

Town of Sprague, Connecticut

**PLAN OF CONSERVATION
AND
DEVELOPMENT**

**Prepared For:
Planning & Zoning Commission
Town of Sprague, Connecticut**

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View towards Baltic Village from Route 97 (HMA)

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Town of Sprague Memorial Park (HMA)

I. INTRODUCTION & BACKGROUND

A. HISTORY OF THE TOWN OF SPRAGUE

Located in southeastern Connecticut, Sprague is a community with almost 3,000 people living in more than 1,164 housing units located throughout 13.8 square miles. In terms of population density, Sprague currently accommodates roughly 215 persons per square mile.

The land known today as the Town of Sprague was incorporated in 1861. William Sprague, the Governor of Rhode Island, was looking for a location to begin a new town. After finding in the Shetucket River a wonderful water source from which to operate mills, Sprague purchased land within the towns of Franklin and Lisbon to create his new mill town.

Many of the workers who came to work at the town's mills were French Canadians who had limited employment opportunities in the rural areas of their native country. This fact is evident in the many French Canadian descendants that still live in the Town of Sprague today.

The three villages located in the town form the primary historic and economic centers of Sprague. Baltic, Hanover, and Versailles have been the traditional centers of development and commercial activity as the town has evolved over the past 145 years. Today, these villages are still an important part of the town, and their role as centers in Sprague form a primary foundation to many of the goals and objectives outlined in this Plan of Conservation and Development Update.

Sprague is a community with almost 3,000 people living in more than 1,164 housing units located throughout 13.8 square miles.

Baltic, Hanover, and Versailles have been the traditional centers of development and commercial activity as the town has evolved over the past 145 years.

B. WHAT IS A PLAN OF CONSERVATION & DEVELOPMENT?

Chapter 126, Section 8-23, of the Connecticut General Statutes requires that a planning and zoning commission "*prepare, adopt and amend a plan of conservation and development for the municipality*". The purpose of a Plan of Conservation and Development is to record the best thinking of the town as to its future growth and to give direction to both public and private development. The Plan should encompass a long-term vision of the community but also offer guidance for short-term decision-making.

While future oriented, a Plan of Conservation and Development reflects the goals and objectives of a community at a point in time, with regards to changes in economic conditions, lifestyles, goals and objectives of a community. In recognition of this, the State statutes require that the Plan be updated at least every 10 years, so that the long-term planning process is originating from a relatively current inventory of existing conditions.

While future oriented, a Plan of Conservation and Development reflects the goals and objectives of a community at a point in time, with regards to changes in economic conditions, lifestyles, goals and objectives of a community.

Over the past two years, the Planning and Zoning Commission has received several individual plan elements on various topics. Each of these plan elements provide background information, conditions maps, analysis of trends and conditions, and goals and recommendations for future actions.

The primary goals of the Town of Sprague over the next ten years are to focus the majority of new development and redevelopment in the Town's three village centers; direct additional growth in the outlying areas of the town that is light in bulk and intensity, and identify and preserve natural resources in areas of town that have been identified as high priority.

C. SPRAGUE'S PLAN UPDATE PROCESS

In the middle of 2004, the Town began the process of reviewing and updating its 1994 Plan of Conservation and Development. Over the past two years, the Planning and Zoning Commission has received several individual plan elements that covered various topics ranging from demographics to community character. Each of these plan elements provided background information, conditions maps, and analysis of trends and conditions since the completion of the 1994 Plan, and goals and recommendations for future actions. Because of the extent of the information provided, these plan elements serve as technical background for the contents of this Plan.

The Plan Elements prepared as part of the Plan Update Process are:

- Geographic Information Systems (GIS) Mapping Phase
- Community Character (August 2004)
- Demographics (September 2004)
- Natural Resources Inventory (September 2004)
- Housing (September 2004)
- Parks, Recreation and Open Space (October 2004)
- Development Patterns and Trends (October 2004)
- Transportation and Circulation (November 2004)
- Community Facilities and Infrastructure (December 2004)
- Generalized Land Use Plan (March 2005)

In addition, while not an individually prepared technical memorandum of this Plan of Conservation and Development Update, a strategic plan for the economic redevelopment of Sprague prepared by the Sprague Economic Development Commission and titled "2004-2014 Strategic Plan for the Economic Redevelopment of Sprague" was consulted and recommendations were included in Chapter 10 of this plan.

The key components of the Plan of Conservation and Development are the guiding Goals and Objectives, the Generalized Land Use Plan and the Action Agenda, which details steps towards implementation.

As to be discussed in this Plan, the primary goals of the Town of Sprague over the next ten years are as follows:

- Focus the majority of new development and redevelopment in the Town's three village centers;
- Direct additional growth in the outlying areas of the town that is light in bulk and intensity, and is of a scale that harmonizes with the current development patterns outside of the villages; and
- Concentrate efforts on identifying and preserving natural resources in areas of town that have been identified as high priority, with special attention paid to the vicinity of the Shetucket River.

The Plan of Conservation and Development and its associated Generalized Land Use Plan serve to guide the Town's future conservation and development efforts as an advisory and policy-guidance document. Key to successful implementation of the Plan is the creation of Zoning and Subdivision Regulations, design guidelines, and/or implementation techniques that explicitly outline and enforce the "future visions" described in the Plan.

D. VISION STATEMENT

The Town of Sprague is a small Connecticut community that has developed around three historic villages within a larger setting of primarily undeveloped open lands. Maintaining a balance between continuing residential, commercial, and industrial development with the preservation of natural and open space resources is an underlying theme throughout this Plan.

Sprague is a community that recognizes the importance of these villages, and therefore this Plan places great emphasis on strengthening the role of these villages as the primary centers of civic, residential, commercial and industrial activities in the Town of Sprague. In terms of its developed environment, Sprague seeks to focus the majority of its growth in and around its village centers, while exploring the possibility of modest expansion of business in its industrial zone and allowing for lightly developed land uses along its major roadways outside of the village centers.

Sprague is also a community that, by focusing development into concentrated centers, has thus far prevented the uncontrolled development that could eliminate much of Sprague's natural resources. In this Plan, Sprague supports ways in which the Town can preserve its rural and undeveloped character by prioritizing the protection of its natural, historic, agricultural, and forest resources.

Sprague places a high priority on providing high quality services to its residents while encouraging the Town's long-range fiscal health and stability. It strives to accomplish this goal of offering wide public services in a cost effective manner by managing future growth in a way that diversifies and strengthen the Town's tax base without negatively impacting the quality of life of Sprague's residents.

The Plan of Conservation and Development and its associated Generalized Land Use Plan serve to guide the Town's future conservation and development efforts as an advisory and policy-guidance document.

Maintaining a balance between continuing residential, commercial, and industrial development with the preservation of natural and open space resources is an underlying theme throughout this Plan.



State Route 97, viewpoint looking towards Village of Baltic (HMA)

II. COMMUNITY CHARACTER

A. INTRODUCTION

Community character is the essence of a town. Community character derives from our recollections of visiting and experiencing a place. The character of a town is shaped by its physical attributes and by the sense of community arising from the many activities that take place within its boundaries.

The creation of a community's character is a process involving incremental change. Change is a constant in every community and the character of a town evolves as the community grows and matures.

The utilization of the Plan of Conservation and Development to preserve and enhance desired aspects of Sprague's community character should begin with a collective perception of the elements that contribute to the formation of the town's community character. This section of the Plan will focus on defining Sprague's community character and will be followed by an examination of opportunities to preserve and enhance desired community character elements.



Duplex on Route 207, Baltic (HMA)



Roadway in Baltic (J. Osowski)

B. SPRAGUE'S VISUAL LANDSCAPE

Both its natural landscape and the built environment define the visual character of Sprague. Sprague's visual character is greatly shaped by its close connection to the multiple waterways that course through the Town, as well as its forested landscapes, its rolling topography, the presence of historic structures and the indelible mark left by over a century of mill industries. The physical character of Sprague will continue to evolve as elements of its natural landscape and built environment are altered, one lot at a time. The following summarizes some of the more prominent visual characteristics of Sprague's image and community character.



Shetucket River (J. Osowski)

The Natural Setting and Community Character

Pastoral and Rural Landscape

Substantial areas of Sprague's landscape were once open farmland, with cultivated fields and pastures for livestock. The remaining vestiges of Sprague's agricultural character, combined with its rolling terrain, creates a sense of openness that still dominates the visual character of significant areas of the Town.

Today, large areas of Sprague are forested and contribute to the Town's rural character. Views of open land and forested landscapes combine to provide a public perception that large areas of the Town are "open space," without distinction to the ownership characteristics of the viewed landscape.



Open meadow, Baltic (J. Osowski)



Aerial view of southern Sprague (C. Glaude)

The bulk of town-owned open space in Sprague is comprised of the land encircling the Baltic Reservoir, which represents about 359 of the 422 acres of municipally owned open space.



Salt Rock Campground (J. Osowski)



Pautipaug Hill Golf Course (J. Osowski)

Sprague's Natural Features

Of the 169 towns in Connecticut, Sprague is the fifteenth smallest with 13.8 square miles of land area. Sprague's terrain is largely rolling, punctuated by steep hills and valleys, flood plains and wetlands. Sprague contains several significant natural and man-made water features including: Versailles Pond and Papermill Pond on the Little River; the Shetucket River, which flows southeastward across Sprague; the Baltic Reservoir and the Hanover Reservoir; Beaver Brook; Old Stone Mill Brook; Adams Brook; and several industrial waste ponds in the area of Versailles. The *Significant Natural Features* map highlights the various features of Sprague's natural landscape.

Public Open Space

Town Owned Open Space

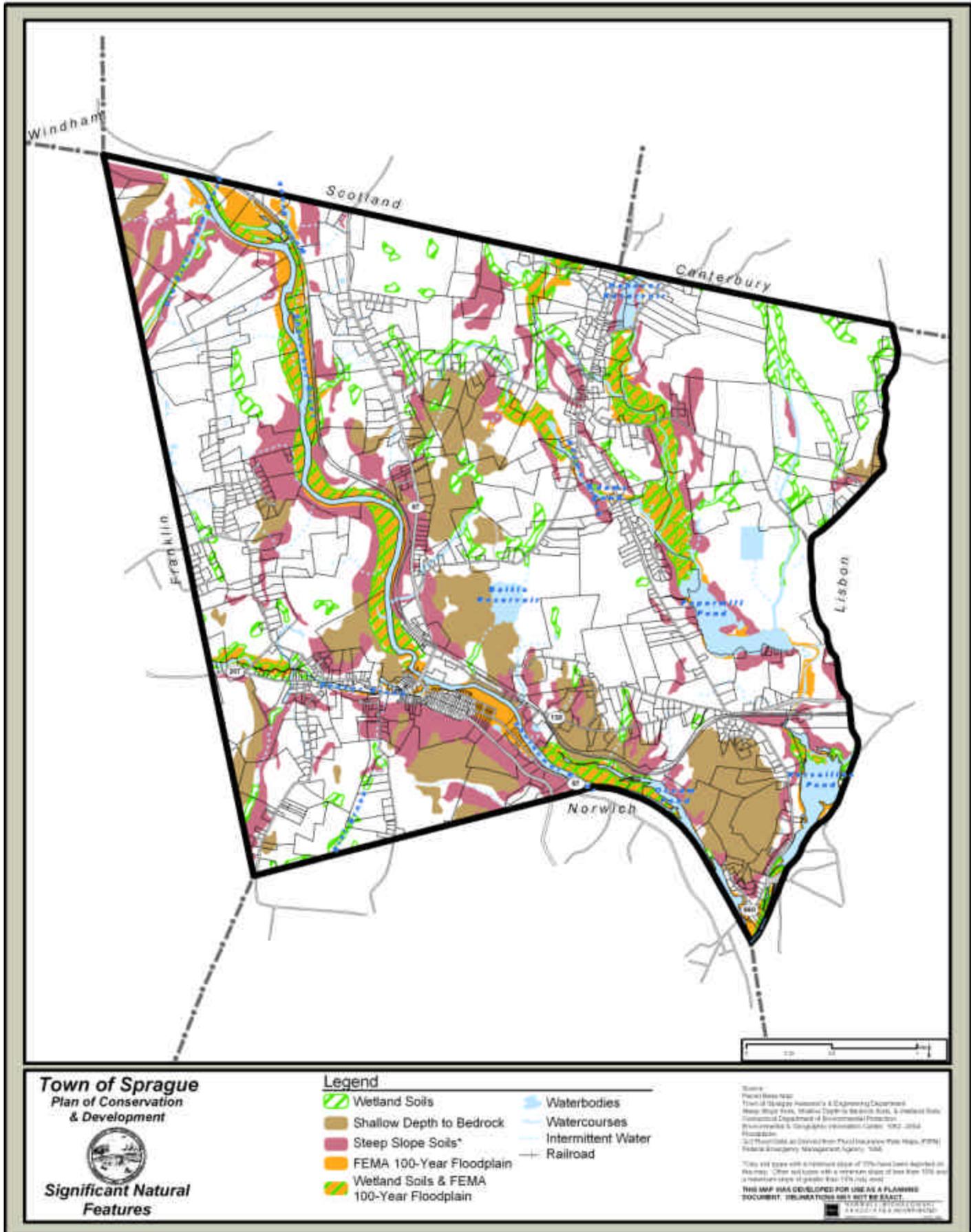
There are approximately 440 acres of open space under Town ownership scattered throughout Sprague. The bulk of this open space is comprised of the land the Town owns encircling the Baltic Reservoir, which totals roughly 359 acres. Other open space controlled by the Town includes over 20 acres in the village of Baltic that includes the Blanchette playing fields and access to the Shetucket River; an additional 22 acres along the eastern shore of the Shetucket River just north of the Route 97 bridge; over 13 acres associated with the elementary school; a small playground on Brookside Avenue in Baltic; and additional scattered pieces of open space in Hanover and Versailles.

State Owned Open Space

The State of Connecticut owns approximately 277 acres of land in the Town of Sprague. The Connecticut Department of Environmental Protection controls the Salt Rock State Campground in Sprague, located in the northwest corner of the Town along Route 97. This state park, opened in 2002, includes 120 acres of forest that had been farmland in the past. Salt Rock is primarily used as a campground, but also has accessory activities such as fishing and swimming. In addition, an 84-acre piece of the Mohegan State Forest (primarily located in the Town of Scotland) is located in the northwestern corner of the Town. The State Department of Transportation also controls a 42 acre parcel adjacent to the Shetucket River near the Norwich city line.

Open Land Owned by Private Organizations

There are a number of private organizations that collectively control over 190.5 acres of open space in the Town of Sprague. The Sprague Rod & Gun Club owns over 117 acres in several locations, and a few tracts of land in Hanover and the Pautipaug Hill area are held in private trusts.



As part of the Quinebaug and Shetucket Rivers Valley National Heritage Corridor, Sprague can take advantage of an array of tools to help protect, preserve and enhance both the natural and built components of its community character.

Quinebaug & Shetucket Rivers Valley National Heritage Corridor

The Quinebaug and Shetucket Rivers Valley National Heritage Corridor is a 35-town federally-designated area in Connecticut and Massachusetts that stretches from Norwich to Worcester. The corridor essentially operates as a national park without formal boundaries or administration, and has been billed as the “last green valley” in the Boston to Washington megalopolis. The corridor is managed by the Quinebaug-Shetucket Heritage Corridor, Inc., a 501(c)(3) non-profit corporation designated by Congress to promote interjurisdictional partnerships and independent actions on the part of local communities and others to protect and preserve the corridor, and to carry out projects of its own. As part of this national heritage corridor, the Town of Sprague can take advantage of an array of tools to help protect, preserve and enhance both the natural and built components of its community character.



Baltic Center (HMA)

The Built Environment and Community Character

In addition to the Town’s natural landscape, the perception of community character is significantly influenced by the visual qualities of Sprague’s built form elements. The primary elements that define the character of Sprague’s built environment are discussed below.

The Village of Baltic

In many ways, Baltic is the “center” of Sprague. In addition to being the location of Town Hall, Baltic is the most densely developed area of Sprague and has been designated as a National Historic District. It is also positioned along the Shetucket River near the former Baltic Mills site, which was the symbolic heart of Sprague’s industrial past. Along with duplex-style “mill housing” along Route 97 and small single-family homes, the center of Baltic has historically significant commercial buildings and educational and religious institutions. The village serves as the transportation crossroads of Sprague, where Route 97 connects with Route 207 to provide access to Pautipaug Hill and ultimately the City of Willimantic, and with Route 138 to access Versailles. These manmade features of Baltic’s built environment combine to provide the key focal point of “community” within the Town.



Aerial view of Hanover (C. Glaude)

Hanover and Versailles

In addition to the village of Baltic, Sprague has two other historic village centers, Hanover and Versailles. These two villages are smaller and less dense than Baltic, but provide a definitive built form focal point that is distinct from the surrounding areas. Hanover is a collection of moderate density housing along with a church, a cemetery and a post office centered along Main Street in the vicinity of the Salt Rock Road/Potash Hill Road intersection. Versailles is similar to Hanover in density and also has a post office. Both villages have unique built form characteristics and historical value.

Pautipaug Hill

Stretching north from Route 207 and along Pautipaug Hill Road on the western edge of the Town, the Pautipaug Hill area of Sprague provides an eclectic mix of housing types integrated into an agricultural backdrop. Large and well-maintained farm homes can be found near more modest ranch-style homes from the 1950s, 1960s and 1970s. Several of the cross streets off of Pautipaug Hill Road have fine examples of contemporary-style homes popular in the 1970s and 1980s. Amidst the existing mix of housing types, new housing construction is taking place on formerly undeveloped lots. Undeveloped and agricultural land remains in the neighborhood as well. This conglomeration of land uses and building types is reflective of an area with a rural past that is facing increasing development pressures as it moves toward the future.

Scotland Road and Central Sprague

Running north from Baltic to the Scotland town line, Scotland Road (Route 97) is the primary north-south route in Sprague. While primarily home to lower density residential uses, a mix of agriculture, recreation and open space can also be found. At the southern end of Scotland Road is Sayles Elementary School and its associated athletic fields, as well as the open space surrounding the Baltic Reservoir. The central portion of the Town between the village of Hanover and Scotland Road is sparsely developed, with Salt Rock Road and Main Street being the only areas with established development. New residential construction is taking place along Scotland Road as well as on Baltic-Hanover Road near the reservoir.

Road Network

Sprague has 36.9 miles of roads covering approximately 209 acres of the Town's landscape. What happens on, within and along this public realm significantly affects the perception of Sprague's community character. The *Public Corridors* map identifies the major public roadways that largely define the spatial experience of citizens and visitors through the town, thereby shaping their initial perception of Sprague.

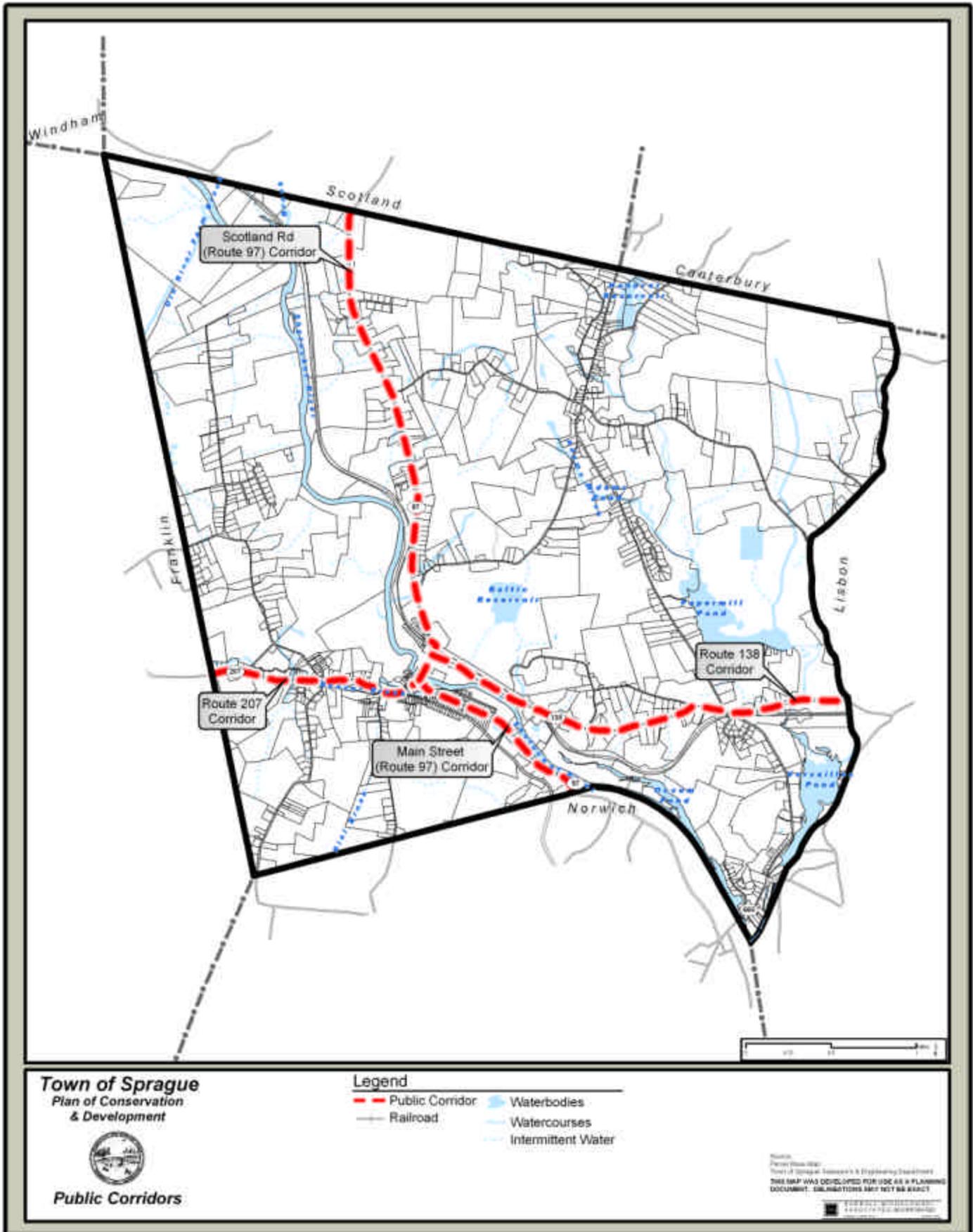
Sprague's road system is designed to serve two distinct purposes. First, the primary arterial roads in Sprague are generally state routes, and thus are designed and intended to connect different localities and provide more rapid travel between these different localities than would be possible on local roads. As a result, the primary purpose of roads such as Routes 97, 207 and 138 is to enable traffic to move around and through Sprague quickly, with local property access being a secondary consideration. Second, Sprague's relatively small number of local roads provide the necessary individual property access in the Town's residential neighborhoods, but are more suburban or rural in nature and are not designed for rapid movement from one place to another. The visual character of the public realm created by Sprague's local road system has significant variations.



Open field, Pautipaug Hill (HMA)



New Residential Construction, Pautipaug Hill (HMA)



The design standards required by the Town for the construction of new roads and the maintenance and improvement of existing roads will significantly affect the future visual appearance of Sprague and the perception of community character.

Historic Structures and Districts

Although incorporated in 1861, the Town of Sprague has a long history stretching back to the 1700s, when the town was part of Lisbon and Franklin. As a result, Sprague has an impressive number of historic and architecturally significant structures and features, especially considering the Town's small size. A variety of churches, homes, farms and mill buildings remain that in addition to being historic also add substantial aesthetic value to the Town's community character.

Three features within Sprague are listed on the National Register of Historic Places. These are the Joshua Perkins house on Potash Hill and Westminister Roads; the Occum Hydroelectric Dam; and the Baltic Historic District. In addition, there are features in Sprague on the State Register of Historic Places, which include individual homes as well as the mill housing in Baltic and Falcon Farm on Scotland Road.

C. MAINTAINING & IMPROVING SPRAGUE'S COMMUNITY CHARACTER

Elements of Sprague's community character that are highly valued can be considered in community planning goals and used as a guide in updating Sprague's Plan of Conservation and Development. Many of these elements are highlighted in the *Community Images* map. The community planning goals to follow can serve as the Plan's foundation for addressing the key issues of growth, conservation and the management of change.

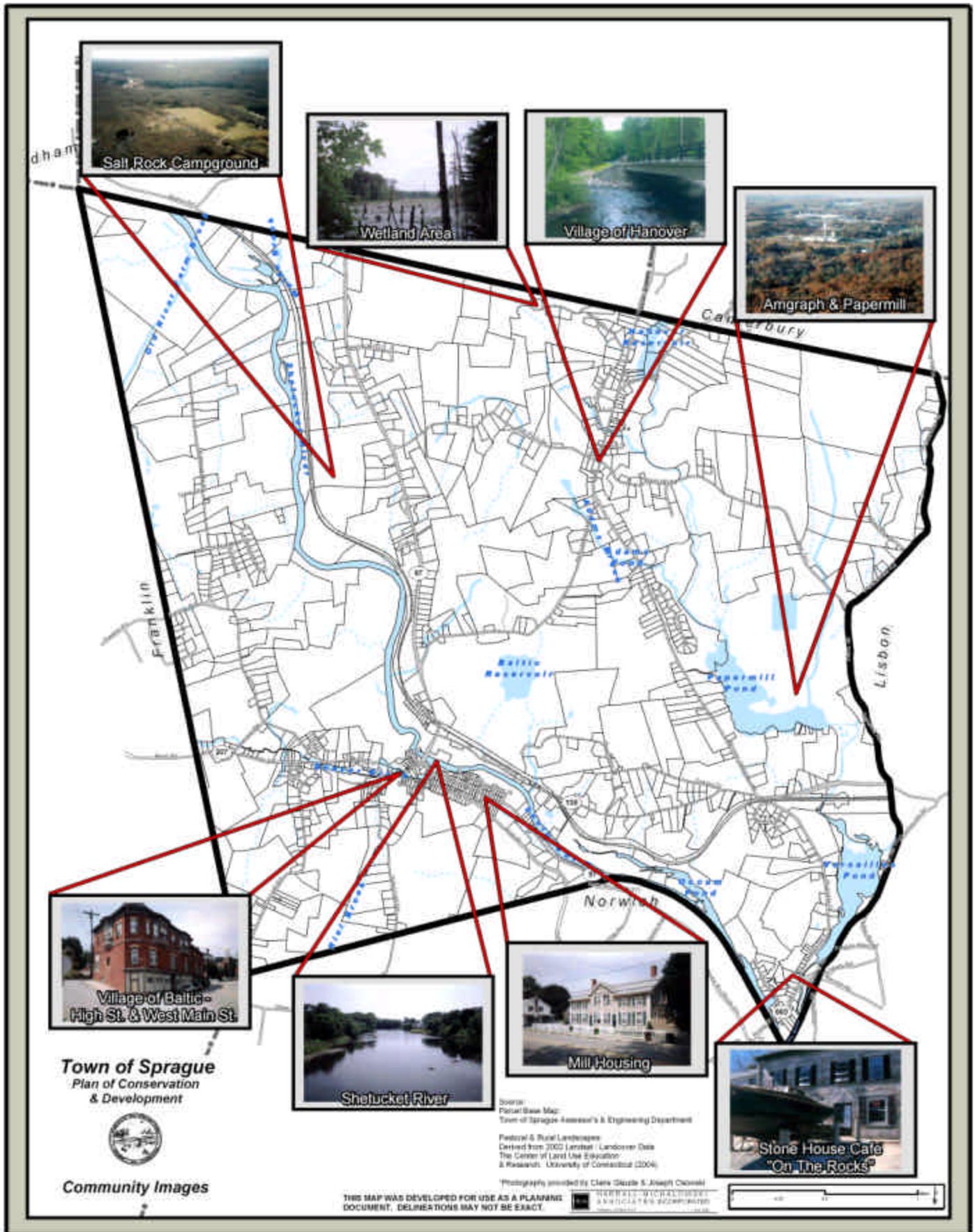
The following sections identify community character elements, discuss issues affecting those elements, define goals and suggest strategies for achieving the goals. The elements of community character used in developing community planning goals and strategies include: Sprague's Pastoral and Rural Landscape; Prime Features of Sprague's Natural Landscape; Sprague's Public Corridors; Open Space; the Three Villages; the Public Realm; and Residential Development.



Rural road (J. Osowski)



Route 207 (J. Osowski)



D. ELEMENTS & ISSUES

Element 1 – Sprague’s Pastoral and Rural Landscape

Issues:

- Sprague is located on the fringe of a metropolitan area that is facing a private market housing shortage, and it can be reasonably anticipated that Sprague will continue to face development pressures to meet the market demands for additional residential uses.
- The demand for population-supporting commercial uses follows the expansion of the residential base.
- The visual character of Sprague’s pastoral and rural landscape is altered one lot at a time, as undeveloped land is subdivided and built upon.

Located on the fringe of a metropolitan area facing a private market housing shortage, Sprague will continue to face development pressures to meet the market demands for additional residential uses.

Element 2 – The Prime Features of Sprague’s Natural Landscape

Issues:

- The future subdivision and development of land could create conditions that disturb or threaten the prime features (topography, watercourses, wetlands and woodlands) of Sprague’s natural landscape.
- Future land development activities could alter the visual perception of Sprague’s natural landscape.

Future land development activities could alter the visual perception of Sprague’s natural landscape.

Element 3 – Sprague’s Public Corridors

Issues:

- Some of the views of the countryside from Sprague’s roadways form lasting images of the Town’s natural beauty and contribute to the Town’s community character.
- Future subdivision and land development activities along these roadways, such as Route 97, could create conditions, which diminish the visual qualities of Sprague’s landscape.

Views of the countryside from Sprague’s roadways form lasting images of the Town’s natural beauty and contribute to the Town’s community character.

Element 4 – Open Space

Issues:

- Land in Sprague which is presently undeveloped is perceived by residents and visitors as “open space.” These lands, whether publicly or privately owned, contribute to Sprague’s bucolic character.
- It can be reasonably anticipated that Sprague will continue to experience modest cyclical market demands for new housing and limited retail and supporting commercial services.

Market pressures for residential uses will continue the process of subdividing privately held undeveloped land for construction, with a resulting loss of land visually perceived as “open space.”

Baltic is the historic and symbolic center of Sprague and contributes significantly to the Town’s community character, along with Hanover and Versailles.

Increased usage and the age of municipal facilities will necessitate continued upgrading, expansion and construction of facilities in the public realm.

- Market pressures for residential uses will continue the process of subdividing privately held undeveloped land for construction, with a resulting loss of land visually perceived as “open space.”

Element 5 – The Three Villages

Issues:

- Baltic is the historic and symbolic center of Sprague and contributes significantly to the Town’s community character, along with Hanover and Versailles.
- Portions of the market demand for limited retail and other commercial services will continue to be attracted to the three villages.
- Undeveloped land surrounding the village centers will continue to be a focus of development pressures for residential uses.

Element 6 – The Public Realm

Issues:

- The public realm includes Town buildings, parks, monuments and roads. The quality of the public realm strongly influences the perception of Sprague’s community character and community pride.
- Increased usage and the age of municipal facilities will necessitate continued upgrading, expansion and construction of facilities in the public realm.

Element 7 – Residential Development

Issues:

- Residential development is the largest category of use within Sprague’s built environment. The visual appearance of Sprague’s residential development significantly impacts the perception of the Town’s community character.
- Sprague is increasingly recognized in the residential marketplace as an attractive and affordable place to live, particularly in a constricted housing market with rising home prices. It can be anticipated that Sprague will continue to experience development pressures to meet market demands for residential uses.
- As affected areas of Sprague’s landscape transition through the subdivision process from undeveloped land to residential uses, the physical form of future residential development will affect the perception of Sprague’s community character.

E. GOALS & OBJECTIVES

Goal:

Maintain the Pastoral and Rural Characteristics of Sprague's Natural Landscape.

Objectives:

- Identify priority areas and individual parcels for conservation and preservation actions.
- Within identified priority areas, work with property owners and the Town Conservation Commission, to develop a strategy for the conservation and preservation of undeveloped land as it becomes available.
- Development fronting on local and state roads should be designed and situated so that a natural buffer area between the development and the roadway can be provided and maintained.
- Development occurring in areas identified as possessing rural or pastoral qualities are required to use "conservation" and "open space" subdivision design standards, without consequence to the permitted density of development. The design of conservation subdivisions would identify the areas of the site most sensitive to the destruction of the land's pastoral and rural qualities as a result of development and would site construction activities accordingly.
- Preserve the rural characteristics of the town roads serving the priority areas. The standards used for the construction, maintenance and upgrading of town roads should contribute to the preservation of the pastoral and rural characteristics of Sprague's natural landscape.

Development fronting on local and state roads should be designed and situated so that a natural buffer area between the development and the roadway can be provided and maintained.

Development occurring in areas identified as possessing rural or pastoral qualities should be encouraged to use "conservation" and "open space" subdivision design standards.

Goal:

Protect the Prime Features of Sprague's Natural Landscape.

Objectives:

- Identify the prime features of Sprague's natural landscape for protection actions.
- Support actions that protect floodplains.
- Support actions that limit the use of flood prone areas.
- Support actions that guard against increased downstream run-off.
- Support actions which continue the ability of wetlands to function as water storage areas or as groundwater recharge areas.

Proper soil conservation practices can help guard against soil erosion and stream sedimentation resulting from future land development activities.

- Support actions that protect areas containing slopes that exceed 15%.
- Support proper soil conservation practices to guard against soil erosion and stream sedimentation resulting from future land development activities.

Goal:

Protect Sprague’s Public Corridors

Objectives:

- Identify Sprague’s prime public corridors.
- Work with property owners and cooperating conservancy organizations to develop a strategy for the preservation of the areas viewed from the roadways within the corridors.
- Require new development to complement the existing character of developed areas within the corridors.
- Pursue the use of design standards for the construction, maintenance and upgrading of town roads which will contribute to the preservation of the visual qualities of town roads connecting to the prime public corridors.
- Consider the creation of distinctive gateways at key points of entry into Sprague and the three villages. Initiate actions, including land use considerations, development siting, design and landscaping to improve the initial visual impression of Sprague at its borders with Norwich on Route 97 and Riverside Drive, Scotland on Route 97, Franklin on Route 207, Lisbon on Route 138 and Canterbury on Baltic-Hanover Road and Westminster Road. Consider the same program of action around the entrances to Baltic on Routes 207 and 97, the entrances to Hanover on Main Street and Hanover-Versailles Road, and the entrances to Versailles on Route 138 and Riverside Drive.

Work with property owners and cooperating conservancy organizations to develop a strategy for the preservation of the areas viewed from the roadways within the corridors.

Require new development to complement the existing character of developed areas within the corridors.

Consider the creation of distinctive gateways at key points of entry into Sprague and the three villages.

Goal:

Protect the Rural Character of Sprague While Providing for Sensible Growth

Objectives:

- Identify key privately held, non-protected “open space” lands which if subdivided and developed would have a significant impact on the loss of Sprague’s rural community character.
- Prepare a future open space plan that identifies existing protected open space and lands recommended for protection as open space.

Identify key privately held, non-protected “open space” lands which if subdivided and developed would have a significant impact on the loss of Sprague’s rural community character.

- Develop a strategy for the conservation and preservation of lands identified for open space protection.
- Work with property owners, Town Conservation Commission and the State, to pursue opportunities to protect identified key properties, which contribute to Sprague's rural community character.
- Pursue linkages that connect components of the open space system.

Goal:

Provide Sensible Growth for Sprague's Villages and Outlying Areas

Objectives:

- Expand and delineate the boundaries of the three villages and promote mixed-use, high density (R-7.5) and medium density (R-20 residential development in these areas.
- Eliminate the R-40 (one acre) zone from the zoning regulations. This designation is not conducive to the implementation of Conservation Subdivision Regulations in our current regulations.
- Reduce the R-80 (two acre) Rural Density Zone and expand the R-120 (three acre) Natural Resource Protection Zone throughout the outlying areas of Sprague.
- Create a Watercourse Protection Zone within the recommended Watercourse Focus Area.

Goal:

Enhance the Visual Appearance and Vitality of Sprague's Village Centers

Objectives:

- Encourage new commercial and higher density residential development to occur in the center of Baltic in order to reinforce the village as the center of Sprague, to enhance its appearance and to protect open space and undeveloped land outside of the village center.
- Encourage small-scale commercial development and medium density residential uses in Hanover and Versailles to provide greater physical definition to the centers of these villages while protecting the undeveloped land surrounding them.
- Where possible, pursue efforts to protect the remaining open space surrounding the villages and to preserve the historic settlement pattern of compact villages surrounded by open land.

Expand and delineate the boundaries of the three villages and promote mixed-use, high density (R-7.5) and medium density (R-20 residential development in these areas.

Encourage new commercial and higher density residential development to occur in the center of Baltic in order to reinforce the village as the center of Sprague.

Consider the implementation of the Village District state legislation as a means of highlighting and revitalizing the three village centers.

Encourage actions to enhance the cohesiveness and appearance of the village centers, such as signage, landscaping, and lighting design features and improvements.

- Consider the implementation of the Village District state legislation as a means of highlighting and revitalizing the three village centers.
- Consider developing and implementing a façade improvement program in Baltic to restore the distinct architectural character of the village.
- Encourage actions that will enhance the cohesiveness and appearance of the village centers, such as signage, landscaping, lighting and other urban design features and improvements. Consider applying for grant funding through the Quinebaug and Shetucket Rivers Valley National Heritage Corridor to help fund this action.
- Re-energize and recruit new members to the Sprague Historical Society.
- Explore the creation of a community operated “Sprague Industrial Museum”.
- Create a list of residential properties of historical and architectural significance.

Goal:

Enhance the Public Contributions to Sprague’s Community Character

Objectives:

- Each upgrading, expansion or construction of a municipal facility presents the opportunity for residents to make a visual statement regarding the pride they have for their community. When constructing new Town buildings and upgrading existing facilities, pursue a design and siting strategy that will enhance the visual perception of Sprague and the public’s perception of Sprague’s community character.
- When considering the development of new Town buildings, including municipal offices, police, fire and emergency service facilities, pursue a strategy that integrates municipal facilities into the fabric of the surrounding neighborhood and enhances the character of the area served.
- Consider the co-location of municipal facilities, such as parks associated with schools or other public buildings, to create community activity centers and provide additional opportunities for community interaction.

When considering the development of new Town buildings, pursue a strategy that integrates municipal facilities into the fabric of the surrounding neighborhood.

Goal:

Residential Development Should Enhance Rather Than Degrade Sprague's Community Character

Objectives:

- Develop land use regulations that will result in the development of housing forms that maintain the visual perception of Sprague's rural landscape.
- Residential development fronting on local roads and public corridors should be sited with a visual buffer from the roadway.
- Land use regulations that use "conservation" and "open space" subdivision design standards, without consequence to the permitted density of development. The design of conservation and open space subdivisions should identify and attempt to conserve areas of the site that are most sensitive to the destruction of the land's attractive visual qualities.

