

OPEN SPACE AND RECREATION PLAN

**TOWN OF
NORTHBRIDGE,
MASSACHUSETTS**

*Prepared by Barbara Gaudette
Under the direction of the
Northbridge Open Space Committee*

JULY, 2002



TABLE OF CONTENTS

<i>SECTION 1:</i>	<i>PLAN SUMMARY.....</i>	<i>2</i>
<i>SECTION 2:</i>	<i>INTRODUCTION.....</i>	<i>4</i>
<i>SECTION 3:</i>	<i>COMMUNITY SETTING.....</i>	<i>7</i>
<i>SECTION 4:</i>	<i>ENVIRONMENTAL INVENTORY AND ANALYSIS</i>	<i>20</i>
<i>SECTION 5:</i>	<i>INVENTORY OF LANDS OF CONSERVATION RECREATIONAL INTEREST.....</i>	<i>37</i>
<i>SECTION 6:</i>	<i>COMMUNITY GOALS.....</i>	<i>51</i>
<i>SECTION 7:</i>	<i>ANALYSIS OF NEEDS.....</i>	<i>54</i>
<i>SECTION 8:</i>	<i>GOALS AND OBJECTIVES.....</i>	<i>64</i>
<i>SECTION 9:</i>	<i>THE FIVE-YEAR ACTION PLAN.....</i>	<i>68</i>
<i>APPENDIXES</i>	<i>.....</i>	<i>72</i>

.....

SECTION 1: PLAN SUMMARY

As we begin a new century, the Town of Northbridge, like so many of its neighbors, is concerned about growth, loss of town character, degradation of its natural resources, loss of agricultural and forest lands and the adequacy of its recreational opportunities. The 2002 Northbridge Open Space and Recreation Plan outlines strategies to deal with these issues. This plan will provide a blueprint to enable the Town to:

1. Preserve the character of Northbridge by managing future growth
2. Prevent environmental disasters resulting from building in inappropriate areas
3. Preserve wildlife habitats and wildlife corridors
4. Preserve agricultural land and promote continued agricultural use
5. Provide a greenway network throughout the town that will link to greenways in adjacent communities.
4. Distribute recreation and open space resources equitably throughout the community
6. Increase public awareness of the community's rivers, ponds, brooks and streams
7. Enhance access to water bodies for swimming, boating, fishing, and skating.

Over the last sixteen years, Northbridge has undertaken a number of studies and adopted plans relating to these issues. In each case it arrived at similar conclusions. Northbridge adopted its first Open Space and Recreation Plan in 1985. The five goals presented in that plan were:

**GOALS OF THE
1994 MASTER
PLAN**

1. Protect open space and scenic areas
2. Preserve and enhance the town's water resources
3. Provide for planned, controlled growth in the town
4. Provide the town with well-balanced recreational opportunities
5. Enhance and increase conservation lands in the town¹

In 1994, Northbridge adopted a revised Master Plan. The "Land Use Policy Implementation Plan" section of the plan lists a number of "Community Character Goals" and "Natural Resource Goals". These goals are similar to those stated in the 1985 Northbridge Open Space Plan. In the last seven years, a number of the report's recommendations were implemented including:

- * Adopt a flexible development / cluster development bylaw
- * Adopt an aquifer protection bylaw
- * Increase the minimum lot size allowed in the aquifer recharge area on the west side of the town
- * Adopt an erosion control bylaw
- * Increase the minimum lot size allowed in R-2 (Residential-2) in areas not served by sewer

¹ Town of Northbridge Open Space and Recreation Plan, p.27. Central Mass Regional Planning Commission, Nov. 1985

SECTION 2: INTRODUCTION

STATEMENT OF PURPOSE

Without good planning, the character of Northbridge can be dramatically altered in a short period of time by random changes in land use patterns. This open space and recreation plan will replace the Open Space Plan adopted by the town in 1985. As development pressure increases, the issues of preserving the town's character, protecting the natural resources and providing recreational opportunities gain importance. The 2002 Northbridge Open Space and Recreation Plan provides a framework within which the residents of Northbridge can determine the future of the town by balancing the pressures for development with the desire to preserve open space.

OPEN SPACE REFERS TO CONSERVATION LAND, RECREATION LAND, AGRICULTURAL LAND, CORRIDOR PARKS, SMALL PARKS, PLAY GROUNDS, GREENWAYS AND TRAILS. IT ALSO INCLUDES PRIVATE LANDS WITH CONSERVATION OR RECREATION POTENTIAL.

PLANNING PROCESS AND PUBLIC PARTICIPATION

In the fall of 1999, the Northbridge Board of Selectmen established a nine member Open Space and Recreation Committee. The committee included one member from the Planning Board, Conservation Commission, and Recreation Commission plus five members at large appointed by the Board of Selectmen. The committee consists of the following individuals:

Members of the Open Space Committee

Barbara Gaudette: Chairperson (Planning Board Member)

Julie Meyers: Vice-Chairperson (Member-at-Large)

Raymond Kane: Clerk (Member at Large and member of the Historical Commission)

Sharron Ampagoomian: Member at large

Priscilla Arbuckle: Member at large

Andrew Chagnon: Conservation Commission Member

Henry Lane: Member at large

Darren Peckham: Member at large

John Ramian: Chairman, Playground and Recreation Commission

THE PROCESS

The first phase of the process was to compile the necessary data along with supporting documents and maps. The Town of Northbridge Open Space and Recreation Plan (Central Mass Regional Planning Commission, 1985), the Natural Resources Study (1989) and the 1994 Northbridge Master Plan provided much of the background information.

The Committee met approximately once a month for more than a year and a half to review and analyze all of the background information, available maps, and property inventory. The committee also recognized that the plan must accurately reflect the attitudes, preferences and needs of the residents and sought public input in a number of ways.

RESIDENTS' SURVEY

A survey was developed to give residents an opportunity to express their opinions on the subject. The survey was mailed to each residence as part of the 1999 Annual Town Warrant. It was distributed again in the fall of 1999 at the second session of the Annual Town Meeting. The survey results were used to determine the needs of individual neighborhoods as well as needs of the community as a whole relative to open space and recreation improvements. The respondents expressed concern about maintaining town character, the rate of residential growth, high property taxes, the need for additional recreation and conservation lands and the loss of agricultural lands. The majority of the respondents also indicated a desire to:

- Preserve buildings of historic or architectural interest
- Preserve areas for wild life corridors
- Preserve open space areas to protect natural resources
- Preserve open space areas for passive recreation -- The respondents favored the creation of bike paths, trails, an ice-skating rink, sports fields, playgrounds, public swimming areas and an outdoor amphitheater.

The local newspaper, The Blackstone Valley News Tribune, ran a number of articles dealing with the work of the committee.

The Open Space Committee a letter to owners of large or otherwise significant land parcels to inform them about the Open Space Committee's work and ask if they had interest in preserving their property from development. (See Appendix "C" for a copy of the letter.)

A public hearing was held in the spring of 2002.

The land parcel inventory was compiled from information supplied by the Northbridge Assessors Office. The Open Space Committee spent countless hours reviewing the assessors' plats to determine which parcels are of conservational or recreational interest. A list of criteria was established to evaluate parcels. It includes the following:

- Size of the parcel
- Environmental significance of the parcel
- Whether the parcel is located in the aquifer protection zone
- Potential for the parcel to connect to existing open space parcels
- Recreational potential of the parcel

SECTION 3: COMMUNITY SETTING

REGIONAL CONTEXT

Northbridge is located in the heart of the Blackstone River Valley in central Massachusetts. The towns of Grafton, Upton, Mendon, Uxbridge and Sutton border it. It is adjacent to Route 146, the major highway route connecting the cities of Worcester, Massachusetts and Providence, Rhode Island. Northbridge is roughly twelve miles from Worcester and twenty miles from Providence. Its proximity to the Blackstone River and its tributaries had a significant effect upon the settlement and development of the community. The opening of the Blackstone Valley/ Route 146 exit of the Mass Pike and the improvements to Route 146 will have a profound effect on its development in the years ahead.

HISTORY OF THE COMMUNITY

Northbridge was incorporated in 1772. Prior to that date, it was the northern part of the Town of Uxbridge (hence its name). Uxbridge had spun off from Mendon in 1727. The economy of the early settlers in the area was mainly agricultural. In the eighteenth century, small grist mills and saw mills developed along the rivers. A forge shop was established adjacent to the falls of the Mumford River in 1727. Over time additional industries were established including the "Boot Shop" at Northbridge Center. The boot shop produced thousands of pairs of shoes and boots by the mid 1800s.² In 1809, the Whitin family founded the cotton spinning industry near the old forge on the banks of the Mumford River. Before long, the textile industry overshadowed all the other businesses in town.

From the early 1800's until the 1960s, Northbridge could accurately be described as a "mill town". The

² Town of Northbridge Bicentennial Commemorative Journal, p. 14

town developed around the mill villages of Rockdale, Riverdale, Linwood and Whitinsville. Whitinsville, the largest of the villages, developed along a feudalistic model. The owners of the Whitin Machine Works, planned, built and controlled the village.

Development was concentrated in the area surrounding the mill. The Shop, as it was called, constructed and maintained housing for its workers. The housing types ranged from single-family dwellings to six family units and boarding houses. The mill owners constructed most of the municipal buildings and infrastructure. The village was thoughtfully laid out with a variety of amenities, such as street trees, parks, playing fields, and other recreational facilities. The Shop owners, the Whitins, wanted to develop an appealing community to attract the workers necessary to continually expand the manufacturing business. They also maintained control of the town by actively participating in town government. Principals in the mill held the majority of the positions in the local government.

During the 1950's and 1960's, Northbridge experienced a significant transformation as the factories began to close. After the largest one, the Whitin Machine Works, was sold in the 1960s', Northbridge went through a period of decline. With the main benefactor gone, the economy faltered. Nearly every facet of life was affected by the loss of the industrial base. Jobs were lost and the housing units, once owned by the shop, were sold to individuals. The town struggled to regain its identity. In recent years, Northbridge has made a significant recovery.

Evidence of the "Whitin" era is present throughout Northbridge. Numerous buildings of high architectural quality include: the Memorial Town Hall, the Whitinsville Social Library, the Whitinsville Bank Building, mill buildings and numerous private residences. These buildings were designed by prominent architects and built by the Whitins. This rich heritage is part and parcel of the character of the Town of Northbridge.

Northbridge is the most densely populated of the eleven

**POPULATION AND
HOUSING
CHARACTERISTICS**

towns of the Blackstone Valley. The town developed around compact mill villages. Much of the mill housing still exists and provides Northbridge with a variety of housing types to meet the needs of a diverse population. In recent years, the relatively low land costs have been an incentive for developers to build single-family homes in Northbridge. Lots along existing streets were developed and numerous subdivisions sprouted up throughout the town.

Although most of the development in the town was concentrated in the village centers, hundreds of acres within a mile of the center of the village of Whitinsville were not developed. When the Whitin Machine Works was sold in the 1960's the land was included in the package. It remained undeveloped land until the 1990s. The subsequent owners submitted development plans for the large parcel off of Hill Street and for a second parcel off of Providence Road. A Planned Unit Development was approved in 2000 for the Hill Street parcel. When it is completed, the "Hills of Whitinsville" will include 110 single-family homes and 92 condominium units.

POPULATION

In 1960 the population of Northbridge was 10,800. It grew steadily but at a declining rate from 1960 to 1980. During the 1980s as the Blackstone Valley became a desirable location for new residential homes; a mild building boom pushed the population count beyond projections. In 1990 the population was 13,272, a figure agreed upon by the U.S. Census and the Town Clerk's count. The Northbridge Town Clerk states that the town's population in 2000 reached 13,784, a 4% increase over the decade. The 2000 U.S. Census figures show that the population in Northbridge declined to 13,172, down roughly .5% during the last decade.

NORTHBRIDGE POPULATION 1960-2000

<i>YEAR</i>	<i>POPULATION</i>	<i>PERCENT CHANGE</i>
<i>1960</i>	<i>10,800</i>	
<i>1970</i>	<i>11,795</i>	<i>9.2%</i>
<i>1980</i>	<i>12,246</i>	<i>3.8%</i>
<i>1990</i>	<i>13,272</i>	<i>8.4%</i>
<i>2000</i>	<i>13,182</i> <i>(U.S. Census Data)</i>	<i>-.6%</i>
<i>2000</i>	<i>13,784</i> <i>(Northbridge Town Clerk Census Data)</i>	<i>4%</i>

Table 1. U.S. Census Bureau and the Northbridge Town Clerk

Raw population numbers do not provide sufficient information to determine the open space and recreation needs of the community. Breaking down the population into various age groups makes it easier to identify patterns of need and interest. The Federal Census data uses the following groups: a) under 15, b) fifteen to forty four, c) forty-five to sixty-four and d) sixty-five and older.

POPULATION BY AGE FROM 1980-2000

<u>AGE GROUP</u>	NUMBER 1980	PERCENT OF TOTAL 1980	NUMBER 1990	PERCENT OF TOTAL 1990	NUMBER 2000	PERCENT OF TOTAL 2000
<15	2941	24%	3049	23%	3072	23.3%
15-44	5244	42.8%	6167	46%	5471	41.5%
45-64	2380	19.4%	2191	16%	2818	21.4%
65 +	1681	13.7%	1964	15%	1821	13.8%

Table 2. U.S. Census Bureau

POPULATION BY AGE IN 2000

Table 2 shows a population breakdown based on the age groups. The population distribution has remained stable during the last twenty years. The 15-44-age group decreased 4-½ % from 1990 to 2000, while the 45-64 age group increased nearly 5-½ %.

SCHOOL POPULATION

A look at the public school population may clarify the picture. In 1994-1995 the total enrollment in the Northbridge School System was 1958 students. In 1997-1998 the enrollment was 2,234 and in October 2000 the total enrollment of the Northbridge School system was 2,383. The projected enrollment for the year 2005 is 2667 students from pre-kindergarten through grade twelve. These figures do not include the school age children who reside in Northbridge but attend the Whitinsville Christian School or other out of town private schools.

Roughly 23% of the population is 15 years or younger and more than 41% of the total population is between 15 and 44 years of age. These figures indicate a need for recreational facilities to serve these segments of the population. Northbridge has responded to this need by constructing two new soccer fields and providing lighting to the Linwood Playground basketball courts. A group of private citizens developed a playground

adjacent to the Balmer School to serve elementary aged children. Another private group created a tot lot on town-owned property on Cross Street. The private non-profit Whitin Community Center expanded its programs to make their facility and programs more accessible to the community.

**GROWTH AND
DEVELOPMENT
PATTERNS**

***Mill
Housing***

Northbridge began as a rural community. The early settlers cleared the land for agricultural use. During the 19th century compact villages surrounded by agricultural land characterized the Town's development. In later half of the 20th century, most development occurred along existing streets (Form-A lots) and subdivisions scattered throughout the town.

During the real estate boom of the 1980s, individuals purchased many of the multi-family mills housing units. When the economy worsened, many ended up in foreclosure. Under bank ownership, the buildings experienced further decline. Northbridge has sought and received grants to rehabilitate many of them. The strong economy of the late 1990s eased the problem.

There are still some areas of blight in the town but conditions are improving.

Heritage Park on Linwood Avenue is the only large-scale condominium project in the town. It was built in the 1980s and is comprised of 249 units. Northbridge has three elderly housing complexes, three private nursing homes and one assisted living facility.

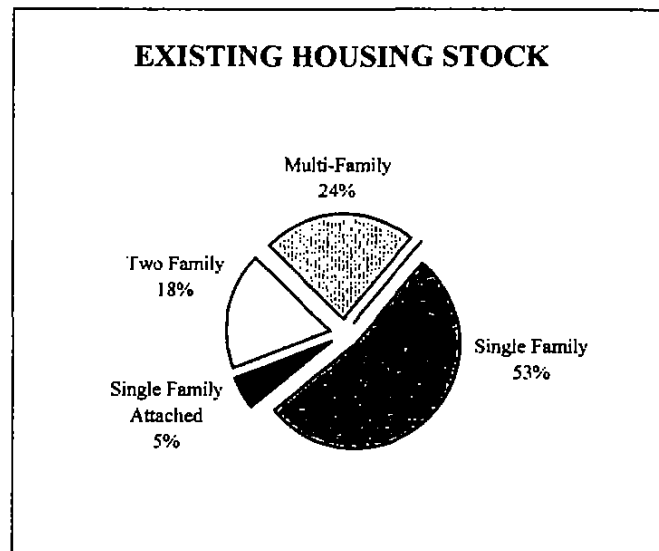


Chart 1 Northbridge Assessors Office 2000

HOUSING TYPES

Chart #1 shows the types of housing available in the Northbridge. The town has a high percentage of duplex and multifamily dwellings. Many were built prior to 1940 as mill housing. These units were owned and maintained by the shop. When the factories closed they were sold to individuals. One of the former mill buildings, the Whitinsville Cotton Mill, was converted to apartments in 1976. A school building in Rockdale was converted to senior housing. An entire neighborhood of multifamily units built by a mill owner, Rockdale Commons, was rehabilitated in the 1970s.

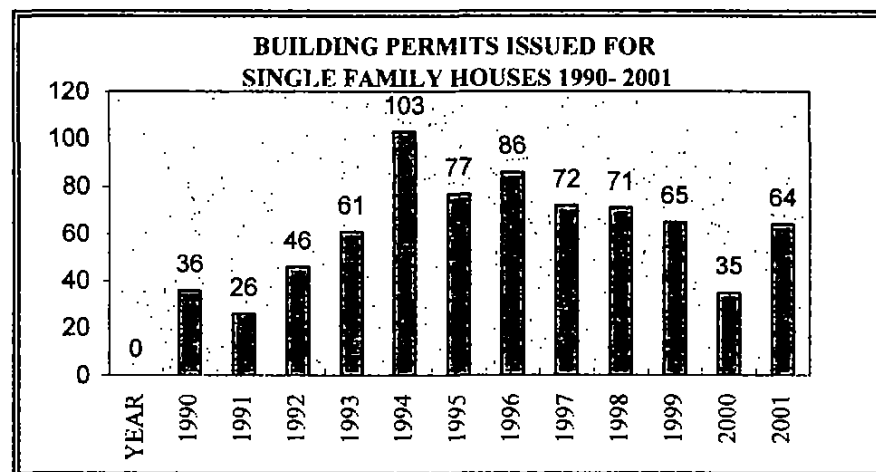


TABLE 3. Northbridge Building Inspector

**DEALING WITH
INCREASED
GROWTH AND ITS
IMPACTS**

The increase in number of single-family dwellings has had an impact on the town. There are distribution problems in the water supply systems as indicated in the 1999 Woodward and Kearns Report. The water tank located on Hill Street is being replaced to improve water distribution and to accommodate increased demand. The sewer system is inadequate. There are plans to update the sewer plant but improvements to the collection system and extensions of the system will be necessary to provide service for a number of proposed subdivisions.

The Master Plan, adopted in 1994, recommended several actions to deal with the increased growth and its impacts.

- Adopt an Aquifer Protection Bylaw (adopted in 1996)
- Increase minimum lot sizes in the aquifer protection area (area was rezoned to R-1 in 1995)
- Adopt a flexible development bylaw to allow reduced lot sizes while preserving open space (adopted in 1996)
- Increase lot sizes in some areas - The minimum lot size in the residential-2 (R-2) zone, in areas not serviced by sewer, was increased to 40,000 sq. ft. in 1998.

Some issues still need to be addressed. We need to do a better job protecting our valuable water resources. Our streams and brooks are not adequately protected. Carpenter Reservoir, which lies in the center of the aquifer protection area, is vulnerable. Under current regulations, it is possible, to build as close as 25' to the water's edge (with the permission of the Conservation Commission). Whitinsville Water Company owns

most of the property surrounding Carpenter Reservoir and the company has indicated that it does not intend to develop it. However, the water company land is not "protected land" and should be considered vulnerable.

At the present time the Planning Board is reviewing a number of residential subdivisions. (See Table 5.) Several of these projects are large and if all of them are completed, Northbridge will have hundreds of new single family homes and more than two hundred condominium units.

RESIDENTIAL SUBDIVISION STATUS IN APRIL 2002

NAME	NUMBER OF UNITS	PERMITTING STATUS	CONSTRUCTION STATUS
Brian Circle	11 single family	Approved	List of items remain before street can be accepted
Castle Hill Estates	54 Single Family	Approved	List of items remain before street can be accepted
Clover Hill Estates	32 Single Family	Approved	List of items remain before street can be accepted
Deer Track Estates	4 single family	Approved	Binder Course Completed 9-01
Delbar Estates	12 Single Family	Approved	List of items remain before street can be accepted
Eben Chamberlain Road	15 Single Family	Approved 3/2000	Binder Course Completed 7-00
Greenmeadow Estates	9 Single Family		List of items remain before street can be accepted
Graystone Estates	52 Single Family	Approved	The town has accepted several roads in the subdivision.
The Hills (PUD)	111 Single Family, 92 condominiums	Approved	Binder Course on Phase 1 completed, Phase 2 under construction
Presidential Farms (Flex.)	103 Single Family	Approved 6/2000 Endorsed 2/01	
Reservoir Heights (Flexible Devel.)	73 Single Family	Approved 6/2000	Phase 1 binder course completed. Phase 2 under construction
Shining Rock Phase 1 (conventional subdivision)	18 Single Family	Approved	Under Construction
Shining Rock Golf Community	38 single family, 104 condominiums	Prelim. Plan and special permit approved. Definitive plan under review	

Table 5. Northbridge Planning Board Data

PROJECTED BUILD OUT

The 1994 Master Plan projected the maximum build out under current zoning was estimated at 25,000 residents, with development occurring through out the town. In 2000, Central Mass Regional Planning Commission completed a build out analysis for the town. (See Table 5). The report projects a build out population of 23,824 residents. The report also estimates that, in the year 2000, Northbridge had 4,792 acres of developable land remaining. This information is valuable. It emphasizes the point that we must plan for orderly growth – build what needs to be built and save what needs to be saved.

We must consider the needs of a growing population. Will the town have sufficient land to build schools, and other public buildings? Will the town have sufficient land to provide adequate recreational opportunities for its residents? Will the town save sufficient land to protect the environment, preserve the scenic vistas, and the like? If nothing is done, little residual open space will remain. The most vulnerable areas are within the aquifer protection zone and the existing agricultural areas.

