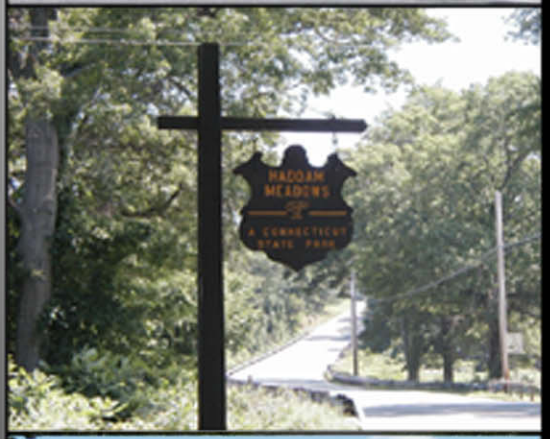

Haddam Plan of Conservation and Development Update

2007

Town of Haddam

Planning & Zoning Commission

Town of Haddam, Connecticut

PLAN OF CONSERVATION AND DEVELOPMENT

Prepared For:
Planning & Zoning Commission
Town of Haddam, Connecticut

Prepared By:
Harrall - Michalowski Associates, Inc.
Hamden, Connecticut

Adopted: January 24, 2008
Effective: March 1, 2008

ACKNOWLEDGEMENTS

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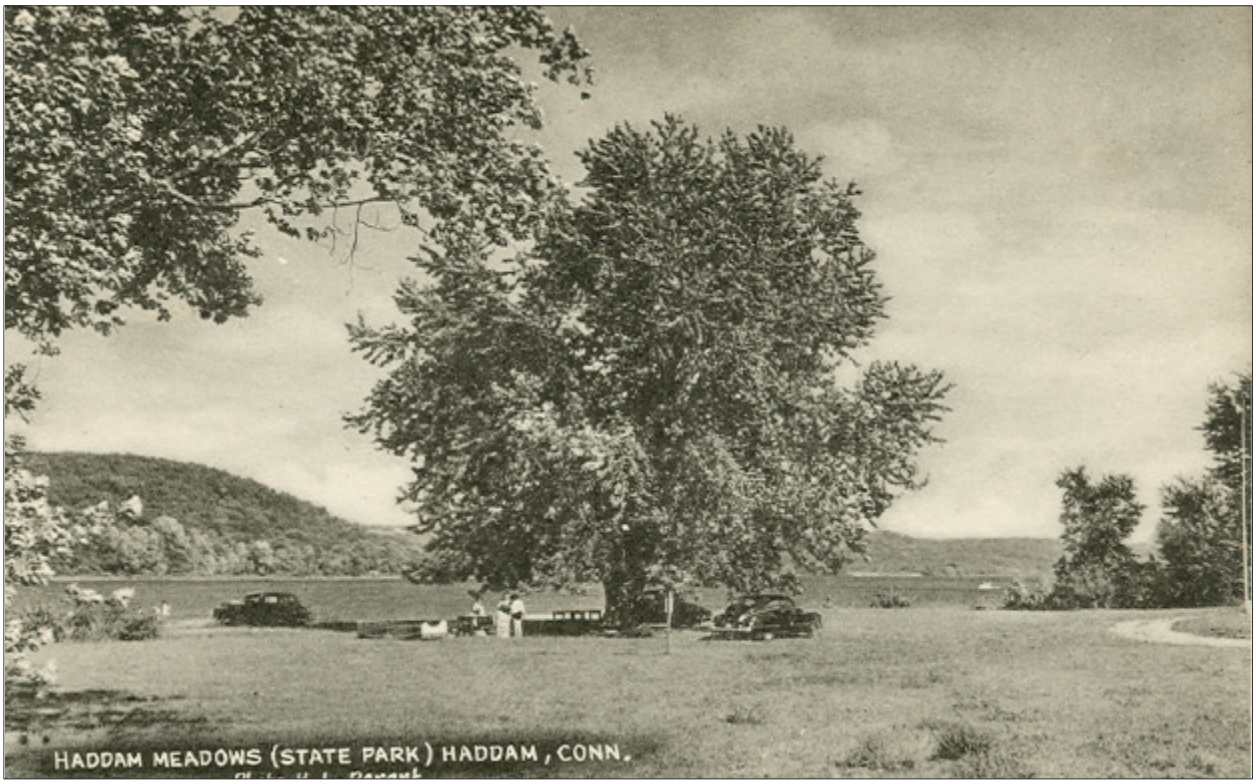

Haddam Meadows

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Aerial View of Higganum Village

I. INTRODUCTION & BACKGROUND

A. HISTORY OF THE TOWN OF HADDAM

The Town of Haddam is located Middlesex County in the lower Connecticut River Valley. Haddam has a unique distinction of being the only town in Connecticut that is bisected by the Connecticut River. Haddam is home to nearly 7,200 people residing in more than 2,700 housing units located throughout 47 square miles.

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 not only encompasses a long-term vision for the community but also offers guidance for short-term decision-making. The Plan should not be thought of as a rigid blueprint but, rather, as a general guide to growth for the Town. The proposals of the Plan do not have the authority of law or regulation; instead they are broadly based recommendations for the future development and improvement of Haddam over a long period of time.

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.

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.

C. PLAN UPDATE PROCESS FOR HADDAM

In the beginning of 2005, the Town began the process of reviewing and updating the 1993 Plan of Conservation and Development. Over the past year, the Planning and Zoning Commission has received individual plan elements that covered various topics ranging from demographics to community character.

After completion of the various plan elements, the documents were posted on the Town's website and reviewed by POCD Study Committee and later presented for citizen review and comment via a public workshop. 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 (HMA)
- Community Character (HMA)
- Natural Resources Inventory (HMA)
- Housing & Population (Mid-State)
- Parks, Recreation and Open Space (HMA)
- Existing Land Use & Build-Out Analysis (HMA / Mid-State))
- Transportation and Circulation (Mid-State))
- Community Facilities and Infrastructure (HMA)
- Generalized Land Use Plan (HMA)

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 discussed in this Plan, the primary goals of the Town over the next ten years are as follow:

Community goals and objectives were established as a means to present clear and concise direction to guide future development and redevelopment in a manner that is consistent with State and regional land use plans. These goals and objectives reflect past Town plans, information compiled from planning and existing condition analyses; reports and study elements presented during the Plan of Conservation and Development Update process; existing land use patterns; future projections and community input. These goals and objectives will serve to guide Haddam's development and conservation activities over the next ten years and beyond.

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.

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.

Once adopted, the Plan of Conservation and Development should not be thought of as a static document. This Plan must remain open to refinement and improvement where and when necessary to reflect new conditions and problems, or take into account changing goals and objectives.

Once adopted, the Plan of Conservation and Development should not be thought of as a static document. This Plan must remain open to refinement and improvement where and when necessary to reflect new conditions and problems, or take into account changing goals and objectives. However, the Plan should be modified only after thorough study indicates that such changes are in Haddam's long-range interests. The Planning and Zoning Commission should maintain a continuing planning program to monitor the implementation of the Action Agenda so that the Plan of Conservation and Development can be of continuing value in guiding the community's growth in an orderly and satisfactory manner. Such a planning program is key to the successful implementation of the Plan of Conservation and Development.

D. VISION STATEMENT

(To Be Prepared By POCD Study Committee)

Route 82 Swing Bridge

II. COMMUNITY CHARACTER

A. INTRODUCTION

The Community character is the essence of a town. Community character derives from our recollections from 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 which take place within its boundaries.

The creation of a community's character is a process characterized by 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 Haddam'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 Haddam's community character, followed by an examination of opportunities to preserve and enhance desired community character elements.

Cockaponset State Forest (State of CT DEP)

B. HADDAM'S VISUAL LANDSCAPE

The visual character of Haddam is defined by both its natural landscape and built environment. Haddam's visual character is greatly shaped by its close connection to the Connecticut River which divides the Town, its forested landscapes, its rolling topography, agricultural remnants, and the presence of historic structures. The physical character of Haddam 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 Haddam's image and community character.

Haddam's visual character is greatly shaped by its close connection to the Connecticut River which divides the Town, its forested landscapes, its rolling topography, agricultural remnants, and the presence of historic structures.

The Natural Setting and Community Character

Woodland & Rural Landscape

The overwhelming majority of Haddam's land area is covered by primarily deciduous trees, with some concentrated areas of coniferous trees. While vestiges of Haddam's agricultural past remain in the form of open fields and farms, the forested nature of the Town dominates its visual character. Heavily wooded areas combined with rolling terrain create a rural atmosphere that defines the Town's 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.

Connecticut River with Yankee Plant in background

Gazebo at the intersection of Route 154 and Candlewood Hill Road

Haddam's Natural Features

Of the 169 towns in Connecticut, Haddam is the nineteenth largest with approximately 47 square miles of land area. Steep slopes and valleys punctuate Haddam's largely rolling terrain, with flood plains along the Connecticut River. In addition to the Connecticut River, Haddam contains several significant natural water features including the Salmon River along the border with East Haddam; the Higganum, Turkey Hill and Scovill Reservoirs; Hidden Lake near the border with Killingworth; over a half-dozen small ponds; and several small brooks and streams scattered around the Town. Other natural geographic features include Bible Rock, Shopboard Rock, and Candlewood Hill. The Significant Natural Features map on the following page highlights the various features of Haddam's natural landscape.

Public Open Space

Town Owned Open Space

The Town of Haddam owns a number of open space parcels. These include parks and village greens such as Meetinghouse Green, Higganum Green, Courthouse Green and Field Park. In addition, the Town owns playing fields on Dublin Hill Road and Jail Hill Road.

Regional District 17 Open Space

Regional District 17 properties such as the two elementary schools and middle school/high school complex provide playing fields and open space.

The State of Connecticut owns a significant portion of land in Haddam (6,612 acres) especially large tracts of forested land located centrally in town as part of the Cockaponset State Forest.

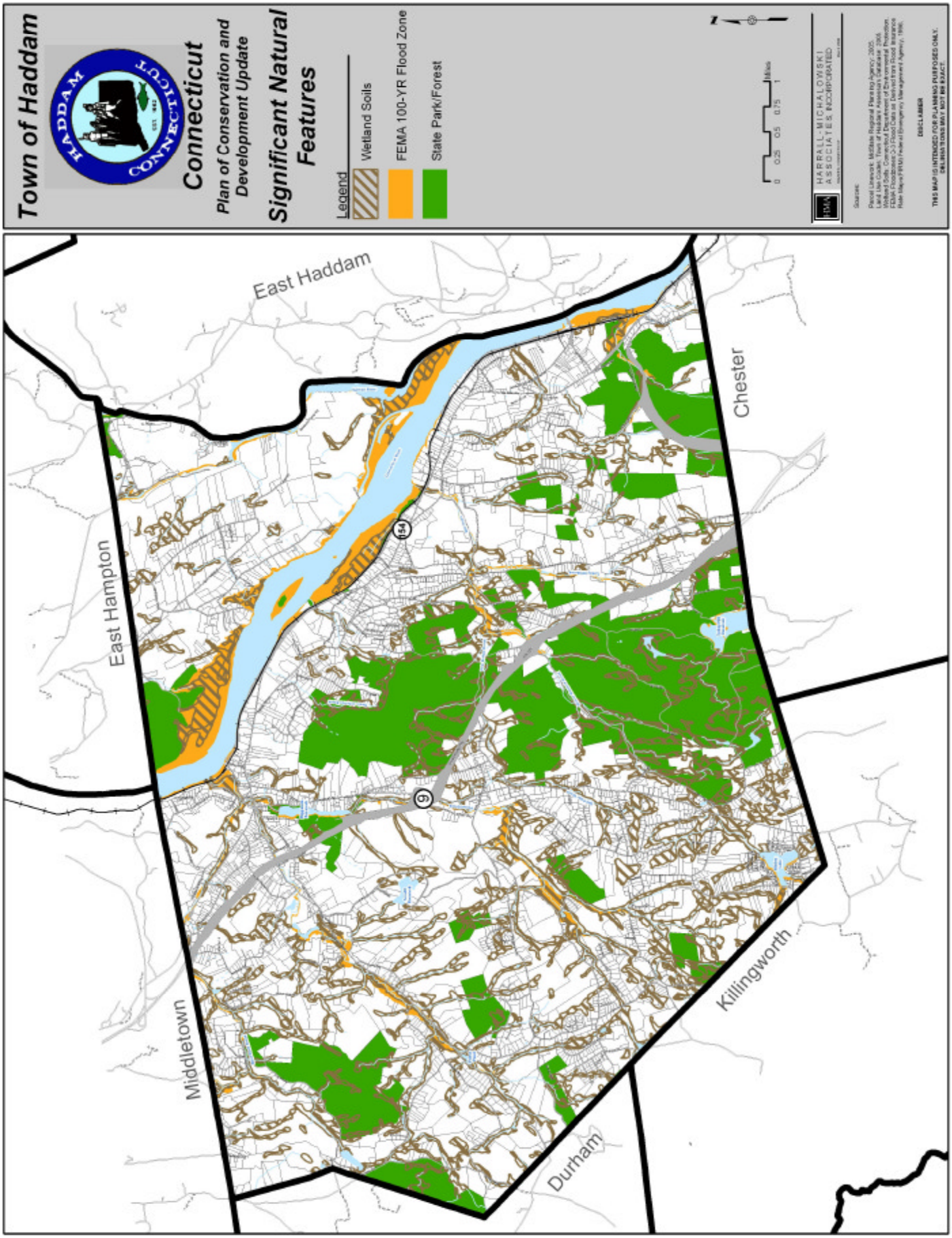
State Owned Open Space

The State of Connecticut owns a significant portion of land in Haddam (6,612 acres) especially large tracts of forested land located centrally in town as part of the Cockaponset State Forest. In addition, other parcels included in the Cockaponset State Forest designation can be found in various parts of Haddam. There are also four state parks located in Haddam: Haddam Meadows State Park, Haddam Island State Park, Higganum Reservoir State Park and the George D. Seymour State Park. These state-owned open space assets will be discussed in greater detail in the Parks, Recreation, and Open Space section.

Haddam Meadows State Park

Open Space Owned by Private Organization

The Haddam Land Trust owns and maintains a number of nature preserves, wildlife preserves and conservation easements throughout the Town. The area of these preserves and easements totals almost 550 acres. These privately owned and controlled open space assets will be discussed in greater detail in the Parks, Recreation, and Open Space report.


Town of Haddam
Connecticut
Plan of Conservation and Development Update
Significant Natural Features
Legend
Wetland Soils
FEMA 100-YR Flood Zone
State Park/Forest
0 0.25 0.5 0.75 1 Miles
HARRALL-MICHALOWSKI ASSOCIATES, INCORPORATED
Sources:
Parcel Layers: McShane Regional Planning Agency; 2005.
Land Use Codes: Town of Haddam Assessor's Database; 2005.
Wetland Soils: Connecticut Department of Environmental Protection.
FEMA Floodzone: 2-3 Flood Data as Derived from Flood Insurance Rate Maps (FIRM) Federal Emergency Management Agency; 1996.
DISCLAIMER
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East Haddam
Chester
East Hampton
Middletown
Killingworth
Durham
154
9

Signage for Haddam Meadows State Park

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 Haddam's built form elements. The primary elements that define the character of Haddam's built environment are discussed below.

In addition to the Town's natural landscape, the perception of community character is significantly influenced by the visual qualities of Haddam's built form elements.

Village Centers

Haddam Center

Haddam Center encompasses the area along Route 154 and grew as the commercial and institutional center of town, so much so that the Town Office Building and library were established there. The Town Office Building is now located in what was once the Brainerd Academy building. This building, constructed in 1839, became home to the Town Office Building in 1929 after the previous building burned down. The Haddam Library Association was founded in 1896, and the Brainerd Memorial Library was built between 1906-1908. The library has become one of Haddam's finest buildings.

Cemetery located in Haddam Center

When Haddam became a regional center during the late 19th Century, the county jailhouse and orphanage were also located in Haddam Center. Haddam, as a "half-shire" town, shared courthouse responsibilities with Middletown from 1785 until the 1890s. The courthouse, located on the Haddam Green, burned in 1929. The granite jailhouse was converted to the Correctional Facility for the State of Connecticut, later to be renamed the Connecticut Justice Academy. The building was constructed in three phases in 1845, 1855, and 1874, and was used as a jailhouse until 1969. The Town plans to assume ownership of the jail property from the state. The Middlesex County Orphanage building was sold to the State of Connecticut and now serves as a University of Connecticut's Agricultural Extension Service Center. The building was erected in 1887 and served as the county's orphanage until 1954.

The Haddam Center Historic District is listed in the National Register of Historic Places. It contains Haddam's first burial ground and the houses that border the Green, which date from the 18th and 19th centuries, are well preserved. Haddam Center is home to the James Hazelton house, which is also listed in the National Register of Historic Places. In addition, the Thankful Arnold House, home of the Haddam Historical Society, can be found in Haddam Center.

The Haddam Center Historic District is listed in the National Register of Historic Places. It contains Haddam's first burial ground and the houses that border the Green, which date from the 18th and 19th centuries, are well preserved.

Higganum

Higganum possesses an eclectic mix of historic architecture. Here simple cottages, formal mansions and stylish homes can be found side by side. These residences are evidence of Higganum's history as a successful port and shipbuilding center in the 18th century, followed by the development of industrial establishments in Higganum when the shipping industry declined. The D & H Scovil

Higganum Feed Store

Company buildings are also evidence of the influence of industry on the area. All located along Candlewood Hill Road, the buildings recount the history of one of Higganum's most prosperous industries during the 19th century. The Higganum Grange and the Higganum Feed Store are also village institutions. The Higganum Grange was built in 1882 and originally housed a grocery store, post office and bank. The Higganum County Market now occupies the ground floor and is the nearest grocery store. The Higganum Feed Store was built in 1880 and still provides the town with home and garden goods. Overall, Higganum has 71 historic buildings, which include the Higganum United Methodist Church and Higganum Congregational Church, both built during the 1800s.

Haddam Neck

Haddam Neck lies to the east of the Connecticut River and has the distinction of being separated from the rest of the town by the river. After the shipping industry declined, the town's first granite quarry was opened there in 1762 and in the mid-19th century the nation's first feldspar quarry was opened. As a result of the separation caused by the river, Haddam Neck residents established their own congregational church in 1774. In 1873, after building two previous churches, residents of Haddam Neck constructed the Haddam Neck Congregational Church on a bluff overlooking the Connecticut River. The Gothic Revival-style church is still used today. The parish house also has historical significance, as it is the original Haddam Neck schoolhouse built in 1822. In 1916, it was moved to its present location next to the congregational church and continued to be used as a schoolhouse until 1925. The village is also home to the Haddam Neck Grange Hall and Fairgrounds, site of the annual Haddam Neck Fair. The Grange Hall was built in the Colonial Revival style in 1911 and was the centerpiece of the fairgrounds and the focal point of the Haddam Neck Fair. These three historic buildings along with many others serve as evidence of the village's history.

Haddam Neck lies to the east of the Connecticut River and has the distinction of being separated from the rest of the town by the river

Shailerville and Tylerville

Shailerville and Tylerville were both established to the west of the Connecticut River by prominent families in Haddam. Shailerville quickly became a tight-knit community, and at one point residents enjoyed their own post office, schoolhouse, factories, and commercial stores. The Shailerville Schoolhouse still stands and recently has been restored to appear as it did in the 19th century. During the 1700s, Tylerville was a prominent shipbuilding village and served as an active seaport. When the Connecticut Valley Rail Road began running in 1871, Tylerville opened the Goodspeed Station. Although the station was removed in 1932, the station's freight house remained and now serves as the Goodspeed's Station Country Store. Tylerville is also home to Camp Bethel. This 55-acre campus that overlooks the Connecticut River was established in the 1800s. From 1890-1920 the tents that surrounded the chapel were replaced with Victorian style cottages. Shailerville and Tylerville together have 46 historic buildings.

Swing Bridge Shopping Center, Tylerville

The *Village Centers* map highlights the general areas of each of five villages identified and discussed above.

Historic Resources

The Town was incorporated in 1668 and as a result, Haddam has an impressive number of historic and architecturally significant structures and features. A variety of churches, homes, schools, landscape features, cemeteries, and buildings remain that in addition to being historic also add substantial aesthetic value to the Town's community character. Although, these features are condensed in the Village Centers along the Route 154 Corridor Historic Resources are found throughout Haddam's landscape.

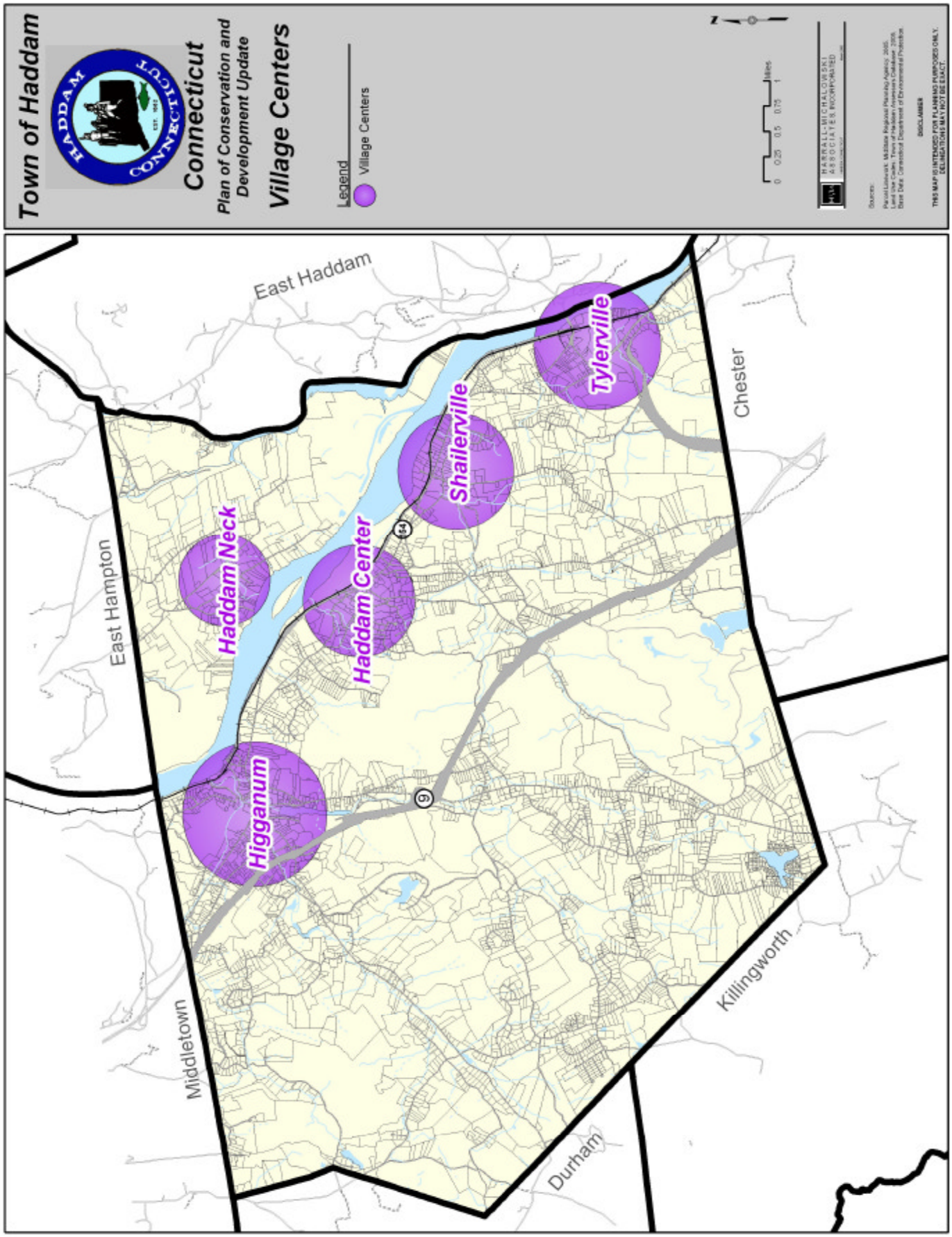
Historic Landscape Features

The Town was incorporated in 1668 and as a result, Haddam has an impressive number of historic and architecturally significant structures and features.

Haddam has numerous features that contribute to the Town's rural and historic character as well as provide variation in the visual realm. The Route 154 corridor, which cuts across the northern section of Town and then runs southeast parallel to the Connecticut River and through Higganum, Haddam Center, Shailerville and Tylerville, dominates. Most of the commercial and governmental activity in the Town occurs along this stretch of road. The entire length of Route 154 (Saybrook Rd) has been designated as a State Scenic Highway.

In addition to Route 154, several geologic and topographic features define Haddam's landscape. Bible Rock and Shopboard Rock, located off of Route 154, are impressive examples of glacial erratics and rock formations. Haddam also has several large hills, perhaps the most prominent being Candlewood Hill, in Higganum. Several historic stone markers also dot the landscape, such as the David Brainerd Marker; a marker for the location of the first town meetinghouse; a mile marker indicating the distance to the City of Hartford; and Flag Rock, a local symbol of patriotism for over 60 years. Another unique feature is Higganum Cove, which is located west of the village of Higganum at the confluence of Higganum Creek and the Connecticut River. The 14-acre site once was home to mill and manufacturing operations from the late 1800's to the early 1980's that have resulted in heavy groundwater and soil contamination at the site. Currently plans exist to remediate the contamination at this picturesque location.

Flag Rock
(Haddam Historical Society)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Village Centers
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Middletown
Killingworth
Durham
Higganum
Haddam Neck
Haddam Center
Shailerville
Tylerville
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154
0 0.25 0.5 0.75 1 Miles
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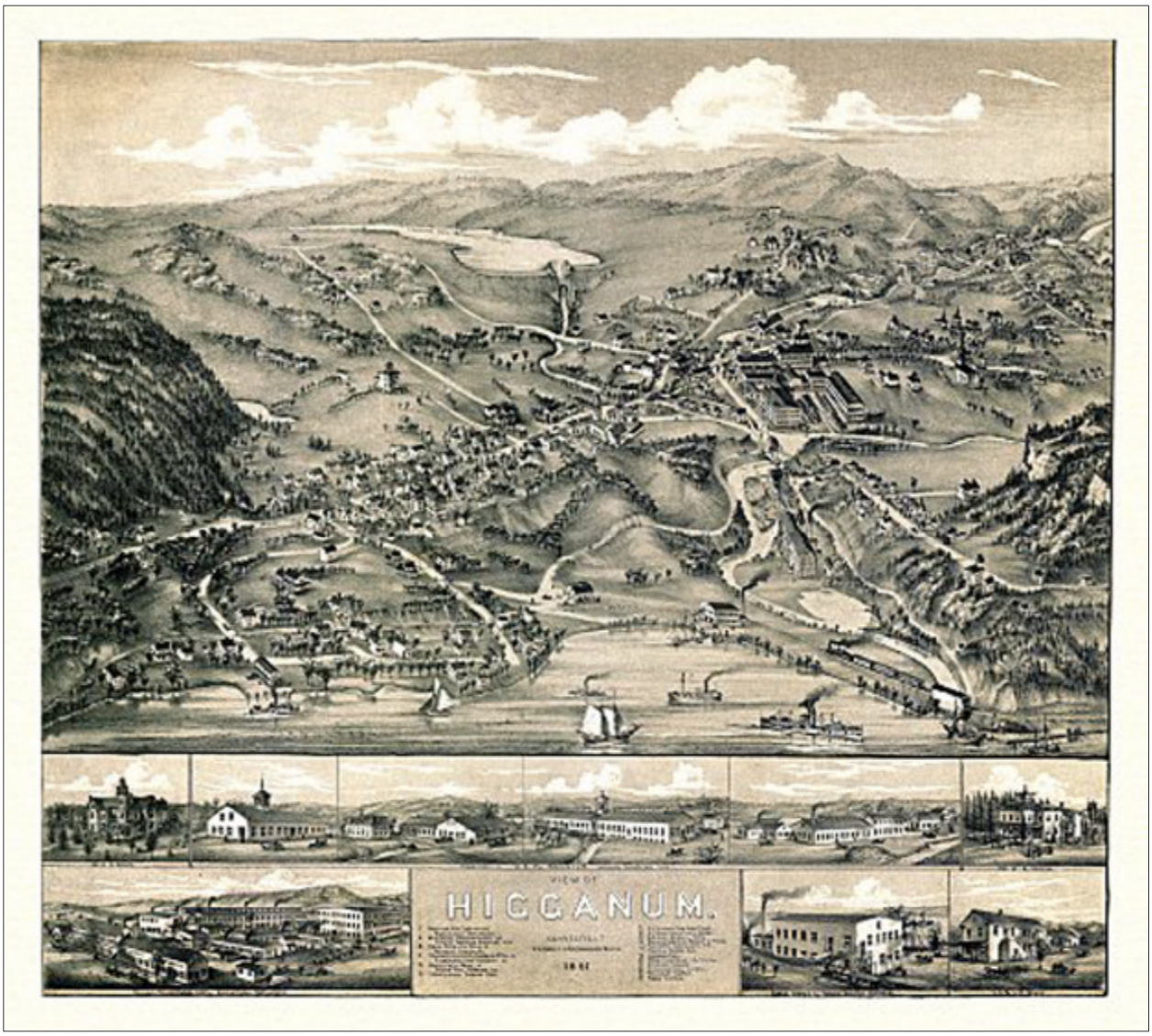

VIEW OF
HIGGANUM.

Thankful Arnold House (HHS)

The Brainerd Memorial Library, perhaps one of the most intricately designed small-town libraries in the State of Connecticut, provides yet another focal point for community activities and social life in Haddam.

Haddam Neck Schoolhouse (HHS)

Historic Schools and Other Buildings

Haddam has four historic schoolhouses that have been preserved: the Old Green School, the First District Schoolhouse, Brainerd Academy and the Haddam Neck School House. In addition, several other historic schoolhouses exist in the Town, but have now been converted for other uses such as private homes. The multitude of schoolhouses reflects Haddam's long history of school districts, which dates back almost two hundred years. Brainerd Academy served as a college prep school during the 1800s. The schoolhouses reinforce Haddam's history of small village areas that existed in an almost semi-autonomous state. This history has had a substantial impact on how Haddam has developed as a unified town and the direction in which the Town may move in the future. A variety of other residential, industrial and agricultural buildings contributed to the character of Haddam's built form. The Scovil Hoe Company complex in Higganum and the Hezekiah Scovil Sr. House are remnants of Haddam's small but prosperous industrial past, and the Hazenhurst Farm Barn reflects Haddam's agricultural roots. The Haddam Jail and Workhouse (Connecticut Justice Academy) and the Middlesex County Orphanage (UConn Agricultural Extension Service Center) were important components for the provision of government and social services in Middlesex County well into the twentieth century. The Goodspeed Station, the Higganum Feed Store and the Higganum Grange were all important contributors to the commercial life of the Town. The Thankful Arnold House, a historic home from the 1700s, is now the home of the Haddam Historical Society. The Brainerd Memorial Library, perhaps one of the most intricately designed small-town libraries in the State of Connecticut, provides yet another focal point for community activities and social life in Haddam.

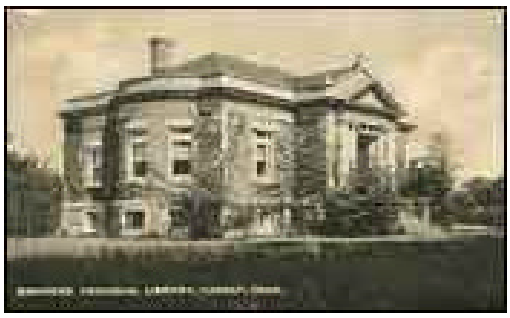
Historic District - Haddam Center

The Haddam Center National Historic District is located along a roughly 2.5 mile stretch of Walkley Hill Road and Route 154 in the center of Town. The district was listed on the National Register of Historic Places in 1988, joining the James Hazelton House on Hayden Hill Road and the B.O.C. archaeological site. The Thankful Arnold House, home of the Haddam Historical Society and a stop on the statewide women's trail, anchors historic structures in Haddam Center.

C. MAINTAINING & IMPROVING HADDAM'S COMMUNITY CHARACTER

Elements of Haddam's community character that are highly valued can be considered in community planning goals and used as a guide in updating Haddam's Plan of Conservation and Development. 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: Haddam's Wooded and Rural Landscape; Prime Features of Haddam's Natural Landscape; Village Centers; Haddam's Historic Resources; and Residential Development.



Brainerd Memorial Library (HHS)

D. GOALS & OBJECTIVES

Element 1 - Haddam's Woodland and Rural Landscape

Issues:

- Haddam is located in close proximity to several metropolitan areas that are facing a private market housing shortage, and it can be reasonably anticipated that Haddam will continue to face development pressures to meet the market demands for additional residential uses. Many residents are "land rich and cash poor", which has often accelerated residential development.

- The demand for population-supporting commercial uses follows the expansion of the residential base.

- The visual character of Haddam's woodland and rural landscape is altered one lot at a time, as undeveloped land is subdivided and developed.

Haddam is located in close proximity to several metropolitan areas that are facing a private market housing shortage, and it can be reasonably anticipated that Haddam will continue to face development pressures to meet the market demands for additional residential uses.

<u>Goal:</u> Maintain the Woodland and Rural Characteristics of Haddam's Natural Landscape.

Strategies:

- Identify priority areas and individual parcels for conservation and preservation actions.

- Within identified priority areas, work with property owners, the Town and cooperating conservation organizations, 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.