Develop land use regulations that will result in the development of housing forms that maintain the visual perception of Sprague's rural landscape.



A view of the Shetucket River taken near Versailles (HMA)

III. DEMOGRAPHICS

A. INTRODUCTION

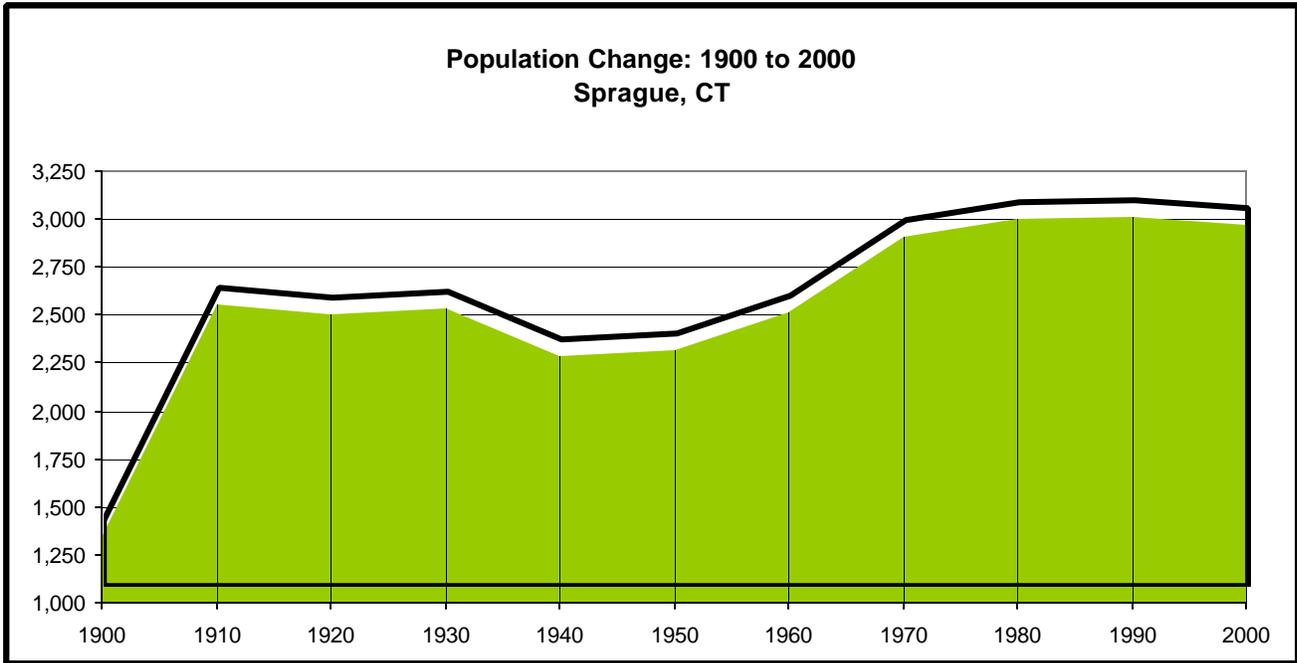
The understanding of demographic and socio-economic trends, characteristics and forecasts is crucial to the Plan of Conservation and Development process. This information provides the background by which future changes and development within a municipality can be anticipated and planned for. This section provides key demographic characteristics and trends for Sprague and the surrounding region. The statistics provided in the tables, charts and figures that follow reflect the most up-to-date data available.

B. POPULATION CHARACTERISTICS

As shown in Table 1 and the figure below, Sprague’s population growth in the past century has been characterized by periods of substantial growth that are separated by periods of little or no growth. The Town experienced its greatest percentage and numerical growth between the 1900 and 1910 Census, nearly doubling its population from 1,339 to 2,551. Sprague’s population change remained essentially flat for the next two decades, followed by a sizable decline during the Great Depression. The Town’s population grew at an accelerating pace after World War II, slowed after the 1970 Census, and peaked in 1990 at 3,008 people. According to 2000 Census figures, a minimal population decrease occurred during the 1990s, dropping Sprague’s population below 3,000.

Census	Population	% Change
1900	1,339	
1910	2,551	90.5
1920	2,500	-2
1930	2,539	1.6
1940	2,285	-10
1950	2,320	1.5
1960	2,509	8.1
1970	2,912	16.1
1980	2,996	2.9
1990	3,008	0.4
2000	2,971	-1.2

Source: U.S. Bureau of the Census



Source: U.S. Bureau of the Census

When comparing population change of the Town with the adjacent communities of Canterbury, Franklin, Lisbon, Norwich, Scotland and Windham, regional growth and migration trends are evident. As shown in Table 2, with the exception of the City of Norwich, which experienced a small population decline between 1950 and 2000, Sprague and its other adjacent communities experienced population growth. However, of the towns outside of Norwich, Sprague registered the smallest population increase at 28.1%. Canterbury, Lisbon and Scotland more than tripled their respective populations between 1950 and 2000, while Franklin increased in size by roughly two and one-half times. Windham had a more modest population increase of 43.9%. Windham had the largest numerical increase, gaining almost 7,000 people over the 50-year period. Canterbury gained over 3,371 people during the same time period to place second, while Sprague had a numerical increase of only 651, the smallest gain of any town outside Norwich.

Table 2
Comparison of Population Change: 1950 to 2000

Sprague and Surrounding Communities

	1950 Census	1960 Census	1970 Census	1980 Census	1990 Census	2000 Census	%Change 50 - 00	%Change 90 - 00
SPRAGUE	2,320	2,509	2,912	2,996	3,008	2,971	28.1	-1.2
Canterbury	1,321	1,857	2,673	3,426	4,467	4,692	255.2	5
Franklin	727	974	1,356	1,592	1,810	1,835	152.4	1.4
Lisbon	1,282	2,019	2,808	3,279	3,790	4,069	217.4	7.4
Norwich	37,633	38,506	41,739	38,074	37,391	36,117	-4	-3.4
Scotland	513	684	1,022	1,072	1,215	1,556	203.3	28.1
Windham	15,884	16,973	19,626	21,062	22,039	22,857	43.9	3.7
New London County	144,821	185,745	230,348	238,409	254,957	259,088	78.9	1.6

Source: U.S. Bureau of the Census

With the exception of the City of Norwich, which experienced a small population decline between 1950 and 2000, Sprague and its other adjacent communities experienced population growth during the past decade.

The components of the population change in Sprague have varied from decade to decade, as exhibited in Table 3. With the exception of the 1960s, Sprague has had a consistent pattern of population *out migration*; however, until the 1990s, the rate of natural increase within the Town's was always high enough to offset any loss in population through out migration. As the population has aged between 1950 and 2000, the death rate has closed the gap with the birth rate, limiting the number of people added through natural increase. The combination of these factors has resulted in a static or only slightly changing population in Sprague over the last three decades.

Table 3
Components of Population Change: 1950 to 2000
Sprague, CT

	1950s	1960s	1970s	1980s	1990s
TOTAL CHANGE	189	403	84	12	-37
Change Due to Natural Increase	317	256	210	275	130
Births	540	558	514	566	376
Deaths	223	302	304	291	246
Change Due to Net Migration	-128	147	-126	-263	-167

Source: U.S. Bureau of the Census; State of Connecticut, Department of Public Health, "State of Connecticut Registration Report", 1950-1995; State of Connecticut, Department of Public Health, Office of Policy, Planning and Evaluation; Policy, Planning and

Population Projections

In 1995, the State of Connecticut's Office of Policy and Management (OPM) prepared a population projection series to 2020 for the State and its municipalities. The figures were based upon the 1990 Census and population estimate trends up to 1995. As shown in Table 4, the State's projection for Sprague's year 2000 population was 249 people, or 8.4%, higher than the actual Census count. The projected population for the City of Norwich was 1,057 less than the actual Census count; similarly, Windham's projected population was 1,507 less than the Census count. Canterbury's actual 2000 population was 122 higher than projected, and Franklin exceeded its projected population by 175. Lisbon's actual population was 219 more than projected, and Scotland's population was 256 more than projected (a difference of 19.7%). The differences in projected versus actual 2000 Census counts ranged from a low of 2.6% for Canterbury to a high of 19.7% for Scotland, with a median of 6.6%.

Table 4
Comparison of Population Projections: 1990 to 2020
 Sprague and Surrounding Communities

	Actual 1990 Census	Actual 2000 Census	2000 Projected	2005 Projected	2010 Projected	2015 Projected	2020 Projected	Projected Change* 2000 - 2020
SPRAGUE	3,008	2,971	3,220	3,390	3,590	3,780	3,940	22.4
Canterbury	4,467	4,692	4,570	4,680	4,860	5,080	5,280	15.5
Franklin	1,810	1,835	1,660	1,650	1,710	1,780	1,860	12
Lisbon	3,790	4,069	3,850	3,910	4,000	4,100	4,200	9.1
Norwich	37,391	36,117	35,060	35,440	36,850	38,240	39,550	12.8
Scotland	1,215	1,556	1,300	1,360	1,450	1,570	1,710	31.5
Windham	22,039	22,857	21,350	21,780	22,580	23,280	23,930	12.1

Source: U.S. Bureau of the Census; State of Connecticut, Office of Policy and Management

*Change between projected 2000 Population and projected 2020 Population

The Town of Sprague was projected to post a significant population gain between 1995 and 2020 but is now projected to experience more modest growth.

The State of Connecticut Department of Transportation released a series of new population projections in late 2001 based upon the 2000 Census and summarized in Table 5 below. These projections extend from the baseline Census data for the year 2000 to the year 2025. By the year 2020, the communities of Franklin, Lisbon, Norwich and Scotland are projected to have higher populations than were originally projected in 1995, and Canterbury is projected to have the same population as projected previously. The picture is different for Sprague and Windham, however; both of these towns were projected to post significant population gains between 1995 and 2020 but are now projected to experience more modest growth.

Table 5
Comparison of Population Projections: 2000 to 2025
 Sprague and Surrounding Communities

	Actual 2000 Census	2010 Projected	2020 Projected	2025 Projected	Projected Change 2000 - 2025
SPRAGUE	2,971	3,140	3,290	3,370	13.4
Canterbury	4,692	4,860	5,280	5,490	17
Franklin	1,835	1,890	2,050	2,140	16.6
Lisbon	4,069	4,220	4,440	4,540	11.6
Norwich	36,117	37,380	39,560	40,900	13.2
Scotland	1,556	1,730	2,040	2,200	41.4
Windham	22,857	23,830	24,310	24,550	7.4

Source: U.S. Bureau of the Census; Projections – State of Connecticut, Department of Transportation, CONNDOT Series 27 Land use Projections (10/31/01); compiled by HMA.

Sprague’s population aged over the decade between the 1990 and the 2000 Census, and now over 47% of the Town’s population is in the 25 to 34, 35 to 44 and 45 to 54 year age cohorts.

C. AGE CHARACTERISTICS

Similar to most communities in the State, Sprague’s population aged over the decade between the 1990 and the 2000 Census. As shown in Table 6, over 47% of the Town’s population is currently in the 25 to 34, 35 to 44 and 45 to 54 year age cohorts. Although between the 1990 and the 2000 Census the Town experienced a significant loss in persons between the ages of 25 and 34, it still remains one of Sprague’s most populous age categories. The increase of population in the 35 to 44 and 45 to 54 years of age categories offset the decline in the 25 to 34 years of age category.

Pre-school aged population dropped considerably between the two censuses. The elementary and middle school-aged population (ages 5 to 14) increased by 87 children. The high school-aged population had a sizable decrease of 65 persons. From a planning perspective, the increase in the elementary and middle school-aged population impacts school enrollment, park and recreation facility planning and youth services planning.

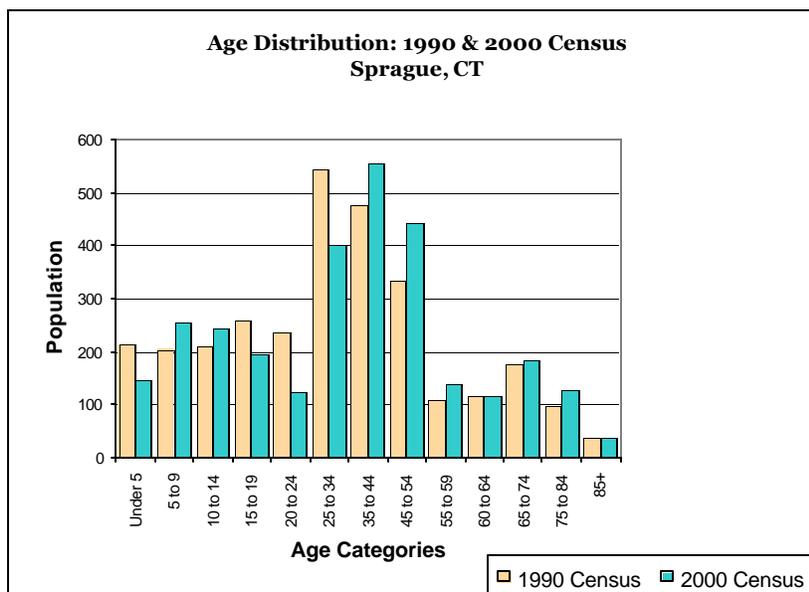
The population between 60 to 74 years of age was approximately unchanged while population over 75 years of age increased. Changes in population over 65 years of age impact planning for senior facilities and senior support services.

Table 6
Age Distribution: 1990 to 2000

Sprague, CT

	1990 Census	2000 Census	% of 2000 Total Population	Numerical Change 1990 - 2000	% Change 1990 - 2000
Under 5 years	212	147	4.9	-65	-30.7
5 to 9 years	204	256	8.6	52	25.5
10 to 14 years	210	245	8.2	35	16.7
15 to 19 years	259	194	6.5	-65	-25.1
20 to 24 years	235	125	4.2	-110	-46.8
25 to 34 years	543	403	13.6	-140	-25.8
35 to 44 years	476	557	18.7	81	17
45 to 54 years	333	442	14.9	109	32.7
55 to 59 years	109	139	4.7	30	27.5
60 to 64 years	116	114	3.8	-2	-1.7
65 to 74 years	177	184	6.2	7	4
75 to 84 years	98	129	4.3	31	31.6
85 years and over	36	36	1.2	0	0

Source: U.S. Bureau of the Census



Sprague's median age in 2000 (37.1) was slightly lower than the State's and slightly higher than the County's. Compared to the adjacent communities in the region, Sprague falls in the middle

for median age, with Windham, Norwich and Scotland all having median ages below that of Sprague. As shown in Table 7 below, Sprague's percentage of persons under 18 was higher than both the State and the County, but was roughly in the middle among the towns in the immediate region; the percentage of persons under 18 declined by only 0.6 percentage points since 1990. The Town's elderly population percentage grew between 1990 and 2000, but is still somewhat lower than both the County and the State percentages. This is not surprising, given that most of Sprague's population growth occurred between 1950 and 1970. People who moved into Sprague during the 1950s and 1960s were likely then in their 20s and 30s, and therefore are now entering their 60s and 70s. The tendency for older residents to remain in their homes may explain the Town's higher percentage of elderly persons.

Table 7
Age Characteristic Comparisons: 1990 to 2000
 Sprague and Surrounding Communities

	Median Age 1990 Census	Median Age 2000 Census	% Persons Under 18 1990 Census	% Persons Under 18 2000 Census	% Persons Over 65 1990 Census	% Persons Over 65 2000 Census
SPRAGUE	32.2	37.1	26.6	26	10.3	11.7
Canterbury	32.1	38.2	29.5	25.7	8.6	9.3
Franklin	36.1	39.9	24.4	24.1	8.7	12.8
Lisbon	33.3	39	25.3	26	9.7	11.4
Norwich	32.8	36.9	24	24.1	15.7	15.4
Scotland	33.6	36.7	27.7	28.2	10.1	8.9
Windham	30.3	31.4	23.2	23	13.4	12.6
New London County	32.5	37	23.5	24.4	11.9	13
Connecticut	34.4	37.4	22.8	24.7	13.6	13.8

Source: U.S. Bureau of the Census

The number of school age children has dropped dramatically from its 1970 peak of 849, and the number of children between the ages of birth and four years is only half of what it was at its peak in 1970.

Table 8 displays the age distribution historical trends in Sprague. The aging of Sprague's population is even more evident from this data, as the median age in the Town has increased by 10 years since 1970. The number of school age children has dropped dramatically from its 1970 peak of 849, and the number of children between the ages of birth and four years is only half of what it was at its peak in 1970. The number of adults has increased significantly between 1960 and 2000, with the greatest increase occurring in the 35 to 44 population. The over 35 population in Sprague grew by 34.3% during these 40 years, compared to only an 18.4% increase in the population as a whole.

Table 8
Historical Trends for Age Distribution: 1960 to 2000
 Sprague, CT

	1960	1970	1980	1990	2000
Ages					
0-4	272	294	215	212	147
5-19	636*	849	791	588	625
20-34	409*	566	790	863	598
35-44	347	313	341	476	557
45-54	315	319	255	333	442
55-64	236	263	271	225	253
65+	294	308	333	311	349
Median	N/A	27.2	28.7	32.2	37.1

* Estimates.
 Source: U.S. Bureau of the Census

D. RACIAL AND ETHNIC CHARACTERISTICS

As shown in Table 9, the racial and ethnic characteristics of Sprague’s population changed slightly between the 1990 and 2000 Census. In 1990 the White population comprised 97.4% of the total population; by 2000, the White population comprised two percentage points less at 95.4%. While overall population in the Town decreased by only 1.2% between 1990 and 2000, the White population decreased by 3.2%. Large percentage declines occurred in the Black population (-38.2%) and the American Indian, Eskimo or Aleut population (-17.4%), although the numerical declines were small. The Asian population saw both the largest percentage and numeric increases, more than tripling its 1990 population. The Hispanic population saw a sizable percentage decrease, dropping 13.2% during the decade. For the first time, the 2000 Census established a category of two or more races to recognize multi-racial populations in the country; 1.4% of the Town’s population reported that they were multi-racial in the 2000 Census.

The racial and ethnic characteristics of Sprague’s population changed only slightly between the 1990 and 2000 Census.

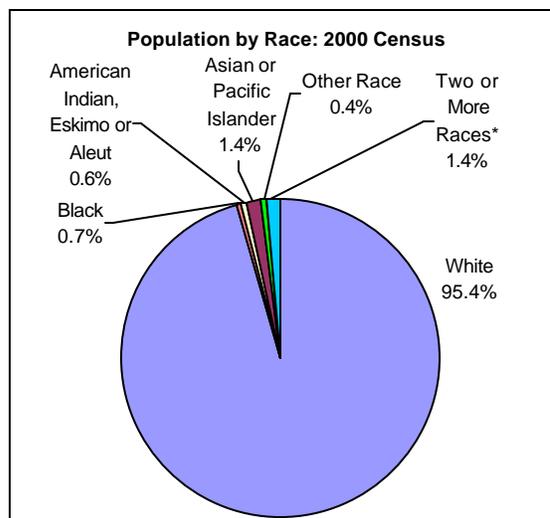
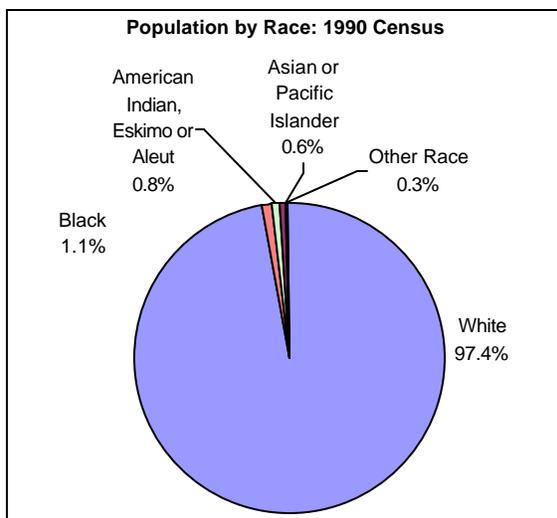


Table 9
Race and Hispanic Origin: 1990 to 2000
 Sprague, CT

	1990 Census	% 1990 Population	2000 Census***	% 2000 Population	Numeric Change	% Change
White	2,930	97.4	2,835	95.4	-95	-3.2
Black	34	1.1	21	0.7	-13	-38.2
American Indian, Eskimo or Aleut	23	0.8	19	0.6	-4	-17.4
Asian or Pacific Islander	13	0.6	42	1.4	29	223.1
Other Race	8	0.3	11	0.4	3	37.5
Two or More Races*	N/A	N/A	43	1.4	N/A	N/A
Hispanic Origin**	38	1.3	33	1.1	-5	-13.2
Total Population	3,008		2,971		-37	-1.2

Source: U.S. Bureau of the Census

Notes:

* The 2000 Census now includes a category for multi-racial persons of two or more races.

** Hispanic Origin populations may be of any race

*** Due to changes in the reporting categories between the 1990 Census and the 2000 Census, direct comparisons are not possible

E. HOUSEHOLD CHARACTERISTICS

Between the 1990 and the 2000 Census, the Town of Sprague gained 77 households (7.4%); an increase in households also occurred in all of the neighboring communities. Canterbury gained 214 households (14.2%), Franklin gained 39 households (6.0%) and Lisbon gained 183 households (13.6%). On a percentage basis, Scotland had the largest increase in households, gaining 135 households or 32.3% over the decade. Even the communities that lost population during the 1990s still increased their number of households; Norwich gained 73 households (0.5%) while Windham gained 214 households (2.6%). While large percentage increases in households in towns such as Scotland are partially reflective of the growing appeal of these towns for residential development, much of the increase in the number of households may be attributable to the changing nature of household structure, as described below.

Average household size in Sprague dropped from 2.79 persons per household to 2.63 persons per household. Drops in average household size are consistent with recent regional and national trends. Household sizes have decreased as a result of an increase in single person households, an increase in divorce and separations, the tendency for young professionals to delay marriage and families, and an increase in the number of elderly who remain in their own homes as opposed to residing with

Average household size in Sprague dropped from 2.79 persons per household to 2.63 persons per household, consistent with recent regional and national trends.

family. However, average household size in Sprague is now lower than all of its neighboring communities except the more urbanized communities of Norwich and Windham. Average household sizes for New London County and the State are still below that of Sprague.

Table 10
Trends in Households & Household Sizes: 1990 to 2000
Sprague and Surrounding Communities

	Population in Households 1990 Census	Households 1990 Census	1990 Average Household Size	Population in Households 2000 Census	Households 2000 Census	Average Household Size 2000
SPRAGUE	2,888	1,034	2.79	2,922	1,111	2.63
Canterbury	4,467	1,503	2.97	4,692	1,717	2.73
Franklin	1,810	648	2.79	1,830	687	2.66
Lisbon	3,790	1,342	2.82	4,069	1,525	2.67
Norwich	36,705	15,018	2.44	35,368	15,091	2.34
Scotland	1,215	418	2.91	1,556	553	2.81
Windham	20,352	8,128	2.5	20,576	8,342	2.47
New London County	241,364	93,245	2.59	247,208	99,835	2.48
Connecticut	3,185,949	1,230,479	2.59	3,297,626	1,301,670	2.53

Source: U.S. Bureau of the Census

According to 2000 Census figures, of the 1,111 households in Sprague, 71.8% are family households containing one or more related individuals and 28.2 % are non-family households. As shown in Table 11, 406 households in Sprague are family households with children under the age of 18. Of these 406 family households with children, 282 or 69.5% are married couple families; 85 or 20.9% are single mother families; and it can be assumed that the remaining 39 or 9.6% are single father families or children living with other family members besides their parents.

Non-family households comprised 28.2% of all households in the Town according to the 2000 Census. Non-family households include individuals living alone or households that contain one or more non-related individuals. They do not include people living in group quarter situations such as nursing homes, group homes, dormitories or other similar shared housing accommodations. Of the 313 non-family households enumerated by the 2000 Census, 236 were householders living alone or single person households. These single person households comprised 21.2% of the Town's total households. Elderly individuals living alone made up 98 of the 236 single person households. The number of single person elderly households,

Non-family households, which include individuals living alone or households that contain one or more non-related individuals, comprised 28.2% of all households in the Town.

Elderly individuals living alone made up 98 of the 236 single person households in the Town of Sprague.

especially those living in private market housing, is an important figure because many of these households will vacate their homes due to health or age-related reasons vacating existing housing units. Oftentimes, this turnover of units becomes an important resource for new families and households moving to a community.

Table 11
Households by Household Type: 2000
 Sprague, CT

Household Type	Number of Households	% of Households
Family Household	798	71.8
With Own Children Under 18	406	36.5
Married Couple Family	602	54.2
With Own Children Under 18	282	25.4
Female Householder, no husband present	136	12.2
With Own Children Under 18	85	7.7
Non-Family Household	313	28.2
Householder Living Alone	236	21.2
Householder 65 years and over	98	8.8
Households with individuals under 18	435	39.2
Households with individuals 65 years and over	252	22.7
Total Households	1,111	

Source: U.S. Bureau of the Census

F. FINDINGS AND IMPLICATIONS

In terms of planning for the next 10 years and beyond, several population, housing and employment trends in Sprague have future implications. These include:

- The Town of Sprague experienced minimal population loss between the 1990 Census and the 2000 Census that was unanticipated in terms of State demographic population forecasting. New population estimates released by the Connecticut Department of Transportation and based upon the 2000 Census project modest population growth for Sprague over the next two decades.
- The Town's population is aging, with a median age in 2000 of over 37 years. While the population of Sprague declined by 37 people between 1990 and 2000, the number of people ages 45 and older increased by 175 representing an over 20% increase in the size of this age group. This increase in the older age cohorts of the population has future planning implications for senior facilities and support services as well as potential supportive housing needs.
- Elementary and middle school aged populations increased noticeably between the two census periods, while the high school aged population experienced a sharp decline. The changes in the numbers and concentrations of these school-aged populations has implications for school planning, park and recreational planning and planning for facilities and services for the Town's youth.
- The growth in population between 45 to 59 years of age, thought to be those age cohorts reaching retirement, may impact housing turnover, the demand for alternative housing situations and the demand for particular town services and programs. These changes are likely to emerge over the next ten years.
- Although the average household size in Sprague of 2.63 persons per household is higher than the average household size for New London County and the State, it is still lower than all of its neighboring communities except Norwich and Windham. This is reflective of the number of families with children in both the Town and the northern New London County/southern Windham County area, which in turn is attributable to a housing stock that is primarily comprised of owner-occupied, single-family detached housing units.

New population estimates released project modest population growth for Sprague over the next two decades.

The Town's population is aging, with a median age in 2000 of over 37 years.

The growth in population between 45 to 59 years of age may impact housing turnover, the demand for alternative housing situations and the demand for particular town services and programs.

Sprague's history is defined by brief periods of rapid population and development growth separated by stretches of relative demographic stability.

- Sprague's history is defined by brief periods of rapid population and development growth separated by stretches of relative demographic stability. While the current demographic data, trends and projections indicate that Sprague's population will likely experience relatively slow and modest growth over the next decade, planning for additional growth and development before it occurs is the most proactive approach. The balance between development, resource and service needs, and location of new growth is a key part of the long-range planning process underway in this Plan of Conservation and Development update.



Residents of Sprague enjoying themselves at Sprague Day, 2004 (HMA)

IV. DEVELOPMENT PATTERNS & TRENDS

A. INTRODUCTION

Understanding the existing land use patterns of the Town is an important component to the Plan of Conservation and Development. Knowledge of where specific types of uses are located, particularly on a parcel basis, can help local officials identify areas that may have potential for economic development or open space protection. This section describes in detail the existing land use composition of the Town of Sprague. In addition, detailed land use maps have been prepared on a town-wide basis. An analysis that assesses the Town's capacity to accommodate new development is also provided.



Stockhouse Building (HMA)

B. LAND USE PATTERNS

The Town of Sprague has a total area of approximately 8,870 acres or 13.8 square miles. This area contains a variety of land uses including industrial, commercial, residential, institutional, and open space. Sprague is a rural town with varying land uses and densities. The Town is comprised of three separate villages: Baltic, Versailles, and Hanover. The village of Baltic contains the highest density of residential development and the greatest diversity of land use development. Baltic's primary commercial areas are along the State Routes 97 and 207. The village of Hanover is primarily medium density residential with new development occurring along Hanover Versailles Road. Versailles is a very small area of mixed-use development, primarily residential and commercial occurring along State Route 660.



Village of Baltic Streetscape (HMA)

As part of the study of existing land use and development potential, an analysis was prepared based on the Town's recently completed digital parcel base map. The town's land records have been incorporated into this parcel base map so that information such as land use, zoning, property assessment value (land and building) can be displayed and analyzed on a town wide parcel basis. While utilizing detailed information of this type for quantifying land use patterns and estimating development potential is more accurate than methods used in the past, it is important to recognize that the purpose of this study is to provide a generalized assessment of land use patterns and development potential as a guide for planning purposes. The figures presented herein are meaningful only in their relative magnitude when compared for the following purposes: to describe Sprague in terms of general land use characteristics and indicate growth trends when compared to previous similar studies.



Single-Family Housing (HMA)



Light Industrial land use in Sprague (HMA)

Land Use Assessment

According to the 1994 Sprague Plan of Development, the Town of Sprague’s approximate 14 square miles were devoted to the following uses.

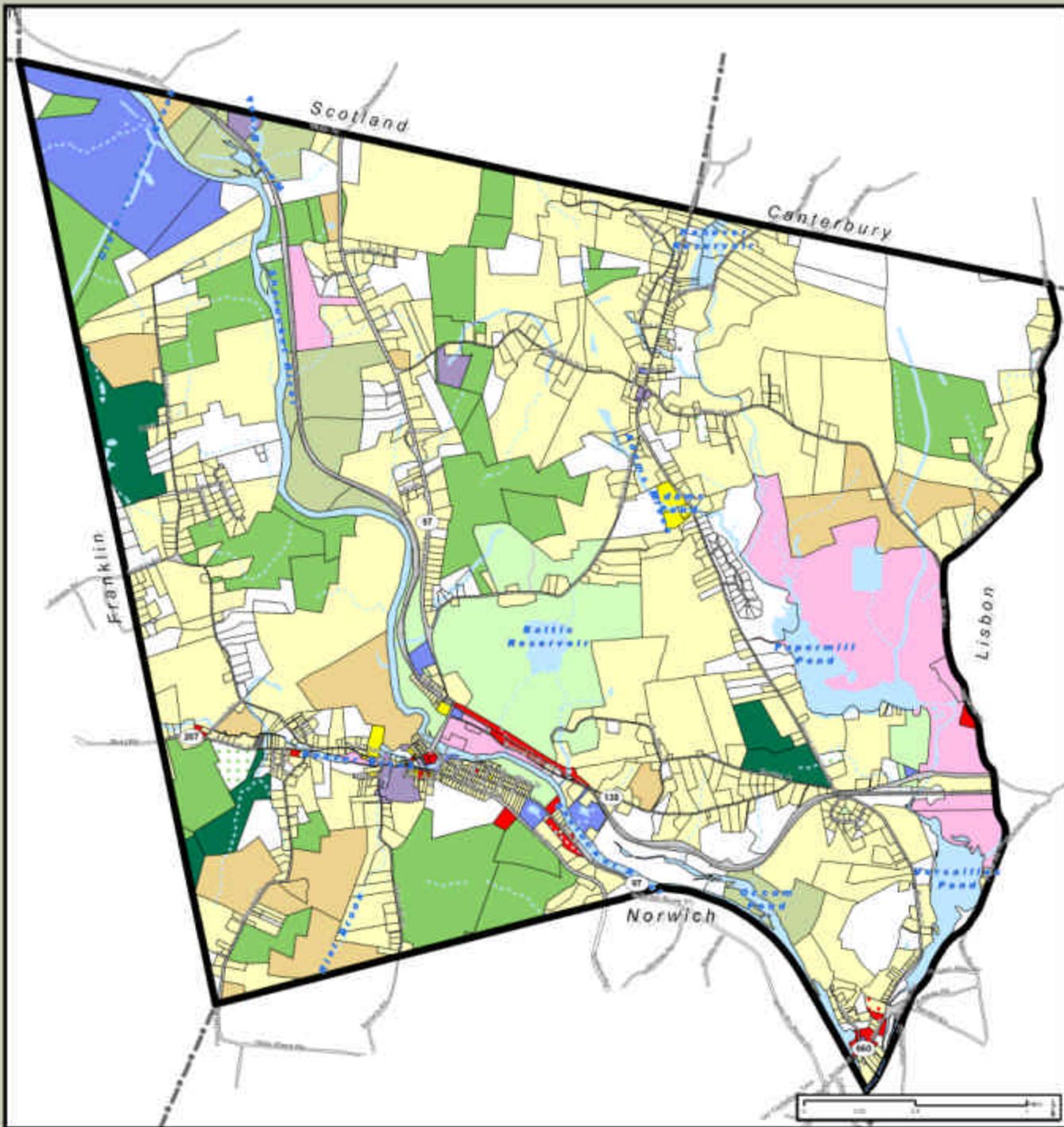
Land Use Category	Area (Acres)	Percent of Town’s Land Area
Residential ¹	549	6.20%
Commercial (Business & Commercial)	14	0.20%
Industry	169	1.90%
Roads, Railroads, & Utilities	263	3.00%
Institutional	55	0.60%
Open Lands ²	7390	83.30%

Source: 1994 Plan of Development (1990 Aerial Photographs; SCRPA Survey)
¹Inclusive of Low, Medium, & High Residential Densities.
²Includes Open, Vacant, Forested, & Agricultural Lands.



A Food and Drink establishment (HMA)

As part of this land use analysis, an updated land use inventory has been compiled. Table 12 describes the distribution and comparison of land amongst the major land use categories reported in the 1994 Sprague Plan of Development. Table 14 provides a more detailed breakout of the existing land uses in the Town, which are also illustrated on the map titled *Existing Land Use*. Although it is recognized that significant differences in inventory methodology and categorization of land uses between 1994 and 2004 do exist, it is still helpful to compare land use characteristics between decades in order to identify general trends in land development. The differences in source data and methodology, affect the ability of these statistics to be or not be directly comparable. Nevertheless, Sprague has continued to develop and mature as a community in all respects particularly in the Residential category, which experienced significant growth of while Open/Agricultural/Forested/Vacant Lands experienced a significant decrease.



Town of Sprague
Plan of Conservation & Development



Existing Land Use

Legend

Developed Land

- Residential
- Residential: Multi-Family- 3+ Units
- Residential: Mixed Use
- Commercial
- Industrial
- Private Institution
- Public Institution
- Utility

Undeveloped Land

- Agriculture
- Forest
- Open Land: Vacant

Open Space Land

- Open Land: Private Open Space
- Open Land: State Parks & Open Space
- Open Land: Town Parks & Open Space
- Open Land: Cemetery

Source:
Parcel Base Map:
Town of Sprague Assessor's & Engineering Department

Land Use Designations:
Town of Sprague Assessor's Department
HMA Field Survey (2004)

THIS MAP WAS DEVELOPED FOR USE AS A PLANNING DOCUMENT. DELINEATIONS MAY NOT BE EXACT.

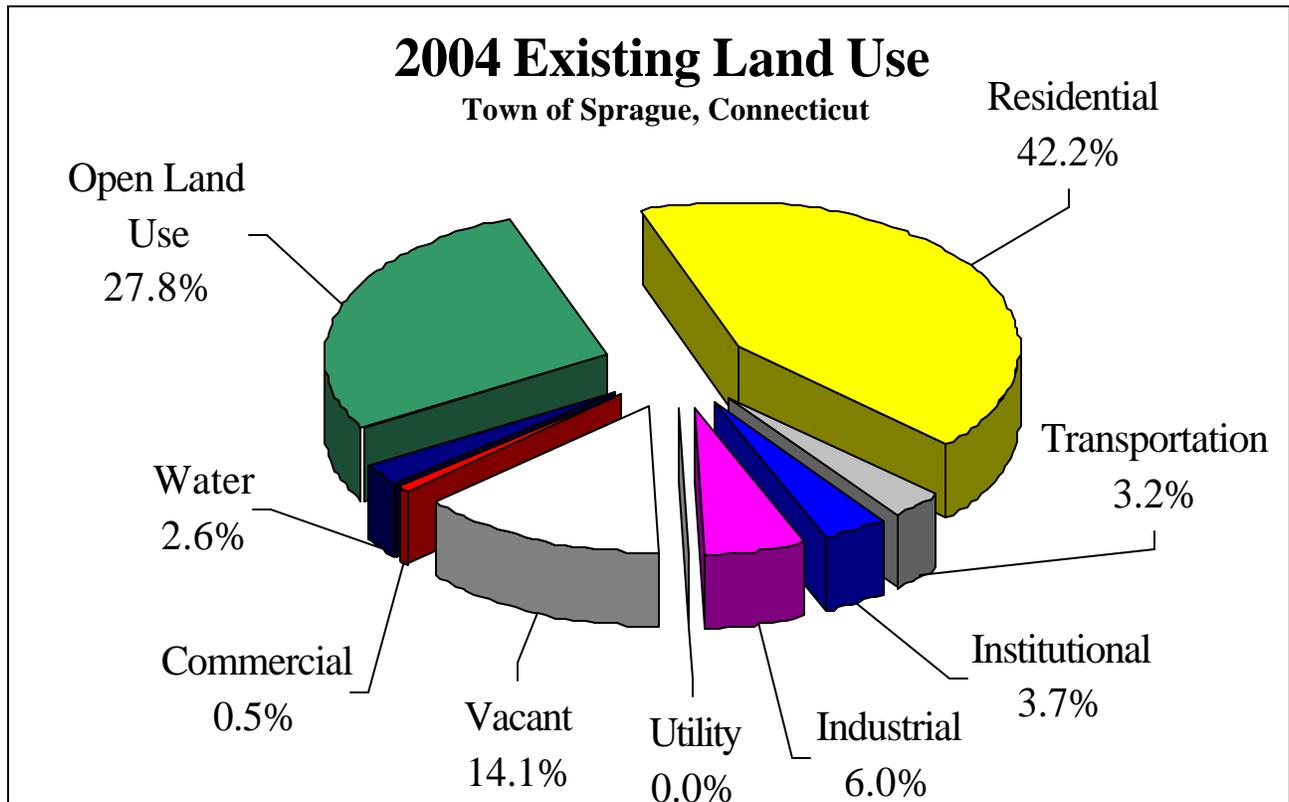
WORLDWIDE TECHNOLOGICAL ASSOCIATES INCORPORATED

Table 13 2004 Land Use Summary			
Land Use	Area (Acres)	Percent of Town's Land Area	Percent Change 1991 – 2004
Category			
Residential	3741	42.2%	580.0%
Commercial (Business & Commercial)	40.4	0.5%	185.7%
Industry	535.2	6.0%	183.0%
Utility	1.7	0.0%	0.0%
Roads, Railroads, & Utilities	281.7	3.2%	7.2%
Institutional	329	3.7%	498.0%
Open Lands ²	3712.8	41.9%	-41.8%
Waterbody	228	2.6%	0.0%
Total ²	8870	100.0%	

¹Based on the 1994 Plan of Development & 2004 Land Use Inventory
² Includes Open, Vacant, Forested, & Agricultural Lands.