SUMMARY BUILDOUT STATISTICS
(New Development and Associated Impacts – Northbridge)

	2000	ADDITIONAL FROM BUILDOUT	TOTAL AT BUILDOUT
Developable Land (sq. ft.)	208,739,520 sq. ft.	*****	*****
Developable Land (acres)	4,792 acres	*****	*****
Housing Units	5,672	3014	8686
Comm/Indus. buildable Floor Area (sq. ft.)	Unknown	3,699,522 sq. ft.	*****
Residential Water Use (gallons per day)	1,079,925 gpd	706,875 gpd	1,786,800 gpd
Comm/ Indus Water Use (Gallons per day)	Unknown	304,674 gpd	*****
Municipal Solid Waste (Tons)	8,683 tons	5,674 tons	14,357 tons
Non-Recycled Solid Waste (Tons)	5,256 tons	3,440 tons	8,696 tons
Residents	14,399	9,425	23,824
School-age Children	2,836	1,765	4,601
Road Miles	69.4 miles	63.27 miles	132.67 miles

Table 6. "Northbridge Build out Analysis". Central Mass Regional Planning Commission. 2000

SECTION 4. ENVIRONMENTAL INVENTORY AND ANALYSIS

Geology, Soils and Topography

The environmental inventory focuses on the town's physical characteristics.

LANDSCAPE CHARACTER

The landscape of Northbridge is characterized by rolling hills, a low river valley, an upland ridge, and a high plateau. The Blackstone River runs from north to south through the center of the town. It is a prominent feature that contributes to the character of the town's landscape.

The land rises steeply from the Blackstone River's eastern bank to form an upland ridge. The majority of the steeper slopes, those greater than 8%, are located in the eastern half of the town. Shining Rock, which is a high point at 530' above sea level, is located on the town's eastern border and the Lange parcel southeast of Riverdale Street is 496' above sea level. The southwestern corner has several areas of slopes with grades greater than 15%. Although the northwestern area of Northbridge is fairly level, the highest elevations are found in its northwest corner. The highest point in Northbridge is six hundred feet in elevation. It is located between Pollard Road and Sutton Street. The central and south areas contain gentle (less than 8% and moderate, 8-15%, slopes broken by areas of short steep grades (greater than 15%). Elevations decrease as one moves south to the Uxbridge town line (350'), and east toward the Blackstone River (250').

TOPOGRAPHY

Topography is the shape of the landscape, defined by changes in elevation over a distance. On a plan or map, changes in elevation are shown as contour lines. These lines describe what is happening on the ground. For example, they indicate hills, valleys, and steep slopes.

Topographic features influence how the land can be used.

Local topographic conditions should be considered

*Impact of
topographic
conditions on land
development*

when developing a recreation and conservation plan for a number of reasons:

- 1) Steep slopes place severe limitations on facility development. Slopes greater than 15% are generally considered "steep" and in most cases are not suitable for development. Certain soils associated with steep slopes are subject to slippage through gravity. Site improvements in these areas tend to be costly. Steep slopes make placement of on-site septic systems difficult.
- 2) Recreation or conservation activities must be compatible with local topographic conditions. Play fields, and the like require broad flat lands. Hiking trails, on the other hand, are well suited to areas of rolling hills and moderate slopes.
- 3) Land possessing unique natural features or qualities should be identified and protected. Many rare landforms such as chasms, gorges, and rugged terrain, may represent severe constraints on development while offering excellent opportunities as public conservation land. Areas that are environmentally sensitive and lands offering significant views should also be preserved.
- 4) Rolling hills and scenic vistas are aesthetically pleasing and should be valued by the community.

SOILS

Soil analysis can be a useful tool to identify a variety of landscape features including gravel beds, riverbeds, steep slopes, and suitable land for agriculture. The Soil Conservation Service categorizes and maps soils. The SCS data separates the landscape into regions or areas, which, by nature of the soils

found in it can support similar issues. The soil delineations are useful only as a broad assessment. Site-specific analysis is necessary prior to making decisions regarding the appropriate uses for a specific parcel.

Soil characteristics can be a significant factor when determining the development suitability of a site. Soil characteristics indicate whether or not the placement of utilities, including on-site septic systems, is possible.

Soils that are unsuitable for development may be well suited for passive recreation or conservation use.

The Worcester County Soil Conservation Service has identified eleven general soil types in Worcester County. Seven of these are found in the Town of Northbridge.

The following soil groups are not suitable for high-density development but present only slight limitations for the passive and active recreation.

Soil Groups

1) **Soil Group #1** has steep slopes and stony soils with frequent bedrock outcrops interspersed. This is the most common soil group found within Northbridge. About half of the soils in the group are shallow to bedrock while the remaining soils are moderately well drained with hardpan. Hardpan soils severely restrict the downward movement of water. The bedrock that is close to the surface and the presence of hardpan severely restricts high-density development. However, these soils present only slight limitations for the passive and active recreation on these sites.

2) **Soil Groups #5** is found in smaller areas in the western part of the town. Group #5 is composed of droughty and well-drained sandy and gravelly soils. These soils are not suitable for high-density development but are suitable for recreational uses. The gravel

deposits are a resource and several of these areas have been mined.

3) Soil Group #10 follows the floodplain of the Blackstone River from north to south through the town. The common soils in this group are droughty Hinckley soils, the somewhat droughty Merrimac series and the poorly drained Rumney series. All of these soils are sandy and gravelly and are subject to flooding. On site septic systems function adequately here, but there are moderate limitations for high-density development. Limitations are minimal for agriculture, woodlands and recreational use. Large areas of this soil group lie along the Blackstone River.

Areas characterized by Soil Group #9 are best left as natural habitats.

1) Soil Group #9 is found in small areas in the western part of the Town. Group #9 soils can best be characterized as "muck". They are poorly drained mineral soils that are usually found in wetland areas. These soils are typically saturated for seven or more months of the year. Wetness imposes severe restrictions on development. These areas should be left as conservation areas and wildlife habitats.

The following soil groups can, in general accommodate higher density development:

1) Soil Group #4 can be found in two areas in the southern sections of Northbridge, east and west of the Blackstone River. The major soils of this group are droughty to well-drained and gravelly soils on terraces. All soils in this group have a rapid permeability. In general, these soils can accommodate higher density development

such as commercial and industrial development. Limitations are minimal for agricultural and recreation uses since the solids are easily tilled.

2) Soil Group #2 is found running north to south in the west central section of the town. The soils in this group are deep, well-drained soils that surround relatively small tracts of shallow to bedrock soils. The deep soils found in these areas are often very stony, although much of this land was at one time used for agriculture and has been partially cleared of surface stones. The soils in these areas place slight limitations upon agriculture, woodland, and recreational uses. Group 2 soils can support residential development with few constraints.

3) Soil Group #7 is predominant in the western portion of Northbridge, west of Carpenter Reservoir. The area is characterized by low, irregular hills with shallow to bedrock soil and deep

4) Well-drained soils without hardpan. These soils create only slight limitations for agricultural, woodland or recreational development.

CHANGES IN LANDSCAPE CHARACTER

The creation of several large subdivisions over the past ten years has had an impact on the overall scenic character of the town. The greatest impact was the loss of many acres of woodland. The majority of the lots in these subdivisions vary in size varies from 20,000 sq. ft. to 30,000 sq. ft. Very little land was set aside as open space. In the late 1980s' Northbridge adopted a Planned Unit Development Bylaw. The bylaw allowed mixed uses and reduced lot sizes as long as a minimum of 30% of the tract was set-aside as open space. One residential P.U.D. was approved and is now under construction. "The Hills" will have 110 single-family houses and 92 condominium units. The P.U.D. bylaw was repealed.

Northbridge *adopted* a flexible development bylaw in 1996. The bylaw allows concentrated development. In a flexible development, the number of housing units remains the same as permitted in the underlying zone; however, the size of individual lots is reduced, and at least 30% of the parcel is maintained as open space. Since the bylaw was adopted, the Planning Board has considered three flex-developments. All three have been approved. The first, Adams Circle, has been completed. The second, Presidential Farms, will have about one hundred single-family homes. Roughly 45 acres will be set aside as open space. Fifteen acres will remain as agricultural land and twenty-six acres of woodland will be preserved. The project also includes a paved bike path and a walking trail. The third, Reservoir Heights, will include 76 single-family homes on smaller lots and 75 acres will be preserved. Reservoir Heights is located in an area that is extremely environmentally sensitive. The use of the Flexible Development has allowed the sensitive areas to be saved.

WATER RESOURCES

Water resources include rivers, streams, wetlands and floodplains. These resources must be protected to maintain a healthy environment. Water resources also provide numerous recreational opportunities.

Northbridge is located in the center of the Blackstone River Watershed. A watershed is a geographic area in which water flows down stream to a common point such as a river, lake or bay. Since all water flowing over the land within a particular watershed will drain into the same rivers, streams, lakes, or ponds, all of the natural and human-made conditions within the watershed will have an impact on a particular watercourse or water body. Potential non-point pollutant sources such as concentrations of septic system effluents and urban and agricultural runoff can have cumulative adverse impacts.

Water resources have been important in the development of Northbridge. Surface water bodies occupy 3.5% of the town's total area. Three rivers, the

Blackstone River, the Mumford River and the West River run through the town. The industrial revolution started and thrived in this area because of the availability of hydroelectric power. Today, the town relies, in part, upon surface water for its municipal water supply. In addition, surface water resources provide recreational opportunities, scenic beauty and wildlife habitats.

The Blackstone River

The community's major water resource is the Blackstone River and its tributaries. The Blackstone River originates in Leicester, Massachusetts, flows through Worcester south to southeast through Northbridge. It continues flowing south into Rhode Island and eventually empties into Narragansett Bay. The river was known as "America's hardest working river"³. It has also been designated as one of America's Heritage Rivers. Its major tributaries are the Quinsigamond River, the West River and the Mumford River. The Blackstone River falls fifty feet in its six-mile flow through the town. One of the four flow gauging stations monitoring the Blackstone is located in Northbridge. The average flow of this segment of the river from October 1939 to September 1970 was 237 cubic feet per second.

The Blackstone River was severely polluted by the industries that developed along its banks. Cleanup efforts began in the late 1970's, but there are still serious pollution problems. Sediment left by industry, inefficient wastewater treatment plants and non-point source pollution continue to affect the water quality. Efforts are being made to pressure the Federal Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Management (DEM) to require discharge limits for metal when the wastewater treatment plants apply for re-licensing. As the major fresh-water tributary to the Narragansett Bay, the Blackstone River pollutants from

³ Bickford, Walter and Damon Ute, Eds. An Atlas of Massachusetts River Systems, Environmental Designs for the Future, Umass Press, Amherst. 1990. P.52.

Massachusetts contribute heavily to the environmental problems in the Bay. The environmental problems include eutrophication, poisoning of shellfish and other bottom-feeders, and harm to sensitive estuaries and to the rare and endangered species that inhabit those areas.

The Town of Northbridge is not without fault in contributing to the degradation of the Blackstone River. Department of Environmental Management studies indicate that the Northbridge Wastewater Treatment Facility discharges chromium, nickel, copper, cadmium and zinc into the river.

The Mumford River

The Mumford River flows southeast from the Northbridge's western border and joins the Blackstone River in Uxbridge. The first of the town's mills were located on the banks of the Mumford River to take advantage of the hydroelectric power it could provide. Today there are a number of industrial facilities along its banks. The Mumford River sub-watershed includes the Carpenter Reservoir, Meadow Pond and Linwood Pond.

The West River

The West River flows southerly through the Town. There is no development along this river because the drainage area of the West River has historically been subject to extensive flooding. The Federal Government in connection with the West River Flood Control Project owns three hundred and nineteen acres of land in its floodplain. Building is not permitted on this land or on any land below 269' mean sea level. The Division of Fisheries and Wildlife manages a reservation in the area that includes a hiking path and small swimming beach.

It is essential to work toward cleaner rivers. A cleaner Blackstone River has a positive impact upon Narragansett Bay; and numerous local benefits as well. A clean Blackstone can provide recreational, educational, aesthetic, and long-term economic opportunities. The Commonwealth of Massachusetts has already committed substantial capital toward the planning and development of the Blackstone River Heritage State Park. The benefits from that effort include increased tourism, as well as a richer physical

WATER QUALITY

environment for the community. "Save the Bay", The Blackstone River

Watershed Association and the Blackstone River Valley National Heritage Corridor and a number of local groups are currently actively involved in the effort to improve the river and its tributaries.

The quality of the town's surface water is, in general, fairly good. The MA Division of Water Pollution Control (DWPC) currently classifies the Mumford and West Rivers as "B" water bodies. Class "B" waters are suitable for bathing and recreational purposes and are acceptable as public water supplies with proper treatment. Class "B" waters provide good habitat for fish and wildlife and have excellent aesthetic value.

The Mumford River; however, is subject to pollution from an inefficient sewer system in Douglas as well as from numerous non-point sources.

The Blackstone River has been given a "C" classification. Class "C" waters are suitable for recreational boating (although not for swimming) and provide habitat for wildlife and common food and game fish. Class "C" waters are appropriate for certain industrial cooling and process uses and under some conditions can be acceptable public water supplies with proper treatment. The goal of the MA DPWC is to reclassify the Blackstone from a "C" to a "B" water body. All segments of the river except the Northbridge section are currently meeting the "B" standards.

Two major ponds, Rockdale Pond and Rice City Pond are in the Blackstone River sub-basin. Half of Rice City Pond lies in the Town of Uxbridge. Many of the town's smaller ponds, such as; Meadow Pond, Linwood Pond, Swans Pond, Arcade Pond, and Riley Pond were manmade. There are also a number of minor streams through out the Town.

There is a need to heighten public awareness of

**MUNICIPAL WATER
SUPPLY**

the ponds, brooks, streams and rivers. One step that could be taken is to provide signage on the roadsides designating the water bodies along the way.

The Whitinsville Water Company provides the town with 75-80% of its water supply. Those not served either directly or indirectly by the Whitinsville Water Company (WWC) use private wells. The WWC utilizes both ground water and surface water sources, which in Northbridge consist of Carpenter Reservoir and Meadow Pond, and reservoirs #5 and #6 in Sutton. Ground water supplies consist of two wells located at the northern and southern ends of Whitin Pond on Carr Street and south of Whitin Pond on Main Street. The Water Company utilizes an additional groundwater well on Mendon Road in Sutton. The WWC plans to construct a surface water treatment plant at Meadow Pond some time in the future. After that facility is operational, groundwater will only be used in emergency situations.

Whitinsville Water Company owns much of the land surrounding Carpenter Reservoir, including a large part of its watershed. The land was zoned R-2 and was protected only by the 100' buffer around surface water bodies stipulated in the Town's Wetlands Ordinance and the minimal standards required for the narrow strip that lies within the 100 year flood plain. The 1994 Master Plan expressed concern that the density of residential development allowed in the R-2 zone (1/2 acre per unit) could pose a threat to the town's drinking water supply.

Sewer does not service this area; therefore, leachate from private septic systems could adversely affect the water supply. Residential pollutants such as lawn fertilizer, motor oil, and improperly disposed household chemicals are also a problem. Erosion and increased run-off

also present hazards. It is essential that steps be taken to ensure water quality protection. Two of the goals stipulated in the 1994 Master Plan were to 1) adopt an Aquifer Protection provision to the Northbridge Zoning By-laws, and 2) increase the minimum lot size in the area that lies within the Blackstone watershed area to a minimum of 40,000 sq. feet. These measures were adopted in 1995 and 1996.

In 1975, the U.S. Dept. of Agriculture in cooperation with the Massachusetts Water Resources Commission inventoried potential reservoir sites in the Blackstone River Basin. One of the locations identified in Northbridge is on an unnamed tributary to Carpenter Reservoir, approximately 3,300 feet upstream from Carpenter Road. Although this is not a binding designation, future planning for this area should consider the site's reservoir potential.

WETLANDS

Wetlands are also important water resources that must be identified. Numerous wetland areas are found throughout Northbridge. Wetland areas play a critical role in maintaining clean water, providing wildlife habitats, pollution control, groundwater recharge and flood protection. Although a wetland may appear to be an independent system, wetlands must be considered within the context of the overall hydrologic system. MGL Chapter 131 S.40 The Wetlands Protection Act regulates what activities can take place in and bordering wetland areas. Any development activity within 100' of requires an Order of Conditions from the local Conservation Commission. The local Wetland Protection Bylaw provides another layer of regulations on development in and bordering wetland areas.

FLOODPLAINS

Floodplains are low-lying areas adjacent to rivers and streams that flood during 100-year storms. These areas are shown on the Flood Insurance Rate Maps provided by the Federal Emergency Management Area (FEMA).

There are development restrictions in floodplain areas, although they vary depending upon the zone delineation within the floodplain. Most floodplain areas are more suitable for uses that do not require structures; such as agriculture, recreation and wildlife sanctuaries.

Floodplains are found bordering the town's three major rivers. The floodplain along the Blackstone River closely follows the river's channel in the northern half of the town. South of Riverdale Street, major floodplain areas are found both east and west of the river channel. Floodplains areas are also found on either side of the Mumford River and on the unnamed stream entering the northern tip of Carpenter Reservoir. As mentioned earlier, a major portion of the town's flood plain is located near the West River. The U.S. Army Corp of Engineers operates the West Hill Dam for purposes of flood control. The floodplain district provisions in the Northbridge Zoning By-Laws restrict new development in these areas.

Wetlands and floodplain areas, because of the restrictions placed on development, are ideal locations for conservation and recreation development. The town's surface water bodies; ponds, rivers and major streams, currently offer opportunities for swimming, fishing, boating, ice-skating. These water resources play a vital role in the development of new recreation and conservation activities. The Blackstone River and Canal Heritage State Park as well as the development of the Blackstone River Valley National Heritage Corridor

AQUIFER RECHARGE AREAS

An aquifer is a geologic unit that yields significant quantities of water. In order to determine if aquifer yields are sufficient to support municipal water supplies, detailed ground water availability and delineation studies would be required. In general terms, yields should be of sufficient quantity to meet demand, risk of contamination should be low, and the aquifer should be large enough to enable consistent yields over time. Northbridge has three potential aquifer areas. The largest of these areas stretches from north to south in the town's eastern half, underlying the Blackstone River. This aquifer is reported as having potential medium-yields (50-250 gallons per minute) along its northern portion and eastern edge and potential low yields (<50 gpm) along its central and southern sections. Small pockets in the northern portion of this aquifer area are characterized as having high-yield (>250gpm). Land zoned for industrial, commercial, residential and floodplain overlay this aquifer. This

includes the town's largest industrial district to the south and a relatively high-density residential district to the north in the Rockdale areas. Development of this land for high-density residential use or industrial use could jeopardize the protection of this ground water resource. While Northbridge does not currently utilize this aquifer area as a municipal water supply, the town should take steps to prevent the pollution of this resource in order to ensure its' viability as a future municipal water supply. The 1994 Master Plan identified this problem and set a goal to establish land use regulations that would protect the town's ground water resources.

AQUIFER PROTECTION

In 1996 Northbridge adopted an aquifer protection zone to protect the wellheads located in the Meadow Pond area. (See appendix A).

VEGETATION

An analysis of vegetation resources specifies common plant communities and rare and endangered plant species. It also identifies critical areas, such as; old growth forests and large tracts of contiguous woodlands. The rich variety of natural habitats common to southern New England can be found in Northbridge: mixed hardwood forests, fields, open edges, wetlands and surface water bodies. The vegetation within these habitats is also characteristic of southern New England.

The predominant tree is oak. White oak (*Quercus alba*) and red oak (*Quercus rubra*) are common throughout the town. Other common species are white birch (*Betulus*) and white pine (*Pinus Strobus*), scarlet and black oaks, and the red maple (*Acer Rubra*), and sassafras (*Sassafras albidum*).

Shrubs commonly seen in the natural landscape include the high bush blueberry (*Vaccinium corymbosum*), low bush blueberry (*Vaccinium angustifolium*), winterberry (*Ilex verticillata*), mountain laurel (*Kalmia latifolia*), and clethra (*Clethra alnifolia*).

Unusual mature non-native trees can be found at Whitin Park on Hill Street in the Village of Whitinsville. They include Katsura, Ginkgo, Fern Leaf Beech, and Weeping Beech.

During the 1800s a large percentage of the land in Northbridge was cleared for agricultural use. Over time most of those acres have re-forested and today, most of the undeveloped areas of Northbridge are wooded. In recent years, development has systematically eliminated forestland in Northbridge.

FISHERIES AND WILDLIFE

Forestlands provide opportunities for passive recreation as well as conservation. The mature forests that have little under story provide the best hiking trails. The Mumford Riverwalk is a good example. The second growth forest with a lot of saplings and under story woody plants is less valuable for trails but it has significant value as wildlife habitats.

Northbridge has few agricultural parcels remaining. The most prominent are Kroll's farm on Hill Street, Castle Hill Farm, Foppema's Farm and Szerlag's Farm and Vandenakker's Farm.

Wetland habitats are common throughout the town. The vegetation found in these areas includes: arrowhead, cat-o-nine tails, and skunk cabbage.

According to a letter from the Massachusetts Natural Heritage Program in 1985, there has been no rare or endangered plant species noted in the town.

There is an abundance of wildlife and a wide variety of habitats found in Northbridge; deep woods, dense thickets, open fields, marshes, swamps etc. Most wildlife species common to southern New England can be found within the town limits. White-tailed deer, raccoon, porcupines, skunks, minks, cottontail rabbits, beavers, red fox, coyote and even bobcats have been sighted.

In the town's wetland areas, yellow spotted salamanders, wood frogs, painted and box turtles are evident. Fish varieties include yellow perch, large mouth bass. No rare or endangered species are known to be indigenous to the town.

Of the four hundred bird species which populate the state, approximately two hundred and sixty of these can be found in Northbridge at various times throughout the year. The redheaded woodpecker and the snowy owl are two of the more unusual species, which have been sighted. Other species can be found in abundance: the hairy woodpecker, cardinal, wood thrush can be found in the oak forest; mourning doves, crow and purple martins are found in open fields and thickets, sandpipers, swamp sparrows, yellow warblers and herons find food and cover near the town's fresh water marshes and swamps.

