

STAFFORD 2012 PLAN OF CONSERVATION & DEVELOPMENT

Town of Stafford
Tolland County, Connecticut



Prepared With the Technical Assistance of:

Turner Miller Group New England
Cheshire, Connecticut 06410

Telephone No.: (203) 271-2458
www.turnermillergroup.com

ACKNOWLEDGEMENTS

STAFFORD BOARD OF SELECTMEN

Richard Shuck - First Selectman
Neil Hoss - Selectman
Deidriene Guglielmo Knowlton - Selectman

PLAND OF CONSERVATION AND DEVELOPMENT COMMITTEE

\
Ella Ingraham - Chair
Ingrid Aarrestad
Edward Muska
Christie Bradway
Tannis Longmore
Janet M. Cavanagh

PLANNING CONSULTANT

Brian J. Miller, AICP, PP, Advisor
Fred W. Doneit, Advisor

Turner Miller Group, New England
Cheshire, Connecticut 06410

June 2012

TABLE OF CONTENTS

Contents

1.	Introduction.....	I-1
1.1	Purpose.....	I-1
1.2	Statutory Requirements	I-2
2.	Land Use	I-4
2.1	History & Geography	I-4
2.2	Planning for Future Residential Development	I-14
2.3	Strategies for Residential Development.....	I-15
2.3.1	Net Buildable Area	I-15
2.3.2	House Size Requirements	I-15
2.3.3	Ridgeline Protection Zones.....	I-16
2.3.4	New AAAA-Conservation Zone.....	I-16
2.3.5	Historic Overlay Zones	I-17
2.4	Tactics for Residential Development	I-17
2.4.1.	Recommended Revisions of AA & AAA Residential Zoning	I-17
2.4.2	Residential Zoning in Former Borough	I-18
2.5	Planning for Future Commercial Development	I-19
2.5.4.	Business Zone.	I-20
2.5.5	Local Business Zone.....	I-20
2.5.6	Central Business Zone.	I-20
2.6	Industrial Zone.	I-20
2.7	Strategies for Commercial Development	I-21
2.7.1	Village Districts	I-21
2.7.2	Changing Zoning along Sections of Route 190.	I-22
2.7.3	Development in Remaining Highway Business Zone.	I-22
2.7.4	Village Districts.	I-23
2.7.5	Revisions to Local Business Zones.....	I-23
2.8.	New Industrial Development	I-24
2.9.	Aquifer Protection & Water Management	I-24
3	Population, Housing & Development Potential.....	I-26
3.1	Community Profile.....	I-26
3.1.2	Current and Projected Population	I-26
3.1.3	Household Size	I-28
3.1.4	Household Income	I-29
3.2	Existing Housing Supply.....	I-29
3.2.1	Housing Characteristics	I-29
3.2.2	Recent Developments	I-32
3.2.3	Age Restricted Housing	I-33
3.3	Housing Costs and Affordability Analysis	I-34
3.3.1	Housing Value	I-34
3.3.2	Affordable Housing	I-35
3.3.3	Regulatory Controls for Affordable Housing	I-40

3.4	Development Potential	I-42
3.4.1	Historic and Projected Population and Building Permits	I-45
4.	Open Space Resources	I-46
4.1	Background	I-46
4.2	Economic Benefits of Open Space.....	I-48
4.3	Open Space Goals	I-49
4.3.1	Preserve Forest Land.....	I-50
4.3.2	Preserve Agriculture Land	I-51
4.3.3	Provide Recreational Opportunities.....	I-52
4.3.4	Preserve and Protect Wildlife Habitat and Wildlife Corridors	I-53
4.3.5	Preserve Stafford's Rural Character	I-53
4.4	Steps to Preserve & Protect Open Space.....	I-54
4.4.1	Revise Town Zoning Regulations.....	I-54
4.4.2	Establish Overlay Zones	I-55
4.4.3	Encourage Creative Development Techniques	I-56
4.4.4	Increase the Open Space Fund.....	I-57
4.4.5	Encourage Use of Development Rights Sales	I-57
4.4.6	Open Space Advisory Committee.....	I-57
4.4.7	Open Space Land in Stafford.....	I-58
4.4.8	Town Owned Lands.....	I-58
4.5	Short Term Goals	I-59
4.6	Long Term Goals	I-59
5	Economic Development.....	I-61
5.1	Importance of Economic Development.....	I-61
5.2	Economic Conditions	I-61
5.3	Population and Labor Force	I-62
5.3.1	Household Characteristics	I-64
5.3.2	Employment & Industry	I-65
5.3.3	Fiscal Environment	I-67
5.4	Goal for Economic Development.....	I-68
5.5	Policies	I-69
5.6	Area Recommendations	I-69
5.6.1	Zone 1 - Main Street / Route 190 to Route 32 North.....	I-70
5.6.2	Zone 2 - Route 190 from Route 32 North to Route 319	I-72
5.6.3	Zone 3 - West Stafford - Route 190 from Route 319 to Route 30.....	I-73
5.7	Village Centers - Stafford Hollow - Staffordville - Hydeville.....	I-73
5.8	General Recommendations	I-74
5.8.1	Preservation of Agricultural Uses	I-74
5.8.2	Business Retention.....	I-74
5.8.3	Marketing.....	I-74
5.8.4	Incentives	I-75
5.8.5	Gateways.....	I-75
5.8.6	Regional Cooperation	I-75
5.8.7	Upgrade of Older Properties	I-75
5.8.8	Hospitality Sector.....	I-75
5.8.9	High Speed Telecommunications	I-76

5.8.10	Home Based Businesses	I-76
5.8.11	Economic Development Procedures	I-76
6	Transportation	I-77
6.1	State Maintained Roads.....	I-77
6.2	Town Maintained Roads	I-77
6.3	Funding for road maintenance/scheduled road improvement projects	I-78
6.4	Planning a Road infrastructure	I-79
6.5	Traffic Issues	I-80
6.6	Integrating road design standards into the zoning regulations	I-81
6.6.1	Road Classifications.....	I-81
6.6.2	Grassed Swales	I-82
6.6.3	Unimproved Roads	I-83
6.7	Addressing alternative forms of transportation	I-83
7	Water Resources	I-85
7.1	Water Courses	I-86
7.2	Wetlands.....	I-88
7.2.1.	Maintaining Water Quality	I-89
7.2.2.	Flood and Storm Control and Groundwater Recharge	I-89
7.2.3.	Erosion and Sedimentation Control.....	I-89
7.2.4	Biological Productivity	I-89
7.2.5.	Discharge Groundwater	I-89
7.2.6.	Providing Biological Diversity: Fish and Wildlife Habitats.....	I-89
7.2.7.	Recycle Nutrients.....	I-90
7.2.8.	Provide Recreation.....	I-90
7.3	Connecticut Water Company Water (CWC) Sources	I-91
7.4	Bedrock Wells.....	I-92
7.5	Private Wells and Septic Systems	I-92
7.6	Lakes and Ponds.....	I-92
7.7	Dams and Flood Control	I-93
7.8	Aquifer Protection Area (APA).....	I-93
7.9	Water Pollution Control Authority (WPCA)	I-94
7.10	Storm Water Drainage Systems.....	I-94
7.11	Planning for Future Water Quality and Needs: Protecting Water Quality ...	I-95
7.11.1	Protecting Wetlands and Watercourses	I-95
7.11.2	Participating in Planning for Public Water Supplies	I-96
7.11.3.	Reducing Storm water Runoff and its Impact.....	I-96
7.11.3.	Septic Systems	I-97
7.11.4	Developing Aquifer Protection Regulations.....	I-98
7.11.5	Address Underground Fuel Storage Tanks	I-98
7.12	Maintaining Town-owned Dams	I-98
7.13	Planning for Recreation and Conservation along Waterways	I-99
8	Conformance with State and Regional plan.....	I-100
I.	Appendix - maps	I-101

LIST OF TABLES

	<u>Page</u>
Table III-1	Historic & Projected Population, 1990-2014.....26
Table III-2	Population by Age, 2009.....27
Table III-3	Household Size, 2000-200927
Table III-4	Income, 2000.....28
Table III-5	Housing Stock, 200029
Table III-6	Units in Structure, 200030
Table III-7	Building Permits, 2000-200831
Table III-8	Median Home Value for Owner Occupied Housing Units33
Table III-9	Tolland County HUD Eligibility Income Limits, 200935
Table III-10	Tolland County Low Income Rent Limits Including Utilities, 200935
Table III-11	Affordable Housing Dept of Economic & Community Development37
Table III-12	Potential Population44
Table III-13	Development Potential by Zoning District44
Table III-14	Historic and Projected Population45
Table V-1	Stafford Population & Labor Market62
Table V-2	Comparison of Population Growth Locally, Regionally & Statewide62
Table V-3	State & Local Unemployment Rates.....63
Table V-4	Household Characteristics64
Table V-5	Business Profile65
Table V-6	Equalized Grand List Per Capita.....67
Table V-7	Equalized Mill Rate Per Capita.....68
Table VI-1	Average Daily Traffic Volumes - 1994-199579
Table VI-2	Road Classifications.....82
Table VII-1	Stream Classifications.....87
Table VII-2	Source Water Assessment Ratings.....90

LIST OF FIGURES

	<u>Page</u>
Figure III-1	Historic & Projected Population, 1990-2014.....26
Figure III-2	Stafford Population by Age, 200927
Figure III-3	Household Size, 2000-200928
Figure III-4	Housing Stock, 2000.....30
Figure III-5	Units in Structure, 200830
Figure III-6	Building Permits, 2000-2008.....31
Figure III-7	Median Home Value for Owner Occupied Housing Units34
Figure III-8	Historic & Projected Population, 1990-2014.....45
Figure V-1	Stafford Population & Labor Market.....62
Figure V-2	Average Annual Population Growth.....63
Figure V-3	State & Local Unemployment Rates.....64
Figure V-4	Median Household Income65
Figure V-5	Industry Employment.....66
Figure V-6	Equalized Grand List Per Capita.....67
Figure V-7	Mill Rate68
Figure VII-1	Impacts of Urbanization on Stream Flow86

LIST OF MAPS APPENDIX A

Existing Land Use
Topography
Wetlands and Water-bodies
Residential Development Potential
Non-Residential Development Potential (1)
Non-Residential Development Potential (2)
Sewer Service
Transportation Facilities
Open Space Plan
Land Use Plan

1. INTRODUCTION

In 2005, the Board of Selectmen appointed the Plan of Conservation and Development Advisory Committee (Committee). The Committee's task was working for the Planning and Zoning Commission to update the Town's 1999 Plan of Conservation and Development (Plan) as required every 10 years by Connecticut General Statutes Chapter 126, Section 8-23. A plan of conservation and development is comparable to a business' strategic plan because it provides an overall vision for the town for a 10 year period. So that town plans are not developed in isolation, state law requires that they be consistent with the State Conservation and Development Policies Plan for Connecticut (State Plan). The Committee also followed a process recommended by Jim Gibbons, a consultant from CLEAR, the University of Connecticut's Center for Land Use Education and Research. He recommended basing the plan on inventories of town resources and maps and other publicly available data.

Over a six year period, the Committee held public monthly, and then twice monthly, meetings to collect information, develop resource inventories, meet with other town boards and committees, write and edit drafts, and generally coordinate the process of developing a meaningful Plan for the Town. Periodic public meetings have been held with the PZC and Selectmen and other Town boards. The Town supported the planning process by hiring a consulting firm to complete necessary maps, provide technical support, and to moderate meetings with residents to present drafts of the plan. The Committee is very grateful to the Selectmen and the PZC for their support over what has, at times, seemed an impossibly long time.

The planning process has been different in Stafford. Most towns outsource completing plans to consultants. While these plans provide useful information for Town boards, the cost for consulting time is high, and the quality of a plan depends, in some part, on time spent researching past history and present conditions. This Plan and the appendices to each section are meant to bring together information in one place that will be useful references for Town boards and commissions and for residents.

Consistent with the State Plan, the theme of this Plan is centralizing development around existing village centers, Stafford Springs, Stafford Hollow, Staffordville, and West Stafford. Commercial development, too, should infill existing zoning patterns and reusing existing commercial structures should be encouraged so that vacant spaces are kept to a minimum. As the cost of maintaining infrastructure increases, this form of development will be most cost effective for the Town, and for residents, over the longer term.

1.1 Purpose

Chapter 126 Section 8-23 (a)(1) of the Connecticut General Statutes requires that at least once every ten years, a planning and zoning commission prepare or amend and adopt a Plan of Conservation and Development. Although a State requirement, the most important function for a Plan is to help guide the future growth and development of the Town, through a series of coordinated goals, policies and strategies. The Plan should

record the best thinking of the Town as to its future physical growth and development and to give direction to both public and private development.

The Plan should encompass a long term vision of the community, but while its objectives are long-range, the Plan should be capable of offering guidance for short-range land use decision upon adoption. Although it is often difficult to address immediate issues and problems with long-range concepts and principle, short term solution without respect to long-term purposes can dilute, even nullify the ultimate effectiveness and impact of the immediate solution.

1.2 Statutory Requirements

Chapter 126 Section 8-23 (a)(1) of the Connecticut General Statute states that all plans shall consider the following:

1. The community development action plan of the municipality, if any.
2. Need for affordable housing.
3. Need for protection of existing and potential public surface and ground drinking water supplies.
4. Use of cluster development and other development patterns to the extent consistent with soil types, terrain and infrastructure capacity with the municipality.
5. State Plan of Conservation and Development.
6. Regional plan of development.
7. Physical, social economic and governmental conditions and trends.
8. Human resources, education, health, housing, recreation, social services, public utilities, public protection, transportation, cultural and intercommunication needs.
9. Objective of energy efficient patterns of development; use of solar and other renewable forms of energy and energy conservation.

The plans shall:

1. Be a statement of policies, goals and standards for the physical and economic development of the municipality.
2. Promote, with the greatest efficiency and economy, the coordinated development of the municipality, and the general welfare and prosperity of its people.
3. Recommend the most desirable use of land within the municipality for residential, recreation, commercial, industrial, conservation and other purposes,
4. Recommend the most desirable density of population.
5. Note any inconsistency it may have with the State Plan of Conservation and Development.
6. Make provisions for the development of housing opportunities, including opportunities for multifamily dwellings consistent with soil types, terrain and infrastructure capacity for all residents of municipality and region.
7. Promote housing choice and economic diversity in housing, including housing for both low and moderate income households.

The statute also states that the Plan may make recommendations for:

1. Conservation of trap rock and other ridgelines.
2. System of principal thoroughfares, parkways, bridges, streets and other public ways.
3. Airports, parks, playgrounds and other public grounds.
4. General location, relocation and improvement of public buildings.
5. General location of public utilities and terminals
6. Extent and location of public housing projects.
7. Programs for the implementation of the Plan, including schedule, budget, program for enactment and enforcement of zoning and subdivision regulations, implementation of public housing, plans for open space acquisition and greenways.
8. Any other recommendations that would be beneficial to the community.

Planning is a thoughtful process so we introduce this quote to set the stage for reading the Plan:

"The past is irretrievable, the present is incomplete, and the future has already begun"
Dimitri Volkogonov

2. LAND USE

2.1 History & Geography

The goal for this Plan is to preserve the urban nature of the central downtown area, to encourage appropriate development that does not disturb the sense of community, and to preserve natural resources in the community as a whole. Residents like to view Stafford as a rural place physically separated from the outside world by undeveloped areas, but also a place where they can purchase most of their goods and services without leaving town. Maintaining such a community becomes increasingly difficult in a business climate that encourages large scale commercial developments and where unrestricted residential development is allowed. To promote goals for land use, we will:

- use and reuse existing commercial and residential properties in a way that will preserve them,
- encourage development that meets the needs of the community and is complementary to existing patterns, and
- preserve existing water, forest and farmlands, and other resources of the community.

Due to its history and geography, Stafford has a wide variety of land use patterns and development densities. Stafford in 2011 consists of a heavily populated central area that is the remains of an urban center, several former mill villages, a lot of housing spread along former rural roads, small and scattered subdivisions, and a partially developed commercial corridor. In addition, there are large tracts of forested and undeveloped land near the outer boundaries of the Town. As a result, the Town presents many unique problems and interesting opportunities in planning for its future.

This Plan should reflect a balance between respect for private property and achievement of public welfare. It is an attempt to encourage development that preserves the historical and natural resources of the Town, and at the same time meets the needs of 21st century life. It will lead to job creation, an expanded tax base, and residential development that does not destroy the nature of the community or put a strain on its natural resources. Hopefully, it will preserve Stafford as a community that we all enjoy and want to continue living in.

As you read the history of development in Town, you will see that development has been somewhat haphazard over the longer term. We are now beginning to understand the costs of unplanned growth in the cost of maintaining our infrastructure and the costs and problems of pollution. One object of providing this history is learning from it to go beyond believing that “the way things are is the way they have always been and always should be.”

History of Development Settlement

The Town of Stafford was settled in 1719 by Puritan farmers from the Massachusetts Bay Colony. The original settlers were independent minded people who were almost all self-sufficient agriculturists. The original settlement was located along what is now Stafford Street, which was a broad, grassy common area. Each landowner owned a parcel of land that extended easterly or westerly from this common area. Whatever commercial development existed was limited to what was necessary for a small agricultural community.

As time went on, these settlers, their descendants and other immigrants extended this agricultural lifestyle into almost every corner of the Town. All tillable and pasturable soil was cleared for use and the remaining land was used as wood lots. By 1850, Stafford was covered by a series of farms that made maximum use of the Town's natural and productive resources. The evidence of this can be seen today in the stone walls, stone foundations and abandoned roads, highways and lanes that can be found in the most remote corners of the Town.

As population spread throughout the community, a number of village centers developed within the Town to meet the needs of residents in the area. Each village was centered on a Congregational Church. To the early settlers, the need for a worship center was as important as a commercial center. Examples of these early villages are the centers of West Stafford and Staffordville, both of which were centered on Congregational churches that exist to this day.

Development of Mills & Mill Villages

Beginning in about 1800 and through the nineteenth century, individual entrepreneurs began using the abundant waterpower in Town as a source of power for various industries, primarily textile in nature. There were a number of different industries, with the iron furnace in Stafford Hollow being the most significant. Each mill was located at a fall of water, and the water was afterwards dammed to create a steady flow of water into the mill. It is these dams that create the numerous millponds that now make up an important part of the water resources in the Town.

Each mill employed between 20 and 100 people and a mill village generally developed around each mill to provide housing for the employees working there. Each mill village generally contained a store, a tavern, a post office and other facilities necessary for the needs of the families living in the village. A former mill village can usually be identified wherever there is a cluster of Victorian-era houses around a road intersection and waterpower supply. Examples of former mill villages are Stafford Hollow, Hydeville, Staffordville, Orcuttville and West Stafford.

Development of Stafford Springs

By 1870, the Stafford Springs mill village had become by far the largest and most prosperous area of Town. The area was dominated by at least five textile mills, each of

which employed hundreds of people. The mills were located in substantial stone and brick buildings and produced woolens and other textile products that were sold all over the world.

To provide housing for the employees of the mills, single-family housing and multiple family housing was constructed on all the roads leading from the center of Stafford Springs and new streets were laid out. Most of this housing was constructed for working class mill workers. In the area around Grant Avenue and East Main Street, larger homes were constructed for the mill owners and the professional persons in Town.

To meet the needs of the residents, a commercial area was developed on Main Street. A series of brick buildings were constructed at the intersection of Furnace Avenue and Main Street and along Main Street in a westerly direction. These buildings contained stores, professional offices and other service occupations to meet the needs of the Stafford Springs residents.

By 1920, Stafford Springs was a self-contained urban community with grocery stores, department stores, hardware stores, three banks, a hospital, a movie theatre and several automobile dealerships. A resident of Stafford Springs could do or buy anything they wanted in the Stafford Springs downtown. The area was also the home of numerous immigrants from Italy, Germany, Lebanon, Poland and Slovakia, all of whom added aspects of their own culture to the community. By this time, the housing area had expanded to include and encompass several other mill villages, such as Foxville and Glenville. Foxville had been originally a mill village located on what is now West Street, near the Stafford Printer mill. Glenville had been located on what is now Furnace Avenue, just below the Glenville Dam.

Any one viewing Stafford Springs in the 1920's would have seen it as a prosperous urban community, with all the amenities and cultural opportunities that were available in any other city in the United States.

Abandonment of Farmland

From 1850 on, many of the farmers in Stafford, and in the rest of New England, left their farms for the more tillable and profitable soils of the Midwest. Many of the farmhouses and farm buildings fell into disrepair, as it became more and more difficult for the remaining family members to make a living. Much of the farmland reverted to woodland and whole areas of the Town, such as the Rocky Dundee-Hampden Road area or the Roaring Brook-Fenton Road area were abandoned. Parcels of land that were carefully surveyed in 1800 were described as one hundred acres, more or less, by 1900, and were sold for pennies for an acre.

Much of the abandoned land was sold to the State of Connecticut from the 1930's on as part of the state forest program. The large tracts of land which make up the Shenipsit State Forest and the Nipmuck State Forest constitute land that was historically working farms that were abandoned.

Development of Recreational Neighborhoods

From the 1920's until the 1950's, the lake areas of Stafford were seen as being ideally suited for constructing seasonal summer cottages. Lakefront areas were developed into small lots that were then sold by developers for cottage sites. The purchasers of the sites would construct small cottages that were appropriate only for summer use. Examples of these neighborhoods were Lake Shore Boulevard in Stafford, the Whispering Pines neighborhood, and Lakeview Terrace near Crystal Lake.

Over time, many of these seasonal dwellings were converted to year-round use. While in some cases the cottages were expanded, modernized, and converted with all the amenities of residential life; in many cases they were not. As a result, these lakefront neighborhoods tended to be congested, with many of the homes being small, and not containing adequate utility, heating, or septic systems for year round use.

Postwar Residential Growth

Prior to 1945, almost all residential development in Stafford was either in the downtown Stafford Springs area, in the former mill villages, or on the remaining family farms. After 1945, residential development took place all over the Town. Development sites were chosen at random wherever there was a landowner who wished to sell land and a developer that was interested. The subdivisions tended to be small, compared with the larger subdivision tracts in the towns of the Connecticut River Valley. In addition, because they were scattered throughout the Town, they tended to be surrounded by areas of undeveloped forestland or farmland. As a result, the typical subdivisions in Stafford tended to consist of one or two streets with a cluster of houses on the streets surrounded by forestland.

Subdivisions tended to be constructed only during periods of suburban expansion. As a result, there were subdivisions developed in the 1960s, the 1980s, and after 2000. In each case, the homes in the subdivision reflected the housing styles of the times. As a result, subdivisions from the 1960s were made up of predominately ranches and Cape Cod style homes, while subdivisions from later periods tended to consist of larger colonial style homes. Clearview Heights, Deepwood Drive, and the Standish Street neighborhoods are examples of 1960s' subdivisions. The Fox Run neighborhood off of Stafford Street is an example of 1980s' subdivision. The Fox Hill neighborhood off Orcuttville Road is an example of a subdivision built after 2000.

However, because it was always less expensive to construct a house on an existing road, most residential development in Stafford has been on existing town roads and highways, rather than in subdivisions. As a result, several roads that in 1945 had only two or three older farmhouses now have homes every two hundred feet, stretching from one end of the road to the other. Examples of this type of housing development are Leonard Road and Old Monson Road in the central section of the Town and Conklin Road in the West Stafford.

Development of Route 190 Commercial Corridor

From 1960 to the present, the section of Route 190 from the Stafford Springs line west to Orcuttville Road has become the principal commercial area. With the opening of the Big Bunny-National Plaza in 1960, Stafford had its first shopping center. Shortly after that, several commercial buildings and a restaurant were constructed along Route 190. In the 1980s there was a surge of commercial development along this corridor, with the Country Village shopping center being opened, and many other commercial buildings being built. Most of the commercial structures on Route 190 date from this time period. The area remains a mixed use area, with some residences continuing to exist in the commercial area.

Industrial Development

From 1961 until the present, a number of attempts have been made to build an industrial park. Prior to 1960, the Stafford Industrial Foundation was formed to establish an industrial park. The Foundation purchased land on Monson Road, and sold lots as industrial sites. This industrial park has been moderately successful, but has been hampered by a lack of public water and sewers.

A second industrial park was the Middle River Drive development off Route 190 which has attracted several businesses. The Town has also designated a large tract of land on the corner of Monson Road and West Stafford Road as an industrial zone, but this remains undeveloped.

Changes in Borough

Up and until the 1950s, Stafford Springs maintained its characteristics as a central business area. After this time, changes in the rest of Stafford, regional changes, and changes in shopping and housing patterns led to a decline of this area from its status as a primary commercial center.

The development of the Route 190 commercial corridor led to new businesses being established there, and businesses leaving Main Street and moving out along 190. For example, National Stores, Stafford Electric and Friedrich's Jewelers moved from Main Street into new locations on Route 190. Other businesses, such as Baker's Furniture and the Coop Grocery Store, moved to locations beyond the edge of the downtown business area. In addition, the development of regional shopping districts in towns such as Enfield and Manchester, together with ease of automobile access, meant that much of the retail business that was formerly done in Stafford is now being conducted out of town. The destruction of the Connecticut Bank & Trust Company building by fire in 1987 led to several businesses, including the Bank moving outside the central business district.

As a result, many of the buildings on Main Street became either vacant or occupied by marginal businesses that generated insufficient income to pay a substantial rental for the property. The buildings tended to be owned by absentee landlords who had little incentive to invest money in maintaining and improving the buildings as they would not

be able to generate sufficient income to pay for the improvements. A pattern developed where buildings were poorly maintained, businesses came and went, and there was little progress in the business development of the area.

Much of the housing stock in the Stafford Springs area was designed for employees of the various mills in the area. While the mills remained fairly successful, there was a substantial decline in employment. Stafford Springs also became a less desirable place to live for a variety of reasons including the popularity of moving to the suburbs, the decline of Main Street, and a relatively high second tax to support a separate borough government. A larger percentage of the housing stock became rental properties, some of which were poorly maintained. Examples of these properties remain scattered throughout the Stafford Springs area among better maintained properties.