The top three land use categories are currently Residential at 42.2%, Open Land at 27.5%, and Vacant Land at 14.1%.

As illustrated in the figure below, the top three land use categories in 2004 are Residential at 42.2%, Open Land at 27.8%, and Vacant Land at 14.1%. In total, approximately 42% of the land in Sprague is in an undeveloped category, while 6.5% is categorized as Commercial and Industrial Land. Within the Open Land category, the open space subcategory represents land protected from future development.



It is evident from the land use inventory conducted as part of this analysis that Sprague has a large amount of open land remaining. With approximately 2,780 of vacant, forest, and agricultural lands (31.3 % of the total land area), the potential exists for a large amount of development to occur on these open land uses. It should be noted that this estimate does not consider physical constraints such as wetlands, which may reduce the amount of developable land remaining.

The land use inventory conducted as part of this analysis indicates that Sprague has a large amount of open land remaining.

Table 14
Existing Land Use, 2004

Category	Area in Acres	% of Total
Residential	3741	42.2%
Family Residential*	3714.4	41.8%
Mixed Use Primarily Residential	3.7	<0.1%
Multi-Family: 3+ Units**	22.9	30.0%
Commercial	40.4	0.5%
Industrial	535.2	6.0%
Institutional	329	3.7%
Public Institutional	285.7	3.2%
Private Institutional	43.3	0.5%
Utility	1.7	<0.1%
Open Land Use	2,462.1	27.8%
Town Park/Recreation/Open Space	440	5.0%
State Park/Recreation/Open Space	277.3	3.1%
Private Recreation/Open Space	190.5	2.1%
Cemeteries	25.4	0.3%
Agriculture/Forest	1528.9	17.2%
Vacant Land	1250.7	14.1%
Waterbody	228	2.6%
Transportation	281.7	3.2%
Roads, Parking & Railroads	281.7	3.1%
TOTAL ACREAGE: Town of Sprague	8,870	100.00%
*Includes Residential Units with Occupancy less than 3 Units		
**Includes Residential Units with Occupancy of 3+ Units		

Sprague is a residential community consisting largely of family residential uses. Based on the 2000 Census, the Town's population in the 1990's exhibited a minimal decrease, but recent estimates for 2003 population released by the Census Bureau indicate that Sprague has begun to increase slightly in population. If this trend continues it is reasonable to expect that the residential land uses will expand in the coming years in order to accommodate this projected growth. Any expansion of residential uses in Town will most likely occur on the remaining open lands. Therefore, it is helpful for planning purposes to understand how much development can be accommodated on the Town's remaining vacant land. To accomplish this task, a development potential analysis has been conducted and is described in the following section.

Balancing the demands for housing or new commercial and industrial development with the physical constraints of the landscape and existing regulatory controls can prove to be a significant challenge.

C. ANALYSIS OF DEVELOPMENT CAPACITY

Balancing the demands for housing or new commercial and industrial development with the physical constraints of the landscape and existing regulatory controls can prove to be a significant challenge. Once factors such as availability of the necessary public facilities, adequacy of road and utility infrastructure and protection of valuable natural resources are considered, the balance gets even more complicated. This challenge is compounded by the reality that there is only a finite amount of land available for development. Understanding where the developable land is located within the Town and how much development can be accommodated based on existing regulatory controls and physical constraints on the landscape is the first step in establishing a development plan for the future. Once this is accomplished, issues such as infrastructure limitations and natural resource protection can be considered and new growth can be properly planned.

As a component to this Plan of Conservation and Development Update, an analysis was conducted assessing the development potential for the Town. This analysis reviewed vacant or undeveloped residential and non-residential zoned land for its physical capacity to support new or expanded growth. This growth is expressed in terms of potential dwelling units for vacant land areas zoned for residential use and total acreage for land areas zoned for non-residential uses. For the purpose of this analysis, agricultural land uses that are not deed restricted to remain open land are included as potentially developable land.

The detailed methodology used to perform this development capacity analysis can be referenced in the Development Patterns and Trends memorandum, printed in October 2004.



Contemporary housing near Hanover (HMA)

Existing Land Use and Zoning Conditions

As illustrated in Table 14, 14.1% of the Town is classified as Vacant Land. An additional 17.2 % is classified as agricultural/forest lands and as stated earlier is included in the development potential analysis. Visualizing the distribution of these vacant and agricultural parcels is important in order to gain an understanding of where future development may be accommodated. By combining the zoning boundaries with the vacant, forest, and agricultural land through overlays, a detailed understanding can be gained on what type of development can occur under the existing regulations. The map titled *Potential Lands for Development by Zone* illustrates the relationship between existing zoning and the remaining vacant & agricultural parcels in Town, with their distribution summarized in Table 15.



Vacant land on Riverside Drive (HMA)

Table 15

Potential Land For Development by Zone District

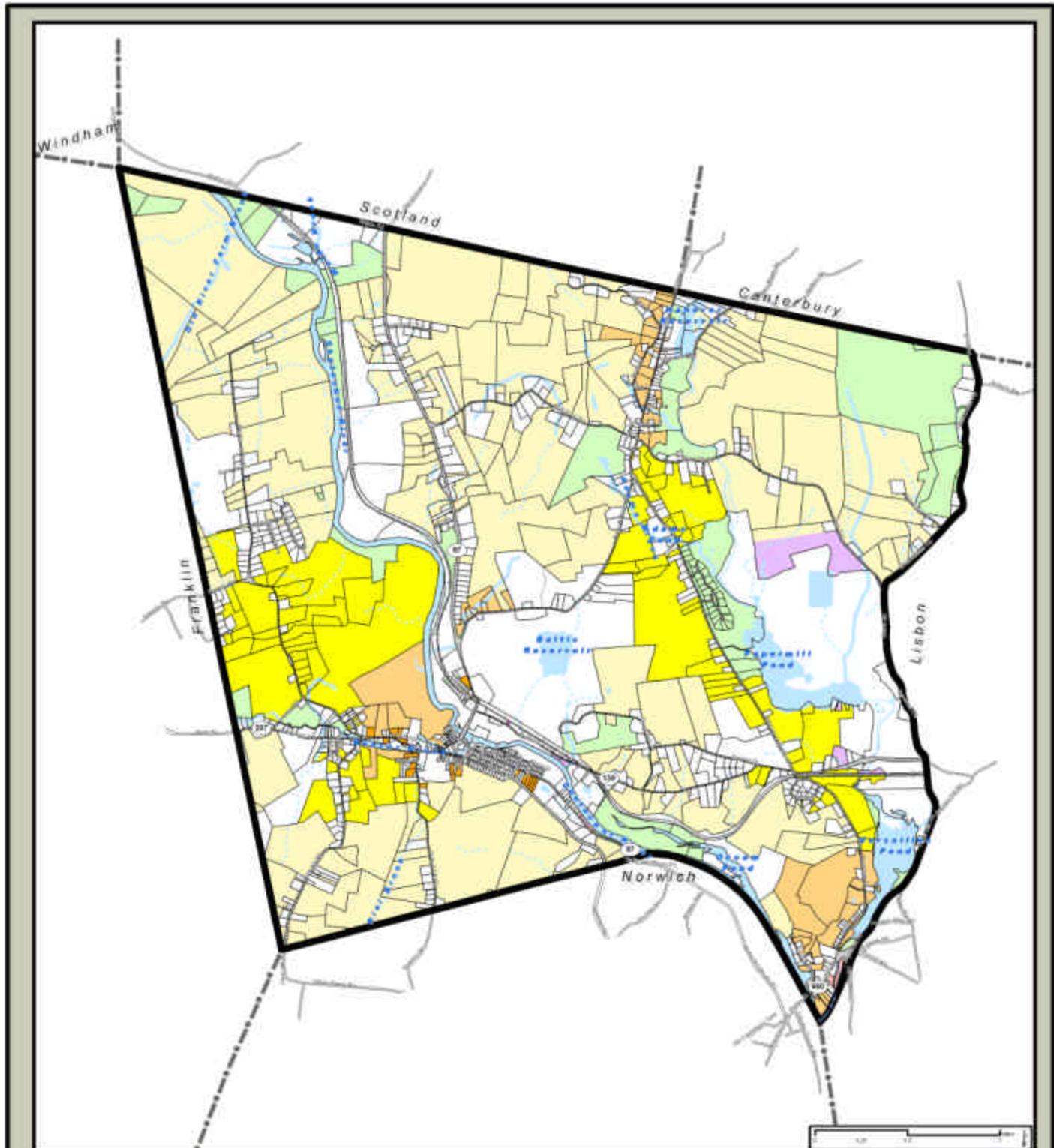
Zone	Acres within Zone District (acres)	Potential Land for Development (acres)	Percent of Zone For Potential Land for Development	% Of Total Potential Land for Development
R-120	1444.3	752.1	52.10%	12.70%
R-80	4562.7	3699.7	81.10%	62.70%
R-40	1241	1024.2	82.50%	17.40%
R-20	416.7	326.6	78.40%	5.50%
R-7.5	72.8	16.6	22.80%	<1%
Residential Subtotal	7737.5	5819.2	75.20%	98.60%
C-1	46.2	4.3	9.30%	<1%
C-2	10.7	0.1	<1%	<1%
CI	28.8	0.2	<1%	<1%
I	620.1	77	12.40%	1.30%
Commercial/Industrial Subtotal	705.8	81.6	11.60%	1.40%
TOTAL	8443.3	5900.8	69.90%	100%

Residential Development Capacity

Calculating the development capacity of residentially zoned parcels was based on the presence of development constraints. For the purposes of this analysis, development constraints are defined as wetlands, steep slopes in excess of 15%, shallow depth to bedrock, and the Federal Emergency Management Agency (FEMA) 100-year floodplain.¹ Areas that contain development constraints were subtracted out from the gross land area, yielding a net developable land area. For those parcels that are large enough to be subdivided (greater than three times the

Visualizing the distribution of vacant and agricultural parcels is important in order to gain an understanding of where future development may be accommodated.

¹ Maps identifying these features are located in the Natural Resources chapter of this Plan.



Town of Sprague
 Plan of Conservation
 & Development



**Potential Lands For
 Development By Zone**

Legend	
■ C-1	Commercial Neighborhood
■ C-2	Commercial General
■ CI	Commercial Industrial
■ I	Industrial
■ R-120	Natural Resource Protection Zone
■ R-80	Rural Zone
■ R-40	Low Density Residence Zone
■ R-20	Medium Density Residence Zone
■ R-7.5	High Density Residence Zone

Map
 Plan: Data Map
 Town of Sprague, Research & Engineering
 Department

Digital Copy:
 2006 Update, Conservation Council of
 Connecticut

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 PLANNING DOCUMENT. DELINEATIONS MAY
 NOT BE EXACT.**

MARSHALL BROWN
 CONSULTING ENGINEERS

minimum lot size as defined by zoning), an additional deduction of 20% of the total parcel size was factored in to account for the potentially required internal roadways. Finally, the minimum lot size of the underlying zone is applied to the remaining net developable land yielding an approximation of potential residential dwelling units. Vacant parcels with a net buildable area of less than one-half the minimum lot size but have a gross area greater than or equal to the minimum lot size were included for potential dwelling units. The results of this analysis are summarized in Table 16.

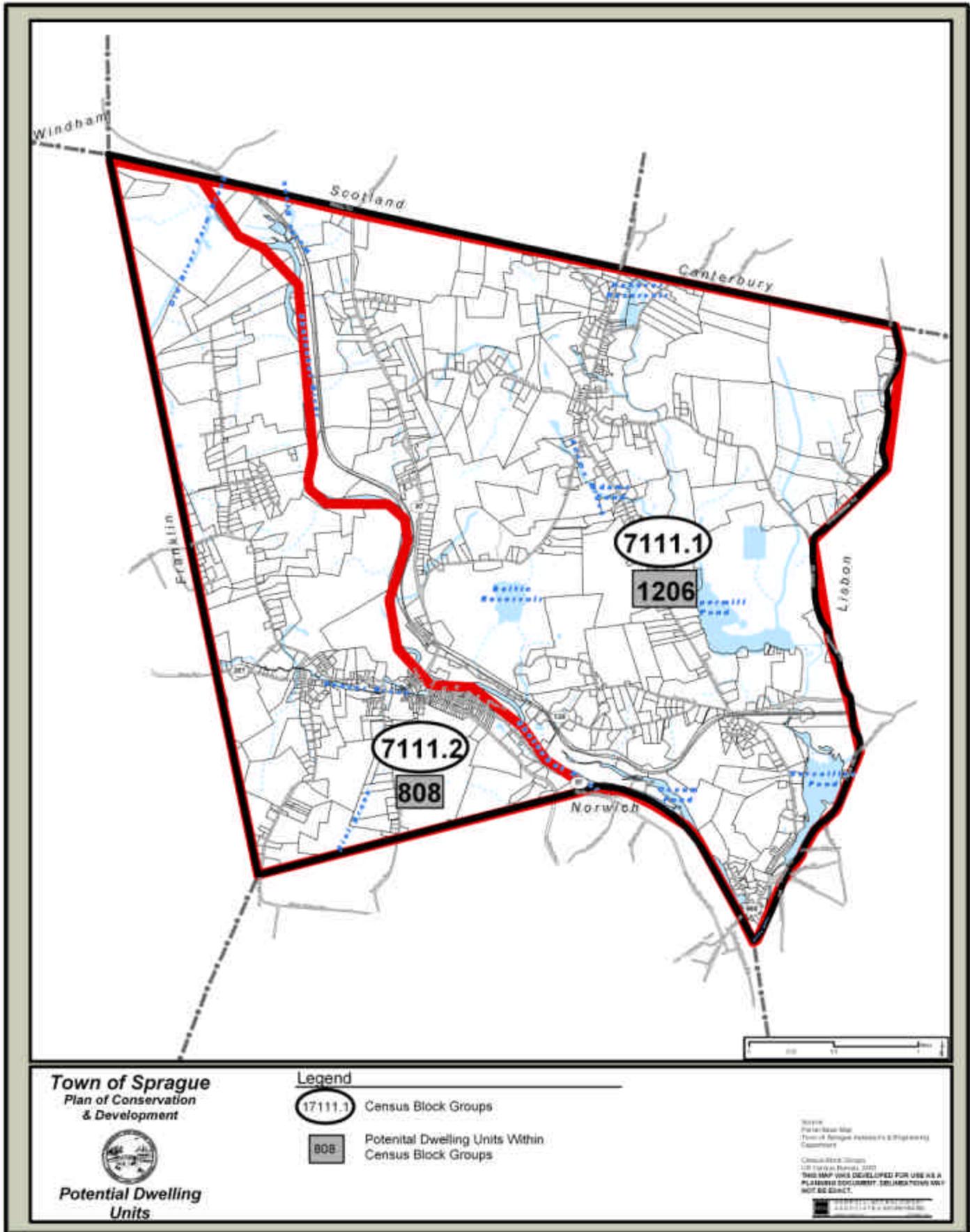
Based on existing zoning, this analysis estimates that approximately 2,014 additional dwelling units could potentially be built within the Town's residential zones.

Zone	Gross Potential Lands for Development (acres)	Net Buildable Land (acres)	Estimated Potential Dwelling Units	Potential Dwelling Units From Parcels Less Than 3X Minimum Lot Size
R-120	752.1	390	109	9
R-80	3699.7	2342.1	984	28
R-40	1024.2	770	650	15
R-20	326.6	110.6	180	8
R-7.5	16.6	6.5	30	1
Subtotal	5819.2	3619.2	1953	61
Grand Total				2014

Based on existing zoning approximately 2,014 additional dwelling units could potentially be built within the Town's residential zones. This figure represents an approximate 181.3% increase over the 1,111 existing dwelling units counted during the 2000 census. The map titled *Potential Dwelling Units* illustrates the distribution of this estimate for new housing, by Census block group.

An interesting observation that can be drawn from the *Potential Dwelling Units* map is that nearly 40.1% (808 units) of all potential dwelling units are found in the 2,900 acres west of the Shetucket River while the remaining 59.9% (1,206 units) are found in the 6000 acres east of the Shetucket River.

It is important to note that these results come with the caveat that due to the many variables involved in land development, these numbers are speculative. The factors that permit land to be developed may change. One important factor is the possibility



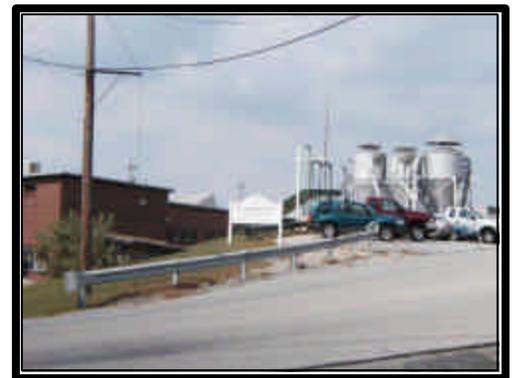
of the Town changing regulations on the development of land. These changes could manifest in zoning changes or inland wetland regulations, which could increase or decrease restrictions on the buildable area of a parcel. In addition, zoning regulations can change or the land itself may be purchased for open space. Overall, the development potential totals given here are theoretical and subject to change.

Non-Residential Development Capacity

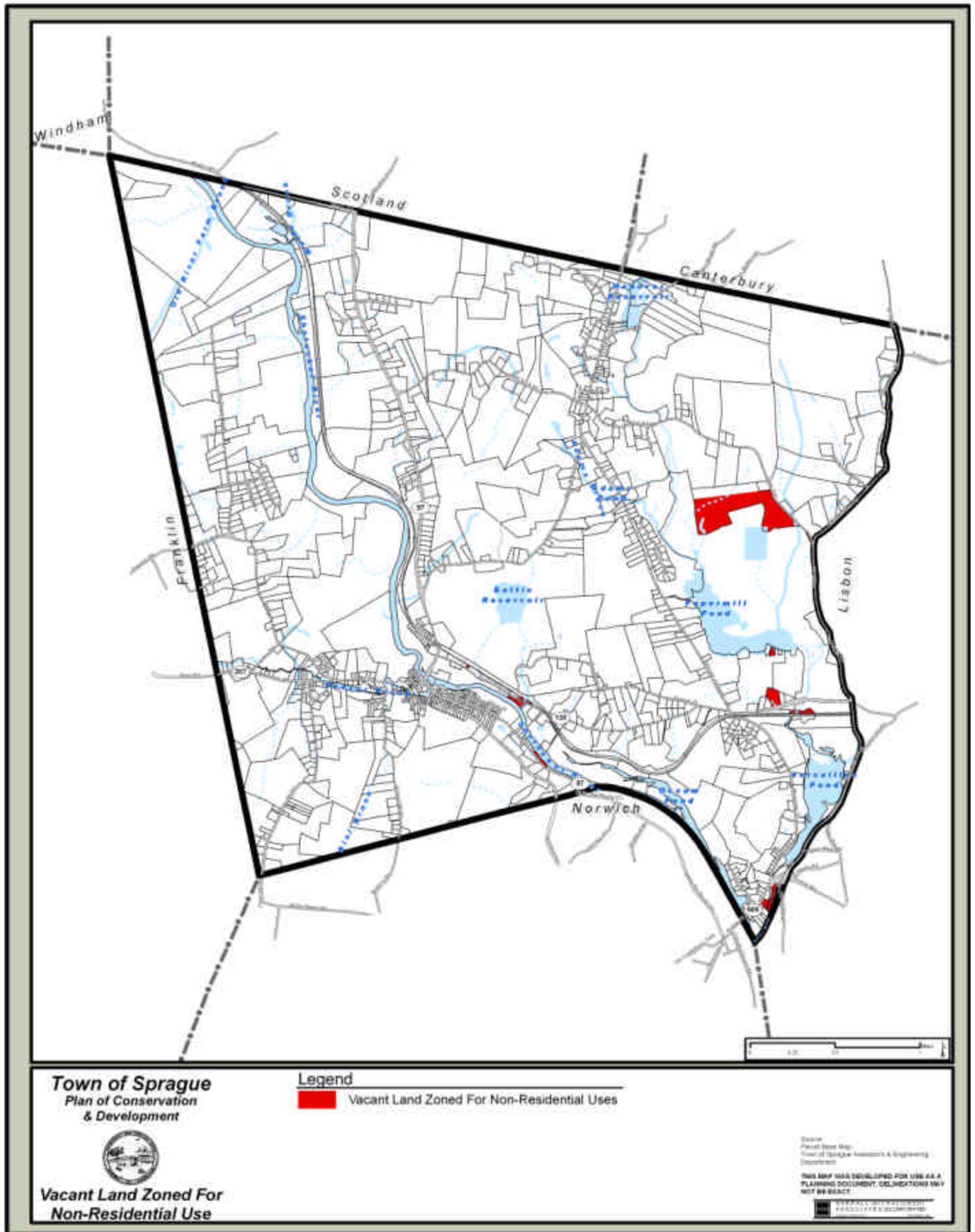
When describing non-residential development capacity, the distribution of the remaining vacant land within these zones is an important factor in town-wide planning. In Sprague, it becomes increasingly important due to the very limited remaining amount of developable vacant land (81.5 acres) zoned for non-residential use. Therefore, for purposes of this Plan of Conservation and Development Update, non-residential development capacity is evaluated by the distribution of the remaining vacant parcels zoned for commercial and industrial use. The distribution is illustrated on the *Vacant Land Zoned for Non-Residential Use* map and is tabulated in Table 17.

Table 17		
Non-Residential Development Potential		
Zone	Gross Potential Lands for Development (acres)	Net Buildable Land (Acres)
C-1	4.2	0.2
C-2	0.1	0.1
CI	0.2	0.2
I	77	57.4
Subtotal	81.5	57.9

The distribution of non-residentially zoned vacant land is scattered between the industrial zones in Baltic along the Shetucket River, Route 660 in Versailles, and in the area of Papermill Pond. These areas have certain locational attributes such as close proximity to water and state routes that make for viable business locations, which supported their initial development. Studies show that the life cycle of commercial buildings continues to shrink with 25 to 40 years a current range. As buildings become obsolete they will be adapted to new uses or replaced by contemporary structures. The locational attributes of easy access and infrastructure remain important to the continued viability of the non-residentially zoned areas in the Town. The remaining vacant land in these zones will play a role in the reshaping of parcels in order to accommodate expansions of existing businesses or the creation of new development sites. It is in the Town’s interest to remain flexible in its regulations so that the ever-changing building forms required by businesses can be accommodated while respecting neighborhood values.



Cascades Canada Inc. (HMA)



D. CONCLUSIONS

- The major land use category in Sprague is residential with 42.2% of the land committed to this use. Single-family housing and duplex housing comprises all but 0.3% of this acreage.
- The combined commercial and industrial acreage is 6.5% of the Town's acreage.
- Under existing zoning there exists the potential for approximately 2014 new dwelling units to be built on vacant, agricultural, forest, and residential land.
- A total of 57.9 net buildable acres of non-residential land remains available for business development under existing zoning scattered along the industrial zones in the vicinity of the current and former mills.
- Shrinking life cycles of commercial buildings promote the need for regulatory flexibility in order to promote reinvestment in existing business sites.
- The West Main Street Corridor has the potential to play an increasing role over the next decade in defining the character and economic base of the town.

The combined commercial and industrial land area comprises 6.5% of the Town's acreage.

A total of 57.9 net buildable acres of non-residential land remains available for business development under existing zoning scattered along the industrial zones in the vicinity of the current and former mills.



Aerial view of the Village of Baltic and environs (C. Glaude)



Aerial view of the Village of Hanover and environs (C. Glaude)

V. HOUSING

A. INTRODUCTION

As one of the principal land uses within a community, housing and housing-related issues affect all residents. The form, layout, condition, and cost of housing available within a community are key to the quality of life within a community. The Town's current housing status will be examined to determine what housing needs exist and methods to address those needs in the future.

The General Statutes for the State of Connecticut Section 8-23 set standards for a municipal Plan of Conservation and Development: "Such plan shall make provision for the development of housing opportunities, including opportunities for multi-family dwellings, consistent with soil types, terrain, and infrastructure capacity. Such plan shall also promote housing choice and economic diversity in housing, including housing for both low and moderate-income households."



Ranch-style home, Pautipaug Hill Rd. (HMA)

B. EXISTING HOUSING CHARACTERISTICS & DEVELOPMENT TRENDS

Existing Housing Characteristics

The 2000 Census recorded 1,164 housing units. Ninety-five point four percent (95.4%) of the housing units were occupied leaving a 4.6% vacancy rate. Of the total 1,111 occupied housing units, 66.2% were owner-occupied and the remaining 33.8% were renter-occupied units. According to Census counts, 53 housing units were vacant. Of those units that were vacant, the largest category was the "For Rent Only" cohort with 58.5% of the vacant housing units.

Of the total 1,111 occupied housing units, 66.2% were owner-occupied and the remaining 33.8% were renter-occupied units.

Table 18
Housing Units and Occupancy Characteristics: 2000
Sprague, CT

	Number of Housing Units	% of Housing Units
Total Housing Units	1,164	
Occupied Housing Units	1,111	95.4
Vacant Housing Units	53	4.6
Occupied Housing Units	1,111	
Owner-Occupied Housing Units	735	66.2
Renter-Occupied Housing Units	376	33.8
Vacant Housing Units	53	
For Rent	31	58.5
For Sale Only	4	7.5
Rented or Sold, not occupied	1	1.9
For Seasonal, Recreational or Occasional Use	3	5.7
Other Vacant	14	26.4

Source: U.S. Bureau of the Census



New home construction, Pautipaug Hill Rd. (HMA)

Table 19 depicts the housing unit characteristics of Sprague compared to its neighboring communities, New London County and the State of Connecticut. The Town's vacancy rate of 4.6% is lower than the New London County and State rates of 9.8% and 6.1%, respectively. In terms of local communities, at 4.6% Sprague has the third highest vacancy rate after Norwich and Windham. Canterbury, Lisbon and Franklin all have very low vacancy rates, while Norwich's 9.1% vacancy rate is similar to other struggling urban centers in the State.

Sprague's rental occupancy rate of 33.8% is comparable to the New London County and State rates, which is quite remarkable for a community of its size. The towns in the immediate region that are comparable in size to Sprague (Canterbury, Franklin, Lisbon and Scotland) have renter occupancy rates far lower than Sprague, ranging from 10.2% to 14.0%. Thus, Sprague has a housing stock whose composition in terms of occupancy of units is more commonly found in a more urbanized community. This fact reflects Sprague's industrial history, and the higher percentage of rental stock may explain why Sprague's vacancy rate is slightly higher than the smaller surrounding communities.

Table 19
Housing Unit Characteristics: 2000
 Sprague and Surrounding Communities

	Total Housing Units	% Occupied	% Vacant	Total Occupied Units	% Owner Occupied	% Renter Occupied
SPRAGUE	1,164	95.4%	4.6%	1,111	66.2%	33.8%
Canterbury	1,762	97.4%	2.6%	1,717	86.0%	14.0%
Franklin	711	96.6%	3.4%	687	89.8%	10.2%
Lisbon	1,563	97.6%	2.4%	1,525	88.6%	11.4%
Norwich	16,600	90.9%	9.1%	15,091	52.5%	47.5%
Scotland	577	95.8%	4.2%	553	87.3%	12.7%
Windham	8,926	93.5%	6.5%	8,342	48.4%	51.6%
New London County	110,674	90.2%	9.8%	99,835	66.7%	33.3%
Connecticut	1,385,975	93.9%	6.1%	1,301,670	66.8%	33.2%

Source: U.S. Bureau of the Census

Sprague's industrial history has led to a housing stock with a renter occupancy level more commonly found in larger communities.

Development Trends

Between the 1990 and 2000 Censuses, the Town gained 55 housing units – a 5.0% increase. Sprague's current housing stock of 1,164, as enumerated by the 2000 Census, consists of 57.0% single family detached housing; 3.9% single family attached (generally condominium) housing; 4.4% multi-family

housing (5 units or more); 33.0% two, three and four family housing and 1.3% mobile home or other.

The densest housing in Sprague is concentrated in the three village centers, particularly in the Village of Baltic, while the least dense housing is generally found in the northern and central areas of the Town. The oldest housing in the Town is in the form of historic farmhouses that dot the landscape and date from the 1700s, when Sprague was part of the towns of Franklin and Lisbon. Zones that allow for residential use are illustrated on the map titled *Land Zoned for Residential Use*.

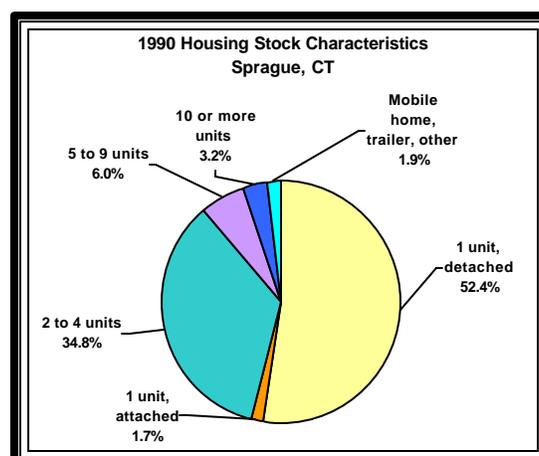
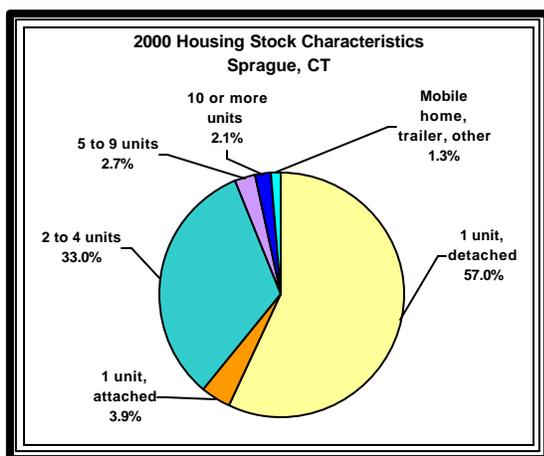
The densest housing in Sprague is concentrated in the three village centers of Baltic, Hanover, and Versailles.

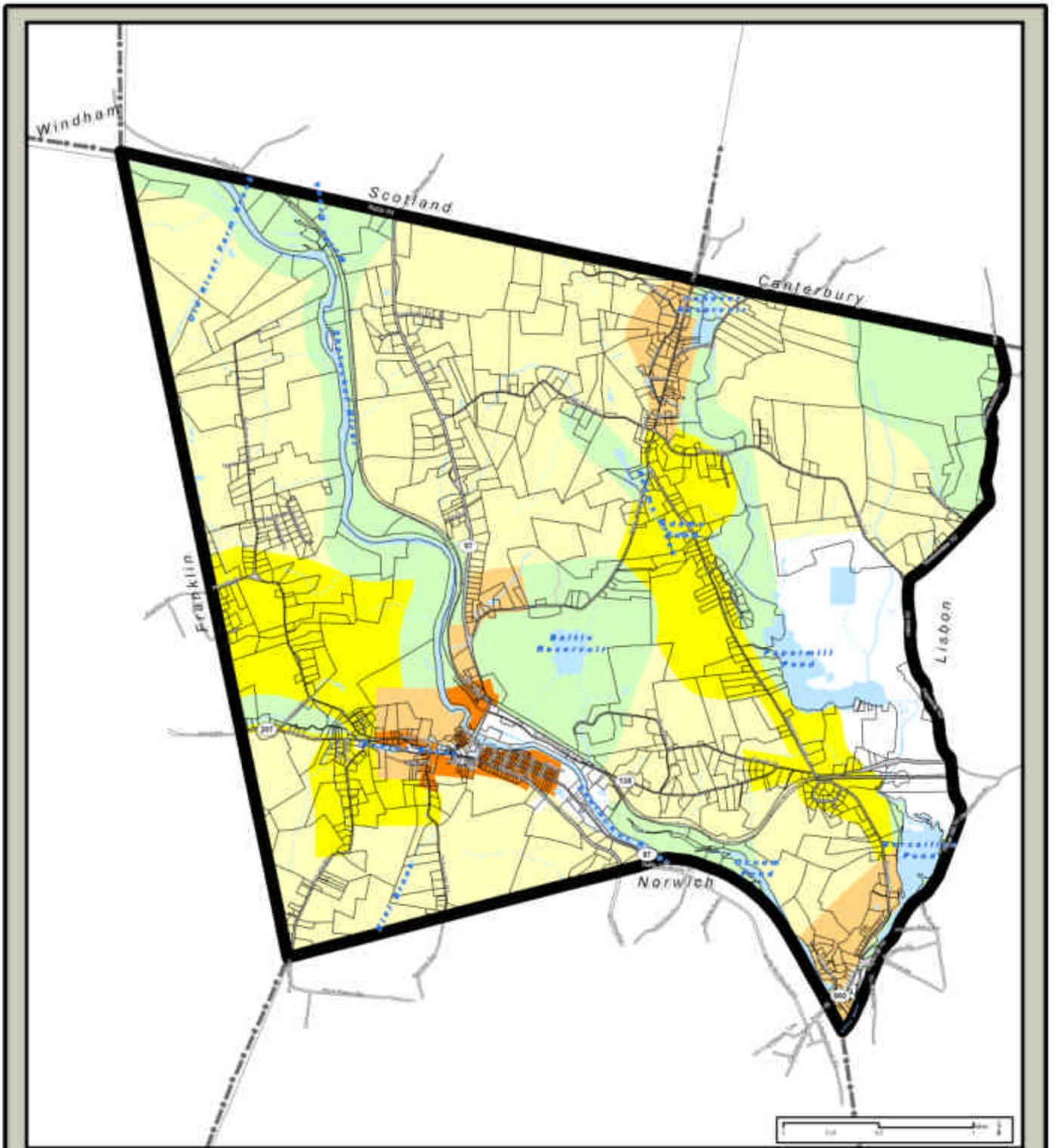
Table 20 illustrates changes that have occurred in the Town's housing stock between 1990 and 2000. According to Census counts, between 1990 and 2000 the number of housing units in single family detached structures increased by 83 units from 581 to 664. Single family attached units (condominiums) also increased markedly, gaining 26 units or 136.8%. All types of multi-family housing, from smaller configurations of 2 to 4 units to structures with ten or more units, dropped by over 10% during the decade. Mobile homes and other forms of non-traditional housing declined as well.

Table 20
Change in Housing Units by Structure Type: 1990 to 2000
Sprague, CT

	Total Housing Units 1990	% of Housing Stock	Total Housing Units 2000	% of Housing Stock	Change in Units 1990-2000	% Change Between 1990 2000
TYPE OF STRUCTURE						
1 unit, detached	581	52.4	664	57	83	14.3
1 unit, attached	19	1.7	45	3.9	26	136.8
2 to 4 units	386	34.8	384	33	-2	-0.5
5 to 9 units	66	6	32	2.7	-34	-51.5
10 or more units	36	3.2	24	2.1	-12	-33.3
Mobile home, trailer, other	21	1.9	15	1.3	-6	-28.6
TOTALS	1,109	100	1,164	100	55	5

Source: U.S. Bureau of the Census.





Town of Sprague
Plan of Conservation
& Development



Land Zoned For Residential Use

Legend

- R-120 Natural Resource Protection Zone
- R-80 Rural Zone
- R-40 Low Density Residence Zone
- R-20 Medium Density Residence Zone
- R-7.5 High Density Residence Zone

Source:
Aerial Data Map
Town of Sprague Assessors & Engineering Department
Connecticut Department of Environmental Protection
Drainage & Geographic Information Center, 1/30/2010

State District:
South Eastern Connecticut Council of Governments
THIS MAP WAS DEVELOPED FOR USE AS A PLANNING DOCUMENT. DIMENSIONS MAY NOT BE EXACT.



Compared to other communities in the region, Sprague had the highest percentage of multi-family units outside of Norwich and Windham. Almost 37% of the Town's housing units were in multi-family structures of two or more units or in single family attached condominium complexes; this percentage was even higher than those of Norwich and Windham, and was almost twice the percentage of the County. Sprague, while having demographics somewhat similar to the smaller towns, has a housing stock that appears more urban in its percentage breakdown, exhibited in Table 20.

Compared to other communities in the region, Sprague had the highest percentage of multi-family units outside of Norwich and Windham.

Table 21
Housing Units by Structure Type: 2000
Sprague and Surrounding Communities

	Single Family Detached	% Single Family Detached	Single Family Attached & 2 to 4 Units	% Single Family Attached & 2 to 4 Units	Multi-Family	% Multi-Family	Total Housing Units*
SPRAGUE	664	57	429	36.9	71	6.1	1,164
Canterbury	1,588	90.1	72	4.1	56	3.2	1,762
Franklin	651	91.6	33	4.6	0	0	711
Lisbon	1,301	82.2	132	8.4	12	0.8	1,563
Norwich	7,059	42.5	5,183	31.2	3,770	22.7	16,600
Scotland	508	88	36	6.2	0	0	577
Windham	3,919	43.9	2,765	31	1,914	21.4	8,926
New London County	71,319	64.4	21,640	19.6	14,497	13.1	110,674

*Includes mobile homes, RVs, vans and boats that serve as housing units. These units are not included in any of the subcategories specified in the table.

(Multi Family Units have 5 or More units)

Source: U.S. Bureau of the Census

To quantify the Town's recent housing unit growth, statistics from the State of Connecticut Department of Economic and Community Development were used to determine housing construction authorizations by structure type by year. These statistics are presented in Table 22. All of Sprague's new housing development during the 1990s was single-family detached housing. Over the decade, Sprague consistently placed in the bottom 10% to 15% in rank by net gain for all towns in Connecticut; only in 1991 did Sprague rank above the bottom 15%, at 142nd place.