To preserve the diversity of the town's wildlife species, it is important to preserve wildlife habitats. Development pressure is currently threatening the habitats and the species that depend on them for food and cover. Preserving agricultural land, providing open space using zoning tools such as flexible development, acquiring conservation easements on prime open space lands will aid in safeguarding wildlife habitats.

A healthy environment contributes to the overall quality of life. It enhances the attractiveness of the community and boosts property values. A coordinated approach to resource protection can produce many benefits. For example, development controls designed to protect watersheds and surface waters can also provide open space and recreation, and enhance the environmental and aesthetic qualities of the landscape.

SCENIC RESOURCES AND UNIQUE ENVIRONMENTS

Scenic landscapes are found through out Northbridge. There are many picturesque surface water bodies including rivers, ponds, and streams. There are sweeping vistas from Shining Rocks and King Phillip's Rock and there are beautiful agricultural landscapes.

Shining Rocks

The most unusual geologic feature within the town is Shining Rocks. Visitors must climb to the top of a steep rocky slope to enjoy a fabulous view of the valley below. Unfortunately, development of the adjacent properties threatens to destroy some of the beauty of this unique landscape. King Phillip's Rock or Look-out- Rock is further south off of Quaker Street. It also

features a steep rock face with a promontory that overlooks the winding Blackstone River.

Scenic Roads

Northbridge has designated six streets as "Scenic Roads"; Hill Street, Quaker Street, Kelly Road, Cooper Road, Highland Street, and Fletcher Street. All of these streets feature mature shade trees and historic New England style stonewalls.

*Whitinsville
Historic District*

As mentioned earlier, Northbridge has a rich heritage that is worthy of preservation. A federally designated historic district, the Whitinsville Historic District, is centered on Memorial Square in Whitinsville and includes many historic structures and landscapes. There are a number of historic landscapes including two privately owned sites, Pine Grove Cemetery and Whitin Park.

The privately owned Whitinsville Golf Club is one of the most significant landscapes in Northbridge. It is located on Fletcher Street in the Village of Whitinsville. This nine-hole course was designed by Donald Ross and is considered to be one of the best 9-hole courses in the northeast. Although the primary beneficiaries of the course are its' members, the community benefits from the preservation of this site. It is visually appealing to those living in the area and those who pass by. The golf club is across the Mumford River from the Mumford Riverwalk. An easement from the golf club would make it feasible to restore a footbridge that once traversed the river. It would then be possible to link the Riverwalk with the Fletcher Street Forest land.

**ENVIRONMENTAL
PROBLEMS**

Northbridge is not without environmental problems. The sewer treatment facility must be upgraded to eliminate discharge into a brook that feeds into the Blackstone River. The former landfill, which was capped in the late 1980's, may require some remediation. Reports indicate that there have been some erosion problems on the site and there is some question about the location of the monitoring wells.⁴ Other environmental problems that occur in some areas are: erosion, chronic flooding, buildup of sedimentation,

⁴ Information from the Northbridge Board of Health. 2002.

and ground and surface water pollution (both point and non-point).

SECTION 5: INVENTORY OF LANDS OF CONSERVATION AND RECREATIONAL INTEREST

The Open Space Committee's inventory of lands of conservation and recreation interest includes significant public and non-private parcels as well as significant privately owned properties. The description of each parcel includes: ownership, management, size, location designated by Plat and Parcel Number, description, zoning district, and degree of protection afforded.

*Compliance with
ADA Standards*

The second component of the land inventory is the evaluation of every public park, recreation and conservation land parcel that are not under the jurisdiction of the school department according to the requirements of Federal Section 504, ADA standards.

Several different types of protection can be assigned to a property.

TYPES OF PROTECTION

- 1) Deed restrictions. Deed restrictions vary in length. The restriction may apply for only 30 years or it may apply in perpetuity.
- 2) Public lands may be dedicated to park, recreation or conservation use. Attempts to convert one of these sites to a different use would invoke Article 97 of the Amendments to the State Constitution, and possibly trigger Federal involvement if "Land and Water Conservation Funds" were used at the site.
- 3) Lands under Chapter 61, 61A, and 61B are taxed at a reduced rate. In exchange, the town has the option to purchase the land if the property is offered for sale. Often the community is unable to respond quickly enough to exercise its right to purchase a parcel that has been offered to it. The property owner can remove the property from the program if he/she desires. The Town should

consider strategies to protect these properties if an owner decides to sell.

4) Watershed and aquifer protection.⁵

**PUBLIC AND
NONPROFIT
PARCELS**

A complete listing of all of the State and Federally owned parcels is included in the land inventory. The most significant ones are described briefly below.

Upton State Forest

The Commonwealth of Massachusetts owns hundreds of acres in the Town of Northbridge. Seven hundred and fifty five acres of the Upton State Forest are in Northbridge. The Department of Environmental Management manages the forest. Most of the Upton State Forest property is in the southeastern part of town. A number of the parcels are contiguous creating a large protected area. Other Upton State Park parcels are found in the northeastern section of the Town, abutting the town of Upton.

The Upton State Forest is largely a mixed deciduous and coniferous forest. It does not include any facilities and the access to it is poor. It is currently a natural habitat but potentially it could also be used for passive recreational activities such as hiking and nature study. The Massachusetts Department of Environmental Management manages the Upton State Forest.

*E.K. Swift Wildlife
Management Area*

The E.K. Swift Wildlife Management Area is adjacent to the Upton State Forest and managed by the Massachusetts Department of Fisheries and Wildlife.

*Blackstone River
Heritage State Park*

The Blackstone River Heritage State Park was developed in the mid- 1980s and is managed by the Department of Environmental Management. Seventy-six acres of state owned property comprise the Northbridge portion of this state park. This wooded site is in very good to excellent condition and has excellent

⁵ Open Space and Recreation Plan Requirements, Massachusetts EOE, Division of Conservation Services. p. 4-5.

access. It is used for walking, hiking, and single track bicycling.

The Blackstone Canal

The Blackstone Canal was completed in 1828 connecting Worcester and Providence Rhode Island. It was an initial success but failed within ten years. "Canal operations were hampered by the weather and by restrictions imposed by mill owners jealous of their water rights. The canal may have endured these problems but for an unforeseen development, the introduction of the railroad."⁶ The Providence and Worcester Railroad replaced it in 1847. Vestiges of the canal exist in Northbridge and a linear park has been created along it.

West River Dam

West River Dam is owned by the Federal government but managed by the Massachusetts Department of Fisheries and Wildlife. It is comprised of three hundred and nineteen acres.

Purgatory Chasm

Purgatory Chasm is located in the town of Sutton. State records indicate that a small part of it, .92 acres, lies in the town of Northbridge. However, the assessors' office has no information supporting that assertion. The proximity of Purgatory Chasm makes it a recreation destination for many Northbridge residents.

**TOWN OWNED
CONSERVATION AND
RECREATION
FACILITIES**

The Town of Northbridge owns roughly 136 acres of conservation land including: Arcade Pond, the Mason property, Shining Rocks, Fletcher Street Forest Land, Bennett's Pasture, Riley Pond, and the Mumford Riverwalk land. This is well below the acceptable standard.

The Town owns 55 acres for recreational use: including: Vail Field, Balmer Playground, Linwood Playground, The East Street Tot Lot, Riverdale Field, Electric Pond, and Kiwanis Beach. Again this level is far below the average.

A complete list of the Town owned parcels is located in the Inventory

⁶ Cultural Heritage and Land Management Plan for the Blackstone River Valley National Heritage Corridor. P.6. Blackstone River Valley National Heritage Corridor Commission. October 21, 1989.

INVENTORY OF OPEN SPACE PARCELS

ID	CATEGORY	TYPE	PLAT & PARCEL	NAME	OWNERSHIP	LOCATION	SIZE	ZONE	ACCESS	PROTECTION	DESCRIPTION
1	Agricultural	Private	Plat 4: #29, 33	Castle Hill Farm	Bernon Fam. Realty Trust,	Castle Hill Rd.,	98.21 ac.	R-1	Frontage	None	Historic stone wall
2	Agricultural	Private	Plat 8: #11	Vandenakker Farm	Vandenakker, George	Purgatory Road	10.7 acres	R-1		61-A	
3	Agricultural	Private	Plat 8: #26	Vandenakker Farm	Vandenakker, Duane and	Purgatory Rd.	15.76 acres	R-1		61-A	
4	Agricultural	Private	Plat 8: #1	Vandenakker Farm	Vandenakker, Maynard and	Purgatory Rd.	5.48 acres	R-1		61-A	
5	Agricultural	Private	Plat 8: #16	Vandenakker Farm	Vandenakker, Duane and	Purgatory Rd.	76.16 acres	R-1		61-A	
6	Agricultural	Private	Plat 8: #20	Unknown	Unknown	Carpenter Road	19 acres	R-1	Unknown	None	
7	Agricultural	Private	Plat 9: #7	Vandenakker Farm	Vandenakker, Maynard and	Purgatory Rd.	16.39 acres	R-1		61-A	
8	Agricultural	Private	Plat 11: #54	Kroll Farm	Kroll	Hill St. Whitinsville	41.21 acres	R-1		61-A	
9	Agricultural	Private	Plat 12: #30	Mitchell Parcel	Neil Mitchell, 122 Prides	Sutton St. Trust	28.27 acres	R-1	No	61-A	
10	Agricultural	Private	Plat 12: #21	Foppema Farm	Ken Foppema	1605 Hill St.	35.04 acres	R-1	No	APA	
11	Agricultural	Private	Plat 12: #42	Foppema Farm	Ken and Lisa Foppema	B/t Watson and Foppema	12.4 acres	R-1	No	APA	Abuts Pl.12, #21
12	Agricultural	Private	Plat 12: #4, 5, 6	Kroll Farm	1192 Hill St. Trust	Casey Rd. Whitinsville	9.16 acres	R-1/R-2	Frontage	61-A	

ID	CATEGORY	TYPE	PLAT & PARCEL	NAME	OWNERSHIP	LOCATION	SIZE	ZONE	ACCESS	PROTECTION	DESCRIPTION
13	Agricultural	Private	Plat 13: #11	Szerlag Farm	Szerlag, Martin & Frank	Pollard Rd., Northbridge	13.5 acres	R-1		61-A	
14	Agricultural	Private	Plat #16: #57	Szerlag Farm	Estate of Szerlag, Frank	112-114 Benson Rd.	39.10 acres	R-2	Frontage	61-A	
15	Agricultural	Private	Plat 16: #8	Szerlag Farm	Estate of Szerlag, Frank	Benson Rd.	4.06 acres	R-2		61-A	
16	Agricultural	Private	Plat 17: #93, 60	Kroll Farm	1192 Hill St. Trust	Hill St., Whitinsville	43.40 acres	R-1/R-2	Potential-ly	61-A	
17	Agricultural	Private	Plat 17: #102	Peterson Parcel #2	June Peterson, Woodbury Ct.	8 Kelly Rd.	6.17 acres	R-1		APA	
18	Agricultural	Private	Plat 17: #134, 111	Peterson Parcel #1	June Peterson, 361 Loop Pole	8 Kelly Rd.	48.65 acres	R-1		APA	
19	Agricultural	Private	Plat 18: #83, 82	Foppema Farm	Ken and Lisa Foppema	Hill St. Whitinsville	25.68 acres	R-1	No	APA	
20	Agricultural	Private	Plat 19: #114	Connors Parcel	Patrick Connors	Hill St. Whitinsville	25.68 acres	R-1	No	APA	
21	Agricultural	Private	Plat 21: #26	Szerlag Farm	Szerlag, Martin & Frank	1900 Hill St. Northbridge	30.06 acres	R-1	Frontage	61-A	
22	Agricultural	Private	Plat 25: #104, 105	Kuczynski Parcel	Ed & Stephanie Kuczynski	Providence Rd., at	24.48 acres	I-1		61a?	
23	Agricultural	Private	Plat 27: #45	Rhodes Property	Rhodes, Reese	2060 Quaker St.	16.10 acres	R-2	No	61A	
24	Agricultural	Private	Plat 32: #12	Ted Koopman Property	Koopman, Theodore, Box	Quaker St.	10.35 acres	R-1		61A	
25	Cemetery	Non-Profit	Plat 14: #2	Pine Grove Cemetery	Pine Grove Assoc.	Linwood Ave.	28.74 ac.	R-3	No		

ID	CATEGORY	TYPE	PLAT & PARCEL	NAME	OWNERSHIP	LOCATION	SIZE	ZONE	ACCESS	PROTECTION	DESCRIPTION
26	Cemetery	Public	Plat 16: #4	Old Northbridge	Town of Northbridge	Mill St.	.67 acres	R-2	Yes		
27	Cemetery	Private	Plat 20: #20				29,620 sq. ft.	R-2			
28	Cemetery	Public	Plat 23: #15	Riverdale Cemetery.	Town of Northbridge	Providence Rd.	4.2 acres	R-3	Yes		
29	Cemetery	Private	Plat 23: #25	St. Patrick's Cemetery	St. Patrick's Church	Providence Rd.	5 acres	R-3			
30	Cemetery	Public	Plat 28: #44	Quaker St. Cemetery	Town of Northbridge	Quaker St.	9850 sq. ft.	R-1			
31	Conservation	Public	Plat 7: #161	Lake St.	Town of Northbridge	Lake St.	3.94	R-5	Yes		
32	Conservation	Public	Plat 00: #22	Upton State Forest	Massachusetts	Quaker St.	12.13 acres	R-1			
33	Conservation	Public	Plat #00:19 Plat #00:19	Blackstone Valley Canal	Massachusetts	W. Providence Rd.	4 acres				On state property list but can not be found on Assessor's maps
34	Conservation	Public	Plat 3: #6	Riley Pond	Town of Northbridge	Castle Hill Road	16.92 acres	R-1	Yes		
35	Conservation	Public	Plat 4: #3# 6	Fletcher St. Forest Land	Town of Northbridge	Fletcher/ Elm, Whitinsville	33.29 acres	R3/ R-1			
36	Conservation	Public	Plat 7: #162,234	Mason Property	Town of Northbridge	Lake St., Crescent St.	30.06 acres	R-2			

ID	CATEGORY	TYPE	PLAT & PARCEL	NAME	OWNERSHIP	LOCATION	SIZE	ZONE	ACCESS	PROTECTION	DESCRIPTION
37	Conservation	Public	Plat 21: #133	Bennet's Pasture	Town of Northbridge	Off Fowler Rd.	17 acres	R-3/R-2			
38	Conservation	Public	Plat 24: #132	Upton State Forest	Massachusetts	Providence Rd.	27.42 acres	R-1			Abuts Plat #24: 135
39	Conservation	Public	Plat 24: #133	Upton State Forest	Massachusetts	Providence Rd.	14.32 ac. + 7.32	R-1, R-3			Abuts Plat #24: 135
40	Conservation	Public	Plat 24: #134, 140, 184, 187	Upton State Forest	Massachusetts	Providence Rd.	25.44 ac.	R-1			Abuts Plat #24: 136, Access.
41	Conservation	Public	Plat 25: #102	Upton State Forest	Massachusetts	School St.	20.6 acres	R-2, R-3			Abuts Plat #25: 103 desig.
42	Conservation	Public	Plat 25: # 79	Electric Pond	Town of Northbridge	Providence Rd.	2.86 acre	R-2			
43	Conservation	Public	Plat 26: #26	Shining Rock	Town of Northbridge	School St... Northbridge	40.03 acre	R-2	Yes	Yes	Abuts 14 acre Greystone Open
44	Conservation	Public	Plat #27: 39	Upton State Forest	Massachusetts	Puddin St.	28.7 acre	R-2			Abuts Plat #27: 45 private horse
45	Conservation	Public	Plat #27: 25	Upton State Forest	Massachusetts	Puddin St.	40.25 acres	R-1, R-2	No		Abuts Plat #25: 103 desig.
46	Conservation	Public	Plat 27: # 27	Upton State Forest	Massachusetts	Puddin St.	9.26 acres	R-1			
47	Conservation	Public	Plat 28: #3, 4, 5, 34, 36, 47, 4	Upton State Forest	Massachusetts		124.86 config. ac	R-1	No		Abuts Plat #25: 103 desig.
48	Conservation	Public	Plat 28: #49	Upton State Forest	Massachusetts	Church St. Ext.	2.18 acres/10,	R-1	Yes		Abuts Plat #25: 103 desig.
49	Conservation	Public	Plat 28: #25	Upton State Forest	Massachusetts	Quaker St.	8.08 acres	R-1			Abuts Plat #25: 103 desig.

ID	CATEGORY	TYPE	PLAT & PARCEL	NAME	OWNERSHIP	LOCATION	SIZE	ZONE	ACCESS	PROTECTION	DESCRIPTION
50	Conservation	Public	Plat 28: #48	Upton State Forest	Massachusetts	Providence Rd.	68 acres				Abuts Plat #25: 103 desig.
51	Conservation	Public	Plat 29: #15	Upton State Forest	Massachusetts	Mendon Rd.	13.42 acres	R-1, R-2			Abuts Plat #25: 103 desig.
52	Conservation	Public	Plat 29: # 21	Upton State Forest	Massachusetts	Pudding St.	89.07 acres/99.	R-1			Abuts Plat #25: 103 desig.
53	Conservation	Public	Plat 30: #1,3,4,7,8,9,10,14	Upton State Forest	Massachusetts	Quaker St.	109.32 contiguous	R-1			Abuts Plat #25: 103 desig.
54	Conservation	Public	Plat 30: #11	Blackstone River Heritage	Massachusetts	Quaker St.	45 acres	R-1			Abuts Plat #25: 103 desig.
55	Conservation	Public	Plat 30: #16	Blackstone River Heritage	Massachusetts	Quaker St.	10.93 acres	R-1			Abuts Plat #25: 103 desig.
56	Conservation	Public	Plat 30: #8	Upton State Forest	Massachusetts	Quaker St.	12 acres	R-1			Abuts Plat #25: 103 desig.
58	Conservation	Public	Plat 31: #41,42,43	West River	USA	Mendon Rd.	11.7 acres	R-1			Across St. Plat #31: 33 (10 ac.)
59	Conservation	Public	Plat 31: #44	West River	USA	Mendon Rd.	acres	R-1			
60	Conservation	Public	Plat 31: #12,19	Upton State Forest	Massachusetts	Mendon Rd.	17.06 acres	R-1			Abuts Plat #25: 103 desig.
61	Conservation	Public	Plat 31: #26,45,46,47,48,4	Upton State Forest	Massachusetts	Quaker St.	43.66 acres	R-1			Abuts Plat #25: 103 desig.
62	Conservation	Public	Plat 31: #29	West River	USA	off Moon Hill on Upton line	8 acres	R-1			
63	Conservation	Public	Plat 31: #30	West River	USA	off Moon Hill on Upton line	4.35 acres	R-1			

ID	CATEGORY	TYPE	PLAT & PARCEL	NAME	OWNERSHIP	LOCATION	SIZE	ZONE	ACCESS	PROTECTION	DESCRIPTION
64	Conservation	Public	Plat 31: #33	West River	USA	Mendon Rd., adj.	10 ac./1.33	R-1			
65	Conservation	Public	Plat 32: #14	West River	USA	West Hill Rd.	168.42 acres	R-1			
66	Conservation	Public	Plat 32: #29	West River	USA	South St. & West Hill Rd.	1.7 acres	R-1			
67	Conservation	Public	Plat 32: #13	E.K. Swift Wildlife	Massachusetts	N. West Hill Rd.	1.14 acres	R-1			Abus Upton St. Forest
68	Conservation	Public	Plat 32: #15,16	Upton State Forest	Massachusetts	Mendon Rd.	75.66 acres	R-1			Abuts Plat #25: 103 desig.
69	Conservation	Public	Plat 32: #18,19,20,21,22	Upton State Forest	Massachusetts	Mendon Rd.	47.68 acres	R-1			Abuts Plat #25: 103 desig.
70	Conservation	Public	Plat 32: #2,6,7,8,9,26	West River	USA	West Hill Rd.	1.7 acres	R-1			
71	Conservation	Public	Plat 32: #15,16	E.K. Swift Wildlife	USA	N. West Hill Rd.	75.66 acres	R-1			
72	Municipal	Public	Plat 05: #22	DPW	Town of Northbridge	Fletcher St.	65,000 sq. ft.	B-2	Public		
73	Municipal	Public	Plat 11: #48	Municipal Parcel #2	Town of Northbridge	Hill Street	21,265 sq. ft.	R-1			
74	Municipal	Public	Plat 11: # 28	Municipal Parcel #1	Town of Northbridge	Hill Street	15,000 sq. ft.	R-1			
75	Municipal	Public	Plat 14: #17	Providence Rd. Parcel	Town of Northbridge	W. Providence	21.51 acre	I	Public		
76	Municipal	Public	Plat 21: #137	Municipal Parcel 3	Town of Northbridge	Off Fowler Rd.	1 acre	R-2	Yes		

ID	CATEGORY	TYPE	PLAT & PARCEL	NAME	OWNERSHIP	LOCATION	SIZE	ZONE	ACCESS	PROTECTION	DESCRIPTION
77	Municipal	Public	Plat 21: #50	Municipal Parcel S.	Town of Northbridge	S. Main Street	1.91 acre	R-2	Yes		
78	Municipal	Public	Plat 24: #130	Municipal Parcel S.	Town of Northbridge	Off Driscoll Lane	1.5 acre	R-1	Yes		Landlocked park
79	Undeveloped	Private	Plat 01: #120	Britton Parcel	Charles Britton w. tax title to	Abuts Sutton	3.14 acres	I-2			
80	Undeveloped	Private	Plat 01: #136	Deeks' Parcel	Peter Deeks', P.O. Box 783	Meadow Pond	16+ acres	R-1	Yes		
81	Undeveloped	Private	Plat 05: #39	DeVries' Parcel	DeVries	E. side Fletcher St.	29 acres	R-1			Abuts Linwood Pond, gravel pit
82	Undeveloped	Private	Plat 12: #28	Watson Farm	Nicoletta Watson	Watson Farm Rd.	116.29 acres	R-1			Abuts Foppema's
83	Undeveloped	Private	Plat 16: #69	Levine Parcel	Louis Levine	Near Rumowski	10 acres	R-2	no		Landlocked, abuts Rum.
84	Undeveloped	Private	Plat 17: #88	Rogers Parcel	John Rogers		20.93 acres	R-2			
85	Undeveloped	Private	Plat 19: #96	Mahoney Parcel	Mahoney	Providence Rd.	26.3 acres	R-2			
86	Undeveloped	Private	Plat 2: #36	West St. School Site	Whitin. Redev. Trust	Main St.	57 acres	R-5			Potential as pocket park
87	Undeveloped	Private	Plat 22: #19	Chabot Parcel	Carol Chabot, 176 Cooper Rd.						
88	Undeveloped	Private	Plat 21A: #11	Kidd Parcel #1	Kidd, Del and Marion	Benson Road	4.4 acres	R-3			

