

TOWN OF MILLIS
MASTER PLAN 2000

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1. INTRODUCTION

Millis is located just over 20 miles southwest of downtown Boston. Like other towns it has experienced growth pressures associated with the general trend for “bedroom” suburbs. These pressures have seen the amount of urbanized area in Millis increase from 1,328 acres in 1973 to 2,033 in 1998, a 53% increase in twenty-five years. Population has grown from 5,686 people in 1970 to an estimated 8,200 in 2000, an increase of 44%. Many other nearby towns have grown faster and Millis is fortunate that its area devoted to agriculture, a major determinate of its character, has remained basically unchanged.

Millis has a rich natural setting and a distinctive cultural history. The Charles River and its tributary Bogastow Brook surround it on three sides. It has large areas of swamp hardwood forest that provide plentiful wildlife habitat and help assure its continued biodiversity. These forested wetlands and its non-forested wetlands, waterways, agricultural areas and upland forests provide many opportunities for dramatic views and enjoyment of nature-based recreation.

The Nipmuck Indians hunted and farmed the area that is now Millis for generations before the Pilgrims landed in southeastern Massachusetts. The first permanent white settler came in 1658 when Millis was part of Medfield. Farming dominated the economic life of the community until the 19th century when several small industries were developed. Early in the 20th century manufacturing began to decline and convenient train and streetcar service provided access to Boston. Boston’s Jewish community favored the town’s country atmosphere, fresh air and clean water and a number of resort hotels were developed in the early part of the last century.

Residents value the town’s semi-rural character and its smallness. Fortunately, the town’s lack of buildable land and its relatively longer distances to major commuting routes have been factors that helped check its growth. Still, residents are concerned about the future of their community. They see threats and opportunities. They realize that future development needs to be managed to avoid sprawl and congestion that would undermine the character of the town, and help realize opportunities to create a better community.

This 2000 Master Plan is intended to serve as a guide for the future development of the town. The Planning Board and their consultants, Planners Collaborative Inc., have developed it working in conjunction with a variety of interested citizens and town officials.

1.1 Acknowledgements

During the more than two-year effort to prepare this plan the Planning Board and its consultants, Planners Collaborative Inc., were in contact with many town departments, individuals and regional and state agencies. In our attempt to assure completeness and accuracy we have gathered much of the information presented in the Master Plan from these individuals and departments. We have listed many of our sources below. We are grateful for their assistance and interest. We apologize for any omissions and of course any errors are our own.

Town of Millis

Charles Aspinwall, Town Administrator

Millis Planning Board

Roma Curran, Assistant Town Clerk

Millis Department of Public Works

Irving Priest, Director

Millis Public Schools

Office of the Superintendent

Millis Senior Center

Karen Alves

Millis Recreation Department

Millis Police Department

James C. Kozak, Chief

Millis Fire Department

Warren Champagne, Chief

Millis Public Library

Shirley DiCenzo, Acting Director

Millis Historical Commission

Corinne Kravitz

Millis Conservation Commission

Millis Open Space Advisory Committee

Mary Best, Co-Chair

Millis Building Department

Charles River Pollution Control District

Metropolitan Area Planning Council

Massachusetts Highway Department

David Friedenfeld

ERA Baystate Realty

Janet Potts, Manager

Braman Screw Machine Company, Inc.

Mr. Braman, Owner



PLANNERS COLLABORATIVE INC.
 Planning
 Landscape Architecture
 Urban Design
 Environmental Management
 Public Participation & Information
Boston, Massachusetts

Source: MassGIS
 For Planning Purposes Only

Town of Millis Massachusetts

Map 1: Locus



2. MASTER PLAN DEVELOPMENT PROCESS

2.1 Previous Master Plan Efforts

2.1.1 Previous Planning Efforts

Millis' last comprehensive plan was prepared in 1975. It projected community needs and facility improvements to meet those needs to the year 1990. The projected population for 1990 used in this plan was 9,830 people, while the 1990 Census counted a total of 7,613 people. The 1975 plan laid the foundation for existing zoning and many of the existing community facilities.

2.1.2 Master Plan / Funding

This process for developing the 2000 Master Plan was funded in two phases by vote of two Town Meetings. The 1997 Town Meeting voted funds for Phase I and the 1998 Town Meeting voted funds for Phase II. The Planning Board appreciates the support of the citizens of Millis.

2.1.3 1998 Draft Open Space Plan

In the process of developing this plan, the 1998 Draft Open Space Plan was reviewed and its recommendations were incorporated into this plan.

2.2 Scope of the Master Plan

Master plans must contain the following nine State-mandated requirements:

- Goals
- Natural and Cultural Resources (including Historic Resources and Environmental Protection)
- Open Space and Recreation
- Housing
- Economic Development
- Land Use
- Public (Community) Facilities
- Transportation
- Implementation

In addition to these required elements we have include specific sections on Millis Schools and Water, Sewer, and Solid Waste Disposal.

The intent of the Millis Master Plan 2000 is to take stock of the town's existing resources, determine where the town desires to be in the next twenty years, and devise a general plan of how to achieve those goals. Attention is paid to the pressures of development, job creation, and general growth conditions. Analysis of these features and their interrelation will help assure that future actions are coordinated to achieve those goals.

2.3 Planning Board Members

The Millis Planning Board consists of five members.

Irving Priest, Planning Board Chairman
Donald Roman
Catherine MacInnes
Paul Jackson
Donald Hendon

Ronald Santospago and Joanne Bragg were members of the Planning Board when Phase I of the process to prepare the plan began in 1998. The members of the Planning Board have worked with their consultants, Planners Collaborative Inc., to develop the Millis Master Plan 2000.

2.4 Master Planning Process

The Millis Master Plan has been a two-phase process. Phase I of the master planning process began in 1998 and was completed in September of that year. Phase II began in the spring of 1999 and was completed in the winter of 2000.

2.4.1 Phase I

This phase was delivered to the town and the Planning Board as a series of inventory and analysis reports on existing town resources including the following:

- Preliminary Goals and Policies
- Land Use Analysis
- Residential Build-Out Analysis
- Initial Review of Zoning Bylaws and Subdivision Regulations
- Housing Conditions and Patterns of Development
- Millis Housing Objectives: Density, Location, Affordability, and Building Type
- Draft Statement of Economic Development Goals and Policies
- Income and Population Density Analysis
- Preliminary Objectives for Cultural and Natural Resources
- Wildlife Resources Inventory
- Schools
- Water, Sewer, Roads, and Other Infrastructure
- Parking and Town Center

2.4.2 Phase II

Phase II was a natural extension of Phase I, completing and finalizing the preliminary inventory and analysis effort and recommending actions for the future. The Millis Master Plan 2000 is the result.

2.4.2.1 Public Meetings

During Phase II there were a series of Planning Board meetings and two larger community meetings. During the first public meeting the Planning Board and their consultants presented a summary of the information gathered in Phase I and discussed citizen concerns and issues in small group

sessions. This visioning workshop was key to formulating the goals for the Master Plan.

During the second public meeting, the Planning Board and their consultants presented the results of the build-out analysis and three alternatives for managing Millis' future growth. Both meetings are described in more detail below.

2.5 Public Participation

2.5.1 Open Space Surveys

Two open space surveys were conducted in the town prior to the master planning effort, one in 1986 and another in 1996. The first focused on recreation and asked residents to identify which open space resources they used most frequently, how they rated the condition of the facilities, and how frequently they engaged in recreation activities. The second survey reflected the rising concern of development pressures in the town. It asked residents to identify their priorities for preservation of structures *and* open space as well as growth policies for future residential and commercial developments. These surveys helped define initial priorities for the Master Plan.

2.5.2 Visioning Workshop

A visioning workshop was held in March 2000. Twenty-five to thirty people participated in the meeting and discussion. This workshop, facilitated by Planners Collaborative Inc., provided an opportunity for Millis residents to consider the information gathered in Phase I and articulate their values, concerns, and goals for the future of their town, in order to guide the development of the Master Plan. The Planning Board and their consultants asked participants to share their thoughts about the issues, challenges, and goals facing their community through written comments and small group discussions. From these sources Planners Collaborative compiled a summary of key issues to be addressed during Phase II of the master planning process.

2.5.3 Development Alternatives

The second public meeting was held in May 2000. Approximately twenty-five people participated in this meeting. The Planning Board and their consultants presented three alternatives for future growth of the town – a current trend alternative, a village / cluster alternative, and a low residential density alternative. The participants evaluated these alternatives and their discussion was the basis for developing the final General Land Use Plan presented in the Master Plan. The three alternatives and the final plan are presented in the Land Use chapter.

3. MASTER PLAN GOALS

3.1 Introduction

The goals of any comprehensive plan stem from the needs of its constituents. As described in the preceding section, goals for the master plan were defined in a series of Planning Board and public meetings.

3.1.1 Values and Concerns

The Planning Board and attending citizens described Millis as being small, rural or semi-rural, safe, and quiet. Aspects of the town that brought praise from the residents were the sense of community, appreciation for open space, and access to the Charles River. The overall image of the town is positive, and residents seem to be attracted to Millis for its country atmosphere, natural surroundings, and small size.

3.1.2 Visual Issues

Some of the more visually attractive areas of the town are to the north, where residents identified a number of scenic roadways and some good views of natural areas. Most notable were Island Street, Ridge Street, Orchard Street, and Route 115. Prospect Hill Cemetery and Oak Grove Farm were identified for their beautiful views and pleasant surroundings. Oak Grove Farm emerged as one of the town's best-loved community resources.

Statements about portions of Route 109 reflected some negative feelings about its visual image. The strip development, the junkyards and auto-repair shops, the traffic, and the absence of pedestrian amenities were all cited as regrettable characteristics of this commercial and industrial strip. Specifically, almost all participants named Route 109 from Pleasant Street to the Medway line as an unattractive area. A few others cited the "Ann and Hope" section of Millis, just east of the town center, as also being unsightly.

3.1.3 Residential Growth

Not surprisingly, the concerns of the Planning Board and many public-meeting participants centered on the rate and nature of Millis' growth and the need for a stronger tax base to help keep taxes low and support desired services. In some cases, these concerns translated into objections to certain kinds of growth. While participants thought that the larger lot sizes to the north of Millis were attractive, and found the Bogastow Circle development to be particularly pleasing, other, higher-density residential developments such as Heritage Path were judged as less desirable primarily because of their lack of open space.

If Millis is to maintain its socioeconomic diversity, it will be important to examine other residential development options besides large lot sizes. These options need to allow for a generous amount of open space – one aspect that makes the popular developments so attractive – and that will not overstrain the financial resources of the town. The challenge is to find ways to retain

the town's semi-rural character and open spaces and channel residential growth so that it occurs in ways that will enhance the best characteristics of the town.

3.1.4 Commercial and Industrial Growth

There were conflicting messages about commercial and industrial growth. On one hand, almost all respondents found Route 109's commercial and industrial strip development to be unpleasant, "ugly" in the words of one respondent, and working against Millis' sense of community. The roadway, especially on the western side of town, seems to spawn more traffic and auto-oriented shopping, and some residents feared that Millis would become host to yet another full-blown manifestation of suburban sprawl.

Conversely, several participants placed their hopes for improving the town's tax base on attracting more commercial and industrial establishments to the area. So these two points of view must inevitably be linked; how can Millis control the undesirable consequences of the development it is seeing on Route 109 and still attract more commercial and light industrial growth? Clearly, the town will have to change the *way* that development occurs. It will need to identify new locations and types of development in order to satisfy these competing ideas.

3.1.5 Community Resources

According to a number of Planning Board members and participants in the public meeting, there is a persistent desire for Millis to have a better sense of cohesion. Board members felt more residents needed to participate in town government, to volunteer, and to contribute to the community at large. In line with this, several participants regretted the fact that "Millis has no real town center" where people could meet in an attractive and dynamic outdoor environment.

Oak Grove Farm

One of the most valued features about Millis that emerged again and again in the responses is Oak Grove Farm. It seems to be one of the best-loved public spaces in the town, and as such, it has tremendous potential to act as a focal point for community activities. The site, located to the north of the town's main intersection, has historic as well as recreational charms; it was once the farm of the town's founder and namesake, Lansing Millis. Now the farmhouse is being restored to become the offices of the Historic Commission, and the surrounding land offers playing fields and trails for biking and walking. It seems evident that this site is a significant resource to Millis' residents, and that developing its potential as such can do much to foster the town's sense of community.

Veterans' Memorial Building

One area with the potential to foster more community interaction is the Veterans' Memorial Building and near-by open spaces. This facility provides space for community activities like youth-oriented, family and elderly events

and town government meetings, as well as more comfortable and centralized offices for the town government. The Planning Board believes that this building and its surrounding open space could become a cohesive force for residents and a social and cultural resource for the community.

3.2 Goals and Potential Strategies

Based on these public meetings and discussions, it was not difficult for the Planning Board to formulate primary goals for Millis. The following table presents those primary goals and some potential strategies for achieving them.

Table 1: Primary Goals for Millis

Primary Goals	Potential Strategies
Improve tax base.	Attract businesses, both commercial and industrial.
Control growth.	Improve area of 109 between Pleasant Street and Medway. Encourage open space residential zoning, accessory apartments, and infill development in Millis Center.
Primary Goals	Potential Strategies
Preserve rural character, open space, and safety aspects of town.	Encourage open space residential zoning. Protect key open space areas. Preserve forested areas along roadways.
Improve image of town.	Adopt design control measures for key areas. Create gateways to the town center.
Enhance sense of community.	Encourage more participation in government and more outreach to volunteers.

3.2.1 Secondary Goals and Potential Strategies

The participants in the public meetings mentioned several ancillary goals during the course of discussing their perceptions of the town and their goals for Millis in the long term. These are listed below, and have been incorporated as far as possible into the final listing of Master Plan goals.

Table 2: Secondary Goals for Millis

Secondary Goals	Potential Strategies
Create a town center.	Adopt new Village Zoning Overlay District.
Improve infrastructure.	Continue existing capital budgeting procedures.

Secondary Goals	Potential Strategies
Improve recreational and community facilities.	Implement recommendations in 1998 Draft Open Space and Recreation Plan. Work with Trustees of Reservations and other land trusts to protect land.
Restore train service if feasible.	Work with MBTA and surrounding communities. Assess need.
Hire a town planner.	Appropriate money. Prepare job description.

3.3 Final Master Plan Goal Statement

These goals reflect the concerns and ideas of the Millis Planning Board and many of Millis' residents.

Protect Water Quality and Educate Public about Water Resource Protection

- Improve town's water quality.
- Investigate impact of decreased water flow in the Charles River.
- Promote community education on issues critical to protecting the town's water resources, including water conservation techniques.

Protect Natural Resources

- Evaluate potential environmental impacts resulting from new development.
- Assess impacts of current conditions on natural resources and the town's biodiversity.

Increase, Enhance, and Maintain Open Space and Recreation Opportunities

- Improve and promote public access to the Charles River and other recreational water resources.
- Protect and preserve existing open space.
- Evaluate and act on appropriate opportunities to acquire more open space.
- Assess opportunities to develop regional trails with neighboring towns, including Medway, Medfield, and Holliston.

Encourage Appropriate Economic Development

- Promote the development of strong activity centers, especially in the town center, while maintaining a "village feel."
- Advocate for appropriate and desirable economic growth while maintaining quality of life and level of town services.
- Promote mixed-use zoning in town center and other targeted areas.
- Attract greater diversity of retail opportunities.
- Increase the town's tax base.

- Streamline the development process to make it clearer and more concise.

Promote Regional Cooperation

- Determine the economic feasibility of hiring a professional town planner, perhaps on a shared basis with another town.
- Promote regional cooperation, communication, and coordination of services and among town offices.

Improve Vehicular Circulation and Pedestrian Mobility

- Improve vehicular circulation, especially on Rtes. 109 and 115.
- Reduce neighborhood cut-through traffic.
- Explore opportunities for regional public transportation networks and improve existing transit service.
- Investigate opportunities to improve pedestrian mobility and that of other human-powered modes of transportation, including the development of sidewalk networks, walking / nature trails and bike paths.

Encourage and Increase Level of Community Involvement

- Educate and inform new residents of purview and role of town government.
- Encourage newcomers, as well as long-time residents, to participate in community life.

3.4 Policies and Objectives Based on Goals

Based on the Planning Board's perceptions of the challenges facing Millis, it is useful to examine policies that will help the town achieve its goals. These policies and objectives are based on the goals and strategies of and for the community.

Table 3: Policies and Objectives

Goals	Policy/Objective
Broaden Tax Base	
Encourage industrial and commercial development.	Change areas currently zoned for industrial use to mixed-use or commercial uses. Allow and encourage higher commercial densities near town center. Improve image of town center in order to attract new businesses.

Goals	Policy/Objective
Manage Growth	
Residential Areas	Control growth so that it occurs in ways that will enhance the best characteristics of the town. Provide incentives for open space zoning to allow development while conserving open space. Encourage development that minimizes municipal costs. Provide incentives for building housing for the elderly, "empty-nesters," and childless couples. This can be achieved by limiting the size of houses and encouraging age-restricted housing.
Commercial / Industrial Areas	Institute zoning regulations or incentives to bring more businesses closer to the town center. Allow for higher densities; reduce setbacks; and place parking to the side or rear of the establishments. Require landscaping of parking areas and pathways. Require pedestrian links from the sidewalk to the main entrance. Limit commercial and industrial growth in some cases on the town's periphery by rezoning. Institute similar development regulations in these areas including small setbacks, parking in the rear, plantings, and pedestrian access from the main walkway. These measures should help to control the unattractive aspects of further commercial and industrial development.
Preserve Town Character	
Guide future growth so that the character of the town is enhanced.	Retain open space to help preserve the town's remaining rural qualities. Change required lot layouts for housing to encourage houses to be set back in wooded areas to preserve forested area along roadways. Provide incentives for open space zoning.

Goals	Policy/Objective
Preserve Town Character	
Protect and expand open space.	Continue to acquire and protect open space. Open up views of the Charles River and associated wetlands where possible. Coordinate efforts with the Trustees of Reservations and other land trusts to secure more rural land.
Limit clear-cutting of development lots.	The town's character is largely based on its forests. Limiting cutting of trees and increasing roadside setbacks will go far to retaining this character. It will also save water by reducing demand for lawn watering.
Protect historically significant areas and sites.	Establish historic overlay zones and protect valuable structures. These measures will improve the image of the town, and will help to foster economic development through adaptive reuse of commercial buildings and increased attractiveness of surroundings.
Ensure land use compatibility.	Site new development so that it complements existing settlement patterns. Consider the compatibility of adjacent uses.
Enhance the Sense of Community	
Improve recreation and community facilities.	Develop new areas for recreational uses. Establish linkages among existing recreational spaces. Establish pocket parks, especially near the town center. Improve access to and condition of current recreational opportunities. Expand uses of Oak Grove Farm and Memorial Park to include more community activities, seasonal gatherings, and cultural activities. Fairs, picnics, and performances are possible activities for the site. In addition, develop the role of the Historical Commission more fully to increase community awareness of Millis' past. Expand the use of the farmhouse to make it a public amenity, hosting Historical Commission activities as well as other indoor events.

Goals	Policy/Objective
Preserve Town Character	
Strengthen town center.	Create a commercial and municipal town center with pedestrian walkways and public amenities such as shade trees, benches, and a common green.
Promote community participation	Develop community facilities and ongoing activities in the Veterans' Memorial Building. Special effort should continue toward providing activities for teenagers. Recruit volunteers for town-sponsored activities and public positions, especially at community-oriented events at Oak Grove Farm and the Veterans' Memorial Building. Create a "corps" of professionals who are willing to offer their services; reward them with public recognition at a community event. Launch a public education campaign to increase community awareness.
Improve Image	
	Develop town center (see above) Limit "strip" development taking place on Route 109. See development guidelines listed above. Invest in public amenities for pedestrians and visitors, such as sidewalks, public benches, shade trees, and plantings near the town center and other commercial areas. Continue to preserve open space and develop recreational facilities.
Improve and Maintain Infrastructure	
Improve water and sewage infrastructure	Manage and protect the water supply to ensure its purity. Since Millis relies on a finite ground water supply, the aquifer system underlying the town must be carefully guarded from contamination. Maintain a safe and effective sewer system so that wastes do not damage the water supply. Consider extending the sewer system only to areas that will be suitable for commercial and industrial development, in order to attract businesses.

Goals	Policy/Objective
Improve and Maintain Infrastructure	
Improve roadways, access, and transportation	Accommodate future traffic increases through proper road maintenance and expansion. Address safety issues around poor sight lines at intersections, high-use driveways, and high-accident areas. Begin to establish a public transportation network. Improve connections to regional commuter rail network. Review options and need for public bus service.

4. SUMMARY OF MAJOR RECOMMENDATIONS

The following sections summarize the major recommendations for each of the plan's major topics. More detail and analysis on each topic and recommendation is included in later sections.

4.1 Housing Recommendations

- Continue to provide a diversity of housing types. Explore incentives for developers to include affordable housing in their developments.
- Encourage open space protection in new residential development.
- Consider adopting provisions for Conservation Subdivision Design, which gives a higher order of protection to natural resources, including water resources.
- Permit housing to be built in some commercial areas, enabling apartments over stores or offices in Millis Center.
- Allow selected infill of housing in Millis Center, through accessory apartments and reduced lot frontage requirements for homes built behind or to the side of existing buildings.
- Examine the Community Preservation Act as a measure to help fund affordable housing, open space acquisition, and historic preservation.

4.2 Economic Development Recommendations

- Broaden the tax base.
- Strengthen existing town center.
- Support appropriate, basic, job skill-oriented education in Millis schools.
- Increase viable agricultural activities.
- Develop a merchants' association.

4.3 Natural Resource and Open Space Recommendations

- Encourage additional landowners to participate in the Chapter 61 tax abatement program to diminish financial incentives to develop farm or forest land.
- Continue to offer residents, at Town Meeting and in town elections, the option to purchase open land recommended in the Open Space Plan as it becomes available.
- Work with land trusts and other organizations to purchase and protect open land as a means of preserving the town's character.
- Establish a town fund for purchase of open space.
- Establish Conservation Subdivision Design (CSD) to preserve some open character in new development.
- Include incentives for developers to set aside land in new developments and other subdivisions for open space and public trails.
- Improve access to the Charles River for recreational use.
- Create a continuous open space corridor along the entire ten-mile length of the Charles River and along Bogastow Brook in Millis.

- Establish limited access to protected wetlands for environmental education and enjoyment of natural habitats.
- Protect wooded open spaces, particularly hilltops.
- Explore adopting provisions of the Community Preservation Act as a means of funding open space acquisition.
- Protect natural corridors and linkages between protected open spaces to maintain wildlife corridors and provide for trails.
- Establish trail or sidewalk linkages between the center of town and peripheral open spaces.
- Increase access to open spaces.
- Improve access to open space and recreational facilities for the elderly, the very young, and the disabled.
- Establish pocket parks in the town center.
- Explore strategies for retaining Glen Ellen Country Club as open space.

4.4 Transportation Recommendations

- Parking – Adopt zoning and design guidelines that require new commercial developments to place their parking facilities behind or along the sides of buildings, and to provide pedestrian links from establishment entrances to sidewalks. Millis should allow on-street parking in limited sections of the central commercial area. Adopting a shared parking provision would help reduce the total amount of parking spaces needed to accommodate new development, thus reducing the overall area of impervious surface.
- Public Transportation – While residents of Millis have relatively convenient access to commuter rail facilities in Norfolk, Framingham and Natick, the existing rail line represents an important asset for future planning. If commuter rail service to Millis Center should be determined to be feasible by the MBTA at some time in the future, station location and parking would be major issues.

4.5 General Land Use Recommendations

- New open space residential and commercial cluster zoning provisions should be added to the town's by-laws to help create a stronger town center and help maintain Millis' rural feel in other areas of the town.
- Create a new Village Zoning District (see below).
- In general, the existing commercial areas should not be expanded beyond their present extent, except for expansion of the mixed uses permitted in Millis Center and the possible future rezoning of the sand and gravel operation at the Medfield town line.
- Historic overlay zones may be important for the preservation of structural or area integrity. Areas such as Rockville, in the south of town, are prominent possibilities for overlay zones due to the fact that there is a strong sense of area community, combined with the presence of several historically significant structures.
- The town should consider rezoning the sand and gravel site at the eastern end of 109 to office park. It should also consider rezoning

much of the currently industrially zoned wetlands on the western side of town to conservation or residential.

- Consider increasing front-yard setbacks in R-T and R-S zones from 40 feet to 60 feet. This change would encourage a forested strip along roadways and help preserve the town's semi-rural character.

4.6 Millis Center Recommendations

- A new Village Zoning Overlay District should be created for the town center. This zone would encourage mixed-use zoning, allowing the town to retain its small-town feel by concentrating development, promoting a greater density of development, and allowing for a mix of uses. This zone should also allow community and civic facilities and certain transportation services by Special Permit.
- Locate the new Police Station within Millis Center.
- Designate a location for a town common.
- Work to increase the number and diversity of businesses in the center by preparing a business database and developing a strong Merchants' Association, which together will help the town solicit appropriate economic development in the town center and beyond.
- Set up an "Adopt-A-..." program through which businesses and individuals can contribute to the addition of benches, hanging baskets, bicycle racks, and trash receptacles on the sidewalks.
- Allocate and seek outside funds to conduct three studies focusing on Millis Center: a traffic / circulation study, a streetscape design study, and a marketing and economic development study.
- Implement a design review process for Millis Center that encourages development of a more attractive area and offers developers with incentives for meeting community objectives.
- Consider offering density bonuses to developers / owners who build second stories on existing buildings or new structures expressly to create room for office and residential space. Other bonuses should be explored to encourage infill development projects in between businesses in order for the center to achieve adequate density and continuity.
- Increase the allowed height of buildings in Millis Center to be more consistent with residential zones in other parts of town.
- Allow selected infill development in Millis Center, through accessory apartments and reduced lot frontage requirements for buildings built behind or to the side of existing buildings.
- Encourage infill development and preservation of historic structures and adaptive reuse of structures, which can both lend a sense of continuity to the area.
- Develop a shared parking provision for Millis Center. Shared parking allows one or more businesses to share a dedicated lot or a set of dedicated spaces.
- Encourage locating parking spaces behind stores in order to maintain a more attractive streetscape and a continuity of structures. This will

allow businesses to front directly onto the sidewalk, encouraging passersby to enter.

- Conduct a strategic sidewalk plan, as part of the streetscape design study, to create a network of sidewalks in and around the town center and accelerate the program of sidewalk, pathway, and bikeway facilities in and leading to the town center.
- Improve sign regulations to reduce impacts of strip commercial development. Lighting should focus on creating safe access and connections between locations throughout the center.
- Work with businesses to improve the landscaping in Millis Center.
- Highlight Millis Center with “gateways” that include signs and other visual cues such as special street furniture, plantings and lighting.

4.7 School Recommendations

- Appropriate funds for a space needs study to identify the extent of the need for additional classroom space in the face of increasing enrollments.

4.8 Water, Sewer, and Solid Waste Disposal Recommendations

- Continue to pursue the town’s request for additional capacity access to the Charles River Pollution Control District with the justification that its plan to encourage a mixed-use Millis Center will limit sprawl and aid in the preservation of open space.
- Work with developers to encourage new development on appropriate sites as a means of both preserving open space and allowing residential development without having the need to make additional sewer connections.
- Adopt stronger requirements for retention and recharge of ground water, especially for paved parking areas.
- Work with other near-by towns to develop a hazardous household waste disposal program.

4.9 Community Services Recommendations

- Appropriate funding for additional space, staffing – including a full-time director, and maintenance of existing programs for the library.
- Allocate funds to hire a full-time driver for Senior Center vans and for a space needs study to research the possibility of the Senior Center relocating to a freestanding building.
- Allocate funding to hire additional Fire Department staff in order to more efficiently run and maintain the Rockville Station.
- Allocate resources for a new high band radio system for combined use of the Fire, Police, Emergency Medical Services (EMS), and Emergency Management Departments.
- Allocate resources to facilitate the anticipated Police Station relocation within Millis Center.
- Provide funding for additional Police Department staff including a full-time officer, a full-time school resource officer, and a full-time secretary.

- Set up a hotline for senior citizens.