An indicator of housing condition and housing variety in a community is the age of the housing stock. The age of housing stock generally affects both aesthetic appeal as well as the availability of a variety of housing types. As shown in the chart on the following page, over 45% of Sprague's housing stock was built before World War II. Housing produced during the 1940s and 1950s accounts for 195 units or just under 17% of the housing stock. The number of housing units produced during the 1970s and 1980s is almost identical at 133 (11.4%) and 132 (11.3%) housing units respectively. Housing construction during



Tudor-style home, Hanover (J. Osowski)

Year	Total Housing Units Authorized	1 Unit Detached	1 Unit Attached	2 Units	3 & 4 Units	5 Units or More	Rank in State by Net Gain
1990	4	4	0	0	0	0	160 th
1991	8	8	0	0	0	0	142 nd
1992	10	10	0	0	0	0	144 th
1993	8	8	0	0	0	0	150 th
1994	3	3	0	0	0	0	158 th
1995	3	3	0	0	0	0	156 th
1996	4	4	0	0	0	0	158 th
1997	6	6	*	0	0	0	150 th
1998	2	2	*	0	0	0	158 th
1999	4	4	*	0	0	0	157 th
2000	3	3	*	0	0	0	163 rd
2001	6	N/A	N/A	N/A	N/A	N/A	160 th
2002	14	14	0	0	0	0	149 th
2003	23	9	N/A	2	2	N/A	154 th
2004	17	14	N/A	1	1	N/A	151 st
2005	17	17	0	0	0	0	N/A
Totals	132	109	0	3	3	0	

Source: State of Connecticut Department of Economic and Community Development, "Connecticut Housing Production and Permit Authorized Construction Report"; Town of Sprague.

* Single-family attached units are no longer a category for reporting

the 1990s slowed markedly, with only 70 units built in the decade. Only 6% of the Town's total housing stock was built during the 1990s.

The cost of housing is the result of a variety of factors including, but not limited to, the demand for a specific location, availability of buildable land, and labor and material costs.

C. AFFORDABILITY OF HOUSING

The issue of affordability is complex and defies simple solutions. The cost of housing is the result of a variety of factors including, but not limited to, the demand for a specific location, availability of buildable land, and labor and material costs. Other factors, such as the age and quality of the existing housing stock as well as the introduction of new product to the market greatly affect the cost of housing. Other factors independent of housing cost including interest rates, job growth, and local economic conditions all work together to influence the cost and availability

of housing. Most of these factors are beyond the control of local governments.

In their efforts to increase affordable housing production or subsidize costs, local, state and federal governments have created a variety of housing programs. One common characteristic among these programs is that they generally use some sort of financial subsidy to defray the cost of the units being produced, renovated, or occupied. Although such programs serve to provide immediate solutions to the need for affordable housing they do not really address the underlying economic factors and therefore have only a limited effect on overall housing market conditions.

The State of Connecticut requires that the issue of affordable housing be addressed in each community's Plan of Conservation and Development. Development over the years in Sprague has resulted in a housing stock that is diverse in terms of single-family housing and two to four family housing, but has less than 5% of its units in buildings with five or more units. Current zoning regulations are flexible in terms of providing a wide range of allowable densities and housing types; however, outside of the three village centers, the residential zones primarily have lot size requirements of one to three acres. As previously highlighted, the Town authorized only 87 units of new housing between 1990 and 2004.

The Town of Sprague directly addresses the issue of affordable housing needs locally through the local Housing Authority and at the state level through the Department of Economic and Community Development. Sprague qualifies as a small city eligible for Community Development Block Grant (CDBG) funds through the State of Connecticut. In 2000, the State prepared a five year Consolidated Plan which enabled it to receive CDBG funds from the federal government; this Plan was updated in 2002 through the annual Action Plan which describes how the State of Connecticut intends to use its CDBG funds.

The Town of Sprague is eligible to apply for CDBG funds from the State to help fund projects that are designed to revitalize neighborhoods, improve community facilities and services, or expand affordable housing and economic opportunities.²

According to real estate market statistics for the period of 2000-2005, over an average of 59.5 homes per year were purchased in Sprague. Statistics for the first five months of 2004 show that current year sales project out to slightly above this number of units for 2004. As shown in Table 23, median residential sales prices have generally been on an upward trend since 1998.



Family housing in Baltic (HMA)

The Town of Sprague directly addresses the issue of affordable housing needs locally through the local Housing Authority and at the state level through the Department of Economic and Community Development.



Single-Family residence in Sprague (HMA)

² <http://www.ct.gov/ecd/cwp/view.asp?a=1098&q=249706>

Table 23
Number of Sales & Median Sales Price
1998 to 2005

Year	Number of Sales	Median Sales Price
2005	86	\$189,500
2004	65	\$179,000
2003	57	\$148,000
2002	63	\$112,500
2001	50	\$122,150
2000	36	\$88,250
1999	34	\$92,250
1998	28	\$85,000

Source: The Warren Group

Table 24
Comparison of Median Sales Prices: 1998-2005
Sprague and Surrounding Communities

	1998	1999	2000	2001	2002	2003	2004	2005
SPRAGUE	\$85,000	\$92,250	\$88,250	\$122,150	\$112,500	\$148,000	\$179,000	\$189,500
Canterbury	\$95,000	\$108,591	\$115,000	\$119,450	\$132,250	\$149,900	\$173,000	\$225,000
Franklin	\$98,000	\$108,000	\$129,000	\$117,000	\$129,500	\$185,000	\$204,900	\$159,900
Lisbon	\$115,000	\$108,450	\$119,750	\$122,000	\$145,000	\$175,500	\$200,000	\$240,000
Norwich	\$84,450	\$86,500	\$97,000	\$100,000	\$119,000	\$145,000	\$169,500	\$186,750
Scotland	\$112,272	\$62,000	\$110,000	\$140,000	\$129,900	\$159,900	\$155,000	\$194,000
Windham	\$77,700	\$90,000	\$90,000	\$99,900	\$110,000	\$123,000	\$133,600	\$165,000

Source: The Warren Group

Sprague has experienced a dramatic climb in home sales prices from the latter half of the 1990s to the present; between 1996 and 2003, the median sales price in Sprague increased by 64.5%;

Over the past several years Sprague’s median residential sales prices have been similar to the other towns with the exception of Canterbury, Franklin and Lisbon, which have tended to have slightly higher figures. Between 1998 and 2005, the median sales price in Sprague increased by 122.9%; median sales prices in the surrounding communities increased from a low of 63.2% in Franklin to a high of 136.8% in Canterbury.

Like many suburban towns in Connecticut, Sprague has experienced a dramatic climb in home sales prices from the latter half of the 1990s to the present. A strong residential market has numerous positive impacts on towns like Sprague, such as rising assessments of residential properties (and thus increasing tax revenues from these properties) and attracting new residents to the town. Rising home prices, however, also have the obvious impact of limiting the affordability of housing within a town. Table 25 illustrates the number of home sales listings for the second week of October 2006 in Sprague.

Table 25
Real Estate Listings by Price: October 2006

	# of Listings	% of Listings
Less than \$100,000	0	0.0%
\$100,000 - \$199,999	3	20.0%
\$200,000 - \$299,999	6	40.0%
\$300,000 - \$499,999	6	40.0%
\$500,000 - \$699,999	0	0.0%
\$700,000 or More	0	0.0%
TOTAL	15	100.0%
Avg. Listing Price = \$282,253	Median Listing Price = \$259,900	
Source: Realtor.com (2006); compiled by HMA, Inc.		

The average listing price of homes for sale in the Town of Sprague was approximately \$282,000 during the fall of 2006, partially due to several new construction homes on the market.

In comparison to Table 25, the median sales prices of only a few years ago in Sprague are remarkably smaller. It must be remembered that listing prices are very often higher than the actual sales price of a home, sometimes by a substantial amount. Also, in a small community such as Sprague where the number of sales per year is relatively small, a few recently built high-priced homes can have a very large impact on median sales prices for the Town. As a point of comparison, sales data provided by The Warren Group for the period of October 2005 to October 2006 indicates an average home sales price of \$264,137 and a median home sales price of \$246,500.

Table 25 shows that 40% of the current residential listings are over \$300,000; however, several of the listings are for new construction, not existing homes. It is typical to see newly constructed homes listed for sale at a minimum price of \$300,000. Thus, the \$300,000 price range is likely not typical of the Town of Sprague, since 94% of the housing stock was built before 1990. A price of \$150,000 for an existing home, close to the 2003 median sales price, is probably more in line with the realities of the Sprague real estate market. With an average home sales price of \$150,000 and a 20% down payment to avoid mortgage insurance, a new homeowner would need a mortgage of \$120,000 and a down payment of \$30,000. At an assumed interest rate of 6%, a \$120,000 mortgage would result in principal and interest payments of approximately \$720 per month. Assuming roughly \$500 per year in homeowner's insurance and a mill rate of approximately 27 mills, an additional \$280 per month in taxes and insurance would be added, leading to a total monthly home cost of \$1,000. Using the standard calculation of 30% of gross household income for housing costs, a household would need to earn approximately \$40,000 per year to afford an average home in Sprague. This income level matches up remarkably well with Sprague's 2000 Census median household income (\$43,125), but it is only 79% of the median household income for New London County (\$50,646).

Assuming a price of \$150,000 for an existing home:
With a 20% down payment, a new homeowner would need a mortgage of \$120,000. Factoring in additional costs such as insurance, interest, and property taxes, a household would need to earn approximately \$40,000 annually to afford an average home in Sprague.

2000 Census statistics indicate that 24.1% of owner occupied households and 32.4% of renter occupied households paid thirty percent or more of household income in 1999 for monthly housing costs. These households exceed State and Federal housing affordability guidelines.

Detailed housing figures from the 2000 Census included statistics on gross rent for renter occupied units. With 376 renter-occupied units, Sprague’s median rent in 2000 was \$622. This rent level lies in the middle of the range of rents among the surrounding communities. As to be expected, Norwich and Windham contain 93% of the area’s rental housing. Almost 43% of the area’s rental units fall within the \$500 to \$749 gross rent cohort, by far the highest percentage of any of the rent cohorts. Until recently, units renting for more than \$1,000 per month in the area were very rare.

The 2000 Census statistics indicate that 128 owner occupied households or 24.1% paid thirty percent or more of household income in 1999 for monthly housing costs. Rental households paying thirty percent or more of household income in 1999 for gross rent were 118 households or 32.4% of total renter households. These households exceed State and Federal housing affordability guidelines.

Table 26
Comparison of Rents: 2000
Sprague and Surrounding Communities

	SPRAGUE	Canterbury	Franklin	Lisbon	Norwich	Scotland	Windham
Less than \$200	12	13	0	0	426	0	408
\$200 to \$299	8	35	0	6	370	2	321
\$300 to \$499	42	34	3	22	1,548	9	1,121
\$500 to \$749	207	68	22	97	3,171	15	1,670
\$750 to \$999	62	28	11	43	1,211	13	527
\$1,000 to \$1,499	0	0	9	0	214	6	111
\$1,500 or more	0	6	0	0	14	0	0
No Cash Rent	33	31	12	6	215	8	102
Total	364	215	57	174	7,169	53	4,260
Median Rent	\$622	\$522	\$692	\$658	\$588	\$706	\$534

Source: U.S. Bureau of the Census.

The State legislature has established an Affordable Housing Appeals Procedure to provide assistance with development of affordable housing throughout the State. The procedure does not apply where at least 10% of the dwelling units in the municipality are either:

- (i) governmentally assisted housing,
- (ii) currently financed by Connecticut Housing Finance Authority or Farmer’s Home Administration mortgages, or
- (iii) subject to deeds containing covenants or restrictions that require sale or rental at affordable levels.

Affordable levels means housing for which persons and families pay 30% or less of income, where such income is less than or equal to 80% of the median income.

Where municipalities do not reach the 10% level required for exclusion from the appeals procedure, proposed assisted housing and set-aside developments may appeal denial of municipal zoning approvals to the court. Assisted housing developments are those that receive financial assistance from government program for construction or rehabilitation of low or moderate-income housing or "Section 8" project based on tenant based assistance. Set-aside developments must reserve 30% of the units for affordable housing. One half of those set-aside units must be rented to persons or families whose income is less than or equal to 80% of the lesser of the state or area median income; the remaining half of the set-aside units must be reserved at 60% of the lesser of the state or area median income.

The most recent data from the State Department of Economic and Community Development Affordable Housing Appeals Program puts the number of affordable housing units in Sprague in 2002 at 58. This is 4.98% of the estimated number of housing units in the Town. This level does not exempt the Town from the affordable housing appeals procedure. Affordable housing is distributed as follows:

Number of Governmentally Assisted Units:	32 units
Number of CHFA/FmHA Mortgages	26 units
<u>Deed Restricted</u>	<u>0 units</u>
TOTAL	58 units

The Town should continually evaluate its housing stock and the direction of its residential development patterns in order to meet the housing needs of an increasingly diverse group of residents and to address the requirements of the Affordable Housing Appeals Procedure in the coming decade.

One method for the Town to consider increasing the affordable housing stock is to require that deed-restricted affordable units be included in each market-rate housing development over a predetermined size. This technique requires a strong housing market in order to be effective. Larger communities such as Stamford have had considerable success using this technique. Stamford requires that 10% of the total units be offered for rent or sale as below market-rate units in developments of ten or more dwelling units.

One method for the Town to consider increasing the affordable housing stock is to require that deed-restricted affordable units be included in each market-rate housing development over a predetermined size.

D. MULTI-FAMILY & ELDERLY HOUSING

Multi-Family Housing

Of the 1,164 housing units in Sprague, 4.8 percent are multi-family buildings of 5 or more units, but an additional 33.0% of the inventory is in 2 to 4 unit structures. As mentioned earlier, this is a very high percentage of 2 to 4 unit housing when compared to other communities of similar size. Sprague has little in the way of larger multi-family housing types.



Duplex on Route 207, Baltic (HMA)

Currently, multi-family dwellings are permitted by special permit in the R-20, R-7.5 and C-2 districts. The number of units allowed per site is determined by dividing the total site area by 10,000 square feet per unit in the R-20 district and by 5,000 square feet per unit in the R-7.5 and C-2 districts. All multi-family dwellings must be connected to sewers, and the number of units cannot exceed four per building. Two-family dwellings are allowed by right in the R-20 and R-7.5 districts, provided that they existed prior to December 15, 2002 and continuously thereafter.

Elderly Housing

Housing for the elderly is a critical concern for most communities. As the population of a town ages, it is important that a community provide alternative living arrangements from single-family detached homes to multi-unit communities as options for seniors. This gives the elderly population opportunities to continue to reside in the community where they have spent the majority of their years and not be forced out by escalating housing prices. Housing product for the elderly spans a broad range of types and supporting services. From housing designed to promote mobility (e.g., one-level, grab bars, ramps, etc.) to provision of medical and support of daily living functions, there are many variations of housing product. The main distinguishing characteristics of the housing types are the level of medical assistance and the extent of communal facilities provided. The September 2004 Plan of Conservation and Development Update Memorandum on Housing described in detail some of the definitions of various types of elderly facilities.



Shetucket Village senior housing (HMA)

The main distinguishing characteristics among the different senior housing types are the extent on medical assistance provided and the extent of communal facilities provided (i.e., dining facilities, recreation and exercise facilities, etc.). The various forms of elderly housing are differentiated by the degree of emphasis on the components of housing, hospitality and health care.

The Sprague Housing Authority addresses the supportive housing/service needs of the elderly, frail elderly and disabled. The Authority operates the Shetucket Village independent living apartments on Wall Street just outside of the center of Baltic. Shetucket Village has 20 units situated in three buildings, and has income limitations for potential residents who must be at least 60 years old to qualify.

Shetucket Village is currently the only elderly housing development/complex within the Town. Located at 8 Wall Street, Shetucket Village is an independent living facility. Future demand for elderly housing in Sprague will depend upon market conditions, the economy and similar outside forces that cannot be predicted. However, with almost one-quarter of Sprague's population being between the ages of 45 and 64, it is reasonable to expect the demand for elderly housing options in Sprague to increase over the next decade.

A rising trend in elderly housing is the Active Adult Retirement Community (AARC). The AARC is commonly associated with resort type settings in climates that are more temperate; however, increasingly these communities are being located throughout the country to allow seniors to remain near family, social and business relations yet enjoying the activities and commonality of community that these retirement communities provide. The AARC or resort community is less common in Connecticut than the other types of senior housing; however, recent development trends have resulted in an a large number of these housing developments being proposed and constructed in the state for the 55 and over market, and they are commonly referred to as “age-restricted housing”. The Town recently approved a 92-unit development to be occupied by persons 55 and over.

Elderly housing developments are allowed by special permit in the R-80, R-20, R-7.5, G1, G2, I and CI districts. Any development must be connected to sewers, but is not bound by the four unit per building provision of the multi-family dwellings regulations. Nursing and convalescent homes are allowed by special permit in R-40, R-20 and R-7.5 districts.

E. ISSUES, TRENDS, & IMPLICATIONS

In terms of planning for the next ten years and beyond, several housing issues and trends in Sprague have future implications. These include:

- Sprague recorded a small population decrease between 1990 and 2000, while at the same time experiencing a roughly 5% increase in the number of housing units. This apparent contradiction indicates that the rate of decrease in the average household size in the Town is offsetting any population gain obtained through new single-family home construction. Since average household size is moving on a downward trend and residential development pressures in the region are increasing, it can be expected that Sprague will have a stable or slightly decreasing population over the next ten years while continuing to have more home construction. This set of circumstances has numerous implications regarding the provision of municipal services, open space conservation and traffic generation.
- Average household size in Sprague is lower than all of the small neighboring communities but is higher than Norwich and Windham, as well as both New London County and the State. The diversity of housing in the Town promotes a higher percentage of single-person, two-person and elderly person households in Sprague than is generally found in other small communities.
- According to the 2000 Census, 66.2% of Sprague’s housing stock is owner-occupied and 33.8% is renter occupied. The 33.8% rental-housing rate contrasts

Housing trends in Sprague indicate that the rate of decrease in the average household size in the Town is offsetting any population gain obtained through new single-family home construction.

Sprague has more rental housing than its neighboring communities, and is more similar to Windham and Norwich, which have rental housing rates of 48.4% and 52.5%, respectively, than to the other smaller communities.

Between the 1990 and 2000 Censuses, the Town experienced a net gain of 55 housing units. The Town gained 83 single-family detached housing units during the decade, as well as 26 single-family attached units.

The Census-to-Census growth in housing units was smaller in the 1990s than in the previous three decades of the 1960s, 1970s and 1980s. Public perception of recent housing growth appears to be affected more by the type of housing built during the 1990s than by actual numerical growth.

sharply with the rental occupancy rates of most of the surrounding towns, which are much lower.

- Sprague has more rental housing than its neighboring communities, and is more similar to Windham and Norwich, which have rental housing rates of 48.4% and 52.5%, respectively, than to the other smaller communities.
- Between the 1990 and 2000 Censuses, the Town experienced a net gain of 55 housing units. The Town gained 83 single-family detached housing units during the decade, as well as 26 single-family attached units. These additions to the housing stock were reduced by the loss of 54 units during the 1990s in two to four family structures, five to nine family structures, ten or more family structures, mobile homes, trailers and other housing types.
- In 2002 and 2003, the Town ranked 149th and 154th, respectively, in new housing permits authorized in the State of Connecticut. This is indicative of a tepid home construction market in Sprague that has only recently begun to heat up.
- The Census-to-Census growth in housing units was smaller in the 1990s than in the previous three decades of the 1960s, 1970s and 1980s. Public perception of recent housing growth appears to be affected more by the type of housing built during the 1990s than by actual numerical growth. The Census counted 70 units built in the 1990s; 132 units built during the 1980s; 133 units built during the 1970s and 102 units during the 1960s.
- Most of the vacant and agricultural land zoned for residential use is currently zoned R-80 and is located in the Town's northwestern and northeastern quadrants.
- Natural resource conservation and the preservation of open space will likely emerge as a major issue in residential development as the remaining areas of agricultural and vacant land are considered for residential development.
- New growth provides housing choice that is important to promote economic development. New growth also adds to the Town's tax base. However, new growth also brings increased population that requires municipal services. The balance between development, resource and service needs, and the location of new growth is a key part of the long-range planning process underway in this Plan of Conservation and Development update.
- Affordable housing opportunities for elderly individuals seeking independent housing options may be needed to meet future needs of the Town's aging population.

- Given the diversity of the housing stock in tenure, type, size and price, the Town of Sprague is in a position to meet the housing needs of a wide variety of residents in the coming decade.



Duplex on Route 207, Baltic (HMA)

New growth provides housing choice that is important to promote economic development. New growth also adds to the Town's tax base. However, new growth also brings increased population that requires municipal services. The balance between development, resource and service needs, and the location of new growth is a key part of the long-range planning process underway in this Plan of Conservation and Development update.

F. GOALS & OBJECTIVES

The two housing goals outlined in the 1994 Plan of Conservation and Development to provide opportunities for a variety of housing types and protect the natural resources of Sprague from development still hold true today.

For the entirety of its existence, the Town of Sprague has been a small and unique community, a community of several hundred to several thousand people where agriculture and mill-related industry existed side by side. The post-World War II decline in industry in the northeastern United States had a substantial impact on Sprague's economy and the physical environment of the Town. Today, Sprague's housing stock is the dominant Town feature, providing a variety of residential options to accommodate the evolving nature of the 21st century household. However, Sprague's history has shown that change, while rarely as dramatic as that experienced in the three decades following World War II, is an inevitable part of a community's life cycle. Determining how best to address change and guide the community productively into the future is an important core concept of the Plan of Conservation and Development update process. Thus, after a review of the key housing trends and implications of the past decade, the Town's housing goals and objectives must be reassessed and modified to meet the expected changes to come in the next decade and to address issues of concern highlighted by recent trends and implications.

The 1994 Town Plan of Development for Sprague indicated two key implications and goals for residential development in the Town. These included the following:

- “Provide opportunities for a variety of housing types and residential settings for persons of all age groups and economic levels.”
- “Protect the natural resource base by recognizing that areas of steep slopes, shallow-to-bedrock soils, wetlands, floodplains, and stratified-drift aquifers present development limitations. Consider the physical capabilities of the land along with the availability of public sewer and water in determining future development types and densities.”

Both of these goals still hold true today. The Planning And Zoning Commission will need to evaluate these goals to determine their relevancy for the next decade. Building upon these general recommendations, we have formulated several more specific goals and objectives to expand the spirit of these recommendations into tangible actions that will fulfill these goals.

GOAL:

A variety of housing types (with respect to both lot size and homes versus apartments) should be available to reflect the needs and desires of all Sprague residents.

Objectives:

- Encourage the development of small, mixed use developments in the three village centers. Such developments combining retail, office space and housing components could build upon and enhance Sprague's cohesive, compact development pattern, increase the Town's tax base, and provide an array of housing options for Sprague residents.
- Provide and promote more centrally located and aesthetically pleasing affordable housing for elderly residents.
- Encourage the conversion of vacant buildings or unused upper story space in occupied buildings into apartments to further expand housing options in Sprague.

By encouraging the development of small, mixed use developments in the three village centers by combining retail, office space and housing could build upon and enhance Sprague's cohesive, compact development pattern.

GOAL:

The need for housing must be carefully balanced against the preservation and conservation of the rural character of the Town.

Objectives:

- Use zoning and other land use regulatory techniques to guide the increasing residential development pressure in Sprague into infill development close to or within the three village centers. Doing so can increase the vibrancy of the village centers, increase the ability of the village centers to support small retail and commercial establishments, attract desirable businesses to the Town, and protect low-density residential, recreational and rural areas.
- Maintain a balance between residential subdivision growth, open space conservation and natural resource protection.

By using zoning Sprague can direct infill development close to or within the three village centers, to increase the ability of the village centers to support small retail and commercial establishments, attract desirable businesses to the Town, and protect low-density residential, recreational and rural areas.

VI. TRANSPORTATION & CIRCULATION

A. INTRODUCTION

An essential ingredient to maintaining a high quality of life in Sprague is a safe and efficient transportation system, consistent with the Town's community character. Sprague's transportation system is primarily comprised of a network of town roads, state routes, a limited sidewalk system, and rail freight service, all of which provide for inter- and intra-town travel needs.

The objectives of this transportation planning effort are to help Town officials and the public focus on the transportation needs of the community and propose improvements where needed. To this end, existing conditions have been evaluated, critical roadway needs identified and opportunities for future improvements to the transportation system proposed.

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B. EXISTING CONDITIONS

Historically, transportation systems have had a strong influence on settlement patterns. Many of Sprague's current roads had their origins in Colonial days when trails and cart paths connected settlements and farms. Before 1861, these roads were part of Franklin to the west and Lisbon to the east. The transportation facilities within the Town consist largely of its road network, which provides residents access to employment, recreation, shopping, and cultural activities within town and with other towns.

According to the Connecticut Department of Transportation, as of December 31, 2001, Sprague was served by 36.9 miles of public roads, 68% percent of which were Town roads (25.1 miles) and the balance (11.8 miles) were State roads.

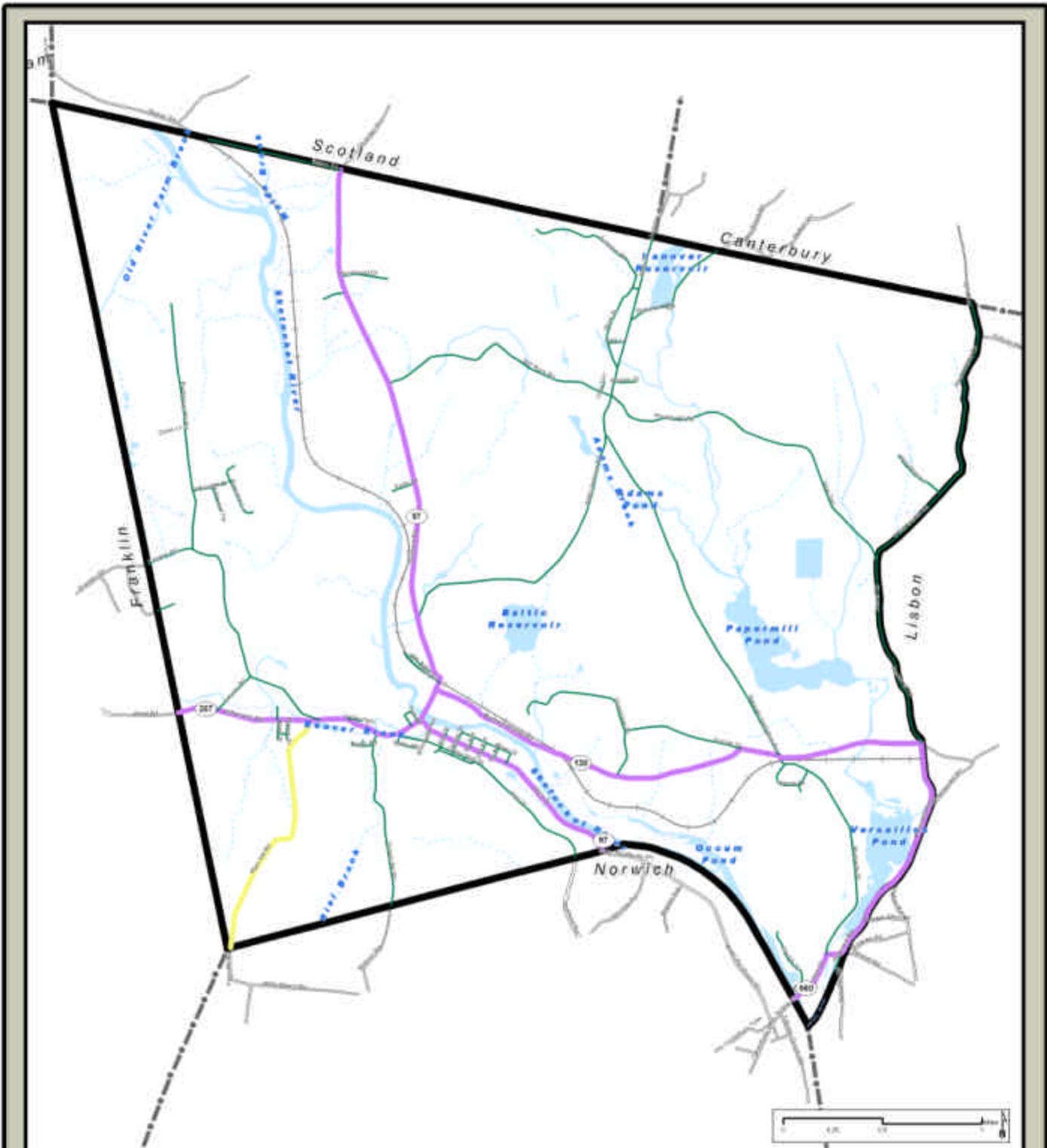
Functional Classification of Roadways

Transportation officials classify roadways based on traffic volumes, accessibility and function. The State DOT has identified three different levels of roadway classifications in the Town of Sprague: Major Collector, Minor Collector, and Local Road. In some cases, the actual classification of a road may change along its length or may operate differently than its assigned functional classification. The *State Functional Roadway Classification* map illustrates the distinctions in roadway types as described below.

The highest functional roadway classification in Sprague is Collector Roads- Major and Minor. Roads in this category collect traffic from local roads and connect with other collector roads and arterials. Collector roads also provide a high degree of access to abutting land uses and are designed and constructed to accommodate lower traffic volumes and speeds than the higher classifications. Sprague's collector roads include the following:

According to the most current available data, Sprague is served by approximately 37 miles of public roads, 68% percent of which are Town roads (25.1 miles) and the balance (11.8 miles) are State roads.

Transportation & Circulation



Town of Sprague
Plan of Conservation
& Development



**State Functional
Road Classification**

Legend

- Major Collector
- Minor Collector
- Local

Scale:
State Road Functional Classification
State of Connecticut Department of Transportation
Bureau of Policy and Planning
THIS MAP HAS BEEN CREATED FOR USE AS A PLANNING
DOCUMENT. DELINEATIONS MAY NOT BE EXACT.

Major Collectors

- Main Street - Baltic (Route 97)
- Scotland Road (Route 97)
- Main Street - Versailles (Route 660)
- Papermill Road (Route 660)
- Bushnell Hollow Road (Route 138)
- Willimantic Road (Route 207)

The majority of roads and road mileage in the Town of Sprague are comprised of local roadways.

Minor Collector

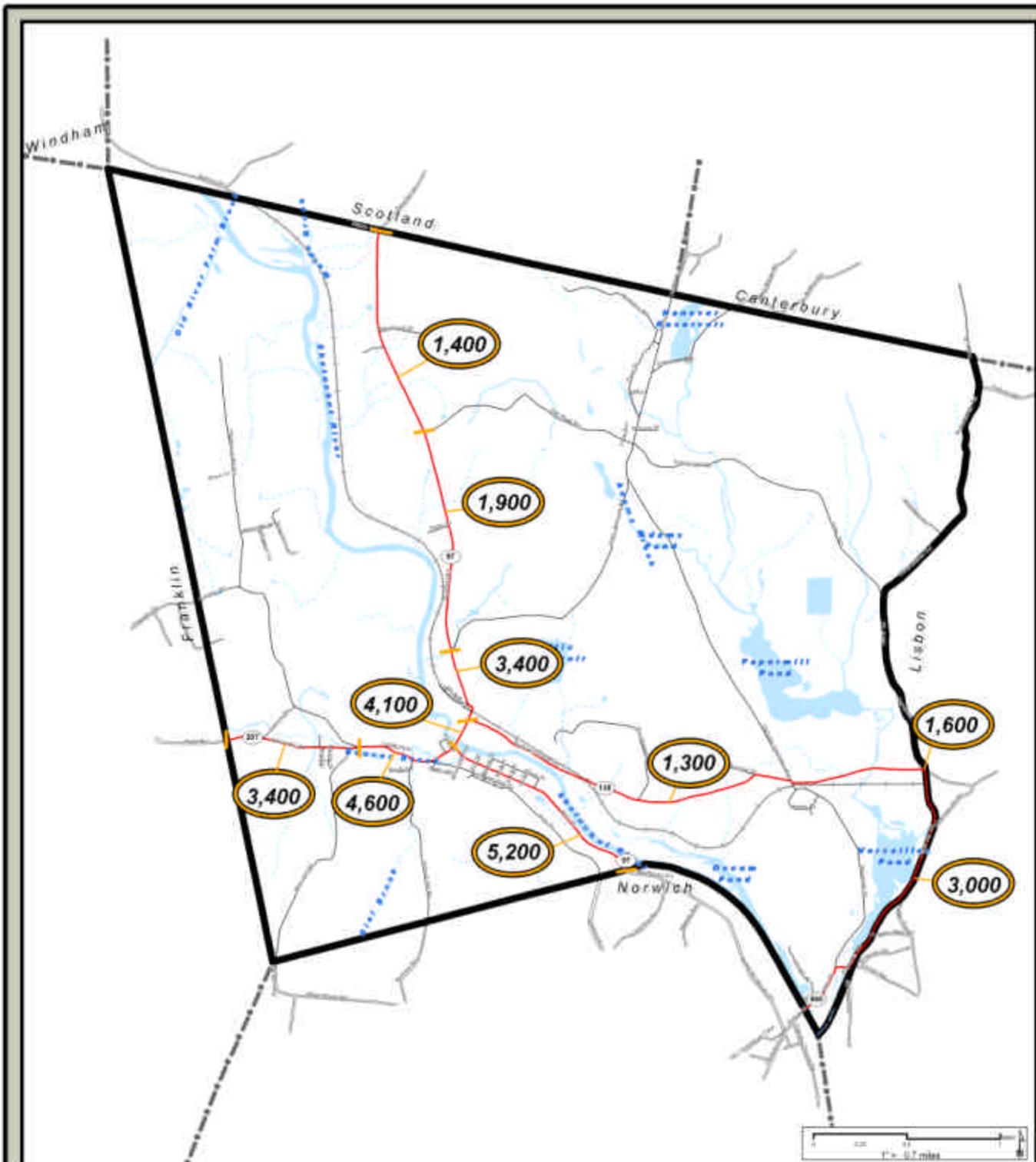
- Plain Hill Road

Local Roadways, the final classification of roadways, includes all remaining roads. This classification contains the highest percentage of road mileage in Sprague and provides for the lowest level of through mobility, while affording the highest level of access to abutting land uses. Sprague’s local roads include the following:

- | | | |
|---------------------|-------------------------|-------------------|
| 1st Avenue | Hanover-Versailles Road | Rose Street |
| 2nd Avenue | Hazlewood Drive | Salt Rock Road |
| 3rd Avenue | High Street | School Hill Road |
| 5th Avenue | Inland Road | Spruce Street |
| Amber Drive | Lacroix Road | Sunrise Drive |
| Baltic Heights | Lucier Heights | Upper High Street |
| Baltic-Hanover Road | Main Street-Hanover | Waldo Road |
| Bay Street | Maple Street | Wall Street |
| Birchwood Terrace | Marion Street | Wendy Drive |
| Brookside Avenue | Mission Street | Westminister Road |
| Church Street | Park Drive | Whitehall Drive |
| Country Club Drive | Parkwood Road | Woodland Lane |
| Cross Street | Pautipaug Hill Road | |
| Cydlo Drive | Pearl Street | |
| Dows Lane | Pinecrest Lane | |
| Elm Street | Pleasant View Terrace | |
| Fortin Drive | Potash Hill Road | |
| Franklin Road | Ridge Road | |
| Fullertown Road | River Street | |
| Grandview Drive | Riverside Drive | |

State Roadways - Average Daily Traffic Volumes

The following describes existing traffic conditions on State roadways within Sprague, using available traffic count data from the Connecticut Department of Transportation. The map titled *Average Daily Traffic* illustrates the location and number of vehicles on Sprague’s state roadways.



Town of Sprague
Plan of Conservation
& Development



**Average Daily
Traffic (2003)**

Legend

- Average Daily Traffic Volume
- Local Roadway
- State Roadway

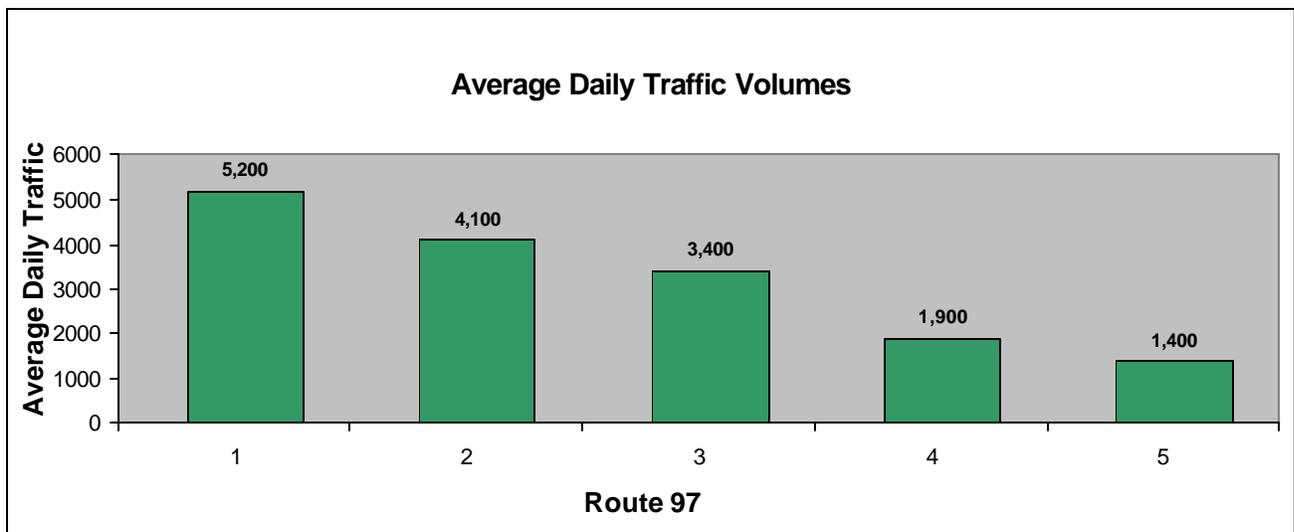
Source:
State Road Planning Database (2002)
Average Daily Traffic Volume (2003)
State of Vermont Department of Transportation
Bureau of Traffic Engineering
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SCHOOL OF CIVIL & ENVIRONMENTAL ENGINEERING

Route 97

Route 97 spans approximately 29 miles from Route 12 in Norwich to U.S. 44 in Pomfret. In Sprague, Route 97 is a major collector extending between the boundaries of Norwich to the south and Scotland to the north, bisecting the town. This 4.1-mile section of roadway provides access to various businesses, municipal facilities, high and low-density residential neighborhoods, and open space. The greatest traffic volumes along this roadway occurred between the Norwich town line and the intersections with Routes 207 and 138 in the Village of Baltic. The high traffic volumes in this immediate area are likely a result of its close proximity to Routes 207 and 138, in addition to the concentration of commercial uses in the Village of Baltic. The figure below represents the Average Daily Traffic (ADT) Volumes for selected portions of Route 97 from the Norwich town line to the Scotland town line.