ID	CATEGORY	TYPE	PLAT & PARCEL	NAME	OWNERSHIP	LOCATION	SIZE	ZONE	ACCESS	PROTECTION	DESCRIPTION
89	Undeveloped	Private	Plat 21A: # 8	Kidd Parcel #2	Kidd, Del and Marion	Sheryl Dr.	4.35 acres	R-3			
90	Undeveloped	Private	Plat 22: # 38 & 51	Knott Parcel #1	James Knott	Riverdale St.	24.9 acres	I-1			
91	Undeveloped	Private	Plat 22: # 59	Coleman Parcel	Coleman, Richard and	School St.	16.66 acres	R-2			
92	Undeveloped	Private	Plat 24A: # 17	Gammon Parcel	Gammon, Scott	McEndy St.	7.53 acres	R-2			Abuts Linwood Playground
93	Undeveloped	Private	Plat 24A: # 62	Kurtyka Parcel	Kurtyka, John and Doris, PO		8.64 acres	R-2			Abuts Linwood Playground
94	Undeveloped	Private	Plat 25: # 94	Salmon Parcel	Salmon, Daniel and Dorothy,	Off Old Upton Rd.	69.56 acres	R-2	Frontage on Old	61A	Abuts Upton St. Forest
95	Undeveloped	Private	Plat 25: # 100	Duggan Parcel	Duggan	Off Old Upton Rd.	28.83 acres	R-3/I-1			
96	Undeveloped	Private	Plat 25: # 101	Duggan Parcel 2	Duggan	Off Old Upton Rd.	11.95 acres	I-1			
98	Undeveloped	Private	Plat 25: # 41	Mahoney Parcel	Mahoney, Arcelia Life	Off Providence R.	96.58 acres	R-2			
99	Undeveloped	Private	Plat 25: # 44	Labelle Parcel	Labelle, Norman		59.9 acres	R-2			
100	Undeveloped	Private	Plat 25: # 99	Lesco Parcel	Lesco	Off Old Upton Rd.	29.27 acres	I-1			
101	Undeveloped	Private	Plat 27: # 26	Fitzpatrick Parcel	Fitzpatrick, Keith	Quaker St.	5.4 acres	R-1			Between #25&27: Upton St. Forest

ID	CATEGORY	TYPE	PLAT & PARCEL	NAME	OWNERSHIP	LOCATION	SIZE	ZONE	ACCESS	PROTECTION	DESCRIPTION
102	Undeveloped	Private	Plat 29: # 23	Krygsma Parcel	Krygsma, Leonard and		101.28 acres	R-1			
103	Undeveloped	Private	Plat 27: # 1	Blackstone River Realty	Blackstone River Realty	Adj. Blackstone Riv./Quaker	40.5 acres	R-1		None	Former gravel pit, floodplain
104	Recreation	Non-profit	Plat 04: # 22	Whitinsville Golf Club	Whitinsville Golf Club	Fletcher St.	44.72 acres	R-1		61-B	
105	Recreation	Non-profit	Plat 05: # 15	Whitinsville Golf Club	Whitinsville Golf Club	Fletcher St.	67.69 acres	R-1		61-B	
106	Recreation	Public	Plat 05: # 49, 50, 51, 52, 54, 55	Mumford Riverwalk	Town of Northbridge	Linwood Ave.	10.97 acres	R-3/R-6	Yes	Yes	
107	Recreation	Public	Plat 06: # 33	Arcade Pond	Town of Northbridge	Lake St., Crescent St.,	26.29 acres	R-5	Yes		
108	Recreation	Public	Plat 07: # 141, 138,	Vail Field	Town of Northbridge	Balmer School	9.04 acres	R-3 or R-5	Yes		
109	Recreation	Non-profit	Plat 07: # 224	Whitin Park	Whitin Community	Hill and Main Sts.	7.14	Heritage	Yes		Historic designed
110	Recreation	Public	Plat 14: # 1	Lasell Field	Town of Northbridge	Linwood Ave.	13.2 acres	R-3	Yes		
111	Recreation	Public	Plat 14A: # 34	Whitinsville Memorial Park	Town of Northbridge	Linwood Ave., Church	53 acres	Heritage	Yes		Historic site
112	Recreation	Public	Plat 17: # 61	Northbridge Center	Town of Northbridge	Off Fowler Rd.	3.19 Acres	R-2			Designated Playground
113	Recreation	Public	Plat 21: # 27	Riverdale Playground	Town of Northbridge	Providence Rd.	26.11 acres	R-3	Yes		
114	Recreation	Non-profit	Plat 22: # 151, 152	Rockdale Am. Legion Field	Rockdale Foundation		9 acres	R-5	Yes		

ID	CATEGORY	TYPE	PLAT & PARCEL	NAME	OWNERSHIP	LOCATION	SIZE	ZONE	ACCESS	PROTECTION	DESCRIPTION
115	Recreation	Public	Plat 22A: # 169	Rockdale Memorial Park	Town of Northbridge	Providence Rd.	26.657 sq. ft.	R-1	Yes		Historic site
116	Recreation	Public	Plat 23: # 63	Plummer's Playground	Town of Northbridge	Church St. Ext.	2.5 acres	R-3	Yes		Historic site
117	Recreation	Public	Plat 24: # 136	Blackstone River Heritage	Massachusetts	Church St. Ext.	22.4 acres/10	I-1	Yes		Historic site
118	Recreation	Public	Plat 24A: # 56	Linwood Field	Town of Northbridge	Providence Rd.	10.4 acres	R-4	Yes		Historic site
119	Recreation	Public	Plat 28: # 24	Blackstone River Heritage	Massachusetts	Off Quaker St.	21.97 acres	R-1	Yes		Historic site
120	Recreation	Public	Plat 28: # 27	Blackstone River Heritage	Massachusetts	off Quaker St.	11.5 acres	R-1	Yes		Historic site
122	Recreation	Public	Plat 30: # 13	Blackstone River Heritage	Massachusetts	off Quaker St.	9.27/12.77 acres	R-1	Yes		Historic site
123	Recreation	Public	Plat 32: 2# 6	West River	Massachusetts	West Hill Road	19.21 acres	R-1			
124	Recreation	Private	Plat #6: #27	Delwyn Barnes Memorial Park and Stanley	Whitinsville Water Co.	Causeway	8.05 acres	R-1			
125	Subdivision Open Space	Public	Plat 03: # 82	Castle Hill	to be offered to the town	off Hastings Dr.	10.66 acres	R-1		Yes	Abuts Riley Pond
126	Subdivision Open Space	Public	Plat 18: # 212	Brendon Woods	Town of Northbridge	Off Jessica Way, Alana	5.06 acres	R-1		Yes	
127	Subdivision Open Space	Public	Plat 18: # 213	Brendon Woods 2	Town of Northbridge	Off Jessica Way	2.35 acres	R-1		Yes	

ID	CATEGORY	TYPE	PLAT & PARCEL	NAME	OWNERSHIP	LOCATION	SIZE	ZONE	ACCESS	PROTECTION	DESCRIPTION
128	Subdivision	Public	Plat 26: # 92	Grystone	To be offered to the town	Off Beech St.	14.03 acres	R-2		Yes	
129	Undeveloped	Private	Plat 01: # 1	Water Co. #1	Whitinsville Water Co.	Main, adj. Meadow Pond	4.25 acres	R-2	No	No	
130	Undeveloped	Private	Plat 01: # 16	Water Co. #2	Whitinsville Water Co.	Main, adj. Meadow Pond	6.79 acres	R-	No	No	Abuts Meadow and Whittin
131	Undeveloped	Private	Plat 01: # 15	Water Co. #3	Whitinsville Water Co.	Main, adj. Meadow Pond	13.44/or 33/44	R-1	No	No	Abuts Meadow and Whittin
132	Undeveloped	Private	Plat 09: # 17	Water Co. #4	Whitinsville Water Co.	Goldthwaite Rd.	32.24 acres/31.	R-1	No	No	Abuts Meadow and Whittin
133	Undeveloped	Private	Plat 10: # 21,25	Water Co. #5	Whitinsville Water Co.	Carpenter Reservoir	5.88+49.6 acres	R-1	No	No	Abuts Meadow and Whittin
134	Undeveloped	Private	Plat 10: # 5,8,19,18,20,9,23,	Water Co. #4	Whitinsville Water Co.	Goldthwaite Rd.	32.24 acres/31.	R-1	No	No	Abuts Meadow and Whittin

SECTION 6. COMMUNITY GOALS

PROCESS USED TO DETERMINE GOALS

The Open Space Committee held a series of public meetings during which the members reviewed the data along with the supporting documents and listened to the testimony of many interested parties. The committee also relied upon information gained from the responses to the residents' survey on open space and recreation which had been widely distributed to the townspeople. The members then developed a number of goals related to open space and recreation. The agreed upon goals, designed to benefit the community as a whole, are as follows:

1. Maintain and strengthen the character of Northbridge.
2. Broaden the tax base
3. Preserve and protect the Town's natural resources
4. Preserve and protect open space
5. Preserve significant views
6. Preserve historically significant structures and sites
7. Make the rivers more accessible to the public
8. Develop strategies to manage open space and recreation facilities
9. Enhance existing recreational facilities

DEFINING THE CHARACTER OF NORTHBRIDGE

The Open Space Committee struggled to define "the character of Northbridge". A combination of natural features and man made features make the town unique. The natural features that contributed to the development of Northbridge include the following:

- The water resources; three rivers, streams and ponds
- The irregular terrain and
- The large areas of ledge and rock out crops that occur throughout the town

The character of the community is due, in part, to its location on two rapidly flowing rivers, the Blackstone and the Mum ford. Beginning in the early nineteenth century, mills and factories developed along the riverbanks utilizing hydro- power to run their machinery. Villages grew around the mills. Communal activities --shops, schools, churches and businesses -- were within walking distance. Areas of low-density development interspersed with large areas of farmland and woodlands surrounded the village centers.

The waterways are an integral part of the history of the community. The role of the rivers has changed. Only one of the town's factories, the Riverdale Mill uses hydroelectric power today. Today we recognize the important role the waterways play in maintaining a healthy environment. We also recognize their value as a recreational resource.

A number of architecturally significant historic buildings add to the character of the town. Many of these structures are in the Whitinsville Historic District, including the Memorial Town Hall, the Aldrich School, the Whitinsville Social Library, the churches and the mill buildings.

The war memorials at both the Rockdale Memorial Park and Memorial Park in Whitinsville provide links to the past providing places where the community can gather to honor those Northbridge citizens who served our country.

Northbridge is one of the few local communities that has a "Main Street" or "Downtown". Beginning in the early 1900s, the downtown area of Whitinsville was vibrant retail center. The Whitinsville business district is in a period of transition. Many of the stores are vacant and some buildings are in disrepair. However, it is a community asset that should be preserved and enhanced.

SECTION 7: ANALYSIS OF NEEDS

The Open Space Committee defined the community goals and then compared the goals with the existing conditions. In numerous cases the committee found a shortfall between what the community has today and what the residents would like it to have.

SUMMARY OF PROTECTION NEEDS

PROTECT THE NATURAL RESOURCES

We need to do more to protect our natural resources including the water resources, environmentally sensitive areas, agricultural lands and woodlands. Most of these resources are either inadequately protected or not protected at all, and will be lost, unless we take the necessary steps to protect and enhance them.

TRACK BIODIVERSITY

Tracking biodiversity is an important method for monitoring the health of the environment. Biodiversity refers to the number of plant and animal species in a given area. "An area is considered to be 'biodiverse' if it sustains multiple species by virtue of a complex interrelated habitat system."⁷ What is happening to our environment is not as dramatic as the destruction of rain forests in other parts of the world. However, there is a danger of losing significant habitats through development, pollution and/or invasion of non-native species.

Our water resources include ground water, aquifers, rivers, streams, ponds and their associated wetlands. In earlier times the waterways were used extensively without regard to the pollution that might result. Raw sewage and industrial waste were dumped into the rivers and streams. Fortunately, attitudes have changed and the rivers and streams are generally cleaner today than they were even a decade ago. Now the major threat is from non-point source pollution. "Non-point source pollution comes from land uses and development

⁷ The State Of Our Environment. P. 32. Executive Office of Environmental Affairs. 2001.

practices such as construction sites, road and parking lot drainage, septic systems, urban and agricultural runoff.”⁸

Using information collected over the years by the state wildlife biologists and data gathered by the state sponsored Biodiversity Days in 2000, the BioMap was created by the BioMap Project. The National Heritage and Endangered Species Program at the Division of Fisheries and Wildlife sponsored this project. The BioMap identifies areas that are considered important to the long-range viability of the most significant elements of biodiversity in the state. The map shows an area along the east side of Northbridge is a “core habit”⁹

SUMMARY OF COMMUNITY NEEDS

PRESERVING THE TOWN'S CHARACTER

The character of the Town of Northbridge is a combination of rich natural resources and man made features. The consensus of the respondents to the open space and recreation survey was that one of the most important goals for the community is to maintain and strengthen the town's character. Northbridge is characterized by dense development in the village centers surrounded by areas of low-density development interspersed with large areas of undeveloped land. Residents have indicated the desire to preserve this pattern of development; however, the existing zoning bylaws and other regulations do not fully support this desire.

Residential subdivisions convert large amounts of farmland and woodland into house lots and streets. Vigilance and careful planning are necessary to maintain the town's character. The town needs to develop strategies to deal with development. We must determine appropriate areas for growth and for conservation.

Congress established the Blackstone River Valley National Heritage Corridor in 1986 to recognize the region's special place in American History. The

⁸ Riverways Community Guide. P.8. Massachusetts Department of Fisheries, Wildlife and Environmental Law Enforcement. Boston, MA. 1994.

⁹ The State of Our Environment. P.32. Executive Office of Environmental Affairs. Boston, MA.2000

**THE BLACKSTONE
VALLEY NATIONAL
HERITAGE
CORRIDOR
COMMISSION**

Corridor is affiliated with the National Park Service but unlike traditional national parks the Federal Government does not own any land. The Corridor seeks to preserve the unique cultural and natural resources of the Blackstone Valley. Land use decisions in Northbridge should complement the activities of the Corridor. The Corridor Commission is a valuable resource. Its professional staff includes planners and landscape architects who can assist the town. For example, the Corridor Commission was instrumental in developing the Route 146 Overlay Zone that establishes design standards for development along the highway. It is hoped that all of the Blackstone Valley Communities along Route 146 will adopt this bylaw. (The Town of Northbridge adopted the bylaw in 2000.) Cooperative efforts such as this are very beneficial to the region as a whole.

**NEED TO
DEVELOP
STRATEGIES TO
PRESERVE OPEN
SPACE**

The loss of open space concerns many residents, particularly those who have lived in the town for many years. Hundreds of acres of undeveloped land throughout the town have been used informally by residents for hiking, off road bicycling, horseback riding, fishing etc., despite the fact that these parcels are privately owned. As more and more of the privately owned parcels are developed, residents recognize the need to preserve land.

**TOWN WIDE
TRAIL SYSTEM**

Residents expressed a strong interest in having a town wide trail system. A system of "ideal routes" should be laid out. Planners can identify which parcels are critical to the plan and develop strategies to preserve the land through acquisition or easements. Planners should also emphasize the linking of Northbridge trails to trails in abutting towns.

The existing trails in the conservation area are not mapped. More people would use the trails if they had a trail map.

SIDEWALKS

There is also a great need to improve the town's overall pedestrian network by providing safe, convenient, continuous and comfortable sidewalk networks. Walking has fitness and health benefits but it has a number of broader benefits as well. First it is part of the overall transportation network. Nearly every trip involves walking. Walking also increases mobility and choice for those who cannot or choose not to drive. Secondly, it benefits commerce – in the down town areas, the sidewalks directly serve the businesses. Thirdly, neighborhoods are friendlier and safer if residents walk.

The majority of the streets in Northbridge are locally owned. The responsibility of providing and improving sidewalks rests with the town. Many of the roadways, even the major ones, lack sidewalks. The town needs a comprehensive plan to a.) Provide sidewalks throughout the town and b.) Improve the existing sidewalks. The town must allocate sufficient funding for these improvements to be made. The DPW has been able to improve the sidewalks on some major streets with Chapter 90 funds from the state. Other sidewalk improvements were financed through the DPW operating budget. There is no allocation for sidewalk improvements in the FY2002 budget. Richard Sasseville, the DPW Director, laments that we do not value the assets that we have. For example, Northbridge has over seventy miles of roads and more than thirty miles of sidewalks. (Today, it costs roughly a million dollars per mile to build a road.) Funding must be dedicated to maintaining these assets.

BICYCLING

Bicycling is considered to be a recreational activity. However, bicycling is also a component of a balanced transportation system. A quality system of bike routes, lanes and paths will enable people to travel within the community and beyond.

RECREATION

Residents identified a number of deficiencies relating to the town's recreation facilities. Most believe that the town needs more recreation facilities to meet the needs

of the existing population. The deficiencies include:

- Insufficient number of playing fields
- Insufficient number of playgrounds
- No large community park
- Existing parks and playgrounds are not within walking distance of many of the neighborhoods
- No municipal tennis courts
- No skating facilities

The town's playing fields are in high demand. The Recreation Commission has to schedule the use of the fields very carefully to accommodate all the teams that wish to use them. There are plans to create a number of new fields on the new high school's property. This might relieve the pressure but there is still concern that these fields will not be available for the independent leagues such as soccer, and little league groups.

Demographic data indicates that there is a large percentage of seniors and a large percentage of families with young children in the town. Obviously the needs of each of these groups are different; however, both groups benefit from having recreation facilities close by. Emphasis needs to be placed on providing parks and playgrounds within walking distance of neighborhoods particularly in areas that are densely populated. Walking to the site should be considered a part of the recreational experience.

AGE RELATED RECREATIONAL FACILITIES

The Cross Street Tot Lot is the only public playground for very young children. Many families that live close by enjoy it. Other neighborhoods could benefit from similar facilities. The Planning Board has required that developers of large subdivisions provide a playground site within each subdivision. Unfortunately the Board has been less successful in requiring that the developer provide adequate playground equipment on those sites.

The community's 14-18 year olds are also considered to be an underserved group. This age group would benefit from additional playing fields, basketball courts and the like. In addition, the Recreation Commission is

considering the creation of a skate boarding facility for this age group. The discussions on this issue are in the early stages.

The community has two "public" swimming areas, The Stanley Thomas Beach at the Delwyn Barnes Memorial Park located on land owned by the Whitinsville Water Company, and the West Hill Dam beach off of Quaker Street. The Stanley Thomas Beach needs improvement. The Army Corp. of Engineers manages the facilities at the West Hill Dam. There are two sand beaches one of which is in Northbridge. There is approximately one acre of surface water for swimming. The fee to use the facility is roughly \$1 person to \$3 per carload. During the summer of 2001 the West Hill Dam Area experienced problems with high coliform levels due to non- point source pollution. They hope to correct this situation by the summer of 2002.

Residents have access the Whitin Community Center, which has two swimming pools, a large gymnasium, childcare center, racket ball courts and fitness facility and tennis courts. Although this is a private non-profit facility, it offers numerous recreation opportunities to the community. Its outreach program allows many who cannot afford the activity fees to use the swimming pools, gymnasium, playground and tennis courts. Whitin Park, owned by the Whitin Community Center is adjacent to the Center. It is open to the public for passive recreation and is enjoyed by the community for numerous activities.

**ABILITY
RELATED NEEDS**

At the present time, none of the existing recreation facilities in Northbridge are ADA compliant. This deficiency needs to be corrected as soon as possible. Appendix A, *The 504 Evaluation* provides more information.

**NATIONAL
RECREATION
STANDARDS**

The National Recreation and Park Association has developed standards for the minimum number of total acres that should be devoted to recreation per 1000 population. It recommends that a total of between 6.25 and 10.5 acres per 1000 population. Northbridge meets

the minimum amount of total recreation acreage recommended by the National Recreation and Park Association. However, the town does not meet the recommended acreage for mini-parks or specialized facilities in neighborhoods for tots or other specific groups. Some neighborhoods are clearly underserved especially in the New Village area of Whitinsville.

A neighborhood park is described as an "Area for intense recreational activities such as field games, crafts, skating, and picnicking; also for wading pool and playground apparatus areas". Rockdale Legion Field, Plummers Playground, Linwood Playground, Vail Field, Lasell Field have a combined area of 43.15 acres. The recommendation for neighborhood parks/playgrounds is 1 to 2 acres per 1000 or a total of 13 to 26 acres for Northbridge. Northbridge exceeds the minimum recommendation. (Of course there is a difference between total acres and total usable acres.)

The NRPA describes a community park as an "area of diverse environmental quality; may include areas suited for intense recreational facilities, such as athletic complexes, large swimming pools; may be an area of natural quality for outdoor recreation such as walking, viewing, sitting, picnicking; may be any combination of the above, depending upon site suitability and community need". Riverdale Park is the only recreational land that has sufficient area to qualify as a "Community Park" the NRPA recommends 25+ acres for a community park. See Appendix 5 (*Table 4* describes the three types of major park facilities. *Table 5* examines Northbridge parks)

Northbridge exceeds the space recommendations for recreational lands but the town does not have the facilities; playing fields, basket ball courts, etc. necessary to meet the needs of the community.

SUMMARY OF MANAGEMENT NEEDS

The existing town bylaws and regulations need to be

revised to ensure that development will serve the needs of the population while preserving the significant natural resources.

The Planning Board tends to review each subdivision application independently. A broader, long range view is necessary to avoid creating disconnected neighborhoods with little or no open space. Careful planning will allow the town to create an interconnected network of protected open space weaving through the community.