- Commercial and industrial development should be concentrated in the town centers (Higganum and Tylerville).

Commercial and industrial development should be concentrated in the town centers (Higganum and Tylerville).

When residential development occurs in areas identified as possessing rural or pastoral qualities, "conservation" and "open space" subdivision design standards per Haddam's zoning regulations, without consequence to the permitted density of development, should be encouraged.

- When residential development occurs in areas identified as possessing rural or pastoral qualities, "conservation" and "open space" subdivision design standards per Haddam's zoning regulations, without consequence to the permitted density of development, should be encouraged. The design of conservation subdivisions would identify the areas of the site most sensitive to the destruction of the lands pastoral and rural qualities as a result of development and would site construction activities accordingly. Stone walls and other colonial remnants should be preserved.

- 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 woodland and rural characteristics of Haddam's natural landscape.

Element 2 - The Prime Features of Haddam's Natural Landscape

The future subdivision and development of land could create conditions that disturb or threaten the prime features (topography, watercourses, wetlands and woodlands) of Haddam'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 Haddam's natural landscape.

- Future land development activities could alter the visual perception of Haddam's natural landscape.

<u>Goal</u>: Protect the Prime Features of Haddam's Natural Landscape.

Strategies:

Use the Conservation Commission's Open Space Criteria as a base for decision-making.

- Use the Conservation Commission's Open Space Criteria as a base for decision-making.

- Support actions that protect floodplains.

- Support actions that limit the development of flood prone areas.

- Support actions that guard against increased downstream run-off.

- Support actions that continue the ability of wetlands to function as water storage areas or as groundwater recharge areas.

- 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.

- Promote rural activities such as Christmas tree farms, managed forest land, maple sugaring, and so forth.

Undeveloped land surrounding the village centers will continue to be a focus of development pressures for residential uses.

Element 3 - The Village Centers

Issues:

- The village centers of Higganum and Tylerville are the historic and symbolic focal points of the Town and contribute significantly to the Town's community character.

- Portions of the market demand for limited retail and other commercial services will continue to be attracted to the village centers.

- Undeveloped land surrounding the village centers will continue to be a focus of development pressures for residential uses.

Goal: Enhance the Visual Appearance and Vitality of Haddam's Multiple Village Centers

Strategies

- Encourage new commercial and higher density residential development to occur in the village centers of Haddam Center and Higganum in order to reinforce these villages as the center of Town and to guide development of this type to where infrastructure is in place to support it.

- Encourage small-scale commercial infill development and lower density residential uses in the other villages 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.

- Consider the implementation of the village district regulations similar to Higganum's for the other village centers.

Encourage new commercial and higher density residential development to occur in the village centers of Haddam Center and Higganum in order to reinforce these villages as the center of Town and to guide development of this type to where infrastructure is in place to support it.

Consider the implementation of the village district regulations similar to Higganum's for the other village centers.

- 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.

Element 4 - Haddam's Historic Resources

Issues:

Haddam's historic inventory includes Town buildings, churches, cemeteries, geographic features, and assorted residential and commercial structures.

- Haddam's historic inventory includes Town buildings, churches, cemeteries, geographic features, and assorted residential and commercial structures. The quality of the historic inventory strongly influences the perception of Haddam's community character and community pride.

- Increased usage and the age of historic assets will necessitate continued maintenance and upgrading.

Goal: Maintain and Enhance the Contributions of Historic Resources to Haddam's Community Character

Strategies:

As the historic inventory of Haddam is a key element in defining the character of the Town, steps should be taken to maintain enhance and promote the historic assets of the community.

- As the historic inventory of Haddam is a key element in defining the character of the Town, steps should be taken to maintain enhance and promote the historic assets of the community.

- Consider conducting an assessment of archaeological resources specifically the Thirty Mile Plantation as well as Native American sites.

- Encourage listing additional buildings and districts on the State and National Registers of Historic Places.

- Consider establishing a historic overlay zone to be applied to an area with architectural, cultural, or historic significance.

- New development should be consistent with and sensitive to the historic nature of the community, particularly in the village center areas. Emphasis on quality physical design and site planning that is in keeping with the nature of the surrounding environment should be a high priority.

- Consider protecting additional historic assets if they become available in the private market to further enhance the historic character of the Town.

- Consider protecting scenic roadways from improvements that would impair their character such as widening, destruction of stonewalls and mature trees, and the paving of dirt roads.

Element 5 - Residential Development

Issues:

- Residential development is the largest category of use within Haddam's built environment. The visual appearance of Haddam's residential development significantly impacts the perception of the Town's community character.

- Haddam is increasingly recognized in the residential marketplace as a desirable place to live, particularly in a constricted housing market with rising home prices. It can be anticipated that Haddam will continue to experience development pressures to meet market demands for affected areas of Haddam'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 Haddam's community character.

Haddam is increasingly recognized in the residential marketplace as a desirable place to live, particularly in a constricted housing market with rising home prices.

Goal: Residential Development Should Enhance Rather Than Degrade Haddam's Community Character

Strategies:

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

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

Aerial View of Tylerville

III. EXISTING LAND USE & DEVELOPMENT POTENTIAL

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 Haddam. 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.

B. LAND USE PATTERNS

The Town of Haddam has a total area of approximately 30,090 acres or 47 square miles. This area contains a variety of land uses including residential, institutional, industrial, commercial, and open space. Haddam is a rural town with varying land uses and densities. The Town is comprised of four separate villages: Higganum, Haddam, Haddam Neck, & Shailerville-Tylerville. The village of Higganum contains the highest density of residential development and the greatest diversity of land use development of all the village centers. Higganum's primary commercial areas are located along the State Route 154. The village of Haddam is comprised heavily of institutional uses and serves as the center for town government activities. Shailerville-Tylerville village has commercial uses clustered around the Route 82 and 154 intersections with low-density residential uses along the edges. Haddam Neck is a loosely defined village that is a low-density residential area.

The Town of Haddam has a total area of approximately 30,090 acres or 47 square miles.

Commercial Area in Tylerville

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 then 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 Haddam in terms of general land use characteristics and indicate growth trends when compared to previous similar studies.

C. LAND USE ASSESSMENT

TABLE 1 1990 LAND USE DISTRIBUTION		
Land Use Category	**Area (Acres)**	**Percent of Town's Land Area**
Residential	3,279	11.00%
Commercial (Business & Commercial)	1,278	0.40%
Industry	228	0.80%
Transportation	1,345	4.5%
Institutional	421	0.60%
Open Space	7,796	26.9%
Vacant	15,113	50.60%
Water	1,580	5.3%

Source: 1993 Plan of Development (1990 Aerial Photographs)

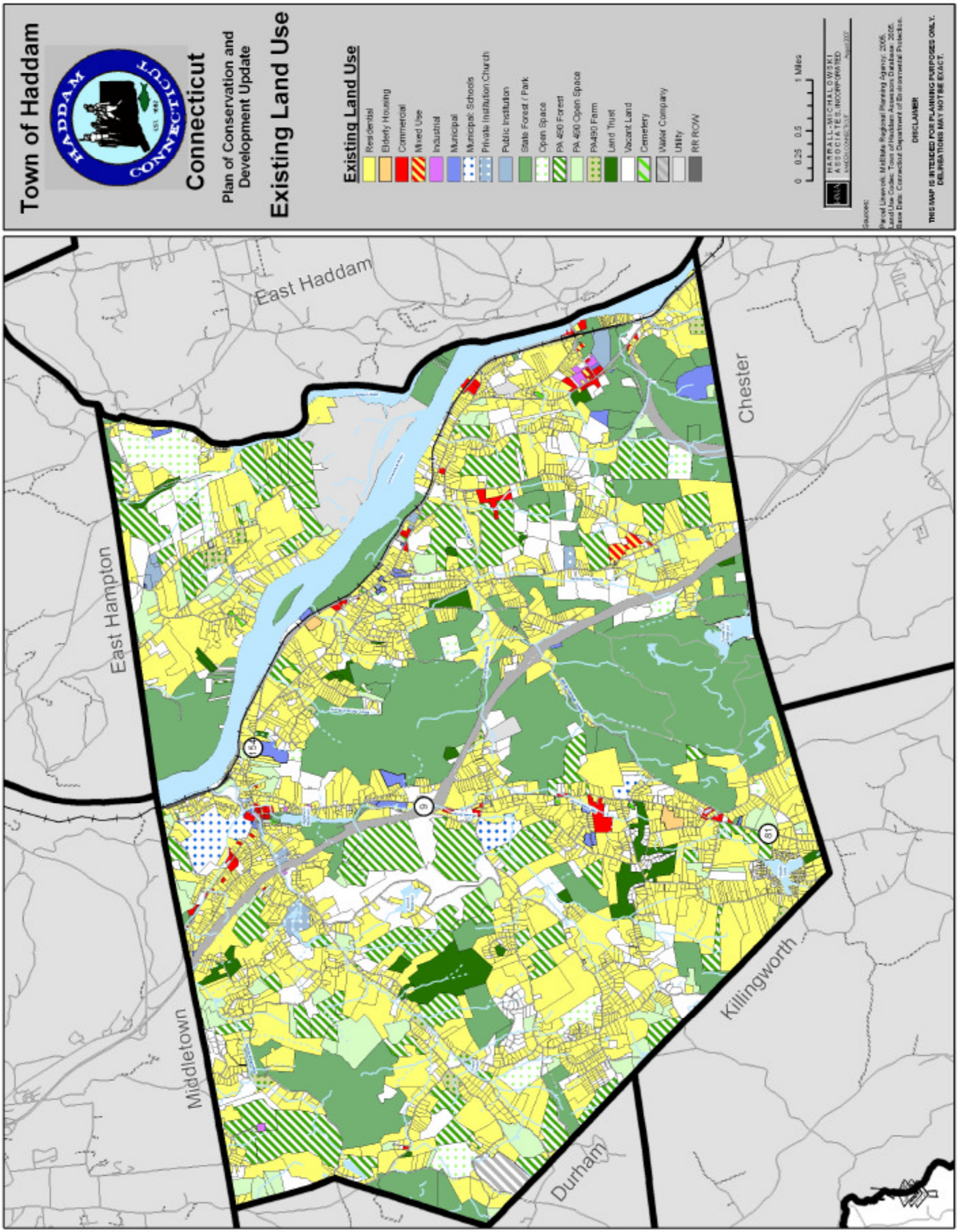
According to the 1993 Haddam Plan of Development, the Town of Haddam's approximate 47 square miles were devoted to the following uses listed in the Table 1 below.

Country Market Higganum

Haddam has continued to develop and mature as a community in all respects particularly in the residential category.

As part of this land use analysis, an updated land use inventory has been compiled. Table 2 describes the distribution and comparison of land amongst the major land use categories reported in the 1993 and 2006 Plans. The existing land uses are illustrated on the map titled *Existing Land Use*.

Although it is recognized that some differences in inventory methodology and categorization of land uses between 1993 and 2006 Plan may exist, it is 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, Haddam has continued to develop and mature as a community in all respects particularly in the residential category. Haddam experienced a growth of 70% for residential uses when comparing only the residential building lots and not the excess residential acreage while vacant land experienced a decrease of 52% during this same period.


Town of Haddam
Connecticut
Plan of Conservation and Development Update
Existing Land Use
Existing Land Use
Residential
Elderly Housing
Commercial
Mixed Use
Industrial
Municipal
Municipal: Schools
Private Institution/Church
Public Institution
State Forest / Park
Open Space
PA 490 Forest
PA 490 Open Space
PA490 Farm
Land Trust
Vacant Land
Cemetery
Water Company
Utility
RR ROW
0 0.25 0.5 1 Miles
HARRALL-MICHALOWSKI ASSOCIATES, INCORPORATED
Sources:
Parcel Linework: MetState Regional Planning Agency, 2005.
Land Use Codes: Town of Haddam Assessors Database, 2005.
Base Data: Connecticut Department of Environmental Protection.
DISCLAIMER
THIS MAP IS INTENDED FOR PLANNING PURPOSES ONLY. DELINEATIONS MAY NOT BE EXACT.
East Haddam
East Hampton
Chester
Middletown
Killingworth
Durham
154
9
81

Housing Along Route 154

TABLE 2 Haddam, Connecticut POCD LAND USE SUMMARY TABLE					
Major Land Use Category	**Area in Acres (1990)**	**Percent of Total**	**Area in Acres (2005)**	**Percent of Total**	**1990 - 2005 Percent Change**
Commercial	**127.5**	**0.43%**	**204.8**	**0.68%**	**60.68%**
Commercial			162.5		
Mixed Use			42.3		
Industrial	**227.8**	**0.76%**	**632.4**	**2.10%**	**177.56%**
Industrial			24.4		
Utility			608.0		
Institutional	**421.1**	**0.58%**	**596.0**	**1.98%**	**41.56%**
Municipal			182.7		
Municipal Schools/Recreation	**248.2**		251.6		
Private Institution			87.0		
Public Institution			74.7		
Open Space	**7795.9**	**26.91%**	**8071.1**	**26.82%**	**3.53%**
Audubon Society			4.8		
Cemetery			26.6		
Land Trust			598.4		
Public Open Space			594.2		
Private Open Space			84.4		
State Forest/State Park			6430.2		
State Connecticut River Water Access			28.9		
State Wildlife Area			151.8		
Water Company			151.8		
Residential	**3279.0**	**10.97%**	**10247.2**	**34.06%**	**212.51%**
Residential Lots Less Than 4 AC			3,660.30		
Residential Lots Greater Than 4 AC			1,936.00		
Excess Residential Lot Acreage Greater Than 4 AC*			4,619.50		
Elderly Housing			31.4		
Transportation	**1344.7**	**4.50%**	**1512.1**	**5.03%**	**12.45%**
Vacant	**15112.6**	**50.56%**	**7246.9**	**24.08%**	**-52.05%**
Vacant Land			2862.8		
PA 490 Forest			3206.7		
PA 490 Open Space			1050.3		
Pa 490 Farm			127.1		
Water	**1579.5**	**5.28%**	**1579.5**	**5.25%**	**0.00%**
TOTAL	**29888.0**		**30090.0**		

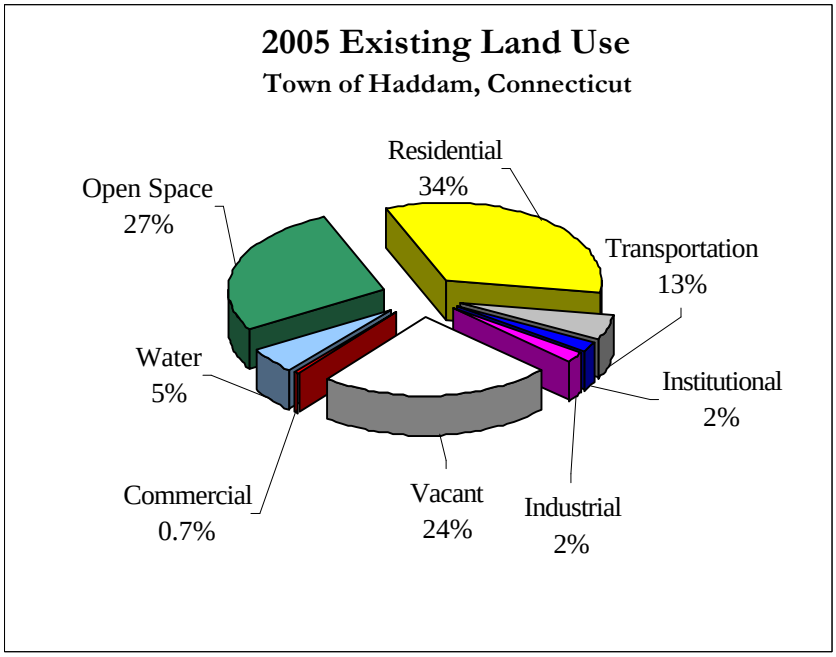
* Represents the remaining acreage for residential lots greater than 4 AC after allocating 4AC to the building lot.

As illustrated in the figure below, the top three land use categories in 2005 are Residential at 34.1%, Open Land at 28.8%, and Vacant Land at 24.1%. In total, approximately 45% of the land in Haddam is in an undeveloped category, while 2.5% is categorized as Commercial and Industrial Land.

The top three land use categories in 2005 are Residential at 34.1%, Open Land at 28.8%, and Vacant Land at 24.1%.

It is evident from the land use inventory conducted as part of this analysis that Haddam has a large amount of open land remaining. With approximately 7,250 and 4,620 acres of vacant land and residential land with excess acreage the potential exists for a large amount of development to occur. It should be noted that any development of the vacant acreage is affected by physical constraints such as wetlands, steep slopes, and shallow soils which will reduce the total amount of developable land remaining.

Figure 1



IV. POPULATION & HOUSING

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 Haddam 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

Counts, Trends, and Projections

Haddam was the 114th most populous town in Connecticut in 2000, and is home to 4.6% of the total population of Middlesex County. The U.S Census measured 7,157 people living in the 47.0 square miles with a population density of 163 persons per square mile.

Haddam was the 114th most populous town in Connecticut in 2000, and is home to 4.6% of the total population of Middlesex County.

Haddam's population historically had peaked in 1830, when it had risen to over 3,000 people. The last half of the nineteenth century saw a steady decline in population. As shown in Table 3 and the figure below, the Town continued to lose population during the first two decades of the twentieth century, dropping to 1,736 persons in 1920 or roughly the same population the Town had in 1774. Haddam's population remained essentially unchanged during the 1920s, but after 1930 the Town's population began a steady and substantial climb for the next fifty years. The Town's population growth during the 1960s when the grew at an accelerating pace after World War II, achieving its largest growth during the 1960s when the population grew by over 42%. Since 1980, Haddam has continued to grow, albeit not at the double-digit percentage rates of previous decades. However, recent estimates for population released by the Census Bureau indicate that Haddam's population may be growing faster than it had been during the 1980s and 1990s. Middlesex County has experienced similar trend although at a faster rate than both Haddam and the State. Table 4 shows the population growth trends for Haddam, Middlesex County, and the State.

The Town's population grew at an accelerating pace after World War II, achieving its largest growth during the 1960s when the population grew by over 42%.

Population estimates and projections are provided by the Connecticut Economic Resource Center, Inc. (CERC). CERC estimates 7,640 people lived in Haddam in 2004, a growth of 6.7% since 2000. A projected 8,216 people will live in Haddam in 2009, based on a 15% growth rate per year. Middlesex County and Connecticut should grow slower.

TABLE 3 POPULATION GROWTH TRENDS AND PROJECTIONS						
Year	**Connecticut**	**% change**	**Middlesex**	**% change**	**Haddam**	**% change**
1920	1,380,631		45,225*		1,736	
1930	1,606,903	16.40%	49,007*	8.40%	1,755	1.10%
1940	1,709,242	6.40%	53,667*	9.50%	2,069	17.90%
1950	2,007,280	17.40%	67,332*	25.50%	2,636	27.40%
1960	2,535,234	26.30%	88,865*	32.00%	3,466	31.50%
1970	3,029,074	19.50%	115,018	29.40%	4,934	42.40%
1980	3,107,576	2.60%	129,017	12.20%	6,383	29.40%
1990	3,287,116	5.80%	143,196	11.00%	6,769	6.00%
2000	3,405,565	3.60%	155,071	8.30%	7,157	5.70%
2004	3,507,246	3.00%	163,370	5.40%	7,640	6.70%
2009	3,626,616	3.40%	173,023	5.90%	8,216	7.50%

* Counts are low because Deep River was not counted

Source: 1920-2000 U.S. Bureau of the Census, CERC Town Profiles 2005

Similar to most communities in the State, Haddam's population is growing older with the median age for residents increasing from 31.6 in 1980 to 40.3 in 2000, a difference of 8.7 years.

Age Distribution

While Haddam has seen an over all increase in population from decade to decade, much different growth rates exist among age cohorts. Some have even experienced a decline in population since 1980. Similar trends exist in the state as a whole and in Middlesex County.

Similar to most communities in the State, Haddam's population is growing older with the median age for residents increasing from 31.6 in 1980 to 40.3 in 2000, a difference of 8.7 years (See Table 5). In 1980, 19.7% of the population was in their 30's, and in 2000, 19.9% of the population was in their 40's. While the largest age cohort aged 10 years in Haddam, the state and county are experienced a faster movement of people across age cohorts. For the state as a whole, 18.0% of the population was between 15 and 24 years old in 1980, 17.8% was between 25 and 34 years old, and 17.1% between 35 and 44 years old. The state's most represented age cohort aged 20 years in two decades. Middlesex County experienced similar patterns.

Haddam has lost a significant amount of its population of young people. Age cohorts from 5 to 34 years experienced negative growth rates. Between 1980 and 2000, Haddam lost 809 youths 24.8% percent change. The largest decline was in the 25 to 29 years cohort with a 40.0% reduction in population most of which happened in the 90's. Meanwhile the amount of people between 45 and 59 years increased a total of 941 people yielding 103% growth over 20 years. The 50 to 54-age cohort grew 108.1%. Finally, Haddam also experienced significant growth in its oldest age cohorts. There are 40.2% more people over the age of 74 in 2000 than in 1980. Connecticut and Middlesex County have experienced a similar reduction in the younger portion of the population and an increase in the older population.

TABLE 4 AGE DISTRIBUTION												
	Connecticut				Midlesex				Haddam			
Age	1990	% pop	2000	% pop	1990	% pop	2000	% pop	1990	% pop	2000	% pop
< 5	228,356	6.90%	223,344	6.60%	9,533	6.70%	9,632	6.20%	410	6.10%	412	5.80%
5 to 9	209,005	6.40%	244,144	7.20%	8,756	6.10%	10,421	6.70%	433	6.40%	529	7.40%
10 to 14	194,372	5.90%	241,587	7.10%	7,960	5.60%	10,074	6.50%	447	6.60%	511	7.10%
15 to 19	211,580	6.40%	216,627	6.40%	9,313	6.50%	9,359	6.00%	475	7.00%	440	6.10%
20 to 24	251,701	7.70%	187,571	5.50%	10,399	7.30%	7,773	5.00%	425	6.30%	230	3.20%
25 to 29	287,691	8.80%	201,467	5.90%	12,661	8.80%	8,615	5.60%	425	6.30%	278	3.90%
30 to 34	296,191	9.00%	250,173	7.30%	13,601	9.50%	11,836	7.60%	608	9.00%	467	6.50%
35 to 39	265,767	8.10%	290,866	8.50%	12,629	8.80%	13,971	9.00%	676	10.00%	675	9.40%
40 to 44	245,229	7.50%	290,183	8.50%	11,508	8.00%	13,847	8.90%	669	9.90%	744	10.40%
45 to 49	200,239	6.10%	252,754	7.40%	9,113	6.40%	12,309	7.90%	571	8.40%	683	9.50%
50 to 54	155,803	4.70%	228,053	6.70%	6,836	4.80%	11,355	7.30%	414	6.10%	643	9.00%
55 to 59	147,022	4.50%	176,961	5.20%	6,053	4.20%	8,621	5.60%	301	4.40%	528	7.40%
60 to 64	148,253	4.50%	131,652	3.90%	6,063	4.20%	6,173	4.00%	265	3.90%	324	4.50%
65 to 69	140,359	4.30%	117,556	3.50%	5,585	3.90%	5,386	3.50%	215	3.20%	214	3.00%
70 to 74	115,878	3.50%	114,009	3.30%	4,885	3.40%	4,986	3.20%	173	2.60%	172	2.40%
75+	189,670	5.80%	238,618	7.00%	8,301	5.80%	10,713	6.90%	262	3.90%	307	4.30%
Total	3,287,116	100%	3,405,565	100%	143,196	100%	155,071	100%	6,769	100%	7,157	100%

Source: 1980-2000 U.S. Bureau of Census

TABLE 5 PERCENT CHANGES IN AGE DISTRIBUTION						
	Connecticut % Change		Middlesex % Change		Haddam % Change	
Age	**1980-90**	**1990-00**	**1980-90**	**1990-00**	**1980-90**	**1990-00**
< 5	23.30%	-2.20%	27.90%	1.00%	3.00%	0.50%
5 to 9	1.60%	16.80%	2.90%	19.00%	-22.70%	22.20%
10 to 14	-24.20%	24.30%	-24.10%	26.60%	-29.00%	14.30%
15 to 19	-26.60%	2.40%	-21.70%	0.50%	-18.00%	-7.40%
20 to 24	-7.60%	-25.50%	-2.30%	-25.30%	21.40%	-45.90%
25 to 29	15.40%	-30.00%	14.20%	-32.00%	-8.20%	-34.60%
30 to 34	22.50%	-15.50%	21.90%	-13.00%	-10.90%	-23.20%
35 to 39	30.00%	9.40%	37.20%	10.60%	17.60%	-0.10%
40 to 44	48.80%	18.30%	65.10%	20.30%	59.70%	11.20%
45 to 49	23.90%	26.20%	42.20%	35.10%	71.00%	19.60%
50 to 54	-12.10%	46.40%	0.10%	66.10%	34.00%	55.30%
55 to 59	-17.70%	20.40%	-10.70%	42.40%	11.50%	75.40%
60 to 64	-5.40%	-11.20%	-4.70%	1.80%	6.40%	22.30%
65 to 69	11.00%	-16.20%	8.20%	-3.60%	13.80%	-0.50%
70 to 74	24.20%	-1.60%	22.10%	2.10%	10.20%	-0.60%
75+	30.70%	25.80%	36.90%	29.10%	19.60%	17.20%
Total	5.80%	3.60%	11.00%	8.30%	6.00%	5.70%

Households

Only about 4.4% of the total households in Middlesex County, and only 0.5% of the total households of Connecticut live in Haddam. While total numbers are low when compared to the county and states, household growth trends have been positive within the rural community. Total households increased from 2,138 in 1980 to 2,701 in 2000 (26.3%). While the number of households is growing, the average size of households is declining. In 1980, the average

household size was 2.98 persons per household, and in 2000, the average was 2.64 persons per household. The average size was 3.1 in 1970. Much of this decline is contributed by a significant increase in non-family households. In 2000, there were 600 non-family households, up from 509 in 1990, and 393 in 1980. Non-family households increased 52.7% in those twenty years more than twice as much as, both family households (20.4%) and married-couple families (21.1%). The amount of people who live in households increased from 6,371 to 7,142 in those twenty years (12.1% growth).

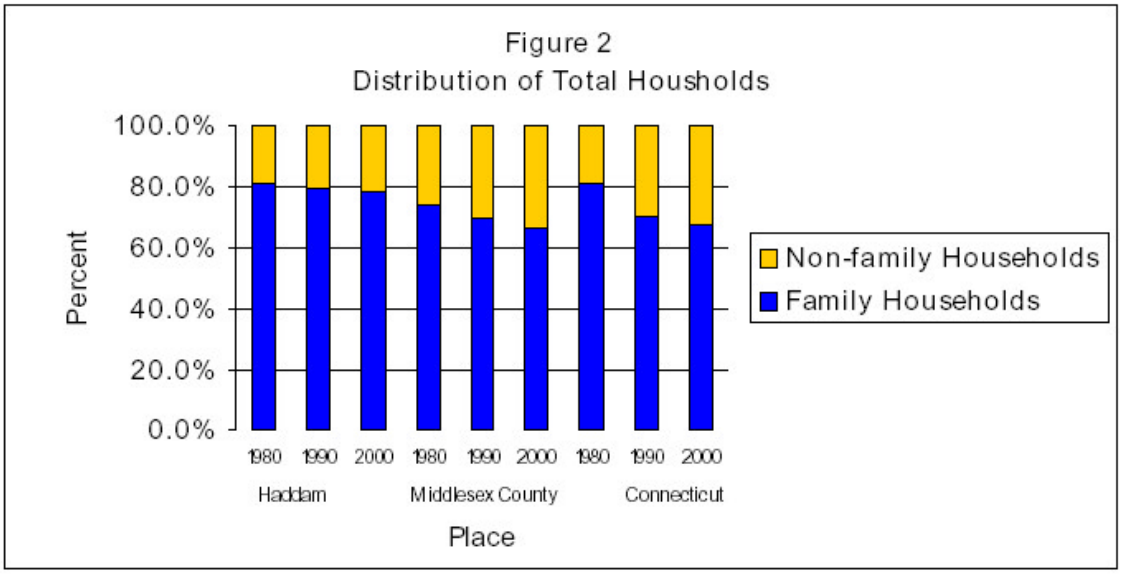
More dramatic changes have occurred within Middlesex County and Connecticut as a whole. Total households grew between 1980 and 2000 33.5% in Middlesex County and 29.9% in Connecticut. Non-family households grew 73.1% and 128.6%. Married-couple families increased 5.8% in Middlesex County but declined in Connecticut -0.1% (-1.2% in the 1990s).

TABLE 6

HOUSEHOLDS (HHs) 1980-2000

	Haddam			Middlesex County			Connecticut		
	2000	**1990**	**1980**	**2000**	**1990**	**1980**	**2000**	**1990**	**1980**
People in HHs	7,142	6,743	6,371	148,844	137,157	124,177	3,297,626	3,185,949	3,018,846
Total HHs	2,701	2,443	2,138	61,341	54,651	45,952	1,301,670	1,230,479	1,002,125
Family HHs	2,101	1,934	1,745	40,580	37,966	33,955	881,170	864,493	818,187
Non-family HHs	600	509	393	20,761	16,685	11,997	420,500	365,986	183,938
Married -Couple Families	1,840	1,693	1,520	33,346	31,512	29,188	676,467	684,660	677,194
Average HH Size	2.64	2.76	2.98	2.43	2.51	2.7	2.53	2.59	2.76
Average Family Size	3	3.16	3.37	2.98	3.06	3.2	3.08	3.16	3.26

Source: 1980-2000 U.S Bureau of Census



Housing Policies And Issues

A community's housing stock is important because it is a primary land use and greatly affects the *quality of life* for local residents. This section will review Haddam's housing stock for the goal of ensuring individual housing needs of the town are being met. Common housing needs that should be met include provisions for adequate housing supply in a safe and pleasing environment.

Housing polices that the town should encourage achieving its goals include:

- Develop affordable housing consistent with other land uses
- Preserve the historic character of housing units where applicable
- Maintain and protect the quality of the existing housing stock in town
- Consider a variety of housing design, and subdivision options
- Locate elderly and other special needs housing near community services they are most likely to use
- Ensure that housing densities do not exceed the carrying capacity of the land, and adequate infrastructure and public services are available to support new housing units as they are constructed
- Encourage the use of various federal and state housing programs as offered by HUD, DOH, and CHFA.

The housing stock of Haddam has grown over the last 2 ½ decades with an increase of 8.6% in the 1990s and 17.0% in the 1980s.

Housing Characteristics

Housing Stock

The housing stock of Haddam has grown over the last 2 ½ decades with an increase of 8.6% in the 1990s and 17.0% in the 1980s. Most homes in Haddam were owner-occupied (82.0%) in 2000 and 13.7% were rented. The number of vacant housing declined from 255 units in 1990 to 121 units in 2000 leaving only 4.3% of the total housing stock unoccupied in 2000. In 2004 there were 3011 housing units, an increase of 189 units since 2000. All of the new housing was single-family residences, and in 2004 95.4% of the housing stock was of this type of housing.

TABLE 7
HADDAM HOUSING STOCK

					% of Total	% change	
	1970	1980	1990	2000	-2000	1990-00	2004
Number of Housing Units	1,625	2,221	2,598	2,822	100.00%	8.60%	3,011
Number of Occupied Units	1,511	214	2,443	2,701	95.70%	10.60%	-
Vacant	114	80	155	121	4.30%	-21.90%	-
Owned	1,214	1,760	2,068	2,315	82.00%	11.90%	-
Rented	297	381	375	386	13.70%	2.90%	-

Source: 1970-2000 U.S Bureau of Census, DECD

From 1997 to 2004 Haddam authorized 325 new housing permits and 7 demolition permits for a net gain of 318 new houses.

New Housing Construction

All of new housing construction since 1997 (earliest data available) was single-unit constructions. From 1997 to 2004 Haddam authorized 325 new housing permits and 7 demolition permits for a net gain of 318 new houses available (see Table 8).

The Department of Economic and Community Development (DECD) ranks the net gain of new housing authorization and Haddam has ranked between 54th and 107th in the State for new housing from 1997 to 2004. Haddam has increased in rank each year since 2001. Compared against other rural towns (population density < 500 people per square mile) in Connecticut, Haddam has ranked from 21st to 51st among the 96 rural towns. The relative position in number of housing authorizations is increasing for Haddam on both state and rural community levels. The high cost of single-family dwellings being constructed in Haddam limits the ability of households to find affordable housing. This could be partially mitigated by rezoning parts of Haddam that can support septic on 1-acre lots.

TABLE 8
HADDAM NEW HOUSING AUTHORIZATIONS

	1997	1998	1999	2000	2001	2002	2003	2004
Total New	28	27	42	36	31	40	51	70
Demolitions	1	2	1	0	0	0	0	3
Net Gain	**27**	**25**	**41**	**36**	**31**	**40**	**51**	**67**
Rank Net Gain in CT	90	107	78	82	86	78	67	54
Rank Net Gain in Rural Towns	38	51	31	40	42	39	30	21

(96 Rural Towns: towns with pop density < 500 people per square mile)

Source: DECD

Housing Market

A national housing bubble has inflated housing prices throughout most of Connecticut and has had a large affect on the housing market in Haddam. Homebuyers who take advantage of historically low mortgage loans can afford to purchase homes at a higher price. A large increase in demand fueled inflation in housing prices across most communities. The changes in housing demand can best be represented in comparing median sales prices of residential dwellings over time. The housing stock in Haddam is over 95% single-family dwellings. The number of residential sales almost doubled in 2004 from 2000. Residential sales were 104 in 2000 and the median sales price was $156,500. Three years later, in 2003 there were 179 residential sales at a median price of $192,900 and one year after that 200 sales occurred and the median sales price was $255,750. Most other municipalities in the area had similar growth trends in both sales and median price.