From 1977 to the present, there have been several attempts to rehabilitate the Main Street area by either taking down abandoned buildings or encouraging landlords to renovate. The net effect of this has been to reduce the number of buildings and improve the appearance of some properties. While the area is still struggling, some successful businesses have taken root.

History of Planning Agricultural Community

The Puritan settlers of Stafford believed that they were establishing a “City of God” that would be a perfect community in the middle of a wilderness. As a result, their settlements were always well planned with an attempt to create a community of farmers each with resources to be self-sufficient. Stafford Street is a good example of this type of community.

Each property owner was granted a parcel of land that fronted on the Stafford Common, which was relatively narrow, but which extended quite some distance to either the east or west. As a result each tract had a section of pastoral or agricultural land near the Common, a wood lot behind it, and access to either Roaring Brook on the east or Furnace Brook on the west for water. The farmhouse was located near the Common, which later became Stafford Street. As a result residents could live close together, while each having sufficient land to support themselves. Stafford at the time was a well-planned agricultural community.

Borough of Stafford Springs

The industrial revolution and the need for waterpower led to the development of mill villages around manufacturing facilities in the 1800's. Planning consisted of mill owners either constructing residences near their mills or encouraging others to do so.

The first attempt at urban planning came with the establishment of the Borough of Stafford Springs in 1879. At that time residents recognized that congestion in the area had grown to the point that it was necessary to have a government that could provide services to an urban area and could deal with the various problems that were caused by city life. The Stafford Springs area was chartered as a separate Borough.

Under the auspices of the Borough government, electricity, street lighting, and public water were brought into the area. Paid police and fire departments were established. Ordinances were adopted limiting the number of farm animals that could be owned and requiring residents to keep animals off the streets. Other ordinances dealt with unnecessary noise by establishing building requirements. Eventually, in 1920, a sewer plant and sewer system was constructed to meet the needs of Borough residents. All of this reflected planning to meet the needs of an urban community.

1972 Plan of Development

The most comprehensive plan for the Stafford's development came with the adoption of the Plan of Development in February, 1972. The plan was developed by a committee with the assistance of planning consultants and a grant from the State of Connecticut Department of Community Affairs. The Plan reflected the best thinking of planners and community development experts at that time. Following the adoption of the Plan of Development, the Town of Stafford adopted a zoning map, zoning regulations, and subdivision regulations based on the recommendations of the Plan. As the 1972 Plan basically created the framework for zoning in Stafford today, it needs to be examined carefully.

Residential Development

The 1972 Plan said that "Stafford will be affected by an exodus of people, business and industry from highly congested urban centers, and that, "This process will mean that Stafford can look forward to a more rapid growth in population." The Plan predicted that the population of Stafford would be 15,000 by 1990 and would grow significantly thereafter. In fact, the population of Stafford was about 12,000 in 2000, and has not changed significantly since that date. The assumption of rapid population growth in the 1972 Plan was therefore incorrect.

To control population growth, the Plan recommended varying densities from one family per acre in the outlying portions of Town to twelve families per acre in the downtown Stafford Springs area. To put this recommendation into effect, the Town adopted zoning regulations that designated a number of zones with different lot size requirements for different zones. The AAA zone required 44,000 square feet and 200 feet of lot frontage for a building lot. The AA zone required 40,000 square feet of area and 175 feet of lot frontage for a building lot. In the downtown area, the C zone permitted multifamily structures with 6 units per acre and the B zone permitted 4 units per acre. The AAA zone was later changed to require 88,000 square feet for each building lot.

In the 1972 zoning regulations, there was no consideration for soil types, wetlands, slopes, water resources or other natural features. As a result, building lots were approved and homes were constructed without any consideration for the effects of development on resources or the future costs for the Town. In addition, 1972 subdivision regulations set requirements for constructing subdivision streets and introduced other subdivision requirements. The net effect has been that almost all new home construction in Stafford

have been built along existing roads, either improved or unimproved, and without regard to the longer term cost of development and the impact on the environment.

Another goal of the 1972 regulations was to designate an area in the central part of Town as an AA zone to encourage development in that part of the Town. To promote this development, smaller lot size and smaller house size were permitted in the AA zone. In fact, much of the AA zone remains underdeveloped to this day, while there has been development in more remote areas of the Town designated as AAA. The zoning designation in the 1972 regulations have been ineffective in channeling development towards the more central portion of the Town and away from remote areas.

In the downtown area, the 1972 regulations allowed for multifamily housing with various density requirements that led to the construction of several condominium complexes and Farmers' Home subsidized housing projects. The Farmers Home projects have provided affordable housing to many low income Stafford residents. Little single family home construction occurred in the downtown Stafford Springs area as most streets are fully developed.

The 1972 regulations provided for house size requirements of 1,300 square feet in the AA zone and 1,500 square feet in the AAA zone. House size requirements were later modified to 1,150 square feet in the AA zone and 1,300 square feet in the AAA zone. These house size requirements are substantially less than in surrounding towns. As a result, new homes constructed in Stafford are generally smaller than those in neighboring towns, more affordable, and less of a strain on the environment.

Commercial Development

One of the most significant components in the 1972 Plan of Development was designating an area on West Main Street and West Stafford Road between Monson Road and Cooper Lane as an area of intensive commercial development. The 1972 Regulations defined the area as the Highway Business Zone. The zone was intended to create a commercial area that would meet the needs of residents and attract business from out of town.

The Highway Business Zone has been moderately successful as the Town's principal commercial area although it contributed to problems along Main Street in Stafford Springs as businesses moved to more desirable locations. In 1972, the area was predominately residential, with several scattered businesses. Now, two shopping centers, one office park, and several single-use commercial buildings exist along West Stafford Road. As of 2011, a number of these buildings are not fully occupied. However, there are still many residential uses within the Highway Business Zone. In addition, in the area between Orcuttville Road and Cooper Lane, only one new commercial building has been constructed between 1972 and the present. Also, there are sizable tracts of land north and south of West Stafford Road that remain totally undeveloped.

The 1972 Plan recommended neighborhood commercial areas in Stafford Hollow, Staffordville, West Stafford, and Crystal Lake, and at several locations in the Stafford

Springs area. These areas were defined in the 1972 Regulations as Local Business Zones. The intent of the Local Business Zone was encouraging the development of small retail businesses that would meet the needs of residents in the immediate neighborhoods of the businesses.

Most of the areas designated as Local Business had some small retail establishments in 1972. Some of these remained stable, such as the West Stafford village center, which continued to have a core of successful small businesses. In other areas, such as Staffordville, the businesses have all disappeared. In the Stafford Springs area, some of the streets that were designated Local Business, such as West Street, never developed any new businesses. The Local Business Zone on West Main Street near Olympic Circle has developed as a business center.

The 1972 Plan of Development made no specific reference to commercial development in the Main Street area of Stafford Springs. It did however refer to it as an area “characterized by deteriorated structures, overcrowding, building obsolescence, and lack of parking, unsafe or poorly designed streets and other detrimental factors.” Under the planning standards of that time, the area was designated as appropriate for renewal, which then meant removing existing structures and constructing newer buildings. Since that time, there have been several limited projects to remove abandoned buildings, and as a result the Main Street area is not as congested as it once was. However, there have been no projects to construct new commercial buildings in the Main Street area. The 1972 Regulations designated the Main Street areas as the Central Business Zone. Permitted uses included retail stores, restaurants and professional offices. Lot size and frontage requirements were relatively flexible to encourage using existing lots and buildings. However the lack of parking restricted using the upper floors of buildings for rental units. The success of the Main Street area as a business center, or the lack thereof, has been dependent on factors other than zoning designations and requirements.

In 2006, the Planning & Zoning Commission adopted zoning amendments to set standards for development in commercial zones. The most significant change was limiting the size of all retail establishments to 40,000 square feet. This was done to prevent the construction of a large regional retail store in the Highway Business Zone.

The amendments also set design standards for designing and constructing driveways, parking, pedestrian circulation, landscaping and buildings. The landscaping requirements were designed to encourage commercial development to have adequate buffers and internal green space that would contribute to the maintaining the Town’s rural character. The amendment included architectural guidelines so that the design of buildings would conform to existing uses. The purpose of the amendments was to encourage development within the various commercial zones that would be attractive and enhance the quality of development in Town.

Industrial Development

The 1972 Plan of Development designated several areas as appropriate for industrial development. These were areas that were either the location of existing industrial

development such as the Warren Woolen property on Furnace Avenue or the Stafford Printers' property on West Street, or areas where new industrial development was recommended. The Plan recommended that there be an industrial area on Crystal Lake Road near Handel Road, and on Monson Road between Spellman Road and Diamond Ledge Road. With slight modifications, the 1972 zoning regulations adopted these proposals by designating these properties as Industrial Zones.

The regulations were later amended to add parcels of land between Monson Road, West Stafford Road and the Central Vermont Railroad as an additional Industrial Zone.

Within areas, such as the former mill properties, that were in industrial use in 1972, the industrial use of the property has continued. However, in areas that were undeveloped in 1972, industrial development has remained limited. The exceptions are the Middle River Drive property, which is a successful privately developed industrial park and the Stafford Industrial Park located on Monson Road. The Stafford Industrial Park was developed in the 1960s by area businessmen who wished to attract more business into Town; it was meant to be quasi-public in nature. There are several small scale manufacturing facilities in the Industrial Park. However, the development of the Park has been limited by a lack of public water and sewage facilities. The remainder of the industrially zoned land in the Town remains undeveloped.

Impact of 1972 Plan of Development

The 1972 Plan of Development represented a comprehensive attempt to plan for the future of Stafford based on the knowledge and planning capabilities of the time. The 1972 Plan did not fully accomplish the goals that were set out because of factors that were not contemplated at that time. Since that time, planners have begun to recognize the costs of decentralized growth. The State of Connecticut Recommended Conservation and Development Policies Plan for Connecticut makes state priorities clear. This revision of the Plan of Development will attempt to integrate recent changes in the focus of planning into future planning for Stafford's development.

Existing Land Use Classifications

The current land use plan is based on the following series of land use classifications.

Residence Districts:

- AAA Rural and single family residence district
- AA Single family district
- A Single family residence district
- B General Residence district
- C General Residence district

Commercial Districts:

- LB local business district

HB Highway business district
CB Central business district

Industrial District

IN Industrial district

Miscellaneous Districts:

WM Water management district
OS Open space district
WL Work/live floating zone district

2.2 Planning for Future Residential Development

With the Town's history in mind, the Plan of Conservation and Development identifies the following considerations to guide decisions about future residential growth and development.

- Although the former Borough is well served by public utilities and roads, the rivers and roads running through the center of Town create a constraint on traffic flow.
- The development patterns of the last forty years do not suggest big bursts of suburban style housing growth in Stafford with rapid population increases. Building has tended to come in waves with some subdivisions being approved in good economic times and almost no housing growth in bad economic times. Housing development has been scattered across the Town, often with no considerations for access to existing utilities, future expense for the Town, or impacts on natural resources.
- The Town has a great variety of housing densities, resulting from the historical development of the community. The former Borough area is basically an urban area with numerous different types of multifamily housing and affordable single family residences. Outside the Borough, large tracts of undeveloped acreage still exist with many natural features. The former mill villages contain other concentrations of residential growth.
- Consistent with the State Plan, residential growth should be encouraged in areas that are adjacent to already developed areas, and discouraged in the parts of Town that are undeveloped. Residential growth should primarily occur where there are existing public utilities and well maintained town and state roads.
- By performing a build out analysis, the Turner Miller Group of Suffern, New York and Cheshire, Connecticut found that under current zoning there is potential for population of approximately 29,424, an increase of 144% over the current estimated population of 12,046.

- The road system of the community is generally inadequate to support levels of residential and nonresidential development currently allowed by our regulations.
- Residential and nonresidential growth should be conducted in ways that do not have a negative effect on wetlands, aquifers or other desirable natural features.

2.3 Strategies for Residential Development

2.3.1 Net Buildable Area

Section 3.28.3, the usable lot area section, of our zoning regulations should be updated to require a 30,000 square foot rectangle of Net Buildable Area on any lot without sewers, and a 15,000 square foot rectangle on sewer lots. The Net Buildable Area rectangle has the following characteristics:

- A parcel of contiguous land with 90 degree angles and 4 sides with the shortest being 150 feet.
- Naturally occurring topography not exceeding 25% slope.
- No soils with minimum percolation rates slower than 1 inch in 30 minutes.
- No highly permeable soils (percolation rates faster than 1 inch per minute).
- Maximum groundwater levels no higher than 3 feet below the natural ground surface.
- Ledge rock no higher than 5 feet below the natural ground surface.
- No wetland soils.
- No flood prone areas (100 year flood boundary).

The main purpose of this change is making sure that every approved building lot has sufficient room to construct a residence with a septic system with space for a reserve septic system close to the residence that may be easily constructed if necessary. The soil percolation and permeability restrictions reduce the risk of septic systems failure.

As Stafford has newer subdivisions with failed septic systems, this is an important update to the regulations. Current regulation define usable area as the area that does not include floodplains, wetlands, easements or naturally occurring slopes over 15 percent. Building lots must have usable lot area of at least 50% of the minimum required lot size for the zone. In November 2003 the regulation was updated to stipulate that the 50% minimum must be one contiguous piece.

2.3.2 House Size Requirements

The Plan recommends continuing current house size requirements, 1,300 square feet in an AAA zone and 1,150 square feet in an AA zone, with smaller requirements in the Borough area. These house size requirements are substantially lower than in surrounding communities, and lower than in most suburban towns resulting in the construction of houses that are affordable and within the price range of young families and elderly

residents who want to live in Stafford. The existing regulations allow families to choose from a variety of housing options from apartments to condominium units to larger homes.

2.3.3 Ridgeline Protection Zones

Ridgeline protection zones should be established as overlay zones wherever ridge tops are considered an important scenic factor. In this zone, no construction should be allowed within one hundred feet in elevation of a ridge top, and there should be restrictions on cutting trees as part of site development. In addition, houses should be constructed so that they are not visible above the tree line.

The topography of Stafford is dominated by several ridges that run north and south through the Town. One extends from the Crystal Lake area, through West Stafford, and then between Hampden Road and Monson Road to the northerly boundary of the Town. A second extends from the area of the Stafford Middle School and runs between Leonard Road and Hydeville Road. A third runs along the Stafford-Union town line. In each case, the view of these ridges from the rest of the community is an important factor in creating the ambience that Stafford is a rural and forested community. Constructing homes on the tops of these ridges and removing most trees takes away from that feeling.

2.3.4 New AAAA-Conservation Zone

The PZC should establish a new zone, the AAAA-Conservation Zone, and all subdivisions in the zone should be conservation subdivisions. Seventy-five percent of the land in the parcel should be preserved as open space, either by the land being deeded to the Town or protected by a conservation easement. All development should be in the remaining twenty-five percent of the property, with lots having a minimum lot area of one acre and a frontage of two hundred feet. Thus the housing density would be four acres per house, but development would be confined and the remaining acreage would not be developed.

Some of the most attractive features of existing development of Stafford are the large sections of undeveloped and predominantly forested land located in the easterly, northerly and westerly sections of the Town. These areas of Town create the feeling that Stafford is a separate community. They provide areas that can be easily accessed by members of the community for passive recreational use. Even where the land is privately owned, it is still a refuge for wildlife and supports unique forest ecosystems.

Some of the land in these areas is owned by the State of Connecticut as state forest. Other parcels are owned by the Norcross Wildlife Foundation and are being preserved as wildlife protection parcels. However, the majority of parcels in these areas is privately owned and subject to few restrictions on development. If these areas were developed in accordance with current AAA zoning, the result would be houses every two hundred feet along existing unimproved roads. This would create a burden on the Town to improve roads and provide services to remote areas of Town. In addition, the feeling that the Town is a community surrounded by forests and open space would be compromised.

AAAA Conservation Zones should be established in the following areas: (1) bounded easterly by the New England Central Railroad, southerly by Diamond Ledge Road, Tetreault Road and County Road, westerly by the Somers Town Line, and northerly by the Massachusetts State Line, (2) bounded southerly by Bradway Road, westerly by the developed properties which access Route 19, northerly by the Massachusetts State Line, and easterly by the Union Town Line, (3) bounded northerly by Buckley Highway, easterly by the Union and Willington Town Lines, southerly by the Willington Town Line, and westerly by Rockwell Road.

Within the subdivisions, all development should be done in a manner that protects the natural features of the property. For each building lot, a fifty-foot buffer between the road and the area of development should be required in which existing vegetation should be largely undisturbed. Wherever permissible, frontage and access should be on new roads to be constructed by the developer, and not on existing unimproved roads. Other regulations could be adopted by the PZC to encourage naturalistic development in these areas.

Adopting the AAAA-Conservation Zone would allow development and preserve the rural character of the Town.

2.3.5 Historic Overlay Zones

The PZC should work with the Historical Society to identify areas of Town with particular historical significance including areas that exemplify the full mill villages of the Town's past with the large houses for mill owners and other graduated housing for managers and mill workers. The PZC should develop specific regulations for renovating structures or building new structures in these zones. Historic overlay zones are easier to administer than historic districts, but protect to the character of neighborhoods and help preserve housing values.

2.4 Tactics for Residential Development

2.4.1. Recommended Revisions of AA & AAA Residential Zoning

One of the clear purposes of the current Zoning Regulations is encouraging development in a residential corridor running northerly from the downtown area by designating it as the AA Zone. This zone allows development on one acre lots and has the least restrictive development requirements. The corridor is bounded roughly on the east by Stafford Street and the west by Monson Road.

The Plan recommends that the continued development of this area as the principal area for residential growth be encouraged. The AA Zone should be extended into adjacent areas to further continue this development. The area between Sunset Ridge and Old Monson Road, and between Old Monson Road and Leonard Road, as far as the Hillcrest Drive subdivision should be changed to AA Zone from the current AAA zone. This zoning is consistent with existing housing in the area and encourages additional development in an area that is close to several roads and sewers.

Consistent with the Water Pollution Control Plan, the Town sewerage system should be extended along Westford Avenue, Buckley Highway and Stafford Street into the AA zoned areas. The Woodland Drive area and Clearview Drive areas have experienced failed septic systems. This is because in these areas, residences were built on one acre lots where soil conditions were inadequate for subsurface septic systems. The extension of sewers into these neighborhoods will alleviate the failed septic systems. Also, the availability of public sewers in the Buckley Highway and lower Stafford Street areas will permit additional AA zoned housing in this area that will not have a negative effect on water resources.

An examination of the current zoning map indicates that there are pockets of AA zoning in areas that are not particularly appropriate for concentrated residential growth. For example, there is an area of AA Zone that is northerly of the West Stafford School that is surrounded by state forest and adjacent to the Diamond Ledge Brook. This area should be rezoned as an AAA Zone.

2.4.2 Residential Zoning in Former Borough

Stafford Springs contains a mixture of residential uses such as new condominiums, subsidized multi-family housing, single family housing, and two and three family homes, all in a relatively small area. This allows for a variety of housing options in this area. The Plan recommends continuing these various zoning options with the following modifications.

- a. **Conversions.** The area on East Main Street, Westford Avenue and lower Grant Avenue and East Street consists mainly of large single-family residences and older wooden multi-family residences. The area is zoned C allowing multifamily residences at a density of six housing units per acre. As a result, there have been a number of conversions from single family residences. As there is almost no underdeveloped land in this area, any new multi-family use requires a conversion.

The zoning regulations should require that facades of homes not be altered, and that any renovations are in accordance with the existing architectural style of the structure. Renovations and conversions should be done so that the conversion does not have a negative effect on neighboring properties, and does not change the nature of this area.

- b. **Changes from Multi-family to Single Family Zones.** The current zoning map includes several areas where the zoning is multi-family, but the current use patterns are inconsistent with multi-family development.

The area between Highland Terrace and Route 32 is zoned as Zone B that allows multi-family uses. Most of this area consists of Hyde Park, which is owned by the Town of Stafford and dedicated to public use. The remainder is a series of older single family homes on Highland Terrace. To preserve the integrity of these

historic single family homes and Hyde Park, the Zone of this area should be changed from B to A.

The area north of Prospect Street is predominantly an area of single family homes, many of which were built after World War II. It is the newest area of single family housing in the downtown area and is currently zoned Zone C which allows multi-family units at a density of six per acre. The Zone of this area should be changed from C to A to protect this area as a neighborhood of single family residences.

- c. Additional Multifamily Zoning. Multifamily zoning is currently allowed in Zone B and Zone C in the downtown area. This multifamily zoning has created a number of different housing options, including government assisted housing projects, senior housing, and owner-occupied condominium units. This development has provided opportunities for different income and age groups and should be encouraged.

To extend this area, Zone C should be extended to the area between the Middle River and Park Street and south of Park Street. This will allow development of newer multi-family housing in an area that is adjacent to older properties and that has access to public sewers and public water.

Beyond this, multifamily housing should only be allowed in areas that are adjacent to existing multi-family housing developments and where the development would be consistent with existing residential development. Any extensions of the B and C Zones should always be consistent with this principle and multi-family housing should be located in the downtown area.

Duplexes or two family homes should not be permitted in the AA zone. Where they have been constructed, they have been designed in a generally unimaginative way, with the units being side by side as mirror images of each other. They are usually rental properties, and are often not maintained as well as neighboring single family homes. Most are outside the water and sewer districts. With all of the other options for multi-family dwellings in the Regulations, there is no need to have this as a housing option.

2.5 Planning for Future Commercial Development

Stafford currently consists of several different types and levels of commercial development. The downtown area that once was the commercial center of Town now has many under-utilized buildings. Along West Stafford Road is a partially developed commercial area with newer commercial buildings. Scattered throughout town are areas of small commercial development that generally provide services to local neighborhoods. Commercial development in each case should be encouraged that would meet the business needs of the community and be complementary with neighboring uses.

2.5.4. Business Zone.

Under current zoning regulations, the principal commercial center of the Town is defined as the Highway Business Zone. The Highway Business Zone is located on both sides of Route 190 or West Stafford Road from the former Borough line to Cooper Lane with varying depths from the highway. In the area between the Central New England railroad tracks and Orcuttville Road, the Highway Business Zone extends northerly a considerable distance, to the rear of properties on Orcuttville Road. West of Orcuttville Road, the Zone extends too hundred feet deep from the highway.

2.5.5 Local Business Zone.

Scattered throughout Town are areas of development that are currently zoned Local Business. The purpose of the Local Business Zone is to encourage developing small retail stores, restaurants, professional offices, and similar businesses that would provide services to local residents without generating a lot of traffic.

2.5.6 Central Business Zone.

The Central Business Zone represents the historic commercial center of the Town of Stafford. It is surrounded by several mill buildings that are still in industrial use and high density residential areas. At one time this center contained businesses that met all the commercial needs of Stafford residents. Any new development or redevelopment in this area should be required to conform to the historic character of this area. In most cases, the buildings in the Central Business Zone contain commercial spaces that can best be used for light retail, restaurants, historic uses, tourism related uses, professional offices, and services.

The Town should be actively involved in efforts to promote renovating, rehabilitating, and reusing these commercial structures. This could include reestablishing a downtown business organization to promote commercial growth in the area. The Town should establish a special fund that property owners can borrow from to restore the facades of their buildings.

Every attempt should be made to encourage pedestrian use of the area and promote access to Hyde Park and the Middle River. A comprehensive parking plan should be developed that takes into account the needs of the businesses in the area and provides parking that is consistent with the environment and the historical nature of the district.

The work-live zoning that permitted the conversion of the B.P. Cooley building into a mixture of arts related businesses with small living spaces for residents is an example of the type of flexible redevelopment that should be encouraged.

2.6 Industrial Zone.

The current Industrial Zones in the Town of Stafford consist of older mill and factory buildings, newer manufacturing buildings, and undeveloped industrial land. Preserving

existing industry and developing new businesses is essential to the economic future of the community.

Stafford has an advantage over most other former textile towns in that many of the former mill buildings are still in industrial use. Examples of these are the Warren Woolen buildings on Furnace Avenue, the Cuno plant on River Road, the former Stafford Printers facility on West Street, and the TTM buildings in Stafford Hollow and Staffordville. These industries provide jobs to many members of the Stafford community and contribute greatly to the Town's tax base. Every effort should be made to assist and encourage these businesses to stay in Stafford. This can include the pursuit of state tax abatement programs and using state economic assistance grants to improve facilities and purchase new machinery.

Some older industrial sites remain vacant, often because of environmental remediation issues. An example of this is the Hydeville Mill property which has been vacant for years because of the possibility of contamination. The Selectmen should explore the possibilities of brownfields funding, so that this property can be tested, remediated and converted into a usable industrial site.

2.7 Strategies for Commercial Development

2.7.1 Village Districts

Connecticut General Statutes Section 8.2(j) permits communities to establish village districts in their zoning regulations. Village districts shall be located in "areas of distinctive character, landscape or historic value that are specifically identified in the plan of conservation and development of the municipality."

In village district zones, the zoning commission may adopt regulations that control new construction, substantial reconstruction, and/or rehabilitating properties in the district. The regulations should encourage conserving and preserving existing buildings and sites to maintain the historic or distinctive character of the district. All development in the village district should be compatible with the historic character and existing buildings, structures, and landscaping within the district. The Planning and Zoning Commission should use its Special Permit authority and consult with either an architect or a village district consultant before approving applications in a village district.

Village district zoning gives flexibility in the types of uses permitted in the district while giving the Planning and Zoning Commission the authority to determine whether a use is appropriate for the area and the location. Both single family and multi-family housing may be permitted under the same design requirements. Village district zoning is an ideal way to preserve the character of existing mixed use areas so that any new commercial and light industrial uses are complementary to and compatible with existing uses.

2.7.2 Changing Zoning along Sections of Route 190.

From 1972 until the present, the area east of Orcuttville Road experienced a gradual change in the principal uses of the properties from residential to commercial. The area west Orcuttville Road experienced almost no changes in the principal uses. In 1972, there were three businesses in this segment of the Highway Business Zone. In 2009, there were four businesses in this segment of the Zone. This would indicate that this section, between Orcuttville Road and Cooper Lane, is not a particularly desirable location for commercial uses.