Route 97 near junction of Route 207 (HMA)



Legend

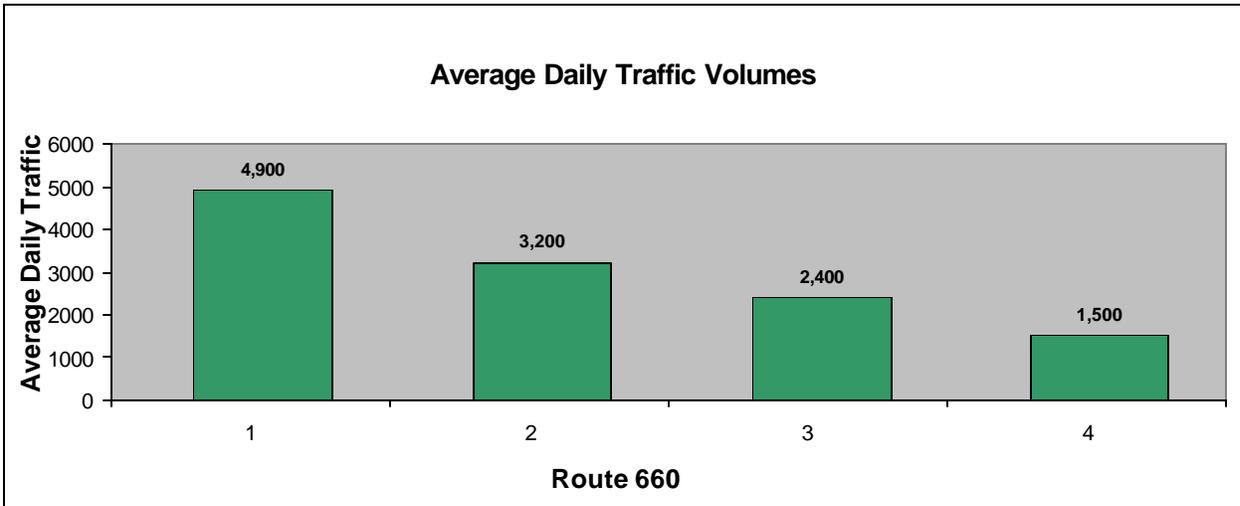
1. Norwich-Sprague Town Line To Route 207 (W. Main Street)
2. Route 207 (W. Main Street) To Route 138 (Bushnell hollow Road)
3. Route 138 (Bushnell Hollow Road) To Baltic-Hanover Road
4. Baltic-Hanover Road To Saltrock Road
5. Salt rock Road To Sprague –Scotland Town Line

Route 660:

Route 660 is a major collector entering Sprague from the south at the Norwich town line as Main Street. This 1.6-mile stretch of roadway proceeds north-easterly through the Village of Versailles, becoming Papermill Road and ends at State Route 138 (Bushnell Hollow Road). Average daily traffic volumes on Route 660 in 2003 ranged from 4,900 ADT from the Norwich town line to Riverside Drive to a low of 1,500 ADT from the Kinsman Road Extension (Town of Lisbon) to Route 138. The figure that follows represents the Average Daily Traffic (ADT) Volumes for selected portions of Route 660 from the Norwich town line to Route 138.



Route 660 near Amgraph Packaging (HMA)



Legend

1. Norwich-Sprague Town Line to Riverside Drive
2. Riverside Drive to Kendall Drive
3. Kendall Drive to Kinsman Road Ext. (Town of Lisbon)
4. Kinsman Road Ext. (Town of Lisbon) To Route 138 (Kinsman Road)



Route 138 & Hanover-Versailles Rd (HMA)

Route 138:

Route 138, beginning at Route 97 in Sprague, traverses 118-miles of roadway through Connecticut and Rhode Island, and eventually ends at State Route 28 in Milton, Massachusetts. In Connecticut, Route 138 covers nearly 18-miles of roadway passing through mill towns and countryside. In Sprague, this 2.6-mile section of roadway is classified as a major collector and functions as the main east/west connection between the Village of Baltic and the Town of Lisbon. Average daily traffic on this route in 2003 was 1,300 vehicles from Route 97 to 660 and 1,600 vehicles in the vicinity of the Lisbon town line.



Route 207 Baltic (Willimantic Road) (HMA)

Route 207:

Route 207 begins at Route 85 in Hebron and extends through Lebanon and Franklin before terminating at Route 97 in Sprague. In Sprague, Route 207 is 1.3-mile roadway that is classified as a major collector. Route 207 enters Sprague at the Franklin town line as Willimantic Road and proceeds eastward becoming West Main Street before terminating at Route 97 in the Village of Baltic. Traffic volumes for 2003 consisted of 3,400 vehicles per day from the Franklin town line to Plain Hill Road, and 4,600 vehicles per day between Plain Hill Road and Route 97.

Overview of Changes in Travel Patterns between 1990 – 2003

Since the early 1990’s, travel patterns and traffic volumes on State roads have experienced some fluctuation, exhibiting significant increases on some roads and decreases on other. Table 27 identifies historical count data for segments of State roads in Sprague in 1990 and 2003.

The most notable traffic volume increases in terms of numbers of additional vehicles occurred along Route 97 in the following locations: Route 138 and Baltic-Hanover Road (1,100 vehicles per day); Baltic-Hanover Road to Scotland town line (450 vehicles per day); and from the Norwich town line to Route 207 (800 vehicles per day).

The most substantial traffic volume decreases, in terms of vehicles, occurred at the following locations: Route 660 from the Norwich town line to Route 138 (a decrease of 2,300 vehicles per day) and Route 138 from Route 97 to Route 660 (decrease of 400 vehicles per day).

In assessing the change in travel patterns for entire roadways, only Route 97 (2650 vehicles per day) and Route 207 (75 vehicles per day) experienced increase in traffic volumes from 1990 to 2003. In contrast, State Route 660 and 138 witnessed a decrease of 2,300 and 200 vehicles per day between 1990 and 2003 respectively. In fact, combined traffic volumes on State roads in the Town increased by 7.4% between 1990 and 2003, while the Town’s population experienced a decrease of 1.2% between 1990 and 2000.

Traffic Accident Analysis

The Connecticut Department of Transportation (ConnDOT) prepares the Suggested List of Surveillance Study Sites (SLOSSS) to identify high hazard highway locations based on traffic accident history. ConnDOT identifies and classifies high accident, accident frequency, the type of roadway, and average daily traffic. Highway segments placed on the SLOSSS are candidates for detailed review to determine if measures should be undertaken to mitigate geometric or roadway environmental problems that could be contributing to the above normal accident history. The most recent reporting period (1998 – 2000) did not list any locations in Sprague on the SLOSSS. Due to recent events concerning potential State liability for unimproved accident locations, the rankings of these SLOSSS locations are not available at this time. Instead, Table 28 identifies the number of recorded accidents and subsequent injuries on the state roadways of Sprague from 2000 – 2002. The accident data was obtained from the Connecticut Department of Transportation and covers all accidents that resulted in a death, injury, or when property damage in excess of \$1000 is caused to the property of any one individual (prior to October 1998, this amount was \$600).

Of State Routes that traverse the Town of Sprague, Route 97 and 207 have seen modest traffic growth over the past decade, while Route 138 and 660 have witnessed modest decreases in average daily traffic.

With no locations identified on the State’s Suggested List of Surveillance Study Sites, the Town of Sprague does not appear to have any dangerously high motor vehicles accident locations.

Table 27
Traffic Volume Trends On
Sprague's State Roads

Route 97	1990 ADT	2003 ADT	Percent Change
Norwich Town Line to Route 207	4,400	5,200	18.2
Route 207 to Route 138	3,800	4,100	7.9
Route 138 to Baltic-Hanover Rd.	2,300	3,400	47.8
Baltic-Hanover Rd. to Scotland line	1200*	1,650	37.5
Route 138	1990 ADT	2003 ADT	Percent Change
Route 97 to Route 660	1,700	1,300	-23.5
Route 660 to Lisbon Town Line	1,400	1,600	14.3
Route 207	1990 ADT	2003 ADT	Percent Change
Town Line to Pautipaug Hill Rd	3,100	3,400	9.7
Pautipaug Hill Rd to Route 97	4,150	4,600	10.8
Route 660	1990 ADT	2003 ADT	Percent Change
Norwich Town Line to Route 138	4250*	3000**	-29.4

* Average of 2 road segments.
**Average of 4 road segments.

Table 28
Comparison of Accidents & Injuries between 1988-1990 and 2000-2002 Reporting Periods

		State Routes				
		97	138	207	660	Total
	Miles	4.05	2.59	1.26	1.56	9.46
	Percent of Total miles	42.8%	27.4%	13.3%	16.5%	100.0%
1988 - 1990	Number of Accidents	40	23	27	7	97
	Percent of Total Accidents	41.20%	23.70%	27.80%	7.30%	100%
	Number of Injuries	16	6	6	0	28
	Percent of Total Injuries	57.00%	21.50%	21.50%	0.00%	100%
	Accidents per mile	9.88	8.88	21.43	4.49	10.3
2000 - 2002	Number of Accidents	26	13	20	5	64
	Percent of Total Accidents	40.60%	20.30%	31.30%	7.80%	100%
	Number of Injuries	1	2	5	2	10
	Percent of Total Injuries	10.00%	20.00%	50.00%	20.00%	100%
	Accidents per mile	6.4	5	15.9	3.2	6.8
Percent Change between 1998-2000 and 2000-2002 Reporting Periods.	Accidents % Change	-35.0%	-43.5%	-25.9%	-28.6%	-34.0%
	Injuries % Change	-93.8%	-66.7%	-16.7%	200.0%	-64.3%

Table 28 shows the distribution of accidents and injuries for state routes for 2000-20002 reporting period. During that three-year period, 64 accidents resulted in 10 injuries along the state routes of Sprague. Overall, the town has experienced a decrease of 34.0% and 64.3% in the number of accidents and injuries on state routes for the 2000–20002 reporting periods. Route 207 experienced the greatest number of accidents per mile for the 2000 –2002 reporting period.

Overall, the town has been experiencing decrease numbers of accidents and injuries on state routes for the 2000–20002 reporting periods.

The most notable decrease in the number of accidents from the 1988-1990 to the 2000-2002 reporting periods occurred on Route 138 (-43.5%). Route 207 had the highest number of accidents per mile of all Sprague’s state routes at 15.9 accidents per mile, which was a 34.5% decrease from the 21.4 accidents per mile observed during the 1988-1990 reporting period. Route 97 experienced the second greatest number of accidents per mile at 6.4, which was a 35% decrease from the 9.9 accidents per mile during the 1988-1990 reporting period.

Journey to Work Patterns

The United States Census Bureau provides recent data for analyzing commuting patterns within and between local communities. This data is helpful in understanding general traffic flows into and out of a community generated by daily trips to and from the workplace.

The Town of Sprague has an estimated 1,523 workers, of which 10.6% of workers (162) are employed within Sprague. The remaining 89.4% of workers (1361) commute to jobs outside of Sprague. However, 84.2% of Sprague’s commuting workers are employed in New London County, and only 1.6% commutes out of state to work. Of Sprague’s 1,523 workers, 83.6% of commuters ride to work alone while 12% carpool and less than 1% travel by public transportation according to Southeastern Connecticut Regional Council of Governments (SCCOG) Regional Transportation Plan for 2004-2005.

Town residents have generally short commutes to work, with 84.2% of Sprague’s commuting workers being employed in New London County, and only 1.6% commuting out of state to work.

Employed residents of Sprague are likely to have a short commuting distance to and from the workplace. According to the SCCOG Regional Transportation Plan for 2004-2005, the mean commuting time for residents of Sprague was 25 minutes. Over 74% of all Sprague workers work either in town or in an adjacent municipality. The top three out of town employment destinations include: Norwich (35.1%); Ledyard (9.6%); and Groton (6.9%).

Rail System

There are 6.1 miles of rail lines in Sprague and 1.9 miles of spur lines connecting to the Sprague Paperboard Corporation. The Connecticut Department of Transportation owns the entire length of this line that runs parallel to the Shetucket River from the Scotland town line south to the village of Baltic then east parallel to Route 138 to the town of Lisbon. The section of rail

from the Sprague Paperboard Corporation east to the town of Lisbon is used for freight shipments service, and is leased by the Providence and Worcester Railroad Company under an operating agreement with Connecticut Department of Transportation.

The Town of Sprague’s primary trail network located around the Baltic Reservoir provides residents with a picturesque and serene 1.1-mile trail that traverses the perimeter of the reservoir.

Regionally, the two main rail lines, the Providence & Worcester line and the New England Central Railroad, are both freight railroads. The Providence & Worcester line is being reactivated and it operates from Groton to Worcester along the eastern edge of the Thames River. Whereas the New England Central Railroad line operates from New London, CT to Palmer, MA along the western side of the Thames River. These lines provide only freight rail service; passenger rail service on these lines has been limited to occasional excursions. In Sprague, rail service is limited due to a lack of adequate connectivity between either rail line. According to the I-395 Corridor Transportation Investment Area Plan conducted by the I-395 Corridor TIA Committee, the lack of an adequate rail connection between Willimantic and Versailles prohibits rail traffic using the Providence & Worcester line from reaching New London.

Trail Network

The Town of Sprague’s primary trail network is centrally located around the Baltic Reservoir providing most residents with easy access. This 1.1-mile trail traverses the perimeter of the reservoir, offering residents a picturesque and serene walking environment. In addition to the trails along the Baltic Reservoir, the Mohegan State Forest along Waldo Road provides a scenic area for hiking along the Shetucket River.

The regional council of governments plans to install sidewalks at various locations along Route 97 over the next twenty years.

SCCOG– Regional Transportation Plan-for 2004-2005

According to the 2004-2005 Transportation Plan, the proposed twenty-year transportation project plan calls for the installation of sidewalks at various locations along State Route 97. Improvements to town roads include the following: an upgrade of 2,250 feet of roadway along Hanover-Versailles Road; 2000’ of storm drainage improvements and replacement of 48” culvert along Westminister Road; and the replacement of bridge over Little River along Potash Hill Road.

C. GOALS & OBJECTIVES

As a largely undeveloped Town with a modest population, Sprague remains a rural community. However, suburban residential growth has been accelerating in recent years. As with most of the region’s towns, such growth continues to occur along existing roads.

Future land use changes in Sprague will continue to be the result of economic expansion in its nearby metropolitan neighbors rather than a result of new or projected avenues of access.

Although there are intersections and road segments through the Town with poor visibility or bad alignments, most still have low traffic volumes. Therefore, these do not require improvement unless traffic volumes increase significantly. As new development is proposed, the Town should have traffic impact studies done to determine the potential improvements required to these facilities. Any improvements should seek to maintain as much of the rural flavor of these roads as possible.

Many of the roadways in Sprague could be classified as scenic roadways that contribute to the rural character of the Town. A balance should be achieved between the necessity to move vehicles safely throughout the Town and preservation of essential elements of the community's character, i.e., stone walls, tree lined shoulders, narrow pavements, views and vistas from the travelway.

GOAL:

Keep or enhance the scenic quality of roadways as much as possible without unduly limiting safety characteristics. Straightening and leveling roads simply to increase allowable speed should not be important considerations.

Objectives:

- Subdivision roads and cul-de-sacs should recognize and harmonize with the landscape and natural features to the greatest extent possible. Road width and other requirements should vary with the size and density of the subdivision, with provision to make improvements at a later date if the development warrants. Roadway drainage systems should be designed in an environmentally sensitive way to work with existing drainage patterns that will require low long-term maintenance by the Town.
- Any significant improvements or changes proposed to town roads should involve appropriate participation by the Planning and Zoning Commission and the public in design and planning. Appropriate design and environmental standards for improvements should be developed that are protective of rural and scenic character.

GOAL:

Ensure that the road system continues to serve the travel and transport needs of the population of Sprague.

Objectives:

- As traffic flows change due to development in Sprague and adjacent communities, road needs will change. The Town must monitor road needs and make improvements as needed, *consistent with the preceding goal.*

Suburban residential growth has been accelerating in recent years, with most growth continuing to occur along existing roadways.

A balance should be achieved between the necessity to move vehicles safely throughout Sprague and preservation of essential elements of the community's character.

Subdivision roads and cul-de-sacs should recognize and harmonize with the landscape and natural features to the greatest extent possible.

Appropriate design and environmental standards for transportation and roadway improvements should be developed that are protective of rural and scenic character.

Transportation & Circulation

- Work with the Southeastern Connecticut Council of Governments/ConnDOT to request a change of the functional classification for Papermill/Westminster Road from local road to a minor collector. The functional classification of roadways by ConnDOT can affect transportation planning policies and programming and as well as eligibility for ConnDOT and Federal transportation improvement monies.

VII. COMMUNITY FACILITIES

A. INTRODUCTION

An important component of Sprague's Plan of Conservation and Development is reviewing the distribution, availability, condition and capacity of the Town's community facilities and municipal infrastructure to meet the current and projected needs of the people. For the purposes of the Plan, community facilities are defined as public buildings, which includes schools, police and fire stations, libraries, public housing, senior citizen centers and general government facilities that serve the general or specific needs of the public and are the responsibility of the Town to maintain. Municipal infrastructure includes sanitary and storm sewers, public water supply, Town bridges and solid waste disposal. This section presents an overview of the current inventory of Sprague's community facilities and municipal infrastructure and identifies proposed facility and infrastructure improvements needed to accommodate forecasted residential and non-residential growth or to resolve existing infrastructure problems and problem areas. The narrative pertaining to Sprague's community facilities is focused on a ten-year horizon.

Community facilities can include public buildings, such as schools, police and fire stations, libraries, public housing, senior citizen centers and general government facilities. Municipal infrastructure can include sanitary and storm sewers, public water supply, town bridges and solid waste disposal facilities.

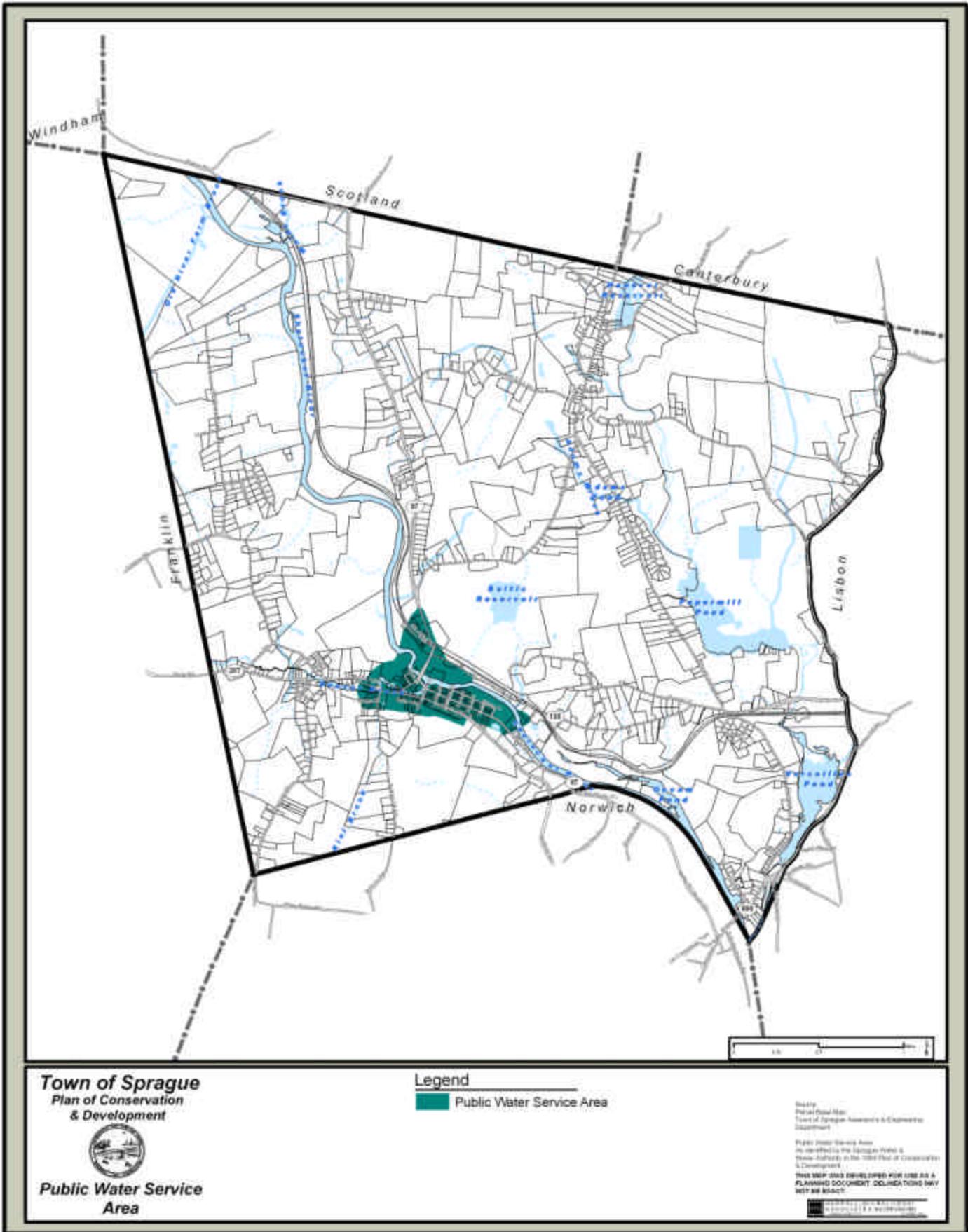
B. COMMUNITY FACILITIES & INFRASTRUCTURE

Public Water Supply

The Sprague Water and Sewer Authority provides the public water supply for the central part of Baltic village, the only public water service area in the Town of Sprague. According to the Town's 2003 Public Utility Control Authority (PUCA) report, prepared annually and submitted to the state Department of Public Utility Control, there are approximately 320 service connections serving approximately 40% of the Town's population. The map entitled *Public Water Service Area* illustrates the current public water supply service area in Baltic. The water supply for the Baltic village public water service area are the Baltic Reservoir, located in the center of Sprague roughly a half-mile northeast of Baltic, and three gravel-packed wells located near the Shetucket River on River Street.

The water supply infrastructure in Sprague includes approximately 4.1 miles of main water transmission and distribution lines, 41 hydrants (35 public, 6 private), a series of storage tanks, 3 wells, 1 treatment facility, and 1 reservoir. The three wells along River Street meet the bulk of Sprague's public water supply needs. In 2003, the Town used 24,138,000 gallons of water from these three wells. The Baltic Reservoir has a storage capacity of approximately 118.5 million gallons, which is further augmented by the Town's water storage tanks. These storage tanks provide an additional storage capacity of 150,000 gallons.

The water supply for the Baltic village public water service area includes the Baltic Reservoir and three gravel-packed wells located near the Shetucket River on River Street.



Town of Sprague
Plan of Conservation
& Development



Public Water Service Area

Legend

Public Water Service Area

Scale:
North Arrow
Town of Sprague, Planning & Engineering Department

Public Water Service Area
As identified in the Sprague Plan of Conservation & Development in the 1998 Plan of Conservation & Development.

THIS MAP WAS DEVELOPED FOR USE AS A PLANNING DOCUMENT. OTHERS SHOULD NOT RELY ON THIS MAP.



Currently, the Town is in the process of updating its Water Supply Plan. As a result, projections concerning potential future service population size, average daily demand, margin of safety (the percent difference between water supply and demand for all water reserves), and any recommendations concerning the expansion of the public water supply areas will need to be evaluated at a future date by the Town.

Source Protection – Aquifers

Due to the importance of aquifers in the State, in 1993 the Connecticut State Legislature promulgated an Act designed to protect against contamination of aquifer resources (codified in CGS §22a-354). The Act requires that all well fields and its corresponding recharge area servicing more than 1,000 people be mapped, an existing board or agency be designated as the local Aquifer Protection Agency and comprehensive land use regulations be adopted. The Town of Sprague has recently shifted its water supply source from the Baltic Reservoir to the three wells along River Street in Baltic. In response to this supply source shift, it should be a priority for the Town to adopt protective zoning regulations in keeping with the State aquifer protection program and the requirements established in the Connecticut General Statutes, as amended.

Source Protection – Surface Water

An important consideration for a public water supply system is source protection. The Sprague Water and Sewer Authority owns approximately 75% of the 0.25 square mile watershed surrounding the Baltic Reservoir and thereby closely controls land use activities in these areas. The remaining privately owned watershed land contains various development limitations, although some new housing construction has recently occurred in the area. As stated in the 1994 Plan of Conservation and Development, the Town should take steps, when appropriate and practical, to purchase privately owned land in the watershed to ensure that this land remains undeveloped.

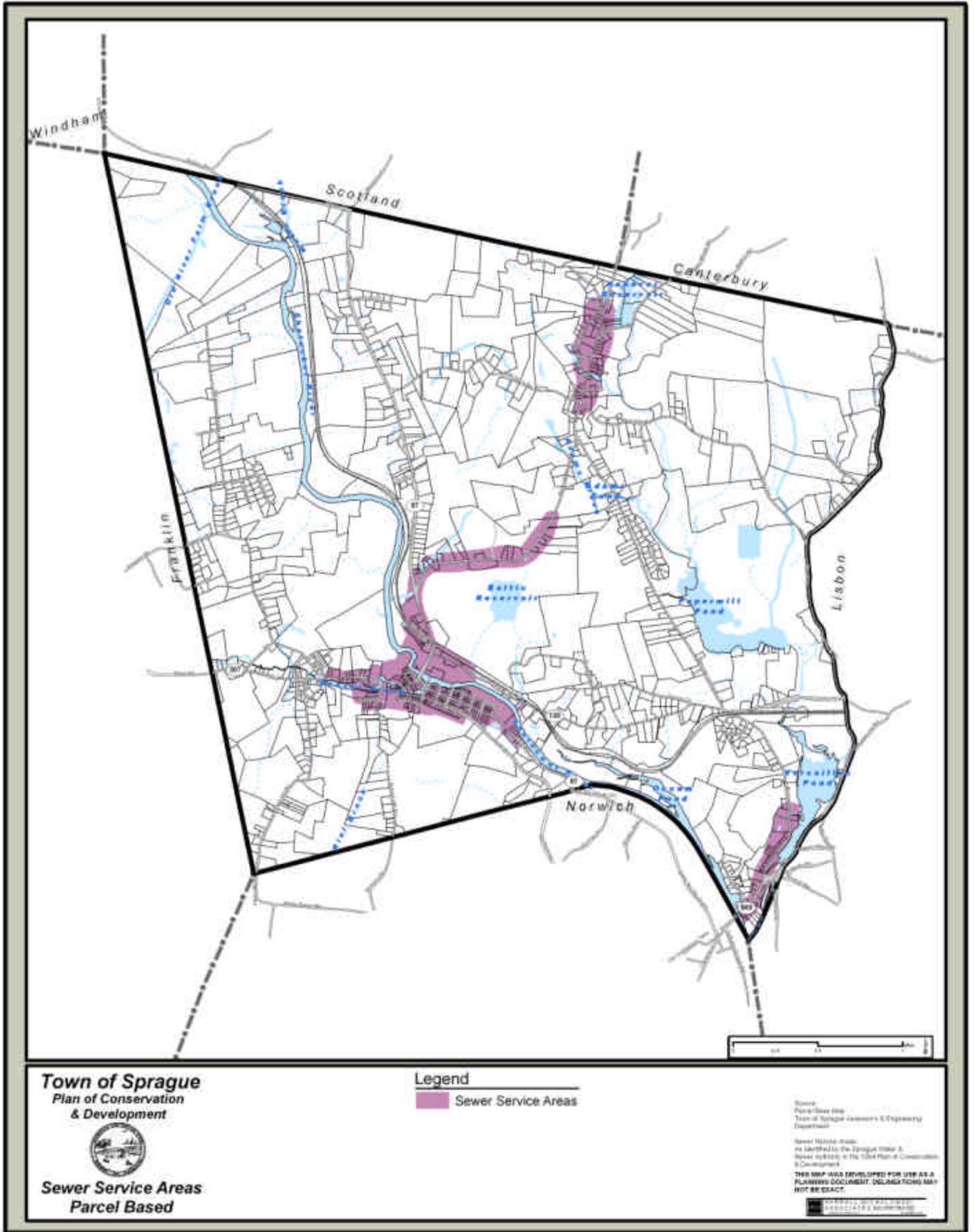
Sewer System

The Town of Sprague, through the Sprague Water and Sewer Authority, maintains a sewage treatment facility along the eastern side of the Shetucket River just off of Route 138. The sewage treatment facility serves the center of Baltic village, as well as the center of Hanover by way of a sewer connection line along Baltic-Hanover Road. This sewer connection line can only be accessed where gravity flow is available; thus, only the portion of the sewer line stretching from the Baltic-Hanover Road intersection with Route 97 north and east for roughly one mile can be utilized for individual sewer connections. The village of Versailles also has sewer service, but this service is attained through a tie-in with the sewer system in the City of Norwich. A new agreement is currently being negotiated between the Town and Norwich Public Utilities to continue sewer service for Versailles through the Norwich system. As illustrated on the map entitled *Sewer Service Areas*, very little of the Town's land area has access to sewers. However, because the sewer service

Having recently shifted its water supply source from the Baltic Reservoir to the three wells along River Street, the Town should adopt protective zoning regulations.

The Sprague Water and Sewer Authority owns approximately 75% of the 0.25 square mile watershed surrounding the Baltic Reservoir and thereby closely controls land use activities in these areas, helping to ensure endurance of high quality water resources.

Community Facilities



Town of Sprague
Plan of Conservation
& Development



Sewer Service Areas
Parcel Based

Legend

Sewer Service Areas

Scale:
Parcel Base Map
Town of Sprague Assessors & Engineering
Department

Sewer Service Areas
as identified in the Sprague Water &
Sewer Utility in the 2004 Plan of Conservation
& Development

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PLANNING DOCUMENT. DELINEATIONS MAY
NOT BE EXACT.**

SPRAGUE TOWN ENGINEERING
1000 STATE STREET
SPRAGUE, VT 05488

areas are located in the areas with the highest population and housing densities in Sprague, a majority of the Town's population lives in areas with sewer access. The balance of the properties in the Town utilizes individual septic systems for wastewater disposal.

Sewer Infrastructure

The Sprague Water and Sewer Authority is responsible for the operation and maintenance of the Baltic and Hanover sewer service areas as well as the sewer use billing for property owners connected to these sewer systems. The system consists of a combination of gravity and forced main sewers that convey domestic, commercial, and industrial sewage to the sewage treatment facility located on the east shore of the Shetucket River. Around 1994, a sewer line was extended up Route 660 and connecting to the industrial area currently Sprague Paperboard. The Town is currently in the process of having the sewer plans for Baltic and Hanover and for Versailles updated, as the most recent data on the sewer system's performance and needs is from 1988. As of 1988, the average daily flow was approximately 250,000 gallons per day and the peak daily flows ranged from 400,000 to 450,000 gallons per day; given that the population has not changed substantially in size since this time, it is likely that these numbers are reasonably close to the present conditions.



Wastewater Treatment Facility (HMA)

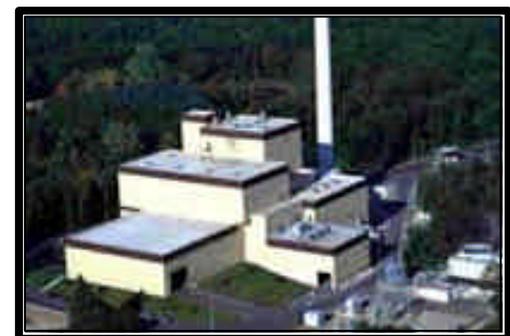
Solid Waste Disposal

As a member of the Southeastern Connecticut Regional Resources Recovery Authority (SCRRA), Sprague has its solid waste disposed of within the Southeast Project, which consists of a mass-burn solid waste, resource recovery, electric generation facility located in the Town of Preston and a landfill in the Town of Montville. The Southeast Project provides waste management for thirteen communities in the region, serving a population of 277,022 and disposing of 219,000 tons of solid waste annually. Under Sprague's existing contract, the Town has a minimum annual contract quota of 2,809 tons of solid waste, a total that it has never reached. The contract has no maximum amount of solid waste tonnage. During 2004, the Town disposed of 2,381 tons of waste, approximately 15% under its contracted quota. While the amount of waste generated by the Town varies from year to year, it is not expected that the Town will exceed its quota in the near future. Sprague's portion of the waste handled by the Southeast Project comprises only about 1% of the region's processing capacity of approximately 250,000 tons per year.



Sprague Recycling Facility (HMA)

The Town operates a small recycling center and transfer facility at the former landfill on Bushnell Hollow Road (Route 138). This facility handles bulk waste, recyclables and yard waste for Town residents, as well as serving as the first stop for household waste. Household waste is packed and then sent to the Preston incinerator where it is disposed of at a cost of \$60 per ton. Bulky waste is transported and disposed of at the Willimantic Waste Paper facility at a cost of \$2 per ton.



Southeast Project (www.ccra.org)

The Town's recycling center and transfer facility at the former landfill handles bulk waste, recyclables and yard waste for Town residents, and serving as the first stop for household waste.

The Connecticut Resource Recovery Authority (CRRA) Policy Board, which oversees the State's waste management projects, is currently exploring future options to ensure proper waste management solutions beyond the year 2010. Some of the options being considered include expanding the existing facility or expanding a facility elsewhere in the State. One of the problems that CRRA faces is the lack of remaining facilities in the State with excess capacity to handle additional waste streams. Therefore, it may be required for the CRRA to utilize existing facilities as transfer stations and move waste to out of state facilities.

State law requires all residents to recycle the following items: glass food/beverage containers, metal food/beverage containers, newspapers, corrugated cardboard, leaves, scrap metal, and waste motor oil. In addition to the recycling services provided by Willimantic Waste Paper, the Town packs and sends recycled paper to the Sprague Paperboard facility in Sprague. Waste scrap metal is also recycled through SCRRA facilities. The Town has individual agreements with Eastern Batteries for recycling batteries and Northeast Bulb for recycling light bulbs. Waste motor oil can be recycled through the SCRRA at various locations five times per year, and the Town has an agreement with the State of Connecticut to recycle old tires. At present, Sprague does not offer a means for recycling electronics and similar equipment, but the Town is planning to add this capacity in the near future.

SCRRA also organizes the management of household hazardous waste for the Town and the region it serves. Household hazardous waste is under stringent regulations by the Connecticut Department of Environmental Protection and the U.S. Environmental Protection Agency for handling, storage, transportation and disposal activity. Safety-Kleen Corporation, formerly Laidlaw Environmental Services, manages the disposal of hazardous materials for the SCRRA. The hazardous materials collected by the SCRRA are either transported to federally approved disposal sites, incinerated in special facilities approved for disposal of hazardous waste, or placed in special landfills.

The Town of Sprague is planning to add the capacity of offering a means for residents to recycle electronics and similar equipment in the near future.

The Town's management of solid waste, through its service contract with the SCRRA and its multiple agreements with other outside firms, is an efficient and cost effective means to provide this municipal service. However, the Town is vulnerable to shifts in economy and technology that may affect the costs that the SCRRA will face, and inevitably pass on to the towns they service through the rate they charge for their tipping fees. Given these conditions, the Town should focus on its strategies to improve its waste disposal and recycling efforts.

Town Roads, Sidewalks and Bridges

The road system of Sprague consists of 36.9 miles of roadway of which 11.8 miles are maintained by the State of Connecticut and 25.1 miles are a local responsibility. Town staff has a number of small road construction projects that they would like to have

done in the near future, provided that budget allows for these projects to move forward.

The Town of Sprague has a limited amount of sidewalks in place, primarily located in and around the centers of Baltic and Versailles. According to the 2004-2005 SCCOG Regional Transportation Plan from the proposed twenty-year transportation project plan calls for the installation of sidewalks at various locations along State Route 97.

As a small town with a population of approximately 3,000 residents, Sprague has a limited network of roadways and bridges at the federal, state, and local levels. The Connecticut Department of Transportation maintains an inventory on the status and conditions of all state maintained bridges in the Town. Currently, the Town has 3 bridges on local roadways. An additional 10 bridges in Sprague are located along State routes.

Town staff should continue to request funding to repair bridges per inspection recommendations. Experience has shown that deferring maintenance results in repair costs of a scale that requires State permits and engineering design.

Public Library System

The Sprague Public Library provides residents with educational, recreational and reference services from one central library located on Route 97 in Baltic in the historic Grist Mill building. The library has a collection of 6,500 books, magazines, and videos, recordings and computer disks³. The library system offers Internet access for the public and several electronic databases including online access to the catalogs of over 200 libraries within the State. The location of the library is highlighted on the *Community Facilities* map.



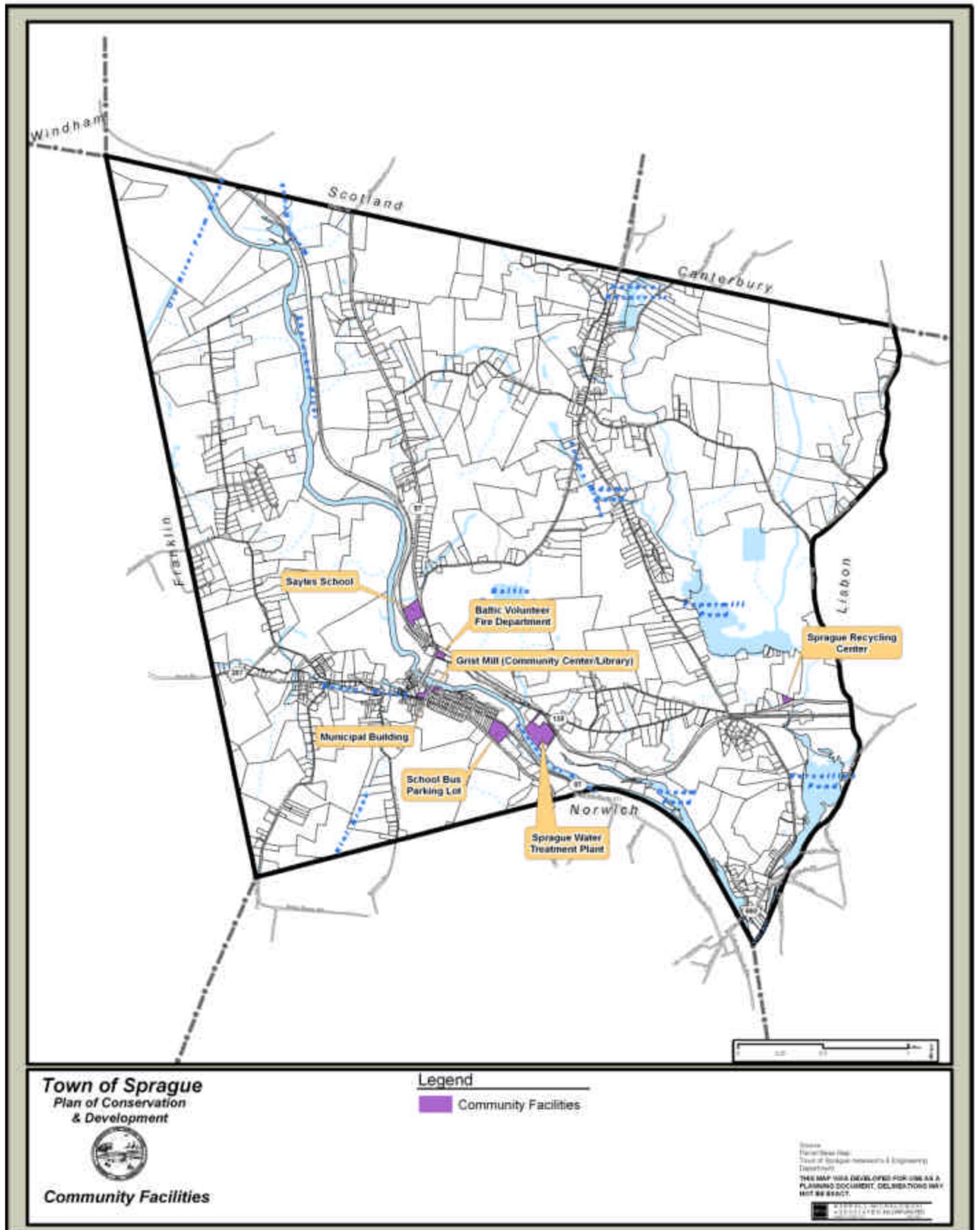
Public Library signage (HMA)

Public School System

The Sprague public school system consists of one PK-8 elementary school, the Sayles Elementary School located at 10 Scotland Road (Route 97) just north of the center of Baltic.

