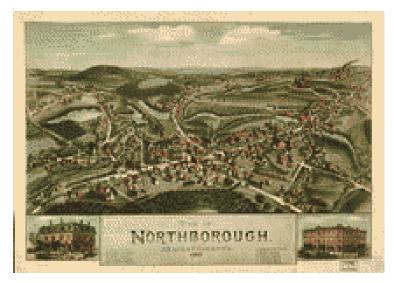
The Town of Northborough was settled in 1660 by farmers and herdsmen from Sudbury and Marlborough. The inhabited area stretched from Ball Hill in the north to the Garrison House on what is today the Marlborough/Northborough border. The earliest settlers were subsistence farmers who also raised feed for Marlborough cattle. The Assabet River provided an adequate source of water for running small gristmills and the hillsides served as an excellent location for orchards. The Town of Northborough, originally part of the Town of Marlborough --then Westborough, was incorporated in 1766 and became a full-fledged town in 1775.

The early churches of Massachusetts, called "meeting houses," were the center of all town activity. Built on land given by Capt. James Eager, Northborough's first Meeting House stood about where the First Congregational Unitarian Church is today, on Church Street. In the days of unheated meeting houses, town meetings were often adjourned to the warmth of the famous Post Road state stop, Monroe's Tavern. This tavern was located at the corner of Blake and Pierce streets. The meeting locale of the select board as well as the "official" offices of the town have moved from the first church to the second church vestry to the Old Town House to the "old" Town Hall (which merited a listing from the National Park Service Department as an Historical Architectural Monument, having the longest roof span of any known French Mansard roof style building) to the "new" Town Hall, which is the old Northborough High School- built in the early 1930s. Along the old Boston Post Road, commemorative plaques outline historical events including the place where Mary Goodnow, a young Northborough settler, was scalped by Indians in 1707.

Between 1766 and 1830, Northborough grew from a farm community to an emerging business community. Market gardens and dairies flourished. Along the Assabet River, mill ponds were created to

provide water power for wool and cotton mills, bone and button factories, sawmills, gristmills, a camera manufacturing firm, an early rifle manufacturing company and a fertilizer mill. Scattered along the tributaries of the Assabet River, numerous mills serve as markers of another kind, commemorating the places where textile manufacturing and other early industry boomed, and then, ebbed and died.

By 1885 Northborough, was the terminus of the Agricultural Branch Railroad, and boasted 132 farms, 2 woolen mills, 5 home goods manufacturers, a piano key factory, a



rubber factory, many boot and shoe factories and a box factory. Between 1790 and 1900, the population increased from 619 to 2,164.

In 1950 Northborough could be described as a quiet town of market farms, small businesses, professionals and retirees. There were two schools, one elementary and one high school. Industry was almost non-existent. Businesses consisted of a fabric mill, a woodworker's shop, a cereal company, one commercial dairy, a carnation grower, three egg farms, a candle factory, one bank, small grocery stores and a pharmacy.

Today Northborough is an attractive residential town. Many of the rural aspects of the town are still preserved by the open green spaces of conservation land and other large tracts of undeveloped land. Stonewalls, orchards and truck farms still attest to the rich agricultural heritage of the town. Today, in addition to providing the setting for several working farms, Northborough is also host to a burgeoning research and development-oriented industrial park; however, the town serves primarily as a residential area, rural home to Boston and Worcester commuters. With careful planning, Northborough will be able to balance the best of the past with the needs of the future.

C - Population Characteristics

Total Population

Since the last complete census was conducted in 2000, there has been only limited new census or other demographic data released since the 2005 OSRP with which to update this plan. As such this plan relies heavily on 2000 census data and may not reflect current conditions as accurately. Northborough's population has been growing steadily over the last five decades. The largest numeric and percentage increase occurred between 1950 and 1960.

Table 3.1 - Historical Population In Northborough

Year	Population	Change	% Change
1950	3,122		
1960	6,687	3,565	114.20%
1970	9,218	2,531	37.80%
1980	10,568	1,350	14.60%
1990	11,929	1,361	12.90%
2000	14,013	2,084	17.5%

(US Census Bureau)

Population projections obtained from CMRPC indicated that the population of the town would reach 14,400 individuals by 2005, and 14,900 by 2010, for a 6.3% population growth for the decade. According to Annual Town Reports, however, in 2006 the population was 14,727, in 2007 the population was 14,685, and in 2008 the population was 14,550. It appears the growth will only be roughly half to two thirds of that which was originally projected. A slight decrease in population in these three years may be indicative of a slowing of suburbanization and sprawl and demonstrate the limits of growth. With new residents, there will be added strain on the town's park facilities to handle the additional demand for recreation fields and activities.

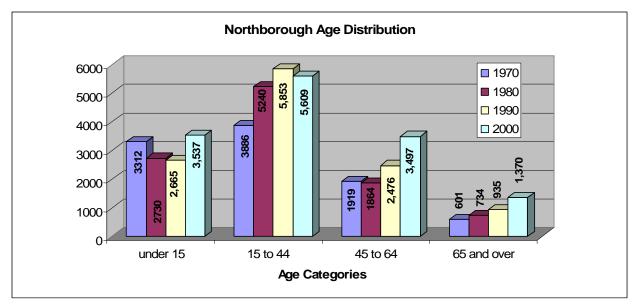
Population Age

Additional data from the 2000 U.S. Census illustrates the composition of the Town, by age, for the same time period.

Table 3.2 - Age Composition Of The Population

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Year	Under 15	15 - 44	45 – 64	65 & over	Total	
1970	3,312	3,886	1,919	601	9,718	
% change	34.10%	40.00%	19.70%	6.20%	100%	
1980	2,730	5,240	1,864	734	10,568	
% change	25.80%	49.60%	17.60%	7%	100%	
1990	2,665	5,853	2,476	935	11,929	
% change	22%	49%	21%	8%	100%	
2000	3,537	5,609	3,497	1,370	14,013	
% change	25.24%	40.03%	24.95%	9.78%	100%	

Figure 3.1 – Northborough Age Distribution



(US Census, 2000)

The information in this table and chart reflects the changes in the town ages. While the age group from 15 to 44 remains the largest population of the town a steady increase in the age 45 to 64 and 65 and over categories is evident. The median age rose from 34.3 in 1990 to 37.4 in 2000. Since recreational needs vary according to age, this information provides a tool for assessing current open space and recreational facilities as well as planning future open space and recreational facilities.

Population Density

The Town of Northborough contains 18.72 square miles. The 1970 population of 9,218 people resulted in a density of 492.4 persons per square mile. By 2000, the Town's population had grown to 14,013 people increasing the town-wide density to 748.55 persons per square mile, or 52% over thirty years

Special Groups

The U.S. Census also provides information by race, which can be used to identify groups, which may, by tradition, have different recreation needs. Table 3.4 shows that the majority of the Town's population is white, however an overall increase in the non-white population has occurred since the 1998 Open Space and Recreation Plan was prepared. The 2000 census indicated that the non-white population of the town was approximately 7%. While this percentage is low, consideration of this population should be made in the planning process. According to the MassGIS Environmental Justice Population Map of the Central Region, there are no significant Environmental Justice populations located within Northborough.

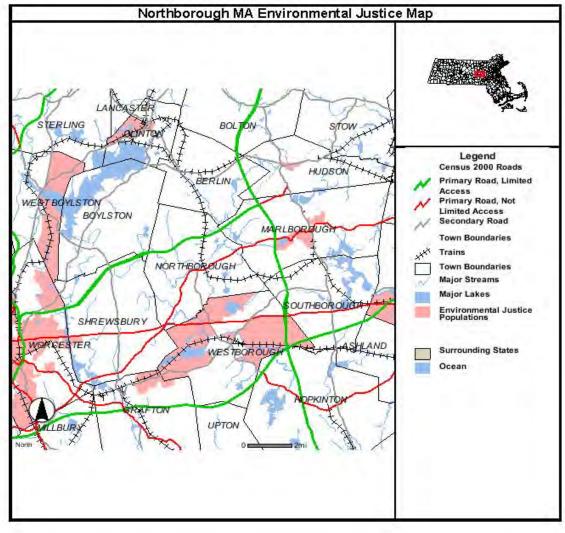


Figure 3.2 - Northborough Environmental Justice Map

(MassGIS)

Table 3.3 - Persons by Race

Year	Population	White	Black	Indian, Eskimo or Aleut	Asian or Pacific Island	Other
1970	9,218	9,179	7			32
1980	10,568	10,353	41	14	127	33
1990	11,929	11,319	89	20	467	34
2000	14,013	13,033	91	11	718	160

(US Census, 2000)

Persons with disabilities though not documented in the census data must also be considered in the acquisition, development or improvement of open space and recreational areas. Included in this category are those with physical disabilities that require the use of a wheelchair, walker or cane, and individuals with visual or hearing impairments, or mental disabilities.

Personal Income and Employment

Data available from the 2000 U.S. census indicated that the median household income in Northborough was \$79,781. Adjusting the 1990 figure to a comparable base, Northborough's median family income increased by 12.1% during the decade. Income of Northborough residents increased at a faster rate than the Worcester PMSA (6.5%) and Massachusetts as a whole (7.0%). In 2000, 1.7% of Northborough families were below the poverty level.

In 2000, of the 4,906 occupied household units, 66.2% were owner occupied, and 33.8% were renter occupied. Greater than 85% of the homes are single family units.

The mean travel time to work for workers 16 and over was 25.6 minutes. In Northborough in 2000, salaried workers accounted for 83.8%, government workers accounted for 8.9%, and self-employed and unpaid family workers accounted for 7.2%. The unemployment rate for Northborough in 2000 was 1.9%. However this rate increased in 2004 to 4.2% more accurately reflecting the State's economic conditions. Northborough generally has a lower unemployment rate than the region; in 2004, the rate for the Worcester PMSA was 5.3% and for the entire state, 5.1%. Given the dramatic shift in the national, regional, and state economy beginning in 2008, reliance on the 2000 census data in 2009 to project open space and recreation needs may be less than ideal. Given the areas intense connections to the financial and high tech sectors, one can realistically assume that unemployment has risen to or exceeded that of the state and region. The unemployment rate for Worcester County in the first quarter of 2009 was 8.9%, a staggering 7% higher than the year 2000. In May of 2010 the unemployment rate in Northborough 7.2%, almost 2 percentage points below the State average at the same time period.

According to the 2007 Economic Census published by the US Census Bureau, Northborough supported 52 Retail trade businesses, 23 Real Estate, rental and leasing businesses, and 72 accommodation and food services businesses. The following companies employ more than 100 persons

- Saint-Gobain Ceramics & Plastics
- Algonquin Regional High School
- Aspen Aerogels Inc
- Bigelow Nurseries Inc
- Boston Group
- Home Instead Senior Care
- Hope Air Systems
- Hope Group

- Newbridge Educational Publishing
- Re/Max First Choice Inc
- Spencer Technologies
- Walmart

St. Gobain employees more than 250 individual and 20 businesses employ between 20 and 50 persons. (Executive Office of Labor and Workforce Development (EOLWD), 2010)

D - Growth and Development Patterns

Patterns and Trends

The town has evolved from a farming community through a period of business development to a primarily residential community while struggling to retain a rural feeling. Areas for additional residential, industrial and business development exist in town; however, to retain the rural feeling, additional development must be carefully planned.

According to the CMRPC 2020 Growth Strategy update, between 1985 and 1999, the Northeast Subregion (Northborough, Berlin, Boylston, Shrewsbury, and Westborough) of the Central Massachusetts Planning region saw the second largest gain in commercial land with only the Southwest Subregion adding slightly more. The Route 9 corridor and the mall in Berlin help to account for much of this growth. This Subregion also saw the largest increase in industrial development since 1985. The Route 9 corridor through Shrewsbury and Westborough has become one of the region's largest concentrations of office buildings, high technology, corporate headquarters and light manufacturing operations. This region gained more than 4,000 acres of new residential development. But as build out is approached, many suspect this type of development will shift to other locations.

Residential areas are scattered throughout the Town, with the predominant areas in the center, north and south. Subdivisions completed, under construction, approved, or in review since the preparation of the 2005 Open Space and Recreation Plan are listed in Table 3.4. This table also includes lots created through the subdivision "Approval Not Required" (ANR) process, where lots that meet the minimum frontage requirement for the zoning district where located can be created through a simple endorsement by the Planning Board that a formal subdivision review is not required.

Residential and industrial development has also encroached on areas that were forests, agricultural and open areas. No public land, recreation land or wetlands were consumed by this growth.

Table 3.4 – Real Estate Development Activity

		Status	Units/Lots	Acreage
From 1998 to 2003				
Galahad Estates Off Camelot Drive		Completed		
Copley Woods Off Route 20		Completed		
Maynard Woods Off Maynard Street		Completed		
Stirrup Brook Off Bartlett Street		Completed		
Sunnyside Estates Off South Street	40B	Completed		
Laurence Place Off Whitney Street		Under Construction		
New Residential Subdivisions and 40Bs si	nce 2003	3		
Brigham Woods		Completed	19	13.04
Assabet Farm		Completed	5	2.91
Cyrus Brook Estates		Approved	7	6.65

		Status	Units/Lots	Acreage
Winn Terrace		Completed	5	5.3
Dunia Garden	40B	Under Construction	28 townhouses	4
Church Street Village (40B)	40B	Under Construction	40 townhouses	13.26
Avalon Bay (40B)	40B	Under Construction	382 units	45
Approval Not Required				
South Street		Under Construction	5	
Green Street		Completed	5	
Commercial Development (retail)		Under Construction	630,000 sf	125
			retail	

Laurence Place is Age restricted but received special permit modification in 2009 to lift age restriction. The developer went under before any units were sold. He built 5 townhouses out of 30 but none sold yet. Bank has taken over project and will be selling it. We are hopeful construction will continue in the Spring of 2010.

<u>Infrastructure – Transportation</u>

Approximately 79 miles of public roads are maintained by the town interconnecting the residents. In addition the town is served by Interstate Route 290 (I-290), which runs through the northern section in an east-west direction. This highway links the Massachusetts Turnpike (I-90), with Interstate Route 495 (I-495), and provides easy access to Worcester. There are two interchanges in Northborough, one at Church Street in the west and one at Solomon Pond Road in the east. The area surrounding the Church Street interchange is primarily residential while the area around the Solomon Pond Road exit is zoned industrial. A street map is included on Map 3 – Infrastructure.

Route 9 crosses a small portion of the southern section of Town. This roadway provides access to shopping opportunities in Shrewsbury, Westborough and other major towns to the east. Route 20 provides an additional east-west transportation route through the Town Center. This area is developed with a variety of uses, both business and residential, and provides a secondary route accessing cities to the east. Route 135 (South Street) is the only other numbered route within the Town boundaries and connects the Town center with Westborough's Town Center. West Main Street is another major connector between Route 20 and Shrewsbury Center. This roadway is bordered by numerous commercial centers.

Northborough is served by a single railroad track owned by CSX and utilized for freight operations only. This railroad line runs through Northborough Center from Framingham and Westborough north to Clinton.

Northborough is a member of the Worcester Regional Transit Authority (WRTA) but there are no fixed bus routes in Town. The Assabet Valley Council on Aging (AVCOA) provides para-transit service to the elderly and handicapped on both a regular and on-call basis. Cavalier Coach Corporation provides commuter service to Boston via Route 20/Boston Post Road. The Worcester Municipal Airport is located on Route 122. Several smaller airfields are also located within a 20 mile radius.

Infrastructure - Water Supply Systems

Approximately 80% of Northborough is serviced by a Town water distribution system, the exceptions are located in the north and west sections of Town (Ball Hill, Bartlett Hill and Tomblin Hill areas), which rely on private wells. This water distribution system has a safe yield of approximately 0.76 million gallons per day from pumping stations at Lyman Street, Brigham Street and Crawford Street. The water department also operates two storage tanks, which provide 4.5 million gallons per day of reserve water. This system is further supplemented by a connection to the Massachusetts Water Resources Authority (MWRA) which derives its water primarily from the Quabbin and Wachusett Reservoirs. The total water pumped from the

MWRA in 2006, 2007, and 2008, was 319.1, 331.8 and 304.8 million gallons, respectively. Average daily water use for 2006, 2007, and 2008 was 0.87, 0.91 and 0.83 million gallons per day (mgd), respectively. Construction was finished on the Lyman Street well which has now been put into service. The Brigham Street well and treatment facility should be completed within 18 months. When completed, the Lyman Street well is expected to provide about 25% of Northborough's daily needs and the Brigham Street well is expected to provide about 55% of the Town's daily needs, with the remainder still coming from the MWRA. The area served by public water supply is shown on Map 3- Infrastructure.

Infrastructure - Sewer Service

Approximately 30% to 35% of town area or approximately 45% of the population is served by municipal sewer connections. The Town does not have its own sewage treatment plant. All residential and industrial sewage within the sewered areas of town is pumped to the Marlborough Westerly Treatment Plant located on Boundary Street in Marlborough. This plant has a design capacity of 2.9 million gallons per day. Northborough has a contract allocating 800,000 gallons per day of this capacity to the town. In 2006, 2007, 2008, the Hudson Street sewer pump station pumped 144.0, 141.6 and 183.6 million gallons, respectively of sewerage to the Marlborough Westerly Treatment Plant for treatment.

The Northborough wastewater disposal system began operation in 1980. It now services the residents of Northborough Center, the Northgate Area, the Cedar Hill Road Area, the Juniper Brook Area, and Hudson Street to the Barefoot Road and Forbes Road areas. The Sewer Service area is shown on Map 3 – Infrastructure.

Additional extensions to the sewer system are provided for within a sewer master plan, which was developed at the inception of the sewer design project. This will insure that future flows do not exceed the town's capacity at the Marlborough Westerly Sewage Treatment Plant. The Treatment Plant is seeking and is much closer to getting approval from Environmental Protection Agency regulators for additional sewer capacity. If granted this will allow the Town of Northborough to increase its allocation to 1.25 million gallons per day.

The Assabet River Consortium Comprehensive Wastewater Management Plan, a study of the Town's current sewer needs through a collaboration of six towns whose sewerage treatment plants discharge to the Assabet River, is divided into 4 phases and the town is working on phase 4 right now.

Long - Term Development Patterns

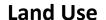
The analysis of the change in land use over time was based upon aerial photo interpretation from flights taken in 1971, 1985, 1999, and 2005 as determined by the University of Massachusetts, Department of Forestry. Data is presented by acreage and percentage for each period. This information is presented here in table and chart as historical data showing the type and amount of land used for various purposes.

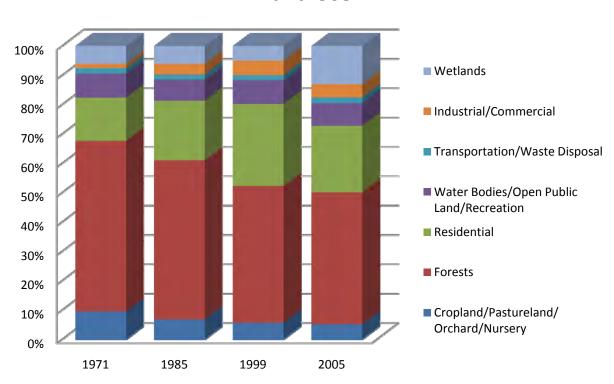
Table 3.5 - Land Use Changes from 1971, 1985, 1999, and 2005 By Acreage and Percentage¹

Land Use	1971	%	1985	%	1999	%	2005	%
Cropland/Pastureland/ Orchard/Nursery	1147.2	10%	830.3	7%	681.8	6%	621.3	5%
Forests	6975.9	58%	6494.6	54%	5580.0	47%	5391.3	45%
Residential	1763.1	15%	2432.3	20%	3361.0	28%	2728.8	23%
Water Bodies/Open Public Land/Recreation	986.3	8%	851.7	7%	965.5	8%	918.6	8%
Transportation/Waste Disposal	206.9	2%	210.8	2%	212.2	2%	237.5	2%
Industrial/Commercial	181.1	2%	440.4	4%	593.9	5%	534.1	4%
Wetlands	736.7	6%	736.7	6%	601.5	5%	1564.1	13%
Total	11997.2	100%	11996.8	100%	11995.9	100%	11995.7	100%

(University of Massachusetts Department of Forestry, 2005)

Figure 3.3 - Land Use Changes





Cropland, pastures, orchards, and nurseries and forestry experienced considerable decline over this 34 year period, with agricultural land decreasing from 10% of the town to 5%, while forestry decreased from 58% to 45%. Land in residential use nearly doubled, increasing from 15% in 1971 to 28.0% in 1999 and strangely dropping to 23% in 2005 (This may be the result of a change in categorization of land use

¹ Between 1999 and 2005, land use categories changed slightly. Some categories were broken out differently than previously. For example, 2005 includes both forested and non-forested wetland areas, that in previous presentations may have shown up in wetland areas and/or in forest areas. This may account for the decrease in forest and the increase in wetland areas.

patterns between 1999 and 2005.) Commercial, industrial, mining, transportation, and waste disposal uses doubled from 3.3% to 6.7%. This is partly due to the Town's excellent location in regard to the regional highway network and local policies designed to increase the tax base with non-residential development.

The Land Use Map displays the 2009 land use classifications as used for tax purposes by the Northborough Assessor's Office. "Open Space" on this map indicates areas that are often fields, or undeveloped land and should not be confused with conservation areas. "Exempt" areas are those areas that are publicly owned or otherwise tax exempt. These areas maybe state, town or non-profit-owned conservation lands or may be buildings.

It is interesting to note that open space continues to be a predominant land use in town. Residential use is also widely dispersed throughout the Town. The Zoning Map and Land Use Map each show the areas of greatest residential and commercial development radiating from the center of town, leaving large areas forested where the zoning requires larger lots.

Long - Term Development Patterns - Zoning

The Northborough Zoning Bylaw was originally adopted in 1955. The Zoning Bylaw was reorganized in 1989, has since undergone many revisions through amendments at Town Meeting and, as a result, had become disorganized and difficult to use by applicants, town staff, and town boards. It was decided, therefore, to review the zoning bylaw and reorganize it in order to make it easier to understand and use. Beginning in 2006, a Zoning Subcommittee was formed consisting of members from the Board of Selectmen, Planning Board, Zoning Board of Appeals, Industrial Development Commission, and Design Review Committee. This Subcommittee met for 18 months and prepared a new zoning bylaw. The zoning bylaw was then given to the Planning Board and Zoning Board of Appeals and a series of joint meetings were held between 2007 and 2009 to review and edit the bylaw. The Zoning Bylaw was presented at the 2009 Annual Town Meeting, beginning April 27th, for acceptance by the Town.

In addition to the reorganization, additional changes to the bylaw were proposed to bring certain areas of our zoning in line with current development needs in Northborough. Based on comments received over time from residents to the Planning Department and Planning Board and from information developed during the completion of the Community Development Plan in 2004, it became apparent that the zoning should allow for more types of housing, especially smaller, less expensive options; and the business zoning should be revised to better guide the development of our town center and to attract other businesses in the most appropriate location in town. The creation of new zoning provisions that allow for a mix of business and residential uses in the business zones and in residential areas that is near the town center help to accomplish these objectives.

Accordingly, the proposed changes included:

- Renaming the Business A district to the Downtown Business District, allowing small business sizes, allowing more options for mixed business/residential uses, and providing better pedestrian access.
- Renaming the Business B District to the Business East and Business West Districts, allowing medium business sizes in the East and larger business sizes in the West, and allowing more options for mixed business/residential uses.
- Creating a Business South District to bring the zoning in line with business uses existing in the Lawrence/Otis Street area of town.
- Eliminating the Industrial B District and replacing it with the Downtown Neighborhood District to better
 reflect the residential nature of the district while allowing limited, small business uses and limited
 multi-family housing.
- Creating a Main Street Residential District in a small area which abuts the Downtown Business District to allow limited, small business uses.
- Creating new zoning provisions for the Southwest Cutoff area to bring the zoning in line with the commercial uses being developed in the southern part of the area and the residential uses existing in the northern part of the area.

The combination of the general reorganization of the bylaw with the changes summarized above provide an updated zoning bylaw that will meet the development needs of the Town of Northborough going forward.

The Town of Northborough now has 12 distinct zoning districts (formerly 9) as shown on the accompanying Zoning Map and listed below.

Table 3.6 Northborough Zoning Districts

	Zoning District	District Name	Minimum Lot Area (square feet)
	RA	Residence A (Single Family)	80,000
	RB	Residence B (Single Family)	40,000
Residential	RC	Residence C (Single Family)	20,000
Residential	GR	General Residence	15,000
	MSR	Main Street Residential	15,000
	DN	Downtown Neighborhood	10,000
	DB	Downtown Business	4,000
	BE	Business East	20,000
Business	BW	Business West	20,000
	BS	Business South	40,000
	HB	Highway Business	40,000
Industrial		Industrial	60,000

(Town of Northborough, Massachusetts, 2009)

There are also the following 4 overlay districts:

- (1) Groundwater Protection Overlay District (GPOD)
- (2) Floodplain Overlay District (FOD)
- (3) Major Commercial Development Overlay District (MCDOD)
- (4) Residential-Open Space Planning Overlay District (ROPOD) (adopted April 2009)

Groundwater Protection Overlay Districts were established to control development in the areas that do or could impact the area groundwater supply. Three types of areas shown on Map 5 and are delineated as follows:

- Area 1: Area of influence of all existing municipal wells within Town, confirmed by long term pump test or by stabilized water levels after maximum duration pumping/primary recharge area. (4 Areas)
- Area 2: Potential water supply area/primary recharge area. (3 areas)
- Area 3: Primary recharge area. (7 areas).