In addition, this section of West Stafford Road lacks the necessary infrastructure for commercial development. There are no sewers and no public water. The highway at this point has several curves and changes in elevation, which would cause sight line problems for a commercial entrance onto the highway. The area south of this section is significant wetlands, the flood plain of Crystal Lake Brook; and the area north of this section is predominantly state forest. For all of these reasons, this is not a good location for commercial development.

The area east of Orcuttville Road also contains many residential parcels and several large pieces of undeveloped land. This area should be developed fully before there is any further commercial development in the area to the west of Orcuttville Road.

For all of the above reasons, the zoning of the section of West Stafford Road between Orcuttville Road and Cooper Lane should be changed from Highway Business to AA-Residential. The current Highway Business Zone should end at the intersection of Orcuttville Road on the north and past the John the Jackman property on the south. The remaining commercial uses shall be protected by allowing them to retain their Highway Business status. The rest of this section should remain in residential use.

2.7.3 Development in Remaining Highway Business Zone.

The remaining area of the Highway Business Zone should be developed as a sub-regional commercial area. This area should attract business from Stafford residents and from neighboring towns such as Somers, Tolland, Willington and Ashford that lack commercial outlets. Development in this area should include small shopping centers, retail stores, professional offices, restaurants and other uses that attract customers from both inside and outside Stafford.

Every attempt should be made to consider this area as unified whole and not as individual parcels by proactively encouraging developing neighboring parcels in a conforming manner. The Planning and Zoning Commission should require site plans showing buildings and improvements compatible with neighboring buildings. The goal is creating a commercial area that is visually attractive and will allow medium-size retail stores and professional offices to succeed.

- Regulations should be amended to establish architectural requirements for buildings and signage so that they do not appear too garish, too large, or otherwise not in keeping with the community's rural character.
- To reduce accidents, cross easements for access should be required to limit the number of entrances onto West Stafford Road.
- Development should conform to the rural residential nature of the community. The zoning requirements for vegetation, buffer zones and landscaping as part of all commercial development should be enforced so that commercial buildings do not appear to be surrounded by large sections of pavement.

2.7.4 Village Districts.

The Planning and Zoning Commission should adopt regulations for Village Districts and the central areas of Stafford Hollow, Staffordville, and West Stafford should be designated Village Districts.

2.7.5 Revisions to Local Business Zones.

The downtown Stafford Springs area contains several areas designated as Local Business Zones. The actual uses and development of each area should be considered.

A Local Business Zone extends along the west side of West Street from the intersection of Park Street to the railroad tracks. This Zone contains a small grocery store, the entrance to the Stafford Speedway, and a row of older residences. There have been no conversions from residential to commercial use since the adoption of the 1972 regulations and none appear likely in the future. The residential section of this area should be rezoned C-Residential to conform to neighboring housing patterns.

A second Local Business Zone extends on both sides of West Main Street from Church Street to Prospect Street. There are currently three businesses in this zone, a grocery store, a furniture store, and a gift shop. This area should be viewed as a transition zone between the historic economic center, designated the Central Business Zone, and the newer economic center designated by the Highway Business Zone. Commercial uses in this area should be small scale, with uses that primarily serve the surrounding neighborhoods. Any new buildings should be compatible with the existing architectural designs, and commercial uses should be developed with adequate screening and buffers to protect residences, and the impact of off street parking should be minimized.

Finally, a third Local Business Zone extends along West Main Street from Green Street past Olympic Circle that is populated by a vacant automobile dealership, a historic restaurant building, a car wash, a tire store, and other business uses. This area should be connected to the Local Business Zone along West Main Street from Green to Prospect Streets. This area is also adjacent to predominantly residential neighborhoods. Therefore, special attention should be given to buffer and screening requirements when development in this zone is being considered.

2.8. New Industrial Development

The corridor along the westerly side of Monson Road between West Stafford Road and Diamond Ledge Road should be the primary location for new industrial growth within the community. This area has access to a state highway and a major freight railroad. The Town should extend its sewer system so that all properties in this area have access to public sewer. In addition, attempts should be made to bring public water to this section of Town.

Where properties are privately owned, the Town should facilitate and participate in negotiations between landowners and prospective industries. These could include tax incentives and the obtaining of grants to provide funding for the purchase of these properties and the development of industrial buildings. With respect to the existing industrial park on Industrial Park Drive, the Town should encourage the development of structures and businesses that will be more labor intensive so as to create new jobs and increase the Town's tax base.

A prime priority for the Town should be the developing the parcels between West Stafford Road and Orcuttville Road as a town owned industrial park. The Town should enter into aggressive negotiations with the landowners so that these parcels can be purchased by the Town. Once purchased, the Town should pursue community development grant funding so that road, sewer lines and water lines can be constructed within this industrial park. The park should be subdivided into parcels that are of appropriate size for medium sized industrial facilities. The Town should then market these parcels on a nationwide basis, with an attempt to find industries that can provide jobs that are appropriate for the Stafford labor force. If done properly, this property can then be a center for modern industries which will provide several benefits to the Stafford community.

2.9. Aquifer Protection & Water Management

The current Zoning Regulations contain a designation for a Water Management Zone that is made up of areas that are primarily extensive wetlands, flood plains, or the areas adjacent to significant water sources. In the Water Management Zone, the only permitted uses are agricultural in nature. Single family residences are permitted only as special permit uses, with the requirement that site plans be provided that show there are no encroachments on wetlands and other water resources.

The source of water for the developed downtown area is a Connecticut Water Company system located on Buckley Highway. This system obtains its water from surface water from the Roaring Brook watershed which is located northerly of Buckley Highway, easterly of Stafford Street and southerly of Sartori Road.

To protect the quality of the water that enters this water supply, the Roaring Brook watershed should be included in the Water Management Zone. This will restrict development to uses that have a low likelihood of pollution and reduce the likelihood that

any residential development will have a negative impact on water resources and water supplies.

To protect the quality of the water that enters the public water supply, the Roaring Brook watershed should be included in the Water Management Zone. This will restrict development to uses that have a low likelihood of pollution and reduce the likelihood that any residential development will have a negative impact on water resources and water supplies.

3 POPULATION, HOUSING & DEVELOPMENT POTENTIAL

3.1 Community Profile

The Town of Stafford and each of its distinctive neighborhoods, including Stafford Springs, Stafford, Staffordville, and West Stafford boast an extremely diversified housing stock in a traditional New England setting. Throughout the Town there are examples of historic Victorian era and colonial houses and newly constructed single-family homes, attractive well-planned condominiums, small working farms, and various duplexes and apartments. For seniors, Stafford is home to Isabella's Court, a single-family age restricted development and Avery Park, which is one of the largest and most comprehensive elderly housing projects in the State.



Riverside Pond and surrounding Residential Development – Stafford

3.1.2 Current and Projected Population

The Town of Stafford, with an estimated population of 12,046, makes up approximately 8.1 percent of the total population of Tolland County (CERC, 2010). The populations of both Stafford and Tolland County have moderately increased between 1990 and 2009. The Connecticut Economic Resource Center (CERC) estimates that the population in the Town will decrease to 11,799 and will increase at the County level to 150,231 by 2014.

The 1999 Town Plan of Conservation and Development had estimated that the local population would not grow significantly.

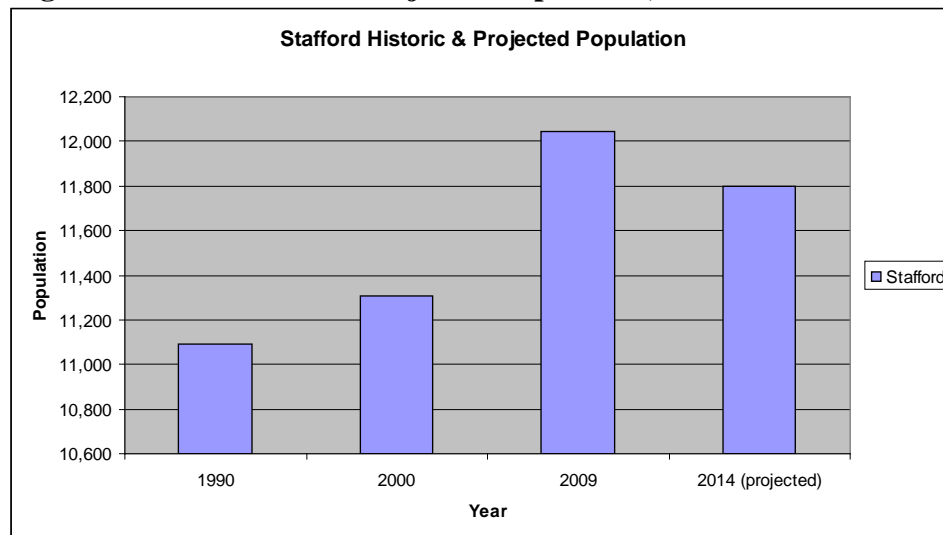
Table III-1 and Figure III-1 below show historic population totals in the Town of Stafford, Tolland County, and the State of Connecticut from 1990 to 2014.

Table III-1 – Historic & Projected Population, 1990-2014

Population	Stafford	Tolland County	Connecticut
1990	11,091	128,699	3,287,116
2000	11,307	136,664	3,405,565
2009	12,046	148,765	3,497,398
2014 (projected)	11,799	150,231	3,485,122
'09-'14 Growth/Yr.	-0.4%	0.2%	-0.1%

Source: CERC, 2010

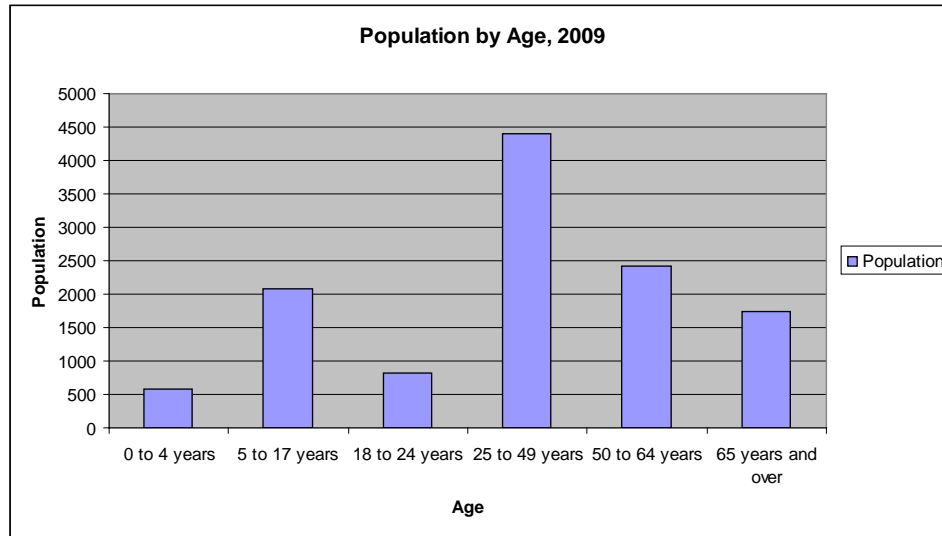
Figure III-1 – Historic & Projected Population, 1990-2014



Source: CERC, 2010

Age related data is helpful to understand potential future needs for housing and other services. The median population age within the Town is 41 years which is slightly higher than the County median age of 37 and the State median age of 40. The population is greatest within the 25 to 49 year cohort (refer to Figure III-2). Compared to the County, Stafford has a significantly lower percentage of individuals within the 18 to 24 year cohort (refer to Table III-2).

Figure III-2 – Stafford Population by Age, 2009



Source: CERC, 2010

Table III-2 – Population by Age, 2009

Age Group	Stafford		Tolland County	
	Population	Percent	Population	Percent
0 to 4 years	578	6%	6,876	5%
5 to 17 years	2,088	18%	23,622	16%
18 to 24 years	820	6%	19,920	13%
25 to 49 years	4,402	36%	51,107	34%
50 to 64 years	2,427	20%	30,081	20%
65 years and over	1,731	14%	17,159	12%

Source: CERC, 2010

3.1.3 Household Size

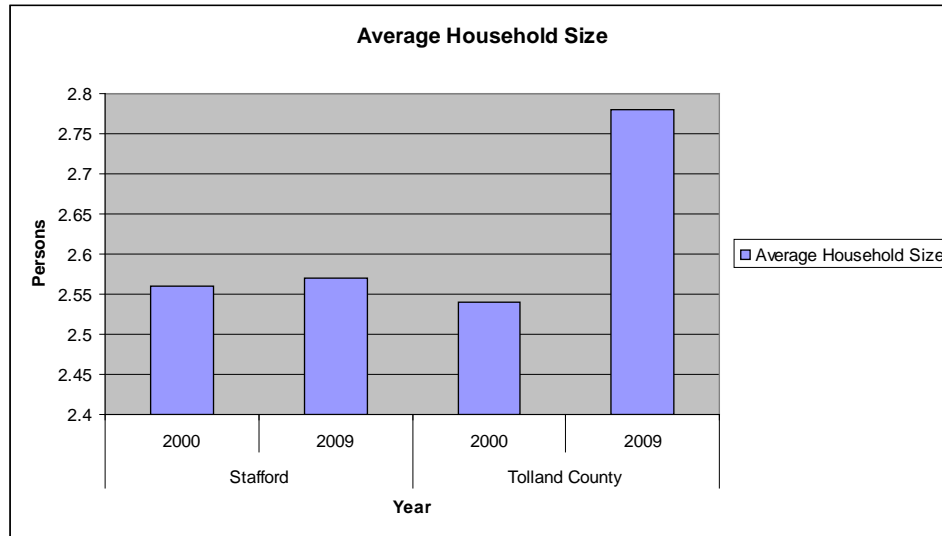
An important factor in population growth relates to changes in how densely housing is occupied, or shifts in average household size. The Town of Stafford had an average household size of 2.56 persons according to the 2000 U.S. Census. Over the past 10 years this average has remained the primarily constant, whereas the average for Tolland County has slightly increased (Table III-3 and Figure III-3).

Table III-3 – Household Size, 2000-2009

	Stafford		Tolland County	
	2000	2009	2000	2009
Average Household Size	2.56	2.57	2.54	2.78

Source: U.S. Census, CERC

Figure III-3 – Household Size, 2000-2009



Source: U.S. Census, CERC

3.1.4 Household Income

The median household income in Stafford in 2000 was \$52,699 which was lower than the overall County level. According to the Department of Economic and Community Development median household income in Stafford has increased by 24.7 percent between 2000 and 2008 to \$65,710. Tolland County's median household income rose at a slightly higher rate over the same period. It was reported at \$75,441 in 2008 which represents a 27.8 percent increase (Table III-4).

Table III-4 – Income, 2000

	Stafford		Tolland County	
	Number	Percent	Number	Percent
Median Household Income*	\$52,699	--	\$59,044	--
Per Capita Income*	\$22,017	--	\$25,474	--
Families below poverty level	134	4.3	1,005	2.9
Individuals below poverty level	607	5.5	6,952	5.6

Source: U.S. Census

* In 1999 dollars

3.2 Existing Housing Supply

3.2.1 Housing Characteristics

It is important to regularly inventory housing characteristics and compare what exists with current and future populations to determine if the Town's housing stock is adequate to meet their needs or to determine what changes, if any, need to be made or are desirable to meeting planning goals.

The Town of Stafford has a large diversified housing stock consisting of 4,616 total units with a 5.7 percent vacancy rate (2000 census). Of the 4,353 occupied housing units, 74.6 percent are owner occupied while, conversely, 25.4 percent are rental units (refer to Table III-5 and Figure III-4). The total housing stock in the Town of Stafford has increased by about 7 percent since 2000.

Table III-5 – Housing Stock, 2000

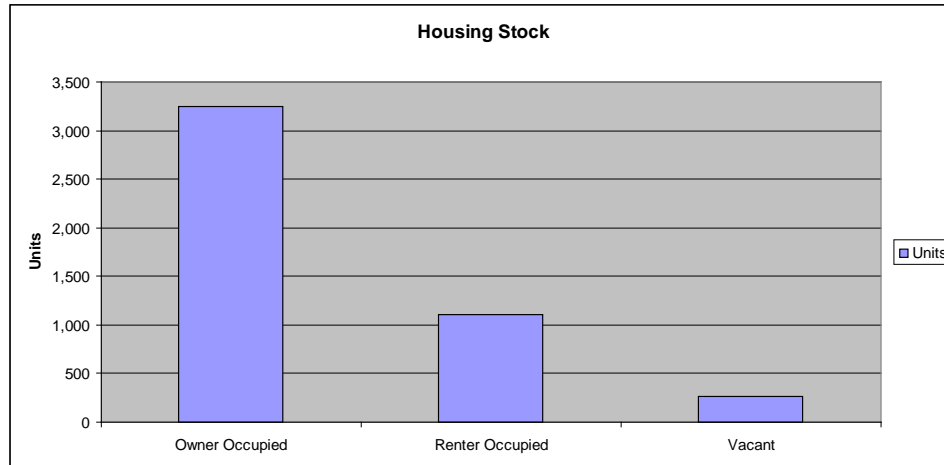
	Units	Percentage
Vacant	263	5.7%
Occupied	4,353	94.3%
Owner Occupied	3,248	70.4%
Renter Occupied	1,105	23.9%
Total Housing Units	4,616	--
Average Household Size	2.56	--

Source: 2000 U.S. Census



Residential Development on High Street – Stafford Springs

Figure III-4 – Housing Stock, 2000



Source: 2000 U.S. Census

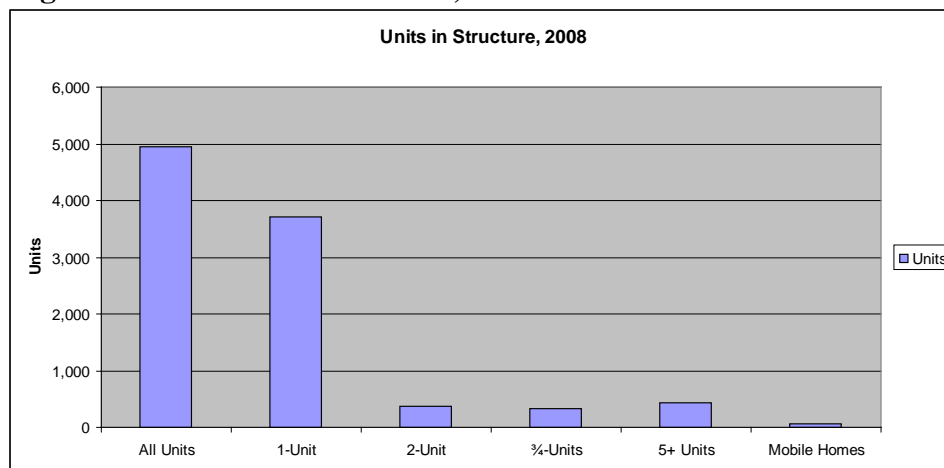
As is the case throughout Tolland County, the majority of the Town's housing units are detached single family dwellings (refer to Table III-6 and Figure III-5).

Table III-6 – Units in Structure, 2008

Type of dwelling	Units	Percentage
All Units	4,946	100%
1-Unit	3,719	75.2%
2-Unit	380	7.7%
¾-Units	339	6.9%
5+ Units	441	8.9%
Mobile Homes	67	1.4%

Source: DECD

Figure III-5 – Units in Structure, 2008



Source: DECD

3.2.2 Recent Developments

Since 2000, there have been a number of residential developments constructed within the Town. According to records in the Town's Building, Zoning and Land Use Office, approximately 310 new housing units have either been built or have been proposed within the Town over the last 10 years. This is equivalent to approximately 6.5 percent of the total housing stock from the 2000 census. Of this new development, approximately 210 units are single family detached dwellings, 8 units are work/live occupancy units in converted mill buildings, and 92 units are senior citizen single family units (Isabella's Court).

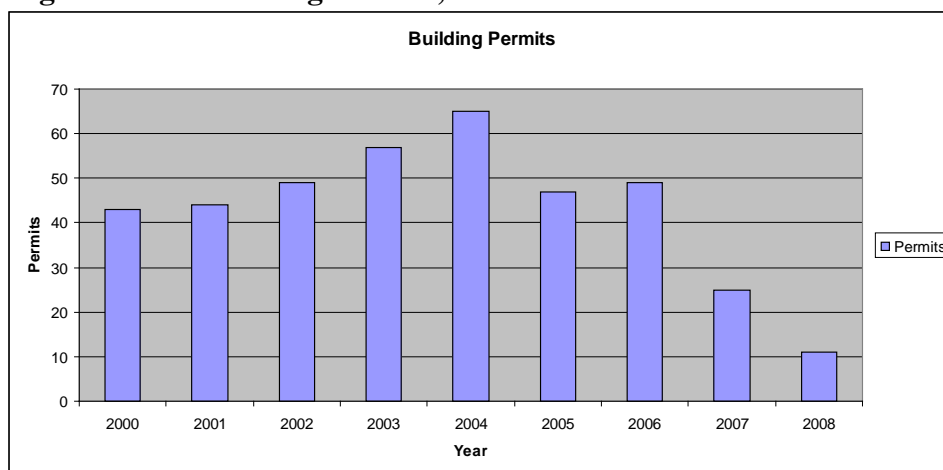
The number of building permits issued by the Town increased on a yearly basis from 2000 to 2004 and then declined from 2005 to 2008, partially as a result of the decline in the housing market, particularly from 2007 on (refer to Table III-7 and Figure III-6).

Table III-7 – Building Permits, 2000-2008

Year	Permits
2000	43
2001	44
2002	49
2003	57
2004	65
2005	47
2006	49
2007	25
2008	11

Source: DECD

Figure III-6 – Building Permits, 2000-2008



Source: DECD



New Single-Family Residential Development at Fox Hill Drive

3.2.3 Age Restricted Housing

Presently, there are two age restricted communities in the Town – Avery Park and Isabella's Court.



Isabella's Court Age Restricted Development from Furnace Avenue

Avery Park, located in Stafford Springs, is managed by the Stafford Housing Authority and includes 110, single bedroom, rental units. Isabella's Court is a newly developed residential active adult community consisting of 92 single family detached homes in Stafford Springs. These owner occupied units are restricted to residents aged 55 and older.

3.3 Housing Costs and Affordability Analysis

3.3.1 Housing Value

Housing value in the Town, in 2000, was significantly lower than Tolland County and the State of Connecticut as a whole at \$128,200. Over the course of the decade, housing values jumped rapidly but have more recently begun a decline since their peak in 2007. This trend can be seen throughout the Country. Declines in home value in Connecticut since 2007 have been approximately half of that seen in other parts of the nation.¹ According to Connecticut Association of Realtors price decline has occurred mainly at the higher-price end of the spectrum reflecting the supply shortage of affordable and modest market rate homes in the state. Median sales price for a home in 2008 was reported as \$200,000 in Stafford according to the State Department of Economic and Community Development. Median values at the county and state levels increased at similar rates as shown below in Table III-8 and Figure III-7.

Table III-8 – Median Home Value for Owner Occupied Housing Units

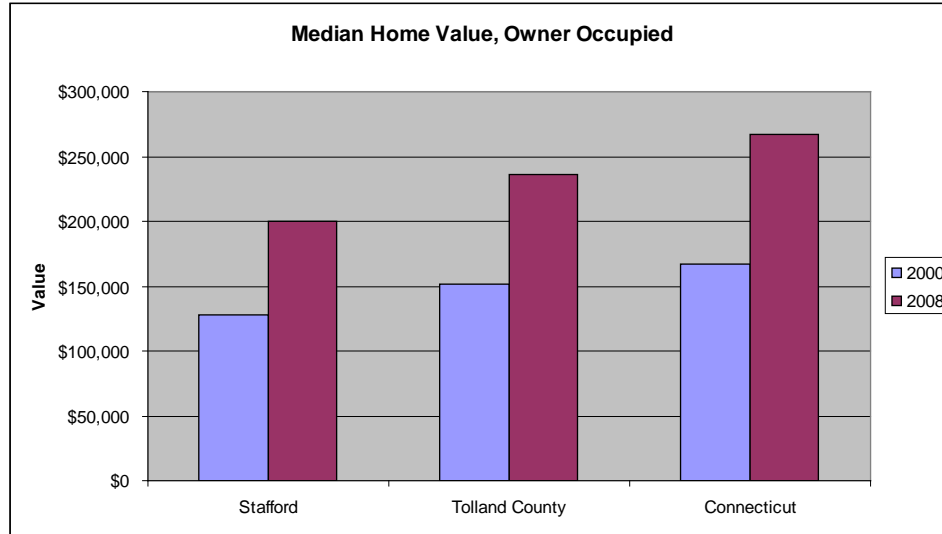
	2000	2008	Increase
Stafford	\$128,200	\$200,000	56%
Tolland County	\$151,600	\$236,000	55.7%
Connecticut	\$166,900	\$267,500	60.3%

Source: 2000 U.S. Census, www.homeconnecticut.org

The median home values for owner occupied housing units in the Town from 2000 to the present have generally increased at a similar pace to that of Tolland County and the State. However, lower median values demonstrate that Stafford is more affordable than the County and State as a whole.

¹ www.homeconnecticut.org with data from the Warren Group.

Figure III-7 – Median Home Value for Owner Occupied Housing Units



Source: 2000 U.S. Census, www.homeconnecticut.org

3.3.2 Affordable Housing

The affordability of housing has some inherent subjectivity to it. What is affordable to some people may not be affordable to others.

U.S. Housing and Urban Development

The term “affordable” is defined by the U.S. Department of Housing and Urban Development (HUD) as housing that costs no more than 30 percent of a homeowner’s monthly income and that is guaranteed to remain affordable for a period of time to families who qualify under specific income guidelines (refer to Table III-9). Typically a qualifying household would need to earn less than 80 percent of the local median income. Affordable housing can be age restricted or can be reserved for specific groups such as municipal employees, emergency medical and firefighting volunteers or can simply be allocated to anyone meeting income requirements set by the U.S. Department of Housing and Urban Development (HUD). In 2008, 40 percent of Connecticut’s households spent greater than 30 percent of their income on housing costs.