**MORE
EFFICIENT
MANAGEMENT
OF OPEN
SPACE**

Northbridge has a number of land parcels that are Chapter 61, 61A or 61B properties. Under the provisions of the law, Northbridge has the right of first refusal when a Ch.61 property is sold. The town does not have a strategy to deal with these properties. An acquisition plan prioritizing the existing 61A parcels is needed. In addition, the town also needs to educate owners of significant parcels about how they can preserve their properties.

**MANAGING
CONSERVATION
AREAS**

The Conservation Commission manages conservation areas. The existing system does not provide adequate maintenance and management of these sites. Current levels of staffing and funding are insufficient to do an adequate job. The conservation areas are not well maintained. The areas, for the most part, are not marked. Most of the existing trails need improvement. Perhaps the Department of Public Works should assume the responsibility for maintaining these areas.

**MANAGING
RECREATION
AREAS**

Although the residents of the community tend to get more excited about acquiring new sites and creating new facilities, management of existing sites is the most important component of providing adequate conservation and recreation opportunities for the citizens.

There is lot of dissatisfaction with the existing recreation facilities. Access to some facilities is poor. Many of the sites show signs of neglect and age. The recreation facilities are not ADA compliant. The existing system

for management and maintenance of these facilities is inadequate. The Recreation Commission is responsible for scheduling the use of the playing fields and other recreation areas. The DPW is charged with maintaining the areas. Both departments lack the staffing and funding to do their jobs well.

**STRENGTHEN
RELATIONSHIP
WITH THE WHITIN
COMMUNITY
CENTER**

As mentioned, the Whitin Community Center provides a number of recreational opportunities to the residents of the area. The town needs to strengthen its partnership with the Whitin Community Center so that its programs continue to benefit the residents of Northbridge.

**IMPROVE
ACCESS TO THE
BLACKSTONE
AND MUMFORD
RIVERS**

The condition of the Blackstone River and the Mumford River is improving and it is time to provide access to the river for canoeing and kayaking. This can be accomplished in three ways: improve the existing access points, connect the existing access points to one another and provide information about the rivers themselves through well marked signs and interpretive maps. The Draft Report Blackstone River Access, February 1999,¹⁰ recommends making improvements to the existing canoe access site at Plummer's Landing in the Blackstone River and Canal State Park. The site is managed by the Department of Environmental Management and currently includes canoe access, picnic areas, and parking. The report also recommends developing a river access site at Sutton Street to include put in/take out facilities, landscaping and site furnishings. The proposed site is privately owned.

**SUPPORT THE
BLACKSTONE
VALLEY BIKEWAY**

The Blackstone Valley Bikeway will ultimately run along the Blackstone River from Worcester, Massachusetts to Providence Rhode Island. The design

¹⁰ The Draft Report Blackstone River Access, February 1999

phase of the project has been completed and Phase I,
Rhode Island line to Uxbridge, is in the bidding phase.

SECTION 8: GOALS AND OBJECTIVES

PROCESS USED TO DETERMINE GOALS

The Open Space Committee held a series of public meetings during which the members reviewed the data and supporting documents and listened to the testimony of many interested parties. The members then developed a number of goals related to open space and recreation. The agreed upon goals are designed to benefit the community as a whole.

The goals and objectives are to:

GOALS AND OBJECTIVES

GOAL 1: Maintain and strengthen the character of Northbridge

Objectives:

- a. Invest in a GIS system to enable the town planner, town assessor and other local authorities to access visual information on existing land use patterns and evaluate proposed changes
- b. Update existing zoning bylaws to encourage development close to village centers and discourage sprawl
- c. Preserve historically significant sites
- d. Support the John Chaffee Blackstone River Valley National Heritage Corridor

GOAL 2: Strengthen the Town's financial commitment to open space and recreation

Objectives:

- a. Adopt the Community Preservation Act

GOAL 3: Preserve and protect the town's natural resources

Objectives:

- a. Protect land in environmentally sensitive areas through acquisition or conservation restrictions
- b. Protect environmentally sensitive areas through enforcement of regulations on wetlands, floodplains and aquifer protection zones
- c. Increase the public's awareness of the town's surface water resources such as rivers, ponds, streams and brooks using signage along the roadways designating the location of these features

GOAL 4: Preserve wildlife habitats and wildlife corridors

Objectives:

- a. Sponsor an annual biodiversity day

GOAL 5: Preserve, protect and expand the protected open space in the town.

Objectives:

- a. Preserve significant parcels of agricultural land as agricultural land. Encourage participation in the state's Chapter 61 A and APR programs. Property can only be permanently protected by acquisition, implementation of an APR or Agricultural Restriction or conservation restriction by the town or a non-profit private land trust.
- b. Create an interconnected network of protected open space weaving through the community
- e. Create a brochure providing information about each of the conservation and recreation facilities in the town.

GOAL 6: Preserve significant views

GOAL 7: Provide more opportunities for passive recreation

Objectives:

- a. Develop a town-wide trail system that connects with trail systems in abutting communities and to the planned Blackstone Valley Bikeway
- b. Make water bodies more accessible to the public for swimming, boating, fishing and skating
- c. Improve access to open space areas by providing small parking areas adjacent to entrances to the open space areas.
- d. Mark existing open space areas with signage stating that the name of the site, a description of the activities available on the site, the managing authority and the site rules
- e. Create a guidebook and map of all of the open space areas within the town.
- f. Improve and expand the town's sidewalk system
- g. Support the completion of the Blackstone Valley Bikeway

**GOAL 8: Enhance existing recreational facilities
and create new recreational facilities**

Objectives:

- a. Develop strategies to manage open space and recreation facilities
- b. Continue to upgrade the town's recreation facilities. Establish a prioritized list of the improvements needed at existing recreation facilities and begin to work through the list
- c. Include park and recreation facilities maintenance and improvements in the annual budget of the DPW
- d. Create new recreation facilities in underserved areas

- d. Create new recreation facilities in underserved areas

GOAL 9: Distribute recreation and open space resources equitably throughout the community

Objectives:

- a. Require redevelopers of large subdivisions include recreation facilities in the subdivisions
- b. Develop mini parks in the more densely populated neighborhoods

GOAL 10: Provide opportunities for residents and visitors with disabilities to use and enjoy open space areas and recreation facilities

- a. Comply with the Americans with Disabilities Act (ADA) at all of the recreational and athletic facilities. See the 504 Self Evaluation (Appendix. 1)
- b. Provide parking areas and convenient access to conservation areas

SECTION 9: THE FIVE-YEAR ACTION PLAN

The five-year action plan is designed to implement the Open Space and recreation plan. The action plan is based upon the goals and objectives outlined in Section 8 of this report. It is printed as a one-page document that can be readily available to the public.

The Action Plan is ambitious. It is unlikely that Northbridge will be able to accomplish all of the action items within the designated time frame. However, opportunities present themselves in a random fashion rather than according to a strict time line. The action plan lists a wide variety of items that the will enhance the quality of life in the Northbridge. This broad list will allow the community to respond to funding opportunities as they arise.

NORTHBRIDGE OPEN SPACE AND RECREATION ACTION PLAN

GOALS AND OBJECTIVES	Item Number	ACTION PLAN ITEMS	RESPONSIBLE ENTITY	TIME LINE					FUNDING
				FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	
MAINTAIN AND STRENGTHEN THE CHARACTER OF NORTHBRIDGE	1	Invest in a GIS system	Selectmen		X				Grants
	2	Encourage development in village centers	Planning Board	X	X	X	X	X	-
	3	Preserve historic districts, sites and structures	Historic Com.	X	X	X	X	X	-
	4	Continue partnership with the BRVNHC	Selectmen	X	X	X	X	X	-
	5	Maintain and add public shade trees and street trees	DPW	X	X	X	X	X	DPW Budget
STRENGTHEN FINANCIAL COMMITMENT TO OPEN SPACE, RECREATION AND HISTORIC PRESERVATION	6	Adopt the Community Preservation Act	Town Meeting		X				-
	7	Save recovered "Ch. 61 A&B" taxes to fund the purchase of open space	Town Meeting	X	X	X	X	X	-
PRESERVE AND PROTECT THE TOWN'S NATURAL RESOURCES	8	Protect environmentally sensitive areas through acquisition or conservation restrictions	Open Space Committee	X	X	X	X	X	Grants/ Appropriation
	9	Hire a Conservation Agent to assist Conservation Commission in enforcing its regulations	Con. Com.		X				Appropriation
	10	Identify waterways with signs placed along the roads	Con. Com.		X				Grants
PRESERVE WILDLIFE CORRIDORS	11	Sponsor annual biodiversity day	Open Space Com.	X	X	X	X	X	-
PRESERVE, PROTECT, AND EXPAND PROTECTED OPEN SPACE IN TOWN	12	Set higher standards governing the quantity and configuration of open space in flexible developments	Planning Board		X				-
	13	Encourage participation in the farmland and forest land tax reduction programs (MGL Ch. 61A and 61B)	Open Space Committee	X	X	X	X	X	-
	14	Acquire conservation easements from property owners of prime open space	Open Space Committee	X	X	X	X	X	Grants/ Appropriation
	15	Develop an education program to inform land owners about land preservation techniques	Open Space Committee	X					-
	16	Form an interconnected network of conservation lands in the community	Open Space Committee	X	X	X	X	X	Grants/ Appropriation
	17	Create a booklet describing all open space and recreational facilities	Open Space Committee		X				-

NORTHBRIDGE OPEN SPACE AND RECREATION ACTION PLAN

GOALS AND OBJECTIVES	Item Number	ACTION PLAN ITEMS	RESPONSIBLE ENTITY	TIME LINE					FUNDING
				FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	
PRESERVE SIGNIFICANT VIEWS	18	Preserve view sheds from Look Out Rock and Shining Rock & other significant locations	Open Space Committee	X	X	X	X	X	-
	19	Improve existing canoe access sites, create new ones and connect access sites to each other	Open Space Committee	X	X	X	X	X	Grants/ Appropriation
	20	Link Northbridge open space areas and trails to a regional system of conservation areas and trails	Open Space Committee	X	X	X	X	X	Grants/ Appropriation
	21	Re-create footbridge crossing Mumford River near Middle School on Linwood Avenue	Open Space Com. + Con. Com.		X				Grants
	22	Develop a town wide trail system that will connect to abutting towns	Open Space Committee	X	X	X	X	X	Grants/ Volunteers
	23	Improve access to water bodies for passive recreation	Open Space Com.	X	X	X	X	X	Grants
	24	Provide a uniform signage system at each recreation and open space facility	Recreation Com. & Con. Com.		X				Grants
	25	Create a guidebook and map of open space areas	Open Space Com.			X			Grants
	26	Inventory town sidewalks, establish a maintenance plan and budget funds for the work	DPW	X					Grants/ Appropriation
	27	Provide funding to extend sidewalks	Town Meeting	X	X	X	X	X	Grants/ Appropriation
ENHANCE EXISTING RECREATION FACILITIES AND CREATE NEW ONES	28	Support the Blackstone Valley Bikeway	All Boards	X	X	X	X	X	-
	29	Create a waterfront park in area currently used by the DPW Yard	Town Meeting	X	X	X	X	X	Grants/ Appropriation
	30	Find a suitable use for Electric Pond	Conser. Com.		X	X			N/A
	31	Create boardwalk through Mumford Riverwalk wetland	Open Space Com.		X				Grants
	32	Prioritize capitol improvements needed at recreation facilities	DPW + Capitol Planning Com.	X	X	X	X	X	-
	33	Include park and recreation facilities maintenance in DPW budget	Finance Committee	X	X	X	X	X	Appropriation
	34	Do an analysis of recreation needs in underserved areas	Recreation Com.	X	X				-

NORTHBRIDGE OPEN SPACE AND RECREATION ACTION PLAN

GOALS AND OBJECTIVES	Item Number	ACTION PLAN ITEMS	RESPONSIBLE ENTITY	TIME LINE					FUNDING
				FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	
ENHANCE EXISTING RECREATION FACILITIES AND CREATE NEW ONES	35	Evaluate existing playing fields and courts and determine the number needed to meet the community's	Recreation Com.	X	X				-
	36	Discontinue the use of Plummer Park as playing fields due to inadequate space and lack of parking	Selectmen				X		Grants/ Appropriation
	37	Create a new playing fields and play ground to replace Plummer Park in a new location	Town Meeting				X	X	Grants
	38	Advocate for an ice skating facility for area residents	Various Boards					X	-
	39	Provide an out-door ice skating facility to town primarily for young children	DPW		X	X	X	X	Volunteers & fundraising
	40	Create an outdoor swimming facility in Rockdale					X		Grants
	41	Create a skate park for young people	Recreation Com.			X			Grants
	42	Reclaim "Northbridge Center Field" on Fowler Rd. (Access has been incorporated into abutters lawn)	Selectmen	X					-
DISTRIBUTE RECREATION AND OPEN SPACE RESOURCES EQUITABLY THROUGHOUT THE COMMUNITY	43	Create a tot lot in the Rockdale section	Recreation Com. proposal		X				Grants
	44	Require developers to include recreational facilities in large developments	Planning Board	X					Developers
	45	Develop mini-parks in high density neighborhoods	Town Meeting			X	X	X	Grants
	46	Bring all conservation areas, recreational facilities and programs into compliance with ADA	ADA Coordinator	X	X	X	X	X	Grants
	47	Provide handicap access to waterways and facilities that allow those with disabilities to enjoy swimming, boating and fishing	Open Space Committee	X	X	X			Grants / Volunteers
	48	Provide parking facilities at conservation sites with adequate access to the site facilities for all	Open Space Committee	X	X	X	X	X	Grants

APPENDIXES

APPENDIX 1: SECTION 504 EVALUATION

APPENDIX 2: MAPS

NORTHBRIDGE ZONING MAP
WASTE SITE CLEAN UP
COMMUNITY WATER SUPPLY MAP
SURFICIAL GEOLOGY MAP
LAND USE MAP
OPEN SPACE MAP
OPEN SPACE ACTION MAP

APPENDIX 3: LETTERS OF SUPPORT

Northbridge Planning Board
Northbridge Board of Selectmen
Central Massachusetts Regional Planning Commission

APPENDIX 4: OPEN SPACE AND RECREATION SURVEY

APPENDIX 5: SOURCE MATERIALS

***APPENDIX 6: CRITERIA FOR EVALUATING OPEN SPACE
PARCELS***

APPENDIX I

SECTION 504 SELF-EVALUATION

The Americans with Disabilities Act (ADA) is a comprehensive civil rights law that prohibits discrimination on the basis of disability. The ADA requires that newly constructed and altered state and local government facilities, places of public accommodation, and commercial facilities be readily accessible to, and usable by individuals with disabilities. Recreational facilities, including play areas, are among the facilities required to comply with the ADA.

The following information on the self-evaluation is taken from the "Open Space Planner's Workbook".

General Overview of Section 504

What is a handicap?

A physical or mental impairment that substantially limits a major life activity such as caring for oneself, performing manual tasks, walking, seeing, speaking, hearing, breathing, learning is a handicap. In addition, people who have a history of a handicap or are regarded as having a handicap are also protected under the law.

Who is a qualified handicapped person?

First of all, the preferred term is people with disabilities, however the law still uses the word 'handicapped'.

Employment: The individual can perform the essential job functions with or without reasonable accommodation.

Programs, Activities: The individual meets essential eligibility requirements.

What is a reasonable accommodation?

Reasonable accommodations can include renovating a building to make it accessible, restructuring the job by changing the work schedule, buying specialized equipment, and hiring others as readers or interpreters.

What is a Section 504 Self-Evaluation?

The self-evaluation is a detailed assessment of the administration, program and employment practices of the recreation department and conservation commission. It includes a site-by-site inventory of all recreation and conservation areas and buildings, programs or services and a transition plan if any structural changes are necessary.

What is included in the inventory?

The inventory involves properties under the jurisdiction of the recreation department or conservation commission. Included are the buildings, recreation facilities and equipment (swimming areas, tot lots, etc), programs and services. Programming may include a learn-to-swim program, guided hikes or tours, etc. Services include technical assistance for permitting process (conservation commission).

A key phrase is that the programs offered must be accessible when "viewed in their entirety". This means that not every existing facility or part of it has to be made accessible. Perhaps your

park or recreation department offers swimming, hiking, picnic areas, and play equipment. Not all facilities may be accessible but some pools, trails, picnic areas and play equipment must be made accessible within your system. Changes can include:

- Structural changes
- Reassignment to accessible buildings
- Providing auxiliary aids such as audiotapes and sign language interpreters
- Providing home visits
- Delivering services to an alternate site

How do we make improvements?

- A transition plan is required if structural changes are necessary. The plan must:
- a. Identify physical obstacles
 - b. Describe necessary changes
 - c. Schedule those changes
 - d. Identify the responsible individual

The self-evaluation and transition plan must be written with the assistance of individuals with disabilities or organization representing the disabled community.

PART 1: ADMINISTRATIVE REQUIREMENTS

The Town of Northbridge has two boards that share, for the most part, the responsibilities of scheduling and administering the recreational programs within the town: the Playground and Recreation Commission, and the Conservation Commission. The Northbridge Department of Public Works has the responsibility for routine maintenance and improvement of the facilities.

The five member Playground and Recreation Commission is responsible for scheduling baseball, basketball, soccer and softball leagues. Citizen volunteers organize the individual programs. In addition, the commission organizes youth programs at various playgrounds, a summer concert series, dances at the high school and trips to Wallum Lake, Six Flags New England and Pawtucket Red Sox games. The Town and the volunteer groups make strong efforts to accommodate residents with special needs.

The Board of Selectmen appoints the Conservation Commission. The Commission has a part-time clerk, whose time is almost exclusively devoted to the administration of the wetlands regulations. Properties under the jurisdiction of the Conservation Commission do not receive routine maintenance. Occasional volunteer efforts assist in the management and maintenance of the lands under the jurisdiction of the Conservation Commission.

The Parks and Recreation Commission and the Conservation Commission will work with the designated Section 504 Coordinator to address the issues raised in the Section 504 Self-evaluation.

I. The 504 Coordinator

William Williams, Northbridge Town Manager has been designated as the employee responsible for 504 coordination.

II. Grievance Procedures

The grievance procedures shall be used by town employees as well as the general public served by the recreation department or park department. Northbridge has procedures specifically for ADA compliance issues.

III. Public Notification Requirements

Employees and the public shall be notified that the community does not discriminate on the basis of disability. The notification is in an accessible format using large print, simple language and in an auditory form. The clause is also included in any recruitment materials or publications. The documents are included in this report as well as documentation that notice was also made for the visual and learning impaired.

IV. Participation of Individuals with Disabilities or Organizations Representing the Disabled Community.

Individuals with disabilities have assisted in the completion of this self-evaluation.

PART 2: PROGRAM ACCESSIBILITY

This report evaluates the buildings, recreation facilities and equipment in addition to programs and services. It also includes lessees or concessionaires. The standards applied to determine the adequacy of the components of a site are based upon the guidelines developed by the U.S. Architectural and Transportation Barriers Compliance Board ("Access Board") and the design guidelines presented in Universal Access to Outdoor Recreation: A Design Guide.¹

¹ PLAE, Inc. Universal Access to Outdoor Recreation: A Design Guide. Berkeley, California. PLAE, Inc. p.ix.

The Access Board's guidelines (finalized in 2000) for newly constructed and altered play areas are a supplement to the ADAAG (Americans with Disabilities Act Accessibility Guidelines). Once these guidelines are adopted by the Department of Justice, all newly constructed and altered play areas covered by the ADA will be required to comply. The Access Board's guidelines cover playgrounds and other play areas. The guidelines cover the number of play components required to be accessible, accessible surfacing in play areas, ramp access and transfer system access to elevated structures, and access to soft contained play structures.

Passage of the American Disabilities Act (ADA) in 1990 established equality for people with disabilities by removing the physical and social barriers that exist throughout society. Numerous guidelines were established to ensure that the built environment is "barrier free". The task of providing universal access to outdoor recreation environments has been far more difficult. The USDA Forest Service developed design guidelines, applying the principals of universal access to a wide variety of recreation settings. The Universal Access to Outdoor Recreation: A Design Guide written by Project Play and Learning in Adaptable Environments, Inc. PLAE is a nonprofit, multidisciplinary organization, developed through a public/private partnership with the USDA Forest Service.

When a recreational facility does not comply with ADA requirements, the town is required to write a transition plan to correct structural deficiencies.

The transition plan:

1. Will identify physical obstacles,
2. Describe necessary changes,
3. Schedule the necessary changes and
4. Identify the individual responsible for overseeing the improvements

Facility Inventory. Each of the facilities under the jurisdiction of the Playground and Recreation Department or Conservation Commission has been evaluated and is listed on a separate sheet. Barbara Gaudette, Open Space Committee Chairman and Adam Gaudette, the Town Planner conducted the evaluation.

Town Owned Recreation Sites

The following facilities have been evaluated for compliance to the Americans with Disabilities Act (ADA). Unfortunately, individuals with disabilities cannot easily use these recreational facilities. Northbridge must begin the task of bringing its fields and playgrounds into compliance. Improving these facilities will benefit a large number of residents and visitors.

Facility #1
CROSS STREET TOT LOT

Location: Assessor's Map 14, Parcel #1, Cross and East Street, Whitinsville
Size: Under 1 acre
Zoning: R-3
Management: Department of Public Works (Maintenance)
Current Uses: Composite structure, swings, climbing apparatus
Condition: Excellent
Recreation Potential: Excellent
Public Access: Yes
Appropriate Age Groups: Preschool (2 to 5 year olds)

The Church Street Tot Lot was created in 2000 through a public private partnership between the Northbridge School Department, and an organization called Beginning Bridges. (The facility is not under the jurisdiction of either the Recreation Commission or the Conservation Commission and therefore is not technically subject to a 504 evaluation.)

The facility consists of one large combined structure. The components include: 4 slides, 1 bridge, 1 chain ladder, a ladder step, wiggly bridge, and a climbing ladder. There is a separate swing set with 2 regular rubber swings (29" above ground) and 2 baby swings (34" above ground).