Homeowners and real-estate speculators have seen large returns on residential investments. In one year the median residential sale price increased $62,850 (See Table 9) nominal in Haddam, which was the highest increase in the area. From 2000 to 2004 the median price increased $99,250 dollars.

Housing sales make up about 36% of the Current Price Index, a measure of changing prices of a "basket of goods". Over recent years the CPI reflects an inflation rate about 3%. The median residential sales price grew 33% in 2003. A real estate speculator who bought a home at the median price in 2000 and sold the home at the median price in 2004 would have earned $86,520 profit in real dollars.

TABLE 9
MEDIAN RESIDENTIAL SALE PRICE

	No. Sales	2000	No. Sales	2003	No. Sales	2006
Chester	57	$162,150	72	$274,500	70	$275,000
Durham	100	$172,500	127	$275,000	153	$265,000
East Haddam	176	$133,000	241	$189,900	260	$223,750
East Hampton	205	$115,000	453	$169,900	459	$200,000
Haddam	**104**	**$156,500**	**179**	**$192,900**	**200**	**$255,750**
Killingworth	135	$201,500	147	$308,500	115	$370,000
Middletown	674	$100,000	1064	$150,000	1075	$174,997

Source: Warren Group

Retail Plaza along Route 81 in Higganum Village

V. ECONOMIC DEVELOPMENT

A. INTRODUCTION

The purpose of this section is to describe the existing conditions and characteristics of Haddam's economy relative to the regional and State economies, discuss the changes in the Town's economic base since the preparation of the previous Plan of Conservation and Development, describe Haddam's future economic development potential and provide a discussion of economic development issues, recommended goals and suggested strategies to achieve identified goals.

B. ECONOMIES OF CONNECTICUT, REGION, & HADDAM

During the past ten years, the Connecticut economy has provided most residents with a high economic standard of living, enabled by one of the highest per capita income levels in the United States. Table 10 describes how Haddam and the Hartford Labor Market Area (LMA) function within Connecticut's economy.

TABLE 10
TRENDS IN POPULATION, LABOR FORCE, EMPLOYMENT AND UNEMPLOYMENT CONNECTICUT, HARTFORD LABOR MARKET AREA AND THE TOWN OF HADDAM
(By Place of Residence)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Connecticut										
Population	3,274,662	3,274,238	3,269,858	3,274,069	3,282,031	3,409,549	3,425,074	3,460,503	3,483,390	3,503,604
Labor Force	1,712,500	1,721,200	1,723,300	1,706,600	1,708,400	1,783,600	1,755,400	1,784,600	1,804,900	1,797,300
Employed	1,618,100	1,622,400	1,635,400	1,649,300	1,654,500	1,743,500	1,698,000	1,706,100	1,706,200	1,709,800
Unemployed	94,400	98,900	87,900	57,300	54,000	40,100	57,400	78,500	98,800	87,500
% Unemployed	5.5	5.7	5.1	3.4	3.2	2.2	3.3	4.4	5.5	4.9
Hartford LMA										
Population	1,029,857	1,024,794	1,022,393	1,026,421	1,030,164	1,061,056	1,068,501	1,078,325	1,087,433	1,094,036
Labor Force	592,808	593,150	588,117	579,465	581,830	609,241	599,878	558,323	563,690	561,991
Employed	557,295	556,767	556,593	559,475	562,795	594,904	579,963	532,953	531,077	533,043
Unemployed	35,513	36,383	31,524	19,990	19,035	14,337	19,915	25,370	32,613	28,948
% Unemployed	6.0	6.1	5.4	3.4	3.3	2.4	3.3	4.5	5.8	5.2
Haddam										
Population	7,226	7,196	7,153	7,210	7,244	7,165	7,313	7,360	7,459	7,535
Labor Force	4,019	4,144	4,116	4,078	4,118	4,326	4,112	4,498	4,543	4,538
Employed	3,833	3,928	3,962	3,983	4,029	4,258	4,018	4,358	4,364	4,380
Unemployed	186	216	154	95	89	68	94	140	179	158
% Unemployed	4.6	5.2	3.7	2.3	2.2	1.6	2.3	3.1	3.9	3.5

Sources: Population Information- Connecticut Dept. of Public Health (July 1st reporting period); compiled by HMA.
Labor Information- Connecticut Dept. of Labor.

Labor Force

On the statewide level, the modest rate of population growth, combined with the aging of Connecticut's population, resulted in a

TABLE 11 GENERAL COMMUTING DATA	
	# of Haddam workers
Workers Age 16+	4,166
Working in Hartford MSA	3,134 (75.2%)
Central city*	1,363 (32.7%)
Remainder of MSA	1,771 (42.5%)
Outside of Hartford MSA	1,032 (24.8%)
Different MSA	800 (19.2%)
Outside any MSA	232 (5.6%)

** Hartford or Middletown.*
Source: U.S. Census Bureau, 2000.

TABLE 12 DESTINATIONS FOR HADDAM RESIDENTS		
	#	**%**
Total Commuters Out	**4,166**	**100**
TOP TEN DESTINATIONS		
Middletown	1,127	27.1
Haddam	709	17
Hartford	236	5.7
Wallingford	110	2.6
Chester	101	2.4
Rocky Hill	96	2.3
Clinton	88	2.1
Cromwell	85	2
East Hartford	83	2
Meriden	74	1.8
TOTAL	**2,709**	**65**

Source: U.S. Census Bureau, 2000.

TABLE 13 TOP TEN TOWNS OF ORIGIN FOR COMMUTERS INTO HADDAM		
	#	**%**
Total Commuters In	**1,970**	**100**
TOP TEN TOWNS OF ORIGIN		
Haddam	709	36
Middletown	232	11.8
Killingworth	75	3.8
Clinton	66	3.4
East Hampton	58	2.9
Glastonbury	47	2.4
Deep River	45	2.3
Portland	43	2.2
Cromwell	33	1.7
Manchester	28	1.4
TOTAL	**1,336**	**67.8**

Source: U.S. Census Bureau, 2000

labor force which grew in size by 84,800 persons or 5.0% between 1995 and 2004. Surprisingly, the Hartford Labor Market Area had a significant decrease in the size of its labor force over the same period of time, declining by 30,817 persons or 5.2%. This decline could be a result of a rapidly increasing elderly population. In contrast, the resident labor force of Haddam increased by 12.9% (519 persons) between 1995 and 2004, likely as a result of people in their prime working years purchasing homes in town.

Journey to Work

According to the 2000 Census, Haddam's workforce is predominantly locally based, with 75% of identified workers over the age of 16 employed in the Hartford Metropolitan Statistical Area (See Table 11). A total of 1,363 Haddam workers were employed in Middletown and Hartford, while 1,032 workers have jobs outside of the local MSA. These workers are likely commuting to either the New Haven or New London areas.

A town by town breakdown of commuting patterns and journey-to-work data has recently been made available from the Census. Table 12 presents the top ten towns of destination for Haddam commuters; over 44% of these commuters either remain in Haddam or go to Middletown. Hartford is a distant third on the list, and the remainder of the destination towns are generally within the Route 9/I-91 corridor.

Table 13 shows the top ten towns of origin for commuters into Haddam. Thirty-six percent of these commuters originate from the Town of Haddam itself, an additional 11.8% commute in from Middletown, and the rest of the top ten come from a variety of central Connecticut towns. The Census journey-to –work data clearly indicates that Haddam's economy is very much rooted in the local population base with only a minor regional presence.

Employment

In 1992-1993, the Connecticut economy bottomed-out from a recession which began in 1989. Employment in Connecticut grew steadily from 1993 through mid 2000, when the State economy began to experience a new economic contraction. It should be noted that historic employment levels in Connecticut peaked in July of 1990 at 1,742,420 jobs and in spite of the economic expansion of the late 1990's, employment has never returned to this level.

Connecticut has only recently emerged from a recession. Between 2000 and 2001, employment levels in Connecticut declined by 45,500 jobs. However, the employment level has since rebounded to 1,709,800 jobs in 2004, representing an increase of 11,800 jobs, and continued to climb in 2005. Forecasts for future economic growth in Connecticut for the period 2002-2012 were prepared by

the State of Connecticut's Department of Labor in January 2005 as part of a document entitled "Connecticut's Industries and Occupations Forecast 2012"[1]. This ten year forecast predicts an 8.1% increase in the number of jobs in Connecticut over the time period, with above average growth occurring in fields such as information; arts, entertainment and recreation; professional, scientific and technical services; health care; education and accommodation and food services, and declining numbers of jobs in manufacturing and utilities.

Table 14 below provides a sector-by-sector description of employment trends in Connecticut between 1993 and 2001. During this period of economic expansion, the service sectors of the State's economy saw considerable growth (15%), while the manufacturing sector continued to experience significant losses.

TABLE 14
CONNECTICUT'S EMPLOYMENT TRENDS
ANNUAL AVERAGE EMPLOYMENT: JUNE 1993 - JUNE 2001
(000's JOBS)

										Changes
	1993	1994	1995	1996	1997	1998	1999	2000	2001	1993-2001
Total Non-Farm	**1,525.7**	**1,545.8**	**1,556.1**	**1,584.3**	**1,609.7**	**1,641.7**	**1,666.1**	**1,698.0**	**1,686.5**	**160.8**
Goods Producing	**340.8**	**335.3**	**330.9**	**328.1**	**333.7**	**336.9**	**329.5**	**329.6**	**322.1**	**-18.7**
Mining	0.9	0.7	0.7	0.7	0.7	0.7	0.8	0.9	0.9	0.0
Construction	46.7	49.3	50.6	52.8	56.4	58.2	60.2	64.9	65.7	19.0
Manufacturing	293.2	285.3	279.6	274.6	276.6	278.0	268.5	263.8	255.5	-37.7
Service Producing	**1,184.9**	**1,210.5**	**1,227.2**	**1,256.2**	**1,276.0**	**1,304.8**	**1,336.6**	**1,368.4**	**1,364.4**	**179.5**
T.C.P.U.*	69.1	70.1	71.7	73.9	75.0	76.3	77.4	79.8	79.5	10.4
Trade	329.8	336.5	338.8	346.8	351.7	355.6	357.5	365.4	358.7	28.9
Wholesale	75.1	76.3	77.7	80.3	82.4	83.3	81.1	81.8	78.3	3.2
Retail	254.7	260.2	261.1	266.5	269.3	272.3	276.4	283.6	280.4	25.7
Finance, Insurance & Real Estate	139.6	136.7	132.8	132.0	131.9	135.5	140.0	141.8	142.3	2.7
Service (includes Non-Profit)	437.0	449.1	464.4	480.6	493.1	511.2	526.5	537.9	540.5	103.5
Government	209.4	218.1	219.5	222.9	224.3	226.2	235.2	243.5	243.4	34.0

NOTE: The sum of industry groups may not add exactly to totals due to rounding.
* Transportation, Communications & Public Utilities (incl. Railroads)
Source: State of Connecticut Dept. of Labor

C. HADDAM'S ECONOMIC BASE

Economic activity within Haddam is influenced by the demands for goods and services generated by residents, businesses and government activities within and beyond town borders. Haddam's economy is influenced by the economic health of several surrounding economic regions, including all of Middlesex County and New Haven County and the Greater Hartford region.

[1] State of Connecticut, Department of Labor; http://www.ctdol.state.ct.us/lmi/misc/forecast2012.pdf

Economic activity in Haddam and these regions are in turn linked to and influenced by the conditions of the national and world economies.

The size and composition of a town's employment base over time are indicators of a community's economic health. Haddam's economy contains almost 150 businesses that provide a broad variety of goods and services. The following chart describes the composition of Haddam businesses by size of employment. While Haddam has a few larger businesses, over 87% of Haddam's businesses employ fewer than 10 people.

TABLE 15

HADDAM EMPLOYERS BY NUMBER OF EMPLOYEES AND BUSINESS CATEGORY

	# of Employees						
Category	**Total**	**1 to 4**	**5 to 9**	**10 to 19**	**20 to 49**	**50 to 99**	**100+**
Utilities	**2**	1	0	0	0	1	0
Construction	**34**	32	2	0	0	0	0
Manufacturing	**8**	5	1	1	0	0	1
Wholesale Trade	**5**	2	1	2	0	0	0
Retail Trade	**19**	13	2	2	2	0	0
Transportation and Warehousing	**4**	1	2	0	0	1	0
Information	**2**	1	1	0	0	0	0
Real Estate	**1**	1	0	0	0	0	0
Finance and Insurance	**5**	2	3	0	0	0	0
Professional, Scientific and Technical	**13**	9	4	0	0	0	0
Administrative and Support	**8**	5	1	2	0	0	0
Educational Services	**1**	1	0	0	0	0	0
Health Care Services	**14**	6	5	3	0	0	0
Arts, Entertainment and Recreation	**4**	2	2	0	0	0	0
Accommodation and Food Service	**11**	6	2	3	0	0	0
Other Services	**14**	10	3	1	0	0	0
Unclassified	**4**	4	0	0	0	0	0
TOTAL	**149**	**101**	**29**	**14**	**2**	**2**	**1**

Country Market in Higganum

Table 15 above illustrates the breakdown of businesses by type in Haddam. These statistics do not show businesses in Haddam Neck, as Haddam Neck's zip code is shared with the Town of East Hampton and it is thus not possible to split out Haddam Neck businesses from the Town of East Hampton. The most numerous components of Haddam's economy are small independent construction firms; small retail establishments; professional, health care and miscellaneous services; and food service establishments. Haddam's economy is clearly centered around small business, with only 19 of the 149 employers in town having 10 or more employees.

Table 16 describes employment in Haddam, by sector of the economy, between 1995 and 2001. In 2001, over 87% of the jobs in Haddam were within the "service producing" sector of the economy and the balance in the "goods producing" sector. This compares to employment in all of Middlesex County, where 76.7% of the jobs fell within the "service producing" sector of the

economy and the balance in the "goods producing" sector and the State's economy, where 81% of jobs were located within the "service producing" sector of the economy and the balance were in the "goods producing" sector.

TABLE 16
HADDAM'S EMPLOYMENT TRENDS
ANNUAL AVERAGE EMPLOYMENT: JUNE 1995 - JUNE 2001

	1995	1996	1997	1998	1999	2000	2001	Changes 1995-2001
Total Non-farm Employment	**1,750**	**1,710**	**1,320**	**1,410**	**1,410**	**1,420**	**1,400**	**-350**
Goods Producing Industries	**180**	**140**	**110**	**100**	**110**	**120**	**110**	**-70**
Construction	50	60	60	50	60	60	60	**10**
Manufacturing	130	80	50	50	50	60	50	**-80**
Food	0	0	0	0	0	0	0	**0**
Textiles & Apparel	0	0	0	0	0	0	0	**0**
Furniture, Wood & Paper	90	30	10	10	10	10	10	**-80**
Printing and Publishing	0	0	0	0	0	0	0	**0**
Chemical, Rubber & Misc. Plastics	0	0	0	0	0	0	0	**0**
Primary Metals	0	0	0	0	0	0	0	**0**
Fab. Metals and Aircraft	30	20	10	10	10	10	10	**-20**
Machinery	0	0	0	0	0	0	0	**0**
Electrical Equipment	10	10	10	10	10	10	10	**0**
Measuring & Control Devices	0	*	*	*	0	0	0	**0**
Other Man.	0	20	20	20	20	30	20	**20**
Service Producing	**1,580**	**1,570**	**1,210**	**1,310**	**1,300**	**1,300**	**1,290**	**-290**
T.C.P.U.**	480	*	*	*	*	*	*	*****
Trade	210	230	230	260	220	200	210	**0**
Wholesale	40	40	40	80	50	50	30	**-10**
Retail	170	190	190	160	160	150	180	**10**
Finance, Insurance & Real Estate	100	*	*	*	*	*	*	*****
Service (includes Non-profit)	400	380	320	340	310	280	270	**-130**
Government	390	380	320	330	330	440	420	**30**

*Disclosure provisions of Connecticut's Unemployment Insurance Law prohibit the release of figures which tend to reveal data reported by individual firms. Manufacturing data in this category are included in the "Other Manufacturing" group.
**Transportation, Communications & Public Utilities (incl. Railroads)
NOTE: The sum of industry groups may not add exactly to totals due to rounding.

Changing Characteristics of Haddam's Employment Base

Between 1995 and 2001, the economy of Haddam experienced minor fluctuations in employment levels. Between 1996 and 1997, employment levels in Haddam declined by 390 jobs (22.8%). Most of this significant decline in employment appears to have been concentrated in T.C.P.U. (transportation, communication and public utilities) sector and is likely associated with the decommissioning of the Connecticut Yankee nuclear power plant in Haddam Neck, which began in 1996. Between 1997 and 2001, Haddam's employment base rebounded somewhat, expanding by 80 jobs (6.1%).

Swing Bridge Shopping Center

Overall, the employment base of Haddam declined by 20.0% between 1995 and 2001. However, if the loss of jobs from the closing of the Connecticut Yankee power plant are removed from the equation, Haddam's employment level remained roughly constant during this time period. Haddam lost 290 jobs in the service sector between 1995 and 2001 and lost an additional 70 jobs in the goods producing sector, specifically in manufacturing. By comparison, employment in Connecticut during the same period grew by 8.4%, as described in Table 14 and employment in the 58-town Hartford Labor Market Area, which includes Haddam, grew by 5.6%.

The composition of Haddam's employment base also experienced fluctuations between 1995 and 2001. The percent of jobs in the goods producing sector in 1995 was 10.3%, but rapidly decreased to a low of 7.1% in 1998. This sector then expanded back to 8.5% in 2000, adding 20 jobs. In addition to the loss of transportation, communications and public utilities jobs, the mid to late 1990s saw a steady decrease in the number of service jobs in the town, dropping from 400 jobs in 1995 to 270 jobs in 2001.

Haddam's Existing Commercial and Industrial Land

Haddam has 837 acres or approximately 3% of its total land classified as commercial or industrial use

Haddam has 837 acres or approximately 3% of its total land classified as commercial or industrial use. This is a rather small percentage, however it is nearly a 2% increase since 1990. When compared to the land zoned for commercial and industrial use (390 acres), this amount is greater than twice the area zoned for those uses.

Property Tax Base

Retail Plaza in Higganum

While the property tax base of Haddam is overwhelmingly residential, the list of the top ten taxpayers in the Town shown in Table 17 indicates a mix of land uses as the highest tax payers.

By far the highest taxpayer is the Connecticut Yankee power plant with a net assessment of over $48 million, followed by Connecticut Light and Power with over $9 million in net assessment. Three residential developments and the larger commercial and industrial operations in the Town round out the list. It is interesting to note that several residential developments are now among the highest taxpayers in Haddam. This fact is reflective of both the escalating value of residential properties in Haddam and the limited amount of economic development in the Town.

TABLE 17 HADDAM'S TOP TEN TAXPAYERS 2004 GRAND LIST		
Business	**Use**	**Net Assessment**
1. Conn. Yankee Atomic Power Co.	Utility	$48,279,600
2. Conn. Light & Power Co.	Utility	$9,101,800
3. Camp Bethel Assoc., Inc.	Residential	$1,266,740
4. Pulte Homes of New England, LLC	Residential	$1,221,830
5. Stonegate Village, LLC	Residential	$1,072,250
6. Bridge Street Associates	Commercial/Industrial	$1,040,890
7. Bridge Street Plaza, LLC	Industrial	$1,020,340
8. The Davidson Co.	Commercial/Marine	$965,910
9. Village Plaza, LLC	Commercial/Retail	$961,580
10. Nason Group, LLC	Commercial/Lumber	$866,440

Source: Town of Haddam Assessor's Office; GIS Land Use data.

D. FUTURE ECONOMIC DEVELOPMENT POTENTIAL

Haddam has a small but relatively balanced economy with a mix of retail, service and industrial establishments, not atypical of a small community. Perhaps the most limiting factor for economic growth in Haddam is the lack of land zoned for commercial and industrial use. Commercial zoning is limited to Higganum Center, Tylerville, a portion of Route 154 near Middletown and part of Route 81 approaching Killingworth. Industrial zones are found in Tylerville mixed in with commercial properties. Neither commercial nor industrial zones comprise a significant portion of the Town's land use, which is overwhelmingly residential and open space. Another issue impeding economic development is the topography of Haddam. With its steep and rolling hills, it is difficult to find flat land areas in the Town of a sufficient size to support commercial or industrial development. Finally, the absence of a public water supply and sanitary sewers makes certain types of commercial and industrial development more difficult.

Neither commercial nor industrial zones comprise a significant portion of the Town's land use, which is overwhelmingly residential and open space.

Despite these limitations, there are still economic development opportunities on which the Town can capitalize.

Market Potentials and Projected Occupational Growth

As presented previously, forecasts for future economic growth in Connecticut for the period 2002-2012 were prepared by the State of Connecticut's Department of Labor in January 2005 as part of a document entitled "Connecticut's Industries and Occupations Forecast 2012". These state-level forecasts are further broken down by region, with Haddam being grouped in the South Central Region of the state, and by occupation. The South Central Region includes the greater New Haven area and all of Middlesex County.

Forecasts for employment in the South Central Region over the next ten years project an increase of 8.8% in the number of total jobs. The occupations with the highest predicted rates of growth are Community and Social Services (21.6%), Healthcare Support (18.4%), Computer and Mathematical (17.8) and Healthcare Practitioners and Technical (16.5%). The occupations with the lowest rates of growth are Production (-6.8%), Office and Administrative Support (-0.2%), Farming, Fishing and Forestry (4.7%), Legal (4.9%) and Architecture and Engineering (4.9%).

Economic development activity generated by the demands for goods and services from the local population are the most likely to grow during the next ten years.

Economic Development that is Local Population Dependant

One of the several factors affecting market support for future economic development activity in Haddam is the growth in the Town's population and that of surrounding communities. Haddam's population is projected to experience continued growth during the next 10 years. Economic development activity generated by the demands for goods and services from the local population are the most likely to grow during the next ten years. Portions of this demand will manifest itself in the form of population serving businesses located in office and retail space.

The demand for retail space serving the local population should expand over the next decade as the Town's population continues to grow.

Retail and Office Space

The demand for retail space serving the local population should expand over the next decade as the Town's population continues to grow. Most of this demand will likely be accommodated in the expansion of existing retail stores and shopping centers, although a limited amount of the demand may be met in the form of new development on vacant land. Office space associated with the health care industry and professional and technical services will also likely experience increased demand. These types of uses can be satisfied in multiple tenant buildings hosting a variety of office space users or in multiple tenant office buildings with a single focus, such as a medical office building.

Retail Plaza near Route 81 & Route 154 Junction

Manufacturing Space

Manufacturing employment comprises about 15% of the total jobs in Connecticut and has been on the decline for many years; a decline which is projected by the CT DOL to continue through their 2008 forecast period. The manufacturing sector of Haddam's economy is almost non-existent and only accounts for roughly 3.6% of the total jobs in Town; this sector will likely remain a small but stable element of Haddam's economy. In addition to directly contributing to Haddam's employment base, the manufacturing sector also generates the need for goods and services essential to the manufacturing process, representing the potential for further contributions to the Town's overall economic base.

Service Business Space

Although the service sector in Haddam lost 130 jobs between 1995 and 2001, which represents a 32.5% decrease, this sector is likely a

source of future growth in Haddam's economy. A portion of this sector provides services to Haddam's local population, while the remainder serves the region's population in general. Given Haddam's projected continued growth and the growth of the Route 9 corridor as a whole, the need for additional service establishments to meet the expanding needs of both the Town and the region is logical. Typically, this type of use does not require highway visibility, but does require ready access to the area's highway system. This type of business provides services to other businesses and provides mostly non-retail services to the general population.

Changes Affecting Future Economic Development Capacity

The Town is already taking steps to increase the viability of economic development in Haddam. The Town is undertaking an extensive streetscape improvement project in Higganum, which is approximately 80% complete. These improvements include such features as new street lighting and parallel parking that will enhance the appearance and convenience of Higganum Center.

Higganum Streetscape Improvements in Higganum

The Town is also in the process of evaluating the potential installation of sewers in Higganum Center. It is uncertain whether the Town would tie into the City of Middletown's sewer system or construct its own treatment facility. Installing sewers in Higganum Center would enable existing businesses to expand and intensify their uses, while also enabling a wider variety of new commercial uses to locate in this part of Haddam. The potential for increased intensity of development would add jobs and tax revenue to the Town and would provide for a greater mix of uses to serve Town residents.

Haddam has locational advantages in the region due to its access to Route 9, but requires commercial inventory to take advantage of this attribute.

Haddam has locational advantages in the region due to its access to Route 9, but requires commercial inventory to take advantage of this attribute.

E. GOALS & OBJECTIVES

The Town of Haddam has a long history as an attractive place to live and work. It has been aided by its location along the Connecticut River and its access to the regional transportation network. Developing and retaining a diverse array of commercial and industrial enterprises in particular locations to meet the needs of Haddam's residents and support the tax base of the Town is a vital component of Haddam's continued success.

The "Community Needs Assessment Survey" prepared by DataCore Partners, LLC and completed in June 2005 contained several questions regarding economic development for survey respondents to answer. The results indicated that 73.2% of respondents either agreed or strongly agreed that the Town should encourage more business development in Tylerville, and 78.7% of respondents either agreed or strongly agreed that the Town should

encourage more business development in Higganum Center. Many of the verbatim responses for participants in the survey indicated a strong desire for more commercial businesses that cater to basic needs of the community, such as grocery stores and restaurants. This information is a useful tool for developing an economic development strategy for the Town.

1993 Plan of Conservation Development Goals and Policies

A brief review of the goals and objectives concerning economic development in Haddam as established in the 1993 Plan of Conservation and Development is a sensible prelude to a discussion of current goals and objectives. The 1993 Plan stated as general economic development goals:

- Promote and provide opportunities for social and economic diversity, while preserving existing historic patterns
- Encourage business and industrial development that will provide for the economic stability of the town

The policies that were established to achieve these goals stated that the Town should encourage:

- Development that is in balance with other land uses
- Land uses which are compatible with Haddam's rural/suburban character and historic qualities
- Activities appropriate in size and character to address the needs of the neighborhood, town and regional markets
- Activities potentially serving national and/or international markets, which by their nature, are compatible with the rural/suburban character of the town
- Industrial land use which is developed in "industrial park" settings
- Activities associated with commercial and industrial land uses which will not cause hazards of nuisances to the residents of Haddam
- Facilities which are conveniently accessible with adequate parking
- Retention and support of existing economic enterprises
- Promotion of commercial and industrial development in appropriate areas to broaden the town's tax base
- Public services at levels which support economic growth
- Examination of existing uses and available land to promote and expand economic development opportunities, while recognizing historic patterns of land use and environmental constraints

Current Elements & Issues

Element 1 - Higganum Center

Issues:

- Higganum Center is one of the two primary economic centers of Haddam. The continued viability of businesses in this area requires a particular level of public services.
- Upgrading public services in this area is necessary in order to promote and enable additional economic development in Higganum Center.
- Higganum Center is a local services oriented pedestrian scale village.

Higganum Center is a local services oriented pedestrian scale village.

Goal: **Spur additional economic development opportunities rough infrastructure enhancements and other methods.**

Strategies:

- Construct and install a municipal sewer system in the Higganum Center area to enable greater density and wider variety of commercial uses.
- Reassess the Higganum Center Village District regulations to ensure that the economic development needs of the community are expressed in the permitted uses and the regulations account for public sewer system.

Reassess the Higganum Center Village District regulations to ensure that the economic development needs of the community are expressed in the permitted uses and the regulations account for public sewer system.

Element 2 - Tylerville Center

Issues:

- In addition to Higganum Center, Tylerville is the other economic center for the Town of Haddam.
- Tylerville is located adjacent to the Connecticut River and has bridge access to the Goodspeed section of East Haddam.
- Tylerville is a high traffic count automobile dominated area that draws regional traffic.

Tylerville is a high traffic count automobile dominated area that draws regional traffic.

Goal: **Capitalize on Tylerville's existing commercial nature and close proximity to cultural attractions in East Haddam to create additional economic development in the village center.**

Strategies:

Create a new "village district" zoning designation for the center of Tylerville, similar to that of Higganum Center.

- Create a new "village district" zoning designation for the center of Tylerville, similar to that of Higganum Center.
- Fashion zoning regulations that allow a mix of uses at a greater density to create more economic activity.
- Encourage the development of commercial uses that complement and capitalize on the presence of the Goodspeed Opera House and other attractions nearby.
- Focus on developing a partnership with the State Department of Transportation for the Higganum DOT site and the large Tylerville site.

Work with East Haddam on creating economic development initiatives that are "win-win" for the Tylerville/Goodspeed area.

- Work with East Haddam on creating economic development initiatives that are "win-win" for the Tylerville/Goodspeed area.

Element 3 - Industrial Park Siting

Issues:

- Lack of sewers limits Haddam's ability to create new areas for industrial sites, a significant hurdle for growing Haddam's economy and tax base.
- Light industrial sites likely require a sewage treatment plant that needs to discharge to the Connecticut River.

Goal: **Economic Development Commission should form a task force to locate an industrial park site that can obtain suitable infrastructure.**

Strategies:

- Utilize the Town's geographic information system (GIS) to examine the current inventory of existing parcels zoned for light industrial uses relative to development constraints, such as the presence of wetlands and steep slopes, poor access, etc.

Element 4 - Market Analysis

Issues:

- Because of the limited size of its market area and general lack of developable areas, Haddam must construct a focused economic development approach to maximize its development potential.
- Identifying unique business opportunities for Haddam, such as niche industries and services, as well as businesses that serve the specific needs of the local population will be important in guiding the Town's economic development strategy.

Because of the limited size of its market area and general lack of developable areas, Haddam must construct a focused economic development approach to maximize its development potential.

<u>Goal:</u> Develop an economic development program that will expand Haddam's economic base while meeting the needs of the citizenry in a contextually sensitive manner.

<u>Strategies:</u>

- Utilize the "Community Needs Assessment Survey" for the Town, completed in June 2005, to develop an outline of the commercial and industrial uses needed or desired in Haddam.
- Undertake a complete economic market analysis of the Town, with a particular focus on Higganum Center and Tylerville, to inventory individual businesses by specific industry type and location and to identify gaps between expressed community wants and needs and the actual mix of businesses present.
- Develop a comprehensive marketing and business recruitment strategy to attract and retain business types that serve the needs and desires of the local population.
- Encourage the development and recruitment of businesses that mesh with Haddam's rural and historic character and that promote the unique character of the Town.
- Focus on ecotourism related efforts, especially reestablishing Haddam's historical connection to the Connecticut River.
- Work with state and federal agencies to develop a strategy for productive reuse of Connecticut Yankee site.

Undertake a complete economic market analysis of the Town, with a particular focus on Higganum Center and Tylerville, to inventory individual businesses by specific industry type and location and to identify gaps between expressed community wants and needs and the actual mix of businesses present.

Encourage the development and recruitment of businesses that mesh with Haddam's rural and historic character and that promote the unique character of the Town.

Goodspeed Train Station
(Haddam Historical Society)

VI. TRANSPORTATION & CIRCULATION

A. INTRODUCTION

Haddam residents are principally dependent on the automobile for their transportation needs. Most of the residents who are destined for work, shopping, and recreation can travel an extensive network of state roadways that radiate through most sections of town. The most highly traveled of these is state Route 9 which bisects Haddam in a north/south direction linking interstate Route 91 to interstate Route 95. Other high volume roads include state Route 81 linking Haddam to Killingworth, state Route 154 linking Haddam to Middletown and Chester, and state Route 82 linking Haddam to East Haddam and Route 9.

ROADWAY SYSTEM

The regional highway network provides a hierarchy of service functions to address different levels of needed mobility. The resulting network therefore tends to correspond directly to the travel needs of the population. For example, interstate and state highways provide for fast, high volume transportation from city to city increasing our overall mobility, whereas local roads allow direct access to desired places or establishments, such as a residence or store.

Functional classification is the process by which the roadway network is divided into different classes depending on the type of service they are intended to provide. No single road serves travel independently. The majority of roadway travel is through a system or network of roads. To determine how roadway travel can most efficiently move through the network, the functional classification helps to define how a specific road serves the volume in the overall network. Functional classification is subdivided into urban and rural arterials and collectors, and principal arterials or expressways such as Route 9.

Principal urban arterials are the highways that serve major activity centers, have the highest volumes, and longest trip desires. They should carry the major trips entering and exiting the urban area, and most of the through movements. Intra-area travel between a central business district and outlying residential areas should also be served by the principal urban arterial. An example of an urban principal arterial in the Midstate Region would be Route 66 in Middletown.

An urban minor arterial is indented to interconnect and augment the principal arterials. It should serve trips of moderate lengths, with a greater emphasis on land access, and a lower level of traffic mobility than the principal arterials. An urban minor arterial may carry a local bus route and provide intra community service, but should not enter identifiable neighborhoods.

Urban collector streets provide land access and traffic circulation in residential neighborhoods, commercial and industrial areas. Collector streets may provide access to residential neighborhoods, unlike arterials. The urban collector streets collect traffic from local streets and directs it to the arterials. In a central business district the collector streets may include the streets that provide the basis of traffic circulation.