4.10 Cultural and Historical Resources Recommendations

- Proceed with the effort to restore Niagara Hall / Fire Station in Millis Center.
- Seek funds to restore the Ellice School.
- Seek funds to restore the Oak Grove Farmhouse.
- Seek funds to refurbish the Historical Markers for the Centennial Tour of Millis (Historic trail found in *Reminiscences*).
- Seek funds to create a map and walking tour of Rockville.
- Seek support to update Millis' inventory of historic buildings and structures.
- Create a more formalized list of historically and culturally significant properties.
- Develop and implement a Historic Overlay District for the Rockville area.
- Consider a Historic Overlay District for the Holbrook Street area.
- Formalize designation of several of its historic sites, including the Clicquot Tower.
- Increase use of historic town properties such as the Oak Grove Farm, for town events and activities.
- Prepare and distribute self-walking tour maps and narratives of the town's history
- Allocate funding for achieving goals of the Historical Commission priority list.

5. HISTORY

5.1 Historical Overview

Originally the territory of the Nipmuc Indians, the area that is now called Millis went through several changes before settling into its current name and boundaries. In 1640, the land, then known as Bogastowe, was given to Edward Alleyne for work done in service to the community. In 1650, the land became part of Medfield and remained so until 1713 when the land became part of East Medway.

In 1658, George Fairbanks established a farm at South End Pond called Palisades. The farm contained a stone house, which protected early residents from Indians during the Indian wars of the 1670s. In the following years, several other residents built homes along Exchange Street. In 1676, the Joseph Daniell, Sr. House was built on Island Road. In 1681, John and Mary Clark built their house near the intersection of Ridge and Causeway Streets. The Clarks were owners of clay pits and bricks yards on Causeway Street that supplied bricks for many of the historic houses.

By the early 18th century the first Meeting House was built. Development had spread across Exchange Street and south of Main Street, extending the boundaries of the community. By the middle of the century, the town was equipped with a cemetery, a town pound, and a tavern. As the 19th century progressed, factories, such as the Holbrook Bell Foundry -- making cast iron bells, began to appear in Millis.

In 1885, the Town of Millis was incorporated, named for Lansing Millis, a businessman and railroad executive from New York who, charmed by the 'peaceful' atmosphere of the town, purchased two old properties for use as a dairy farm. Mr. Millis was the town's first Town Meeting moderator and Chairman of the Board of Selectmen. His dairy farm was the now-well-known Oak Grove Farm, which has been acquired by the Town of Millis for recreational and educational purposes. By the end of the 19th century, larger industries had arrived, and while farms were still plentiful, the atmosphere was changing. Along with industry, the Millis Opera House emerged as an indication of new prosperity and cultural aspirations.

5.2 Land Use History

Throughout the 17th and 18th centuries, Millis' economy was based on farming and grazing, but in 1805 the economy of the community began to change with the establishment of two cotton mills. Soon after, Millis joined Lowell, Lawrence, and other municipalities in the lucrative textile trade. In addition, several brickyards, including the Clark Factory and Richardson Brickyard (ca. 1775), Holbrook Bell Foundry and blacksmith shop (ca. 1816), an organ factory (1830), a paper mill, Lacroix Canning and Bottling factory (1863), Hutchinson Bleachery and Dye Works, and an ice factory (1890) appeared in the town. Lansing Millis established the Cliquot Club plant in

1881, which made Ginger Ale from the 'finest quality ingredients.' Herman's Shoes (1881) also contributed to Millis' strong industrial base until the mid-twentieth century when the town's industrial fortunes began to wane.

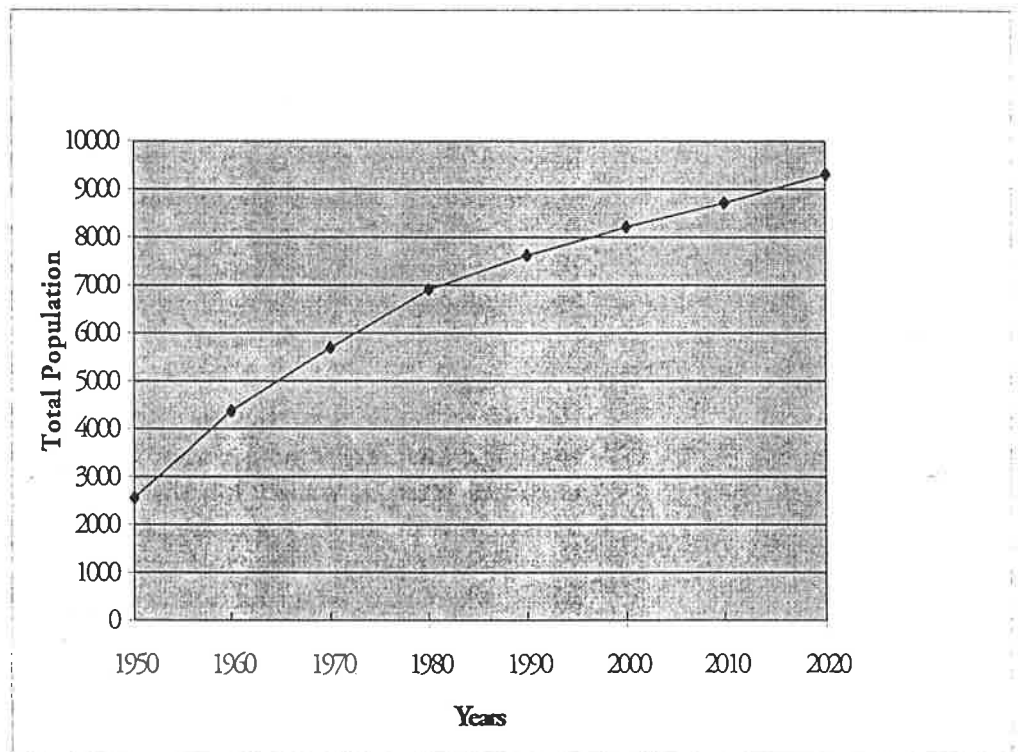
Newer residents were finding employment outside the town's industrial and manufacturing enterprises, frequently taking jobs in Boston, and often in white-collar professions. Part of the reason for this transition is related to the town's location in metropolitan Boston's outer suburban ring, 15 miles southwest of the city, and Americans' increasingly extensive use of motor vehicles. Residents thought nothing of commuting the 15 miles into Boston and surrounding towns for employment. Living in Millis allowed residents to have access to the city combined with the benefits associated with living in a semi-rural community, including fresh air and open space. At the same time, partly as a result of the regional decline in industrial growth by the late 19th century, Millis was able to retain much of its rural character, especially along Island Street, Ridge Street, Orchard Street, and Route 115. However, during the mid-20th century, auto repair shops, junkyards, and strip development flanked Route 109 from Pleasant Street to the Medway line, making the corridor "unattractive" according to some residents.

6. EXISTING GROWTH CONDITIONS

6.1 Population Growth

Millis has grown from a very small, largely rural community of 2,600 people in 1950 to a semi-rural / suburban community of about 8,200 in the year 2000. Figure 1 shows that this growth has been fairly steady since 1950. The Metropolitan Area Planning Council (MAPC) forecasts that Millis' population will grow to 8,700 by 2010, and 9,300 by 2020, an increase of about 13% over the current population.

Figure 1: Population Growth and Forecasts, 1950 – 2020



Source: U.S. Census of Population and MAPC Forecasts

While population growth is expected to be moderate, different age groups will grow at different rates. Table 4 shows the major life cycle groups important for planning for the future. The over-65 age group is expected to almost double by 2020, increasing from 776 in 2000 to 1,398 in 2020. School age population is expected to increase slightly by the year 2010, and then decrease slightly by 2020. Population in the family formation phase of life is expected to decline very slightly by 2010. After 2010, it will increase to a level only slightly higher than the existing level by 2020. The household reduction phase, defined by declining family size, as children grow up and leave home, is expected to increase by 2010, but then decline by 2020 to a level only slightly higher than the level in the year 2000.

Table 4: Population by Life Cycle Category and Year

Age Groups	Life Cycle Stages	1990	2000	2010	2020
0-4	Preschool	684	696	594	631
5-19	In School	1,432	1,631	1,688	1,563
20-44	Family Formation	3,569	3,031	2,899	3,356
45-64	Household Reduction	1,353	2,072	2,605	2,356
65+	Retirement	575	776	922	1,398
Total		7,613	8,206	8,708	9,304

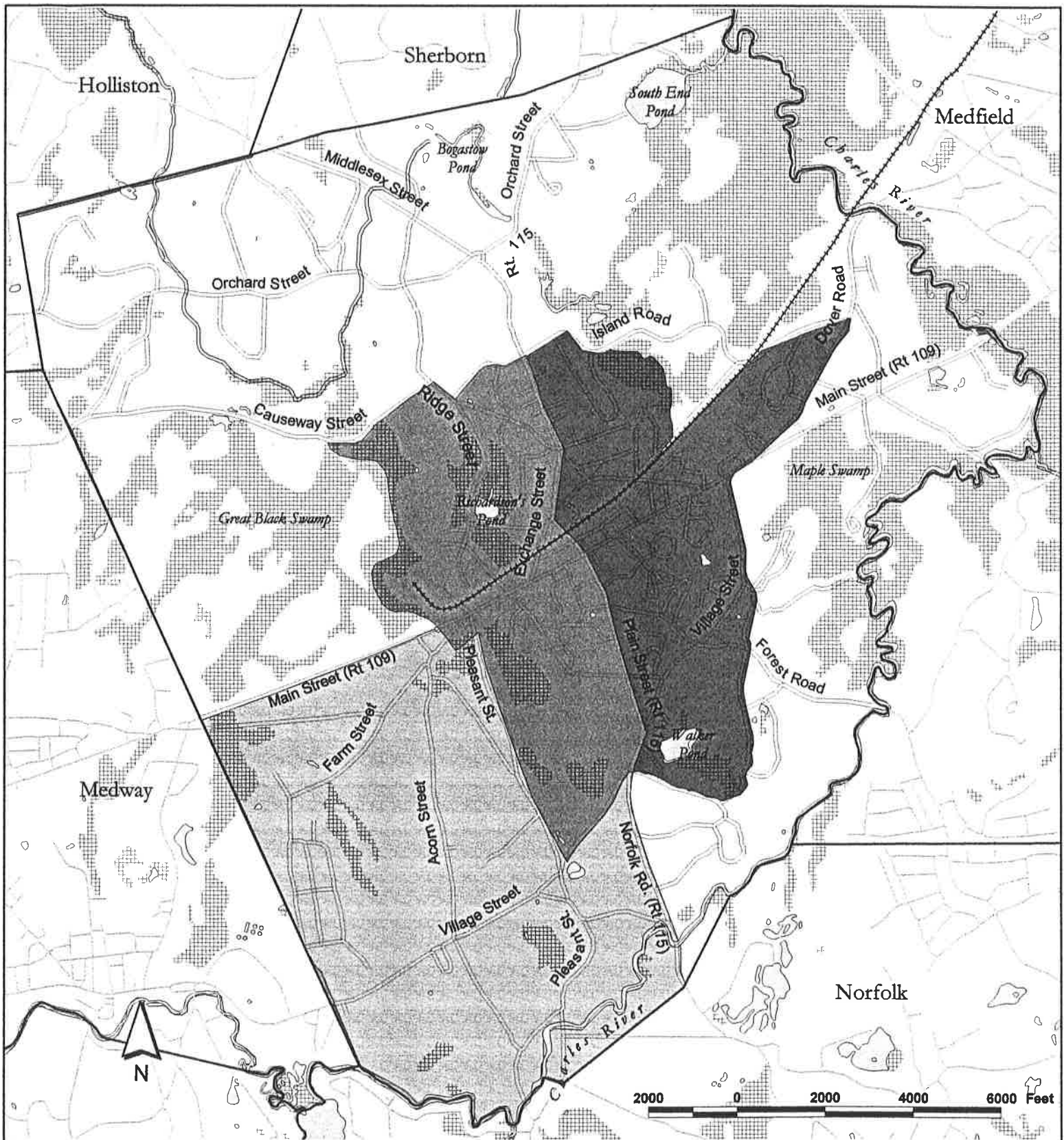
Source: U. S. Census of Population and MAPC Forecasts

Implications of these figures are very important for planning for the town's future. For example, the need for school facilities is expected to decline after the year 2010. The demand for housing for families in the formation phase will decline by 2010 then rise again by 2020. The number of people living in households that will decline in size, the so-called "empty-nesters," will increase, affecting the housing market, as these people seek to move into smaller homes. The elderly population will require smaller homes also, and their numbers are expected to rise significantly by both 2010 and 2020. If the housing types desired by these life-cycle categories are not available in town, families may find it necessary to move elsewhere.

6.2 Population Density

Population densities are highest in the central part of town, where the oldest housing exists. These houses were built during the 19th and early 20th centuries, often on smaller lots than many residences being built today. Throughout the town, population densities are generally inversely related to household incomes. These low densities also appear in the southeast of Millis, where new, larger lot homes have been developed along the Charles River, a desirable scenic and recreational amenity. These low-density sections of town are also the locations for large wetlands that cannot be developed, including Great Black Swamp, Maple Swamp and the wetlands along the Charles River.

In the town center, densities are highest in the section to the east of Exchange Street near its intersection with Main Street. This central area of relatively high density is bounded on the south by Village Street and on the north by Island Street. This is the oldest part of the town, where housing surrounds a long-established industrial and commercial area, reflecting the smaller lot sizes and higher densities typical of the 19th and early 20th centuries. This area near the village center has also been the location for more recently constructed multi-family housing.



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Wetlands

Map 2: Population Density

<500 People/Sq. mi.
 500 - 700 People/Sq. mi.
 700 - 1400 People/Sq. mi.
 1400 - 1800 People/Sq. mi.

Source: 1990 US Census & MassGIS
 For Planning Purposes Only

In summary, Millis is predominately a low-density town with more traditional, higher-density development in its center. As noted in the land use section, the town has extensive open areas in the form of wetlands, agricultural areas, and large housing lots, which have very low population densities.

6.3 Future Population Observations

If existing trends and forecasts hold, Millis will continue to experience moderate growth over the next 20 years. The rate of growth will be very similar to that which has occurred during the last 20 years. Today, Millis has about 8,200 residents; in 2020 it will have a population of about 9,300.

There will be some important changes in the life cycle composition of the population. Highlights of these changes are:

- The most dramatic change will be in the over-65 age group, which is expected to almost double by 2020.
- The school age population is expected to increase slightly by 2010 and then decrease slightly by 2020 to a level just above that of 2000.
- The “empty-nester” phase in the family life cycle will increase significantly by 2010, but then decrease slightly by 2020.

These life cycle changes will affect the demand for schools and the demand for certain kinds of housing.

7. GROWTH MANAGEMENT

7.1 Build-out Analysis

The projected build-out population for Millis is approximately 13,400 residents living in about 4,850 dwelling units. This is substantially higher than the estimated existing population of about 8,200 people living in about 2,950 dwelling units. It is also higher than the 2020 projection of 9,300 people indicating that Millis will still have room for growth after that date.

According to the build-out analysis, based on the 1998 land use inventory, there are about 1,850 vacant acres of developable land in Millis. Developable land is defined as privately owned, non-flood plain land without such protection as long-term conservation restrictions. Lands protected by public or non-profit conservation ownership and flood plain and wetlands regulations are considered non-developable. Map 2 shows the location of vacant developable land along with zoning district boundaries and the type of open land classification. This allows consideration of type of land that may be lost to development, along with the residential densities that are currently permitted. Table 5 on the next page shows the acreage in each of the zoning districts and vacant land categories. It also shows the permitted total number of housing units allowed under current zoning for each district. In order to calculate this figure, 15% of the developable land was deducted for roadways that would be required to serve new residential development.

The build-out analysis shows that 1,900 additional dwelling units could be built on the 1,850 vacant developable acres under current zoning. More than half of the units could be built in the R-S zoning district that permits minimum lot sizes of 25,000 square feet. Much of the vacant developable land in this district is located in the southwest quadrant of town.

An additional 1,900 dwelling units in Millis would result in a population increase of approximately 5,240, using an average household size of 2.76 people (from the 1990 US Census). Since only about 1,100 additional people are forecast for the year 2020, Millis will not be built-out until well after that date.

Table 5: Vacant Buildable Land

	Res.-V Total Acres Units	Res.-S Total Acres Units	Res.-T Total Acres Units	Indus. Total Acres* Acres	Total Units
Cropland	16.8	182.3	233.9	3.9	436.9
Pasture	0.3	0.9	54.3	14.6	70.2
Forest	78.9	540.8	447.6	117.8	507.1
Sand & Gravel		11.3	39.7	10.5	61.5
Open Land	5.0	31.8	53.4	7.6	97.8
Nursery			2.7		2.7
Total	101.1	250	767.2	1,140	831.5
			510	154.5	1,854.2
					1,900

* Note: Industrial Land (I-P) does not permit housing under existing zoning.

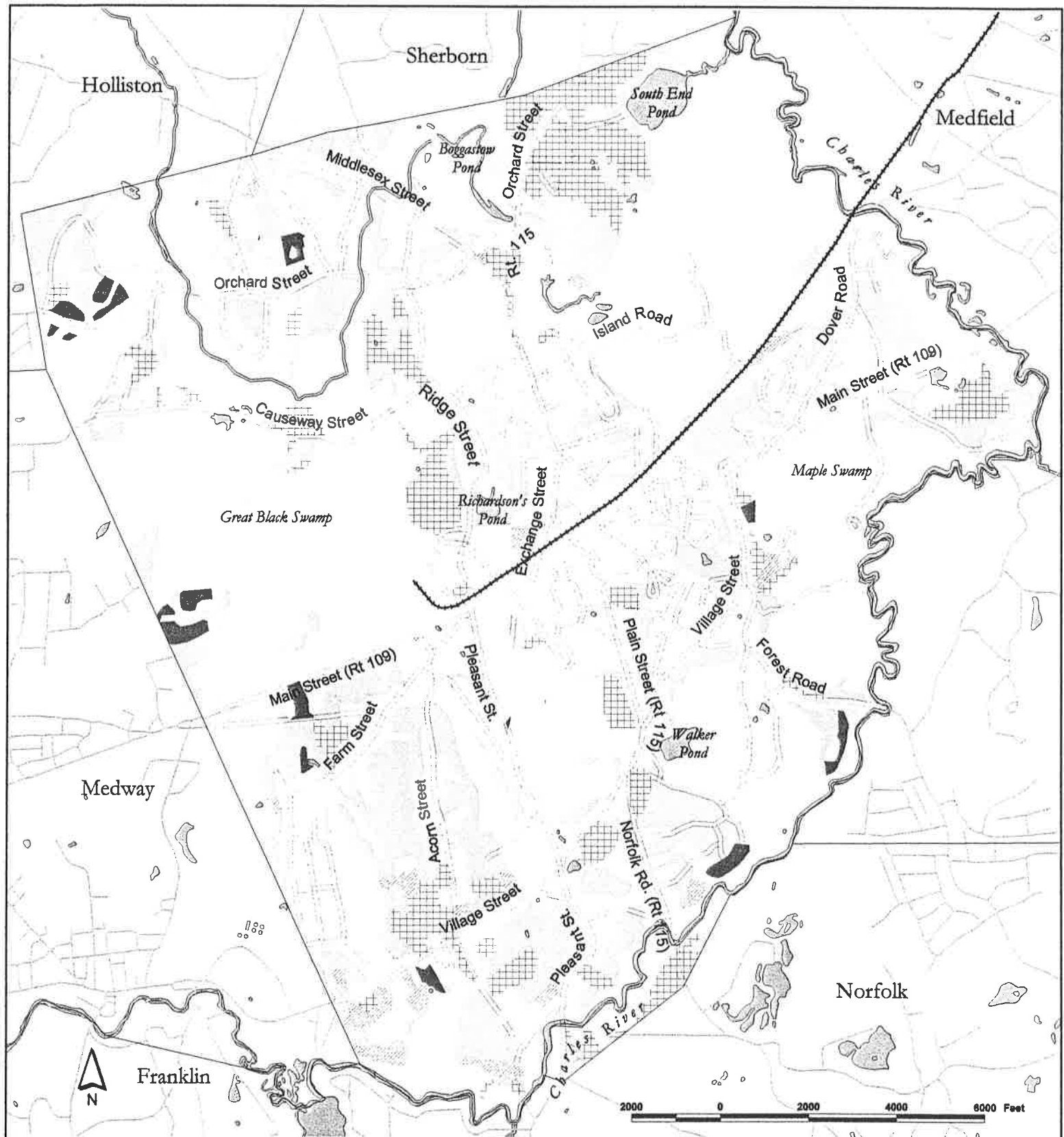
7.2 Future Development Observations

Millis will not be built-out by the year 2020. All of the development projected for that year can be accommodated and there will still be land for additional development.

The areas of town that remain open for development are privately owned upland forests and agricultural land. These areas are located in the northeast quadrant of town along Orchard Street near South End Pond; in the northwest quadrant, also along Orchard Street, near the Glen Ellen Country Club and along Causeway Street; in the southwest quadrant along Acorn Street, Village Street, Main Street, Farm Street, Norfolk Road, and Pleasant Street; and in the southeast quadrant along Main Street near the Charles River and along Dover Road, Forest Road and Village Street. Sand and gravel pits located in the northwest quadrant and in the far eastern portion of town near the Charles River may be suitable for redevelopment.

Other portions of town may also be suitable for certain kinds of private redevelopment. For example, owners have proposed private parcels, in Millis Center and along Main Street, for certain types of commercial redevelopment in recent years.

The Glen Ellen Country Club is a private golf course that is highly susceptible to development at some point in the future. The town has the following interests in supporting its use for open space and recreation. Bogastow Brook, an important tributary to the Charles River and a potential recreation corridor surround it on three sides. It is a major outdoor recreation site in town. It is an important scenic location. At more than 125 acres it represents one of the larger parcels of privately owned land in Millis.



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Source: MassGIS & 1998 Land Use Update
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Town of Millis Massachusetts

Map 3: Vacant Buildable Land

- Cropland
- Pasture
- Forest
- Sand & Gravel
- Open Land
- Waste Disposal
- Nursery
- Already Built or Not Buildable

For all of these reasons, the town should investigate strategies for maintaining it as open space. One strategy, used by some other towns, would be to zone it for conservation/recreation with the current owner's consent.

8. HOUSING

8.1 The Housing Stock

In 1998 there were approximately 1,900 housing structures in Millis. This represents a 12% increase from the 1990 Census figure of 1,669. Only 239 housing structures in Millis were built before 1940, barely 12% of the total housing stock. In general, Millis is a community with a few historic homes and a majority of post-WWII homes. The denser areas of town, near the center of town and along the southwest edge, contain a mix of pre-1940 and more recent housing, including a predominance of one-story Cape houses, relatively small in size, most of which were built in the last 30 years. The Capes are punctuated by developments of larger housing, most built in the last 10-20 years. These are two-story wood houses with generous setbacks. The dominant style outside the town center is the two-story wooden Colonial. Table 6 displays Millis' housing stock by the decade in which it was built.

Table 6: Number of Housing Structures Built by Decade

Decade	Number of Housing Structures Built
Before 1940	239
1940-1949	165
1950-1959	263
1960-1969	324
1970-1979	324
1980-1989	353
1990-1998(approx.)	229
Total	1,897

Source: U.S. Census of Housing and Town of Millis Building Permit Data

From 1960 to the present, a total of 1,230 housing structures were built, 65% of the town's total housing. In the 1990s housing construction in Millis was slower than the prior three decades. The demand for housing in Millis continues to be substantial. Between 1990 and 1997, 229 new single-family residential building permits were granted. Data shows that the favored housing unit size is 2-3 bedrooms and that almost all housing units are detached single-units (Table 8). Building permit data reveals that few multi-family units have been built in the community in the past decade. Table 7 also shows that Millis has notably few studio apartments and 1-bedroom housing units when compared to other similar sized towns.

Table 7: Housing Units by Number of Bedrooms, 1990

Number of Bedrooms	Number of Occupied Housing Units
0	0
1	172
2	657
3	582
4	219
5 or more	39
Total	1,669

Source: US Census of Housing, 1990

The 1990 Census found that Millis had 2,723 total housing units; of these, only 83 (3%) were vacant. One thousand nine hundred and three housing units (74%) were occupied by the owner. About 27% of Millis' housing (737 units) was rented. The median rent in 1990 was \$679; the median sales price was \$145,750. Median sales price increased to \$189,500 by 1999 (*Banker & Tradesman*), a 30% increase.

Table 8: Housing Units by Type of Structure in 1990

Type of Structure	Owner Occupied	Renter Occupied
Detached 1 Family Unit	1,559	132
Attached 1 family Unit	240	95
2 Housing Units (duplex)	53	119
3 or 4 Housing Units	41	100
5 to 9 Housing Units	10	50
10-19 Housing Units	0	145
20-19 Housing Units	0	96
Other Housing Type	0	0
Subtotals	1,903	737
Total Occupied Units		2,640
Vacant Housing Units		83
Total Housing Units		2,723

Source: 1990 US Census of Housing

According to the 1990 Census, the majority of Millis residents (61%) moved into their homes between 1980 and 1990. A total of 34% moved in the three-year period between 1985 and 1988. There was a significant amount of turnover in the community during the 1980s, which outstripped the amount of construction taking place. Therefore, not only did the population grow in the course of the 1980s, it also changed. Large numbers of families left Millis as new ones moved in. In the 1990s, the number of annual home sales increased steadily from 115 to 160 in 1994 (*Banker and Tradesman*).

Housing

Table 9: Housing Starts and Sales

Year	Res. Building Permits	No. of Res. Sales	Avg. Res. Sales Price \$	S.F. Sales Price \$
1990	15	115	145,750	155,000
1991	22	119	149,500	152,000
1992	25	124	145,250	151,000
1993	21	135	145,500	150,000
1994	41	160	152,000	164,000
1995	40	156	144,900	156,000
1996	47	148	148,000	155,000
1997	18	195	160,000	166,000
1998	15		171,000	180,000
1999	26		189,500	205,000
Totals	270	1,468		

Source: Banker and Tradesman and Town of Millis Building Permit Records

Millis' population continues to change as families move in and out of town. This ongoing change and regional growth contributes to the noticeable demand for housing in the community. Further support for this continued demand is evidenced by the very low vacancy rate for both owners and renters in Millis. Owners leave their homes vacant only 1.1% of the time, while rental units go empty just 3.5% of the time. In spite of the demand for housing, costs remain reasonable in comparison to other towns in the region: 61% of owners and 52% of renters spend 24% or less of their incomes on housing.

Millis' housing is in excellent condition according to criteria used by the U. S. Census of Housing. There are no pockets where groups of houses are in poor condition. Millis has virtually no houses without complete plumbing or kitchen facilities, nor are any without telephones. About one third of the households rely on sewers while the remaining two thirds have their own septic systems. The housing densities and land uses suggest that Millis residents are heavily dependent on motor vehicles; indeed, each housing unit in Millis had at least 1.7 motor vehicles in 1990; 48% of the units had 2 motor vehicles and 19% had 3 or more.

8.2 Future Housing Demand

Millis has witnessed a sizable increase in its supply of housing since mid-century. With the growing attraction of semi-rural areas, especially those, like Millis, within relatively convenient distance of larger urban job centers, which combine the pleasures of living in "the country" with reasonable proximity to employment, the outer rings of major metropolitan areas have continued to grow substantially. It is clear that Millis has joined the ranks of those semi-rural communities that are being transformed into suburbs owing to the number of developments built each year. Population projections for Millis

show the town growing by 300 to 500 more people between now and the year 2010, generating a market for between 110 and 180 new homes. By the year 2020, population is expected to grow by an additional 400 to 600 people, creating a demand for another 140 to 220 new homes.

8.3 Affordable Housing

The state defines affordable housing for low and moderate income families as mortgage payments or rent less than 30% of net income, after taxes, for households earning less than 80% of the metropolitan area's average family income. This would result in a home price of no more than \$180,000 based on average interest rates in 2000 for a family of four persons – well below the average sales price for single family homes or condominium apartments in Millis (see Table 9). Of course, the definition of affordability also varies by family size. Affordable housing units have rents subsidized for qualified low or moderate income residents under a variety of assistance programs.