CROSS STREET TOT LOT ADA COMPLIANCE

ID	ITEM	REQUIREMENT	EXISTING CONDITION	COMMENT
1	Space allowances			
1.1.2	Clear Width (ADAAG 4.2.1)	36" ²		
1.1.3	Clear Width at Door and Gate Openings (ADAAG 4.2.1)	32"	50"	
2	Parking areas and Loading Zones in Recreation areas (ADAAG 4.6)			

² Thirty-six inches is the minimum clear width for passage of a single wheelchair. The 36" clear width is also necessary for people using crutches, walkers, canes etc. The clear width may be reduced to 32" at a point.

ID.	ITEM	REQUIREMENT	EXISTING CONDITION	COMMENT
2.1	Number of Accessible Parking Spaces –	1 per total of up to 25 spaces	Large parking area adjacent to the playground. Spaces not designated	
2.2	Location of Accessible Parking Spaces	Must be located nearest the accessible pedestrian entrance	Large parking area adjacent to the playground. No designated handicap spaces	
2.5	Passenger Loading Zone	Required	Adequate	
2.7	Parking Area Surfacing (ADAAG 4.5.1)	Must be stable, firm and slip-resistant	Adequate	
2.8	Parking Area Slope (ADAAG 4.6.3)		Acceptable	
	Playground surface		Woodchips	
3	Elements and Spaces in the Recreation Environment			
3.1	Toilet Rooms		None	
3.4	Drinking Fountains		None	
3.6.1	Benches -- Backs and Armrests	With Backs and Armrests	2 - 17" off ground, w. backs no armrests	
	Benches – Clear Ground	Accommodate wheel chair next to bridge Clear Ground (ADAAG 4.15.5) 30"x48" ³	Clear lawn area adjacent to bench to accommodate wheel chair is adequate	
3.7	Picnic Tables		None	
4	Access to Primary Elements and Spaces		Non compliant	
4.2	Number and Location of Outdoor Recreation Access Routes (ADAAG 4.3.2)	1	1	Leads directly From Parking area
4.6	Maximum grade		Acceptable	
4.7	Gates, Doors, and other Entryways	1		
	Signs at non-accessible entrance(s) indicate direction to accessible entrance		Not applicable	
4.10.2	Signs for permanent Identification of site	1	1	

³ Benches must have an adjacent space of at least 30"x48" to allow a wheelchair to park near the bench

The Cross Street Tot Lot does not comply with the guidelines of the Access Board, in the following ways:

- 1) There is an insufficient number of elevated play components in the play area that are accessible. Access to the required number of elevated play components may be accomplished by a transfer system or a ramp.
- 2) There is an inadequate number of accessible ground level play components. A specific number of ground-level play components must be provided based on the number of elevated play components in the play area.
- 3) An accessible route is a pathway specifically designed to provide access for individuals with disabilities, including those using wheelchairs or mobility issues. The ground level accessible route connects play components at ground level. It should be a minimum of 60" wide, although it may narrow down to 36" for a distance of 60". There must be an 80" vertical clearance on ground level routes to allow for protective structures such as sun shelters.
- 4) Surfacing. Accessible surfacing must be provided through out the accessible route and in the "use zones", an area beneath and immediately adjacent to a play structure or piece of equipment. Accessible surfaces can include impact-attenuating tiles made of recycled rubber and engineered wood fiber that meet the ASTM requirements for accessibility and safety. There is a question as to whether or not the wood fiber surfacing meets ASTM requirements.

Facility #2

JOHN WHITIN LASELL FIELD

Location: Assessor's Map 14, Parcel #1. Lasell Field is next to the Northbridge Middle School on Linwood Avenue, in the Village of Whitinsville

Size: 12.2 acres

Zoning: R-3

Management: School Department

Current Uses: Track, football, soccer, baseball

Condition: Very good

Recreation Potential:

Public Access: Yes

Lasell Field is managed by the Northbridge School Department. It has been included in this evaluation because its facilities are used by many of the town's residents.

Lasell Field has three baseball diamonds, a full size football field and a ¼ mile track. Each of the playing fields has a set of bleachers. The bleachers are in varying degrees of disrepair. The bleachers adjacent to the football field have stairs leading up to first row of seating. The seating is too high to comply with ADA regulations.

There is on street parking adjacent to Lasell Field and on the side street at the rear of the field. There is also a large parking lot across Linwood Avenue from the field. The parking lot has an adequate number of designated handicap spaces.

There are also some picnic tables and a bench. The picnic tables are not accessible because they are on a raised area that is surrounded by a retaining wall that prohibits access.

LASELL FIELD ADA COMPLIANCE

ID.	ITEM	REQUIREMENT	EXISTING CONDITION	COMMENT
1	Space allowances			
1.1.2	Clear Width (ADAAG 4.2.1)	36" ⁴	Yes	
1.1.3	Clear Width at Door and Gate Openings (ADAAG 4.2.1)	32"	NA	
2	Parking areas and Loading Zones in Recreation areas (ADAAG 4.6)		Yes	
2.1	Number of Accessible Parking Spaces	1 per total of up to 25 spaces	None	
2.2	Location of Accessible Parking Spaces	Must be located nearest the accessible pedestrian entrance	Inadequate	
2.5	Passenger Loading Zone		None	
2.7	Parking Area Surfacing (ADAAG 4.5.1)	Must be stable, firm and slip-resistant	Gravel	
2.8	Parking Area Slope (ADAAG 4.6.3)		Acceptable	
3	Elements and Spaces in the Recreation Environment			
3.1	Toilet Rooms		None	
3.4	Drinking Fountains		None	
3.6	Benches			

⁴ Thirty-six inches is the minimum clear width for passage of a single wheelchair. The 36" clear width is also necessary for people using crutches, walkers, canes etc. The clear width may be reduced to 32" at a point.

ID	ITEM	REQUIREMENT	EXISTING CONDITION	COMMENT
3.6.1	Benches – Backs and Armrests		1	
	Benches – Clear Ground (ADAAG 4.15.5) 30"x48" ⁵		Not adequate	
3.7	Picnic Tables		None	
4	Access to Primary Elements and Spaces		Not adequate	
4.2	Number and Location of Outdoor Recreation Access Routes (ADAAG 4.3.2)	1 From Parking area	Not adequate	
4.6	Maximum grade		Acceptable	
4.7	Gates, Doors, and other Entryways	1		
4.7.4	Gates, Doors, and other Entryways (ADAAG 4.1.3.9)–		Does not comply	
	Signs at non-accessible entrance(s) indicate direction to accessible entrance		Does not comply	Not applicable
4.10.2	Signs for permanent Identification of site	1	1 sign on Linwood Ave	
30	Public Restrooms		None	
	Playground Surface			Not applicable

Facility #3 LINWOOD FIELD

Location: Assessor's Map 24A, Parcel #56, Providence Road, Linwood
Size: 10.4 acres
Zoning: R-4
Management: Recreation Commission
Current Uses: Basketball, Soccer, baseball
Condition: Very good
Recreation Potential: Excellent
Public Access: Yes
ADA Compliance: No

⁵ Benches must have an adjacent space of at least 30"x48" to allow a wheelchair to park near the bench

The facilities at Linwood Field include: two lighted basketball courts, a lighted baseball field, and two backstops. The facility also includes small playground area consisting of six swings (1 baby swing, 1 toddler swing and 4 large swings).

Linwood Field has a large un-paved parking area between the street and the facility. There are no designated parking spaces. The playing fields are up-gradient from the parking area. A macadam walkway from the parking lot leads up to the basketball area. The walkway is in disrepair and exceeds the maximum grade requirement of 1:20. There is no handicap access to the playground area. The swing set located at the far end of a playing field, but there is no designated pathway with the proper surfacing to accommodate an individual with a disability.

The swings are too high off the ground and the surfacing material under the swings does not meet ADA requirements. There is also one bench but it does not have a suitable clear surface adjacent to it for a wheel chair.

LINWOOD FIELD ADA COMPLIANCE

ID.	ITEM	REQUIREMENT	EXISTING CONDITION	COMMENT
1	Space allowances			
1.1.2	Clear Width (ADAAG 4.2.1)	36" ⁶	Complies	
1.1.3	Clear Width at Door and Gate Openings (ADAAG 4.2.1)	32"		Not applicable
2	Parking areas and loading zones in Recreation areas (ADAAG 4.6)			
2.1	Number of Accessible Parking Spaces	1 per total of up to 25 spaces	No designated accessible parking spaces	
2.2	Location of Accessible Parking Spaces	Must be located nearest the accessible pedestrian entrance	No designated accessible parking spaces	
2.5	Passenger Loading Zone		No	
2.7	Parking Area Surfacing (ADAAG 4.5.1) --	Must be stable, firm and slip-resistant	Inadequate	
2.8	Parking Area Slope (ADAAG 4.6.3)		Acceptable	
3	Elements and Spaces in the Recreation Environment			
3.1	Toilet Rooms		None	

⁶ Thirty-six inches is the minimum clear width for passage of a single wheelchair. The 36" clear width is also necessary for people using crutches, walkers, canes etc. The clear width may be reduced to 32" at a point.

ID.	ITEM	REQUIREMENT	EXISTING CONDITION	COMMENT
3.4	Drinking Fountains		None	
3.6	Benches		2	
3.6.1	Benches – Backs and Armrests			
	Benches – Clear Ground (ADAAG 4.15.5) 30"x48" ⁷		No	
3.7	Picnic Tables		No	
4	Access to Primary Elements and Spaces		Not adequate	
4.2	Number and Location of Outdoor Recreation Access Routes (ADAAG 4.3.2)	From Parking area	1	
4.6	Maximum grade	1:20	Not acceptable	
4.7	Gates, Doors, and other Entryways	1	None	
4.7.4	Gates, Doors, and other Entryways (ADAAG 4.1.3.9)–			
	Signs at non-accessible entrance(s)	Indicate direction to accessible entrance	Not applicable	
4.10.2	Signs for permanent Identification of site	1		
	Playground Surface		Inadequate	

RECOMMENDATIONS TO MAKE LINWOOD FIELD COMPLY WITH THE ADA RULES

The parking lot must be paved with a stable, firm and slip resistant material. "Accessible" pathways with proper surfacing must be provided from the parking lot to the park facilities. "Accessible" pathways with proper surfacing must also be provided within the park to the various park facilities. "Accessible" playground equipment should be added.

⁷ Benches must have an adjacent space of at least 30"x48" to allow a wheelchair to park near the bench

Facility #4
NORTHBRIDGE CENTER FIELD

Location: Assessor's Map 17 Parcels #61. Northbridge Center Field is located off of Fowler Road in the Village of Whitinsville adjacent to the Kroll Farm property
Size: 3.9 acres
Zoning: R-2
Management: Recreation Commission
Current Uses: No facilities
Condition: Poor, but ground tends to be very wet in the spring
Recreation Potential: Good
Public Access: Poor
ADA Compliance: No

The Northbridge Center Field does not have an improved roadway access or a parking area. The access is from Fowler Road is difficult because of limited sight distance. There are no facilities on the site, although the possibility of creating playing fields on the site is being explored.

Facility #5
PLUMMER PARK PLAYGROUND

Location: Assessor's Map 23 Parcel #63. Plummer Park Playground is located Church Street Extension east of Plummers Corner.
Size: 2.5 acres
Zoning: R-3
Management: Recreation Commission
Current Uses: One baseball diamond, one set of bleachers, one basketball court, swings and a slide
Condition: Good
Recreation Potential: Poor
Public Access: Poor
ADA Compliance: No

Plummer Park consists of one baseball diamond, one set of bleachers, one basketball court, swings and a slide

The only parking available to Plummer Park is parallel parking along busy Church Street Extension and along a side street, which requires crossing Church Street Extension to access the park. Despite the recent widening of the roadway shoulder, it

is still unsafe to park on the street. The entrance path does not comply with the width requirement, which is 36". There is no "accessible" route leading to the park facilities. The swings do not have the proper surfacing material underneath them. The existing bleachers have seats in the first row that exceed the 18" maximum height requirement making them non-compliant.

PLUMMER PARK PLAYGROUND ADA COMPLIANCE EVALUATION

ID.	ITEM	REQUIREMENT	EXISTING CONDITION	COMMENT
1	Space allowances			
1.1.2	Clear Width (ADAAG 4.2.1)	36" ⁸	Inadequate	
1.1.3	Clear Width at Door and Gate Openings (ADAAG 4.2.1)	32"	Inadequate The entry gate is not compatible.	
2	Parking areas and loading zones in recreation areas (ADAAG 4.6)			
2.1	Number of Accessible Parking Spaces –	1 per total of up to 25 spaces	No off street parking available	
2.2	Location of Accessible Parking Spaces	Must be located nearest the accessible pedestrian entrance	No designated accessible spaces near accessible pedestrian entrance	
2.5	Passenger Loading Zone		No	
2.7	Parking Area Surfacing (ADAAG 4.5.1)	Must be stable, firm and slip-resistant	On street parking area was recently resurfaced and is adequate	
2.8	Parking Area Slope (ADAAG 4.6.3)			
3	Elements and Spaces in the Recreation Environment			
3.1	Toilet Rooms		None	
3.4	Drinking Fountains		None	
3.6	Benches		None	
3.6.1	Benches – Backs and Armrests		None	
	Benches – Clear Ground (ADAAG 4.15.5) 30"x48" ⁹		N.A.	
3.7	Picnic Tables			
4	Access to Primary Elements and Spaces			

⁸ Thirty-six inches is the minimum clear width for passage of a single wheelchair. The 36" clear width is also necessary for people using crutches, walkers, canes etc. The clear width may be reduced to 32" at a point

⁹ Benches must have an adjacent space of at least 30"x48" to allow a wheelchair to park near the bench

ID.	ITEM	REQUIREMENT	EXISTING CONDITION	COMMENT
4.2	Number and Location of Outdoor Recreation Access Routes (ADAAG 4.3.2)	From Parking area	1	
4.6	Maximum grade	5%	Acceptable	
4.7	Gates, Doors, and other Entryways	1	1	
4.7.4	Gates, Doors, and other Entryways (ADAAG 4.1.3.9)– Signs at non-accessible entrance(s)	Indicate direction to accessible entrance	Not applicable	
4.10.2	Signs for permanent Identification of site	1		
	Playground Surface		Inadequate	

**RECOMMENDATIONS FOR BRINGING
PLUMMER PARK PLAYGROUND
INTO COMPLIANCE WITH ADA REQUIREMENTS**

It would be very difficult to bring Plummer Park Playground into ADA compliance because of the lack of on-site parking. Park visitors must parallel park Church Street Extension that is a heavily traveled street. The Open Space Plan recommends that the playground be re-located to a site that has space for on-site parking.

In the meantime the following changes should be made to bring the site itself into compliance:

1. Enlarge the entrance gate to a minimum width of 36".
2. Install an "accessible" pathway leading to the playground area.
3. Install the proper surfacing material under the swings
4. Include at least one "accessible" playground structure in the playground area.
5. The existing bleachers are non-compliant. The first row height exceeds the 1'8" maximum height allowance

**Facility #6
RIVERDALE PLAYGROUND**

Location: Assessor's Map 21, Parcel #7. The Riverdale Playground is located on Providence Road, north of Benson Road in Northbridge

Size: 26.11 acres

Zoning: R-3

Management: Recreation Commission

Current Uses: Basketball, Soccer, baseball, swings

Condition: Good
Recreation Potential: Excellent
Public Access: Yes
ADA Compliance: No

Riverdale Playground or the Goulet Property as many know it; consist of two playing fields, and a basketball court. It also has a swing set, and two picnic tables. There are no benches. There is no handicap access to the swing set and no playground equipment for the physically impaired.

The facility has a large unpaved parking lot. The parking lot is not level. The pathway leading up to the field is not ADA compliant. It is steeper than the maximum 1:20 slope and does not have the proper surfacing material.

RIVERDALE PLAYGROUND ADA COMPLIANCE

ID.	ITEM	REQUIREMENT	EXISTING CONDITION	COMMENT
1	Space allowances			
1.1.2	Clear Width (ADAAG 4.2.1)	36" ¹⁰	No	
1.1.3	Clear Width at Door and Gate Openings (ADAAG 4.2.1)	32"	Adequate	
2	Parking areas and loading zones in recreation areas (ADAAG 4.6)			
2.1	Number of Accessible Parking Spaces	1 per total of up to 25 spaces	No designated accessible spaces	
2.2	Location of Accessible Parking Spaces	Must be located nearest the accessible pedestrian entrance	No designated accessible spaces	
2.5	Passenger Loading Zone		NO	
2.7	Parking Area Surfacing (ADAAG 4.5.1)	Must be stable, firm and slip-resistant	Not adequate	
2.8	Parking Area Slope (ADAAG 4.6.3)		Acceptable	
3	Elements and spaces in the recreation environment			
3.1	Toilet Rooms		None	
3.4	Drinking Fountains		None	
3.6	Benches		None	
3.6.1	Benches – Backs and Armrests		None	

¹⁰ Thirty-six inches is the minimum clear width for passage of a single wheelchair. The 36" clear width is also necessary for people using crutches, walkers, canes etc. The clear width may be reduced to 32" at a point.

ID.	ITEM	REQUIREMENT	EXISTING CONDITION	COMMENT
	Benches – Clear Ground (ADAAG 4.15.5) 30"x48" ¹¹			
3.7	Picnic Tables		Two	
4	Access to Primary Elements and Spaces		Not adequate	
4.2	Number and Location of Outdoor Recreation Access Routes (ADAAG 4.3.2)	1 From Parking area	Not adequate	
4.6	Maximum grade	5%	Acceptable	
4.7	Gates, Doors, and other Entryways		There are no entry gates or doors	
4.7.4	Gates, Doors, and other Entryways (ADAAG 4.1.3.9)–			
	Signs at non-accessible entrance(s)	Indicate direction to accessible entrance	Not applicable	
4.10.2	Signs for permanent Identification of site	1		
	Playground Surface		Inadequate	

RECOMMENDATIONS TO MAKE RIVERDALE PLAYGROUND COMPLY WITH THE ADA RULES

The driveway and parking lot should be re-graded and surfaced with macadam or another surfacing material that is stable, firm and slip-resistant. The required number of "accessible" parking spaces should be created near the entrance gate and designated as such. The pathway leading up to the field should be re-graded to comply with the maximum 5% slope requirement. If the maximum slope requirement cannot be met, then a ramp or ramps with a 1:12 maximum slope should be installed to create an accessible access to the field. The path should be paved with a suitable surfacing material.

¹¹ Benches must have an adjacent space of at least 30"x48" to allow a wheelchair to park near the bench

An ADA compliant pathway system should be installed to access the various facilities within the park. The area underneath the swing set should be resurfaced with a material such as engineered hardwood safety fiber, wood carpet mats or safeguard surfacing. At least one ADA compliant play apparatus should be installed.

Facility #6 **VAIL FIELD**

Location: Assessor's Map 7 Parcels #141,138. Vail Field is located adjacent to the Balmer School on Crescent Street in Whitinsville.

Size: 9 acres

Zoning: R-3

Management: Recreation Commission

Current Uses: 3 baseball diamonds, swings and a number of large play structures for young children

Condition: Very good

Recreation Potential: Excellent

Public Access: Yes

ADA Compliance: No

Vail Field has three baseball/softball diamonds, and bleachers. There are two play areas: one area has a large swing set and the other has several large pieces of play equipment designed for elementary school age children.

VAIL FIELD ADA COMPLIANCE

ID	ITEM	REQUIREMENT	EXISTING CONDITION	COMMENT
1	Space allowances			
1.1.2	Clear Width (ADAAG 4.2.1)	36" ¹²	Adequate	
1.1.3	Clear Width at Door and Gate Openings (ADAAG 4.2.1)	32"	Several openings in fence are adequate.	
2	Parking areas and loading zones in recreation areas (ADAAG 4.6)			
2.1	Number of Accessible Parking Spaces –	1 per total of up to 25 spaces	42 parking spaces – 1 handicap van space.	

¹² Thirty-six inches is the minimum clear width for passage of a single wheelchair. The 36" clear width is also necessary for people using crutches, walkers, canes etc. The clear width may be reduced to 32" at a point.

ID.	ITEM	REQUIREMENT	EXISTING CONDITION	COMMENT
2.2	Location of Accessible Parking Spaces	Must be located nearest the accessible pedestrian entrance	1 handicap space 2 designated accessible spaces near accessible pedestrian entrance	
2.5	Passenger Loading Zone		No	
2.7	Parking Area Surfacing (ADAAG 4.5.1)	Must be stable, firm and slip- resistant	Adequate	
2.8	Parking Area Slope (ADAAG 4.6.3)		Acceptable	
3	Elements and Spaces in the Recreation Environment			
3.1	Toilet Rooms		None	
3.4	Drinking Fountains		None	
3.6	Benches		None	
3.6.1	Benches - Backs and Armrests		None	
	Benches - Clear Ground (ADAAG 4.15.5) 30"x48" ¹³			
3.7	Picnic Tables			
4	Access to Primary Elements and Spaces		Not adequate	
4.2	Number and Location of Outdoor Recreation Access Routes (ADAAG 4.3.2)	From Parking area	2	
4.6	Maximum grade	5%	Acceptable	
4.7	Gates, Doors, and other Entryways	1	Several	
4.7.4	Gates, Doors, and other Entryways (ADAAG 4.1.3.9)-- Signs at non- accessible entrance(s)	Indicate direction to accessible entrance	Not applicable	
4.10.2	Signs for permanent Identification of site	1	Acceptable	
	Playground Surface		Inadequate	

The accessible parking and access to the field meets ADA requirements. The fields and play areas are accessible through several openings in the chain link fence. There are 42 parking spaces including one designated handicap space and one designated handicap van space. However there are deficiencies within the field area.

¹³ Benches must have an adjacent space of at least 30"x48" to allow a wheelchair to park near the bench

1. There are no designated "accessible" paths to the baseball diamonds.
2. The play area does not meet ADA requirements. The access path system to the area and from one structure to another within the play area is not adequate. The surfacing material beneath the structures is sand, which is non-compliant.

RECOMMENDATIONS FOR BRINGING VAIL FIELD INTO COMPLIANCE WITH ADA REQUIREMENTS

An ADA complaint pathway should be installed from the parking lot into the playground. Both areas should be re-surfaced with a suitable material such as engineered hard wood safety fiber, wood carpet mats, or safeguard surfacing. ADA complaint pathways should be installed connecting the various play structures within the area. ADA compliant play apparatuses should be installed.