The local street system consists of all the roads not on the higher systems. Local streets provide direct access to abutting properties and the higher classified roadways. They offer the lowest level of mobility; do not contain bus routes and where through traffic is discouraged. The functional classification in rural areas, such as Haddam, follows the same hierarchy as the urban areas. Principal arterials provide interstate and inter-regional service creating an integrated statewide roadway network. Both urban and rural principal arterials are subdivided into three additional categories. These include principal arterial-interstate, principal arterial-expressway, and principal arterial-other. Rural minor arterials link cities, towns, major traffic generators, and inter-regional trips.

Rural collectors serve intra-regional travel, with travel distances that are usually shorter than the arterial routes. The major rural collectors link larger outlying communities and serve traffic generators of intra-regional importance. The minor rural collectors link traffic generators such as neighborhood stores with outlying rural areas and collect traffic from local roads.

Local roads in rural areas serve to provide access to adjacent land and accommodate short trips. The local road system comprises all of the roads not classified as arterials or collectors.

Arterial Roads

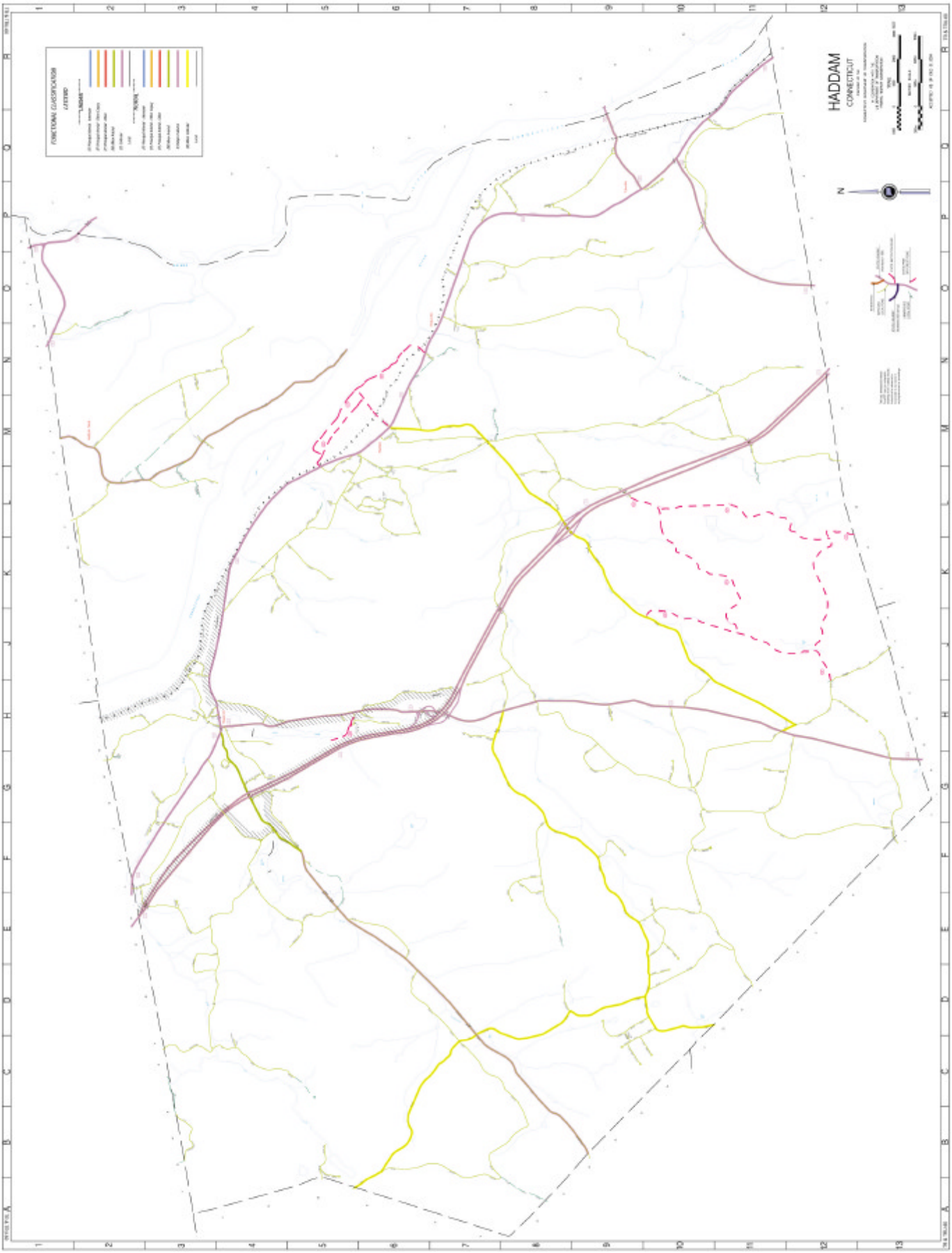
The segment of Route 9 in Haddam is classified as a principal arterial-other expressway, and Routes 81 south of Route 9 and 82 were classified as a minor arterial in 2000. These arterial roads 1) serve the majority of vehicles entering and leaving the town, 2) serve the longest trips, and 3) serve travel between urban and suburban centers. The arterial roads can provide access to abutting land but such access should be controlled because the primary responsibility of the road is to service major traffic movements.

Collector Roads

Collector roads distribute trips from the arterials to the ultimate destination, which may be either collectors or local roads. The collector roads also collect traffic from local roads and channels the traffic to the arterials. Collectors provide direct access to abutting land, as well as access to local streets. Major collectors include state Routes 151 and 196 in the northeast, Route 154, and Route 81 north of Route 9. Other major collectors include Candlewood Hill Road, Injun Hollow Road and Rock Landing Road. Minor collector roads include Beaver Meadow Road, Little City Road, and Foot Hills Road.

Local Roads

Local streets provide direct access to abutting land areas (neighborhoods) and access to collector roads. Vehicular traffic through movements on local streets should be deliberately discouraged. All roads not classified on the map are designated as local roads.


FUNCTIONAL CLASSIFICATION
LEGEND
HADDAM
CONNECTICUT
N

Public Transit

The Middletown Transit District (MTD) provides public transportation services in the Midstate Region. Rural route service has not been incorporated in Haddam.

Elderly and Disabled Transportation Services

The Americans with Disabilities Act (ADA) requires that elderly and disabled transportation services be provided to compliment fixed bus routes. The Middlesex County Chapter of the American Red Cross is contracted by MTD to provide this service as part of its regional program. The service is provided using a demand responsive "dial-a-ride" system to elderly and disabled residents on a first come first serve basis. Since there is no fixed route service, there is also no complimentary elderly and disabled service in Haddam

The Haddam Senior Center owns a small bus obtained through the FTA 5310 program to transport local residents who are over sixty years of age. The bus operated from approximately 9:00 a.m. to 4:30 p.m. Monday through Friday. Trips for special events are also accommodated. The senior center also operates a car to provide medical trips at any time. Both vehicles are operated by volunteers who make it possible to occasionally provide trips beyond regular operating hours.

Travel Patterns to Work

Census 2000 shows 4,166 workers over the age of sixteen living in Haddam. Census statistics show that 3,602 (86.5%) drove alone to work, and 312 (7.5%) carpooled to work. Public transportation was used by 44 (1.1%) workers, 31 (0.7%) walked and 14 (0.3%) used another means to travel to work. One hundred sixty-three (3.9%) Haddam residents worked at home.

The mean travel time to work was 27.1 minutes. There were 2,706 households in Haddam. There were 100 (3.7%) households with no vehicles available. There were 476 (17.6%) one-vehicle households, 1,261 (46.6%) two-vehicle households, 639 (23.6%) three-vehicle households, 187 (6.9%) four-vehicle households, and 43 households with five or more available vehicles. The mean number of vehicles per household was 2.18.

TABLE 18 MIDSTATE REGION JOURNEY TO WORK COMMUTING PATTERNS 2000											
	Place of Residence										
Place of Work	Cromwell	Durham	E. Haddam	E. Hampton	**Haddam**	Middlefield	Middletown	Portland	Region	Non-region	Total
Cromwell	1199	20	65	77	**85**	34	1115	130	2725	2812	5537
Durham	60	609	35	34	**10**	135	218	78	1179	981	2160
E. Haddam	17	13	856	85	**42**	13	108	28	1162	614	1776
E. Hampton	13	7	36	1150	**69**	20	110	50	1455	759	2205
Haddam	**33**	**18**	**133**	**58**	**709**	**4**	**232**	**43**	**1230**	**740**	**1970**
Middlefield	38	53	6	38	**41**	220	313	33	742	624	1366
Middletown	1059	626	612	1578	**1127**	515	7846	996	14359	16112	30471
Portland	85	25	57	216	**54**	29	496	1080	2042	1306	3348
Region	2504	1371	1800	3236	**2137**	970	10438	2438	24894	23939	48833
Non-region	4381	2197	2726	3664	**2029**	1185	11680	2135	29997		
Total	6885	3568	4526	6900	**4166**	2155	22118	4573	54891		

Source: 2000 Census Transportation Planning Package

Ridesharing

Ridesharing techniques such as carpooling and vanpooling became popular during the fuel crises of the mid and late 1970's and continued through the 1980's primarily because they saved commuters money. Ridesharing has since decreased through the 1990's but should be considered a viable transportation alternative to the single occupancy personal automobile since it also reduces congestion, improves air quality, and is still more cost effective than driving alone.

Three commuter service agencies operate in Connecticut. The Rideshare Company is the designated commuter service agency in Haddam. One service of the Rideshare Company is monthly publication called The Commuters' Register whose goal is to promote ridesharing and public transit use in Connecticut. It is funded through the Connecticut Department of Transportation, Federal Highway Administration, and corporate contributions.

The Commuters' Register provides free listing of rideshare opportunities in the state, and adjacent areas in New York, Massachusetts, Rhode Island and New Jersey. The rideshare program organizes the state and adjacent areas into seventy-five commuter zones. East Hampton, Portland, Colchester, Hebron, Marlborough, and Salem are in zone 14. Commuters can then match two specific locations: 1) Place of Origin (where you commute from), and 2) Place of Destination (where you commute to). Once the origin and destination sites are found in the register, then you can find and contact other commuters interested in coordinating their trips.

The publication also lists bus, train, and shuttle services available from zone to zone, corporate site-specific ridesharing opportunities, and all park and ride lot locations in the state. One

of these park and ride locations is at the junction of Route 9 (exit 8) and Beaver Meadow Road in Haddam. It is a paved, lighted lot, with phone service and has a capacity of twenty-five vehicles. MRPA performs quarterly commuter lot surveys to follow trends in lot usage. The Haddam lot was utilized at an average rate of 8.0% during fiscal year 2004. The combined average usage of the seven commuter lots in the Midstate Region was 45.7%. The Haddam commuter lot is consistently the most under utilized lot in the region.

Haddam should place an emphasis on ridesharing through the promotion of employer ridesharing incentives for their employees through flexible work hours, transit subsidies, or organizing a formal rideshare program. Promoting ridesharing could help to alleviate the congestion in Haddam.

Roadway Capacity

Capacity analysis is intended to estimate the maximum amount of traffic that can be accommodated by a given roadway while maintaining a prescribed level of service. Traffic facilities generally operate poorly at or near capacity, and facilities are rarely designed or planned to operate in this range. It provides tools for the analysis and improvement of existing roadway facilities, and for the planning and design of future facilities.

In general, the capacity of a facility is defined as the maximum hourly rate at which vehicles can reasonably be expected to traverse a point or uniform section of a lane or roadway during a given time under prevailing roadway, traffic, and control conditions (i.e., traffic signals, stop and yield signs etc.). The time period used in most capacity analysis is fifteen minutes, which is considered the shortest interval during which stable flow exists.

The level of capacity was determined by the road's volume-to-capacity ratio (V/C). A V/C ratio of between 0.90 to 0.99 suggests a roadway is approaching capacity, whereas ratios of 1.00 or greater are roadways that are over capacity. When operating conditions are near or at capacity, then speeds are severely reduced and freedom to maneuver a vehicle in traffic is difficult. Comfort and convenience levels are generally low, while driver frustration is high. The next step is the breakdown of traffic flow, where queues form and flow is characterized by stop and go waves.

Route 82, from Route 154 east to the East Haddam town line, is the only state road in Haddam identified as being projected to be over capacity in 2025 according to ConnDOT's 2002 Congestion Screening and Monitoring report. No other roads in Haddam are currently or projected to be either approaching or over capacity by 2025.

Capacity analysis represents a good indication of identifying roads projected to be congested if current roadway conditions continue without the necessary improvements. Congestion management

strategies can then be formulated to alleviate existing and potential congestion, and enhance the mobility of people and goods.

Accidents

ConnDOT's Office of Inventory and Forecasting compiles accident reports for all the state roads in Connecticut to produce the Traffic Accident Surveillance Report (TASR), and Suggested List of Surveillance Study Sites (SLOSSS). The SLOSSS list shows TASR sites where the actual accident rate exceeds the critical accident rate, and accident totals equal more than fifteen during the three year study period.

ConnDOT recently decided that this information is no longer subject to disclosure under the Freedom of Information Act and therefore is no longer included in this chapter.

Traffic Volume on State Roads

TABLE 19

2004 STATE ROAD TRAFFIC VOLUMES

Route	Segment	2004 Average Daily Traffic
9	Chester/Haddam town line to NB exit to Beaver Meadow Rd.	27,600
9	NB exit to Beaver Meadow Rd. to NB access from Beaver Meadow Rd.	27,000
9	NB access from Beaver Meadow Rd. to NB exit to Route 81	27,500
9	NB exit to Route 81 to NB access from Route 81	28,200
9	NB access from Route 81 to Haddam/Middletown town line	32,600
81	Haddam/Killingworth town line to Beaver Meadow Rd.	6,900
81	Beaver Meadow Rd. to Little City Rd.	8,700
81	Little City Rd. to access to SB Route 9	10,400
81	Access to SB Route 9 to access to NB Route 9	7,100
81	Access to NB Route 9 to Dish Mill #1 Rd.	3,600
81	Dish Mill Rd. #1 to Route 154	4,800
82	Chester/Haddam town line to beginning of overlap with Route 154	7,600
82	Ending of overlap with Route 154 to Cheeseboard Shopping Center	10,000
82	Cheeseboard Shopping Center to Haddam/East Haddam town line	11,700
151	East Haddam/Haddam town line to Route 196	3,700
151	Route 196 to Haddam/East Hampton town line	2,500
154	Chester/Haddam town line to S junction to Route 82 EB	4,000
154	N junction to Route 82 EB to N junction Route 82	4,800
154	S junction Route 82 to S junction Jail Hill Rd.	4,600
154	S junction Walkley Hill Rd. to NB Route 81	6,700
154	NB Route 81 to Haddam/Middletown town line	7,500
196	Route 151 to Haddam/East Hampton town line	1,900

Source: ConnDOT 2003 Traffic Volumes - State Maintained Highway Network

Traffic Volume on Local Roads

TABLE 20 LOCAL ROAD TRAFFIC VOLUME			
Road	**Segment**	**Average Daily Traffic (ADT)**	**Year**
Cedar Lake Rd.	.N of Dickinson Rd.	300	2004
Cedar Lake Rd.	at Chester town line	150	2004
Beaver Meadow Rd.	NE of Ranger Rd.	1,400	2004
Beaver Meadow Rd.	SE of Route 9 SB ramp	850	2004
Beaver Meadow Rd.	NE of Route 9 SB ramp	1,300	2004
Jail Hill Rd.	N of Quarry Hill Rd. #2	750	2004
Pokorny Rd.	W of Route 81	700	2004
Foot Hills Rd.	N of Wise Albert Rd.	550	2004
Little City Rd.	E of Gunger Hill Rd.	1,500	2004
Little City Rd.	N of Sima Rd.	700	2004
Walkley Hill Rd.	SE of Route 154	1000	2004
Sima Rd.	E of Indian Hill Rd.	300	1998
Candlewood Hill Rd.	SW of Brainard Hill Rd.	1,700	1998
Candlewood Hill Rd.	W of Route 154	1,500	1998
Candlewood Hill Rd.	N of Little City Rd.	1,200	1998
Candlewood Hill Rd.	at Durham town line	950	1998
Injun Hollow Rd.	S of Rock Landing Rd.	1,300	1998
Rock Landing Rd.	N of Injun Hollow Rd.	1,500	1998
Rock Landing Rd.	N of Quarry Hill Rd.	1,800	1998

Source: ConnDOT Traffic Study Data

The Country Market Retail on Route 154, Higganum

Rail Transportation

There is no active rail freight or passenger service in Haddam. The Connecticut DEP owns the line from the Middletown town line to the vicinity of Route 82. From there south, the line is operated by the Valley Railroad (VRR) which runs a tourist service. The VRR has rehabilitated three bridges in Chester and replaces two culverts to bring service to Route 82 in Haddam for its extended dinner train ride. The potential exists to bring the trains north to Haddam Meadows State Park, and possibly to Harbor Park in Middletown.

Water Transportation

Most water traffic on the Connecticut River, which forms part of Haddam's boundary, is for recreational purposes. Barge traffic, consisting primarily of petroleum distillates and black oil pass by on their way to the powerplant in Middletown, Briggs Corporation in Portland, and Cargil, Inc. in Wethersfield.

Air Transportation

There are no airports or landing strips in Haddam.

Bicycle Transportation

The Connecticut Bicycle Map, produced by ConnDOT in 2002, depicts state highways recommended for bicycle routes within the state. Bicycle use on Connecticut roads is for the most part "at your own risk." Connecticut roads were not designed for bicycle use and may be unsafe for use in many areas due to narrow, gravel, or nonexistent shoulders, drainage grates, curbs, poor markings, heavy vehicular volumes, and other potential threats to cyclists.

Route 81 is shown as a recommended bicycle route, as is Route 154 north of Route 82. Route 154 south of Route 82, as well as Route 82 from Route 154 to the East Haddam town line are shown as a cross state bicycle route. Foot Hills Road from the Durham town line, south to Little City Road to the Killingworth town line is also depicted as a recommended bicycle route.

The Connecticut Bicycle Book published in 1993 by the Coalition of Connecticut Bicyclists shows a Connecticut River Valley bike route. This route is a 40 to 45 mile loop in East Hampton, Haddam, Marlborough and Colchester. The ride begins in East Hampton then traverses Marlborough, Colchester, and East Haddam. It then enters Haddam on Route 151 and follows Haddam Neck Road to Quarry Hill Road to Ager Spring Road to loop back to Haddam Neck Road and returns to East Hampton on Route 151.

The Mountain Bikers Guide to Southern New England lists a ten mile trail loop in the Cockaponset State Forest in Haddam and Chester. The trail includes single and double track trails, dirt roads and old asphalt trails through out the state forest lands starting in Chester from Pattaconk Lake and looping north into Haddam along Old County Road, Mottland Road, Jericho Road, Filley Road, and other unnamed trails in the forest.

Bicycle projects are eligible for funding under many federal aid transportation programs such as the Enhancement Program, Hazard Elimination Program, Rail/Highway Crossing Program, Recreational Trails Program, National Scenic Byways Program and many others. Most design factors are planned with the automobile in mind rather than cyclists or pedestrians. To create "bicycle friendly" roadways bicyclist should be given greater consideration when designing transportation facility improvements. If a roadway improvement is scheduled, then an attempt should be made to incorporate better traffic control orientation and elimination of design continuities. Other possible considerations include utility and sign placement, drainage grates, joints, grading, and other factors that tend to be overlooked in relation to bicycle or pedestrian travel.

Transportation Improvement Program (TIP) FY 2005-2009

The Transportation Improvement Program is a list of federally funded transportation projects to maintain and enhance the roadway network in the Midstate Planning Region. It also contains commuter programs and transit capital projects. Projects listed in the TIP are scheduled to receive funding over the next five fiscal years. Projects for future TIP's can be found in the midrange and long range element of the Regional Transportation Plan. There are no specific roadway projects in Haddam in the 2005-2009 TIP although certain statewide projects may include elements in Haddam.

2004 Regional Transportation Plan Mid-Range Projects

The following is a list of the mid range element projects in East Hampton in no particular order.

- Route 154 – Intersection improvements at Thayer Road
- Route 81 – Drainage improvements at Beaver Meadow Road
- Route 81 – Drainage improvements at Brault Hill Road
- Beaver Meadow Road – Drainage improvements
- Haddam Neck Road – structural improvements
- Old County Road – Intersection improvements at Hidden Lake

2004 Regional Transportation Road Maintenance Plan

The Town of Haddam Five Year Road Plan will provide a flexible schedule of future road construction and maintenance. The road plan uses four determining factors to aid in the road improvements. The determinations are arrived at utilizing documentation of the four factors listed below.

- The volume of traffic generated by population density will be based upon the Tax Assessor's records of increased housing
- The volume of traffic generated by collector roads based upon traffic volumes supplied by the state or local agencies.
- Traffic generated by the connection of a state road by town roads
- Maintenance costs of asphalt.

Regional Transportation Plan Additional Projects and Programs

The Regional Transportation Plan has a variety of additional transportation planning related information in it with regards to Haddam and regional projects and programs. The plan has demographic, socio-economic, and other population and land use information. It also describes the present transportation system, plans for the future and ways to manage the system including transportation control measures, pavement, congestion, intelligent transportation, and incident management systems, safety planning, environmental justice, corridor studies, and other means used to manage the regional transportation system.

C. GOALS & OBJECTIVES

<u>Goal:</u> The primary goal for the transportation network in Haddam's future is to provide for the safe and efficient movement of persons, goods, and services in a manner that is economically and energy efficient, while preserving the natural resources and historical character of the town. This goal is achievable through the incorporation of a diverse combination of transportation policies that the town should encourage. Obtaining this goal will preserve the high quality of life Haddam residents have come to enjoy.

Transportation policies that the town should encourage to achieve its goals include:

Strategies:

- Promote energy efficient transportation alternatives to the single occupancy vehicle, such as ridesharing, mass transportation, bicycling, walking, and integrate them into the transportation system.

- Design a transportation network that accommodates these transportation alternatives.
- Maintain the existing transportation network, while preserving the historic, aesthetic, and environmental resources located along Haddam's roadways.
- Design a transportation network that emphasizes safety, and the natural and cultural resources of the town.
- Use and promote flexible transportation and land use design standards to reduce aesthetic and environmental impacts to the community
- Prevent traffic congestion within the community.
- Design a transportation network that will provide an adequate level of service to the community throughout its design life.
- Cooperate with federal, state, and regional agencies, interest groups, and the public, in the transportation planning process.

VII. COMMUNITY FACILITIES

A. INTRODUCTION

An important component of Haddam'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 Town. 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 & youth 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 dams, and solid waste disposal. Parks and recreation facilities as well as the transportation infrastructure are not discussed in this section; rather these topics are addressed individually in other sections.

Community facilities are defined as public buildings, which includes schools, police and fire stations, libraries, public housing, senior citizen & youth centers and general government facilities that serve the general or specific needs of the public and are the responsibility of the Town to maintain.

B. COMMUNITY FACILITIES & INFRASTRUCTURE

Solid Waste Disposal

The Town contracts its solid waste disposal services with the Connecticut Resources Recovery Authority (CRRA), which participates within the Mid-Connecticut Resources Recovery System. Waste collection is the responsibility of property owners, who can hire a private contractor to perform this service or bring their waste to the Town transfer station. Solid waste is disposed of at the Mid-Connecticut Resource Recovery Facility, which consists of a trash-to-energy facility; four transfer stations, a regional recycling center and the Hartford landfill, all located in the City of Hartford. The Hartford facility provides waste management for 70 communities in Hartford, Middlesex, Litchfield and New Haven counties.

The Town contracts its solid waste disposal services with the Connecticut Resources Recovery Authority (CRRA), which participates within the Mid-Connecticut Resources Recovery System.

Under Haddam's existing contract, the Town must dispose of at least 3,400 tons of waste per year at the Hartford Resource Recovery Facility. During 2005, the Town disposed of approximately 3,800 to 4,000 tons of waste, roughly 11-17% above its contracted minimum quota. The CRRA Policy Board is currently exploring future options to ensure proper waste management solutions beyond the year 2012. 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, as well as other waste management facilities in Connecticut, to utilize existing facilities as transfer stations and move waste to out of state facilities.

Entrance to transfer station along Route 154

Recycling is the responsibility of property owners in Haddam, and recyclables may be brought to the Town transfer station or processed through a private contractor. 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. The Town operates a small recycling center and transfer station on Route 154. This facility handles bulk waste; recyclables; yard waste; scrap metal; and tires, motor oil and antifreeze for Town residents.

The Town's management of solid waste, through its service contract with the CRRA 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 CRRA 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, Bridges, Dams

According to data published by the State of Connecticut Department of Transportation, the road system of Haddam consists of 118.63 miles of paved roadway of which 25.77 miles are maintained by the State of Connecticut and 92.86 miles are a local responsibility.

Haddam has an extensive network of roadways and bridges at the state and local levels. According to data published by the State of Connecticut Department of Transportation, the road system of Haddam consists of 118.63 miles of paved roadway of which 25.77 miles are maintained by the State of Connecticut and 92.86 miles are a local responsibility.

Due to the number of waterways that pass through the Town, Haddam has a number of bridge maintenance responsibilities. Currently the Town is responsible for 13 bridges on local roadways. Another 30 bridges in Town fall under the jurisdiction of the State of Connecticut Department of Transportation. These bridges are located along Routes 9, 81, 82, 151 and 154.

According to the Connecticut Department of Environmental Protection (DEP), Bureau of Water Management's Inland Water Resources Division computerized inventory, there are 36 dams located in Haddam.

According to the Connecticut Department of Environmental Protection (DEP), Bureau of Water Management's Inland Water Resources Division computerized inventory, there are 36 dams located in Haddam (See map *Inventory of Dams*) and over 4,000 statewide. Approximately 1,500 dams throughout the state fall under the DEP's ownership and regulation since their failure may cause loss of life or property damage. Higganum Reservoir Dam, Hackney Pond Dam, Wildlife Marsh Dam, and Wooded Pond Dam are the only dams owned by the State in Haddam. The remaining dams are privately owned, typically small and do not pose a significant hazard to the public.

Public Library

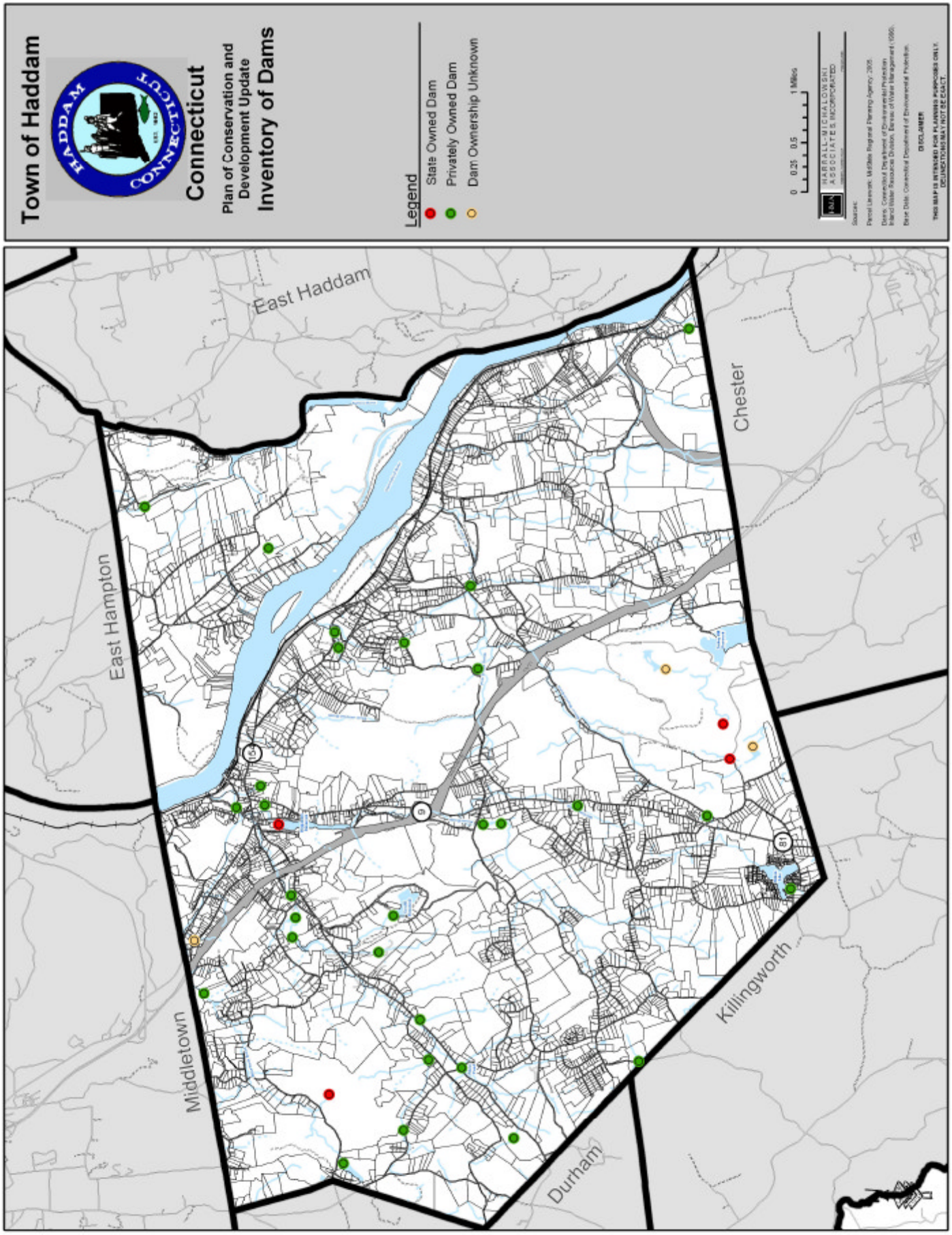
The Brainerd Memorial Library, which opened in 1906, provides residents with educational, recreational and reference services. The library is located at 920 Saybrook Road and currently has over 4,500 registered borrowers. The library's collection includes over 31,300 books, magazines and other printed materials, and over 5,500 videos, recordings, computer disks and other non-printed materials. The library's circulation is currently between 48,000 and 49,000. The library offers Internet access for the public from 9 computer stations, as well as providing wireless Internet access for patrons with laptop computers. The library system also provides a variety of educational and social programs for children, including a summer reading program which in 2005 had an enrollment of over 200 children.

Brainerd Memorial Library

The library is technically still a private association; however, the State regards it as the Town of Haddam's public library, and 75% to 80% of the library's funding comes from the Town of Haddam. In the mid-1990s, the library underwent a major renovation that the size of the facility. Since the completion of this renovation, the library has been quite successful and is currently at capacity in terms of shelving space. Over the next five years, the library would like to hire an architect to examine future space needs for the facility and evaluate creating additional space.

The library's collection includes over 31,300 books, magazines and other printed materials, and over 5,500 videos, recordings, computer disks and other non-printed materials.

At the present time, the library's greatest need is additional parking. The development of additional programs and the full utilization of the existing library space relies upon finding feasible solutions to the lack of parking at the library.


Town of Haddam
Connecticut
Plan of Conservation and Development Update
Inventory of Dams
Legend
State Owned Dam
Privately Owned Dam
Dam Ownership Unknown
0 0.25 0.5 1 Miles
HARRALL-MICHALOWSKI ASSOCIATES, INCORPORATED
Source:
Parcel Linework: Middlesex Regional Planning Agency; 2005.
Dams: Connecticut Department of Environmental Protection
Inland Water Resources Division, Bureau of Water Management; 1996.
Base Data: Connecticut Department of Environmental Protection.
DISCLAIMER
THIS MAP IS INTENDED FOR PLANNING PURPOSES ONLY.
DEVIATIONS MAY NOT BE EXACT.
East Haddam
East Hampton
Chester
Middletown
Killingworth
Durham

Haddam Senior Center

Public School System

Haddam is part of the Regional School District #17 public school system that consists of three elementary schools, one middle school and one high school. In addition to the Town of Haddam, the regional school district also includes the Town of Killingworth. The five school facilities are listed below and are located on the Community Facilities Map.

Total school enrollment is 505 pupils higher today than it was in 1994-1995

Current public school enrollment is 2,554 pupils (See Table 21). Elementary enrollment (PK-4) is 1,001, middle school enrollment (5-8) is 845 and high school enrollment (9-12) is 708. Total school enrollment is 505 pupils higher today than it was in 1994-95.