Northborough adopted both a Residential-Open Space Planning Overlay District bylaw (for southwest area of town) and an Open Space-Residential Design bylaw. OSRD Zoning Bylaw was adopted April 2009. The Open Space Residential Design Bylaw is intended to protect open space, agricultural and forestry land, scenic views, wildlife habitat and corridors, wetlands and water resources, and historical and archeological resources; to protect the value of real property; to encourage creative, environmentally sensitive design as the preferred form of development; and to encourage more efficient development that consumes less open land and respects topography and natural features better than a conventional or grid subdivision.

With regard to other zoning and general bylaws relevant to open space and recreation planning, Northborough has a Demolition Delay Bylaw 2-3 and has adopted the Scenic Roads Bylaw provisions, but does not have a low impact development bylaw.

Long -Term Development Patterns - Maximum Build-out

Central Massachusetts Regional Planning Commission (CMRPC) determined the following impacts based on maximum build-out allowed by slope constraints and the pre 2009 zoning districts.

Table 3.7 - Build out impact summary

12,079
4,674 (39%)
2,613 (22%)
1,475 (12%)
586 (5%)
7,405 (61%)
2,331
37
12,311,096
559,440
923,332
1,716
6,415
7,459
3,263

(Central Massachusetts Regional Planning Commission)

Some of the above CMRPC projections are based on 1990 Census data and may change with updated data for 2000 or 2010 US Census data. For instance, according to the 2000 Census, the number of persons per household dropped from 3.2 to 2.8. This would likely reduce the projected water use and solid waste production to less than that reported above.

E. Community Planning

Based on the new zoning districts and the bylaws, the build out analysis, and the rate of development, developers should be encouraged to utilize the open space residential design bylaw and to develop in the Residential-Open Space Planning Overlay District as a means to protect open spaces. In addition, efforts should be made to connect newly preserved open spaces with corridors and trails. The NTC reviews and considers connecting trails on an on-going basis with the Conservation Commission and the Town Planner.

The Community Preservation Act (CPA) is a funding tool to assist communities with the protection and acquisition of open space, preservation of historic resources, and the creation of affordable housing. The CPA was adopted by the Town of Northborough in November 2004 and the first round of funding was made available July 1, 2006. At the Annual Town Meetings held in 2006, 2007, 2008 and 2009, Town Meeting voters approved articles for all three categories.

² Based on the assumption that 65% of the new residential lots will have frontage on new subdivision roads.

³ Based on 75 gallons per day per person.

⁴ Based on 75 gallons per 1,000 square feet of floor space.

⁵ Based on 460 pounds per person per year. All waste estimates are for residential uses only.

⁶ Based on 1,720 pounds per person per year.

⁷ Based on 3.2 persons per household (1990 US Census).

⁸ Based on 1.4 students per household (1990 US Census).

The CPA allows for a real estate tax surcharge of up to 3% to create the Community Preservation Fund. Northborough voters adopted a 1.5% property tax surcharge, with exemptions on the first \$100,000 and exemptions for qualified low-income housing and low and moderate-income senior housing. Northborough also receives state matching funds for the town's Community Preservation Fund. The CPA stipulates that a minimum of 10% of the annual fund must be spent or reserved for the creation, acquisition, and preservation of the three areas of interested stated above. The remaining 70% may be allocated among these three areas and for parks and recreation and up to 5% may be reserved for administrative costs.

The CPA provides for local autonomy in deciding where and how funds will be spent. It is the responsibility of the nine-member Community Preservation Committee (CPC) to consult with town departments and boards and community organizations; evaluate community preservation needs, develop a long range community preservation plan; and make recommendations for CPA fund expenditures at Town Meeting.

By adopting the CPA, Northborough joins a host of other communities equipped with a powerful tool to help meet the challenges of embracing our heritage while meeting the demands of a growing population.

SECTION 4 - ENVIRONMENTAL INVENTORY AND ANALYSIS

A - Geology, Soils, and Topography

The US Department of Agriculture, Soil Conservation Service, has defined eleven general soil types, of these, six can be found in Northborough. The predominant types are well-drained soils on slopes of less than 15%. Others in order of quantity are poorly drained bog soils, moderately well drained soils with less than 15% slopes, some with greater than 15% slopes and poorly drained mineral soils. Table 4.1 lists the general types with their respective acreages. The Surficial Geology shows three predominant soil groups, sand and gravel, till or bedrock and flood plain alluvium. These correspond to the three types of soil, which are predominant in town.

The Soil Conservation Service has mapped 3 dominant soil types in the Town of Northborough.

- The Hinckley-Merrimac-Windsor soils are very deep, nearly level to steep soils that are excessively drained and somewhat excessively drained on outwash plains.
- The Paxton-Woodbridge-Canton soils are very deep, nearly level to steep soils that are drained and moderately well-drained on uplands.
- Chatfield-Hollis soils are moderately deep and shallow, gently sloping to moderately steep soils that are well drained or somewhat excessively drained on uplands.

Table 4.1 details each soil area's limitations for development with acreage and percentages of each found in Northborough. Approximately 40% of the Town (Soil Area 4) is characterized by soils capable of supporting residential, commercial or industrial land uses without extensive modifications. These soils are generally capable of supporting on-site septic systems for disposal of sanitary waste. Where public sewers are available, lands falling within other soil type areas become somewhat more suitable for commercial, industrial and high-density residential use. Approximately 75% of the Town's soils are capable of supporting agriculture, while 100% are suitable for recreational and woodland uses.

Table 4.1 - Soil Limitations For Development

Soil Group	Acre- age	%	High Density Residential	Commer- cial	Indus- trial	Agricul- tural	Recrea- tion	Wood- land
1	810.3	8	Severe	Severe	Severe	Severe	Slight	Slight
2	2,592.1	25.6	Severe	Severe	Severe	Slight	Slight	Slight
3	1,161.9	11.5	Severe	Severe	Severe	Severe	Slight	Slight
4	3,928.9	38.8	Slight	Slight	Slight	Slight	Slight	Slight
7	889.6	8.8	Severe	Severe	Severe	Slight	Slight	Slight
9	735.4	7.3	Severe	Severe	Severe	Severe	Slight	Slight

(Central Massachusetts Regional Planning District, USDA Soil Conservation Service, 1965)

Of note, Mt. Pisgah is composed of bedrock with a layer of glacial till. As you progress to the top of Mt. Pisgah, the soils become shallow and are much closer to bedrock at the highest points of the property. At the South View, glacial striations can be seen in the bedrock; these deep scratches show the direction of the glacier's path as it scoured its way through the area. Mount Pisgah itself is a heterogeneous mixture of several different rock types. The most dominant type is mafic gneiss. Mixed in are marble, garnets, and

white sillimanite crystals, indicating that the rocks surrounding Mount Pisgah were at one time buried nearly 15 km (that's half the thickness of the crust!) and heated up to temperatures in excess of 600 degrees Celsius before returning to their present location at the surface in Northborough and Berlin. (Sudbury Valley Trustees, 2009)

B - Landscape Character

Topography has been one of the principal factors affecting the location of urban development in Northborough. This is reflected in the zoning of the town. More than 80% of the Town's land area has slopes of less than 15%, which are usually suitable for development. Local regulations limit the grade of new roads to less than 10%, decreasing the possibility of developing less desirable areas. Most of the steeper slopes occur in the western portion of Town, limiting development in that area. Map 7 - Topography demonstrates the relief and elevations within the town of Northborough.

The Northborough landscape is characterized by a series of rolling hills interspersed throughout the Town, with generally higher elevations in the western half of the community and gently sloping terrain in the eastern half of Town. Elevations vary from a low of 250 feet above sea level to a high of 715 feet at the top of Mount Pisgah.

Local hills include the following:

- Ball Hill
- Boston Hill
- Chestnut Hill
- Edmund Hill
- Fay Hill
- Ghost Hill
- Mount Pisgah

- Rock Hill
- Cedar Hill
- Sulphur Hill
- Tomblin Hill
- Bartlett Hill
- Mount Assabet

C - Water Resources

Watersheds

Northborough lies entirely in the Sudbury Assabet Concord (SuAsCo) Watershed. Within the watershed, Northborough is part of 4 Tributary Watersheds.

- The Howard/Cold Harbor Brook Tributary Watershed is in the western and northern section of town.
- The Assabet Headwaters Tributary Watershed is in the southwest and center part of town extending to the east.
- The North Brook Tributary Watershed is located in the northern part of town.
- The Sudbury Reservoir Tributary Watershed reaches only the very southeastern tip of town.

The following 8 sub-basins are located in Northborough:

- Howard Brook
- North Brook
- Coolidge Brook
- Assabet River
- Stirrup Brook
- Sudbury River
- Cold Harbor Brook
- Hop Brook



Surface Water

According to the land use data presented in Section 3, about 162 acres (1.3%) of Northborough's total land area is composed of open water bodies, not including the Assabet River and its tributaries. Fresh water ponds include two man-made ponds: Bartlett Pond in the eastern portion of town and Smith Pond in the western part; and two great ponds: Little Chauncy Pond to the southeast and Solomon Pond in the northeastern portion of town. These are shown on the Map 8 - Watersheds, Wetlands and Surface Water.

Surface water including lakes, ponds, brooks, streams and rivers include the following:

- Assabet River
- Bartlett Pond
- Bearfoot Brook
- Chauncy Lake
- Cold Harbor Brook
- Cooledge Brook
- Hop Brook
- Howard Brook

- Little Bummet Brook
- Smith Brook
- Solomon Pond
- Stirrup Brook
- Mill Pond
- Little Crane Swamp
- Crane Swamp
- Little Chauncy Pond

The Assabet River originates in Westborough and soon reaches the southern boundary of Northborough. It then flows in a northerly direction, through the center of Town and flows into Marlborough at the northeast corner of Town. The majority of the Town drains into this basin. Only a small portion of the southeast corner of Town drains into the Sudbury Basin; however, the Sudbury River itself does not flow through Town. Map 8 - Water Resources – Watersheds, Wetlands, and Surface Water illustrates the watershed divides with the sub basins.

Flood Plains and Water Protection Areas

Flood plains associated with Northborough's surface water are shown on Map 9 - Water Resources - Flood Plain, Protection Areas. Also included on this map are the Zone II areas for the water supplies of the Town discussed in Section 3 and Intermediate Water Protection Areas (IWPAs) for the Town. All of these areas are included in the local Groundwater Protection Overlay District, implemented in 1986 as part of the Northborough Zoning Bylaw. This bylaw section was developed to help protect groundwater and the town's water supply. Wellhead protection areas are important for protecting the recharge area around public water supply (PWS) groundwater sources. A Zone II is a wellhead protection area that has been determined by hydro-geologic modeling and approved by the Department of Environmental Protection's (DEP) Drinking Water Program (DWP). In cases where hydro-geologic modeling studies have not been performed and there is no approved Zone II, an Interim Wellhead Protection Area (IWPA) is established based on DEP DWP well pumping rates or default values. Certain land uses may be either prohibited or restricted in both approved (Zone II) and interim (IWPA) wellhead protection areas. The minimum IWPA radius is 400 feet and the maximum radius is 0.5 miles.

In the 1950's, a work plan was proposed by the Soil Conservation Service to control flood damage in the SuAsCo (Sudbury, Assabet, and Concord) watershed pursuant to the Watershed Protection and Flood Prevention Act (P.L. 566). Several floodwater retarding structures were built as part of a comprehensive program throughout the watershed to prevent flood damage. Descriptions of these facilities that affect Northborough are presented in Table 4.2.

The 100 year flood plain is indicated on the Water Resources Map. Generally this flood plain is located within the lower lying elevations bordering the Assabet River, and the shoreline of many surface water bodies.

Table 4.2 - Flood Damage Prevention Structures

	Hop Brook Dam	Cold Harbor Brook Dam	Bearfoot Brook Dam	Tyler Dam
Location	800 feet upstream from Route 20	3,700 feet upstream from Lincoln Street	300 feet downstream from Town line with Marlboro and Berlin	400 feet upstream from Robin Hill Road in Marlboro
Total Land Area	194.65 acres	230.32 acres	60.87 acres	175.91acres in Northborough
Drainage	3,150 acres	3,000 acres	700 acres	13,500 acres
Area	4.9 square miles	4.7 square miles	1.1 square miles	21.1. square miles
Height of Dam	23 feet	22 feet	16 feet	31 feet
Type of Dam	Earth fill	Earth fill	Earth fill	Earth fill
Floodwater Storage (acre-feet)	1,340	1,450	173	2,660
Sediment Storage (acre-feet)	22	10		
Expansion Potential for Wildlife Pool	Yes	Yes	Yes	Yes

(Soil Conservation Service, 1976)

The SCS report noted above provides additional information on potential increased reservoir areas at the following sites:

- A. Hop Brook, where a 234-acre permanent pool extending into Shrewsbury could be created, containing 5,867 acre-feet of storage;
- B. Howard Brook, where a 75 acre permanent pool could be created, containing 1,867 acre-feet; and
- C. Stirrup Brook, where a 52-acre site, providing 547 acre-feet of storage, could be created for temporary storage of floodwater and sediment.

Wetlands

A wetland is an area of land whose soil is saturated with moisture either permanently or seasonally. Such areas may also be covered partially or completely by shallow pools of water. Wetlands include swamps, marshes, and bogs, and tend to occur in areas where, because of underlying geology, the water table intersects with the ground surface or where slowly permeating soils prevent drainage.

Northborough wetlands serve as recharge areas, provide wildlife habitats, and act as natural flood retention areas. The principal wetland areas in Northborough are associated with the SuAsCo flood control project, along Hop Brook, Cold Harbor Brook, Howard Brook, the Assabet River, Stirrup Brook and Barefoot Brook. In addition, Crane Swamp drains into the open-channel Wachusett Aqueduct, which discharges into the Sudbury Reservoir in Southborough.

The Northborough Wetlands Protection Bylaw and Regulations provide more stringent requirements to further protect these resources. This document along with the state regulations provides protection for the smaller wetland areas by regulating construction to reduce the impact on these resource areas. Map 8 shows the location of Northborough Wetland areas.

D - Vegetation

Forested areas in Northborough consist primarily of white pine and hemlock trees with mixed hardwoods in the northwest section. This area also supports commercial agriculture and several orchards. Mixed hardwoods also grow in the southwest section of town. These areas are the only remaining large unfragmented forested areas in town. While some of these areas are owned by the Town and are therefore protected, others are privately owned and are vulnerable to development. All of these areas provide scenic, recreational and conservation value to the town. The small wooded areas scattered throughout the town provide visual screens and add to the town's rural character. Many of these parcels form limited corridors for wildlife movement. Other areas of the town contain open fields that contribute to the perception that Northborough is a rural town. Over 300 acres of wetlands contribute to the ecological makeup of the town. These are mostly large areas consisting of open wetlands areas, forested wetlands, with ponds and streams collecting natural runoff. The diversity of these areas contributes to the valued character of the town.

The Massachusetts Natural Heritage and Endangered Species Program (NHESP) maintains a list of all Massachusetts Endangered Species Act (MESA)-listed species observed and documented in each town. The following table lists those rare species found in the Town of Northborough. These data were extracted from the database of the NHESP in September 2009.

Table 4.3 – State Listed Rare and Endangered Plants

Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
Vascular Plant	Arabidopsis lyrata	Lyre-leaved Rock-cress	E		1951
Vascular Plant	Platanthera flava var. herbiola	Pale Green Orchis	Т		1946

E = Endangered; T = Threatened; SC = Special Concern

Most Recent Observation: This field represents the most recent observation of that species in a town. However, because they are rare, many MESA-listed species are difficult to detect even when they are present. Natural Heritage does not have the resources to be able to conduct methodical species surveys in each town on a regular basis. Therefore, the fact that the 'Most Recent Observation' recorded for a species may be several years old should not be interpreted as meaning that the species no longer occurs in a town. However, Natural Heritage regards records older than twenty-five years historic.

Public shade trees are located in Town right of ways, Town-owned parks, and in Town cemeteries. The Department of Public Works typically monitors and maintains these trees. Each year, some of these trees become damaged to a point where they may represent a hazard. At that point, working with the Town's Tree Warden and following due process, the DPW may remove the "hazard tree". The Town of Northborough seeks to replace each tree as soon as possible in a location nearby. In 2008, the Town Department of Public Works tree removal list consisted of approximately 40 trees. These are typically located in road side areas or cemeteries and have been damaged in a road accidents or storm events.

E - Fisheries and Wildlife

The amount and types of wildlife habitat in Northborough has been dynamic since early colonial times. Once covered by primeval forest, a majority of the land in central Massachusetts was cleared for agriculture. This trend persisted for decades, until about 1840 when 75 percent of the arable land was in pasture or farm crops. The next 100 years was another period of dramatic change as most of the

farmland was abandoned and new forest invaded. Dramatic changes in the wildlife community accompanied these broad landscape changes. Some species thrived and expanded their range, while other were temporarily extirpated or became extinct. When agriculture dominated the landscape, species such as black bears, wild turkeys, and white-tailed deer were gone from most of their former range. Bluebirds were abundant during the agricultural period, but are now very rare breeders. Other open habitat species (bobolinks, vesper sparrows, and golden-winged warblers) are declining as well as available habitat shrinks. Today, most of the protected and undeveloped land in Northborough is forested. While wildlife populations continue to be impacted by a variety of activities and development, probably the most significant impacts to the wildlife community have been these large regional changes in land use. In addition, recent human population expansion into central Massachusetts has meant the loss of more and more open space, which is converted to residential housing.

The wildlife community in any particular area is primarily driven by the type and extent of available habitat. Specific wildlife species each have unique habitat requirements. The town of Northborough is a mosaic of habitat types and conditions. Town owned conservation land is primarily forested, while privately owned lands are comprised of small farms, woodlots, and residential areas. This patchwork of habitats is both a benefit and detriment to wildlife species. A greater diversity of species may exist because of the diversity of habitats. However, the fragmented nature of the town makes it more difficult for animal species to travel and interact, and in some cases, the different habitat areas may be too small to support individual animals or populations.

Overall, Northborough supports a variety and abundance of wildlife species, including, great blue herons, swans, hawks, backyard songbirds and numerous waterfowl. Mammals such as squirrels, rabbits, raccoons, skunks, woodchucks, deer, foxes, coyotes, beavers, mink, muskrats, porcupines, weasels, fishers, otters and black bear are all present within the town's borders. Several large tracts of early successional habitat also exist. These large open, grassy areas may provide critical habitat for a variety of species dependent on open lands, including various insects, eastern meadowlarks, bobolinks, and a variety of sparrows. Open water resources provide excellent fishing, and many streams are regularly stocked with trout. Several ponds in Northborough also provide good locations for ice fishing during the winter.



Photo by Bill Byrne

Massachusetts Natural Heritage Endangered Species Program (NHESP) maintains a list of all Massachusetts Endangered Species Act (MESA)-listed species observed documented in each town. The following table lists those rare species found in the Town of Northborough. These data were extracted from the database of the NHESP in September 2009. Information on these species provided by the Massachusetts Natural Heritage and Endangered Species Program (NHESP) is contained in Appendix C.

Table 4.4 - Northborough Rare Species as reported by the Natural Heritage and Endangered Species Program: MESA (Massachusetts Endangered Species Act)

Taxonomic Group	Scientific Name	Common Name	MESA Status	Most Recent Observation
Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC	2006
Beetle	Cicindela duodecimguttata	Twelve-spotted Tiger Beetle	SC	1944
Beetle	Cicindela purpurea	Purple Tiger Beetle	SC	1944
Bird	Botaurus lentiginosus	American Bittern	E	1981
Bird	Vermivora chrysoptera	Golden-winged Warbler	E	1986
Reptile	Glyptemys insculpta	Wood Turtle	SC	1993

E = Endangered; T = Threatened; SC = Special Concern

Most Recent Observation: This field represents the most recent observation of that species in a town. However, because they are rare, many MESA-listed species are difficult to detect even when they are present. Natural Heritage does not have the resources to be able to conduct methodical species surveys in each town on a regular basis. Therefore, the fact that the 'Most Recent Observation' recorded for a species may be several years old should not be interpreted as meaning that the species no longer occurs in a town. However, Natural Heritage regards records older than twenty-five years historic.

Numerous vernal pools⁹ located throughout the town provide specific habitat for several species including the above listed salamanders, wood frogs, fairy shrimp and a variety of insects. NHESP "certifies" the occurrence of vernal pools based on documentation of the pool's use by one or more groups of species that rely on vernal pools. The Town of Northborough had 11 "certified" vernal pools listed by NHESP as of January 2009. There may be more vernal pools that exist in the Town of Northborough that have not been "certified." MassGIS maintains a data layer of "potential" vernal pools based on aerial photography. They indicate that there are approximately 62 potential pools. (MassWildlife)

In addition to the Town-owned conservation areas, a wildlife management area of approximately 107 acres adjacent to the Mt. Pisgah is owned by the Massachusetts Division of Fisheries and Wildlife and provides an important link in a wildlife corridor that continues into Berlin and beyond.

F - Unique Environments and Scenic Resources

Unique Habitats

The Sudbury Assabet Concord River (SuAsCo) flood project occupies large areas throughout the Town and provides habitat for numerous wildlife species.

With funding made available by the Executive Office of Energy and Environmental Affairs (EOEEA), the Natural Heritage and Endangered Species Program (NHESP) developed the BioMap to identify the areas most in need of protection in order to protect the native biodiversity of the Commonwealth. BioMaps focused primarily on state-listed rare species and exemplary natural communities but also includes the full breadth of the State's biological diversity. The goal of the BioMap is to promote strategic land

⁹ Vernal pools are temporary pools of water. They are devoid of fish, and thus allow the safe development of natal amphibian and insect species. Most pools are dry for at least part of the year and fill with the winter rains or snow melt. Some pools may remain at least partially filled with water over the course of a year or more, but all vernal pools dry up periodically. This ensures the absence of fish, a chief characteristic of all pools.

protection by producing a map showing areas, which if protected, would provide suitable habitat over the long term for the maximum number of Massachusetts' terrestrial, and wetland plant and animal species and natural communities.

As of 2004, the Town of Northborough supported 3 Core Habitats as identified by NHESP. The following table demonstrates the Core Habitat and its constituents. The Core Habitats are described below.

Table 4.5 – BioMap: Species and Natural Communities Northborough 2004

Bio Habitat	Туре	Common Name	Scientific Name	Status
BM738	Vertebrates	Marbled Salamander	Ambystoma opacum	Threatened
		Spotted Turtle ¹⁰	Clemmys guttata	Special Concern
BM778	Vertebrates	American Bittern	Botaurus lentiginosus	Endangered
BM804	Vertebrates	Blue-spotted Salamander	Ambystoma laterale	Special Concern
		Four-toed Salamander ¹¹	Hemidactylium	Special Concern
			scutatum	

(Massachusetts Natural Heritage & Endangered Species Program, 2004)

Core Habitat BM738

Vertebrates: This Core Habitat provides significant habitat for Spotted Turtles in East Woods, in riparian wetlands and forested uplands adjacent to Wrack Meadow, and in several unnamed brooks. Multiple seasonal pools near wooded, south-facing slopes may also provide significant habitat for Marbled Salamanders.

Core Habitat BM778

Vertebrates: This Core Habitat encompasses freshwater wetlands along Cold Harbor Brook in Northborough that provide breeding habitat for the American Bittern, a wetland bird species.

Core Habitat BM804

Vertebrates: Several documented observations of Blue-spotted Salamanders indicate the presence of several populations of this species within this Core Habitat. The area encompasses more than a square mile of protected state land within the Westborough Wildlife Management Area, including the western shore of Chauncy Lake and uplands and wetlands surrounding Little Chauncy Pond. There are a mix of upland forest, field, and shrubland habitats interspersed with small wooded swamps, small ponds, and 11 Potential Vernal Pools.

Areas of Critical Environmental Concern (ACECs) are places in Massachusetts that receive special recognition because of the quality, uniqueness and significance of their natural and cultural resources. These areas are identified and nominated at the community level and are reviewed and designated by the state's Secretary of Executive Office of Energy and Environmental Affairs. ACEC designation creates a framework for local and regional stewardship of critical resources and ecosystems. As of June 2009, the Massachusetts Department of Conservation and Recreation (DCR) had no ACECs identified within the boundaries of Northborough.

The Massachusetts Landscape Inventory, prepared by the former Department of Environmental Management (DEM) in 1982, contains a detailed account of the most scenic landscapes throughout the Commonwealth to aid local and regional planners in preservation efforts. The Inventory identified that western Northborough contains a scenic landscape known as the Shrewsbury Ridge. As indicated on the attached map, the whole western boundary of the Town follows the Ridge and is designated as "N" for Noteworthy. While part of this ridge has been developed, the majority of it remains as open space. In addition, there are two areas identified as "D" for Distinctive, the highest rating possible. These occur on Ball Hill, the site of extensive orchards, and along Howard Brook, with open fields.