Table III-9 – Tolland County HUD Eligibility Income Limits, 2009

Family Size	30% Extremely Low Income Limits	50% Very Low Income Limits	80% Low Income Limits
1	\$17,900	\$29,800	\$44,800
2	\$20,450	\$34,050	\$51,200
3	\$23,000	\$38,300	\$57,600
4	\$25,550	\$42,550	\$64,000
5	\$27,600	\$45,950	\$69,100
6	\$29,650	\$49,350	\$74,250
7	\$31,700	\$52,750	\$79,350
8	\$33,750	\$56,150	\$84,500

Source: HUD

Table III-10 indicates the maximum rents, including utilities that can be charged by a landlord/developer in Tolland County to qualify for Low Income Affordable Production Program subsidies. These limits are set by HUD based on 65 percent of the County's median income.

Table III-10 – Tolland County Low Income Rent Limits Including Utilities, 2009

Bedrooms	Rent Limits*
Efficiency	\$697
1	\$835
2	\$1,021
3	\$1,226
4	\$1,522

Source: HUD

* 65 percent of median income

Local and State Housing Resources

The HOME Connecticut annual Affordability in Connecticut study for 2008 shows that despite sharp declines in housing prices, buying a home in 117 of the state's 169 towns remains unaffordable for most residents. The study analyzes of the ability of a household earning median income to afford a home at median sales price in each of the state's towns and cities. The 2008 data shows that the recent decline of housing prices in Connecticut has led to a lessening of that gap for many towns in the state, as median incomes continued to rise in 2008.²

Connecticut Affordable Housing Appeals Act

A narrow definition of affordability is included within Section 8-30g of the Connecticut State Statutes. This chapter, often referred to as the *Affordable Housing Appeals Act*

² The data used in the study was provided by the Warren Group and the Connecticut Economic Resource Center.

includes a provision that municipalities are not subject to the requirements of this act if they have a minimum of 10 percent of their housing stock in:

1. Homes or dwelling units with mortgages currently financed by the Connecticut Housing Finance Authority (CHFA).
2. Homes subject to binding recorded deeds containing covenants or restrictions which require that such dwelling units be sold or rented at, or below, prices which will preserve the units as housing for which persons and families pay thirty per cent or less of income, where such income is less than or equal to eighty per cent of the median income.
3. Mobile manufactured homes located in mobile manufactured home parks or legally-approved accessory apartments, which homes or apartments are subject to binding recorded deeds containing covenants or restrictions which require that such dwelling units be sold or rented at, or below, prices which will preserve the units as housing for which, for a period of not less than ten years, persons and families pay thirty per cent or less of income, where such income is less than or equal to eighty per cent of the median income.



Glenville Condominiums on Furnace Avenue

Further, towns that do not have at least 10 percent of their housing designated as affordable are much more limited in their ability to reject an affordable housing development proposal. A total of 31 communities are exempt from the Affordable Housing Land Use Appeals Procedure under Section 8-30g.

The DECD reports the Town of Stafford has a total of 326 total affordable housing units. The total amount of affordable housing is then compared with the Town's total housing

stock in 2000 because that number is the bench mark used by the DECD to determine whether a community is exempt from the Affordable Housing Appeals Procedure as determined by C.G.S. Section 8-30g (Table III-11).

Table III-11 – Affordable Housing as per Department of Economic and Community Development

Total Number of Assisted Units	326
Governmentally Assisted Units	188
CHFA Mortgages	138
Percentage of Town's 2000 Housing Stock	7.06%

Source: Department of Economic and Community Development, State of Connecticut

While this total is below the 10 percent threshold required for exemption from the Affordable Housing Appeals Law the Town's housing stock remains affordable, because the percentage is based on the number of units which meet specific criteria laid out in the Housing Appeals Act. The Act defines an affordable housing set-aside development as "a development in which not less than thirty percent of the dwelling units will be conveyed by deeds containing covenants or restrictions which shall require that, for at least forty years after the initial occupation of the proposed development, such dwelling units shall be sold or rented at, or below, prices which will preserve the units as housing for which persons and families pay thirty per cent or less of their annual income, where such income is less than or equal to eighty per cent of the median income. In a set-aside development, of the dwelling units conveyed by deeds containing covenants or restrictions, a number of dwelling units equal to not less than fifteen per cent of all dwelling units in the development shall be sold or rented to persons and families whose income is less than or equal to sixty percent of the median income and the remainder of the dwelling units conveyed by deeds containing covenants or restrictions shall be sold or rented to persons and families whose income is less than or equal to eighty per cent of the median income."

Despite the fact that the Town is not exempt from the Housing Appeals Act, Stafford was considered to be an affordable town based on the analysis in the HOME Connecticut study titled, "Affordability in Connecticut, 2008: 117 of 169 towns unaffordable for most households", which illustrates that current housing prices in Stafford are generally in line with the income of the local population despite the fact that the housing is not designated as affordable based on the state's narrow definition and requirements. The town was ranked 143 out of Connecticut's 169 total cities and towns in terms of affordability³ where 1 is the least affordable.

³ Affordability in this study was measured by the ability of a resident earning the 2008 median income to afford a mortgage on a median priced home in the Town assuming a 4.5% fixed rate, 30-year loan with a 10% down payment.

The Housing Program for Economic Growth

The Housing Program for Economic Growth known as the *HOME Connecticut Program* gives towns an opportunity to produce affordable homes that is voluntary, incentive based, low-cost to the state, and preserves local control. If municipalities choose to take part, the program provides them with incentive payments if they create mixed-income housing in responsible growth zones in town centers, near transit facilities, in areas where infrastructure can support higher densities or in other locations the municipality deems appropriate. The program also provides technical assistance grants to help towns create Incentive Housing Zones and their new homes. HOME Connecticut has sparked 72 towns across the state to begin planning new homes for teachers, nurses, police officers, firefighters, families, young professionals, elderly residents, and many others.

HOME is the largest federally-funded program administered by the Connecticut Department of Economic and Community Development (DECD). In 2008, Connecticut's DECD reported \$12,045,404 would be expended under this program in the 2008-2009 fiscal year. This figure was slightly down from the 2007-2008 total of \$12,734,271. HOME funds are available on a year round basis through an open application process. Communities with the highest needs receive the highest priority. Receiving municipalities of the HOME funds are required to match a minimum of 25 percent of their total grants. Housing created through the HOME program must maintain its affordability by deed restriction for a minimum period of 15 years. Eligible Uses for HOME funds include the following:

- Acquisition
- Rehabilitation
- New Construction
- Demolition
- American Dream Down payment Initiative
- Homeownership
- Rental Housing
- Pre-Development Loans
- Operating Expenses (CHDOs only)
- Homebuyer Education

HOME encourages the creation of Incentive Housing Development zones, which must contain "lower cost housing units for a minimum of 20 percent of the households earning 80 percent or less of area median income (AMI) for 30 years. A unit is affordable if it costs no more than 30 percent of a person's annual income to live there". It differs from the State's 8-30g requirements in several ways:

- 20 percent of the units must be affordable, instead of 30 percent;
- The affordability period must be 30 years instead of 40 years;
- The units must be affordable to household earning 80 percent of the median income, instead of a combination of 60 and 80 percent.

3.3.3 Regulatory Controls for Affordable Housing

The purpose of this section is to explain the function of land development regulations, recognize how land development regulations can encumber the development of affordable housing, present and discuss how zoning standards can be designed to support affordable housing construction, and review the potential of regulatory measures, such as inclusionary housing, to increase the supply and encourage the dispersion of affordable housing.

Zoning Techniques that Support Affordable Housing Development

There are a variety of traditional and innovative development standards that local governments can use to reduce the impacts of regulations on housing costs without diminishing the quality of residential neighborhoods. Zoning techniques that reduce housing costs include the allowance of small lot sizes, variable lot sizes, a mix of housing types in the same zoning district, and accessory living units in some single family zoning districts.

Lot Size

Affordable housing production depends in part on the cost of land. Zoning regulations directly influence the cost of land by establishing the minimum size of lots. Allowing small lot sizes is an integral component of any strategy to ensure an adequate supply of affordable housing for current and future residents. Small lot sizes increase utilization of land resources, which has a major impact on the affordability of housing.

Allowing a variety of lot sizes within the same zoning district allows greater design flexibility and can more easily accommodate a mix of housing types, such as detached and attached homes. Flexible lot standards will also allow a developer to more easily develop irregular properties and accommodate environmental features that may otherwise limit the use of the property.

Setback

Reduced setbacks are an integral part of zero-lot-line configurations and are equally useful with standard lot configurations. Reducing front and side yard setbacks can decrease the distance to connect a home to utilities and they can also further reduce street and sidewalk lengths by allowing a greater number of lots in a shorter street distance.

Alternative Configurations

When used in combination with smaller and variable lot sizes, alternative lot configurations can enhance the aesthetics of a neighborhood. Zero-lot-line lots, mixed lot development and cluster zoning all have the potential to decrease housing costs by reducing infrastructure expenditures and more efficiently utilizing available land for single family development. Alternative lot configurations reduce the distances that utilities must travel to connect a housing unit to water, sewer, and electric. They also

allow a developer to create an increased number of lots, thereby reducing the average unit cost to the consumer. Such lots can utilize the decreased amount of open space more effectively to create comfortable open space areas.

Mixing Housing Unit Types

Having a diversity of housing types in a neighborhood allows a diversity of people to afford to live there. Young families, seniors, couples and mixed households can all find suitable housing in a neighborhood, and residents can still find alternate accommodations in their existing neighborhood, as their housing needs change. A mix of housing types can allow greater flexibility in site design and more effective land utilization than neighborhoods of a single housing type. There are several design advantages to allowing a mix of housing types in the same neighborhood: more units per acre without compromising the aesthetic quality of the neighborhood; thoughtfully designed common and open space areas with improved community ambience; and enhanced utilization of transit. However, attention must be given to design standards to ensure compatibility with surrounding neighborhood characteristics.

Accessory Living Units

Accessory living units are separate housing units typically created either in the excess space of single-family homes as an internal apartment unit or as an unattached structure on the same lot as the primary residence. Accessory living units cost 40 percent less than a comparable unit on a separate lot and can be constructed for roughly a third of the cost of a conventional rental unit, thereby allowing lower rents than conventional apartments (Arendt 1994).

Traditional Neighborhood Developments

Many older neighborhoods have small lots, variable lot sizes, and a mix of housing types including accessory living units. Today, architects, developers, and planners are rediscovering the practicality and desirability of such neighborhoods and are designing Traditional Neighborhood Developments (TNDs). A variety of housing types are provided in TNDs. These developments can include attached and detached single-family homes, duplexes, town homes, condominiums, apartments, and accessory living units. With a variety of housing types, the needs of varied age and income groups are more easily accommodated within a TND, and a greater diversity of residents is encouraged. TNDs also encourage the use of flexible lot sizes and reduced street widths to facilitate the variety of housing types and support the development of pedestrian oriented neighborhoods. It is reasonable to expect that some housing units in any residential development that uses TND concepts will be more affordable because of these related principles.

Inclusionary Zoning

Inclusionary zoning ordinances are policies that either tie development approval to, or create regulatory incentives for, the provision of low to moderate income housing as part

of a proposed development. Inclusionary housing is a method for requiring or encouraging new market rate residential developments to set aside a certain percentage of housing units for low to moderate-income households.

3.4 Development Potential

One of the important work components of the update of the Plan of Conservation and Development is the determination of the ultimate residential development potential, assuming the full development of the Town based upon current zoning and other land use regulation. In order to do so, we did the following:

- Created a Geographic Information System which mapped the entire Town. Parcel information was created, and overlaid with environmental data, including wetlands, waterbodies, and FEMA floodplains.
- Mapped existing land use for the Town. Assessor's data was utilized, but it needed to be field verified, as the assessor's data did not always coincide with land use classifications which could be effectively utilized for a land use and development potential analysis.
- Lands identified as potentially available for residential development was mapped. This included privately owned forested lands, agricultural lands, other privately owned vacant lands, and over-sized developed parcels with subdivision potential. Lands owned by the State or an institution which would preserve the lands from development were not included within the determination of developable land.
- The residential development potential and the likely population were analyzed in accordance with the methodology described below.

In order to assess development potential, privately owned vacant and over-sized lots susceptible to further development were identified. An assessment was then made of the potential build out of these lots under existing zoning. Later, the same process will be applied to prospective zoning, based upon input from the POCD Committee, so that a comparison can be made.

Land use information for the Town was obtained from the Town of Stafford's Assessor's Office and was verified in the field and by review of the POCD planning committee. State and Town-owned lands, transmission easements, and quasi-public facilities were assumed to have no potential for further development.

Once the lots were identified, the next step was to identify the factors that would affect the development potential of each lot. The factors considered included:

- The Town's current zoning classifications;
- FEMA 100- and 500-year Floodplains;
- Wetlands; and
- Waterbodies.

The extent of the known constraints are based on various sources of data including mapping products acquired from the United States Geologic Survey (USGS), the Connecticut Department of Environmental Protection (CTDEP), the Federal Emergency Management Agency (FEMA), and the U.S. Army Corps of Engineers (ACOE).

Environmental constraints were factored, with deductions to yield a net developable lot area. In determining residential development potential, the net developable lot area was decreased by 15 percent to take into account space for the installation of infrastructure and inefficiencies in lot layout, and decreased by 100 percent for wetlands, waterbodies, and FEMA 100- and 500-year floodplains. The remaining net developable lot area was then divided by the minimum lot area of the respective zoning districts to yield the potential number of additional residential development lots.

All of the developmental potential was based upon lands potentially available for development within the Rural and Single-Family Residence District (AAA), the Single-Family District (AA), the Single Family Residence District (A), the General Residence District (C), and the Water Management District (WM). No multi-family residential development was contemplated within the analysis.

The adoption of the Town's Plan of Conservation and Development zoning amendments that will ultimately implement the Plan are anticipated to result in a change in the total development potential for residential land uses on the remaining developable parcels within Stafford.

The analysis indicates there is the potential for an additional 6,762 residential development lots in the Town. According to the Connecticut Economic Resource Center (CERC) the average household size for the Town of Stafford is 2.57 persons (2009). If an additional 6,762 single-family homes were constructed in the Town, the population would increase by approximately 17,000 persons; if family sizes remained the same, for a total population in the Town of approximately 29,000 persons (refer to Table III-12). This represents approximately a doubling of the Town's population over a period of time if the Town was built out to its maximum capacity.

It is important to note that this analysis is not suggesting that this type and extent of residential build out will ever occur within the Town. This is simply a generalized analysis that demonstrates based on minimum lot sizes within the Town's respective zoning districts, vacant and under-utilized lands, and existing environmental constraints, the number of additional lots that could potentially be created. There is not any timeframe associated with this theoretical build-out. Some lots that have been identified in this analysis as having development potential may in fact not have any development potential as a result of lot inefficiencies or the presence of environmental constraints not contained within State GIS databases. It is also important to emphasize that the GIS data used in this analysis is not of, and not intended to be of survey quality.

We have also collected data on historic population, future population estimates, and building permits issued from 2000 through 2008 to compare against the generalized

findings of the development potential analysis (refer to discussion below). As can be seen, it is estimated that population in the Town will decrease through 2014 and that the number of building permits issued has generally decreased. This data highlights the fact that the development potential analysis is theoretical by nature.

Table III-12 – Potential Population

Description	Town of Stafford
Estimated Population (2009)	12,046
Potential Additional Residential Dwelling Lots	6,762
Additional Residents (2.57/DU)	17,378
Total Potential Population	29,424

Source: Turner Miller Group based upon analysis of data from the Connecticut Economic Resource Center (CERC)

Table III-13 below breaks down the residential development potential by zoning district. The greatest potential for additional residential development is in the AAA District. It is noted that the analysis does not encompass approved subdivision lots.

Table III-13 – Development Potential by Zoning District

Zoning District	Additional Potential Development Lots
AAA	4,217
AA	2,284
A	199
C	0
WM	62

Source: Turner Miller Group

The Stafford Planning and Zoning Commission have adopted regulatory changes over time that has had an impact upon the potential residential build out. Usable lot area is defined in Section 3.28.2 of the zoning regulations regulates the usable area of a lot as “the area of a lot that is considered usable lot area shall be the area of a lot that does not include floodplains, wetlands, easements or naturally occurring slopes of over 15 percent. A building lot shall have a usable lot area of at least 50 percent of the minimum required lot size for the district in which the property lies. The land area comprising the 50 percent minimum shall be one contiguous piece”. It is likely that the potential development of the Town would be somewhat higher if these regulations had not been adopted.

Steep slopes, greater than 15 percent, were not factored into the development potential analysis. Most of the areas of steep slopes could be accommodated within the maximum 50 percent of the lot which would be permitted as beyond the usable area, as regulated in Section 3.28.2 of the Town’s zoning regulations. In addition, the great majority of lands within steep slopes in the Town are within areas protected as State or institutionally owned properties.

3.4.1 Historic and Projected Population and Building Permits

The Town of Stafford, with an estimated population of 12,046 (2009), makes up approximately 8.1 percent of the total population of Tolland County (CERC, 2010). The populations of both Stafford and Tolland County have moderately increased between 1990 and 2009. The Connecticut Economic Resource Center (CERC) estimates that the population in the Town will decrease to 11,799 and will increase at the County level to 150,231 by 2014.

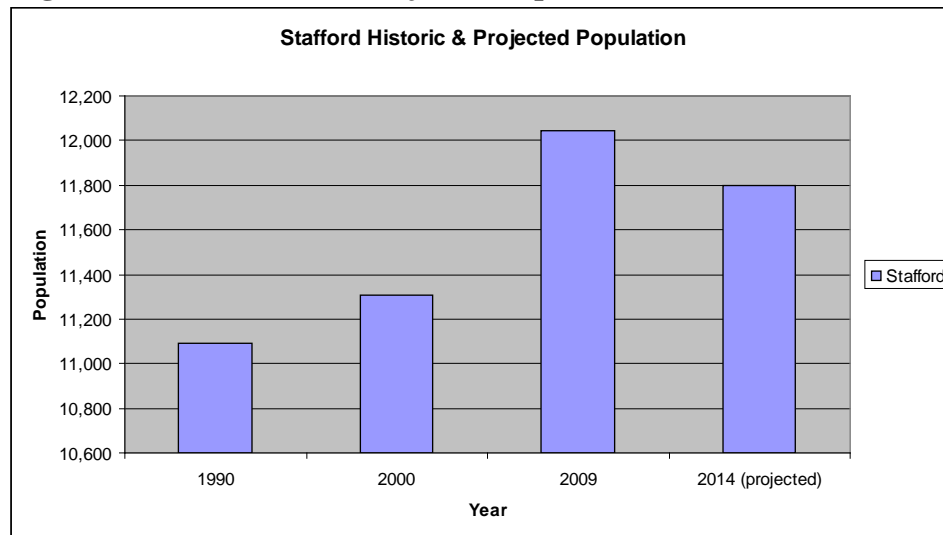
Table III-14 and Figure III-8 below show historic population totals in the Town of Stafford and Tolland County from 1990 to 2014.

Table III-14 – Historic & Projected Population, 1990-2014

Population	Stafford	Tolland County
1990	11,091	128,699
2000	11,307	136,664
2009	12,046	148,765
2014 (projected)	11,799	150,231
2009-2014 Growth/Yr.	-0.4%	0.2%

Source: CERC, 2010

Figure III-8 – Historic & Projected Population, 1990-2014



Source: CERC, 2010

4. OPEN SPACE RESOURCES

4.1 Background

The Town of Stafford is fortunate to be a geographically large town with a moderate population, most of which has traditionally been centered in the area formerly known as the Borough⁴ of Stafford Springs. The Town has seen dramatic changes in its land use since the early 1700's, when its small population was spread out over many farms. With the rise of the Industrial revolution in the mid-1800s, the population shifted to the villages and the Borough, and many farms were abandoned. The farm land reverted to forest land that dominates the town today. In the latter part of the 20th century, land use once again shifted as new roads, houses and subdivisions began to take over former farm land and forests. The proportion of the population outside of the Borough and villages is now greater than it has been for the last 170 years.

Stafford is at a critical point where decisions need to be made regarding the future development of the land. If the pattern of growth continues the way it has for the past 70 years, its rural character and much of what makes Stafford unique will be lost. This section will attempt to distinguish areas in town which should be preserved in order to save most of the rural nature of the Town in the future. We are using the State Plan of Conservation and Development (2007) as our guide in classifying different areas of town for future land use. Using Smart Growth principles, the state plan encourages the Town to develop areas which are already served by sewer and water, and limit growth in areas which are currently rural. As Connecticut becomes more developed, there is renewed emphasis on limiting sprawl. Stafford's goal is to comply with the state's vision of keeping the town's development centered around its traditional villages.

Stafford's natural resources play an essential role in defining the town's identity. Large tracts of forest and many recreational areas define the town's rural character and support its image as a desirable community in which to live. Protecting and preserving Stafford's wealth of natural resources is essential if the town is to retain its unique rural heritage. The characteristics that make Stafford a desirable place to live are threatened if the town experiences unplanned and uncontrolled growth.

Despite the significant challenges that will need to be addressed in order to preserve Stafford's natural resources for present and future generations, the town possesses several major advantages in terms of open space and recreational land preservation. Large portions of Shenipsit State Forest in the western and northern areas of town and Nipmuck State Forest in the southeastern part of town total over 6,000 acres. The State forests combined with land owned and preserved by the Norcross Wildlife Foundation give the town a significant amount of open space. The State forests and most of the Norcross land provide the preservation and recreation at little or no cost to the town. As the State continues to add to the State forests, large areas of continuous land corridors will be preserved in the northwestern and southeastern sections of town, providing protection for a wide range of wildlife species.

⁴The area formerly known as the Borough is currently a service district, but is often referred to as the "Borough"

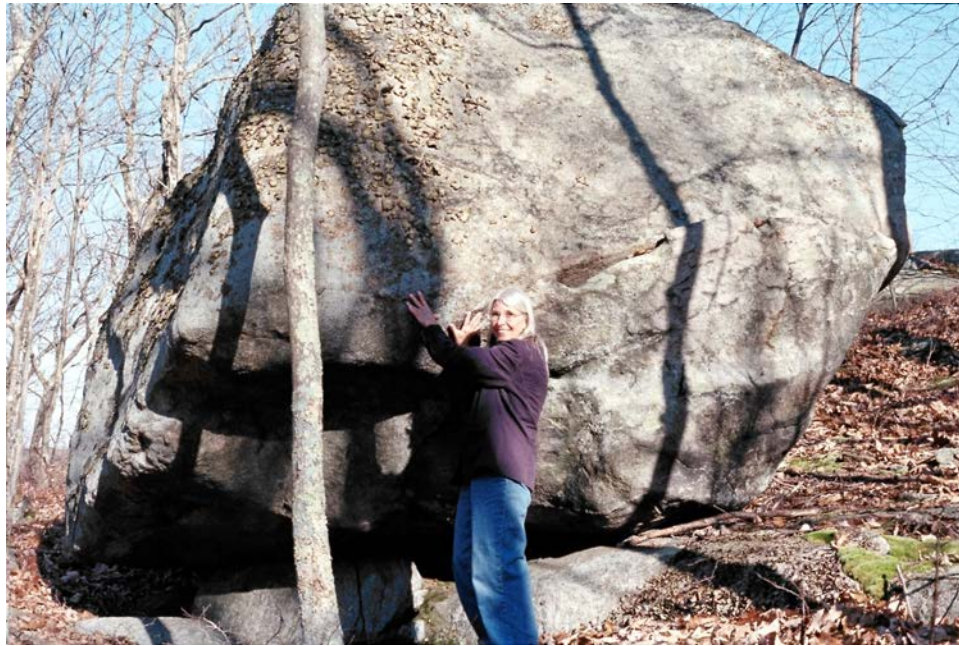
Additionally, Stafford is very fortunate to be adjacent to large preserved tracts of forestland in the towns of Monson, Massachusetts, and Ellington and Union, Connecticut. These extend the wildlife corridors in Stafford and will help to maintain the rural nature of our town in the future.

In addition to its wealth of natural resources, the town also possesses a core of dedicated residents who recognize the need for protecting valuable natural resources and who are committed to preserving Stafford's unique rural identity and small town atmosphere. The citizens of Stafford have observed the results of rapid and unplanned development in adjacent communities and there is a growing awareness that the same negative results could occur in Stafford without proper planning. This growing awareness can lead to greater participation when official decisions relating to new development and open space land preservation are being debated.

The open space and recreation plan is intended to guide the Town of Stafford as it seeks to preserve and protect its valuable open space lands and recreational resources. It should be noted that the term "open space" as used in this plan generally denotes land that will remain undeveloped but under certain unique circumstances may include passive recreation activities such as hiking trails, etc. Concurrently, "active recreation" areas like sports fields etc. are not passive in nature and need to be considered and developed separately from open space lands due to their possible negative impact on wildlife corridors, etc., high public use, and need for special infrastructure improvements. The preservation and protection goals and objectives in the plan are based on priorities expressed by the citizens of Stafford in past opinion surveys by the Conservation Commission. Informed decision making and an active approach to open space and recreational land preservation will ensure that present and future generations will be able to enjoy Stafford's unique rural character and irreplaceable natural heritage for years to come.

Stafford should prepare a comprehensive inventory of the town's natural, historic, scenic, and water resources. This inventory is essential for developing future open space and recreation goals for the town.

In 2007, the State Plan of Conservation and Development was revised to concentrate development in Stafford to an area in and immediately around the service district formerly known as the Borough of Stafford Springs. Furthermore, they designated large areas in Stafford's Northeast and Northwest sections of town as preservation areas, where development should be restricted. Another restricted zone is in the eastern part of town surrounding the Nipmuck Forest.



4.2 Economic Benefits of Open Space

Forest Land is one of the town's best investments. Lower property taxes resulting under the PA 490 program for parcels larger than 25 acres is more than offset by the associated lower need for town services. There have been numerous studies since the 1980's which show that the taxes paid on forestland is more than it uses in services (footnote). Schools, road maintenance, police protection etc. are generally not needed to service forestland. Residential housing requires the town to subsidize all of the costs for services because the average residential tax revenues do not cover the full cost of the services provided. Most Connecticut towns recognize that having Open Space land saves money for all taxpayers in town.