TABLE 21

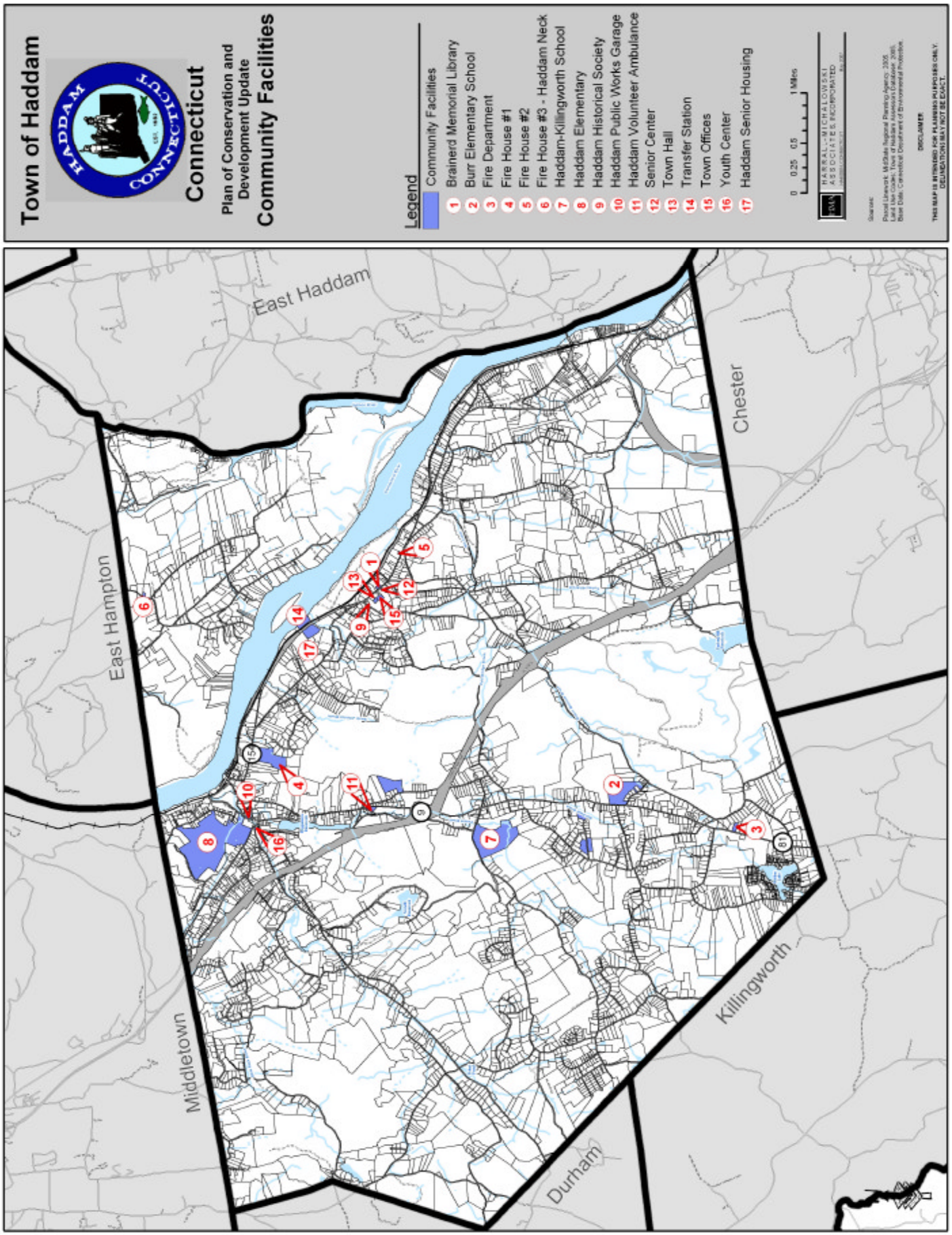
REGIONAL SCHOOL DISTRICT #17

PUBLIC SCHOOL ENROLLMENT AND PUPIL STATION CAPACITY

School	Location	Town	Grades Served	Pupil Station Capacity	2007-2008 Enrollment*
Burr Elementary School	792 Killingworth Road	Haddam	PK-4	494	281
Haddam Elementary School	272 Saybrook Road	Haddam	K-4	433	266
Killingworth Elementary School	340 Route 81	Killingworth	K-4	594	454
Haddam-Killingworth Middle School	451 Route 81	Killingworth	5-8	1000	845
Haddam-Killingworth High School	95 Little City Road	Haddam	9-12	780	708
Total Public School Enrollment				**3,301**	**2,554**

Haddam Elementary School Signage

The design capacity of the town's school facilities is 3,301 pupil stations. When considering school capacity, the term operational capacity is often utilized. The term reflects the fact that students and class sizes do not come in equal increments. For school facility usage and planning purposes, approximately 85 percent of total pupil station capacity is utilized to estimate operational capacity, allowing for Haddam's schools to feature either "traditional" or open space classrooms. This allows for more efficient operation and variation of school programs.


Town of Haddam
Connecticut
Plan of Conservation and Development Update
Community Facilities
Legend
Community Facilities
1 Brainerd Memorial Library
2 Burr Elementary School
3 Fire Department
4 Fire House #1
5 Fire House #2
6 Fire House #3 - Haddam Neck
7 Haddam-Killingworth School
8 Haddam Elementary
9 Haddam Historical Society
10 Haddam Public Works Garage
11 Haddam Volunteer Ambulance
12 Senior Center
13 Town Hall
14 Transfer Station
15 Town Offices
16 Youth Center
17 Haddam Senior Housing
0 0.25 0.5 1 Miles
HARRAL-MICHALOWSKI ASSOCIATES, INCORPORATED
Sources:
Parcel Linework: MetroHartford Regional Planning Agency, 2005.
Land Use Codes: Town of Haddam Assessor's Database, 2005.
Base Data: Connecticut Department of Environmental Protection.
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East Haddam
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Chester
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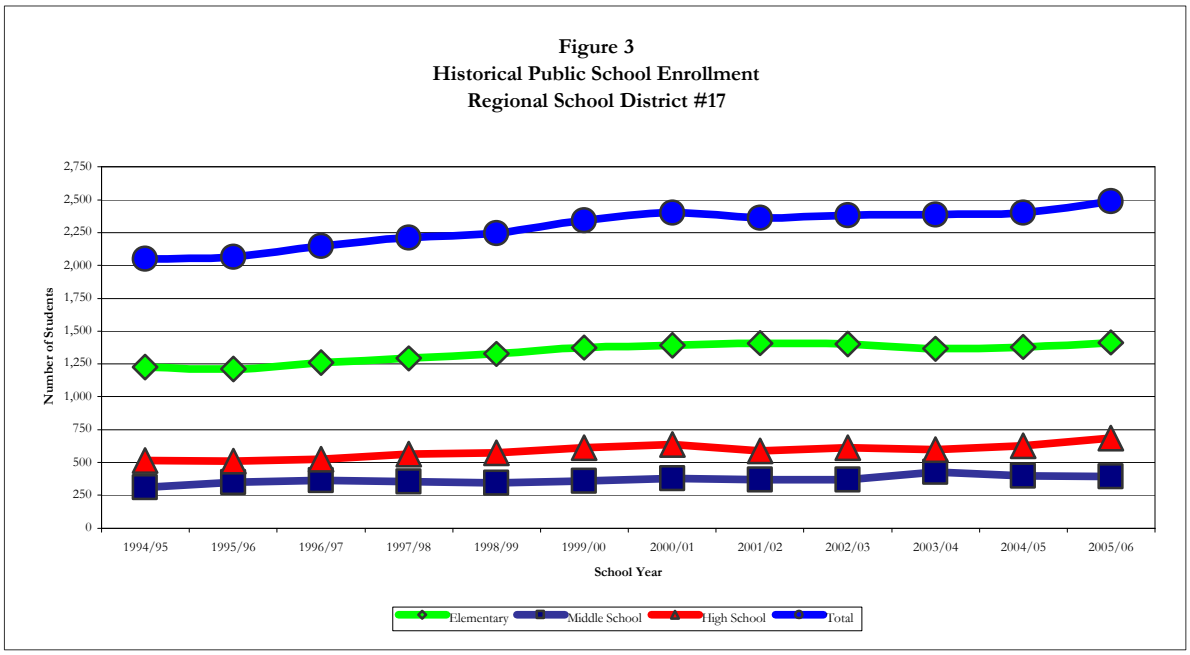
Killingworth
Durham

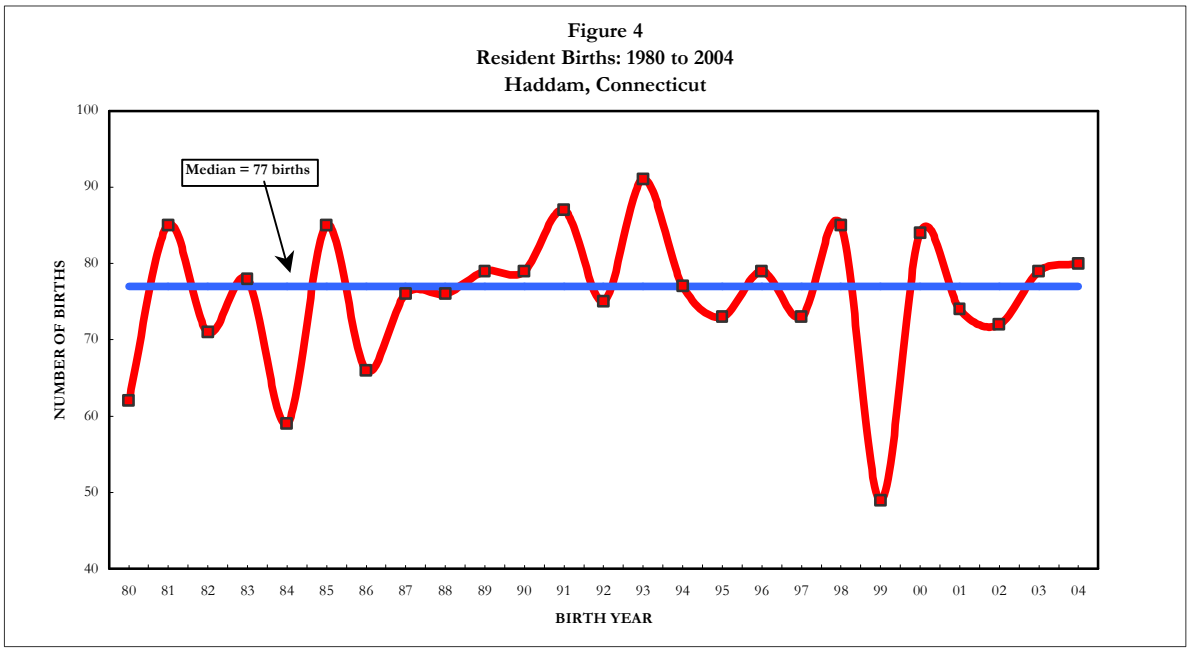
Burr Elementary School



Birth Trends & Projections

Birth trends and projections are used to plan for school enrollment. As depicted below, resident births in the Town reached their peak in the early 1990s with a record high of 91 births in 1993 and 87 births in 1991 (See Figure 4). Children born in these birth years are now exiting middle school and entering the high school grades. Resident births declined to around the 25-year median in the mid 1990s, and then experienced two above-average years in 1998 and 2000 bracketing a precipitous decline to 49 births in 1999. Since then, the number of births per year has generally hovered around the long-term median of 77 births per year.

Resident births in the Town reached their peak in the early 1990s with a record high of 91 births in 1993 and 87 births in 1991.



As these youngsters progress through the public educational system there will be peaks and valleys of enrollment reflecting the variation in the number of births. However, with the marked increase in the number of recently approved subdivisions, additional students moving into Haddam must also be taken into consideration when planning for future facilities.

Future Enrollment Projections

The Strategic School Profile 2003-04 for Regional School District #17, prepared by the State Department of Education, projects the October 2008 enrollment for the school district to be 2,778 pupils; this represents an increase of 291 pupils or 11.7% from the December 2005 enrollment. The grade breakdown of this projected enrollment is 1,141 elementary school students, 883 middle school students, 732 high school students and 22 pre-kindergarten and other students. Future enrollment projections prepared by the Connecticut State Department of Education show a slight decline in overall enrollment over the next decade. Table 22 shows the projected enrollment for the school district out to the year 2015.

TABLE 22
PROJECTED ENROLLMENT & HISTORICAL TRENDS
HADDAM, CONNECTICUT

Year	Elementary School	Middle School	High School	Total Enrollment
2006/07	1,379	412	652	2,443
2007/08	1,371	419	682	2,472
2008/09	1,377	394	682	2,453
2009/10	1,371	386	671	2,428
2010/11	1,372	393	680	2,445
2011/12	1,384	377	679	2,440
2012/13	1,368	397	664	2,429
2013/14	1,369	410	643	2,422
2014/15	1,366	400	665	2,431

Future Public School Facility Plans and Considerations

Regional School District #17 recently constructed a new middle school in Killingworth.

Regional School District #17 recently constructed a new middle school in Killingworth. The school is located on Route 81 near Lovers Lane. The school has a pupil capacity of 1,000 students, and will contain grades five through eight. In addition, the elementary schools have altered their grade structures to PK-4 and K-4 structures. Thus, all fifth and sixth graders are consolidated in one school, as opposed to being spread over three schools.

With the opening of the new Haddam-Killingworth Middle School, the central offices of Regional School District #17 have moved into the former middle school building on Little City Road. Since these offices do not utilize all of the space in the building, the balance of the space is available for use by Haddam Killingworth High School, which sits next door. This space allows the high school to expand as needed to meet the needs of a growing enrollment.

The addition of the new middle school ensures that the school system will have ample space for enrolled students into the near future. However, should the towns of Haddam and Killingworth continue to add population at their current rates, the school district may have to consider the need for additional facilities in the long term. However, over the next five to ten years the existing and planned school facilities should be adequate to meet the school system's needs.

The addition of the new middle school ensures that the school system will have ample space for enrolled students into the near future.

Police Protection

The two resident state troopers in Haddam are responsible for the criminal and motor vehicle codes and the protection of all citizens. In addition, the Department is responsible for manning and supervising the Central Communications Divisions for all police, fire and medical requests for service to the public. Some of the services provided by the state troopers include community policing activities, narcotics education for school aged children, applying for federal grants and raising public awareness on a number of public safety issues. The state troopers are assigned from the State Police "Troop F" barracks in Westbrook and maintain an office in the former Haddam-Killingworth Middle School grounds on Little City Road.

The two resident state troopers in Haddam are responsible for the criminal and motor vehicle codes and the protection of all citizens.

Fire Protection

Fire protection services are provided by the Haddam Volunteer Fire Department and the Haddam Neck Fire Department, both of which are made of volunteer firefighters. The Haddam Volunteer Fire Department has 55 volunteer firefighters serving from three fire stations. The location of the fire stations are illustrated on the Community Facilities map. The #1 Fire Station, located on Candlewood Hill Road in the center of Higganum, was renovated and expanded approximately five years ago, and the other two fire stations are of adequate size and capacity to handle Haddam's fire service needs at the present time. However, if the Town continues to grow at a significant and sustained rate, additional expansions may be required to meet the expanding needs of the Town.

Fire Station #1 located along Route 154

The department presently has three fire engines and a 2,500-gallon tanker truck that also serves as a pumping vehicle. A smaller pumping vehicle has recently been replaced with a new vehicle, and the department is in the process of acquiring a new rescue truck to replace the currently out of service one. The department has several pickup trucks for use in making emergency medical calls

Haddam Volunteer Ambulance Association

and battling brush fires, including one with a 600-gallon tank to handle small fires in difficult locations. The department also operates a small fireboat for use in handling fires that might occur along the Connecticut River. Additional services provided by the Department include hazardous material response, emergency medical service, vehicle rescue and search and rescue.

The Haddam Neck Fire Department presently operates out of a fire station located on Rock Landing Road. In addition to standard firefighting capabilities, the department provides emergency medical service, vehicle rescue and search and rescue services for the Haddam Neck area. The department also provides specialized firefighting services for the Connecticut Yankee site.

Emergency ambulance service in Haddam except for Haddam Neck is provided by the Haddam Volunteer Ambulance Association, which operates out of a facility on Killingworth Road. Non-emergency medical transportation is also available in Haddam through Hunter's Ambulance Service, a private medical transportation company. Haddam Neck is served by the East Hampton Ambulance Association.

Senior Services

Within the Town of Haddam, the Municipal Agent for the Elderly functions as the resource for information on programs, activities and services for elderly residents. In addition, the town oversees the operation of the Haddam Senior Center, a multi-purpose facility located at 923 Saybrook Road. The center is the focal point for a variety of programs and activities for seniors in Haddam, including bingo, exercise classes, birthday parties, movies and arts and crafts sessions. The town also operates an elderly housing facility located at 15 High Meadow Place.

The town's senior citizen busing program operates a 16-seat bus that provides on-call transportation services for seniors with 24 hour notice, as well as regularly scheduled trips to shopping in Middletown and Cromwell, tours of the town to view decorations during the holiday season, and a number of other special group trips. A seniors meal program is an additional service provided by the town which serves approximately 5-6 meals per day to Haddam seniors.

Haddam Youth Center

Youth and Family Services

Youth and Family Services of Haddam-Killingworth, Inc. provides counseling and social services to youth and families in the towns of Haddam and Killingworth. The organization is a private, non-profit agency that operates on the campus of Haddam-Killingworth High School. Its programs include group activities for mothers and young children, after-school academic and artistic activities for elementary and middle school students, community service activities for high school students, and mentoring and counseling programs. The organization also provides information and

contacts to a variety of outside social service, public health and mental health programs. The town also runs a Youth Center that is located in the former firehouse at the intersection of Candlewood Hill Road and Route 154 in Higganum Center. This facility hosts parties, band night, theatre group, billiards, movies and other activities for teens in Haddam.

Public Health

The public health needs of Haddam are currently served by Haddam Public Health, Inc., a non-profit public health agency that provides a number of health services to Town residents. These programs include the operation of a Meals-On-Wheels program for homebound senior citizens, flu shot program, emergency food bank, blood pressure screenings held throughout the year, and a well child clinic operated in conjunction with a local medical group. Haddam Public Health also provides access to medical equipment for short-term loan and an emergency fuel bank during the winter season for families in need of home heating fuel. Linkages to additional public health and social service resources, programs and agencies for Haddam residents are also available through this organization.

Department of Public Works Garage

Public Works Garage

The Town's public works department currently operates at 103 Depot Road. At this facility, Public Works stores, maintains, services and repairs the municipal vehicles for the Town. This site contains a central fuel depot, as well as storage for plows, sand spreaders, sand and salt storage and all other accessories to the operation of the facility.

Town Office Building

General Government Facilities

General government administration is conducted at the Town Office Building, located at 30 Field Park Drive. At present, all of the Town offices with the exception of Public Works operate out of this facility. Relocation of some of the Town offices now that the town has acquired a building on Jail Hill Road would help alleviate any space deficiencies Town departments have endured recently.

C. GOALS & OBJECTIVES

The Town of Haddam prides itself in offering a full range of municipal services. Public and non-profit 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.

Public and non-profit community facilities provide for the convenience, health and welfare of residents and constitute a significant component of the Town's quality of life.

1993 Plan of Conservation and Development Goals and Policies

The 1993 Plan stated as general community facilities goals:

- Assure that town-wide services and public facilities meet the needs of the town.
- Manage development to minimize its impact on municipal services.

The policies that were established to achieve these goals stated that the Town should encourage:

- Services geared to community needs.
- Acquisition of sufficient sites to provide for the needs of the community.
- New development which does not degrade current levels of services.
- Efforts to maintain or improve the quality of existing facilities.
- Accessibility and convenience for the people the facilities serve.
- Effectiveness and affordability of all community services.
- Shared use of public facilities wherever possible.

Elements & Issues

Element 1 - Brainerd Memorial Library

Issues:

- Brainerd Memorial Library is one of the Town's most heavily utilized public resources.
- Although an expansion to the facility was completed in the mid-1990s, shelving space is currently at a premium.
- The general lack of parking at the library is limiting the potential development of new programs and services, as well as utilization of the existing space.

The general lack of parking at the library is limiting the potential development of new programs and services, as well as utilization of the existing space.

Element 2 - General Government Services

Issues:

- The general government offices for Haddam are housed in a single, relatively small, town office building.
- Future population growth in Haddam may necessitate the expansion of some general governmental services.

Future population growth in Haddam may necessitate the expansion of some general governmental services.

Element 3 - Regional School District

Issues:

- Over the past decade, population growth and the growth of school-age children in the Haddam-Killingworth regional school district has been significant and sustained.
- Projected continued population growth will likely necessitate modifications to regional school facilities.

Over the past decade, population growth and the growth of school-age children in the Haddam-Killingworth regional school district has been significant and sustained.

Element 4 - Higganum Village and Tylerville Center Infrastructure

Issues:

- Higganum Center is one of the economic focal points of and at the heart of the community. The continued viability of businesses in this area requires a particular level of public services.
- In order to promote and enable additional economic development in Higganum Center, upgrading public services is a necessary step.

In order to promote and enable additional economic development in Higganum Center, upgrading public services is a necessary step.

Element 5 - Provision of Public Services

Issues:

- While the need for community facilities and public services in Haddam is relatively stable, the continued growth of the Town may result in increased needs for particular facilities and services in the future.
- Haddam must remain flexible and proactive in meeting new and increased needs before they reach a critical point.

While the need for community facilities and public services in Haddam is relatively stable, the continued growth of the Town may result in increased needs for particular facilities and services in the future.

Goals & Strategies

Identify possible solutions to alleviate the parking issues at the library, such as utilizing parking at other municipal facilities nearby or property acquisitions to develop additional parking.

<u>Goal:</u> Capitalize on one of the Town's key assets through the enhancement of the library facility and associated services.

- Identify possible solutions to alleviate the parking issues at the library, such as utilizing parking at other municipal facilities nearby or property acquisitions to develop additional parking.
- Consider hiring an architect in the near future to develop potential expansion strategies for the library.

<u>Goal:</u> Meet the governmental services needs of Haddam residents in a coordinated and efficient manner.

Strategies:

Evaluate the changing needs of Haddam's population and the impact of these changes on the provision of general governmental services.

- Evaluate the changing needs of Haddam's population and the impact of these changes on the provision of general governmental services.
- Continue to evaluate and consider the newly acquired Jail Hill Road building as a potential location for expansion of town government offices.

<u>Goal:</u> Provide the highest level of educational services to the children of Haddam.

Strategies:

Work with Regional School District #17 to coordinate the expansion of the school system through the construction of the new middle school in Killingworth and the subsequent closing of the Haddam-Killingworth Middle School.

- Work with Regional School District #17 to coordinate the expansion of the school system through the construction of the new middle school in Killingworth and the subsequent closing of the Haddam-Killingworth Middle School.
- In coordination with Regional School District #17, evaluate the possible need for Haddam-Killingworth High School to expand into the soon to be vacant middle school facility over the next few years.

As the quality of life in Haddam is one of the Town's biggest assets in attracting new residents and potential economic development, continually seek to improve and/or expand the educational opportunities for Town students.

- As the quality of life in Haddam is one of the Town's biggest assets in attracting new residents and potential economic development, continually seek to improve and/or expand the educational opportunities for Town students.
- Consider the preparation of a long-term (10 to 20 year) school site selection study to identify sites within Haddam that may be suitable of future educational facilities.

<u>Goal:</u> Provide enhanced infrastructure in the center of Town to spur additional economic development opportunities.

Strategies:

- Evaluate the economic and infrastructure impacts of installing a sewer system in Higganum Center.

- Determine the best fiscal approach to creating such as system, either through construction of Haddam's own sewage treatment facility or connecting to the City of Middletown's system.

- Consider zoning changes to the Higganum Center area to reflect the presence of sewers through greater density and/or variety of uses allowed.

Evaluate the economic and infrastructure impacts of installing a sewer system in Higganum Center.

<u>Goal:</u> Provide a high level of public services in an efficient and cost-effective manner.

Strategies:

- Monitor the community facilities and public services needs of the Town on a continuing basis by gauging changes in the utilization of particular services or facilities, and make adjustments to these services or facilities as conditions warrant.

<u>Goal:</u> Provide education and more opportunities for proper waste disposal, recycling, and particularly household hazardous waste disposal.

Strategies:

- Distribute to all households the information educating residents about the importance and opportunities for proper waste disposal and recycling using such items as brochures, fliers and even more information to school children through the schools.

- Meet disposal needs by using a facility that provides good accessibility and convenience to increase participation and discourage improper dumping into our soil, air and water. (Clean-up is more damaging and expensive than proper disposal in the first place.)

Haddam Elementary School

VIII. NATURAL RESOURCES

A. INTRODUCTION

The Plan of Conservation and Development should be used to identify and protect those elements of Haddam's natural environment that contribute to the Town's character and quality of life. Quantifying quality of life remains difficult, however, due to the intangible nature of its benefits. Some quantified public benefits may be described, which can be attributed to Haddam natural resources. These include the enhancement of real estate values and economic growth due to residents' proximity to open space and natural features, which makes Haddam a desirable community in which to live and work.

The status and distribution of natural resources influence a community's quality of life. The natural environment contributes to the town's landscape and hence to the character of the town. Protection of the town's natural environment remains key to maintaining a high quality of life in Haddam (for example, water and air quality and passive recreation opportunities.) The Plan of Conservation and Development relies on natural resource-based planning to identify and survey Haddam's important natural resources and develop strategies for their conservation and integration into development strategies.

Field Park Entrance

Natural Resource and Open Space Planning

Natural Resource Inventory

The process of natural resource conservation and open space planning first begins with documentation of the town's natural attributes. This inventory relies using Geographic Information System (GIS) technology. This technology allows use of electronic representations of natural resources (e.g., soils, bedrock geology, endangered species), maps (e.g., topographic and assessors), and aerial photographs indiscrete layers to produce "snapshots" of all or some layers. These snapshots provide an opportunity to observe, on a high-level, town-wide scale, the natural resources that shape and define Haddam's natural landscape. GIS facilitates analysis of the resource information to assist in establishing goals and policies to ensure resource protection. While GIS resources are not 100% accurate and do not preclude the need for field checking, they help ensure that these natural attributes remain visible during the planning process.

Boat launch at Haddam Meadows

Policies, Goals, Objectives & Strategies

The second component of the planning process identifies potential policies that should be promulgated to ensure the preservation of the natural resources. This challenging task must integrate the many competing interests of how best to use Haddam's land. Proper allocation of Haddam's finite natural resources is a balancing act that involves consideration of both resource conservation and open space needs and the economic development needs of the community. Natural resource and open space policy is best accomplished though the development of goals and objectives that clearly articulate the open space needs of the community and prioritizes the protection of sensitive natural areas in town. This creates focus and scope for advancing the natural resource open space vision of the community.

Based on Haddam's natural assets, the Conservation Commission developed Open Space Planning Criteria as a basis for Haddam's open space planning to satisfy the following goals:

- Preservation of town character and rural nature
- Preservation of environmental quality
- Sprawl avoidance ("smart growth")

Haddam Meadows Entrance from Route 154

Table 23 OPEN SPACE PLANNING CRITERIA		
Criterion	**Definition**	**Examples**
Water Resources	Major Watercourses, Wetlands, Ground Water	Rivers, streams, brooks, ponds, lakes, swamps, marshes, bogs, vernal pools, stratified drift, bedrock
Recreation	Suitable topography, soils, vegetation, size	Trails, paths
Scenic views	Visual resources: Landscapes, natural features, historic structures, cultural resources	Connecticut River, colonial structures, agriculture, stone walls, ridgetops; forest canopy
Agricultural Areas	Pastoral areas	Farms, fields, pastures, ponds, orchards, vineyards, truck farms
Unique/Special Natural Features	Biologic/geologic heritage areas	Rare/endangered species, fragile habitat, abandoned quarries, riparian buffers, stratified drift
Air Quality	Atmospheric resources	Decreased carbon dioxide, particulates
Wildlife Habitat/Management	Indigenous wildlife and habitat, migratory wildlife and habitat	Rare and endangered species, intact food chain, hunting, fishing
Historic Preservation	Rural character, historic resources, cultural resources	Colonial structures, pastoral areas, stone walls, dams
Contiguity	Contiguous areas of open space	Wildlife habitat, plant population habitat, watersheds, air quality
Productive Forest Land	Sites economically managed/potentially managed for forest products	Land managed for timber production, Christmas tree farms, fire wood

*These criteria are NOT listed in order of priority

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:

- 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 the property in the best public interest.

Bedrock Outcrop – Cockaponset State Forest

It has become increasingly important to identify alternative means to protect open space beyond fee simple ownership. While town financed fee simple ownership remains the most effective approach to protecting land, it is not always possible without forethought and planning. Establishment of a municipal open space protection fund financed by a combination of taxes, referendums, donations, fundraisers or other means is one way to make fee simple ownership a more realistic method of open space protection in the town. Other alternatives include, but are not limited to, private conservation easements, state matching grants for open space fee simple or development rights purchase, mandatory open space dedication as part of subdivisions, improved use of land use regulations and ownership by non-profit conservation organizations. The open space plan must research, document, and pursue all means possible to implement open space goals.

B. GENERAL NATURAL RESOURCE INVENTORY

Land Characteristics

Surficial Materials

The surficial geology in Haddam is largely a product of the Wisconsin Glaciation that occurred more than 13,000 years ago. The depositional and erosional effects of glacial activity can be read throughout the landscape of Connecticut. Striations in the bedrock and glacial deposits are the most obvious remnants from the glacial age. Glaciation results in a very variable earth surface with numerous hills, stream valleys, wetlands, steep slopes, bedrock outcrops, shallow-depth-to-bedrock soils, and level areas with good soils for agriculture and building sites.

Glacial drift, the rock and sediment left behind when the glaciers receded, is estimated to blanket 90% of Connecticut.[2] This glacial drift comprises the majority of Haddam's surficial geology in the form of till and stratified drift. Stratified drift is unconsolidated, highly sorted sediment that consists primarily of gravels, sands, silts, clays, and large boulders. In contrast, till is predominately non-sorted and non-stratified sediment that is a mixture of materials in varying proportions ranging from large coarse boulders to fine grained deposits. The distribution of the town's surficial geology is illustrated on the map titled *Surficial Materials*.

[2] See Bell

Till transmits water very slowly due to it's low hydraulic conductivity and tends to be poorly drained.

The difference in the composition of till and stratified drift is important in that water, particularly subsurface water, travels very well through stratified drift, but not very well through till. Therefore, for purposes of identifying potential sources of ground water for public consumption, geologists look to areas that have large deposits of stratified drift. These potential aquifer areas are important natural resources to protect and have been the focus of aquifer protection regulations in recent years. Locations of the town's stratified drift deposits are illustrated on the map titled *Stratified Drift Deposits*.

For purposes of identifying potential sources of ground water for public consumption, geologists look to areas that have large deposits of stratified drift. These potential aquifer areas are important natural resources to protect and have been the focus of aquifer protection regulations in recent years.

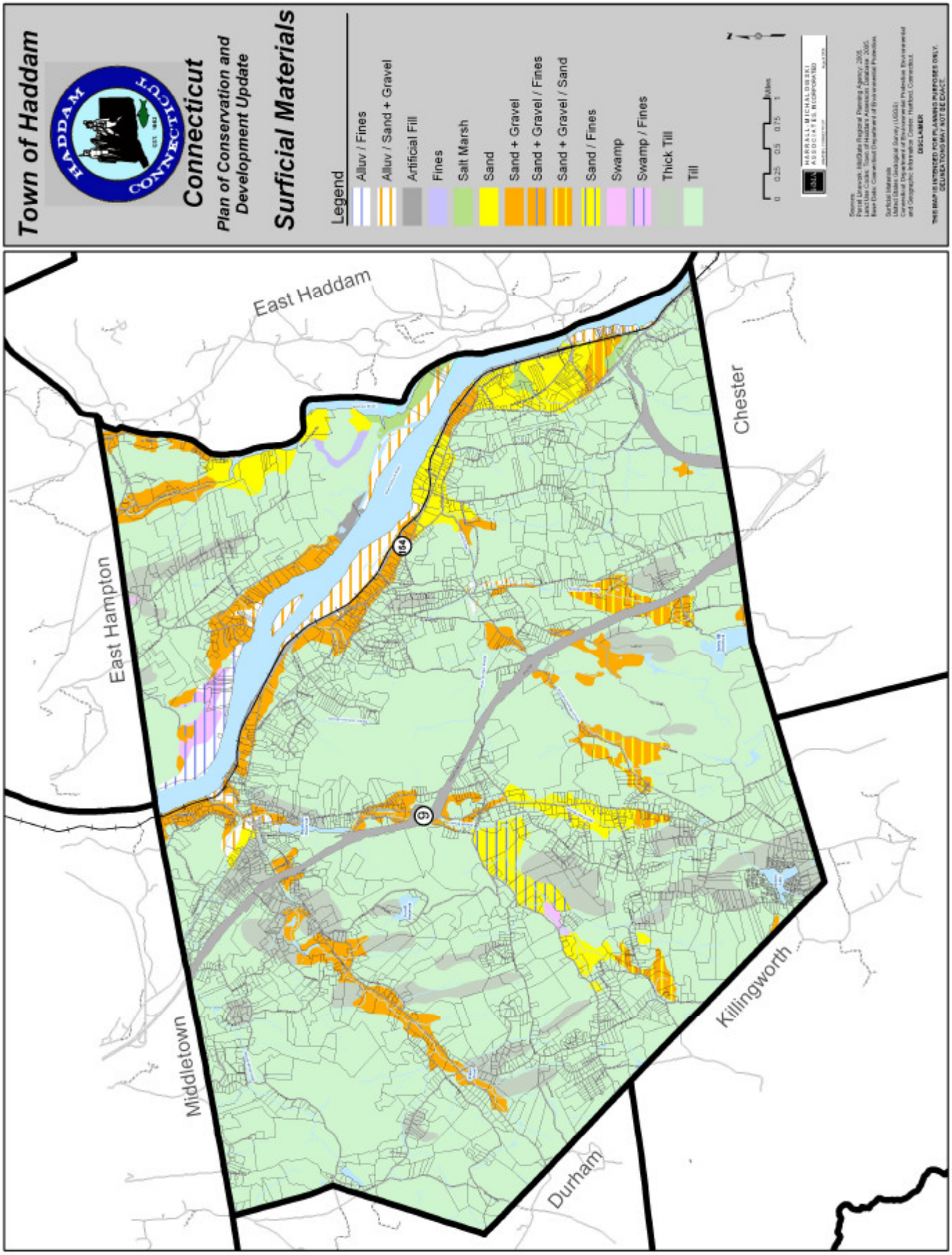
Wetland Soils

In Connecticut, wetlands are defined by soil type, specifically saturated or hydric soils, which are classified by the NRCS as either Drained, Very Poorly Drained or Alluvial / Floodplain. Any combination of these categories are classified as a wetland soil and protected under the town's inland wetland regulations under 22a-36 through 22a-45 of the General Statutes. In Haddam, 14.3% of the Town's land consists of wetland designated soils. The map titled *Wetland Soils* illustrates the locations of major wetlands throughout Haddam. Wetlands are important for a variety of reasons including:

In Haddam, 14.3% of the Town's land consists of wetland designated soils.