According to the Massachusetts Department of Housing and Community Development there were a total of 83 subsidized housing units in Millis in 1998. All of these were conventional state public housing units. The percentage of total housing units in Millis that met the standards of subsidized housing was 2.9%. The state has set a goal that all municipalities strive to have 10% of their total housing units qualify as affordable. Until that goal is reached, residential developers are allowed to apply to the state for a comprehensive permit for affordable housing projects, which may override the local zoning by-law and be contrary to town desires.

Millis is rightly proud of its economic diversity. More affordable housing units would help meet the local demand for housing by Millis' growing elderly population, by young families in the formation phase and by empty nesters. It is appropriate that these types of housing be scattered about Millis Center, where services and shopping are concentrated. But under a comprehensive permit it could be built anywhere a developer could gain approval from the state to override local zoning.

8.4 Housing Observations

8.4.1 Housing – A Livable Community

Millis is an excellent community in which to live. It has a diversity of housing types, a wealth of environmental resources, especially the Charles River and its associated wetlands, and it is centrally located between major commuting routes for access to employment.

The quality of the housing stock is generally high. Future housing demand will continue at a moderate rate. The town will face a challenge to maintaining its semi-rural character if the present trend of building houses along the town's roads on large lots continues. This pattern of development, if left unchecked, will slowly transform the remaining privately owned upland

forests and many of the town's remaining privately owned farms into home sites.

8.5 Housing Recommendations

It is recommended that Millis continue to provide a diversity of housing types. To accomplish this objective many communities encourage or require all new housing developments of 10 units or more to set aside 10% of their units as affordable, with appropriate safeguards to keep them affordable. It may be appropriate for Millis to offer developers incentives for including affordable units in their developments. This would also assure that low and moderate-income families are not concentrated in a few developments.

It is also recommended that open space protection be encouraged in new residential developments. This type of development can help preserve open space and reduce the visual impact of future housing developments. Millis should also consider adopting provisions for Conservation Subdivision Design, which gives a higher order of protection to natural resources, including water resources. Meetings with developers who want to submit subdivision proposals should be held to encourage them to use Conservation Subdivision Design if it is adopted.

It is also recommended that the town permit housing to be built in some commercial areas, enabling apartments over stores or offices in Millis Center. This provision, with appropriate design controls, will provide some of the small housing units desired by families just getting started, elderly families and individuals, and empty nesters. It will also assure that the center has a more traditional mixture of compatible uses to promote the kind of activity that provides safety and economic stability.

It is also recommended that Millis allow selected infill of housing in Millis Center, through accessory apartments and reduced lot frontage requirements for homes built behind or to the side of existing buildings. Design controls can assure that these provisions are not abused.

The recently enacted Community Preservation Act allows a town to assess a modest surcharge on property taxes to support affordable housing, the acquisition of open space, and historic preservation. Many towns are examining this measure as a potential new tool for achieving these goals. Under the provisions of this act, Millis could add as much as \$270,000 annually for these purposes.

9. ECONOMIC DEVELOPMENT

9.1 Employment Patterns

The number of jobs in Millis is expected to increase by nine percent in the next 20 years. Most of these jobs will be in retail trade and services. This trend means that Millis' commercial growth will have to be carefully planned and managed if the town is to retain its pastoral setting.

Of the 2,215 jobs in Millis in 1998, 30.0% were in wholesale or retail trade, 17.1% were in manufacturing, 21.6% were in the service sector, 14.7% were in government, 8.3% were in construction, and 3.3% were in finance, insurance, or real estate. These are the principal employment categories in Millis, comprising 95% of the total. The largest employers were:

Table 10: Five Largest Employers in Millis

Employer	# Full Time Employees	# Part Time (if specified)
Town of Millis	155	135
General Analine & Firm (GAF)	120	
Ann & Hope	96	
Englehard-Millis	60	
Tresca Brothers	50	

Source: Metropolitan Area Planning Council, Boston, MA

In 1996, the Massachusetts Division of Employment and Training reported that Millis had a labor force of 4,655 people, of which 4,502 were employed. These figures put the unemployment rate at 3.3% or one percentage point lower than the statewide average at that time.

9.2 Employment Forecasts

Employment is limited in Millis, as it is a small community whose residents tend to work outside of town. Still, the town's employment is expected to grow somewhat, with the most significant gains taking place in wholesale and retail trade. Manufacturing, mining, and agriculture (including forestry and fishing) are expected to decline in the next few years, but the growth in retail and services will more than balance this decline.

Table 11: Employment Forecasts for Millis

Year	# Of Employees Working in Millis
1980	1,600
1990	2,100
2000	2,200
2010*	2,300
2020*	2,400
% Change: 2000-2020	+9.1%

* Estimated

Source: Metropolitan Area Planning Council, Boston, MA

Although employment growth is expected to be small in absolute terms (a total of 200 in a 20-year period), this figure could nevertheless have an important impact on Millis. Given current trends, its total employment will grow by 9.1%, a moderate growth rate appropriate for a small community desiring to maintain its quiet, closely-knit community atmosphere. The new jobs, which are expected to be primarily in the retail and service sectors, will present several development opportunities for Millis.

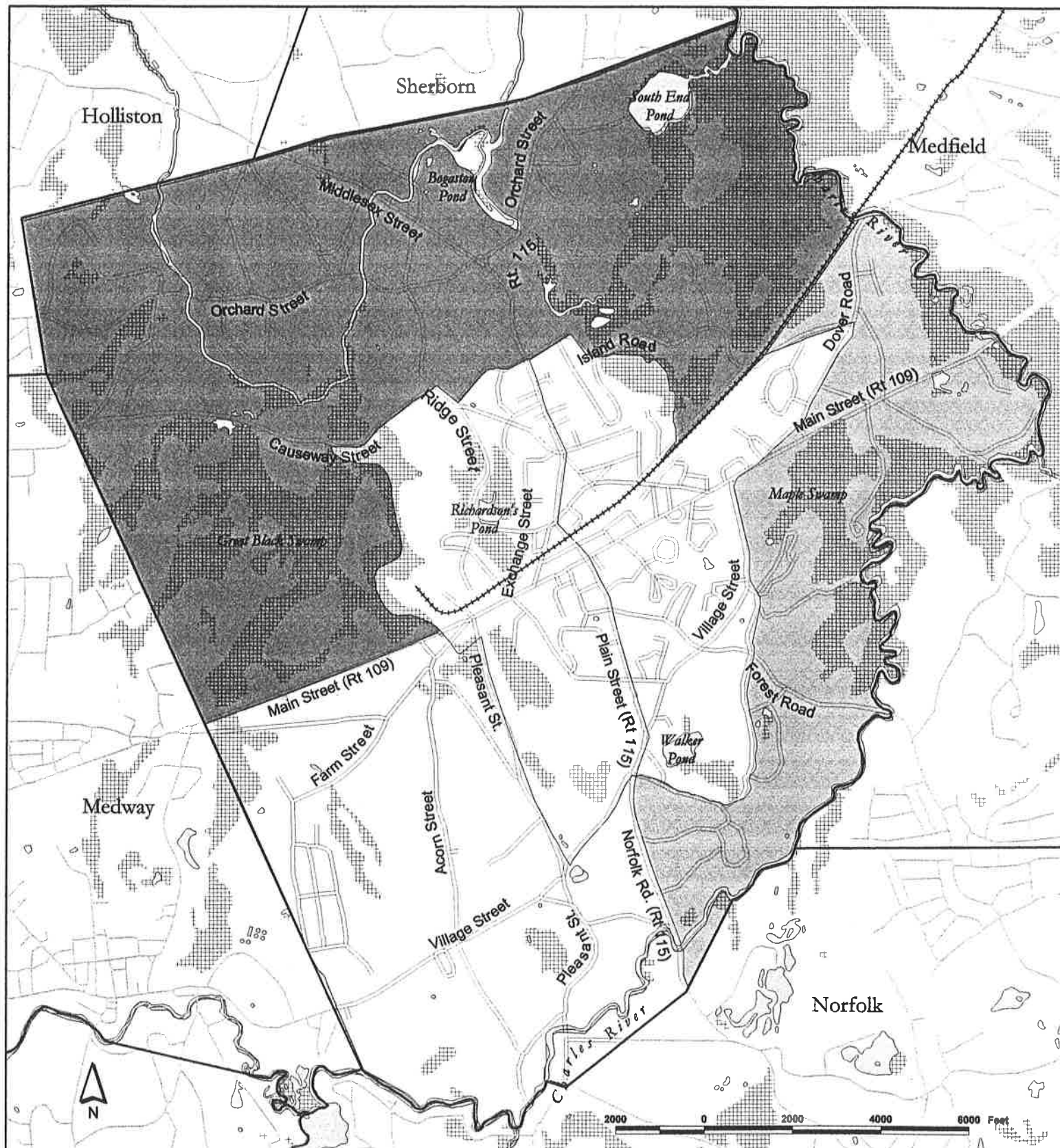
It is important to note that while retail and service jobs are generally low paying, in semi-rural, moderately affluent communities like Millis, they tend to be filled by secondary-wage earners. These are members of households who are not regularly in the labor market and who may be working part-time to supplement the income of the primary wage earner. The benefit of such jobs is that they help to maintain higher household incomes. At the same time, a growing retail sector will enable Millis to offer its residents a wider range of goods and services in the town center, a factor which should help control transportation costs (fewer out-of-town shopping trips), increase the town's property tax base, and provide opportunities to create a more cohesive retail core in the town center.

Employment forecasts prepared by the Metropolitan Area Planning Council (MAPC) are based on regional growth pressures, local market factors such as household income, labor force characteristics, transportation access, available commercially zoned land, and state and regional outlooks for growth in various industries. Local attitudes toward growth are also taken into account in preparing the forecasts.

Table 12: Projected Employment by Categories Based on Past Growth

	1981	1985	1990	1995	2000	2005	2010	2015	2020
Total Employment	1,484	1,868	2,124	1,963	2,406	2,642	2,877	3,113	3,348
Government	475	232	250	272	275	280	290	300	310
Agriculture / Forestry / Fishing	14	11	15	12	10	8	6	4	2
Mining	23	141	0	0	0	0	0	0	0
Construction	67	177	139	162	174	181	196	208	219
Manufacturing	440	387	352	353	317	295	289	275	261
Transportation / Utilities / Communications	27	41	128	120	182	210	258	298	321
Wholesale / Retail Trade	300	675	886	683	957	1,136	1,212	1,323	1,447
Finance / Insurance / R. E.	13	25	59	47	76	92	108	124	581
Services	125	179	295	314	415	440	518	581	648

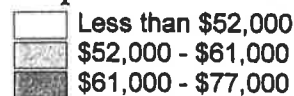
Source: Planners Collaborative Employment Projections



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Map 4: 1990 Household Income



Wetlands

Source: 1990 US Census & MassGIS
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An alternative employment outlook would base projections on trends since 1981. These projections are shown on Table 12. They show considerably more employment in the future than the MAPC forecast (over 900 more jobs by the year 2020). If employment continues to grow in Millis as it has over the last 20 years, there will be more opportunities to create planned commercial and industrial development in town.

9.3 Household Income

Median household income for Millis was \$50,090, as reported in the 1990 US Census of Population. Year 2000 data, when they become available in 2001 will undoubtedly show a considerably higher median household income. In 1990 Millis placed 67th in income among Massachusetts' 351 cities and towns, establishing it among the top 20%, and 36% above the state average. In 1990 the difference between lowest and highest incomes was not great. Those who earned the least in Millis made as much as \$41,000, while those who earned the most made \$61,000 and up, the majority of residents fell in the middle of this range.

Sixty-four percent of the households in Millis had annual incomes between \$25,000 and \$75,000. Twenty-one percent had annual incomes over \$75,000, while about 15% had annual incomes less than \$25,000. In 1990 there were 179 people in Millis living in households defined as below the poverty level. These constituted 2.4% of the population, well below the 1990 statewide average of 8.9%.

Table 13: Annual Household Income Distribution by Income

Income Category	# Of Households	% Of Population
Less than \$5,000	31	1.1
\$10,000 - \$9,999	94	3.4
\$10,000 - \$24,999	319	11.6
\$25,000 - \$34,999	335	12.2
\$35,000 - \$49,999	601	21.9
\$50,000 - \$74,999	808	29.4
\$75,000 - \$99,999	327	11.9
\$100,000 or more	252	9.2
Total	2,767	

Source: 1990 US Census

9.4 Economic Development Observations

Millis has an opportunity to create a vibrant and attractive town center containing a mix of retail, office, and residential uses. To achieve this, new commercial development can be focused away from Main Street, toward side streets and potential green areas, which could create pedestrian-oriented gathering places. Parking for new commercial developments can be behind or to the side of buildings. Buildings can be placed along streets and

sidewalks to create a village atmosphere. Landscaping and street furniture can create a more attractive walking environment. Building and shop-owners can be encouraged to make their premises more attractive through façade improvements, and by displaying plants, awnings and signs that are coordinated in design with adjacent properties.

9.4.1 Economic Development Goals and Policies for Millis

The following goals and policies for economic development were defined in public workshops.

- Broaden the tax base
- Strengthen existing town center commercial activities
- Ensure that appropriate, basic, job skill-oriented education is offered in Millis schools
- Increase viable agricultural activities

9.5 Economic Development Recommendations

9.5.1 Broaden the Tax Base

Finding ways to broaden the town's tax base is of high interest. Reducing or further sharing the tax burden of existing property owners is a widely held objective. Encouragement of new industrial and commercial development within the town could provide a means for expanding the tax base. By encouraging such growth, new revenues could be generated that could contribute to tax base broadening. Any potential growth should be viewed in light of goals aimed at preserving the town's semi-rural character, and focusing activities in and around the town center. The Planning Board should work with developers to achieve these objectives.

9.5.2 Strengthen Existing Town Center

Millis Center presently contains small-scale commercial and industrial activities. It is an appropriate area for future commercial and industrial expansion. An expanded center can draw in new businesses, provide housing for a variety of residents, and increase access to businesses. Expansion can include both growth of existing businesses and development of new ones. Efforts should be undertaken to identify appropriate sites for new businesses and to show how any new development in the Center will be in keeping with the scale and use of land of existing development.

Environmental features such as hills and vistas that help define the Center should be preserved. The commercial strip development character, evident in several places along Main Street should be addressed by applying appropriate design guidelines and controls, including sign and landscape requirements. The Center should have one or more distinctive gathering places for shoppers and others who use it. To be attractive to pedestrians, the Center should have a different focus than Main Street, which is a high-traffic-volume state highway. New commercial development should occur along Plain Street and Exchange Street.

9.5.3 Support Appropriate Job Skill-oriented Education in Millis Schools
Determine what needs Millis businesses have for labor skills. Support Millis schools, including the Tri-County Regional Vocational Technical School, in efforts to provide courses in the skills needed by local businesses. Also support courses provided in skill areas that are likely to be needed by future businesses, to the extent they can be generally identified.

9.5.4 Increase Viable Agricultural Activities
Preserve and protect lands suitable for agricultural activities to allow them to continue and expand. Support such activities by allowing for outdoor markets and roadside stands. A Farmer's Market held one or more days a week, in season, would add greatly to the attraction power of the town center. Encourage additional town purchase of local produce if possible. For example, some organizations that prepare and distribute meals could buy some of their ingredients from local farmers. Encourage agricultural landowners to participate in tax abatement and development rights sales programs to better ensure that land will remain open for potential agricultural uses.

9.5.5 Develop a Merchants' Association
In order to form an active, thriving town center, the businesses must be involved. Creating a Merchants' Association will encourage business owners and managers to meet and deal with each other and combine efforts for community events, promotions, or even a weekly informational fax. This will also encourage merchants (as well as residents) to patronize local businesses. Another way to get businesses involved in improving the town center is by sprucing up the public areas and individual businesses throughout the center.

A Merchants' Association will also provide a means for coordinating building façade improvements, signage, and landscaping and street improvements. Merchants' Associations also typically organize fairs, sales, farmers markets, marketing campaigns, and other events that attract people.

10. NATURAL RESOURCES AND OPEN SPACE

One of the primary goals of the Master Plan is to determine ways in which to preserve Millis' rural character, and thus its open space, natural resources and wildlife. With residential development pressures in the area, the need for preservation of wetlands, woodlands, and recreational spaces has become more acute. By successfully protecting Millis' open space, the dual goals of retaining the rural, small-town feel and protecting important wildlife habitats are served. Millis has extensive woodlands and wetlands; the Federal Government protects many of the wetlands, but the woodlands are vulnerable to development pressures and their visual impact is quickly being replaced by large homes on large lots. The preservation of woodlands has high priority, as does the acquisition of more farmland, the establishment of appropriate linkages between recreational sites, the improvement of access to sites, and the establishment of smaller public recreation amenities near the center of town. These improvements should serve to increase the residents' enjoyment of natural habitats through preserving and upgrading access to them.

10.1 Geology, Topography, and Soils

10.1.1 Geology

The glaciers that covered New England 10,000 years ago left their mark on Millis. A large portion of the town is classified as sand and gravel (Map 5). These areas were deposited as outwash as the glaciers melted and retreated. Soils that have developed over these areas tend to be well or moderately drained sand and gravel. An almost equal area is glacial till or bedrock. These areas were pushed or dragged along by the forward motion of the glacier or exposed by the scouring action of the mile-thick layer of ice. They tend to have well or moderately drained soils but with many more stones and rocks. Floodplain alluvium deposits settled out onto flat areas or wetlands after the glaciers retreated. These deposits are generally not suitable for development.

10.1.2 Topography and Slope

Millis has a maximum elevation of 243 feet at a point near the intersection of Walnut Street and Middlesex Street in the northern end of town. The lowest point is 113 feet where the Charles River flows into the Town of Sherborn. The slope map (Map 6) shows the variation in topography across the town. In general slopes over 15% are considered more difficult and expensive for future developments.

10.1.3 Soil Limitations

The best soils for development are indicated on the Soil Limitations Map (Map 7). They are the better-drained sand and gravel soils. The better-drained stony soils may also be suitable for development, but are often more costly for construction because of the presence of stones. Sewage

contamination of groundwater is a threat if private septic systems are developed on some of these well drained or excessively drained soils.

10.2 Water Resources

10.2.1 The Charles River and Other Surface Water Resources

One of Millis' prize resources is its extensive border with the Charles River. This river corridor offers extensive opportunities for active and passive recreation, education, and habitat preservation. The Fin, Fur, and Feather Club is one of the few establishments that offers easy river access and boating facilities. The Charles River Watershed Association's *Canoe and Kayak Guide* identifies eight launch sites in the Millis section of the river: River Road on the southeast corner of town, the Pleasant Street Bridge, the Route 115 Bridge, the Forest Road Bridge, along Causeway Street in Medfield, the Route 109 Bridge, the Dover Road / West Street Launch in Medfield, and the South End Pond. In addition, since Millis is without a swimming pool, the town's residents stand to benefit greatly from improvements to river access for both active and passive recreation.

The Scenic and Recreational River Protection Act administered by the Massachusetts Department of Environmental Management establishes a protected three hundred feet wide corridor along each side of major rivers. This corridor limits certain activities and uses within the corridor.

The other important stream in Millis is Bogastow Brook that flows through the northern section of town and enters the Charles River wetlands near South End Pond.

Ponds include South End Pond, in the northeast corner of town; Bogastow Pond, in the north-central section of town; Richardson's Pond, at the corner of Ridge and Curve Streets; Walker Pond, in the southeast section of town; and McCarthy Pond, at the corner of Village and Pleasant Streets.

10.2.2 Wetlands

At least 30% of Millis land is wetland including both forested wetlands and non-forested wetlands. Carefully orchestrated access to some of this land will increase community awareness of its value and interest as natural habitat. The U.S. Army Corps of Engineers protects much of the wetland area. Title V, the state provisions that regulate the construction of wastewater treatment facilities and private septic systems, also establishes a buffer zone around wetlands and waterways.

10.2.3 Aquifers

Being surrounded by water, some important aquifers or ground water recharge areas are found within the boundary of Millis. All of the town's wells are located in high yield aquifers. These are shown on the Water Resources Map (Map 8).



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Map 5: Surficial Geology

Sand & gravel
 Till or bedrock
 Fine grained deposits
 Floodplain alluvium

Source: MassGIS
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Wetlands



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Source: MassGIS & Soil Survey
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Map 6: Slope & Topography

- Developed Land & Flood-prone Areas
- 0-3%
- 3-8%
- 8-15%
- 15-25%

Contour Interval = 30ft

Wetlands



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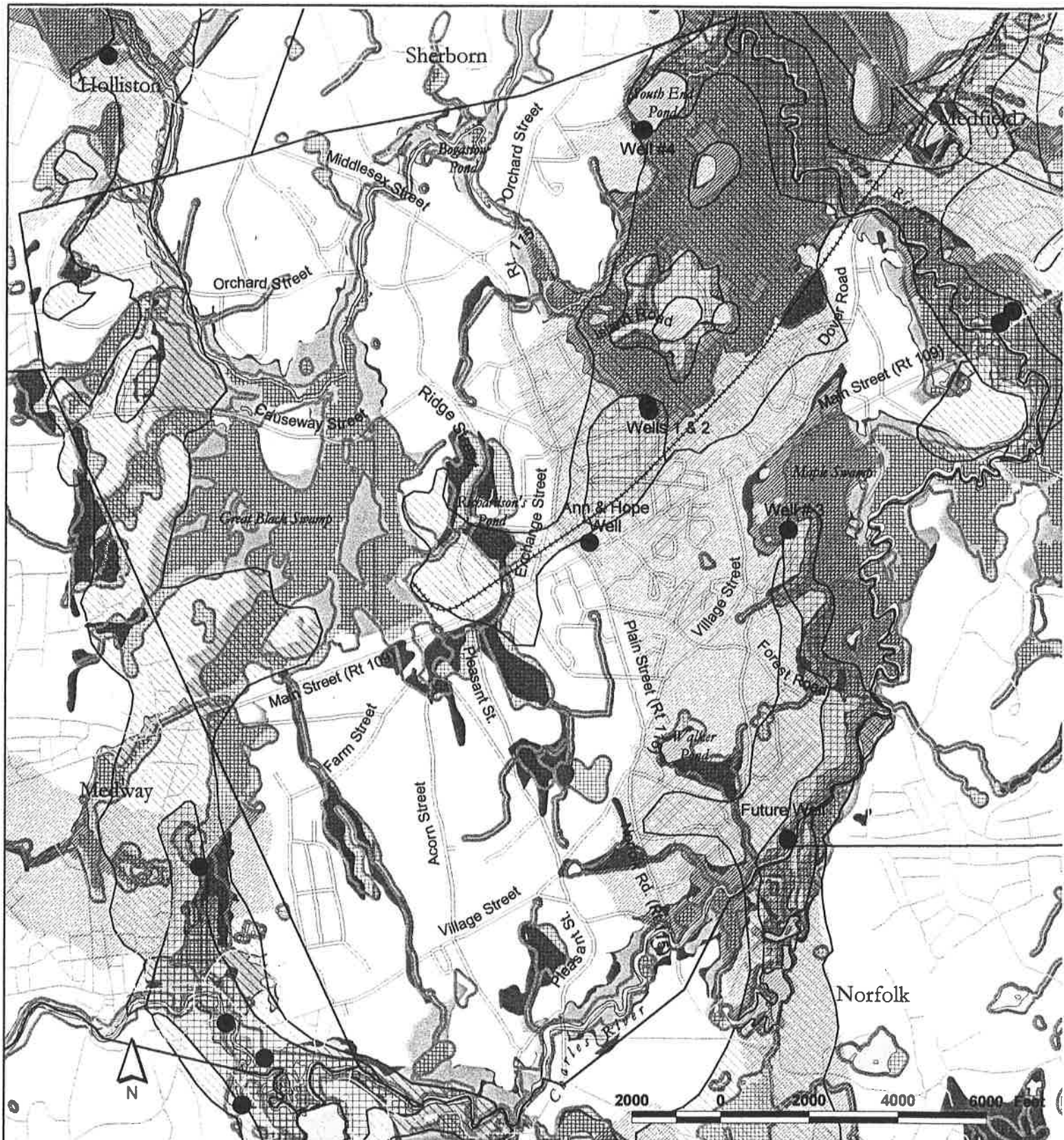
Town of Millis Massachusetts

Map 7: Soil Limitations

- Flood-prone Areas
- Very Poorly Drained
- Well to Mod Drained, Very stony and rock
- Well to Mod Drained, sandy & gravelly

Wetlands

Source: USDA Natural Resources Conservation Service & MassGIS
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Town of Millis Massachusetts

Map 8: Water Resources

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Source: MassGIS - For Planning Purposes Only

- DEP Public Water Supply
- ▨ DEP Approved Zone IIs
- ▨ Aquifer yield 50-250gpm
- ▨ Aquifer yield >250
- ▨ Title 5 Buffer Zones
- ▨ Floodplain 100-year Flood
- ▨ Floodplain 500-year Flood
- ▨ Wetlands

10.2.4 Floodplains

The floodplains along the Charles River and its tributaries indicate the wisdom of keeping development out of wetlands. These wetlands and other low-lying areas serve as giant sponges that can soak up enormous amounts of water and protect downstream areas from more severe floods. This was the reason the Army Corps of Engineers purchased much of the wetland area in town and elsewhere along the Charles River in the 1970s.

10.3 Forested Areas

Millis has an abundance of forestland (44% of its total land area), but the effect of suburban development has begun to mask the visual impact of such natural wealth, as large lots are developed along the town's roadways. One vital aspect of retaining the town's rural quality lies in retaining some of the visual impact of the woods. Forests on higher land are particularly desirable, since such land is both highly visible and highly vulnerable to development pressures and its concomitant erosion and runoff problems. Since Millis has little change in topography, these high points become even more important.

10.4 Wildlife Resources of Millis

Many would look at the Town of Millis and perceive its undeveloped land, agricultural areas, forests, and wetlands as being the dominant land uses. In fact, this undeveloped land now constitutes almost seventy percent of the town's total area. In addition to being home to 8,200 human residents, Millis is also home to a variety of wildlife. A diversity of wildlife is an indicator of the health of the environment and is a source of joy for children and grownups alike. The following describes the town's major wildlife habitats, agricultural land, open land, forests, and wetlands, and some of the wildlife likely to be found in them.

10.4.1 Agricultural Land

The 774 acres of land identified as cropland, 20 acres of orchard, and 111 acres of pasture (a total of 905 acres or 12% of the town's total area) are important resources for the diversity of wildlife in Millis. The agricultural land is located throughout the town, with major concentrations along Route 115 in the northeast corner, along Causeway Street in the northwest corner, and along Village Street in the south.

Grassland birds, like Eastern Meadowlarks and Bobolinks, may still use some hayfields, meadows, and pastures for breeding in Millis. In many other eastern Massachusetts towns, once plentiful fields are now too small and scattered to attract all but a few passing examples of these once plentiful grassland specialists. Many other bird species nest near these fields and use them as well as other habitats for hunting and feeding on seeds, insects, and small mammals. Many migrant songbirds, those that move between northern and southern latitudes with the seasons, can still be found feeding in farm fields in Millis and other nearby towns during migration. Many hawks and owls, such as American Kestrels and Northern Harriers rely on grasslands for

hunting small mammals, while other hawks and owls, such as Red-tailed Hawks and Great Horned Owls, hunt in these fields as well as the town's forested areas. In addition to birds, voles, White-tailed Deer, Woodchucks, Coyotes, and Eastern Cottontail Rabbits often use agricultural areas. Several snakes, such as the Eastern Hognose Snake and the Northern Brown Snake can also be found in fields and pastures.

10.4.2 Open Land

Power line corridors and unused open land, like agricultural fields that are no longer being cultivated, are also areas used by many of the same species of wildlife that use agricultural land. There are just over 209 acres of this type of habitat in Millis (2.2% of the total area). Power line corridors are also often used as movement corridors for wildlife, providing a means of getting from one habitat to another.

10.4.3 Forest Land

The vegetation map identifies 3,487 acres of forest in Millis (44% of the town's total area), including primarily the Oak-Pine association and the Swamp Hardwood association. The Oak-Pine Forest type is located on generally dry outwash soils and sandy tills. The most common trees are Red Oak (with mixtures of other oaks) and White Pine as well as Red Maple, Aspen, hickories, and Gray Birch. Common shrubs and herbs include blueberries, Wintergreen, clubmosses, and Hazel. The Oak-Pine Forest type is found in all parts of town while the Swamp Hardwood Forest type is concentrated along the Charles River in the east and in the Great Black Swamp in the west. The Oak-Pine Forest habitat type is likely to be the most threatened because it is so generally suitable for development.