³ As of September 23, 2004. Source: LibraryBug.org (<http://www.librarybug.org/library-CT0149.html>).

Community Facilities



Town of Sprague
Plan of Conservation
& Development



Community Facilities

Legend

Community Facilities

Source:
Town of Sprague
Town of Sprague Planning & Engineering
Department
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NOT BE EXACT.

WATERBURY COMMUNITY COLLEGE
DESIGNATED RECORDS

Enrollment at the Sayles Elementary School in January 2002 was 351 pupils. Total school enrollment declined by -13.8% between 1997 and 2002. As of September 2004, enrollment at the school has continued to drop to 316 students.

In addition to the students enrolled at the Sayles Elementary School, 185 students from Sprague attend high schools in surrounding communities through cooperative agreements between the Town of Sprague and these communities. Of Sprague's 185 high school-age students, 116 attend Norwich Free Academy in Norwich, or roughly two-thirds of the total high school-age students. Table 29 below lists the seven different high schools where Sprague students attend, along with each high school's number of students from Sprague.



Sayles School (HMA)

Table 29

Sprague Student Enrollment in Local High Schools

HIGH SCHOOL	SPRAGUE ENROLLMENT
Norwich Free Academy	116
Lyman Memorial High School (Lebanon)	21
Norwich Tech	21
Windham High School	16
Norwich High School	6
Montville High School	3
Lebanon Vo-Ag Program	2

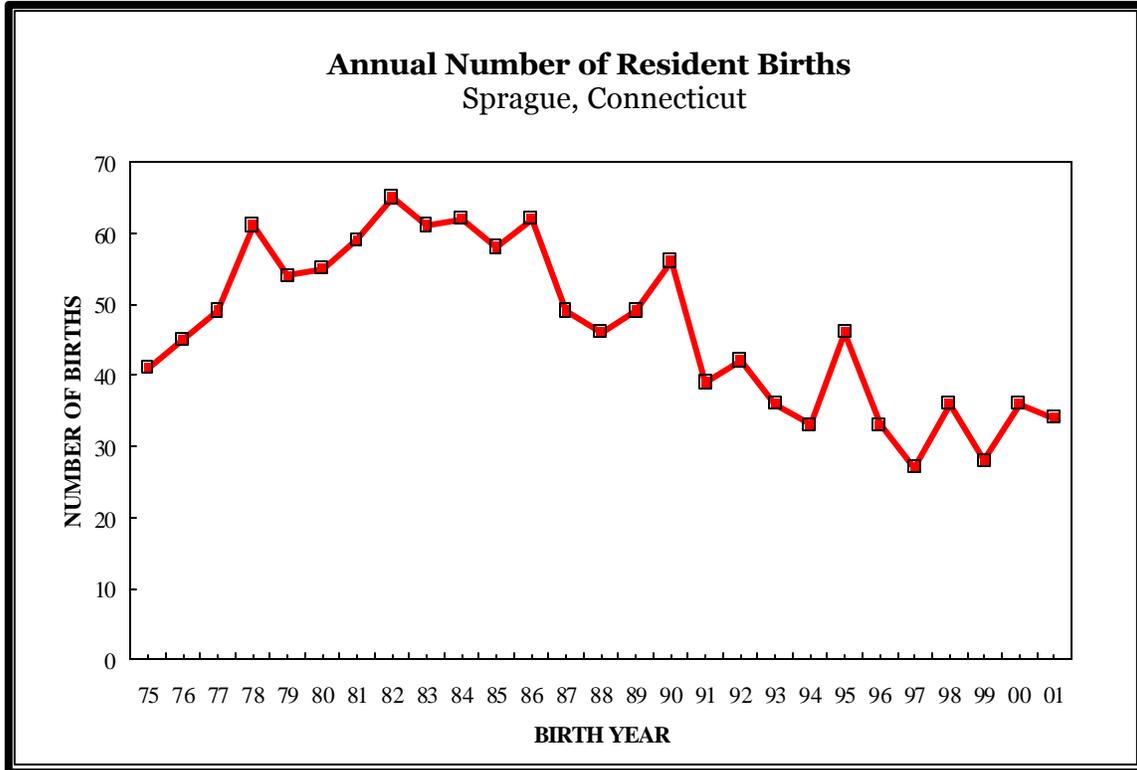
Source: Sprague Board of Education.

After attending the PK-8 Sayles Elementary School in Town, students from Sprague typically go on to attend one of seven high school programs in the area.

Birth Trends and Projections

Birth trends and projections are used to plan for school enrollment. As the following figure depicts, resident births in the Town between 1975 and 2001 reached their peak in the early to mid 1980s with a high of 65 births in 1982. For the six years of 1981-1986, resident births in Sprague ranged from 58 to 65 annually. Children born in these birth years are now almost entirely out of the secondary public school grades. Resident births declined during the late 1980s before spiking again with 56 births in 1990; children born in 1990 are now beginning to enter their high school years. With the exception of 1995, resident births have been on a downward trend since 1990. The children born in 1995 will shortly be reaching the middle school grades. As these students progress through the public educational system there will be peaks and valleys of enrollment reflecting the variation in the number of births since 1990.

With the exception of 1995, resident births have been on a downward trend since 1990, and as children born in 1995 will soon be reaching the middle school grades, there will be peaks and valleys of enrollment reflecting the variation in the number of births since 1990.



Elementary and secondary parochial and private schools throughout the Greater Norwich region also serve Town residents. According to the Connecticut State Department of Education, 53 students from Sprague attend such schools; this accounts for only approximately 9-10% of the total school-age children residing in the Town of Sprague. The degree to which these non-public schools expand or contract or the degree to which economic conditions drive household educational choices in the future will have a direct impact on the Town's public school system.

The New England School Development Council (NESDEC) is currently conducting a ten-year study to ascertain future enrollment projections for the Sprague school system and assess its needs and requirements from a personnel and facilities standpoint over the next decade.

Future Public School Facility Plans and Considerations

At the present time, the Sprague School District has commissioned the New England School Development Council (NESDEC) to conduct a ten-year study to ascertain future enrollment projections for the school system and assess its needs and requirements from a personnel and facilities standpoint over the next decade. The summary results of this study are expected soon. Based upon the findings and recommendations of this study, the Town will be able to plan for and address both short-term and long-term issues.

Non-Public School Elementary and Secondary School Facilities

Sprague also has two non-public schools (one elementary and one secondary) within its municipal boundaries. These schools

provide educational choice for Sprague residents as well as residents throughout the Greater Norwich region. Forty-three students from Sprague attend these two schools, representing 26.7% of their respective enrollments.

Table 30			
Non-Public School Facilities			
Sprague, Connecticut			
School	Location	Grades Served	Enrollment
Private & Parochial Schools			Sprague/Total: 43/161
St. Joseph School	10 School Hill Road	K-8	41/85
Academy of the Holy Family	54 West Main Street	9-12	2/76

Source: <http://www.csde.state.ct.us/public/der/Enumeration/enum2003/dist133.pdf>

Police Protection, Fire Protection and Emergency Medical Services

The Town of Sprague does not have its own police force, but rather relies on the services of a resident State Trooper who operates out of the Town Hall building. The resident trooper is responsible for the enforcement of all laws, ordinances and regulations governing the criminal and motor vehicle codes and the protection of all citizens.

Fire protection services are provided by the Baltic Volunteer Fire Department, which is comprised of 39 volunteer firefighters. The Town has one fire station located at the intersection of Routes 97 and 138 in Baltic and seven pieces of motorized equipment, including three fire engines, a truck and ladder company, a rescue squad, an ambulance and one specialized forestry vehicle. Additional services provided by the Department include emergency medical service, hazardous material response, vehicle rescue and extraction and search and rescue services. To supplement the efforts of the Baltic Volunteer Fire Department and to help share the cost of expensive equipment, the Town has mutual aid arrangements with the surrounding towns of Franklin, Lisbon and Scotland, as well as the Windham Center section of Windham and the Occum section of Norwich. At some point in the future, a possible expansion or relocation of the Fire Department facility should be given consideration based upon the Town’s needs.

Public Housing

The Sprague Housing Authority addresses the supportive housing/service needs of the elderly, frail elderly and disabled. The Housing Authority also manages the federally funded Section 8 Rent Subsidy Program for the Town. Currently, elderly individuals occupy all of the twenty (20) units managed by the Housing Authority.



Resident State Trooper Facilities (HMA)



Baltic Volunteer Fire Department (HMA)



Senior Center at Town Hall (HMA)

The provision of a larger facility space for the senior center should be a priority for the Town over the course of the next ten years.

Senior Citizen Center and Community Center

Within the Town of Sprague, the Commission on the Aging and an Agent for the Elderly operate the senior center, which is a part of the Town Hall complex. The center functions as the central resource center for information on programs, activities and services for elderly residents, and has 169 active participants. The center provides van service for senior residents, as well as a variety of programs and activities. These programs and activities include driver's education classes, arts and crafts, guest speakers on health-related issues, political functions and events, and exercise and dance classes. A 27-person capacity bus operated by the Town provides transportation for day trips for seniors as well as for approximately three overnight trips per year.

The role of senior centers has been changing over the years. In the past, centers were primarily social and recreation centers. While it still serves this function, the Sprague Senior Center has also become a base for the provision of social services to senior citizens. The senior center provides meals for senior residents five days a week, as well as occasional special luncheons with games and activities. The center also has nurses visit several times a month, and has a foot doctor come for a scheduled visit every other month. In addition, the Agent for the Elderly serves as the provider of information for inquiries related to availability of senior housing.

At present, the senior center facility space is quite small, and popular events often draw overflow crowds. With the aging of the population projected to continue into the foreseeable future, overcrowding is likely to become an even greater issue over the next decade. The provision of a larger facility space for the senior center should be a priority for the Town over the course of the next ten years.

The community center operates out of the historic Grist Mill building across the street from Town Hall, together with the public library.

Town Garage

The Town's public works function is overseen by the Road Supervisor who currently operates out of the Town Garage, located at 1 Main Street in Baltic, and is responsible for road and sidewalk maintenance in Sprague. At this facility, the Town's municipal vehicles are stored, maintained, serviced and repaired. In addition to the Town Garage, a sand and road salt storage facility is located along Bushnell Hollow Road (Route 138) just east of the center of Baltic. At some point in the future, a possible expansion or relocation of the Town Garage should be given consideration based upon the Town's needs.



Sprague Town Garage (HMA)

General Government Facilities and Capital Improvement Projects

General government administration is conducted at the Sprague Town Hall, located at 1 Main Street in Baltic. The offices of the

First Selectman, Town Clerk and Assessor are located in this facility, as well as other administrative departments such as Land Use and Water and Sewer.

The Town has both a 5-year and 20-year Capital Project Budget, which project out the costs for capital improvements for the Town over these respective periods of time. Over the next five fiscal years (2005-06 to 2009-10), the Town has budgeted over \$1.5 million for roadway pavement management, \$50,000 for sidewalk rehabilitation, \$225,000 for public works vehicles, \$650,000 for firefighting trucks and equipment, and \$500,000 for a highway garage. In addition to these larger outlays of capital funds, the Town has also budgeted for smaller projects, such as \$20,000 for an animal control van, \$15,000 for a playground in Versailles, \$15,000 for a Board of Education storage shed, \$7,500 to install dry hydrants and \$5,900 to install new windows for the Fire Department. This method of projecting for future needs and budgeting accordingly is a proactive and fiscally prudent measure that helps the Town provide and plan for community facilities that effectively meet the needs of the residents of Sprague.



Sprague Town Hall (HMA)

C. GOALS & OBJECTIVES

The Town of Sprague prides itself in offering a full range of municipal services. Community facilities provide for the convenience, health and welfare of residents and constitute a significant component of the Town's quality of life. Maintaining an adequate array of community facilities in good condition to meet changing needs is an important aspect of local government.

1994 Plan of Development Goals and Objectives

A review of the goals and objectives pertaining to Sprague's community facilities as identified in the 1994 Plan of Development is a logical introduction to a discussion of current goals and objectives. The 1994 Plan of Development stated as its general goal "to provide a living environment for Sprague residents that is attractive, healthy, and socially and economically sound." With respect to community facilities, the following goals and objectives were presented:

- Provide municipal services and facilities adequate to meet the needs of Sprague residents in a cost-effective manner.
- Implement the recommendations of the Sprague Capital Improvement Program and update it on a periodic basis.

Recommendations included in the 1994 Plan of Development that were specific to individual services or infrastructure included:

Maintaining an adequate array of community facilities in good condition to meet changing needs is an important aspect of local government.

The town should focus its efforts on providing improved parking near town hall, short and long-term needs of the library, and a community center to serve all age groups.

The town should adopt aquifer protection zoning regulations that will protect the water quality of the well fields in Baltic.

Sprague officials should create a formal list of road, sidewalk and bridge construction or repair projects ranked on a priority basis for budget consideration and update this list on an annual basis.

- Provision for improved parking in the vicinity of the Town Hall
- Provide for the short and long term needs of the library
- Development of a community center to serve all age groups
- Support the activities of the Water and Sewer Authority to improve and expand the existing water and sewer systems

Other Objectives

Other objectives for community facilities to consider are:

- Adopt aquifer protection zoning regulations that will protect the water quality of the well fields in Baltic. Begin the process of participation in the State aquifer protection program as outlined in the Connecticut General Statutes.
- Upon completion of the updates to the water and sewer plans, take appropriate measures to ensure the effective and logical provision of public water and sewer services to the residents and businesses of Sprague based upon the analysis provided in these updates.
- Upon completion of the sewer plan updates, the Town should consider creating a formal sewer service area boundary
- Continually evaluate the numerous means and methods of solid waste disposal in light of the community's changing needs to ensure that Sprague's waste disposal needs are met in the most cost-effective manner.
- Create a formal list of road, sidewalk and bridge construction or repair projects ranked on a priority basis for budget consideration and update this list on an annual basis. Maintain a program of annually sealing streets in good condition to postpone future costly repairs.
- Based upon the analysis and recommendations of the New England School Development Council (NESDEC) report on the Sprague school system, take proactive steps to meet the academic and facility needs of not only the present school system students, but also the Sprague students of tomorrow.
- Working in conjunction with various groups, annually evaluate the public housing demand for senior citizens and the low to moderate income segments of the Town population to assure adequate housing resources for all of Sprague's residents.
- Create a community facilities committee that represents a diversity of interests within the community to study and report to the Town its recommendations on the extent of need, desirability of services, and best locations, either individually or in combination, for community facilities.

VIII. NATURAL RESOURCES

A. INTRODUCTION

The quality of life in a community is largely determined by the quality, quantity and distribution of its natural resources. Therefore, the protection of these resources is key in ensuring that the quality of life in Sprague is preserved. The recognition that this is a key component to planning for the Town's future is highlighted in the statutory change in name of the Plan of Development to the Plan of Conservation and Development (POCD).

A positive benefit of the existing natural resources in Sprague is the enhancement of the residents' quality of life. Some tangible public benefits can also be attributed to the natural resources and open spaces in the Town. These include the enhancement of real estate values and economic growth due to the residents' proximity to natural resource features and open space, which makes Sprague a desirable community in which to live and work.

Natural Resource and Open Space Planning

Natural Resource Inventory

The process of natural resource and open space planning begins with careful documentation of the town's natural attributes. This inventory is studied using Geographic Information System (GIS) technology. The GIS provides a means to map and analyze the natural resource information to inform the establishment of environmental protection policy. The mapping of these natural resources also provides an opportunity to observe the distribution of the elements that help define Sprague's natural landscape.

Policies, Goals, Objectives & Strategies

The second component in the planning process is identifying policies that can be put in place to preserve the natural resources inventoried. However, proper allocation of Sprague's finite natural resources is a balancing act that involves consideration of both the natural and open space needs and the economic development needs of the community. Therefore, natural resource and open space policy is best accomplished through the development of goals and objectives that clearly articulate the open space needs of the community and prioritizes the protection of sensitive natural areas.

Protection Methods

The last component in the natural resource and open space planning process involves defining protection methods. This includes defining a land protection strategy. Basic to an open space protection philosophy are the following precepts:



An Open Field in Sprague (HMA)



Shetucket River (HMA)



Shetucket River (HMA)

- Growth will continue to take place
- Land is a basic and finite resource and control of its use is essential to the public welfare
- The town has the power and the responsibility to preserve open space through planning and the regulation of land use
- The town has the legal authority to acquire open space and to administer and maintain property in the best public interest

Establishment of a municipal open space protection fund financed by a variety of sources is one way to make fee simple ownership a more realistic method of open space protection in the town.

Many communities, especially those without a clearly defined open space goal, consider open space protection a luxury they cannot afford. Therefore, it has become increasingly important to identify alternative means to protect open space beyond fee simple ownership. Establishment of a municipal open space protection fund financed by a variety of sources is one way to make fee simple ownership a more realistic method of open space protection in the town. Other alternatives include private conservation easements, state matching grants, mandatory dedication as part of subdivision and improved use of land use regulations, just to name a few. It should be the strategy of the open space plan to pursue all means possible to implement the open space goals.

This section presents the first component of the open space planning process: the natural resource inventory.

B. GENERAL NATURAL RESOURCE INVENTORY

Land Characteristics

Sprague's terrain was formed many thousands of years ago by glaciers that moved across southern New England. The depositional and erosional effects of the most recent glaciation, the Wisconsin glaciation, which occurred more than 13,000 years ago, are in evidence in Sprague. Glacial deposits are divided into two main categories: stratified material called stratified drift, and non-stratified material called till. The result of glaciation is a variable earth surface with numerous hills, stream valleys, wetlands, steep slopes, bedrock outcrops, shallow-to-bedrock soils, and level areas with good soils for agriculture and building.

Steep Slopes

Topography strongly influenced the development pattern in Sprague. Elevations range from 459 feet above sea level on the hill west of Fullertown Road adjacent to Scotland in the northern portion of the town and 461 feet at Plain Hill in the southern portion of the town, to approximately 50 feet along the Shetucket River at the southeastern border of the town with Norwich. Most of the town's intensive development has occurred on level land along the Shetucket and Little Rivers and Beaver Brook, and at the confluence of the Shetucket and Little Rivers in Versailles.

Most of the town's intensive development has occurred on level land along the Shetucket and Little Rivers and Beaver Brook, and at the confluence of the Shetucket and Little Rivers in Versailles.

These streams were capable of producing waterpower, which attracted economic development and associated residences and other uses. These uses located on level land adjacent to the streams such as the level plain along the Shetucket River, which became the village of Baltic. The road pattern, which evolved to connect these developed areas, also took advantage of the level lands along the river valleys. Portions of current-day Routes 97, 207 and 660 (Versailles Road) traverse these valleys. In addition, farming activities in Sprague took advantage of lands with gentle slopes, primarily on upland plains and on Shetucket River floodplains north of the former Baltic dam.

When slopes begin to exceed fifteen percent development costs increase for design, installation and maintenance of roads, driveways sewage disposal systems, parking lots, structures, and site work. Soil units with a minimum slope of fifteen percent or greater total approximately 1,600 acres, or about 18 percent of the town's total area, and are shown on the map titled *Steeply Sloped Soils*. Areas with steep slopes are concentrated along the Shetucket River and Beaver Brook valleys in the southern and western portions of the town. The map shows that the village of Baltic is located on a plain between steep slopes both to the north and south.

Areas of steep slope contribute to the attractiveness of the town and will play an important role in determining Sprague's future growth pattern. Because of their physical characteristics many of these areas are likely to remain undeveloped or will be developed at lower densities.

Wetland Soils

Areas having soil conditions classified as poorly drained, very poorly drained, alluvial or flood plain by the U.S. Soil Conservation Service are considered as wetlands in Connecticut and are regulated in town by the Sprague Inland Wetlands Commission under Sections 22a-36 through 22a-45 of the General Statutes. Wetlands are important for a variety of reasons including:

- Wetlands are among the most biologically productive natural ecosystems in the world
- Wetlands provide habitat that is critical to a variety of plant and animal species, including threatened and endangered species
- Wetlands often function like natural sponges, storing water (floodwater or surface water) and slowly releasing it thus reducing the likelihood of flood damage to personal property or agriculture by controlling the rate and volume of runoff
- Wetlands help improve water quality by intercepting surface runoff and removing or retaining its nutrients, processing organic wastes and reducing sediment before it reaches open water

Areas of steep slope contribute to the attractiveness of Sprague and will play an important role in determining the town's future growth pattern, because their physical characteristics will likely preclude development or limit densities of development.



Wetland Area (HMA)

Wetlands are found throughout Sprague and are likely to be encountered in any major new development.

- Wetlands provide outdoor recreational opportunities (i.e. photography, nature study).

The map titled *Wetland Soils* illustrates that wetlands are found throughout Sprague and are likely to be encountered in any major new development. The largest wet areas are the contiguous, linear wetlands found along the floodplains of the Shetucket and Little Rivers and along Beaver and Adams Brooks. The wetland area associated with Adams Brook west of the Hanover-Baltic Road is considered a natural area. Although large trees in this area are dying because of rising water levels, the understory shrub layer provides food and cover for wildlife. The increased flooded area associated with this wetland can most likely be attributed to beaver dam building. Smaller areas of linear wetlands, which drain into Old Stone Mill Brook in Lisbon or into Little River, are found in the northeastern part of town.

Sprague's many upland hill areas such as the hill west of Fullertown Road, the hill north of Potash Hill Road, Colegrove Hill and Plain Hill are relatively free of inland wetlands. Several of these areas are still farmed. Wetland soils account for approximately 845 acres, or 10 percent of Sprague's land area.

Unique wetland types are those found on alluvial and floodplain soils. Due to the excessive permeability of the soil, these areas are very susceptible to rapid infiltration of pollutants. Pollution infiltration can have devastating effects on groundwater drinking supplies. In addition, these areas dense with nutrient-rich sediments produce some of the most productive farmlands, and are also included on the *Wetland Soils* map.

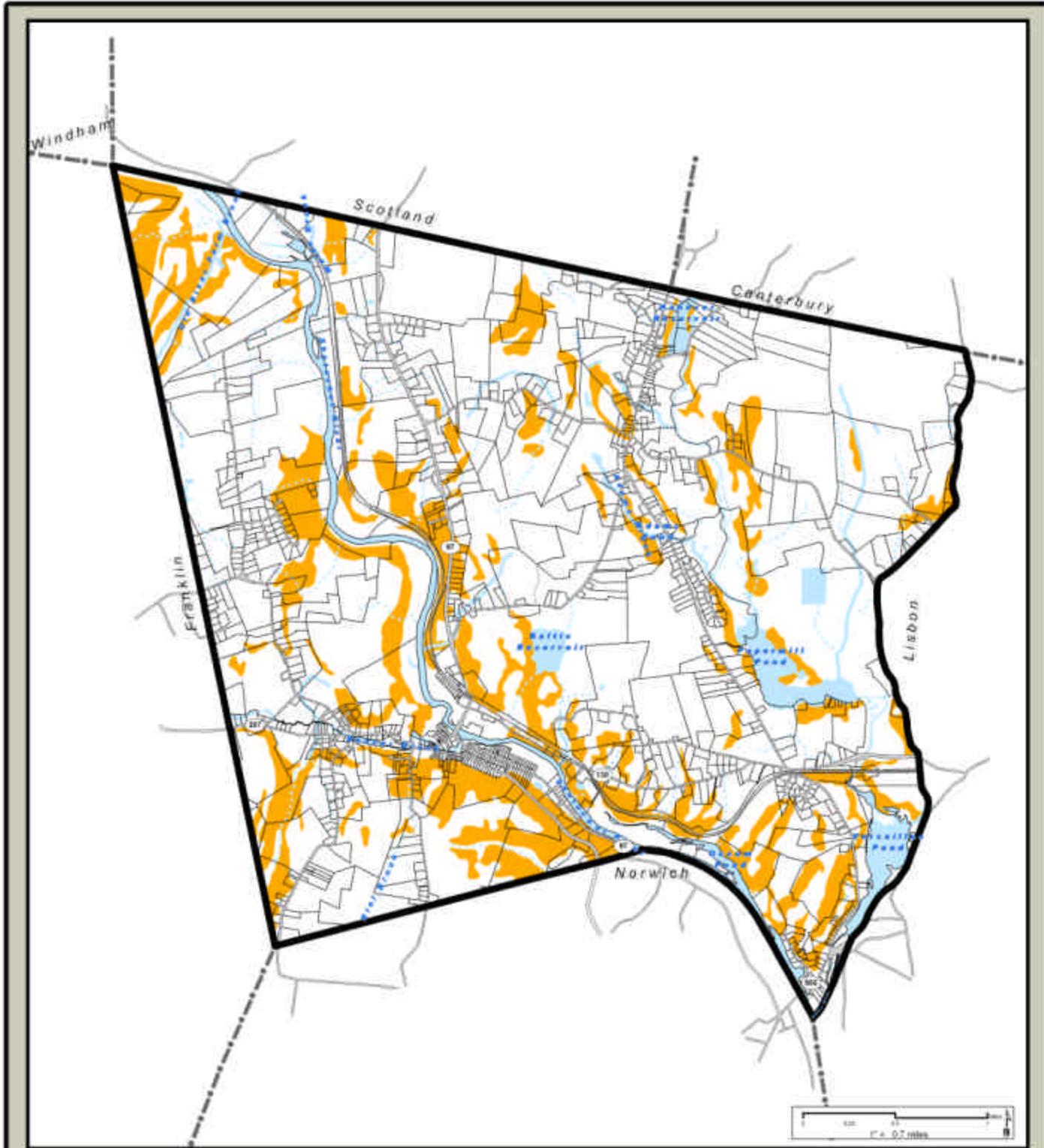
Soils with a Shallow Depth to Bedrock

Bedrock depth in the Town varies considerably depending on factors such as elevation and slope. In some areas of town, the soil depth is well over 5 feet; in others, bedrock is exposed as outcroppings. Understanding what area of town has shallow soil depths is important in planning development, especially on-site septic systems. The areas of town that have shallow soils are illustrated on the map titled *Shallow Depth to Bedrock*.

In areas where the soil depth is less than 20 inches, septic systems are difficult to install and operate because waste effluent cannot percolate through the impervious bedrock layers. Expensive, highly engineered solutions must be implemented in these situations to ensure proper functionality of these systems. The Connecticut Health Code requires that leaching fields be at least 4 feet deep (above bedrock), or else the entire system must be constructed on fill. Due to the problems of siting septic systems on shallow bedrock areas, some planning and zoning commissions have adopted regulations requiring a minimum of 4 feet of soil above bedrock as a requirement to approve building lots. Shallow soils (soils with a depth of less than 20 inches above bedrock) account for approximately 960 acres, or 11 percent of Sprague's land area.



Exposed Bedrock Outcrop (HMA)



Town of Sprague
Plan of Conservation
& Development



Steeply Sloped Soils

Legend

 Steeply Sloped Soils*

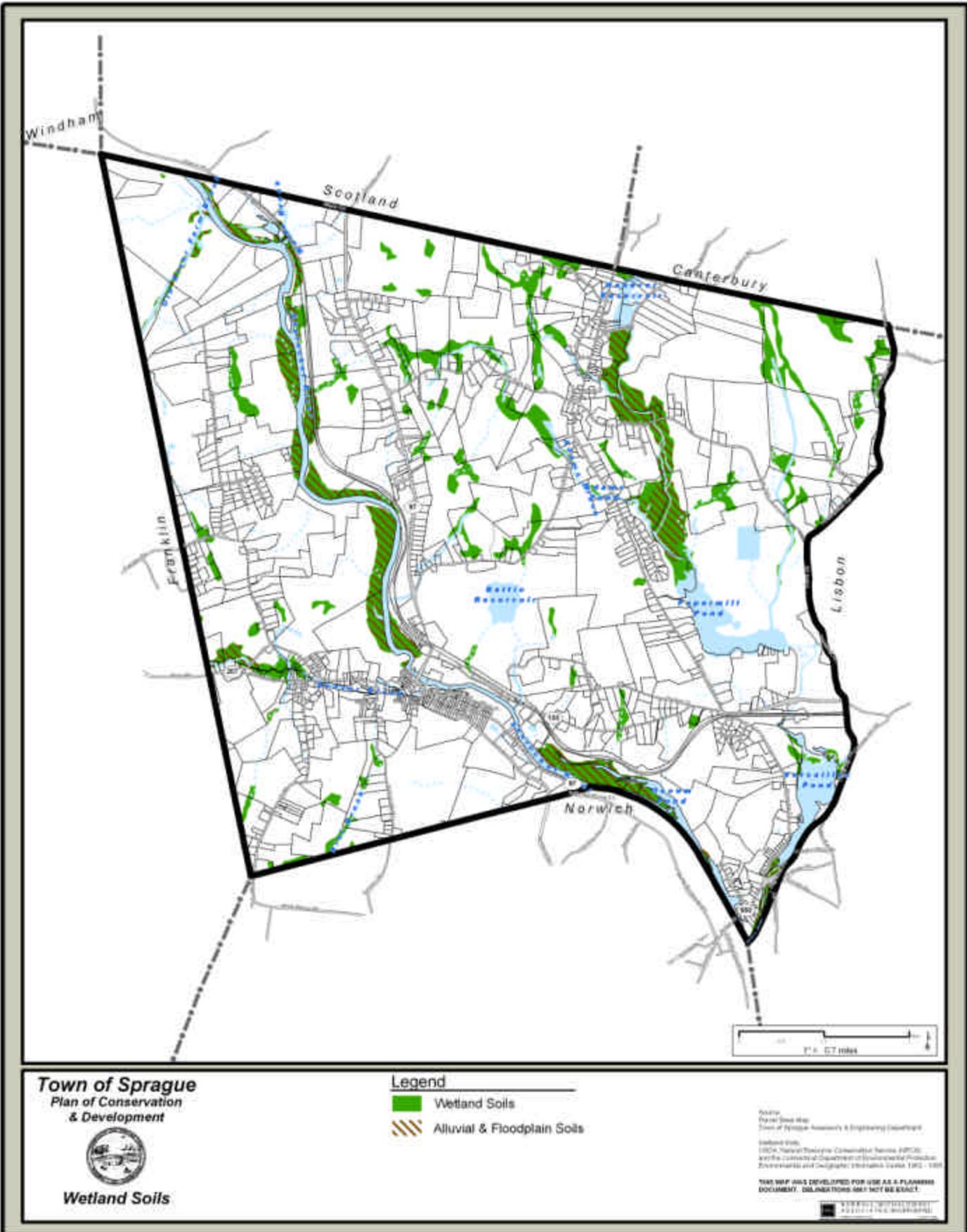
Source:
Paul Sibley
Town of Sprague Planner's & Engineering Department

Steep Slope Data:
USDA Natural Resource Conservation Service (NRCS)
and the Connecticut Department of Environmental Protection
Bioscience Resource Project (BRP) - 2002

*Only wetlands with a minimum slope of 15% based on 100-foot
radius. Other wetlands with a minimum slope of less than 15% and
a maximum slope of greater than 15% are not shown.

**THIS MAP WAS DEVELOPED FOR USE AS A PLANNING
DOCUMENT. DELIBERATIONS MAY NOT BE EXACT.**





Floodplains

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP) designed to encourage communities to adopt and enforce a floodplain management program that will regulate activities in flood hazard areas. The program's objective is to reduce flood loss by decreasing the potential for flooding and that new buildings will be protected from future flood damage.

FEMA produces a series of flood maps for communities to utilize in enforcing regulatory standards, which are the basis for floodplain management. These maps delineate flood hazard areas and floodways and include information such as the water elevation during a base flood. The map titled *FEMA Flood Hazard Areas* illustrates the FEMA designated 100-year floodplain.

Flood hazard areas are generally those that can be expected to flood during the occurrence of a base storm. These areas provide for water storage while floodways allow floodwater discharge. Unregulated activities and development within these hazard areas could result in large loss of life and personal property. Therefore policies affecting land use activities are critical to assuring the maintenance of floodplains and floodways for storm water discharge and protection of public health. FEMA 100-year flood plain areas account for approximately 1,090 acres, or 12 percent of Sprague's land area.

Potential Development Constraints

A considerable portion of Sprague presents severe limitations to intensive land uses. The map titled *Potential Development Constraints* shows the overall distribution of physical conditions considered to present problems for intensive development or which should be protected to preserve important environmental functions. Physical characteristics presenting development limitations as described in the preceding section include: (1) slopes of 15 percent or greater; (2) regulated wetlands; (3) shallow-to-bedrock soils and bedrock outcrops; and (4) land, which would be flooded during a storm having a statistical likelihood of occurring once in one hundred years.

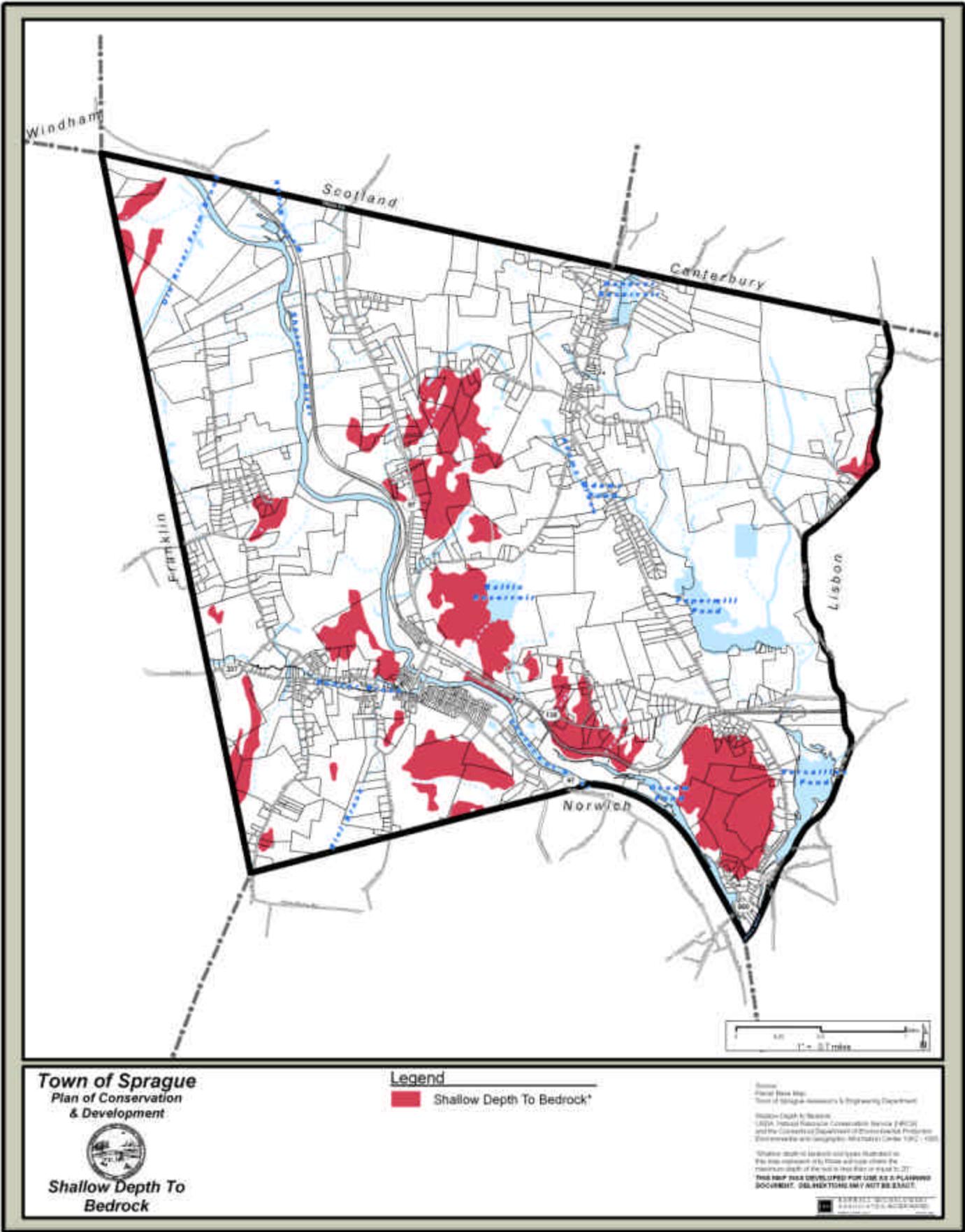
In Sprague 3,580 acres of land or roughly 41 percent, have one or more of the above physical characteristics considered to be potential constraints to development. The map titled *Potential Development Constraints* illustrates that while these areas are widely distributed throughout Sprague, they are particularly dominant in the stream and river valleys and the areas immediately adjacent to these water bodies. Land with no development limitations is also scattered throughout the town, with fairly large concentrations along and east of Route 97 in the northern portion of town, north of Potash Hill Road, north of Sunrise Drive from Colegrove Hill east to Inland Road, east and west of Pautipaug Hill Road, and east of Plain Hill Road.