- 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;

Wetland Area along Beaver Meadow Road


Town of Haddam
Connecticut
Plan of Conservation and Development Update
Surficial Materials
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Artificial Fill
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Killingworth
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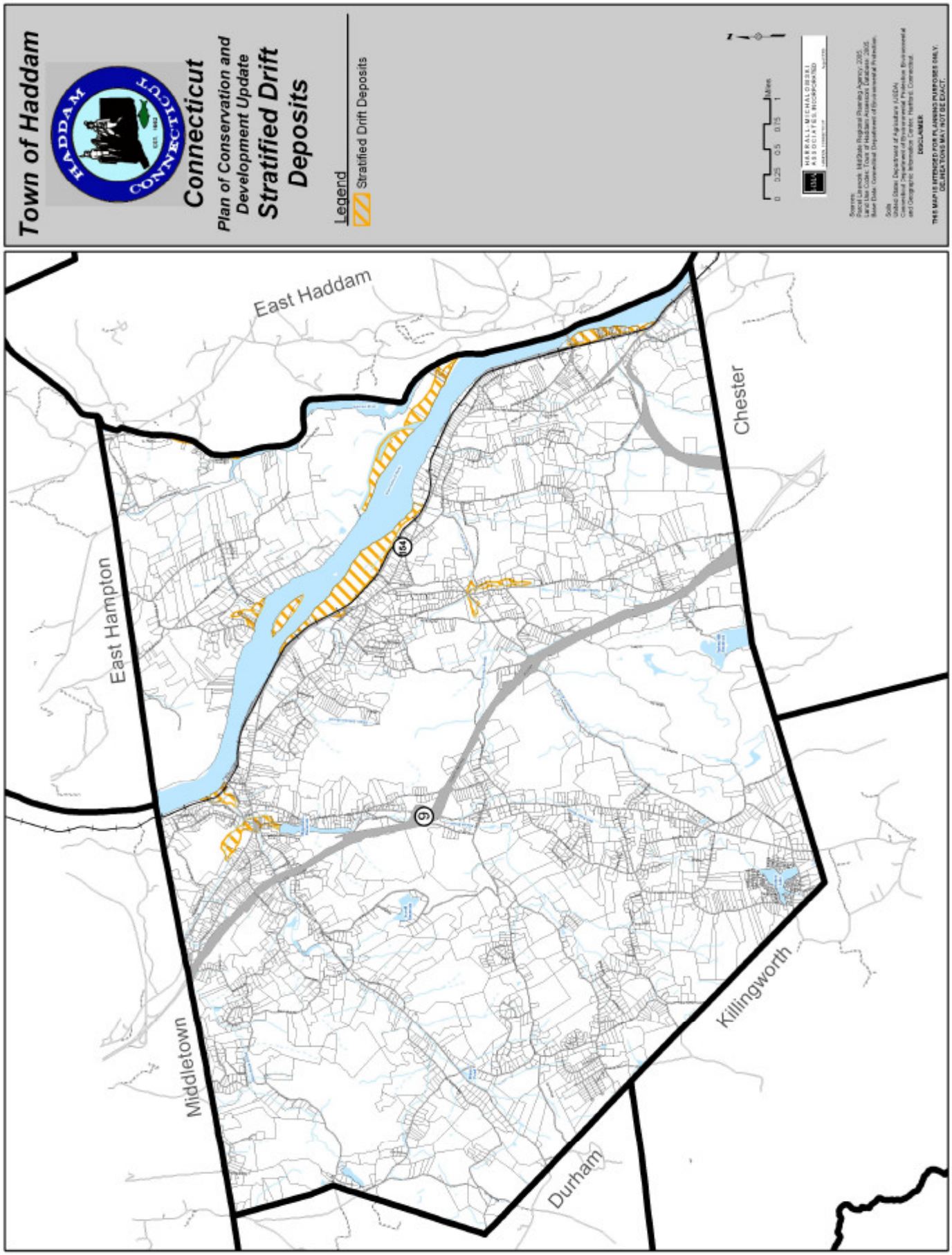
Town of Haddam
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Plan of Conservation and Development Update
Stratified Drift Deposits
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Stratified Drift Deposits
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HARRALL-MICHALOWSKI ASSOCIATES, INCORPORATED
Sources:
Roads: Lessons: Mid-State Regional Planning Agency; 2005.
Parcel Lines: Town of Haddam Assessor's Database; 2005.
Land Use Codes: Town of Haddam Assessor's Database; 2005.
Base Data: Connecticut Department of Environmental Protection.
Soils:
United States Department of Agriculture (USDA)
Connecticut Department of Environmental Protection Environmental and Geographic Information Center, Hartford, Connecticut.
DISCLAIMER:
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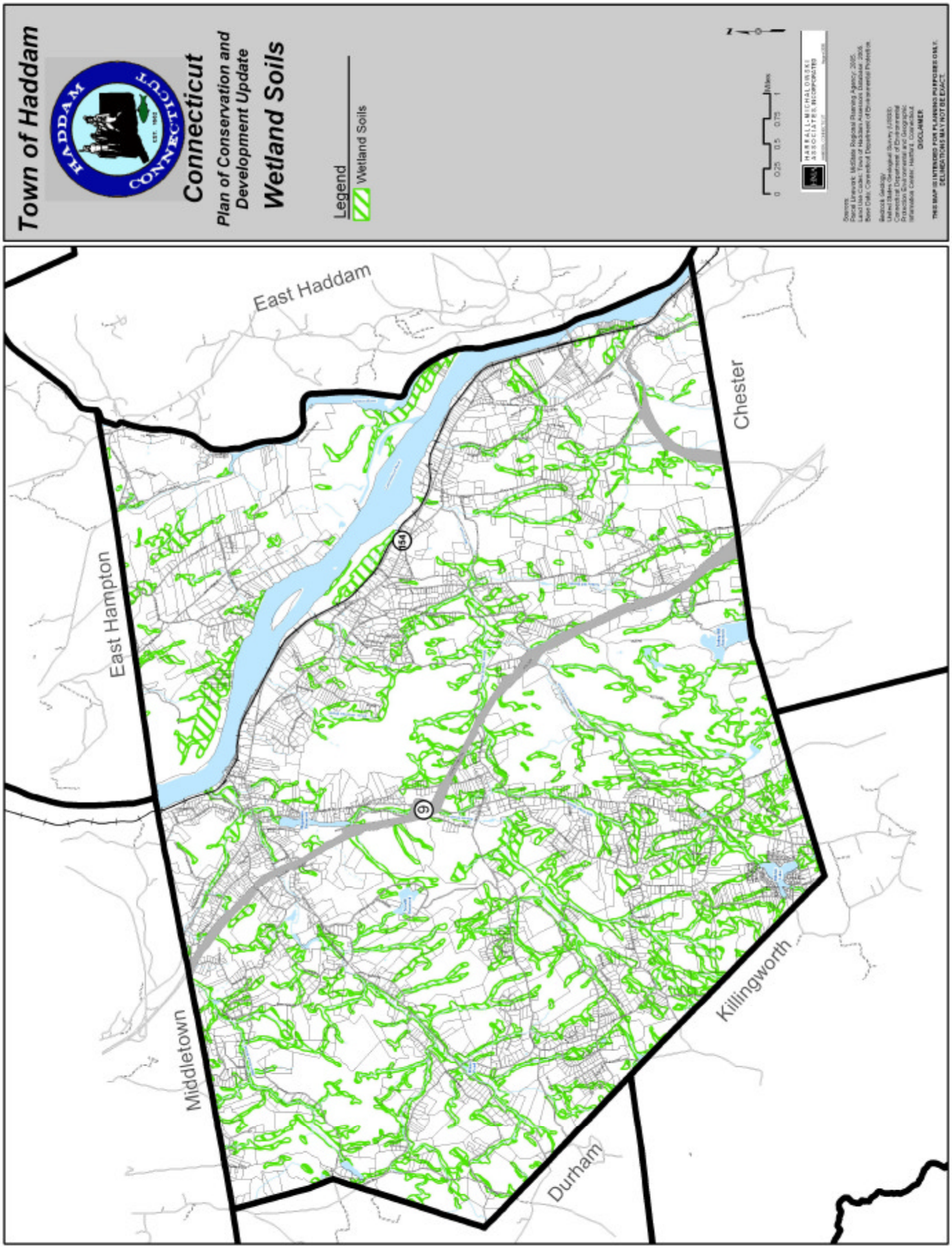
Town of Haddam
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Plan of Conservation and Development Update
Wetland Soils
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HARRALL-MICHALOWSKI ASSOCIATES, INCORPORATED
Sources
Parcel Linework: McMillan Regional Planning Agency, 2005.
Land Use Linework: Town of Haddam Assessor's Office, 2005.
Base Data: Connecticut Department of Environmental Protection.
Bedrock Geology:
Surficial Materials: Quaternary Geologic Survey, USGS.
Connecticut Department of Environmental Protection Environmental and Geographic Information Center, Hartford, Connecticut.
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Haddam Meadows

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.

- 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;

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

Pollution infiltration can have devastating effects on groundwater drinking supplies. Alluvial and floodplain soils are very susceptible to rapid infiltration of pollutants due to the excessive permeability of the soil. In addition, these areas are dense with nutrient-rich sediments, which produce some of the most productive farmlands. Salmon Cove, located at the mouth of the Salmon River, is part of an internationally recognized complex of tidal wetlands on the lower Connecticut River System.

Areas of steep slopes are important to identify primarily due to the effect they have on development; as a general rule it can be expected that soils with slopes of 15% or greater may pose significant constraints to development due to the difficulty of building foundations and for the siting of septic systems.

Steep Slope Soils

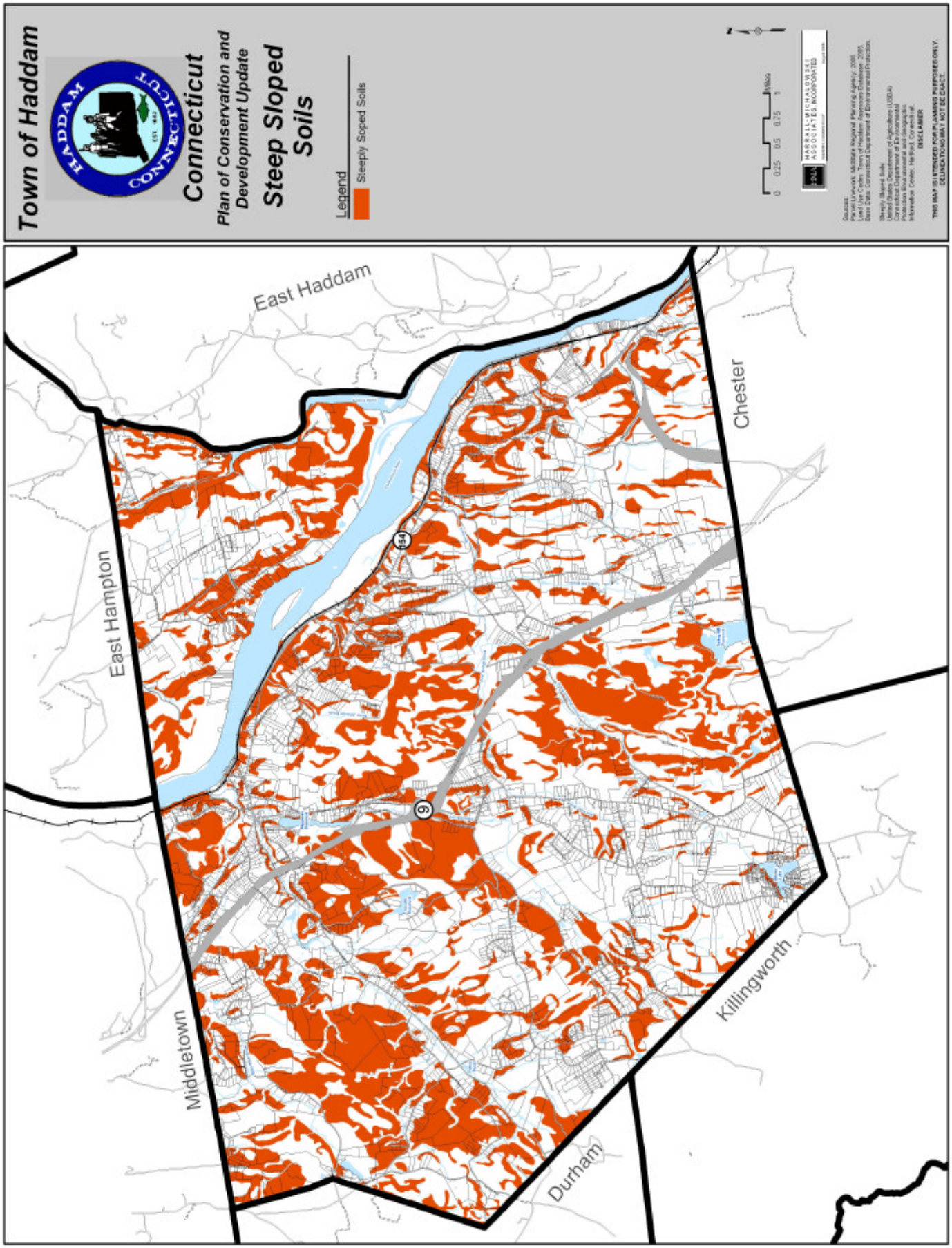
Areas of steep slopes are important to identify primarily due to the effect they have on development. While the stability of a slope is dependant on many variables including vegetative cover and the underlying geology, as a general rule it can be expected that soils with slopes of 15% or greater may pose significant constraints to development due to the difficulty of building foundations and for the siting of septic systems. In addition, these areas are subject to additional development concerns and problems. Therefore, identifying areas of steeply sloped soils is an important component to the natural resource inventory. The areas identified as steeply sloped soils account for 30% of the town's land and are illustrated on the map entitled *Steep Slope Soils*.

Water Resources

Water resources include major watercourses, watersheds, and groundwater aquifers. The Connecticut River, which divides Haddam and Higganum from Haddam Neck, is the primary water resource. Also significant is the Salmon River, which separates Haddam Neck from East Haddam. Many brooks and creeks also flow throughout Haddam. Hidden Lake, Turkey Hill Reservoir, Higganum Reservoir, and Scovil Reservoir are major water bodies within town.

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 objective of the program is to reduce flood loss by ensuring activities will not increase the potential for flooding and that new buildings will be protected from future flood damage.


Town of Haddam
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Plan of Conservation and Development Update
Steep Sloped Soils
Legend
Steeply Sloped Soils
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HARRALL-MICHALOWSKI ASSOCIATES, INCORPORATED
Sources:
Parcel Layer: Middlesex Regional Planning Agency, 2005.
Land Use Layer: Town of Haddam Assessor's Database, 2005.
Base Data: Connecticut Department of Environmental Protection.
Steeply Sloped Soils:
Layer: United States Department of Agriculture (USDA)
Connecticut Department of Environmental Protection Bureau of Environmental Information Center, Hartford, Connecticut.
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Higganum Dike Along Route 9

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 include information such as the water elevation during a base flood. FEMA 100-year flood plain areas account for approximately 2745 acres or 9 percent of Haddam's land area. The map titled *FEMA Flood Hazard Areas* illustrates the FEMA designated 100-year and 500-year flood zones.

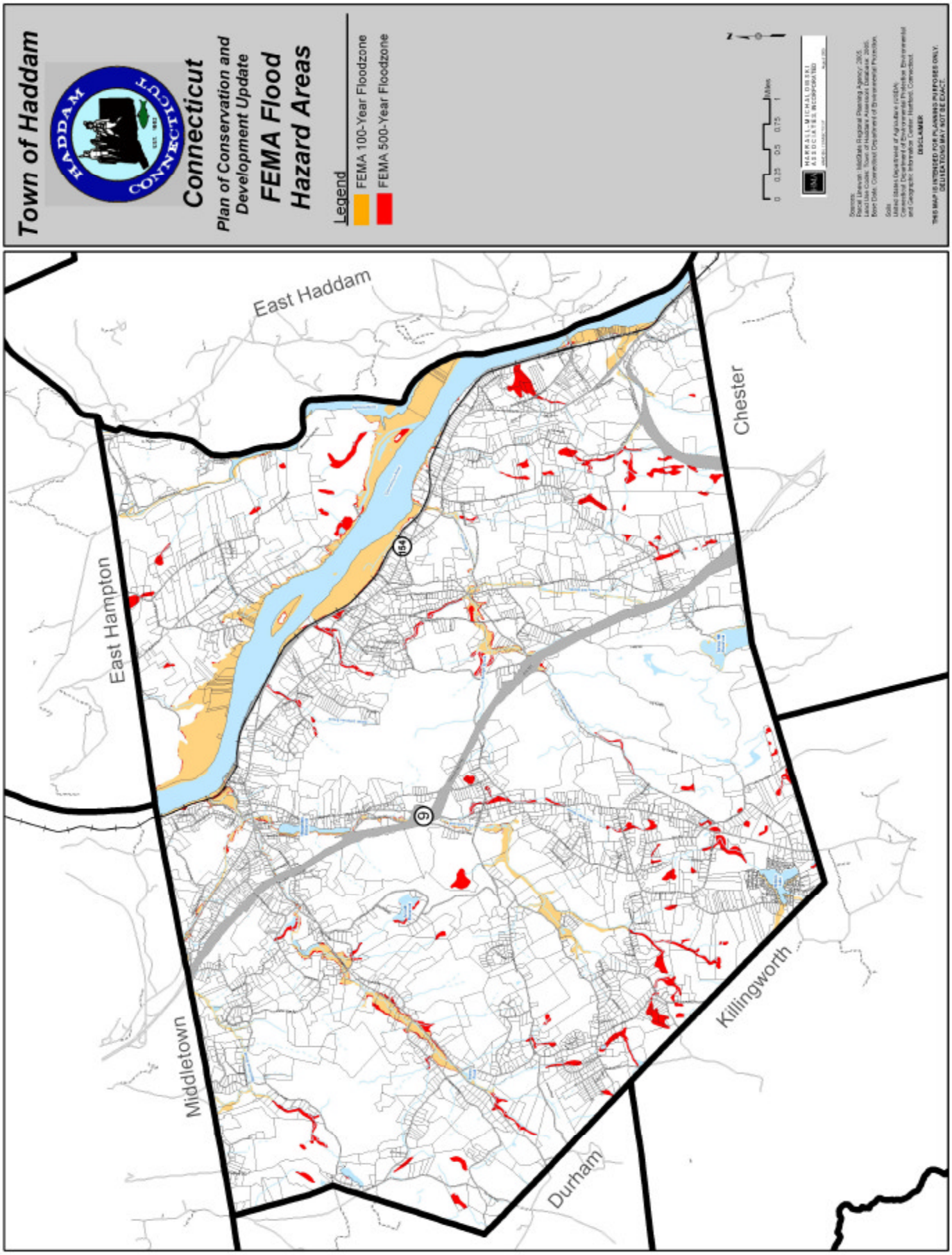
FEMA 100-year flood plain areas account for approximately 2745 acres or 9 percent of Haddam's land area.

Watersheds

A watershed is defined as all the land and waterways that drain into the same body of water. The map titled *Surface Water Resources* delineates Haddam's watersheds. Haddam contains parts of ten hydrologic basins. These watersheds all drain to the Connecticut River with the exception of the extreme southwestern part of town, which drains through the Hammonasset and Menunketesuck Rivers and Chatfield Hollow Brook to Long Island Sound. Two-thirds of Haddam is contained within the Connecticut River and Higganum Creek watersheds. Managing watersheds is critical to ensure that the benefits they provide will endure into the future.

Higganum Reservoir

The purity of water in a stream to a great extent correlates with the overall level of development and activity that exists upstream in the drainage basin. Activities that contaminate water supplies are divided into two categories: point and non-point sources. Point sources of pollution are those that are confined to a single, identifiable source. Nonpoint sources are diffuse, indefinite, and general sources of pollution. Potential types of nonpoint source pollution include contaminated surface water runoff from roadways, parking lots, agricultural fields, and lawns. 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. This system established water quality goals and general criteria limits for the control of the Connecticut's water resources. The standards provide clear and objective statements for existing and projected water use and the general program to improve water resources. They also serve to qualify the State and its municipalities for available federal grants for water pollution control. For surface waters the classification of designated uses is as follows:


Town of Haddam
Connecticut
Plan of Conservation and Development Update
FEMA Flood Hazard Areas
Legend
FEMA 100-Year Floodzone
FEMA 500-Year Floodzone
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HERBERT J. MITCHELL DISTRICT
DISCLAIMER
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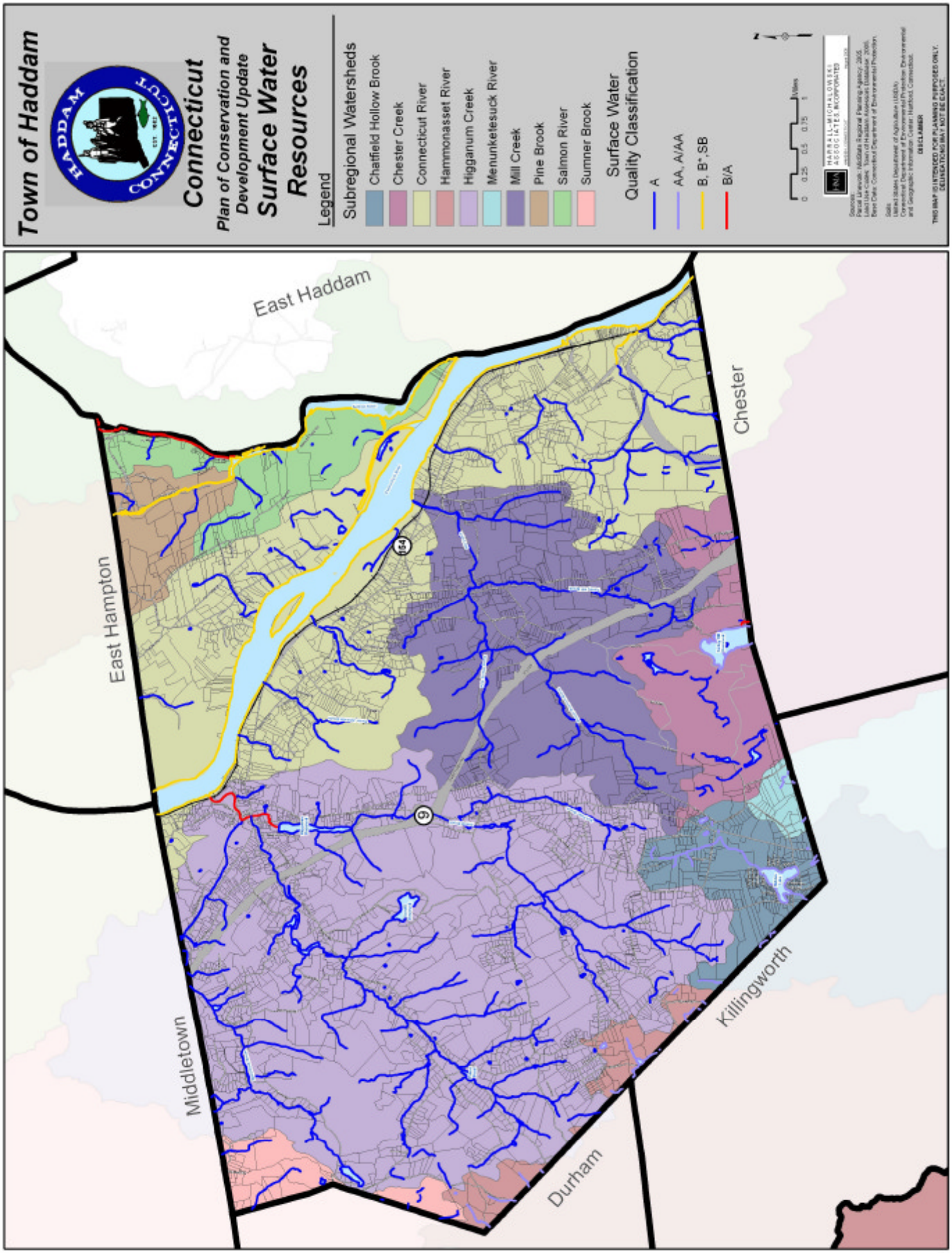
Town of Haddam
Connecticut
Plan of Conservation and Development Update
Surface Water Resources
Legend
Subregional Watersheds
Chatfield Hollow Brook
Chester Creek
Connecticut River
Hammonasset River
Higganum Creek
Menunketesuck River
Mill Creek
Pine Brook
Salmon River
Sumner Brook
Surface Water Quality Classification
A
AA, A/AA
B, B*, SB
B/A
East Haddam
Chester
East Hampton
Middletown
Killingworth
Durham
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TABLE 24 SURFACE WATER CLASSIFICATIONS	
Classification	**Definition**
CLASS AA	Existing or potential public drinking water supply, fish and wildlife habitat, recreational use, agricultural and industrial supply and other purposes.Recreational uses may be restricted.
CLASS A	Potential drinking water supply, fish and wildlife habitat, recreational use, agricultural and industrial supply and other legitimate uses including navigation.
CLASS B	Recreational use, fish and wildlife habitat, agricultural and industrial supply and other legitimate uses including navigation.
CLASS C	Certain fish and wildlife habitat, certain recreational activities, agricultural and industrial supply and other legitimate uses including navigation. Swimming may be precluded. One or more quality criteria or designated uses impaired.
CLASS D	Present conditions severely inhibit or preclude one or more designated uses for extended time periods or totally preclude attainment of one or more designated uses. May be suitable for bathing or other recreational purposes, certain fish and wildlife habitat, industrial and other legitimate uses including navigation. May have good aesthetic value.
CLASS SA	Designated uses: marine fish, shellfish and wildlife habitat, shell fish harvesting for direct human consumption, recreation and all other legitimate uses including navigation.
CLASS SB	Designated uses: marine fish, shellfish and wildlife habitat, shellfish harvesting for transfer to approved areas for purification prior to human consumption, recreation, industrial and other legitimate uses including navigation.
CLASS SC/SD	Indicates unacceptable quality, the goal is Class SB or Class SA. Designated uses: same as for Classes C or D surface waters.

The Higganum Creek Watershed is the largest subregional watershed in town, draining 37.6% of the town's land.

Higganum Creek Watershed

The Higganum Creek Watershed is the largest subregional watershed in town, draining 37.6% of the town's land. Higganum Creek originates at the confluence of Bible Rock Brook, Candlewood Hill Brook, and Ponset Brook and terminates at the Connecticut River east of Route 154 and the Village of Higganum. The water quality of Higganum Creek and Ponset Brook below the Higganum Reservoir are classified as "B" with an attainable goal of class "A." This indicates that the water is currently not meeting the criteria for the targeted class. Ponset Brook upstream of the Higganum Reservoir, Candlewood Hill Brook, and Bible Rock Brook are classified as "A".

Connecticut River Watershed

Connecticut River

The Connecticut River is New England's longest river traversing 410 miles from its headwaters at the Canadian Border in Northern New Hampshire to its terminus at Long Island Sound. The watershed encompasses an area of over 11,000 square miles and includes parts of four states - Connecticut, Massachusetts, New Hampshire and Vermont. The Sylvio O. Conte National Wildlife Refuge, which is managed by the U.S. Federal Fish and Wildlife Service, bisects Haddam along the Connecticut River. The Connecticut River Watershed in Haddam drains 8,120 acres or 27.4% of the town's land area. Water quality of the tributaries in this watershed is predominately class "A" except for Clark Creek, which is classified as "B." The Connecticut River is a major regional recreational outlet for a variety of activities. The river's water quality has been classified as "B," indicating that water quality is acceptable for recreational use, fish and wildlife habitat, and agricultural and industrial supply. In addition to Haddam regulations, the Connecticut River lies in the jurisdiction of the Connecticut Gateway Commission, which must also be considered in land use decisions.

Salmon River Watershed

Salmon River is originates in Colchester and flows through the Haddam Neck section of Town and forming the eastern border with East Haddam. The watershed drains approximately 1,184 acres or 3.9% of Haddam's land area. The water quality of the Salmon River is classified as "B" with an attainable goal of class "A" downstream to Salmon River Cove, which is classified as "B". The Connecticut Department of Environmental Protection uses the water quality of this river as a reference for all other streams statewide within the Connecticut River Watershed. The Salmon River is one of only three federal restoration sites in Connecticut for the endangered Atlantic Salmon. One of the tributaries to the Salmon River is Pine Brook. The Connecticut DEP that is an index site for monitoring fish runs and is among the most diverse and healthy of the several hundred sites statewide.

Mill Creek Watershed

Mill Creek originates at the confluence of Pole Bridge Brook and Beaver Meadow Brook east of Route 9 and flows east to the Connecticut River just south of Haddam Meadows State Park. This watershed drains approximately 4,530 acres or 15.3% of Haddam's land area. Mill Creek, along with its major tributaries, has a water quality classification of "A".

Aquifers

While groundwater can be defined simply as water lying below the surface of the ground, an aquifer is more specifically described as a geologic formation that allows for the withdrawal of useable

amounts of water. Haddam is mainly comprised of two types of aquifers: bedrock-till formations and stratified drift formations. Bedrock-till aquifers, found throughout town, are comprised of diverse rock types (including till) and can yield as much as 10 gallons of water per minute. Stratified drift aquifers, in contrast, are comprised of layered deposits of surficial materials (sand, gravel, silt and clay) and are located primarily in river and streambeds. Stratified drift aquifers can yield millions of gallons per day wherever deep saturated deposits of porous materials are located. These high-yield conditions have the potential to be developed into municipal water supplies. While it is difficult to pinpoint the exact location of aquifers within the town, knowing where bedrock/till and stratified drift formations are located can provide an indication where specific types of aquifers may exist. Major stratified drift deposits occur in Tylerville, Haddam Meadows, the northwest shore of Haddam Neck, and in the southwest region of Haddam Neck. These areas were sites of the first settlers and are also the location of present day commercial development and waste disposal areas. This poses a potential hazard of contamination to these possible sources of future drinking water. The inventory of these deposits is provided on the map titled Surficial Materials Protecting Connecticut's Groundwater: A Guide For Local Officials, Connecticut Department of Environmental Protection.

Major stratified drift deposits occur in Tylerville, Haddam Meadows, the northwest shore of Haddam Neck, and in the southwest region of Haddam Neck.

Haddam residents depend totally on wells for potable water sources, so conservation of water resources and preservation of land aiding in water resource conservation are of utmost importance.

Haddam residents depend totally on wells for potable water sources, so conservation of water resources and preservation of land aiding in water resource conservation are of utmost importance. Water, particularly subsurface water, travels very easily through stratified drift, but not very easily through glacial till. For purposes of identifying potential sources of ground water for public consumption, geologists look to areas that have large deposits of stratified drift. These potential aquifer areas are important natural resources to protect and have been the focus of aquifer protection regulations in recent years. Locations of the town's stratified drift deposits are illustrated on the map titled *Stratified Drift Deposits.*

Riparian buffers protect water resources by improving water quality through the filtration of pollutants and sediments, stabilization of stream bank slopes and riverbeds, and improvement in abundance and diversity of wildlife habitat by providing travel corridors and improved aquatic habitat.

Environmentally Sensitive Habitats

Riparian Corridors

Riparian corridors, or riparian buffers, are undisturbed, naturally vegetated areas contiguous with and parallel to river and stream networks. The benefits of riparian buffers are well documented. In summary, riparian buffers protect water resources by improving water quality through the filtration of pollutants and sediments, stabilization of stream bank slopes and riverbeds, and improvement in abundance and diversity of wildlife habitat by providing travel corridors and improved aquatic habitat.

The recommended buffer width of riparian corridors varies depending on the purpose of the buffer. There is not one generic

buffer width that will keep the water clean, stabilize the bank, protect fish and wildlife habitat, and satisfy human demands on the land. For buffer widths, the minimum acceptable width is the one that provides acceptable levels of all needed benefits at an acceptable cost.