Some of the common animals found in the Oak-Pine Forest include Spotted Salamander, Redback Salamander, Wood Frog, American Toad, Eastern Milk Snake, and Eastern Garter Snake. Common birds include Red-tailed Hawk, Cooper's Hawk, Mourning Dove, Downy Woodpecker, Great-horned Owl, Northern Flicker, Eastern Wood Pewee, Eastern Phoebe, Blue Jay, American Crow, White-breasted Nuthatch, Brown Creeper, Gray Catbird, Scarlet Tanager, Ovenbird, American Goldfinch, Yellow-rumped Warbler, and Baltimore Oriole. Common mammals include Virginia Opossum, Eastern Chipmunk, Woodchuck, Gray Squirrel, Red Squirrel, White-footed Mouse, Red Fox, Eastern Coyote, Raccoon, River Otter, White-tailed Deer, and Striped Skunk.

Swamp Hardwoods, found in the scattered wetland areas of town and concentrated along the Charles River and other town brooks – Great Black Swamp Brook and Bogastow Brook, are so dominated by Red Maples that they are often referred to as Red Maple Swamps. Other common trees include American Ash, cedars, and Black Gum. Wetland understory shrubs are common, including alder, viburnums, blueberries, and others. Herbs are abundant and include sedges, ferns, False Hellebore, and Skunk Cabbage.



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Source: MassGIS & 1998 Land Use Update
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- NHESP 1999-2000 Certified Vernal Pool
- NHESP 1999- 2000 Priority Habitat
for State-Listed Rare Species
Not equivalent to "Significant Habitat" as designated
under Mass. Endangered Species Act

Map 9: Vegetation

- Cropland
- Pasture
- Forest
- Non-Forested Wetland
- Forested Wetland
- Open Land
- Developed Land
- Urban Open (Park, Cemetery, etc.)
- Nursery

These woodlands are an important component of the town's remaining forested lands and wetland laws generally protect them.

Some of the common animals found in the Swamp Hardwood association and not in the Oak-Pine Forest include Northern Spring Peeper, Gray Tree Frog, Bullfrog, Common Snapping Turtle, Painted Turtle, Northern Water Snake, and Northern Ringneck Snake. Birds common to this habitat and not so likely encountered in Oak Pine Forest include Great Blue Heron, Green Heron, Wood Duck, Eastern Screech Owl, Barred Owl, Tufted Titmouse, Carolina Wren, Black-capped Chickadee, American Robin, Northern Mockingbird, Cedar Waxwing, Red-eyed Vireo, Yellow Warbler, Song Sparrow, and Common Grackle. Many of the same mammals found in the Oak-Pine association are also likely to be found in Red Maple swamps.

10.4.4 Forest Fragmentation

Many ecologists agree that one of the biggest threats to natural communities and biodiversity in Massachusetts and much of the rest of New England is the fragmentation of large expanses of uninterrupted forest habitats. Species of birds that are particularly threatened by forest fragmentation are underlined in the above lists. Many wildlife species, like these, depend on the interior of forests (areas far from an edge) for a significant portion of their life cycle and many biologists agree that the loss of large uninterrupted tracts of forest is contributing to the decline of many species of birds and mammals.

As a result, the remaining uninterrupted forests in Millis and surrounding towns particularly valuable for a broad diversity of wildlife. Three relatively large forest areas remain. The Great Black Swamp, on the eastern side of town, is the single largest track of unbroken forest. Another large forested area is to the south of South End Pond and the west of the Charles River marshes. The third large forested area is to the east of Village Street, along the Charles River.

10.4.5 Non-forested Wetlands

The vegetation map identifies 826 acres of non-forested wetlands in Millis (11% of the total area) and 35 acres of water. These rich wildlife resources include bogs, meadows, shallow marshes, deep marshes, shrub swamps, and ponds.

Bogs typically provide habitat for a small number of species not found in other habitats including Pickerel Frog and Spotted Turtle. Birds found in Bogs that are uncommon in other habitats may include Palm Warbler and Wilson's Warbler, and mammals may include Little Brown Bats and Silver-haired Bats.

Meadows are characterized by sedges and cattails, surface water depths to 6 inches in winter and early spring, and exposed but saturated soil surface in summer, and typically provide habitat for the following wildlife species:

Northern Leopard Frog, Big Brown Bat, Star-nosed Mole, and Short-tailed Shrew.

Shallow Marshes are characterized by persistent emergent vegetation such as cattails and water depths to 1.5 feet, and provide preferred habitat for the following wildlife species: Northern Spring Peeper, Painted Turtle, and Northern Leopard Frog. Common birds may include Great Blue Heron, Green Heron, American Black Duck, Mallard Duck, Eastern Screech Owl, Tree Swallow, Red-winged Blackbird, and American Goldfinch. Common mammals may include Virginia Opossum, Little Brown Bat, Muskrat, Mink, and Raccoon.

Emergent vegetation and floating-leafed plants such as water lilies (*Nymphaea* and *Nuphar*), and water depths to 6 feet characterize Deep Marshes. They typically provide preferred habitats for the following species: Painted Turtle, Spotted Turtle, and Red-spotted Newt. Common birds may include Pied-billed Grebe, and American Coot. Common mammals include the same species found in Shallow Marshes.

Woody shrubs such as Buttonbush, Alder, Silky Dogwood, and Red Maple, and White Ash saplings characterize Shrub Swamps. They typically provide preferred habitat for the following species: Black-crowned Night Heron, Common Snipe, Glossy Ibis, Common Yellowthroat, Common Grackle, Song Sparrow, Swamp Sparrow, and American Goldfinch. Common mammals include Virginia Opossum, Little Brown Bat, Eastern Cottontail, and Raccoon.

Ponds are small bodies of water that are characterized by emergent vegetation such as cattails or floating-leafed plants, or both. Vernal pools are small ponds that are not connected to streams or other water bodies. Thus, they depend on snowmelt and rainwater and often become dry by late summer. Ponds and vernal pools typically provide preferred habitat for the following wildlife species: Spotted Salamanders, Wood Frogs, Blue Spotted Salamanders, Jefferson Salamanders, Northern Spring Peepers, Bullfrog, Pickerel Frog, Eastern Painted Turtles, Little Brown Bat, Big Brown Bat, Mink, and Beaver.

10.4.6 Rare Species

The 1999-2000 Atlas of Estimated Habitats of State-listed Rare Wetland Wildlife published the Massachusetts Natural Heritage & Endangered Species Program lists one area for occurrences of rare or endangered plants or animals in Millis – the River Bulrush (*Scirpus fluriatilis*). The area is located along the Charles River, east of Forest Road and Village Street. However, there are likely to be isolated locations in town that provide habitats for other rare or endangered plants or animals.

Natural Resources

There are no state-certified vernal pools in Millis. Vernal pools are critical habitats for salamanders, Wood Frogs, and a wide variety of other wildlife. Salamanders and Wood Frogs migrate from surrounding forested uplands to these pools in the spring to breed. Without these vernal pools we would lose these animals. It is likely that there are other important wildlife habitats and several vernal pools in Millis. An effort to have volunteer amateur or professional naturalists search for rare and endangered species and vernal pools, so that they can be considered and protected as future development occurs should be encouraged.

10.5 Open Space and Recreation

Millis has a Draft Open Space and Recreation Plan, prepared in 1998 by the Open Space Advisory Committee and its consultants. The plan is briefly summarized below.

10.5.1 The 1998 Draft Open Space and Recreation Plan

10.5.1.1 General Features

The Draft Open Space and Recreation Plan (Open Space Plan) includes the results of two surveys of town residents. The first was done in 1986 and dealt primarily with level of use of existing facilities; the second was done in 1996 and dealt primarily with attitudes and opinions about open space and recreation facilities. Relevant public actions taken subsequent to the open space planning process include two 1998 Town Meeting votes, which dealt with over-riding Proposition 2^{1/2} and appropriating local share funds to acquire conservation lands (the Cassidy Farm and the Stanton / Verderber property).

In its analysis, the Draft Open Space Plan identifies the following categories of needs for open space and recreation:

- Resource Protection
- Groundwater Protection
- Environmental Conservation
- Historical and Agricultural Preservation
- Community Needs as Expressed in Recreational Standards

The Open Space Plan deals extensively with residential development and to a lesser degree with commercial and industrial development. The Plan also recognizes the impacts of further development on demand for municipal services, especially schools.

Importantly, recognition is given in the Plan to the temporary nature of open space protection through reduced property taxation as called for in Chapter 61, the state tax abatement program for certain types of open space. Many open space and recreation plans fail to recognize adequately the temporary nature of this program that often gives the impression that lands currently undeveloped will remain so indefinitely. The Plan also recognizes the diverse uses and contributions of town open space lands: for passive recreation,

environmental and science education, protection of ground water resources, wildlife, and farming.

10.5.1.2 Open Space Plan Goals

The Open Space Plan sets forth goals and objectives for open space and recreation. These are:

Open Space Goals

- Work with the Department of Environmental Management to promote the Bay Circuit Greenbelt Plan.
- Protect the town's remaining farms.
- Preserve, protect, and enhance surface water quality as it relates to fresh water habitat, interaction with groundwater resources, and recreation.
- Preserve, protect, and enhance the quantity and quality of the town's present and future wells used for drinking water.
- Identify, preserve, and protect Millis' heritage and character, which is found in its unique physical features and ecologically sensitive areas.
- Develop opportunities and methods for environmental education.

Recreation Goals

- Determine long-range recreational needs and strategies.
- Preserve and promote open space as a recreational resource.
- Provide access to town-owned land and conservation land.
- Develop diverse park and outdoor recreation facilities with increased accessibility for all Millis residents, including facilities for handicapped, special needs, and senior citizens.

The goals are further supported by more specific objectives and a set of policies and actions.

10.5.1.3 Five-Year Action Plan

The Open Space Plan contains the following recommendations in its Five-Year Action Plan Section. These are intended to occur in the next 5 years, between 2000 and 2005.

Table 14: Open Space Action Plan

General Actions	Year
Form an Open Space and Recreation Committee to include Town Department Heads, committee members, and interested citizens. The Committee will coordinate the tasks of implementing the Open Space Plan and developing a management / maintenance plan for open space and recreation.	All Five Years
Provide the conservation fund with adequate resources to acquire open space properties on short notice.	All Five Years
Conduct a study to determine the town's maximum build-out under existing regulations and take measures to protect areas with important open space through zoning changes. (Note: Build-out analysis done in Master Plan.)	Year 2
Initiate a town-wide environmental education program both in the school curriculum and for the public at large.	Year 2
Update the Open Space Plan	Year 5



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● Canoe Launch
 Wetlands

Map 10: Existing Open Space

■ Federal Land (ACOE)
 ■ Private (Inholding, Con. Res., & Chap. 61)
 ■ Town Land
 ■ Non-profit Organization
 ■ State Land
 ■ Unknown Ownership

Protection of Natural Resources	Year
Propose and support enabling legislation to permit towns to establish an on-going fund for aquifer protection studies and acquisitions.	Year 2
Apply for funding to conduct a complete aquifer delineation study from the Aquifer Land Acquisition Program or from other grant sources.	Year 2
Conduct aquifer and water supply demand studies.	Year 1
Work with the Massachusetts Division of Fisheries and Wildlife to identify areas for possible acquisition by the State for the protection and enhancement of fish and wildlife habitat.	Year 1
Adopt by-laws to include Environmental Review and Site Plan Review of all development projects in floodplain areas.	Year 2
Protection of Natural Resources	Year
Require 50- to 100- foot buffer zones of natural vegetation along all rivers, streams, and ponds to encourage their use as wildlife corridors and to protect water quality. (Now done under the new Rivers Act.)	Year 1
Preservation of Farm Land	Year
Work with the Conservation Commission to initiate discussions with owners of farmland for developing strategies of open space protection before development plans are made.	Year 1
As a priority, approach owners of farms that provide crucial linkages to the Bay Circuit wildlife corridors. Determine what portions of the farms should be protected.	Year 1
Apply to the Agricultural Preservation Restriction (APR) and Self-Help Programs for assistance in protecting selected farms.	All Five Years
Improvement of Recreational Opportunities	Year
Develop and implement strategies to minimize vandalism of recreational facilities, including public awareness campaigns, and encourage active community participation in facility development and maintenance.	Years 1 & 2
Review recreation areas to identify potential barriers to access for persons with disabilities and to recommend locations for parking for the handicapped.	Year 1
Identify locations within the town that would lend themselves to the development of small neighborhood parks, which would provide easily accessed passive recreation for all Millis residents, especially young children and the elderly. Town-owned lands that are candidates for such facilities are located at: 50 Walnut Street, South End Pond, off Daniels Street, Van Kleek Road (2 locations), Richardson's Pond, Water Tower / Farm Street, Dyer / Pleasant / Village Streets, and Brandywine / Ticonderoga / Independence Streets.	Years 1 & 2
Obtain neighborhood support for the design, construction, and management of new mini-parks.	Years 2 & 3
Apply to the Federal Land and Water Conservation Fund, or to other sources of funding, for a grant to develop facilities outlined in the Oak Grove Master Plan.	Year 2
Design and build a sidewalk on Exchange Street between Union Street and Orchard Street to provide safe and convenient pedestrian access to Oak Grove Farm.	Year 2
Promotion of the Enjoyment and Use of Open Space	Year
Explore the possibility of obtaining an easement or fee ownership of land at the intersection of Auburn, Ridge, and Curve Streets, as a natural area extension of Centennial Park, and as a wildlife corridor extension from Richardson's Pond and the Great Black Swamp.	Years 1 & 2

Promotion of the Enjoyment and Use of Open Space	Year
Contact the Bogastow Fish and Game Club and the landowners along Bogastow Brook to explore the possibility of developing a public trail along the brook. Request support from the MA Division of Fisheries and Wildlife.	Year 1
Determine whether there are additional roads that should be designated as Scenic Roads.	Year 1
Explore the feasibility of repairing the Bogastow Dam, and restoring Bogastow Pond as a recreation area for fishing, canoeing, and ice-skating.	Years 1 & 2
Promote the Bay Circuit Greenbelt.	All 5 Years
Pursue wildlife corridor protection as outlined in the Bay Circuit Implementation Plan.	Years 1 & 2
Review all canoe launch possibilities and develop safe, convenient, and well-maintained facilities at selected locations.	Years 1 & 2
Work with Bay Circuit Program and all neighboring communities to coordinate the establishment and promotion of scenic roads, trails, waterways, and corridors.	Years 2 & 3
Send a representative of the Open Space Committee to regional Bay Circuit meetings.	Year 1
Develop a means for implementing the Open Space Plan that involves coordination with surrounding Bay Circuit communities.	Years 2 & 3
Investigate the use of the old Conrail railroad running between Medway and Millis as a walkway. The Massachusetts Highway Department may have available funds to acquire rights-of-way for this purpose.	Year 1
Enhance Scenic and Historic Resources	Year
Initiate discussions with the Millis Historical Commission to consider the establishment of historic overlay districts in Rockville and the Oak Grove Farm / Orchard Street area. The Historical Commission will need to accept primary responsibility for the historic districting efforts.	Year 1
Determine the feasibility of developing a scenic overlook at or near the Route 109 Bridge over the Charles River.	Year 1
Initiate discussion with the Millis Department of Public Works on developing a scenic overlook at the town-owned ten-acre parcel at the end of Van Kleeck Road.	Year 1

10.5.1.4 Support for the Open Space Plan Policies

The Millis Open Space Plan urges financial commitments by the town for both protection and acquisition of open lands and for their management and maintenance. Such commitments are very important and should be put in terms of budget practices used in the annual and capital budgeting processes. The town should consider passing a bond to be used to purchase strategically located open land as it becomes available.

The Plan recommends the acceptance of donations of land and/or money for open space acquisition. A further step in this recommendation could be establishment of a land trust that could receive donations that would not normally be given to the town. If land trusts already exist and operate in Millis they could be encouraged by the town to actively seek donations of land and money.

The Plan also recommends encouragement of land set-asides by developers. The Master Plan recommends a number of modifications to existing zoning and subdivision regulations that would facilitate this provision.

Both recreation and conservation needs are identified in the Open Space Plan. Justification for conservation needs is expressed primarily in terms of protecting resources. Justifications also include the need to manage growth to slow down the pace of development to achieve and preserve a balance with the services to be provided, and to balance the tax base. All of these factors are also important aspects of the Millis Master Plan 2000.

Establishment of an Open Space Implementation Committee is recommended to better assure that the goals of the Open Space Plan are met, and that environmental education occurs. A similar implementation group may be advisable to aid in carrying out the intents of the Master Plan after it is adopted. Still another group, formed under the provisions of the new Community Preservation Act, could be formed. It may be advisable to coordinate or combine the three potential groups or make them part of an overall group. The Selectmen, Planning Board and the Conservation Commission should explore these possibilities.

10.5.1.5 Zoning Implications of Open Space Plan

There are several zoning implications inherent in the Open Space Plan. The Plan recommends prohibiting unacceptable uses in the Watershed and Flood Hazard Districts. It also recommends adopting zoning by-laws to include requirements for additional environmental review and site review for proposed developments in wetland and floodplain resource areas, as well as for all multi-family projects of more than three units. These provisions are generally consistent with similar recommendations made in the Master Plan.

10.5.2 Corridors and Linkages

There is publicly protected open land scattered throughout the town, Oak Grove and Cassidy Farms to the north, Stanton / Verdver Farm to the southwest and Prospect Hill Cemetery near the center. Missing are adequate linkages between each of these sites and to the center of town. There are no signed bike routes in the town, and although many of the routes between the aforementioned sites are scenic, they are also narrow with blind curves. Public confidence and safety would be improved if the town painted bike lanes on some appropriate roads and designated specific bike routes linking the town's major open spaces.

Creating pedestrian and bike trail connections would increase pedestrian circulation in the town center, reduce traffic, and provide access to historic parts of Millis. They would also enable movement between recreational pursuits, historic sites like the cemetery and the railroad depot, the Veterans' Memorial Building, the town center, and commercial establishments, thus establishing stronger relationships between outdoor recreation, historic awareness and education sites, the civic center, and shopping activities.

Should the existing rail line cease to be used, the town would then have the chance to extend its greenway to the Charles River at the Medfield border. If the rail line is reactivated at some time in the future for commuter service, its use as a trail could be terminated.

10.5.3 Community Access

Without adequate linkages to the town's open spaces, many of the town's residents, particularly the elderly and disabled, will be limited in their enjoyment of such public amenities. By expanding the number of small parks interspersed throughout the town, particularly in the center, and by making these parks compliant with the Americans with Disabilities Act (ADA) requirements, Millis will do much to expand access to open space. Pocket parks should include amenities such as seating areas and shade trees. The parks will be used best when they are tailored to the needs of specific user groups like mothers with very young children, young school-age children and the elderly.

10.6 Natural Resource and Open Space Observations

Beyond the visual clutter of Route 109, Millis is essentially a semi-rural community with substantial natural resources still largely untouched by human settlement. Several goals expressed in public meetings, during the Master Plan process, deal with preserving natural resources and providing additional access to it, so it can be more broadly enjoyed. These goals are to:

- Protect natural resources.
- Improve water quality and educate the public on water resource protection.
- Increase, enhance, and maintain open space and recreation opportunities.

These goals were formulated through discussion with the Planning Board and representatives of the general public. In general the goals seek to preserve Millis' rural character and open space, improve the overall image of the town, and enhance Millis' sense of community. Other related goals such as the enhancement of a town center have also been closely considered.

While growth pressures on Millis over the next 20 years are likely to be moderate, there is still a need to actively protect those natural resources most highly related to the realization of these goals.

The 1998 Draft Millis Open Space Plan and the natural resource and open space goals and recommendations of the Master Plan are completely compatible with each other and mutually supportive.

With Oak Grove Farm and two other farms recently purchased by the town, the Millis community has a wide array of recreational options. The town

Open Space and Recreation

greatly values Oak Grove Farm and its assets, including its trails, playing fields, and playground, which are all well used. A sidewalk or trail from the center of town to Oak Grove should be built. Other active recreational sites are at Waite's Mill Park, the Memorial School grounds, one other school ground, and a new children's playground near the Veterans' Memorial Building.

The town would benefit from more recreational sites and from establishing small "pocket" parks throughout its neighborhoods, particularly near the town center. Special attention should be given to the needs of the elderly and the younger children in designing these parks.

There is no formal swimming area in Millis. A beach area provided with access, and maintained either at a pond, possibly at South End Pond, or along the Charles River would greatly expand recreational opportunities. Improved access to the Charles River will also expand community options for active and passive recreation. The town may also consider building trails through some nearby wetlands to facilitate the enjoyment of Millis' natural surroundings and foster such activities as bird watching and environmental education.

The town should examine the feasibility of establishing bike lanes on its more popular scenic roads, especially those that lead to favorite recreational areas. The north side of Route 115, Orchard Street, Causeway Street, and Island Road are some possibilities. Bike lanes or signage increase driver awareness, enable residents to enjoy the scenic aspects of these roads safely, and encourage active recreation.

10.7 Natural Resource and Open Space Recommendations

Listed below are recommended actions to help realize the goals for natural resources and open space. Also see the 1998 Millis Open Space Plan.

- Encourage additional landowners to participate in the Chapter 61 tax abatement program to diminish financial incentives to develop farm or forest land.
- Continue to offer residents, at Town Meeting and in town elections, the option to purchase open land recommended in the Open Space Plan as it becomes available.
- Work with land trusts and other organizations that purchase open land as a means of preserving the town's character.
- Establish a town fund for purchase of open space.
- Establish Conservation Subdivision Design to preserve some open character in new development.
- Include incentives for developers to set aside land in new developments and other subdivisions for open space and public trails.
- Improve access to the Charles River for recreational use.

- Create a continuous greenway along the entire ten-mile length of the Charles River and along Bogastow Brook in Millis.
- Establish limited access to protected wetlands for environmental education and enjoyment of natural habitats.
- Protect wooded open spaces, particularly hilltops.
- Explore adopting provisions of the Community Preservation Act as a means of funding open space acquisition.
- Protect natural corridors and linkages between protected open spaces to maintain wildlife corridors and provide for trails.
- Establish trail or sidewalk linkages between the center of town and peripheral open spaces.
- Increase access to open spaces.
- Improve access to open space and recreational facilities for the elderly, the very young, and the disabled.
- Establish pocket parks in the town center.
- Explore strategies for retaining Glen Ellen Country Club as open space.

11. TRANSPORTATION

11.1 Existing Conditions

There are about 50 miles of public roads in Millis. Two of these are state routes, Route 109 and Route 115. These roads bisect the town east and west, and north and south respectively. The town center is at the intersection of Routes 109 and 115. Daily traffic volumes on the roads are shown on Map 10.

Part of Route 109 will be substantially improved between 2000 and 2002 as part of a two-phase project. It carries in the range of 15,000 to 25,000 vehicles per day and is an important sub-regional route. Phase One of the corridor improvement project will be made from the Medway town line to Spring Street. Phase Two, scheduled between 2002 and 2006, will cover improvements from Spring Street to the Medfield town line. Improvements will include intersection redesign, entire route repaving, curbing, sidewalks, plantings, historic streetlights and additional traffic controls. New traffic lights will be installed at the intersections of Route 109 (Main Street) and Hammond Lane, Pleasant Street and Milliston Road. Farm Street will end at Hammond Lane so that it does not intersect with Main Street. Traffic from Farm Street will reach Main Street via Hammond Lane. All improvements are estimated to cost \$7.5 million. These improvements will both improve traffic flow and enhance Millis Center.

Recent rehabilitation work on the Myrtle Street Bridge over the Charles River has been completed. The Dean Street Bridge over the Charles River in the southwest corner of town is being examined as of October 2000 to determine whether improvements are warranted. Improvements to the Plain Street Bridge (Route 115) over the railroad are also scheduled. No other major work is proposed for Route 115.

Roadway maintenance is dependent largely on the availability of Chapter 90 funding from the state. This limits the extent of road maintenance and improvement projects that can be done each year. Snow is hauled to town-owned property in a Zone II aquifer recharge area.

The following roads in town have been designated "Scenic Roads," requiring a hearing before any changes within their rights-of-way can be made.

Table 15: Scenic Road Designations, by Year Designated

Year	Roadway
1974	▪ Causeway Street (from Ridge Street to the Medway town line) ▪ Orchard Street (from Walnut Street to the Holliston town line) ▪ Forest Road (from Village Street to the Medfield town line) ▪ Island Road (from Ridge Street to Exchange Street, and from Exchange Street to Dover Road)
1975	▪ Ridge Street ▪ Acorn Street ▪ Himelfarb Street ▪ Myrtle Street
1976	▪ Baltimore Street ▪ Larch Street ▪ Pleasant Street ▪ Spencer Street

Source: Millis Planning Board

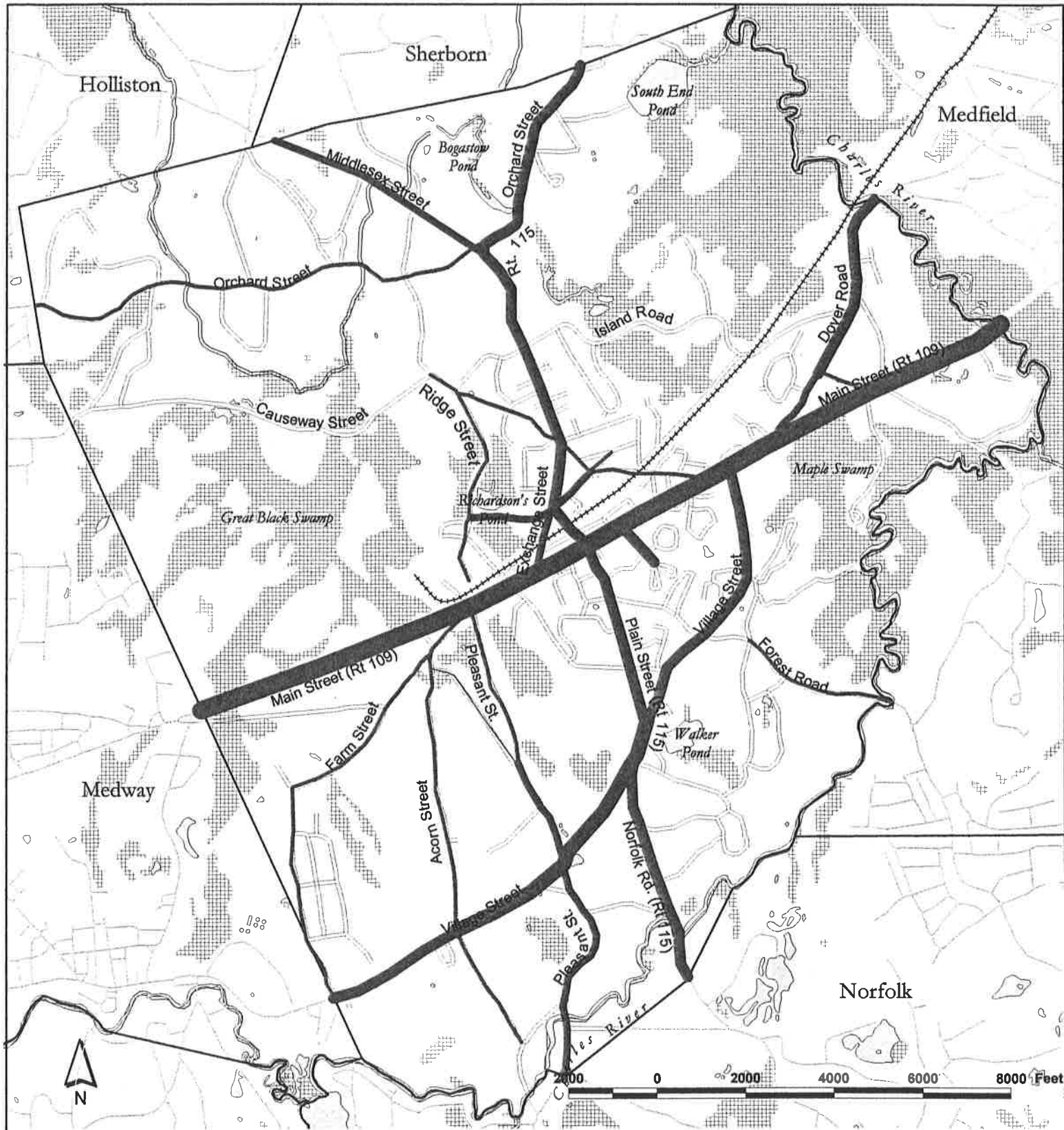
11.1.1 Traffic Safety

Between May 1997 and July 1998 there were ten areas where six or more traffic accidents occurred. In 2000 (through September), four of the same locations were identified as having six or more accidents. These are typically the sites of traffic accidents caused by a variety of reasons including poor sight distances, high traffic volumes, lack of traffic controls, and poor roadway geometry. The intersection of Main and Plain Streets (Routes 109 and 115) continues to be the most dangerous in town. A major objective of the Route 109 improvements mentioned above is to address this issue of traffic safety. The rebuilding includes improving sight lines, improved and increased traffic controls, and improved geometry at the intersections along Route 109.