¹⁰ Since delisted from Massachusetts Endangered Species Act (MESA)

¹¹ Since delisted from Massachusetts Endangered Species Act (MESA)

In addition Mt. Pisgah Conservation Area, described in Section 4.A and 4.B, is part of the Shrewsbury Ridge and draws many visitors to enjoys its incredible views of surrounding region.

Map 10 – Unique Environments shows the location of the NHESP Priority Habitats of Rare Species, and certified and potential vernal pools.

Historic, Cultural, and Scenic Resources

In 2009, the Massachusetts Cultural Resource Information System (MACRIS) database listed 155 sites for the town of Northborough.

Table 4.6 - MACRIS Search Results

Resource type	
Houses	58
Unidentified Properties On Church, Hudson, Pleasant, Talbot, Chapin Sts.	
And Reservoir Rd.	29
Westborough Hospital And State Schools	21
Business-Related	15
Structures	10
Municipal	8
Religious	8
Farm Related	2
Commemorative Plagues	2
Cemetery	1
Historic Districts	1
Total	155

The following table lists several historic, cultural, scenic or unique sites. These sites and town recreation areas (described further in Sections 5 and 7) are shown on the Map 11 - Historic, Cultural and Scenic Resources.

Table 4.7 - Historic, Cultural and Scenic Resources

Resource	Location	Significance	Туре
Northborough Free Library	34 Main Street		Cultural
Brigham Street Cemetery	380 Brigham Street	First Burial Grounds in Northborough, located between 360 and 380 Brigham Street.	Historic
Cold Harbor Brook Dam	Off of West Main Street	Flood Plain Control	Historic
Carney Park	Off of West Main Street	Trailhead to area trails	Recreation/Scenic
Mary Goodnow Gravesite Commemorative Plaque	490 Main Street	Gravesite of Mary Goodnow (sic), a young Northborough settler, who was scalped by Indians in 1707. Marked by a state historic marker. There is a permanent right of access across private property.	Historic
General Henry Knox Trail Commemorative Plaque	In front of Town Offices	Commemorates General Henry Knox's travels through Northborough,	Historic

First Congregational Unitarian Church	Church Street	Northborough's First Meeting House	Historic
Garrison House of Samuel Goodenow Commemorative Plaque	416 Main Street	The location of the garrison house belonging to Samuel Goodenow (<i>sic</i>) and states his daughter was attacked by Indians on August 18, 1707. Plaque erected by Northborough Historical Commission.	Historic
Hop Brook Dam	Off Southwest Cutoff		Historic
Howard Street Cemetery	Howard Street		Historic
Local Historic District 4/23/1973	Church, Whitney, Pleasant, Howard Streets.		Historic
Milestone, 1767	143 East Main Street	"33 miles to Boston"	Historic
Dr. Gregory Pincus Homestead	30 Main Street	Home of the doctor who developed "The (Birth Control) Pill"	Historic
New Town Hall	63 Main Street	Old Northborough High Schoolbuilt in the early 1930s.	Historic
Old Town Hall	4 West Main Street	Former Administrative offices	Historic
Paul Revere Bell	Near Unitarian Church front door on Church Street	Bell cast in Revere Foundry. 1154 pounds cast in 1809	Historic
Wachusett Aqueduct Linear District		Water Supply System for Metro Boston from Wachusett to Sudbury Reservoir. Built in 1896, crosses the Assabet River and Hudson Street just south of Allen Street. It consists of several stone arches across the river. This structure is listed on the National Register of Historic Structures and provides a picturesque entrance to the town from the north.	Historic
Boat Ramp Bartlett Pond	Off of Lyman Street		Scenic
Edmund Hill Woods	Bearfoot Road		Scenic
Mt Pisgah Conservation Area (Fish and Wildlife Area)	Smith Road		Scenic

Westborough Wildlife Management Area	Lyman Street north of Chauncy Lake and junction of South Street and Route 9 Westborough	Former State Hospital and State School	Scenic/Historic
Tougas Farm (Private)	Multiple areas including Ball Street	Working farm	Scenic
Davidian Farm (Private)	Multiple areas including Church Street	Working farm	Scenic
Berberian Farm (Private)	Multiple areas including Otis Street	Working farm	Scenic
Rawstron Land (Private)	Multiple areas including Fawcett Orchard Road	Working farm	Scenic
Bigelow Land (Private)	Multiple areas including West Main Street	Working farm	Scenic
The Cliffs/Wesson Estate (now called The White Cliffs)	167 Main Street	Mr. Wesson of Smith and Wesson gun fame built "The Cliffs" as a summer home. Now used as a banquet hall.	Historic

The Historic Commission of Northborough is in the process of documenting the historic assets within the town. This inventory will create a record of each historical asset including information such as construction dates, architectural styles, use over time and notes on the people and activities associated with each site. The plan is to have all assets older than 100 years inventoried by December 2009. This is being done as a two phase project. Phase I has been completed and resulted in 148 historical resources being inventoried. Phase II is currently in process. (Northborough Historic Commission, 2009)



At the 1987 Annual Town Meeting, the Town approved the Meeting House Common Historic District as an amendment to the Zoning Bylaw. This area is shown on the included map, and roughly encompasses an area bounded by Church Street, Whitney Street and Pleasant Street.

Also at the Annual Town Meeting of 1987, the Town amended the Zoning Bylaw to add a new Scenic Roads provision. This action provides for a thorough review by the Planning Board for any proposal, which might cut or remove trees or involve destruction of stonewalls along any Scenic Road in the Town. In order to be designated as a Scenic Road, a road must have trees of exceptional quality, be bordered by stonewalls, or

contain natural or man-made features of aesthetic value such as orchards, fields and forests. In 1987, Town Meeting designated the following 27 roads as Scenic Roads, and these are shown on Map 11 - Historic, Cultural and Scenic Resources

Ball Street Brewer Street Brigham Street Cherry Street Church Street
Crawford Street
Davis Street
Fisher Street
Gale Street
Green Street
Howard Street
Hudson Street
Lancaster Drive
MacAlister Road
Maynard Street
Mentzer Avenue

Monroe Street Newton Street Pleasant Street Reservoir Street Rice Avenue School Street Summer Street Washburn Street West Street Whitney Street Winter Street

In addition to these Scenic Roads, participants of the Open Space Committee cited the following farms as picturesque, with view sheds that should be preserved or protected.

- Tougas Farm
- Davidian Farm
- Berberian Farm

Map 11 - Historic, Cultural and Scenic Resources shows many resources identified during this planning process and the scenic roads with special status.

G - Environmental Challenges

The Massachusetts Department of Environmental Protection listed 98 Waste Sites/Reportable Releases in its Database for the Town of Northborough on August 3, 2009. These 98 releases were at 67 locations throughout the town.



The earliest reported release was on January 15, 1987. The majority of these sites (75) have been given a Compliance Status of Response Action Outcome (RAO), which indicates that response actions were sufficient to achieve a level of no significant risk or at least ensure that all substantial hazards were eliminated. Of the listed sites, a few have ongoing cleanup and/or monitoring at this time and are listed below. The full list is included below.

Table 4.8 - Reportable Releases

	Table 4.6 - Reportable Releases								
Address	Site Name	Notifi- cation Date	Status	Date	Phase	RAO Class	Chemi- cal Type		
170 Bartlett St	Pexco Inc	7/15/1993	DPS	6/14/1999			Oil		
70 West Main St	Commerce Bank & Trust Co	10/21/1994	DPS	9/11/1996			Hazardous Material		
23 Belmont St	Comfort Inn 27- 35 Belmont St	11/22/1995	DPS	9/10/2002	PHASE II		Hazardous Material		
42 Whitney St	Laurence Candle Co	1/15/1987	RAO	1/28/1998	PHASE III	B1			
77 Main St	Nappco	1/15/1987	RAO	2/11/1998		A2	Oil		
15 Main St	Exxon	4/15/1989	RAO	10/20/1995		А3			

Address	Site Name	Notifi- cation Date	Status	Date	Phase	RAO Class	Chemi- cal Type
243-267 West Main St	Northboro Oil	4/15/1989	RAO	5/27/1998	PHASE III	А3	
35 West Main St	Getty Station	9/20/1989	RAO	8/9/2002	PHASE V	A2	
23 Belmont St	Texaco Service Station	10/15/1989	RAO	3/18/2009	PHASE V	A2	
325 West Main St	West Main Street Cafe	12/18/1989	RAO	3/14/1995		B1	Oil
48 West Main St	Gms Automotive	1/15/1990	RAO	2/14/1997		A2	
40 Bearfoot Rd	Raytheon Company	4/15/1992	RAO	11/17/1995		A2	Oil
21 Crawford St	Residence	7/2/1993	RAO	8/8/1997		A3	Oil
2 School St	New England Telephone	9/27/1993	RAO	8/2/2004	PHASE V	A2	Oil
1 Beeman Rd	Toys R Us Distribution Center	10/14/1993	RAO	10/11/1994		A1	Oil
Rte 290e	East Of Church St Exit	10/19/1993	RAO	11/9/1993		A1	Oil
13 Church St	Old Fire Station- Police Headquarters	11/10/1993	RAO	3/9/1994		A1	Oil
75 Lyman St	Westboro State Hospital-Nr Chauncy Hall	12/7/1993	RAO	2/2/1994		A1	Oil
Boston Tpke Rte 9	MHD Facility 39	1/12/1994	RAO	10/2/1995		A1	Oil
175 Bearfoot Rd	Sweetlife Foods Warehouse	2/25/1994	RAO	6/25/1994		B1	Oil
66 Lyman St	New Corr Packing Co	7/13/1994	RAO	10/21/1994		A1	Oil
435 Whitney St	Isomedix	8/11/1994	RAO	10/7/1994		A1	Hazardous Material
203 West Main St	Apollo Motor Express Inc	8/16/1994	RAO	10/25/1994		A1	Oil and Hazardous Material
Forbes Rd	N E Motor Freight	9/12/1994	RAO	12/2/1994		A1	Hazardous Material

Address	Site Name	Notifi- cation Date	Status	Date	Phase	RAO Class	Chemi- cal Type
Belmont St	Nader Auto Sales	2/7/1995	RAO	6/8/1995		A1	Oil
26 Overlock Dr	Residence	2/15/1995	RAO	5/3/1995		A1	Oil
Boston Tpke Rte9	MHD Facility 39	5/10/1995	RAO	12/16/1996		A3	Oil
40 Barefoot Rd	Raytheon Building	8/18/1995	RAO	10/13/1995		A2	Oil
11 Forbes Rd	NEC Technologies	10/5/1995	RAO	11/1/1995		A1	
175 Bearfoot Rd	Sweetlife Foods Fmr Warehouse	11/16/1995	RAO	1/22/1996		A2	Oil
Boston Tpke Rte 9	MHD Facility 39	2/2/1996	RAO	1/27/1997		B1	Hazardous Material
Church St	Near Fay Lane	2/23/1996	RAO	4/23/1996		A1	Oil
Belmont St	Friendship Inn Parking Lot	8/3/1996	RAO	12/4/1996		A1	Oil
Boston Tpke Rte 9	MHD Facility 39	9/3/1996	RAO	12/17/1996		A3	Oil
106 South St	Residence	10/22/1996	RAO	10/29/1997		A2	Oil
Church St	At Rte 290 Overpass	12/2/1996	RAO	1/31/1997		A1	Oil
Rte 290w	W Of Church St Overpass	12/8/1996	RAO	9/4/1997		A2	Oil
11 Pierce St	Northborough Fire Sta	1/15/1997	RAO	3/17/1997		A1	
380 Southwest Cutoff	Friendship Inn	4/10/1997	RAO	7/9/2002	PHASE III	А3	Oil
Rte 290w	1.4 Mi Before Exit 25b	6/16/1997	RAO	6/12/1998		A2	Oil
7 Belmont St	Energy Retailers Inc	7/3/1997	RAO	2/26/2007	PHASE V	A1	Hazardous Material
43 Hudson St	Peppers Fine Foods	7/22/1997	RAO	7/24/1998		A2	Hazardous Material
Crawford St	Northboro Water Supply Well	11/19/1997	RAO	3/19/1998		A1	Oil and Hazardous Material

Address	Site Name	Notifi- cation Date	Status	Date	Phase	RAO Class	Chemi- cal Type
Boston Tpke Rte 9	MHD Facility 39	6/15/1998	RAO	7/13/2000	PHASE II	A2	Hazardous Material
23 Belmont St	Texaco Station Former	8/20/1998	RAO	8/18/1999		B1	Hazardous Material
292 Main St	Bartlett St	9/24/1998	RAO	2/1/1999		A3	Oil
345 West Main St	Zecco Inc	9/29/1998	RAO	11/30/1998		A2	
1 Beeman Rd	Toys R Us Distribution Center	10/6/1998	RAO	12/28/1998		B1	Oil
55 Bearfoot Rd	Ma Electric Office Bldg	11/25/1998	RAO	1/28/1999		A1	Hazardous Material
Rte 290 Westbound	Roadway Release	3/18/1999	RAO	5/18/1999		A1	Oil
Rte 290 W	Church Street	9/3/1999	RAO	10/7/1999		A1	
1 Beaman Rd	Toys R Us	9/23/1999	RAO	2/11/2000		A1	Oil
Rte 290	Rte 290 E 1.4 Mi West Of Exit 25b	11/3/1999	RAO	1/3/2000		A1	Oil
Newton St	Utility Pole No 19-2	4/8/2000	RAO	6/7/2000		A2	
56 Hudson St	Mekontrol Property	9/13/2000	RAO	9/13/2000		B1	Oil and Hazardous Material
14 Belmont St	Pensky Facility	9/27/2000	RAO	11/20/2000		A1	Oil
45 West Main St	Rogers Property	10/3/2000	RAO	9/23/2007	PHASE II	A2	Oil
41 Lawrence St	Kayam Foods Inc	12/15/2000	RAO	4/20/2001		A2	Oil
20 Summer St	Boucher Residence	10/26/2001	RAO	10/26/2007		A2	Oil
14 Belmont St	Penske Truck Lease	10/31/2001	RAO	1/2/2002		A2	Oil
91 Brigham St	Hutchins Residence	11/16/2001	RAO	1/11/2002		A2	Oil
36 West Main St	Mobil Station	1/28/2002	RAO	3/29/2002		A1	Oil

Address	Site Name	Notifi- cation Date	Status	Date	Phase	RAO Class	Chemi- cal Type
Church St	Lilly Transportation Road Service	6/12/2002	RAO	6/17/2003		A2	Oil
290 West Ext 25b	Solomon Pond Mall Exit	11/12/2002	RAO	1/21/2003		A2	
7 Belmont St	Grampys Sunoco Station	2/6/2003	RAO	2/26/2007	PHASE II		Hazardous Material
247 West Main St	Northboro Oil	6/9/2003	RAO	9/2/2008			
66 Lyman St	Ryder Integrated Logistics	10/1/2003	RAO	10/28/2003		A1	
Rt 290 West Between Exit 24 And 25	Rt 290 West Roadway Release	10/24/2003	RAO	3/1/2004		A1	Oil
30 Forbes Rd	Aspen Aerogels, Inc	8/23/2004	RAO	12/29/2004		A2	Hazardous Material
206 South St	Alan Steiman Landscaping	2/3/2005	RAO	5/2/2006		A2	Oil
14-24 West Main St	Former Dry Cleaners	9/13/2006	RAO	3/16/2009	PHASE II	А3	Hazardous Material
119 Colburn St	Former Northborough Fish & Game	10/6/2006	RAO	2/5/2007		B1	Hazardous Material
Lyman St	Sack Storage Inc	1/4/2007	RAO	2/27/2007		A2	
344 Church St	Northborough Church St Village Developme	4/30/2007	RAO	6/29/2007		A2	Oil
14 Treetop Cir	P Pellegrino Trucking Co	6/1/2007	RAO	8/13/2007		A1	
247 West Main St	Maney Realty Trust	1/28/2008	RAO	9/2/2008		A2	Hazardous Material
Church And Pleasant Sts	Roadway	4/29/2009	RAO	6/15/2009		A1	
200 Bartlett St	Bay State Circuits Inc	7/15/1988	REMOPS	1/4/2006	PHASE V		Oil
West Main St	Sewer Line Installed	3/9/1995	RTN CLOSED	10/20/1995			Hazardous Material

Address	Site Name	Notifi- cation Date	Status	Date	Phase	RAO Class	Chemi- cal Type
61 63 West Main St	Pierce Oil & Gas	6/28/1995	RTN CLOSED	10/20/1995			Oil
61 63 West Main St	Pierce Oil & Gas	6/28/1995	RTN CLOSED	10/20/1995			Oil
35 West Main St	Citgo Station	9/29/1995	RTN CLOSED	11/27/1995			Oil
11 School St	Nynex Bldg	7/23/1999	RTN CLOSED	7/2/2000			Oil
35 West Main St	Citgo Station	8/18/1999	RTN CLOSED	10/13/1999			Oil
Southwest Cutoff	Hop Brook Flood Control Facility	8/21/2000	RTN CLOSED	2/10/2001			Oil and Hazardous Material
Rte 20	Hop Brook Flood Retarding Facility	10/26/2000	RTN CLOSED	2/10/2001			Hazardous Material
Rte 20	Hop Brook Flood Facility	4/2/2002	RTN CLOSED	9/2/2004			Hazardous Material
119 Colburn St	Former Northboro Fish & Game	7/17/2003	RTN CLOSED	5/10/2004			Hazardous Material
119 Colburn Ave	175 Bearfoot Rd	6/25/2004	RTN CLOSED	4/28/2005			Hazardous Material
37 Maynard St	Parker And Claire Swan	3/8/2005	RTN CLOSED	1/9/2006			Hazardous Material
14 West Main St	Northboro Center Plaza	7/16/2007	RTN CLOSED	4/9/2008			Hazardous Material
61-63 West Main St	Pierce Oil & Gas	4/15/1989	STMRET	7/31/2003	PHASE V		Oil
119 Colburn St	Town Of Northborough	5/12/2003	TIER 1B	5/10/2004	PHASE IV		Hazardous Material
Southwest Cutoff	Hop Brook Flood Control Facility	2/2/2000	TIER 1C	2/9/2001	PHASE IV		Hazardous Material
37 Maynard St	C. Parker Swan III	1/10/2005	TIER 2	1/9/2006	PHASE V		Oil
Rte 290 E	E Of Church St	10/21/1994	TIER1D	7/7/2008			Oil
11 Forbes Rd	Fire Pond	5/15/2009	UNCLASSI FIED	5/15/2009			Oil

Address	Site Name	Notifi- cation Date	Status	Date	Phase	RAO Class	Chemi- cal Type
30 Bearfoot Rd	Parker Group Inc	7/15/1989	WCSPRM	3/3/1992			Oil

Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup. Definitions of abbreviations and acronyms can be found on their website. http://www.mass.gov/dep/cleanup/index.htm

Waste Handling



The town utilized a landfill for municipal waste until 1977. Municipal waste is collected curbside and disposed of at the Wheelabrator Resource Recovery Facility in Millbury by contract with a private hauler. Pellegrino Trucking has collected trash and recycling for the Town since July 2005. In addition, the town instituted an aggressive recycling program beginning in 1991 and a Pay-As-You-Throw Program in January 2003. Pay-As-You-Throw Program for curbside trash collection has been successful in decreasing the tonnage of municipal waste while also encouraging recycling, which has risen in the past five years. Since July 2005 the trash tonnage has decreased from 2,864.16 tons to 2201.68 tons. The recycling rate over the same time period has risen from

33.6% to 36.4%. (Northborough Department of Public Works, 2009) Revenue from sales of green Town bags and Bulk Item Labels pays for the trash and recycling curbside collection service in Northborough. (Town of Northborough, 2008)

The Recycling Commission is responsible for proposing, supporting and monitoring recycling projects in order to increase the percentage of items recycled and reduce the volume of recyclable items that are disposed of in the municipal solid waste. This group has implemented a number of waste reducing and recycling initiatives including:

- Scrap Metal Recycling And Battery Collection Event
- Household Compost Bins And Rain Barrels Sales
- Town-wide Swap Meet
- Electronics Collections
- Household Hazardous Waste Collection
- Yard Leaf Composting

The Town was also awarded a grant from the Department of Environmental Protection for six (6) outdoor recycling containers for the collection of cans and bottles. These containers have been placed at Memorial Field, Assabet Park and the Ellsworth/McAfee Park on Route 135, which will assist the town's recycling efforts. The Engineering Department continues to accept button cell batteries, rechargeable batteries and mercurial thermometers which are all unacceptable items for the waste stream.

Development Impacts

Over the years, residential and commercial/industrial developments have encroached on areas that were once forests, agricultural and open areas. The Board of Selectmen, town planner, the Planning Board, the Conservation Commission and area residents work together to minimize negative development impacts and to promote positive smart growth principles in proposed development projects.

<u>Sedimentation, Erosion, Invasive Species, Surface or Groundwater Pollution, or Chronic Flooding</u> Some parts of town roadways, particularly those near more densely populated areas, have experienced higher rates of erosion because of reduced filtration of surface water runoff resulting from large areas of asphalt and other impermeable surfaces. Also during times of high water and flooding, greater river and stream bank erosion occurs at river and stream bends. Increased erosion in some areas increases sedimentation in downstream and down river areas, leaving silt, sand, and gravel deposited in low lying areas.

Though the EPA mandated \$3 million Nyanza Chemical Waste Dump Superfund Site Natural Resources Damages Settlement will benefit many who rely on the SUASCO (Sudbury Assabet, Concord Rivers) Watershed. The Assabet River in Northborough was minimally affected by the waste dump and its environmental damage.

High concentrations of both phosphorus and nitrogen compounds act like fertilizer in the river, contributing to the overgrowth of aquatic plants and algae. Organization for the Assabet River's (OAR's) water quality data supports the conclusion that the mainstem Assabet is nutrient saturated - that neither phosphorus nor nitrogen concentrations limit the growth of aquatic plants in the river.

In the upper sections of the Assabet (where dilution of the wastewater treatment plant effluent by natural flow is the least) nutrient concentrations are well above the thresholds for eutrophication for both phosphorus and nitrogen species. Dissolved oxygen at sites all along the river fall below 5.0 mg/L at times during the summer and thus support fish and other aquatic life.

As determined by OAR's water quality testing in 2008, for the Assabet Headwaters, the stream health is Fair, the water quality Good and the stream flow is Fair, but for Upper Assabet Mainstem, the water quality is Poor. Similarly as determined by OAR's water quality testing in 2008, for the Hop Brook Tributary, the stream health index was Good, the water quality index was Fair, and the stream flow index was excellent; and for Cold Harbor Brook, the water quality was Fair. (Organization for the Assabet River, 2010)

Water quality in the Assabet headwater (upstream of the first wastewater treatment plant discharge in Marlborough) and in tributary streams of the watershed is generally better than in the mainstem. Median phosphorus concentrations were lower in the tributaries than in the Assabet or Concord mainstems, and dissolved oxygen levels are mainly healthy. Total nitrogen concentrations in the tributaries, although lower than in the mainstem, ranged from healthy to somewhat elevated (> 0.75mg/L). Nutrients in the tributaries are mainly from non-point sources such as stormwater runoff from roads and lawns or failing septic systems. (Organization for the Assabet River, 2010)

Forestry Issues

No one interviewed for this plan was aware of any environmental challenges related to forestry. The town has two fire trucks specially designed to fight forest fires in difficult to access forest areas. And several forests stands, including 100 acres on the Rawstron property are managed through selective harvesting to promote sustainable growth. The Asian Longhorn Beetle has not been reported in the Town of Barre as of the completion of this plan.

Environmental Equity Issues

A review of the locations of town recreation and open space and their proximity to residential populations suggests that access is very good. Open space is available for passive recreation in all parts of town, from Mt. Pisgah in the north, to Edmund Hill Woods in the north central part of town, to Westborough Wildlife Management Area/Crane Swamp in the southeast part of town, to the New England Forestry Foundation conservation area in the western part of town. Most active recreation areas are part of school grounds or on major arteries easily accessible by the general public.

Other

As with most New England areas, the presence of mosquitoes can reduce the enjoyment of the outdoors. The Town of Northborough has worked with the Central Massachusetts Mosquito Control Project (CMMCP) to facilitate spraying for the purpose of reducing the mosquito population.

SECTION 5 - INVENTORY OF LANDS OF CONSERVATION AND RECREATION INTEREST

A. Overview

Open space makes an important contribution to quality of life. Public recreation areas and open space provide a focus for community life and promote a unique and identifiable community character. Open space can also be an oasis for quiet reflection and can greatly enhance the connection to the natural world. Open space also has economic benefits. It protects and enhances the property values of nearby land. Open space also attracts businesses, new residents, and public and private investment. Research on this topic suggests that the proximity to recreation and open space is THE most important factor in choosing the location of a small business, while quality of life ranks as the third most important factor in choosing location of a large business.