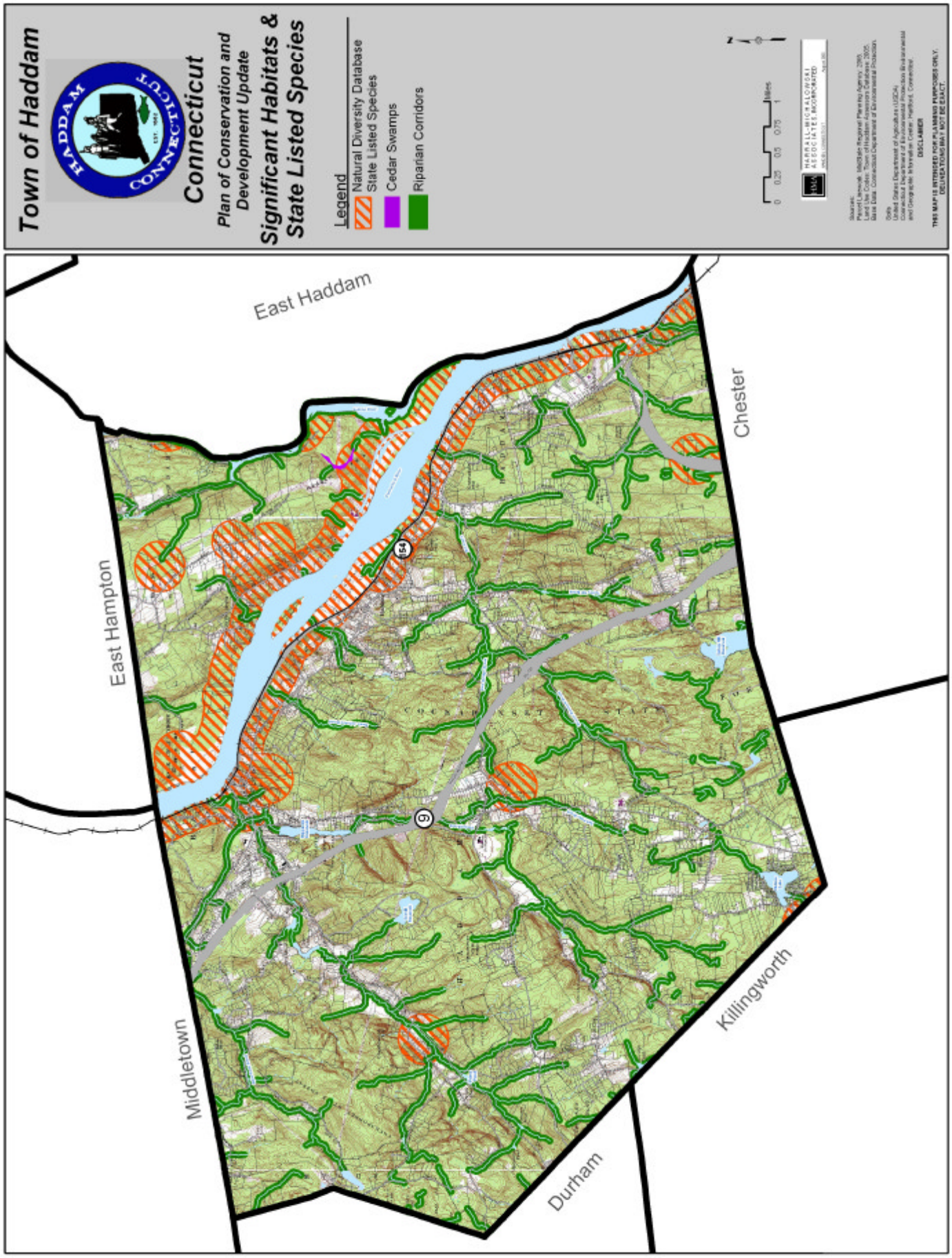
To protect wildlife habitat and provide wildlife corridors along waterways, the recommended buffer width varies depending upon the desired species. For example, some songbirds only require a buffer width of 40 feet while larger birds such as cavity nesting ducks require a buffer width of 600 feet. On average, it is recommended that a buffer width of 300 feet would adequately provide a functional corridor for most wildlife species. Obviously, protecting a 300-foot buffer along all the river and streams in Haddam is not a realistic nor attainable objective. The United States Forest Service, in a publication titled "Riparian Forest Buffers- Function and Design for Protection and Enhancement of Water Resources," suggests a minimum buffer of 95 feet, which is composed of the following three zones: Zone 1 begins at the top of the stream bank and occupies a strip of "undisturbed forest" of 15 feet. Zone 2 begins at the edge of zone 1 and occupies an additional 60 feet of "managed forest." Zone 3 is composed of 20 feet of natural or controlled grazed grassland whose main function is to control runoff. The 95-foot buffer is a minimum suggested width. Actual widths should vary depending on 1) the nature of protected stream; 2) soils, topography and vegetation abutting the stream; and 3) land use of concern that may impact the stream. Even though this approach is not specific to wildlife, it could provide some level of protection to wildlife that utilize the watercourse and the adjacent riparian zones in the town.

While this approach is not feasible everywhere in town, there are some areas, particularly in undeveloped portions of town, where some buffer implementation may be feasible. These areas are illustrated on the map titled *Significant Habitats and State Listed Species*.

Significant Habitats & State Listed Species

The combination of Haddam's rolling terrain, large tracts of deciduous and coniferous forests, wetlands, bedrock outcroppings, and abundant water features including the Connecticut River provides exceptional habitat for a variety of wildlife. The Nature Conservancy, a global non-profit organization dedicated to projecting the biodiversity has identified the Connecticut River, Salmon River (including Salmon Cove), and Pine Brook as three natural resources located in Haddam as important to the biological diversity of the Northeast United States.

The combination of Haddam's rolling terrain, large tracts of deciduous and coniferous forests, wetlands, bedrock outcroppings, and abundant water features including the Connecticut River provides exceptional habitat for a variety of wildlife.


Town of Haddam
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Plan of Conservation and Development Update
Significant Habitats & State Listed Species
Legend
Natural Diversity Database State Listed Species
Cedar Swamps
Riparian Corridors
East Haddam
Chester
East Hampton
Middletown
Killingworth
Durham
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Cockaponset State Forest Entrance

The Haddam landscape supports diverse wildlife species, including songbirds, birds of prey, game animals (e.g., deer, wild turkeys), furbearers, small mammals (e.g., raccoons, skunks, foxes), insects, butterflies, fish, reptiles, and amphibians.

The Haddam landscape supports diverse wildlife species, including songbirds, birds of prey, game animals (e.g., deer, wild turkeys), furbearers, small mammals (e.g., raccoons, skunks, foxes), insects, butterflies, fish, reptiles, and amphibians. Many suburban and urban animals, such as squirrels, also thrive. Resident pest species include gypsy moths and Asian ladybugs. The DEP Natural Diversity Database entries for Haddam include rare and endangered species such as the bald eagle.

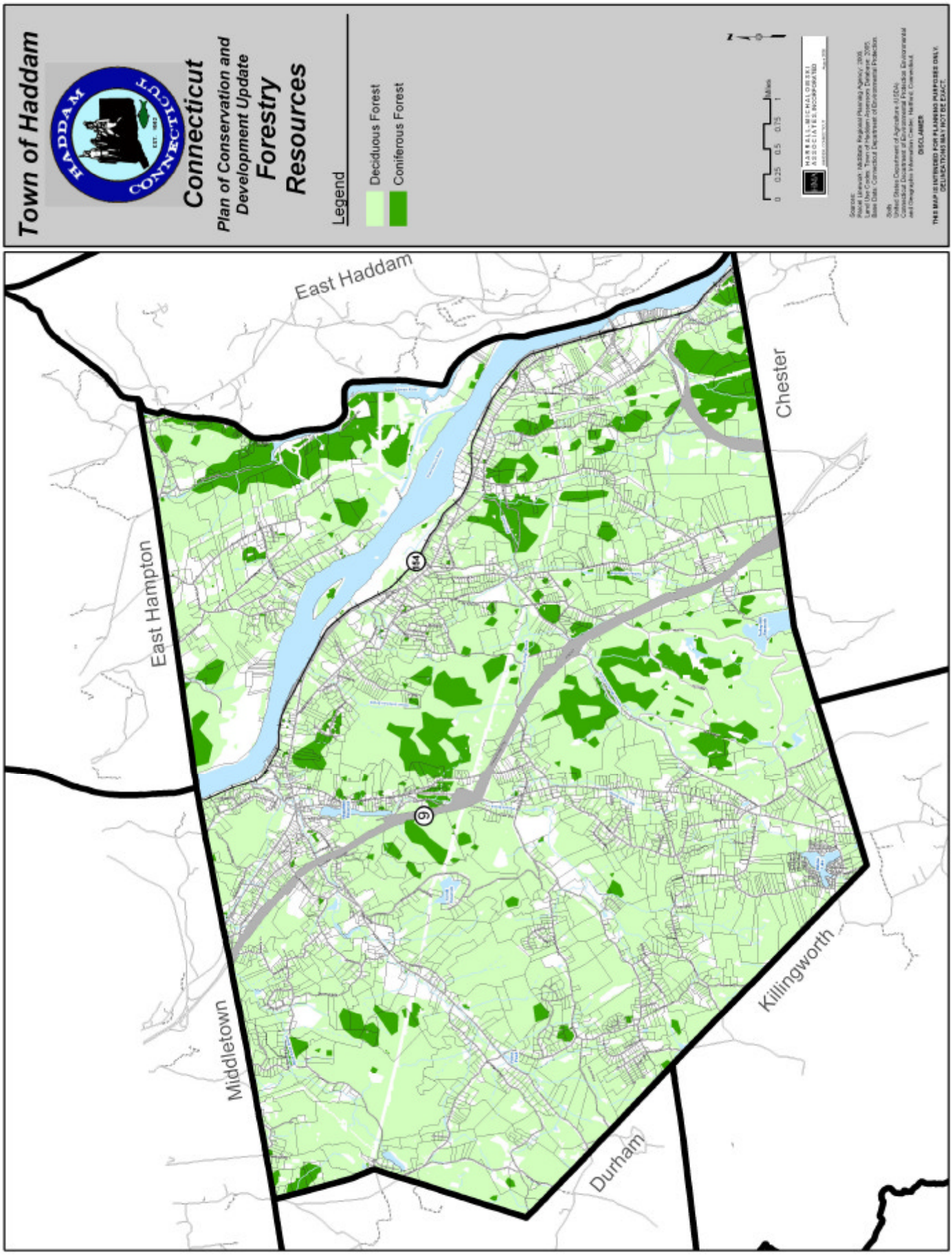
The location of sites within the town identified by the Connecticut Natural Diversity Database are illustrated on the map titled *Significant Habitats and State Listed Species*. In addition to generalizing the exact location of these sites, the category in which the sites are located has also been removed. This is to further ensure the protection of these unique resources.

Forested Land

Haddam is generally forested with deciduous mixed hardwoods. Oaks (red, white, black, scarlet, chestnut) populate the drier uplands, with other species such as hickories as more minor components. Moister sites support maples (red and sugar), ash, birches (black and yellow), beech, black cherry, and tulip poplar. Coniferous areas of hemlock and white pine also may be found in Haddam. Non-timber species represented include hornbeam, hophornbeam, red cedar, and flowering dogwood. Mountain laurel is by far the dominant shrub in Haddam. Other common shrub layer species include witch hazel, spicebush, sweet pepperbush, various viburnums, and high bush blueberry. Herbaceous species vary. Several invasive species (primarily Japanese barberry, Oriental bittersweet, Japanese honeysuckle, Norway maple, garlic mustard, Japanese knotweed, and pasture rose) are quite common throughout town.

Forested lands cover approximately according to the 73% of Haddam's lands 2002 Landcover data derived from Landsat imagery.

Forested lands cover approximately according to the 73% of Haddam's lands 2002 Landcover data derived from Landsat imagery. The largest tract of contiguous forest cover exists in Cockaponset State Forest. The distribution of Haddam's forest resources is shown in the map titled *Forestry Resources*.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C. GOALS & POLICIES

As a springboard to current goals to conserve natural resources, the following are the adopted goals and policies in the 1993 Plan of Conservation and Development.

Maintain a balance between our use of land and the need to preserve, conserve and protect Haddam's natural and ecological resources.

Goals From 1993 Plan

Goal: Maintain a balance between our use of land and the need to preserve, conserve and protect Haddam's natural and ecological resources.

Goal: Assure that open space in town is retained and continues to be set aside for active and passive recreation opportunities.

Goal 3: Protect the town's wetlands, watercourses, flood Preserve environmentally sensitiveplains, and existing and potential water areas, including existing and supply aquifers.

Preserve environmentally sensitive areas, including existing and potential water supplies, significant flora and fauna, aquifers, important physical features, archaeological sites, scenic areas, vistas, ridgelines, and wildlife corridors.

Policies From 1993 Plan

Policy 1: Preserve environmentally sensitive areas, including existing and potential water supplies, significant flora and fauna, aquifers, important physical features, archaeological sites, scenic areas, vistas, ridgelines, and wildlife corridors.

Policy 2: Acquisition or setting aside of open space to provide for both passive and active recreation.

Acquisition or setting aside of open space to provide for both passive and active recreation.

Policy 3: Establishment of corridors and/or contiguous open space areas.

Policy 3: Open space dedication sufficient in quantity to assure availability for future generations.

Policy 4: Allocation of public funds for the purchase of open space for conservation and recreation purposes.

Policy 5: Preservation of privately held open land.

IX. PARKS, RECREATION, & OPEN SPACE

A. INTRODUCTION

This section provides an inventory of Haddam's open space, parks, and recreation and recommends ways in which the Plan of Conservation and Development can address conserving, maintaining, and improving these community resources.

Open space and recreation area to be identified on a parcel basis and mapped town-wide, thereby illustrating the overall open space and recreation fabric of Haddam.

Open space is perceived and defined in different ways. Some may define open space as unimproved or undeveloped land whereas some may define it as vacant or empty land. Such definitions fail to consider the value of open land from a conservation perspective. The views of open lands and forested landscapes in Haddam combine to provide a perception that large areas of the Town are "open space" without making a distinction as to the ownership of the landscape.

Picnic area at Seven Falls State Park

Functions of Open Space:

Open space serves several functions within a community. The following is a brief synopsis of ways in which open space can influence Haddam's landscape.

Water

The first and highest priority reason for the protection, conservation, and perpetuation of open space lands, particularly forested open space, is water. All the water available for domestic use in Haddam originates as precipitation, which gradually finds its way into the ground. Maintaining sufficient forested open space can serve to protect domestic water supplies, and precludes the cost of creating a public water supply in Haddam. Current thinking in some literature hints at retaining at least 65% forest cover to prevent disruption of hydrologic function. The maintenance of base flows and the moderation of storm flows in stream systems depends upon the same process. In turn, these processes relate to aquatic ecosystems, aesthetics, recreation, community character, and so forth.

The first and highest priority reason for the protection, conservation, and perpetuation of open space lands, particularly forested open space, is water.

Rural Activities

Traditionally rural activities such as farming, animal pastures, forest products, hunting and fishing, and wildlife habitat management play a large role in the overall character and economics of a rural community.

Great Hill Athletic Complex

Haddam's parks and open space provide benefits to the community beyond a place to recreate. These important community amenities function as gathering places, fostering social interaction in an attractive environment.

Field Park

Recreation

Recreational lands in Haddam range from active recreational sites such as playgrounds and athletic fields to larger passive recreational areas such as the Cockaponset State Forest and Haddam Meadows State Park.

Youth and adolescent recreational activities in Haddam have evolved over the years to focus on organized sports and formal recreation programs. The increasingly high participation, longer length, and variety of sports seasons require dedicated facilities, an important consideration when creating capital improvement plans for the community. In addition, opportunities for informal recreation for all citizens (i.e., walking, jogging, swimming, biking) are important to a community. When properly planned, greenways and linear trails can link existing parks and open space areas with neighborhoods and community facilities, including schools, and provide an interconnected network serving Town residents.

Haddam's parks and open space provide benefits to the community beyond a place to recreate. These important community amenities function as gathering places, fostering social interaction in an attractive environment.

Value

Much of a community's appearance, character, and environmental integrity are a result of its natural landscape. The influence of the natural environment and the feeling of openness provided are most noticeable along its edges, the part that the people see and use the most. Open space edges and borders can serve to enclose and define development and prevent a continuous built area. The maintenance of vegetative buffers along the Open space, if included as a major design component in community development, provides for the continuance of an intimate connection between the natural environment and the citizens of the community.

Open space preservation, in many instances, matters not only for maintaining ecological equilibrium and integrity but also for economic importance from both the community and individual perspectives. These community assets can benefit property values and marketability. As consistently demonstrated in the real estate market, people will pay more money for a home in close proximity to parks and open space than a similar home that does not offer this amenity.[3]

[3] Crompton, John L., Parks and Economic Development, American Planning Association, Planning Advisory Service Report #502, November 2001.

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

- Symbolically represent the quality of life in the Town;
- Attractive environment provided;
- Town costs for water supply and sewage services precluded;
- Lowers demand for town services therefore utilizing potential additional tax revenue for more effective and efficient development.

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

- Design economic development locations to create linkages to the Town's open space framework;
- Require developers to set aside open space within parcels for enjoyment by their employees (in commercial and industrial parcels) and residents;
- Use of tax revenues for the acquisition of additional open space and also for the support of development and maintenance of parks, recreational facilities, and programs.

Grassy Fields at Haddam Meadows

While the Town's existing inventory of parks and open space resources provide a wide array of open lands and recreational opportunities. There is potential to better meet the changing needs of the community.

B. EXISTING CONDITIONS

The inventory process began with a broad definition of open space to include: State Parks/Forests; town parks and open space lands; land trust properties; cemeteries; major utility land holdings; and privately owned open space lands. The map titled "Existing Parks, Recreation, & Open Space" is included to provide a visual description of the location of open space lands within Haddam.

The inventory process began with a broad definition of open space to include: State Parks/Forests; town parks and open space lands; land trust properties; cemeteries; major utility land holdings; and privately owned open space lands.

This information was mapped using GIS technology, so that every parcel identified on this map has a record in an underlying computerized database containing information relative to the ownership, use, acreage, and map-block-lot identifiers. This map describes the locations of open space resources within Haddam and the physical relationship of open lands to one another. Table 25 provides an inventory of open space lands by use and ownership category. Local experts validated collected data.

TABLE 25

PARKS, RECREATION & OPEN SPACE

Haddam, Connecticut - POCD Update

Parks & Recreation		Open Space		PA 490 Land	
Town of Haddam	*Acres*	*Town of Haddam*	*Acres*		*Acres*
Brickyard Ballfield	4.1	Town Green	0.1	PA 490 Forest	3,206.6
Great Hill Athletic Complex	18.2	Village Park Society	10.8		
Subtotal	**22.3**			PA 490 Open Space	1,050.3
		Other Town Open Space	557.4	PA 490 Farm	127.1
		Subtotal	**568.3**	**Subtotal**	**4,384.0**
		State of Connecticut			
		State Forests	5,585.0		
		Haddam Island State Park (Thirty Mile Island)	22.1		
		Seven Falls	3.8		
		Haddam Meadows	163.4		
		George D. Seymour State Park	379.8		
		Clark Creek Wildlfie Area	9.1		
		Rutty Creek Wildlife Area	2.0		
		Connecticut River Water Access	28.9		
		Higganum Meadows Wildlife Area	35.1		
		Haddam Neck Wildlife Area	73.5		
		Wopowog Wildlife Area	33.3		
		Miller's Pond State Park	186.9		
		Higganum Reservoir State Park	89.2		
		Subtotal	**6,612.1**		
Public School		*Private Ownership*			
Haddam-Killingworth High- former Middle School	66.9	Audubon Society	4.8		
Haddam Elementary School	157.9	Land Trusts	598.4		
Burr Elementary School	26.9	Water Company	151.8		
		Boy Scouts of America (Troop 44)	25.9		
		Little City Campground	58.5		
Subtotal [1]	**251.6**	**Subtotal**	**839.4**		
(New Haddam-Killingworth Middle School located in Killingworth - 75 acres)		*Cemeteries*			
		Beaver Meadow Cemetery	0.7		
		Burr Cemetery	3.2		
		Haddam Cemetery	3.6		
		Haddam Neck Cemetery	2.2		
		Higganum Cemetery	3.8		
		Little City Cemetery	0.8		
		Old Ponsett Cemetery	0.3		
		New Ponsett Cemetery	2.6		
		Rock Landing Cemetery	5.0		
		Thirty Mile Island Cemetery	1.6		
		Turkey Hill Cemetery	0.3		
		Tylerville Cemetery	2.7		
		Subtotal	**26.6**		
PARKS & RECREATION TOTAL:	**273.9**	**OPEN SPACE TOTAL:**	**8,046.5**	**PA 490 LAND TOTAL**	**4,384.0**

Source: Town of Haddam, GIS Parcel Base

[1] Acreage represents total parcel area, which contains municipal schools buildings and fields.

Active Recreation Facility Overview

Active recreational facilities are defined as areas that accommodate organized sporting activities such as baseball, basketball, football, soccer, tennis, or school playgrounds. These facilities may also provide playscapes for younger children. Existing park and recreation facilities offer Haddam residents a variety of active recreational opportunities. In Haddam, active recreation areas total approximately 274 acres.

TABLE 26
MATRIX OF ACTIVE RECREATIONAL FACILITIES

School Name	Parcel Acreage[1]	Baseball Fields	Football/ Soccer	Softball Fields	Basketball	Tennis Court	Play Equipment	Track	Multi-Use Fields
Burr Elementary School	26.9			X	X		X		
Haddam Elementary School	157.9				X		X		X
Haddam-Killingworth High School	66.9	X	X	X	X	X		X	X
Haddam-Killingworth Middle School[2]	75	X	X	X	X				X

[1] Acreage represents total parcel area, which contains municipal schools buildings and fields
[2] located in Killingworth

The organized active recreation component of the parks system centers around school-associated recreational facilities and town-owned facilities. Athletic fields and basketball courts not associated with Regional District 17 facilities are limited. In addition to the recreation facility owned and maintained by Regional District 17 and the Town, several State and privately owned facilities also exist within Haddam's boundaries. Cockaponset Forest, Haddam Meadows State Park, George D. Seymour State Park, and Higganum Meadows State Parks provide streams, water bodies, woods roads, and trails used for walking, jogging, hiking, fishing, boating, kayaking, canoeing, hunting, and cross-country skiing.

Playscape at Haddam Elementary School

The Connecticut River provides unique potential for canoeing/kayaking, boating, fishing, and other water-related activities along the river. Haddam Meadows and George D. Seymour State Parks provide public access to the Connecticut River.

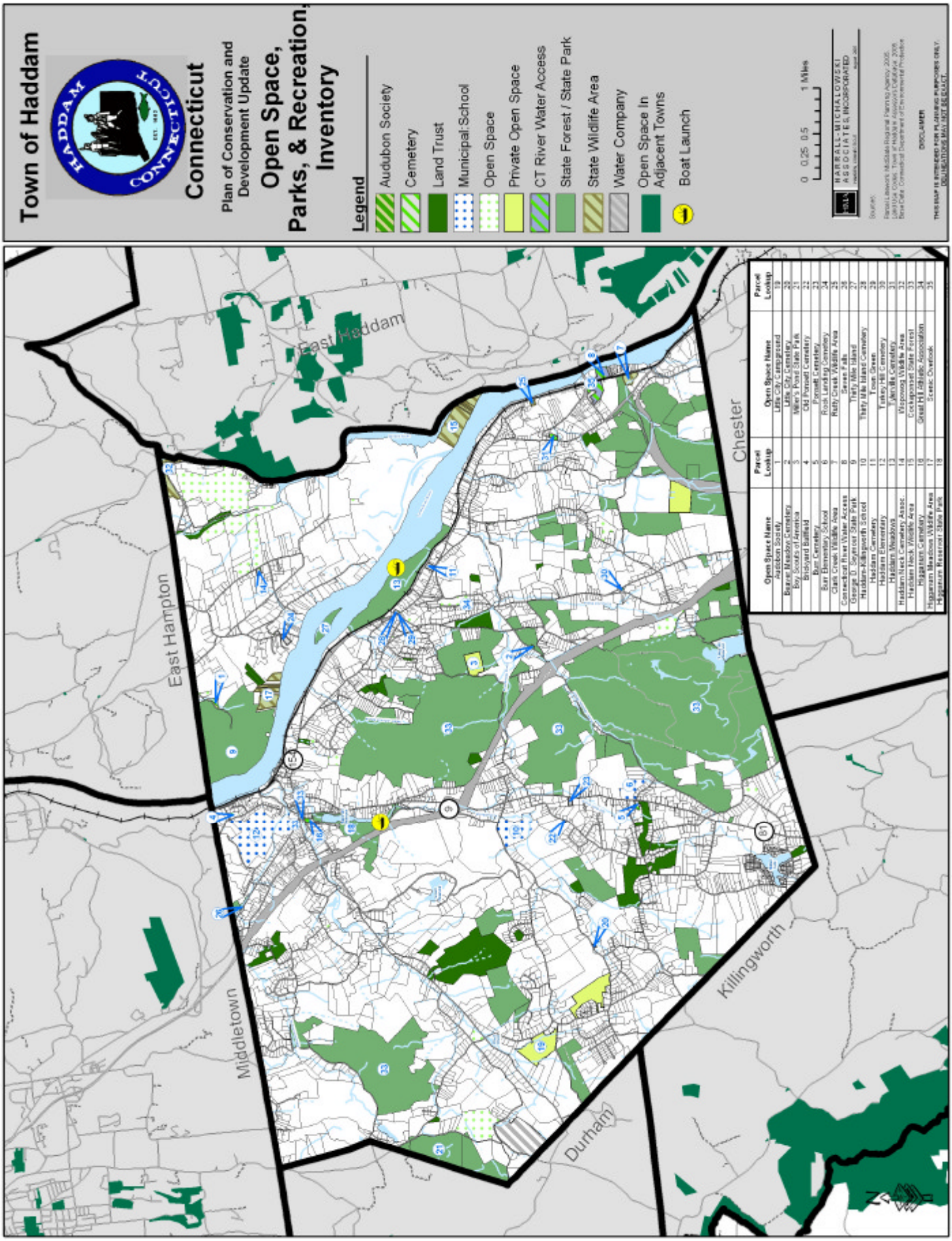
The Connecticut River provides unique potential for canoeing/kayaking, boating, fishing, and other water-related activities along the river.

Maintaining and improving options for active recreation is an important component of the parks and open space plan. Table 26 provides a summary matrix of the facilities that support active recreation in Haddam. The map titled *"Existing Parks, Recreation, and Open Space"* identifies the locations of these facilities.

Connecticut River at Haddam Meadows

Open Space Overview

In Haddam, open space areas total approximately 8,047 acres or 26.7% of the Town's land area. The Town of Haddam owns little of this property. The State of Connecticut and private landowners control approximately 6,612 acres and 839 acres respectively.


Town of Haddam
Connecticut
Plan of Conservation and Development Update
Open Space, Parks, & Recreation, Inventory
Legend
Audubon Society
Cemetery
Land Trust
Municipal:School
Open Space
Private Open Space
CT River Water Access
State Forest / State Park
State Wildlife Area
Water Company
Open Space In Adjacent Towns
Boat Launch
0 0.25 0.5 1 Miles
HARRALL-MICHALOWSKI ASSOCIATES, INCORPORATED
DISCLAIMER
THIS MAP IS INTENDED FOR PLANNING PURPOSES ONLY. DIMENSIONS MAY NOT BE EXACT.
East Haddam
East Hampton
Chester
Middletown
Killingworth
Durham
Open Space Name | Parcel Lookup
Audubon Society | 1
Beaver Meadow Cemetery | 2
Boy Scouts of America | 3
Bridgyard Ballfield | 4
Burr Cemetery | 5
Burr Elementary School | 6
Clark Creek Wildlife Area | 7
Connecticut River Water Access | 8
George D. Seymour State Park | 9
Haddam-Killingworth School | 10
Haddam Cemetery | 11
Haddam Elementary | 12
Haddam Meadows | 13
Haddam Neck Cemetery Assoc. | 14
Haddam Neck Wildlife Area | 15
Higganum Cemetery | 16
Higganum Meadows Wildlife Area | 17
Higganum Reservoir State Park | 18
Little City Campground | 19
Little City Cemetery | 20
Miller's Pond State Park | 21
Old Parsell Cemetery | 22
Parsell Cemetery | 23
Rock Landing Cemetery | 24
Rutty Creek Wildlife Area | 25
Seven Falls | 26
Thirty Mile Island | 27
Thirty Mile Island Cemetery | 28
Town Green | 29
Turkey Hill Cemetery | 30
Tylerville Cemetery | 31
Wopowog Wildlife Area | 32
Cockaponset State Forest | 33
Great Hill Athletic Association | 34
Scenic Overlook | 35

Shailorville / Tylerville Cemetery

Generally, passive recreation activities encompass the less intensive range of outdoor activities compatible with open space goals of preserving natural resource functions, including wildlife and plant habitat, protected watersheds, protected floodplains, and wetlands, while providing low-impact recreation opportunities such as hiking, wildlife observation, and picnicking. Passive recreational facilities typically consist of minimal development or improvements to a site, sometimes including little more than park benches or picnic areas.

Some of the most notable open space areas in town that see extensive recreational use are Cockaponset State Forest, Haddam Meadows, and Haddam Island State Park. Cockaponset State Forest is one of thirty-two state forests and is the state's second largest forest totaling nearly 16,000 acres across seven towns, with 5,585 of those acres located in Haddam. Cockaponset provides state residents opportunities for camping, bird watching, hiking, fishing, cross-country skiing, hunting, snowmobiling and mountain biking. The main tract of forest extends from the center of Haddam south into Chester.

Some of the most notable open space areas in town that see extensive recreational use are Cockaponset State Forest, Haddam Meadows, and Haddam Island State Park.

Haddam Meadows is a 163-acre state park located along the western shore of the Connecticut River and is accessible from Route 154 just north of the historic village of Haddam. In Colonial times this area played an important role in the town's agricultural economy. The park features a public boat launch, grassy fields, and scenic views of the river. Haddam Meadows also serves as the site for many town activities and events, including little league games, Haddam River Days, Connecticut River Raft Race, car shows, and small engine shows.

Visible from the northern section of Haddam Meadows is Haddam Island, also known as Thirty Mile Island. Haddam Island State Park, covering 22 acres, once hosted operations of two successful fishing companies and a dance hall. Recreational boaters favor the island's sandy beaches to camp, sunbathe, and picnic.

Haddam Land Trust protects over 500 acres in Haddam. Bamforth Wildlife Preserve and Nedobity Nature Preserve appear among the most notable of the land trust preserves. Both natural areas include mowed habitat areas managed for wildlife and marked trails.

Public Act 490

In 1963, the Connecticut General Assembly passed "Public Act 490." The Declaration of Policy states "(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[4]. Approval for the beneficial tax assessments follow different paths:

- Farm land designation is obtained by written application to the municipality's assessor;
- Forest land designation is obtained by written application to the State Forester;
- Open space land is designated by the planning commission as part of preparing a plan of conservation and development.

In all cases, the taxable value of such land decreases, thereby making the property tax burden decrease. A similar provision grants tax abatement to tax-exempt organizations that preserve open space land in perpetuity for educational, scientific, aesthetic, or other equivalent passive uses.

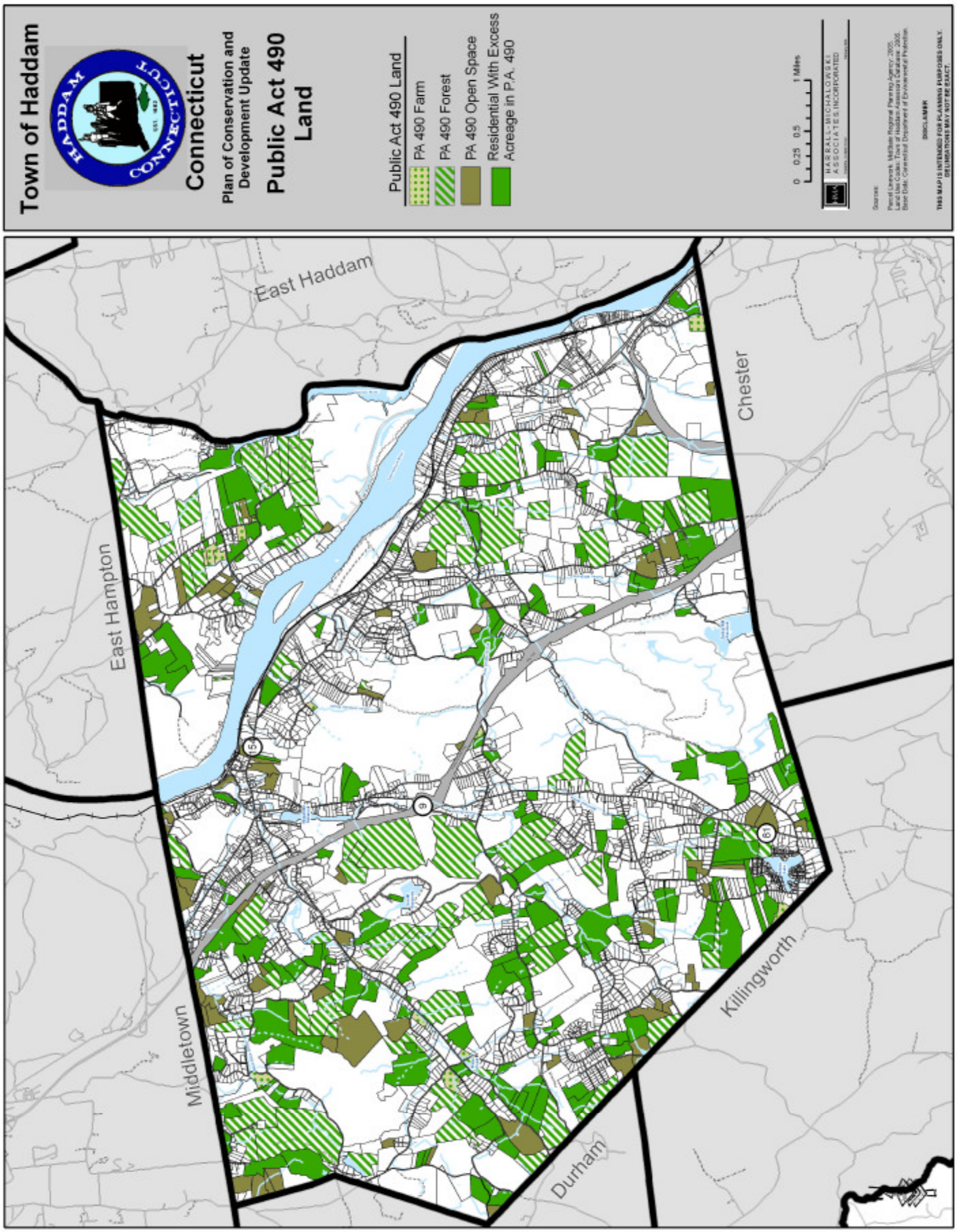
In Haddam, 167 parcels totaling 4,407 acres of land have been included in the P.A. 490 program and an additional 171 parcels where one residence exists and the remaining acreage is enrolled as forest, farm, or open space. This program does not guarantee that this land will remain as open space as the owner maintains the right to sell the property, albeit with a conveyance tax requirement. It does, however, provide incentive to preserve the farm and forestlands of the State. P.A. 490 lands are inventoried separately from other open space because they could be sold at anytime and generally do not provide public access. These lands do, however, contribute significantly to the overall open space network by protecting natural resources and contributing to the Town's overall community character. The distribution of P.A. 490 lands in Haddam is illustrated on the map titled "Public Act 490 Land."