Table 16: Number of Motor Vehicle Accidents by Location, 1997, 2000

Location	1997 (15 months)	2000 (9 months)
Main Street and Plain Street	23	11
Main Street from addresses 725 to 808	22	4
Milliston Road at Milliston Common	17	6
Intersection of Main Street/Pleasant Street/ Farm Street	14	3
Village Street from addresses 83 to 118	11	8
Intersection of Orchard Street/Middlesex Street	8	8
Intersection of Main Street / Exchange Street	8	4
Intersection of Main Street / Dover Road	7	4
Intersection of Main Street / Village Street	7	5
885 Main Street (Police and Fire Station)	6	NA
Total	123	53

Source: Millis Police Department



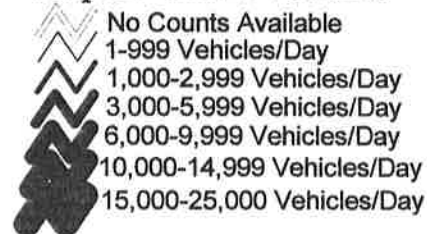
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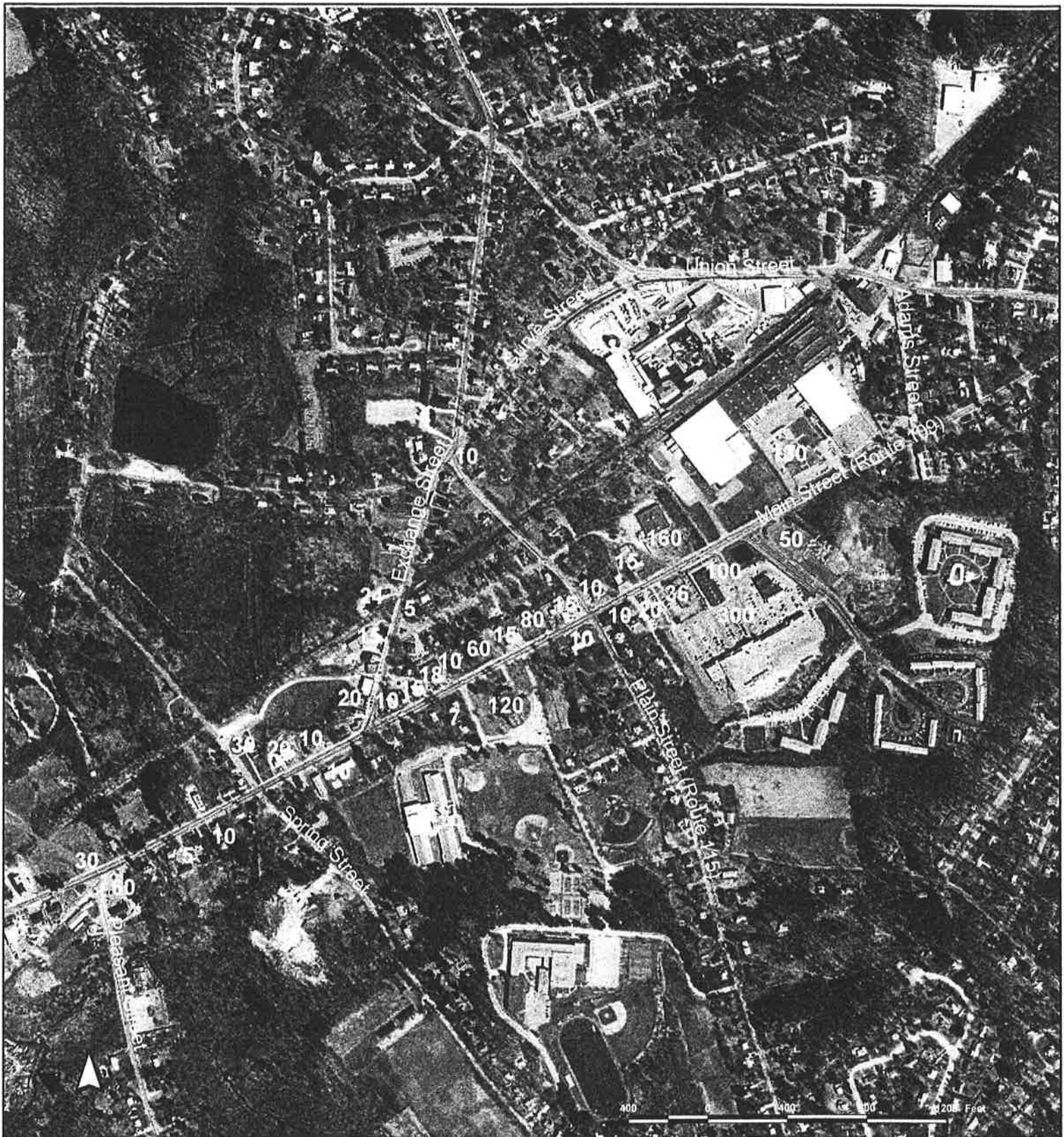
Town of Millis Massachusetts

Source: Massachusetts Highway Dept.,
 Norfolk County & MassGIS
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Wetlands

Map 11: Traffic Volumes





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Town of Millis Massachusetts

Map 12: Parking in Millis Center

Source: MassGIS & PCI Survey 1998
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11.1.2 Parking

As shown on the Map 12, "Parking in Millis Center," Millis has over 1,400 public and private parking spaces along Main Street between Adams Street and Pleasant Street. Almost every establishment along the town's commercial strip has a number of spaces available, a factor that greatly increases the number of turns on and off Route 109. No parking is presently allowed on Route 109, but the corridor improvement project includes on-street parking on a portion of Main Street. Beyond this thoroughfare, parking availability is more limited; there are generally no on-street parking areas, and many roadways have no shoulders, a situation which effectively limits the provision of on-street parking.

Limited on-street parking is available on Exchange Street. Off-street parking is generally available for the customers of private commercial establishments. Parking along Main Street is generally laid out either around all sides or in front of the commercial establishments that it services. This results in large expanses of asphalt and parked motor vehicles, which detract from the semi-rural quality of the town and increase storm water runoff. With this parking configuration, landscape, pedestrian amenities, and structures are subordinated to the needs of automobile space and access. Pedestrian access is difficult: there are few pedestrian pathways through or around the parking lots, and no landscaped edges. Such pathways and the landscaping which demarcates them would help orient and direct pedestrians once they leave their motor vehicles.

The new town hall, at the Veterans' Memorial Building, supplies more than 100 parking spaces for employees and visitors. The largest parking areas are provided by the shopping center at the intersection of Main Street and Millston Road, which contains the Roche Brothers grocery store, CVS, and McDonald's; the Millis Plaza; and the Millis Outlet Shops. These supply a total of about 710 spaces, or 50% of all parking along Route 109.

11.1.3 Public Transportation

While there are few direct public transportation services to Millis, service is provided by private bus carriers and nearby MBTA commuter rail stations.

11.1.3.1 Bus

Brush Hill Transportation Company runs two buses each weekday morning through Millis (and surrounding towns) to Boston. In the evening the two buses return from Boston to Millis.

11.1.3.2 Railroad

The nearest commuter rail station is in Norfolk (the MBTA Franklin Line between Franklin and South Station in Boston). On this line, the MBTA runs 14 trains each weekday in each direction between the hours of 5:30 am and 9:30 pm. There is another commuter rail line to the north of town that stops in Framingham and Natick. It provides 13 trains in each direction.

There is a rail freight line serving Millis Center from the east. It runs through Medfield, Dover, Needham and Boston where it connects in Roslindale with the main line between Boston, Providence and New York City. At one time it traversed the entire town, but now it terminates in just beyond Millis Center. It is an active freight line with infrequent service to the GAF (General Analine & Film) plant in Millis Center.

11.1.4 Transportation for Youth, Elderly, and Disabled

The Millis Council on Aging owns and operates three vans, driven by volunteers, which are used to transport elderly and disabled persons in town. Trips are scheduled to transport people to medical appointments, to shop and take care of personal business, for social visits, and to transport people to and from the Senior Center at Veterans' Memorial Building. Private vehicles, also driven by volunteers, are used to deliver Meals-on-Wheels to elderly persons who do not come to the Senior Center for meals.

For the most part, trips in the vans occur during the day; on special occasions, such as Town Meeting, the vans are also used in the evening. Trips in the vans are scheduled in advance and routes, pick-up and drop-off points are worked out with the staff of the Council on Aging. A state grant from the Executive Office of Transportation and Construction and local matching money, raised by the Lions Club, paid for the vans.

11.2 Transportation Observations

An important transportation problem in Millis is traffic and safety on Main Street. Planned improvements scheduled for 2000 to 2006 for the entire length of Main Street through Millis should alleviate many of these problems. Traffic safety will be enhanced by improving sight distances and by additional traffic lights. The sidewalks, historic streetlights, crosswalk "bulb-outs," and on-street parking will all help make Millis Center more inviting to pedestrians. In key areas of Millis Center these new sidewalks should be extended to connect with other walkways to provide the pedestrian circulation needed to create a more active and inviting area. Although there appears to be adequate parking capacity in the town center, reorganizing and relocating some of the existing parking would likely increase pedestrian activity within Millis Center.

Commuter rail, if it were to be provided by the MBTA, would play an important role in helping to create a focus and more compact pedestrian activity in Millis Center. The existing rail line that serves Millis Center now carries only infrequent freight traffic. It could be reactivated as a commuter rail line if a sufficient volume of commuters could be attracted and if traffic conflicts with the Needham commuter rail service could be resolved. A 1998 draft feasibility study by the MBTA concluded that the benefits of extending commuter rail service from Needham Junction to Millis Center did not justify the costs. However, commuter rail is the fastest growing public

Transportation and Scenic Corridors

transportation sub-market in the Boston area. If reactivation of the Millis Center line were feasible, a careful plan would be required to locate the station and related parking.

11.3 Transportation Recommendations

11.3.1 Parking

It is recommended that the town adopt zoning and design guidelines that require new commercial developments to place their parking facilities behind or along the sides of buildings, and to provide a pedestrian link from the establishment's entrance to the sidewalk. The resulting emphasis on the storefront and the human scale would make Main Street a more attractive environment for walkers, bikers, and drivers. Planted edges along these pathways would delineate pedestrian routes and provide a buffer between car and walker. There are excellent model guidelines to improve the design of commercial development currently being applied in municipalities around Massachusetts that Millis may wish to consider.

On-street parking to be included in the Route 109 improvements will slow down traffic and provide visual variation while helping to protect walkers from traffic. Slowing traffic and placing parking to the rear and sides of buildings will help to establish more of a pedestrian presence in the town center. The advantages of such a presence include; a safer environment for residents and shoppers, a better separation of pedestrians and motor vehicles, greater commercial opportunities through the passage of leisurely walkers, and an increased civic presence and awareness.

Adopting a shared parking provision would help reduce the total amount of parking needed to accommodate new development, thus reducing the overall area of impervious surface. Shared parking allows one or more businesses to share a dedicated lot or a set of dedicated spaces. This strategy is especially effective when the businesses have different peak hours or shared customers, thus reducing the need for each to provide the full amount of parking spaces required under existing zoning. The result provides an opportunity to more efficiently utilize land and reduce the amount of impervious surface.

11.3.2 Public Transportation

While residents of Millis have relatively convenient access to commuter rail facilities in Norfolk, Framingham and Natick, the existing rail line represents an important asset for future planning. If commuter rail service to Millis Center should be determined to be feasible by the MBTA at some time in the future, station location and parking would be major issues. Either way, parking should be used to reinforce town objectives of establishing a pedestrian-oriented, attractive and reasonably compact mixed-use center with public gathering places. If a station were to be located near Millis Center, parking should be ample enough to prevent all-day commuter parking on streets adjacent to the station. Parking should also be located with a direct

and easy link to Main Street, to minimize the traffic impacts of commuter automobiles on side streets.

12. LAND USE AND ZONING

12.1 Historical Development Patterns

The locations of buildings built prior to 1700 indicate that development was concentrated on the northeast side of town. These structures are primarily residences and include George Fairbanks' farm, the Joseph Daniell, Sr. House, the Clark House, the Abraham Harding House, the John Partridge House, the Peter Adams House site, two Jonathan Adams Houses, the Moses Adams House, and the John Adams House.

Most of the existing structures dating from the early to mid-18th century indicate that development began to extend farther out to the northeast side of Exchange Street and to the south of Main Street. Surviving structures are located primarily along Farm Street, Pleasant Street, Forest Street, and Ridge Street. Of the structures still standing from this era, most are private residences, town sites, and farms and related buildings. These include the Dr. Abijah Richardson House; the John Crane House; Orchard Farm; the James Willard Daniels House; Church of Christ – fourth meeting house; Bare Hill, Prospect Cemetery, the first burying place in Medway (now Millis); the Town Pound; the C. Howard House; the Poor House; the Ellis / Stanley / Braun House; the Gristmill House; and Richardson's Tavern.

Few buildings have survived from the mid-18th to early 19th centuries. Only two structures from this period exist in town. Both are in the north of town: the Abijah Richardson, Jr. House, and the John Bullard House. According to the 100th Anniversary Tour in *Reminiscences*, the centennial publication by the Millis Historical Commission, only six structures have survived that were built in the first half of the 19th century. These include: the Holbrook Factory Site, the Rockville Fire Station, the Rockville Factories, an estate on Honeysuckle Hill, the Dean Walker House, and the Ellice School.

Most of the structures still standing from the mid-1800s and the early 1900s follow the Main Street and Exchange Street corridors. Mainly industrial and civic buildings, these include the Michael H. Collins House; the Milk Ponds, where milk cans were stored to keep cool; the Murphy family homestead, now Glen Ellen Golf Course; the Holiday House, also known as Rocklawn; Oak Grove Farm; the Lacroix Cannery and Bottling facility; Rockville Chapel; more milk ponds; the Herman Shoe Company; the Cliquot Club; the Memorial School; Niagara Hall; the Millis Opera House; and the Lansing Millis Memorial Building.

Few existing significant structures were built in the 20th century. They include: the home of the Sisters of Bethany; Novicks Hotel, the last of the Jewish hotels; WBZ Radio Station and tower; and the GAF Corporation buildings.

The major factor influencing Millis' historic development patterns is its extensive wetlands. The Great Black Swamp covers much of the northwest quadrant of town. Maple Swamp and the wetlands along the Charles River and South End Pond cover much of the eastern portion of town. These wetlands have shaped the settlement of Millis and surround those areas that are suitable for future development.

12.2 Key Transportation Corridors

The two primary transportation corridors that have helped to shape past and current land use patterns are Route 109, which connects to Route 128 / I-95 to the east and I-495 to the west, and Route 115, which provides connections to I-90 to the north and I-95 to the south.

12.2.1 Route 109

Route 109, the primary east-west axis, provides access to many of the town's major industrial activities. These were once Millis' economic engines, but they are now significantly reduced in scope. Several plants continue to operate, including a GAF roofing plant. Also located along Route 109 are several pockets of commercial development, automobile junkyards, and a large commercial sand and gravel mining operation.

12.2.2 Route 115

Route 115, the primary north-south axis, travels primarily through residential areas, connecting the residential areas in the north of town, through the town center, to the residential areas south of town. This route also connects Millis to its neighbors to the north and south.

The intersection of these two routes has formed the center of town, where clusters of housing are interspersed with commercial and industrial uses.

12.3 Land Use Distribution and Recent Changes 1991 – 1999

Cropland, pastureland, and forest areas have decreased by 113 acres since 1991. Specifically, 24 acres of cropland, one acre of pastureland, and 88 acres of forestland have been developed. One hundred seventeen acres of housing have been developed, ranging from multi-family units at the intersection of Exchange and Curve Streets and Village and Himelfarb Streets; ¼-acre – ½-acre lots along Orchard Streets to the west, along Ridge Street between Union and Curve Streets, at the intersection of Village and Pleasant Streets, and at the eastern edge of Main Street; and lots greater than 1/2 acre along Causeway Street to the west, off Island Street between Exchange and Timberline, and along Forest Street from Village Street to the Medfield town line.



Map 13: 1998 Land Use

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Town of Millis Massachusetts

Wetlands

- | | |
|--|--|
| <ul style="list-style-type: none"> Cropland Pasture Forest Nonforested Wetland Sand & Gravel Open Land Participation Recreation Spectator Recreation Water Recreation | <ul style="list-style-type: none"> Multifamily Residential Residential 1/4 to 1/2 acre Residential > 1/2 acre Commercial Industrial Urban Open Transportation Waste Disposal Orchard, etc. |
|--|--|

Source: Millis Planning Board & MassGIS
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12.4 Land Use Categories

The following section refers to the following table and depicts the community through a description of its land use patterns. Millis' total land area is 7,855 acres or 12.3 square miles.

Table 17: Land Use Classification, 1991 – 1998

Land Use	Acreage 1991	Acreage 1998	Percent Change
Cropland	798.5	774.1	-3%
Pasture	112.3	111.3	-1%
Forest	3,579.8	3,486.9	-3%
Non-Forested Wetlands	827.0	826.2	0
Urban Open (parks / cemeteries)	109.2	109.2	0
Open land (abandoned farm land)	209.2	209.2	0
Nursery	20.5	20.5	0
Participation Recreation	127.0	138.9	9%
Spectator Recreation	27.4	27.4	0
Multi-family Residential	55.8	69.5	25%
Residential 1/4 to 1/2 acre	808.2	864.5	7%
Residential > 1/2 acre	871.7	918.4	5%
Commercial	58.4	58.4	0
Industrial	108.9	99.3	-9%
Sand & Gravel	81.5	81.5	0
Waste Disposal	22.6	22.6	0
Water	36.6	36.6	0
Totals	7,854.6	7,854.6	

Source: MassGIS and Planner Collaborative Inc. 1998 land use update.

12.4.1 Residential

Residential land use follows the main roadways. Housing forms a web of development throughout and around the profusion of forests, wetlands and croplands in Millis' interior. Millis' greatest concentration of housing is near the town center, and extends outwards from this node to the north and south along Route 115. In general, housing density in Millis ranges from low to medium. Although there are several groupings of multi-family residences near the center of town, multi-family housing comprises four percent of the total housing stock. A total of 864 acres, eleven percent of the town's total area, are devoted to lots measuring from one-quarter to one-half acre. Further from the town center, residential densities tend to decrease as lot sizes increase; more than 918 acres (11.7%) in Millis are devoted to single-family homes on lots larger than a half-acre.

The lowest housing densities tend to appear at the peripheries of the town to the north and to the east, with small pockets outside of the town center and in the south. Pockets of moderate densities (lots between one quarter and

one half acre) also are found outside of Millis' town center, notably near the southwest edge of town.

12.4.2 Commercial

Commercial land uses comprise 59 acres, or less than 1%, of Millis' total land area. The commercial areas tend to be highway-oriented with sub-regional market areas. Many of these highway-oriented businesses are not part of the fabric of the older sections of the town. While residential, industrial, and commercial land uses all share access from Route 109, commercial enterprises tend to be separated from the other land uses, reflecting the car and commuter-based development pattern.

Commercial land is located almost exclusively along Route 109, often in concentrated pockets of clustered commercial uses. The town's shopping center, Milliston Plaza, lies near the intersection of Routes 115 and 109. The only commercial uses outside of the Route 109 corridor are a small area to the southwest, near Village and Acorn Streets, in the center of residential land uses, and at the intersection of Exchange Street and Route 115.

The commercial areas could be much better integrated into the town with some adjustments to the zoning by-law regarding issues such as mixed-use zoning, development controls, including setbacks and height restrictions, design review and landscaping and parking requirements.

12.4.3 Industrial

Industrial uses comprise approximately 99 acres or 1.3% of the town's total area. For the most part, industrial uses occupy prominent and highly visible sites along Route 109. This land use pattern is consistent with Millis' history as a town with a strong industrial base.

There are 81 acres of land that are or have been used for extractive activities in Millis. One large sand and gravel operation is located near the Medfield town line on the eastern end of Route 109, while other, smaller extractive areas are scattered throughout the northwest quadrant of the town. These smaller extractive areas are no longer actively used.

12.4.4 Open Space

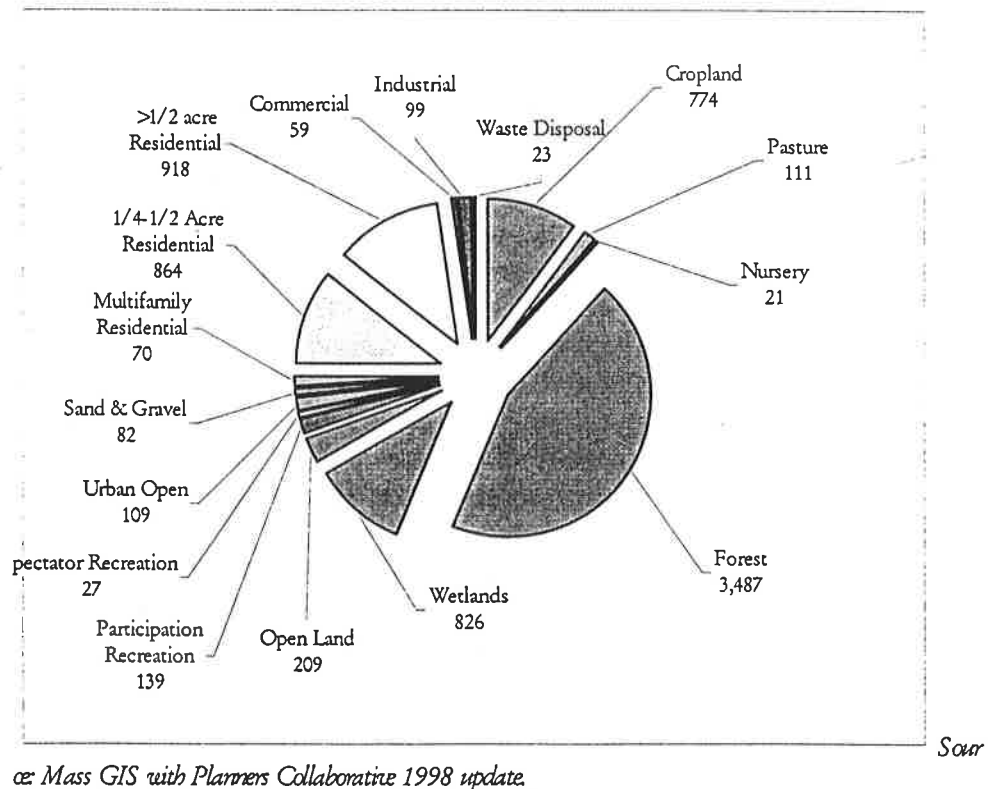
More than half of Millis' land is currently open space. The potential for this resource to meet the town's needs for recreation and conservation and provide the views that are so important for maintaining the town's character, is considerable. Given the significant potential for future development, Millis is facing a number of important decisions about how to balance growth and conservation. One challenge that Millis will face is how to retain and conserve its open space assets under population growth pressures. The choices it makes to balance these factors will have a major impact on the future character of the town.

Great swaths of open land traverse the town. These are combinations of cropland, pasture, forest, wetlands, urban open land, and recreation. Open space categories combined comprise approximately 5,500 acres (only about one half of this area or 29% of the town's total area is permanently protected). The town is essentially completely surrounded with a buffer of open space. An additional swath crosses the town from the mid-western edge to the northeastern border. Much of this existing open space is relatively inaccessible, lacking parking areas and trails.

12.4.5 Forest and Agricultural Land

Forestland, including forested wetlands, is Millis' dominant feature. According to 1998 land use data, 3,487 acres of Millis' land is forest, constituting 44% of its total area. These forested areas are located in all parts of the town outside of the town center, with particularly large areas to the northeast and northwest, and near the Charles River, which makes up the southern and eastern borders of the town. A total of 906 acres, or 12% of the total area, is used for agricultural purposes like crops, pasture, and nurseries, with these uses dotted around the town.

Figure 2: Millis Land Use (in acres), 1998



12.4.6 Water and Wetlands

Another notable resource in Millis is its extensive area of non-forested wetlands. These wetlands are located primarily along the Charles River and its tributary streams. They make up 11% of the town's total area. These are important open spaces and include ecologically sensitive areas, wildlife, and

scenic views. These spaces also provide several opportunities for outdoor recreation and education. Most of this land is owned or controlled by conservation restrictions by the Army Corps of Engineers.

The Charles River itself and the town's ponds are great contributors to the residents' wealth of natural resources, offering a variety of opportunities for passive and active recreation. Increased access to the river and other natural areas for these purposes is an issue for open space and recreation planning.

12.4.7 Recreation

There are 166.3 acres of land developed for active recreation. Millis has one major area of active, outdoor recreation located in its northwestern corner: The private Glen Ellen Country Club. The town has small areas for spectator recreation, a category that includes mainly playing fields, near the center of town. In addition, it has secured about 108 acres of open land for recreational use at the historic Oak Grove Farm, and recently added to its stock of open space with the acquisition of the Cassidy Farm (36 acres) and the Verdover Farm (18 acres). There are additional, smaller undeveloped parcels available for recreational use located throughout the center of town and near residential neighborhoods to the west and east. These are listed on Table 13 of the town's 1998 Draft Open Space and Recreation Plan.

12.4.8 Waste Disposal

There are three waste disposal sites in Millis, with the largest on the westerly edge of town near the Medway town line on Route 109. Two of these are automobile junkyards, while the site on the northeast side of town is a municipal transfer station. The total area of these waste disposal uses is 23 acres. They are shown on the 1998 Land Use Map.

12.5 Existing Zoning Districts

The existing zoning regulations are based on recommendations included in the 1975 Millis Master Plan. They have been modified over time to respond to development pressures and changes in community desires. The provisions of the existing zoning regulations are summarized below.

12.5.1 Residential – Town (R-T)

The minimum lot area requirement in the R-T zone is 60,000 square feet. Required lot frontage is 200 feet, and lot depth, 300 feet. Front, side, and rear yards all have minimum requirements of 40 feet. Maximum height is 35 feet and 2.5 stories. Maximum building coverage is 20%.

R-T zones are located on the periphery of town, in the four quadrants outside of the town's primary road network. See Map 14: Existing Zoning for the boundaries of this zone. The majority of these areas have extensive wetlands and flood prone soils, which give good reason for the lower density. However, some of the buildable soils in this zone would support properly

designed open space development with small communal wastewater treatment facilities.

Only one-family detached dwellings are allowed as-of-right in the R-T district. Two- and multi-family and elderly housing are expressly prohibited in this district. The only exception is an accessory family unit that is allowed with a Special Permit from the Zoning Board of Appeals. Additionally, commercial uses / services and transportation service are prohibited within this district.

12.5.2 Residential – Suburban (R-S)

Minimum lot size for this zone is 25,000 square feet, with 125 feet of frontage. Lot depth must measure at least 200 feet. Front and rear side yards must be a minimum of 40 feet from the lot boundaries. Side yards must be a minimum of 20 feet. Maximum height is 35 feet and 2.5 stories. Maximum building coverage is 25%.

R-S zones run north and south and east along the town's major roadways outside of the central area of town. The zone also runs to the north of Village Street in the southwest quadrant of town. See Map 14: Existing Zoning for the boundaries of this zone. The majority of this zone is on well to moderately drained soils, which can generally support private septic systems. These soil types could also support properly designed open space development with small communal wastewater treatment facilities.

Like the R-T zone, only one-family residences are allowed here as-of-right. While two-family and multi-family housing are not allowed, elderly housing is allowed with a Special Permit from the Planning Board. A Special Permit from the Board of Appeals also allows accessory family units. No commercial establishments are allowed in this zone.