Conserving land wisely also allows nature to recharge and clean groundwater, prevents soil erosion, absorbs flood water and saves us money by us not having to go and 'fix' problems created by development. By allowing, for example, rainwater to be absorbed by the land, rather than running down pavement, we save the cost of trying to control the flow of the water.

Communities with sound conservation plans also tend to have improved bond ratings. These ratings reflect the fact that unlimited and/or mismanaged growth can make a community expensive to manage. Good planning and conservation promotes cost-effective development, helps ensure that the quality of life remains desirable, and avoids potentially disastrous environmental cleanups.

Studies have shown that residential properties which are adjacent to preserved land increase in value faster than similar properties located elsewhere. Stafford has 5,127 acres of State Forest that provide many opportunities for recreation and tourism. As Connecticut continues to urbanize, people are traveling to Stafford to enjoy our forests.

Our three campgrounds are filled with people from other towns, and the motorcross, snowmobile and horse riding clubs have limited use of our forests for certain of their special events. If we manage the land adjacent to these State forests wisely, we can ensure that they, along with our historic farms and buildings, will attract even more visitors to enjoy the beauty of Stafford.

The chief economic product of forests is timber, but the economic benefits, in terms of climate control, pollution abatement, and wildlife maintenance, are very real but difficult to calculate. The economic importance of non-timber forest products is also increasing. The forests are vital as watershed. Because of the thick humus layer, loose soil, and soil-retaining power of trees long roots, forests are vitally important for preserving adequate water supplies. Almost all water ultimately feeds from rivers, whose head waters and tributaries are in forests, lakes that are located in forests and from forest-derived watersheds. In addition, the forests provide shelter for wildlife, recreation and aesthetic renewal for people, and irreplaceable supplies of oxygen and soil nutrients.

Stafford consists of 58 square miles, or 37,120 acres. Of this 5,951 acres is state forest, 671 acres state owned flood control areas, 1,754 acres preserved open space land owned by Norcross Wildlife Sanctuary, and three acres belongs to the Northern Connecticut Land Trust, for a total of 8,379 acres. Additionally, the town owns 450 acres, with only 12 acres designated as dedicated as open space. This is the Renn property given to the town on New City Rd. Stafford also owns the 200 acre Hyde Park, 80 undeveloped acres surrounding the Middle and High Schools and 40 acres around Dennis Pond. Outside of the downtown area, the town owns approximately 35 acres behind the West Stafford School. The remainder of town owned land is schools, cemeteries, the transfer station etc. Aside from the 12 acre Renn property, none of the town's lands are protected in perpetuity from development. Some of these parcels are very small and do not abut any other protected space. The town should investigate selling these small parcels with limited open space potential, to adjoining landowners.

Protected land in Stafford represents 18.5% of the total land. Although it appears we have a significant amount of protected land, there is no guarantee that the state will continue to protect these forests. The State has previously exchanged or abandoned state forest land for projects it deemed more valuable. Johnson Memorial Hospital is built on land previously designated as state forest and the new Troop C Barracks in Tolland was also built on state forest land. Stafford should consider adding to its own Open Space holdings to insure against future loss of state forest.

4.3 Open Space Goals

We have identified the following goals as critical to the effort to preserve and protect the town's open space lands and recreational resources:

- Preserve forest land
- Preserve agriculture land
- Provide for passive recreational opportunities,
- Preserve and protect wildlife habitat and wildlife corridors,

- Preserve Stafford's rural character.



4.3.1 Preserve Forest Land

Forest land represents nearly 80 percent of all Stafford land and the majority of open space. The remaining uses are commercial and light industrial, farmland, municipal and residential. The State owns 18 percent of the forest land, while the remaining forest-land is owned privately. These owners are comprised mostly of individuals, although the Norcross Wildlife Sanctuary owns five percent and the Northern Connecticut Land Trust controls a very small amount.

Excluding the State and Norcross land, the majority of open space land is comprised of small tracts (25-50 acres in size), many of which are home sites. Their land management objectives may differ somewhat from those of the State and Norcross Wildlife Sanctuary. An increase in number of small-tract owners has contributed to forest fragmentation. This has resulted in a decrease in traditional forest uses, especially timberland management and some public uses such as access to hunting.

Forests serve as a home for wildlife, provide for recreational opportunities, and help to clean our air and water. Forests represent the majority of open space in Stafford. Trees such as the Walnut, Butternut, Black Birch, White Birch, Hemlock, Eastern White Pine, Norway spruce, Northern Red Oak and White Oak are native to these forests. Timber producers have recognized for decades that Red Oak lumber from Connecticut is among the best in the world.

Preserving the forests and other open space land of Stafford is extremely important because these areas provide protection for various plant and animal species habitat. Because Stafford has many lakes and ponds, as well as two state forests and a number of privately owned large tracts of forests, it hosts more wildlife than most other towns.

Forests are the natural vegetative cover in Connecticut and they provide many benefits we take for granted. In addition to removing carbon dioxide from our air, they also clean and moderate the flow of water. They also provide cover for most of our wildlife species. In addition to the obvious recreational benefits, they also provide an economic benefit to sawmills and maple sugar production, without changing the rural character of Stafford.

Mature forest stands include larger “hard-mast-producing” (acorns, etc.) trees and dead and cull trees. In addition to serving as seed trees for reforestation, the larger, older trees produce nuts and hard seeds that provide an important forage resource for forest wildlife. Many species, such as ruffed grouse, wild turkey, squirrel, chipmunk, woodpecker, black bear, gray fox, and white-tailed deer depend on the acorns. Standing dead and cull trees also serve as important nesting sites for wildlife. They provide resting and nesting sites for various birds, such as woodpeckers, and other small mammals.

Finally, Connecticut’s forests, including those in Stafford, contain healthy and sustainable populations of native plants and animals. Biological diversity is exhibited through a full range of native plant communities and age classes, and diverse, stable animal populations on both public and private lands. Forests are dynamic and resilient, and the processes of a healthy ecosystem overcome the damaging effects of adverse weather, wildfire, erosion, invasive exotic species, and outbreaks of insects and disease. A healthy forest promotes clean air, clean water, and a better-regulated climate. Professional forest management is a recognized tool for improving forest ecosystem health, while containing forest fragmentation. Forest fragmentation is recognized as one of the most detrimental factors currently effecting forest ecosystem health.

4.3.2 Preserve Agriculture Land

Stafford is fortunate to have several working farming operations, as well as landowners who maintain fields for farmers to lease. In addition to producing their crops, these farmers add to the visual beauty of Stafford. Farmland also provides important habitat for non-forest species of wildlife.

Farm land is similar to forestland in that it requires few, if any, services for the tax dollars paid to the town, and acts like 'money in the bank' for the town. The majority of farm acreage is devoted to beef cattle, horses and hay. There are also sheep and goat farms and vegetable farms. Stafford's soils, which are mostly poor and rocky, are not the best for agriculture, but better, suited to trees. Because of our limited amount of state designated prime farmland soils, the town should be very careful about allowing development in these areas. Unfortunately, it is simply because farms are the most easily developed, that they frequently are.

4.3.3 Provide Recreational Opportunities

The development of a hiking trail and bike network that connects the Stafford downtown service district and Staffordville areas would be a valuable addition to the town's recreational assets. The trail network would expand the town's recreational offerings for residents and would reinforce Stafford's image as a destination for recreational opportunities. The ultimate goal of this project would be to secure permanent protection for the trail network through land acquisitions or conservation restrictions.



Stafford currently is home to a part of the Blue Trail system, managed by the Connecticut Forest and Park Association. The trail is in West Stafford near the Somers line. The Stafford Conservation maintains two trails on town land. One is a two- mile loop above Hyde Park and the other is behind the West Stafford School. There is also a section of the old Trolley Trail which runs along Route 30 in West Stafford. This could also be developed into a bike trail to Crystal Lake. It is a goal of the Conservation Commission to connect all areas of town with multi-use trails.

The town needs to establish a committee to map the numerous trails and bike routes in the northern section of town and develop a trail network that connects the Town Center and the Lake Siog (Stafford Pond) area. Our efforts would be greatly enhanced if we work with state-wide organization such as the Forest and Parks Association.

4.3.4 Preserve and Protect Wildlife Habitat and Wildlife Corridors

The Town of Stafford is dominated by forest lands and therefore possesses large tracts of contiguous wildlife habitat. Enhancing the effectiveness of these habitat areas for the preservation of wildlife involves securing permanent protection status for these lands and creating a wildlife corridor by physically linking these lands together. Wildlife corridors are especially effective for protecting migrating wildlife and wildlife that require a wide feeding area.

The western and northwestern sections of Stafford are well suited for a wildlife corridor because they already possess a substantial, permanently protected wildlife habitat and a limited number of roadways. In order to create a wildlife corridor in this area, the town should identify undeveloped parcels of land that can act as links between larger, protected tracts and then secure some form of permanent protection status for those parcels.

One of the ultimate goals would be to create a corridor that extends from Shenipsit State Forest in the southwestern section of Stafford up through the westerly section of the State Forest and larger private tracts to the northern border of town and finally connecting to protected land in Monson, Massachusetts near the state line – namely Peaked Mountain Preserve and the Brimfield State Forest. The Norcross Wildlife Foundation is a conservation organization that is actively seeking to protect wildlife habitat and open space lands in the region. In order to increase its effectiveness in acquiring permanent protection for land parcels, the town should coordinate their efforts with Norcross.

The primary threat to the forest's continued ability to thrive is caused by fragmentation and random development. Over 70 percent of our forest land is privately owned and over 60 percent is unprotected. Unprotected land has no legal protection from development such as a conservation easement or development restriction. As time goes on, the forests are gradually chopped into smaller and smaller parcels until they are unable to sustain wildlife. Smaller parcels also cannot cleanse and absorb air and water properly. Wildlife species such as wild turkey require home ranges of 1000 acres or more and others, like the piliated woodpecker, require 300 acres or more to breed successfully. Predatory birds, like blue jays and cowbirds, which naturally live on the edges of the forest, start moving into the interior of fragmented parcels and displace other forest species.

Research has shown that one large contiguous tract of forest, which is biologically diverse, provides far greater habitat, recreation and other resource benefits than many small tracts adding up to the same acreage. Stafford needs to work on connecting these tracts with each other. This has been a goal of the Connecticut DEP and Norcross Wildlife Foundation and the North Central Land Trust. The town of Stafford should cooperate by amending its zoning regulations to make sure development slated for areas which adjoin protected land also remains protected to the greatest degree possible.

4.3.5 Preserve Stafford's Rural Character

Stafford is fortunate to have scenic vistas, historic and prehistoric sites and a diverse landscape which make it different from other communities in the area. Because we have

so many hills, there are many scenic vistas in town. Without ridgeline protections, there is a danger that our lovely views of the hills will be ruined. Planning and zoning should be more aggressive in demanding protection of stonewalls, ruins, and unique natural areas. Our current regulations do not demand that an archeological review be undertaken before developing a site. The state archeological map for Stafford shows there are many confirmed and suspected sites in town.



4.4 Steps to Preserve & Protect Open Space

4.4.1 Revise Town Zoning Regulations

Stafford's natural resources are experiencing pressure from forces both inside and outside of the community. Unplanned residential development is consuming prime open space lands and contributes to the deterioration of the quality of water resources. The negative impact of unplanned residential growth can be seen clearly as land adjacent to or between medium size tracks of State forest is developed in a piecemeal fashion, and larger parcels of open space are sold for residential development. In addition, this type of development negatively impacts passive recreation, wildlife habitat and wildlife corridors.

Stafford needs to create an open space zone that would encompass the areas located in the less developed sections of town that contain the large tracts of undeveloped land. Creating an open space zone would allow for targeting those areas encourage keeping property as open space using incentives such as the PA 490 program and discourage development by making it more difficult and expensive to build new town roads.

Pressures on open space and recreational lands from outside of the town include rising land and home values in neighboring communities, rapid residential and commercial development within the region, and a lower emphasis on open space preservation.

Although the protection and preservation of natural resources is clearly an important priority of town residents, more immediate concerns such as education, public safety, and the cost of living, including Real Estate taxes, often take precedence over open space preservation.

The land and ecosystem within Nipmuck and Shenipsit State Forests, portions of which are located in Stafford, need protection against fragmentation. Other towns have established committees to support policies that reduce forest fragmentation and foster the education of habitat protection.

Stafford needs to revise its zoning regulations to encourage development in the residential and commercial core areas and discourage development in the conservation and passive recreation areas. Conservation of undeveloped land, which currently exists primarily in the northwest, northeast and southeast sections of the town, will help maintain the town's rural character and high quality of life standards.

This effort can best be approached by the creation of new or modification of existing zones, as follows:

- Rural Agricultural (RA) (open space) zone - no new town roads
- Rural Residential (RR) (conservation) zone - cluster housing must be developed
- Residential encouraged zones
- Commercial/industrial encouraged zones

4.4.2 Establish Overlay Zones

One of the best ways of controlling development in those outlying areas of open space from the negative impacts of dense residential development is through the establishment of a Conservation and Recreation Overlay Zone. One method is to ensure that the PA 490 program is available for all appropriate types of open space within the overlay zone. This will help discourage or limit development in those areas by limiting the cost of ownership. Discussions with many of the town's larger land owners reveal their interest in maintaining their land as open space, while keeping it under private ownership.

The other way to encourage conservation of open space and discourage its development is to encourage the development of areas that can support either commercial or residential development. The use of tax incentives and providing better services in those areas will encourage development. This approach will help the business and residential community and help the town control the cost of delivering services.

There are a number of scenic vistas in Stafford because we have so many hills. Without ridgeline protections, there is a danger that our views of the lovely hills will be ruined. This is especially important in areas that overlook town roads and main thoroughfares. These areas could be protected by the establishment of overlay zones that protect ridgelines.

An overlay zone could also promote cluster development in rural areas that are currently zone AA and AAA.

The Planning and Zoning Commission should be more aggressive in demanding the protection of stone walls, house and barn ruins, the foundations of these buildings, and unique natural areas.

4.4.3 Encourage Creative Development Techniques

Planning and Zoning needs to take a more active role in adopting open space protection. Conservation subdivision regulation can allow a developer to more densely build on a parcel, thus allowing the rest of the land to remain untouched and protected from future development.

Some degree of fragmentation is inevitable in our region, but land use and conservation plans must consider measures which allow economic growth and development to occur, while mitigating the negative effects. One way would be to encourage “Conservation Subdivisions” a/k/a Cluster Development, and increase the amount of land which remains untouched.

Residential cluster development is a form of subdivision in which the lots to be developed are grouped together in such a manner that only one-half or less of the total area is utilized for development. The remaining land is dedicated as common open space to support conservation or some form of passive public recreation.

Cluster development restricts the area of a subdivision that can be development, while providing for relaxed development standards such as minimum lot size and greater flexibility in the development of the land. Clustering the development results in a smaller footprint and leaves a larger area that can be preserved as open space.

The advantages of cluster development over conventional subdivision development accrue to the developer, the homeowners, and the town. Cost savings associated with shorter roads accrue initially to the developer because construction costs and utility installation costs are reduced and to the town over the long run because there is fewer roadways to maintain, and refuse and other vehicles providing services have less street mileage to travel.

The open space benefits associated with cluster development can be greatly enhanced when the planning for and orienting of the open space portion of a subdivision is based on a master plan or other areas of open space that abut or are close by. Connecting areas of open space supports wildlife corridors and passive recreation such as hiking and cross-country skiing.

The town should also encourage commercial/industrial development in along the 190 corridor from the town hall west to the junction of Route 315 with Route 190. This area has or will soon have public sewers and water. This topic is presented under the section on Land Use.

Planning and Zoning could also investigate creating overlay zones which protect unique geographical areas and habitats, as well as adopting these zones over prime farmland soils , historical sites and ridge lines.

4.4.4 Increase the Open Space Fund

The town and specifically Planning and Zoning should rethink our current regulations regarding the assessed fee or the 10 percent of acreage set aside. They need to re-evaluate criteria for accepting open space and not allow the developer to dictate the terms of Open Space. The board of selectmen should study the viability of bonding for purchase of open space lands, perhaps in conjunction with purchasing other town land to be used for development.

4.4.5 Encourage Use of Development Rights Sales

Encourage private landowners to take advantage of the purchase of development rights by the State and Federal governments. State of Connecticut open space and agricultural grant programs and the Federal Forest Legacy Program are all viable means of permanently protecting open space. All of these methods keep the land in private ownership, while preserving the natural resource values of the land. In addition, a portion of the land value remains on the tax rolls, and the town incurs no expense.

4.4.6 Open Space Advisory Committee

The Open Space Advisory Committee has taken on the role of advising the Planning and Zoning Commission concerning open space in subdivisions as well as their broader charge of determining which land in town is most deserving of protection. The committee has developed a checklist and rating table to score each parcel they review. The checklist and rating table can also be applied to the parcels currently owned by the town to help determine which parcels should be retained and which should be disposed of.

High on the priority list of parcels to be retained are those that have multiple resources, prime agricultural lands, productive habitat and corridor areas, wetlands and water courses and properties which are adjacent to existing protected land. The last is one of the most important, as fragmented parcels which are surrounded by development are not conducive to sustaining wildlife. Our highest priority is to increase the amount of contiguous protected farmland and forest.

4.4.7 Open Space Land in Stafford

A list generated by the assessor's office shows that 75 percent of the land in town is owned by large landowners, defined as those owning 40 acres or more. The largest parcel is 800 acres, which is surrounded by state forest. Other high priority parcels include Lake Mark and prime agricultural land on Stafford Street. These parcels also abut either state forest or Norcross protected land as does a 300 acre parcel in West Stafford. There is also desirable land near the Connecticut Water Company land and Nipmuck State Forest in the area of Crooked S Road and Collette Road East. Each of these parcels rate high on all of our criteria. You can easily see how they fit into the existing green corridor. The Connecticut DEP has been aggressive in recent years in trying to secure more land for its forests, and now owns 5,127 acres in town. Norcross Wildlife foundation currently owns 1,753 acres. The Northern Connecticut Land trust, which has preserved 3 acres, would like to become more active in Stafford. The land trust has recently acquired a conservation easement on portions of the White Farm on Michalec Road in partnership with the State DEP and USDA. This farm is now protected from future development and preserves more of our scarce prime agricultural soils.

4.4.8 Town Owned Lands

According to the Assessor's records, the Town of Stafford owns 105 parcels of land totaling 665.8 acres, with only a few of the parcels deeded or encumbered as open space. A 12-acre parcel on New City Rd was deeded to the town as open space. The 148 acres above the former Witt School, which is a part of Hyde Park, is used for hiking, birding and hunting. This beautiful wooded parcel, along with the small park and commuter lot on River Rd are part of the Willimantic River Greenway. The town also owns acreage along the Middle River in West Stafford which was acquired when a new subdivision was built off Cooper Lane.

The Open Space Advisory Committee has reviewed the list of town owned properties to determine the best usage for each of the parcels. The results are divided into one of three categories, which are:

1. Parcel supports an active town municipal operation (e. g. school building) or an active town recreation program.
2. Parcel has no apparent viable town use, does not meet the criteria for retention as open space, and should be considered for sale or otherwise disposed of.
3. Parcel does meet the criteria for retention as open space and should be so designated.

We recommend designating 25 of the town-owned parcels with 54 percent of the acreage (370 acres) as open space. We have designated 43 of the town-owned parcels with 42 percent of the acreage (295 acres) as needed to support municipal operations including the education plants or active recreational programs. Finally, we have identified 37

parcels with 3 percent of the acreage (19 acres) that can be sold with the money collected to be added to the town's open space fund.

Stafford has limited resources for acquiring open space land by itself. We recommend that the town become more aggressive in partnering with the State and the local land trust to make this possible.

4.5 Short Term Goals

1. Create a comprehensive map of current and potential town-wide trail system.
2. Work with the Selectmen to adopt a development rights buy-out program for interested landowners.
3. Work with Planning and Zoning Commission to take back the authority for making the decision concerning whether a developer provides open space or money to meet the open space requirement for a subdivision of five or more lots.
4. Encourage Planning and Zoning Commission to establish overlay zones to protect ridgelines and preserve stone walls and historic buildings through the use of overlay zones. Require archaeological review of larger subdivisions (e.g. over 15 lots).
5. Increase the amount of funding from the Selectmen's budget to the Open Space Fund.

4.6 Long Term Goals

1. Preserve an additional 3,000 – 5,000 acres of farm or forest land as open space, by purchasing outright or purchasing the development rights as a conservation easement.
2. Complete the inventory and sell Town owned land to eliminate small unusable parcels and add proceeds to Open Space account for future use to purchase open space land.
3. Revise Stafford Planning and Zoning Regulations to favor the retention of open space in a manner that supports the goals identified in this plan of development.
4. Provide for ridgeline protection and preservation of stone walls and historic buildings through the use of overlay zones.

Protecting Open Space in Stafford should be a priority. In addition to helping keep our property taxes low, it also ensures our town retains its rural character. Although town

funds are limited, the Planning and Zoning Commission can institute changes to our regulations to make sure more land is protected upon development.

5 ECONOMIC DEVELOPMENT

5.1 Importance of Economic Development

- Businesses provide a net positive fiscal benefit to the Town, as they pay more in taxes than they consume in services.
- Local businesses provide employment opportunities. This enables Stafford residents to avoid long commutes, increase local income, and energy consumption.
- Local employment reduces commutation distances of residents and energy consumption.
- A greater number of retail and service businesses in Stafford would provide a greater choice for local residents, and reduce the need for them to travel out of the Town as frequently. This enhances the sustainability of the community by localizing economic activity.
- Taxes received by local businesses can allow the Town to add or enhance needed programs and services.
- Many local businesses provide community support ranging from donations to local causes, volunteer time, or other supportive activities.
- Business growth prevents the spread of blight, as businesses re-use and /or renovate existing, unoccupied buildings.

5.2 Economic Conditions

The formulation of an economic development strategy for a community requires a certain degree of understanding of its demographic and economic trends. The information is intended to help identify Stafford's existing and potential role within the regional economy. As the plan is long term in nature, "up to the minute" economic information is not necessary, although we have strived to utilize the most recent information, based upon the availability of resources.

This component of the plan is being prepared at a time of unprecedented national economic change and upheaval. Economic conditions and data are changing rapidly. For example, the unemployment rate in Connecticut rose dramatically, from 5.2 percent in February, 2008 to 7.4 percent in February, 2009.

There is an inherent time lag between the economic analysis and the actual adoption of the plan. It is possible, that at that time, it may be helpful to update some of the information.

5.3 Population and Labor Force

The Connecticut Economic Resource Center (CERC) provides economic development assistance to the communities within Connecticut. Much of the following information was obtained from the “Town Profiles” report, prepared by CERC for the State Department of Economic and Community Development.