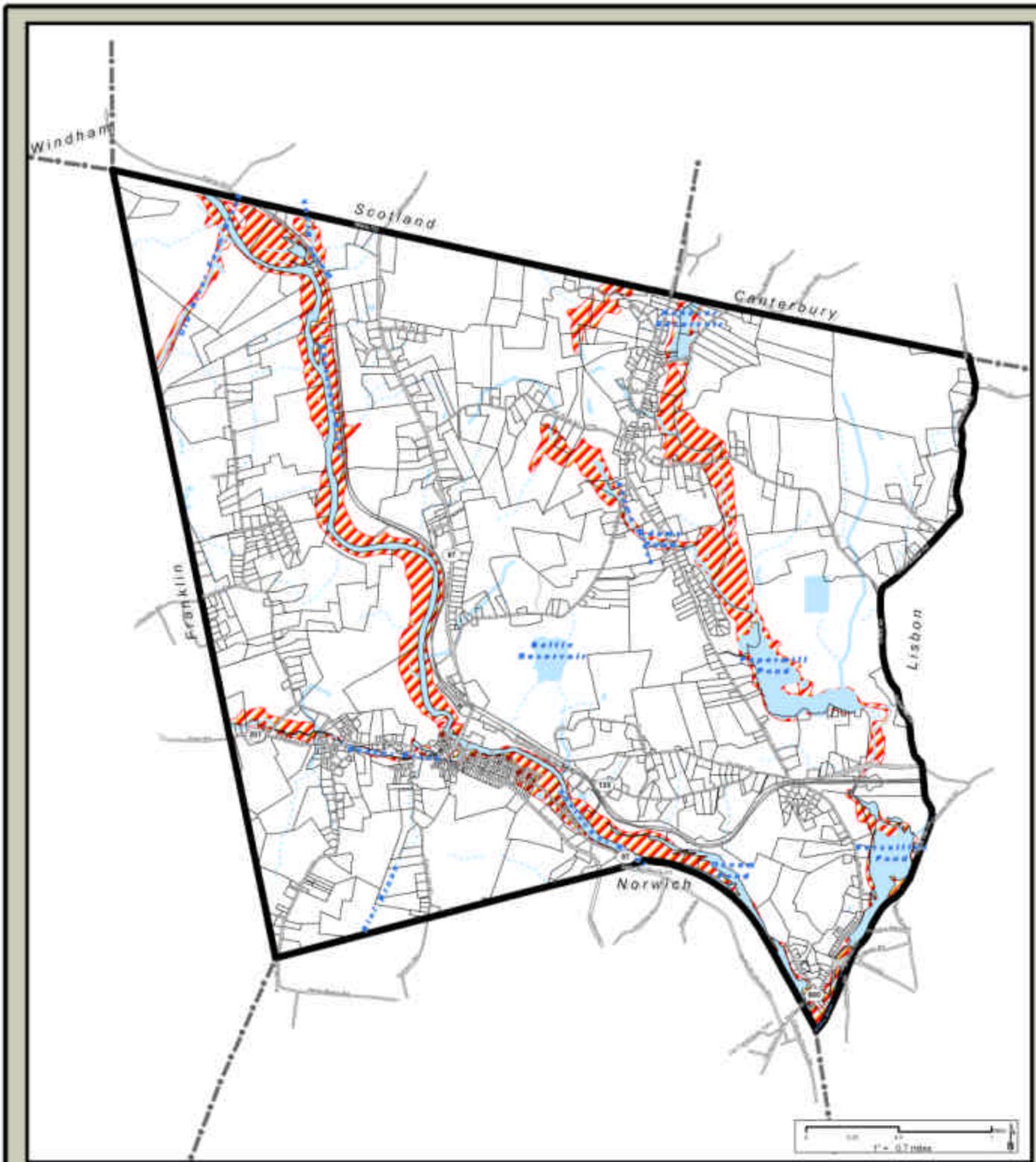


Shetucket River Floodplain at Route 97 & W. Main (HMA)

FEMA 100-year flood plain areas account for approximately 1,090 acres, or 12 percent of Sprague's land area.

A considerable portion of Sprague presents severe limitations to intensive land uses; in fact areas with development constraints represent 41 percent of the town's land area.





Town of Sprague
Plan of Conservation
& Development



**FEMA Flood Hazard
Areas**

Legend

 FEMA 100-Year Floodplain

Source:
Flood Risk Map:
Town of Sprague Assessor's & Engineering Department
Floodplain:
02 Floodplain & Development Flood Hazard File (Map
0204). Project: Emergency Management, April, 2002
THIS MAP WAS DEVELOPED FOR USE AS A PLANNING
DOCUMENT. DELIVERABLES MAY NOT BE EXACT.

C. HYDROLOGIC CHARACTERISTICS

Watersheds

Multitudes of waterways are located within the Town of Sprague including the Shetucket River, Little River and Beaver Brook. These waterways are fed by a network of tributaries and are best defined by the watersheds that supply them. A watershed is defined as all the land and waterways that drain into the same body of water. All the surface water that drains Sprague's 13.8 square miles begins its flow at the highest point of one of three subregional watersheds. These watersheds are delineated on the map titled *Water Features*. Sprague is located in the Shetucket River drainage basin, which means that all surface water in Sprague eventually flows into the Shetucket River.

Pursuant to Section 22a-426 of the General Statutes, the Connecticut Department of Environmental Protection has adopted water quality classifications for all of Connecticut's surface and ground waters. Categories range between AA, A, B, C, and D, where AA represents the highest water quality and D represents the lowest. These surface water classifications are described in detail in the Natural Resources memorandum of the POCD update, printed in September 2004.

Within the Town of Sprague, all surface waters outside existing or potential water supply watersheds are Class A waters unless otherwise indicated. The following is a general summary of the water quality classifications for each of the three main subregional watersheds:

Shetucket River Watershed

The Shetucket River Watershed is the largest in town, draining approximately 45% of the town's total land area. Originating in Windham, Connecticut, the Shetucket River slices through the town in a southerly direction, flowing through the village of Baltic and ultimately into the Thames River in Norwich. According to the Connecticut Department of Environmental Protection (DEP) Surface Water Classification System, water quality along the entire length of the Shetucket River within the Town of Sprague has been classified as B. The Baltic Reservoir is located within the Shetucket River Watershed and carries an AA meaning it is suitable for public drinking water supply.

Little River Watershed

The Little River, originating in Hampton, Connecticut, flows through Hanover Reservoir, Paper Mill Pond, and Versailles Pond along the east side of Sprague and eventually flows into the Shetucket River in the Village of Occum. The Little River watershed encompasses approximately 41% of Sprague's land area. The DEP has classified the water quality in the Sprague section of the Little River as B along the section north of Paper Mill Pond and C along the section south of Paper Mill Pond. The FEMA 100-year floodplain is broadly defined along the Little River north of Paper Mill Pond and narrowly defined south of Paper Mill Pond.

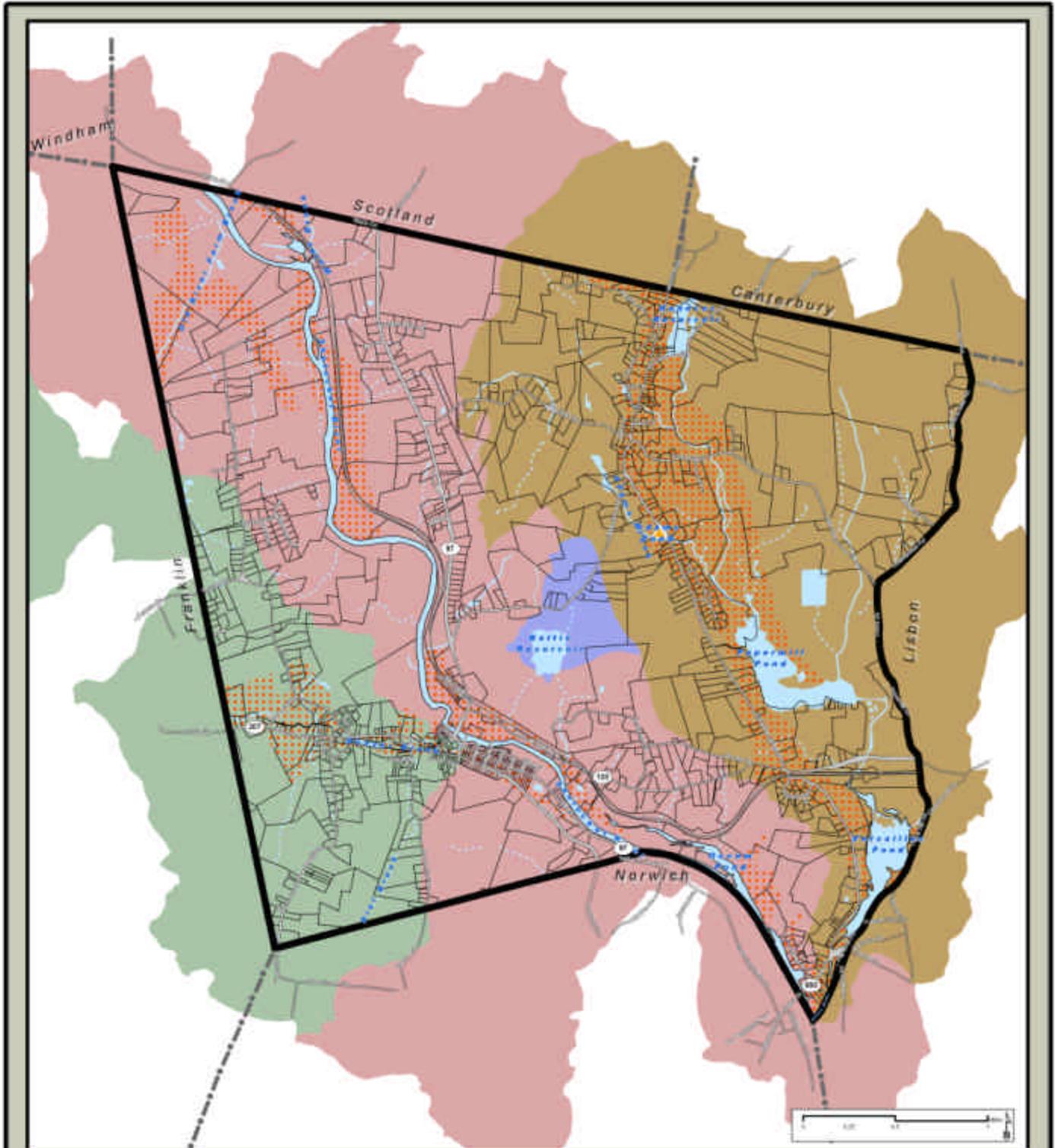


Shetucket River Watershed (HMA)



Versailles Pond (HMA)

The Shetucket River Watershed is the largest watershed in town, draining approximately 45% of the town's total land area.



<p>Town of Sprague Plan of Conservation & Development</p>  <p>Water Features</p>	<p>Legend</p>		<p>▲ Existing Community Well Locations</p>
	<p>■ Baltic Reservoir Watershed</p> <p>■ Beaver Brook Subregional Watershed</p> <p>■ Little River Subregional Watershed</p> <p>■ Shetucket River Subregional Watershed</p> <p>■ Stratified Drift Deposits Exceeding 10' In Saturated Thickness</p>		

Source:
Parcel Base Map
Town of Sprague Assessor's & Engineering Department

Geographic Information:
Connecticut Department of Environmental Protection
Environmental and Geographic Information Center (EGIC) 1998

Soils:
Soils Data Compiled by the Connecticut Department of Agriculture
Soils Survey of Part 2, Shetucket River Basin - Connecticut
Water Resources Survey (1991, 71, 68)

THIS MAP WAS DEVELOPED FOR USE AS A PLANNING DOCUMENT. DIMENSIONS MAY NOT BE EXACT.

Beaver Brook Watershed

The Beaver Brook Watershed is the smallest watershed in Sprague as it drains approximately 14% of the town's total land area. Originating at Gagers Pond in neighboring Franklin, Connecticut, the brook flows southeast to its confluence with the Shetucket River in the Village of Baltic. The DEP has classified the water quality in the Beaver Brook as B in the section from the Shetucket River to the former M.S. Chambers building and B with a goal of A for the remainder of the upper portions of the Brook. The FEMA 100-year floodplain is narrowly defined along the watercourse with limited exceptions.

The Beaver Brook Watershed is the smallest watershed in Sprague as it drains approximately 14% of the town's total land area.

Waterbodies

Within the above drainage basins there are several man-made water bodies. These ponds reflect the early history of Sprague, when streams and rivers were dammed for waterpower or water supply. Paper Mill Pond and the Hanover Reservoir are located on the Little River. The Hanover Reservoir has not been used as a water supply for Hanover since the mid-1970s, when the storage capacity for the system was destroyed in the mill fire. Since this time, the eastern shore of the water body has been developed with residences, and the remainder of the western shore has been subdivided recently so that it would be difficult to utilize this as a water supply in the future. Versailles Pond on the Little River is classified as D/B, which means that the pond is not presently meeting water quality criteria or one or more designated uses. The goal is Class B. The evaluation of Versailles Pond is part of an ongoing study by Connecticut Department of Environmental Protection.

There are no public water-based recreational opportunities on these water bodies. The town owns the recreation fields and playground at the end of River Street in Baltic. This property fronts on the Shetucket River, but no water-based recreational uses have been developed at this location. Since the river is shallow at this point, it would be difficult to utilize this site other than for fishing or canoeing. This town-owned land also extends to the south side of Route 97 and contains about a one-acre spring-fed water body developed for ice-skating. The Shetucket River north of Baltic towards Scotland might offer some recreational potential, but shallow water is once again the limiting factor.



Baltic Reservoir (HMA)

Baltic Reservoir

The map titled *Water Features* shows the watershed of the Baltic Reservoir located in the central portion of the town. The reservoir is approximately 23 acres in area and the watershed totals 0.29 square miles. The town is fortunate in that approximately 75 percent of the watershed is publicly owned and managed by the Water and Sewer Authority, which operates Sprague's water and sewerage systems. Although some of the privately owned areas within the watershed area contain development limitations, and thereby reduce development potential, the town should purchase the balance of the watershed

land as time and resources permit, because ownership is the best way to ensure that the balance of the watershed remains in an undeveloped natural state. The watershed is classified as AA under the surface water standards discussed above and, in addition, carries a GAA groundwater classification that indicates groundwaters within a public water supply watershed, which cannot be degraded.

Aquifers

Aquifers are geologic materials that are capable of producing usable amounts of water. The more significant aquifers in Sprague are sand and gravel deposits, which are referred to as stratified drift. In Sprague the U.S. Geological Survey has identified stratified drift deposits exceeding ten feet in saturated thickness. These areas are shown on the *Water Features* map and include the Shetucket and Little River valleys. Such deposits are considered capable of producing amounts of water sufficient for use as community supplies. The U.S. Geological Survey and the Connecticut Department of Environmental Protection have estimated long-term yields for one section of the Little River aquifer north of Paper Mill Pond. The more recent of these estimates by Connecticut Department of Environmental Protection is 0.3 million gallons per day (mgd). The map titled *Water Features* shows that currently the well for Hanover Park Apartments is located immediately west of this area. This is a small community system that serves approximately 40 persons.

One section of the Little River aquifer north of Paper Mill Pond yields approximately 0.3 million gallons per day, according to estimates from the Connecticut Department of Environmental Protection.

The Town of Sprague has recently shifted its water supply source from the Baltic Reservoir to the three wells along River Street in Baltic. In response to this supply source shift, it should be a priority for the Town to adopt protective zoning regulations and to designate a local Aquifer Protection Agency in keeping with the State aquifer protection program and the requirements established in the Connecticut General Statutes, as amended.

If Sprague utilizes groundwater as a long term source of supply, then under Sections 22a-354o and 22a-354p of the General Statutes, the town will be required to create an Aquifer Protection Agency which will adopt and administer aquifer protection regulations for wells and their recharge areas located in stratified drift deposits. The Connecticut Department of Environmental Protection has recently prepared model aquifer protection regulations, which this agency would have to adopt.

IX. PARKS, RECREATION, & OPEN SPACE

A. INTRODUCTION

As stated in the 1994 Plan of Development, the acquisition of new lands for open space and recreation and the provision of a variety of recreational opportunities are key elements in determining the character of a community, and planning for these uses is an important element in developing a plan for the Town's future. This section inventories Sprague's parks, recreation and open space and recommends ways in which Sprague can address maintaining and making improvements to these community resources.

Functions of Open Space:

Open space can serve several functions within a community. One of its primary functions is the provision of recreational opportunities for a town's citizens. Recreational lands in Sprague range from active recreational sites such as playgrounds and ball fields to larger passive recreational areas such as the Mohegan State Forest and the Salt Rock State Campground, which provide opportunities for hiking and camping. The increasingly high participation and longer length and variety of sport seasons require dedicated facilities, an important consideration when creating capital improvement plans for the community. In addition, providing opportunities for informal recreation is important to meet the needs of the community.

Even as active recreation becomes a larger part of our daily routines, preserving open space for passive uses and natural resource protection is very much an important part of an open space and recreation plan. This is because much of a community's appearance, character and environmental integrity are a result of its natural landscape. Open space edges and borders can serve to enclose and define development and prevent a continuous unattractive sprawl. The maintenance of vegetative buffers along roads and stream corridors are particularly useful in this regard. The preservation of open space is, to a large degree, the preservation of the character of a rural community such as Sprague. Open space, if included as a major design component in community development, can help provide for the continuance of an intimate connection between the natural environment and the citizens of the community.

Open space preservation, in many instances, is a matter not only of maintaining ecological equilibrium but also of economic importance. As consistently demonstrated in the real estate market, people are willing to pay more money for a home in close proximity to parks and open space than a similar home that does not offer this amenity.⁴

⁴Crompton, John L., Parks and Economic Development, American Planning Association, Planning Advisory Service Report Number 502, November 2001.



Mohegan State Forest, Waldo Rd. (HMA)



Shetucket River (HMA)



War Memorial Park, Baltic (HMA)

Open space and recreational facilities contribute to economic development in four major ways:

- It encourages new business and keeps existing businesses
- It represents a symbol of the quality of life in the Town
- It provides an attractive environment
- It is often part of new development sites.

It should also be noted that economic development could contribute to open space and recreational development:

- Economic development locations can be designed to create linkages to the Town's open space framework
- It can encourage developers to set aside open space within their parcels for enjoyment of their employees and Town residents
- It can provide increased tax revenues to support the development and maintenance of parks and recreational facilities and programs and also for the acquisition of additional open space.

B. EXISTING CONDITIONS

Existing Parks and Open Space Inventory

The inventory of Sprague's parks and open space is based on a broad definition of open space to include: State park and wildlife lands; town parks and open space lands; cemeteries, major utility land holdings; and privately owned open space lands. While the latter two categories may not be open to the public and are not permanently protected open space, their presence affects the visual open space appearance of the community and their loss would represent an erosion of Sprague's community character.



Labbe Field, Baltic (HMA)

The map titled *Parks, Recreation and Open Space* is included to provide an illustration of the open space and recreation fabric of the community. This map is useful in describing the location of open space resources within Sprague and the physical relationship of open lands to one another. Table 31 provides a summary of open space lands by active and passive use and ownership category. Sprague's current inventory of the open space and recreation areas is 2,477.1 acres (27.9%) including P.A. 490 land and 948 acres (10.6%) excluding the P.A. 490 land. Also, Sprague has approximately 73 acres of conservation easements.



Adams Pond, Hanover (HMA)

The impermanency of privately owned open space lands that are included in the open space inventory requires mention. If one of the goals of the Plan is to permanently preserve and protect open space lands, it is important to establish a system by which dedicated open space land can be created, through land acquisitions and conservation easements to the Town of Sprague or to conservancy organizations.

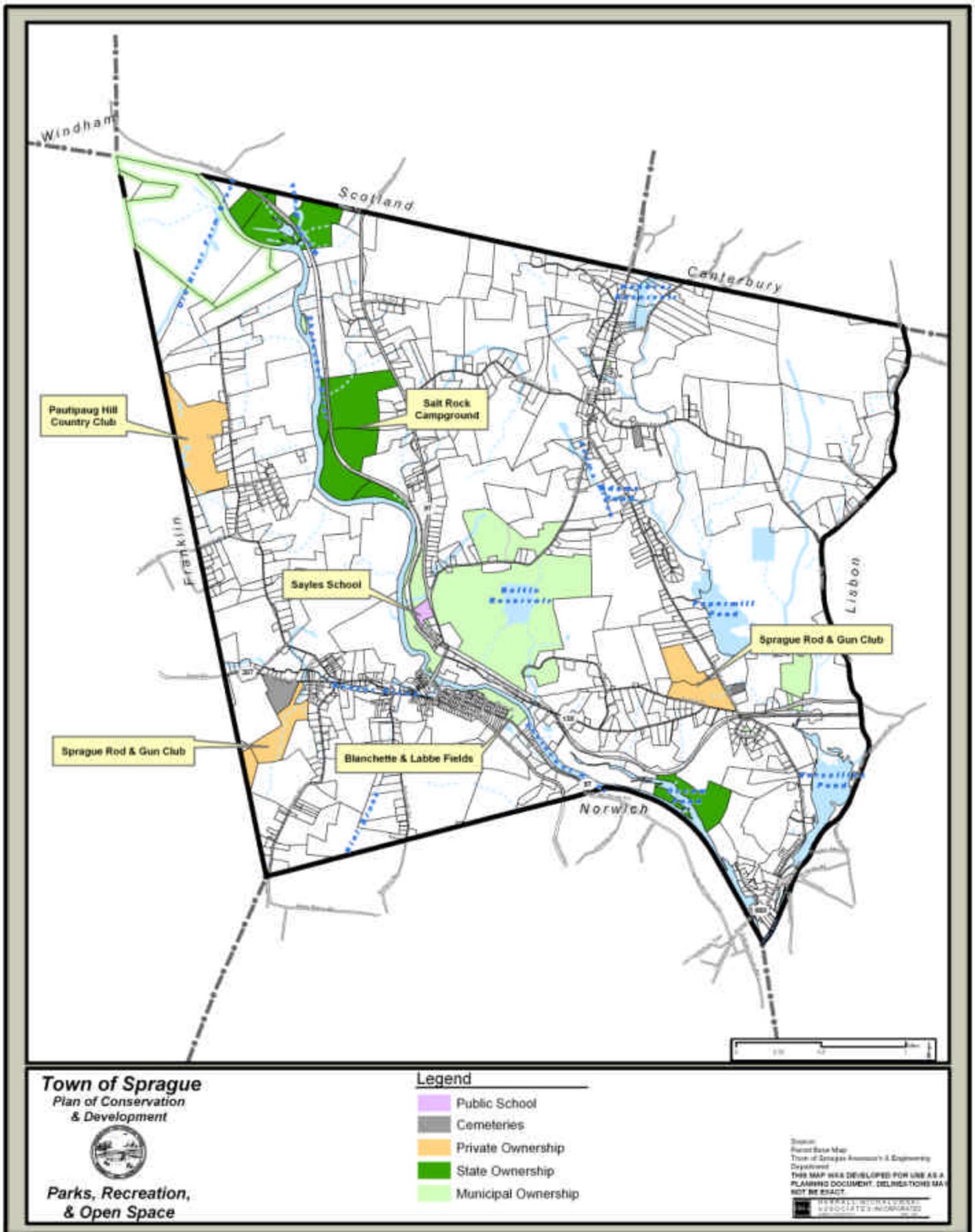


Table 31
Town of Sprague
 Parks, Recreation & Open Space Inventory

Active Open Space		Passive Open Space	
<u>Public Ownership</u>	<u>Acres</u>	<u>Public Ownership</u>	<u>Acres</u>
Blanchette Memorial Field	6.5	Town of Sprague	
Labbe Field	13.9	Baltic Reservoir Property	359.0
Town Hall Playground	0.2	War Memorial Park	0.6
Subtotal	20.6	River Access near Rt. 97	22.2
		Other Misc. ⁽²⁾	37.6
		Subtotal	419.4
<u>Private Ownership</u>			
Pautipaug Country Club	92.4	<u>State of Connecticut</u>	
Sprague Rod & Gun Club	98.1	Mohegan State Forest	67.9
Subtotal	190.5	Salt Rock State Campground, et al.	150.5
		Shetucket River-DOT Property	42.0
<u>Public School</u>		Other State	16.9
Sayles Elementary School – Soccer Field	1.3	Subtotal	277.3
Sayles Elementary School – Playground	0.2		
Open space adjoining school	13.5	Conservation Easements ⁽³⁾	72.7
Subtotal ⁽¹⁾	15.0		
ACTIVE TOTAL	226.1	<u>Private Ownership</u>	
		P.A. 490 - Agriculture	480.2
		P.A. 490 - Forest	1,048.7
		Subtotal	1,528.9
PUBLIC OWNERSHIP TOTAL	757.7		
PRIVATE OWNERSHIP TOTAL	1,719.4	<u>Cemeteries</u>	
GRAND TOTAL	2,477.1 Acres	Hanover Cemetery	4.6
		St. Mary's Cemetery	17.0
		Lovett & Old Lovett-Perkins Cemetery	3.8
		Subtotal	25.4
		PASSIVE TOTAL	2,251

Source: Town of Sprague; HMA Field Survey.
⁽¹⁾ Acreage represents estimated area based upon recreational areas derived from aerial photographs.
⁽²⁾ Acreage represents aggregate of unnamed vacant municipally owned land.
⁽³⁾ Not included in the tabulation of open space since the land covered by the conservation easement may be privately held.

Active Recreation Facility Overview

Active recreational facilities are defined as areas that accommodate organized sporting activities such as baseball, basketball, soccer, tennis or schools playgrounds. These facilities may also provide playscapes for younger children. Existing park and recreation facilities offer Sprague residents a variety of recreational opportunities. The Town's Recreation Committee and the First Selectman's Office coordinate the use and operation of these facilities. The Town's Public Works Department maintains the physical park and recreation facilities. In Sprague, active recreation areas total approximately 226 acres or approximately 2.5% of the Town's total land area.

Sprague’s demographic portrait experienced a slight population decline (-1.2%) between 1990 and 2000. As a result of the changes that have occurred relative to age and population composition, the need for recreational facilities, activities and services has continued to evolve for individual neighborhoods and the Town as a whole.

Sprague’s system of parks and recreation is relatively small. The active recreation component of the parks system is centered around the ballfields at Blanchette Memorial Field. While additional recreation assets can be found at Sayles Elementary School and behind Town Hall, active open space options are quite limited in Sprague outside of the village of Baltic. Maintaining and improving options for recreation is an important component of the parks and open space plan.

Due to the relatively concentrated development patterns and generally rural nature of the Town, the Shetucket River Valley is essentially unspoiled by buildings or development from the Scotland town line down to the center of Baltic.

Perhaps the most unique element of Sprague’s recreation system is the Shetucket River. Due to the relatively concentrated development patterns and generally rural nature of the Town, the Shetucket River Valley is essentially unspoiled by buildings or development from the Scotland town line down to the center of Baltic. The potential for canoeing, fishing and other water-related activities along the Shetucket River is a rare asset that should be given special attention.

Table 32 provides a summary matrix of municipal facilities that support active recreation in Sprague. The locations of these facilities are identified on the map titled *Existing Parks, Recreation and Open Space*.

Table 32
Town of Sprague
Matrix of Active Recreational Facilities

Facility Name	Parcel Acreage	Baseball Fields	Football/ Soccer	Softball Fields	Basketball	Play Equipment	Picnic Facilities	Ice Skating	Walk / Bike Paths
Blanchette Memorial Field	6.5	x		x	x			x	x
Labbe Field	13.9		x						x
Sayles Elementary School	20.6		x			x			
Town Hall Playground	N/A					x	x		
Hanover Village Playground	N/A					x			

Source: Town of Sprague, HMA field survey.

Passive Recreation and Open Space Overview

Passive recreational facilities provide low impact recreation such as hiking or picnicking with minimal development or improvements. If improvements have been made they typically include little more than park benches or picnic areas. Some areas included in this inventory function as natural conservation areas, such as water company land and marshland and are generally left as natural, undeveloped open space.

In general, passive recreation encompasses the less intensive range of outdoor activities compatible with preserving natural resource functions including wildlife habitat, protected watersheds, tidal estuaries and protected flood plains while providing low-impact recreation opportunities such as hiking,



Baltic Reservoir watershed area (HMA)

bird watching and picnicking. In Sprague, passive recreation and open space areas total approximately 2,251 acres or 25.3% of the Town's total land area. Much of the land within this open space inventory is owned and maintained by entities other than the Town of Sprague. For example, private landowners control approximately 1,719.4 acres, or 76%, of the active/passive open space in Sprague. In addition, the Town recently acquired the 280 acre Mukluk property in northwestern Sprague, which if designated for passive recreation, will greatly increase Sprague's protected open space. Sprague's inventory of passive recreation and open space is illustrated on the map titled *Parks, Recreation and Open Space*.

It is important to note that the land included in the inventory of passive recreation and open space is not necessarily land that is protected in perpetuity.

Public Act 490

In 1963 the Connecticut General Assembly passed what is commonly referred to as Public Act 490. In the Declaration of Policy it is stated "(a) that it is in the public interest to encourage the preservation of farm land, forest land and open space land. . . (b) that it is in the public interest to prevent the forced conversion of farm land, forest land and open space land to more intensive uses as the result of economic pressures caused by the assessment there of for purposes of property taxation at values incompatible with their preservation as such farm land, forest land and open space land..." This program allows qualifying parcels containing farms, forests or open space to receive favorable local property taxation based on the land's current use and not on its market value. The beneficial tax assessments are gained differently depending on the type of land to be preserved; farm land designation is obtained by written application to the municipalities assessor, forest land designation is obtained by written application to the State Forester, and open space land is designated by the planning commission as part of preparing a plan of conservation and development. In all cases the value of such land is decreased thereby making the property tax burden decrease. A provision similar to this is also in place granting favorable tax treatment to tax exempt organization that preserve open space land in perpetuity for educational, scientific, aesthetic or other equivalent passive uses.⁵



Open space along Shetucket River (HMA)

In Sprague, 33 parcels totaling over 1,048.7 acres of land have been included in the P.A. 490 program as forest land, and another 16 parcels encompassing 480.2 acres of land have been included in the P.A. 490 program as agricultural land. While this program does not guarantee that this land will remain as open space it does provide incentive to preserve the farm and forestlands of the State. P.A. 490 lands are inventoried separately from other open space areas because they are privately owned, could be sold at any time and do not necessarily provide public access. These lands do contribute significantly to the overall open space network by protecting natural resources and contributing to the Town's overall community character.



Sprague farmland (HMA)

⁵ See *id.* at §12-107f.

The distribution of property participating in the P.A. 490 program is illustrated on the map titled *Public Act 490 Land*.

C. FUTURE OPEN SPACE SYSTEM

Framework for Future Open Space Actions

Since the acquisition of open space through fee simple purchase or easements can require a significant commitment of public funds, the Town should have criteria that can be used to determine whether the acquisition of specific open space parcels makes sense from a natural resource protection and public recreation vis-à-vis the cost of acquiring such land. As part of its Open Space and Watershed Land Acquisition Grant Program, the State of Connecticut’s Department of Environmental Protection has outlined criteria that must be met in order for a municipality, land trust or water company to receive such a grant. Using these criteria in a somewhat modified format, the following could be an effective checklist for the Town of Sprague when considering land acquisition for open space purposes:

- Valuable for recreation, forestry, fishing, or the conservation of wildlife or natural resources.
- A prime natural feature of the Town’s landscape.
- Valuable for preserving the Town’s agricultural heritage.
- Adjacency to existing parks and/or open space.
- Has multiple recreation or open space values.
- Provides linkages between existing open space land parcels.
- Is a relatively undisturbed and outstanding example of the Town’s native ecological environment that is particularly vulnerable to development.
- Connects the Town’s open space system to larger regional open space networks which cross municipal boundaries.



Sprague forestland (HMA)

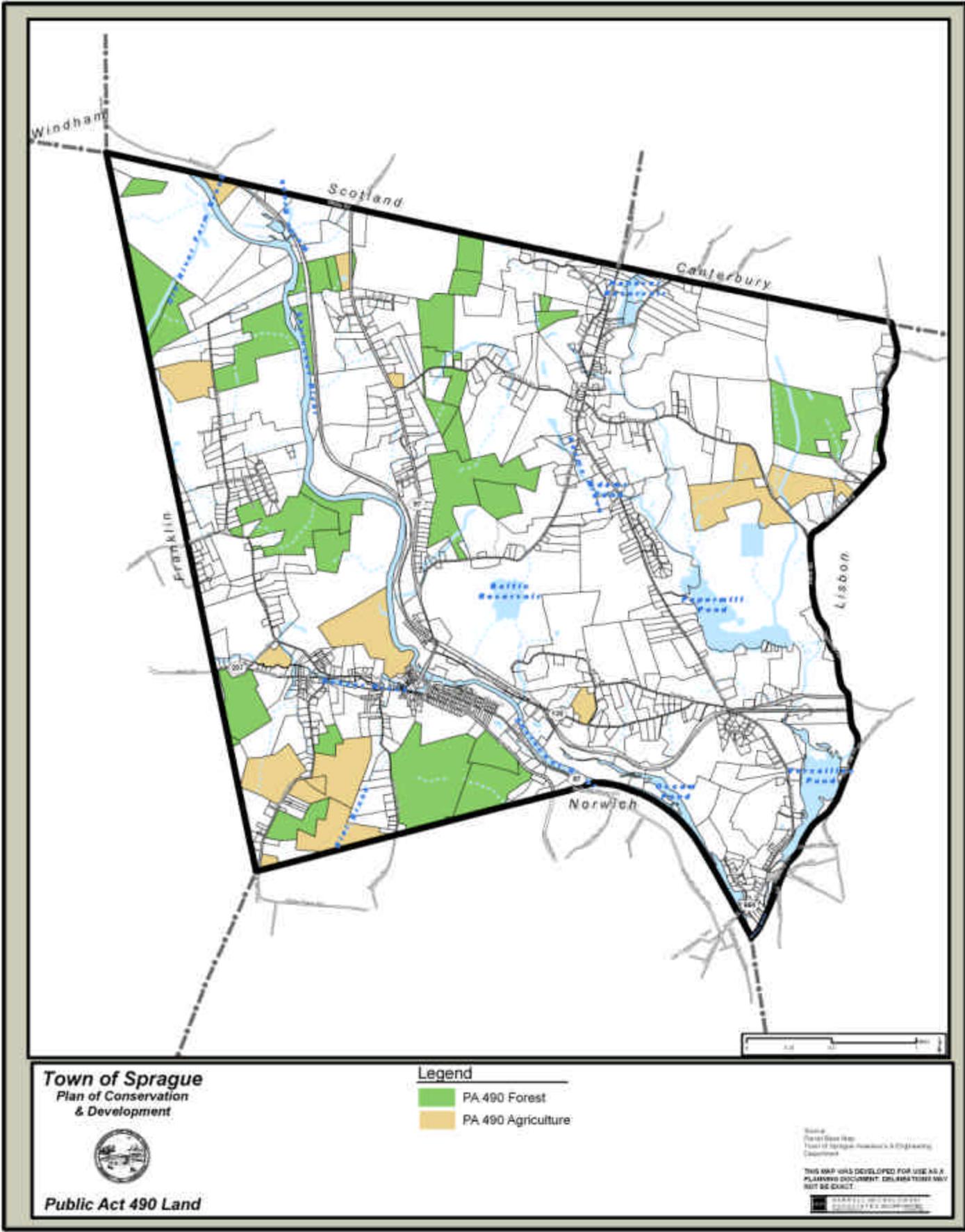
Sprague should have criteria to determine whether the cost of acquisition of specific open space parcels makes sense from a natural resource protection and public recreation perspective.

D. GOALS & OBJECTIVES

The following parks, recreation and open space goals & objectives are designed to guide the protection and enhancement of Sprague’s open space system. The implementation of these recommendations will result in a comprehensive system of protected open space that will evolve to meet the future needs of Sprague residents. These recommendations can be accomplished through a combination of means, including municipal regulations, conservation easements, open space acquisitions and partnering with non-profit and governmental entities dedicated to the protection of open space.

GOAL:

Through open space planning efforts, proactively maintain and enhance Sprague’s parks, recreation and open space system in accordance with the needs and desires of the Town’s residents and with the Plan of Conservation and Development.



Objectives:

- The Conservation Commission should evaluate potential open space acquisitions in a variety of different forms using an on-going and proactive approach.
- Work with neighboring municipalities to advance joint preservation projects.
- Enhance the coordination among all interested parties in the open space and recreation arena by increasing communication between the First Selectman's Office, the Recreation Committee and Public Works, and the various grass roots and non-profit open space conservation organizations. The energy of local volunteers could represent a considerable resource for the Town.
- As outlined in the 1994 Plan of Development, explore the option of creating a part-time Recreation Coordinator position within the Town government to oversee recreation programs and assist the Recreation Committee.
- Consider annual park and open space planning sessions before the municipal budget process begins.
- Wherever possible, existing parks and open space should be linked together to form interconnected greenways.
- Set policy and standards for developers on open space requirements when developing a particular piece of property.
- Target areas for open space protection including:
 - Undeveloped property abutting the Shetucket River;
 - Undeveloped property abutting the Little River;
 - Farmland and undeveloped property west of the Shetucket River (Pautipaug Hill), the northeast quadrant of the Town (Hanover), and in the vicinity of the Baltic Reservoir.
- Continue to utilize the P.A. 490 program to preserve Sprague's agricultural and forested landscape and character.
- Identify and designate areas as open space that provide historical significance to the Town.

Explore the option of creating a part-time Recreation Coordinator position within the Town government to oversee recreation programs and assist the Recreation Committee.

Wherever possible, existing parks and open space should be linked together to form interconnected greenways.

GOAL:

Maintain and support recreational facilities at a level that is adequate in extent, strategic in location and equitable in distribution in order to meet the unique active and passive needs of the Town's population.

Objectives:

- Conduct a parks and open space survey of Sprague residents to determine what, if any, additional active or passive recreational assets are desirable in the Town.
- Identify the various hiking and equestrian trails within the Town both as a means of emphasizing additional recreational opportunities and as possible linkages between existing open space parcels.

Consider access to the Shetucket River for recreational use a high priority in open space planning.

- Consider access to the Shetucket River for recreational use a high priority in open space planning.
- Maintain and routinely upgrade Sprague's active and passive recreation facilities in a time and labor efficient manner.
- Consider establishing an open space fund to buy easements along the Shetucket River.

GOAL:

Support development, maintenance and integration of trails and greenways.

Objectives:

Town officials should attempt to tie pedestrian hiking and bike paths with existing trails and with future trails and greenways.

- Work with Connecticut Department of Transportation to identify and develop trails along State routes traversing the Town.
- Study the development of trail systems or greenways for recreational use and open space linkages.
- Tie pedestrian hiking and bike paths with existing trails and with future trails and greenways. Explore the potential of the river corridor for both trail and canoe/kayak routes.