In Haddam, 167 parcels totaling 4,407 acres of land have been included in the P.A. 490 program and an additional 171 parcels where one residence exists and the remaining acreage is enrolled as forest, farm, or open space.

C. FUTURE OPEN SPACE SYSTEM

It is very important to note that all land included in the open space inventory is not necessarily protected in perpetuity. While it is reasonable to expect that land owned and maintained by the State of Connecticut will remain open space well into the future, unless stated in the deed, landowners have demonstrated a propensity to divest themselves of open lands.

[4] See Conn. Gen. Stat., §§12-107a to 12-107e, inclusive (1999).


Town of Haddam
HADDAM
CONNECTICUT
EST. 1662
Connecticut
Plan of Conservation and Development Update
Public Act 490 Land
Public Act 490 Land
PA 490 Farm
PA 490 Forest
PA 490 Open Space
Residential With Excess Acreage in P.A. 490
0 0.25 0.5 1 Miles
HARRALL-MICHALOWSKI ASSOCIATES INCORPORATED
Sources:
Parcel Linework: Middlesex Regional Planning Agency; 2005.
Land Use Codes: Town of Haddam Assessors Database; 2005.
Base Data: Connecticut Department of Environmental Protection.
DISCLAIMER
THIS MAP IS INTENDED FOR PLANNING PURPOSES ONLY. DELIMITATIONS MAY NOT BE EXACT.
East Haddam
East Hampton
Chester
Middletown
Killingworth
Durham
15
9
82

Ponset Brook

Framework for Future Open Space Actions

Since the acquisition of open space through fee simple purchase or easements can require a significant commitment of funds, the Town should adhere to criteria (See Table 23 in Natural Resource Inventory Section) and methodology developed by the Haddam Conservation Commission 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.

D. GOALS & RECOMENDATIONS

These recommendations can be accomplished through a combination of activities and resources, including municipal regulations, conservation easements, open space acquisitions and partnering with non-profit and government entities dedicated to the protection of open space.

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

<u>1993 Plan of Conservation Development Goals and Policies</u>

The 1993 Plan of Conservation and Development stated as its general goal to "assure that open space in town is retained and continues to be set aside for active and passive recreation opportunities."

Haddam Conservation Commission open space goals include:

- Preservation of town character and rural nature
- Preservation of environmental quality
- Sprawl avoidance ("smart growth")

Goal: Coordinate open space, parks, and recreation planning efforts among municipal departments and commissions to ensure protection of future open space is implemented proactively and in accordance with the needs and desires of the Town's residents and the Plan of Conservation and Development.

Strategies:

(Recommendations from the 1993 POCD are bolded below)

Action Steps:

- Use Conservation Commission criteria and methodology as a basis for open space planning.[4]
- Continuously 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.
- Promote public accessibility to open space areas.
- Wherever possible, existing open space and parks should be linked together to form interconnected greenways. An example is the potential connection of Higganum Cove and Higganum Reservoir by a linear greenway.
- **Continue to utilize the open space subdivision regulations to acquire and protect open space resources in town on parcels earmarked for development.**
- Identify and designate areas as open space that provide historical and/or archaeological significance to the Town.
- **Continue to promote the P.A. 490 program to preserve Haddam's privately held open land and its rural landscape.**
- Continue to promote rural economic activities such as forest management and agriculture.
- Consider annual open space and parks planning and funding sessions prior to commencement of the municipal budget process.
- **Preserve environmentally sensitive areas, including, but not limited to, existing and potential water supplies, significant flora and fauna, unique natural features, scenic areas, and ridgelines.**
- **Identify "islands" of committed open space that could potentially be linked to provide wildlife corridor protection. Linking the open space that has the greatest value for wildlife should get top priority.**

Use Conservation Commission criteria and methodology as a basis for open space planning. [4]

Continue to utilize the open space subdivision regulations to acquire and protect open space resources in town on parcels earmarked for residential development.

Preserve environmentally sensitive areas, including, but not limited to, existing and potential water supplies, significant flora and fauna, unique natural features, scenic areas, and ridgelines.

[4] Haddam Conservation Commission, Haddam Open Space Plan.

- Enlarge upon existing protected open space tracts whenever possible. Many studies indicate that large, contiguous areas of uninterrupted, unfragmented open space enhance functions and benefits of open space (e.g., water recharge, wildlife habitat).

- Support efforts, such as legislation, intended to mitigate adverse impacts of illegal activities on open space e.g., ATV management, open space encroachment.)

- Work with partners like the Nature Conservancy and Haddam Land Trust to conserve open space

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 residents and to assure availability for future generations.

- Every three to five years, conduct a recreation survey of Haddam residents to determine what, if any, additional active or passive recreational assets are desirable for the Town.

- Maintain and routinely upgrade Haddam's active and passive recreational facilities in a time- and labor-efficient manner. Work with local municipalities, especially Regional District 17 partner Killingworth, on availability of shared municipal recreational facilities.

- Identify areas of open space that can be used as recreational playing fields.

- Identify the various hiking trails and biking and canoe/kayak routes within the Town, both as a means of emphasizing additional recreational opportunities and as potential linkages between existing open space parcels.

Identify the various hiking trails and biking and canoe/kayak routes within the Town, both as a means of emphasizing additional recreational opportunities and as potential linkages between existing open space parcels.

XI. GENERALIZED LAND USE PLAN

A. INTRODUCTION

The Generalized Land Use Plan illustrates the proposed pattern of conservation and development for the Town of Haddam. It recommends the most appropriate location and relationship of major land uses, including proposals for residential development; commercial development; business districts; industrial; 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.

B. HADDAM'S GENERALIZED LAND USE PLAN

Compact development exists in Haddam's village centers. The balance of the Town is lightly developed or is yet to be developed. Development and conservation of the remaining vacant land, infill development in the villages of Higganum, Haddam and Tylerville, 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 Haddam 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.

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. 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.

Residential Land Use Categories

Medium Density Rural Residential

This category represents those areas that are predominantly comprised of residential neighborhoods, at densities generally around one unit per acre. These areas are located along the major roadways funneling into Higganum Center and in the subdivision around Hidden Lake in the southwestern corner of Town. 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 Rural Residence (R-1) with a 1 acre minimum lot size for single family homes and a 2 acre minimum for 2 family residences.

Low Density Rural Residential

This category represents areas in the Town that possess a lesser degree and intensity of residential development. Generally, development in these areas should have a density that is less than 1 unit per 2 acres. These lightly developed or undeveloped areas are generally located west of Route 9 except for the Hidden Lake subdivision, Haddam Neck, and south of the Village of Higganum from Route 154 west to Route 9. This land is currently zoned Rural Residence (R-2) and comprises much of the Town's land area that has significant potential for development.

Mixed Land Use Categories

Three mixed land use districts are included in Haddam's land use plan, one district corresponding to each of the Town's three village districts of Higganum, Haddam, and Tylerville. These districts could be the focus of mixed-use zoning that is based upon smart growth planning concepts that encourages a unique sense of identity, the revitalization of commercial and retail businesses, and renovation of existing infrastructure to solidify these village centers.

Three mixed land use districts are included in Haddam's land use plan, one district corresponding to each of the Town's three village districts of Higganum, Haddam, and Tylerville.

Haddam Village District

Haddam Village District is centrally located along Route 154 just west of Haddam Meadows State Park. This Village is primarily defined as a collection of municipal facilities and moderate density housing. The district includes the site of the Town Office Building, Brainerd Memorials Library, Haddam Historical Society, Senior Center, and several other properties that have residential, commercial, or vacant land uses. The majority of the land in this district is currently zoned Rural Residential (R2-A), while the few properties at the northern extent of the district are zoned Commercial (C-1).

Higganum Village District

Higganum Village District is centered along the major crossroads of Routes 154, Route 81, and Candlewood Hill Road, which serve to connect Middletown, Killingworth, and Durham. Higganum Village District serves as the shopping and civic center of Haddam. Higganum Village is primarily defined as a mixture of commercial, mixed-use, public institutional, and industrial land uses. This area contains a grocery store, restaurants, banks, hardware store, pharmacy, post office, gift shops, package stores, barbershop, dry cleaners, and other retail establishments making it the hub of commercial activity in town. Most of the land in this district is currently zoned Commercial (C-1) and Rural Residential (R-1).

Tylerville Village District

Tylerville Village District is located at the junction of Routes 154 and 82, which serve to connect East Haddam and Chester. The mixed-use nature of this village is reflected in the multiple zoning districting currently regulating the land, which includes Commercial (C-1), Industrial (IND), and Rural Residential (R-2A). This district includes a neighborhood shopping center, various retail shops, service stations, restaurants, gift shops, and an automotive dealership. Tylerville and East Haddam function as one business area physically separated by the Connecticut River. The retail and convenience establishments of Haddam have a synergy with tourist-oriented establishments of East Haddam.

Non-Residential Land Use Categories

Commercial / Industrial

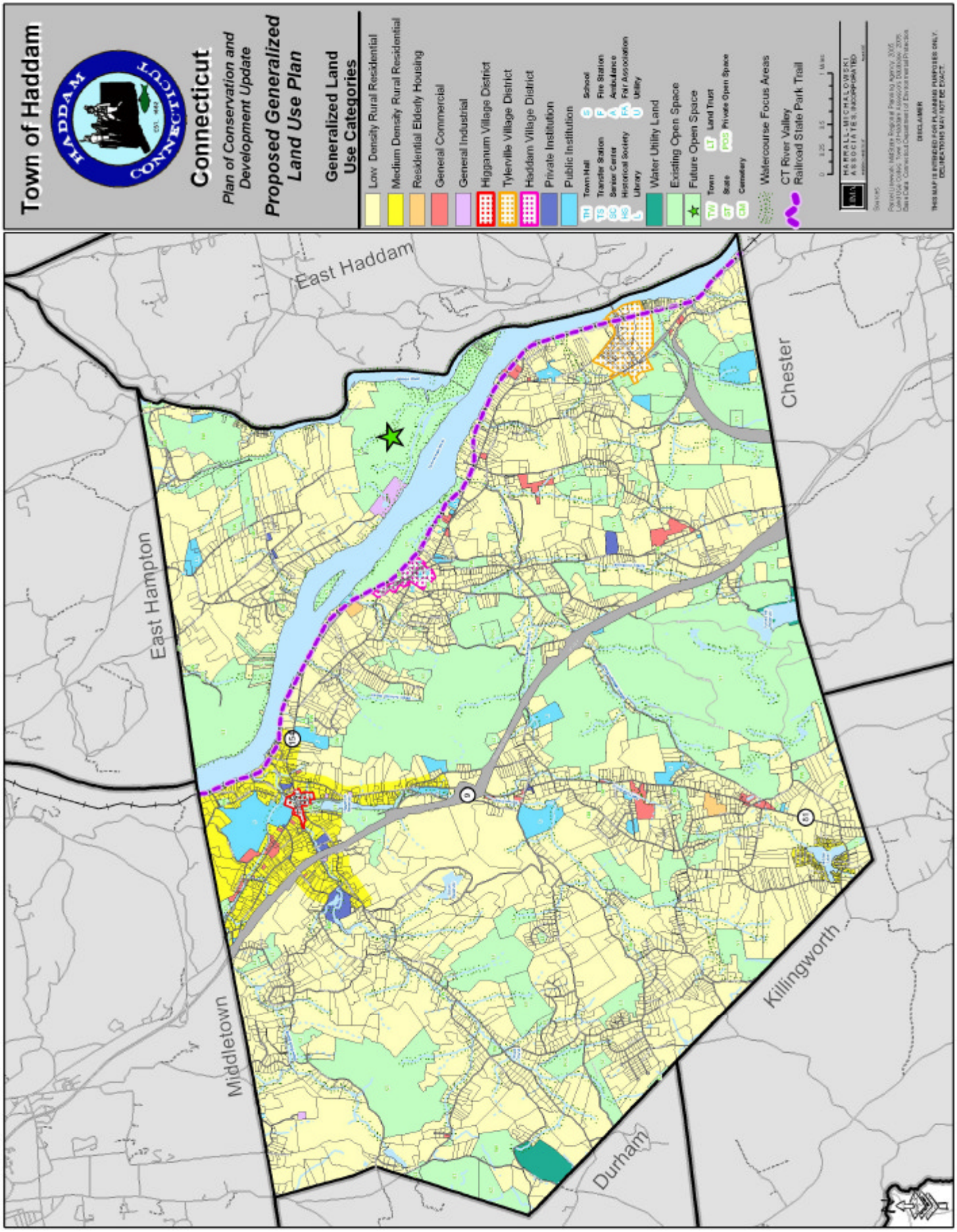
This category encompasses those areas identified as appropriate for business and industrial uses that are located outside of the Town's three village districts. Land zoned for commercial uses are generally located on Route 154 along and a few zone districts along Route 81 and land zoned for industrial use is located at the Route 82 and 154 junction and in Haddam Neck at the site of the former Connecticut Yankee Plant.

Public Institutional

This category of land use includes municipally owned facilities such as Town Office Building, Brainerd Memorial Library, Transfer Station, Senior Center, Historical Society, public works, and fire stations, ambulance association, among others. It also includes facilities that are owned and managed by non-municipal entities, and includes the District 17 school facilities, utilities, and State DOT. The *Generalized Land Use Plan* map illustrates the distribution of these community service facilities across the Town of Haddam.

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, and athletic fields, and passive areas including State Forests and Wildlife Areas 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.


Town of Haddam
Connecticut
Plan of Conservation and Development Update
Proposed Generalized Land Use Plan
Generalized Land Use Categories
Low Density Rural Residential
Medium Density Rural Residential
Residential Elderly Housing
General Commercial
General Industrial
Higganum Village District
Tyleville Village District
Haddam Village District
Private Institution
Public Institution
Town Hall
Transfer Station
Senior Center
Historical Society
Library
School
Fire Station
Ambulance
Fair Association
Utility
Water Utility Land
Existing Open Space
Future Open Space
Town
State
Cemetery
Land Trust
Private Open Space
Watercourse Focus Areas
CT River Valley Railroad State Park Trail
East Haddam
Chester
East Hampton
Middletown
Killingworth
Durham

Watercourse Focus Areas

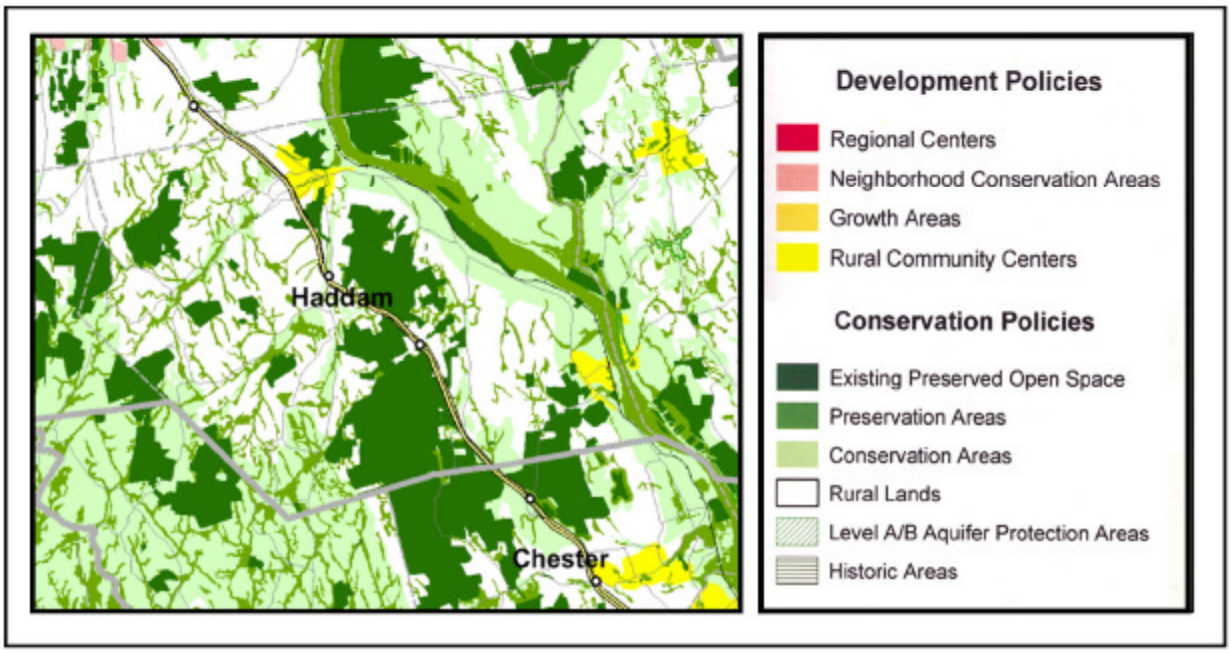
Within these areas, development along waterways should be regulated to ensure the protection of groundwater and surface water resources. As opportunities arise, efforts should be undertaken to provide open space corridors and/or linkages to existing open space areas. Designation of a property within these Watercourse Focus Areas does not indicate 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.

C. 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 below illustrates the Land Classifications for Haddam 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, existing preserved open space, and conservation areas. The Villages of Higganum and Tylerville are designated as rural community centers. The most prominent preservation area is located along the lengths of the Connecticut and Salmon Rivers. The Route 154 corridor between the Tylerville and Higganum is designated as a conservation area, and additional significant tracts of land designated as conservation areas also exist in Haddam Neck and in the southwest corner of the Town existing preserved open spaces both within and surrounding the Town of Haddam are also identified in the figure. This Generalized Land Use Plan for the Town of Haddam is largely consistent with the general guidance provided by current State Plan.



2004-2009 Connecticut Location Guide Map For Haddam

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

The 2005-2010 Connecticut Office of Policy and Management's State Plan has been recently been adopted and is now in effect The adopted Connecticut Conservation and Development Policies Plan: 2005-2010 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 Haddam are consistent with the key growth management principles outlined in the State Plan.

Higganum Reservoir Near Ponset Brook Confluence

XI. 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 study, advocacy and promotion and others call for administrative action.

Priorities are classified as ongoing, short term (1-3 years), mid-term (4-6 years) and long-term (7-10 years). Some of the short-term 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 short-term recommendations may have evolved as part of the planning process and need to be inserted into the Capital Improvement Program.

Mid-term and long-term 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. Mid-term and long-term 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 Haddam Planning and Zoning Commission to review and report on implementation progress as a component of their annual report.

ACTION AGENDA

	Lead Agency	PRIORITY: On-Going	Short Term (1-3 Years)	Mid Term (4-6 Years)	Long Term (7-10 Years)
GOAL: Maintain the Woodland and Rural Characteristics of Haddam's Natural Landscape.					
Identify priority areas and individual parcels for conservation and Preservation actions.	**CC**		O		
Within identified priority areas, work with property owners, the Town and cooperating conservation organizations, to develop a strategy for the conservation and preservation of undeveloped land as it becomes available.	**CC**	O			
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.	**P&Z**	O			
Commercial and industrial development should be concentrated in the town centers (Higganum and Tylerville).	**P&Z**	O			
When residential development occurs in areas identified as possessing rural or pastoral qualities, "conservation" and "open space" subdivision design standards per Haddam's zoning regulations, without consequence to the permitted density of development, should be encouraged. The design of conservation subdivisions would identify the areas of the site most sensitive to the destruction of the lands pastoral and rural qualities as a result of development and would site construction activities accordingly. Stone walls and other colonial remnants should be preserved.	**P&Z**		O		
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 woodland and rural characteristics of Haddam's natural landscape.	**PW**	O			
Create a working group of P&Z and Haddam Neck representatives to review current Zoning Regulations in light of the unique land characteristics and sparce settlement patterns found in Haddam Neck. Determine if special district zoning is appropriate.	**P&Z**		O		
GOAL: Protect the Prime Features of Haddam's Natural Landscape.					
Use the Conservation Commission's Open Space Criteria as a base for decision-making.	**CC**	O			
Support actions that protect floodplains.	**P&Z/WC**	O			
Support actions that limit the development of flood prone areas.	**P&Z/WC**	O			
Support actions that guard against increased downstream run-off.	**P&Z/WC**	O			
Support actions which continue the ability of wetlands to function as water storage areas or as groundwater recharge areas.	**P&Z/WC**	O			

IMPLEMENTING AGENCIES: ASSESSOR - Tax Assessor; BOE - Board of Education; BOF - Board of Finance; CC - Conservation Commission; EDC - Economic Development Commission; ELDER - Municipal Agent for the Elderly; FIRE - Fire Departments; HIST - Historical Society; HOUSING - Housing Authority; LIB - Library; P&Z - Planning and Zoning Commission; PW - Public Works; REC - Parks & Recreation Committee; SELECT - Town Selectmen; TROOP - Resident State Trooper; WC - Wetland Commission.

		PRIORITY			
	Lead Agency	On-Going	Short Term (1-3 Years)	Mid Term (4-6 Years)	Long Term (7-10 Years)
Support actions that protect areas containing slopes that exceed 15%.	**P&Z**	O			
Support proper soil conservation practices to guard against soil erosion and stream sedimentation resulting from future land development activities.	**P&Z/WC**	O			
Promote rural activities such as Christmas tree farms, managed forest land, maple sugaring, and so forth.	**P&Z**	O			
Create a working group of P&Z, Conservation Commission and Wetland Commission representatives to study zoning and subdivision regulation changes that would minimize surface run-off such as maximum impervious surface regulation and natural forest and fields coverage.	**P&Z**		O		
GOAL: Enhance the Visual Appearance and Vitality of Haddam's Multiple Village Centers					
Encourage new commercial and higher density residential development to occur in the village centers of Haddam Center and Higganum in order to reinforce these villages as the center of town and to guide development of this type to where infrastructure is in place to support it.	**P&Z/EDC**	O			
Encourage small-scale commercial infill development and lower density residential uses in the other villages to provide greater physical definition to the centers of these villages while protecting the undeveloped land surrounding them.	**P&Z/EDC**	O			
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.	**P&Z/CC**	O			
Consider the implementation of the village district regulations similar to Higganum's for the other village centers.	**P&Z**		O		
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.	**SELECT/PW**		O		
GOAL: Maintain and Enhance the Contributions of Historic Resources to Haddam's Community Character					
As the historic inventory of Haddam is a key element in defining the character of the Town, steps should be taken to maintain enhance and promote the historic assets of the community.	**HIST**	O			
New development should be consistent with and sensitive to the historic nature of the community, particularly in the village center areas. Emphasis on quality physical design and site planning that is in keeping with the nature of the surrounding environment should be a high priority.	**P&Z**	O			

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		PRIORITY			
	Lead Agency	On-Going	Short Term (1-3 Years)	Mid Term (4-6 Years)	Long Term (7-10 Years)
Consider protecting additional historic assets if they become available in the private market to further enhance the historic character of the Town.	**SELECT/ HIST**	O			
The Haddam Historical Society has made a series of recommendations to maintain, promote and protect the historic assets of the Town. Review and consider adoption of the recommendations.	**P&Z**		O		
GOAL: Residential Development Should Enhance Rather Than Degrade Haddam's Community Character					
Develop land use regulations that will result in the development of housing forms that maintain the visual perception of Haddam's rural landscape.	**P&Z**		O		
GOAL: Spur additional economic development opportunities through Infrastructure enhancements and other methods					
Construct and install a municipal sewer system in the Higganum Center area to enable greater density and wider variety of commercial uses.	**SELECT/ future WPCA**			O	
Reassess the Higganum Center Village District regulations to ensure that the economic development desires and needs of the community are expressed in the permitted uses, the limitations on square footage and other elements of the regulations.	**P&Z**		O		
GOAL: Capitalize on Tylerville's existing commercial nature and close proximity to cultural attractions in East Haddam to create additional economic development in the village center					
Create a new "village district" zoning designation for the center of Tylerville, similar to that of Higganum Center.	**P&Z**		O		
Fashion zoning regulations that allow a mix of uses at a greater density to create more economic activity.	**P&Z/EDC**		O		
Encourage the development of commercial uses that complement and capitalize on the presence of the Goodspeed Opera House and other attractions nearby.	**P&Z/EDC**	O			
Focus on developing a partnership with the State Department of Transportation for the Higganum DOT site and the large Tylerville site.	**SELECT**		O		
Work with East Haddam on creating economic development initiatives that are "win-win" for the Tylerville/Goodspeed area.	**SELECT/EDC**	O			

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		PRIORITY			
	Lead Agency	On-Going	Short Term (1-3 Years)	Mid Term (4-6 Years)	Long Term (7-10 Years)
GOAL: Economic Development Commission should form a task force to locate an industrial park site that can have suitable infrastructure.					
Utilize the Town's geographic information system (GIS) to examine the current inventory of existing parcels zoned for light industrial uses relative to development constraints, such as the presence of wetlands and steep slopes, poor access, etc.	**P&Z/EDC**		O		
Consider rezoning properties in R-1 and R-2 zones near Higganum Center to support light industrial activities.	**P&Z**		O		
GOAL: Develop an economic development program that will expand Haddam's economic base while meeting the needs of the citizenry in a contextually sensitive manner.					
Utilize the "Community Needs Assessment Survey" for the Town, completed in June 2005, to develop an outline of the commercial and industrial uses needed or desired in Haddam.	**EDC**		O		
Undertake a complete economic market analysis of the Town, with a particular focus on Higganum Center and Tylerville, to inventory individual businesses by specific industry type and location and to identify gaps between expressed community wants and needs and the actual mix of businesses present.	**EDC**		O		
Develop a comprehensive marketing and business recruitment strategy to attract and retain business types that serve the needs and desires of the local population.	**EDC**			O	
Encourage the development and recruitment of businesses that mesh with Haddam's rural and historic character and that promote the unique character of the Town.	**EDC**	O			
Focus on ecotourism related efforts, especially reestablishing Haddam's historical connection to the Connecticut River.	**EDC**	O			
Work with state and federal agencies to develop a strategy for productive reuse of Connecticut Yankee site.	**SELECT/EDC**			O	
GOAL: Capitalize on one of the Town's key assets through the enhancement of the library facility and associated services.					
Identify possible solutions to alleviate the parking issues at the library, such as utilizing parking at other municipal facilities nearby or property acquisitions to develop additional parking.	**SELECT/LIB**		O		
Consider hiring an architect in the near future to develop potential expansion strategies for the library.	**SELECT/LIB**			O	

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	Lead Agency	PRIORITY			
		On-Going	Short Term (1-3 Years)	Mid Term (4-6 Years)	Long Term (7-10 Years)
GOAL: Meet the governmental services needs of Haddam residents in a coordinated and efficient manner.					
Evaluate the changing needs of Haddam's population and the impact of these changes on the provision of general governmental services.	**SELECT**		O		
Continue to evaluate and consider the newly acquired Jail Hill Road building as a potential location for expansion of town government offices.	**SELECT**	O			
GOAL: Provide the highest level of educational services to the children of Haddam.					
Work with Regional School District #17 to coordinate the expansion of the school system through the construction of the expansion of the school system through the construction of the new middle school in Killingworth and the subsequent closing of the Haddam-Killingworth Middle School.	**SELECT/BOE /BOF**	O			
In coordination with Regional School District #17, evaluate the possible need for Haddam-Killingworth High School to expand into the soon to be vacant middle school facility over the next few years.	**SELECT/BOE /BOF**			O	
As the quality of life in Haddam is one of the Town's biggest assets in attracting new residents and potential economic development, continually seek to improve and/or expand the educational opportunities for Town students.	**SELECT/BOE**	O			
Consider the preparation of a long-term (10 to 20 year) school site selection study to identify sites within Haddam that may be suitable of future educational facilities.	**BOE**			O	
GOAL: Coordinate open space, parks, and recreation planning efforts among municipal departments and commissions to ensure protection of future open space is implemented proactively and in accordance with the needs and desires of the Town's residents and the Plan of Conservation and Development.					
Use Conservation Commission criteria and methodology as a basis for open space planning.	**CC**	O			
Continuously evaluate potential open space acquisitions in a variety of different forms using an on-going and proactive approach.	**CC**	O			
Work with neighboring municipalities to advance joint preservation projects.	**SELECT**			O	
Promote public accessibility to open space areas.	**CC/REC**		O		
Wherever possible, existing open space and parks should be linked together to form interconnected greenways. An example is the potential connection of Higganum Cove and Higganum Reservoir by a linear greenway.	**CC/REC**			O	

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			PRIORITY			
		Lead Agency	On-Going	Short Term (1-3 Years)	Mid Term (4-6 Years)	Long Term (7-10 Years)
	Continue to utilize the open space subdivision regulations to acquire and protect open space resources in town on parcels earmarked for residential development.	**P&Z/CC**	O			
	Identify and designate areas as open space that provide historical and/or archaeological significance to the Town.	**HIST/CC**		O		
	Continue to promote the P.A. 490 program to preserve Haddam's privately held open land and its rural landscape.	**ASSESSOR**	O			
	Continue to promote rural economic activities such as forest management and agriculture.	**EDC**	O			
	Consider annual open space and parks planning and funding sessions prior to commencement of the municipal budget process.	**CC/SELECT/ REC/BOF**		O		
	Preserve environmentally sensitive areas, including, but not limited to, existing and potential water supplies, significant flora and fauna, unique natural features, scenic areas, and ridgelines.	**CC/WC**	O			
	Identify "islands" of committed open space that could potentially be linked to provide wildlife corridor protection. Linking priority.	**CC**		O		
	Enlarge upon existing protected open space tracts whenever possible. Many studies indicate that large, contiguous areas of uninterrupted, unfragmented open space enhance functions and benefits of open space (e.g., water recharge, wildlife habitat).	**CC**			O	
	Support efforts, such as legislation, intended to mitigate adverse impacts of illegal activities on open space (e.g., ATV management, open space encroachment.)	**SELECT**		O		
	Work with partners like the Nature Conservancy and Haddam Land Trust to conserve open space.	**CC**	O			
	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 residents and to assure availability for future generations.					
	Every three to five years, conduct a recreation survey of Haddam residents to determine what, if any, additional active or passive recreational assets are desirable for the Town.	**REC**			O	
	Maintain and routinely upgrade Haddam's active and passive recreational facilities in a time- and labor-efficient manner.	**REC**	O			
	Work with local municipalities, especially Regional District partner Killingworth, on availability of shared municipal recreational facilities.	**REC/BOE**		O		
	Identify areas of open space that can be used as recreational playing fields.	**REC**		O		
	Identify the various hiking trails and biking and canoe/kayak routes within the Town, both as a means of emphasizing additional recreational opportunities and as potential linkages between existing open space parcels.	**REC**		O		

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	Lead Agency	PRIORITY			
		On-Going	Short Term (1-3 Years)	Mid Term (4-6 Years)	Long Term (7-10 Years)
GOAL: Provide enhanced infrastructure in the center of Town to spur additional economic development opportunities.					
Evaluate the economic and infrastructure impacts of installing a sewer system in Higganum Center.	**EDC/PW**		O		
Determine the best fiscal approach to creating such as system, either through construction of Haddam's own sewage treatment facility or connecting to the City of Middletown's system.	**PW/SELECT/ BOF**		O		
Consider zoning changes to the Higganum Center area to reflect the presence of sewers through greater density and/or variety of uses allowed.	**P&Z**		O		
GOAL: Provide a high level of public services in an efficient and cost-effective manner.					
Monitor the community facilities and public services needs of the Town on a continuing basis by gauging changes in the utilization of particular services or facilities, and make adjustments to these services or facilities as conditions warrant.	**SELECT/BOF**	O			
Distribute to all households, information that will educate residents on the importance and opportunities for proper household waste disposal and recycling using such items as brochures, fliers, and even information to school children through the schools.	**SELECT**	O			
Meet household waste disposal and recycling needs by using a facility that provides good accessibility and convenience for town residents to increase participation and discourage improper dumping into our soil, air and water.	**SELECT**		O		
Encourage all Town commissions and agencies to review the Action Agenda annually and report on the status of action items assigned.	**SELECT/P&Z**	O			
GOAL: Promote energy efficient and sustainable patterns of development, practices and operations of the Town and its residents.					
Create a committee to explore the use of energy by the Town and recommend measures to improve efficiency and sustainability.	**SELECT**		O		

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