Table V-1 – Stafford Population & Labor Market

	2000	2005	2007	2012 Projected
Population	11,307	12,115	12,389	13,049
Labor Market Population	8,761	9,768	8,327	8,787

Source: CERC, 2008

Figure V-1 – Stafford Population & Labor Market

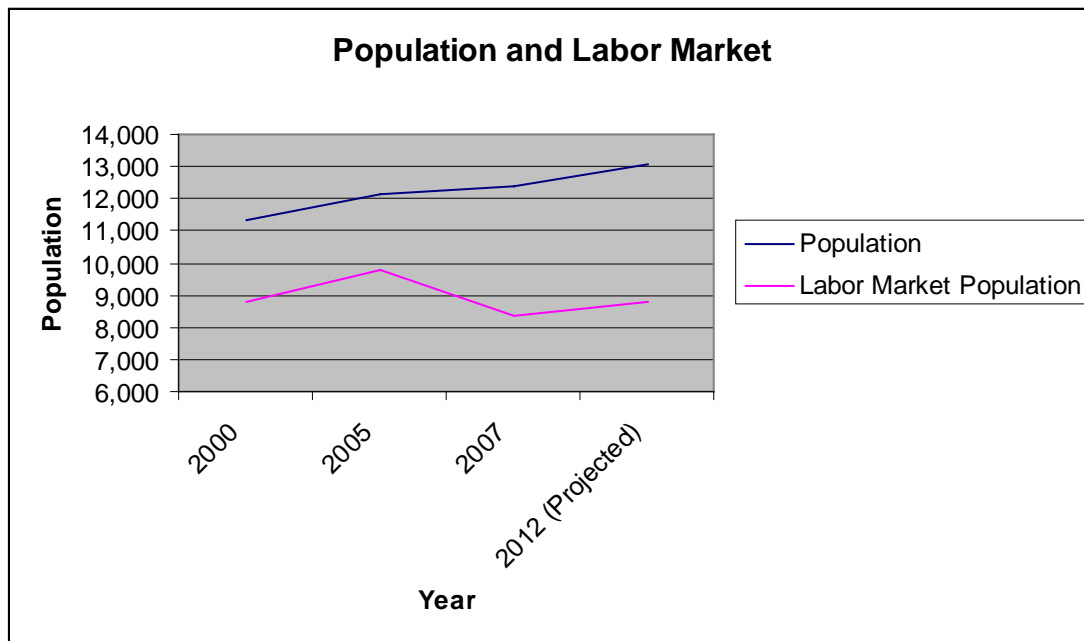
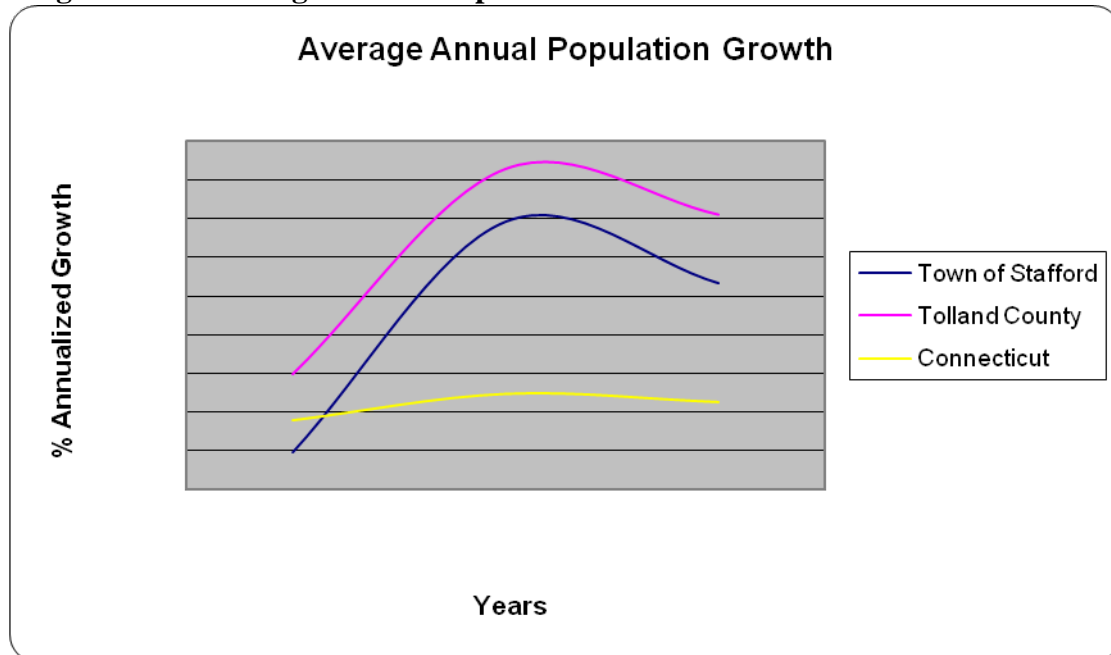


Table V-2 – Comparison of Population Growth Locally, Regionally & Statewide

Year	Town of Stafford	Tolland County	Connecticut
1990	11,091	128,699	3,287,116
2000	11,307	136,364	3,405,565
2008	12,559	154,438	3,540,846
2013 (Projected)	13,229	165,405	3,621,281
% Growth/yr. 08'-13'	1.00%	1.40%	0.50%

Source: CERC Town Profile, 2008

Figure V-2 – Average Annual Population Growth



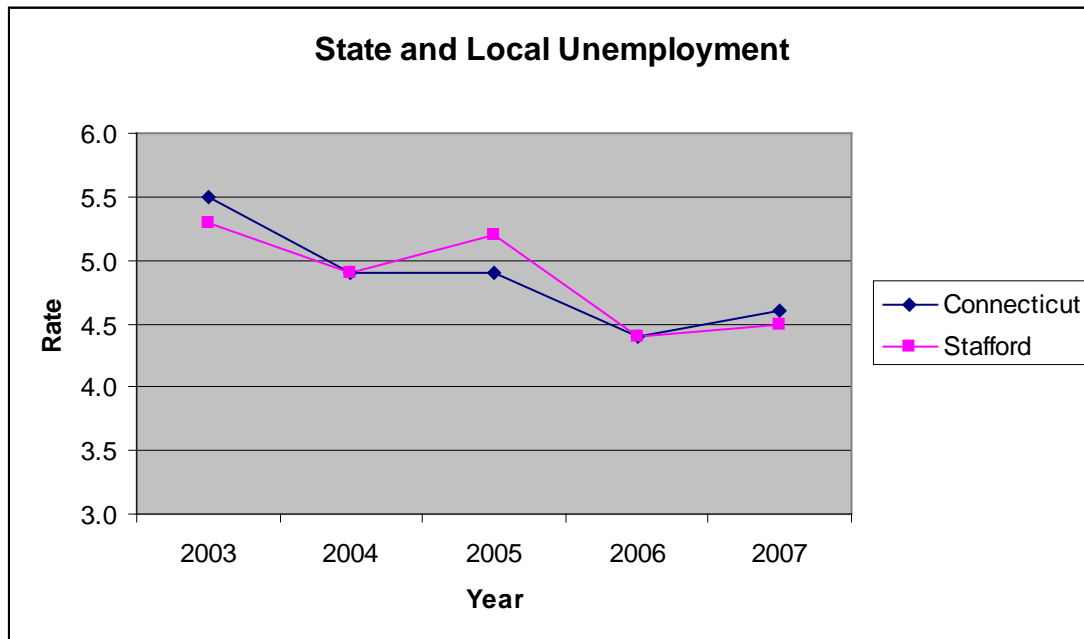
The Stafford population is anticipated to grow faster than the State population, but slower than Tolland County.

Table V-3 – State & Local Unemployment Rates

	2003	2004	2005	2006	2007
Connecticut	5.5	4.9	4.9	4.4	4.6
Stafford	5.3	4.9	5.2	4.4	4.5

Source: CT Dept. of Labor - Labor Force Data Benchmarked to 2007

Figure V-3 – State & Local Unemployment Rates



The Labor Market population, which reached 9,768 in 2005 but has since declined, is anticipated to return to year 2000 levels by 2012. Growth in population is likely to be fueled by recent residential construction over the last several years. A corresponding decrease in the workforce population indicates likelihood that working households have been replaced by retirees and that there may be a greater number of households with children.

The local unemployment rate has generally trended with the State unemployment rate. Recent data is not available, but it is reasonable to assume that the unemployment rate for Stafford has increased in conjunction with the increased State unemployment rate.

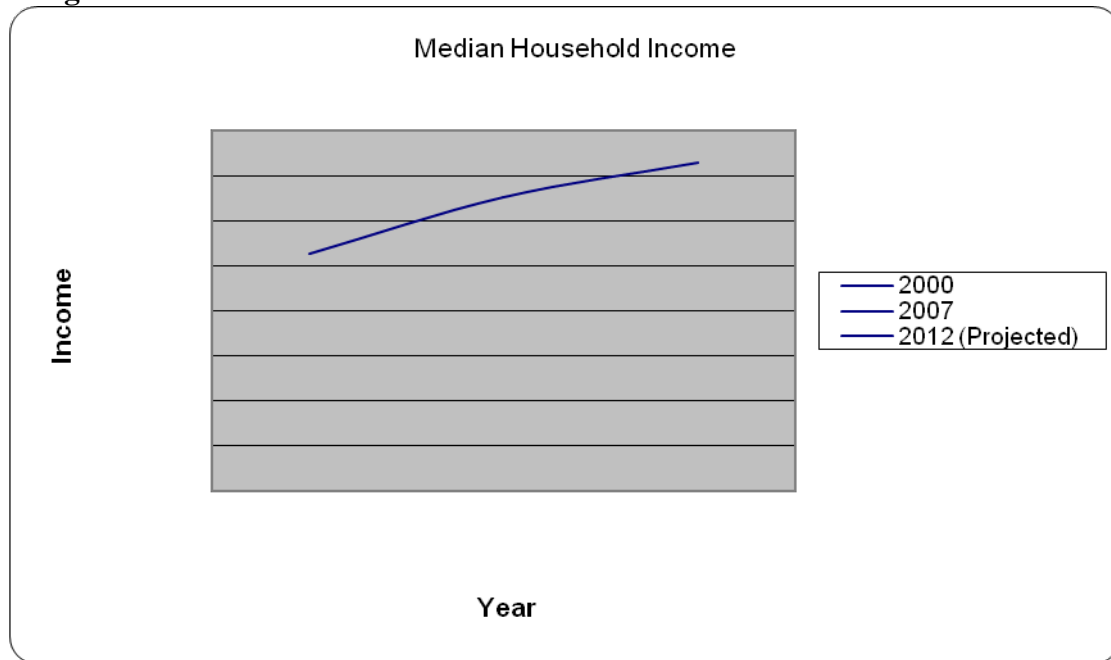
5.3.1 Household Characteristics

Table V-4 – Household Characteristics

	2000	2007	2012 Projected
Total Number of Households	4,353	4,576	4,710
Average Household Size	2.597	2.707	2.77
Median Household Income	\$52,699	\$65,189	\$72,714

Source: CERC, 2008

Figure V-4 – Median Household Income



The total number and average size of households are anticipated to increase through 2012. The 2008 Median Household Income of \$65,710 lags the Tolland County Median of \$73,510 and the State Median of \$67,236.

CERC further categorizes the housing market in Stafford as stable with the demand for housing continuing to exceed the supply. If housing prices continue to decline in closer-in Hartford suburbs, the development pressure for continued residential construction in Stafford may decline.

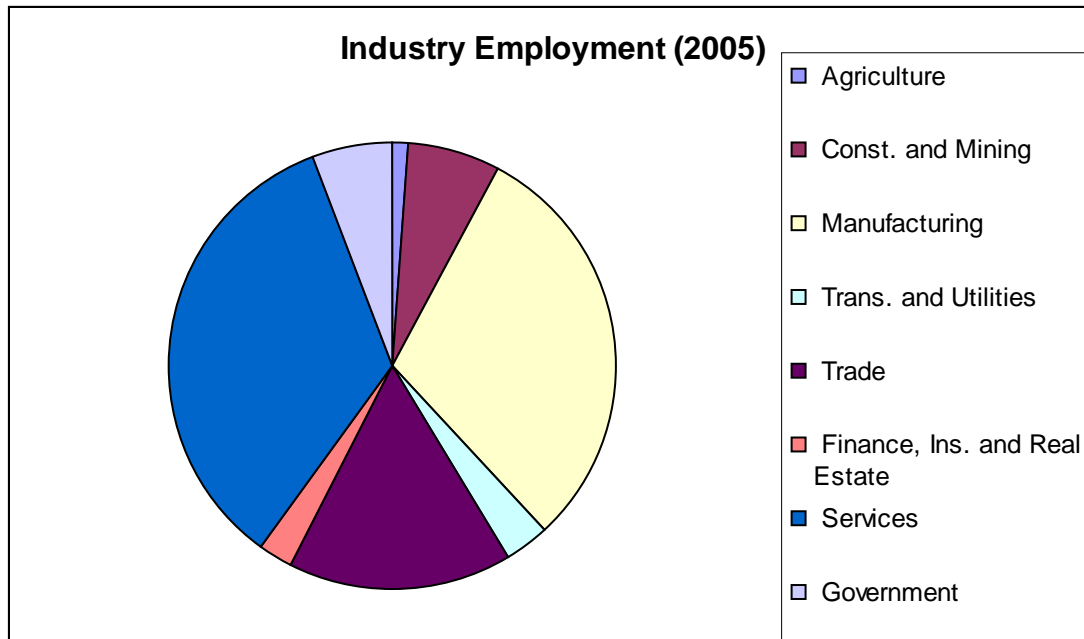
5.3.2 Employment & Industry

Table V-5 – Business Profile

Sector	Establishments (% of Total)	Employment
Agriculture	4.8%	1.2%
Const. and Mining	17.3%	6.7%
Manufacturing	8.5%	30.2%
Trans. and Utilities	3.7%	3.3%
Trade	21.5%	16.1%
Finance, Ins. and Real Estate	6.3%	2.4%
Services	--	34.3%
Government	3.5%	5.7%

Source: CERC Town Profile, 2008

Figure V-5 – Industry Employment



The largest employment sector in Stafford is services, which is typical to the region and the State. The second largest sector is manufacturing, a unique (and often sought after) quality in Connecticut. Having a native manufacturing base often leads to opportunity for support services, and establishes a Town as a regional employer.

CERC has identified the following leading employers within Stafford in 2006:

1. Johnson Memorial Medical Center - Employees: 694 - Healthcare
2. TTM International - Employees: 550 – Circuit Board Manufacturer
3. Stafford Board Of Education - Employees: 355 - Public Education
4. Evergreen Health Care - Employees: 245 - Nursing Home
5. 3M Corp. - Employees: 200 - Filtration equipment
6. Warrens of Stafford - Employees: 197 - Fabric Manufacturer
7. Big Y Supermarkets - Employees: 100 - Groceries
8. Town of Stafford - Employees: 65 - Local Government
9. Hobbs Medical - Employees: 26 - Medical Equipment

TTM's employees work in three facilities within the Town. It is clear that manufacturing and healthcare services are currently the dominant employment engines within the Town. This illustrates the importance of Johnson Memorial Medical Center to the local economy, as Stafford serves as the health care center of the surrounding region of northeast Connecticut.

5.3.3 Fiscal Environment

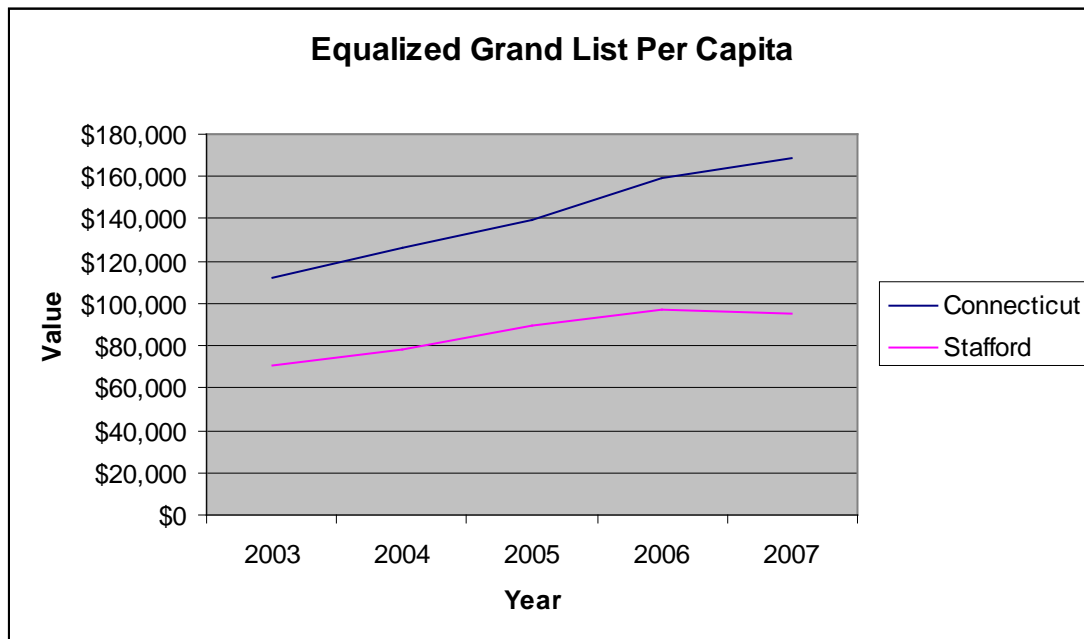
Stafford has attained triple-A bond ratings from Moody's, and the per capita tax rate is 72% of the State average. Total indebtedness is 84% of the State average. The fiscal health of the Town as well as its favorable tax environment should be a draw to industry and potential employers.

Table V-6 – Equalized Grand List Per Capita

	2003	2004	2005	2006	2007
Connecticut	\$112,597	\$126,700	\$139,667	\$159,603	\$169,150
Stafford	\$71,101	\$78,518	\$89,505	\$97,185	\$95,566

Source: CT Office of Policy and Management - Municipal Fiscal Indicators 2006-2007

Figure V-6 – Equalized Grand List Per Capita



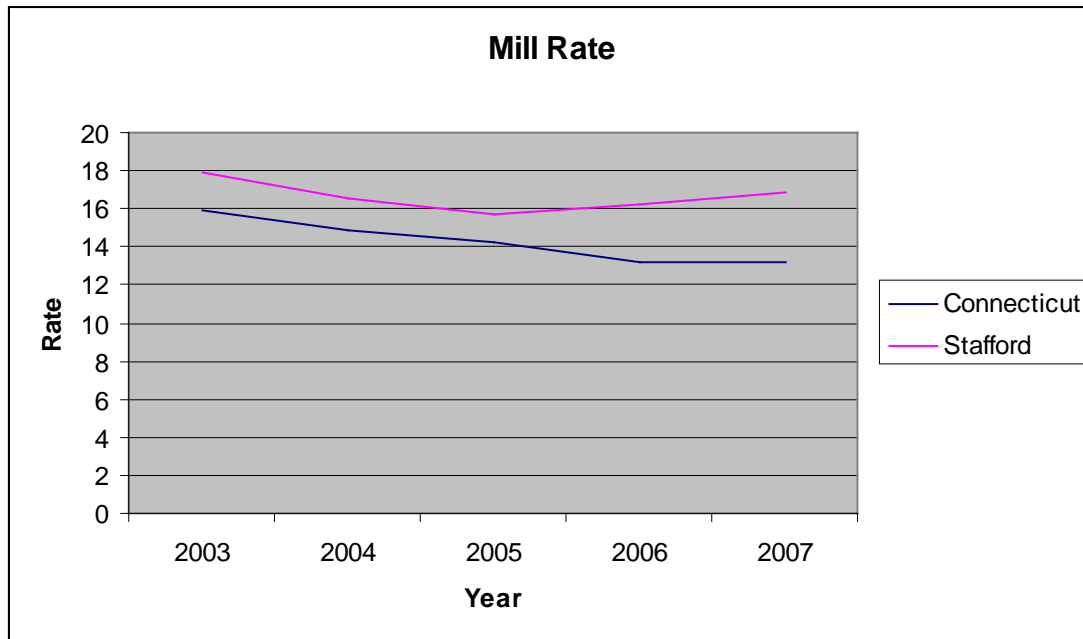
Equalized Grand List Per Capita is a measure of the total market value of real and personal property (taxable property) within a jurisdiction divided by the jurisdiction's population. It is useful as both a measure of wealth and of the tax base. Stafford has a significantly lower Grand List Per Capita than the State. Also, over the fiscal years ending 2003 through 2007, the State outpaced Stafford in terms of growth of Grand List Per Capita. In summary, the average Stafford resident owns significantly less taxable property than the average Connecticut resident, and the discrepancy has increased since 2003. One notable data point is that in the last year for which data is known (fiscal year ending in 2007) Stafford experienced a decline in Grand List Per Capita, while the state continued to grow its Grand List Per Capita, albeit at a diminished rate.

Table V-7 – Equalized Mill Rate Per Capita

	2003	2004	2005	2006	2007
Connecticut	15.9	14.9	14.2	13.2	13.2
Stafford	17.93	16.51	15.66	16.2	16.88

Source: CT Office of Policy and Management - Municipal Fiscal Indicators 2006-2007

Figure V-7 – Mill Rate



The Equalized Mill Rate is the total amount of real and personal property taxes levied divided by the total market value of real and personal property within a jurisdiction. Since 2003, Stafford has seen a decline in the amount of taxes levied as compared to the value of property. This decline reached a bottom in the fiscal year ending 2005 and since then the equalized Mill rate has been increasing. This is in contrast to the Connecticut average which shows a declining (and lower) equalized Mill Rate that has bottomed between the years 2006 and 2007. With a slowing in property value appreciation Statewide, it is likely that 2008 may see an increase in the Equalized Mill Rate statewide, as has been experienced over the last few years locally.

5.4 Goal for Economic Development

Promote the economic growth of Stafford in a way that:

- Preserves the attractiveness of the community;
- Enhances Stafford's Quality of Life;
- Promotes the growth of employment;
- Promotes the growth of the tax base in order to provide improved public services.

This goal will be accomplished by a coordinated effort of all town boards and commissions working together for the common goal, and include the following:

- Ongoing research for opportunities to facilitate economic growth.
- Reach out and marketing to potential new businesses.
- Continuous efforts to retain the existing businesses of the community.
- Seeking and utilizing partnerships with and programs to attract businesses to Stafford.
- Promoting the attractiveness of the community to business.

5.5 Policies

1. Support and encourage the strengths of Stafford's Village centers.
2. Support and encourage businesses that promote Stafford as a "destination town."
3. Support and encourage the continued growth of home based business.
4. Maintain standards of commercial development of businesses along the major arterial roads in the Town.
5. Support and encourage the establishment of aesthetic standard within the zoning regulation in business area, including color themes, energy conservation efforts such as the use of LED lighting, signage (size and dimensions standards) in business areas, with standards adjusted to area and zone.
6. Support the expansion of industry at Middle River Drive Industrial Park and encourage the Town to market recently rezoned property along Monson Road (Lots 47/019 and 36/128).
7. Consider identification and promotion of "gateway zones" for business /industry.
8. Prohibit or restrict inappropriate uses in town such as those which create environmental pollution or create potential social problems in the Town.
9. Establish a series of procedures which enable the Economic Development Commission to take a more active role in the business development.
10. Enhance Main Street by continued beautification efforts, renovations, historic themed decor and the provision of off-street parking.

5.6 Area Recommendations

Three major commercial "regions" within the town have been identified. The uses of these areas are important for the economic vitality of the Town, and can be accomplished with the preservation of the attractiveness of the community.

5.6.1 Zone 1 - Main Street / Route 190 to Route 32 North

This region encompasses the commercial properties within the Borough of Stafford Springs. There is little vacant land within this area, but there are opportunities for redevelopment or re-use of properties. This area is densely developed, and many of the commercial properties are in close proximity to residential areas. Most of the parcels are small, and can therefore support smaller uses. Therefore, commercial uses within this area should be limited to light retail, restaurants, arts/antiques, historic uses, tourism related use commercial recreation, offices, and services.

This region actually contains two sub-areas; the downtown area; and the West Main Street area. Although each area has distinctive characteristics, both areas are linked and important for the economic health of the community, as well as the quality of the surrounding Borough neighborhood.

Downtown

- a. Downtown Stafford Springs should remain the high density economic center of the community. This will require a concentrated revitalization effort that could include the following measures:
- b. Promote the continued use of the older industrial mill buildings. Many have remained in active industrial use, but the current economic situation may result in the underutilization of many of these buildings. Some of them may be appropriate for residential conversion into condominiums or artist lofts, while other may be appropriate for small business use.
- c. A downtown Stafford Springs improvement organization should be established to promote the economic growth of downtown Stafford Springs. The resulting organization should provide a mechanism that would enable downtown interests to work cooperatively to pursue common goals. The organization should be able to encourage investment, serve as an advocate for downtown interests, coordinate marketing and act as a liaison with the local government in matters affecting the downtown.
- d. An effective revitalization organization needs to have the tools and capability to act in a timely, effective manner. It needs to be led by committed community representatives and have a source of revenue that would enable it to implement long-term community and economic development initiatives.
- e. Adequate parking is needed to facilitate downtown revitalization. However, the issue of adequate parking is not addressed solely by the number of parking spaces. The location, layout, environment and management of the parking all are more important to the utility of parking resources within a downtown area than just the sheer number. A parking utilization plan and study should be done to assess the supply and utilization of parking, and plan for the improvements and utilization.

Adequate signage should be included to direct motorists into available downtown parking areas.

- f. The zoning regulations should be amended to permit residential uses above commercial uses in the downtown area. Although parking may be a limitation, the Town could investigate the establishment of small centralized parking facilities to serve a number of properties.
- g. Downtown revitalization efforts need to include a strong preservation ethic. The primary strengths of downtown Stafford Springs are its architecture and traditional small town/downtown environment. Stafford Springs has been fortunate in that important historic structures within the downtown area have been preserved, and in many cases renovated. The preservation of these attributes should be foremost amongst all revitalization efforts.
- h. A key element in any downtown revitalization effort is to provide for a sound, efficient and attractive pedestrian circulation system. The ability and desire of people to walk around a downtown district is critical to the economic well-being of the area.
- i. A major component of a successful downtown revitalization program would be to leverage private investment for building and façade improvement. The Town should establish a special fund for downtown property owners to upgrade the facades of their properties. The funding could be a loan or grant that would be matched by an equal or greater private investment. A grant would have a more immediate impact, although loan funds can be “recycled” for other downtown projects upon repayment. Funds should be provided for renovations that are consistent with the preservation or restoration of the historical integrity of the building and/or with overall design guidelines that have been formulated for the area.
- j. The rivers flowing through Stafford Springs can be an important amenity to the community, but are not being taken advantage of. In many areas, the rivers are to the rear of the buildings, hidden from view. The rivers should be opened up, and incorporated into a park / greenway system that weaves through the borough, providing additional focal areas.
- k. The Connecticut Main Street Program should be investigated. The Connecticut Main Street Center follows a national model called the Main Street Approach to Downtown Revitalization. Developed by the National Trust for Historic Preservation, the program advances economic development within the context of historic preservation and advocates public-private partnerships to ensure lasting success. It is based upon a four-point approach to increasing the value of a community’s central business area: organization, promotion, design and economic restructuring/business improvement. The program includes an introductory process. Even if the Town decides not to participate, it should use Main Street Model as a guide for revitalization.

West Main Street (west of Church Street)

- a. The retail properties should remain small scaled, oriented towards serving the surrounding community.
- b. The sidewalk networks should be completed within this area, on both sides of the street.
- c. There are many residential structures within this area, which can be used for commercial purposes.
- d. New commercial architecture should be compatible with the historic nature of the area.
- e. New commercial development should minimize the impact of parking lots, through careful placement and visual buffering.
- f. A cohesive pattern of landscaping should be installed along the road.

5.6.2 Zone 2 - Route 190 from Route 32 North to Route 319

This zone includes the major commercial corridor of the community, containing most of the major retail businesses within Stafford. This zone can best accommodate the contemporary commercial development. Therefore this zone is planned to grow as the Town's major commercial area. The emphasis here is to encourage continued growth of retail and industrial uses, while enhancing the character of the community.

- a. Larger scale retail development should occur on the few large parcels within this region, with smaller retail uses in the frontage. The larger retail developments should be within clusters of retail uses, with a village center layout, rather than large strip centers. The village center layouts should be oriented be more pedestrian friendly, with the uses clustered together. The buildings and uses may actually face each other, across an internal street. A mixture of uses could be included. This would contrast with the traditional strip center, which contains retail buildings in a sea of parking lots. Many of the strip centers contain buildings with no functional relationship with each other; their only orientation is to the parking areas.
- b. Some industry should be located in the rear of the larger parcels.
- c. Sidewalks should be constructed along the road.
- d. A cohesive pattern of landscaping should be installed along the road. The zoning regulations should be amended to require street trees and other plantings to create a unified theme.

- e. The Town owned parcel fronting on Monson Road, (Route 32) should be actively marketed for a mix of small retail, industrial, office and wholesaling uses. These two adjacent properties are the largest sites in the Town that are potentially available for commercial or industrial development. The properties are bound by industrial uses and the railroad tracks to the west, with the tracks separating it from the rear of the Big Y plaza. Residential properties are to the north. Much of the eastern boundary of the property is bound by frontage on Monson Road (Route 32). On the other side of Route 32 is land of the Cemetery Association. Commercial uses are south of this property, along West Stafford Road.