12.5.3 Residential – Village (R-V)

Minimum lot sizes for one-family, two-family, and multi-family dwellings are 15,000, 18,750, and 217,800 square feet respectively. However, these multi-family dwelling requirements apply to the first 22 units; thereafter, there is allowed one unit per 10,000 square feet. Lot frontages are 100 feet, 125 feet, and 250 feet respectively, and lot depths are 150 feet for one-family and two-family dwellings, and 400 feet for multi-family dwellings. Front, rear, and side yard requirements for one-family and two-family dwellings are 40, 15, and 20 feet respectively. Front, rear, and side yard requirements for multi-family dwellings are 50 feet. Maximum height is 35 feet and 2.5 stories. Maximum building coverage is 35%.

R-V zoning comprises primarily the town center, from Island Road in the north, to Curve Street to the east, to Village Street in the south, and Pleasant Street in the west. The town's sewer and water systems service most of this area.

Here, both one-family and two-family structures are allowed as-of-right. Special Permit allows multi-family structures and elderly housing only. Structures in this zone are prohibited from being converted from one-family to multi-family. Although a hotel is not allowed in this zone, bed and breakfast facilities are.

Few commercial establishments are allowed in this zone. Those that are permitted as-of-right include newsstands, barbershops and those accessory services that are “primarily for occupants or users of a hotel, office, or industrial building.” There are no transportation services allowed here.

12.5.4 Commercial – Village (C-V)

Minimum lot size requirements are 30,000 square feet. Lot frontage must be a minimum of 150 feet and lot depth must be at least 200 feet. Front, rear and side yard requirements are 40, 20, and 30 feet respectively. Maximum height permitted is 30 feet and 2 stories. Maximum building lot coverage is 50%.

Commercial zoning is located within 1,000 feet north and south of Main Street, mostly between Ridge Street and Adams Street. The town’s sewer and water systems service this area.

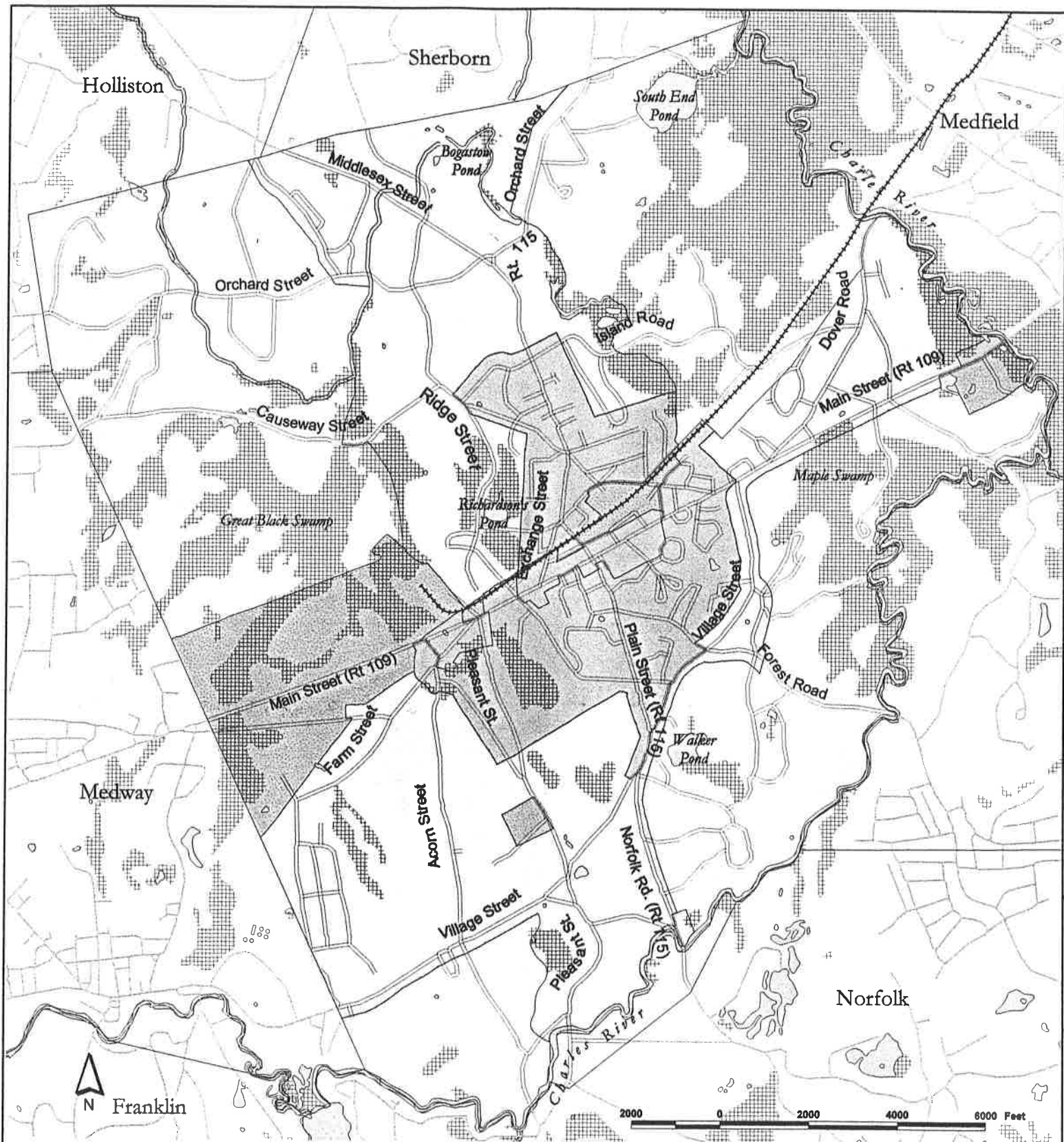
No residential uses are allowed in the C-V zone, except elderly housing that requires a Special Permit. Although most commercial establishments are allowed, “juice bars” are expressly prohibited; they are not allowed in any of the land use zones.

12.5.5 Industrial Park (I-P)

Minimum lot sizes are 43,560 square feet (one acre). Lot frontages must be a minimum of 200 feet and lot depths must be at least 250 feet. Front, side, and rear yards must have a minimum of 40, 20, and 30 feet, respectively. Maximum height permitted is 45 feet and 3 stories. Maximum building coverage is 40% of the lot.

The largest concentration of industrial zoning is located at the western end of Main Street. A majority of this area is in wetlands or flood prone soils and inappropriate for industrial development. There is also an industrial zone at the eastern end of Main Street. This area is an active sand and gravel operation. There is a small industrial zone in the center of town to the north of Main Street, and another along Pleasant Street at the intersection with Spencer Street.

No residential uses are allowed in the I-P zone. Commercial uses are also prohibited in this zone, except those provided for under the stipulation that they be “accessory services primarily for occupants or users within a hotel, office, or industrial building.”



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Source: Millis Planning Board & MassGIS
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Town of Millis Massachusetts

Wetlands

Map 14: Existing Zoning

Use Districts	Min. Area	Min. Frontage
Commercial (C, C-V)	30,000sf	150ft
Industrial (I-P)	43,560sf	200ft
Residential (R-S)	25,000sf	125ft
Residential (R-T)	60,000sf	200ft
Residential (R-V)	15,000sf	100ft

12.5.6 Zone A – Ground Water Protection Districts

Zone A Ground Water Protection Overlay Zones are scattered across the town. They delineate areas that protect ground water supplies. The largest of the zones covers South End Pond and the wetlands in the northeast corner of town. There are also district overlays off Island Road, Causeway Street, and from Well 3 off of Village Street to the Charles River. There is also a Zone A that covers about 1/5 of the town center.

12.5.7 Zone I & II – Ground Water Protection Districts

Zone I areas are a 400-foot radius around Public Water Supply Wells. Uses are limited to those that are directly related to the public water supply system. Zone II areas have been delineated by the Massachusetts DEP Division of Water Supply. They are defined as the areas that contribute water to a well under the most severe pumping and recharge conditions. They generally follow the boundaries of aquifers. Single-family dwellings are permitted under special restrictions.

12.5.8 Watershed Protection Zoning District (WP)

The WP Zone surrounds many of the river tributaries through town, primarily along the Route 115 north-south axis.

This district is superimposed over all other districts in the town and is defined as “all wetlands and all other land area along the streams and brooks for a horizontal distance of at least 25 feet on each side of the centerline . . . and any additional wetlands or lands within any area of the special flood hazard.”

12.5.9 Special Flood Hazard Zoning District (SFH)

The SFH Zone covers the Great Black Swamp and Maple Swamp areas as well as tributaries in the north and south of town.

The district was created in response to policies involving Federal issues of insurance coverage in the 1970s in addition to concern for protecting the citizenry. This district is superimposed over all other districts in the town, and is defined as “areas of the special flood hazard, Zones A, and A1 - A30, identified by the Federal Emergency Management Agency (FEMA).”

12.6 Land Use and Zoning Observations

Residents and the Planning Board have expressed the desire to encourage the development of strong activity centers, while maintaining the semi-rural village feel characteristic of much of Millis. Residents also expressed a desire for integrating land uses through mixed-use zoning, as well as promoting a greater diversity of businesses in the commercial areas. Other important issues for members of the community include reducing traffic and increasing community involvement.

In the existing zoning regulations, no structures may be converted into multi-family residences in any of the zoning districts. No commercial establishments are allowed in any of the residential zones. No residential uses are allowed in the commercial districts. No transportation services are allowed in any of the residential zones. The current zoning will continue to promote separation of land uses, rather than appropriate mixtures. This separation of land uses tends to perpetuate the type of strip development that the Town of Millis is trying to reverse.

Implementing a new Village Zoning Overlay District will increase the strength and viability of Millis Center. It will encourage a diversity of businesses to be incorporated into the center. Additionally, the new district will tend to decrease traffic because of the proximity of businesses to each other, the proximity of residential to commercial, and the existence of physical linkages, i.e., sidewalks and pathways, that may extend throughout the town.

Enacting new zoning by-laws that encourage open space will help to preserve the semi-rural character of the town while allowing for growth of residential and commercial mixed-use developments, and will help to retain some undeveloped road frontage. These new zoning provisions can allow the town to maintain some of the important views of the Charles River and its wetlands, and other natural resources. New zoning provisions also can have the capability of providing buffers between residential, commercial, and industrial uses in cases where this is desirable

12.6.1 Goals for Land Use and Zoning

The following goals and policies relating to land use and zoning were defined in public workshops.

- Strengthen existing town center for commercial activities
- Broaden the tax base
- Protect natural resources
- Increase, enhance, and maintain open space and recreation opportunities
- Improve vehicular circulation and pedestrian mobility
- Encourage and increase level of community involvement

12.6.2 Development Alternatives

Planners Collaborative presented the following alternatives for future development to the Planning Board and interested citizens for their discussion. Each alternative provided for the development of the same number of predicted residents for the year 2020. Only the pattern of development was altered in each alternative by varying the type of zoning and other town regulations to control development.

12.6.2.1 Trend Extended Alternative

The Trend Extended Alternative was predicated on the idea that no substantial effort would be made to change future development patterns, zoning, and other regulations would remain basically the same. This alternative is motor vehicle-oriented and would produce more strip developments as a result of the existing zoning. Some of the rural wooded character of the town would be preserved, but it would not help create a village center and much of the semi-rural or agricultural character would be lost.

12.6.2.2 Village / Cluster Alternative

The Village Cluster Alternative emphasized what is being called "Traditional Neighborhood Development" (TND) elements. The focus would be on creating a mixed-use village center, and aggressively promoting cluster-zoning techniques throughout Millis Center and the rest of town. This alternative would promote pedestrian-friendly elements and more compact developments overall. It would help create an active village center and preserve the rural character of the town by clustering future development.

12.6.2.3 Lower Density Alternative

The Lower Density Alternative is motor vehicle-oriented. It would tend to encourage the use of sub-regional malls and shopping centers by not encouraging the development of commercial enterprises in Millis Center. It would also result in high-end, staggered development by promoting large houses on large lots. This alternative would tend to transform much of the town's rural / agricultural character into a more suburban appearance. To combat this consequence this alternative included town purchase of some of the remaining agricultural land.

12.7 General Land Use Plan Recommendations

Based on deliberations with the Planning Board and interested citizens, the Master Plan includes elements from the Trend Extended Alternative and the Village Cluster Alternative. It retains much of the existing zoning but includes measures to reverse some of the sprawl that would result from continuing existing trends especially along Route 109. It also recognizes the desire to create a more village-focused town activity center and preserve natural resources, while allowing the town to grow.

12.7.1 Conservation Subdivision Design and Commercial Cluster Zoning

Open space residential and commercial cluster zoning provisions should be added to the town's by-laws to help create a stronger town center and help maintain Millis' rural feel in other areas of the town. Typically, such provisions include language similar to the following: Open Space Neighborhood zoning is intended to "permit greater flexibility in design and to discourage sprawl; facilitate the economical and efficient provision of public services; provide a more efficient use of land in harmony with its natural characteristics; preserve more usable open space, agricultural land,

tree cover, recreation areas, or scenic vistas; and to expand the opportunity for the development of affordable housing without increasing the development's overall density."

Conservation Subdivision Design (CSD) is a relatively new concept that enables land to be developed while simultaneously preserving community character, reducing environmental impacts, protecting the rights of property owners, and enabling the developer and the community to benefit from a high quality project. CSD accomplishes these goals through a creative design process that identifies primary and secondary conservation areas. Wetlands, floodplains, and steep slopes, in addition to a large portion of the flat, dry and otherwise buildable land are set aside within those conservation areas. Instead, lot sizes are reduced and the allowed development is arranged to "fit" onto the unconstrained land.

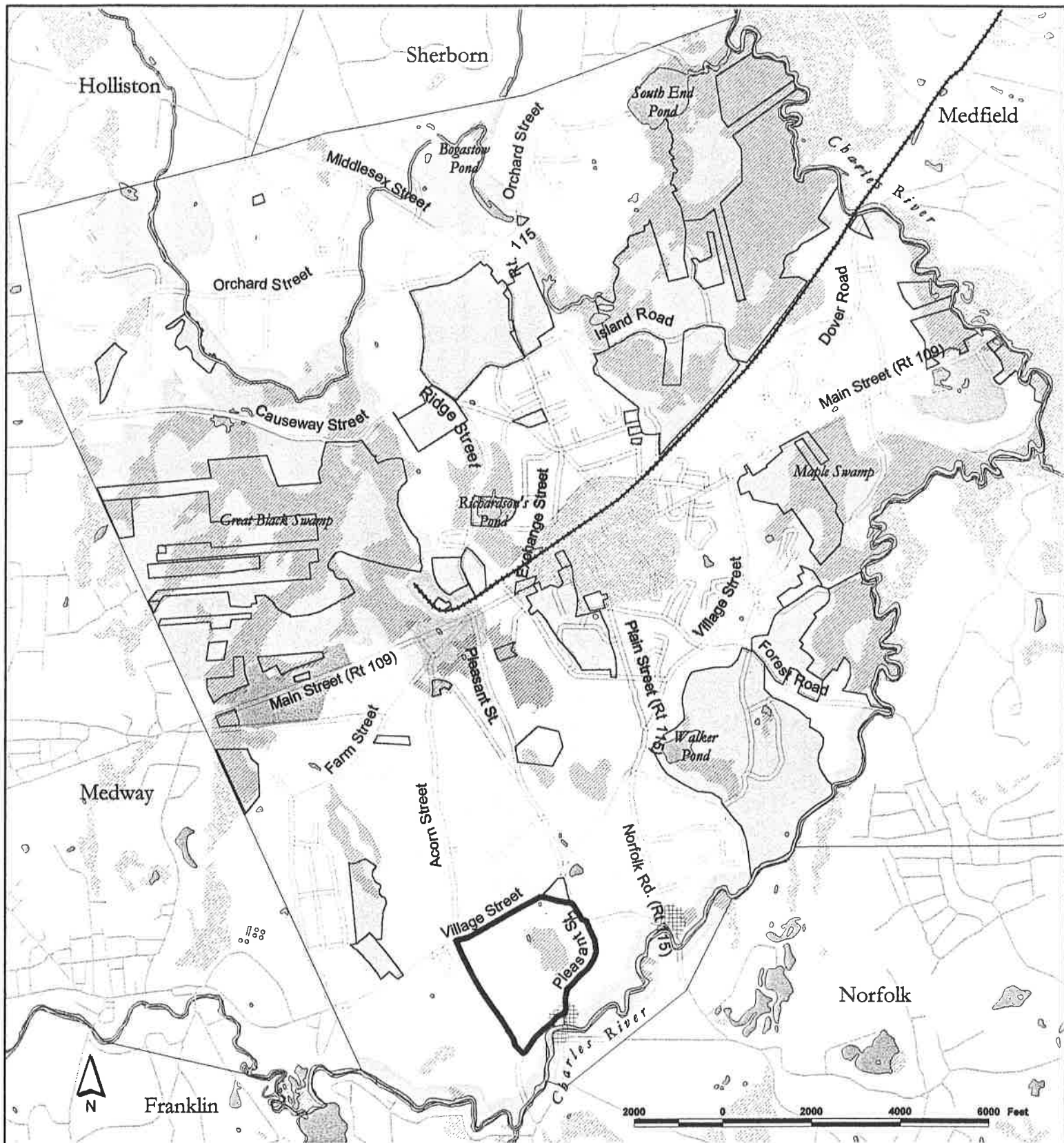
While more efficiently using land and helping to preserve open space for recreation and natural surroundings, CSD also can be used to help preserve historic landscapes and vistas, for example, the King Phillip's Trees area on Dover Road or scenic views of the Charles River.

12.7.2 New Village Zoning Overlay District

Existing village zoning will not support the type of mixed development needed to make the changes envisioned in the Master Plan. A new Village Zoning Overlay District should be created that will allow a mix of uses, including ample retail, offices, elderly and multi-family housing structures. This zone should also allow community and civic facilities and certain transportation services, by Special Permit. A town common or green can be included on existing town-owned land. Special Permits should also allow conversions and infill construction in this district. All construction should be subject to review by an advisory Design Review Board. See the Millis Center section for more discussion of this recommendation.

12.7.3 Commercial Areas

In general, the commercial areas should not be expanded beyond their present extent, except for expansion of the mixed uses permitted in Millis Center and the possible future rezoning of the sand and gravel operation at the Medfield town line. Most of Millis has avoided the overall appearance of strip commercial development except the portion of Route 109 near the Medway town line. However, under current zoning, the potential exists for additional strip development to occur in the large continuous industrial zone along the western part of Main Street, from the Medway border to Pleasant and in the commercially zoned area along Main Street in Millis Center. This is largely due to existing zoning that allows large street frontages to be filled with parking and individual businesses to be widely spread out on the lots. A large portion of this industrially zoned area is wetland and unsuited for development. In order to discourage the development of such a commercial strip, the area should be partially rezoned to permit conservation or



Map 15: General Land Use Plan

- Village Center
- Commercial & Office
- Riverside Commercial
- Commercial & Light Industrial
- Village Residential
- Residential Medium Density
- Residential - Low Density
- Open Space
- Proposed Historic Overlay District

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Town of Millis Massachusetts

- Existing Permanently Protected Open Space
- Wetlands

Source: Millis Planning Board & MassGIS
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residential uses. Because commercial strip development is a special planning concern in Millis, and because towns that are suburbanizing are often characterized by such development, it is advisable that the town be more restrictive in controlling its commercial areas. Measures such as strategic rezoning of areas along Route 109 to non-commercial uses, and subjecting more commercial development to site plan design review, with guidelines for smaller buildings, landscaping, streetscaping, and parking to the side and rear of buildings, are appropriate.

The basic intent of controlling strip development and promoting associated actions to encourage development of new commercial activities in Millis Center is to help create a more active pedestrian environment for shopping, recreation, and community events.

12.7.4 Historic Overlay Zones

Historic overlay zones may be important for the preservation of structural or area integrity. Areas such as Rockville, in the south of town, are prominent possibilities for overlay zones due to the fact that there is a strong sense of area community, combined with the presence of several historically significant structures.

12.7.5 Industrial to Office Park Rezoning

The town should consider rezoning the sand and gravel site at the eastern end of Route 109 to office park. Extraction activities should be allowed to continue on the lot, as a nonconforming use, until such time as the company wishes to close its doors. This location is ideal for an office park development, at some time in the future, due to the location on the perimeter of the town, with proximity to the town center for lunch and proximity to state highways for convenient commuting. Office development would also offer high enough financial returns to pay for desirable site restoration measures to heal the scars of the sand and gravel operation.

The town should also rezone much of the currently industrially zoned wetlands on the western side of town to conservation or residential use.

12.7.6 Subdivision Regulations

Consider increasing front-yard setbacks in R-T and R-S zones from 40 feet to 60 feet. This change would encourage a forested strip along roadways and help preserve the town's semi-rural character.

13. MILLIS CENTER

13.1 Location and Existing Conditions

Millis' existing center is located at the intersection of State Routes 109 (Main Street) and 115 (Plain Street). The main commercial area in the center runs along Main Street from Adams Street to the east to Spring Street to the west.

13.1.1 Activity Nodes

Two nodes concentrate the commercial activity along this corridor, while other businesses are spread further out along Main Street. In the eastern node, between Plain Street and Milliston Plaza, commercial uses are on both sides of the street. The western node, between Spring Street and Exchange Street, is smaller in scale, and also has commercial activity on both sides of Main Street. Between these two nodes are the renovated old school building, renamed the Veterans' Memorial Building, now serving as the town hall, several homes, the police station, and a few scattered businesses.

Two smaller nodes exist in Millis Center. One is located at the intersection of Curve and Exchange Street, and the other is the area on Exchange Street between the old railroad station and Main Street.

13.1.2 Commercial Enterprises

There are approximately 360 businesses in and around the center of town. Most are small commercial establishments serving a local market and small-scale industrial activities. Millis is also home to industrial companies such as GAF Building Materials Corp., Craftsmen Machinery Co., Braman Screw Machine Co. Inc., Tresca Bros. Sand and Gravel Inc., Precision Metallurgical Corporation, and Lucas Manufacturing Co. Inc., some of which border the center of town. The town got its first warehouse store – Ann and Hope – in 1982.

13.1.3 Structures

The structures along Main Street are predominantly single-story detached buildings, interspersed with a few two-story wood-frame structures. These buildings were constructed at various times during the town's history and represent different design styles and evolving building codes. Some building fronts are located at the lot lines and others are set back.

13.1.4 Community Events and Community Spirit

Millis has a variety of community events throughout the year. These include the Fireman's Muster in September, Pride Day in October, the Lions Club Chowder Festival, the Health Fair, and the Oak Tree League Crafts Fair in November. Other opportunities for additional events include: Tastes of Millis; a winter festival; and Millis Days, offering the town an opportunity to recite stories and the history of Millis to its residents. These kinds of functions help build community spirit and involvement. These events occur or can occur either at Oak Grove Farm and / or in Millis Center.

13.2 Millis Center Observations

Millis Center has the potential to be an area with concentrated pedestrian activity and spaces where people can gather. The existing activity nodes in Millis feature large swaths of paved parking lots in front of establishments, and buildings with little relation to one another, all with little or no landscaping. Signage is uncoordinated, and there is a wide mixture of types, sizes, and orientations of buildings. There is no common design tying the commercial buildings together.

Because the two existing activity nodes are isolated by parking lots, do not conform to any unifying design guidelines, and are separated by primary roadways, they lack physical and visual connections. They do not encourage pedestrian interaction or provide visitors a sense of involvement in the community.

Encouraging a variety of activities and uses is crucial to maintaining a healthy town center. For example, residential uses, which are currently at the periphery of the existing nodes, could be more fully integrated into the commercial areas as is typical of many older New England villages where there are often apartments next to or even over businesses. A diversity of businesses is also important to maintaining a healthy town center. Diversity in terms of type of product or services offered as well as type of business, e.g., retail, service, or office is important. One approach, used by some towns, to address the issue of diversity is to create a business information database that would maintain an updated account of the types of businesses in town, and percentages of different business types. This would allow the business community and the town to actively plan for, and solicit, new businesses to complement existing businesses and respond to town needs.

In addition, improved signage guidelines and design review would greatly improve the area's appearance, attractiveness to pedestrians, and level of activity by promoting a more legible, coherent environment. For example, extending architectural themes and visual linkages (such as signs, landscaping, and sidewalks) along Main Street and increasing the opportunity for involvement in a social environment will draw residents into the center. A combination of civic, commercial, residential, and recreational uses and activities has the potential to create a village-type atmosphere that can encourage this social activity. For example a central location in Millis Center for the Millis Police Station will reinforce efforts to improve this community center.

Further, building on existing facilities, institutions, and other resources known to town residents will increase the overall sense of community within the town. For example, encouraging residents to be more involved in the Community Policing program offered by the Millis Police Department has

the potential of giving residents a sense that there are more eyes on the streets.

13.2.1 Linkages – Walking, Biking, and Driving Connections

Physical, social, and visual connections are all critical to an integrated, viable center. The existing center of commercial activity along Main Street is currently not easily accessible by pedestrians or bicyclists because sidewalks are not consistent and there are no bike lanes. As a result, most areas in the center of town are accessible only by car. Small groups of businesses are separated from one another by large expanses of parking and are spread out along Main Street with no visible connection to one another. These gaps, dominated by parking lots, although most prominent between the two activity nodes described above, are also apparent between the smaller nodes around the center, at the intersection of Exchange and Curve Streets and at the old Town Hall / train depot.

Linking the four identified nodes will increase the boundaries of the existing center to include the area past High Street up to the intersection with Curve Street. Linking these nodes visually, by requiring sign review and a mix of activities, has the potential to create a stronger center.

13.2.2 Structures

The structures along Main Street tend to be single-story detached buildings, interspersed with occasional two-story structures. Many of the structures in and around the existing town center were built in the late Victorian style. This late 19th century style, while evocative of the town's history also provides an opportunity for adaptive reuse from residential to mixed commercial / residential uses, especially home-based businesses and offices. By maintaining a strong residential flavor, these older homes are an especially good transition between areas with higher levels of mixed-use and those that are primarily residential.

13.2.3 Aesthetics and Visual Connections

Aesthetics are critical to developing a sense of place. Architectural style, plantings, and street furniture placement all contribute to an overall town character. In addition, landscaping, especially trees and shrubs, helps to create a comfortable environment for pedestrians by shielding them from the street and the wide expanse of parking and providing a buffer between the street and the many commercial establishments.

Maintaining visual connections among key Millis locations, such as the Town Hall and the Clicquot Tower are important factors contributing to the identity of Millis Center. These can be given special status by making them easily visible and accessible. This can be achieved by keeping view corridors open and assuring that no development obscures the views of or access to these landmarks.

Signage should respect the scale of the surrounding area. In mixed-use districts, signs should be coordinated with one another and should all fit in with the architectural character of the surrounding area. Care must also be taken to control temporary signs so that they do not dominate or degrade the visual environment.

13.2.4 Business Connections - Merchants' Association, "Adopt-A-..." Program

In order to sustain an active, thriving town center, the businesses must be involved. Creating a Merchants' Association can help to encourage business owners and managers to meet and work with each other and combine efforts for community events, promotions, or even a weekly informational fax. This can also encourage merchants (as well as residents) to patronize local businesses. Another way to encourage business involvement in improving the town center is by soliciting help in sprucing up the public areas and individual businesses throughout the center.

An "Adopt-A-..." program could provide important opportunities for businesses to invest in the community by purchasing benches, bike racks, trash receptacles, flower barrels, or hanging baskets, or by maintaining medians or traffic islands. This provides a range of objects / locations an individual or business can purchase or maintain, so that he or she can invest in something they feel also enhances their business. In addition, it allows smaller businesses to contribute, as hanging baskets may cost as little as \$50.

13.2.5 Town Common

Many New England villages developed around town commons in sight of the local church. While there is no central town common for Millis, there are some key opportunities to create a central space for community events as well as a focal point for the town center. The field behind the Veterans' Memorial Building could provide a central location for activities and help to incorporate public space into Millis Center. There may also be other locations that could serve this function.

13.3 Millis Center Recommendations

Closing the gap between the two existing commercial nodes is the first step to developing a strong center. This does not mean creating a single strip of development between the two nodes; rather it will physically (e.g., sidewalks) and visually (e.g., signage) connect two nodes that are currently isolated from one another. The Route 109 improvements will provide sidewalks, historic street lighting, and on-street parking that will meet part of this need.