E. IMPLEMENTATION TOOLS & TECHNIQUES

It is difficult to predict when property will become available for incorporation into the Town's inventory of protected open space. As identified in the October 2004 Parks, Recreation and Open Space memorandum, many implementation tools can help prepare a town to become more proactive in open space protection efforts. The tools listed below are described in detail in the October 2004 study.

- Inland Wetland Regulations
- Zoning Regulations
- Subdivision Regulations
- Fee Simple Purchase
- Easement
- Land Trust
- The Connecticut's Department of Environmental Protection's Open Space and Watershed Land Acquisition Grant Program

X. ECONOMIC DEVELOPMENT

A. INTRODUCTION

Founded in 1861, the Town of Sprague has had a life cycle generally consisting of two stages. Since its establishment as a mill town, Sprague's first one hundred years was based on an economy that thrived on its local industrial activity. The community evolved from a place of rural farmlands to a thriving industrial community whose growth was focused around the villages of Baltic, Hanover, and Versailles.

The second stage of Sprague's life cycle evolved during the post World War II period, when the New England textile and other mill-based industries migrated or fell into decline. What were once thriving, bustling mill-based establishments forming the critical employment base in the Town of Sprague eventually became abandoned structures, or were used in a limited capacity for commercial and small industry and in some cases lost economic potential through neglect or were destroyed by fire. The mills that played such a vital role in the Sprague village centers over the first one hundred years have mostly disappeared, and Sprague's economic conditions and social activities that were historically centered on village life have necessarily adapted to the changes caused by the shift.

The post World War II period created economic conditions that brought with them some regional changes. With the vigorous and sustained regional military-industrial production and its required secondary economic services brought on by the Cold War, employment opportunities for Sprague residents also shifted. Though residing in Sprague, residents began working and shopping elsewhere. Attractive employment opportunities in the Groton/New London area drew Sprague residents there. The drain on the local economy was exacerbated with the emergence of the shopping mall and the expansion and improvement of the regional road systems. This expanded automobile use and new mobility allowed Sprague residents easier travel for further distances, encouraging regional rather than local consumer spending. This contributed to the decline in the local businesses that then had to compete regionally for markets rather than being the sole provider to local residents. It should be noted that Sprague certainly was not an isolated case in this regard; other towns regionally had to deal with similar economic and social changes. As a result of the shift, Sprague began to evolve into a more suburban/rural community, a trend that began more than fifty years ago and continues to this day.

More recently, in the early 1990s, regionally the economy bore the brunt of cutbacks in defense spending with the collapse of the Soviet Union. The 1994 Plan of Conservation and Development made note of this decline and its impact on the region caused by eastern Connecticut's heavy reliance on defense-related industry. The 1994 Plan of Conservation and Development stressed a regional, rather than a local approach to the economy, and

The mills that played such a vital role in the Sprague village centers over the first one hundred years have mostly disappeared, and Sprague's economic conditions that were historically centered on village life have necessarily adapted to the changes caused by the shift.

recognized then that a regional tourist economy would have to displace losses from the defense industry. The 1994 plan did not address specific regional boons such as the two casinos still in their infancy or planning stages, nor could it have envisioned the rapid development that may result from any large economic development project slated for the former Norwich State Hospital site and the potential racetrack and entertainment venues in Plainfield, Connecticut. The 1994 Plan of Conservation and Development did suggest that Sprague would benefit best from regional rather than specific local development.

B. GOALS & OBJECTIVES

The southeastern Connecticut region has seen a startling period of growth, principally because of its two regional casinos, but the benefits to communities in the out-lying areas are arguable. Although providing employment opportunities, the tourist economy generated by this growth is largely an influx of persons keenly interested in the “gaming venues”. The alternative recreational opportunities are secondary to the primary attraction, some of which are already located at the casino site. To lure to Sprague those individuals or families selecting eastern Connecticut as a destination because of the casino industry and other tourist attractions is a formidable challenge.

Study the feasibility of establishing a local, non-profit redevelopment entity to act as an economic development arm of the Town of Sprague and to acquire, manage and promote key development properties important to Sprague’s future.

The 1994 Plan of Conservation and Development pointed out, “the days of everyone working and shopping in the community where they reside are long gone”, and most indicators suggest that this is as true now as then. As has been mentioned, whereas years ago, transportation to commercial districts was a concern, the availability of the automobile has made regional shopping areas more attractive. To encourage small businesses to Sprague will require more broadminded and less restrictive zoning regulations, with mixed-use zones; yet even those incentives may not be enough, if consumers must be lured away from other shopping venues. This assumes that local businesses can thrive by drawing customers from *outside* of the borders of Sprague. This also assumes that Sprague residents would welcome commercial activity to its villages, which despite the prosperity it would bring to the merchants, it would also bring with it increased traffic congestion and related municipal regulatory oversight and attendant infrastructure expenses.

Commercial growth must therefore be regulated in a manner that does not exacerbate traffic or parking problems; the latter is a particular concern. A secondary goal should be to address how to promote desired commercial growth and at the same time alleviate the parking problems that currently exist in the “downtown” village portion of Baltic, specifically the area that includes the current location of the Town Hall and extending westerly on Route 207 beyond the St. Mary’s Church.

The Planning and Zoning Commission recommends focusing energy predominantly upon making the village centers attractive, simply by increasing the desirability of residing in the neighborhoods, improving the quality of life of its residents, which may lead to an improvement in the local economy. The Planning and Zoning Commission therefore recommends concentrating efforts on reversing the trend toward absentee landlords in the villages' two-family and multi-family dwellings, and on encouraging small business in the Baltic and Versailles villages.

The overarching goal of Sprague insofar as economic development is concerned should be to revitalize the villages through mixed-use village zones; focusing economic energies on the former Baltic Mill site and if found to be a viable site, to develop a plan for its use, rather than seeking to find economic opportunities in rural and unspoiled settings; and Sprague should to the greatest extent possible obtain grant money for these purposes, through continuing use of our grant writer to help with this revitalization.

In addition, a strategic plan for the economic redevelopment of Sprague, prepared by the Sprague Economic Development Commission, and titled "2004-2014 Strategic Plan for the Economic Redevelopment of Sprague" was consulted. Some recommendations are included in this chapter.

GOAL:

Create a business friendly environment for commerce

Objectives:

- Gain knowledge on how to better support Sprague's existing business establishments and new establishments.
- Study the feasibility of establishing a local, non-profit redevelopment entity to act as an economic development arm of the Town of Sprague and to acquire, manage and promote key development properties important to Sprague's future.
- Develop and implement mixed use zoning regulations to promote economic development within the village centers.
- Improve the quality and coverage of cellular/mobile telephone communications within the Town of Sprague.

GOAL:

Restore the economic potential of the Baltic Mill site

Objectives:

- Upon completion of an environmental assessment, commission a feasibility study for redevelopment of the Baltic Mill site for mixed use.
- Upon completion of a feasibility study, determine the potential of creating a "Sprague Business Park" adjacent to

The Planning and Zoning Commission recommends focusing energy predominantly upon making the village centers attractive...and recommends concentrating efforts on reversing the trend toward absentee landlords in the villages, and encouraging small businesses in the Baltic and Versailles villages.

Develop and implement mixed use zoning regulations to promote economic development within the village centers.

Sprague Paper Mill on Inland Road for light industrial/commercial use

- Promote tax incentives and credit programs to create commercial business activity

GOAL:

Protect ‘open spaces’ through conservation planning and development

Objectives:

- Continue to seek grants from various sources, including the Quinebaug-Shetucket Heritage Corridor, to establish a land management program for the town to manage the former Mukluk Property.
- Support and encourage the Conservation Commission to identify and designate dedicated greenways and open space for passive/active recreational possibilities (e.g. the former Baltic Reservoir & the Mukluk Property).
- Seek designation of the Shetucket River corridor from the Scotland Dam to the Occum Dam as a National Wild & Scenic River Partnership.

GOAL:

Reverse the trend of absentee landlords, and encourage small businesses to locate within the village centers of Baltic and Versailles

Objectives:

- Encourage the efforts of the Sprague Historical Society to accomplish the following objectives:
 - Create a list of commercial and residential properties and landmarks of historical and architectural significance.
 - Investigate archeological landmarks of historic and architectural significance within Sprague, including those potentially located within the Mukluk property.
- Investigate the creation of a “Baltic Historical District Commission” to work to establish a “Baltic Historic District”.
- Study the establishment of “Village Center Districts” within Baltic, Hanover, and Versailles.
- Promote by deliberate policy means – via grants and property tax incentives – architectural renovation and restoration of historical structures within the town, focusing on village centers.
- Encourage, via grants, property tax incentives, and abatements, the redevelopment of the Baltic Mill site for commercial, residential and municipal uses, so as to stimulate the redevelopment and improvement of the Baltic Village, potentially making the Village more vital and more attractive to owner-occupied residents.

Continue to seek grants from various sources, including the Quinebaug-Shetucket Heritage Corridor, to establish a land management program for the town to manage the Mukluk Property.

Promote by deliberate policy means – via grants and property tax incentives – architectural renovation and restoration of historical structures within the town, focusing on village centers.

- Develop and enforce a blight ordinance and other regulatory municipal ordinances as necessary so as to encourage the visual appearance of the villages.
- Encourage neighborhood beautification programs through local volunteer groups (such as the Sprague Garden Club) or direct municipal means that would stimulate civic pride.

GOAL:

Redevelop and improve the town public infrastructure

Objectives:

- Support the efforts of the Town of Sprague Water and Sewer Authority to upgrade and modernize the Town utility infrastructure.
- Explore the possibility of a 'burden-sharing' policy requiring infrastructure improvements by developers proposing new residential subdivisions.

GOAL:

Develop community facilities to improve the quality of life for residents and visitors

Objectives:

- Support the creation of a community facilities committee to study Sprague's future needs relative to municipal government offices, public works facilities, public library space, recreational facilities, and designated senior housing.
- Utilize the town's natural waterways for tourism and general recreation use.

Support the efforts of the Town of Sprague Water and Sewer Authority to upgrade and modernize the Town utility infrastructure.

Support the creation of a community facilities committee to study Sprague's future needs relative to municipal government offices, public works facilities, public library space, recreational facilities, and designated senior housing.

XI. GENERALIZED LAND USE PLAN

A. INTRODUCTION

The Generalized Land Use Plan illustrates the proposed pattern of conservation and development for the Town of Sprague. It recommends the most appropriate location and relationship of major land uses, including proposals for residential development; commercial development; business districts; industrial development; community facilities such as open space areas, civic uses and institutional uses; and special design districts and conservation areas. The Generalized Land Use Plan is both a narrative and graphic presentation of the Town's vision for the future. The *Generalized Land Use Plan* map, which follows this page, provides a broad-based illustration of desired development patterns. It is based largely upon existing land use and development patterns, environmental and natural features, physical features, current zoning, planning analysis and the desires and vision of citizens and community stakeholders as voiced throughout the plan development process.

The Generalized Land Use Plan recommends the most appropriate location and relationship of major land uses, including proposals for residential development; commercial development; industrial development; community facilities; and special design districts and conservation areas.

B. SPRAGUE'S GENERALIZED LAND USE PLAN

Outside of its three village centers, the majority of Sprague's land area is yet to be developed. Development and conservation of the remaining vacant land, infill development in the villages of Baltic, Hanover, and Versailles, and the redevelopment of previously developed sites in the future can positively impact the Town, so long as these investments are in balance with the conservation of the Town's environmental resources. In order to support and protect the quality of life envisioned as part of the Town's future a balance between development, the conservation of open space and natural resources, and the preservation and revitalization of the Town's villages and cultural resources is necessary. Protection of environmentally sensitive areas and the conservation of open space have been a major focus in the development of this plan update. At the same time it is recognized that investment and development is necessary to address tax base issues and the economic well being of the Town of Sprague and its residents. A balance between conservation, preservation and development is a primary focus of future land use issues across the Town.

This balance between conservation, preservation and development will be achieved by adhering to broad policies as well as specific goals and objectives. These policies, goals and objectives must guide the Town's development and conservation efforts over the next ten years and beyond.

C. MAJOR PLAN GOALS

The overarching goals of this Plan of Conservation and Development are:

- Maintain Sprague's rural character and preserve the 19th century industrial heritage of the town.
- The preservation of the Town's three historic village centers of Baltic, Hanover, and Versailles.
- The encouragement of new development in and around the village centers that is compatible with the scale and mix of uses in the existing villages.
- The promotion of lightly developed areas outside of the village centers, along the Town's main roadways that accommodates growth in a manner that is consistent with current densities and intensities of development in the outlying areas.
- The preservation and conservation of critical natural resources in the Town of Sprague, with particular attention paid to protecting the Shetucket River Corridor, Baltic Reservoir and the Little River Valley.
- The promotion of economic development to attract and retain businesses that will diversify and strengthen the Town of Sprague's property tax base.
- The promotion of future development efforts keeping in scale with Sprague's rural character, which provide new housing, recreation, business and employment opportunities.
- The development of a niche in recreational tourism based on the potential for future family-oriented and outdoor-oriented recreation.

The development of an updated Plan of Conservation and Development and its accompanying Generalized Land Use Plan serves to guide the Town's future development as an advisory or policy setting document. Key to successful future development is the updating of Zoning and Subdivision regulations and implementation techniques that explicitly outline and enforce the vision the Town has set forth in the Plan.

The Generalized Land Use Plan contains a variety of land use categories that address location, density, and current conditions. These categories and their general locations are described in more detail in the following sections. In some cases, individual parcels may have a different existing land use than the category shown on the map. This is unavoidable in a town with small parcels, particularly in village areas. The intent of the Generalized Land Use Plan is to present desirable land use patterns to guide future change. Existing land uses are in no way effected by the map.

One overarching goal of this Plan of Conservation and Development update is the promotion of future development efforts keeping in scale with Sprague's rural character, which provide new housing, recreation, business and employment opportunities.

Residential Land Use Categories

Rural Density Residential

This category represents those areas that are predominantly comprised of residential neighborhoods, at densities generally around one-half of a unit per acre. These areas are located outside Sprague's village centers and are generally focused along some of the Town's major roadways, including Scotland Road, Hanover-Versailles Road, State Route 138, Plain Hill Road, and Pautipaug Hill Road. The majority, though not all of the housing in these areas is typified by single-family homes. The majority of this land is currently zoned Low Density Residence (R-40) or Rural (R-80). Much of the Town's remaining developable residential land that is not in the vicinity of important natural resources is included within this land use category.

With the 2005 adoption of Conservation Subdivision Regulations, the R-40 (1 acre) Zone became unnecessary and its elimination is recommended in this plan.

Natural Resource Protection

This category represents areas in the Town that possess a lesser degree and intensity of residential development not located along the Town's major roadways. Generally, development in these areas should have a density that is less than one-third of a unit per acre. These lightly developed or undeveloped land use areas are generally located in the northeastern portion of the Town neighboring Canterbury and Lisbon, the central area of Town surrounding the Baltic Reservoir, and the western and southern portions of the Town that are within the vicinity of the Shetucket River. Much of this land is currently zoned Rural (R-80) or Natural Resource Protection (R-120). Much of the Town's land area that has significant potential for development is located in this district.

Mixed Land Use Categories

Three mixed land use districts are included in Sprague's future land use plan, one district corresponding to each of the Town's three village centers of Baltic, Hanover, and Versailles. These districts could be the focus of mixed-use zoning that based on smart growth planning concepts that encourage a unique sense of identity, the revitalization of commercial and retail businesses, and renovation of existing neighborhoods and infrastructure in these centers.

The Village of Baltic is in many ways the center of Sprague, in part because it is the location of town hall and the most densely developed area of Town. The current development patterns persisting in this area have led to the establishment of two distinct districts for the Village of Baltic, one that is mixed use in character and another that is not.

Baltic Village District #1

This mixed-use area comprises those land uses that define the Baltic village center in southwestern Sprague. Land comprising the Baltic Village District #1 is located both north and south of the Shetucket River. South of the Shetucket, the district includes that land generally between the river and the southern frontage of Upper High Street and West Main Street. This district also includes those residential properties located in the vicinity of Fifth Avenue, north of the Shetucket River. Duplex-style former mill housing, single-family homes, historically significant commercial buildings, and civic, educational and religious institutions primarily characterize the district. This village is centered on the major crossroads of Routes 97 and 207, which serve to connect Norwich with Willimantic. The mixed-use essence of this village is translated through the multiple zoning districts currently regulating the land in the village, which include instances of all the commercial and industrial zoning districts (except for Commercial Industrial), as well as Medium and High Density Residence zones.

Baltic Village District #2

While physically located near the village center, land comprising the Baltic Village District #2 is distinguished from the #1 District due to its primarily commercial and industrial strip character of development, which clearly differs from the rest of the village. This district comprises that land south of the railroad right of way, east of North Main Street, west of the Town's wastewater treatment facility on Bushnell Hollow Road, and north of the Shetucket River. The majority of land in this district is zoned Industrial or Commercial Industrial. Major planning initiatives within this district include the potential reuse and feasibility study for the former Baltic Mill site, that could be the future home of a state-of-the-art commercial-retail office park.

Hanover Village District

This area comprises the majority of land uses that define the Hanover village center in northern Sprague, and includes most of the land fronting Main Street between Baltic-Hanover Road and Pearl Street. The district is primarily defined as a collection of moderate density housing along with a church, cemetery, and a post office. The majority of land in this district is currently zoned Medium Density Residence (R-20), while the few properties south of Salt Rock and Potash Hill Road are zoned Low Density Residence (R-40).

Versailles Village District

This area comprises the majority of land uses that define the Versailles village center in southern Sprague, and includes most of the land fronting Main Street, Church Street, and Riverside Drive, equilateral and south of Versailles Pond. The district includes the site of the Versailles General Store and Post Office, and many other properties that are residential or vacant in land use. Most of the land in this district is currently zoned as either Commercial Neighborhood (C-1) or Medium Density Residence (R-20).

Non-Residential Land Use Categories

Business / Industrial

This category encompasses those areas identified as appropriate for business and industrial uses that are located outside of the Town's three village centers. This category is comprised of land generally located in the east central portion of town, between Papermill Pond and Lisbon town boundary. The northern and southern limits of this area are The Melgey Farm and Versailles Pond, respectively. The properties of two major landowners, Cascades Canada Incorporated and Amgraph Packaging, currently define the overall character of this area. Undeveloped land within this district could provide the opportunity for a 100 to 150 acre commercial-industrial park for light industrial business activity. This area is primarily zoned Industrial, which would permit the uses this Plan envisions for this area.

Public / Semi-Public Institutional

This category of land use includes municipally owned facilities such as Town Hall, Sayles Elementary School, Sprague Public Library, the town maintenance garages, and fire station, among others. It also includes facilities that are owned and managed by non-municipal entities, and include churches and cemeteries, for example. The *Generalized Land Use Plan* map illustrates the distribution of these community service facilities across the Town of Sprague.

Existing Open Space

The Existing Open Space areas represent the existing network of open space and recreation areas in the Town. These include town owned, State owned, and other privately owned active and passive recreation and open space facilities. Active recreational uses such as parks, playgrounds, golf courses and ball fields, and passive areas including greenways and other open space areas are designated as Existing Open Space areas within the Land Use Plan. Since there is no open space category in the Town's land use regulations, these areas currently fall within a wide range of zoning districts.

Future Open Space

This designation includes areas that would contribute positively to the Town's open space network and resources, in particular those properties that would have the most positive effect on the conservation of Sprague's natural resources. Specifically, the land in northwestern Sprague, an area that includes roughly 400 acres that are located in close proximity to State owned property located between Waldo Road and the northern limits of Pautipaug Hill Road.

Watercourse Focus Areas

Within these areas, development along waterways should be regulated to ensure the protection of groundwater and surface water resources. As opportunities arise, efforts should be undertaken to provide open space corridors and/or linkages to existing open space areas. Designation of a property within these Watercourse Focus Areas does not indicate an intent to acquire or to provide public access on private property as part of a greenway. A variety of approaches to natural resource protection and open space enhancement should be used to meet overall conservation goals. It should be further noted that the underlying land use designation determines the use of the property. Inclusion in a Watercourse Focus Area provides guidance to municipal boards and agencies in the review of proposals for properties within these areas in order to achieve the natural resource protection goals of the Plan of Conservation and Development.

D. RELATIONSHIP TO THE STATE CONSERVATION AND DEVELOPMENT POLICIES PLANS

Conservation and Development Policies Plan for Connecticut: 2004-2009

Chapter 126, Section 8-23 of the Connecticut General Statutes sets the standards for municipal Plans of Conservation and Development. One provision of the State Statute is that municipalities take into account the State Plan of Conservation and Development and note any inconsistencies. The figure to the right illustrates the Land Classifications for Sprague according to the Conservation and Development Policies Plan for Connecticut: 2004-2009.

The State Plan of Conservation and Development designates the majority of the Town as a rural land, conservation areas, and preservation areas. The Village of Baltic includes neighborhood conservation area and growth area designations, while the Village of Versailles is identified as a growth area as well. The Village of Hanover is designated as a rural community center, and the industrial area near the Lisbon border is also identified as a growth area. A preservation area is also designated along the length of the Shetucket River and the Little River. Existing preserved open spaces both within and surrounding the Town of Sprague are also identified in the figure. This Generalized Land Use Plan for the Town of Sprague is largely consistent with the general guidance provided by current State Plan.



2004-2009 Connecticut Locational Guide Map

According to the State Plan:

- **Neighborhood Conservation Areas** are significantly built-up and well populated. These areas generally reflect stable, developed neighborhoods and communities and are many times contiguous to Regional Centers.
- **Growth Areas** are land near neighborhood conservation areas that provide the opportunity for staged urban expansion generally in conformance with municipal or regional development plans.
- **Rural Community Centers** reflect existing mixed use area or places suitable for future clustering of the more intensive housing, shopping, employment, and public service needs of municipalities outside of the urban development areas.
- **Existing Preserved Open Space** areas represent areas in the state with the highest priority for conservation and permanent open space.
- **Preservation Areas** are lands that do not reflect the level of permanence of Existing Preserved Open Space but which nevertheless represent significant resources that should be effectively managed in order to preserve the State's unique heritage.
- **Conservation Areas** represent a significant area of the state and a myriad of land resources. Proper management of Conservation Area lands provide for the state's future need for food, fiber, water and other resources.

Recommended Conservation and Development Policies Plan for Connecticut: 2004-2009

As the State's current Plan is nearing the end of its timeline, the process the Connecticut Office of Policy and Management is undertaking to update its POCD is well underway. The recommended draft of the Connecticut Conservation and Development Policies Plan: 2004-2009 identifies six **growth management principles** that shall guide land use change and preservation over the next five years. These principles include:

- Redevelop and revitalize regional centers and areas with existing or currently planned physical infrastructure.
- Expand housing opportunities and design choices to accommodate a variety of household types and needs.
- Concentrate development around transportation nodes and along major transportation corridors to support the viability of transportation options.

- Conserve and restore the natural environment, cultural and historic resources, and traditional rural lands.
- Protect and ensure the integrity of environmental assets critical to public health and safety.
- Promote integrated planning across all levels of government to address issues on a statewide, regional, and local basis.

Many of the elements included in this Plan of Conservation and Development Update for the Town of Sprague are consistent with the key growth management principles outlined in the State Plan.



Aerial view of the heart of Baltic Village, in Sprague, Connecticut

XII. ACTION AGENDA

In order to implement the various recommendations contained in this Plan of Conservation and Development, the following Action Agenda is proposed. The Action Agenda identifies goals, objectives, recommendations and actions; the lead agencies proposed for implementation; and the priority for implementation during the timeframe of this Plan.

The lead agency is the agency, which by the nature of its mission and authority, is the logical party to spearhead the implementation of a particular proposal. Many proposals will of course involve multiple agencies. The nature of activity required of a lead agency will vary depending on the type of recommendation. Some activities involve budget commitments and capital expenses and some require advocacy and promotion and others call for administrative action.

Priorities are classified as ongoing and pending. Some of the pending items may already be scheduled into the Town's Capital Improvement Program or may be activities and policies that are in place and need to be continued. Some pending recommendations may have evolved as part of the planning process and need to be inserted into the Capital Improvement Program.

Pending priorities are activities which are considered important, but placed "down the road" in recognition of the fact that limited resources are available both in terms of time and money to implement the plan. Pending capital projects may also require some intermediate planning and design activity before project implementation can take place.

The implementation schedule is presented in the form of a "To Do" list. This form will make it easy for the Sprague Planning and Zoning Commission to review and report on implementation progress as a component of their annual report.

ACTION AGENDA

		PRIORITY	
		On-Going	Pending
Action Agenda	Lead Agency		

<i>GOAL: Maintain the Pastoral and Rural Characteristics of Sprague's Natural Landscape.</i>			
Identify priority areas and individual parcels for conservation and preservation actions.	CC	○	
Within identified priority areas, work with property owners and cooperating conservancy organizations to develop a strategy for the conservation and preservation of undeveloped land as it becomes available.	CC	○	
Consider guidelines that require development fronting on local and state roads to be designed and situated so that a natural buffer area between the development and the roadway is provided and maintained.	P&Z		○
Promote the use of "conservation" subdivision design standards recently adopted by the Planning and Zoning Commission in areas identified as possessing rural or pastoral qualities.	P&Z	○	
Review standards used for the construction, maintenance and upgrading of new and existing town road improvements that contributed to the preservation of the rural characteristics of Sprague's natural landscape. Straightening and leveling roads simply to increase allowable speed should not be important considerations.	P&Z/SELECT	○	
Identify the prime features of Sprague's natural landscape for protection actions.	CC	○	
Pursue linkages that connect components of the open space system.	CC	○	

<i>GOAL: Protect Sprague's Inland Wetlands and Watercourses.</i>			
Support actions that protect floodplains.	P&Z/IWC	○	
Support actions that limit the use of flood prone areas.	P&Z/IWC	○	
Support actions that guard against increased downstream run-off.	P&Z/IWC	○	
Support actions which continue the ability of wetlands to function as water storage areas or as groundwater recharge areas.	P&Z/IWC	○	
Support proper soil conservation practices to guard against soil erosion and stream sedimentation resulting from future land development activities.	P&Z/IWC	○	

IMPLEMENTING AGENCIES: ASSESSOR – Tax Assessor; BOE – Board of Education; IWC – Conservation and Inland Wetlands Commission; EDC – Economic Development Commission; HIST – Historical Society; HOUSING – Housing Authority; P&Z – Planning and Zoning Commission; PW – Public Works; REC – Recreation Committee; SELECT – Town Selectmen; WSA – Water and Sewer Authority; CC – Conservation Commission; CFC – Community Facilities Committee.

Action Agenda	Lead Agency	PRIORITY	
		On-Going	Pending

GOAL: Protect Sprague's Public Corridors.

Identify the dominant natural features of Sprague's prime public corridors.	P&Z/CC		○
Work with property owners and cooperating conservancy organizations to develop a strategy for the preservation of the scenic areas viewed from the roadways within the corridors.	P&Z/CC	○	
Encourage new development to complement the existing character of developed areas within the corridors.	P&Z	○	
Consider the creation of distinctive gateways at key points of entry into Sprague and the three villages. Initiate actions, including land use considerations, development siting, design and landscaping to improve the initial visual impression of Sprague at its borders.	P&Z/EDC	○	

GOAL: Provide Sensible Growth for Sprague's Villages and Outlying Areas

Expand and delineate the boundaries of the three villages and promote mixed-use, high density (R-7.5) and medium density (R-20) residential development in these areas.	P&Z		○
Eliminate the R-40 (one acre) zone from the zoning regulations. This designation is not conducive to the implementation of Conservation Subdivision Regulations in our current regulations.	P&Z		○
Reduce the R-80 (two acre) rural Density Zone and expand the R-120 (3 acre) Natural Resource Protection Zone throughout the outlying areas of Sprague.	P&Z		○
Create a watercourse Protection Zone within the recommended Watercourse Focus Area.	P&Z		○

GOAL: Enhance the Visual Appearance and Vitality of Sprague's Village Centers

Encourage new commercial and higher density residential development to occur in Baltic in order to reinforce the village as the center of Sprague, to enhance its appearance and to protect open space and undeveloped land outside of the village center.	P&Z/EDC	○	
Encourage small-scale commercial infill development and medium density residential uses in Hanover and Versailles to provide greater physical definition to the centers of these villages while protecting the undeveloped land surrounding them.	P&Z/EDC	○	
Consider the implementation of the village district state legislation as a means of highlighting and revitalizing the three village centers.	P&Z		○

IMPLEMENTING AGENCIES: ASSESSOR – Tax Assessor; BOE – Board of Education; IWC – Conservation and Inland Wetlands Commission; EDC – Economic Development Commission; HIST – Historical Society; HOUSING – Housing Authority; P&Z – Planning and Zoning Commission; PW – Public Works; REC – Recreation Committee; SELECT – Town Selectmen; WSA – Water and Sewer Authority; CC – Conservation Commission; CFC – Community Facilities Committee.

Action Agenda

	Action Agenda	Lead Agency	PRIORITY	
			On-Going	Pending
	Consider developing and implementing a façade improvement program in Baltic to restore the distinct architectural character of the village. Consider applying for grant funding through the Quinebaug and Shetucket Rivers Valley National Heritage Corridor to help fund this action.	EDC/SELECT	○	
	Encourage actions that will enhance the cohesiveness and appearance of the village centers, such as signage, landscaping, lighting and other urban design features and improvements. Consider applying for grant funding through the Quinebaug and Shetucket Rivers Valley National Heritage Corridor to help fund this action.	EDC/SELECT	○	
	Re-energize and recruit new members to the Sprague Historical Society.	HIST	○	
	Explore the creation of a community operated “Sprague Industrial Museum”.	EDC/ HIST		○
	Create a list of residential properties of historical and architectural significance.	HIST	○	

GOAL: Enhance Sprague’s Community Character Through Well-Planned Municipal Improvements

	When constructing new Town buildings and upgrading existing facilities, pursue a design and siting strategy that will enhance the visual perception of Sprague and the public’s perception of Sprague’s community character.	CFC	○	
	When considering the development of new Town buildings, including municipal offices, police, fire and emergency service facilities, pursue a strategy that integrates municipal facilities into the fabric of the surrounding neighborhood and enhances the character of the area served.	CFC	○	
	Consider the co-location of municipal facilities, such as parks associated with schools or other public buildings, to create community activity centers and provide additional opportunities for community interaction.	CFC	○	

GOAL: A variety of housing types should be available to reflect the needs and desires of all Sprague residents.

	Adopt zoning regulations that encourage the development of small, mixed use developments in the three village centers. Such developments combining retail, office space and housing components could build upon and enhance Sprague’s cohesive, compact development pattern, increase the Town’s tax base, and provide an array of housing options for Sprague residents.	P&Z		○
	Provide and promote additional centrally located and aesthetically pleasing affordable housing for elderly.	HOUSING	○	
			PRIORITY	

IMPLEMENTING AGENCIES: ASSESSOR – Tax Assessor; BOE – Board of Education; IWC – Conservation and Inland Wetlands Commission; EDC – Economic Development Commission; HIST – Historical Society; HOUSING – Housing Authority; P&Z – Planning and Zoning Commission; PW – Public Works; REC – Recreation Committee; SELECT – Town Selectmen; WSA – Water and Sewer Authority; CC – Conservation Commission; CFC – Community Facilities Committee.

Action Agenda	Lead Agency	On-Going	Pending
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Encourage the conversion of vacant buildings or unused upper story space in occupied buildings into apartments to further expand housing options in Sprague.	P&Z	○	
Working in conjunction with various groups, annually evaluate the public housing demand for senior citizens and the low to moderate income segments of the Town population to assure adequate housing resources for all of Sprague's residents.	HOUSING	○	

GOAL: Ensure that the road system continues to serve the travel and transport needs of the population of Sprague.

Work with the Southeastern Connecticut Council of Governments/ConnDOT to request a change of the functional classification for Papermill/West Minister Road from local road to a minor collector. The functional classification of roadways by ConnDOT can affect transportation planning policies and programming and as well as eligibility for ConnDOT and Federal transportation improvement monies.	SELECT/PW	○	
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GOAL: Provide municipal services and facilities adequate to meet the needs of Sprague residents in a cost-effective manner.

Determine municipal needs relative to an expanded or relocated Town Garage and fire station	CFC	○	
Form a Community Facilities Committee.	SELECT	○	
Provide for improved parking in the vicinity of the Town Hall.	CFC	○	
Provide for the short and long term needs of the library.	CFC	○	
Develop a community center to serve all age groups.	CFC	○	
Adopt aquifer protection zoning regulations that will protect the water quality of the well fields in Baltic. Begin the process of participation in the State aquifer protection program as outlined in the Connecticut General Statutes.	P&Z	○	
Upon completion of the updates to the water and sewer plans, take appropriate measures to ensure the effective and logical provision of public water and sewer services to the residents and businesses of Sprague based upon the analysis provided in these updates.	WSA		○
Upon completion of the sewer plan updates, the Town should consider creating a formal sewer service area boundary. The Town should also consider drafting and implementing a sewer avoidance plan for the balance of the Town outside of the sewer service area.	WSA		○

		PRIORITY
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IMPLEMENTING AGENCIES: ASSESSOR – Tax Assessor; BOE – Board of Education; IWC – Conservation and Inland Wetlands Commission; EDC – Economic Development Commission; HIST – Historical Society; HOUSING – Housing Authority; P&Z – Planning and Zoning Commission; PW – Public Works; REC – Recreation Committee; SELECT – Town Selectmen; WSA – Water and Sewer Authority; CC – Conservation Commission; CFC – Community Facilities Committee.

Action Agenda

Action Agenda	Lead Agency	On-Going	Pending
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Continually evaluate the numerous means and methods of solid waste disposal in light of the community's changing needs to ensure that Sprague's waste disposal needs are met in the most cost-effective manner.	PW/SELECT	○	
Create a formal list of road, sidewalk and bridge construction or repair projects ranked on a priority basis for budget consideration and update this list on an annual basis. Maintain a program of annually sealing streets in good condition to postpone future costly repairs.	PW/SELECT	○	
Based upon the analysis and recommendations of the New England School Development Council (NESDEC) report on the Sprague school system, take proactive steps to meet the academic and facility needs of not only the present school system students, but also the Sprague students of tomorrow.	BOE		○

GOAL: Through open space planning efforts, proactively maintain and enhance Sprague's parks, recreation and open space system in accordance with the needs and desires of the Town's residents and with the Plan of Conservation and Development.

Continue to evaluate potential open space acquisitions in a variety of different forms using an on-going and proactive approach.	CC	○	
Work with neighboring municipalities to advance joint preservation projects.	CC	○	
Enhance coordination in the open space and recreation arena by increasing communication between the First Selectman's Office, the Recreation Committee and Public Works, and the various grass roots and non-profit open space conservation organizations.	CC	○	
Explore the option of creating a part-time Recreation Coordinator position within the Town government to oversee recreation programs and assist the Recreation Committee.	SELECT		○
Target areas for open space protection including, but not limited to: Undeveloped property abutting the Shetucket River and the Little River; farmland and undeveloped property west of the Shetucket River (Pautipaug Hill), the northeast quadrant of the Town (Hanover), and in the vicinity of the Baltic Reservoir.	CC	○	
Continue to promote the Public Act 490 program to preserve Sprague's agricultural and forested landscape and character.	ASSESSOR	○	
Identify and designate areas as open space that provide historical significance to the Town.	CC/HIST	○	
Seek grants from various sources, including the Quinebaug-Shetucket Heritage Corridor, to establish a land management program for the town to manage the former Mukluk Property.	SELECT/CC	○	

	PRIORITY
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Action Agenda	Lead Agency	On-Going	Pending
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Explore designation of the Shetucket River corridor from the Scotland Dam to the Occum Dam as a National Wild & Scenic River Partnership.	SELECT/CC	○	
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GOAL: Maintain and support recreational facilities at a level that is adequate in extent, strategic in location and equitable in distribution in order to meet the unique active and passive needs of the Town's population.

Identify the various hiking and equestrian trails within the Town both as a means of emphasizing additional recreational opportunities and as possible linkages between existing open space parcels.	CC/REC		○
Support development and maintenance of bikeways on and along road and integrate with the development of trails and greenways.	REC/CC	○	
Explore the potential of the river corridor for both trail and canoe/kayak routes.	REC/CC	○	
Make improved access to the Shetucket River for recreational use a high priority in open space planning.	REC/CC	○	
Maintain and routinely upgrade Sprague's active and passive recreation facilities in a time- and labor-efficient manner.	SELECT/REC	○	
Consider establishing an open space fund to buy easements along the Shetucket River.	P&Z/SELECT/CC	○	

GOAL: Create a business friendly environment for commerce.

Gain knowledge on how to better support Sprague's existing business establishments and new establishments.	EDC	○	
Explore the possibility of establishing a local, non-profit redevelopment entity to act as an economic development arm of the Town of Sprague and to acquire, manage and promote key development properties important to Sprague's future.	EDC	○	
Improve the quality and coverage of cellular/mobile telephone communications within the Town of Sprague.	SELECT	○	

GOAL: Explore Opportunities for Industrial Development

Commission a feasibility study for redevelopment of the Baltic Mill site.	EDC	○	
Explore the feasibility of a Sprague Business Park adjacent to Sprague Paper Mill on Inland Road for light industrial/commercial use.	EDC	○	

		PRIORITY
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Action Agenda

Action Agenda	Lead Agency	On-Going	Pending
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<i>GOAL: Reverse the trend of absentee landlords, and encourage small businesses to locate within the village centers of Baltic and Versailles.</i>			
Promote by deliberate policy means-via grants and property tax incentives-architectural renovation and restoration of historical structures within the town, focusing on village centers.	EDC/SELECT		○
Encourage, via grants, property tax incentives, and abatements, the redevelopment of the Baltic Mill site for commercial, residential and municipal uses, so as to stimulate the redevelopment and improvement of the Baltic Village, potentially making the Village more vital and more attractive to owner-occupied residences.	EDC/SELECT		○
Develop and enforce a blight ordinance and other regulatory municipal ordinances as necessary so as to encourage the visual appearance of the villages.	SELECT	○	
Encourage neighborhood beautification programs through local volunteer groups (such as Sprague Garden Club) or direct municipal means that would stimulate civic pride.	SELECT/REC	○	

IMPLEMENTING AGENCIES: ASSESSOR – Tax Assessor; BOE – Board of Education; IWC – Conservation and Inland Wetlands Commission; EDC – Economic Development Commission; HIST – Historical Society; HOUSING – Housing Authority; P&Z – Planning and Zoning Commission; PW – Public Works; REC – Recreation Committee; SELECT – Town Selectmen; WSA – Water and Sewer Authority; CC – Conservation Commission; CFC – Community Facilities Committee.