Additionally, conservation land serves environmental functions, providing natural rainwater storage and corridors for wildlife. Even small pockets of green space may serve an important function for migratory birds and butterflies. Open space can also reduce runoff and diminish the frequency and severity of flooding. Wooded open space helps to cool the air and improves air quality.

Lands of conservation and recreation interest in the Town of Northborough include

- 1. Properties that are permanently protected,
 - a. Publicly owned for purposes of conservation or resource protection
 - b. Privately owned with conservation restrictions or agricultural preservation restrictions
 - c. Land owned by non-profits and land trusts with conservation restrictions or agricultural preservation restrictions
- 2. Properties with limited protection
 - a. Public ownership provides only limited protection since some properties may be sold such as schools or town garages, even town halls.
 - b. Properties used for forestry, agriculture or recreation in exchange for special tax status,
- 3. Privately owned land with special open space or recreational interest such as a rod and gun club.

Some of these lands may already be protected open space dedicated to conservation or recreation uses and others will be identified for future acquisition.

Permanently Protected

Article 97 of the State Constitution provides permanent protection for certain lands acquired for natural resources purposes, meaning "conservation, development and utilization of the agricultural, mineral, forest, water, air and other natural resources." Lands of this nature are often owned by the municipal conservation commission, recreation commission, water department, or by a state or federal conservation agency (i.e., the EOEEA or the Division of Fish and Wildlife). Private, public and non-profit conservation and recreation lands may also be protected under Article 97. Removing the permanent protection status of such lands is extremely difficult, as is evidenced by the following required steps:

- The municipal Conservation Commission or Parks and Recreation Committee must vote that the land in question is surplus to its needs.
- The removal of permanent protection status must be approved at a Town Meeting/City Council vote and pass by a 2/3 vote.
- The municipality must file an Environmental Notification Form with the EOEEA's Massachusetts Environmental Policy Act (MEPA).
- The removal of permanent protection status must be approved by both the State House of Representatives and the State Senate and pass by a 2/3 vote.

• In the case of land either acquired or developed with grant assistance from the EOEEA's Division of Conservation Services, the converted land must be replaced with land of equal monetary value and recreational or conservation utility.

In other words, it is intentionally difficult to remove a property's permanent protection status so that it may be developed. Chapter 97 lands are often owned by the municipal conservation commission, parks and recreation commission, the water department or a state conservation agency.

Lands acquired for watershed and aquifer protection are often permanently protected open space. Municipally-owned properties used for public recreation and conservation areas may be permanently protected via a Town Meeting Vote or a Select Board Order. Often these lands are placed under the ownership of the Conservation Commission. Protected parcels are often owned by the Town's Conservation Commission or Water



Department, a State Land Protection Agency, a non-profit land trust with a permanent conservation restriction, and lands purchased or improved with the help of state or federal funds. The Northborough Conservation Commission, the Northborough Water Department, the Massachusetts Department of Conservation and Recreation (DCR), Massachusetts Department of Fish and Game (DFG), New England Forestry Foundation (NEFF) and Sudbury Valley Trustees (SVT) are owners of protected parcels. In addition, three farms, totaling 270 acres, are enrolled in the Agricultural Preservation Restriction program. These lands are all illustrated on the Map 12 - Open Space Resources.

Private lands, including those owned by non-profit organizations, can also be protected in perpetuity through deed conservation restrictions, conservation easements, agricultural preservation restrictions, historic preservation restrictions, or wetlands restrictions. Some easements may run for a more limited period (like 30 years) and those are not considered permanently protected. As mentioned above these lands are often protected by Article 97.

<u>Limited or no protection</u>

Municipal lands under active use (schools, town halls, highway department facilities, police/fire facilities, etc.) are <u>not</u> generally considered permanently protected. Unprotected land included in this category is owned by the town, other agencies, such as Westborough State Hospital, and the schools. These parcels can be sold for development at the discretion of the owners through a public bid process.

Private lands that are within the State's special taxation programs (Chapter 61, 61A, and 61B) are actively managed by their owners but only have limited protection. Private owners can manage their land for forestry, agriculture, and/or recreation purposes and receive a benefit of reduced property tax under Chapter 61. Chapter 61 is for forested lands, Chapter 61A for agricultural and horticultural lands, and Chapter 61B is for recreational lands. Chapter lands are considered as having limited protection. While these lands provide significant open space in communities while in the program, once the property is sold or the owner chooses not to participate in the special taxation program, there is no longer a commitment to open space management. If the property is put up for sale, the community has the first right to purchase the property or assign its right to a non-profit. The Town should continue to maintain an inventory and prioritize Chapter land and other open space for acquisition or other protection measures. In addition, the Town should insure that notice is given immediately to Conservation and Recreation Commissions if a Notice of Sale of a Chapter property is delivered to the Board of Selectmen. A communication system to allow for rapid response should be developed. Working relationships with local non-profits, Sudbury Valley Trustees and New England Forestry Foundation may help acquisitions possible, especially when the Town has limited staff and funds.

The inventories that follow list private, public, non-profit conservation land and recreation areas in Northborough.

B - Private Parcels

In Table 5.4, we have listed the Ownership Type/ Management, Owner, State Use Code, Use Code Description/Use (Potential Use), Zone, Total Land Area (Acres), Parcel ID, Sub ID, Street Address, Level of Protection, Public Access, and Public Assistance for privately-owned parcels of open space and recreational importance. The condition of each parcel has not been determined. A general assessment of each parcel should be completed. Table 5.4 is completed to the greatest degree possible with information available.

Permanently Protected

Private land is protected if a deed restriction exists in perpetuity, or an Agricultural Preservation Restriction (APR) has been placed on it. Three farms in 2009 have had development rights purchased through the Agricultural Preservation Restriction (APR) program. These farms produce commercial crops on 270 acres.

Table 5.1 - Agricultural Preservation Restrictions

APR Project ID	System Name	System City	System	System Date	Acres
			County		
060701215KAC	Sudbury Valley	Northborough	Worcester	7-Jun-01	22
	Trustees (SVT) /				
	Kachan/Tougas				
032686215DAVB	Davidian Brothers	Northborough	Worcester	26-Mar-86	68 + 127 =
and 032686215DAV	And Davidian K				195
040096315TOLL	Tougos	Northborough	Morcostor	0 12 26	гэ
040986215TOU	Tougas	Northborough	Worcester	9-Apr-86	53

Conservation restrictions may also permanently protect private parcels. These include the following:

Table 5.2 - Conservation Restrictions

Year	Grantor	Grantee	Term	Acreage	Location	Authority	Comments
1987	Joan M Gay	Town of	perpetuity	6			
		Northborough					
1999	Boston	Sudbury Valley	perpetuity	10	Cedar Hill	Chapter	trail and
	Industrial/Cedar	Trustees				184	parking
	Hill LLC						easement
2001	Sudbury Valley	Town of	perpetuity	88	Cedar Hill	Article 97	
	Trustees	Northborough					
2002	William W. & Ann	Sudbury Valley	perpetuity	61.66	Mentzer	Article 97	7,400 Howard
	W. Rawstron	Trustees			Avenue &		Brook/protects
					Green		land in Mt.
					Street		Pisgah region
2009/	Gutierrez & Cataldo	Town of	perpetuity	23.2			
2010		Northborough					
2009	Andrew J. Silver	Mass Fish and	perpetuity	19.12	Howard	Article 97	
		Game			Street		

(Massachusetts Department of Energy and Environmental Affairs, 2010) (Worcester Registry of Deeds)

Limited Protection

Owners of private parcels enrolled in Chapter 61 programs, (Chapters 61, 61A and 61B) are granted tax abatement and provide the Town with the right of first refusal should the owner decide to sell the land for development or engage in non-chapter land eligible uses. Chapter 61A parcels (agricultural land) comprise the largest of these holdings and total approximately 784.00 acres. New England Forestry foundation owns one parcel (an orchard) with Chapter 61A status. The remaining properties are privately owned. Land under Chapter 61 (forestry) comprises nearly 207.70 acres mostly in the western portion of Town. This area provides a great deal of the rural character of the town, which is appreciated by the residents. The third category of Chapter land (61B) includes 360.29 acres in recreational facilities and open space. In addition to the Northcourt Swimming Association, the two public golf courses, Indian Meadows Golf Course and Juniper Hill Golf Club, in Northborough are included in this program.

Table 5.3 - Chapter 61 Summary

Program	Acreage
Chapter 61 (Forest)	207.70
Chapter 61A (Agricultural)	784.00
Chapter 61B (Recreation)	360.29
Total Chapter Land	1351.99

Relevant unprotected

Several large farms are not protected through any means other than difficulty of development and the Wetlands Protection Act. Additional large parcels of land under private ownership have not been included in this section and are only protected by the owner's desire to do so.

Table 5.4 - Privately owned Open Space and Recreation Parcel Inventory

Owner- Ship Type/ Manage- ment	Owner	State Use Code	Use Code Description/Use (Potential Use)	Zone	Total Land Area (Acres)	Parc. Id	Sub Id	Street Address	Level Of Protec- tion	Public Acces s	Public Assist- ance
Private	Borgatti, Robert A	601	Ch.61 Forest	la	51.38	0		West Main Street	Limited	No	Yes
Private	Borgatti, Robert A	601	Ch.61 Forest	la	12.17	0		West Main Street	Limited	No	Yes
Private	Borgatti, Robert A	601	Ch.61 Forest	la	6	0	-Off	West Main Street	Limited	No	Yes
Private	Borgatti, Robert A	601	Ch.61 Forest	la	91.42	0		West Main Street	Limited	No	Yes
Private	Zecco, Patricia A.	601	Ch.61 Forest	Ra	6.34	0	-Off	Crawford Street	Limited	No	Yes
Private	Zecco, Patricia A.	601	Ch.61 Forest	Rb	11	0	-Off	West Street	Limited	No	Yes
Private	Zecco, Patricia A.	601	Ch.61 Forest	Ra	11.25	0	-Off	West Street	Limited	No	Yes
Private	Fournier Peter A. & Nancy A.	016	Ch.61 Residential/Forest	Ra	18.14	395		Howard Street	Limited	No	Yes
Private	Fawcett, Cynthia L.	713	Ch.61a Field Crops	Ra	4.25	115		Ball Street	Limited	No	Yes
Private	Rawstron, William & Ann	713	Ch.61a Field Crops	Ra	21.75	0	-Off	Fawcett Orchard Road	Limited	No	Yes
Private	Bigelow Martha E. & Palmer W. Bigelow Jr. Marita	719	Ch.61a Nurseries	Bb	141.79	455		West Main Street	Limited	No	Yes
Private	Johnson, Janice R. Oak Knoll Farm	719	Ch.61a Nurseries/ Knoll Farm	Ra	5.19	0		Ball Street	Limited	No	Yes
Private	Berberian, Glen & Berberian, Kachadore & Mary	714	Ch.61a Orchards	la	0.1	0		Southwest Cutoff	Limited	No	Yes
Private	Berberian, Glen & Berberian, Kachadore & Mary	714	Ch.61a Orchards	la	0.15	0		Southwest Cutoff	Limited	No	Yes
Private	Davidian Kerop & Arvilla F.	714	Ch.61a Orchards	Ra	20.1	351		Ball Street	Limited	No	Yes

Table 5.4 - Privately owned Open Space and Recreation Parcel Inventory

Owner- Ship Type/ Manage- ment	Owner	State Use Code	Use Code Description/Use (Potential Use)	Zone	Total Land Area (Acres)	Parc. Id	Sub Id	Street Address	Level Of Protec- tion	Public Acces s	Public Assist- ance
Private	Davidian Realty Llc	714	Ch.61a Orchards	Ra	44.1	500		Church Street	Limited	No	Yes
Private	Ball Hill Realty Llc C/O Tougas Family Farm	017	Ch.61a Residential And Agricultural & APR or CR On Part Of It/Tougas Family Farm	Ra	34.64	114		Ball Street	Permanent	No	Yes
Private	Berberian, Glen & Berberian, Kachadore & Mary	071	Ch.61a Residential/Agricultural & APR or CR On Part Of It.	la	16	68		Otis Street	Permanent	No	Yes
Private	Davidian Realty Llc	071	Ch.61a Residential/Agricultural & APR or CR On Part Of It.	Ra	15.25	150		Ball Street	Permanent	No	Yes
Private	Ellsworth, William F	017	Ch.61a Residential/Agricultural & APR or CR On Part Of It.	Rc	2.35	246		School Street	Permanent	No	Yes
Private	Fidrych Family Realty LLC	017	Ch.61a Residential/Agricultural & APR or CR On Part Of It.	Ra	64.99	260		West Street	Permanent	No	Yes
Private	Johnson, Janice R.	017	Ch.61a Residential/Agricultural & APR or CR On Part Of It.	Ra	4.7	43		Ball Street	Permanent	No	Yes
Private	Rawstron, William & Ann	017	Ch.61a Residential/Agricultural & APR or CR On Part Of It.	Rb	16.82	1		Mentzer Avenue	Permanent	No	Yes

Table 5.4 - Privately owned Open Space and Recreation Parcel Inventory

Owner- Ship Type/ Manage- ment	Owner	State Use Code	Use Code Description/Use (Potential Use)	Zone	Total Land Area (Acres)	Parc. Id	Sub Id	Street Address	Level Of Protec- tion	Public Acces s	Public Assist- ance
Private	Tougas Maurice F.Trustee & Tougas, Phyllis P.Trustee	071	Ch.61a Residential/Agricultural & APR or CR On Part Of It.	Ra	53.01	234		Ball Street	Permanent	No	Yes
Private	Bennett Guerdon K. & Debra M.	017	Ch.61a Residential/Agriculture	Ra	23.92	660		Howard Street	Limited	No	Yes
Private	Davidian Realty Llc	071	Ch.61a Residential/Agriculture	Ra	25.7	315		Ball Street	Limited	No	Yes
Private	Gillerin, David R. & Jan R.	017	Ch.61a Residential/Agriculture	Rb	57.28	90		Maynard Street	Limited	No	Yes
Private	Davidian Realty Llc	712	Ch.61a Vegetables	Ra	64.3	0		Green Street	Limited	No	Yes
Private	Fawcett, Cynthia L.	712	Ch.61a Vegetables	Ra	1.85	111		Ball Street	Limited	No	Yes
Private	Berberian, Glen & Berberian, Kachadore & Mary	720	Ch.61a Wet-Scrub Lnd	la	12.25	0		Tomblin Hill Road	Limited	No	Yes
Private	Chandler Emerson H & Karen Lee	720	Ch.61a Wet-Scrub Lnd	Rb	3.7	0	-Off	Whitney Street	Limited	No	Yes
Private	Rawstron, William & Ann	720	Ch.61a Wet-Scrub Lnd	Rb	1.1	1	-A	Mentzer Avenue	Limited	No	Yes
Private	Berberian, Glen & Berberian, Kachadore & Mary	717	Ch.61a Woodlots	Rc	1.37	0		Otis Street	Limited	No	Yes
Private	Berberian, Glen & Berberian, Kachadore & Mary	717	Ch.61a Woodlots	la	1.04	0		Southwest Cutoff	Limited	No	Yes
Private	Chandler Emerson H & Karen Lee	717	Ch.61a Woodlots	la	6.62	0	- Rea r	Whitney Street	Limited	No	Yes

Table 5.4 - Privately owned Open Space and Recreation Parcel Inventory

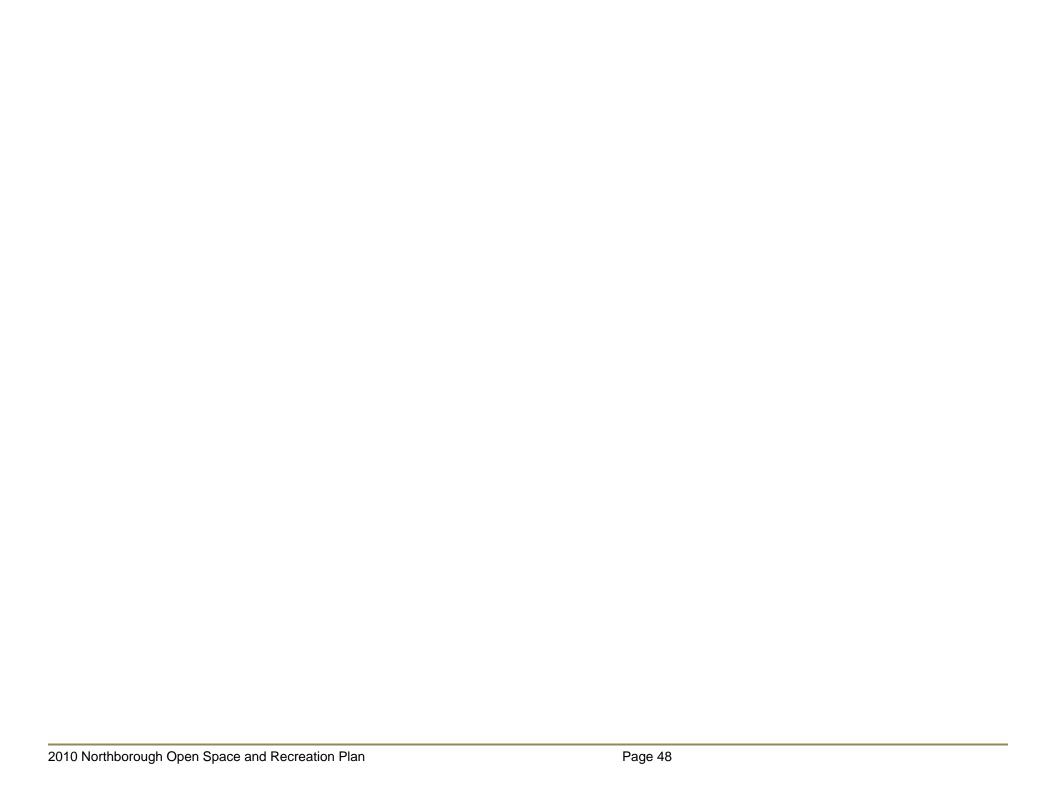
Owner- Ship Type/ Manage- ment	Owner	State Use Code	Use Code Description/Use (Potential Use)	Zone	Total Land Area (Acres)	Parc. Id	Sub Id	Street Address	Level Of Protec- tion	Public Acces s	Public Assist- ance
Private	Ellsworth, William F	717	Ch.61a Woodlots	Rc	16.55	0		Brigham Street	Limited	No	Yes
Private	Fidrych Family Realty Llc	717	Ch.61a Woodlots	Rb	28.96	0	- Rea r	Crawford Street	Limited	No	Yes
Private	Fidrych Family Realty Llc	717	Ch.61a Woodlots	Ra	10	260		West Street	Limited	No	Yes
Private	Rawstron, William & Ann	717	Ch.61a Woodlots	Ra	61.66	0		Green Street	Limited	No	Yes
Private	I. M. Golf Inc. Indian Meadow G.C.	805	Ch.61b Golf Course	Rc	56	0	-Off	Davis Street	Limited	Yes	Yes
Private	I. M. Golf Inc. Indian Meadow G.C.	805	Ch.61b Golf Course	Rc	2.72	0	-Off	Indian Meadow Drive	Limited	Yes	Yes
Private	Juniper Hill Golf Course, Inc.	805	Ch.61b Golf Course	Rc	189.38	202		Brigham Street	Limited	Yes	Yes
Private	Juniper Hill Golf Course, Inc.	805	Ch.61b Golf Course	Rc	34	0		Dix Street	Limited	Yes	Yes
Private	Juniper Hill Golf Course, Inc.	805	Ch.61b Golf Course	Rc	10.92	0	-Off	Dix Street	Limited	Yes	Yes
Private	Juniper Hill Golf Course, Inc.	805	Ch.61b Golf Course	Rc	18	0		Dix Street	Limited	Yes	Yes
Private	Juniper Hill Golf Course, Inc.	805	Ch.61b Golf Course	Rc	8	0		Dix Street	Limited	Yes	Yes
Private	Juniper Hill Golf Course, Inc.	805	Ch.61b Golf Course	Rc	2.2	0		School Street	Limited	Yes	Yes
Private	Juniper Hill Golf Course, Inc.	081	Ch.61b Residential And Recreation/ Golf Course	Rc	15.8	169		Brigham Street	Limited	Yes	Yes

Table 5.4 - Privately owned Open Space and Recreation Parcel Inventory

Owner- Ship Type/ Manage- ment	Owner	State Use Code	Use Code Description/Use (Potential Use)	Zone	Total Land Area (Acres)	Parc. Id	Sub Id	Street Address	Level Of Protec- tion	Public Acces s	Public Assist- ance
Private	Northcourt Swimming Association	811	Ch.61b Swimming /Swim Club	Rc	23.27	141		South Street	Limited	?	Yes

This table is completed to the greatest degree possible with information available.





C - Public and Non Profit Parcels

Tables 5.6, 5.7, 5.8 and 5.9, list the Ownership Type/ Management, Owner, State Use Code, Use Code Description/Use (Potential Use), Zone, Total Land Area (Acres), Parcel ID, Sub ID, Street Address, Level of Protection, Public Access, and Public Assistance for publicly-owned or non-profit-owned parcels of open space and recreational importance. The condition of some parcels is unknown. A general assessment of each parcel should be completed. These tables are completed to the greatest degree possible with information available. Table 5.7 town-owned parcels of recreation and conservation interest also includes information on current use, management, and recreation potential.

Ownership is summarized in the following table.

Table 5.5 - Public and Non-profit Ownership Summary

Ownership	Acreage	Notes
Nonprofit	190.80	SVT, NEFF, YMCA
Regional School District	191.77	Algonquin High School
State Department of Mental Health (DMH)	307.64	Westborough State Hospital
State Department of Conservation and Recreation (DCR) Water Resources and Aqueduct Protection	1026.35	The NTC has extensive trail networks on the DCR's Cold Harbor land and Yellick area along the Assabet River.
State Department of Fish and Game (Mass Wildlife)	128.73	
Town Parks	42.71	
Town Schools	86.53	
Town Cemeteries	43.81	
Town Water Department	111.89	
Town owned Recreation and Conservation parcels	479.44	
Town owned other parcels	241.13	

Permanently Protected - State

The Commonwealth of Massachusetts Department of Conservation and Recreation owns 1,026.35 acres of land for river, watershed, aquifer, and aqueduct protection. In addition, the Department of Fish and Game owns 128.73 acres of land. These properties in combination are dispersed in and around the Assabet River, Mount Pisgah Conservation Area, Crane Swamp, and the Westborough Wildlife Management Area.

Mount Pisgah Conservation Area is composed of four pieces of conservation land; the two central properties are managed by the conservation commissions in the towns of Berlin and Northborough. To the south is Mass Department of Fish and Game property, and to the north is the Devine Conservation Restriction (CR), privately owned property, with a Conservation Restriction retained by Sudbury Valley Trustees and the Town of Berlin. Part of the Berlin town land as well as the entire Devine CR had been in the Devine family for generations and was operated as a farm.

Hiking and mountain biking are two of the primary activities on the extensive trail system through the Mount Pisgah Conservation Area. Hunting is permitted on the Town of Northborough land, by permit only, and on the Massachusetts Fish and Game property. (Sudbury Valley Trustees, 2009)

The Westborough Wildlife Management Area, which has substantially more acreage in the adjacent town of Westborough, is 428 acres of gently sloping to nearly level habitat with mixed hardwood and conifer forest interspersed with agricultural and brushy fields some small areas of open marsh. A segment of the Assabet River forms the western boundary of the area, while Chauncy Lake, an excellent warm water fishery, forms a portion of the eastern boundary (including a boat ramp). The area also contains two small

ponds, a spring hole and a small seepage brook. The area contains stocked pheasant, deer, grouse, woodcock, cottontail rabbit, raccoon, gray squirrel, aquatic fur-bearers, waterfowl and numerous nongame species.

Permanently Protected – Town-owned Conservation and Open Space

The Town of Northborough owns the Howard Street Cemetery and the Brigham Street Cemetery totaling 43.91 acres. These areas are managed by the Cemetery Division of the Parks Department.

The Northborough Water Department owns 111.89 acres in the vicinity of drinking water supply wells in the vicinity of Lyman School, Crawford, and Brigham Streets.



The Northborough Conservation Commission owns 273.58 acres of open space. Areas under the jurisdiction of the Conservation Commission Edmund Hill Woods, Mount are Conservation Area (though not entirely owned by the Town) and Watson Park. These passive recreation facilities consist mainly of hiking areas. The NTC has hiking trails in both of those areas and there are no plans to alter the existing trails and there are no issues or concerns for "considerable environmental damage". The NTC works closely with the Conservation Commission when designing trails through wetlands to minimize any environmental issues.

Watson Park includes walking paths, a paved parking area with a concrete boat ramp to Bartlett Pond and picnic tables for the use of the public. The butterfly garden is situated in Watson Park by the large rock at the entrance.

Permanently Protected Non-Profit

The New England Forestry Foundation Inc. (NEFF) owns 31.57 acres of permanently protected land in the western section of town (West Main Street). The Carlstrom 2 Forest (31 acres) was donated in 1983 by Mr. Carl Carlstrom in memory of his wife. There is 1 loop trail that is approximately 1.1 miles long.