Water and sewer service are available to this site, although the entire site is not within the sewer district. The site has frontage and potential access to West Stafford Road, (Route 190) and Monson Road (Route 32). The properties include a significant amount of wetland areas. Most of the wetland areas are in the southern area of the site, closest to West Stafford Road. However, there are substantial areas of contiguous non-wetland areas throughout the site.

Careful design is needed to assure that this important property is developed in a way that maximizes the overall benefit to the Town. It should be developed in accordance with a comprehensive plan, approved by the appropriate town agencies.

5.6.3 Zone 3 - West Stafford - Route 190 from Route 319 to Route 30

This area is less developed, and is anchored by the Johnson Memorial Hospital, and the traditional village center of West Stafford. The planned use of this area is based upon the strengthening of the West Stafford village center, capitalizing upon the presence of Johnson Memorial Hospital, and preserving the rural character of this area.

- a. New uses within this area should be professional and medical offices which are drawn to the presence of the hospital.
- b. The uses should be small scaled, with limitations on building size and coverage.
- c. The design of the buildings within this area should avoid a commercial – institutional appearance, and should reflect the historic look of the area.
- d. The regulations governing design should include stringent site plan design standards, including issues such as parking location and layout, signage, lighting and access.

5.7 Village Centers - Stafford Hollow - Staffordville - Hydeville

In addition to the three major commercial regions identified above, the Town includes these traditional rural village centers. These areas have traditionally served as the community centers for the surrounding rural areas, and have included religious, community, commercial, industrial and residential uses. Although the role of these areas

has changed due to shifting economic and conditions, they have generally retained their historic character.

- The industrial areas of Stafford Hollow should be retained as feasible.
- The industrial property in Hydeville is likely to be a candidate for re-use within the foreseeable future. Potential re-use of the property would be as a restaurant, small retail, offices, light industrial or some mixed use which includes some of the above.
- Small commercial and professional office uses within these centers should be encouraged, preferably utilizing existing structures. The commercial uses should be respective of the historical character of these areas.

5.8 General Recommendations

5.8.1 Preservation of Agricultural Uses

Agricultural uses remain important to the economy and overall land use pattern of Stafford. Farmland contributes to the rural character of the Town. If farms are to remain viable business entities, there will be less incentive for them to be sold for residential development. In particular, Stafford appears to have a concentration of horse farms. It may be possible to capitalize upon this sector and establish Stafford as an equestrian center, through a cooperative effort between the Town and the equestrian farmers.

In order to promote agricultural uses, the Town should ensure that the zoning regulations do not inhibit agricultural operations as to construction of barns, and placement of structures. Stafford's zoning regulations appear to be generally conducive to agricultural operations but the Commission may consider permitting additional agricultural related activities, such as a farm stores or food production as special permit uses in conjunction with agricultural operations.

5.8.2 Business Retention

The backbone on any municipal economic development program is an organized effort to retain existing businesses and to help them grow within the community. The Town needs to continue the lines of communication with existing businesses. Business retention activities could include meetings with business officials and having the Economic Development Commission or another town official serve as an ombudsman to assist local businesses to resolve issue with utilities government and other situations.

5.8.3 Marketing

The marketing of the town should be oriented towards creating a higher profile and awareness of the Town's development opportunities, marketing to real estate brokers as intermediary group, and direct solicitations of businesses and developers to attract certain

business. Ideally it should involve the preparation and implementation of an economic development marketing program.

5.8.4 Incentives

Although financial incentives for business location are not effective economic development tools by themselves, they can assist in the overall economic development effort of the Town. The Town should establish a specific policy concerning tax abatement phase-ins pursuant to section 12-65b of the Connecticut General Statutes.

5.8.5 Gateways

One method that communities use to define themselves is to create or upgrade the entrance to the community. The highest trafficked entrance is on Route 32 from the south, followed by Route 190 from the west and east. In particular the entrance from Route 32 is particularly dramatic, as one comes up through the river valley into the heart of Stafford Springs.

Landscaped “Welcome to Stafford” signs should be installed at the major entrances to the Town. Proper maintenance of these sites is very important. They should be surrounded by a small landscaped area, or even part of a small park.

5.8.6 Regional Cooperation

Economic growth is inherently regional, as each community has strong economic ties to its neighbors. An effective economic development effort requires a joint municipal – regional effort. The economy of Stafford is very much dependent upon the economy of the Greater Hartford Region. Consideration should be given to the coordination of economic development efforts with the Metro Hartford Alliance, which offers marketing and data services through the Economic Development Data and Information system.

5.8.7 Upgrade of Older Properties

The zoning regulations should include provisions and incentives to upgrade older commercial properties. In some situations, these properties are nonconforming, which makes any improvements or redevelopment in accordance with the zoning regulations difficult. The zoning regulations should permit the Commission to waive or alter setback, parking or coverage requirements, by Special Permit, if they believe that it would result in an upgrade of the property and greater conformance with the intent of the regulations.

5.8.8 Hospitality Sector

Tourism and hospitality is a growing segment of the statewide economy. The growth of this sector should capitalize upon existing assets of the community.

The Stafford Springs Speedway attracts visitors from throughout southern New England. Automobile racing is a growing sport, and the Town may be able to benefit economic

from the raceway's spin-off businesses. For example, there may be opportunities for additional restaurants near the raceway. In addition, a small hotel/motel may also be viable in the future. Downtown revitalization would also be an important component of this process.

5.8.9 High Speed Telecommunications

The availability of high speed telecommunications is important to all businesses. The Town should work with providers to assure that high speed telecommunications services are available to the businesses and residents of Stafford.

5.8.10 Home Based Businesses

Improvements in technology and the expansion of the information based economy have resulted in the exponential growth of people operating businesses out of their homes. This has enabled people to live in more rural locations. An important benefit is that some of these businesses could expand and Stafford can be especially attractive to this growing segment of the economy, with its relatively accessible to the major markets of Southern New England.

The zoning regulations currently permit home-based businesses. This should be maintained. In addition, the Town should explore other ways in which home based businesses can be encouraged.

5.8.11 Economic Development Procedures

Establish a protocol in which the Economic Development Commission is notified and consulted whenever there is an inquiry or proposal for a new business. This could include inquiries within the First Selectman's Office, as well as zoning applications.

6 TRANSPORTATION

Stafford is located along the Interstate 84 corridor with various close entrance/exit points to this interstate highway that links New York to the Massachusetts Turnpike. As of 2006, the Town has a relatively limited road infrastructure outside state roads. The New England Central (formerly the Central Vermont Railway) carries freight through Stafford on tracks that run roughly parallel to Route 32.

6.1 State Maintained Roads

The State of Connecticut Department of Transportation (ConnDOT) maintains approximately 30 miles of roads in Stafford including State Routes 32, 190, 19, 319, and 30. The state classifies roads into various categories according to the character of traffic service that they are intended to provide. Route 32 is the only road classified as a Minor Arterial in Stafford.

Stafford has examples of all known at grade intersection configurations. The four full-time signalized intersections are on State maintained roads. Stafford has a few yield-controlled intersections, including our famous and historic circular intersection at the Holt Fountain, which was upgraded to approximate roundabout standards in 2006. The railway maintains 6 at-grade crossings and two grade-separated bridges in town.

6.2 Town Maintained Roads

Stafford maintains 115 miles of roads. This figure includes 4 miles of roads built for subdivisions since 1998. 24 miles or 21 percent of Stafford's roads are unimproved. This figure represents many short unpaved sections of older roads primarily in the less developed northeastern and northwestern parts of Town. The largest segment of 2.04 miles is Sartori Road in northeastern Stafford. Most intersections are one to four way stop sign controlled. Three unimproved roads have been designated scenic roads according to Town ordinance.

Its location along Interstate 84, a major arterial highway, within commuting distance from cities in Connecticut and Massachusetts poses significant long-term challenges for the Town. Suburban sprawl has followed Route 84 as exemplified by the extensive retail development in Manchester and South Windsor. As a result of sprawl, suburban arterial roadways are forced to handle significantly more traffic than they were designed to accommodate.

The Conservation and Development Policies Plan for Connecticut 2005-2010 says: "Past experience confirms that the state cannot build its way out of congestion, as short-term improvements in highway expansion often exacerbate development pressures at the suburban fringe. The solution requires a consistent, long-term approach to match land development with the ability of the transportation network to provide an acceptable level of mobility."

Under pressure to maintain existing infrastructure, the State stresses planning development along existing infrastructure and including a variety of transportation options, such as trains, bus, car, bicycling, and walking.

Transportation issues facing Stafford include:

- Funding for road maintenance/scheduled road improvement projects that compete with other more visible capital improvement projects,
- Planning a road infrastructure to mitigate the congestion caused by greater traffic volume as the town grows,
- Integrating road design standards based on nationally established guidelines into the zoning regulations to promote safer and more environmentally sound road design, and
- Addressing alternative forms of transportation such as bicycle trails, pedestrian paths, and senior citizen transport in accordance with the State Plan.

6.3 Funding for road maintenance/scheduled road improvement projects

ConnDOT allocates funding for road maintenance to towns based on the miles of improved and unimproved roads the Town maintains. Due to Town budget constraints, \$30,000 to \$40,000 annually of the money for road maintenance is channeled into sand and salt for winter storms. Using state maintenance funds for current road care reduces the amount from Town funds, but may result in deferred maintenance and crisis driven management.

In addition to town aid for maintenance, the Connecticut Office of Policy and Management (OPM) administers the Local Capital Improvement Program (LoCIP). Projects are reimbursed from the account and money allocated to the town may be carried over from year to year.

In accordance with federal law, ConnDOT prepares a Statewide Transportation Improvement Program (STIP). The STIP lists all highway and public transit projects proposed to be undertaken utilizing Federal Highway and Federal Transit Administration funding during a four year period and covers all towns within the State. The single project involving Stafford is realigning route 319 between Gail Road and Furnace Avenue to reduce run-off accidents in curves; it is planned for 2008.

The Federal Highway Administration has various road funding programs primarily administered through the regional planning agencies. Now that Stafford is a member of the Capitol Region Council of Governments, the Town has a greater eligibility for funding.

To help in budgeting and training personnel, standard maintenance procedures should be developed for each component of town-owned infrastructure, e.g., unimproved roads, fire hydrants, dams on town lands, catch basins, street sweeping, etc. Procedures should include maintenance schedules. Town government should develop three to five year

local road rebuilding plans, schedules, and budgets that are consistent with spending patterns.

6.4 Planning a Road infrastructure

Changes in Traffic Patterns between 1994 and 2005

The largest volume of traffic in Stafford travels on Route 32, and Routes 32 and 190 going through the downtown area.⁵ The following table shows State of Connecticut Department of Transportation Average Daily Traffic (ADT) volumes at measure points in Stafford for the periods 1994 and 2005.

Table VI-1 – Average Daily Traffic Volumes - 1994-2005

Measurement Point	Landmark	ADT 1994	ADT 2005	Percent Change*
32 W of 190 (E Junction)	N of Getty Station	12,600	12,500	(1%)
32 SE of 190 (W Junction)	W of Getty Station	12,400	13,900	12%
32 S of 190 (E Junction)	Holt Fountain S	7,600	8,400	11%
32 at Ellington Town Line		6,400	7,600	19%
32 at Massachusetts State Line		1,700	1,600	(6%)
140 W of Church Street	Gun Triangle	2,100	1,900	(10%)
190 East of 32	Post Office	10,200	10,700**	5%
190 Union Town Line		2,100	2,200	5%
190 NW of 32 (W Junction)	On the 190 side of Getty Station	10,800	12,600	17%
190 Somers Town Line		8,200	8,600	5%
30 SW of Conklin Road (N Junction)		4,000	4,500	13%
19 N of 190		2,600	2,700	4%

Source: Connecticut Department of Transportation

* Parentheses indicate a declining percentage

** Using 1999 data - last measurement date

Table VI-1 shows the following:

- an increase at the southern junction of 32 and 190 where the Holt Fountain is,
- A significant increase at the Ellington Town Line on Route 32 South. This increase reflects commuting traffic using Exit 70 on Interstate 84 West. In 2000, 39.0% of employed people commuted to towns from Tolland to Hartford easily accessible from Interstate 84.

⁵ DOT conducts measurements on a rotating three year schedule throughout the state.

6.5 Traffic Issues

The Town should identify problem areas, plan, and implement solutions to traffic issues. Issues include:

- Speeding on Stafford Street which is wide and straight. Residents in northern Stafford use Stafford Street and Village Hill/Schofield Roads to bypass downtown on their way to Interstate 84.
- Street parking downtown is a problem in residential areas, particularly in the area of Maple and School streets and Brown Avenue. When residents park on the street in the evening, the roads become narrow and difficult for emergency vehicles. In the past the town addressed church parking on High by making it one way during Sunday services. Creative and inexpensive solutions might be found to other parking problems.

Accident statistics are one criterion to identify traffic issues. Stafford Police completed maps showing accidents along 190 from January 2002 through May 15, 2007. The maps show accidents along 190 that the police attribute to drivers pulling out of businesses into traffic and accidents in intersections. Multiple accidents have occurred over the years at the junctions of:

- Routes 319 and 190
- Orcuttville Road (Route 319) and Monson Road (Route 32)
- Green Street and 190
- Old Springfield Road and Route 190
- Routes 30 and 190

Preventing Roadway Congestion

As population grows, greater traffic volume on a limited road infrastructure will increase congestion and lengthen travel times. Stop lights and queues for left turns are major contributors to these delays. Dangerous left turns can be reduced using access management regulations and median strips along strip malls.

Road Design and Storm water Management

Design specifications for town roads should be reviewed and updated to incorporate best practices for storm water management to reduce storm water nonpoint discharges. See box below for description of nonpoint discharge.

Roundabouts

Developed in the 1990s, roundabouts reduce the number and severity of crashes while increasing the average transit speed through intersections. By almost eliminating delays, fuel consumption and air pollution are both reduced as much as 18,000 gallons per year at a one lane roundabout. State law in all of New England specifies that traffic in the circle

has the right of way. This keeps traffic in the circle in constant flow, making it possible to keep the circle diameter just big enough for buses and tractor trailers to negotiate. The bottom line is that the maximum speeds through a roundabout are about 15 to 20 miles per hour; this speed is enforced by the design, not law enforcement.

Roundabouts would work well in Stafford wherever safety and smooth traffic flow are a concern. Roundabouts would provide a welcome resolution to having traffic lights at intersections with variable traffic volumes. When no traffic is coming, drivers in a roundabout do not have to wait until the light changes. Roundabouts would be particularly suitable at the following intersections: Stafford St Ext (Village Hill) and Route 190; 2) the Route 32 and 190 intersection by the Getty Station, 3) Big-Y plaza, 4) the intersection of Route 319 and Route 190, 5) Cooper Lane and Route 190 to handle back-up after races, 6) High School Entrance on Route 319 7) the intersection of Route 32 and Route 319.

Town government should work with the State to incorporate roundabouts into its longer term infrastructure plan. Accident statistics should be considered when reviewing sites for roundabouts.

6.6 Integrating road design standards into the zoning regulations

6.6.1 Road Classifications

One action the Stafford Planning and Zoning Commission can take now to help manage future development is to assign road classifications to existing roads and adopt regulations that link road function and design. For example, to encourage traffic flow on minor arterial highways like Route 32, wherever possible, traffic from new industrial and commercial development should be directed to a side street that feeds onto Route 32. Reducing the number of “curb cuts” promotes traffic flow and decreases accidents. A good example of the problems created by too many curb cuts is Route 6. Examples of other towns’ regulations using road classifications in zoning regulations are attached as appendices.

The Plan of Conservation and Development Advisory Committee recommends assigning the following road classifications. Although Routes 190 and 30 are not classified as Minor Arterials by the State, Stafford should treat them as Minor Arterials for zoning purposes with the view of controlling access to promote mobility and public safety. Parts of Route 190 are being used for commercial development.

Table VI-2 – Road Classifications

Minor Arterial	
32 N and S	32 is the only highway assigned minor arterial status by the State of Connecticut.
190 E and W	
30 S	
Major Collectors	
Orcuttville Road	
Route 19	
Route 140	
Minor Collectors	
Cooper Lane	Boyer Road
Conklin Road	Old Springfield Road
Old Monson Road	Leonard Road
Furnace Avenue	Stafford Street
Colburn Road	High Street
Willington Avenue	Village Hill
Tolland Avenue	

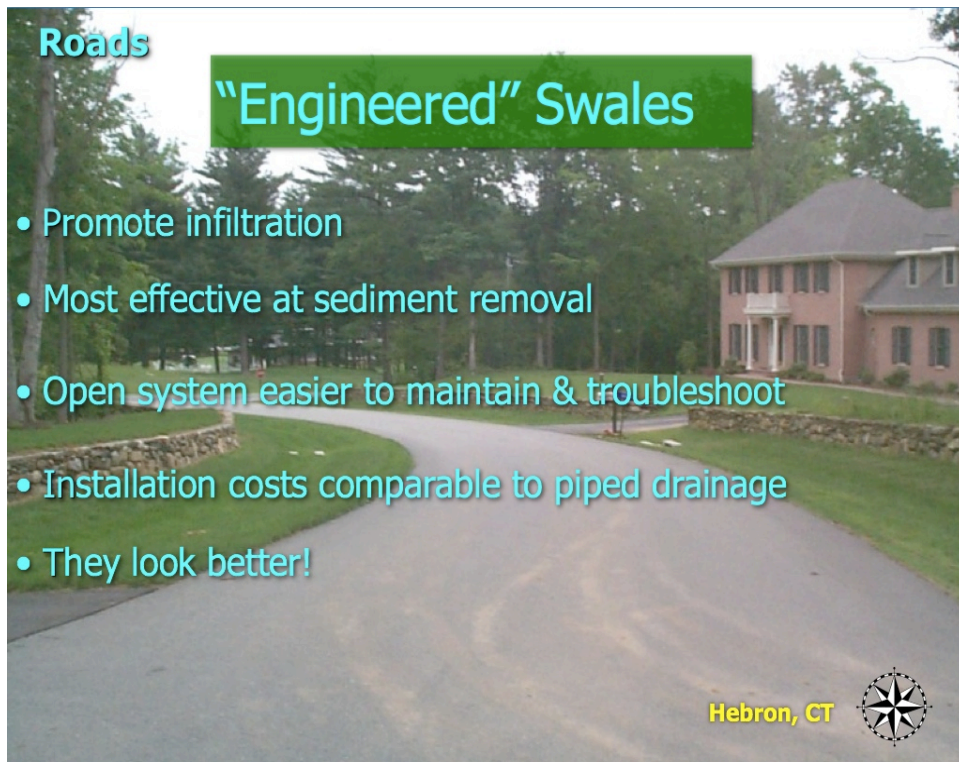
Source: CTDOT

Planning road design with the intended function as the focus will make it possible to vary the width of roads. Reducing road width for local roads has the advantages of reducing long-term maintenance and nonpoint source (NPS) pollution, and helping control speed. According to the US EPA, polluted runoff is the number one water quality problem in the United States.

The Selectmen should consider applying to ConnDOT to reclassify 190 and 30 as Minor Arterials, perhaps in conjunction with Ellington and Somers. Both Somers and Ellington have classified these roads as Minor Arterials in their Plans, but the State still has them classified as Major Collectors.

6.6.2 Grassed Swales

Other towns are using grassed borders or swales on the sides of residential roads to increase infiltration and decrease run-off. The swale has a base of stone to promote drainage. Swales have the additional benefits of extending road width for emergency situations and providing a place for people to walk in the summer or for plowed snow in the winter.



6.6.3 Unimproved Roads

Unimproved or unpaved roads are graded in the spring and in the late fall by town crews. Maintenance becomes more frequent with increased development due to higher traffic volumes. Traffic creates ruts that channel water during rainstorms causing bigger washouts. According to the Town Administrator, drainage to manage the increased runoff does not work all that well on unimproved roads. Washouts fill catch basins with gravel and Town crews have to repeatedly clean the basins. Residents have threatened lawsuits for damage to property and wetlands. The Planning and Zoning Commission should consider and implement planning methodologies to reduce runoff issues on unimproved roads.

6.7 Addressing alternative forms of transportation

Increasing gas prices put a burden on the majority of Stafford residents who are dependent on private motor vehicles for meeting most transportation needs. However, Stafford is unusual because 26.5% of residents (based on 2000 Census estimates) commute to work within town. This is a significantly higher percentage than Tolland (16%), Somers (15%) or Willington (16%). As global competition for resources increases, costs for fuel are projected to continue increasing. To provide for other ways to make the short commutes to work within town, town government should plan and implement alternate transportation systems such as bike lanes, sidewalks, and trails, linking residential areas and work sites.

The Selectmen, the PZC, and the Conservation Commission should develop a plan for a network of bike paths, perhaps trails in combination with bike lanes, to connect village centers, major employers, and the downtown area. Because Stafford already has a larger percentage of people who work in town, a bike path network would provide an alternate means of commuting and support employers and the working population.

As part of focusing development on existing urban areas, the PZC should expand its regulations to provide for sidewalks, bicycle lanes, or trails in areas designated for more dense growth. By having developers' complete sidewalks or trails within the area(s) designated for growth, the PZC will avoid making sidewalk construction a town cost.

Stafford constructed a commuter parking lot along the River Road. Various alternatives to commuting alone in a vehicle should be included in the Welcome package sent to new homeowners. Alternatives include:

- Easy Street, a not-for-profit van pooling service sponsored by ConnDOT and operated by Rideshare. See www.easystreet.org.
- Rideshare, a non-profit organization with over 21 years of helping Connecticut commuters find ways of sharing the ride to work. Rideshare's network contains detailed routes and schedules for all buses, vans, and trains as well as information from individuals looking to carpool. See www.rideshare.com.

7 WATER RESOURCES

Stafford has a wealth of water resources including wetlands, streams, ponds, and lakes. Private wells, shared wells, Connecticut Water Company (CWC) customers, and recreation are all supported by the water flowing through Stafford. Water from our watersheds supports the beautiful land we live on and all its other inhabitants not just here in Stafford, but in the rivers and towns south of us all the way to Long Island Sound.

Stafford's topography and resources affected the development of the town. Early development was limited by the lack of easily farmable land, but iron deposits and water power fostered industry. During and after the industrial revolution, companies used waterpower in their mills. Development moved down from Stafford Street to concentrate along the rivers that powered the mills and Stafford Springs grew with people who owned and worked in the mills.

A sewage treatment plant existed on the present site of the Water Pollution Control Facility going back to the 1920s. Although it filtered particulates, it released raw sewage into the river. The plant was replaced in the 1970s because it did not meet standards set by federal legislation. The Federal Water Pollution Control Act, popularly known as the Clean Water Act, was aimed at restoring and maintaining the chemical, physical and biological integrity of the nation's waters. Enacted originally in 1948, the Act was amended numerous times until it was reorganized and expanded in 1972.

The original public water supply was established as a service for residents of the Borough of Stafford Springs. Currently the system that supplies the former Borough is owned and operated by CWC. The source is from reservoirs in the Roaring Brook Watershed which extends from eastern Stafford eastward into Union. Much of the watershed is on privately-owned land.

Due to development outside CWC's service area, an increasing number of residents in Stafford rely on private wells and septic systems. Therefore, Town government and residents also have essential roles in protecting water quality for public and private water supplies. As development expands, our community must become a more proactive player in protecting water supplies and water quality. We must think beyond our individual properties to gain an understanding of where our water comes from, what affects its supply, and potential sources of pollution. That understanding will help us ensure adequate supplies of clean water to support our community's future well-being as well as to maintain a healthy ecology.

How does development impact water quality and quantity? As shown in the graphic below, in an undeveloped landscape, rain is gradually discharged, flowing through wetlands with a moderate impact on the base flow of streams. More water is retained in the ground to renew the water table. After conventional development, as a result of the increase in impervious surfaces, water runs off more quickly as shown by the higher peak discharge in the graphic. Increased runoff reduces groundwater, increases erosion and flooding, and may result in streambed alterations and loss of habitat. Runoff also picks up nonpoint source pollutants that are impact water quality. Storm water pollutants

include excess nutrients such as nitrogen and phosphorus, sediments, pathogens, hydrocarbons, and metals.⁶

The costs to the Town and us, as taxpayers and residents, can be direct if when erosion damages roadways, sediment clogs storm drains and Town crews have to clean them more often or our properties are flooded. The long-term damage to our water supplies and the environment comes from cumulative impact of development that increases impervious surfaces. Research generally indicates that certain zones of stream quality exist, most notably at about 10% impervious cover, where the most sensitive stream elements are lost from the system. A second threshold appears to exist at around 25 to 30% impervious cover, where most indicators of stream quality consistently shift to a poor condition (e.g., diminished aquatic diversity, water quality, and habitat scores).⁷

New methods for preparing for storm water during development reduce discharges to more natural levels. By integrating those methods into our development planning, we may be able to increase development and retain water quality and quantity without creating problems for future generations.

Figure VII-1 – Impacts of Urbanization on Stream Flow

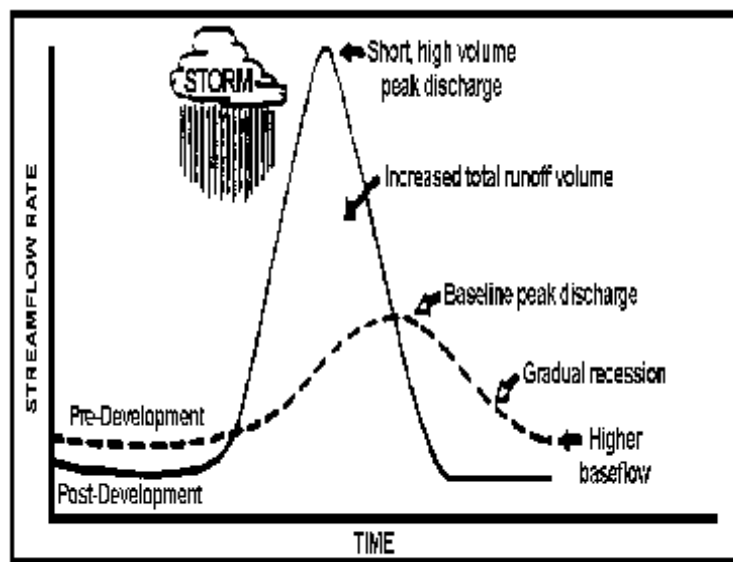


Figure 1. Impacts of urbanization on stream flow (Schueler, 1987).