Facility #9 ROCKDALE MEMORIAL PARK

Location: Assessor's Map 22A, Parcel 169. Rockdale Memorial Park is located on Providence Road, just south of Sutton Street in the village of Rockdale

Size: 26,657 sq. ft.

Zoning: B-1

Management: Board of Selectmen

Current Uses: Passive recreation.

Condition: Good

Recreation Potential: Not suitable for active recreation

Public Access: Yes

Rockdale Memorial Park is located on the corner of Providence Road and School Street. The site's topography is its major constraint. It slopes downward from east to west. It is used for passive recreation and memorial ceremonies. It is a peaceful, shady park. The most prominent feature of the site is the War Memorial.

There is limited parallel parking available on two abutting streets. There is limited pedestrian access into the park due to the site's topography. It is accessible from Providence Road via 4 steps.

There are several benches on the site; however, there is not a clear area next to the benches that could accommodate a wheelchair.

Facility #10
ROCKDALE LEGION FIELD

Location: Assessor's Map 22A Parcel 169. Rockdale Legion Field is located on Church Street, east of Beane's Lane in the village of Rockdale

Size: 9 acres

Zoning: R-5

Management: Owned by the Rockdale Foundation. Recreation Commission schedules sports activities at the site. DPW handles the routine maintenance.

Current Uses: Soccer, Little League Baseball, 7 swings and 2 baby swings

Condition: Good

Recreation Potential: Excellent

Public Access: There is a large parking lot adjacent to the field that is shared with the Legion Hall

The Legion Field has been a favorite recreation site for many years. The 9-acre site is level. There are several fields at this site. The access to the fields does not comply with the ADA requirements. The handicap parking spaces are not located close to the entrance, except for 3 spaces that are located near a wide chain link gate near the Legion Hall.

CONSERVATION LANDS

The Conservation Commission has jurisdiction over a number of municipally owned sites in Northbridge. The Commission does not have the resources to manage these properties. The DPW does minimal, occasional maintenance on these sites despite the fact that there is no budget item for it.

None of the sites are handicap accessible. The Open Space Committee recommends that the Conservation Committee develop a strategy and schedule to improve the accessibility of these sites.

The Mumford Riverwalk is also a municipally owned conservation area, however, it is under the jurisdiction of the Board of Selectmen rather than the Conservation Commission.

The Whitinsville Water Company owns the Delwyn Barnes Memorial Park, a 9-acre site on Meadow Pond. It is open to residents of Northbridge for passive recreation including swimming. The park includes the Stanley Thomas Beach, which is run by the town's Youth Commission.

Each of the conservation areas is described below.

Conservation Site #1 **ARCADE POND**

Location: Assessor's Map 6, Parcel 33. Arcade Pond is located off of Main, Lake and Crescent Streets in the village of Whitinsville
Size: 26.9 acres.
Zoning: R-3 and R-5
Management: Conservation Commission
Current Uses: Passive recreation.
Condition: Good
Recreation Potential: Not suitable for active recreation
Public Access: Pedestrian access is available from Lake Street and Crescent Street.

Arcade Pond is a man-made pond. Residents and visitors use the pond for ice-skating and fishing.

Conservation Site #2
BENNETS PASTURE

Location: Assessor's Map 21, Parcel #133. Bennets Pasture is located off of Fowler Road
Size: 17 acres.
Zoning: R-3 and R-2
Management: Conservation Commission
Current Uses: Un-used
Condition: Good
Recreation Potential: May be suitable for active recreation
Public Access: Access difficult. There is no on-site parking and Fowler Road is not wide enough for on street parking.

Bennets pasture is not used at this time. It is adjacent to a large undeveloped parcel of land and may be suitable for either active or passive recreation at some point in the future.

Conservation Site #3
ELECTRIC POND

Location: Assessor's Map 25 Parcel 79 Electric Pond is located On Providence Road (Rt. 122) in the Village of Rockdale.
Size: 2.8 acres
Zoning: R-2
Management: Conservation Commission
Current Uses: No facilities
Condition: Poor, seasonal pond
Recreation Potential: Poor
Public Access: Poor
ADA Compliance: No

Electric Pond is an unimproved site. There is no access, no parking and no facilities at Electric Pond. There are no services provided on site. The site has numerous severe constraints, which make it unsuitable for recreational activities. A large portion of it is underwater at least part of the year. There is no on site parking and no on street parking on busy Providence Road.

Former selectman Ross Rajotte has been an advocate for the creation of a swimming facility on Electric Pond. This would be difficult due to the constraints mentioned above.

Conservation Site #4
FLETCHER STREET CONSERVATION LAND

Location: Assessor's Map 4 Parcels #3 and # 6. The Fletcher St. Forest is located on Fletcher and Elm Streets
Size: 33.29 acres
Zoning: R-4
Management: Conservation Commission
Current Uses: No facilities
Condition: Good
Recreation Potential: Excellent for passive recreation
Public Access: From Fletcher Street
ADA Compliance: No

The thirty-three acre Fletcher Street Pine Forest is an important wildlife habitat. It is also important visually. If you drive down Hill Street approaching Main Street, The stand of pines provides a pleasant and natural backdrop to the Memorial Square area. The pine forest also has great potential for passive recreation. The existing walking trails are not in good shape and should be improved.

There is the potential to link this site with the Mumford Riverwalk, and then to the Town Owned Riley Pond and beyond. The site is not accessible to individuals with disabilities.

Conservation Site #5
LAKE STREET PARCEL

Location: Assessor's Map 7, Parcel #161. The Lake Street Conservation land is located on Lake Street in the village of Whitinsville
Size: 3.94 acres.
Zoning: R-5
Management: Conservation Commission
Current Uses: Passive recreation.
Condition: Good
Recreation Potential: Not suitable for active recreation
Public Access: Very good pedestrian access. Limited parallel parking on Lake Street

The Lake Street Conservation land is adjacent to the Mason Property and provides access to it. It is an unimproved site, but has potential for passive recreation.

Conservation Site #5
MASON PROPERTY

Location: Assessor's Map 7, Parcels 162 and 234. The Mason Property is off of Chestnut Street and Lake Street in the village of Whitinsville
Size: 30.60 acres.
Zoning: R-3 and R-1
Management: Conservation Commission
Current Uses: Passive recreation.
Condition: Good
Recreation Potential: Not suitable for active recreation
Public Access: Pedestrian access available from Lake Street

The Mason Property is deciduous woodland with significant wetlands. There are trails traversing the site but they are not maintained on a regular basis. It has great potential if the pathway network was improved and maintained.

Conservation Site #6
MUMFORD RIVERWALK

Location: Assessor's Map 5, Parcels 49, 50, 51, 52, 54, 55. The Mumford Riverwalk is located off of Linwood Avenue in the village of Whitinsville
Size: 11 acres.
Zoning: R-3 and R-6
Management: Board of Selectmen
Current Uses: Passive recreation.
Condition: Very Good
Recreation Potential: Not suitable for active recreation
Public Access: Pedestrian access available from Linwood Avenue

The Mumford Riverwalk was created in the mid-1990s. It is an eleven-acre linear greenway abutting the Mumford River. It is accessible to "multi-terrain wheel chairs" and most sections of the walk are relatively level. Currently, visitors have to leave the site and walk along Linwood Avenue for several hundred feet before re-entering the site. This is necessary to avoid a wetland area. It is hoped that, in the near future, a boardwalk can be created to traverse this area. It will then be possible to complete the entire walk without leaving the site. There are also plans to develop a pond overlook adjacent to an existing parking area. This feature will be "accessible".

The Friends of the Mumford Riverwalk is a private group that oversees the riverwalk and raises money to make improvements.

Conservation Site #7

RILEY POND

Location: Assessor's Map 3, Parcel 6. Riley Pond is located on Castle Hill Road in the village of Whitinsville
Size: 16.92 acres.
Zoning: R-1
Management: Conservation Commission
Current Uses: Passive recreation.
Condition: Good
Recreation Potential: Not suitable for active recreation
Public Access: Very good pedestrian access. Limited parallel parking on Castle Hill Road

The Riley Pond parcel includes the large pond and land surrounding it for a total of nearly 17 acres. The existing trails are not improved; however, the area has great potential. The site could be an interesting destination in itself. It could also be a segment of a longer greenway connecting the Mumford Riverwalk, the Fletcher Street Conservation Land, Riley Pond and the Castle Hill Development open space.

Conservation Site #8

SHINING ROCK

Location: Assessor's Map 26, Parcel 26. Shining Rock is located off of School Street in the village of Rockdale
Size: 40.03 acres.
Zoning: R-2
Management: Conservation Commission
Current Uses: Passive recreation.
Condition: Good
Recreation Potential: Not suitable for active recreation
Public Access: Pedestrian access available from School Street

Shining Rock is a large rock outcropping. There is a spectacular view from the top looking down to the valley below. The access road is dirt/gravel with deep ruts caused by continuous erosion. The climb to the top is somewhat difficult as the trails are steep.

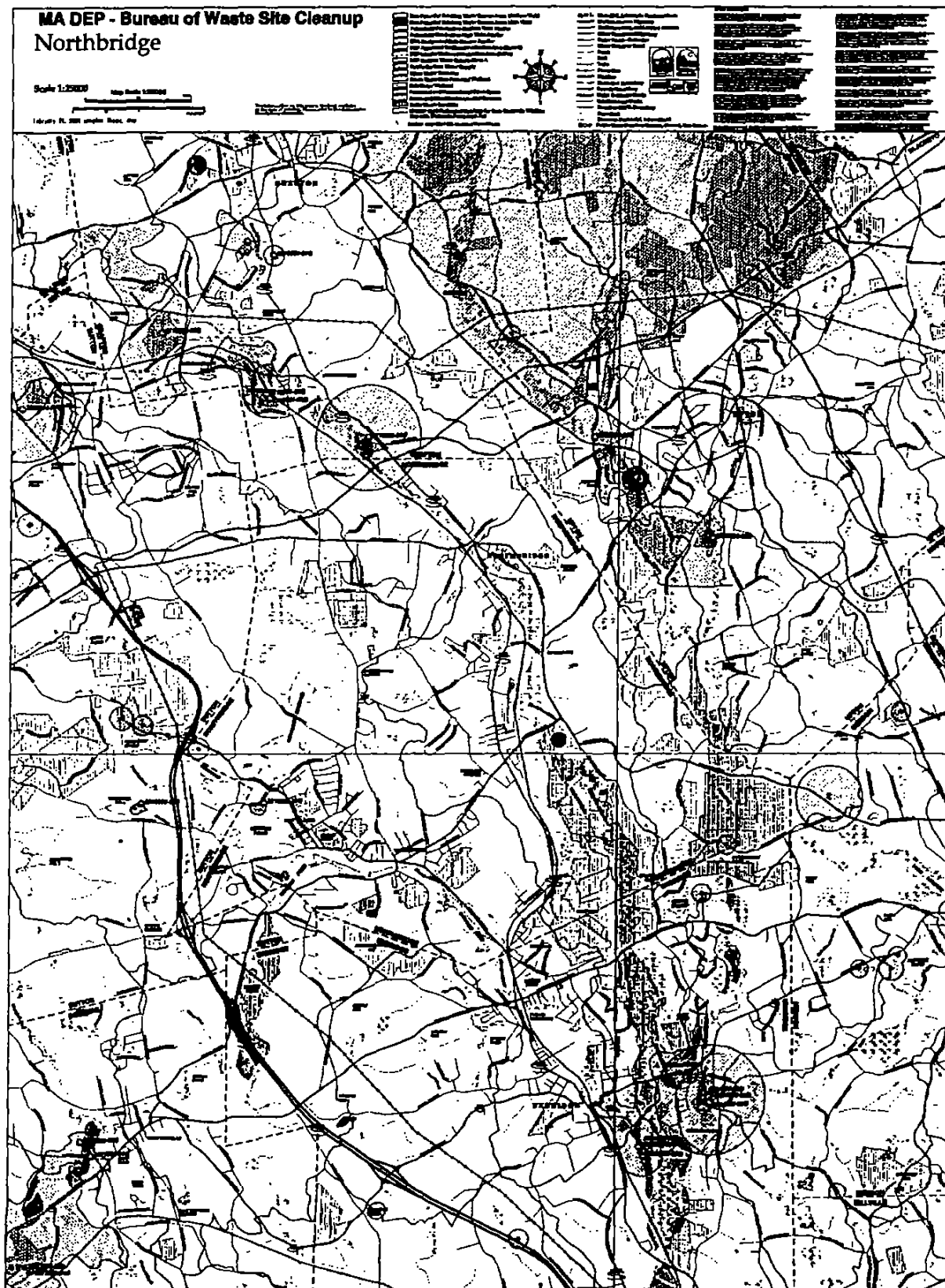
There is no parking available at the School Street entrance. A proposal for a residential development and golf course is under review by the Planning Board. The

developer has proposed access to Shining Rock from the development. It will include a small parking lot. More importantly, it will enable access to Shining Rock from basically the same elevation as the look out.

APPENDIX 2: MAPS

- 1. ZONING MAP**
- 2. SURFICIAL GEOGRAPHY MAP (Mass GIS)**
- 3. OPEN SPACE MAP (Mass GIS)**
- 4. WASTE SITE CLEAN UP MAP (Mass GIS)**
- 5. COMMUNITY WATER SUPPLY MAP (Mass GIS)**
- 6. LAND USE MAP (Mass GIS)**
- 7. OPEN SPACE MAP (CMRPC)**
- 8. OPEN SPACE ACTION PLAN MAP (CMRPC)**

January 19, 2005 (online) 10:04 AM



Community Water Supply Map

- Northridge
- 1. All rights reserved by the City of Northridge
 - 2. All rights reserved by the City of Northridge
 - 3. All rights reserved by the City of Northridge
 - 4. All rights reserved by the City of Northridge
 - 5. All rights reserved by the City of Northridge
 - 6. All rights reserved by the City of Northridge
 - 7. All rights reserved by the City of Northridge
 - 8. All rights reserved by the City of Northridge
 - 9. All rights reserved by the City of Northridge
 - 10. All rights reserved by the City of Northridge
 - 11. All rights reserved by the City of Northridge
 - 12. All rights reserved by the City of Northridge
 - 13. All rights reserved by the City of Northridge
 - 14. All rights reserved by the City of Northridge
 - 15. All rights reserved by the City of Northridge
 - 16. All rights reserved by the City of Northridge
 - 17. All rights reserved by the City of Northridge
 - 18. All rights reserved by the City of Northridge
 - 19. All rights reserved by the City of Northridge
 - 20. All rights reserved by the City of Northridge
 - 21. All rights reserved by the City of Northridge
 - 22. All rights reserved by the City of Northridge
 - 23. All rights reserved by the City of Northridge
 - 24. All rights reserved by the City of Northridge
 - 25. All rights reserved by the City of Northridge
 - 26. All rights reserved by the City of Northridge
 - 27. All rights reserved by the City of Northridge
 - 28. All rights reserved by the City of Northridge
 - 29. All rights reserved by the City of Northridge
 - 30. All rights reserved by the City of Northridge
 - 31. All rights reserved by the City of Northridge
 - 32. All rights reserved by the City of Northridge
 - 33. All rights reserved by the City of Northridge
 - 34. All rights reserved by the City of Northridge
 - 35. All rights reserved by the City of Northridge
 - 36. All rights reserved by the City of Northridge
 - 37. All rights reserved by the City of Northridge
 - 38. All rights reserved by the City of Northridge
 - 39. All rights reserved by the City of Northridge
 - 40. All rights reserved by the City of Northridge
 - 41. All rights reserved by the City of Northridge
 - 42. All rights reserved by the City of Northridge
 - 43. All rights reserved by the City of Northridge
 - 44. All rights reserved by the City of Northridge
 - 45. All rights reserved by the City of Northridge
 - 46. All rights reserved by the City of Northridge
 - 47. All rights reserved by the City of Northridge
 - 48. All rights reserved by the City of Northridge
 - 49. All rights reserved by the City of Northridge
 - 50. All rights reserved by the City of Northridge
 - 51. All rights reserved by the City of Northridge
 - 52. All rights reserved by the City of Northridge
 - 53. All rights reserved by the City of Northridge
 - 54. All rights reserved by the City of Northridge
 - 55. All rights reserved by the City of Northridge
 - 56. All rights reserved by the City of Northridge
 - 57. All rights reserved by the City of Northridge
 - 58. All rights reserved by the City of Northridge
 - 59. All rights reserved by the City of Northridge
 - 60. All rights reserved by the City of Northridge
 - 61. All rights reserved by the City of Northridge
 - 62. All rights reserved by the City of Northridge
 - 63. All rights reserved by the City of Northridge
 - 64. All rights reserved by the City of Northridge
 - 65. All rights reserved by the City of Northridge
 - 66. All rights reserved by the City of Northridge
 - 67. All rights reserved by the City of Northridge
 - 68. All rights reserved by the City of Northridge
 - 69. All rights reserved by the City of Northridge
 - 70. All rights reserved by the City of Northridge
 - 71. All rights reserved by the City of Northridge
 - 72. All rights reserved by the City of Northridge
 - 73. All rights reserved by the City of Northridge
 - 74. All rights reserved by the City of Northridge
 - 75. All rights reserved by the City of Northridge
 - 76. All rights reserved by the City of Northridge
 - 77. All rights reserved by the City of Northridge
 - 78. All rights reserved by the City of Northridge
 - 79. All rights reserved by the City of Northridge
 - 80. All rights reserved by the City of Northridge
 - 81. All rights reserved by the City of Northridge
 - 82. All rights reserved by the City of Northridge
 - 83. All rights reserved by the City of Northridge
 - 84. All rights reserved by the City of Northridge
 - 85. All rights reserved by the City of Northridge
 - 86. All rights reserved by the City of Northridge
 - 87. All rights reserved by the City of Northridge
 - 88. All rights reserved by the City of Northridge
 - 89. All rights reserved by the City of Northridge
 - 90. All rights reserved by the City of Northridge
 - 91. All rights reserved by the City of Northridge
 - 92. All rights reserved by the City of Northridge
 - 93. All rights reserved by the City of Northridge
 - 94. All rights reserved by the City of Northridge
 - 95. All rights reserved by the City of Northridge
 - 96. All rights reserved by the City of Northridge
 - 97. All rights reserved by the City of Northridge
 - 98. All rights reserved by the City of Northridge
 - 99. All rights reserved by the City of Northridge
 - 100. All rights reserved by the City of Northridge



Scale 1:25000
February 14, 1968 map by James G.

WISCONSIN

- ☒ Individual
- ☒ Completed
- ☐ Representative (Student, staff, official)
- ☐ Representative (Businessperson)
- ☒ Not Fully Available
- ☐ High Priority Student (Senior Step 10 and 11)
- ☐ Medium Priority Student (9th-11th and 12th)
- ☐ Low Priority Student (Dropouts 10 and 11)
- ☐ City Lead
- ☐ Mayor
- ☐ Mayor
- ☐ Widely Available
- ☐ Other Lead
- ☐ Representative (Businessperson)

- ☐ Information Load
(Data, structure, method, meta-structure)
- ☐ Navigation Systems
- ☐ Symbolic Systems
- ☐ User-based Systems
- ☐ Web
- ☒ Web-based Virtual
- ☐ Intelligent Systems
- ☐ Group
- ☐ Video without Sound, audio-based

- | | |
|---------------------|-------------------------------------|
| Major State Highway | State Capital Highway |
| Sub-State Highway | Inter-city Road, with local traffic |
| Town Highway | Inter-urban Highway |
| Gravel Road | Major Road, Capital |
| Track | Minor Inter-city Road |
| Transportation Fee | Bus |
| Shipping | Ship |
| Station | |

References

—Notice—
 Department of Community Services, Jackson County Welfare Agency, Notice
 June 1, 1984. The following notice is hereby given: In 1984, the Department of Community Services, Jackson County Welfare Agency, is seeking proposals for the construction of a new building for the Department of Community Services, Jackson County Welfare Agency, located at the intersection of Highway 1 and Highway 2, Jackson County, Oregon. The Department of Community Services, Jackson County Welfare Agency, is seeking proposals for the construction of a new building for the Department of Community Services, Jackson County Welfare Agency, located at the intersection of Highway 1 and Highway 2, Jackson County, Oregon. The Department of Community Services, Jackson County Welfare Agency, is seeking proposals for the construction of a new building for the Department of Community Services, Jackson County Welfare Agency, located at the intersection of Highway 1 and Highway 2, Jackson County, Oregon.