In addition, Mrs. Gertude Falby of Northborough gave NEFF protected land in 1980. This forest of hardwood stands (18 acres in Northborough and 194 acres in Boylston) with some mature pine is exceptionally beautiful. A number of small brooks run through the forest leading to a spectacularly clear pond. A walking trail leaves Rocky Pond road on the south end of the forest and traverses the forest to a swimming and picnic spot on the pond and then continues north to Green Street. There is also a NEFF kiosk and trailhead on Green Street just over the Northborough Boylston town line, which also leads to Rocky Pond.

The Sudbury Valley Trustees own 131.32 acres, some of which is located in Crane Swamp Conservation Area. The Crane Swamp Conservation Area includes 2,225 acres of open space straddling the borders of Northborough, Westborough, Southborough, and Marlborough. The centerpiece is a high quality 400-acre red maple swamp. The swamp is surrounded by a complex of open fields, wet meadows, ponds, pine plantations, and oak-pine forests, with Cedar Hill to the west and Walnut Hill to the northeast. Such a diverse, high quality and expansive conservation area is a unique treasure in Metrowest Boston.

The Crane Swamp properties are owned by a variety of Massachusetts state agencies as well as the Sudbury Valley Trustees (SVT). SVT protected 101 acres of Sawink Farm Reservation at the border of Northborough and Westborough in 1992 and the 88-acre drumlin of Cedar Hill in Northborough in 1993. The Department of Conservation and Recreation (DCR) owns Crane Swamp, Little Crane Swamp, and much of Walnut Hill, just north of Sawink Farm Reservation. Westborough State Hospital land extends from Lyman Street to Chauncy Pond, and the Massachusetts Division of Fish and Wildlife owns land which runs west to the Assabet River. Furthermore, the protected watershed helps to preserve the public

water supply (emergency backup water supplies for the Massachusetts Water Resources Authority (MWRA), not day to day water) for 2.5 million people. (Sudbury Valley Trustees, 2009)

The NTC maintains an extensive trail system in this area in cooperation with those agencies and SVT.

Limited Protection - State

Westborough State Hospital (WSH) owned and managed by the Massachusetts Department of Mental Health includes many acres of beautiful open space. This property is for sale through the state's property disposition process. The Town might consider acquisition of this property or seeking a conservation restriction from the new owner for special parts of the property. The NTC has some trails on WSH land. The Town of Westborough's Charm Bracelet Trail crosses the WSH land connecting at the Little Chauncy fisherman's access road.

Limited Protection - Municipal

School facilities are a principal location for recreational facilities in many municipalities. They are however seldom permanently protected. The schools in Northborough have a total of 278.53 acres with buildings and grounds. The Algonquin Regional High School serves both Southborough and Northborough residents and the 4 elementary schools and 1 middle school serve just Northborough residents. They include the following:

- Algonquin Regional High School, at 79 Bartlett Street, has 4 baseball/softball diamonds of various sizes, 4 or 5 multipurpose fields, and a football field with quarter mile track and field facilities.
- Lincoln Street School, located at 76 Lincoln Street, serves K-5th grades and has a small baseball/softball diamond and a gymnasium.
- Melican Middle School, located at 145 Lincoln Street, has 2 baseball/softball fields, 6 tennis courts, and a multi-purpose field.
- Peaslee Elementary School, at 31 Maple Street, has a baseball/softball field and one other multipurpose field.
- Proctor Elementary School is located at 26 Jefferson Road. In June 2009 a new playground was purchased and installed next to the existing soccer fields.
- Zeh Elementary School, located at 33 Howard Street, has an outdoor basketball court, and a baseball/softball diamond.

The Parks and Recreation Commission has jurisdiction over six public parks in Town. These are Ellsworth/MacAffee Sports Field, Assabet Park, both on South Street, Howard Street Recreation Area, Memorial Field, 119 Colburn Street (acquired in 2001), an undeveloped area on Valentine Road and one off Carriage Hill Road.



- Ellsworth/McAfee Park is the largest and provides many types of activities, including, multipurpose fields, a jogging track, a fitness trail, a playground, volleyball and basketball courts, a bocce court, picnic tables, a gazebo, and a pavilion. The DPW completed construction of a new volleyball court at Ellsworth-McAfee Park in 2008. A new playground was installed in Summer 2009. (Town of Northborough, 2008)
- Assabet Park has a splash pad, playground, basketball court and picnic tables with off street parking.
- Howard Street Recreation Area has a small softball diamond and a tot lot.

- Memorial Field and Casey Field, at 211 East Main Street, includes 3 baseball/softball fields with a concession stand and parking. In 2008, Memorial Field re-landscaping was completed by the Town DPW. (Town of Northborough, 2008)
- No plans have been developed for the Valentine Road parcel or the parcel off Carriage Hill Road. They remain open space at this time.
- A New Senior Center was built on 119 Colburn Street (re-addressed to Bearfoot Road).

The Parks Division of The Department of Public Works is responsible for the maintenance and upkeep of a considerable amount of park land and buildings in Northborough. This list includes the following: Ellsworth-McAfee Park, Assabet Park, Memorial Field, the Civil War Monument, World War I Monument, Three War Monument, Howard Street Play Area and Field, and the Grounds of the municipal buildings.

Other relevant areas

In addition to the 4.65 acres of the old landfill, approximately 400 acres are listed as owned by the Town of Northborough, with little or no indication of use. These properties should be identified and assessed for their potential use as open space or recreation purposes.

Table 5.6 – State owned open space and recreation parcel inventory

Owner- Ship Type/ Manage- ment	Owner	State Use Code	Use Code Description/Use (Potential Use)	Zone	Total Land Area (Acres)	Parcel Id	Sub Id	Street Address	Level Of Protection	Public Access	Public Assist- ance
Public State	Commonwealth Of Mass	901	Unknown supporting	RB	0.03	0		Brewer Street	Limited	?	Yes
Public State	Commonwealth Of Mass/DMR	914	Westboro State Hospital	RC	134.03	0		Lyman Street	Limited	Some?	Yes
Public State	Commonwealth Of Mass/DMR	914	Westboro State Hospital	IA	162.12	0		Lyman Street	Limited	Some?	Yes
Public State	Commonwealth Of Mass/DMR	914	Westboro State Hospital	RC	5.46	0	-Off	Lyman Street	Limited	Some?	Yes
Public State	Commonwealth Of Mass/DMR	901	Westboro State Hospital	IA	6.03	0	-Off	Lyman Street	Limited	Some?	Yes
Public State	Commonwealth Of Mass/DCR	915	Water Resources	IA	29.8	0		Talbot Road	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	915	Water Resources	IA	216	0		Bartlett Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RB	24.35	0		Whitney Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RC	1.63	0		Goddard Road	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RB	4.39	0		Whitney Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RB	0.45	0		Whitney Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RB	10.35	0	I-290	Interstate Highway	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RB	8.17	0	-Rear	Whitney Street	Permanent	Yes	Yes

Table 5.6 – State owned open space and recreation parcel inventory

Owner- Ship Type/ Manage- ment	Owner	State Use Code	Use Code Description/Use (Potential Use)	Zone	Total Land Area (Acres)	Parcel Id	Sub Id	Street Address	Level Of Protection	Public Access	Public Assist- ance
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RB	1.45	0		Whitney Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RB	3.53	0		Solomon Pond Road	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RB	0.41	0		Solomon Pond Road	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RC	0.02	0		Whitney Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	IA	2.51	0		Solomon Pond Road	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RC	3.27	0		Solomon Pond Road	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RC	0.16	0		Hudson Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RC	0.85	0		Boundary Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RC	0.46	2		Boundary Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RC	106.2	0		Boundary Street	Permanent	Yes	Yes

Table 5.6 – State owned open space and recreation parcel inventory

Owner- Ship Type/ Manage- ment	Owner	State Use Code	Use Code Description/Use (Potential Use)	Zone	Total Land Area (Acres)	Parcel Id	Sub Id	Street Address	Level Of Protection	Public Access	Public Assist- ance
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RC	16.97	0		Main Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RC	5.58	0		Hudson Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RC	7.68	0		Hudson Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RC	3.2	0		Hudson Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RC	19.62	0	-Rear	Hudson Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RC	5.47	0		Hudson Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	IB	12.17	0		Hudson Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RC	2.5	0		Chapin Court	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RB	8.69	0	-Rear	West Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RB	18.62	0		West Street	Permanent	Yes	Yes

Table 5.6 – State owned open space and recreation parcel inventory

Owner- Ship Type/ Manage- ment	Owner	State Use Code	Use Code Description/Use (Potential Use)	Zone	Total Land Area (Acres)	Parcel Id	Sub Id	Street Address	Level Of Protection	Public Access	Public Assist- ance
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RB	8.4	0		West Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RB	193.21	0		Crawford Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RB	0.97	87		Crawford Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	BB	183.72	0		West Main Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	IA	7.03	0		Southwest Cutoff	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	901	Water Resources/Suasco	RC	0.68	0		Tomblin Hill Road	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	915	Aqueduct Protection	RB	38.9	431		Whitney Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	915	Aqueduct Protection	RB	2.94	0	-Rear	Coolidge Circle	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	915	Aqueduct Protection	RB	14.35	0	-Rear	Coolidge Circle	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	915	Aqueduct Protection	RB	6.07	0	-Rear	Whitney Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	915	Aqueduct Protection	RC	0.12	0		Rice Avenue	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	915	Aqueduct Protection	IA	1.41	0		Colburn Street	Permanent	Yes	Yes

Table 5.6 – State owned open space and recreation parcel inventory

Owner- Ship Type/ Manage-	Owner	State Use Code	Use Code Description/Use (Potential Use)	Zone	Total Land Area (Acres)	Parcel Id	Sub Id	Street Address	Level Of Protection	Public Access	Public Assist- ance
Public	Commonwealth	915	Aqueduct Protection	IA	1.8	0		Bearfoot Road	Permanent	Yes	Yes
State Public State	Of Mass/DCR Commonwealth Of Mass/DCR	915	Aqueduct Protection	RC	10.53	0		Rice Avenue	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	915	Aqueduct Protection	RC	1.55	0		Hudson Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	915	Aqueduct Protection	BB	3.48	0		East Main Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	915	Aqueduct Protection	RC	3.08	0		East Main Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	915	Aqueduct Protection	IA	11.23	0	Rear	Bartlett Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	915	Aqueduct Protection	BB	9.1	0		Main Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	915	Aqueduct Protection	RC	4.85	0	Off	Bartlett Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DCR	915	Aqueduct Protection	IA	8	0		Bartlett Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/ DCR	915	Aqueduct Protection	IA	0.43	0		Bartlett Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DFG	911	Wildlife Management	RA	107.5	0		Howard Street	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DFG	911	Wildlife Management	RC	3.23	0		Juniper Brook Road	Permanent	Yes	Yes
Public State	Commonwealth Of Mass/DFG	911	Wildlife Management	RC	18	0		Juniper Brook Road	Permanent	Yes	Yes

Tabled 5.7 - Town Owned Parcels of recreation or Conservation Interest

Owner Ship Type	Owner/ Management	State Use Code	Use Code Description	Current Use	Potential Use	Condi tion ¹²	Zone	Total Land Area (Ac.)	Par cel Id	Su b Id	St. Addre ss	Level Of Prote c-tion	Pub. Acce ss	Pub. Assist ance
Public Reg. School District	Northboro & Southboro Reg. School District	903	Regional High School	High School Athletic Fields, Courts Trail Network	High School Athletic Fields, Courts, Trail Network	WM	RC	42.94	79		Bartlet t St.	Limite d	Yes	Yes
Public Reg. School District	Northboro & Southboro Reg. School District	903	Regional High School	High School Athletic Fields, Courts Trail Network	High School Athletic Fields, Courts Trail Network	WM	IA	148.8	0		Main St.	Limite d	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Edmund Hill Woods Conservation Area	Passive Rec	Passive Rec	G	RC	52.8	0		Whitn ey St.	Perm.	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Edmund Hill Woods Conservation Area	Passive Rec	Passive Rec	G	RC	4.8	0		Overlo ck Drive	Perm.	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Edmund Hill Woods Conservation Area	Passive Rec	Passive Rec	G	RC	8	12 1		Rice Ave.	Perm.	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Mt. Pisgah Conservation Area	Passive Rec	Passive Rec	WM	RA	26.25	0	- Off	Smith Rd.	Perm.	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Mt. Pisgah Conservation Area	Passive Rec	Passive Rec	WM	RA	52.32	0		Smith Rd.	Perm.	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Mt. Pisgah Conservation Area	Passive Rec	Passive Rec	WM	RA	53	0	- Off	Smith Rd.	Perm.	Yes	Yes

¹² WM= Well maintained; G= Good, P=Poor; NM=Not maintained.

Tabled 5.7 - Town Owned Parcels of recreation or Conservation Interest

Owner Ship Type	Owner/ Management	State Use Code	Use Code Description	Current Use	Potential Use	Condi tion ¹²	Zone	Total Land Area (Ac.)	Par cel Id	Su b Id	St. Addre ss	Level Of Prote c-tion	Pub. Acce ss	Pub. Assist ance
Public Town	Town Of Northboro Con Com	903	Mt. Pisgah Conservation Area	Passive Rec	Passive Rec	WM	RA	39.8	0		Smith Rd.	Perm.	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Mt. Pisgah Conservation Area	Passive Rec	Passive Rec	WM	RA	9.2	0	- Re ar	Smith Rd.	Limite d	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Mt. Pisgah Conservation Area	Passive Rec	Passive Rec	WM	RA	5.79	16		Smith Rd.	Limite d	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Subdiv. conservation area	Passive Rec	Passive Rec	NM	RB	1.04	0		Coolid ge Circle	Perm.	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Subdiv. conservation area	Passive Rec	Passive Rec	NM	RA	5.33	0		Coolid ge Circle	Perm.	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Subdiv. conservation area	Passive Rec	Passive Rec	NM	RB	2.66	0		Coolid ge Circle	Perm.	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Subdiv. conservation area	Passive Rec	Passive Rec	NM	RB	0.73	0		Coolid ge Circle	Perm.	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Unmaintaine d conservation area	Passive Rec	Passive Rec	NM	RB	6.5	0		Valent ine Rd.	Perm.	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Unmaintaine d conservation area	Passive Rec	Passive Rec	NM	RC	4.1	0		Churc h St.	Perm.	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Unmaintaine d conservation area	Passive Rec	Passive Rec	NM	RC	4.95	0		Pleas ant St.	Perm.	Yes	Yes

Tabled 5.7 - Town Owned Parcels of recreation or Conservation Interest

Owner Ship Type	Owner/ Management	State Use Code	Use Code Description	Current Use	Potential Use	Condi tion ¹²	Zone	Total Land Area (Ac.)	Par cel Id	Su b Id	St. Addre ss	Level Of Prote c-tion	Pub. Acce ss	Pub. Assist ance
Public Town	Town Of Northboro Con Com	903	Unmaintaine d conservation area	Passive Rec with trail easement	Passive Rec	NM	IA	11.3	19 5		South west Cutoff	Perm.	Yes	Yes
Public Town	Town Of Northboro BOS	903	Former Shooting Range	Passive Rec	Passive Rec	WM	IA	2.48	16 7		Bearfo ot Rd.	Limite d	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Conservation Com Easement	Passive Rec	Passive Rec	WM	RC	4.5	0	- Re ar	RailR d. Drive	Limite d	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Conservation Commission	Passive Rec	Passive Rec	WM	BB	17.51	35 0		West Main St.	Limite d	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Conservation Purposes	Passive Rec	Passive Rec	NM	RC	3	0		Churc h St.	Limite d	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Conservation Purposes and trail easement	Passive Rec	Passive Rec	WM	RC	1	0		Smith Pond	Limite d	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Conservation Purposes and trail easement	Passive Rec	Passive Rec	WM	IA	8.95	21 9		South west Cutoff	Limite d	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Open Space	Passive Rec	Passive Rec	WM	BA	0.12	0		Main St.	Limite d	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Open Space in Subdivision	Passive Rec	Passive Rec	NM	RC	0.82	1		Hemlo ck Drive	Limite d	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Open Space in Subdivision	Passive Rec	Passive Rec	NM	RC	0.31	13		Hemlo ck Drive	Limite d	Yes	Yes

Tabled 5.7 - Town Owned Parcels of recreation or Conservation Interest

Owner Ship Type	Owner/ Management	State Use Code	Use Code Description	Current Use	Potential Use	Condi tion ¹²	Zone	Total Land Area (Ac.)	Par cel ld	Su b Id	St. Addre ss	Level Of Prote c-tion	Pub. Acce ss	Pub. Assist ance
Public Town	Town Of Northboro Con Com	903	Open Space in Subdivision	Passive Rec	Passive Rec	NM	RC	0.46	21		Hemlo ck Drive	Limite d	Yes	Yes
Public Town	Town Of Northboro Con Com	903	Open Space in Subdivision	Passive Rec	Passive Rec	NM	RC	0.03	0		Hemlo ck Drive	Limite d	Yes	Yes
Public Town	Town Of Northboro DPW	903	For Reservoir Purposes ?	Passive Rec	Passive Rec	WM	IA	0.39	0		South west Cutoff	Limite d	Yes	Yes
Public Town	Town Of Northboro DPW	903	Old Landfill	None	Passive Rec after cleanup	WM	IA	2	0		South west Cutoff	Limite d	Yes	No
Public Town	Town Of Northboro DPW	903	Old Landfill	None	Passive Rec after cleanup	WM	IA	1.24	0		South west Cutoff	Limite d	Yes	No
Public Town	Town Of Northboro DPW	903	Old Landfill	None	Passive Rec after cleanup	G	IA	4.65	0		South west Cutoff	Limite d	Yes	No
Public Town	Town Of Northboro DPW/Park Dept	903	Assabet Park	Active Rec., Splash Pad	Active Rec.	WM	GR	18.79	0		South St.	Limite d	Yes	Yes
Public Town	Town Of Northboro DPW/Park Dept	903	Cemetery	Cemetery/Pa ssive Rec.	Cemetery/Pa ssive Rec.	WM	GR	18.65	30		Howar d St.	Perm.	Yes	No
Public Town	Town Of Northboro DPW/Park Dept	903	Cemetery	Cemetery/Pa ssive Rec.	Cemetery/Pa ssive Rec.	WM	RC	3.29	0		Brigha m St.	Perm.	Yes	No
Public Town	Town Of Northboro DPW/Park Dept	903	Cemetery	Cemetery/Pa ssive Rec.	Cemetery/Pa ssive Rec.	WM	RC	21.87	60		Howar d St.	Perm.	Yes	No

Tabled 5.7 - Town Owned Parcels of recreation or Conservation Interest

Owner Ship Type	Owner/ Management	State Use Code	Use Code Description	Current Use	Potential Use	Condi tion ¹²	Zone	Total Land Area (Ac.)	Par cel ld	Su b Id	St. Addre ss	Level Of Prote c-tion	Pub. Acce ss	Pub. Assist ance
Public Town	T-own Of Northboro DPW/Park Dept	903	Ellsworth McAfee with Conservation area as a part of a Subdivision?	Sports fields Passive Rec	Sports fields Passive Rec	WM	RC	50.39	36		South St.	Limite d	Yes	Yes
Public Town	Town Of Northboro DPW/Park Dept	903	Howard St. Rec Area	Baseball Field and totlot	Some comb of active & passive rec	WM	RC	9.4	0		Whitn ey St.	Limite d	Yes	Yes
Public Town	Town Of Northboro DPW/Park Dept	903	Howard St. Rec. Area	Baseball Field, tot lot	Baseball Field, tot lot	WM	GR	2.02	0		Howar d St.	Limite d	Yes	Yes
Public Town	Town Of Northboro DPW/Park Dept	903	Memorial Field Concession	Athletic Field concession	Athletic Field concession	WM	RC	9.16	0		East Main St.	Limite d	Yes	Yes
Public Town	Town Of Northboro DPW/Park Dept	903	Park Dept., Subdiv. conservation area	Passive Rec.	Passive Rec.	G	RC	1.54	0	Re ar	Stratto n Way	Limite d	Yes	Yes
Public Town	Town Of Northboro DPW/Park Dept	903	Park Dept., Subdiv. conservation area	Passive Rec.	Passive Rec.	G	RB	5.04	0	Re ar	Newto n St.	Limite d	Yes	Yes
Public Town	Town Of Northboro DPW/Park Dept	903	Park Dept., Subdiv. conservation area	Passive Rec.	Passive Rec.	G	BA	0.35	0		West Main St.	Limite d	Yes	Yes
Public Town	Town Of Northboro DPW/Park Dept	903	Park Dept., Subdiv. conservation area	Passive Rec.	Passive Rec.	G	RC	0.63	0		Shady lane Ave.	Limite d	Yes	Yes

Tabled 5.7 - Town Owned Parcels of recreation or Conservation Interest

Owner Ship Type	Owner/ Management	State Use Code	Use Code Description	Current Use	Potential Use	Condi tion ¹²	Zone	Total Land Area (Ac.)	Par cel Id	Su b Id	St. Addre ss	Level Of Prote c-tion	Pub. Acce ss	Pub. Assist ance
Public Town	Town Of Northboro DPW/Park Dept	903	Park Dept., Subdiv. conservation area	Passive Rec.	Passive Rec.	G	RC	1.71	0	Re ar	Junipe r Brook Rd.	Limite d	Yes	Yes
Public Town	Town Of Northboro DPW/Park Dept	903	Park Dept., Subdiv. conservation area	Passive Rec.	Passive Rec.	G	RB	3.47	0		Valent ine Rd.	Limite d	Yes	Yes
Public Town	Town Of Northboro DPW/Park Dept	903	Watson Park?	Passive Rec	Passive Rec	WM	RC	40.91	0		Bartlet t St.	Limite d	Yes	Yes
Public Town	Town Of Northboro School Dept.	903	School, Fannie E. Proctor	Sports Fields, playground	Sports Fields, playground	WM	RC	12.1	26		Jeffer son Rd.	Limite d	Yes	Yes
Public Town	Town Of Northboro School Dept.	903	School, Lincoln St.	Sports Fields, playground	Sports Fields, playground	WM	RC	12	76		Lincol n St.	Limite d	Yes	Yes
Public Town	Town Of Northboro School Dept.	903	School, Lincoln St.	Sports Fields, playground	Sports Fields, playground	WM	RC	0.92	0		Lincol n St.	Limite d	Yes	Yes
Public Town	Town Of Northboro School Dept.	903	School, Lincoln St.	Sports Fields, playground	Sports Fields, playground	WM	RC	0.72	0		Lincol n St.	Limite d	Yes	Yes
Public Town	Town Of Northboro School Dept.	903	School, Middle	Sports Fields, playground	Sports Fields, playground	WM	RB	21	14 5		Lincol n St.	Limite d	Yes	Yes
Public Town	Town Of Northboro School Dept.	903	School, Peaslee	Sports Fields, playground	Sports Fields, playground	WM	RC	35.4	31		Maple St.	Limite d	Yes	Yes

Tabled 5.7 - Town Owned Parcels of recreation or Conservation Interest

Owner Ship Type	Owner/ Management	State Use Code	Use Code Description	Current Use	Potential Use	Condi tion ¹²	Zone	Total Land Area (Ac.)	Par cel Id	Su b Id	St. Addre ss	Level Of Prote c-tion	Pub. Acce ss	Pub. Assist ance
Public Town	Town Of Northboro School Dept.	903	School, Zeh	Sports Fields, playground	Sports Fields, playground	WM	GR	4.39	33		Howar d St.	Limite d	Yes	Yes
Public Town	Town Of Northboro Water Dept.	903	Water Dept.	Water Supply	Passive Rec.	NM	RC	0.38	16		Edmu nds Way	Perm.	No	No
Public Town	Town Of Northboro Water Dept.	903	Water Dept.	Water Supply	None	NM	RC	0.06	17 7	-A	Hudso n St.	Perm.	No	No
Public Town	Town Of Northboro Water Dept.	903	Water Dept.	Water Supply	Passive Rec	G	GR	3.81	25		Gale St.	Perm.	No	No
Public Town	Town Of Northboro Water Dept.	903	Water Dept.	Water Supply protection	Water Supply protection	WM	RC	35.05	40		Lyma n St.	Perm.	No	No
Public Town	Town Of Northboro Water Dept.	903	Water Dept.	Water Supply protection	Water Supply protection	WM	RC	40.87	20 0		Schoo I St.	Perm.	No	No
Public Town	Town Of Northboro Water Dept.	903	Water Dept. Well Site	Water Supply protection	Water Supply protection	WM	RB	13.24	10 8		Crawf ord St.	Perm.	No	No
Public Town	Town Of Northboro Water Dept.	903	Water Dept. Well Site	Water Supply protection	Water Supply protection	WM	RC	18.03	0		Howar d St.	Perm.	No	No

Tabled 5.7 - Town Owned Parcels of recreation or Conservation Interest

Owner Ship Type	Owner/ Management	State Use Code	Use Code Description	Current Use	Potential Use	Condi tion ¹²	Zone	Total Land Area (Ac.)	Par cel ld	Su b Id	St. Addre ss	Level Of Prote c-tion	Pub. Acce ss	Pub. Assist ance
Public Town	Town Of Northboro Water Dept.	903	Water Dept/Sewage Disposal	Water Supply protection	Water Supply protection	WM	BA	0.45	0		Blake St.	Perm.	No	No