13.3.1 New Village Zoning Overlay District

A new Village Zoning Overlay District should be created for the town center. This zone would encourage mixed-use cluster zoning, allowing the town to retain its small-town feel by concentrating some new development, promoting a greater density of development, and allowing for a mix of uses.

Civic buildings, such as a new Police Station, and public gathering places should both be expressly included in the district. This can be achieved by extending the town center to include the four nodes described above plus town buildings and open spaces, such as the field behind Veterans' Memorial Building. See the General Land Use Plan, Map 15, for the proposed boundary of the Millis Center Overlay District. The nodes can be linked using village-style principles, including pedestrian-friendly elements, plantings, public spaces, clear relationship of elements to one another, parking and garages to rear of buildings and homes, front porches, sidewalks, architectural style, relationship of buildings to the street and to each other, and offering many near-by residents a 10-minute walk to the center of town.

Connecting the nodes physically by adding prominent sidewalks along the roads, especially between Exchange, Plain, and Main Streets, trails, and pathways will help to create the linkages for a strong village center. Allowing residential growth near the center and increasing pathways and sidewalks will also help increase the proportion of residents living within a 10-minute walk to the center. Additionally, physically identifying gateways will improve the legibility of the new town center by identifying the new boundaries. The town should also very specifically seek a location to designate as a town common.

The town should work at building existing facilities and institutions that already have a vested interest in the town and seeing it improve. It should also work at increasing the number and diversity of businesses in the center by preparing a business database and developing a strong Merchants' Association, which together will help the town solicit appropriate economic development in the town center and beyond.

The town should set up an "Adopt-A-..." program through which businesses and individuals can contribute to the addition of benches, hanging baskets, bicycle racks, and trash receptacles on the sidewalks.

The town should allocate and seek outside funds to conduct three studies focusing on Millis Center: a traffic / circulation study, a streetscape design study, and a marketing and economic development study.

The town should also adopt a design review by-law and appoint an advisory Design Review Board to review all new developments and alterations in Millis Center for the appropriateness of those buildings and structures with their surroundings and their contribution to the goals of this Master Plan. The Planning Board should also consider offering density bonuses to developers / owners who build second stories on existing buildings or new structures expressly to create room for office and residential space. Other bonuses should be provided for infill development projects in between businesses in order for the center to achieve adequate density and continuity. The town should investigate use of transferable development rights (now

being used in Acton, Massachusetts) as a means of spurring appropriate development in Millis Center.

The existing Commercial-Village Zone limits building height to 30 feet and two stories. This is more restrictive than residential zones that are limited to 35 feet and 2.5 stories. Such a restriction also encourages buildings with flat roofs that do not complement the more traditional pitched roofs of nearby residential buildings. It is consistent with other recommendations for Millis Center to include buildings as tall as those in residential zones. Even taller buildings (3 to 4 stories) could be considered under the process of Design Review.

Certain regulations should pertain specifically to this new Village Zoning Overlay District including site design controls, infill development and historic building adaptation, parking, pedestrian amenities, landscaping, and signage and lighting.

13.3.2 Site Design Controls

Existing setbacks for commercial and residential properties are a minimum of 40 feet. The farther buildings are from the street, the less of an involvement the pedestrian senses; therefore, in order to create a lively, attractive center, the setbacks should be decreased, perhaps to lot lines in some cases, again subject to design review. Density bonuses should be available for developers who build second stories on their buildings, provide open space or community space on or off of the site, and who provide affordable housing above the 10% requirement in designated locations, including this new Village Zoning Overlay District. Other developer incentives, such as transfer of development rights, should also be considered.

13.3.3 Infill Development and Historic Structures

The Village Zoning Overlay District should contain provisions that encourage infill development. For example: building new structures or additions in spaces that are in between or alongside existing buildings. This will provide existing owners more flexibility and help create a more active center. Such infill development should be subject to design review.

The town should encourage preservation of historic structures and adaptive reuse of existing buildings, which can both help lend a sense of continuity to the area. Maintaining a more unified architectural style through the preservation of historic structures and design review will help create a sense of continuity throughout the center of town, instead of several isolated pockets of activity.

Focusing mixed commercial and residential development, and promoting infill development in the center will also contribute to strengthening visual connectivity and continuity.

13.3.4 Parking Strategies

Parking is one of the major contributors to sprawl. Logically then, its reduction can also be an aid in reducing sprawl. Luckily there are some good options for reducing parking spaces. For commercial and residential uses, parking should be located to the side or rear of buildings when practicable. Building parking spaces behind stores helps to maintain a more attractive streetscape and a continuity of structures. It allows businesses to front directly onto the sidewalk, encouraging passersby to enter. Parking strategies, such as shared parking, should also be employed to reduce the overall number of parking spaces. Smaller municipal lots may be considered on a case-by-case basis, especially when buildings lack sufficient space on their own.

One of these options is shared parking. Shared parking allows one or more businesses to share a dedicated lot or a set of dedicated spaces. This strategy is especially effective when the businesses have different peak hours or shared customers, thus reducing the need for each to provide the full amount of parking spaces required under existing zoning. The result provides an opportunity to more efficiently utilize land and reduce the amount of impervious surface.

Parking strategies can also help support small businesses, because often it is these smaller businesses whose parking availability falls short of the requirements. This may be because of lack of space or because the high cost of buying land and building parking spaces is prohibitive.

13.3.5 Pedestrian Amenities

Part of the success of thriving centers is their ability to foster social interaction and community. Consequently, pedestrian amenities and street furniture can be an important element. Outside an ice cream parlor or around a patch of green, well-located benches will draw pedestrians and foster this sense of community.

Amenities, such as sidewalks, benches, and street lighting are all important for creating an inviting atmosphere for pedestrians. Sidewalks connect pedestrians to the town center and provide a safe area in which to stroll. The town should complete a strategic sidewalk plan, as part of the streetscape design study, to create a network of sidewalks in and around the town center, and accelerate the program of building sidewalks, pathways, and bikeways in and leading to the town center, mentioned in the town's Draft Open Space Plan.

Benches allow for breaks between errands or for enjoying a coffee or lunch outside. The elderly and people with young children will particularly appreciate these amenities.

Planting low bushes and discouraging tall or very dense shrubbery will help avoid creating a solid wall or hiding places that can compromise the safety of

the pedestrian. Installing lighting that provides clear views of the entire area and a call box will increase the sense of safety for users. Another strategy is placing windows on the back of buildings that face the parking lot even if there is no intention of adding a back door. Additionally, considering a back door for quick ingress and egress in case of an emergency will reduce the existence of isolated environments. It will also ease access to parking behind buildings.

Many of these amenities can be part of the "Adopt-A-..." Program suggested above.

13.3.6 Signage and Lighting

Existing sign regulations should be reviewed to assure that signs contribute to an attractive Center. Sign regulations should also stipulate that the Board of Selectmen has power over the size of signage.

Wooden and metal signage should be the norm. With a Special Permit, businesses should be allowed to have signage that can be illuminated by an outside light source as long as the light shines directly on the sign and does not blink, flicker, reflect, or shimmer.

The town should improve sign regulations to reduce impacts of strip commercial development.

Especially in the fall and winter when stores are still open past sunset, lighting is important for safety. Lighting fixtures can also help to delineate or frame the center of town by providing a visual linkage.

Lighting should focus on creating safe access and connections between locations throughout the center.

13.3.7 Landscaping

Landscaping should accomplish several goals. Landscaping should be used to help buffer the pedestrian from street traffic and should provide a network of visual and physical connections throughout the Center.

Landscaping may also be used on a larger scale to buffer incompatible land uses from one another including residential from industrial, or even retail from industrial, and *vice versa*. It should soften building facades. It should provide visual relief, in some cases identifying key view corridors, in others encouraging people to linger. Landscaping should also present a clear pathway and provide and encourage safe walking between stores and other town areas.

13.3.8 Gateways

A logical extension of the existing town center would comprise all four nodes, including more land along Main Street and the area north of Main Street to the intersection of Curve and Exchange Streets. To highlight the new expanded boundaries one can identify key gateways with signs and other visual cues and indicators. There could be at least three main "gateways" to the center: one to the north, one to the east, and one to the west.

The northern gateway would be to the immediate north of the intersection of Exchange and Curve Streets. The corresponding eastern gateway would be located just beyond Milliston Road at the intersection with Main Street. The western gateway would be at the intersection of Main Street with Auburn and Spring Streets. These gateways would help to frame the center giving it both physical and visual boundaries.

14. MILLIS PUBLIC SCHOOLS

14.1 Enrollment

Millis has two public schools: the Clyde Brown Elementary School, housing nursery through grade 4, and the Millis Middle / High School, with grades 5 through 8 and grades 9 through 12 in the same building. Both schools are located on Plain Street in the town center. Table 18 shows the enrollment in each school by grade between 1994 and 2000.

Table 18: Millis Public School Enrollment by Grade and Year, 1994 - 2000

Grade	1994	1995	1996	1997	1998	1999	2000
Pre-School	32	25	54	61	49	46	49
K	101	114	117	115	135	112	75
1	113	112	113	119	119	126	113
2	103	109	114	108	119	115	119
3	79	100	112	118	107	115	112
4	105	79	99	108	114	97	115
5	91	105	74	102	101	107*	93
Sub-Total (K-5)	592	619	629	670	595	672*	627
6	91	87	105	74	100	94	112
7	88	94	95	106	72	96	93
8	71	85	83	80	98	74	96
9	63	58	73	74	70	86	73
10	62	75	65	65	69	85	74
11	61	68	72	61	66	75	64
12	64	61	66	64	54	61	70
Sub-Total (6-12)	500	528	559	524	529	571*	582
Total (Pre-School - 12)	1,124	1,172	1,242	1,255	1,291	1,289	1,258

* Note: Grade 5 moved to the Middle / High School in 1999.

Source: Superintendent's Office, Millis Public Schools

14.1.1 Clyde Brown Elementary School

Pre-school enrollment doubled from about 30 in 1994 to about 60 in 1997, then dropped off to just fewer than 50 in 1998 and held steady through 2000.

Elementary enrollment, 42% of the town's total school enrollment, (excluding grade 5, which moved to the middle / high school in 1999), has decreased from 45% of the total enrollment (excluding grade 5 to be comparable) in the past 6 years. In fact, since 1999, there has been a decrease of 31 students, or 5%.

The Clyde Brown Elementary School has 676 students enrolled for the 2000 - 2001 school year.

14.1.2 Millis Middle School / High School

The middle school has seen an enrollment increase of 23 students, or 6% in the past year. Over the past 6 years, however, the total middle school enrollment figures (including grade 5 for 1999 *and* 1994) have increased by 53 students, or 16%.

The high school has experienced decreases in enrollment since 1999, from 307 students to 281; however, the figures represent an overall increase in enrollments since 1994, from 250 students to 281. The small size of the high school prevents development of academic enrichment programs and facilities. This was identified as a problem in public meetings. A long-term solution may be in joining a regional school district.

14.1.3 Other Schools

In addition to students enrolled in Millis' public school system, there are about 10 to 15 students each year in other school facilities. According to the School Department there are also approximately 30 students who live in Millis, but attend private schools.

14.2 Capacity

As of September 2000, enrollment in the two schools, including pre-school classes, was 1,258 students. The combined capacity of the two public schools is 1,435 students. This enrollment represents 88% of existing capacity. This means the schools, in total, can handle approximately 175 additional students.

According to the Metropolitan Area Planning Council (MAPC) projections, there will be a slight increase in enrollment until 2010, after which enrollments will decrease until 2020. This fluctuation is a reflection of the typical family life cycle.

By the year 2010, the school age population is expected to have increased to approximately 1,436, an increase of 14%, not resulting in the need for any new classroom space. As with any life cycle fluctuation, some years may exceed capacity resulting in the need for temporary adjustments or adaptations, but by 2010 enrollments are projected to be within the existing capacity of the schools.

Millis school officials are eager for town appropriations that would facilitate a space needs study of the two schools and identify anticipated increases in enrollment as well as educational needs.

Some of these enrollment increases can be handled by moving grades around, as the 5th grade did in 1999. In the longer term (10 years) enrollments are expected to decline somewhat, perhaps allowing classes to fit in existing space. Given this projection, temporary classroom space is one option the town may want to consider.

14.3 Major Alternatives

In order to know how to best address the future classroom quandary, the space needs study will attempt to predict the duration and size of the expected increase in enrollments. Several opportunities are available depending on the results of the space needs study. Due to the small size of the projected school-age population, the remedies will not have to be dramatic, i.e., it is not likely that any large-scale new permanent structures will be needed. One option is the construction of temporary classroom space; another is to consider permanent small-scale capital improvements, including constructing new additions and renovating existing structures. Which alternative is more efficient partly depends on the results of the proposed space needs study for the entire Millis school system.

14.3.1 Renovations

The Millis Middle / High School underwent a complete renovation in 2000 as a result of deteriorating “technical, life safety, handicap, educational, and general conditions of the building.”

14.4 School Recommendations

Seek town appropriations for a space needs study to identify the extent of the need for additional classroom space in the face of increasing enrollments. The primary concerns of this study should be the duration of the increase and the number of anticipated students to be accommodated.

15. WATER, SEWER, AND SOLID WASTE DISPOSAL

15.1 Water

About 90% of all households and businesses use town water. This amounts to about 2,200 customers. All town water is drawn from wells in Millis. There are three pumping areas shown on Map 7. The combined average capacity of the four wells is 1.1 to 1.4 million gallons per day. The current average use is 0.9 million gallons per day, with a maximum of 1.7 million gallons per day. Massachusetts Department of Environmental Protection approved pumping rates for the four wells are shown on the following table.

Table 19: Massachusetts DEP Approved Pumping Rates

Well Number	Millions of Gal./Day	Gal./Minute	Current Pumping Rate
1	0.72	500	Wells 1 and 2 Pump 770 Gal./Min.
2	0.50	350	
3	0.65	450	553
4	1.01	700	625
Totals	2.88	2,000	1,948

Source: Millis Department of Public Works

While the very short term use (per minute) approaches the approved rate (and actually exceeds it for Well Number 3), both the average daily use rate (0.9 million gallons / day) and maximum use rate (1.7 million gallons / day) are substantially below the approved rate. The town has recently purchased the Paine property along the Charles River to provide new wells. This property potentially will provide a source capable of producing an approved pumping rate of 1.5 million gallons / day. It is possible that most of this water (1.2 million gallons / day) would be provided to the Towns of Franklin and Norfolk, with the rest (0.3 million gallons / day) used by Millis. Franklin and Norfolk both have water supply problems that a source in Millis would help alleviate. Selling water to Norfolk and Franklin would provide Millis with a steady source of revenue.

There is a commercial well along Route 109 (the Ann and Hope Well) that is used primarily to fill swimming pools.

Water pressure is adequate in Millis. It is delivered at 78 pounds per square inch at the wellheads. There is one booster station in the Walnut Street area to provide adequate pressure there. There are no pressure problems in the hydrant system.

There was a volatile organic compound contamination problem experienced at Wells 1 and 2. A \$760,000 remediation grant from the Massachusetts Department of Environmental Protection (DEP), combined with \$20,000 of town money solved this problem in 1997.

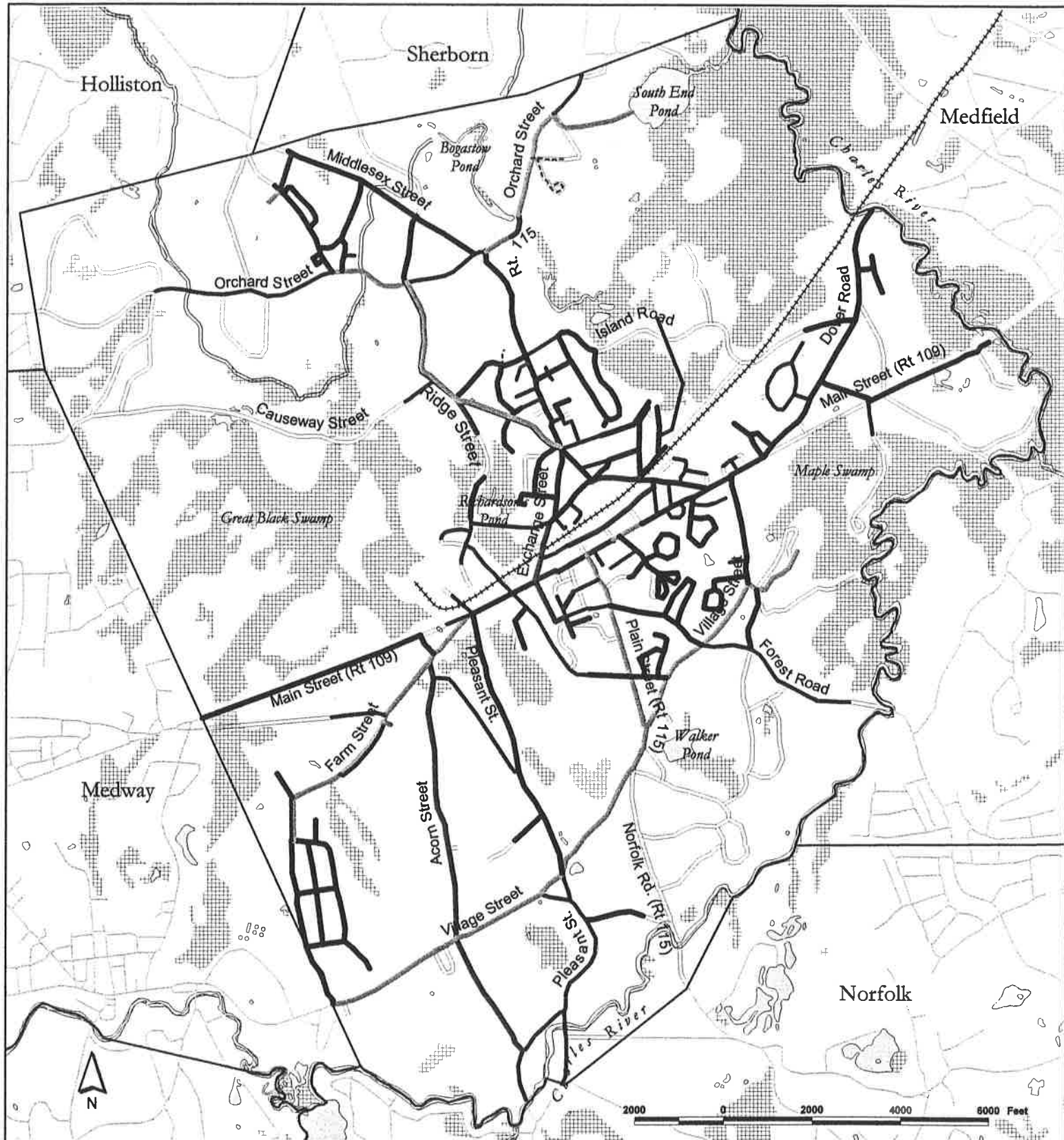
15.2 Sewer

The sewer system serves about 30% of Millis' households. In 1998 there were 865 households and businesses in Millis on the system. The system is part of the Charles River Pollution Control District headquartered in Medway, where the wastewater treatment plant is located. The district system serves the Towns of Medway, Franklin, Bellingham, and Millis. The Town of Holliston would like to join the system. The wastewater treatment plant has a capacity of about 9 to 9.5 million gallons / day, but it is permitted at only one-half of this, about 5 million gallons / day. Millis accounts for about 15% (0.4 million gallons / day) of the total average treatment load of the plant. Millis has requested an additional 0.2 million gallons / day to allow for growth. If all possible sewer connections were made to existing development in Millis, the town would produce about 0.5 million gallons / day, or about 20% above the current load averaging about 0.4 million gallons / day.

The Massachusetts Department of Environmental Protection is discouraging the discharge of more treated wastewater effluent into the Charles River as part of an overall effort to continue to improve the water quality of the river. This policy will limit expansion of sewer service for Millis and force a continued reliance on individual septic systems or private package plants for wastewater treatment. Directing a significant amount of the future residential development in Millis to the R-T zoning district, with its 60,000 sq. ft. minimum lot size, is a predictable outcome of the policy of trying to minimize sewer system hook-ups. This outcome is contrary to the proposal to concentrate new development in Millis Center and to preserving open space. However, it may encourage cluster development where single large septic systems can serve a number of units.

The Town of Franklin, the largest user of the district system, has a significant inflow and infiltration (I & I) problem. When that problem is solved, about 0.075 million gallons / day of capacity will be regained. Franklin has appropriated \$110,000 for this purpose and work began in the fall of 2000.

The remaining 70% of Millis households are served by individual septic systems. So far there have been no proposals for package wastewater treatment plants for individual developments. The town has no stated policy on these facilities. The Town Board of Health would have to approve any such proposal. Proposals for small package treatment plants that discharge into streams are not likely to meet with state approval, given its policy of trying to minimize discharge of treated wastewater effluent into the Charles River and its tributaries, unless they can be engineered on well-drained soils so that the leaching field can handle the effluent.

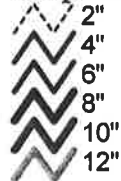


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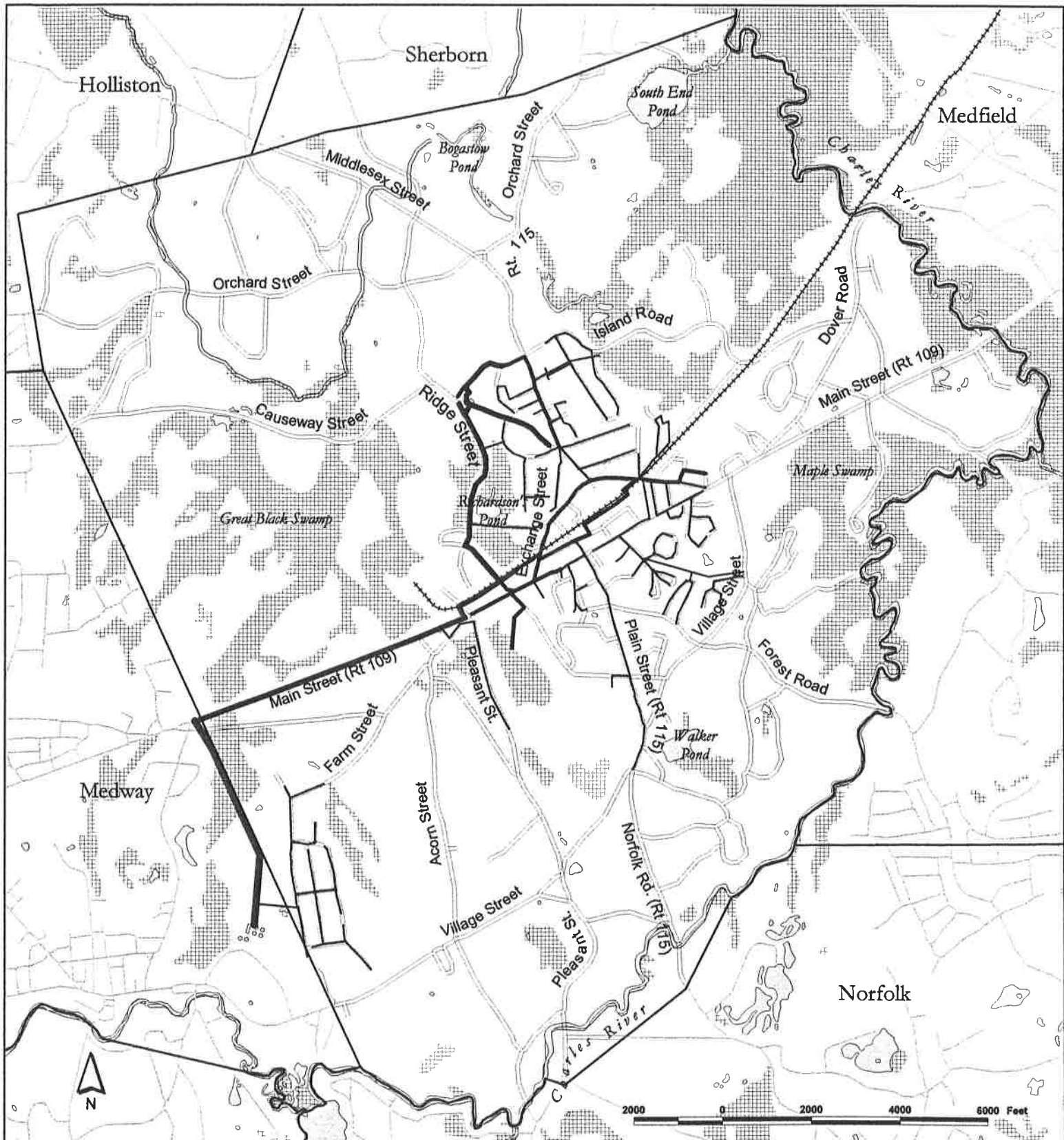
Source: Millis Planning Board & MassGIS
 For Planning Purposes Only

Town of Millis Massachusetts

Map 16: Water Distribution Mains



Wetlands



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Town of Millis Massachusetts

Map 17: Sanitary Sewer System



Wetlands

Source: Millis Planning Board & MassGIS
 For Planning Purposes Only

15.3 Solid Waste Disposal

Millis does not have town-wide solid waste pickup. Private haulers arrange with households and businesses to pick up their solid waste. One of these haulers transports solid wastes to the Town Transfer Station / Recycling Center. From there solid wastes are transported to the regional waste-to-energy Wheelabrator Plant in Millbury. Other haulers haul solid wastes directly to various out-of-town facilities. Some residents bring solid wastes directly to the Transfer Station / Recycling Center, including yard wastes, which are composted and made available to town residents for gardening, landscaping, etc. The town also uses composted materials for its projects. The Health Agent in Millis is currently trying to organize a hazardous household waste disposal program with pickup once a month.

15.4 Maintenance

The Millis Department of Public Works maintains the Town Park and other town-owned fields, such as the baseball field behind the Clyde Brown School and the Oak Grove recreation facility. They also maintain the Town Cemetery. Sprinklers were installed in the Town Park in 2000.

15.5 Water, Sewer and Solid Waste Disposal Observations

In general, Millis is in good shape with its water and sewer systems, with disposal of solid waste, and in maintaining town land. The major issue is limited capacity to increase hook-ups to the regional sewer system. This limitation impacts two recommendations of the master plan. Limited sewer hook-ups may impede the town's efforts to create a mixed-use village center. The area proposed as Millis Center is well served by existing sewer lines, but if additional hook-ups cannot be made it will limit future growth in this area. The reliance on individual septic systems will encourage development of single homes on large lots while the possibility of private package plants may help encourage cluster residential developments where open space is used for a common leaching field for a group of houses.

15.6 Water, Sewer and Solid Waste Disposal Recommendations

The town should continue to pursue its request for additional capacity access to the Charles River Pollution Control District with the justification that its plan to encourage a mixed-use Millis Center will limit sprawl and aid in the preservation of open space.

The town should work with developers to encourage cluster development on appropriate sites as a means of both preserving open space and allowing residential development without having the need to make additional sewer connections.

The town should adopt stronger requirements for retention and recharge of ground water, especially for paved parking areas.

The town should also work with other near-by towns to develop a hazardous household waste disposal program.

16. COMMUNITY AND MUNICIPAL SERVICES AND FACILITIES

16.1 Community and Social Services

Millis has an adequate array of social services at hand for its residents, particularly services for the very young and very old. What is missing—services for domestic violence and support groups—is usually provided in nearby towns. One aspect where services fall short appears to be in activities for adolescents and teens. There are few organizations besides the Boy Scouts and soccer leagues that target this group. However, with the opening of the new town offices in the Veterans' Memorial Building and a drop-in center for teens planned in the space, this situation should improve. The Millis Council on Aging appears to be particularly active and to offer a wide variety of services not only for the elderly, but also for all Millis residents. Collaborative work between the Council on Aging and other Millis organizations and offices should yield a greater awareness of their services and will help these organizations reach a wider range of client groups.

16.2 Education

Other educational services in addition to the public schools include the Millis Public Library, the various activities of the Cub Scouts, Girl Scouts, Boy Scouts, and other after-school activities, and the Millis Recreation and Parks Department. The Recreation and Parks Department provides services for both children and adults, and offers courses ranging from tutelage in the arts to environmental education.