- Estimated Cost and Impact -
- Program Start, End, and Duration -
Budget (for 2000) Requested Budget of 1,000,000 out of 1,35,000
Budget not available from 2000

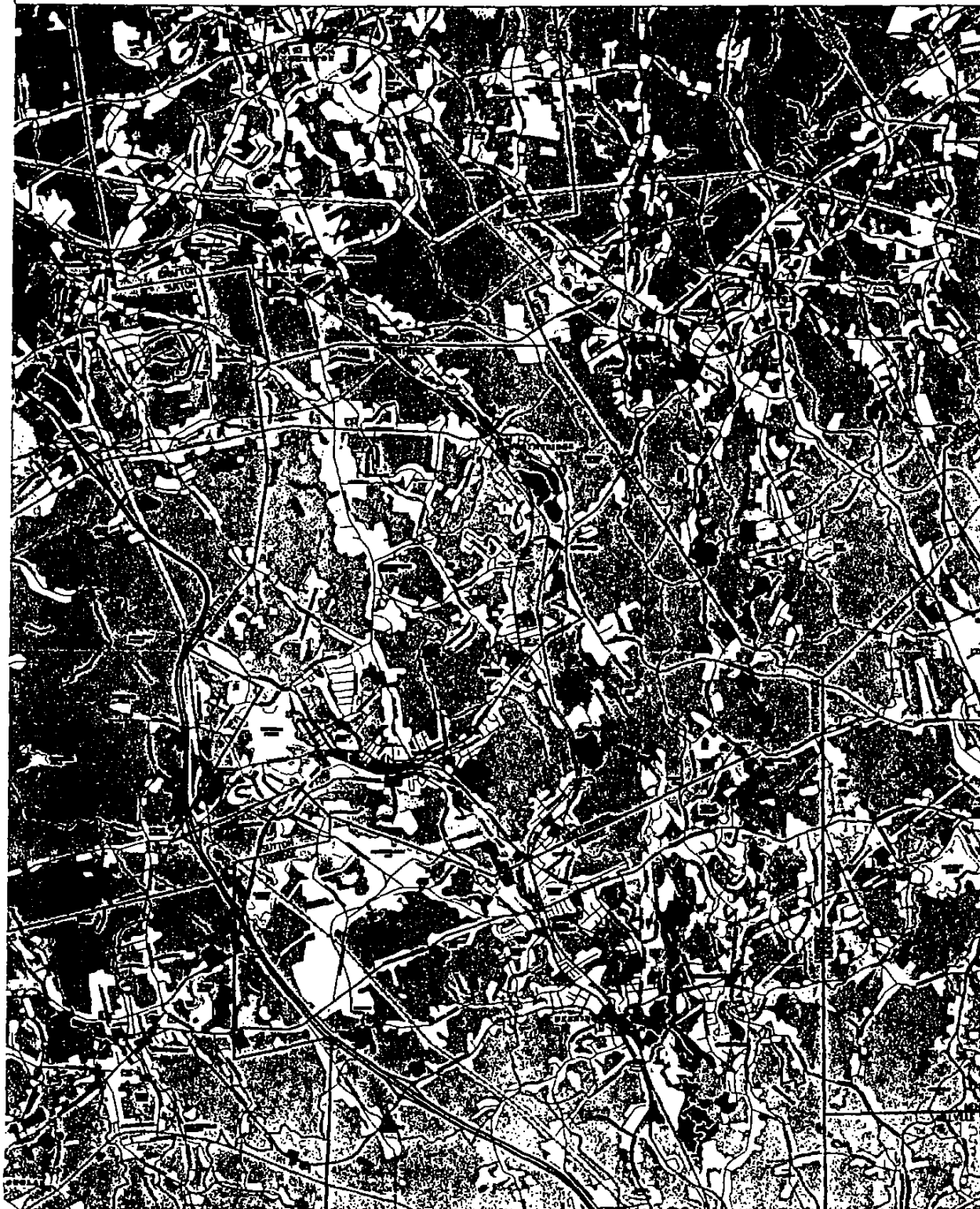
—**Availability**—
This report is available on 1-800-368-6868 for \$12.00. In addition,
for this report, NIOSH is providing a complimentary copy of the
NIOSH research report, *NIOSH Publication No. 91-100*. The report is available
for \$12.00. Research report, *NIOSH Publication No. 91-100*.

—Political Economy—
 Political Economy, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900, 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1909, 1910, 1911, 1912, 1913, 1914, 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2

NOTE: In parentheses after each code indicates the difference between the 1990 and 1980 values.




1998



Open Space



Northbridge

Scale 1:25,000
February 16, 2001 update. Data as of 1/1/01.

- Open Space
- Water
- Transportation
- Land Use
- Topography
- Boundaries
- Other

- Open Space
- Water
- Transportation
- Land Use
- Topography
- Boundaries
- Other

- Open Space
- Water
- Transportation
- Land Use
- Topography
- Boundaries
- Other

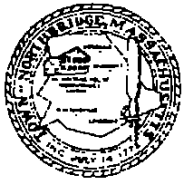


APPENDIX 3: LETTERS OF SUPPORT

Northbridge Board of Selectmen

Northbridge Planning Board

Central Mass Regional Planning Commission



**TOWN OF NORTHBRIDGE
OFFICE OF THE TOWN MANAGER
NORTHBRIDGE TOWN HALL
7 MAIN STREET
WHITINSVILLE, MASSACHUSETTS 01588
Phone- (508) 234-2095 Fax- (508) 234-7640**

March 19, 2002

Mrs. Barbara Gaudette
500 Hill Street
Whitinsville, MA 01588

Dear Mrs. Gaudette: *Barbara,*

This is to confirm that the Northbridge Board of Selectmen heard your presentation on the "revised draft" of the Open Space Plan at their regular meeting of March 18, 2002. The Board commented favorably on the draft plan goals and the action agenda. Subject to fiscal constraints, the Board asked that I write to confirm their support the draft plan as presented. We thank you very much for your hard work and dedication to the Town of Northbridge.

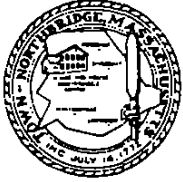
Sincerely,

Bill

William F. Williams
Town Manager

c: Board of Selectmen
Central Mass. Regional Planning Commission

s/



TOWN OF NORTHBRIDGE
PLANNING BOARD
7 MAIN STREET
WHITINSVILLE, MASSACHUSETTS 01588

PHONE: (508) 234-2447

FAX: (508) 234-0814

February 28, 2002

Northbridge Open Space Committee
Northbridge Town Hall
7 Main Street
Whitinsville, MA 01588

RE: 2001 Open Space and Recreation Plan

Dear Members:

The Northbridge Planning Board would like to thank you all for your extraordinary hard work in drafting the 2001 Northbridge Open Space and Recreation Plan. The citizens of Northbridge should be as thankful as we are of your efforts to plan for the conservation and protection of the Town's open space and recreation lands. The plan was well written and takes a comprehensive look at Northbridge's needs, concerns and goals for protection and conservation. You should be proud of your efforts.

The Planning Board is more than willing to partner with you in order to assist you in achieving the goals you have set. If at any time you wish to discuss the plans or concerns of the Open Space Committee, please contact Town Planner, Adam Gaudette, at 234-2447 and he will be happy to place you on the agenda for an available Planning Board Meeting.

Sincerely,

Harry Berkowitz
Chairman, Northbridge Planning Board



- 35 Harvard Street
- Worcester MA 01609-2801
- Phone (508) 756-7717
- Fax (508) 792-6818

February 15, 2002

Northbridge Open Space Committee
Memorial Town Hall
7 Main Street
Whitinsville, MA 01588

Dear Committee Members:

I enjoyed reading your Open Space Plan. I found the "story-telling" style a perfect vehicle for explaining the wonderful opportunities for preserving the Town's resources, yet not minimizing the great challenges this effort entails.

The Plan seems to accurately depict the current situation with respect to recreation and conservation issues. The many assets the Town has to offer are noted with pride, while the dangers affecting their worth, and even their very existence, are spoken plainly. By laying out clear choices, issues can be discussed and action taken, or not taken, depending upon local support and financial resources.

Representing a regional perspective, I found opportunities for cooperating with the Town's neighboring communities given thorough discussion. Some of the regional initiatives discussed in the report include:

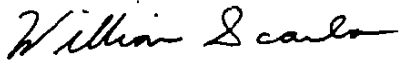
- Improving access to the Blackstone and Mumford Rivers for active recreation. The Plan also notes that regional cooperation is needed to help clean-up the Blackstone.
- Linking open space in Northbridge with open space in adjacent communities. Examples shown on the Open Space Map include Initiative 1 (Greystone/Shining Rock) and Initiative 2 (Upton St. to Grafton town line).
- Working closely with other member communities in the John H. Chaffee BRVNHCC to preserve the historical integrity of the entire Blackstone Valley.
- Establishing a greenway network to preserve river corridors and wildlife habitats in their natural state.
- Within and around Northbridge lie numerous regional open space amenities, such as Purgatory Chasm, the Blackstone Canal, West River Dam, and Upton State Forest. When opportunities arise, linkages should be pursued to solidify connections from such facilities to other protected open space parcels.

The report identifies numerous strategies and specific actions for enhancing recreation opportunities in Northbridge as well as for preserving the Town's natural resources and cultural landscapes. With strong development pressures affecting the Blackstone Valley as a

whole, it is clear that the Committee will not be able to rest with the approval of the Plan. Rather, the Committee should try to reach out to the entire community to achieve as many of the recommendations as possible before impending growth closes the window now open.

If CMRPC can be of any assistance in your efforts, do not hesitate to call.

Sincerely

A handwritten signature in cursive script, appearing to read "William Scanlan".

William Scanlan, AICP
Community Development Manager

APPENDIX 4:

NORTHBRIDGE OPEN SPACE AND
RECREATION SURVEY

The Northbridge Open Space and Recreation Survey

The Northbridge Open Space and Recreation Committee is conducting this survey to get in-put from the Town's residents on the open space, conservation and recreation needs of the Town. The results of the survey will be used to guide the process of updating the Town's Open Space and Recreation Plan.

Please bring the completed survey to the Annual Town Meeting or return it to the Northbridge Town Hall. If more than one individual in your household wishes to respond to the survey, you may make additional copies or call 234-6531 to request additional copies.

PLEASE ANSWER THE QUESTIONS BELOW AND INCLUDE COMMENTS IF YOU'D LIKE.

TOWN CHARACTER

1. Do you consider Northbridge:

- ☐ A rural town?
- ☐ A suburb of Worcester?
- ☐ A bedroom community?
- ☐ A town in transition?

2. In your opinion, which of the following do you think are the three most critical problems facing Northbridge?

1= the most critical, 2= somewhat critical, 3 = least critical

- | | |
|--|--|
| <input type="checkbox"/> High property taxes | <input type="checkbox"/> Loss of Agricultural Land |
| <input type="checkbox"/> Need for additional recreation and conservation lands | <input type="checkbox"/> Need for commercial and/or industrial development |
| <input type="checkbox"/> Pollution of the Town's water bodies and wetlands | <input type="checkbox"/> Preserving the character of the town |
| <input type="checkbox"/> Rapid rate of residential development in the town | |

3. What do you like best about living in Northbridge? _____

4. What do you like least about living in Northbridge? _____

5. How important is it to preserve

- | | | | | | |
|---|---|---|---|---|---|
| ▪ Buildings of historical or architectural interest | 5 | 4 | 3 | 2 | 1 |
| ▪ Conservation areas for wildlife corridors | 5 | 4 | 3 | 2 | 1 |
| ▪ Farmlands | 5 | 4 | 3 | 2 | 1 |
| ▪ Open space to protect natural resources | 5 | 4 | 3 | 2 | 1 |
| ▪ Open space for passive recreation | 5 | 4 | 3 | 2 | 1 |
| ▪ Places of historical value Public shade trees | 5 | 4 | 3 | 2 | 1 |
| ▪ Scenic Roads | 5 | 4 | 3 | 2 | 1 |

Circle the corresponding number

5 - Very Important

4 - Important

3 - Neutral

2 - Less important

1 - Not at all important

6. What residential growth policy do you favor for Northbridge?

- ☐ No growth
- ☐ Concentrate growth in existing developed areas
- ☐ Growth through out the town

7. What commercial and industrial growth policy do you favor?

- ☐ Concentrate growth in existing developed areas
- ☐ No growth

OPEN SPACE

1. How important is preservation of open space?
__ Very Important __ Important __ Neutral __ Less important __ Not important
2. How would you prioritize the following options to preserve open space and recreation areas?
☐ Acquire land and easements to create a town trail system.
☐ Acquire important open space parcels for conservation and passive recreation
☐ Acquire land and easements to preserve significant and historic views along roads or from public places.
☐ Build new recreation areas and acquire land to do so if necessary

RECREATION

1. How satisfied are you with the Town's recreational facilities for children and youth in the Town?
__ Very satisfied __ Somewhat satisfied __ Neutral __ Not satisfied __ Totally dissatisfied
2. How satisfied are you with the Town's recreational facilities for adults?
__ Very satisfied __ Somewhat satisfied __ Neutral __ Not satisfied __ Totally dissatisfied
3. Does the Town sponsor enough recreational activities? __ Yes __ No
4. Which of the following facilities would you like to see improved or provided?
__ Bike paths/trails; bike lanes __ Hiking and cross country skiing trails
__ Conservation Areas __ Ice skating rink
__ Children's Play Areas __ Large park with many facilities
__ Family Picnic Areas __ Local neighborhood parks
__ Sports Fields __ Outdoor amphitheater
__ Golf Course __ Boat launches
__ Recreation center building __ Additional swimming facilities
__ Tennis Courts __ Other (Please specify) _____
5. Prioritize the following strategies.
__ Maintain current recreation areas and facilities
__ Acquire additional land for conservation and recreation
__ Place equal emphasis on acquisition and maintenance
6. What do you like best about living in Northbridge? _____
7. What do you like least about living in Northbridge? _____

In order to help us interpret the results of this survey, please answer these questions.

1. How long have you been a Northbridge resident?
__ Less than 5 years __ 5-10 years __ 10-20 years __ more than 20 years
2. What best describes the area of town in which you live?
__ Linwood __ Riverdale __ Rockdale __ Whitinsville
3. Which of the following best describes your current living situation?
__ Young adult couple without children __ Family with grown children no longer at home
__ Two parent family with young children __ Senior couple or family
__ Single parent family with young children __ Senior living alone
__ Family with older children __ Unrelated adults

Thank you for responding to this survey. Your thoughts and opinions are important.

APPENDIX 4

NORTHBRIDGE OPEN SPACE AND RECREATION SURVEY

The following comments were made in response to the questions: "What do you like most About Northbridge?" and "What do you like least about Northbridge?" in the Open Space and Recreation Survey.

"What do you like most About Northbridge?"

Architecture around Memorial Square
Calm, friendly--2, "Everybody knows your name."
Churches--3 ("Quality of life")
Community Center
Country town--3
Downtown --2
Focus on Youth, Youth Commission
Friendly--4, familiarity,
Geography, river valley, hills and ponds.
Good governing
Hill Street
Historic Character --8
Hometown--3, family --2, "our roots are here"
Lakes without powerboats
Location--4: Work opportunities, "Close to cities" 4, "Good access to employment in Worcester and Providence", "Close to major highways."--2
Low Crime--2
Low traffic--2
Neighborhood quality -- 2
Old houses
Open Space--8, "Open Farm Land"
Pace
People --7
Plenty of Services--2
Privacy
Quiet --7
Recreational opportunities -- 2
Rivers
Rural Atmosphere-- 24
Safe
Scenic Roads

School System
Sense of community – 7
Small Town – 6
Small Town--16, "New England Village", "Home town feeling"—2, "Closeknit"
Town Character --6
Trees and Woods Surrounding Us. "Green space"
Variety of activities available

"What do you like most About Northbridge?"

"Blighted areas"--2, "Slum lords"
Community Center is too expensive
Commute to work--2, commute to Boston--2, commuter congestion
Commuter congestion
Congestion
Development near reservoirs and woods
Downtown: "Empty store fronts on Church Street", appearance of downtown
properties
Drug use
Gossip
Growing town
Inadequate schools
Lack of concern for 10-17 year olds, No youth center
Lack of Cultural diversity
Lack of Good Restaurants--3
Lack of good roads
Lack of Industry
Lack of Open Space--3, "no woods", Disappearing open space, "Lack of Public
Land"--2
Lack of Park and Recreation Land.
Lack of recreation fields--2
Lack of recycling efforts
Lack of services
Lack of sidewalks, poor sidewalks (Goldthwaite)
Lack of sophistication
Lazy people who don't vote.
Less development land available
Loss of open space, "Loss of wilderness"
Low expectations, low self esteem
Mill Area
No school vouchers
Not child friendly, no parks
Not doing enough to preserve character
Not enough commerce or industry

Not enough retail—4,
Nothing for Rockdale
Plummers Corner--3
Poor care of existing parks
Poor Housing, Welfare Housing. Too much rental property. Poverty
Poor Quality Roads
Potential for over crowding
Rapid residential Development – 30, the way growth is handled
Riverdale Bridge out
Rockdale and the Village
Taxes
Threatened by developers
Too much building
Town Politics, “petty”, “Town Manager and his spending”, “Lack of political action”,
“old boy politics”, dissention over issues,
Traffic –13, traffic lights
Urban sprawl

QUESTION					
<i>Town character</i>					
Rural	61				
Suburb	21				
Bedroom	22				
Community					
Town in transition	132				
<i>The Most Critical Problems Facing Northbridge</i>					
	1	2	3		
High Property taxes	43	9	9		
Add. rec. and cons. lands	39	39	35		
Pollution of water and land	31	40	24		
Rate of res. growth	122	44	30		
Loss of Agr. land	36	37	28		
Need for Com. and indus. dev.	37	54	22		
Preserve Town char.	41	47	43		
<i>How important is it to preserve:</i>					
	1	2	3	4	5
Buildings of historic or architect. interest?	80	73	24	3	4
Conservation areas for wildlife corridors	94	60	27	2	3
Farmlands	62	63	43	11	3
Open space to protect natural resources	90	57	29	2	3
Open space for passive recreation	58	72	38	11	6
Places of Historic value, Public Shade trees	63	62	44	10	5
Scenic Roads	61	51	47	19	5

<i>What Residential Growth policy do you favor?</i>					
No Growth	50				
Concentrate growth	95				
Growth throughout	39				
<i>What Commercial Growth Policy do you Favor?</i>					
No Growth	21				
Concentrate growth	156				
Growth throughout	2				
<i>How Important is preservation of open space?</i>					
	Very Important	Important	Neutral	Less Important	Not Important
	120	49	14	1	1
<i>Prioritize the following options to preserve open space and recreation areas.</i>					
	1	2	3	4	
Acquire Land and easements to create a Town Trail Sys.	23	20	51	34	
Acquire Open Space for conser. and passive recreation	82	37	17	5	
Acquire land and easements to Preserve views	44	40	26	25	
Build new rec. facilities	27	22	23	49	
<i>How satisfied are you w. children's rec. facilities in the Town?</i>					
	Very satisfied	Somewhat	Neutral	Not satisfied	Totally dissatisfied
	27	53	57	34	10
<i>How satisfied are you with the Town's recreation facilities for adults?</i>					
	Very satisfied	Somewhat	Neutral	Not satisfied	Totally dissatisfied
	21	50	58	45	12
<i>Does the Town sponsor enough recreational activities?</i>					
Yes	111				
No	35				

APPENDIX 5

SOURCES

Arendt, Randall G., Brabec, Elizabeth A., Dodson, Harry L. and Yaro, Robert D. *Dealing With Change in the Connecticut River Valley: A Design Manual for Conservation and Development.* (1998). Amherst: Center For Rural Massachusetts, University of Massachusetts.

Bickford, Walter (Ed.) and Dymon, Ute Janik (Ed.). (1990). *An Atlas of Massachusetts River Systems – Environmental Designs for the Future.*

BioMap – Guiding Land Conservation for Biodiversity in Massachusetts. (2001). Boston: Massachusetts Division of Fisheries and Wildlife.

Blackstone River Access Plan. Draft/February 1999.(1999). Blackstone River Valley National Heritage Corridor.

Building Better Bicycling –A Manual for Improving Community Bicycling Conditions. (1994). Boston: Massachusetts Highway Department.

Community Choices. (1999). Boston: The Trust For Public Land.

Conserving our Common Wealth – A Vision for the Massachusetts Landscape. (1999). Beverly, Massachusetts: The Trustees of Reservations.

Creating Greenways. (Unknown). Boston: Massachusetts Executive Office of Environmental Affairs and the Massachusetts Department of Environmental Management.

Cultural Heritage and Land Management Plan for the Blackstone River Valley National Heritage Corridor. (1989). Blackstone River Valley National Heritage Corridor Commission.

Development Framework—A Guide for Growth and Change in Central Massachusetts -- Environment. (1995). Worcester: Central Massachusetts Regional Planning Commission.

The Forest Use Manual—Planning, Protection, and Management in Massachusetts. (1993). Amherst: University of Massachusetts Cooperative Extension System.

Howard, Jennifer. *Creating Greenways – A Citizen's Guide*. Boston: Massachusetts Executive Office of Environmental Affairs.

Kimball, Joan Channing. *Riverways Community Guide*. (1994). Boston: Massachusetts Riverways Program Department of Fisheries, Wildlife and Environmental Law Enforcement.

Kipp, Katrina and Zingarelli, Richard. *Narragansett Bay Project Briefing Paper*. (1991). Unknown. Unknown.

Krieger, Alex and Mackin, Anne. *A Design Primer for Cities and Towns*. (1989). Boston: Massachusetts Council on the Arts and Humanities.

Massachusetts Conservation Restriction Handbook. (1992). Boston: The Commonwealth of Massachusetts Executive Office of Environmental Affairs, Division of Conservation Services.

A Master Plan for the Town of Northbridge, Massachusetts. (1994). Northbridge: Northbridge Master Plan Committee.

The Open Space Planner's Workbook Companion to the 1990 Open Space and Recreation Plan Requirements. (Revised Edition. 1993). Boston: Massachusetts Executive Office of Environmental Affairs.

Peterson, Christina. *Forest Resources of Massachusetts*. (1989). Amherst: University of Massachusetts Cooperative Extension System.

The State of Our Environment. (2000). Boston: Executive Office of Environmental Affairs.

Town of Northbridge Bicentennial Commemorative Journal. (1972).

Town of Northbridge Open Space and Recreation Plan. (1985). Worcester: Central Massachusetts Regional Planning Commission.

Water System Study, Town of Northbridge, Massachusetts. (1998). Dedham: Woodard and Curran, Inc.

WEB SOURCES

Central Mass Regional Planning Commission
www.cmrpc.org

Community Preservation Initiative
<http://commpres.env.state.ma.us/>

Massachusetts Department of Fish and Wildlife
www.state.ma.us/dfwele/

Massachusetts Geographic Information
www.state.ma.us/mgis/massgis.

Massachusetts Historical Commission
www.masshist.org

Massachusetts Office of Housing and Community Development
www.state.ma.us/dhcd/publications/

Massachusetts Watershed Initiative
www.state.ma.us/envir/

APPENDIX 6

CRITERIA FOR EVALUATING OPEN SPACE PARCELS

THE FOLLOWING CRITERIA SHOULD BE CONSIDERED WHEN
EVALUATING AN OPEN SPACE PARCEL.

1. Environmental Significance
 - Vegetation
 - Wetland
 - Ability to support wildlife
 - Contribution to biodiversity
2. Aquifer Protection
 - Located in Zone I
 - Located in Zone II
3. Historic Significance
4. Scenic Value
 - Significant views from the site
 - Significant views of the site
 - Significant views within site
5. Potential to Connect with Existing Open Space
6. Recreation Potential
 - Potential for active recreation
 - Potential for passive recreation
 - Potential as component of a town wide trail system
7. Access
 - Access from and to the site
 - Access through the site
 - Possibility for parking
8. Agricultural Significance
 - Cropland
 - Grazing land
9. Potential for Municipal Use
10. Ownership
 - Ability to Purchase.
 - Are sellers willing?

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20