Table 5.8 – Town-owned other parcels

Owner- Ship Type	Owner Management	State Use Code	Use Code Description/Use (Potential Use)	Zone	Total Land Area (Acres)	Parcel Id	Sub Id	St. Address	Level Of Protection	Public Access	Public Assist- ance
Public Town	Town Of Northboro BOS	903	For Subdivision	RB	0.93	0		Stone Drive	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For Subdivision	RC	1.73	2		Edmunds Way	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For Subdivision	RC	1.47	0		Edmunds Way	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For Subdivision	RC	0.13	0		Winsor Lane	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For Subdivision	RC	0.75	0		Gates Lane	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For Subdivision	RC	0.56	0		Milestone Lane	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For Subdivision	RC	0.47	0		Tory Lane	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For Subdivision	RC	11.45	0	-Off	Colburn St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For Subdivision	RB	0.29	0		Valentine Rd.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For Subdivision	RC	0.53	30		Treetop Circle	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For Subdivision	RC	0.7	0		Vanessa Dr.	Limited	Unknown	No

Table 5.8 – Town-owned other parcels

0	O		Use Code	7	Tatal	Danasi	Cook	Ot A dalahasa a	I aveal Of	Dudalia	Public
Owner- Ship Type	Owner Management	State Use Code	Description/Use (Potential Use)	Zone	Total Land Area (Acres)	Parcel Id	Sub Id	St. Address	Level Of Protection	Public Access	Assist- ance
Public Town	Town Of Northboro BOS	903	For Subdivision	RC	0.25	0	-Off	Gristmill Lane	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For Subdivision	RC	3.26	88		Little Pond Rd.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For Subdivision	RA	2.4	35		Castle Rd.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For Subdivision	GR	0.34	19	-21	Greenland Circle	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For Subdivision	GR	0.78	0		Liberty Drive	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For Subdivision	RC	0.44	0		Wheelwright Drive	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For Subdivision	RC	2	0		Assabet Hill Circle	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For Subdivision	GR	0.44	0		Patriot Drive	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For subdivision	RC	0.54	29		Catherine Drive	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For subdivision	BB	0.06	0		Davis St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For subdivision	RC	0.48	3		Jethro Peters Lane	Limited	Unknown	No

Table 5.8 – Town-owned other parcels

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Owner- Ship Type	Owner Management	State Use Code	Use Code Description/Use (Potential Use)	Zone	Total Land Area (Acres)	Parcel Id	Sub Id	St. Address	Level Of Protection	Public Access	Public Assist- ance
Public Town	Town Of Northboro BOS	903	For subdivision	RC	0.46	7		Jethro Peters Lane	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For subdivision	RC	3.49	0		Jethro Peters Lane	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For subdivision	RC	0.09	0		Bent Rd.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For subdivision	RC	1.26	0		Kendall Drive	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For subdivision	RC	8.85	57		Southwest Cutoff	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For subdivision	RC	0.53	0		Oak Meadow Drive	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	For Subdivision	RC	1.9	0	Off	Davis St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Public way	RC	1.2	0	Rd.	Fairway Drive	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Public Way	RC	0.57	0	Rd.	Mulligan Way	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Right of way	RC	1.95	0	Rd.	Stirrup Brook Lane	Limited	Unknown	No
Public Town	Town Of Northboro Sewer Dept.	903	Sewer Dept. Pumping Station	RC	1	0		Hudson St.	Limited	Unknown	No

Table 5.8 – Town-owned other parcels

Owner- Ship Type	Owner Management	State Use Code	Use Code Description/Use (Potential Use)	Zone	Total Land Area (Acres)	Parcel Id	Sub Id	St. Address	Level Of Protection	Public Access	Public Assist- ance
Public Town	Town Of Northboro DPW/BOS	903	Sewer Utility	RC	3.3	0		Main St.	Limited	Unknown	No
Public Town	Town Of Northboro DPW/BOS	903	Sewer Utility	RC	24.48	455		Main St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Tax taking	RB	0.46	0		Howard St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Tax taking	RC	0.75	0		Northgate Rd.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Tax taking	RC	0.03	0	Rear	Rice Ave.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Tax taking	RB	0.46	0		Howard St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Tax taking	RC	0.33	48		Lawrence St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Tax taking	RB	0.92	526		West Main St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Tax Taking	RB	1.38	206		Brewer St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Tax Taking	RB	1.04	0		Brewer St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Tax Taking	RB	1.05	0		Brewer St.	Limited	Unknown	No

Table 5.8 – Town-owned other parcels

Owner- Ship Type	Owner Management	State Use Code	Use Code Description/Use (Potential Use)	Zone	Total Land Area (Acres)	Parcel Id	Sub Id	St. Address	Level Of Protection	Public Access	Public Assist- ance
Public Town	Town Of Northboro BOS	903	Tax Taking	RB	1.19	0		Brewer St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Tax taking	RB	0.26	0		Brewer St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Tax taking	RB	1.64	0		West St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Tax taking	RB	20.42	0	-Off	Church St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Tax taking	RC	0.2	0	Rear	Rice Ave.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Tax Taking	RB	0.92	0		West St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Tax Taking	RB	0.92	0		West St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Tax Taking	RB	1.19	0		West St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Tax Taking	RB	1.05	0		West St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Tax Taking	RB	1.11	0		West St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Tax taking	GR	3.59	0		Buena Vista St.	Limited	Unknown	No

Table 5.8 – Town-owned other parcels

Owner- Ship Type	Owner Management	State Use Code	Use Code Description/Use (Potential Use)	Zone	Total Land Area (Acres)	Parcel Id	Sub Id	St. Address	Level Of Protection	Public Access	Public Assist- ance
Public Town	Town Of Northboro BOS	903	Tax taking	RC	2.45	16		Lincoln St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Tax taking	RA	3.9	0	-Off	Crawford St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Tax taking	RB	0.16	38		King St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Tax taking	RC	31.88	374		Davis St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Unknown	RB	0.79	0		Foxwood Lane	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Unknown	RC	0.16	0		Hillside Rd.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Unknown	RA	0.23	0		Ball St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Unknown?	RC	0.77	0	Rdwy	Buckhill Rd.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Unknown?	RC	32.75	0		Boundary St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Unknown?	RC	0.68	0		Meadowbrook Rd.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Unknown?	BB	4.75	0		Main St.	Limited	Unknown	No

Table 5.8 – Town-owned other parcels

Owner- Ship Type	Owner Management	State Use Code	Use Code Description/Use (Potential Use)	Zone	Total Land Area (Acres)	Parcel Id	Sub Id	St. Address	Level Of Protection	Public Access	Public Assist- ance
Public Town	Town Of Northboro BOS	903	Unknown?	BB	0.09	0		Main St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Unknown?	RC	0.04	0		Kent Drive	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Unknown?	BB	1.57	0		Main St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Unknown?	BB	0.22	0		Main St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Unknown?	GR	0.08	0		Church St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Unknown?	GR	0.63	0		Pleasant St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Unknown?	RB	0.49	18		Cold Harbor Drive	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Unknown?	BA	0.26	16		Pierce St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Unknown?	RC	2.09	0		Ridge Rd.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Unknown?	RC	1.67	139		Ridge Rd.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Unknown?	RC	0.84	0		Lyman St.	Limited	Unknown	No

Table 5.8 – Town-owned other parcels

Owner- Ship Type	Owner Management	State Use Code	Use Code Description/Use (Potential Use)	Zone	Total Land Area (Acres)	Parcel Id	Sub Id	St. Address	Level Of Protection	Public Access	Public Assist- ance
Public Town	Town Of Northboro BOS	903	Unknown?	RC	3.2	0	Rear	Northgate Rd.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Unknown?	RC	2.86	0		Otis St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Unknown?	IA	9.5	0		Davis St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Unknown?	RC	11.84	0		Davis St.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Unknown?	RC	2.36	49		Emerson Rd.	Limited	Unknown	No
Public Town	Town Of Northboro BOS	903	Unknown? Access to Solomon Pond?	RC	6.88	0	-Rear	Colburn St.	Limited	Unknown	No

Table 5.9 - Non-profit-owned open space and recreation parcel inventory

Owner- Ship Type/ Manage- ment	Owner	State Use Code	Use Code Description/Use (Potential Use)	Zone	Total Land Area (Acres)	Parcel Id	Sub Id	Street Address	Level Of Protection	Public Access	Public Assist- ance
Non-Profit Open Space	NE Forestry Foundation Inc	714	Ch.61a Orchards	RA	22.51	0		Ball Street	Limited	No	Yes
Non-Profit Open Space	NE Forestry Foundation Inc	905	Conservation Area	RB	26.88	0		West Main Street	Permanent	Yes	Yes
Non-Profit Open Space	NE Forestry Foundation Inc	905	Conservation Area	RB	1.18	0		West Main Street	Permanent	Yes	Yes
Non-Profit Open Space	NE Forestry Foundation Inc	905	Conservation Area	RB	1.28	0		West Main Street	Permanent	Yes	Yes
Non-Profit Open Space	NE Forestry Foundation Inc	905	Conservation Area	RB	1.22	0		West Main Street	Permanent	Yes	Yes
Non-Profit Open Space	NE Forestry Foundation Inc	905	Conservation Area	RB	1.01	494		West Main Street	Permanent	Yes	Yes
Non-Profit Open Space	Sudbury Valley Trustees, Inc.	905	Conservation Area	RC	1.8	0		School Street	Permanent	Yes	Yes
Non-Profit Open Space	Sudbury Valley Trustees, Inc.	905	Conservation Area	IA	93.33	0		Bartlett Street	Permanent	Yes	Yes
Non-Profit Open Space	Sudbury Valley Trustees, Inc.	905	Conservation Area	IA	36.19	0	Off	Bartlett Street	Permanent	Yes	Yes

A - Description of Process

In December of 2008, the Town of Northborough contracted with the Central Massachusetts Regional Planning Commission (CMRPC) to assist in the preparation of an update to its 2005 Open Space and Recreational Plan (OSRP). Though the update was not required until 2010, the committee felt a deliberate course of action started early would yield a thoughtful, strategic, and most importantly useful planning document that could guide the Town in its efforts to advance its open space and recreation goals.

In the winter and spring of 2009, CMRPC, the Town's Open Space Committee, and Planning Department developed a survey to gather resident input regarding open space and recreation in Northborough. The survey was based on the model set up in the Division Conservation Services (DCS) Open Space Planners Workbook. The survey was developed and summarized using the internet application SurveyMonkey ©. The availability of the survey and hyperlinks were placed on the Town website, sent via email to Town boards and commissions and to other interested parties. The survey was also made available in hard copy. The on-line survey was available from June 1 through July 31. No hard copies were submitted. 170 surveys were received. A summary of the survey results is attached as Appendix D.

In addition, the community was invited to review drafts of the plan which was published on the town's website. The Trails Committee, the Conservation Commission, the Recreation Commission, the Planning Board, the Board of Selectmen, and Central Massachusetts Regional Planning Commission each reviewed and provided letters of support (attached in Section 10). In August of 2010, a Community Forum was hosted by the Open Space Committee to solicit final feedback and comment on the plan.

Overall the process of developing this plan was comprehensive and inclusive in scope and is consistent with methods recommended by DCS. The process distilled a lot of useful information and fostered an insightful analysis that yielded a forward thinking and useful plan.

B - Statement of Open Space and Recreation Goals

Northborough values its open space, which provides the town with habitat for wildlife, protection from flooding, beautiful recreational areas, and a high quality of living. The goal of this plan is to present an organized set of measures to protect, preserve, and acquire these valuable resources, to improve community understanding and commitment to conservation, and to enhance the recreational opportunities.

The goals below are refinements of the goals stated in the 2005 OSRP, reflecting progress toward the earlier stated goals, the results of the survey, input from interested stakeholders, and changes in area demographics, and the current political and economic climate.

Goal 1. Preserve open space for the town's overall benefit. Residents place a high value on the quality and location of open space for many purposes and overwhelmingly support land preservation.

Goal 2. Improve community appreciation, understanding, active involvement and commitment to conservation. Despite the general support for open space preservation, on-going education and awareness building efforts among young people, new residents, and others will ensure that the first goal remains a primary focus for years to come.

Goal 3. Improve, expand, and manage open space related recreational opportunities. Abundant and varied open space within the town of Northborough provide tremendous outdoor activities such as hiking, mountain biking, cross country skiing, fishing, birding, horseback riding, and the newest craze, geocaching. Appropriate actions should be taken to foster the continued enjoyment of these areas.

Goal 4. Improve, expand, and manage recreation opportunities, facilities and programs. A healthy population relies on engaging and varied types of play. This requires maintained facilities and well run programs continually serving many different needs.

A. Summary of Resource Protection Needs

The Town of Northborough has taken many steps to protect its natural resources including the adoption of an open space residential design zoning bylaw, the passage of the Community Preservation Act (CPA), designation of scenic roads, and the Open Space Committee working closely with area non-profits and state agencies on open space conservation.

Of the survey respondents, 98.8% felt there was a need to preserve open space and natural areas in the Town of Northborough. The greatest number (78.0%) of survey respondents indicated that it was very important to preserve open spaces to meet our water and conservation needs, while still a large percentage (60.7%) felt it was important to preserve open spaces for recreational needs. To preserve land, 75.8% reported that they would vote for a town-supported land acquisition program. Between 40 and 50% reported that they would donate money to buy land, sell or contribute a conservation restriction to protect land for future development, sell some land to the town for "fair market value", or vote to raise town taxes to fund land acquisition programs. As a means for the State to preserve open space, property tax reduction programs (Chapter 61 programs) were received more favorably than the outright purchase of land which in turn was received more favorably than the purchase of development rights.

The greater Mt. Pisgah landscape is composed of approximately 5,000 acres. Land here is still contained in fairly large tracts (many properties contain 50 to 100 acres), and much of this is still managed woodland and farmland. However, increasing development pressure, both in scale and pace, is rapidly fragmenting the ecological integrity of the landscape, and the window of opportunity to protect it is shrinking. The number of homes built in this region in the last five years has exploded, and the size of these homes has grown significantly. These factors have detrimental impacts on this rural economy; they drive the cost of land up, and, ultimately, tempt landowners to sell their properties for development. Protecting properties at the landscape scale is the most efficient and ecologically sound approach to preserving biodiversity. Sudbury Valley Trustees and the Town of Northborough should continue working with landowners and municipalities in the Mt. Pisgah region to protect the area's important resources. (Sudbury Valley Trustees, 2009)

In addition, the Town of Northborough and the Town of Berlin, both having parts of Mt Pisgah within their borders should develop a shared understanding of goals and objectives relative to the area's protection. Similarly the Town of Northborough and the Town of Westborough, both having interest in the Westborough State Hospital, should work together, with the state, and future owners to most effectively enhance their open space and recreational resources.

B. Summary of Community's Needs

Survey results

Northborough is blessed with an excellent Recreation Department, tremendous facilities and programs that satisfy most residents. According to the summary of the survey results (Appendix D) more residents were satisfied with places for children and youth to play and recreate (81.0%) than with the places for adults to play and recreate (55.5%). However, there was general satisfaction with the condition of the recreational facilities in town. In addition survey respondents elaborated as follows:

- More town parks, including pocket and neighborhood parks.
- More recreation space in the northern part of town
- A dog park



- Community pool
- Space for recreation with motorized vehicles such as all terrain vehicles, dirt bikes, and snowmobiles
- Space for intergenerational and senior appropriate activities.
- More pathways for walking, cycling, and running
- More social function, picnic, cookout areas
- Improved maintenance at existing facilities.

The top five recreation facilities respondents felt were needed were conservation areas, bike trails, hiking and cross country skiing trails, public access to water bodies, and a library.

There were numerous references to the need for a dog park. An organized group of community residents have met with town officials repeatedly to determine whether any town owned parcels might be suitable for use as a dog park. For a variety of reasons, no town owned land seemed appropriate. The dog park group is presumably in discussions with state officials regarding state owned land in the vicinity of the Hudson Street, Yellick Conservation Area.



According to the survey, of the facilities listed, the top five reportedly visited by residents were Watson Park at Bartlett Pond, Mount Pisgah Conservation Area, Ellsworth McAfee Park, Edmund Hill Woods and Little Chauncy Pond Boat Ramp.

Recreation Department

With the exception of Algonquin Regional High School, the Recreation Department schedules all outdoor activities at Northborough schools. The Recreation Department also uses non-school properties such as Ellsworth-McAfee Park, and Assabet Park for their outdoor activities and athletic leagues. They publish a "recreation brochure and community guide" four times each year. The brochure lists the schedule of seasonal activities, one day activities, the recreational classes and league for all ages. A sampling of listings includes the following:

- Jazzercize,
- Archery
- Tball leagues
- Parent Tot Swim
- Karate
- Kayaking
- Quilting
- Field Hockey Clinic
- New York City Trip with Fox Tours (One Day Trip)
- Wicked Gross Anatomy.

While some leagues and classes have great participation, others have limited attendance. Throughout the year, the Recreation Department is consistently soliciting feedback regarding its programs and activities via formal and informal surveys. The information is used to determine future offerings. In an interview with Recreation Department personnel, they noted anecdotally that parents prefer their children to participate in supervised programs.

Table 7.1 - Northborough Parks and Conservation Areas

Area	Acreage	Amenities
Mount Pisgah	186 acres	Wooded area and trails
Ellsworth-McAfee Park	50 acres	Playground equipment, recreational fields, and skate

Area	Acreage	Amenities
		board park
Assabet Park	12 acres	Playground equipment and splash pad
Memorial Field	10 acres	Baseball fields
Howard Street Recreation Area	4 acres	Playground
Bearfoot Road	13 acres	Walking trail, boat ramp
Edmund Hill Woods	61 acres	Wooded area and trails
Watson Park	41 acres	Walking trail
Carney Park	18 acres	Walking trail
Bartlett Street Pond	40 acres	Trails, boat ramp



There is one skate park open to the public. It is located at Ellsworth McAfee Park. There is one splash pad located at Assabet Park. There are three full size basketball courts located at Assabet Park, Ellsworth McAfee, and Town Hall. The two basketball courts located at the parks are outdoor courts and are open to the public at all times. The Town Hall basketball court is inside and is reserved for classes, leagues, and activities. There are 8 outside tennis courts at the high school and middle school. They are open to the community when school is not in session. There are approximately 20 miles of trails located throughout Northborough. Maps of these trails are contained in Appendix E.

There are seven playgrounds in Northborough. They are located at each elementary school, Assabet Park, and Ellsworth McAfee Park. The school playgrounds are open to the public after school hours and the two parks are open from dawn to dusk.

Town residents have the use of the beach and swimming area at Lake Chauncy in Westborough. A boat ramp, beach, and public fisherman's access are located on the shores of Little Chauncy Pond off Lyman Street. All facilities are fully utilized by the Town residents and better ways of using them need to be investigated. The Parks and Recreation Commission developed a master plan for park improvement with the help of a consulting firm.

Obesity Study

The Town of Northborough has recently completed a Community Needs Assessment on Childhood Obesity. The study provided useful information to the town on how to promote healthy lifestyles. A strategic plan with nine objectives was developed based on the assessment. The 9 objectives are listed below.

- 1. Increase awareness of the importance of the 60 minutes/day of physical activity for children in Northborough (Similar to the NFL message).
- 2. Increase collaboration among diverse partners (Chief of Police, Superintendent, school nurses, restaurants).
- 3. Work with restaurants to have them mark "healthy options" on menus (as a sustainable change).
- 4. Pilot program in a school(s) for limiting drop off location ½ or ½ mile from the school to increase activity by making kids walk the distance.
- 5. Incorporate nontraditional options for physical activity (not just organized sports).
- 6. Pilot program in school(s) to work with classroom teachers to incorporate physical activity in the classroom during the school day.
- 7. Increase training for staff who implement physical activity/sports/exercise programs to ensure maximum movement during the allotted time.
- 8. Invite a recognized Food Service Director to present to the Superintendent so he/she is aware of positive changes that can be made in the school lunch program.
- 9. Work with developers to improve marked lanes, walk signs and sidewalks to promote walkability between new and existing developments.

Other Recreation Programs and Facilities

The Boroughs Family Branch of the YMCA is located on 4 Valente Drive in Westborough. It began its operations in 1983 in a small branch office running all of its programs without a facility. Swim programs were run at local hotel pools and child care programs were run out of leased church space and store fronts. The Boroughs Branch has provided services and programs throughout a nine town area including: Berlin, Grafton, Hudson, Marlborough, Northborough, Shrewsbury, Southborough, Upton, and Westborough.

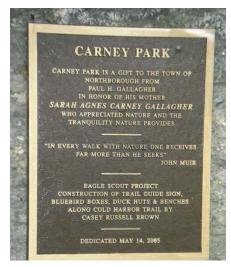
Through the years programs and services have grown resulting in the construction of a 62,000 square foot full facility that opened in November 2002. The facility houses a 6-lane 25-yard Pool, Full Gymnasium and Track, Rock Climbing Wall, Nature Adventure Zone for Kids, 2 Child Watch Rooms, Computer Room, Senior Lounge, Group Cycling Room, Aerobic Exercise Rooms, and a state of the art Fitness/Wellness Center. In addition, the facility houses a Child Development Center licensed for 62 children including infant, toddler, and preschool age children. Finally, a multipurpose field allows for outdoor programs and summer camp activity. The Boroughs Branch oversees the operations of two licensed Child Development Centers and Kindergartens in Northborough, and Grafton.

Recreation Standards

The National Recreation and Park Association (NRPA) recognizes the importance of establishing and using park and recreation standards as:

- A national expression of minimum acceptable facilities for the citizens of urban and rural communities.
- A guideline to determine land requirements for various kinds of park and recreation areas and facilities.
- A basis for relating recreational needs to spatial analysis within a community-wide system of parks and open space areas.
- One of the major structuring elements that can be used to guide and assist regional development.
- A means to justify the need for parks and open space within the overall land-use pattern of a region or community.

The purpose of these guidelines is to present park and recreation space standards that are applicable nationwide for planning, acquisition, and development of park, recreation, and open space lands, primarily at the community level. These standards should be viewed as a guide. They address minimum, not maximum, goals to be achieved. The standards are interpreted according to the particular situation to which they are applied and specific local needs. A variety of standards has been developed by professional and trade associations which are used throughout the country. The standard derived from early studies of park acreages located within metropolitan areas was the expression of acres of park land per unit of population. Over time, the figure of 10 acres per 1,000 population came to be the commonly accepted standard used by a majority of communities. Other standards adopted include the "percent of area" approach, needs determined by user characteristics and participation projections, and area use based on the carrying capacity of the land. The fact that some of the



standards have changed substantially is not an indication of their obsolescence. Changes are a measure of the growing awareness and understanding of both participant and resource (land, water, etc.) limitations. Parks are for people. Park, recreation, and planning professionals must integrate the art and science of park management in order to balance such park and open space resource values as water supply, and air quality. (Lancaster, 1990) Table 7.2 compares some of these standards with the open space and recreation facilities present in Northborough.