7.1 Water Courses

Stafford waterways contribute to two major watercourses, the Thames River and the Connecticut River. Most water in Stafford flows into the Willimantic River that becomes

⁶ 2004 Connecticut Storm water Quality Manual, available on the State of Connecticut DEP website, <http://www.ct.gov/Dep/cwp/view.asp?a=2721&q=325704>.

⁷ Directly from the Center for Watershed Protection, Watershed Vulnerability Analysis by Jennifer Zielinski, January 2002, http://www.cwp.org/Vulnerability_Analysis.pdf.

part of the Thames River Watershed. Although the town is part of the Thames River Watershed, drainage is actually more complex. Three sub-regional drainage basins, Edson Brook, the Middle River, and Furnace Brook, come together in Stafford to form the Willimantic River. The head of the Willimantic is behind 2 River Road and the river flows south bordered by River Road and the railroad tracks. The Roaring Brook basin flows through Stafford providing water for Stafford Springs and flowing into the Willimantic River south of Stafford. The northeastern point of Stafford is part of the Hamilton Reservoir Brook sub-regional basin that drains into the Quinebaug River. Both the Willimantic and the Quinebaug flow into the Thames River. Map W1 shows Stafford's topography and Map W2 shows the sub-regional basins.

Three other sub-regional basins, Scantic Brook, Gillette's Brook, and Gulf Stream, drain the western part of Stafford, sending water to the Scantic River. In southwestern Stafford, Charters Brook sends water to the Hockanum River. The Scantic and Hockanum Rivers flow into the Connecticut River.

The Willimantic River's is designated a Class B river. Table VII-1 shows the different uses and discharges in the classification system for inland surface water.

Table VII-1 – Stream Classifications

Classification	Designated Uses	Discharges Restricted To
Class AA	Existing or proposed drinking water supply, fish and wildlife habitat, recreational use (may be restricted,) agricultural and industrial supply.	Discharges from public or private drinking water treatment systems, dredging and dewatering, emergency and clean water discharges.
Class A	Potential drinking water supply; fish and wildlife habitat; recreational use; agricultural and industrial supply and other legitimate uses including navigation.	Same as allowed in AA
Class B	Recreational use: fish and wildlife habitat; agricultural and industrial supply and other legitimate uses including navigation.	Same as allowed in A and cooling waters, discharges from industrial and municipal wastewater treatment facilities (providing Best Available Treatment and Best Management Practices are applied), and other discharges subject to the provisions of section 22a-430 CGS.
Class C	Indicates unacceptable quality, the goal is Class B or Class A. Designated uses: same as for B. One or more of the class B uses is not fully supported due to problems that can and will be corrected by normal DEP programs. A good example is the intermittent water quality problems caused by combined sewer overflows.	Same as for Classes B or A
Class D	Indicates unacceptable quality, the goal is Class B or Class A. Designated uses: same as for B. One or more of the designated uses for class B is not fully supported due to an intractable or very difficult pollution problem. An example is the PCB contaminated bottom sediments in the Housatonic River.	Same as for Classes B or A

Source: CTDEP

7.2 Wetlands

In the past people regarded wetlands as wasted land because it was not farmable. Understanding the value of wetlands is the basis for recognizing the need to protect it.

Stafford's extensive network of wetlands associated with its streams, ponds, lakes, and rivers provide valuable and irreplaceable values and functions, including:

7.2.1. Maintaining Water Quality

Microorganisms in wetlands break down and use nutrients in storm water runoff as the water filters through them. The natural filtration process can significantly reduce levels of natural and human-introduced pollution. Chemical processes in wetland soils also neutralize or immobilize chemicals and heavy metals. Water leaving a wetland is frequently cleaner than water entering it. Artificially created wetlands are increasingly being considered for tertiary effluent treatment.

7.2.2. Flood and Storm Control and Groundwater Recharge

During storms and periods of heavy rain or spring snow melt, wetlands are natural reservoirs for excess water, slowing the movement of water and contributing to groundwater recharge. Destroying wetlands often results in increased flooding, both locally and downstream.

7.2.3. Erosion and Sedimentation Control

Wetlands' vegetation slows erosion by decreasing water velocity and filtering sediment. Suspended particles in storm water runoff settle in the wetland and do not enter stream channels, lakes, and reservoirs.

7.2.4 Biological Productivity

Wetlands are among the most productive ecosystems in the world due to their ability to capture large amounts of the sun's energy and store it as chemical energy, making it available to a wide range of organisms, plants, and animals. Plants in wetlands are especially efficient in photosynthesis, converting carbon dioxide from the air and returning oxygen to it. Wetlands also play a role in the nitrogen cycle through which nitrogen in the air or from agricultural runoff is converted by bacteria into compounds used by plants and animals for protein or put back into the atmosphere as an inert gas.⁸

7.2.5. Discharge Groundwater

Wetlands also serve as groundwater discharge sites, maintaining the quality and quantity of surface water supplies such as Roaring Brook.

7.2.6. Providing Biological Diversity: Fish and Wildlife Habitats

Many species of fish and wildlife depend on wetlands for critical parts of their life cycle. By providing breeding, nesting, and feeding grounds and protective cover, wetlands are recognized as one of the most valuable habitats for wildlife. For example, vernal pools provide habitat that is critical to the survival of certain wildlife species such as amphibians and reptiles. Because vernal pools are small, isolated, as well as dry much of

⁸ Wetlands by William A. Niering. Published by Alfred A. Knopf, Inc. New York. 1985.

the year, they can be easily overlooked and inadvertently damaged or destroyed. In 1995 the Connecticut General Assembly passed legislation that gives municipal inland wetlands agencies explicit regulatory authority over vernal and other intermittent watercourses as part of Connecticut's Inland Wetlands and Watercourses Law.

7.2.7. Recycle Nutrients

Wetlands are one of the most ecologically productive systems on earth, converting sunlight and nutrients into biomass. Wetlands break down organic and chemical nutrients so that they can reenter the food web.

7.2.8. Provide Recreation

Hiking, bird watching, hunting, fishing, trapping, boating, photography and camping are some of the recreational uses of wetlands.

The University of Connecticut Center for Land Use Education and Research (CLEAR) produces satellite-based analyses of land cover changes. CLEAR's map for Stafford shows that between 1985 and 2002, the percentage of water mapped increased 7.7% from 739 to 796 acres, non-forested wetlands increased by 90 acres or 272.7% from 33 to 123 acres, and forested wetlands decreased 9.7% from 1,530 to 1,382 acres. There has also been an 8.9% decrease in deciduous and coniferous forests. In Connecticut as a whole, the area of water decreased over the 17 year period. CLEAR observed that in most cases, the lost water area became part of wetlands, especially non-forested wetland.

7.3 Connecticut Water Company Water (CWC) Sources

CWC's Stafford Reservoir #2, which receives surface water from the Roaring Brook Watershed, provides drinking water to customers within the Town of Stafford. Water is treated at CWC's Stafford Water Treatment Plant to meet federal drinking water standards before it is distributed to its customers. In addition, the watershed area for the Shenipsit Lake Reservoir, located in the towns of Tolland, Ellington, Vernon and Stafford, is treated at CWC's Rockville Water Treatment Plant and provides drinking water to CWC's Western System customers.

Roaring Brook originates in Union, Connecticut, flows through reservoirs in Union into Stafford, and is treated at the Stafford Springs Water Treatment Plant. CWC sends out annual Consumer Confidence Reports to its customers. The 2006 Report includes Source Water Assessment Overall Susceptibility ratings for all of CWC's systems. The Source Water Assessment rates the overall susceptibility of Stafford's water supply as Moderate. The following table was copied from the 2003 State of Connecticut Department of Public Health Source Water Assessment Report for the CWC Northern Region.

Table VII-2 – Source Water Assessment Ratings

Rating	Environmental Sensitivity	Potential Risk Factors	Source Protection Needs
Low	X		
Moderate		X	
High			X

Source: Connecticut Water Company

The ratings are reflected in the strengths and risks listed in the Assessment Report. According to the Source Water Assessment, the Roaring Brook water system has the following strengths:

- No point source pollution discharge points in this watershed.
- More than 20% of the land in the watershed is preserved open space. 1,074 acres of the 4,504 total acres in the watershed or 23.8% are preserved land owned by the water supply, or are state, private, or municipal open space.
- At the time of the Report, 92% of the land in the watershed was undeveloped, 6% was in agricultural use, 1.5% was residential, and .5% was commercial or industrial.
- The public water system has a comprehensive source protection program.

The report also lists the following potential risks:

- A farm in the watershed introduces potential contaminants and has presented significant on-going water quality problems. The Report lists two animal or livestock waste handling operations as the current potential contaminant types for the Stafford water system.

- Less than 10% of the watershed area is owned by the public water system.
- Local regulations or zoning initiatives for the protection of public drinking water sources do not exist.

A detailed analysis of the watershed area should identify issues and make recommendations to protect highly sensitive lands that are vulnerable to development. By updating our current regulations we can attempt to avoid costly mitigation or restoration activities.

CWC's Stafford System is currently not physically connected to CWC's Somers System. The company's Northern Region Water Supply Plan identifies connecting the Stafford and Somers systems in its 20-year plan, creating a system linking Stafford and Somers Systems with the Western System. In approximately 2020, CWC will install a water main with hydrants along Route 190 to connect with existing infrastructure. The town pays annual fees for pipelines and hydrants in town.

7.4 Bedrock Wells

Community wells and businesses outside the CWC service area that serve the public must register their wells with the State of Connecticut Department of Public Health Drinking Water Division. As of March 2008, there were 27 public water systems, including the CWC Northern Region Stafford System.

7.5 Private Wells and Septic Systems

Most residents outside the CWC service area maintain privately owned wells and septic systems. The quality and quantity of the water in their wells are significant concerns for homeowners. Properly functioning septic systems also play a large role in maintaining water quality. Over the years, pollution from road salting, faulty septic systems near lakes, resident's failure to maintain septic systems, and the Town Garage have created water quality issues. In some parts of Town, particularly around lakes, small lots leave limited room to repair or replace septic systems. Soil types with low percolation rates raise the incidence of septic system issues. The Town Sanitarian cited a number of problems on Cooper Lane, Clearview Heights, and Packard Ridge due to soil conditions and installation problems.

7.6 Lakes and Ponds

The largest lakes and ponds are: Staffordville Reservoir (149 acres), State Line Pond (75 acres), New City Pond (33 acres), Bradway Pond (26 acres), Lake Mark (14 acres), and Dennis Pond (13 acres). Staffordville Reservoir is residents' major summer recreational area. The Town also owns and maintains Dennis Pond that is available for recreational activities. In 2007, residents approved taking ownership of New City Pond dam and several acres of pond bottom. Access to the lake for recreational purposes is limited.

Water samples from the beach areas at Staffordville Reservoir, Dennis Pond, and Crystal Lake in Ellington are tested twice a month during the summer for bacteria only. In

August 2006, Dennis Pond was closed for a week because of a high ecoli bacteria count. In July 2007, Dennis Pond almost exceeded acceptable limits, but was not closed. A large population of Canada geese at Dennis Pond causes the higher bacterial counts.

7.7 Dams and Flood Control

The State of Connecticut registers and inspects dams according to Section 22a of the Connecticut General Statutes. Dams are assigned to one of five classes according to their hazard potential. The classes range from Class AA, negligible hazard potential with no measurable damage to infrastructure if it fails, to Class C, high hazard potential with probable loss of life if it fails.

The town is responsible for five of the 14 named dams in Stafford. The Staffordville Reservoir dam is rated C and the Glenville dam is rated B, a significant hazard potential dam which, if it were to fail, would result in possible loss of life. Two other dams, Dennis Pond and New City Pond, are rated BB, moderate hazard potential dams which, if they were to fail, would result in damage to normally unoccupied storage structures, damage to low volume roadways, or moderate economic loss. For comparative purposes, 6 percent of Connecticut dams are rated C, 11 percent are rated B, and 12 percent are rated BB.

As the result of a major flood in 1955, the state acquired acreage in western Stafford for flood protection systems for Stafford Springs. Flood protection was added on the larger Middle River watershed to supplement protection from existing Furnace Brook dams. The sluice way that runs under 190 East behind the Town Hall was added in this period. While the sluice way provides flood protection, it also heats water that runs into the Willimantic. During the summer, when stream flow is low and the sun heats the concrete sluice way, heated water may impact sensitive ecological systems along the river. .

7.8 Aquifer Protection Area (APA)

The only identified aquifer area in Town is associated with the inactive wells that are part of CWC's water system. An aquifer is a geologic formation able to yield water to wells. Considering Stafford's geology there may be more aquifers that have not been identified.

APAs are being designated around the state's 127 active well fields in 81 Towns in sand and gravel aquifers that serve more than 1,000 people. The DEP has adopted model aquifer protection regulations specifically for public water supply well fields to minimize the potential for contamination. The regulations restrict certain new land use activities that use, store, handle or dispose of hazardous materials and requires existing regulated land uses to register and follow best management practices. The Aquifer Protection Area Program responsibilities are shared by the state DEP, the municipalities and the water companies. In accordance with State guidelines, the Planning and Zoning Commission was designated the Aquifer Protection Agency in Stafford, making the Commission responsible for protecting aquifers.

7.9 Water Pollution Control Authority (WPCA)

The WPCA treats sewage before releasing it into the Willimantic River just south of Stafford Springs. The April 2005 Report of the WPCA's 20-year plan for 2005 to 2025 notes that it services approximately 5,000 people and 200 commercial establishments in the former borough of Stafford Springs, and around Staffordville Reservoir and Crystal Lake in Ellington. The facility also treats septage removed as part of maintaining on-site disposal systems in the Town of Stafford. Sludge from the facility is hauled by Town-owned tankers to the Mattabassett Water Pollution Control Facility in Cromwell, Connecticut for further processing and disposal.

The wastewater collection system totals 21 miles of sewers and includes four pumping stations. The current facility was built in 1972 and many components of the treatment process have exceeded their useful life expectancy. In addition, changes to Connecticut DEP regulations over nitrogen discharges require that Publicly Owned Treatment Works (POTWs) reduce total nitrogen effluent or purchase nitrogen credits. Stafford is purchasing nitrogen credits until renovations are completed. For 2007, the Town spent \$10,742 for credits.

The state developed regulations for POTWs' nitrogen discharges to improve water quality in Long Island Sound. POTWs are a significant contributor of nitrogen to Connecticut's inland surface waters and subsequently to the Sound. Excess nitrogen results in hypoxia, or low dissolved oxygen conditions throughout much of Long Island Sound's bottom waters each summer.

The Report calls for a \$15.4 million dollar renovation to update its facility. Future plans include expanding the service area along 190 as far as Clearview Drive and Packard Ridge, running service along Stafford Street, and accommodating existing homes with failing septic systems in the Conklin Road area north of Crystal Lake as agreed to in the contract with Ellington. The Town has a contract with Ellington to accept sewage from the Crystal Lake section. Ellington pays Stafford a use charge at industrial rates for the sewage piped into the WPCA facility. The extensions in Stafford are planned for areas with soil types that percolate poorly and are more prone to septic system failure.

A major planning consideration is the Connecticut Office of Policy and Management (OPM) policy that guides local development. OPM's Conservation and Development Policies Plan for Connecticut 2005 to 2010 does not support constructing new sewers in areas other than those designated as Growth Areas and Neighborhood Conservation Areas. Existing sewers outside these areas and sewer extensions to alleviate failing septic systems and pollution problems are permitted.

7.10 Storm Water Drainage Systems

In Stafford Springs and other parts of Town, "closed drainage systems" direct runoff from properties, roads and parking lots directly into ponds, streams, and rivers. The runoff carries contaminants from human activities like sediment, salt and sand, litter, oils, fertilizers, herbicides, pesticides, heavy metals, bacteria, and other pathogenic organisms.

Pavement also heats runoff raising the temperature of water flowing into waterways. Thermal pollution impacts the ecology of streams and rivers.

7.11 Planning for Future Water Quality and Needs: Protecting Water Quality

The major water related issue for Stafford is integrating our understanding of environmental water issues into our planning for development and the regulations we establish for development. Protecting drinking water sources and water quality in waterways that run through the Town, and maintaining Town-owned infrastructure and recreational water resources each contribute to that overall goal. Although we have had water quality issues related to our manufacturing past and population concentration in the former borough of Stafford Springs, the predominately rural character of Stafford's land has protected the water quality of the northern watercourses. The cumulative impact of development must be considered in working to preserve water quality.

7.11.1 Protecting Wetlands and Watercourses

The Town's Inland Wetland regulations were recently revised to require a 100' upland review area. The review area now includes vernal pools.

The Building Office has 75 separate wetlands' maps that are used for reference for additions or projects that do not require maps. These maps are old and may not accurately depict streams and wetlands. In the past, streams that were not on the maps were not considered during reviews of projects. If a proposed addition or other project is on a property with a stream or other wetlands, the Building Office should require a map showing the wetlands and conduct an appropriate review through Inland Wetlands.

The State Department of Environmental Protection (DEP) maintains a Natural Diversity Data Base and tracks endangered species living in Connecticut. A variety of endangered species live in Stafford. Maps show broad areas that endangered species inhabit, many of them along waterways. If a proposed development is in one of these broad areas, DEP will review the development and comment on whether the species live within the area to be developed. The Open Space Advisory Committee refers to these maps during its reviews of subdivision proposals and included rare and endangered species on its Land Evaluation Form that it uses for project reviews. The PZC and Open Space Advisory Committee should work out procedures for DEP reviews of parcels that may include rare and/or endangered species.

The North Central District Health Department serves Suffield, Enfield, Ellington, Windham, Windsor Locks, East Windsor and Stafford. The District maintains a full-time position in Stafford. The Sanitarian's responsibilities include soil testing, reviewing site plans for wells and septic systems, inspecting new septic systems and repairs to older ones, reviewing plans for wells, and following up on complaints of pollution.

7.11.2 Participating in Planning for Public Water Supplies

76% of the land in the Roaring Brook basin that supplies water for the CWC is privately owned. The Source Water Assessment Report considers the lack of zoning regulations a risk to the protection of public drinking water. Because development in the watershed in both Union and Stafford impact Stafford's water supply, Stafford's government should coordinate planning with Union to protect the water supply for an estimated 2,600 residents. On October 11, 2007, the Board of Selectmen approved establishing a committee to develop recommendations for the water shed with technical assistance from the Atlantic States Rural Water & Wastewater Association (ASRWWA).

ASRWWA is a private non-profit organization that represents water and wastewater systems across Connecticut and Rhode Island through training, technical assistance and advocacy. The Association is run by and for rural systems. Through a program funded by the USDA, Marc Cohen from ASRWWA will help the committee develop a plan. Town government should support this planning effort.

Planning for future water needs is complicated because residents are supplied by a variety of smaller water systems and wells in addition to CWC. The experience of the Stafford Hollow area is an example of having to resolve problems caused by water pollution. MTBE, a highly water soluble gasoline additive, was found in the groundwater that supplied water in the Stafford Hollow area. Residents are now supplied by a new well that has no volatile organic compound problems.

The report, "New England States' Source Water Assessments" revealed five key areas of vulnerability to water supplies: inadequate local regulations and ordinances, underground storage tanks, on-site sewage disposal systems, hazardous materials storage, and storm water runoff.

7.11.3. Reducing Storm water Runoff and its Impact

To protect our water supplies and the environment, we should adopt regulations that reduce impervious surfaces during development. In addition, Town departments should consider practices that incorporate these recommendations. Best management practices include:

- Keeping pollutants released into source water protection areas to a minimum. Examples include: reducing the use of pesticides, fertilizers, and herbicides; minimizing the use of road salt and alternative deicers; and maintaining catch basins and use oil and grit separators.
- Using the pretreatment capacity of soils and vegetation to intercept and treat runoff before it reaches receiving waters. Examples of site specific applications that should be required as appropriate in plans are: vegetated buffer strips adjacent to waterbodies and vegetated swales along roadways and in parking lots; small landscaped storm water infiltration and storage areas also known as "rain gardens;" detention, sedimentation, or infiltration basins; constructed wetlands; or installed filters to treat runoff;

- Modify designs of structural drainage systems to minimize impacts to water quality. Examples include: discontinuous pavements with grassy shoulders and vegetated islands, curb less roads that use roadside swales, sediment basins and oil/grit separators to trap pollutants, and diverting rooftop runoff to vegetated areas; and
- Minimizing the creation of new impervious surfaces by changing conventional planning and design standards. Improved techniques include: reducing road widths; using cluster development patterns whenever possible; and prohibiting asphalt driveways in source water protection areas.

Existing storm water drains carry pollutants directly into water courses. In the 1980s, the Town separated the storm water drainage system in the former Borough from the sewer system. In the process, they built storm water drains with direct outlets into the Middle River.

Although the State issued regulations requiring that towns map storm water drains and develop Storm water Management Plans, Stafford was waived from complying. Towns with a population of less than 1,000 within their Urbanized Area qualified for a waiver from the General Permit. The Permit Waiver, dated August 13, 2004, states that the Town is not required to submit registration forms or prepare a Storm water Management Plan. It also notes that the “DEP may, at a later date, decide to cover Stafford Springs under this or another storm water permit.” To prepare for future compliance, town government should collect existing maps of storm water drains and, over a period of time, map those that have not been mapped. The town should plan to gradually reconstruct drains into particularly sensitive water resources to provide better filtration. The 2004 Connecticut Storm water Quality Manual may be useful for the PZC. The Manual is available from the State of Connecticut DEP.

7.11.3. Septic Systems

In Stafford on-site systems serve approximately 78% of households. Although many systems perform well, failures present a threat to public health, drinking water resources, and aquatic life. Septic systems contribute pathogens and nutrients to surface and groundwater. Although the construction of septic systems is regulated, homeowners have responsibility for on-going maintenance. Residents should pump out their on-site disposal systems once every three to five years.

The Wastewater Facilities Plan Final Report issued by Stafford’s WPCA in April 2005 recommends tracking and documenting on-site problems and environmental impacts to optimize performance of on-site systems and to understand future needs. The activities, typically performed by the Health Department, include:

- Maintaining records of complaints, construction permits, percolation tests, field reports, water quality sampling and on-site system inspection reports associated with house sales.
- Encouraging septic tank pump-outs every three to five years and tracking actual pump-outs by address.

- Monitoring groundwater elevations throughout Town for use in future analysis.
- Promote voluntary water conservation programs to increase retention time in on-site disposal systems, and
- Prohibiting installation of garbage grinders in new homes that are served by on-site disposal systems to reduce loads on the systems.

Town government should also consider public education efforts so that homeowners understand issues of septic systems and maintenance requirements.

In areas where lots are too small to accommodate a full code-compliant repair, the North Central District Health Department works with property owners to design a septic system so that the house may be lived in, but the permit limits the amount of discharge into the system. The record of the permits issued with limited discharge rights are currently most frequently kept in a file on the home in the Health District office in the Town Hall. So that future owners of the property understand that the septic system is limited, all permits for septic systems with limited usage should be recorded in land records.

7.11.4 Developing Aquifer Protection Regulations

The Connecticut Water Company has not yet mapped its inactive wells to Level A Standards. The town should be prepared to designate the Planning and Zoning Commission as the Aquifer Protection Agency, to adopt the DEEP model regulations.

7.11.5 Address Underground Fuel Storage Tanks

Section 4.23 (d) of Stafford's Zoning Regulations prohibits installing domestic underground fuel oil storage tanks. Department of Environmental Protection (DEP) regulations do not require the removal of underground residential heating oil storage tanks that are not leaking. However, recognizing the potential for tanks to leak as a threat to property values, many buyers and lending institutions require evaluation or removal of underground tanks prior to property sale.

7.12 Maintaining Town-owned Dams

Dam Management

The State recommends routine maintenance of dams' structures such as spillways, conduits, and channels and regular inspections of dams and their various components. Although periodic maintenance is conducted particularly for the Staffordville Reservoir dam, the Town should establish standard maintenance procedures for each Town-owned dam and follow recommended inspection schedules.

Effective October 1, 2007, State law requires the owner of property containing a high hazard dam or significant hazard dam to record a document on the land records that identifies the existence and location of the dam, and whether the dam is categorized as a high hazard dam or a significant hazard dam. The Commissioner of Environmental Protection prescribed a specific notice for complying with the requirements.

In the longer term, Town government should conduct a comprehensive study of town-owned dams to determine whether any could be used to generate electricity or removed for habitat restoration.

7.13 Planning for Recreation and Conservation along Waterways

Waterways should be considered as part of a town-wide greenway system both for the well-being of wildlife and for recreational opportunities, in combination with hiking trails and bike/horse trails. Planning for recreational use should be balanced with maintaining habitat for other species. Open space planning should address town acquisition of sensitive areas as part of greenways. Improving access to outdoor recreation improves quality of life, health, and our relationship with nature as well as property values. Open space access should include public access.

Plans for downtown revitalization should include improving views and access to the rivers running through the downtown area. In particular, the concrete flood control area in the area of the town hall is both aesthetically unappealing and a threat to aquatic life because of the lack of habitat in the concrete area, and because concrete raises water temperatures downstream.

8 CONFORMANCE WITH STATE AND REGIONAL PLAN

Section 8-23 of the Connecticut General Statutes requires that municipal plans be evaluated as to conformance with State and Regional Plans.

The State Plan of Conservation and Development is in the process of being updated. It is important to understand that this Stafford plan updated was designed to be consistent with the former State Plan. It is in conformance with the growth policies of the draft 2013 – 2018 “Conservation and Development Policies; A Plan for Connecticut.”

Stafford was not a member of a regional planning agency until 2010, when it joined the Capital Region Council of Governments. Therefore, the regional plan does not specifically include the Town of Stafford.

I. APPENDIX - MAPS