16.3 Religious Services

Many Christian denominations are represented in Millis; there are Catholic, Congregational, and Episcopal churches that offer services to the community. In addition, there is a large complex, the Guru Ram Das Ashram, devoted to the Sikh religion. There is also a Jewish congregation. (See Chapter 17: Historic and Cultural Resources for more information.) All of the religious institutions offer some additional services to the community. The Church of Christ Congregational operates the Millis Fund, which offers emergency aid to residents, youth groups, and support groups. St. Paul's Episcopal Church administers a clothing charity. St. Thomas the Apostle, the town's Catholic church, provides a food pantry. The Ashram offers yoga classes, parenting classes, day care, support groups, midwife services, chiropractic services, counseling, and a food co-op. Finally, Bethany House Ministries offers marriage support groups, pastoral counseling, and manages a thrift store.

16.4 Library

Located at 25 Auburn Street, the Millis Public Library offers residents over 40,000 volumes. The library is part of the 40-library consortium called the Minuteman Library Network. The library also provides computer terminals for both internal and consortium searches and Internet use.

The most imminent needs are space and staffing. Library resources and services have outgrown the existing building that was built in the 1960s. The staff is in the process of seeking a Planning Design Grant from the state in order to assess the existing facilities and prioritize additional needs. Needs include an increase in meeting, office, bookshelf, and storage space; complete Americans with Disabilities Act access compliance; space for computer wiring (there is currently no cellar or attic); and additional space for community and town groups to meet. The library is searching for several employees, including a full-time director.

The library is very active in the community. It offers adult book clubs, Children's Story Hours, craft activities, book talks for boys, mother / daughter book-related activities for girls, stamp clubs, summer reading programs, and drama workshops complete with outside performers.

16.5 Senior Center

The Senior Center, located at 900 Main Street (on the ground floor of Veterans' Memorial Building) is open 7 days a week from 8:30 am to 1 pm. The Center provides hot lunches; exercise and craft classes; legal, fuel, health, and other public assistance; a newsletter; and field trips. The Center also brings seniors and students together through Grandpals, panel discussions, and special events, such as the Veteran's Day Program, to which the Center plans to invite school children. High school students also help seniors with certain chores, including raking their lawns in the fall and shoveling their walks and driveways in the winter.

Four employees -- a Director, an Assistant, an Outreach Worker, and a Transportation Coordinator -- run the Senior Center and all its programs with the help of more than 150 volunteers per year. Volunteers range in age from high school students to seniors.

The Center also provides transportation services for seniors to get to and from medical appointments, shopping excursions, social events, and the Senior Center. All van drivers are currently unpaid volunteers, and most are elderly. Although the Center has three vans, they do not have the employee base to make the most efficient use of the vans. The biggest need right now is for a town-paid driver to better and more effectively address the needs of the town's senior citizens.

Another concern is that the Senior Center is quickly outgrowing the three rooms currently allocated them on the ground floor of Veterans' Memorial Building. The Director would like to have the financial support to seriously consider options to expand into a separate building.

16.6 Municipal Services

16.6.1 Fire Department

The Fire Department is located at 885 Main Street near the intersection of Plain and Main Streets, a space that they currently share with the Police Department. The Police Department, however, is considering relocating, a move that may yield the Fire Department as much as 5,000 square feet for needed office, meeting, and storage space.

The Fire Department has a second station in Rockville, at the intersection of Myrtle and Pleasant Streets, which they do not currently have the staffing to operate efficiently. They have plans for the near future, however, to use the building more consistently and efficiently. This will require additional funding and staffing.

The permanent Department force consists of four people: the Fire Chief, a Lieutenant, and two firefighter / Emergency Medical Technicians. The part-time force is made up of 35 call members all of whom are trained as firefighters (including First Responder training), and 12 of whom are also trained as EMTs. Approximately 1/3 of the firefighters also had Firefighter I and II training in 2000.

There is only one shift per day, Monday – Friday, 8am - 4pm. Most areas of town are reachable within the designated response time; however, some parts of town, including the western end of Orchard Street are slower to access. As a result, Millis has Mutual Aid Agreements under which the town will immediately contact member towns, such as Holliston and Sherborn, to dispatch firefighters who are closer to the fire.

Department representatives visit the local schools annually to teach children about fire and injury prevention. The Department is also currently seeking funding for certification of several firefighters as “Safe Program” instructors. Additionally, the Department hosts an open house once a year where they invite the community into the station and let them observe the facility and equipment and ask questions. The goal is to teach each individual something about firefighting or fire safety.

The most immediate need, besides reorganization of space and an eventual increase in square footage, is a new radio system to be shared by the Fire, Police, Emergency Medical Services (EMS), and Emergency Management Departments. Switching from a low band, which they currently use, to a high band (UHF) will increase the effectiveness and efficiency of the Department and reduce unnecessary interference in service.

16.6.2 Police Department

The Police Department is located at 885 Main Street near the intersection of Plain and Main Streets. They are currently in the same building as the Fire

Department, but are seeking a location that will increase their space by 10,000 – 15,000 square feet.

The permanent police force consists of 14 officers and 1 chief, four permanent dispatchers, 4 part-time dispatchers, 10 reserve officers, 4 EMTs, and 5 school crossing guards. The Police and Fire Department currently has a central dispatch that the Police Chief would like to continue despite the possibility of being in two different locations. There are 3 shifts per day with generally 1 sergeant and 2 officers per shift.

The officers have First Responder training, including CPR and First Aid, and use of automatic defibrillators. The Department offers several training programs throughout the year, including EMT training, 40-hour in-service training yearly for all officers to update them on changes in the law, their CPR knowledge, use of firearms, and this year, school violence.

Additionally, Millis has one officer delegated to the NORSTAR team, which trains officers in hostage, search and rescue, and drug situations. There are 85 people on the Norfolk County team. The program includes 22 departments plus a sheriff's office, and comprises a tactical police force, crisis negotiation section, and medical and special response teams.

The Police Department needs space. As mentioned previously, it is seeking 10,000 to 15,000 additional square feet. The new station should be located in Millis Center to strengthen the activity in the center. The Police Chief also identified needs for an additional full-time officer, one full-time school resource officer, and a full-time secretary. The Police Department also needs a new radio system as mentioned above.

The Police Department responds to approximately 60 calls per week. In addition officers write approximately 75 tickets a week. Non-traffic incidents include burglar alarm, medical emergency, domestic violence, vandalism, general service (e.g., suspicious incidents), and drug-related calls. There are few vehicle accidents. The Police Department responds to over 3,000 calls per year.

There is one officer dedicated to community policing issues. The department also runs a citizen's police academy, a RAD self-defense course for women, and TRIAD program that seeks to identify problems of senior citizens. Examples of TRIAD program initiative include; "are you okay" trips, safety in day-to-day activities, avoiding physical abuse from relatives or strangers, self-protection against scams, and volunteer options in the community. The Department is also considering creating a hotline for senior citizens.

16.7 Community Services Observations

Millis offers a great variety of resources and services to its residents through its community, social, and cultural services. These include social services and support programs (including the Senior Center), education (e.g., the library and after-school programs), and religious education and observance provided by religious institutions. However, in order to keep public services accessible and steady, it will be necessary to allocate adequate funding and support for staffing, outreach, upkeep, and space.

16.8 Community Services Recommendations

Library

- Seek funding for additional space, staffing, including a full-time director, and maintenance of existing programs for the library.

Senior Center

- Allocate funds to hire a full-time driver for the Senior Center vans.
- Provide for a Space Needs Study to research the possibility of the Center relocating to a freestanding building.

Fire Department

- Allocate funding to hire additional Fire Department staff in order to more efficiently run and maintain the Rockville Station.
- Seek resources for the education and certification of 'Safe Program' instructors.
- Allocate resources for a new high band radio system for combined use of the Fire, Police, Emergency Medical Services (EMS), and Emergency Management Departments.

Police Department

- Allocate resources to facilitate the anticipated Police Station relocation within Millis Center.
- Provide funding for additional staff including a full-time officer, a full-time school resource officer, and a full-time secretary.
- Set up a hotline for senior citizens.

17. HISTORIC AND CULTURAL RESOURCES

17.1 Historic Resources

Although there are no designated Historic Districts in Millis, there are several structures and sites that have been individually identified as historically significant. Historic Districts have been considered in Rockville and Holbrook Square, which is at the intersection of Curve and Exchange Streets.

Few structures have been formally designated as historic in Millis. The John Partridge House at Exchange Street and Shannon Lane is the only property in town on the National Register. Three others, Niagara Hall, the Ellice School, and the Rockville Chapel, are currently being considered for nomination. *Reminiscences*, a publication of the Historic Commission, takes the first step in recognizing these assets by describing and locating each of over 60 important sites. For this reason, this 100th Anniversary Tour is an invaluable resource for the town. The maps and descriptions of Millis' historic buildings and structures can and should be used to increase public awareness of Millis' history. This educational tool should be widely distributed and easily available at the Veterans' Memorial Building and other civic buildings, libraries, schools, and recreation centers. Additionally, the unobtrusive signs at each location highlight important information and encourage the visitor to look more closely at the environment.

A useful addition would be to create a coherent, chronological narrative of the town's history. One focus should be on the development of the town center and the growth of the town through its different stages, from farming community to industrial town to suburban community. Residents and visitors would be encouraged to walk through the town center, an activity that would increase public awareness of the town's history and further a sense of community.

17.2 Cultural Resources

Cultural resources include the various social, educational, religious, and recreational institutions that provide services to Millis residents. They also include the historic resources of the town and organizations that house or promote the arts. Millis' cultural resources are extensive and diverse; however, there are several opportunities to expand and improve access to these resources, particularly in the areas of education, historic preservation, recreation, and coordination between social service organizations.

17.2.1 Cultural Institutions and Organizations

Millis has a significant number of institutions and organizations dedicated to the social, physical, emotional, and religious betterment of the community. These should be recognized as valuable resources to help propel community development in Millis.

Table 20: Millis Cultural Institutions and Organizations

Resource	User Groups
Millis Public Schools	Children; Grades K -12
Millis Public Library	Public
Millis Recreation and Parks Department	Preschool, youth, adult
Oak Grove Farm	Public
Alcoholics Anonymous	Alcoholics & Relatives
Millis Country Day Care	Ages 0 – 7
Happy Hour Christian Day School	Children ages 2 - 9
Millis Integrated Early Childhood Program	Special needs children aged 3 - 4
Full Circle Farm School	Children ages 2 3/4 - 5, up to 7 for special needs children
The Millis Fund, Inc.	Residents in need
Millis Board of Health	Public
Church of Christ Congregational	Public
Ael-Chunon Congregation - Jewish	Public
St. Paul's Church - Episcopal	Public
St. Thomas the Apostle - Catholic	Public
Guru Ram Das Ashram	Religious Community/ activities open to the public
Bethany House Ministries	Public
Millis Ecumenical Food Pantry	Families
Millis Council on Aging	Elderly as well as residents in need and the disabled
Millis Extended Day Program	Grades K - 5
Cub Scouts of America	Boys, Grades K - 4
Boy Scouts of America	Boys, Grades 5 -12
Girl Scouts of America	Girls, Grades K - 12
Millis Youth Baseball/Softball	Grades K - 9
Millis Youth Soccer	Ages 7 - 14
Lions Club	Charitable (Social Club)

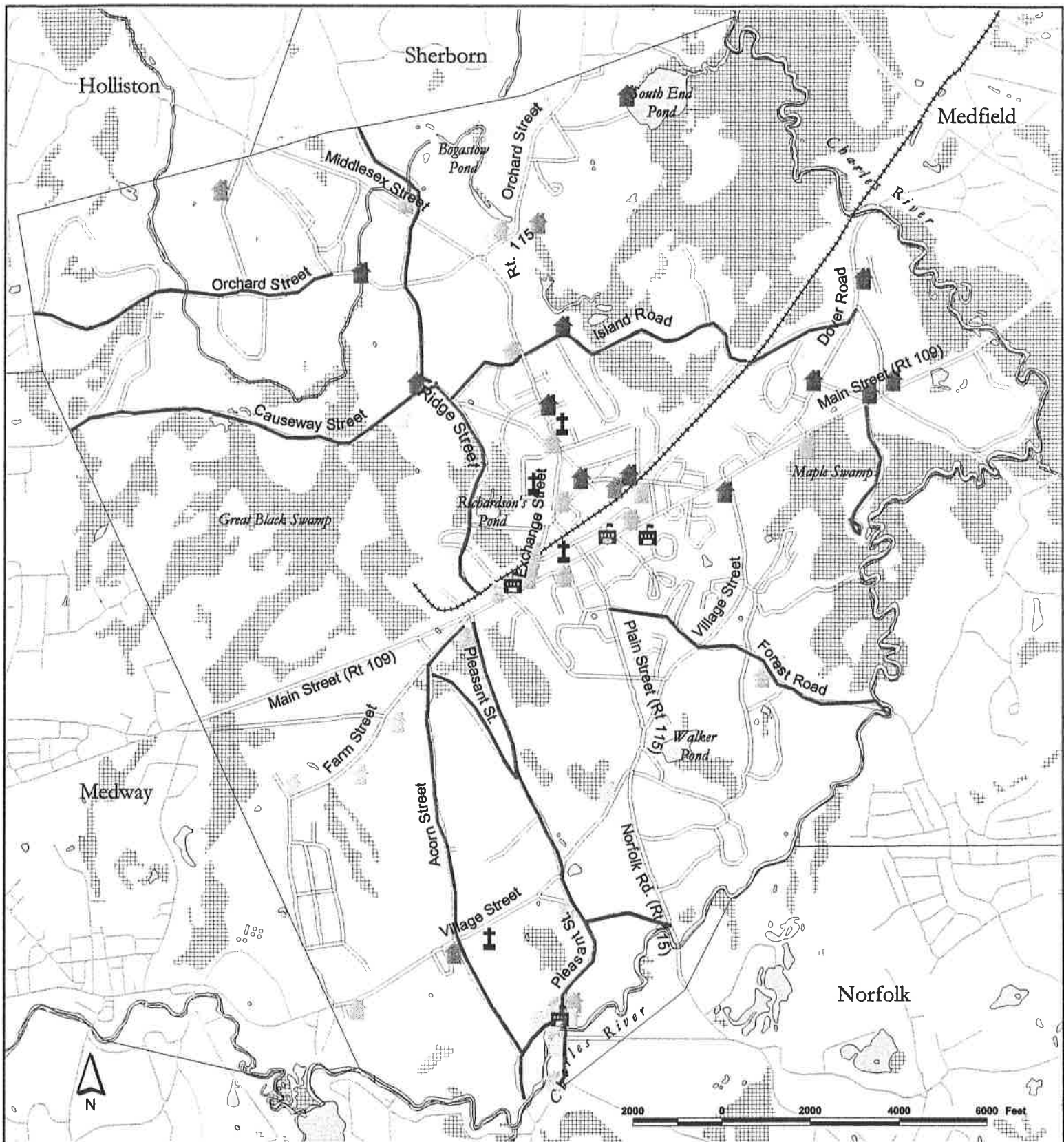
Source: Various Town Publications

17.2.2 Religious Institutions / History

17.2.2.1 The Christian Community

The Church of Christ

The Church of Christ was founded in 1714. The first church building was constructed in 1715. This first “meeting house” was destroyed by fire in 1749. The second was built in 1750 on Rabbitt Hill. In 1816, a third meeting house was built, conceivably to accommodate the growing number of churchgoers. The existing church (the fourth meeting house) was built in 1850 and was renovated in the late 1960s. The church houses an organ and has a bell produced in the local Holbrook Factory.



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Source: Millis Planning Board & MassGIS
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Town of Millis Massachusetts

Map 18: Cultural Resources

- | | | | |
|--|--------------------------|--|-----------------|
| | Veterans' Memorial Bldg. | | Historic Houses |
| | Attractive Roads | | 1658-1710 |
| | Police and Fire | | 1711-1760 |
| | Library | | 1761-1810 |
| | Churches | | 1811-1880 |
| | Wetlands | | 1861-1910 |
| | | | 1911-1970 |

St. Paul's Episcopal Church

St. Paul's Episcopal Church was founded in 1905 by a group of women who, until the church was built, held services in one of the members' homes. The women persisted towards the goal of raising money to construct a church until they got it. In 1910, the first stone was laid. In 1912 the church was completed. Oak furniture was purchased from Christ Church in Needham to furnish St. Paul's. The building is also home to many community organizations and programs including the Elder Services Lunch Program and the Girl Scouts.

St. Thomas the Apostle Church

St. Thomas the Apostle Church was built between 1936 and 1937. This structure contains many noteworthy features including Gothic elements, wrought iron hanging lamps, and a carved corpus, which has been "praised as a rare piece of church art," according to the town's centennial publication *Reminiscences*.

17.2.2.2 The Jewish Community

According to *Reminiscences*, the first Jewish family, the Handvergers, moved into town in 1898. Other Jewish families soon followed, drawn by the promise of inexpensive land, clean air, and a quiet atmosphere. So popular was the location that families began to rent out rooms in their homes to vacationers. Around 1907, hotels appeared along Main Street between Pleasant and Village Streets to accommodate the primarily seasonal travelers. The hotels were aimed at Jewish clientele offering kosher meals and religious holiday observance. As such, the hotels were open from April for Passover to September for Rosh Hashanah. This pattern of seasonal visitors continued until WWII when patronage dropped off significantly and only older Jewish travelers continued to come. As a result of this decline in clientele, most of the hotels closed. One, Novicks, remained open until 1975 when the building was partially destroyed by fire and was later renovated by the Sikh community.

The town's first synagogue was built in 1908. It was dedicated to the House of Jacob and was large enough to accommodate the entire Jewish Community. In 1928, Mr. and Mrs. Max Nathanson donated a portion of their property on Village Street for a new synagogue, which was named Congregation Ael Chunon. Although none of the Jewish hotels are any longer operating, the Congregation Ael Chunon still plays an active part in the community.

17.2.2.3 The Sikh Community

According to *Reminiscences*, the Sikh community in Millis began in the early 1980s when a group of about 50 people moved from the Boston area to Millis, which provided "clean air, room to run, and a better environment and education for their children." The Sikh Dharma group purchased the old 1920s-era Novicks Hotel, an 18-acre property. The Sikh community began renovating the building in 1981 and again in 1982 after a second fire befell

the property. The Sikhs live and worship together on this property, each family in their own living space with all residents sharing a common kitchen and community space.

The Sikh Dharma group continues to teach classes in the larger Millis community in yoga, nutrition, and other health-related topics. They also extend the reach of their teachings to Boston and Cambridge.

17.2.3 The Arts

The Millis Recreation and Parks Department and the Millis Town Library have taken on much of the task of arts promotion in Millis. The Recreation and Parks Department regularly sponsors trips to Boston museums and other cultural institutions, and offers crafts, music, drama, and drawing classes for local adults and children. Out-of-town participants are also welcome. The Millis Town Library promotes reading and writing with a Children's Story Hour, reading programs, and passes to regional cultural institutions.

A well-attended cultural activity in town is the Civil War Games, an annual reenactment of Civil War battles, which are performed at Oak Grove Farm. The reenactments are intended to instill an understanding of this historic period, and are sponsored by the Historical Commission and the actors themselves, who come primarily from Connecticut, New York, and Massachusetts.

17.2.3.1 Private Collections

There are several private collections of note in town. These include the Clicquot Collection at the Veterans' Memorial Building, which belongs to the Historical Society; the Hindy Rosenfeld Collection; and memorabilia from the family of local resident Christian Herter.

17.3 Cultural and Historical Resources Observations

It is clear that Millis takes great pride in its cultural institutions and historic resources. It is important that policies and recommendations be put in place so that these resources will be available for many more generations.

17.4 Cultural and Historical Resources Recommendations

The Millis Historical Commission's priorities are as follows:

- Restore Niagara Hall / Fire Station – This building has been designated one of the State's 10 most endangered historic resources. The Historical Commission has received \$50,000 from the State for the restoration of the station and its 19th century murals. When completed, the Commission plans to use the building for multiple uses, including a museum area to house an original horse-drawn fire pumper.
- Restore the Ellice School – This building is earmarked for living history projects by local schoolchildren.

Priorities for Historic Preservation

- Restore the Oak Grove Farmhouse – Located at the intersection of Exchange Street and Island Road, there is ongoing work to restore the 19th Century building, which is used for meetings, weddings, etc. and houses the Historical Society's artifacts.
- Refurbish the Historical Markers for the Centennial Tour of Millis (Historic trail found in *Reminiscences*).
- Create a map and walking tour of Rockville
- Update Millis' inventory of buildings and structures

Other recommendations for the Master Plan include the following:

- Create a more formalized list of historically and culturally significant properties.
- Implement a Historic Overlay District for the Rockville area.
- Consider a Historic Overlay District for the Holbrook area.
- Formalize designation of historic sites, including the Clicquot Tower.
- Increase use of historic town properties such as Oak Grove Farm, for town events and activities.
- Prepare and distribute self-walking tour maps and narratives of the town's history
- Allocate funding for achieving goals of Historical Commission priority list.

18. IMPLEMENTATION

18.1 Overview

Residents of Millis have the good fortunes to live in splendid natural surroundings, to enjoy forests and agricultural fields, to have opportunities to canoe and fish on the Charles River, to live among some fine examples of historic buildings and landscapes and to enjoy the intimacy and social support of a small town. They also have aspirations to guard their good fortunes and improve certain aspects of their community. The 2000 Master Plan has highlighted some of their most important priorities:

- Protect Water Quality and Educate the Public on Water Resource Protection
- Protect Natural Resources
- Increase, Enhance, and Maintain Open Space and Recreation Opportunities
- Encourage Appropriate Economic Development
- Promote Regional Cooperation
- Improve Vehicular Circulation and Pedestrian Mobility
- Encourage and Increase Level of Community Involvement

The Master Plan has also discussed factors affecting population growth, future development, natural resources and open space, housing, employment, pedestrian circulation and transportation, schools, water, sewer, solid waste, community services and facilities, historic and cultural resources, and land use and zoning, including a focus on Millis Center. The following sections outline specific steps to be taken or initiated by the Planning Board to guard the town's good fortunes and to make community improvements in keeping with the stated goals.

18.2 Adopt the Millis Master Plan 2000

Having the Town Meeting adopt the Master Plan is an important step in having it recognized as the guiding document for managing future growth. This requires a majority vote. The Master Plan should be completely updated at least every ten years. It should be selectively amended on an as-needed basis every two to three years. Amendments should be reflected both in relevant text, graphics and implementation measures. Amendments should be based on changing town conditions, funding opportunities, and shifting town values and goals. These should be monitored each year to determine if changes have occurred.

18.3 Land Use, Zoning, and Subdivision Actions

It is important for zoning and other major implementation controls to correspond to the recommendations in the Master Plan. Any proposed zoning changes should be evaluated against the Master Plan for conformity. If it is determined that proposed zoning changes do not conform to the plan, yet seem professionally desirable and publicly supported, the Master Plan should be amended to reflect the proposed zoning changes. If proposed

zoning changes are not professionally desirable, Town officials should not support them.

Current zoning is shown on Map 14. Existing overlay districts provide ample aquifer protection and control development in flood prone areas. The following recommended land use and zoning actions are intended to bring the zoning regulations into conformity with the Master Plan and to protect natural resources, increase open space and recreation opportunities, encourage appropriate economic development, improve mobility, and encourage community involvement.

- Rezone much of the industrially zoned land at the western end of Main Street (Route 109) to low density residential or conservation use. Retain the existing developed area as a light industrial and commercial zone. This provision is intended to limit strip development and channel future commercial growth into Millis Center. It also recognizes that much of this industrially zoned land is wetlands that cannot be developed.
- Rezone the gravel processing area at the eastern end of Main Street (Route 109) from industrial to commercial and office. This will allow the continuation of the existing use but signal the intent that the area be redeveloped at some point in the future with higher quality commercial uses that are more appropriate to their surroundings.
- Rezone small areas near the Charles River in Rockville and on Norfolk Road to allow "riverside commercial". These zones would allow small convenience stores, antique shops, and river-oriented commercial activities like canoe rentals.
- Create a Village Center Zone that will encourage mixed commercial, office and residential uses. This zone will focus appropriate economic development and improve mobility. It will also help create a center to encourage community involvement and interaction.
- Create a Village Center mixed-use cluster overlay provision. This provision would encourage developers to consider mixed-use cluster development in the Village Center Zone. Incentive bonuses could be given for affordable housing, small one and two-bedroom units, landscaping and community amenities, infill construction, adaptive reuse of existing buildings, apartments and/or offices over first-floor shops and certain other mixed uses.
- Investigate transfer of development rights as a way of stimulating village growth in Millis Center.
- Modify the Village Residential Zone to further allow home offices, mixed residential and commercial uses, bed and breakfasts, and a diversity of housing types including units restricted to residents over 55 years old. This is especially important as Millis residents age and begin to look for smaller units in convenient locations. This zone should allow accessory apartments and infill construction.

- Create a Rockville Historic Overlay District that would promote design and development that is in keeping with the historic resources found in this part of Millis.
- Create an open space residential development provision that would apply to all of the residential zoning districts in town. This type of provision would encourage developers to cluster housing on a portion of the land and save the undeveloped portion as open space. Incentive bonuses, allowing more average units per acre or an expedited permit process, could be granted to encourage sidewalks and trails, public access to the open space portion of site, affordable housing units, adaptive reuse of existing structures, and a variety of housing types.
- Evaluate "Conservation Subdivision Design" as a way of implementing open space residential development.
- Increase building front yard setbacks in the R-T and R-S zones from 40 to 60 feet. This will encourage the preservation of a forested strip along the road and help maintain the semi-rural character of Millis.

18.4 Other Municipal and Regulatory Measures

- Develop a position description for a part-time Town Planner and seek funding from Town Meeting.
- Prepare and adopt a Design Review By-law that would have advisory powers to influence design in the Village Center Zone, in other commercial zones, in the Historic Overlay District and in open space residential developments.
- Conduct an Economic Development and Marketing Study that focuses on Millis Center. This study would develop a strategy and marketing plan for promoting economic development in this zone.
- Prepare a Traffic and Circulation Plan for Millis Center. This study would develop proposals for parking, shared parking, and propose pedestrian / bike routes.
- Prepare a Streetscape Design Plan for Millis Center. This study would focus on improving storefronts, providing pedestrian amenities, landscaping, a Town Green, lighting, and gateways to Millis Center.
- Discourage expansion of the sewer system. New hook-ups should be used to foster business and residential growth primarily in Millis Center.
- Continue to implement the Millis Open Space Plan recommendations.
- Work to create a continuous Bogastow Brook / Charles River Greenway.

18.5 Institutional Changes

- Encourage the formulation of a Millis Merchants Association. Such an association would help spearhead efforts to foster economic growth and improve Millis Center.
- Establish a Millis Master Plan 2000 Implementation Committee. This committee would oversee and coordinate the implementation and updating of the Master Plan. It would be desirable for it to join forces with a similar committee recommended in the Town's Open Space Plan.

This committee may also fill the committee requirement for the Community Preservation Act.

18.6 Future Funding

Funding programs for assistance in the implementation of Master Plans with particular focuses are obtainable. The following is a short description of programs currently available. Keeping up with such programs and filing the required applications would be one of the responsibilities of the proposed Town Planner. The Massachusetts Department of Housing and Community Development offers a 116 page Program Book describing its funding and technical assistance efforts.

The Millis Master Plan 2000 has many innovative features that may help qualify the town for planning and implementation assistance. The plan encourages certain types of future development to be focused in Millis Center. It also encourages Conservation Subdivision Design as a means of reducing sprawl and saving open space and preserving the town's biodiversity.

18.6.1 Executive Order 418

Under Executive Order 418, the Massachusetts Executive Office of Environmental Affairs, the Department of Housing and Community Development, and the Executive Office of Transportation and Construction are cooperating on a major program to fund development planning. This program is just one example of programs that are being suggested to encourage towns to manage their future growth.

18.6.2 Community Preservation Act (CPA)

The CPA allows communities to create a local Community Preservation Fund funded through a surcharge of up to 3% of the real estate tax levy on real property in the municipality for open space, historic preservation and low and moderate housing. The Master Plan recommends that Millis explore this means of obtaining additional funds.

18.6.3 Massachusetts Downtown Initiative

The Department of Housing and Community Development offers information on a variety of funding sources and technical assistance through its Massachusetts Downtown Initiative. While many of this program's elements are focused on revitalizing older downtowns, some elements and ideas may be applicable to Millis Center.