Table 7.2 - Recreation Facilities Assessment

Activity/ Facility	Recommended Space Requirements	Recommended Size And Dimensions	Needed For A Population Of Almost 15,000	Service Radius	Location Notes
Badminton	1620 sq. ft.	Singles – 17'x44' Doubles – 20'x44'	1 per 5000 = 3 needed	1⁄4 -1/2 mile	Usually in school, recreation center or church facility. Safe walking or bike access. No designated courts in Town. Probably available at high school gymnasium
Basketball 1. Youth 2. High School 3. Collegiate	2400-3036 sq. ft. 5040-7280 sq. ft. 5600-7980 sq. ft.	46-50'x84' 50'x84' 50'x94' with 5' unobstructed space on all sides	1 per 5000= 3 needed	1⁄4 - 1⁄2 mile	Usually in school, recreation center or church facility. Safe walking or bike access. Outdoor courts in neighborhood and community parks, plus active recreation areas in other park settings. Town has 3 outdoor courts – 1 at Assabet Park and 2 at Ellsworth McAffee Park. Each elementary school has one gymnasium and the middle school has two gymnasiums. Town Hall (former High School) has one indoor court. Algonquin Regional High School also has indoor gymnasium with basketball courts.
Handball (3-4 wall)	800 sq. ft. for 4- wall 1000 for 3-wall	20'x40' – Minimum of 10' to rear of 3-wall court. Minimum 20' overhead clearance	1 per 20,000 = 1 needed	15-30 minute travel time	4-wall usually indoor as part of multi-purpose facility. 3-wall usually outdoor in park or school setting No designated courts in Town.
Ice Hockey	22,000 sq. ft. including support area	Rink 85'x200' (minimum 85'x185') Additional 5000 sq. ft. support	Indoor – 1 per 100,000 Outdoor – depends on climate	½ - 1 hour travel time	Climate important consideration affecting number of units. Best as part of multi-purpose facility. No rinks in Town. Most use Navin Ice Rink in Marlborough (State) or New

Table 7.2 - Recreation Facilities Assessment

Activity/ Facility	Recommended Space Requirements	Recommended Size And Dimensions	Needed For A Population Of Almost 15,000	Service Radius	Location Notes
		area	1 needed		England Sports Center also in Marlborough.
Tennis	Minimum of 7,200 sq. ft. single court (2 acres for complex)	36'x78'. 12' clearance on both sides; 21' clearance on both ends.	1 court per 2000 = 8 needed	1⁄4-1/2 mile	Best in batteries of 2-4. Located in neighborhood/community park or adjacent to school. • 6 courts at Middle School, 9 courts at High School.
Volleyball	Minimum of 4,000 sq. ft.	30'X60'. Minimum 6' clearance on all sides	1 per 5000 = 3 needed	1⁄4 - 1⁄2 mile	Indoor facilities likely as part of gymnasiums 1 Outdoor beach/sand volleyball court at Ellsworth McAfee Recreation Area. Probably available at high school gymnasium Town hall
Baseball 1. Official 2. Little League	3.0-3.85 A minimum 1.2 A minimum	Baselines – 90' Pitching distance 60 ½' foul lines – min. 320' Center field – 400'+ Baselines – 60' Pitching distance – 46' Foul lines – 200' Center field – 200' – 250'	1 per 5000 = 3 needed Lighted 1 per 30,000	1⁄4 - 1⁄2 mile	Usually part of neighborhood complex. Lighted fields part of community complex. • Memorial Field/Casey Field – 1 large, 2 small • Middle School – 1 large • Elementary Schools – 1 small each
Football	Minimum 1.5 A	160' x 360' with a minimum of 6' clearance on all sides.	1 per 20,000 =1 needed	15-30 minutes travel time	Same as field hockey. • Algonquin High School

Table 7.2 - Recreation Facilities Assessment

Activity/ Facility	Recommended Space Requirements	Recommended Size And Dimensions	Needed For A Population Of Almost 15,000	Service Radius	Location Notes
Soccer	1.7 – 2.1 A	195' to 225'x330' to 360' with a minimum 10' clearance all sides.	1 per 10,000 =1-2 needed	1-2 miles	Number of units depends on popularity. Youth soccer on smaller fields adjacent to schools or neighborhood parks. • Algonquin High School • Ellsworth Park
Golf-driving Range	13.5 A for minimum of 25 tees	900'x690' wide. Add 12' width for each additional tee.	1 per 50,000 =1 needed.	30 minutes travel time.	Part of a golf course complex. As separate unit may be privately owned. • Northborough Westborough line
1/4 Mile Running Track	4.3 A	Overall width – 276' Length – 600.02' Track width for 8 to 4 lanes is 32'.	1 per 20,000 =1	15-30 minutes travel time	Usually part of high school, or in community park complex in combination with football, soccer, etc. • Algonquin High School
Softball	1.5 to 2.0 A	Baselines – 60 ' Pitching distance- 46' min. 40' women. Fast pitch field Radius from Plate – 225' Between foul Lines. Slow Pitch – 275' (men) 250' (women)	1 per 5,000 (if also used for youth baseball) = 3 needed	1⁄4 - 1⁄2 mile	Slight differences in dimensions for 16" slow pitch. May also be used for youth baseball. • Zeh school - 1 small • Middle School – 1 small
Multiple Recreation Court (basketball,	9, 840 sq. ft.	120' x 80'	1 per 10,000 = 1-2 needed	1-2 miles.	See basketball/volleyball/badminton.

Table 7.2 - Recreation Facilities Assessment

Activity/ Facility	Recommended Space Requirements	Recommended Size And Dimensions	Needed For A Population Of Almost 15,000	Service Radius	Location Notes
volleyball, tennis)					Probably available at high school gymnasium
Trails	N/A	Well defined head maximum 10' width, maximum average grade is 5% not to exceed 15%. Capacity rural trails – 40 hikers/day/mile. Urban trails – 90 hikers/day/mile.	1 system per region = Lots	N/A	 Cedar Hill (Crane Swamp) Cold Harbor Edmund Hill Woods Jubilee (Carney Park) Mount Pisgah Algonquin Regional High School Trail Watson Park Yellick and SuAsCo Conservation Areas.
Archery Range	Minimum 0.65 A	300' Length x Minimum 10' wide between targets. Roped clear space on sides of range minimum 30', clear space behind targets minimum of 90'x45' with bunker.	1 per 50,000 =1 needed in service radius	30 minutes travel time	Usually part of regional or metro park complex. • No facilities in Town. Nearest is located in Clinton.
Combination Skeet and Trap Field (8 Stations)	Minimum 30 A	All walks and structures occur within an area approximately 130' wide by 115' deep. Minimum cleared area is	1 per 50,000 = 1 needed in service radius	30 minutes travel time	Usually part of regional/metro park complex. • No facilities in Town. Nearest is/was located in Clinton.

Table 7.2 - Recreation Facilities Assessment

Activity/ Facility	Recommended Space Requirements	Recommended Size And Dimensions	Needed For A Population Of Almost 15,000	Service Radius	Location Notes
		contained within 2 superimposed segments with 100-yard radii (4 acres). Shot-fall danger zone is contained within 2 superimposed segments with 300-yard radii (36 acres).			
Golf 1. Par 3 (18 hole) 2. 9-hole standard 3. 18-hole standard	50-60 A Minimum 50 A Minimum 110 A	Average length vary 600-2700 yd. Average length – 2250 yards Average length 6500 yards	 1/25,000 =1 1/50,000 =1	½ to 1 hour travel time	9 hole course can accommodate 350 people/day. 18 hole course can accommodate 500-550 people/day. Course may be located in community or district park, but should not be over 20 miles from population center. Juniper Hills Golf Course and Indian Meadows Golf Course
Swimming Pools	Varies on size of pool and amenities. Usually ½ to 2 acre site.	Teaching- minimum of 25 yards x 45' even depth of 3 to 4 ft. Competitive — minimum of 25 m x 16 m. Minimum of 27 square feet	1 per 20,000 =1 (Pools should accommodate 3 to 5% of total population at a time.)	15 to 30 minutes travel time	Pools for general community use should be planned for teaching, competitive and recreational purposes with enough depth (3.4m) to accommodate 1m and 3m diving boards. Often located in community park or school site. • No public facilities in Town. Nearest is located in Westborough.

Table 7.2 - Recreation Facilities Assessment

Activity/ Facility	Recommended Space Requirements	Recommended Size And Dimensions	Needed For A Population Of Almost 15,000	Service Radius	Location Notes
		of water surface per swimmer. Ratios of 2:1 deck vs. water.			
Beach Areas	N/A	Beach area should have 50 sq. ft. of land and 50 sq. ft. of water per user. Turnover rate is 3. There should be 3-4 A supporting land per A of beach.	N/A	N/A	Should have sand bottom with slope maximum of 5 % (flat preferable). Boating areas completely segregated from swimming areas.
Bocce					Ellsworth McAfee Recreation Area
Skate Park					Ellsworth McAfee Recreation Area
Splash Pad/ Spray Pool					Assabet Park
Tot lot/ Playgrounds					Ellsworth McAfee, Assabet Park, and Town Hall as well as one at each Elementary School.

Accessibility

The Town of Northborough has completed an Americans With Disability Act (ADA) self-evaluation of Ellsworth McAfee Park, Assabet Park and Memorial Field. These evaluations are contained in Appendix F. The town has designated the Assistant Town Administrator as its ADA Coordinator and has in place an ADA Grievance Policy. Generally the facilities are accessible by persons with disabilities, however because of limited funding and infrastructure, provision of restroom facilities for all persons proves to be a challenge.

Regional Transportation Plan

The 2003 Regional Transportation Plan explored the development of the Old Trolley Line Easement, but found that the off road trail was infeasible because of encroaching development. The same plan suggested that Northborough start building relationships with Massachusetts Water Resources Authority (MWRA) with regard to the use of the Wachusett Aqueduct (potentially linking Berlin and Northborough) as a cross connection between two adjacent open parcels. While the Aqueduct is 12 miles in length and was slated to go into reserve status in 2004 or 2005, only parts are suitable for off road trail. (Central Massachusetts Regional Planning Commission, 2003)

Statewide Comprehensive Outdoor Recreation

Massachusetts Outdoors 2006 presents the findings of a state wide survey on outdoor recreation. In the Central Massachusetts Region, swimming (61.4%) is the activity most widely engaged in by residents, even more so than in any other region of the state. Indeed, with the exceptions of swimming and walking on Cape Cod and the Islands, this was the highest single participation value recorded in the survey.

Also highly popular in this county are walking, at 58.6% participation, and sightseeing, tours and events with 55.9% (highest in the state). These three activities dominate the recreation picture for Central Massachusetts. Also important, in terms of the number of individuals served, are those activities reporting between 25 and 50% participation rates, including hiking, fishing, picnicking, playground activity (the second highest of the regions at 31.8%), wildlife and nature study, and golfing (second highest rate statewide), in that order.

This region also expressed the strongest participation rate statewide in boating, especially non-motorized. The following activities rated highest in Central Massachusetts, among the regions, although the absolute values are low: hockey (1.1%), water skiing and jet skiing (3.1%), photography and painting (7.3%). Participants in Central Massachusetts enjoyed ice-skating (2.2%) and camping (10.7%) at a rate that was the second highest 73 among all the regions.

Activity preferences clearly signal the presence and interest in water resources, both in winter and summer. The attraction of lakes and ponds is stronger than in most other regions, by far, in the Central Region at almost 59 %, versus a statewide average of 46%.

However, the most frequently mentioned preference in this region was for golf courses, neighborhood parks, playgrounds and tot lots (63.9%). Given the infrequent but broad use of these facilities noted above, this pattern suggests that facilities are nearby and desired, but may be over capacity, under maintained or both. Coastal beaches and shorelines (60.1%) are next in the order of popular preference for resource types in the Central Region, with lakes and ponds (59.1%) and rivers and streams (39.4%) also rating strongly. Historic and cultural sites (51.6%) and forests (40.4%) are also in considerable demand (actual present use) in this region, with mountains (37%), wildlife areas (36.2%), and trails and greenways (35.3%) having moderate usage. The statewide comparisons suggest that the highest frequency of use of forests is in the Central Region rather than the western regions.

The least used resources by Central residents are bikeways (relatively few exist nearby) and agricultural lands. In the case of bikeways, the low usage may reflect both the small number of dedicated bike facilities, and perhaps to a lesser degree, the very hilly terrain. Since satisfaction levels reported below are high, crowding or poor maintenance are clearly not factors. The unexpectedly low agriculture number is harder to interpret. It may suggest that there is in fact less agricultural activity remaining in Central Massachusetts than is generally supposed, or perhaps simply that residents may more readily take its presence for granted, not seeking this experience either locally or further afield as a recreation pursuit.

When asked what new facilities would most benefit them, residents of the Central Region showed the highest interest in facilities for walking (16.4%), swimming (17.0%), hiking (14.4%, the strongest interest in the state), road biking (12.1%), and playground activity (10.2%). A second tier of facilities interest is noted among relatively moderate percentage of Central Region respondents for mountain biking (8.5%), golfing (8.3%), picnicking (5.3%), camping (4.8%) and basketball (4.0%).

C. Management Needs, Potential Change of Use

Management

The Parks Division of the Department of Public Works is responsible for mowing, trash pickup and minor landscaping at all town parks and recreation facilities, while the Recreation Department is responsible for all scheduling at all town parks and recreation facilities and all elementary and middle school outdoor fields. Most improvements at the outdoor recreation fields are paid for by youth groups and recreation leagues. Independent contractors were hired by the youth groups to perform requested maintenance and improvements. Most stakeholders felt it was important to develop a common understanding of roles and responsibilities of scheduling, funding, maintenance, and usage of Northborough recreation facilities.

Specific needs indicated during this planning process include the following:

- Despite repeated attempts to obtain funds from the Town Budget, the Town Hall gymnasium floors and doors are still in need of replacement.
- Because of the extensive number of leagues and programs run at Town parks and recreation areas, equipment storage should be expanded beyond that currently available.
- Area baseball and softball fields are fully scheduled with league games and as such there are no
 fields available for team practices. The town's baseball and softball recreation leagues would
 benefit from the addition of more fields for games and practice.
- The Town used to offer financial aid for economically challenged families to participate in fee programs, however with the challenging economy, these funds have not been available.
- Graffiti has been on the rise in some areas and its removal has become a greater challenge for park maintenance.
- Some town fields would benefit from the addition of irrigation systems.

No change of use is expected at any of the existing conservation or recreation areas. A dog park, if

approved at either a state or municipal property, might be considered a change of use and require a new set of rules and regulations.

Senior Center

The town's senior population is approximately 2,600. The State projects this population to grow to 3,800 by 2020. The senior population has doubled since the previous Senior Center was built in 1984. As such the new larger Senior Center is expected to meet the needs of the current and future senior population.

In 2007, town voters voted overwhelmingly to support funding for the design of a new senior center. Estimated project cost was approximately \$7 million. The Senior



Center Building Committee and the Council on Aging worked with Court Street Architects, Inc. and CMS, Inc. to develop the design for the new Senior Center. Funds were allocated for construction and the facility opened in the Spring of 2010.

The town purchased the property at 119 Bearfoot Road (formerly known as 119 Colburn Street). The Council on Aging requested a parcel for the new Senior Center. This beautiful piece of land was intended to support the new Senior Center building as well as outside areas for activities.

There is, however, on-going remediation on Parcel III at 119 Bearfoot Road. The Senior Center is located on Parcel II. In February of 2006, a Phase I Environment Assessment was completed on Parcel II as part of the ongoing Senior Center Feasibility Study. The contamination clean-up of the shooting range will not impact the new Senior Center. Parcel I designated for Recreation and Parcel II designated for the new Senior Center are both free of contamination. The Town was mandated by the State to remove the contamination on Parcel III by 2009. While this is occurring, there is no danger to the future use of the new Senior Center.

New open space opportunities

The Town of Northborough has an Open Space Residential Design (OSRD) Zoning Bylaw (Chapter 7-10-010 Open space-residential design.) As a result, a new development may create open space and recreational opportunities. The purposes of open space-residential design are to protect open space, agricultural and forestry land, viewsheds, wildlife habitat and corridors, wetlands and water resources, and historical and archeological resources; to protect the value of real property; encourage creative, environmentally sensitive design as the preferred form of residential development; and to encourage more efficient development that consumes less open land and respects existing topography and natural features better than a conventional or grid subdivision. In the Residence A or Residence B District, the Planning Board may grant a special permit for an OSRD that includes two or more detached single-family dwelling units. In addition to detached single family dwellings, an OSRD may include the following uses:

- Open space, conservation or recreation areas, including trails for walking, hiking, cross country skiing, horseback riding, picnicking and wildlife observation.
- Agricultural, equestrian and horticultural uses.
- Accessory recreational amenities for residents of the OSRD, such as a tennis court or playground.

Any proposed common open space within an OSRD shall be conveyed in accordance with the provisions of M.G.L. c. 40A, § 9. In any case where the common open space is not conveyed to the Town, a restriction enforceable by the Town by its Conservation Commission or other board under M.G.L. c. 184, §§ 31-32 shall be recorded providing that such land shall be kept in perpetuity in an open or natural state, and the Board of Selectmen is hereby authorized to accept such restrictions if the Conservation Commission declines to do so in any instance. Wherever possible, existing trails shall be kept open for limited recreational use.

In addition to utilization of the OSRD Bylaw, the future disposition of the Westborough State Hospital property should remain a focus of those concerned with Northborough Open Space and Recreation.

Resources

After the Town of Northborough adopted the Community Preservation Act (CPA) at the November 2004 election, the Community Preservation Committee (CPC) was created through an article approved at the 2005 Annual Town Meeting. The CPA is a funding source to assist the Town with the acquisition of open space, the creation of affordable housing, and the historic preservation of sites within the community. Through the adoption of a 1.5% surcharge on each property tax bill, the State will match up to 100% of the amount raised by the Town.

2010 Northboroug	h Open Space	and Recreation	n Plan	

SECTION 8 - GOALS AND OBJECTIVES

As previously stated in Section 6, the goal of the plan is to protect, preserve and enhance the resources that provide the high quality living and working environment valued by the Northborough residents.

The goals and objectives listed herein were developed based on the survey and additional resident input received during committee meetings. The key issues, which developed during the process, were the preservation of open space and protection of natural resources. Other issues were introduced as the plan was developed. The following list is a consolidation of the many issues and ideas discussed throughout the planning process.

Goal 1. Preserve open space for the Town's overall benefit. Residents place a high value on the quality and location of open space for many purposes and, overwhelmingly, support land preservation.

Objectives

- A. Acquire through fee acquisition or conservation restriction additional open space permanently protected by the Town, State or non-profits
- B. Develop a schedule and process to regularly review land use changes, identify and prioritize areas for protection and acquisition based on open space value.
- C. Increase public awareness of opportunities to preserve open space.
- D. Maintain rural character.
- E. Explore adding permanent protections to all Town-owned open space not currently protected.

Goal 2. Improve community appreciation, understanding, active involvement and commitment to conservation. Despite the general support for open space preservation, on-going education and awareness building efforts among young people, new residents, and others will ensure that the first goal remains a primary focus for years to come.

Objectives

- A. Develop message and material about benefits of open space preservation.
- B. Spread the message. Educate residents about the need and benefits of open space preservation.
- C. Increase the number and level of involvement of persons who support financially, volunteer, or otherwise contribute to, open space for conservation purposes.

Goal 3. Improve, expand, and manage open space-related recreational opportunities. Abundant and varied open space within the town of Northborough provides tremendous outdoor activities such as hiking, mountain biking, cross country skiing, fishing, birding, and horseback riding. Appropriate actions should be taken to foster the continued enjoyment of these areas.

Objectives |

- A. Educate residents regarding the existence and availability of open space-related recreation areas.
- B. Improve condition of Town's open space-related recreation areas.
- C. Work with State agencies to incorporate use of state-owned land adjacent to Town-owned land for open space-related recreational opportunities such as hiking and other natural resource related activities.
- D. Cooperate and collaborate with nearby /adjacent towns to formalize agreements regarding Mt. Pisgah, Lake Chauncy, and Westborough State Hospital.

Goal 4. Improve, expand, and manage recreation opportunities, facilities and programs. A healthy population relies on engaging and varied types of play. This requires maintained facilities and well run programs continually serving many different needs.

Objectives

- A. Continue to raise awareness of Town recreation opportunities, facilities and programs.
- B. Continue to evaluate Town recreation opportunities, facilities and programs.
- C. Develop a resource development strategy or business plan to support the recreation department staff, activities (including program scholarships), recreation area maintenance and improvements.
- D. Improve condition of Town's recreation properties.
- E. Work with State agencies to incorporate use of state-owned land adjacent to Town-owned land for active recreation.
- F. Increase access and use of recreation facilities and programs to more users.

SECTION 9 - SEVEN YEAR ACTION PLAN

The following action plan was developed utilizing the information obtained from the resident survey, the expertise and experiences of the members of the committee, and other stakeholders. The action items contained within this plan can be enhanced to meet the needs and desires of the residents over time. Many require nothing more than providing information to the public while others will require the expenditure of considerable amounts of money to accomplish them. It is the desire of this committee to see as many of these action items implemented over the next seven years as is physically and financially possible.

For the purposes of this action plan, each action step is given a priority of High, Medium, Low or Ongoing. Priority High items should occur 0 to 2 years, priority Medium items 0 to 4 years, and priority Low items 0 to 7 years from the date of the plan. Priority Ongoing items are in progress and will be continued for the duration of the plan.

In addition each action item is delegated to a responsible entity with potential collaborators and likely resources. The responsible parties and collaborators may include one or more of the following:

BOS Northborough Board of Selectmen
Cem Com Northborough Cemetery Commission

CMRPC Central Massachusetts Regional Planning Commission

Con Com Northborough Conservation Commission

CPC Northborough Community Preservation Committee
DAR Massachusetts Department of Agricultural Resources
DCR Massachusetts Department of Conservation and Recreation

DFW Massachusetts Department of Fish and Wildlife DPW Northborough Department of Public Works

GIS Northborough Geographic Information Systems Department

GWAC Northborough Groundwater Advisory Committee

HC Northborough Historic Commission

LT Land Trusts

NEFF New England Forest Foundation
NTC Northborough Trails Committee
OSC Northborough Open Space Committee

PB Northborough Planning Board PD Northborough Planning Department

PRC Northborough Parks and Recreation Commission

Rec Dept. Northborough Recreation Department

SUASCO Sudbury Assabet Concord River Watershed Council

SVT Sudbury Valley Trustees

TA Northborough Town Administration
ZBA Northborough Zoning Board of Appeal

2010 Northborough Open Space and Recreation F	Plan

Goal	Objective	Action	Priority ¹	Responsible Party ²	Collaborators ²	Resources
Goal 1.	Preserve oper	n space for the Town's overall benefit.				•
	A. Acquire th	nrough fee acquisition or conservation restriction additional	open space p	ermanently protecte	d by the Town, State o	r non-profits.
		Meet with Town departments, State agencies and nonprofits and other stakeholders for regular updates on open space preservation opportunities in Northborough.	High	TP, OSC	Trail Committee (NTC), PB, Con Com, LTs, DCR	Town Budget, Outside Assistance
		Develop resource development strategy and a reserve of funds for land acquisition.	High	TP, OSC	BOS	Private Donations, CPC, Cooperative fundraising with LTs, Public and private grant programs
	B. Develop a space value.	schedule and process to regularly review land use changes,	identify and p	orioritize areas for pr	otection and acquisition	on based on open
		Establish criteria and set priorities for land acquisition, such as natural resource protection, unique habitat protection, connecting parcels, wildlife corridors, prime soils and farmland, etc.	High	TP, OSC	GIS, Con Com, Planning Board (PB)	Town Budget
		Review past, present and potential land use changes.	High	TP, OSC	GIS, Con Com, PB	Town Budget
		Document process and develop a schedule.	High	TP, OSC	BOS	Town Budget
		Promote use of newly developed open space residential development (OSRD) bylaw as a means to protect open space.	High	TP, OSC	PB	Town Budget
	1	'	1	1	-1	1

Objective	Action	Priority ¹	Responsible Party ²	Collaborators ²	Resources
C. Increase p	public awareness of opportunities to preserve open space.	-			
	Create informational materials regarding open space preservation opportunities and conservation restrictions.	Medium	TP, OSC	LTs	Town Budget
	Develop and implement a communication plan to regularly share information with landowners about open space preservation opportunities.	Medium	TP, OSC	LTs	Town Budget
	Discuss use of website to build awareness regarding availability and use of privately owned open space for public benefit.	Medium	TP, OSC	LTs	Town Budget
	Continue to contact open space landowners regularly regarding preservation opportunities.	Ongoing	TP, OSC	LTs	Town Budget
D. Maintain	rural character.	High	Town Planner (TD)	Poord of	Community
D. Maintain	Preserve farmland, meadow, pasture viewsheds, and scenic roads.	High	Town Planner (TP), Open Space	Board of Selectmen (BOS)	Community Preservation
			Committee (OSC)	and Land Trusts	
				(LT)	Committee (CPC)
	Discuss APR option with potential yet non-participating farms.	High	TP, OSC	BOS, LT	Committee (CPC) Department of Agricultural Resources (DAR)
		High Medium	TP, OSC		Department of Agricultural
	farms. Support farming economy, e.g. farmer's markets, sales	Ū	·	BOS, LT BOS, Apple Fest	Department of Agricultural Resources (DAR)

Goal	Objective	Action	Priority ¹	Responsible Party ²	Collaborators ²	Resources
	E. Explore ac	dding permanent protections to all Town-owned open space	not currently	protected.		,
		Review Town-owned land, responsible agency, restrictions etc.	Medium	TP, OSC	BOS, Assessor, GIS, Con Com, Recreation Dept, DPW, and other Town departments	Town Budget
		Review current procedure for change of use.	Medium	TP, OSC	BOS, Assessor, GIS, Con Com, Recreation Dept, DPW, and other Town departments	Town Budget
oal 2.		munity appreciation, understanding, active involvement and message and material about benefits of open space preserva		to conservation.		
oal 2.				TP, OSC	BOS	Town Budget
oal 2.		message and material about benefits of open space preserva	ation.		BOS BOS	Town Budget Town Budget
oal 2.		Prepare short summary of OSRP. Develop a list of prioritized projects, supplies, financial	High	TP, OSC		, and the second

ioal	Objective	Action	Priority ¹	Responsible Party ²	Collaborators ²	Resources
		Post plans on Town website and other websites such as http://www.northborough.com/ .	High	TP, OSC	BOS	Town Budget
		Distribute regular press announcements, calendar of events, etc. to media outlets including Globe, Telegram and Gazette, Villager, Metrowest Daily, and Community Advocate newspapers.	High	TP, OSC	BOS	Town Budget
		Use the regular town-wide mailings and recreation mailings.	High	TP, OSC	BOS	Town Budget
		Explore other free advertising and outreach opportunities, such as library or community bulletin	Medium	TP, OSC	BOS	Town Budget
		boards.				
	C. Increase t	he number and level of involvement of persons who suppor	t financially, v	volunteer, or otherwi	se contribute to, open	space for
		he number and level of involvement of persons who suppor	t financially, v	TP, OSC	se contribute to, open	space for Town Budget
		he number and level of involvement of persons who suppor purposes. Develop a database and track support financially, in-kind	,	·		·
		he number and level of involvement of persons who support purposes. Develop a database and track support financially, in-kind or volunteer. Continue public awareness events such as tabling at	High	TP, OSC	BOS	Town Budget

Goal	Objective	Action	Priority ¹	Responsible Party ²	Collaborators ²	Resources
Goal 3.	Improve, expa	and, and manage open space-related recreational opportunit	es.			
	A. Educate r	esidents regarding the existence and availability of open space	creation areas.			
		Develop message and materials, including a map with facility location and uses. The Northborough Trails Committee (NTC) maintains its own website which is updated as needed with ongoing activities and news events.		TP, OSC, NTC	BOS, GIS	Town Budget
		Develop and implement a plan to distribute widely via town-wide mailings, print media, community cable, and internet.	Medium	TP, OSC, NTC	BOS	Town Budget
		Post related information in public places such as community bulletin boards and the library.	Medium	TP, OSC, NTC	BOS	Town Budget
		Communicate with school, scout, and civic organizations. The NTC works on an ongoing basis with both Scout Troops in Northborough with Eagle Scout Projects (ESP). During 2008, NTC sponsored/coordinated/ assisted with 3 ESP's, during 2009 1 ESP, and there are 2 ESP's in the works for 2010.	_	TP, OSC, NTC	BOS	Town Budget
	B. Improve o	condition of Town's open space-related recreation areas.				

Goal	Objective	Action	Priority ¹	Responsible Party ²	Collaborators ²	Resources
		Monitor, assess, and document level of usage of open space-related recreation areas. The NTS Trail Steward Program performs monthly assessments of their assigned areas and then report activity and larger needs during the monthly NTC meeting. When a need is identified a work party is planned and executed. Trail Stewards are assigned to eight open space recreation areas including: Mt. Pisgah; Cold Harbor; NEFF – Jubilee; Edmund Woods; Yellick and SuAsCo; Stirrup Brook at ARHS; Watson Park; Cedar Hill/Little Chauncy/Juniper Brook.	Medium Ongoing	TP, OSC, NTC	BOS	Town Budget
		Formalize the responsibilities of Town agencies for maintenance and upkeep of open space and recreational properties. Identify any gaps or needs.	Medium On going	TP, OSC, NTC	BOS	Town Budget
		Improve waste removal with appropriate placement of trash cans and perform routine maintenance. The Trail Steward Program cleans up trash and performs minor maintenance at the 8 sites listed above.	Medium On going	TP, OSC, NTC	BOS	Town Budget, Outside Assistance, CPC
		Better signage in conservation areas, "stay on the trails".	Medium	TP, OSC, NTC	BOS	Town Budget, Outside Assistance, CPC
		Improve parking areas, trail head kiosks, and wayfinding. Survey signage for all open space-related recreation areas and update as necessary.	Medium	TP, OSC, NTC	BOS	Town Budget, Outside Assistance, CPC

C. Work with State agencies to incorporate use of state-owned land adjacent to Town-owned land for open space-related recreational opportunities such as hiking and other natural resource related activities.

Goal	Objective	Action	Priority ¹	Responsible Party ²	Collaborators ²	Resources			
		Meet with DCR and others, including Department of Mental Health to develop common understanding of OSRP goals.	High	TP, OSC, DCR	BOS, TA, State legislators	Town Budget			
	D. Cooperate and collaborate with nearby /adjacent towns to formalize agreements regarding Mt. Pisgah, Lake Chauncy, and Westborough State Hospital.								
		Seek models for and develop memoranda of understanding. The NTC has existing trail use/maintenance agreements with Mass Wild Life for the recreational areas of Mt. Pisgah (72 acres) and Cedar Hill/Little Chauncy/Juniper Brook/Crane Swamp area, as well as with DCR for the trails at Yellick/SuAsCo and Cold Harbor areas, and also with the New England Forestry Foundation for the Jubilee Trail.	Medium – Ongoing	TP, OSC, DCR	BOS, TA, CMRPC	Town Budget, District Local Technical Assistance (Stateaid through CMRPC)			
Goal 4.	Improve, expa	and, and manage recreation opportunities, facilities and prog	rams.			,			
	A. Continue to raise awareness of Town recreation opportunities, facilities and programs.								
		Develop message and materials, including a map with facility location and uses.	Medium	Rec Dept, PRC	BOS, GIS	Rec Budget, Outside Assistance			
		Develop and implement a communication plan that includes town-wide mailings, print media, community cable, email, and internet.	Ongoing	Rec Dept, PRC	BOS, TA	Rec Budget, Outside Assistance			
		Survey signage for all recreation areas and update as necessary.	Medium	Rec Dept, PRC	BOS, TA	Town Budget, Rec Budget, Outside Assistance			

Objective	Action	Priority ¹	Responsible Party ²	Collaborators ²	Resources			
B. Continue	Continue to evaluate Town recreation opportunities, facilities and programs.							
	Monitor (survey), assess, and document level of usage/need of recreation opportunities, facilities and programs.	Medium	Ongoing	BOS, TA	Rec Budget, Outside Assistance			
	Determine need and assess financial and programmatic feasibility (cost benefit analysis) of adding new facilities or programs.	Medium	Ongoing	BOS, TA	Rec Budget, Outside Assistance			
	Implement new or expanded recreational programs as indicated.	Medium	Rec Dept, PRC	BOS, TA	Rec Budget, Town Budget, Outside Assistance			
	Increase field space and improve access to existing fields. Identify specific field needs and potential parcels to satisfy needs. Develop a plan to acquire. (See objective F below.)	Medium	RPD, PRC, OSC	BOS, TA	Rec Budget, DCR, CPC, outside assistance			
	Establish and document a protocol for regular evaluation.	Medium	Rec Dept, PRC	BOS, TA	Rec Budget, Outside Assistance			
 •	resource development strategy or business plan to support rea maintenance and improvements. Identify cost and expense centers	the recreati	on department staff,	activities (including pr	Rec Budget,			
•	rea maintenance and improvements.							

Goal	Objective	Action	Priority ¹	Responsible Party ²	Collaborators ²	Resources		
		Mow, clean and maintain Town recreation properties.	Ongoing	Rec Dept, PRC, DPW	BOS, TA	Town Budget, Rec Budget		
		Identify the responsibilities and schedules of Town agencies and recreation organizations for maintenance and improvement of recreational properties. Identify any gaps or needs.	Ongoing	Rec Dept, PRC, DPW	BOS, TA, Rec orgs	Town Budget, Rec Budget		
		Implement more efficient use of fields and facilities in order to reduce excessive wear.	Ongoing	Rec Dept, PRC, DPW	BOS, TA, Rec orgs	Town Budget, Rec Budget		
		Foster improved relationships and partnerships with recreation organizations to enhance Town facilities and programs.	High	Rec Dept, PRC	BOS, TA, Rec orgs	Town Budget, Rec Budget		
		Provide lighting at recreation areas to allow night activities. Explore energy efficient lighting technologies.	Low	Rec Dept, PRC	BOS, TA, DPW	Town Budget, Rec Budget, Outside Assistance		
	E. Work with	n State agencies to incorporate use of state-owned land adjace	cent to Town	-owned land for activ	e recreation.			
		Meet with DCR and others, including Department of Mental Health to develop common understanding of OSRP goals.	High	Rec Dept, PRC	BOS, TA, TP	Town Budget, CPC		
	F. Increase access and use of recreation facilities and programs to more users.							
		Ensure adequate chaperones and adult supervision at facilities and events.	Ongoing	Rec Dept, PRC	BOS, TA	Town Budget, Rec Budget, Outside Assistance		
		Promote pedestrian friendly walking and biking routes. Do a walkable community assessment.	High	Rec Dept, PRC	BOS, TA, TP, CMRPC	Town Budget, CPC		

Goal	Objective	Action	Priority ¹	Responsible Party ²	Collaborators ²	Resources
		Evaluate staff regularly and ensure each has required certifications and qualifications.	Ongoing	Rec Dept, PRC	BOS, TA	Rec Budget
		Using attached ADA evaluation forms, develop a plan to make recreation areas and programs handicap accessible. Prioritize projects. With associated costs, raise needed funds and implement plan.	Medium	Rec Dept, PRC	BOS, TA, DPW	Town Budget, Rec Budget
		Assess economic feasibility of providing handicap accessible restrooms at all town parks. Fundraise and then provide appropriate facilities.	Medium	Rec Dept, PRC	BOS, TA, DPW	Town Budget, Rec Budget

1 Priority

Priority High 0 to 2 years,
Priority Medium 0 to 4 years,
Priority Low 0 to 7 years,

Priority Ongoing In progress and to be continued.

2 Responsible Parties and Collaborators

BOS Northborough Board of Selectmen
Cem Com Northborough Cemetery Commission

CMRPC Central Massachusetts Regional Planning Commission

Con Com Northborough Conservation Commission

CPC Northborough Community Preservation Committee
DAR Massachusetts Department of Agricultural Resources
DCR Massachusetts Department of Conservation and Recreation

DFW Massachusetts Department of Fish and Wildlife DPW Northborough Department of Public Works

GIS Northborough Geographic Information Systems Department

GWAC Northborough Groundwater Advisory Committee

HC Northborough Historic Commission

LT Land Trusts

NEFF New England Forest Foundation NTC Northborough Trails Committee

OSC Northborough Open Space Committee

Northborough Planning Board Northborough Planning Department РΒ PD

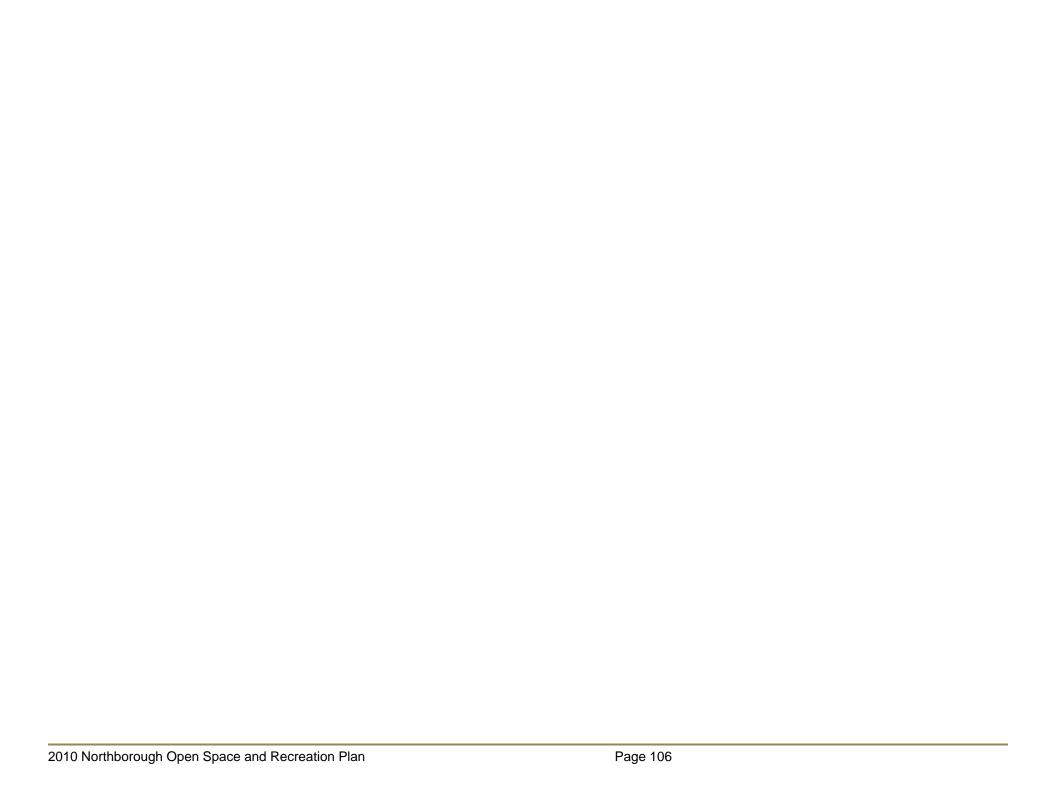
PRC Northborough Parks and Recreation Commission

Rec Dept. Northborough Recreation Department

Sudbury Assabet Concord River Watershed Council SUASCO

SVT

Sudbury Valley Trustees
Northborough Town Administration
Northborough Zoning Board of Appeal TΑ ZBA



SECTION 10 - PUBLIC COMMENTS

Required letters of support

- The Select Board,
- The Planning Board, and
- Central Massachusetts Regional Planning Commission (CMRPC).

Additional Letters of Support:

- The Trails Committee,
- Parks and Recreation Commission, and
- Conservation Commission



TOWN OF NORTHBOROUGH

Town Offices 63 Main Street Northborough, MA 01532-1994 (508) 393-5040 Phone (508) 393-6996 Fax

July 19, 2010

Mr. Bob O'Connor, Director Division of Conservation Services Executive Office of Energy and Environmental Affairs 100 Cambridge Street, Suite 900 Boston MA 02114

RE: Northborough Open Space and Recreation Plan Update

Dear Mr. O'Connor:

On behalf of the Northborough Board of Selectmen, I am pleased to offer this letter of support for the Open Space and Recreation Plan Update. Our Open Space Committee and staff have been working for the past year on creating this update. Through public meetings, surveying the residents of the community, meeting with other boards and commissions; and holding a public forum, participation has been wide spread in creating this working document.

Our land use boards, in particular the Conservation Commission, Parks & Recreation Commission, Open Space Committee, and the Community Preservation Committee all benefit from having this document as a resource when considering future acquisitions for passive and active recreation.

We thank you for considering this Plan and supporting our land protection efforts.

Sincerely,

Dawn Rand, Chairman Board of Selectmen June 15, 2010

EOEEA
Division of Conservation Services
Mr. Bob O'Connor, Director
100 Cambridge Street - Suite 900
Boston MA 02114

RE: Update of Northborough Open Space & Recreation Plan

Dear Mr. O'Connor:

The Northborough Planning Board has been actively involved with the Open Space Committee in updating the town's Open Space & Recreation Plan. We unanimously support the Plan and believe it is an important planning document not only for the Planning Board but also for the Conservation Commission, Parks & Recreation Commission, and Community Preservation Committee.

With increased development pressures, it is imperative the community examine its short and long term goals for land protection and recreational needs. These decisions for future land acquisitions must be based on a document that has broad support from the boards, commissions, and residents. The Northborough Open Space and Recreation Plan Update has that support.

Thank you for support and consideration of our Plan.

Sincerely,

Rick Leif, Chairman Planning Board



Lawrence B. Adams Executive Director
Mary Ellen Blunt Transportation
Megan T, DiPrete Regional Services 6

Janet A. Pierce James R. Bates, Jr. Executive Director
Transportation
Regional Services &
Community Development
Business Manager
Commission Chair

August 8, 2010

Melissa Cryan
Division of Conservation Services
Executive Office of Energy and Environmental Affairs
100 Cambridge St.
Boston, MA 02114

Dear Ms. Cryan;

RE: Northborough, Massachusetts 2010 Open Space and Recreation Plan

The Central Massachusetts Regional Planning Commission (CMRPC) is writing this letter in support of the Town of Northborough and its recently completed 2010 Open Space and Recreation Plan. The Town and its Open Space Committee (OSC) are to be commended for its hard work putting this Plan together.

The Committee has done a very thorough job and the final document appears fully compliant with the standards for such plans as promulgated by your office. Northborough has active and informed residents working to improve and enhance the connections to the multitude of conservation areas, the trails and wildlife corridors, its productive agricultural lands, historic and cultural resources, and its recreation opportunities. With this plan, the town demonstrates an eagerness to move forward in very positive and strategic directions both in the short and long term. Northborough's 2010 Open Space and Recreation Plan will provide the Town with the needed guidance toward many thoughtful action items.

Please consider this letter to be a demonstration of CMRPC's support for the Plan and the process used to develop it. We find Northborough's Plan to be fully consistent with CMRPC's Regional Open Space & Recreation Plan as well as the conservation priorities outlined in our 2020 Growth Strategy for Central Massachusetts.

The Town of Northborough will be well served by having a State-approved up-to-date Plan for the provision of recreation facilities and programs, as well as the preservation and protection of its valuable open spaces and natural resources.

Sincerely,

Trish Settles
Principal Planner

July 12, 2010

Mr. Bob O'Connor, Director Division of Conservation Services 100 Cambridge Street, Suite 900 Boston MA -2114

RE: Open Space and Recreation Plan

Dear Mr. O'Connor:

The Trails Committee is pleased to support Northborough's Open Space and Recreation Plan. A member of the Trails Committee was involved on the committee to create the plan and we were able to provide input throughout the entire process regarding open space needs and more specifically, areas of Town where trails are needed to supplement the existing trail system.

The creation of the plan was a very collaborative one in which many residents and end users participated in the process.

Sincerely,

Bob Mihalek, Chairman

BAMball

Trails Committee



July 16, 2010

Mr. Bob O'Connor, Director Division of Conservation Services 100 Cambridge Street, Suite 900 Boston MA 02114

RE: Open Space and Recreation Plan Update

Dear Mr. O'Connor:

The Parks and Recreation Commission unanimously supports the Update of the Open Space and Recreation Plan.

The Parks and Recreation Commission has a representative on the Open Space Committee (OSC) and it was the OSC, along with the regional planning agency, who created the Update.

Thank you for your consideration and approval of our Plan.

Sincerely,

Sean McCann



TOWN OF NORTHBOROUGH Conservation Commission

Town Hall Offices • 63 Main Street • Northborough, MA 01532 • 508-393-5015 • 508-393-6996 Fax

July 12, 2010

Mr. Bob O'Connor, Director Division of Conservation Services 100 Cambridge Street, Suite 900 Boston MA 02114

RE: Open Space and Recreation Plan Update

Dear Mr. O'Connor:

The Conservation Commission unanimously supports the Update of the Open Space and Recreation Plan. With the adoption of the Community Preservation Act in 2004, the Plan is widely used as a reference guide to assist the various boards and committees in recommending parcels to the Community Preservation Committee. We rely on the Plan to assist us with determining future areas of town to protect.

The Conservation Commission has a representative on the Open Space Committee (OSC) and it was the OSC, along with the regional planning agency, who created the Update.

We appreciate your consideration and approval of our Plan.

Sincerely, Narpre Balelelle

Wayne Baldelli, Chairman Conservation Commission

SECTION 11 – REFERENCES

Central Massachusetts Regional Planning Commission. (2003). 2003 Regional Transportation Plan. Worcester, Massachusetts: Central Massachusetts Metropolitan Planning Organization.

Central Massachusetts Regional Planning Commission. (2004). 2020 Growth Strategy for Central Massachusetts - An Update. Worcester, Massachusetts: Central Massachusetts Regional Planning Commission.

Central Massachusetts Regional Planning Commission. (n.d.). Build out Analysis For Northborough.

Central Massachusetts Regional Planning District, USDA Soil Conservation Service. (1965). *General Soil Areas Central Massachusetts Regional Planning District.* Worcester, Massachusetts: USDA Soil Conservation Service.

Community Opportunities Group, Inc. (2004). *Town of Northborough Community Development Plan Final Report.* Boston, MA: Commonwealth of Massachusetts Interagency Work Group: Executive Office of Environmental Affairs, Department of Housing and Community Development, Department of Economic Development, Executive Office of Transportation and Construction.

Corcoran, C. (2009). Losing Ground, 4th Edition. Lincoln, Massachusetts: Massachusett Audubon Society.

Executive Office of Labor and Workforce Development (EOLWD). (2010, January 7). Largest 100 Employers in Northborough, The information is provided by infoUSA ®, Omaha, NE, 800/555-5211. Copyright © 2010. All Rights Reserved. . Retrieved January 7, 2010, from Labor and Workforce Development:

http://lmi2.detma.org/Lmi/Top_employer_list.asp?gSTFIPS=25&gCountyCode=000269&areatype=05&codeType=10&Command=Goto&Param=2

Lancaster, R. (. (1990). Recreation, Park, and Open Space Standards and Guidelines. Ashburn, VA: National Recreation and Park Association.

Massachusetts Department of Energy and Environmental Affairs. (2010, January 14). Recorded Conservation Restrictions.

Massachusetts Department of Housing and Community Development. *Northbridge MA, Community Profile.* Boston, MA: Massachusetts Department of Housing and Community Development.

Massachusetts Division of Conservation Services. (2008). *The Open Space Planner's Workbook.* Boston, MA: Commonwealth of Massachusetts Executive Office of Energy and Environmental Affairs, Department of Conservation and Recreation.

Massachusetts Division of Conservation Services. (2008). *Open Space And Recreation Plan Requirements*. Boston, MA: Commonwealth of Massachusetts Executive Office of Energy and Environmental Affairs, Department of Conservation and Recreation.

Massachusetts Executive Office of Energy and Environmental Affairs. (2006). *Massachusetts Outdoors* 2006: Statewide Comprehensive Outdoor Recreation Plan. Boston, Massachusetts: Commonwealth of Massachusetts.

Massachusetts Historical Commission (MHC). (1984). Reconnaissance Survey Town Report - Northborough, MA. Retrieved 2009, from www.sec.state.ma.us/mhc

Massachusetts Historical Commission. (2009). *Massachusetts Cultrural Resource Information System*. Retrieved 2009, from http://mhc-macris.net/

Massachusetts Natural Heritage & Endangered Species Program. (2004). *BioMap and Living Waters: Guiding Land Conservation for Biodiversity in Massachusetts - Core Habitats of Northborough*. Boston, Massachusetts: Commonwealth of Massachusetts, Executive Office of Environmental Affairs, Division of Fisheries and Wildlife.

MassGIS. (n.d.).

MassWildlife. (n.d.). Number of Certified Vernal Pools . Retrieved January 12, 2010, from Massachusetts

Department of Fish and Game:

http://www.mass.gov/dfwele/dfw/nhesp/vernal pools/vernal pool data.htm

NAICS Labor and Workforce Development infoUSA. (2010, January 7). *Largest 25 Employers in Brookfield*. Retrieved January 7, 2010, from Massachusetts Department of Labor and Workforce Development:

http://lmi2.detma.org/Lmi/Top_employer_list.asp?gstfips=25&areatype=05&gCountyCode=000504

National Recreation and Parks Association and the American Academy of Park and Recreation Administration. (1996). *Park, Recreation, Open Space and Greenway Guidelines*. Retrieved 2009, from http://www.nrpa.org

Natural Heritage and Endangered Species Program. (2009, December). *Classification of the Natural Communities of Massachusetts (info by town)*. Retrieved December 2009, from Massachusetts Department of Fish and Game Division of Fisheries and Wildlife: http://www.mass.gov/dfwele/dfw/nhesp/info_by_town.htm

Northborough Department of Public Works. (2009). Trash and Recycling Comparison Chart. Northborough, Massachusetts: Town of Northborough.

Northborough Historic Commission. (2009, July 29). Retrieved July 29, 2009, from http://www.town.northborough.ma.us/nhc

Soil Conservation Service. (1976). Inventory of Potential and Existing Upstream Reservoir Sites – Sudbury, Assabet & Concord Study Areas. Worcester: USDA.

Soil Conservation Service. (1985). *Soil Survey of Worcester County, Massachusetts - Northeastern Part.* Boston, Massachusetts: US Department of Agriculture.

Sudbury Valley Trustees. (2009). Crane Swamp Regional Trails brochure. Sudbury, Massachusetts.

Sudbury Valley Trustees. (2009). Mount Pisgah Conservation Area brochure. Sudbury, Massachusetts.

The Trust for Public Lands. (1998). Community Choices: Thinking through Land Conservation, Development, and Property Taxes in Massachusetts. Boston, Massachusetts: The Trust for Public Lands.

Town of Northborough, Massachusetts. (n.d.). 2006 Annual Report for the Town of Northborough, Massachusetts. Retrieved 2009, from Town of Northborough, Massachusetts: http://www.town.northborough.ma.us/town%20meeting%20info/2006AnnualReport.pdf

Town of Northborough, Massachusetts. (n.d.). 2007 Annual Report for the Town of Northborough, Massachusett. Retrieved 2009, from Town of Northborough, Massachusetts: http://www.town.northborough.ma.us/town%20meeting%20info/2007AnnualReport.pdf

Town of Northborough, Massachusetts. (n.d.). 2008 Annual Report for the Town of Northborough, Massachusetts. Retrieved 2009, from Town of Northborough, Massachusetts: http://www.town.northborough.ma.us/town%20meeting%20info/documents/2008AnnualReport.pdf

Town of Northborough, Massachusetts. (2009, April 21). Northborough Zoning Bylaw (Proposed), Adopted at 2009 Annual Town Meeting, Awaiting Attorney General's Review. Northborough, MA: Town of Northborough.

University of Massachusetts Department of Forestry. (2005).

US Census. (2000). 2000 Census Data. US Census Bureau.

US Census Bureau. (n.d.).

Wikipedia. (2010, January 07). *Northborough, MA*. Retrieved January 07, 2010, from Wikipedia: http://en.wikipedia.org/wiki/Northborough,_Massachusetts

Worcester Registry of Deeds. (n.d.).